System Impact Study

Generation Interconnection

Calpine Corporation
Central Valley Energy Center

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Executive Summary

Calpine Corporation (Calpine) is evaluating the feasibility of a 1,097 MW[1] generating facility near Fresno, California. The proposed generation facility will be called Central Valley Energy Center (CVEC). The planned on-line operation date of the proposed project is January 2004. Calpine has requested that Pacific Gas & Electric (PG&E) conduct a System Impact Study (SIS) for CVEC. The SIS determined:

1) The transmission system impacts caused by the addition of the CVEC project;
2) The system reinforcements, if any, necessary to mitigate the impact of the CVEC project under all system conditions.

To determine the system impacts caused by CVEC, studies were performed using three base cases: the 2004 Summer Peak, 2004 Spring Peak, and 2004 Winter Full Loop Base Cases. An additional study was performed to simulate a Spring Off-Peak by using the 2004 Winter Base Case and applying summer ratings. The studies performed included:

- Steady State Power Flow Studies.
- Dynamic Stability Analysis.
- System Protection Studies.

The results of these studies were used in the transmission line and substation evaluations.

PG&E's evaluation has concluded that the addition of CVEC will cause or exacerbate the following number of transmission line/bank overloads:

CAISO Category	2004 Summer Base Case	2004 Spring Base Case	2004 Winter Base Case	2004 Spring OP Base Case
Category A (normal conditions)	4	2	0	3
Category B (single element outage)	23	8	4	15
Category C (multiple element outages)	30	11	11	13

Calpine will be responsible for mitigating the normal and Category B overloads. Mitigation may be accomplished through re-conductoring affected lines, building additional facilities, advancing the schedule of an existing PG&E project (if one exists), or some combination of these alternatives.

The substation evaluation identified three (3) overstressed 230 kV circuit breakers associated with CVEC. Under PG&E current guidelines, Calpine Corporation will be responsible for these circuit breakers.

[1] This is the nominal rating of the generating facility.

Dynamic stability analysis results indicated that the transmission system's transient performance, relative to the CAISO reliability guidelines, would not be impacted by CVEC following selected disturbances.

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1. Introduction and Study Scope

Calpine Corporation has requested that Pacific Gas and Electric Company (PG&E) conduct a System Impact Study (SIS) for a proposed 1,097 MW generation project. The project is called the Central Valley Energy Center (CVEC) and is located near the city of Fresno in Fresno County, California near PG&E's Helm Substation. Figure 1-1 shows the general vicinity of the proposed project and the existing the transmission facilities in the area. The planned, on-line, operational date of the proposed project is January 2004.

The SIS was conducted according to the terms and assumptions set forth in PG&E's Study Plan, Revision 1 document dated July 2, 2001. A copy of the Study Plan is included in Appendix A.

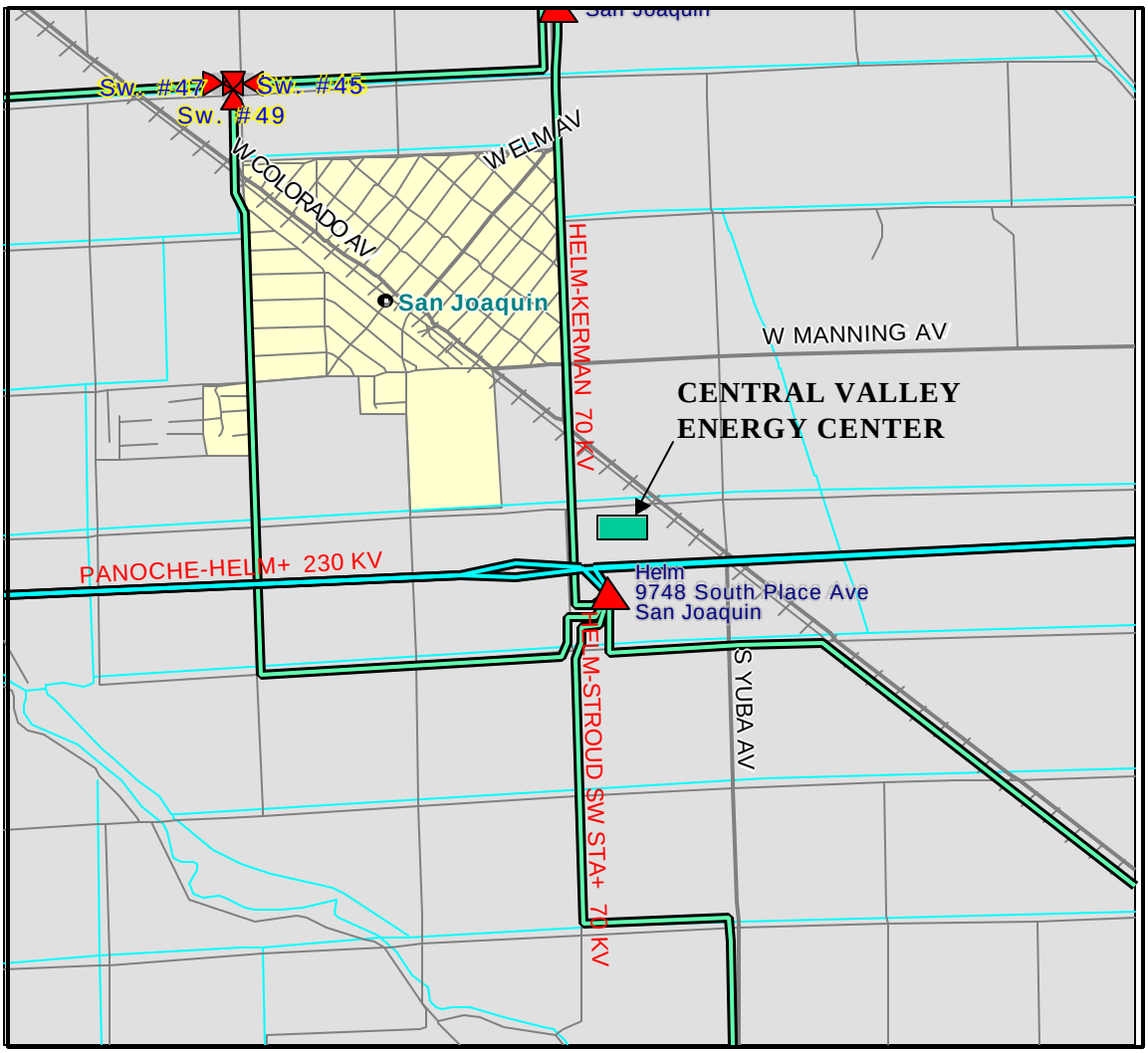

Figure 1-1: Vicinity Map – Central Valley Energy Center

The System Impact Study scope includes the following:

- Evaluation of the transmission capacity of the area transmission system.
- Identification of transmission upgrades needed to mitigate any impacted facilities due to adding the Central Valley Energy Center.
- Identification of overstressed equipment resulting from the addition of the Central Valley Energy Center.
- Determination of any adverse impacts on the stable operation of the ISO controlled grid following various contingencies caused by the addition of the Central Valley Energy Center.

2. Project Information

CVEC is a combined cycle power plant with a nominal total generating capacity of 1,097 MW modeled at 0.85 lagging power factor with 35 MW of plant load. The power plant will be combined-cycle generation with associated heat-recovery system. There will be three gas combustion turbine generators (CTG) nameplate rated at 250 MW each, and one steam turbine generator (STG) nameplate rated at 623 MW. Each CTG unit will have a dedicated 18/230 kV step-up transformer, rated 150/200/250 MVA (OA/FA/FA). The STG unit will have a dedicated 19/230 kV step-up transformer, rated 400/533/667 MVA (OA/FA/FA).

Operating at baseload and without steam injection and duct firing, the project capacity is approximately 835 MW. Through incorporation of a larger steam turbine and the use of steam injection, fogging, and duct firing, the project allows for approximately 260 MW of on-peak peaking capacity. The project's maximum output depends upon temperature:

1) At 100° F, maximum output is 1,062 MW (peak case).
2) At 61° F, maximum output is 1,097 MW (spring and winter cases).

The interconnection of the CVEC project to PG&E's grid will be accomplished by looping the Panoche – Kearney 230 kV circuit into and back out of the Helm Substation and connecting the CVEC plant to Helm Substation via two 230 kV transmission lines. It is assumed that Calpine will build the CVEC power plant and the 230 kV bus and substation, and PG&E will construct and operate the two new transmission lines. The required 230 kV bus configuration of the new loop station will be determined in the Facilities Study phase of the project.

Figure 2-1 presents a single line diagram for the proposed interconnection.

Calpine Corporation has proposed an alternate Interconnection Plan that would provide equivalent power flow results. The analysis of the Interconnection Plan equivalency is shown in Appendix G.

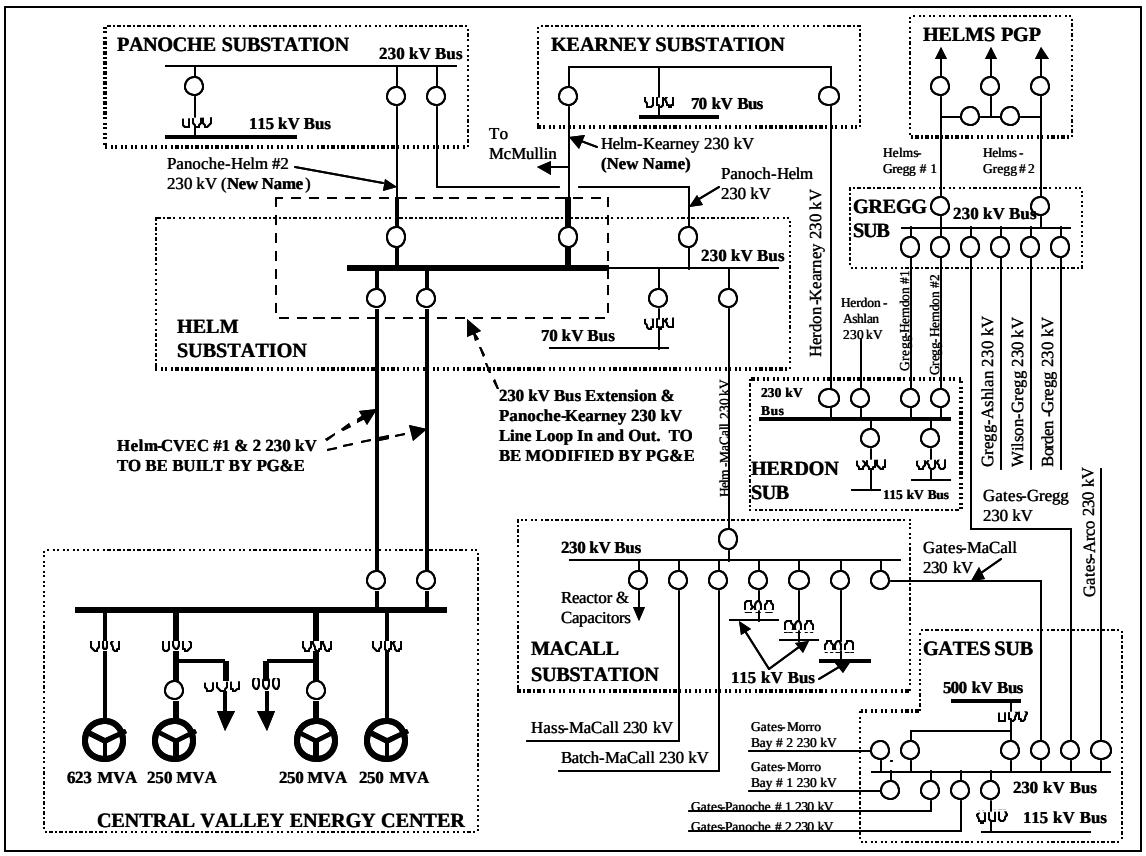

Figure 2-1: Single Line Diagram - CVEC Project

3. Study Summary

3.1 Steady State Power Flow Study

Steady state power flow studies were conducted using PG&E 2004 Summer Peak, Winter, and Spring Full Loop Base Cases as described in Section 5. An additional study was performed using the Winter Base Case with Summer Ratings to simulate a Spring Off-Peak Condition.

The conclusion of the analyses is that the addition of CVEC would create some Category A (normal), B, and C overloads during all seasons studied.

The outcome of the power flow studies is discussed in Section 7.

3.2 Dynamic Stability Study

Dynamic stability studies were conducted to determine whether CVEC would create instability following certain outages. Section 8 lists the outage scenarios assumed for this analysis.

Dynamic Stability Study results indicated that CVEC would have no adverse impact on the stable operation of the transmission system following the selected disturbances.

3.3 System Protection Study/Substation Evaluation

Short circuit studies were conducted to determine whether CVEC would result in overstressing of the existing substation facilities. Section 9 describes the results of the system protection study in detail.

Using the results of the system protection study, the Substation Evaluation determined that two 230 kV breakers at Panoche Substation and one 230 kV breaker at Helm Substation would become overstressed after the proposed generation interconnection. The project would be responsible for the replacement of these breakers.

4. Interconnection Study Assumptions

With input and concurrence from Calpine Corporation and the California Independent System Operator (CAISO), PG&E conducted this SIS using the following assumptions:

1) The maximum delivery from the proposed project to the PG&E transmission grid will be 1,062 MW in summer and 1,096 MW in the spring. Generation output will be modeled at 0.85 lagging power factor.
2) The generator will be connected to PG&E's 230 kV transmission system in January 2004.
3) The plant load of 35 MW will be modeled.
4) Calpine will design, construct, own and maintain the CVEC including the 230 kV bus and substation.
5) It is assumed that PG&E will design, build and own two new 230 kV transmission lines (generation tie lines) that connect the CVEC project and the 230 kV bus at the Helm Substation. [4]
6) It was assumed that PG&E would loop the Panoche-Kearney 230 kV line in and out of Helm Substation and extend the 230 kV bus to accommodate the two new generation tie lines. The Panoche-Kearney 230 kV line will be renamed to Panoche-Helm # 2 230 kV line and Helm-Kearney 230 kV line.
7) The study took into account the planned generating facilities in Northern California in PG&E's Interconnection Queue whose schedules are before or concurrent with CVEC's scheduled on-line date. Any applicable Remedial Action Scheme (RAS) or system upgrades for the related generation projects were modeled. These generation facilities are described in the section discussing the power flow base cases.
8) The study took into account all the approved PG&E reliability projects that will be operational by January 2004.

[4] These lines were modeled as bundled 1113 ACSS conductor, 0.25 miles long.

9) The California-Oregon Intertie (Path 66), Midway - Los Banos path (Path 15) and the Northern-Southern California Intertie (Path 26) transfer limits will not be increased from their current limits to accommodate the CVEC. It was assumed that the CVEC output could be accommodated within the transfer capabilities of Path 66, Path 15 and Path 26. The published transfer capabilities for the PG&E service area are contained in the Path Rating Catalog, available from the WSCC.

5. Power Flow Study Base Case Assumptions

Three power flow base cases were used in this study:

1) 2004 Summer Peak Full Loop Base Case

The 2004 Summer Full-Loop Base Case models the PG&E transmission system and expected operating conditions during the summer peak. Path 66 (California-Oregon Inter-tie) and Path 26 (Northern-Southern California Inter-tie) will not exceed the north-to-south transfer capabilities of 4,800 MW and 3,000MW respectively. Helms PGP is in the generating mode with three generators at full output. The 2004 Summer Full Loop Case was used for power flow analysis, post transient power flow analysis, and dynamic stability analysis.

2) 2004 Winter Full Loop Base Case

The 2004 Winter Full-loop Base Case models the PG&E transmission system when loads are generally low, generators are bucking and/or operating at minimum output, CDWR units in the Midway area are in the pump mode and Path 15 (Midway-Los Banos 500kV) typically does not exceed the south-to-north path capability of 3,900 MW. This case also assumes that the Helms PGP is in the pumping mode with two pumps at full load. The 2004 Winter Full Loop Case was used for steady-state power flow analysis, post transient power flow analysis, and dynamic stability analysis.

3) 2004 Spring Full Loop Base Case

The 2004 Spring Full-loop Base Case models the PG&E transmission system during a warm spring day when Hydro units are generating at full output. Path 26 (Northern - Southern California Inter-tie) typically does not exceed the north-to-south transfer capability of 3,000 MW. All CDWR pumps in the Midway area are assumed to be offline. This case is assuming that the Helms PGP is in the pumping mode with one unit generating. The 2004 Spring Full Loop Base Case was used for steady-state power flow analysis, post-transient analysis, and dynamic stability analysis.

4) 2004 Winter with Summer Ratings Full Loop Base Case (Spring Off-peak)

It was desired to study a Spring off-peak base case with three Helms pumps on-line. Because such a case was not available, it was agreed to use the Winter Base Case discussed above and add the third Helms pump on-line. This case was used only for power flow analysis.

5.1 Base Case Generation Assumptions

The base cases included the following proposed generating facilities in the northern California area:

1) Calpine/Bechtel - 880 MW Delta Energy Center (DEC), interconnecting with the 230 kV bus at the Pittsburg Power Plant switchyard.
2) Calpine/Bechtel - 600 MW Metcalf Energy Center (MEC), interconnecting with the Metcalf - Monta Vista #4 230 kV line, through the MEC switchyard.
3) PG&E NEG - La Paloma generation facility interconnecting at Midway 230 kV bus section D; La Paloma generation facility will be will be modeled at 1110 MW in summer and 1160 MW in spring and winter.
4) Calpine - 500 MW Los Medanos Energy Center (LMEC), interconnecting with the 115 kV bus at the Pittsburg Power Plant switchyard.
5) Texaco - 338 MW Sunrise Generation Facility interconnecting at La Paloma Switching Station.
6) Three Mountain Power Company - 530 MW project interconnecting to PG&E's Pit 1 – Pit 3 and Pit 1 – Cottonwood 230 kV lines.
7) GWF - 130 MW Hanford, interconnecting to Kingsburg - Henrietta 115 kV line in Fresno area.
8) Duke Energy North America Corporation (DENA) - 1080 MW Moss Landing project (MLPP), interconnecting with the existing 230 kV bus at the Moss Landing Power Plant.
9) Southern Energy Company of California - 530 MW Contra Costa Power Plant Capacity Increase Project, interconnecting to Contra Costa PP 230 kV bus.
10) ~~Central Reliability Energy Center - 45 MW project in San Jose/San Clara area.~~ [5]
11) The Midway-Sunset generation facility will be 500 MW in summer, 540 MW in spring, and 540 MW winter. Midway-Sunset generation facility will be interconnected at Midway 230 kV bus section E.
12) Sempra - 500 MW Elk Hills Power Project, interconnecting at Midway 230 kV bus.

[5] This project lost its place in the Interconnection Queue after the development of the base cases used for this study.

13) FPLE High Wind Project – 150 MW Project, tapping off the Vaca - Contra Costa #2 230 kV line.

14) Project A - 692 MW Tesla Generation Project, interconnecting near Tesla Substation.

15) Project B – 580 MW Fremont Generating Project interconnecting to the 230 kV bus at Newark Substation.

16) Project C – 581 MW Los Esteros Generating Project interconnecting to the 230 kV bus at Los Esteros Substation.

17) Wellhead Electric - 22 MW Stockton Cogen Project, interconnecting with Newark Sierra Paper Board 60 kV Tap on the Stockton "A" #1 60 kV line.

18) Morro Bay Modernization Project replacing the existing Morro Bay Power Plant with 1,200 MW of generation.

19) Panda - 150 MW West 1-3, interconnecting with Vaca Dixon - Contra Costa #1 230 kV line.

20) Mirant - 600 MW Potrero Unit 7 Project, interconnecting Potrero and Hunters Point Switching Stations.

21) Calpine Corporation - 500 MW Sutter facility interconnecting with WAPA's Elverta - Olinda and Elverta - Keswick 230 kV.

22) FPLE - 560 MW Elverta Project, interconnecting with WAPA system.

23) Calpine – 1,070 MW East Altamont Generating Project interconnecting at loop the Tracy - Westley 230 kV circuit near Tracy Substation.

6. Study Criteria

6.1 Study Criteria Summary

The CAISO Controlled Grid Reliability Criteria, which incorporates the Western Systems Coordinating Council (WSCC) and the North American Electric Reliability Council (NERC) planning criteria, were used to evaluate the impact of CVEC on the PG&E transmission system. Table 6-1 provides a summary of the CAISO Controlled Grid Reliability Criteria.

	Loading [6]	Transient Voltage Dip & Frequency
All Lines in Service Category "A"	≤ Normal Ratings	----
ISO Category "B" Contingency[7]	≤ Emergency Ratings	≤ 25% at load buses, ≤ 30% at non-load buses, > 20% voltage, ≤ 20 cycles at load buses, > 59.6 Hz for 6 cycles
ISO Category "C" Contingency[8]	≤ Emergency Ratings	≤ 30% at any bus > 20% voltage, ≤ 40 cycles, > 59 Hz for 6 cycles

Table 6-1 CAISO Controlled Grid Reliability Criteria

6.2 Steady State Study Criteria - Normal Overloads

Normal overloads are those that exceed 100 percent of normal ratings. The CAISO Controlled Grid Reliability Criteria requires the loading of all transmission system facilities to be within their normal summer ratings.

6.3 Steady State Study Criteria - Emergency Overloads

Emergency overloads are those that exceed 100 percent of emergency ratings. The emergency overloads refer to overloads that occur during single element contingencies (CAISO Category "B") and multiple element contingencies (CAISO Category "C").

6.4 Dynamic Stability Study Criteria

According to the *WSCC Disturbance-Performance Table of Allowable Effects on Other Systems*[9], after a Category "B" disturbance, the transmission system performance should meet the following criteria:

- Transient voltage dip should not be below 25 percent at load buses or 30 percent at non-load buses at any time.
- The duration of the transient voltage dip greater than 20 percent should not exceed 20 cycles at load buses.
- The minimum transient frequency should not fall below 59.6 Hz for 6 cycles or more at load buses.

After a Category "C" disturbance, the transmission system performance should meet the following criteria:

[6] The ratings are listed in the CAISO Transmission Register.
[7] CAISO Category "B" contingency refers to all single component outages such as the loss of a transmission line (L-1), a generator (G-1), a transformer (T-1). Also, it refers to the loss of the combination of a single transmission line and a single generator unit.
[8] CAISO Category "C" contingency refers to outages resulted from the loss of two or more (multiple) components except the loss of the combination of a single transmission line and a single generator unit.
[9] Cited from Draft Western System Coordinating Council (WSCC) Planning Standards published in December 2, 1999.

- Transient voltage dip should not be below 30 percent at any bus at any time.
- The duration of a transient voltage dip greater than 20 percent should not exceed 40 cycles at load buses.
- The minimum transient frequency should not fall below 59.0 Hz for 6 cycles or more at load buses.

7. Steady State Power Flow Study

7.1 Results

The base cases described in Section 5 were used to simulate CAISO single and multiple contingencies for transmission facilities within PG&E's Fresno, Yosemite and Kern planning areas. The CAISO Category "B" and "C" contingencies used in this analysis are provided in Appendix B. Appendices C1 (summer), C2 (winter), and C3 (spring) provide a detailed listing of the overloads and facility loading comparisons before and after the installation.

7.1.1 2004 Summer Peak Steady State Power Flow Results

Power flow studies were conducted with and without CVEC during 2004 Summer Peak operating conditions. The results showed four overloads under normal system conditions (Category A).

For CAISO Category B outage conditions twenty-three transmission facilities would be overloaded above their emergency rating, ten of which are existing overloads made worse by CVEC. For CAISO Category C outages 30 transmission facilities would be overloaded above their emergency ratings. These overloads are summarized in Tables 7-1, 7-2, and 7-3.

Overloaded Facility	Rating (Amps)	Pre-project Loading (Amps)	Pre-project % Rating	Post-project Loading (Amps)	Post-project % Rating	% Change
Panoche-Helm 230kV Circuit #1	742	84	11	748	101	90
Borden - Gregg 230 kV Circuit	675	516	76	735	109	33
Agrico Jct – Kerman 70 kV Circuit	322	282	88	335	104	16
Metcalf 230/115 kV Bank #1	403 MVA	383 MVA	95	411 MVA	102	7

Table 7-1 2004 Summer Peak Normal Overloads

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change From Pre-Project Loading

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change From Pre-Project Loading
Panoche-Helm 230kV Circuit #1	Panoche-Helm 230kV Circuit #2	850	12	1157	136	124
"	Panoche-Helm 230kV Circuit #2 & Kerckhof Unit #1 (L-1/G-1)	"	18	1086	128	120
"	Panoche-Helm 230kV Circuit #2 & Helms Unit #1 (L-1/G-1)	"	24	926	109	85
"	Helm-McMullin-Kearney 230kV Circuit #1	"	11	919	108	97
"	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	18	885	104	86
"	Helm-McCall 230kV Circuit #1	"	6	882	104	98
"	Borden-Gregg 230kV Circuit #1	"	7	862	101	94
"	**8 other contingencies overload this facility**					
Panoche-Helm 230kV Circuit #2	Panoche-Helm 230kV Circuit #1	969	N/A	1117	115	N/A
"	Panoche-Helm 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	N/A	1049	108	N/A
McMullin-Helm 230kV Circuit	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1&3 (L-1/G-1)	969	N/A	1265	131	N/A
"	Helms Unit #1 (G-1)	"	N/A	828	104	
Helm-Stroud Jct 70kV Circuit	Panoche-Helm 230kV Circuit #1	378	15	394	104	89
"	Panoche-Helm 230kV Circuit #2	"	24	382	101	78
"	Gates 230/115kV Bank #1	"	52	380	101	49
"	Panoche-Helm 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	6	379	100	94
"	Coalinga Generator Unit #1 (G-1)	"	7	337	104	97
McMullin-Kearney 230kV Circuit	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	975	74	1235	127	53
Kearney-Herndon 230kV Circuit	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	975	55	1050	108	53
Coppermine-Tivy Valley 70kV Circuit	Borden-Gregg 230kV Circuit	298	81	349	117	36
"	Borden-Gregg 230kV Circuit & Helms Unit #3 (L-1/G-1)	"	86	301	101	15
Tivy Valley-Reedley 70kV Circuit	Borden-Gregg 230kV Circuit	298	93	385	129	36
"	Borden-Gregg 230kV Circuit & Helms Unit #3 (L-1/G-1)		78	337	113	35
Borden-Gregg 230kV Circuit	Wilson-Storey1-Gregg 230kV Circuit	793	80	891	112	32
"	Bellota-Cottle A-Melones Circuit	"	73	848	107	34
"	Panoche-Helm 230kV Circuit	"	76	828	104	28
"	Westley-Los Banos 230kV Circuit	"	72	826	104	32
"	Panoche-Helm 230kV Circuit #1	"	67	807	102	35
"	Metcalf-Moss Landing 500kV Circuit #1	"	72	807	102	30
"	Los Banos-Gates 500kV Circuit #1	"	70	802	101	31
"	**11 other contingencies overload this facility**					

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change From Pre-Project Loading
Storey 1-Gregg230kV Circuit	Borden-Gregg 230kV Circuit	746	77	758	102	25
"	Exchequer Unit #1 (G-1)	"	85	675	106	21
"	Chowchilla Cogen (G-1)	"	78	634	100	22
Warnerville 230/115kV Bank #1	Bellota-CottleB-Warnerville 230kV Circuit	150 MVA	92	166 MVA	110	18
Warnerville 230/115kV Bank #2	Bellota-CottleB-Warnerville 230kV Circuit	75 MVA	92	83 MVA	110	18
Warnerville 230/115kV Bank #3	Bellota-CottleB-Warnerville 230kV Circuit	75 MVA	92	83 MVA	110	18
Panoche-Panoche J 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit	512	98	589	115	17
"	Wilson-Storey1-Gregg 230kV Circuit & Helms Unit #3 (L-1/G-1)	"	95	574	112	17
"	Helm-McMullin-Kearney Circuit & Helms Unit #1 (L-1/G-1)	"	86	521	102	16
"	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1&3 (L-1/G-1)	"	94	511	100	6
"	Exchequer Unit #1 (G-1)	"	96	471	108	12
"	Helms Unit #1 (G-1)	"	94	456	104	10
"	Los Banos 230/70kV Bank #3	"	157	815	159	2
"	**8 other contingencies overload this facility**					
Panoche J-Hammonds 115kV Circuit #1	Wilson-Storey1-Gregg 230kV Circuit	512	85	524	102	17
"	Los Banos 230/70kV Bank #3	"	144	750	146	2
Le Grand-Wilson B 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit	398	119	590	148	29
"	Wilson-Storey1-Gregg 230kV Circuit & Helms Unit #1 (L-1/G-1)	"	106	538	135	29
Metcalf-Moss Landing 230kV Circuit #2	Metcalf-Moss Landing 500 kV Circuit	910	103	1137	125	22
Metcalf-Moss Landing 230kV Circuit #1	Metcalf-Moss Landing 500 kV Circuit	910	102	1132	124	22
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	132	1570 MVA	140	8
Panoche 115/230kV Bank #2	Wilson-Storey1-Gregg 230kV Circuit & Helms Unit #3	146 MVA	122	188 MVA	129	7
"	Wilson-Storey1-Gregg 230kV Circuit	"	122	187 MVA	128	6
"	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	"	119	179 MVA	122	3
"	Helm-McMullin-Kearney 230kV Circuit & Helms Unit #1	"	117	175 MVA	120	3
"	Helm 230/70kV Bank #1	"	112	173 MVA	118	6
"	Helm-McMullin-Kearney 230kV Circuit & Kerckhof Unit #1	"	112	170 MVA	116	4
"	Helm-Stroud Jct. 230kV Circuit	"	110	166 MVA	113	3
"	**77 other contingencies overload this facility**					

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change From Pre-Project Loading
Oro Loma-Poso J1 70kV Circuit	Los Banos 70/230kV Bank #3	282	101	304	108	7
Tomatek-Mendota 70kV Circuit	Los Banos 70/230kV Bank #3	396	111	460	116	5
DFS Tap-Oro Loma 115kV Circuit	Los Banos 70/230kV Bank #3	512	132	689	135	3

Table 7-2: 2004 Summer Peak CAISO Category B Contingency Overloads

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change From Pre-Project Loading
Borden-Gregg 230kV Circuit	Panoche-Helm 230kV Circuit #1 & 2	793	80	953	120	55
"	**21 other contingencies overload this facility**					
Certantee-Le Grand 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit & Exchequer Unit #1 & Helms Unit #3	397	78	396	100	22
Copprmine-Tivy Valley 70kV Circuit	Borden-Gregg & Wilson-Gregg 230kV Circuits	298	73	334	112	39
"	Borden-Gregg 230kV Circuit & Melone1 Unit #1 & Helms Unit #3	"	66	302	101	35
DFS Tap-Oro Loma 115kV Circuit	Los Banos 230kV Bus #1 Fault	512	134	714	139	5
Firebagh-Tomatek 70kV Circuit	Los Banos 230kV Bus #1 Fault	396	96	402	101	5
Gffnjct-Snjqjct 70kV Circuit	Panoche-Helm 230kV Circuit #1 & 2	396	20	415	105	85
Hammonds-DFS Tap 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit & Exchequer Unit #1 & Helms Unit #3	512	86	524	102	16
"	Panoche-Helm 230kV Circuit #1 & 2	"	20	415	105	85
"	Los Banos Bus #1 Fault	"	138	731	143	5
Helm-McCall 230kV Circuit	Panoche-Helm 230kV Circuit #1 & 2	850	3	1066	125	122
"	Helm-McMullin-Kearney & Gregg-Henrietta-Gates 230kV circuits & Helms Unit #3	"	34	920	108	74
"	Panoche-Helm #1 & Helm-McMullin-Kearney #1 230kV Circuits	"	4	910	107	103
Helm-Stroud Jct 70kV Circuit	Panoche-Helm 230kV Circuit #1 & 2	378	12	711	188	176
"	Panoche-Helm #1 & Helm-McMullin-Kearney #1 230kV Circuits	"	13	491	130	117
"	Helm-McCall #1 & Panoche-Helm #2 230kV Circuits	"	27	456	121	94
"	Helm-McMullin-Kearney #1 & Helm-McCall #1 230kV Circuits	"	27	455	120	93
"	Panoche 230kV Bus #2 Fault	"	28	430	114	86
"	Panoche 230kV Bus #1 Fault	"	24	397	105	81
Kearney-Herndon 230kV Circuit	Gregg-Helms #1 & #2 230kV Circuits	975	58	1162	119	61
"	Panoche-Helm 230kV Circuit #1 & 2	"	23	1002	103	80
Le Grand-Wilson B 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit & Kerckhof Unit #1 & Helms Unit #3	398	89	470	118	29
"	Wilson-Storey1-Gregg 230kV Circuit #1 & Melone1 Unit #1 & Helms Unit #3	398	125	614	154	29

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change From Pre-Project Loading
"	**5 other contingencies overload this facility**					
McCall 230/115kV Bank #2	Herndon 230kV Bus #2 Fault	464 MVA	77	469 MVA	101	24
McMullin-Helm 230kV Circuit	Gregg-Helms #1 & #2 230kV Circuits	969	N/A	1371	141	N/A
"	Panoche-Helm 230kV Circuit #1 & 2	"	N/A	1214	125	N/A
"	Gregg-Henrietta-Gates & Panoche-Helm #2 230kV circuits & Helms Unit #3	"	N/A	981	101	N/A
McMullin-Kearney 230kV Circuit #1	Gregg-Helms #1 & #2 230kV Circuits	975	76	1341	138	62
"	Panoche-Helm 230kV Circuit #1 & 2	"	3	1185	122	119
Mendota-Biomass Jct. 70kV Circuit	Panoche-Helm 230kV Circuit #1 & 2	396	45	509	128	83
"	Panoche-Helm #1 & Helm-McMullin-Kearney 230kV Circuits	"	45	395	100	55
Mendota-Capcotap 115kV Circuit #1	Wilson-Storey1-Gregg 230kV Circuit & Exchequer Unit #1 & Helms Unit #3	402	93	421	105	12
Newhall-Capcotap 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit & Exchequer Unit #1 & Helms Unit #3	402	93	420	105	12
Oro Loma-Poso J1 70kV Circuit	Los Banos Bus #1 Fault	282	103	311	110	7
Panoche 115/230kV Bank #2	Gregg-Herndon 230kV #1 & #2 Circuits	146 MVA	108	164 MVA	112	4
"	**38 other contingencies overload this facility**					
Panoche-Helm 230kV Circuit #1	Panoche-Helm & Helm-McCall 230kV #1 Circuits	850	7	1432	168	161
"	Helm-McMullin-Kearney & Helm-McCall 230kV Circuits	"	7	1241	146	139
"	Panoche 230kV Bus #1 Fault	"	5	1091	128	123
"	Kearney-Herndon & Kearney-McMullin 230kV Circuits & Kearney 230/70kV Bank #2	"	9	921	108	99
"	McCall-Henrietta & McCall-Helm 230kV Circuits	"	6	868	102	96
"	Herndon-Kearney & Herndon-Ashlan 230kV Circuits	"	5	866	102	97
Panoche-Helm 230kV Circuit #2	Helm-McMullin-Kearny & Panoche-Helm #1 Circuits	969	N/A	1459	151	N/A
"	Helm-McMullin-Kearney & Helm-McCall 230kV Circuits	"	N/A	1136	117	N/A
"	Panoche 230kV Bus #2 Fault	"	N/A	1030	106	N/A
Panoche J-Hammonds 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit & Exchequer Unit #1 & Helms Unit #3	512	94	569	111	17
"	Wilson-Storey1-Gregg 230kV Circuit & Melones Unit #1 & Helms Unit #3	"	92	556	109	17
"	Wilson-Storey1-Gregg 230kV Circuit & Borden-Gregg 230kV Circuit & Helms Unit #3	"	86	536	105	19
"	Wilson-Storey1-Gregg 230kV Circuit & Warnerville-Storey2-Borden Circuit & Helms Unit #3	"	83	524	102	19
"	Wilson-Storey1-Gregg 230kV Circuit & Helms Unit #3	"	85	519	101	16

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change From Pre-Project Loading
"	Los Banos Bus #1 Fault	512	147	775	151	4
Panoche-Panoche J 115kV Circuit	Borden-Gregg & Wilson-Gregg 230kV Circuits	512	99	601	117	18
"	Los Banos Bus #1 Fault	512	159	840	164	5
"	**9 other contingencies overload this facility**					
Storey 1-Gregg 230kV Circuit	Panoche-Helm 230kV Circuit #1 & 2	746	60	789	106	46
"	Herndon 115kV Bus #1 Fault	"	90	780	105	15
Stroud Jct.-Schindler 70kV Circuit	Panoche-Helm 230kV Circuit #1 & 2	378	9	654	173	164
"	Panoche-Helm #1 & Helm-McMullin-Kearney 230kV Circuits	"	9	435	115	106
"	Helm-McCall & Panoche-Helm #2 230kV Circuits	"	11	400	106	95
"	Helm-McMullin-Kearney & Helm-McCall 230kV Circuits	"	11	399	106	95
Tomatek-Mendota 70kV Circuit	Los Banos Bus #1 Fault	396	113	467	118	5
Tivy Valley-Reedley 70kV Circuit	Borden-Gregg & Wilson-Gregg 230kV Circuits	298	85	370	124	39
"	Borden-Gregg Circuit & Melones Unit #1 & Helms Unit #3	"	78	338	114	36
Warnerville 230/115kV Bank #1	Bellota-Melones & Bellota-Warnerville Circuits	150 MVA	80	152 MVA	102	22
Warnerville 230/115kV Bank #2	Bellota-Melones & Bellota-Warnerville Circuits	75 MVA	80	76 MVA	102	22
Warnerville 230/115kV Bank #3	Bellota-Melones & Bellota-Warnerville Circuits	75 MVA	80	76 MVA	102	22

Table 7-3 2004 Summer Peak CAISO Category C Contingency Overloads

7.1.2 2004 Winter Steady State Power Flow Results

Power flow studies were conducted with and without CVEC during 2004 Winter operating conditions.[10]

For CAISO Category B outage conditions eight transmission facilities would be overloaded above their emergency rating. For CAISO Category C outages eleven transmission facilities would be overloaded above their emergency ratings. These overloads are summarized in Tables 7-4 and 7-5. Note that the facility ratings shown in Tables 7-4 and 7-5 show the correct Winter Emergency ratings.

[10] This change in results from the draft study report is due to the approval of a project to replaces the series cap banks at Los Banos and Midway in the Los Banos-Gates-Midway lines with new series caps at Gates in 2003. Each of the banks would be rated 2667 Amps Normal and 4000 Amps 30-minute Emergency.

Overloaded Facility	Contingency	Winter Emergency rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post Project % Rating	% Change
McMullin-Kearney 230kV Circuit	Gregg-Henrietta-Gates 230kV Circuit #1 & Kerckhof Unit #1(L-1/G-1)	1200	62	1329	111	49
"	Gregg-Henrietta-Gates 230kV Circuit	1200	60	1304	109	49
Kearney-Kerman 70kV Circuit	Helm-McMullin-Kearney 230kV Circuit & Kerckhof Unit #1(L-1/G-1)	515	66	527	102	36
"	Helm-McMullin-Kearney 230kV Circuit	"	65	515	100	35
Agr. Jct.-Kerman 70kV Circuit	Helm-McMullin-Kearney 230kV Circuit & Kerckhof Unit #1 (L-1/G-1)	515	74	566	110	46
"	Helm-McMullin-Kearney 230kV Circuit	"	72	556	108	36
Midway 500/230kV Bank	Midway 500/230kV Bank #11	1120 MVA	116	1348 MVA	120	4

Table 7-4: 2004 Winter CAISO Category B Contingency Overloads

Overloaded Facility	Contingency	Winter Emergency Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post Project % Rating	% Change
Agr. Jct.-Kerman 70kV Circuit #1	Helm-McMullin-Kearney & Helm-McCall 230kV #1 Circuits	515	81	691	134	53
"	Panoche-Helm #1 & Helm-McMullin-Kearney #1 230kV Circuits	"	70	613	119	49
"	Helm-McMullin-Kearney & Gregg-Henrietta-Gates 230kV #1 Circuits & Helms Unit #3	"	113	756	147	34
Herndon-Figarden Tap1 230kV Circuit #1	Gregg-Herndon 230kV #1 & #2 Circuits	1156	63	1168	101	48
Kearney 230/70kV Bank #2	Helm-McMullin-Kearney & Gregg-Henrietta-Gates 230kV #1 Circuits & Helms Unit #3	108 MVA	84	112 MVA	105	21
Kearney-Herndon 230kV Circuit #1	Panoche-Helm 230kV #1 & #2 Circuits	1378	7	1602	116	110
"	**6 other contingencies overload this facility**					
Kearney-Kerman 70kV Circuit #1	Helm-McMullin-Kearney & Gregg-Henrietta-Gates 230kV #1 Circuits & Helms Unit #3	515	106	717	139	33
"	Helm-McMullin-Kearney & Helm-McCall 230kV #1 Circuits	"	68	652	127	60
"	Helm-McMullin-Kearney & Panoche-Helm 230kV #1 Circuits	"	62	573	111	49
McMullin-Helm 230kV Circuit #1	Panoche-Helm 230kV #1 & #2 Circuits	1378	N/A	1593	115	N/A
"	**6 other contingencies overload this facility**					
McMullin-Kearney 230kV Circuit #1	Panoche-Helm 230kV #1 & #2 Circuits	1200	1	1587	132	131
"	**9 other contingencies overload this facility**					

Overloaded Facility	Contingency	Winter Emergency Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post Project % Rating	% Change
Panoche-Helm 230kV Circuit #1	Helm-McMullin-Kearney & Helm-McCall 230kV #1 Circuits	1156	5	1217	105	100
Panoche-Helm 230kV Circuit #2	Helm-McMullin-Kearney & Pancohe-Helm 230kV #1 Circuits	1260	N/A	1439	104	N/A
San Joaquin Tap-Agr. Jct. 70kV Circuit #1	Helm-McMullin-Kearney & Gregg-Henrietta-Gates 230kV #1 Circuits & Helms Unit #3	515	83	599	116	33
"	Helm-McMullin-Kearney & Helm-McCall 230kV #1 Circuits	"	45	534	104	59
San Joaquin Tap-Helm 70kV Circuit #1	Helm-McMullin-Kearney & Gregg-Henrietta-Gates 230kV #1 Circuits & Helms Unit #3	515	84	599	116	32
"	Helm-McMullin-Kearney & Helm-McCall 230kV #1 Circuits	"	45	534	104	59

Table 7-5 2004 Winter CAISO Category C Contingency Overloads

7.1.3 2004 Heavy Spring Steady State Power Flow Results

Power flow studies were conducted with and without CVEC during 2004 Heavy Spring operating conditions. The results showed two overloads caused by the addition of CVEC under normal system conditions (Category A). These overloads are shown in Table 7-6.

For CAISO Category B outage conditions eight transmission facilities would be overloaded above its emergency rating, three of which are existing overloads made worse by CVEC. These overloads are shown in Table 7-7.

For CAISO Category C outages eleven transmission facilities would be overloaded above their emergency ratings. These overloads are summarized in Tables 7-8.

Overloaded **Facility**	Rating (Amps)	Pre-project Loading (Amps)	Pre-project % Rating	Post-project Loading (Amps)	Post-project % Rating	% Change
Panoche-Helm 230kV Circuit #1	742	173	23	963	130	107
Panoche-Helm 230kV Circuit #2	796	N/A	N/A	881	111	N/A

Table 7-6: 2004 Spring CAISO Normal Overloads

Overloaded Facility	Contingency	Emergency rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post Project % Rating	% Change

[11] The power flow results indicate that there would be one normal overload of 5% on the Los Esteros – Nortech 115 kV circuit both before and after CVEC. This overload occurs in both the Summer Peak And Partial Peak Base Cases.

Overloaded Facility	Contingency	Emergency rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post Project % Rating	% Change
Panoche-Helm 230kV Circuit #2	Panoche-Helm 230kV Circuit #1	969	N/A	1434	148	N/A
"	Panoche-Helm 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	"	1365	141	"
"	Panoche-Helm 230kV Circuit #1 & Helms Unit #1 (L-1/G-1)	"	"	1207	125	"
"	Helm-McMullin-Kearney 230kV Circuit	"	"	991	102	"
"	Kearney-Herndon 230kV Circuit	"	"	967	100	"
Panoche-Helm 230kV Circuit #1	Panoche-Helm 230kV Circuit #2	850	23	1485	175	152
"	**83 other contingencies overload this facility**					
Helm-Stroud Jct 70kV Circuit	Panoche-Helm 230kV Circuit #1	378	42	411	109	67
"	Panoche-Helm 230kV Circuit #2	"	28	396	105	77
"	Panoche-Helm 230kV Circuit #1 & Helms Unit #1 (L-1/G-1)	"	34	394	104	68
"	Panoche-Helm 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	24	379	100	76
"	Coalinga Cogen (G-1)	"	40	332	102	62
Stroud Jct-Schindler 70kV Circuit	Panoche-Helm 230kV Circuit #1	378	36	387	102	66
Agr. Jct.-Kerman 70kV Circuit	Helm-McMullin-Kearney 230kV Circuit & Helms Unit #1 (L-1/G-1)	379	69	439	116	47
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	101	1221 MVA	109	8
Tesla D-Tracy Pump 230kV Circuit #1	Tracy-Tesla 500kV Circuit #1	965	102	1058	110	8
Tesla D-Tracy Pump 230kV Circuit #2	Tracy-Tesla 500kV Circuit #1	965	102	1058	110	8

Table 7-7: 2004 Spring CAISO Category B Contingency Overloads

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change
Agr. Jct.-Kerman 70kV Circuit	Helm-McMullin-Kearney & Helm-McCall 230kVCircuits	379	26	390	103	77
"	Helm-McMullin-Kearny & Panoche-Helm #1 Circuits	"	47	383	101	54
Helm-M Call 230kV Circuit	Panoche-Helm 230kV #1 & #2 Circuits	850	7	993	117	110
Helm-Stroud Jct. 70kV Circuit	Panoche-Helm 230kV #1 & #2 Circuits	378	48	806	213	165
"	**6 other contingencies overload this facility**					
Kearney-Herndon 230kV Circuit	Panoche-Helm 230kV #1 & #2 Circuits	975	7	1157	119	112
Le Grand-Wilson B 115kV Circuit	Wilson-Storey1-Gregg 230kV Circuit & Melone1 Unit #1 & Helms Unit #3	398	80	449	113	33

Overloaded Facility	Contingency	Facility Seasonal Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post-Project % Rating	% Change
"	Wilson-Storey1-Gregg & Warnerville-Storey2-Borden 230kV Circuits & Helms Unit #3	"	60	402	101	41
"	Wilson-Storey1-Gregg & Borden-Gregg #1 230kV Circuits & Helms Unit #3	"	62	401	101	39
"	Kerckhof-Clovis-Sanger 230kV #1 & #2 Circuits	398	142	588	148	6
"	Melones-Wilson #1 & Warnerville-Storey2-Borden #1 230kV Circuits & Helms Unit #3	"	106	447	112	6
"	Wilson 230kV Bus Fault	"	102	433	109	7
McMullin-Helm 230kV Circuit	Panoche-Helm 230kV #1 & #2 Circuits	969	N/A	1248	129	N/A
McMullin-Kearney 230kV Circuit	Panoche-Helm 230kV #1 & #2 Circuits	975	1	1235	127	126
Mendota-Biomaas Jct. 70kV Circuit	Panoche-Helm 230kV #1 & #2 Circuits	396	48	505	128	80
Panoche-Helm 230kV Circuit #1	Panoche-Helm & Helm-McCall 230kV #1 Circuits	850	4	1660	195	191
"	**77 other contingencies overload this facility**					
Panoche-Helm 230kV Circuit #2	Helm-McMullin-Kearny & Panoche-Helm #1 Circuits	969	N/A	1709	176	N/A
"	**12 other contingencies overload this facility**					
Stroud Jct.-Schindler 70kV Circuit	Panoche-Helm 230kV #1 & #2 Circuits	378	41	781	207	166
"	Helm-McMullin-Kearny & Panoche-Helm #1 Circuits	"	42	432	114	72
"	Panoche-Helm & Helm-McCall 230kV #1 Circuits	"	12	413	109	97
"	Helms-Henrietta-Gates & Panoche-Helm #2 230kV Circuits & Helms Unit #3	"	24	411	109	85
"	Panoche 230kV Bus #2 Fault	"	34	386	102	68

Table 7-8: 2004 Spring CAISO Category C Contingency Overloads

7.1.4 2004 Winter with Summer Ratings Steady State Power Flow Results (Spring Off-peak)

Power flow studies were conducted with and without CVEC during 2004 Winter operating conditions using Summer ratings and all three pumps at Helms in operating mode. This simulated a Spring Off-Peak condition.

The results showed three overloads caused by the addition of CVEC under normal system conditions (Category A). These overloads are shown in Table 7-9.

For CAISO Category B outage conditions fifteen transmission facilities would be overloaded above its emergency rating. In addition, six existing overloads are made worse with addition of the CVEC. These overloads are shown in Table 7-10.

For CAISO Category C outages thriteen transmission facilities would be overloaded above their emergency ratings. These overloads are summarized in Tables 7-11.

Overloaded **Facility**	Rating (Amps)	Pre-project Loading (Amps)	Pre-project % Rating	Post-project Loading (Amps)	Post-project % Rating	% Change
McMullin-Helm 230kV Circuit #1	796	N/A	N/A	1240	156	N/A
McMullin-Kearney 230kV Circuit #1	825	597	72	1233	149	77
Kearney-Herndon 230kV Circuit #1	825	666	81	1273	154	73

Table 7-9: 2004 Winter with Summer Ratings CAISO Normal Overloads (Spring Off-peak)

Overloaded Facility	**Contingency**	**Emergency rating**	**Pre-Project % Rating**	**Post-Project Facility Loading**	**Post Project % Rating**	**% Change**
Panoche-Helm 230kV Circuit #1	Panoche-Helm 230kV Circuit #2 & Helms Unit #1 (L-1/G-1)	850	7	1010	119	12
"	Helm-McMullin-Kearney 230kV Circuit #1 & Helms Unit #1	"	7	937	110	103
"	Helm-McMullin-Kearney 230kV Circuit #1	"	23	856	101	78
"	Kearney-Herndon 230kV Circuit #1	"	17	846	100	83
Panoche-Helm 230kV Circuit #2	Panoche-Helm 230kV Circuit #1 & Helms Unit #1	969	N/A	975	101	N/A
McMullin-Helm 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit #1	969	N/A	1550	160	N/A
"	**91 other contingencies overload this facility**					
Kearney-Herndon 230kV Circuit #1	Helm-McCall 230kV Circuit #1	975	69	1390	143	74
"	Gregg-Henrietta-Gates 230kV Circuit #1	"	107	1605	165	58
"	**83 other contingencies overload this facility**					
McMullin-Kearney 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit #1	975	96	1543	158	62
"	**90 other contingencies overload this facility**					
Agr. Jct.-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	124	655	173	49
"	Helm-McMullin-Kearney 230kV Circuit #1	"	122	646	170	48
Kearney-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	114	615	162	48
"	Helm-McMullin-Kearney 230kV Circuit #1	"	111	606	160	49
San Joaquin Tap-Helm 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	379	85	501	132	47

Overloaded Facility	Contingency	Emergency rating	Pre-Project % Rating	Post-Project Facility Loading	Post Project % Rating	% Change
"	Helm-McMullin-Kearney 230kV Circuit #1	"	82	492	130	48
El Peco-Biola 70kV Circuit #1	Kearney-Herndon 230kV Circuit #1	378	66	380	101	35
Biola-Old Kern 70kV Circuit #1	Kearney-Herndon 230kV Circuit #1	396	70	408	103	33
Tesla D-Tracy Pump 230kV Circuit #1	Tracy-Tesla 500kV Circuit #1	965	81	997	103	22
Tesla D-Tracy Pump 230kV Circuit #2	Tracy-Tesla 500kV Circuit #1	965	81	997	103	22
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	113	1324 MVA	118	5

Table 7-10: 2004 Winter with Summer Ratings CAISO Category B Contingency Overloads (Spring Off-peak)

Overloaded Facility	Contingency	Emergency Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post Project % Rating	% Change
Panoche-Helm 230kV Circuit #1	Panoche-Helm 230kV Circuit #2 & Helms Unit #1 (L-1/G-1)	850	7	1010	119	12
"	Helm-McMullin-Kearney 230kV Circuit #1 & Helms Unit #1	"	7	937	110	103
"	Helm-McMullin-Kearney 230kV Circuit #1	"	23	856	101	78
"	Kearney-Herndon 230kV Circuit #1	"	17	846	100	83
Panoche-Helm 230kV Circuit #2	Panoche-Helm 230kV Circuit #1 & Helms Unit #1	969	N/A	975	101	N/A
McMullin-Helm 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit #1	969	N/A	1550	160	N/A
"	**91 other contingencies overload this facility**					
Kearney-Herndon 230kV Circuit #1	Helm-McCall 230kV Circuit #1	975	69	1390	143	74
"	Gregg-Henrietta-Gates 230kV Circuit #1	"	107	1605	165	58
"	**83 other contingencies overload this facility**					
McMullin-Kearney 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit #1	975	96	1543	158	62
"	**90 other contingencies overload this facility**					
Agr. Jct.-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	124	655	173	49
"	Helm-McMullin-Kearney 230kV Circuit #1	"	122	646	170	48
Kearney-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	114	615	162	48
"	Helm-McMullin-Kearney 230kV Circuit #1	"	111	606	160	49
San Joaquin Tap-Helm 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit (L-1/G-1)	379	85	501	132	47
"	Helm-McMullin-Kearney 230kV Circuit #1	"	82	492	130	48

Overloaded Facility	Contingency	Emergency Rating (Amps)	Pre-Project % Rating	Post-Project Facility Loading (Amps)	Post Project % Rating	% Change
San Joaquin Tap-Agr. Jct. 70kV Circuit	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	379	85	501	132	47
"	Helm-McMullin-Kearney 230kV Circuit #1	"	82	492	130	48
El Peco-Biola 70kV Circuit	Kearney-Herndon 230kV Circuit #1	378	66	380	101	35
Biola-Old Kern 70kV Circuit	Kearney-Herndon 230kV Circuit #1	396	70	408	103	33
Tesla D-Tracy Pump 230kV Circuit #1	Tracy-Tesla 500kV Circuit #1	965	81	997	103	22
Tesla D-Tracy Pump 230kV Circuit #2	Tracy-Tesla 500kV Circuit #1	965	81	997	103	22
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	113	1324 MVA	118	5

Table 7-11: 2004 Winter with Summer Ratings CAISO Category C Contingency Overloads (Spring Off-peak)

7.2 Contingencies

The CAISO Category "B" and "C" contingencies used in this analysis are provided in Appendix B.

Appendix D includes power flow diagrams for summer peak, winter and spring, normal operating conditions and for contingencies that create overloads.

The CAISO Category "B" and "C" contingencies simulated in this study include the types of outages listed below:

7.2.1 ISO Category "B"

- B1 - All single generator outages (60 - 500 kV)
- B2 - All single transmission circuit outages (60 - 500 kV)
- B3 - All single transformer outages (60 - 500 kV)
- Selected overlapping (single generator unit and transmission circuit) outages

7.2.2 ISO Category "C"

- C1 - Bus section outages
- C2 - Breaker failures (excluding tie and sectionalizing breakers only)
- C3 - Selected combination of two successive Category B outages (except ones included above in Category "B")

- C5 - Outages of double circuit tower lines

8. Dynamic Stability Study

Dynamic stability studies were conducted using the base cases described in Section 5 and the generator models shown in Appendix E to determine whether the transmission system would attain operating equilibrium following selected outages.

8.1 Results

The results indicated that the transmission system performed within the CAISO reliability guidelines following the disturbances outlined below. It was determined that CVEC would have no adverse impact on the stable operation of the transmission system.

The results of the study are provided in the form of plots in Appendices F1 (summer), F2 (winter), and F3 (spring). A switch-deck script describing the switching sequence precedes each group of plots.

8.2 Dynamic Stability Study Scenarios

The following outage scenarios were simulated for a study period of up to 20 seconds:

8.2.1 NERC/CAISO Category "B" Contingencies:

a) Full load rejection of 1,062 MW (1,097 MW spring) of the CVEC project.

b) A three-phase fault with the normal clearing time at the CVEC 230 kV bus followed by the loss of the Helm – CVEC # 1 230 kV circuit.

c) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Panoche – Helm # 2 230 kV circuit.

d) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm – Kearney 230 kV circuit.

e) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm – McCall 230 kV circuit.

f) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the CVEC steam generator.

g) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm 230/70 kV Transformer Bank #1.

h) A three-phase fault with the normal clearing time at the McCall 230 kV bus followed by the loss of the Gates – McCall 230 kV circuit.

i) A three-phase fault at the Gregg 230 kV bus followed by the loss of the Helm – Gregg #1 230 kV circuit.

j) A single line to ground fault at Helm 230 kV bus with delayed clearing on the Helm – McCall 230 kV circuit.

8.2.2 NERC/CAISO Category "B" Contingencies (Winter only):

k) A three-phase fault at the Gates 500 kV bus followed by the loss of the Gates – Midway 500 kV circuit.

l) A three-phase fault at the Gates 500 kV bus followed by the loss of the Los Banos – Gates 500 kV circuit.

8.2.3 NERC/CAISO Category "C" Contingencies (Bus) (Summer & Spring only):

Disturbance simulations will be performed on all sections of the following buses:

m) A three-phase fault with normal clearing time on the Helm 230 kV bus.

n) A three-phase fault with normal clearing time on the Panoche 230 kV bus.

o) A three-phase fault with normal clearing time on the McCall 230 kV bus.

p) A three-phase fault with normal clearing time on the Kearney 230 kV bus.

q) A three-phase fault with normal clearing time on the Henrietta 230 kV bus.

r) A three-phase fault with normal clearing time on the Gates 230 kV bus.

s) A three-phase fault with normal clearing time on the Herndon 230 kV bus.

t) A three-phase fault with normal clearing time on the CVEC 230 kV bus.

8.2.4 NERC/CAISO Category "C" Contingencies (Double Line Outages) (Summer & Spring only):

u) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Panoche - Helm and Panoche - Helm # 2 230 kV circuits.

v) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm - McCall and Helm - Kearney 230 kV circuits.

w) A three-phase fault with the normal clearing time at the CVEC 230 kV bus followed by the loss of the Helm - CVEC # 1 & 2 230 kV circuits.

x) A three-phase fault with the normal clearing time at the McCall 230 kV bus followed by the loss of the Balch - McCall and Hass - McCall 230 kV circuits.

y) A three-phase fault with the normal clearing time at the McCall 230 kV bus followed by the loss of the Helm - McCall and Gates - McCall 230 kV circuits.

z) A three-phase fault with the normal clearing time at the Gregg 230 kV bus followed by the loss of the Helm - Gregg # 1 and # 2 Circuits.

8.2.5 NERC/CAISO Category "C" Contingencies (Double Line Outages) (Summer only):

aa) A three-phase fault at the Midway 500 kV bus followed by the loss of the Midway – Vincent #1 and #2 500 kV circuits.

8.2.6 NERC/CAISO Category "C" Contingencies (Double Line Outages) (Winter only):

bb) A three-phase fault at the Los Banos 500 kV bus followed by the loss of the Los Banos – Gates and Los Banos – Midway 500 kV lines.

cc) A three-phase fault at the Midway 500 kV bus followed by the loss of the Gates – Midway and Los Banos – Midway 500 kV lines.

8.3 Parameters Monitored to Evaluate System Stability Performance

8.3.1 Rotor Angle

The rotor angle plots shown in Appendix F provide a measure for determining how the proposed generation units would swing with respect to one another. The plots also provide a measure of how the units would swing with respect to other generation units in the area.

8.3.2 Bus Voltage

The bus voltage plots, in conjunction with the relative rotor angle plots, also shown in Appendix F, provide a means of detecting out-of-step conditions. The bus voltage plots are useful in assessing the magnitude and the duration of post disturbance voltage dips

and peak-to-peak voltage oscillations. The bus voltage plots also give an indication of system damping and the level to which voltages are expected to recover in steady state conditions.

8.3.3 Bus Frequency

The bus frequency plots provide information on the magnitude and the duration of post fault frequency swings with CVEC in service. These plots indicate the extent of possible over-frequency or under-frequency, which can occur because of the imbalance between the generation and load within an area.

8.3.4 Other Parameters Monitored

- Generator Terminal Power
- Generator Terminal Voltage
- Generator Rotor Speed
- Generator Field Voltage
- Bus Angle
- Line Flow
- Voltage Spread
- Frequency Spread

9. System Protection Study

9.1 Results

Table 9-1 lists the available short circuit duty at the buses electrically adjacent to CVEC. This data was used to determine overstressed equipment in the Substation Evaluation.

Fault Location	Before LEGP		After LEGP		% Change	
	3-Phase (Amps)	SLG (Amps)	3-Phase (Amps)	SLG (Amps)	3-Phase	SLG
Helm Substation 230 kV Bus	9,296	7,196	25,000	26,000	169 %	261 %
Helm Substation 70 kV Bus	12,550	13,010	14,300	15,500	14 %	19 %
Kearney Substation 230 kV Bus	10,700	9,260	13,000	11,000	21%	19 %
Panoche Substation 230 kV Bus	22,010	16,300	26,000	19,000	18 %	17 %
CVEC Substation 230 kV Bus	N/A	N/A	25,300	26,500	N/A	N/A

Table 9-1: Short circuit study results

9.2 System Protection Study Input Data

The protection study was performed with data provided by CVEC. This data is as follows:

Combustion Turbine Generators

- Synchronous reactance (X_d) = 2.35 pu @ 250 MVA
- Transient reactance (X'_d) = 0.394 pu @ 250 MVA
- Sub-transient reactance (X''_d) = 0.1728 pu @ 250 MVA
- Negative Sequence reactance (X_2) = 0.1718 pu @ 250 MVA (sat)
- Zero Sequence reactance (X_0) = 0.0863 pu @ 250 MVA (sat)

Step-up Transformers

18/230 kV, Z = 10% @ 250 MVA

Steam Turbine Generator

- Synchronous reactance (X_d) = 2.140 pu @ 670 MVA
- Transient reactance (X'_d) = 0.320 pu @ 670 MVA
- Sub-transient reactance (X''_d) = 0.217 pu @ 670 MVA
- Negative Sequence reactance (X_2) = 0.252 pu @ 670 MVA (sat)
- Zero Sequence reactance (X_0) = 0.125 pu @ 670 MVA (sat)

Step-up Transformer

18/230 kV, Z = 10% @ 400 MVA

10. Substation Evaluation

Using the results of the system protection study, the substation evaluation determined that CVEC would cause three (3) circuit breakers to be overstressed beyond their interrupting rating. Calpine Corporation is responsible for replacing these breakers:

- Helm 230 kV CB 232
- Panoche 230 kV CB 322
- Panoche 230 kV CB 222

Current PG&E guidelines state that the Applicant is responsible for replacement of a breaker:

(1) if a breaker is not overstressed and the Project results in an overstressed conditions of the breaker,

OR

(2) if a breaker is already overstressed and the Project increases the overstress by 5% or more, or the overstress level exceeds 25%.

Table 9-1 lists the pre- and post-project fault duties of these overstressed breakers.

No overstressed breakers were identified at the Helm 70 kV and Kearney 230 kV buses.

11. Mitigation Alternatives

This section presents alternatives available for mitigating the normal and Category B emergency overloads of the facilities described in Section 7 and Section 10.

Mitigation alternatives have been provided for the Category A (normal) and B contingency overloads. Unlike CAISO Category B outages, CAISO Category C outages (according to WSCC reliability criteria) may be mitigated by load shedding or generation dropping. PG&E or CAISO or both may require new generators to take part in and be responsible for the costs of operating procedures and/or special protection schemes that will eventually be planned to mitigate these rare occurrences.

Calpine is responsible for mitigating any new normal and Category B emergency overloads that are caused by CVEC. Some overloads that are identified in the pre-project cases may be mitigated by a PG&E project.

PG&E reliability projects that are proposed to mitigate pre-project problems may not be in place prior to the proposed on-line date of this generation project. PG&E reliability projects are designed to mitigate only the identified existing grid problems and may not mitigate the contribution to the overload caused by this generation project.

Therefore, Calpine must agree not to seek compensation for mitigation of overloads identified in this report from PG&E or through participation in the California ISO market mechanisms for line overload relief. In the event that curtailment conditions are expected to continue beyond this generation project's actual on line date, PG&E and Calpine will assess the need to continue curtailments and also assess other options to relieve overload conditions.

However if these PG&E projects do not materialize Calpine will be responsible for returning the loading on these already overloaded facilities to pre-project levels.

11.1 Overstressed Breaker Mitigation

The only mitigation available for the overstress circuit breakers revealed by the System Protection Study is replacement of the breakers. Under current PG&E guidelines, Calpine would be responsible for the replacement of two (2) overstressed breakers.

11.2 Mitigation of Facilities with Normal and Category B Overloads

11.2.1 Metcalf 230/115 kV Transformer Bank #1

Operating Condition	Normal - 2004 Summer
Limiting Factor	Metcalf 230/115 kV Bank #1: 403 MVA
Post-Project Normal Loading	411 MVA (102%)

Solution:

The Metcalf Fourth 230/115 kV Bank Project (PG&E Project T-340) is scheduled to be on-line by June 2003 and would eliminate this normal overload. PG&E management is scheduled to approve the Metcalf Fourth 230/115 kV Bank Project by the first quarter of 2002. However, as of December 2001 there is no guarantee that PG&E management will do so.

Other Potential Mitigation Options:

In the event that the Metcalf Fourth 230/115 kV Bank Project is cancelled or deferred until after CVEC's January 2004 online date, Calpine Corporation may assume the costs of advancing this PG&E project to coincide with CVEC's on-line date.

If Calpine Corporation chooses to wait for PG&E to implement the Metcalf Fourth 230/115 kV Bank Project, Calpine Corporation will be responsible for returning the emergency loading on the Metcalf 230/115 kV Bank #1 to pre-CVEC levels. CVEC may be required to reduce generation output during summer peak and non-summer peak times. Calpine Corporation must agree not to seek compensation for loss of revenue during the generation curtailment and that PG&E ratepayers are not financially responsible for congestion management costs.

11.2.2 Borden – Gregg 230 kV Circuit

Worst Contingency	Wilson-Storey1-Gregg 230 kV Circuit
Limiting Factor	8 Miles of 500 Copper - 675 Amps Normal / 793 Amps Emergency Rating
Post-Project Normal Loading	735 Amps (109%) - 2004 Summer
Post-Project Emergency Loading	891 Amps (112%) – 2004 Summer

Solution: Re-Conductor the 8 miles of 500 Copper on this line with 1113 Al or equivalent to mitigate the normal overload. This line is approximately 8 miles long.

Unacceptable Mitigation Options:

Re-rating the line is not acceptable because a re-rate has been previously requested for this line and rejected due to the weather data analysis.
Note that PG&E is requesting a re-rate for the emergency rating of this line but it would not apply to the normal rating.

A Special Protection Scheme (SPS) to drop generation would not be acceptable because of the size of the emergency overloads and the number of contingencies that cause this facility to overload.

11.2.3 Agrico Junction – Kerman 70 kV Section

(The Agrico Junction – Kerman 70 kV section is part of the Helm – Kerman 70 kV line.)

Worst Contingency	Helm-McMullin-Kearney 230 kV Circuit + Kerchof Unit #1 (L-1/G-1)
Limiting Factor	2.1 Miles of 3/0 copper – summer normal: 322 Amps summer emergency: 370 Amps winter emergency: 515 Amps
Post-Project Normal Loading	335 Amps (104%) - 2004 Summer
Post-Project Emergency Loading	429 Amps (116%) – 2004 Spring Peak 566 Amps (110%) – 2004 Winter 655 Amps (173%) – 2004 Spring Off Peak

Solution: Reconductor the 2.1 miles of 3/0 copper on the Agrico Junction – Kerman 70 kV section of the Helm – Kerman 70 kV line. Replace terminating equipment to support the new capacity of the line and replace tower structures, switches, etc. if needed.

Unacceptable Mitigation Options:

Re-rating the line is not acceptable because re-rates are not granted for non-summer peak conditions.
Note that PG&E is requesting a re-rate for the emergency rating of this line but it would not apply to the normal rating and would not mitigate the non-Summer Peak emergency overloads.

11.2.4 Panoche – Helm #1 230 kV Circuit

Worst Contingency	Panoche – Helm #2 230 KV Circuit – Spring 2004
Limiting Factor	25 Miles of 795 ACSR –

	summer normal: 742 Amps summer emergency: 850 Amps winter emergency: 1156 Amps
Post-Project Normal Loading	748 Amps (101%) - 2004 Summer 963 Amps (130% - 2004 Spring Peak
Post-Project Emergency Loading	1157 Amps (136%) – 2004 Summer 1485 Amps (175%) – 2004 Spring Peak 1196 Amps (103%) – 2004 Winter 1010 Amps (119%) – 2004 Spring Off Peak

Solution:

Reconductor the 25 miles of 795 ASCR on the Panoche – Helm #1 230 kV line with 954 ACSS (summer normal: 1714 Amps; summer emergency: 1714 Amps; winter emergency: 1874 Amps) or equivalent. Replace terminating equipment to support the new capacity of the line and replace tower structures, switches, etc. if needed.

Unacceptable Mitigation Options:

Re-rating line is not acceptable because re-rates are not granted for non-summer peak conditions. Furthermore, a 4 feet-per-second wind speed rating would not be adequate to eliminate the emergency or normal overloads.

A Special Protection Scheme (SPS) to drop generation would not be acceptable because of the size of the emergency overloads and the number of contingencies that cause this facility to overload.

11.2.5 Panoche – Helm #2 230 kV Circuit

Worst Contingency	Panoche – Helm #1 230 KV Circuit – Spring 2004
Limiting Factor	25 Miles of 1113 Aluminum – 796Amps Normal/ 969 Amps Summer Emergency
Post-Project Normal Loading	881 Amps (111%) - 2004 Spring Peak
Post-Project Emergency Loading	1117 Amps (115%) – 2004 Summer 1434 Amps (148%) – 2004 Spring Peak 975 Amps (101%) – 2004 Spring Off Peak

Solution:

Reconductor the 25 miles of 1113 Aluminum on the Panoche – Helm #2 230 kV line with 954 ACSS (summer normal: 1714 Amps; summer emergency: 1714 Amps; winter emergency: 1874 Amps) or equivalent. Replace terminating equipment to support the new capacity of the line and replace tower structures, switches, etc. if needed.

Unacceptable Mitigation Options:

Re-rating line is not acceptable because re-rates are not granted for non-summer peak conditions. Furthermore, a 4 feet-per-second wind speed rating would not be adequate to eliminate the emergency overloads.

A Special Protection Scheme (SPS) to drop generation would not be acceptable because of the size of the emergency overloads.

11.2.6 McMullin – Kearney 230 kV Section

(The McMullin – Kearney 230 kV section is part of the Panoche – Kearney 230 kV line.)

Worst Contingency	Gregg – Henrietta - Gates 230 KV Circuit – Spring Off Peak 2004
Limiting Factor	14 Miles of 1113 Aluminum – summer normal: 796 Amps summer emergency: 969 Amps
Post-Project Normal Loading	1223 Amps (149%) - 2004 Spring Off Peak
Post-Project Emergency Loading	1329 Amps (111%) – 2004 Summer 1543 Amps (158%) – 2004 Spring Off Peak

Solution:

Reconductor the 14 miles of 1113 Aluminum on the McMullin – Kearney part of the Panoche – Kearney 230 kV line with 954 ACSS (summer normal: 1714 Amps; summer emergency: 1714 Amps; winter emergency: 1874 Amps) or equivalent. Replace terminating equipment to support the new capacity of the line and replace tower structures, switches, etc. if needed.

Unacceptable Mitigation Options:

Re-rating line is not acceptable because re-rates are not granted for non-summer peak conditions. Furthermore, a 4 feet-per-second wind speed rating would not be adequate to eliminate the emergency overloads.

A Special Protection Scheme (SPS) to drop generation would not be acceptable because of the size of the emergency overloads

and the number of contingencies that cause this facility to overload.

11.2.7 McMullin – Helm 230 kV Section Circuit

(The McMullin – Helm 230 kV section is part of the Panoche – Kearney 230 kV line.)

Worst Contingency	Gregg – Henrietta - Gates 230 KV Circuit – Spring Off Peak 2004
Limiting Factor	35 Miles of 1113 Aluminum – summer normal: 796 Amps summer emergency: 969 Amps
Post-Project Normal Loading	1240 Amps (156%) - 2004 Spring Off Peak
Post-Project Emergency Loading	1265 Amps (131%) – 2004 Summer 1550 Amps (160%) – 2004 Spring Off Peak

Solution:

Reconductor the 35 miles of 1113 Aluminum on the McMullin – Helm part of the Panoche – Kearney 230 kV line with 954 ACSS (summer normal: 1714 Amps; summer emergency: 1714 Amps; winter emergency: 1874 Amps) or equivalent. Replace terminating equipment to support the new capacity of the line and replace tower structures, switches, etc. if needed.

Unacceptable Mitigation Options:

Re-rating line is not acceptable because re-rates are not granted for non-summer peak conditions. Furthermore, a 4 feet-per-second wind speed rating would not be adequate to eliminate the emergency overloads.

A Special Protection Scheme (SPS) to drop generation would not be acceptable because of the size of the emergency overloads and the number of contingencies that cause this facility to overload.

11.2.8 Kearney-Herndon 230 kV Circuit

Worst Contingency	Gregg – Henrietta - Gates 230 KV Circuit – Spring Off Peak 2004
Limiting Factor	11 Miles of 1113 Aluminum – summer normal: 796 Amps summer emergency: 969 Amps
Post-Project Normal Loading	1273 Amps (154%) - 2004 Spring Off Peak

Post-Project Emergency Loading	1050 Amps (108%) – 2004 Summer 1605 Amps (165%) – 2004 Spring Off Peak

Solution:

Reconductor the 11 miles of 1113 Aluminum on the Kearney – Herndon 230 kV line with 954 ACSS (summer normal: 1714 Amps; summer emergency: 1714 Amps; winter emergency: 1874 Amps) or equivalent. Replace terminating equipment to support the new capacity of the line and replace tower structures, switches, etc. if needed.

Unacceptable Mitigation Options:

Re-rating line is not acceptable because re-rates are not granted for non-summer peak conditions. Furthermore, a 4 feet-per-second wind speed rating would not be adequate to eliminate the emergency overloads.

A Special Protection Scheme (SPS) to drop generation would not be acceptable because of the size of the emergency overloads and the number of contingencies that cause this facility to overload.

11.3 Mitigation of Transmission Lines with Category B Overloads

Category B line transmission line overloads may be mitigated through re-conductoring the overloaded line sections. Tables 11-1, 11-2, 11-3, and 11-4 provide possible line re-conductoring scenarios during the various seasons for the Category B overloads caused by the addition of CVEC. Proposed new conductors are offered for comparison purposed only. An equivalent conductor may be selected during the Facilities Study.

Note: All of the Kerman 70 kV Category B Summer Peak overloads are mitigated when the Summer Operating Plans for the Fresno area are applied. However, certain of these lines are overloaded during Spring and Winter conditions when the Summer Operating Plans would not be in effect. Where applicable, re-conductoring of these lines is indicated in those seasonal tables.

Overloaded Facility - Worst Contingency	Post-Project Facility Loading	Distance (Mi)	Existing Limiting Conductor	Proposed New Conductor	New Conductor Emergency Ratings (Amps)	Emergency Loading with New Conductor
Panoche - Helm 230 kV Circuit #1 - Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1&3 (L-1/G-1)	1157 Amps	25	795 ACSR	954 ACSS	1954	59%
Panoche - Helm 230 kV Circuit #2 - Panoche-Helm 230kV Circuit #1	1117 Amps	25	1113 ALL	954 ACSS	1954	57%
Panoche - Panoche J 115 kV Circuit - Wilson-Storey1-Gregg 230kV Circuit #1	589 Amps	2	336.4 ACSR	477 ACSR	630	93%
Borden -Gregg 230 kV Circuit - Wilson-Storey1-Gregg 230kV Circuit #1	891 Amps	8	500 CU	1113 ALL	975	91%
Storey 1 - Gregg 230 kV Section - Borden-Gregg 230kV Circuit #1	758 Amps	1	500 CU	1113 ALL	975	78%
Panoche J - Hammonds 115 kV Circuit - Wilson-Storey1-Gregg 230kV Circuit #1	524 Amps	5	336.4 ACSR	477 ACSR	630	83%
McMullen-Kearney 230 kV Circuit - Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	1235 Amps	14	1113 ALL	954 ACSR	1954	63%
McMullen-Helm 230 kV Circuit - Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	1265 Amps	35	1113 ALL	954 ACSR	1954	65%
Kearney-Herndon 230kV Circuit #1 - Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	1050 Amps	11	1113 ALL	954 ACSR	1954	54%
Coppermine-Tivy Valley 70kV Circuit #1 - Borden-Gregg 230kV Circuit #1	349 Amps	22	3/0 ALL	397 ALL	514	68%
Reedley-Tivy Valley 70kV Circuit #1 - Borden-Gregg 230kV Circuit #1	385 Amps	12	3/0 ALL	397 ALL	514	75%
Helm-Stroud Jct. 70kV Circuit #1 - Panoche-Helm 230kV Circuit #1	394 Amps	6	3/0 CU	397 ALL	514	77%
Le Grand-Wilson B 115kV Circuit #1 - Wilson-Storey1-Gregg 230kV Circuit #1	590 Amps	8 6	397 ALL 266.8 ALL	1113 ALL	975	61%
Metcalf-Moss Landing 230kV #1 Circuits - Metcalf-Moss Landing 230kV Circuit #	1137 Amps	36	795 ACSR	954 ACSR	1954	58%
Metcalf-Moss Landing 230kV #2 Circuits - Metcalf-Moss Landing 230kV Circuit #1	1137 Amps	36	795 ACSR	954 ACSR	1954	58%

Overloaded Facility - Worst Contingency	Post-Project Facility Loading	Distance (Mi)	Existing Limiting Conductor	Proposed New Conductor	New Conductor Emergency Ratings (Amps)	Emergency Loading with New Conductor
Oro Loma-Paso Jct. 1 Section of Oro Loma Mendota 70kV Circuit - Los Banos 70/230kV Bank #3	304 Amps	7 7	3/0 ALL 1/0 CU	397 ALL	514	59%
Tomatek-Mendota Section of Oro Loma Mendota 70kV Circuit - Los Banos 70/230kV Bank #3	460 Amps	10	266.8 ALL	397 ALL	514	89%
DFS Tap-Oro Loma Section of Panoche-Oro Loma 115kV Circuit #1 - Los Banos 70/230kV Bank #3	689 Amps	7	397.5 ALL	1113 ALL	975	71%

Table 11-1: Line Re-conductoring and Re-rating CAISO Category B Proposed Solutions (Summer Peak)

Overloaded Facility - Worst Contingency	Post-Project Facility Loading	Distance (Miles)	Existing Limiting Conductor	Proposed New Conductor	New Conductor Emergency Ratings (Amps)	Emergency Loading with New Conductor
Panoche – Helm 230 kV Circuit #1 - Panoche-Helm 230kV Circuit #2	1485 Amps	25	795 ACSR	954 ACSS	1954	76%
Panoche – Helm 230 kV Circuit #2 - Panoche-Helm 230kV Circuit #1	1434 Amps	25	1113 AAL	954 ACSS	1954	73%
Helm – Stroud Junction 70 kV Section - Panoche-Helm 230kV Circuit #2	411 Amps	7	3/0 CU	397 AAL	514	80%
Stroud Junction – Schindler 70 KV Section - Panoche-Helm 230kV Circuit #2	378 Amps	10	3/0 CU	397 AAL	514	75%
Agr. Jct.-Kerman 70kV Circuit #1 - Helm-McMullin-Kearney 230kV Circuit #1 & Helms Unit #1 (L-1/G-1)	439 Amps	2	3/0 CU	397 ALL	514	85%
Tesla D-Tracy Pump 230kV #1 & 2 Circuits - Tracy-Tesla 50kV Circuit #1	1058 Amps	6	954 ACSR	477 ACSS	1126	94%

Table 11-2: Line Re-conductoring and Re-rating CAISO Category B Proposed Solutions (Spring)

Overloaded Facility - Worst Contingency	Post-Project Facility Loading	Distance (Miles)	Existing Limiting Conductor	Proposed New Conductor	New Conductor Emergency Ratings (AMPS)	Emergency Loading with New Conductor

Overloaded Facility - Worst Contingency	Post-Project Facility Loading	Distance (Miles)	Existing Limiting Conductor	Proposed New Conductor	New Conductor Emergency Ratings (AMPS)	Emergency Loading with New Conductor
Tesla D-Tracy Pump 230kV #1 & 2 Circuits - Tracy-Tesla 500kV Circuit #1	997 Amps	6	954 AAL	477 ACSS	1126	86%
Panoche – Helm 230 kV Circuit #1 - Panoche-Helm 230kV Circuit #2 and Helms Unit #1 (L-1/G-1)	1010 Amps	25	795 ACSR	954 ACSS	1954	52%
Panoche – Helm 230 kV Circuit #2 - Panoche-Helm 230kV Circuit #1 & Helm Unit #1	975 Amps	25	1113 AAL	954 ACSS	1954	50%
McMullin-Kearney 230kV Circuit #1 - Gregg-Henrietta-Gates 230kV Circuit #1	1543 Amps	14	1113 AAL	954 ACSS	1954	79%
McMullin-Helm 230kV Circuit #1 - Gregg-Henrietta-Gates 230kV Circuit #1	1550 Amps	35	1113 AAL	954 ACSS	1954	79%
Kearney-Herndon 230kV Circuit #1 - Gregg-Henrietta-Gates 230kV Circuit #1	1605 Amps	11	1113 AAL	954 ACSS	1954	82%
El Peco-Biola 70kV Circuit #1 - Kearney-Herndon 230kV Circuit #1	380 Amps	6	3/0 Copper	250 Copper	484	79%
Biola-Old Kern 70kV Circuit #1 - Kearney-Herndon 230kV Circuit #1	408 Amps	13	266 AAL	336 AAL	463	88%
San Joaquin Tap-Helm 70kV Circuit #1 - Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	501 Amps	1	3/0 Copper	477 AAL	577	87%
San Joaquin Tap–Agrc. Jct 70kV Circuit #1 - Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	501 Amps	8	3/0 Copper	477 AAL	577	87%
Agrc. Jct.-Kerman 70kV Circuit #1 - Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	655 Amps	8	3/0 Copper	715 AAL	742	88%
Kearney-Kerman 70kV Circuit #1 - Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	615 Amps	11	3/0 Copper	715 ALL	742	83%

Table 11-3: Line Re-conductoring and Re-rating CAISO Category B Proposed Solutions Winter with Summer Ratings (Spring Off-peak)

Overloaded Facility - Worst Contingency	Post-Project Facility Loading	Distance (Miles)	Existing Limiting Conductor	Proposed New Conductor	New Conductor Emergency Ratings (AMPS)	Emergency Loading with New Conductor
Panoche – Helm 230 kV Circuit #1	1196 Amps	25	795 ACSR	715 ACSS	1605	75%

Overloaded Facility - Worst Contingency	Post-Project Facility Loading	Distance (Miles)	Existing Limiting Conductor	Proposed New Conductor	New Conductor Emergency Ratings (AMPS)	Emergency Loading with New Conductor
- Helm-Helm 230kV Circuit #2 and Helms Unit #1 (L-1/G-1)						
McMullin-Kearney 230kV Circuit #1 - Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #3 & Kerckhof Unit #1 (L-1/G-1)	1329 Amps	14	1113 AAL	715 ACSS	1605	83%
Agrc. Jct.-Kerman 70kV Circuit #1 - Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1(L-1/G-1)	566 Amps	2	3/0 Copper	477 AAL	802	71%
Kearney-Kerman 70kV Circuit #1 - Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1(L-1/G-1)	527 Amps	1	3/0 Copper	477 ALL	802	66%

Table 11-4: Line Re-conductoring and Re-rating CAISO Category B Proposed Solutions (Winter Off-peak)

11.4 PG&E Transmission Line Projects

PG&E is seeking re-rates on the following transmission facilities shown in this report: as a part of the 2001 Grid Expansion Plan:

- Borden – Gregg 230 kV Circuit (PG&E Project T706)
- Wilson – Le Grand 115 kV Circuit (PG&E Project T706)
- Agrico – Kerman 70 kV Circuit
- Panoche – Oro Loma 115 kV Circuit
- Metcalf – Moss Landing #1 230 kV Circuit
- Metcalf – Moss Landing #2 230 kV Circuit

Note that all re-rates are either not sufficient to mitigate the size of the overloads, the re-rate is not being sought for the normal rating, or the facilities are overloaded by CVEC's addition at times other than the Summer Peak and the re-rate would not be in effect.

PG&E's Project T646 would re-conductor the Panoche – Oro Loma 115 kV Circuit and the Panoche - Mendota 115 kV Circuit with 1113 AAL conductor.

11.5 Mitigation of Transformers with Category B Overloads

Category B transformer overloads may be mitigated through existing PG&E reliability projects, the replacement of the affected transformer with a larger size or the addition of a new transformer.

11.5.1 Warnerville Transformers

Calpine should discuss the overload of the Warnerville transformers with PUC of the City and County of San Francisco. Due to the overload these third party facilities, PG&E will require disclosure of these results to the PUC of the City and County of San Francisco. Calpine is responsible for seeking a mitigation agreement with the third party.

11.5.2 Midway 500/230kV Bank #1

Solution: There is an existing PG&E project (T765) to add a third 500/230 kV Bank at Midway. This project would mitigate this overload.

Other Potential Mitigation Options:

In the event that the Midway Third 500/230 kV Bank Project is cancelled or deferred until after CVEC's January 2004 online date, Calpine Corporation may assume the costs of advancing this PG&E project to coincide with CVEC's on-line date.

If Calpine Corporation chooses to wait for PG&E to implement the Midway Third 500/230 kV Bank Project, Calpine Corporation will be responsible for returning the emergency loading on the Midway 500/230 kV Bank #1 to pre-CVEC levels. CVEC may be required to reduce generation output during summer peak and non-summer peak times. Calpine Corporation must agree not to seek compensation for loss of revenue during the generation curtailment and that PG&E ratepayers are not financially responsible for congestion management costs.

11.5.3 Panoche 230/115kV Bank #2

Solution: There is an existing PG&E project re-rate this bank. When combined with projects T706 and T708 (Wilson Transmission Reinforcement project this overload would be mitigated.

Other Potential Mitigation Options:

In the event that the projects described are cancelled or deferred until after CVEC's January 2004 online date, Calpine Corporation may assume the costs of advancing these PG&E projects to coincide with CVEC's on-line date.

If Calpine Corporation chooses to wait for PG&E to implement these projects; Calpine Corporation will be responsible for returning the emergency loading on the Panoche 230/115 kV Bank #2 to pre-CVEC levels. CVEC may be required to reduce generation output during summer peak and non-summer peak times. Calpine Corporation must agree not to seek compensation for loss of revenue during the generation curtailment and that PG&E ratepayers are not financially responsible for congestion management costs.

11.6 Potential Mitigation Solutions Curtailment

Reconductoring of transmission line facilities is a proven means to mitigate the thermal equipment overloads caused by CVEC. A potential alternative to reconductoring is for Calpine to reduce its CVEC generation output. However, before an operating and contractual arrangement to curtail generation of any project can be implemented, several conditions must be satisfied:

1. Both PG&E and the CAISO parties must approve of this operating arrangement.

2. Calpine Corporation must agree not to seek compensation for loss of revenue during the generation curtailment and that the CAISO or PG&E ratepayers are not financially responsible for congestion management costs.

Tables 11-5, 11-6, 11-7, and 11-8 provide the amount of generation curtailment required to mitigate the normal and Category B overloads or to return an already overloaded facility to its pre-project condition for each season studied. Upon request, determination of the acceptability of these potential curtailment alternatives will be provided in the Facility Study.

Overloaded Facility	Worst Contingency	Facility Seasonal Rating	Pre-Project % Rating	Post-Project Facility Loading	Post-Project % Rating	% Change From Pre-Project Loading	CVEC Required Curtail-ment MW
Panoche-Helm 230kV Circuit #1	Panoche-Helm 230kV Circuit #2	850	12	1157	136	124	259
Panoche-Helm 230kV Circuit #2	Panoche-Helm 230kV Circuit #1	969	N/A	1117	115	N/A	129
McMullin-Helm 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1&3 (L-1/G-1)	969	N/A	1265	131	N/A	767
Helm-Stroud Jct 70kV Circuit #1	Panoche-Helm 230kV Circuit #1	378	15	394	104	89	52
McMullin-Kearney 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	975	74	1235	127	53	668
Kearney-Herndon 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit & Helms Unit #1,3 (L-1/G-1)	975	55	1050	108	53	198
Coppermine-Tivy Valley 70kV Circuit #1	Borden-Gregg 230kV Circuit #1	298	81	349	117	36	509
Tivy Valley-Reedley 70kV Circuit #1	Borden-Gregg 230kV Circuit #1	298	93	385	129	36	869
Borden-Gregg 230kV Circuit #1	Wilson-Storey1-Gregg 230kV Circuit #1	793	80	891	112	32	402
Storey 1-Gregg230kV Circuit #1	Borden-Gregg 230kV Circuit #1	746	77	758	102	25	88
Warnerville 230/115kV Bank #1	Bellota-CottleB-Warnerville 230kV Circuit #1	150 MVA	92	166 MVA	110	18	632
Warnerville 230/115kV Bank #2	Bellota-CottleB-Warnerville 230kV Circuit #1	75 MVA	92	83 MVA	110	18	632

Overloaded Facility	Worst Contingency	Facility Seasonal Rating	Pre-Project % Rating	Post-Project Facility Loading	Post-Project % Rating	% Change From Pre-Project Loading	CVEC Required Curtail-ment MW
Warnerville 230/115kV Bank #3	Bellota-CottleB-Warnerville 230kV Circuit #1	75 MVA	92	83 MVA	110	18	632
Panoche-Panoche J 115kV Circuit #1	Wilson-Storey1-Gregg 230kV Circuit #1	512	98	589	115	17	948
Panoche J-Hammonds 115kV Circuit #1	Wilson-Storey1-Gregg 230kV Circuit #1	512	85	524	102	17	126
Le Grand-Wilson B 115kV Circuit #1	Wilson-Storey1-Gregg 230kV Circuit #1	398	119	590	148	29	1100
Metcalf-Moss Landing2 230kV Circuit #1	Metcalf-Moss Landing 500kV Circuit #1	910	103	1137	125	22	1100
Metcalf-Moss Landing1 230kV Circuit #1	Metcalf-Moss Landing 500kV Circuit #1	910	102	1132	124	22	1100
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	132	1570 MVA	140	8	1100
Panoche 115/230kV Bank #2	Wilson-Storey1-Gregg 230kV Circuit #1 & Helms Unit #3	146 MVA	122	188 MVA	129	7	1100
Oro Loma-Poso J1 70kV Circuit #1	Los Banos 70/230kV Bank #3	282	101	304	108	7	1100
Tomatek-Mendota 70kV Circuit #1	Los Banos 70/230kV Bank #3	396	111	460	116	5	1100
DFS Tap-Oro Loma 115kV Circuit #1	Los Banos 70/230kV Bank #3	512	132	689	135	3	1100

Table 11-5: Generation Curtailment Proposed Solutions (Summer Peak)

Overloaded Facility	Worst Contingency	Winter Emergency rating	Pre-Project % Rating	Post-Project Facility Loading	Post Project % Rating	% Change	CVEC Required Curtail-ment MW
McMullin-Kearney 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	1200	62	1329	111	49	329
Kearney-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	515	66	527	102	36	888
Agr. Jct.-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	515	74	566	110	46	539
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	116	1348 MVA	120	4	1100

Table 11-6: Generation Curtailment Proposed Solutions (Winter Off Peak)

Overloaded Facility	Worst Contingency	Emergency rating	Pre-Project % Rating	Post-Project Facility Loading	Post Project % Rating	% Change	CVEC Required Curtail-ment MW
Panoche-Helm 230kV Circuit #2	Panoche-Helm 230kV Circuit #1	969	N/A	1434	148	N/A	407
Panoche-Helm 230kV Circuit #1	Helm-Helm 230kV Circuit #2	850	23	1485	175	152	540
Helm-Stroud Jct 70kV Circuit #1	Panoche-Helm 230kV Circuit #1	378	42	411	109	67	119

Stroud Jct-Schindler 70kV Circuit #1	Panoche-Helm 230kV Circuit #1	378	36	387	102	66	27
Agr. Jct.-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Helms Unit #1 (L-1/G-1)	379	69	439	116	47	379
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	101	1221 MVA	109	8	1100
Tesla D-Tracy Pump 230kV Circuit #1	Tracy-Tesla 50kV Circuit #1	965	102	1058	110	8	1100
Tesla D-Tracy Pump 230kV Circuit #2	Tracy-Tesla 50kV Circuit #1	965	102	1058	110	8	1100

Table 11-7: Generation Curtailment Proposed Solutions (Spring Peak)

Overloaded Facility	Contingency	Emergency rating	Pre-Project % Rating	Post-Project Facility Loading	Post Project % Rating	% Change	CVEC Required Curtail-ment MW
Panoche-Helm 230kV Circuit #1	Panoche-Helm 230kV Circuit #2 & Helms Unit #1 (L-1/G-1)	850	7	1010	119	12	135
Panoche-Helm 230kV Circuit #2	Panoche-Helm 230kV Circuit #1 & Helms Unit #1	969	N/A	975	101	N/A	9
McMullin-Helm 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit #1	969	N/A	1550	160	N/A	1100+
Kearney-Herndon 230kV Circuit #1	Helm-McCall 230kV Circuit #1	975	69	1390	143	74	699
McMullin-Kearney 230kV Circuit #1	Gregg-Henrietta-Gates 230kV Circuit #1	975	96	1543	158	62	1100+
Agr. Jct.-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	124	655	173	49	1100
Kearney-Kerman 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	"	114	615	162	48	1100
San Joaquin Tap-Helm 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	379	85	501	132	47	759
San Joaquin Tap-Agr. Jct. 70kV Circuit #1	Helm-McMullin-Kearney 230kV Circuit #1 & Kerckhof Unit #1 (L-1/G-1)	379	85	501	132	47	759
El Peco-Biola 70kV Circuit #1	Kearney-Herndon 230kV Circuit #1	378	66	380	101	35	29
Biola-Old Kern 70kV Circuit #1	Kearney-Herndon 230kV Circuit #1	396	70	408	103	33	95
Tesla D-Tracy Pump 230kV Circuit #1	Tracy-Tesla 500kV Circuit #1	965	81	997	103	22	131
Tesla D-Tracy Pump 230kV Circuit #2	Tracy-Tesla 500kV Circuit #1	965	81	997	103	22	131
Midway 500/230kV Bank #1	Midway 500/230kV Bank #11	1120 MVA	113	1324 MVA	118	5	100

Table 11-8: Generation Curtailment Proposed Solutions (Spring Off-peak)

12. Study Updates

This System Impact Study is performed according the assumptions shown in the Sections titled "Study Assumptions" and "Base Case Assumptions". In the event that these assumptions are changed, an updating study may be required to re-

evaluate CVEC's impact on PG&E's transmission grid. Calpine would be responsible for paying for any such updating study. Examples of changes that might prompt such a study are:

- Change in interconnection date.
- Change in Interconnection Queue position.

Appendix A

Study Plan

System Impact Study

Study Plan

Calpine Corporation

Central Valley Energy Center

Final

Revision 1

Pacific Gas and Electric Company

July 2, 2001

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Introduction

Calpine Corporation (Calpine) has requested Pacific Gas & Electric Company (PG&E) conduct a System Impact Study (SIS) for the Central Valley Energy Center (CVEC) Project. The CVEC project is 1,097 MW (nominal) generating facility to be built near Fresno, California. The project is scheduled to be on line in January 2004. This SIS will determine the:

1) An evaluation of the transmission system impacts caused solely by the addition of the CVEC project.
2) System reinforcements, if any, necessary to mitigate the impact of the CVEC project under all system conditions.

This Study Plan will form the basis for the SIS agreement by defining the scope, content, assumptions, and terms of reference of the SIS.

Study Fee

A one-time study fee for performing the SIS is $100,000. $50,000 is due with the submittal of SISA, and the balance of $50,000 will be due on June 1, 2001. If the Applicant chooses not to continue with the study after receiving this Study Plan, a fee of $5,000 shall be assessed to reimburse PG&E for the cost of processing the Study Request.[1]

Schedule

Due to the size and the complexity of the CVEC project, it is not possible to complete the SIS in 60 days. The following schedule shows the milestones associated with the study.

Task	Milestone Description	Target Date
1	Establish study commencement date based on receipt of study fee	4/6//01
2	Send draft report to developer and Cal-ISO for review and comments	8/16/01
3	Receive comments from applicant and Cal-ISO	8/24/01
4	Issue Final SIS report	8/31/01

PG&E must receive a completed System Impact Study Agreement (SISA) from the Applicant (including the study fee) by April 6, 2001. A blank SISA may be found at the end of this document. If PG&E does not receive the completed SISA by this date, the Interconnection Application will be considered as withdrawn and the Applicant's project position in the generation Interconnection Queue shall be lost.

[1] Refer to PG&E's Transmission Owner Tariff TO4 Terms and Conditions.

Cost Estimates

No cost estimates will be provided in this SIS. Cost estimates will be provided when the project progresses to the Facilities Study (FS) phase.

Project Information

Based upon information provided by Calpine, the CVEC project is located near the city of Fresno, Fresno County, California and in the vicinity of PG&E's Helm Substation. Figure 1 shows the area in which the project will be constructed along with the transmission facilities in the area.

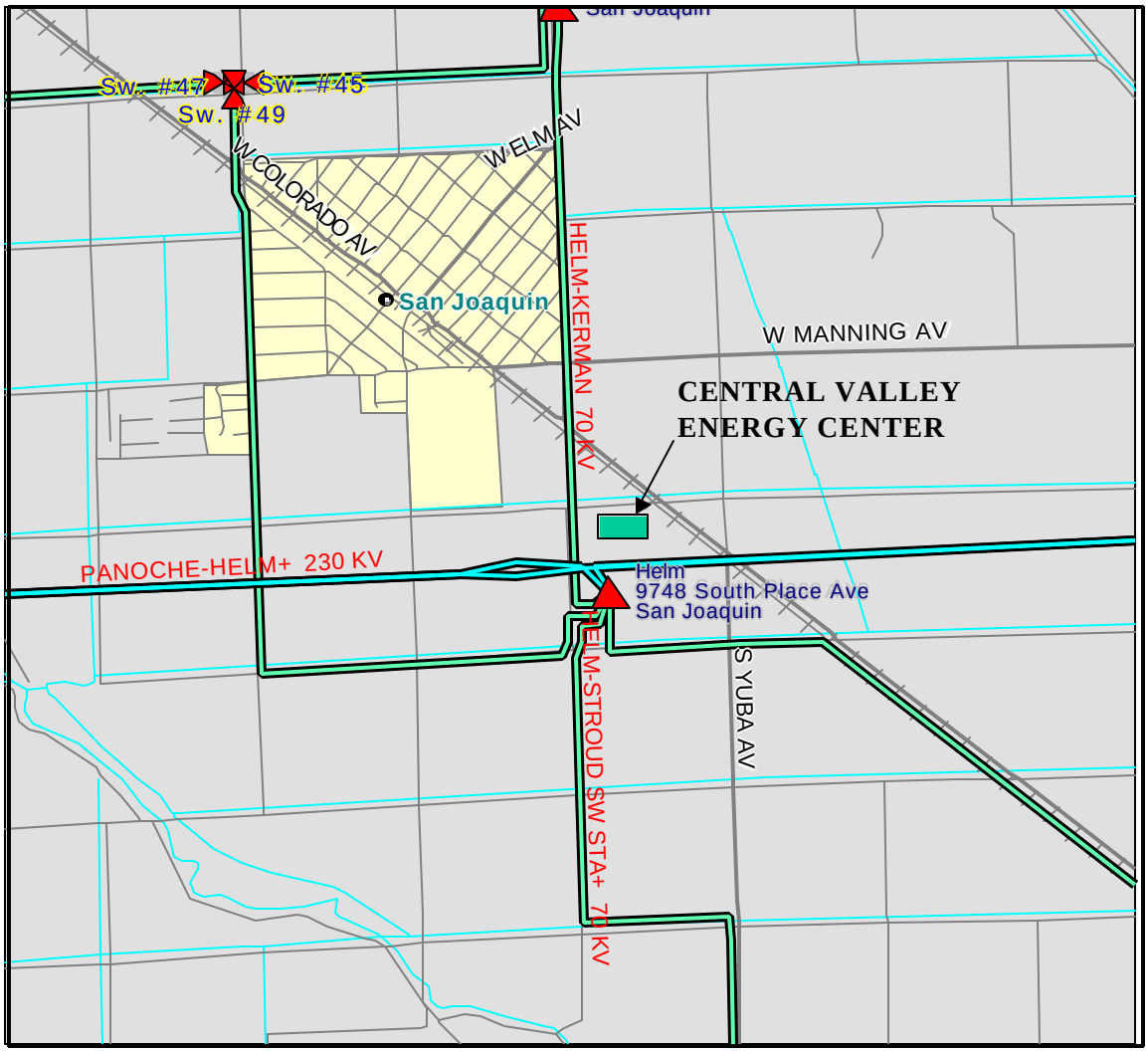

Figure 1: Central Valley Energy Center & General Vicinity

The project will have a maximum output of 1,097 MW modeled at 0.85 power factor with 35 MW of plant load. The CVEC project will be an advanced combined cycle with the following units:

a) Three - GE combustion turbine/generator (CTG) rated at 250 MVA (nominal) each.

b) One - steam turbine/generator (STG) rated at 623 MVA (nominal).

Each CTG unit will have a dedicated 18/230 kV step-up transformer, rated 150/200/250 MVA (OA/FA/FA). The STG unit will have a dedicated 19/230 kV step-up transformer, rated 400/533/667 MVA (OA/FA/FA).

Operating at baseload and without steam injection and duct firing, the project capacity is approximately 835 MW. Through incorporation of a larger steam turbine and the use of steam injection, fogging, and duct firing, the project allows for approximately 260 MW of on-peak peaking capacity. The project's maximum output depends upon temperature:

1) At 100° F, maximum output is 1,062 MW (peak case).

2) At 61° F, maximum output is 1,097 MW (spring case).

Interconnection Plan

The interconnection of the CVEC project to PG&E's grid will be accomplished by looping the Panoche – Kearney 230 kV circuit into and back out of the Helm Substation and connecting the CVEC plant to Helm Substation via two 230 kV transmission lines. It is assumed that the Applicant will build the CVEC power plant and the 230 kV bus and substation, and PG&E will construct and operate the two new transmission lines.

A single-line diagram for the CVEC project is shown in Figure 2.

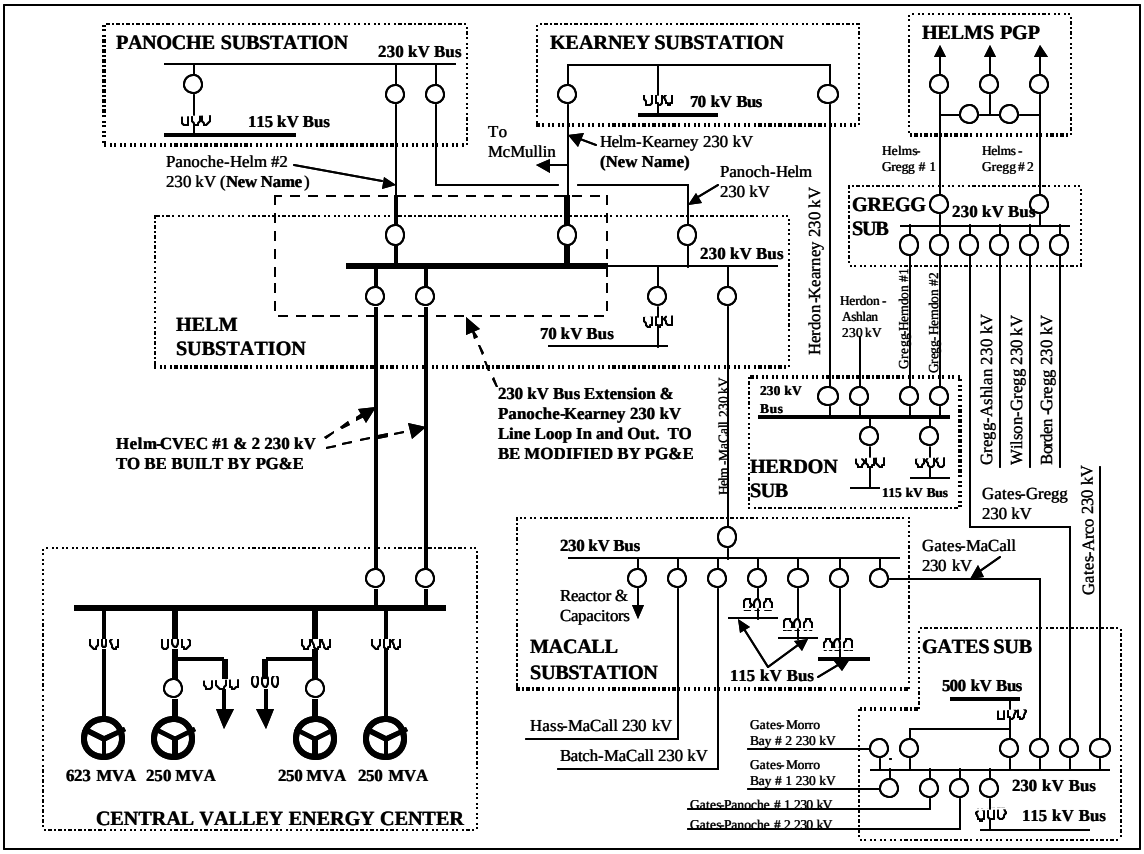

Figure 2: Single Line - Central Valley Energy Center

Study Assumptions

PG&E will conduct the SIS using the following assumptions:

1) The maximum delivery from the proposed project to the PG&E transmission grid will be 1,062 MW in summer and 1,096 MW in the spring. Generation output will be modeled at 0.85 lagging power factor.

2) The generator will be connected to PG&E's 230 kV transmission system in January 2004.

3) The plant load of 35 MW will be modeled.

4) Applicant will design, construct, own and maintain the CVEC including 230 kV bus and substation.

5) It is assumed that PG&E will design, build and own two new 230 kV transmission lines (generation tie lines) that connect the CVEC project and the 230 kV bus at the Helm Substation.[2]

6) It is also assumed that PG&E will loop the Panoche-Kearney 230 kV line into and back out at the Helm Substation and expend the 230 kV bus to accommodate the two new generation tie lines. The Panoche-Kearney 230 kV line will be renamed to Panoche-Helm # 2 230 kV line and Helm-Kearney 230 kV line.

7) The study will take into account the planned generating facilities in Northern California whose schedules are concurrent with CVEC's schedule. Any applicable Remedial Action Scheme (RAS) or system upgrades for the related generation projects will be modeled. These facilities are described in the section discussing the power flow base cases.

8) The study will take into account all the approved PG&E reliability projects that will be operational by January 2004.

9) The California-Oregon Intertie (Path 66), Midway - Los Banos path (Path 15) and the Northern-Southern California Intertie (Path 26) transfer limits will not be increased from their current limits to accommodate the CVEC. It is assumed that the CVEC output can be accommodated within the transfer capabilities of Path 66, Path 15 and Path 26. The published transfer capabilities for the PG&E service area are contained in the Path Rating Catalog, available from the WSCC.

10) The study will take into account the planned generating facilities in California whose schedules are concurrent with CVEC's schedule. Any applicable Remedial Action Scheme (RAS) or system upgrades for the related generation projects will be modeled. These facilities are described in the section discussing the power flow base cases.

Power Flow Base Case Assumptions

Three power flow base cases will be used in this study:

1) 2004 Summer Full Loop Base Case:

The 2004 Summer Full-Loop Base Case models the PG&E transmission system and expected operating conditions during the summer peak. Path 66 (California-Oregon Inter-tie) and Path 26 (Northern-Southern California Inter-tie) will not exceed the north-to-south transfer capabilities of 4,800 MW and 3,000MW respectively. Helms PGP is in the generating mode with three generators at full output. The 2004 Summer Full Loop Case will be used for power flow analysis, post transient power flow analysis, and dynamic stability analysis.

2) 2004 Winter Full Loop Base Case

The 2004 Winter Full-loop Base Case models the PG&E transmission system

[2] These lines will be modeled as bundled1113 ACSS conductor, 0.25 miles long.

when loads are generally low, generators are bucking and/or operating at minimum output, CDWR units in the Midway area are in the pump mode and Path 15 (Midway-Los Banos 500kV) typically does not exceed the south-to-north path capability of 3,450 MW. This case also assumes that the Helms PGP is in the pumping mode with all three pumps at full load. The 2004 Winter Full Loop Case will be used for steady-state power flow analysis, post transient power flow analysis, and dynamic stability analysis.

3) 2004 Heavy Spring Full Loop Base Case

The 2004 Spring Full-loop Base Case models the PG&E transmission system during a warm spring day when Hydro units are generating at full output. Path 26 (Northern - Southern California Inter-tie) typically does not exceed the north-to-south transfer capability of 3,000 MW. All CDWR pumps in the Midway area are assumed to be offline. This case is assuming that the Helms PGP is in the pumping mode with all three pumps at full load. The 2004 Spring Full Loop Base Case will be used for steady-state power flow analysis, post-transient analysis, and dynamic stability analysis.

Base Case Generation Assumptions

The base case includes the following proposed generating facilities in the northern California area:

1) Calpine/Bechtel - 880 MW Delta Energy Center (DEC), interconnecting with the 230 kV bus at the Pittsburg Power Plant switchyard.

2) Calpine/Bechtel - 600 MW Metcalf Energy Center (MEC), interconnecting with the Metcalf - Monta Vista #4 230 kV line, through the MEC switchyard.

3) PG&E NEG - La Paloma generation facility interconnecting at Midway 230 kV bus section D; La Paloma generation facility will be will be modeled at 1110 MW in summer and 1160 MW in spring and winter.

4) Calpine - 500 MW Los Medanos Energy Center (LMEC), interconnecting with the 115 kV bus at the Pittsburg Power Plant switchyard.

5) Texaco - 338 MW Sunrise Generation Facility interconnecting at La Paloma Switching Station.

6) Three Mountain Power Company - 530 MW project interconnecting to PG&E's Pit 1 – Pit 3 and Pit 1 – Cottonwood 230 kV lines.

7) GWF - 130 MW Hanford, interconnecting to Kingsburg - Henrietta 115 kV line in Fresno area.

8) Duke Energy North America Corporation (DENA) - 1080 MW Moss Landing project (MLPP), interconnecting with the existing 230 kV bus at the Moss Landing Power Plant.

9) Southern Energy Company of California - 530 MW Contra Costa Power Plant Capacity Increase Project, interconnecting to Contra Costa PP 230 kV bus.

10) Central Reliability Energy Center - 45 MW project in San Jose/San Clara area.

11) The Midway-Sunset generation facility will be 500 MW in summer, 540 MW in spring, and 540 MW winter. Midway-Sunset generation facility will be interconnected at Midway 230 kV bus section E.

12) Sempra - 500 MW Elk Hills Power Project, interconnecting at Midway 230 kV bus.

13) FPLE High Wind Project – 150 MW Project, tapping off the Vaca -Contra Costa #2 230 kV line.

14) United Golden Gate PP - 595 MW generating facilities, interconnecting with the San Mateo - Martin #5 and #6 115 kV lines.

15) Project A - 692 MW Tesla Generation Project , interconnecting near Tesla Substation.

16) Project B – 580 MW Fremont Generating Project interconnecting to the 230 kV bus at Newark Substation.

17) Project C – 581 MW Los Esteros Generating Project interconnecting to the 115 kV bus at Los Esteros Substation.

18) Wellhead Electric - 22 MW Stockton Cogen Project, interconnecting with Newark Sierra Paper Board 60 kV Tap on the Stockton “A” #1 60 kV line.

19) Morro Bay Modernization Project replacing the existing Morro Bay Power Plant with 1,200 MW of generation.

20) Panda - 150 MW West 1-3, interconnecting with Vaca Dixon - Contra Costa #1 230 kV line.

21) Mirant - 600 MW Potrero Unit 7 Project, interconnecting Potrero and Hunters Point Switching Stations.

22) Calpine Corporation - 500 MW Sutter facility, interconnecting with WAPA’s Elverta - Olinda and Elverta - Keswick 230 kV.

23) FPLE - 560 MW Elverta Project, interconnecting with WAPA system.

24) Calpine – 1,070 MW East Altamont Generating Project interconnecting at loop the Tracy - Westley 230 kV circuit near Tracy Substation.

Study Scope

The SIS will study the impact of CVEC’s added generation on PG&E’s transmission system. The specific studies conducted for the SIS are outlined in this section.

Steady State Power Flow Studies

The three base cases will be used to simulate the impact of the new facility during normal operating conditions, as well as, single and selected multiple (ISO Categories "B" and "C") outages. The study will cover the transmission facilities within PG&E's Fresno, Yosemite and Kern planning areas.

The single (ISO Category "B") and selected multiple (ISO Category "C") contingencies include the following outages[3]:

ISO Category "B"

- B1 - All single generator outages (60 - 500 kV)
- B2 - All single transmission circuit outages (60 - 500 kV)
- B3 - All single transformer outages (60 - 500 kV)
- Selected overlapping (single generator unit and transmission circuit) outages

ISO Category "C"

- C1 - Bus section outages
- C2 - Breaker failures (excluding tie and sectionalizing breakers only)
- C3 - Selected combination of two successive category B outages (except ones included above in Category "B")
- C5 - Outages of double circuit tower lines

System Protection Study

Short circuit studies will be conducted to determine the fault duties on existing PG&E facilities before and after the CVEC project addition. The fault duty results will then be used to identify overstressed equipment, if any that results solely from the addition of the CVEC project. New protection requirements, together with protection modifications needed at the nearby transmission substations, will also be identified.

Dynamic Stability Study

Dynamic stability studies will be conducted using all three Full Loop Base Cases to ensure that the transmission system remains in operating equilibrium through abnormal operating conditions after the new facility begins operation. Other PG&E transmission projects and new generation projects that will be operational by 2004 will also be modeled in the base case.

[3] As soon as the "B" and "C" outage list is put together, PG&E will send it to Cal-ISO for review and comment.

Disturbance simulations will be performed for a study period of 20 seconds to determine whether the new facility will create any system instability during the following outages:

NERC/CAISO Category "B" Contingencies (Summer & Spring only):

a) Full load rejection of 1,062 MW (1,097 MW spring) of the CVEC project.

b) A three-phase fault with the normal clearing time at the CVEC 230 kV bus followed by the loss of the Helm – CVEC # 1 230 kV circuit.

c) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Panoche – Helm # 2 230 kV circuit.

d) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm – Kearney 230 kV circuit.

e) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm – McCall 230 kV circuit.

f) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the CVEC steam generator.

g) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm 230/70 kV Transformer Bank #1.

h) A three-phase fault with the normal clearing time at the McCall 230 kV bus followed by the loss of the Gates – McCall 230 kV circuit.

i) A three-phase fault at the Gregg 230 kV bus followed by the loss of the Helm – Gregg #1 230 kV circuit.

j) A single line to ground fault at Helm 230 kV bus with delayed clearing on the Helm – McCall 230 kV circuit.

NERC/CAISO Category "B" Contingencies (Winter only):

k) A three-phase fault at the Gates 500 kV bus followed by the loss of the Gates – Midway 500 kV circuit.

l) A three-phase fault at the Gates 500 kV bus followed by the loss of the Los Banos – Gates 500 kV circuit.

NERC/CAISO Category "C" Contingencies (Bus) (Summer & Spring only):

Disturbance simulations will be performed on all sections of the following buses:

m) A three-phase fault with normal clearing time on the Helm 230 kV bus.

n) A three-phase fault with normal clearing time on the Panoche 230 kV bus.

o) A three-phase fault with normal clearing time on the McCall 230 kV bus.

p) A three-phase fault with normal clearing time on the Kearney 230 kV bus.

q) A three-phase fault with normal clearing time on the Henrietta 230 kV bus.

r) A three-phase fault with normal clearing time on the Gates 230 kV bus.

s) A three-phase fault with normal clearing time on the Herndon 230 kV bus.

t) A three-phase fault with normal clearing time on the CVEC 230 kV bus.

NERC/CAISO Category "C" Contingencies (Double Line Outages) (Summer & Spring only):

u) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Panoche – Helm and Panoche – Helm # 2 230 kV circuits.

v) A three-phase fault with the normal clearing time at the Helm 230 kV bus followed by the loss of the Helm – McCall and Helm – Kearney 230 kV circuits.

w) A three-phase fault with the normal clearing time at the CVEC 230 kV bus followed by the loss of the Helm – CVEC # 1 & 2 230 kV circuits.

x) A three-phase fault with the normal clearing time at the McCall 230 kV bus followed by the loss of the Balch – McCall and Hass – McCall 230 kV circuits.

y) A three-phase fault with the normal clearing time at the McCall 230 kV bus followed by the loss of the Helm – McCall and Gates - McCall 230 kV circuits.

z) A three-phase fault with the normal clearing time at the Gregg 230 kV bus followed by the loss of the Helm – Gregg # 1 and # 2 Circuits.

NERC/CAISO Category "C" Contingencies (Double Line Outages) (Summer only):

aa) A three-phase fault at the Midway 500 kV bus followed by the loss of the Midway – Vincent #1 and #2 500 kV circuits.

NERC/CAISO Category "C" Contingencies (Double Line Outages) (Winter only):

bb) A three-phase fault at the Los Banos 500 kV bus followed by the loss of the Los Banos – Gates and Los Banos – Midway 500 kV lines.

cc) A three-phase fault at the Midway 500 kV bus followed by the loss of the Gates – Midway and Los Banos – Midway 500 kV lines.

Post Transient Power Flow Studies

The SIS will conduct post transient studies when any outage causes greater than 5% voltage drop on the bus or buses during the power flow analysis.

Transmission Line Evaluation

The transmission line evaluation will identify existing transmission line requiring upgrades in order to mitigate overloading due to the new generation, if any.

Substation Evaluation

The Substation evaluation will identify any existing equipment, if any, requiring upgrades to mitigate problems caused by overstress or overload.

Stand-by Power

This study does not address any requirements for stand-by power that the project may require. The Applicant should contact their local PG&E service office regarding this service.

Note: The developer is urged to contact their local service office promptly regarding stand-by service in order to ensure its availability for the Project's start-up date

Pacific Gas and Electric Company

WE DELIVER ENERGY

System Impact Study Agreement

_____ (Applicant) has reviewed the study plan for the interconnection of Applicant's electric generating plant with PG&E's system at _____[4], State of California and agrees with the proposed plan.

Applicant agrees to pay the proposed study fee.

Dated this _____ day of _____, 2001

APPLICANT:

BY: _____
(Signature)

_____
(Type or Print Name)

TITLE: _____

MAILING ADDRESS:

_____

_____

_____

_____

[4] Enter city and county location of proposed facility.

APPENDIX C
AUTOCON ISO CATEGORY B CONTINGENCY INPUT FILE

Hyperlink to **Calpine-CVEC_C_contingency_list**

Blist

```
        # CVEC Part 1; DRSutphin; 11/24/2001
        # (158)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
1       " 1  30790 30825  ""1 ""    0    # line from  Panoche 230.00  BRKR to (2)   MCMULLN1 230.00"
1       " 1  30873 30825  ""1 ""    0    # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
1       " 1  30825 30830  ""1 ""    0    # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
1       " 4  30825     0  ""1 ""    0    # LOAD-DROP    MCMULLN1 230.00  LOAD==12.020442(2.376242)"
1       0
2        #
2        #
2        # (159)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
2       " 1  30790 30825  ""1 ""    0    # line from  Panoche 230.00  BRKR to (2)   MCMULLN1 230.00"
2       " 1  30790 30873  ""2 ""    0    # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
2       0
3        #
3        #
3        # (160)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
3        #
3       " 1  34430 34429  ""1 ""    0    # line from  HENRETTA 115.00  BRKR to (4)   GWF_HEP  115.00"
3       " 1  34429 34428  ""1 ""    0    # line from  GWF_HEP  115.00   (4) to (2)   CONTADNA 115.00"
3       " 2  34429 34431  ""1 ""    0    # TRAN from  GWF_HEP  115.00   (4) to (1)   GWF_C     13.80"
3       " 2  34429 34433  ""1 ""    0    # TRAN from  GWF_HEP  115.00   (4) to (1)   GWF_S     13.80"
3       " 1  34428 34418  ""1 ""    0    # line from  CONTADNA 115.00   (2) to BRKR  KINGSBRG 115.00"
3       " 4  34429     0  ""1 ""    0    # LOAD-DROP    GWF_HEP  115.00  LOAD==3(0.683707)"
3       " 4  34428     0  ""1 ""    0    # LOAD-DROP    CONTADNA 115.00  LOAD==7.272(5.454)"
3       " 3  34431     0  ""1 ""    0    # GEN-DROP    GWF_C     13.80  GEN==62.00(-4.18)"
3       " 3  34433     0  ""1 ""    0    # GEN-DROP    GWF_S     13.80  GEN==34.40(-5.13)"
3       0
4        #
4        #
4        # (161)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
4        #
4       " 1  34356 34358  ""2 ""    0    # line from  KERCKHF1 115.00  BRKR to BRKR  KERCKHF2 115.00"
4       0
5        #
5        #
5        # (162)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
5        #
5       " 1  34103 34109  ""1 ""    0    # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00"
5       " 1  34103 34107  ""1 ""    0    # line from  CHWCGNJT 115.00   (3) to (2)   CERTANJ2 115.00"
5       " 1  34103 34102  ""1 ""    0    # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00"
5       " 2  34109 34301  ""1 ""    0    # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80"
5       " 1  34107 34101  ""1 ""    0    # line from  CERTANJ2 115.00   (2) to (3)   CERTAN T 115.00"
5       " 1  34101 34100  ""1 ""    0    # line from  CERTAN T 115.00   (3) to BRKR  CHWCHLLA 115.00"
5       " 1  34101 34116  ""1 ""    0    # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00"
5       " 4  34102     0  ""1 ""    0    # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.433745)"
5       " 3  34301     0  ""1 ""    0    # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-11.55)"
5       0
6        #
```

```
6        #
6        # (163)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
6        #
6        " 1  32112 32114  ""1 ""    0    # line from  MAINE-PR  60.00  BRKR to (2)   MNPR_JCT  60.00"
6        " 1  32114 32113  ""1 ""    0    # line from  MNPR_JCT  60.00   (2) to (3)   BTAV-JCT  60.00"
6        " 1  32113 32111  ""1 ""    0    # line from  BTAV-JCT  60.00   (3) to (1)   BATAVIA   60.00"
6        " 1  32113 32107  ""1 ""    0    # line from  BTAV-JCT  60.00   (3) to (2)   CACHSTAP  60.00"
6        " 1  32107 32109  ""1 ""    0    # line from  CACHSTAP  60.00   (2) to (3)   CACHSLJ2  60.00"
6        " 1  32109 32094  ""1 ""    0    # line from  CACHSLJ2  60.00   (3) to (2)   VACA-JT2  60.00"
6        " 1  32109 32101  ""1 ""    0    # line from  CACHSLJ2  60.00   (3) to (2)   DIXON-J2  60.00"
6        " 1  32094 32088  ""1 ""    0    # line from  VACA-JT2  60.00   (2) to BRKR  VACA-DXN  60.00"
6        " 1  32101 32100  ""1 ""    0    # line from  DIXON-J2  60.00   (2) to BRKR  DIXON     60.00"
6        " 4  32112     0  ""1 ""    0    # LOAD-DROP    MAINE-PR  60.00  LOAD==0.01(0)"
6        " 4  32111     0  ""1 ""    0    # LOAD-DROP    BATAVIA   60.00  LOAD==0.01(0)"
6        0
7        #
7        #
7        # (164)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
7        #
7        " 1  30948 30970  ""2 ""    0    # line from  ELKHIL_G 230.00   (5) to BRKR  MIDWAY   230.00"
7        " 1  30948 30970  ""1 ""    0    # line from  ELKHIL_G 230.00   (5) to BRKR  MIDWAY   230.00"
7        " 2  30948 35076  ""1 ""    0    # TRAN from  ELKHIL_G 230.00   (5) to (1)   ELKHIL1G  18.00"
7        " 2  30948 35077  ""1 ""    0    # TRAN from  ELKHIL_G 230.00   (5) to (1)   ELKHIL2G  18.00"
7        " 2  30948 35078  ""1 ""    0    # TRAN from  ELKHIL_G 230.00   (5) to (1)   ELKHIL3G  18.00"
7        " 4  35076     0  ""1 ""    0    # LOAD-DROP    ELKHIL1G  18.00  LOAD==6.7(1.526945)"
7        " 4  35077     0  ""1 ""    0    # LOAD-DROP    ELKHIL2G  18.00  LOAD==6.7(1.526945)"
7        " 3  35076     0  ""1 ""    0    # GEN-DROP    ELKHIL1G  18.00  GEN==166.80(13.91)"
7        " 3  35077     0  ""1 ""    0    # GEN-DROP    ELKHIL2G  18.00  GEN==166.80(13.91)"
7        " 3  35078     0  ""1 ""    0    # GEN-DROP    ELKHIL3G  18.00  GEN==225.50(19.47)"
7        0
8        #
8        #
8        # (165)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
8        #
8        " 1  34718 34717  ""1 ""    0    # line from  KERN OIL 115.00  BRKR to (2)   DEXZEL   115.00"
8        " 2  34717 35024  ""1 ""    0    # TRAN from  DEXZEL   115.00   (2) to (1)   DEXEL +    9.11"
8        " 4  35024     0  ""1 ""    0    # LOAD-DROP    DEXEL +    9.11  LOAD==22.309999(5.1)"
8        " 3  35024     0  ""1 ""    0    # GEN-DROP    DEXEL +    9.11  GEN==28.57(6.67)"
8        0
9        #
9        #
9        # (166)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
9        #
9        " 1  34388 34389  ""1 ""    0    # line from  RAINBOW  115.00   (1) to (3)   RAINBWTP 115.00"
9        " 1  34389 34366  ""1 ""    0    # line from  RAINBWTP 115.00   (3) to BRKR  SANGER   115.00"
9        " 1  34389 34394  ""1 ""    0    # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00"
9        " 1  34394 34380  ""1 ""    0    # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00"
9        " 1  34394 34400  ""1 ""    0    # line from  PIEDRA 1 115.00   (3) to BRKR  KNGS RVR 115.00"
9        " 4  34388     0  ""1 ""    0    # LOAD-DROP    RAINBOW  115.00  LOAD==18.258078(6.506818)"
9        0
10       #
10       #
```

```
10      # (167)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
10      #
10      " 1  34391 34392  ""1 ""    0     # line from  QUEBECTP 115.00   (3) to (1)   QUEBEC   115.00"
10      " 1  34391 34420  ""1 ""    0     # line from  QUEBECTP 115.00   (3) to BRKR  CORCORAN 115.00"
10      " 1  34391 34426  ""1 ""    0     # line from  QUEBECTP 115.00   (3) to BRKR  ALPAUGH  115.00"
10      " 4  34392     0  ""1 ""    0     # LOAD-DROP    QUEBEC   115.00  LOAD==11.6(8.09685)"
10      0
11      #
11      #
11      # (168)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
11      #
11      " 1  33960 33962  ""1 ""    0     # line from  MDSTO CN 115.00   (3) to (3)   SALDO TP 115.00"
11      " 1  33960 33961  ""1 ""    0     # line from  MDSTO CN 115.00   (3) to (3)   TCHRT_T1 115.00"
11      " 2  33960 34054  ""1 ""    0     # TRAN from  MDSTO CN 115.00   (3) to (1)   MDSTO CN  13.80"
11      " 1  33962 33964  ""1 ""    0     # line from  SALDO TP 115.00   (3) to BRKR  SALADO   115.00"
11      " 1  33962 33967  ""1 ""    0     # line from  SALDO TP 115.00   (3) to (2)   MILER TP 115.00"
11      " 1  33961 33963  ""1 ""    0     # line from  TCHRT_T1 115.00   (3) to (2)   TCHRTJCT 115.00"
11      " 1  33961 33540  ""1 ""    0     # line from  TCHRT_T1 115.00   (3) to BRKR  TESLA    115.00"
11      " 1  33963 33968  ""1 ""    0     # line from  TCHRTJCT 115.00   (2) to (1)   TEICHERT 115.00"
11      " 1  33967 33966  ""1 ""    0     # line from  MILER TP 115.00   (2) to (1)   MILLER   115.00"
11      " 4  33968     0  ""1 ""    0     # LOAD-DROP    TEICHERT 115.00  LOAD==4.74(4.568662)"
11      " 4  33966     0  ""1 ""    0     # LOAD-DROP    MILLER   115.00  LOAD==3.638(1.761964)"
11      " 3  34054     0  ""1 ""    0     # GEN-DROP    MDSTO CN  13.80  GEN==4.45(6.00)"
11      " 1  33967 33966  ""1 ""    1     # Switch in Miller Tap - Miller 115 kV    "
11      " 1  33967 33965  ""1 ""    1     # Switch in Miller Tap - Salado J 115 kV    "
11      " 4  33966 0      ""1 ""    1     # Restore load at Miller       "
11      0
12      #
12      #
12      # (169)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
12      #
12      " 1  33936 33951  ""1 ""    0     # line from  MELNS JB 115.00   (3) to (3)   VLYHMTP1 115.00"
12      " 1  33936 33503  ""1 ""    0     # line from  MELNS JB 115.00   (3) to (2)   FRGTNTP2 115.00"
12      " 1  33936 33932  ""1 ""    0     # line from  MELNS JB 115.00   (3) to BRKR  MELONES  115.00"
12      " 1  33951 33516  ""1 ""    0     # line from  VLYHMTP1 115.00   (3) to (3)   RPN JNCN 115.00"
12      " 1  33951 33952  ""1 ""    0     # line from  VLYHMTP1 115.00   (3) to (1)   VALLY HM 115.00"
12      " 1  33503 33504  ""1 ""    0     # line from  FRGTNTP2 115.00   (2) to (2)   CATARACT 115.00"
12      " 1  33504 33506  ""1 ""    0     # line from  CATARACT 115.00   (2) to BRKR  STANISLS 115.00"
12      " 1  33516 33514  ""1 ""    0     # line from  RPN JNCN 115.00   (3) to BRKR  MANTECA  115.00"
12      " 1  33516 33520  ""1 ""    0     # line from  RPN JNCN 115.00   (3) to (1)   RIPON    115.00"
12      " 4  33952     0  ""1 ""    0     # LOAD-DROP    VALLY HM 115.00  LOAD==3.709516(0.846513)"
12      " 4  33520     0  ""2 ""    0     # LOAD-DROP    RIPON    115.00  LOAD==21.167269(0)"
12      0
13      #
13      #
13      # (170)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
13      #
13      " 1  33948 33953  ""1 ""    0     # line from  RVRBK J2 115.00   (2) to (2)   VLYHMTP2 115.00"
13      " 1  33948 33506  ""1 ""    0     # line from  RVRBK J2 115.00   (2) to BRKR  STANISLS 115.00"
13      " 1  33953 33511  ""1 ""    0     # line from  VLYHMTP2 115.00   (2) to (2)   AVENATP2 115.00"
13      " 1  33511 33514  ""1 ""    0     # line from  AVENATP2 115.00   (2) to BRKR  MANTECA  115.00"
13      0
```

```
14      #
14      #
14      # (171)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
14      #
14      " 1  36269 36260  ""1 ""    0     # line from  FRWAYTP  115.00   (2) to BRKR  SISQUOC  115.00"
14      " 1  36269 36266  ""1 ""    0     # line from  FRWAYTP  115.00   (2) to BRKR  SNTA MRA 115.00"
14      0
15      #
15      #
15      # (172)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
15      #
15      " 1  36253 36254  ""1 ""    0     # line from  FTHILTP1 115.00   (3) to BRKR  SN LS OB 115.00"
15      " 1  36253 36250  ""1 ""    0     # line from  FTHILTP1 115.00   (3) to (1)   FOOTHILL 115.00"
15      " 1  36253 36252  ""1 ""    0     # line from  FTHILTP1 115.00   (3) to BRKR  MORRO BY 115.00"
15      " 4  36250     0  ""1 ""    0     # LOAD-DROP    FOOTHILL 115.00  LOAD==10.250051(0.794902)"
15      0
16      #
16      #
16      # (173)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
16      #
16      " 1  36251 36254  ""1 ""    0     # line from  FTHILTP2 115.00   (2) to BRKR  SN LS OB 115.00"
16      " 1  36251 36303  ""1 ""    0     # line from  FTHILTP2 115.00   (2) to (3)   GLDHLJCT 115.00"
16      " 1  36303 36302  ""1 ""    0     # line from  GLDHLJCT 115.00   (3) to (1)   GOLDTREE 115.00"
16      " 1  36303 36252  ""1 ""    0     # line from  GLDHLJCT 115.00   (3) to BRKR  MORRO BY 115.00"
16      " 4  36302     0  ""MC""    0     # LOAD-DROP    GOLDTREE 115.00  LOAD==2.208(1.656)"
16      " 4  36302     0  ""1 ""    0     # LOAD-DROP    GOLDTREE 115.00  LOAD==12.71843(2.652462)"
16      0
17      #
17      #
17      # (174)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
17      #
17      " 1  34409 34416  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00"
17      " 1  34409 34413  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to (2)   PNEDLE   115.00"
17      " 1  34409 34412  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00"
17      " 1  34413 34411  ""1 ""    0     # line from  PNEDLE   115.00   (2) to (3)   PNDLJ1   115.00"
17      " 1  34411 34416  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  BULLARD  115.00"
17      " 1  34411 34412  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  HERNDON  115.00"
17      " 4  34416     0  ""5 ""    0     # LOAD-DROP    BULLARD  115.00  LOAD==15.213515(3.323025)"
17      " 4  34416     0  ""3 ""    0     # LOAD-DROP    BULLARD  115.00  LOAD==42.493885(4.678226)"
17      " 4  34416     0  ""2 ""    0     # LOAD-DROP    BULLARD  115.00  LOAD==45.81691(16.011784)"
17      " 4  34416     0  ""1 ""    0     # LOAD-DROP    BULLARD  115.00  LOAD==48.508743(12.98579)"
17      " 4  34413     0  ""1 ""    0     # LOAD-DROP    PNEDLE   115.00  LOAD==5.012385(1.14171)"
17      0
18      #
18      #
18      # (175)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
18      #
18      " 1  34491 34493  ""1 ""    0     # line from  AUBRYTP   70.00   (3) to (1)   AUBERRY   70.00"
18      " 1  34491 34452  ""1 ""    0     # line from  AUBRYTP   70.00   (3) to BRKR  WISHON    70.00"
18      " 1  34491 34464  ""1 ""    0     # line from  AUBRYTP   70.00   (3) to BRKR  COPPRMNE  70.00"
18      " 4  34493     0  ""1 ""    0     # LOAD-DROP    AUBERRY   70.00  LOAD==4.826741(0.306312)"
18      " 4  34493     0  ""2 ""    0     # LOAD-DROP    AUBERRY   70.00  LOAD==6.571793(0.417699)"
```

```
18      0
19       #
19       #
19       # (176)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
19       #
19      " 1  34259 34261  ""1 ""    0     # line from  NRTHFORK  70.00   (3) to (2)   SJNO3     70.00"
19      " 1  34259 34260  ""1 ""    0     # line from  NRTHFORK  70.00   (3) to (3)   SJNO2     70.00"
19      " 2  34259 34340  ""1 ""    0     # TRAN from  NRTHFORK  70.00   (3) to (1)   N.FORK E   9.11"
19      " 2  34261 34633  ""1 ""    0     # TRAN from  SJNO3     70.00   (2) to (1)   SJ3GEN     9.11"
19      " 1  34260 34452  ""1 ""    0     # line from  SJNO2     70.00   (3) to BRKR  WISHON    70.00"
19      " 2  34260 34631  ""1 ""    0     # TRAN from  SJNO2     70.00   (3) to (1)   SJ2GEN     9.11"
19      " 4  34261     0  ""2 ""    0     # LOAD-DROP    SJNO3     70.00  LOAD==6.419791(1.375669)"
19      " 4  34260     0  ""2 ""    0     # LOAD-DROP    SJNO2     70.00  LOAD==3.097596(0.71123)"
19      " 3  34633     0  ""1 ""    0     # GEN-DROP    SJ3GEN     9.11  GEN==1.00(-1.00)"
19      " 3  34631     0  ""1 ""    0     # GEN-DROP    SJ2GEN     9.11  GEN==2.05(-1.00)"
19      " 2  34452 34634  ""1 """"
19      " 3  34634     0  ""1 """"
19      " 3  34634     0  ""2 """"
19      " 3  34634     0  ""3 """"
19      " 3  34634     0  ""4 """"
19      " 4  34634     0  ""1 """"
19      0
20       #
20       #
20       # (177)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
20       #
20      " 1  34183 34165  ""1 ""    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#5  115.00"
20      " 1  34183 34163  ""1 ""    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#3  115.00"
20      " 1  34183 34181  ""1 ""    0     # line from  LUISJCT  115.00   (3) to (3)   WSTLDJCT 115.00"
20      " 1  34181 34182  ""1 ""    0     # line from  WSTLDJCT 115.00   (3) to (1)   WSTLD1RA 115.00"
20      " 1  34181 34180  ""1 ""    0     # line from  WSTLDJCT 115.00   (3) to (3)   OXFRDJCT 115.00"
20      " 1  34180 34166  ""1 ""    0     # line from  OXFRDJCT 115.00   (3) to (1)   OXFORD   115.00"
20      " 1  34180 34159  ""1 ""    0     # line from  OXFRDJCT 115.00   (3) to (3)   PANOCHEJ 115.00"
20      " 1  34159 34158  ""1 ""    0     # line from  PANOCHEJ 115.00   (3) to BRKR  PANOCHE  115.00"
20      " 1  34159 34160  ""1 ""    0     # line from  PANOCHEJ 115.00   (3) to (2)   HAMMONDS 115.00"
20      " 1  34160 34161  ""1 ""    0     # line from  HAMMONDS 115.00   (2) to (3)   DFSTP    115.00"
20      " 1  34161 34164  ""1 ""    0     # line from  DFSTP    115.00   (3) to (1)   DFS      115.00"
20      " 1  34161 34162  ""1 ""    0     # line from  DFSTP    115.00   (3) to (3)   ORO LOMA 115.00"
20      " 1  34162 34168  ""1 ""    0     # line from  ORO LOMA 115.00  BRKR to (1)   EL NIDO  115.00"
20      " 2  34162 34200  ""2 ""    0     # TRAN from  ORO LOMA 115.00   (3) to BRKR  ORO LOMA  70.00"
20      " 4  34165     0  ""1 ""    0     # LOAD-DROP    LUIS_#5  115.00  LOAD==3.25(0.74)"
20      " 4  34163     0  ""1 ""    0     # LOAD-DROP    LUIS_#3  115.00  LOAD==3.4(0.77)"
20      " 4  34182     0  ""1 ""    0     # LOAD-DROP    WSTLD1RA 115.00  LOAD==2.98(0.797573)"
20      " 4  34166     0  ""1 ""    0     # LOAD-DROP    OXFORD   115.00  LOAD==3.974(1.810608)"
20      " 4  34160     0  ""1 ""    0     # LOAD-DROP    HAMMONDS 115.00  LOAD==9.311503(1.188504)"
20      " 4  34164     0  ""1 ""    0     # LOAD-DROP    DFS      115.00  LOAD==2.904(2.25375)"
20      0
21       #
21       #
21       # (178)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
21       #
21      " 1  34914 34911  ""1 ""    0     # line from  KERN PW1  70.00  BRKR to (1)   FRUITVLE  70.00"
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21      " 4  34911     0  ""2 ""    0     # LOAD-DROP    FRUITVLE  70.00  LOAD==14.243867(2.029773)"
21      " 4  34911     0  ""1 ""    0     # LOAD-DROP    FRUITVLE  70.00  LOAD==24.357279(3.97091)"
21      0
22       #
22       #
22       # (179)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
22       #
22      " 1  34905 34906  ""1 ""    0     # line from  UNIONJCT  70.00   (2) to BRKR  PANAMA    70.00"
22      " 1  34905 34904  ""1 ""    0     # line from  UNIONJCT  70.00   (2) to BRKR  OLD RIVR  70.00"
22      0
23       #
23       #
23       # (180)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
23       #
23      " 1  34899 34900  ""1 ""    0     # line from  EISENTP   70.00   (2) to (1)   EISEN     70.00"
23      " 1  34899 34898  ""1 ""    0     # line from  EISENTP   70.00   (2) to (3)   BAKRSFLD  70.00"
23      " 1  34898 34902  ""1 ""    0     # line from  BAKRSFLD  70.00   (3) to BRKR  MAGUNDEN  70.00"
23      " 1  34898 34918  ""1 ""    0     # line from  BAKRSFLD  70.00   (3) to BRKR  KERN PW2  70.00"
23      " 4  34900     0  ""1 ""    0     # LOAD-DROP    EISEN     70.00  LOAD==2.182(1.750578)"
23      0
24       #
24       #
24       # (181)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
24       #
24      " 1  34749 34750  ""1 ""    0     # line from  TPMNTP1  115.00   (3) to (2)   TUPMAN   115.00"
24      " 1  34749 34761  ""1 ""    0     # line from  TPMNTP1  115.00   (3) to (3)   RNFROTP1 115.00"
24      " 1  34749 34774  ""1 ""    0     # line from  TPMNTP1  115.00   (3) to BRKR  MIDWAY   115.00"
24      " 1  34750 34790  ""1 ""    0     # line from  TUPMAN   115.00   (2) to (2)   COLESLEV 115.00"
24      " 1  34761 34764  ""1 ""    0     # line from  RNFROTP1 115.00   (3) to (1)   KRNSHRT1 115.00"
24      " 1  34761 34762  ""1 ""    0     # line from  RNFROTP1 115.00   (3) to (1)   RENFRO   115.00"
24      " 1  34790 34788  ""1 ""    0     # line from  COLESLEV 115.00   (2) to (1)   NORCO    115.00"
24      " 4  34750     0  ""1 ""    0     # LOAD-DROP    TUPMAN   115.00  LOAD==11.37205(1.53341)"
24      " 4  34790     0  ""1 ""    0     # LOAD-DROP    COLESLEV 115.00  LOAD==2.502(2.481567)"
24      " 4  34762     0  ""1 ""    0     # LOAD-DROP    RENFRO   115.00  LOAD==39.292511(8.952276)"
24      " 4  34788     0  ""1 ""    0     # LOAD-DROP    NORCO    115.00  LOAD==3.953183(0)"
24      " 1  34763 34762  ""**""    1      # This mimics switching in Renfro's Tap #2 which is N.O.    "
24      0
25       #
25       #
25       # (182)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
25       #
25      " 1  34813 34814  ""1 ""    0     # line from  FRTLYTP  115.00   (3) to (3)   FRITO LY 115.00"
25      " 1  34813 34751  ""1 ""    0     # line from  FRTLYTP  115.00   (3) to (2)   TPMNTP2  115.00"
25      " 1  34813 34811  ""1 ""    0     # line from  FRTLYTP  115.00   (3) to (2)   RIOBRVTM 115.00"
25      " 1  34814 34815  ""1 ""    0     # line from  FRITO LY 115.00   (3) to (1)   WESTPLAT 115.00"
25      " 2  34814 35048  ""1 ""    0     # TRAN from  FRITO LY 115.00   (3) to (1)   FRITOLAY   9.11"
25      " 1  34751 34775  ""1 ""    0     # line from  TPMNTP2  115.00   (2) to (3)   MIDKRNJN 115.00"
25      " 1  34775 34763  ""1 ""    0     # line from  MIDKRNJN 115.00   (3) to (2)   RNFROTP2 115.00"
25      " 1  34775 34760  ""1 ""    0     # line from  MIDKRNJN 115.00   (3) to BRKR  RIO BRVO 115.00"
25      " 1  34763 34765  ""1 ""    0     # line from  RNFROTP2 115.00   (2) to (1)   KRNSHRT2 115.00"
25      " 1  34811 34774  ""1 ""    0     # line from  RIOBRVTM 115.00   (2) to BRKR  MIDWAY   115.00"
25      " 4  34811     0  ""1 ""    0     # LOAD-DROP    RIOBRVTM 115.00  LOAD==3.528(3.90903)"
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25      " 4  34815     0  ""1 ""    0     # LOAD-DROP    WESTPLAT 115.00  LOAD==4.32(3.579675)"
25      " 4  35048     0  ""1 ""    0     # LOAD-DROP    FRITOLAY   9.11  LOAD==4(1.94)"
25      " 3  35048     0  ""1 ""    0     # GEN-DROP    FRITOLAY   9.11  GEN==4.28(3.80)"
25      0
26       #
26       #
26       # (183)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
26       #
26      " 1  34475 34484  ""1 ""    0     # line from  AGRCJCT   70.00   (3) to BRKR  KERMAN    70.00"
26      " 1  34475 34476  ""1 ""    0     # line from  AGRCJCT   70.00   (3) to (2)   AGRICO    70.00"
26      " 1  34475 34473  ""1 ""    0     # line from  AGRCJCT   70.00   (3) to (2)   SNJQTP    70.00"
26      " 2  34476 34608  ""1 ""    0     # TRAN from  AGRICO    70.00   (2) to (1)   AGRICO    13.80"
26      " 1  34473 34474  ""1 ""    0     # line from  SNJQTP    70.00   (2) to BRKR  HELM      70.00"
26      " 3  34608     0  ""2 ""    0     # GEN-DROP    AGRICO    13.80  GEN==18.10(0.90)"
26      " 3  34608     0  ""1 ""    0     # GEN-DROP    AGRICO    13.80  GEN==20.24(1.01)"
26      0
27       #
27       #
27       # (184)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
27       #
27      " 1  34269 34268  ""1 ""    0     # line from  BIOMSJCT  70.00   (3) to BRKR  MENDOTA   70.00"
27      " 1  34269 34270  ""1 ""    0     # line from  BIOMSJCT  70.00   (3) to (2)   BIOMASS   70.00"
27      " 1  34269 34271  ""1 ""    0     # line from  BIOMSJCT  70.00   (3) to (3)   WSTLDJCT  70.00"
27      " 2  34270 34334  ""1 ""    0     # TRAN from  BIOMASS   70.00   (2) to (1)   BIO PWR    9.11"
27      " 1  34271 34172  ""1 ""    0     # line from  WSTLDJCT  70.00   (3) to (2)   WESTLAND  70.00"
27      " 1  34271 34469  ""1 ""    0     # line from  WSTLDJCT  70.00   (3) to (3)   GFFNJCT   70.00"
27      " 1  34172 34170  ""1 ""    0     # line from  WESTLAND  70.00   (2) to (1)   WESIX     70.00"
27      " 1  34469 34470  ""1 ""    0     # line from  GFFNJCT   70.00   (3) to (1)   GIFFEN    70.00"
27      " 1  34469 34471  ""1 ""    0     # line from  GFFNJCT   70.00   (3) to (3)   SNJQJCT   70.00"
27      " 1  34471 34472  ""1 ""    0     # line from  SNJQJCT   70.00   (3) to (1)   SAN JOQN  70.00"
27      " 1  34471 34474  ""1 ""    0     # line from  SNJQJCT   70.00   (3) to BRKR  HELM      70.00"
27      " 4  34172     0  ""1 ""    0     # LOAD-DROP    WESTLAND  70.00  LOAD==3.2(0.73)"
27      " 4  34170     0  ""1 ""    0     # LOAD-DROP    WESIX     70.00  LOAD==1.6(0.36)"
27      " 4  34470     0  ""1 ""    0     # LOAD-DROP    GIFFEN    70.00  LOAD==8.446798(1.206685)"
27      " 4  34472     0  ""2 ""    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==3.72216(1.642948)"
27      " 4  34472     0  ""1 ""    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==4.659661(-0.362006)"
27      " 3  34334     0  ""1 ""    0     # GEN-DROP    BIO PWR    9.11  GEN==21.88(-8.00)"
27      0
28       #
28       #
28       # (185)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
28       #
28      " 1  34497 34499  ""1 ""    0     # line from  DNUBAJCT  70.00   (3) to (2)   DNUBAEGY  70.00"
28      " 1  34497 34492  ""1 ""    0     # line from  DNUBAJCT  70.00   (3) to BRKR  REEDLEY   70.00"
28      " 1  34497 34500  ""1 ""    0     # line from  DNUBAJCT  70.00   (3) to BRKR  DINUBA    70.00"
28      " 2  34499 34648  ""1 ""    0     # TRAN from  DNUBAEGY  70.00   (2) to (1)   DINUBA E  13.80"
28      " 4  34648     0  ""1 ""    0     # LOAD-DROP    DINUBA E  13.80  LOAD==1.5(0)"
28      " 3  34648     0  ""1 ""    0     # GEN-DROP    DINUBA E  13.80  GEN==11.50(-0.63)"
28      0
29       #
29       #
29       # (186)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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29      #
29      " 1  34487 34489  ""1 ""    0    # line from  SNGRJCT   70.00   (3) to (2)   SNGRCOGN  70.00"
29      " 1  34487 34490  ""1 ""    0    # line from  SNGRJCT   70.00   (3) to (2)   PARLIER   70.00"
29      " 1  34487 34488  ""1 ""    0    # line from  SNGRJCT   70.00   (3) to BRKR  SANGER    70.00"
29      " 2  34489 34646  ""1 ""    0    # TRAN from  SNGRCOGN  70.00   (2) to (1)   SANGERCO   9.11"
29      " 1  34490 34492  ""1 ""    0    # line from  PARLIER   70.00   (2) to BRKR  REEDLEY   70.00"
29      " 4  34490     0  ""1 ""    0    # LOAD-DROP    PARLIER   70.00  LOAD==11.444946(2.608297)"
29      " 3  34646     0  ""1 ""    0    # GEN-DROP    SANGERCO   9.11  GEN==37.50(-8.36)"
29      0
30      #
30      #
30      # (187)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
30      #
30      " 1  34149 34354  ""1 ""    0    # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00"
30      " 1  34149 34158  ""1 ""    0    # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00"
30      " 1  34149 34148  ""1 ""    0    # line from  CHENYT   115.00   (3) to BRKR  CHENY    115.00"
30      " 4  34148     0  ""1 ""    0    # LOAD-DROP    CHENY    115.00  LOAD==13.185838(0)"
30      0
31      #
31      #
31      # (188)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
31      #
31      " 1  30946 30947  ""1 ""    0    # line from  LAPALOMA 230.00   (7) to (3)   TEX_SUN  230.00"
31      " 1  30946 30970  ""2 ""    0    # line from  LAPALOMA 230.00   (7) to BRKR  MIDWAY   230.00"
31      " 1  30946 30970  ""1 ""    0    # line from  LAPALOMA 230.00   (7) to BRKR  MIDWAY   230.00"
31      " 2  30946 35073  ""1 ""    0    # TRAN from  LAPALOMA 230.00   (7) to (1)   LAPLM_G4  21.00"
31      " 2  30946 35072  ""1 ""    0    # TRAN from  LAPALOMA 230.00   (7) to (1)   LAPLM_G3  21.00"
31      " 2  30946 35071  ""1 ""    0    # TRAN from  LAPALOMA 230.00   (7) to (1)   LAPLM_G2  21.00"
31      " 2  30946 35070  ""1 ""    0    # TRAN from  LAPALOMA 230.00   (7) to (1)   LAPLM_G1  21.00"
31      " 2  30947 35075  ""1 ""    0    # TRAN from  TEX_SUN  230.00   (3) to (1)   TEXSUN2G  18.00"
31      " 2  30947 35074  ""1 ""    0    # TRAN from  TEX_SUN  230.00   (3) to (1)   TEXSUN1G  18.00"
31      " 3  35073     0  ""1 ""    0    # GEN-DROP    LAPLM_G4  21.00  GEN==277.50(59.82)"
31      " 3  35072     0  ""1 ""    0    # GEN-DROP    LAPLM_G3  21.00  GEN==277.50(59.82)"
31      " 3  35071     0  ""1 ""    0    # GEN-DROP    LAPLM_G2  21.00  GEN==277.50(59.82)"
31      " 3  35070     0  ""1 ""    0    # GEN-DROP    LAPLM_G1  21.00  GEN==277.50(59.82)"
31      " 3  35075     0  ""1 ""    0    # GEN-DROP    TEXSUN2G  18.00  GEN==169.00(9.65)"
31      " 3  35074     0  ""1 ""    0    # GEN-DROP    TEXSUN1G  18.00  GEN==169.00(9.65)"
31      0
32      #
32      #
32      # (189)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
32      #
32      " 1  38031 36294  ""1 ""    0    # line from  LOMPCJ1  115.00   (2) to BRKR  CABRILLO 115.00"
32      " 1  38031 36282  ""1 ""    0    # line from  LOMPCJ1  115.00   (2) to (3)   SURF JCT 115.00"
32      " 1  36282 36284  ""1 ""    0    # line from  SURF JCT 115.00   (3) to (1)   SURF     115.00"
32      " 1  36282 36300  ""1 ""    0    # line from  SURF JCT 115.00   (3) to (2)   PURSMAJ2 115.00"
32      " 1  36300 36268  ""1 ""    0    # line from  PURSMAJ2 115.00   (2) to BRKR  DIVVIDE  115.00"
32      " 4  36284     0  ""1 ""    0    # LOAD-DROP    SURF     115.00  LOAD==4.464(0)"
32      0
33      #
33      #
33      # (190)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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33      #
33      " 1  36310 36316  ""1 ""    0     # line from  TEMPLT7   70.00  BRKR to (2)   TEMPL J2  70.00"
33      " 1  36316 36358  ""1 ""    0     # line from  TEMPL J2  70.00   (2) to BRKR  ATASCDRO  70.00"
33      0
34      #
34      #
34      # (191)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
34      #
34      " 1  34805 34806  ""1 ""    0     # line from  ARVINJ1  115.00   (3) to (1)   ARVIN_ED 115.00"
34      " 1  34805 34756  ""1 ""    0     # line from  ARVINJ1  115.00   (3) to BRKR  WHEELER  115.00"
34      " 1  34805 34758  ""1 ""    0     # line from  ARVINJ1  115.00   (3) to BRKR  LAMONT   115.00"
34      " 4  34806     0  ""1 ""    0     # LOAD-DROP    ARVIN_ED 115.00  LOAD==25.5(5.811509)"
34      0
35      #
35      #
35      # (192)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
35      #
35      " 1  34807 34737  ""1 ""    0     # line from  ARVINJ2  115.00   (2) to (3)   GRIMWAYJ 115.00"
35      " 1  34807 34741  ""1 ""    0     # line from  ARVINJ2  115.00   (2) to (2)   STCKDLJ  115.00"
35      " 1  34737 34739  ""1 ""    0     # line from  GRIMWAYJ 115.00   (3) to (1)   GRIMWAY  115.00"
35      " 1  34737 34758  ""1 ""    0     # line from  GRIMWAYJ 115.00   (3) to BRKR  LAMONT   115.00"
35      " 1  34741 34755  ""1 ""    0     # line from  STCKDLJ  115.00   (2) to (2)   TEVISJ2  115.00"
35      " 1  34755 34752  ""1 ""    0     # line from  TEVISJ2  115.00   (2) to BRKR  KERN PWR 115.00"
35      " 4  34739     0  ""1 ""    0     # LOAD-DROP    GRIMWAY  115.00  LOAD==12.79(9.5925)"
35      0
36      #
36      #
36      # (193)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
36      #
36      " 1  34753 34754  ""1 ""    0     # line from  TEVISJ1  115.00   (3) to (1)   TEVIS    115.00"
36      " 1  34753 34740  ""1 ""    0     # line from  TEVISJ1  115.00   (3) to BRKR  STOCKDLE 115.00"
36      " 1  34753 34752  ""1 ""    0     # line from  TEVISJ1  115.00   (3) to BRKR  KERN PWR 115.00"
36      " 4  34754     0  ""1 ""    0     # LOAD-DROP    TEVIS    115.00  LOAD==41.419788(11.753185)"
36      " 4  34740     0  ""1 ""    0     # LOAD-DROP    STOCKDLE 115.00  LOAD==27.645693(3.040228)"
36      " 1  34740 34741  ""1 ""    1      # Switch in Stockdale Tap #2    "
36      0
37      #
37      #
37      # (194)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
37      #
37      " 1  34386 34387  ""1 ""    0     # line from  KNGSCOGN 115.00   (2) to (2)   SUNMAID  115.00"
37      " 2  34386 34642  ""1 ""    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11"
37      " 1  34387 34425  ""1 ""    0     # line from  SUNMAID  115.00   (2) to (3)   KCOGNJCT 115.00"
37      " 1  34425 34385  ""1 ""    0     # line from  KCOGNJCT 115.00   (3) to (3)   KINGSJCT 115.00"
37      " 1  34425 34427  ""1 ""    0     # line from  KCOGNJCT 115.00   (3) to (1)   GRDNGLS2 115.00"
37      " 1  34385 34370  ""1 ""    0     # line from  KINGSJCT 115.00   (3) to BRKR  MC CALL  115.00"
37      " 1  34385 34418  ""1 ""    0     # line from  KINGSJCT 115.00   (3) to BRKR  KINGSBRG 115.00"
37      " 4  34387     0  ""1 ""    0     # LOAD-DROP    SUNMAID  115.00  LOAD==3(2.891558)"
37      " 3  34642     0  ""1 ""    0     # GEN-DROP    KINGSBUR   9.11  GEN==34.00(-0.93)"
37      0
38      #
38      #
```

```
38      # (195)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
38      #
38      " 1  34375 34377  ""1 ""    0     # line from  ULTPWRJ  115.00   (3) to (2)   AIRPROD  115.00"
38      " 1  34375 34372  ""1 ""    0     # line from  ULTPWRJ  115.00   (3) to BRKR  MALAGA   115.00"
38      " 2  34375 34640  ""1 ""    0     # TRAN from  ULTPWRJ  115.00   (3) to (1)   ULTR.PWR   9.11"
38      " 1  34377 34370  ""1 ""    0     # line from  AIRPROD  115.00   (2) to BRKR  MC CALL  115.00"
38      " 4  34377     0  ""1 ""    0     # LOAD-DROP    AIRPROD  115.00  LOAD==4.5(1.778514)"
38      " 3  34640     0  ""1 ""    0     # GEN-DROP    ULTR.PWR   9.11  GEN==14.46(-6.00)"
38      " 1  34373 34371  ""1 ""    0      # Must include line from  SCWAXJCT 115.00   (3) to (1)   SCWAX    11"
38      " 1  34373 34374  ""1 ""    0      # Must include line from  SCWAXJCT 115.00   (3) to (1)   RANCHERS 11"
38      " 1  34373 34372  ""1 ""    0      # Must include line from  SCWAXJCT 115.00   (3) to BRKR  MALAGA   11"
38      " 4  34371     0  ""1 ""    0      # Must include LOAD-DROP  SCWAX    115.00  LOAD==4.334(2.099052)    "
38      " 4  34374     0  ""1 ""    0      # Must include LOAD-DROP  RANCHERS 115.00  LOAD==7.591285(1.730213) "
38      0
39      #
39      #
39      # (196)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
39      #
39      " 1  34134 34104  ""1 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00"
39      0
40      #
40      #
40      # (197)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
40      #
40      " 1  33926 33928  ""1 ""    0     # line from  CH.STNJT 115.00   (3) to (2)   CH.STN   115.00"
40      " 1  33926 33920  ""1 ""    0     # line from  CH.STNJT 115.00   (3) to (2)   RCTRK J. 115.00"
40      " 1  33926 33930  ""1 ""    0     # line from  CH.STNJT 115.00   (3) to (2)   PEORIA   115.00"
40      " 2  33928 34050  ""1 ""    0     # TRAN from  CH.STN   115.00   (2) to (1)   CH.STN.   13.80"
40      " 1  33920 33916  ""1 ""    0     # line from  RCTRK J. 115.00   (2) to BRKR  CURTISS  115.00"
40      " 1  33930 33932  ""1 ""    0     # line from  PEORIA   115.00   (2) to BRKR  MELONES  115.00"
40      " 4  33928     0  ""SP""    0     # LOAD-DROP    CH.STN   115.00  LOAD==3.374(2.975588)"
40      " 4  33930     0  ""1 ""    0     # LOAD-DROP    PEORIA   115.00  LOAD==9.628223(0.963511)"
40      " 3  34050     0  ""1 ""    0     # GEN-DROP    CH.STN.   13.80  GEN==10.02(9.44)"
40      0
41      #
41      #
41      # (198)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
41      #
41      " 1  30670 30765  ""1 ""    0     # line from  WESTLEY  230.00  BRKR to BRKR  LOSBANOS 230.00"
41      0
42      #
42      #
42      # (199)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
42      #
42      " 1  30765 30790  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00"
42      0
43      #
43      #
43      # (200)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
43      #
43      " 1  30765 30790  ""2 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00"
43      0
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44      #
44      #
44      # (201)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
44      #
44      " 1  30765 38615  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00"
44      0
45      #
45      #
45      # (202)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
45      #
45      " 1  30765 38625  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00"
45      0
46      #
46      #
46      # (203)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
46      #
46      " 1  30765 38625  ""2 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00"
46      0
47      #
47      #
47      # (204)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
47      #
47      " 1  30790 30873  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
47      0
48      #
48      #
48      # (205)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
48      #
48      " 1  30790 30900  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
48      0
49      #
49      #
49      # (206)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
49      #
49      " 1  30790 30900  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
49      0
50      #
50      #
50      # (207)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
50      #
50      " 1  30795 30805  ""1 ""    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00"
50      " 1  30795 30515  ""1 ""    0     # line from  STOREY 2 230.00   (2) to BRKR  WARNERVL 230.00"
50      " 4  30795     0  ""2 ""    0     # LOAD-DROP    STOREY 2 230.00  LOAD==34.457241(0)"
50      0
51      #
51      #
51      # (208)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
51      #
51      " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
51      " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
51      " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.763388(0)"
51      0
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52      #
52      #
52      # (209)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
52      #
52      " 1  30805 30810  ""1 ""    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00"
52      0
53      #
53      #
53      # (210)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
53      #
53      " 1  30810 30820  ""1 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00"
53      " 3  34604     0  ""**""    0      # Drop 3rd unit with a loss either Gates - Gregg line    "
53      0
54      #
54      #
54      # (211)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
54      #
54      " 1  30810 30820  ""2 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00"
54      " 3  34604     0  ""**""    0      # Drop 3rd unit with a loss either Gates - Gregg line    "
54      0
55      #
55      #
55      # (212)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
55      #
55      " 1  30810 30835  ""1 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00"
55      0
56      #
56      #
56      # (213)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
56      #
56      " 1  30810 30835  ""2 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00"
56      0
57      #
57      #
57      # (214)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
57      #
57      " 1  30810 30845  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00"
57      " 1  30845 30846  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00"
57      " 1  30845 30850  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00"
57      " 4  30846     0  ""2 ""    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==49.604046(0)"
57      " 1 30841  30846  ""1 ""    1      # Switches in Figarden Switch 286 to transfer load    "
57      " 4 30846      0  ""**""    1      # Restore Load at Figarden 2    "
57      0
58      #
58      #
58      # (215)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
58      #
58      " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
58      " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
58      " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
58      " 1  30880 30881  ""1 ""    1      # Henrietta flip flop (Henrietta CB 222)    "
58      0
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59      #
59      #
59      # (216)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
59      #
59      " 1  30830 30835  ""1 ""    0     # line from  KEARNEY  230.00  BRKR to BRKR  HERNDON  230.00"
59      0
60      #
60      #
60      # (217)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
60      #
60      " 1  30835 30840  ""1 ""    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00"
60      " 1  30840 30841  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00"
60      " 1  30840 30850  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00"
60      " 4  30841     0  ""1 ""    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.032906(3.926368)"
60      " 1 30841  30846  ""1 ""    1      # Switches in Figarden Switch 286 to transfer load    "
60      " 4 30841      0  ""**""    1      # Restore Load at Figarden 1    "
60      0
61      #
61      #
61      # (218)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
61      #
61      " 1  30855 30860  ""1 ""    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00"
61      " 2  30855 34610  ""1 ""    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80"
61      " 1  30860 30875  ""1 ""    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00"
61      " 2  30860 34614  ""1 ""    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80"
61      " 3  34610     0  ""1 ""    0     # GEN-DROP    HAAS      13.80  GEN==70.00(14.25)"
61      " 3  34610     0  ""2 ""    0     # GEN-DROP    HAAS      13.80  GEN==70.00(14.25)"
61      " 3  34614     0  ""1 ""    0     # GEN-DROP    BLCH 2-3  13.80  GEN==50.00(10.61)"
61      0
62      #
62      #
62      # (219)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
62      #
62      " 1  30865 30870  ""1 ""    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00"
62      " 2  30865 34612  ""1 ""    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80"
62      " 1  30870 30875  ""1 ""    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00"
62      " 2  30870 38720  ""1 ""    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80"
62      " 3  34612     0  ""1 ""    0     # GEN-DROP    BLCH 2-2  13.80  GEN==50.00(9.68)"
62      " 3  38720     0  ""1 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(15.74)"
62      " 3  38720     0  ""2 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(15.74)"
62      " 3  38720     0  ""3 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(15.74)"
62      0
63      #
63      #
63      # (220)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
63      #
63      " 1  30873 30875  ""1 ""    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00"
63      0
64      #
64      #
64      # (221)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
64      #
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64      " 1  30875 30880  ""1 ""    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00"
64      " 1  30880 30900  ""1 ""    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00"
64      0
65       #
65       #
65       # (222)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
65       #
65      " 1  30900 30905  ""1 ""    0     # line from  GATES    230.00  BRKR to BRKR  TEMPLETN 230.00"
65      0
66       #
66       #
66       # (223)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
66       #
66      " 1  30900 30915  ""1 ""    0     # line from  GATES    230.00  BRKR to BRKR  MORROBAY 230.00"
66      0
67       #
67       #
67       # (224)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
67       #
67      " 1  30900 30935  ""1 ""    0     # line from  GATES    230.00  BRKR to BRKR  ARCO     230.00"
67      0
68       #
68       #
68       # (225)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
68       #
68      " 1  30905 30915  ""1 ""    0     # line from  TEMPLETN 230.00  BRKR to BRKR  MORROBAY 230.00"
68      0
69       #
69       #
69       # (226)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
69       #
69      " 1  30915 30925  ""1 ""    0     # line from  MORROBAY 230.00  BRKR to BRKR  DIABLOCN 230.00"
69      0
70       #
70       #
70       # (227)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
70       #
70      " 1  30915 30930  ""1 ""    0     # line from  MORROBAY 230.00  BRKR to BRKR  MESA PGE 230.00"
70      0
71       #
71       #
71       # (228)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
71       #
71      " 1  30915 30970  ""1 ""    0     # line from  MORROBAY 230.00  BRKR to BRKR  MIDWAY   230.00"
71      0
72       #
72       #
72       # (229)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
72       #
72      " 1  30915 30970  ""2 ""    0     # line from  MORROBAY 230.00  BRKR to BRKR  MIDWAY   230.00"
72      0
73       #
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73      #
73      # (230)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
73      #
73      " 1  30925 30930  ""1 ""    0     # line from  DIABLOCN 230.00  BRKR to BRKR  MESA PGE 230.00"
73      0
74      #
74      #
74      # (231)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
74      #
74      " 1  30935 30970  ""1 ""    0     # line from  ARCO     230.00  BRKR to BRKR  MIDWAY   230.00"
74      0
75      #
75      #
75      # (232)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
75      #
75      " 1  30940 30942  ""1 ""    0     # line from  STCKDLEA 230.00  BRKR to (4)   STCKDLJ1 230.00"
75      " 1  30942 30945  ""1 ""    0     # line from  STCKDLJ1 230.00   (4) to BRKR  KERN PP  230.00"
75      " 1  30942 30950  ""1 ""    0     # line from  STCKDLJ1 230.00   (4) to (1)   BKRSFLDA 230.00"
75      " 1  30942 30970  ""1 ""    0     # line from  STCKDLJ1 230.00   (4) to BRKR  MIDWAY   230.00"
75      " 4  30940 30941  ""6 ""    1     # LOAD-TRANSFER  STCKDLEA 230.00  TO  STCKDLEB 230.00    LOAD==46.037743(7.782275)"
75      " 4  30940 30941  ""2 ""    1     # LOAD-TRANSFER  STCKDLEA 230.00  TO  STCKDLEB 230.00    LOAD==69.065475(9.83864)"
75      " 4  30950 30951  ""2 ""    1     # LOAD-TRANSFER  BKRSFLDA 230.00  TO  BKRSFLDB 230.00    LOAD==59.138203(0)"
75      " 1 30940  30941  ""1 ""    1      # Switches in Stockdale SW 266 to transfer load    "
75      " 4 30940      0  ""**""    1      # Restore Load at Stockdale 1    "
75      " 1 30950  30951  ""1 ""    1      # Switches in Bakersfield SW 256 to transfer load    "
75      " 4 30950      0  ""**""    1      # Restore Load at Bakersfield 1    "
75      0
76      #
76      #
76      # (233)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
76      #
76      " 1  30941 30943  ""1 ""    0     # line from  STCKDLEB 230.00   (1) to (3)   STCKDLJ2 230.00"
76      " 1  30943 30945  ""1 ""    0     # line from  STCKDLJ2 230.00   (3) to BRKR  KERN PP  230.00"
76      " 1  30943 30970  ""1 ""    0     # line from  STCKDLJ2 230.00   (3) to BRKR  MIDWAY   230.00"
76      " 4  30941 30940  ""3 ""    1     # LOAD-TRANSFER  STCKDLEB 230.00  TO  STCKDLEA 230.00    LOAD==54.883652(9.280231)"
76      " 1 30940  30941  ""1 ""    1      # Switches in Stockdale SW 266 to transfer load    "
76      " 4 30941      0  ""**""    1      # Restore Load at Stockdale  2    "
76      0
77      #
77      #
77      # (234)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
77      #
77      " 1  30945 30944  ""1 ""    0     # line from  KERN PP  230.00  BRKR to (3)   BKRSFDJ2 230.00"
77      " 1  30944 30951  ""1 ""    0     # line from  BKRSFDJ2 230.00   (3) to (1)   BKRSFLDB 230.00"
77      " 1  30944 30970  ""1 ""    0     # line from  BKRSFDJ2 230.00   (3) to BRKR  MIDWAY   230.00"
77      " 4  30951 30950  ""3 ""    1     # LOAD-TRANSFER  BKRSFLDB 230.00  TO  BKRSFLDA 230.00    LOAD==55.991608(13.277731)"
77      " 1 30950  30951  ""1 ""    1      # Switches in Bakersfield SW 256 to transfer load    "
77      " 4 30951      0  ""**""    1      # Restore Load at Bakersfield 2    "
77      0
78      #
78      #
78      # (235)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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78      #
78      " 1  30970 30973  ""1 ""    0     # line from  MIDWAY   230.00  BRKR to (2)   SUNST    230.00"
78      " 2  30973 35004  ""1 ""    0     # TRAN from  SUNST    230.00   (2) to (1)   SUNSET G  13.80"
78      " 4  30973     0  ""1 ""    0     # LOAD-DROP    SUNST    230.00  LOAD==11.5(4.17)"
78      " 3  35004     0  ""1 ""    0     # GEN-DROP    SUNSET G  13.80  GEN==75.00(12.47)"
78      " 3  35004     0  ""2 ""    0     # GEN-DROP    SUNSET G  13.80  GEN==75.00(12.47)"
78      " 3  35004     0  ""3 ""    0     # GEN-DROP    SUNSET G  13.80  GEN==75.00(12.47)"
78      0
79      #
79      #
79      # (236)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
79      #
79      " 1  33900 33902  ""1 ""    0     # line from  DONNELLS 115.00   (2) to (3)   BRDSLY J 115.00"
79      " 2  33900 34058  ""1 ""    0     # TRAN from  DONNELLS 115.00   (2) to (1)   DONNELLS  13.80"
79      " 1  33902 33904  ""1 ""    0     # line from  BRDSLY J 115.00   (3) to (2)   BEARDSLY 115.00"
79      " 1  33902 33912  ""1 ""    0     # line from  BRDSLY J 115.00   (3) to (3)   SPRNG GJ 115.00"
79      " 2  33904 34074  ""1 ""    0     # TRAN from  BEARDSLY 115.00   (2) to (1)   BEARDSLY   6.90"
79      " 1  33912 33910  ""1 ""    0     # line from  SPRNG GJ 115.00   (3) to (3)   SNDBR JT 115.00"
79      " 1  33912 33914  ""1 ""    0     # line from  SPRNG GJ 115.00   (3) to (2)   MI-WUK   115.00"
79      " 1  33910 33906  ""1 ""    0     # line from  SNDBR JT 115.00   (3) to BRKR  SPRNG GP 115.00"
79      " 1  33910 33908  ""1 ""    0     # line from  SNDBR JT 115.00   (3) to (2)   SANDBAR  115.00"
79      " 2  33908 34060  ""1 ""    0     # TRAN from  SANDBAR  115.00   (2) to (1)   SANDBAR   13.80"
79      " 1  33914 33917  ""1 ""    0     # line from  MI-WUK   115.00   (2) to (2)   FBERBORD 115.00"
79      " 1  33917 33916  ""1 ""    0     # line from  FBERBORD 115.00   (2) to BRKR  CURTISS  115.00"
79      " 4  33914     0  ""1 ""    0     # LOAD-DROP    MI-WUK   115.00  LOAD==7.13686(1.018568)"
79      " 3  34058     0  ""1 ""    0     # GEN-DROP    DONNELLS  13.80  GEN==64.15(9.56)"
79      " 3  34074     0  ""1 ""    0     # GEN-DROP    BEARDSLY   6.90  GEN==10.58(0.40)"
79      " 3  34060     0  ""1 ""    0     # GEN-DROP    SANDBAR   13.80  GEN==14.68(0.69)"
79      " 3  33917     0  ""1 ""    0     # GEN-DROP    FBERBORD 115.00  GEN==3.20(-2.20)"
79      0
80      #
80      #
80      # (237)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
80      #
80      " 1  33932 33500  ""1 ""    0     # line from  MELONES  115.00  BRKR to (3)   MELNS JA 115.00"
80      " 1  33500 33509  ""1 ""    0     # line from  MELNS JA 115.00   (3) to (3)   AVENATP1 115.00"
80      " 1  33500 33501  ""1 ""    0     # line from  MELNS JA 115.00   (3) to (3)   FRGTNTP1 115.00"
80      " 1  33509 33514  ""1 ""    0     # line from  AVENATP1 115.00   (3) to BRKR  MANTECA  115.00"
80      " 1  33509 33510  ""1 ""    0     # line from  AVENATP1 115.00   (3) to (1)   AVENA    115.00"
80      " 1  33501 33502  ""1 ""    0     # line from  FRGTNTP1 115.00   (3) to (1)   FROGTOWN 115.00"
80      " 1  33501 33506  ""1 ""    0     # line from  FRGTNTP1 115.00   (3) to BRKR  STANISLS 115.00"
80      " 4  33510     0  ""1 ""    0     # LOAD-DROP    AVENA    115.00  LOAD==10.705832(0)"
80      " 4  33502     0  ""2 ""    0     # LOAD-DROP    FROGTOWN 115.00  LOAD==10.495381(2.389634)"
80      " 4  33502     0  ""1 ""    0     # LOAD-DROP    FROGTOWN 115.00  LOAD==6.04876(1.378113)"
80      0
81      #
81      #
81      # (238)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
81      #
81      " 1  33932 33922  ""1 ""    0     # line from  MELONES  115.00  BRKR to (1)   R.TRACK  115.00"
81      " 4  33922     0  ""1 ""    0     # LOAD-DROP    R.TRACK  115.00  LOAD==11.121665(2.20231)"
81      " 1  33922 33920  ""1 ""    1     # Switch in Racetrack - Racetrack Jct 115 kV    "
```

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81      " 4  33922 0      ""1 ""    1     # Restore load at Racetrack    "
81      0
82       #
82       #
82       # (239)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
82       #
82      " 1  33932 33934  ""1 ""    0     # line from  MELONES  115.00  BRKR to (3)   TULLOCH  115.00"
82      " 1  33934 33950  ""1 ""    0     # line from  TULLOCH  115.00   (3) to (3)   RVRBK TP 115.00"
82      " 2  33934 34076  ""1 ""    0     # TRAN from  TULLOCH  115.00   (3) to (1)   TULLOCH    6.90"
82      " 1  33950 33562  ""1 ""    0     # line from  RVRBK TP 115.00   (3) to BRKR  BELLOTA  115.00"
82      " 1  33950 33944  ""1 ""    0     # line from  RVRBK TP 115.00   (3) to BRKR  RVRBANK  115.00"
82      " 3  34076     0  ""1 ""    0     # GEN-DROP    TULLOCH    6.90  GEN==8.25(0.58)"
82      " 3  34076     0  ""2 ""    0     # GEN-DROP    TULLOCH    6.90  GEN==8.25(0.58)"
82      0
83       #
83       #
83       # (240)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
83       #
83      " 1  33946 33944  ""1 ""    0     # line from  RVRBK J1 115.00   (2) to BRKR  RVRBANK  115.00"
83      " 1  33946 33562  ""1 ""    0     # line from  RVRBK J1 115.00   (2) to BRKR  BELLOTA  115.00"
83      0
84       #
84       #
84       # (241)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
84       #
84      " 1  33965 33964  ""1 ""    0     # line from  SALADO J 115.00   (2) to BRKR  SALADO   115.00"
84      " 1  33965 33970  ""1 ""    0     # line from  SALADO J 115.00   (2) to (3)   INGRM C. 115.00"
84      " 1  33970 33959  ""1 ""    0     # line from  INGRM C. 115.00   (3) to (2)   TCHRT_T2 115.00"
84      " 1  33970 33514  ""1 ""    0     # line from  INGRM C. 115.00   (3) to BRKR  MANTECA  115.00"
84      " 1  33959 33540  ""1 ""    0     # line from  TCHRT_T2 115.00   (2) to BRKR  TESLA    115.00"
84      " 4  33970     0  ""1 ""    0     # LOAD-DROP    INGRM C. 115.00  LOAD==4.003(1.82382)"
84      0
85       #
85       #
85       # (242)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
85       #
85      " 1  34002 34004  ""1 ""    0     # line from  SALADO    60.00  BRKR to (2)   PTRSNFRZ  60.00"
85      " 1  34004 34006  ""1 ""    0     # line from  PTRSNFRZ  60.00   (2) to BRKR  PATTERSN  60.00"
85      " 4  34004     0  ""1 ""    0     # LOAD-DROP    PTRSNFRZ  60.00  LOAD==10.8(8.381714)"
85      0
86       #
86       #
86       # (243)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
86       #
86      " 1  34002 34008  ""1 ""    0     # line from  SALADO    60.00  BRKR to (3)   STNSLSRP  60.00"
86      " 1  34008 34016  ""1 ""    0     # line from  STNSLSRP  60.00   (3) to (2)   MEDLIN J  60.00"
86      " 2  34008 34056  ""1 ""    0     # TRAN from  STNSLSRP  60.00   (3) to (1)   STNSLSRP  13.80"
86      " 1  34016 34018  ""1 ""    0     # line from  MEDLIN J  60.00   (2) to (3)   NWMN JCT  60.00"
86      " 1  34018 34014  ""1 ""    0     # line from  NWMN JCT  60.00   (3) to BRKR  NEWMAN    60.00"
86      " 1  34018 34020  ""1 ""    0     # line from  NWMN JCT  60.00   (3) to (1)   GUSTINE   60.00"
86      " 4  34020     0  ""2 ""    0     # LOAD-DROP    GUSTINE   60.00  LOAD==5.980647(0)"
86      " 4  34020     0  ""1 ""    0     # LOAD-DROP    GUSTINE   60.00  LOAD==6.813396(0.922217)"
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86      " 3  34056     0  ""1 ""    0     # GEN-DROP    STNSLSRP  13.80  GEN==16.27(11.75)"
86      " 1  34012 34020  ""1 ""    1     # Switch in Gustine J - Gustine 60 kV    "
86      " 4  34020 0      ""1 ""    1     # Restore load at Gustine BK 1    "
86      " 4  34020 0      ""2 ""    1     # Restore load at Gustine BK 2    "
86      0
87       #
87       #
87       # (244)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
87       #
87      " 1  34006 34010  ""1 ""    0     # line from  PATTERSN  60.00  BRKR to (3)   CRWS LDJ  60.00"
87      " 1  34010 34012  ""1 ""    0     # line from  CRWS LDJ  60.00   (3) to (2)   GUSTN JT  60.00"
87      " 1  34010 34017  ""1 ""    0     # line from  CRWS LDJ  60.00   (3) to (1)   CRWS LDG  60.00"
87      " 1  34012 34014  ""1 ""    0     # line from  GUSTN JT  60.00   (2) to BRKR  NEWMAN    60.00"
87      " 4  34017     0  ""1 ""    0     # LOAD-DROP    CRWS LDG  60.00  LOAD==3.72328(0.289053)"
87      " 1  34016 34017  ""1 ""    1     # Switch in Medlin Jct - CrowsLanding line    "
87      " 4  34017     0  ""**""    1     # Restore CrowsLanding load.    "
87      0
88       #
88       #
88       # (245)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
88       #
88      " 1  34104 34106  ""1 ""    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00"
88      " 1  34106 34138  ""1 ""    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00"
88      0
89       #
89       #
89       # (246)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
89       #
89      " 1  34104 34108  ""1 ""    0     # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00"
89      " 1  34108 34110  ""1 ""    0     # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00"
89      " 1  34108 34114  ""1 ""    0     # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00"
89      " 1  34114 34124  ""1 ""    0     # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00"
89      " 2  34114 34332  ""1 ""    0     # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11"
89      " 1  34124 34140  ""1 ""    0     # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00"
89      " 4  34124     0  ""1 ""    0     # LOAD-DROP    JR WOOD  115.00  LOAD==13.77(12.143999)"
89      " 4  34140     0  ""1 ""    0     # LOAD-DROP    CRESSEY  115.00  LOAD==20.878357(3.209895)"
89      " 3  34332     0  ""1 ""    0     # GEN-DROP    JRWCOGEN   9.11  GEN==3.77(5.30)"
89      0
90       #
90       #
90       # (247)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
90       #
90      " 1  34105 34100  ""1 ""    0     # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00"
90      " 1  34105 34121  ""1 ""    0     # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00"
90      " 1  34121 34120  ""1 ""    0     # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00"
90      " 1  34121 34128  ""1 ""    0     # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00"
90      " 1  34128 34126  ""1 ""    0     # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00"
90      " 1  34128 34356  ""1 ""    0     # line from  OAKH_JCT 115.00   (3) to BRKR  KERCKHF1 115.00"
90      " 1  34126 34122  ""1 ""    0     # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00"
90      " 4  34120     0  ""1 ""    0     # LOAD-DROP    SHARON   115.00  LOAD==7.114(4.780637)"
90      " 4  34126     0  ""2 ""    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==6.840914(0)"
90      " 4  34126     0  ""1 ""    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==11.229954(2.339574)"
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90      " 4  34122     0  ""2 ""    0     # LOAD-DROP    OAKHURST 115.00  LOAD==9.302146(-1.572194)"
90      " 4  34122     0  ""1 ""    0     # LOAD-DROP    OAKHURST 115.00  LOAD==13.363646(5.446528)"
90      0
91       #
91       #
91       # (248)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
91       #
91      " 1  34108 34110  ""1 ""    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00"
91      " 1  34110 34130  ""1 ""    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00"
91      " 1  34110 34144  ""1 ""    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00"
91      " 1  34130 34132  ""1 ""    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00"
91      " 4  34130     0  ""3 ""    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==22.188517(5.465244)"
91      " 4  34132     0  ""1 ""    0     # LOAD-DROP    GALLO    115.00  LOAD==5.767(5.558539)"
91      0
92       #
92       #
92       # (249)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
92       #
92      " 1  34112 34116  ""1 ""    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00"
92      0
93       #
93       #
93       # (250)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
93       #
93      " 1  34116 34136  ""1 ""    0     # line from  LE GRAND 115.00  BRKR to BRKR  WILSON B 115.00"
93      0
94       #
94       #
94       # (251)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
94       #
94      " 1  34116 34154  ""1 ""    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00"
94      0
95       #
95       #
95       # (252)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
95       #
95      " 1  34118 34136  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00"
95      " 1  34118 34168  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00"
95      " 1  34168 34162  ""1 ""    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00"
95      " 4  34168     0  ""2 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==10.733965(-3.490644)"
95      " 4  34168     0  ""1 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.037437(0)"
95      0
96       #
96       #
96       # (253)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
96       #
96      " 1  34134 34144  ""1 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00"
96      0
97       #
97       #
97       # (254)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
97       #
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97      " 1  34134 34144  ""2 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00"
97      0
98       #
98       #
98       # (255)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
98       #
98      " 1  34136 34138  ""1 ""    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00"
98      0
99       #
99       #
99       # (256)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
99       #
99      " 1  34150 34154  ""1 ""    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00"
99      " 1  34150 34178  ""1 ""    0     # line from  NEWHALL  115.00   (2) to (2)   CAPCOTAP 115.00"
99      " 1  34178 34156  ""1 ""    0     # line from  CAPCOTAP 115.00   (2) to BRKR  MENDOTA  115.00"
99      " 4  34150     0  ""3 ""    0     # LOAD-DROP    NEWHALL  115.00  LOAD==8.132358(1.609627)"
99      " 4  34150     0  ""2 ""    0     # LOAD-DROP    NEWHALL  115.00  LOAD==5.998667(1.478611)"
99      0
100      #
100      #
100      # (257)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
100      #
100     " 1  34157 34156  ""1 ""    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00"
100     " 1  34157 34158  ""1 ""    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00"
100     0
101      #
101      #
101      # (258)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
101      #
101     " 1  34158 34350  ""1 ""    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00"
101     " 1  34350 34352  ""1 ""    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00"
101     " 1  34352 34432  ""1 ""    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00"
101     " 1  34432 34354  ""1 ""    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00"
101     " 4  34350     0  ""1 ""    0     # LOAD-DROP    KAMM     115.00  LOAD==3.763(1.714473)"
101     " 4  34352     0  ""1 ""    0     # LOAD-DROP    CANTUA   115.00  LOAD==15.631215(2.441217)"
101     " 4  34432     0  ""18""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.323847)"
101     " 4  34432     0  ""16""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.227245)"
101     0
102      #
102      #
102      # (259)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
102      #
102     " 1  34200 34218  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (2)   DOS PALS  70.00"
102     " 1  34218 34216  ""1 ""    0     # line from  DOS PALS  70.00   (2) to BRKR  SNTA RTA  70.00"
102     " 4  34218     0  ""1 ""    0     # LOAD-DROP    DOS PALS  70.00  LOAD==8.881021(0.561498)"
102     0
103      #
103      #
103      # (260)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
103      #
103     " 1  34200 34222  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00"
103     " 1  34222 34220  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00"
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103     " 1  34222 34224  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00"
103     " 1  34220 34206  ""1 ""    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00"
103     " 1  34224 34272  ""1 ""    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00"
103     " 1  34272 34214  ""1 ""    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00"
103     " 4  34220     0  ""1 ""    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.250004(0.467915)"
103     " 4  34224     0  ""1 ""    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.512(1.70094)"
103     " 4  34272     0  ""1 ""    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.387707(1.141712)"
103     0
104      #
104      #
104      # (261)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
104      #
104     " 1  34200 34234  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (2)   POSO J1   70.00"
104     " 1  34234 34266  ""1 ""    0     # line from  POSO J1   70.00   (2) to (2)   FIREBAGH  70.00"
104     " 1  34266 34267  ""1 ""    0     # line from  FIREBAGH  70.00   (2) to (2)   TOMATAK   70.00"
104     " 1  34267 34268  ""1 ""    0     # line from  TOMATAK   70.00   (2) to BRKR  MENDOTA   70.00"
104     " 4  34266     0  ""1 ""    0     # LOAD-DROP    FIREBAGH  70.00  LOAD==10.144391(2.311499)"
104     " 4  34267     0  ""1 ""    0     # LOAD-DROP    TOMATAK   70.00  LOAD==6.601(5.122934)"
104     0
105      #
105      #
105      # (262)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
105      #
105     " 1  34202 34230  ""1 ""    0     # line from  MERCED    70.00  BRKR to BRKR  MRCDFLLS  70.00"
105     0
106      #
106      #
106      # (263)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
106      #
106     " 1  34202 34236  ""1 ""    0     # line from  MERCED    70.00  BRKR to (1)   POSO J2   70.00"
106     0
107      #
107      #
107      # (264)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
107      #
107     " 1  34204 34212  ""1 ""    0     # line from  LIVNGSTN  70.00   (1) to (3)   LVNGSTNT  70.00"
107     " 1  34212 34206  ""1 ""    0     # line from  LVNGSTNT  70.00   (3) to BRKR  CANAL     70.00"
107     " 1  34212 34210  ""1 ""    0     # line from  LVNGSTNT  70.00   (3) to (2)   SNTA NLA  70.00"
107     " 1  34210 34208  ""1 ""    0     # line from  SNTA NLA  70.00   (2) to (2)   CHEVPIPE  70.00"
107     " 1  34208 34214  ""1 ""    0     # line from  CHEVPIPE  70.00   (2) to BRKR  LOS BANS  70.00"
107     " 4  34210     0  ""1 ""    0     # LOAD-DROP    SNTA NLA  70.00  LOAD==12.090919(0)"
107     " 4  34208     0  ""1 ""    0     # LOAD-DROP    CHEVPIPE  70.00  LOAD==1.365(0.917286)"
107     0
108      #
108      #
108      # (265)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
108      #
108     " 1  34206 34216  ""1 ""    0     # line from  CANAL     70.00  BRKR to BRKR  SNTA RTA  70.00"
108     0
109      #
109      #
109      # (266)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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109     #
109     " 1  34214 34278  ""1 ""    0     # line from  LOS BANS  70.00  BRKR to (2)   PCHCO PP  70.00"
109     " 1  34278 34280  ""1 ""    0     # line from  PCHCO PP  70.00   (2) to (2)   INTL TUR  70.00"
109     " 2  34280 34342  ""1 ""    0     # TRAN from  INTL TUR  70.00   (2) to (1)   INT.TURB   9.11"
109     " 4  34278     0  ""1 ""    0     # LOAD-DROP    PCHCO PP  70.00  LOAD==18(4.1)"
109     " 3  34342     0  ""1 ""    0     # GEN-DROP    INT.TURB   9.11  GEN==1.08(0.00)"
109     0
110     #
110     #
110     # (267)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
110     #
110     " 1  34214 34282  ""1 ""    0     # line from  LOS BANS  70.00  BRKR to (2)   ONLL PMP  70.00"
110     " 2  34282 34316  ""1 ""    0     # TRAN from  ONLL PMP  70.00   (2) to (1)   ONEILPMP   9.11"
110     " 4  34282     0  ""1 ""    0     # LOAD-DROP    ONLL PMP  70.00  LOAD==4(0.8)"
110     " 3  34316     0  ""1 ""    0     # GEN-DROP    ONEILPMP   9.11  GEN==0.52(0.00)"
110     0
111     #
111     #
111     # (268)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
111     #
111     " 1  34228 34232  ""1 ""    0     # line from  MARIPOS2  70.00   (1) to BRKR  EXCHEQUR  70.00"
111     " 4  34228     0  ""2 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==9.648404(4.342248)"
111     " 4  34228     0  ""1 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==7.374337(0.739305)"
111     " 1  34228 34244  ""1 ""    1     # Switch in Mariposa - Briceburg Jct     "
111     " 4  34228     0  ""**""    1     # Restore Mariposa load    "
111     0
112     #
112     #
112     # (269)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
112     #
112     " 1  34232 34242  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (2)   BER VLLY  70.00"
112     " 1  34242 34244  ""1 ""    0     # line from  BER VLLY  70.00   (2) to (2)   BRCEBG J  70.00"
112     " 1  34244 34246  ""1 ""    0     # line from  BRCEBG J  70.00   (2) to (3)   SAXONCRK  70.00"
112     " 1  34246 34248  ""1 ""    0     # line from  SAXONCRK  70.00   (3) to (2)   INDN FLT  70.00"
112     " 2  34246 34346  ""1 ""    0     # TRAN from  SAXONCRK  70.00   (3) to (1)   SAXNCK L   4.16"
112     " 1  34248 34250  ""1 ""    0     # line from  INDN FLT  70.00   (2) to (1)   YOSEMITE  70.00"
112     " 4  34242     0  ""1 ""    0     # LOAD-DROP    BER VLLY  70.00  LOAD==6.288774(0)"
112     " 4  34246     0  ""1 ""    0     # LOAD-DROP    SAXONCRK  70.00  LOAD==1.5(0.3)"
112     " 4  34248     0  ""1 ""    0     # LOAD-DROP    INDN FLT  70.00  LOAD==2.52674(0.411765)"
112     " 4  34250     0  ""1 ""    0     # LOAD-DROP    YOSEMITE  70.00  LOAD==2.988(0)"
112     0
113     #
113     #
113     # (270)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
113     #
113     " 1  34252 34256  ""1 ""    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00"
113     0
114     #
114     #
114     # (271)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
114     #
114     " 1  34252 34256  ""2 ""    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00"
```

```
114     0
115      #
115      #
115      # (272)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
115      #
115     " 1  34254 34264  ""1 ""    0     # line from  TRIGO     70.00   (2) to (2)   EL PECO   70.00"
115     " 1  34254 34255  ""1 ""    0     # line from  TRIGO     70.00   (2) to (3)   TRIGO J   70.00"
115     " 1  34264 34466  ""1 ""    0     # line from  EL PECO   70.00   (2) to BRKR  BIOLA     70.00"
115     " 1  34255 34237  ""1 ""    0     # line from  TRIGO J   70.00   (3) to (2)   CANANDGA  70.00"
115     " 1  34255 34238  ""1 ""    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00"
115     " 1  34237 34240  ""1 ""    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00"
115     " 4  34264     0  ""1 ""    0     # LOAD-DROP    EL PECO   70.00  LOAD==8.272733(0)"
115     " 4  34237     0  ""1 ""    0     # LOAD-DROP    CANANDGA  70.00  LOAD==6.741(5.05575)"
115     " 4  34238     0  ""1 ""    0     # LOAD-DROP    BONITA    70.00  LOAD==13.148404(1.31952)"
115     0
116      #
116      #
116      # (273)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
116      #
116     " 1  34256 34262  ""1 ""    0     # line from  BORDEN    70.00  BRKR to (2)   CASSIDY   70.00"
116     " 1  34262 34454  ""1 ""    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00"
116     " 1  34454 34464  ""1 ""    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00"
116     " 4  34262     0  ""1 ""    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.602948(0.82353)"
116     " 4  34454     0  ""1 ""    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.207(2.006005)"
116     0
117      #
117      #
117      # (274)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
117      #
117     " 1  34321 34230  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00"
117     " 1  34321 34232  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00"
117     " 1  34321 34226  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00"
117     " 2  34226 34320  ""1 ""    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11"
117     " 3  34320     0  ""1 ""    0     # GEN-DROP    MCSWAIN    9.11  GEN==6.80(-1.00)"
117     0
118      #
118      #
118      # (275)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
118      #
118     " 1  34356 34358  ""1 ""    0     # line from  KERCKHF1 115.00  BRKR to BRKR  KERCKHF2 115.00"
118     0
119      #
119      #
119      # (276)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
119      #
119     " 1  34358 34360  ""1 ""    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00"
119     " 1  34360 34414  ""1 ""    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00"
119     " 1  34360 34363  ""1 ""    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00"
119     " 1  34363 34362  ""1 ""    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00"
119     " 1  34363 34366  ""1 ""    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00"
119     " 4  34362     0  ""2 ""    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==41.936951(2.654708)"
119     " 4  34362     0  ""1 ""    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==42.790913(14.953615)"
```

```
119     " 1 34365  34364  ""1 ""    1      # Switches in Clovis Switch 387 to transfer load     "
119     " 4 34362      0  ""**""    1      # Restore Load at Clovis 1    "
119     0
120      #
120      #
120      # (277)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
120      #
120     " 1  34364 34365  ""1 ""    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00"
120     " 1  34365 34358  ""1 ""    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00"
120     " 1  34365 34366  ""1 ""    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00"
120     " 4  34364     0  ""3 ""    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==52.592907(6.692462)"
120     " 1 34365  34364  ""1 ""    1      # Switches in Clovis Switch 387 to transfer load     "
120     " 4 34364      0  ""**""    1      # Restore Load at Clovis 2    "
120     0
121      #
121      #
121      # (278)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
121      #
121     " 1  34366 34368  ""1 ""    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00"
121     " 1  34368 34410  ""1 ""    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00"
121     " 4  34368     0  ""1 ""    0     # LOAD-DROP    LASPALMS 115.00  LOAD==12.63(10.800695)"
121     0
122      #
122      #
122      # (279)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
122      #
122     " 1  34366 34370  ""1 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
122     0
123      #
123      #
123      # (280)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
123      #
123     " 1  34366 34370  ""2 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
123     0
124      #
124      #
124      # (281)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
124      #
124     " 1  34366 34370  ""3 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
124     0
125      #
125      #
125      # (282)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
125      #
125     " 1  34366 34372  ""1 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MALAGA   115.00"
125     0
126      #
126      #
126      # (283)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
126      #
126     " 1  34366 34396  ""1 ""    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00"
126     " 1  34396 34398  ""1 ""    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00"
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126     " 2  34398 34624  ""1 ""    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20"
126     " 4  34624     0  ""1 ""    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.371288(0)"
126     " 3  34624     0  ""1 ""    0     # GEN-DROP    BALCH 1   13.20  GEN==27.00(-7.38)"
126     0
127      #
127      #
127      # (284)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
127      #
127     " 1  34366 34408  ""1 ""    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00"
127     0
128      #
128      #
128      # (285)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
128      #
128     " 1  34370 34382  ""1 ""    0     # line from  MC CALL  115.00  BRKR to BRKR  WAHTOKE  115.00"
128     0
129      #
129      #
129      # (286)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
129      #
129     " 1  34370 34404  ""2 ""    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00"
129     0
130      #
130      #
130      # (287)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
130      #
130     " 1  34370 34406  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (3)   W FRES J 115.00"
130     " 1  34406 34390  ""1 ""    0     # line from  W FRES J 115.00   (3) to (2)   DANISHCM 115.00"
130     " 1  34406 34404  ""1 ""    0     # line from  W FRES J 115.00   (3) to BRKR  WST FRSO 115.00"
130     " 1  34390 34402  ""1 ""    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00"
130     " 4  34390     0  ""1 ""    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.93(3.360786)"
130     " 4  34402     0  ""3 ""    0     # LOAD-DROP    CAL AVE  115.00  LOAD==34.019241(7.425755)"
130     0
131      #
131      #
131      # (288)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
131      #
131     " 1  34370 34423  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00"
131     " 1  34423 34418  ""1 ""    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00"
131     " 1  34423 34424  ""1 ""    0     # line from  GAURD J1 115.00   (3) to (1)   GRDN GLS 115.00"
131     " 4  34424     0  ""1 ""    0     # LOAD-DROP    GRDN GLS 115.00  LOAD==7.254(2.384275)"
131     0
132      #
132      #
132      # (289)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
132      #
132     " 1  34372 34376  ""1 ""    0     # line from  MALAGA   115.00  BRKR to (1)   PPG      115.00"
132     " 4  34376     0  ""1 ""    0     # LOAD-DROP    PPG      115.00  LOAD==5.224(3.237544)"
132     0
133      #
133      #
133      # (290)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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133     #
133     " 1  34380 34384  ""1 ""    0     # line from  REEDLEY  115.00  BRKR to (2)   GERAWAN  115.00"
133     " 1  34384 34382  ""1 ""    0     # line from  GERAWAN  115.00   (2) to BRKR  WAHTOKE  115.00"
133     0
134     #
134     #
134     # (291)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
134     #
134     " 1  34408 34412  ""1 ""    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00"
134     0
135     #
135     #
135     # (292)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
135     #
135     " 1  34410 34412  ""1 ""    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00"
135     0
136     #
136     #
136     # (293)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
136     #
136     " 1  34412 34422  ""1 ""    0     # line from  HERNDON  115.00  BRKR to (2)   CHLDHOSP 115.00"
136     " 1  34422 34414  ""1 ""    0     # line from  CHLDHOSP 115.00   (2) to BRKR  WOODWARD 115.00"
136     " 4  34422     0  ""1 ""    0     # LOAD-DROP    CHLDHOSP 115.00  LOAD==3.864(1.76049)"
136     0
137     #
137     #
137     # (294)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
137     #
137     " 1  34418 34420  ""1 ""    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00"
137     0
138     #
138     #
138     # (295)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
138     #
138     " 1  34418 34420  ""2 ""    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00"
138     0
139     #
139     #
139     # (296)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
139     #
139     " 1  34426 34700  ""1 ""    0     # line from  ALPAUGH  115.00  BRKR to BRKR  SMYRNA   115.00"
139     0
140     #
140     #
140     # (297)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
140     #
140     " 1  34456 34458  ""1 ""    0     # line from  HRDWK TP  70.00   (3) to (1)   HARDWICK  70.00"
140     " 1  34456 34522  ""1 ""    0     # line from  HRDWK TP  70.00   (3) to (1)   HNFRD SW  70.00"
140     " 1  34456 34576  ""1 ""    0     # line from  HRDWK TP  70.00   (3) to BRKR  KNGLOBUS  70.00"
140     " 4  34458     0  ""1 ""    0     # LOAD-DROP    HARDWICK  70.00  LOAD==8.20546(1.383047)"
140     0
141     #
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141     #
141     # (298)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
141     #
141    " 1  34460 34462  ""1 ""    0    # line from  GUERNSEY  70.00  BRKR to (3)   GUR3TPT   70.00"
141    " 1  34462 34542  ""1 ""    0    # line from  GUR3TPT   70.00   (3) to (2)   JCBSCRNR  70.00"
141    " 1  34462 34554  ""1 ""    0    # line from  GUR3TPT   70.00   (3) to (4)   AMSTG SW  70.00"
141    " 1  34542 34540  ""1 ""    0    # line from  JCBSCRNR  70.00   (2) to BRKR  HENRITTA  70.00"
141    " 1  34554 34532  ""1 ""    0    # line from  AMSTG SW  70.00   (4) to (1)   ARMSTRNG  70.00"
141    " 1  34554 34534  ""1 ""    0    # line from  AMSTG SW  70.00   (4) to (1)   RESERVE   70.00"
141    " 2  34554 34650  ""1 ""    0    # TRAN from  AMSTG SW  70.00   (4) to (1)   GWF-PWR.   9.11"
141    " 4  34460     0  ""1 ""    0    # LOAD-DROP    GUERNSEY  70.00  LOAD==14.823665(2.766094)"
141    " 4  34542     0  ""2 ""    0    # LOAD-DROP    JCBSCRNR  70.00  LOAD==9.987641(2.79394)"
141    " 4  34542     0  ""1 ""    0    # LOAD-DROP    JCBSCRNR  70.00  LOAD==5.049514(-2.209162)"
141    " 4  34532     0  ""1 ""    0    # LOAD-DROP    ARMSTRNG  70.00  LOAD==8.489(7.486595)"
141    " 4  34534     0  ""1 ""    0    # LOAD-DROP    RESERVE   70.00  LOAD==2.840351(0.250619)"
141    " 3  34650     0  ""1 ""    0    # GEN-DROP    GWF-PWR.   9.11  GEN==23.00(7.09)"
141    " 1  34528 34460  ""1 ""    1     # Close in line from Corcoran - Guernsey    "
141    " 4  34460     0  ""**""    1     # Restore load at Guernsey    "
141    0
142     #
142     #
142     # (299)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
142     #
142    " 1  34464 34478  ""1 ""    0    # line from  COPPRMNE  70.00  BRKR to (3)   TVY VLLY  70.00"
142    " 1  34478 34492  ""1 ""    0    # line from  TVY VLLY  70.00  BRKR to BRKR  REEDLEY   70.00"
142    " 2  34478 34638  ""1 ""    0    # TRAN from  TVY VLLY  70.00   (3) to (1)   KNG SIPH   9.11"
142    " 4  34478     0  ""1 ""    0    # LOAD-DROP    TVY VLLY  70.00  LOAD==5.680703(1.345918)"
142    " 3  34638     0  ""1 ""    0    # GEN-DROP    KNG SIPH   9.11  GEN==0.50(0.10)"
142    0
143     #
143     #
143     # (300)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
143     #
143    " 1  34466 34482  ""1 ""    0    # line from  BIOLA     70.00  BRKR to BRKR  OLDKERN   70.00"
143    0
144     #
144     #
144     # (301)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
144     #
144    " 1  34468 34482  ""1 ""    0    # line from  BOWLES    70.00   (1) to BRKR  OLDKERN   70.00"
144    " 4  34468     0  ""1 ""    0    # LOAD-DROP    BOWLES    70.00  LOAD==15.835423(2.255573)"
144    0
145     #
145     #
145     # (302)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
145     #
145    " 1  34474 34556  ""1 ""    0    # line from  HELM      70.00  BRKR to BRKR  STRD JCT  70.00"
145    0
146     #
146     #
146     # (303)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
146     #
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146     " 1  34474 34568  ""1 ""    0     # line from  HELM      70.00  BRKR to BRKR  VLY NTRN  70.00"
146     " 4  34568     0  ""1 ""    0     # LOAD-DROP    VLY NTRN  70.00  LOAD==0.948(0.760563)"
146     0
147      #
147      #
147      # (304)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
147      #
147     " 1  34478 34492  ""1 ""    0     # line from  TVY VLLY  70.00  BRKR to BRKR  REEDLEY   70.00"
147     0
148      #
148      #
148      # (305)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
148      #
148     " 1  34480 34482  ""1 ""    0     # line from  KEARNEY   70.00  BRKR to (3)   OLDKERN   70.00"
148     " 1  34482 34466  ""1 ""    0     # line from  OLDKERN   70.00  BRKR to BRKR  BIOLA     70.00"
148     " 1  34482 34468  ""1 ""    0     # line from  OLDKERN   70.00  BRKR to (1)   BOWLES    70.00"
148     " 4  34482     0  ""3 ""    0     # LOAD-DROP    OLDKERN   70.00  LOAD==12.698041(0.566214)"
148     " 4  34482     0  ""1 ""    0     # LOAD-DROP    OLDKERN   70.00  LOAD==12.892968(0.816833)"
148     " 4  34468     0  ""1 ""    0     # LOAD-DROP    BOWLES    70.00  LOAD==15.835423(2.255573)"
148     0
149      #
149      #
149      # (306)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
149      #
149     " 1  34480 34484  ""1 ""    0     # line from  KEARNEY   70.00  BRKR to BRKR  KERMAN    70.00"
149     0
150      #
150      #
150      # (307)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
150      #
150     " 1  34480 34512  ""1 ""    0     # line from  KEARNEY   70.00  BRKR to BRKR  CARUTHRS  70.00"
150     0
151      #
151      #
151      # (308)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
151      #
151     " 1  34486 34488  ""1 ""    0     # line from  CALIFRNV  70.00  BRKR to BRKR  SANGER    70.00"
151     0
152      #
152      #
152      # (309)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
152      #
152     " 1  34486 34488  ""2 ""    0     # line from  CALIFRNV  70.00  BRKR to BRKR  SANGER    70.00"
152     0
153      #
153      #
153      # (310)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
153      #
153     " 1  34492 34526  ""1 ""    0     # line from  REEDLEY   70.00  BRKR to (3)   ORSI JCT  70.00"
153     " 1  34526 34495  ""1 ""    0     # line from  ORSI JCT  70.00   (3) to (2)   SANDCRK   70.00"
153     " 1  34526 34502  ""1 ""    0     # line from  ORSI JCT  70.00   (3) to BRKR  OROSI     70.00"
153     " 1  34495 34494  ""1 ""    0     # line from  SANDCRK   70.00   (2) to (1)   DUNLAP    70.00"
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153    " 4  34495    0  ""1 ""   0    # LOAD-DROP    SANDCRK   70.00  LOAD==1.828592(0.417699)"
153    " 4  34494    0  ""1 ""   0    # LOAD-DROP    DUNLAP    70.00  LOAD==3.740724(0.853962)"
153    0
154     #
154     #
154     # (311)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
154     #
154    " 1  34496 34498  ""1 ""   0    # line from  STCRRL J  70.00   (3) to (1)   STONCRRL  70.00"
154    " 1  34496 34500  ""1 ""   0    # line from  STCRRL J  70.00   (3) to BRKR  DINUBA    70.00"
154    " 1  34496 34502  ""1 ""   0    # line from  STCRRL J  70.00   (3) to (2)   OROSI     70.00"
154    " 1  34502 34526  ""1 ""   0    # line from  OROSI     70.00  BRKR to (1)   ORSI JCT  70.00"
154    " 4  34498    0  ""3 ""   0    # LOAD-DROP    STONCRRL  70.00  LOAD==2.654708(0)"
154    " 4  34498    0  ""2 ""   0    # LOAD-DROP    STONCRRL  70.00  LOAD==2.821787(0)"
154    " 4  34502    0  ""2 ""   0    # LOAD-DROP    OROSI     70.00  LOAD==7.110161(1.624384)"
154    " 4  34502    0  ""1 ""   0    # LOAD-DROP    OROSI     70.00  LOAD==6.051991(1.383047)"
154    0
155     #
155     #
155     # (312)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
155     #
155    " 1  34508 34510  ""1 ""   0    # line from  CAMDEN    70.00   (2) to (2)   CMDN JCT  70.00"
155    " 1  34508 34576  ""1 ""   0    # line from  CAMDEN    70.00   (2) to BRKR  KNGLOBUS  70.00"
155    " 1  34510 34512  ""1 ""   0    # line from  CMDN JCT  70.00   (2) to BRKR  CARUTHRS  70.00"
155    " 4  34508    0  ""2 ""   0    # LOAD-DROP    CAMDEN    70.00  LOAD==7.054468(0)"
155    " 4  34508    0  ""1 ""   0    # LOAD-DROP    CAMDEN    70.00  LOAD==8.20546(0.826115)"
155    0
156     #
156     #
156     # (313)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
156     #
156    " 1  34518 34520  ""1 ""   0    # line from  LEMOORE   70.00  BRKR to (4)   LPRNO TP  70.00"
156    " 1  34520 34516  ""1 ""   0    # line from  LPRNO TP  70.00   (4) to (1)   LEPRINO   70.00"
156    " 1  34520 34540  ""1 ""   0    # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00"
156    " 1  34520 34524  ""1 ""   0    # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00"
156    " 4  34518    0  ""2 ""   0    # LOAD-DROP    LEMOORE   70.00  LOAD==10.10831(2.487628)"
156    " 4  34518    0  ""1 ""   0    # LOAD-DROP    LEMOORE   70.00  LOAD==25.18259(8.094074)"
156    " 4  34516    0  ""1 ""   0    # LOAD-DROP    LEPRINO   70.00  LOAD==5.845(3.312514)"
156    " 4  34524    0  ""1 ""   0    # LOAD-DROP    CANDLEWK  70.00  LOAD==2.928(2.661342)"
156    0
157     #
157     #
157     # (314)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
157     #
157    " 1  34528 34530  ""1 ""   0    # line from  CORCORAN  70.00  BRKR to (3)   BSWLL TP  70.00"
157    " 1  34530 34536  ""1 ""   0    # line from  BSWLL TP  70.00   (3) to (1)   ANGIOLA   70.00"
157    " 1  34530 34538  ""1 ""   0    # line from  BSWLL TP  70.00   (3) to (1)   BOSWELL   70.00"
157    " 4  34536    0  ""1 ""   0    # LOAD-DROP    ANGIOLA   70.00  LOAD==4.631814(0)"
157    " 4  34538    0  ""1 ""   0    # LOAD-DROP    BOSWELL   70.00  LOAD==0.773(0.499309)"
157    0
158     #
158     #
158     # (315)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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158     #
158     " 1  34544 34550  ""1 ""    0     # line from  TLRE LKE  70.00  BRKR to (2)   CHEVPLIN  70.00"
158     " 1  34550 34546  ""1 ""    0     # line from  CHEVPLIN  70.00   (2) to (2)   AVENAL    70.00"
158     " 1  34546 34548  ""1 ""    0     # line from  AVENAL    70.00   (2) to (2)   KETTLEMN  70.00"
158     " 1  34548 34552  ""1 ""    0     # line from  KETTLEMN  70.00   (2) to BRKR  GATES     70.00"
158     " 4  34550     0  ""1 ""    0     # LOAD-DROP    CHEVPLIN  70.00  LOAD==1.866(1.350961)"
158     " 4  34546     0  ""1 ""    0     # LOAD-DROP    AVENAL    70.00  LOAD==10.3(4.2)"
158     " 4  34548     0  ""1 ""    0     # LOAD-DROP    KETTLEMN  70.00  LOAD==5.587881(0.436263)"
158     0
159     #
159     #
159     # (316)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
159     #
159     " 1  34544 34580  ""1 ""    0     # line from  TLRE LKE  70.00  BRKR to (2)   BDGR HLL  70.00"
159     " 1  34580 34942  ""1 ""    0     # line from  BDGR HLL  70.00   (2) to (2)   LST HLLS  70.00"
159     " 1  34942 34582  ""1 ""    0     # line from  LST HLLS  70.00   (2) to BRKR  ARCO      70.00"
159     " 4  34580     0  ""2 ""    0     # LOAD-DROP    BDGR HLL  70.00  LOAD==2.85(0)"
159     " 4  34580     0  ""1 ""    0     # LOAD-DROP    BDGR HLL  70.00  LOAD==7.63(0)"
159     " 4  34942     0  ""1 ""    0     # LOAD-DROP    LST HLLS  70.00  LOAD==3.25(1.068223)"
159     0
160     #
160     #
160     # (317)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
160     #
160     " 1  34552 34558  ""2 ""    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00"
160     0
161     #
161     #
161     # (318)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
161     #
161     " 1  34552 34570  ""1 ""    0     # line from  GATES     70.00  BRKR to BRKR  COLNGA 2  70.00"
161     0
162     #
162     #
162     # (319)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
162     #
162     " 1  34552 34578  ""1 ""    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00"
162     " 1  34578 34574  ""1 ""    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00"
162     " 4  34578     0  ""1 ""    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.037(2.712881)"
162     0
163     #
163     #
163     # (320)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
163     #
163     " 1  34556 34562  ""1 ""    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00"
163     0
164     #
164     #
164     # (321)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
164     #
164     " 1  34556 34564  ""1 ""    0     # line from  STRD JCT  70.00  BRKR to BRKR  STROUD    70.00"
164     " 4  34564     0  ""1 ""    0     # LOAD-DROP    STROUD    70.00  LOAD==8.298282(4.084166)"
```

```
164     0
165      #
165      #
165      # (322)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
165      #
165     " 1  34558 34560  ""1 ""    0     # line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00"
165     " 1  34560 34562  ""1 ""    0     # line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00"
165     " 4  34560     0  ""1 ""    0     # LOAD-DROP    CALFLAX   70.00  LOAD==9.746304(1.52228)"
165     " 1  34552 34558  ""2 ""    0      # Must include Gates - Huron in this outage    "
165     0
166      #
166      #
166      # (323)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
166      #
166     " 1  34562 34566  ""1 ""    0     # line from  SCHLNDLR  70.00  BRKR to (2)   PLSNTVLY  70.00"
166     " 1  34566 34570  ""1 ""    0     # line from  PLSNTVLY  70.00   (2) to BRKR  COLNGA 2  70.00"
166     " 4  34566     0  ""1 ""    0     # LOAD-DROP    PLSNTVLY  70.00  LOAD==10(6.2)"
166     0
167      #
167      #
167      # (324)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
167      #
167     " 1  34570 34572  ""1 ""    0     # line from  COLNGA 2  70.00  BRKR to (3)   TORNADO   70.00"
167     " 1  34572 34574  ""1 ""    0     # line from  TORNADO   70.00   (3) to BRKR  COLNGA 1  70.00"
167     " 2  34572 34654  ""1 ""    0     # TRAN from  TORNADO   70.00   (3) to (1)   COLNGAGN   9.11"
167     " 4  34572     0  ""1 ""    0     # LOAD-DROP    TORNADO   70.00  LOAD==1.656(1.372209)"
167     " 3  34654     0  ""1 ""    0     # GEN-DROP    COLNGAGN   9.11  GEN==34.21(-13.50)"
167     " 2  34570 34652  ""1 ""    0      # Must include Colinga2 - Chv.coal in this outage - modeled on bus
"
167     0
168      #
168      #
168      # (325)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
168      #
168     " 1  34700 34708  ""1 ""    0     # line from  SMYRNA   115.00  BRKR to (2)   MCKIBBEN 115.00"
168     " 1  34708 34742  ""1 ""    0     # line from  MCKIBBEN 115.00   (2) to (2)   SEMITRPJ 115.00"
168     " 1  34742 34746  ""1 ""    0     # line from  SEMITRPJ 115.00   (2) to (2)   GANSO    115.00"
168     " 1  34746 34774  ""1 ""    0     # line from  GANSO    115.00   (2) to BRKR  MIDWAY   115.00"
168     " 4  34746     0  ""1 ""    0     # LOAD-DROP    GANSO    115.00  LOAD==4.875002(0)"
168     0
169      #
169      #
169      # (326)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
169      #
169     " 1  34702 34703  ""1 ""    0     # line from  GOSE LKE 115.00   (2) to (2)   SMTRPCWS 115.00"
169     " 1  34702 34774  ""1 ""    0     # line from  GOSE LKE 115.00   (2) to BRKR  MIDWAY   115.00"
169     " 1  34703 34704  ""1 ""    0     # line from  SMTRPCWS 115.00   (2) to (4)   SEMITRPC 115.00"
169     " 1  34704 34705  ""1 ""    0     # line from  SEMITRPC 115.00   (4) to (2)   WSCOPRSN 115.00"
169     " 1  34704 34774  ""1 ""    0     # line from  SEMITRPC 115.00  BRKR to BRKR  MIDWAY   115.00"
169     " 2  34704 34934  ""2 ""    0     # TRAN from  SEMITRPC 115.00   (4) to (2)   SEMITRPC  70.00"
169     " 1  34705 34710  ""1 ""    0     # line from  WSCOPRSN 115.00   (2) to (2)   CHARKA   115.00"
169     " 1  34710 34712  ""1 ""    0     # line from  CHARKA   115.00   (2) to BRKR  FAMOSO   115.00"
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169     " 1  34934 34932  ""1 ""    0     # line from  SEMITRPC  70.00   (2) to BRKR  WASCO     70.00"
169     " 4  34702     0  ""2 ""    0     # LOAD-DROP    GOSE LKE 115.00  LOAD==2.836365(0)"
169     " 4  34702     0  ""1 ""    0     # LOAD-DROP    GOSE LKE 115.00  LOAD==8.33182(0)"
169     " 4  34703     0  ""1 ""    0     # LOAD-DROP    SMTRPCWS 115.00  LOAD==13.78(6.673959)"
169     " 4  34704     0  ""3 ""    0     # LOAD-DROP    SEMITRPC 115.00  LOAD==5.40682(1.232046)"
169     " 4  34705     0  ""1 ""    0     # LOAD-DROP    WSCOPRSN 115.00  LOAD==3.456(2.322446)"
169     " 4  34710     0  ""2 ""    0     # LOAD-DROP    CHARKA   115.00  LOAD==2.925001(0)"
169     " 4  34932     0  ""1 ""    0     # LOAD-DROP    WASCO     70.00  LOAD==16.575006(3.775911)"
169     0
170      #
170      #
170      # (327)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
170      #
170     " 1  34704 34774  ""1 ""    0     # line from  SEMITRPC 115.00  BRKR to BRKR  MIDWAY   115.00"
170     0
171      #
171      #
171      # (328)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
171      #
171     " 1  34706 34734  ""1 ""    0     # line from  WESTPARK 115.00  BRKR to (3)   BEAR TAP 115.00"
171     " 1  34734 34732  ""1 ""    0     # line from  BEAR TAP 115.00   (3) to BRKR  COLUMBUS 115.00"
171     " 2  34734 35066  ""1 ""    0     # TRAN from  BEAR TAP 115.00   (3) to (1)   PSE-BEAR   9.11"
171     " 3  35066     0  ""1 ""    0     # GEN-DROP    PSE-BEAR   9.11  GEN==43.31(6.70)"
171     0
172      #
172      #
172      # (329)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
172      #
172     " 1  34706 34752  ""1 ""    0     # line from  WESTPARK 115.00  BRKR to BRKR  KERN PWR 115.00"
172     0
173      #
173      #
173      # (330)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
173      #
173     " 1  34706 34752  ""2 ""    0     # line from  WESTPARK 115.00  BRKR to BRKR  KERN PWR 115.00"
173     0
174      #
174      #
174      # (331)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
174      #
174     " 1  34712 34784  ""1 ""    0     # line from  FAMOSO   115.00  BRKR to (3)   CAWELO C 115.00"
174     " 1  34784 34714  ""1 ""    0     # line from  CAWELO C 115.00   (3) to BRKR  LERDO    115.00"
174     " 2  34784 35036  ""1 ""    0     # TRAN from  CAWELO C 115.00   (3) to (1)   MT POSO    9.11"
174     " 4  34784     0  ""1 ""    0     # LOAD-DROP    CAWELO C 115.00  LOAD==0.517(0)"
174     " 3  35036     0  ""1 ""    0     # GEN-DROP    MT POSO    9.11  GEN==50.00(0.97)"
174     " 3  35036     0  ""2 ""    0     # GEN-DROP    MT POSO    9.11  GEN==34.47(0.67)"
174     0
175      #
175      #
175      # (332)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
175      #
175     " 1  34714 34716  ""1 ""    0     # line from  LERDO    115.00  BRKR to (3)   LRDO JCT 115.00"
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175     " 1  34716 34718  ""1 ""    0     # line from  LRDO JCT 115.00   (3) to BRKR  KERN OIL 115.00"
175     " 1  34716 34752  ""1 ""    0     # line from  LRDO JCT 115.00   (3) to BRKR  KERN PWR 115.00"
175     0
176      #
176      #
176      # (333)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
176      #
176     " 1  34718 34720  ""1 ""    0     # line from  KERN OIL 115.00  BRKR to (3)   DSCVRYTP 115.00"
176     " 1  34720 34722  ""1 ""    0     # line from  DSCVRYTP 115.00   (3) to (2)   KERN_RV  115.00"
176     " 1  34720 34744  ""1 ""    0     # line from  DSCVRYTP 115.00   (3) to BRKR  GODN_BER 115.00"
176     " 2  34722 35062  ""1 ""    0     # TRAN from  KERN_RV  115.00   (2) to (1)   DISCOVRY   9.11"
176     " 4  34722     0  ""1 ""    0     # LOAD-DROP    KERN_RV  115.00  LOAD==1.758(1.64589)"
176     " 4  35062     0  ""1 ""    0     # LOAD-DROP    DISCOVRY   9.11  LOAD==22.309999(5.1)"
176     " 3  35062     0  ""1 ""    0     # GEN-DROP    DISCOVRY   9.11  GEN==32.53(6.00)"
176     0
177      #
177      #
177      # (334)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
177      #
177     " 1  34718 34726  ""1 ""    0     # line from  KERN OIL 115.00  BRKR to (3)   PTRL JCT 115.00"
177     " 1  34726 34728  ""1 ""    0     # line from  PTRL JCT 115.00   (3) to BRKR  LIVE OAK 115.00"
177     " 1  34726 34810  ""1 ""    0     # line from  PTRL JCT 115.00   (3) to (2)   POSO MT  115.00"
177     " 1  34810 34812  ""1 ""    0     # line from  POSO MT  115.00   (2) to (2)   VEDDER   115.00"
177     " 2  34812 35046  ""1 ""    0     # TRAN from  VEDDER   115.00   (2) to (1)   SHL-KERN   9.11"
177     " 4  34810     0  ""1 ""    0     # LOAD-DROP    POSO MT  115.00  LOAD==6.647729(0.895228)"
177     " 4  35046     0  ""1 ""    0     # LOAD-DROP    SHL-KERN   9.11  LOAD==20.01(4.6)"
177     " 3  35046     0  ""1 ""    0     # GEN-DROP    SHL-KERN   9.11  GEN==17.75(7.16)"
177     0
178      #
178      #
178      # (335)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
178      #
178     " 1  34724 34736  ""1 ""    0     # line from  KRN OL J 115.00   (3) to BRKR  MAGUNDEN 115.00"
178     " 1  34724 34744  ""1 ""    0     # line from  KRN OL J 115.00   (3) to BRKR  GODN_BER 115.00"
178     " 1  34724 34798  ""1 ""    0     # line from  KRN OL J 115.00   (3) to (2)   KERNWATR 115.00"
178     " 1  34798 34752  ""1 ""    0     # line from  KERNWATR 115.00   (2) to BRKR  KERN PWR 115.00"
178     " 4  34798     0  ""1 ""    0     # LOAD-DROP    KERNWATR 115.00  LOAD==3.514(2.085085)"
178     " 4  34744     0  ""1 ""    0      # The Witco Refinery load should be dropped for this outage
it is m"
178     0
179      #
179      #
179      # (336)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
179      #
179     " 1  34728 34752  ""1 ""    0     # line from  LIVE OAK 115.00  BRKR to BRKR  KERN PWR 115.00"
179     0
180      #
180      #
180      # (337)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
180      #
180     " 1  34730 34752  ""1 ""    0     # line from  PSE-3    115.00   (2) to BRKR  KERN PWR 115.00"
180     " 2  34730 35026  ""1 ""    0     # TRAN from  PSE-3    115.00   (2) to (1)   PSE-LTD+   9.11"
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180     " 4  35026     0  ""1 ""    0     # LOAD-DROP    PSE-LTD+   9.11  LOAD==2.75(1.33)"
180     " 3  35026     0  ""1 ""    0     # GEN-DROP    PSE-LTD+   9.11  GEN==47.65(-0.54)"
180     " 3  35026     0  ""2 ""    0     # GEN-DROP    PSE-LTD+   9.11  GEN==46.28(-0.52)"
180     " 3  35026     0  ""3 ""    0     # GEN-DROP    PSE-LTD+   9.11  GEN==47.94(-0.54)"
180     " 3  35026     0  ""4 ""    0     # GEN-DROP    PSE-LTD+   9.11  GEN==42.52(-0.48)"
180     0
181      #
181      #
181      # (338)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
181      #
181     " 1  34732 34735  ""1 ""    0     # line from  COLUMBUS 115.00  BRKR to (3)   MAGUDN J 115.00"
181     " 1  34735 34736  ""1 ""    0     # line from  MAGUDN J 115.00   (3) to BRKR  MAGUNDEN 115.00"
181     " 1  34735 34738  ""1 ""    0     # line from  MAGUDN J 115.00   (3) to (1)   BOLTHSE  115.00"
181     " 4  34738     0  ""1 ""    0     # LOAD-DROP    BOLTHSE  115.00  LOAD==12.35(11.225264)"
181     " 3  35066     0  ""1 ""    0      # This generation was dropped during the pre-fault clearing of the M"
181     0
182      #
182      #
182      # (339)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
182      #
182     " 1  34752 34808  ""1 ""    0     # line from  KERN PWR 115.00  BRKR to (2)   ROSEDAL  115.00"
182     " 1  34808 34809  ""1 ""    0     # line from  ROSEDAL  115.00   (2) to (1)   TX_ROSDL 115.00"
182     " 4  34808     0  ""1 ""    0     # LOAD-DROP    ROSEDAL  115.00  LOAD==30.836601(4.82182)"
182     " 4  34809     0  ""1 ""    0     # LOAD-DROP    TX_ROSDL 115.00  LOAD==26.18(16.224905)"
182     0
183      #
183      #
183      # (340)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
183      #
183     " 1  34760 34766  ""1 ""    0     # line from  RIO BRVO 115.00  BRKR to BRKR  SHAFTER  115.00"
183     0
184      #
184      #
184      # (341)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
184      #
184     " 1  34766 34774  ""1 ""    0     # line from  SHAFTER  115.00  BRKR to BRKR  MIDWAY   115.00"
184     0
185      #
185      #
185      # (342)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
185      #
185     " 1  34774 34780  ""1 ""    0     # line from  MIDWAY   115.00  BRKR to (3)   CYMRIC   115.00"
185     " 1  34780 34781  ""1 ""    0     # line from  CYMRIC   115.00   (3) to (4)   TEXCO_NM 115.00"
185     " 2  34780 35032  ""1 ""    0     # TRAN from  CYMRIC   115.00   (3) to (1)   CHV-CYMR   9.11"
185     " 1  34781 34779  ""1 ""    0     # line from  TEXCO_NM 115.00   (4) to (3)   MIDSUN   115.00"
185     " 2  34781 34783  ""1 ""    0     # TRAN from  TEXCO_NM 115.00   (4) to (2)   TEXCO_NM   9.11"
185     " 2  34781 34783  ""2 ""    0     # TRAN from  TEXCO_NM 115.00   (4) to (2)   TEXCO_NM   9.11"
185     " 1  34779 34782  ""1 ""    0     # line from  MIDSUN   115.00   (3) to (2)   TAFT JCT 115.00"
185     " 2  34779 35034  ""1 ""    0     # TRAN from  MIDSUN   115.00   (3) to (1)   MIDSUN +   9.11"
185     " 1  34782 34777  ""1 ""    0     # line from  TAFT JCT 115.00   (2) to (2)   VICTORY  115.00"
185     " 1  34777 34778  ""1 ""    0     # line from  VICTORY  115.00   (2) to BRKR  FELLOWS  115.00"
185     " 4  35032     0  ""1 ""    0     # LOAD-DROP    CHV-CYMR   9.11  LOAD==6(1.4)"
```

```
185     " 3  35032     0  ""1 ""    0     # GEN-DROP    CHV-CYMR   9.11  GEN==19.43(2.92)"
185     " 3  34783     0  ""1 ""    0     # GEN-DROP    TEXCO_NM   9.11  GEN==5.38(5.50)"
185     " 3  34783     0  ""2 ""    0     # GEN-DROP    TEXCO_NM   9.11  GEN==2.70(5.00)"
185     0
186      #
186      #
186      # (343)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
186      #
186     " 1  34774 34804  ""1 ""    0     # line from  MIDWAY   115.00  BRKR to (2)   BELRIDGE 115.00"
186     " 1  34804 34794  ""1 ""    0     # line from  BELRIDGE 115.00   (2) to BRKR  TEMBLOR  115.00"
186     " 4  34804     0  ""1 ""    0     # LOAD-DROP    BELRIDGE 115.00  LOAD==6.499(0.926057)"
186     " 2  35060 34794  ""1 ""    0      # Drop McKittrick (PSE) bank    "
186     0
187      #
187      #
187      # (344)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
187      #
187     " 1  34774 34816  ""1 ""    0     # line from  MIDWAY   115.00  BRKR to (3)   NAVY 35R 115.00"
187     " 1  34816 34776  ""1 ""    0     # line from  NAVY 35R 115.00   (3) to BRKR  TAFT     115.00"
187     " 2  34816 35064  ""1 ""    0     # TRAN from  NAVY 35R 115.00   (3) to (1)   NAVY 35R   9.11"
187     " 4  35064     0  ""1 ""    0     # LOAD-DROP    NAVY 35R   9.11  LOAD==30.01(6.8)"
187     " 3  35064     0  ""1 ""    0     # GEN-DROP    NAVY 35R   9.11  GEN==22.00(4.82)"
187     " 3  35064     0  ""2 ""    0     # GEN-DROP    NAVY 35R   9.11  GEN==22.00(4.82)"
187     0
188      #
188      #
188      # (345)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
188      #
188     " 1  34776 34786  ""1 ""    0     # line from  TAFT     115.00  BRKR to (2)   UNIVRSTY 115.00"
188     " 2  34786 35038  ""1 ""    0     # TRAN from  UNIVRSTY 115.00   (2) to (1)   CHLKCLF+   9.11"
188     " 4  35038     0  ""1 ""    0     # LOAD-DROP    CHLKCLF+   9.11  LOAD==0.5(0.1)"
188     " 3  35038     0  ""1 ""    0     # GEN-DROP    CHLKCLF+   9.11  GEN==33.77(5.03)"
188     " 3  35038     0  ""2 ""    0     # GEN-DROP    CHLKCLF+   9.11  GEN==43.60(6.49)"
188     0
189      #
189      #
189      # (346)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
189      #
189     " 1  34778 34800  ""1 ""    0     # line from  FELLOWS  115.00  BRKR to (2)   MORGAN   115.00"
189     " 1  34800 34802  ""1 ""    0     # line from  MORGAN   115.00   (2) to (3)   MIDSET   115.00"
189     " 1  34802 34776  ""1 ""    0     # line from  MIDSET   115.00   (3) to BRKR  TAFT     115.00"
189     " 2  34802 35044  ""1 ""    0     # TRAN from  MIDSET   115.00   (3) to (1)   TX MIDST   9.11"
189     " 4  34800     0  ""1 ""    0     # LOAD-DROP    MORGAN   115.00  LOAD==22.200001(29.599998)"
189     " 3  35044     0  ""1 ""    0     # GEN-DROP    TX MIDST   9.11  GEN==33.38(10.08)"
189     0
190      #
190      #
190      # (347)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
190      #
190     " 1  34794 34796  ""1 ""    0     # line from  TEMBLOR  115.00  BRKR to (2)   CARRIZO  115.00"
190     " 1  34796 36254  ""1 ""    0     # line from  CARRIZO  115.00   (2) to BRKR  SN LS OB 115.00"
190     " 4  34796     0  ""1 ""    0     # LOAD-DROP    CARRIZO  115.00  LOAD==0.354546(0.079773)"
```

```
190     0
191      #
191      #
191      # (348)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
191      #
191     " 1  34850 34852  ""1 ""    0     # line from  BLACKWLL  70.00   (2) to BRKR  CARNERAS  70.00"
191     " 1  34850 34582  ""1 ""    0     # line from  BLACKWLL  70.00   (2) to BRKR  ARCO      70.00"
191     " 4  34850     0  ""1 ""    0     # LOAD-DROP    BLACKWLL  70.00  LOAD==7.339094(1.675228)"
191     0
192      #
192      #
192      # (349)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
192      #
192     " 1  34852 34947  ""1 ""    0     # line from  CARNERAS  70.00  BRKR to (2)   CELERON   70.00"
192     " 1  34947 34946  ""1 ""    0     # line from  CELERON   70.00   (2) to (2)   KNG_ELIS  70.00"
192     " 1  34946 34870  ""1 ""    0     # line from  KNG_ELIS  70.00   (2) to (2)   TEMBLOR   70.00"
192     " 1  34870 34854  ""1 ""    0     # line from  TEMBLOR   70.00   (2) to BRKR  MCKTTRCK  70.00"
192     " 4  34947     0  ""EX""    0     # LOAD-DROP    CELERON   70.00  LOAD==2.63(0.767084)"
192     " 4  34947     0  ""PM""    0     # LOAD-DROP    CELERON   70.00  LOAD==1.656(0.848394)"
192     " 4  34946     0  ""1 ""    0     # LOAD-DROP    KNG_ELIS  70.00  LOAD==1.967(1.219037)"
192     0
193      #
193      #
193      # (350)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
193      #
193     " 1  34854 34856  ""1 ""    0     # line from  MCKTTRCK  70.00  BRKR to (2)   NORTHMWY  70.00"
193     " 1  34856 34858  ""1 ""    0     # line from  NORTHMWY  70.00   (2) to (2)   MDWY_P_S  70.00"
193     " 1  34858 34860  ""1 ""    0     # line from  MDWY_P_S  70.00   (2) to BRKR  TAFT A    70.00"
193     " 4  34858     0  ""1 ""    0     # LOAD-DROP    MDWY_P_S  70.00  LOAD==2.069(1.002063)"
193     0
194      #
194      #
194      # (351)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
194      #
194     " 1  34860 34861  ""1 ""    0     # line from  TAFT A    70.00  BRKR to (3)   TAFT A_J  70.00"
194     " 1  34861 34863  ""1 ""    0     # line from  TAFT A_J  70.00   (3) to (3)   MOCO_JCT  70.00"
194     " 1  34861 34865  ""1 ""    0     # line from  TAFT A_J  70.00   (3) to (2)   BRY_PTLM  70.00"
194     " 1  34863 34862  ""1 ""    0     # line from  MOCO_JCT  70.00   (3) to BRKR  MARICOPA  70.00"
194     " 1  34863 34915  ""1 ""    0     # line from  MOCO_JCT  70.00   (3) to (2)   MOCO      70.00"
194     " 1  34915 34916  ""1 ""    0     # line from  MOCO      70.00   (2) to BRKR  CADET     70.00"
194     " 1  34865 35051  ""1 ""    0     # line from  BRY_PTLM  70.00   (2) to (2)   SLR_TANH  70.00"
194     " 2  35051 35050  ""1 ""    0     # TRAN from  SLR_TANH  70.00   (2) to (1)   SLR-TANN   9.11"
194     " 4  34865     0  ""1 ""    0     # LOAD-DROP    BRY_PTLM  70.00  LOAD==3.602(3.176666)"
194     " 4  34915     0  ""1 ""    0     # LOAD-DROP    MOCO      70.00  LOAD==9.478(8.35881)"
194     " 4  35050     0  ""1 ""    0     # LOAD-DROP    SLR-TANN   9.11  LOAD==1.1(0.3)"
194     " 3  35050     0  ""1 ""    0     # GEN-DROP    SLR-TANN   9.11  GEN==14.95(-3.15)"
194     0
195      #
195      #
195      # (352)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
195      #
195     " 1  34860 34936  ""2 ""    0     # line from  TAFT A    70.00  BRKR to (1)   CUYAMA    70.00"
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195     " 4  34936     0  ""1 ""    0     # LOAD-DROP    CUYAMA    70.00  LOAD==12.497731(1.950001)"
195     0
196      #
196      #
196      # (353)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
196      #
196     " 1  34862 34864  ""1 ""    0     # line from  MARICOPA  70.00  BRKR to (2)   GARDNER   70.00"
196     " 1  34864 34866  ""1 ""    0     # line from  GARDNER   70.00   (2) to (2)   BSCL_PLD  70.00"
196     " 1  34866 34868  ""1 ""    0     # line from  BSCL_PLD  70.00   (2) to (2)   COPUS     70.00"
196     " 1  34868 34882  ""1 ""    0     # line from  COPUS     70.00   (2) to (2)   SAN EMDO  70.00"
196     " 1  34882 34904  ""1 ""    0     # line from  SAN EMDO  70.00   (2) to BRKR  OLD RIVR  70.00"
196     " 4  34864     0  ""1 ""    0     # LOAD-DROP    GARDNER   70.00  LOAD==0.389(0.29175)"
196     " 4  34866     0  ""1 ""    0     # LOAD-DROP    BSCL_PLD  70.00  LOAD==1.404(0.598101)"
196     " 4  34868     0  ""1 ""    0     # LOAD-DROP    COPUS     70.00  LOAD==7.791139(0.602728)"
196     0
197      #
197      #
197      # (354)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
197      #
197     " 1  34872 34954  ""1 ""    0     # line from  LAKEVIEW  70.00  BRKR to (3)   EMDO JCT  70.00"
197     " 1  34954 34874  ""1 ""    0     # line from  EMDO JCT  70.00   (3) to BRKR  WHEELER   70.00"
197     " 1  34954 34939  ""1 ""    0     # line from  EMDO JCT  70.00   (3) to (2)   VALPREDO  70.00"
197     " 1  34939 34938  ""1 ""    0     # line from  VALPREDO  70.00   (2) to (2)   3EMIDIO   70.00"
197     " 1  34938 34958  ""1 ""    0     # line from  3EMIDIO   70.00   (2) to (1)   KELLEY    70.00"
197     " 4  34872     0  ""1 ""    0     # LOAD-DROP    LAKEVIEW  70.00  LOAD==11.974776(0.762273)"
197     " 4  34939     0  ""1 ""    0     # LOAD-DROP    VALPREDO  70.00  LOAD==0.016(0.00401)"
197     " 4  34938     0  ""PP""    0     # LOAD-DROP    3EMIDIO   70.00  LOAD==2.737(0.993398)"
197     " 4  34938     0  ""MO""    0     # LOAD-DROP    3EMIDIO   70.00  LOAD==1.869(1.059211)"
197     " 4  34938     0  ""EQ""    0     # LOAD-DROP    3EMIDIO   70.00  LOAD==0.949(0.662406)"
197     " 4  34958     0  ""1 ""    0     # LOAD-DROP    KELLEY    70.00  LOAD==2.888(1.636705)"
197     0
198      #
198      #
198      # (355)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
198      #
198     " 1  34874 34880  ""1 ""    0     # line from  WHEELER   70.00  BRKR to BRKR  SN BRNRD  70.00"
198     0
199      #
199      #
199      # (356)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
199      #
199     " 1  34874 34890  ""1 ""    0     # line from  WHEELER   70.00  BRKR to BRKR  WEEDPTCH  70.00"
199     0
200      #
200      #
200      # (357)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
200      #
200     " 1  34874 34944  ""1 ""    0     # line from  WHEELER   70.00  BRKR to (2)   TECUYA    70.00"
200     " 1  34944 34876  ""1 ""    0     # line from  TECUYA    70.00   (2) to BRKR  TEJON     70.00"
200     " 4  34944     0  ""1 ""    0     # LOAD-DROP    TECUYA    70.00  LOAD==3.372(2.883606)"
200     0
201      #
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201     #
201     # (358)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
201     #
201    " 1  34876 34880  ""1 ""    0    # line from  TEJON     70.00  BRKR to BRKR  SN BRNRD  70.00"
201    0
202     #
202     #
202     # (359)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
202     #
202    " 1  34876 34940  ""1 ""    0    # line from  TEJON     70.00  BRKR to (2)   ROSE      70.00"
202    " 1  34940 34941  ""1 ""    0    # line from  ROSE      70.00   (2) to (2)   PACI_PIP  70.00"
202    " 1  34941 34948  ""1 ""    0    # line from  PACI_PIP  70.00   (2) to (2)   GRAPEVNE  70.00"
202    " 1  34948 34956  ""1 ""    0    # line from  GRAPEVNE  70.00   (2) to (2)   CASTAC    70.00"
202    " 1  34956 34952  ""1 ""    0    # line from  CASTAC    70.00   (2) to (1)   LEBEC     70.00"
202    " 4  34940     0  ""1 ""    0    # LOAD-DROP    ROSE      70.00  LOAD==2.321(1.189084)"
202    " 4  34941     0  ""1 ""    0    # LOAD-DROP    PACI_PIP  70.00  LOAD==2.765(0.806459)"
202    " 4  34948     0  ""1 ""    0    # LOAD-DROP    GRAPEVNE  70.00  LOAD==2.324(1.317071)"
202    " 4  34956     0  ""1 ""    0    # LOAD-DROP    CASTAC    70.00  LOAD==2.643(1.42654)"
202    " 4  34952     0  ""1 ""    0    # LOAD-DROP    LEBEC     70.00  LOAD==2.359(1.273253)"
202    0
203     #
203     #
203     # (360)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
203     #
203    " 1  34880 34951  ""1 ""    0    # line from  SN BRNRD  70.00  BRKR to (3)   STALIONJ  70.00"
203    " 1  34951 34888  ""1 ""    0    # line from  STALIONJ  70.00   (3) to (2)   ARVIN     70.00"
203    " 1  34951 34950  ""1 ""    0    # line from  STALIONJ  70.00   (3) to (1)   STALLION  70.00"
203    " 1  34888 34890  ""1 ""    0    # line from  ARVIN     70.00   (2) to BRKR  WEEDPTCH  70.00"
203    " 4  34888     0  ""1 ""    0    # LOAD-DROP    ARVIN     70.00  LOAD==5.637275(1.285228)"
203    " 4  34950     0  ""1 ""    0    # LOAD-DROP    STALLION  70.00  LOAD==0.008(0)"
203    0
204     #
204     #
204     # (361)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
204     #
204    " 1  34884 34919  ""1 ""    0    # line from  TAFT B    70.00   (2) to (2)   TX_BV_HL  70.00"
204    " 2  34884 34772  ""1 ""    0    # TRAN from  TAFT B    70.00   (2) to (3)   TAFT   M 115.00"
204    " 1  34919 34920  ""1 ""    0    # line from  TX_BV_HL  70.00   (2) to (1)   ELK HLLS  70.00"
204    " 2  34772 34776  ""1 ""    0    # TRAN from  TAFT   M 115.00   (3) to BRKR  TAFT     115.00"
204    " 2  34772 35014  ""1 ""    0    # TRAN from  TAFT   M 115.00   (3) to (1)   TAFT      12.47"
204    " 4  34919     0  ""1 ""    0    # LOAD-DROP    TX_BV_HL  70.00  LOAD==1.869(0)"
204    " 4  34920     0  ""1 ""    0    # LOAD-DROP    ELK HLLS  70.00  LOAD==4.644547(1.054773)"
204    " 4  35014     0  ""1 ""    0    # LOAD-DROP    TAFT      12.47  LOAD==15.139095(3.447956)"
204    0
205     #
205     #
205     # (362)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
205     #
205    " 1  34886 34892  ""1 ""    0    # line from  MAGNDN J  70.00   (3) to (2)   LIGHTNER  70.00"
205    " 1  34886 34902  ""1 ""    0    # line from  MAGNDN J  70.00   (3) to BRKR  MAGUNDEN  70.00"
205    " 1  34886 34896  ""1 ""    0    # line from  MAGNDN J  70.00   (3) to (3)   RIOBRVQF  70.00"
205    " 1  34892 34890  ""1 ""    0    # line from  LIGHTNER  70.00   (2) to BRKR  WEEDPTCH  70.00"
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205     " 1  34896 34894  ""1 ""    0     # line from  RIOBRVQF  70.00   (3) to (2)   KRN CNYN  70.00"
205     " 2  34896 35020  ""1 ""    0     # TRAN from  RIOBRVQF  70.00   (3) to (1)   RIOBRAVO   9.11"
205     " 2  34894 35018  ""1 ""    0     # TRAN from  KRN CNYN  70.00   (2) to (1)   KERNCNYN   9.11"
205     " 3  35020     0  ""1 ""    0     # GEN-DROP    RIOBRAVO   9.11  GEN==8.26(3.00)"
205     " 3  35018     0  ""1 ""    0     # GEN-DROP    KERNCNYN   9.11  GEN==10.60(-6.00)"
205     0
206      #
206      #
206      # (363)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
206      #
206     " 1  34890 34909  ""1 ""    0     # line from  WEEDPTCH  70.00  BRKR to (2)   GRMWY_SM  70.00"
206     " 1  34909 34910  ""1 ""    0     # line from  GRMWY_SM  70.00   (2) to (1)   WELLFILD  70.00"
206     " 4  34909     0  ""1 ""    0     # LOAD-DROP    GRMWY_SM  70.00  LOAD==6.027(3.25303)"
206     " 4  34910     0  ""2 ""    0     # LOAD-DROP    WELLFILD  70.00  LOAD==4.555911(1.037046)"
206     " 4  34910     0  ""1 ""    0     # LOAD-DROP    WELLFILD  70.00  LOAD==19.952053(0)"
206     0
207      #
207      #
207      # (364)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
207      #
207     " 1  34904 34914  ""1 ""    0     # line from  OLD RIVR  70.00  BRKR to BRKR  KERN PW1  70.00"
207     0
208      #
208      #
208      # (365)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
208      #
208     " 1  34906 34908  ""1 ""    0     # line from  PANAMA    70.00  BRKR to (2)   CARNATIO  70.00"
208     " 1  34908 34918  ""1 ""    0     # line from  CARNATIO  70.00   (2) to BRKR  KERN PW2  70.00"
208     " 4  34908     0  ""1 ""    0     # LOAD-DROP    CARNATIO  70.00  LOAD==5.806(4.052613)"
208     0
209      #
209      #
209      # (366)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
209      #
209     " 1  34918 34922  ""1 ""    0     # line from  KERN PW2  70.00  BRKR to (3)   KRN OL J  70.00"
209     " 1  34922 34924  ""1 ""    0     # line from  KRN OL J  70.00   (3) to BRKR  KERN OIL  70.00"
209     " 1  34922 34928  ""1 ""    0     # line from  KRN OL J  70.00   (3) to (2)   CAWELO B  70.00"
209     " 1  34928 34926  ""1 ""    0     # line from  CAWELO B  70.00   (2) to BRKR  FAMOSO    70.00"
209     " 4  34928     0  ""1 ""    0     # LOAD-DROP    CAWELO B  70.00  LOAD==2.831(1.371116)"
209     0
210      #
210      #
210      # (367)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
210      #
210     " 1  34926 34930  ""1 ""    0     # line from  FAMOSO    70.00  BRKR to BRKR  MC FRLND  70.00"
210     " 4  34930     0  ""1 ""    0     # LOAD-DROP    MC FRLND  70.00  LOAD==10.193187(0)"
210     0
211      #
211      #
211      # (368)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
211      #
211     " 1  34968 34970  ""1 ""    0     # line from  TWISSLMN  70.00   (2) to (3)   TX_LOSHL  70.00"
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211     " 1  34968 34582  ""1 ""    0     # line from  TWISSLMN  70.00   (2) to BRKR  ARCO      70.00"
211     " 1  34970 34972  ""1 ""    0     # line from  TX_LOSHL  70.00   (3) to (1)   CHEVLHLS  70.00"
211     " 2  34970 35056  ""1 ""    0     # TRAN from  TX_LOSHL  70.00   (3) to (1)   TX-LOSTH   9.11"
211     " 4  34968     0  ""2 ""    0     # LOAD-DROP    TWISSLMN  70.00  LOAD==12.435686(2.180455)"
211     " 4  34968     0  ""1 ""    0     # LOAD-DROP    TWISSLMN  70.00  LOAD==4.050683(0.921818)"
211     " 4  34972     0  ""1 ""    0     # LOAD-DROP    CHEVLHLS  70.00  LOAD==10.61(6.575487)"
211     " 3  35056     0  ""1 ""    0     # GEN-DROP    TX-LOSTH   9.11  GEN==3.40(1.27)"
211     0
212      #
212      #
212      # (369)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
212      #
212     " 1  36254 36266  ""1 ""    0     # line from  SN LS OB 115.00  BRKR to BRKR  SNTA MRA 115.00"
212     0
213      #
213      #
213      # (370)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
213      #
213     " 1  36254 36278  ""1 ""    0     # line from  SN LS OB 115.00  BRKR to BRKR  OCEANO   115.00"
213     0
214      #
214      #
214      # (371)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
214      #
214     " 1  36256 36258  ""1 ""    0     # line from  MESA_PGE 115.00  BRKR to (3)   S.M.ASSO 115.00"
214     " 1  36258 36260  ""1 ""    0     # line from  S.M.ASSO 115.00   (3) to BRKR  SISQUOC  115.00"
214     " 2  36258 36416  ""1 ""    0     # TRAN from  S.M.ASSO 115.00   (3) to (1)   ST MARIA   9.11"
214     " 4  36416     0  ""1 ""    0     # LOAD-DROP    ST MARIA   9.11  LOAD==2.77(2.45)"
214     " 3  36416     0  ""1 ""    0     # GEN-DROP    ST MARIA   9.11  GEN==8.00(5.00)"
214     0
215      #
215      #
215      # (372)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
215      #
215     " 1  36256 36266  ""1 ""    0     # line from  MESA_PGE 115.00  BRKR to BRKR  SNTA MRA 115.00"
215     0
216      #
216      #
216      # (373)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
216      #
216     " 1  36256 36268  ""1 ""    0     # line from  MESA_PGE 115.00  BRKR to BRKR  DIVVIDE  115.00"
216     0
217      #
217      #
217      # (374)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
217      #
217     " 1  36256 36268  ""2 ""    0     # line from  MESA_PGE 115.00  BRKR to BRKR  DIVVIDE  115.00"
217     0
218      #
218      #
218      # (375)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
218      #
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218     " 1  36256 36280  ""1 ""    0     # line from  MESA_PGE 115.00  BRKR to BRKR  UNION OL 115.00"
218     0
219      #
219      #
219      # (376)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
219      #
219     " 1  36260 36262  ""1 ""    0     # line from  SISQUOC  115.00  BRKR to (2)   GAREY    115.00"
219     " 2  36262 36418  ""1 ""    0     # TRAN from  GAREY    115.00   (2) to (1)   GAREY      4.00"
219     " 4  36418     0  ""1 ""    0     # LOAD-DROP    GAREY      4.00  LOAD==2.28(1.949769)"
219     0
220      #
220      #
220      # (377)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
220      #
220     " 1  36260 36286  ""1 ""    0     # line from  SISQUOC  115.00  BRKR to (2)   PALMR    115.00"
220     " 1  36286 36288  ""1 ""    0     # line from  PALMR    115.00   (2) to (2)   ZACA     115.00"
220     " 1  36288 36264  ""1 ""    0     # line from  ZACA     115.00   (2) to BRKR  S.YNZ JT 115.00"
220     " 4  36286     0  ""1 ""    0     # LOAD-DROP    PALMR    115.00  LOAD==1.564702(0.368165)"
220     " 4  36288     0  ""1 ""    0     # LOAD-DROP    ZACA     115.00  LOAD==6.200234(0.619187)"
220     0
221      #
221      #
221      # (378)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
221      #
221     " 1  36264 36274  ""1 ""    0     # line from  S.YNZ JT 115.00  BRKR to (1)   BUELLTON 115.00"
221     " 4  36274     0  ""2 ""    0     # LOAD-DROP    BUELLTON 115.00  LOAD==6.484725(1.481028)"
221     " 4  36274     0  ""1 ""    0     # LOAD-DROP    BUELLTON 115.00  LOAD==6.585134(0.987352)"
221     " 1  36264 36294  ""1 ""    1      # This outage will also open the Santa Ynez Jct- Cabrillo 115 kV lin"
221     0
222      #
222      #
222      # (379)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
222      #
222     " 1  36264 36290  ""1 ""    0     # line from  S.YNZ JT 115.00  BRKR to (1)   SNTA YNZ 115.00"
222     " 4  36290     0  ""2 ""    0     # LOAD-DROP    SNTA YNZ 115.00  LOAD==9.254331(1.380619)"
222     " 4  36290     0  ""1 ""    0     # LOAD-DROP    SNTA YNZ 115.00  LOAD==8.208406(1.983071)"
222     " 1  36264 36288  ""1 ""    1      # This outage will also open the Santa Ynez Jct- Zaca 115 kV line   "
222     0
223      #
223      #
223      # (380)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
223      #
223     " 1  36264 36294  ""1 ""    0     # line from  S.YNZ JT 115.00  BRKR to BRKR  CABRILLO 115.00"
223     0
224      #
224      #
224      # (381)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
224      #
224     " 1  36268 36296  ""1 ""    0     # line from  DIVVIDE  115.00  BRKR to (3)   PURSMAJ1 115.00"
224     " 1  36296 36276  ""1 ""    0     # line from  PURSMAJ1 115.00   (3) to (3)   LOMPCJ2  115.00"
224     " 1  36296 36298  ""1 ""    0     # line from  PURSMAJ1 115.00   (3) to (1)   PURISIMA 115.00"
224     " 1  36276 36292  ""1 ""    0     # line from  LOMPCJ2  115.00   (3) to (1)   MANVILLE 115.00"
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224     " 1  36276 38030  ""1 ""    0     # line from  LOMPCJ2  115.00   (3) to BRKR  LMPC-CTY 115.00"
224     " 4  36298     0  ""2 ""    0     # LOAD-DROP    PURISIMA 115.00  LOAD==5.631252(0.803269)"
224     " 4  36292     0  ""1 ""    0     # LOAD-DROP    MANVILLE 115.00  LOAD==11.92(7.69956)"
224     " 4  38030     0  ""1 ""    0     # LOAD-DROP    LMPC-CTY 115.00  LOAD==26.1(4.98)"
224     " 4  38030     0  ""1 ""    1      # Restore Lompoc City Load    "
224     " 1  38030 38031  ""1 ""    1      # Switch in Lompoc City #1 tap 115 kV    "
224     0
225      #
225      #
225      # (382)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
225      #
225     " 1  36278 36280  ""1 ""    0     # line from  OCEANO   115.00  BRKR to BRKR  UNION OL 115.00"
225     0
226      #
226      #
226      # (383)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
226      #
226     " 1  36310 36315  ""1 ""    0     # line from  TEMPLT7   70.00  BRKR to (2)   TEMPL J   70.00"
226     " 1  36315 36356  ""1 ""    0     # line from  TEMPL J   70.00   (2) to BRKR  PSA RBLS  70.00"
226     " 4  36356     0  ""2 ""    0      # A local RAS will dump Paso Robles Bk #2 if this outage occurs    "
226     " 4  36356     0  ""3 ""    0      # A local RAS will dump Paso Robles Bk #3 if this outage occurs    "
226     0
227      #
227      #
227      # (384)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
227      #
227     " 1  36350 36352  ""1 ""    0     # line from  CHOLAME   70.00   (1) to BRKR  CHLME JT  70.00"
227     " 4  36350     0  ""2 ""    0     # LOAD-DROP    CHOLAME   70.00  LOAD==3.839917(0.547517)"
227     " 4  36350     0  ""1 ""    0     # LOAD-DROP    CHOLAME   70.00  LOAD==5.137576(0.73633)"
227     0
228      #
228      #
228      # (385)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
228      #
228     " 1  36352 34584  ""1 ""    0     # line from  CHLME JT  70.00   (3) to (2)   DEVLS DN  70.00"
228     " 1  36352 36350  ""1 ""    0     # line from  CHLME JT  70.00  BRKR to (1)   CHOLAME   70.00"
228     " 1  36352 34964  ""1 ""    0     # line from  CHLME JT  70.00  BRKR to (1)   BRRNDA A  70.00"
228     " 1  34584 34582  ""1 ""    0     # line from  DEVLS DN  70.00   (2) to BRKR  ARCO      70.00"
228     " 4  34584     0  ""1 ""    0     # LOAD-DROP    DEVLS DN  70.00  LOAD==1.950001(0.443182)"
228     " 4  36350     0  ""2 ""    0     # LOAD-DROP    CHOLAME   70.00  LOAD==3.839917(0.547517)"
228     " 4  36350     0  ""1 ""    0     # LOAD-DROP    CHOLAME   70.00  LOAD==5.137576(0.73633)"
228     0
229      #
229      #
229      # (386)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
229      #
229     " 1  36352 34964  ""1 ""    0     # line from  CHLME JT  70.00  BRKR to (2)   BRRNDA A  70.00"
229     " 1  34964 34966  ""1 ""    0     # line from  BRRNDA A  70.00   (2) to (2)   ANTELOPE  70.00"
229     " 1  34966 34962  ""1 ""    0     # line from  ANTELOPE  70.00   (2) to (1)   BRRNDA C  70.00"
229     " 4  34964     0  ""1 ""    0     # LOAD-DROP    BRRNDA A  70.00  LOAD==8.911(0)"
229     " 4  34966     0  ""1 ""    0     # LOAD-DROP    ANTELOPE  70.00  LOAD==4.857275(0)"
229     " 4  34962     0  ""1 ""    0     # LOAD-DROP    BRRNDA C  70.00  LOAD==1.216(0.304758)"
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229     0
230      #
230      #
230      # (387)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
230      #
230     " 1  36354 34574  ""1 ""    0     # line from  SAN MIGL  70.00  BRKR to BRKR  COLNGA 1  70.00"
230     0
231      #
231      #
231      # (388)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
231      #
231     " 1  36354 36356  ""1 ""    0     # line from  SAN MIGL  70.00  BRKR to BRKR  PSA RBLS  70.00"
231     0
232      #
232      #
232      # (389)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
232      #
232     " 1  36358 36362  ""1 ""    0     # line from  ATASCDRO  70.00  BRKR to (2)   CACOS J2  70.00"
232     " 1  36362 36364  ""1 ""    0     # line from  CACOS J2  70.00   (2) to BRKR  CAYUCOS   70.00"
232     0
233      #
233      #
233      # (390)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
233      #
233     " 1  36358 36376  ""1 ""    0     # line from  ATASCDRO  70.00  BRKR to BRKR  SN LS OB  70.00"
233     0
234      #
234      #
234      # (391)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
234      #
234     " 1  36360 36364  ""1 ""    0     # line from  CACOS J1  70.00   (2) to BRKR  CAYUCOS   70.00"
234     " 1  36360 36366  ""1 ""    0     # line from  CACOS J1  70.00   (2) to (2)   PERRY     70.00"
234     " 1  36366 36368  ""1 ""    0     # line from  PERRY     70.00  BRKR to (1)   CAMBRIA   70.00"
234     " 4  36366     0  ""2 ""    0     # LOAD-DROP    PERRY     70.00  LOAD==3.104301(0.142246)"
234     " 4  36368     0  ""1 ""    0     # LOAD-DROP    CAMBRIA   70.00  LOAD==2.100214(0.133878)"
234     0
235      #
235      #
235      # (392)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
235      #
235     " 1  36364 36370  ""1 ""    0     # line from  CAYUCOS   70.00  BRKR to BRKR  BAYWOOD   70.00"
235     0
236      #
236      #
236      # (393)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
236      #
236     " 1  36366 36368  ""1 ""    0     # line from  PERRY     70.00  BRKR to (1)   CAMBRIA   70.00"
236     " 4  36368     0  ""1 ""    0     # LOAD-DROP    CAMBRIA   70.00  LOAD==2.100214(0.133878)"
236     0
237      #
237      #
237      # (394)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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237     #
237     " 1  36370 36372  ""1 ""    0     # line from  BAYWOOD   70.00   (2) to (3)   MUSTNG J  70.00"
237     " 1  36370 36364  ""1 ""    0     # line from  BAYWOOD   70.00  BRKR to BRKR  CAYUCOS   70.00"
237     " 1  36372 36374  ""1 ""    0     # line from  MUSTNG J  70.00   (3) to (1)   MUSTANG   70.00"
237     " 1  36372 36376  ""1 ""    0     # line from  MUSTNG J  70.00   (3) to BRKR  SN LS OB  70.00"
237     " 4  36370     0  ""1 ""    0     # LOAD-DROP    BAYWOOD   70.00  LOAD==2.602257(0.167348)"
237     " 4  36374     0  ""1 ""    0     # LOAD-DROP    MUSTANG   70.00  LOAD==7.728(4.585526)"
237     0
238     #
238     #
238     # (395)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
238     #
238     " 1  36378 36380  ""1 ""    0     # line from  DIVIDE    70.00  BRKR to BRKR  VAFB SSA  70.00"
238     0
239     #
239     #
239     # (396)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
239     #
239     " 1  36378 36382  ""2 ""    0     # line from  DIVIDE    70.00  BRKR to BRKR  VAFB SSB  70.00"
239     0
240     #
240     #
240     # (397)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
240     #
240     " 1  38206 37563  ""1 ""    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00"
240     " 1  38206 30500  ""1 ""    0     # line from  COTTLE A 230.00   (2) to BRKR  BELLOTA  230.00"
240     " 4  38206     0  ""1 ""    0     # LOAD-DROP    COTTLE A 230.00  LOAD==17.391365(0)"
240     0
241     #
241     #
241     # (398)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
241     #
241     " 1  38208 30515  ""1 ""    0     # line from  COTTLE B 230.00   (3) to BRKR  WARNERVL 230.00"
241     " 1  38208 30500  ""1 ""    0     # line from  COTTLE B 230.00   (3) to BRKR  BELLOTA  230.00"
241     " 2  38208 38349  ""1 ""    0     # TRAN from  COTTLE B 230.00   (3) to (1)   FRANKHMR   9.11"
241     " 4  38208     0  ""2 ""    0     # LOAD-DROP    COTTLE B 230.00  LOAD==19.283976(6.675752)"
241     " 3  38349     0  ""1 ""    0     # GEN-DROP    FRANKHMR   9.11  GEN==3.73(2.50)"
241     0
242     #
242     #
242     # (399)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
242     #
242     " 1  38600 30970  ""1 ""    0     # line from  BUENAVJ1 230.00   (3) to BRKR  MIDWAY   230.00"
242     " 1  38600 38601  ""1 ""    0     # line from  BUENAVJ1 230.00   (3) to BRKR  BUENAVT1 230.00"
242     " 1  38600 38640  ""1 ""    0     # line from  BUENAVJ1 230.00   (3) to (3)   WHLR RJ1 230.00"
242     " 1  38640 38641  ""1 ""    0     # line from  WHLR RJ1 230.00   (3) to BRKR  WHLR RT1 230.00"
242     " 1  38640 38650  ""1 ""    0     # line from  WHLR RJ1 230.00   (3) to (3)   WND GPJ1 230.00"
242     " 1  38650 30994  ""1 ""    0     # line from  WND GPJ1 230.00   (3) to BRKR  WHLR R 1 230.00"
242     " 1  38650 38651  ""1 ""    0     # line from  WND GPJ1 230.00   (3) to BRKR  WND GPT1 230.00"
242     0
243     #
243     #
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243     # (400)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
243     #
243    " 1  38601 38606  ""1 ""    0     # line from  BUENAVT1 230.00  BRKR to BRKR  BUENAVT2 230.00"
243    0
244     #
244     #
244     # (401)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
244     #
244    " 1  38605 30970  ""1 ""    0     # line from  BUENAVJ2 230.00   (3) to BRKR  MIDWAY   230.00"
244    " 1  38605 38606  ""1 ""    0     # line from  BUENAVJ2 230.00   (3) to BRKR  BUENAVT2 230.00"
244    " 1  38605 38645  ""1 ""    0     # line from  BUENAVJ2 230.00   (3) to (3)   WHLR RJ2 230.00"
244    " 1  38645 38646  ""1 ""    0     # line from  WHLR RJ2 230.00   (3) to BRKR  WHLR RT2 230.00"
244    " 1  38645 38655  ""1 ""    0     # line from  WHLR RJ2 230.00   (3) to (3)   WND GPJ2 230.00"
244    " 1  38655 30994  ""1 ""    0     # line from  WND GPJ2 230.00   (3) to BRKR  WHLR R 1 230.00"
244    " 1  38655 38656  ""1 ""    0     # line from  WND GPJ2 230.00   (3) to BRKR  WND GPT2 230.00"
244    0
245     #
245     #
245     # (402)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
245     #
245    " 1  38641 38646  ""1 ""    0     # line from  WHLR RT1 230.00  BRKR to BRKR  WHLR RT2 230.00"
245    0
246     #
246     #
246     # (403)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
246     #
246    #      **** 3-WINDING TRANSFORMER  30060  (35003)  30970  35002 :
246    " 2  30060 30970  ""11""    0     # TRAN from  MIDWAY   500.00  BRKR to (1)   MIDWAY   230.00"
246    0
247     #
247     #
247     # (404)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
247     #
247    #      **** 3-WINDING TRANSFORMER  30055  (34607)  30900  34606 :
247    " 2  30055 30900  ""11""    0     # TRAN from  GATES    500.00  BRKR to (1)   GATES    230.00"
247    0
248     #
248     #
248     # (405)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
248     #
248    " 2  30765 30069  ""1 ""    0     # TRAN from  LOSBANOS 230.00  BRKR to (3)   L.BANS M 500.00"
248    " 2  30069 30050  ""1 ""    0     # TRAN from  L.BANS M 500.00   (3) to BRKR  LOSBANOS 500.00"
248    " 2  30069 34302  ""1 ""    0     # TRAN from  L.BANS M 500.00   (3) to (1)   L.BANS T  13.80"
248    0
249     #
249     #
249     # (406)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
249     #
249    #      **** 3-WINDING TRANSFORMER  30790  (30791)  34158  34310 :
249    " 2  30790 34158  ""1 ""    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00"
249    0
250     #
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250     #
250     # (407)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
250     #
250    #      **** 3-WINDING TRANSFORMER  30790  (30792)  34158  34311 :
250    " 2  30790 34158  ""2 ""    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00"
250    0
251     #
251     #
251     # (408)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
251     #
251    #      **** 3-WINDING TRANSFORMER  30835  (30882)  34412  34630 :
251    " 2  30835 34412  ""1 ""    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00"
251    0
252     #
252     #
252     # (409)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
252     #
252    #      **** 3-WINDING TRANSFORMER  30835  (30883)  34412  34632 :
252    " 2  30835 34412  ""2 ""    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00"
252    0
253     #
253     #
253     # (410)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
253     #
253    #      **** 3-WINDING TRANSFORMER  30875  (30876)  34370  34618 :
253    " 2  30875 34370  ""1 ""    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00"
253    0
254     #
254     #
254     # (411)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
254     #
254    #      **** 3-WINDING TRANSFORMER  30875  (30877)  34370  34620 :
254    " 2  30875 34370  ""2 ""    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00"
254    0
255     #
255     #
255     # (412)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
255     #
255    #      **** 3-WINDING TRANSFORMER  30875  (30878)  34370  34621 :
255    " 2  30875 34370  ""3 ""    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00"
255    0
256     #
256     #
256     # (413)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
256     #
256    " 2  30881 34430  ""3 ""    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00"
256    0
257     #
257     #
257     # (414)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
257     #
257    " 2  30900 30901  ""1 ""    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00"
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257     " 2  30901 34378  ""1 ""    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00"
257     " 2  30901 34622  ""1 ""    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20"
257     0
258      #
258      #
258      # (415)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
258      #
258     " 2  30970 30060  ""1 ""    0     # TRAN from  MIDWAY   230.00  BRKR to BRKR  MIDWAY   500.00"
258     0
259      #
259      #
259      # (416)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
259      #
259     " 2  33906 34078  ""1 ""    0     # TRAN from  SPRNG GP 115.00  BRKR to (1)   SPRNG GP   6.00"
259     " 3  34078     0  ""1 ""    0     # GEN-DROP    SPRNG GP   6.00  GEN==3.93(0.84)"
259     0
260      #
260      #
260      # (417)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
260      #
260     " 2  34002 33964  ""1 ""    0     # TRAN from  SALADO    60.00  BRKR to (3)   SALADO   115.00"
260     " 1  33964 33962  ""1 ""    0     # line from  SALADO   115.00  BRKR to (1)   SALDO TP 115.00"
260     " 1  33964 33965  ""1 ""    0     # line from  SALADO   115.00  BRKR to (1)   SALADO J 115.00"
260     " 4  33964     0  ""1 ""    0     # LOAD-DROP    SALADO   115.00  LOAD==11.809886(1.403973)"
260     0
261     #
261     # CVEC Part 2; DRSutphin; 11/24/2001
261      #
261      #
261      # (418)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
261      #
261     " 2  34112 34176  ""1 ""    0     # TRAN from  EXCHEQUR 115.00  BRKR to (3)   EXCHQRTP 115.00"
261     " 2  34176 34232  ""1 ""    0     # TRAN from  EXCHQRTP 115.00   (3) to (4)   EXCHEQUR  70.00"
261     " 2  34176 34306  ""1 ""    0     # TRAN from  EXCHQRTP 115.00   (3) to (1)   EXCHQUER  13.80"
261     " 1  34232 34228  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MARIPOS2  70.00"
261     " 1  34232 34242  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (1)   BER VLLY  70.00"
261     " 1  34232 34321  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MCSWAINJ  70.00"
261     " 4  34228     0  ""2 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==9.648404(4.342248)"
261     " 4  34228     0  ""1 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==7.374337(0.739305)"
261     " 3  34306     0  ""1 ""    0     # GEN-DROP    EXCHQUER  13.80  GEN==89.95(16.84)"
261     " 1  34228 34244  ""1 ""    1     # Switch in Mariposa - Briceburg Jct     "
261     " 4  34228     0  ""**""    1     # Restore Mariposa load    "
261     0
262      #
262      #
262      # (419)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
262      #
262     " 2  34134 30800  ""1 ""    0     # TRAN from  WILSON A 115.00  BRKR to BRKR  WILSON   230.00"
262     0
263      #
263      #
263      # (420)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
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263     #
263     " 2  34136 30800  ""2 ""    0     # TRAN from  WILSON B 115.00  BRKR to BRKR  WILSON   230.00"
263     0
264     #
264     #
264     # (421)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
264     #
264     #      **** 3-WINDING TRANSFORMER  34144  (34146)  34202  34312 :
264     " 2  34144 34202  ""2 ""    0     # TRAN from  MERCED   115.00  BRKR to (1)   MERCED    70.00"
264     0
265     #
265     #
265     # (422)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
265     #
265     " 2  34214 30765  ""3 ""    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00"
265     0
266     #
266     #
266     # (423)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
266     #
266     " 2  34256 30805  ""1 ""    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00"
266     0
267     #
267     #
267     # (424)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
267     #
267     " 2  34356 34344  ""1 ""    0     # TRAN from  KERCKHF1 115.00  BRKR to (1)   KERCKHOF   6.60"
267     " 4  34344     0  ""4 ""    0     # LOAD-DROP    KERCKHOF   6.60  LOAD==2.051365(0.46411)"
267     " 3  34344     0  ""2 ""    0     # GEN-DROP    KERCKHOF   6.60  GEN==6.78(-1.80)"
267     0
268     #
268     #
268     # (425)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
268     #
268     " 2  34358 34308  ""1 ""    0     # TRAN from  KERCKHF2 115.00  BRKR to (1)   KERCKHOF  13.80"
268     " 3  34308     0  ""1 ""    0     # GEN-DROP    KERCKHOF  13.80  GEN==128.00(45.50)"
268     0
269     #
269     #
269     # (426)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
269     #
269     " 2  34400 34616  ""1 ""    0     # TRAN from  KNGS RVR 115.00  BRKR to (1)   KINGSRIV  13.80"
269     " 3  34616     0  ""1 ""    0     # GEN-DROP    KINGSRIV  13.80  GEN==47.00(2.00)"
269     0
270     #
270     #
270     # (427)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
270     #
270     #      **** 3-WINDING TRANSFORMER  34418  (34505)  34576  34626 :
270     " 2  34418 34576  ""1 ""    0     # TRAN from  KINGSBRG 115.00  BRKR to (1)   KNGLOBUS  70.00"
270     " 1  34456 34576  ""1 ""    0      # Must include Kingsburg - Hardwick (Kingsburg CB 22) in this outage"
270     " 4  34458     0  ""1 ""    0      # LOAD-DROP at Hardwick
```

```
used
for
2000
only   "
270     0
271      #
271      #
271      # (428)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
271      #
271     #      **** 3-WINDING TRANSFORMER  34418  (34507)  34576  34628 :
271     " 2  34418 34576  ""2 ""    0     # TRAN from  KINGSBRG 115.00  BRKR to (1)   KNGLOBUS  70.00"
271     " 1  34508 34576  ""1 ""    0      # Must include Kingsburg - Camden (Kingsburg CB 32) in this outage  "
271     " 4  34508     0  ""2 ""    0      # LOAD-DROP at Camden
used
for
2000
only   "
271     " 4  34508     0  ""1 ""    0      # LOAD-DROP at Camden
used
for
2000
only   "
271     " 1  34423 34418  ""1 ""    0      # Must include Kingsburg - Mc Call #2 (Kingsburg CB 122) in this out"
271     " 4  34418     0  ""1 ""    0      # Drop Kingsburg Bk#3 (modeled as load on Kingburg 115kV bus)    "
271     " 1  34418 34420  ""1 ""    0      # Must include Kingsburg - Corcoran #1 (Kingsburg CB 132) in this ou"
271     0
272      #
272      #
272      # (429)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
272      #
272     " 2  34474 30873  ""1 ""    0     # TRAN from  HELM      70.00  BRKR to BRKR  HELM     230.00"
272     0
273      #
273      #
273      # (430)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
273      #
273     " 2  34480 30830  ""2 ""    0     # TRAN from  KEARNEY   70.00  BRKR to BRKR  KEARNEY  230.00"
273     0
274      #
274      #
274      # (431)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
274      #
274     " 2  34488 34366  ""1 ""    0     # TRAN from  SANGER    70.00  BRKR to BRKR  SANGER   115.00"
274     0
275      #
275      #
275      # (432)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
275      #
275     " 2  34488 34366  ""2 ""    0     # TRAN from  SANGER    70.00  BRKR to BRKR  SANGER   115.00"
275     0
276      #
276      #
276      # (433)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
276      #
276     " 2  34488 34366  ""3 ""    0     # TRAN from  SANGER    70.00  BRKR to BRKR  SANGER   115.00"
```

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276     0
277      #
277      #
277      # (434)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
277      #
277     " 2  34492 34380  ""2 ""    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00"
277     0
278      #
278      #
278      # (435)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
278      #
278     " 2  34528 34420  ""2 ""    0     # TRAN from  CORCORAN  70.00  BRKR to BRKR  CORCORAN 115.00"
278     " 1  34420 34392  ""1 ""    0      # Must include Corcoran - Quebec   (Corcoran CB 142) in this outage "
278     " 1  34420 34418  ""2 ""    0      # Must include Corcoran - Kingburg (Corcoran CB 162) in this outage "
278     " 1  34528 34460  ""1 ""    0      # Must include Corcorna - Guernsey (Corcoran CB  42) in this outage "
278     0
279      #
279      #
279      # (436)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
279      #
279     " 2  34540 30881  ""2 ""    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00"
279     0
280      #
280      #
280      # (437)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
280      #
280     " 2  34552 34378  ""2 ""    0     # TRAN from  GATES     70.00  BRKR to BRKR  GATES    115.00"
280     0
281      #
281      #
281      # (438)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
281      #
281     " 2  34562 34354  ""1 ""    0     # TRAN from  SCHLNDLR  70.00  BRKR to BRKR  SCHINDLR 115.00"
281     0
282      #
282      #
282      # (439)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
282      #
282     " 2  34752 30945  ""3 ""    0     # TRAN from  KERN PWR 115.00  BRKR to BRKR  KERN PP  230.00"
282     " 2  34752 30945  ""4 ""    0      # When either bank 3 or 3a the other will also trip because they are"
282     0
283      #
283      #
283      # (440)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
283      #
283     " 2  34752 30945  ""3a""    0     # TRAN from  KERN PWR 115.00  BRKR to BRKR  KERN PP  230.00"
283     0
284      #
284      #
284      # (441)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
284      #
284     " 2  34752 30945  ""5 ""    0     # TRAN from  KERN PWR 115.00  BRKR to BRKR  KERN PP  230.00"
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284     0
285      #
285      #
285      # (442)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
285      #
285     " 2  34752 34768  ""1 ""    0     # TRAN from  KERN PWR 115.00  BRKR to (3)   KERN 1 M 115.00"
285     " 2  34768 34914  ""1 ""    0     # TRAN from  KERN 1 M 115.00   (3) to BRKR  KERN PW1  70.00"
285     " 2  34768 35006  ""1 ""    0     # TRAN from  KERN 1 M 115.00   (3) to (1)   KERN 1    13.80"
285     0
286      #
286      #
286      # (443)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
286      #
286     " 2  34752 34770  ""1 ""    0     # TRAN from  KERN PWR 115.00  BRKR to (3)   KERN 2 M 115.00"
286     " 2  34770 34918  ""1 ""    0     # TRAN from  KERN 2 M 115.00   (3) to BRKR  KERN PW2  70.00"
286     " 2  34770 35008  ""1 ""    0     # TRAN from  KERN 2 M 115.00   (3) to (1)   KERN 2    13.80"
286     0
287      #
287      #
287      # (444)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
287      #
287     " 2  34776 34860  ""2 ""    0     # TRAN from  TAFT     115.00   (5) to BRKR  TAFT A    70.00"
287     " 1  34776 34786  ""1 ""    0     # line from  TAFT     115.00  BRKR to (1)   UNIVRSTY 115.00"
287     " 1  34776 34816  ""1 ""    0     # line from  TAFT     115.00  BRKR to (1)   NAVY 35R 115.00"
287     " 1  34776 34802  ""1 ""    0     # line from  TAFT     115.00  BRKR to (1)   MIDSET   115.00"
287     " 2  34776 34772  ""1 ""    0     # TRAN from  TAFT     115.00  BRKR to (1)   TAFT   M 115.00"
287     " 4  34776     0  ""3 ""    0     # LOAD-DROP    TAFT     115.00  LOAD==2.907274(0)"
287     0
288      #
288      #
288      # (445)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
288      #
288     " 2  34874 30994  ""4 ""    0     # TRAN from  WHEELER   70.00  BRKR to BRKR  WHLR R 1 230.00"
288     0
289      #
289      #
289      # (446)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
289      #
289     " 2  34874 34756  ""2 ""    0     # TRAN from  WHEELER   70.00  BRKR to BRKR  WHEELER  115.00"
289     0
290      #
290      #
290      # (447)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
290      #
290     " 2  36252 30915  ""6 ""    0     # TRAN from  MORRO BY 115.00  BRKR to BRKR  MORROBAY 230.00"
290     0
291      #
291      #
291      # (448)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
291      #
291     " 2  36256 30930  ""1 ""    0     # TRAN from  MESA_PGE 115.00  BRKR to BRKR  MESA PGE 230.00"
291     0
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292     #
292     #
292     # (449)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
292     #
292    " 2  36256 30930  ""2 ""    0     # TRAN from  MESA_PGE 115.00  BRKR to BRKR  MESA PGE 230.00"
292    0
293     #
293     #
293     # (450)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
293     #
293    " 2  36310 30905  ""1 ""    0     # TRAN from  TEMPLT7   70.00   (3) to BRKR  TEMPLETN 230.00"
293    " 1  36310 36316  ""1 ""    0     # line from  TEMPLT7   70.00  BRKR to (1)   TEMPL J2  70.00"
293    " 1  36310 36315  ""1 ""    0     # line from  TEMPLT7   70.00  BRKR to (1)   TEMPL J   70.00"
293    " 1  30905 30915  ""1 ""    0      # Must include the Templeton-MorroBay 230 kV (Templeton CB 272) in t"
293    " 4  36356     0  ""2 ""    0      # A local RAS will dump Paso Robles Bk #2 if this outage occurs    "
293    " 4  36356     0  ""3 ""    0      # A local RAS will dump Paso Robles Bk #3 if this outage occurs    "
293    0
294     #
294     #
294     # (451)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
294     #
294    " 2  36376 36254  ""3 ""    0     # TRAN from  SN LS OB  70.00  BRKR to BRKR  SN LS OB 115.00"
294    0
295     #
295     #
295     # (452)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
295     #
295    " 2  38601 38775  ""1 ""    0     # TRAN from  BUENAVT1 230.00  BRKR to (1)   BUENAVS1  13.20"
295    " 3  38775     0  ""4 ""    0     # GEN-DROP    BUENAVS1  13.20  GEN==-10.00(0.00)"
295    " 3  38775     0  ""5 ""    0     # GEN-DROP    BUENAVS1  13.20  GEN==-10.00(0.00)"
295    " 3  38775     0  ""6 ""    0     # GEN-DROP    BUENAVS1  13.20  GEN==-10.00(0.00)"
295    0
296     #
296     #
296     # (453)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
296     #
296    " 2  38606 38780  ""1 ""    0     # TRAN from  BUENAVT2 230.00  BRKR to (1)   BUENAVS2  13.20"
296    " 3  38780     0  ""1 ""    0     # GEN-DROP    BUENAVS2  13.20  GEN==-10.00(0.00)"
296    " 3  38780     0  ""2 ""    0     # GEN-DROP    BUENAVS2  13.20  GEN==-11.10(0.00)"
296    0
297     #
297     #
297     # (454)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
297     #
297    " 2  38641 38785  ""1 ""    0     # TRAN from  WHLR RT1 230.00  BRKR to (1)   WHLR RD1  13.20"
297    " 3  38785     0  ""5 ""    0     # GEN-DROP    WHLR RD1  13.20  GEN==-10.00(0.00)"
297    0
298     #
298     #
298     # (455)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
298     #
298    " 2  38646 38790  ""1 ""    0     # TRAN from  WHLR RT2 230.00  BRKR to (1)   WHLR RD2  13.20"
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298     " 3  38790     0  ""1 ""    0     # GEN-DROP    WHLR RD2  13.20  GEN==-10.00(0.00)"
298     " 3  38790     0  ""2 ""    0     # GEN-DROP    WHLR RD2  13.20  GEN==-10.00(0.00)"
298     " 3  38790     0  ""3 ""    0     # GEN-DROP    WHLR RD2  13.20  GEN==-10.00(0.00)"
298     " 3  38790     0  ""4 ""    0     # GEN-DROP    WHLR RD2  13.20  GEN==-4.48(0.00)"
298     0
299      #
299      #
299      # (456)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
299      #
299     " 2  38651 38795  ""1 ""    0     # TRAN from  WND GPT1 230.00  BRKR to (1)   WINDGAP1  13.20"
299     0
300      #
300      #
300      # (457)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
300      #
300     " 2  38651 38800  ""1 ""    0     # TRAN from  WND GPT1 230.00  BRKR to (1)   WINDGAP2  13.20"
300     " 3  38800     0  ""1 ""    0     # GEN-DROP    WINDGAP2  13.20  GEN==-20.00(0.00)"
300     " 3  38800     0  ""2 ""    0     # GEN-DROP    WINDGAP2  13.20  GEN==-20.00(0.00)"
300     0
301      #
301      #
301      # (458)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
301      #
301     " 2  38656 38805  ""1 ""    0     # TRAN from  WND GPT2 230.00  BRKR to (1)   WINDGAP3  13.20"
301     " 3  38805     0  ""1 ""    0     # GEN-DROP    WINDGAP3  13.20  GEN==-20.00(0.00)"
301     " 3  38805     0  ""2 ""    0     # GEN-DROP    WINDGAP3  13.20  GEN==-20.00(0.00)"
301     0
302      #
302      #
302      # (459)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
302      #
302     " 2  38656 38810  ""1 ""    0     # TRAN from  WND GPT2 230.00  BRKR to (1)   WINDGAP4  13.20"
302     " 3  38810     0  ""1 ""    0     # GEN-DROP    WINDGAP4  13.20  GEN==-17.00(0.00)"
302     0
303      #
303      #
303      # (460)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
303      #
303     " 2  36378 36268  ""2 ""    0     # TRAN from  DIVIDE    70.00  BRKR to BRKR  DIVVIDE  115.00"
303     0
304      #
304      #
304      # (461)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
304      #
304     #      **** 3-WINDING TRANSFORMER  34268  (34174)  34156  34314 :
304     " 2  34268 34156  ""1 ""    0     # TRAN from  MENDOTA   70.00  BRKR to (3)   MENDOTA  115.00"
304     " 1  34156 34178  ""1 ""    0     # line from  MENDOTA  115.00  BRKR to (1)   CAPCOTAP 115.00"
304     " 1  34156 34157  ""1 ""    0     # line from  MENDOTA  115.00  BRKR to (1)   PANOCHET 115.00"
304     # THIS IS ACTUALLY THE MENDOTA 115/70 OUTAGE
304     0
305      #
305      #
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305     # (462)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
305     #
305     " 2  34774 30970  ""2 ""    0     # TRAN from  MIDWAY   115.00  BRKR to BRKR  MIDWAY   230.00"
305     0
306     #
306     #
306     # (463)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
306     #
306     " 2  34774 30970  ""2a""    0     # TRAN from  MIDWAY   115.00  BRKR to BRKR  MIDWAY   230.00"
306     0
307     #
307     #
307     # (464)  B1 GENERATOR OUTAGE
307     #  no comparable  before CVEC outage
307     "#  3  34666     0  ""1""     0     # CVEC ST1  19.00       PGEN=569.00  QGEN=203.99"
307     # 0
307     #
307     #
307     # (465)  B1 GENERATOR OUTAGE
307     #  no comparable  before CVEC outage
307     "#  3  34664     0  ""1""     0     # CVEC CT3  18.00       PGEN=177.00  QGEN=-15.50"
307     # 0
307     #
307     #
307     # (466)  B1 GENERATOR OUTAGE
307     #  no comparable  before CVEC outage
307     "#  3  34662     0  ""1""     0     # CVEC CT2  18.00       PGEN=177.00  QGEN=-8.86"
307     # 0
307     #
307     #
307     # (467)  B1 GENERATOR OUTAGE
307     #  no comparable  before CVEC outage
307     "#  3  34660     0  ""1""     0     # CVEC CT1  18.00       PGEN=177.00  QGEN=-8.86"
307     # 0
307     #
307     #-1
307     # EOF
307     # Program: autocon_make.p   Thu Feb 08 10:59:34 2001
307     "# Input Case: ""C:\data\2001\cases\01\a01sum2001_a6r3.sav"""
307     "# Input File: ""C:\data\2001\2001-Master-brkr.in"""
307     "# area_numbers  ""13"""
307     "# zone_numbers  "" """
307     "# voltage_range  ""1 230"""
307     "# bus_fault_opt  "" """
307     "# Output File (this output): ""C:\data\2001\Area13_B_01r.in"""
307     "# Batch file: ""c:\data\2001\autocon_make_batch_file.go"""
307     #
307     #PG&E 2001 TRANSMISSION ASSESSMENT STUDY
307     " #2001SUMPK AREA 6 CASE: COI=4880MW (n2s)
P26=2
00MW
(n2s)"
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```
307     " #1-IN-5 FORECAST; PG&E AREA LOADS/LOSSES=25
400M
W;
1/29/20
01"
307     #
307     #
307     # (1)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
307     #
307     " 1  30515 30795  ""1 ""    0     # line from  WARNERVL 230.00  BRKR to (2)   STOREY 2 230.00"
307     " 1  30795 30805  ""1 ""    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00"
307     " 4  30795     0  ""2 ""    0     # LOAD-DROP    STOREY 2 230.00  LOAD==33.65(0.00)"
307     " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Warnerville - Borden line"
307     0
308     # Duplicate Contingency:   #
308     # Duplicate Contingency:   #
308     # Duplicate Contingency:   # (2)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
308     # Duplicate Contingency:   #
308     "# Duplicate Contingency:  1  30670 30765  ""1 ""    0     # line from  WESTLEY  230.00  BRKR to BRKR  LOSBANOS 230.00"
308     # Duplicate Contingency: 0
308     #
308     #
308     # (3)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
308     #
308     " 1  30750 30790  ""1 ""    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00"
308     0
309     #
309     #
309     # (4)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
309     #
309     " 1  30760 30790  ""1 ""    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00"
309     0
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   # (5)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
310     # Duplicate Contingency:   #
310     "# Duplicate Contingency:  1  30765 30790  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00"
310     # Duplicate Contingency: 0
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   # (6)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
310     # Duplicate Contingency:   #
310     "# Duplicate Contingency:  1  30765 30790  ""2 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00"
310     # Duplicate Contingency: 0
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   # (7)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
310     # Duplicate Contingency:   #
310     "# Duplicate Contingency:  1  30765 38615  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00"
310     # Duplicate Contingency: 0
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   # (8)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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310     # Duplicate Contingency:   #
310     "# Duplicate Contingency:  1  30765 38625  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00"
310     # Duplicate Contingency: 0
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   #
310     # Duplicate Contingency:   # (9)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
310     # Duplicate Contingency:   #
310     "# Duplicate Contingency:  1  30765 38625  ""2 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00"
310     # Duplicate Contingency: 0
310      #
310      #
310      # (10a)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
310     " 1  30790 30873  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
310     " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
310     "# 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
310     "# 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==13.07(2.59)"
310     0
311      #
311      # (10b)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
311     " 1  30873 30825  ""1 ""    0     # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
311     " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
311     " 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
311     " 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==13.07(2.59)"
311     0
312     # Duplicate Contingency:   #
312     # Duplicate Contingency:   #
312     # Duplicate Contingency:   # (11)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
312     # Duplicate Contingency:   #
312     "# Duplicate Contingency:  1  30790 30873  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
312     # Duplicate Contingency: 0
312     # Duplicate Contingency:   #
312     # Duplicate Contingency:   #
312     # Duplicate Contingency:   # (12)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
312     # Duplicate Contingency:   #
312     "# Duplicate Contingency:  1  30790 30900  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
312     # Duplicate Contingency: 0
312     # Duplicate Contingency:   #
312     # Duplicate Contingency:   #
312     # Duplicate Contingency:   # (13)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
312     # Duplicate Contingency:   #
312     "# Duplicate Contingency:  1  30790 30900  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
312     # Duplicate Contingency: 0
312      #
312      #
312      # (14)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
312      #
312     " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
312     " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
312     " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)"
312     " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Storey line"
312     0
313      #
```

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313     #
313     # (15)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
313     #
313    " 1  30805 30810  ""1 ""    0    # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00"
313    " 3  34604     0  ""**""    0     # Drop Helms unit#3 with a loss Gregg - Borden line"
313    0
314     #
314     #
314     # (16)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
314     #
314    " 1  34100 34101  ""1 ""    0    # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00"
314    " 1  34101 34116  ""1 ""    0    # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00"
314    " 1  34101 34107  ""1 ""    0    # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00"
314    " 1  34107 34103  ""1 ""    0    # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00"
314    " 1  34103 34102  ""1 ""    0    # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00"
314    " 1  34103 34109  ""1 ""    0    # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00"
314    " 2  34109 34301  ""1 ""    0    # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80"
314    " 4  34102     0  ""1 ""    0    # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)"
314    " 3  34301     0  ""1 ""    0    # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)"
314    0
315     #
315     #
315     # (17)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
315     #
315    " 1  34104 34106  ""1 ""    0    # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00"
315    " 1  34106 34138  ""1 ""    0    # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00"
315    0
316     #
316     #
316     # (18)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
316     #
316    " 1  34104 34108  ""1 ""    0    # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00"
316    " 1  34108 34110  ""1 ""    0    # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00"
316    " 1  34108 34114  ""1 ""    0    # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00"
316    " 1  34114 34124  ""1 ""    0    # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00"
316    " 2  34114 34332  ""1 ""    0    # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11"
316    " 1  34124 34140  ""1 ""    0    # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00"
316    " 4  34124     0  ""1 ""    0    # LOAD-DROP    JR WOOD  115.00  LOAD==13.77(12.14)"
316    " 4  34140     0  ""1 ""    0    # LOAD-DROP    CRESSEY  115.00  LOAD==20.80(3.20)"
316    " 3  34332     0  ""1 ""    0    # GEN-DROP    JRWCOGEN   9.11  GEN==4.38(5.40)"
316    0
317     #
317     #
317     # (19)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
317     #
317    " 1  34105 34100  ""1 ""    0    # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00"
317    " 1  34105 34121  ""1 ""    0    # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00"
317    " 1  34121 34120  ""1 ""    0    # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00"
317    " 1  34121 34128  ""1 ""    0    # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00"
317    " 1  34128 34126  ""1 ""    0    # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00"
317    " 1  34128 34356  ""1 ""    0    # line from  OAKH_JCT 115.00   (3) to BRKR  KERCKHF1 115.00"
317    " 1  34126 34122  ""1 ""    0    # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00"
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317     " 4  34120     0  ""1 ""    0     # LOAD-DROP    SHARON   115.00  LOAD==7.11(4.78)"
317     " 4  34126     0  ""1 ""    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==10.98(2.28)"
317     " 4  34126     0  ""2 ""    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==6.70(0.00)"
317     " 4  34122     0  ""1 ""    0     # LOAD-DROP    OAKHURST 115.00  LOAD==13.08(5.33)"
317     " 4  34122     0  ""2 ""    0     # LOAD-DROP    OAKHURST 115.00  LOAD==9.10(-1.54)"
317     0
318      #
318      #
318      # (20)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
318      #
318     " 1  34108 34110  ""1 ""    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00"
318     " 1  34110 34130  ""1 ""    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00"
318     " 1  34110 34144  ""1 ""    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00"
318     " 1  34130 34132  ""1 ""    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00"
318     " 4  34130     0  ""3 ""    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==22.10(5.44)"
318     " 4  34132     0  ""1 ""    0     # LOAD-DROP    GALLO    115.00  LOAD==5.77(5.56)"
318     0
319      #
319      #
319      # (21)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
319      #
319     " 1  34112 34116  ""1 ""    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00"
319     " 3  34306     0  ""1 ""    0      # Exchequer Unit will trip for this outage    "
319     " 4  34228     0  ""**""    0      # Mariposa Loads will drop if bus is below 64 kV
this is
anticip
ate"
319     0
320     # Duplicate Contingency:   #
320     # Duplicate Contingency:   #
320     # Duplicate Contingency:   # (22)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
320     # Duplicate Contingency:   #
320     "# Duplicate Contingency:  1  34116 34136  ""1 ""    0     # line from  LE GRAND 115.00  BRKR to BRKR  WILSON B 115.00"
320     # Duplicate Contingency: 0
320     # Duplicate Contingency:   #
320     # Duplicate Contingency:   #
320     # Duplicate Contingency:   # (23)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
320     # Duplicate Contingency:   #
320     "# Duplicate Contingency:  1  34116 34154  ""1 ""    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00"
320     # Duplicate Contingency: 0
320      #
320      #
320      # (24)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
320      #
320     " 1  34118 34136  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00"
320     " 1  34118 34168  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00"
320     " 1  34168 34162  ""1 ""    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00"
320     " 4  34168     0  ""1 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.97(0.00)"
320     " 4  34168     0  ""2 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==12.15(-3.95)"
320     0
321     # Duplicate Contingency:   #
321     # Duplicate Contingency:   #
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321     # Duplicate Contingency:   # (25)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
321     # Duplicate Contingency:   #
321     "# Duplicate Contingency:  1  34134 34104  ""1 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00"
321     # Duplicate Contingency: 0
321     # Duplicate Contingency:   #
321     # Duplicate Contingency:   #
321     # Duplicate Contingency:   # (26)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
321     # Duplicate Contingency:   #
321     "# Duplicate Contingency:  1  34134 34144  ""1 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00"
321     # Duplicate Contingency: 0
321     # Duplicate Contingency:   #
321     # Duplicate Contingency:   #
321     # Duplicate Contingency:   # (27)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
321     # Duplicate Contingency:   #
321     "# Duplicate Contingency:  1  34134 34144  ""2 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00"
321     # Duplicate Contingency: 0
321     # Duplicate Contingency:   #
321     # Duplicate Contingency:   #
321     # Duplicate Contingency:   # (28)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
321     # Duplicate Contingency:   #
321     "# Duplicate Contingency:  1  34136 34138  ""1 ""    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00"
321     # Duplicate Contingency: 0
321      #
321      #
321      # (29)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
321      #
321     " 1  34149 34148  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  CHENY    115.00"
321     " 1  34149 34158  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00"
321     " 1  34149 34354  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00"
321     " 4  34148     0  ""1 ""    0     # LOAD-DROP    CHENY    115.00  LOAD==13.86(0.00)"
321     0
322      #
322      #
322      # (30)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
322      #
322     " 1  34150 34154  ""1 ""    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00"
322     " 1  34150 34178  ""1 ""    0     # line from  NEWHALL  115.00   (2) to (2)   CAPCOTAP 115.00"
322     " 1  34178 34156  ""1 ""    0     # line from  CAPCOTAP 115.00   (2) to BRKR  MENDOTA  115.00"
322     " 4  34150     0  ""2 ""    0     # LOAD-DROP    NEWHALL  115.00  LOAD==6.08(1.50)"
322     " 4  34150     0  ""3 ""    0     # LOAD-DROP    NEWHALL  115.00  LOAD==8.30(1.64)"
322     0
323      #
323      #
323      # (31)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
323      #
323     " 1  34157 34156  ""1 ""    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00"
323     " 1  34157 34158  ""1 ""    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00"
323     0
324      #
324      #
324      # (32)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
324      #
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324     " 1  34158 34350  ""1 ""    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00"
324     " 1  34350 34352  ""1 ""    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00"
324     " 1  34352 34432  ""1 ""    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00"
324     " 1  34432 34354  ""1 ""    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00"
324     " 4  34350     0  ""1 ""    0     # LOAD-DROP    KAMM     115.00  LOAD==3.76(1.71)"
324     " 4  34352     0  ""1 ""    0     # LOAD-DROP    CANTUA   115.00  LOAD==16.02(2.51)"
324     " 4  34432     0  ""16""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)"
324     " 4  34432     0  ""18""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)"
324     0
325      #
325      #
325      # (33)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
325      #
325     " 1  34159 34158  ""1 ""    0     # line from  PANOCHEJ 115.00   (3) to BRKR  PANOCHE  115.00"
325     " 1  34159 34160  ""1 ""    0     # line from  PANOCHEJ 115.00   (3) to (2)   HAMMONDS 115.00"
325     " 1  34159 34180  ""1 ""    0     # line from  PANOCHEJ 115.00   (3) to (3)   OXFRDJCT 115.00"
325     " 1  34160 34161  ""1 ""    0     # line from  HAMMONDS 115.00   (2) to (3)   DFSTP    115.00"
325     " 1  34161 34162  ""1 ""    0     # line from  DFSTP    115.00   (3) to BRKR  ORO LOMA 115.00"
325     " 1  34161 34164  ""1 ""    0     # line from  DFSTP    115.00   (3) to (1)   DFS      115.00"
325     " 1  34180 34166  ""1 ""    0     # line from  OXFRDJCT 115.00   (3) to (1)   OXFORD   115.00"
325     " 1  34180 34181  ""1 ""    0     # line from  OXFRDJCT 115.00   (3) to (3)   WSTLDJCT 115.00"
325     " 1  34181 34182  ""1 ""    0     # line from  WSTLDJCT 115.00   (3) to (1)   WSTLD1RA 115.00"
325     " 1  34181 34183  ""1 ""    0     # line from  WSTLDJCT 115.00   (3) to (3)   LUISJCT  115.00"
325     " 1  34183 34163  ""1 ""    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#3  115.00"
325     " 1  34183 34165  ""1 ""    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#5  115.00"
325     " 4  34160     0  ""1 ""    0     # LOAD-DROP    HAMMONDS 115.00  LOAD==9.78(1.25)"
325     " 4  34164     0  ""1 ""    0     # LOAD-DROP    DFS      115.00  LOAD==2.90(2.25)"
325     " 4  34166     0  ""1 ""    0     # LOAD-DROP    OXFORD   115.00  LOAD==3.97(1.81)"
325     " 4  34182     0  ""1 ""    0     # LOAD-DROP    WSTLD1RA 115.00  LOAD==2.98(0.80)"
325     " 4  34163     0  ""1 ""    0     # LOAD-DROP    LUIS_#3  115.00  LOAD==3.40(0.77)"
325     " 4  34165     0  ""1 ""    0     # LOAD-DROP    LUIS_#5  115.00  LOAD==3.25(0.74)"
325     0
326      #
326      #
326      # (34)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
326      #
326     " 1  34172 34170  ""1 ""    0     # line from  WESTLAND  70.00   (2) to (1)   WESIX     70.00"
326     " 1  34172 34271  ""1 ""    0     # line from  WESTLAND  70.00   (2) to (3)   WSTLDJCT  70.00"
326     " 1  34271 34269  ""1 ""    0     # line from  WSTLDJCT  70.00   (3) to (3)   BIOMSJCT  70.00"
326     " 1  34271 34469  ""1 ""    0     # line from  WSTLDJCT  70.00   (3) to (3)   GFFNJCT   70.00"
326     " 1  34269 34268  ""1 ""    0     # line from  BIOMSJCT  70.00   (3) to BRKR  MENDOTA   70.00"
326     " 1  34269 34270  ""1 ""    0     # line from  BIOMSJCT  70.00   (3) to (2)   BIOMASS   70.00"
326     " 2  34270 34334  ""1 ""    0     # TRAN from  BIOMASS   70.00   (2) to (1)   BIO PWR    9.11"
326     " 1  34469 34470  ""1 ""    0     # line from  GFFNJCT   70.00   (3) to (1)   GIFFEN    70.00"
326     " 1  34469 34471  ""1 ""    0     # line from  GFFNJCT   70.00   (3) to (3)   SNJQJCT   70.00"
326     " 1  34471 34472  ""1 ""    0     # line from  SNJQJCT   70.00   (3) to BRKR  SAN JOQN  70.00"
326     " 1  34471 34474  ""1 ""    0     # line from  SNJQJCT   70.00   (3) to BRKR  HELM      70.00"
326     " 4  34172     0  ""1 ""    0     # LOAD-DROP    WESTLAND  70.00  LOAD==3.20(0.73)"
326     " 4  34170     0  ""1 ""    0     # LOAD-DROP    WESIX     70.00  LOAD==1.60(0.36)"
326     " 4  34470     0  ""1 ""    0     # LOAD-DROP    GIFFEN    70.00  LOAD==8.63(1.22)"
326     " 4  34472     0  ""1 ""    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==5.06(-0.39)"
326     " 4  34472     0  ""2 ""    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==4.05(1.79)"
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326     " 3  34334     0  ""1 ""    0     # GEN-DROP    BIO PWR    9.11  GEN==21.55(-8.00)"
326     " 4  34472 34473  ""1 ""    1      # Switches in San Joaquin CB22 to transfer load      "
326     " 4  34472     0  ""**""    1      # Restore Load at San Joaquin    "
326     0
327      #
327      #
327      # (35)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
327      #
327     " 1  34200 34218  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (2)   DOS PALS  70.00"
327     " 1  34218 34216  ""1 ""    0     # line from  DOS PALS  70.00   (2) to BRKR  SNTA RTA  70.00"
327     " 4  34218     0  ""1 ""    0     # LOAD-DROP    DOS PALS  70.00  LOAD==9.29(0.59)"
327     0
328      #
328      #
328      # (36)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
328      #
328     " 1  34200 34222  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00"
328     " 1  34222 34220  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00"
328     " 1  34222 34224  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00"
328     " 1  34220 34206  ""1 ""    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00"
328     " 1  34224 34272  ""1 ""    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00"
328     " 1  34272 34214  ""1 ""    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00"
328     " 4  34220     0  ""1 ""    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.24(0.47)"
328     " 4  34224     0  ""1 ""    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.51(1.70)"
328     " 4  34272     0  ""1 ""    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.38(1.15)"
328     0
329      #
329      #
329      # (37)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
329      #
329     " 1  34200 34234  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (2)   POSO J1   70.00"
329     " 1  34234 34266  ""1 ""    0     # line from  POSO J1   70.00   (2) to (2)   FIREBAGH  70.00"
329     " 1  34266 34267  ""1 ""    0     # line from  FIREBAGH  70.00   (2) to (2)   TOMATAK   70.00"
329     " 1  34267 34268  ""1 ""    0     # line from  TOMATAK   70.00   (2) to BRKR  MENDOTA   70.00"
329     " 4  34266     0  ""1 ""    0     # LOAD-DROP    FIREBAGH  70.00  LOAD==10.59(2.41)"
329     " 4  34267     0  ""1 ""    0     # LOAD-DROP    TOMATAK   70.00  LOAD==6.60(5.12)"
329     0
330     # Duplicate Contingency:   #
330     # Duplicate Contingency:   #
330     # Duplicate Contingency:   # (38)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
330     # Duplicate Contingency:   #
330     "# Duplicate Contingency:  1  34202 34230  ""1 ""    0     # line from  MERCED    70.00  BRKR to BRKR  MRCDFLLS  70.00"
330     # Duplicate Contingency: 0
330     # Duplicate Contingency:   #
330     # Duplicate Contingency:   #
330     # Duplicate Contingency:   # (39)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
330     # Duplicate Contingency:   #
330     "# Duplicate Contingency:  1  34202 34236  ""1 ""    0     # line from  MERCED    70.00  BRKR to (1)   POSO J2   70.00"
330     # Duplicate Contingency: 0
330      #
330      #
330      # (40)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

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330     #
330     " 1  34204 34212  ""1 ""    0     # line from  LIVNGSTN  70.00   (1) to (3)   LVNGSTNT  70.00"
330     " 1  34212 34206  ""1 ""    0     # line from  LVNGSTNT  70.00   (3) to BRKR  CANAL     70.00"
330     " 1  34212 34210  ""1 ""    0     # line from  LVNGSTNT  70.00   (3) to (2)   SNTA NLA  70.00"
330     " 1  34210 34208  ""1 ""    0     # line from  SNTA NLA  70.00   (2) to (2)   CHEVPIPE  70.00"
330     " 1  34208 34214  ""1 ""    0     # line from  CHEVPIPE  70.00   (2) to BRKR  LOS BANS  70.00"
330     " 4  34210     0  ""1 ""    0     # LOAD-DROP    SNTA NLA  70.00  LOAD==8.35(0.00)"
330     " 4  34208     0  ""1 ""    0     # LOAD-DROP    CHEVPIPE  70.00  LOAD==1.37(0.92)"
330     0
331     # Duplicate Contingency:   #
331     # Duplicate Contingency:   #
331     # Duplicate Contingency:   # (41)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
331     # Duplicate Contingency:   #
331     "# Duplicate Contingency:  1  34206 34216  ""1 ""    0     # line from  CANAL     70.00  BRKR to BRKR  SNTA RTA  70.00"
331     # Duplicate Contingency: 0
331      #
331      #
331      # (42)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
331      #
331     " 1  34214 34278  ""1 ""    0     # line from  LOS BANS  70.00  BRKR to (2)   PCHCO PP  70.00"
331     " 1  34278 34280  ""1 ""    0     # line from  PCHCO PP  70.00   (2) to (2)   INTL TUR  70.00"
331     " 2  34280 34342  ""1 ""    0     # TRAN from  INTL TUR  70.00   (2) to (1)   INT.TURB   9.11"
331     " 4  34278     0  ""1 ""    0     # LOAD-DROP    PCHCO PP  70.00  LOAD==18.00(4.10)"
331     " 3  34342     0  ""1 ""    0     # GEN-DROP    INT.TURB   9.11  GEN==0.90(0.00)"
331     0
332      #
332      #
332      # (43)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
332      #
332     " 1  34214 34282  ""1 ""    0     # line from  LOS BANS  70.00  BRKR to (2)   ONLL PMP  70.00"
332     " 2  34282 34316  ""1 ""    0     # TRAN from  ONLL PMP  70.00   (2) to (1)   ONEILPMP   9.11"
332     " 4  34282     0  ""1 ""    0     # LOAD-DROP    ONLL PMP  70.00  LOAD==6.00(1.20)"
332     " 3  34316     0  ""1 ""    0     # GEN-DROP    ONEILPMP   9.11  GEN==0.52(0.00)"
332     0
333      #
333      #
333      # (44)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
333      #
333     " 1  34228 34232  ""1 ""    0     # line from  MARIPOS2  70.00   (1) to BRKR  EXCHEQUR  70.00"
333     " 4  34228     0  ""1 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==7.38(0.74)"
333     " 4  34228     0  ""2 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==9.65(4.34)"
333     " 1  34228 34244  ""1 ""    1      # Switches in Mariposa SW 39 to transfer load     "
333     " 4  34228     0  ""**""    1      # Restore Load at Mariposa    "
333     0
334      #
334      #
334      # (45)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
334      #
334     " 1  34232 34242  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (2)   BER VLLY  70.00"
334     " 1  34242 34244  ""1 ""    0     # line from  BER VLLY  70.00   (2) to (2)   BRCEBG J  70.00"
334     " 1  34244 34246  ""1 ""    0     # line from  BRCEBG J  70.00   (2) to (3)   SAXONCRK  70.00"
334     " 1  34246 34248  ""1 ""    0     # line from  SAXONCRK  70.00   (3) to (2)   INDN FLT  70.00"
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```
334     " 2  34246 34346  ""1 ""    0     # TRAN from  SAXONCRK  70.00   (3) to (1)   SAXNCK L   4.16"
334     " 1  34248 34250  ""1 ""    0     # line from  INDN FLT  70.00   (2) to (1)   YOSEMITE  70.00"
334     " 4  34242     0  ""1 ""    0     # LOAD-DROP    BER VLLY  70.00  LOAD==6.30(0.00)"
334     " 4  34246     0  ""1 ""    0     # LOAD-DROP    SAXONCRK  70.00  LOAD==1.50(0.30)"
334     " 4  34248     0  ""1 ""    0     # LOAD-DROP    INDN FLT  70.00  LOAD==2.51(0.41)"
334     " 4  34250     0  ""1 ""    0     # LOAD-DROP    YOSEMITE  70.00  LOAD==2.99(0.00)"
334     0
335      #
335      #
335      # (46)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
335      #
335     " 1  34237 34255  ""1 ""    0     # line from  CANANDGA  70.00   (2) to (3)   TRIGO J   70.00"
335     " 1  34237 34240  ""1 ""    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00"
335     " 1  34255 34238  ""1 ""    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00"
335     " 1  34255 34254  ""1 ""    0     # line from  TRIGO J   70.00   (3) to (2)   TRIGO     70.00"
335     " 1  34254 34264  ""1 ""    0     # line from  TRIGO     70.00   (2) to (1)   EL PECO   70.00"
335     " 4  34237     0  ""1 ""    0     # LOAD-DROP    CANANDGA  70.00  LOAD==6.74(5.06)"
335     " 4  34238     0  ""1 ""    0     # LOAD-DROP    BONITA    70.00  LOAD==12.84(1.29)"
335     " 4  34264     0  ""1 ""    0     # LOAD-DROP    EL PECO   70.00  LOAD==8.08(0.00)"
335     " 1  34238 34236  ""1 ""    1      # Switches in Bonita SW23 to transfer load    "
335     " 4  34238     0  ""1 ""    1      # Restore Load at Bonita    "
335     0
336      #
336      #
336      # (47)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
336      #
336     " 1  34240 34252  ""1 ""    0     # line from  GLASS     70.00  BRKR to BRKR  MADERA    70.00"
336     0
337     # Duplicate Contingency:   #
337     # Duplicate Contingency:   #
337     # Duplicate Contingency:   # (48)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
337     # Duplicate Contingency:   #
337     "# Duplicate Contingency:  1  34252 34256  ""1 ""    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00"
337     # Duplicate Contingency: 0
337     # Duplicate Contingency:   #
337     # Duplicate Contingency:   #
337     # Duplicate Contingency:   # (49)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
337     # Duplicate Contingency:   #
337     "# Duplicate Contingency:  1  34252 34256  ""2 ""    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00"
337     # Duplicate Contingency: 0
337      #
337      #
337      # (50)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
337      #
337     " 1  34256 34262  ""1 ""    0     # line from  BORDEN    70.00  BRKR to (2)   CASSIDY   70.00"
337     " 1  34262 34454  ""1 ""    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00"
337     " 1  34454 34464  ""1 ""    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00"
337     " 4  34262     0  ""1 ""    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.36(0.80)"
337     " 4  34454     0  ""1 ""    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)"
337     0
338      #
338      #
```

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338     # (51)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
338     #
338    " 1  34259 34261  ""1 ""    0     # line from  NRTHFORK  70.00   (3) to (2)   SJNO3     70.00"
338    " 1  34259 34260  ""1 ""    0     # line from  NRTHFORK  70.00   (3) to (3)   SJNO2     70.00"
338    " 2  34259 34340  ""1 ""    0     # TRAN from  NRTHFORK  70.00   (3) to (1)   N.FORK E   9.11"
338    " 2  34261 34633  ""1 ""    0     # TRAN from  SJNO3     70.00   (2) to (1)   SJ3GEN     9.11"
338    " 1  34260 34452  ""1 ""    0     # line from  SJNO2     70.00   (3) to BRKR  WISHON    70.00"
338    " 2  34260 34631  ""1 ""    0     # TRAN from  SJNO2     70.00   (3) to (1)   SJ2GEN     9.11"
338    " 4  34261     0  ""2 ""    0     # LOAD-DROP    SJNO3     70.00  LOAD==6.27(1.35)"
338    " 4  34260     0  ""2 ""    0     # LOAD-DROP    SJNO2     70.00  LOAD==3.04(0.69)"
338    " 3  34633     0  ""1 ""    0     # GEN-DROP    SJ3GEN     9.11  GEN==2.10(0.00)"
338    " 3  34631     0  ""1 ""    0     # GEN-DROP    SJ2GEN     9.11  GEN==1.57(0.00)"
338    0
339     #
339     #
339     # (52)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
339     #
339    " 1  34321 34226  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00"
339    " 1  34321 34230  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00"
339    " 1  34321 34232  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00"
339    " 2  34226 34320  ""1 ""    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11"
339    " 3  34320     0  ""1 ""    0     # GEN-DROP    MCSWAIN    9.11  GEN==6.80(-1.00)"
339    0
340     #
340     #
340     # (53)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
340     #
340    " 1  37563 30800  ""1 ""    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00"
340    " 3  34604     0  ""**""    0     # Drop Helms unit#3 with a loss Melones-Wilson line"
340    0
341     #
341     #
341     # (54)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
341     #
341    " 1  38615 30790  ""1 ""    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00"
341    0
342     #
342     #
342     # (55)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
342     #
342    " 2  30765 30069  ""1 ""    0     # TRAN from  LOSBANOS 230.00  BRKR to (3)   L.BANS M 500.00"
342    " 2  30069 30050  ""1 ""    0     # TRAN from  L.BANS M 500.00   (3) to BRKR  LOSBANOS 500.00"
342    " 2  30069 34302  ""1 ""    0     # TRAN from  L.BANS M 500.00   (3) to (1)   L.BANS T  13.80"
342    0
343    # Duplicate Contingency:   #
343    # Duplicate Contingency:   #
343    # Duplicate Contingency:   # (56)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
343    # Duplicate Contingency:   #
343    "# Duplicate Contingency:  2  34214 30765  ""3 ""    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00"
343    # Duplicate Contingency: 0
343    # Duplicate Contingency:   #
343    # Duplicate Contingency:   #
```

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343    # Duplicate Contingency:   # (57)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
343    # Duplicate Contingency:   #
343    "# Duplicate Contingency:  2  34134 30800  ""1 ""    0     # TRAN from  WILSON A 115.00  BRKR to BRKR  WILSON   230.00"
343    # Duplicate Contingency: 0
343    # Duplicate Contingency:   #
343    # Duplicate Contingency:   #
343    # Duplicate Contingency:   # (58)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
343    # Duplicate Contingency:   #
343    "# Duplicate Contingency:  2  34136 30800  ""2 ""    0     # TRAN from  WILSON B 115.00  BRKR to BRKR  WILSON   230.00"
343    # Duplicate Contingency: 0
343    # Duplicate Contingency:   #
343    # Duplicate Contingency:   #
343    # Duplicate Contingency:   # (59)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
343    # Duplicate Contingency:   #
343    "# Duplicate Contingency:  2  34256 30805  ""1 ""    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00"
343    # Duplicate Contingency: 0
343     #
343     #
343     # (60)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
343     #
343    #      **** 3-WINDING TRANSFORMER  34268  (34174)  34156  34314 :
343    " 2  34268 34156  ""1 ""    0     # TRAN from  MENDOTA   70.00  BRKR to (3)   MENDOTA  115.00"
343    " 1  34156 34178  ""1 ""    0     # line from  MENDOTA  115.00  BRKR to (1)   CAPCOTAP 115.00"
343    " 1  34156 34157  ""1 ""    0     # line from  MENDOTA  115.00  BRKR to (1)   PANOCHET 115.00"
343    0
344    # Duplicate Contingency:   #
344    # Duplicate Contingency:   #
344    # Duplicate Contingency:   # (61)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
344    # Duplicate Contingency:   #
344    # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30790  (30791)  34158  34310 :
344    "# Duplicate Contingency:  2  30790 34158  ""1 ""    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00"
344    # Duplicate Contingency: 0
344    # Duplicate Contingency:   #
344    # Duplicate Contingency:   #
344    # Duplicate Contingency:   # (62)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
344    # Duplicate Contingency:   #
344    # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30790  (30792)  34158  34311 :
344    "# Duplicate Contingency:  2  30790 34158  ""2 ""    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00"
344    # Duplicate Contingency: 0
344     #
344     #
344     # (63)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
344     #
344    " 2  34313 34158  ""1 ""    0     # TRAN from  DG_PWR    13.80   (1) to BRKR  PANOCHE  115.00"
344    " 3  34313     0  ""1 ""    0     # GEN-DROP    DG_PWR    13.80  GEN==49.90(-16.00)"
344    0
345     #
345     #
345     # (64)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
345     #
345    " 2  34200 34162  ""2 ""    0     # TRAN from  ORO LOMA  70.00  BRKR to (3)   ORO LOMA 115.00"
345    " 1  34162 34161  ""1 ""    0     # line from  ORO LOMA 115.00  BRKR to (1)   DFSTP    115.00"
```

```
345     " 1  34162 34168  ""1 ""    0     # line from  ORO LOMA 115.00  BRKR to (1)   EL NIDO  115.00"
345     0
346      #
346      #
346      # (65)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
346      #
346     " 2  34112 34176  ""1 ""    0     # TRAN from  EXCHEQUR 115.00  BRKR to (3)   EXCHQRTP 115.00"
346     " 2  34176 34232  ""1 ""    0     # TRAN from  EXCHQRTP 115.00   (3) to (4)   EXCHEQUR  70.00"
346     " 2  34176 34306  ""1 ""    0     # TRAN from  EXCHQRTP 115.00   (3) to (1)   EXCHQUER  13.80"
346     " 1  34232 34228  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MARIPOS2  70.00"
346     " 1  34232 34242  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (1)   BER VLLY  70.00"
346     " 1  34232 34321  ""1 ""    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MCSWAINJ  70.00"
346     " 4  34228     0  ""1 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==7.38(0.74)"
346     " 4  34228     0  ""2 ""    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==9.65(4.34)"
346     " 3  34306     0  ""1 ""    0     # GEN-DROP    EXCHQUER  13.80  GEN==89.95(19.09)"
346     " 1  34228 34244  ""1 ""    1      # Switches in Mariposa SW 39 to transfer load     "
346     " 4  34228     0  ""**""    1      # Restore Load at Mariposa    "
346     0
347     # Duplicate Contingency:   #
347     # Duplicate Contingency:   #
347     # Duplicate Contingency:   # (66)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
347     # Duplicate Contingency:   #
347     # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  34144  (34146)  34202  34312 :
347     "# Duplicate Contingency:  2  34144 34202  ""2 ""    0     # TRAN from  MERCED   115.00  BRKR to (1)   MERCED    70.00"
347     # Duplicate Contingency: 0
347      #
347      #
347      # (67)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
347      #
347     " 2  34322 34230  ""1 ""    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00"
347     " 2  34322 34230  ""2 ""    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00"
347     " 3  34322     0  ""1 ""    0     # GEN-DROP    MERCEDFL   9.11  GEN==2.91(-1.33)"
347     0
348      #
348      #
348      # (68)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
348      #
348     " 2  38625 38730  ""1 ""    0     # TRAN from  SN LS PP 230.00  BRKR to (1)   SANLUIS1  13.80"
348     " 3  38730     0  ""1 ""    0     # GEN-DROP    SANLUIS1  13.80  GEN==24.11(0.00)"
348     " 3  38730     0  ""2 ""    0     # GEN-DROP    SANLUIS1  13.80  GEN==24.11(0.00)"
348     0
349      #
349      #
349      # (69)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
349      #
349     " 2  38625 38735  ""1 ""    0     # TRAN from  SN LS PP 230.00  BRKR to (1)   SANLUIS2  13.80"
349     " 3  38735     0  ""1 ""    0     # GEN-DROP    SANLUIS2  13.80  GEN==24.11(0.00)"
349     " 3  38735     0  ""2 ""    0     # GEN-DROP    SANLUIS2  13.80  GEN==24.61(0.00)"
349     0
350      #
350      #
350      # (70)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
```

```
350     #
350     " 2  38625 38740  ""1 ""    0     # TRAN from  SN LS PP 230.00  BRKR to (1)   SANLUIS3  13.80"
350     " 3  38740     0  ""1 ""    0     # GEN-DROP    SANLUIS3  13.80  GEN==24.61(0.00)"
350     " 3  38740     0  ""2 ""    0     # GEN-DROP    SANLUIS3  13.80  GEN==24.61(0.00)"
350     0
351     #
351     #
351     # (71)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
351     #
351     " 2  38625 38745  ""1 ""    0     # TRAN from  SN LS PP 230.00  BRKR to (1)   SANLUIS4  13.80"
351     " 3  38745     0  ""1 ""    0     # GEN-DROP    SANLUIS4  13.80  GEN==24.61(0.00)"
351     " 3  38745     0  ""2 ""    0     # GEN-DROP    SANLUIS4  13.80  GEN==24.61(0.00)"
351     0
352     #
352     #
352     # (72)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
352     #
352     " 2  38615 38750  ""1 ""    0     # TRAN from  DS AMIGO 230.00  BRKR to (1)   DOS AMG1  13.20"
352     " 3  38750     0  ""1 ""    0     # GEN-DROP    DOS AMG1  13.20  GEN==-22.00(0.00)"
352     " 3  38750     0  ""2 ""    0     # GEN-DROP    DOS AMG1  13.20  GEN==-22.00(0.00)"
352     " 3  38750     0  ""3 ""    0     # GEN-DROP    DOS AMG1  13.20  GEN==-23.00(0.00)"
352     0
353     #
353     #
353     # (73)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
353     #
353     " 2  38615 38755  ""1 ""    0     # TRAN from  DS AMIGO 230.00  BRKR to (1)   DOS AMG2  13.20"
353     0
354     #
354     #
354     # (74)  B1 GENERATOR OUTAGE
354     #
354     " 3  34301     0  ""1""     0     # CHOWCOGN  13.80       PGEN=50.00  QGEN=-9.31"
354     0
355     #
355     #
355     # (75)  B1 GENERATOR OUTAGE
355     #
355     " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=19.09"
355     0
356     #
356     #
356     # (76)  B1 GENERATOR OUTAGE
356     #
356     " 3  34313     0  ""1""     0     # DG_PWR    13.80       PGEN=49.90  QGEN=-16.00"
356     0
357     #
357     #
357     # (77)  B1 GENERATOR OUTAGE
357     #
357     " 3  34316     0  ""1""     0     # ONEILPMP   9.11       PGEN=0.52  QGEN=0.00"
357     0
```

```
358     #
358     #
358     # (78)  B1 GENERATOR OUTAGE
358     #
358    " 3  34320     0  ""1""     0     # MCSWAIN    9.11       PGEN=6.80  QGEN=-1.00"
358    0
359     #
359     #
359     # (79)  B1 GENERATOR OUTAGE
359     #
359    " 3  34322     0  ""1""     0     # MERCEDFL   9.11       PGEN=2.91  QGEN=-1.33"
359    0
360     #
360     #
360     # (80)  B1 GENERATOR OUTAGE
360     #
360    " 3  34332     0  ""1""     0     # JRWCOGEN   9.11       PGEN=4.38  QGEN=5.40"
360    0
361     #
361     #
361     # (81)  B1 GENERATOR OUTAGE
361     #
361    " 3  34334     0  ""1""     0     # BIO PWR    9.11       PGEN=21.55  QGEN=-8.00"
361    0
362     #
362     #
362     # (82)  B1 GENERATOR OUTAGE
362     #
362    " 3  34342     0  ""1""     0     # INT.TURB   9.11       PGEN=0.90  QGEN=0.00"
362    0
363     #
363     #
363     # (83)  B1 GENERATOR OUTAGE
363     #
363    " 3  34631     0  ""1""     0     # SJ2GEN     9.11       PGEN=1.57  QGEN=0.00"
363    0
364     #
364     #
364     # (84)  B1 GENERATOR OUTAGE
364     #
364    " 3  34633     0  ""1""     0     # SJ3GEN     9.11       PGEN=2.10  QGEN=0.00"
364    0
365     #
365     #
365     # (85)  B1 GENERATOR OUTAGE
365     #
365    " 3  38730     0  ""1""     0     # SANLUIS1  13.80       PGEN=24.11  QGEN=0.00"
365    0
366     #
366     #
366     # (86)  B1 GENERATOR OUTAGE
366     #
```

```
366     " 3  38730     0  ""2""     0     # SANLUIS1  13.80       PGEN=24.11  QGEN=0.00"
366     0
367      #
367      #
367      # (87)  B1 GENERATOR OUTAGE
367      #
367     " 3  38735     0  ""1""     0     # SANLUIS2  13.80       PGEN=24.11  QGEN=0.00"
367     0
368      #
368      #
368      # (88)  B1 GENERATOR OUTAGE
368      #
368     " 3  38735     0  ""2""     0     # SANLUIS2  13.80       PGEN=24.61  QGEN=0.00"
368     0
369      #
369      #
369      # (89)  B1 GENERATOR OUTAGE
369      #
369     " 3  38740     0  ""1""     0     # SANLUIS3  13.80       PGEN=24.61  QGEN=0.00"
369     0
370      #
370      #
370      # (90)  B1 GENERATOR OUTAGE
370      #
370     " 3  38740     0  ""2""     0     # SANLUIS3  13.80       PGEN=24.61  QGEN=0.00"
370     0
371      #
371      #
371      # (91)  B1 GENERATOR OUTAGE
371      #
371     " 3  38745     0  ""1""     0     # SANLUIS4  13.80       PGEN=24.61  QGEN=0.00"
371     0
372      #
372      #
372      # (92)  B1 GENERATOR OUTAGE
372      #
372     " 3  38745     0  ""2""     0     # SANLUIS4  13.80       PGEN=24.61  QGEN=0.00"
372     0
373      #
373      #
373      # (93)  B1 GENERATOR OUTAGE
373      #
373     " 3  38750     0  ""1""     0     # DOS AMG1  13.20       PGEN=-22.00  QGEN=0.00"
373     0
374      #
374      #
374      # (94)  B1 GENERATOR OUTAGE
374      #
374     " 3  38750     0  ""2""     0     # DOS AMG1  13.20       PGEN=-22.00  QGEN=0.00"
374     0
375      #
375      #
```

```
375     # (95)  B1 GENERATOR OUTAGE
375     #
375     " 3  38750     0  ""3""     0     # DOS AMG1  13.20       PGEN=-23.00  QGEN=0.00"
375     0
376     #
376     #
376     # (96)  B1 GENERATOR OUTAGE
376     #
376     " 3  38755     0  ""1""     0     # DOS AMG2  13.20       PGEN=0.00  QGEN=0.00"
376     0
377     #
377     #
377     # (97)  B1 GENERATOR OUTAGE
377     #
377     " 3  38755     0  ""2""     0     # DOS AMG2  13.20       PGEN=0.00  QGEN=0.00"
377     0
378     #
378     #
378     # (98)  B1 GENERATOR OUTAGE
378     #
378     " 3  38755     0  ""3""     0     # DOS AMG2  13.20       PGEN=0.00  QGEN=0.00"
378     0
379     #
379     #
379     # Program: autocon_make.p   Tue Apr 03 13:33:38 2001
379     "# Input Case: ""C:\data\2001\cases\02\a01sum2002_pge_a6.sav"""
379     "# Input File: ""C:\data\2001\Master_brkr_02.in"""
379     "# area_numbers  ""14"""
379     "# zone_numbers  "" """
379     "# voltage_range  ""1 230"""
379     "# bus_fault_opt  "" """
379     "# Output File (this output): ""C:\data\2001\Area14_B_02pge.in"""
379     "# Batch file: ""c:\data\2001\autocon_make_batch_file.go"""
379     #
379     #PG&E 2001 TRANSMISSION ASSESSMENT STUDY
379     " #2002SUMPK AREA 6 CASE: COI=4880MW (n2s)
P26=2
500M
W
(n2s)
"
379     " #1-IN-10 FORECAST; PG&E AREA LOADS/LOSSES=25
500M
W;
3/22/20
01
"
379     #
379     #
379     # (1a)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
379     " 1  30790 30873  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
379     " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
379     "# 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
379     "# 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==12.50(2.48)"
```

```
379     0
380      #
380      # (1b)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
380     " 1  30873 30825  ""1 ""    0     # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
380     " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
380     " 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
380     " 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==12.50(2.48)"
380     0
381     # Duplicate Contingency:   #
381     # Duplicate Contingency:   #
381     # Duplicate Contingency:   # (2)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
381     # Duplicate Contingency:   #
381     "# Duplicate Contingency:  1  30790 30873  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
381     # Duplicate Contingency: 0
381     # Duplicate Contingency:   #
381     # Duplicate Contingency:   #
381     # Duplicate Contingency:   # (3)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
381     # Duplicate Contingency:   #
381     "# Duplicate Contingency:  1  30790 30900  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
381     # Duplicate Contingency: 0
381     # Duplicate Contingency:   #
381     # Duplicate Contingency:   #
381     # Duplicate Contingency:   # (4)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
381     # Duplicate Contingency:   #
381     "# Duplicate Contingency:  1  30790 30900  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
381     # Duplicate Contingency: 0
381      #
381      #
381      # (5)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
381      #
381     " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
381     " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
381     " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==24.53(0.00)"
381     " 3  34604     0  ""**""    0      # Drop Helms Unit #3 with a loss Gregg - Wilson line    "
381     0
382      #
382      #
382      # (6)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
382      #
382     " 1  30805 30810  ""1 ""    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00"
382     " 3  34604     0  ""**""    0      # Drop Helms Unit #3 with a loss Gregg -Borden line    "
382     0
383      #
383      #
383      # (7)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
383      #
383     " 1  30810 30820  ""1 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00"
383     " 3  34600     0  ""**""    0      # Drop Helms unit #1 with a loss Helm - Gregg #1 line    "
383     0
384      #
384      #
384      # (8)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
384     #
384    " 1  30810 30820  ""2 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00"
384    " 3  34604     0  ""**""    0      # Drop Helms Unit #3 with a loss Helm - Gregg #2 line    "
384    0
385     #
385     #
385     # (9)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
385     #
385    " 1  30810 30835  ""1 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00"
385    " 3  34604     0  ""**""    0      # Drop Helms Unit #3 with a loss Gregg - Herndon #1 line    "
385    0
386     #
386     #
386     # (10)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
386     #
386    " 1  30810 30835  ""2 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00"
386    " 3  34604     0  ""**""    0      # Drop Helms Unit #3 with a loss Gregg - Herndon #2 line    "
386    0
387     #
387     #
387     # (11)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
387     #
387    " 1  30810 30845  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00"
387    " 1  30845 30846  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00"
387    " 1  30845 30850  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00"
387    " 4  30846     0  ""2 ""    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==47.78(0.00)"
387    " 3  34604     0  ""**""    0      # Drop Helms Unit #3 with a loss Gregg - Figarden line    "
387    " 1 30841  30846  ""1 ""    1      # Switches in Figarden SW 286 to transfer load    "
387    " 4 30846      0  ""**""    1      # Restore Load at Figarden 2    "
387    0
388     #
388     #
388     # (12)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
388     #
388    " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
388    " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
388    " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
388    " 3  34604     0  ""**""    0      # Drop Helms Unit #3 with a loss Gregg - Henrietta Tap 1 line    "
388    " 1  30880 30881  ""1 ""    1      # Henrietta flip flop (Henrietta CB 222)    "
388    0
389    # Duplicate Contingency:   #
389    # Duplicate Contingency:   #
389    # Duplicate Contingency:   # (13)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
389    # Duplicate Contingency:   #
389    "# Duplicate Contingency:  1  30830 30835  ""1 ""    0     # line from  KEARNEY  230.00  BRKR to BRKR  HERNDON  230.00"
389    # Duplicate Contingency: 0
389     #
389     #
389     # (14)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
389     #
389    " 1  30835 30840  ""1 ""    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00"
389    " 1  30840 30841  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00"
```

```
389     " 1  30840 30850  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00"
389     " 4  30841     0  ""1 ""    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==59.79(3.78)"
389     " 1 30841  30846  ""1 ""    1      # Switches in Figarden SW 286 to transfer load    "
389     " 4 30841      0  ""**""    1      # Restore Load at Figarden 1    "
389     0
390      #
390      #
390      # (15)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
390      #
390     " 1  30855 30860  ""1 ""    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00"
390     " 2  30855 34610  ""1 ""    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80"
390     " 1  30860 30875  ""1 ""    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00"
390     " 2  30860 34614  ""1 ""    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80"
390     " 3  34610     0  ""1 ""    0     # GEN-DROP    HAAS      13.80  GEN==70.00(13.82)"
390     " 3  34610     0  ""2 ""    0     # GEN-DROP    HAAS      13.80  GEN==70.00(13.82)"
390     " 3  34614     0  ""1 ""    0     # GEN-DROP    BLCH 2-3  13.80  GEN==50.00(10.29)"
390     0
391      #
391      #
391      # (16)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
391      #
391     " 1  30865 30870  ""1 ""    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00"
391     " 2  30865 34612  ""1 ""    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80"
391     " 1  30870 30875  ""1 ""    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00"
391     " 2  30870 38720  ""1 ""    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80"
391     " 3  34612     0  ""1 ""    0     # GEN-DROP    BLCH 2-2  13.80  GEN==50.00(9.37)"
391     " 3  38720     0  ""1 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(15.28)"
391     " 3  38720     0  ""2 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(15.28)"
391     " 3  38720     0  ""3 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(15.28)"
391     0
392     # Duplicate Contingency:   #
392     # Duplicate Contingency:   #
392     # Duplicate Contingency:   # (17)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
392     # Duplicate Contingency:   #
392     "# Duplicate Contingency:  1  30873 30875  ""1 ""    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00"
392     # Duplicate Contingency: 0
392      #
392      #
392      # (18)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
392      #
392     " 1  30875 30880  ""1 ""    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00"
392     " 1  30880 30900  ""1 ""    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00"
392     0
393     # Duplicate Contingency:   #
393     # Duplicate Contingency:   #
393     # Duplicate Contingency:   # (19)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
393     # Duplicate Contingency:   #
393     "# Duplicate Contingency:  1  30900 30905  ""1 ""    0     # line from  GATES    230.00  BRKR to BRKR  TEMPLETN 230.00"
393     # Duplicate Contingency: 0
393     # Duplicate Contingency:   #
393     # Duplicate Contingency:   #
393     # Duplicate Contingency:   # (20)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
393     # Duplicate Contingency:   #
393     "# Duplicate Contingency:  1  30900 30915  ""1 ""    0     # line from  GATES    230.00  BRKR to BRKR  MORROBAY 230.00"
393     # Duplicate Contingency: 0
393     # Duplicate Contingency:   #
393     # Duplicate Contingency:   #
393     # Duplicate Contingency:   # (21)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
393     # Duplicate Contingency:   #
393     "# Duplicate Contingency:  1  30900 30935  ""1 ""    0     # line from  GATES    230.00  BRKR to BRKR  ARCO     230.00"
393     # Duplicate Contingency: 0
393      #
393      #
393      # (22)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
393      #
393     " 1  34128 34356  ""1 ""    0     # line from  OAKH_JCT 115.00   (3) to BRKR  KERCKHF1 115.00"
393     " 1  34128 34121  ""1 ""    0     # line from  OAKH_JCT 115.00   (3) to (3)   SHARON T 115.00"
393     " 1  34128 34126  ""1 ""    0     # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00"
393     " 1  34121 34105  ""1 ""    0     # line from  SHARON T 115.00   (3) to (2)   CERTANJ1 115.00"
393     " 1  34121 34120  ""1 ""    0     # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00"
393     " 1  34105 34100  ""1 ""    0     # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00"
393     " 1  34126 34122  ""1 ""    0     # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00"
393     " 4  34126     0  ""1 ""    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==10.70(2.23)"
393     " 4  34126     0  ""2 ""    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==6.53(0.00)"
393     " 4  34120     0  ""1 ""    0     # LOAD-DROP    SHARON   115.00  LOAD==7.11(4.78)"
393     " 4  34122     0  ""1 ""    0     # LOAD-DROP    OAKHURST 115.00  LOAD==12.74(5.20)"
393     " 4  34122     0  ""2 ""    0     # LOAD-DROP    OAKHURST 115.00  LOAD==8.87(-1.50)"
393     0
394      #
394      #
394      # (23)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
394      #
394     " 1  34149 34354  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00"
394     " 1  34149 34148  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  CHENY    115.00"
394     " 1  34149 34158  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00"
394     " 4  34148     0  ""1 ""    0     # LOAD-DROP    CHENY    115.00  LOAD==13.17(0.00)"
394     0
395      #
395      #
395      # (24)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
395      #
395     " 1  34158 34350  ""1 ""    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00"
395     " 1  34350 34352  ""1 ""    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00"
395     " 1  34352 34432  ""1 ""    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00"
395     " 1  34432 34354  ""1 ""    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00"
395     " 4  34350     0  ""1 ""    0     # LOAD-DROP    KAMM     115.00  LOAD==3.76(1.71)"
395     " 4  34352     0  ""1 ""    0     # LOAD-DROP    CANTUA   115.00  LOAD==15.62(2.44)"
395     " 4  34432     0  ""16""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)"
395     " 4  34432     0  ""18""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)"
395     0
396      #
396      #
396      # (25)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
396      #
```

```
396     " 1  34262 34454  ""1 ""    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00"
396     " 1  34262 34256  ""1 ""    0     # line from  CASSIDY   70.00   (2) to BRKR  BORDEN    70.00"
396     " 1  34454 34464  ""1 ""    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00"
396     " 4  34262     0  ""1 ""    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.10(0.79)"
396     " 4  34454     0  ""1 ""    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)"
396     0
397      #
397      #
397      # (26)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
397      #
397     " 1  34264 34466  ""1 ""    0     # line from  EL PECO   70.00   (2) to BRKR  BIOLA     70.00"
397     " 1  34264 34254  ""1 ""    0     # line from  EL PECO   70.00   (2) to (2)   TRIGO     70.00"
397     " 1  34254 34255  ""1 ""    0     # line from  TRIGO     70.00   (2) to (3)   TRIGO J   70.00"
397     " 1  34255 34237  ""1 ""    0     # line from  TRIGO J   70.00   (3) to (2)   CANANDGA  70.00"
397     " 1  34255 34238  ""1 ""    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00"
397     " 1  34237 34240  ""1 ""    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00"
397     " 4  34264     0  ""1 ""    0     # LOAD-DROP    EL PECO   70.00  LOAD==7.88(0.00)"
397     " 4  34237     0  ""1 ""    0     # LOAD-DROP    CANANDGA  70.00  LOAD==6.74(5.06)"
397     " 4  34238     0  ""1 ""    0     # LOAD-DROP    BONITA    70.00  LOAD==12.52(1.25)"
397     " 1  34238 34236  ""1 ""    1      # Switches in Bonita SW23 to transfer load    "
397     " 4  34238     0  ""1 ""    1      # Restore Load at Bonita    "
397     0
398     # Duplicate Contingency:   #
398     # Duplicate Contingency:   #
398     # Duplicate Contingency:   # (27)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
398     # Duplicate Contingency:   #
398     "# Duplicate Contingency:  1  34356 34358  ""1 ""    0     # line from  KERCKHF1 115.00  BRKR to BRKR  KERCKHF2 115.00"
398     # Duplicate Contingency: 0
398     # Duplicate Contingency:   #
398     # Duplicate Contingency:   #
398     # Duplicate Contingency:   # (28)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
398     # Duplicate Contingency:   #
398     "# Duplicate Contingency:  1  34356 34358  ""2 ""    0     # line from  KERCKHF1 115.00  BRKR to BRKR  KERCKHF2 115.00"
398     # Duplicate Contingency: 0
398      #
398      #
398      # (29)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
398      #
398     " 1  34358 34360  ""1 ""    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00"
398     " 1  34360 34414  ""1 ""    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00"
398     " 1  34360 34363  ""1 ""    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00"
398     " 1  34363 34362  ""1 ""    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00"
398     " 1  34363 34366  ""1 ""    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00"
398     " 4  34362     0  ""1 ""    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==40.93(14.31)"
398     " 4  34362     0  ""2 ""    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==40.11(2.54)"
398     " 1 34362  34364  ""1 ""    1      # Switches in Clovis SW 387 to transfer load     "
398     " 4 34362      0  ""**""    1      # Restore Load at Clovis 1    "
398     0
399      #
399      #
399      # (30)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
399      #
```

```
399     " 1  34364 34365  ""1 ""    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00"
399     " 1  34365 34358  ""1 ""    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00"
399     " 1  34365 34366  ""1 ""    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00"
399     " 4  34364     0  ""3 ""    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==49.55(6.31)"
399     " 1 34362  34364  ""1 ""    1      # Switches in Clovis SW 387 to transfer load     "
399     " 4 34364      0  ""**""    1      # Restore Load at Clovis 2    "
399     0
400      #
400      #
400      # (31)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
400      #
400     " 1  34366 34368  ""1 ""    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00"
400     " 1  34368 34410  ""1 ""    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00"
400     " 4  34368     0  ""1 ""    0     # LOAD-DROP    LASPALMS 115.00  LOAD==12.63(10.80)"
400     0
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   # (32)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
401     # Duplicate Contingency:   #
401     "# Duplicate Contingency:  1  34366 34370  ""1 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
401     # Duplicate Contingency: 0
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   # (33)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
401     # Duplicate Contingency:   #
401     "# Duplicate Contingency:  1  34366 34370  ""2 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
401     # Duplicate Contingency: 0
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   # (34)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
401     # Duplicate Contingency:   #
401     "# Duplicate Contingency:  1  34366 34370  ""3 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
401     # Duplicate Contingency: 0
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   #
401     # Duplicate Contingency:   # (35)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
401     # Duplicate Contingency:   #
401     "# Duplicate Contingency:  1  34366 34372  ""1 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MALAGA   115.00"
401     # Duplicate Contingency: 0
401      #
401      #
401      # (36)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
401      #
401     " 1  34366 34389  ""1 ""    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00"
401     " 1  34389 34388  ""1 ""    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBOW  115.00"
401     " 1  34389 34394  ""1 ""    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00"
401     " 1  34394 34380  ""1 ""    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00"
401     " 1  34394 34400  ""1 ""    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGS RVR 115.00"
401     " 4  34388     0  ""1 ""    0     # LOAD-DROP    RAINBOW  115.00  LOAD==18.21(6.48)"
401     " 3  34616     0  ""1 ""    0      # Drop Kings River PH gen on this outage    "
401     0
402      #
```

```
402     #
402     # (37)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
402     #
402     " 1  34366 34396  ""1 ""    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00"
402     " 1  34396 34398  ""1 ""    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00"
402     " 2  34398 34624  ""1 ""    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20"
402     " 4  34624     0  ""1 ""    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.38(0.00)"
402     " 3  34624     0  ""1 ""    0     # GEN-DROP    BALCH 1   13.20  GEN==27.00(-8.53)"
402     0
403     # Duplicate Contingency:   #
403     # Duplicate Contingency:   #
403     # Duplicate Contingency:   # (38)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
403     # Duplicate Contingency:   #
403     "# Duplicate Contingency:  1  34366 34408  ""1 ""    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00"
403     # Duplicate Contingency: 0
403     #
403     #
403     # (39)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
403     #
403     " 1  34370 34377  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (2)   AIRPROD  115.00"
403     " 1  34377 34375  ""1 ""    0     # line from  AIRPROD  115.00   (2) to (3)   ULTPWRJ  115.00"
403     " 1  34375 34372  ""1 ""    0     # line from  ULTPWRJ  115.00   (3) to BRKR  MALAGA   115.00"
403     " 2  34375 34640  ""1 ""    0     # TRAN from  ULTPWRJ  115.00   (3) to (1)   ULTR.PWR   9.11"
403     " 4  34377     0  ""1 ""    0     # LOAD-DROP    AIRPROD  115.00  LOAD==4.50(1.78)"
403     " 3  34640     0  ""1 ""    0     # GEN-DROP    ULTR.PWR   9.11  GEN==14.46(-8.26)"
403     " 1  34373 34371  ""1 ""    0      # Must include line from  SCWAXJCT 115.00   (3) to (1)   SCWAX    11"
403     " 1  34373 34374  ""1 ""    0      # Must include line from  SCWAXJCT 115.00   (3) to (1)   RANCHERS 11"
403     " 1  34373 34372  ""1 ""    0      # Must include line from  SCWAXJCT 115.00   (3) to BRKR  MALAGA   11"
403     " 4  34371     0  ""**""    0      # Must include LOAD-DROP  SCWAX    115.00  LOAD==4.334(2.099052)    "
403     " 4  34374     0  ""**""    0      # Must include LOAD-DROP  RANCHERS 115.00  LOAD==7.591285(1.730213) "
403     0
404     # Duplicate Contingency:   #
404     # Duplicate Contingency:   #
404     # Duplicate Contingency:   # (40)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
404     # Duplicate Contingency:   #
404     "# Duplicate Contingency:  1  34370 34382  ""1 ""    0     # line from  MC CALL  115.00  BRKR to BRKR  WAHTOKE  115.00"
404     # Duplicate Contingency: 0
404     #
404     #
404     # (41)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
404     #
404     " 1  34370 34385  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (3)   KINGSJCT 115.00"
404     " 1  34385 34418  ""1 ""    0     # line from  KINGSJCT 115.00   (3) to BRKR  KINGSBRG 115.00"
404     " 1  34385 34425  ""1 ""    0     # line from  KINGSJCT 115.00   (3) to (3)   KCOGNJCT 115.00"
404     " 1  34425 34387  ""1 ""    0     # line from  KCOGNJCT 115.00   (3) to (2)   SUNMAID  115.00"
404     " 1  34425 34427  ""1 ""    0     # line from  KCOGNJCT 115.00   (3) to (1)   GRDNGLS2 115.00"
404     " 1  34387 34386  ""1 ""    0     # line from  SUNMAID  115.00   (2) to (2)   KNGSCOGN 115.00"
404     " 2  34386 34642  ""1 ""    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11"
404     " 4  34387     0  ""1 ""    0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.00(2.89)"
404     " 3  34642     0  ""1 ""    0     # GEN-DROP    KINGSBUR   9.11  GEN==34.00(-2.46)"
404     0
405     # Duplicate Contingency:   #
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405     # Duplicate Contingency:   #
405     # Duplicate Contingency:   # (42)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
405     # Duplicate Contingency:   #
405     "# Duplicate Contingency:  1  34370 34404  ""2 ""    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00"
405     # Duplicate Contingency: 0
405      #
405      #
405      # (43)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
405      #
405     " 1  34370 34406  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (3)   W FRES J 115.00"
405     " 1  34406 34390  ""1 ""    0     # line from  W FRES J 115.00   (3) to (2)   DANISHCM 115.00"
405     " 1  34406 34404  ""1 ""    0     # line from  W FRES J 115.00   (3) to BRKR  WST FRSO 115.00"
405     " 1  34390 34402  ""1 ""    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00"
405     " 4  34390     0  ""1 ""    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.93(3.36)"
405     " 4  34402     0  ""3 ""    0     # LOAD-DROP    CAL AVE  115.00  LOAD==33.09(7.22)"
405     0
406      #
406      #
406      # (44)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
406      #
406     " 1  34370 34423  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00"
406     " 1  34423 34418  ""1 ""    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00"
406     " 1  34423 34424  ""1 ""    0     # line from  GAURD J1 115.00   (3) to (1)   GRDN GLS 115.00"
406     " 4  34424     0  ""1 ""    0     # LOAD-DROP    GRDN GLS 115.00  LOAD==7.25(2.38)"
406     " 4  34418     0  ""3 ""    0      # Kingsburg Bank #3 will also be dropped on this outage    "
406     0
407      #
407      #
407      # (45)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
407      #
407     " 1  34372 34376  ""1 ""    0     # line from  MALAGA   115.00  BRKR to (1)   PPG      115.00"
407     " 4  34376     0  ""1 ""    0     # LOAD-DROP    PPG      115.00  LOAD==5.22(3.24)"
407     0
408      #
408      #
408      # (46)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
408      #
408     " 1  34380 34384  ""1 ""    0     # line from  REEDLEY  115.00  BRKR to (2)   GERAWAN  115.00"
408     " 1  34384 34382  ""1 ""    0     # line from  GERAWAN  115.00   (2) to BRKR  WAHTOKE  115.00"
408     0
409      #
409      #
409      # (47)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
409      #
409     " 1  34391 34392  ""1 ""    0     # line from  QUEBECTP 115.00   (3) to (1)   QUEBEC   115.00"
409     " 1  34391 34420  ""1 ""    0     # line from  QUEBECTP 115.00   (3) to BRKR  CORCORAN 115.00"
409     " 1  34391 34426  ""1 ""    0     # line from  QUEBECTP 115.00   (3) to BRKR  ALPAUGH  115.00"
409     " 4  34392     0  ""1 ""    0     # LOAD-DROP    QUEBEC   115.00  LOAD==11.60(8.10)"
409     0
410     # Duplicate Contingency:   #
410     # Duplicate Contingency:   #
410     # Duplicate Contingency:   # (48)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
410     # Duplicate Contingency:   #
410     "# Duplicate Contingency:  1  34408 34412  ""1 ""    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00"
410     # Duplicate Contingency: 0
410      #
410      #
410      # (49)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
410      #
410     " 1  34409 34413  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00"
410     " 1  34409 34416  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00"
410     " 1  34409 34412  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00"
410     0
411     # Duplicate Contingency:   #
411     # Duplicate Contingency:   #
411     # Duplicate Contingency:   # (50)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
411     # Duplicate Contingency:   #
411     "# Duplicate Contingency:  1  34410 34412  ""1 ""    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00"
411     # Duplicate Contingency: 0
411      #
411      #
411      # (51)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
411      #
411     " 1  34411 34413  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  PNEDLE   115.00"
411     " 1  34411 34416  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  BULLARD  115.00"
411     " 1  34411 34412  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  HERNDON  115.00"
411     0
412      #
412      #
412      # (52)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
412      #
412     " 1  34412 34422  ""1 ""    0     # line from  HERNDON  115.00  BRKR to (2)   CHLDHOSP 115.00"
412     " 1  34422 34414  ""1 ""    0     # line from  CHLDHOSP 115.00   (2) to BRKR  WOODWARD 115.00"
412     " 4  34422     0  ""1 ""    0     # LOAD-DROP    CHLDHOSP 115.00  LOAD==3.86(1.76)"
412     0
413     # Duplicate Contingency:   #
413     # Duplicate Contingency:   #
413     # Duplicate Contingency:   # (53)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
413     # Duplicate Contingency:   #
413     "# Duplicate Contingency:  1  34418 34420  ""1 ""    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00"
413     # Duplicate Contingency: 0
413     # Duplicate Contingency:   #
413     # Duplicate Contingency:   #
413     # Duplicate Contingency:   # (54)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
413     # Duplicate Contingency:   #
413     "# Duplicate Contingency:  1  34418 34420  ""2 ""    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00"
413     # Duplicate Contingency: 0
413      #
413      #
413      # (55)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
413      #
413     " 1  34418 34428  ""1 ""    0     # line from  KINGSBRG 115.00  BRKR to (2)   CONTADNA 115.00"
413     " 1  34428 34430  ""1 ""    0     # line from  CONTADNA 115.00   (2) to BRKR  HENRETTA 115.00"
413     " 4  34428     0  ""1 ""    0     # LOAD-DROP    CONTADNA 115.00  LOAD==7.27(5.45)"
```

```
413     0
414     # Duplicate Contingency:   #
414     # Duplicate Contingency:   #
414     # Duplicate Contingency:   # (56)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
414     # Duplicate Contingency:   #
414     "# Duplicate Contingency:  1  34426 34700  ""1 ""    0     # line from  ALPAUGH  115.00  BRKR to BRKR  SMYRNA   115.00"
414     # Duplicate Contingency: 0
414      #
414      #
414      # (57)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
414      #
414     " 1  34452 34260  ""1 ""    0     # line from  WISHON    70.00  BRKR to (3)   SJNO2     70.00"
414     " 1  34260 34259  ""1 ""    0     # line from  SJNO2     70.00   (3) to (3)   NRTHFORK  70.00"
414     " 2  34260 34631  ""1 ""    0     # TRAN from  SJNO2     70.00   (3) to (1)   SJ2GEN     9.11"
414     " 1  34259 34261  ""1 ""    0     # line from  NRTHFORK  70.00   (3) to (2)   SJNO3     70.00"
414     " 2  34259 34340  ""1 ""    0     # TRAN from  NRTHFORK  70.00   (3) to (1)   N.FORK E   9.11"
414     " 2  34261 34633  ""1 ""    0     # TRAN from  SJNO3     70.00   (2) to (1)   SJ3GEN     9.11"
414     " 4  34260     0  ""2 ""    0     # LOAD-DROP    SJNO2     70.00  LOAD==2.75(0.63)"
414     " 4  34261     0  ""2 ""    0     # LOAD-DROP    SJNO3     70.00  LOAD==6.12(1.32)"
414     " 3  34631     0  ""1 ""    0     # GEN-DROP    SJ2GEN     9.11  GEN==2.05(0.00)"
414     " 3  34633     0  ""1 ""    0     # GEN-DROP    SJ3GEN     9.11  GEN==1.00(0.00)"
414     0
415      #
415      #
415      # (58)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
415      #
415     " 1  34452 34491  ""1 ""    0     # line from  WISHON    70.00  BRKR to (3)   AUBRYTP   70.00"
415     " 1  34491 34464  ""1 ""    0     # line from  AUBRYTP   70.00   (3) to BRKR  COPPRMNE  70.00"
415     " 1  34491 34493  ""1 ""    0     # line from  AUBRYTP   70.00   (3) to (1)   AUBERRY   70.00"
415     " 4  34493     0  ""1 ""    0     # LOAD-DROP    AUBERRY   70.00  LOAD==4.63(0.29)"
415     " 4  34493     0  ""2 ""    0     # LOAD-DROP    AUBERRY   70.00  LOAD==6.30(0.40)"
415     0
416      #
416      #
416      # (59)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
416      #
416     " 1  34456 34458  ""1 ""    0     # line from  HRDWK TP  70.00   (3) to (1)   HARDWICK  70.00"
416     " 1  34456 34522  ""1 ""    0     # line from  HRDWK TP  70.00   (3) to (1)   HNFRD SW  70.00"
416     " 1  34456 34576  ""1 ""    0     # line from  HRDWK TP  70.00   (3) to BRKR  KNGLOBUS  70.00"
416     " 4  34458     0  ""1 ""    0     # LOAD-DROP    HARDWICK  70.00  LOAD==8.16(1.38)"
416     0
417      #
417      #
417      # (60)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
417      #
417     " 1  34460 34462  ""1 ""    0     # line from  GUERNSEY  70.00  BRKR to (3)   GUR3TPT   70.00"
417     " 1  34462 34542  ""1 ""    0     # line from  GUR3TPT   70.00   (3) to (2)   JCBSCRNR  70.00"
417     " 1  34462 34554  ""1 ""    0     # line from  GUR3TPT   70.00   (3) to BRKR  AMSTG SW  70.00"
417     " 1  34542 34540  ""1 ""    0     # line from  JCBSCRNR  70.00   (2) to BRKR  HENRITTA  70.00"
417     " 4  34460     0  ""1 ""    0     # LOAD-DROP    GUERNSEY  70.00  LOAD==13.94(2.61)"
417     " 4  34542     0  ""1 ""    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==4.73(-2.07)"
417     " 4  34542     0  ""2 ""    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==9.37(2.63)"
```

```
417    " 1  34528 34460  ""1 ""    1      # Switches in Guernsey CB52 to transfer load    "
417    " 4  34460     0  ""**""    1      # Restore load at Guernsey    "
417    " 1  34554 34522  ""1 ""    1      # Switches in Armstrong SW37 to transfer load and gen    "
417    0
418     #
418     #
418     # (61)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
418     #
418    " 1  34464 34478  ""1 ""    0     # line from  COPPRMNE  70.00  BRKR to BRKR  TVY VLLY  70.00"
418    0
419    # Duplicate Contingency:   #
419    # Duplicate Contingency:   #
419    # Duplicate Contingency:   # (62)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
419    # Duplicate Contingency:   #
419    "# Duplicate Contingency:  1  34466 34482  ""1 ""    0     # line from  BIOLA     70.00  BRKR to BRKR  OLDKERN   70.00"
419    # Duplicate Contingency: 0
419     #
419     #
419     # (63)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
419     #
419    " 1  34468 34482  ""1 ""    0     # line from  BOWLES    70.00   (1) to BRKR  OLDKERN   70.00"
419    " 4  34468     0  ""1 ""    0     # LOAD-DROP    BOWLES    70.00  LOAD==16.46(2.34)"
419    0
420     #
420     #
420     # (64)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
420     #
420    " 1  34469 34271  ""1 ""    0     # line from  GFFNJCT   70.00   (3) to (3)   WSTLDJCT  70.00"
420    " 1  34469 34470  ""1 ""    0     # line from  GFFNJCT   70.00   (3) to (1)   GIFFEN    70.00"
420    " 1  34469 34471  ""1 ""    0     # line from  GFFNJCT   70.00   (3) to (3)   SNJQJCT   70.00"
420    " 1  34271 34172  ""1 ""    0     # line from  WSTLDJCT  70.00   (3) to (2)   WESTLAND  70.00"
420    " 1  34271 34269  ""1 ""    0     # line from  WSTLDJCT  70.00   (3) to (3)   BIOMSJCT  70.00"
420    " 1  34471 34472  ""1 ""    0     # line from  SNJQJCT   70.00   (3) to BRKR  SAN JOQN  70.00"
420    " 1  34471 34474  ""1 ""    0     # line from  SNJQJCT   70.00   (3) to BRKR  HELM      70.00"
420    " 1  34172 34170  ""1 ""    0     # line from  WESTLAND  70.00   (2) to (1)   WESIX     70.00"
420    " 1  34269 34268  ""1 ""    0     # line from  BIOMSJCT  70.00   (3) to BRKR  MENDOTA   70.00"
420    " 1  34269 34270  ""1 ""    0     # line from  BIOMSJCT  70.00   (3) to (2)   BIOMASS   70.00"
420    " 2  34270 34334  ""1 ""    0     # TRAN from  BIOMASS   70.00   (2) to (1)   BIO PWR    9.11"
420    " 4  34470     0  ""1 ""    0     # LOAD-DROP    GIFFEN    70.00  LOAD==8.42(1.20)"
420    " 4  34172     0  ""1 ""    0     # LOAD-DROP    WESTLAND  70.00  LOAD==3.20(0.73)"
420    " 4  34472     0  ""1 ""    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==4.84(-0.38)"
420    " 4  34472     0  ""2 ""    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==3.87(1.70)"
420    " 4  34170     0  ""1 ""    0     # LOAD-DROP    WESIX     70.00  LOAD==1.60(0.36)"
420    " 3  34334     0  ""1 ""    0     # GEN-DROP    BIO PWR    9.11  GEN==21.88(-8.00)"
420    " 1  34472 34473  ""1 ""    1      # Switches in San Joaquin CB22 to transfer load      "
420    " 4  34472     0  ""**""    1      # Restore Load at San Joaquin    "
420    0
421     #
421     #
421     # (65)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
421     #
421    " 1  34473 34475  ""1 ""    0     # line from  SNJQTP    70.00   (2) to (3)   AGRCJCT   70.00"
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421     " 1  34473 34474  ""1 ""    0     # line from  SNJQTP    70.00   (2) to BRKR  HELM      70.00"
421     " 1  34475 34476  ""1 ""    0     # line from  AGRCJCT   70.00   (3) to (2)   AGRICO    70.00"
421     " 1  34475 34484  ""1 ""    0     # line from  AGRCJCT   70.00   (3) to BRKR  KERMAN    70.00"
421     " 2  34476 34608  ""1 ""    0     # TRAN from  AGRICO    70.00   (2) to (1)   AGRICO    13.80"
421     " 3  34608     0  ""1 ""    0     # GEN-DROP    AGRICO    13.80  GEN==20.24(-3.29)"
421     0
422     # Duplicate Contingency:   #
422     # Duplicate Contingency:   #
422     # Duplicate Contingency:   # (66)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
422     # Duplicate Contingency:   #
422     "# Duplicate Contingency:  1  34474 34556  ""1 ""    0     # line from  HELM      70.00  BRKR to BRKR  STRD JCT  70.00"
422     # Duplicate Contingency: 0
422      #
422      #
422      # (67)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
422      #
422     " 1  34474 34568  ""1 ""    0     # line from  HELM      70.00  BRKR to BRKR  VLY NTRN  70.00"
422     " 4  34568     0  ""1 ""    0     # LOAD-DROP    VLY NTRN  70.00  LOAD==0.95(0.76)"
422     0
423     # Duplicate Contingency:   #
423     # Duplicate Contingency:   #
423     # Duplicate Contingency:   # (68)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
423     # Duplicate Contingency:   #
423     "# Duplicate Contingency:  1  34478 34492  ""1 ""    0     # line from  TVY VLLY  70.00  BRKR to BRKR  REEDLEY   70.00"
423     # Duplicate Contingency: 0
423      #
423      #
423      # (69)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
423      #
423     " 1  34480 34482  ""1 ""    0     # line from  KEARNEY   70.00  BRKR to (3)   OLDKERN   70.00"
423     " 1  34482 34466  ""1 ""    0     # line from  OLDKERN   70.00  BRKR to BRKR  BIOLA     70.00"
423     " 1  34482 34468  ""1 ""    0     # line from  OLDKERN   70.00  BRKR to (1)   BOWLES    70.00"
423     " 4  34482     0  ""1 ""    0     # LOAD-DROP    OLDKERN   70.00  LOAD==12.98(0.82)"
423     " 4  34482     0  ""3 ""    0     # LOAD-DROP    OLDKERN   70.00  LOAD==12.79(0.57)"
423     " 4  34468     0  ""1 ""    0     # LOAD-DROP    BOWLES    70.00  LOAD==16.46(2.34)"
423     0
424     # Duplicate Contingency:   #
424     # Duplicate Contingency:   #
424     # Duplicate Contingency:   # (70)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
424     # Duplicate Contingency:   #
424     "# Duplicate Contingency:  1  34480 34484  ""1 ""    0     # line from  KEARNEY   70.00  BRKR to BRKR  KERMAN    70.00"
424     # Duplicate Contingency: 0
424     # Duplicate Contingency:   #
424     # Duplicate Contingency:   #
424     # Duplicate Contingency:   # (71)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
424     # Duplicate Contingency:   #
424     "# Duplicate Contingency:  1  34480 34512  ""1 ""    0     # line from  KEARNEY   70.00  BRKR to BRKR  CARUTHRS  70.00"
424     # Duplicate Contingency: 0
424     # Duplicate Contingency:   #
424     # Duplicate Contingency:   #
424     # Duplicate Contingency:   # (72)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
424     # Duplicate Contingency:   #
```

```
424    "# Duplicate Contingency:  1  34486 34488  ""1 ""    0     # line from  CALIFRNV  70.00  BRKR to BRKR  SANGER    70.00"
424    # Duplicate Contingency: 0
424    # Duplicate Contingency:   #
424    # Duplicate Contingency:   #
424    # Duplicate Contingency:   # (73)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
424    # Duplicate Contingency:   #
424    "# Duplicate Contingency:  1  34486 34488  ""2 ""    0     # line from  CALIFRNV  70.00  BRKR to BRKR  SANGER    70.00"
424    # Duplicate Contingency: 0
424     #
424     #
424     # (74)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
424     #
424    " 1  34487 34489  ""1 ""    0     # line from  SNGRJCT   70.00   (3) to (2)   SNGRCOGN  70.00"
424    " 1  34487 34490  ""1 ""    0     # line from  SNGRJCT   70.00   (3) to (2)   PARLIER   70.00"
424    " 1  34487 34488  ""1 ""    0     # line from  SNGRJCT   70.00   (3) to BRKR  SANGER    70.00"
424    " 2  34489 34646  ""1 ""    0     # TRAN from  SNGRCOGN  70.00   (2) to (1)   SANGERCO   9.11"
424    " 1  34490 34492  ""1 ""    0     # line from  PARLIER   70.00   (2) to BRKR  REEDLEY   70.00"
424    " 4  34490     0  ""1 ""    0     # LOAD-DROP    PARLIER   70.00  LOAD==10.78(2.46)"
424    " 3  34646     0  ""1 ""    0     # GEN-DROP    SANGERCO   9.11  GEN==37.50(-9.88)"
424    0
425     #
425     #
425     # (75)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
425     #
425    " 1  34492 34497  ""1 ""    0     # line from  REEDLEY   70.00  BRKR to (3)   DNUBAJCT  70.00"
425    " 1  34497 34499  ""1 ""    0     # line from  DNUBAJCT  70.00   (3) to (2)   DNUBAEGY  70.00"
425    " 1  34497 34500  ""1 ""    0     # line from  DNUBAJCT  70.00   (3) to BRKR  DINUBA    70.00"
425    " 2  34499 34648  ""1 ""    0     # TRAN from  DNUBAEGY  70.00   (2) to (1)   DINUBA E  13.80"
425    " 4  34648     0  ""1 ""    0     # LOAD-DROP    DINUBA E  13.80  LOAD==1.50(0.00)"
425    " 3  34648     0  ""1 ""    0     # GEN-DROP    DINUBA E  13.80  GEN==13.50(-1.33)"
425    0
426     #
426     #
426     # (76)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
426     #
426    " 1  34492 34526  ""1 ""    0     # line from  REEDLEY   70.00  BRKR to (3)   ORSI JCT  70.00"
426    " 1  34526 34495  ""1 ""    0     # line from  ORSI JCT  70.00   (3) to (2)   SANDCRK   70.00"
426    " 1  34526 34502  ""1 ""    0     # line from  ORSI JCT  70.00   (3) to BRKR  OROSI     70.00"
426    " 1  34495 34494  ""1 ""    0     # line from  SANDCRK   70.00   (2) to (1)   DUNLAP    70.00"
426    " 4  34495     0  ""1 ""    0     # LOAD-DROP    SANDCRK   70.00  LOAD==1.85(0.42)"
426    " 4  34494     0  ""1 ""    0     # LOAD-DROP    DUNLAP    70.00  LOAD==3.79(0.87)"
426    0
427     #
427     #
427     # (77)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
427     #
427    " 1  34496 34498  ""1 ""    0     # line from  STCRRL J  70.00   (3) to (1)   STONCRRL  70.00"
427    " 1  34496 34500  ""1 ""    0     # line from  STCRRL J  70.00   (3) to BRKR  DINUBA    70.00"
427    " 1  34496 34502  ""1 ""    0     # line from  STCRRL J  70.00   (3) to (2)   OROSI     70.00"
427    " 1  34502 34526  ""1 ""    0     # line from  OROSI     70.00  BRKR to (1)   ORSI JCT  70.00"
427    " 4  34498     0  ""2 ""    0     # LOAD-DROP    STONCRRL  70.00  LOAD==3.01(0.00)"
427    " 4  34498     0  ""3 ""    0     # LOAD-DROP    STONCRRL  70.00  LOAD==2.82(0.00)"
```

```
427     " 4  34502     0  ""1 ""    0     # LOAD-DROP    OROSI     70.00  LOAD==5.84(1.34)"
427     " 4  34502     0  ""2 ""    0     # LOAD-DROP    OROSI     70.00  LOAD==6.87(1.56)"
427     0
428      #
428      #
428      # (78)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
428      #
428     " 1  34508 34510  ""1 ""    0     # line from  CAMDEN    70.00   (2) to (2)   CMDN JCT  70.00"
428     " 1  34508 34576  ""1 ""    0     # line from  CAMDEN    70.00   (2) to BRKR  KNGLOBUS  70.00"
428     " 1  34510 34512  ""1 ""    0     # line from  CMDN JCT  70.00   (2) to BRKR  CARUTHRS  70.00"
428     " 4  34508     0  ""1 ""    0     # LOAD-DROP    CAMDEN    70.00  LOAD==8.16(0.82)"
428     " 4  34508     0  ""2 ""    0     # LOAD-DROP    CAMDEN    70.00  LOAD==7.02(0.00)"
428     0
429      #
429      #
429      # (79)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
429      #
429     " 1  34514 34540  ""1 ""    0     # line from  MUSLSLGH  70.00   (1) to BRKR  HENRITTA  70.00"
429     " 4  34514     0  ""1 ""    0     # LOAD-DROP    MUSLSLGH  70.00  LOAD==22.00(13.63)"
429     0
430      #
430      #
430      # (80)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
430      #
430     " 1  34516 34520  ""1 ""    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00"
430     " 1  34520 34518  ""1 ""    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00"
430     " 1  34520 34524  ""1 ""    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00"
430     " 1  34520 34540  ""1 ""    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00"
430     " 4  34516     0  ""1 ""    0     # LOAD-DROP    LEPRINO   70.00  LOAD==5.84(3.31)"
430     " 4  34518     0  ""1 ""    0     # LOAD-DROP    LEMOORE   70.00  LOAD==25.04(8.06)"
430     " 4  34518     0  ""2 ""    0     # LOAD-DROP    LEMOORE   70.00  LOAD==10.06(2.48)"
430     " 4  34524     0  ""1 ""    0     # LOAD-DROP    CANDLEWK  70.00  LOAD==2.93(2.66)"
430     0
431      #
431      #
431      # (81)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
431      #
431     " 1  34528 34530  ""1 ""    0     # line from  CORCORAN  70.00  BRKR to (3)   BSWLL TP  70.00"
431     " 1  34530 34536  ""1 ""    0     # line from  BSWLL TP  70.00   (3) to (1)   ANGIOLA   70.00"
431     " 1  34530 34538  ""1 ""    0     # line from  BSWLL TP  70.00   (3) to (1)   BOSWELL   70.00"
431     " 4  34536     0  ""1 ""    0     # LOAD-DROP    ANGIOLA   70.00  LOAD==4.42(0.00)"
431     " 4  34538     0  ""1 ""    0     # LOAD-DROP    BOSWELL   70.00  LOAD==0.77(0.50)"
431     0
432      #
432      #
432      # (82)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
432      #
432     " 1  34532 34554  ""1 ""    0     # line from  ARMSTRNG  70.00   (1) to (4)   AMSTG SW  70.00"
432     " 1  34554 34462  ""1 ""    0     # line from  AMSTG SW  70.00  BRKR to (1)   GUR3TPT   70.00"
432     " 1  34554 34534  ""1 ""    0     # line from  AMSTG SW  70.00   (4) to (1)   RESERVE   70.00"
432     " 2  34554 34650  ""1 ""    0     # TRAN from  AMSTG SW  70.00  BRKR to (1)   GWF-PWR.   9.11"
432     " 4  34532     0  ""1 ""    0     # LOAD-DROP    ARMSTRNG  70.00  LOAD==8.49(7.49)"
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432     " 4  34534     0  ""1 ""    0     # LOAD-DROP    RESERVE   70.00  LOAD==2.66(0.24)"
432     " 3  34650     0  ""1 ""    0     # GEN-DROP    GWF-PWR.   9.11  GEN==23.00(3.91)"
432     0
433      #
433      #
433      # (83)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
433      #
433     " 1  34544 34550  ""1 ""    0     # line from  TLRE LKE  70.00  BRKR to (2)   CHEVPLIN  70.00"
433     " 1  34550 34546  ""1 ""    0     # line from  CHEVPLIN  70.00   (2) to (2)   AVENAL    70.00"
433     " 1  34546 34548  ""1 ""    0     # line from  AVENAL    70.00   (2) to BRKR  KETTLEMN  70.00"
433     " 4  34550     0  ""1 ""    0     # LOAD-DROP    CHEVPLIN  70.00  LOAD==1.87(1.35)"
433     " 4  34546     0  ""1 ""    0     # LOAD-DROP    AVENAL    70.00  LOAD==9.81(4.00)"
433     0
434      #
434      #
434      # (84)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
434      #
434     " 1  34544 34580  ""1 ""    0     # line from  TLRE LKE  70.00  BRKR to (2)   BDGR HLL  70.00"
434     " 1  34580 34942  ""1 ""    0     # line from  BDGR HLL  70.00   (2) to (2)   LST HLLS  70.00"
434     " 1  34942 34582  ""1 ""    0     # line from  LST HLLS  70.00   (2) to BRKR  ARCO      70.00"
434     " 4  34580     0  ""1 ""    0     # LOAD-DROP    BDGR HLL  70.00  LOAD==6.00(0.00)"
434     " 4  34580     0  ""2 ""    0     # LOAD-DROP    BDGR HLL  70.00  LOAD==3.00(0.00)"
434     " 4  34942     0  ""1 ""    0     # LOAD-DROP    LST HLLS  70.00  LOAD==3.25(1.07)"
434     0
435      #
435      #
435      # (85)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
435      #
435     " 1  34548 34552  ""1 ""    0     # line from  KETTLEMN  70.00   (2) to BRKR  GATES     70.00"
435     " 1  34548 34546  ""1 ""    0     # line from  KETTLEMN  70.00  BRKR to (1)   AVENAL    70.00"
435     " 4  34548     0  ""1 ""    0     # LOAD-DROP    KETTLEMN  70.00  LOAD==5.39(0.41)"
435     0
436      #
436      #
436      # (86)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
436      #
436     " 1  34552 34558  ""1 ""    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00"
436     0
437     # Duplicate Contingency:   #
437     # Duplicate Contingency:   #
437     # Duplicate Contingency:   # (87)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
437     # Duplicate Contingency:   #
437     "# Duplicate Contingency:  1  34552 34570  ""1 ""    0     # line from  GATES     70.00  BRKR to BRKR  COLNGA 2  70.00"
437     # Duplicate Contingency: 0
437      #
437      #
437      # (88)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
437      #
437     " 1  34552 34578  ""1 ""    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00"
437     " 1  34578 34574  ""1 ""    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00"
437     " 4  34578     0  ""1 ""    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.04(2.71)"
437     0
```

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438     # Duplicate Contingency:   #
438     # Duplicate Contingency:   #
438     # Duplicate Contingency:   # (89)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
438     # Duplicate Contingency:   #
438     "# Duplicate Contingency:  1  34556 34562  ""1 ""    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00"
438     # Duplicate Contingency: 0
438      #
438      #
438      # (90)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
438      #
438     " 1  34556 34564  ""1 ""    0     # line from  STRD JCT  70.00   (3) to BRKR  STROUD    70.00"
438     " 1  34556 34474  ""1 ""    0     # line from  STRD JCT  70.00  BRKR to BRKR  HELM      70.00"
438     " 1  34556 34562  ""1 ""    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00"
438     " 4  34564     0  ""1 ""    0     # LOAD-DROP    STROUD    70.00  LOAD==8.62(4.25)"
438     0
439      #
439      #
439      # (91)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
439      #
439     " 1  34558 34560  ""1 ""    0     # line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00"
439     " 1  34560 34562  ""1 ""    0     # line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00"
439     " 4  34560     0  ""1 ""    0     # LOAD-DROP    CALFLAX   70.00  LOAD==9.72(1.52)"
439     " 1  34552 34558  ""2 ""    0      # Must include Gates - Huron in this outage    "
439     0
440      #
440      #
440      # (92)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
440      #
440     " 1  34562 34566  ""1 ""    0     # line from  SCHLNDLR  70.00  BRKR to (2)   PLSNTVLY  70.00"
440     " 1  34566 34570  ""1 ""    0     # line from  PLSNTVLY  70.00   (2) to BRKR  COLNGA 2  70.00"
440     " 4  34566     0  ""1 ""    0     # LOAD-DROP    PLSNTVLY  70.00  LOAD==10.00(6.20)"
440     0
441      #
441      #
441      # (93)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
441      #
441     " 1  34570 34572  ""1 ""    0     # line from  COLNGA 2  70.00  BRKR to (3)   TORNADO   70.00"
441     " 1  34572 34574  ""1 ""    0     # line from  TORNADO   70.00   (3) to BRKR  COLNGA 1  70.00"
441     " 2  34572 34654  ""1 ""    0     # TRAN from  TORNADO   70.00   (3) to (1)   COLNGAGN   9.11"
441     " 4  34572     0  ""1 ""    0     # LOAD-DROP    TORNADO   70.00  LOAD==1.66(1.37)"
441     " 3  34654     0  ""1 ""    0     # GEN-DROP    COLNGAGN   9.11  GEN==34.21(-13.50)"
441     " 2  34570 34652  ""1 ""    0      # Must include Colinga2 - Chv.coal in this outage - modeled on bus
"
441     " 3  34652     0  ""**""    0      # Drops units on Derrick Sub    "
441     " 4  34652     0  ""**""    0      # Drops load at Derrick Sub    "
441     0
442     # Duplicate Contingency:   #
442     # Duplicate Contingency:   #
442     # Duplicate Contingency:   # (94)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
442     # Duplicate Contingency:   #
442     "# Duplicate Contingency:  1  36354 34574  ""1 ""    0     # line from  SAN MIGL  70.00  BRKR to BRKR  COLNGA 1  70.00"
442     # Duplicate Contingency: 0
```

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442     #
442     #
442     # (95)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
442     #
442    " 2  34600 30820  ""1 ""    0     # TRAN from  HELMS 1   18.00   (1) to BRKR  HELMS PP 230.00"
442    " 3  34600     0  ""1 ""    0     # GEN-DROP    HELMS 1   18.00  GEN==310.25(72.77)"
442    0
443     #
443     #
443     # (96)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
443     #
443    " 2  34602 30820  ""1 ""    0     # TRAN from  HELMS 2   18.00   (1) to BRKR  HELMS PP 230.00"
443    " 3  34602     0  ""1 ""    0     # GEN-DROP    HELMS 2   18.00  GEN==310.25(72.77)"
443    0
444     #
444     #
444     # (97)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
444     #
444    " 2  34604 30820  ""1 ""    0     # TRAN from  HELMS 3   18.00   (1) to BRKR  HELMS PP 230.00"
444    " 3  34604     0  ""1 ""    0     # GEN-DROP    HELMS 3   18.00  GEN==310.25(72.77)"
444    0
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   # (98)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
445    # Duplicate Contingency:   #
445    "# Duplicate Contingency:  2  34480 30830  ""2 ""    0     # TRAN from  KEARNEY   70.00  BRKR to BRKR  KEARNEY  230.00"
445    # Duplicate Contingency: 0
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   # (99)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
445    # Duplicate Contingency:   #
445    "# Duplicate Contingency:  2  34474 30873  ""1 ""    0     # TRAN from  HELM      70.00  BRKR to BRKR  HELM     230.00"
445    # Duplicate Contingency: 0
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   # (100)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
445    # Duplicate Contingency:   #
445    "# Duplicate Contingency:  2  34540 30881  ""2 ""    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00"
445    # Duplicate Contingency: 0
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   #
445    # Duplicate Contingency:   # (101)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
445    # Duplicate Contingency:   #
445    # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30055  (34607)  30900  34606 :
445    "# Duplicate Contingency:  2  30055 30900  ""11""    0     # TRAN from  GATES    500.00  BRKR to (1)   GATES    230.00"
445    # Duplicate Contingency: 0
445     #
445     #
445     # (102)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
445     #
445    " 2  30900 30901  ""1 ""    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00"
445    " 2  30901 34378  ""1 ""    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00"
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445     " 2  30901 34622  ""1 ""    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20"
445     " 4 34378      0  ""3 ""    0      # Drop Gates Bank #3     "
445     0
446      #
446      #
446      # (103)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
446      #
446     " 2  34358 34308  ""1 ""    0     # TRAN from  KERCKHF2 115.00  BRKR to (1)   KERCKHOF  13.80"
446     " 3  34308     0  ""1 ""    0     # GEN-DROP    KERCKHOF  13.80  GEN==128.00(38.85)"
446     0
447      #
447      #
447      # (104)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
447      #
447     " 2  34356 34344  ""1 ""    0     # TRAN from  KERCKHF1 115.00  BRKR to (1)   KERCKHOF   6.60"
447     " 4  34344     0  ""4 ""    0     # LOAD-DROP    KERCKHOF   6.60  LOAD==1.97(0.45)"
447     " 3  34344     0  ""2 ""    0     # GEN-DROP    KERCKHOF   6.60  GEN==6.78(-1.80)"
447     0
448      #
448      #
448      # (105)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
448      #
448     " 2  34562 34354  ""1 ""    0     # TRAN from  SCHLNDLR  70.00  BRKR to (3)   SCHINDLR 115.00"
448     " 1  34354 34149  ""1 ""    0     # line from  SCHINDLR 115.00  BRKR to (1)   CHENYT   115.00"
448     " 1  34354 34432  ""1 ""    0     # line from  SCHINDLR 115.00  BRKR to (1)   WESTLNDS 115.00"
448     0
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   # (106)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449     # Duplicate Contingency:   #
449     "# Duplicate Contingency:  2  34488 34366  ""1 ""    0     # TRAN from  SANGER    70.00  BRKR to BRKR  SANGER   115.00"
449     # Duplicate Contingency: 0
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   # (107)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449     # Duplicate Contingency:   #
449     "# Duplicate Contingency:  2  34488 34366  ""2 ""    0     # TRAN from  SANGER    70.00  BRKR to BRKR  SANGER   115.00"
449     # Duplicate Contingency: 0
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   # (108)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449     # Duplicate Contingency:   #
449     "# Duplicate Contingency:  2  34488 34366  ""3 ""    0     # TRAN from  SANGER    70.00  BRKR to BRKR  SANGER   115.00"
449     # Duplicate Contingency: 0
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   #
449     # Duplicate Contingency:   # (109)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449     # Duplicate Contingency:   #
449     # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30875  (30876)  34370  34618 :
449     "# Duplicate Contingency:  2  30875 34370  ""1 ""    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00"
449     # Duplicate Contingency: 0
449     # Duplicate Contingency:   #
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449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   # (110)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449    # Duplicate Contingency:   #
449    # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30875  (30877)  34370  34620 :
449    "# Duplicate Contingency:  2  30875 34370  ""2 ""    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00"
449    # Duplicate Contingency: 0
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   # (111)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449    # Duplicate Contingency:   #
449    # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30875  (30878)  34370  34621 :
449    "# Duplicate Contingency:  2  30875 34370  ""3 ""    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00"
449    # Duplicate Contingency: 0
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   # (112)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449    # Duplicate Contingency:   #
449    "# Duplicate Contingency:  2  34552 34378  ""2 ""    0     # TRAN from  GATES     70.00  BRKR to BRKR  GATES    115.00"
449    # Duplicate Contingency: 0
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   # (113)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449    # Duplicate Contingency:   #
449    "# Duplicate Contingency:  2  34492 34380  ""2 ""    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00"
449    # Duplicate Contingency: 0
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   # (114)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449    # Duplicate Contingency:   #
449    # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30835  (30882)  34412  34630 :
449    "# Duplicate Contingency:  2  30835 34412  ""1 ""    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00"
449    # Duplicate Contingency: 0
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   #
449    # Duplicate Contingency:   # (115)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449    # Duplicate Contingency:   #
449    # Duplicate Contingency: #      **** 3-WINDING TRANSFORMER  30835  (30883)  34412  34632 :
449    "# Duplicate Contingency:  2  30835 34412  ""2 ""    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00"
449    # Duplicate Contingency: 0
449     #
449     #
449     # (116)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
449     #
449    " 2  34528 34420  ""2 ""    0     # TRAN from  CORCORAN  70.00  BRKR to BRKR  CORCORAN 115.00"
449    " 1  34420 34391  ""1 ""    0      # Must include Corcoran - Quebec   (Corcoran CB 142) in this outage "
449    " 1  34420 34418  ""2 ""    0      # Must include Corcoran - Kingburg (Corcoran CB 162) in this outage "
449    " 1  34528 34460  ""1 ""    0      # Must include Corcorna - Guernsey (Corcoran CB  42) in this outage "
449    0
450    # Duplicate Contingency:   #
450    # Duplicate Contingency:   #
450    # Duplicate Contingency:   # (117)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
450    # Duplicate Contingency:   #
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450     "# Duplicate Contingency:  2  30881 34430  ""3 ""    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00"
450     # Duplicate Contingency: 0
450      #
450      #
450      # (118)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
450      #
450     " 2  34658 34452  ""1 ""    0     # TRAN from  WISHON     2.30   (1) to BRKR  WISHON    70.00"
450     " 3  34658     0  ""3 ""    0     # GEN-DROP    WISHON     2.30  GEN==4.50(1.00)"
450     " 3  34658     0  ""4 ""    0     # GEN-DROP    WISHON     2.30  GEN==4.50(1.00)"
450     0
451      #
451      #
451      # (119)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
451      #
451     " 2  34636 34464  ""1 ""    0     # TRAN from  FRIANTDM   9.11   (1) to BRKR  COPPRMNE  70.00"
451     " 3  34636     0  ""1 ""    0     # GEN-DROP    FRIANTDM   9.11  GEN==22.54(-4.25)"
451     0
452      #
452      #
452      # (120)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
452      #
452     " 2  34638 34478  ""1 ""    0     # TRAN from  KNG SIPH   9.11   (1) to BRKR  TVY VLLY  70.00"
452     " 3  34638     0  ""1 ""    0     # GEN-DROP    KNG SIPH   9.11  GEN==0.50(0.10)"
452     0
453      #
453      #
453      # (121)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
453      #
453     " 2  34650 34554  ""1 ""    0     # TRAN from  GWF-PWR.   9.11   (1) to BRKR  AMSTG SW  70.00"
453     " 3  34650     0  ""1 ""    0     # GEN-DROP    GWF-PWR.   9.11  GEN==23.00(3.91)"
453     0
454      #
454      #
454      # (122)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
454      #
454     " 2  34652 34570  ""1 ""    0     # TRAN from  CHV.COAL   9.11   (1) to BRKR  COLNGA 2  70.00"
454     " 4  34652     0  ""2 ""    0     # LOAD-DROP    CHV.COAL   9.11  LOAD==17.50(10.85)"
454     " 3  34652     0  ""1 ""    0     # GEN-DROP    CHV.COAL   9.11  GEN==16.00(7.18)"
454     " 3  34652     0  ""2 ""    0     # GEN-DROP    CHV.COAL   9.11  GEN==7.97(3.57)"
454     0
455      #
455      #
455      # (123)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
455      #
455     #      **** 3-WINDING TRANSFORMER  34418  (34505)  34576  34626 :
455     " 2  34418 34576  ""1 ""    0     # TRAN from  KINGSBRG 115.00  BRKR to (1)   KNGLOBUS  70.00"
455     " 1  34456 34576  ""1 ""    0      # Must include Kingsburg - Hardwick (Kingsburg CB 22) in this outage"
455     0
456      #
456      #
456      # (124)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
456      #
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456     #      **** 3-WINDING TRANSFORMER  34418  (34507)  34576  34628 :
456     " 2  34418 34576  ""2 ""    0     # TRAN from  KINGSBRG 115.00  BRKR to (1)   KNGLOBUS  70.00"
456     " 1  34508 34576  ""1 ""    0      # Must include Kingsburg - Camden (Kingsburg CB 32) in this outage  "
456     " 1  34423 34418  ""1 ""    0      # Must include Kingsburg - Mc Call #2 (Kingsburg CB 122) in this out"
456     " 4  34418     0  ""3 ""    0      # Drop Kingsburg Bk#3 (modeled as load on Kingburg 115kV bus)    "
456     " 1  34418 34420  ""1 ""    0      # Must include Kingsburg - Corcoran #1 (Kingsburg CB 132) in this ou"
456     0
457      #
457      #
457      # (125)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
457      #
457     " 2  34400 34616  ""1 ""    0     # TRAN from  KNGS RVR 115.00  BRKR to (1)   KINGSRIV  13.80"
457     " 3  34616     0  ""1 ""    0     # GEN-DROP    KINGSRIV  13.80  GEN==47.00(2.00)"
457     0
458      #
458      #
458      # (126)  B1 GENERATOR OUTAGE
458      #
458     " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=128.00  QGEN=38.85"
458     0
459      #
459      #
459      # (127)  B1 GENERATOR OUTAGE
459      #
459     " 3  34344     0  ""2""     0     # KERCKHOF   6.60       PGEN=6.78  QGEN=-1.80"
459     0
460      #
460      #
460      # (128)  B1 GENERATOR OUTAGE
460      #
460     " 3  34600     0  ""1""     0     # HELMS 1   18.00       PGEN=310.25  QGEN=72.77"
460     0
461      #
461      #
461      # (129)  B1 GENERATOR OUTAGE
461      #
461     " 3  34602     0  ""1""     0     # HELMS 2   18.00       PGEN=310.25  QGEN=72.77"
461     0
462      #
462      #
462      # (130)  B1 GENERATOR OUTAGE
462      #
462     " 3  34604     0  ""1""     0     # HELMS 3   18.00       PGEN=310.25  QGEN=72.77"
462     0
463      #
463      #
463      # (131)  B1 GENERATOR OUTAGE
463      #
463     " 3  34608     0  ""1""     0     # AGRICO    13.80       PGEN=20.24  QGEN=-3.29"
463     0
464      #
464      #
```

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464     # (132)  B1 GENERATOR OUTAGE
464     #
464    " 3  34610     0  ""1""     0     # HAAS      13.80       PGEN=70.00  QGEN=13.82"
464    0
465     #
465     #
465     # (133)  B1 GENERATOR OUTAGE
465     #
465    " 3  34610     0  ""2""     0     # HAAS      13.80       PGEN=70.00  QGEN=13.82"
465    0
466     #
466     #
466     # (134)  B1 GENERATOR OUTAGE
466     #
466    " 3  34612     0  ""1""     0     # BLCH 2-2  13.80       PGEN=50.00  QGEN=9.37"
466    0
467     #
467     #
467     # (135)  B1 GENERATOR OUTAGE
467     #
467    " 3  34614     0  ""1""     0     # BLCH 2-3  13.80       PGEN=50.00  QGEN=10.29"
467    0
468     #
468     #
468     # (136)  B1 GENERATOR OUTAGE
468     #
468    " 3  34616     0  ""1""     0     # KINGSRIV  13.80       PGEN=47.00  QGEN=2.00"
468    0
469     #
469     #
469     # (137)  B1 GENERATOR OUTAGE
469     #
469    " 3  34618     0  ""1""     0     # MCCALL1T  13.20       PGEN=0.00  QGEN=5.85"
469    0
470     #
470     #
470     # (138)  B1 GENERATOR OUTAGE
470     #
470    " 3  34620     0  ""1""     0     # MCCALL2T  13.20       PGEN=0.00  QGEN=26.57"
470    0
471     #
471     #
471     # (139)  B1 GENERATOR OUTAGE
471     #
471    " 3  34622     0  ""1""     0     # GATES 1T  13.20       PGEN=0.00  QGEN=-15.00"
471    0
472     #
472     #
472     # (140)  B1 GENERATOR OUTAGE
472     #
472    " 3  34624     0  ""1""     0     # BALCH 1   13.20       PGEN=27.00  QGEN=-8.53"
472    0
```

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473     #
473     #
473     # (141)  B1 GENERATOR OUTAGE
473     #
473    " 3  34630     0  ""1""     0     # HERNDN1T  13.20       PGEN=0.00  QGEN=3.81"
473    0
474    # Duplicate Contingency:   #
474    # Duplicate Contingency:   #
474    # Duplicate Contingency:   # (142)  B1 GENERATOR OUTAGE
474    # Duplicate Contingency:   #
474    "# Duplicate Contingency:  3  34631     0  ""1""     0     # SJ2GEN     9.11       PGEN=2.05  QGEN=0.00"
474    # Duplicate Contingency: 0
474     #
474     #
474     # (143)  B1 GENERATOR OUTAGE
474     #
474    " 3  34632     0  ""1""     0     # HERNDN2T  13.20       PGEN=0.00  QGEN=-5.96"
474    0
475    # Duplicate Contingency:   #
475    # Duplicate Contingency:   #
475    # Duplicate Contingency:   # (144)  B1 GENERATOR OUTAGE
475    # Duplicate Contingency:   #
475    "# Duplicate Contingency:  3  34633     0  ""1""     0     # SJ3GEN     9.11       PGEN=1.00  QGEN=0.00"
475    # Duplicate Contingency: 0
475     #
475     #
475     # (145)  B1 GENERATOR OUTAGE
475     #
475    " 3  34636     0  ""1""     0     # FRIANTDM   9.11       PGEN=22.54  QGEN=-4.25"
475    0
476     #
476     #
476     # (146)  B1 GENERATOR OUTAGE
476     #
476    " 3  34638     0  ""1""     0     # KNG SIPH   9.11       PGEN=0.50  QGEN=0.10"
476    0
477     #
477     #
477     # (147)  B1 GENERATOR OUTAGE
477     #
477    " 3  34640     0  ""1""     0     # ULTR.PWR   9.11       PGEN=14.46  QGEN=-8.26"
477    0
478     #
478     #
478     # (148)  B1 GENERATOR OUTAGE
478     #
478    " 3  34642     0  ""1""     0     # KINGSBUR   9.11       PGEN=34.00  QGEN=-2.46"
478    0
479     #
479     #
479     # (149)  B1 GENERATOR OUTAGE
479     #
```

```
479     " 3  34646     0  ""1""     0     # SANGERCO   9.11       PGEN=37.50  QGEN=-9.88"
479     0
480      #
480      #
480      # (150)  B1 GENERATOR OUTAGE
480      #
480     " 3  34648     0  ""1""     0     # DINUBA E  13.80       PGEN=13.50  QGEN=-1.33"
480     0
481      #
481      #
481      # (151)  B1 GENERATOR OUTAGE
481      #
481     " 3  34650     0  ""1""     0     # GWF-PWR.   9.11       PGEN=23.00  QGEN=3.91"
481     0
482      #
482      #
482      # (152)  B1 GENERATOR OUTAGE
482      #
482     " 3  34652     0  ""1""     0     # CHV.COAL   9.11       PGEN=16.00  QGEN=7.18"
482     0
483      #
483      #
483      # (153)  B1 GENERATOR OUTAGE
483      #
483     " 3  34652     0  ""2""     0     # CHV.COAL   9.11       PGEN=7.97  QGEN=3.57"
483     0
484      #
484      #
484      # (154)  B1 GENERATOR OUTAGE
484      #
484     " 3  34654     0  ""1""     0     # COLNGAGN   9.11       PGEN=34.21  QGEN=-13.50"
484     0
485      #
485      #
485      # (155)  B1 GENERATOR OUTAGE
485      #
485     " 3  34658     0  ""3""     0     # WISHON     2.30       PGEN=4.50  QGEN=1.00"
485     0
486      #
486      #
486      # (156)  B1 GENERATOR OUTAGE
486      #
486     " 3  34658     0  ""4""     0     # WISHON     2.30       PGEN=4.50  QGEN=1.00"
486     0
487      #
487      #
487      # (157)  B1 GENERATOR OUTAGE
487      #
487     " 3  38720     0  ""1""     0     # PINE FLT  13.80       PGEN=60.00  QGEN=15.28"
487     0
488      #
488      #
```

```
488     # (158)  B1 GENERATOR OUTAGE
488     #
488    " 3  38720     0  ""2""     0     # PINE FLT  13.80       PGEN=60.00  QGEN=15.28"
488    0
489     #
489     #
489     # (159)  B1 GENERATOR OUTAGE
489     #
489    " 3  38720     0  ""3""     0     # PINE FLT  13.80       PGEN=60.00  QGEN=15.28"
489    0
490    #
490    # G-1/L-1
490    #
490     #
490     # (160) GENERATOR OUTAGE & LINE OUTAGE
490     #
490    " 3  34600     0  ""1""     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75"
490    #
490    " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
490    " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
490    " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
490    " 1  30880 30881  ""1 ""    1      # Henrietta flip flop (Henrietta CB 222)    "
490    " 3  34604     0  ""**""    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line"
490    0
491     #
491     # (161a)  GENERATOR OUTAGE & LINE OUTAGE
491     #
491    " 3  34600     0  ""1""     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75"
491    " 1  30790 30873  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
491    " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
491    "# 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
491    "# 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
491    0
492     #
492     # (161b)  GENERATOR OUTAGE & LINE OUTAGE
492     #
492    " 3  34600     0  ""1""     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75"
492    " 1  30873 30825  ""1 ""    0     # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
492    " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
492    " 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
492    " 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
492    0
493     #
493     # (162) GENERATOR OUTAGE & LINE OUTAGE
493     #
493    " 3  34600     0  ""1""     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75"
493    #
493    " 1  30875 30880  ""1 ""    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00"
493    " 1  30880 30900  ""1 ""    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00"
493    0
494     #
494     # (163) GENERATOR OUTAGE & LINE OUTAGE
```

```
494     #
494     " 3  34600     0  ""1""     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75"
494     #
494     " 1  30790 30873  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
494     0
495     #
495     # (164) GENERATOR OUTAGE & LINE OUTAGE
495     #
495     " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
495     #
495     " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
495     " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
495     " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
495     " 1  30880 30881  ""1 ""    1      # Henrietta flip flop (Henrietta CB 222)    "
495     " 3  34604     0  ""**""    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line"
495     0
496     #
496     # (165a) GENERATOR OUTAGE & LINE OUTAGE
496     #
496     " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
496     " 1  30790 30873  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
496     " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
496     "# 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
496     "# 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
496     0
497     #
497     # (165b) GENERATOR OUTAGE & LINE OUTAGE
497     #
497     " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
497     " 1  30873 30825  ""1 ""    0     # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
497     " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
497     " 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
497     " 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
497     0
498     #
498     # (166) GENERATOR OUTAGE & LINE OUTAGE
498     #
498     " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
498     #
498     " 1  30875 30880  ""1 ""    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00"
498     " 1  30880 30900  ""1 ""    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00"
498     0
499     #
499     # (167) GENERATOR OUTAGE & LINE OUTAGE
499     #
499     " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
499     #
499     " 1  30790 30873  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
499     0
500     #
500     # (168) GENERATOR OUTAGE & LINE OUTAGE
500     #
```

```
500     " 3  34652     0  ""1""     0     # CHV.COAL   9.11       PGEN=17.00  QGEN=8.30"
500     #
500     " 1  34552 34570  ""1 ""    0     # line from  GATES     70.00  BRKR to BRKR  COLNGA 2  70.00"
500     0
501      #
501      # (169) GENERATOR OUTAGE & LINE OUTAGE
501      #
501     " 3  34652     0  ""1""     0     # CHV.COAL   9.11       PGEN=17.00  QGEN=8.30"
501     #
501     " 1  34552 34578  ""1 ""    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00"
501     " 1  34578 34574  ""1 ""    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00"
501     " 4  34578     0  ""1 ""    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0  "
501     0
502     #
502      # (170) GENERATOR OUTAGE & LINE OUTAGE
502      #
502     " 3  34654     0  ""1""     0     # COLNGAGN   9.11       PGEN=34.22  QGEN=-13.50"
502     #
502     " 1  34552 34570  ""1 ""    0     # line from  GATES     70.00  BRKR to BRKR  COLNGA 2  70.00"
502     0
503      #
503      # (171) GENERATOR OUTAGE & LINE OUTAGE
503      #
503     " 3  34654     0  ""1""     0     # COLNGAGN   9.11       PGEN=34.22  QGEN=-13.50"
503     #
503     " 1  34552 34578  ""1 ""    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00"
503     " 1  34578 34574  ""1 ""    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00"
503     " 4  34578     0  ""1 ""    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0  "
503     0
504      #
504      # (172)  GENERATOR OUTAGE & LINE OUTAGE
504      #
504     " 3  34636     0  ""1""     0     # FRIANTDM   9.11       PGEN=19.96  QGEN=-1.14"
504     #
504     " 1  34262 34454  ""1 ""    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00"
504     " 1  34262 34256  ""1 ""    0     # line from  CASSIDY   70.00   (2) to BRKR  BORDEN    70.00"
504     " 1  34454 34464  ""1 ""    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00"
504     " 4  34262     0  ""1 ""    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.36(0.80)"
504     " 4  34454     0  ""1 ""    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)"
504     0
505      #
505      # (173) GENERATOR OUTAGE & LINE OUTAGE
505      #
505     " 3  34650     0  ""1""     0     # GWF-PWR.   9.11       PGEN=23.00  QGEN=5.92"
505     #
505     " 1  34516 34520  ""1 ""    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00"
505     " 1  34520 34518  ""1 ""    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00"
505     " 1  34520 34524  ""1 ""    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00"
505     " 1  34520 34540  ""1 ""    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00"
505     " 4  34516     0  ""1 ""    0     # LOAD-DROP    LEPRINO   70.00  LOAD==5.84(3.31)"
505     " 4  34518     0  ""1 ""    0     # LOAD-DROP    LEMOORE   70.00  LOAD==25.58(8.22)"
505     " 4  34518     0  ""2 ""    0     # LOAD-DROP    LEMOORE   70.00  LOAD==10.28(2.53)"
```

```
505     " 4  34524     0  ""1 ""    0     # LOAD-DROP    CANDLEWK  70.00  LOAD==2.93(2.66)"
505     0
506      #
506     # Program: autocon_make.p   Tue Aug 14 17:00:00
506     #PG&E 2001 TRANSMISSION ASSESSMENT STUDY
506     #2004 SUMMER PEAK AREA 6 BASE CASE
506     #
506      #
506      #
506      # (14)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
506      #
506     " 1  30005 30015  ""1 ""    0     # line from  ROUND MT 500.00  BRKR to BRKR  TABLE MT 500.00"
506     0
507      #
507      #
507      # (15)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
507      #
507     " 1  30005 30015  ""2 ""    0     # line from  ROUND MT 500.00  BRKR to BRKR  TABLE MT 500.00"
507     0
508      #
508      #
508      # (16)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
508      #
508     " 1  30015 30030  ""1 ""    0     # line from  TABLE MT 500.00  BRKR to BRKR  VACA-DIX 500.00"
508     0
509      #
509      #
509      # (17)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
509      #
509     " 1  30015 30040  ""1 ""    0     # line from  TABLE MT 500.00  BRKR to BRKR  TESLA    500.00"
509     0
510      #
510      #
510      # (18)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
510      #
510     " 1  30020 30025  ""1 ""    0     # line from  OLINDA   500.00  BRKR to (2)   MAXWELL  500.00"
510     " 1  30025 30035  ""1 ""    0     # line from  MAXWELL  500.00   (2) to BRKR  TRACY    500.00"
510     0
511      #
511      #
511      # (19)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
511      #
511     " 1  30030 30040  ""1 ""    0     # line from  VACA-DIX 500.00  BRKR to BRKR  TESLA    500.00"
511     0
512      #
512      #
512      # (20)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
512      #
512     " 1  30035 30040  ""1 ""    0     # line from  TRACY    500.00  BRKR to BRKR  TESLA    500.00"
512     0
513      #
513      #
```

```
513     # (21)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
513     #
513     " 1  30035 30050  ""1 ""    0     # line from  TRACY    500.00  BRKR to BRKR  LOSBANOS 500.00"
513     0
514     #
514     #
514     # (22)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
514     #
514     " 1  30040 30042  ""1 ""    0     # line from  TESLA    500.00  BRKR to BRKR  METCALF  500.00"
514     0
515     #
515     #
515     # (23)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
515     #
515     " 1  30040 30050  ""1 ""    0     # line from  TESLA    500.00  BRKR to BRKR  LOSBANOS 500.00"
515     0
516     #
516     #
516     # (24)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
516     #
516     " 1  30042 30045  ""1 ""    0     # line from  METCALF  500.00  BRKR to BRKR  MOSSLAND 500.00"
516     0
517     #
517     #
517     # (25)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
517     #
517     " 1  30045 30050  ""1 ""    0     # line from  MOSSLAND 500.00  BRKR to BRKR  LOSBANOS 500.00"
517     0
518     #
518     #
518     # (26)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
518     #
518     " 1  30050 30055  ""1 ""    0     # line from  LOSBANOS 500.00  BRKR to BRKR  GATES    500.00"
518     0
519     #
519     #
519     # (27)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
519     #
519     " 1  30050 30060  ""1 ""    0     # line from  LOSBANOS 500.00  BRKR to BRKR  MIDWAY   500.00"
519     0
520     #
520     #
520     # (28)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
520     #
520     " 1  30055 30057  ""1 ""    0     # line from  GATES    500.00  BRKR to BRKR  DIABLO   500.00"
520     0
521     #
521     #
521     # (29)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
521     #
521     " 1  30055 30060  ""1 ""    0     # line from  GATES    500.00  BRKR to BRKR  MIDWAY   500.00"
521     0
```

```
522     #
522     #
522     # (30)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
522     #
522    " 1  30057 30060  ""1 ""    0     # line from  DIABLO   500.00  BRKR to BRKR  MIDWAY   500.00"
522    0
523     #
523     #
523     # (31)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
523     #
523    " 1  30057 30060  ""2 ""    0     # line from  DIABLO   500.00  BRKR to BRKR  MIDWAY   500.00"
523    0
```

Hyperlink to Calpine-CVEC B_contingency_list

Clist

```
        # PG&E 2001 Transmission Assessment
        # C5 Contingencies Area 14 Fresno
        #
        #
        ##########################################################################################
         #
         #   70 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES (BREAKER-BREAKER)
1        #
1       ##########################################################################################
1        #
1       #(1) Gates-Schindler and Gates-Huron
1        #
1       " 1  34558 34560  ""1 ""    0    # line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00"""
1       " 1  34560 34562  ""1 ""    0    # line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00"""
1       " 4  34560     0  ""1 ""    0    # LOAD-DROP    CALFLAX   70.00  LOAD==9.96(1.56)"""
1       " 1  34552 34558  ""2 ""    0     # Must include Gates - Huron in this outage    """
1       #
1       " 1  34552 34558  ""1 ""    0    # line from  GATES     70.00  BRKR to BRKR  HURON     70.00"
1       0
2       #
2       #
2       ##########################################################################################
2        #
2        #   115 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES (BREAKER-BREAKER)
2        #
2       ##########################################################################################
2        #
2       #(2) Barton-Sanger and Manchester-Sanger
2        #
2       " 1  34366 34408  ""1 ""    0    # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00"
2       #
2       " 1  34366 34368  ""1 ""    0    # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00"
2       " 1  34368 34410  ""1 ""    0    # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00"
2       " 4  34368     0  ""1 ""    0    # LOAD-DROP    LASPALMS 115.00  LOAD==12.63(10.80)"
2       0
3        #
3       #(3) Herndon-Barton and Herndon-Manchester
3        #
3       " 1  34408 34412  ""1 ""    0    # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00"
3       #
3       " 1  34410 34412  ""1 ""    0    # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00"
3       0
4        #
4       #(4) Herndon-Barton and Manchester-Sanger
4        #
4       " 1  34408 34412  ""1 ""    0    # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00"
```

```
4       #
4       " 1  34366 34368  ""1 ""    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00"
4       " 1  34368 34410  ""1 ""    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00"
4       " 4  34368     0  ""1 ""    0     # LOAD-DROP    LASPALMS 115.00  LOAD==12.63(10.80)"
4       0
5        #
5       #(5) Herndon-Bullard #1 and #2
5        #
5       " 1  34409 34413  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00"
5       " 1  34409 34416  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00"
5       " 1  34409 34412  ""1 ""    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00"
5       #
5       " 1  34411 34413  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  PNEDLE   115.00"
5       " 1  34411 34416  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  BULLARD  115.00"
5       " 1  34411 34412  ""1 ""    0     # line from  PNDLJ1   115.00   (3) to BRKR  HERNDON  115.00"
5       0
6        #
6       #(6) Kerckhoff-Clovis-Sanger #1 and #2
6        #
6       " 1  34358 34360  ""1 ""    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00"
6       " 1  34360 34414  ""1 ""    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00"
6       " 1  34360 34363  ""1 ""    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00"
6       " 1  34363 34362  ""1 ""    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00"
6       " 1  34363 34366  ""1 ""    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00"
6       " 4  34362     0  ""1 ""    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==41.01(14.34)"
6       " 4  34362     0  ""2 ""    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==40.20(2.55)"
6       #
6       " 1  34364 34365  ""1 ""    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00"
6       " 1  34365 34358  ""1 ""    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00"
6       " 1  34365 34366  ""1 ""    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00"
6       " 4  34364     0  ""3 ""    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==49.25(6.27)"
6       0
7        #
7       #(7) Kingburg-Corcoran #1 and #2
7        #
7       " 1  34418 34420  ""1 ""    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00"
7       " 1  34418 34420  ""2 ""    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00"
7       0
8        #
8       #(8) Kings River-Sanger-Reedley and Balch-Sanger
8        #
8       " 1  34366 34389  ""1 ""    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00"
8       " 1  34389 34388  ""1 ""    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBOW  115.00"
8       " 1  34389 34394  ""1 ""    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00"
8       " 1  34394 34380  ""1 ""    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00"
8       " 1  34394 34400  ""1 ""    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGS RVR 115.00"
8       " 4  34388     0  ""1 ""    0     # LOAD-DROP    RAINBOW  115.00  LOAD==18.64(6.64)"
8       #
8       " 1  34366 34396  ""1 ""    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00"
8       " 1  34396 34398  ""1 ""    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00"
```

```
8       " 2  34398 34624  ""1 ""    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20"
8       " 4  34624     0  ""1 ""    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.49(0.00)"
8       " 3  34624     0  ""1 ""    0     # GEN-DROP    BALCH 1   13.20  GEN==27.00(-7.50)"
8       0
9        #
9       #(9) McCall-Kingsburg #1 and #2
9        #
9       " 1  34370 34385  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (3)   KINGSJCT 115.00"
9       " 1  34385 34418  ""1 ""    0     # line from  KINGSJCT 115.00   (3) to BRKR  KINGSBRG 115.00"
9       " 1  34385 34425  ""1 ""    0     # line from  KINGSJCT 115.00   (3) to (3)   KCOGNJCT 115.00"
9       " 1  34425 34387  ""1 ""    0     # line from  KCOGNJCT 115.00   (3) to (2)   SUNMAID  115.00"
9       " 1  34425 34427  ""1 ""    0     # line from  KCOGNJCT 115.00   (3) to (1)   GRDNGLS2 115.00"
9       " 1  34387 34386  ""1 ""    0     # line from  SUNMAID  115.00   (2) to (2)   KNGSCOGN 115.00"
9       " 2  34386 34642  ""1 ""    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11"
9       " 4  34387     0  ""1 ""    0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.00(2.89)"
9       " 3  34642     0  ""1 ""    0     # GEN-DROP    KINGSBUR   9.11  GEN==33.91(0.15)"
9       #
9       " 1  34370 34423  ""1 ""    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00"
9       " 1  34423 34418  ""1 ""    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00"
9       " 1  34423 34424  ""1 ""    0     # line from  GAURD J1 115.00   (3) to (1)   GRDN GLS 115.00"
9       " 4  34424     0  ""1 ""    0     # LOAD-DROP    GRDN GLS 115.00  LOAD==7.25(2.38)"
9       " 4  34418     0  ""3 ""    0      # Kingsburg Bank #3 will also be dropped on this outage    "
9       0
10       #
10      #(10) McCall-Sanger #1 and #2
10       #
10      " 1  34366 34370  ""1 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
10      " 1  34366 34370  ""2 ""    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00"
10      0
11       #
11      #(11) McCall-West Fresno #1 and #2
11       #
11      " 1  34406 34390  ""1 ""    0     # line from  W FRES J 115.00   (3) to (2)   DANISHCM 115.00"
11      " 1  34406 34404  ""1 ""    0     # line from  W FRES J 115.00   (3) to BRKR  WST FRSO 115.00"
11      " 1  34390 34402  ""1 ""    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00"
11      " 4  34390     0  ""1 ""    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.93(3.36)"
11      " 4  34402     0  ""3 ""    0     # LOAD-DROP    CAL AVE  115.00  LOAD==33.47(7.31)"
11      #
11      " 1  34370 34404  ""2 ""    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00"
11      0
12      #
12      #
12      ##########################################################################################
12       #
12       #   230 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES (BREAKER-BREAKER)
12       #
12      ##########################################################################################
12      #
12       #
12      #(12) Gates-Gregg and Gates-McCall
```

```
12      #
12      " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
12      " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
12      " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
12      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line"
12      #
12      " 1  30875 30880  ""1 ""    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00"
12      " 1  30880 30900  ""1 ""    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00"
12      " 2  34540 30881  ""2 ""    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00 RAS Scheme for this DCTL outage"
12      " 2  30881 34430  ""3 ""    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00 RAS Scheme for this DCTL outage"
12      0
13      #
13      #(13a) Panoche-Kearney and Gates-Gregg
13      " 1  30790 30873  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
13      " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
13      " # 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
13      " # 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
13      #
13      " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
13      " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
13      " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
13      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line"
13      0
14      #
14      #(14a) Panoche-Kearney and Panoche-Helm
14      " 1  30790 30873  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
14      " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
14      " # 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
14      " # 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
14      #
14      " 1  30790 30873  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
14      0
15      #
15      #(15a) Panoche-Kearney and Helm-McCall
15      " 1  30790 30873  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
15      " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
15      " # 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
15      " # 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
15      #
15      " 1  30873 30875  ""1 ""    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00"
15      0
16      #
16      #
16      #(13b) Panoche-Kearney and Gates-Gregg
16      " 1  30873 30825  ""1 ""    0     # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
16      " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
16      " 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
16      " 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
16      #
16      " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
```

```
16      " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
16      " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
16      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line"
16      0
17       #
17      #(14b) Panoche-Kearney and Panoche-Helm
17      " 1  30873 30825  ""1 ""    0     # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
17      " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
17      " 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
17      " 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
17      #
17      " 1  30790 30873  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00"
17      0
18       #
18      #(15b) Panoche-Kearney and Helm-McCall
18      " 1  30873 30825  ""1 ""    0     # line from  HELM     230.00  BRKR to (2)   MCMULLN1 230.00"
18      " 1  30790 30825  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00"
18      " 1  30825 30830  ""1 ""    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00"
18      " 4  30825     0  ""1 ""    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)"
18      #
18      " 1  30873 30875  ""1 ""    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00"
18      0
19       #
19      #(16) Helm-McCall and Gates-McCall
19       #
19      " 1  30873 30875  ""1 ""    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00"
19      #
19      " 1  30875 30880  ""1 ""    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00"
19      " 1  30880 30900  ""1 ""    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00"
19      0
20       #
20      #(17) Panoche-Gates #1 and #2
20       #
20      " 1  30790 30900  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
20      #
20      " 1  30790 30900  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
20      0
21       #
21      #(18) Helms-Gregg #1 and #2
21       #
21      " 1  30810 30820  ""1 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00"
21      #
21      " 1  30810 30820  ""2 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00"
21      0
22       #
22      #(19) Gregg-Herndon #1 and #2
22       #
22      " 1  30810 30835  ""1 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00"
22      #
22      " 1  30810 30835  ""2 ""    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00"
```

```
22      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Herndon Tap line"
22      0
23       #
23      #(20) Herndon-Kearney and Herndon-Ashlan
23       #
23      " 1  30830 30835  ""1 ""    0     # line from  KEARNEY  230.00  BRKR to BRKR  HERNDON  230.00"
23      #
23      " 1  30835 30840  ""1 ""    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00"
23      " 1  30840 30841  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00"
23      " 1  30840 30850  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00"
23      " 4  30841     0  ""1 ""    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==60.10(3.81)"
23      " 1 30841  30846  ""1 ""    1      # Switches in Figarden SW 286 to transfer load    "
23      " 4 30841      0  ""**""    1      # Restore Load at Figarden 1    "
23      0
24       #
24      #(21) Herndon-Kearney and Gates-Gregg
24       #
24      " 1  30830 30835  ""1 ""    0     # line from  KEARNEY  230.00  BRKR to BRKR  HERNDON  230.00"
24      #
24      " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
24      " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
24      " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
24      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line"
24      0
25       #
25      #(22) Gates-Gregg and Gregg-Ashlan
25       #
25      " 1  30810 30879  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00"
25      " 1  30879 30881  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00"
25      " 1  30879 30900  ""1 ""    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00"
25      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line"
25      #
25      " 1  30810 30845  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00"
25      " 1  30845 30846  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00"
25      " 1  30845 30850  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00"
25      " 4  30846     0  ""2 ""    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==48.05(0.00)"
25      " 1 30841  30846  ""1 ""    1      # Switches in Figarden SW 286 to transfer load    "
25      " 4 30846      0  ""**""    1      # Restore Load at Figarden 2    "
25      0
26       #
26      #(23) Herndon-Ashlan and Gregg-Ashlan
26       #
26      " 1  30835 30840  ""1 ""    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00"
26      " 1  30840 30841  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00"
26      " 1  30840 30850  ""1 ""    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00"
26      " 4  30841     0  ""1 ""    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==60.10(3.81)"
26      #
26      " 1  30810 30845  ""1 ""    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00"
26      " 1  30845 30846  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00"
26      " 1  30845 30850  ""1 ""    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00"
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26      " 4  30846     0  ""2 ""    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==48.05(0.00)"
26      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Figarden Tap line"
26      0
27       #
27      #(24) Haas-McCall and Balch-McCall
27       #
27      " 1  30855 30860  ""1 ""    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00"
27      " 2  30855 34610  ""1 ""    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80"
27      " 1  30860 30875  ""1 ""    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00"
27      " 2  30860 34614  ""1 ""    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80"
27      " 3  34610     0  ""1 ""    0     # GEN-DROP    HAAS      13.80  GEN==70.00(15.41)"
27      " 3  34610     0  ""2 ""    0     # GEN-DROP    HAAS      13.80  GEN==70.00(15.41)"
27      " 3  34614     0  ""1 ""    0     # GEN-DROP    BLCH 2-3  13.80  GEN==50.00(11.47)"
27      #
27      " 1  30865 30870  ""1 ""    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00"
27      " 2  30865 34612  ""1 ""    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80"
27      " 1  30870 30875  ""1 ""    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00"
27      " 2  30870 38720  ""1 ""    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80"
27      " 3  34612     0  ""1 ""    0     # GEN-DROP    BLCH 2-2  13.80  GEN==50.00(10.54)"
27      " 3  38720     0  ""1 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(16.98)"
27      " 3  38720     0  ""2 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(16.98)"
27      " 3  38720     0  ""3 ""    0     # GEN-DROP    PINE FLT  13.80  GEN==60.00(16.98)"
27      0
28      #
28      # G-1/L-1
28      #
28       #
28       # (99)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
28       #
28      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
28      #
28      " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
28      " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
28      " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)"
28      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Storey line"
28      0
29       #
29       # (100)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
29       #
29      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
29      #
29      " 1  37563 30800  ""1 ""    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00"
29      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Melones-Wilson line"
29      0
30       #
30       # (101)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
30       #
30      " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
30      #
30      " 1  37563 30800  ""1 ""    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00"
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30      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Melones-Wilson line"
30      0
31       #
31       # (102)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
31       #
31      " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
31      #
31      " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
31      " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
31      " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)"
31      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Borden line"
31      0
32       #
32       # (103)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
32       #
32      " 3  37561     0  ""1""     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15"
32      #
32      " 1  30805 30810  ""1 ""    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00"
32      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Borden line"
32      0
33       #
33       # (104)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
33       #
33      " 3  37561     0  ""1""     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15"
33      #
33      " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
33      " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
33      " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)"
33      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Storey line"
33      0
34       #
34       # (105)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
34       #
34      " 3  37561     0  ""1""     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15"
34      #
34      " 1  30515 30795  ""1 ""    0     # line from  WARNERVL 230.00  BRKR to (2)   STOREY 2 230.00"
34      " 1  30795 30805  ""1 ""    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00"
34      " 4  30795     0  ""2 ""    0     # LOAD-DROP    STOREY 2 230.00  LOAD==33.65(0.00)"
34      " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Warnerville - Borden line"
34      0
35       #
35       # (106)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
35       #
35      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
35      #
35      " 1  34100 34101  ""1 ""    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00"
35      " 1  34101 34116  ""1 ""    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00"
35      " 1  34101 34107  ""1 ""    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00"
35      " 1  34107 34103  ""1 ""    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00"
35      " 1  34103 34102  ""1 ""    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00"
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35      " 1  34103 34109  ""1 ""    0    # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00"
35      " 2  34109 34301  ""1 ""    0    # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80"
35      " 4  34102     0  ""1 ""    0    # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)"
35      " 3  34301     0  ""1 ""    0    # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)"
35      0
36       #
36       # (107)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
36       #
36      " 3  34306     0  ""1""     0    # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
36      #
36      " 1  34105 34100  ""1 ""    0    # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00"
36      " 1  34105 34121  ""1 ""    0    # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00"
36      " 1  34121 34120  ""1 ""    0    # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00"
36      " 1  34121 34128  ""1 ""    0    # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00"
36      " 1  34128 34126  ""1 ""    0    # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00"
36      " 1  34128 34356  ""1 ""    0    # line from  OAKH_JCT 115.00   (3) to BRKR  KERCKHF1 115.00"
36      " 1  34126 34122  ""1 ""    0    # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00"
36      " 4  34120     0  ""1 ""    0    # LOAD-DROP    SHARON   115.00  LOAD==7.11(4.78)"
36      " 4  34126     0  ""1 ""    0    # LOAD-DROP    CORSGOLD 115.00  LOAD==10.98(2.28)"
36      " 4  34126     0  ""2 ""    0    # LOAD-DROP    CORSGOLD 115.00  LOAD==6.70(0.00)"
36      " 4  34122     0  ""1 ""    0    # LOAD-DROP    OAKHURST 115.00  LOAD==13.08(5.33)"
36      " 4  34122     0  ""2 ""    0    # LOAD-DROP    OAKHURST 115.00  LOAD==9.10(-1.54)"
36      0
37       #
37       # (108)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
37       #
37      " 3  34306     0  ""1""     0    # EXCHQUER  13.80       PGEN=75.00  QGEN=40.00"
37      #
37      " 1  34104 34106  ""1 ""    0    # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00"
37      " 1  34106 34138  ""1 ""    0    # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00"
37      0
38       #
38       # (109)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
38       #
38      " 3  34306     0  ""1""     0    # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
38      #
38      " 1  34104 34108  ""1 ""    0    # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00"
38      " 1  34108 34110  ""1 ""    0    # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00"
38      " 1  34108 34114  ""1 ""    0    # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00"
38      " 1  34114 34124  ""1 ""    0    # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00"
38      " 2  34114 34332  ""1 ""    0    # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11"
38      " 1  34124 34140  ""1 ""    0    # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00"
38      " 4  34124     0  ""1 ""    0    # LOAD-DROP    JR WOOD  115.00  LOAD==13.77(12.14)"
38      " 4  34140     0  ""1 ""    0    # LOAD-DROP    CRESSEY  115.00  LOAD==20.80(3.20)"
38      " 3  34332     0  ""1 ""    0    # GEN-DROP    JRWCOGEN   9.11  GEN==4.38(5.40)"
38      0
39       #
39       # (110)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
39       #
39      " 3  34306     0  ""1""     0    # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
```

```
39      #
39      " 1  34108 34110  ""1 ""    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00"
39      " 1  34110 34130  ""1 ""    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00"
39      " 1  34110 34144  ""1 ""    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00"
39      " 1  34130 34132  ""1 ""    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00"
39      " 4  34130     0  ""3 ""    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==22.10(5.44)"
39      " 4  34132     0  ""1 ""    0     # LOAD-DROP    GALLO    115.00  LOAD==5.77(5.56)"
39      0
40       #
40       # (111)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
40       #
40      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
40      #
40      " 1  34116 34154  ""1 ""    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00"
40      0
41       #
41       # (112)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
41       #
41      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
41      #
41      " 1  34118 34136  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00"
41      " 1  34118 34168  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00"
41      " 1  34168 34162  ""1 ""    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00"
41      " 4  34168     0  ""1 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.97(0.00)"
41      " 4  34168     0  ""2 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==12.15(-3.95)"
41      0
42       #
42       # (113)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
42       #
42      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
42      #
42      " 1  34136 34138  ""1 ""    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00"
42      0
43       #
43       # (114)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
43       #
43      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
43      #
43      " 1  34150 34154  ""1 ""    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00"
43      " 1  34150 34178  ""1 ""    0     # line from  NEWHALL  115.00   (2) to (2)   CAPCOTAP 115.00"
43      " 1  34178 34156  ""1 ""    0     # line from  CAPCOTAP 115.00   (2) to BRKR  MENDOTA  115.00"
43      " 4  34150     0  ""2 ""    0     # LOAD-DROP    NEWHALL  115.00  LOAD==6.08(1.50)"
43      " 4  34150     0  ""3 ""    0     # LOAD-DROP    NEWHALL  115.00  LOAD==8.30(1.64)"
43      0
44       #
44       # (115)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
44       #
44      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
44      #
44      " 1  34157 34156  ""1 ""    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00"
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```
44      " 1  34157 34158  ""1 ""    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00"
44      0
45       #
45       # (116)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERTOR OUTAGE
45       #
45      " 3  34332     0  ""1""     0     # JRWCOGEN   9.11       PGEN=4.38  QGEN=5.40"
45      #
45      " 1  34104 34106  ""1 ""    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00"
45      " 1  34106 34138  ""1 ""    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00"
45      0
46       #
46       # (117)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
46       #
46      " 3  34332     0  ""1""     0     # JRWCOGEN   9.11       PGEN=4.38  QGEN=5.40"
46      #
46      " 1  34134 34104  ""1 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00"
46      0
47       #
47       # (118)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
47       #
47      " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
47      #
47      " 1  34116 34154  ""1 ""    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00"
47      0
48       #
48       # (119)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
48       #
48      " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
48      #
48      " 1  34112 34116  ""1 ""    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00"
48      " 3  34306     0  ""1 ""    0      # Exchequer Unit will trip for this outage    "
48      " 4  34228     0  ""**""    0      # Mariposa Loads will drop if bus is below 64 kV
this is
anticip
ate"
48      0
49       #
49       # (120)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
49       #
49      " 3  34308     0  ""1""     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76"
49      #
49      " 1  34100 34101  ""1 ""    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00"
49      " 1  34101 34116  ""1 ""    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00"
49      " 1  34101 34107  ""1 ""    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00"
49      " 1  34107 34103  ""1 ""    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00"
49      " 1  34103 34102  ""1 ""    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00"
49      " 1  34103 34109  ""1 ""    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00"
49      " 2  34109 34301  ""1 ""    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80"
49      " 4  34102     0  ""1 ""    0     # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)"
49      " 3  34301     0  ""1 ""    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)"
49      0
```

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50      #
50      # (121)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
50      #
50      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
50      #
50      " 1  34237 34255  ""1 ""    0     # line from  CANANDGA  70.00   (2) to (3)   TRIGO J   70.00"
50      " 1  34237 34240  ""1 ""    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00"
50      " 1  34255 34238  ""1 ""    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00"
50      " 1  34255 34254  ""1 ""    0     # line from  TRIGO J   70.00   (3) to (2)   TRIGO     70.00"
50      " 1  34254 34264  ""1 ""    0     # line from  TRIGO     70.00   (2) to (1)   EL PECO   70.00"
50      " 4  34237     0  ""1 ""    0     # LOAD-DROP    CANANDGA  70.00  LOAD==6.74(5.06)"
50      " 4  34238     0  ""1 ""    0     # LOAD-DROP    BONITA    70.00  LOAD==12.84(1.29)"
50      " 4  34264     0  ""1 ""    0     # LOAD-DROP    EL PECO   70.00  LOAD==8.08(0.00)"
50      " 1  34238 34236  ""1 ""    1      # Switches in Bonita SW23 to transfer load    "
50      " 4  34238     0  ""1 ""    1      # Restore Load at Bonita    "
50      0
51      #
51      # (122)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
51      #
51      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
51      #
51      " 1  34321 34226  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00"
51      " 1  34321 34230  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00"
51      " 1  34321 34232  ""1 ""    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00"
51      " 2  34226 34320  ""1 ""    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11"
51      " 3  34320     0  ""1 ""    0     # GEN-DROP    MCSWAIN    9.11  GEN==6.80(-1.00)"
51      0
52      #
52      # (123)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
52      #
52      " 3  34306     0  ""1""     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49"
52      #
52      " 1  34200 34222  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00"
52      " 1  34222 34220  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00"
52      " 1  34222 34224  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00"
52      " 1  34220 34206  ""1 ""    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00"
52      " 1  34224 34272  ""1 ""    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00"
52      " 1  34272 34214  ""1 ""    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00"
52      " 4  34220     0  ""1 ""    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.24(0.47)"
52      " 4  34224     0  ""1 ""    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.51(1.70)"
52      " 4  34272     0  ""1 ""    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.38(1.15)"
52      0
53      #
53      # (124)  C3 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
53      #
53      " 3  34316     0  ""1""     0     # ONEILPMP   9.11       PGEN=0.52  QGEN=0.00"
53      #
53      " 1  34200 34222  ""1 ""    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00"
53      " 1  34222 34220  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00"
53      " 1  34222 34224  ""1 ""    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00"
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```
53      " 1  34220 34206  ""1 ""    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00"
53      " 1  34224 34272  ""1 ""    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00"
53      " 1  34272 34214  ""1 ""    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00"
53      " 4  34220     0  ""1 ""    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.24(0.47)"
53      " 4  34224     0  ""1 ""    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.51(1.70)"
53      " 4  34272     0  ""1 ""    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.38(1.15)"
53      0
54       #
54      # PG&E 2001 Transmission Assessment
54      # C5 Contingencies Area 11/12 Stockton/Stanislaus
54      #
54      #
54      ##########################################################################################
54       #
54       #   115 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES (BREAKER-BREAKER)
54       #
54      ##########################################################################################
54       #
54      #(1) Wilson-Atwater and El Capitan-Wilson
54       #
54      " 1  34134 34104  ""1 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00"
54      #
54      " 1  34136 34138  ""1 ""    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00"
54      0
55       #
55      #(2) Wilson-Atwater and Atwater-El Capitan
55       #
55      " 1  34134 34104  ""1 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00"
55      #
55      " 1  34104 34106  ""1 ""    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00"
55      " 1  34106 34138  ""1 ""    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00"
55      0
56       #
56      #(3) Wilson-Merced #2 and Wilson-Oro Loma
56       #
56      " 1  34134 34144  ""2 ""    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00"
56      #
56      " 1  34118 34136  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00"
56      " 1  34118 34168  ""1 ""    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00"
56      " 1  34168 34162  ""1 ""    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00"
56      " 4  34168     0  ""1 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.97(0.00)"
56      " 4  34168     0  ""2 ""    0     # LOAD-DROP    EL NIDO  115.00  LOAD==12.15(-3.95)"
56      0
57       #
57      #(4) Panoche-Schindler #1 and #2
57       #
57      " 1  34158 34350  ""1 ""    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00"
57      " 1  34350 34352  ""1 ""    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00"
57      " 1  34352 34432  ""1 ""    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00"
57      " 1  34432 34354  ""1 ""    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00"
```

```
57      " 4  34350     0  ""1 ""    0     # LOAD-DROP    KAMM     115.00  LOAD==3.76(1.71)"
57      " 4  34352     0  ""1 ""    0     # LOAD-DROP    CANTUA   115.00  LOAD==16.02(2.51)"
57      " 4  34432     0  ""16""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)"
57      " 4  34432     0  ""18""    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)"
57      #
57      " 1  34149 34148  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  CHENY    115.00"
57      " 1  34149 34158  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00"
57      " 1  34149 34354  ""1 ""    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00"
57      " 4  34148     0  ""1 ""    0     # LOAD-DROP    CHENY    115.00  LOAD==13.86(0.00)"
57      0
58      #
58      #
58      ##########################################################################################
58       #
58       #   230 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES (BREAKER-BREAKER)
58       #
58      ##########################################################################################
58       #
58       #
58      #(5) Gates-Panoche #1 and #2
58       #
58      " 1  30790 30900  ""1 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
58      #
58      " 1  30790 30900  ""2 ""    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00"
58      0
59       #
59      #(6) Los Banos-Panoche and Los Banos-Dos Amigos
59       #
59      " 1  30765 30790  ""2 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00"
59      #
59      " 1  30765 38615  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00"
59      0
60       #
60      #(7) Los Banos-Panoche and Dos Amigos-Panoche
60       #
60      " 1  30765 30790  ""2 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00"
60      #
60      " 1  38615 30790  ""1 ""    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00"
60      0
61       #
61      #(8) Los Banos - San Luis PGP #1 and #2
61       #
61      " 1  30765 38625  ""1 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00"
61      #
61      " 1  30765 38625  ""2 ""    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00"
61      0
62       #
62      #(9) Warnerville-Borden and Wilson-Gregg
62       #
62      " 1  30515 30795  ""1 ""    0     # line from  WARNERVL 230.00  BRKR to (2)   STOREY 2 230.00"
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62    " 1  30795 30805  ""1 ""    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00"
62    " 4  30795     0  ""2 ""    0     # LOAD-DROP    STOREY 2 230.00  LOAD==33.65(0.00)"
62    " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Warnerville-Borden line"
62    #
62    " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
62    " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
62    " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)"
62    0
63     #
63    #(10) Borden-Gregg and Wilson-Gregg
63     #
63    " 1  30805 30810  ""1 ""    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00"
63    " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Gregg - Borden line"
63    #
63    " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
63    " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
63    " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)"
63    0
64     #
64    #(11) Bellota-Melones and Warnerville-Borden
64     #
64    " 1  30500 38206  ""1 ""    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00"
64    " 1  38206 37563  ""1 ""    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00"
64    " 4  38206     0  ""1 ""    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)"
64    " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Bellota-Melones line"
64    #
64    " 1  30515 30795  ""1 ""    0     # line from  WARNERVL 230.00  BRKR to (2)   STOREY 2 230.00"
64    " 1  30795 30805  ""1 ""    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00"
64    " 4  30795     0  ""2 ""    0     # LOAD-DROP    STOREY 2 230.00  LOAD==33.65(0.00)"
64    0
65     #
65    #(12) Bellota-Melones and Bellota-Warnerville
65     #
65    " 1  30500 38206  ""1 ""    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00"
65    " 1  38206 37563  ""1 ""    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00"
65    " 4  38206     0  ""1 ""    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)"
65    " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Bellota-Melones line"
65    #
65    " 1  30500 38208  ""1 ""    0     # line from  BELLOTA  230.00  BRKR to (3)   COTTLE B 230.00"
65    " 1  38208 30515  ""1 ""    0     # line from  COTTLE B 230.00   (3) to BRKR  WARNERVL 230.00"
65    " 2  38208 38349  ""1 ""    0     # TRAN from  COTTLE B 230.00   (3) to (1)   FRANKHMR   9.11"
65    " 4  38208     0  ""2 ""    0     # LOAD-DROP    COTTLE B 230.00  LOAD==21.32(7.38)"
65    " 3  38349     0  ""1 ""    0     # GEN-DROP    FRANKHMR   9.11  GEN==3.47(2.50)"
65    0
66     #
66    #(13) Melones-Wilson and Warnerville-Borden
66     #
66    " 1  37563 30800  ""1 ""    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00"
66    " 3  34604     0  ""**""    0      # Drop Helms unit#3 with a loss Melones-Wilson line"
66    #
```

```
66      " 1  30796 30800  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00"
66      " 1  30796 30810  ""1 ""    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00"
66      " 4  30796     0  ""1 ""    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)"
66      0
67       #
67      # -1
67      # EOF
67       # Program: autocon_make.p   Mon Jul 23 18:57:18
67      #PG&E 2001 TRANSMISSION ASSESSMENT STUDY
67      #2004 SUMMER PEAK AREA 6 BASE CASE
67      "  #  Zones 312
313     314
315     320"
67      # List C2 = Bus Faults
67      " # (1) BUS FAULT  30765  ""LOSBANOS"" Bus 1"
67      " 1  30765  30670  ""1""    0     # LINE from  LOSBANOS 230.0036270  to  36270WESTLEY  230.00"
67      " 1  30765  30790  ""1""    0     # LINE from  LOSBANOS 230.0036270  to  36270PANOCHE  230.00"
67      " 1  30765  38625  ""1""    0     # LINE from  LOSBANOS 230.0036270  to  36270SN LS PP 230.00"
67      " 2  30765  34214  ""3""    0     # TRAN from  LOSBANOS 230.0036270  to  36270LOS BANS  70.00"
67      0
68      #
68      " # (1) BUS FAULT  30765  ""LOSBANOS"" Bus 2"
68      " 1  30765  30790  ""2""    0     # LINE from  LOSBANOS 230.0036270  to  36270PANOCHE  230.00"
68      " 1  30765  38615  ""1""    0     # LINE from  LOSBANOS 230.0036270  to  36270DS AMIGO 230.00"
68      " 1  30765  38625  ""2""    0     # LINE from  LOSBANOS 230.0036270  to  36270SN LS PP 230.00"
68      0
69      #
69      " # (2) BUS FAULT  30790  ""PANOCHE"" Bus 1"
69      " 1  30790  30873  ""2""    0     # LINE from  PANOCHE  230.0036270  to  36270HELM     230.00"
69      " 1  30790  30760  ""1""    0     # LINE from  PANOCHE  230.0036270  to  36270COBURN   230.00"
69      " 1  30790  30765  ""1""    0     # LINE from  PANOCHE  230.0036270  to  36270LOSBANOS 230.00"
69      " 1  30790  30765  ""2""    0     # LINE from  PANOCHE  230.0036270  to  36270LOSBANOS 230.00"
69      " 1  30790  30900  ""1""    0     # LINE from  PANOCHE  230.0036270  to  36270GATES    230.00"
69      " 2  30790  30791  ""1""    0     # TRAN from  PANOCHE  230.0036270  to  36270PNCHE 1M 230.00"
69      0
70      #
70      " # (2) BUS FAULT  30790  ""PANOCHE"" Bus 2"
70      " 1  30790  30750  ""1""    0     # LINE from  PANOCHE  230.0036270  to  36270MOSSLND2 230.00"
70      " 1  30790  30873  ""1""    0     # LINE from  PANOCHE  230.0036270  to  36270HELM     230.00"
70      " 1  30790  30900  ""2""    0     # LINE from  PANOCHE  230.0036270  to  36270GATES    230.00"
70      " 1  30790  38615  ""1""    0     # LINE from  PANOCHE  230.0036270  to  36270DS AMIGO 230.00"
70      " 2  30790  30792  ""2""    0     # TRAN from  PANOCHE  230.0036270  to  36270PNCHE 2M 230.00"
70      0
71      #
71      " # (8) BUS FAULT  30835  ""HERNDON"" Bus 1"
71      " 1  30835  30810  ""1""    0     # LINE from  HERNDON  230.0036270  to  36270GREGG    230.00"
71      " 1  30835  30830  ""1""    0     # LINE from  HERNDON  230.0036270  to  36270KEARNEY  230.00"
71      " 2  30835  30882  ""1""    0     # TRAN from  HERNDON  230.0036270  to  36270HERNDN1M 115.00"
71      0
72      #
```

```
72    " # (8) BUS FAULT  30835  ""HERNDON"" Bus 2"
72    " 1  30835  30810  ""2""    0    # LINE from  HERNDON  230.0036270  to  36270GREGG    230.00"
72    " 1  30835  30840  ""1""    0    # LINE from  HERNDON  230.0036270  to  36270FGRDN T1 230.00"
72    " 2  30835  30883  ""2""    0    # TRAN from  HERNDON  230.0036270  to  36270HERNDN2M 115.00"
72    #
72    " # (13) BUS FAULT  30875  ""MC CALL"" Bus 1"
72    " 1  30875  30870  ""1""    0    # LINE from  MC CALL  230.0036270  to  36270PINE FLT 230.00"
72    " 1  30875  30880  ""1""    0    # LINE from  MC CALL  230.0036270  to  36270HENTAP2  230.00"
72    " 2  30875  30876  ""1""    0    # TRAN from  MC CALL  230.0036270  to  36270MCCALL1M 115.00"
72    " 2  30875  30878  ""3""    0    # TRAN from  MC CALL  230.0036270  to  36270MCCALL3M 115.00"
72    0
73    #
73    " # (13) BUS FAULT  30875  ""MC CALL"" Bus 2"
73    " 1  30875  30860  ""1""    0    # LINE from  MC CALL  230.0036270  to  36270BALCH3TP 230.00"
73    " 1  30875  30873  ""1""    0    # LINE from  MC CALL  230.0036270  to  36270HELM     230.00"
73    " 2  30875  30877  ""2""    0    # TRAN from  MC CALL  230.0036270  to  36270MCCALL2M 115.00"
73    0
74    #
74    " # (15) BUS FAULT  30900  ""GATES"" Bus 1 Section D"
74    " 1  30900  30790  ""1""    0    # LINE from  GATES    230.0036270  to  36270PANOCHE  230.00"
74    " 1  30900  30905  ""1""    0    # LINE from  GATES    230.0036270  to  36270TEMPLETN 230.00"
74    " 2  30900  30901  ""1""    0    # TRAN from  GATES    230.0036270  to  36270GATES 1M 230.00"
74    0
75    #
75    " # (15) BUS FAULT  30900  ""GATES"" Bus 2 Section D"
75    " 1  30900  30790  ""2""    0    # LINE from  GATES    230.0036270  to  36270PANOCHE  230.00"
75    " 1  30900  30915  ""1""    0    # LINE from  GATES    230.0036270  to  36270MORROBAY 230.00"
75    0
76    #
76    " # (15) BUS FAULT  30900  ""GATES"" Bus 1 Section E"
76    " 1  30900  30879  ""1""    0    # LINE from  GATES    230.0036270  to  36270HENTAP1  230.00"
76    " 1  30900  30935  ""1""    0    # LINE from  GATES    230.0036270  to  36270ARCO     230.00"
76    0
77    #
77    " # (15) BUS FAULT  30900  ""GATES"" Bus 2 Section E"
77    " 1  30900  30880  ""1""    0    # LINE from  GATES    230.0036270  to  36270HENTAP2  230.00"
77    0
78    #
78    " # (16) BUS FAULT  30905  ""TEMPLETN"" Section D"
78    " 1  30905  30900  ""1""    0    # LINE from  TEMPLETN 230.0036270  to  36270GATES    230.00"
78    " 4  30905     0  ""3 ""    0    # LOAD-DROP    TEMPLETN 230.00  LOAD==37.008957(0)"
78    " 4  30905     0  ""2 ""    0    # LOAD-DROP    TEMPLETN 230.00  LOAD==38.305897(1.715314)"
78    0
79    #
79    " # (16) BUS FAULT  30905  ""TEMPLETN"" Section F"
79    " 1  30905  30915  ""1""    0    # LINE from  TEMPLETN 230.0036270  to  36270MORROBAY 230.00"
79    " 2  30905  36310  ""1""    0    # TRAN from  TEMPLETN 230.0036270  to  36270TEMPLT7   70.00"
79    0
80    #
80    " # (17) BUS FAULT  30915  ""MORROBAY"" Bus 1 Section D"
```

```
80      " 1  30915  30905  ""1""    0    # LINE from  MORROBAY 230.0036270  to  36270TEMPLETN 230.00"
80      " 2  30915  36407  ""1""    0    # TRAN from  MORROBAY 230.0036270  to  36270MORRO 1   18.00"
80      0
81      #
81      " # (17) BUS FAULT  30915  ""MORROBAY"" Bus 2 Section D"
81      " 1  30915  30900  ""1""    0    # LINE from  MORROBAY 230.0036270  to  36270GATES    230.00"
81      " 2  30915  36252  ""6""    0    # TRAN from  MORROBAY 230.0036270  to  36270MORRO BY 115.00"
81      " 2  30915  36408  ""1""    0    # TRAN from  MORROBAY 230.0036270  to  36270MORRO 2   18.00"
81      0
82      #
82      " # (17) BUS FAULT  30915  ""MORROBAY"" Bus 1 Section E"
82      " 1  30915  30925  ""1""    0    # LINE from  MORROBAY 230.0036270  to  36270DIABLOCN 230.00"
82      " 1  30915  30970  ""1""    0    # LINE from  MORROBAY 230.0036270  to  36270MIDWAY   230.00"
82      " 2  30915  36409  ""1""    0    # TRAN from  MORROBAY 230.0036270  to  36270MORRO 3   18.00"
82      " 2  30915  36415  ""1""    0    # TRAN from  MORROBAY 230.0036270  to  36270MORRO 5   18.00"
82      0
83      #
83      " # (17) BUS FAULT  30915  ""MORROBAY"" Bus 2 Section E"
83      " 1  30915  30930  ""1""    0    # LINE from  MORROBAY 230.0036270  to  36270MESA PGE 230.00"
83      " 1  30915  30970  ""2""    0    # LINE from  MORROBAY 230.0036270  to  36270MIDWAY   230.00"
83      " 2  30915  36410  ""1""    0    # TRAN from  MORROBAY 230.0036270  to  36270MORRO 4   18.00"
83      " 2  30915  36417  ""1""    0    # TRAN from  MORROBAY 230.0036270  to  36270MORRO 6   18.00"
83      0
84      #
84      " # (18) BUS FAULT  30925  ""DIABLOCN""""
84      " 1  30925  30915  ""1""    0    # LINE from  DIABLOCN 230.0036270  to  36270MORROBAY 230.00"
84      " 1  30925  30930  ""1""    0    # LINE from  DIABLOCN 230.0036270  to  36270MESA PGE 230.00"
84      0
85      #
85      " # (19) BUS FAULT  30930  ""MESA PGE"" Bus 1"
85      " 1  30930  30925  ""1""    0    # LINE from  MESA PGE 230.0036270  to  36270DIABLOCN 230.00"
85      " 2  30930  36256  ""1""    0    # TRAN from  MESA PGE 230.0036270  to  36270MESA_PGE 115.00"
85      0
86      #
86      " # (19) BUS FAULT  30930  ""MESA PGE"" Bus 2"
86      " 1  30930  30915  ""1""    0    # LINE from  MESA PGE 230.0036270  to  36270MORROBAY 230.00"
86      " 2  30930  36256  ""2""    0    # TRAN from  MESA PGE 230.0036270  to  36270MESA_PGE 115.00"
86      0
87      #
87      " # (22) BUS FAULT  30945  ""KERN PP"" Bus 1"
87      " 1  30945  30943  ""1""    0    # LINE from  KERN PP  230.0036270  to  36270STCKDLJ2 230.00"
87      " 2  30945  34752  ""4""    0    # TRAN from  KERN PP  230.0036270  to  36270KERN PWR 115.00"
87      0
88      #
88      " # (22) BUS FAULT  30945  ""KERN PP"" Bus 2"
88      " 1  30945  30942  ""1""    0    # LINE from  KERN PP  230.0036270  to  36270STCKDLJ1 230.00"
88      " 1  30945  30944  ""1""    0    # LINE from  KERN PP  230.0036270  to  36270BKRSFDJ2 230.00"
88      " 2  30945  34752  ""3""    0    # TRAN from  KERN PP  230.0036270  to  36270KERN PWR 115.00"
88      " 2  30945  34752  ""3a""    0    # TRAN from  KERN PP  230.0036270  to  36270KERN PWR 115.00"
88      " 2  30945  34752  ""5""    0    # TRAN from  KERN PP  230.0036270  to  36270KERN PWR 115.00"
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88      0
89      #
89      " # (23) BUS FAULT  30970  ""MIDWAY"" Bus 1 Section D"
89      " 1  30970  30965  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270SUNSET_G 230.00"
89      " 1  30970  30946  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270LAPALOMA 230.00"
89      " 1  30970  30915  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270MORROBAY 230.00"
89      " 1  30970  30943  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270STCKDLJ2 230.00"
89      " 1  30970  38600  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270BUENAVJ1 230.00"
89      " 2  30970  34774  ""2""    0     # TRAN from  MIDWAY   230.0036270  to  36270MIDWAY   115.00"
89      " 2  30970  34774  ""2a""    0     # TRAN from  MIDWAY   230.0036270  to  36270MIDWAY   115.00"
89      0
90      #
90      " # (23) BUS FAULT  30970  ""MIDWAY"" Bus 2 Section D"
90      " 1  30970  30946  ""2""    0     # LINE from  MIDWAY   230.0036270  to  36270LAPALOMA 230.00"
90      " 1  30970  30915  ""2""    0     # LINE from  MIDWAY   230.0036270  to  36270MORROBAY 230.00"
90      " 1  30970  30973  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270SUNST    230.00"
90      " 1  30970  38605  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270BUENAVJ2 230.00"
90      " 2  30970  34774  ""1""    0     # TRAN from  MIDWAY   230.0036270  to  36270MIDWAY   115.00"
90      0
91      #
91      " # (23) BUS FAULT  30970  ""MIDWAY"" Bus 1 Section E"
91      " 1  30970  30948  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270ELKHIL_G 230.00"
91      " 1  30970  30935  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270ARCO     230.00"
91      " 1  30970  30942  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270STCKDLJ1 230.00"
91      0
92      #
92      " # (23) BUS FAULT  30970  ""MIDWAY"" Bus 2 Section E"
92      " 1  30970  30948  ""2""    0     # LINE from  MIDWAY   230.0036270  to  36270ELKHIL_G 230.00"
92      " 1  30970  30944  ""1""    0     # LINE from  MIDWAY   230.0036270  to  36270BKRSFDJ2 230.00"
92      0
93      #
93      " # (41) BUS FAULT  34158  ""PANOCHE"" Bus 1"
93      " 1  34158  34157  ""1""    0     # LINE from  PANOCHE  115.0036270  to  36270PANOCHET 115.00"
93      " 1  34158  34350  ""1""    0     # LINE from  PANOCHE  115.0036270  to  36270KAMM     115.00"
93      " 2  34158  30791  ""1""    0     # TRAN from  PANOCHE  115.0036270  to  36270PNCHE 1M 230.00"
93      0
94      #
94      " # (41) BUS FAULT  34158  ""PANOCHE"" Bus 2"
94      " 1  34158  34149  ""1""    0     # LINE from  PANOCHE  115.0036270  to  36270CHENYT   115.00"
94      " 1  34158  34159  ""1""    0     # LINE from  PANOCHE  115.0036270  to  36270PANOCHEJ 115.00"
94      " 2  34158  30792  ""2""    0     # TRAN from  PANOCHE  115.0036270  to  36270PNCHE 2M 230.00"
94      0
95      #
95      " # (58) BUS FAULT  34370  ""MC CALL"" Bus 1 Section D"
95      " 1  34370  34385  ""1""    0     # LINE from  MC CALL  115.0036270  to  36270KINGSJCT 115.00"
95      " 1  34370  34406  ""1""    0     # LINE from  MC CALL  115.0036270  to  36270W FRES J 115.00"
95      " 4  34370     0  ""5 ""    0     # LOAD-DROP    MC CALL  115.00  LOAD==30.779755(7.305087)"
95      " 4  34370     0  ""4 ""    0     # LOAD-DROP    MC CALL  115.00  LOAD==21.822437(0)"
95      0
96      #
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96      " # (58) BUS FAULT  34370  ""MC CALL"" Bus 2 Section D"
96      " 1  34370  34404  ""2""    0     # LINE from  MC CALL  115.0036270  to  36270WST FRSO 115.00"
96      " 2  34370  30878  ""3""    0     # TRAN from  MC CALL  115.0036270  to  36270MCCALL3M 115.00"
96      0
97      #
97      " # (58) BUS FAULT  34370  ""MC CALL"" Bus 1 Section E"
97      " 1  34370  34377  ""1""    0     # LINE from  MC CALL  115.0036270  to  36270AIRPROD  115.00"
97      " 1  34370  34366  ""1""    0     # LINE from  MC CALL  115.0036270  to  36270SANGER   115.00"
97      " 1  34370  34366  ""3""    0     # LINE from  MC CALL  115.0036270  to  36270SANGER   115.00"
97      " 2  34370  30876  ""1""    0     # TRAN from  MC CALL  115.0036270  to  36270MCCALL1M 115.00"
97      0
98      #
98      " # (58) BUS FAULT  34370  ""MC CALL"" Bus 2 Section E"
98      " 1  34370  34366  ""2""    0     # LINE from  MC CALL  115.0036270  to  36270SANGER   115.00"
98      " 1  34370  34382  ""1""    0     # LINE from  MC CALL  115.0036270  to  36270WAHTOKE  115.00"
98      " 1  34370  34423  ""1""    0     # LINE from  MC CALL  115.0036270  to  36270GAURD J1 115.00"
98      0
99      #
99      " # (113) BUS FAULT  34774  ""MIDWAY"" Bus 1 Section D"
99      " 1  34774  34749  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270TPMNTP1  115.00"
99      " 1  34774  34811  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270RIOBRVTM 115.00"
99      " 1  34774  34780  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270CYMRIC   115.00"
99      " 2  34774  30970  ""1""    0     # TRAN from  MIDWAY   115.0036270  to  36270MIDWAY   230.00"
99      " 4  34774     0  ""8 ""    0     # LOAD-DROP    MIDWAY   115.00  LOAD==4.945911(1.125682)"
99      " 4  34774     0  ""7 ""    0     # LOAD-DROP    MIDWAY   115.00  LOAD==7.117503(1.622046)"
99      0
100     #
100     "# (113) BUS FAULT  34774  ""MIDWAY"" Bus 2 Section D"
100     " 1  34774  34804  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270BELRIDGE 115.00"
100     " 1  34774  34816  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270NAVY 35R 115.00"
100     " 2  34774  30970  ""2""    0     # TRAN from  MIDWAY   115.0036270  to  36270MIDWAY   230.00"
100     " 2  34774  30970  ""2a""    0     # TRAN from  MIDWAY   115.0036270  to  36270MIDWAY   230.00"
100     0
101     #
101     "# (113) BUS FAULT  34774  ""MIDWAY"" Bus 1 Section E"
101     " 1  34774  34702  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270GOSE LKE 115.00"
101     " 1  34774  34746  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270GANSO    115.00"
101     0
102     #
102     "# (113) BUS FAULT  34774  ""MIDWAY"" Bus 2 Section E"
102     " 1  34774  34704  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270SEMITRPC 115.00"
102     " 1  34774  34766  ""1""    0     # LINE from  MIDWAY   115.0036270  to  36270SHAFTER  115.00"
102     0
103      #
103     #
103     "# (3) BUS FAULT  30800  ""WILSON"""
103     " 1  30800  30796  ""1""    0     # LINE from  WILSON   230.0036270  to  36270STOREY 1 230.00"
103     " 1  30800  37563  ""1""    0     # LINE from  WILSON   230.0036270  to  36270MELONES  230.00"
103     " 2  30800  34134  ""1""    0     # TRAN from  WILSON   230.0036270  to  36270WILSON A 115.00"
103     " 2  30800  34136  ""2""    0     # TRAN from  WILSON   230.0036270  to  36270WILSON B 115.00"
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103     0
104     #
104     "# (4) BUS FAULT  30805  ""BORDEN"""
104     " 1  30805  30795  ""1""    0     # LINE from  BORDEN   230.0036270  to  36270STOREY 2 230.00"
104     " 1  30805  30810  ""1""    0     # LINE from  BORDEN   230.0036270  to  36270GREGG    230.00"
104     " 2  30805  34256  ""1""    0     # TRAN from  BORDEN   230.0036270  to  36270BORDEN    70.00"
104     " 4  30805     0  ""2 ""    0     # LOAD-DROP    BORDEN   230.00  LOAD==22.263384(4.632356)"
104     0
105     #
105     "# (7) BUS FAULT  30830  ""KEARNEY"""
105     " 1  30830  30825  ""1""    0     # LINE from  KEARNEY  230.0036270  to  36270MCMULLN1 230.00"
105     " 1  30830  30835  ""1""    0     # LINE from  KEARNEY  230.0036270  to  36270HERNDON  230.00"
105     " 2  30830  34480  ""2""    0     # TRAN from  KEARNEY  230.0036270  to  36270KEARNEY   70.00"
105     0
106     #
106     "# (9) BUS FAULT  30841  ""FIGRDN 1"""
106     " 1  30841  30846  ""1""    0     # LINE from  FIGRDN 1 230.0036270  to  36270FIGRDN 2 230.00"
106     " 1  30841  30840  ""1""    0     # LINE from  FIGRDN 1 230.0036270  to  36270FGRDN T1 230.00"
106     " 4  30841     0  ""1 ""    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.032906(3.926368)"
106     0
107     #
107     "# (10) BUS FAULT  30846  ""FIGRDN 2"""
107     " 1  30846  30841  ""1""    0     # LINE from  FIGRDN 2 230.0036270  to  36270FIGRDN 1 230.00"
107     " 1  30846  30845  ""1""    0     # LINE from  FIGRDN 2 230.0036270  to  36270FGRDN T2 230.00"
107     " 4  30846     0  ""2 ""    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==49.604046(0)"
107     0
108     #
108     "# (11) BUS FAULT  30850  ""ASHLAN"""
108     " 1  30850  30840  ""1""    0     # LINE from  ASHLAN   230.0036270  to  36270FGRDN T1 230.00"
108     " 1  30850  30845  ""1""    0     # LINE from  ASHLAN   230.0036270  to  36270FGRDN T2 230.00"
108     " 4  30850     0  ""3 ""    0     # LOAD-DROP    ASHLAN   230.00  LOAD==66.228455(0)"
108     " 4  30850     0  ""2 ""    0     # LOAD-DROP    ASHLAN   230.00  LOAD==65.652962(5.095924)"
108     " 4  30850     0  ""1 ""    0     # LOAD-DROP    ASHLAN   230.00  LOAD==64.084274(9.133679)"
108     0
109     #
109     "# (12) BUS FAULT  30873  ""HELM"""
109     " 1  30873  34659  ""2""    0     # LINE from  HELM     230.0036270  to  36270CVEC     230.00"
109     " 1  30873  34659  ""1""    0     # LINE from  HELM     230.0036270  to  36270CVEC     230.00"
109     " 1  30873  30825  ""1""    0     # LINE from  HELM     230.0036270  to  36270MCMULLN1 230.00"
109     " 1  30873  30790  ""2""    0     # LINE from  HELM     230.0036270  to  36270PANOCHE  230.00"
109     " 1  30873  30790  ""1""    0     # LINE from  HELM     230.0036270  to  36270PANOCHE  230.00"
109     " 1  30873  30875  ""1""    0     # LINE from  HELM     230.0036270  to  36270MC CALL  230.00"
109     " 2  30873  34474  ""1""    0     # TRAN from  HELM     230.0036270  to  36270HELM      70.00"
109     0
110     #
110     "# (14) BUS FAULT  30881  ""HENRIETA"""
110     " 1  30881  30879  ""1""    0     # LINE from  HENRIETA 230.0036270  to  36270HENTAP1  230.00"
110     " 1  30881  30880  ""1""    0     # LINE from  HENRIETA 230.0036270  to  36270HENTAP2  230.00"
110     " 2  30881  34430  ""3""    0     # TRAN from  HENRIETA 230.0036270  to  36270HENRETTA 115.00"
110     " 2  30881  34540  ""2""    0     # TRAN from  HENRIETA 230.0036270  to  36270HENRITTA  70.00"
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110     0
111     #
111     "# (20) BUS FAULT  30935  ""ARCO"""
111     " 1  30935  30900  ""1""    0    # LINE from  ARCO     230.0036270  to  36270GATES    230.00"
111     " 1  30935  30970  ""1""    0    # LINE from  ARCO     230.0036270  to  36270MIDWAY   230.00"
111     " 2  30935  34582  ""2""    0    # TRAN from  ARCO     230.0036270  to  36270ARCO      70.00"
111     0
112     #
112     "# (21) BUS FAULT  30940  ""STCKDLEA"""
112     " 1  30940  30941  ""1""    0    # LINE from  STCKDLEA 230.0036270  to  36270STCKDLEB 230.00"
112     " 1  30940  30942  ""1""    0    # LINE from  STCKDLEA 230.0036270  to  36270STCKDLJ1 230.00"
112     " 4  30940 30941  ""6 ""    1    # LOAD-TRANSFER  STCKDLEA 230.00  TO  STCKDLEB 230.00    LOAD==46.037743(7.782275)"
112     " 4  30940 30941  ""2 ""    1    # LOAD-TRANSFER  STCKDLEA 230.00  TO  STCKDLEB 230.00    LOAD==69.065475(9.83864)"
112     0
113     #
113     "# (24) BUS FAULT  30994  ""WHLR R 1"""
113     " 1  30994  38650  ""1""    0    # LINE from  WHLR R 1 230.0036270  to  36270WND GPJ1 230.00"
113     " 1  30994  38655  ""1""    0    # LINE from  WHLR R 1 230.0036270  to  36270WND GPJ2 230.00"
113     " 2  30994  34874  ""4""    0    # TRAN from  WHLR R 1 230.0036270  to  36270WHEELER   70.00"
113     0
114     #
114     "# (25) BUS FAULT  33906  ""SPRNG GP"""
114     " 1  33906  33910  ""1""    0    # LINE from  SPRNG GP 115.0036270  to  36270SNDBR JT 115.00"
114     " 2  33906  34078  ""1""    0    # TRAN from  SPRNG GP 115.0036270  to  36270SPRNG GP   6.00"
114     " 4  33906     0  ""1 ""    0    # LOAD-DROP    SPRNG GP 115.00  LOAD==0.6194(0)"
114     0
115     #
115     "# (26) BUS FAULT  33932  ""MELONES"""
115     " 1  33932  33930  ""1""    0    # LINE from  MELONES  115.0036270  to  36270PEORIA   115.00"
115     " 1  33932  33500  ""1""    0    # LINE from  MELONES  115.0036270  to  36270MELNS JA 115.00"
115     " 1  33932  33922  ""1""    0    # LINE from  MELONES  115.0036270  to  36270R.TRACK  115.00"
115     " 1  33932  33934  ""1""    0    # LINE from  MELONES  115.0036270  to  36270TULLOCH  115.00"
115     " 1  33932  33936  ""1""    0    # LINE from  MELONES  115.0036270  to  36270MELNS JB 115.00"
115     0
116     #
116     "# (27) BUS FAULT  33944  ""RVRBANK"""
116     " 1  33944  33946  ""1""    0    # LINE from  RVRBANK  115.0036270  to  36270RVRBK J1 115.00"
116     " 1  33944  33950  ""1""    0    # LINE from  RVRBANK  115.0036270  to  36270RVRBK TP 115.00"
116     " 4  33944     0  ""2 ""    0    # LOAD-DROP    RVRBANK  115.00  LOAD==14.583421(1.135566)"
116     " 4  33944     0  ""1 ""    0    # LOAD-DROP    RVRBANK  115.00  LOAD==22.663145(3.97104)"
116     0
117     #
117     "# (28) BUS FAULT  34002  ""SALADO"""
117     " 1  34002  34004  ""1""    0    # LINE from  SALADO    60.0036270  to  36270PTRSNFRZ  60.00"
117     " 1  34002  34008  ""1""    0    # LINE from  SALADO    60.0036270  to  36270STNSLSRP  60.00"
117     " 2  34002  33964  ""1""    0    # TRAN from  SALADO    60.0036270  to  36270SALADO   115.00"
117     0
118     #
118     "# (29) BUS FAULT  34006  ""PATTERSN"""
118     " 1  34006  34000  ""1""    0    # LINE from  PATTERSN  60.0036270  to  36270WESTLEY   60.00"
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118    " 1  34006  34004  ""1""    0    # LINE from  PATTERSN  60.0036270  to  36270PTRSNFRZ  60.00"
118    " 1  34006  34010  ""1""    0    # LINE from  PATTERSN  60.0036270  to  36270CRWS LDJ  60.00"
118    " 4  34006     0  ""1 ""    0    # LOAD-DROP    PATTERSN  60.00  LOAD==6.737692(0)"
118    0
119    #
119    "# (30) BUS FAULT  34014  ""NEWMAN"""
119    " 1  34014  34012  ""1""    0    # LINE from  NEWMAN    60.0036270  to  36270GUSTN JT  60.00"
119    " 1  34014  34018  ""1""    0    # LINE from  NEWMAN    60.0036270  to  36270NWMN JCT  60.00"
119    " 4  34014     0  ""2 ""    0    # LOAD-DROP    NEWMAN    60.00  LOAD==5.946237(0.529931)"
119    " 4  34014     0  ""1 ""    0    # LOAD-DROP    NEWMAN    60.00  LOAD==7.453442(1.307621)"
119    0
120    #
120    "# (31) BUS FAULT  34100  ""CHWCHLLA"""
120    " 1  34100  34101  ""1""    0    # LINE from  CHWCHLLA 115.0036270  to  36270CERTAN T 115.00"
120    " 1  34100  34105  ""1""    0    # LINE from  CHWCHLLA 115.0036270  to  36270CERTANJ1 115.00"
120    " 4  34100     0  ""2 ""    0    # LOAD-DROP    CHWCHLLA 115.00  LOAD==7.467919(1.394386)"
120    " 4  34100     0  ""1 ""    0    # LOAD-DROP    CHWCHLLA 115.00  LOAD==8.151075(0)"
120    0
121    #
121    "# (32) BUS FAULT  34104  ""ATWATER"""
121    " 1  34104  34134  ""1""    0    # LINE from  ATWATER  115.0036270  to  36270WILSON A 115.00"
121    " 1  34104  34106  ""1""    0    # LINE from  ATWATER  115.0036270  to  36270CASTLE   115.00"
121    " 1  34104  34108  ""1""    0    # LINE from  ATWATER  115.0036270  to  36270CRESEY T 115.00"
121    " 4  34104     0  ""2 ""    0    # LOAD-DROP    ATWATER  115.00  LOAD==31.471947(7.177813)"
121    " 4  34104     0  ""1 ""    0    # LOAD-DROP    ATWATER  115.00  LOAD==32.239326(0)"
121    0
122    #
122    "# (33) BUS FAULT  34112  ""EXCHEQUR"""
122    " 1  34112  34116  ""1""    0    # LINE from  EXCHEQUR 115.0036270  to  36270LE GRAND 115.00"
122    " 2  34112  34176  ""1""    0    # TRAN from  EXCHEQUR 115.0036270  to  36270EXCHQRTP 115.00"
122    0
123    #
123    "# (34) BUS FAULT  34116  ""LE GRAND"""
123    " 1  34116  34101  ""1""    0    # LINE from  LE GRAND 115.0036270  to  36270CERTAN T 115.00"
123    " 1  34116  34112  ""1""    0    # LINE from  LE GRAND 115.0036270  to  36270EXCHEQUR 115.00"
123    " 1  34116  34136  ""1""    0    # LINE from  LE GRAND 115.0036270  to  36270WILSON B 115.00"
123    " 1  34116  34154  ""1""    0    # LINE from  LE GRAND 115.0036270  to  36270DAIRYLND 115.00"
123    " 4  34116     0  ""1 ""    0    # LOAD-DROP    LE GRAND 115.00  LOAD==13.560168(2.685831)"
123    0
124    #
124    "# (35) BUS FAULT  34134  ""WILSON A"""
124    " 1  34134  34104  ""1""    0    # LINE from  WILSON A 115.0036270  to  36270ATWATER  115.00"
124    " 1  34134  34144  ""1""    0    # LINE from  WILSON A 115.0036270  to  36270MERCED   115.00"
124    " 1  34134  34144  ""2""    0    # LINE from  WILSON A 115.0036270  to  36270MERCED   115.00"
124    " 2  34134  30800  ""1""    0    # TRAN from  WILSON A 115.0036270  to  36270WILSON   230.00"
124    " 4  34134     0  ""3 ""    0    # LOAD-DROP    WILSON A 115.00  LOAD==22.759373(5.184495)"
124    0
125    #
125    "# (36) BUS FAULT  34136  ""WILSON B"""
125    " 1  34136  34116  ""1""    0    # LINE from  WILSON B 115.0036270  to  36270LE GRAND 115.00"
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125    " 1  34136  34118  ""1""    0    # LINE from  WILSON B 115.0036270  to  36270LE GRNDJ 115.00"
125    " 1  34136  34138  ""1""    0    # LINE from  WILSON B 115.0036270  to  36270EL CAPTN 115.00"
125    " 2  34136  30800  ""2""    0    # TRAN from  WILSON B 115.0036270  to  36270WILSON   230.00"
125    0
126    #
126    "# (37) BUS FAULT  34138  ""EL CAPTN"""
126    " 1  34138  34106  ""1""    0    # LINE from  EL CAPTN 115.0036270  to  36270CASTLE   115.00"
126    " 1  34138  34136  ""1""    0    # LINE from  EL CAPTN 115.0036270  to  36270WILSON B 115.00"
126    " 4  34138     0  ""3 ""    0    # LOAD-DROP    EL CAPTN 115.00  LOAD==33.399754(0)"
126    " 4  34138     0  ""2 ""    0    # LOAD-DROP    EL CAPTN 115.00  LOAD==23.386377(-1.048129)"
126    " 4  34138     0  ""1 ""    0    # LOAD-DROP    EL CAPTN 115.00  LOAD==24.434509(8.871662)"
126    0
127    #
127    "# (38) BUS FAULT  34144  ""MERCED"""
127    " 1  34144  34110  ""1""    0    # LINE from  MERCED   115.0036270  to  36270ATWATR J 115.00"
127    " 1  34144  34134  ""1""    0    # LINE from  MERCED   115.0036270  to  36270WILSON A 115.00"
127    " 1  34144  34134  ""2""    0    # LINE from  MERCED   115.0036270  to  36270WILSON A 115.00"
127    " 2  34144  34146  ""2""    0    # TRAN from  MERCED   115.0036270  to  36270MERCED M 115.00"
127    " 4  34144     0  ""3 ""    0    # LOAD-DROP    MERCED   115.00  LOAD==22.441191(1.422461)"
127    " 4  34144     0  ""1 ""    0    # LOAD-DROP    MERCED   115.00  LOAD==33.512054(1.497327)"
127    0
128    #
128    "# (39) BUS FAULT  34148  ""CHENY"""
128    " 1  34148  34149  ""1""    0    # LINE from  CHENY    115.0036270  to  36270CHENYT   115.00"
128    " 1  34148  34157  ""1""    0    # LINE from  CHENY    115.0036270  to  36270PANOCHET 115.00"
128    " 4  34148     0  ""1 ""    0    # LOAD-DROP    CHENY    115.00  LOAD==13.185838(0)"
128    0
129    #
129    "# (40) BUS FAULT  34154  ""DAIRYLND"""
129    " 1  34154  34116  ""1""    0    # LINE from  DAIRYLND 115.0036270  to  36270LE GRAND 115.00"
129    " 1  34154  34150  ""1""    0    # LINE from  DAIRYLND 115.0036270  to  36270NEWHALL  115.00"
129    " 4  34154     0  ""1 ""    0    # LOAD-DROP    DAIRYLND 115.00  LOAD==19.867661(0.889038)"
129    0
130    #
130    "# (42) BUS FAULT  34200  ""ORO LOMA"""
130    " 1  34200  34218  ""1""    0    # LINE from  ORO LOMA  70.0036270  to  36270DOS PALS  70.00"
130    " 1  34200  34222  ""1""    0    # LINE from  ORO LOMA  70.0036270  to  36270MRCYSPRS  70.00"
130    " 1  34200  34234  ""1""    0    # LINE from  ORO LOMA  70.0036270  to  36270POSO J1   70.00"
130    " 2  34200  34162  ""2""    0    # TRAN from  ORO LOMA  70.0036270  to  36270ORO LOMA 115.00"
130    " 4  34200     0  ""1 ""    0    # LOAD-DROP    ORO LOMA  70.00  LOAD==11.613644(2.292782)"
130    0
131    #
131    "# (43) BUS FAULT  34202  ""MERCED"""
131    " 1  34202  34230  ""1""    0    # LINE from  MERCED    70.0036270  to  36270MRCDFLLS  70.00"
131    " 1  34202  34236  ""1""    0    # LINE from  MERCED    70.0036270  to  36270POSO J2   70.00"
131    " 2  34202  34146  ""2""    0    # TRAN from  MERCED    70.0036270  to  36270MERCED M 115.00"
131    0
132    #
132    "# (44) BUS FAULT  34206  ""CANAL"""
132    " 1  34206  34212  ""1""    0    # LINE from  CANAL     70.0036270  to  36270LVNGSTNT  70.00"
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132    " 1  34206  34216  ""1""    0    # LINE from  CANAL     70.0036270  to  36270SNTA RTA  70.00"
132    " 1  34206  34220  ""1""    0    # LINE from  CANAL     70.0036270  to  36270ORTIGA    70.00"
132    " 4  34206     0  ""2 ""    0    # LOAD-DROP    CANAL     70.00  LOAD==33.193874(7.561502)"
132    " 4  34206     0  ""1 ""    0    # LOAD-DROP    CANAL     70.00  LOAD==18.913115(0)"
132    0
133    #
133    "# (45) BUS FAULT  34214  ""LOS BANS"""
133    " 1  34214  34208  ""1""    0    # LINE from  LOS BANS  70.0036270  to  36270CHEVPIPE  70.00"
133    " 1  34214  34272  ""1""    0    # LINE from  LOS BANS  70.0036270  to  36270WRGHT PP  70.00"
133    " 1  34214  34278  ""1""    0    # LINE from  LOS BANS  70.0036270  to  36270PCHCO PP  70.00"
133    " 1  34214  34282  ""1""    0    # LINE from  LOS BANS  70.0036270  to  36270ONLL PMP  70.00"
133    " 2  34214  30765  ""3""    0    # TRAN from  LOS BANS  70.0036270  to  36270LOSBANOS 230.00"
133    0
134    #
134    "# (46) BUS FAULT  34216  ""SNTA RTA"""
134    " 1  34216  34206  ""1""    0    # LINE from  SNTA RTA  70.0036270  to  36270CANAL     70.00"
134    " 1  34216  34218  ""1""    0    # LINE from  SNTA RTA  70.0036270  to  36270DOS PALS  70.00"
134    " 4  34216     0  ""1 ""    0    # LOAD-DROP    SNTA RTA  70.00  LOAD==10.387707(0)"
134    0
135    #
135    "# (47) BUS FAULT  34230  ""MRCDFLLS"""
135    " 1  34230  34202  ""1""    0    # LINE from  MRCDFLLS  70.0036270  to  36270MERCED    70.00"
135    " 1  34230  34321  ""1""    0    # LINE from  MRCDFLLS  70.0036270  to  36270MCSWAINJ  70.00"
135    " 2  34230  34322  ""1""    0    # TRAN from  MRCDFLLS  70.0036270  to  36270MERCEDFL   9.11"
135    " 2  34230  34322  ""2""    0    # TRAN from  MRCDFLLS  70.0036270  to  36270MERCEDFL   9.11"
135    " 4  34230     0  ""2 ""    0    # LOAD-DROP    MRCDFLLS  70.00  LOAD==2.573531(0)"
135    " 4  34230     0  ""1 ""    0    # LOAD-DROP    MRCDFLLS  70.00  LOAD==2.573531(0.589573)"
135    0
136    #
136    "# (48) BUS FAULT  34238  ""BONITA"""
136    " 1  34238  34236  ""1""    0    # LINE from  BONITA    70.0036270  to  36270POSO J2   70.00"
136    " 1  34238  34255  ""1""    0    # LINE from  BONITA    70.0036270  to  36270TRIGO J   70.00"
136    " 4  34238     0  ""1 ""    0    # LOAD-DROP    BONITA    70.00  LOAD==13.148404(1.31952)"
136    0
137    #
137    "# (49) BUS FAULT  34252  ""MADERA"""
137    " 1  34252  34240  ""1""    0    # LINE from  MADERA    70.0036270  to  36270GLASS     70.00"
137    " 1  34252  34254  ""1""    0    # LINE from  MADERA    70.0036270  to  36270TRIGO     70.00"
137    " 1  34252  34256  ""1""    0    # LINE from  MADERA    70.0036270  to  36270BORDEN    70.00"
137    " 1  34252  34256  ""2""    0    # LINE from  MADERA    70.0036270  to  36270BORDEN    70.00"
137    " 4  34252     0  ""2 ""    0    # LOAD-DROP    MADERA    70.00  LOAD==26.184507(0)"
137    " 4  34252     0  ""1 ""    0    # LOAD-DROP    MADERA    70.00  LOAD==20.457235(3.060163)"
137    0
138    #
138    "# (50) BUS FAULT  34256  ""BORDEN"""
138    " 1  34256  34252  ""1""    0    # LINE from  BORDEN    70.0036270  to  36270MADERA    70.00"
138    " 1  34256  34252  ""2""    0    # LINE from  BORDEN    70.0036270  to  36270MADERA    70.00"
138    " 1  34256  34262  ""1""    0    # LINE from  BORDEN    70.0036270  to  36270CASSIDY   70.00"
138    " 2  34256  30805  ""1""    0    # TRAN from  BORDEN    70.0036270  to  36270BORDEN   230.00"
138    0
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139    #
139    "# (51) BUS FAULT  34268  ""MENDOTA"""
139    " 1  34268  34269  ""1""    0    # LINE from  MENDOTA   70.0036270  to  36270BIOMSJCT  70.00"
139    " 1  34268  34267  ""1""    0    # LINE from  MENDOTA   70.0036270  to  36270TOMATAK   70.00"
139    " 2  34268  34174  ""1""    0    # TRAN from  MENDOTA   70.0036270  to  36270MNDTA TP 115.00"
139    0
140    #
140    "# (52) BUS FAULT  34354  ""SCHINDLR"""
140    " 1  34354  34149  ""1""    0    # LINE from  SCHINDLR 115.0036270  to  36270CHENYT   115.00"
140    " 1  34354  34432  ""1""    0    # LINE from  SCHINDLR 115.0036270  to  36270WESTLNDS 115.00"
140    " 2  34354  34562  ""1""    0    # TRAN from  SCHINDLR 115.0036270  to  36270SCHLNDLR  70.00"
140    0
141    #
141    "# (53) BUS FAULT  34356  ""KERCKHF1"""
141    " 1  34356  34358  ""2""    0    # LINE from  KERCKHF1 115.0036270  to  36270KERCKHF2 115.00"
141    " 1  34356  34128  ""1""    0    # LINE from  KERCKHF1 115.0036270  to  36270OAKH_JCT 115.00"
141    " 1  34356  34358  ""1""    0    # LINE from  KERCKHF1 115.0036270  to  36270KERCKHF2 115.00"
141    " 2  34356  34344  ""1""    0    # TRAN from  KERCKHF1 115.0036270  to  36270KERCKHOF   6.60"
141    0
142    #
142    "# (54) BUS FAULT  34358  ""KERCKHF2"""
142    " 1  34358  34356  ""2""    0    # LINE from  KERCKHF2 115.0036270  to  36270KERCKHF1 115.00"
142    " 1  34358  34356  ""1""    0    # LINE from  KERCKHF2 115.0036270  to  36270KERCKHF1 115.00"
142    " 1  34358  34360  ""1""    0    # LINE from  KERCKHF2 115.0036270  to  36270WWARD JT 115.00"
142    " 1  34358  34365  ""1""    0    # LINE from  KERCKHF2 115.0036270  to  36270CLOVISJ2 115.00"
142    " 2  34358  34308  ""1""    0    # TRAN from  KERCKHF2 115.0036270  to  36270KERCKHOF  13.80"
142    0
143    #
143    "# (55) BUS FAULT  34362  ""CLOVIS-1"""
143    " 1  34362  34364  ""1""    0    # LINE from  CLOVIS-1 115.0036270  to  36270CLOVIS-2 115.00"
143    " 1  34362  34363  ""1""    0    # LINE from  CLOVIS-1 115.0036270  to  36270CLOVISJ1 115.00"
143    " 4  34362     0  ""2 ""    0    # LOAD-DROP    CLOVIS-1 115.00  LOAD==41.936951(2.654708)"
143    " 4  34362     0  ""1 ""    0    # LOAD-DROP    CLOVIS-1 115.00  LOAD==42.790913(14.953615)"
143    0
144    #
144    "# (56) BUS FAULT  34364  ""CLOVIS-2"""
144    " 1  34364  34362  ""1""    0    # LINE from  CLOVIS-2 115.0036270  to  36270CLOVIS-1 115.00"
144    " 1  34364  34365  ""1""    0    # LINE from  CLOVIS-2 115.0036270  to  36270CLOVISJ2 115.00"
144    " 4  34364     0  ""3 ""    0    # LOAD-DROP    CLOVIS-2 115.00  LOAD==52.592907(6.692462)"
144    0
145    #
145    "# (57) BUS FAULT  34366  ""SANGER"""
145    " 1  34366  34363  ""1""    0    # LINE from  SANGER   115.0036270  to  36270CLOVISJ1 115.00"
145    " 1  34366  34365  ""1""    0    # LINE from  SANGER   115.0036270  to  36270CLOVISJ2 115.00"
145    " 1  34366  34368  ""1""    0    # LINE from  SANGER   115.0036270  to  36270LASPALMS 115.00"
145    " 1  34366  34370  ""1""    0    # LINE from  SANGER   115.0036270  to  36270MC CALL  115.00"
145    " 1  34366  34370  ""2""    0    # LINE from  SANGER   115.0036270  to  36270MC CALL  115.00"
145    " 1  34366  34370  ""3""    0    # LINE from  SANGER   115.0036270  to  36270MC CALL  115.00"
145    " 1  34366  34372  ""1""    0    # LINE from  SANGER   115.0036270  to  36270MALAGA   115.00"
145    " 1  34366  34389  ""1""    0    # LINE from  SANGER   115.0036270  to  36270RAINBWTP 115.00"
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145    " 1  34366  34396  ""1""    0    # LINE from  SANGER   115.0036270  to  36270PIEDRA 2 115.00"
145    " 1  34366  34408  ""1""    0    # LINE from  SANGER   115.0036270  to  36270BARTON   115.00"
145    " 2  34366  34488  ""1""    0    # TRAN from  SANGER   115.0036270  to  36270SANGER    70.00"
145    " 2  34366  34488  ""2""    0    # TRAN from  SANGER   115.0036270  to  36270SANGER    70.00"
145    " 2  34366  34488  ""3""    0    # TRAN from  SANGER   115.0036270  to  36270SANGER    70.00"
145    0
146    #
146    "# (59) BUS FAULT  34372  ""MALAGA"""
146    " 1  34372  34373  ""1""    0    # LINE from  MALAGA   115.0036270  to  36270SCWAXJCT 115.00"
146    " 1  34372  34375  ""1""    0    # LINE from  MALAGA   115.0036270  to  36270ULTPWRJ  115.00"
146    " 1  34372  34366  ""1""    0    # LINE from  MALAGA   115.0036270  to  36270SANGER   115.00"
146    " 1  34372  34376  ""1""    0    # LINE from  MALAGA   115.0036270  to  36270PPG      115.00"
146    " 4  34372     0  ""3 ""    0    # LOAD-DROP    MALAGA   115.00  LOAD==26.918364(2.701118)"
146    " 4  34372     0  ""2 ""    0    # LOAD-DROP    MALAGA   115.00  LOAD==18.926394(0)"
146    " 4  34372     0  ""1 ""    0    # LOAD-DROP    MALAGA   115.00  LOAD==28.032228(1.253096)"
146    0
147    #
147    "# (60) BUS FAULT  34378  ""GATES"""
147    " 2  34378  30901  ""1""    0    # TRAN from  GATES    115.0036270  to  36270GATES 1M 230.00"
147    " 2  34378  34552  ""2""    0    # TRAN from  GATES    115.0036270  to  36270GATES     70.00"
147    " 4  34378     0  ""3 ""    0    # LOAD-DROP    GATES    115.00  LOAD==13.904725(5.142336)"
147    0
148    #
148    "# (61) BUS FAULT  34380  ""REEDLEY"""
148    " 1  34380  34384  ""1""    0    # LINE from  REEDLEY  115.0036270  to  36270GERAWAN  115.00"
148    " 1  34380  34394  ""1""    0    # LINE from  REEDLEY  115.0036270  to  36270PIEDRA 1 115.00"
148    " 2  34380  34492  ""2""    0    # TRAN from  REEDLEY  115.0036270  to  36270REEDLEY   70.00"
148    " 4  34380     0  ""3 ""    0    # LOAD-DROP    REEDLEY  115.00  LOAD==23.344717(1.048888)"
148    0
149    #
149    "# (62) BUS FAULT  34382  ""WAHTOKE"""
149    " 1  34382  34370  ""1""    0    # LINE from  WAHTOKE  115.0036270  to  36270MC CALL  115.00"
149    " 1  34382  34384  ""1""    0    # LINE from  WAHTOKE  115.0036270  to  36270GERAWAN  115.00"
149    " 4  34382     0  ""3 ""    0    # LOAD-DROP    WAHTOKE  115.00  LOAD==19.102755(3.675749)"
149    " 4  34382     0  ""2 ""    0    # LOAD-DROP    WAHTOKE  115.00  LOAD==32.051418(3.814982)"
149    0
150    #
150    "# (63) BUS FAULT  34400  ""KNGS RVR"""
150    " 1  34400  34394  ""1""    0    # LINE from  KNGS RVR 115.0036270  to  36270PIEDRA 1 115.00"
150    " 2  34400  34616  ""1""    0    # TRAN from  KNGS RVR 115.0036270  to  36270KINGSRIV  13.80"
150    0
151    #
151    "# (64) BUS FAULT  34402  ""CAL AVE"""
151    " 1  34402  34390  ""1""    0    # LINE from  CAL AVE  115.0036270  to  36270DANISHCM 115.00"
151    " 4  34402     0  ""3 ""    0    # LOAD-DROP    CAL AVE  115.00  LOAD==34.019241(7.425755)"
151    0
152    #
152    "# (65) BUS FAULT  34404  ""WST FRSO"""
152    " 1  34404  34370  ""2""    0    # LINE from  WST FRSO 115.0036270  to  36270MC CALL  115.00"
152    " 1  34404  34406  ""1""    0    # LINE from  WST FRSO 115.0036270  to  36270W FRES J 115.00"
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152    " 4  34404     0  ""2 ""    0    # LOAD-DROP    WST FRSO 115.00  LOAD==42.308243(5.030949)"
152    " 4  34404     0  ""1 ""    0    # LOAD-DROP    WST FRSO 115.00  LOAD==40.340416(0)"
152    0
153    #
153    "# (66) BUS FAULT  34408  ""BARTON"""
153    " 1  34408  34366  ""1""    0    # LINE from  BARTON   115.0036270  to  36270SANGER   115.00"
153    " 1  34408  34412  ""1""    0    # LINE from  BARTON   115.0036270  to  36270HERNDON  115.00"
153    " 4  34408     0  ""3 ""    0    # LOAD-DROP    BARTON   115.00  LOAD==32.274189(7.351498)"
153    " 4  34408     0  ""2 ""    0    # LOAD-DROP    BARTON   115.00  LOAD==38.76244(6.311892)"
153    " 4  34408     0  ""1 ""    0    # LOAD-DROP    BARTON   115.00  LOAD==47.237083(9.337889)"
153    0
154    #
154    "# (67) BUS FAULT  34410  ""MANCHSTR"""
154    " 1  34410  34368  ""1""    0    # LINE from  MANCHSTR 115.0036270  to  36270LASPALMS 115.00"
154    " 1  34410  34412  ""1""    0    # LINE from  MANCHSTR 115.0036270  to  36270HERNDON  115.00"
154    " 4  34410     0  ""3 ""    0    # LOAD-DROP    MANCHSTR 115.00  LOAD==33.712933(0)"
154    " 4  34410     0  ""2 ""    0    # LOAD-DROP    MANCHSTR 115.00  LOAD==28.765518(0)"
154    " 4  34410     0  ""1 ""    0    # LOAD-DROP    MANCHSTR 115.00  LOAD==29.36886(8.567464)"
154    0
155    #
155    "# (68) BUS FAULT  34412  ""HERNDON"""
155    " 1  34412  34409  ""1""    0    # LINE from  HERNDON  115.0036270  to  36270PNDLJ2   115.00"
155    " 1  34412  34411  ""1""    0    # LINE from  HERNDON  115.0036270  to  36270PNDLJ1   115.00"
155    " 1  34412  34408  ""1""    0    # LINE from  HERNDON  115.0036270  to  36270BARTON   115.00"
155    " 1  34412  34410  ""1""    0    # LINE from  HERNDON  115.0036270  to  36270MANCHSTR 115.00"
155    " 1  34412  34422  ""1""    0    # LINE from  HERNDON  115.0036270  to  36270CHLDHOSP 115.00"
155    " 2  34412  30882  ""1""    0    # TRAN from  HERNDON  115.0036270  to  36270HERNDN1M 115.00"
155    " 2  34412  30883  ""2""    0    # TRAN from  HERNDON  115.0036270  to  36270HERNDN2M 115.00"
155    0
156    #
156    "# (69) BUS FAULT  34414  ""WOODWARD"""
156    " 1  34414  34360  ""1""    0    # LINE from  WOODWARD 115.0036270  to  36270WWARD JT 115.00"
156    " 1  34414  34422  ""1""    0    # LINE from  WOODWARD 115.0036270  to  36270CHLDHOSP 115.00"
156    " 4  34414     0  ""3 ""    0    # LOAD-DROP    WOODWARD 115.00  LOAD==45.640545(0)"
156    " 4  34414     0  ""2 ""    0    # LOAD-DROP    WOODWARD 115.00  LOAD==51.154171(0)"
156    " 4  34414     0  ""1 ""    0    # LOAD-DROP    WOODWARD 115.00  LOAD==45.863323(8.818084)"
156    0
157    #
157    "# (70) BUS FAULT  34416  ""BULLARD"""
157    " 1  34416  34409  ""1""    0    # LINE from  BULLARD  115.0036270  to  36270PNDLJ2   115.00"
157    " 1  34416  34411  ""1""    0    # LINE from  BULLARD  115.0036270  to  36270PNDLJ1   115.00"
157    " 4  34416     0  ""5 ""    0    # LOAD-DROP    BULLARD  115.00  LOAD==15.213515(3.323025)"
157    " 4  34416     0  ""3 ""    0    # LOAD-DROP    BULLARD  115.00  LOAD==42.493885(4.678226)"
157    " 4  34416     0  ""2 ""    0    # LOAD-DROP    BULLARD  115.00  LOAD==45.81691(16.011784)"
157    " 4  34416     0  ""1 ""    0    # LOAD-DROP    BULLARD  115.00  LOAD==48.508743(12.98579)"
157    0
158    #
158    "# (71) BUS FAULT  34418  ""KINGSBRG"""
158    " 1  34418  34385  ""1""    0    # LINE from  KINGSBRG 115.0036270  to  36270KINGSJCT 115.00"
158    " 1  34418  34420  ""1""    0    # LINE from  KINGSBRG 115.0036270  to  36270CORCORAN 115.00"
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158    " 1  34418  34420  ""2""    0    # LINE from  KINGSBRG 115.0036270  to  36270CORCORAN 115.00"
158    " 1  34418  34423  ""1""    0    # LINE from  KINGSBRG 115.0036270  to  36270GAURD J1 115.00"
158    " 1  34418  34428  ""1""    0    # LINE from  KINGSBRG 115.0036270  to  36270CONTADNA 115.00"
158    " 2  34418  34505  ""1""    0    # TRAN from  KINGSBRG 115.0036270  to  36270KNGBK1M   70.00"
158    " 2  34418  34507  ""2""    0    # TRAN from  KINGSBRG 115.0036270  to  36270KNGBK2M   70.00"
158    " 4  34418     0  ""3 ""    0    # LOAD-DROP    KINGSBRG 115.00  LOAD==25.925171(7.045186)"
158    0
159    #
159    "# (72) BUS FAULT  34420  ""CORCORAN"""
159    " 1  34420  34391  ""1""    0    # LINE from  CORCORAN 115.0036270  to  36270QUEBECTP 115.00"
159    " 1  34420  34418  ""1""    0    # LINE from  CORCORAN 115.0036270  to  36270KINGSBRG 115.00"
159    " 1  34420  34418  ""2""    0    # LINE from  CORCORAN 115.0036270  to  36270KINGSBRG 115.00"
159    " 2  34420  34528  ""2""    0    # TRAN from  CORCORAN 115.0036270  to  36270CORCORAN  70.00"
159    " 4  34420     0  ""3 ""    0    # LOAD-DROP    CORCORAN 115.00  LOAD==8.84593(2.404088)"
159    " 4  34420     0  ""4 ""    0    # LOAD-DROP    CORCORAN 115.00  LOAD==8.84593(2.014236)"
159    0
160    #
160    "# (73) BUS FAULT  34426  ""ALPAUGH"""
160    " 1  34426  34391  ""1""    0    # LINE from  ALPAUGH  115.0036270  to  36270QUEBECTP 115.00"
160    " 1  34426  34700  ""1""    0    # LINE from  ALPAUGH  115.0036270  to  36270SMYRNA   115.00"
160    " 4  34426     0  ""1 ""    0    # LOAD-DROP    ALPAUGH  115.00  LOAD==5.968451(0)"
160    0
161    #
161    "# (74) BUS FAULT  34430  ""HENRETTA"""
161    " 1  34430  34429  ""1""    0    # LINE from  HENRETTA 115.0036270  to  36270GWF_HEP  115.00"
161    " 2  34430  30881  ""3""    0    # TRAN from  HENRETTA 115.0036270  to  36270HENRIETA 230.00"
161    0
162    #
162    "# (75) BUS FAULT  34452  ""WISHON"""
162    " 1  34452  34260  ""1""    0    # LINE from  WISHON    70.0036270  to  36270SJNO2     70.00"
162    " 1  34452  34491  ""1""    0    # LINE from  WISHON    70.0036270  to  36270AUBRYTP   70.00"
162    " 2  34452  34658  ""1""    0    # TRAN from  WISHON    70.0036270  to  36270WISHON     2.30"
162    0
163    #
163    "# (76) BUS FAULT  34460  ""GUERNSEY"""
163    " 1  34460  34462  ""1""    0    # LINE from  GUERNSEY  70.0036270  to  36270GUR3TPT   70.00"
163    " 1  34460  34528  ""1""    0    # LINE from  GUERNSEY  70.0036270  to  36270CORCORAN  70.00"
163    " 4  34460     0  ""1 ""    0    # LOAD-DROP    GUERNSEY  70.00  LOAD==14.823665(2.766094)"
163    0
164    #
164    "# (77) BUS FAULT  34464  ""COPPRMNE"""
164    " 1  34464  34454  ""1""    0    # LINE from  COPPRMNE  70.0036270  to  36270RIVERROC  70.00"
164    " 1  34464  34478  ""1""    0    # LINE from  COPPRMNE  70.0036270  to  36270TVY VLLY  70.00"
164    " 1  34464  34491  ""1""    0    # LINE from  COPPRMNE  70.0036270  to  36270AUBRYTP   70.00"
164    " 2  34464  34636  ""1""    0    # TRAN from  COPPRMNE  70.0036270  to  36270FRIANTDM   9.11"
164    " 4  34464     0  ""1 ""    0    # LOAD-DROP    COPPRMNE  70.00  LOAD==13.66339(2.042083)"
164    0
165    #
165    "# (78) BUS FAULT  34466  ""BIOLA"""
165    " 1  34466  34264  ""1""    0    # LINE from  BIOLA     70.0036270  to  36270EL PECO   70.00"
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165    " 1  34466  34482  ""1""    0    # LINE from  BIOLA     70.0036270  to  36270OLDKERN   70.00"
165    " 4  34466     0  ""1 ""    0    # LOAD-DROP    BIOLA     70.00  LOAD==16.772924(2.626861)"
165    0
166    #
166    "# (79) BUS FAULT  34474  ""HELM"""
166    " 1  34474  34473  ""1""    0    # LINE from  HELM      70.0036270  to  36270SNJQTP    70.00"
166    " 1  34474  34471  ""1""    0    # LINE from  HELM      70.0036270  to  36270SNJQJCT   70.00"
166    " 1  34474  34556  ""1""    0    # LINE from  HELM      70.0036270  to  36270STRD JCT  70.00"
166    " 1  34474  34568  ""1""    0    # LINE from  HELM      70.0036270  to  36270VLY NTRN  70.00"
166    " 2  34474  30873  ""1""    0    # TRAN from  HELM      70.0036270  to  36270HELM     230.00"
166    0
167    #
167    "# (80) BUS FAULT  34480  ""KEARNEY"""
167    " 1  34480  34482  ""1""    0    # LINE from  KEARNEY   70.0036270  to  36270OLDKERN   70.00"
167    " 1  34480  34484  ""1""    0    # LINE from  KEARNEY   70.0036270  to  36270KERMAN    70.00"
167    " 1  34480  34512  ""1""    0    # LINE from  KEARNEY   70.0036270  to  36270CARUTHRS  70.00"
167    " 2  34480  30830  ""2""    0    # TRAN from  KEARNEY   70.0036270  to  36270KEARNEY  230.00"
167    0
168    #
168    "# (81) BUS FAULT  34484  ""KERMAN"""
168    " 1  34484  34475  ""1""    0    # LINE from  KERMAN    70.0036270  to  36270AGRCJCT   70.00"
168    " 1  34484  34480  ""1""    0    # LINE from  KERMAN    70.0036270  to  36270KEARNEY   70.00"
168    " 4  34484     0  ""2 ""    0    # LOAD-DROP    KERMAN    70.00  LOAD==10.999401(0)"
168    " 4  34484     0  ""1 ""    0    # LOAD-DROP    KERMAN    70.00  LOAD==13.839751(1.967825)"
168    0
169    #
169    "# (82) BUS FAULT  34486  ""CALIFRNV"""
169    " 1  34486  34488  ""1""    0    # LINE from  CALIFRNV  70.0036270  to  36270SANGER    70.00"
169    " 1  34486  34488  ""2""    0    # LINE from  CALIFRNV  70.0036270  to  36270SANGER    70.00"
169    " 4  34486     0  ""2 ""    0    # LOAD-DROP    CALIFRNV  70.00  LOAD==19.938152(3.610774)"
169    " 4  34486     0  ""1 ""    0    # LOAD-DROP    CALIFRNV  70.00  LOAD==19.436916(3.517951)"
169    0
170    #
170    "# (83) BUS FAULT  34488  ""SANGER"""
170    " 1  34488  34487  ""1""    0    # LINE from  SANGER    70.0036270  to  36270SNGRJCT   70.00"
170    " 1  34488  34486  ""1""    0    # LINE from  SANGER    70.0036270  to  36270CALIFRNV  70.00"
170    " 1  34488  34486  ""2""    0    # LINE from  SANGER    70.0036270  to  36270CALIFRNV  70.00"
170    " 2  34488  34366  ""1""    0    # TRAN from  SANGER    70.0036270  to  36270SANGER   115.00"
170    " 2  34488  34366  ""2""    0    # TRAN from  SANGER    70.0036270  to  36270SANGER   115.00"
170    " 2  34488  34366  ""3""    0    # TRAN from  SANGER    70.0036270  to  36270SANGER   115.00"
170    " 4  34488     0  ""3 ""    0    # LOAD-DROP    SANGER    70.00  LOAD==21.562536(7.82489)"
170    " 4  34488     0  ""2 ""    0    # LOAD-DROP    SANGER    70.00  LOAD==7.509295(0.826115)"
170    " 4  34488     0  ""1 ""    0    # LOAD-DROP    SANGER    70.00  LOAD==7.797043(-1.318072)"
170    0
171    #
171    "# (84) BUS FAULT  34492  ""REEDLEY"""
171    " 1  34492  34478  ""1""    0    # LINE from  REEDLEY   70.0036270  to  36270TVY VLLY  70.00"
171    " 1  34492  34490  ""1""    0    # LINE from  REEDLEY   70.0036270  to  36270PARLIER   70.00"
171    " 1  34492  34497  ""1""    0    # LINE from  REEDLEY   70.0036270  to  36270DNUBAJCT  70.00"
171    " 1  34492  34526  ""1""    0    # LINE from  REEDLEY   70.0036270  to  36270ORSI JCT  70.00"
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171    " 2  34492  34380  ""2""    0    # TRAN from  REEDLEY   70.0036270  to  36270REEDLEY  115.00"
171    " 4  34492     0  ""1 ""    0    # LOAD-DROP    REEDLEY   70.00  LOAD==15.705473(4.706073)"
171    0
172    #
172    "# (85) BUS FAULT  34500  ""DINUBA"""
172    " 1  34500  34497  ""1""    0    # LINE from  DINUBA    70.0036270  to  36270DNUBAJCT  70.00"
172    " 1  34500  34496  ""1""    0    # LINE from  DINUBA    70.0036270  to  36270STCRRL J  70.00"
172    " 4  34500     0  ""2 ""    0    # LOAD-DROP    DINUBA    70.00  LOAD==9.866973(2.246291)"
172    " 4  34500     0  ""1 ""    0    # LOAD-DROP    DINUBA    70.00  LOAD==23.7717(3.388001)"
172    0
173    #
173    "# (86) BUS FAULT  34512  ""CARUTHRS"""
173    " 1  34512  34480  ""1""    0    # LINE from  CARUTHRS  70.0036270  to  36270KEARNEY   70.00"
173    " 1  34512  34510  ""1""    0    # LINE from  CARUTHRS  70.0036270  to  36270CMDN JCT  70.00"
173    " 4  34512     0  ""1 ""    0    # LOAD-DROP    CARUTHRS  70.00  LOAD==14.220322(4.771047)"
173    0
174    #
174    "# (87) BUS FAULT  34518  ""LEMOORE"""
174    " 1  34518  34520  ""1""    0    # LINE from  LEMOORE   70.0036270  to  36270LPRNO TP  70.00"
174    " 1  34518  34522  ""1""    0    # LINE from  LEMOORE   70.0036270  to  36270HNFRD SW  70.00"
174    " 4  34518     0  ""2 ""    0    # LOAD-DROP    LEMOORE   70.00  LOAD==10.10831(2.487628)"
174    " 4  34518     0  ""1 ""    0    # LOAD-DROP    LEMOORE   70.00  LOAD==25.18259(8.094074)"
174    0
175    #
175    "# (88) BUS FAULT  34528  ""CORCORAN"""
175    " 1  34528  34460  ""1""    0    # LINE from  CORCORAN  70.0036270  to  36270GUERNSEY  70.00"
175    " 1  34528  34530  ""1""    0    # LINE from  CORCORAN  70.0036270  to  36270BSWLL TP  70.00"
175    " 2  34528  34420  ""2""    0    # TRAN from  CORCORAN  70.0036270  to  36270CORCORAN 115.00"
175    " 4  34528     0  ""2 ""    0    # LOAD-DROP    CORCORAN  70.00  LOAD==9.672047(2.19988)"
175    0
176    #
176    "# (89) BUS FAULT  34540  ""HENRITTA"""
176    " 1  34540  34514  ""1""    0    # LINE from  HENRITTA  70.0036270  to  36270MUSLSLGH  70.00"
176    " 1  34540  34520  ""1""    0    # LINE from  HENRITTA  70.0036270  to  36270LPRNO TP  70.00"
176    " 1  34540  34542  ""1""    0    # LINE from  HENRITTA  70.0036270  to  36270JCBSCRNR  70.00"
176    " 1  34540  34544  ""1""    0    # LINE from  HENRITTA  70.0036270  to  36270TLRE LKE  70.00"
176    " 2  34540  30881  ""2""    0    # TRAN from  HENRITTA  70.0036270  to  36270HENRIETA 230.00"
176    " 4  34540     0  ""1 ""    0    # LOAD-DROP    HENRITTA  70.00  LOAD==5.253721(0.408417)"
176    0
177    #
177    "# (90) BUS FAULT  34544  ""TLRE LKE"""
177    " 1  34544  34540  ""1""    0    # LINE from  TLRE LKE  70.0036270  to  36270HENRITTA  70.00"
177    " 1  34544  34550  ""1""    0    # LINE from  TLRE LKE  70.0036270  to  36270CHEVPLIN  70.00"
177    " 1  34544  34580  ""1""    0    # LINE from  TLRE LKE  70.0036270  to  36270BDGR HLL  70.00"
177    " 4  34544     0  ""1 ""    0    # LOAD-DROP    TLRE LKE  70.00  LOAD==8.159048(1.856439)"
177    0
178    #
178    "# (91) BUS FAULT  34552  ""GATES"""
178    " 1  34552  34548  ""1""    0    # LINE from  GATES     70.0036270  to  36270KETTLEMN  70.00"
178    " 1  34552  34558  ""1""    0    # LINE from  GATES     70.0036270  to  36270HURON     70.00"
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178    " 1  34552  34558  ""2""    0    # LINE from  GATES     70.0036270  to  36270HURON     70.00"
178    " 1  34552  34570  ""1""    0    # LINE from  GATES     70.0036270  to  36270COLNGA 2  70.00"
178    " 1  34552  34578  ""1""    0    # LINE from  GATES     70.0036270  to  36270JACALITO  70.00"
178    " 2  34552  34378  ""2""    0    # TRAN from  GATES     70.0036270  to  36270GATES    115.00"
178    0
179    #
179    "# (92) BUS FAULT  34556  ""STRD JCT"""
179    " 1  34556  34474  ""1""    0    # LINE from  STRD JCT  70.0036270  to  36270HELM      70.00"
179    " 1  34556  34562  ""1""    0    # LINE from  STRD JCT  70.0036270  to  36270SCHLNDLR  70.00"
179    " 1  34556  34564  ""1""    0    # LINE from  STRD JCT  70.0036270  to  36270STROUD    70.00"
179    0
180    #
180    "# (93) BUS FAULT  34558  ""HURON"""
180    " 1  34558  34552  ""1""    0    # LINE from  HURON     70.0036270  to  36270GATES     70.00"
180    " 1  34558  34552  ""2""    0    # LINE from  HURON     70.0036270  to  36270GATES     70.00"
180    " 1  34558  34560  ""1""    0    # LINE from  HURON     70.0036270  to  36270CALFLAX   70.00"
180    " 4  34558     0  ""1 ""    0    # LOAD-DROP    HURON     70.00  LOAD==9.634918(0)"
180    0
181    #
181    "# (94) BUS FAULT  34562  ""SCHLNDLR"""
181    " 1  34562  34556  ""1""    0    # LINE from  SCHLNDLR  70.0036270  to  36270STRD JCT  70.00"
181    " 1  34562  34560  ""1""    0    # LINE from  SCHLNDLR  70.0036270  to  36270CALFLAX   70.00"
181    " 1  34562  34566  ""1""    0    # LINE from  SCHLNDLR  70.0036270  to  36270PLSNTVLY  70.00"
181    " 2  34562  34354  ""1""    0    # TRAN from  SCHLNDLR  70.0036270  to  36270SCHINDLR 115.00"
181    " 4  34562     0  ""1 ""    0    # LOAD-DROP    SCHLNDLR  70.00  LOAD==10.201131(0)"
181    0
182    #
182    "# (95) BUS FAULT  34564  ""STROUD"""
182    " 1  34564  34568  ""1""    0    # LINE from  STROUD    70.0036270  to  36270VLY NTRN  70.00"
182    " 1  34564  34556  ""1""    0    # LINE from  STROUD    70.0036270  to  36270STRD JCT  70.00"
182    " 4  34564     0  ""1 ""    0    # LOAD-DROP    STROUD    70.00  LOAD==8.298282(4.084166)"
182    0
183    #
183    "# (96) BUS FAULT  34570  ""COLNGA 2"""
183    " 1  34570  34552  ""1""    0    # LINE from  COLNGA 2  70.0036270  to  36270GATES     70.00"
183    " 1  34570  34566  ""1""    0    # LINE from  COLNGA 2  70.0036270  to  36270PLSNTVLY  70.00"
183    " 1  34570  34572  ""1""    0    # LINE from  COLNGA 2  70.0036270  to  36270TORNADO   70.00"
183    " 2  34570  34652  ""1""    0    # TRAN from  COLNGA 2  70.0036270  to  36270CHV.COAL   9.11"
183    " 4  34570     0  ""1 ""    0    # LOAD-DROP    COLNGA 2  70.00  LOAD==9.189371(0)"
183    0
184    #
184    "# (97) BUS FAULT  34574  ""COLNGA 1"""
184    " 1  34574  34572  ""1""    0    # LINE from  COLNGA 1  70.0036270  to  36270TORNADO   70.00"
184    " 1  34574  34578  ""1""    0    # LINE from  COLNGA 1  70.0036270  to  36270JACALITO  70.00"
184    " 1  34574  36354  ""1""    0    # LINE from  COLNGA 1  70.0036270  to  36270SAN MIGL  70.00"
184    " 4  34574     0  ""2 ""    0    # LOAD-DROP    COLNGA 1  70.00  LOAD==7.95484(0.714729)"
184    " 4  34574     0  ""1 ""    0    # LOAD-DROP    COLNGA 1  70.00  LOAD==8.483925(3.564362)"
184    0
185    #
185    "# (98) BUS FAULT  34576  ""KNGLOBUS"""
```

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185    " 1  34576  34456  ""1""    0    # LINE from  KNGLOBUS  70.0036270  to  36270HRDWK TP  70.00"
185    " 1  34576  34508  ""1""    0    # LINE from  KNGLOBUS  70.0036270  to  36270CAMDEN    70.00"
185    " 2  34576  34505  ""1""    0    # TRAN from  KNGLOBUS  70.0036270  to  36270KNGBK1M   70.00"
185    " 2  34576  34507  ""2""    0    # TRAN from  KNGLOBUS  70.0036270  to  36270KNGBK2M   70.00"
185    0
186    #
186    "# (99) BUS FAULT  34700  ""SMYRNA"""
186    " 1  34700  34426  ""1""    0    # LINE from  SMYRNA   115.0036270  to  36270ALPAUGH  115.00"
186    " 1  34700  34708  ""1""    0    # LINE from  SMYRNA   115.0036270  to  36270MCKIBBEN 115.00"
186    " 4  34700     0  ""1 ""    0    # LOAD-DROP    SMYRNA   115.00  LOAD==7.445457(1.692955)"
186    0
187    #
187    "# (100) BUS FAULT  34706  ""WESTPARK"""
187    " 1  34706  34734  ""1""    0    # LINE from  WESTPARK 115.0036270  to  36270BEAR TAP 115.00"
187    " 1  34706  34752  ""1""    0    # LINE from  WESTPARK 115.0036270  to  36270KERN PWR 115.00"
187    " 1  34706  34752  ""2""    0    # LINE from  WESTPARK 115.0036270  to  36270KERN PWR 115.00"
187    " 4  34706     0  ""3 ""    0    # LOAD-DROP    WESTPARK 115.00  LOAD==24.640917(2.207046)"
187    " 4  34706     0  ""2 ""    0    # LOAD-DROP    WESTPARK 115.00  LOAD==31.244329(3.137728)"
187    " 4  34706     0  ""1 ""    0    # LOAD-DROP    WESTPARK 115.00  LOAD==33.123421(5.805684)"
187    0
188    #
188    "# (101) BUS FAULT  34712  ""FAMOSO"""
188    " 1  34712  34710  ""1""    0    # LINE from  FAMOSO   115.0036270  to  36270CHARKA   115.00"
188    " 1  34712  34784  ""1""    0    # LINE from  FAMOSO   115.0036270  to  36270CAWELO C 115.00"
188    " 4  34712     0  ""1 ""    0    # LOAD-DROP    FAMOSO   115.00  LOAD==10.636367(0)"
188    0
189    #
189    "# (102) BUS FAULT  34714  ""LERDO"""
189    " 1  34714  34716  ""1""    0    # LINE from  LERDO    115.0036270  to  36270LRDO JCT 115.00"
189    " 1  34714  34784  ""1""    0    # LINE from  LERDO    115.0036270  to  36270CAWELO C 115.00"
189    " 4  34714     0  ""2 ""    0    # LOAD-DROP    LERDO    115.00  LOAD==19.180916(4.369774)"
189    " 4  34714     0  ""1 ""    0    # LOAD-DROP    LERDO    115.00  LOAD==15.227733(2.384319)"
189    0
190    #
190    "# (103) BUS FAULT  34718  ""KERN OIL"""
190    " 1  34718  34717  ""1""    0    # LINE from  KERN OIL 115.0036270  to  36270DEXZEL   115.00"
190    " 1  34718  34716  ""1""    0    # LINE from  KERN OIL 115.0036270  to  36270LRDO JCT 115.00"
190    " 1  34718  34720  ""1""    0    # LINE from  KERN OIL 115.0036270  to  36270DSCVRYTP 115.00"
190    " 1  34718  34726  ""1""    0    # LINE from  KERN OIL 115.0036270  to  36270PTRL JCT 115.00"
190    " 4  34718     0  ""2 ""    0    # LOAD-DROP    KERN OIL 115.00  LOAD==29.382967(10.272959)"
190    " 4  34718     0  ""1 ""    0    # LOAD-DROP    KERN OIL 115.00  LOAD==33.10569(-2.100682)"
190    0
191    #
191    "# (104) BUS FAULT  34728  ""LIVE OAK"""
191    " 1  34728  34726  ""1""    0    # LINE from  LIVE OAK 115.0036270  to  36270PTRL JCT 115.00"
191    " 1  34728  34752  ""1""    0    # LINE from  LIVE OAK 115.0036270  to  36270KERN PWR 115.00"
191    " 2  34728  35058  ""1""    0    # TRAN from  LIVE OAK 115.0036270  to  36270PSE-LVOK   9.11"
191    0
192    #
192    "# (105) BUS FAULT  34732  ""COLUMBUS"""
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192    " 1  34732  34734  ""1""    0    # LINE from  COLUMBUS 115.0036270  to  36270BEAR TAP 115.00"
192    " 1  34732  34735  ""1""    0    # LINE from  COLUMBUS 115.0036270  to  36270MAGUDN J 115.00"
192    " 4  34732     0  ""3 ""    0    # LOAD-DROP    COLUMBUS 115.00  LOAD==19.517733(8.89023)"
192    " 4  34732     0  ""2 ""    0    # LOAD-DROP    COLUMBUS 115.00  LOAD==14.979551(3.820229)"
192    " 4  34732     0  ""1 ""    0    # LOAD-DROP    COLUMBUS 115.00  LOAD==14.589549(2.880683)"
192    0
193    #
193    "# (106) BUS FAULT  34736  ""MAGUNDEN"""
193    " 1  34736  34724  ""1""    0    # LINE from  MAGUNDEN 115.0036270  to  36270KRN OL J 115.00"
193    " 1  34736  34735  ""1""    0    # LINE from  MAGUNDEN 115.0036270  to  36270MAGUDN J 115.00"
193    " 4  34736     0  ""3 ""    0    # LOAD-DROP    MAGUNDEN 115.00  LOAD==41.402065(7.498639)"
193    " 4  34736     0  ""1 ""    0    # LOAD-DROP    MAGUNDEN 115.00  LOAD==25.527281(4.316592)"
193    0
194    #
194    "# (107) BUS FAULT  34740  ""STOCKDLE"""
194    " 1  34740  34741  ""1""    0    # LINE from  STOCKDLE 115.0036270  to  36270STCKDLJ  115.00"
194    " 1  34740  34753  ""1""    0    # LINE from  STOCKDLE 115.0036270  to  36270TEVISJ1  115.00"
194    " 4  34740     0  ""1 ""    0    # LOAD-DROP    STOCKDLE 115.00  LOAD==27.645693(3.040228)"
194    0
195    #
195    "# (108) BUS FAULT  34752  ""KERN PWR"""
195    " 1  34752  34755  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270TEVISJ2  115.00"
195    " 1  34752  34753  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270TEVISJ1  115.00"
195    " 1  34752  34706  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270WESTPARK 115.00"
195    " 1  34752  34706  ""2""    0    # LINE from  KERN PWR 115.0036270  to  36270WESTPARK 115.00"
195    " 1  34752  34716  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270LRDO JCT 115.00"
195    " 1  34752  34728  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270LIVE OAK 115.00"
195    " 1  34752  34730  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270PSE-3    115.00"
195    " 1  34752  34798  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270KERNWATR 115.00"
195    " 1  34752  34808  ""1""    0    # LINE from  KERN PWR 115.0036270  to  36270ROSEDAL  115.00"
195    " 2  34752  30945  ""3""    0    # TRAN from  KERN PWR 115.0036270  to  36270KERN PP  230.00"
195    " 2  34752  30945  ""3a""    0    # TRAN from  KERN PWR 115.0036270  to  36270KERN PP  230.00"
195    " 2  34752  30945  ""4""    0    # TRAN from  KERN PWR 115.0036270  to  36270KERN PP  230.00"
195    " 2  34752  30945  ""5""    0    # TRAN from  KERN PWR 115.0036270  to  36270KERN PP  230.00"
195    " 2  34752  34768  ""1""    0    # TRAN from  KERN PWR 115.0036270  to  36270KERN 1 M 115.00"
195    " 2  34752  34770  ""1""    0    # TRAN from  KERN PWR 115.0036270  to  36270KERN 2 M 115.00"
195    " 4  34752     0  ""6 ""    0    # LOAD-DROP    KERN PWR 115.00  LOAD==49.042519(6.240002)"
195    0
196    #
196    "# (109) BUS FAULT  34756  ""WHEELER"""
196    " 1  34756  34805  ""1""    0    # LINE from  WHEELER  115.0036270  to  36270ARVINJ1  115.00"
196    " 2  34756  34874  ""2""    0    # TRAN from  WHEELER  115.0036270  to  36270WHEELER   70.00"
196    0
197    #
197    "# (110) BUS FAULT  34758  ""LAMONT"""
197    " 1  34758  34805  ""1""    0    # LINE from  LAMONT   115.0036270  to  36270ARVINJ1  115.00"
197    " 1  34758  34737  ""1""    0    # LINE from  LAMONT   115.0036270  to  36270GRIMWAYJ 115.00"
197    " 4  34758     0  ""2 ""    0    # LOAD-DROP    LAMONT   115.00  LOAD==17.479097(1.356137)"
197    " 4  34758     0  ""1 ""    0    # LOAD-DROP    LAMONT   115.00  LOAD==19.003643(2.260228)"
197    0
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198    #
198    "# (111) BUS FAULT  34760  ""RIO BRVO"""
198    " 1  34760  34775  ""1""    0    # LINE from  RIO BRVO 115.0036270  to  36270MIDKRNJN 115.00"
198    " 1  34760  34766  ""1""    0    # LINE from  RIO BRVO 115.0036270  to  36270SHAFTER  115.00"
198    " 4  34760     0  ""3 ""    0    # LOAD-DROP    RIO BRVO 115.00  LOAD==9.989323(0)"
198    " 4  34760     0  ""2 ""    0    # LOAD-DROP    RIO BRVO 115.00  LOAD==11.868414(0)"
198    0
199    #
199    "# (112) BUS FAULT  34766  ""SHAFTER"""
199    " 1  34766  34760  ""1""    0    # LINE from  SHAFTER  115.0036270  to  36270RIO BRVO 115.00"
199    " 1  34766  34774  ""1""    0    # LINE from  SHAFTER  115.0036270  to  36270MIDWAY   115.00"
199    " 4  34766     0  ""1 ""    0    # LOAD-DROP    SHAFTER  115.00  LOAD==15.227733(0)"
199    0
200    #
200    "# (114) BUS FAULT  34778  ""FELLOWS"""
200    " 1  34778  34777  ""1""    0    # LINE from  FELLOWS  115.0036270  to  36270VICTORY  115.00"
200    " 1  34778  34800  ""1""    0    # LINE from  FELLOWS  115.0036270  to  36270MORGAN   115.00"
200    " 4  34778     0  ""2 ""    0    # LOAD-DROP    FELLOWS  115.00  LOAD==2.80091(0.310227)"
200    " 4  34778     0  ""1 ""    0    # LOAD-DROP    FELLOWS  115.00  LOAD==21.015688(1.347273)"
200    0
201    #
201    "# (115) BUS FAULT  34794  ""TEMBLOR"""
201    " 1  34794  34792  ""1""    0    # LINE from  TEMBLOR  115.0036270  to  36270KERNRDGE 115.00"
201    " 1  34794  34796  ""1""    0    # LINE from  TEMBLOR  115.0036270  to  36270CARRIZO  115.00"
201    " 1  34794  34804  ""1""    0    # LINE from  TEMBLOR  115.0036270  to  36270BELRIDGE 115.00"
201    " 2  34794  35060  ""1""    0    # TRAN from  TEMBLOR  115.0036270  to  36270PSEMCKIT   9.11"
201    " 4  34794     0  ""2 ""    0    # LOAD-DROP    TEMBLOR  115.00  LOAD==12.586369(1.2675)"
201    0
202    #
202    "# (116) BUS FAULT  34852  ""CARNERAS"""
202    " 1  34852  34850  ""1""    0    # LINE from  CARNERAS  70.0036270  to  36270BLACKWLL  70.00"
202    " 1  34852  34947  ""1""    0    # LINE from  CARNERAS  70.0036270  to  36270CELERON   70.00"
202    " 4  34852     0  ""1 ""    0    # LOAD-DROP    CARNERAS  70.00  LOAD==8.367275(0.647046)"
202    0
203    #
203    "# (117) BUS FAULT  34854  ""MCKTTRCK"""
203    " 1  34854  34856  ""1""    0    # LINE from  MCKTTRCK  70.0036270  to  36270NORTHMWY  70.00"
203    " 1  34854  34870  ""1""    0    # LINE from  MCKTTRCK  70.0036270  to  36270TEMBLOR   70.00"
203    0
204    #
204    "# (118) BUS FAULT  34860  ""TAFT A"""
204    " 1  34860  34858  ""1""    0    # LINE from  TAFT A    70.0036270  to  36270MDWY_P_S  70.00"
204    " 1  34860  34861  ""1""    0    # LINE from  TAFT A    70.0036270  to  36270TAFT A_J  70.00"
204    " 1  34860  34936  ""1""    0    # LINE from  TAFT A    70.0036270  to  36270CUYAMA    70.00"
204    " 1  34860  34936  ""2""    0    # LINE from  TAFT A    70.0036270  to  36270CUYAMA    70.00"
204    " 2  34860  34776  ""2""    0    # TRAN from  TAFT A    70.0036270  to  36270TAFT     115.00"
204    0
205    #
205    "# (119) BUS FAULT  34862  ""MARICOPA"""
205    " 1  34862  34864  ""1""    0    # LINE from  MARICOPA  70.0036270  to  36270GARDNER   70.00"
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205     " 1  34862  34863  ""1""    0     # LINE from  MARICOPA  70.0036270  to  36270MOCO_JCT  70.00"
205     " 4  34862     0  ""1 ""    0     # LOAD-DROP    MARICOPA  70.00  LOAD==8.491366(1.932273)"
205     0
206     #
206     "# (120) BUS FAULT  34872  ""LAKEVIEW"""
206     " 1  34872  34882  ""1""    0     # LINE from  LAKEVIEW  70.0036270  to  36270SAN EMDO  70.00"
206     " 1  34872  34954  ""1""    0     # LINE from  LAKEVIEW  70.0036270  to  36270EMDO JCT  70.00"
206     " 4  34872     0  ""1 ""    0     # LOAD-DROP    LAKEVIEW  70.00  LOAD==11.974776(0.762273)"
206     0
207     #
207     "# (121) BUS FAULT  34874  ""WHEELER"""
207     " 1  34874  34880  ""1""    0     # LINE from  WHEELER   70.0036270  to  36270SN BRNRD  70.00"
207     " 1  34874  34890  ""1""    0     # LINE from  WHEELER   70.0036270  to  36270WEEDPTCH  70.00"
207     " 1  34874  34944  ""1""    0     # LINE from  WHEELER   70.0036270  to  36270TECUYA    70.00"
207     " 1  34874  34954  ""1""    0     # LINE from  WHEELER   70.0036270  to  36270EMDO JCT  70.00"
207     " 2  34874  30994  ""4""    0     # TRAN from  WHEELER   70.0036270  to  36270WHLR R 1 230.00"
207     " 2  34874  34756  ""2""    0     # TRAN from  WHEELER   70.0036270  to  36270WHEELER  115.00"
207     " 4  34874     0  ""1 ""    0     # LOAD-DROP    WHEELER   70.00  LOAD==10.414778(0.930682)"
207     0
208     #
208     "# (122) BUS FAULT  34876  ""TEJON"""
208     " 1  34876  34880  ""1""    0     # LINE from  TEJON     70.0036270  to  36270SN BRNRD  70.00"
208     " 1  34876  34940  ""1""    0     # LINE from  TEJON     70.0036270  to  36270ROSE      70.00"
208     " 1  34876  34944  ""1""    0     # LINE from  TEJON     70.0036270  to  36270TECUYA    70.00"
208     " 4  34876     0  ""1 ""    0     # LOAD-DROP    TEJON     70.00  LOAD==10.849095(2.472955)"
208     0
209     #
209     "# (123) BUS FAULT  34880  ""SN BRNRD"""
209     " 1  34880  34874  ""1""    0     # LINE from  SN BRNRD  70.0036270  to  36270WHEELER   70.00"
209     " 1  34880  34876  ""1""    0     # LINE from  SN BRNRD  70.0036270  to  36270TEJON     70.00"
209     " 1  34880  34951  ""1""    0     # LINE from  SN BRNRD  70.0036270  to  36270STALIONJ  70.00"
209     " 4  34880     0  ""1 ""    0     # LOAD-DROP    SN BRNRD  70.00  LOAD==23.736828(5.40682)"
209     0
210     #
210     "# (124) BUS FAULT  34890  ""WEEDPTCH"""
210     " 1  34890  34874  ""1""    0     # LINE from  WEEDPTCH  70.0036270  to  36270WHEELER   70.00"
210     " 1  34890  34888  ""1""    0     # LINE from  WEEDPTCH  70.0036270  to  36270ARVIN     70.00"
210     " 1  34890  34892  ""1""    0     # LINE from  WEEDPTCH  70.0036270  to  36270LIGHTNER  70.00"
210     " 1  34890  34909  ""1""    0     # LINE from  WEEDPTCH  70.0036270  to  36270GRMWY_SM  70.00"
210     " 4  34890     0  ""1 ""    0     # LOAD-DROP    WEEDPTCH  70.00  LOAD==19.845688(4.972502)"
210     0
211     #
211     "# (125) BUS FAULT  34902  ""MAGUNDEN"""
211     " 1  34902  34886  ""1""    0     # LINE from  MAGUNDEN  70.0036270  to  36270MAGNDN J  70.00"
211     " 1  34902  34898  ""1""    0     # LINE from  MAGUNDEN  70.0036270  to  36270BAKRSFLD  70.00"
211     0
212     #
212     "# (126) BUS FAULT  34904  ""OLD RIVR"""
212     " 1  34904  34905  ""1""    0     # LINE from  OLD RIVR  70.0036270  to  36270UNIONJCT  70.00"
212     " 1  34904  34882  ""1""    0     # LINE from  OLD RIVR  70.0036270  to  36270SAN EMDO  70.00"
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212    " 1  34904  34914  ""1""    0     # LINE from  OLD RIVR  70.0036270  to  36270KERN PW1  70.00"
212    " 4  34904     0  ""2 ""    0     # LOAD-DROP    OLD RIVR  70.00  LOAD==7.206139(1.53341)"
212    " 4  34904     0  ""1 ""    0     # LOAD-DROP    OLD RIVR  70.00  LOAD==6.771821(1.542273)"
212    0
213    #
213    "# (127) BUS FAULT  34906  ""PANAMA"""
213    " 1  34906  34905  ""1""    0     # LINE from  PANAMA    70.0036270  to  36270UNIONJCT  70.00"
213    " 1  34906  34908  ""1""    0     # LINE from  PANAMA    70.0036270  to  36270CARNATIO  70.00"
213    " 4  34906     0  ""1 ""    0     # LOAD-DROP    PANAMA    70.00  LOAD==15.520232(0.983864)"
213    0
214    #
214    "# (128) BUS FAULT  34914  ""KERN PW1"""
214    " 1  34914  34911  ""1""    0     # LINE from  KERN PW1  70.0036270  to  36270FRUITVLE  70.00"
214    " 1  34914  34904  ""1""    0     # LINE from  KERN PW1  70.0036270  to  36270OLD RIVR  70.00"
214    " 2  34914  34768  ""1""    0     # TRAN from  KERN PW1  70.0036270  to  36270KERN 1 M 115.00"
214    0
215    #
215    "# (129) BUS FAULT  34918  ""KERN PW2"""
215    " 1  34918  34898  ""1""    0     # LINE from  KERN PW2  70.0036270  to  36270BAKRSFLD  70.00"
215    " 1  34918  34908  ""1""    0     # LINE from  KERN PW2  70.0036270  to  36270CARNATIO  70.00"
215    " 1  34918  34922  ""1""    0     # LINE from  KERN PW2  70.0036270  to  36270KRN OL J  70.00"
215    " 2  34918  34770  ""1""    0     # TRAN from  KERN PW2  70.0036270  to  36270KERN 2 M 115.00"
215    0
216    #
216    "# (130) BUS FAULT  34924  ""KERN OIL"""
216    " 1  34924  34922  ""1""    0     # LINE from  KERN OIL  70.0036270  to  36270KRN OL J  70.00"
216    0
217    #
217    "# (131) BUS FAULT  34926  ""FAMOSO"""
217    " 1  34926  34928  ""1""    0     # LINE from  FAMOSO    70.0036270  to  36270CAWELO B  70.00"
217    " 1  34926  34930  ""1""    0     # LINE from  FAMOSO    70.0036270  to  36270MC FRLND  70.00"
217    0
218    #
218    "# (132) BUS FAULT  34930  ""MC FRLND"""
218    " 1  34930  34926  ""1""    0     # LINE from  MC FRLND  70.0036270  to  36270FAMOSO    70.00"
218    " 1  34930  34932  ""1""    0     # LINE from  MC FRLND  70.0036270  to  36270WASCO     70.00"
218    " 4  34930     0  ""1 ""    0     # LOAD-DROP    MC FRLND  70.00  LOAD==10.193187(0)"
218    0
219    #
219    "# (133) BUS FAULT  34932  ""WASCO"""
219    " 1  34932  34930  ""1""    0     # LINE from  WASCO     70.0036270  to  36270MC FRLND  70.00"
219    " 1  34932  34934  ""1""    0     # LINE from  WASCO     70.0036270  to  36270SEMITRPC  70.00"
219    " 4  34932     0  ""1 ""    0     # LOAD-DROP    WASCO     70.00  LOAD==16.575006(3.775911)"
219    0
220    #
220    "# (134) BUS FAULT  36252  ""MORRO BY"""
220    " 1  36252  36253  ""1""    0     # LINE from  MORRO BY 115.0036270  to  36270FTHILTP1 115.00"
220    " 1  36252  36303  ""1""    0     # LINE from  MORRO BY 115.0036270  to  36270GLDHLJCT 115.00"
220    " 2  36252  30915  ""6""    0     # TRAN from  MORRO BY 115.0036270  to  36270MORROBAY 230.00"
220    " 4  36252     0  ""11""    0     # LOAD-DROP    MORRO BY 115.00  LOAD==11.337811(1.020821)"
```

```
220     0
221     #
221     "# (135) BUS FAULT  36254  ""SN LS OB"""
221     " 1  36254  36253  ""1""    0     # LINE from  SN LS OB 115.0036270  to  36270FTHILTP1 115.00"
221     " 1  36254  36251  ""1""    0     # LINE from  SN LS OB 115.0036270  to  36270FTHILTP2 115.00"
221     " 1  36254  34796  ""1""    0     # LINE from  SN LS OB 115.0036270  to  36270CARRIZO  115.00"
221     " 1  36254  36266  ""1""    0     # LINE from  SN LS OB 115.0036270  to  36270SNTA MRA 115.00"
221     " 1  36254  36278  ""1""    0     # LINE from  SN LS OB 115.0036270  to  36270OCEANO   115.00"
221     " 2  36254  36376  ""3""    0     # TRAN from  SN LS OB 115.0036270  to  36270SN LS OB  70.00"
221     " 4  36254     0  ""4 ""    0     # LOAD-DROP    SN LS OB 115.00  LOAD==17.655188(4.024714)"
221     " 4  36254     0  ""6 ""    0     # LOAD-DROP    SN LS OB 115.00  LOAD==27.729525(1.757151)"
221     0
222     #
222     "# (136) BUS FAULT  36256  ""MESA_PGE"""
222     " 1  36256  36258  ""1""    0     # LINE from  MESA_PGE 115.0036270  to  36270S.M.ASSO 115.00"
222     " 1  36256  36266  ""1""    0     # LINE from  MESA_PGE 115.0036270  to  36270SNTA MRA 115.00"
222     " 1  36256  36268  ""1""    0     # LINE from  MESA_PGE 115.0036270  to  36270DIVVIDE  115.00"
222     " 1  36256  36268  ""2""    0     # LINE from  MESA_PGE 115.0036270  to  36270DIVVIDE  115.00"
222     " 1  36256  36280  ""1""    0     # LINE from  MESA_PGE 115.0036270  to  36270UNION OL 115.00"
222     " 2  36256  30930  ""1""    0     # TRAN from  MESA_PGE 115.0036270  to  36270MESA PGE 230.00"
222     " 2  36256  30930  ""2""    0     # TRAN from  MESA_PGE 115.0036270  to  36270MESA PGE 230.00"
222     0
223     #
223     "# (137) BUS FAULT  36260  ""SISQUOC"""
223     " 1  36260  36269  ""1""    0     # LINE from  SISQUOC  115.0036270  to  36270FRWAYTP  115.00"
223     " 1  36260  36258  ""1""    0     # LINE from  SISQUOC  115.0036270  to  36270S.M.ASSO 115.00"
223     " 1  36260  36262  ""1""    0     # LINE from  SISQUOC  115.0036270  to  36270GAREY    115.00"
223     " 1  36260  36286  ""1""    0     # LINE from  SISQUOC  115.0036270  to  36270PALMR    115.00"
223     " 4  36260     0  ""3 ""    0     # LOAD-DROP    SISQUOC  115.00  LOAD==5.689824(0.96225)"
223     " 4  36260     0  ""2 ""    0     # LOAD-DROP    SISQUOC  115.00  LOAD==5.714926(1.163067)"
223     0
224     #
224     "# (138) BUS FAULT  36264  ""S.YNZ JT"""
224     " 1  36264  36274  ""1""    0     # LINE from  S.YNZ JT 115.0036270  to  36270BUELLTON 115.00"
224     " 1  36264  36288  ""1""    0     # LINE from  S.YNZ JT 115.0036270  to  36270ZACA     115.00"
224     " 1  36264  36290  ""1""    0     # LINE from  S.YNZ JT 115.0036270  to  36270SNTA YNZ 115.00"
224     " 1  36264  36294  ""1""    0     # LINE from  S.YNZ JT 115.0036270  to  36270CABRILLO 115.00"
224     0
225     #
225     "# (139) BUS FAULT  36266  ""SNTA MRA"""
225     " 1  36266  36269  ""1""    0     # LINE from  SNTA MRA 115.0036270  to  36270FRWAYTP  115.00"
225     " 1  36266  36254  ""1""    0     # LINE from  SNTA MRA 115.0036270  to  36270SN LS OB 115.00"
225     " 1  36266  36256  ""1""    0     # LINE from  SNTA MRA 115.0036270  to  36270MESA_PGE 115.00"
225     " 1  36266  36270  ""1""    0     # LINE from  SNTA MRA 115.0036270  to  36270FAIRWAY  115.00"
225     " 4  36266     0  ""3 ""    0     # LOAD-DROP    SNTA MRA 115.00  LOAD==31.043005(5.438802)"
225     " 4  36266     0  ""2 ""    0     # LOAD-DROP    SNTA MRA 115.00  LOAD==32.716484(7.455342)"
225     0
226     #
226     "# (140) BUS FAULT  36268  ""DIVVIDE"""
226     " 1  36268  36256  ""1""    0     # LINE from  DIVVIDE  115.0036270  to  36270MESA_PGE 115.00"
```

```
226    " 1  36268  36256  ""2""    0    # LINE from  DIVVIDE  115.0036270  to  36270MESA_PGE 115.00"
226    " 1  36268  36296  ""1""    0    # LINE from  DIVVIDE  115.0036270  to  36270PURSMAJ1 115.00"
226    " 1  36268  36300  ""1""    0    # LINE from  DIVVIDE  115.0036270  to  36270PURSMAJ2 115.00"
226    " 2  36268  36378  ""1""    0    # TRAN from  DIVVIDE  115.0036270  to  36270DIVIDE    70.00"
226    " 2  36268  36378  ""2""    0    # TRAN from  DIVVIDE  115.0036270  to  36270DIVIDE    70.00"
226    0
227    #
227    "# (141) BUS FAULT  36278  ""OCEANO"""
227    " 1  36278  36254  ""1""    0    # LINE from  OCEANO   115.0036270  to  36270SN LS OB 115.00"
227    " 1  36278  36280  ""1""    0    # LINE from  OCEANO   115.0036270  to  36270UNION OL 115.00"
227    " 4  36278     0  ""2 ""    0    # LOAD-DROP    OCEANO   115.00  LOAD==26.758905(2.40144)"
227    " 4  36278     0  ""1 ""    0    # LOAD-DROP    OCEANO   115.00  LOAD==18.592335(0.828371)"
227    0
228    #
228    "# (142) BUS FAULT  36294  ""CABRILLO"""
228    " 1  36294  38031  ""1""    0    # LINE from  CABRILLO 115.0036270  to  36270LOMPCJ1  115.00"
228    " 1  36294  36264  ""1""    0    # LINE from  CABRILLO 115.0036270  to  36270S.YNZ JT 115.00"
228    " 4  36294     0  ""1 ""    0    # LOAD-DROP    CABRILLO 115.00  LOAD==5.079005(0.317961)"
228    0
229    #
229    "# (143) BUS FAULT  36354  ""SAN MIGL"""
229    " 1  36354  34574  ""1""    0    # LINE from  SAN MIGL  70.0036270  to  36270COLNGA 1  70.00"
229    " 1  36354  36356  ""1""    0    # LINE from  SAN MIGL  70.0036270  to  36270PSA RBLS  70.00"
229    " 4  36354     0  ""1 ""    0    # LOAD-DROP    SAN MIGL  70.00  LOAD==5.647986(1.08776)"
229    0
230    #
230    "# (144) BUS FAULT  36356  ""PSA RBLS"""
230    " 1  36356  36315  ""1""    0    # LINE from  PSA RBLS  70.0036270  to  36270TEMPL J   70.00"
230    " 1  36356  36354  ""1""    0    # LINE from  PSA RBLS  70.0036270  to  36270SAN MIGL  70.00"
230    " 4  36356     0  ""3 ""    0    # LOAD-DROP    PSA RBLS  70.00  LOAD==26.700333(0)"
230    " 4  36356     0  ""2 ""    0    # LOAD-DROP    PSA RBLS  70.00  LOAD==10.149641(0)"
230    " 4  36356     0  ""1 ""    0    # LOAD-DROP    PSA RBLS  70.00  LOAD==9.547189(0)"
230    0
231    #
231    "# (145) BUS FAULT  36358  ""ATASCDRO"""
231    " 1  36358  36316  ""1""    0    # LINE from  ATASCDRO  70.0036270  to  36270TEMPL J2  70.00"
231    " 1  36358  36362  ""1""    0    # LINE from  ATASCDRO  70.0036270  to  36270CACOS J2  70.00"
231    " 1  36358  36376  ""1""    0    # LINE from  ATASCDRO  70.0036270  to  36270SN LS OB  70.00"
231    " 4  36358     0  ""1 ""    0    # LOAD-DROP    ATASCDRO  70.00  LOAD==11.538628(0)"
231    0
232    #
232    "# (146) BUS FAULT  36364  ""CAYUCOS"""
232    " 1  36364  36360  ""1""    0    # LINE from  CAYUCOS   70.0036270  to  36270CACOS J1  70.00"
232    " 1  36364  36362  ""1""    0    # LINE from  CAYUCOS   70.0036270  to  36270CACOS J2  70.00"
232    " 1  36364  36370  ""1""    0    # LINE from  CAYUCOS   70.0036270  to  36270BAYWOOD   70.00"
232    " 4  36364     0  ""2 ""    0    # LOAD-DROP    CAYUCOS   70.00  LOAD==2.43491(0)"
232    " 4  36364     0  ""1 ""    0    # LOAD-DROP    CAYUCOS   70.00  LOAD==2.016541(0.460206)"
232    0
233    #
233    "# (147) BUS FAULT  36376  ""SN LS OB"""
```

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233    " 1  36376  36358  ""1""    0    # LINE from  SN LS OB  70.0036270  to  36270ATASCDRO  70.00"
233    " 1  36376  36372  ""1""    0    # LINE from  SN LS OB  70.0036270  to  36270MUSTNG J  70.00"
233    " 2  36376  36254  ""3""    0    # TRAN from  SN LS OB  70.0036270  to  36270SN LS OB 115.00"
233    0
234    #
234    "# (148) BUS FAULT  36378  ""DIVIDE""""
234    " 1  36378  36380  ""1""    0    # LINE from  DIVIDE    70.0036270  to  36270VAFB SSA  70.00"
234    " 1  36378  36382  ""2""    0    # LINE from  DIVIDE    70.0036270  to  36270VAFB SSB  70.00"
234    " 2  36378  36268  ""1""    0    # TRAN from  DIVIDE    70.0036270  to  36270DIVVIDE  115.00"
234    " 2  36378  36268  ""2""    0    # TRAN from  DIVIDE    70.0036270  to  36270DIVVIDE  115.00"
234    " 4  36378     0  ""3 ""    0    # LOAD-DROP    DIVIDE    70.00  LOAD==9.923721(2.259195)"
234    0
235    #
235    "# (149) BUS FAULT  36382  ""VAFB SSB""""
235    " 1  36382  36378  ""2""    0    # LINE from  VAFB SSB  70.0036270  to  36270DIVIDE    70.00"
235    " 1  36382  36380  ""1""    0    # LINE from  VAFB SSB  70.0036270  to  36270VAFB SSA  70.00"
235    " 1  36382  36384  ""1""    0    # LINE from  VAFB SSB  70.0036270  to  36270VAFB A-N  70.00"
235    0
236    #
236    "# (150) BUS FAULT  38601  ""BUENAVT1""""
236    " 1  38601  38600  ""1""    0    # LINE from  BUENAVT1 230.0036270  to  36270BUENAVJ1 230.00"
236    " 1  38601  38606  ""1""    0    # LINE from  BUENAVT1 230.0036270  to  36270BUENAVT2 230.00"
236    " 2  38601  38775  ""1""    0    # TRAN from  BUENAVT1 230.0036270  to  36270BUENAVS1  13.20"
236    0
237    #
237    "# (151) BUS FAULT  38606  ""BUENAVT2""""
237    " 1  38606  38601  ""1""    0    # LINE from  BUENAVT2 230.0036270  to  36270BUENAVT1 230.00"
237    " 1  38606  38605  ""1""    0    # LINE from  BUENAVT2 230.0036270  to  36270BUENAVJ2 230.00"
237    " 2  38606  38780  ""1""    0    # TRAN from  BUENAVT2 230.0036270  to  36270BUENAVS2  13.20"
237    0
238    #
238    "# (152) BUS FAULT  38641  ""WHLR RT1""""
238    " 1  38641  38640  ""1""    0    # LINE from  WHLR RT1 230.0036270  to  36270WHLR RJ1 230.00"
238    " 1  38641  38646  ""1""    0    # LINE from  WHLR RT1 230.0036270  to  36270WHLR RT2 230.00"
238    " 2  38641  38785  ""1""    0    # TRAN from  WHLR RT1 230.0036270  to  36270WHLR RD1  13.20"
238    0
239    #
239    "# (153) BUS FAULT  38646  ""WHLR RT2""""
239    " 1  38646  38641  ""1""    0    # LINE from  WHLR RT2 230.0036270  to  36270WHLR RT1 230.00"
239    " 1  38646  38645  ""1""    0    # LINE from  WHLR RT2 230.0036270  to  36270WHLR RJ2 230.00"
239    " 2  38646  38790  ""1""    0    # TRAN from  WHLR RT2 230.0036270  to  36270WHLR RD2  13.20"
239    0
240    #
240    "# (154) BUS FAULT  38651  ""WND GPT1""""
240    " 1  38651  38650  ""1""    0    # LINE from  WND GPT1 230.0036270  to  36270WND GPJ1 230.00"
240    " 1  38651  38656  ""1""    0    # LINE from  WND GPT1 230.0036270  to  36270WND GPT2 230.00"
240    " 2  38651  38795  ""1""    0    # TRAN from  WND GPT1 230.0036270  to  36270WINDGAP1  13.20"
240    " 2  38651  38800  ""1""    0    # TRAN from  WND GPT1 230.0036270  to  36270WINDGAP2  13.20"
240    0
241    #
```

```
241     "# (155) BUS FAULT  38656  ""WND GPT2"""
241     " 1  38656  38651  ""1""    0     # LINE from  WND GPT2 230.0036270  to  36270WND GPT1 230.00"
241     " 1  38656  38655  ""1""    0     # LINE from  WND GPT2 230.0036270  to  36270WND GPJ2 230.00"
241     " 2  38656  38805  ""1""    0     # TRAN from  WND GPT2 230.0036270  to  36270WINDGAP3  13.20"
241     " 2  38656  38810  ""1""    0     # TRAN from  WND GPT2 230.0036270  to  36270WINDGAP4  13.20"
241     0
242     #
242     "# (156) BUS FAULT  32112  ""MAINE-PR"""
242     " 1  32112  32114  ""1""    0     # LINE from  MAINE-PR  60.0036270  to  36270MNPR_JCT  60.00"
242     " 4  32112     0  ""1 ""    0     # LOAD-DROP    MAINE-PR  60.00  LOAD==0.01(0)"
242     0
```

APPENDIX C1 – SUMMER PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON NORMAL COMPARISON FILES

Hyperlink to: Normal B_cases C_cases

Normal

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Base MW	Base MVAR	Rate 1 PU Loading	Rate 1 Flow	Rate 1 Rating	File
30482	LOCKFORD	230	30	33724	LOCKEFRD	60	30	2	136	55	1.09	147 MVA	134.4 MVA	2004Sum_CVEC_afterB2_Renum
30482	LOCKFORD	230	30	33724	LOCKEFRD	60	30	2	136	55	1.09	147 MVA	134.4 MVA	2004Sum_CVEC_beforeB2_Renum
30501	BLLTA 1M	230	30	33804	BELLTA T	14	30	1	0	40	1	40 MVA	40 MVA	2004Sum_CVEC_afterB2_Renum
30501	BLLTA 1M	230	30	33804	BELLTA T	14	30	1	0	40	1	40 MVA	40 MVA	2004Sum_CVEC_beforeB2_Renum
No Violation														
30520	SECAL	230	30	30522	SECAL_2	18	30	1	-195	39	1.24	198 MVA	160 MVA	2004Sum_CVEC_beforeB2_Renum
30520	SECAL	230	30	30524	SECAL_3	18	30	1	-195	32	1.23	197 MVA	160 MVA	2004Sum_CVEC_afterB2_Renum
30520	SECAL	230	30	30524	SECAL_3	18	30	1	-195	39	1.24	198 MVA	160 MVA	2004Sum_CVEC_beforeB2_Renum
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	150	20	1.01	151 MVA	150 MVA	2004Sum_CVEC_afterB2_Renum
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	150	16	1.01	151 MVA	150 MVA	2004Sum_CVEC_beforeB2_Renum
30735	METCALF	230	30	35642	MTCALF D	115	30	1	399	99	1.02	411 MVA	403.2 MVA	2004Sum_CVEC_afterB2_Renum
30735	METCALF	230	30	35642	MTCALF D	115	30	1	370	99	0.95	383 MVA	403.2 MVA	2004Sum_CVEC_beforeB2_Renum
30735	METCALF	230	30	35643	MTCALF E	115	30	2	390	98	1	402 MVA	403.2 MVA	2004Sum_CVEC_afterB2_Renum
30735	METCALF	230	30	35643	MTCALF E	115	30	2	362	97	0.93	375 MVA	403.2 MVA	2004Sum_CVEC_beforeB2_Renum
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	113	110	1.29	158 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	114	111	1.3	159 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum
30790	PANOCHE	230	30	30873	HELM	230	30	1	-301	44	1.01	748 AMPS	742.02 AMPS	2004Sum_CVEC_afterB2_Renum
No Violation														
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	-113	-101	1.24	151 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	-113	-102	1.25	152 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum
30805	BORDEN	230	30	30810	GREGG	230	30	1	-305	-13	1.13	765 AMPS	675.25 AMPS	2004Sum_CVEC_afterB2_Renum
30805	BORDEN	230	30	30810	GREGG	230	30	1	-214	-12	0.8	537 AMPS	675.25 AMPS	2004Sum_CVEC_beforeB2_Renum
31472	WODLF TF	115	30	31794	WOODLEAF	14	30	1	57	6	1	58 MVA	58 MVA	2004Sum_CVEC_afterB2_Renum
31472	WODLF TF	115	30	31794	WOODLEAF	14	30	1	58	6	1	58 MVA	58 MVA	2004Sum_CVEC_beforeB2_Renum
31474	FRBSTNTF	115	30	31814	FORBSTWN	12	30	1	32	4	0.99	32 MVA	32 MVA	2004Sum_CVEC_afterB2_Renum

31474	FRBSTNTF	115	30	31814	FORBSTWN	12	30	1	32	4	0.99	32 MVA	32 MVA	2004Sum_CVEC_beforeB2_Renum
31596	SOUTH	60	30	31826	SOUTH G	9	30	1	-7	3	1	8 MVA	7.5 MVA	2004Sum_CVEC_afterB2_Renum
31596	SOUTH	60	30	31826	SOUTH G	9	30	1	-7	3	1	8 MVA	7.5 MVA	2004Sum_CVEC_beforeB2_Renum
32218	DRUM	115	30	32454	DRUM 5	14	30	1	43	24	1	49 MVA	49 MVA	2004Sum_CVEC_afterB2_Renum
32218	DRUM	115	30	32454	DRUM 5	14	30	1	42	24	1	49 MVA	49 MVA	2004Sum_CVEC_beforeB2_Renum
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	25	9	1	26 MVA	26 MVA	2004Sum_CVEC_afterB2_Renum
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	25	9	1	26 MVA	26 MVA	2004Sum_CVEC_beforeB2_Renum
32388	FRNCH MS	60	30	32508	FRNCH MD	4	30	1	-16	6	1.03	17 MVA	17 MVA	2004Sum_CVEC_afterB2_Renum
32388	FRNCH MS	60	30	32508	FRNCH MD	4	30	1	-16	6	1.03	17 MVA	17 MVA	2004Sum_CVEC_beforeB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004Sum_CVEC_afterB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004Sum_CVEC_beforeB2_Renum
32762	STD. OIL	115	30	32922	ChevGen2	14	30	1	54	34	1	64 MVA	64 MVA	2004Sum_CVEC_afterB2_Renum
32762	STD. OIL	115	30	32922	ChevGen2	14	30	1	54	34	1	64 MVA	64 MVA	2004Sum_CVEC_beforeB2_Renum
33514	MANTECA	115	30	33742	MANTECA	60	30	3	27	15	1.01	31 MVA	31.2 MVA	2004Sum_CVEC_afterB2_Renum
33514	MANTECA	115	30	33742	MANTECA	60	30	3	27	15	1	31 MVA	31.2 MVA	2004Sum_CVEC_beforeB2_Renum
33566	CAMANCHE	115	30	33850	CAMANCHE	4	30	1	-11	3	0.99	11 MVA	11 MVA	2004Sum_CVEC_afterB2_Renum
33566	CAMANCHE	115	30	33850	CAMANCHE	4	30	1	-10	3	0.99	11 MVA	11 MVA	2004Sum_CVEC_beforeB2_Renum
33620	AM FORST	60	30	33826	MARTELL	9	30	1	11	6	0.99	12 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum
33620	AM FORST	60	30	33826	MARTELL	9	30	1	11	5	0.98	12 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	-92	-5	1	436 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	-82	-7	0.89	390 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-6	18	1.39	19 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-6	19	1.42	20 MVA	14 MVA	2004Sum_CVEC_beforeB2_Renum
35616	SJ B E	115	30	35617	FMC JCT	115	30	1	175	0	1.23	866 AMPS	702.86 AMPS	2004Sum_CVEC_afterB2_Renum
35616	SJ B E	115	30	35617	FMC JCT	115	30	1	156	5	1.09	768 AMPS	702.86 AMPS	2004Sum_CVEC_beforeB2_Renum
36962	MOCCASIN	115	30	36990	MCSN CK1	11	30	1	49	8	0.99	50 MVA	50 MVA	2004Sum_CVEC_afterB2_Renum
36962	MOCCASIN	115	30	36990	MCSN CK1	11	30	1	49	6	0.99	49 MVA	50 MVA	2004Sum_CVEC_beforeB2_Renum

36962	MOCCASIN	115	30	36992	MCSN CK2	11	30	1	49	8	0.99	50 MVA	50 MVA	2004Sum_CVEC_afterB2_Renum
36962	MOCCASIN	115	30	36992	MCSN CK2	11	30	1	49	6	0.99	49 MVA	50 MVA	2004Sum_CVEC_beforeB2_Renum
37118	ROBBS PK	69	30	37314	ROBBS PK	14	30	1	24	6	1.01	25 MVA	25 MVA	2004Sum_CVEC_afterB2_Renum
37118	ROBBS PK	69	30	37314	ROBBS PK	14	30	1	24	6	1.01	25 MVA	25 MVA	2004Sum_CVEC_beforeB2_Renum
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	124	36	0.99	129 MVA	130 MVA	2004Sum_CVEC_afterB2_Renum
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	124	35	0.99	129 MVA	130 MVA	2004Sum_CVEC_beforeB2_Renum

APPENDIX C1 – SUMMER PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON BRANCH COMPARISON FILES FOR ISO CATEGORY B

Hyperlink to: Normal B_cases C_cases

B_cases

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Rate1 Base	Rate2 Out	MW	MVAR	Flow	Rating	File	Out#
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.24	1.69	1554.87	254.15	1575.5 MVA	933 MVA	2004Sum_CVEC_afterB1	31
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.28	1.79	1649.23	262.01	1669.92 MVA	933 MVA	2004Sum_CVEC_beforeB1	31
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.24	1	914.86	173.41	931.15 MVA	933 MVA	2004Sum_CVEC_afterB2_Renum	490
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.28	1.13	1037.68	166.77	1050.99 MVA	933 MVA	2004Sum_CVEC_beforeB2_Renum	490
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.9	1.4	-1490.44	492.9	1569.83 MVA	1120 MVA	2004Sum_CVEC_afterB1	246
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.85	1.32	-1401.65	483.7	1482.76 MVA	1120 MVA	2004Sum_CVEC_beforeB1	246
30060	MIDWAY	500	30	35003	MDWY 11M	14	30	11	0.83	1.73	-1381.51	452.4	1453.7 MVA	840 MVA	2004Sum_CVEC_afterB1	258
30060	MIDWAY	500	30	35003	MDWY 11M	14	30	11	0.79	1.63	-1299.5	439.01	1371.66 MVA	840 MVA	2004Sum_CVEC_beforeB1	258
30346	MDDLFK M	230	30	32456	MIDLFORK	14	30	1	0.98	0.99	129	44.77	136.55 MVA	138 MVA	2004Sum_CVEC_afterB2_Renum	508
30346	MDDLFK M	230	30	32456	MIDLFORK	14	30	1	0.98	0.99	129	43.47	136.13 MVA	138 MVA	2004Sum_CVEC_beforeB2_Renum	508
30346	MDDLFK M	230	30	32456	MIDLFORK	14	30	1	0.98	0.99	129	43.17	136.03 MVA	138 MVA	2004Sum_CVEC_afterB2_Renum	509
30346	MDDLFK M	230	30	32456	MIDLFORK	14	30	1	0.98	0.98	129	42.02	135.67 MVA	138 MVA	2004Sum_CVEC_beforeB2_Renum	509
30346	MDDLFK M	230	30	32456	MIDLFORK	14	30	1	0.98	0.99	129	43.68	136.19 MVA	138 MVA	2004Sum_CVEC_afterB2_Renum	510
30346	MDDLFK M	230	30	32456	MIDLFORK	14	30	1	0.98	0.99	129	43.28	136.07 MVA	138 MVA	2004Sum_CVEC_beforeB2_Renum	510
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	1	0.89	1.1	162.86	30.04	165.61 MVA	150 MVA	2004Sum_CVEC_afterB1	241
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	1	0.82	0.92	135.71	27.03	138.37 MVA	150 MVA	2004Sum_CVEC_beforeB1	241
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	2	0.89	1.1	81.44	15.02	82.82 MVA	75 MVA	2004Sum_CVEC_afterB1	241
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	2	0.82	0.92	67.86	13.52	69.2 MVA	75 MVA	2004Sum_CVEC_beforeB1	241
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	3	0.89	1.1	81.44	15.02	82.82 MVA	75 MVA	2004Sum_CVEC_afterB1	241
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	3	0.82	0.92	67.86	13.52	69.2 MVA	75 MVA	2004Sum_CVEC_beforeB1	241
30528	DEC PTSG	230	30	33108	DEC CTG1	18	30	1	0.98	0.99	200	69.91	211.86 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	508
No Violation																
30528	DEC PTSG	230	30	33108	DEC CTG1	18	30	1	0.98	0.99	200	69.91	211.87 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	510

30528	DEC PTSG	230	30	33108	DEC CTG1	18	30	1	0.97	0.98	200	67.19	210.98 MVA	215 MVA	2004Sum_CVEC_beforeB2_Renum	510
30528	DEC PTSG	230	30	33108	DEC CTG1	18	30	1	0.98	0.99	200	69.93	211.87 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	516
No Violation																
30528	DEC PTSG	230	30	33109	DEC CTG2	18	30	1	0.98	0.99	200	69.91	211.86 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	508
No Violation																
30528	DEC PTSG	230	30	33109	DEC CTG2	18	30	1	0.98	0.99	200	69.91	211.87 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	510
30528	DEC PTSG	230	30	33109	DEC CTG2	18	30	1	0.97	0.98	200	67.19	210.98 MVA	215 MVA	2004Sum_CVEC_beforeB2_Renum	510
30528	DEC PTSG	230	30	33109	DEC CTG2	18	30	1	0.98	0.99	200	69.93	211.87 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	516
No Violation																
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	0.98	0.99	200	69.91	211.86 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	508
No Violation																
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	0.98	0.99	200	69.91	211.87 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	510
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	0.97	0.98	200	67.19	210.98 MVA	215 MVA	2004Sum_CVEC_beforeB2_Renum	510
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	0.98	0.99	200	69.93	211.87 MVA	215 MVA	2004Sum_CVEC_afterB2_Renum	516
No Violation																
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	1.01	1.02	150	26.97	152.41 MVA	150 MVA	2004Sum_CVEC_afterB2_Renum	510
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	1.01	1.01	150	24.57	152 MVA	150 MVA	2004Sum_CVEC_beforeB2_Renum	510
30735	METCALF	230	30	30750	MOSSLND2	230	30	1	0.82	1.25	-449.34	79.06	1136.79 AMPS	909.95 AMPS	2004Sum_CVEC_afterB2_Renum	516
30735	METCALF	230	30	30750	MOSSLND2	230	30	1	0.67	1.03	-374.21	60.36	934.8 AMPS	909.95 AMPS	2004Sum_CVEC_beforeB2_Renum	516
30735	METCALF	230	30	30755	MOSSLND1	230	30	1	0.82	1.24	-447.49	78.73	1132.1 AMPS	909.95 AMPS	2004Sum_CVEC_afterB2_Renum	516
30735	METCALF	230	30	30755	MOSSLND1	230	30	1	0.67	1.02	-372.53	60.16	930.63 AMPS	909.95 AMPS	2004Sum_CVEC_beforeB2_Renum	516
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	123.14	108.98	164.44 MVA	146.2 MVA	2004Sum_CVEC_afterB1	1
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	115.89	111.82	161.04 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	1
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	117.43	113.39	163.25 MVA	146.2 MVA	2004Sum_CVEC_afterB1	107
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	119.43	113.91	165.05 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	107

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	114.55	109.53	158.49 MVA	146.2 MVA	2004Sum_CVEC_afterB1	136
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.68	110.13	159.72 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	136
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	123.25	110.56	165.57 MVA	146.2 MVA	2004Sum_CVEC_afterB1	145
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.67	111.62	161.46 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	145
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	121.2	108.98	162.99 MVA	146.2 MVA	2004Sum_CVEC_afterB1	163
No Violation																
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.38	111.74	161.34 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	2
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.88	109.94	159.01 MVA	146.2 MVA	2004Sum_CVEC_afterB1	226
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	115.92	110.41	160.09 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	226
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.19	157.25	73.83	173.72 MVA	146.2 MVA	2004Sum_CVEC_afterB1	249
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.2	158.21	74.5	174.87 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	249
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	114.47	109.79	158.61 MVA	146.2 MVA	2004Sum_CVEC_afterB1	254
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.91	109.9	159.01 MVA	146.2 MVA	2004Sum_CVEC_afterB1	255
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.07	110.68	159.66 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	255
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.16	122.69	116.25	169.02 MVA	146.2 MVA	2004Sum_CVEC_afterB1	257
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.18	126.87	116.88	172.51 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	257
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	122.21	110.81	164.97 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	261
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	122.38	108.31	163.42 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	261
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.19	129.53	115.34	173.44 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	262
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.18	130.04	112.81	172.15 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	262
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	120.15	114.08	165.68 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	263
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	122.13	114.4	167.34 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	263
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.54	157.84	160.03	224.77 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	265
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.55	164.11	156.62	226.85 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	265

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	119.36	109.99	162.31 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	268
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	119.98	110.07	162.82 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	268
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	125.26	106	164.09 MVA	146.2 MVA	2004Sum_CVEC_afterB1	27
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	121.48	107.15	161.98 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	27
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.18	134.55	108.32	172.73 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	272
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	121.15	111.17	164.43 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	272
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	119.48	115.02	165.85 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	280
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	123.62	115.63	169.27 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	280
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115.03	109.8	159.02 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	293
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	116.06	110.13	159.99 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	293
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	114.13	109.92	158.46 MVA	146.2 MVA	2004Sum_CVEC_afterB1	3
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	119.43	109.04	161.72 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	307
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	121.4	108.99	163.15 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	307
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	115.83	108.22	158.51 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	308
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	115.51	110.85	160.09 MVA	146.2 MVA	2004Sum_CVEC_afterB1	31
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.29	110.21	160.22 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	31
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.38	111.74	161.34 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	310
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	123.14	108.98	164.44 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	311
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	115.89	111.82	161.04 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	311
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.29	149.47	113.9	187.92 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	312
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.22	140.29	110.37	178.5 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	312
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	117.18	108.89	159.96 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	313

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	119.4	109.35	161.9 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	313
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	119.96	107.03	160.77 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	314
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	119.05	108.28	160.93 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	314
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	113.98	110.31	158.62 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	317
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	123.74	111.61	166.64 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	319
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	123.87	109.04	165.02 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	319
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	125.53	105.91	164.24 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	326
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	121.78	107.04	162.14 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	326
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	117.43	113.39	163.25 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	330
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	119.43	113.91	165.05 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	330
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	114.17	110.02	158.55 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	335
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	114.95	110.7	159.59 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	335
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.16	126.64	111.71	168.87 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	340
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.17	132.77	108.87	171.69 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	340
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	117.15	109.12	160.1 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	341
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	122.21	110.81	164.97 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	346
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	122.38	108.31	163.42 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	346
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.14	110.24	158.68 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	352
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	114.82	110.92	159.64 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	352
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.33	120.37	108.56	162.09 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	354
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.34	121.04	109.15	162.98 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	354
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.4	127.77	112.11	169.98 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	355
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.38	127.81	109.61	168.37 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	355

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.3	113.5	110.47	158.39 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	360
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.33	119.95	108.87	161.99 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	361
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.34	120.72	109.5	162.98 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	361
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.38	111.74	161.34 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	379
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	123.14	108.98	164.44 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	380
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	115.89	111.82	161.04 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	380
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.29	149.47	113.9	187.92 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	381
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.22	140.29	110.37	178.5 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	381
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	117.18	108.89	159.96 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	382
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	119.4	109.35	161.9 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	382
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	123.55	109.86	165.33 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	383
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	122.44	106.21	162.09 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	383
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	123.55	109.86	165.33 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	384
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	122.44	106.21	162.09 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	384
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.57	108.88	163.94 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	385
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	122	108.81	163.48 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	385
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.57	108.88	163.94 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	386
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	122	108.81	163.48 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	386
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	121.31	108.98	163.07 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	387
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	120.97	109.09	162.89 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	387
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	126.23	108.57	166.5 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	388
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	127.84	107.7	167.16 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	388
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.64	111.23	159.73 MVA	146.2 MVA	2004Sum_CVEC_afterB1	39
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	115.41	111.69	160.6 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	39

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115.38	109.96	159.38 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	390
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	116.44	109.67	159.96 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	390
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115.91	109.79	159.65 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	391
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	117.03	109.3	160.13 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	391
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	113.98	110.31	158.62 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	393
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	114.17	110.02	158.55 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	397
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	114.95	110.7	159.59 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	397
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	117.58	109.68	160.8 MVA	146.2 MVA	2004Sum_CVEC_afterB1	41
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.05	110.73	160.4 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	41
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	114.55	109.53	158.49 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	412
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.68	110.13	159.72 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	412
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	116.59	109.12	159.7 MVA	146.2 MVA	2004Sum_CVEC_afterB1	42
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	125.26	106.01	164.1 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	420
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	121.48	107.15	161.98 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	420
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	116.18	108.84	159.2 MVA	146.2 MVA	2004Sum_CVEC_afterB1	43
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	120.78	108.96	162.67 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	438
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.62	108.89	163.99 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	442
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	122.11	108.86	163.59 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	442
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.62	108.89	163.99 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	443
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	122.11	108.86	163.59 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	443
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.62	108.89	163.99 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	444

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	122.11	108.86	163.59 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	444
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	119.53	115.34	166.11 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	445
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	123.72	116.08	169.65 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	445
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	119.36	109.99	162.31 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	446
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	119.98	110.07	162.82 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	446
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.33	119.36	110	162.32 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	458
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.34	119.98	110.07	162.82 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	458
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.35	122.62	108.89	163.99 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	460
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.34	122.12	108.86	163.59 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	460
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.35	122.62	108.89	163.99 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	461
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.34	122.12	108.86	163.59 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	461
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.35	122.62	108.89	163.99 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	462
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.34	122.12	108.86	163.59 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	462
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.3	114.83	109.26	158.5 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	463
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.31	115.72	109.8	159.52 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	463
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.3	113.84	110.06	158.35 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	464
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.3	113.84	110.06	158.35 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	465
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.3	113.92	109.9	158.29 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	468
No Violation																
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	117.96	111.81	162.53 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	47
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.3	115.2	109.47	158.91 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	482
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.31	115.89	109.95	159.75 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	482

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.3	114.08	109.83	158.35 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	483
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.31	114.77	110.32	159.19 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	483
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.31	117.39	108.5	159.85 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	484
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.32	118.07	108.92	160.64 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	484
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.22	140.84	110.18	178.82 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	490
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.19	140.46	103.37	174.4 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	490
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.17	131.96	108.82	171.04 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	491
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.2	138.01	107.58	174.99 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	492
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.17	131.44	108.86	170.67 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	492
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.85	108.86	164.14 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	493
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	124.14	108.16	164.65 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	493
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	129.81	110.01	170.16 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	494
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.18	133.36	108.69	172.04 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	495
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.18	134.81	107.32	172.32 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	495
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	123.62	108.65	164.58 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	496
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.16	130.34	109.41	170.17 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	497
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	123.12	108.71	164.24 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	497
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	119.42	110.05	162.39 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	498
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	121.41	106.85	161.73 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	498
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	126.95	111.47	168.94 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	499
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	119.96	107.03	160.77 MVA	146.2 MVA	2004Sum_CVEC_afterB1	5
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	119.05	108.28	160.93 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	5

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115	110.06	159.18 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	500
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.02	110.6	160.29 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	500
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.93	109.42	158.69 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	501
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.66	110.01	159.63 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	501
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	117.58	108.98	160.31 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	502
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	118.59	109.45	161.38 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	502
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	117.4	108.54	159.88 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	503
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	118.13	109.08	160.78 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	503
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.28	148.06	113.7	186.68 MVA	146.2 MVA	2004Sum_CVEC_afterB1	51
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.22	140.43	110.16	178.48 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	51
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115.93	109.13	159.22 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	516
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.93	109.68	159.59 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	516
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	123.55	109.86	165.33 MVA	146.2 MVA	2004Sum_CVEC_afterB1	53
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	122.44	106.21	162.09 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	53
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	123.55	109.86	165.33 MVA	146.2 MVA	2004Sum_CVEC_afterB1	54
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	122.44	106.21	162.09 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	54
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.61	110.14	160.4 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	58
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	119.57	109.15	161.9 MVA	146.2 MVA	2004Sum_CVEC_afterB1	59
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115.38	109.96	159.38 MVA	146.2 MVA	2004Sum_CVEC_afterB1	61
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	116.44	109.67	159.96 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	61
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115.91	109.79	159.65 MVA	146.2 MVA	2004Sum_CVEC_afterB1	62
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	117.03	109.3	160.13 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	62
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	117.53	109.12	160.38 MVA	146.2 MVA	2004Sum_CVEC_afterB1	63

No Violation

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	113.95	110.55	158.76 MVA	146.2 MVA	2004Sum_CVEC_afterB1	7
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	114.7	110.79	159.46 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	7
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	113.98	110.31	158.62 MVA	146.2 MVA	2004Sum_CVEC_afterB1	90
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	117.16	112.05	162.12 MVA	146.2 MVA	2004Sum_CVEC_afterB1	92
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	117.47	109.78	160.78 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	92
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	113.86	114	161.12 MVA	146.2 MVA	2004Sum_CVEC_afterB1	94
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	115.31	113.76	161.98 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	94
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.08	-368.86	55.11	919.48 AMPS	849.96 AMPS	2004Sum_CVEC_afterB1	1
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.36	-460.37	84.08	1156.59 AMPS	849.96 AMPS	2004Sum_CVEC_afterB1	2
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.36	-460.37	84.08	1156.59 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	310
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.08	-368.86	55.11	919.48 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	311
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.36	-460.37	84.08	1156.59 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	379
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.08	-368.86	55.11	919.48 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	380
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.09	-371.45	61.84	925.92 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	491
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1	-342.22	52.52	851.39 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	492
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.28	-432.68	79.53	1086.37 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	496
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.04	-355	53.48	884.71 AMPS	849.96 AMPS	2004Sum_CVEC_afterB2_Renum	497
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	0.99	-336.8	49.4	840.75 AMPS	849.96 AMPS	2004Sum_CVEC_afterB1	51
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.01	-345.68	50.52	862.28 AMPS	849.96 AMPS	2004Sum_CVEC_afterB1	52
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.01	-343.04	51.37	854.57 AMPS	849.96 AMPS	2004Sum_CVEC_afterB1	59
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.04	-353.81	54.45	882.2 AMPS	849.96 AMPS	2004Sum_CVEC_afterB1	63
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	0.86	1.15	-447.12	69.48	1116.5 AMPS	968.94 AMPS	2004Sum_CVEC_afterB1	47
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	0.86	1.08	-420.21	65.53	1048.63 AMPS	968.94 AMPS	2004Sum_CVEC_afterB2_Renum	499
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.65	-99.27	157.79 MVA	146.2 MVA	2004Sum_CVEC_afterB1	1
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.41	-102.55	154.39 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	1
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-116.95	-103.84	156.39 MVA	146.2 MVA	2004Sum_CVEC_afterB1	107
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-118.94	-104.14	158.08 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	107
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.08	-100.53	152.05 MVA	146.2 MVA	2004Sum_CVEC_afterB1	136
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.21	-100.98	153.2 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	136
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-122.76	-100.73	158.79 MVA	146.2 MVA	2004Sum_CVEC_afterB1	145
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-116.19	-102.26	154.78 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	145
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-120.72	-99.45	156.41 MVA	146.2 MVA	2004Sum_CVEC_afterB1	163
No Violation																

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-117.36	-96.75	152.1 MVA	146.2 MVA	2004Sum_CVEC_afterB1	167
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-118.38	-96.91	152.98 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	167
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.91	-102.43	154.68 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	2
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.41	-100.86	152.52 MVA	146.2 MVA	2004Sum_CVEC_afterB1	226
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.45	-101.21	153.53 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	226
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.16	-156.72	-63.02	168.91 MVA	146.2 MVA	2004Sum_CVEC_afterB1	249
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.16	-157.67	-63.53	169.99 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	249
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114	-100.76	152.15 MVA	146.2 MVA	2004Sum_CVEC_afterB1	254
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.45	-100.83	152.53 MVA	146.2 MVA	2004Sum_CVEC_afterB1	255
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.6	-101.55	153.12 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	255
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.11	-122.18	-106.04	161.78 MVA	146.2 MVA	2004Sum_CVEC_afterB1	257
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.13	-126.35	-106.23	165.07 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	257
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-121.72	-101.06	158.21 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	261
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.89	-98.74	156.87 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	261
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.14	-129	-104.55	166.05 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	262
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.13	-129.51	-102.18	164.97 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	262
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-119.65	-104.24	158.69 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	263
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.1	-121.62	-104.36	160.26 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	263
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.45	-157.03	-141.87	211.62 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	265
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.46	-163.28	-138.04	213.81 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	265
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-118.88	-100.55	155.7 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	268
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-119.49	-100.54	156.16 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	268
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-124.76	-96.36	157.64 MVA	146.2 MVA	2004Sum_CVEC_afterB1	27

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-120.99	-97.75	155.55 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	27
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.13	-134.02	-97.64	165.81 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	272
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-120.65	-101.48	157.66 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	272
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-118.98	-105.17	158.8 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	280
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-123.11	-105.36	162.04 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	280
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.56	-100.71	152.54 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	293
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.59	-100.92	153.45 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	293
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.66	-100.93	152 MVA	146.2 MVA	2004Sum_CVEC_afterB1	3
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-118.96	-99.73	155.23 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	307
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-120.92	-99.48	156.58 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	307
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-115.36	-99.15	152.12 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	308
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-115.04	-101.75	153.58 MVA	146.2 MVA	2004Sum_CVEC_afterB1	31
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.82	-101.04	153.7 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	31
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.91	-102.43	154.68 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	310
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.65	-99.27	157.79 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	311
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.41	-102.55	154.39 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	311
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.23	-148.87	-101.35	180.1 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	312
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.17	-139.74	-99.02	171.26 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	312
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-116.71	-99.77	153.54 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	313
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-118.92	-100.01	155.38 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	313
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-119.49	-97.77	154.39 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	314
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-118.57	-99	154.46 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	314

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.51	-101.27	152.12 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	317
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-123.24	-101.67	159.76 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	319
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-123.37	-99.28	158.36 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	319
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-125.04	-96.25	157.8 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	326
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-121.29	-97.63	155.7 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	326
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-116.95	-103.84	156.39 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	330
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-118.94	-104.14	158.08 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	330
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.71	-101	152.08 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	335
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.48	-101.56	153.04 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	335
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.11	-126.13	-101.57	161.94 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	340
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.13	-132.24	-98.32	164.79 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	340
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-116.68	-99.9	153.61 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	341
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-121.72	-101.06	158.21 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	346
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.89	-98.74	156.87 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	346
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.67	-101.22	152.2 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	352
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.34	-101.79	153.09 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	352
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.28	-119.89	-99.15	155.58 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	354
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.28	-120.55	-99.63	156.39 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	354
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.34	-127.25	-101.76	162.94 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	355
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.33	-127.3	-99.45	161.54 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	355
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.25	-113.04	-101.47	151.9 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	360
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.28	-119.47	-99.47	155.46 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	361
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.28	-120.24	-99.97	156.37 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	361

No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.91	-102.43	154.68 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	379
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.65	-99.27	157.79 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	380
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.41	-102.55	154.39 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	380
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.23	-148.87	-101.35	180.1 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	381
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.17	-139.74	-99.02	171.26 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	381
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-116.71	-99.77	153.54 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	382
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-118.92	-100.01	155.38 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	382
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-123.05	-100.1	158.63 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	383
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-121.95	-96.75	155.67 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	383
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-123.05	-100.1	158.63 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	384
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-121.95	-96.75	155.67 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	384
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.08	-99.32	157.38 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	385
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.52	-99.26	156.9 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	385
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.08	-99.32	157.38 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	386
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.52	-99.26	156.9 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	386
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-120.82	-99.53	156.53 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	387
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-120.48	-99.61	156.33 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	387
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-125.73	-98.74	159.87 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	388
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.1	-127.34	-97.7	160.5 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	388
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-114.17	-102.07	153.14 MVA	146.2 MVA	2004Sum_CVEC_afterB1	39
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.93	-102.43	153.95 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	39
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-114.91	-100.87	152.9 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	390
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.97	-100.47	153.44 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	390
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-115.44	-100.67	153.17 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	391

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-116.55	-100.07	153.61 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	391
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.51	-101.27	152.12 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	393
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.71	-101	152.08 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	397
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.48	-101.56	153.04 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	397
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-117.11	-100.42	154.26 MVA	146.2 MVA	2004Sum_CVEC_afterB1	41
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.57	-101.52	153.83 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	41
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.08	-100.53	152.05 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	412
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.21	-100.98	153.2 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	412
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-116.12	-99.96	153.22 MVA	146.2 MVA	2004Sum_CVEC_afterB1	42
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-124.77	-96.37	157.65 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	420
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-120.99	-97.75	155.55 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	420
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-115.71	-99.72	152.75 MVA	146.2 MVA	2004Sum_CVEC_afterB1	43
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-120.3	-99.47	156.1 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	438
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-117.36	-96.75	152.1 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	441
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-118.38	-96.91	152.98 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	441
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.13	-99.34	157.43 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	442
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.63	-99.3	157.01 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	442
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.13	-99.34	157.43 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	443
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.63	-99.3	157.01 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	443
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.13	-99.34	157.43 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	444
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.63	-99.3	157.01 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	444

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-119.03	-105.47	159.04 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	445
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-123.2	-105.78	162.39 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	445
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-118.88	-100.55	155.7 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	446
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-119.49	-100.54	156.16 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	446
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.28	-118.88	-100.57	155.71 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	458
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.28	-119.49	-100.53	156.16 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	458
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.29	-122.13	-99.34	157.43 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	460
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.29	-121.63	-99.29	157.01 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	460
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.29	-122.13	-99.34	157.43 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	461
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.29	-121.63	-99.29	157.01 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	461
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.29	-122.13	-99.34	157.43 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	462
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.29	-121.63	-99.29	157.01 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	462
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.25	-114.36	-100.25	152.08 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	463
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.26	-115.25	-100.67	153.02 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	463
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.25	-113.38	-101.08	151.89 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	464
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.25	-113.38	-101.08	151.89 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	465
No Violation																
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-117.47	-102.36	155.81 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	47
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.25	-114.73	-100.42	152.47 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	482
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.26	-115.41	-100.79	153.23 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	482
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.25	-113.61	-100.83	151.9 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	483
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.25	-114.3	-101.23	152.68 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	483
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.26	-116.92	-99.35	153.43 MVA	121.8 MVA	2004Sum_CVEC_afterB2_Renum	484
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.27	-117.59	-99.68	154.15 MVA	121.8 MVA	2004Sum_CVEC_beforeB2_Renum	484

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.17	-140.28	-98.83	171.6 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	490
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.15	-139.91	-92.23	167.58 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	490
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.12	-131.43	-98.4	164.19 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	491
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.15	-137.47	-96.66	168.05 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	492
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.12	-130.92	-98.48	163.83 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	492
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.36	-99.28	157.58 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	493
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-123.65	-98.45	158.06 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	493
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.12	-129.29	-99.71	163.28 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	494
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.13	-132.84	-98.21	165.2 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	495
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.13	-134.28	-96.65	165.45 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	495
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-123.13	-98.96	157.97 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	496
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.12	-129.82	-99.02	163.28 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	497
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-122.63	-99.07	157.65 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	497
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-118.93	-100.61	155.78 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	498
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-120.92	-97.45	155.3 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	498
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-126.43	-101.24	161.98 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	499
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-119.49	-97.77	154.39 MVA	146.2 MVA	2004Sum_CVEC_afterB1	5
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-118.57	-99	154.46 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	5
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.53	-100.98	152.69 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	500
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.55	-101.38	153.72 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	500
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.46	-100.39	152.25 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	501

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.19	-100.88	153.12 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	501
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-117.1	-99.77	153.84 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	502
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-118.11	-100.11	154.83 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	502
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-116.93	-99.38	153.45 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	503
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-117.65	-99.81	154.29 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	503
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.22	-147.46	-101.2	178.84 MVA	146.2 MVA	2004Sum_CVEC_afterB1	51
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.17	-139.87	-98.75	171.22 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	51
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-115.46	-100	152.75 MVA	146.2 MVA	2004Sum_CVEC_afterB2_Renum	516
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.45	-100.5	153.07 MVA	146.2 MVA	2004Sum_CVEC_beforeB2_Renum	516
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-123.05	-100.1	158.63 MVA	146.2 MVA	2004Sum_CVEC_afterB1	53
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-121.95	-96.75	155.67 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	53
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-123.05	-100.1	158.63 MVA	146.2 MVA	2004Sum_CVEC_afterB1	54
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-121.95	-96.75	155.67 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	54
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-116.14	-100.91	153.85 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	58
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-119.09	-99.74	155.34 MVA	146.2 MVA	2004Sum_CVEC_afterB1	59
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-114.91	-100.87	152.9 MVA	146.2 MVA	2004Sum_CVEC_afterB1	61
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.97	-100.47	153.44 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	61
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-115.44	-100.67	153.17 MVA	146.2 MVA	2004Sum_CVEC_afterB1	62
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-116.55	-100.07	153.61 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	62
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-117.05	-99.88	153.87 MVA	146.2 MVA	2004Sum_CVEC_afterB1	63
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.48	-101.55	152.29 MVA	146.2 MVA	2004Sum_CVEC_afterB1	7
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.23	-101.69	152.94 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	7

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.51	-101.27	152.12 MVA	146.2 MVA	2004Sum_CVEC_afterB1	90
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-116.68	-102.62	155.39 MVA	146.2 MVA	2004Sum_CVEC_afterB1	92
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-116.99	-100.52	154.24 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	92
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-113.39	-104.68	154.32 MVA	146.2 MVA	2004Sum_CVEC_afterB1	94
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-114.82	-104.34	155.15 MVA	146.2 MVA	2004Sum_CVEC_beforeB1	94
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.96	1	-250.75	40.47	634.05 AMPS	635.09 AMPS	2004Sum_CVEC_afterB2_Renum	354
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.74	0.78	-195.4	19.99	492.3 AMPS	635.09 AMPS	2004Sum_CVEC_beforeB2_Renum	354
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.96	1.06	-267.55	30.58	674.71 AMPS	635.09 AMPS	2004Sum_CVEC_afterB2_Renum	355
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.74	0.85	-214.12	29.95	540.9 AMPS	635.09 AMPS	2004Sum_CVEC_beforeB2_Renum	355
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.96	1.02	-301.98	34.42	757.5 AMPS	745.54 AMPS	2004Sum_CVEC_afterB1	52
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.74	0.77	-229.36	18.69	575.15 AMPS	745.54 AMPS	2004Sum_CVEC_beforeB1	52
30800	WILSON	230	30	34136	WILSON B	115	30	2	0.47	1.23	166.66	61	177.47 MVA	144 MVA	2004Sum_CVEC_afterB2_Renum	262
30800	WILSON	230	30	34136	WILSON B	115	30	2	0.51	1.29	175.52	59.45	185.32 MVA	144 MVA	2004Sum_CVEC_beforeB2_Renum	262
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-311.11	-13.09	781.56 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	128
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.73	-15.09	783.64 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	136
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-222.43	-13.09	558.13 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	136
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-313.79	-14.54	787.07 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	148
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-223.22	-12.71	560.28 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	148
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.04	-331.07	-18.76	828.38 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	17
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.76	-240.2	-15.29	600.97 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	17
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.01	-318.73	-12.42	801.45 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	2
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.07	-337.73	-16.62	848.31 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	240
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.73	-231.67	-11.95	582.34 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	240

30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.99	-11.26	787.45 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	247
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.1	-13.49	783.16 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	251
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-222.07	-10.96	558.2 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	251
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-311.02	-12.15	781.41 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	252
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-220.91	-9.45	556.06 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	252
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-311.68	-12.55	783.13 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	258
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-316.03	-15.07	792.4 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	273
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-225.62	-13.25	565.96 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	273
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.01	-318.99	-14.5	801.26 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	277
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.72	-227.32	-13.48	572.09 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	277
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.6	-15.24	783.57 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	279
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-221.5	-13.16	555.84 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	279
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.01	-318.73	-12.42	801.45 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	310
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.01	-318.73	-12.42	801.45 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	379
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-315.2	-10.38	793.95 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	389
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-224.59	-7.42	566.31 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	389
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.04	-328.61	-14.59	826.31 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	41
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.72	-226.53	-11.73	569.54 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	41
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.73	-15.09	783.64 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	412
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-222.43	-13.09	558.13 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	412
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-313.79	-14.54	787.07 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	423

30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-223.22	-12.71	560.28 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	423
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-315.49	-18.12	793.59 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	451
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-224.29	-17.02	565.63 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	451
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.02	-320.87	-12.07	807.19 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	47
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.18	-315.49	-18.12	793.59 AMPS	675.25 AMPS	2004Sum_CVEC_afterB2_Renum	475
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.84	-224.3	-17.02	565.66 AMPS	675.25 AMPS	2004Sum_CVEC_beforeB2_Renum	475
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.14	-307.08	-13.37	770.87 AMPS	675.25 AMPS	2004Sum_CVEC_afterB2_Renum	485
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.8	-215.88	-11.94	542.84 AMPS	675.25 AMPS	2004Sum_CVEC_beforeB2_Renum	485
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.14	-307.08	-13.37	770.87 AMPS	675.25 AMPS	2004Sum_CVEC_afterB2_Renum	486
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.8	-215.88	-11.94	542.84 AMPS	675.25 AMPS	2004Sum_CVEC_beforeB2_Renum	486
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.12	-353.73	-13.04	891.36 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	51
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.8	-253.26	-8.42	636.99 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	51
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-311.51	-13.82	782.39 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	515
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.02	-320.77	-14.53	806.63 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	516
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.72	-226.95	-10.94	571.04 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB2_Renum	516
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.01	-319.01	-13.14	802.01 AMPS	793.23 AMPS	2004Sum_CVEC_afterB2_Renum	518
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-313.69	-12.62	788.25 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	57
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-222.84	-10.08	560.58 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	57
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-315.2	-10.38	793.95 AMPS	793.23 AMPS	2004Sum_CVEC_afterB1	60
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-224.59	-7.42	566.31 AMPS	793.23 AMPS	2004Sum_CVEC_beforeB1	60
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.04	107.25	31.31	111.73 MVA	107 MVA	2004Sum_CVEC_afterB1	128
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.06	108.58	31.04	112.93 MVA	107 MVA	2004Sum_CVEC_beforeB1	128

30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1	102.1	30.91	106.68 MVA	107 MVA	2004Sum_CVEC_afterB1	133
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.01	103.43	30.58	107.85 MVA	107 MVA	2004Sum_CVEC_beforeB1	133
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.01	104.06	30.02	108.3 MVA	107 MVA	2004Sum_CVEC_afterB1	147
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.01	104.06	29.83	108.25 MVA	107 MVA	2004Sum_CVEC_beforeB1	147
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.12	115.19	32.56	119.7 MVA	107 MVA	2004Sum_CVEC_afterB2_Renum	277
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.13	116.3	32.36	120.72 MVA	107 MVA	2004Sum_CVEC_beforeB2_Renum	277
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1	102.1	30.91	106.68 MVA	107 MVA	2004Sum_CVEC_afterB2_Renum	408
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.01	103.43	30.58	107.85 MVA	107 MVA	2004Sum_CVEC_beforeB2_Renum	408
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.02	104.34	31.33	108.94 MVA	107 MVA	2004Sum_CVEC_afterB2_Renum	450
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.03	105.86	30.98	110.3 MVA	107 MVA	2004Sum_CVEC_beforeB2_Renum	450
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.11	113.16	36.83	119 MVA	107 MVA	2004Sum_CVEC_afterB2_Renum	451
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.12	114.63	36.53	120.31 MVA	107 MVA	2004Sum_CVEC_beforeB2_Renum	451
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.11	113.16	36.83	119 MVA	107 MVA	2004Sum_CVEC_afterB2_Renum	475
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.12	114.63	36.53	120.31 MVA	107 MVA	2004Sum_CVEC_beforeB2_Renum	475
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	0.99	101.15	30.9	105.77 MVA	107 MVA	2004Sum_CVEC_afterB2_Renum	485
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1	102.68	30.54	107.12 MVA	107 MVA	2004Sum_CVEC_beforeB2_Renum	485
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	0.99	101.15	30.9	105.77 MVA	107 MVA	2004Sum_CVEC_afterB2_Renum	486
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1	102.68	30.54	107.12 MVA	107 MVA	2004Sum_CVEC_beforeB2_Renum	486
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	0.99	101.4	29.76	105.68 MVA	107 MVA	2004Sum_CVEC_afterB1	63
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.65	1.27	492.58	41.94	1235.07 AMPS	974.97 AMPS	2004Sum_CVEC_afterB2_Renum	490
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.09	0.74	280.13	5.52	720.63 AMPS	974.97 AMPS	2004Sum_CVEC_beforeB2_Renum	490
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	1.04	339.17	3.9	827.55 AMPS	795.74 AMPS	2004Sum_CVEC_afterB2_Renum	460
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	1.04	339.17	3.9	827.55 AMPS	795.74 AMPS	2004Sum_CVEC_afterB2_Renum	461
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	1.04	339.17	3.9	827.55 AMPS	795.74 AMPS	2004Sum_CVEC_afterB2_Renum	462
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	1.31	509.25	75.57	1264.59 AMPS	968.94 AMPS	2004Sum_CVEC_afterB2_Renum	490
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	0.99	393.63	10.73	961.92 AMPS	968.94 AMPS	2004Sum_CVEC_afterB2_Renum	495
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.43	1.08	412.87	-19.32	1049.85 AMPS	974.97 AMPS	2004Sum_CVEC_afterB2_Renum	490
No Violation																
30881	HENRIETA	230	30	34540	HENRITTA	70	30	2	0.96	1.03	115.39	65.62	132.74 MVA	129 MVA	2004Sum_CVEC_afterB2_Renum	453
30881	HENRIETA	230	30	34540	HENRITTA	70	30	2	0.96	1.03	115.39	65.61	132.74 MVA	129 MVA	2004Sum_CVEC_beforeB2_Renum	453
30881	HENRIETA	230	30	34540	HENRITTA	70	30	2	0.96	1.23	115.39	65.61	132.74 MVA	107.5 MVA	2004Sum_CVEC_afterB2_Renum	481
30881	HENRIETA	230	30	34540	HENRITTA	70	30	2	0.96	1.23	115.39	65.59	132.73 MVA	107.5 MVA	2004Sum_CVEC_beforeB2_Renum	481
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	1	0.75	1.13	-179.29	-34.73	182.62 MVA	161.3 MVA	2004Sum_CVEC_afterB2_Renum	292
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	1	0.76	1.13	-179.17	-34.76	182.51 MVA	161.3 MVA	2004Sum_CVEC_beforeB2_Renum	292
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.09	162.37	69.27	176.53 MVA	161.3 MVA	2004Sum_CVEC_afterB2_Renum	290
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.11	161.67	75.5	178.43 MVA	161.3 MVA	2004Sum_CVEC_beforeB2_Renum	290
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.22	187.58	56.78	195.99 MVA	161.3 MVA	2004Sum_CVEC_afterB2_Renum	291
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.21	187.46	56.75	195.86 MVA	161.3 MVA	2004Sum_CVEC_beforeB2_Renum	291
30945	KERN PP	230	30	34752	KERN PWR	115	30	3	0.87	1.03	135.72	43.45	142.51 MVA	137.7 MVA	2004Sum_CVEC_afterB1	180
30945	KERN PP	230	30	34752	KERN PWR	115	30	3	0.88	1.04	136.57	44.04	143.49 MVA	137.7 MVA	2004Sum_CVEC_beforeB1	180
30945	KERN PP	230	30	34752	KERN PWR	115	30	3a	0.76	1.08	122.55	42.59	129.74 MVA	120 MVA	2004Sum_CVEC_afterB1	180
30945	KERN PP	230	30	34752	KERN PWR	115	30	3a	0.77	1.09	123.32	43.12	130.64 MVA	120 MVA	2004Sum_CVEC_beforeB1	180
30945	KERN PP	230	30	34752	KERN PWR	115	30	3a	0.76	1.39	151.62	69.67	166.86 MVA	120 MVA	2004Sum_CVEC_afterB2_Renum	282
30945	KERN PP	230	30	34752	KERN PWR	115	30	3a	0.77	1.41	153.03	70.82	168.62 MVA	120 MVA	2004Sum_CVEC_beforeB2_Renum	282
30945	KERN PP	230	30	34752	KERN PWR	115	30	5	0.78	1.09	130.61	86.64	156.73 MVA	144 MVA	2004Sum_CVEC_afterB2_Renum	282

30945	KERN PP	230	30	34752	KERN PWR	115	30	5	0.79	1.1	131.83	87.69	158.33 MVA	144 MVA	2004Sum_CVEC_beforeB2_Renum	282
30970	MIDWAY	230	30	35003	MDWY 11M	14	30	11	0.81	1.66	1387.26	-125.42	1392.92 MVA	840 MVA	2004Sum_CVEC_afterB1	258
30970	MIDWAY	230	30	35003	MDWY 11M	14	30	11	0.77	1.56	1304.65	-149	1313.13 MVA	840 MVA	2004Sum_CVEC_beforeB1	258
No Violation																
31474	FRBSTNTF	115	30	31814	FORBSTWN	12	30	1	0.99	1	31.5	5.37	31.95 MVA	32 MVA	2004Sum_CVEC_beforeB2_Renum	510
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.02	24.5	10.42	26.62 MVA	26 MVA	2004Sum_CVEC_afterB2_Renum	508
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.02	24.5	10.04	26.48 MVA	26 MVA	2004Sum_CVEC_beforeB2_Renum	508
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.01	24.5	9.79	26.39 MVA	26 MVA	2004Sum_CVEC_afterB2_Renum	509
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.01	24.5	9.49	26.27 MVA	26 MVA	2004Sum_CVEC_beforeB2_Renum	509
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.02	24.5	9.89	26.42 MVA	26 MVA	2004Sum_CVEC_afterB2_Renum	510
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.01	24.5	9.8	26.39 MVA	26 MVA	2004Sum_CVEC_beforeB2_Renum	510
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.01	24.5	9.3	26.21 MVA	26 MVA	2004Sum_CVEC_afterB2_Renum	511
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.01	24.5	9.09	26.13 MVA	26 MVA	2004Sum_CVEC_beforeB2_Renum	511
32222	DTCH FL2	115	30	32502	DTCHFLT2	7	30	1	1	1.01	24.5	9.17	26.16 MVA	26 MVA	2004Sum_CVEC_afterB2_Renum	516
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.95	12.5 MVA	12.5 MVA	2004Sum_CVEC_afterB1	17
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.02	11	6.55	12.8 MVA	12.5 MVA	2004Sum_CVEC_afterB1	240
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1	11	5.92	12.49 MVA	12.5 MVA	2004Sum_CVEC_beforeB1	240
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	6.07	12.56 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	313
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.73	12.4 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	313
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	6.07	12.56 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	382
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.73	12.4 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	382
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	6.02	12.54 MVA	12.5 MVA	2004Sum_CVEC_afterB1	41
No Violation																

No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.77	12.42 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	490
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	6.07	12.56 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	506
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.6	12.34 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	506
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	6.07	12.56 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	507
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.6	12.34 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	507
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.03	11	6.66	12.86 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	508
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1.01	11	6.08	12.57 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	508
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.02	11	6.34	12.69 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	509
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1	11	5.83	12.45 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	509
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.01	11	6.08	12.57 MVA	12.5 MVA	2004Sum_CVEC_afterB1	51
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.02	11	6.54	12.8 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	510
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1.01	11	6.24	12.65 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	510
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	6	12.53 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	512
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.54	12.32 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	512
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.98	12.52 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	513
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.94	12.5 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	514
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.53	12.31 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	514
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	6.02	12.54 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	515
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.53	12.31 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	515
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.02	11	6.33	12.69 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	516
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.68	12.38 MVA	12.5 MVA	2004Sum_CVEC_beforeB2_Renum	516
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.97	12.52 MVA	12.5 MVA	2004Sum_CVEC_afterB2_Renum	518
No Violation																

33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.02	11	6.47	12.76 MVA	12.5 MVA	2004Sum_CVEC_afterB1	52
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1	11	5.93	12.5 MVA	12.5 MVA	2004Sum_CVEC_beforeB1	52
34104	ATWATER	115	30	34106	CASTLE	115	30	1	0.26	1.19	-167.05	30.88	877.35 AMPS	738 AMPS	2004Sum_CVEC_afterB2_Renum	262
34104	ATWATER	115	30	34106	CASTLE	115	30	1	0.22	1.19	-167.54	31.71	875.42 AMPS	738 AMPS	2004Sum_CVEC_beforeB2_Renum	262
34106	CASTLE	115	30	34138	EL CAPTN	115	30	1	0.26	1.19	-167.81	27.4	877.51 AMPS	739.01 AMPS	2004Sum_CVEC_afterB2_Renum	262
34106	CASTLE	115	30	34138	EL CAPTN	115	30	1	0.22	1.18	-168.3	28.24	875.58 AMPS	739.01 AMPS	2004Sum_CVEC_beforeB2_Renum	262
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.35	103.79	-33.11	538.44 AMPS	398.12 AMPS	2004Sum_CVEC_afterB2_Renum	312
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	1.06	81.16	-28.91	422.5 AMPS	398.12 AMPS	2004Sum_CVEC_beforeB2_Renum	312
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.35	103.79	-33.11	538.44 AMPS	398.12 AMPS	2004Sum_CVEC_afterB2_Renum	381
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	1.06	81.16	-28.91	422.5 AMPS	398.12 AMPS	2004Sum_CVEC_beforeB2_Renum	381
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.48	113.28	-34.91	589.68 AMPS	398.12 AMPS	2004Sum_CVEC_afterB1	51
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	1.19	90.57	-31.56	472.25 AMPS	398.12 AMPS	2004Sum_CVEC_beforeB1	51
34136	WILSON B	115	30	34138	EL CAPTN	115	30	1	0.84	1.75	257.37	20.22	1291.78 AMPS	739.01 AMPS	2004Sum_CVEC_afterB2_Renum	262
34136	WILSON B	115	30	34138	EL CAPTN	115	30	1	0.85	1.74	257.81	19.1	1287.34 AMPS	739.01 AMPS	2004Sum_CVEC_beforeB2_Renum	262
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.4	1.03	-54.8	28.36	61.7 MVA	60 MVA	2004Sum_CVEC_afterB1	92
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.37	1.03	-54.81	28.78	61.91 MVA	60 MVA	2004Sum_CVEC_beforeB1	92
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.59	-151.31	-71.31	814.99 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	265
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	1.57	-149.7	-68.78	803.38 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.12	-120.79	-7.02	573.55 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	312
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.95	-102.89	-5.51	487.95 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	312
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.03	-94.92	-4.35	450.22 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	354
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.92	-85.13	-6.16	404.83 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	354
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.08	-99.03	-5.94	471.02 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	355
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.96	-88.8	-4.89	421.96 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	355
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1	-92.22	-5.23	438.06 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	358

34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.9	-82.43	-6.95	392.56 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	358
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1	-92.12	-5.86	437.96 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	360
No Violation																
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1	-92.49	-4.6	438.91 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	361
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.9	-82.71	-6.36	393.48 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	361
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.12	-120.79	-7.02	573.55 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	381
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.95	-102.89	-5.51	487.95 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	381
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.02	-94.31	-5.11	447.79 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	458
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.92	-84.42	-6.76	402.55 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	458
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.04	-96.49	-3.65	455.74 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	460
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.94	-86.8	-5.15	411.58 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	460
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.04	-96.49	-3.65	455.74 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	461
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.94	-86.8	-5.15	411.58 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	461
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.04	-96.49	-3.65	455.74 AMPS	437.78 AMPS	2004Sum_CVEC_afterB2_Renum	462
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.94	-86.8	-5.15	411.58 AMPS	437.78 AMPS	2004Sum_CVEC_beforeB2_Renum	462
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1	-107.99	-4.86	511.17 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	490
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.94	-100.41	-3.41	482.07 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	490
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.02	-110.14	-2.22	521.47 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	492
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.86	-92.64	-4.86	438.81 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	492
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.15	-123.39	-7.43	589.28 AMPS	512.08 AMPS	2004Sum_CVEC_afterB1	51
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.98	-105.56	-5.53	502.1 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB1	51
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.46	137.69	68.88	750.1 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	265
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	1.44	136.07	66.35	738.25 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	0.99	107.17	4.7	508.49 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	312
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.83	89.27	3.21	423 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	312

34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	0.99	107.17	4.7	508.49 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	381
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.83	89.27	3.21	423 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	381
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.02	109.76	5.09	523.8 AMPS	512.08 AMPS	2004Sum_CVEC_afterB1	51
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.85	91.93	3.21	436.94 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB1	51
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.74	1.38	126.28	61.87	706.11 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	265
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.63	1.36	124.73	59.53	694.09 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.71	1.35	120.32	51.71	688.79 AMPS	512.08 AMPS	2004Sum_CVEC_afterB2_Renum	265
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.6	1.32	118.87	49.66	676.81 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34162	ORO LOMA	115	30	34200	ORO LOMA	70	30	2	0.69	2.03	122.71	79.66	146.3 MVA	72 MVA	2004Sum_CVEC_afterB2_Renum	265
34162	ORO LOMA	115	30	34200	ORO LOMA	70	30	2	0.51	2.03	124.33	77.35	146.43 MVA	72 MVA	2004Sum_CVEC_beforeB2_Renum	265
34200	ORO LOMA	70	30	34218	DOS PALS	70	30	1	0.78	2.02	57.79	12.2	570.04 AMPS	282.08 AMPS	2004Sum_CVEC_afterB2_Renum	265
34200	ORO LOMA	70	30	34218	DOS PALS	70	30	1	0.64	2	57.63	11.95	565.04 AMPS	282.08 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34200	ORO LOMA	70	30	34222	MRCYSPRS	70	30	1	0.3	2.08	83.77	43.22	909.73 AMPS	437.14 AMPS	2004Sum_CVEC_afterB2_Renum	265
34200	ORO LOMA	70	30	34222	MRCYSPRS	70	30	1	0.07	2.06	83.6	42.68	901.11 AMPS	437.14 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34200	ORO LOMA	70	30	34234	POSO J1	70	30	1	0.34	1.08	-31.5	-1.25	304.23 AMPS	282.08 AMPS	2004Sum_CVEC_afterB2_Renum	265
34200	ORO LOMA	70	30	34234	POSO J1	70	30	1	0.15	1.01	-29.54	-2.72	284.84 AMPS	282.08 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.48	1.3	-54.8	14.38	490.15 AMPS	377.75 AMPS	2004Sum_CVEC_afterB1	92
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.46	1.3	-54.81	14.82	489.87 AMPS	377.75 AMPS	2004Sum_CVEC_beforeB1	92
34206	CANAL	70	30	34216	SNTA RTA	70	30	1	0.15	1.31	-31.06	-0.44	369.9 AMPS	282.08 AMPS	2004Sum_CVEC_afterB2_Renum	265
34206	CANAL	70	30	34216	SNTA RTA	70	30	1	0.01	1.3	-31.04	-0.42	366.21 AMPS	282.08 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34216	SNTA RTA	70	30	34218	DOS PALS	70	30	1	0.47	1.62	-44.4	-4.05	481.32 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	265
34216	SNTA RTA	70	30	34218	DOS PALS	70	30	1	0.33	1.6	-44.32	-3.95	476.83 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.53	1.34	62.78	-0.89	508.33 AMPS	379.4 AMPS	2004Sum_CVEC_afterB1	92
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.52	1.34	62.78	-1.33	507.88 AMPS	379.4 AMPS	2004Sum_CVEC_beforeB1	92
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.49	1.62	-55.96	-0.15	453.1 AMPS	280.43 AMPS	2004Sum_CVEC_afterB1	92
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.48	1.61	-55.97	0.31	452.67 AMPS	280.43 AMPS	2004Sum_CVEC_beforeB1	92

34266	FIREBAGH	70	30	34267	TOMATAK	70	30	1	0.47	1	-44.55	-7.24	394.54 AMPS	395.9 AMPS	2004Sum_CVEC_afterB2_Renum	265
34266	FIREBAGH	70	30	34267	TOMATAK	70	30	1	0.34	0.95	-42.24	-8.19	374.84 AMPS	395.9 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34267	TOMATAK	70	30	34268	MENDOTA	70	30	1	0.62	1.16	-51.51	-13	459.62 AMPS	395.9 AMPS	2004Sum_CVEC_afterB2_Renum	265
34267	TOMATAK	70	30	34268	MENDOTA	70	30	1	0.51	1.11	-49.16	-13.88	440.56 AMPS	395.9 AMPS	2004Sum_CVEC_beforeB2_Renum	265
34366	SANGER	115	30	34488	SANGER	70	30	3	0.71	1.13	52.63	21.14	56.72 MVA	50 MVA	2004Sum_CVEC_afterB2_Renum	277
34366	SANGER	115	30	34488	SANGER	70	30	3	0.7	1.12	52.11	20.96	56.16 MVA	50 MVA	2004Sum_CVEC_beforeB2_Renum	277
34380	REEDLEY	115	30	34394	PIEDRA 1	115	30	1	0.41	1.01	-100.76	-10.36	517.88 AMPS	512.08 AMPS	2004Sum_CVEC_afterB1	128
34380	REEDLEY	115	30	34394	PIEDRA 1	115	30	1	0.42	1.01	-99.94	-10.6	514.95 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB1	128
34409	PNDLJ2	115	30	34412	HERNDON	115	30	1	0.6	1.05	159.89	41.36	777.04 AMPS	743.03 AMPS	2004Sum_CVEC_afterB2_Renum	411
34409	PNDLJ2	115	30	34412	HERNDON	115	30	1	0.6	1.05	159.9	41.47	778.81 AMPS	743.03 AMPS	2004Sum_CVEC_beforeB2_Renum	411
34409	PNDLJ2	115	30	34416	BULLARD	115	30	1	0.58	1.01	152.92	31.58	753.01 AMPS	743.03 AMPS	2004Sum_CVEC_afterB2_Renum	411
34409	PNDLJ2	115	30	34416	BULLARD	115	30	1	0.58	1.02	152.92	31.64	754.72 AMPS	743.03 AMPS	2004Sum_CVEC_beforeB2_Renum	411
34411	PNDLJ1	115	30	34412	HERNDON	115	30	1	0.6	1.05	159.89	41.36	777.04 AMPS	743.03 AMPS	2004Sum_CVEC_afterB2_Renum	410
34411	PNDLJ1	115	30	34412	HERNDON	115	30	1	0.6	1.05	159.9	41.47	778.81 AMPS	743.03 AMPS	2004Sum_CVEC_beforeB2_Renum	410
34411	PNDLJ1	115	30	34416	BULLARD	115	30	1	0.58	1.01	152.92	31.58	753.01 AMPS	743.03 AMPS	2004Sum_CVEC_afterB2_Renum	410
34411	PNDLJ1	115	30	34416	BULLARD	115	30	1	0.58	1.02	152.92	31.64	754.72 AMPS	743.03 AMPS	2004Sum_CVEC_beforeB2_Renum	410
34464	COPPRMNE	70	30	34478	TVY VLLY	70	30	1	0.11	1.01	-28.81	22.59	301.22 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	313
No Violation																
34464	COPPRMNE	70	30	34478	TVY VLLY	70	30	1	0.11	1.01	-28.81	22.59	301.22 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	382
No Violation																
34464	COPPRMNE	70	30	34478	TVY VLLY	70	30	1	0.11	1.17	-32.42	26.85	349.04 AMPS	297.75 AMPS	2004Sum_CVEC_afterB1	52
34464	COPPRMNE	70	30	34478	TVY VLLY	70	30	1	0.09	0.81	-23.11	18.42	240.88 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB1	52
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.01	49.26	-6.31	381.74 AMPS	377.75 AMPS	2004Sum_CVEC_afterB1	2
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.01	49.28	-0.34	380.41 AMPS	377.75 AMPS	2004Sum_CVEC_afterB1	257

No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.01	49.26	-6.31	381.74 AMPS	377.75 AMPS	2004Sum_CVEC_afterB2_Renum	310
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.01	49.26	-6.31	381.74 AMPS	377.75 AMPS	2004Sum_CVEC_afterB2_Renum	379
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.04	50.72	-7.02	393.7 AMPS	377.75 AMPS	2004Sum_CVEC_afterB1	47
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	0.99	41.33	-5.51	320.38 AMPS	324.97 AMPS	2004Sum_CVEC_afterB2_Renum	482
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.04	43.37	-7.15	337.38 AMPS	324.97 AMPS	2004Sum_CVEC_afterB2_Renum	484
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1	48.73	-6.79	378.58 AMPS	377.75 AMPS	2004Sum_CVEC_afterB2_Renum	499
No Violation																
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.2	1.13	-37.83	17.02	337.32 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	313
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.15	0.78	-26.11	11.87	231.16 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB2_Renum	313
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.2	1.13	-37.83	17.02	337.32 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	382
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.15	0.78	-26.11	11.87	231.16 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB2_Renum	382
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.2	1.29	-42.76	19.55	385.39 AMPS	297.75 AMPS	2004Sum_CVEC_afterB1	52
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.15	0.93	-30.76	14.65	276.07 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB1	52
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	0.99	49.1	10.47	392.23 AMPS	395.9 AMPS	2004Sum_CVEC_afterB1	128
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	0.99	48.66	10.82	390.15 AMPS	395.9 AMPS	2004Sum_CVEC_beforeB1	128
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	1.45	71.08	16.67	575.07 AMPS	395.9 AMPS	2004Sum_CVEC_afterB2_Renum	277
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	1.44	70	17.04	568.32 AMPS	395.9 AMPS	2004Sum_CVEC_beforeB2_Renum	277
34490	PARLIER	70	30	34492	REEDLEY	70	30	1	0.32	1.2	56.77	8.34	477.88 AMPS	398.37 AMPS	2004Sum_CVEC_afterB2_Renum	277
34490	PARLIER	70	30	34492	REEDLEY	70	30	1	0.32	1.18	55.75	8.85	470.92 AMPS	398.37 AMPS	2004Sum_CVEC_beforeB2_Renum	277

34540	HENRITTA	70	30	34542	JCBSCRNR	70	30	1	0.42	1.03	42.88	13.76	355.74 AMPS	346.41 AMPS	2004Sum_CVEC_afterB2_Renum	481
34540	HENRITTA	70	30	34542	JCBSCRNR	70	30	1	0.42	1.03	42.88	13.76	355.64 AMPS	346.41 AMPS	2004Sum_CVEC_beforeB2_Renum	481
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.81	19.89 MVA	14 MVA	2004Sum_CVEC_afterB1	100
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.47	19.57 MVA	14 MVA	2004Sum_CVEC_afterB1	104
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.46	19.56 MVA	14 MVA	2004Sum_CVEC_afterB1	141
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.59	19.68 MVA	14 MVA	2004Sum_CVEC_afterB1	156
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB1	158
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB1	163
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.7	19.79 MVA	14 MVA	2004Sum_CVEC_afterB1	164
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB1	165
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.42	19.52 MVA	14 MVA	2004Sum_CVEC_afterB1	171
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.5	19.6 MVA	14 MVA	2004Sum_CVEC_afterB1	174
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.68	19.77 MVA	14 MVA	2004Sum_CVEC_afterB1	180
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.44	19.54 MVA	14 MVA	2004Sum_CVEC_afterB1	186
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.57	19.67 MVA	14 MVA	2004Sum_CVEC_afterB1	188
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.61	19.71 MVA	14 MVA	2004Sum_CVEC_afterB1	191
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.57	19.66 MVA	14 MVA	2004Sum_CVEC_afterB1	192
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.48	19.58 MVA	14 MVA	2004Sum_CVEC_afterB1	193
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.62	19.71 MVA	14 MVA	2004Sum_CVEC_afterB1	20
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.74	19.82 MVA	14 MVA	2004Sum_CVEC_afterB1	211
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB1	249
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.46	19.56 MVA	14 MVA	2004Sum_CVEC_afterB1	255
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.74	19.83 MVA	14 MVA	2004Sum_CVEC_afterB1	26
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.45	19.55 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	269
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.76	19.84 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	272
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	279
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.46	19.56 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	282

No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.59	19.68 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	287
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterB1	29
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.44	19.54 MVA	14 MVA	2004Sum_CVEC_afterB1	3
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	307
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB1	31
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	312
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	313
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.65	19.74 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	314
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.81	19.89 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	323
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.76	19.84 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	325
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.47	19.57 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	329
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	340
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.55	19.65 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	354
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.65	19.73 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	361
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterB1	37
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	381
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	382
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.8	19.89 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	383
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.8	19.89 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	384
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	385
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	386
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	387
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.84	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	388
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.73	19.81 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	390
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.64	19.73 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	391
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.42	19.52 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	401
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	404
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.42	19.53 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	417
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.74	19.83 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	421
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	424
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.52	19.61 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	429
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.59	19.68 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	430
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	433
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	435
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	438
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	439
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	442
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	443

No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	444
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.45	19.55 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	457
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	460
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	461
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	462
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.81	19.89 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	463
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.62	19.71 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	464
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.62	19.71 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	465
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.5	19.6 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	466
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.51	19.6 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	467
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.44	19.54 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	468
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.84	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	471
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	472
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.41	19.51 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	478
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.45	19.55 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	479
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.84	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	484
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.57	19.66 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	487
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.57	19.66 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	488
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.57	19.66 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	489
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.84	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	490
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	491
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	493
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	494
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.84	19.92 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	495
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.5	19.6 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	498
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.65	19.74 MVA	14 MVA	2004Sum_CVEC_afterB1	5
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.53	19.63 MVA	14 MVA	2004Sum_CVEC_afterB2_Renum	505
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.8	19.89 MVA	14 MVA	2004Sum_CVEC_afterB1	53
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.8	19.89 MVA	14 MVA	2004Sum_CVEC_afterB1	54
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB1	58
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.73	19.81 MVA	14 MVA	2004Sum_CVEC_afterB1	61
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.64	19.73 MVA	14 MVA	2004Sum_CVEC_afterB1	62
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.74	19.82 MVA	14 MVA	2004Sum_CVEC_afterB1	67
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterB1	7
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterB1	70
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.47	19.57 MVA	14 MVA	2004Sum_CVEC_afterB1	74
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.66	19.75 MVA	14 MVA	2004Sum_CVEC_afterB1	78
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.42	19.52 MVA	14 MVA	2004Sum_CVEC_afterB1	9

No Violation																
34732	COLUMBUS	115	30	34734	BEAR TAP	115	30	1	0.73	1.32	-129.24	-40.34	675.23 AMPS	512.08 AMPS	2004Sum_CVEC_afterB1	178
34732	COLUMBUS	115	30	34734	BEAR TAP	115	30	1	0.73	1.32	-129.24	-40.33	674.64 AMPS	512.08 AMPS	2004Sum_CVEC_beforeB1	178
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.43	16.49	427.05 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	2
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-86.88	16.4	424.31 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	202
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.2	-92.28	16.77	450.3 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	247
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.09	-82.74	18.17	409.3 AMPS	376.53 AMPS	2004Sum_CVEC_afterB1	258
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.47	-111.96	24.69	554.46 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	258
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-86.86	16.45	424.33 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	26
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.29	16.49	426.45 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	309
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.43	16.49	427.05 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	310
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.43	16.49	427.05 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	379
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.1	-85.17	14.78	415.19 AMPS	376.53 AMPS	2004Sum_CVEC_afterB2_Renum	388
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.58	-121.72	22.45	595.62 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	388
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.22	-94.3	17.78	460.88 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	392
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-86.86	16.45	424.33 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	421

No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.28	16.48	426.39 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	44
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.03	-69.01	12.21	336.18 AMPS	326.33 AMPS	2004Sum_CVEC_afterB2_Renum	460
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.49	-99.32	20	486.37 AMPS	326.33 AMPS	2004Sum_CVEC_beforeB2_Renum	460
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.03	-69.01	12.21	336.18 AMPS	326.33 AMPS	2004Sum_CVEC_afterB2_Renum	461
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.49	-99.32	20	486.37 AMPS	326.33 AMPS	2004Sum_CVEC_beforeB2_Renum	461
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.03	-69.01	12.21	336.18 AMPS	326.33 AMPS	2004Sum_CVEC_afterB2_Renum	462
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.49	-99.32	20	486.37 AMPS	326.33 AMPS	2004Sum_CVEC_beforeB2_Renum	462
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.15	-88.83	16.59	433.86 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	47
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.24	16.53	426.24 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	48
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.24	16.53	426.24 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	49
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.37	-105.46	17.7	514.47 AMPS	376.53 AMPS	2004Sum_CVEC_afterB2_Renum	490
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.86	-142.95	22.29	698.83 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	490
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.23	-95.05	15.97	463.32 AMPS	376.53 AMPS	2004Sum_CVEC_afterB2_Renum	495
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.71	-132.05	22.42	645.64 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	495
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-86.88	16.43	424.62 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	508
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.13	-87.06	16.46	425.65 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB2_Renum	510
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.22	-94.3	17.78	460.88 AMPS	376.53 AMPS	2004Sum_CVEC_beforeB1	64
34752	KERN PWR	115	30	34768	KERN 1 M	115	30	1	0.67	0.99	71.44	18.99	73.92 MVA	75 MVA	2004Sum_CVEC_afterB2_Renum	286
34752	KERN PWR	115	30	34768	KERN 1 M	115	30	1	0.68	0.99	72.02	18.63	74.39 MVA	75 MVA	2004Sum_CVEC_beforeB2_Renum	286

34768	KERN 1 M	115	30	34914	KERN PW1	70	30	1	0.69	1.01	71.35	18.38	73.68 MVA	72.7 MVA	2004Sum_CVEC_afterB2_Renum	286
34768	KERN 1 M	115	30	34914	KERN PW1	70	30	1	0.7	1.02	71.93	18.02	74.15 MVA	72.7 MVA	2004Sum_CVEC_beforeB2_Renum	286
34776	TAFT	115	30	34860	TAFT A	70	30	2	0.92	1.05	75.46	21.42	78.44 MVA	74.5 MVA	2004Sum_CVEC_afterB2_Renum	285
34776	TAFT	115	30	34860	TAFT A	70	30	2	0.93	1.06	76.3	21.39	79.24 MVA	74.5 MVA	2004Sum_CVEC_beforeB2_Renum	285
34860	TAFT A	70	30	34861	TAFT A_J	70	30	1	0.68	1.04	47.52	17.83	396.28 AMPS	379.4 AMPS	2004Sum_CVEC_afterB2_Renum	285
34860	TAFT A	70	30	34861	TAFT A_J	70	30	1	0.67	1.04	46.86	18.37	392.7 AMPS	379.4 AMPS	2004Sum_CVEC_beforeB2_Renum	285
34861	TAFT A_J	70	30	34863	MOCO_JCT	70	30	1	0.85	1.25	57.4	17.32	473.63 AMPS	379.4 AMPS	2004Sum_CVEC_afterB2_Renum	285
34861	TAFT A_J	70	30	34863	MOCO_JCT	70	30	1	0.83	1.24	56.75	17.51	468.83 AMPS	379.4 AMPS	2004Sum_CVEC_beforeB2_Renum	285
34862	MARICOPA	70	30	34864	GARDNER	70	30	1	0.55	1.11	40.09	8.24	330.38 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	285
34862	MARICOPA	70	30	34864	GARDNER	70	30	1	0.52	1.09	39.45	8.47	325.48 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB2_Renum	285
34864	GARDNER	70	30	34866	BSCL_PLD	70	30	1	0.53	1.1	39.69	7.93	326.84 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	285
34864	GARDNER	70	30	34866	BSCL_PLD	70	30	1	0.5	1.08	39.05	8.16	321.94 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB2_Renum	285
34866	BSCL_PLD	70	30	34868	COPUS	70	30	1	0.49	1.06	36.88	5.63	314.64 AMPS	297.75 AMPS	2004Sum_CVEC_afterB2_Renum	285
34866	BSCL_PLD	70	30	34868	COPUS	70	30	1	0.46	1.04	36.28	5.92	309.75 AMPS	297.75 AMPS	2004Sum_CVEC_beforeB2_Renum	285
34886	MAGNDN J	70	30	34892	LIGHTNER	70	30	1	0.94	1.03	47.22	4.19	392.64 AMPS	379.4 AMPS	2004Sum_CVEC_afterB1	242
34886	MAGNDN J	70	30	34892	LIGHTNER	70	30	1	0.94	1.03	47.06	3.89	390.97 AMPS	379.4 AMPS	2004Sum_CVEC_beforeB1	242
34886	MAGNDN J	70	30	34892	LIGHTNER	70	30	1	0.94	1	45.57	3.7	378.53 AMPS	379.4 AMPS	2004Sum_CVEC_afterB1	244
34886	MAGNDN J	70	30	34892	LIGHTNER	70	30	1	0.94	0.99	45.41	3.4	376.9 AMPS	379.4 AMPS	2004Sum_CVEC_beforeB1	244
34890	WEEDPTCH	70	30	34892	LIGHTNER	70	30	1	0.94	1.04	-45.49	-1.03	392.77 AMPS	379.4 AMPS	2004Sum_CVEC_afterB1	242
34890	WEEDPTCH	70	30	34892	LIGHTNER	70	30	1	0.94	1.03	-45.34	-0.76	391.09 AMPS	379.4 AMPS	2004Sum_CVEC_beforeB1	242
34890	WEEDPTCH	70	30	34892	LIGHTNER	70	30	1	0.94	1	-43.97	-0.78	378.64 AMPS	379.4 AMPS	2004Sum_CVEC_afterB1	244
34890	WEEDPTCH	70	30	34892	LIGHTNER	70	30	1	0.94	0.99	-43.82	-0.51	377 AMPS	379.4 AMPS	2004Sum_CVEC_beforeB1	244
34908	CARNATIO	70	30	34918	KERN PW2	70	30	1	0.4	1.03	-49.83	-17.29	450.57 AMPS	437.14 AMPS	2004Sum_CVEC_afterB2_Renum	285
34908	CARNATIO	70	30	34918	KERN PW2	70	30	1	0.4	1.04	-50.37	-16.94	453.46 AMPS	437.14 AMPS	2004Sum_CVEC_beforeB2_Renum	285
35616	SJ B E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.63	-0.27	874.51 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	119

35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.53	4.92	776.03 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	119
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.08	-0.07	871.47 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	120
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.94	5.11	772.99 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	120
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.16	-0.11	871.92 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	148
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.03	5.07	773.43 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	148
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.97	-0.01	870.83 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	156
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.13	-0.1	871.77 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	169
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.95	5.06	773.11 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	169
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.1	177.82	-0.63	881.02 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	17
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.78	-1.08	780.28 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	17
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.22	-0.09	872.21 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	182
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.04	5.06	773.55 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	182
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.99	-0.02	870.97 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	224
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.82	5.14	772.39 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	224
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.2	-0.13	872.15 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	24
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.08	5.04	773.7 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	24
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.2	-0.23	872.33 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	240
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.86	0.01	870.32 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	242
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.18	-0.14	872.05 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	244
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.99	5.03	773.3 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	244
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.38	-0.21	872.97 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	273
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.28	4.99	774.74 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	273

35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.79	-0.27	875.21 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	279
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.65	4.92	776.58 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	279
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.9	-0.06	870.29 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	300
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.89	-0.07	870.29 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	301
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.74	5.15	772 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	301
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.01	-0.05	871.09 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	317
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.85	5.1	772.57 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	317
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.56	-0.2	874.08 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	35
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.38	4.92	775.31 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	35
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.42	-0.15	873.26 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	352
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.27	5.05	774.65 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	352
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.44	-0.16	873.43 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	36
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.26	4.94	774.68 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	36
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.2	-0.12	872.17 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	389
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.04	5	773.59 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	389
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.01	-0.05	871.09 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	393
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.85	5.1	772.57 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	393
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.61	-0.29	874.21 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	398
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.52	4.91	776.01 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	398
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.05	-0.13	871.17 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	399
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.94	5.11	772.99 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	399
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.11	179.2	-1.66	887.67 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	41
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.3	-1.19	777.75 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	41
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.16	-0.11	871.92 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	423
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.03	5.07	773.43 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	423

35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.97	-0.01	870.83 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	430
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.19	-0.1	872.1 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	456
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.08	5.08	773.73 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	456
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.67	-0.51	874.6 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	50
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.01	5.03	773.4 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	50
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	175.43	-0.99	872.25 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	508
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.26	4.14	772.37 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB2_Renum	508
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.85	-0.1	870.48 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	51
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.07	-0.52	872.43 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	513
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.52	-0.76	875.11 AMPS	803.27 AMPS	2004Sum_CVEC_afterB2_Renum	515
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.56	-0.56	874.44 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	52
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.09	4.94	773.91 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	52
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.99	-0.03	871 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	57
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.84	5.15	772.51 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	57
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.2	-0.12	872.17 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	60
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.04	5	773.59 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	60
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.01	-0.05	871.09 AMPS	803.27 AMPS	2004Sum_CVEC_afterB1	90
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.85	5.1	772.57 AMPS	803.27 AMPS	2004Sum_CVEC_beforeB1	90
No Violation																	
36962	MOCCASIN		115	30	36990	MCSN CK1	11	30	1	0.99	0.99	49	8.09	49.66 MVA	50 MVA	2004Sum_CVEC_beforeB2_Renum	510
36962	MOCCASIN		115	30	36990	MCSN CK1	11	30	1	0.99	1	49	9.2	49.86 MVA	50 MVA	2004Sum_CVEC_afterB2_Renum	516

No Violation																
No Violation																
36962	MOCCASIN	115	30	36992	MCSN CK2	11	30	1	0.99	0.99	49	8.09	49.66 MVA	50 MVA	2004Sum_CVEC_beforeB2_Renum	510
36962	MOCCASIN	115	30	36992	MCSN CK2	11	30	1	0.99	1	49	9.2	49.86 MVA	50 MVA	2004Sum_CVEC_afterB2_Renum	516
No Violation																
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	38.58	129.86 MVA	130 MVA	2004Sum_CVEC_afterB2_Renum	506
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	37.38	129.51 MVA	130 MVA	2004Sum_CVEC_beforeB2_Renum	506
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	38.6	129.87 MVA	130 MVA	2004Sum_CVEC_afterB2_Renum	507
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	37.4	129.52 MVA	130 MVA	2004Sum_CVEC_beforeB2_Renum	507
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	41	130.6 MVA	130 MVA	2004Sum_CVEC_afterB2_Renum	508
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	39.53	130.15 MVA	130 MVA	2004Sum_CVEC_beforeB2_Renum	508
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	38.84	129.94 MVA	130 MVA	2004Sum_CVEC_afterB2_Renum	509
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	37.6	129.58 MVA	130 MVA	2004Sum_CVEC_beforeB2_Renum	509
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	41.12	130.64 MVA	130 MVA	2004Sum_CVEC_afterB2_Renum	510
37590	TRINTY12	14	30	37640	TRINITY	230	30	1	0.99	1	124	40.71	130.51 MVA	130 MVA	2004Sum_CVEC_beforeB2_Renum	510

APPENDIX C1 – SUMMER PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON BRANCH COMPARISON FILES FOR ISO CATEGORY C

Hyperlink to: Normal B_cases C_cases

C_cases

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Rate1 Base	Rate2 Out	MW	MVAR	Flow	Rating	File	Out#
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.24	1.27	1172.08	197.18	1188.55 MVA	933 MVA	2004Sum_CVEC_afterC	109
No Violation																
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.24	1.42	1310.92	212.53	1328.04 MVA	933 MVA	2004Sum_CVEC_afterC	21
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.28	1.56	1443.51	219.12	1460.04 MVA	933 MVA	2004Sum_CVEC_beforeC	21
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	1	0.89	1.02	149.36	30.53	152.45 MVA	150 MVA	2004Sum_CVEC_afterC	65
No Violation																
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	2	0.89	1.02	74.69	15.27	76.24 MVA	75 MVA	2004Sum_CVEC_afterC	65
No Violation																
30515	WARNERVL	230	30	36964	WRNRVLLE	115	30	3	0.89	1.02	74.69	15.27	76.24 MVA	75 MVA	2004Sum_CVEC_afterC	65
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.44	109.95	158.7 MVA	146.2 MVA	2004Sum_CVEC_afterC	10
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	114.79	110.54	159.36 MVA	146.2 MVA	2004Sum_CVEC_beforeC	10
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	120.13	108.96	162.18 MVA	146.2 MVA	2004Sum_CVEC_afterC	105
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	125.51	110.29	167.08 MVA	146.2 MVA	2004Sum_CVEC_afterC	109
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	122.39	111.71	165.71 MVA	146.2 MVA	2004Sum_CVEC_beforeC	109
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	125.2	108.6	165.74 MVA	146.2 MVA	2004Sum_CVEC_afterC	12
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.15	129.91	107.09	168.36 MVA	146.2 MVA	2004Sum_CVEC_beforeC	12
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	117.16	112.05	162.11 MVA	146.2 MVA	2004Sum_CVEC_afterC	122
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	117.46	109.78	160.78 MVA	146.2 MVA	2004Sum_CVEC_beforeC	122
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	117.22	112.95	162.78 MVA	146.2 MVA	2004Sum_CVEC_afterC	123
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	117.47	111.13	161.71 MVA	146.2 MVA	2004Sum_CVEC_beforeC	123
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.21	126.63	122.7	176.32 MVA	146.2 MVA	2004Sum_CVEC_afterC	124
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.2	127.22	119.87	174.8 MVA	146.2 MVA	2004Sum_CVEC_beforeC	124

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	115.08	108.86	158.41 MVA	146.2 MVA	2004Sum_CVEC_afterC	13
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.24	146.11	108.02	181.7 MVA	146.2 MVA	2004Sum_CVEC_beforeC	13
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.36	145.05	136.8	199.38 MVA	146.2 MVA	2004Sum_CVEC_afterC	133
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.39	151.66	134.22	202.52 MVA	146.2 MVA	2004Sum_CVEC_beforeC	133
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	122.22	113.37	166.71 MVA	146.2 MVA	2004Sum_CVEC_beforeC	14
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.15	125.4	111.51	167.81 MVA	146.2 MVA	2004Sum_CVEC_afterC	141
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	123.81	109.77	165.47 MVA	146.2 MVA	2004Sum_CVEC_beforeC	141
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.15	126.07	110.99	167.96 MVA	146.2 MVA	2004Sum_CVEC_afterC	142
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.13	124.41	108.68	165.19 MVA	146.2 MVA	2004Sum_CVEC_beforeC	142
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	123.83	108.82	164.85 MVA	146.2 MVA	2004Sum_CVEC_afterC	145
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	122.06	106.79	162.19 MVA	146.2 MVA	2004Sum_CVEC_beforeC	145
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	119.51	115.1	165.92 MVA	146.2 MVA	2004Sum_CVEC_afterC	147
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	123.65	115.76	169.38 MVA	146.2 MVA	2004Sum_CVEC_beforeC	147
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	117.21	112.35	162.36 MVA	146.2 MVA	2004Sum_CVEC_beforeC	15
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.26	149.84	107.67	184.51 MVA	146.2 MVA	2004Sum_CVEC_afterC	16
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.24	145.32	108.03	181.08 MVA	146.2 MVA	2004Sum_CVEC_beforeC	16
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.22	139.7	110.12	177.88 MVA	146.2 MVA	2004Sum_CVEC_afterC	166
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	126.42	112.95	169.53 MVA	146.2 MVA	2004Sum_CVEC_beforeC	166
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	121.52	113.44	166.24 MVA	146.2 MVA	2004Sum_CVEC_beforeC	17
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	115.78	114.51	162.84 MVA	146.2 MVA	2004Sum_CVEC_afterC	178
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.15	122.3	114.8	167.74 MVA	146.2 MVA	2004Sum_CVEC_beforeC	178
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	120.78	108.96	162.67 MVA	146.2 MVA	2004Sum_CVEC_afterC	179
No Violation																

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.18	136.2	106.5	172.89 MVA	146.2 MVA	2004Sum_CVEC_afterC	18
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	116.66	112.42	162.01 MVA	146.2 MVA	2004Sum_CVEC_beforeC	18
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.29	111.98	161.44 MVA	146.2 MVA	2004Sum_CVEC_beforeC	180
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	119.33	108.97	161.6 MVA	146.2 MVA	2004Sum_CVEC_afterC	19
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.73	110.38	160.65 MVA	146.2 MVA	2004Sum_CVEC_beforeC	19
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.24	144.26	108.76	180.66 MVA	146.2 MVA	2004Sum_CVEC_afterC	21
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.19	140.63	102	173.72 MVA	146.2 MVA	2004Sum_CVEC_beforeC	21
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	120.69	110.5	163.63 MVA	146.2 MVA	2004Sum_CVEC_afterC	22
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	117.28	109.67	160.56 MVA	146.2 MVA	2004Sum_CVEC_afterC	23
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.23	144.7	107.2	180.08 MVA	146.2 MVA	2004Sum_CVEC_afterC	24
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.19	136.91	106.43	173.41 MVA	146.2 MVA	2004Sum_CVEC_beforeC	24
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	124.49	108.69	165.26 MVA	146.2 MVA	2004Sum_CVEC_afterC	25
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	126.31	108	166.19 MVA	146.2 MVA	2004Sum_CVEC_beforeC	25
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.67	109.61	158.63 MVA	146.2 MVA	2004Sum_CVEC_afterC	26
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.18	110.23	159.43 MVA	146.2 MVA	2004Sum_CVEC_beforeC	26
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	118.37	109.57	161.3 MVA	146.2 MVA	2004Sum_CVEC_afterC	27
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	119.84	107.94	161.28 MVA	146.2 MVA	2004Sum_CVEC_beforeC	27
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.43	169.33	123.39	209.52 MVA	146.2 MVA	2004Sum_CVEC_afterC	28
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.36	160.26	118	199.02 MVA	146.2 MVA	2004Sum_CVEC_beforeC	28
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.26	143.84	115.62	184.55 MVA	146.2 MVA	2004Sum_CVEC_afterC	29
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.28	149.71	112.72	187.4 MVA	146.2 MVA	2004Sum_CVEC_beforeC	29
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.2	134.65	112.23	175.29 MVA	146.2 MVA	2004Sum_CVEC_afterC	30
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.22	140.64	108.8	177.81 MVA	146.2 MVA	2004Sum_CVEC_beforeC	30

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.32	155.33	114.19	192.79 MVA	146.2 MVA	2004Sum_CVEC_afterC	31
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.25	146.07	110	182.86 MVA	146.2 MVA	2004Sum_CVEC_beforeC	31
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	122.91	110.12	165.03 MVA	146.2 MVA	2004Sum_CVEC_afterC	32
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	125.01	110.43	166.8 MVA	146.2 MVA	2004Sum_CVEC_beforeC	32
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.38	160.72	120.77	201.04 MVA	146.2 MVA	2004Sum_CVEC_afterC	33
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.31	151.82	115.96	191.04 MVA	146.2 MVA	2004Sum_CVEC_beforeC	33
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	125.17	110.28	166.82 MVA	146.2 MVA	2004Sum_CVEC_afterC	34
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	126.65	107.25	165.96 MVA	146.2 MVA	2004Sum_CVEC_beforeC	34
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.21	138.39	110.82	177.29 MVA	146.2 MVA	2004Sum_CVEC_afterC	35
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.19	136.63	108.32	174.36 MVA	146.2 MVA	2004Sum_CVEC_beforeC	35
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.19	132.09	112.41	173.45 MVA	146.2 MVA	2004Sum_CVEC_afterC	36
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.17	130.43	110.45	170.91 MVA	146.2 MVA	2004Sum_CVEC_beforeC	36
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.16	125.86	113.33	169.37 MVA	146.2 MVA	2004Sum_CVEC_afterC	37
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.15	126.1	110.9	167.93 MVA	146.2 MVA	2004Sum_CVEC_beforeC	37
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	123.92	110.66	166.13 MVA	146.2 MVA	2004Sum_CVEC_afterC	38
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	124.54	110.87	166.75 MVA	146.2 MVA	2004Sum_CVEC_beforeC	38
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	124.98	111.23	167.31 MVA	146.2 MVA	2004Sum_CVEC_afterC	39
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.15	125.62	111.43	167.92 MVA	146.2 MVA	2004Sum_CVEC_beforeC	39
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.14	121	114.9	166.86 MVA	146.2 MVA	2004Sum_CVEC_afterC	40
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.14	121.95	112.64	166.01 MVA	146.2 MVA	2004Sum_CVEC_beforeC	40
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	114.02	113.51	160.88 MVA	146.2 MVA	2004Sum_CVEC_afterC	41
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.13	119.85	113.9	165.34 MVA	146.2 MVA	2004Sum_CVEC_afterC	42
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	120.03	111.15	163.59 MVA	146.2 MVA	2004Sum_CVEC_beforeC	42
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	115.21	111.83	160.56 MVA	146.2 MVA	2004Sum_CVEC_afterC	46
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	115.98	112.26	161.41 MVA	146.2 MVA	2004Sum_CVEC_beforeC	46

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	117.1	113.96	163.4 MVA	146.2 MVA	2004Sum_CVEC_afterC	47
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.12	118.48	113.26	163.91 MVA	146.2 MVA	2004Sum_CVEC_beforeC	47
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.18	130.29	112.1	171.88 MVA	146.2 MVA	2004Sum_CVEC_afterC	48
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	130.33	109.02	169.91 MVA	146.2 MVA	2004Sum_CVEC_beforeC	48
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	121.9	107.18	162.32 MVA	146.2 MVA	2004Sum_CVEC_afterC	49
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	120.9	107.91	162.06 MVA	146.2 MVA	2004Sum_CVEC_beforeC	49
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.17	129.06	112.42	171.16 MVA	146.2 MVA	2004Sum_CVEC_afterC	50
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	129.16	109.99	169.64 MVA	146.2 MVA	2004Sum_CVEC_beforeC	50
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.17	129.08	113.25	171.72 MVA	146.2 MVA	2004Sum_CVEC_afterC	51
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	129.17	110.58	170.04 MVA	146.2 MVA	2004Sum_CVEC_beforeC	51
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.15	125.28	111.55	167.75 MVA	146.2 MVA	2004Sum_CVEC_afterC	52
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	128.58	109.58	168.94 MVA	146.2 MVA	2004Sum_CVEC_beforeC	52
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	119.59	107.25	160.64 MVA	146.2 MVA	2004Sum_CVEC_afterC	59
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.94	107.57	163.36 MVA	146.2 MVA	2004Sum_CVEC_afterC	60
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.29	150.62	114.42	189.15 MVA	146.2 MVA	2004Sum_CVEC_afterC	62
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.22	140.72	110.66	179.02 MVA	146.2 MVA	2004Sum_CVEC_beforeC	62
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.31	152.33	115.18	190.98 MVA	146.2 MVA	2004Sum_CVEC_afterC	63
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.24	143.19	111.75	181.64 MVA	146.2 MVA	2004Sum_CVEC_beforeC	63
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	116.33	109.16	159.52 MVA	146.2 MVA	2004Sum_CVEC_beforeC	64
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	117.24	109.04	160.11 MVA	146.2 MVA	2004Sum_CVEC_beforeC	65
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.58	166.03	159.79	230.43 MVA	146.2 MVA	2004Sum_CVEC_afterC	67
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.56	166.71	155.49	227.97 MVA	146.2 MVA	2004Sum_CVEC_beforeC	67

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	119.59	107.24	160.63 MVA	146.2 MVA	2004Sum_CVEC_afterC	68
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	149.2	66.81	163.48 MVA	146.2 MVA	2004Sum_CVEC_afterC	69
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	144.68	67.17	159.51 MVA	146.2 MVA	2004Sum_CVEC_beforeC	69
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.1	118.79	109.09	161.29 MVA	146.2 MVA	2004Sum_CVEC_afterC	71
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.11	119.15	109.67	161.94 MVA	146.2 MVA	2004Sum_CVEC_afterC	72
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	121.31	105.73	160.92 MVA	146.2 MVA	2004Sum_CVEC_beforeC	72
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.12	122.39	109.02	163.9 MVA	146.2 MVA	2004Sum_CVEC_afterC	73
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.11	118.51	110.08	161.75 MVA	146.2 MVA	2004Sum_CVEC_beforeC	73
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.15	121.23	116.85	168.38 MVA	146.2 MVA	2004Sum_CVEC_afterC	74
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.16	122.91	117.26	169.88 MVA	146.2 MVA	2004Sum_CVEC_beforeC	74
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.54	110.67	159.27 MVA	146.2 MVA	2004Sum_CVEC_afterC	76
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	117.12	110.71	161.16 MVA	146.2 MVA	2004Sum_CVEC_beforeC	76
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	115.03	109.8	159.02 MVA	146.2 MVA	2004Sum_CVEC_afterC	79
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.73	110.22	159.82 MVA	146.2 MVA	2004Sum_CVEC_beforeC	79
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.99	109.99	159.12 MVA	146.2 MVA	2004Sum_CVEC_afterC	80
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.78	110.26	159.88 MVA	146.2 MVA	2004Sum_CVEC_beforeC	80
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	113.94	110.08	158.43 MVA	146.2 MVA	2004Sum_CVEC_afterC	81
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.08	113.89	110.15	158.45 MVA	146.2 MVA	2004Sum_CVEC_afterC	83
No Violation																
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.09	110.31	158.69 MVA	146.2 MVA	2004Sum_CVEC_afterC	89
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	114.94	110.42	159.39 MVA	146.2 MVA	2004Sum_CVEC_beforeC	89
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.94	109.91	159.03 MVA	146.2 MVA	2004Sum_CVEC_afterC	96
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	115.09	110.66	159.66 MVA	146.2 MVA	2004Sum_CVEC_beforeC	96

30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	116.3	109.71	159.88 MVA	146.2 MVA	2004Sum_CVEC_afterC	97
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.1	116.27	110.35	160.3 MVA	146.2 MVA	2004Sum_CVEC_beforeC	97
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.29	1.09	114.34	109.96	158.63 MVA	146.2 MVA	2004Sum_CVEC_afterC	98
30790	PANOCHE	230	30	30792	PNCHE 2M	230	30	2	1.3	1.09	114.82	110.52	159.36 MVA	146.2 MVA	2004Sum_CVEC_beforeC	98
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.08	-369.65	54.78	921.38 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	105
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	0.99	-339.15	55.79	844.21 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	13
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.68	-566.01	115.01	1431.56 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	15
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.46	-494.06	83.32	1241.27 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	18
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.02	-348.13	53.61	867.87 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	19
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.02	-347.43	51.46	865.89 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	23
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	1.28	-433.92	51.08	1091.26 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	69
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	0.99	-337.51	50.64	840.75 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	71
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.01	0.99	-339.17	53.14	845.46 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	73
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	0.86	1.51	-580.06	102.29	1458.7 AMPS	968.94 AMPS	2004Sum_CVEC_afterC	17
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	0.86	1.17	-455.58	52.96	1136.26 AMPS	968.94 AMPS	2004Sum_CVEC_afterC	18
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	2	0.86	1.06	-412.62	61.98	1029.58 AMPS	968.94 AMPS	2004Sum_CVEC_afterC	70
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.97	-100.91	152.22 MVA	146.2 MVA	2004Sum_CVEC_afterC	10
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.32	-101.43	152.83 MVA	146.2 MVA	2004Sum_CVEC_beforeC	10
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-119.65	-99.5	155.61 MVA	146.2 MVA	2004Sum_CVEC_afterC	105
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.1	-125.01	-100.36	160.31 MVA	146.2 MVA	2004Sum_CVEC_afterC	109
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-121.89	-101.9	158.87 MVA	146.2 MVA	2004Sum_CVEC_beforeC	109
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-124.7	-98.85	159.13 MVA	146.2 MVA	2004Sum_CVEC_afterC	12
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-129.4	-96.93	161.68 MVA	146.2 MVA	2004Sum_CVEC_beforeC	12
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-116.68	-102.62	155.38 MVA	146.2 MVA	2004Sum_CVEC_afterC	122
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-116.99	-100.51	154.24 MVA	146.2 MVA	2004Sum_CVEC_beforeC	122
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-116.74	-103.44	155.97 MVA	146.2 MVA	2004Sum_CVEC_afterC	123
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-116.99	-101.76	155.05 MVA	146.2 MVA	2004Sum_CVEC_beforeC	123
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.15	-126.08	-111.52	168.32 MVA	146.2 MVA	2004Sum_CVEC_afterC	124
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.14	-126.68	-108.88	167.04 MVA	146.2 MVA	2004Sum_CVEC_beforeC	124
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.61	-99.89	152.04 MVA	146.2 MVA	2004Sum_CVEC_afterC	13
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.19	-145.53	-96.25	174.49 MVA	146.2 MVA	2004Sum_CVEC_beforeC	13
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.3	-144.39	-122.56	189.39 MVA	146.2 MVA	2004Sum_CVEC_afterC	133
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.32	-150.98	-119.51	192.56 MVA	146.2 MVA	2004Sum_CVEC_beforeC	133
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-121.72	-103.48	159.77 MVA	146.2 MVA	2004Sum_CVEC_beforeC	14
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.1	-124.9	-101.41	160.88 MVA	146.2 MVA	2004Sum_CVEC_afterC	141
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-123.32	-99.97	158.75 MVA	146.2 MVA	2004Sum_CVEC_beforeC	141
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.1	-125.56	-100.89	161.07 MVA	146.2 MVA	2004Sum_CVEC_afterC	142
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.08	-123.91	-98.89	158.54 MVA	146.2 MVA	2004Sum_CVEC_beforeC	142

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-123.34	-99.08	158.2 MVA	146.2 MVA	2004Sum_CVEC_afterC	145
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-121.58	-97.36	155.76 MVA	146.2 MVA	2004Sum_CVEC_beforeC	145
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-119.01	-105.25	158.87 MVA	146.2 MVA	2004Sum_CVEC_afterC	147
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-123.13	-105.49	162.14 MVA	146.2 MVA	2004Sum_CVEC_beforeC	147
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-116.73	-102.96	155.65 MVA	146.2 MVA	2004Sum_CVEC_beforeC	15
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.21	-149.25	-95.55	177.22 MVA	146.2 MVA	2004Sum_CVEC_afterC	16
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.19	-144.76	-96.34	173.89 MVA	146.2 MVA	2004Sum_CVEC_beforeC	16
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.17	-139.14	-98.79	170.65 MVA	146.2 MVA	2004Sum_CVEC_afterC	166
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-125.91	-102.64	162.45 MVA	146.2 MVA	2004Sum_CVEC_beforeC	166
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-121.02	-103.6	159.31 MVA	146.2 MVA	2004Sum_CVEC_beforeC	17
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-115.29	-105.02	155.95 MVA	146.2 MVA	2004Sum_CVEC_afterC	178
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.1	-121.79	-104.72	160.62 MVA	146.2 MVA	2004Sum_CVEC_beforeC	178
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-120.3	-99.47	156.1 MVA	146.2 MVA	2004Sum_CVEC_afterC	179
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.14	-135.67	-95.68	166.01 MVA	146.2 MVA	2004Sum_CVEC_afterC	18
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-116.18	-103.07	155.31 MVA	146.2 MVA	2004Sum_CVEC_beforeC	18
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.81	-102.63	154.74 MVA	146.2 MVA	2004Sum_CVEC_beforeC	180
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-118.85	-99.59	155.06 MVA	146.2 MVA	2004Sum_CVEC_afterC	19
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-116.25	-101.15	154.09 MVA	146.2 MVA	2004Sum_CVEC_beforeC	19
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.19	-143.7	-97.19	173.48 MVA	146.2 MVA	2004Sum_CVEC_afterC	21
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.14	-140.08	-90.98	167.04 MVA	146.2 MVA	2004Sum_CVEC_beforeC	21
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-120.2	-100.96	156.98 MVA	146.2 MVA	2004Sum_CVEC_afterC	22
No Violation																

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-116.8	-100.4	154.02 MVA	146.2 MVA	2004Sum_CVEC_afterC	23
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.18	-144.13	-95.67	172.99 MVA	146.2 MVA	2004Sum_CVEC_afterC	24
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.14	-136.38	-95.65	166.58 MVA	146.2 MVA	2004Sum_CVEC_beforeC	24
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-124	-98.99	158.67 MVA	146.2 MVA	2004Sum_CVEC_afterC	25
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-125.81	-98.12	159.55 MVA	146.2 MVA	2004Sum_CVEC_beforeC	25
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.21	-100.6	152.2 MVA	146.2 MVA	2004Sum_CVEC_afterC	26
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.71	-101.13	152.93 MVA	146.2 MVA	2004Sum_CVEC_beforeC	26
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-117.89	-100.28	154.77 MVA	146.2 MVA	2004Sum_CVEC_afterC	27
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-119.36	-98.52	154.77 MVA	146.2 MVA	2004Sum_CVEC_beforeC	27
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.37	-168.61	-107.79	200.12 MVA	146.2 MVA	2004Sum_CVEC_afterC	28
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.3	-159.6	-103.87	190.42 MVA	146.2 MVA	2004Sum_CVEC_beforeC	28
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.21	-143.25	-103.53	176.75 MVA	146.2 MVA	2004Sum_CVEC_afterC	29
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.23	-149.11	-100.13	179.61 MVA	146.2 MVA	2004Sum_CVEC_beforeC	29
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.15	-134.11	-101.32	168.08 MVA	146.2 MVA	2004Sum_CVEC_afterC	30
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.17	-140.08	-97.45	170.64 MVA	146.2 MVA	2004Sum_CVEC_beforeC	30
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.26	-154.71	-101	184.76 MVA	146.2 MVA	2004Sum_CVEC_afterC	31
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.2	-145.49	-98.06	175.45 MVA	146.2 MVA	2004Sum_CVEC_beforeC	31
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-122.42	-100.43	158.34 MVA	146.2 MVA	2004Sum_CVEC_afterC	32
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-124.51	-100.51	160.01 MVA	146.2 MVA	2004Sum_CVEC_beforeC	32
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.31	-160.05	-106.41	192.19 MVA	146.2 MVA	2004Sum_CVEC_afterC	33
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.25	-151.2	-102.94	182.92 MVA	146.2 MVA	2004Sum_CVEC_beforeC	33
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-124.67	-100.37	160.05 MVA	146.2 MVA	2004Sum_CVEC_afterC	34
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-126.14	-97.42	159.38 MVA	146.2 MVA	2004Sum_CVEC_beforeC	34
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.16	-137.84	-99.59	170.05 MVA	146.2 MVA	2004Sum_CVEC_afterC	35
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.14	-136.09	-97.44	167.38 MVA	146.2 MVA	2004Sum_CVEC_beforeC	35

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.14	-131.56	-101.64	166.25 MVA	146.2 MVA	2004Sum_CVEC_afterC	36
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.12	-129.9	-100	163.94 MVA	146.2 MVA	2004Sum_CVEC_beforeC	36
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.11	-125.35	-103.06	162.28 MVA	146.2 MVA	2004Sum_CVEC_afterC	37
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.1	-125.59	-100.79	161.03 MVA	146.2 MVA	2004Sum_CVEC_beforeC	37
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-123.42	-100.78	159.33 MVA	146.2 MVA	2004Sum_CVEC_afterC	38
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-124.04	-100.9	159.9 MVA	146.2 MVA	2004Sum_CVEC_beforeC	38
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.1	-124.47	-101.21	160.43 MVA	146.2 MVA	2004Sum_CVEC_afterC	39
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.1	-125.11	-101.31	160.99 MVA	146.2 MVA	2004Sum_CVEC_beforeC	39
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-120.49	-104.93	159.78 MVA	146.2 MVA	2004Sum_CVEC_afterC	40
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.09	-121.45	-102.76	159.09 MVA	146.2 MVA	2004Sum_CVEC_beforeC	40
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-113.54	-104.23	154.12 MVA	146.2 MVA	2004Sum_CVEC_afterC	41
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-119.36	-104.1	158.37 MVA	146.2 MVA	2004Sum_CVEC_afterC	42
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-119.55	-101.54	156.85 MVA	146.2 MVA	2004Sum_CVEC_beforeC	42
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-114.73	-102.58	153.9 MVA	146.2 MVA	2004Sum_CVEC_afterC	46
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-115.5	-102.9	154.69 MVA	146.2 MVA	2004Sum_CVEC_beforeC	46
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-116.62	-104.39	156.51 MVA	146.2 MVA	2004Sum_CVEC_afterC	47
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.07	-117.99	-103.59	157.01 MVA	146.2 MVA	2004Sum_CVEC_beforeC	47
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.13	-129.77	-101.53	164.77 MVA	146.2 MVA	2004Sum_CVEC_afterC	48
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.12	-129.81	-98.65	163.04 MVA	146.2 MVA	2004Sum_CVEC_beforeC	48
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-121.42	-97.76	155.88 MVA	146.2 MVA	2004Sum_CVEC_afterC	49
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-120.42	-98.46	155.55 MVA	146.2 MVA	2004Sum_CVEC_beforeC	49
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.12	-128.54	-101.94	164.05 MVA	146.2 MVA	2004Sum_CVEC_afterC	50
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-128.64	-99.68	162.74 MVA	146.2 MVA	2004Sum_CVEC_beforeC	50
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.13	-128.55	-102.7	164.54 MVA	146.2 MVA	2004Sum_CVEC_afterC	51
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.12	-128.65	-100.22	163.08 MVA	146.2 MVA	2004Sum_CVEC_beforeC	51

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.1	-124.77	-101.48	160.83 MVA	146.2 MVA	2004Sum_CVEC_afterC	52
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-128.06	-99.37	162.09 MVA	146.2 MVA	2004Sum_CVEC_beforeC	52
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-119.11	-97.94	154.21 MVA	146.2 MVA	2004Sum_CVEC_afterC	59
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.07	-122.46	-97.95	156.81 MVA	146.2 MVA	2004Sum_CVEC_afterC	60
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.24	-150.01	-101.66	181.22 MVA	146.2 MVA	2004Sum_CVEC_afterC	62
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.17	-140.16	-99.25	171.74 MVA	146.2 MVA	2004Sum_CVEC_beforeC	62
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.25	-151.71	-102.17	182.91 MVA	146.2 MVA	2004Sum_CVEC_afterC	63
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.19	-142.62	-100.04	174.21 MVA	146.2 MVA	2004Sum_CVEC_beforeC	63
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.86	-100.06	153.09 MVA	146.2 MVA	2004Sum_CVEC_beforeC	64
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-116.77	-99.87	153.66 MVA	146.2 MVA	2004Sum_CVEC_beforeC	65
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.48	-165.19	-140.62	216.93 MVA	146.2 MVA	2004Sum_CVEC_afterC	67
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.47	-165.88	-136.6	214.89 MVA	146.2 MVA	2004Sum_CVEC_beforeC	67
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-119.11	-97.93	154.2 MVA	146.2 MVA	2004Sum_CVEC_afterC	68
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.09	-148.7	-56.95	159.24 MVA	146.2 MVA	2004Sum_CVEC_afterC	69
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-144.2	-57.8	155.35 MVA	146.2 MVA	2004Sum_CVEC_beforeC	69
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-118.31	-99.75	154.75 MVA	146.2 MVA	2004Sum_CVEC_afterC	71
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.06	-118.67	-100.28	155.37 MVA	146.2 MVA	2004Sum_CVEC_afterC	72
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-120.83	-96.39	154.57 MVA	146.2 MVA	2004Sum_CVEC_beforeC	72
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.08	-121.89	-99.39	157.28 MVA	146.2 MVA	2004Sum_CVEC_afterC	73
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-118.03	-100.71	155.15 MVA	146.2 MVA	2004Sum_CVEC_beforeC	73

30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.1	-120.72	-106.71	161.12 MVA	146.2 MVA	2004Sum_CVEC_afterC	74
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.11	-122.39	-106.91	162.51 MVA	146.2 MVA	2004Sum_CVEC_beforeC	74
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.07	-101.6	152.76 MVA	146.2 MVA	2004Sum_CVEC_afterC	76
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.06	-116.64	-101.41	154.56 MVA	146.2 MVA	2004Sum_CVEC_beforeC	76
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.56	-100.72	152.54 MVA	146.2 MVA	2004Sum_CVEC_afterC	79
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.26	-101.04	153.28 MVA	146.2 MVA	2004Sum_CVEC_beforeC	79
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.52	-100.93	152.65 MVA	146.2 MVA	2004Sum_CVEC_afterC	80
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.31	-101.1	153.35 MVA	146.2 MVA	2004Sum_CVEC_beforeC	80
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.47	-101.09	151.97 MVA	146.2 MVA	2004Sum_CVEC_afterC	81
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.43	-101.16	151.99 MVA	146.2 MVA	2004Sum_CVEC_afterC	83
No Violation																
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.62	-101.31	152.23 MVA	146.2 MVA	2004Sum_CVEC_afterC	89
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.47	-101.32	152.87 MVA	146.2 MVA	2004Sum_CVEC_beforeC	89
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-114.47	-100.84	152.55 MVA	146.2 MVA	2004Sum_CVEC_afterC	96
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.62	-101.53	153.12 MVA	146.2 MVA	2004Sum_CVEC_beforeC	96
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.05	-115.83	-100.54	153.38 MVA	146.2 MVA	2004Sum_CVEC_afterC	97
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-115.79	-101.13	153.73 MVA	146.2 MVA	2004Sum_CVEC_beforeC	97
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.24	1.04	-113.87	-100.93	152.16 MVA	146.2 MVA	2004Sum_CVEC_afterC	98
30792	PNCHE 2M	230	30	34158	PANOCHE	115	30	2	1.25	1.05	-114.34	-101.41	152.83 MVA	146.2 MVA	2004Sum_CVEC_beforeC	98
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.96	1.06	-308.59	44.26	788.91 AMPS	745.54 AMPS	2004Sum_CVEC_afterC	14
No Violation																
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.96	1.05	-314.88	27.25	779.62 AMPS	745.54 AMPS	2004Sum_CVEC_afterC	155
30796	STOREY 1	230	30	30810	GREGG	230	30	1	0.74	0.9	-272.57	9.71	673.87 AMPS	745.54 AMPS	2004Sum_CVEC_beforeC	155
30800	WILSON	230	30	34136	WILSON B	115	30	2	0.47	1.21	149.86	88.33	173.96 MVA	144 MVA	2004Sum_CVEC_afterC	124
30800	WILSON	230	30	34136	WILSON B	115	30	2	0.51	1.26	158.62	87.62	181.21 MVA	144 MVA	2004Sum_CVEC_beforeC	124

30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-315.52	-10.88	794.36 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	106
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-224.86	-7.94	566.71 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	106
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-313.72	-13.24	787.82 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	107
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-222.85	-10.83	560.26 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	107
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.08	-339.5	-11.78	855.96 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	108
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.79	-249.68	-6.39	629.54 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	108
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-316.13	-14.62	793.45 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	11
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-224.35	-12.19	563.4 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	11
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.66	-15.15	783.84 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	110
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-221.47	-12.99	555.84 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	110
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-311.69	-13.24	782.81 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	121
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.83	-14.89	784.39 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	126
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-221.68	-13.01	556.32 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	126
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.2	-374.96	-9.18	953.15 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	14
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-314.78	-15.03	789.44 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	143
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-223.42	-12.74	560.8 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	143
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-313.49	-14.29	786.79 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	146
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-221.91	-12.05	557.43 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	146
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.02	-321.42	-14.72	807.39 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	148
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.73	-229.69	-13.48	577.91 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	148
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.61	-13.78	784.86 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	149
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-220.95	-12.05	555.4 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	149
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.02	-319.61	-8.36	806.39 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	15
No Violation																

30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.57	-14.08	784.57 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	152
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.02	-322.02	-16.83	806.69 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	153
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.73	-231.5	-14.15	580.13 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	153
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.01	-319.98	-15.38	802.39 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	154
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.73	-229.63	-12.5	576.25 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	154
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.19	-381.01	-30.46	945.86 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	155
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.95	-303.29	-24.02	752.02 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	155
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.03	-326.68	-17.14	818.42 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	156
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.75	-235.9	-13.93	591.06 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	156
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.04	-330.26	-18.68	826.34 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	157
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.76	-239.36	-15.3	598.93 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	157
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.71	-14.16	784.64 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	158
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-316.04	-15.1	792.44 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	167
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-225.62	-13.25	565.96 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	167
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.58	-15.33	783.96 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	170
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-317.56	-13.55	796.73 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	171
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-224.75	-11.81	564.45 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	171
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-312.6	-15.24	783.57 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	176
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.7	-221.5	-13.16	555.84 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	176
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.02	-322.5	-16.98	806.77 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	3
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.74	-235.7	-14.22	590.29 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	3
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-313.03	-16.11	783.72 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	4
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-224.5	-14.14	562.76 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	4

30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.04	-331.07	-18.76	828.38 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	5
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.76	-240.2	-15.29	600.97 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	5
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-311.87	-12.58	783.51 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	59
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-314.31	-13.21	790.01 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	6
30805	BORDEN	230	30	30810	GREGG	230	30	1	0.8	0.71	-222.86	-12.96	559.29 AMPS	793.23 AMPS	2004Sum_CVEC_beforeC	6
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1	-315.2	-12.65	792.07 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	60
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.03	-322.98	-10.86	814.91 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	67
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	0.99	-311.88	-12.59	783.53 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	68
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.04	-326.73	-11.73	822.73 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	69
No Violation																
30805	BORDEN	230	30	30810	GREGG	230	30	1	1.13	1.04	-326.72	-10.74	823.67 AMPS	793.23 AMPS	2004Sum_CVEC_afterC	70
No Violation																
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	0.99	101.82	30.43	106.27 MVA	107 MVA	2004Sum_CVEC_afterC	145
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.01	103.44	30.62	107.87 MVA	107 MVA	2004Sum_CVEC_beforeC	145
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.12	114.92	32.56	119.44 MVA	107 MVA	2004Sum_CVEC_afterC	148
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.13	116.01	32.39	120.45 MVA	107 MVA	2004Sum_CVEC_beforeC	148
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	0.99	101.49	30.96	106.1 MVA	107 MVA	2004Sum_CVEC_afterC	149
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1	102.77	30.7	107.25 MVA	107 MVA	2004Sum_CVEC_beforeC	149
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	0.99	102.07	29.01	106.11 MVA	107 MVA	2004Sum_CVEC_afterC	15
No Violation																
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.09	112.18	32.3	116.74 MVA	107 MVA	2004Sum_CVEC_afterC	155
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.14	117.35	32.5	121.77 MVA	107 MVA	2004Sum_CVEC_beforeC	155

30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.01	104.06	30.1	108.32 MVA	107 MVA	2004Sum_CVEC_afterC	171
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.01	104.06	30.01	108.3 MVA	107 MVA	2004Sum_CVEC_beforeC	171
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1	102.92	29.52	107.07 MVA	107 MVA	2004Sum_CVEC_afterC	19
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1	102.27	29.74	106.51 MVA	107 MVA	2004Sum_CVEC_beforeC	19
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1	102.6	30.07	106.92 MVA	107 MVA	2004Sum_CVEC_afterC	27
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.02	104.88	29.06	108.83 MVA	107 MVA	2004Sum_CVEC_beforeC	27
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.01	103	30.91	107.54 MVA	107 MVA	2004Sum_CVEC_afterC	3
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.03	105.69	30.57	110.02 MVA	107 MVA	2004Sum_CVEC_beforeC	3
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	0.99	100.3	33.48	105.74 MVA	107 MVA	2004Sum_CVEC_afterC	62
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	0.98	99.44	33.46	104.91 MVA	107 MVA	2004Sum_CVEC_beforeC	62
No Violation																
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1	102.66	29.51	106.82 MVA	107 MVA	2004Sum_CVEC_beforeC	71
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.02	105.49	29.24	109.47 MVA	107 MVA	2004Sum_CVEC_afterC	72
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.05	109.13	28.62	112.82 MVA	107 MVA	2004Sum_CVEC_beforeC	72
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.02	105.54	29.22	109.51 MVA	107 MVA	2004Sum_CVEC_afterC	73
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.01	103.98	29.43	108.07 MVA	107 MVA	2004Sum_CVEC_beforeC	73
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.96	1.05	107.82	31.24	112.26 MVA	107 MVA	2004Sum_CVEC_afterC	98
30805	BORDEN	230	30	34256	BORDEN	70	30	1	0.97	1.06	109.13	30.96	113.44 MVA	107 MVA	2004Sum_CVEC_beforeC	98
30810	GREGG	230	30	30845	FGRDN T2	230	30	1	0.55	1.05	364.74	38.63	896.09 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	22
30810	GREGG	230	30	30845	FGRDN T2	230	30	1	0.57	1.58	545.72	34.82	1339.39 AMPS	849.96 AMPS	2004Sum_CVEC_beforeC	22
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.65	1.22	474.35	21	1184.63 AMPS	974.97 AMPS	2004Sum_CVEC_afterC	14
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.65	1.38	539.92	5.87	1341.05 AMPS	974.97 AMPS	2004Sum_CVEC_afterC	21
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.09	0.76	290.98	-23.03	739.63 AMPS	974.97 AMPS	2004Sum_CVEC_beforeC	21
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	1.01	401.93	6.03	981.47 AMPS	968.94 AMPS	2004Sum_CVEC_afterC	13
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	1.25	490.66	51.94	1214.27 AMPS	968.94 AMPS	2004Sum_CVEC_afterC	14
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	0.99	388.36	40.58	956.53 AMPS	968.94 AMPS	2004Sum_CVEC_afterC	15
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.71	1.41	557.4	45.45	1370.61 AMPS	968.94 AMPS	2004Sum_CVEC_afterC	21
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.43	1.03	395.15	-36.32	1002.19 AMPS	974.97 AMPS	2004Sum_CVEC_afterC	14
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.43	1.19	459.11	-63.74	1162.25 AMPS	974.97 AMPS	2004Sum_CVEC_afterC	21
No Violation																
30873	HELM	230	30	30875	MC CALL	230	30	1	0.62	1.25	432.69	16.93	1065.67 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	14
No Violation																
30873	HELM	230	30	30875	MC CALL	230	30	1	0.62	1.08	375.45	32.33	920.45 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	16
No Violation																
30873	HELM	230	30	30875	MC CALL	230	30	1	0.62	1.07	370.7	18.93	909.95 AMPS	849.96 AMPS	2004Sum_CVEC_afterC	17
No Violation																
30875	MC CALL	230	30	30877	MCCALL2M	115	30	2	0.6	1.01	442.76	154.26	468.86 MVA	463.7 MVA	2004Sum_CVEC_afterC	72
30875	MC CALL	230	30	30877	MCCALL2M	115	30	2	0.54	0.77	321.99	153.28	356.62 MVA	463.7 MVA	2004Sum_CVEC_beforeC	72
30877	MCCALL2M	115	30	34370	MC CALL	115	30	2	0.62	1.01	-442.76	-149.75	467.4 MVA	463.7 MVA	2004Sum_CVEC_afterC	72
30877	MCCALL2M	115	30	34370	MC CALL	115	30	2	0.56	0.79	-321.99	-170.34	364.27 MVA	463.7 MVA	2004Sum_CVEC_beforeC	72
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.08	158.71	70.08	173.49 MVA	161.3 MVA	2004Sum_CVEC_afterC	220
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.07	158.53	70.07	173.32 MVA	161.3 MVA	2004Sum_CVEC_beforeC	220
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1	149.75	59.38	161.09 MVA	161.3 MVA	2004Sum_CVEC_afterC	221
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.01	149.41	63.26	162.25 MVA	161.3 MVA	2004Sum_CVEC_beforeC	221
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.09	161.5	69.21	175.7 MVA	161.3 MVA	2004Sum_CVEC_afterC	81
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.09	161.41	71.18	176.41 MVA	161.3 MVA	2004Sum_CVEC_beforeC	81

30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.15	174.15	61.77	184.78 MVA	161.3 MVA	2004Sum_CVEC_afterC	85
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.92	1.14	174.04	61.76	184.67 MVA	161.3 MVA	2004Sum_CVEC_beforeC	85
30945	KERN PP	230	30	34752	KERN PWR	115	30	4	0.64	1.77	233.09	102.35	254.57 MVA	144 MVA	2004Sum_CVEC_afterC	88
30945	KERN PP	230	30	34752	KERN PWR	115	30	4	0.65	1.78	235.16	103.72	257.02 MVA	144 MVA	2004Sum_CVEC_beforeC	88
30946	LAPALOMA	230	30	30970	MIDWAY	230	30	1	0.57	1	-1432.56	170.35	3626.26 AMPS	3639.82 AMPS	2004Sum_CVEC_afterC	90
30946	LAPALOMA	230	30	30970	MIDWAY	230	30	1	0.57	1	-1432.59	175.81	3622.88 AMPS	3639.82 AMPS	2004Sum_CVEC_beforeC	90
30946	LAPALOMA	230	30	30970	MIDWAY	230	30	2	0.57	0.99	-1432.62	181.71	3619.31 AMPS	3639.82 AMPS	2004Sum_CVEC_afterC	89
30946	LAPALOMA	230	30	30970	MIDWAY	230	30	2	0.57	0.99	-1432.64	186.69	3616.37 AMPS	3639.82 AMPS	2004Sum_CVEC_beforeC	89
30970	MIDWAY	230	30	34774	MIDWAY	115	30	1	0.63	1.27	148.07	38.32	152.94 MVA	120 MVA	2004Sum_CVEC_afterC	100
30970	MIDWAY	230	30	34774	MIDWAY	115	30	1	0.73	1.46	170.7	39.03	175.11 MVA	120 MVA	2004Sum_CVEC_beforeC	100
30970	MIDWAY	230	30	34774	MIDWAY	115	30	1	0.63	1.03	119.44	33.32	124 MVA	120 MVA	2004Sum_CVEC_afterC	89
30970	MIDWAY	230	30	34774	MIDWAY	115	30	1	0.73	1.22	142.94	33.99	146.93 MVA	120 MVA	2004Sum_CVEC_beforeC	89
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.01	11	6.1	12.58 MVA	12.5 MVA	2004Sum_CVEC_afterC	108
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.54	12.32 MVA	12.5 MVA	2004Sum_CVEC_beforeC	108
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.01	11	6.1	12.58 MVA	12.5 MVA	2004Sum_CVEC_afterC	124
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.01	11	6.24	12.64 MVA	12.5 MVA	2004Sum_CVEC_afterC	14
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.96	12.51 MVA	12.5 MVA	2004Sum_CVEC_afterC	155
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.94	12.5 MVA	12.5 MVA	2004Sum_CVEC_afterC	156
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.94	12.5 MVA	12.5 MVA	2004Sum_CVEC_afterC	157
No Violation																
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.56	12.33 MVA	12.5 MVA	2004Sum_CVEC_beforeC	21

No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.54	12.32 MVA	12.5 MVA	2004Sum_CVEC_beforeC	28
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.03	11	6.61	12.83 MVA	12.5 MVA	2004Sum_CVEC_afterC	32
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1.02	11	6.38	12.72 MVA	12.5 MVA	2004Sum_CVEC_beforeC	32
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.03	11	6.65	12.85 MVA	12.5 MVA	2004Sum_CVEC_afterC	33
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1.01	11	6.24	12.65 MVA	12.5 MVA	2004Sum_CVEC_beforeC	33
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.97	12.51 MVA	12.5 MVA	2004Sum_CVEC_afterC	34
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.71	12.39 MVA	12.5 MVA	2004Sum_CVEC_beforeC	34
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.95	12.5 MVA	12.5 MVA	2004Sum_CVEC_afterC	5
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.97	12.52 MVA	12.5 MVA	2004Sum_CVEC_afterC	54
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.97	12.51 MVA	12.5 MVA	2004Sum_CVEC_afterC	6
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.01	11	6.28	12.67 MVA	12.5 MVA	2004Sum_CVEC_afterC	63
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	1	11	5.87	12.47 MVA	12.5 MVA	2004Sum_CVEC_beforeC	63
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.01	11	6.19	12.62 MVA	12.5 MVA	2004Sum_CVEC_afterC	64
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.98	0.99	11	5.8	12.44 MVA	12.5 MVA	2004Sum_CVEC_beforeC	64
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1.01	11	6.09	12.57 MVA	12.5 MVA	2004Sum_CVEC_afterC	67
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	0.99	1	11	5.98	12.52 MVA	12.5 MVA	2004Sum_CVEC_afterC	70
No Violation																
34100	CHWCHLLA	115	30	34105	CERTANJ1	115	30	1	0.14	0.99	77.33	-19.78	390.83 AMPS	396.61 AMPS	2004Sum_CVEC_afterC	6
34100	CHWCHLLA	115	30	34105	CERTANJ1	115	30	1	0.14	0.99	77.34	-20.5	390.93 AMPS	396.61 AMPS	2004Sum_CVEC_beforeC	6
34101	CERTAN T	115	30	34116	LE GRAND	115	30	1	0.54	1	77.36	-10.7	395.79 AMPS	396.61 AMPS	2004Sum_CVEC_afterC	28
34101	CERTAN T	115	30	34116	LE GRAND	115	30	1	0.4	0.78	61.09	-8.33	309.91 AMPS	396.61 AMPS	2004Sum_CVEC_beforeC	28

34101	CERTAN T	115	30	34116	LE GRAND	115	30	1	0.54	1.36	100.81	-43.79	537.95 AMPS	396.61 AMPS	2004Sum_CVEC_afterC	6
34101	CERTAN T	115	30	34116	LE GRAND	115	30	1	0.4	1.36	100.81	-45.43	540.07 AMPS	396.61 AMPS	2004Sum_CVEC_beforeC	6
34104	ATWATER	115	30	34106	CASTLE	115	30	1	0.26	1.15	-146.22	-27.43	847.66 AMPS	738 AMPS	2004Sum_CVEC_afterC	124
34104	ATWATER	115	30	34106	CASTLE	115	30	1	0.22	1.14	-146.65	-27.44	844.3 AMPS	738 AMPS	2004Sum_CVEC_beforeC	124
34105	CERTANJ1	115	30	34121	SHARON T	115	30	1	0.14	0.99	-77.33	19.78	390.84 AMPS	396.61 AMPS	2004Sum_CVEC_afterC	6
34105	CERTANJ1	115	30	34121	SHARON T	115	30	1	0.14	0.99	-77.33	20.5	390.92 AMPS	396.61 AMPS	2004Sum_CVEC_beforeC	6
34106	CASTLE	115	30	34138	EL CAPTN	115	30	1	0.26	1.15	-146.93	-30.7	847.49 AMPS	739.01 AMPS	2004Sum_CVEC_afterC	124
34106	CASTLE	115	30	34138	EL CAPTN	115	30	1	0.22	1.14	-147.35	-30.68	844.13 AMPS	739.01 AMPS	2004Sum_CVEC_beforeC	124
34108	CRESEY T	115	30	34110	ATWATR J	115	30	1	0.2	1.95	-176.77	-28.78	997.92 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	54
34108	CRESEY T	115	30	34110	ATWATR J	115	30	1	0.17	1.93	-176.75	-28.69	989.99 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	54
34110	ATWATR J	115	30	34144	MERCED	115	30	1	0.36	1.57	-207.12	-45.48	1160.62 AMPS	738 AMPS	2004Sum_CVEC_afterC	54
34110	ATWATR J	115	30	34144	MERCED	115	30	1	0.36	1.56	-207.06	-45.26	1151.4 AMPS	738 AMPS	2004Sum_CVEC_beforeC	54
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.03	75.49	-37.52	410.13 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	16
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	0.81	60.95	-25.35	322.53 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	16
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	0.99	72.1	-37.63	394.55 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	24
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	0.77	57.51	-26.05	307.72 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	24
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.06	75.61	-32.63	423.78 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	28
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	0.77	54.3	-26.85	308.24 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	28
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.18	89.43	-31.71	470.47 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	31
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	0.89	66.77	-27.19	355.41 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	31
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.54	119.65	-21.3	613.55 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	33
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	1.25	97.92	-18.41	498.21 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	33
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.35	100.97	-43.74	538.49 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	6
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	1.31	97.03	-44.86	521.52 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	6
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.46	111.58	-34.53	579.3 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	62
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	1.09	83.42	-29.41	434 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	62

34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.91	1.52	116.57	-34.43	604.55 AMPS	398.12 AMPS	2004Sum_CVEC_afterC	63
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.75	1.16	89.3	-30.36	463.33 AMPS	398.12 AMPS	2004Sum_CVEC_beforeC	63
34121	SHARON T	115	30	34128	OAKH_JCT	115	30	1	0.26	1.06	-85.34	13.65	421.16 AMPS	396.61 AMPS	2004Sum_CVEC_afterC	6
34121	SHARON T	115	30	34128	OAKH_JCT	115	30	1	0.22	1.06	-85.34	14.37	420.97 AMPS	396.61 AMPS	2004Sum_CVEC_beforeC	6
34134	WILSON A	115	30	34144	MERCED	115	30	1	0.51	1.45	130.51	48.01	683.34 AMPS	471.92 AMPS	2004Sum_CVEC_afterC	54
34134	WILSON A	115	30	34144	MERCED	115	30	1	0.51	1.44	130.89	47.5	680.34 AMPS	471.92 AMPS	2004Sum_CVEC_beforeC	54
34134	WILSON A	115	30	34144	MERCED	115	30	2	0.46	1.31	116.56	46.11	615.96 AMPS	471.92 AMPS	2004Sum_CVEC_afterC	54
34134	WILSON A	115	30	34144	MERCED	115	30	2	0.46	1.3	116.91	45.66	613.25 AMPS	471.92 AMPS	2004Sum_CVEC_beforeC	54
34136	WILSON B	115	30	34138	EL CAPTN	115	30	1	0.84	1.74	236.3	77.46	1287.96 AMPS	739.01 AMPS	2004Sum_CVEC_afterC	124
34136	WILSON B	115	30	34138	EL CAPTN	115	30	1	0.85	1.73	236.65	77.07	1281.9 AMPS	739.01 AMPS	2004Sum_CVEC_beforeC	124
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.4	1.03	-54.8	28.34	61.7 MVA	60 MVA	2004Sum_CVEC_afterC	122
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.37	1.03	-54.82	28.76	61.9 MVA	60 MVA	2004Sum_CVEC_beforeC	122
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.4	1.04	-54.82	29.23	62.13 MVA	60 MVA	2004Sum_CVEC_afterC	123
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.37	1.04	-54.83	29.63	62.33 MVA	60 MVA	2004Sum_CVEC_beforeC	123
34150	NEWHALL	115	30	34178	CAPCOTAP	115	30	1	0.45	1.05	-82.32	10.96	420.06 AMPS	401.64 AMPS	2004Sum_CVEC_afterC	28
34150	NEWHALL	115	30	34178	CAPCOTAP	115	30	1	0.42	0.93	-73.55	10.38	373.08 AMPS	401.64 AMPS	2004Sum_CVEC_beforeC	28
34156	MENDOTA	115	30	34157	PANOCHET	115	30	1	0.58	0.99	96.54	25.34	475.44 AMPS	481.96 AMPS	2004Sum_CVEC_afterC	28
34156	MENDOTA	115	30	34157	PANOCHET	115	30	1	0.63	0.95	93.85	22.69	459.62 AMPS	481.96 AMPS	2004Sum_CVEC_beforeC	28
34156	MENDOTA	115	30	34178	CAPCOTAP	115	30	1	0.45	1.05	85.52	-5.58	420.61 AMPS	401.64 AMPS	2004Sum_CVEC_afterC	28
34156	MENDOTA	115	30	34178	CAPCOTAP	115	30	1	0.42	0.93	76.07	-6.38	373.71 AMPS	401.64 AMPS	2004Sum_CVEC_beforeC	28
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.32	-134.37	-39.87	673.93 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	133
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	1.3	-133.06	-38.16	665.49 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	133
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.11	-119.83	-1.79	567.1 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	16
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.96	-103.29	-3.95	489.43 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	16
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.04	-111.52	-2.85	532.12 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	18
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.78	-84.13	-8.04	399.73 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	18

34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	0.99	-107.67	-3.24	508.49 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	21
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.91	-97.87	-1.9	468.45 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	21
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.06	-115.31	-1.58	545.16 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	24
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.91	-97.76	-3.34	463.81 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	24
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.24	-132.5	-12.65	634.29 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	28
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	1.07	-114.73	-10.15	548.51 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	28
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.01	-108.8	-8.05	517.13 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	29
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.97	-104.43	-7.1	498.41 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	29
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.14	-122.92	-6.92	583.6 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	31
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.97	-104.95	-5.29	498.65 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	31
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.21	-130.03	-12.96	621.91 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	33
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	1.05	-112.45	-10.49	537.08 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	33
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.08	-116.95	-11.63	554.55 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	44
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	1	-107.7	-10.17	510.18 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	44
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.15	-123.8	-7.47	589.03 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	62
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.96	-103.71	-5.65	491.81 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	62
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.17	-126.25	-8.12	601.4 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	63
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	0.99	-106.48	-6.17	504.58 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	63
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	1	1.64	-156.04	-72.59	840.44 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	67
34158	PANOCHE	115	30	34159	PANOCHEJ	115	30	1	0.89	1.59	-151.48	-69.65	815.86 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	67
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.19	120.75	37.51	607.94 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	133
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	1.17	119.43	35.78	599.39 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	133
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.11	118.87	10.31	568.6 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	28
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.94	101.11	7.82	482.92 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	28
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.01	109.29	4.6	518.53 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	31
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.85	91.32	2.97	433.58 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	31

34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.09	116.4	10.63	556.29 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	33
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.92	98.82	8.16	471.55 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	33
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.02	110.17	5.14	523.81 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	62
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.83	90.08	3.34	426.85 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	62
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.05	112.62	5.79	536.08 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	63
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	0.86	92.86	3.87	439.65 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	63
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.85	1.51	142.41	70.17	775.3 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	67
34159	PANOCHEJ	115	30	34160	HAMMONDS	115	30	1	0.74	1.47	137.84	67.21	750.46 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	67
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.74	1.1	110.06	32.63	562.98 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	133
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.63	1.08	108.78	31.02	554.37 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	133
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.74	1.02	108.36	5.95	523.56 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	28
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.63	0.86	90.93	4.46	438.01 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	28
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.74	1	105.94	6.43	511.31 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	33
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.63	0.83	88.68	4.92	426.69 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	33
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.74	1.43	130.86	62.73	731.04 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	67
34160	HAMMONDS	115	30	34161	DFSTP	115	30	1	0.63	1.38	126.44	60.19	706.11 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	67
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.71	1.07	105.21	25.63	546.9 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	133
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.6	1.05	103.99	24.19	538.37 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	133
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.71	0.99	103.77	-0.27	509.34 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	28
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.6	0.83	86.85	-0.35	423.86 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	28
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.71	1.39	124.68	51.95	713.65 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	67
34161	DFSTP	115	30	34162	ORO LOMA	115	30	1	0.6	1.34	120.47	50.02	688.73 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	67
34162	ORO LOMA	115	30	34200	ORO LOMA	70	30	2	0.69	1.52	99.64	45.08	109.37 MVA	72 MVA	2004Sum_CVEC_afterC	133
34162	ORO LOMA	115	30	34200	ORO LOMA	70	30	2	0.51	1.54	101.67	43.37	110.53 MVA	72 MVA	2004Sum_CVEC_beforeC	133
34162	ORO LOMA	115	30	34200	ORO LOMA	70	30	2	0.69	2.04	122.83	81.16	147.22 MVA	72 MVA	2004Sum_CVEC_afterC	67
34162	ORO LOMA	115	30	34200	ORO LOMA	70	30	2	0.51	2.05	124.56	78.86	147.42 MVA	72 MVA	2004Sum_CVEC_beforeC	67

34200	ORO LOMA	70	30	34218	DOS PALS	70	30	1	0.78	1.57	50.07	6.01	442.48 AMPS	282.08 AMPS	2004Sum_CVEC_afterC	133
34200	ORO LOMA	70	30	34218	DOS PALS	70	30	1	0.64	1.56	50.02	5.93	440.1 AMPS	282.08 AMPS	2004Sum_CVEC_beforeC	133
34200	ORO LOMA	70	30	34218	DOS PALS	70	30	1	0.78	2.05	58.04	12.59	577.82 AMPS	282.08 AMPS	2004Sum_CVEC_afterC	67
34200	ORO LOMA	70	30	34218	DOS PALS	70	30	1	0.64	2.03	57.88	12.34	572.8 AMPS	282.08 AMPS	2004Sum_CVEC_beforeC	67
34200	ORO LOMA	70	30	34222	MRCYSPRS	70	30	1	0.3	1.33	62.23	22.45	580.46 AMPS	437.14 AMPS	2004Sum_CVEC_afterC	133
34200	ORO LOMA	70	30	34222	MRCYSPRS	70	30	1	0.07	1.32	62.19	22.31	577.24 AMPS	437.14 AMPS	2004Sum_CVEC_beforeC	133
34200	ORO LOMA	70	30	34222	MRCYSPRS	70	30	1	0.3	2.11	84.03	44.07	923.19 AMPS	437.14 AMPS	2004Sum_CVEC_afterC	67
34200	ORO LOMA	70	30	34222	MRCYSPRS	70	30	1	0.07	2.09	83.86	43.52	914.5 AMPS	437.14 AMPS	2004Sum_CVEC_beforeC	67
34200	ORO LOMA	70	30	34234	POSO J1	70	30	1	0.34	1.1	-31.92	-1.54	310.88 AMPS	282.08 AMPS	2004Sum_CVEC_afterC	67
34200	ORO LOMA	70	30	34234	POSO J1	70	30	1	0.15	1.03	-29.85	-3.01	290.44 AMPS	282.08 AMPS	2004Sum_CVEC_beforeC	67
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.48	1.3	-54.8	14.36	490.09 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	122
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.46	1.3	-54.82	14.8	489.8 AMPS	377.75 AMPS	2004Sum_CVEC_beforeC	122
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.48	1.3	-54.82	15.28	489.61 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	123
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.46	1.3	-54.83	15.71	489.39 AMPS	377.75 AMPS	2004Sum_CVEC_beforeC	123
34206	CANAL	70	30	34216	SNTA RTA	70	30	1	0.15	1.33	-31.09	-0.49	375.67 AMPS	282.08 AMPS	2004Sum_CVEC_afterC	67
34206	CANAL	70	30	34216	SNTA RTA	70	30	1	0.01	1.32	-31.07	-0.46	371.94 AMPS	282.08 AMPS	2004Sum_CVEC_beforeC	67
34216	SNTA RTA	70	30	34218	DOS PALS	70	30	1	0.47	1.22	-38.57	-1.17	362.64 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	133
34216	SNTA RTA	70	30	34218	DOS PALS	70	30	1	0.33	1.21	-38.55	-1.13	360.62 AMPS	297.75 AMPS	2004Sum_CVEC_beforeC	133
34216	SNTA RTA	70	30	34218	DOS PALS	70	30	1	0.47	1.64	-44.52	-4.22	488.31 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	67
34216	SNTA RTA	70	30	34218	DOS PALS	70	30	1	0.33	1.62	-44.44	-4.11	483.79 AMPS	297.75 AMPS	2004Sum_CVEC_beforeC	67
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.53	1.34	62.75	-0.89	508.02 AMPS	379.4 AMPS	2004Sum_CVEC_afterC	122
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.52	1.34	62.78	-1.34	507.74 AMPS	379.4 AMPS	2004Sum_CVEC_beforeC	122
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.53	1.34	62.77	-1.83	507.29 AMPS	379.4 AMPS	2004Sum_CVEC_afterC	123
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.52	1.34	62.77	-2.25	506.94 AMPS	379.4 AMPS	2004Sum_CVEC_beforeC	123
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.49	1.62	-55.97	-0.16	453.04 AMPS	280.43 AMPS	2004Sum_CVEC_afterC	122
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.48	1.61	-55.97	0.29	452.62 AMPS	280.43 AMPS	2004Sum_CVEC_beforeC	122

34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.49	1.61	-55.98	0.79	452.26 AMPS	280.43 AMPS	2004Sum_CVEC_afterC	123
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.48	1.61	-55.98	1.22	451.91 AMPS	280.43 AMPS	2004Sum_CVEC_beforeC	123
34266	FIREBAGH	70	30	34267	TOMATAK	70	30	1	0.47	1.01	-45.1	-7.71	401.59 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	67
34266	FIREBAGH	70	30	34267	TOMATAK	70	30	1	0.34	0.96	-42.65	-8.64	380.84 AMPS	395.9 AMPS	2004Sum_CVEC_beforeC	67
34267	TOMATAK	70	30	34268	MENDOTA	70	30	1	0.62	1.18	-52.07	-13.5	467.14 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	67
34267	TOMATAK	70	30	34268	MENDOTA	70	30	1	0.51	1.13	-49.59	-14.35	447.06 AMPS	395.9 AMPS	2004Sum_CVEC_beforeC	67
34268	MENDOTA	70	30	34269	BIOMSJCT	70	30	1	0.84	1.28	56.4	-29.76	508.52 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	14
No Violation																
34268	MENDOTA	70	30	34269	BIOMSJCT	70	30	1	0.84	1	44.55	-23.39	394.92 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	17
No Violation																
34268	MENDOTA	70	30	34269	BIOMSJCT	70	30	1	0.84	0.99	46.31	-10.89	390.36 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	44
34268	MENDOTA	70	30	34269	BIOMSJCT	70	30	1	0.56	0.76	35.77	-7.69	299.97 AMPS	395.9 AMPS	2004Sum_CVEC_beforeC	44
34366	SANGER	115	30	34488	SANGER	70	30	3	0.71	1.14	52.76	21.15	56.84 MVA	50 MVA	2004Sum_CVEC_afterC	148
34366	SANGER	115	30	34488	SANGER	70	30	3	0.7	1.13	52.24	20.98	56.3 MVA	50 MVA	2004Sum_CVEC_beforeC	148
34380	REEDLEY	115	30	34384	GERAWAN	115	30	1	0.44	1.12	-120.47	-39.03	629.88 AMPS	560.78 AMPS	2004Sum_CVEC_afterC	145
34380	REEDLEY	115	30	34384	GERAWAN	115	30	1	0.42	1.11	-118.94	-39.45	624.45 AMPS	560.78 AMPS	2004Sum_CVEC_beforeC	145
34380	REEDLEY	115	30	34394	PIEDRA 1	115	30	1	0.41	1.01	-100.42	-10.21	517.52 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	98
34380	REEDLEY	115	30	34394	PIEDRA 1	115	30	1	0.42	1	-99.61	-10.48	514.55 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	98
34380	REEDLEY	115	30	34492	REEDLEY	70	30	2	0.65	1.19	124.9	29.1	128.25 MVA	108 MVA	2004Sum_CVEC_afterC	145
34380	REEDLEY	115	30	34492	REEDLEY	70	30	2	0.63	1.17	123.37	29.47	126.84 MVA	108 MVA	2004Sum_CVEC_beforeC	145
34382	WAHTOKE	115	30	34384	GERAWAN	115	30	1	0.44	1.12	121.83	42.76	629.31 AMPS	560.78 AMPS	2004Sum_CVEC_afterC	145
34382	WAHTOKE	115	30	34384	GERAWAN	115	30	1	0.42	1.11	120.27	43.12	623.88 AMPS	560.78 AMPS	2004Sum_CVEC_beforeC	145
34464	COPPRMNE	70	30	34478	TVY VLLY	70	30	1	0.11	1.01	-28.92	22.52	302.17 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	32
No Violation																
34464	COPPRMNE	70	30	34478	TVY VLLY	70	30	1	0.11	1.12	-31.52	25.24	334.03 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	63
34464	COPPRMNE	70	30	34478	TVY VLLY	70	30	1	0.09	0.73	-21.36	16.01	217.16 AMPS	297.75 AMPS	2004Sum_CVEC_beforeC	63

34469	GFFNJCT	70	30	34471	SNJQJCT	70	30	1	0.58	1.05	52.48	-11.8	414.91 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	14
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.88	91.22	-13.45	710.51 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	14
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.21	58.85	-8.16	456.44 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	15
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.3	63.2	-9.14	490.58 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	17
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.2	58.79	-8.01	455.13 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	18
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.05	51.1	-7.55	397.14 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	69
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	1.14	55.34	-2.39	429.51 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	70
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.93	0.99	48.4	0.8	374.01 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	74
No Violation																
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.2	1.14	-37.97	16.91	338.4 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	32
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.15	0.78	-26.26	11.84	232.51 AMPS	297.75 AMPS	2004Sum_CVEC_beforeC	32
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.2	1.24	-41.42	18.51	370.43 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	63
34478	TVY VLLY	70	30	34492	REEDLEY	70	30	1	0.15	0.85	-28.54	12.84	252.66 AMPS	297.75 AMPS	2004Sum_CVEC_beforeC	63
34487	SNGRJCT	70	30	34488	SANGER	70	30	1	0.45	1.89	-77.07	-15.87	749.7 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	145
34487	SNGRJCT	70	30	34488	SANGER	70	30	1	0.44	1.9	-77.08	-15.89	752.34 AMPS	395.9 AMPS	2004Sum_CVEC_beforeC	145
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	0.99	-42.8	-5.68	391.21 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	145
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	0.99	-42.83	-5.77	392.76 AMPS	395.9 AMPS	2004Sum_CVEC_beforeC	145
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	1.46	71.35	16.58	576.84 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	148
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	1.44	70.28	16.94	570.1 AMPS	395.9 AMPS	2004Sum_CVEC_beforeC	148

34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	0.99	48.93	10.66	392.12 AMPS	395.9 AMPS	2004Sum_CVEC_afterC	98
34487	SNGRJCT	70	30	34490	PARLIER	70	30	1	0.58	0.99	48.5	11.01	390.01 AMPS	395.9 AMPS	2004Sum_CVEC_beforeC	98
34490	PARLIER	70	30	34492	REEDLEY	70	30	1	0.32	1.24	-55.57	-10.86	493.13 AMPS	398.37 AMPS	2004Sum_CVEC_afterC	145
34490	PARLIER	70	30	34492	REEDLEY	70	30	1	0.32	1.24	-55.61	-10.97	494.95 AMPS	398.37 AMPS	2004Sum_CVEC_beforeC	145
34490	PARLIER	70	30	34492	REEDLEY	70	30	1	0.32	1.2	57.02	8.22	479.69 AMPS	398.37 AMPS	2004Sum_CVEC_afterC	148
34490	PARLIER	70	30	34492	REEDLEY	70	30	1	0.32	1.19	56.01	8.71	472.74 AMPS	398.37 AMPS	2004Sum_CVEC_beforeC	148
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.76	1.73	80.19	-22.77	654.41 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	14
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.76	1.06	49.4	-14.27	400.17 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	15
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.76	1.15	53.58	-15.6	434.53 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	17
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.76	1.06	49.35	-14.1	398.82 AMPS	377.75 AMPS	2004Sum_CVEC_afterC	18
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	1
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	109
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	110
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.84	19.92 MVA	14 MVA	2004Sum_CVEC_afterC	12
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	13
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.42	19.52 MVA	14 MVA	2004Sum_CVEC_afterC	130
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.52	19.61 MVA	14 MVA	2004Sum_CVEC_afterC	132
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterC	150
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	16
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.53	19.63 MVA	14 MVA	2004Sum_CVEC_afterC	174
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	176
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	179
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	180
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.7	19.79 MVA	14 MVA	2004Sum_CVEC_afterC	182
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.39	-6.47	18.42	19.52 MVA	14 MVA	2004Sum_CVEC_afterC	191
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.46	19.56 MVA	14 MVA	2004Sum_CVEC_afterC	201
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.58	19.67 MVA	14 MVA	2004Sum_CVEC_afterC	202
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.48	19.58 MVA	14 MVA	2004Sum_CVEC_afterC	203
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	21
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	22
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	24
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.84	19.92 MVA	14 MVA	2004Sum_CVEC_afterC	25
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	26
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.74	19.83 MVA	14 MVA	2004Sum_CVEC_afterC	27
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.52	19.61 MVA	14 MVA	2004Sum_CVEC_afterC	28
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	29
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	30
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	31
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	32
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.66	19.75 MVA	14 MVA	2004Sum_CVEC_afterC	33
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	34
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.44	19.54 MVA	14 MVA	2004Sum_CVEC_afterC	35
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	44
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.68	19.77 MVA	14 MVA	2004Sum_CVEC_afterC	49
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.52	19.62 MVA	14 MVA	2004Sum_CVEC_afterC	61
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.72	19.81 MVA	14 MVA	2004Sum_CVEC_afterC	62
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.64	19.73 MVA	14 MVA	2004Sum_CVEC_afterC	63
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	64
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	65
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.72	19.8 MVA	14 MVA	2004Sum_CVEC_afterC	72
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	76
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.49	19.59 MVA	14 MVA	2004Sum_CVEC_afterC	8
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.64	19.73 MVA	14 MVA	2004Sum_CVEC_afterC	82
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.79	19.87 MVA	14 MVA	2004Sum_CVEC_afterC	83
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.41	-6.47	18.66	19.74 MVA	14 MVA	2004Sum_CVEC_afterC	88
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.42	-6.47	18.85	19.93 MVA	14 MVA	2004Sum_CVEC_afterC	89
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.49	19.59 MVA	14 MVA	2004Sum_CVEC_afterC	9
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.44	19.54 MVA	14 MVA	2004Sum_CVEC_afterC	91
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.39	1.4	-6.47	18.43	19.53 MVA	14 MVA	2004Sum_CVEC_afterC	96
No Violation																
34580	BDGR HLL	70	30	34942	LST HLLS	70	30	1	0.46	1.03	-37.89	-9.2	306.9 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	178
34580	BDGR HLL	70	30	34942	LST HLLS	70	30	1	0.51	1.03	-37.89	-9.2	306.78 AMPS	297.75 AMPS	2004Sum_CVEC_beforeC	178
34582	ARCO	70	30	34942	LST HLLS	70	30	1	0.56	1.12	41.91	11.12	333.05 AMPS	297.75 AMPS	2004Sum_CVEC_afterC	178
34582	ARCO	70	30	34942	LST HLLS	70	30	1	0.61	1.12	41.91	11.12	332.92 AMPS	297.75 AMPS	2004Sum_CVEC_beforeC	178
No Violation																
34700	SMYRNA	115	30	34708	MCKIBBEN	115	30	1	0.66	1.02	-122.83	28.06	616.79 AMPS	602.45 AMPS	2004Sum_CVEC_beforeC	13
No Violation																
34700	SMYRNA	115	30	34708	MCKIBBEN	115	30	1	0.66	1.01	-121.5	22.41	607.42 AMPS	602.45 AMPS	2004Sum_CVEC_beforeC	72
34714	LERDO	115	30	34784	CAWELO C	115	30	1	0.7	1.04	-108.6	7.67	532.95 AMPS	512.08 AMPS	2004Sum_CVEC_afterC	88
34714	LERDO	115	30	34784	CAWELO C	115	30	1	0.67	1.02	-106.83	7.04	523.74 AMPS	512.08 AMPS	2004Sum_CVEC_beforeC	88
34734	BEAR TAP	115	30	35066	PSE-BEAR	9	30	1	0.91	1.03	43.31	24	49.51 MVA	48 MVA	2004Sum_CVEC_afterC	88
34734	BEAR TAP	115	30	35066	PSE-BEAR	9	30	1	0.91	1.03	43.31	24	49.51 MVA	48 MVA	2004Sum_CVEC_beforeC	88
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.95	1.04	33	15	36.25 MVA	35 MVA	2004Sum_CVEC_afterC	88
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.94	1.04	33	15	36.25 MVA	35 MVA	2004Sum_CVEC_beforeC	88
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.16	-89.63	16.53	437.6 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	109
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.14	-87.71	16.06	428.11 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	109
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.02	-78.92	12.81	383.96 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	13
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.71	-131.25	23.5	642.37 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	13

No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.17	-90.51	16.83	442.05 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	14
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.24	-96.03	16.06	468.3 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	16
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.7	-130.44	23.41	638.39 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	16
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.17	-89.91	16.67	439.04 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	17
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.09	-84.26	15	411.34 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	18
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.15	-88.69	16.13	432.85 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	18
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.02	-78.72	13.09	383.41 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	19
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.32	-101.79	18.8	497.46 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	19
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.15	-88.54	16.85	432.8 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	20
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.28	-98.36	18.68	480.93 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	21
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.68	-129.18	23.45	632.6 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	21
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.22	-93.85	16.08	457.78 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	24
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.64	-126.53	23.15	619.34 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	24
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.07	-82.79	14.14	403.38 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	25
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.55	-119.35	22.08	583.95 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	25
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.09	-84.11	13.37	409.32 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	27
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.52	-116.93	19.35	570.83 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	27
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.02	-78.77	13.54	383.72 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	30
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.45	-111.69	20.92	546.41 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	30
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.15	-88.54	16.85	432.8 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	58
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.14	-87.88	16.49	429.26 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	59

No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.17	-90.29	18.46	442.09 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	63
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.15	-89.01	16.43	434.67 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	67
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.14	-87.89	16.49	429.28 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	68
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.16	-89.59	16.72	437.67 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	69
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.17	-90.57	16.8	442.37 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	70
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.15	-88.99	10.61	431.54 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	72
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.68	-129.81	18.05	632.7 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	72
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.83	1.18	-91.63	13.07	445.49 AMPS	376.53 AMPS	2004Sum_CVEC_afterC	73
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.42	-109.57	16.93	533.83 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	73
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.29	1.22	-94.26	18.1	460.91 AMPS	376.53 AMPS	2004Sum_CVEC_beforeC	77
34784	CAWELO C	115	30	35036	MT POSO	9	30	1	0.98	0.99	-84.47	9.8	85.04 MVA	86 MVA	2004Sum_CVEC_afterC	188
34784	CAWELO C	115	30	35036	MT POSO	9	30	1	0.98	0.99	-84.47	10.23	85.09 MVA	86 MVA	2004Sum_CVEC_beforeC	188
No Violation																
34784	CAWELO C	115	30	35036	MT POSO	9	30	1	0.98	0.99	-84.47	9.69	85.03 MVA	86 MVA	2004Sum_CVEC_beforeC	189
34784	CAWELO C	115	30	35036	MT POSO	9	30	1	0.98	0.99	-84.47	-12.14	85.34 MVA	86 MVA	2004Sum_CVEC_afterC	88
34784	CAWELO C	115	30	35036	MT POSO	9	30	1	0.98	0.99	-84.47	-11.21	85.21 MVA	86 MVA	2004Sum_CVEC_beforeC	88
34861	TAFT A_J	70	30	34863	MOCO_JCT	70	30	1	0.85	1.02	49.15	5.72	386.78 AMPS	379.4 AMPS	2004Sum_CVEC_afterC	88
34861	TAFT A_J	70	30	34863	MOCO_JCT	70	30	1	0.83	1	48.36	6.01	380.72 AMPS	379.4 AMPS	2004Sum_CVEC_beforeC	88
35616	SJ B E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.69	-0.34	874.86 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	105
35616	SJ B E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.27	5.06	774.63 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	105

35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.2	-0.1	872.21 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	106
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.06	5.05	773.66 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	106
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.97	-0.15	870.72 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	107
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.85	5.13	772.56 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	107
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.1	178.42	-0.89	884.42 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	108
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.98	159.34	4.34	785.47 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	108
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	177.29	-0.49	878.09 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	11
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.2	4.73	779.49 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	11
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.78	-0.24	875.19 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	110
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.66	4.96	776.61 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	110
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.22	-0.18	872.14 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	121
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.1	5.08	773.81 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	121
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.55	-0.3	873.89 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	126
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.45	4.97	775.61 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	126
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.08	-0.03	871.47 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	127
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.92	5.08	772.9 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	127
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.1	0	871.44 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	132
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.92	5.16	772.81 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	132
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.57	-0.22	874.17 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	137
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.45	4.98	775.61 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	137
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.53	-0.21	873.89 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	138
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.39	4.99	775.31 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	138
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.64	-0.22	874.55 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	143
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.53	4.92	776.03 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	143
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.08	-0.07	871.5 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	144
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.94	5.11	773.03 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	144

35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.76	-0.32	875.2 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	146
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.67	4.92	776.75 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	146
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.06	-0.03	871.37 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	149
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.92	5.16	772.93 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	149
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.61	-0.26	874.4 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	152
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.51	4.93	775.93 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	152
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	177.19	-0.48	877.53 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	153
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.08	4.73	778.84 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	153
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.73	-0.28	875.04 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	154
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.61	4.91	776.48 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	154
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	177.18	-0.4	877.52 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	155
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.83	4.83	777.55 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	155
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.1	177.6	-0.54	879.81 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	156
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.48	4.65	780.83 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	156
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.1	177.74	-0.62	880.55 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	157
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.63	4.58	781.55 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	157
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.64	-0.22	874.56 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	158
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.56	4.89	776.19 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	158
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.4	-0.2	873.24 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	167
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.28	4.99	774.73 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	167
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.87	0	870.31 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	169
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.5	-0.19	873.75 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	170
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.38	4.97	775.26 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	170
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.32	-0.13	872.76 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	171
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.19	5.06	774.29 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	171

35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.79	-0.27	875.21 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	176
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.65	4.92	776.58 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	176
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.19	-0.11	872.08 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	185
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.06	5.09	773.63 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	185
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.79	-0.33	875.36 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	187
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.64	4.94	776.63 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	187
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.2	-0.11	872.12 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	190
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.02	5.08	773.48 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	190
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.07	-0.08	871.42 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	192
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.88	5.04	772.59 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	192
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.4	-0.18	873.24 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	193
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.23	4.97	774.52 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	193
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.32	-0.15	872.8 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	197
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.15	5.02	774.11 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	197
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.14	-0.08	871.8 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	210
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.95	5.06	772.97 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	210
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.97	-0.01	870.92 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	221
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.77	5.08	772.17 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	221
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.88	-0.34	875.84 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	225
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.7	4.81	776.95 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	225
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.67	-0.25	874.71 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	226
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.49	4.91	775.87 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	226
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176	-0.04	871.05 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	227
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.82	5.08	772.42 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	227
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.41	-0.25	873.36 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	23
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.86	5.06	772.67 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	23

35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.01	-0.03	871.08 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	230
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.83	5.09	772.45 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	230
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.89	0.01	870.42 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	234
No Violation																	
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	175.91	-0.06	870.55 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	240
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.73	5.11	771.97 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	240
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.2	-0.2	871.98 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	241
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.05	5.04	773.62 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	241
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.1	177.82	-0.63	881.02 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	5
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.78	-1.08	780.28 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	5
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	177.37	-0.52	878.6 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	6
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	158.27	-1.04	777.55 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	6
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.1	178.65	-1.52	885.01 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	67
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.97	157.55	4.59	776.13 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	67
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.51	-0.25	873.88 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	78
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.29	4.94	774.94 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	78
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.08	176.09	-0.04	871.51 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	95
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	156.95	5.11	773.07 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	95
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.23	1.09	176.42	-0.18	873.32 AMPS	803.27 AMPS	2004Sum_CVEC_afterC	99
35616	SJ B	E	115	30	35617	FMC JCT	115	30	1	1.09	0.96	157.25	4.97	774.63 AMPS	803.27 AMPS	2004Sum_CVEC_beforeC	99

APPENDIX C2 – WINTER OFF-PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON NORMAL COMPARISON FILES

Hyperlink to: Normal B_cases

Normal

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Base MW	Base MVAR	Rate 1 PU Loading	Rate 1 Flow	Rate 1 Rating	File
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	-1094	229	1	1117 MVA	1120 MVA	2004Winop_CVEC_afterB2_Renum
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	-1084	240	0.99	1111 MVA	1120 MVA	2004Winop_CVEC_beforeB2_Renum
30050	LOSBANOS	500	30	30055	GATES	500	30	1	-1600	184	1	1807 AMPS	1799.95 AMPS	2004Winop_CVEC_afterB2_Renum
30050	LOSBANOS	500	30	30055	GATES	500	30	1	-1418	181	0.88	1591 AMPS	1799.95 AMPS	2004Winop_CVEC_beforeB2_Renum
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	-1638	213	1.03	1854 AMPS	1799.95 AMPS	2004Winop_CVEC_afterB2_Renum
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	-1515	203	0.95	1702 AMPS	1799.95 AMPS	2004Winop_CVEC_beforeB2_Renum
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	0	92	1.23	92 MVA	74.7 MVA	2004Winop_CVEC_afterB2_Renum
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	0	93	1.24	93 MVA	74.7 MVA	2004Winop_CVEC_beforeB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004Winop_CVEC_afterB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004Winop_CVEC_beforeB2_Renum
32762	STD. OIL	115	30	32922	ChevGen2	14	30	1	54	34	1	64 MVA	64 MVA	2004Winop_CVEC_afterB2_Renum
32762	STD. OIL	115	30	32922	ChevGen2	14	30	1	54	34	1	64 MVA	64 MVA	2004Winop_CVEC_beforeB2_Renum
33150	TOSCO	12	30	33151	FOSTER W	12	30	1	-102	-64	1.03	5462 AMPS	5324.4 AMPS	2004Winop_CVEC_afterB2_Renum
33150	TOSCO	12	30	33151	FOSTER W	12	30	1	-102	-64	1.03	5462 AMPS	5324.4 AMPS	2004Winop_CVEC_beforeB2_Renum
33620	AM FORST	60	30	33826	MARTELL	9	30	1	-15	5	1.22	15 MVA	12.5 MVA	2004Winop_CVEC_afterB2_Renum
33620	AM FORST	60	30	33826	MARTELL	9	30	1	-15	5	1.23	15 MVA	12.5 MVA	2004Winop_CVEC_beforeB2_Renum
33906	SPRNG GF	115	30	34078	SPRNG GF	6	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004Winop_CVEC_afterB2_Renum
33906	SPRNG GF	115	30	34078	SPRNG GF	6	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004Winop_CVEC_beforeB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-3	20	1.43	20 MVA	14 MVA	2004Winop_CVEC_afterB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-3	20	1.43	20 MVA	14 MVA	2004Winop_CVEC_beforeB2_Renum
37210	MID CTY3	22	30	37211	UCDMC	22	30	1	22	-13	1.04	643 AMPS	619.34 AMPS	2004Winop_CVEC_afterB2_Renum
37210	MID CTY3	22	30	37211	UCDMC	22	30	1	22	-13	1.04	641 AMPS	619.34 AMPS	2004Winop_CVEC_beforeB2_Renum
37211	UCDMC	22	30	37320	UCDMC	13	30	1	-22	13	1.04	26 MVA	25 MVA	2004Winop_CVEC_afterB2_Renum
37211	UCDMC	22	30	37320	UCDMC	13	30	1	-22	13	1.04	26 MVA	25 MVA	2004Winop_CVEC_beforeB2_Renum
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	1	-34	151	1.03	155 MVA	150 MVA	2004Winop_CVEC_afterB2_Renum

37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	1	-34	152	1.04	156 MVA	150 MVA	2004Winop_CVEC_beforeB2_Renum
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	2	43	191	1.31	196 MVA	150 MVA	2004Winop_CVEC_afterB2_Renum
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	2	43	192	1.31	197 MVA	150 MVA	2004Winop_CVEC_beforeB2_Renum

Hyperlink to: Normal B_cases

B_cases

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Rate1 Base	Rate2 Out	MW	MVAR	Flow	Rating	File	Out#
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.88	1.09	522.11	-9.55	1303.91 AMPS	1199.89 AMPS	2004Winop_CVEC_afterB2_Renum	388
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.88	1.11	531.88	-7.4	1329.43 AMPS	1199.89 AMPS	2004Winop_CVEC_afterB2_Renum	495
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.88	1.09	522.11	-9.55	1303.91 AMPS	1199.89 AMPS	2004Winop_CVEC_afterB1	58
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.58	1.08	72.51	-11.77	556.02 AMPS	515.00 AMPS	2004Winop_CVEC_afterB1	1
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.58	0.72	48.11	-9.62	375.03 AMPS	515.00 AMPS	2004Winop_CVEC_beforeB1	1
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.58	1.10	73.57	-15.37	566.48 AMPS	515.00 AMPS	2004Winop_CVEC_afterB2_Renum	497
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.58	0.74	48.96	-11.67	382.98 AMPS	515.00 AMPS	2004Winop_CVEC_beforeB2_Renum	497
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.62	1.00	-62.28	21.56	515.36 AMPS	515.00 AMPS	2004Winop_CVEC_afterB1	1
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.62	0.65	-40.6	13.92	334.48 AMPS	515.00 AMPS	2004Winop_CVEC_beforeB1	1
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.62	1.02	-63.14	25.56	526.58 AMPS	515.00 AMPS	2004Winop_CVEC_afterB2_Renum	497
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.62	0.66	-41.35	16.17	343.11 AMPS	515.00 AMPS	2004Winop_CVEC_beforeB2_Renum	497
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.76	1.2	-1301.64	349.81	1347.82 MVA	1120 MVA	2004Winop_CVEC_afterB1	246
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.74	1.16	-1245.59	358.04	1296.02 MVA	1120 MVA	2004Winop_CVEC_beforeB1	246

APPENDIX C3 – SPRING PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON NORMAL COMPARISON FILES

Hyperlink to: Normal B_cases C_cases

Normal

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Base MW	Base MVAR	Rate 1 PU Loading	Rate 1 Flow	Rate 1 Rating	File
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	200	106	1.05	226 MVA	215 MVA	2004SprPk_CVEC_afterB2_Renum
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	200	103	1.05	225 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum
No Violation														
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	150	30	1.02	153 MVA	150 MVA	2004SprPk_CVEC_beforeB2_Renum
30790	PANOCHE	230	30	30873	HELM	230	30	1	-384	40	1.3	963 AMPS	742.02 AMPS	2004SprPk_CVEC_afterB2_Renum
No Violation														
30790	PANOCHE	230	30	30873	HELM	230	30	2	-353	18	1.11	882 AMPS	795.74 AMPS	2004SprPk_CVEC_afterB2_Renum
No Violation														
31596	SOUTH	60	30	31826	SOUTH G	9	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004SprPk_CVEC_afterB2_Renum
31596	SOUTH	60	30	31826	SOUTH G	9	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004SprPk_CVEC_beforeB2_Renum
32218	DRUM	115	30	32454	DRUM 5	14	30	1	50	17	1.07	52 MVA	49 MVA	2004SprPk_CVEC_afterB2_Renum
32218	DRUM	115	30	32454	DRUM 5	14	30	1	50	17	1.07	52 MVA	49 MVA	2004SprPk_CVEC_beforeB2_Renum
32254	PLCRVLB2	115	30	32510	CHILIBAR	4	30	1	-7	2	1.04	7 MVA	7 MVA	2004SprPk_CVEC_afterB2_Renum
32254	PLCRVLB2	115	30	32510	CHILIBAR	4	30	1	-7	2	1.04	7 MVA	7 MVA	2004SprPk_CVEC_beforeB2_Renum
32388	FRNCH MS	60	30	32508	FRNCH MD	4	30	1	-17	6	1.06	18 MVA	17 MVA	2004SprPk_CVEC_afterB2_Renum
32388	FRNCH MS	60	30	32508	FRNCH MD	4	30	1	-17	6	1.06	18 MVA	17 MVA	2004SprPk_CVEC_beforeB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004SprPk_CVEC_afterB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004SprPk_CVEC_beforeB2_Renum
No Violation														
32762	STD. OIL	115	30	32922	ChevGen2	14	30	1	54	34	1	64 MVA	64 MVA	2004SprPk_CVEC_beforeB2_Renum
33566	CAMANCHE	115	30	33850	CAMANCHE	4	30	1	-10	3	0.99	11 MVA	11 MVA	2004SprPk_CVEC_afterB2_Renum
33566	CAMANCHE	115	30	33850	CAMANCHE	4	30	1	-11	3	0.99	11 MVA	11 MVA	2004SprPk_CVEC_beforeB2_Renum
33650	WEBER 1	60	30	33662	WEBER 2	60	30	1	29	133	1.06	1276 AMPS	1199.93 AMPS	2004SprPk_CVEC_afterB2_Renum
33650	WEBER 1	60	30	33662	WEBER 2	60	30	1	14	139	1.09	1305 AMPS	1199.93 AMPS	2004SprPk_CVEC_beforeB2_Renum
33906	SPRNG GF	115	30	34078	SPRNG GF	6	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004SprPk_CVEC_afterB2_Renum

33906	SPRNG GF	115	30	34078	SPRNG GF	6	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004SprPk_CVEC_beforeB2_Renum
34400	KNGS RVR	115	30	34616	KINGSRIV	14	30	1	-51	7	1.05	51 MVA	49 MVA	2004SprPk_CVEC_afterB2_Renum
34400	KNGS RVR	115	30	34616	KINGSRIV	14	30	1	-51	6	1.05	51 MVA	49 MVA	2004SprPk_CVEC_beforeB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-6	15	1.18	16 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-6	17	1.32	18 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum
34734	BEAR TAF	115	30	35066	PSE-BEAR	9	30	1	-43	19	0.99	47 MVA	48 MVA	2004SprPk_CVEC_afterB2_Renum
34734	BEAR TAF	115	30	35066	PSE-BEAR	9	30	1	-43	19	0.99	47 MVA	48 MVA	2004SprPk_CVEC_beforeB2_Renum
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	33	10	0.99	35 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	33	9	0.98	34 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum
34784	CAWELO C	115	30	35036	MT POSO	9	30	1	-84	31	1.05	90 MVA	86 MVA	2004SprPk_CVEC_afterB2_Renum
34784	CAWELO C	115	30	35036	MT POSO	9	30	1	-84	31	1.05	90 MVA	86 MVA	2004SprPk_CVEC_beforeB2_Renum

APPENDIX C3 – SPRING PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON BRANCH COMPARISON FILES FOR ISO CATEGORY B

Hyperlink to: Normal B_cases C_cases

B_cases

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Rate1 Base	Rate2 Out	MW	MVAR	Flow	Rating	File	Out#
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.48	1.21	1124.38	122.69	1131.05 MVA	933 MVA	2004SprPk_CVEC_afterB1	31
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.69	1.45	1340.75	143.41	1348.39 MVA	933 MVA	2004SprPk_CVEC_beforeB1	31
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.69	1.09	-1190.29	270.47	1220.63 MVA	1120 MVA	2004SprPk_CVEC_afterB1	246
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.64	1.01	-1104.17	261.02	1134.6 MVA	1120 MVA	2004SprPk_CVEC_beforeB1	246
30060	MIDWAY	500	30	35003	MDWY 11M	14	30	11	0.65	1.35	-1102.99	256.58	1132.44 MVA	840 MVA	2004SprPk_CVEC_afterB1	258
30060	MIDWAY	500	30	35003	MDWY 11M	14	30	11	0.6	1.25	-1023.07	244.14	1051.8 MVA	840 MVA	2004SprPk_CVEC_beforeB1	258
No Violation																
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.05	200	105.59	226.16 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	506
No Violation																
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.05	200	105.6	226.17 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	507
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.06	200	110.49	228.49 MVA	215 MVA	2004SprPk_CVEC_afterB2_Renum	508
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.06	200	108.9	227.73 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	508
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.06	200	108.56	227.57 MVA	215 MVA	2004SprPk_CVEC_afterB2_Renum	509
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.06	200	107.21	226.92 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	509
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.07	200	112.16	229.3 MVA	215 MVA	2004SprPk_CVEC_afterB2_Renum	510
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.07	200	112.14	229.29 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	510
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.06	200	110.96	228.72 MVA	215 MVA	2004SprPk_CVEC_afterB2_Renum	512
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.05	200	106.44	226.56 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	512
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.06	200	111.33	228.9 MVA	215 MVA	2004SprPk_CVEC_afterB2_Renum	514
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.06	200	110.92	228.7 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	514
No Violation																
30528	DEC PTSG	230	30	33110	DEC CTG3	18	30	1	1.05	1.05	200	105.82	226.27 MVA	215 MVA	2004SprPk_CVEC_beforeB2_Renum	517
No Violation																

30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	1.02	1.03	150	36.72	154.43 MVA	150 MVA	2004SprPk_CVEC_beforeB2_Renum	508
No Violation																
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	1.02	1.03	150	35.12	154.06 MVA	150 MVA	2004SprPk_CVEC_beforeB2_Renum	509
No Violation																
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	1.02	1.04	150	42.47	155.9 MVA	150 MVA	2004SprPk_CVEC_beforeB2_Renum	510
No Violation																
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	1.02	1.03	150	35.2	154.08 MVA	150 MVA	2004SprPk_CVEC_beforeB2_Renum	511
No Violation																
30529	HIWD TAP	230	30	33177	HIWD HIT	35	30	1	1.02	1.03	150	35.93	154.24 MVA	150 MVA	2004SprPk_CVEC_beforeB2_Renum	514
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.78	1.1	424.3	56.38	1057.88 AMPS	964.93 AMPS	2004SprPk_CVEC_afterB2_Renum	512
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.7	1.02	391.74	104.84	987.68 AMPS	964.93 AMPS	2004SprPk_CVEC_beforeB2_Renum	512
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.78	1.1	424.3	56.38	1057.88 AMPS	964.93 AMPS	2004SprPk_CVEC_afterB2_Renum	512
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.7	1.02	391.74	104.84	987.68 AMPS	964.93 AMPS	2004SprPk_CVEC_beforeB2_Renum	512
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.27	-430.26	51.27	1082.94 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	1
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.65	40.42	972.46 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	10
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.83	43.51	967.43 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	100
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.51	40.1	969.47 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	115
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.54	39.76	972.59 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	119
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.54	40.09	969.82 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	120
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.99	40	968.07 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	121
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.75	40.2	970.19 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	130
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.84	39.96	967.68 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	131
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-394.59	41.96	990.41 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	145
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.09	40.42	973.69 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	148
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.68	42.07	988.1 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	163
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.54	40.89	987.85 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	17
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.75	-584.14	89.23	1484.86 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	2
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.19	-401.02	41.84	1008.37 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	240
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-395.86	42.28	994.35 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	241
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.34	39.93	972.2 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	246
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-390.82	38.42	981.83 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	247
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.26	39.77	968.43 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	255
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-390.02	41.19	979.04 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	256
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-390.38	39.75	980.56 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	258
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.85	41.5	975.18 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	27
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.45	40.07	969.31 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	271
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-397.57	41.05	997.51 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	272
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.67	40.19	967.44 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	278
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.32	40.86	968.43 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	279
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.63	43.54	969.5 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	304
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.19	-400.91	42.78	1007.32 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	307
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.75	-584.14	89.23	1484.86 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	310
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.27	-430.26	51.27	1082.94 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	311
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-396.01	43.15	994.01 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	312
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.18	-399.87	42.09	1004.01 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	313

No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-387.93	40.48	973.38 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	317
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.03	40.68	968.37 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	320
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.83	43.51	967.43 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	323
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.41	41.45	974.04 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	326
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.09	40.11	968.35 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	335
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.63	43.54	969.5 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	343
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.3	-385.79	42.86	966.99 AMPS	742.02 AMPS	2004SprPk_CVEC_afterB2_Renum	356
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.75	-584.14	89.23	1484.86 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	379
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.27	-430.26	51.27	1082.94 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	380
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-396.01	43.15	994.01 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	381
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.18	-399.87	42.09	1004.01 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	382
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.92	40.49	970.93 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	387
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.2	-405.06	44.75	1017.23 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	388
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.02	41.34	974.46 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	389
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-418.24	48.52	1052.5 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	392
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-387.93	40.48	973.38 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	393
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.09	40.12	968.36 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	397
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.54	39.76	972.59 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	398
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.54	40.09	969.82 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	399
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.99	40	968.07 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	400
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.75	40.2	970.19 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	405
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.17	40.05	971.11 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	406
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.65	40.42	972.46 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	409
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.85	41.5	975.18 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	420
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.09	40.42	973.69 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	423
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-394.54	42.07	990.26 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	438
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.64	40.65	975.06 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	449
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.51	40.25	972.11 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	456
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.47	-495.93	71.4	1250.44 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	491
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.18	-400.08	49.39	1003.13 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	492
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.66	-557.39	84.27	1412.93 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	496
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.23	-416.33	50.26	1046.05 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	497
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-395.71	45.5	993.29 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	498
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.19	-400.91	42.78	1007.32 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	50
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.6	33.53	972.18 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	508
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.7	35.8	968.98 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	509
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-396.01	43.15	994.01 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	51
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.66	31.41	973.09 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	510

No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-394.66	32.4	993.93 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	514
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-390.17	36.23	980.64 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	517
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-394.67	37.16	992.64 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	518
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.27	37.94	970 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB2_Renum	519
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.18	-399.87	42.09	1004.01 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	52
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.92	40.49	970.93 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	57
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.2	-405.06	44.75	1017.23 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	58
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-420.04	48.04	1056.08 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	59
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.02	41.34	974.46 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	60
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.21	-409.81	44.33	1028.81 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	63
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-418.24	48.52	1052.5 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	64
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-387.93	40.48	973.38 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	90
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.7	41.98	969.81 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	94
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.03	40.68	968.37 AMPS	849.96 AMPS	2004SprPk_CVEC_afterB1	95
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.02	-395.79	26.61	991.42 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB1	1
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.02	-395.79	26.61	991.42 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB2_Renum	311
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.02	-395.79	26.61	991.42 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB2_Renum	380
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	0.99	-384.68	24.64	963.57 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB2_Renum	392
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.48	-567.06	72.73	1434.19 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB1	47
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.25	-481.16	56.99	1207.43 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB2_Renum	494
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	0.99	-383.01	26.32	957.66 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB2_Renum	497
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.41	-541.02	68.35	1364.58 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB2_Renum	499
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1	-386.31	24.12	966.85 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB1	59
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	0.99	-384.68	24.64	963.57 AMPS	968.94 AMPS	2004SprPk_CVEC_afterB1	64
No Violation																
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	1	0.68	1.05	-165.96	-31.03	168.84 MVA	161.3 MVA	2004SprPk_CVEC_afterB2_Renum	292
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	1	0.69	1.04	-165.79	-28.73	168.26 MVA	161.3 MVA	2004SprPk_CVEC_beforeB2_Renum	292

30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.84	1.12	173.41	49.4	180.31 MVA	161.3 MVA	2004SprPk_CVEC_afterB2_Renum	291
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.85	1.12	173.25	49.79	180.27 MVA	161.3 MVA	2004SprPk_CVEC_beforeB2_Renum	291
30970	MIDWAY	230	30	35003	MDWY 11M	14	30	11	0.64	1.32	1106.86	-45.26	1107.78 MVA	840 MVA	2004SprPk_CVEC_afterB1	258
30970	MIDWAY	230	30	35003	MDWY 11M	14	30	11	0.59	1.22	1026.46	-62.55	1028.36 MVA	840 MVA	2004SprPk_CVEC_beforeB1	258
32218	DRUM	115	30	32454	DRUM 5	14	30	1	1.07	1.09	49.5	19.46	53.19 MVA	49 MVA	2004SprPk_CVEC_afterB2_Renum	508
32218	DRUM	115	30	32454	DRUM 5	14	30	1	1.07	1.08	49.5	19.2	53.09 MVA	49 MVA	2004SprPk_CVEC_beforeB2_Renum	508
32218	DRUM	115	30	32454	DRUM 5	14	30	1	1.07	1.08	49.5	18.52	52.85 MVA	49 MVA	2004SprPk_CVEC_afterB2_Renum	509
32218	DRUM	115	30	32454	DRUM 5	14	30	1	1.07	1.08	49.5	18.27	52.76 MVA	49 MVA	2004SprPk_CVEC_beforeB2_Renum	509
32218	DRUM	115	30	32454	DRUM 5	14	30	1	1.07	1.08	49.5	18.27	52.76 MVA	49 MVA	2004SprPk_CVEC_afterB2_Renum	510
32218	DRUM	115	30	32454	DRUM 5	14	30	1	1.07	1.08	49.5	18.99	53.02 MVA	49 MVA	2004SprPk_CVEC_beforeB2_Renum	510
No Violation																
32218	DRUM	115	30	32454	DRUM 5	14	30	1	1.07	1.07	49.5	17.65	52.55 MVA	49 MVA	2004SprPk_CVEC_beforeB2_Renum	511
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.97	0.99	-50	23.41	55.21 MVA	56 MVA	2004SprPk_CVEC_afterB2_Renum	262
No Violation																
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.97	0.99	-50	23.31	55.17 MVA	56 MVA	2004SprPk_CVEC_afterB2_Renum	316
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.98	0.99	-50	24.17	55.53 MVA	56 MVA	2004SprPk_CVEC_beforeB2_Renum	316
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.97	0.99	-50	23.34	55.18 MVA	56 MVA	2004SprPk_CVEC_afterB2_Renum	340
No Violation																
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.97	0.99	-50	23.31	55.17 MVA	56 MVA	2004SprPk_CVEC_afterB1	89
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.98	0.99	-50	24.17	55.53 MVA	56 MVA	2004SprPk_CVEC_beforeB1	89
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.39	1.09	-56.89	32.44	65.48 MVA	60 MVA	2004SprPk_CVEC_afterB1	92
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.37	1.07	-56.88	29.64	64.14 MVA	60 MVA	2004SprPk_CVEC_beforeB1	92
34146	MERCED M	115	30	34202	MERCED	70	30	2	0.38	0.99	56.89	-16.44	59.22 MVA	60 MVA	2004SprPk_CVEC_afterB1	92
34146	MERCED M	115	30	34202	MERCED	70	30	2	0.36	0.97	56.88	-13.61	58.48 MVA	60 MVA	2004SprPk_CVEC_beforeB1	92
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.47	1.36	-56.89	17.11	512.28 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB1	92

34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.45	1.36	-56.88	14.25	512.6 AMPS	377.75 AMPS	2004SprPk_CVEC_beforeB1	92
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.45	1.33	62.05	-6.96	505.67 AMPS	379.4 AMPS	2004SprPk_CVEC_afterB1	92
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.42	1.33	62.06	-4.07	505.16 AMPS	379.4 AMPS	2004SprPk_CVEC_beforeB1	92
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.34	1.58	-54.07	7.26	441.82 AMPS	280.43 AMPS	2004SprPk_CVEC_afterB1	92
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.31	1.58	-54.06	5.99	441.85 AMPS	280.43 AMPS	2004SprPk_CVEC_beforeB1	92
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.05	52.72	-5.15	395.82 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB1	2
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.05	52.72	-5.15	395.82 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB2_Renum	310
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.05	52.72	-5.15	395.82 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB2_Renum	379
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.09	54.7	-5.99	411.41 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB1	47
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.02	44.03	-5.69	331.56 AMPS	324.97 AMPS	2004SprPk_CVEC_afterB2_Renum	484
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1	50.53	-4.85	378.96 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB2_Renum	496
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.04	52.41	-5.67	393.7 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB2_Renum	499
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.66	1.16	57.6	-6.76	438.54 AMPS	379.4 AMPS	2004SprPk_CVEC_afterB2_Renum	492
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.84	1.02	50.25	-9.28	386.79 AMPS	377.75 AMPS	2004SprPk_CVEC_afterB1	47
No Violation																
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeB1	10

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.47	16.77 MVA	14 MVA	2004SprPk_CVEC_afterB1	100
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.61	18.76 MVA	14 MVA	2004SprPk_CVEC_beforeB1	100
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB1	104
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.35	16.66 MVA	14 MVA	2004SprPk_CVEC_afterB1	126
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.4	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB1	126
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.33	18.5 MVA	14 MVA	2004SprPk_CVEC_beforeB1	131
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.43	16.73 MVA	14 MVA	2004SprPk_CVEC_afterB1	141
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.53	18.69 MVA	14 MVA	2004SprPk_CVEC_beforeB1	141
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.35	16.66 MVA	14 MVA	2004SprPk_CVEC_afterB1	145
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.33	16.64 MVA	14 MVA	2004SprPk_CVEC_afterB1	156
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.46	18.62 MVA	14 MVA	2004SprPk_CVEC_beforeB1	156
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.75	18.89 MVA	14 MVA	2004SprPk_CVEC_beforeB1	158
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.74	17.02 MVA	14 MVA	2004SprPk_CVEC_afterB1	163
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.29	16.6 MVA	14 MVA	2004SprPk_CVEC_afterB1	164
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.42	18.58 MVA	14 MVA	2004SprPk_CVEC_beforeB1	164
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.33	18.5 MVA	14 MVA	2004SprPk_CVEC_beforeB1	168
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.28	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB1	171
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB1	171
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.38	16.69 MVA	14 MVA	2004SprPk_CVEC_afterB1	174
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.49	18.65 MVA	14 MVA	2004SprPk_CVEC_beforeB1	174

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.46	16.76 MVA	14 MVA	2004SprPk_CVEC_afterB1	180
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.57	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeB1	180
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.28	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB1	181
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB1	181
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB1	185
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.36	18.52 MVA	14 MVA	2004SprPk_CVEC_beforeB1	185
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB1	186
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB1	186
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.44	16.74 MVA	14 MVA	2004SprPk_CVEC_afterB1	188
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeB1	188
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB1	189
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB1	189
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.43	16.73 MVA	14 MVA	2004SprPk_CVEC_afterB1	191
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeB1	191
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.39	16.7 MVA	14 MVA	2004SprPk_CVEC_afterB1	192
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.52	18.67 MVA	14 MVA	2004SprPk_CVEC_beforeB1	192
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.39	16.7 MVA	14 MVA	2004SprPk_CVEC_afterB1	193
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.52	18.68 MVA	14 MVA	2004SprPk_CVEC_beforeB1	193
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.56 MVA	14 MVA	2004SprPk_CVEC_afterB1	194
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.34	18.51 MVA	14 MVA	2004SprPk_CVEC_beforeB1	194
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.52	16.82 MVA	14 MVA	2004SprPk_CVEC_afterB1	20
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.73	18.87 MVA	14 MVA	2004SprPk_CVEC_beforeB1	20
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB1	211
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.33	18.5 MVA	14 MVA	2004SprPk_CVEC_beforeB1	211
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.33	18.5 MVA	14 MVA	2004SprPk_CVEC_beforeB1	221
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.58 MVA	14 MVA	2004SprPk_CVEC_afterB1	222
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.35	18.52 MVA	14 MVA	2004SprPk_CVEC_beforeB1	222
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.44	16.74 MVA	14 MVA	2004SprPk_CVEC_afterB1	224
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.53	18.69 MVA	14 MVA	2004SprPk_CVEC_beforeB1	224
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.37	16.68 MVA	14 MVA	2004SprPk_CVEC_afterB1	230
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.5	18.66 MVA	14 MVA	2004SprPk_CVEC_beforeB1	230
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.3	16.61 MVA	14 MVA	2004SprPk_CVEC_afterB1	251
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.43	18.59 MVA	14 MVA	2004SprPk_CVEC_beforeB1	251
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.28	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB1	252
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.41	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB1	252
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.58 MVA	14 MVA	2004SprPk_CVEC_afterB1	253
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.41	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB1	253
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.58 MVA	14 MVA	2004SprPk_CVEC_afterB1	254
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.49	18.64 MVA	14 MVA	2004SprPk_CVEC_beforeB1	254
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB1	255
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.56	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeB1	255
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.24	-6.47	16.06	17.32 MVA	14 MVA	2004SprPk_CVEC_afterB1	26
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.94	19.07 MVA	14 MVA	2004SprPk_CVEC_beforeB1	26
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.59	16.88 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	261
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.63	18.78 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	261
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.52	16.82 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	262
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.28	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	266
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	266

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.82	17.09 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	268
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.74 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	268
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.45	16.75 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	269
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.43	18.59 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	269
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.54	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeB1	27
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	273
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.73	17 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	279
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.96	19.09 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	279
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.33	18.5 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	282
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.53	16.83 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	287
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.66	18.81 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	287
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.43	16.74 MVA	14 MVA	2004SprPk_CVEC_afterB1	29
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.5	18.66 MVA	14 MVA	2004SprPk_CVEC_beforeB1	29
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.43	16.73 MVA	14 MVA	2004SprPk_CVEC_afterB1	3
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.52	18.67 MVA	14 MVA	2004SprPk_CVEC_beforeB1	3
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.71 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	304
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.74 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	304
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.46	16.76 MVA	14 MVA	2004SprPk_CVEC_afterB1	31
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.64	18.79 MVA	14 MVA	2004SprPk_CVEC_beforeB1	31
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	313
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.76	17.04 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	314
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.83	18.97 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	314

No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.39	18.55 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	316
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.6	16.88 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	319
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.61	18.76 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	319
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.47	16.77 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	322
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.63	18.78 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	322
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.47	16.77 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	323
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.61	18.76 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	323
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.58	16.87 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	325
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.77	18.91 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	325
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.57	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	326
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	329
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.3	16.61 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	340
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.71 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	343
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.74 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	343
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.79	17.07 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	344
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.81	18.95 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	344
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.42	16.72 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	345
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	345
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.59	16.88 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	346
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.63	18.78 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	346
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	348

No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	349
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	350
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	351
No Violation																
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	352
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.67	16.95 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	354
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.72	18.87 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	354
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.63	16.92 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	355
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.63	18.78 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	355
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.79	17.07 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	356
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.81	18.95 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	356
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.57	16.86 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	361
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.61	18.76 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	361
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.34	18.51 MVA	14 MVA	2004SprPk_CVEC_beforeB1	37
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB1	38
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.55 MVA	14 MVA	2004SprPk_CVEC_beforeB1	38
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	382
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.28	-6.47	16.68	17.89 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	383
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.65	18.79 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	383

No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.35	18.52 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	388
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.24	-6.47	16.07	17.32 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	390
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.7	18.85 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	390
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.62	16.91 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	391
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB1	40
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.36	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeB1	40
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.72 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	401
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.41	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	401
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.35	16.66 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	402
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.4	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	402
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	403
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.55 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	403
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.34	18.51 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	404
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.33	18.5 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	406
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	409
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.62	16.9 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	413
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.48	18.64 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	413
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.58 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	417
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.35	18.52 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	417
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.54	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	420

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.24	-6.47	16.06	17.32 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	421
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.94	19.07 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	421
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.43	16.74 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	424
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.5	18.66 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	424
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.37	16.67 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	429
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.51	18.67 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	429
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.33	16.64 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	430
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.46	18.62 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	430
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.38	16.69 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	432
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.48	18.64 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	432
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.69	18.83 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	433
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.61	18.76 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	435
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.74	17.01 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	438
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.29	-6.47	16.87	18.07 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	442
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.91	19.04 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	442
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.82	17.09 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	446
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.74 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	446
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.35	18.51 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	449
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.35	16.66 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	451
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.41	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	451
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	453

No Violation

No Violation

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.34	18.51 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	456
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.45	16.75 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	457
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.43	18.59 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	457
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.82	17.09 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	458
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.74 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	458
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.29	-6.47	16.87	18.07 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	460
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.91	19.04 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	460
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.55	16.84 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	463
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.52	18.67 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	463
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.58	16.87 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	464
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.57	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	464
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.58	16.87 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	465
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.57	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	465
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.47	16.77 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	466
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.45	18.61 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	466
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.49	16.79 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	467
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.49	18.65 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	467
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.45	16.75 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	468
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.43	18.59 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	468
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.58 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	469
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.41	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	469
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.58 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	470
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.4	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	470

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.29	-6.47	16.86	18.06 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	471
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.42	-6.47	18.83	19.91 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	471
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.37	16.68 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	472
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.43	18.59 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	472
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	473
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.4	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	473
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	474
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.4	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	474
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.35	16.66 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	475
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.41	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	475
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.29	16.6 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	477
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	477
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.45	16.75 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	479
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.49	18.65 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	479
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	480
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.57 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	481
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.33	-6.47	17.47	18.63 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	484
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.42	-6.47	18.83	19.91 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	484
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.51	16.81 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	487
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.46	18.62 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	487
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.3	-6.47	16.96	18.15 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	490
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.39	-6.47	18.32	19.42 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	490
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.34	16.65 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	491
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.8	18.94 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	491

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.25	-6.47	16.19	17.43 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	492
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.76	18.9 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	492
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.24	-6.47	16.11	17.36 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	493
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.64	18.79 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	493
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.31	16.62 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	494
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.5	18.66 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	494
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.48	16.78 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	495
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.79	18.93 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	495
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.71 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	497
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.76	17.04 MVA	14 MVA	2004SprPk_CVEC_afterB1	5
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.83	18.97 MVA	14 MVA	2004SprPk_CVEC_beforeB1	5
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.56	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	503
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.37	16.67 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	504
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.46	18.62 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	504
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.43	16.73 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	505
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.71 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	505
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.71 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	512
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeB1	52
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.53	16.82 MVA	14 MVA	2004SprPk_CVEC_afterB2_Renum	521
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.7	18.85 MVA	14 MVA	2004SprPk_CVEC_beforeB2_Renum	521
No Violation																

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.35	18.52 MVA	14 MVA	2004SprPk_CVEC_beforeB1	58
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.24	-6.47	16.07	17.32 MVA	14 MVA	2004SprPk_CVEC_afterB1	61
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.7	18.85 MVA	14 MVA	2004SprPk_CVEC_beforeB1	61
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.62	16.91 MVA	14 MVA	2004SprPk_CVEC_afterB1	62
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.51	16.8 MVA	14 MVA	2004SprPk_CVEC_afterB1	7
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.62	18.77 MVA	14 MVA	2004SprPk_CVEC_beforeB1	7
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.64	16.93 MVA	14 MVA	2004SprPk_CVEC_afterB1	78
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.79	18.93 MVA	14 MVA	2004SprPk_CVEC_beforeB1	78
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.28	16.59 MVA	14 MVA	2004SprPk_CVEC_afterB1	79
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeB1	79
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.39	18.55 MVA	14 MVA	2004SprPk_CVEC_beforeB1	89
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.72 MVA	14 MVA	2004SprPk_CVEC_afterB1	9
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.41	18.57 MVA	14 MVA	2004SprPk_CVEC_beforeB1	9
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.5	16.8 MVA	14 MVA	2004SprPk_CVEC_afterB1	92
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.46	16.76 MVA	14 MVA	2004SprPk_CVEC_afterB1	94
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.75 MVA	14 MVA	2004SprPk_CVEC_beforeB1	94
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.47	16.77 MVA	14 MVA	2004SprPk_CVEC_afterB1	99
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.63	18.78 MVA	14 MVA	2004SprPk_CVEC_beforeB1	99
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	12.03	35.13 MVA	35 MVA	2004SprPk_CVEC_afterB1	179
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.82	34.73 MVA	35 MVA	2004SprPk_CVEC_beforeB1	179
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.15	34.83 MVA	35 MVA	2004SprPk_CVEC_afterB1	205
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.86	34.44 MVA	35 MVA	2004SprPk_CVEC_beforeB1	205

34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	11.04	34.8 MVA	35 MVA	2004SprPk_CVEC_afterB1	242
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.75	34.41 MVA	35 MVA	2004SprPk_CVEC_beforeB1	242
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	11.04	34.8 MVA	35 MVA	2004SprPk_CVEC_afterB1	244
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.75	34.41 MVA	35 MVA	2004SprPk_CVEC_beforeB1	244
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.01	33	12.28	35.21 MVA	35 MVA	2004SprPk_CVEC_afterB1	246
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.99	34.78 MVA	35 MVA	2004SprPk_CVEC_beforeB1	246
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.02	33	13.81	35.77 MVA	35 MVA	2004SprPk_CVEC_afterB1	258
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.01	33	12.51	35.29 MVA	35 MVA	2004SprPk_CVEC_beforeB1	258
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	282
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	282
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.02	33	13.69	35.73 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	283
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.01	33	12.42	35.26 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	283
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.04	33	14.95	36.23 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	284
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.02	33	13.68	35.72 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	284
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	288
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.02	33	13.84	35.79 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	288
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.16	34.84 MVA	35 MVA	2004SprPk_CVEC_afterB1	31
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.97	34.47 MVA	35 MVA	2004SprPk_CVEC_beforeB1	31
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.97	34.78 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	508
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.82	34.43 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	508
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.2	34.85 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	510
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.17	34.53 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	510
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.97	34.78 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	514
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.96	34.47 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	514
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.57	34.97 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	518
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.32	34.58 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	518

34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.01	33	12.66	35.35 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	519
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1	33	11.55	34.96 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	519
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.88	34.75 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	520
No Violation																
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.96	35.1 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	521
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.69	34.69 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	521
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.95	35.1 MVA	35 MVA	2004SprPk_CVEC_afterB2_Renum	523
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.64	34.67 MVA	35 MVA	2004SprPk_CVEC_beforeB2_Renum	523
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.24	34.86 MVA	35 MVA	2004SprPk_CVEC_afterB1	67
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.09	34.51 MVA	35 MVA	2004SprPk_CVEC_beforeB1	67
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.91	34.76 MVA	35 MVA	2004SprPk_CVEC_afterB1	71
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.73	34.4 MVA	35 MVA	2004SprPk_CVEC_beforeB1	71
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.91	34.76 MVA	35 MVA	2004SprPk_CVEC_afterB1	72
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.73	34.4 MVA	35 MVA	2004SprPk_CVEC_beforeB1	72
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.03	33	14.4	36 MVA	35 MVA	2004SprPk_CVEC_afterB1	75
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.01	33	13.13	35.52 MVA	35 MVA	2004SprPk_CVEC_beforeB1	75
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.01	33	12.95	35.45 MVA	35 MVA	2004SprPk_CVEC_afterB1	76
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1	33	11.68	35 MVA	35 MVA	2004SprPk_CVEC_beforeB1	76
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.01	33	12.67	35.35 MVA	35 MVA	2004SprPk_CVEC_afterB1	77
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1	33	11.4	34.92 MVA	35 MVA	2004SprPk_CVEC_beforeB1	77
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.86	1	0	43	43 MVA	43 MVA	2004SprPk_CVEC_afterB2_Renum	508
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.65	0.84	0	36.27	36.27 MVA	43 MVA	2004SprPk_CVEC_beforeB2_Renum	508
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.86	1	0	43	43 MVA	43 MVA	2004SprPk_CVEC_afterB2_Renum	510
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.65	0.93	0	40.05	40.05 MVA	43 MVA	2004SprPk_CVEC_beforeB2_Renum	510
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.86	1	0	43	43 MVA	43 MVA	2004SprPk_CVEC_afterB2_Renum	512

36217	PSWTSTCM	8	30	36218	M	115	30	1	0.65	0.76	0	32.48	32.48 MVA	43 MVA	2004SprPk_CVEC_beforeB2_Renum	512
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.86	1	0	43	43 MVA	43 MVA	2004SprPk_CVEC_afterB2_Renum	514
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.65	1	0	43	43 MVA	43 MVA	2004SprPk_CVEC_beforeB2_Renum	514
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.86	1	0	43	43 MVA	43 MVA	2004SprPk_CVEC_afterB2_Renum	517
36217	PSWTSTCM	8	30	36218	M	115	30	1	0.65	0.85	0	36.35	36.35 MVA	43 MVA	2004SprPk_CVEC_beforeB2_Renum	517

Hyperlink to: Normal B_cases C_cases

C_cases

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Rate1 Base	Rate2 Out	MW	MVAR	Flow	Rating	File	Out#
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.48	1.54	1425.15	153.4	1433.38 MVA	933 MVA	2004SprPk_CVEC_afterC	109
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.51	38.48	988.19 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	103
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.19	-401.39	42.87	1008.3 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	104
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.27	-428.17	50.8	1077.48 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	105
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-387.96	41.25	974.22 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	106
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.98	40.46	971.03 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	107
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-396.26	42.64	996.37 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	108
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-392.14	40.8	984.21 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	11
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-392.15	42.18	983.8 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	110
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.39	-468.47	60.27	1183.78 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	12
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.84	39.95	967.91 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	121
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-389.51	43.6	977.24 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	123
No Violation																

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.82	39.84	967.68 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	124	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.79	39.77	967.84 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	126	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.52	39.62	967.26 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	127	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.52	41.87	969.37 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	129	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.88	-626.27	102.47	1596.84 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	13	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.44	40.79	967.35 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	137	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-390.92	42.54	981.03 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	139	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.94	40.77	970.68 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	141	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-389.11	40.38	976.31 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	143	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.13	40.27	971.25 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	144	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-390.57	40.62	980.12 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	146	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.22	40.25	971.42 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	149	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.95	-650.11	110.14	1660.28 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	15	No Violation

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.14	40.14	968.6 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	151	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-389.34	40.61	977.02 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	152	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-391.54	40.89	982.81 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	153	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-389.82	40.79	978.4 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	154	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-392.66	39.63	984.31 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	155	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-392.34	40.64	984.81 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	156	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.23	40.83	987.02 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	157	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-391.08	39.46	980.57 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	158	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-389.82	40.81	978.15 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	159	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.3	-437.74	53.47	1102.46 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	16	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.77	40.29	967.71 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	160	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-390.03	41.2	979.06 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	161	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.76	40.15	967.65 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	165	No Violation

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.19	-403.09	42.71	1011.93 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	166	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.93	40.38	968.3 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	167	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.33	40.13	969.31 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	168	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.44	40.2	969.42 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	169	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.59	40.26	974.83 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	170	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-387.07	40.08	970.9 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	171	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.08	40.17	968.5 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	172	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.32	40.86	968.43 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	176	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-394.54	42.07	990.26 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	179	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.48	-497.21	67.61	1257.43 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	18	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-392.84	44.43	985.26 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	181	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-385.93	40.23	968.19 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	185	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.25	-423.06	47.24	1063.64 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	19	No Violation

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.58	40.25	969.7 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	2	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.25	-422.12	47.94	1062 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	23	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.27	-428.08	50.4	1076.99 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	24	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.21	-408.94	45.62	1027.61 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	25	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.2	-403.3	44.46	1015.88 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	26	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.73	42.67	988.07 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	28	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-392.36	42.04	984.22 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	32	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.56	42.5	987.74 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	33	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.41	42.71	987.56 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	34	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.05	40.01	968.18 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	4	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-393.54	40.89	987.85 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	5	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.04	40.68	968.39 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	56	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.65	43.21	974.48 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	61	No Violation

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-419.93	46.42	1057.16 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	62	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-418.58	45.55	1053 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	63	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.27	-427.53	46.15	1078.36 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	64	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-419.37	45.01	1057.04 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	65	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-395.35	39.36	993.6 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	66	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.62	-540.49	56.04	1376.42 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	69	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-389.71	40.93	977.82 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	7	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-419.28	48.31	1054.03 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	71	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.18	-398.67	43.58	999.59 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	72	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.17	-396.5	44.44	993.28 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	73	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.2	-404.88	46.53	1016.79 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	76	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.24	-418.2	47.94	1052.01 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	77	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.16	-391.72	39.7	981.98 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	9	No Violation

30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.15	-388.26	40.32	974.03 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	95	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	1	1.3	1.14	-386.27	39.82	968.48 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	96	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.02	-393.86	26.27	986.43 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	105	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.12	-431.13	33.09	1083.7 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	12	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.04	-402.74	28.28	1009.28 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	16	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.76	-670.26	107.41	1709.18 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	17	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.19	-457.74	38.47	1151.1 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	18	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1	-389.03	23.25	973.77 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	19	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1	-388.2	23.94	972.26 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	23	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.02	-393.76	25.91	985.98 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	24	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1	-386.12	22.65	967.84 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	62	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	0.99	-384.86	21.91	964.03 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	63	No Violation
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.02	-393.06	22.05	987.24 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	64	No Violation

30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1	-385.55	21.39	967.74 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	65
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1.36	-519.47	50.55	1313.66 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	70
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	1	-385.62	24.4	964.97 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	71
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	1.11	0.99	-384.62	24.11	963.12 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	77
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.49	1.27	495.85	1.01	1235.05 AMPS	974.97 AMPS	2004SprPk_CVEC_afterC	14
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	0.52	1.29	505.5	32.33	1247.56 AMPS	968.94 AMPS	2004SprPk_CVEC_afterC	14
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.42	1.19	458.78	-39.73	1156.64 AMPS	974.97 AMPS	2004SprPk_CVEC_afterC	14
No Violation																
30873	HELM	230	30	30875	MC CALL	230	30	1	0.31	1.17	402.31	23.48	992.56 AMPS	849.96 AMPS	2004SprPk_CVEC_afterC	14
No Violation																
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.84	1.05	161.11	53.65	169.81 MVA	161.3 MVA	2004SprPk_CVEC_afterC	85
30930	MESA PGE	230	30	36256	MESA_PGE	115	30	2	0.85	1.05	160.97	51.53	169.02 MVA	161.3 MVA	2004SprPk_CVEC_beforeC	85
34100	CHWCHLLA	115	30	34105	CERTANJ1	115	30	1	0.08	1.24	93.09	-37.68	493.75 AMPS	396.61 AMPS	2004SprPk_CVEC_afterC	6
34100	CHWCHLLA	115	30	34105	CERTANJ1	115	30	1	0.11	1.25	93.08	-38.13	493.95 AMPS	396.61 AMPS	2004SprPk_CVEC_beforeC	6
34101	CERTAN T	115	30	34116	LE GRAND	115	30	1	0.64	1.73	126.06	-59.28	684.39 AMPS	396.61 AMPS	2004SprPk_CVEC_afterC	6
34101	CERTAN T	115	30	34116	LE GRAND	115	30	1	0.53	1.73	126.05	-60.28	685.6 AMPS	396.61 AMPS	2004SprPk_CVEC_beforeC	6
34105	CERTANJ1	115	30	34121	SHARON T	115	30	1	0.08	1.24	-93.09	37.68	493.76 AMPS	396.61 AMPS	2004SprPk_CVEC_afterC	6
34105	CERTANJ1	115	30	34121	SHARON T	115	30	1	0.11	1.25	-93.08	38.13	493.93 AMPS	396.61 AMPS	2004SprPk_CVEC_beforeC	6
No Violation																
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.98	0.99	-50	23.63	55.3 MVA	56 MVA	2004SprPk_CVEC_beforeC	158

No Violation																
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.98	0.99	-50	23.62	55.3 MVA	56 MVA	2004SprPk_CVEC_beforeC	38
No Violation																
34109	CHWCGN	115	30	34301	CHOWCOGN	14	30	1	0.98	0.99	-50	23.72	55.34 MVA	56 MVA	2004SprPk_CVEC_beforeC	9
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.84	1.09	86.49	6.73	433.25 AMPS	398.12 AMPS	2004SprPk_CVEC_afterC	103
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.69	1.02	81.71	6.72	408.04 AMPS	398.12 AMPS	2004SprPk_CVEC_beforeC	103
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.84	1.13	89.9	-19.23	448.81 AMPS	398.12 AMPS	2004SprPk_CVEC_afterC	33
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.69	0.8	64.05	-14.45	318.04 AMPS	398.12 AMPS	2004SprPk_CVEC_beforeC	33
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.84	1.48	111.01	-46.03	588.16 AMPS	398.12 AMPS	2004SprPk_CVEC_afterC	6
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.69	1.42	106.31	-45.95	565.76 AMPS	398.12 AMPS	2004SprPk_CVEC_beforeC	6
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.84	1.01	80	-20.57	401.54 AMPS	398.12 AMPS	2004SprPk_CVEC_afterC	62
No Violation																
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.84	1.01	80.05	-20.39	401.43 AMPS	398.12 AMPS	2004SprPk_CVEC_afterC	63
No Violation																
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.84	1.12	89.19	6.34	447.07 AMPS	398.12 AMPS	2004SprPk_CVEC_afterC	66
34116	LE GRAND	115	30	34136	WILSON B	115	30	1	0.69	1.06	84.42	6.38	421.89 AMPS	398.12 AMPS	2004SprPk_CVEC_beforeC	66
34121	SHARON T	115	30	34128	OAKH_JCT	115	30	1	0.2	1.31	-101.62	30.34	520.65 AMPS	396.61 AMPS	2004SprPk_CVEC_afterC	6
34121	SHARON T	115	30	34128	OAKH_JCT	115	30	1	0.16	1.31	-101.62	30.78	520.67 AMPS	396.61 AMPS	2004SprPk_CVEC_beforeC	6
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.39	1.07	-56.87	29.34	64 MVA	60 MVA	2004SprPk_CVEC_afterC	122
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.37	1.07	-56.88	29.62	64.13 MVA	60 MVA	2004SprPk_CVEC_beforeC	122
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.39	1.07	-56.88	29.78	64.2 MVA	60 MVA	2004SprPk_CVEC_afterC	123
34144	MERCED	115	30	34146	MERCED M	115	30	2	0.37	1.07	-56.88	30.08	64.35 MVA	60 MVA	2004SprPk_CVEC_beforeC	123
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.47	1.36	-56.87	13.94	512.84 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	122
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.45	1.36	-56.88	14.24	512.56 AMPS	377.75 AMPS	2004SprPk_CVEC_beforeC	122
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.47	1.36	-56.88	14.4	512.54 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	123
34202	MERCED	70	30	34230	MRCDFLLS	70	30	1	0.45	1.36	-56.88	14.71	512.47 AMPS	377.75 AMPS	2004SprPk_CVEC_beforeC	123

34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.45	1.33	62.06	-3.74	505.31 AMPS	379.4 AMPS	2004SprPk_CVEC_afterC	122
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.42	1.33	62.06	-4.07	505.1 AMPS	379.4 AMPS	2004SprPk_CVEC_beforeC	122
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.45	1.33	62.06	-4.2	505.12 AMPS	379.4 AMPS	2004SprPk_CVEC_afterC	123
34230	MRCDFLLS	70	30	34321	MCSWAINJ	70	30	1	0.42	1.33	62.06	-4.53	505.21 AMPS	379.4 AMPS	2004SprPk_CVEC_beforeC	123
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.34	1.58	-54.06	5.67	441.82 AMPS	280.43 AMPS	2004SprPk_CVEC_afterC	122
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.31	1.58	-54.07	5.96	441.78 AMPS	280.43 AMPS	2004SprPk_CVEC_beforeC	122
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.34	1.58	-54.06	6.08	441.84 AMPS	280.43 AMPS	2004SprPk_CVEC_afterC	123
34232	EXCHEQUR	70	30	34321	MCSWAINJ	70	30	1	0.31	1.58	-54.07	6.21	441.83 AMPS	280.43 AMPS	2004SprPk_CVEC_beforeC	123
34240	GLASS	70	30	34252	MADERA	70	30	1	0.45	1.13	-49.08	-14.62	425.91 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	167
34240	GLASS	70	30	34252	MADERA	70	30	1	0.52	1.13	-49.08	-14.6	425.1 AMPS	377.75 AMPS	2004SprPk_CVEC_beforeC	167
34264	EL PECO	70	30	34466	BIOLA	70	30	1	0.21	1	-41.9	-6.23	377.94 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	138
34264	EL PECO	70	30	34466	BIOLA	70	30	1	0.1	1	-41.91	-6.31	379.33 AMPS	377.75 AMPS	2004SprPk_CVEC_beforeC	138
34268	MENDOTA	70	30	34269	BIOMSJCT	70	30	1	0.69	1.28	59.31	-21.63	504.87 AMPS	395.9 AMPS	2004SprPk_CVEC_afterC	14
No Violation																
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.36	1.11	-49.92	-9.15	439.4 AMPS	395.9 AMPS	2004SprPk_CVEC_afterC	138
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.26	1.11	-49.94	-9.24	440.96 AMPS	395.9 AMPS	2004SprPk_CVEC_beforeC	138
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.01	50.42	-6.01	380.39 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	12
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.15	57.89	-6.24	435.22 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	13
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	2.13	106.7	-12.23	805.5 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	14
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.16	58.36	-5.96	437.9 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	15
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.21	60.79	-6.59	456.47 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	17
No Violation																

34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.06	53.09	-3.82	399.1 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	69
No Violation																
34474	HELM	70	30	34556	STRD JCT	70	30	1	0.91	1.09	54.72	-4.36	411.62 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	70
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.66	1.01	50.36	-3.76	382.51 AMPS	379.4 AMPS	2004SprPk_CVEC_afterC	17
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.66	1.03	51.3	-4.71	389.69 AMPS	379.4 AMPS	2004SprPk_CVEC_afterC	18
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.84	1.09	53.34	-9.75	410.58 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	13
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.84	2.07	99.67	-20.72	781.07 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	14
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.84	1.09	53.79	-9.5	413.2 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	15
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.84	1.14	56.13	-10.3	431.87 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	17
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.84	0.99	48.69	-7	373.8 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	69
No Violation																
34556	STRD JCT	70	30	34562	SCHLNDLR	70	30	1	0.84	1.02	50.27	-7.66	386.45 AMPS	377.75 AMPS	2004SprPk_CVEC_afterC	70
No Violation																
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.44	18.6 MVA	14 MVA	2004SprPk_CVEC_beforeC	1
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.36	18.52 MVA	14 MVA	2004SprPk_CVEC_beforeC	101
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.36	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeC	104

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.24	-6.47	16.15	17.39 MVA	14 MVA	2004SprPk_CVEC_afterC	109
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.4	16.71 MVA	14 MVA	2004SprPk_CVEC_afterC	110
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.73	18.88 MVA	14 MVA	2004SprPk_CVEC_beforeC	110
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.56 MVA	14 MVA	2004SprPk_CVEC_afterC	115
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.34	18.51 MVA	14 MVA	2004SprPk_CVEC_beforeC	115
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.5	16.8 MVA	14 MVA	2004SprPk_CVEC_afterC	123
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.63	18.78 MVA	14 MVA	2004SprPk_CVEC_beforeC	123
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.43	16.74 MVA	14 MVA	2004SprPk_CVEC_afterC	129
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.74 MVA	14 MVA	2004SprPk_CVEC_beforeC	129
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.81	17.08 MVA	14 MVA	2004SprPk_CVEC_afterC	142
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeC	142
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.48	16.78 MVA	14 MVA	2004SprPk_CVEC_afterC	145
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.57	18.73 MVA	14 MVA	2004SprPk_CVEC_beforeC	145
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.44	16.74 MVA	14 MVA	2004SprPk_CVEC_afterC	150
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.42	18.58 MVA	14 MVA	2004SprPk_CVEC_beforeC	150
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.29	16.61 MVA	14 MVA	2004SprPk_CVEC_afterC	155
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.69	18.83 MVA	14 MVA	2004SprPk_CVEC_beforeC	155
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.73	18.88 MVA	14 MVA	2004SprPk_CVEC_beforeC	158
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.39	16.69 MVA	14 MVA	2004SprPk_CVEC_afterC	164
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.47	18.63 MVA	14 MVA	2004SprPk_CVEC_beforeC	164
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.32	16.63 MVA	14 MVA	2004SprPk_CVEC_afterC	166
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.56 MVA	14 MVA	2004SprPk_CVEC_afterC	174
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.36	18.53 MVA	14 MVA	2004SprPk_CVEC_beforeC	174

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.73	17 MVA	14 MVA	2004SprPk_CVEC_afterC	176
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.96	19.09 MVA	14 MVA	2004SprPk_CVEC_beforeC	176
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.74	17.01 MVA	14 MVA	2004SprPk_CVEC_afterC	179
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.29	16.6 MVA	14 MVA	2004SprPk_CVEC_afterC	182
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.42	18.58 MVA	14 MVA	2004SprPk_CVEC_beforeC	182
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.28	16.59 MVA	14 MVA	2004SprPk_CVEC_afterC	191
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.37	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeC	191
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.67	16.96 MVA	14 MVA	2004SprPk_CVEC_afterC	195
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.93	19.07 MVA	14 MVA	2004SprPk_CVEC_beforeC	195
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.71 MVA	14 MVA	2004SprPk_CVEC_afterC	201
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.53	18.69 MVA	14 MVA	2004SprPk_CVEC_beforeC	201
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.71 MVA	14 MVA	2004SprPk_CVEC_afterC	202
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.53	18.69 MVA	14 MVA	2004SprPk_CVEC_beforeC	202
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.39	16.69 MVA	14 MVA	2004SprPk_CVEC_afterC	203
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.52	18.67 MVA	14 MVA	2004SprPk_CVEC_beforeC	203
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.72 MVA	14 MVA	2004SprPk_CVEC_afterC	204
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeC	204
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.27	-6.47	16.52	17.74 MVA	14 MVA	2004SprPk_CVEC_afterC	21
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.42	18.58 MVA	14 MVA	2004SprPk_CVEC_beforeC	21
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.31	16.62 MVA	14 MVA	2004SprPk_CVEC_afterC	224
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.4	18.56 MVA	14 MVA	2004SprPk_CVEC_beforeC	224
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.5	16.8 MVA	14 MVA	2004SprPk_CVEC_afterC	225
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.59	18.75 MVA	14 MVA	2004SprPk_CVEC_beforeC	225
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.56	16.85 MVA	14 MVA	2004SprPk_CVEC_afterC	226
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.65	18.8 MVA	14 MVA	2004SprPk_CVEC_beforeC	226

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.3	16.62 MVA	14 MVA	2004SprPk_CVEC_afterC	227
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.55 MVA	14 MVA	2004SprPk_CVEC_beforeC	227
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.39	16.7 MVA	14 MVA	2004SprPk_CVEC_afterC	229
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.52	18.67 MVA	14 MVA	2004SprPk_CVEC_beforeC	229
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.39	16.7 MVA	14 MVA	2004SprPk_CVEC_afterC	234
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.48	18.64 MVA	14 MVA	2004SprPk_CVEC_beforeC	234
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.26	-6.47	16.39	17.63 MVA	14 MVA	2004SprPk_CVEC_afterC	27
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.54	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeC	27
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.28	16.59 MVA	14 MVA	2004SprPk_CVEC_afterC	28
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.33	18.5 MVA	14 MVA	2004SprPk_CVEC_beforeC	28
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.33	16.64 MVA	14 MVA	2004SprPk_CVEC_afterC	29
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.39	18.56 MVA	14 MVA	2004SprPk_CVEC_beforeC	29
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.55	16.84 MVA	14 MVA	2004SprPk_CVEC_afterC	30
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.42	18.58 MVA	14 MVA	2004SprPk_CVEC_beforeC	30
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.53	16.82 MVA	14 MVA	2004SprPk_CVEC_afterC	31
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.59 MVA	14 MVA	2004SprPk_CVEC_afterC	32
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.68	18.83 MVA	14 MVA	2004SprPk_CVEC_beforeC	32
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.5	18.66 MVA	14 MVA	2004SprPk_CVEC_beforeC	34
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.25	-6.47	16.26	17.5 MVA	14 MVA	2004SprPk_CVEC_afterC	35
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.38	-6.47	18.26	19.37 MVA	14 MVA	2004SprPk_CVEC_beforeC	35
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.55	16.84 MVA	14 MVA	2004SprPk_CVEC_afterC	36
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.57	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeC	36
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.61	16.9 MVA	14 MVA	2004SprPk_CVEC_afterC	37
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.62	18.77 MVA	14 MVA	2004SprPk_CVEC_beforeC	37

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.74	17.01 MVA	14 MVA	2004SprPk_CVEC_afterC	38
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.82	18.96 MVA	14 MVA	2004SprPk_CVEC_beforeC	38
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.63	16.92 MVA	14 MVA	2004SprPk_CVEC_afterC	39
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.67	18.82 MVA	14 MVA	2004SprPk_CVEC_beforeC	39
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.35	18.52 MVA	14 MVA	2004SprPk_CVEC_beforeC	4
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.85	17.12 MVA	14 MVA	2004SprPk_CVEC_afterC	40
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.89	19.02 MVA	14 MVA	2004SprPk_CVEC_beforeC	40
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.61	16.9 MVA	14 MVA	2004SprPk_CVEC_afterC	41
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.65	18.8 MVA	14 MVA	2004SprPk_CVEC_beforeC	41
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.56	16.86 MVA	14 MVA	2004SprPk_CVEC_afterC	42
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.56	18.72 MVA	14 MVA	2004SprPk_CVEC_beforeC	42
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.22	-6.47	15.85	17.12 MVA	14 MVA	2004SprPk_CVEC_afterC	43
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.91	19.05 MVA	14 MVA	2004SprPk_CVEC_beforeC	43
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.23	-6.47	15.9	17.16 MVA	14 MVA	2004SprPk_CVEC_afterC	44
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.93	19.06 MVA	14 MVA	2004SprPk_CVEC_beforeC	44
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.24	-6.47	16.07	17.32 MVA	14 MVA	2004SprPk_CVEC_afterC	47
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.87	19.01 MVA	14 MVA	2004SprPk_CVEC_beforeC	47
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.25	-6.47	16.23	17.47 MVA	14 MVA	2004SprPk_CVEC_afterC	48
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.91	19.05 MVA	14 MVA	2004SprPk_CVEC_beforeC	48
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.25	-6.47	16.33	17.56 MVA	14 MVA	2004SprPk_CVEC_afterC	49
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.37	-6.47	18.04	19.17 MVA	14 MVA	2004SprPk_CVEC_beforeC	49
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.58	16.87 MVA	14 MVA	2004SprPk_CVEC_afterC	50
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.67	18.82 MVA	14 MVA	2004SprPk_CVEC_beforeC	50
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.67	16.95 MVA	14 MVA	2004SprPk_CVEC_afterC	51
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.65	18.8 MVA	14 MVA	2004SprPk_CVEC_beforeC	51

34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.67	16.96 MVA	14 MVA	2004SprPk_CVEC_afterC	52
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.71	18.85 MVA	14 MVA	2004SprPk_CVEC_beforeC	52
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.2	-6.47	15.46	16.76 MVA	14 MVA	2004SprPk_CVEC_afterC	61
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.46	18.62 MVA	14 MVA	2004SprPk_CVEC_beforeC	61
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.35	18.51 MVA	14 MVA	2004SprPk_CVEC_beforeC	7
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.77	18.91 MVA	14 MVA	2004SprPk_CVEC_beforeC	72
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.66	16.94 MVA	14 MVA	2004SprPk_CVEC_afterC	73
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.36	-6.47	17.85	18.99 MVA	14 MVA	2004SprPk_CVEC_beforeC	73
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.21	-6.47	15.6	16.88 MVA	14 MVA	2004SprPk_CVEC_afterC	8
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.55	18.71 MVA	14 MVA	2004SprPk_CVEC_beforeC	8
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.19	-6.47	15.41	16.71 MVA	14 MVA	2004SprPk_CVEC_afterC	88
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.52	18.68 MVA	14 MVA	2004SprPk_CVEC_beforeC	88
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.25	16.56 MVA	14 MVA	2004SprPk_CVEC_afterC	9
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.35	-6.47	17.72	18.86 MVA	14 MVA	2004SprPk_CVEC_beforeC	9
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.26	16.58 MVA	14 MVA	2004SprPk_CVEC_afterC	96
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.34	-6.47	17.54	18.7 MVA	14 MVA	2004SprPk_CVEC_beforeC	96
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.18	1.18	-6.47	15.27	16.58 MVA	14 MVA	2004SprPk_CVEC_afterC	97
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.33	-6.47	17.44	18.61 MVA	14 MVA	2004SprPk_CVEC_beforeC	97
No Violation																
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	1.32	1.32	-6.47	17.38	18.54 MVA	14 MVA	2004SprPk_CVEC_beforeC	98
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_afterC	113
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.02	33	13.9	35.81 MVA	35 MVA	2004SprPk_CVEC_beforeC	113
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	12	35.11 MVA	35 MVA	2004SprPk_CVEC_afterC	14
No Violation																

34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.9	34.75 MVA	35 MVA	2004SprPk_CVEC_afterC	188
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.85	34.44 MVA	35 MVA	2004SprPk_CVEC_beforeC	188
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_afterC	195
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_beforeC	195
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.94	34.77 MVA	35 MVA	2004SprPk_CVEC_afterC	196
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.72	34.4 MVA	35 MVA	2004SprPk_CVEC_beforeC	196
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.01	33	12.73	35.37 MVA	35 MVA	2004SprPk_CVEC_afterC	204
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1	33	11.46	34.93 MVA	35 MVA	2004SprPk_CVEC_beforeC	204
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.9	34.75 MVA	35 MVA	2004SprPk_CVEC_afterC	211
No Violation																
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	10.91	34.76 MVA	35 MVA	2004SprPk_CVEC_afterC	64
No Violation																
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	11.05	34.8 MVA	35 MVA	2004SprPk_CVEC_afterC	69
No Violation																
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.18	34.84 MVA	35 MVA	2004SprPk_CVEC_afterC	70
No Violation																
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.33	34.89 MVA	35 MVA	2004SprPk_CVEC_afterC	76
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.08	34.5 MVA	35 MVA	2004SprPk_CVEC_beforeC	76
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	0.99	33	11.12	34.82 MVA	35 MVA	2004SprPk_CVEC_afterC	82
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.98	33	9.94	34.46 MVA	35 MVA	2004SprPk_CVEC_beforeC	82
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1	33	11.5	34.95 MVA	35 MVA	2004SprPk_CVEC_afterC	83
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	0.99	33	10.32	34.58 MVA	35 MVA	2004SprPk_CVEC_beforeC	83
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.01	33	13.05	35.49 MVA	35 MVA	2004SprPk_CVEC_afterC	87
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1	33	11.78	35.04 MVA	35 MVA	2004SprPk_CVEC_beforeC	87
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_afterC	88
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_beforeC	88

34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.04	33	15	36.25 MVA	35 MVA	2004SprPk_CVEC_afterC	89
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.02	33	13.78	35.76 MVA	35 MVA	2004SprPk_CVEC_beforeC	89
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.03	33	14.87	36.2 MVA	35 MVA	2004SprPk_CVEC_afterC	91
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1.02	33	13.74	35.75 MVA	35 MVA	2004SprPk_CVEC_beforeC	91
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.99	1.01	33	12.73	35.37 MVA	35 MVA	2004SprPk_CVEC_afterC	92
34744	GODN_BER	115	30	35028	OILDALE	9	30	1	0.98	1	33	11.44	34.93 MVA	35 MVA	2004SprPk_CVEC_beforeC	92
34861	TAFT A_J	70	30	34863	MOCO_JCT	70	30	1	0.55	1.11	50.14	10.98	422.06 AMPS	379.4 AMPS	2004SprPk_CVEC_afterC	195
34861	TAFT A_J	70	30	34863	MOCO_JCT	70	30	1	0.54	1.1	49.61	11.34	417.7 AMPS	379.4 AMPS	2004SprPk_CVEC_beforeC	195
34862	MARICOPA	70	30	34864	GARDNER	70	30	1	0.3	1.07	37.96	3.37	319.07 AMPS	297.75 AMPS	2004SprPk_CVEC_afterC	195
34862	MARICOPA	70	30	34864	GARDNER	70	30	1	0.27	1.05	37.44	3.32	314.11 AMPS	297.75 AMPS	2004SprPk_CVEC_beforeC	195
34864	GARDNER	70	30	34866	BSCL_PLD	70	30	1	0.3	1.06	37.55	3.06	315.6 AMPS	297.75 AMPS	2004SprPk_CVEC_afterC	195
34864	GARDNER	70	30	34866	BSCL_PLD	70	30	1	0.27	1.04	37.04	3.02	310.68 AMPS	297.75 AMPS	2004SprPk_CVEC_beforeC	195
34866	BSCL_PLD	70	30	34868	COPUS	70	30	1	0.27	1.02	34.84	0.88	303.31 AMPS	297.75 AMPS	2004SprPk_CVEC_afterC	195
34866	BSCL_PLD	70	30	34868	COPUS	70	30	1	0.24	1	34.37	0.89	298.42 AMPS	297.75 AMPS	2004SprPk_CVEC_beforeC	195

APPENDIX C4 – SPRING OFF PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON NORMAL COMPARISON FILES

Hyperlink to: Normal B_cases C_cases

Normal

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Base MW	Base MVAR	Rate 1 PU Loading	Rate 1 Flow	Rate 1 Rating	File
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	-1094	226	1	1117 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	-1082	238	0.99	1108 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	-1603	204	1.01	1811 AMPS	1799.95 AMPS	2004sprOP_CVEC_afterB2_Renum
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	-1478	194	0.92	1659 AMPS	1799.95 AMPS	2004sprOP_CVEC_beforeB2_Renum
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	0	92	1.23	92 MVA	74.7 MVA	2004sprOP_CVEC_afterB2_Renum
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	0	93	1.24	93 MVA	74.7 MVA	2004sprOP_CVEC_beforeB2_Renum
30810	GREGG	230	30	30879	HENTAP1	230	30	1	-313	87	0.99	817 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum
30810	GREGG	230	30	30879	HENTAP1	230	30	1	-387	116	1.24	1023 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	494	2	1.49	1233 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	234	-24	0.72	597 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum
30825	MCMULLN1	230	30	30873	HELM	230	30	1	501	32	1.56	1240 AMPS	795.74 AMPS	2004sprOP_CVEC_afterB2_Renum
No Violation														
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	502	-56	1.54	1273 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	254	-61	0.81	666 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum
32096	VACA-JT1	60	30	32098	TRAVISJT	60	30	1	28	12	0.99	278 AMPS	280.98 AMPS	2004sprOP_CVEC_afterB2_Renum
32096	VACA-JT1	60	30	32098	TRAVISJT	60	30	1	28	12	0.98	276 AMPS	280.98 AMPS	2004sprOP_CVEC_beforeB2_Renum
32347	BEALE_2	60	30	32348	BEALE2J2	60	30	1	25	6	1	242 AMPS	240.56 AMPS	2004sprOP_CVEC_afterB2_Renum
32347	BEALE_2	60	30	32348	BEALE2J2	60	30	1	25	6	1	242 AMPS	240.56 AMPS	2004sprOP_CVEC_beforeB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004sprOP_CVEC_afterB2_Renum
32762	STD. OIL	115	30	32921	ChevGen1	14	30	1	54	34	1	64 MVA	64 MVA	2004sprOP_CVEC_beforeB2_Renum
32762	STD. OIL	115	30	32922	ChevGen2	14	30	1	54	34	1	64 MVA	64 MVA	2004sprOP_CVEC_afterB2_Renum
32762	STD. OIL	115	30	32922	ChevGen2	14	30	1	54	34	1	64 MVA	64 MVA	2004sprOP_CVEC_beforeB2_Renum
33150	TOSCO	12	30	33151	FOSTER W	12	30	1	-102	-64	1.03	5462 AMPS	5324.4 AMPS	2004sprOP_CVEC_afterB2_Renum
33150	TOSCO	12	30	33151	FOSTER W	12	30	1	-102	-64	1.03	5462 AMPS	5324.4 AMPS	2004sprOP_CVEC_beforeB2_Renum
33620	AM FORST	60	30	33826	MARTELL	9	30	1	-14	5	1.22	15 MVA	12.5 MVA	2004sprOP_CVEC_afterB2_Renum

33620	AM FORST	60	30	33826	MARTELL	9	30	1	-14	5	1.23	15 MVA	12.5 MVA	2004sprOP_CVEC_beforeB2_Renum
33906	SPRNG GF	115	30	34078	SPRNG GF	6	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004sprOP_CVEC_afterB2_Renum
33906	SPRNG GF	115	30	34078	SPRNG GF	6	30	1	-7	3	1.01	8 MVA	7.5 MVA	2004sprOP_CVEC_beforeB2_Renum
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	42	-4	0.99	317 AMPS	321.67 AMPS	2004sprOP_CVEC_afterB2_Renum
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	42	-11	1.02	328 AMPS	321.67 AMPS	2004sprOP_CVEC_beforeB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-3	20	1.43	20 MVA	14 MVA	2004sprOP_CVEC_afterB2_Renum
34570	COLNGA 2	70	30	34652	CHV.COAL	9	30	1	-3	20	1.43	20 MVA	14 MVA	2004sprOP_CVEC_beforeB2_Renum
37210	MID CTY3	22	30	37211	UCDMC	22	30	1	22	-13	1.04	643 AMPS	619.34 AMPS	2004sprOP_CVEC_afterB2_Renum
37210	MID CTY3	22	30	37211	UCDMC	22	30	1	22	-13	1.04	642 AMPS	619.34 AMPS	2004sprOP_CVEC_beforeB2_Renum
37211	UCDMC	22	30	37320	UCDMC	13	30	1	-22	13	1.04	26 MVA	25 MVA	2004sprOP_CVEC_afterB2_Renum
37211	UCDMC	22	30	37320	UCDMC	13	30	1	-22	13	1.04	26 MVA	25 MVA	2004sprOP_CVEC_beforeB2_Renum
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	1	-34	151	1.03	155 MVA	150 MVA	2004sprOP_CVEC_afterB2_Renum
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	1	-34	152	1.04	156 MVA	150 MVA	2004sprOP_CVEC_beforeB2_Renum
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	2	43	191	1.3	196 MVA	150 MVA	2004sprOP_CVEC_afterB2_Renum
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	2	43	192	1.31	197 MVA	150 MVA	2004sprOP_CVEC_beforeB2_Renum

APPENDIX C4 – SPRING OFF PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON BRANCH COMPARISON FILES FOR ISO CATEGORY B

Hyperlink to: Normal B_cases C_cases

B_cases

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Rate1 Base	Rate2 Out	MW	MVAR	Flow	Rating	File	Out#
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.39	1.21	1097.32	255.1	1126.58 MVA	933 MVA	2004sprOP_CVEC_afterB1	31
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.49	1.36	1238.42	255.28	1264.45 MVA	933 MVA	2004sprOP_CVEC_beforeB1	31
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1107.03	220.19	1128.72 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	307
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1103.51	239.9	1129.28 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	307
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1	-1095.52	248.01	1123.24 MVA	1120 MVA	2004sprOP_CVEC_afterB1	31
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1106.82	220.02	1128.47 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	312
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1097.69	237.52	1123.09 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	312
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1106.55	220.36	1128.28 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	313
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1100.89	239.26	1126.59 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	313
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1109.38	221.46	1131.27 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	340
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1104.14	240.21	1129.97 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	340
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1106.82	220.02	1128.47 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	381
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1097.69	237.52	1123.09 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	381
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1106.55	220.36	1128.28 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	382
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1100.89	239.26	1126.59 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	382
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.09	219.21	1126.62 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	383
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1093.54	235.77	1118.67 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	383
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.09	219.21	1126.62 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	384
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1093.54	235.77	1118.67 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	384
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.7	219.85	1127.35 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	385
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.23	236.66	1119.53 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	385
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.7	219.85	1127.35 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	386

30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.23	236.66	1119.53 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	386
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1106.12	219.6	1127.7 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	387
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.62	236.52	1119.88 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	387
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.79	219.89	1127.44 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	442
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.28	236.68	1119.58 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	442
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.79	219.89	1127.44 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	443
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.28	236.68	1119.58 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	443
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.79	219.89	1127.44 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	444
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.28	236.68	1119.58 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	444
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.79	219.89	1127.44 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	460
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.26	236.68	1119.57 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	460
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.79	219.89	1127.44 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	461
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.26	236.68	1119.57 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	461
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.79	219.89	1127.44 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	462
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.26	236.68	1119.57 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	462
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1112.04	208.03	1131.33 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	490
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1097.91	226.33	1120.99 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	490
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1107.61	219.16	1129.09 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	491
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1090.18	235.08	1115.23 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	491
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1090.27	235.03	1115.32 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	492
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1104.8	219.09	1126.32 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	493
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1092	235.04	1117.01 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	493
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1107.93	219.37	1129.44 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	494
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1094.33	236.65	1119.63 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	494

30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1	-1100.7	228.97	1124.26 MVA	1120 MVA	2004sprOP_CVEC_afterB1	50
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1096.61	242.94	1123.2 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	50
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.02	-1122.12	233.35	1146.13 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	508
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.02	-1111.77	243.2	1138.06 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	508
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.03	-1132.97	237.25	1157.55 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	509
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.02	-1119.64	246.7	1146.5 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	509
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	0.99	-1087.68	239.57	1113.75 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	51
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.02	-1130.14	181.28	1144.59 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	510
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1117.25	208.09	1136.46 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	510
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1	-1101.83	219.75	1123.53 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	513
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1107.68	224.14	1130.13 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	515
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1093.1	237.38	1118.57 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	515
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1106.26	214.35	1126.83 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	518
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1090.7	230.74	1114.84 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	518
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1092.94	241.93	1119.39 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	52
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.09	219.21	1126.62 MVA	1120 MVA	2004sprOP_CVEC_afterB1	53
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1093.54	235.77	1118.67 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	53
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.09	219.21	1126.62 MVA	1120 MVA	2004sprOP_CVEC_afterB1	54
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1093.54	235.77	1118.67 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	54
30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.97	1.02	-1621.71	169.47	1836.37 AMPS	1799.95 AMPS	2004sprOP_CVEC_afterB2_Renum	460
30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.85	0.9	-1438.93	169.68	1614.85 AMPS	1799.95 AMPS	2004sprOP_CVEC_beforeB2_Renum	460
30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.97	1.02	-1621.71	169.47	1836.37 AMPS	1799.95 AMPS	2004sprOP_CVEC_afterB2_Renum	461
30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.85	0.9	-1438.93	169.68	1614.85 AMPS	1799.95 AMPS	2004sprOP_CVEC_beforeB2_Renum	461

30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.97	1.02	-1621.71	169.47	1836.37 AMPS	1799.95 AMPS	2004sprOP_CVEC_afterB2_Renum	462
30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.85	0.9	-1438.93	169.68	1614.85 AMPS	1799.95 AMPS	2004sprOP_CVEC_beforeB2_Renum	462
30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.97	1.16	-2649.06	659.88	3131.44 AMPS	2700.04 AMPS	2004sprOP_CVEC_afterB2_Renum	519
30050	LOSBANOS	500	30	30055	GATES	500	30	1	0.85	1.04	-2392.52	604.99	2795.91 AMPS	2700.04 AMPS	2004sprOP_CVEC_beforeB2_Renum	519
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	1.01	1.04	-1652.43	201.97	1874.87 AMPS	1799.95 AMPS	2004sprOP_CVEC_afterB2_Renum	460
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	0.92	0.95	-1528.83	198.84	1718.29 AMPS	1799.95 AMPS	2004sprOP_CVEC_beforeB2_Renum	460
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	1.01	1.04	-1652.43	201.97	1874.87 AMPS	1799.95 AMPS	2004sprOP_CVEC_afterB2_Renum	461
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	0.92	0.95	-1528.83	198.84	1718.29 AMPS	1799.95 AMPS	2004sprOP_CVEC_beforeB2_Renum	461
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	1.01	1.04	-1652.43	201.97	1874.87 AMPS	1799.95 AMPS	2004sprOP_CVEC_afterB2_Renum	462
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	0.92	0.95	-1528.83	198.84	1718.29 AMPS	1799.95 AMPS	2004sprOP_CVEC_beforeB2_Renum	462
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	1.01	1.12	-2576.26	618.89	3029.35 AMPS	2700.04 AMPS	2004sprOP_CVEC_afterB2_Renum	518
30050	LOSBANOS	500	30	30060	MIDWAY	500	30	1	0.92	1.01	-2352.64	554.08	2726.86 AMPS	2700.04 AMPS	2004sprOP_CVEC_beforeB2_Renum	518
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.75	1.18	-1277.11	347.87	1323.64 MVA	1120 MVA	2004sprOP_CVEC_afterB1	246
30060	MIDWAY	500	30	30970	MIDWAY	230	30	1	0.72	1.13	-1220.22	355.24	1270.88 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	246
30060	MIDWAY	500	30	35003	MDWY 11M	14	30	11	0.7	1.46	-1184.63	328.81	1229.42 MVA	840 MVA	2004sprOP_CVEC_afterB1	258
30060	MIDWAY	500	30	35003	MDWY 11M	14	30	11	0.67	1.41	-1132.71	331.83	1180.31 MVA	840 MVA	2004sprOP_CVEC_beforeB1	258
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1109.46	-24.48	1109.73 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	307
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1105.91	-45.38	1106.84 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	307
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1109.25	-24.37	1109.51 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	312
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1100.07	-44.57	1100.97 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	312
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.98	-24.77	1109.26 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	313
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1103.29	-45.44	1104.22 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	313
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1111.82	-25.1	1112.11 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	340
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1106.55	-45.51	1107.49 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	340
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1109.25	-24.37	1109.51 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	381

30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1100.07	-44.57	1100.97 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	381
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.98	-24.77	1109.26 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	382
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1103.29	-45.44	1104.22 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	382
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1107.51	-24.02	1107.77 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	383
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1095.91	-43.94	1096.79 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	383
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1107.51	-24.02	1107.77 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	384
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1095.91	-43.94	1096.79 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	384
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.13	-24.52	1108.4 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	385
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.59	-44.65	1097.5 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	385
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.13	-24.52	1108.4 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	386
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.59	-44.65	1097.5 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	386
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.54	-24.15	1108.81 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	387
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.98	-44.4	1097.88 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	387
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.22	-24.53	1108.49 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	442
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.64	-44.66	1097.55 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	442
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.22	-24.53	1108.49 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	443
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.64	-44.66	1097.55 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	443
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.22	-24.53	1108.49 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	444
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.64	-44.66	1097.55 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	444
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.21	-24.53	1108.48 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	460
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.63	-44.67	1097.54 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	460
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.21	-24.53	1108.48 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	461
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.63	-44.67	1097.54 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	461
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.21	-24.53	1108.48 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	462
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.63	-44.67	1097.54 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	462

30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	1	1114.5	-10.74	1114.55 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	490
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1100.29	-33.23	1100.8 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	490
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1110.05	-23.28	1110.29 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	491
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1092.52	-44.15	1093.42 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	491
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1107.22	-24	1107.48 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	493
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1094.36	-43.63	1095.23 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	493
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1110.37	-23.41	1110.61 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	494
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1096.7	-44.61	1097.61 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	494
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1103.09	-35.11	1103.65 MVA	1120 MVA	2004sprOP_CVEC_afterB1	50
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1098.98	-50.31	1100.14 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	50
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	1	1124.62	-33.56	1125.12 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	508
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	1	1114.21	-46.42	1115.18 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	508
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	1.01	1135.52	-34.43	1136.04 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	509
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	1	1122.12	-47.76	1123.14 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	509
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	1.01	1132.65	-24.75	1132.92 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	510
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	1	1119.73	-9.46	1119.77 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	510
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1104.24	-25.47	1104.54 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	513
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.97	1090.56	-43.37	1091.42 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	513
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1110.11	-28.27	1110.47 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	515
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1095.46	-45.65	1096.41 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	515
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1108.69	-18.74	1108.85 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	518
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1093.05	-39.62	1093.77 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	518
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1105.28	-15.77	1105.39 MVA	1120 MVA	2004sprOP_CVEC_afterB2_Renum	519
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1092.2	-36.07	1092.79 MVA	1120 MVA	2004sprOP_CVEC_beforeB2_Renum	519
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1107.51	-24.02	1107.77 MVA	1120 MVA	2004sprOP_CVEC_afterB1	53
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1095.91	-43.94	1096.79 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	53

30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1107.51	-24.02	1107.77 MVA	1120 MVA	2004sprOP_CVEC_afterB1	54
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1095.91	-43.94	1096.79 MVA	1120 MVA	2004sprOP_CVEC_beforeB1	54
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	1.23	1.24	0.09	92.7	92.7 MVA	74.7 MVA	2004sprOP_CVEC_afterB1	31
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	1.24	1.25	0.1	93.05	93.05 MVA	74.7 MVA	2004sprOP_CVEC_beforeB1	31
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	1.23	1.24	0.09	92.35	92.35 MVA	74.7 MVA	2004sprOP_CVEC_afterB1	7
No Violation																
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.94	1.01	336.03	-34.23	848.47 AMPS	837.91 AMPS	2004sprOP_CVEC_afterB2_Renum	460
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.75	0.82	274.52	-36.98	691.23 AMPS	837.91 AMPS	2004sprOP_CVEC_beforeB2_Renum	460
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.94	1.01	336.03	-34.23	848.47 AMPS	837.91 AMPS	2004sprOP_CVEC_afterB2_Renum	461
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.75	0.82	274.52	-36.98	691.23 AMPS	837.91 AMPS	2004sprOP_CVEC_beforeB2_Renum	461
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.94	1.01	336.03	-34.23	848.47 AMPS	837.91 AMPS	2004sprOP_CVEC_afterB2_Renum	462
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.75	0.82	274.52	-36.98	691.23 AMPS	837.91 AMPS	2004sprOP_CVEC_beforeB2_Renum	462
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.94	1.03	398.54	-13.81	996.74 AMPS	964.93 AMPS	2004sprOP_CVEC_afterB2_Renum	512
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.75	0.81	314.76	-16.46	783.8 AMPS	964.93 AMPS	2004sprOP_CVEC_beforeB2_Renum	512
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.94	1.01	336.03	-34.23	848.47 AMPS	837.91 AMPS	2004sprOP_CVEC_afterB2_Renum	460
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.75	0.82	274.52	-36.98	691.23 AMPS	837.91 AMPS	2004sprOP_CVEC_beforeB2_Renum	460
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.94	1.01	336.03	-34.23	848.47 AMPS	837.91 AMPS	2004sprOP_CVEC_afterB2_Renum	461
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.75	0.82	274.52	-36.98	691.23 AMPS	837.91 AMPS	2004sprOP_CVEC_beforeB2_Renum	461
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.94	1.01	336.03	-34.23	848.47 AMPS	837.91 AMPS	2004sprOP_CVEC_afterB2_Renum	462
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.75	0.82	274.52	-36.98	691.23 AMPS	837.91 AMPS	2004sprOP_CVEC_beforeB2_Renum	462
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.94	1.03	398.54	-13.81	996.74 AMPS	964.93 AMPS	2004sprOP_CVEC_afterB2_Renum	512
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.75	0.81	314.76	-16.46	783.8 AMPS	964.93 AMPS	2004sprOP_CVEC_beforeB2_Renum	512
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.01	-340.11	19.17	856.47 AMPS	849.96 AMPS	2004sprOP_CVEC_afterB1	1
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.01	-340.11	19.17	856.47 AMPS	849.96 AMPS	2004sprOP_CVEC_afterB2_Renum	311

No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.01	-340.11	19.17	856.47 AMPS	849.96 AMPS	2004sprOP_CVEC_afterB2_Renum	380
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.19	-399.68	13.81	1009.53 AMPS	849.96 AMPS	2004sprOP_CVEC_afterB2_Renum	491
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.1	-371.29	21.57	936.95 AMPS	849.96 AMPS	2004sprOP_CVEC_afterB2_Renum	492
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1	-336.13	16.68	846.31 AMPS	849.96 AMPS	2004sprOP_CVEC_afterB1	59
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	0.59	1.01	-386.56	3.97	974.91 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	494
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.2	-436.6	131.14	1166.73 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	1
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.24	-450.36	139.83	1206.89 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	1
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.83	117.23	1028.1 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	155
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.24	-451.09	140.89	1208.78 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	2
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.71	116.07	1028.12 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	241
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-390.51	113.08	1028.89 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	257
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.68	116.38	1028.21 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	265
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-389.63	119.45	1030.14 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	273

No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-389.92	114.25	1028.72 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	280
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-386.31	123.29	1028.39 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	3
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.24	-451.09	140.89	1208.78 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	310
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.2	-436.6	131.14	1166.73 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	311
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.24	-450.36	139.83	1206.89 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	311
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1	-316.37	87.51	825.74 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	355
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.25	-390.01	116.98	1031.7 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	355
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.24	-451.09	140.89	1208.78 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	379
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.84	116.69	1028.1 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	38
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.2	-436.6	131.14	1166.73 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	380
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.24	-450.36	139.83	1206.89 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	380
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.84	116.69	1028.1 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	403
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.83	117.23	1028.1 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	428
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-390.51	113.08	1028.89 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	445
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.01	-320.13	88.17	836.09 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	458
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.26	-393.49	117.55	1042.36 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	458
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1	-314.94	87.49	821.72 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	463
No Violation																

30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1	-315.64	88.04	823.69 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	475
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.25	-389.3	117.31	1029.44 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	475
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1	-315.79	87.95	824.04 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	479
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.25	-389.23	117.18	1029.29 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	479
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.27	-459.66	143.47	1235.84 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	496
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.22	-444.63	133.09	1189.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	497
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.27	-458.91	142.62	1233.82 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	497
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.07	-395	118.15	1046.93 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	499
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.04	-381.3	122.09	1013.32 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	518
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.23	-443.98	153.86	1199.15 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	518
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1	-362.04	127.69	974.26 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	519
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.2	-428.65	157.68	1169.32 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	519
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.23	-446.58	141.39	1194.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	59
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.26	-456.64	147.54	1223.66 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	59
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.34	0.22	1241.74 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	10
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.73	2.16	1241.02 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	100
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.58	-1.1	1247.71 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	116
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	507.06	4.34	1268.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	119
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	510.62	-0.15	1276.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	121

No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.52	2.39	1245.72 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	122
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.52	2.39	1245.72 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	123
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.58	2.15	1248.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	124
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.33	517.59	7.06	1295.72 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	127
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.02	1.75	1239.19 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	128
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.32	512.56	4.93	1282.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	134
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	507.74	-0.72	1268.75 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	135
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	501.86	1.88	1254.14 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	136
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.18	0.51	1244.11 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	139
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	512.58	1.31	1281.23 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	149
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.12	-0.3	1238.86 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	150
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.83	0.1	1240.8 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	155
No Violation																

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.2	0.43	1244.1 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	168
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.6	1.06	1240.34 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	18
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.35	527.63	2.97	1318.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	2
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.92	1.85	1251.48 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	20
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.52	2.99	1246.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	247
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.29	2.14	1239.82 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	250
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	501.3	-3.63	1251.31 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	251
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.48	-2.29	1249.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	252
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	501.32	2.62	1252.39 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	254
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	504.23	4.46	1259.62 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	255
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	512.58	2.41	1280.86 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	26
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	495.74	1.81	1238.42 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	261
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.76	3.5	1251.78 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	268
No Violation																

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.54	-0.14	1239.81 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	271
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	507.18	4.41	1266.69 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	272
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.84	-4.09	1250.19 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	273
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.06	2.37	1244.05 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	3
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.83	1.85	1249.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	304
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	505.6	0.89	1264.34 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	308
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.35	527.63	2.97	1318.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	310
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.73	2.14	1241.08 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	319
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.75	1.58	1246.27 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	320
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.22	1.62	1247.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	322
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.73	2.16	1241.02 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	323
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.79	2.38	1248.58 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	325
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.58	-1.1	1247.71 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	337

No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	502.56	1.47	1255.9 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	341
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.83	1.85	1249.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	343
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.81	1.64	1248.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	345
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	495.74	1.81	1238.42 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	346
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	495.79	1.77	1238.4 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	352
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.5	496.78	2.18	1241.16 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	355
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.73	236.31	-24.1	604.76 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	355
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.35	527.63	2.97	1318.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	379
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.22	1.47	1239.4 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	38
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.58	-1.1	1247.71 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	396
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	507.06	4.34	1268.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	398
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	510.62	-0.15	1276.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	400
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.22	1.47	1239.4 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	403
No Violation																

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.34	0.22	1241.74 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	409
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	507.87	0.85	1270.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	41
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	501.86	1.88	1254.14 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	412
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.6	1.06	1240.34 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	415
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	501.89	1.59	1254.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	42
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	512.58	2.41	1280.86 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	421
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.83	0.1	1240.8 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	428
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	501.21	1.34	1252.58 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	43
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.04	1.49	1246.89 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	44
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.76	3.5	1251.78 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	446
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.1	0.25	1241.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	449
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.81	1.42	1240.99 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	450
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.73	0.75	1240.56 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	451
No Violation																

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	497.89	0.07	1243.28 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	456
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.52	500.76	3.5	1251.78 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	458
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.75	241.4	-23.78	618.5 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	458
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.37	532.81	1.83	1332.35 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	47
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.5	496.73	0.75	1240.56 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	475
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.73	236.22	-24.82	604.35 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	475
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.5	495.84	1.18	1238.26 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	479
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.73	236.6	-24.59	605.31 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	479
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.37	533.05	4.79	1333.03 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	496
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.43	4.73	1251.62 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	498
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.38	537.98	3.7	1346.23 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	499
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.33	518.39	11.11	1299.34 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	50
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.75	282.18	-24.48	728.52 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	50
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.04	-1.47	1248.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	504
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.33	515.73	13.08	1293.16 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	51
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.71	267.82	-18.13	691.06 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	51
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.35	1.45	1241.07 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	510
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	502.51	1.53	1258.57 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	513

No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	504.4	1.65	1263.76 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	515
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.9	1.71	1252.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	516
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.33	516.44	3.75	1291.93 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	52
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.72	273.81	-27.06	705.01 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	52
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	495.14	2.69	1239.71 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	521
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.58	613.09	7.34	1543.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	58
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.96	356.58	-42.54	931.72 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	58
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.39	542.1	6.14	1354.94 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	63
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.72	0.8	1240.78 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	93
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.41	1.6	1245.31 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	94
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.75	1.58	1246.27 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	95
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.22	1.62	1247.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	99
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.46	31.08	1247.98 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	10
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.85	32.99	1247.24 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	100
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.75	30.08	1253.96 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	116
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	514.37	36.64	1274.44 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	119
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	518	32.59	1282.33 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	121
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.67	33.47	1251.93 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	122
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.67	33.47	1251.93 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	123
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.75	33.38	1254.63 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	124
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.34	525.11	40.89	1301.88 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	127
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.12	32.48	1245.42 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	128
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	519.98	38.01	1288.44 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	134
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	515.06	31.61	1275 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	135
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.07	33.41	1260.36 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	136
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.32	31.5	1250.34 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	139
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	519.99	34.33	1287.45 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	149
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.22	30.41	1245.1 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	150
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.94	30.91	1247.04 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	155
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.34	31.42	1250.34 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	168
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.71	31.85	1246.57 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	18
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.37	535.32	38.07	1324.69 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	2
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.11	33.23	1257.7 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	20
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.67	34.11	1252.62 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	247
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.39	32.9	1246.04 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	250
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.49	27.75	1257.59 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	251
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.66	28.99	1255.68 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	252
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.51	34.06	1258.6 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	254
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	511.48	36.28	1265.8 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	255
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	519.99	35.4	1287.07 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	26

No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.28	502.84	32.5	1244.64 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	261
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.28	502.83	31.27	1244.49 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	263
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.95	34.91	1257.98 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	268
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.65	30.62	1246.05 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	271
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	514.48	36.62	1272.87 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	272
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.02	27.22	1256.48 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	273
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.2	33.36	1250.27 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	3
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507	33.11	1255.32 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	304
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	512.89	32.99	1270.58 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	308
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.37	535.32	38.07	1324.69 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	310
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.85	32.97	1247.29 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	319
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.91	32.69	1252.5 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	320
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.38	32.8	1253.64 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	322
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.85	32.99	1247.24 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	323
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	506.96	33.61	1254.79 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	325
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.75	30.08	1253.96 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	337
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.79	33.1	1262.13 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	341
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507	33.11	1255.32 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	343
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	506.99	32.89	1255.05 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	345
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.28	502.84	32.5	1244.64 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	346
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.28	502.88	32.45	1244.63 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	352
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.57	503.9	33.01	1247.38 AMPS	795.74 AMPS	2004sprOP_CVEC_afterB2_Renum	355
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.37	535.32	38.07	1324.69 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	379
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.32	32.21	1245.62 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	38
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.75	30.08	1253.96 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	396
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	514.37	36.64	1274.44 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	398
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	518	32.59	1282.33 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	400
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.32	32.21	1245.62 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	403
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.46	31.08	1247.98 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	409
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	515.2	33.29	1276.88 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	41
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.07	33.41	1260.36 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	412
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.71	31.85	1246.57 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	415
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.1	33.12	1260.31 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	42
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	519.99	35.4	1287.07 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	421
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.94	30.91	1247.04 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	428
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.41	32.79	1258.81 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	43
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.2	32.63	1253.11 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	44
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.95	34.91	1257.98 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	446

No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.22	31.07	1247.33 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	449
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.93	32.25	1247.22 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	450
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.84	31.55	1246.79 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	451
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.02	31.02	1249.52 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	456
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.58	507.95	34.91	1257.98 AMPS	795.74 AMPS	2004sprOP_CVEC_afterB2_Renum	458
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.38	540.61	37.73	1338.56 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	47
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.57	503.84	31.55	1246.79 AMPS	795.74 AMPS	2004sprOP_CVEC_afterB2_Renum	475
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.56	502.94	31.86	1244.49 AMPS	795.74 AMPS	2004sprOP_CVEC_afterB2_Renum	479
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.38	540.85	40.73	1339.21 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	496
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.62	36.14	1257.81 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	498
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.4	545.89	40.41	1352.42 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	499
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.35	525.94	45.14	1305.46 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	50
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	507.21	29.75	1254.76 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	504
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.34	523.23	46.77	1299.25 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	51
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.47	32.28	1247.3 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	510
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	509.76	33.32	1264.81 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	513
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	511.68	33.73	1270 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	515
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.1	33.16	1258.73 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	516
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.34	523.94	37.37	1298.13 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	52
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	502.25	33.46	1245.93 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB2_Renum	521
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.6	622.66	56.36	1549.57 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	58
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.4	550.08	43.34	1361.09 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	63
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.83	31.62	1247.01 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	93
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.56	32.65	1251.53 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	94
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.91	32.69	1252.5 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	95
No Violation																

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.38	32.8	1253.64 AMPS	968.94 AMPS	2004sprOP_CVEC_afterB1	99
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.67	-56.21	1279.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	100
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	509.49	-57.09	1290.44 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	115
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.84	-57.53	1281.68 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	116
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	516.96	-56.7	1312.65 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	119
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	264.99	-62.12	694.79 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	119
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.36	520.79	-62.46	1321.69 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	121
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	267.11	-66.19	700.88 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	121
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.39	-56.47	1286.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	122
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.39	-56.47	1286.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	123
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.54	-57.01	1289.85 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	124
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.38	528.4	-56.28	1343.15 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	127
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.74	274.07	-62.27	718.84 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	127
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.3	-56.41	1278.63 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	128
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.36	522.84	-57.32	1328.02 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	134
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.73	269.87	-62.76	707.64 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	134
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	517.4	-62.33	1312.85 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	135

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	265.29	-66.11	696.18 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	135
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	511.09	-57.92	1296.48 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	136
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	261.06	-62.78	684.25 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	136
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.53	-56.08	1278.28 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	139
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.77	-62.67	683.06 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	139
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	514.79	-55.14	1304.35 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	143
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	264.03	-58.96	688.65 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	143
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	518.79	-54.32	1313.65 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	148
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	268.21	-57.98	698.08 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	148
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.54	-56.09	1278.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	168
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.83	-62.68	683.16 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	168
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.39	534.52	-60.89	1356.43 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	2
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	509.64	-57.52	1292.39 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	20
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	261.13	-63.01	683.96 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	20
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	506.59	-55.7	1285.47 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	247
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	266.38	-65.34	702.22 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	247
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.1	-56.1	1278.06 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	250
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	510.3	-63.73	1293.31 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	251
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	509.47	-62.03	1291.23 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	252
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	509.18	-56.44	1291.05 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	254
No Violation																

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	511.83	-55.25	1297.78 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	255
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.27	-55.5	1278.99 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	256
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.21	-56.37	1278.3 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	261
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.28	-57.76	1278.42 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	263
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.07	-68.47	1290.11 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	266
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	509.13	-55.62	1291.72 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	268
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	261.94	-61.64	686.61 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	268
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	503.8	-57.35	1277.97 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	272
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.18	-54.96	1280.34 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	3
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.73	-57.94	1290.6 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	304
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	513.97	-59.23	1304.71 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	308
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.39	534.52	-60.89	1356.43 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	310
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.24	-56.25	1281.11 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	319
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.44	-57.39	1286.98 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	320
No Violation																

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.07	-57.5	1288.59 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	322
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.67	-56.21	1279.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	323
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.48	-56.63	1289.29 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	325
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	509.8	-57	1291.21 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	335
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.84	-57.53	1281.68 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	337
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	510.94	-57.99	1296.02 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	341
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.73	-57.94	1290.6 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	343
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.42	-57.49	1289.38 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	345
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.21	-56.37	1278.3 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	346
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.23	-56.4	1278.22 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	352
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.55	505.27	-56.2	1281.15 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	355
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.82	257.04	-61.72	673.39 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	355
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.39	534.52	-60.89	1356.43 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	379
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.84	-56.81	1279.69 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	38

No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.84	-57.53	1281.68 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	396
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	509.8	-57.07	1291.27 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	397
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	516.96	-56.7	1312.65 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	398
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	264.99	-62.12	694.79 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	398
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.36	520.79	-62.46	1321.69 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	400
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	267.11	-66.19	700.88 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	400
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.84	-56.81	1279.69 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	403
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	516.41	-59.93	1311.71 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	41
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	511.09	-57.92	1296.48 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	412
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	261.06	-62.78	684.25 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	412
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	510.26	-57.74	1294.17 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	42
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	518.79	-54.32	1313.65 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	423
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	268.21	-57.98	698.08 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	423
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	509.58	-57.87	1292.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	43
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.44	-57.3	1286.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	44
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	509.13	-55.62	1291.72 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	446
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	261.94	-61.64	686.61 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	446

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.16	-56.46	1278.01 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	450
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.57	509.13	-55.62	1291.72 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	458
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.83	261.94	-61.64	686.61 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	458
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.41	539.48	-62.98	1370.13 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	47
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.55	504.17	-56.8	1277.73 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	475
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.81	255.92	-61.64	670.03 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	475
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.55	504.11	-56.82	1277.6 AMPS	825.11 AMPS	2004sprOP_CVEC_afterB2_Renum	479
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.82	256.9	-62	672.79 AMPS	825.11 AMPS	2004sprOP_CVEC_beforeB2_Renum	479
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.41	539.93	-60.21	1371.32 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	496
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.03	-54.02	1289.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	498
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.74	274.78	-64.5	722.81 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	498
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.42	544.65	-62.22	1384.38 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	499
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	266.05	-62.25	697.53 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	499
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.38	527.51	-51.86	1342.36 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	50
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.83	306.34	-67.57	807.79 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	50
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	506.24	-57.91	1282.35 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	504
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.37	525.66	-49.16	1337.96 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	51
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.79	292.89	-58.59	770.71 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	51
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.83	-56.94	1281.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	510
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	511.39	-58.55	1300.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	513
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	258.91	-66.8	683.03 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	513

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	513.39	-58.92	1305.9 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	515
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.05	-67.52	686.59 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB2_Renum	515
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	509.52	-57.67	1293.21 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	516
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.39	535.38	-60.35	1360.03 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	52
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.86	318.92	-73.51	839 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	52
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	503.65	-55.86	1279.86 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB2_Renum	521
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.65	625.79	-83.66	1605.45 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	58
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	1.07	387.97	-105.32	1041.18 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeB1	58
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.43	547.55	-60.24	1390.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	63
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.43	-57.82	1281.45 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	93
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.19	-57.32	1286.23 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	94
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.44	-57.39	1286.98 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	95
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.07	-57.5	1288.59 AMPS	974.97 AMPS	2004sprOP_CVEC_afterB1	99
No Violation																
30970	MIDWAY	230	30	35003	MDWY 11M	14	30	11	0.69	1.42	1189.04	-84.17	1192.01 MVA	840 MVA	2004sprOP_CVEC_afterB1	258
30970	MIDWAY	230	30	35003	MDWY 11M	14	30	11	0.66	1.36	1136.78	-107.4	1141.85 MVA	840 MVA	2004sprOP_CVEC_beforeB1	258
33150	TOSCO	12	30	33151	FOSTER W	12	30	1	1.03	1.03	-101.76	-64.09	5501.86 AMPS	5324.4 AMPS	2004sprOP_CVEC_afterB2_Renum	490
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	1.22	1.24	-14.5	5.31	15.44 MVA	12.5 MVA	2004sprOP_CVEC_afterB1	31

33620	AM FORST	60	30	33826	MARTELL	9	30	1	1.23	1.24	-14.5	5.49	15.5 MVA	12.5 MVA	2004sprOP_CVEC_beforeB1	31
33620	AM FORST	60	30	33826	MARTELL	9	30	1	1.22	1.23	-14.5	5.06	15.36 MVA	12.5 MVA	2004sprOP_CVEC_afterB1	7
No Violation																
34264	EL PECO	70	30	34466	BIOLA	70	30	1	0.35	1.01	-45.23	12.14	380.06 AMPS	377.75 AMPS	2004sprOP_CVEC_afterB1	59
No Violation																
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.42	1.03	-49.91	9.75	408.4 AMPS	395.9 AMPS	2004sprOP_CVEC_afterB1	59
No Violation																
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	1.3	66.63	-5.05	491.99 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB1	1
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.82	40.3	-8.36	310.99 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB1	1
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	1.3	66.63	-5.05	491.99 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	311
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.82	40.3	-8.36	310.99 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	311
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	1.3	66.63	-5.05	491.99 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	380
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.82	40.3	-8.36	310.99 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	380
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	1.32	67.86	-5.69	500.78 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	497
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.85	41.59	-8.72	321.67 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	497
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	1.3	66.05	-6.3	491.95 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB1	1
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.82	40.07	-8.82	310.9 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB1	1
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	1.3	66.05	-6.3	491.95 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	311
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.82	40.07	-8.82	310.9 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	311
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	1.3	66.05	-6.3	491.95 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	380
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.82	40.07	-8.82	310.9 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	380
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	1.32	67.26	-6.98	500.73 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	497
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.85	41.34	-9.22	321.57 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	497
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.7	83.57	-17.1	645.81 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB1	1
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.22	58.74	-14.15	461.81 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB1	1

34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.7	83.57	-17.1	645.81 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	311
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.22	58.74	-14.15	461.81 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	311
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.7	83.57	-17.1	645.81 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	380
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.22	58.74	-14.15	461.81 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	380
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1	42.6	-3.76	322.72 AMPS	321.67 AMPS	2004sprOP_CVEC_afterB2_Renum	458
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.03	42.37	-10.5	332.36 AMPS	321.67 AMPS	2004sprOP_CVEC_beforeB2_Renum	458
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1	42.32	-4.19	320.69 AMPS	321.67 AMPS	2004sprOP_CVEC_afterB2_Renum	475
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.03	42.2	-11.02	331.54 AMPS	321.67 AMPS	2004sprOP_CVEC_beforeB2_Renum	475
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	0.99	42.15	-3.97	319.24 AMPS	321.67 AMPS	2004sprOP_CVEC_afterB2_Renum	478
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	0.99	42.18	-3.95	319.49 AMPS	321.67 AMPS	2004sprOP_CVEC_afterB2_Renum	479
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.37	68.01	-11.74	520.89 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	492
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	0.89	43.52	-9.99	338.94 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	492
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.73	84.71	-18.4	655.29 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	497
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.24	59.96	-14.02	471.63 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	497
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.02	50.81	-6.51	388.05 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB1	58
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.17	56.04	-14.47	444.65 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB1	58
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.6	-71.58	30.47	605.68 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB1	1
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.11	-50.06	20.81	421.81 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB1	1
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.6	-71.58	30.47	605.68 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	311
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.11	-50.06	20.81	421.81 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	311
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.6	-71.58	30.47	605.68 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	380
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.11	-50.06	20.81	421.81 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	380
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.27	-58.4	20.29	480.48 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	492
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	0.79	-36.41	13.47	299.06 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	492

34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.62	-72.51	32.19	615.4 AMPS	379.4 AMPS	2004sprOP_CVEC_afterB2_Renum	497
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.14	-51.13	20.98	431.44 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeB2_Renum	497
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.05	1.06	-131.79	39.16	670.62 AMPS	632.58 AMPS	2004sprOP_CVEC_beforeB2_Renum	463
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	1	1.03	1.04	-34.41	152.08	155.93 MVA	150 MVA	2004sprOP_CVEC_afterB1	31
No Violation																
37568	FIDDYMNT	230	30	37574	FIDDYMNT	60	30	2	1.3	1.31	42.6	191.97	196.65 MVA	150 MVA	2004sprOP_CVEC_afterB1	31
No Violation																

APPENDIX C4 – SPRING OFF PEAK OPERATING CONDITIONS
STEADY STATE POWER FLOW RESULTS
AUTOCON BRANCH COMPARISON FILES FOR ISO CATEGORY C

Hyperlink to: Normal B_cases C_cases

C_cases

From Bus	Name	kV	Ar	To Bus	Name	kV	Ar	ID	Rate1 Base	Rate2 Out	MW	MVAR	Flow	Rating	File	Out#
30000	PTSB 7	20	30	30526	PITSBURG	230	30	1	0.39	1.47	1339.62	295.17	1371.75 MVA	933 MVA	2004sprOP_CVEC_afterC	109
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1	-1101.1	229.04	1124.67 MVA	1120 MVA	2004sprOP_CVEC_afterC	103
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1095.41	242.38	1121.9 MVA	1120 MVA	2004sprOP_CVEC_beforeC	103
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1	-1100.13	228.83	1123.68 MVA	1120 MVA	2004sprOP_CVEC_afterC	104
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1096.04	242.82	1122.62 MVA	1120 MVA	2004sprOP_CVEC_beforeC	104
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1	-1101.33	225.83	1124.25 MVA	1120 MVA	2004sprOP_CVEC_afterC	14
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.02	-1129.22	194.87	1145.91 MVA	1120 MVA	2004sprOP_CVEC_afterC	21
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.02	-1116.65	225.06	1139.1 MVA	1120 MVA	2004sprOP_CVEC_beforeC	21
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1	-1102.18	218.15	1123.56 MVA	1120 MVA	2004sprOP_CVEC_afterC	22
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1092.41	235.84	1117.58 MVA	1120 MVA	2004sprOP_CVEC_beforeC	22
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1107.71	217.76	1128.91 MVA	1120 MVA	2004sprOP_CVEC_afterC	26
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1096.34	235.22	1121.29 MVA	1120 MVA	2004sprOP_CVEC_beforeC	26
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.49	220.46	1127.25 MVA	1120 MVA	2004sprOP_CVEC_afterC	28
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1096.35	237.69	1121.82 MVA	1120 MVA	2004sprOP_CVEC_beforeC	28
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1108.92	222.27	1130.98 MVA	1120 MVA	2004sprOP_CVEC_afterC	29
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1103.67	240.6	1129.6 MVA	1120 MVA	2004sprOP_CVEC_beforeC	29
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1108.44	223.18	1130.69 MVA	1120 MVA	2004sprOP_CVEC_afterC	30
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1103.18	241.07	1129.22 MVA	1120 MVA	2004sprOP_CVEC_beforeC	30
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1105.38	221.54	1127.36 MVA	1120 MVA	2004sprOP_CVEC_afterC	31
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1096.2	238.24	1121.79 MVA	1120 MVA	2004sprOP_CVEC_beforeC	31
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1088.94	238.03	1114.65 MVA	1120 MVA	2004sprOP_CVEC_beforeC	32

No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1	-1091.56	238.67	1117.34 MVA	1120 MVA	2004sprOP_CVEC_beforeC	34
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1108.58	220.56	1130.3 MVA	1120 MVA	2004sprOP_CVEC_afterC	62
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1109.96	241.75	1135.98 MVA	1120 MVA	2004sprOP_CVEC_beforeC	62
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1108.01	220.66	1129.77 MVA	1120 MVA	2004sprOP_CVEC_afterC	63
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1106.77	240.9	1132.68 MVA	1120 MVA	2004sprOP_CVEC_beforeC	63
No Violation																
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1101.85	239.24	1127.52 MVA	1120 MVA	2004sprOP_CVEC_beforeC	64
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	1	1.01	-1109.5	221.16	1131.33 MVA	1120 MVA	2004sprOP_CVEC_afterC	66
30015	TABLE MT	500	30	30066	TB MT 1M	500	30	1	0.99	1.01	-1104.12	239.89	1129.88 MVA	1120 MVA	2004sprOP_CVEC_beforeC	66
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1103.5	-35.05	1104.06 MVA	1120 MVA	2004sprOP_CVEC_afterC	103
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1097.78	-50.04	1098.92 MVA	1120 MVA	2004sprOP_CVEC_beforeC	103
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1103.74	-31.76	1104.19 MVA	1120 MVA	2004sprOP_CVEC_afterC	14
No Violation																
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	1.01	1131.72	-38.89	1132.39 MVA	1120 MVA	2004sprOP_CVEC_afterC	21
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	1	1119.12	-26.74	1119.44 MVA	1120 MVA	2004sprOP_CVEC_beforeC	21
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1104.59	-23.77	1104.85 MVA	1120 MVA	2004sprOP_CVEC_afterC	22
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1094.77	-44.33	1095.67 MVA	1120 MVA	2004sprOP_CVEC_beforeC	22
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1110.15	-21.82	1110.36 MVA	1120 MVA	2004sprOP_CVEC_afterC	26
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1098.71	-42.62	1099.54 MVA	1120 MVA	2004sprOP_CVEC_beforeC	26
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1107.91	-25.19	1108.2 MVA	1120 MVA	2004sprOP_CVEC_afterC	28
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1098.73	-45.11	1099.65 MVA	1120 MVA	2004sprOP_CVEC_beforeC	28
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1111.36	-26.05	1111.67 MVA	1120 MVA	2004sprOP_CVEC_afterC	29
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1106.08	-46.03	1107.04 MVA	1120 MVA	2004sprOP_CVEC_beforeC	29
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1110.88	-27.11	1111.21 MVA	1120 MVA	2004sprOP_CVEC_afterC	30
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1105.59	-46.63	1106.57 MVA	1120 MVA	2004sprOP_CVEC_beforeC	30

30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1107.8	-26.31	1108.11 MVA	1120 MVA	2004sprOP_CVEC_afterC	31	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.98	1098.58	-45.7	1099.53 MVA	1120 MVA	2004sprOP_CVEC_beforeC	31	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1111.02	-24.42	1111.28 MVA	1120 MVA	2004sprOP_CVEC_afterC	62	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1112.39	-45.46	1113.32 MVA	1120 MVA	2004sprOP_CVEC_beforeC	62	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1110.44	-24.67	1110.72 MVA	1120 MVA	2004sprOP_CVEC_afterC	63	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1109.19	-45.48	1110.12 MVA	1120 MVA	2004sprOP_CVEC_beforeC	63	
No Violation																	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1104.25	-45.16	1105.17 MVA	1120 MVA	2004sprOP_CVEC_beforeC	64	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.98	0.99	1111.94	-24.76	1112.22 MVA	1120 MVA	2004sprOP_CVEC_afterC	66	
30066	TB MT 1M	500	30	30303	TBL MT E	230	30	1	0.97	0.99	1106.53	-45.19	1107.45 MVA	1120 MVA	2004sprOP_CVEC_beforeC	66	
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	1.23	1.24	0.09	92.46	92.46 MVA	74.7 MVA	2004sprOP_CVEC_afterC	109	
No Violation																	
30067	VC DX11M	500	30	32152	VC DX11T	14	30	1	1.23	1.24	0.09	92.38	92.38 MVA	74.7 MVA	2004sprOP_CVEC_afterC	89	
No Violation																	
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.94	1.01	382.06	-49.69	972.47 AMPS	964.93 AMPS	2004sprOP_CVEC_afterC	21	
30625	TESLA D	230	30	37585	TRCY PMP	230	30	1	0.75	0.84	322.85	-32.72	814.54 AMPS	964.93 AMPS	2004sprOP_CVEC_beforeC	21	
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.94	1.01	382.06	-49.69	972.47 AMPS	964.93 AMPS	2004sprOP_CVEC_afterC	21	
30625	TESLA D	230	30	37585	TRCY PMP	230	30	2	0.75	0.84	322.85	-32.72	814.54 AMPS	964.93 AMPS	2004sprOP_CVEC_beforeC	21	
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.03	-347.01	18.76	873.52 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	105	
No Violation																	
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	0.99	-332.64	-5.1	840.44 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	13	
No Violation																	
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.13	-381.63	23.78	963.77 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	15	
No Violation																	
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1	-335.31	10.99	846.68 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	16	
No Violation																	

30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.41	-473.65	47.13	1202.17 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	18
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.11	-371.21	5	940.76 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	21
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1	-337.19	16.5	849.31 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	23
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	1	0.69	1.01	-341.27	17.55	859.72 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	71
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	0.59	1.39	-529.86	48.49	1345.72 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	17
No Violation																
30790	PANOCHE	230	30	30873	HELM	230	30	2	0.59	1.14	-435.26	20.84	1100.57 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	18
No Violation																
30810	GREGG	230	30	30845	FGRDN T2	230	30	1	0.16	1.01	-340.77	85.28	861.02 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	22
No Violation																
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.8	116.58	1028.14 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	1
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.23	-450.12	143.5	1203.36 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	105
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.26	-459.75	148.6	1232.99 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	105
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.27	-459.14	143.71	1233.43 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	109
No Violation																
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-393.18	112.7	1034.67 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	110
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.26	-458.94	144.6	1232.63 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	14
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.06	-390.92	109.76	1033.2 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	145
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.33	-479.07	149.72	1293.99 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	145

No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-390.16	114.24	1029.26 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	147
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.25	-455.72	143.1	1223.22 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	15
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-390.55	117.92	1033.27 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	166
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.16	-425.47	125.72	1135.67 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	17
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.26	-458.15	143.73	1230.48 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	17
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-390.14	114.84	1029.62 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	178
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.28	-462.82	145.55	1248.06 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	18
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.25	-454.95	142.24	1221.12 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	18
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.83	116.6	1028.24 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	180
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-389.14	117.26	1028.92 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	185
30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.21	-442.47	134.06	1184.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	23
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.24	-452.5	140.15	1213.69 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	23
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.86	117.16	1028.05 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	35
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.05	-388.39	113.55	1028.19 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	45
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.12	-408.71	128.72	1088.99 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	69
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.11	-406.03	127.23	1080.52 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	70

30810	GREGG	230	30	30879	HENTAP1	230	30	1	0.99	1.26	-460.06	150.91	1233.15 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	71
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.29	-466.92	155.17	1253.08 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	71
No Violation																
30810	GREGG	230	30	30879	HENTAP1	230	30	1	1.24	1.06	-389.91	116.26	1032.4 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	73
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	507.41	4.14	1268.86 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	10
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.2	0.35	1244.03 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	101
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.33	516.55	8.61	1293.99 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	103
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.71	268.6	-21.13	692.86 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	103
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.33	518.17	9.59	1298.21 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	104
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.74	281.43	-24.94	726.17 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	104
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498	1.52	1244.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	123
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	504.1	0.02	1259.65 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	125
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.61	1.59	1245.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	129
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.32	518.05	-44.84	1286.24 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	13
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.01	4.11	1250.24 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	138
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	495.6	2.07	1238.32 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	139
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.72	666.71	8	1674.86 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	14
No Violation																

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	501.8	4.01	1254.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	142
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.6	617.1	20.8	1557.91 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	145
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.84	315.31	-22.37	820.14 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	145
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.54	597.8	7.95	1496.68 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	15
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	511.09	4.66	1278.39 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	153
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	506.54	-1.06	1265.58 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	154
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.46	567.89	-7.19	1421.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	155
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.75	283.23	-32.52	729.28 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	155
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.61	2.05	1251.06 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	156
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.86	-0.53	1242.11 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	158
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.91	0.27	1240.63 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	159
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.13	0.53	1243.98 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	160
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.1	1.15	1241.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	162
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	501.61	-0.95	1252.5 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	164
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	510.37	3.29	1274.59 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	166
No Violation																

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	512.46	-2.25	1280.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	167
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.32	513.32	1.37	1283.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	168
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496	-0.34	1238.56 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	173
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.6	0.17	1242.79 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	185
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.19	0.51	1244.13 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	186
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.48	576.26	8.73	1443.84 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	19
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.72	272.72	-30.7	703.24 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	19
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.43	554.37	7.37	1390.52 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	2
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.72	272.77	-25.29	702.26 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	2
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.39	541.57	3.04	1356.47 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	3
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.5	1.85	1243 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	37
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.41	547.08	4.67	1370.93 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	4
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.71	267.96	-26.26	689.05 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	4
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	502.58	2.31	1256.08 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	40
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	502.48	2.24	1255.92 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	41
No Violation																
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.2	2.02	1244.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	42
No Violation																

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	503.39	2.36	1258.21 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	43	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	500.37	2.93	1250.48 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	44	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	495.89	1.2	1238.73 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	45	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	506.07	3.52	1265.44 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	47	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	503.71	4.15	1259.52 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	48	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.91	3	1249.36 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	49	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.24	2.14	1242.33 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	51	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.71	2.05	1240.82 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	52	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	498.74	1.6	1246.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	56	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	510.92	1.26	1277.42 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	59	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	506.03	4.76	1266.01 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	6	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.32	515.68	1.3	1289.62 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	60	No Violation
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	499.15	2.17	1246.63 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	61	No Violation

30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.32	513.92	1.03	1286.29 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	67	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.31	510.93	1.24	1277.46 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	68	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.37	535.41	3.43	1339.66 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	69	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	496.88	0.27	1240.49 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	7	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.39	541.92	3.1	1356.91 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	70	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.3	507.33	4.55	1267.98 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	72	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.39	543.9	5.35	1359.09 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	73	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.53	595.16	6.65	1496.17 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	76	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	0.72	0.92	343.66	-40.39	894.88 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	76	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.27	497.08	2.15	1241.94 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	93	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	501.92	3.22	1254.3 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	94	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.29	504.26	4.51	1259.74 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	96	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.33	519.61	5	1300.25 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	97	
No Violation																	
30825	MCMULLN1	230	30	30830	KEARNEY	230	30	1	1.49	1.28	501.07	3.22	1252.27 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	98	
No Violation																	

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	514.73	36.47	1275.05 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	10	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.34	31.34	1250.26 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	101	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.34	524.06	42.35	1300.13 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	103	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.35	525.71	43.57	1304.34 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	104	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.14	32.52	1250.47 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	123	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	511.35	31.85	1265.89 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	125	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.76	32.68	1252.06 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	129	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	525.5	-11.59	1292.94 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	13	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.19	35.43	1256.44 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	138	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.28	502.69	32.75	1244.54 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	139	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.73	677.52	66.13	1680.97 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	14	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.02	35.58	1260.83 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	142	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.61	626.8	70.8	1563.93 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	145	No Violation

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.55	606.96	53.88	1502.8 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	15	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	518.48	37.52	1284.58 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	153	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	513.83	31.1	1271.84 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	154	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.47	576.4	34	1427.55 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	155	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.79	33.42	1257.28 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	156	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.99	30.34	1248.36 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	158	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.02	31.07	1246.87 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	159	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.26	31.51	1250.22 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	160	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.22	32.01	1247.86 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	162	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.81	30.5	1258.75 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	164	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	517.74	35.93	1280.78 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	166	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	519.86	30.7	1286.35 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	167	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	520.75	34.49	1289.31 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	168	No Violation

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.28	503.1	30.36	1244.81 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	173	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.73	31.09	1249.04 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	185	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.33	31.5	1250.36 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	186	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.5	584.96	51.31	1449.96 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	19	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.44	562.63	46.7	1396.67 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	2	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.41	549.56	40.35	1362.67 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	3	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.63	32.78	1249.22 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	37	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.42	555.18	42.84	1377.11 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	4	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.8	33.95	1262.29 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	40	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.71	33.88	1262.13 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	41	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.34	33.06	1251.05 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	42	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	510.63	34.12	1264.42 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	43	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.55	34.26	1256.69 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	44	No Violation

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.28	502.99	31.9	1244.96 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	45	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	513.37	35.67	1271.64 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	47	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	510.96	35.98	1265.72 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	48	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	507.09	34.28	1255.57 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	49	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.36	33.03	1248.55 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	51	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.82	32.87	1247.04 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	52	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	505.9	32.71	1252.48 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	56	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	518.31	34.07	1283.65 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	59	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	513.33	36.94	1272.2 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	6	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.34	523.16	34.79	1295.85 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	60	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	506.3	33.3	1252.85 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	61	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.33	521.37	34.33	1292.53 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	67	No Violation
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	518.31	34.06	1283.69 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	68	No Violation

30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.39	543.27	39.76	1345.85 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	69
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	503.99	31.06	1246.73 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	7
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.41	549.91	40.44	1363.11 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	70
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.32	514.64	36.83	1274.17 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	72
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.41	551.91	42.8	1365.25 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	73
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.55	604.32	52.58	1502.33 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	76
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.29	504.2	33.02	1248.15 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	93
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	509.14	34.76	1260.5 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	94
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.31	511.51	36.35	1265.92 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	96
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.35	527.17	39.08	1306.43 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	97
No Violation																
30825	MCMULLN1	230	30	30873	HELM	230	30	1	1.56	1.3	508.27	34.65	1258.48 AMPS	968.94 AMPS	2004sprOP_CVEC_afterC	98
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	517.09	-56.76	1312.67 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	10
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	264.85	-62.18	694.18 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	10
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.55	-56.1	1278.17 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	101
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.86	-62.66	683.2 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	101

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.37	526.17	-54.04	1338.22 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	103
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.79	292.97	-61.84	771.28 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	103
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.39	532.97	-66.95	1359.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	104
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.85	310.84	-80.89	826.39 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	104
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	506.75	-57.33	1285.07 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	123
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	513.2	-60.44	1301.96 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	125
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	263.05	-62.23	690.38 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	125
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.42	-57.38	1286.87 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	129
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.36	524.35	-106.62	1322.98 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	13
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	506.54	-57.72	1284.84 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	139
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.75	666.67	-85.83	1705.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	14
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	510.35	-55.38	1295.1 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	142
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	262.83	-61.54	689.02 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	142
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.68	635.61	-76.51	1636.23 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	145
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.98	357.19	-86.95	955.76 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	145
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.57	600.34	-69.66	1528.49 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	15
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.36	521.59	-57.35	1324.61 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	153
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	267.69	-62.48	701.72 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	153
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	516.35	-62.5	1310.01 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	154
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	263.5	-65.98	691.41 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	154

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.52	583.32	-85.61	1485.89 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	155
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.86	318.31	-82.61	840.82 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	155
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	510.07	-57.58	1293.92 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	156
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.5	-56.09	1278.24 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	160
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.69	-62.68	682.87 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	160
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.27	-55.51	1279.01 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	161
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.37	-56.62	1278.43 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	162
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.25	-57.84	1285.07 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	164
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	513.85	-55.36	1301.79 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	165
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	263.15	-59	686.3 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	165
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.85	-49.15	1279.52 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	167
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.53	-56.08	1278.3 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	186
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.77	-62.69	683.08 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	186
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.51	578.24	-63.83	1472.54 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	19
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.79	291.32	-70.29	767.68 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	19
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.49	568.73	-65.96	1450.37 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	2
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.82	304.71	-70.95	802.71 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	2
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.45	554.45	-67.13	1411.56 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	3
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.79	294.41	-71.16	774.86 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	3
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	506.02	-56.74	1283.16 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	37
No Violation																

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.47	560.71	-66.87	1428.37 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	4
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.81	298.56	-71.18	785.94 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	4
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	511.5	-57.47	1297.64 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	40
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	262.42	-63.79	688.18 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	40
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	511.26	-57.49	1297.1 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	41
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	262.81	-64.01	689.35 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	41
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	506.78	-56.72	1285.18 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	42
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	512.38	-57.63	1300.02 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	43
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	263.2	-64.02	690.32 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	43
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.25	-56.15	1289.2 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	44
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.8	-62.01	683.15 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	44
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	504.42	-57.11	1278.82 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	45
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	514.84	-56.91	1306.83 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	47
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.72	266.85	-63.59	700.17 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	47
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	512.14	-55.57	1299.81 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	48
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	264.74	-62.14	694.21 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	48
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	508.27	-55.95	1289.21 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	49
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	261.69	-61.61	685.64 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	49
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	512.88	-57.01	1299.39 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	50
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	262.08	-60.45	684.18 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	50
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	505.73	-56.34	1282.37 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	51
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.29	-56.32	1281.04 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	52
No Violation																

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.43	-57.37	1286.96 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	56
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	519.22	-59.84	1317.97 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	59
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	515.82	-56.05	1310.07 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	6
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.71	264.37	-61.76	693.45 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	6
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.36	523.94	-60.74	1330.41 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	60
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	507.63	-56.65	1286.76 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	61
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.36	522.24	-60.87	1327.21 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	67
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.35	519.23	-59.86	1318.01 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	68
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.41	542.23	-62.13	1378.04 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	69
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.43	548.17	-63.81	1394.38 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	70
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.34	513.78	-55.71	1303.49 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	72
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.74	276.17	-63.51	725.55 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	72
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.43	549.21	-61.19	1393.96 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	73
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.59	606.19	-75.4	1550.88 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	76
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	1.02	371.22	-97.74	991.34 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	76
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.32	506.52	-61.65	1284.89 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	9
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.73	267.82	-71.59	706.89 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	9

30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.31	505.01	-56.43	1280.59 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	93
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	510.36	-56.37	1294.54 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	94
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	260.95	-61.61	683.05 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	94
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	511.85	-55.22	1297.89 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	96
No Violation																
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.38	530.21	-58.77	1347.34 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	97
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.74	274.09	-64.01	718.97 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	97
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	1.54	1.33	510.76	-57.63	1295.99 AMPS	974.97 AMPS	2004sprOP_CVEC_afterC	98
30830	KEARNEY	230	30	30835	HERNDON	230	30	1	0.81	0.7	261.26	-63.47	685.41 AMPS	974.97 AMPS	2004sprOP_CVEC_beforeC	98
30835	HERNDON	230	30	30840	FGRDN T1	230	30	1	0.25	1.29	413.67	-157.3	1097.22 AMPS	850.96 AMPS	2004sprOP_CVEC_afterC	22
30835	HERNDON	230	30	30840	FGRDN T1	230	30	1	0.24	0.79	230.55	-141.44	672.26 AMPS	850.96 AMPS	2004sprOP_CVEC_beforeC	22
30840	FGRDN T1	230	30	30850	ASHLAN	230	30	1	0.13	1.22	398.76	-134.07	1035.73 AMPS	850.96 AMPS	2004sprOP_CVEC_afterC	22
30840	FGRDN T1	230	30	30850	ASHLAN	230	30	1	0.12	0.7	217.12	-109.36	599.58 AMPS	850.96 AMPS	2004sprOP_CVEC_beforeC	22
30845	FGRDN T2	230	30	30850	ASHLAN	230	30	1	0.12	1.05	-353.39	84.8	892.41 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	22
No Violation																
30873	HELM	230	30	30875	MC CALL	230	30	1	0.42	1.15	394.41	23.07	974.62 AMPS	849.96 AMPS	2004sprOP_CVEC_afterC	17
No Violation																
33150	TOSCO	12	30	33151	FOSTER W	12	30	1	1.03	1.04	-101.76	-64.09	5519.96 AMPS	5324.4 AMPS	2004sprOP_CVEC_afterC	21
33150	TOSCO	12	30	33151	FOSTER W	12	30	1	1.03	1.03	-101.76	-64.08	5497.89 AMPS	5324.4 AMPS	2004sprOP_CVEC_beforeC	21
33620	AM FORST	60	30	33826	MARTELL	9	30	1	1.22	1.23	-14.5	5.04	15.35 MVA	12.5 MVA	2004sprOP_CVEC_afterC	109
No Violation																
No Violation																
33620	AM FORST	60	30	33826	MARTELL	9	30	1	1.23	1.24	-14.5	5.49	15.5 MVA	12.5 MVA	2004sprOP_CVEC_beforeC	33
33620	AM FORST	60	30	33826	MARTELL	9	30	1	1.22	1.23	-14.5	5.08	15.36 MVA	12.5 MVA	2004sprOP_CVEC_afterC	89
No Violation																

34237	CANANDGA	70	30	34255	TRIGO J	70	30	1	0.26	1.02	-43.87	18.99	387.78 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	24
No Violation																
34254	TRIGO	70	30	34264	EL PECO	70	30	1	0.31	1.07	-46.24	18.67	404.58 AMPS	377.75 AMPS	2004sprOP_CVEC_afterC	24
34254	TRIGO	70	30	34264	EL PECO	70	30	1	0.22	0.72	-32.06	12.07	272.9 AMPS	377.75 AMPS	2004sprOP_CVEC_beforeC	24
34254	TRIGO	70	30	34264	EL PECO	70	30	1	0.31	1	-43.93	14.57	379.46 AMPS	377.75 AMPS	2004sprOP_CVEC_afterC	71
No Violation																
34264	EL PECO	70	30	34466	BIOLA	70	30	1	0.35	1	-45.01	11.66	378 AMPS	377.75 AMPS	2004sprOP_CVEC_afterC	23
No Violation																
34264	EL PECO	70	30	34466	BIOLA	70	30	1	0.35	1.1	-48.85	16.49	416.01 AMPS	377.75 AMPS	2004sprOP_CVEC_afterC	24
34264	EL PECO	70	30	34466	BIOLA	70	30	1	0.25	0.75	-34.02	11.18	284.16 AMPS	377.75 AMPS	2004sprOP_CVEC_beforeC	24
34264	EL PECO	70	30	34466	BIOLA	70	30	1	0.35	1.04	-46.39	12.67	391.08 AMPS	377.75 AMPS	2004sprOP_CVEC_afterC	71
No Violation																
No Violation																
34391	QUEBECTF	115	30	34420	CORCORAN	115	30	1	0.97	1.01	128.64	-75.13	744.62 AMPS	738 AMPS	2004sprOP_CVEC_beforeC	12
No Violation																
34426	ALPAUGH	115	30	34700	SMYRNA	115	30	1	0.95	0.99	-144.66	63.25	788.52 AMPS	793.23 AMPS	2004sprOP_CVEC_beforeC	12
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.42	1.03	-49.67	9.29	406.45 AMPS	395.9 AMPS	2004sprOP_CVEC_afterC	23
No Violation																
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.42	1.12	-53.72	13.71	443.67 AMPS	395.9 AMPS	2004sprOP_CVEC_afterC	24
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.33	0.79	-38.26	9.67	311.41 AMPS	395.9 AMPS	2004sprOP_CVEC_beforeC	24
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.42	1.06	-51.13	10.17	419.44 AMPS	395.9 AMPS	2004sprOP_CVEC_afterC	71
34466	BIOLA	70	30	34482	OLDKERN	70	30	1	0.33	0.72	-35.28	5.13	283.32 AMPS	395.9 AMPS	2004sprOP_CVEC_beforeC	71
No Violation																
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.99	48.08	-12.99	375.99 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	13
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	1.44	73.89	-7.15	547.5 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	16
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.99	47.86	-12.83	374.1 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	16

34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	1.43	73.58	-6.52	542.54 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	17
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.74	35.24	-10.19	279.75 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	17
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	1.7	87.56	-9.07	646.45 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	18
34473	SNJQTP	70	30	34474	HELM	70	30	1	0.54	0.91	44.98	-8.76	345.7 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	18
No Violation																
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.99	47.74	-13.69	375.87 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	13
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	1.44	73.17	-8.7	547.45 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	16
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.99	47.52	-13.53	373.98 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	16
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	1.43	72.87	-8.05	542.49 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	17
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.74	35.05	-10.55	279.63 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	17
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	1.7	86.55	-11.26	646.4 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	18
34473	SNJQTP	70	30	34475	AGRCJCT	70	30	1	0.54	0.91	44.69	-9.35	345.61 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	18
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	0.99	49.57	0.66	376.1 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	105
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.12	51.77	-18.23	424.59 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	109
No Violation																
No Violation																
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.39	66.06	-20.72	527.57 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	13
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.85	90.24	-19.72	700.99 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	16
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.39	65.85	-20.47	525.59 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	16
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.84	89.97	-20.11	697.16 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	17
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.13	53.87	-14.25	427.74 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	17
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	2.11	102.68	-24.58	800.57 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	18
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.31	63.18	-14.96	496.43 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	18
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	0.99	1.01	50.19	-5.24	382.79 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	76
34475	AGRCJCT	70	30	34484	KERMAN	70	30	1	1.02	1.14	54.33	-14.26	431.2 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	76

34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.02	-43.61	23.85	385.89 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	109
No Violation																
No Violation																
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.29	-56.31	29.54	488.81 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	13
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.74	-77.02	35.57	660.98 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	16
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.28	-56.14	29.22	486.78 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	16
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	1.73	-76.84	35.78	657.36 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	17
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.02	-45.68	19.93	387.91 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	17
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.86	2.01	-86.99	45.44	760.95 AMPS	379.4 AMPS	2004sprOP_CVEC_afterC	18
34480	KEARNEY	70	30	34484	KERMAN	70	30	1	0.9	1.2	-53.97	22.7	456.36 AMPS	379.4 AMPS	2004sprOP_CVEC_beforeC	18
34544	TLRE LKE	70	30	34550	CHEVPLIN	70	30	1	0.09	1.35	-37.19	-18.74	382.09 AMPS	282.08 AMPS	2004sprOP_CVEC_afterC	111
34544	TLRE LKE	70	30	34550	CHEVPLIN	70	30	1	0.21	1.35	-35.93	-20.2	380.99 AMPS	282.08 AMPS	2004sprOP_CVEC_beforeC	111
34544	TLRE LKE	70	30	34580	BDGR HLL	70	30	1	0.13	1.23	35.35	18.32	365.37 AMPS	297.75 AMPS	2004sprOP_CVEC_afterC	111
34544	TLRE LKE	70	30	34580	BDGR HLL	70	30	1	0.24	1.22	34.09	19.79	364.37 AMPS	297.75 AMPS	2004sprOP_CVEC_beforeC	111
34546	AVENAL	70	30	34548	KETTLEMN	70	30	1	0.42	1.8	-53.48	-28.28	506.87 AMPS	282.08 AMPS	2004sprOP_CVEC_afterC	111
34546	AVENAL	70	30	34548	KETTLEMN	70	30	1	0.39	1.79	-52.21	-29.73	506.06 AMPS	282.08 AMPS	2004sprOP_CVEC_beforeC	111
34546	AVENAL	70	30	34550	CHEVPLIN	70	30	1	0.08	1.43	41.99	23.6	403.55 AMPS	282.08 AMPS	2004sprOP_CVEC_afterC	111
34546	AVENAL	70	30	34550	CHEVPLIN	70	30	1	0.18	1.43	40.72	25.05	402.67 AMPS	282.08 AMPS	2004sprOP_CVEC_beforeC	111
34548	KETTLEMN	70	30	34552	GATES	70	30	1	0.37	1.5	-54.97	-28.67	516.43 AMPS	343.94 AMPS	2004sprOP_CVEC_afterC	111
34548	KETTLEMN	70	30	34552	GATES	70	30	1	0.34	1.5	-53.7	-30.12	515.55 AMPS	343.94 AMPS	2004sprOP_CVEC_beforeC	111
34582	ARCO	70	30	34850	BLACKWLL	70	30	1	0.7	1.03	-27.54	8.46	305.77 AMPS	297.75 AMPS	2004sprOP_CVEC_afterC	111
34582	ARCO	70	30	34850	BLACKWLL	70	30	1	0.74	1.1	-28.82	9.81	327.04 AMPS	297.75 AMPS	2004sprOP_CVEC_beforeC	111
No Violation																
34700	SMYRNA	115	30	34708	MCKIBBEN	115	30	1	0.97	1.01	-152.07	52.57	797.44 AMPS	793.23 AMPS	2004sprOP_CVEC_beforeC	12
34703	SMTRPCWS	115	30	34704	SEMITRPC	115	30	1	0.32	1	-52.12	51.27	399.5 AMPS	398.12 AMPS	2004sprOP_CVEC_afterC	195
34703	SMTRPCWS	115	30	34704	SEMITRPC	115	30	1	0.34	1.01	-52.1	51.59	400.63 AMPS	398.12 AMPS	2004sprOP_CVEC_beforeC	195

34704	SEMITRPC	115	30	34705	WSCOPRSN	115	30	1	0.41	2.01	-99.7	160.21	1031.51 AMPS	512.08 AMPS	2004sprOP_CVEC_afterC	195
34704	SEMITRPC	115	30	34705	WSCOPRSN	115	30	1	0.44	2.02	-99.53	161.1	1035.15 AMPS	512.08 AMPS	2004sprOP_CVEC_beforeC	195
34704	SEMITRPC	115	30	34774	MIDWAY	115	30	1	0.25	1.72	44.86	-110.02	649.48 AMPS	376.53 AMPS	2004sprOP_CVEC_afterC	195
34704	SEMITRPC	115	30	34774	MIDWAY	115	30	1	0.27	1.73	44.71	-110.58	652.01 AMPS	376.53 AMPS	2004sprOP_CVEC_beforeC	195
34705	WSCOPRSN	115	30	34710	CHARKA	115	30	1	0.44	2.02	-105.27	152.47	1032.14 AMPS	512.08 AMPS	2004sprOP_CVEC_afterC	195
34705	WSCOPRSN	115	30	34710	CHARKA	115	30	1	0.47	2.02	-105.12	153.32	1035.69 AMPS	512.08 AMPS	2004sprOP_CVEC_beforeC	195
No Violation																
34708	MCKIBBEN	115	30	34742	SEMITRPJ	115	30	1	0.97	1.01	-154.77	48.29	799.15 AMPS	793.23 AMPS	2004sprOP_CVEC_beforeC	12
34710	CHARKA	115	30	34712	FAMOSO	115	30	1	0.47	2.15	-109.51	141.29	1034.63 AMPS	481.96 AMPS	2004sprOP_CVEC_afterC	195
34710	CHARKA	115	30	34712	FAMOSO	115	30	1	0.5	2.15	-109.38	142.07	1038.19 AMPS	481.96 AMPS	2004sprOP_CVEC_beforeC	195
34712	FAMOSO	115	30	34784	CAWELO C	115	30	1	0.46	2.03	-116.8	124.07	1041.79 AMPS	512.08 AMPS	2004sprOP_CVEC_afterC	195
34712	FAMOSO	115	30	34784	CAWELO C	115	30	1	0.49	2.04	-116.71	124.73	1045.33 AMPS	512.08 AMPS	2004sprOP_CVEC_beforeC	195
34714	LERDO	115	30	34716	LRDO JCT	115	30	1	0.33	1.43	-62.57	89.25	733.53 AMPS	512.08 AMPS	2004sprOP_CVEC_afterC	195
34714	LERDO	115	30	34716	LRDO JCT	115	30	1	0.31	1.44	-62.54	89.44	735.72 AMPS	512.08 AMPS	2004sprOP_CVEC_beforeC	195
34714	LERDO	115	30	34784	CAWELO C	115	30	1	0.37	1.41	58.24	-90.1	721.97 AMPS	512.08 AMPS	2004sprOP_CVEC_afterC	195
34714	LERDO	115	30	34784	CAWELO C	115	30	1	0.34	1.41	58.2	-90.29	724.18 AMPS	512.08 AMPS	2004sprOP_CVEC_beforeC	195
34716	LRDO JCT	115	30	34718	KERN OIL	115	30	1	0.14	1.44	-65.36	81.48	735.01 AMPS	512.08 AMPS	2004sprOP_CVEC_afterC	195
34716	LRDO JCT	115	30	34718	KERN OIL	115	30	1	0.15	1.44	-65.34	81.62	737.2 AMPS	512.08 AMPS	2004sprOP_CVEC_beforeC	195
No Violation																
34742	SEMITRPJ	115	30	34746	GANSO	115	30	1	0.97	1.01	-155.84	46.58	799.79 AMPS	793.23 AMPS	2004sprOP_CVEC_beforeC	12
34746	GANSO	115	30	34774	MIDWAY	115	30	1	0.82	0.99	-145.07	39.05	733.93 AMPS	743.03 AMPS	2004sprOP_CVEC_afterC	109
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.05	0.91	-132.21	39.06	672.58 AMPS	743.03 AMPS	2004sprOP_CVEC_beforeC	109
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.05	1.03	-150.67	40.83	763.07 AMPS	743.03 AMPS	2004sprOP_CVEC_beforeC	13
No Violation																
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.05	0.99	-145.89	39.07	738.1 AMPS	743.03 AMPS	2004sprOP_CVEC_beforeC	14

No Violation

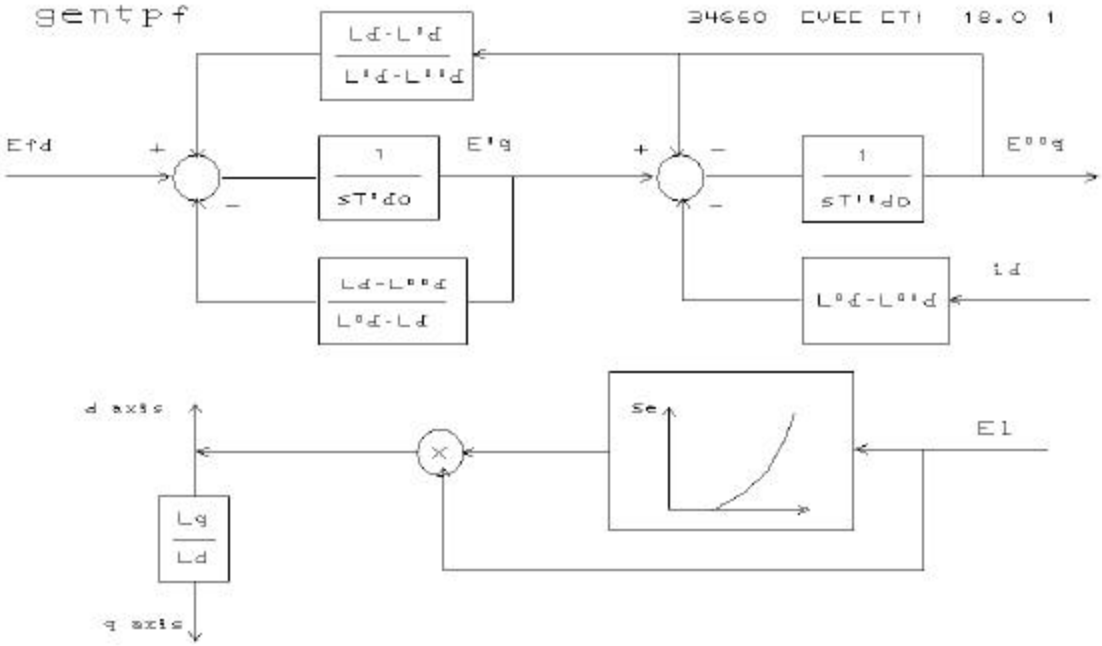
34746	GANSO	115	30	34774	MIDWAY	115	30	1	1.05	0.99	-145.74	39.04	737.34 AMPS	743.03 AMPS	2004sprOP_CVEC_beforeC	17
34850	BLACKWLL	70	30	34852	CARNERAS	70	30	1	0.71	1.06	-30.62	5.71	314.9 AMPS	297.75 AMPS	2004sprOP_CVEC_afterC	111
34850	BLACKWLL	70	30	34852	CARNERAS	70	30	1	0.76	1.13	-32.22	6.65	336.23 AMPS	297.75 AMPS	2004sprOP_CVEC_beforeC	111
34852	CARNERAS	70	30	34947	CELERON	70	30	1	0.73	1.09	-32.62	4.5	325.05 AMPS	297.75 AMPS	2004sprOP_CVEC_afterC	111
34852	CARNERAS	70	30	34947	CELERON	70	30	1	0.78	1.16	-34.35	5.28	346.46 AMPS	297.75 AMPS	2004sprOP_CVEC_beforeC	111
34854	MCKTTRCK	70	30	34870	TEMBLOR	70	30	1	0.85	1.38	44.61	4.55	388.82 AMPS	282.08 AMPS	2004sprOP_CVEC_afterC	111
34854	MCKTTRCK	70	30	34870	TEMBLOR	70	30	1	0.91	1.45	46.95	4.55	410.39 AMPS	282.08 AMPS	2004sprOP_CVEC_beforeC	111
34870	TEMBLOR	70	30	34946	KNG_ELIS	70	30	1	0.81	1.31	42.6	2.15	388.93 AMPS	297.75 AMPS	2004sprOP_CVEC_afterC	111
34870	TEMBLOR	70	30	34946	KNG_ELIS	70	30	1	0.86	1.38	44.71	1.84	410.49 AMPS	297.75 AMPS	2004sprOP_CVEC_beforeC	111
34946	KNG_ELIS	70	30	34947	CELERON	70	30	1	0.78	1.24	-38.37	1.54	368.7 AMPS	297.75 AMPS	2004sprOP_CVEC_afterC	111
34946	KNG_ELIS	70	30	34947	CELERON	70	30	1	0.84	1.31	-40.25	2.13	390.26 AMPS	297.75 AMPS	2004sprOP_CVEC_beforeC	111
37210	MID CTY3	22	30	37211	UCDMC	22	30	1	1.04	1.05	22.27	-13.31	647.23 AMPS	619.34 AMPS	2004sprOP_CVEC_afterC	21

No Violation

Appendix E

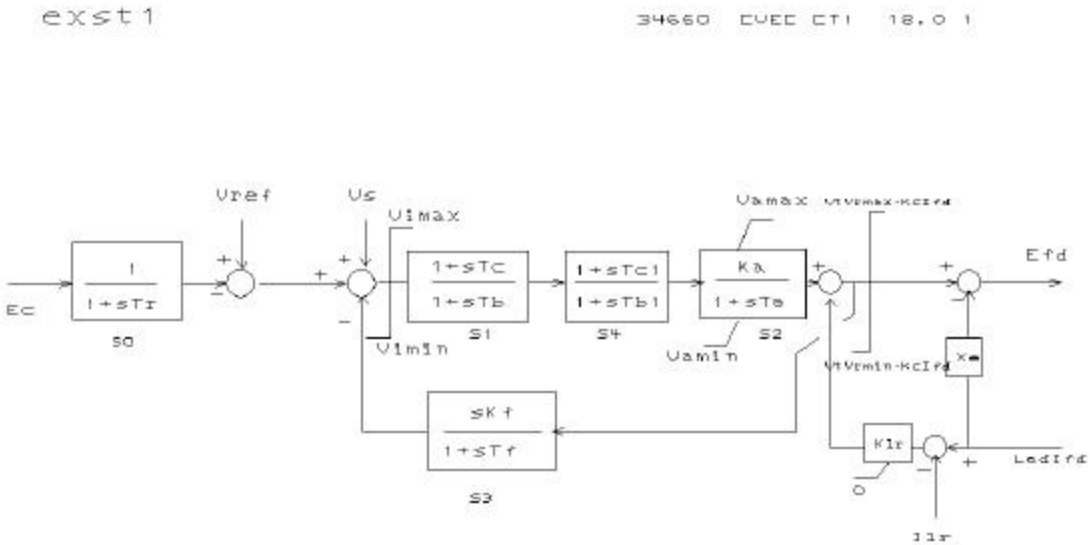
Generator Machine Dynamic Data

Generator dynamic data for CT 1-3:



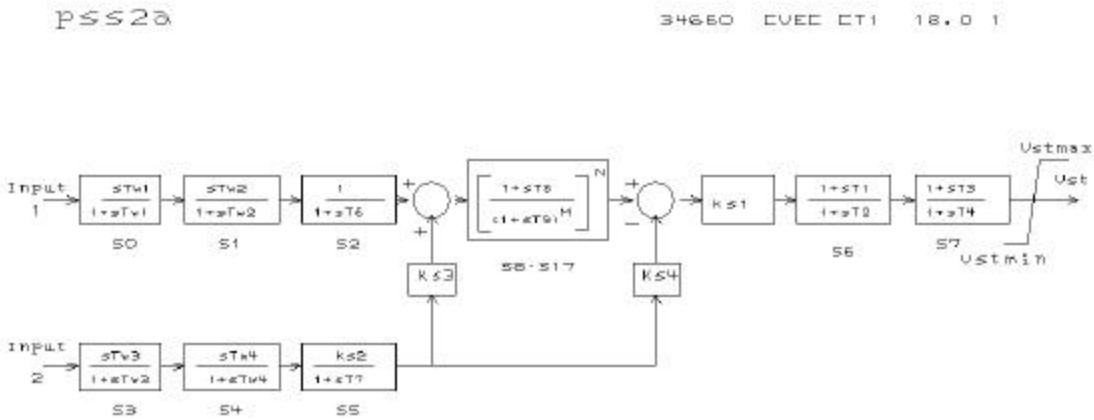
ld	2.4362	lpq	0.4482	tpdo	9.0290	s1	0.0673
lpd	0.2443	lppq	0.1857	tppdo	0.0440	s12	0.2416
lppd	0.1878	ll	0.1456	tpqo	1.0000	h	5.6900
lq	0.2357	ra	0.0010	tppqo	0.0810	d	0.0000

Generator excitation system data for CT 1-3:



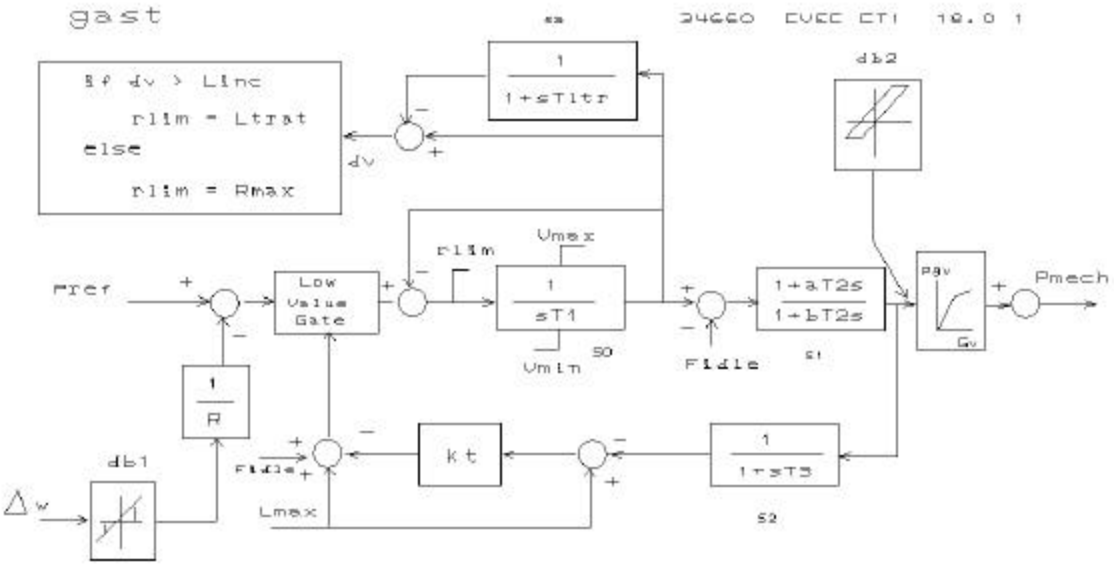
tr	0.0000	tb	8.0000	vrmin	-5.8260	tc1	1.0000
vimax	0.1700	ka	250.0000	kc	0.1130	tb1	1.0000
vimin	-0.1700	ta	0.0200	kf	0.0000	vamax	99.0000
tc	1.0000	vrmax	6.4730	tf	1.0000	vamin	-99.0000

Generator PSS data for CT 1-3:



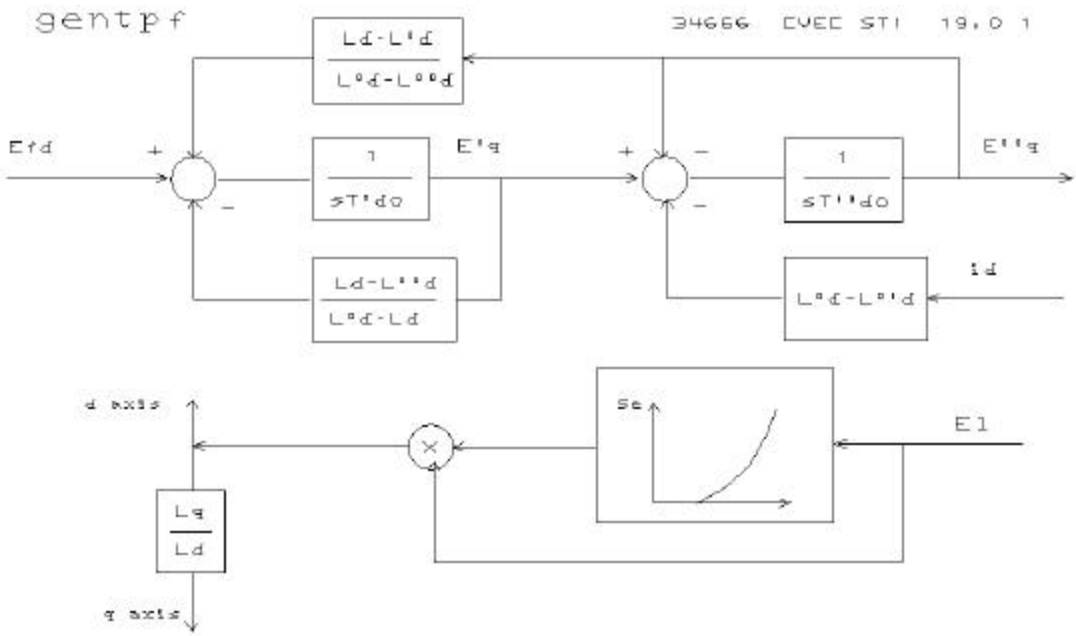
j1	1.0000	tw1	2.0000	t6	0.0000	ks4	1.0000
k1	34660.0000	tw2	2.0000	t7	2.0000	t8	0.5000
j2	3.0000	tw3	2.0000	ks2	0.2100	t9	0.1000
k2	34660.0000	tw4	0.0000	ks3	1.0000	n	1.0000

Generator governor/turbine data for CT 1-3:



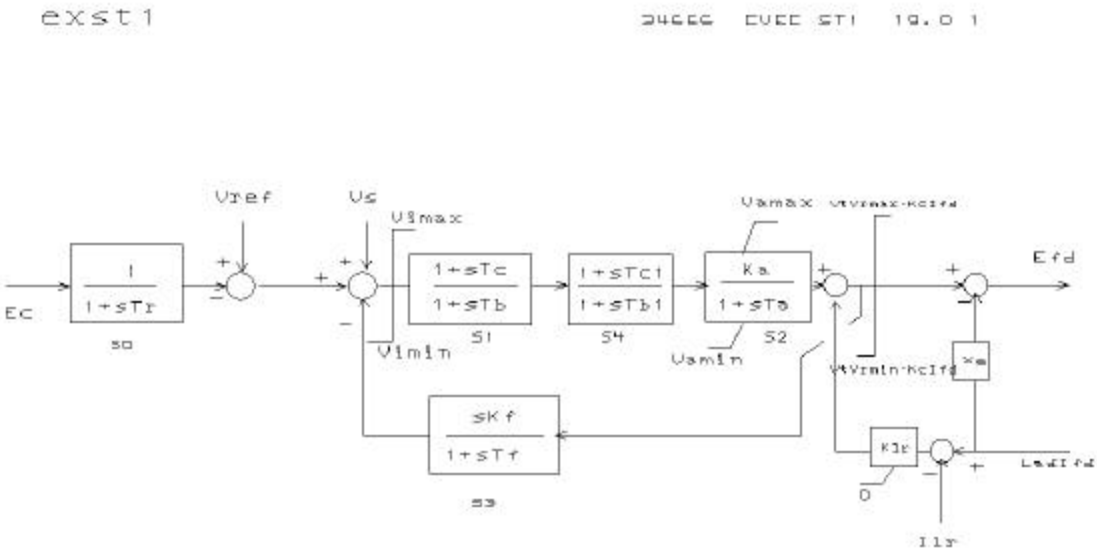
r	0.0400	lmax	1.0000	dturb	0.0000	tltr	99.0000
t1	0.5100	kt	3.0000	fidle	0.0000	ltrat	99.0000
t2	0.2000	vmax	1.3000	rmax	99.0000	a	0.0000
t3	3.0000	vmin	-0.0500	linc	99.0000	b	1.0000

Generator data for ST:



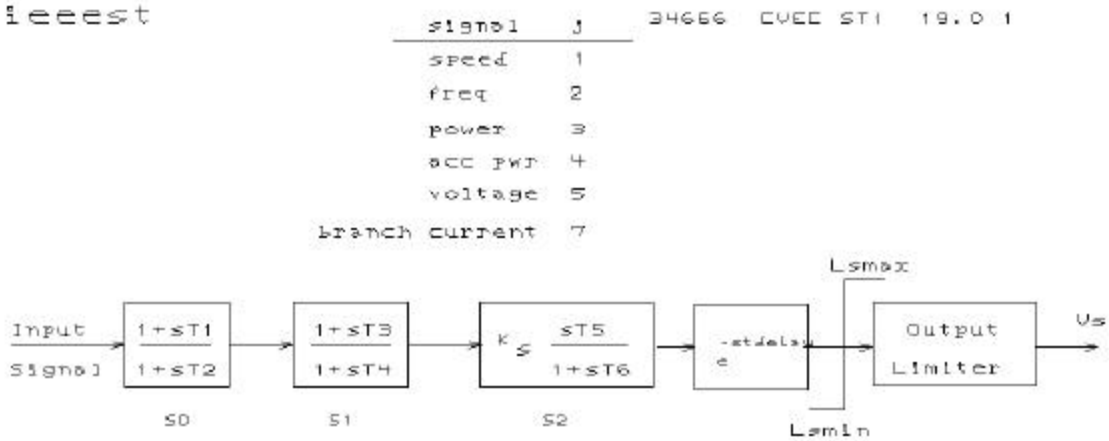
ld	2.0688	lpq	0.5434	tpdo	5.4890	s1	0.0489
lpd	0.3613	lppq	0.2717	tppdo	0.0440	s12	0.0909
lppd	0.2748	ll	0.2014	tpqo	0.6100	h	5.6900
lq	2.0333	ra	0.0015	tppqo	0.0670	d	0.0000

Generator excitation system data for ST:



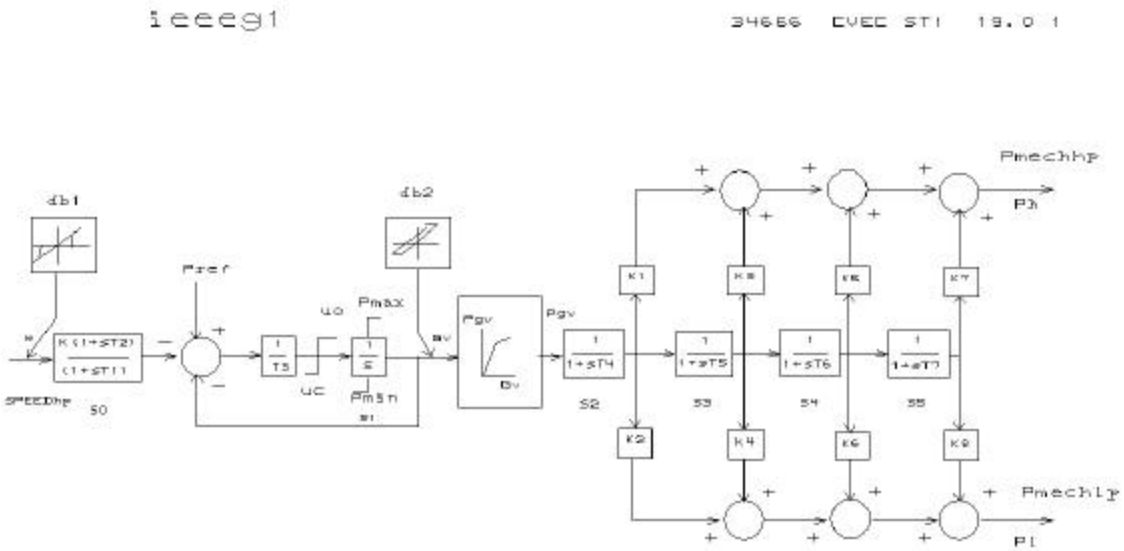
tr	0.0000	tb	8.0000	vrmin	-4.6970	tc1	1.0000
vimax	0.1700	ka	250.0000	kc	0.1080	tb1	1.0000
vimin	-0.1700	ta	0.0200	kf	0.0000	vamax	99.0000
tc	1.0000	vrmax	5.2190	tf	1.0000	vamin	-99.0000

Generator PSS data for ST:

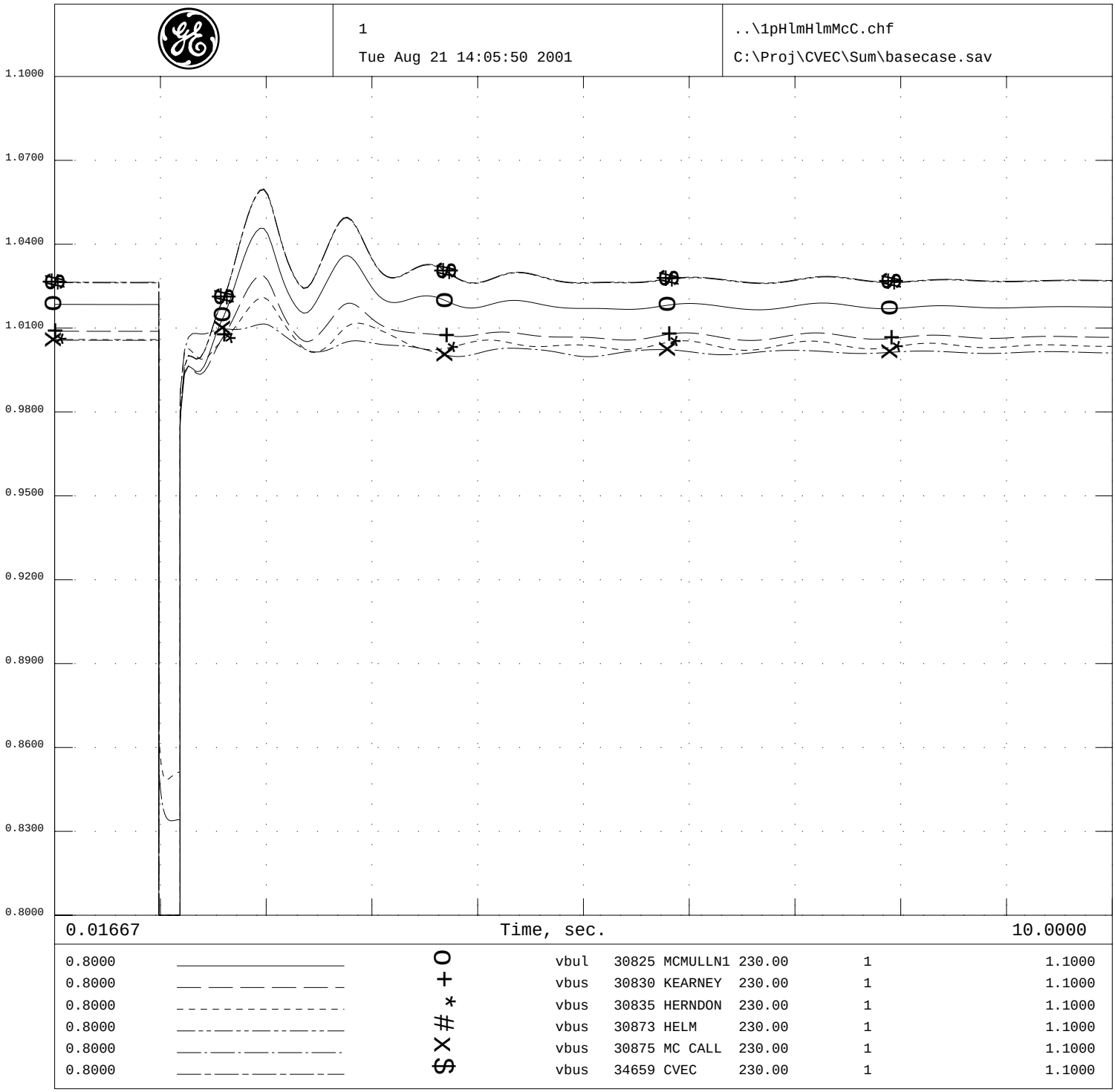


j	3.0000	a3	0.0000	t1	0.1500	t5	2.0000
k	0.0000	a4	0.0000	t2	0.2500	t6	2.0000
a1	0.0000	a5	0.0000	t3	0.0000	ks	-0.8000
a2	0.0000	a6	0.0000	t4	0.0300	lsmax	0.1000

Generator governor/turbine data for ST:



k	20.0000	uo	0.3800	t4	0.4500	k3	0.3300
t1	0.0000	uc	-0.3800	k1	0.2100	k4	0.0000
t2	0.0000	pmax	1.0000	k2	0.0000	t6	0.1000
t3	1.1500	pmin	0.0000	t5	3.0000	k5	0.4600



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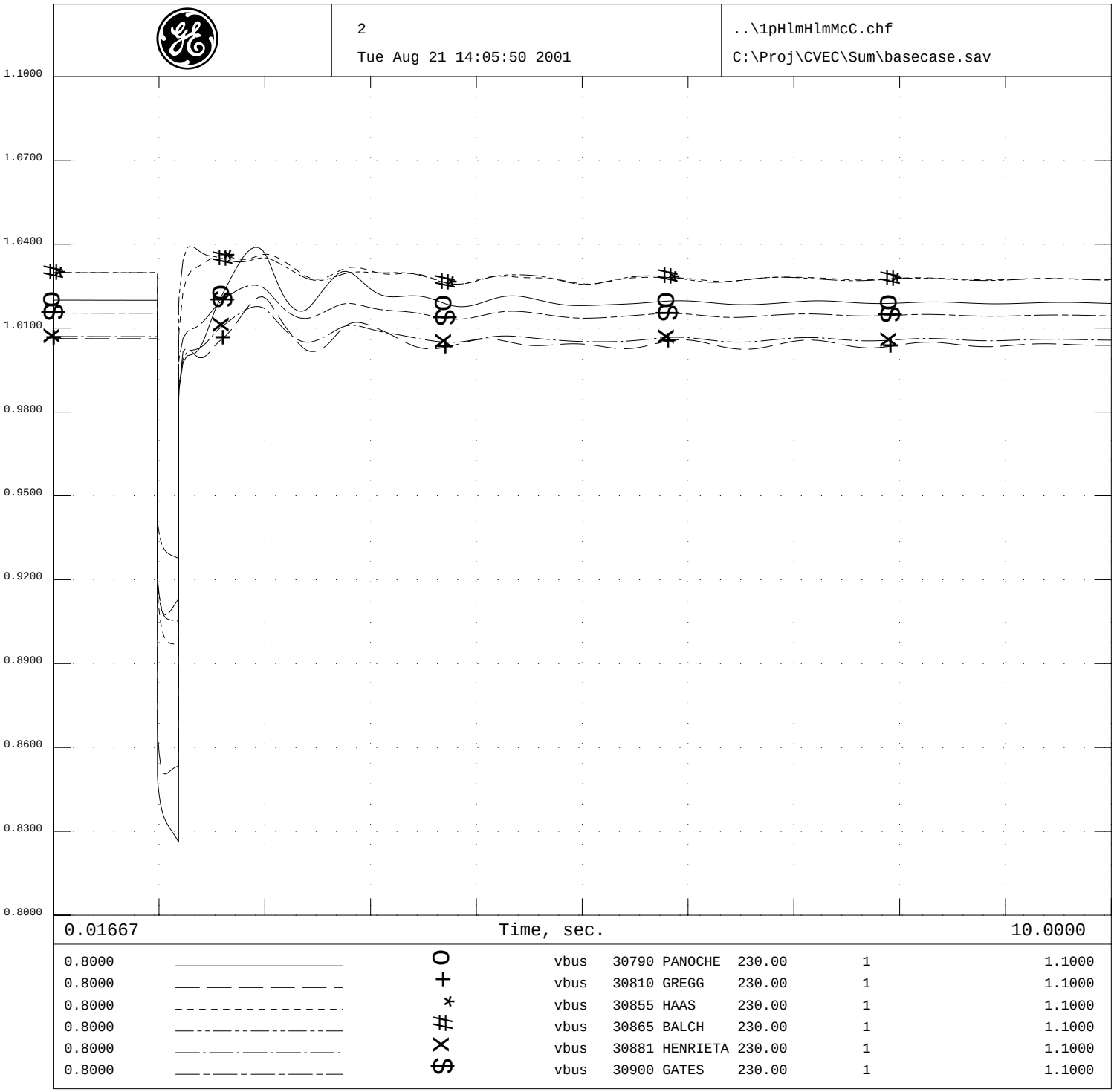
2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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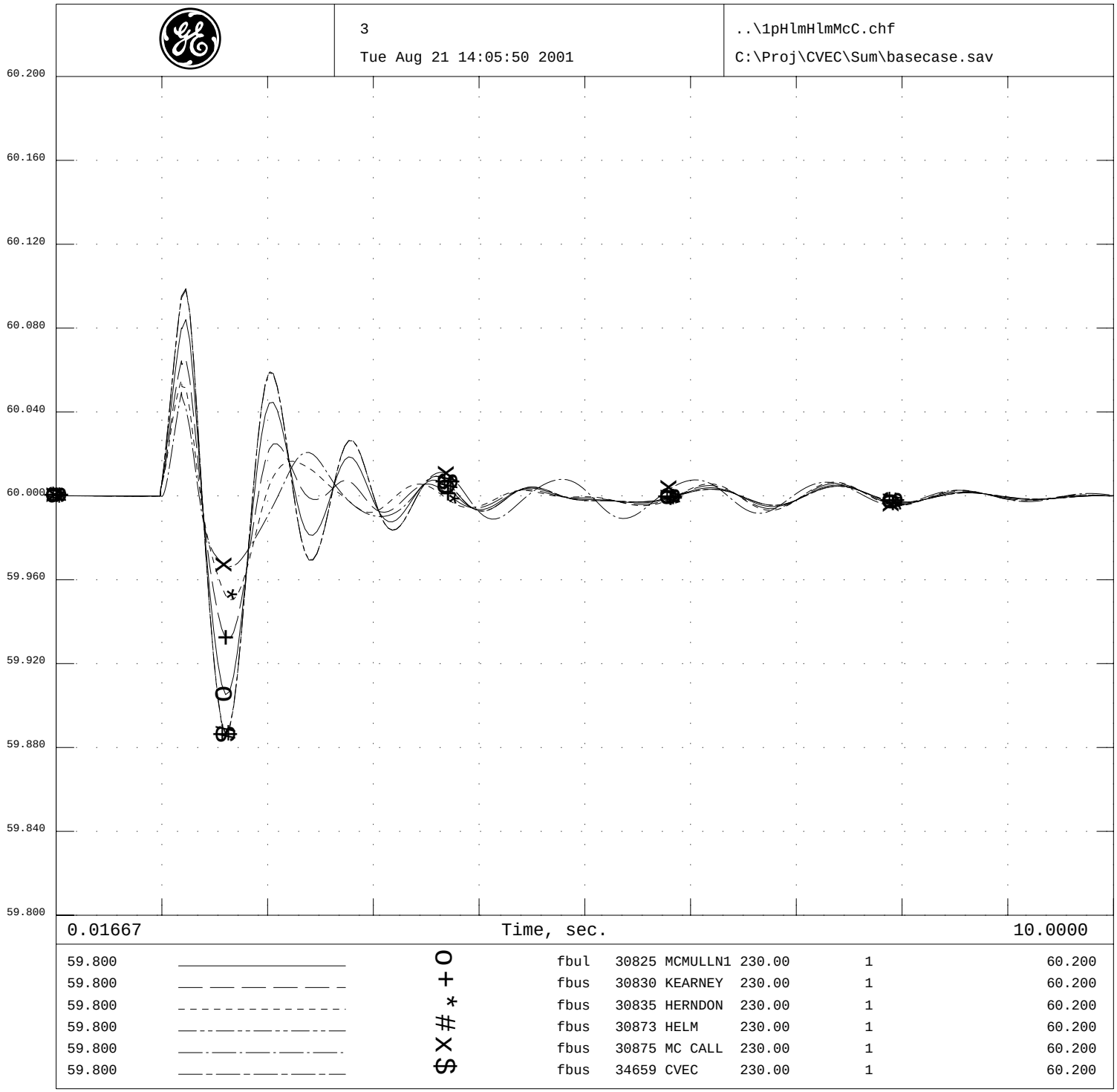
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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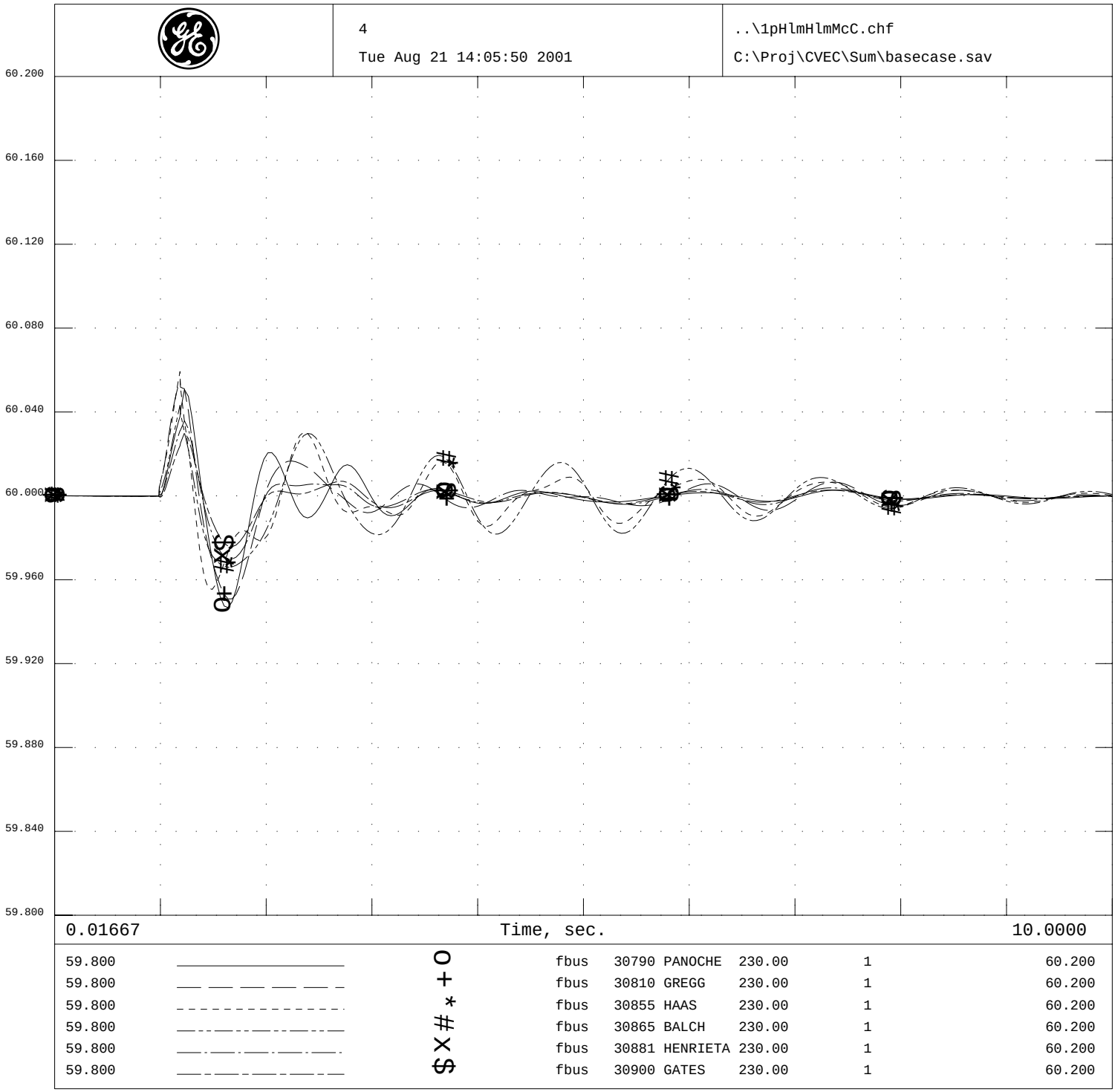
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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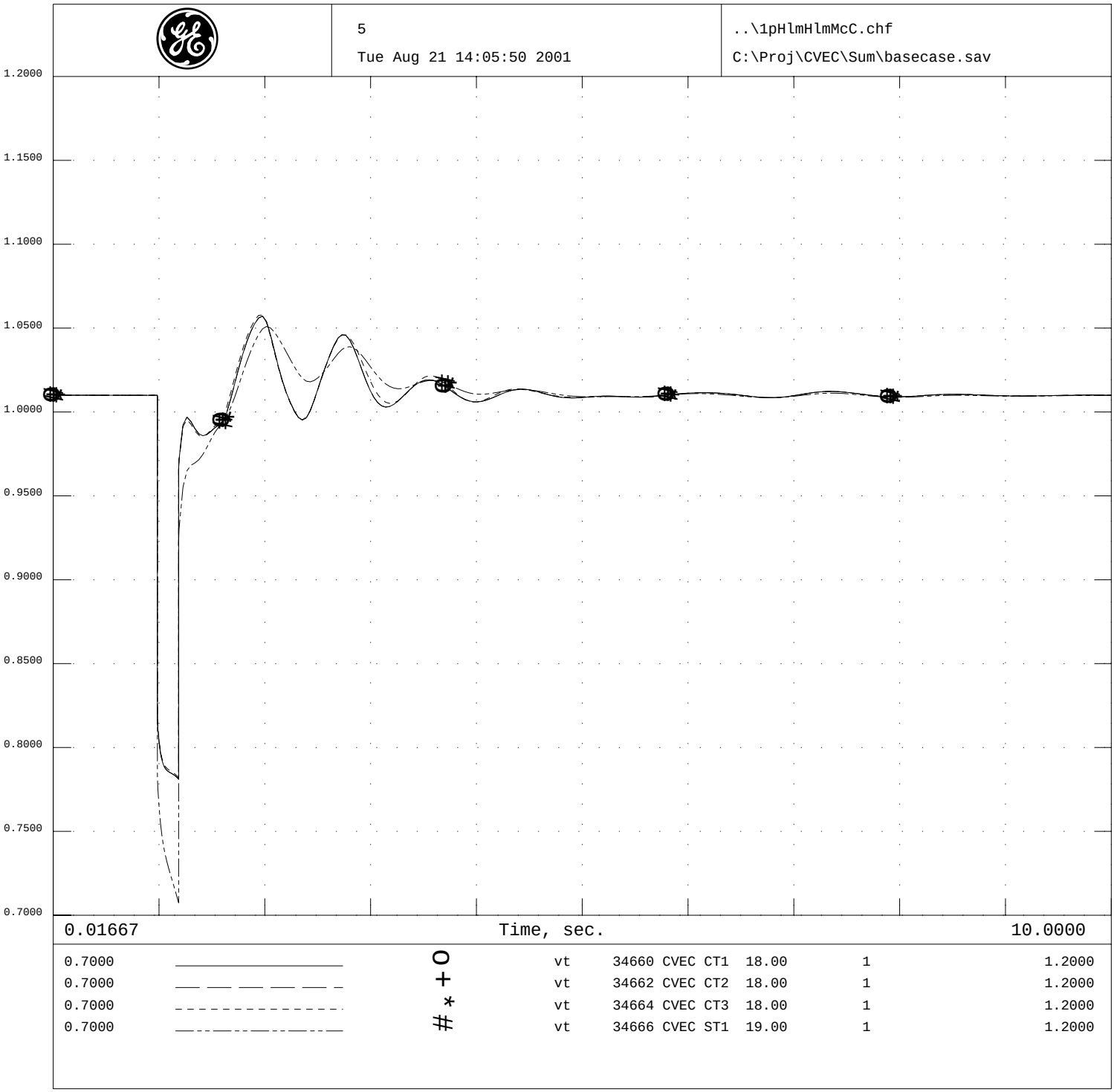
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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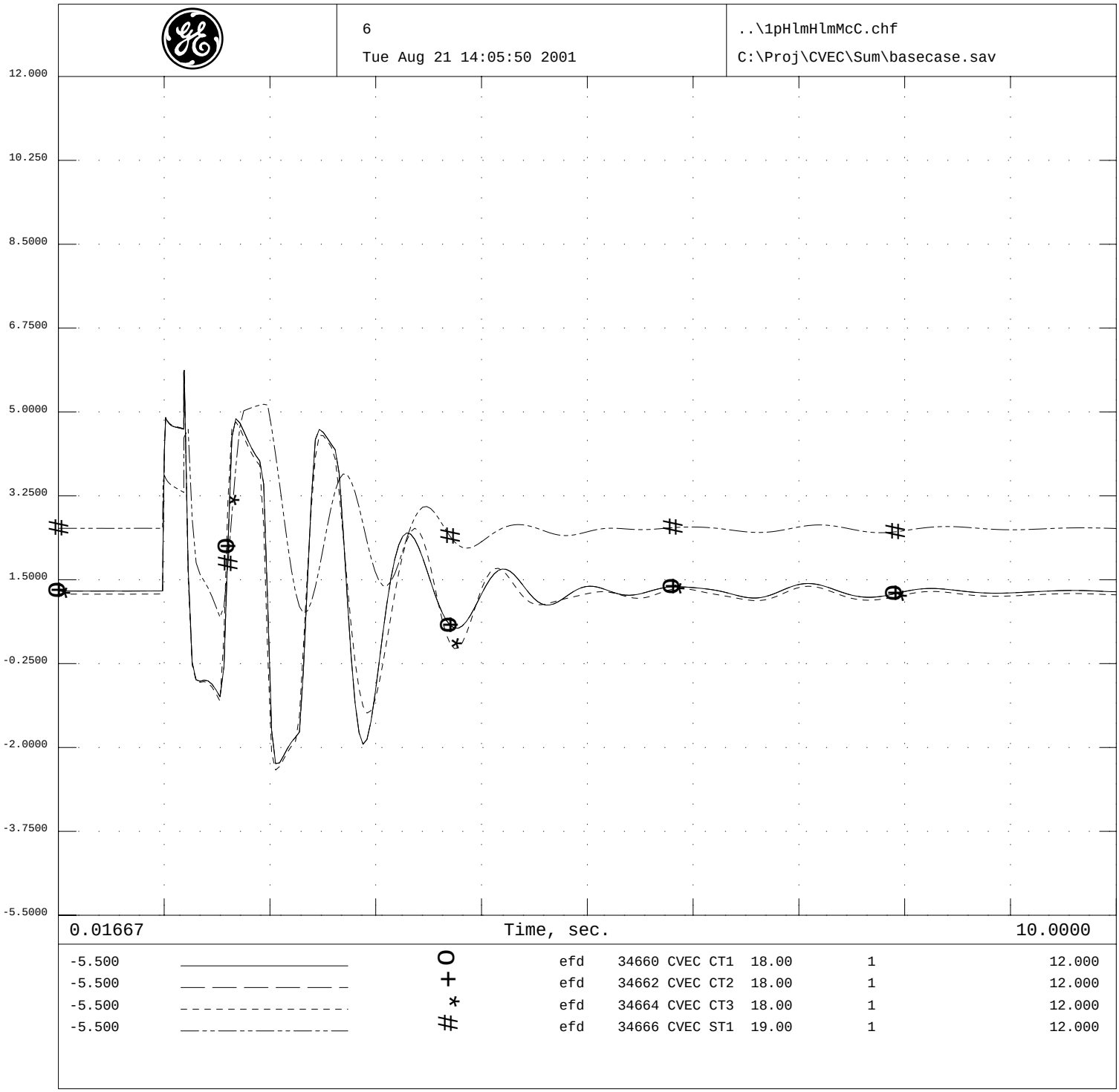
2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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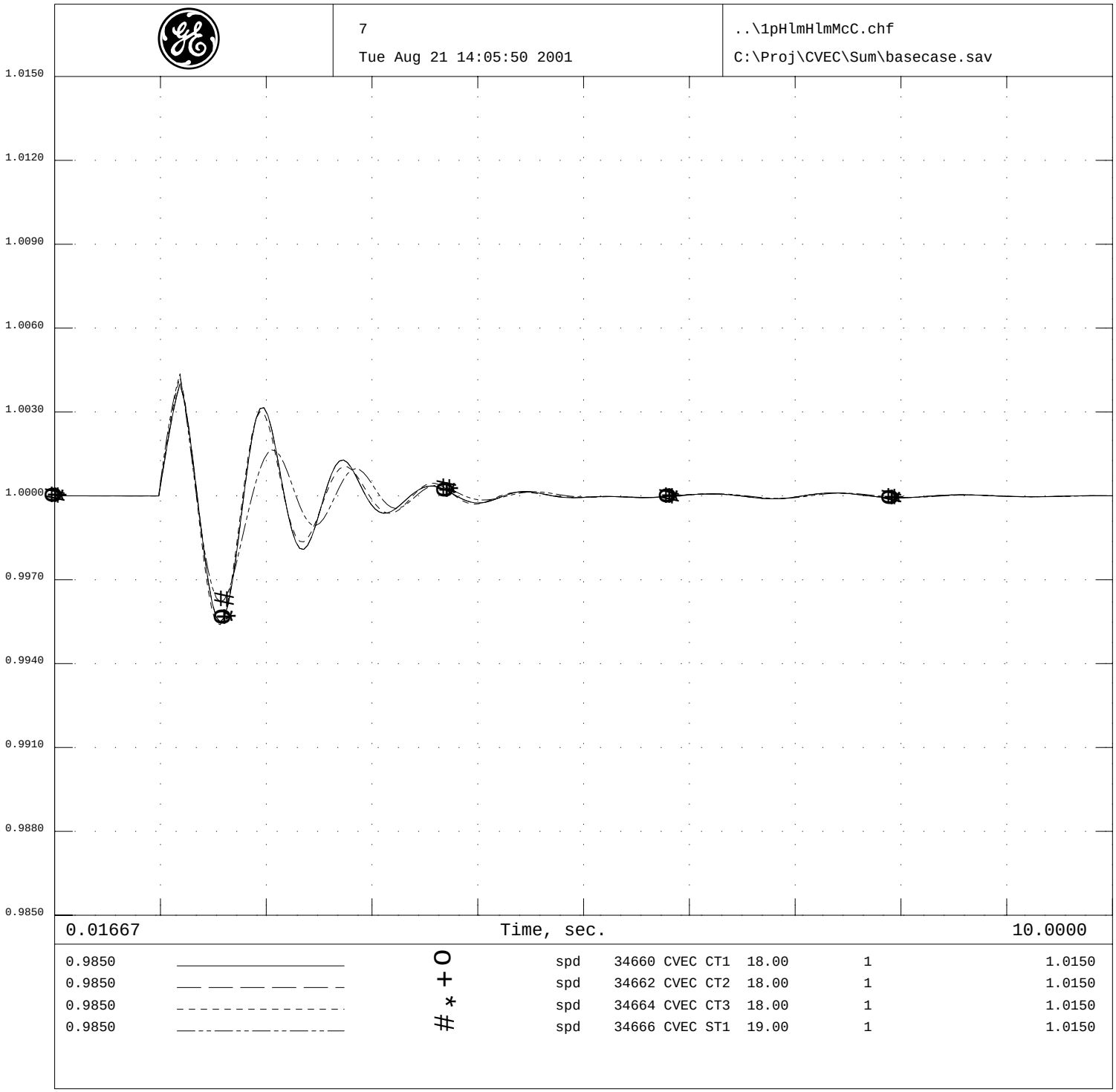
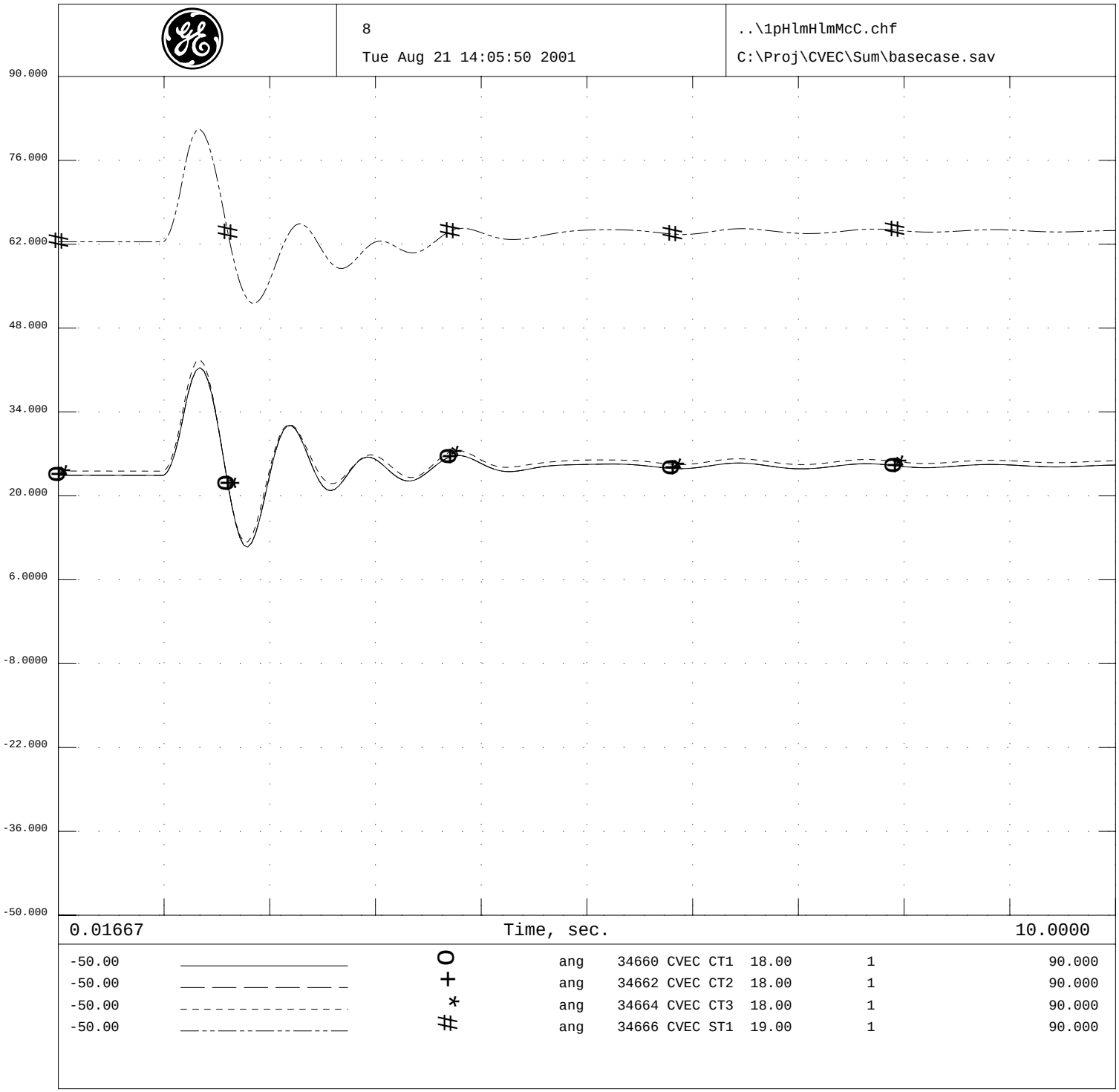
2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



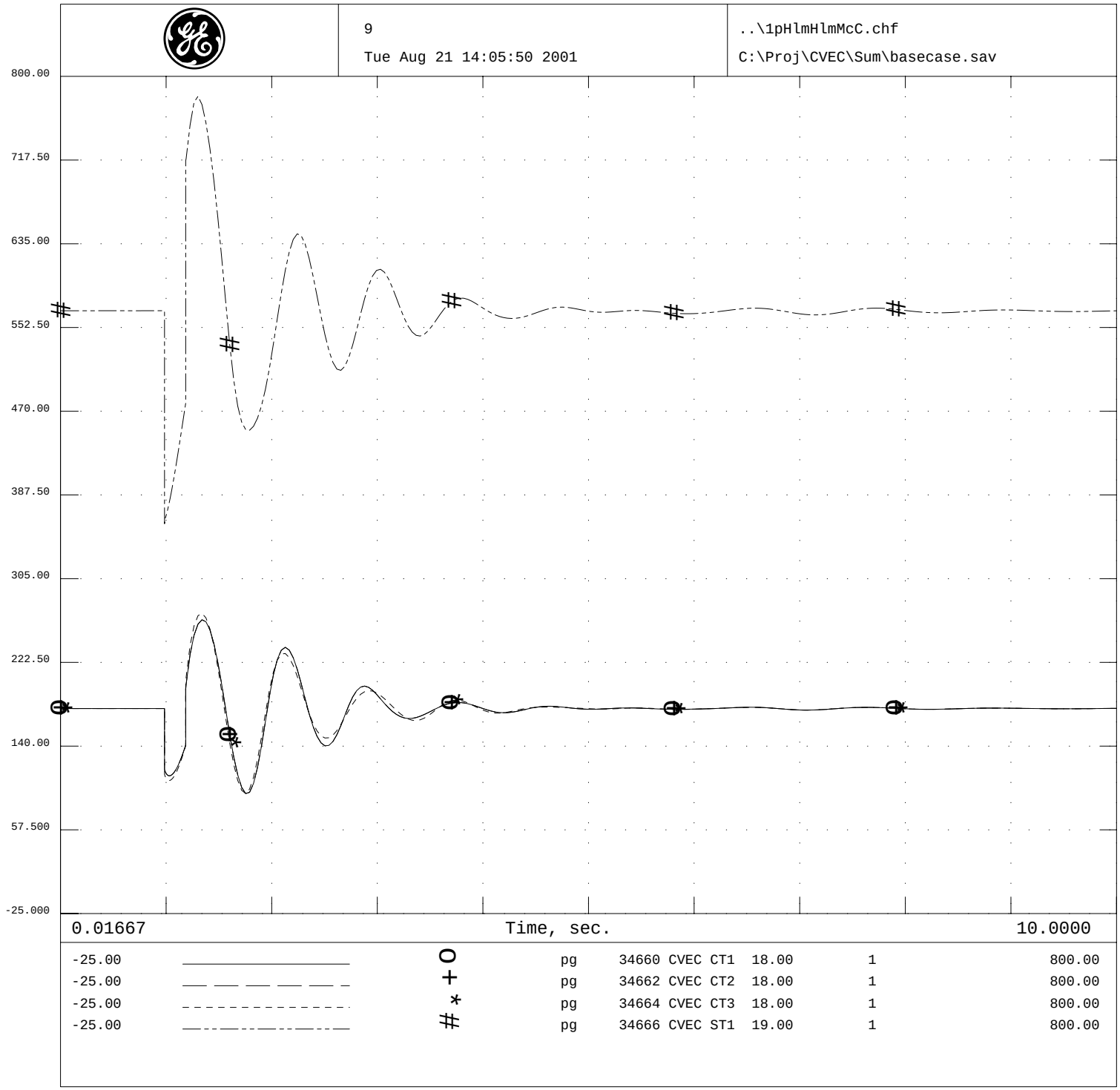
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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2004 Summer Peak Base Case
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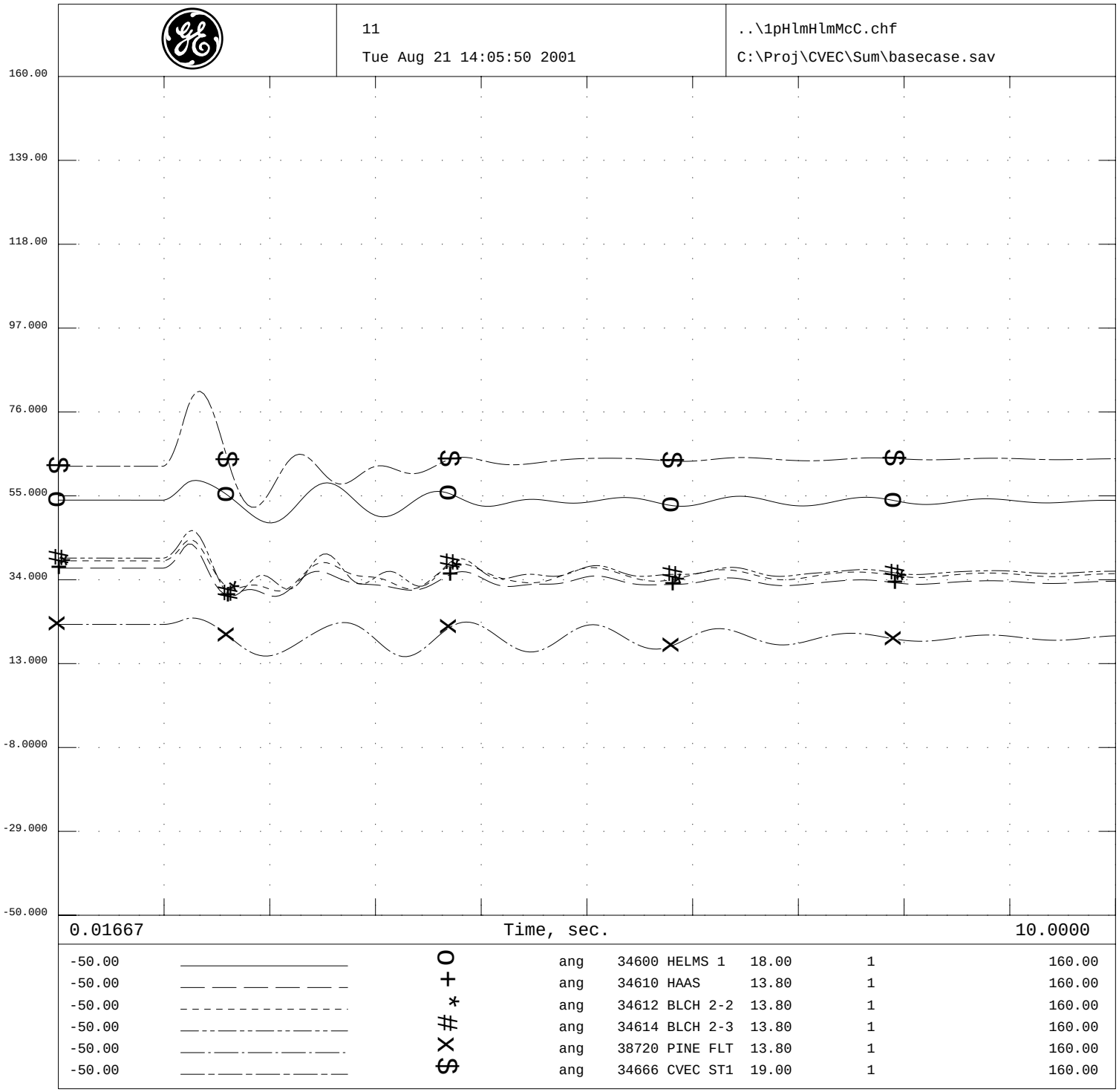
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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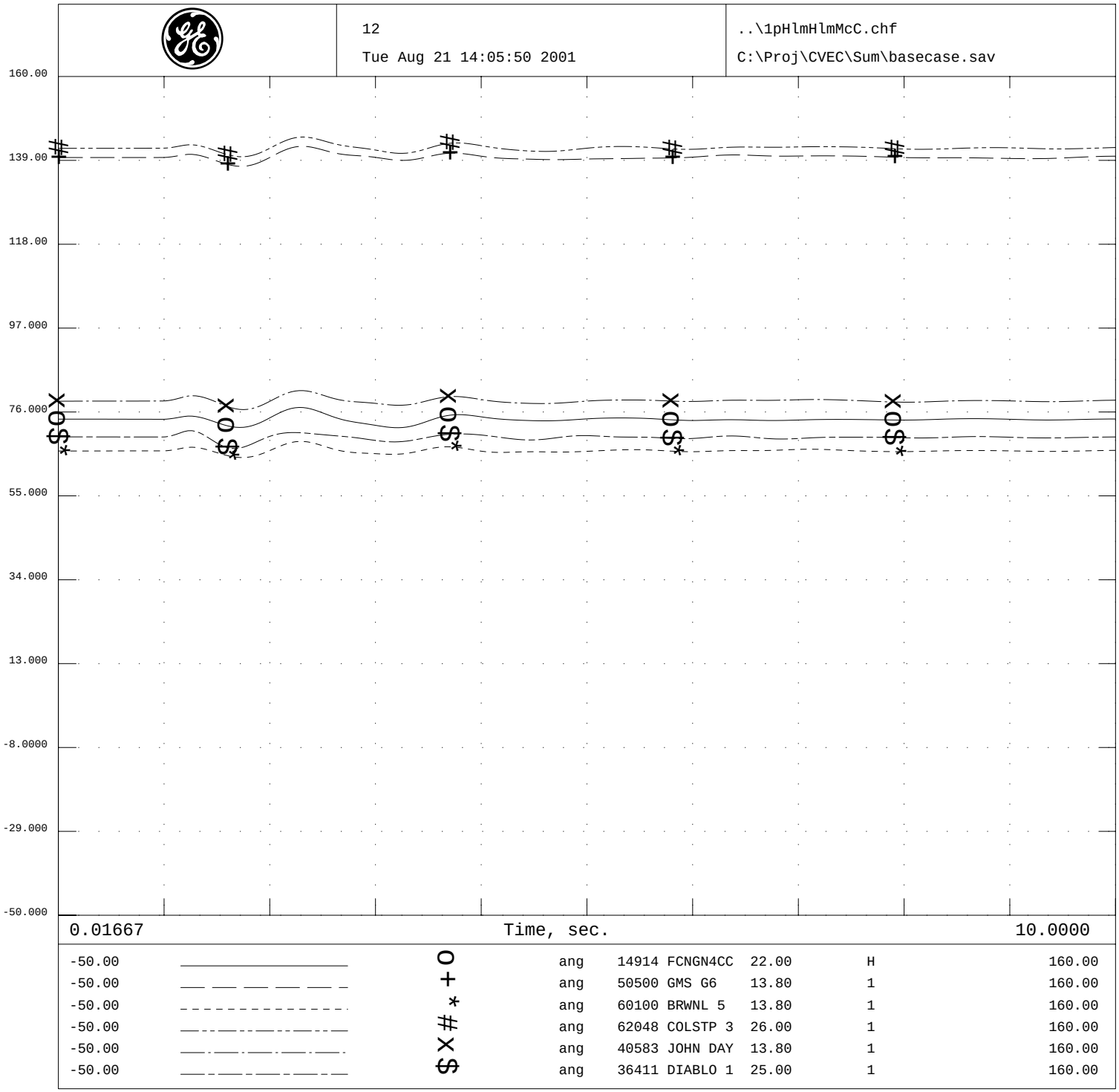
2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
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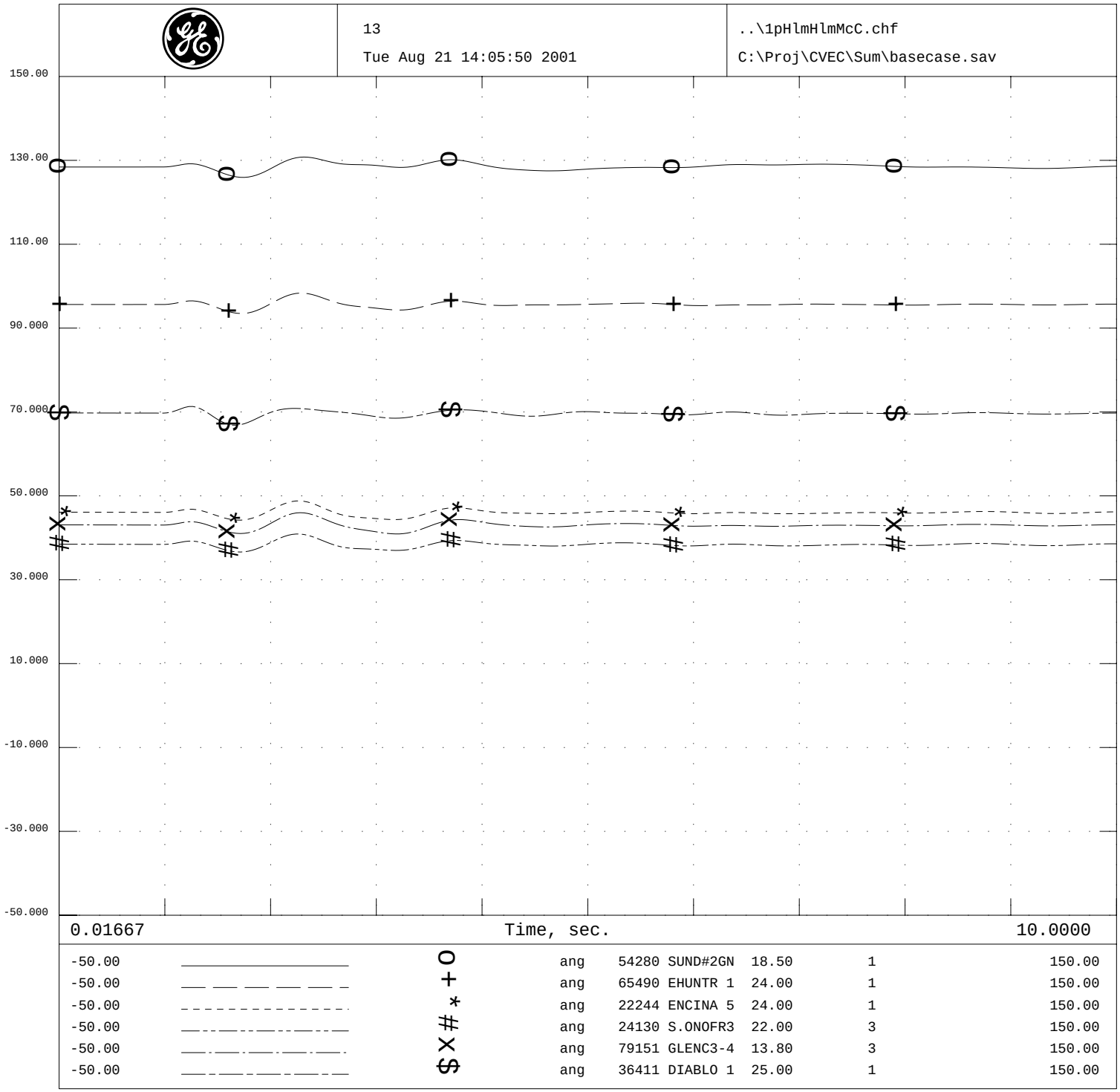
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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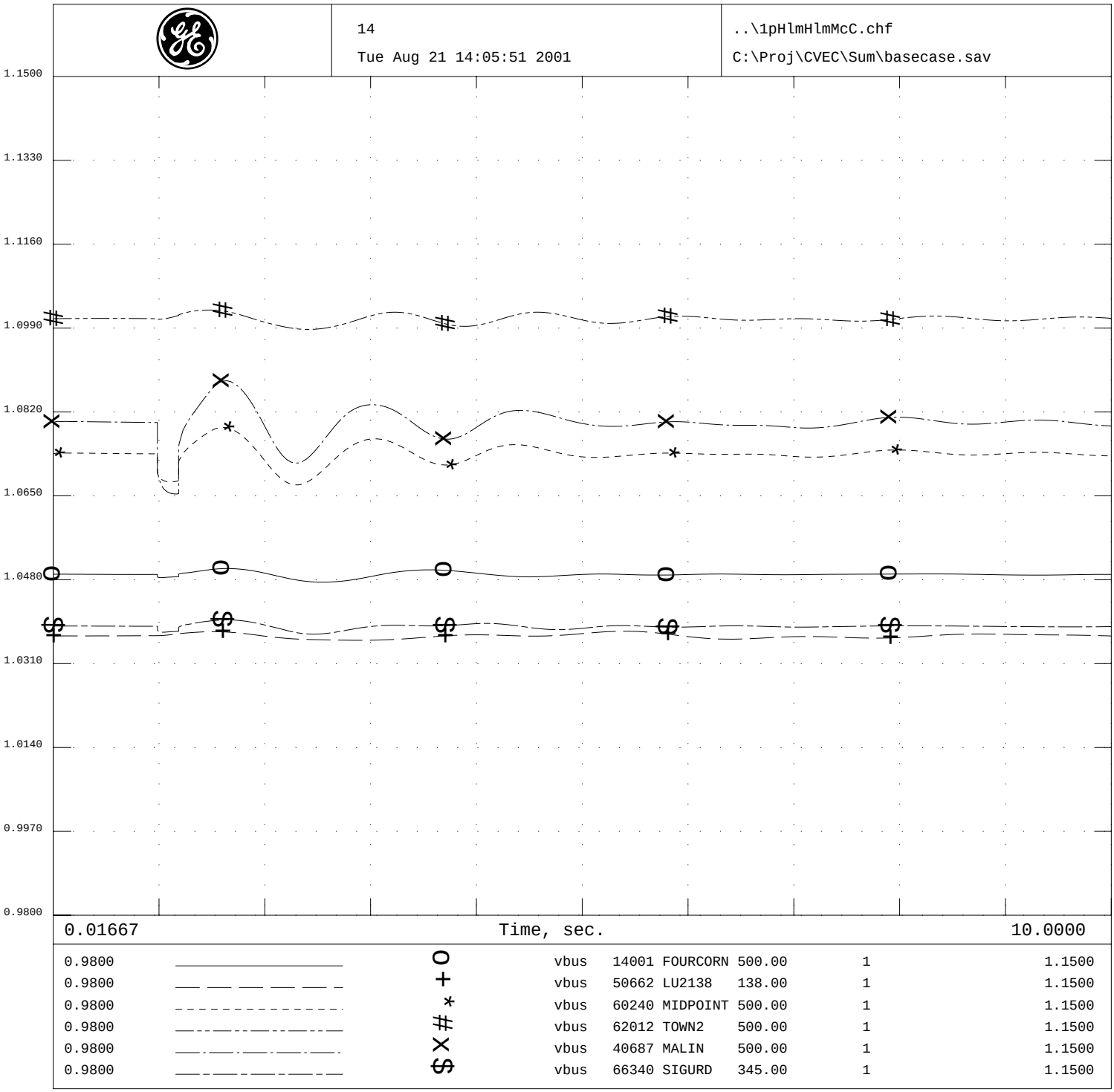

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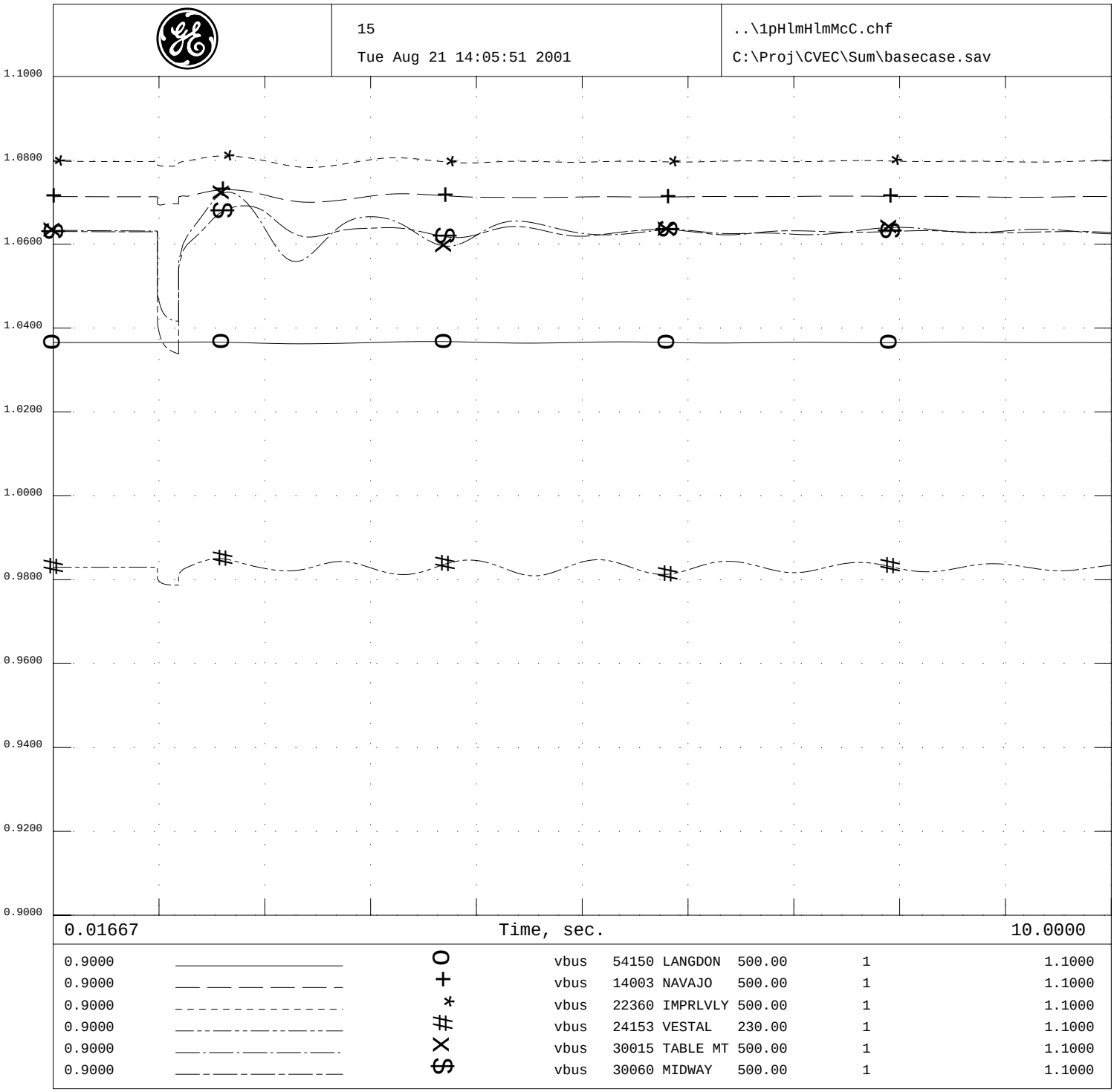

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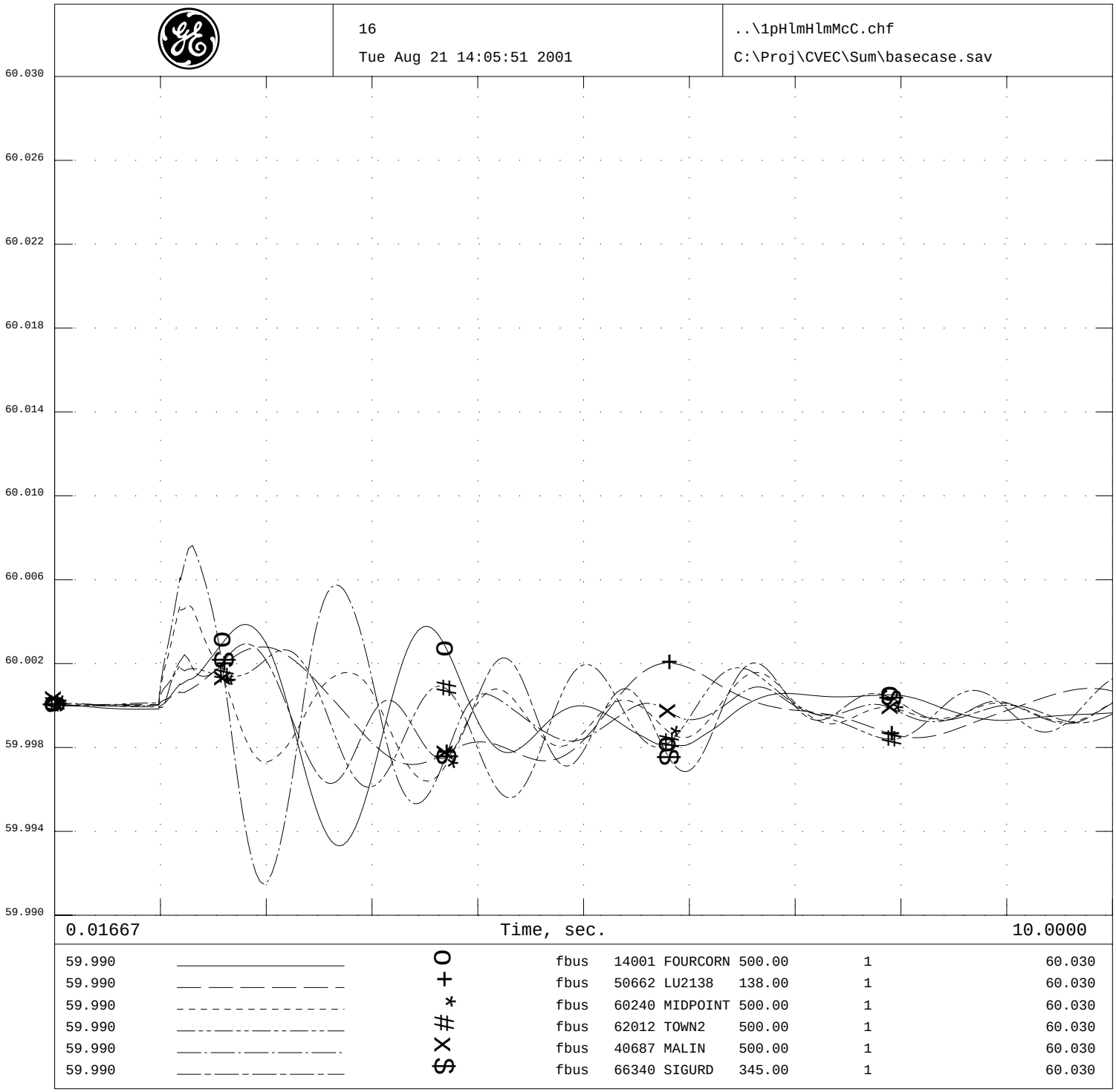

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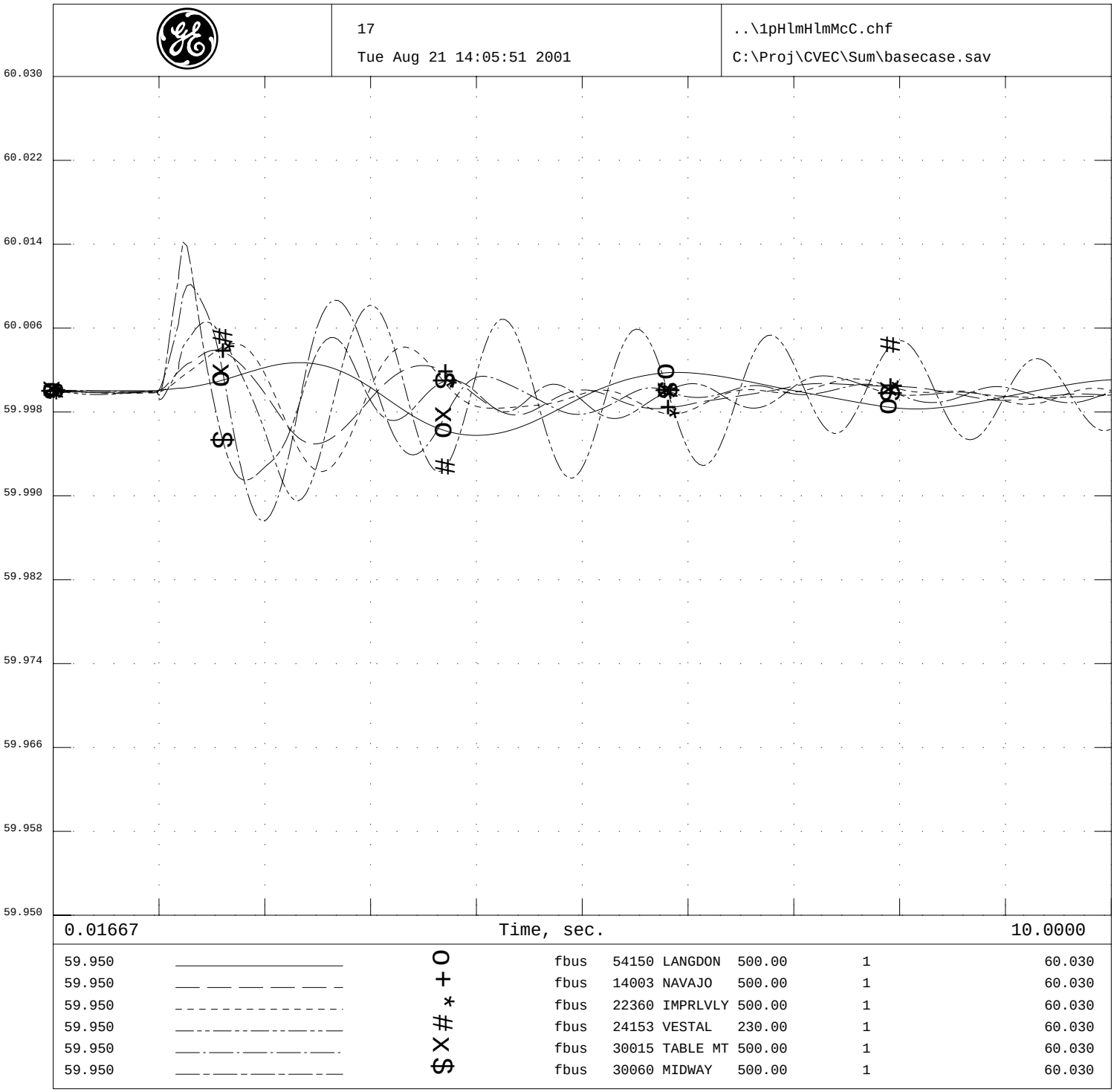

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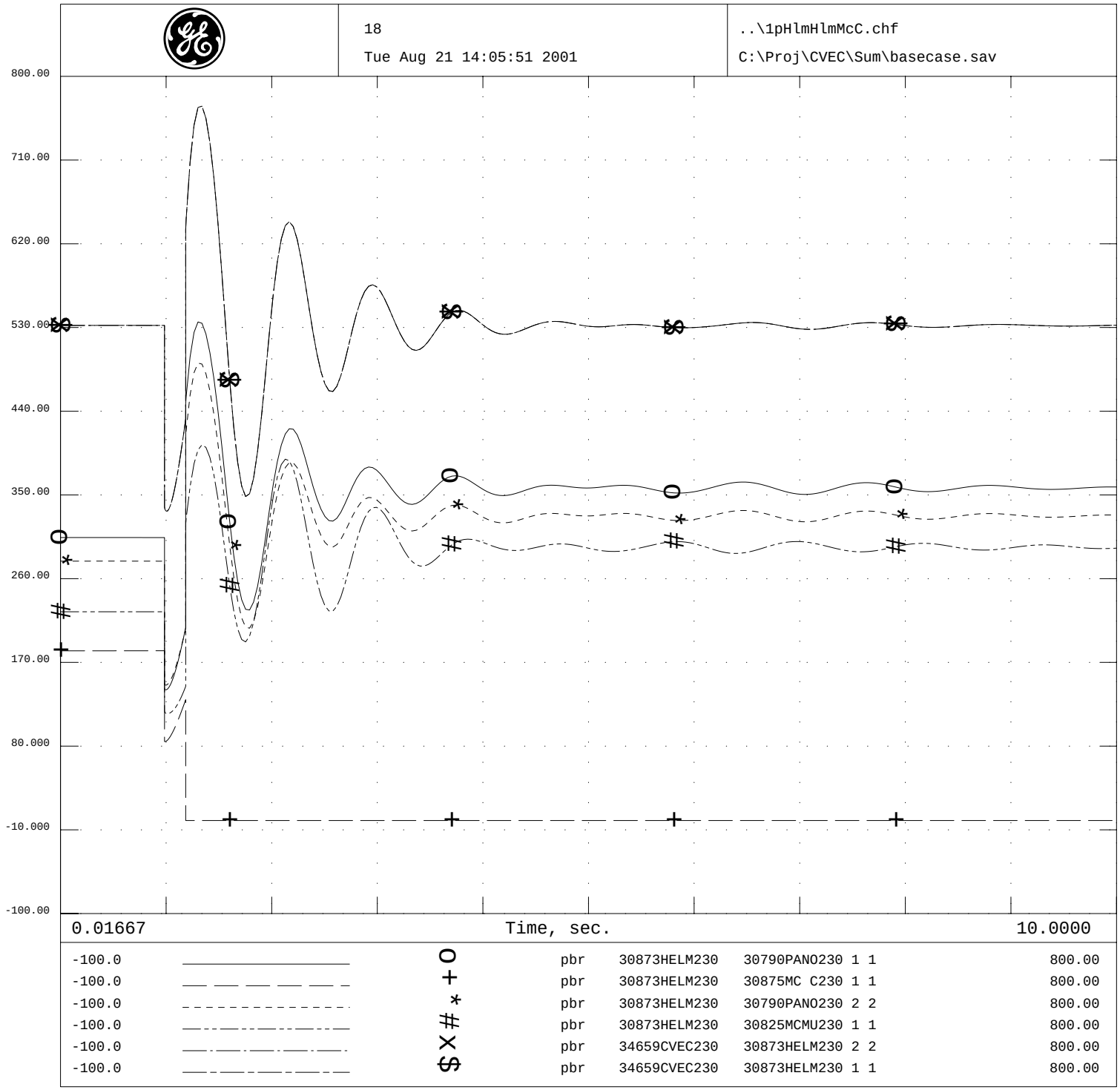

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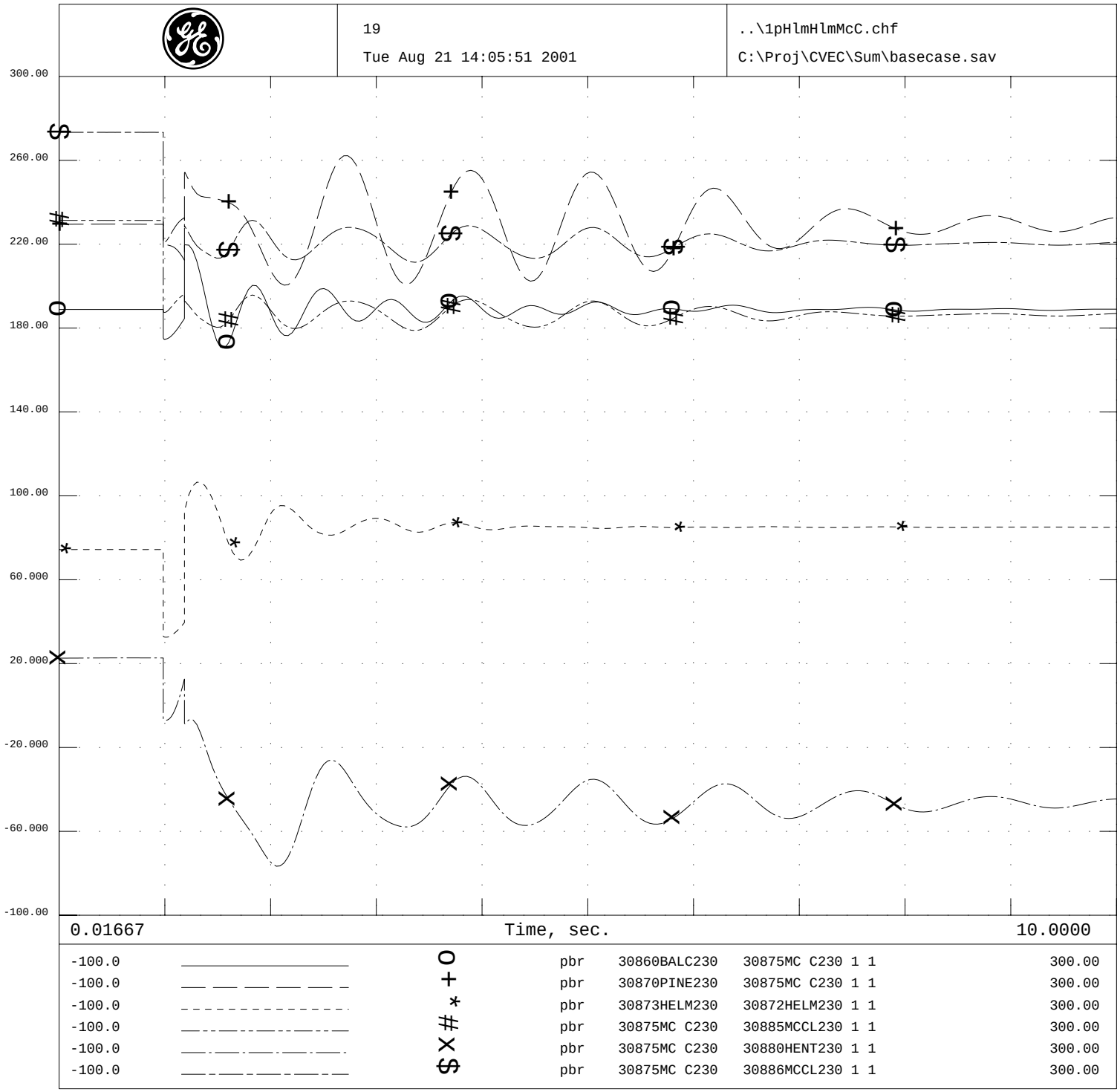

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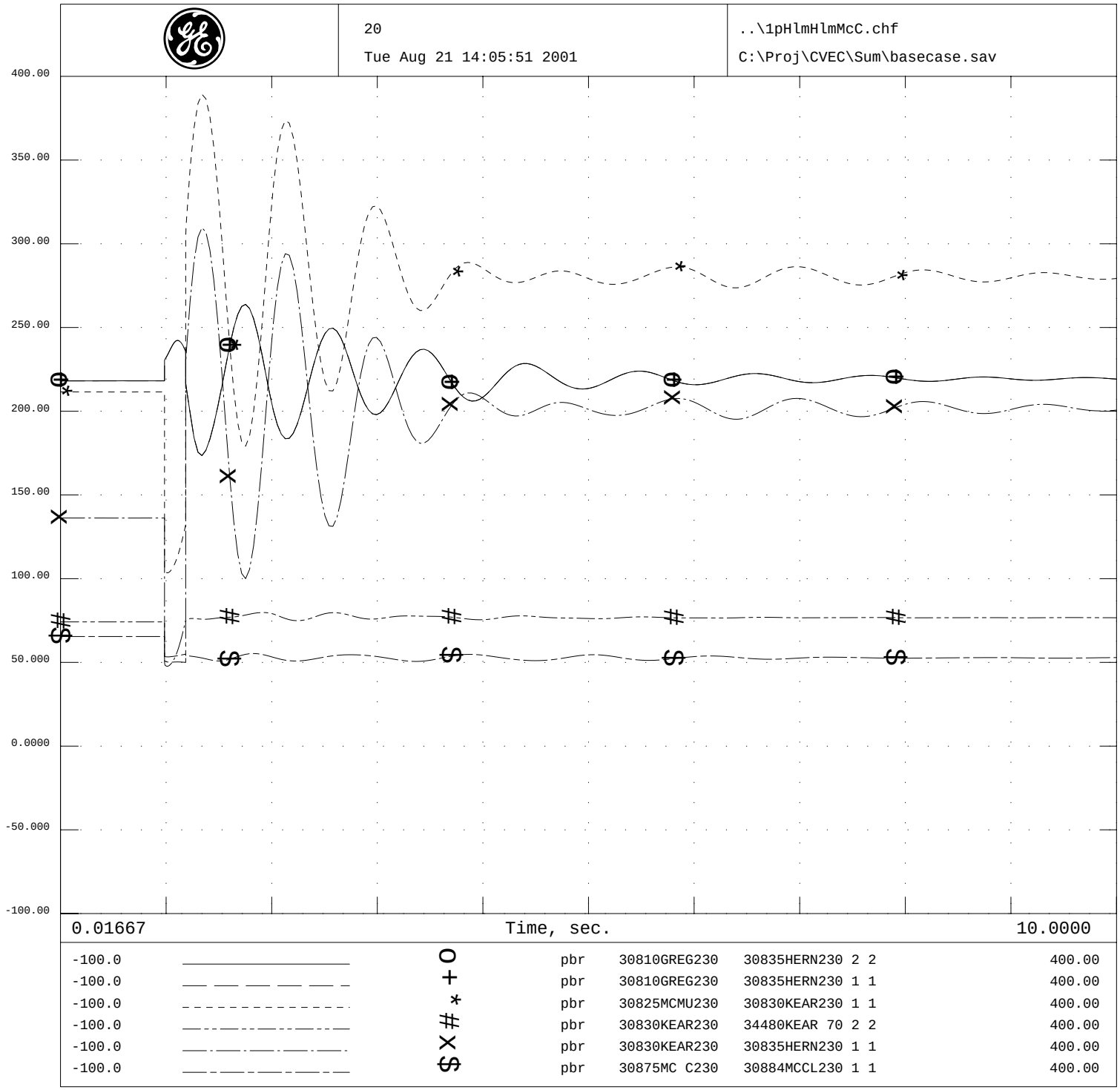

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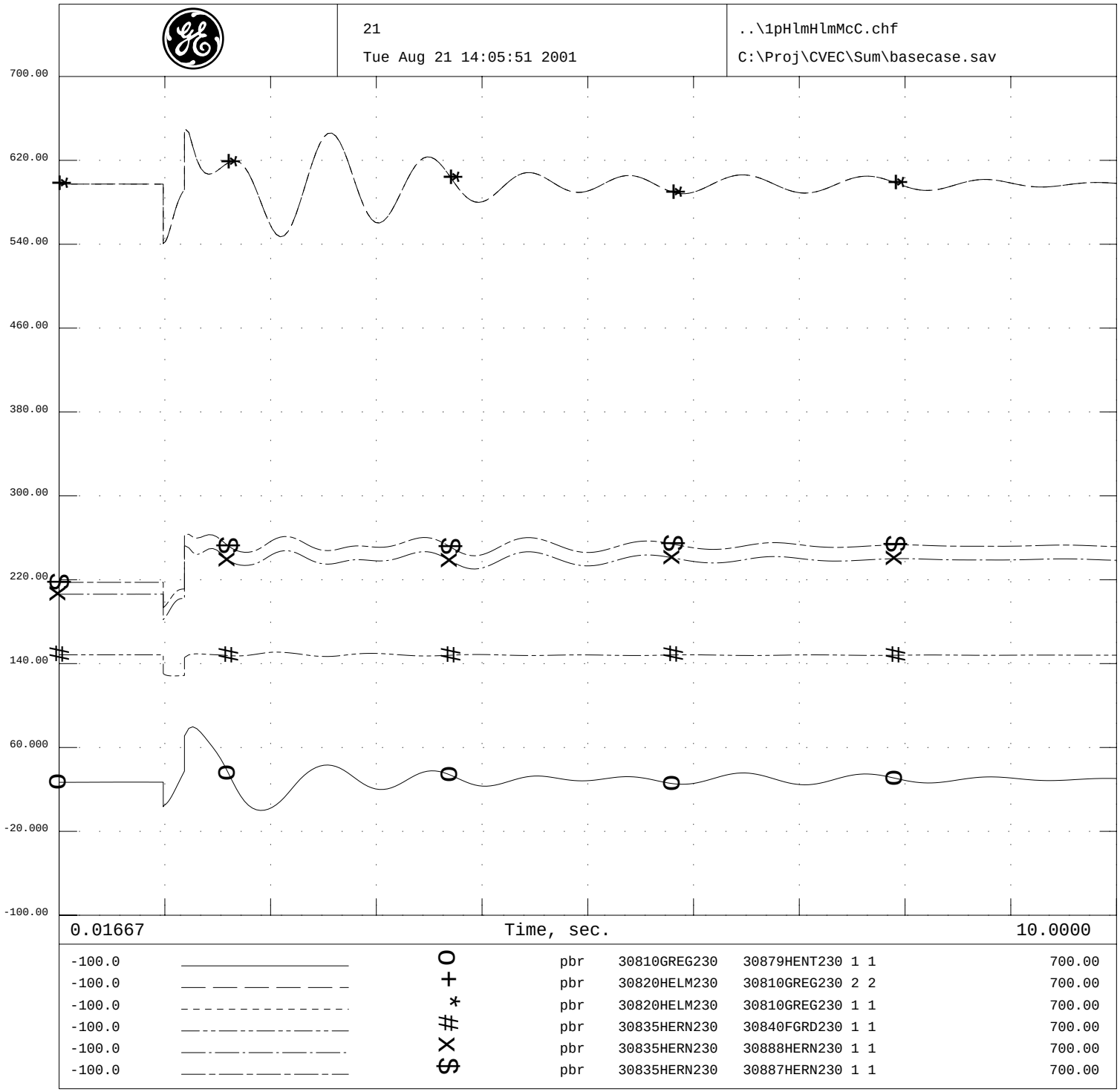

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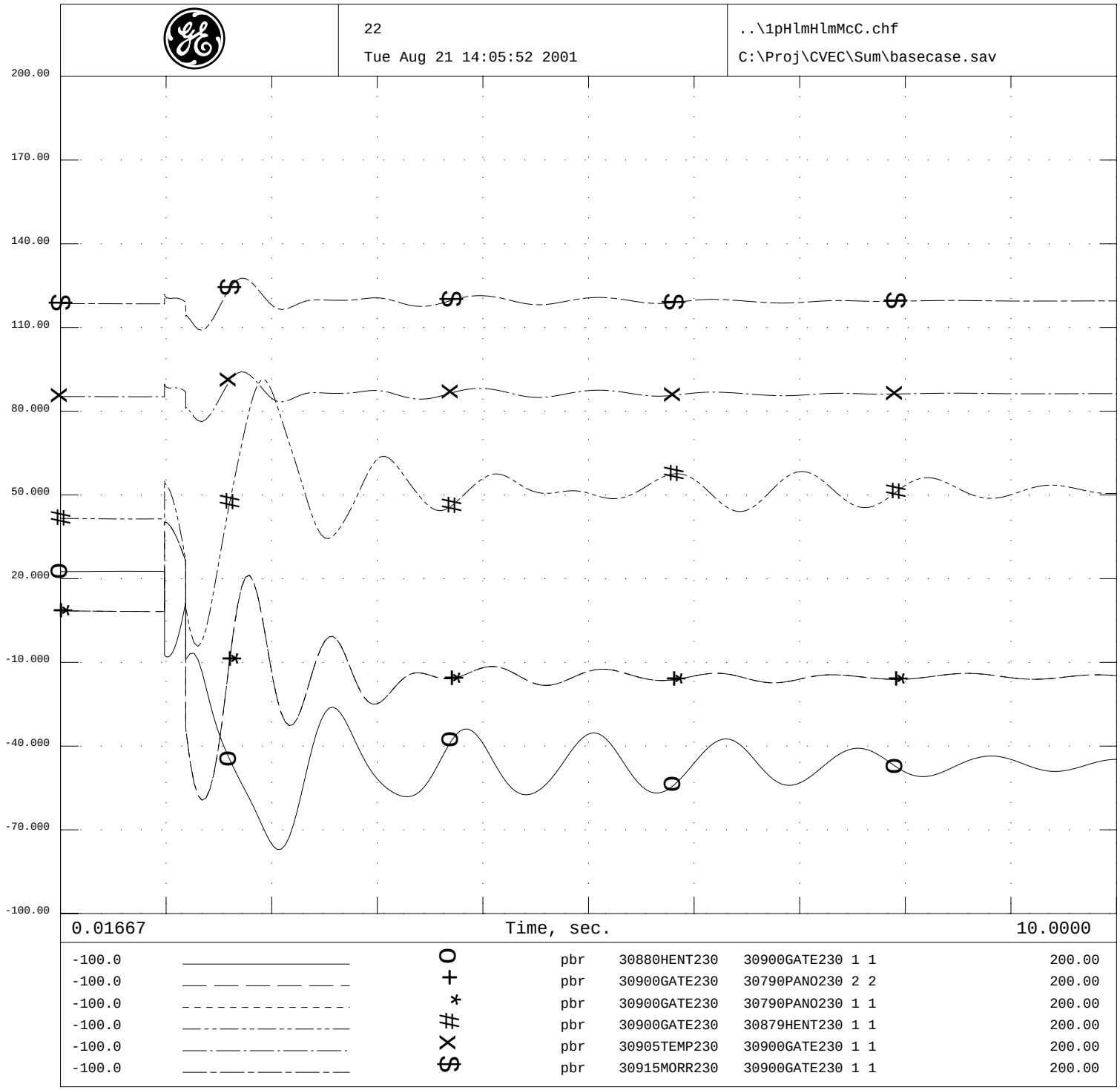

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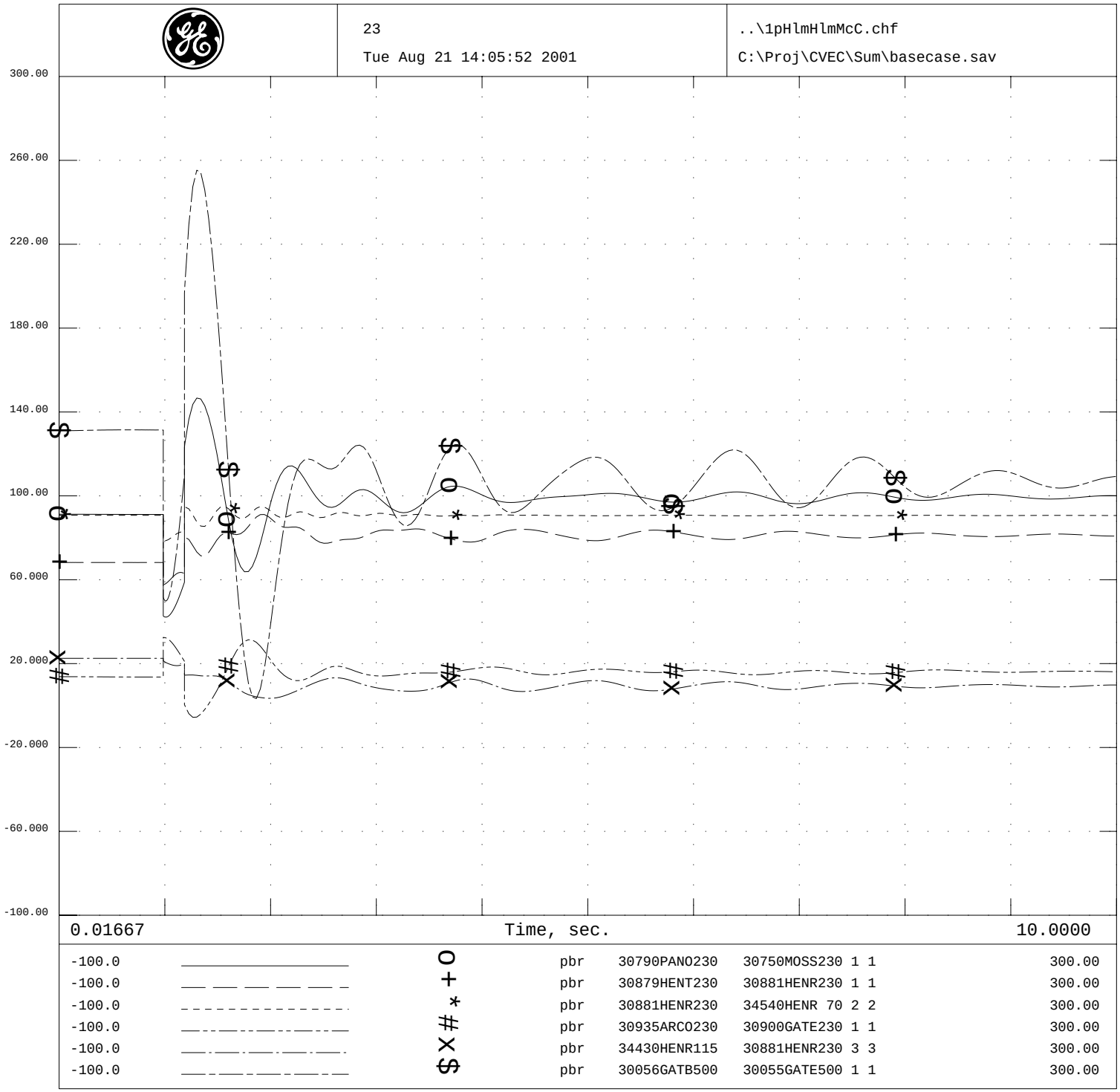

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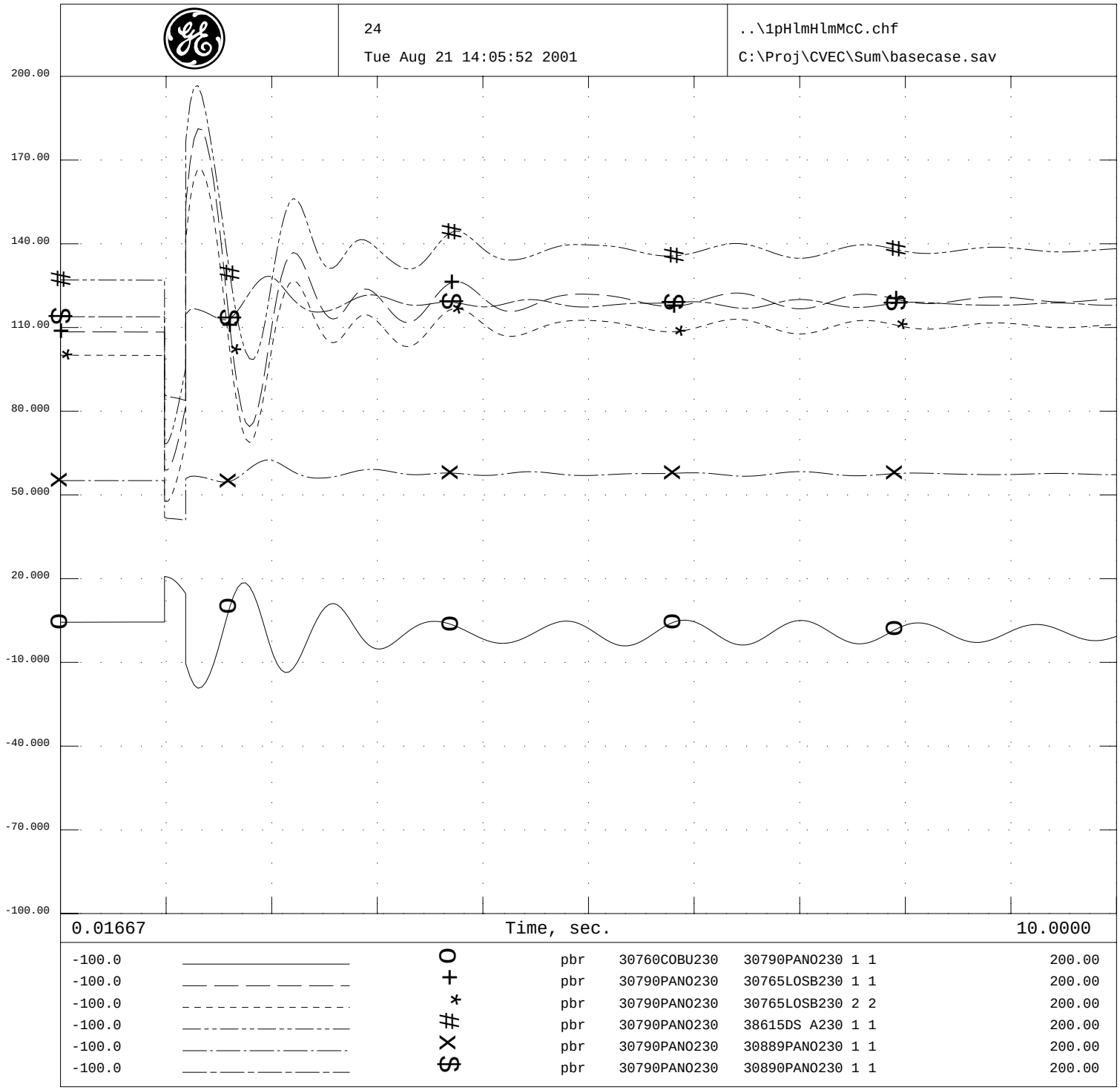

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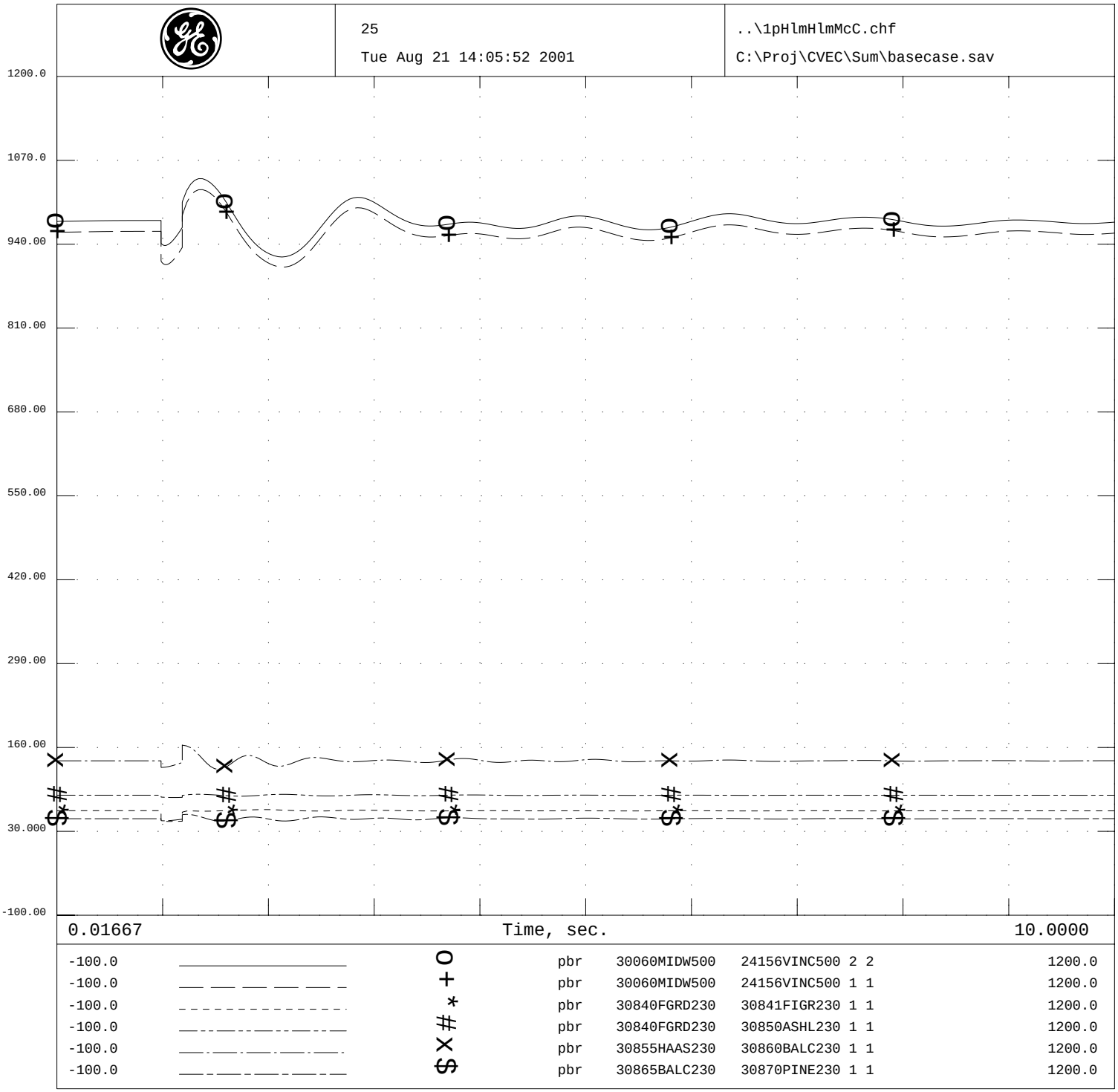

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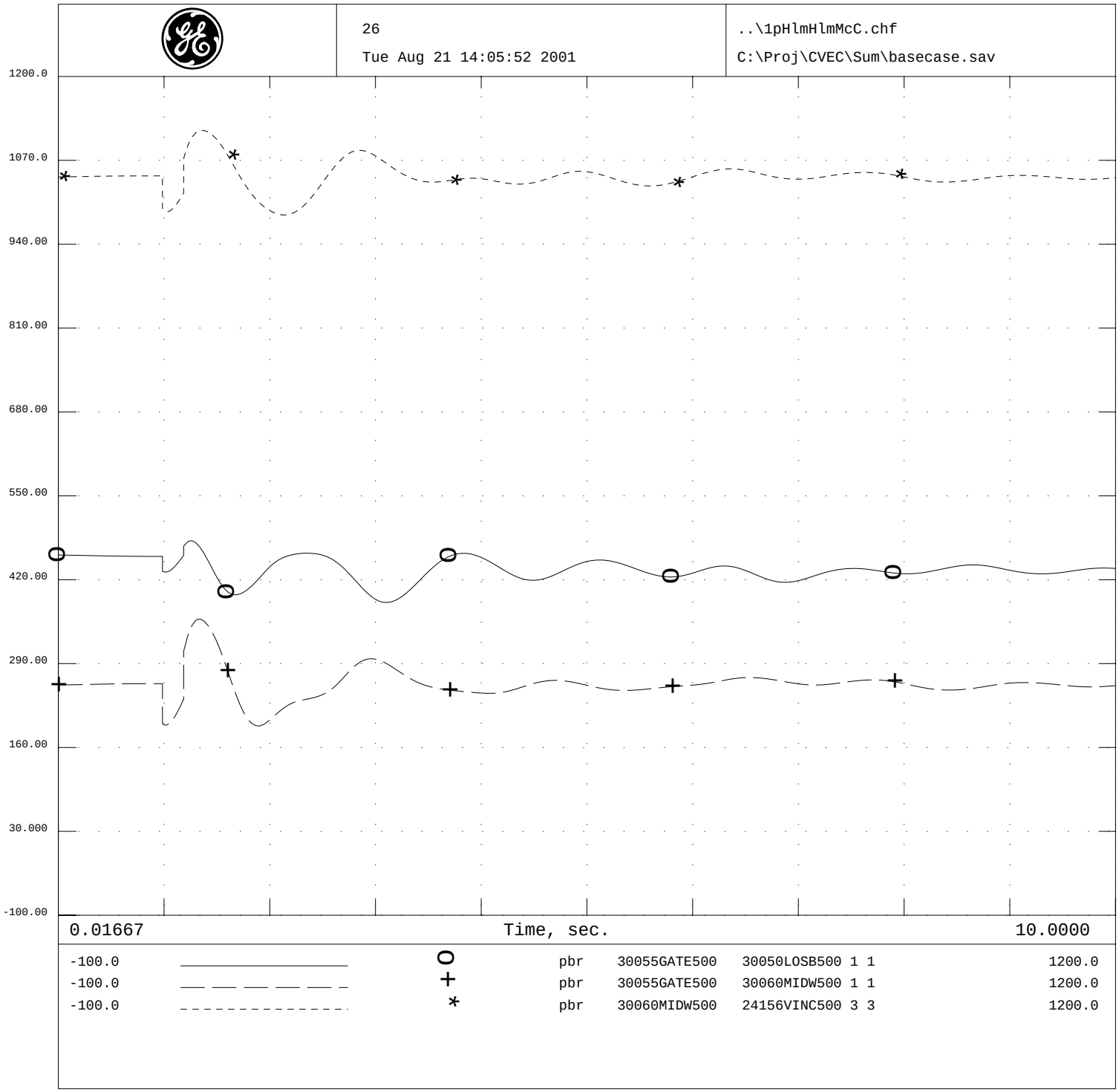

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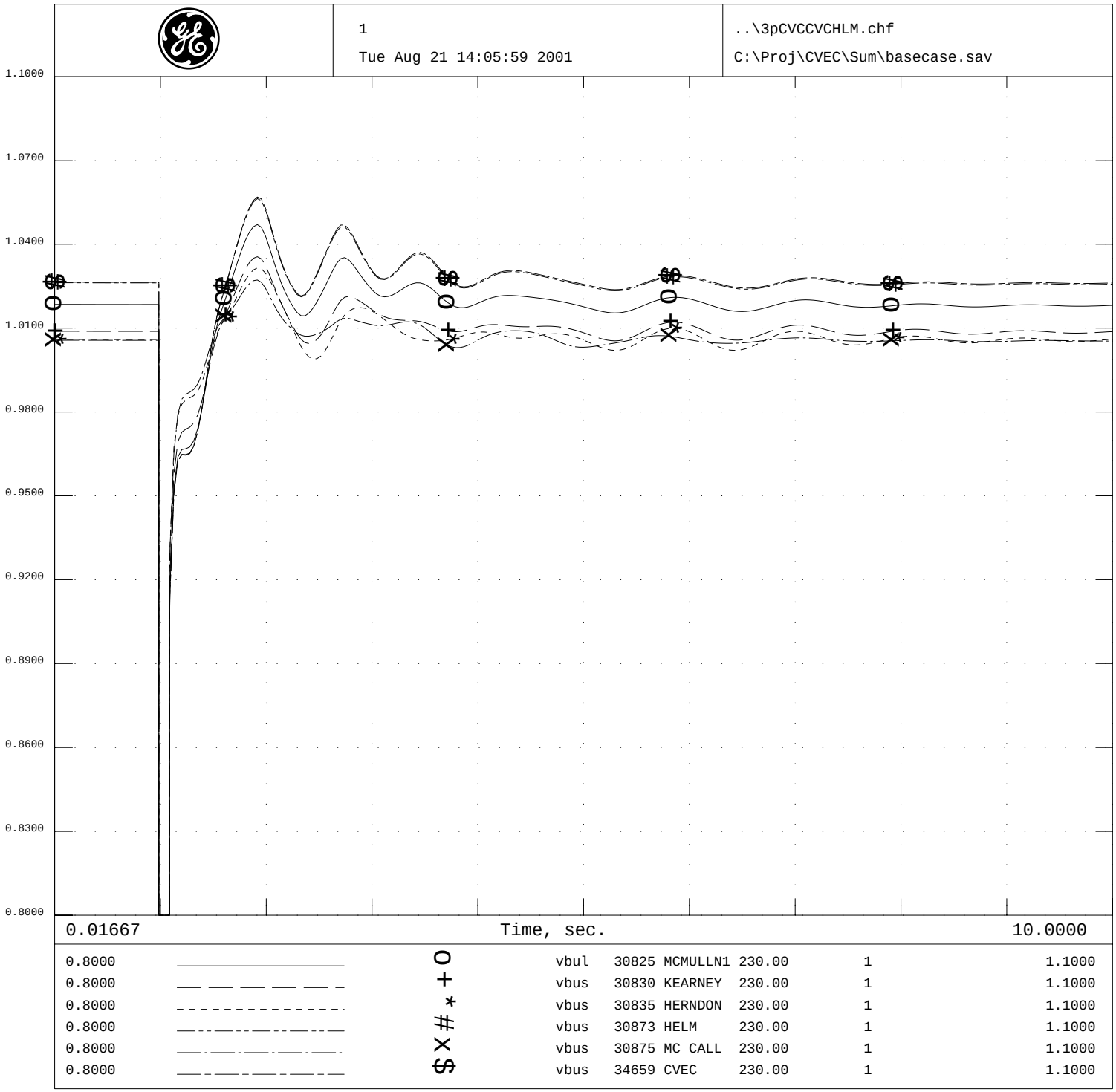

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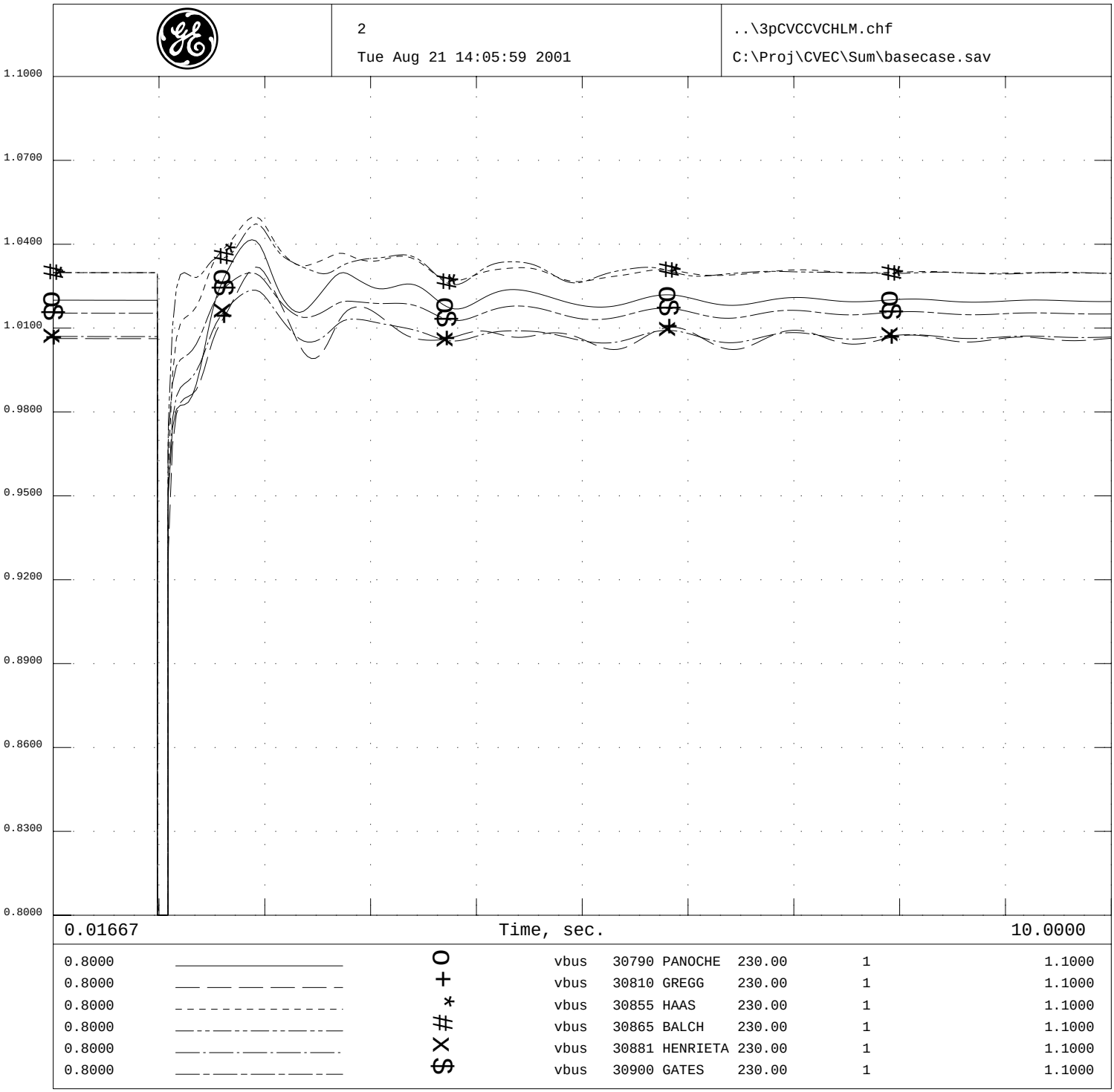
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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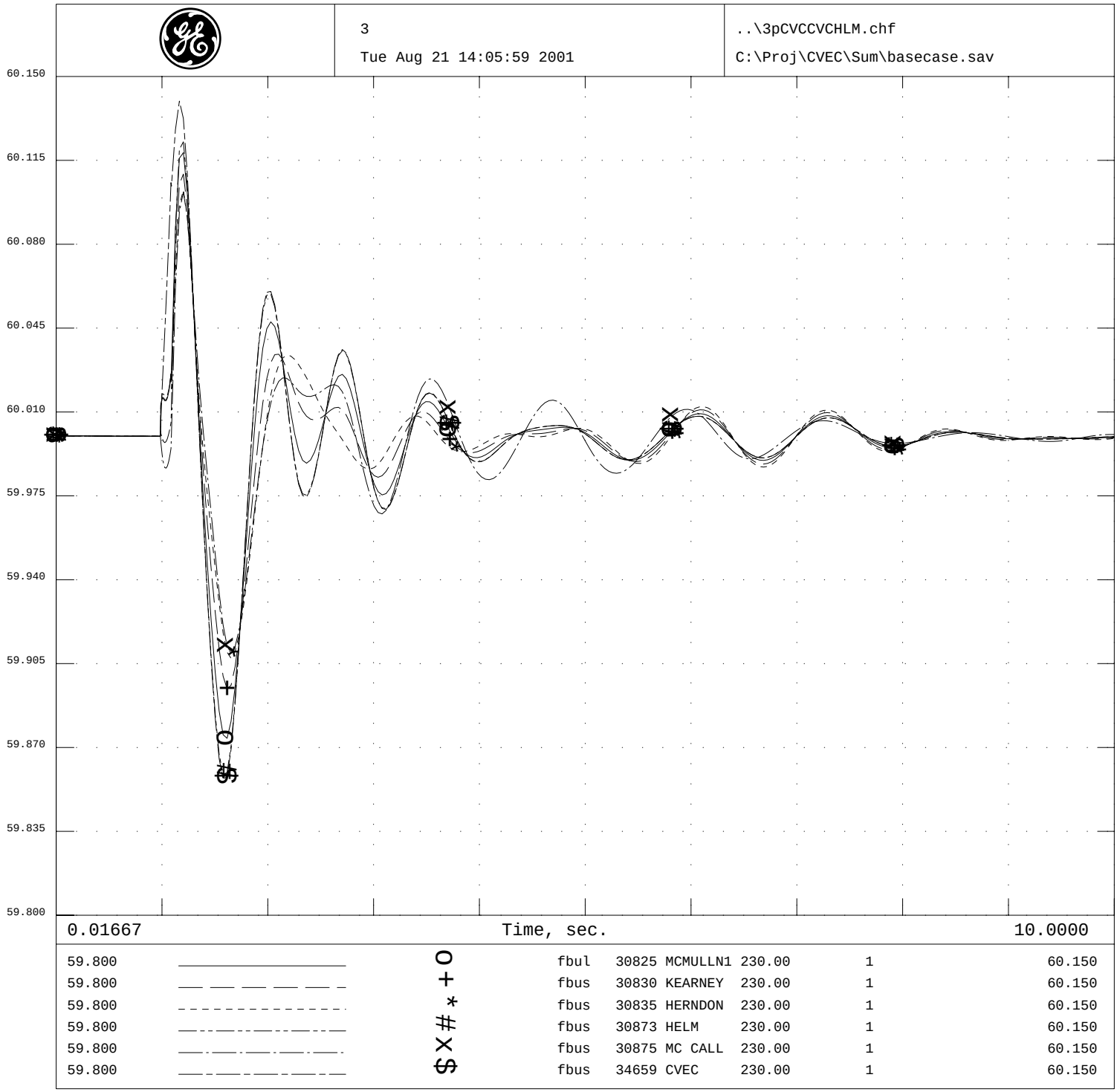

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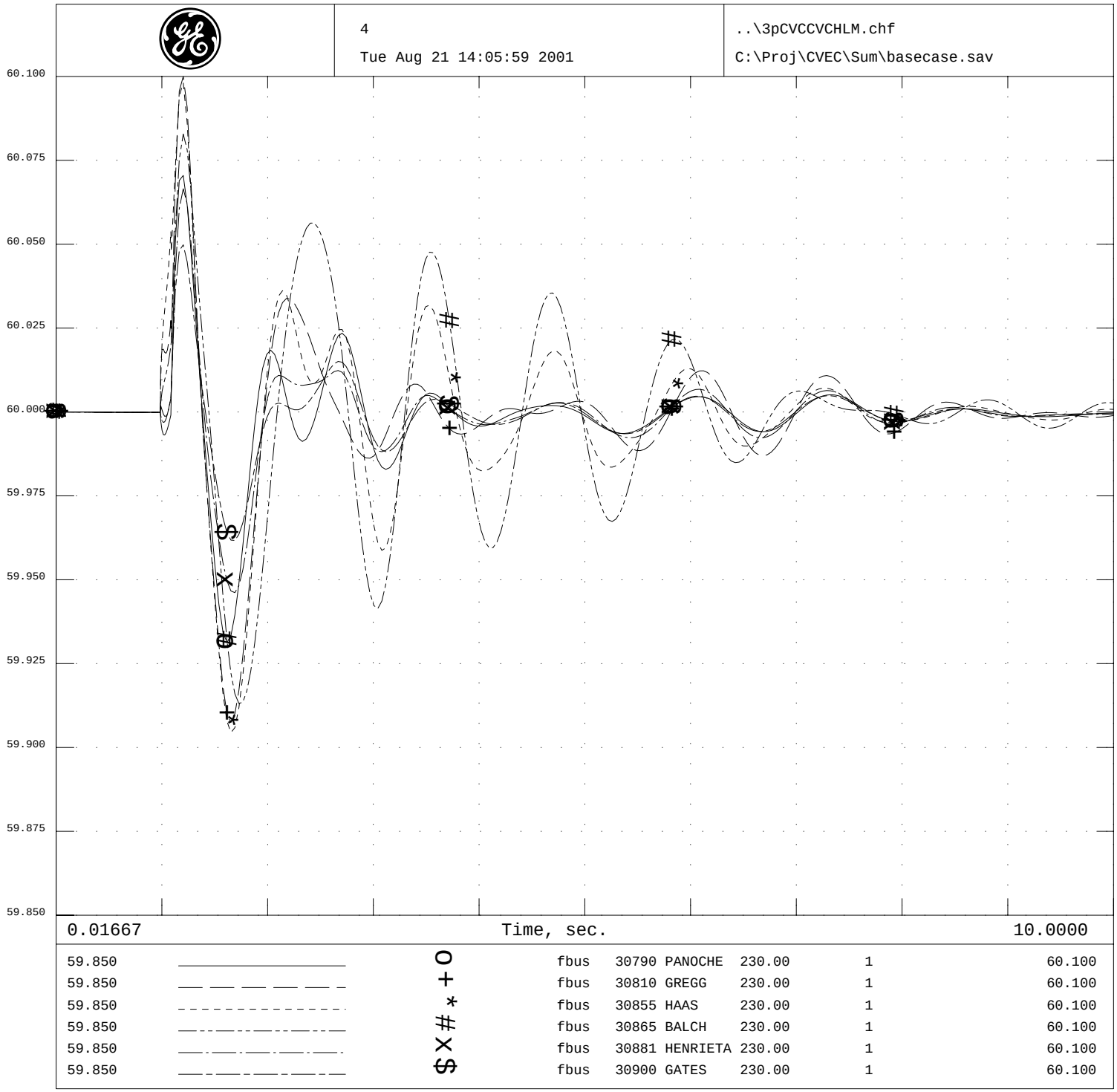
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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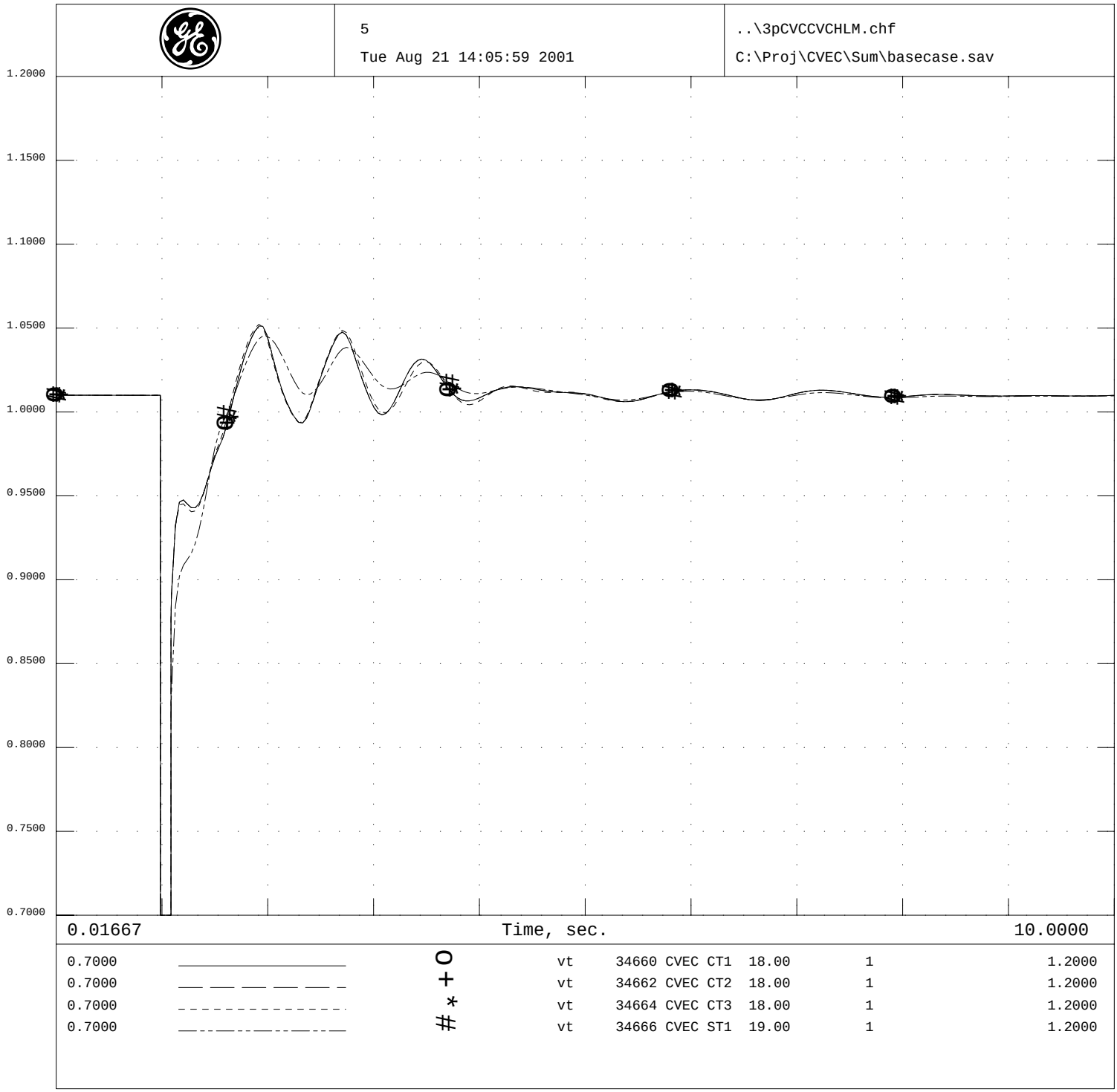

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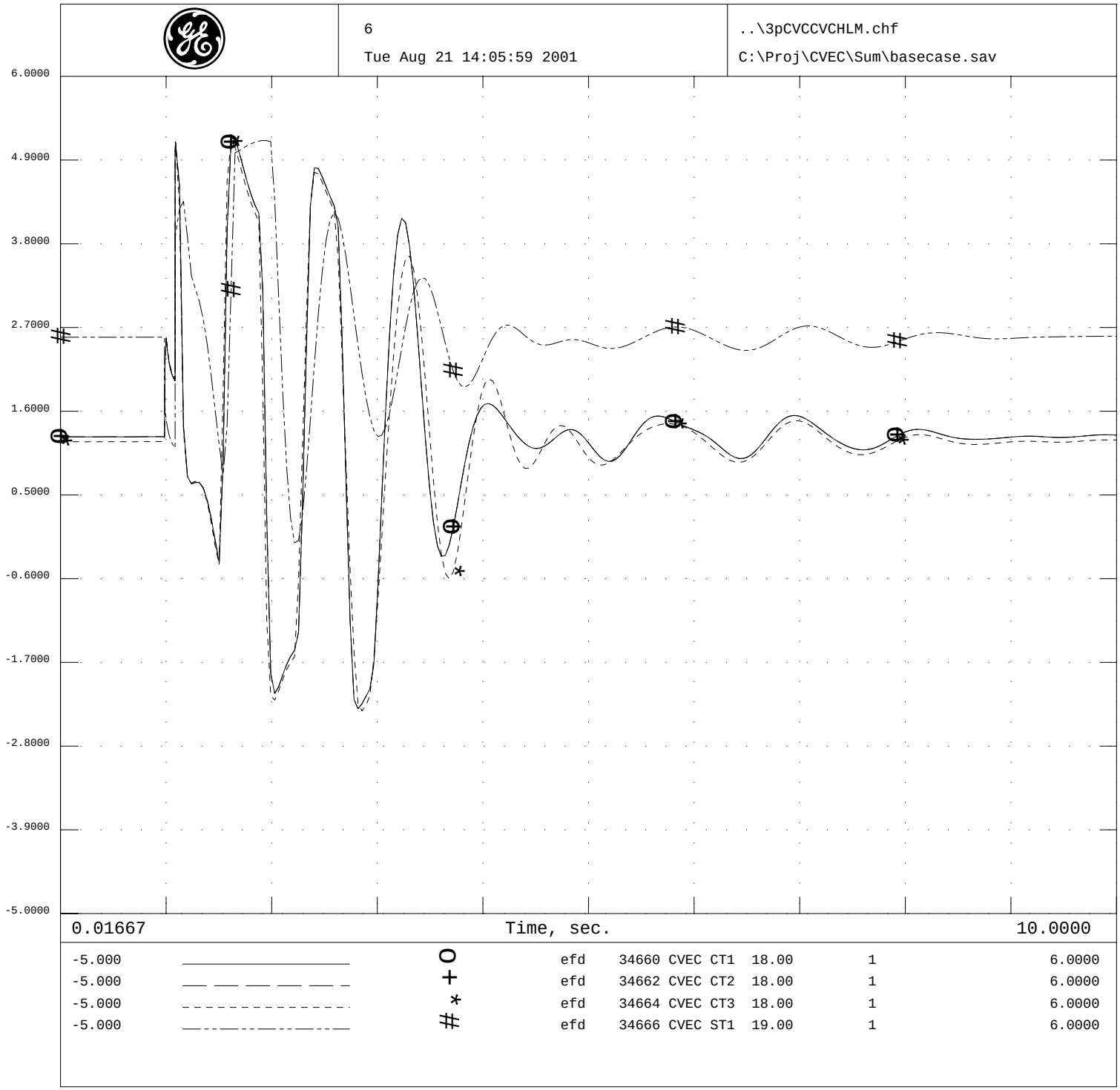
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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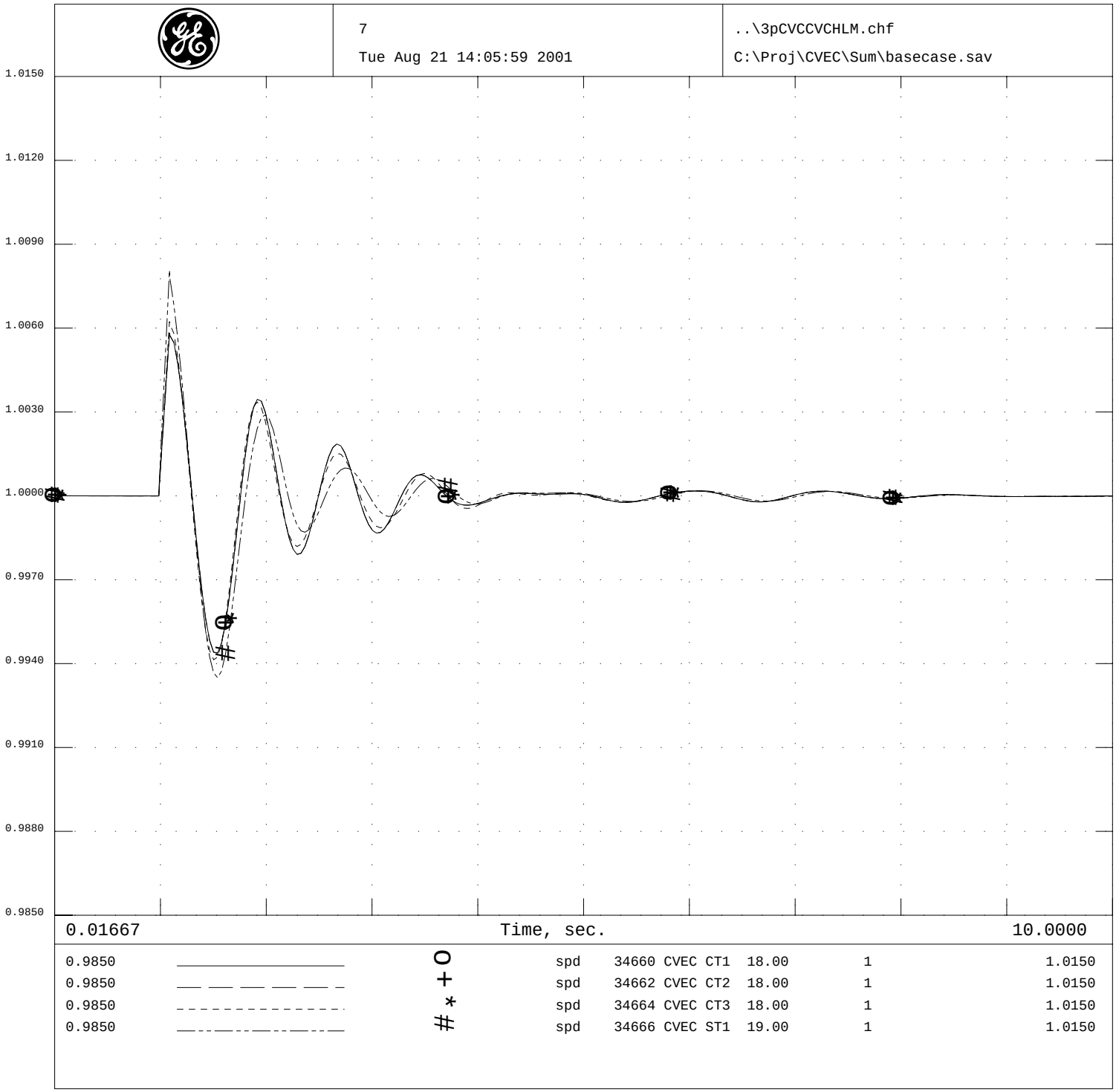
Calpine Corporation
Project Generator Field Voltages



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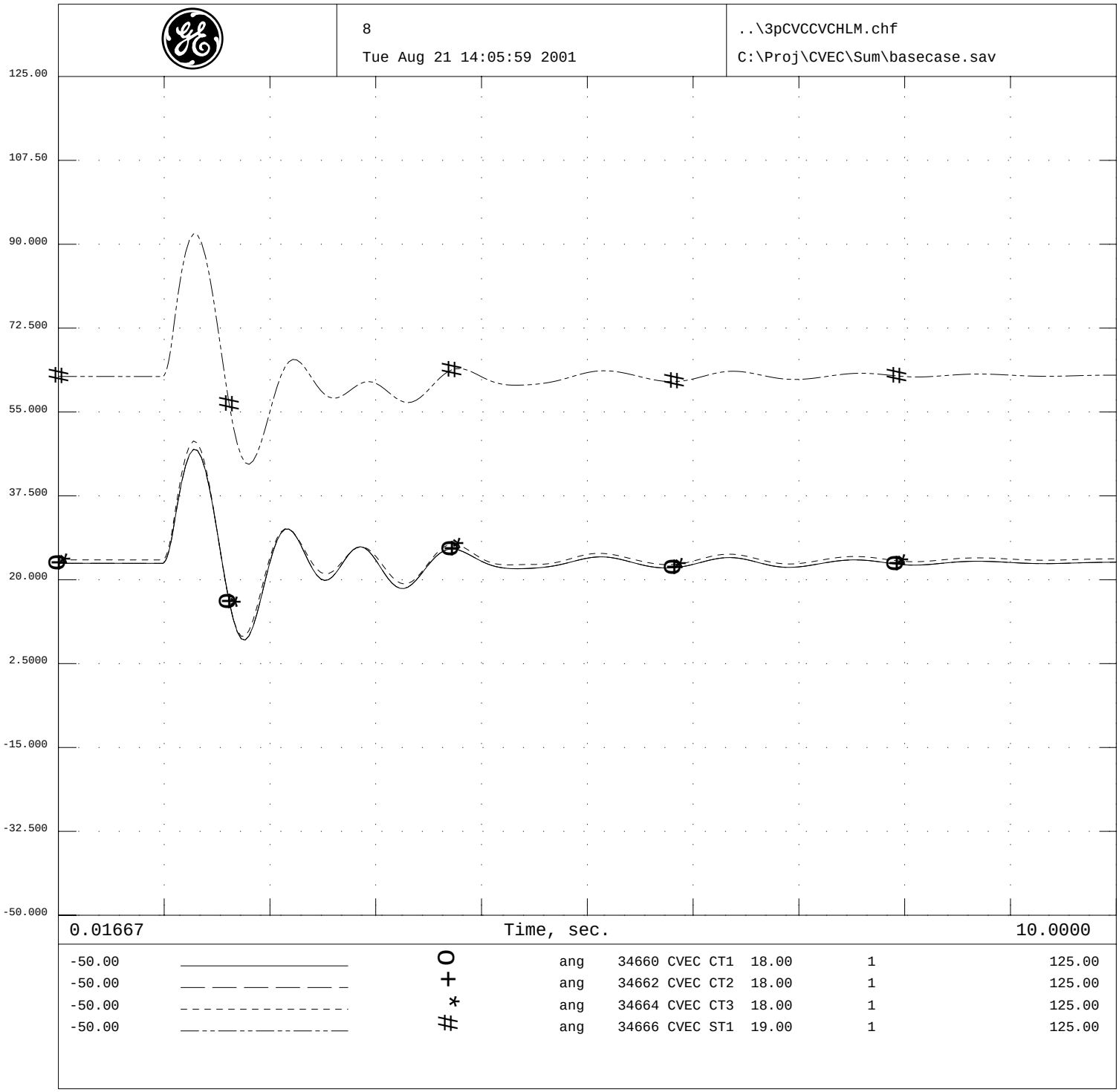
Calpine Corporation
Project Generator Rotor Speed



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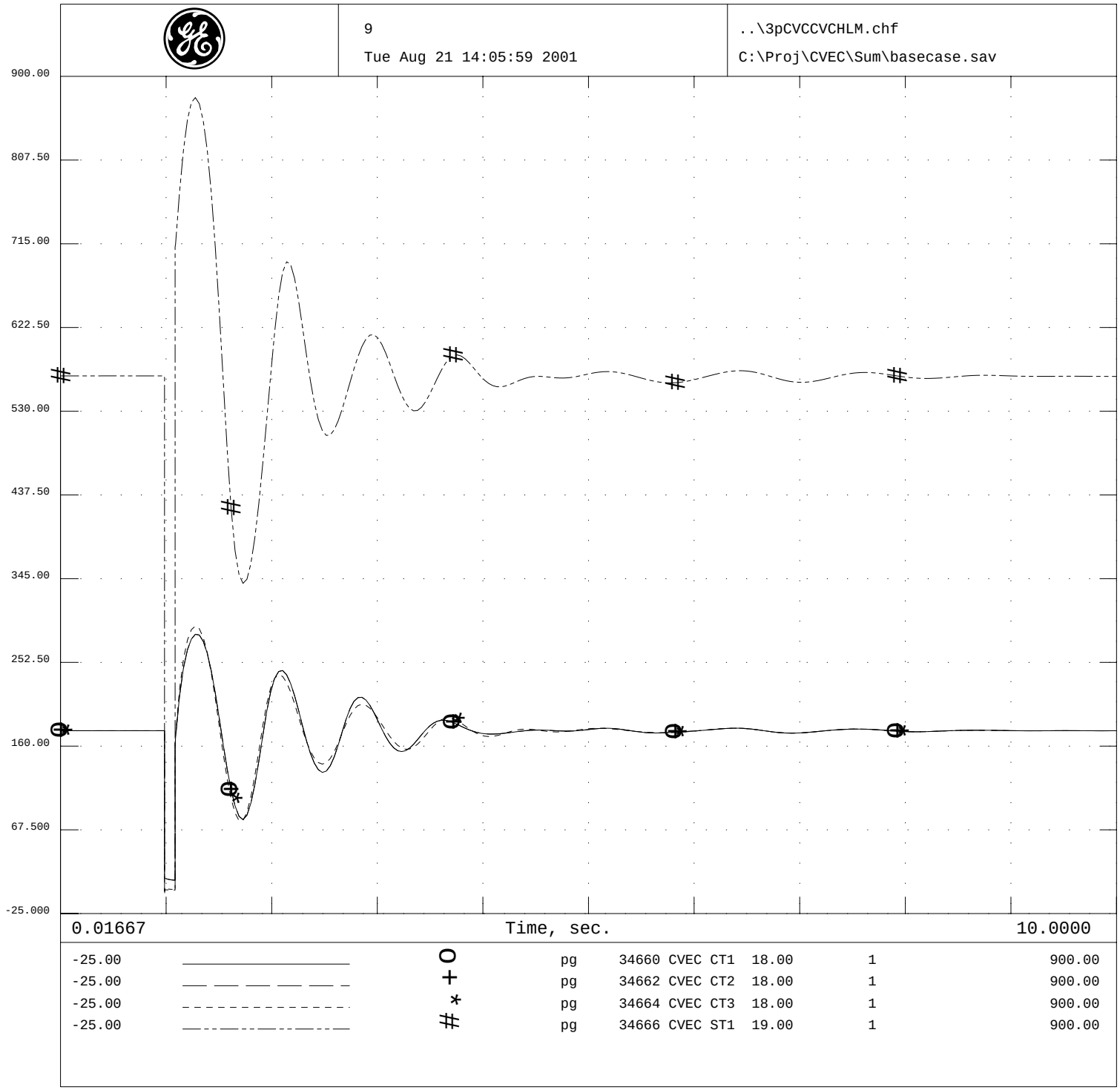
Project Generator Rotor Angle



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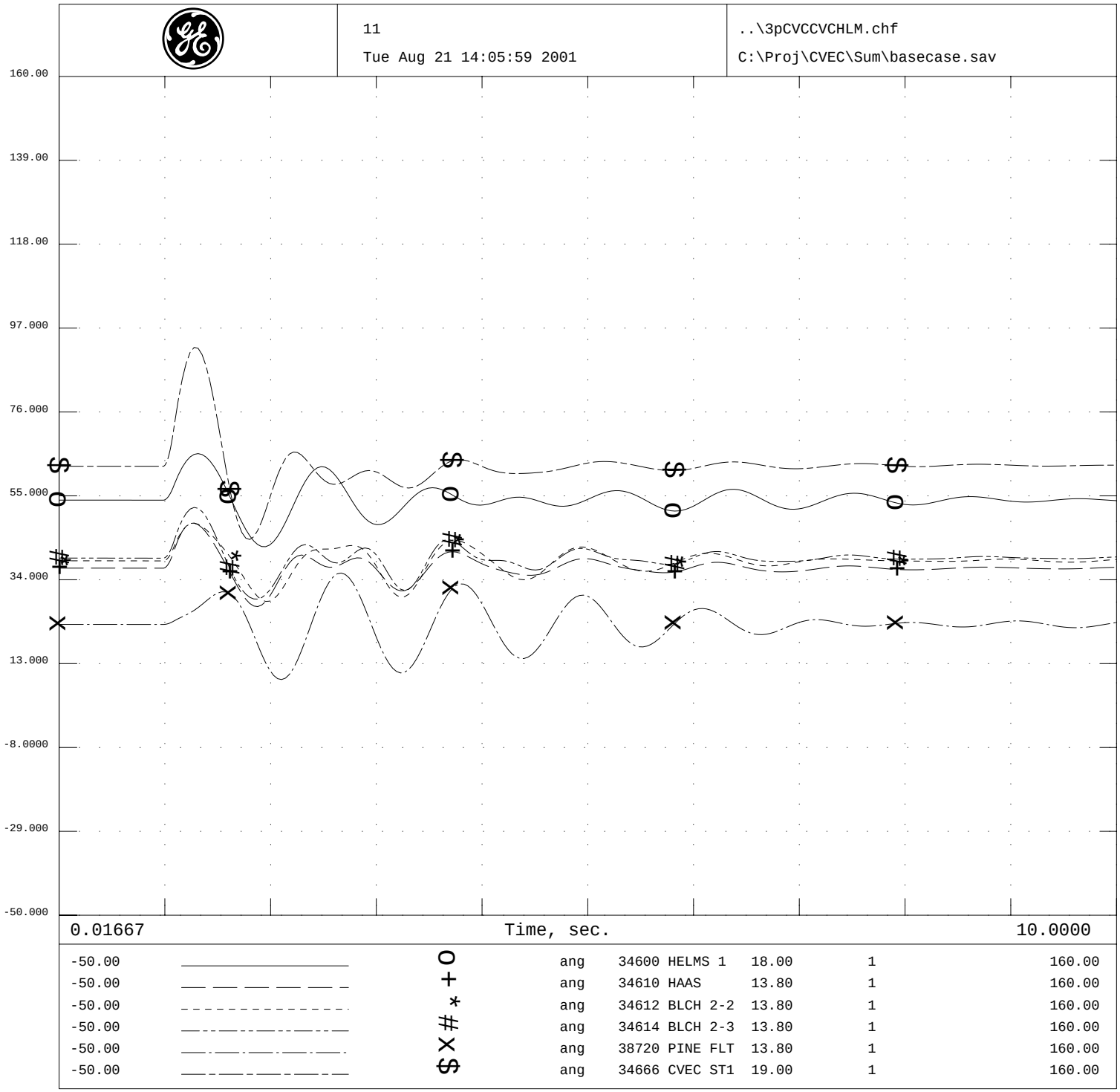

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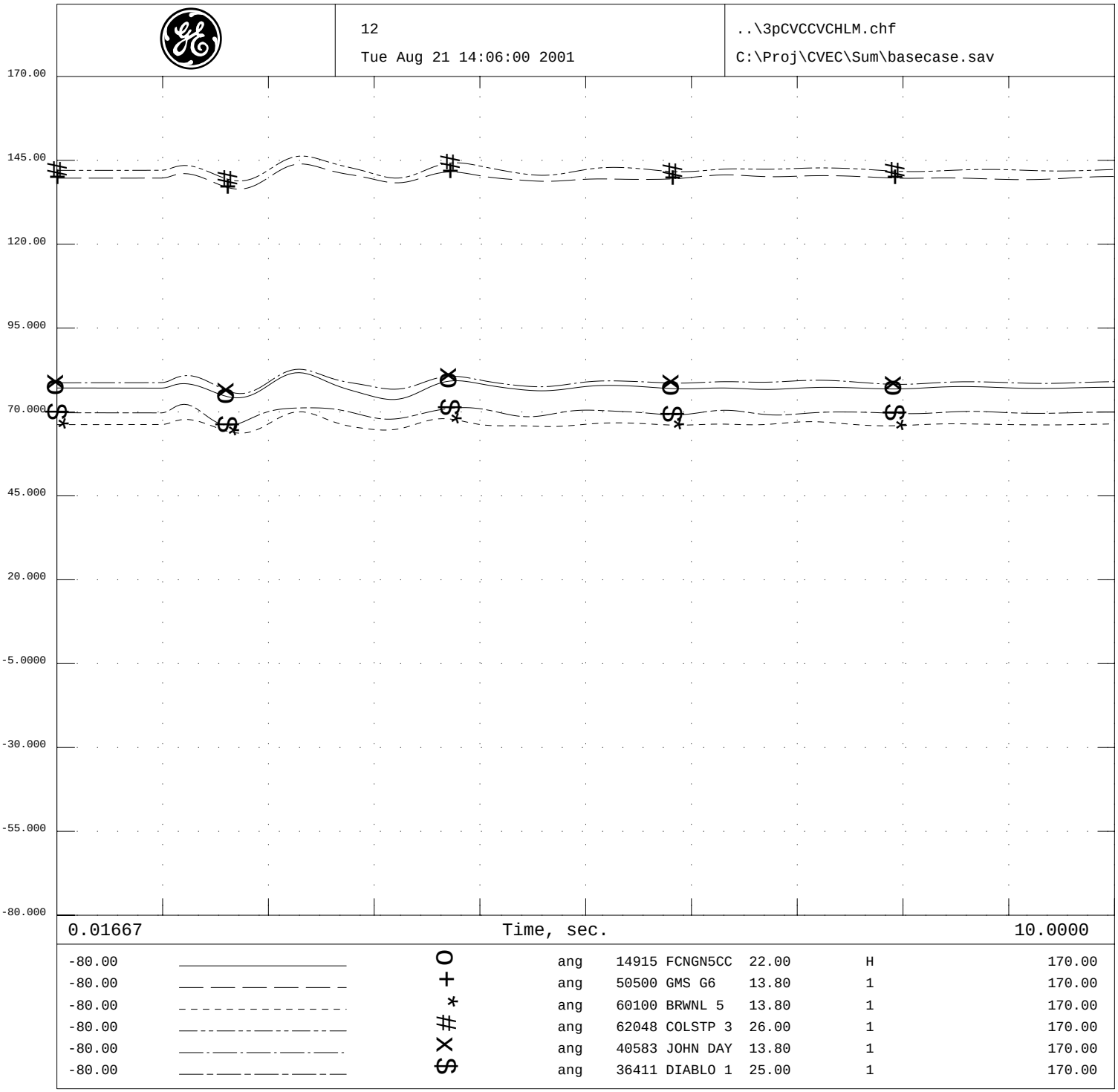

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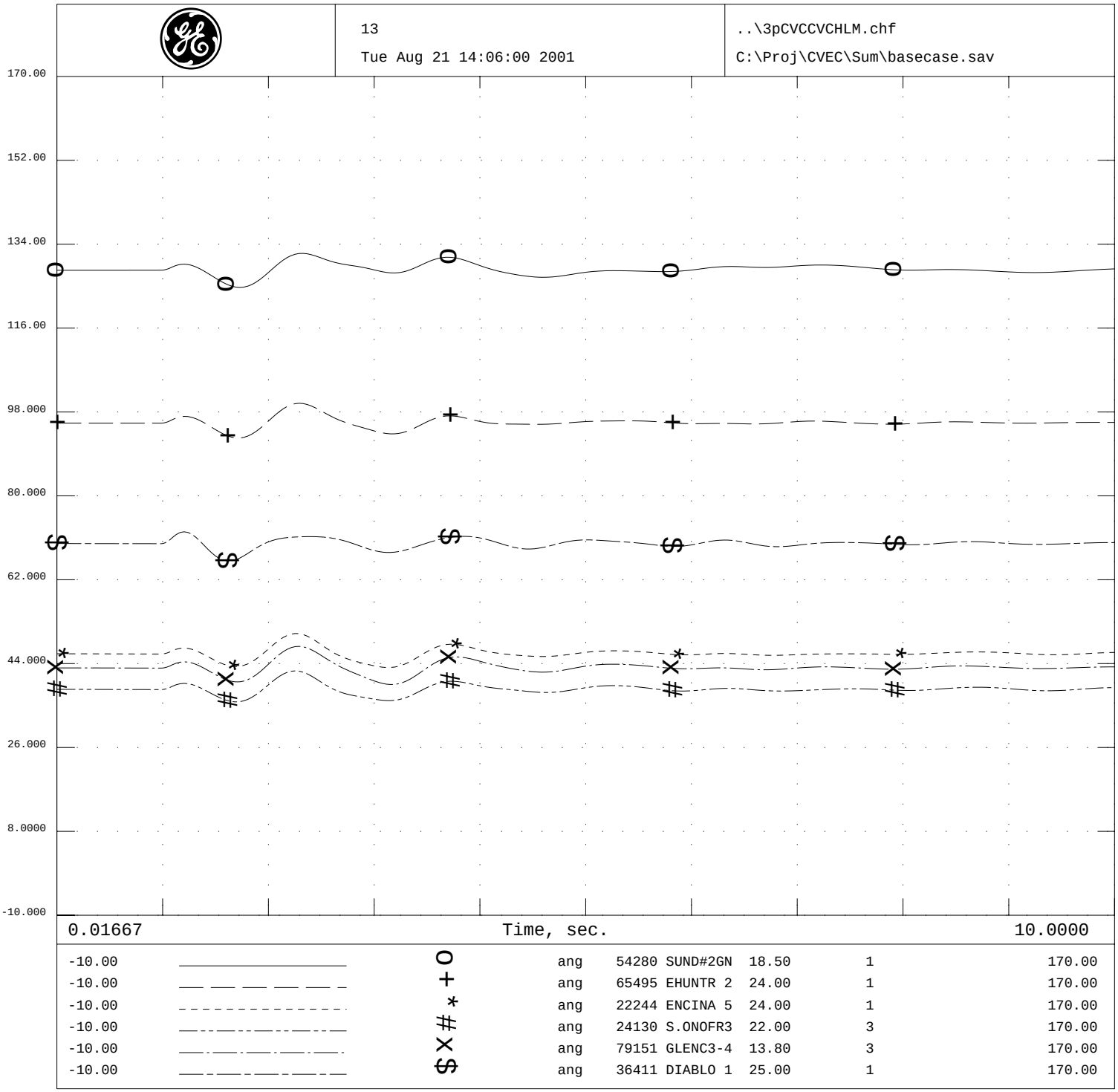

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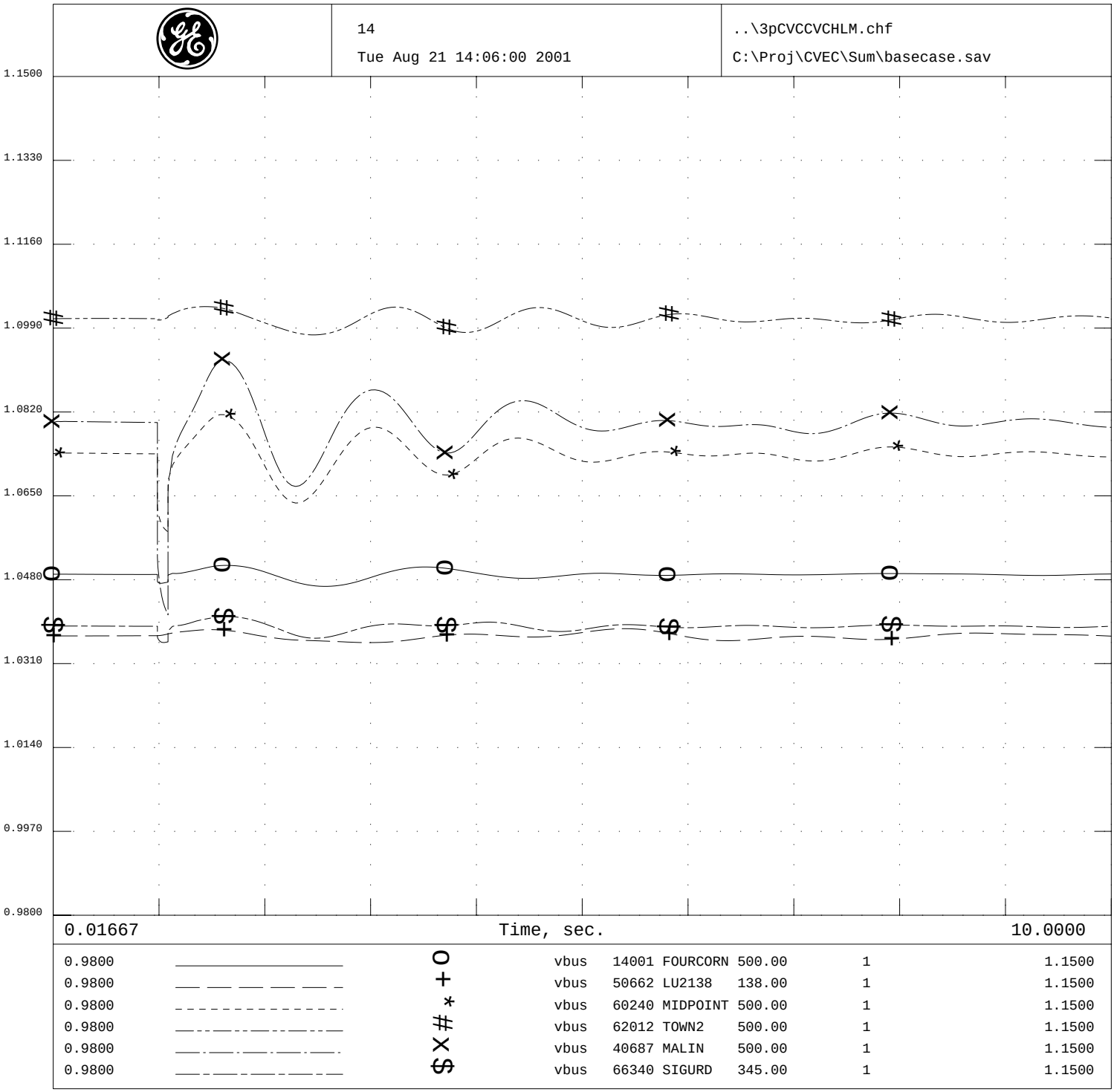

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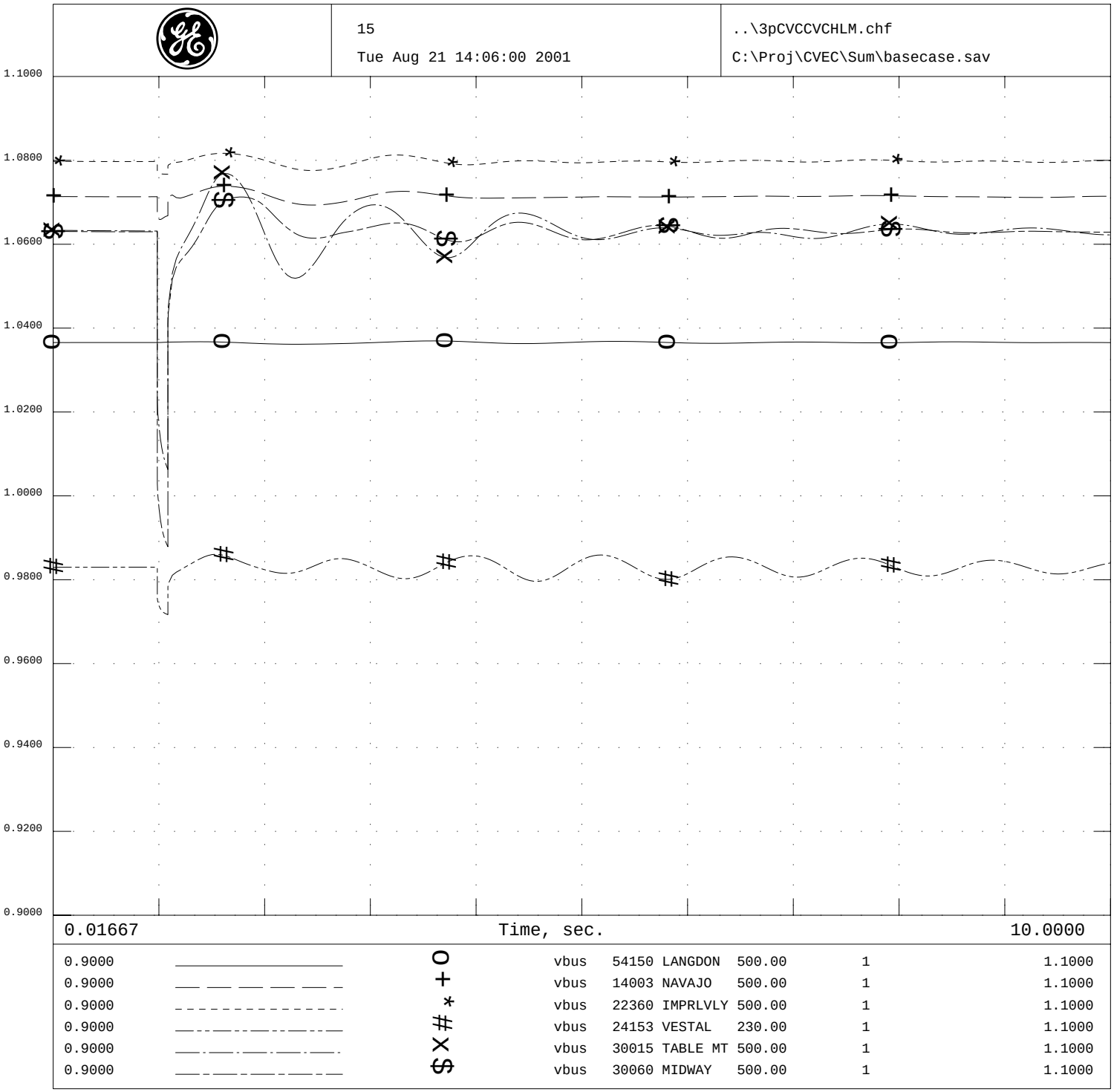

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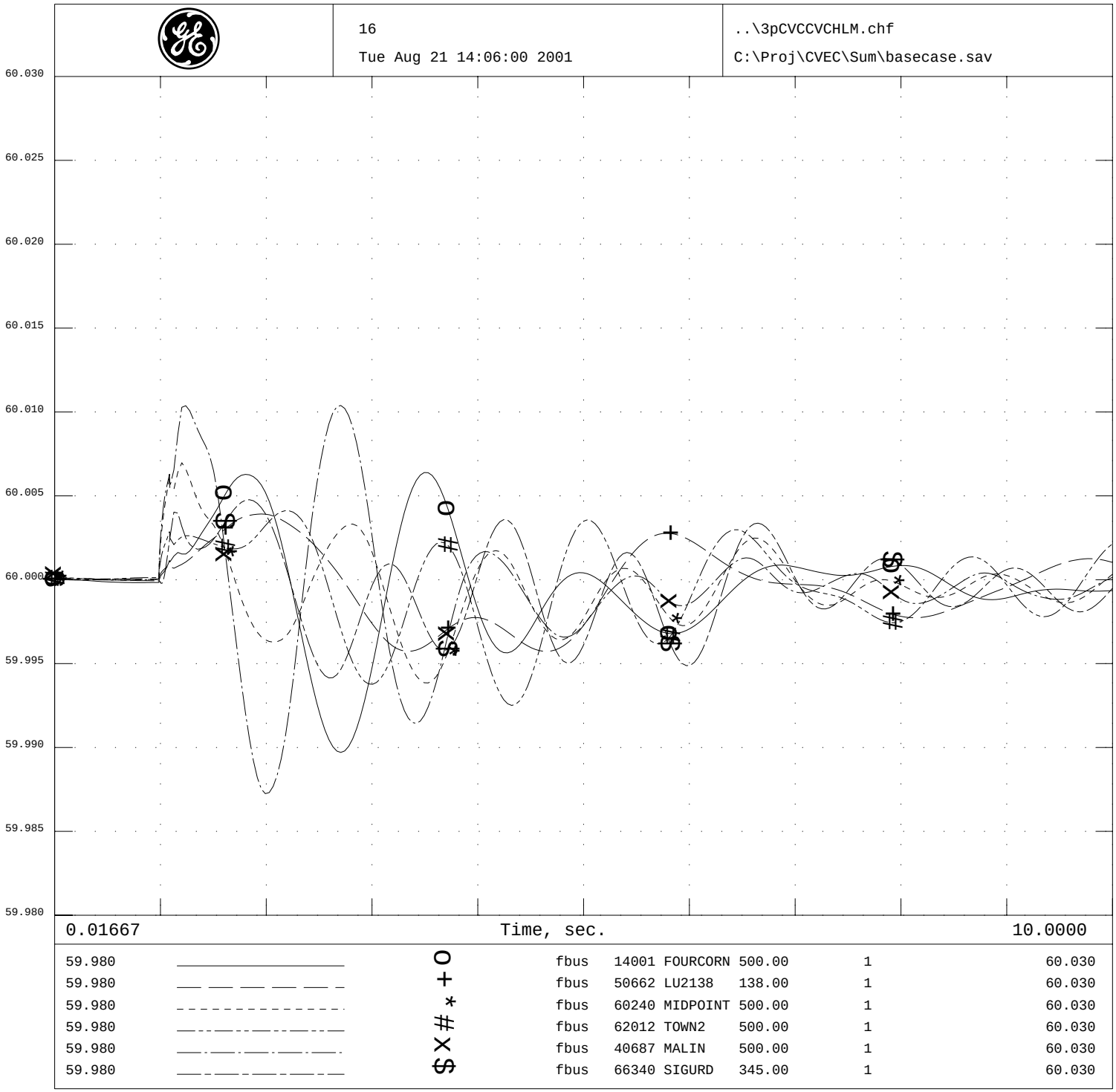

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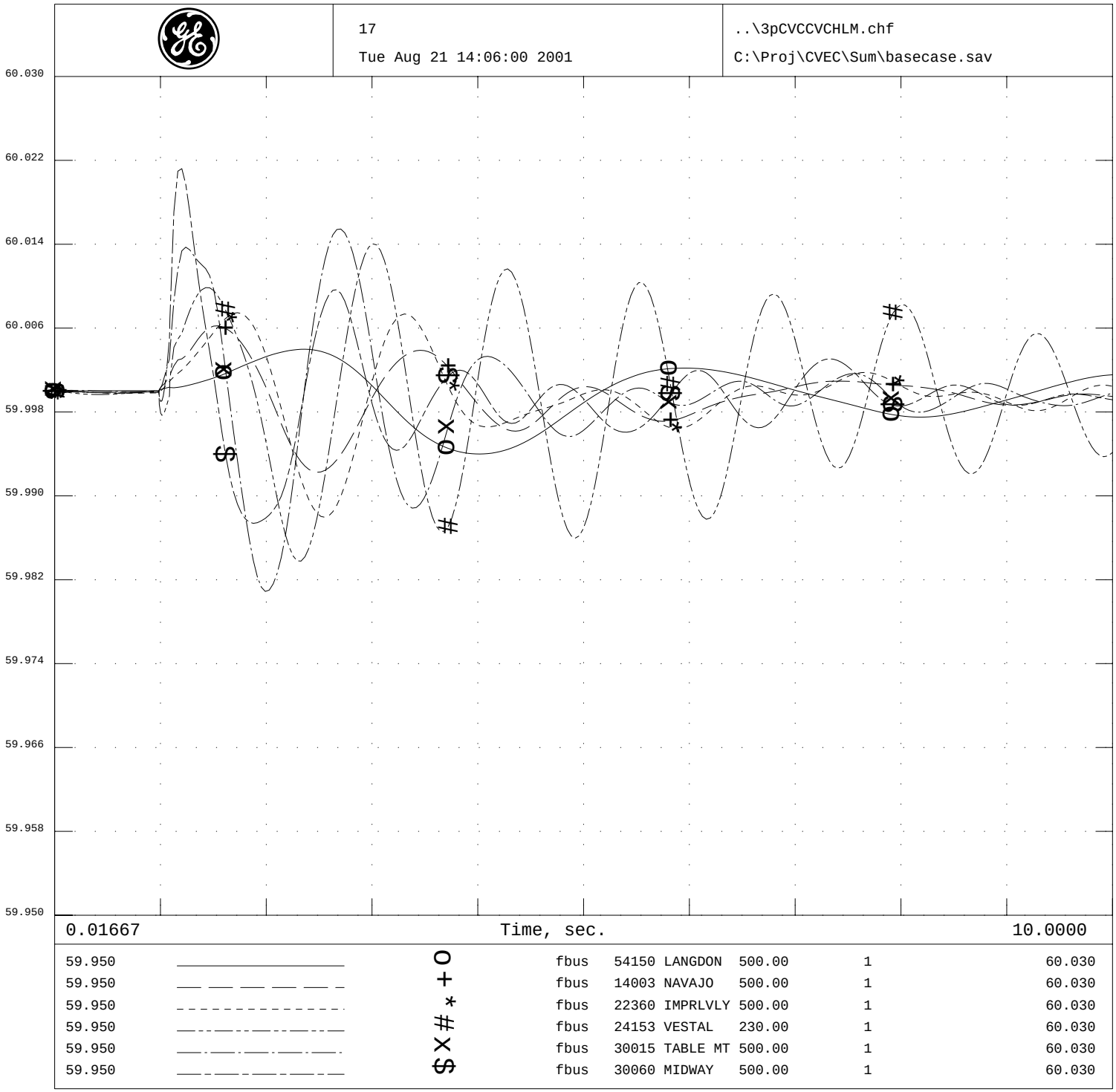

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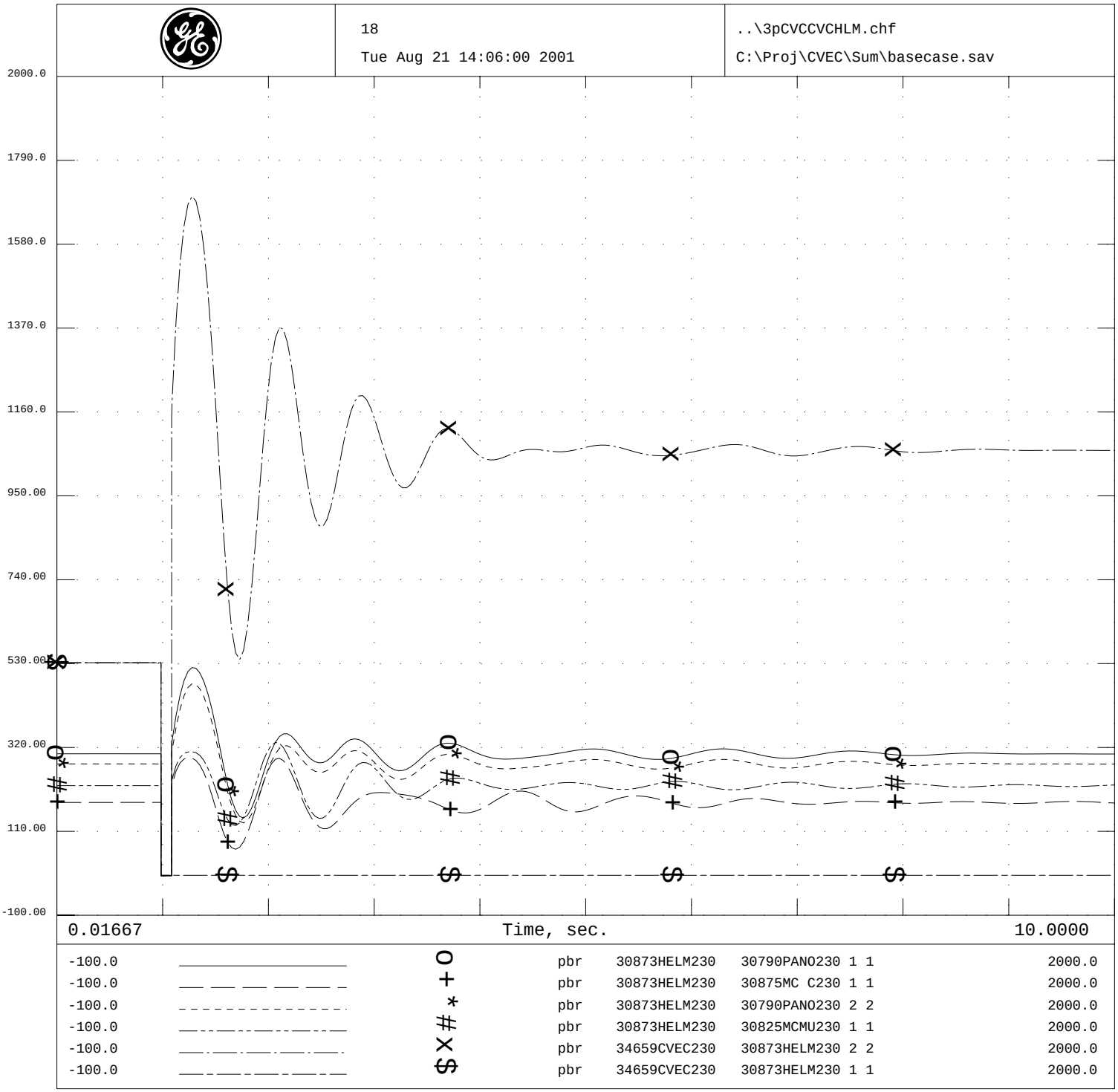

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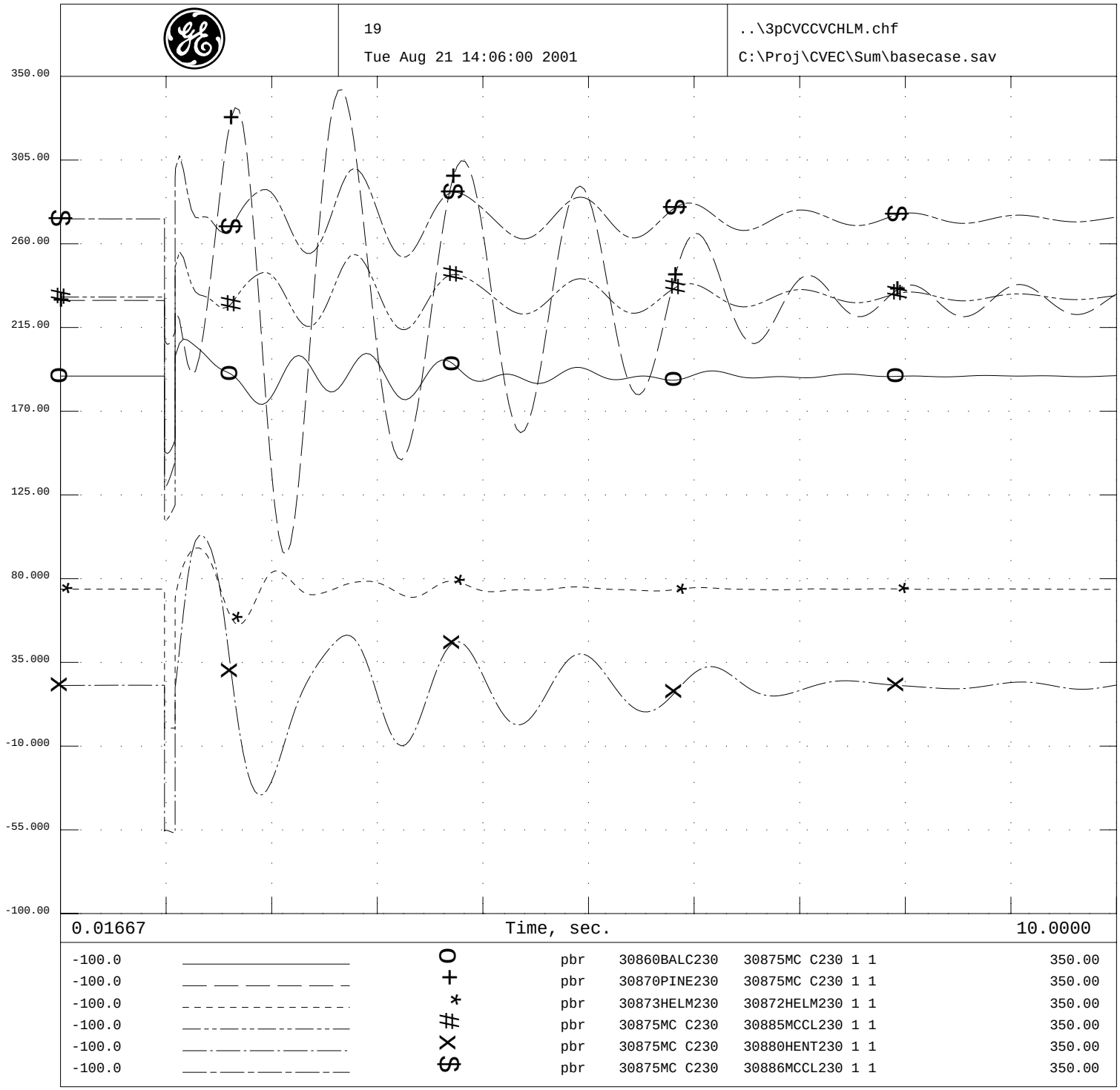

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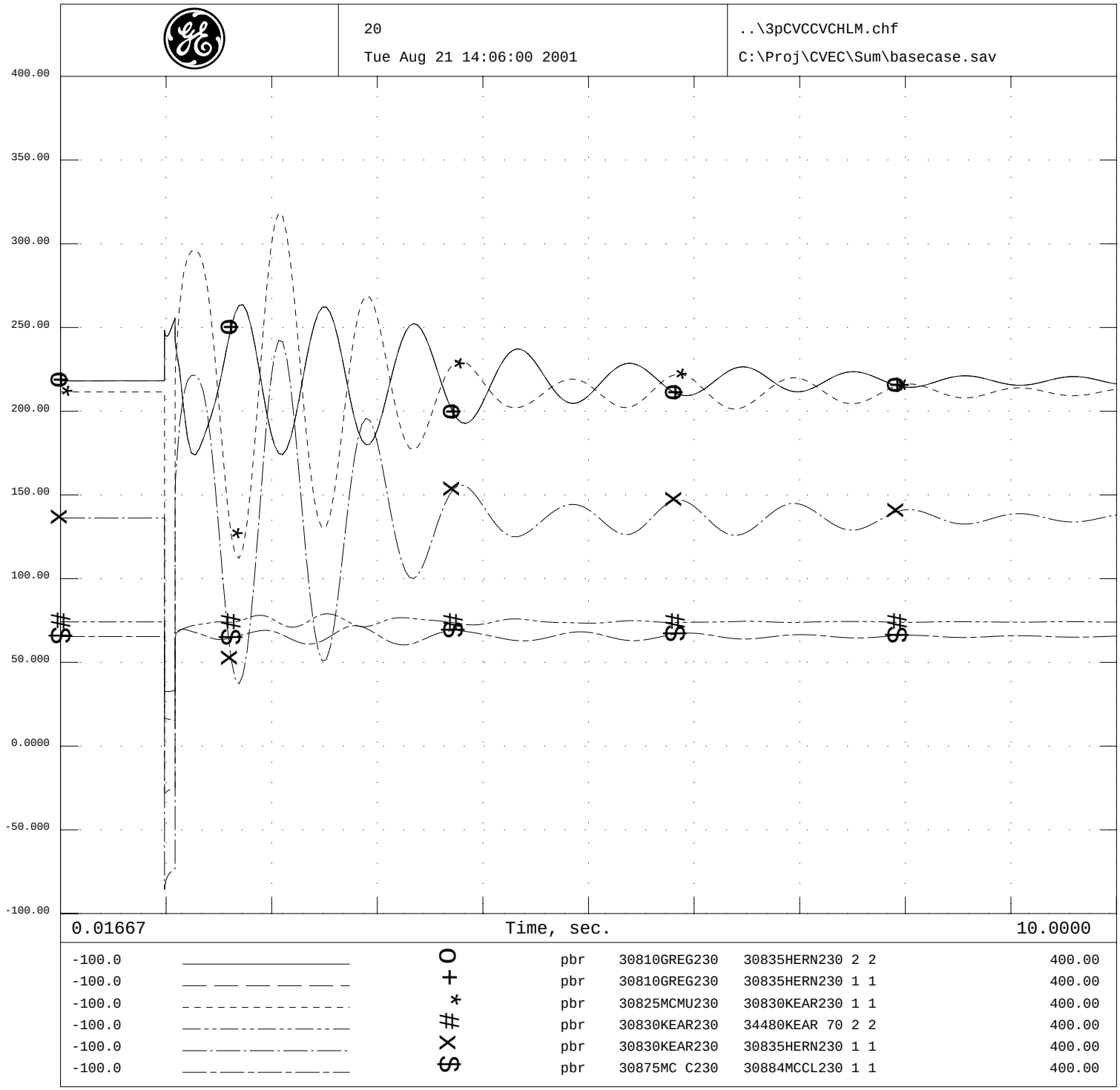

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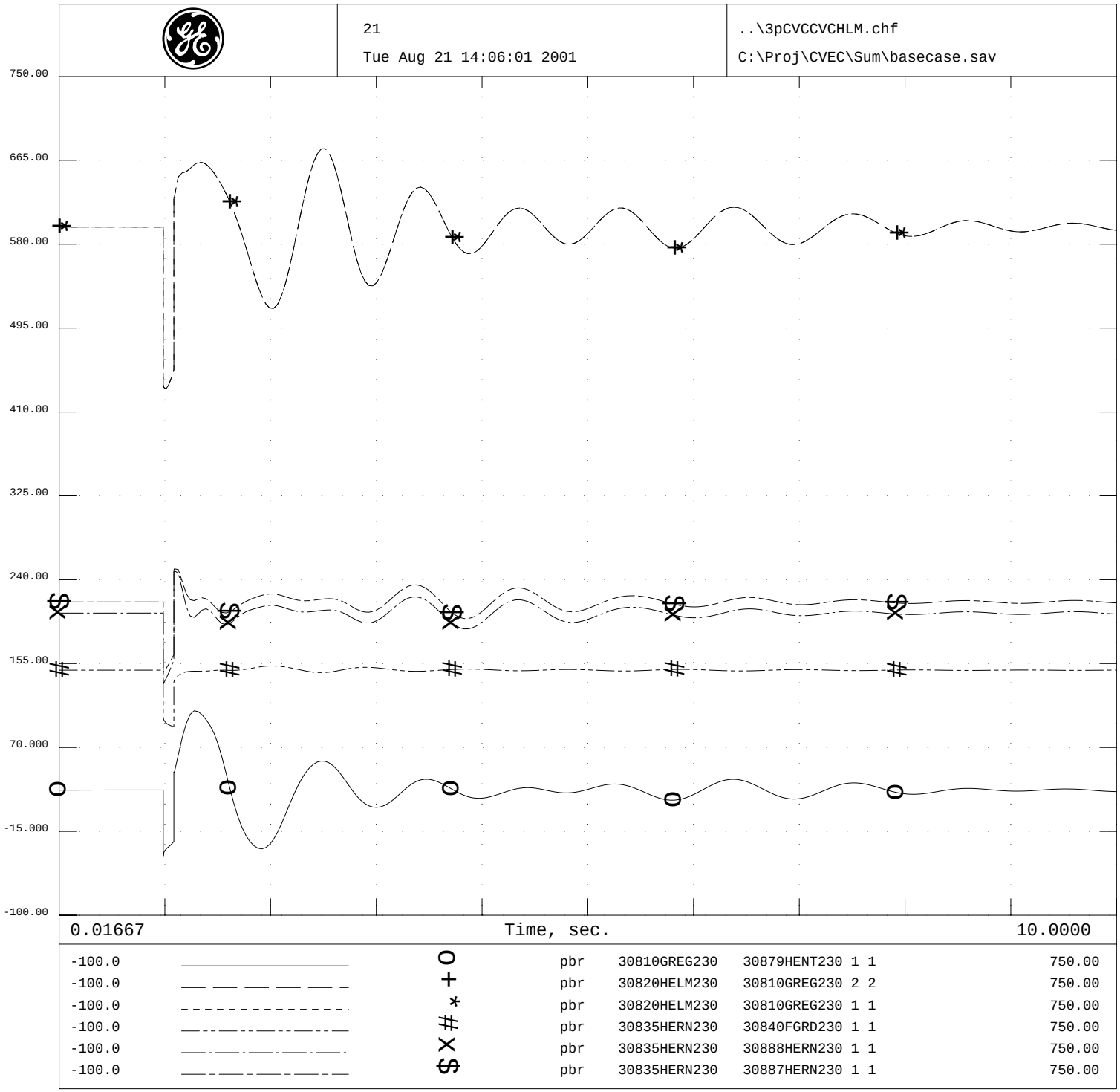

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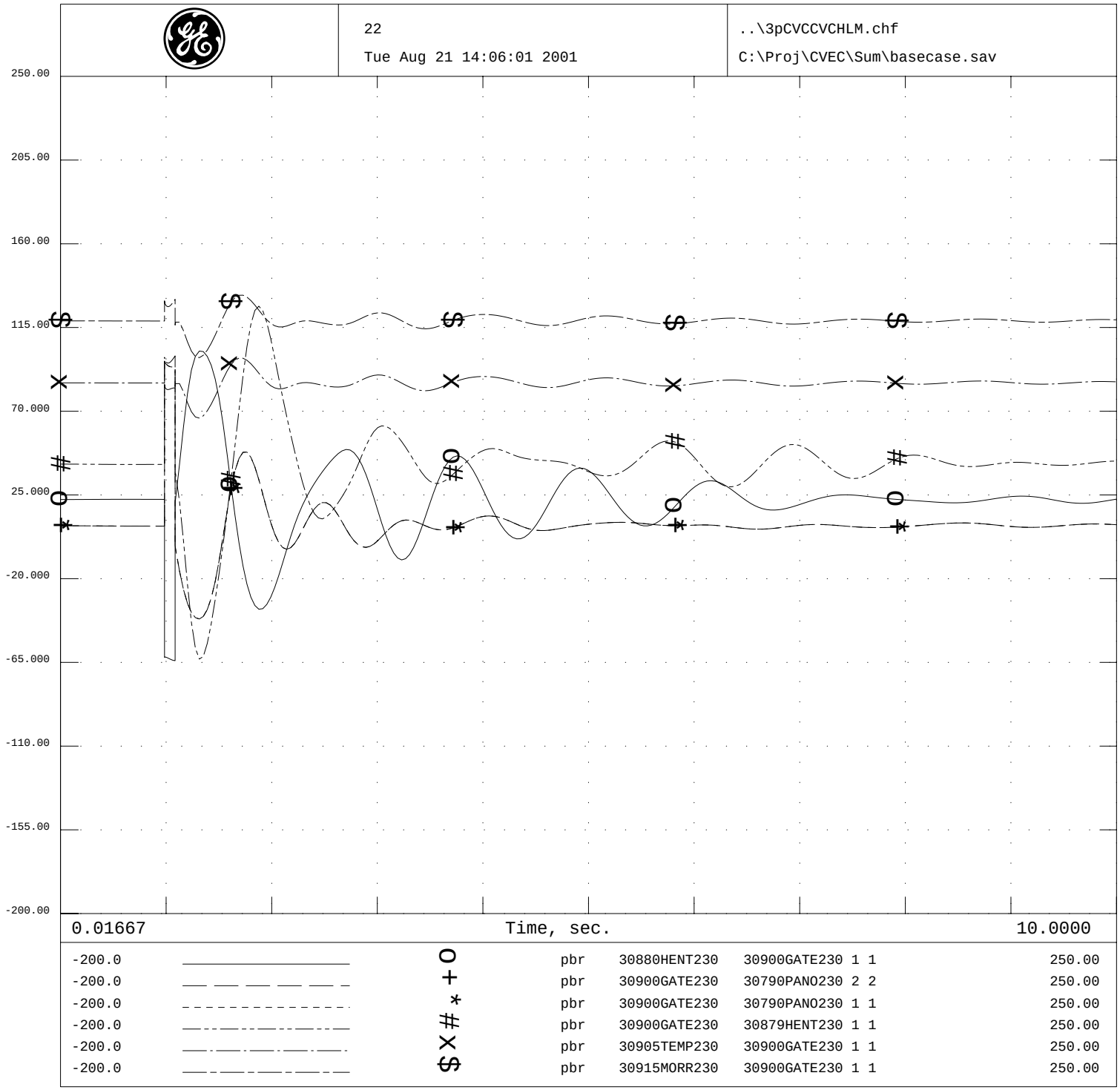

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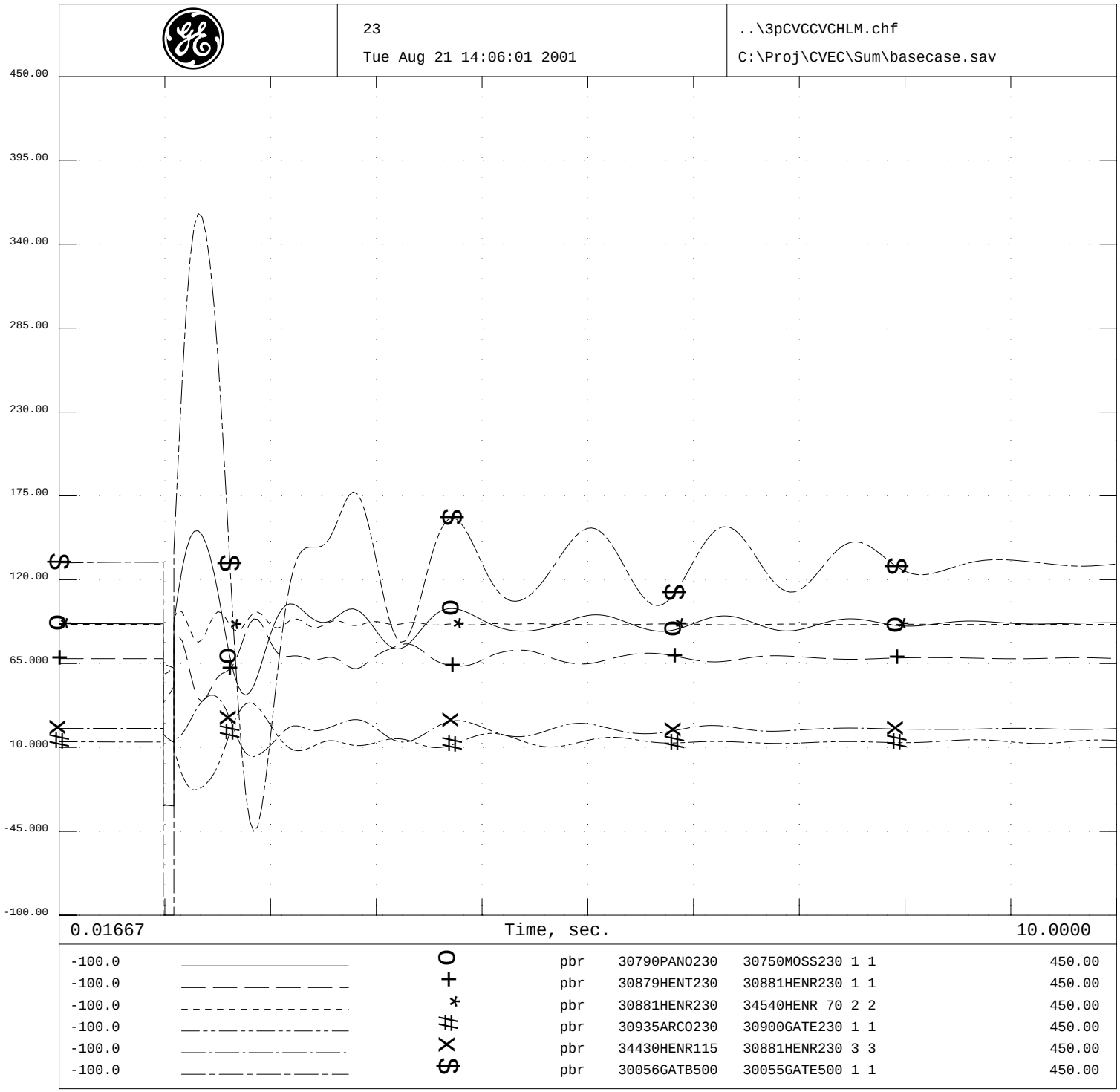
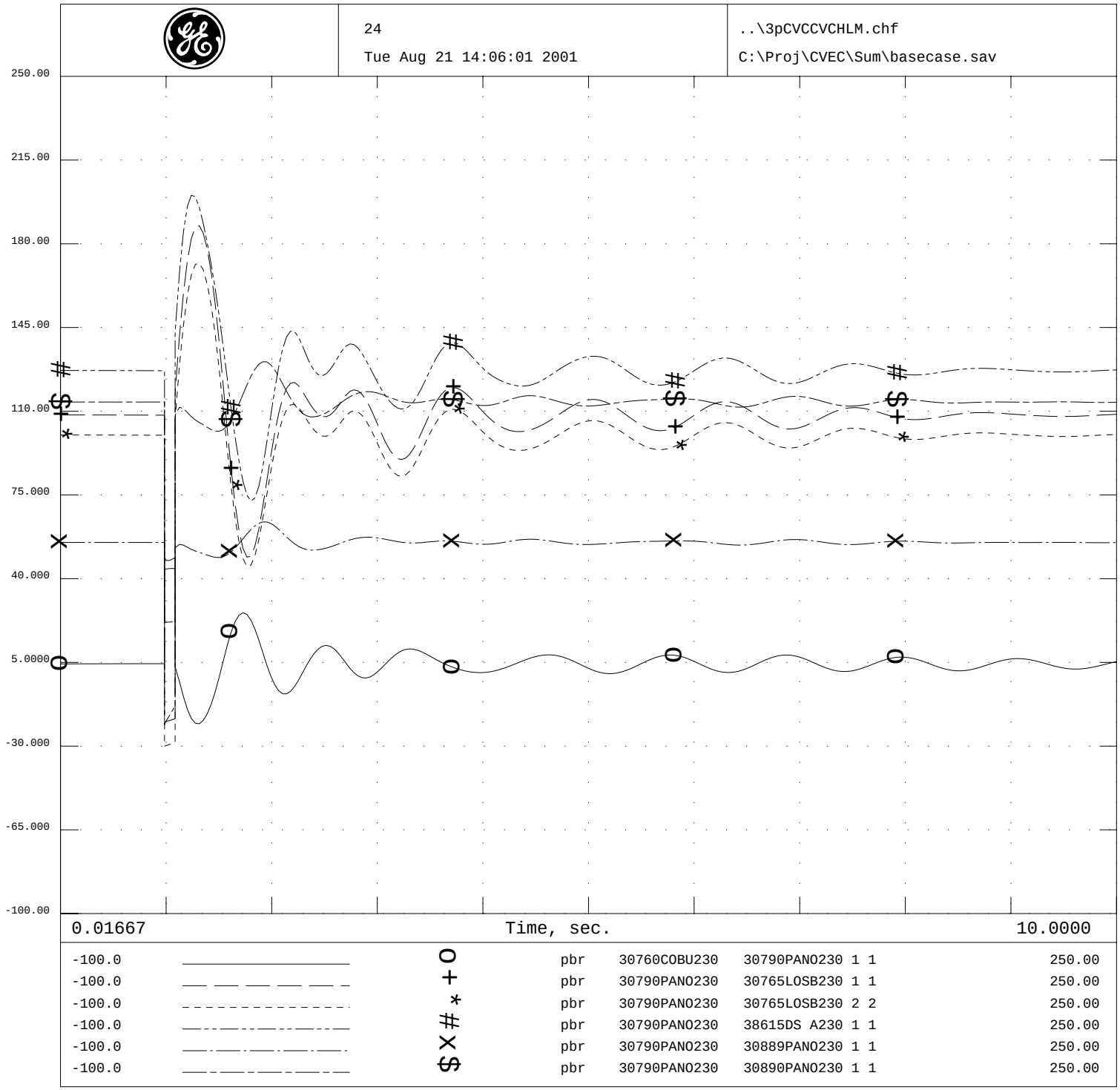


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
CVEC-Helm 230kV #1 Outage
3 phase 6 cycle fault at CVEC 230kV bus and trip CVEC-Helm #1 line

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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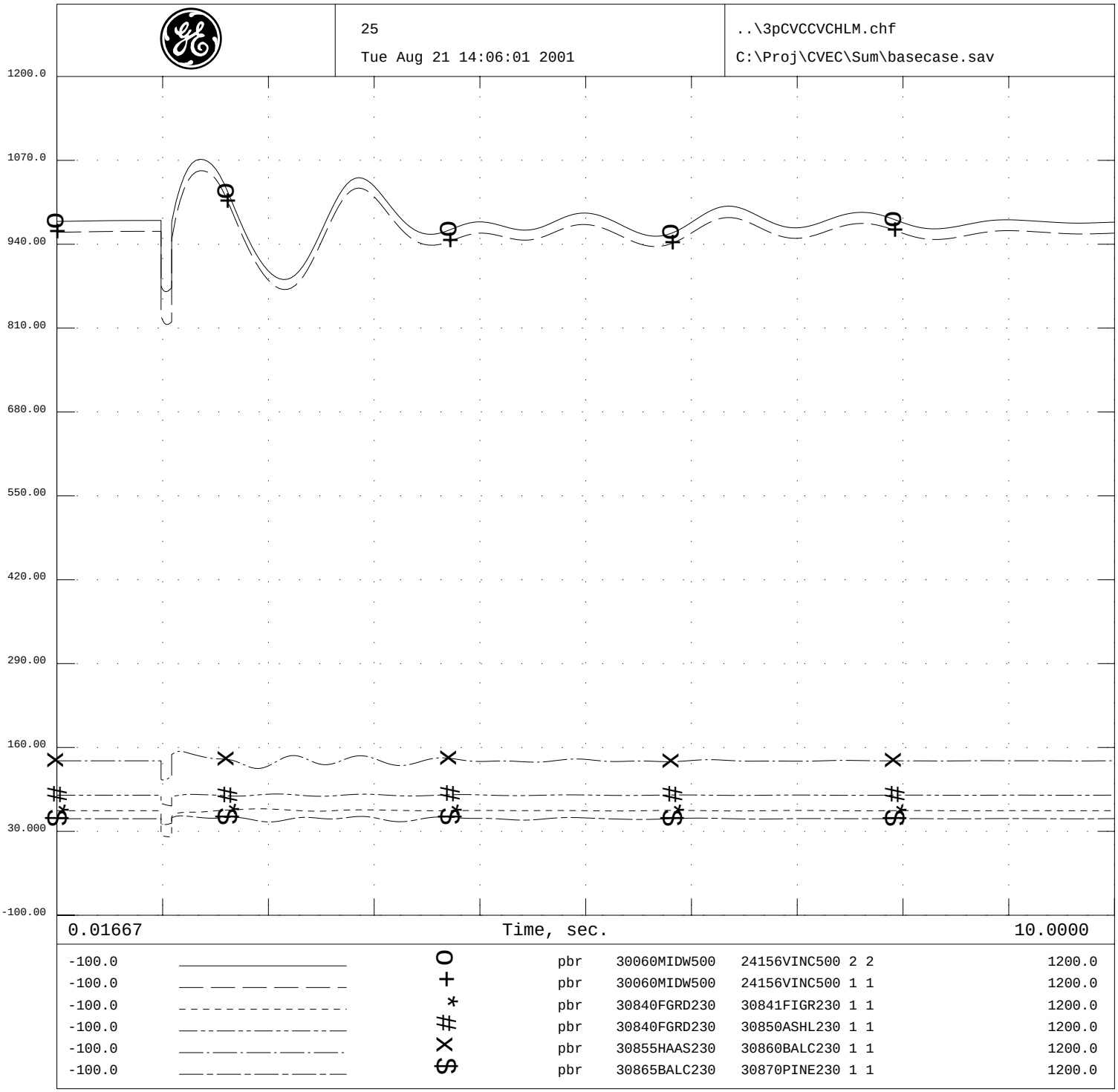

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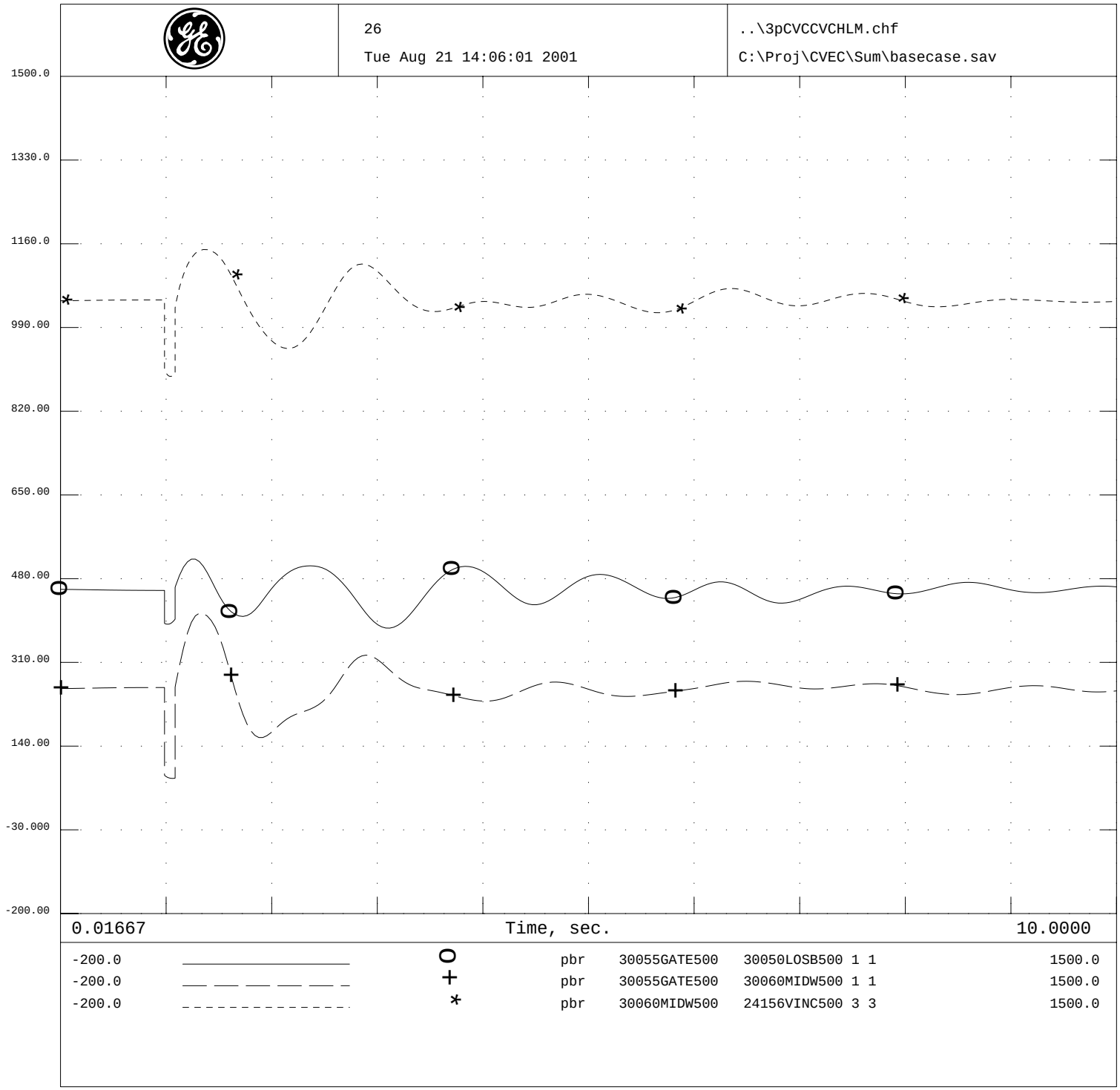

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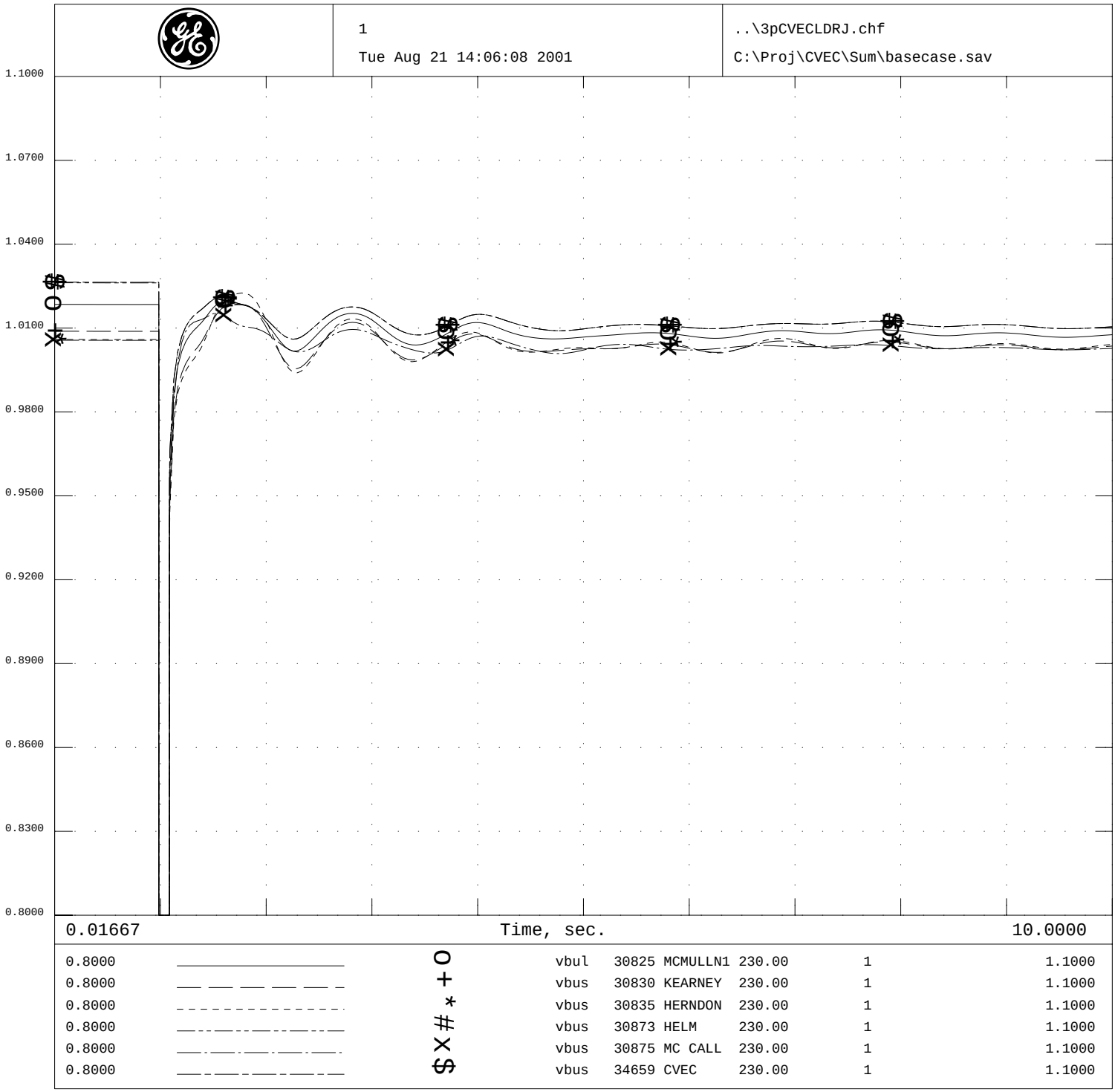

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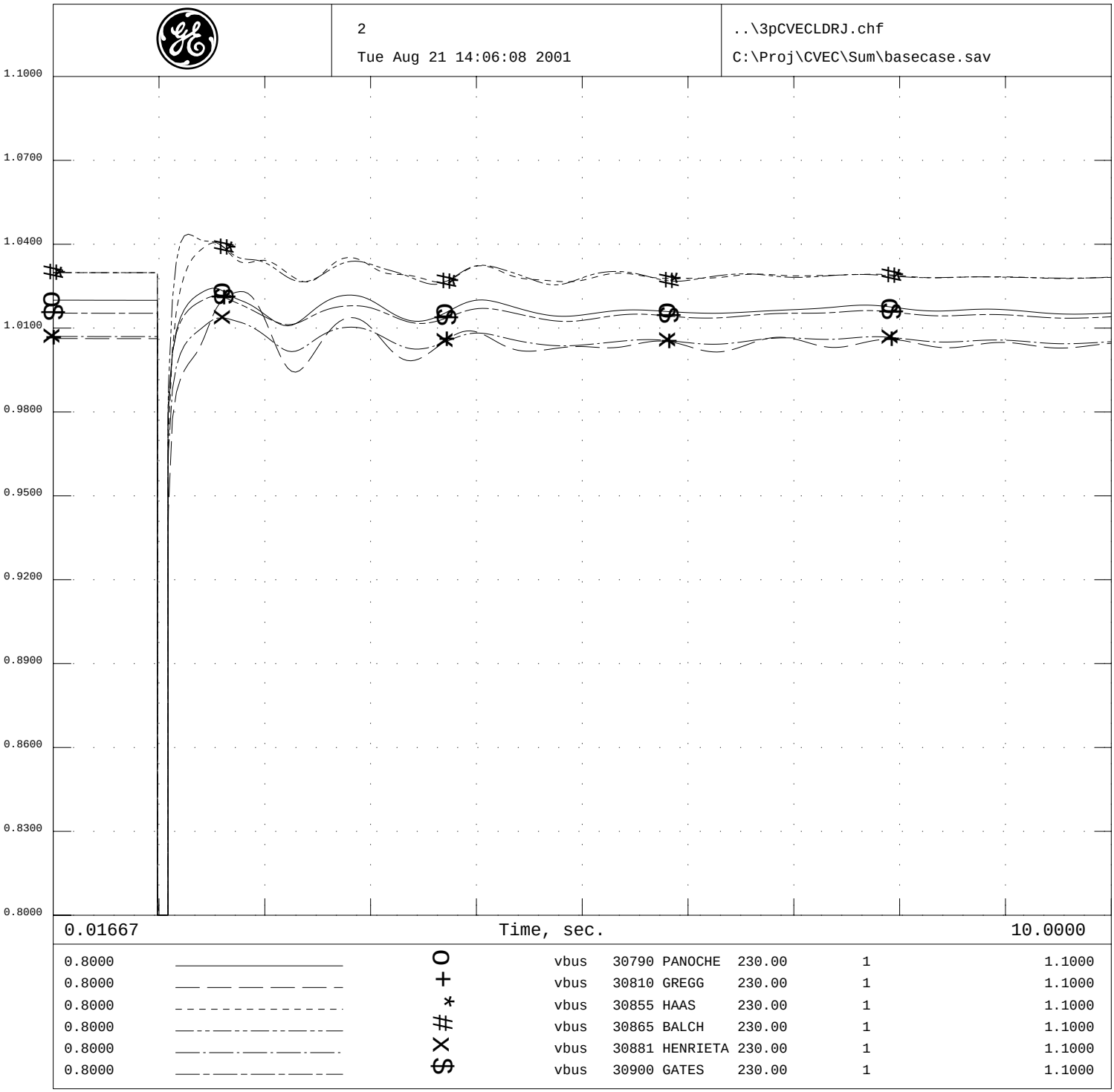
2004 Summer Peak Base Case
CVEC @ 1100MW
CVEC Load Rejection
3 phase 6 cycle fault at CVEC 230kV bus and trip CVEC units

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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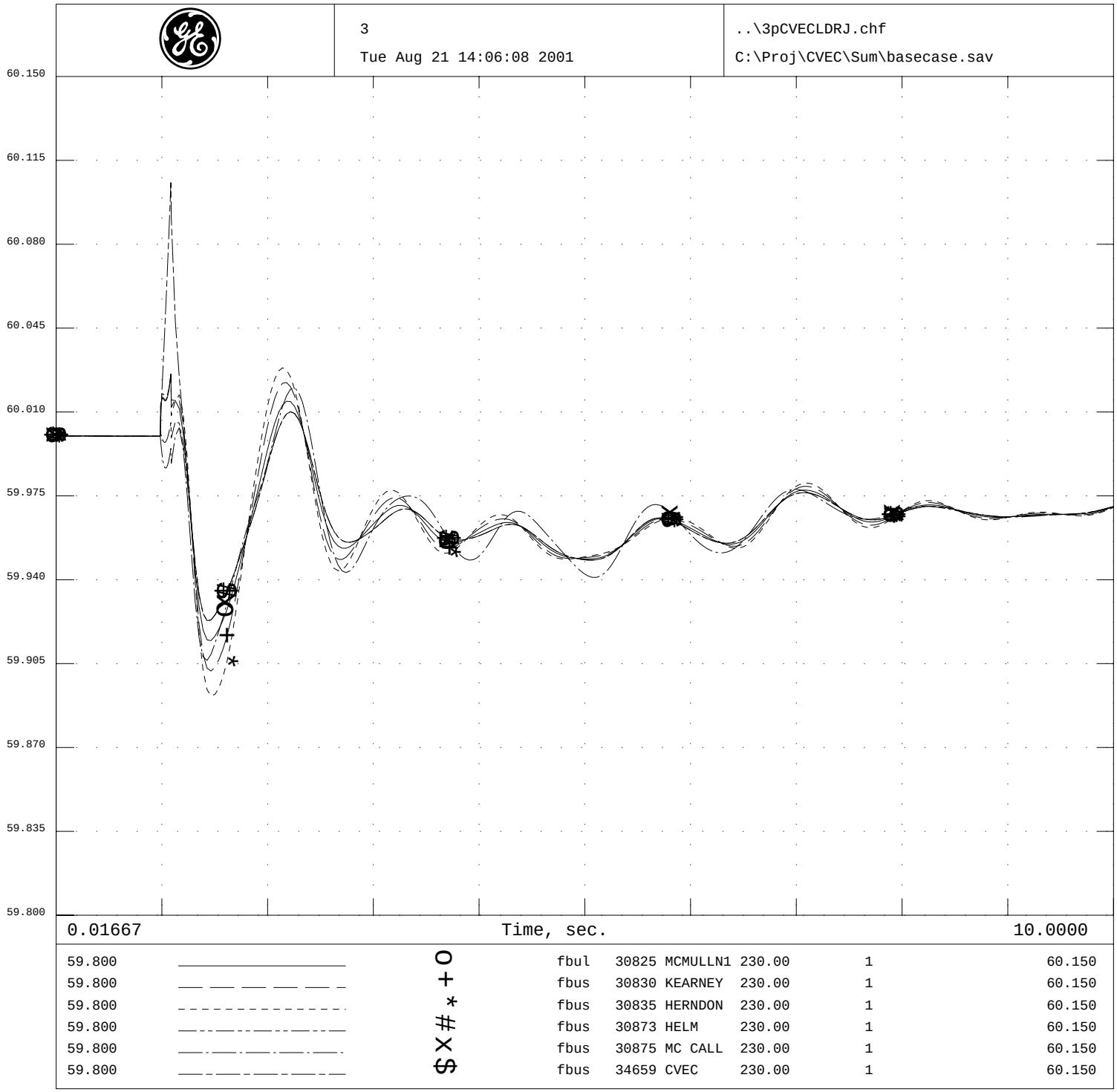

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2004 Summer Peak Base Case
CVEC @ 1100MW
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Calpine Corporation
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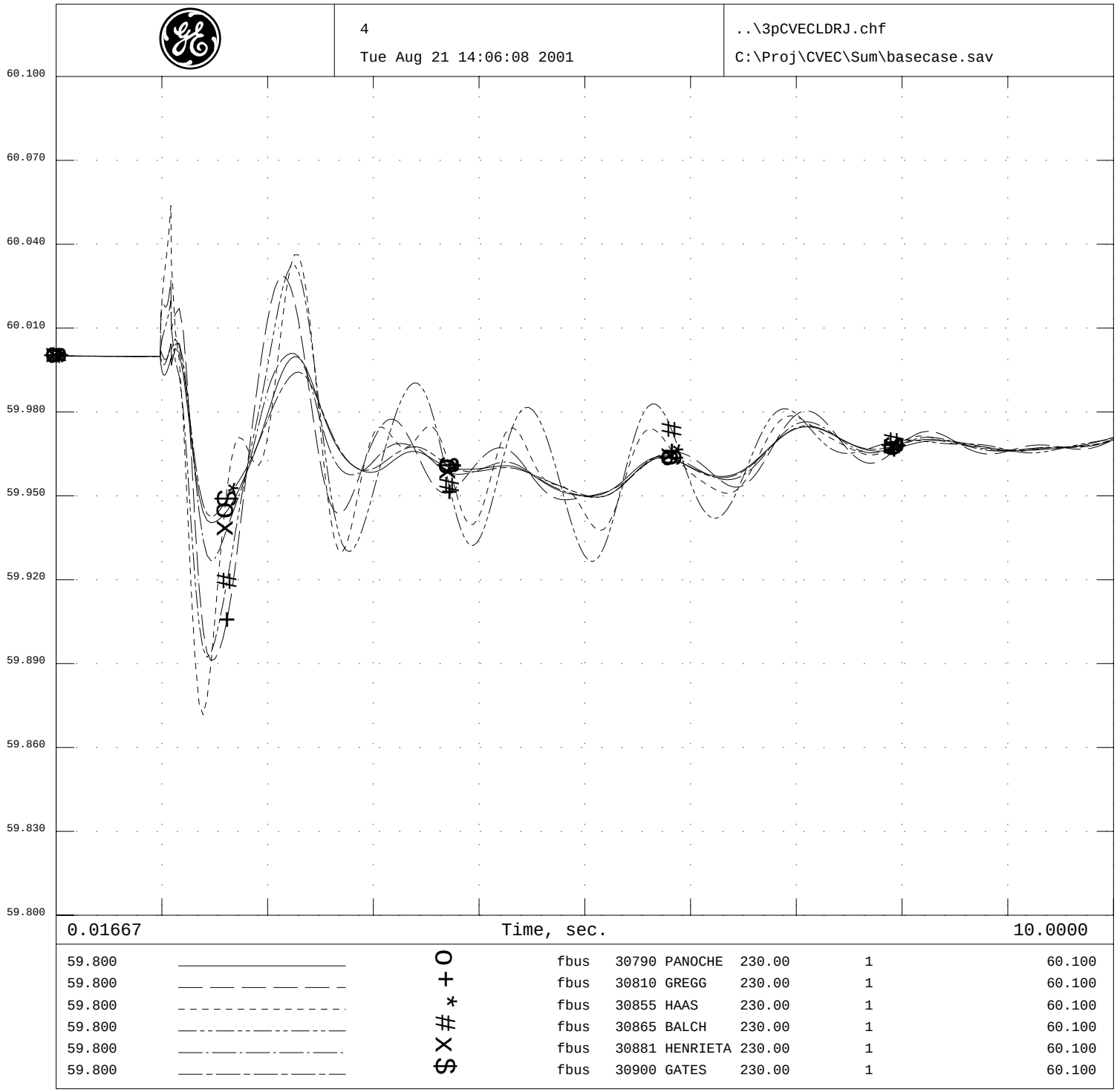

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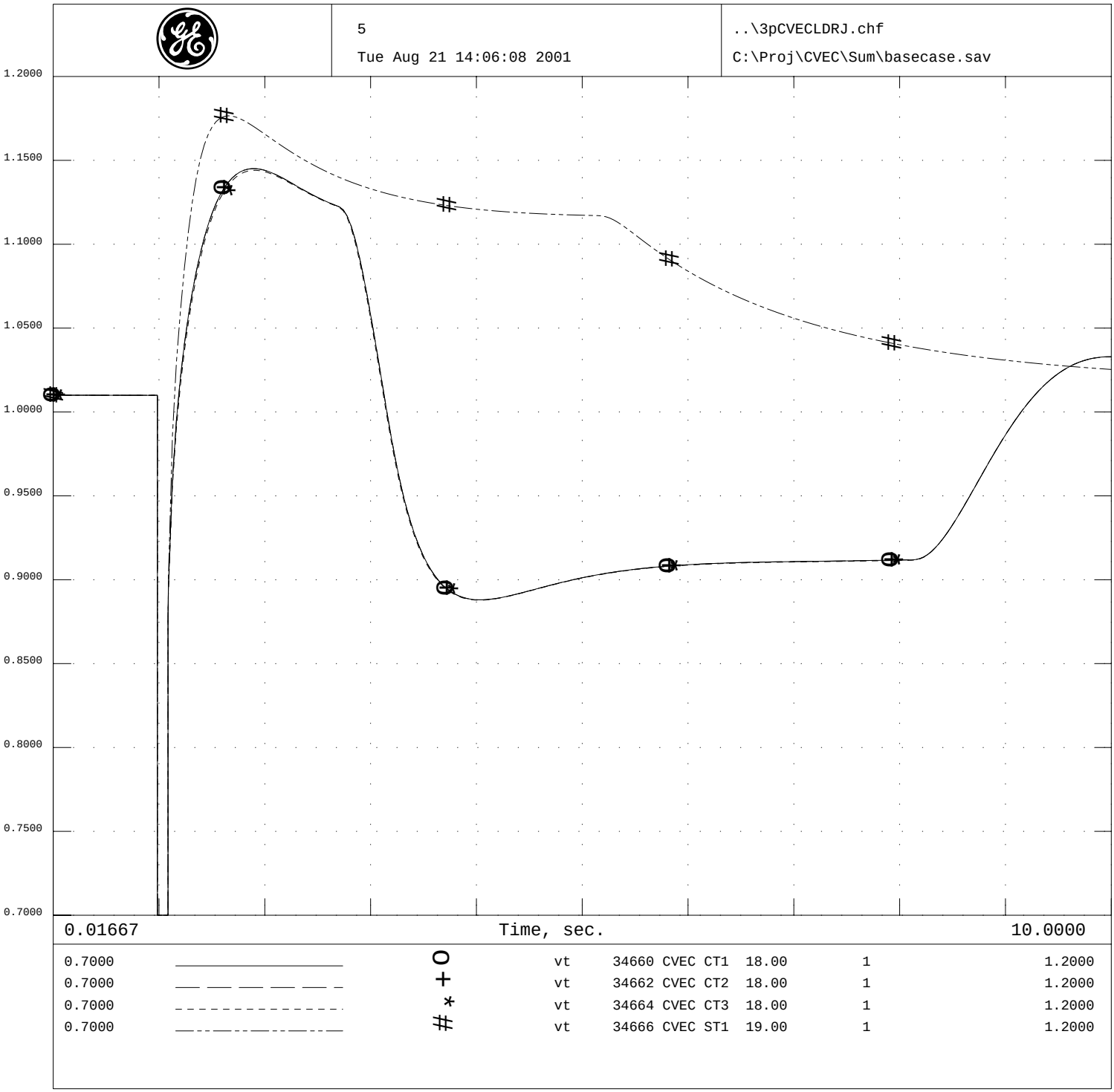

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2004 Summer Peak Base Case
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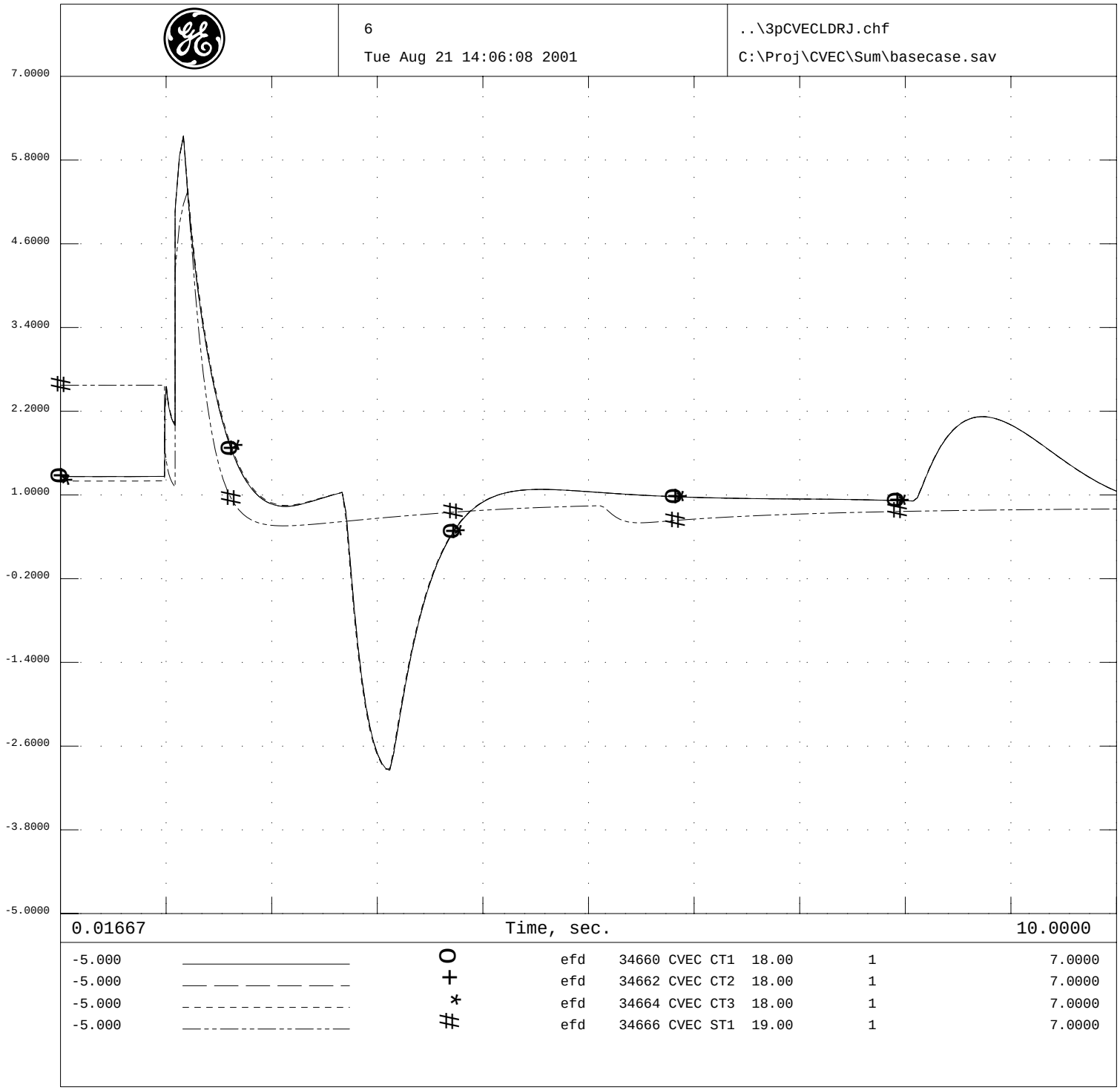
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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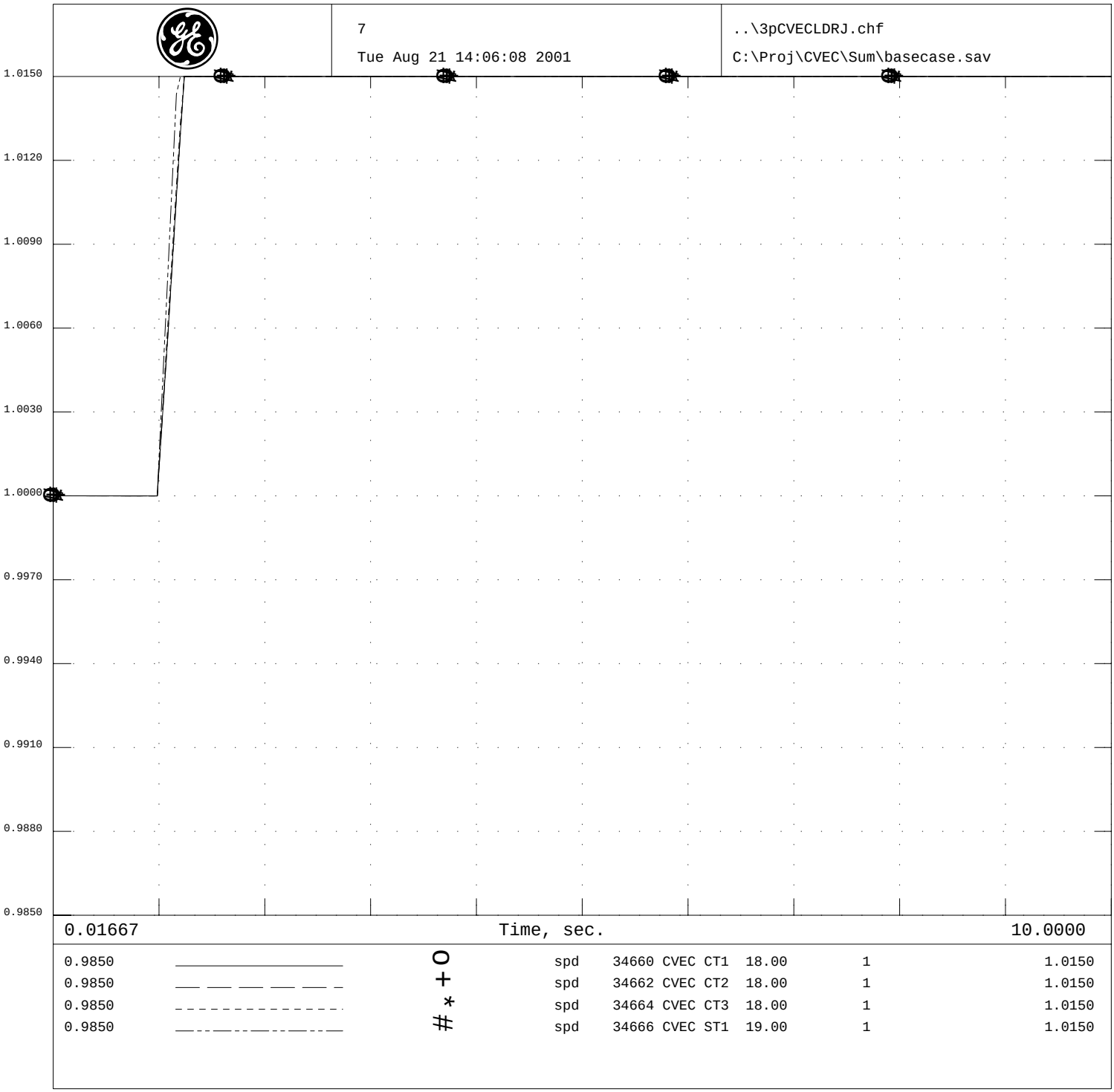
Project Generator Field Voltages



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CVEC @ 1100MW
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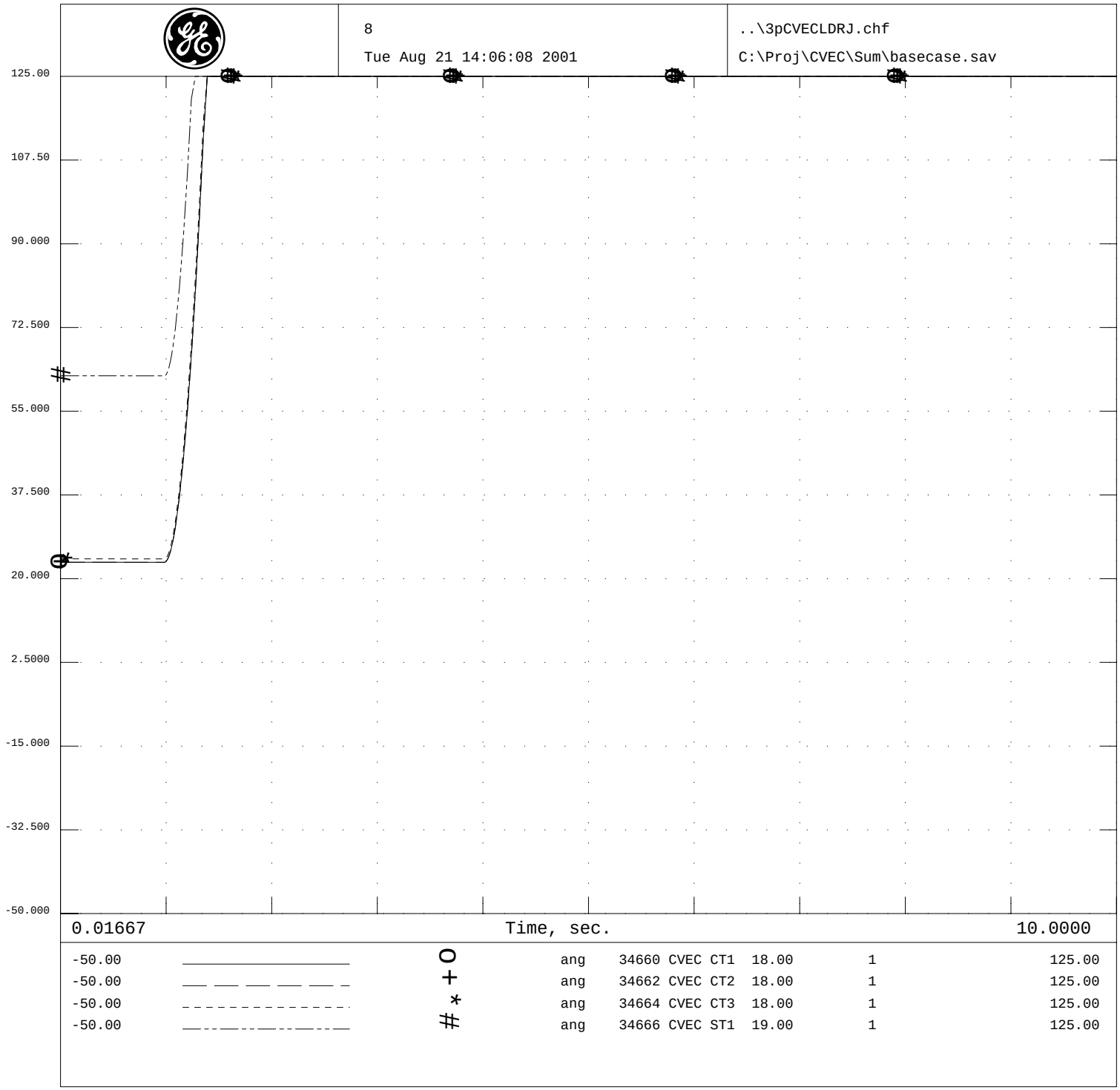
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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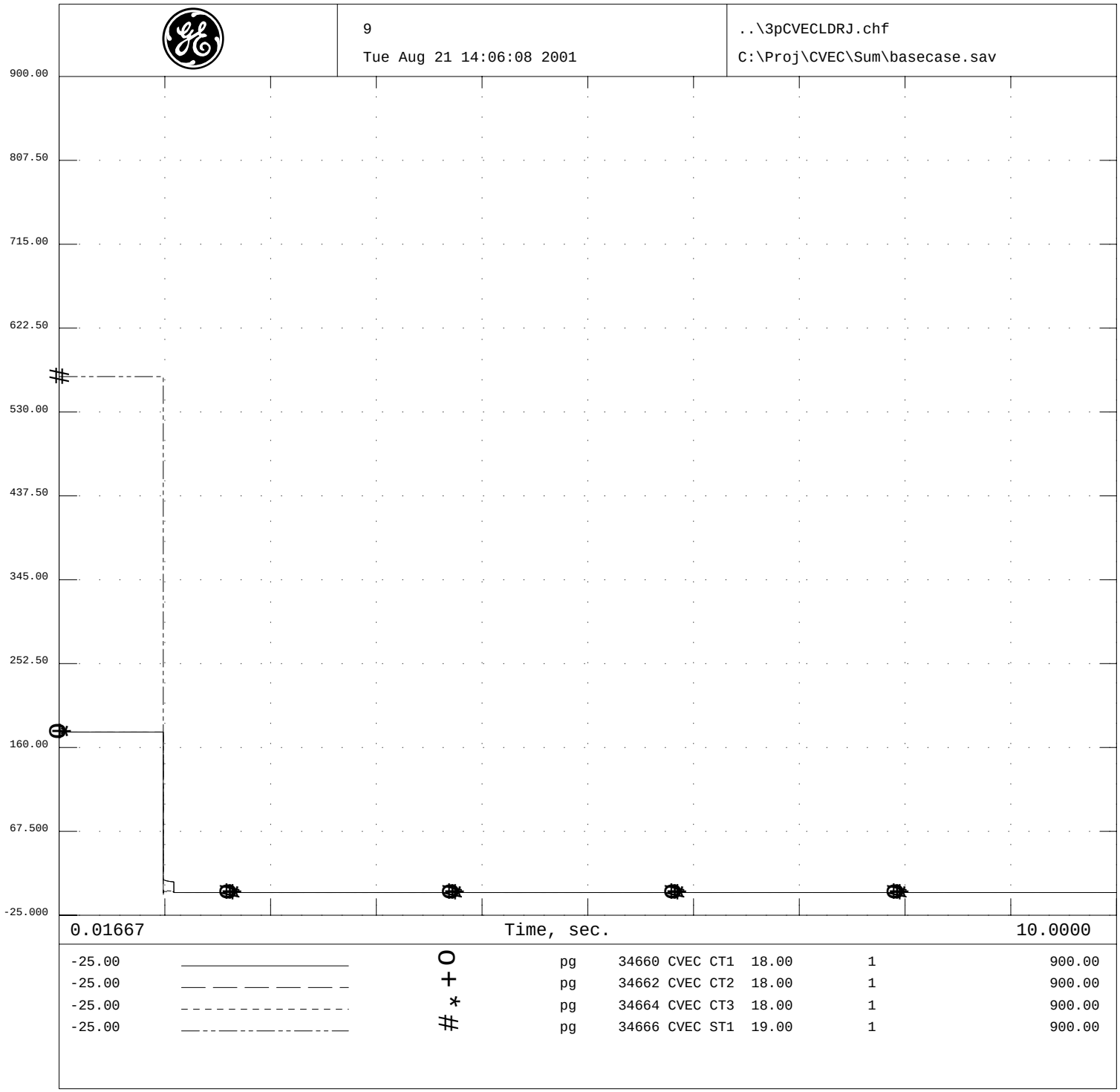
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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Calpine Corporation
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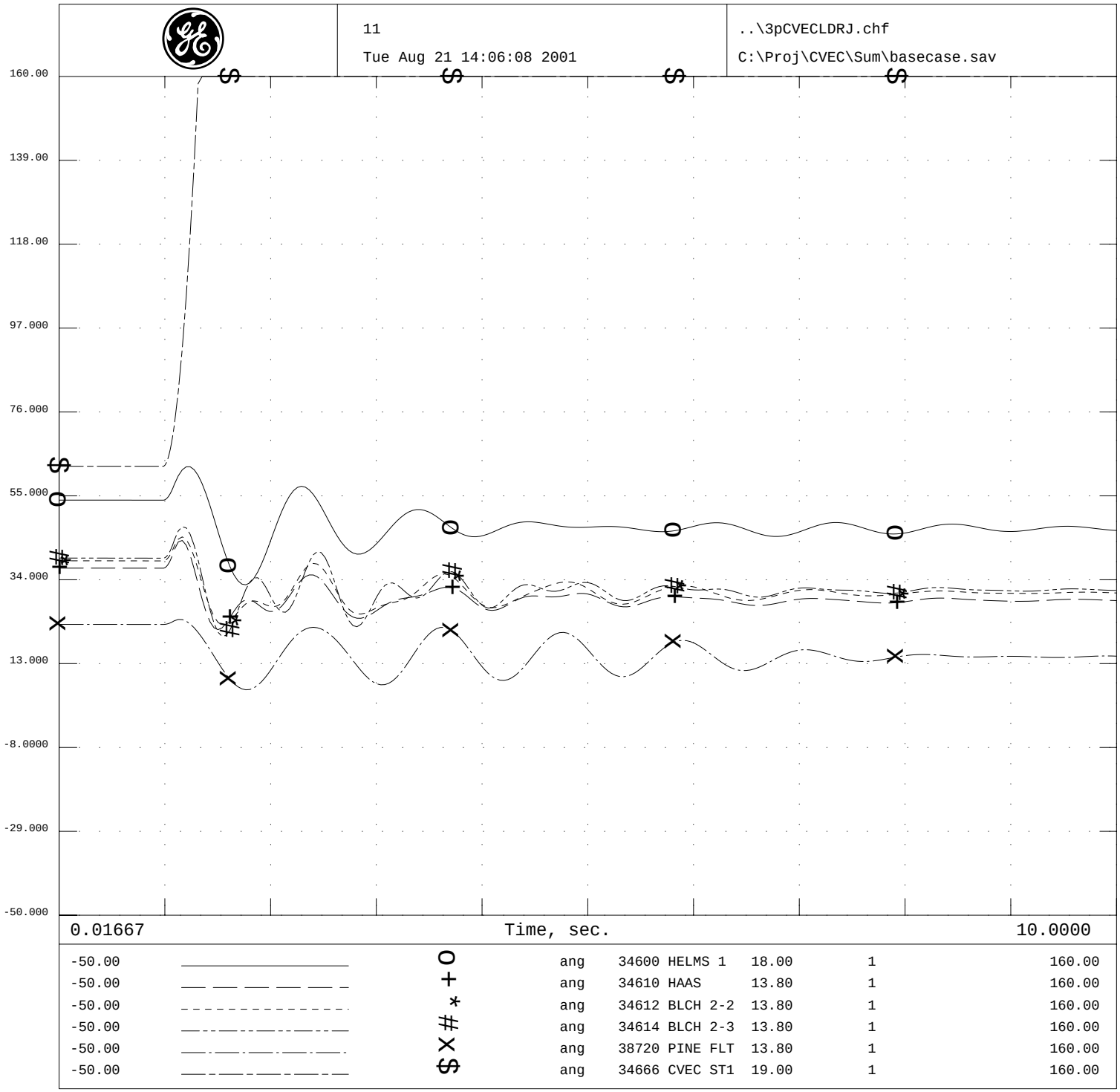

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2004 Summer Peak Base Case
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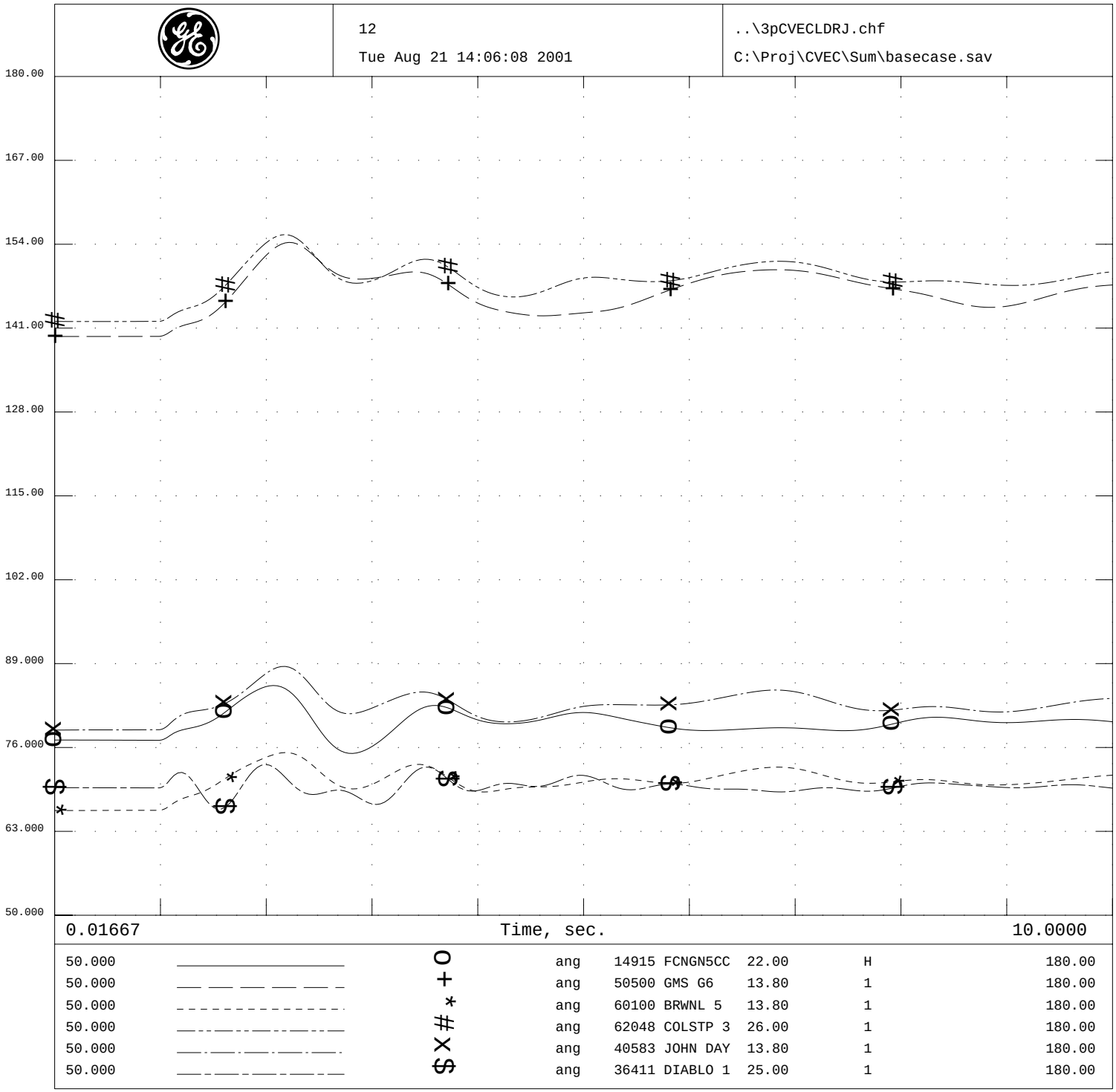
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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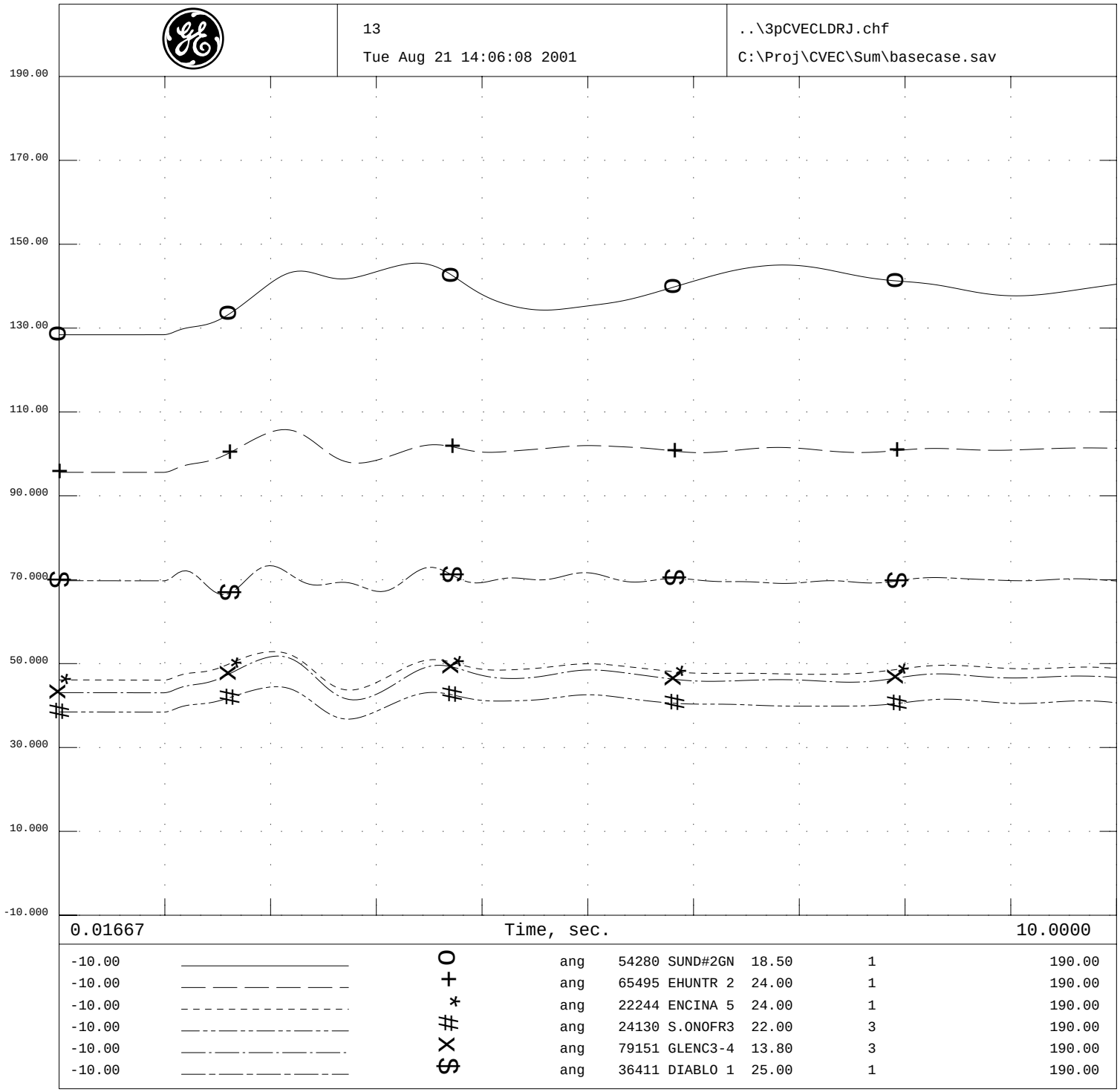
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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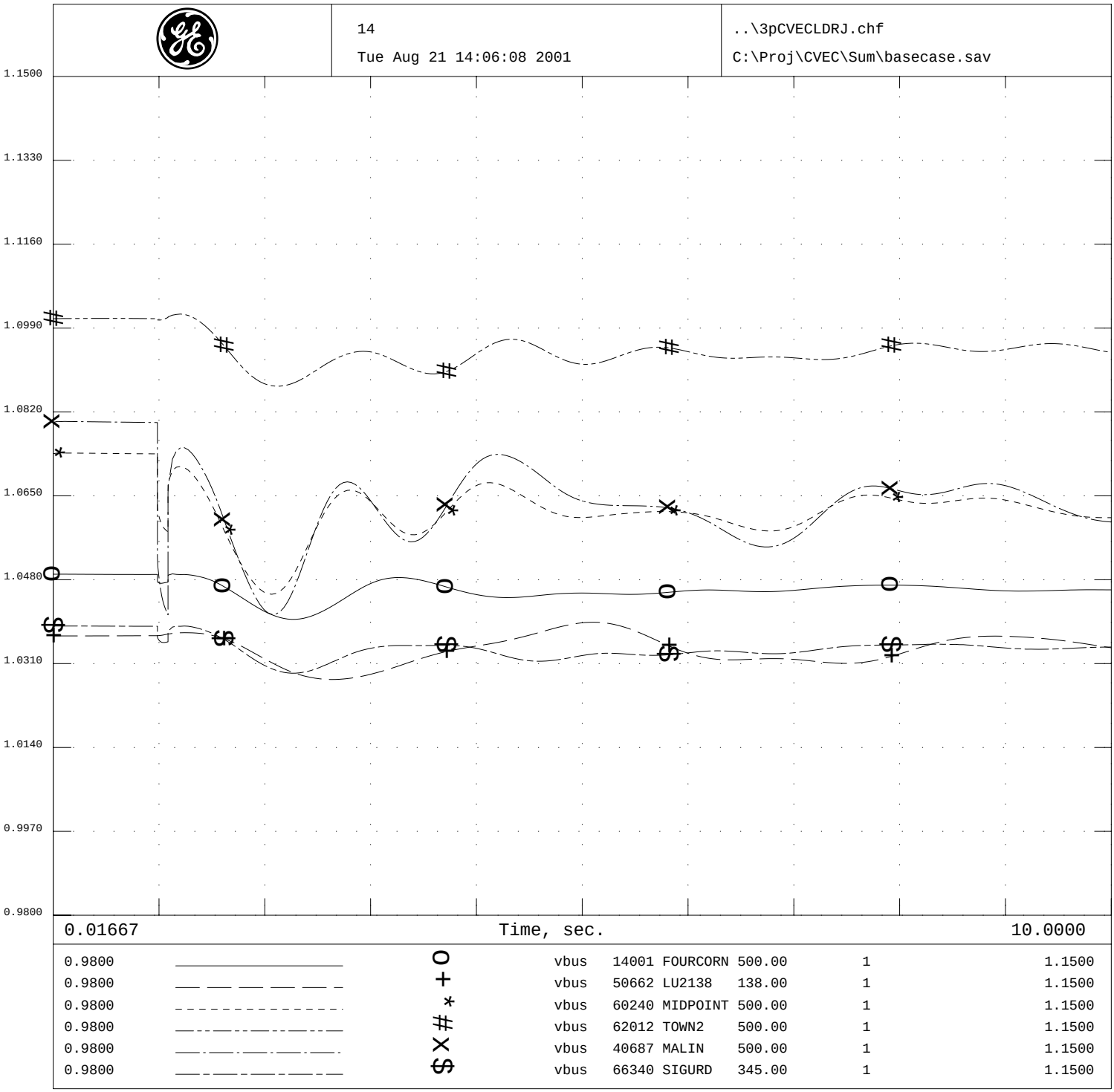

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Calpine Corporation
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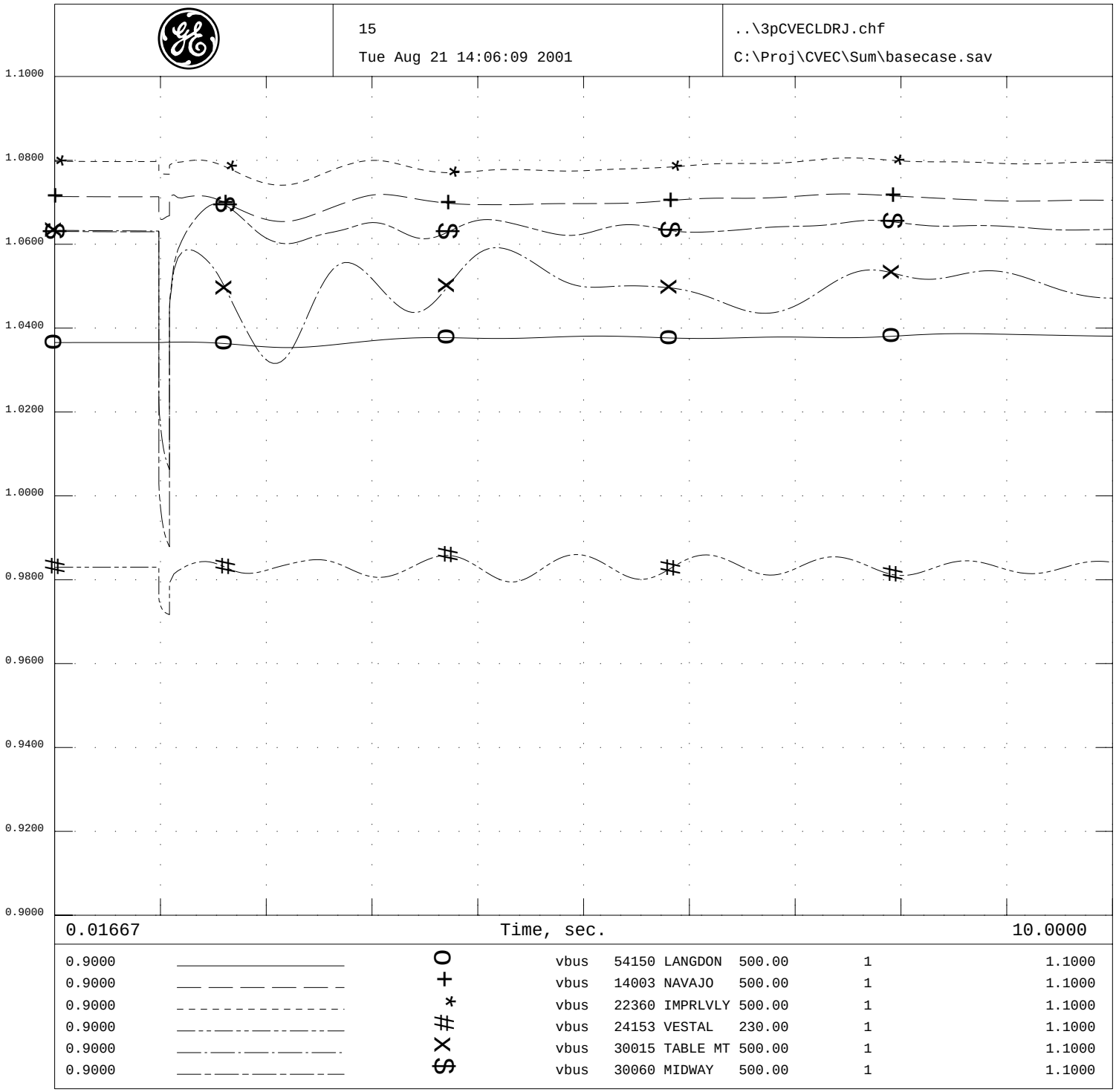

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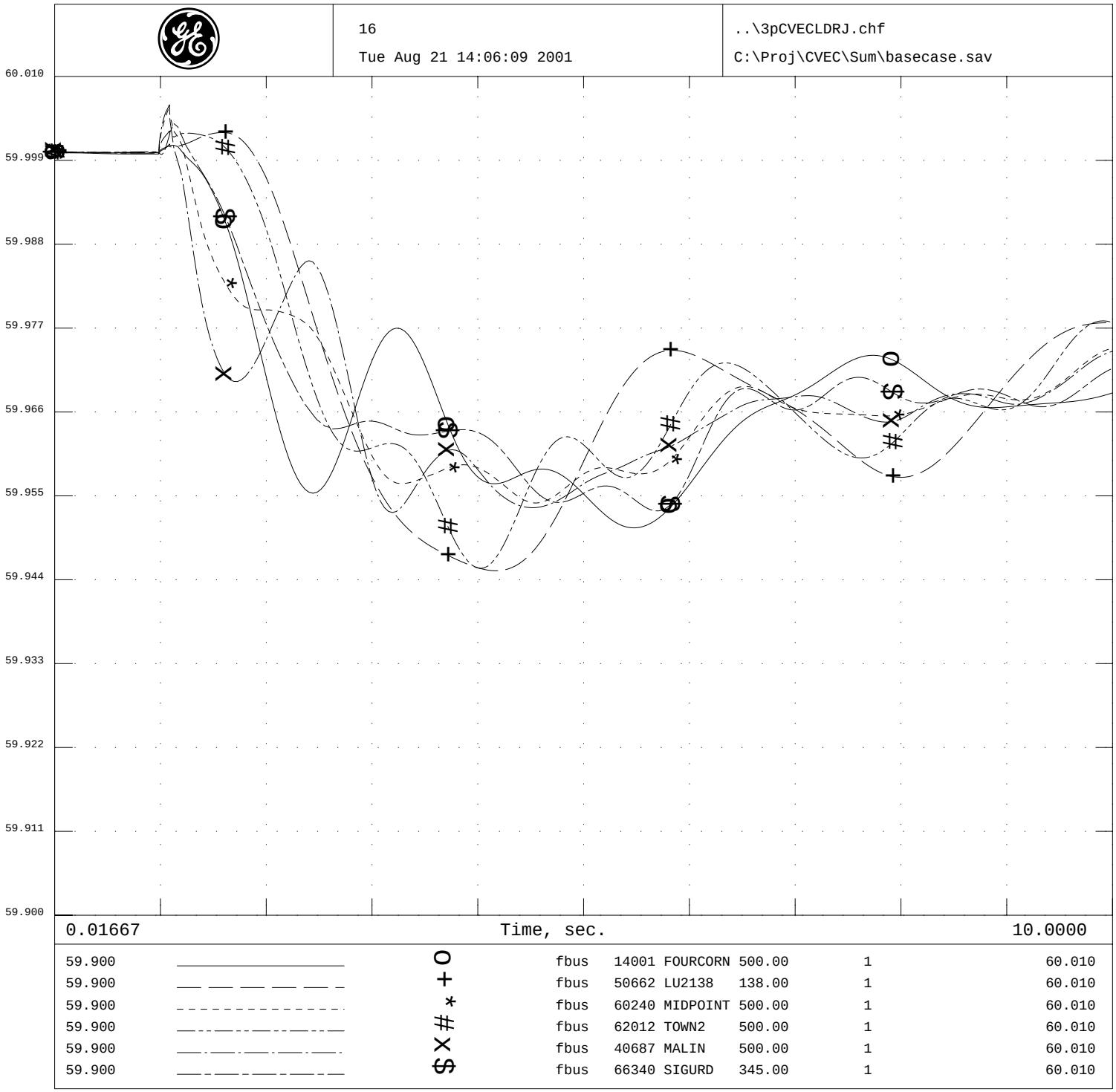

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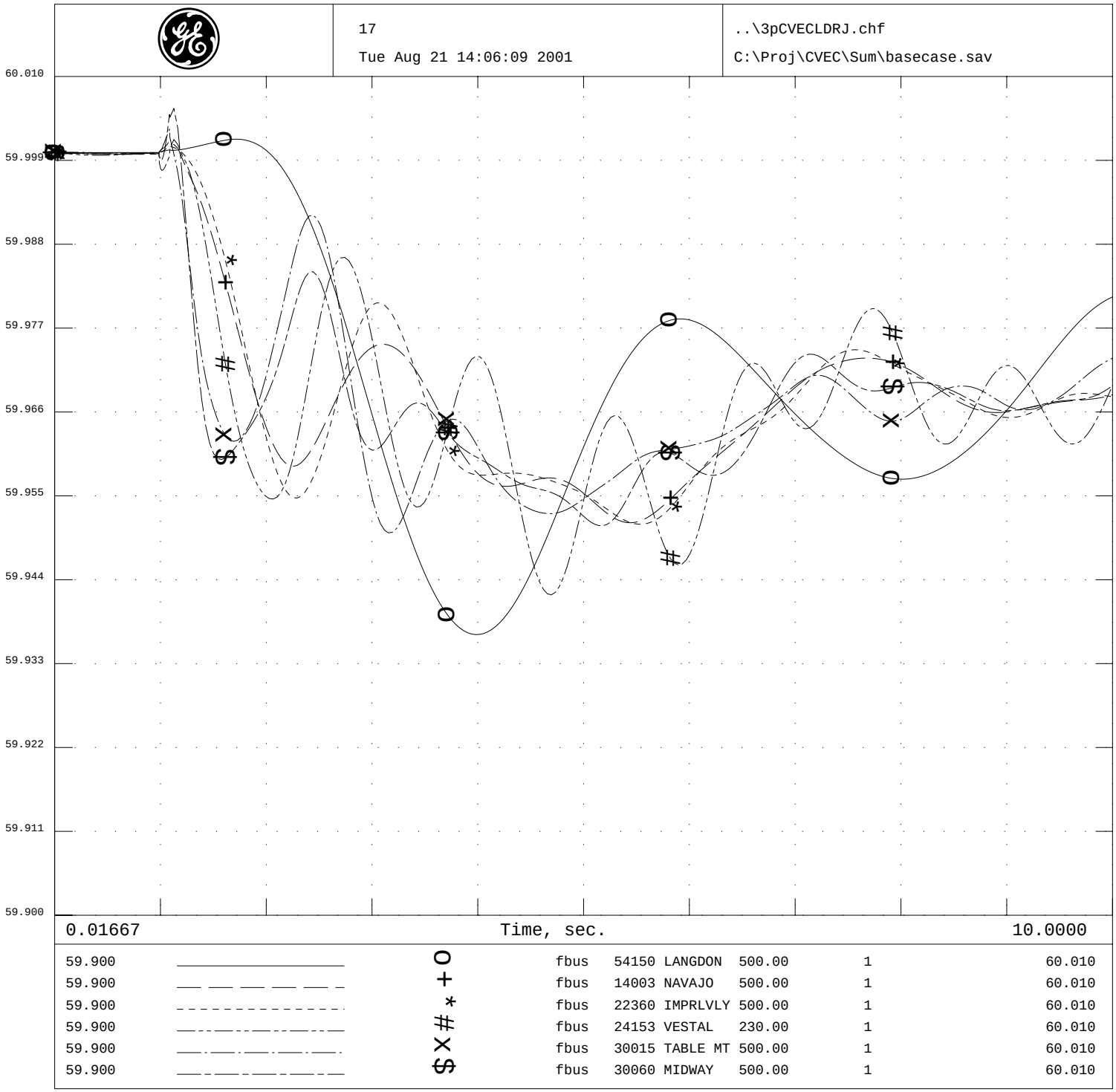

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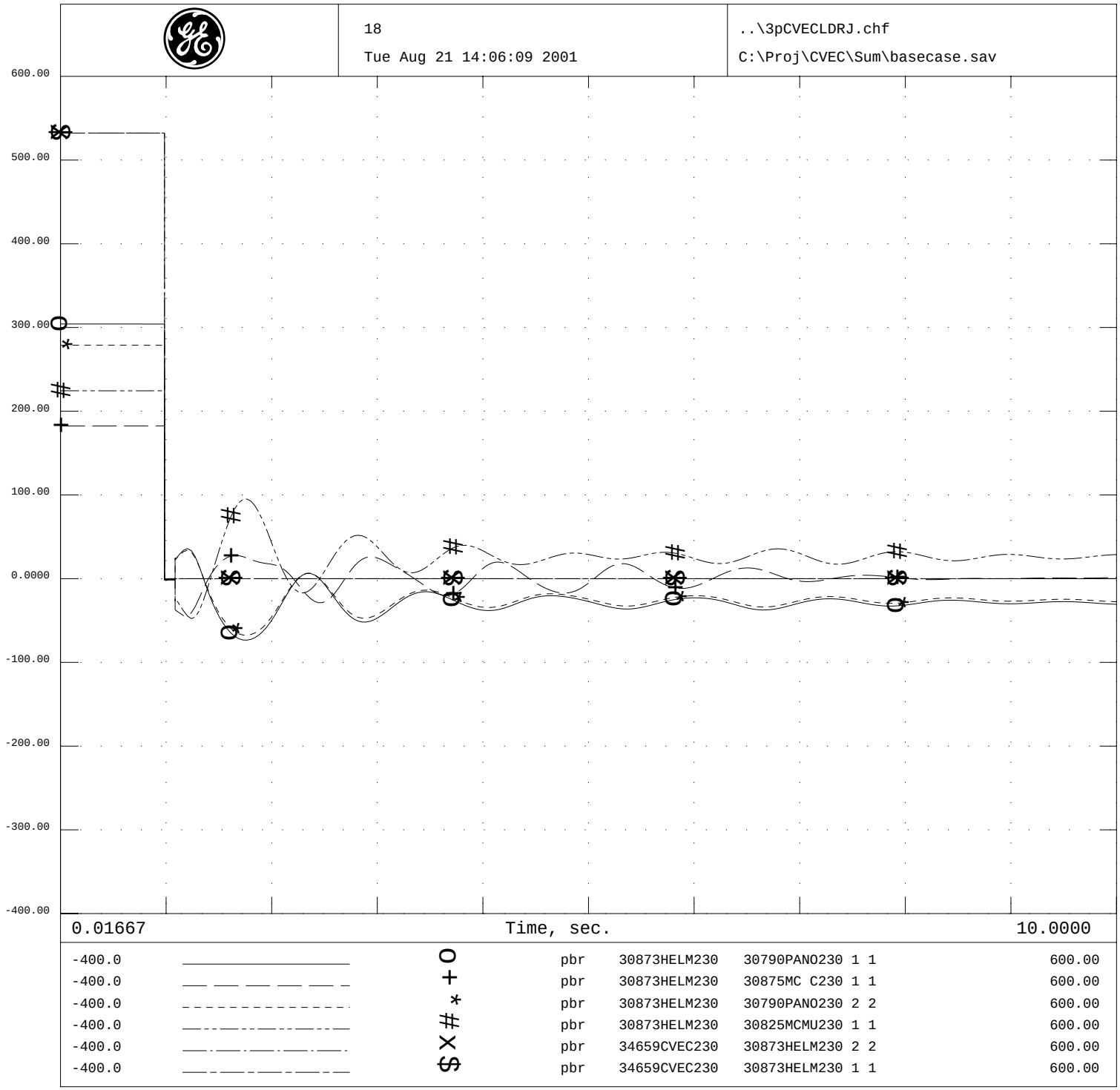

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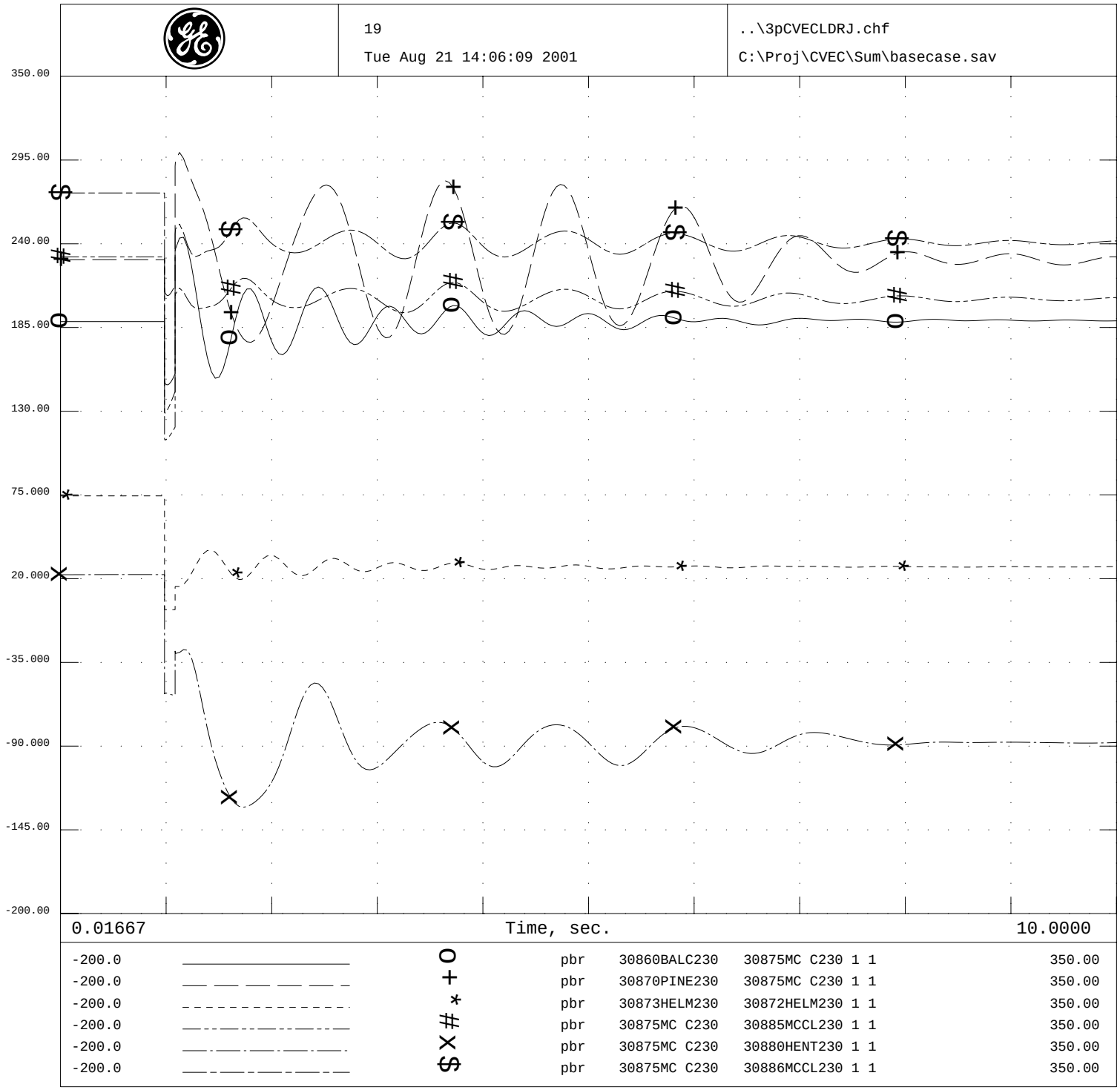

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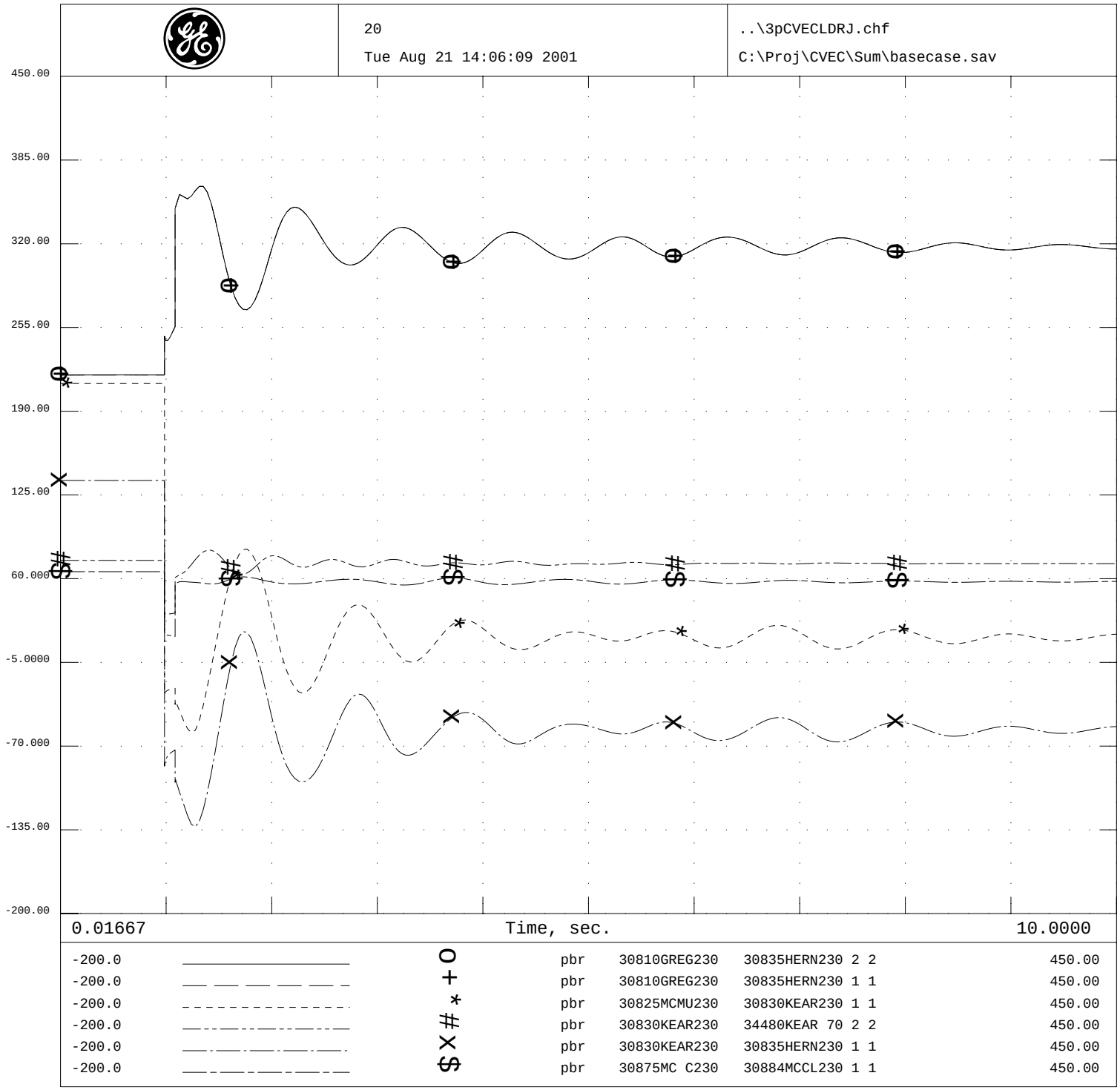

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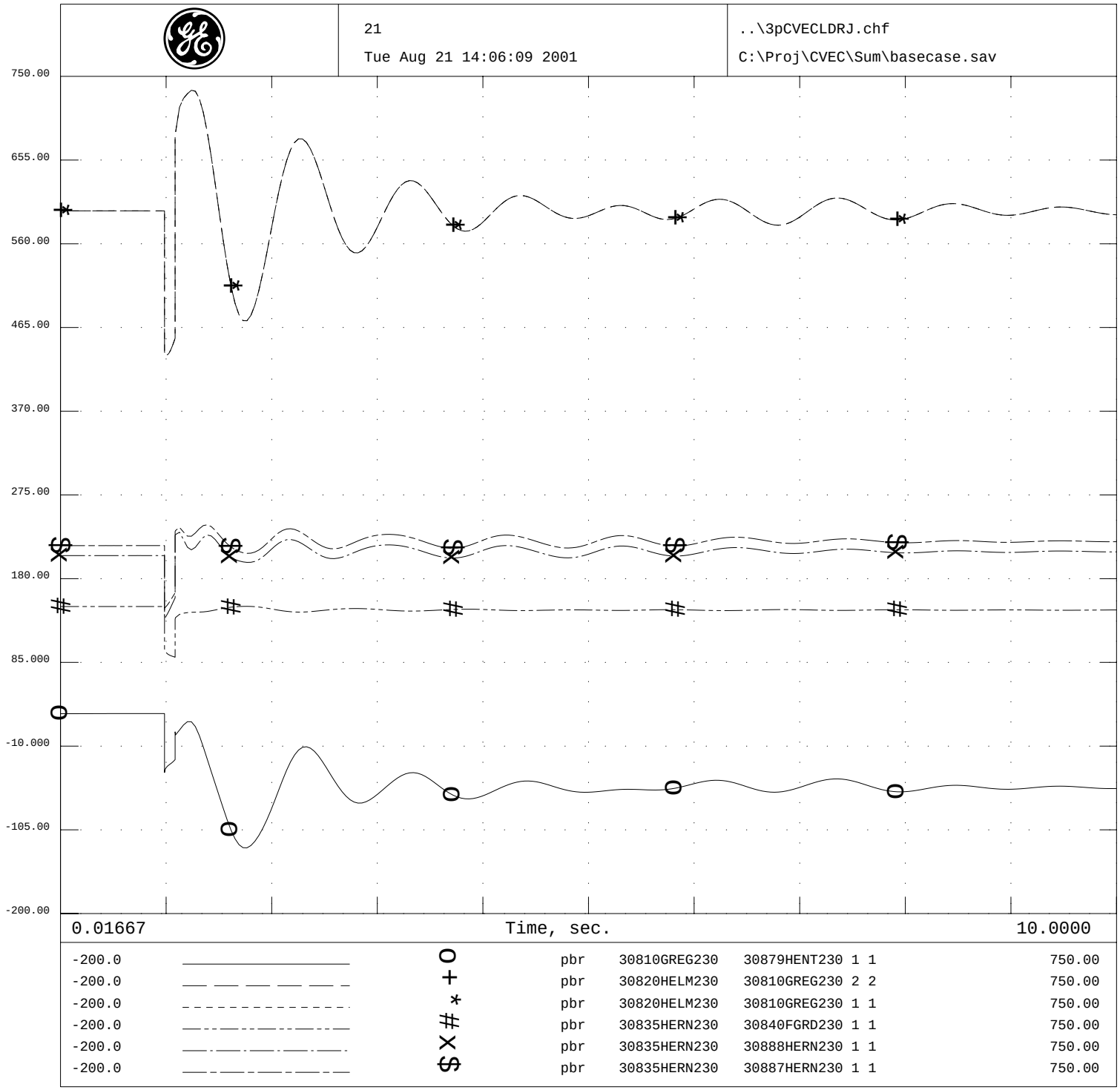

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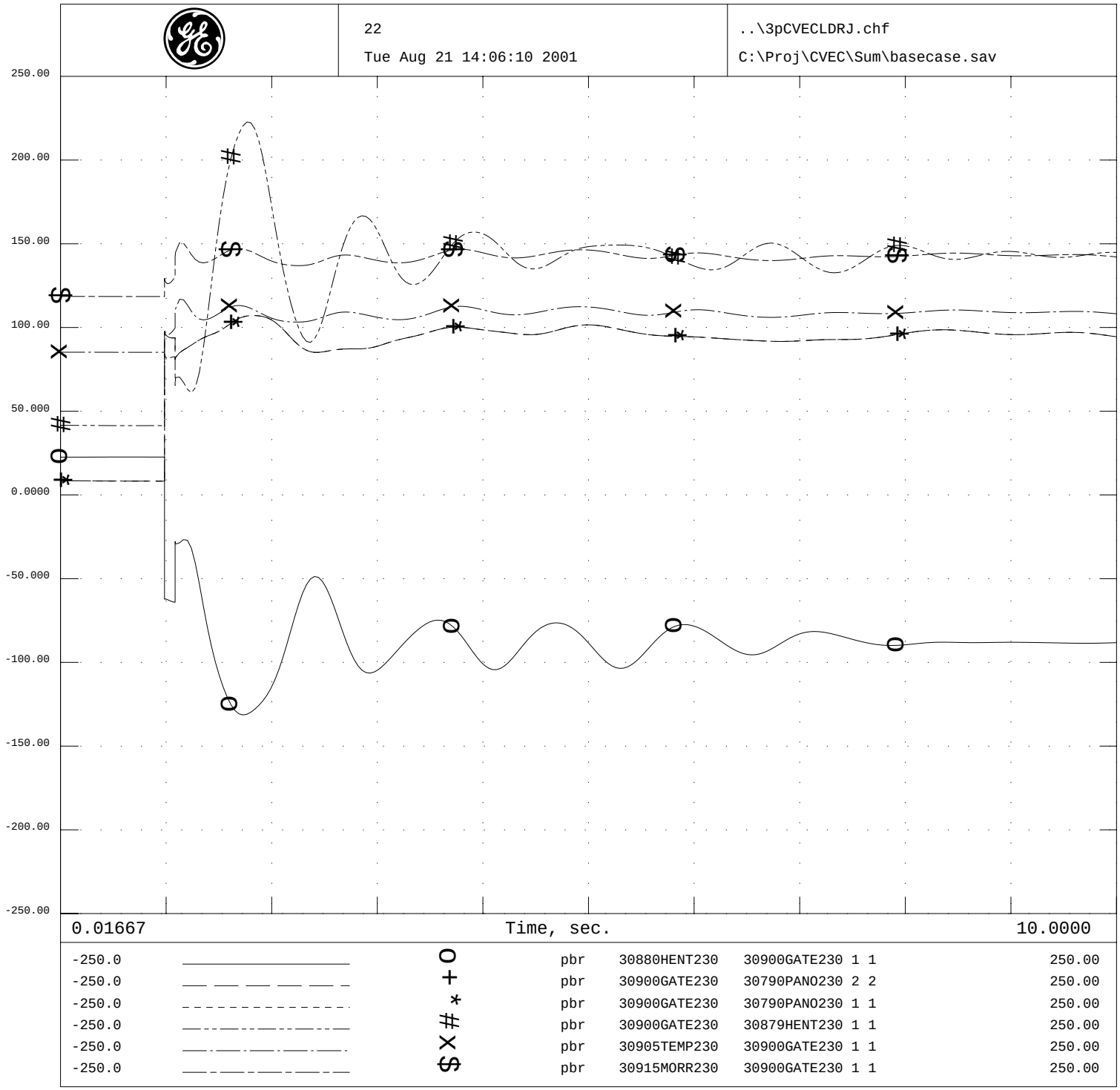

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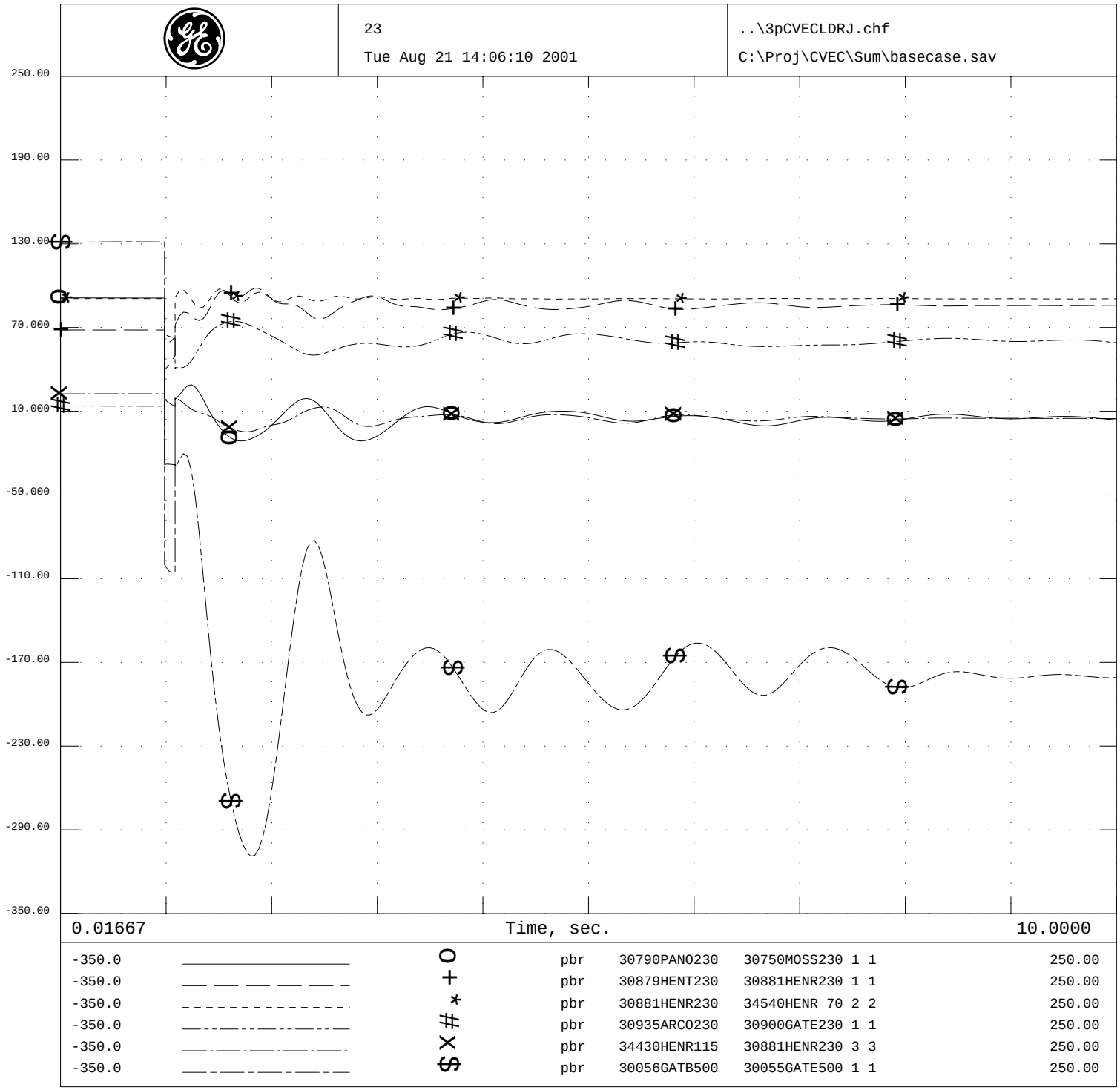

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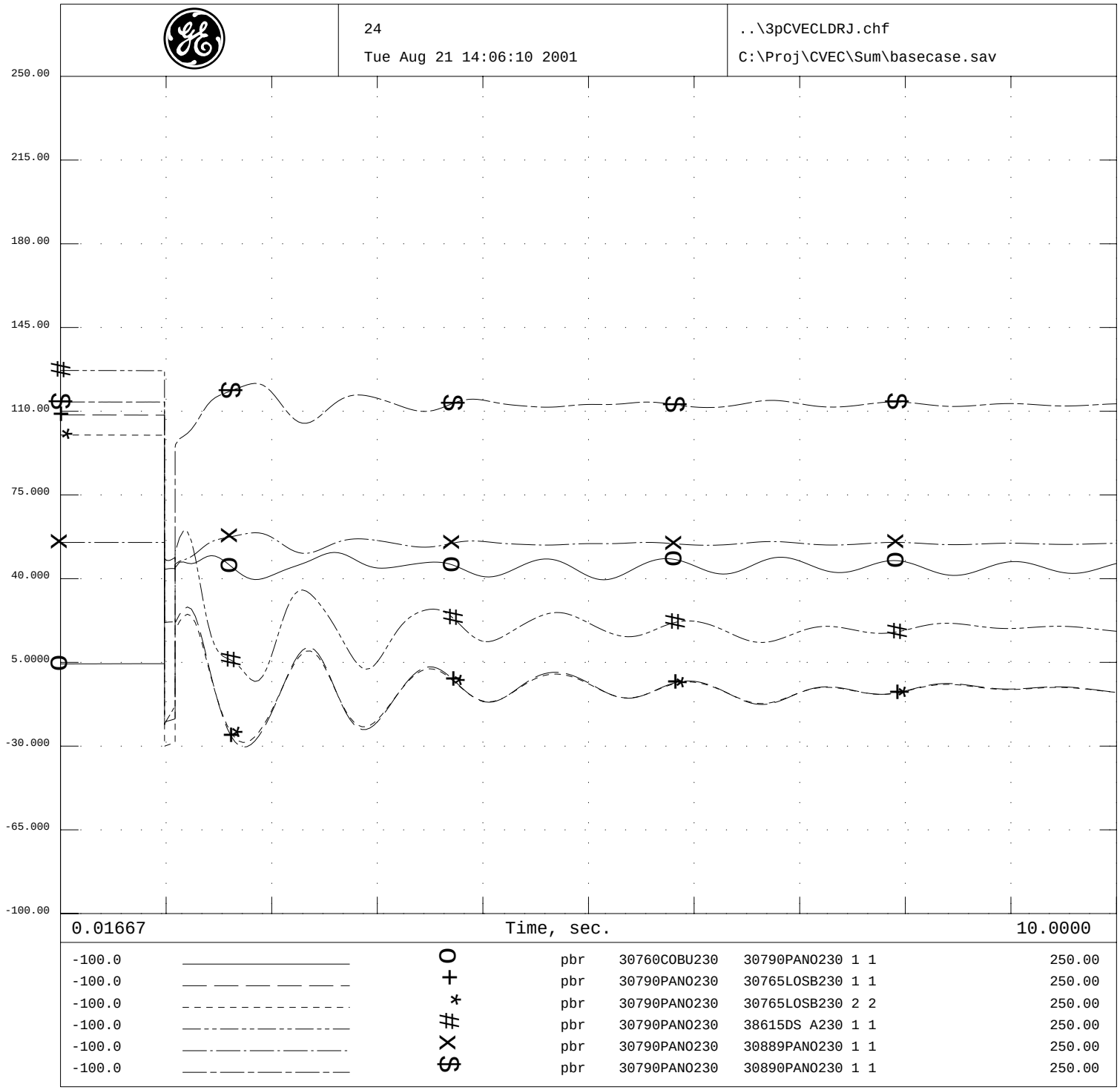

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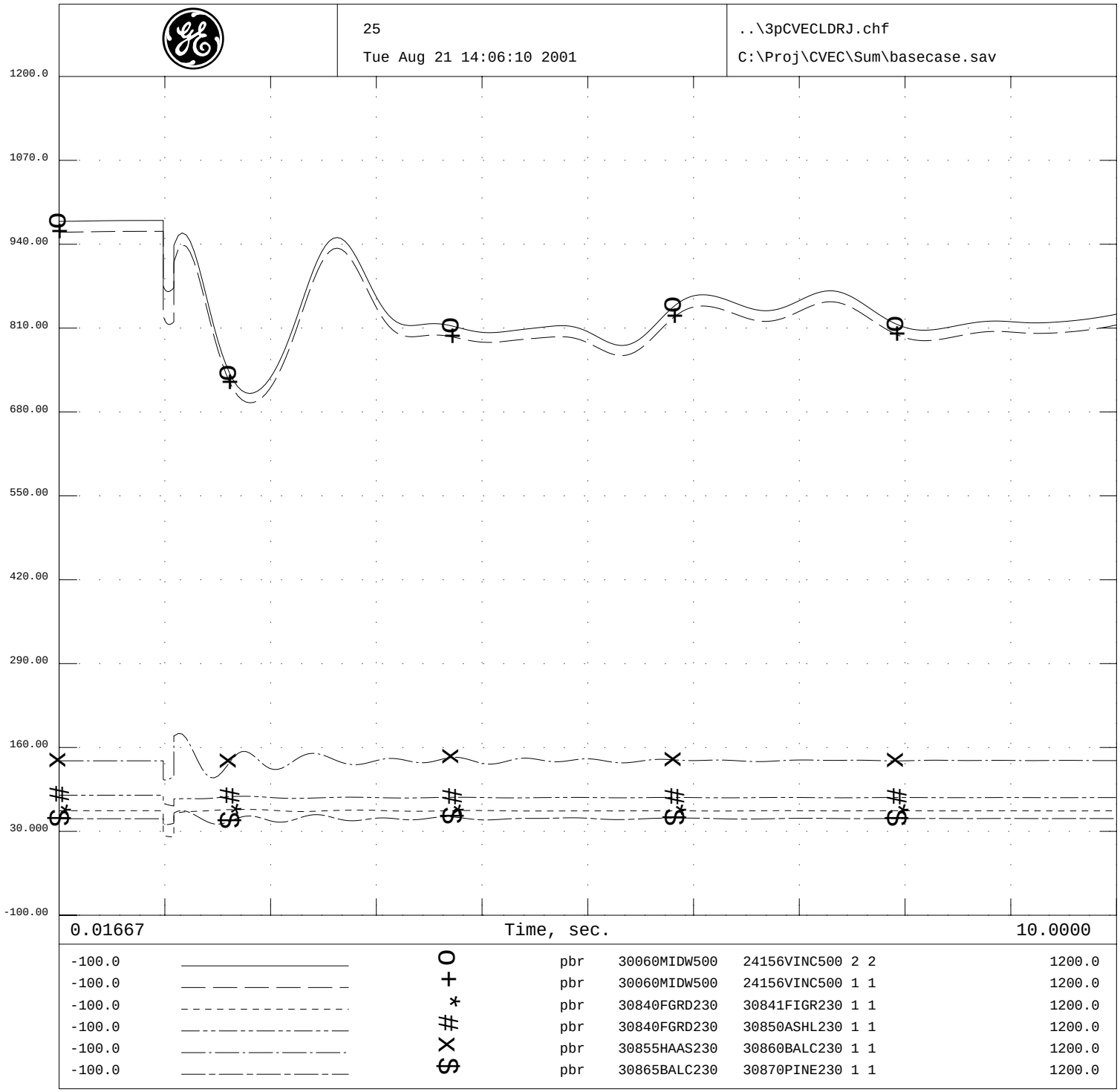

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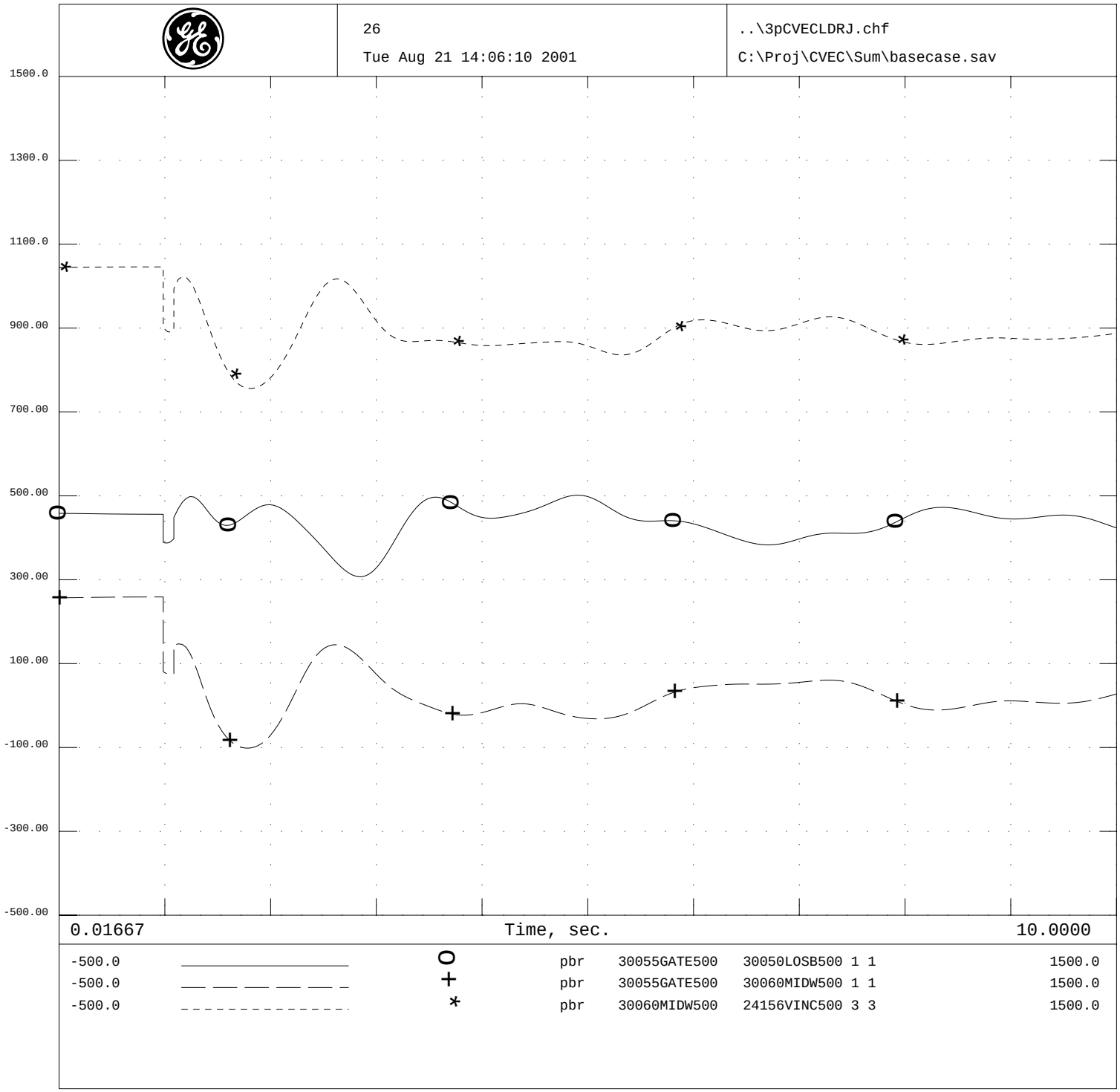

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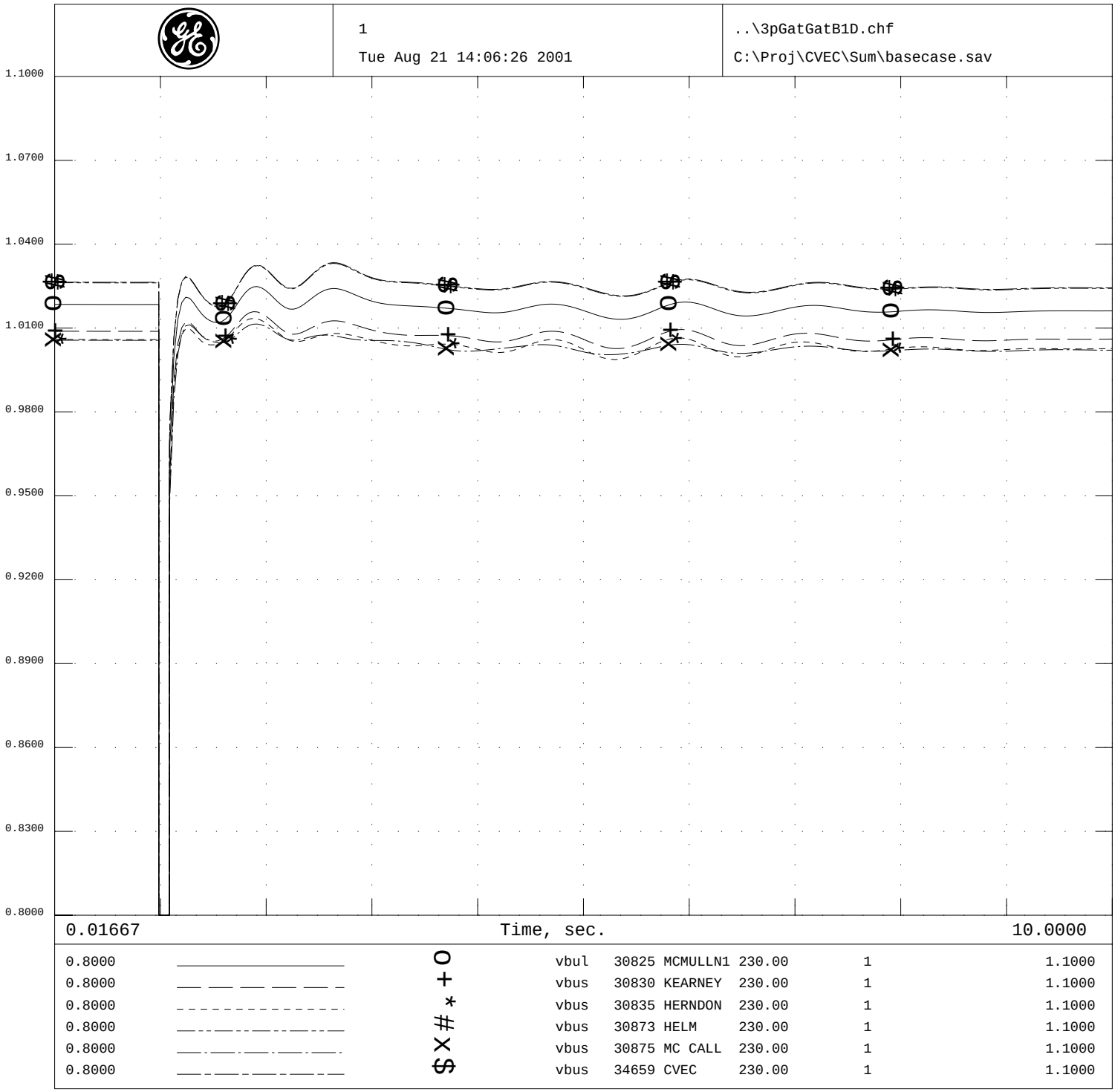

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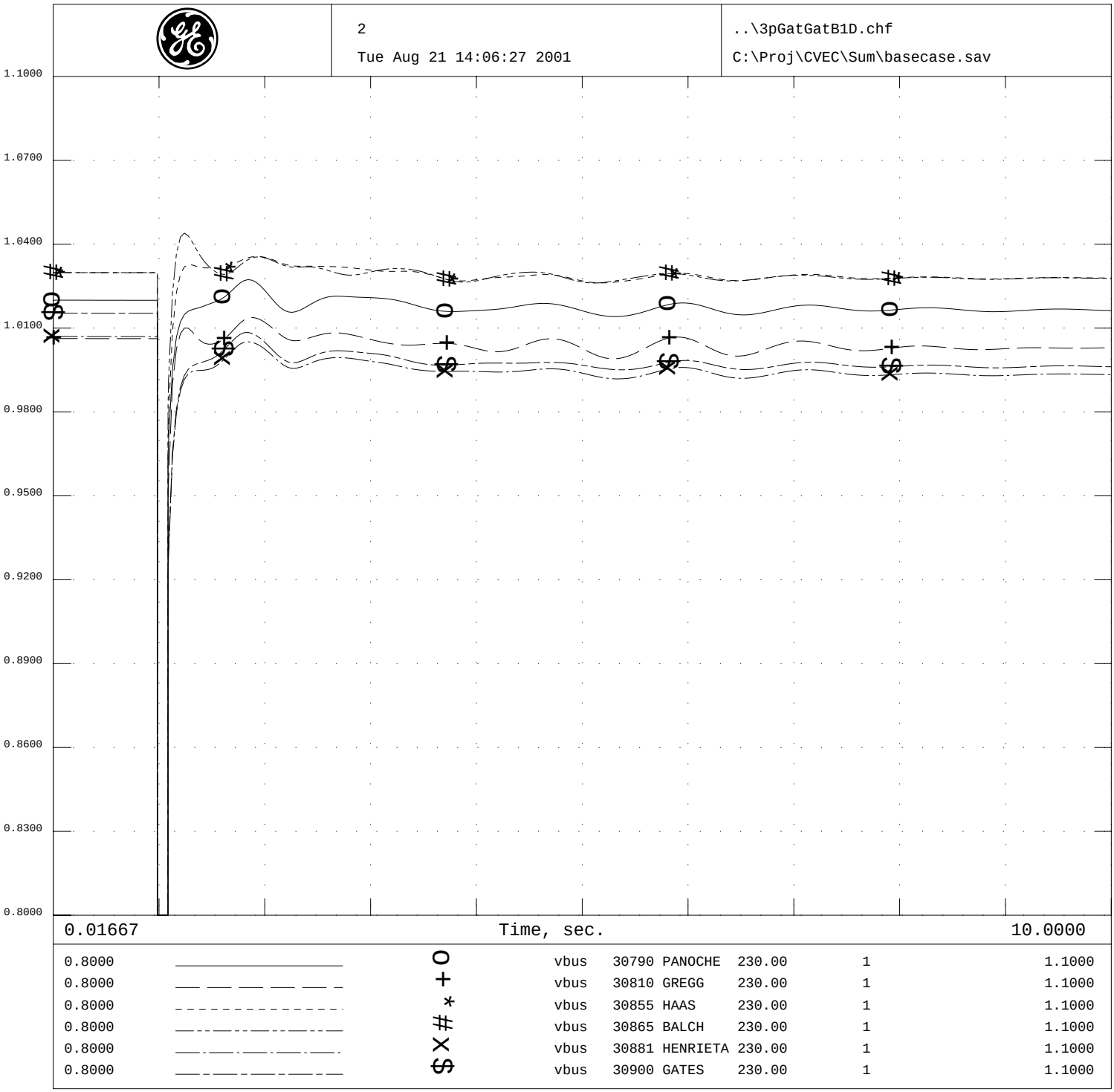
2004 Summer Peak Base Case
CVEC @ 1100MW
Gates 230kV Bus 1D Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 1D

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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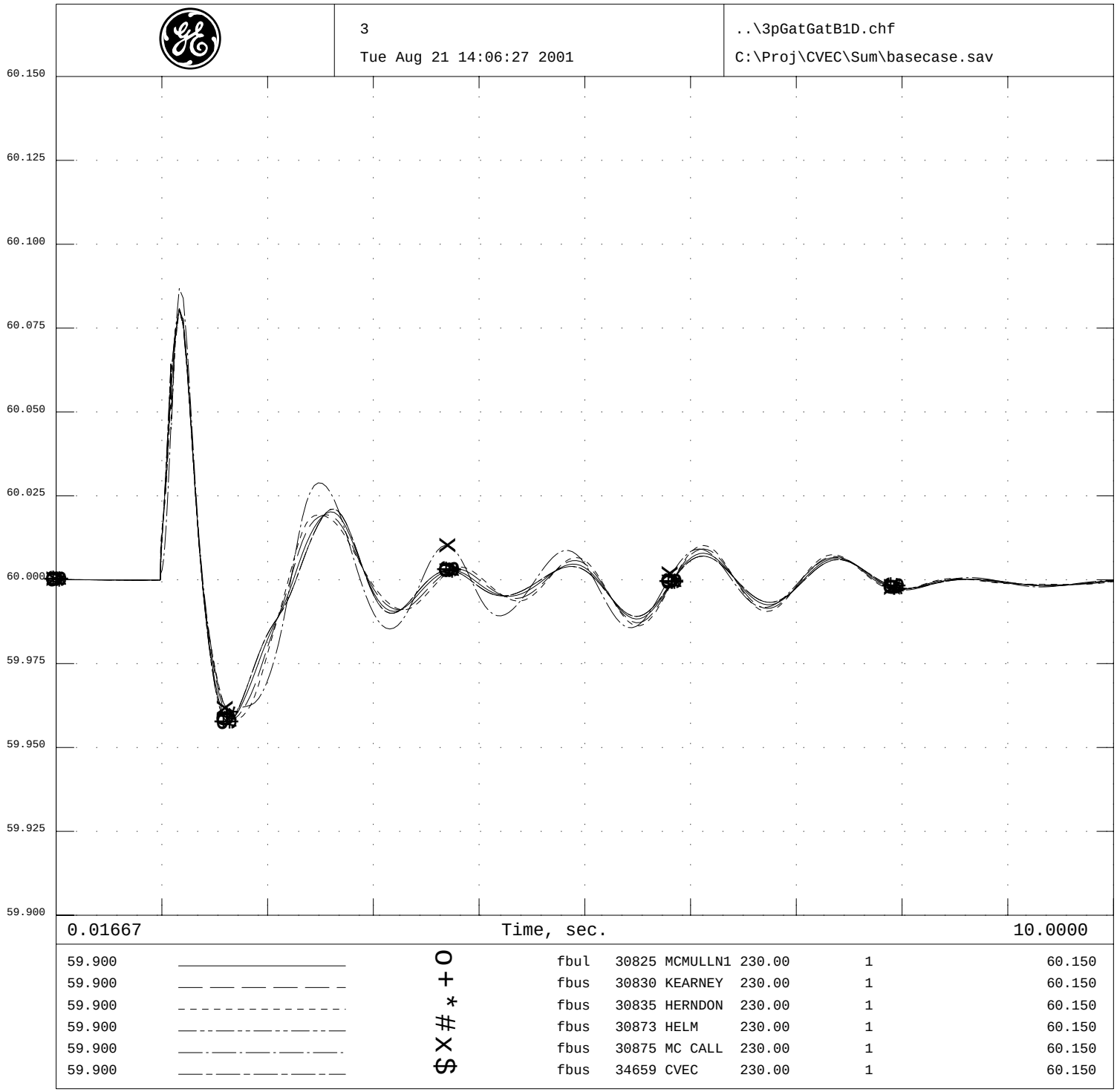

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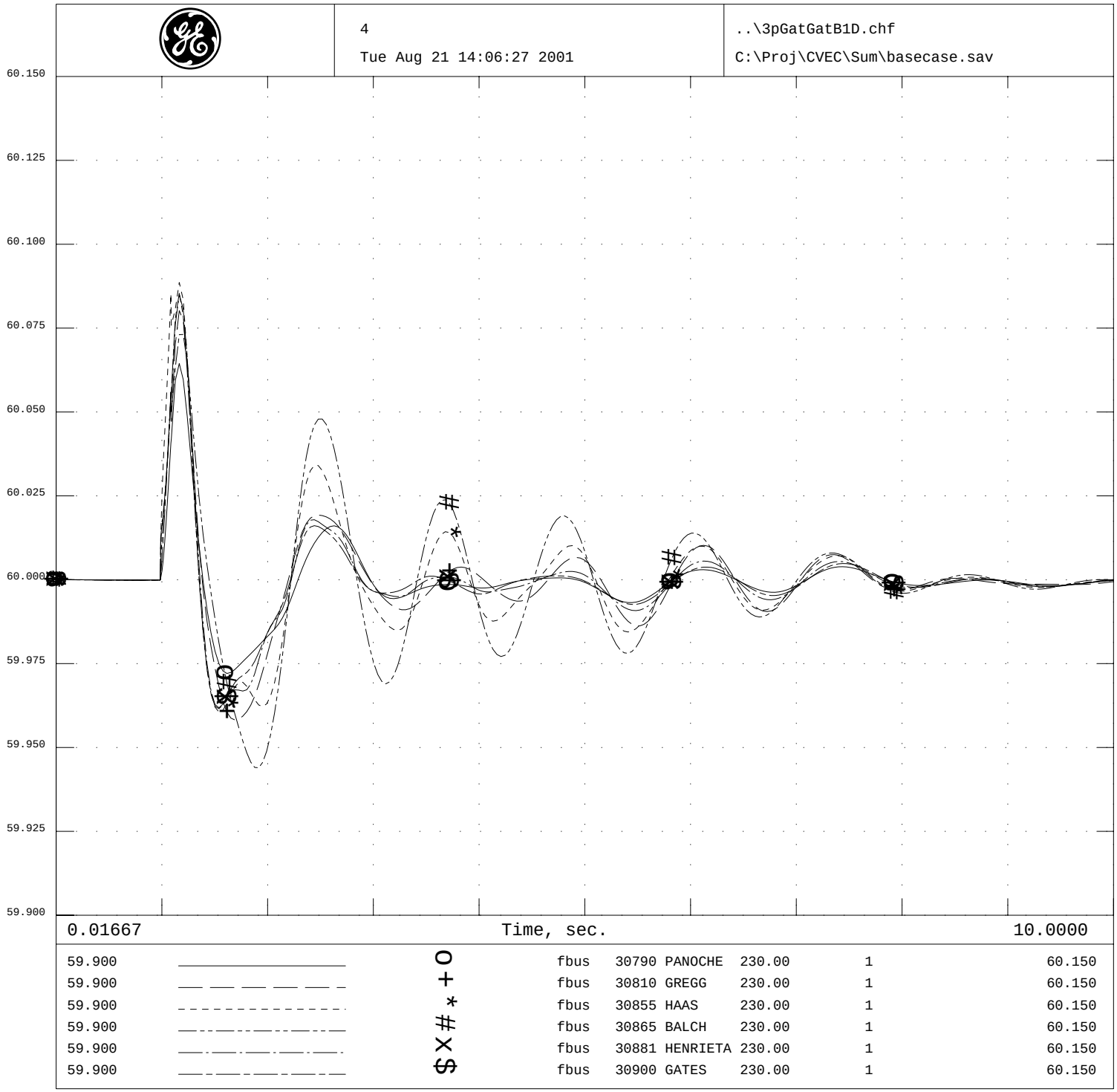

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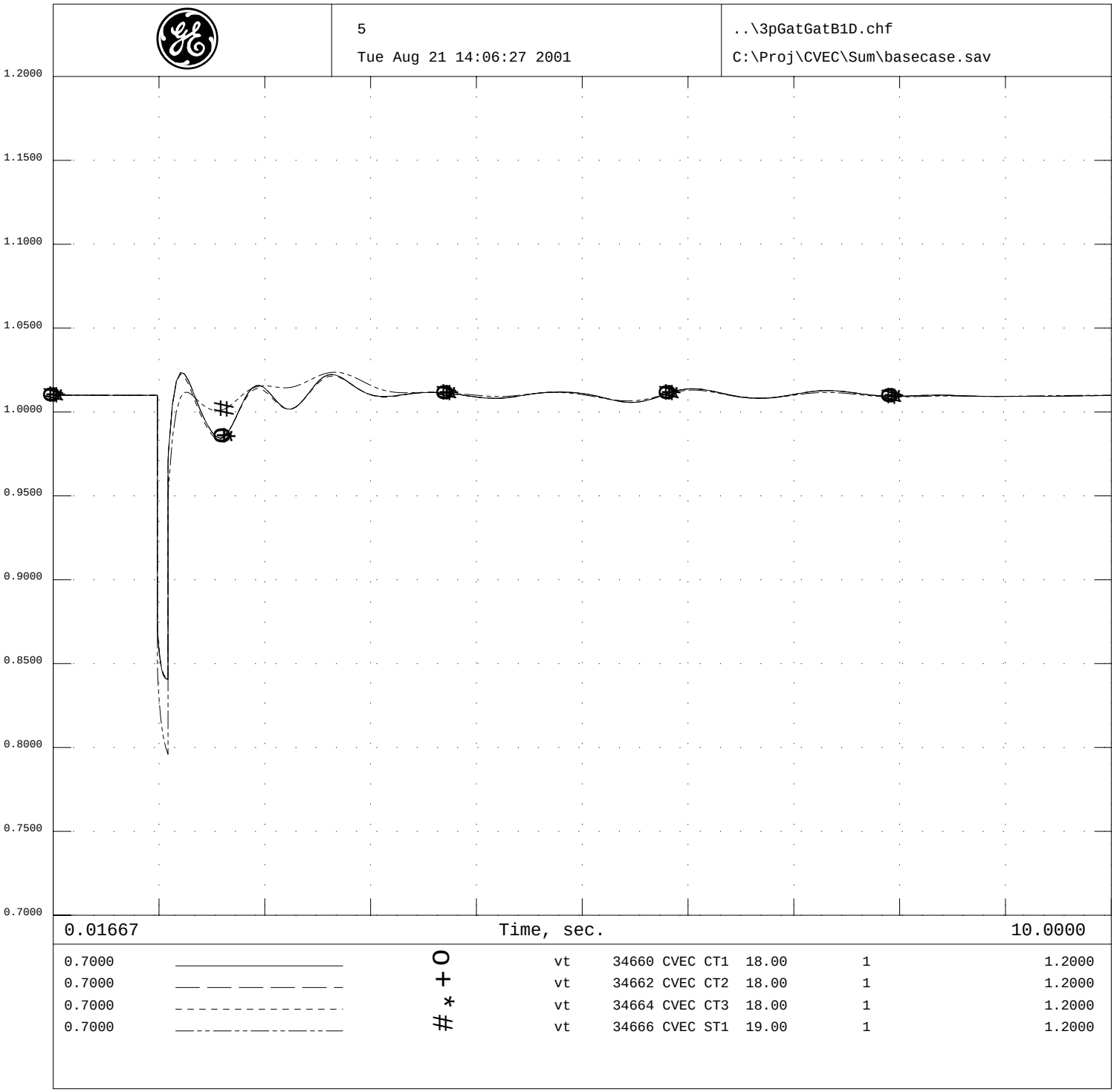

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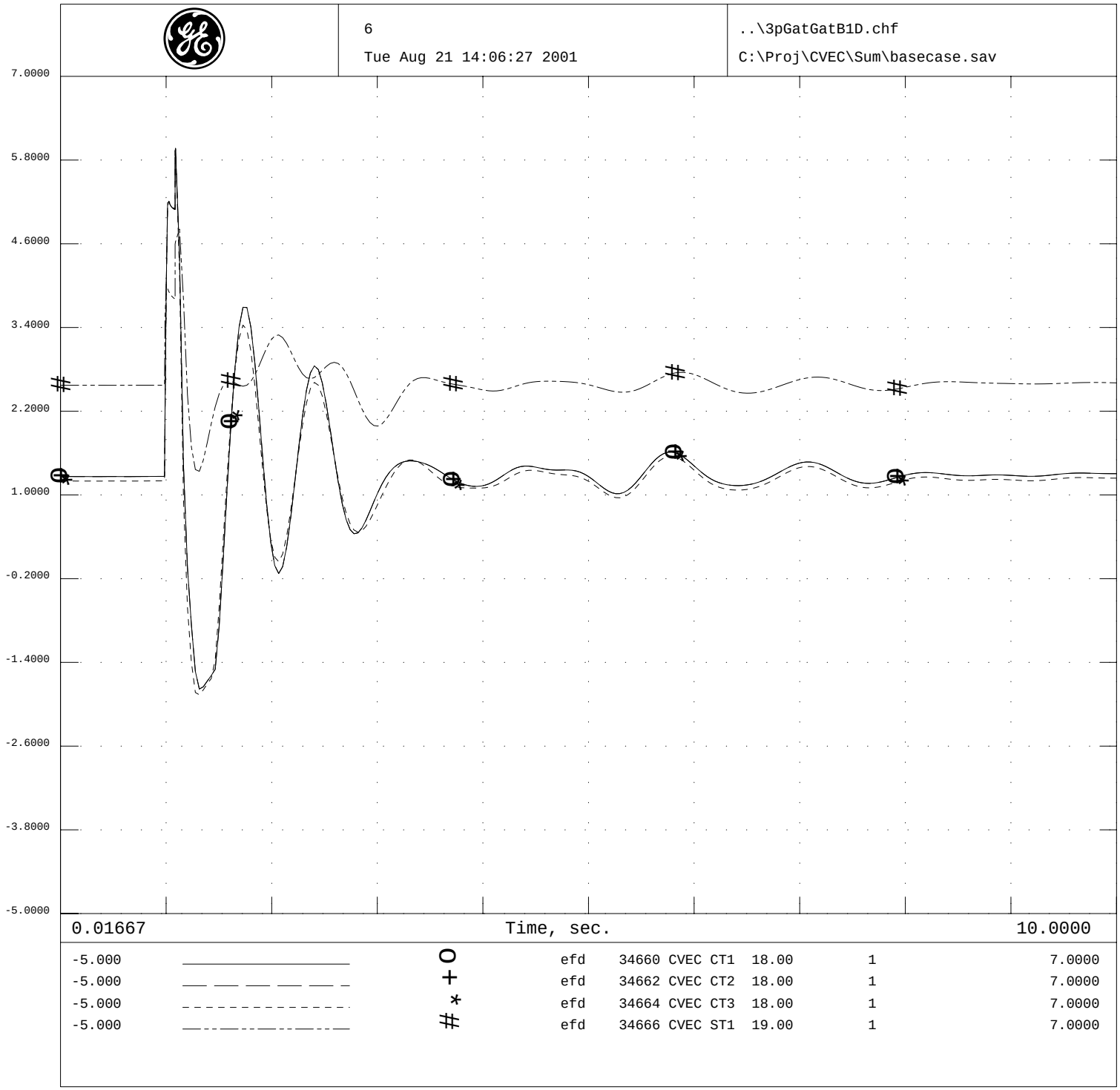
Calpine Corporation
Project Generator Terminal Voltages



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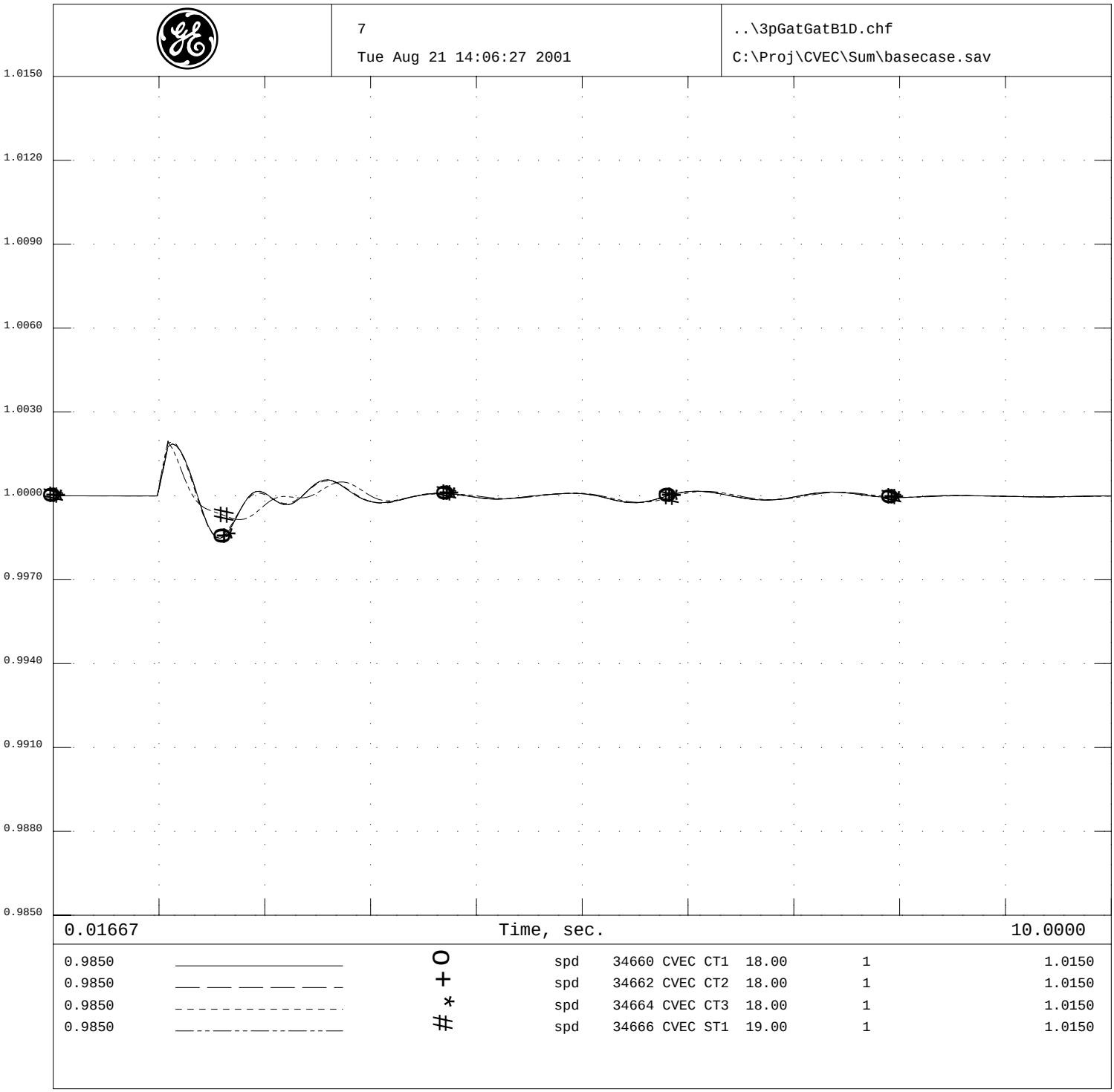

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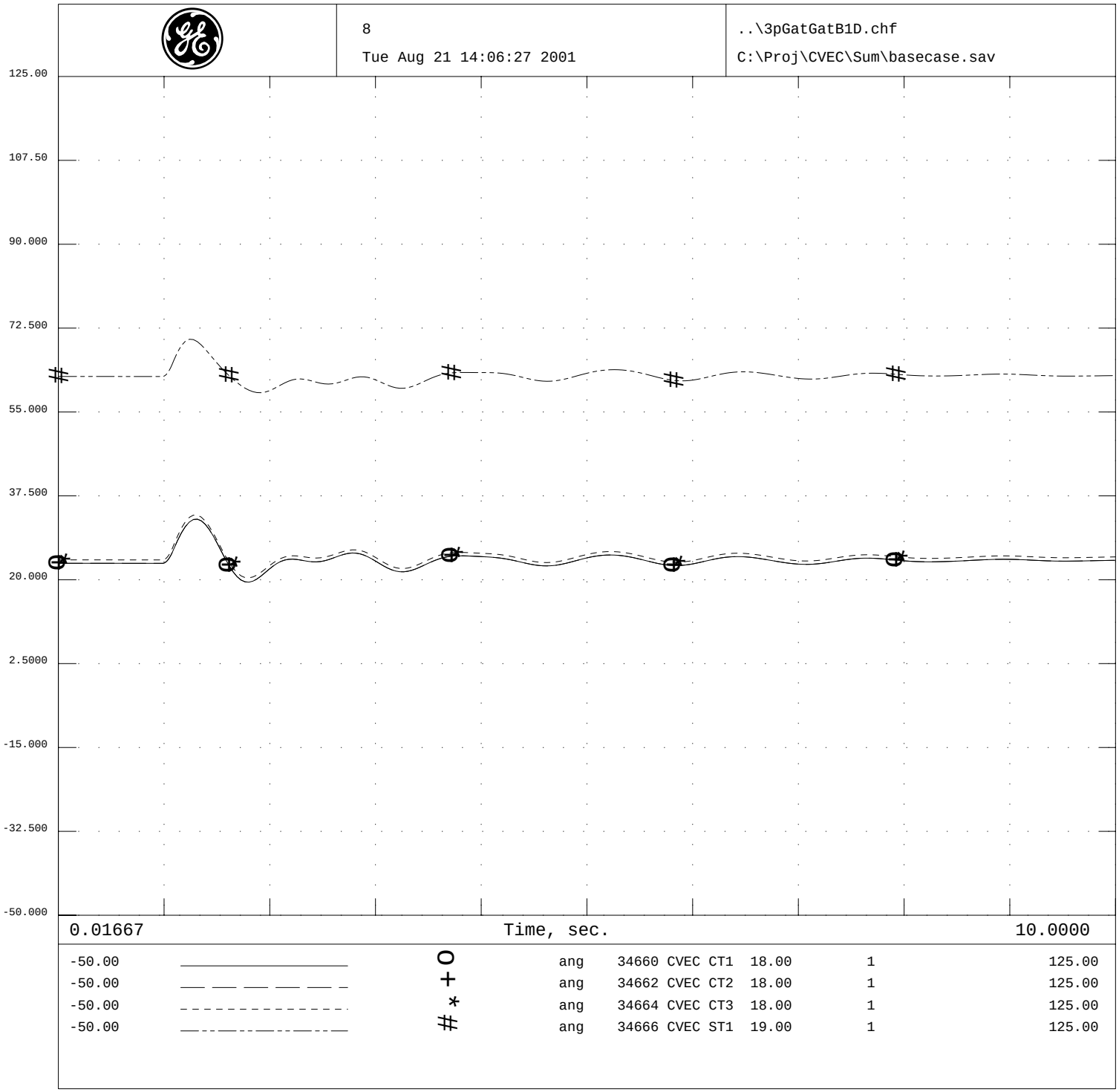
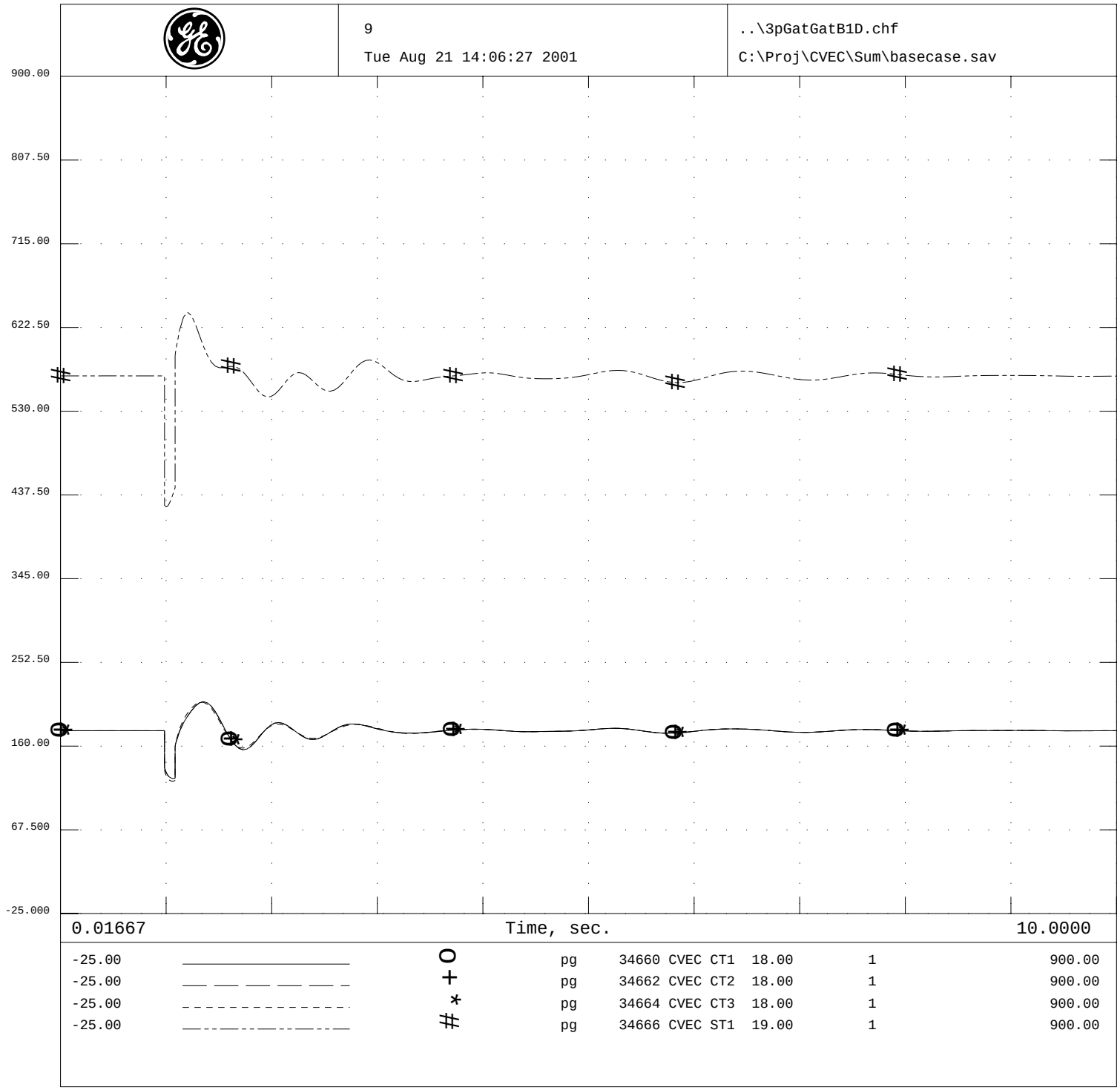
Project Generator Rotor Speed



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Gates 230kV Bus 1D Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 1D

Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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2004 Summer Peak Base Case
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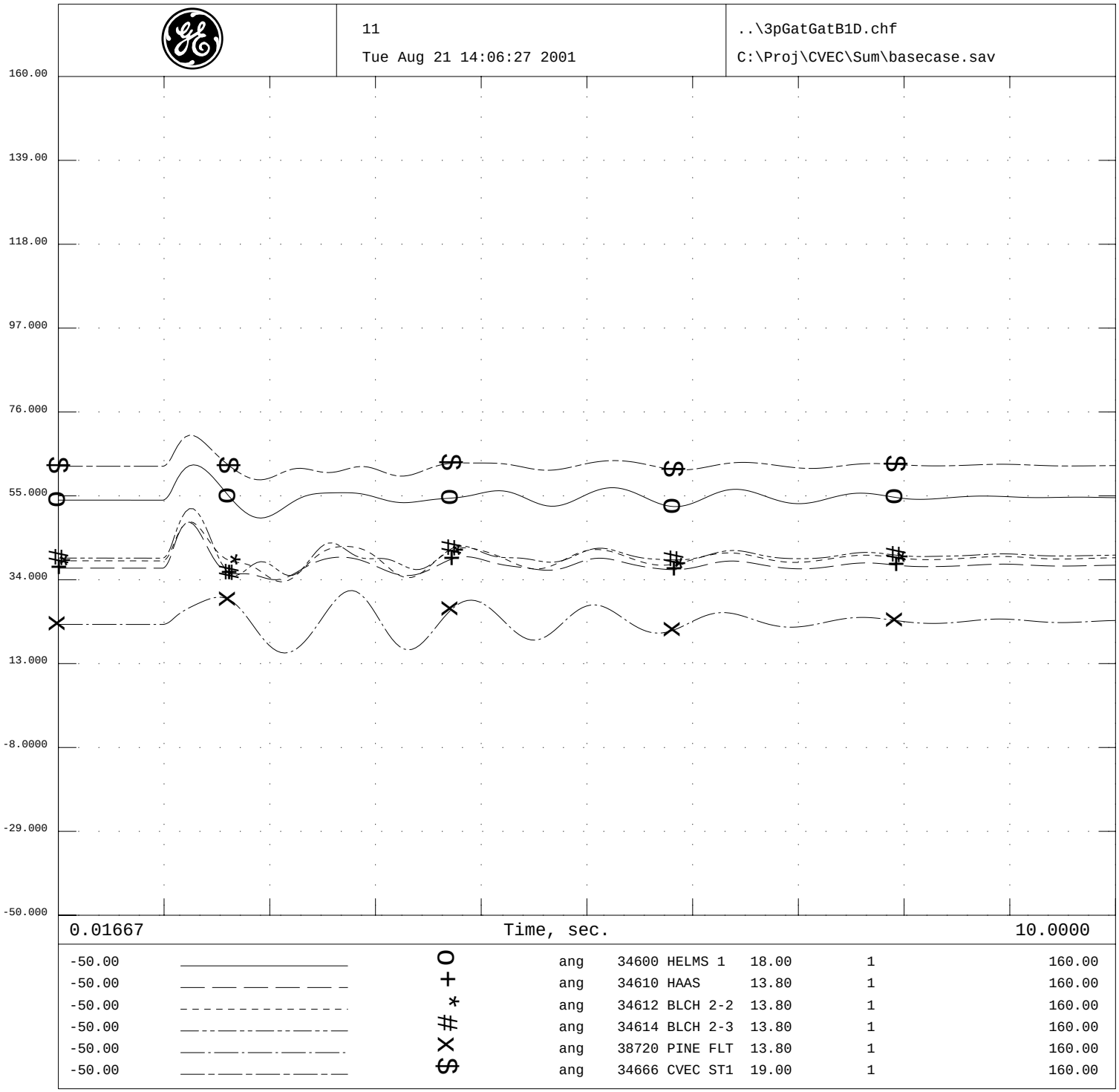
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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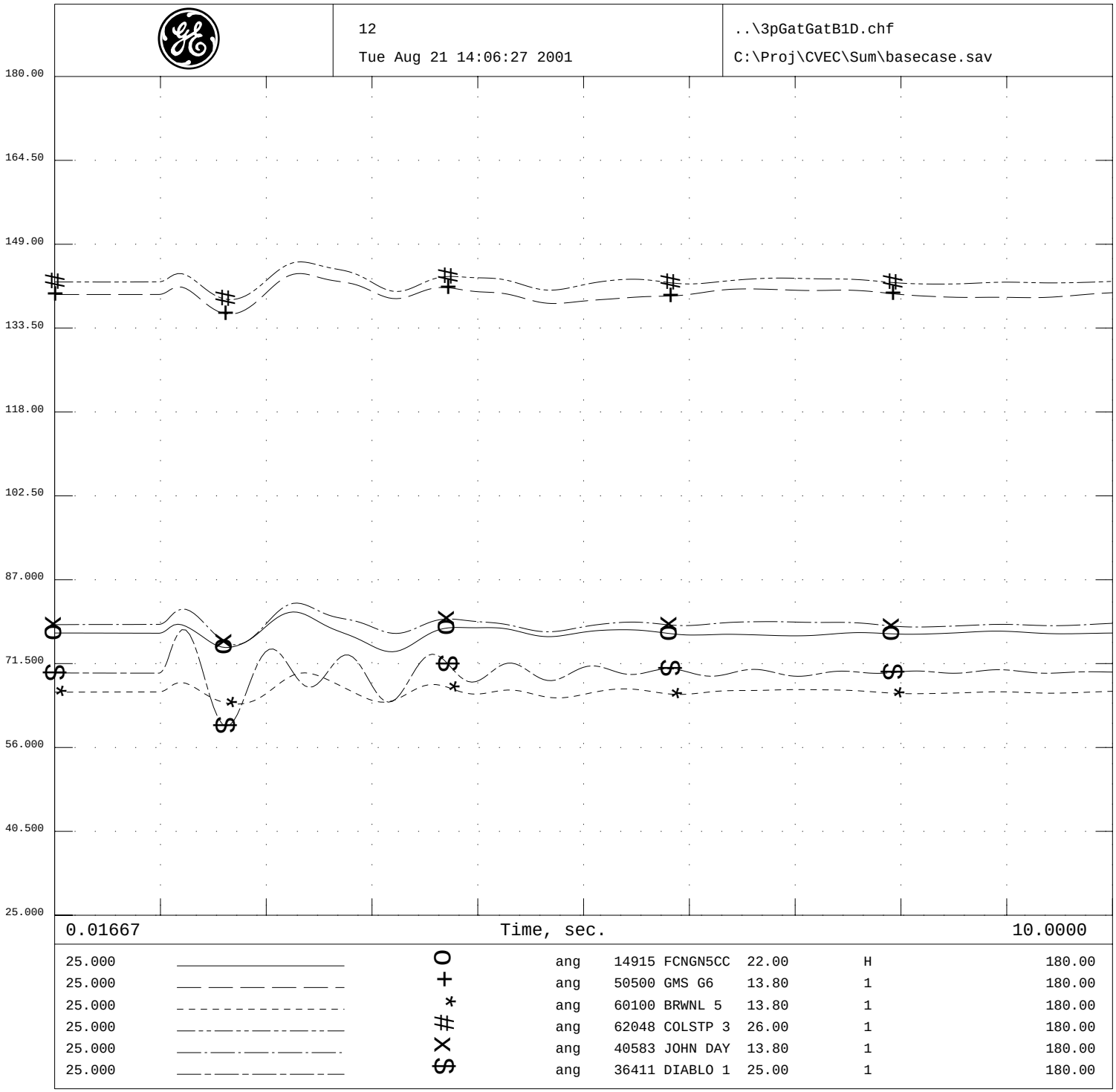
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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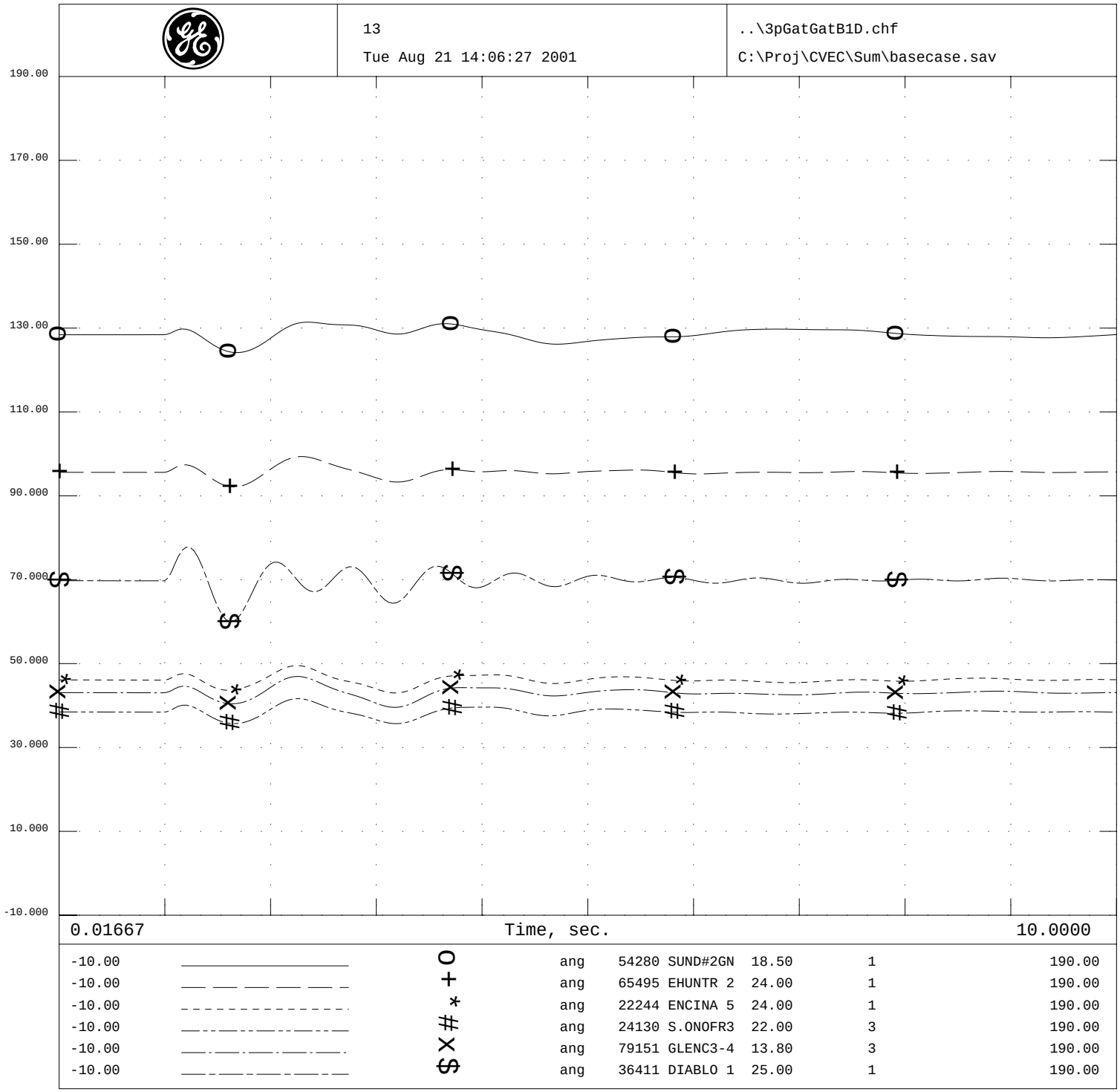
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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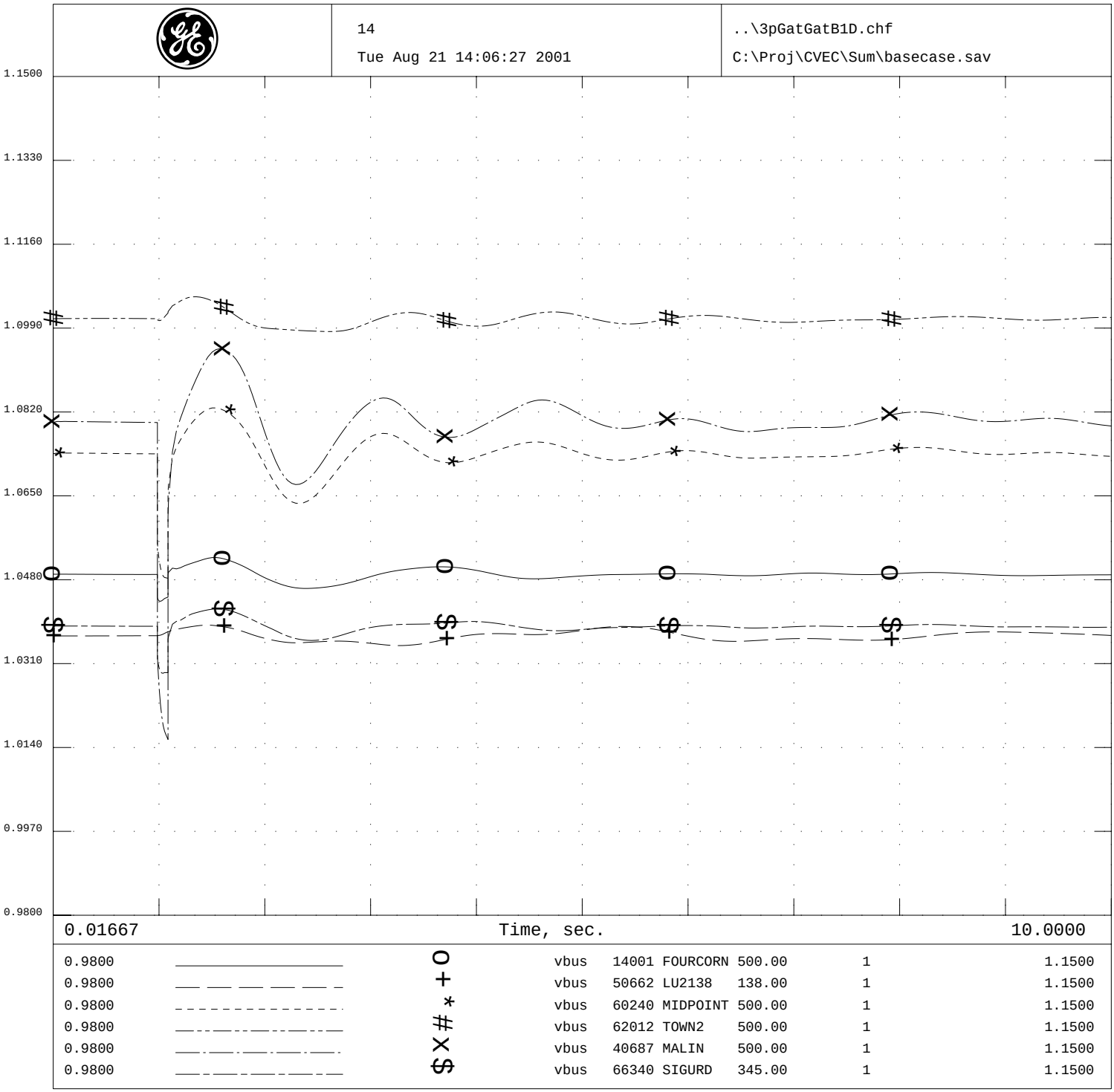

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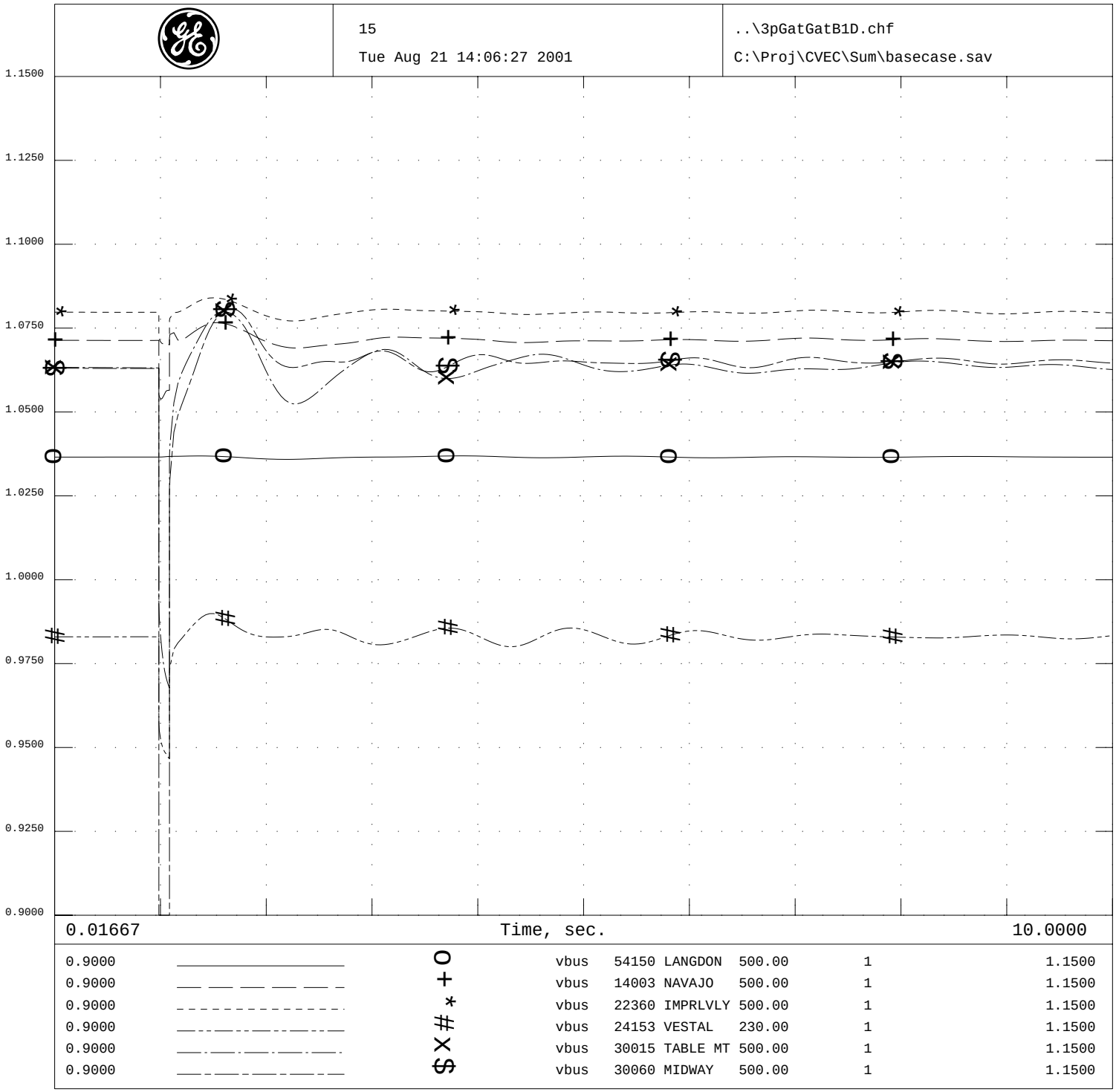
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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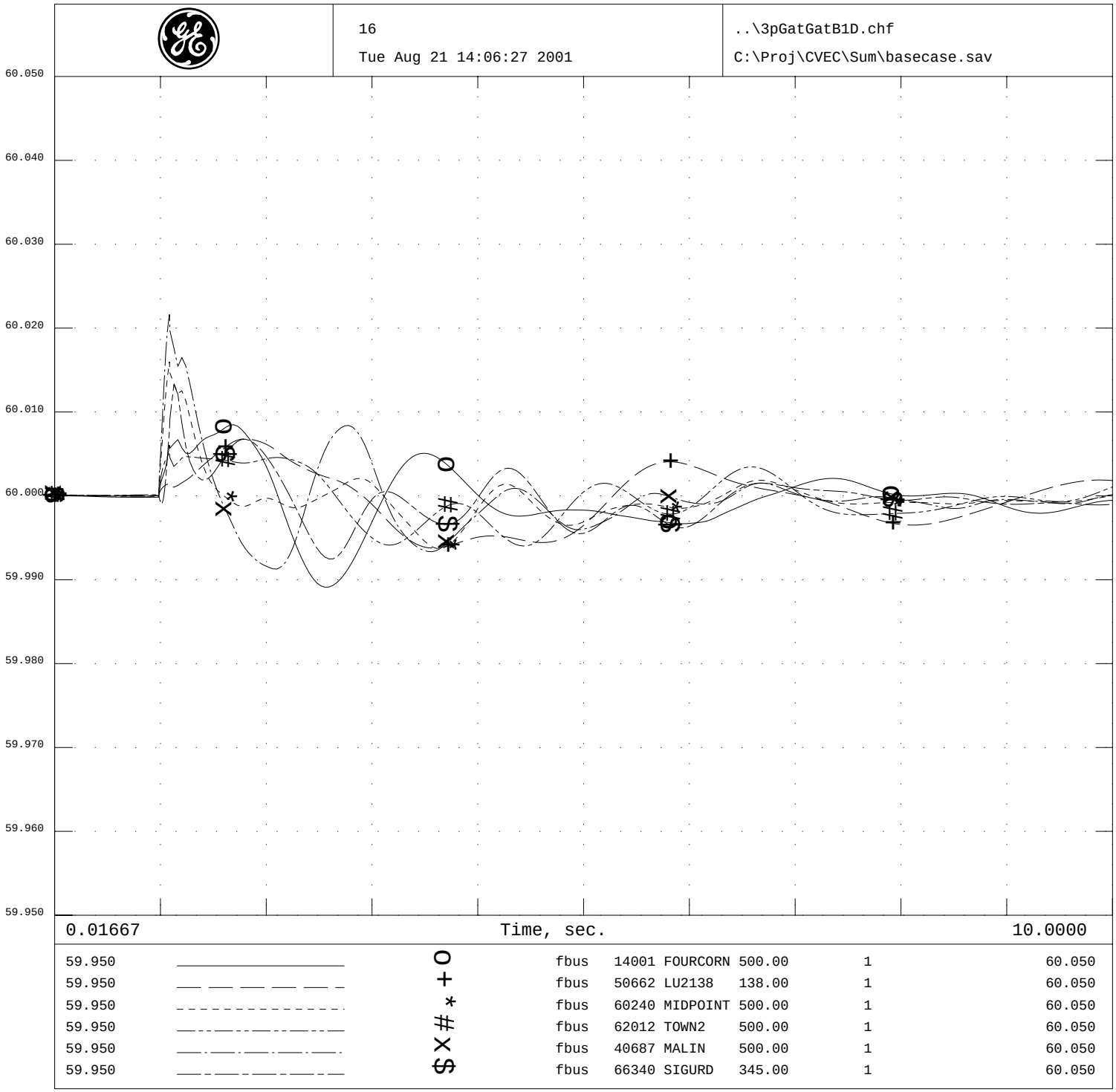

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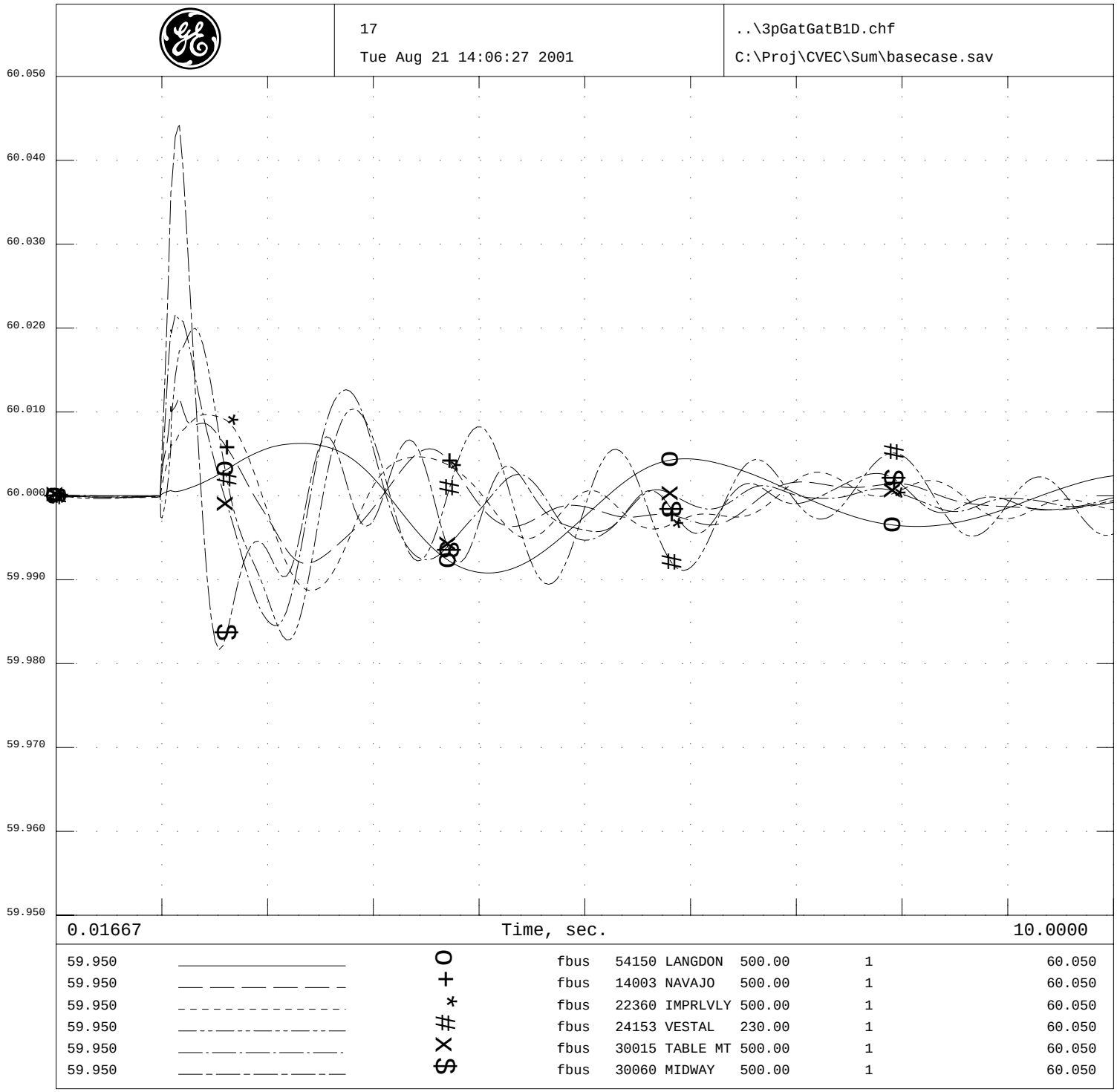
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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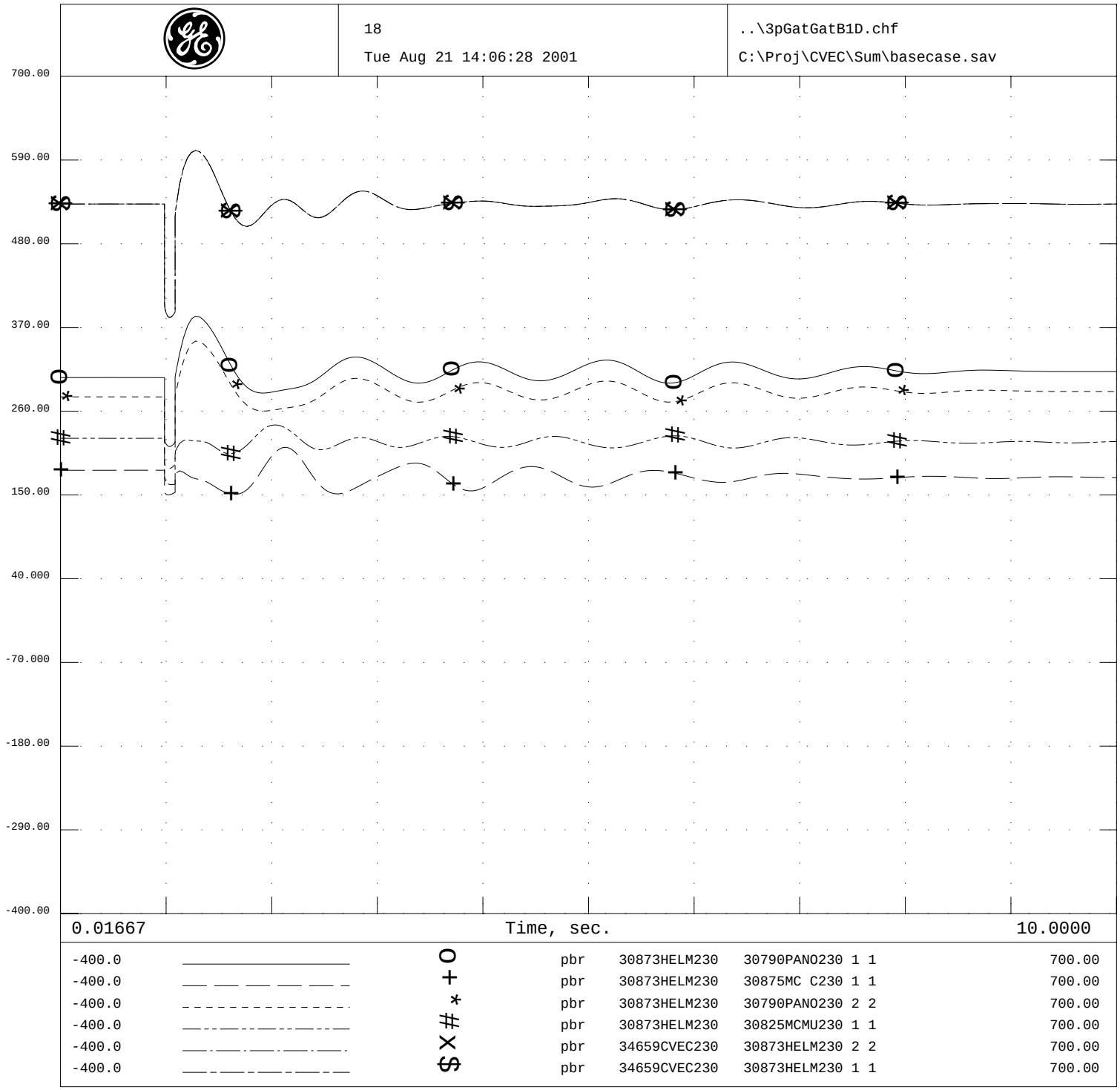

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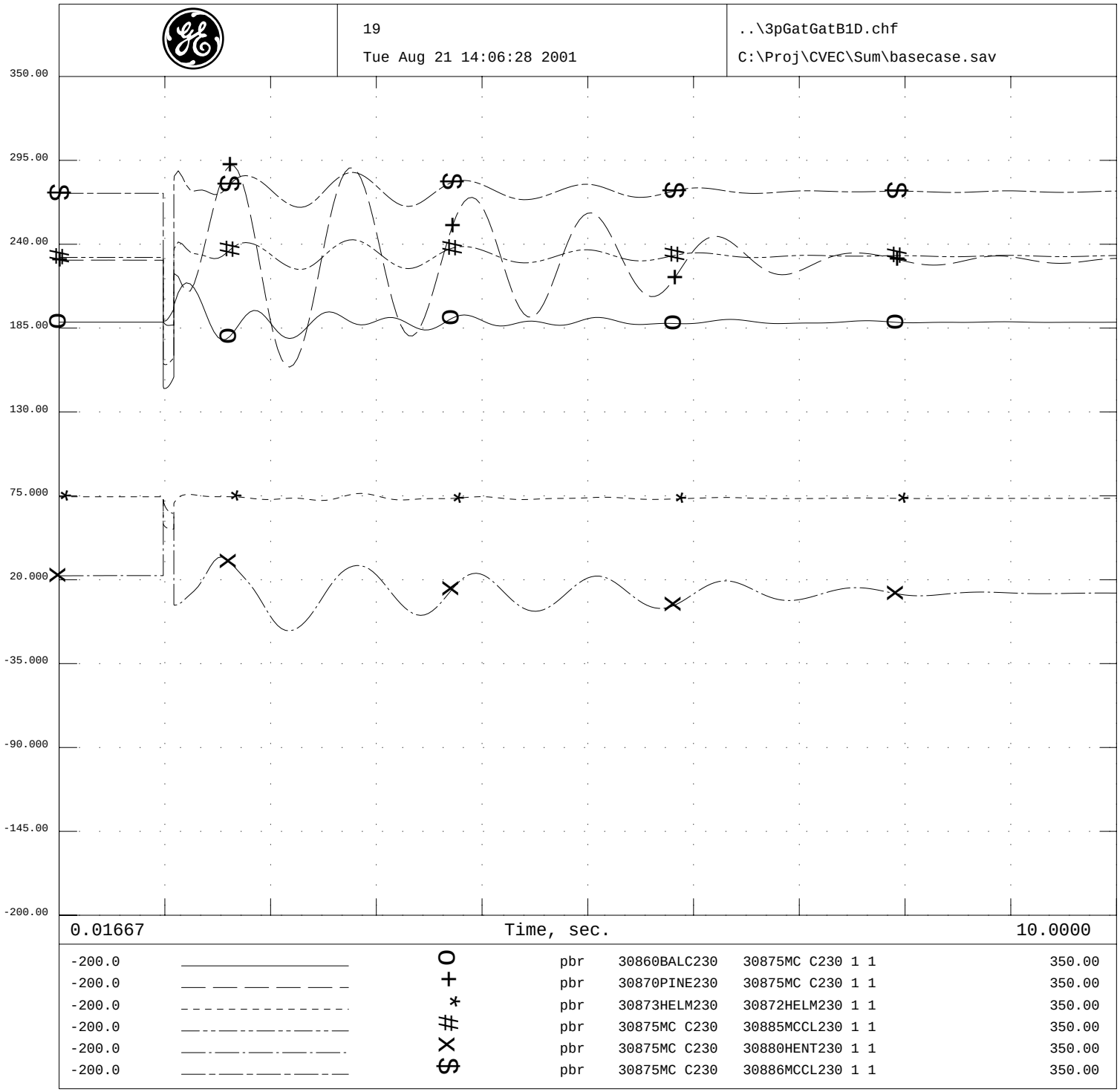
Calpine Corporation
Selected Transmission Line Flows (MW)



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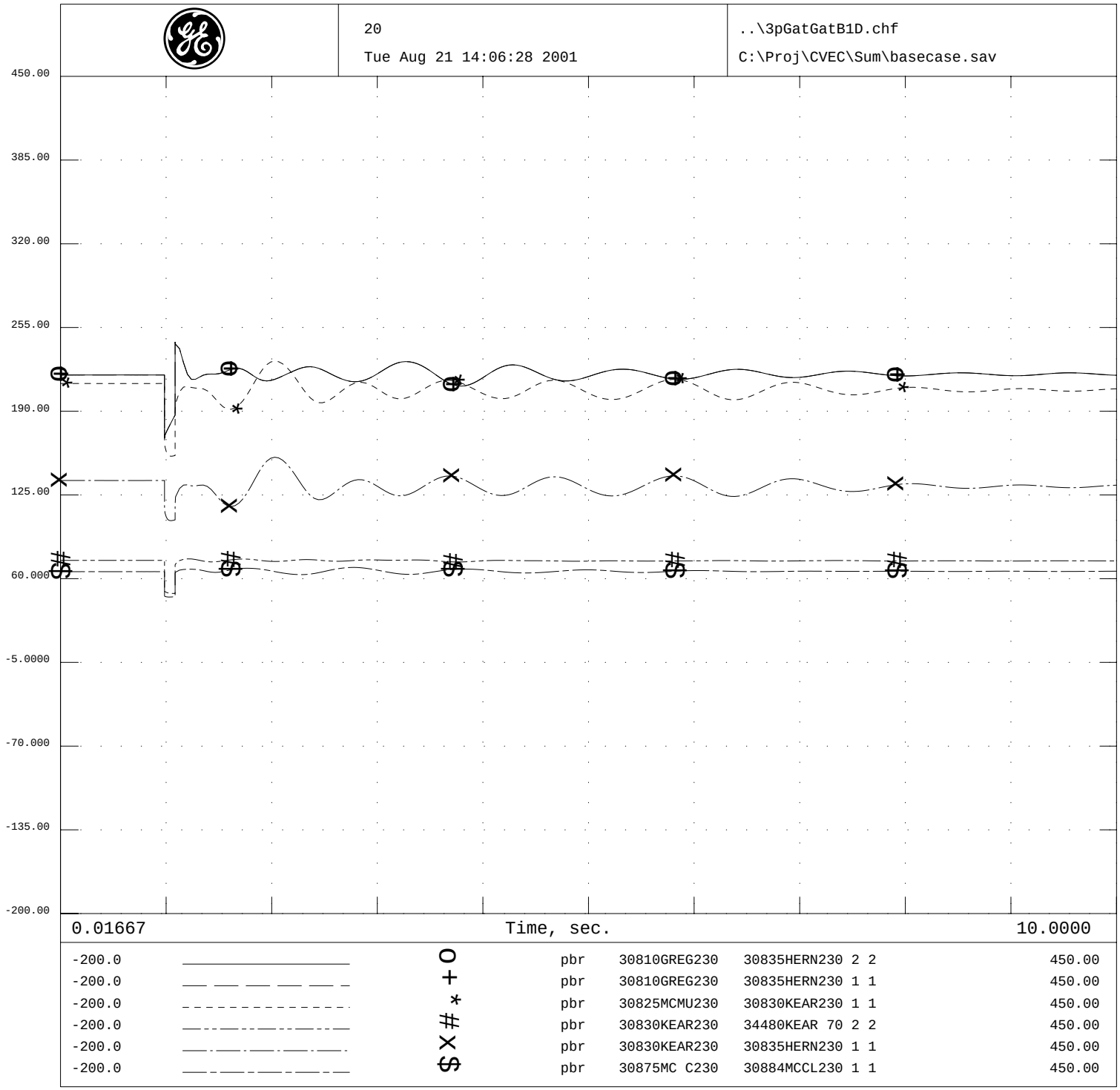

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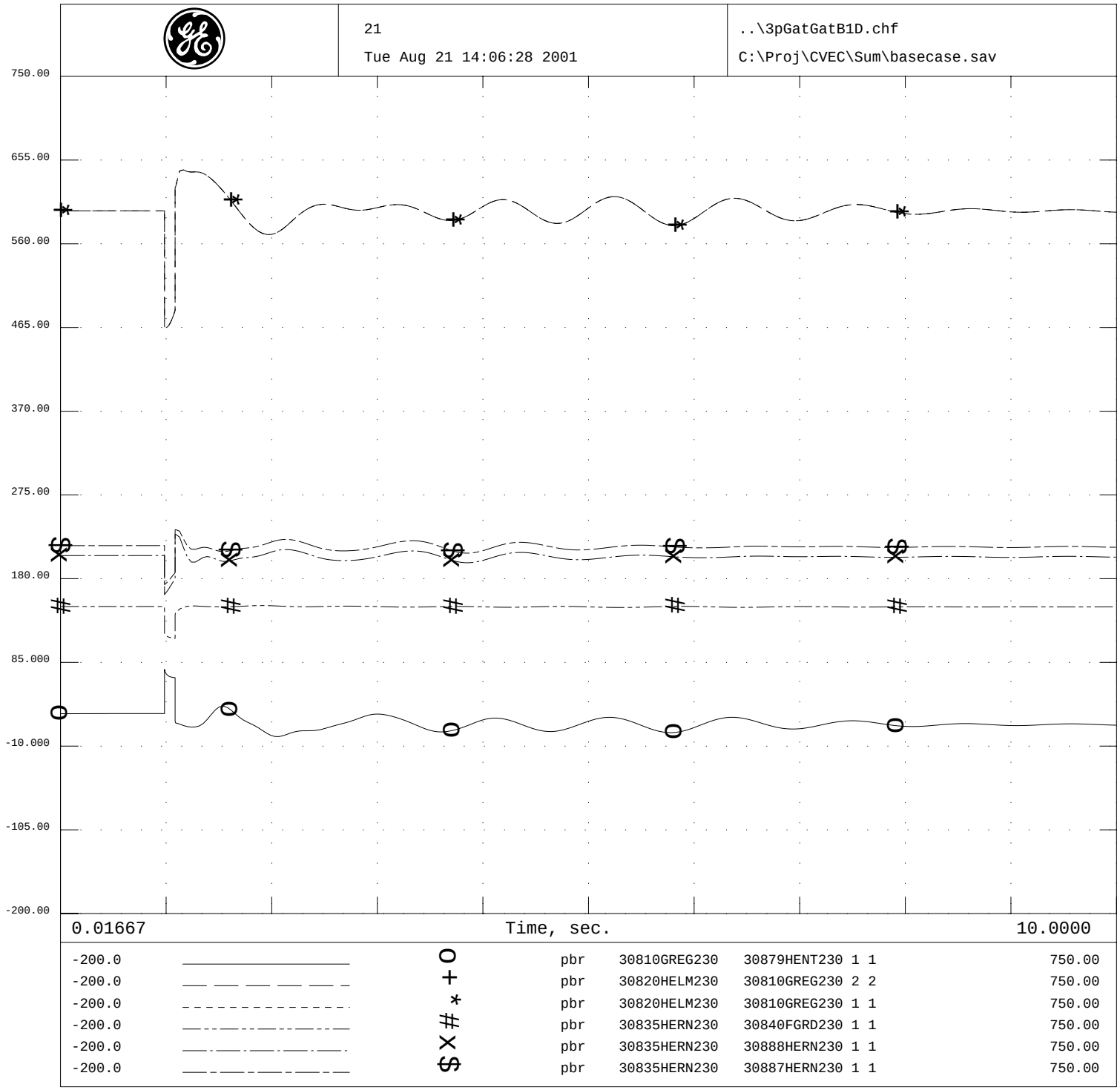

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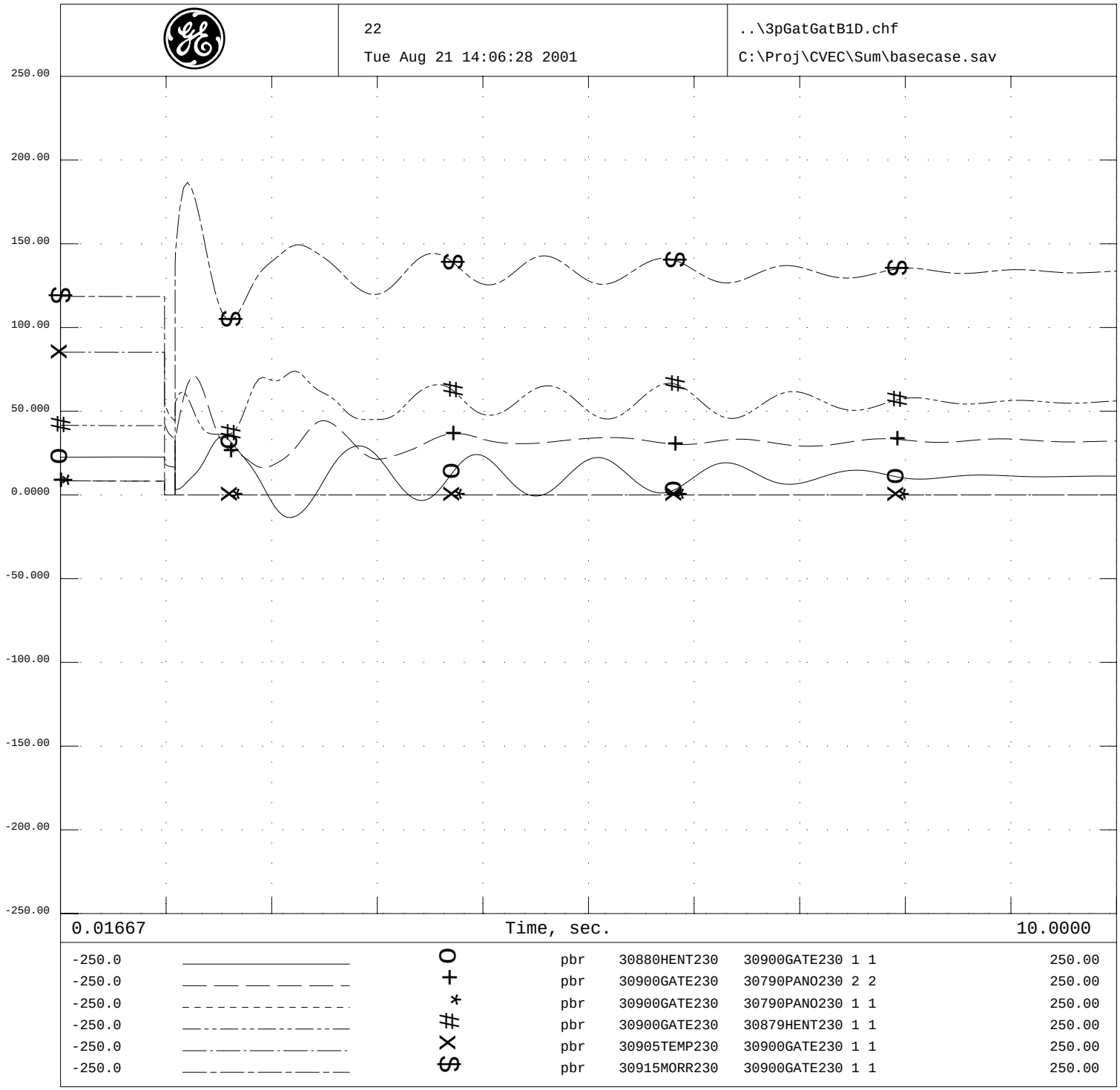

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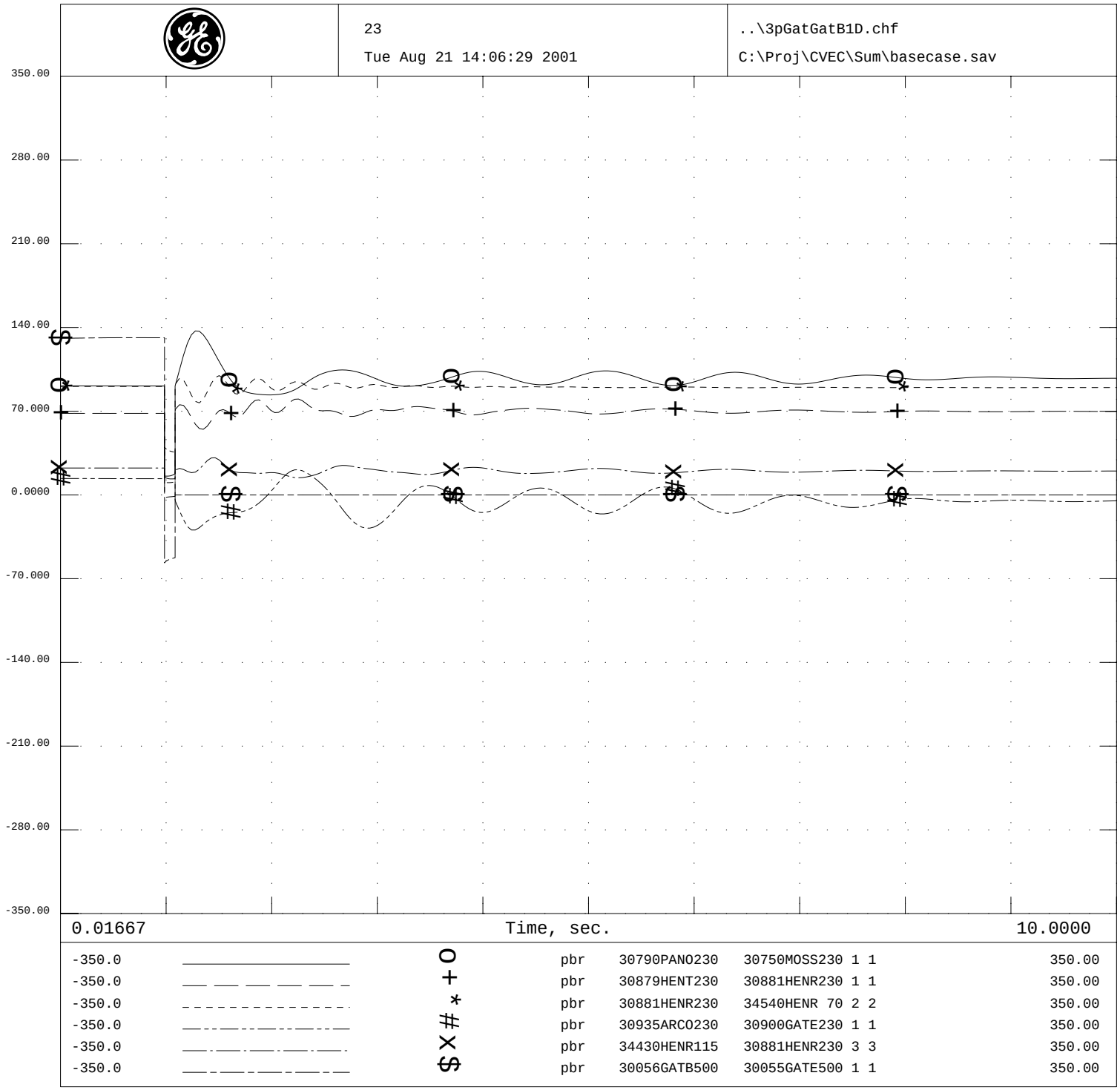

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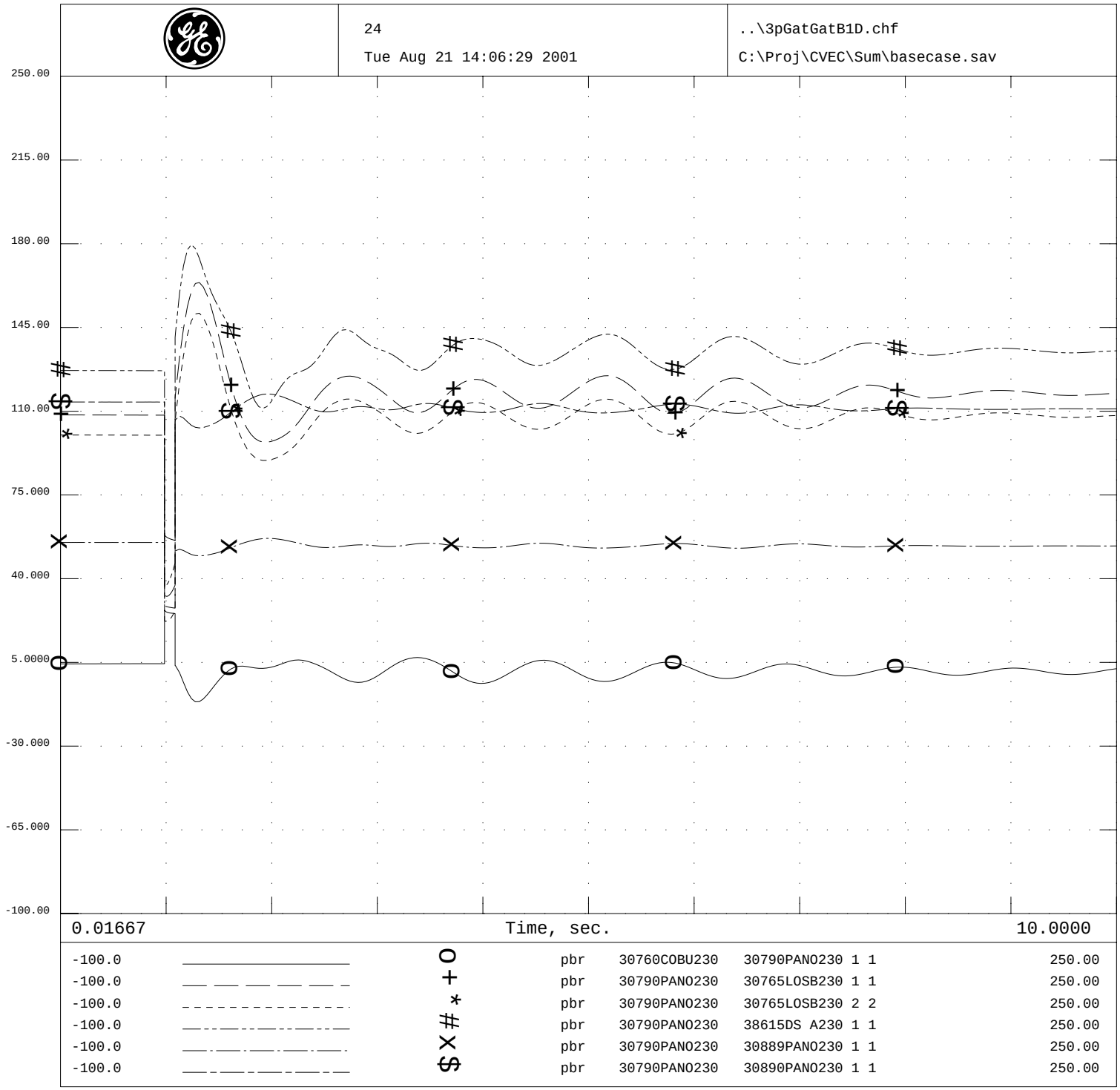

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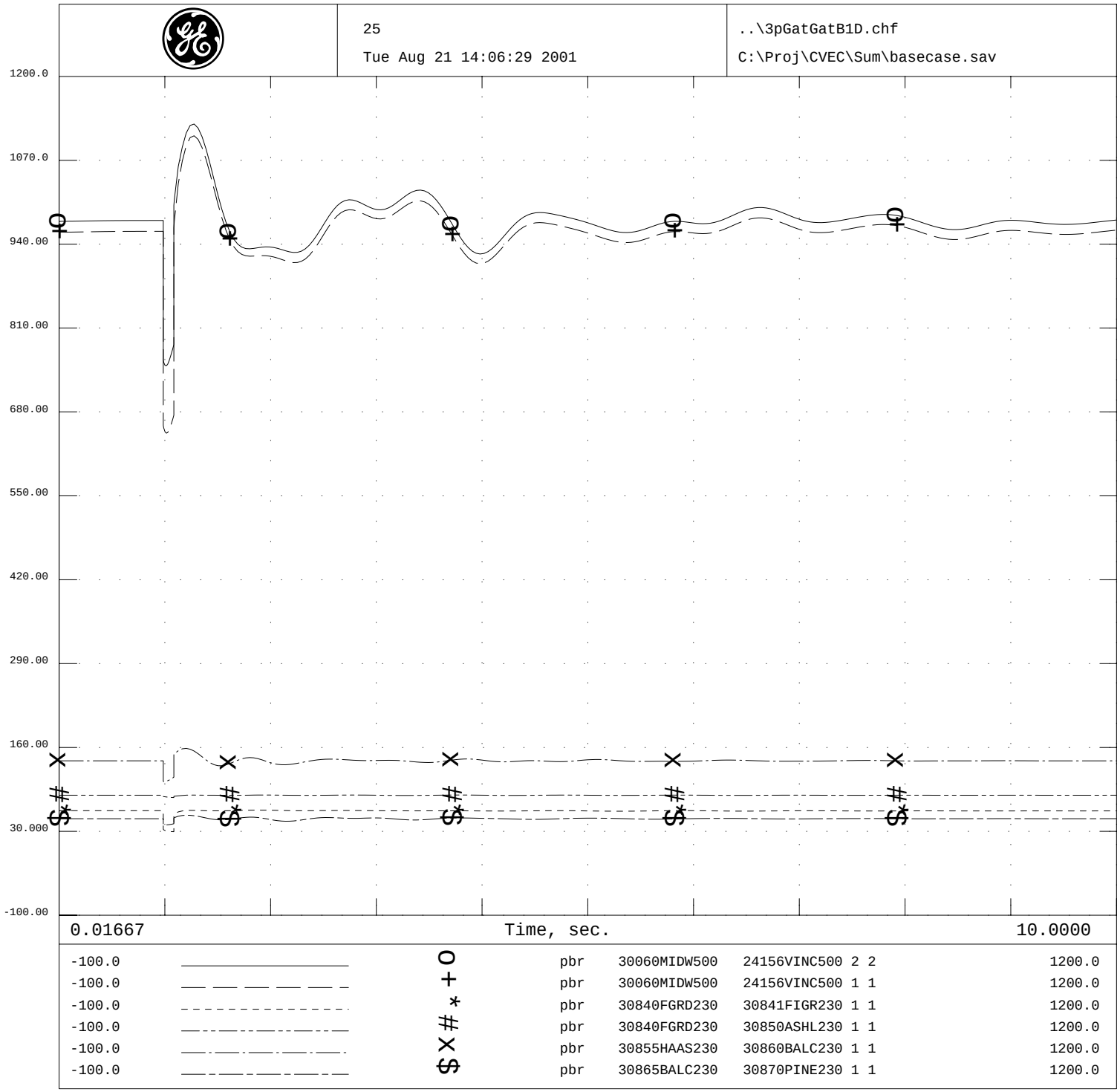

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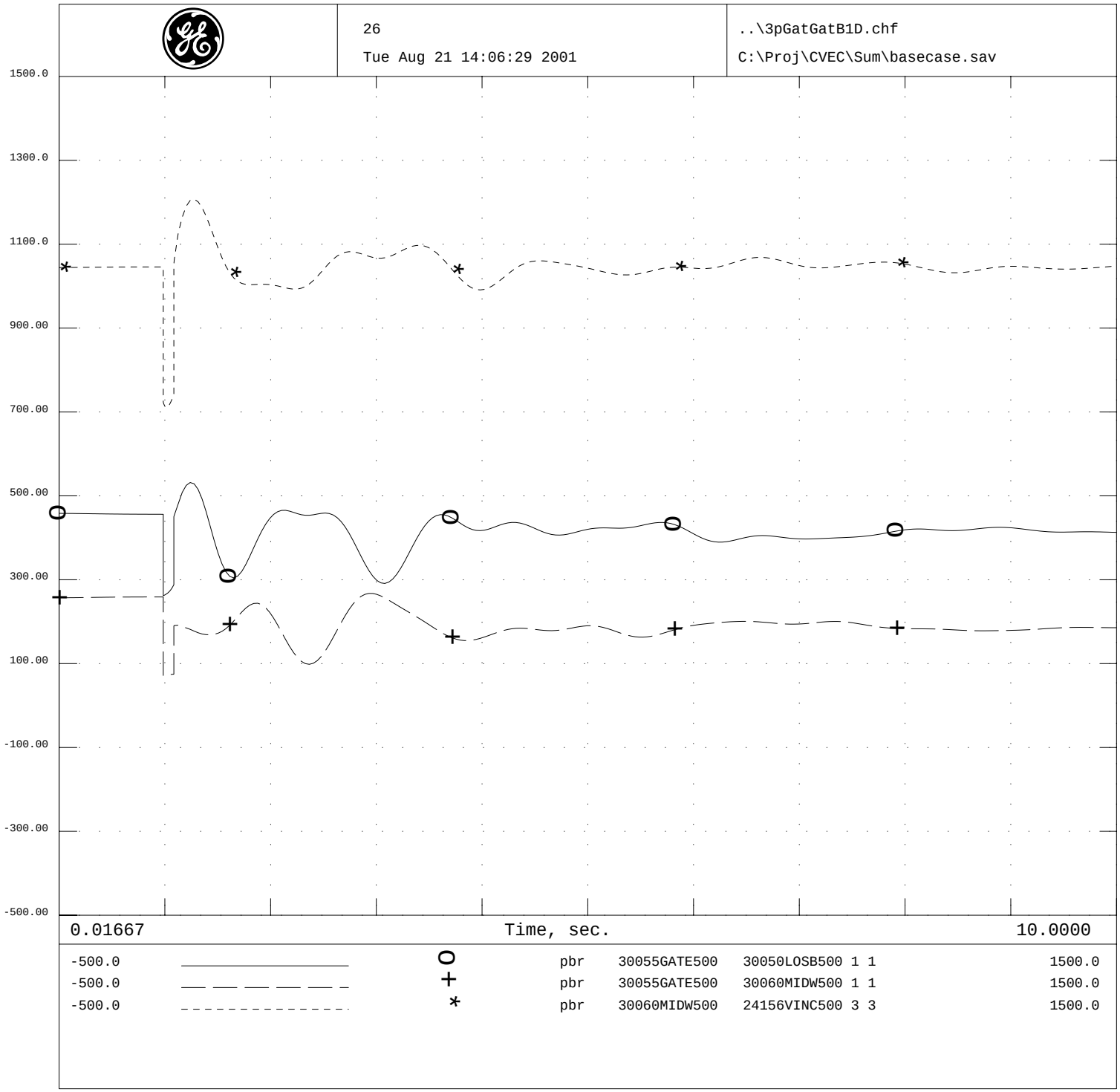

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Calpine Corporation
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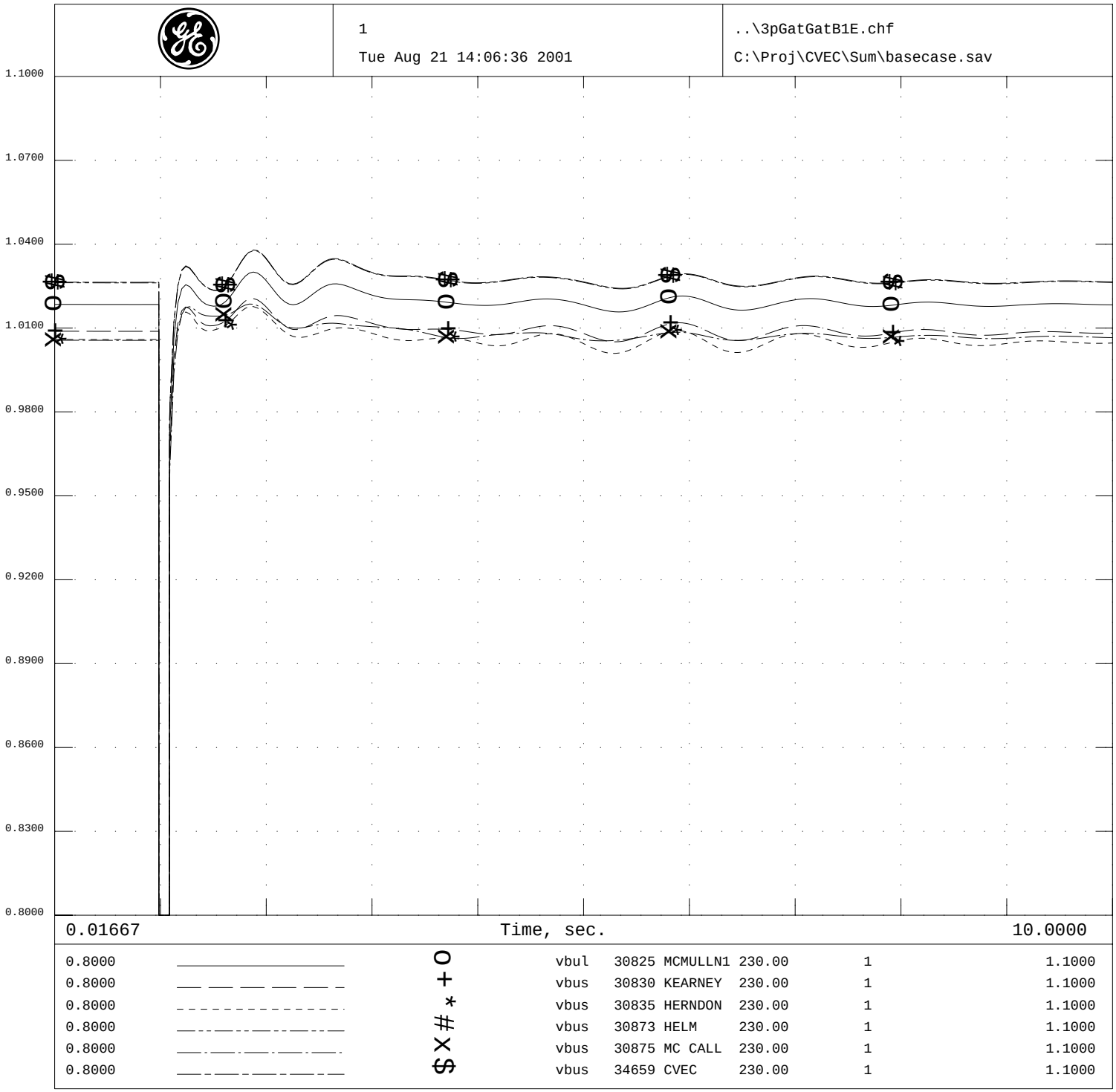

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2004 Summer Peak Base Case
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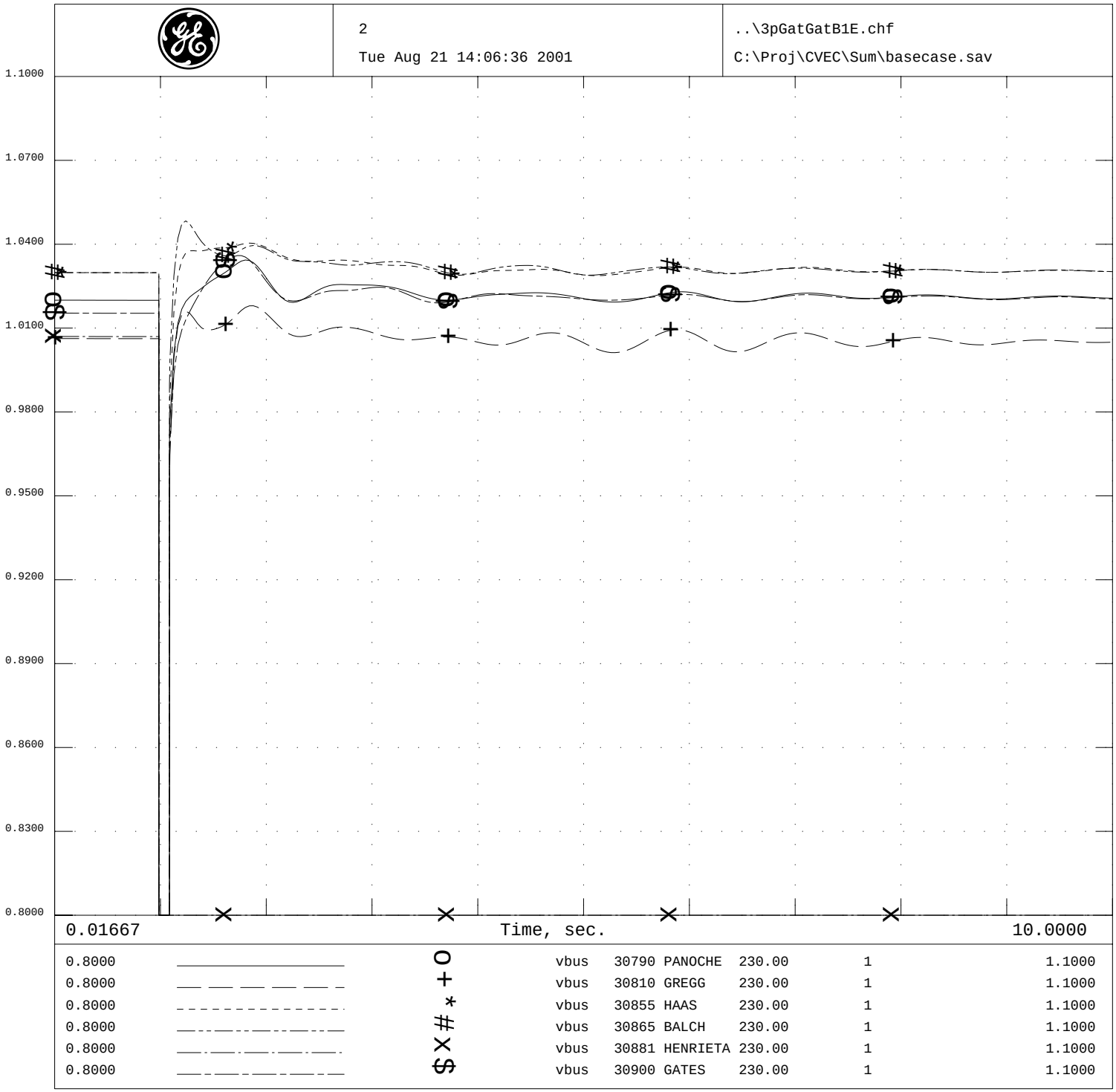
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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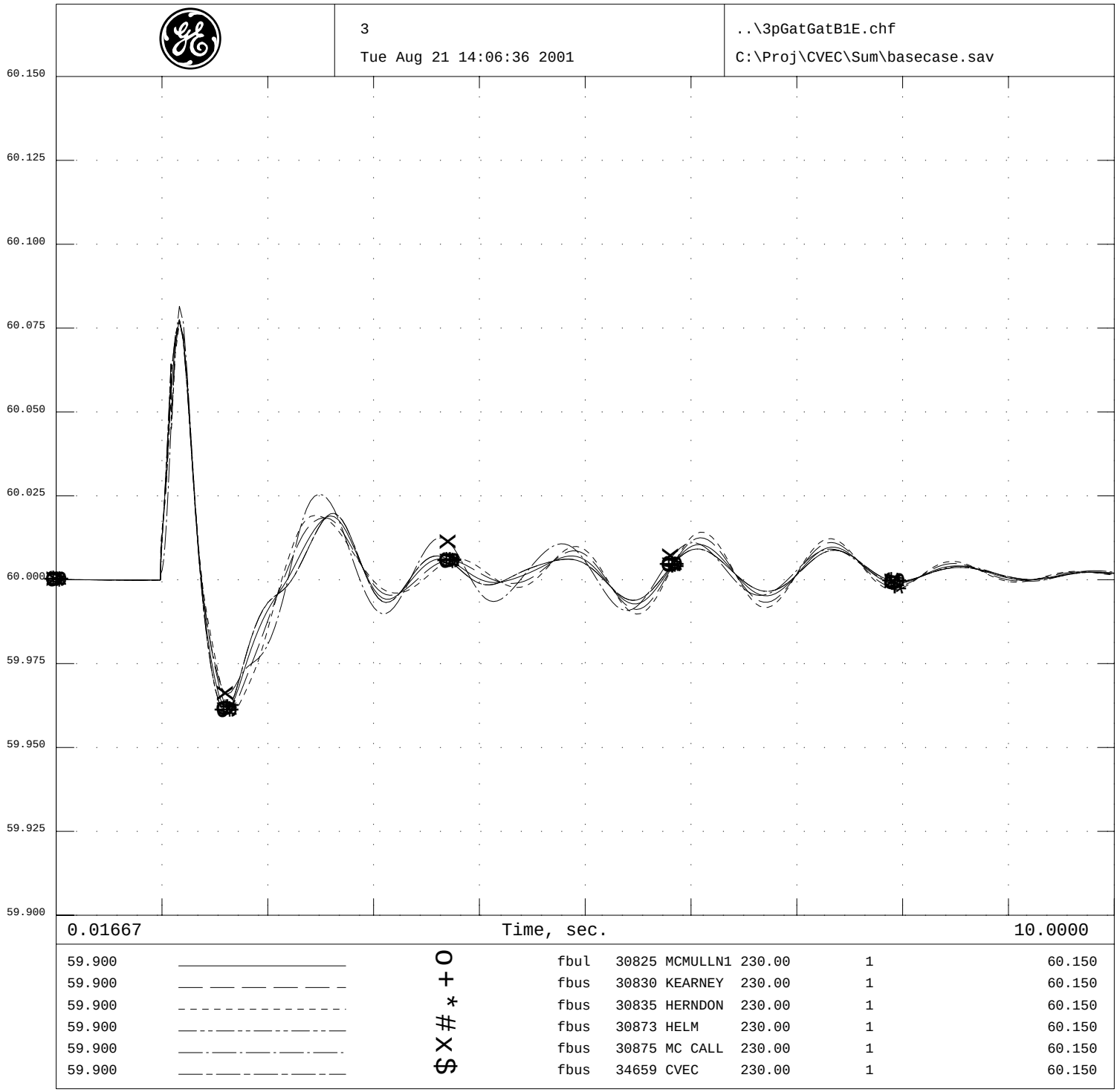

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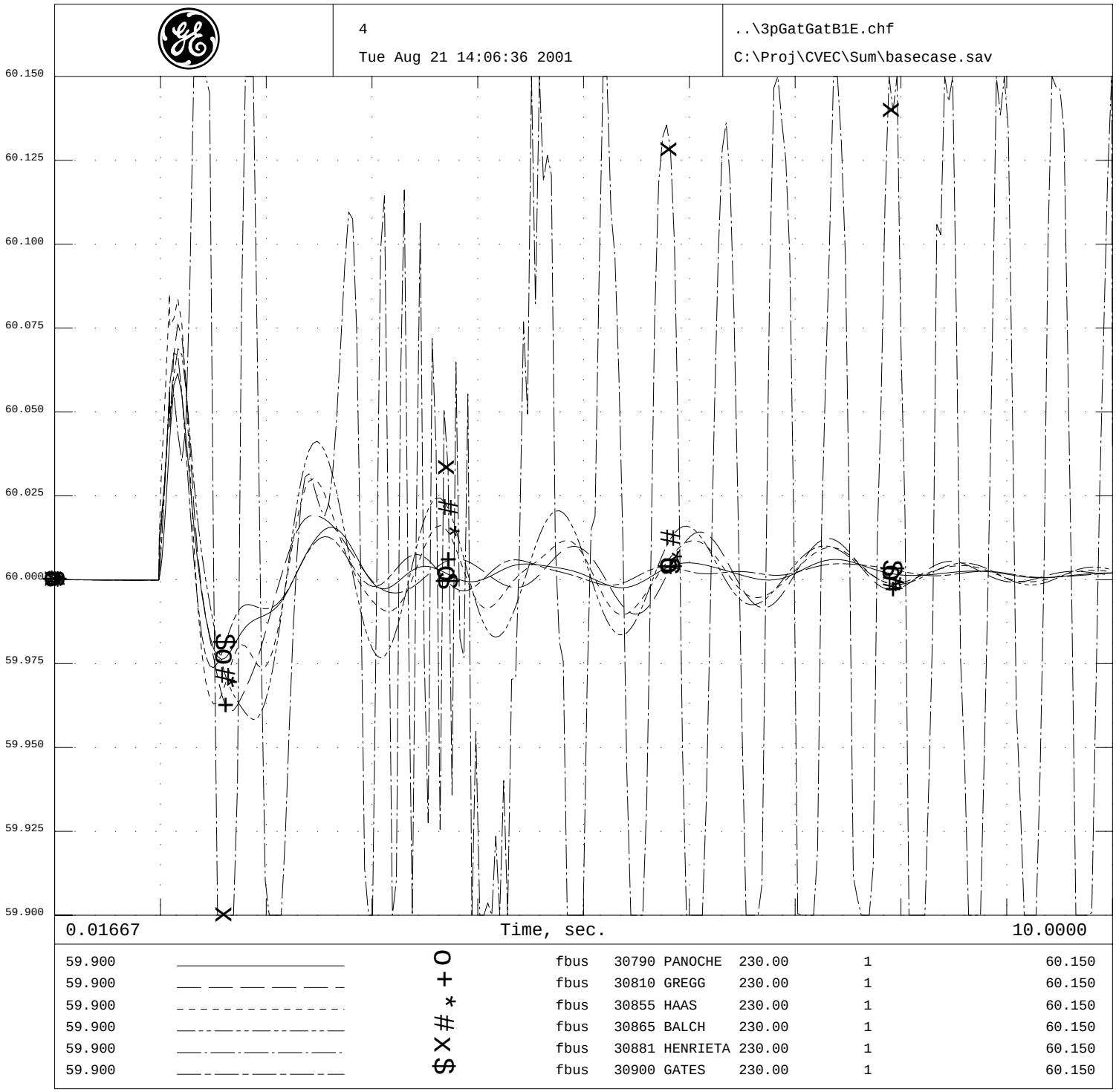
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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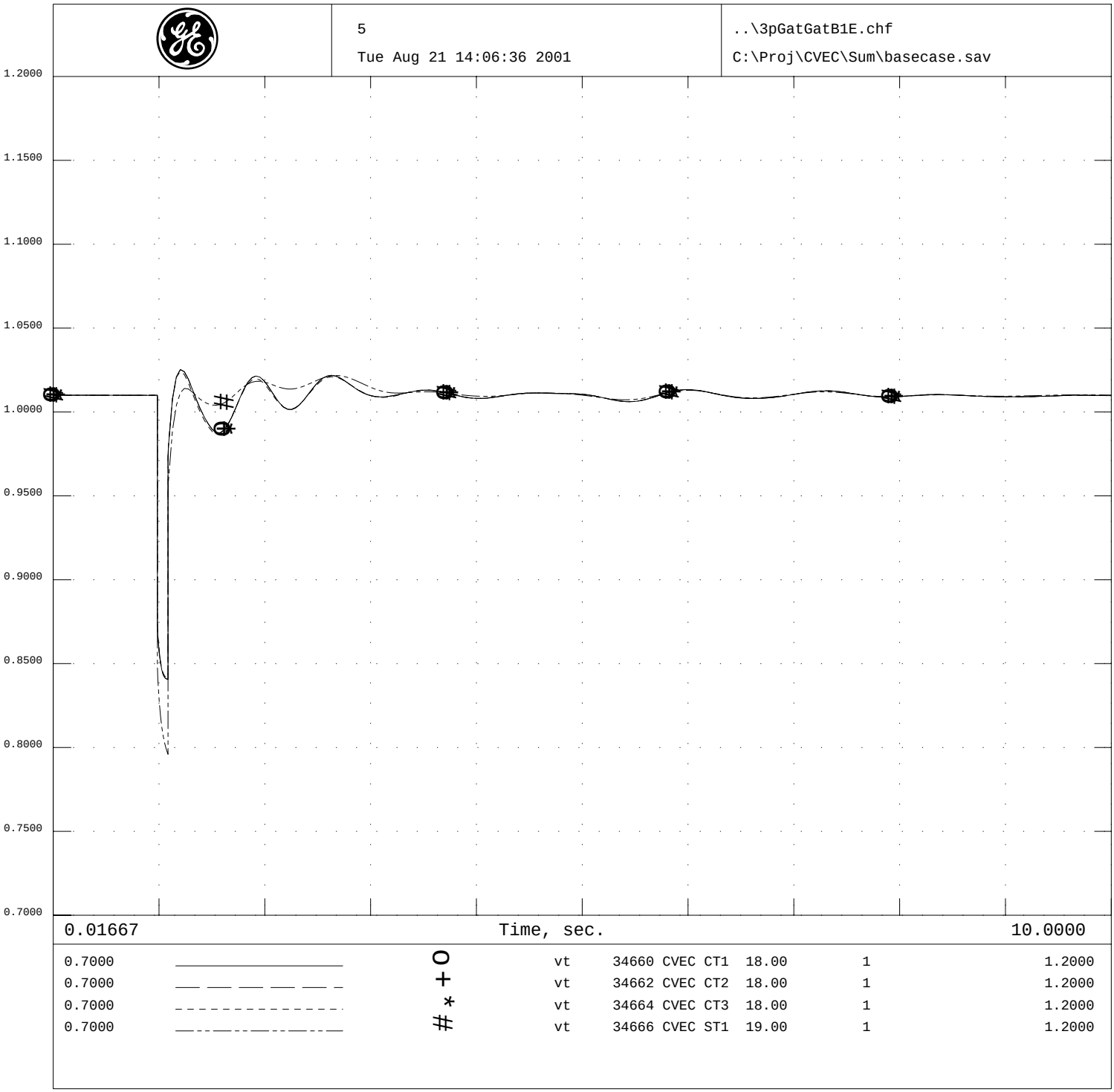

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2004 Summer Peak Base Case
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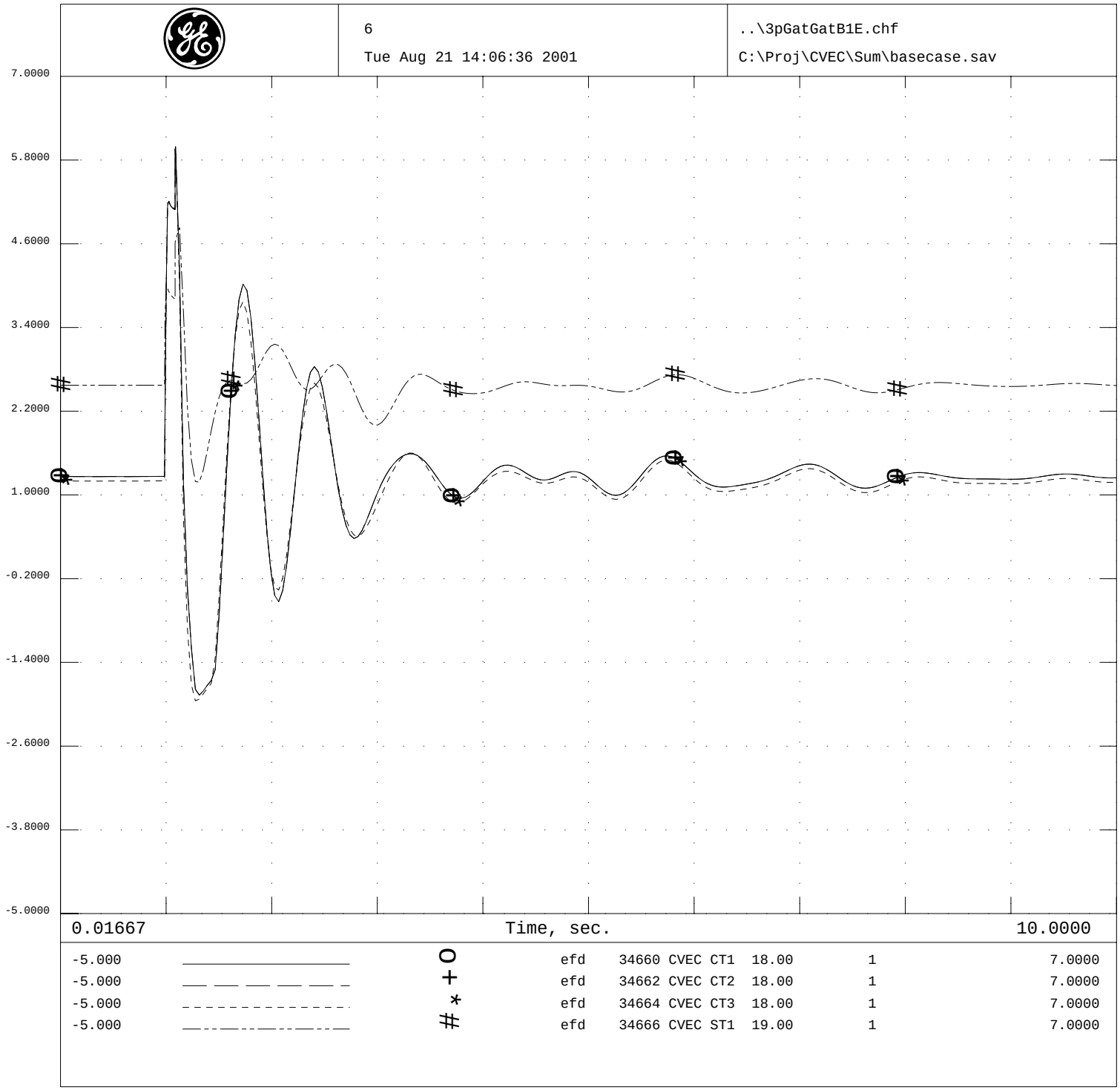
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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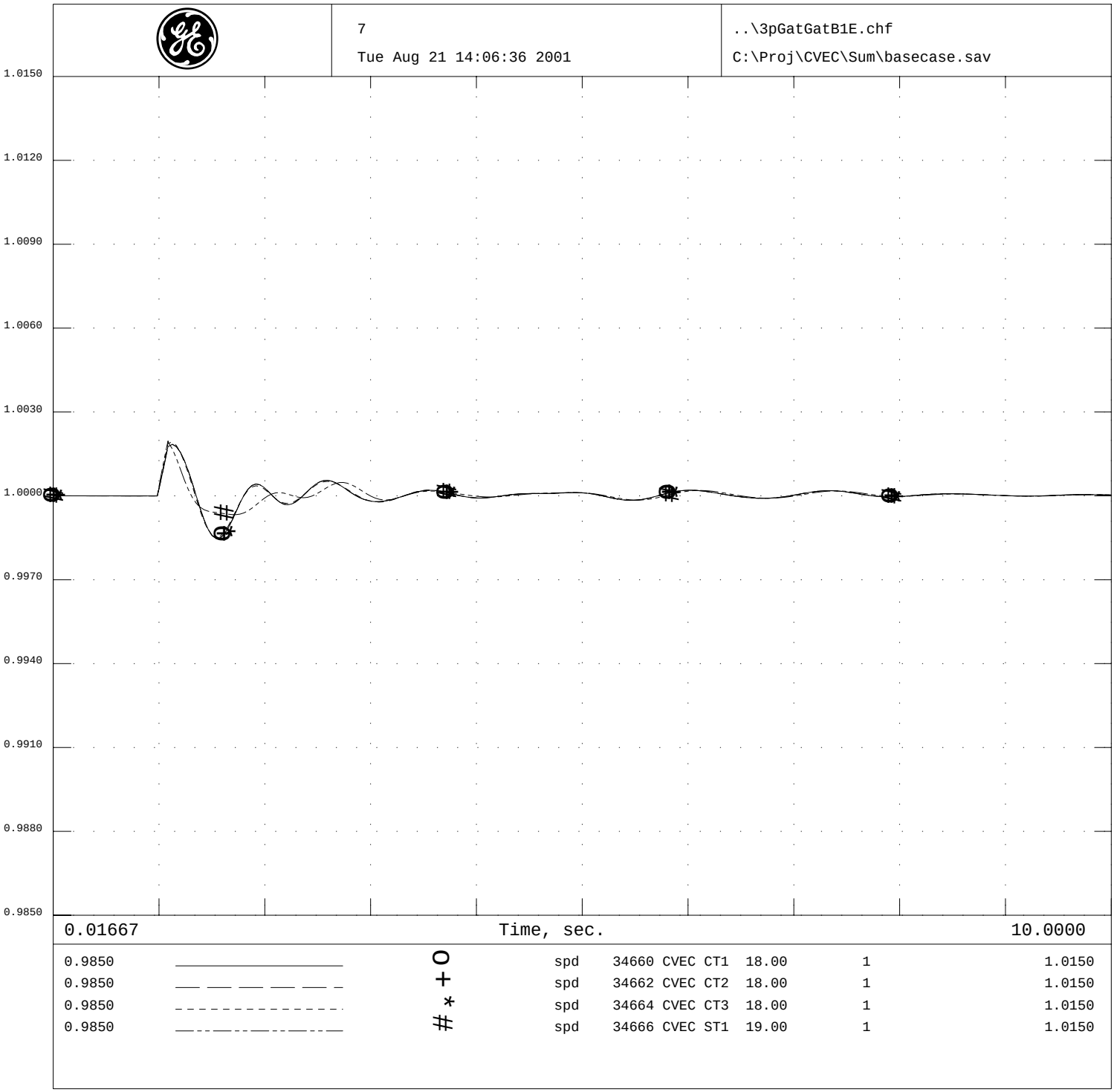
Calpine Corporation
Project Generator Field Voltages



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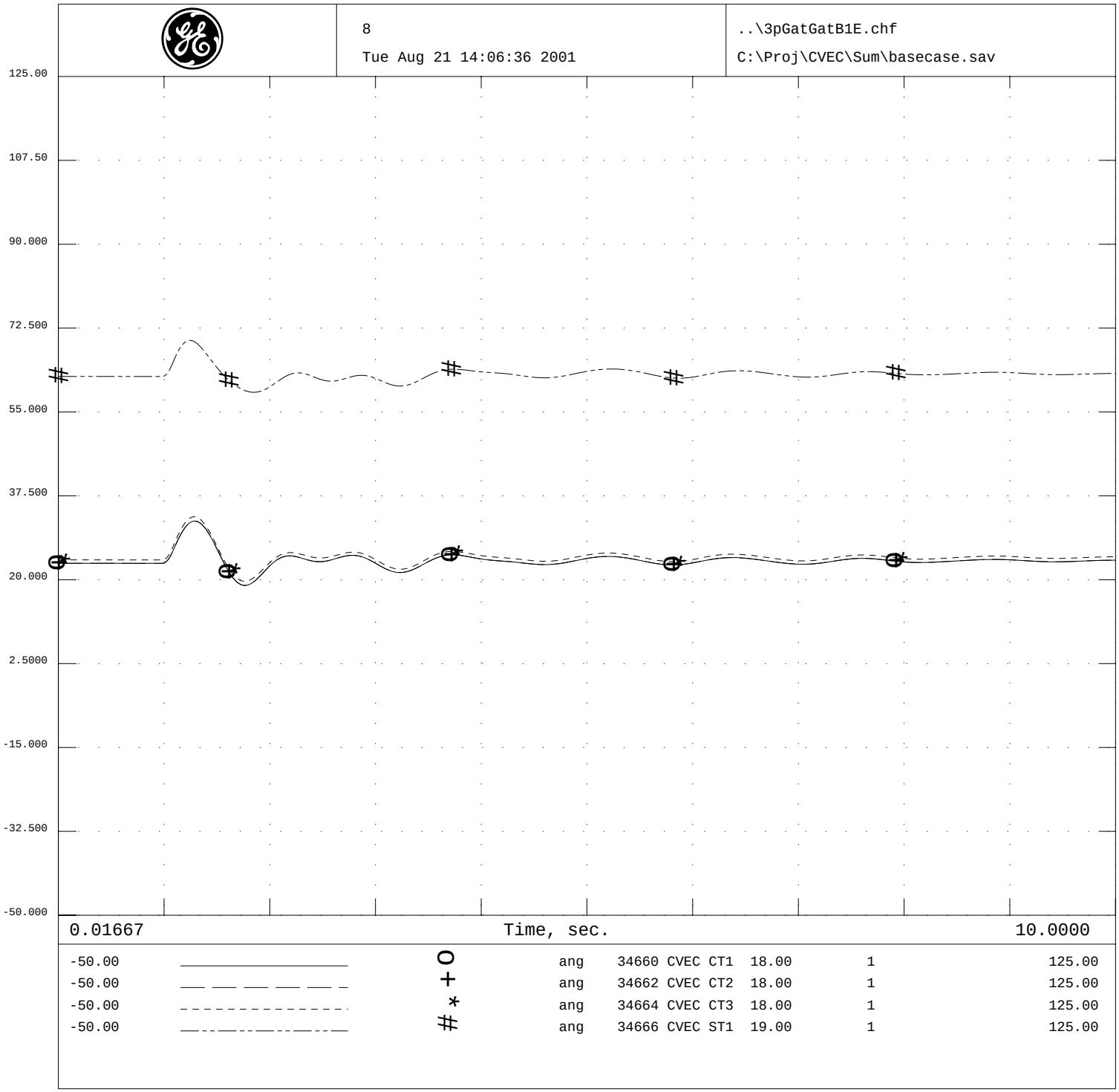
Calpine Corporation
Project Generator Rotor Speed



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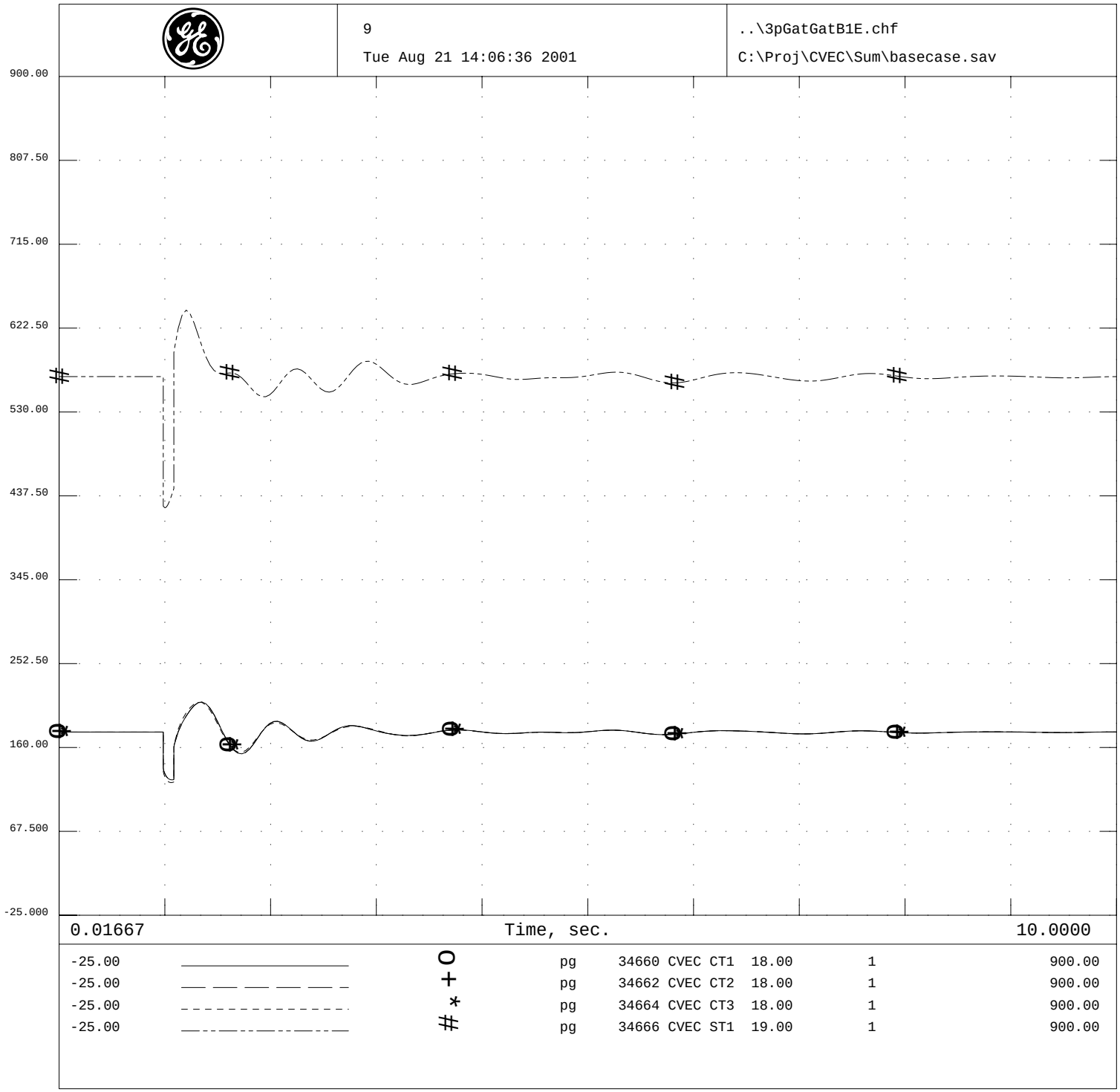
Calpine Corporation
Project Generator Rotor Angle



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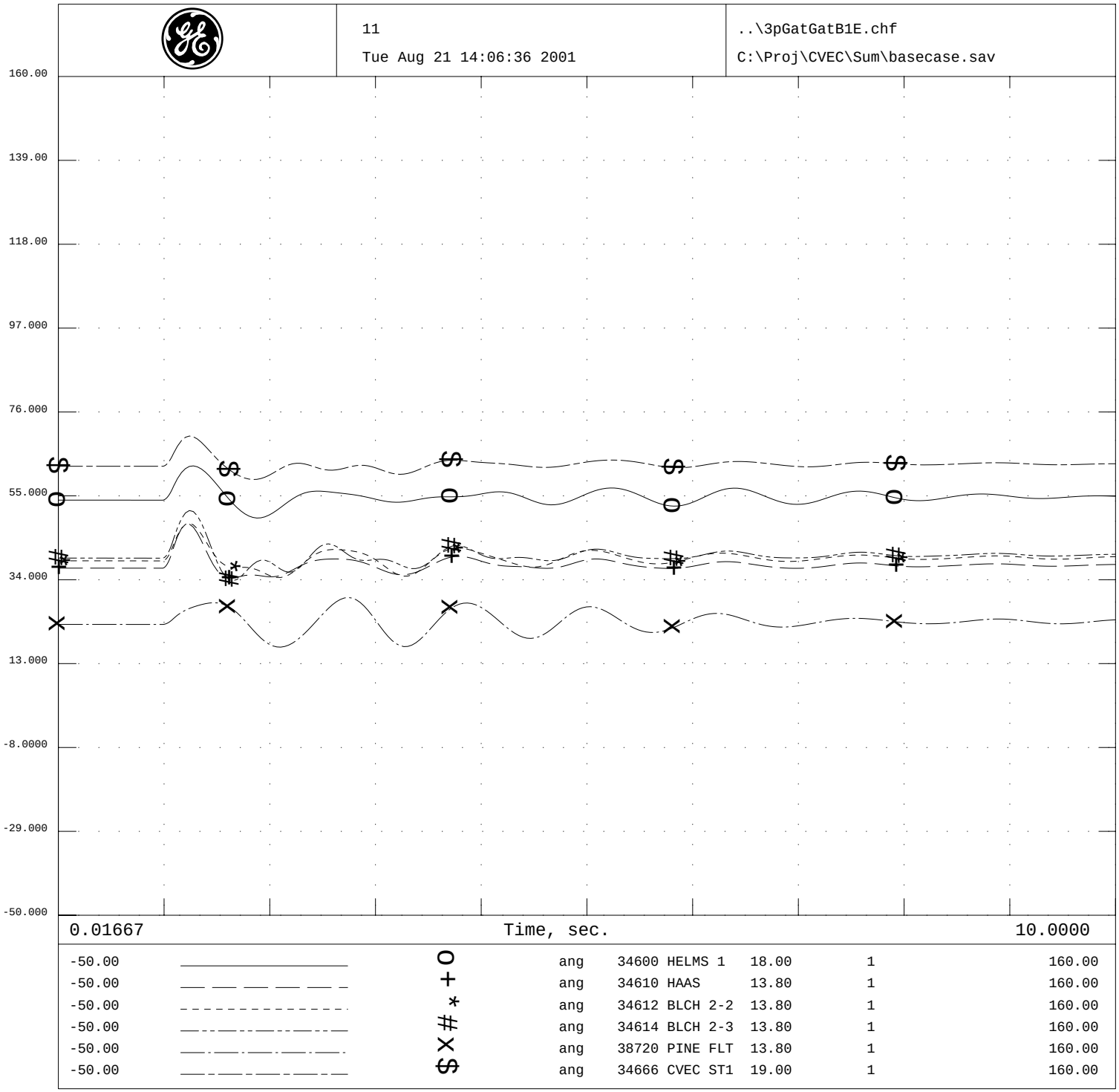

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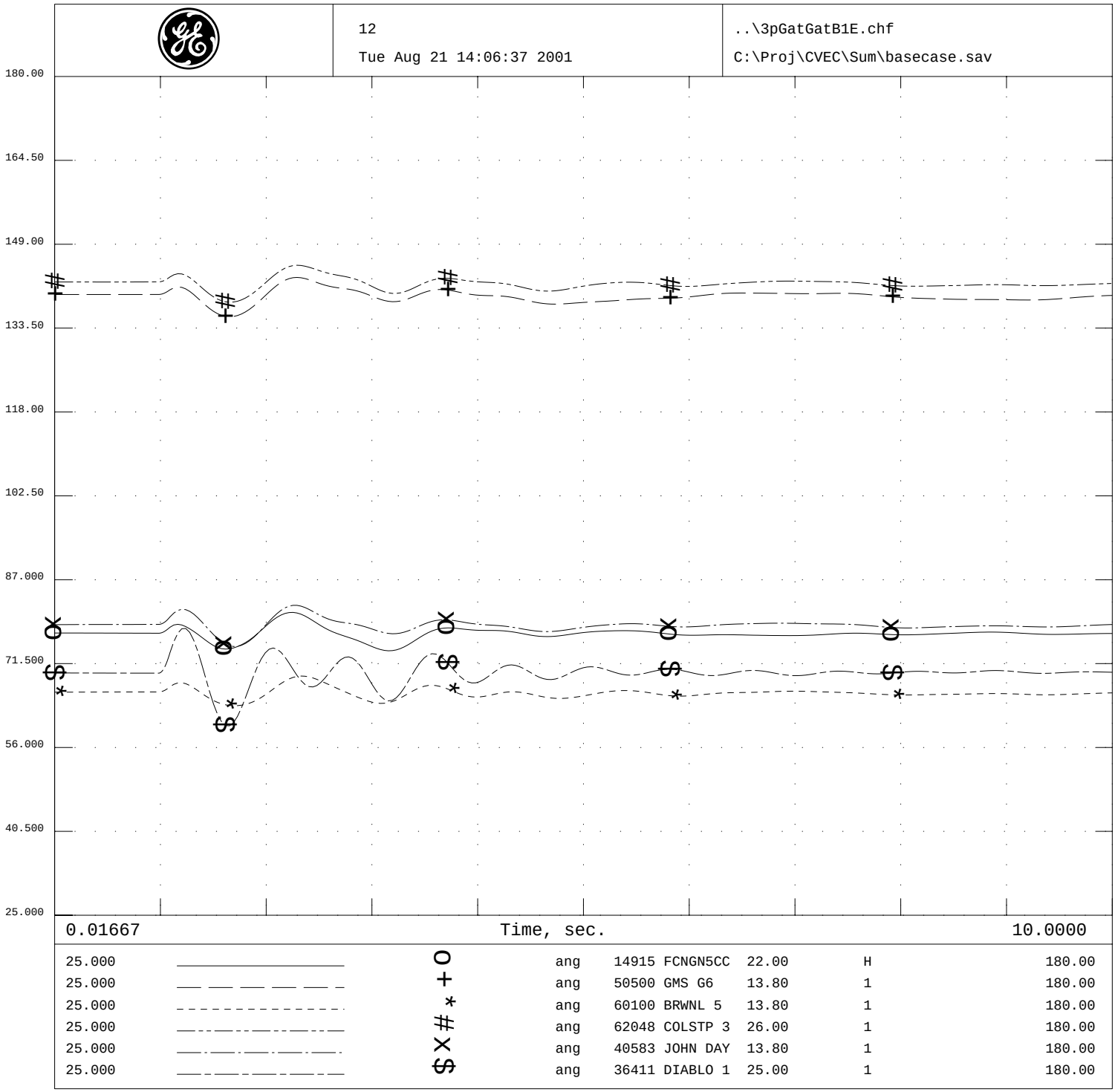

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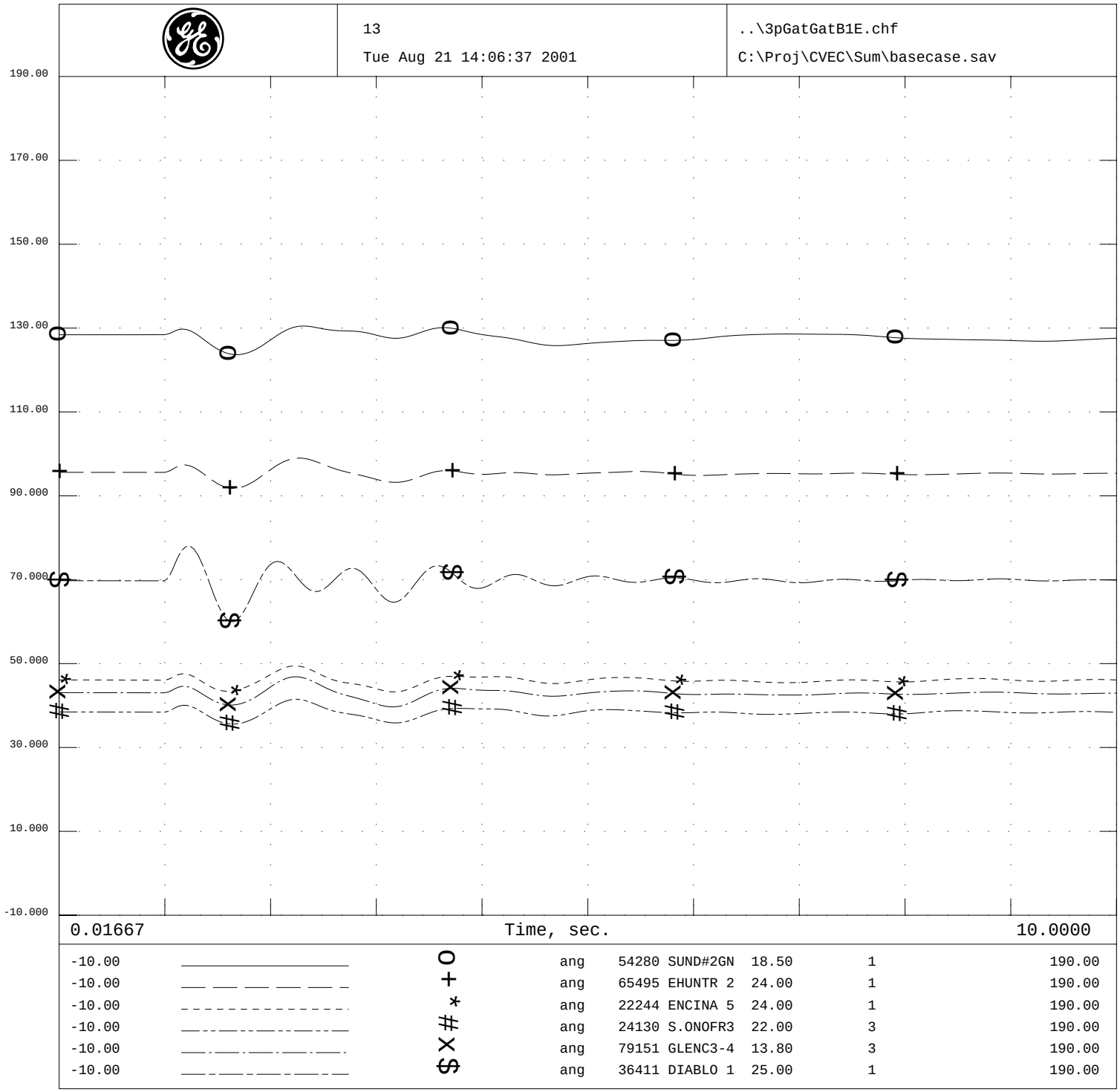

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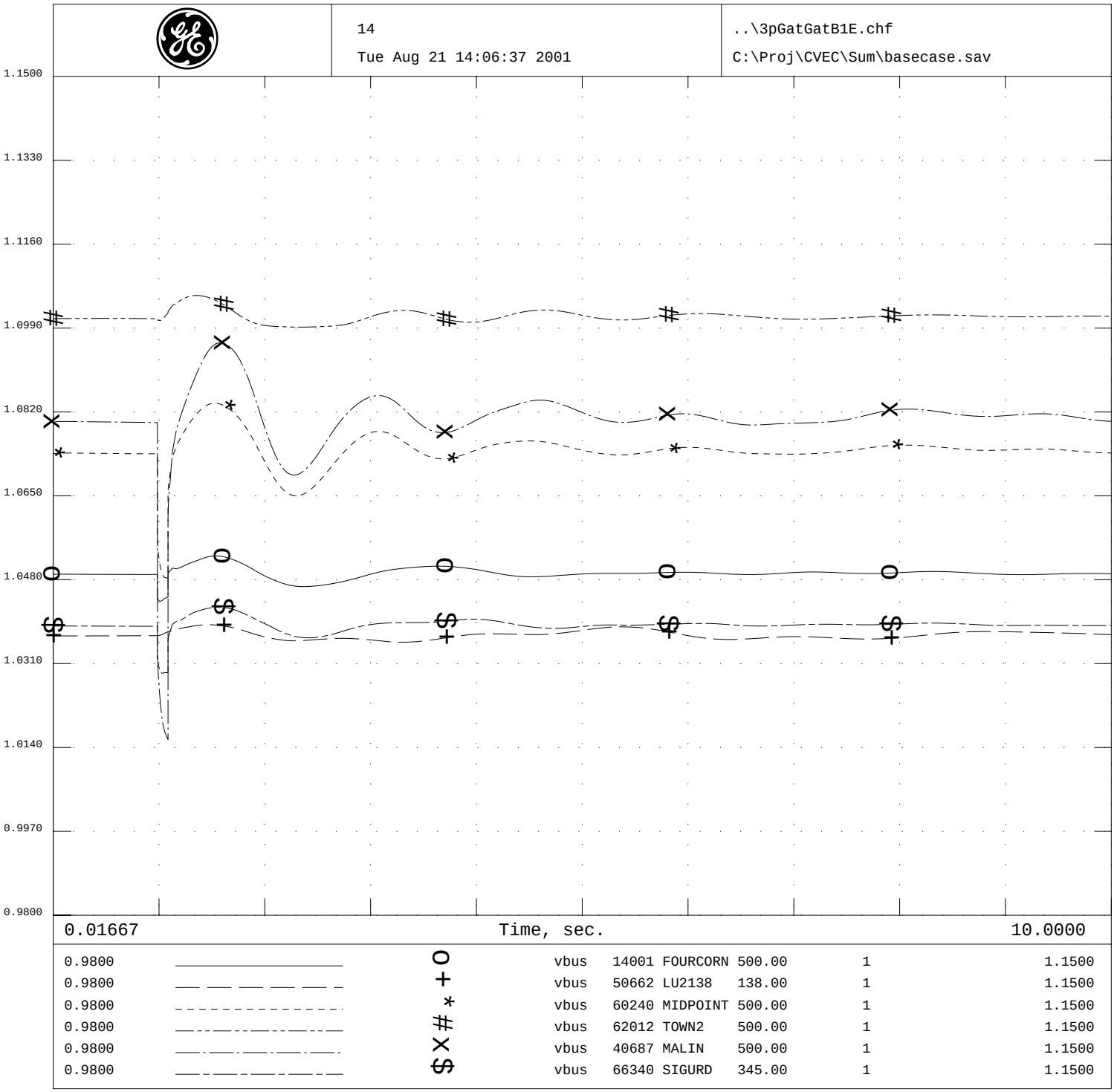

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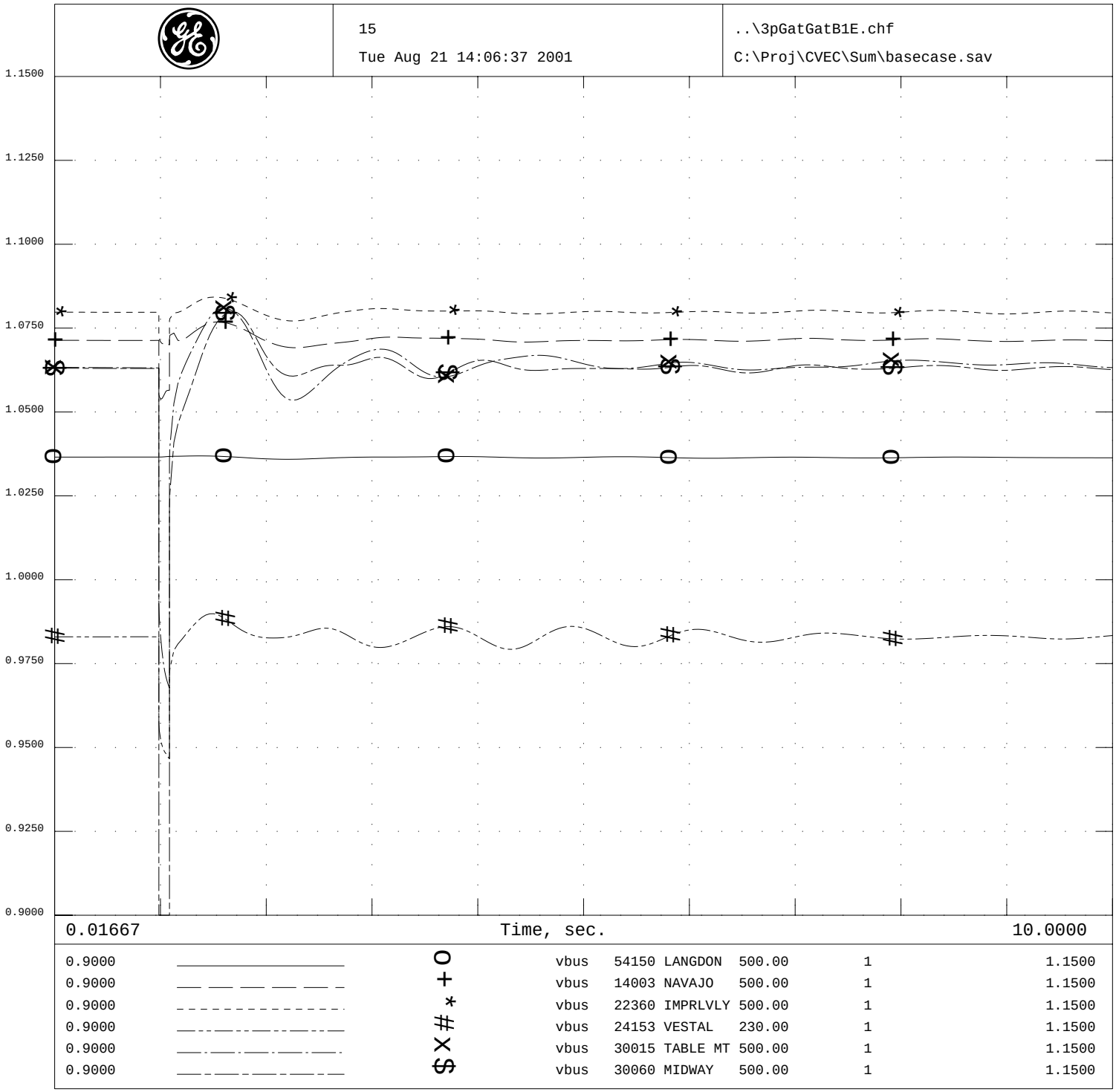

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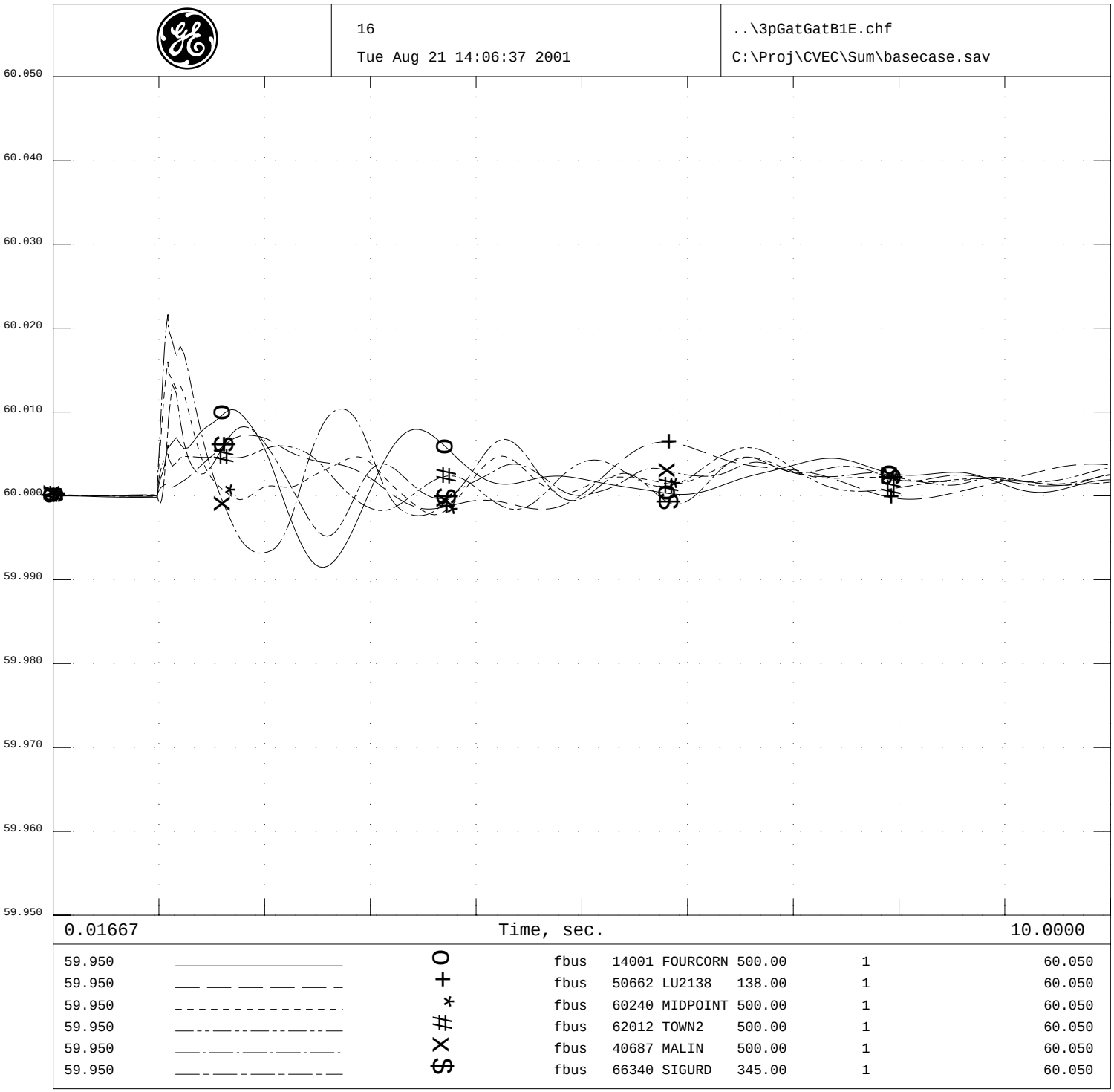

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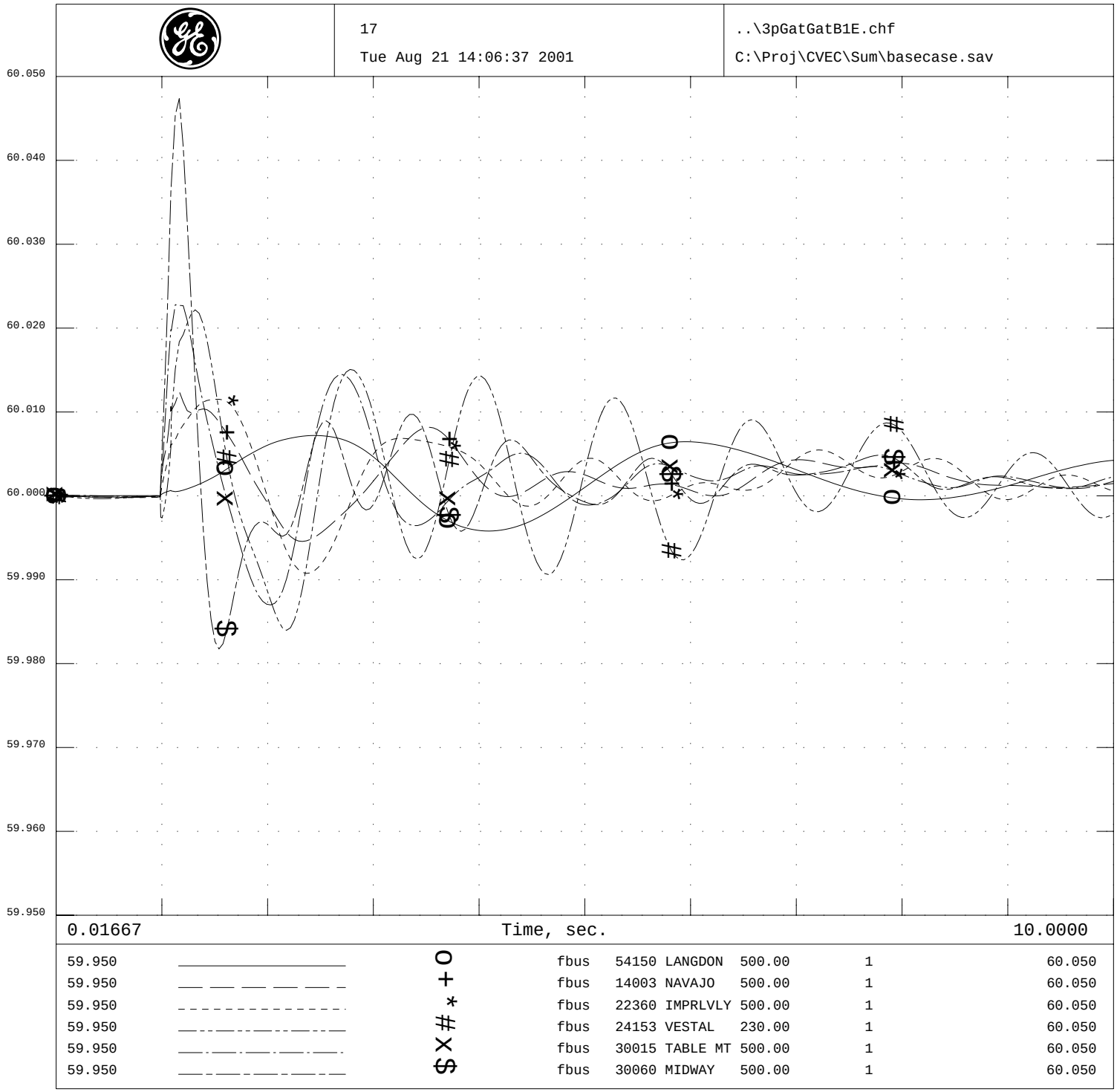

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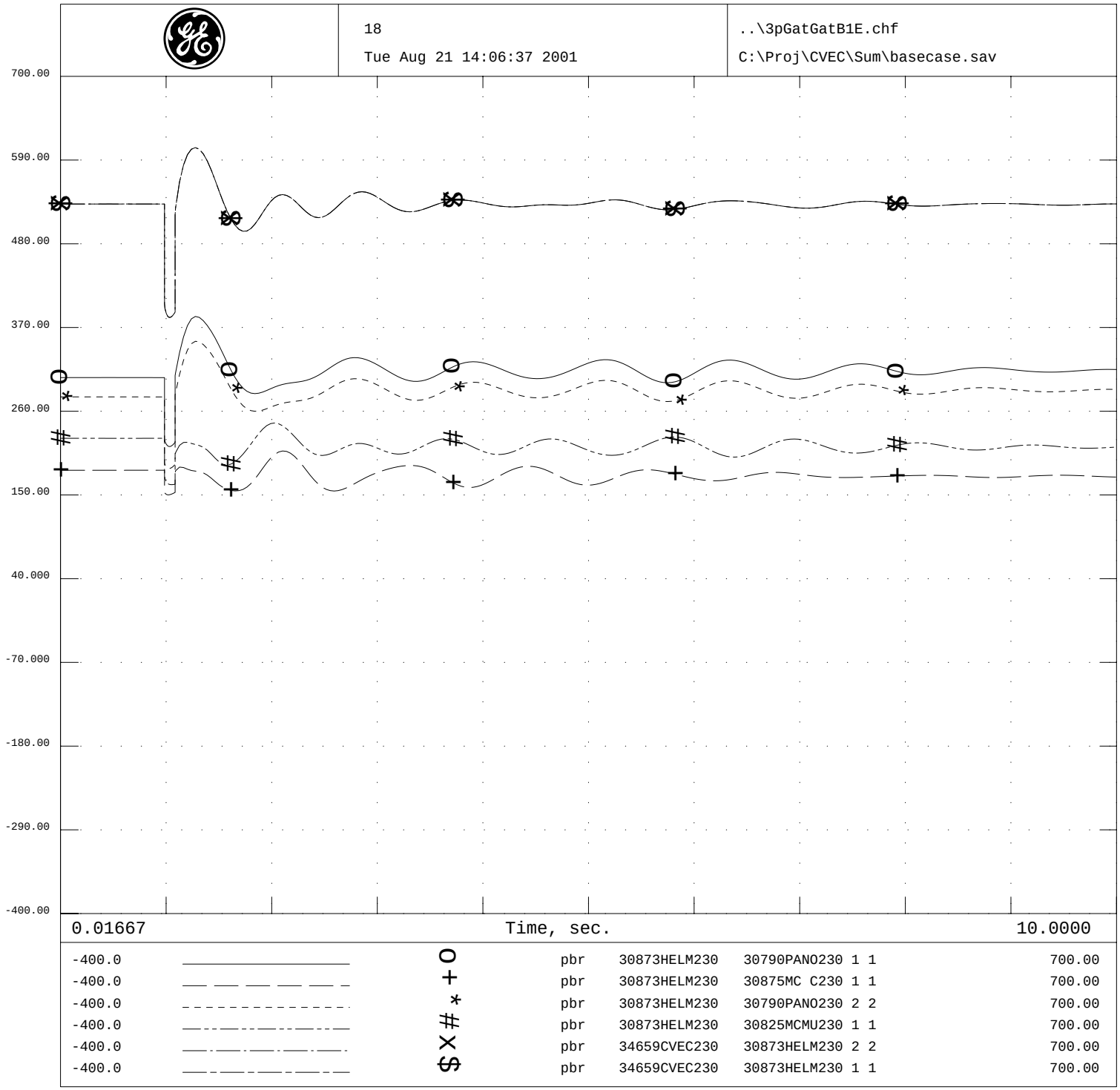

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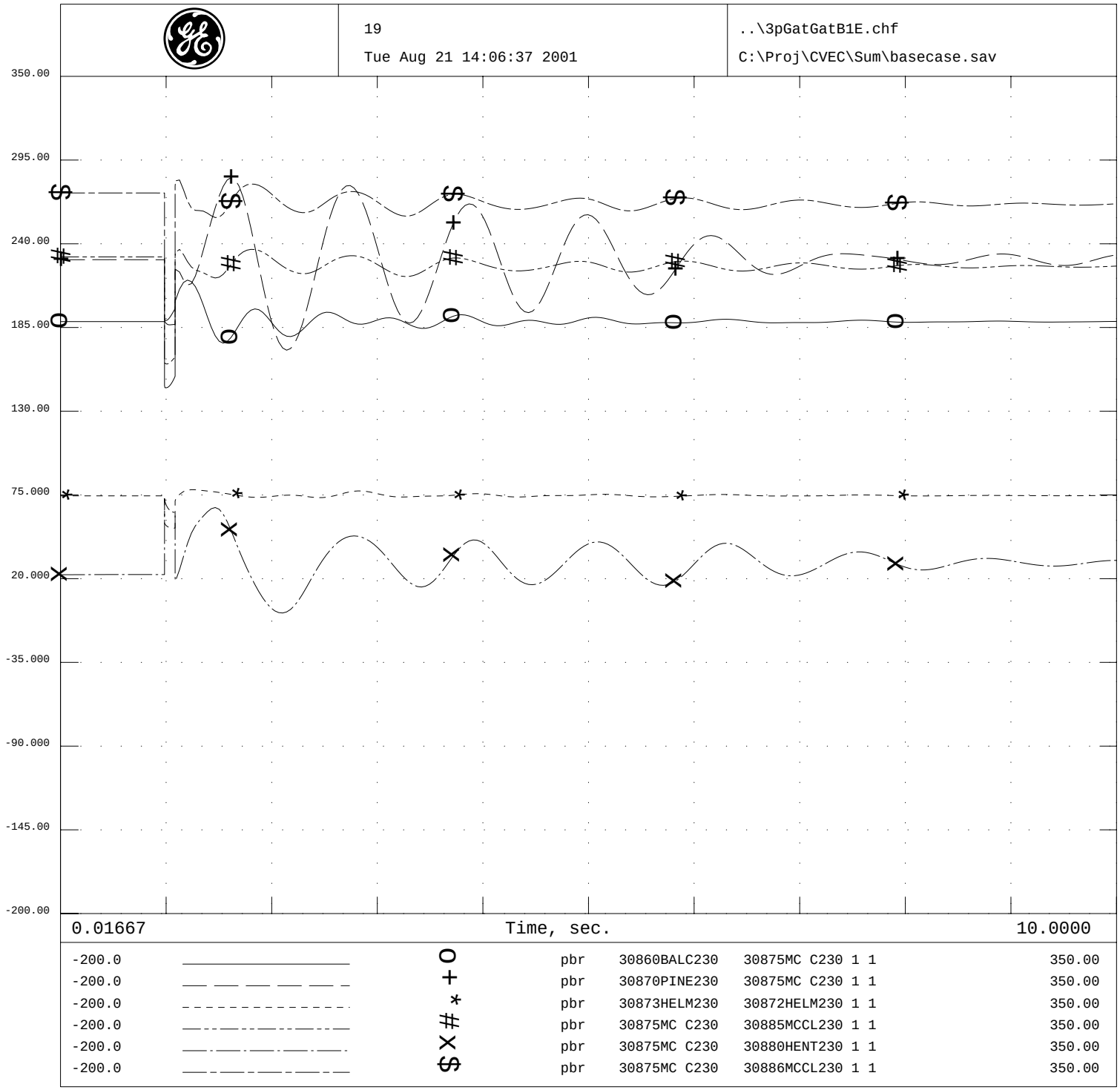

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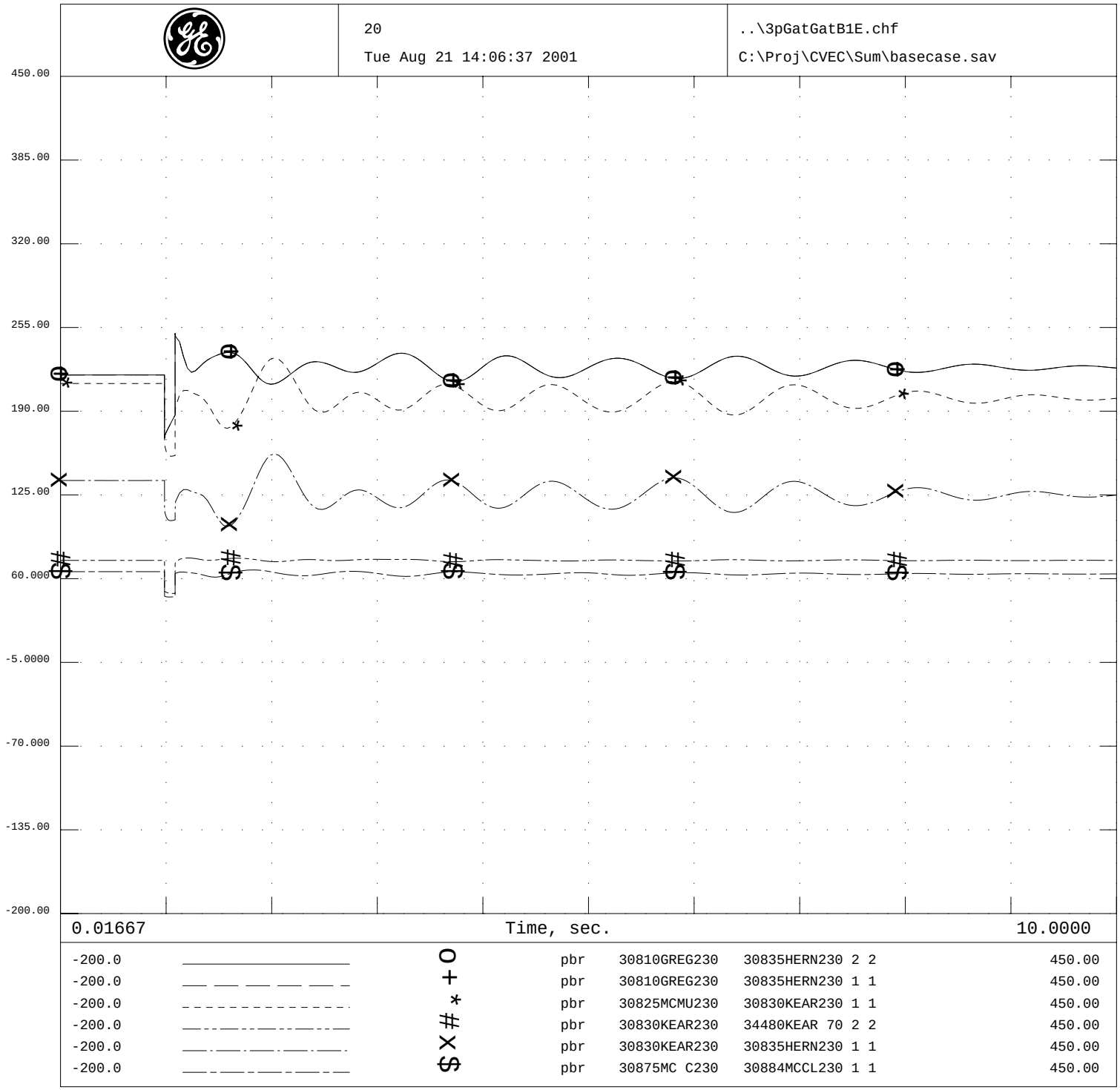
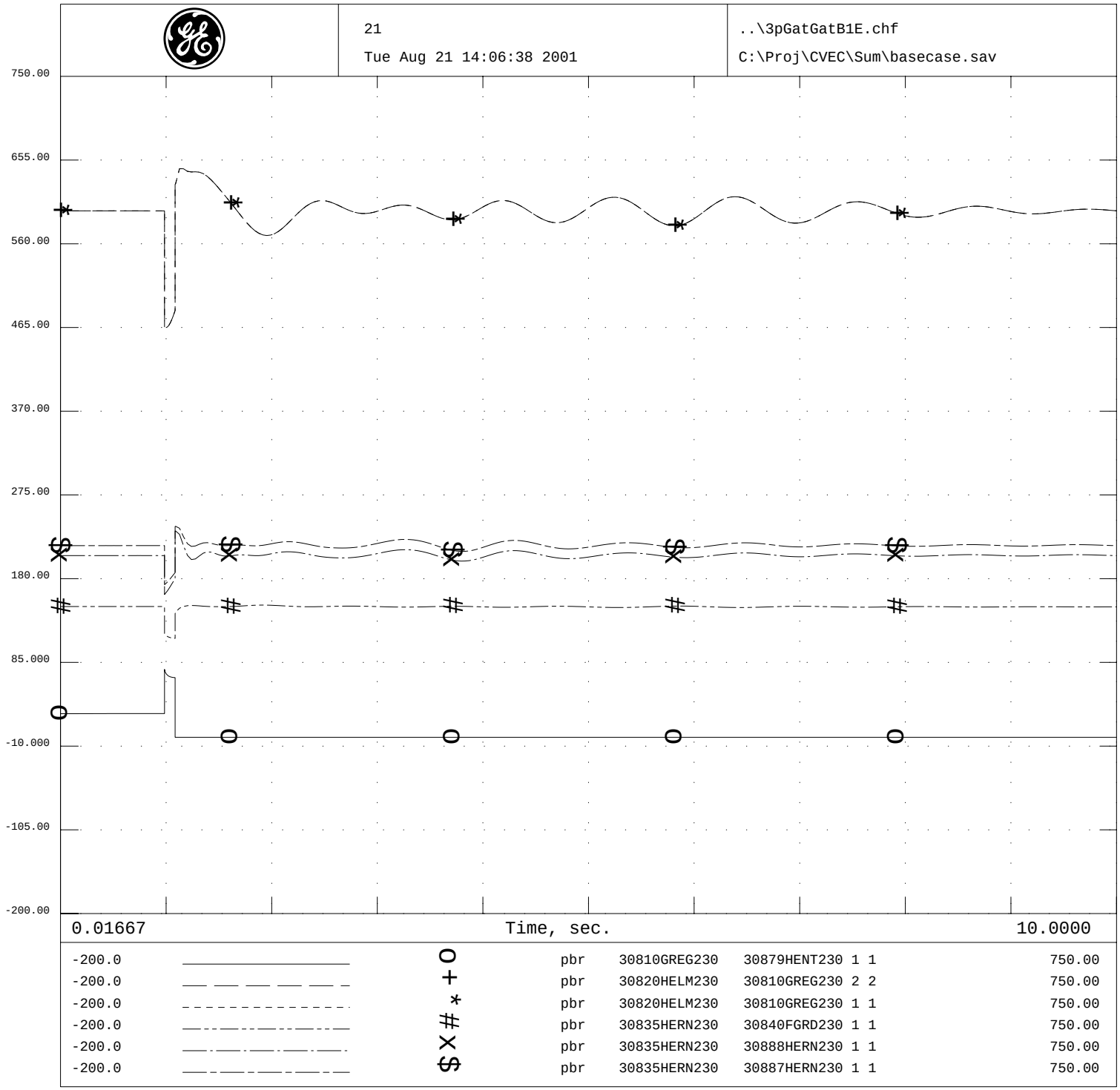


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Gates 230kV Bus 1E Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 1E

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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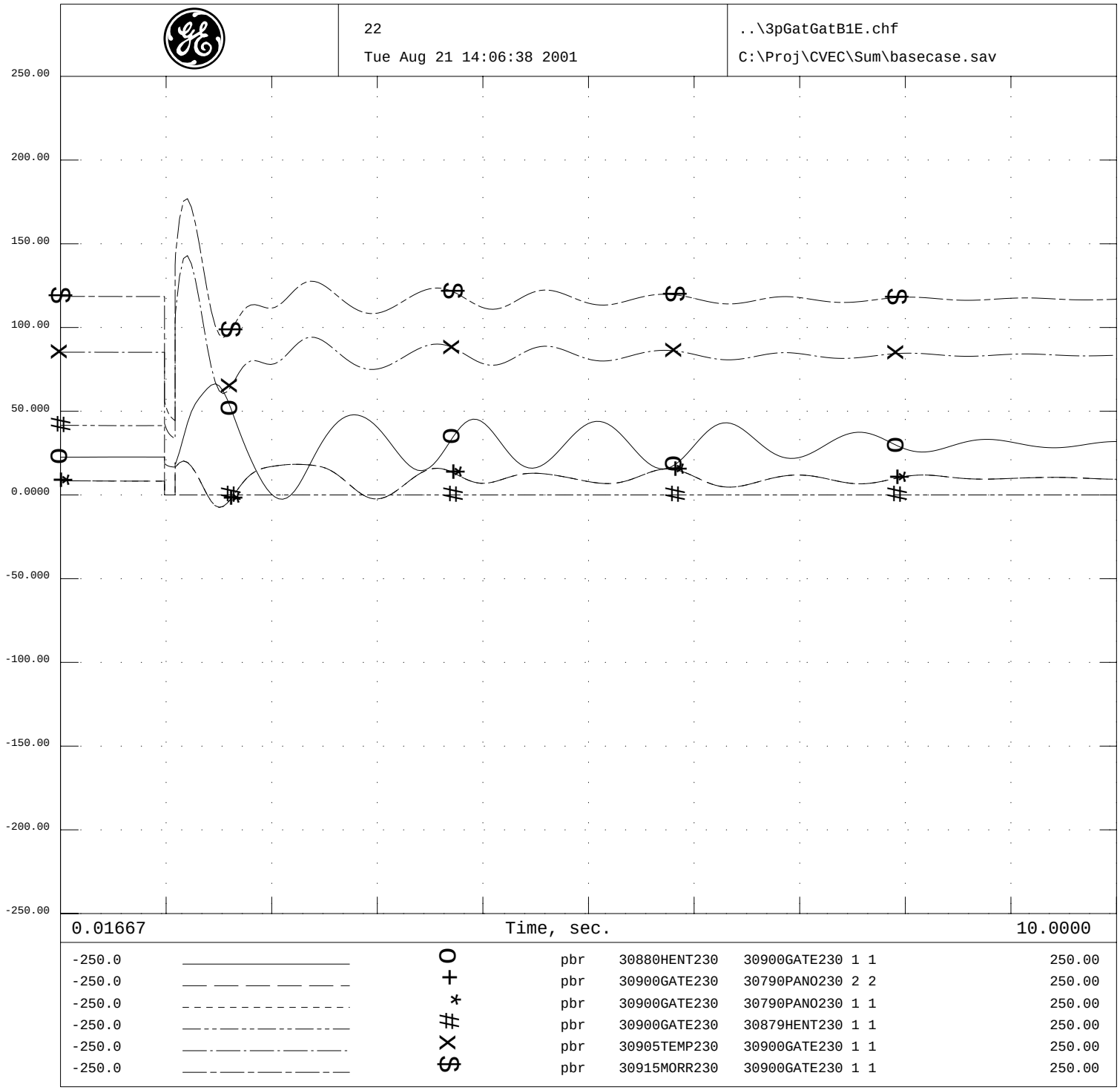

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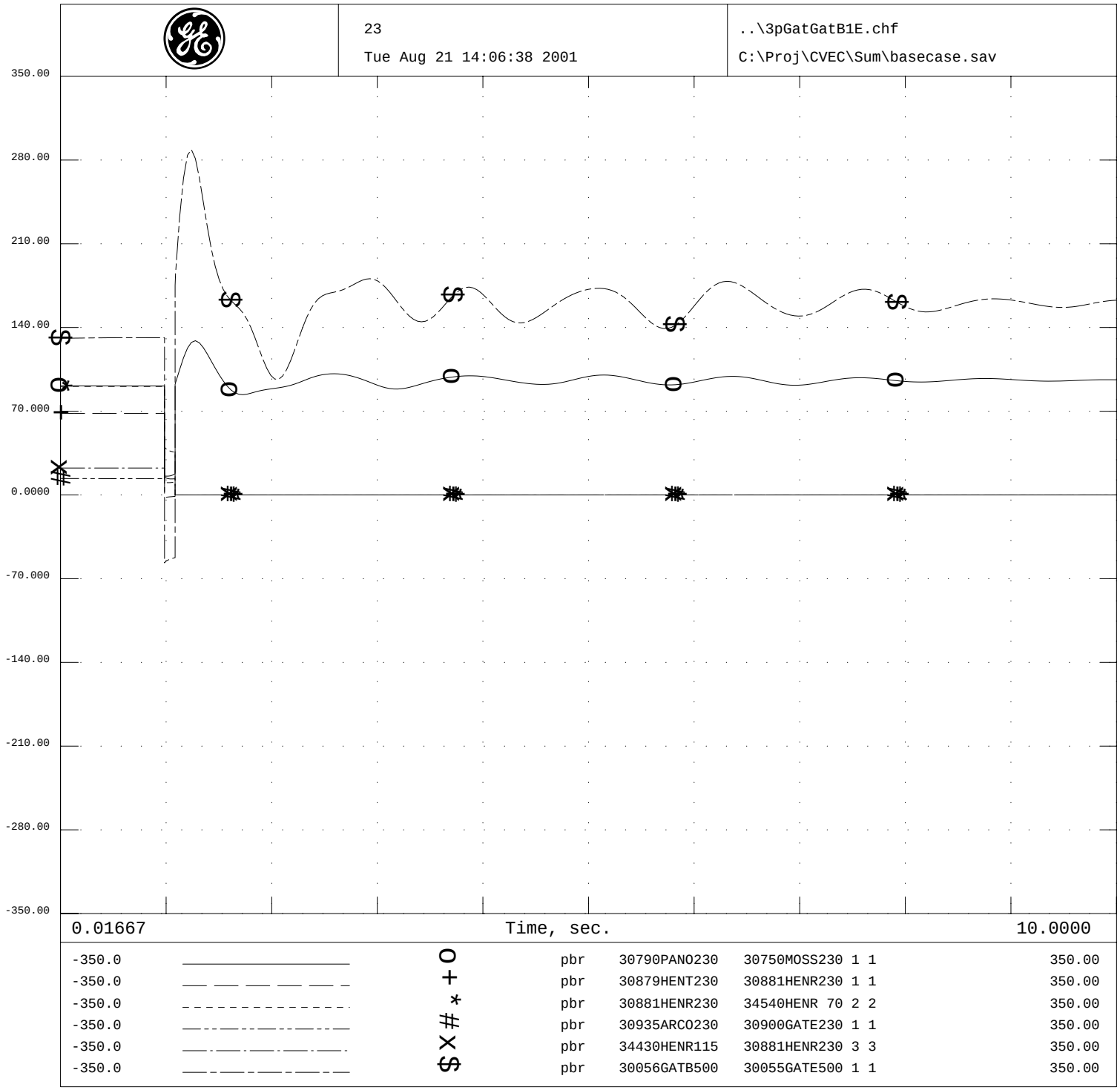

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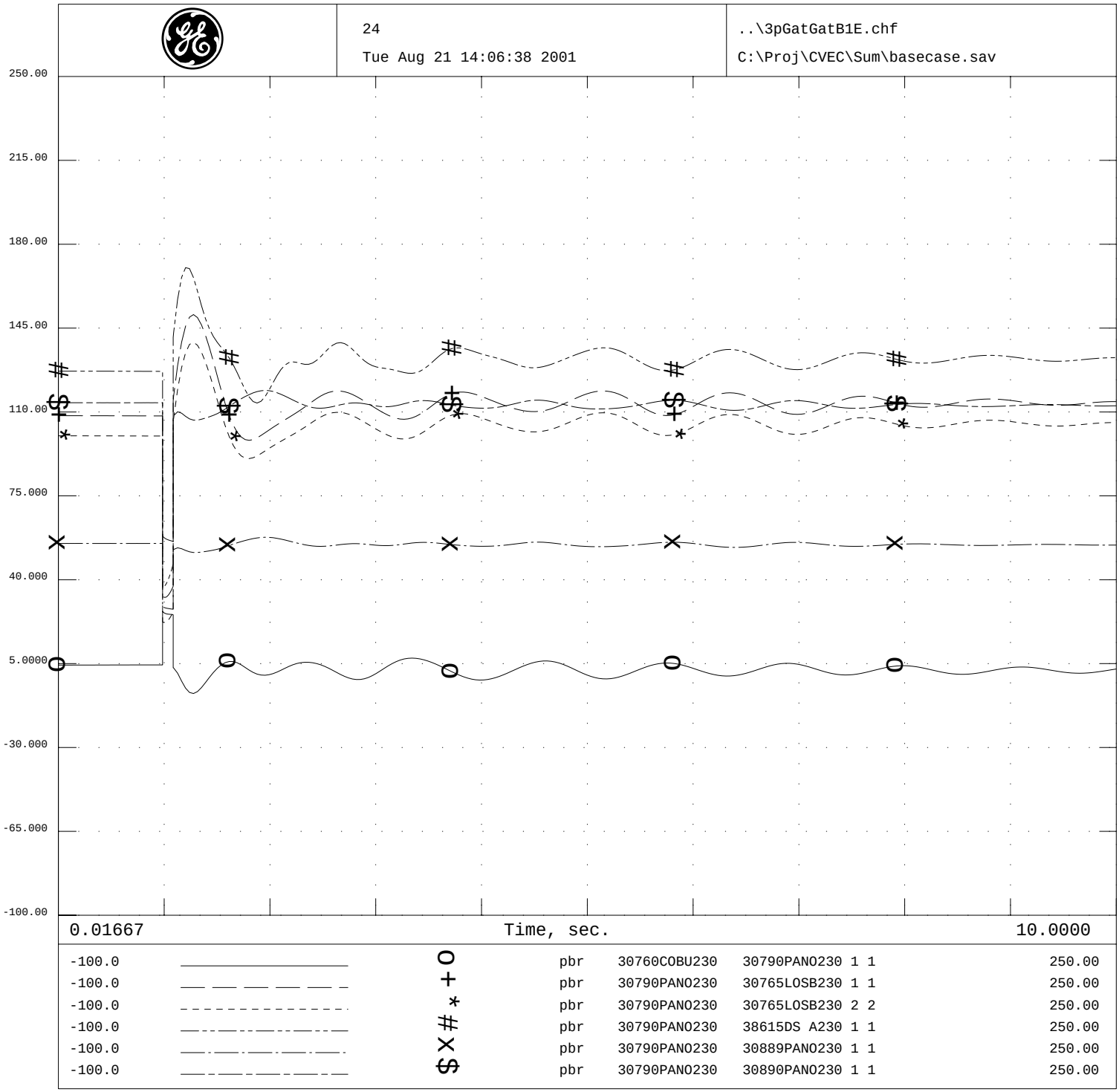

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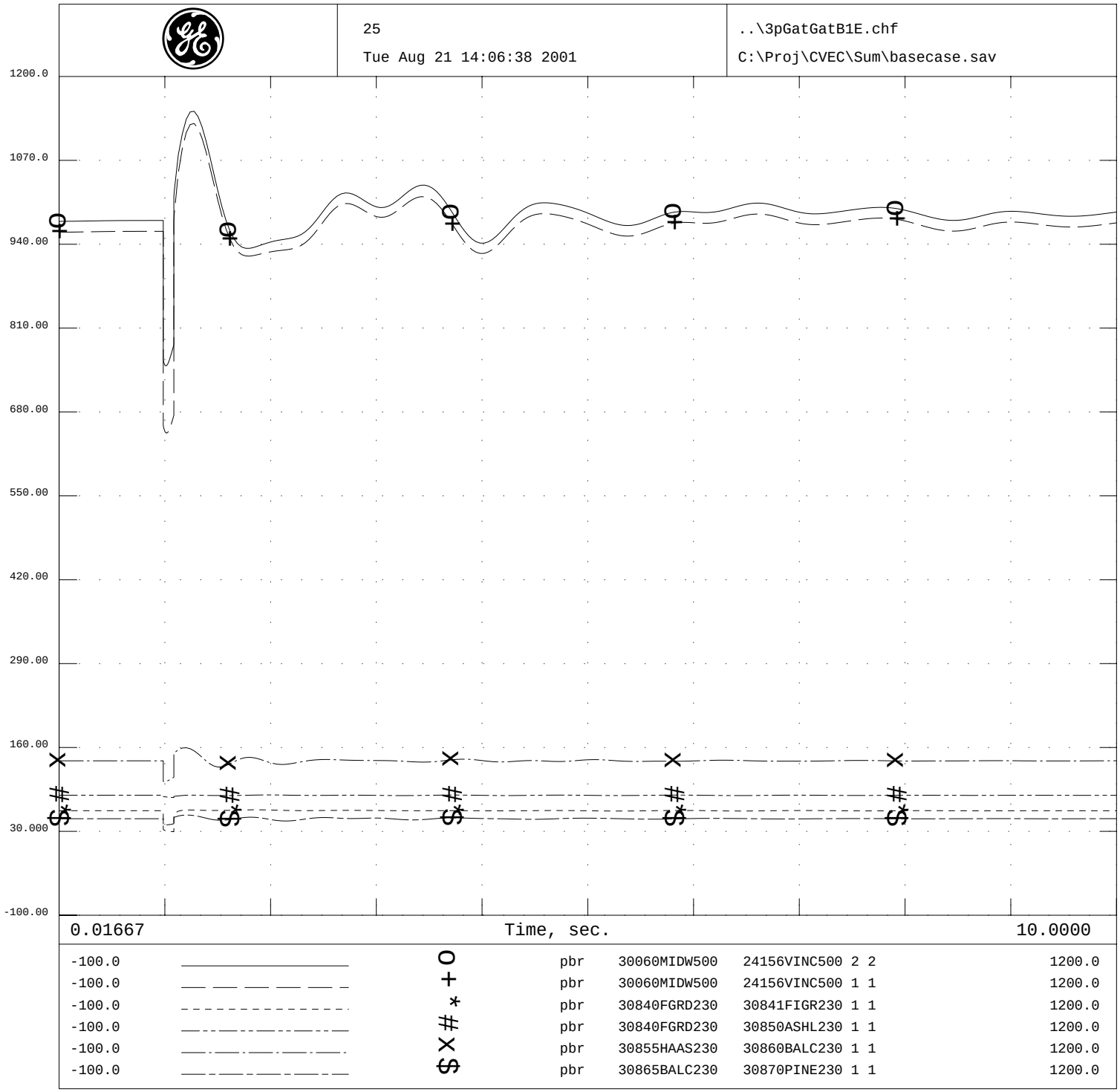

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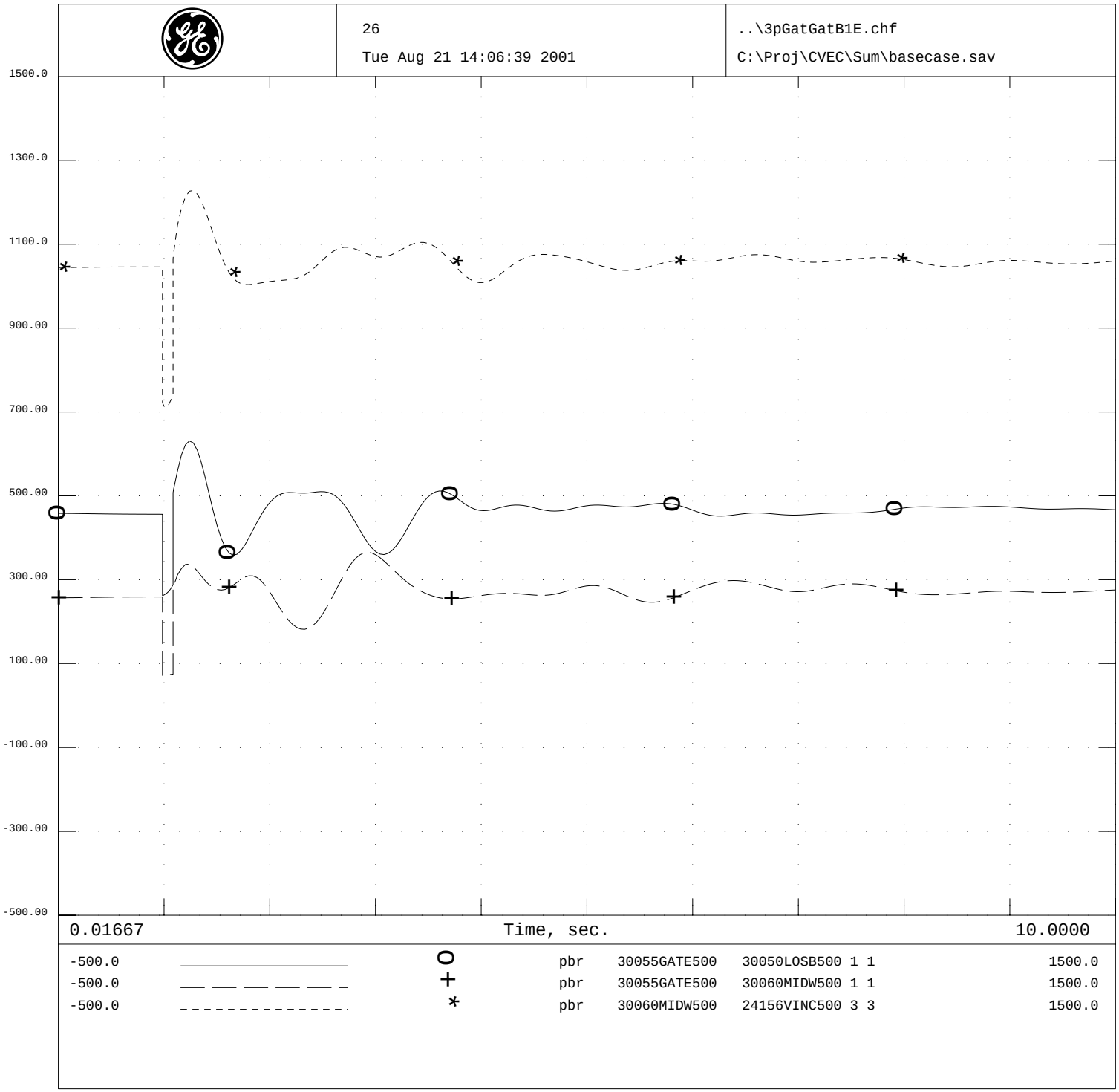

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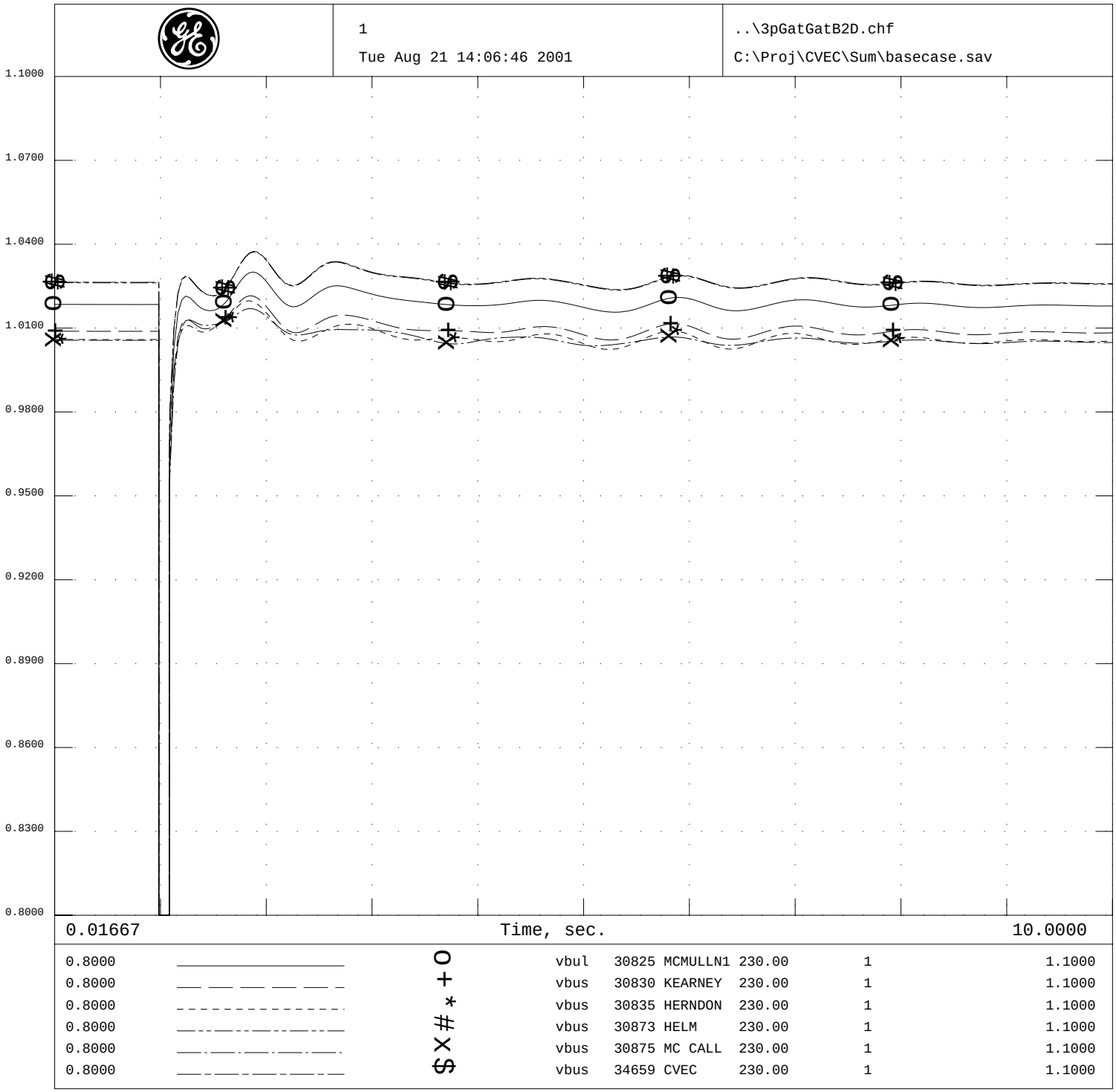

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
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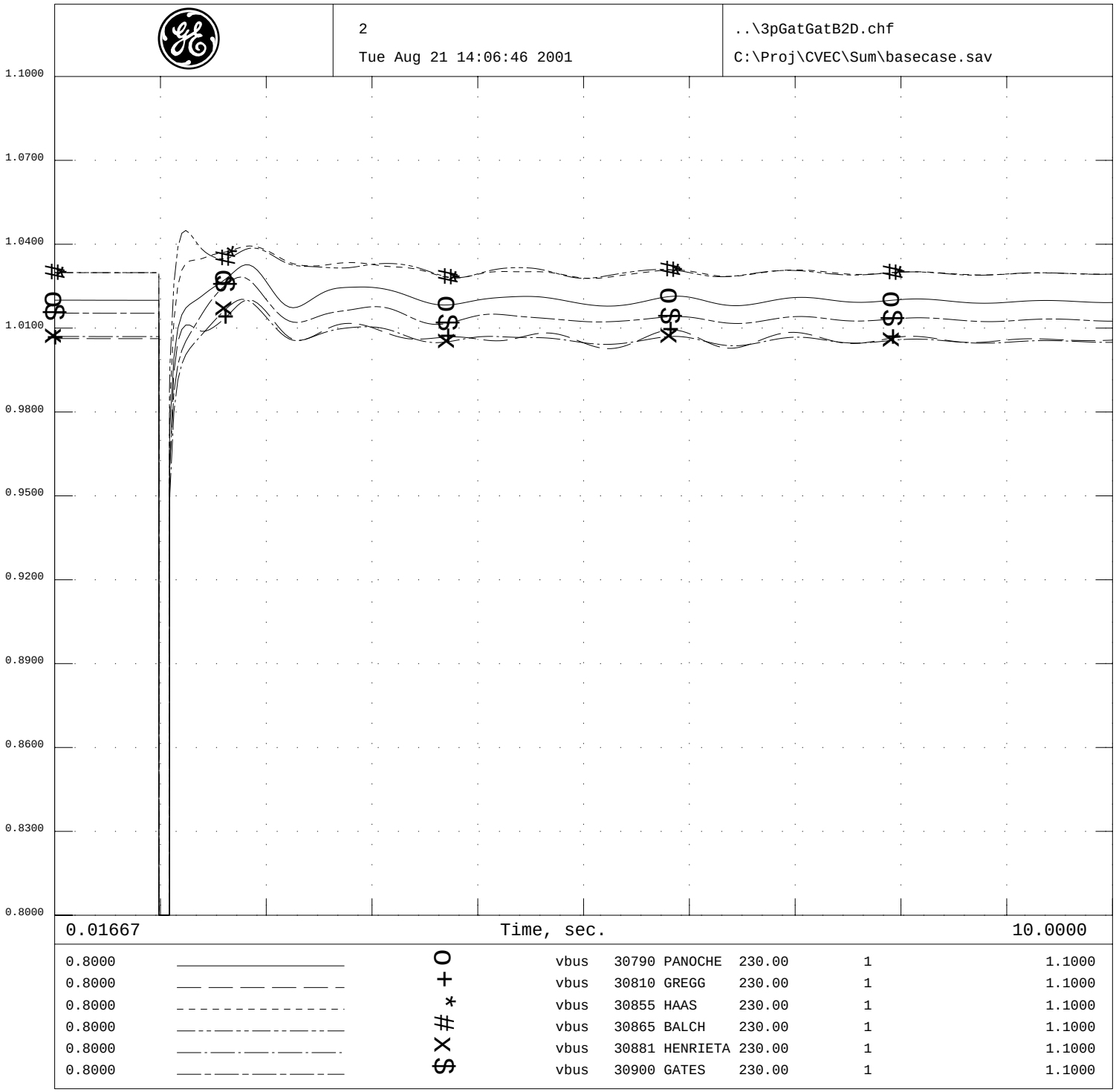
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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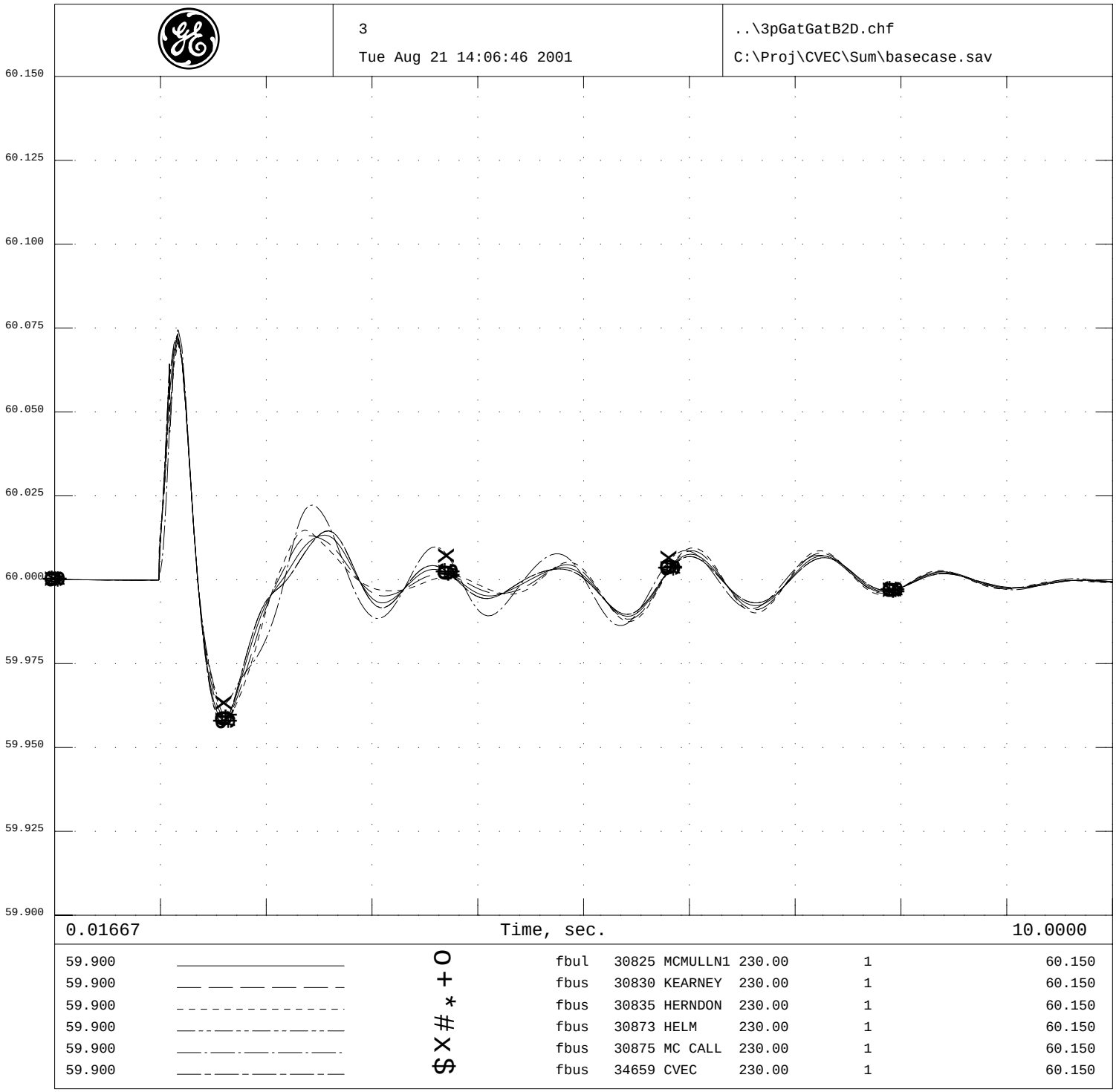

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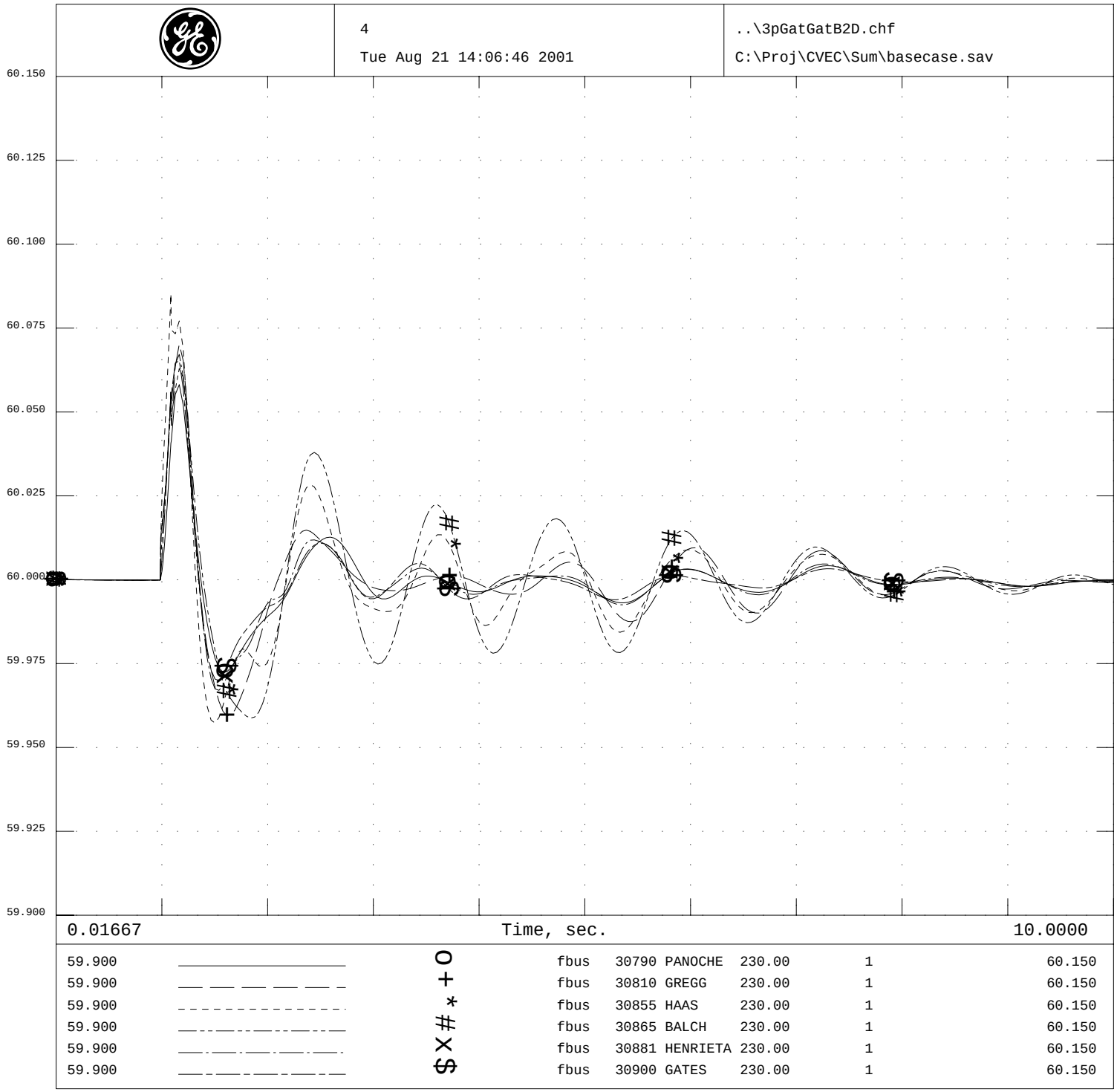
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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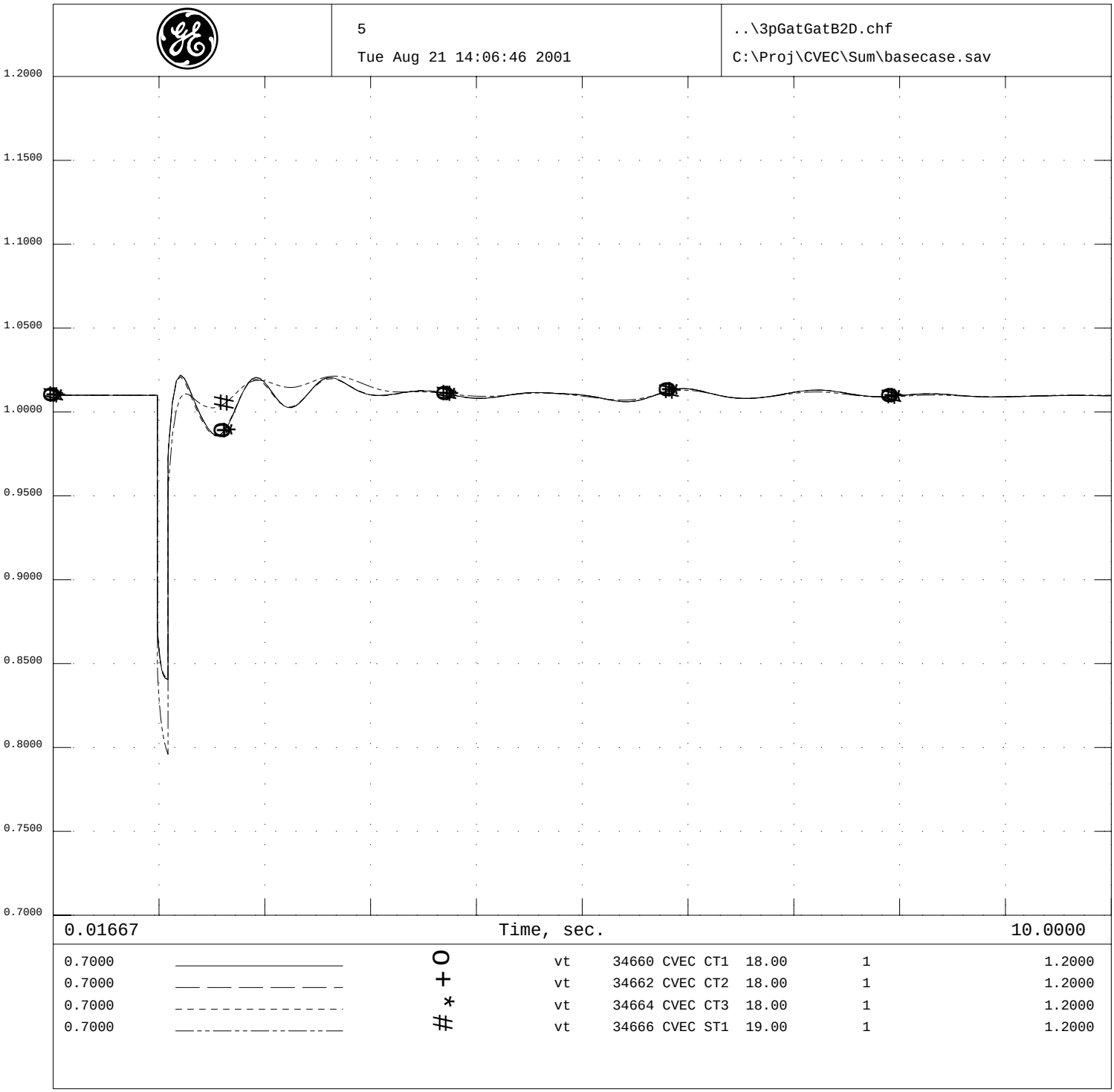

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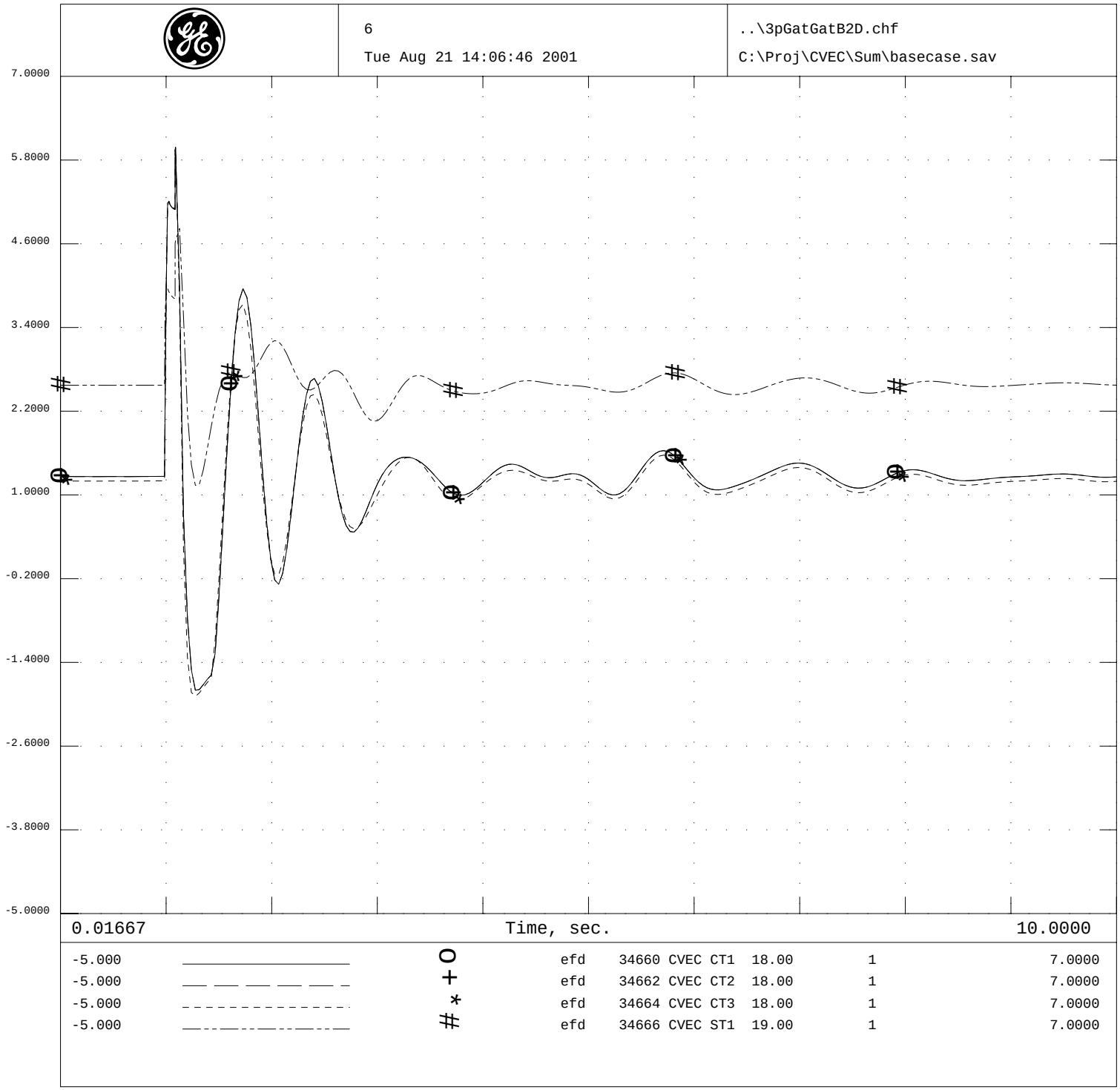
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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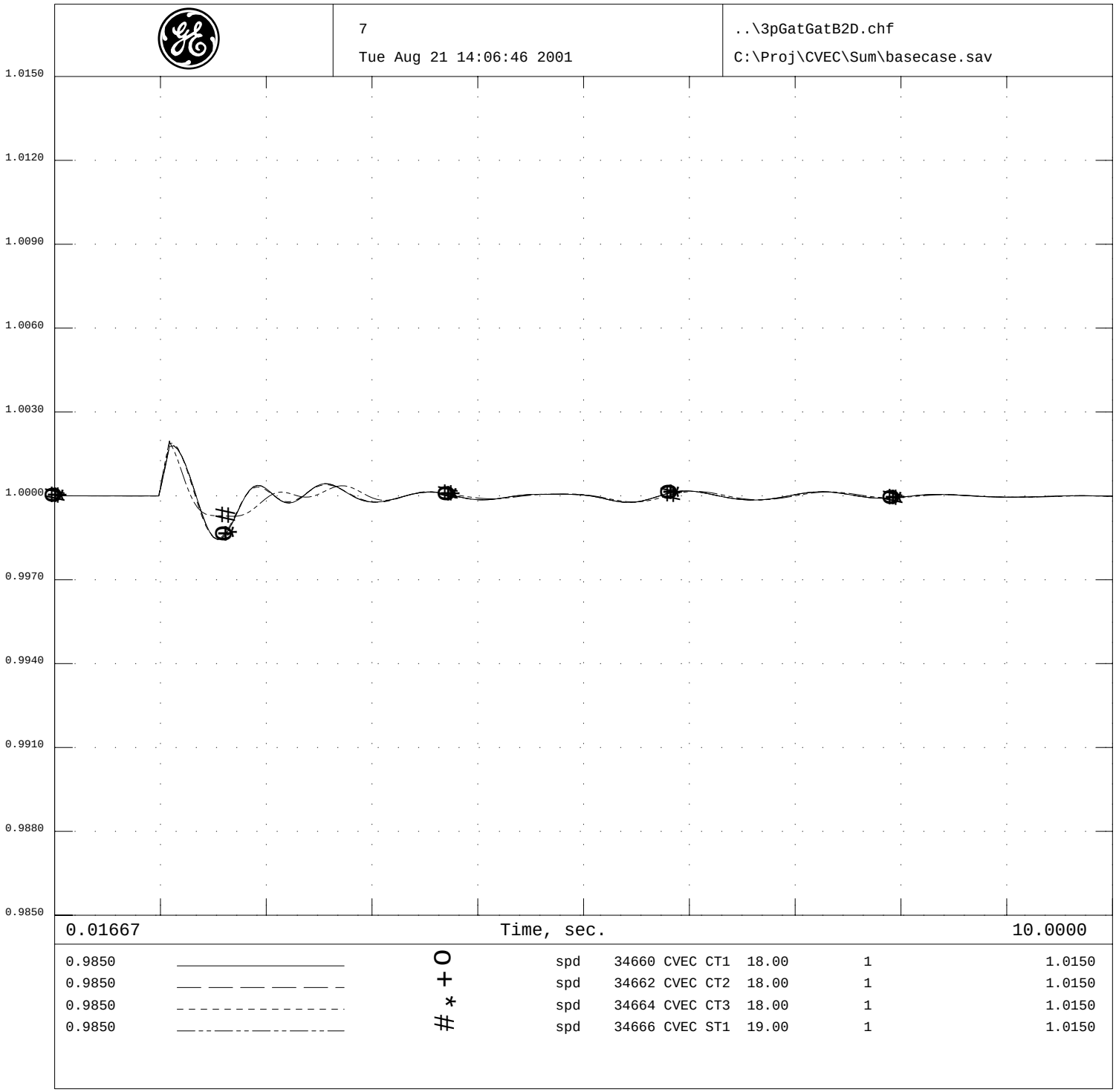
Project Generator Field Voltages



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2004 Summer Peak Base Case
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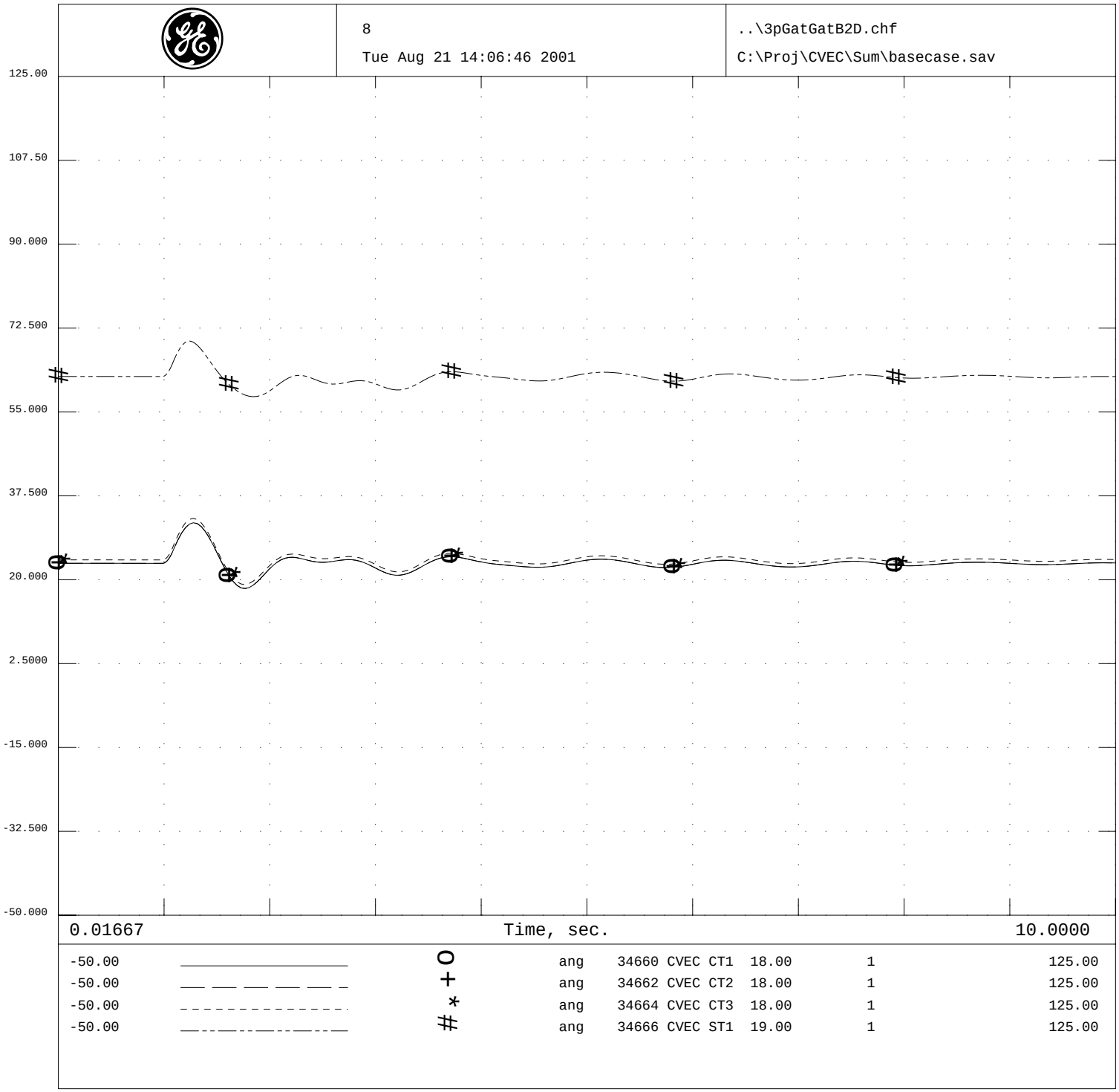
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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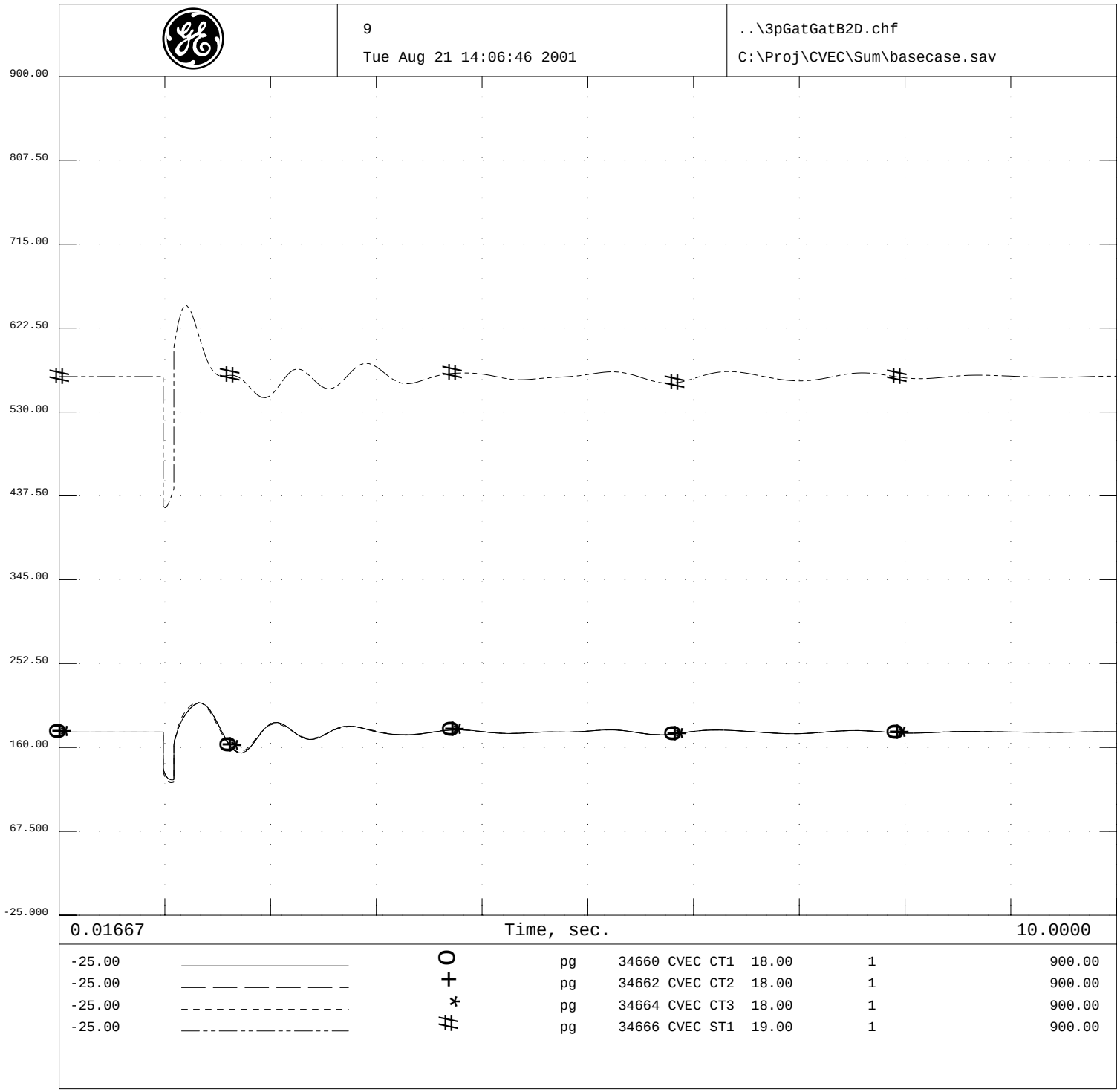
Calpine Corporation
Project Generator Rotor Angle



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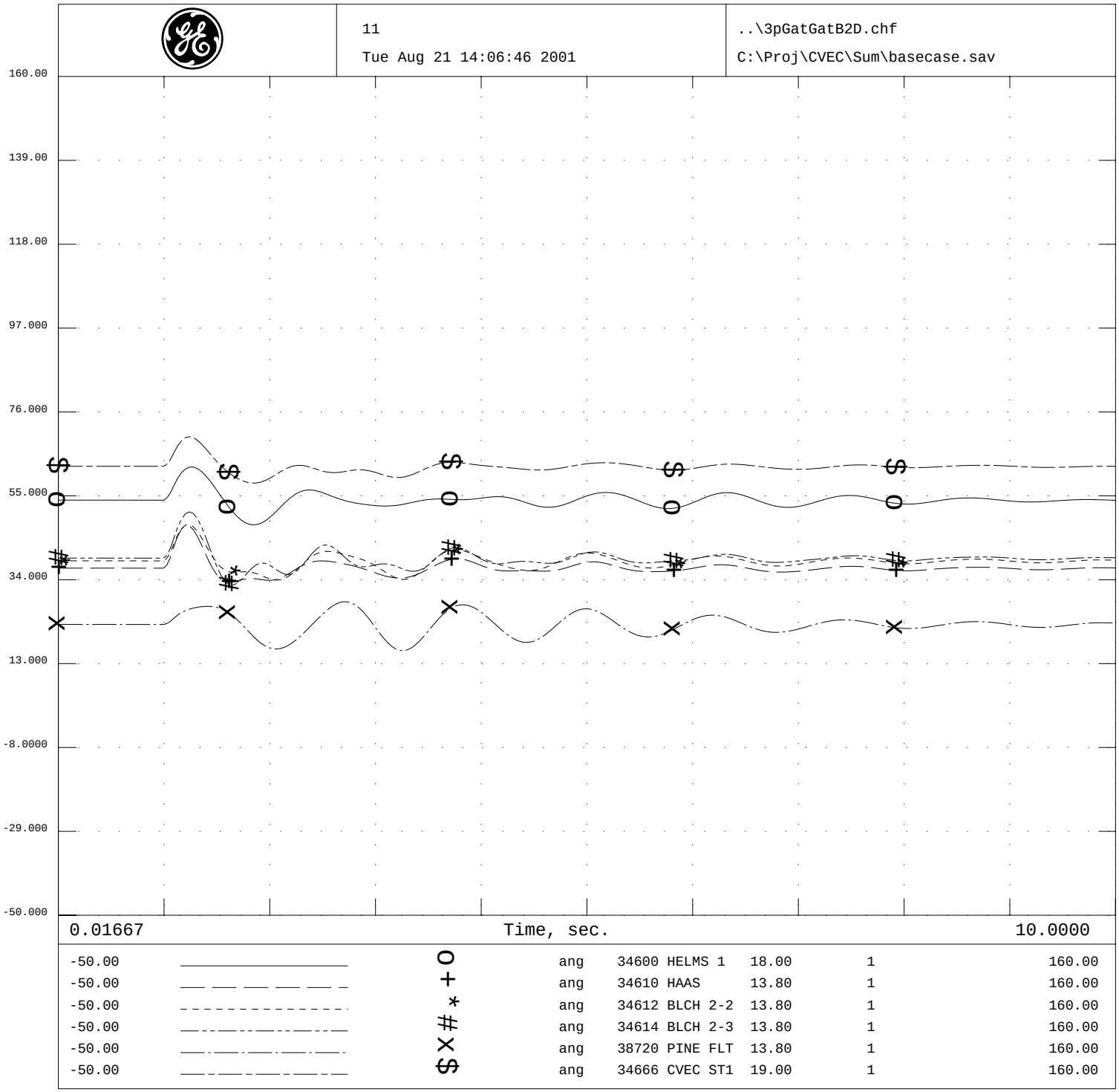
Project Generator Terminal Power



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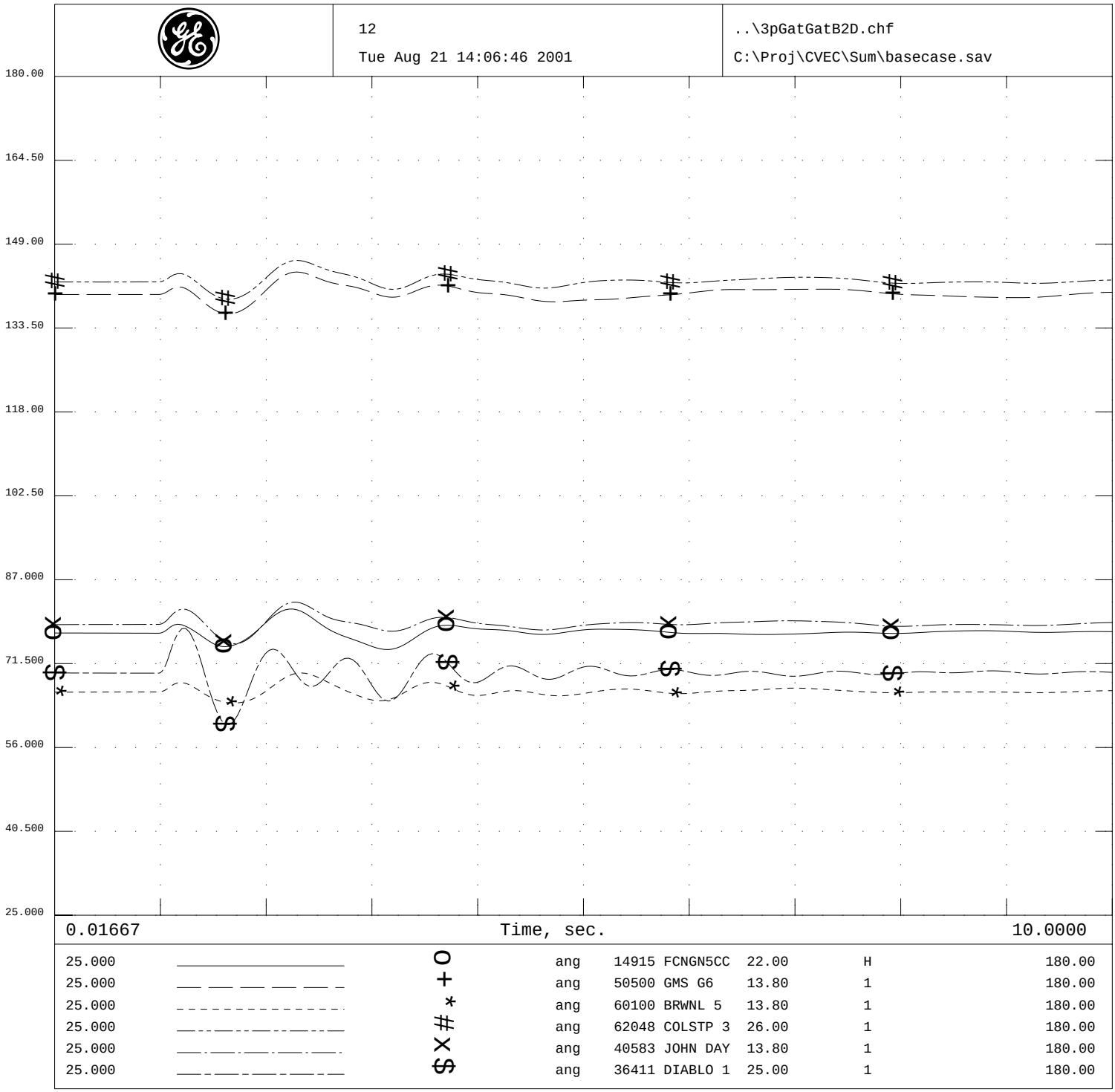
Selected Local Rotor Angle Plots



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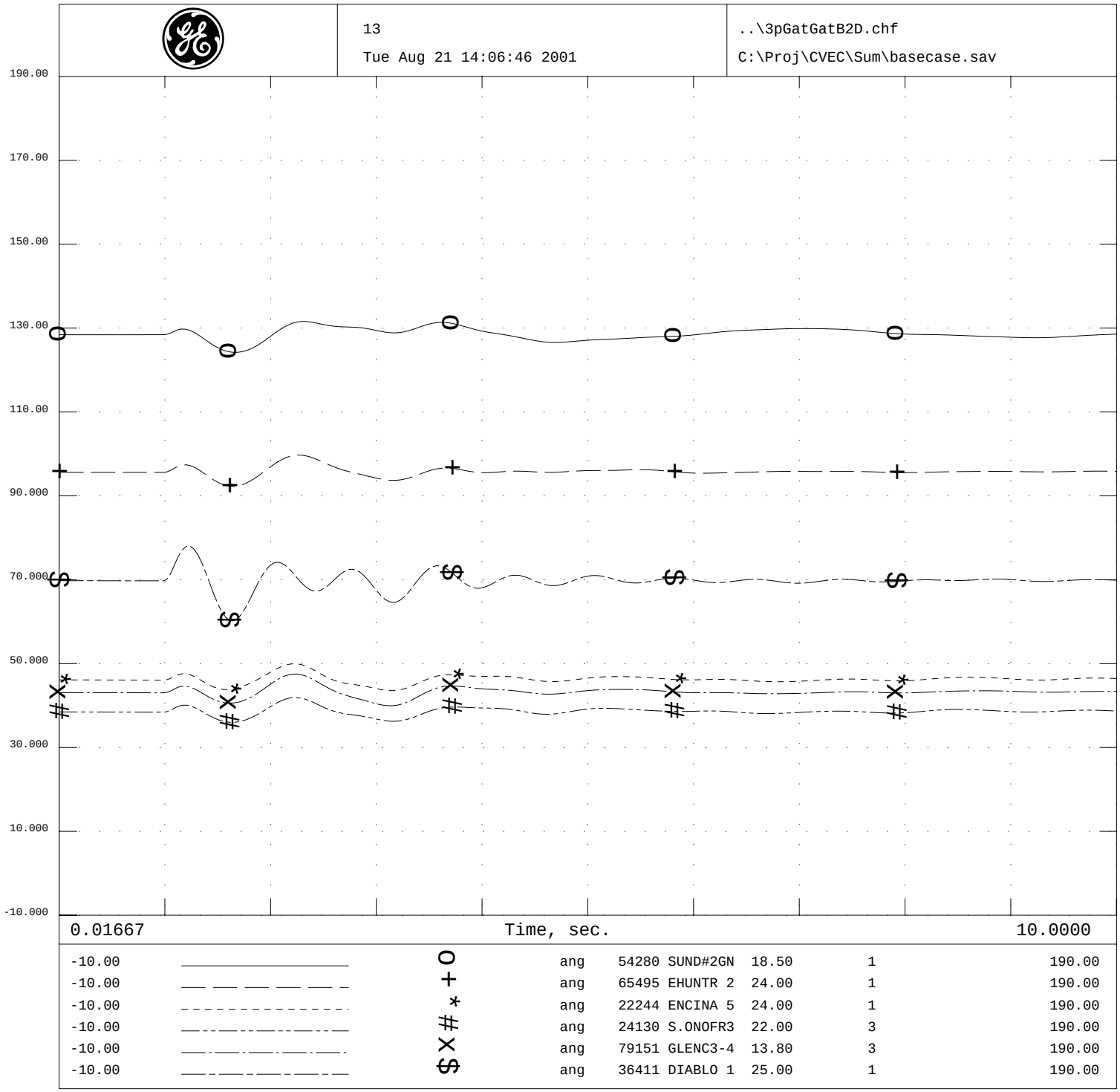
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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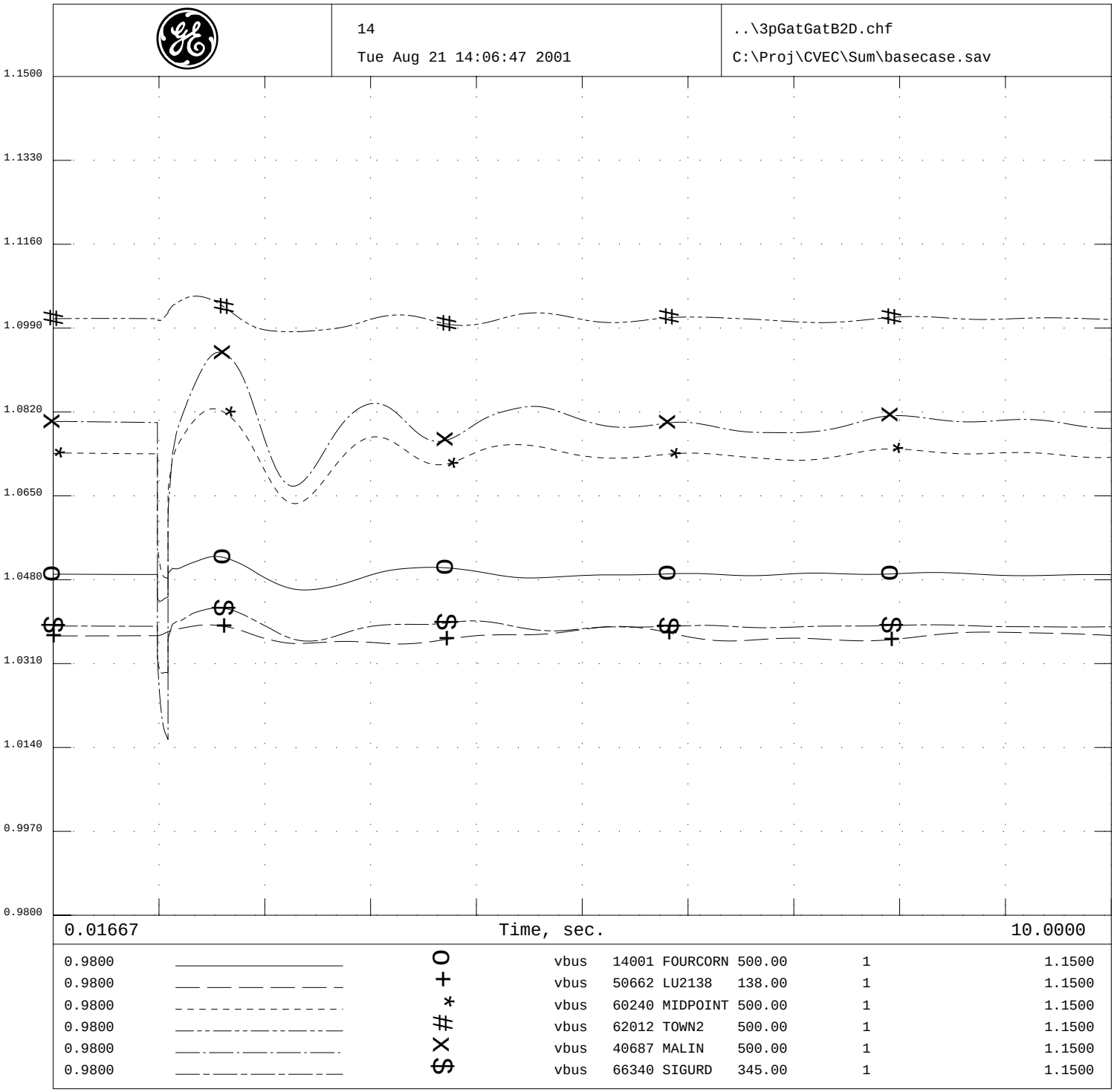

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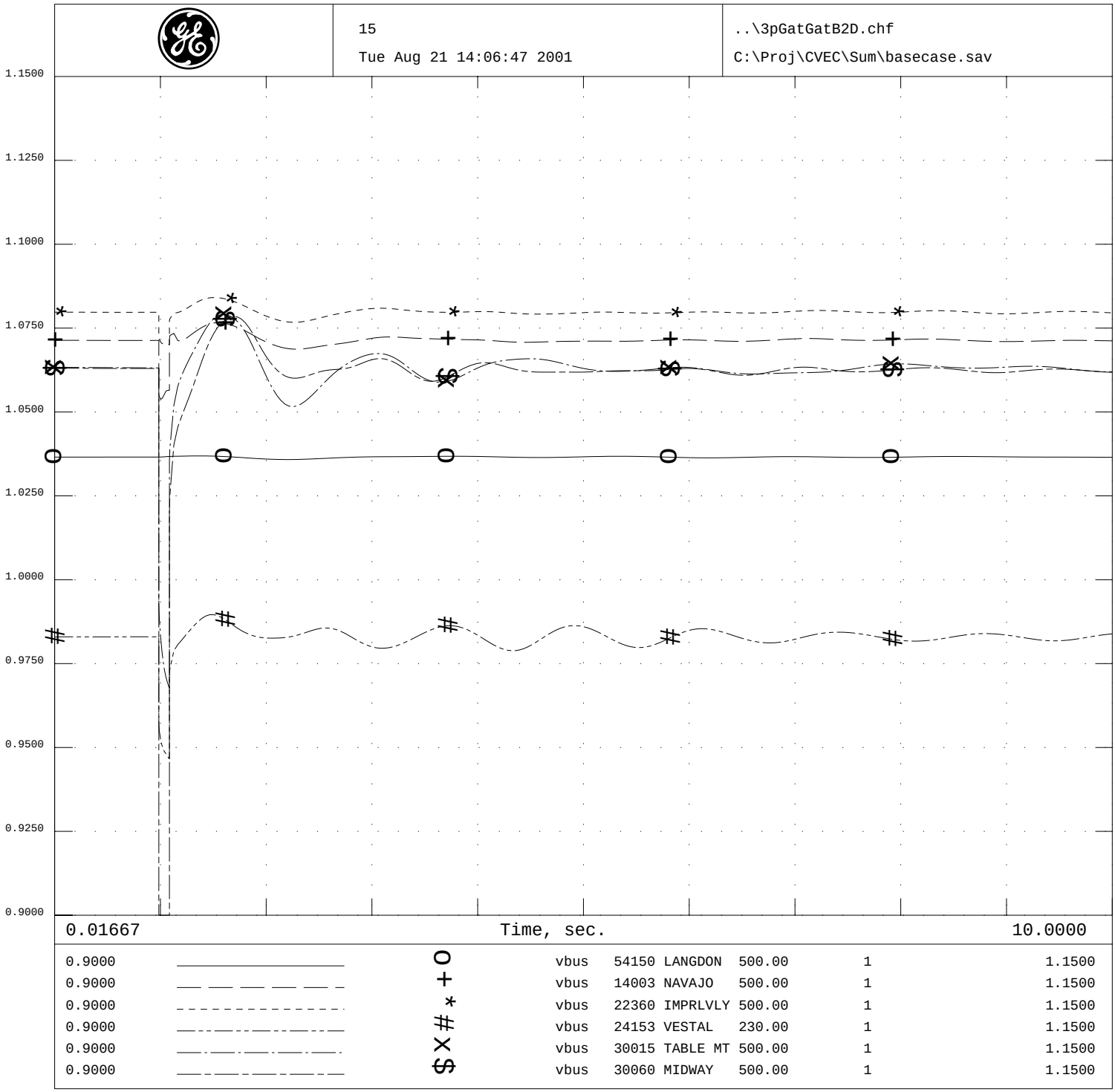

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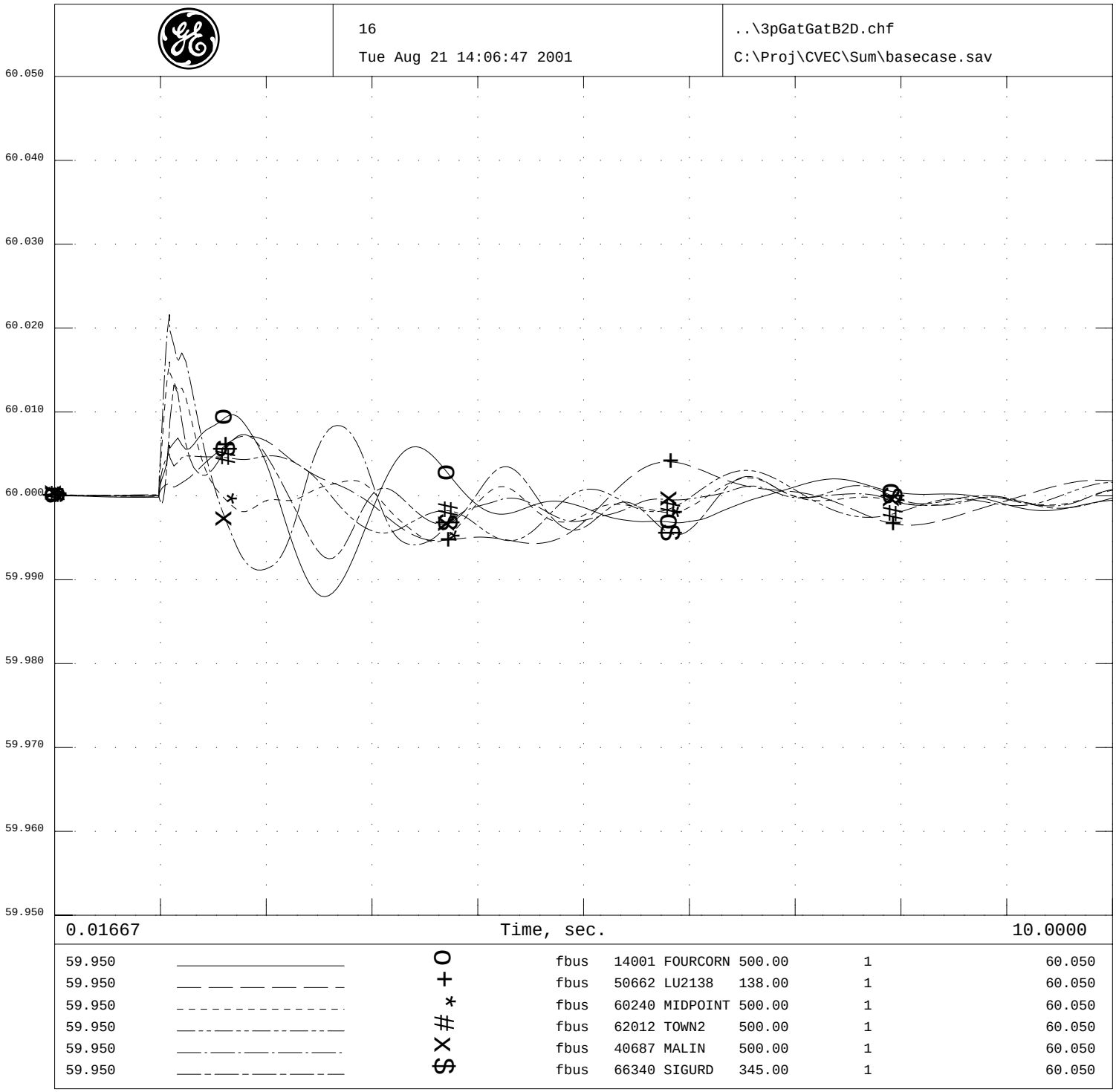

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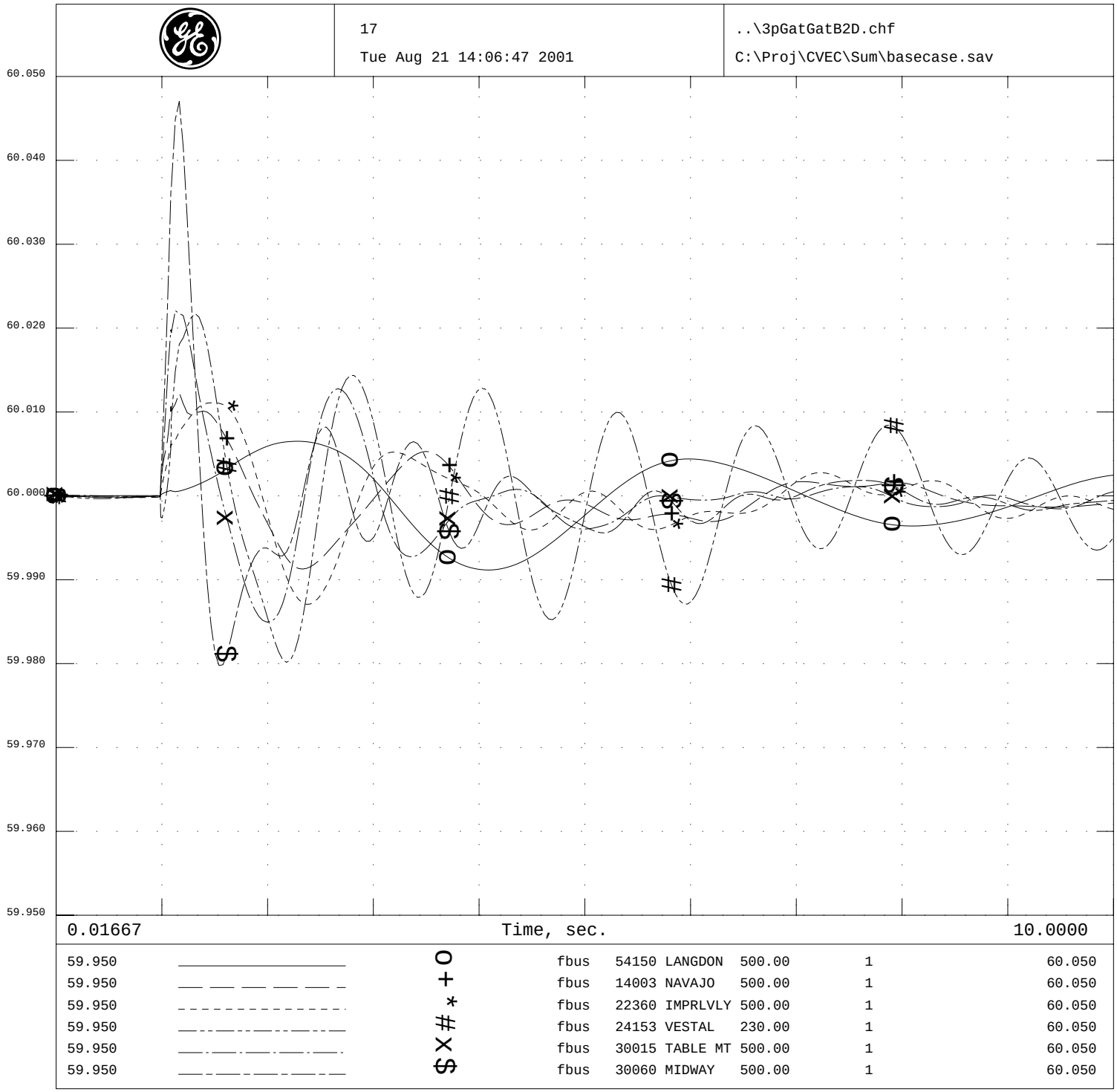

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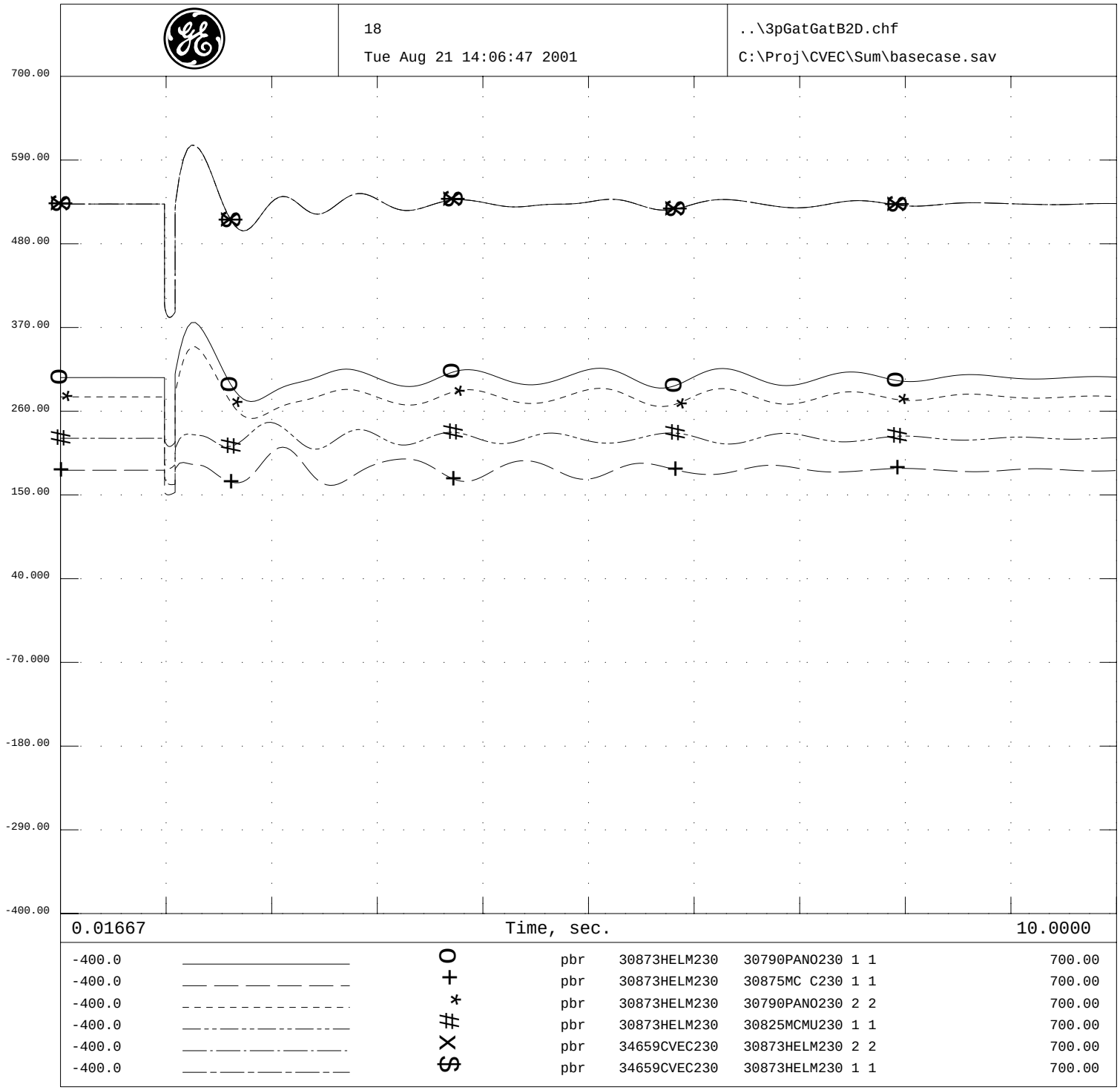

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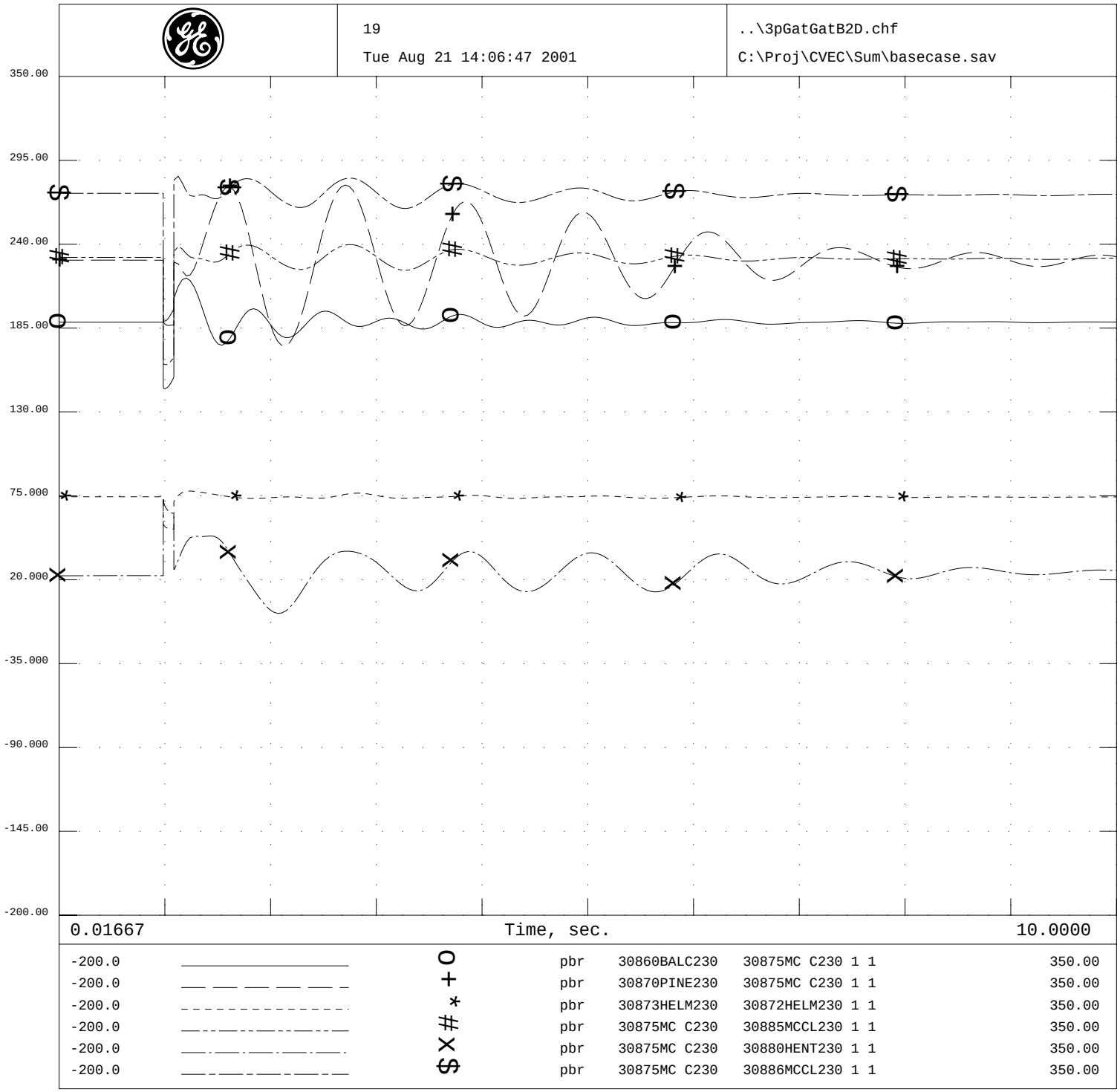

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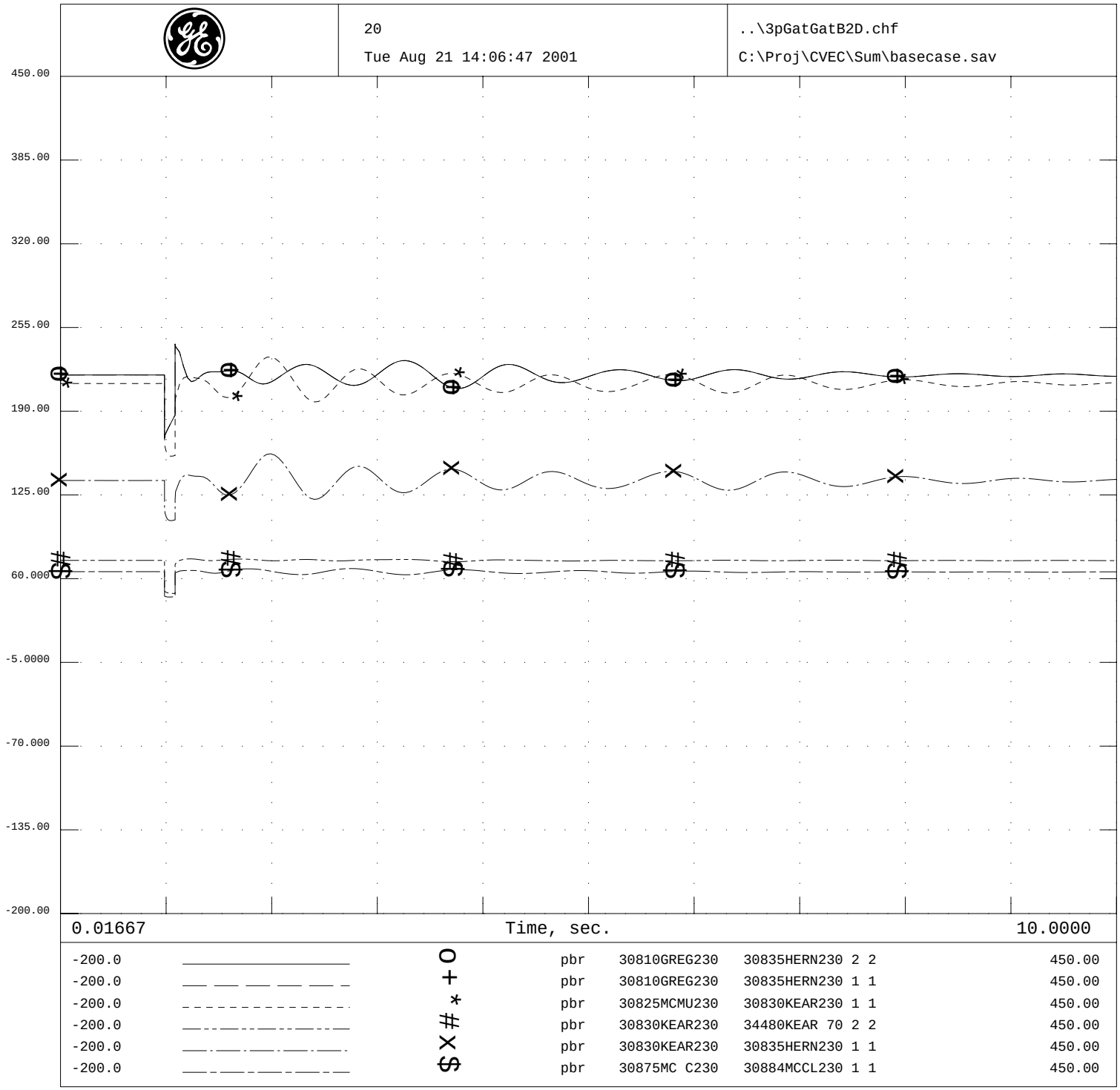

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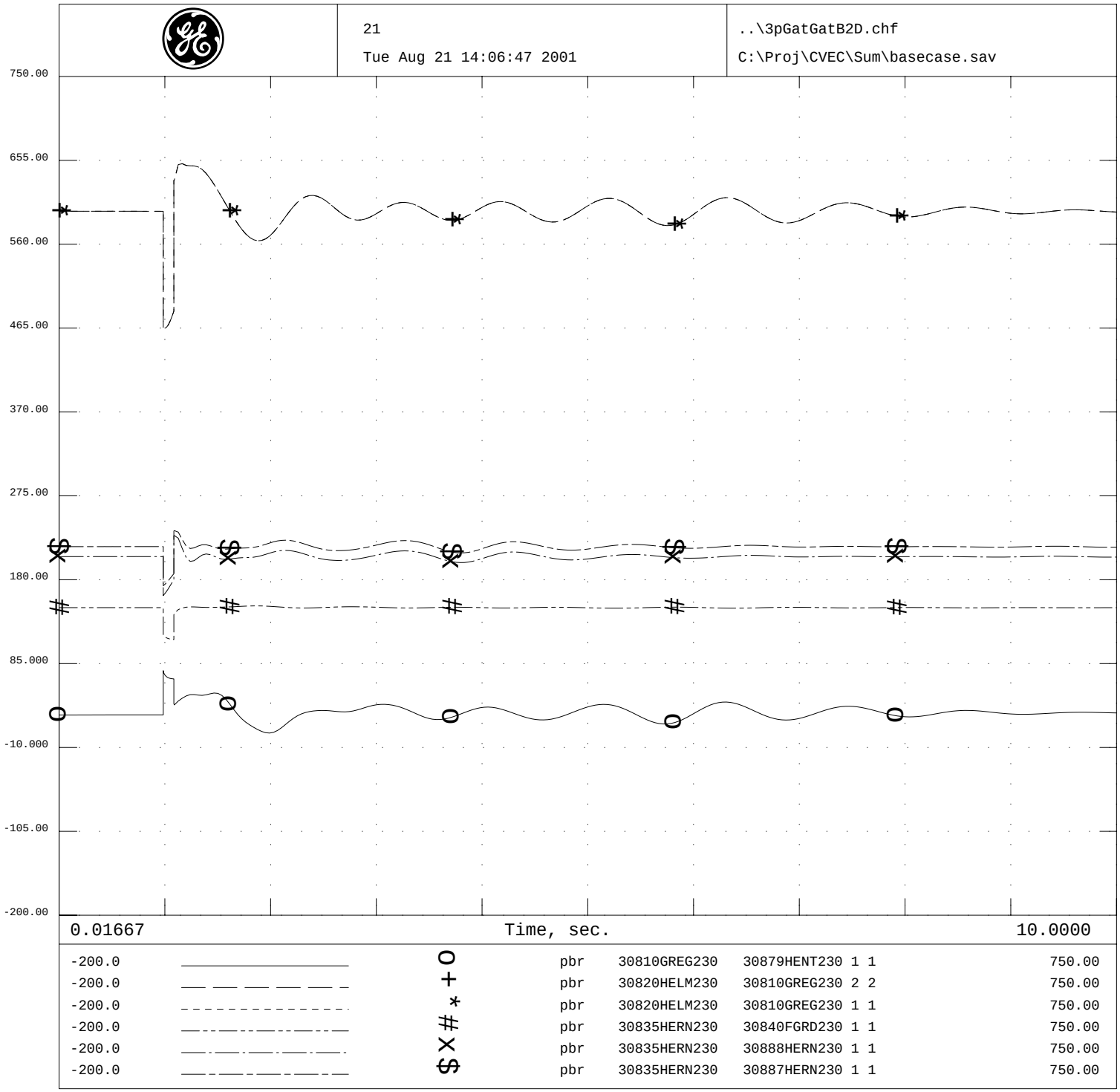

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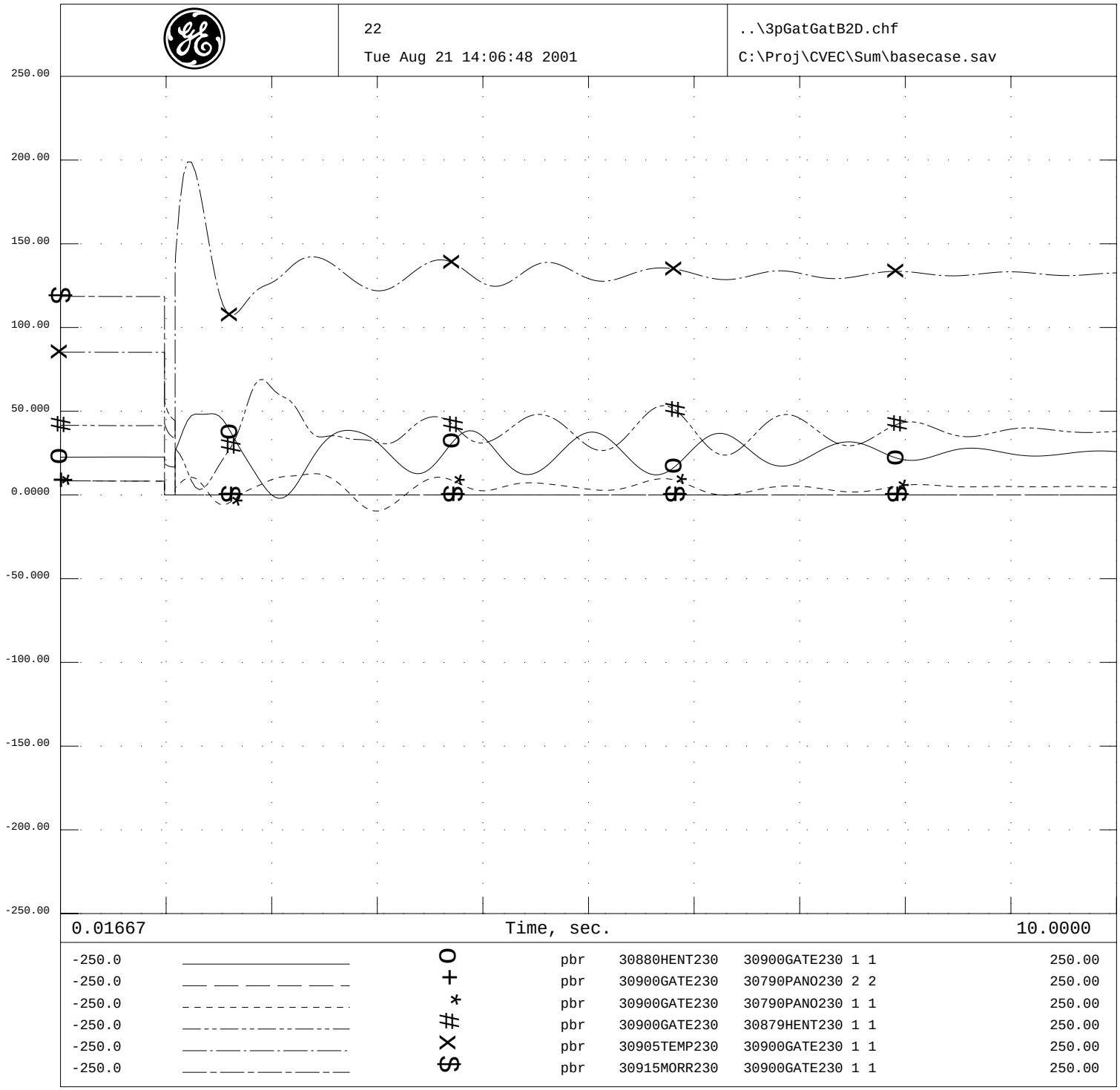

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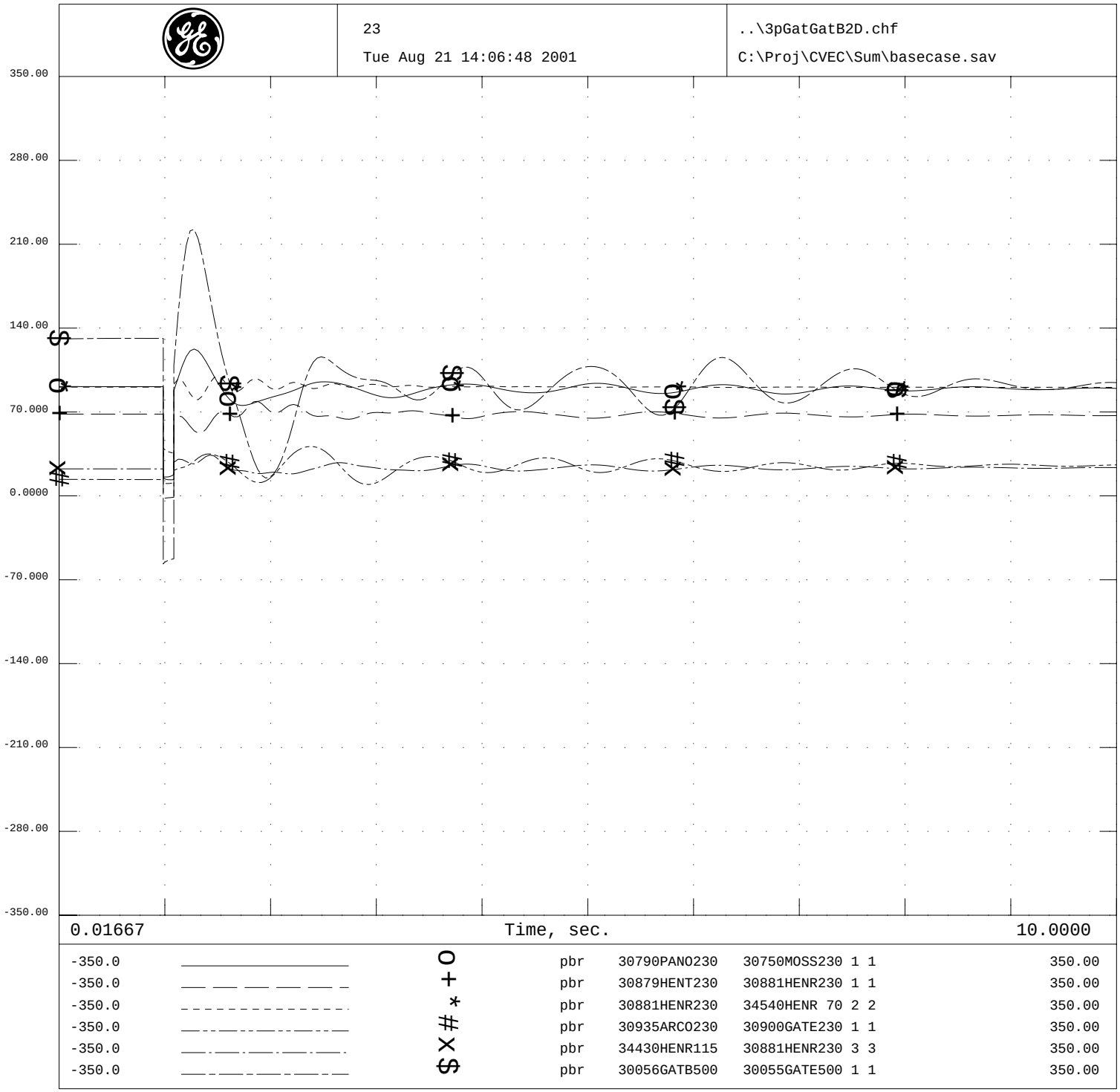

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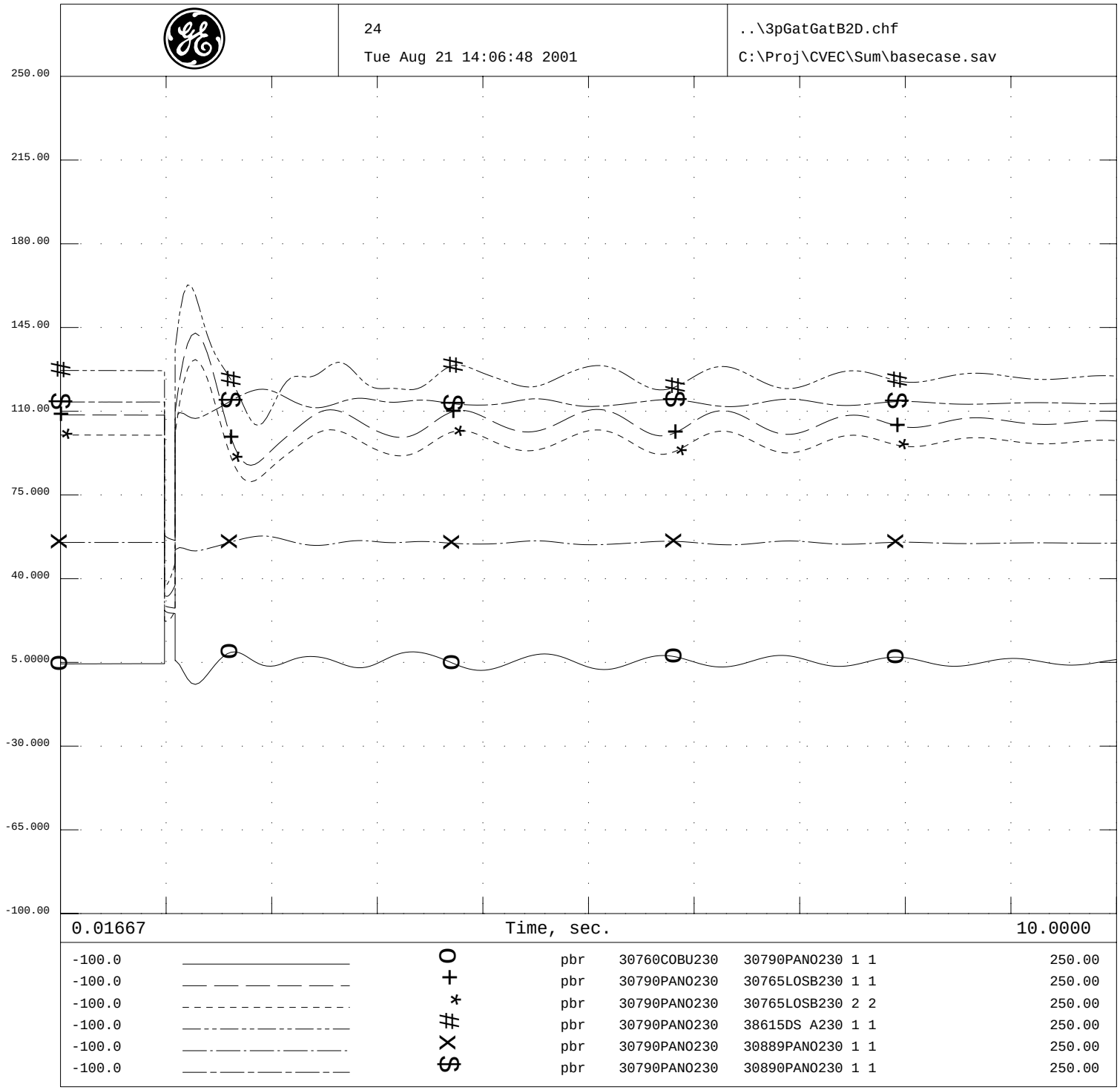

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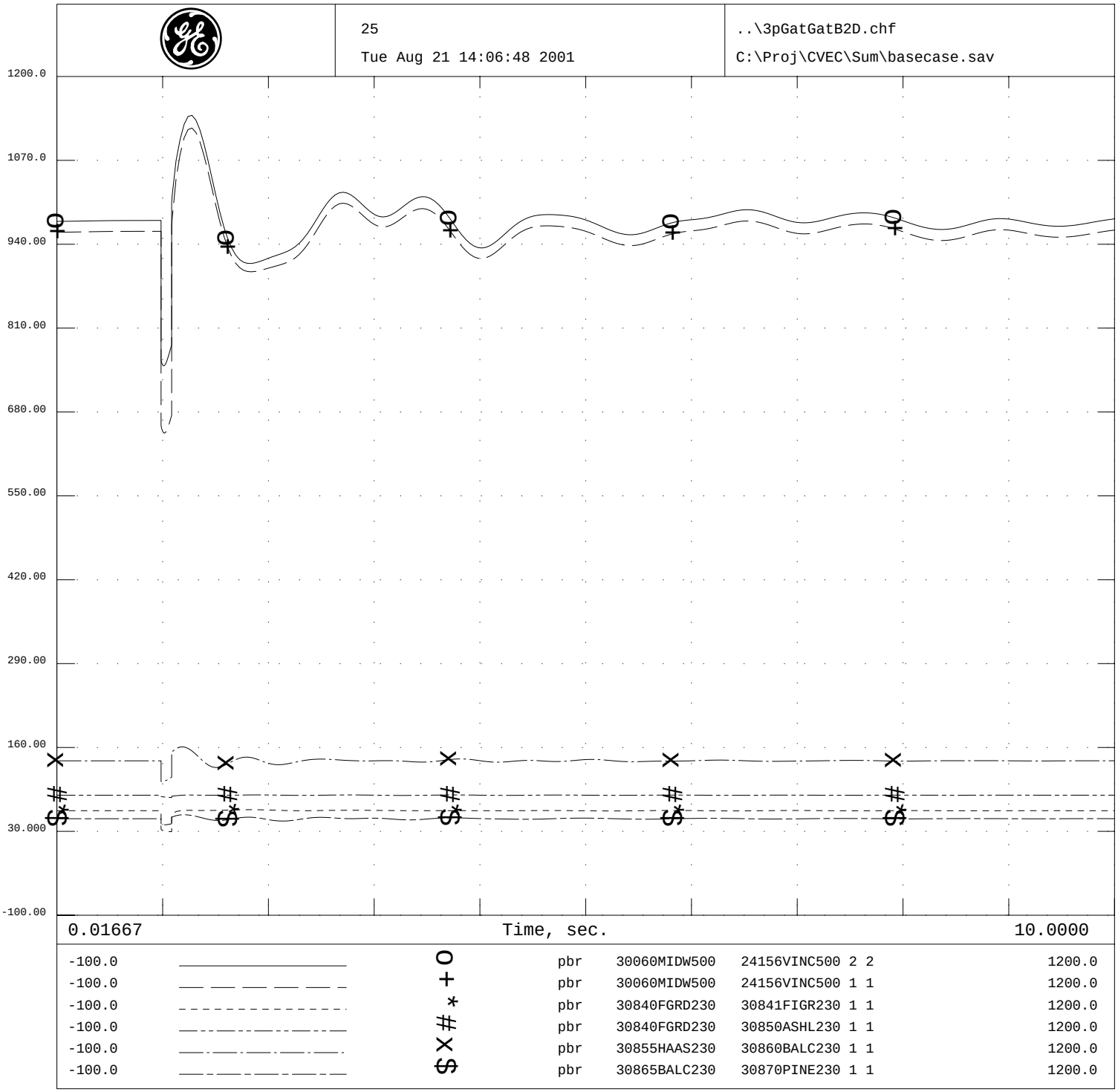

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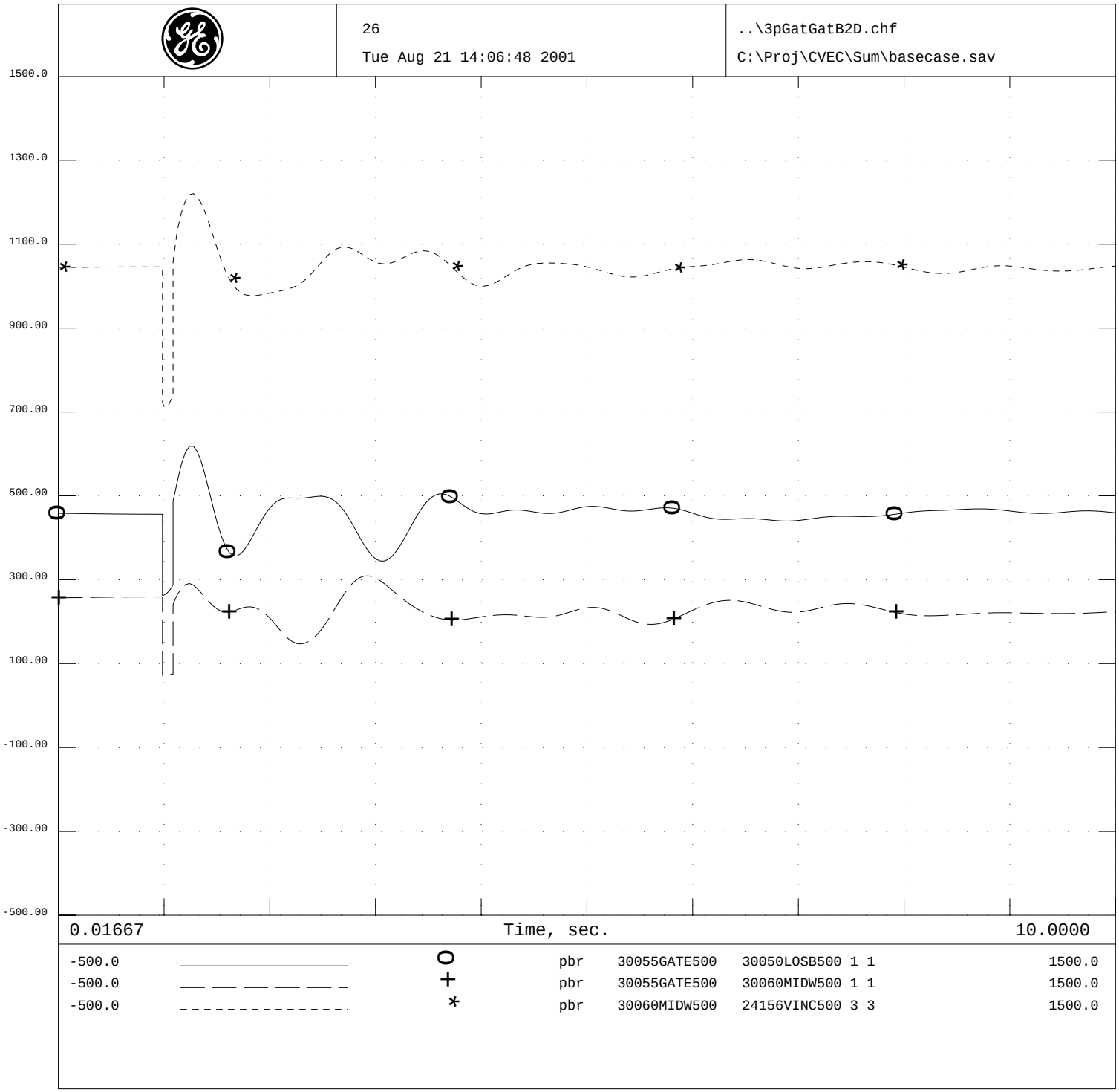

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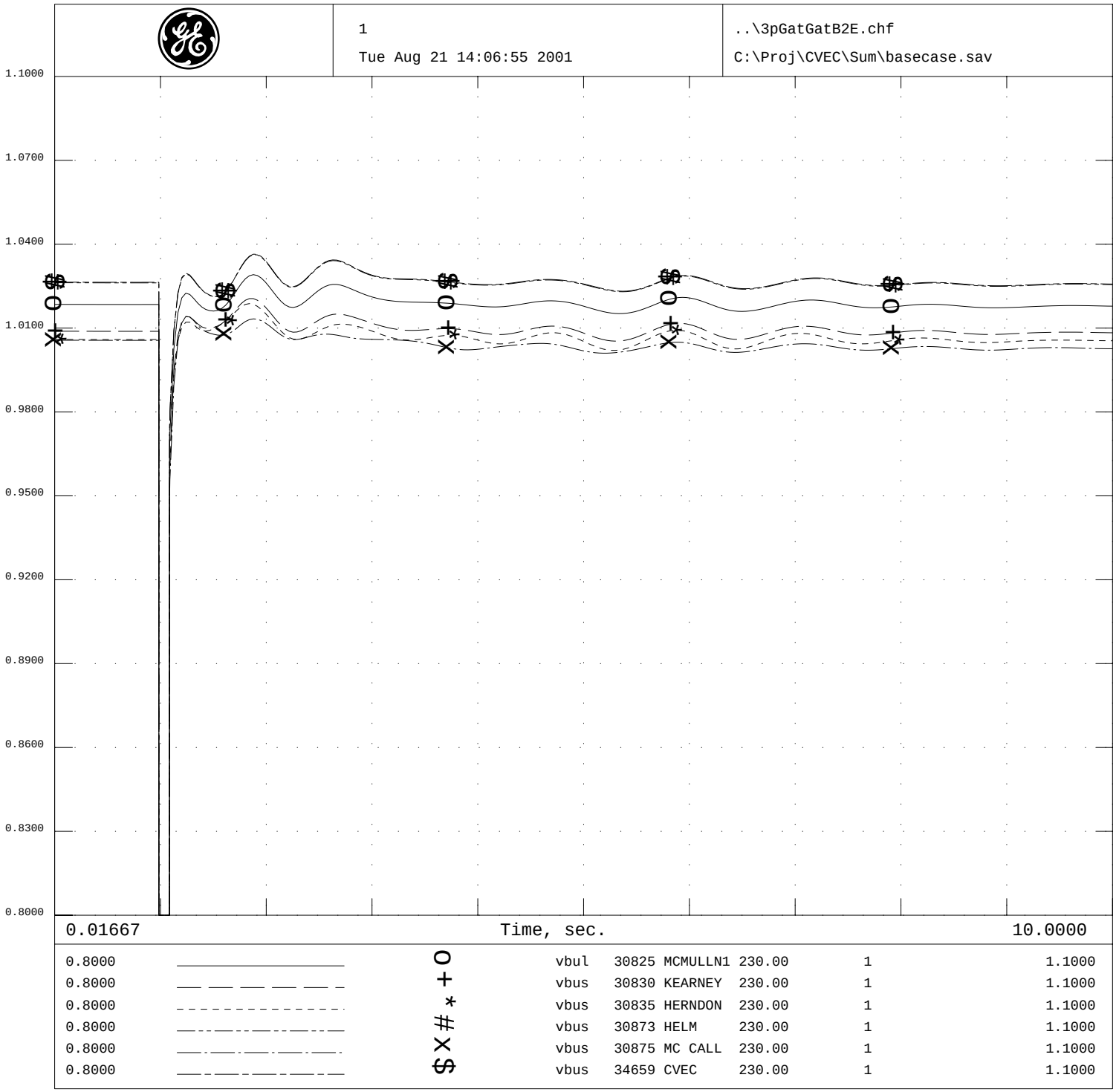

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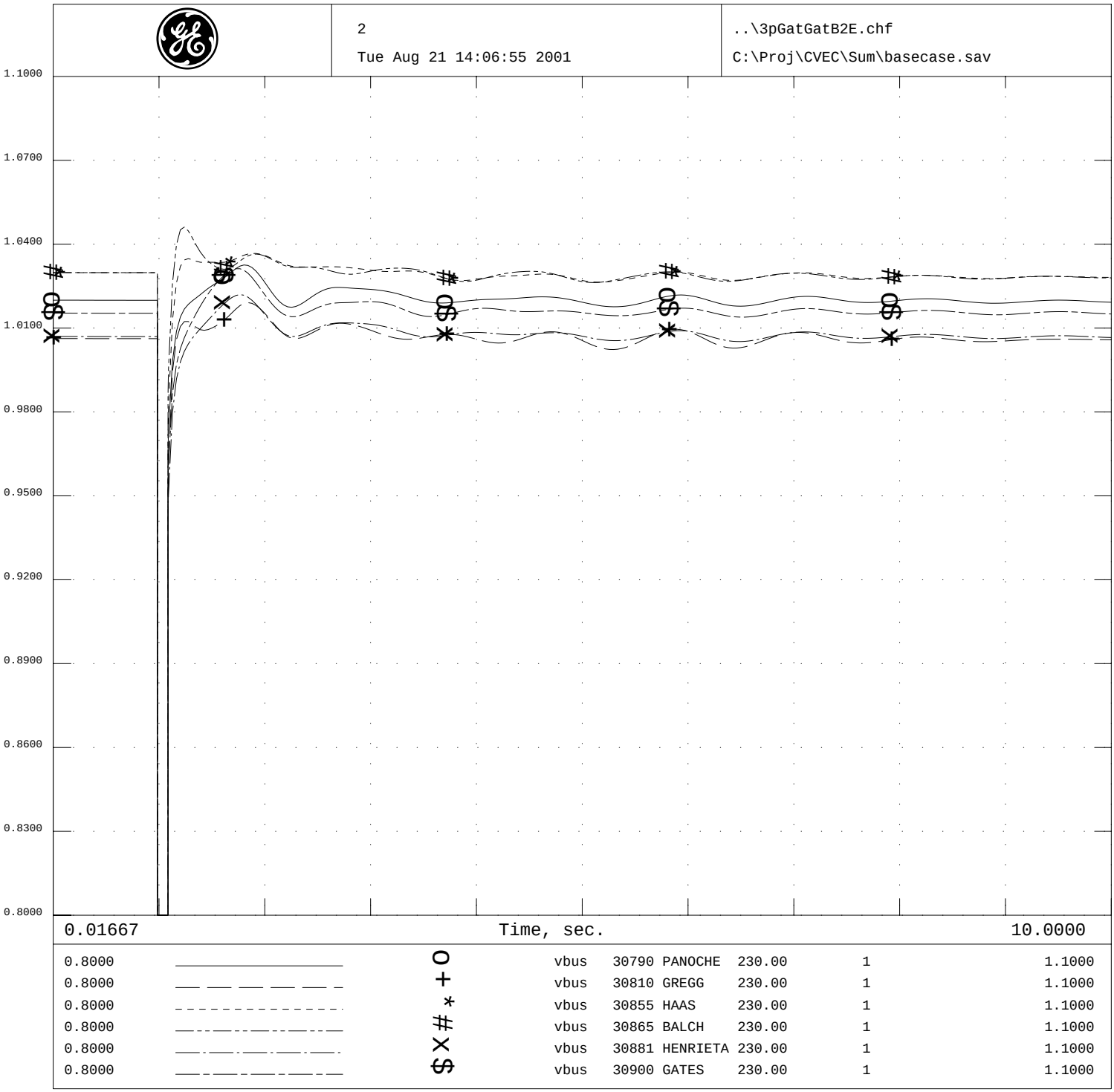

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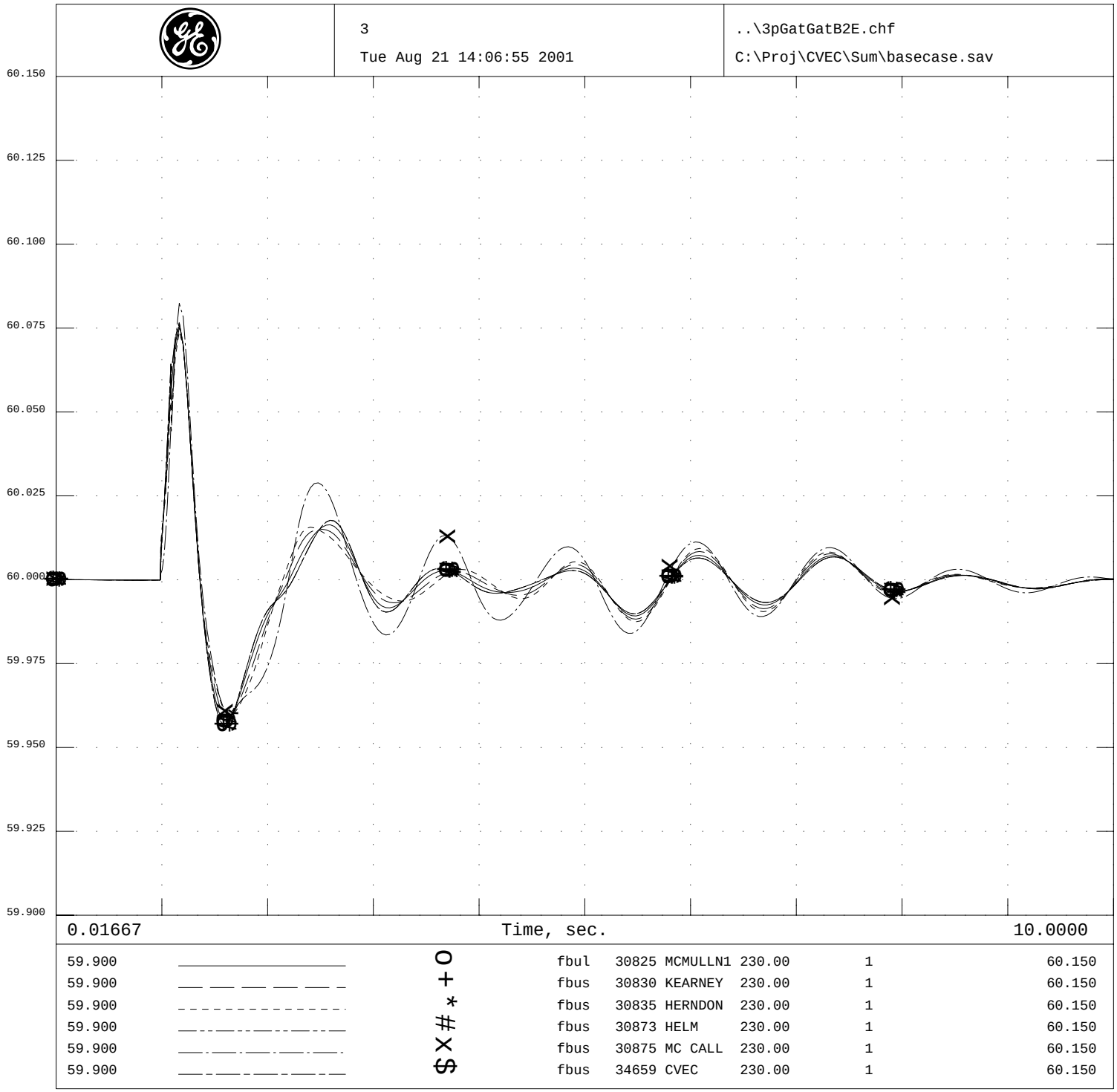

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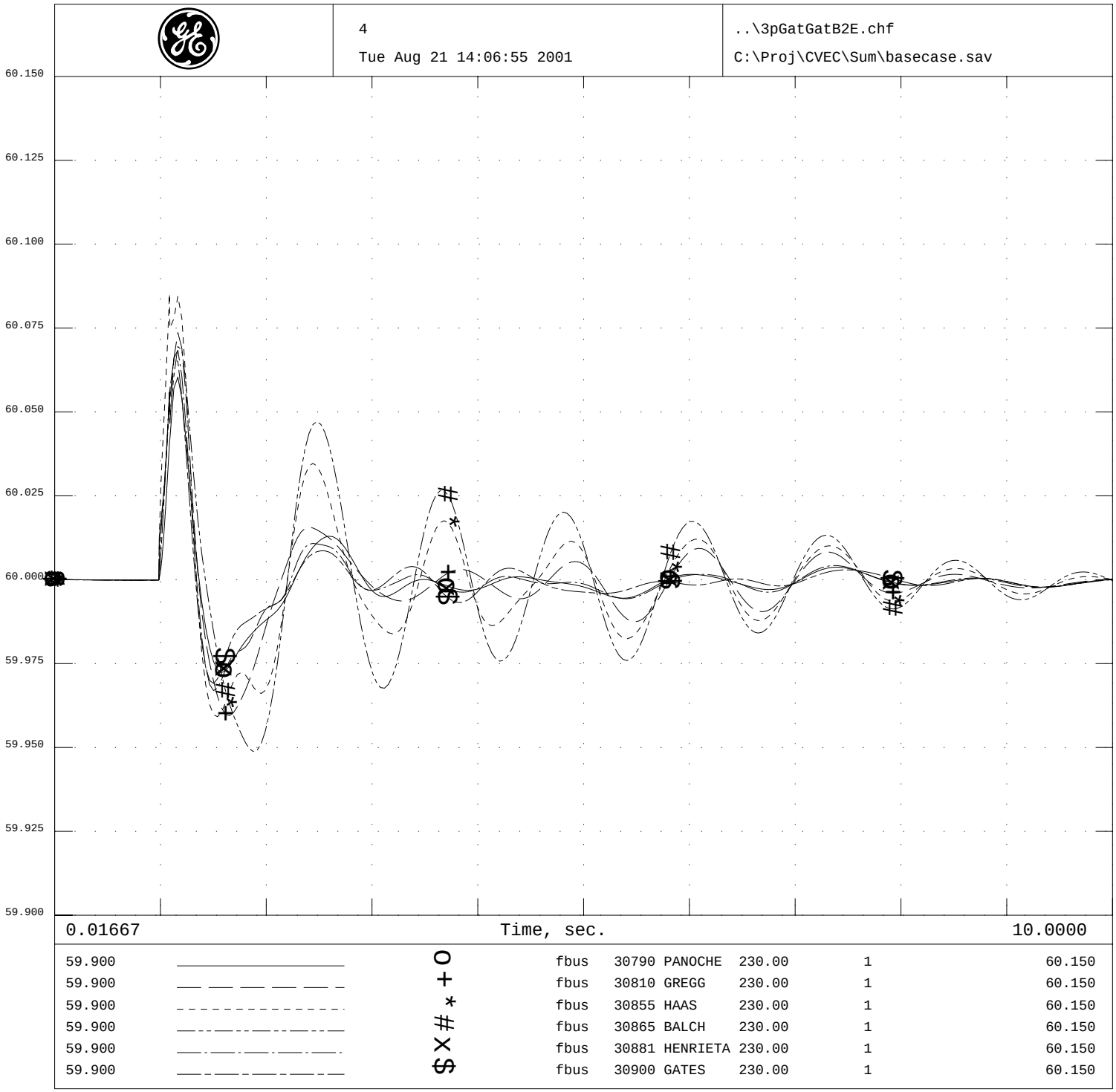

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Calpine Corporation
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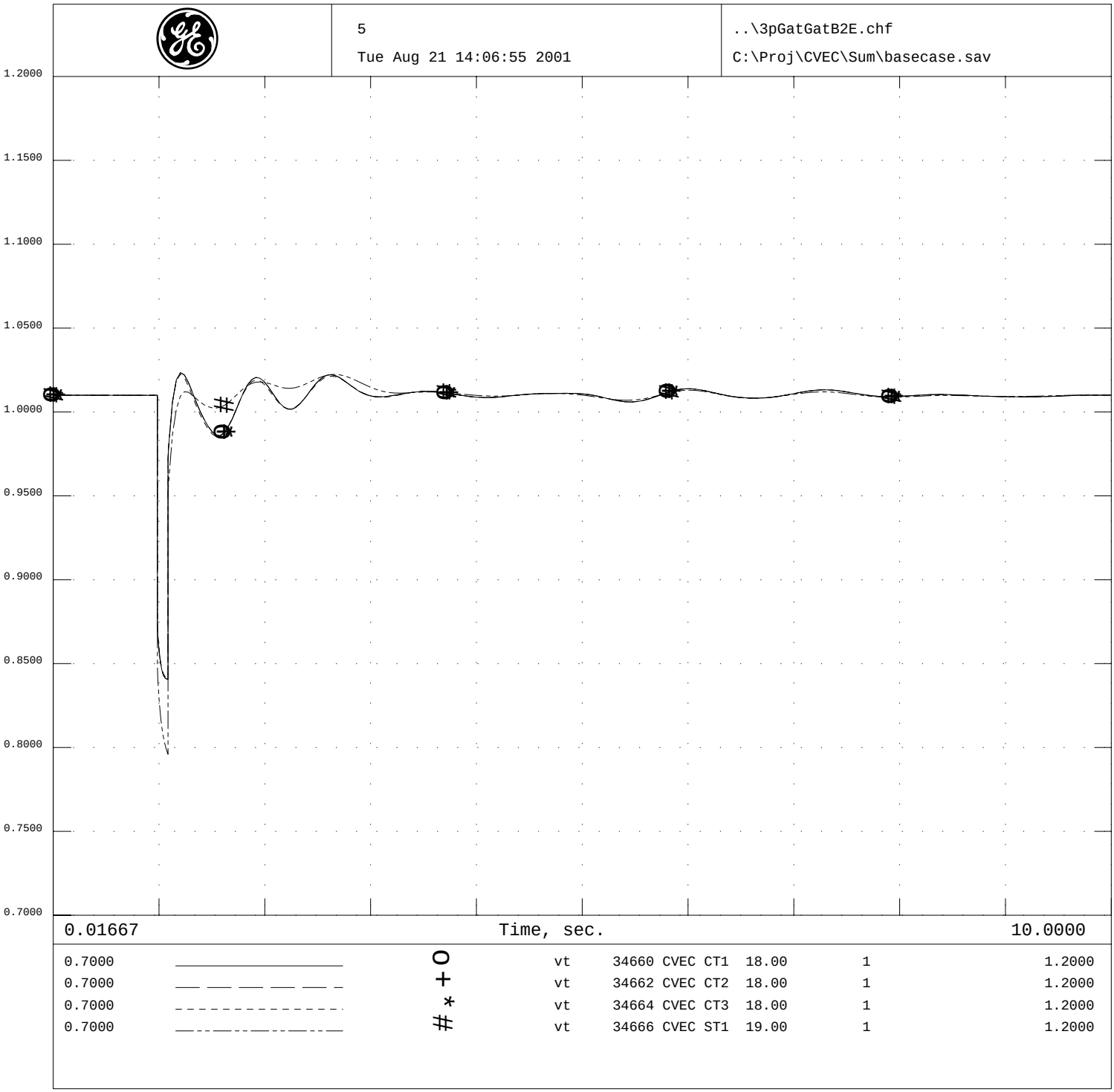
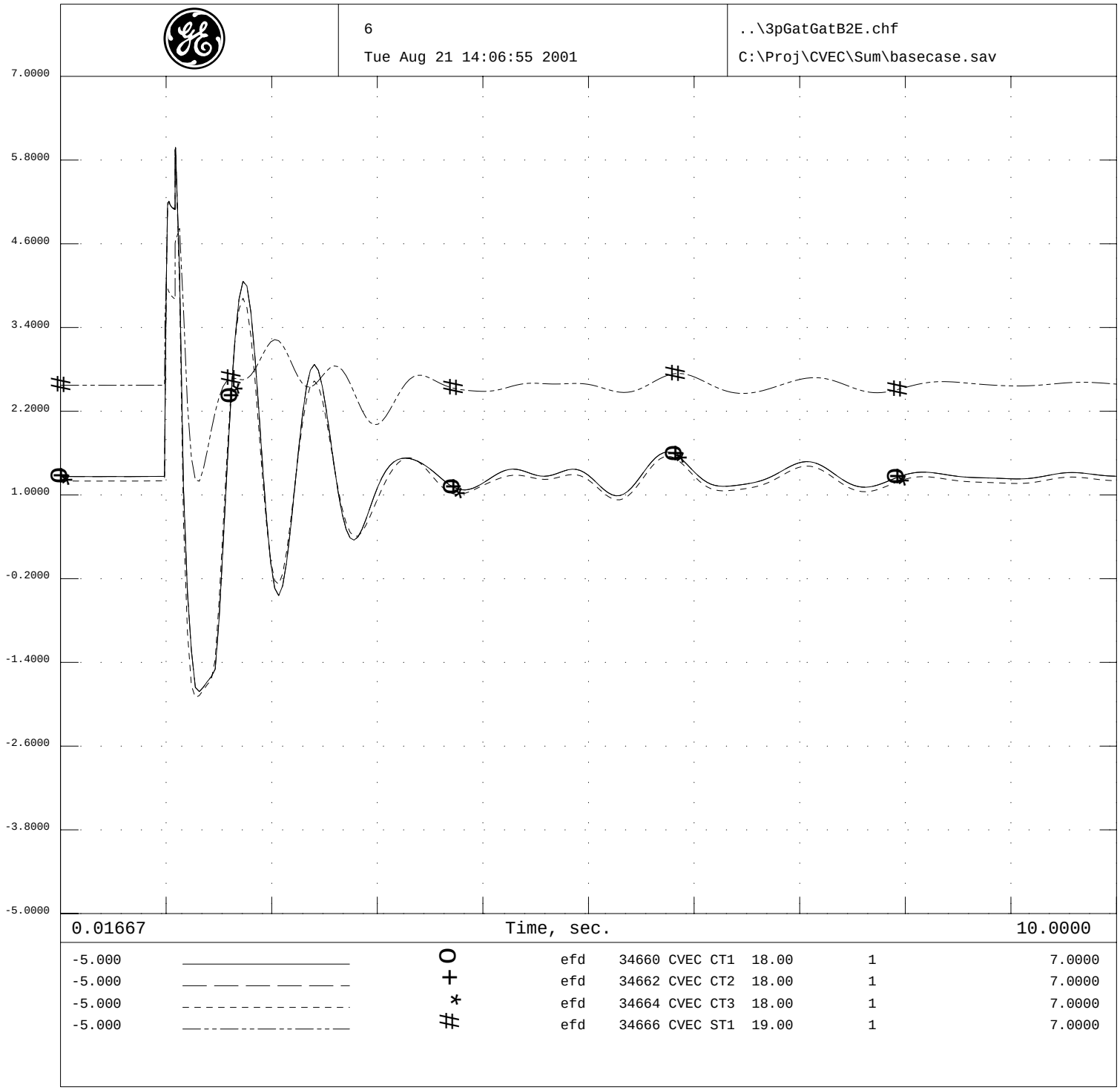


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Gates 230kV Bus 2E Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 2E

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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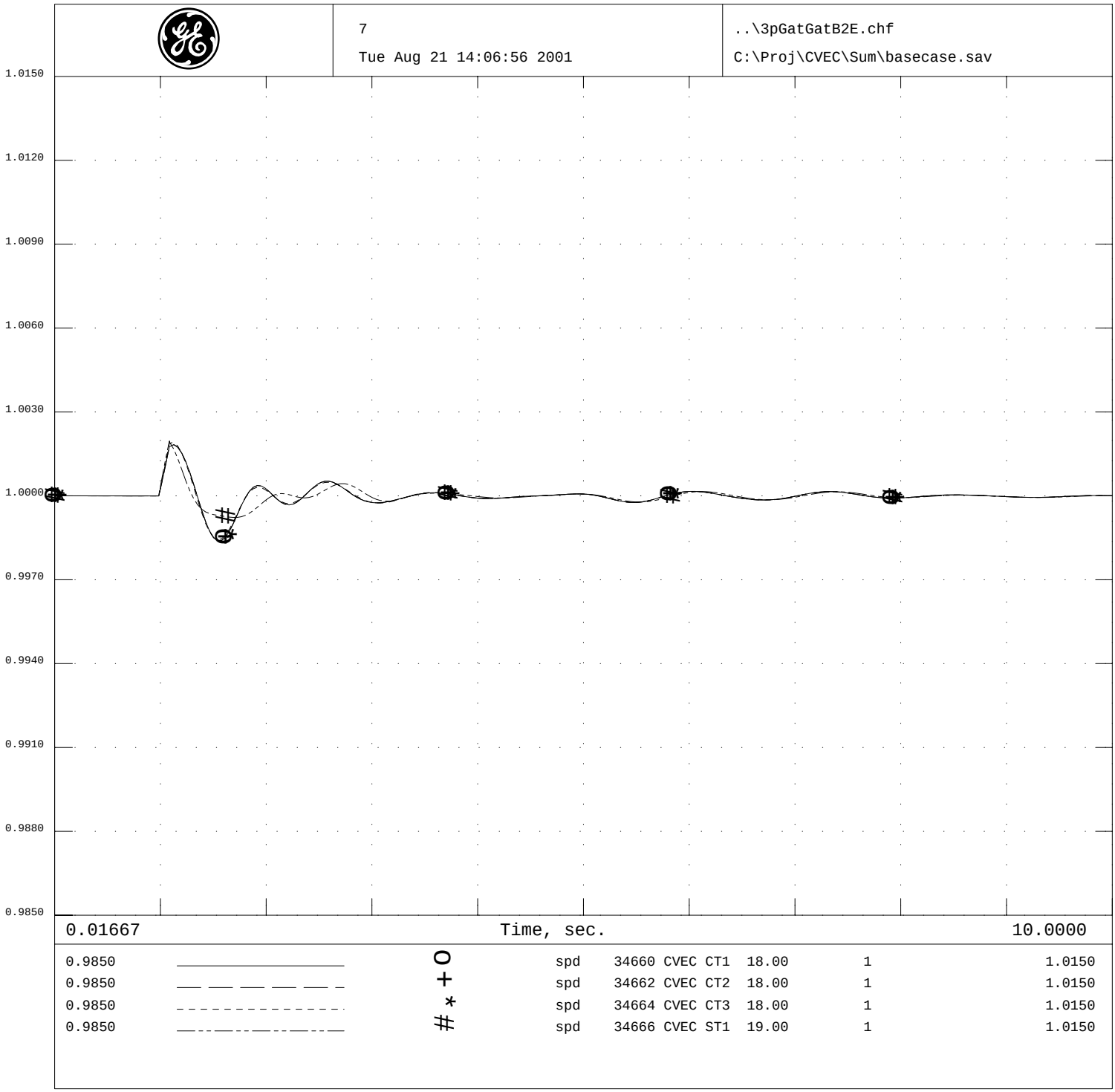

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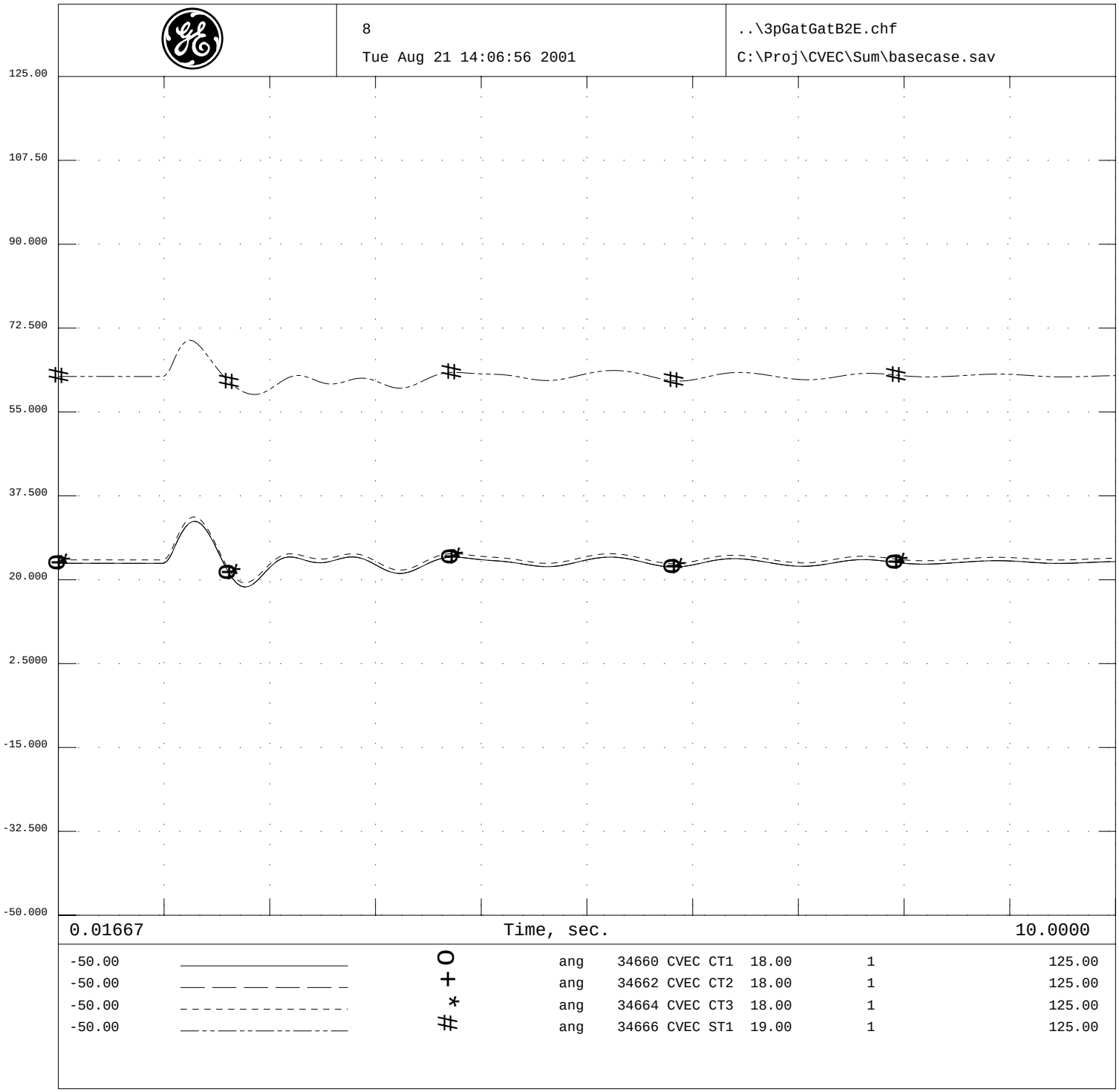
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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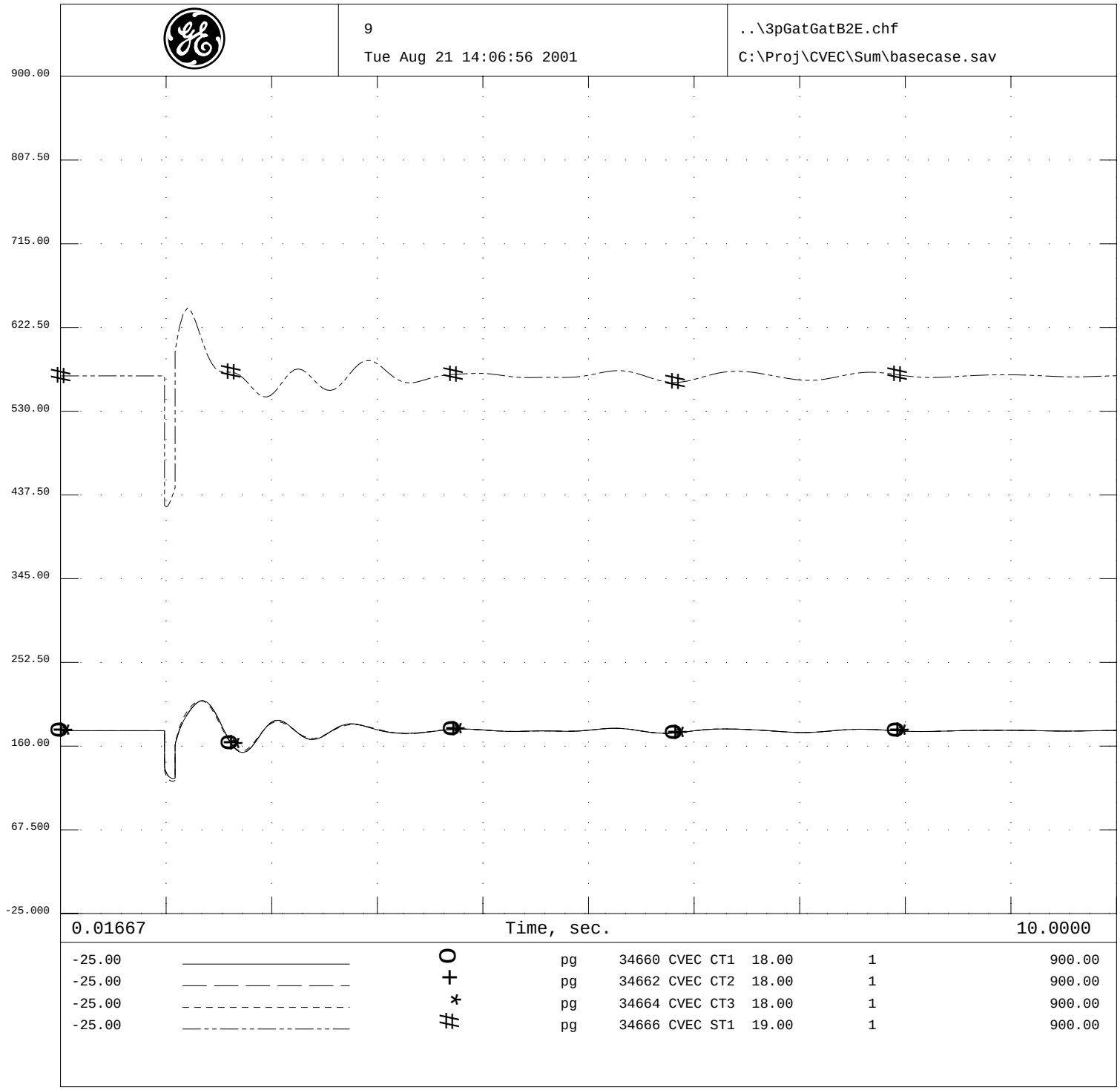
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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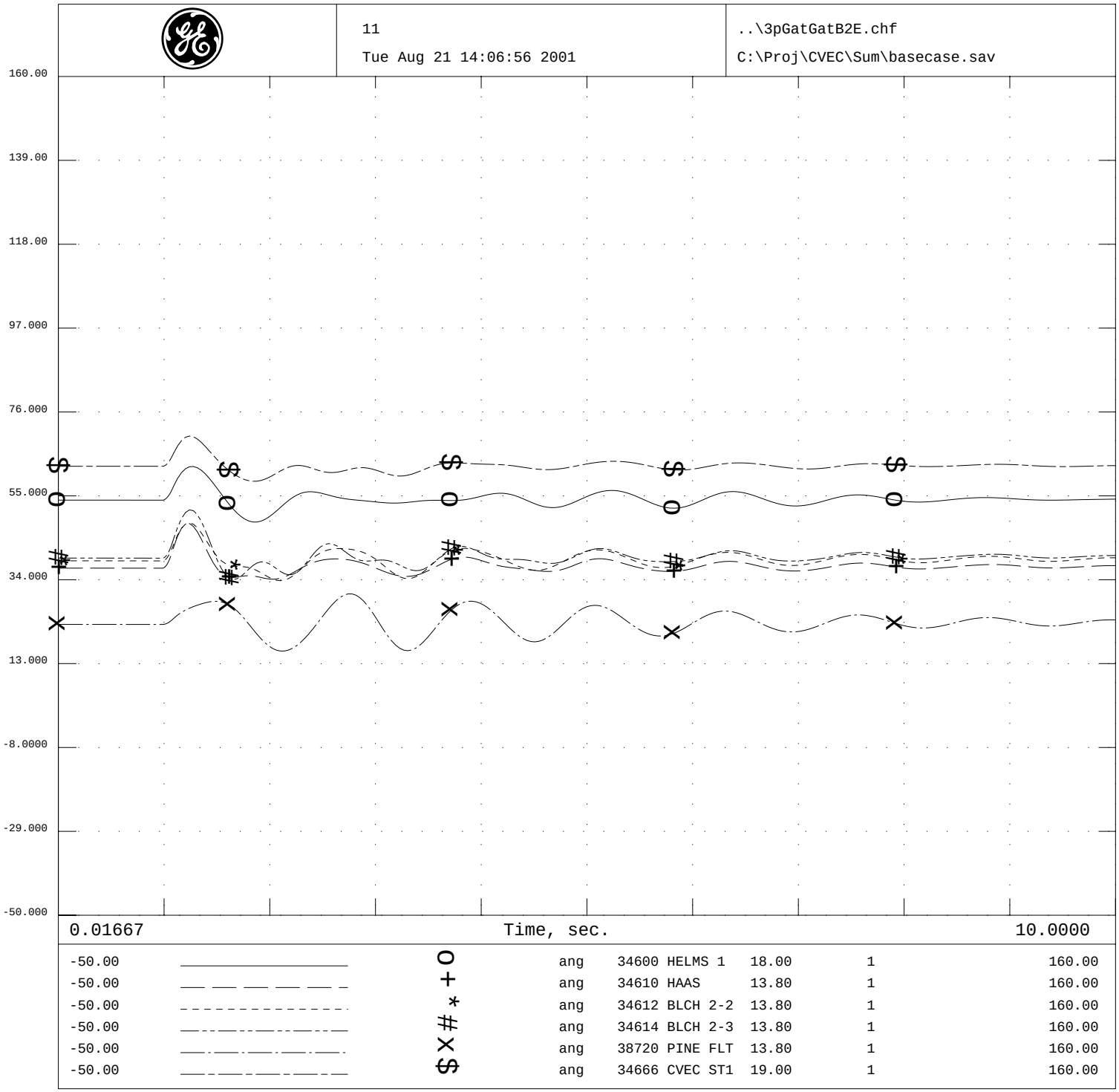
Calpine Corporation
Project Generator Terminal Power



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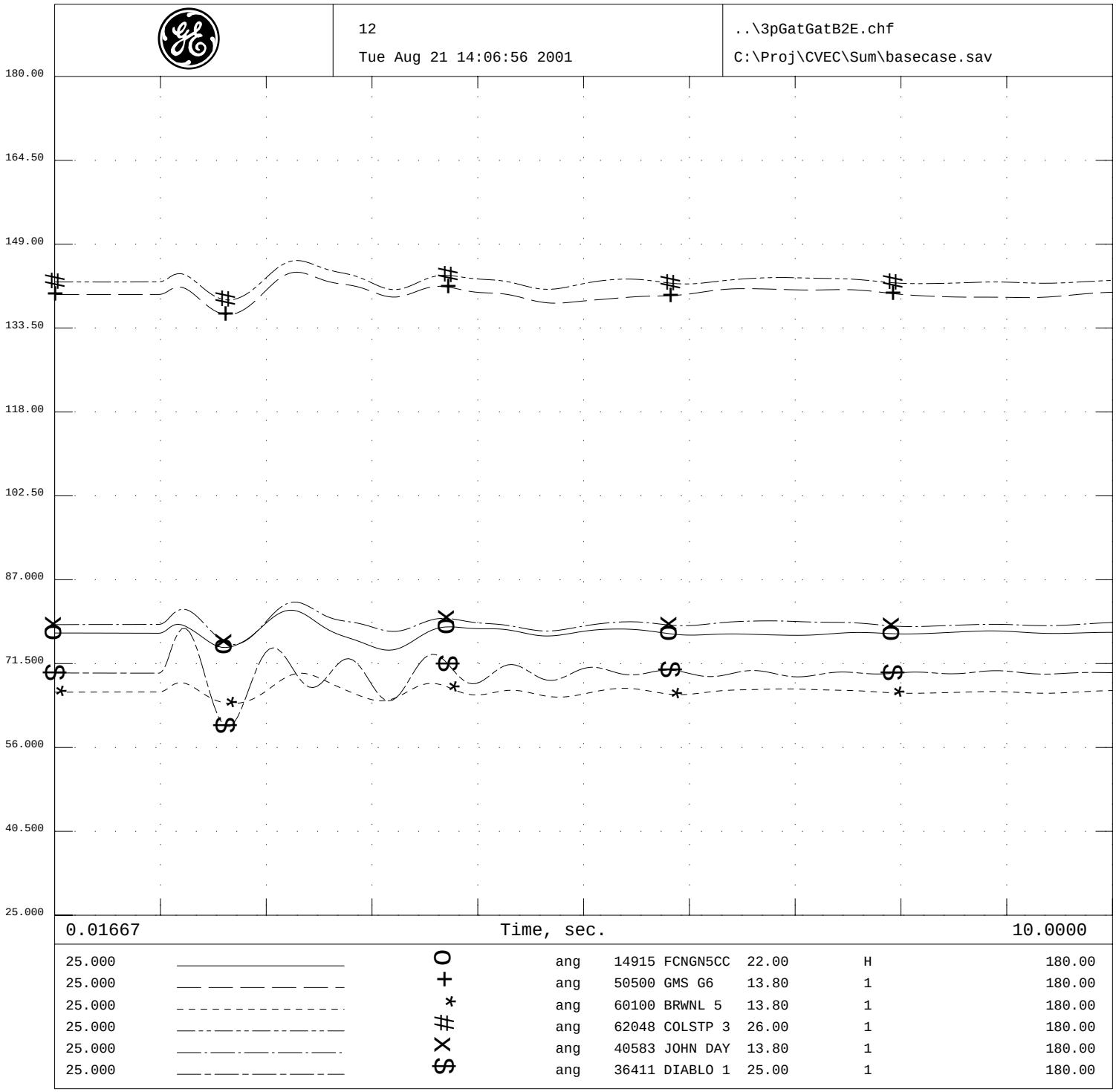
Calpine Corporation
Selected Local Rotor Angle Plots



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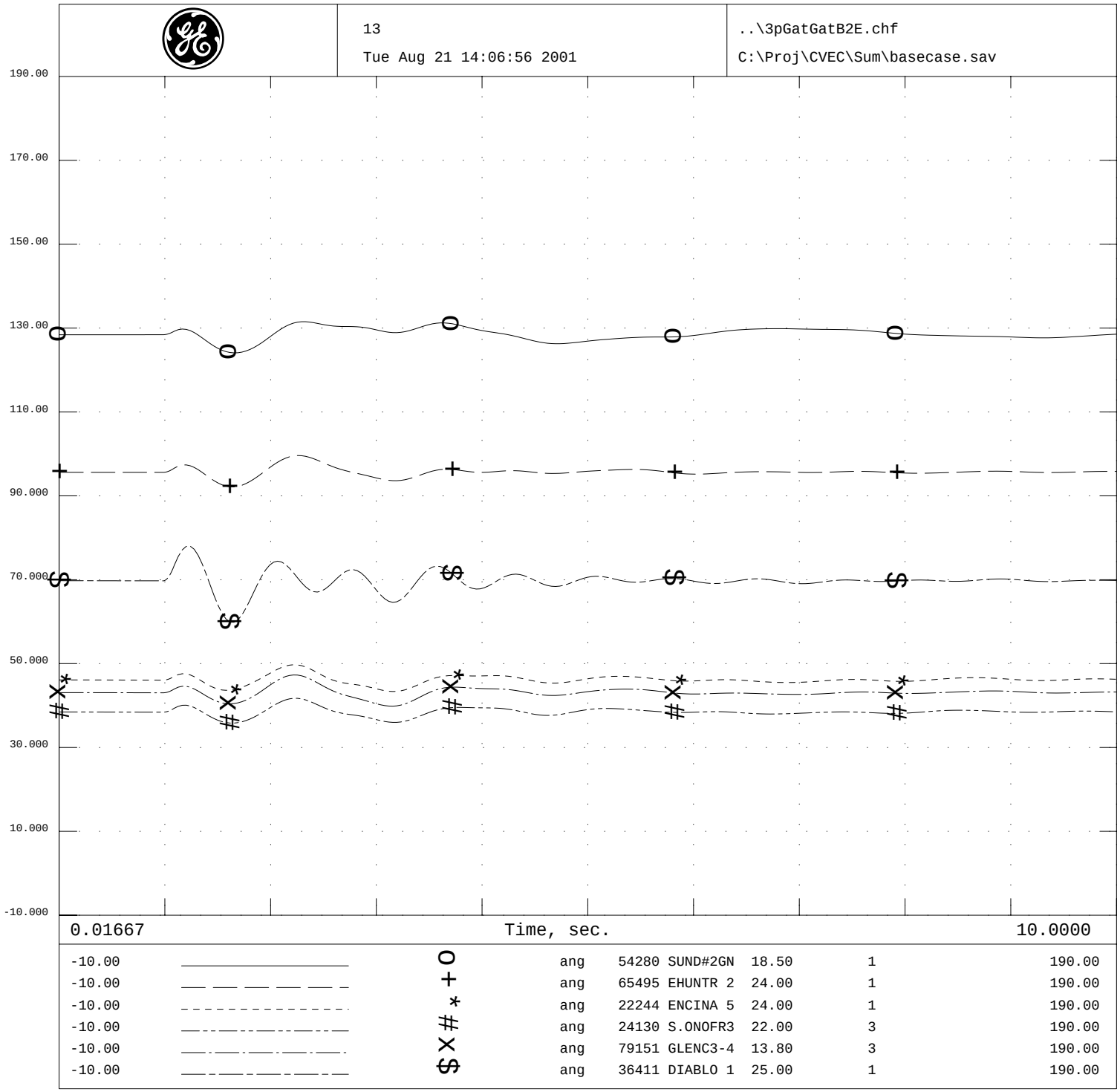
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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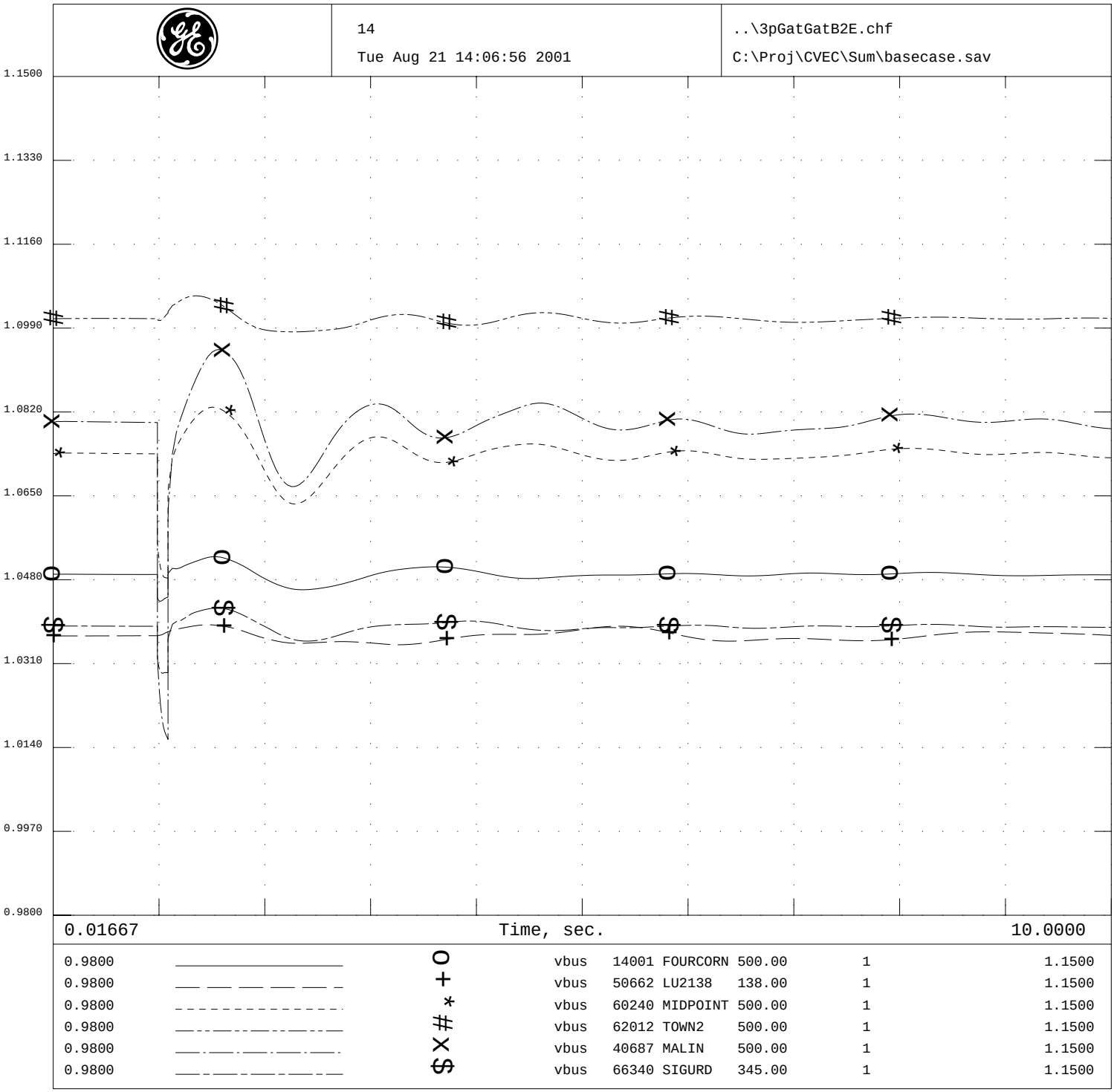

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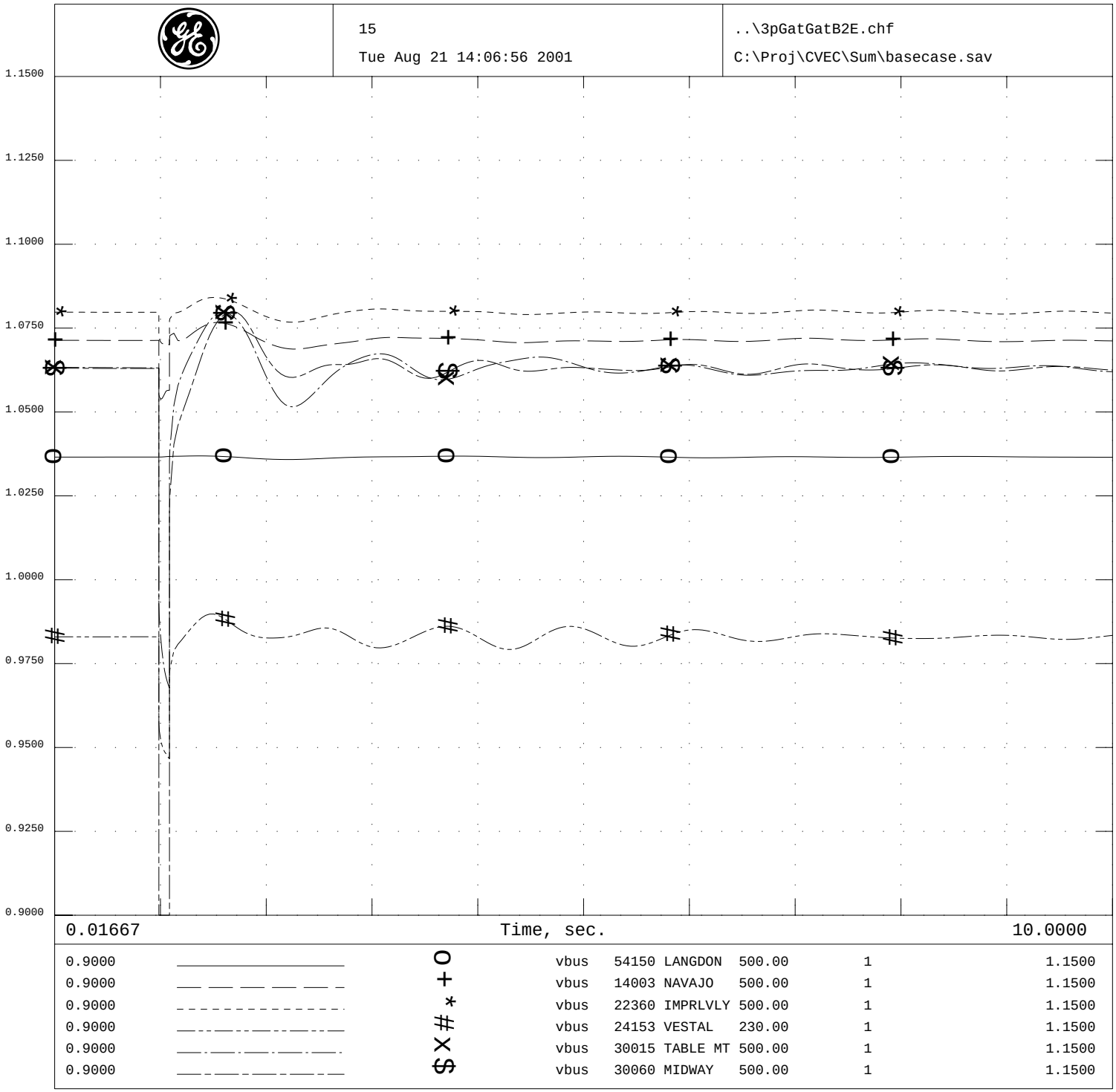

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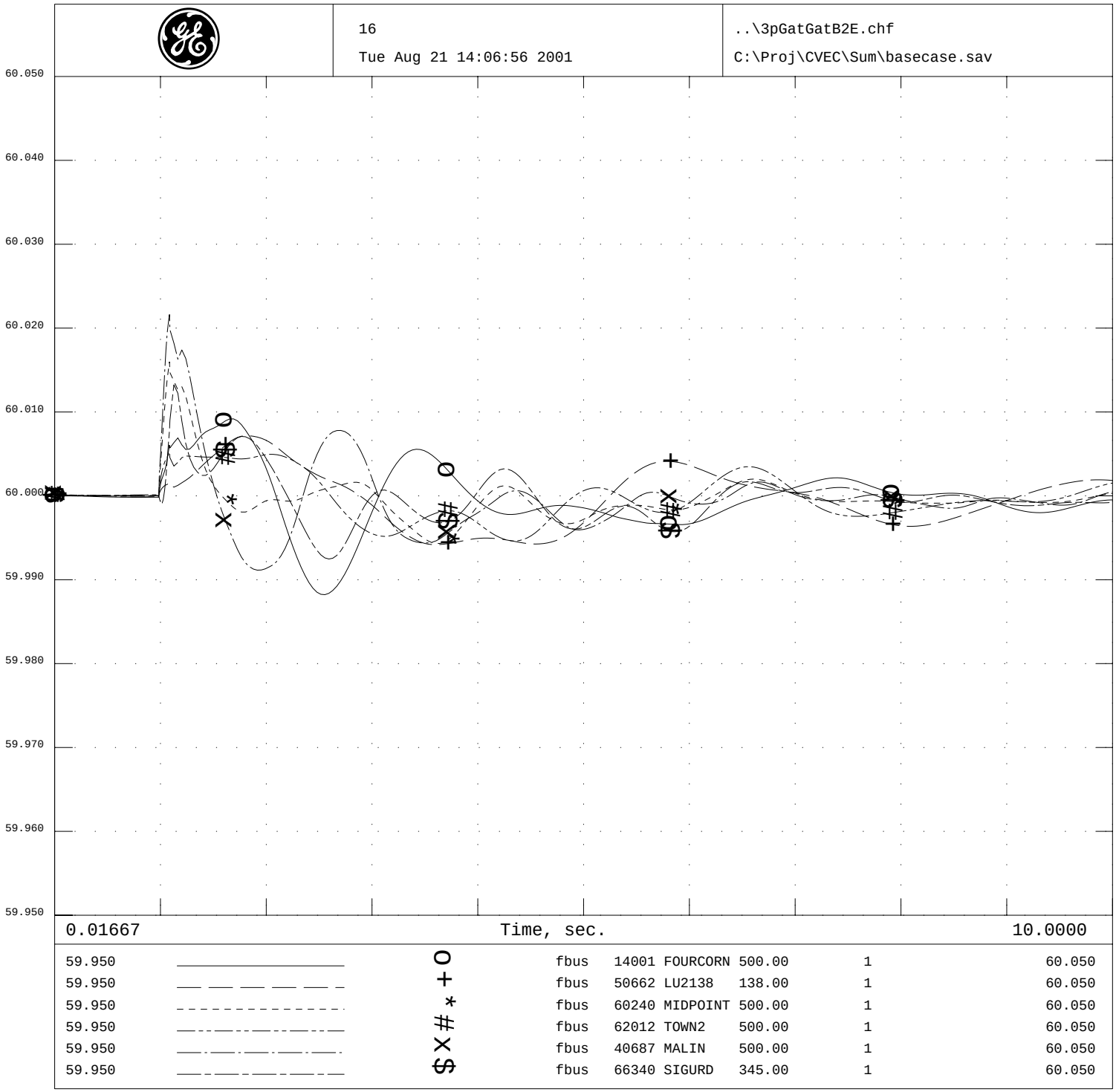

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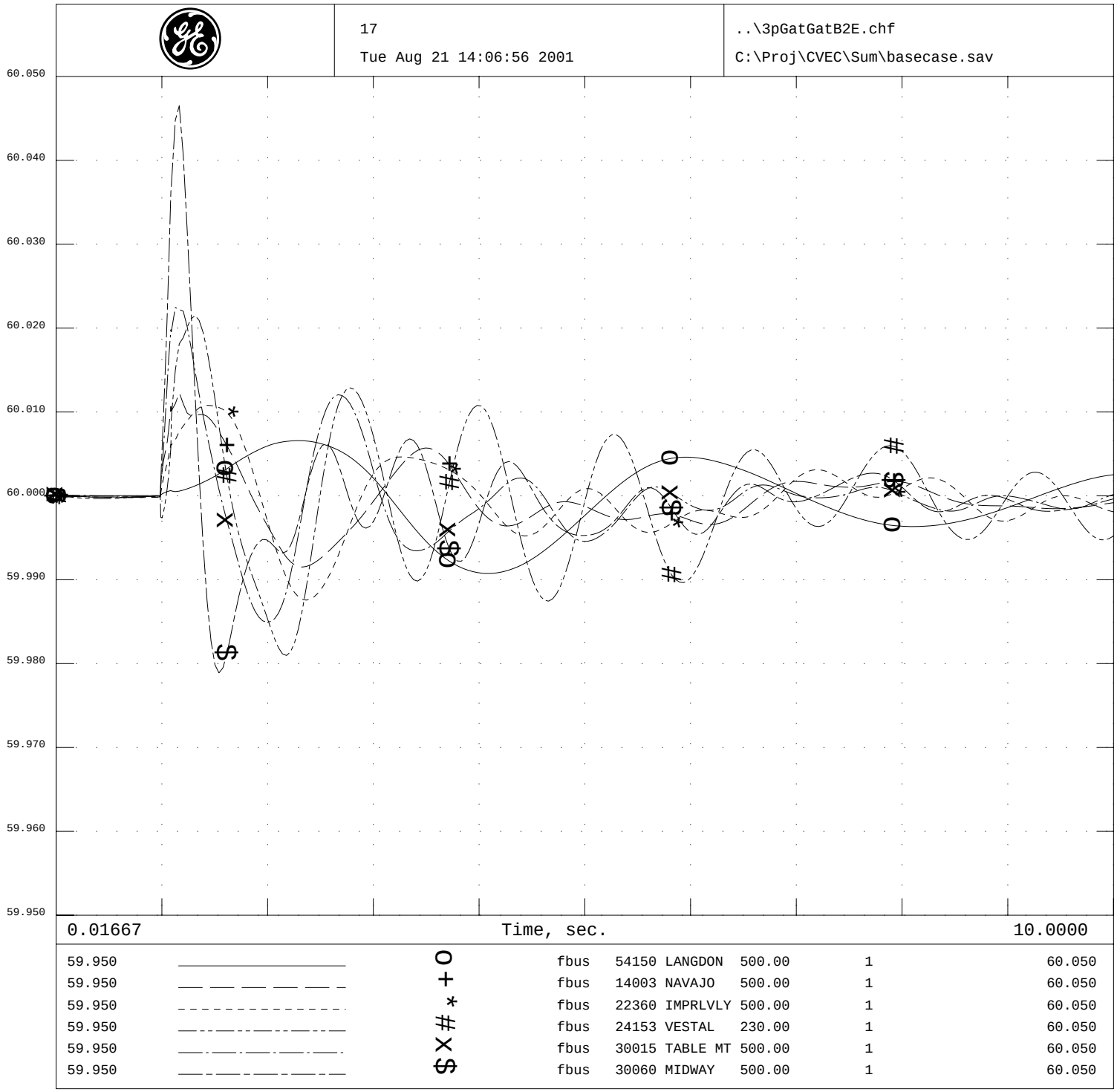

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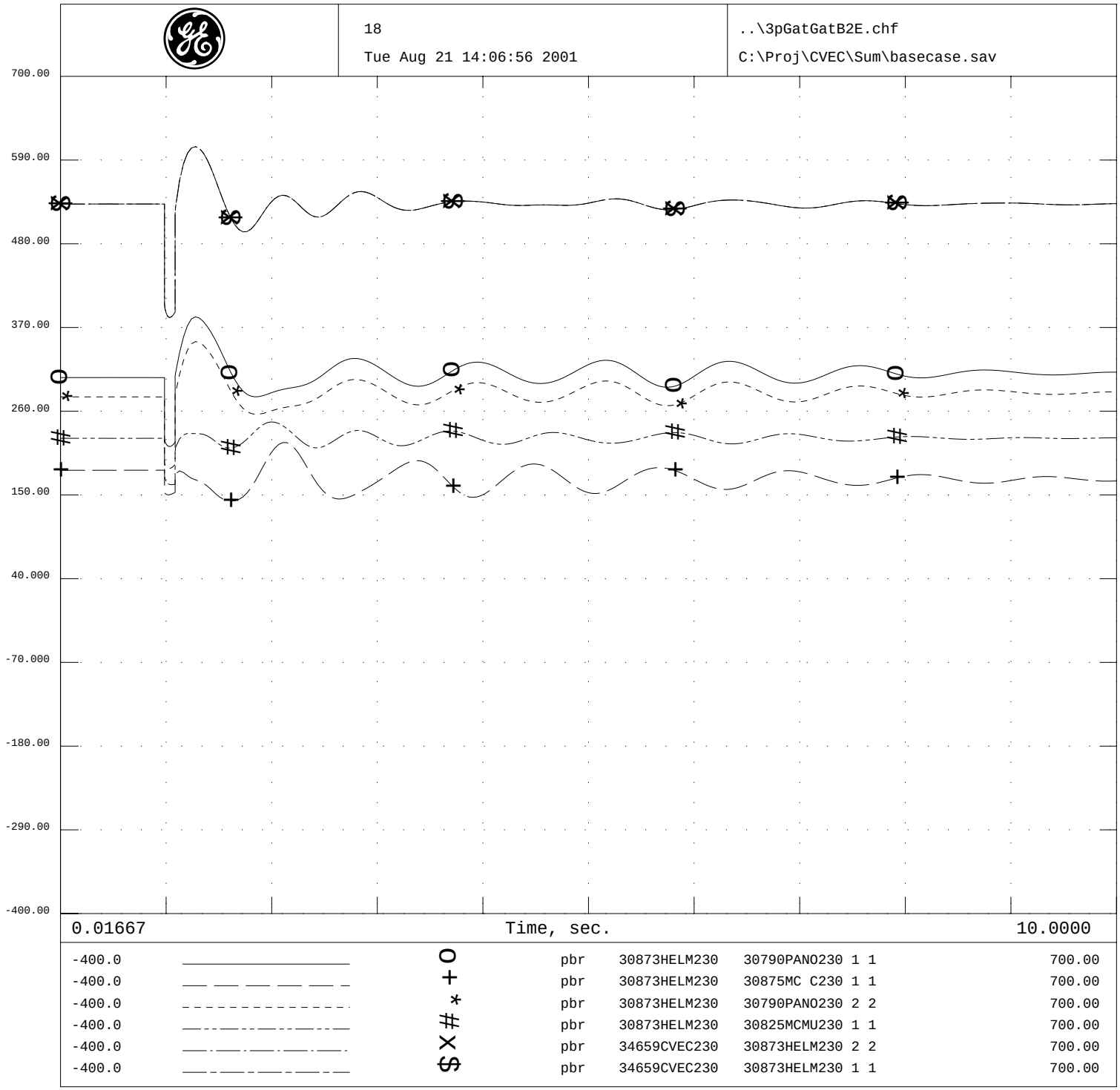

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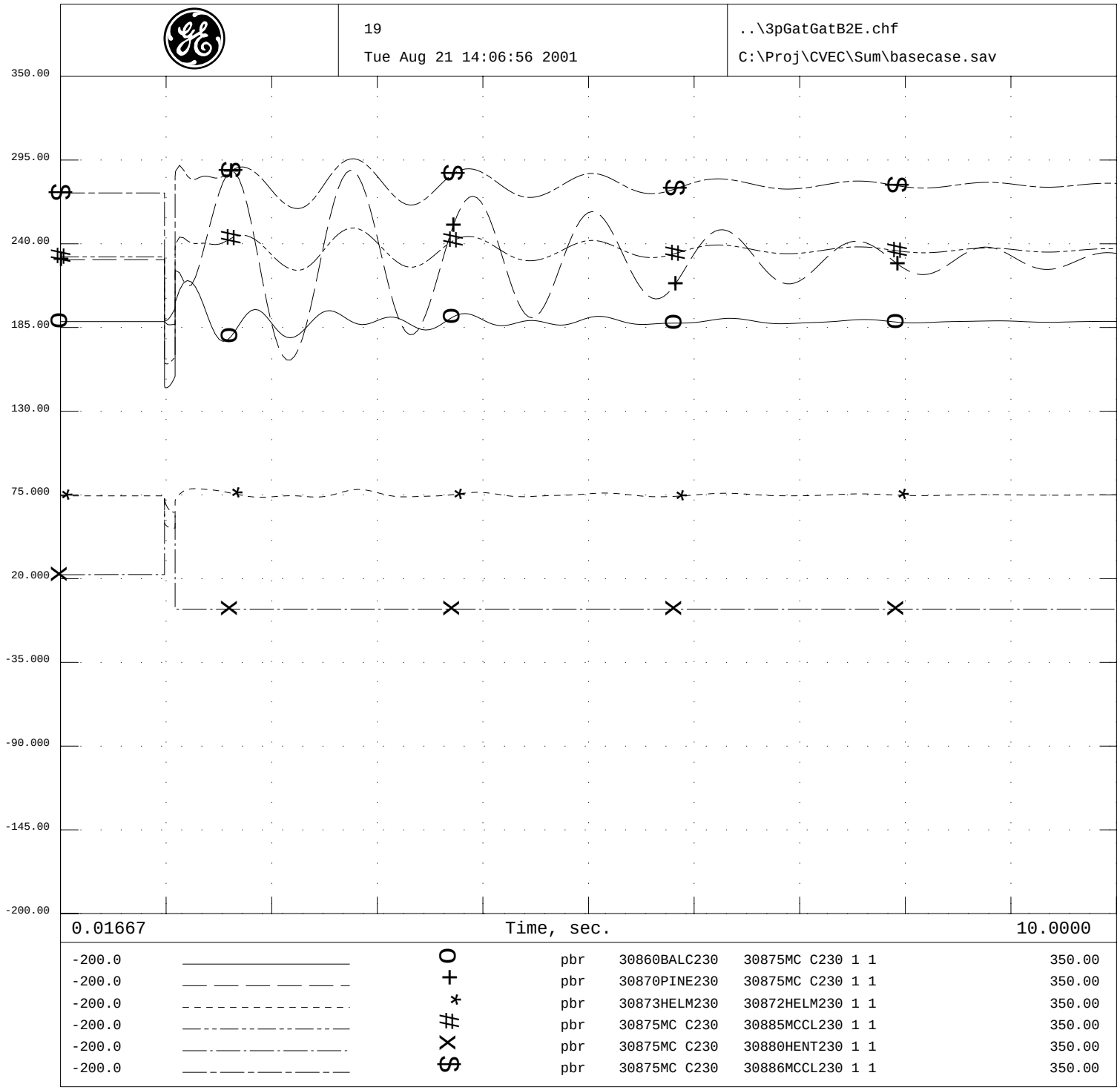
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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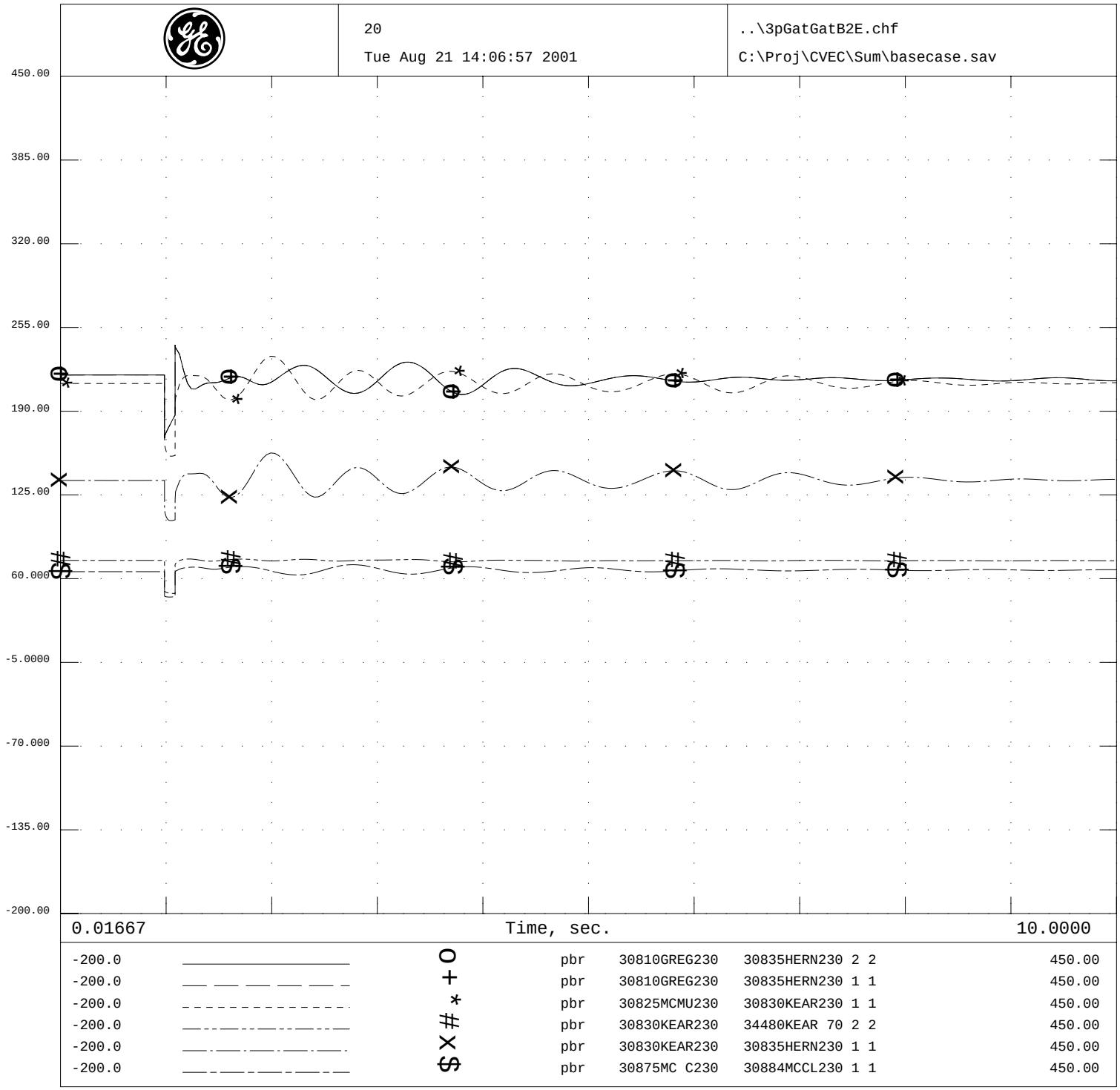

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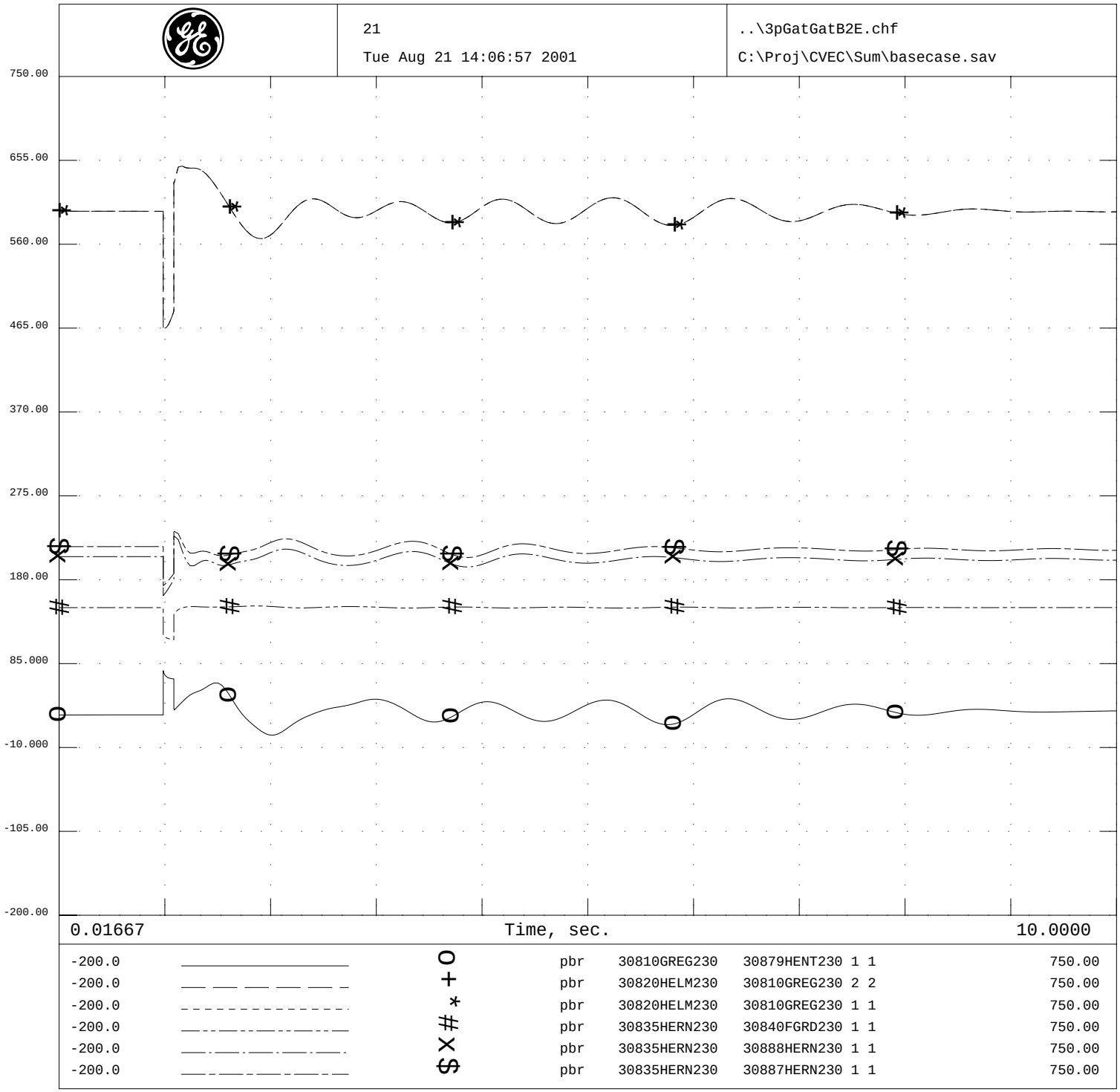

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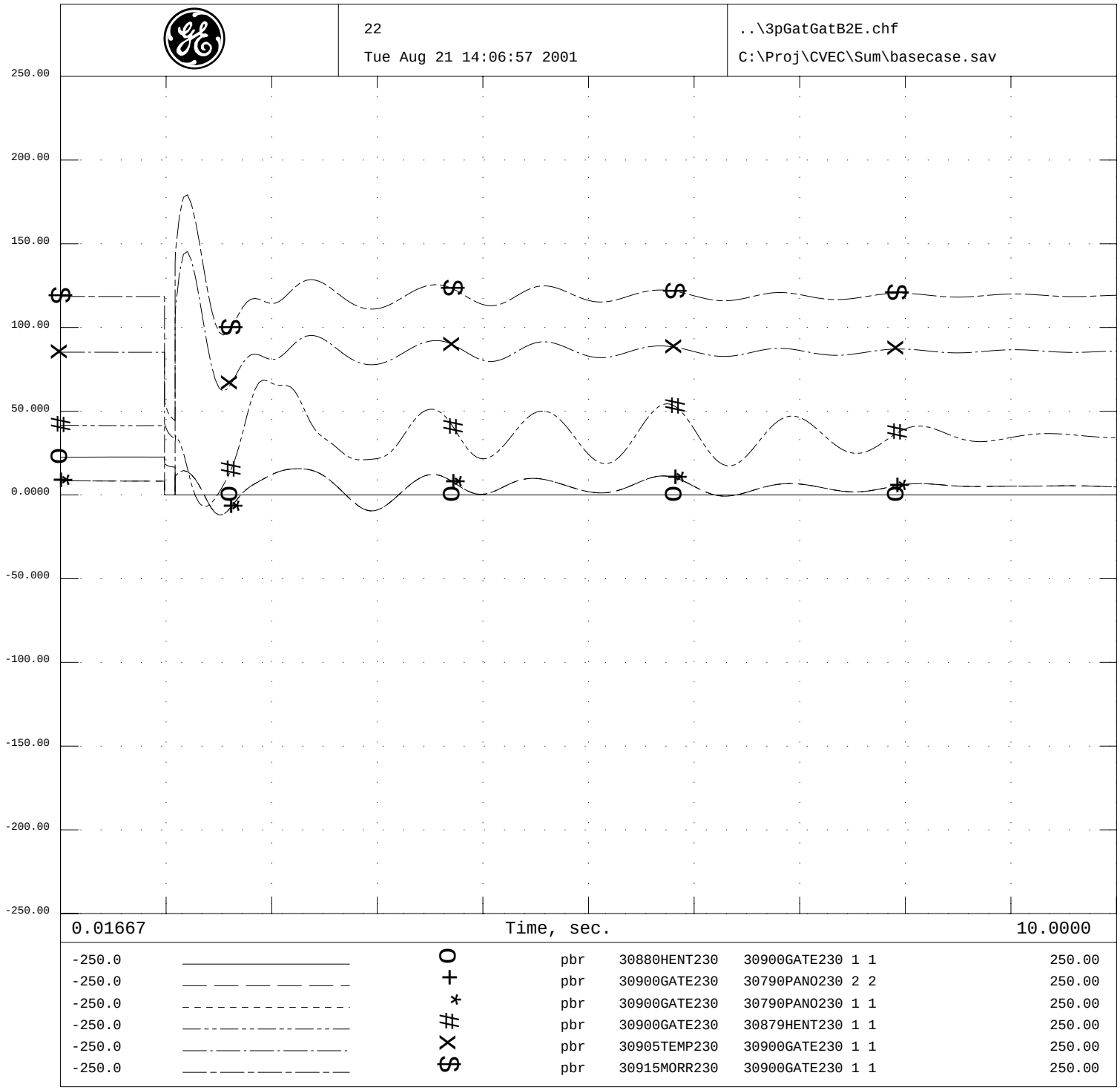

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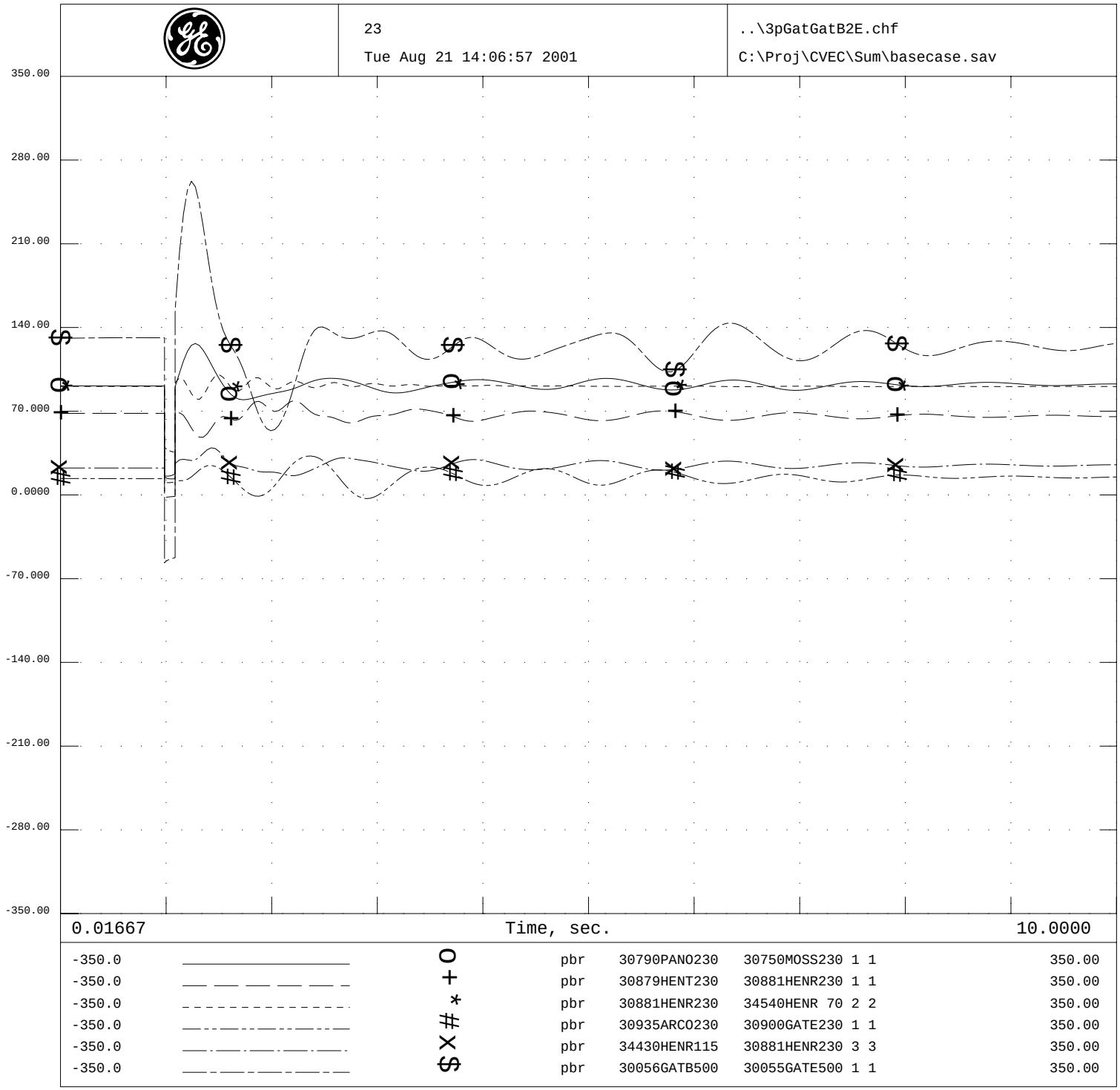

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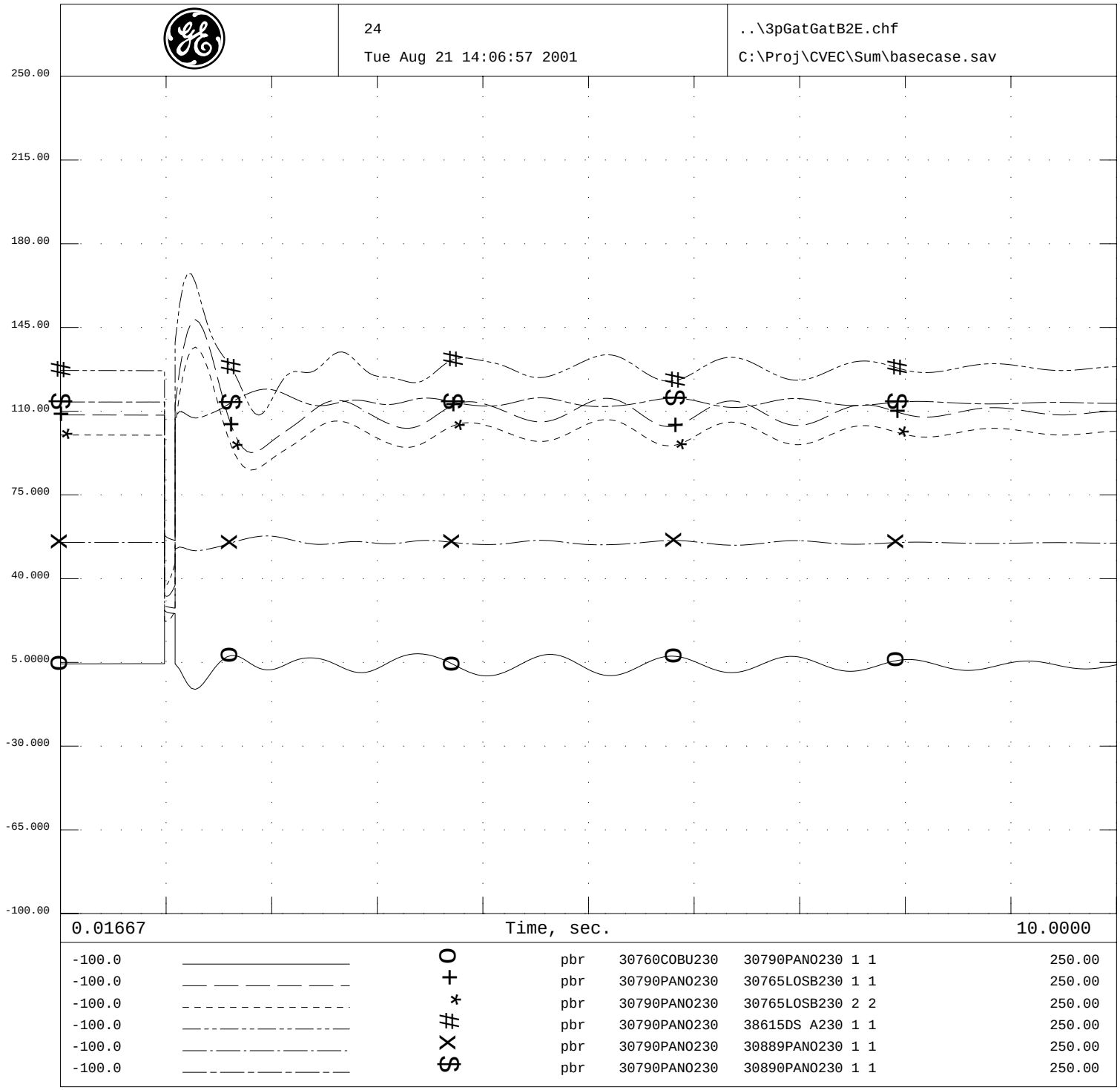

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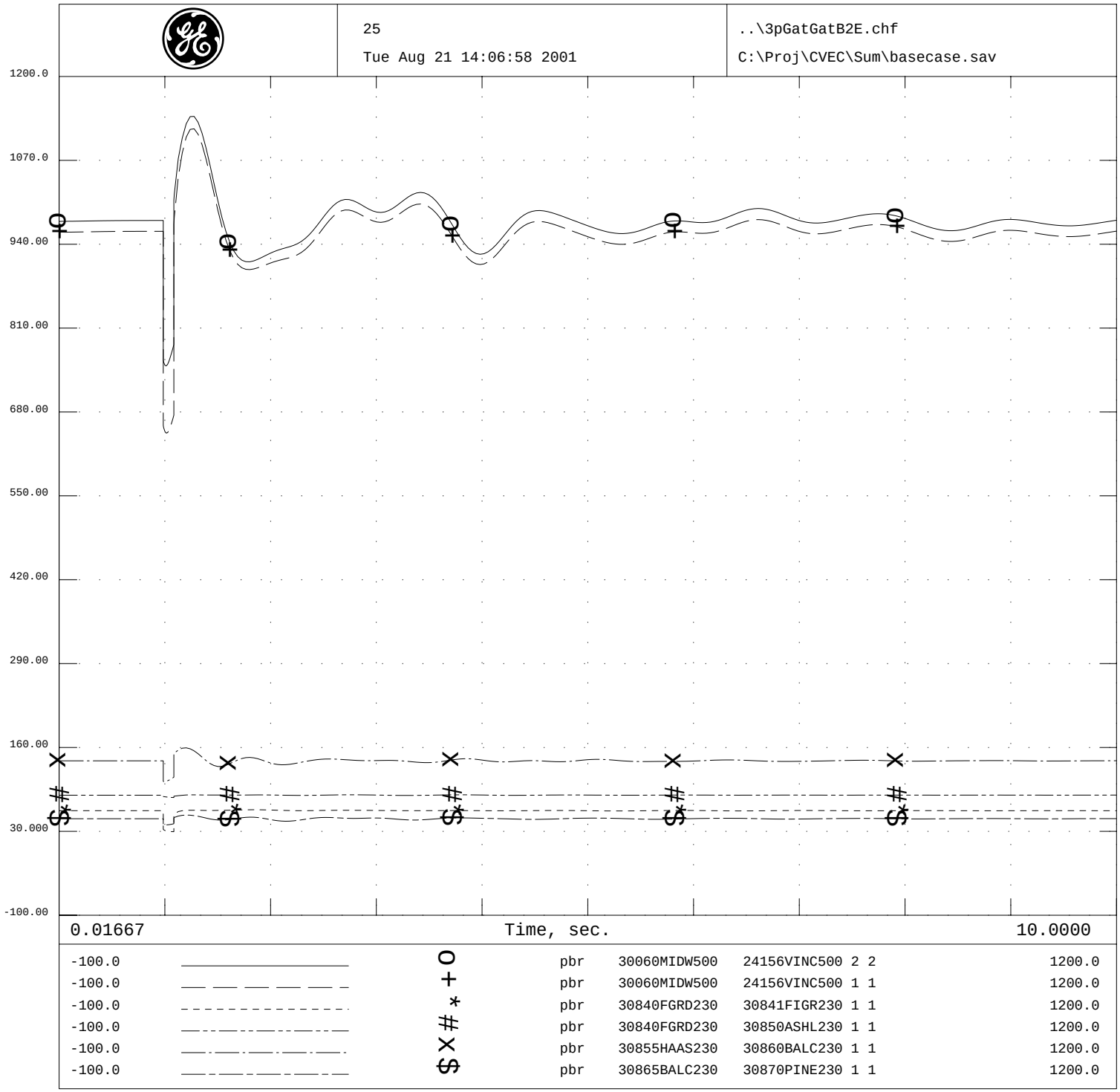

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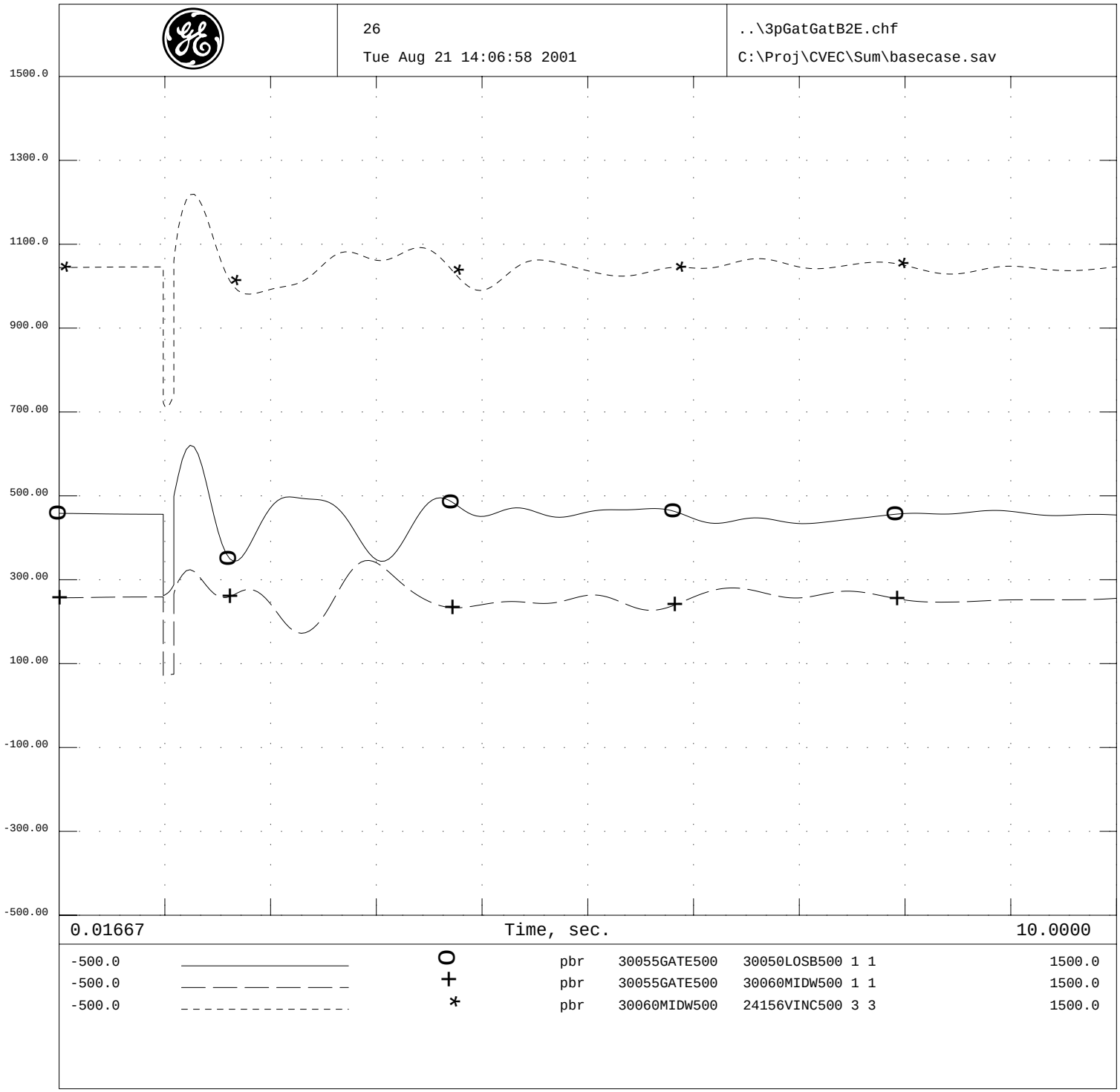

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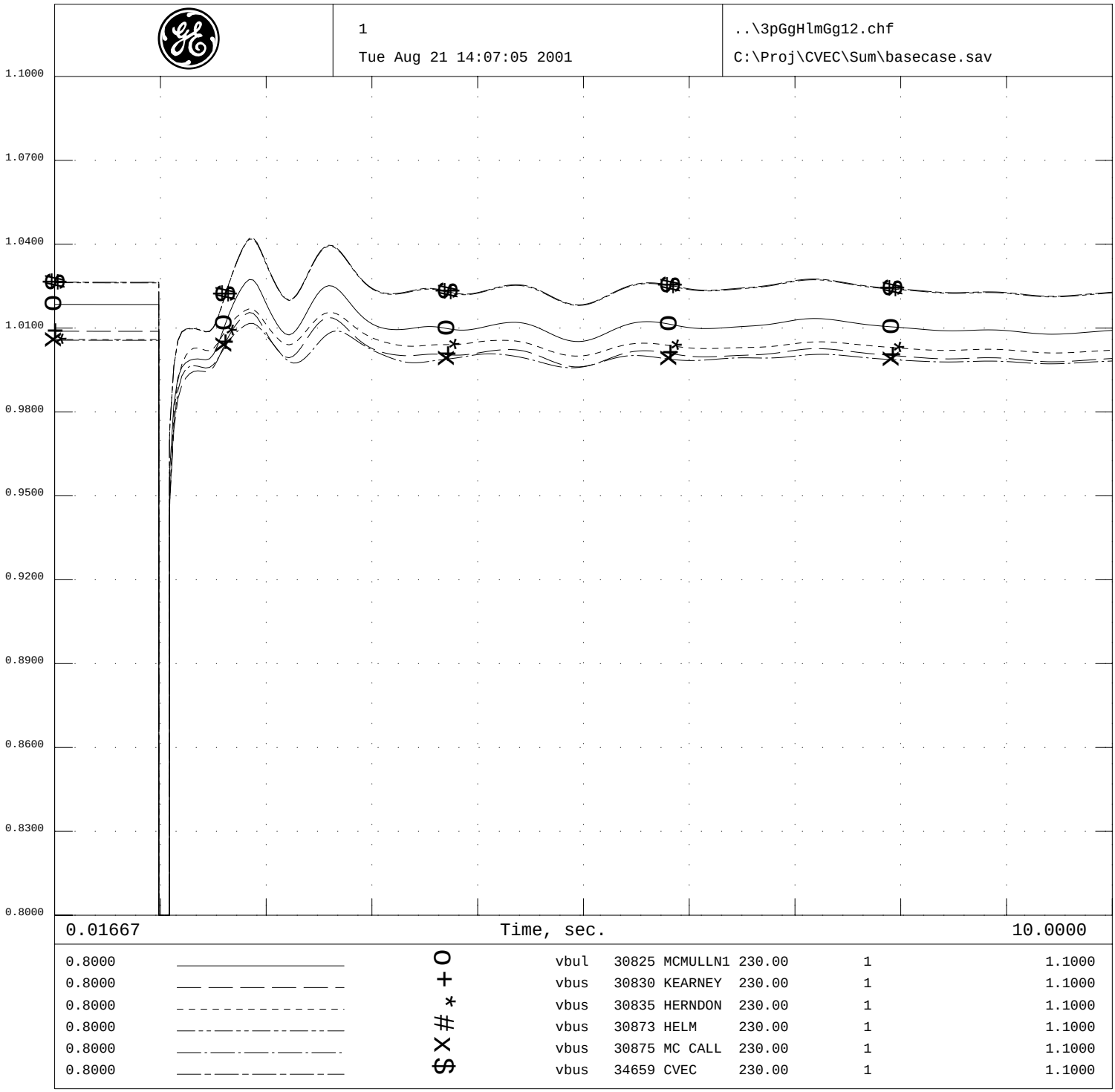

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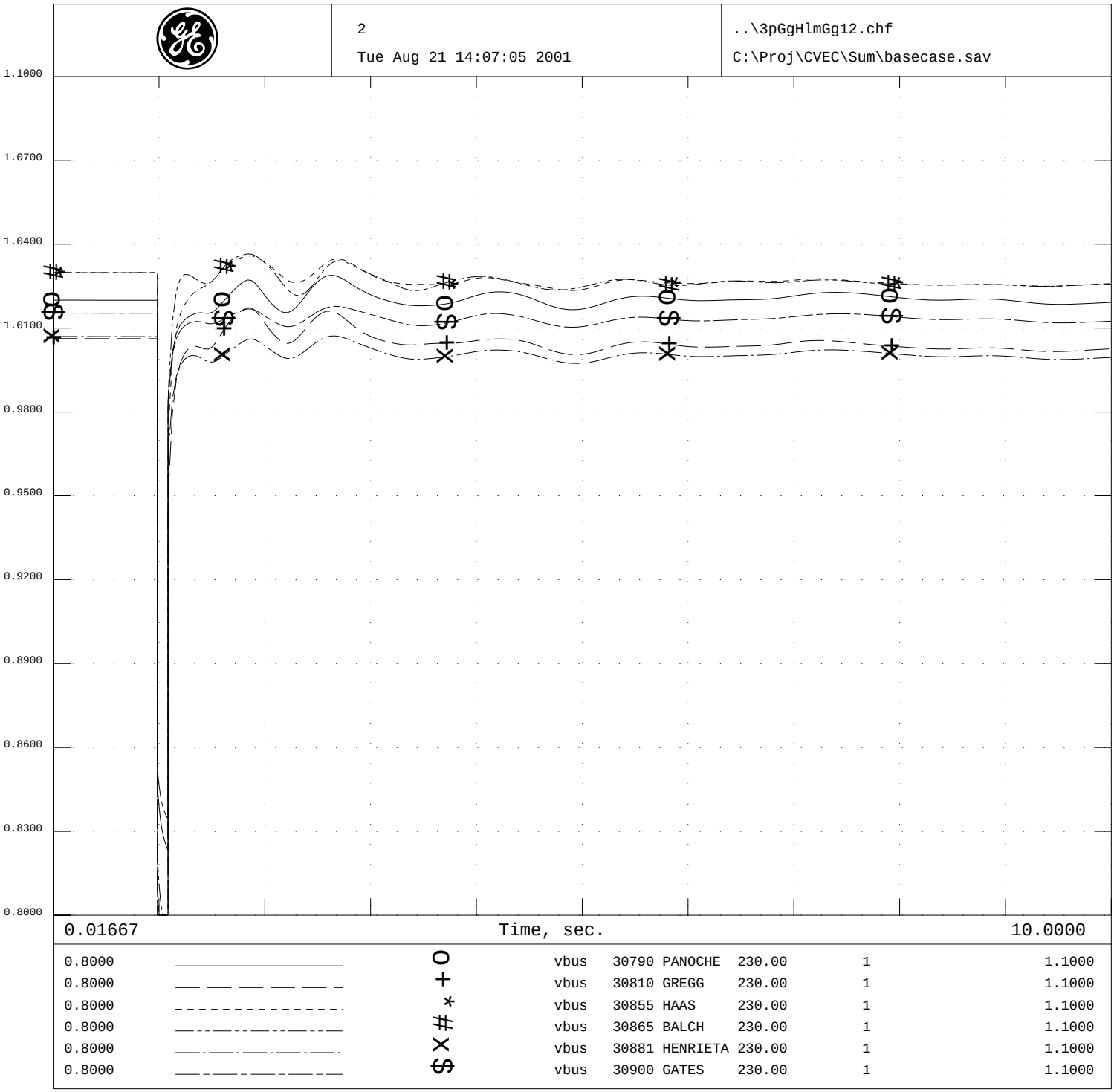
Gregg-Helms #1,2 230kV Double Line Outage
3 phase 6 cycle fault at Gregg 230kV bus and trip both Gregg-Helms 230kV lines

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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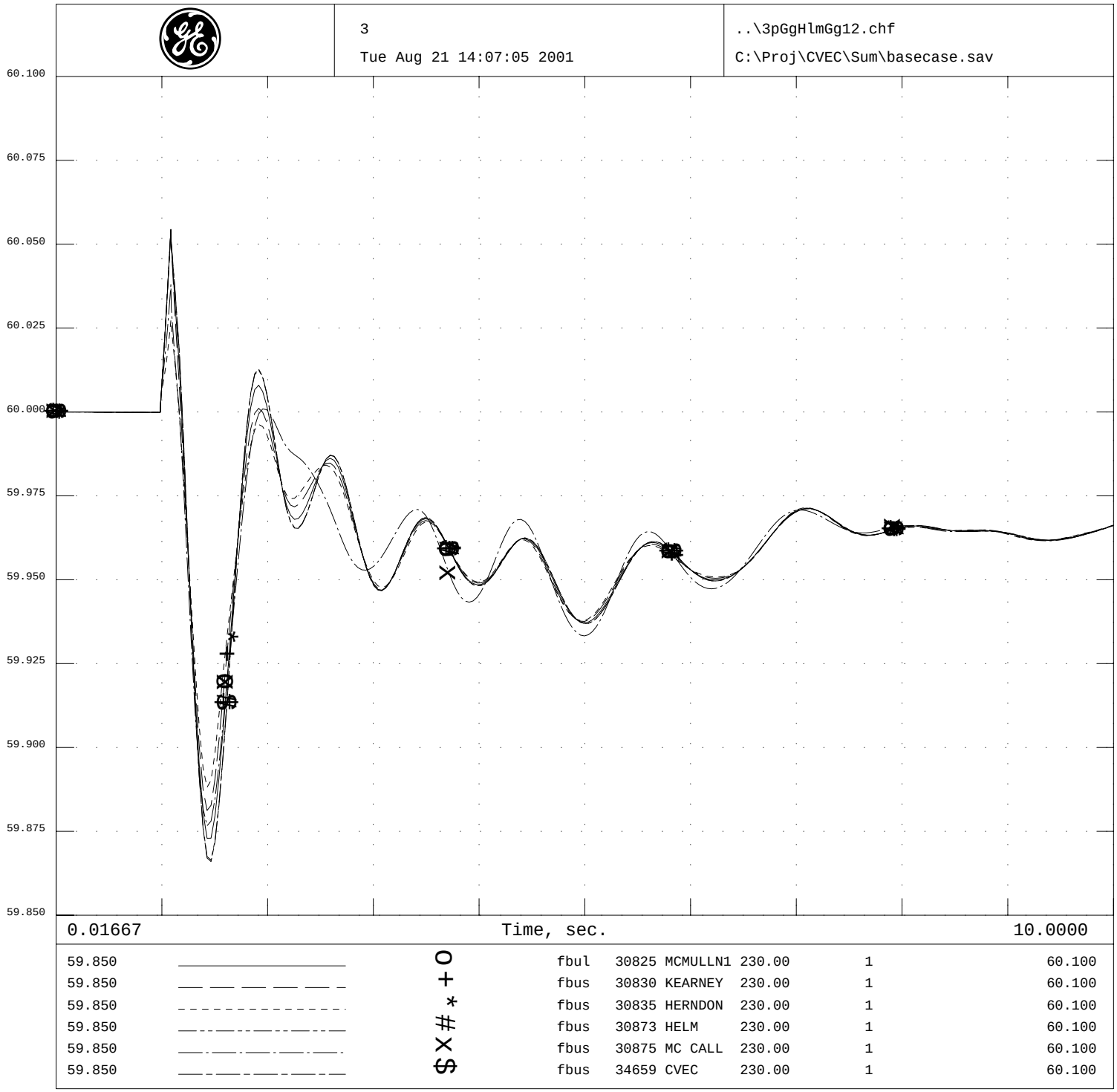

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Calpine Corporation
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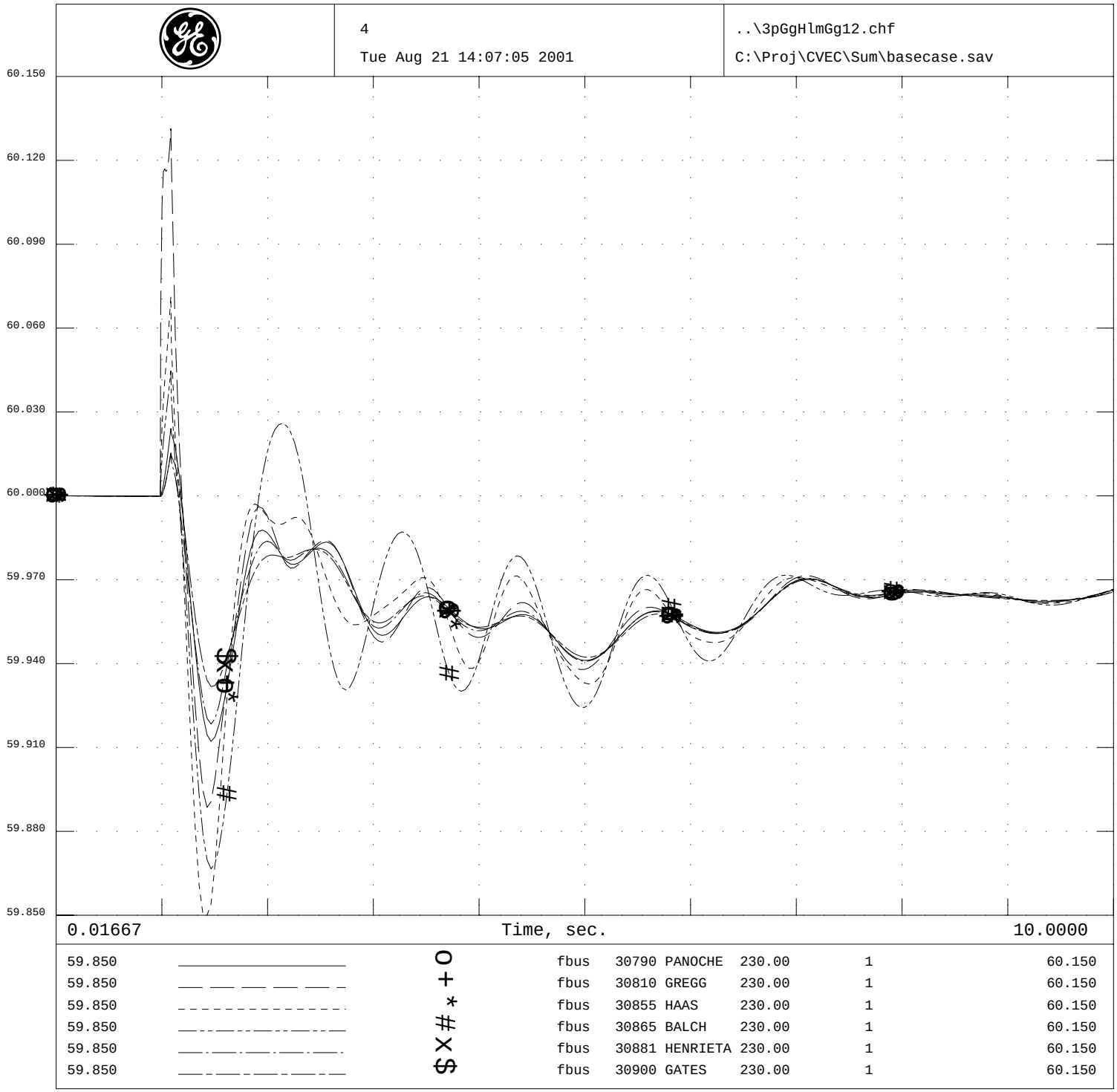

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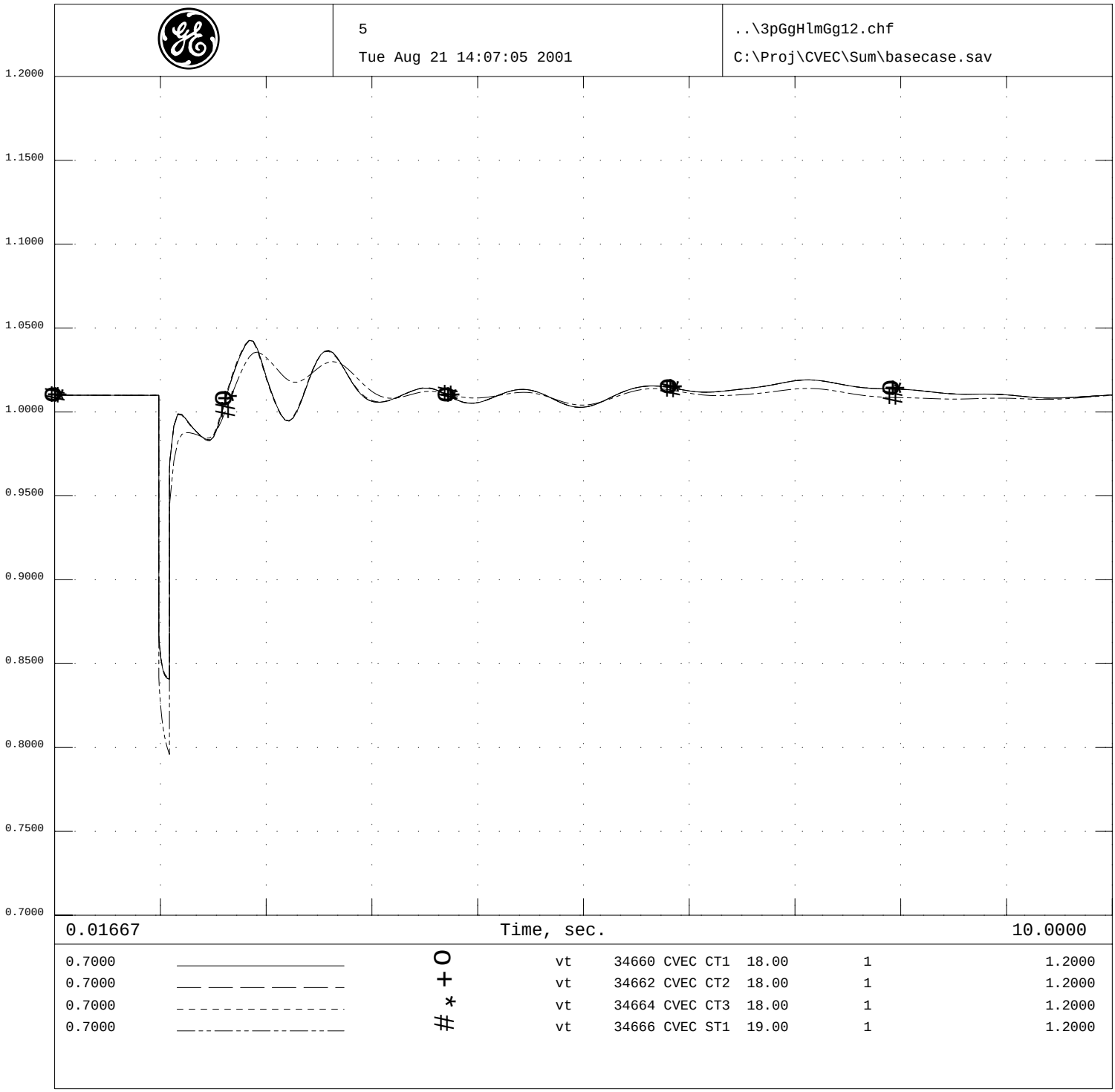

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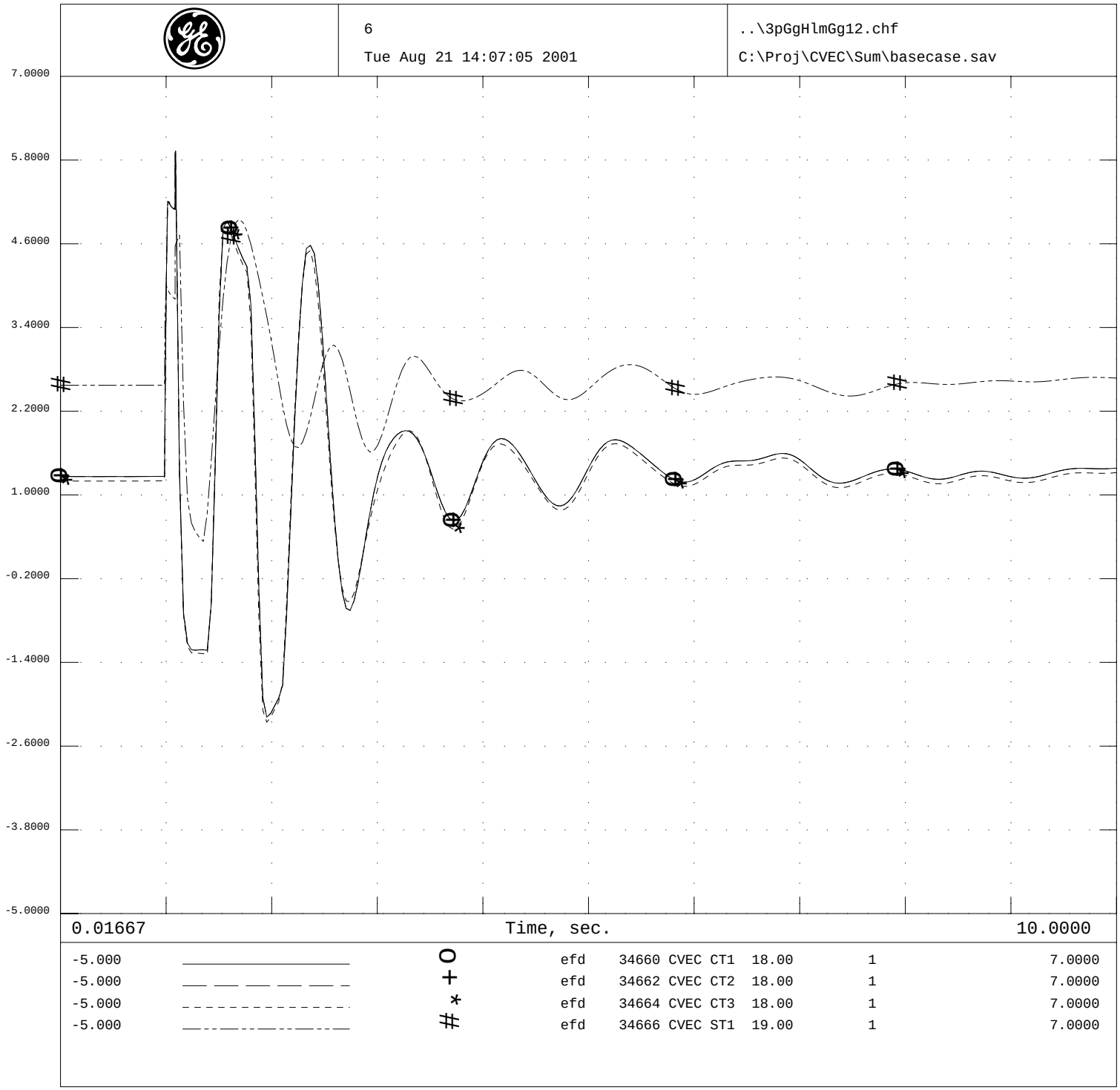
Calpine Corporation
Project Generator Terminal Voltages



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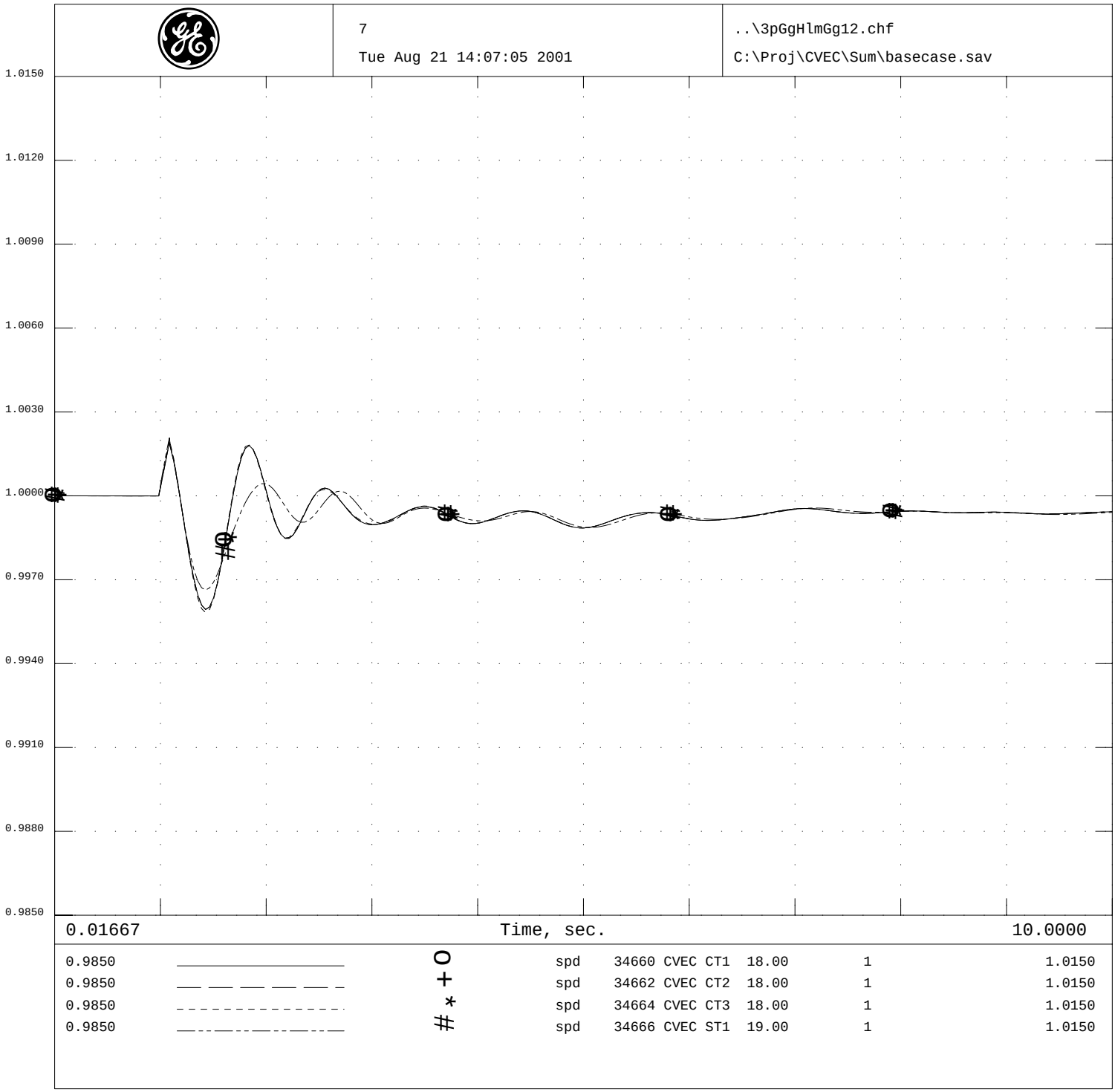

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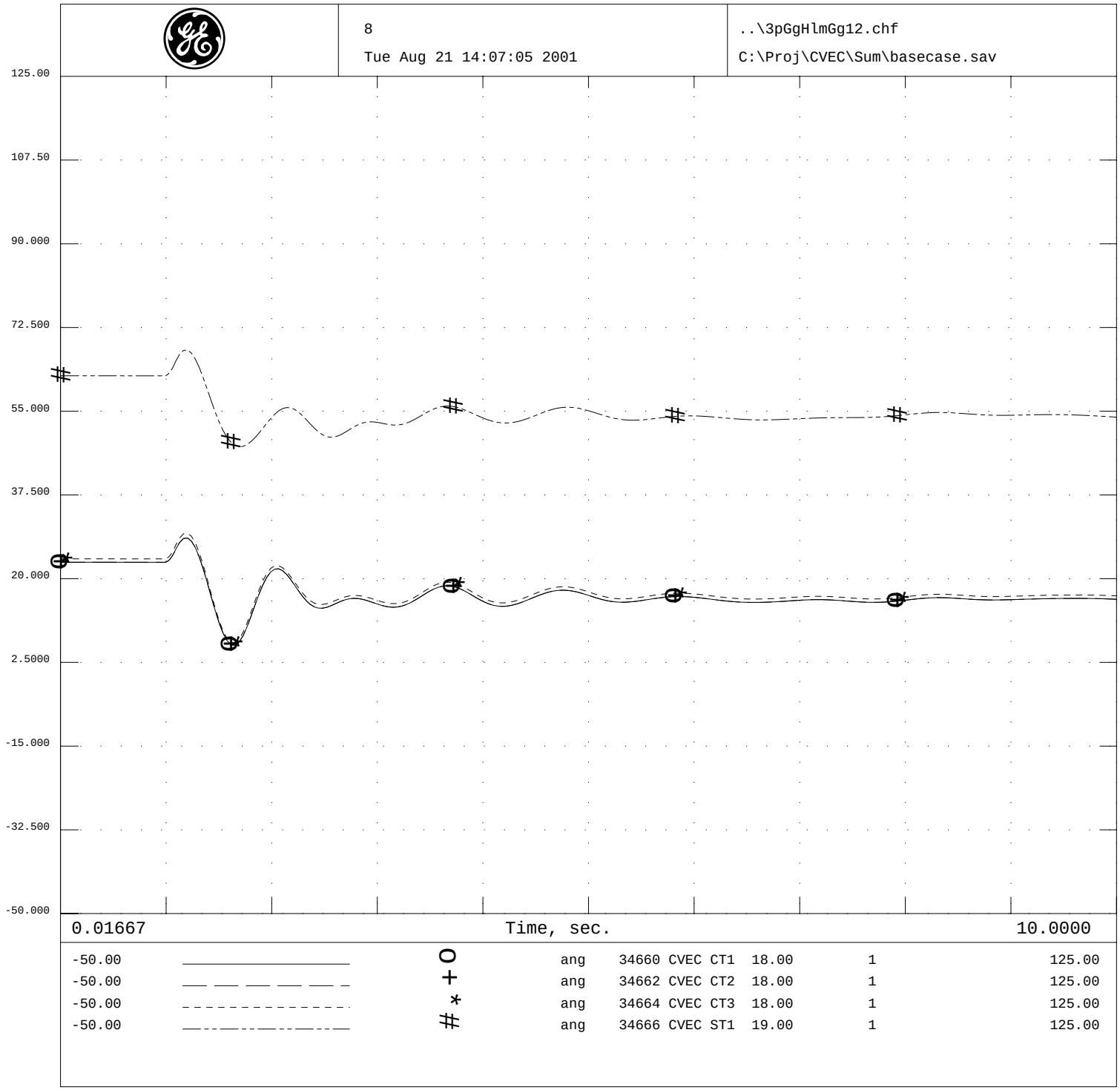

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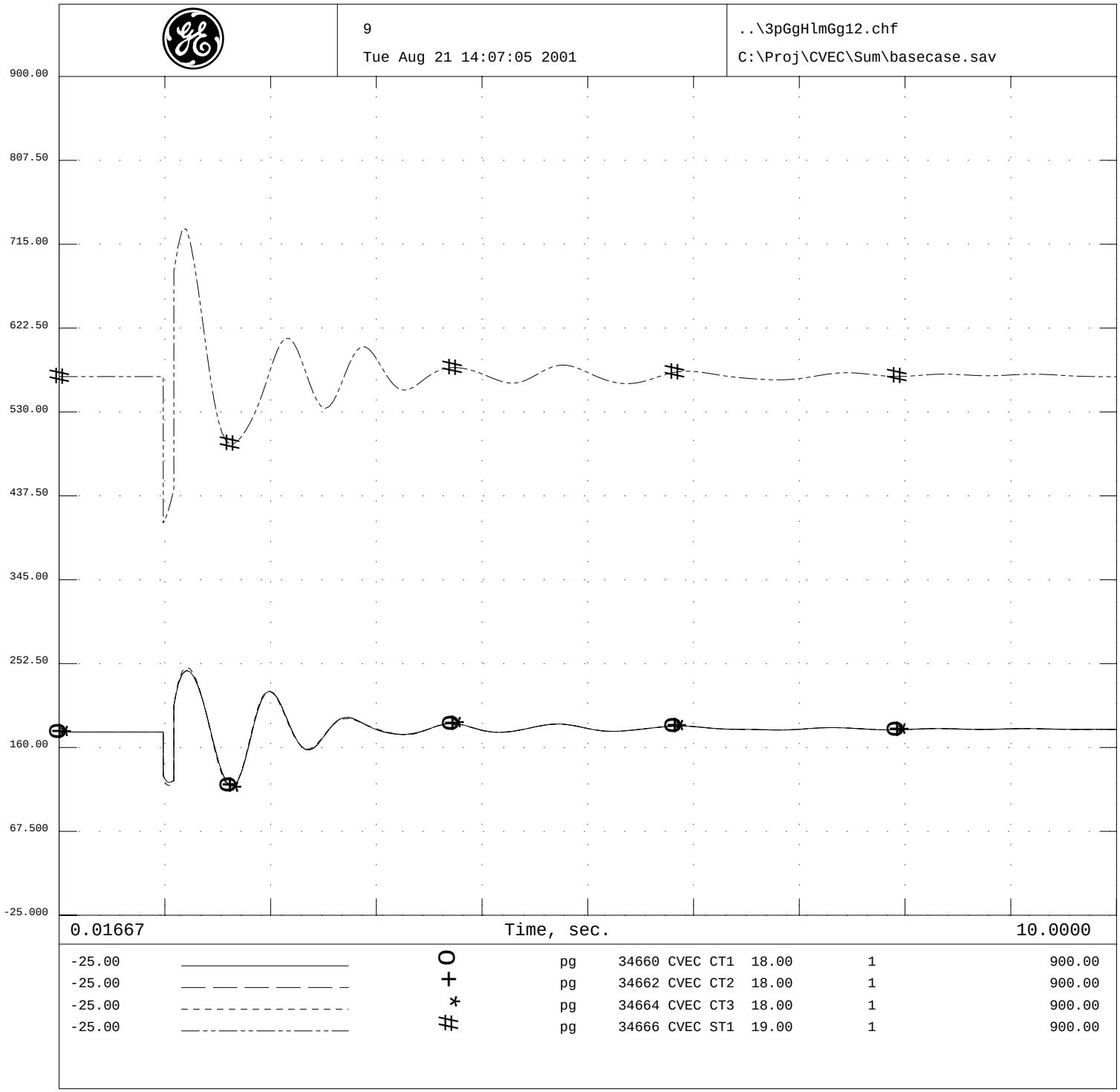
Project Generator Rotor Angle



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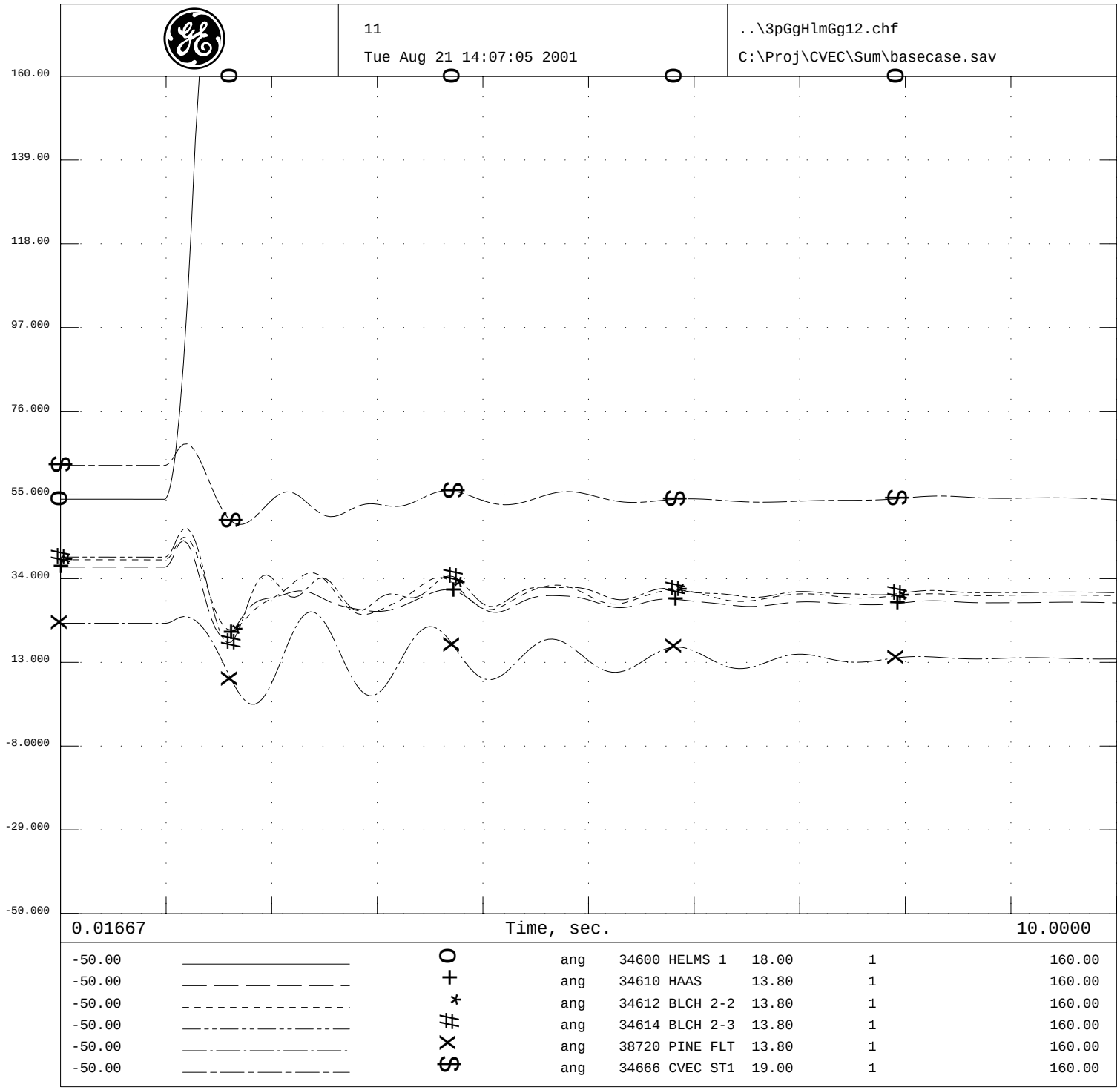

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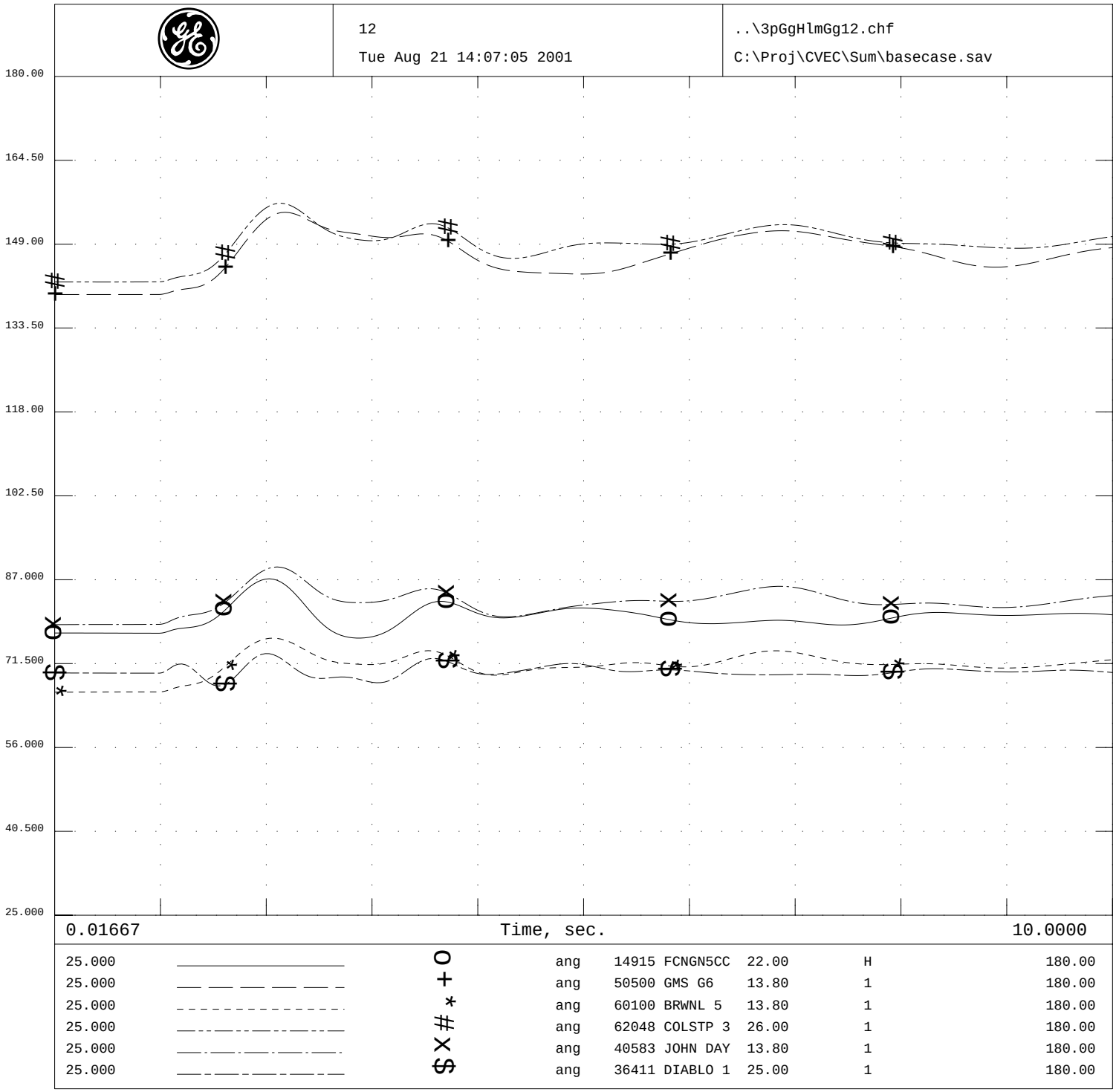

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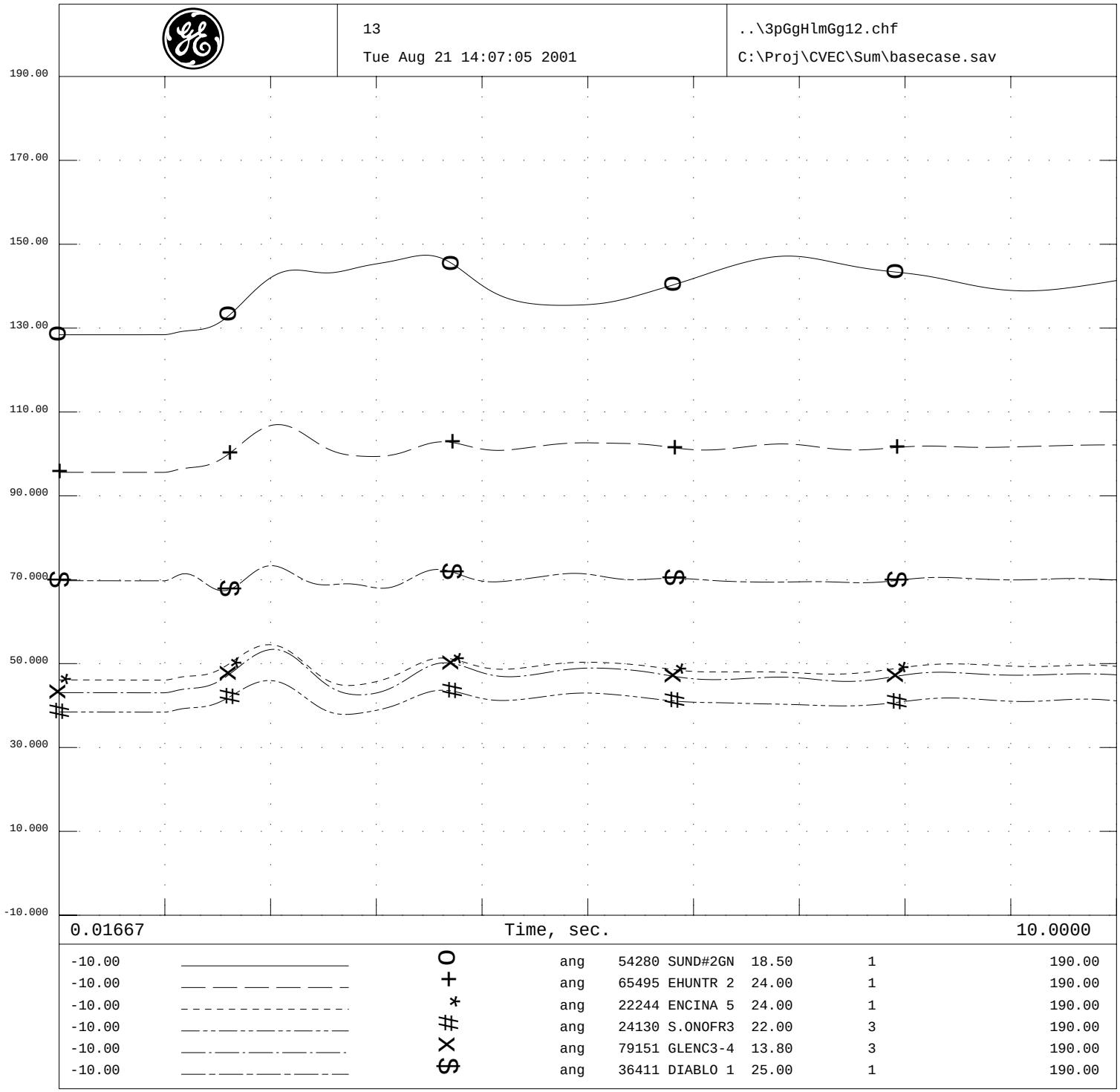

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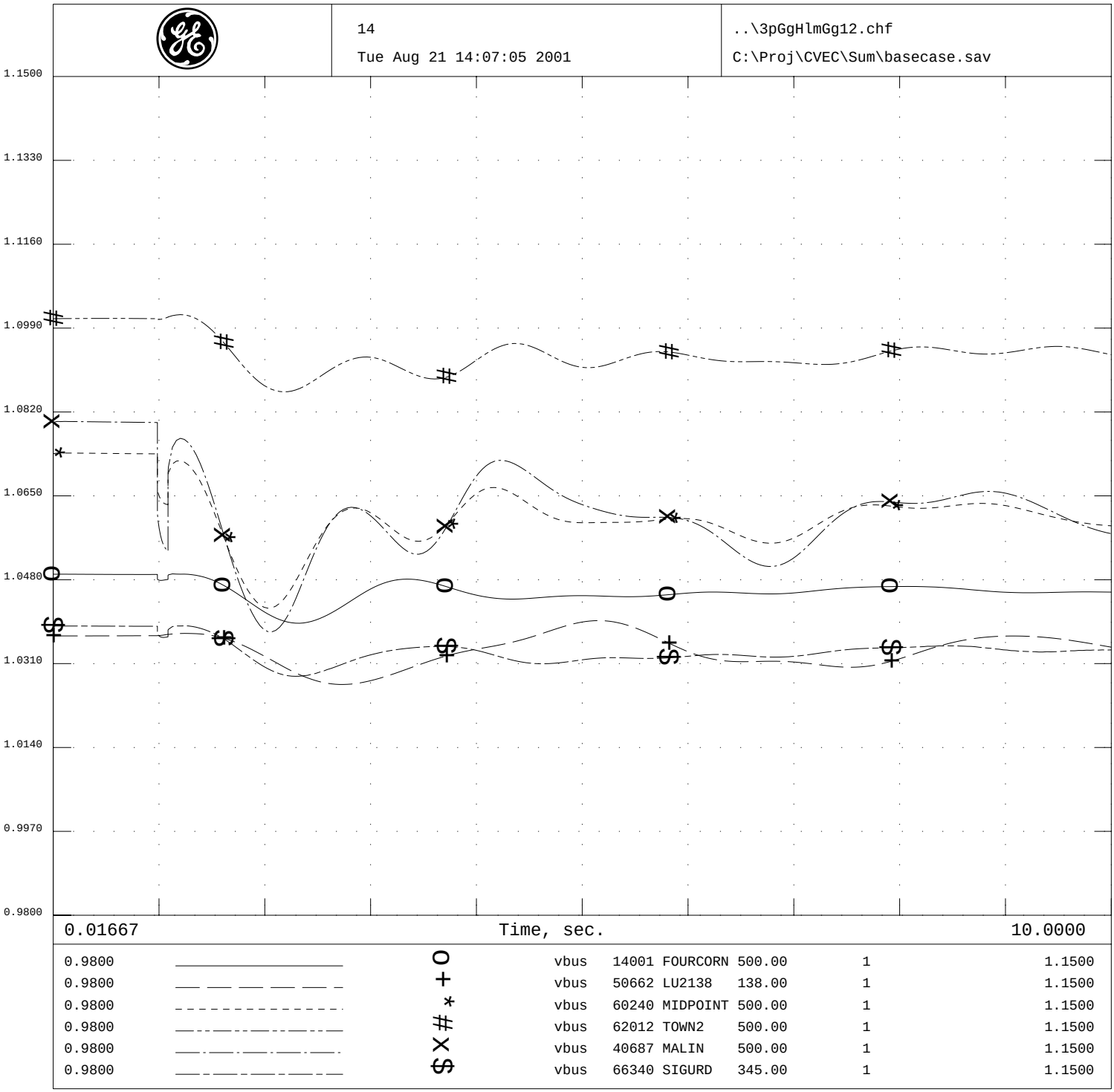

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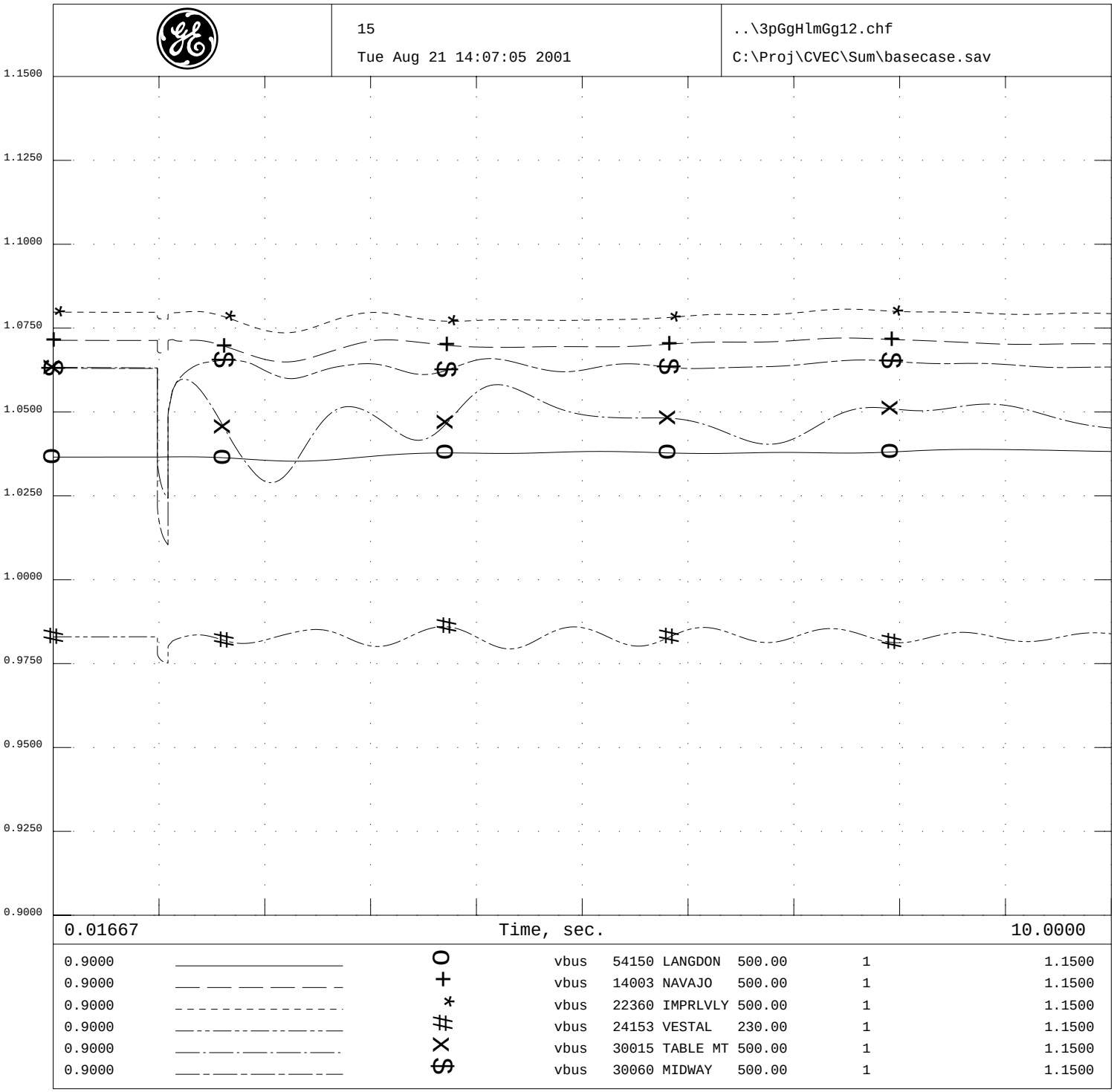

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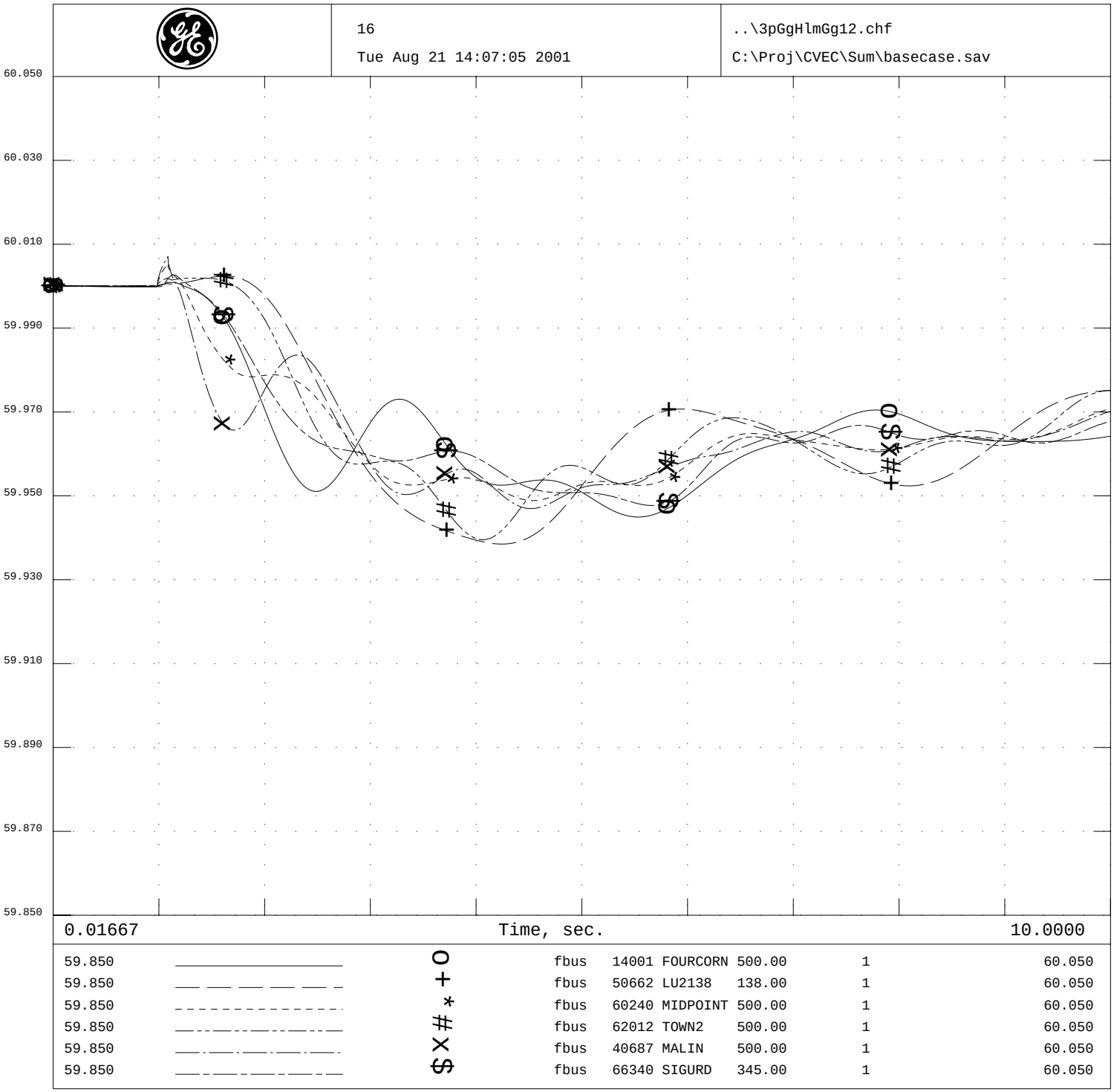

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Gregg-Helms #1,2 230kV Double Line Outage
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Central Valley Energy Center
Calpine Corporation
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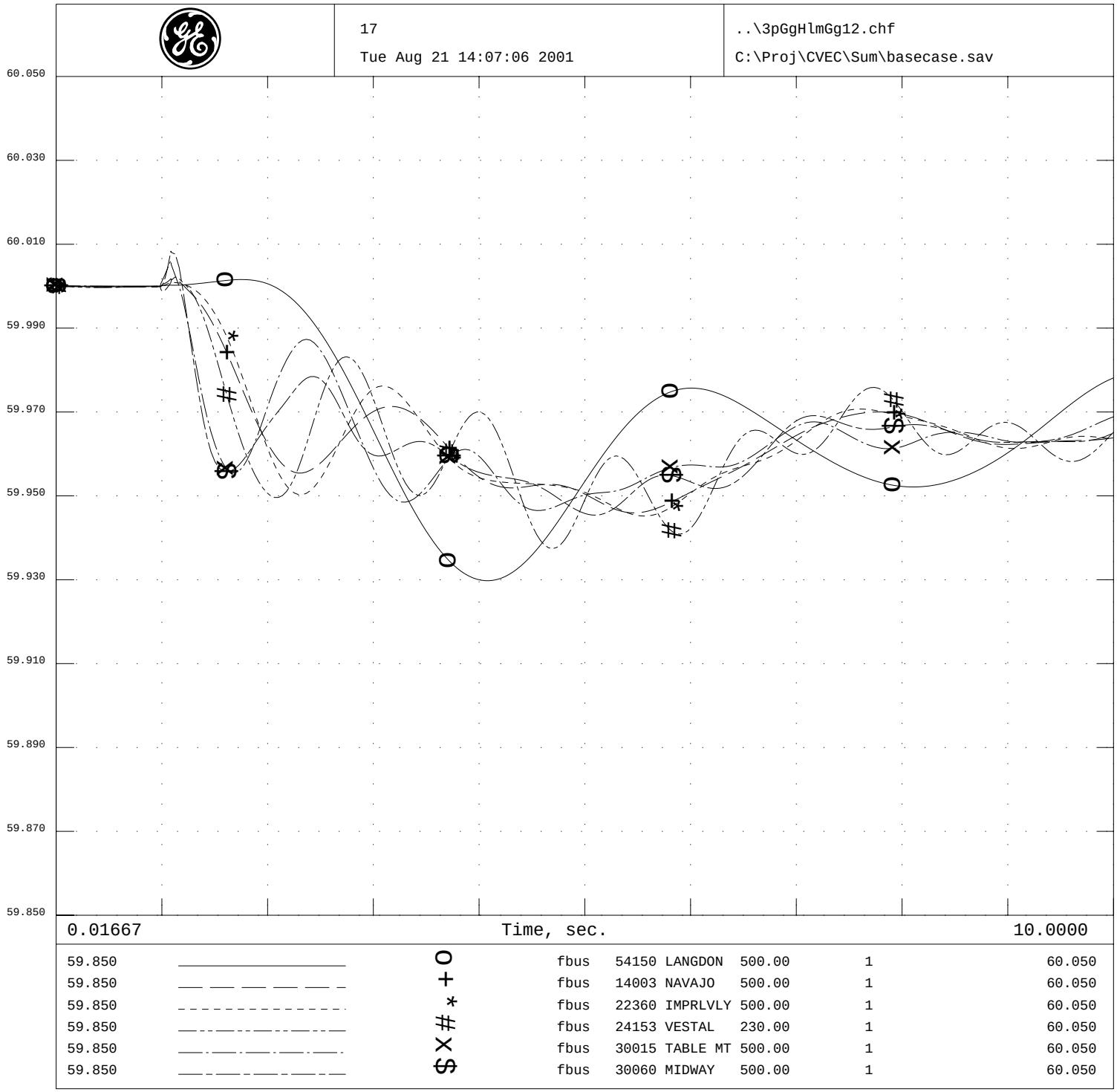

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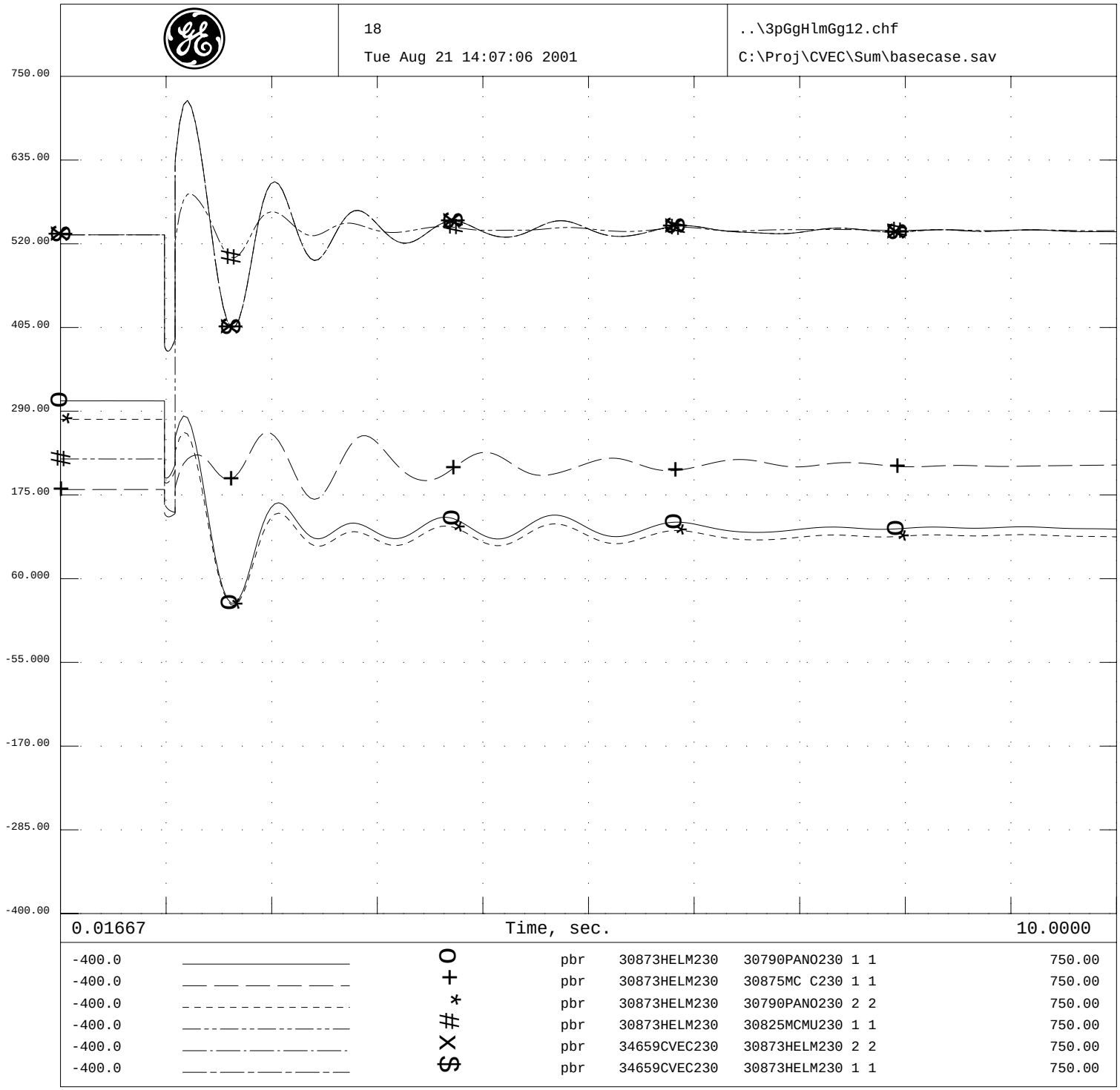

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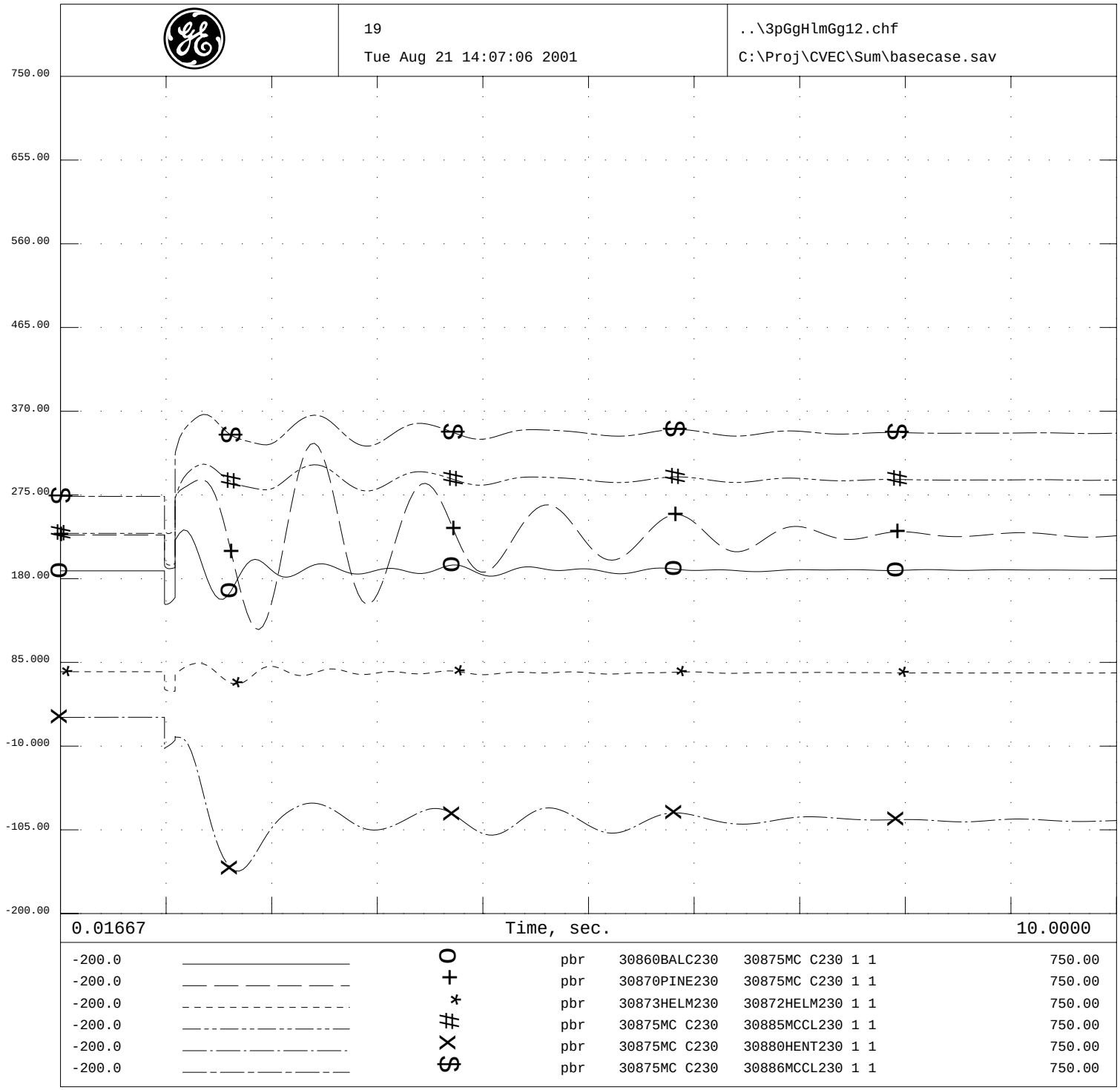
Selected Transmission Line Flows (MW)



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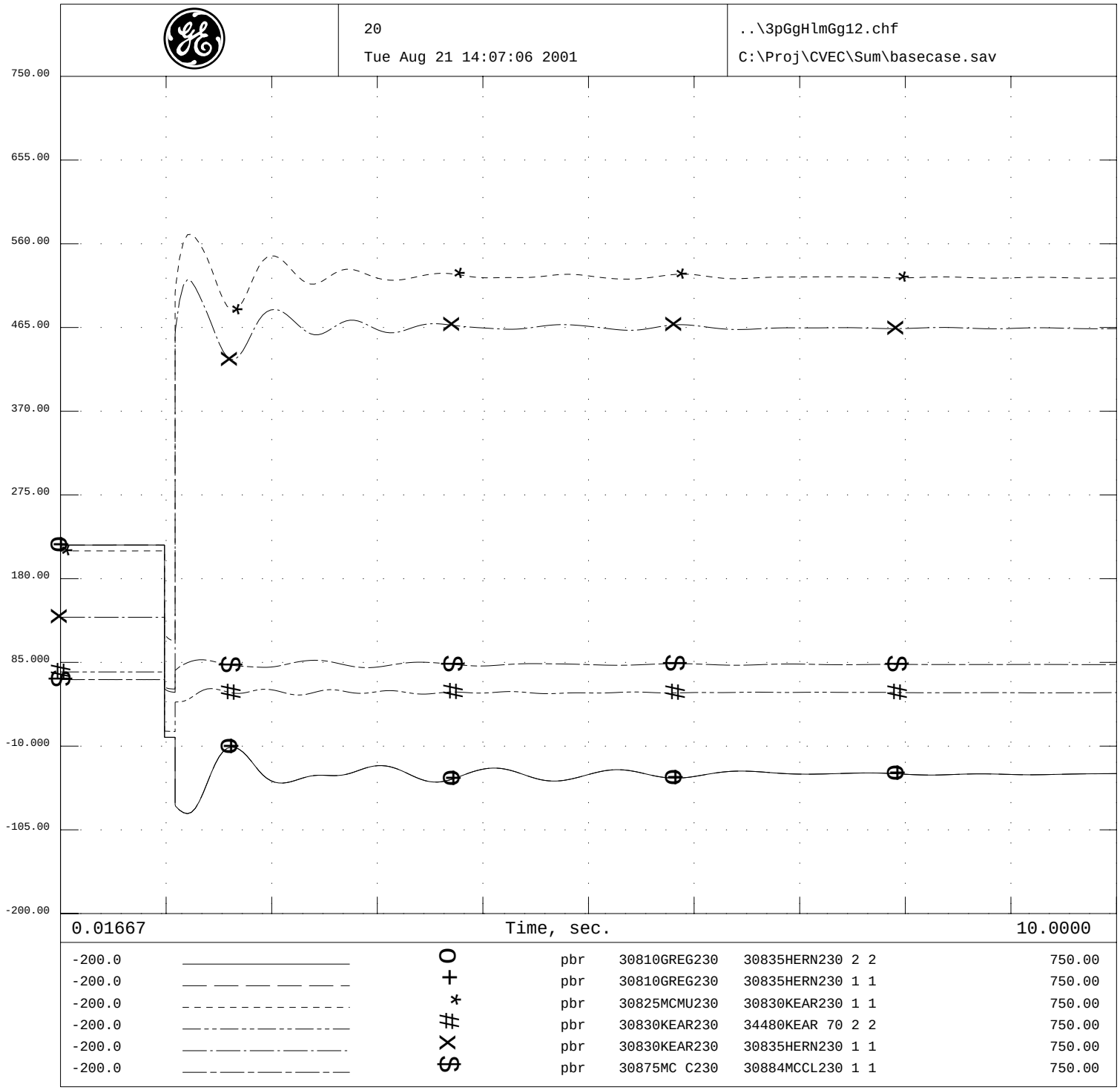

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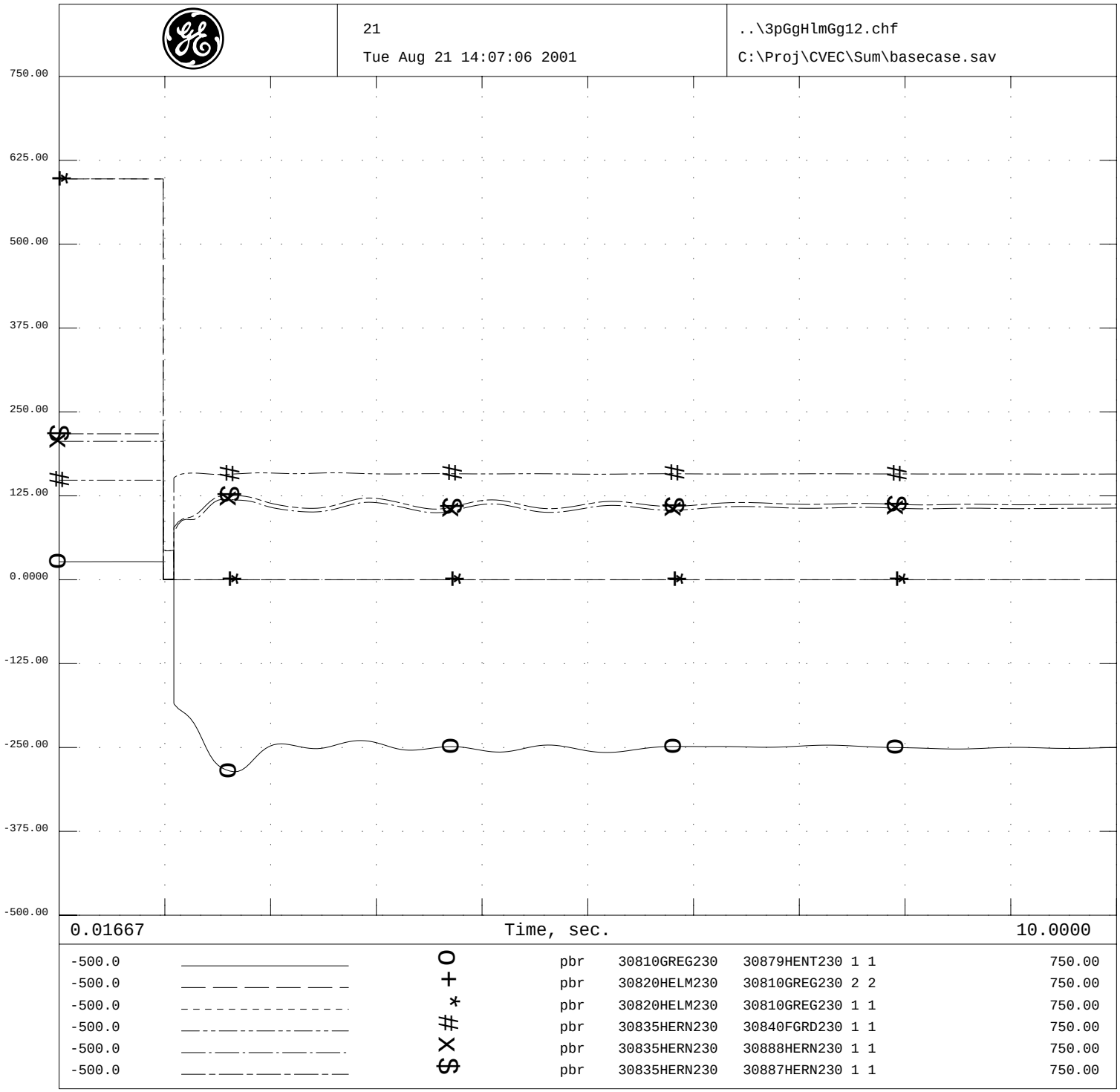

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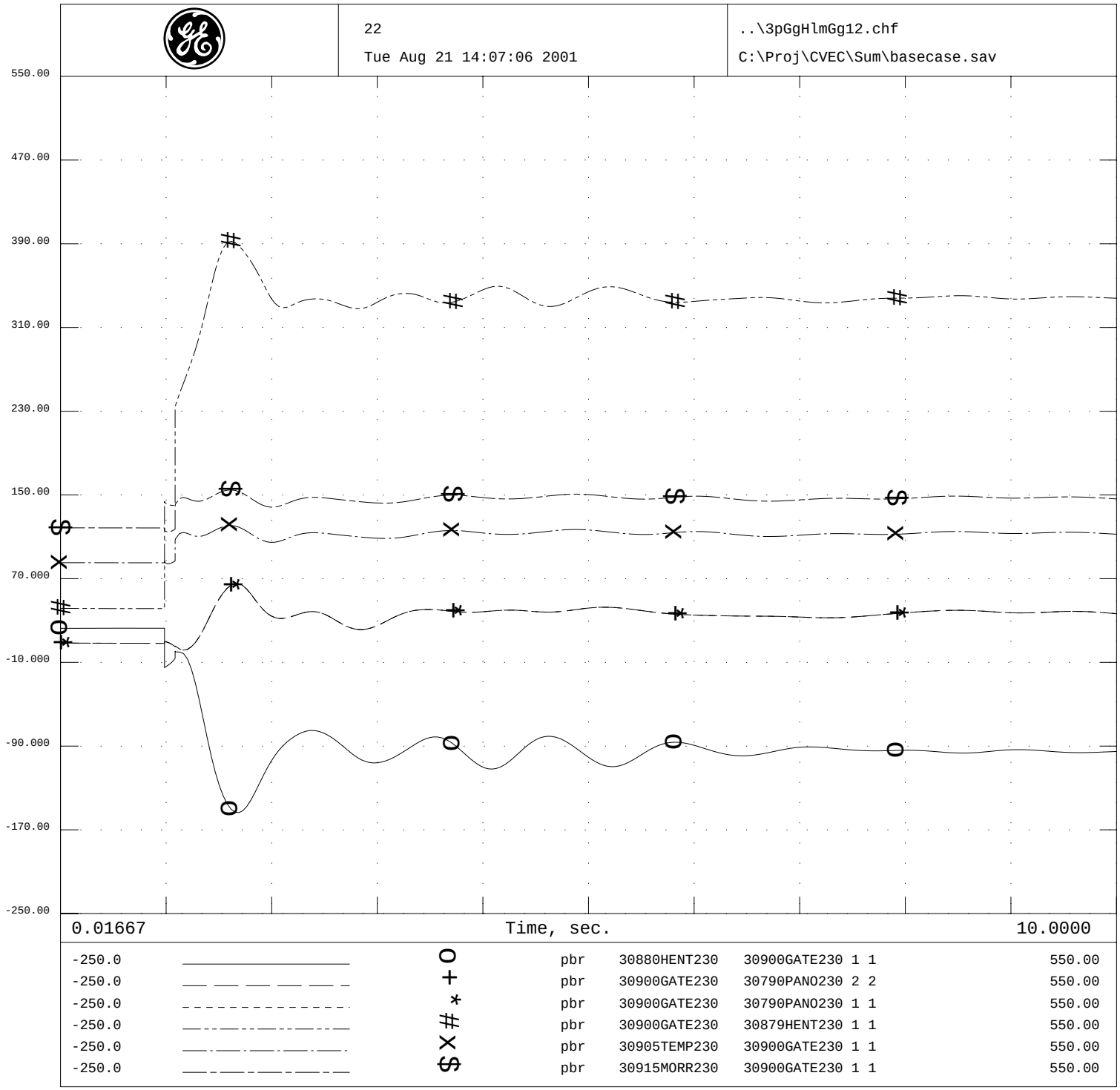

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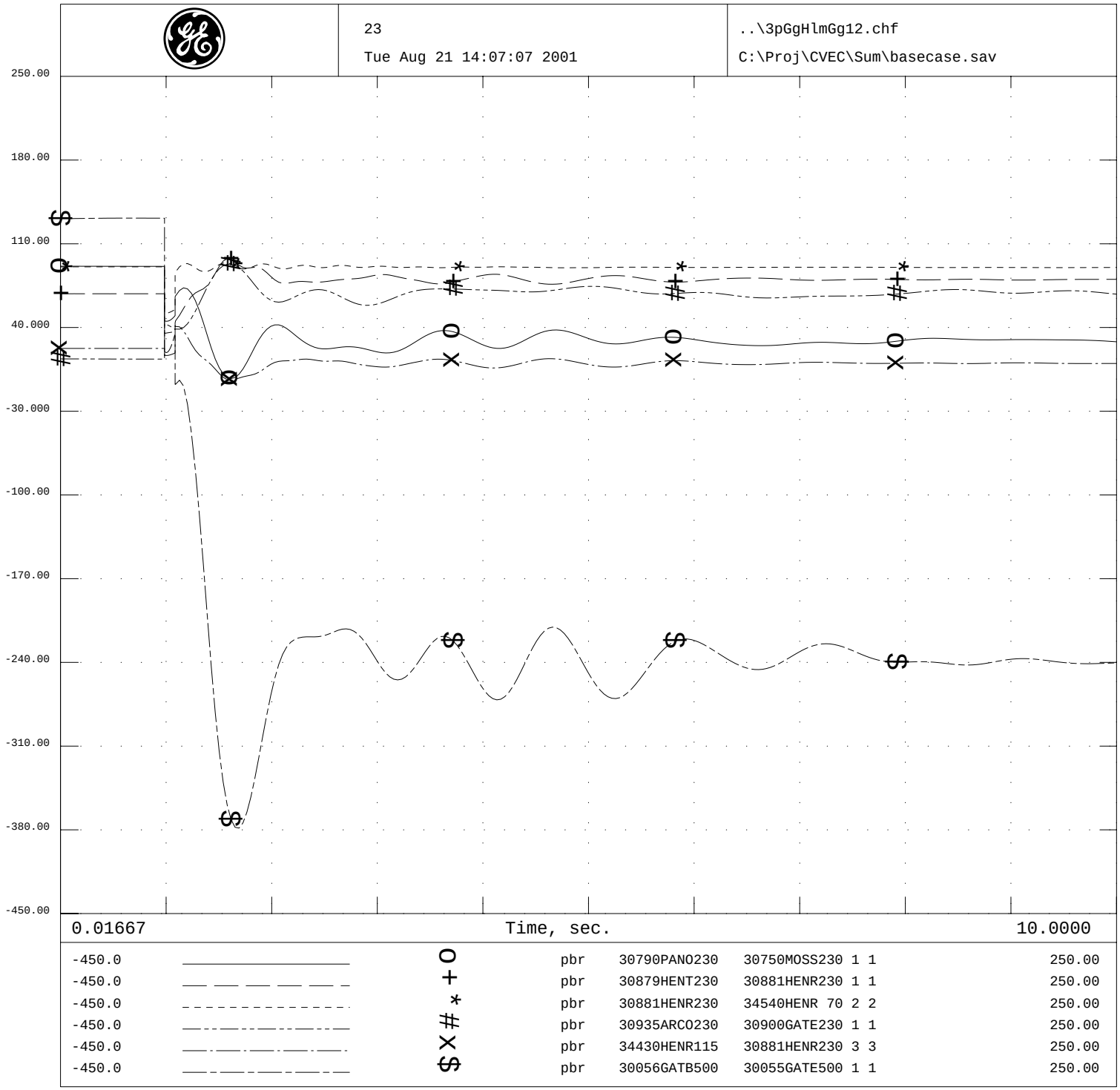

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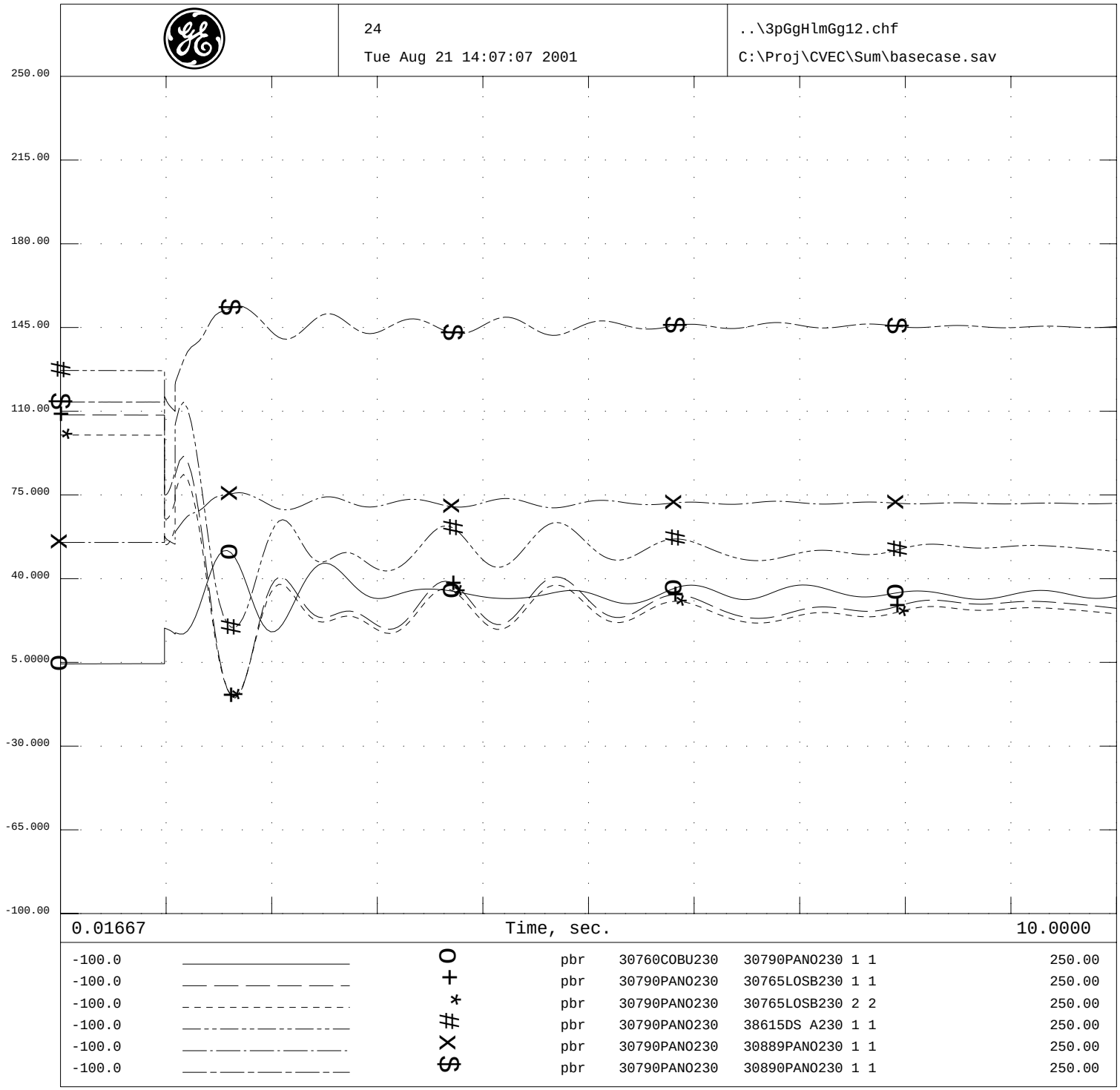

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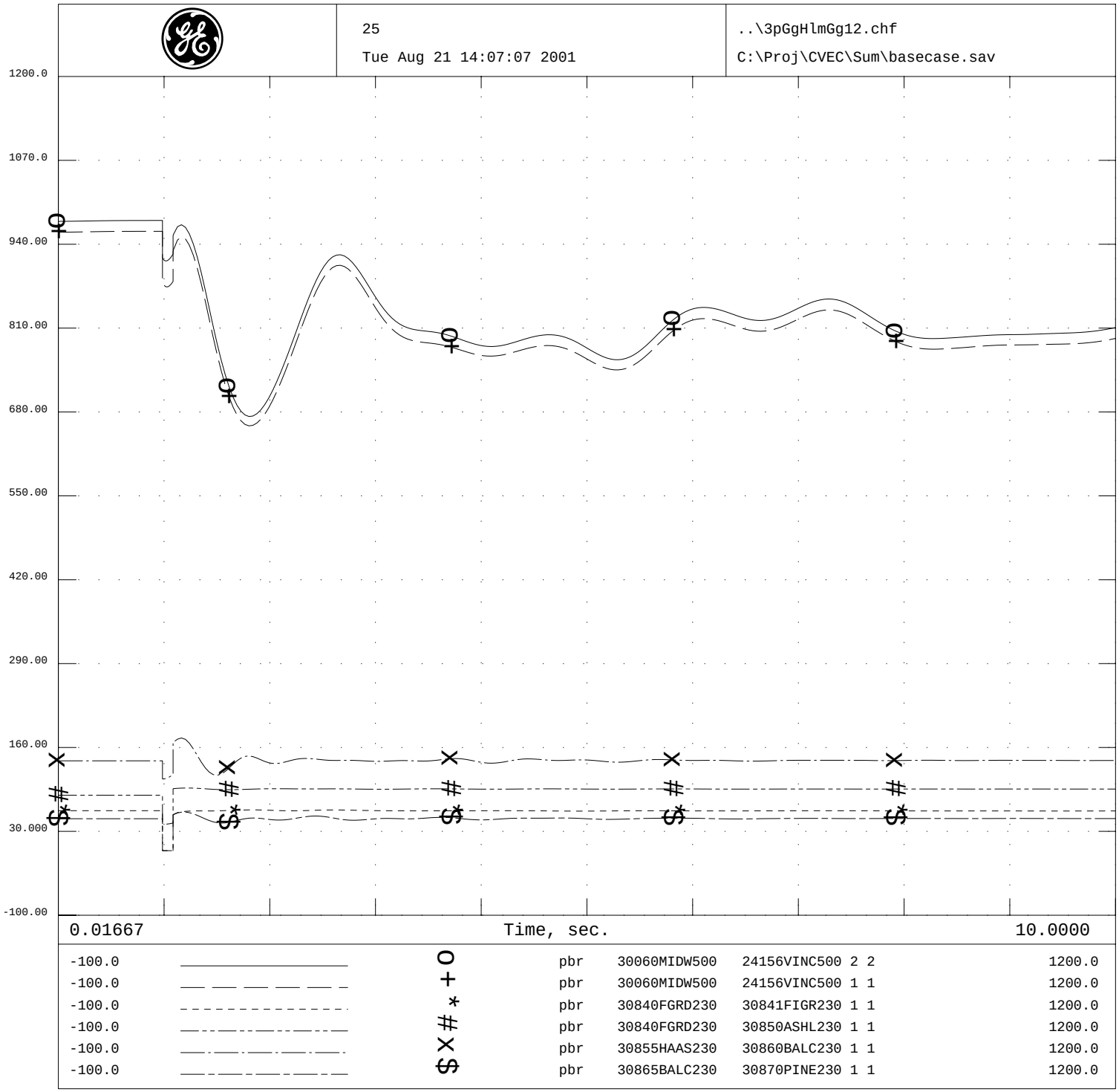

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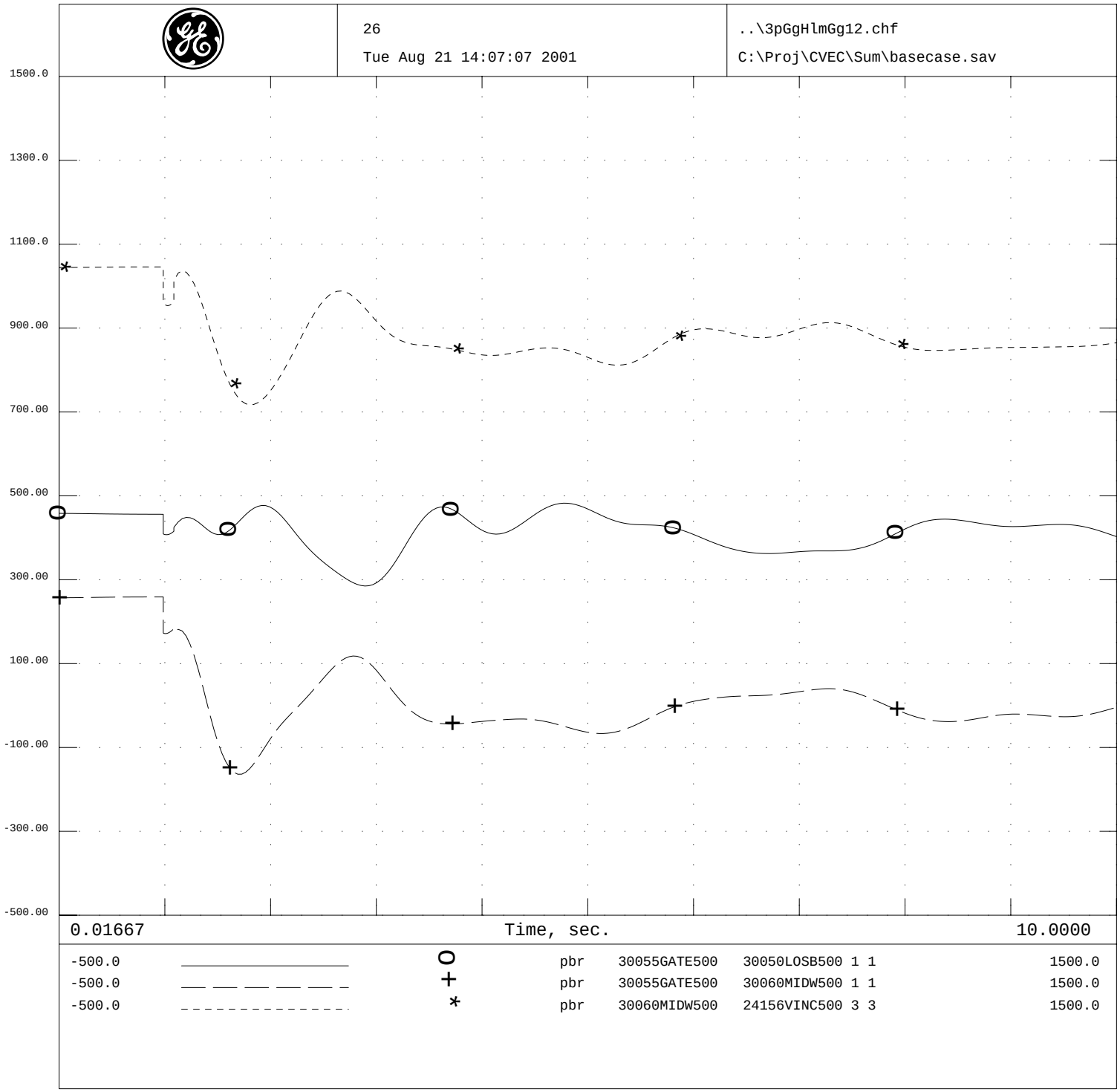

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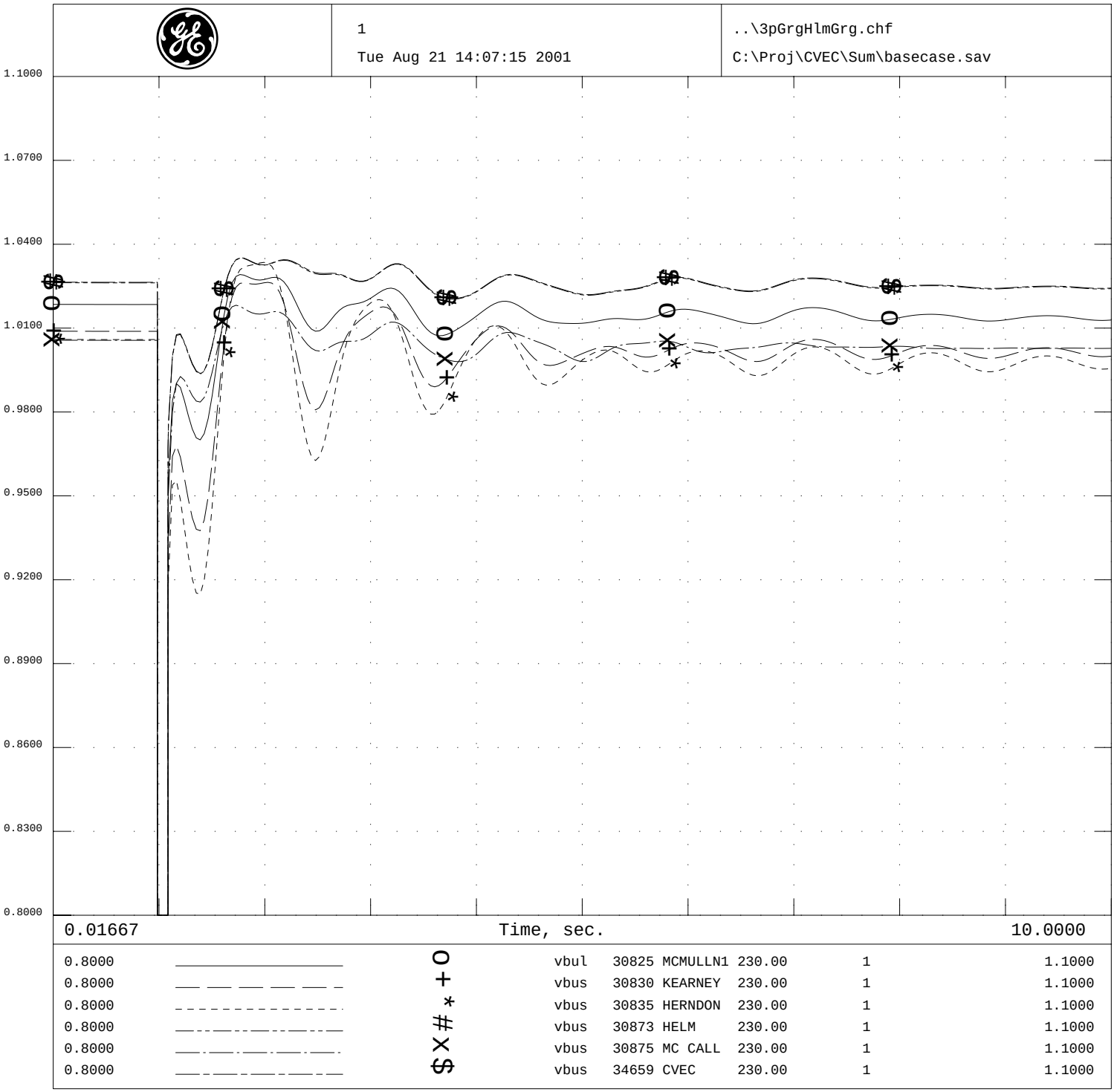

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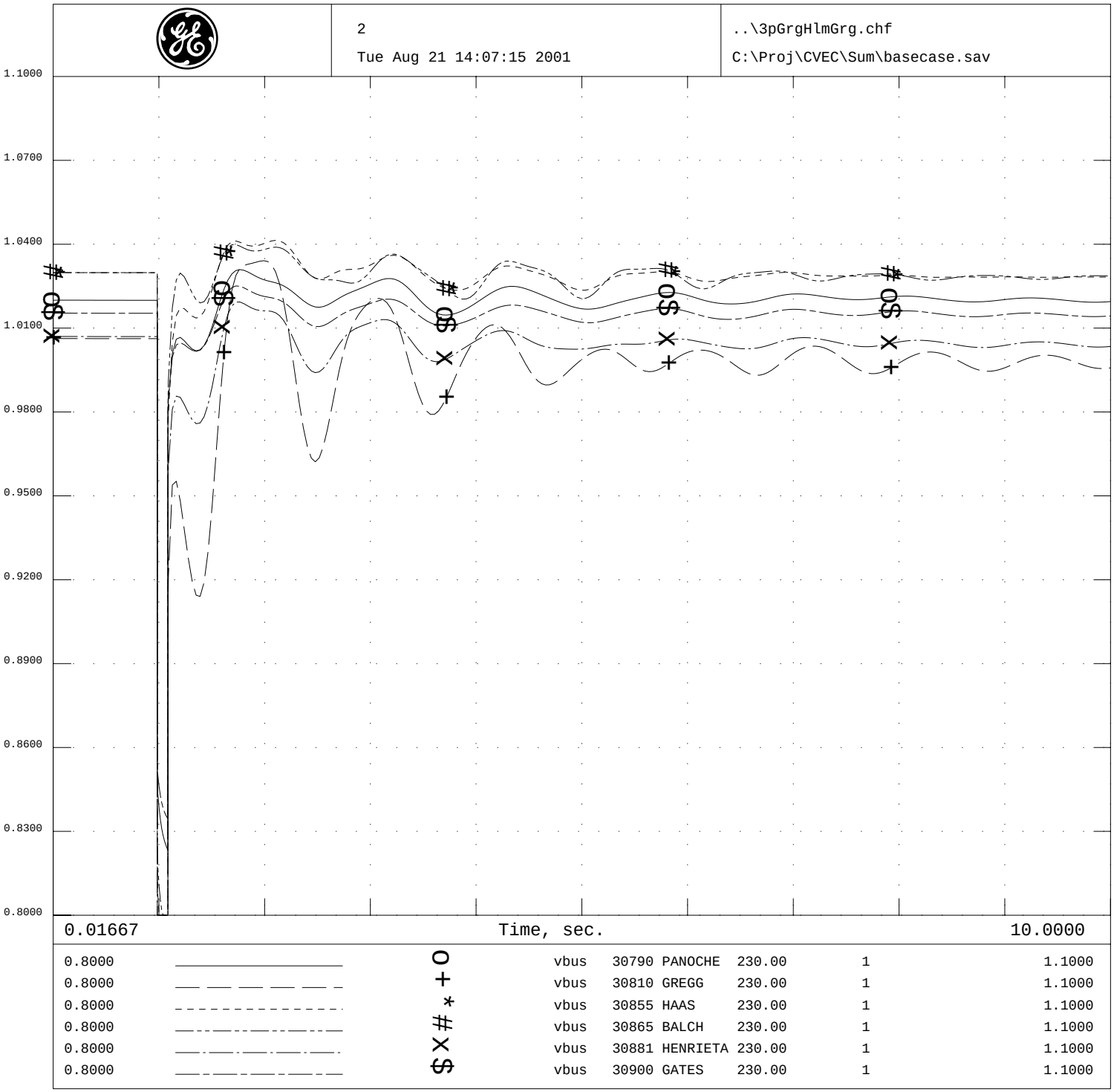
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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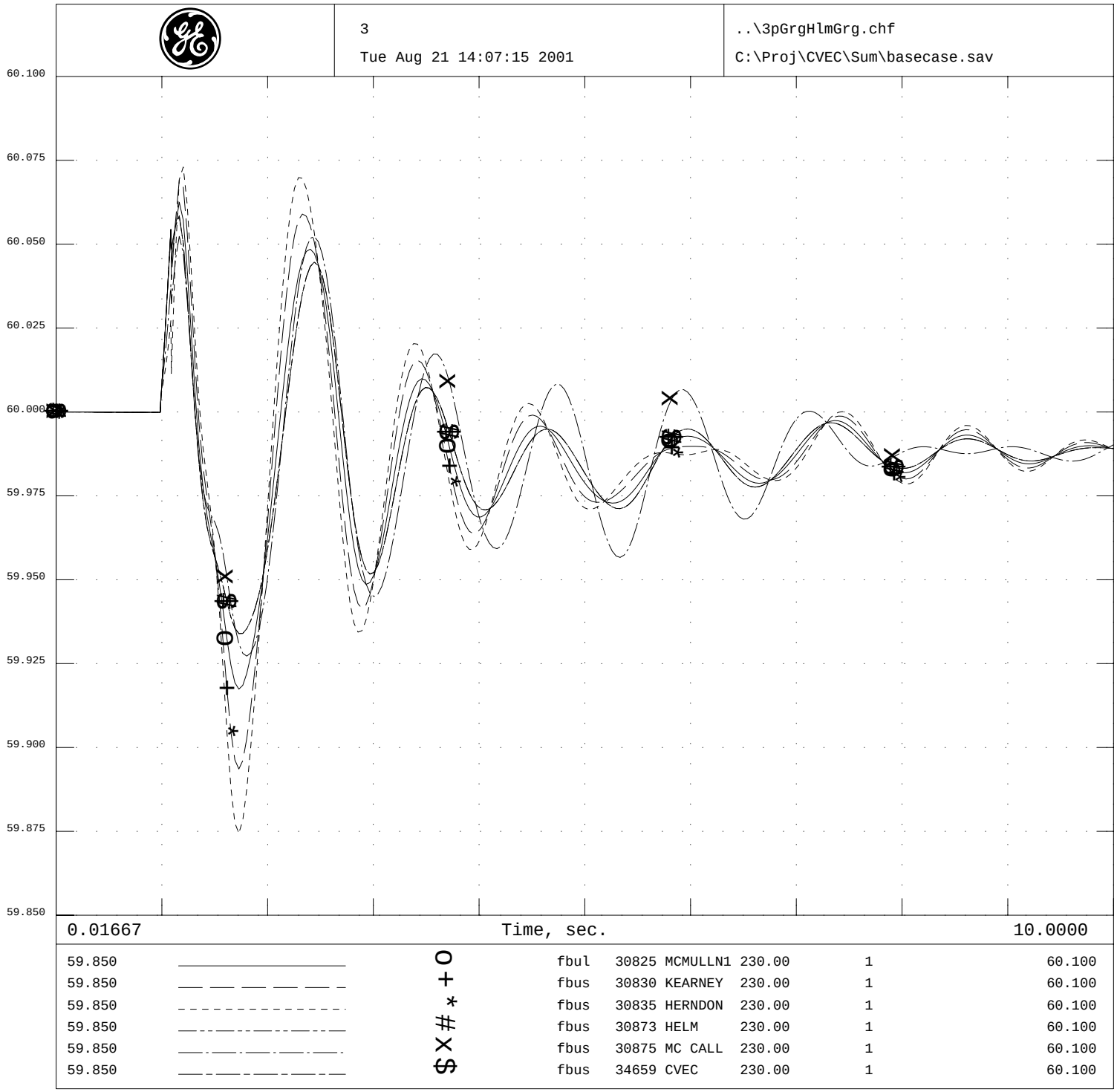

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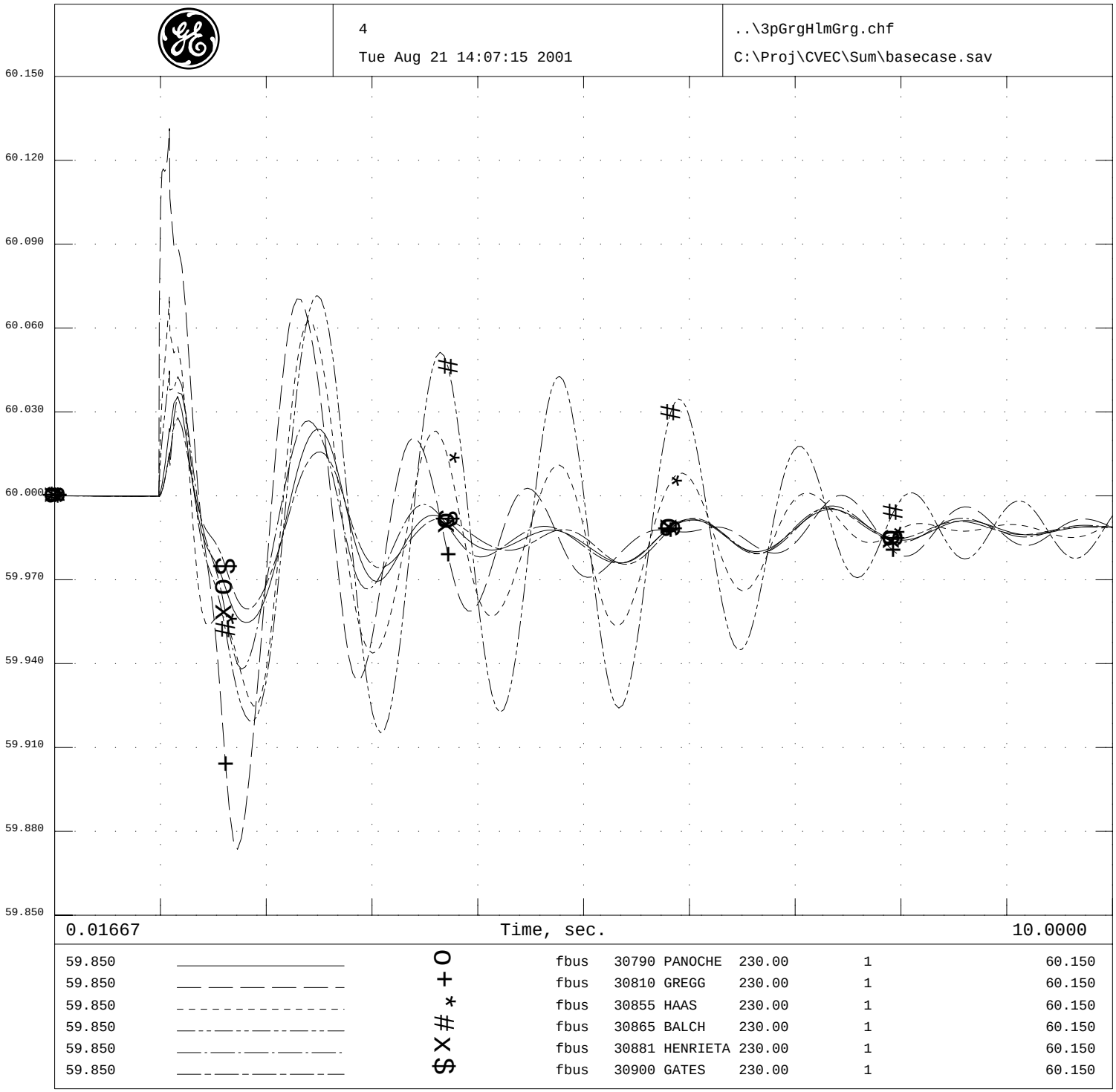
Selected Bus Frequency Plots Adjacent to Fault



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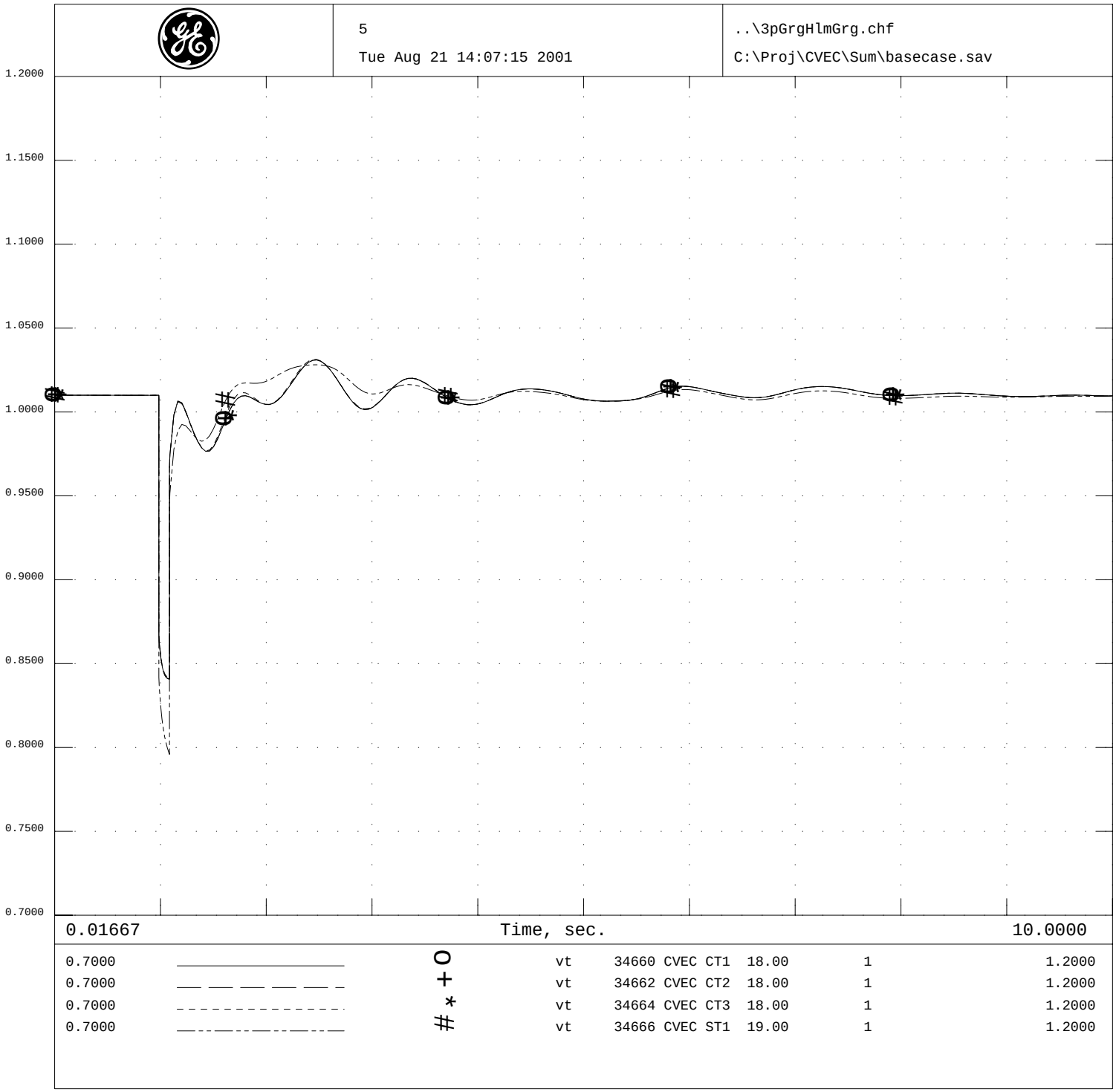

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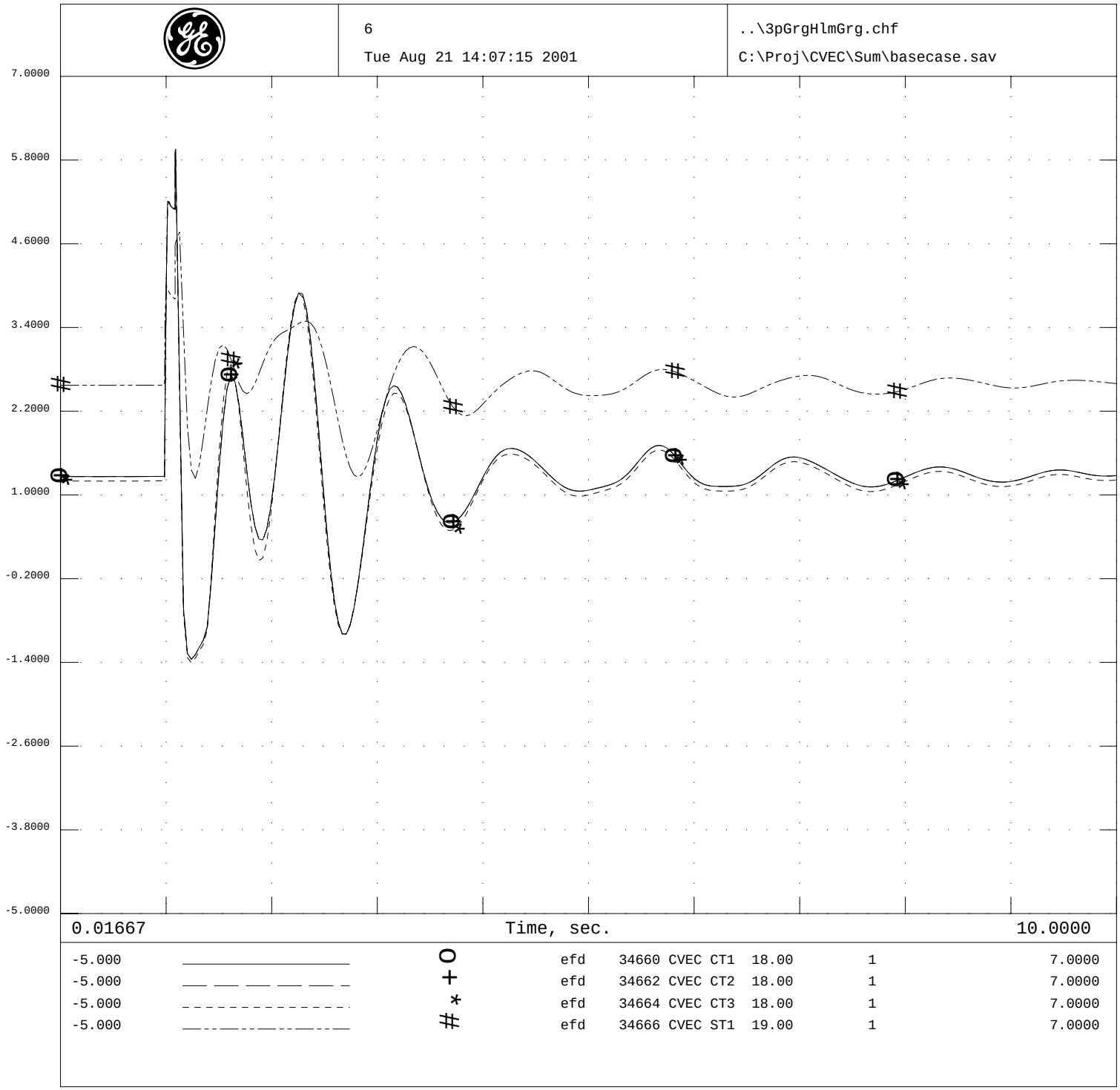
Calpine Corporation
Project Generator Terminal Voltages



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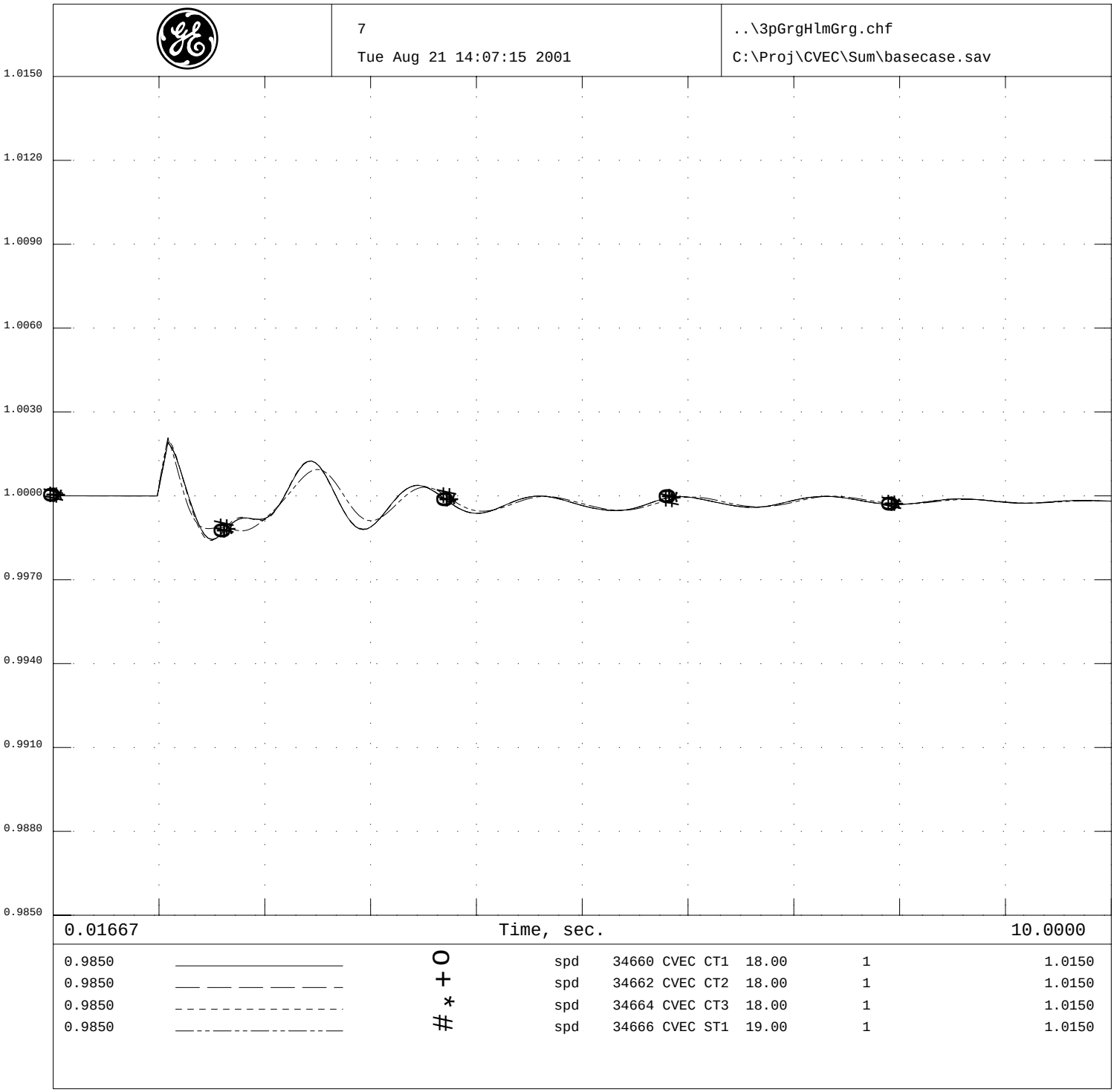
Project Generator Field Voltages



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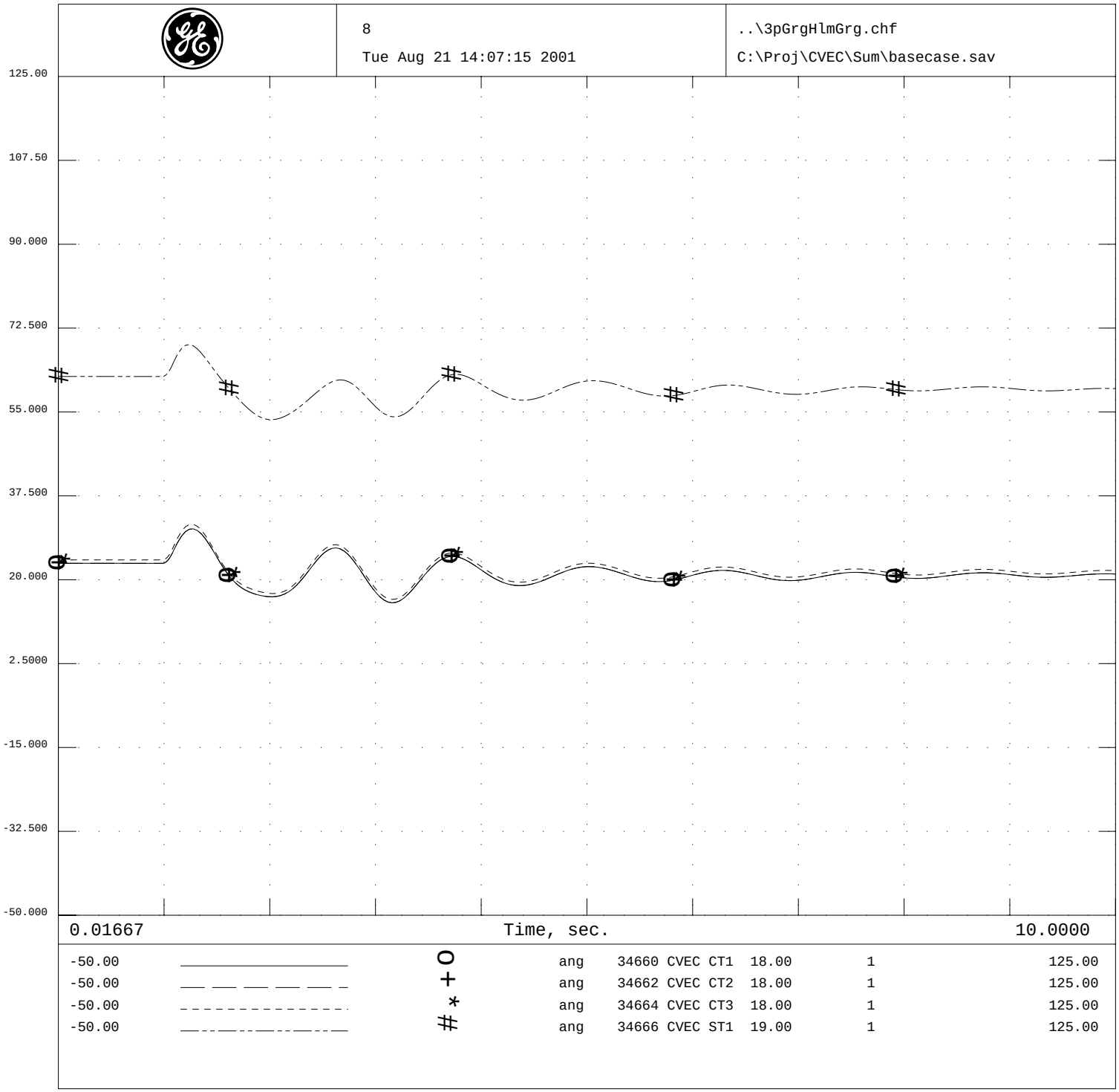
Calpine Corporation
Project Generator Rotor Speed



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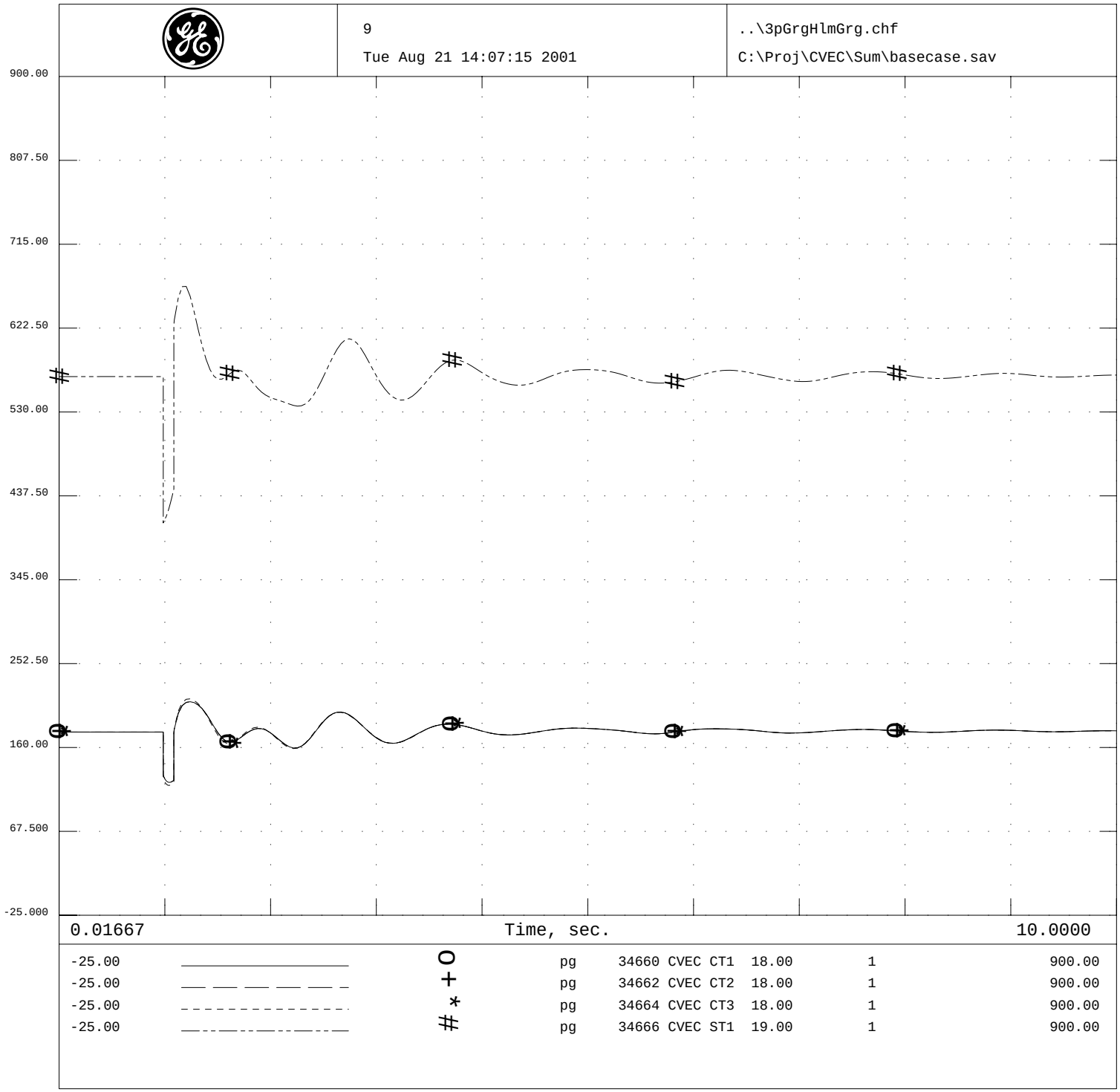
Project Generator Rotor Angle



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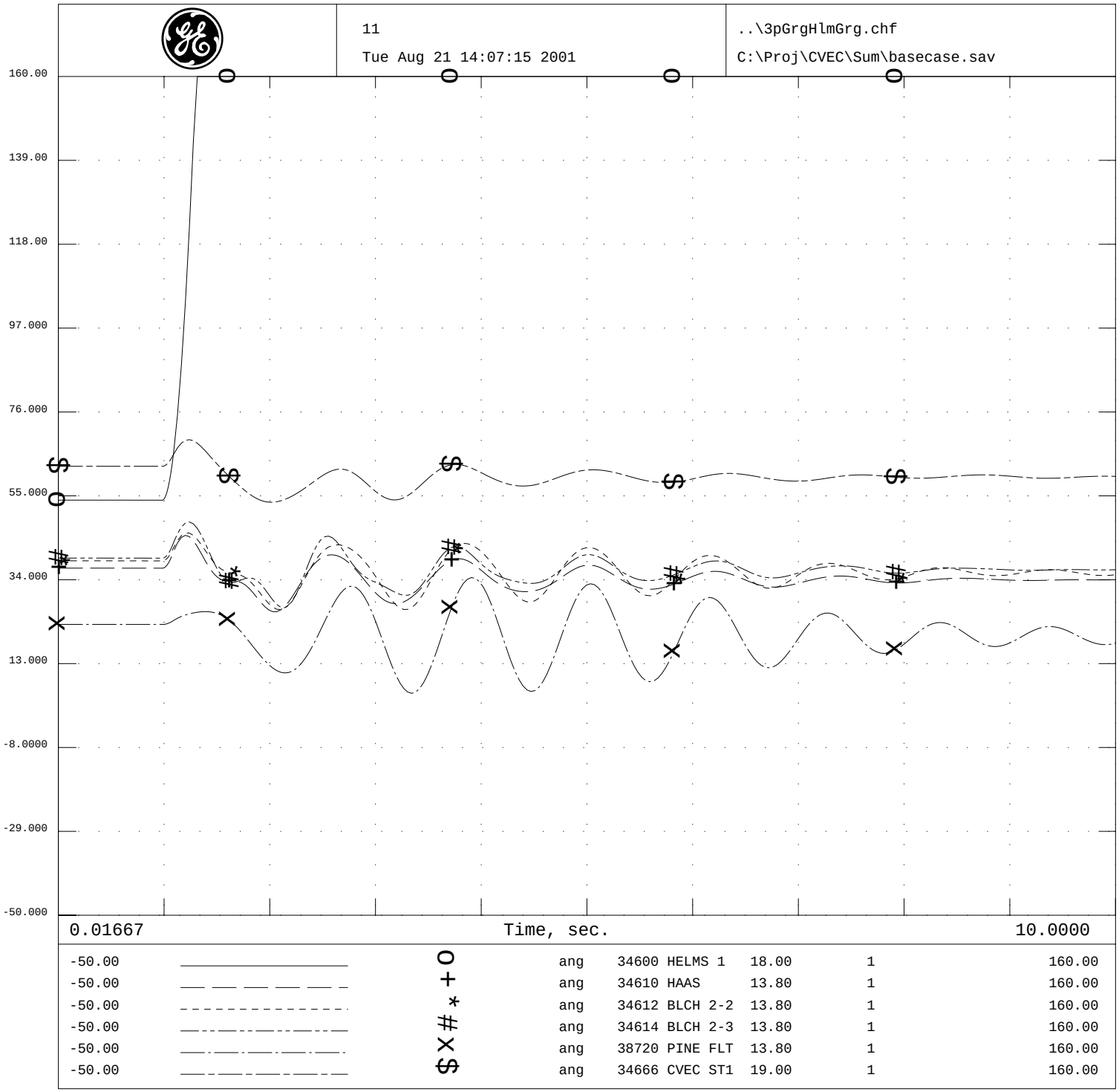

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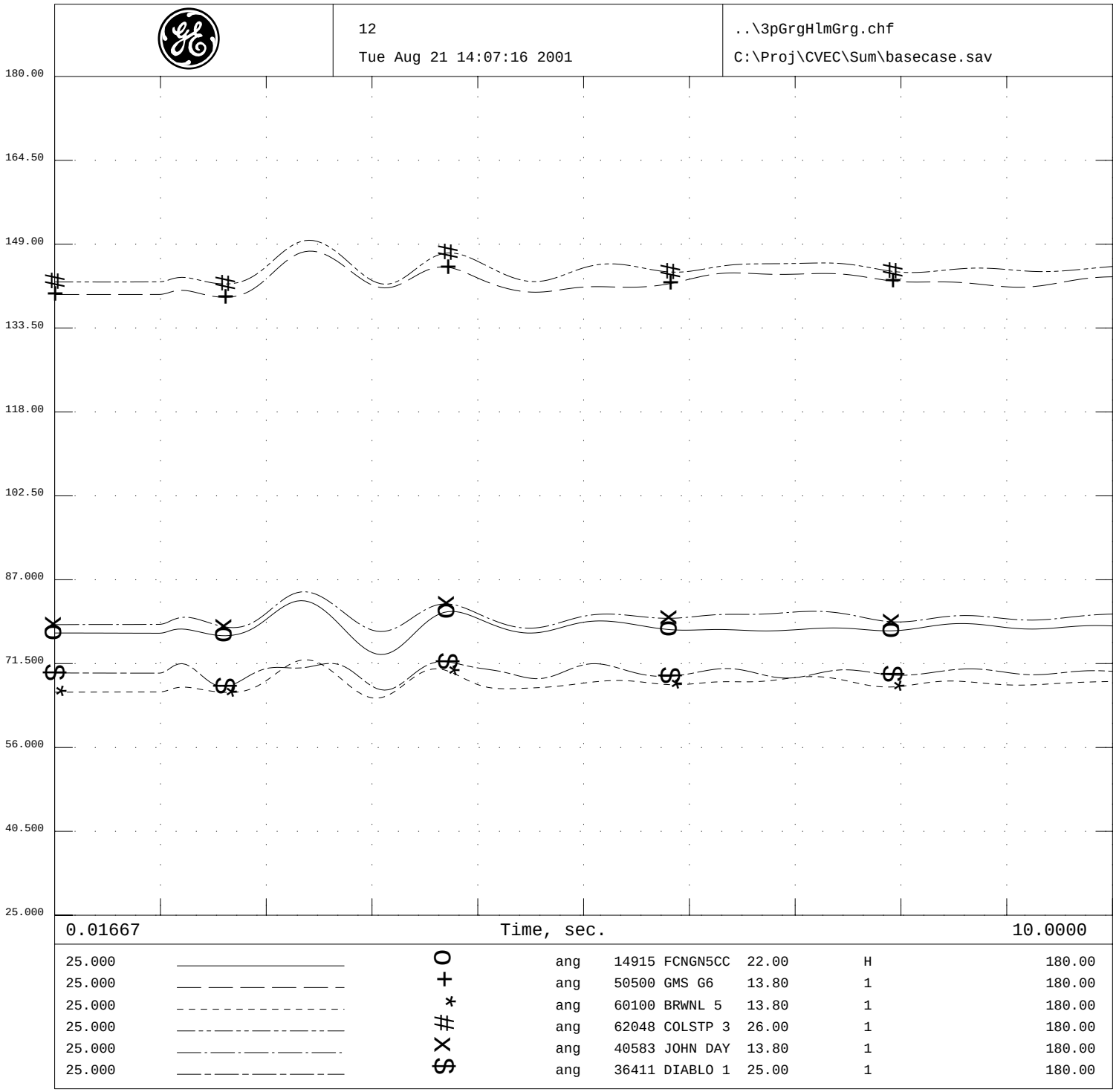
Selected Local Rotor Angle Plots



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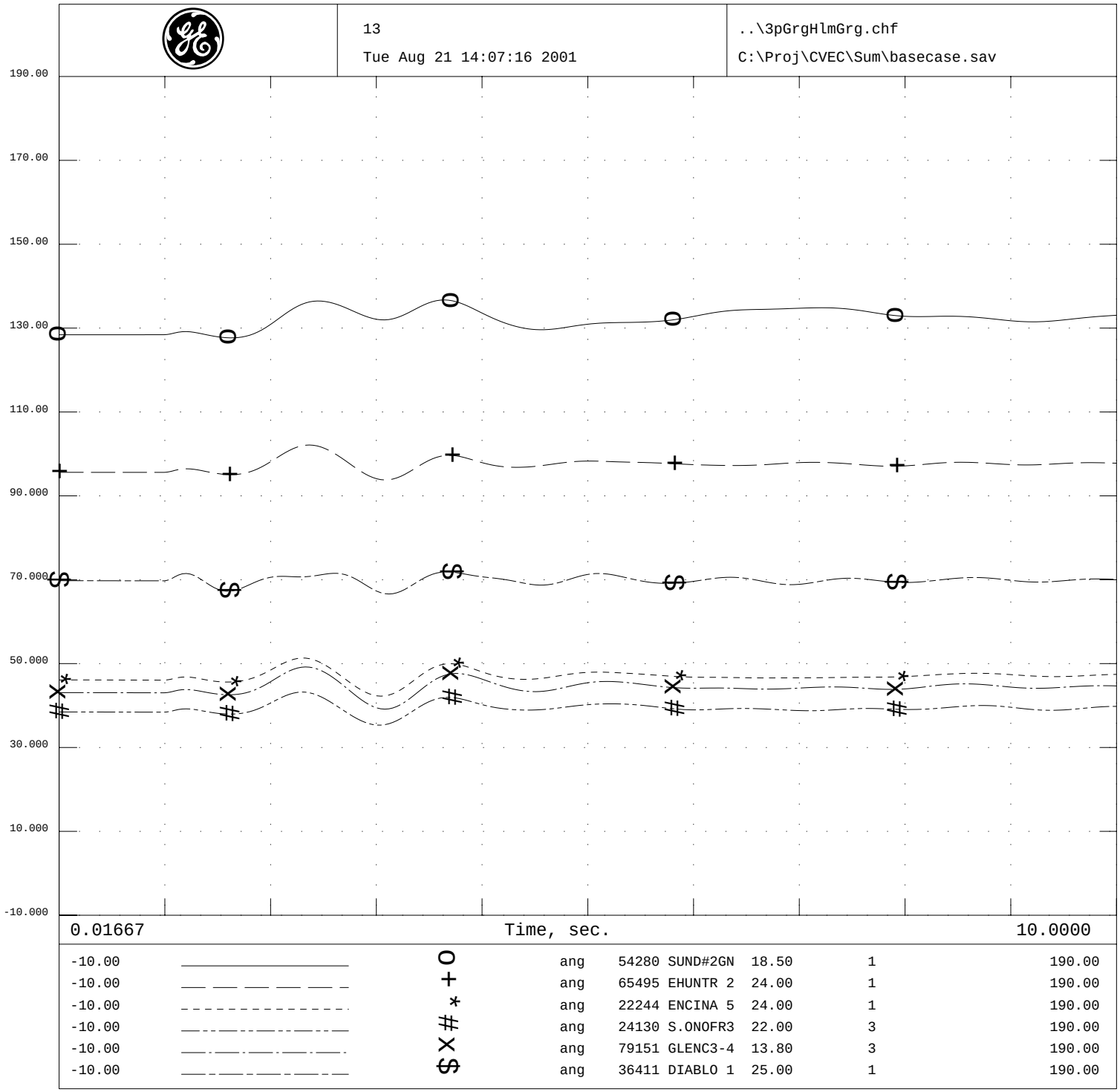

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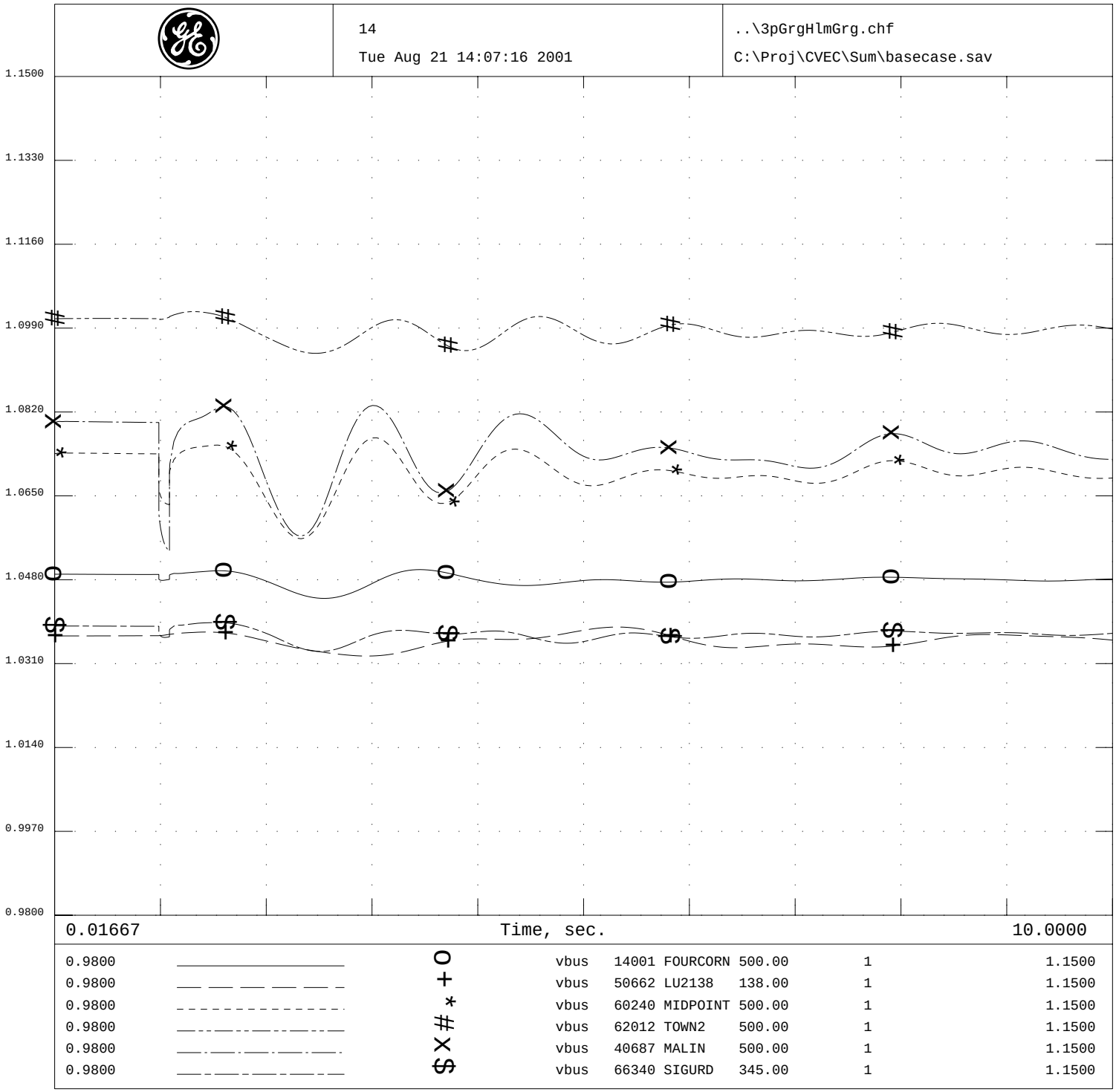

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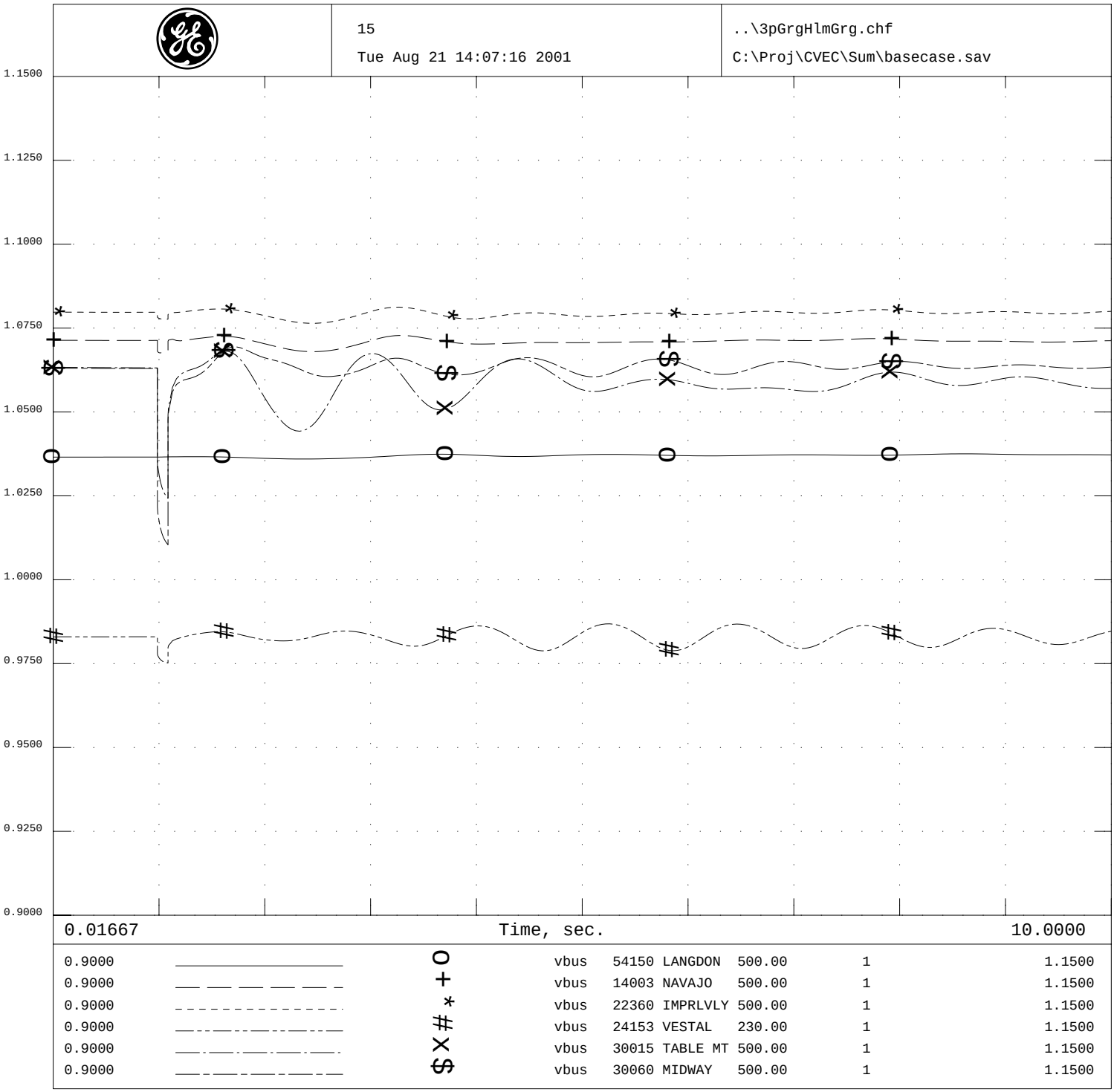

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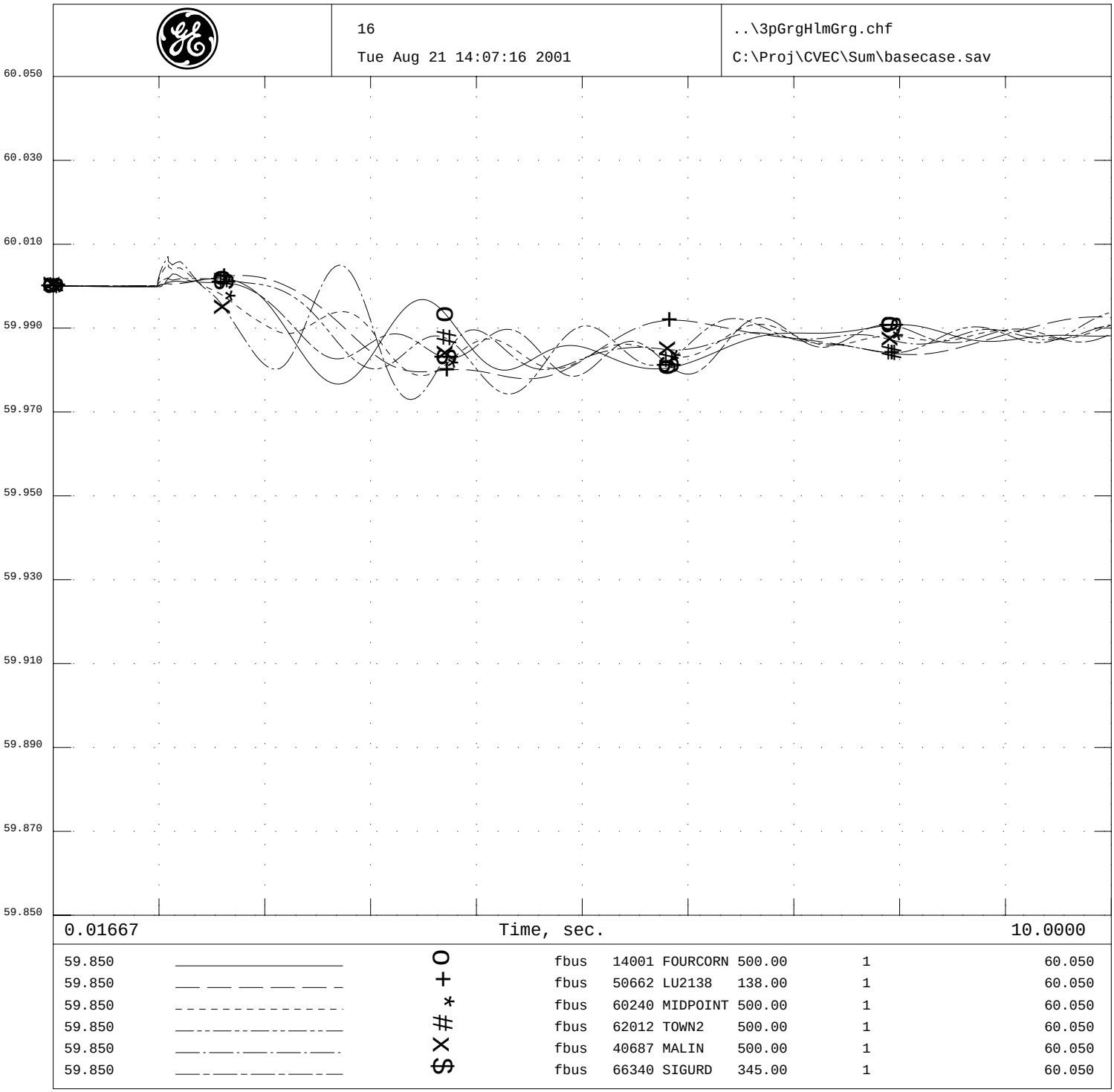

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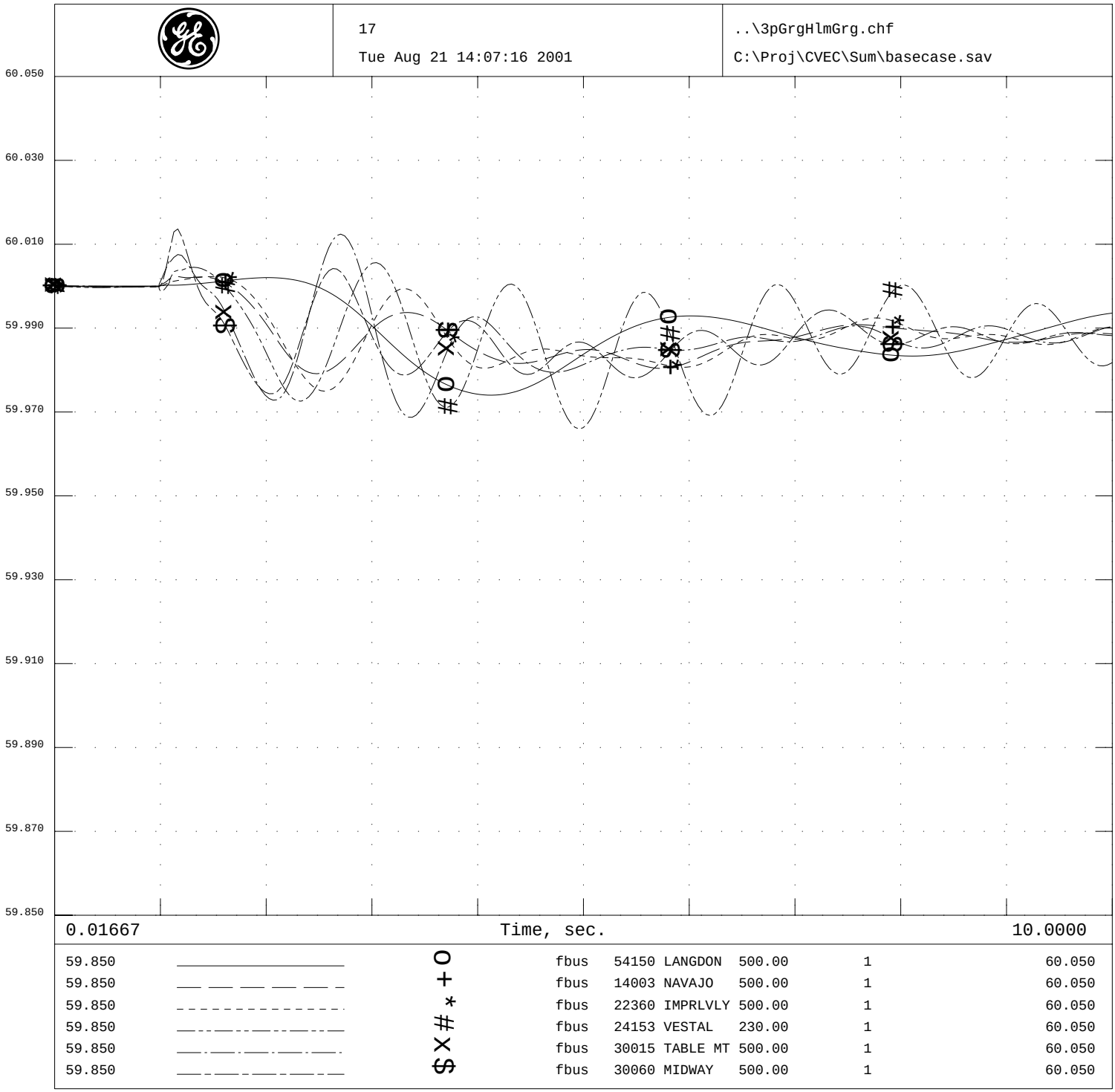

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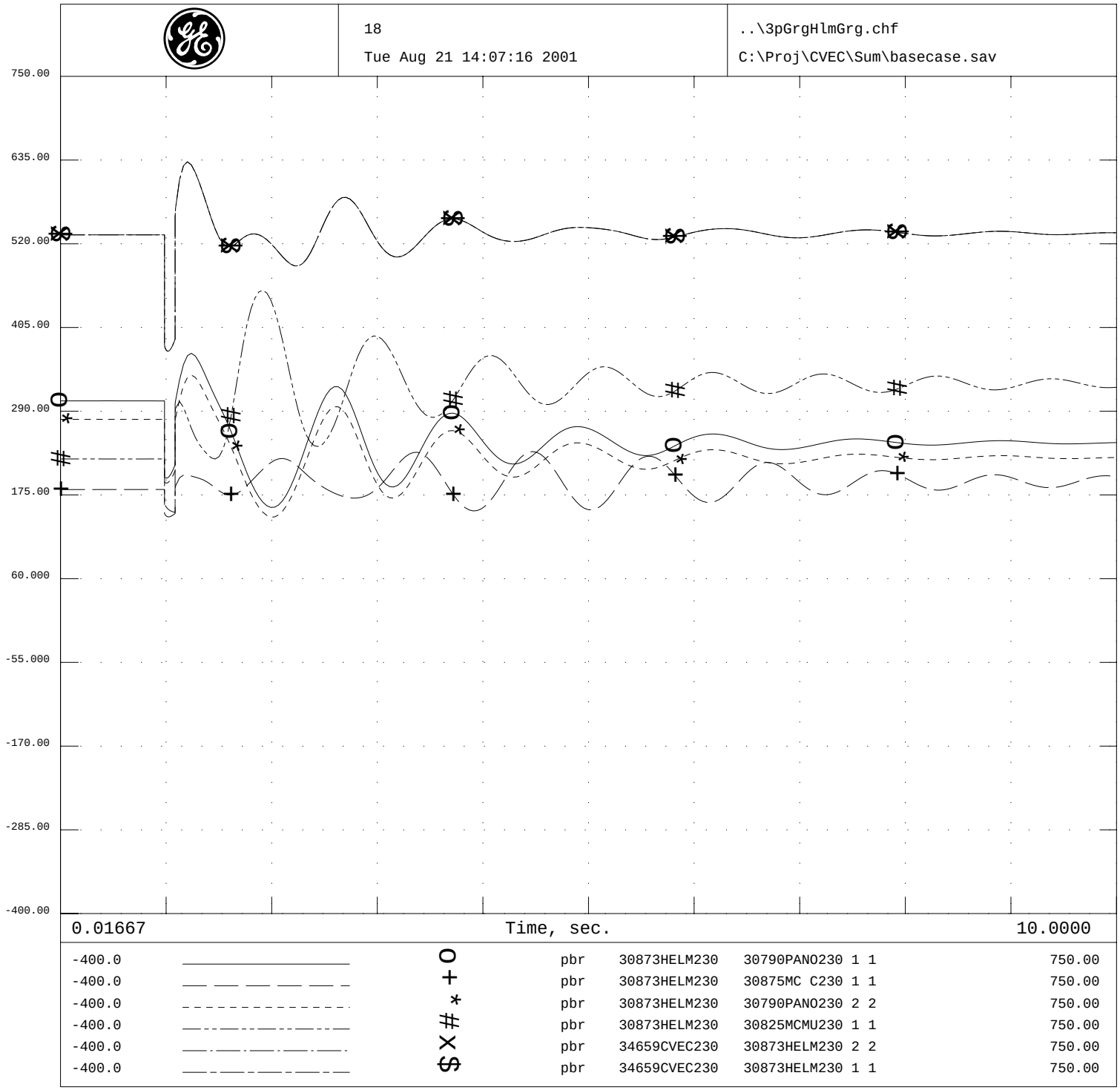

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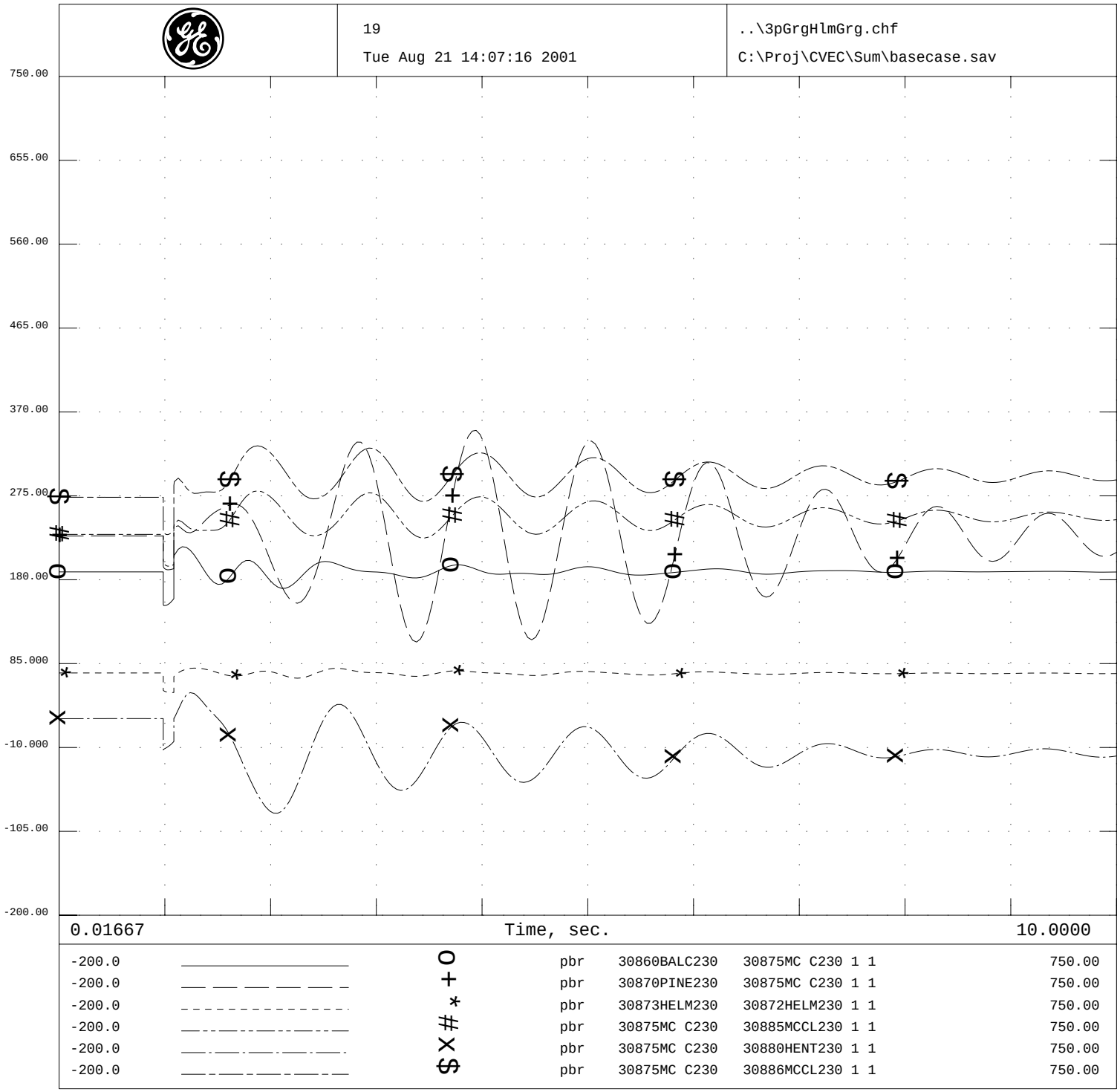

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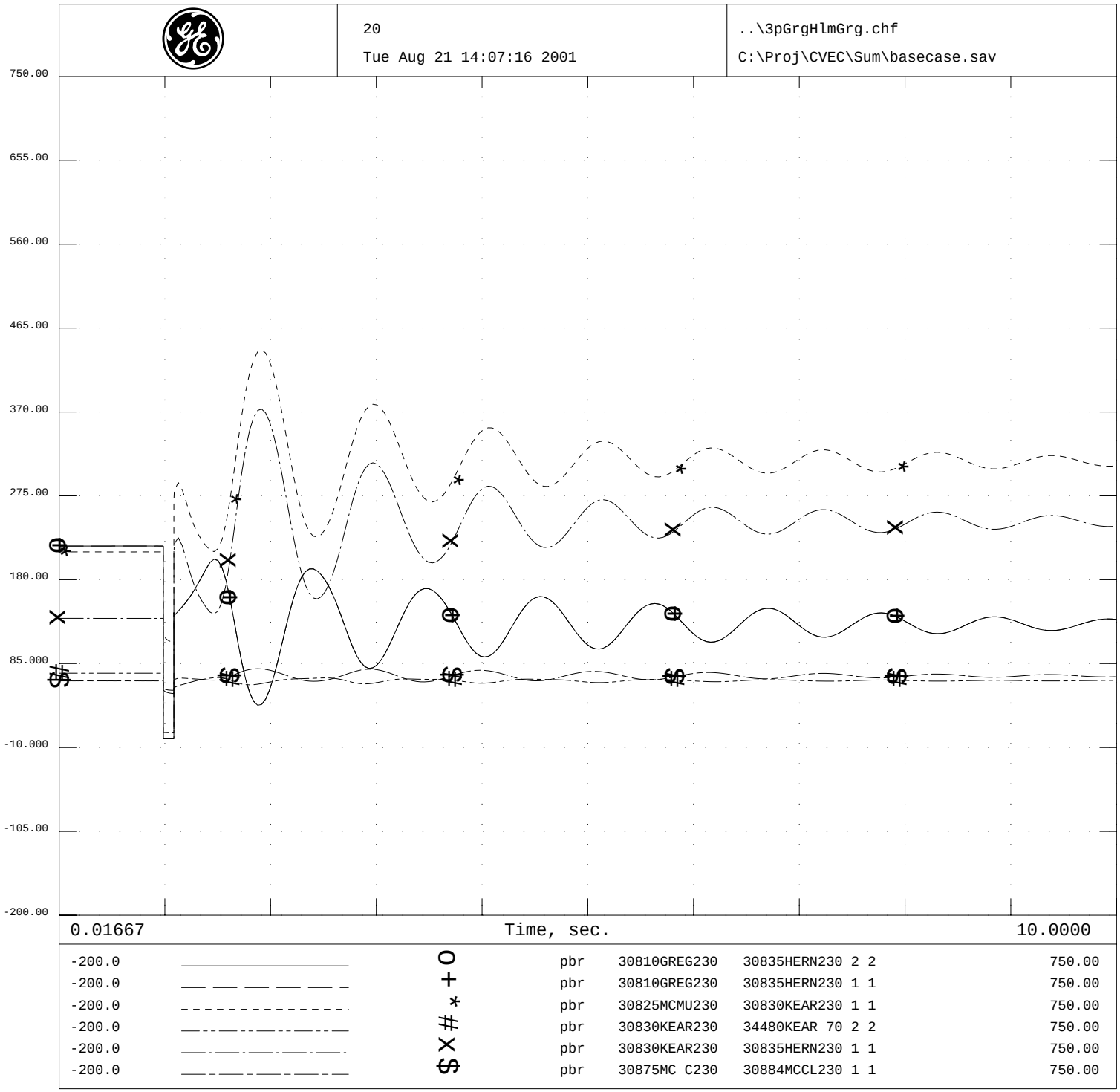

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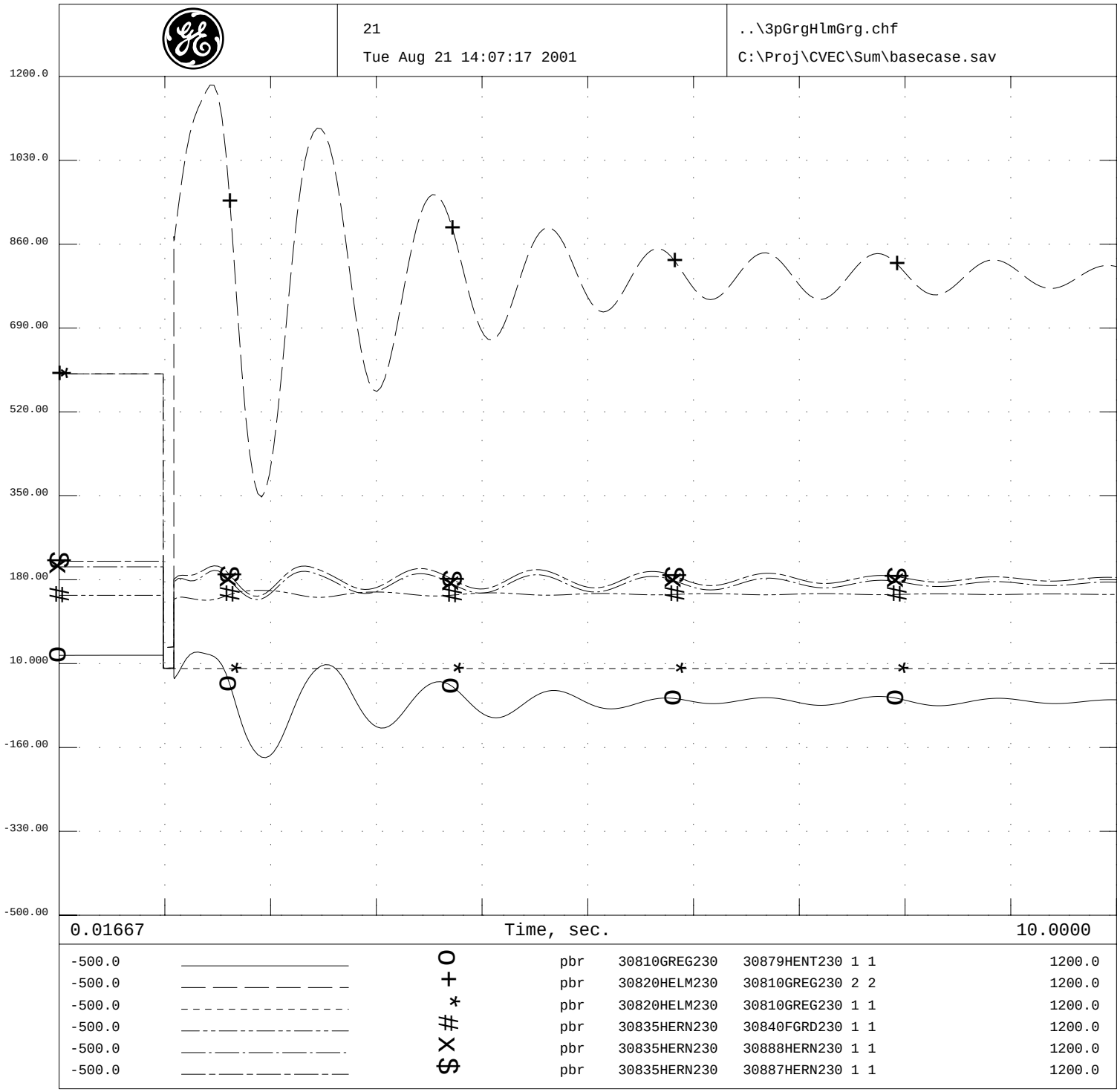

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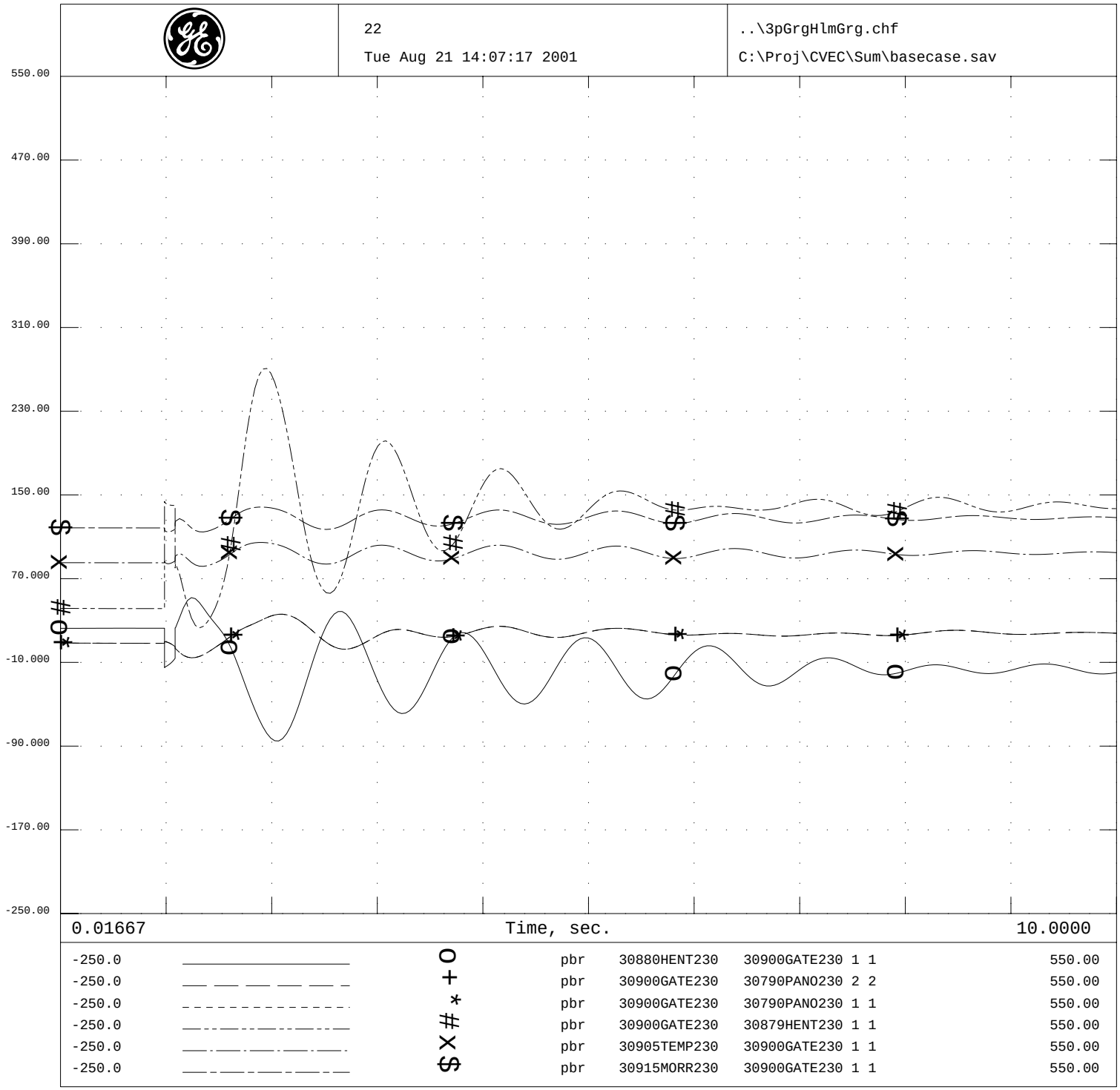

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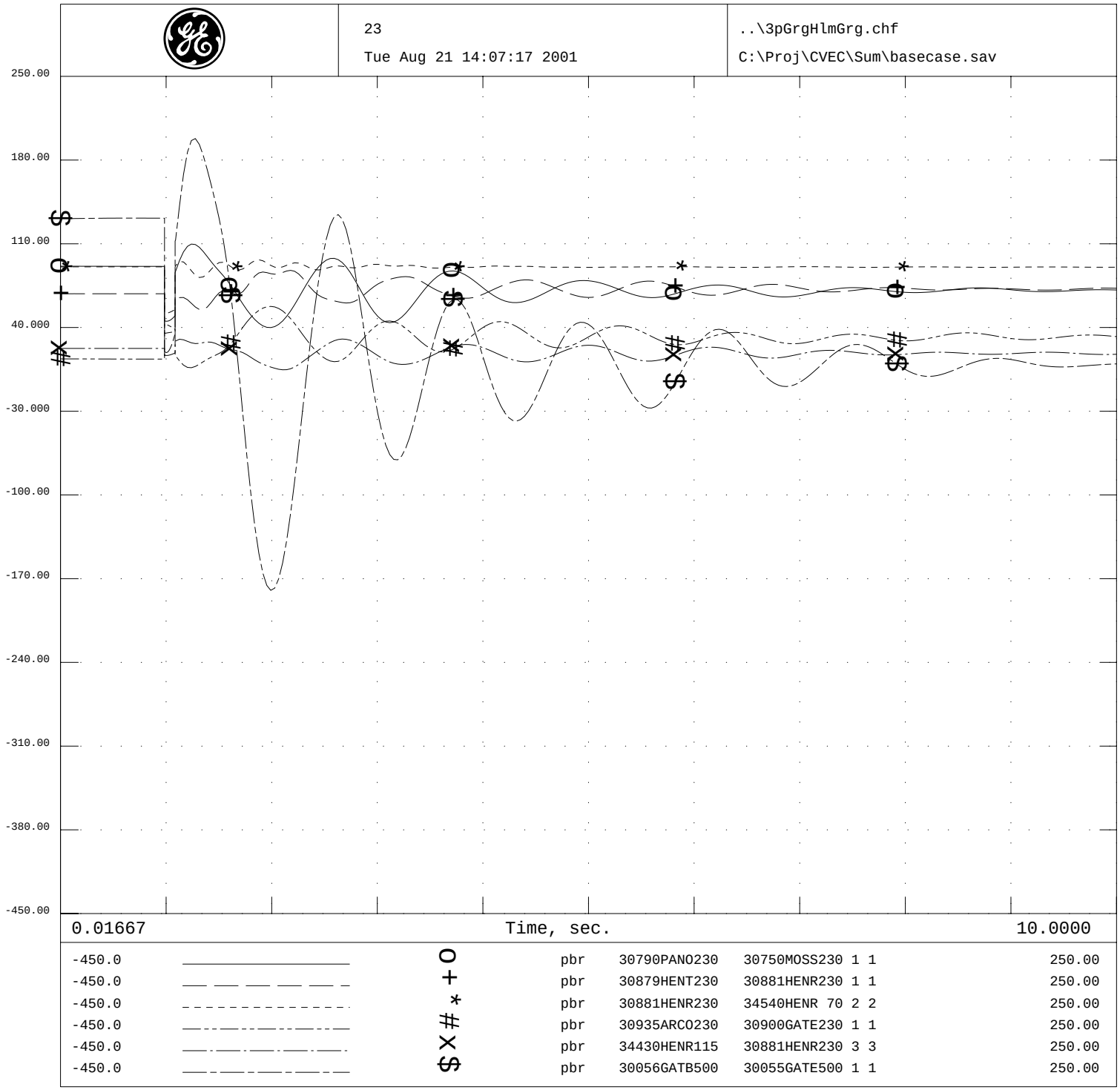

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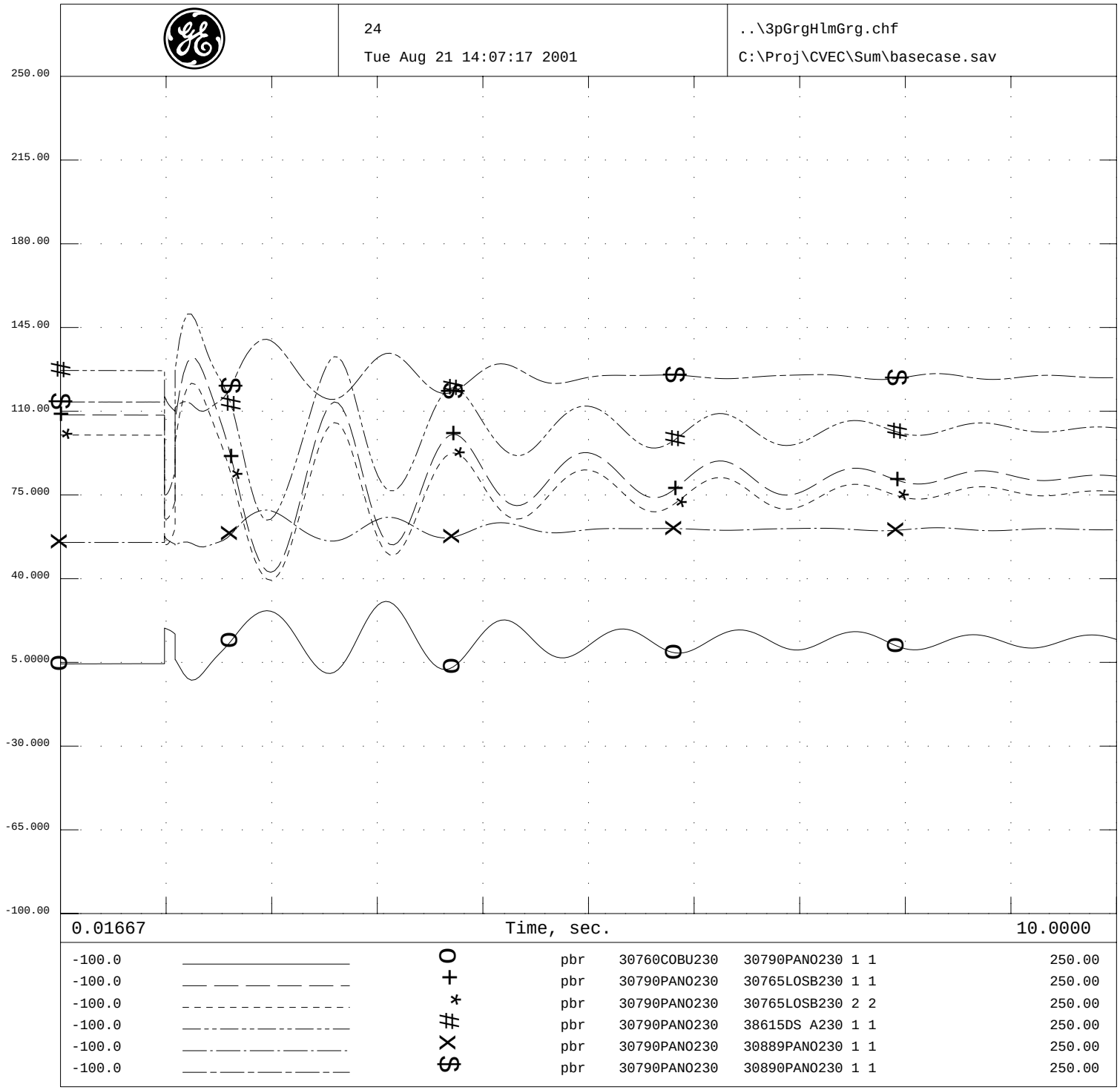

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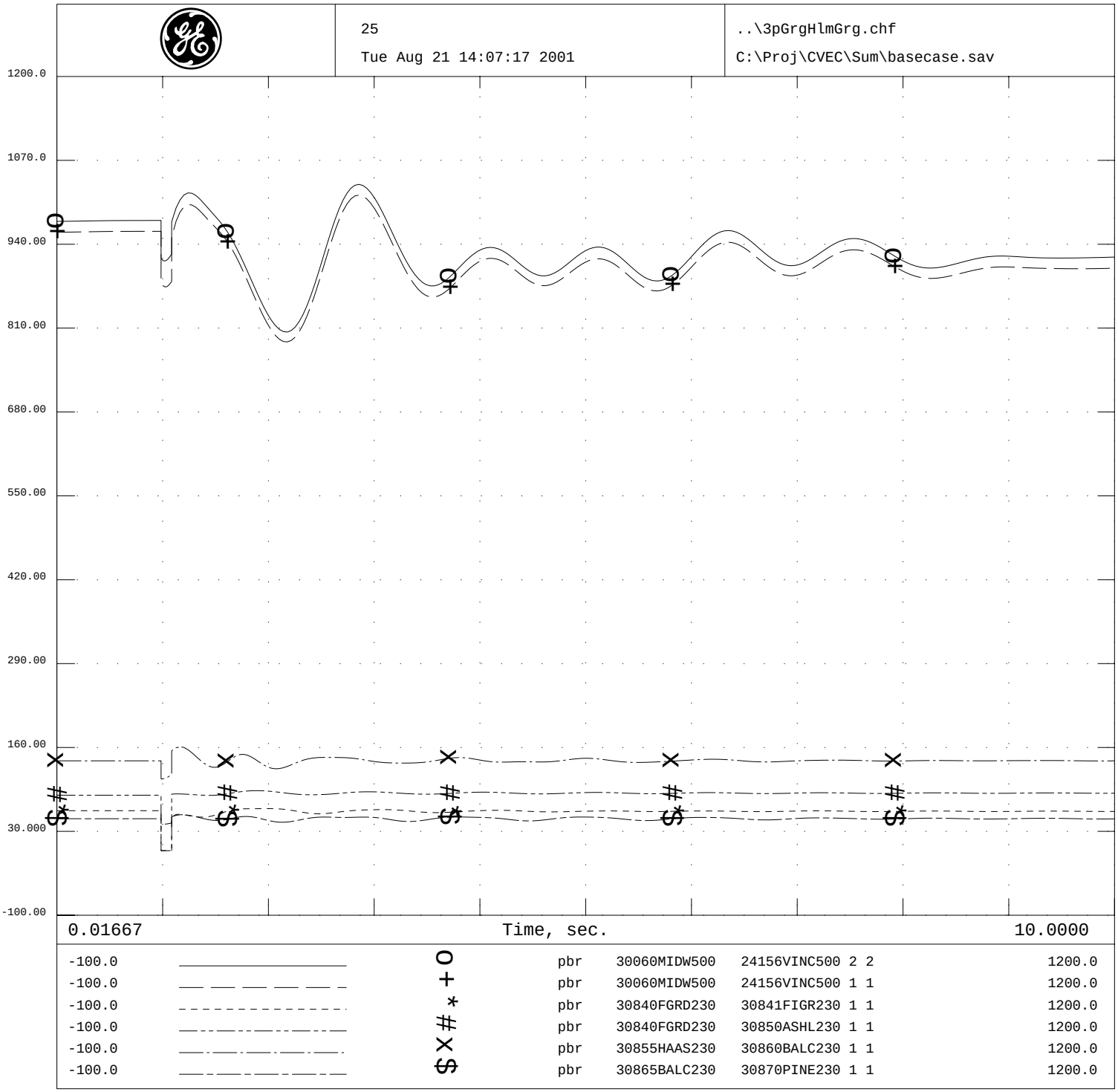

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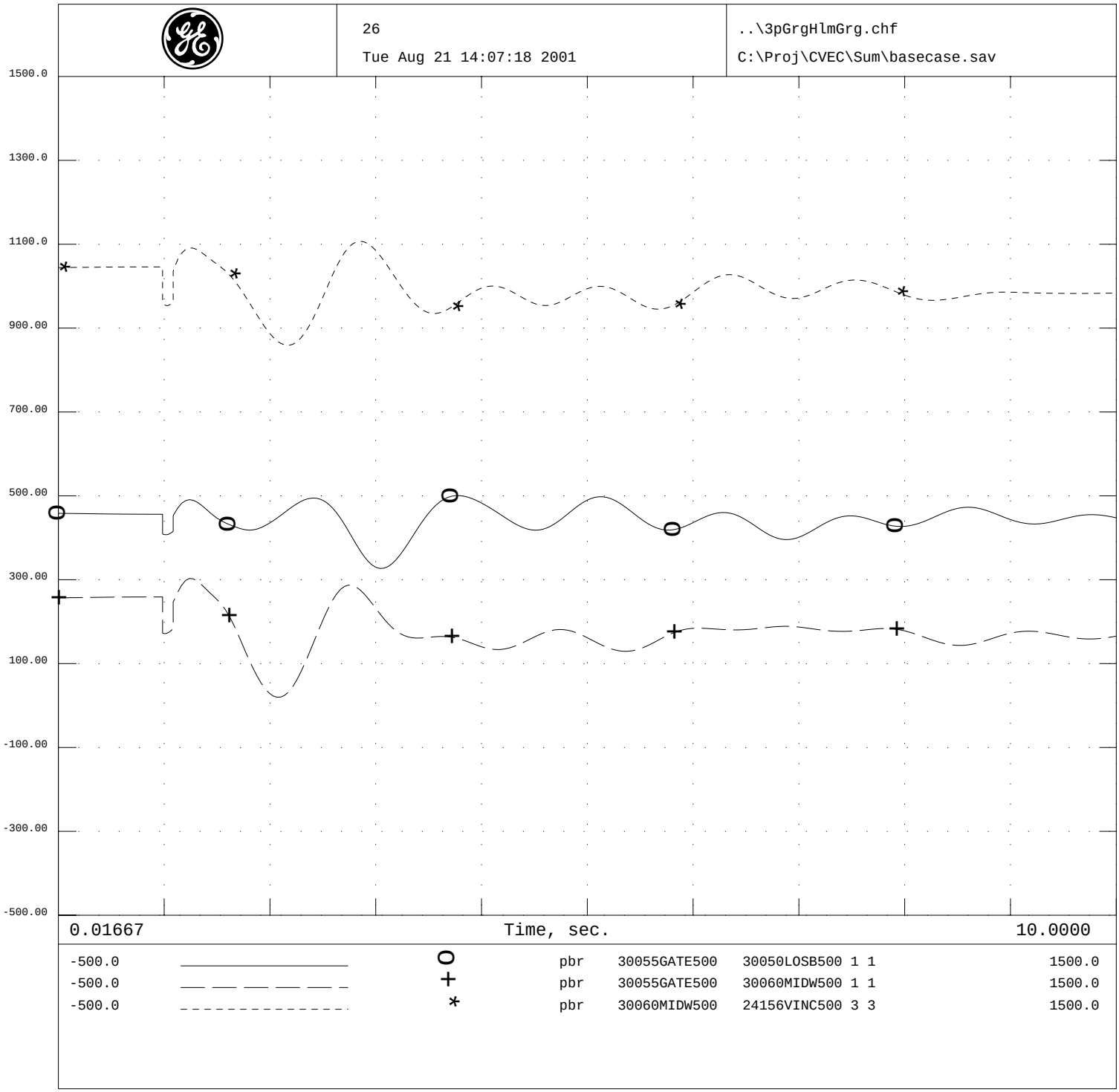
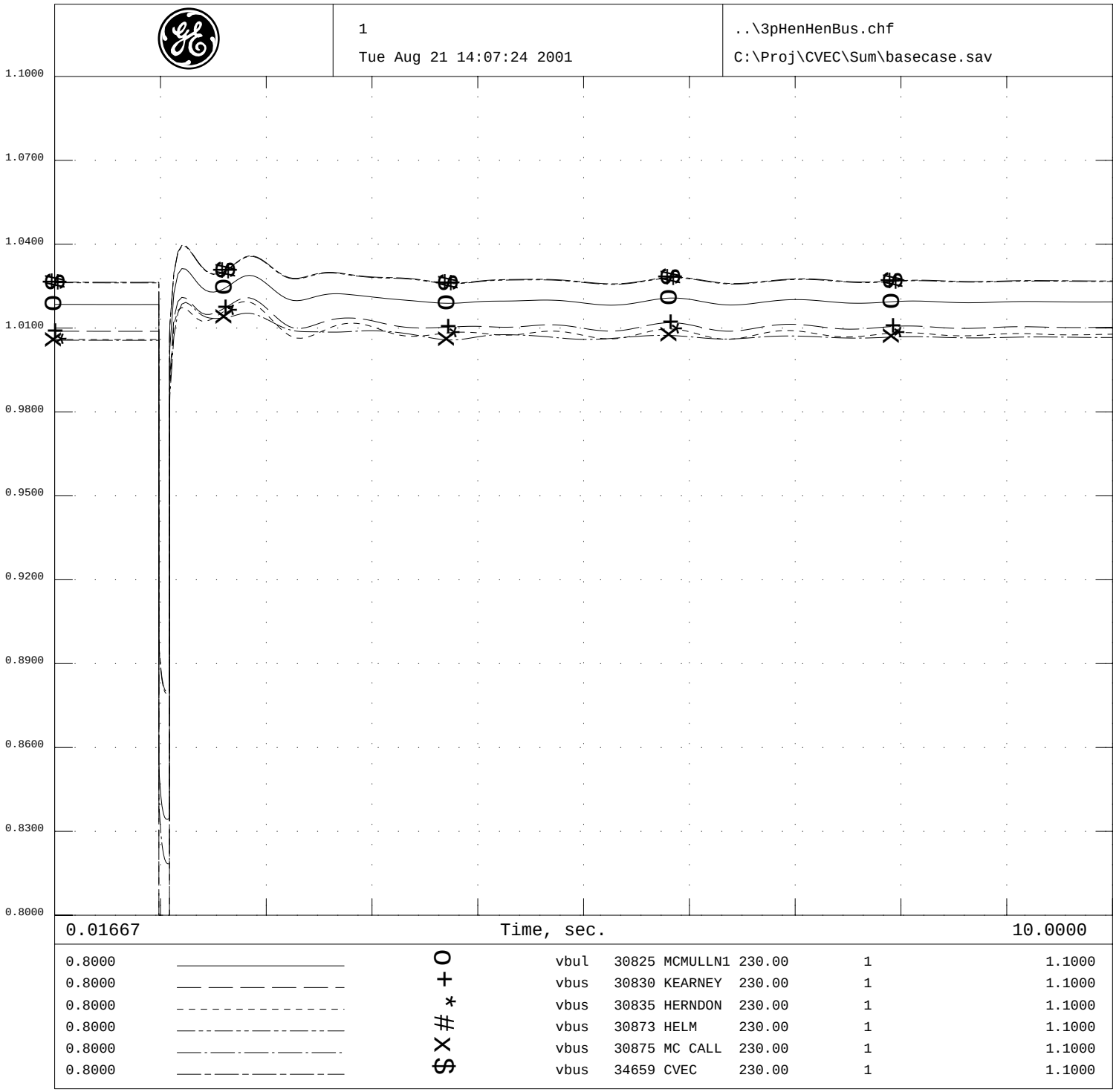


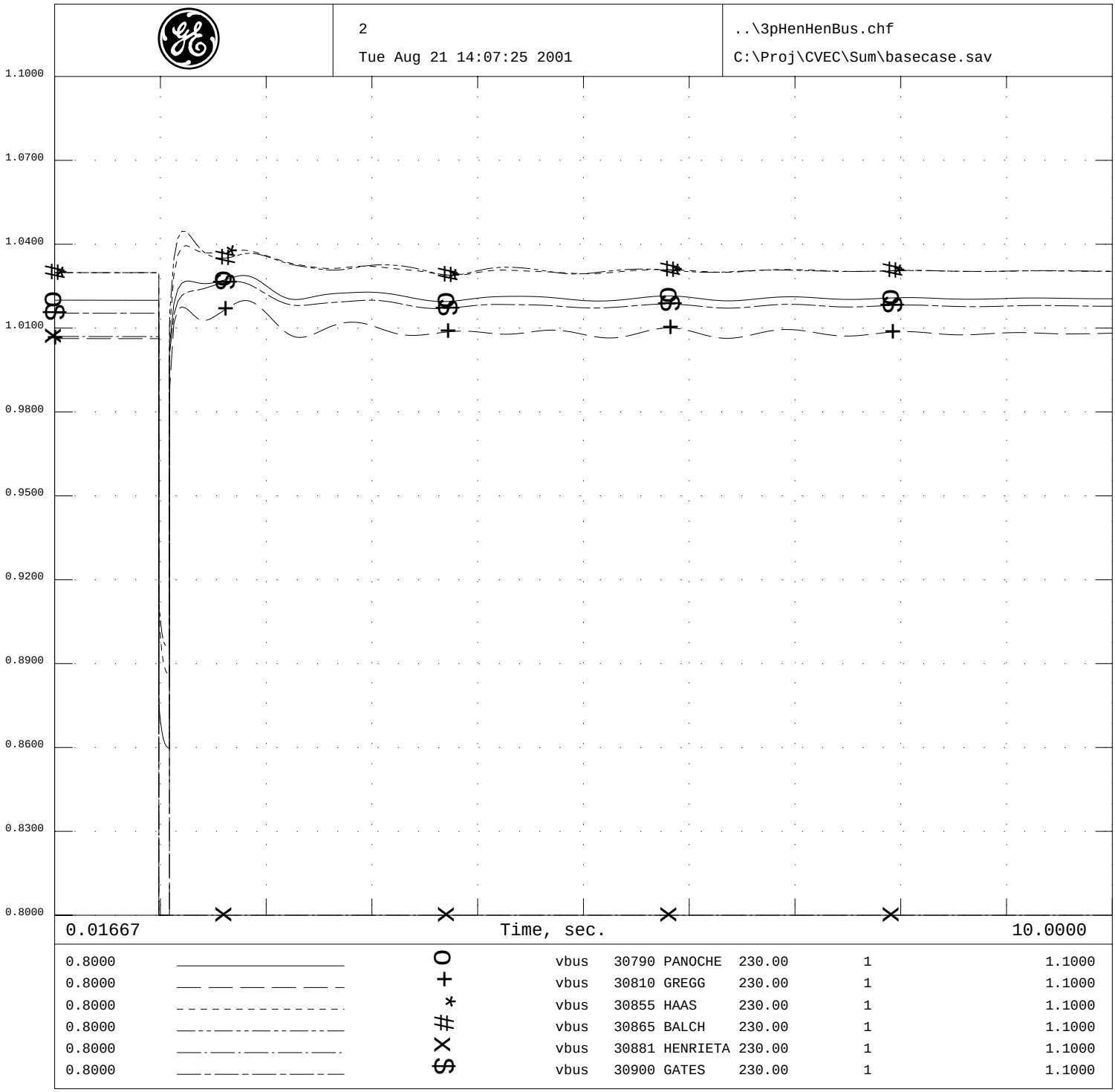
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Gregg-Helms 230kV Outage
3 phase 6 cycle fault at Gregg 230kV bus and trip Gregg-Helms 230kV line

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



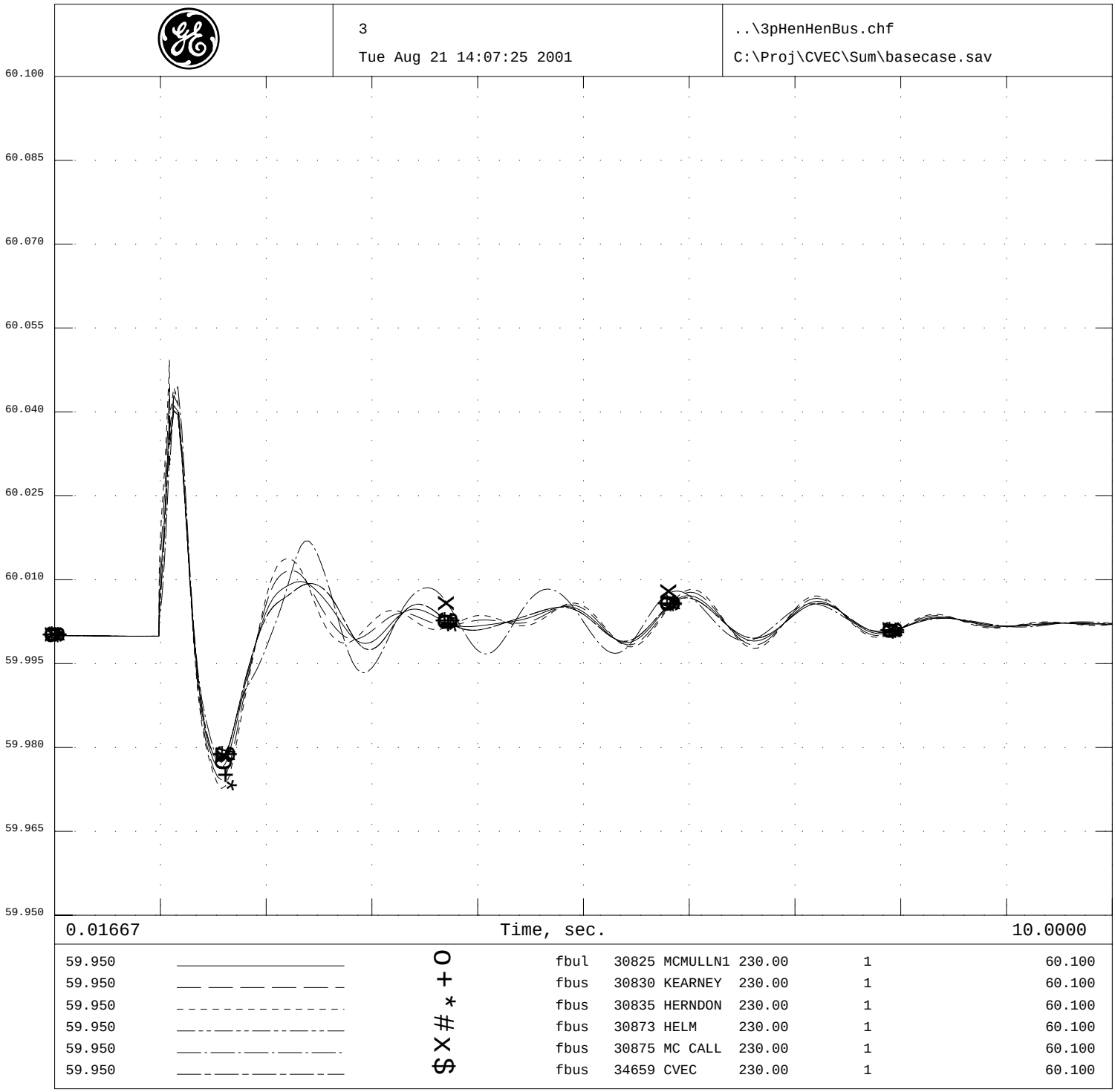
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



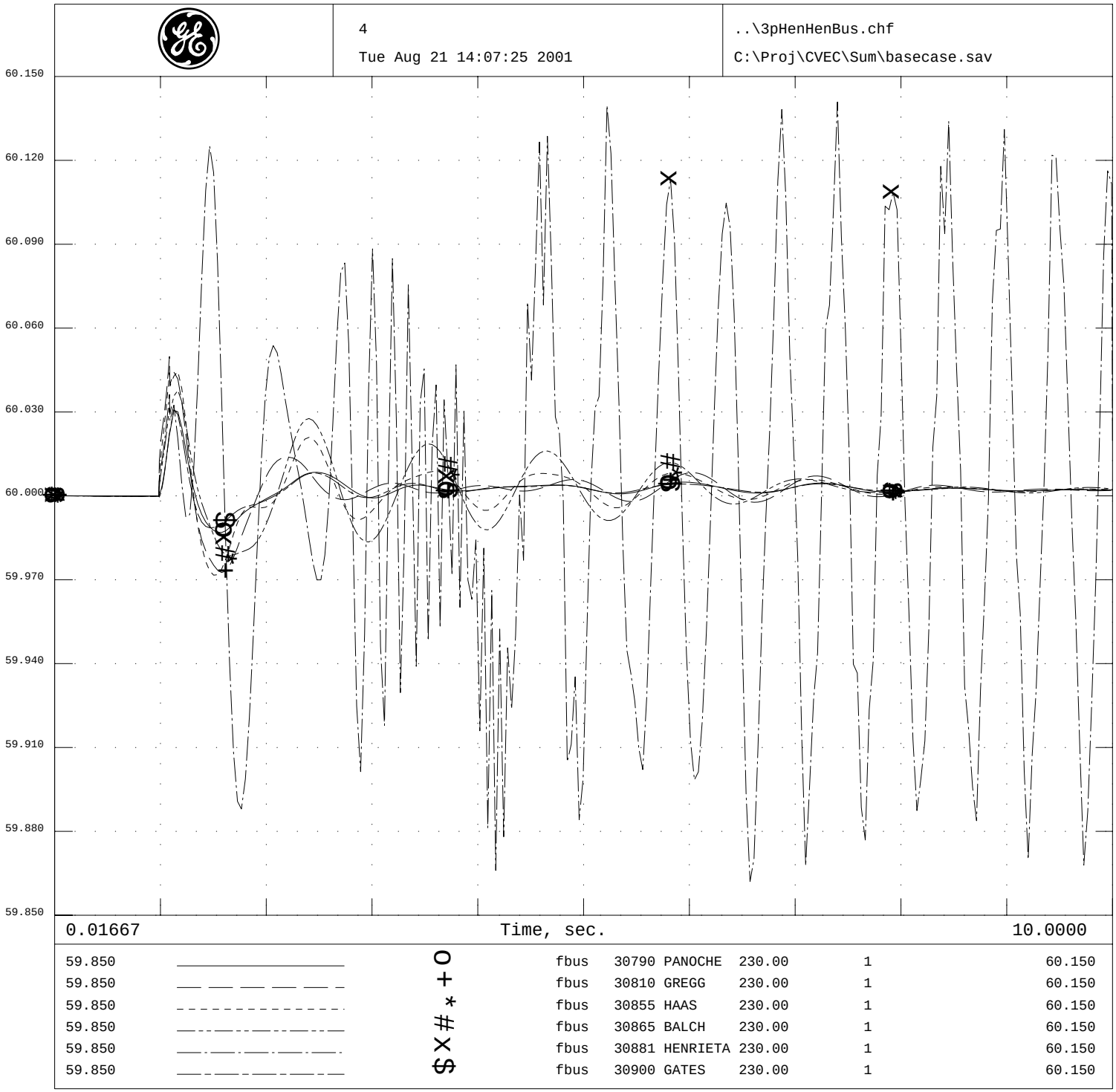
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



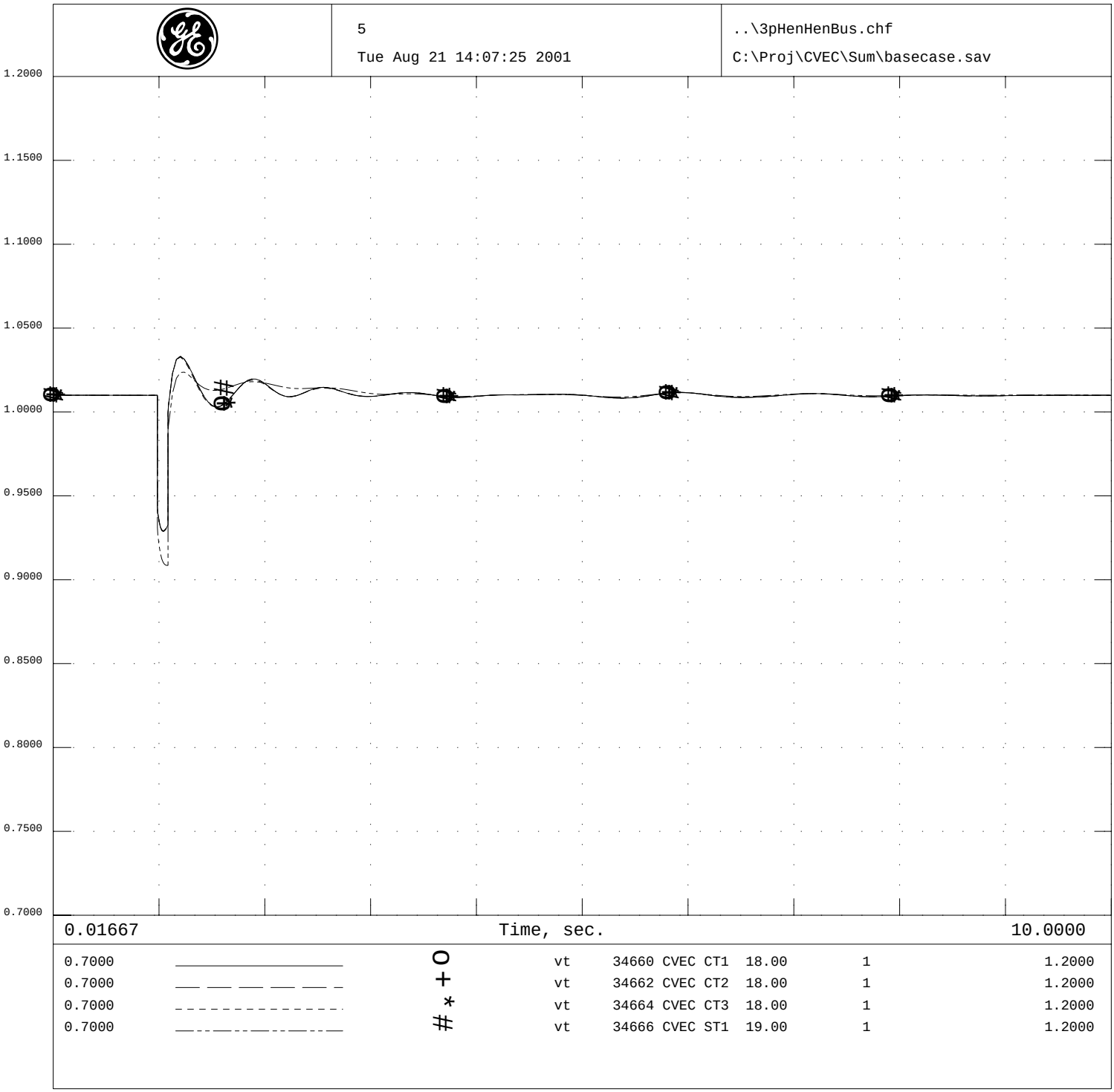
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



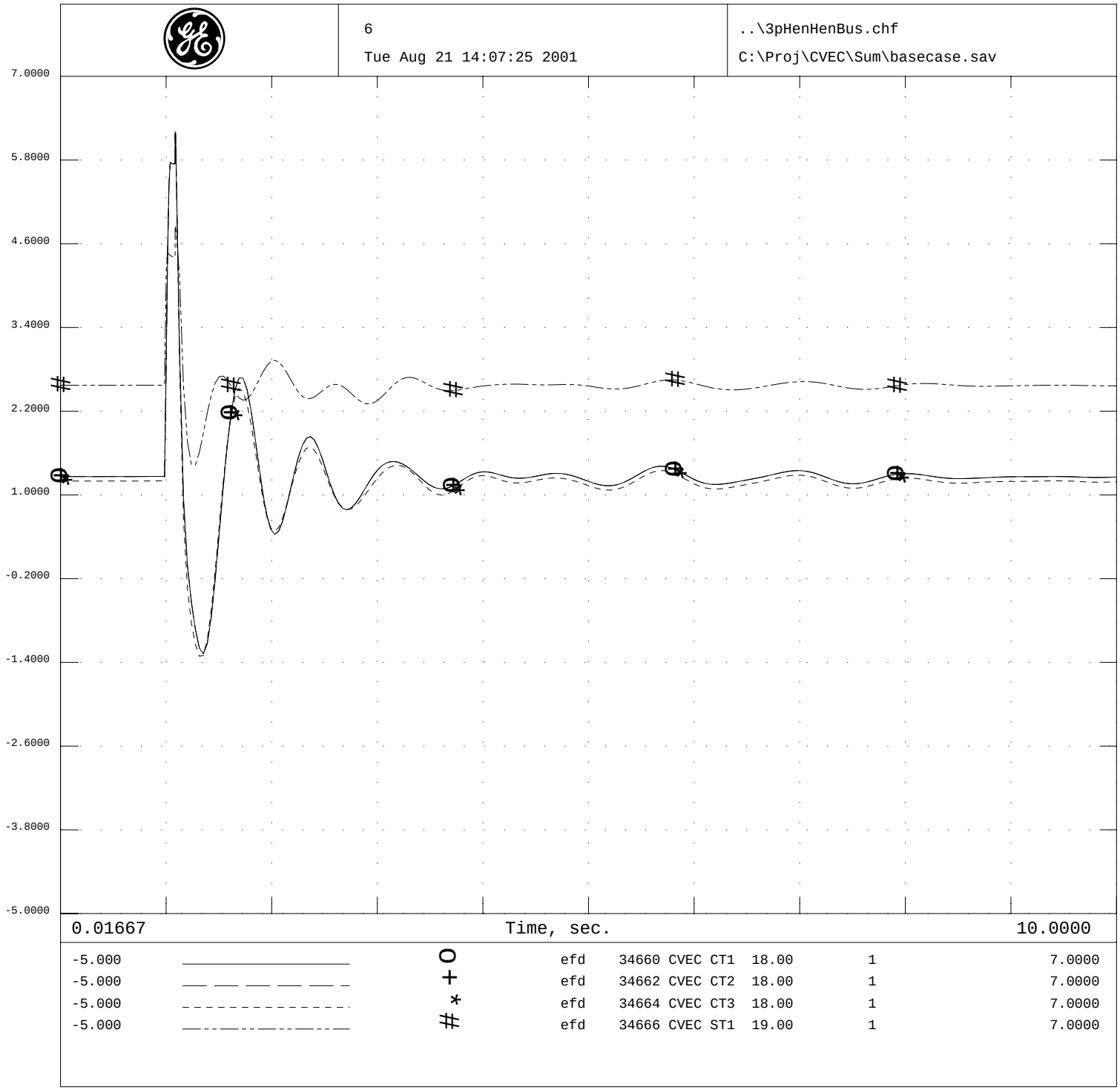
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



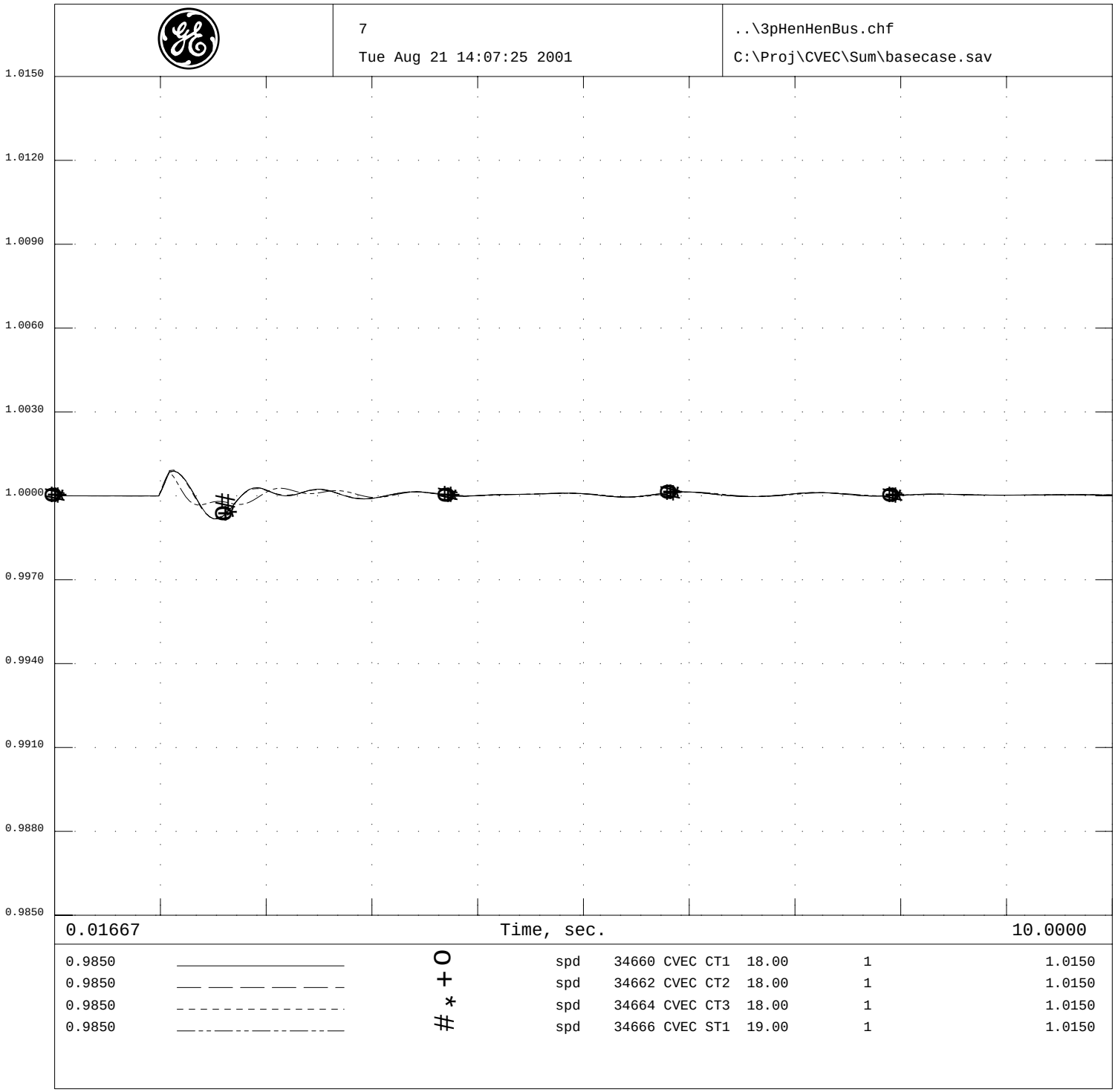
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



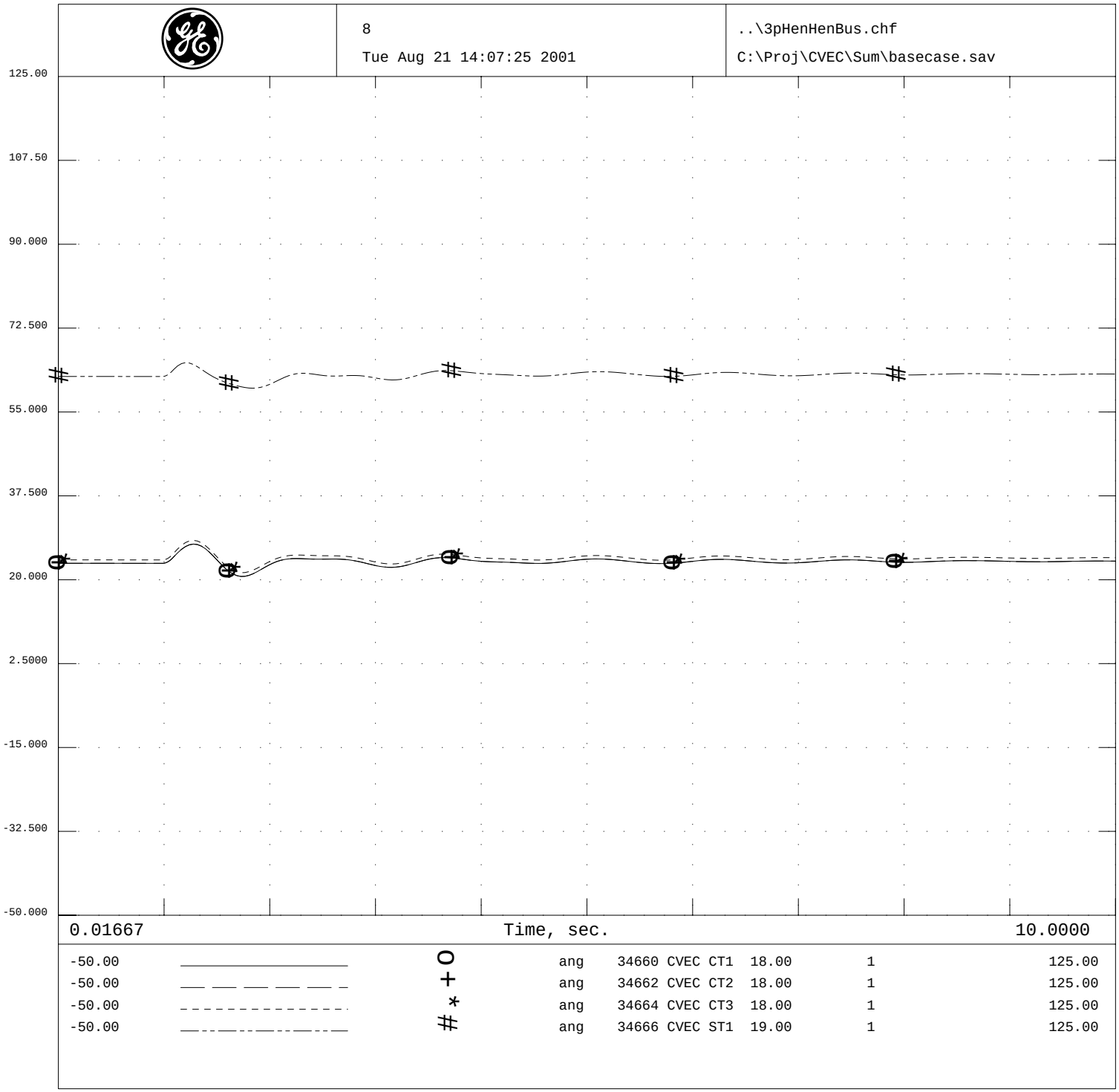
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



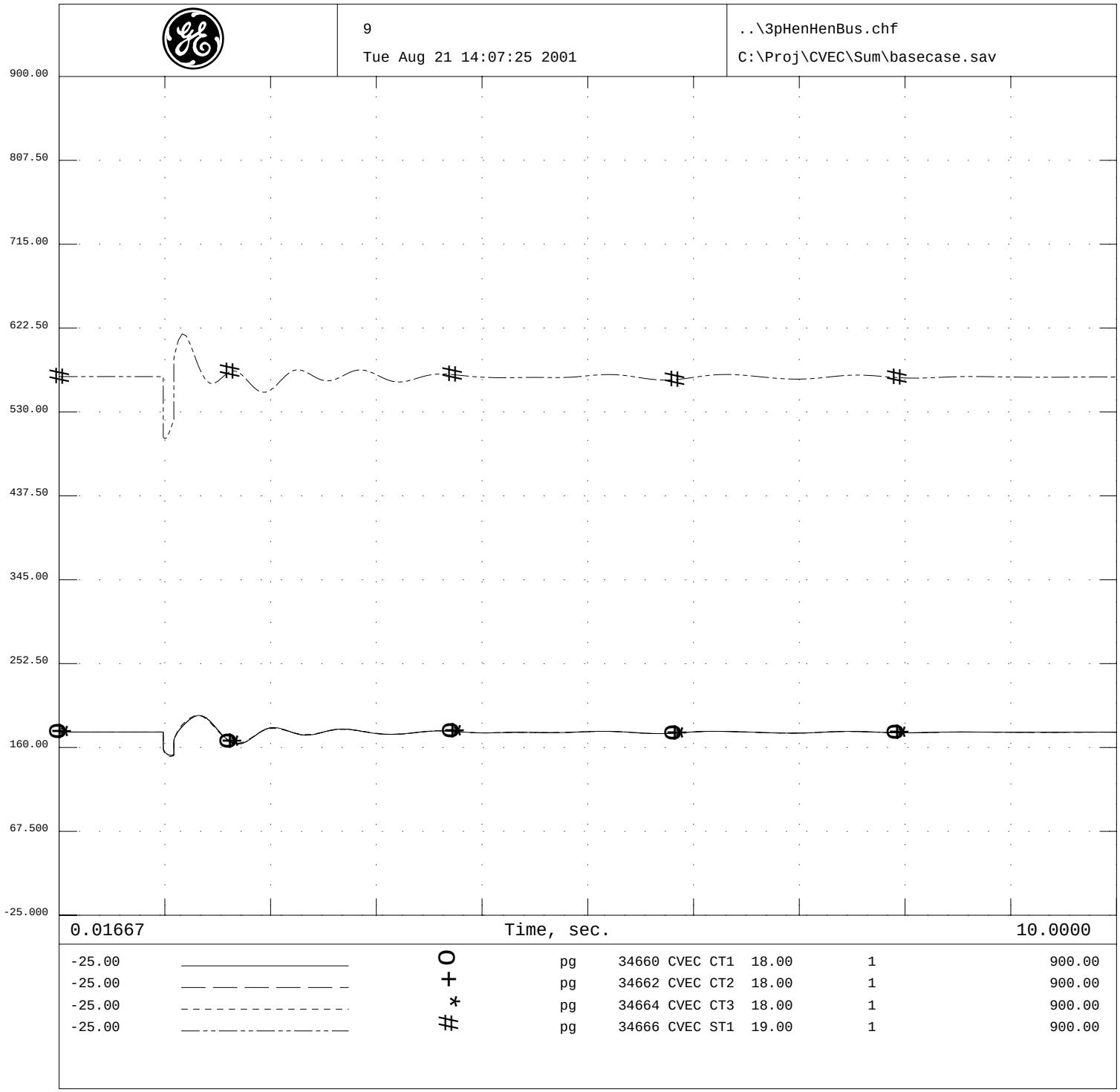
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
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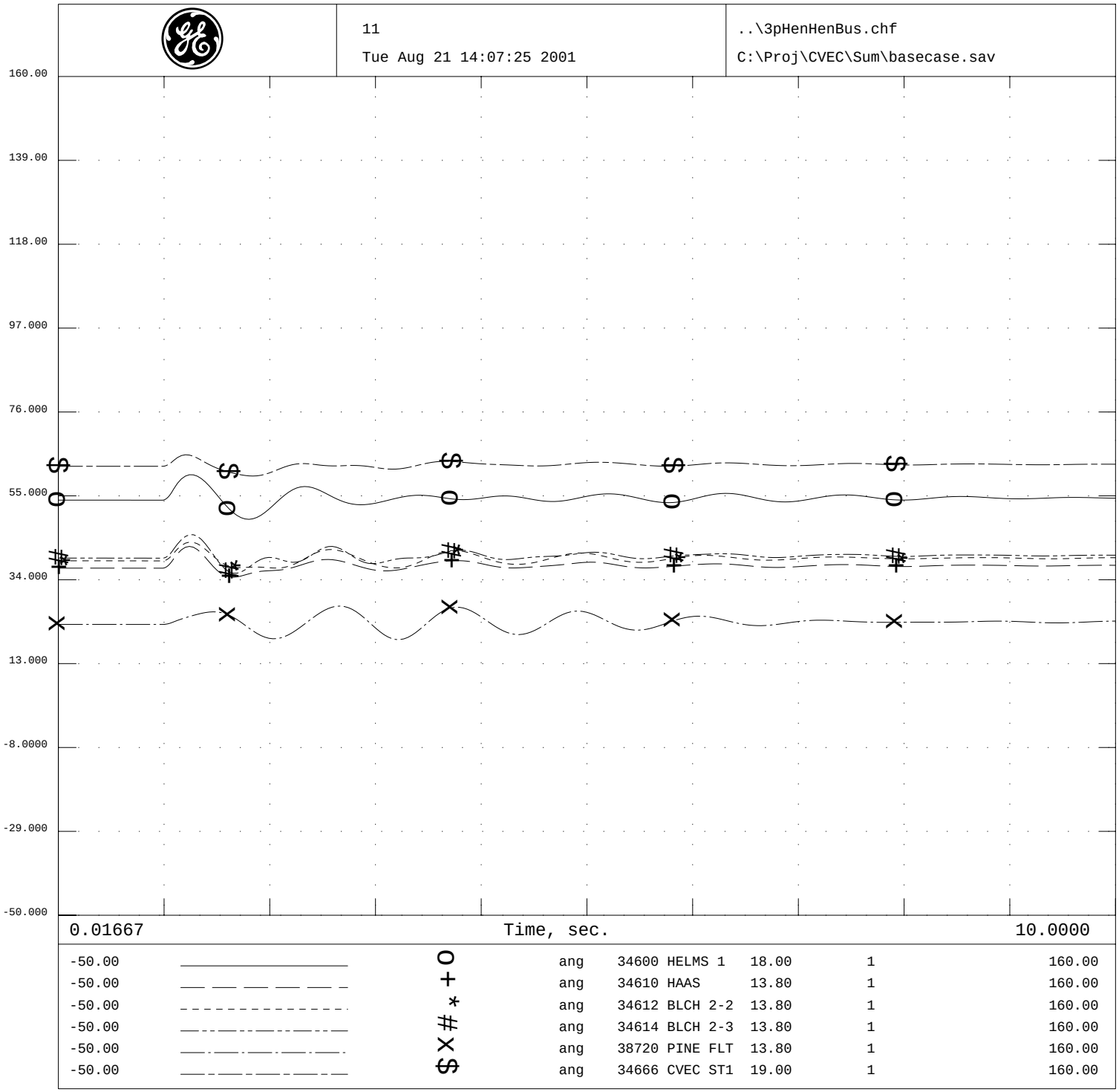
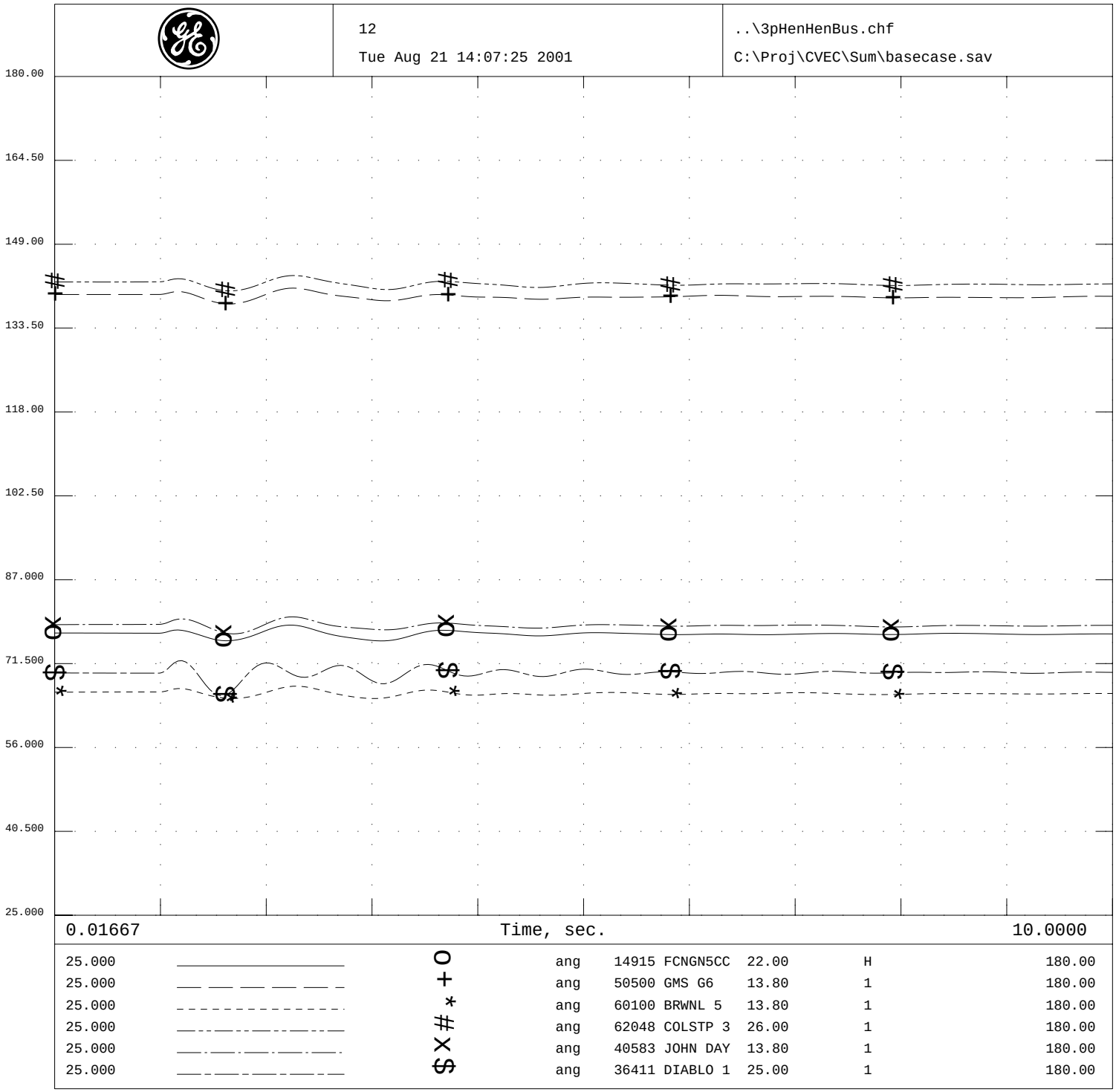
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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2004 Summer Peak Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
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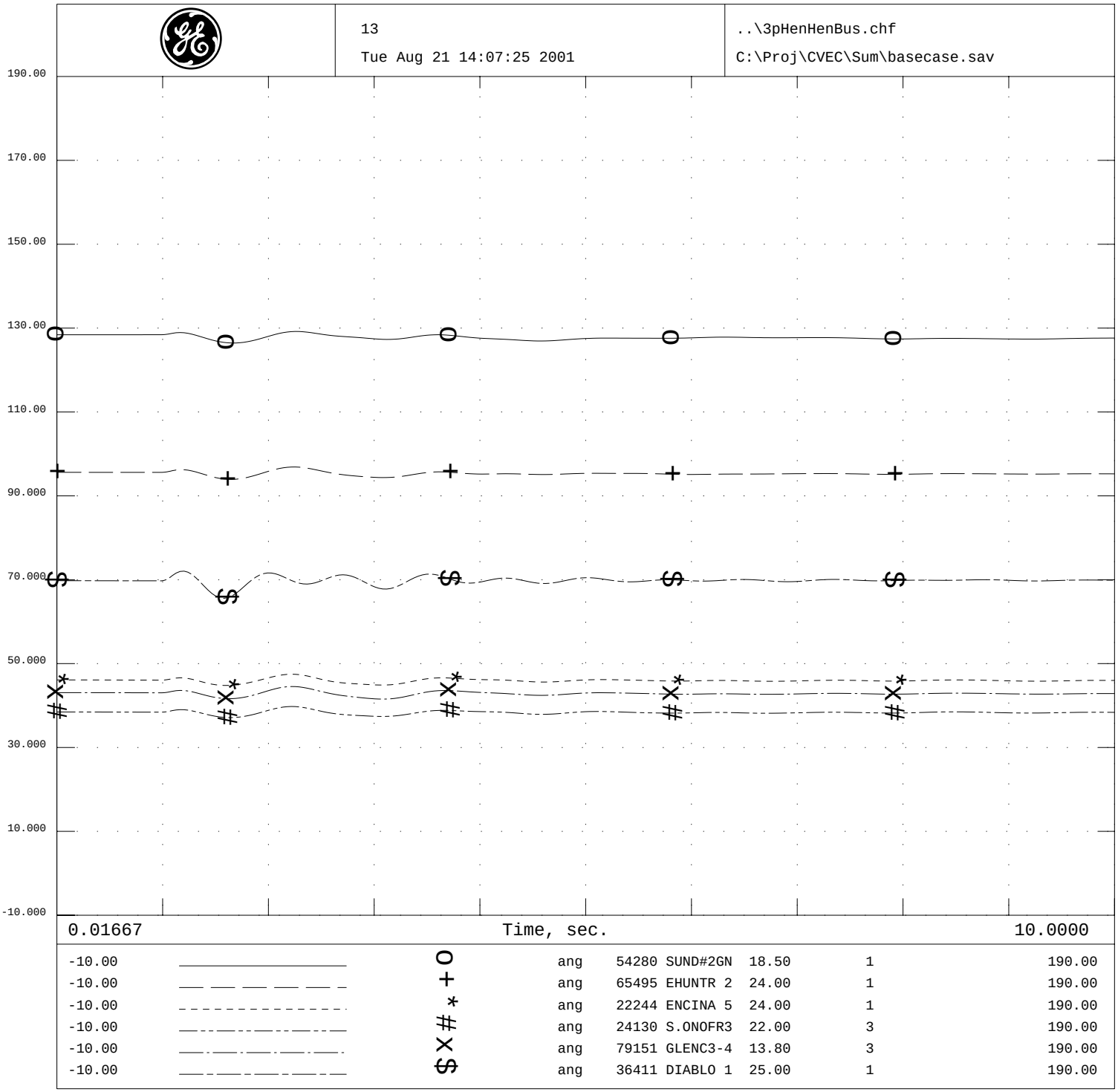
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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2004 Summer Peak Base Case
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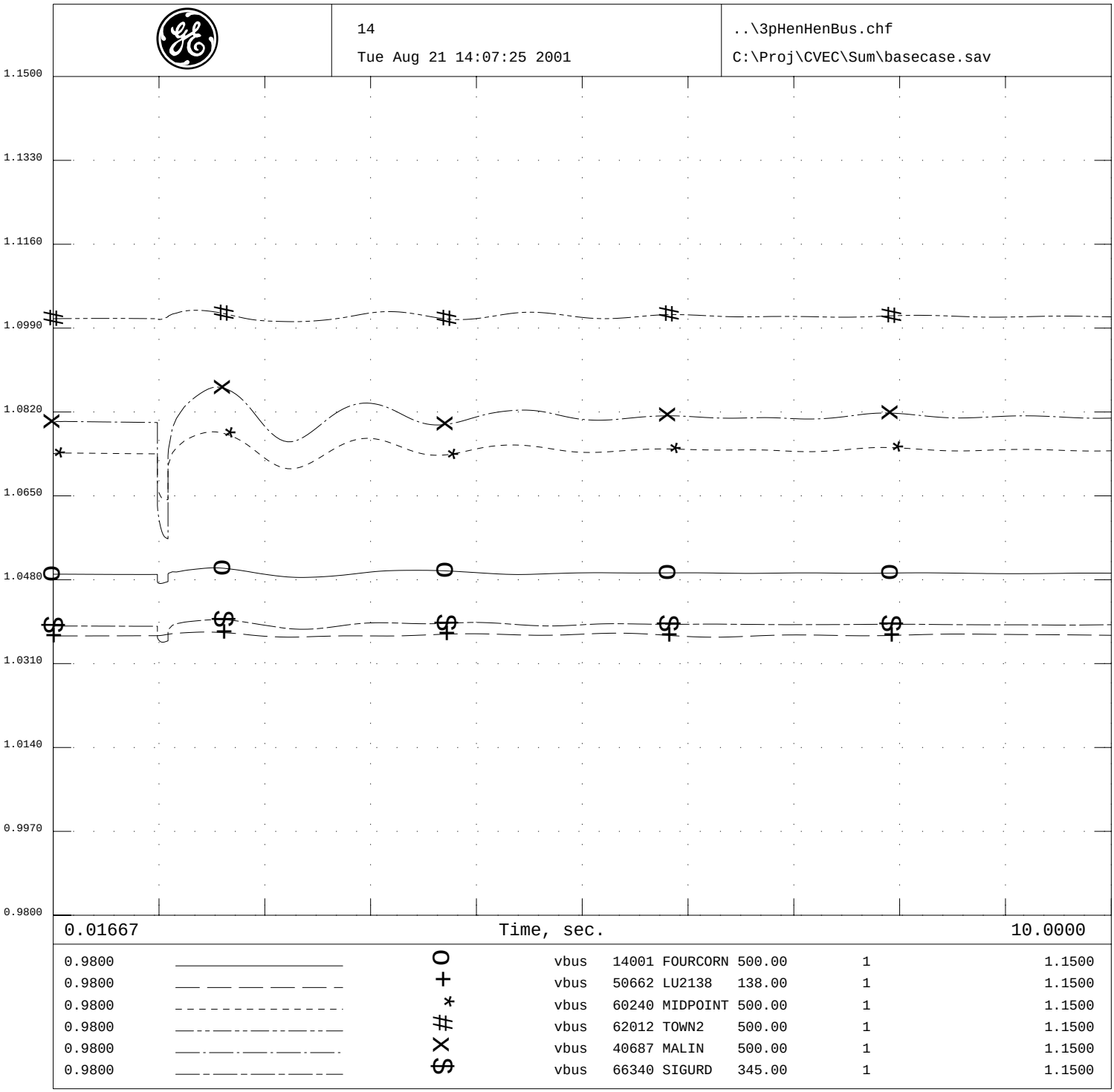
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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2004 Summer Peak Base Case
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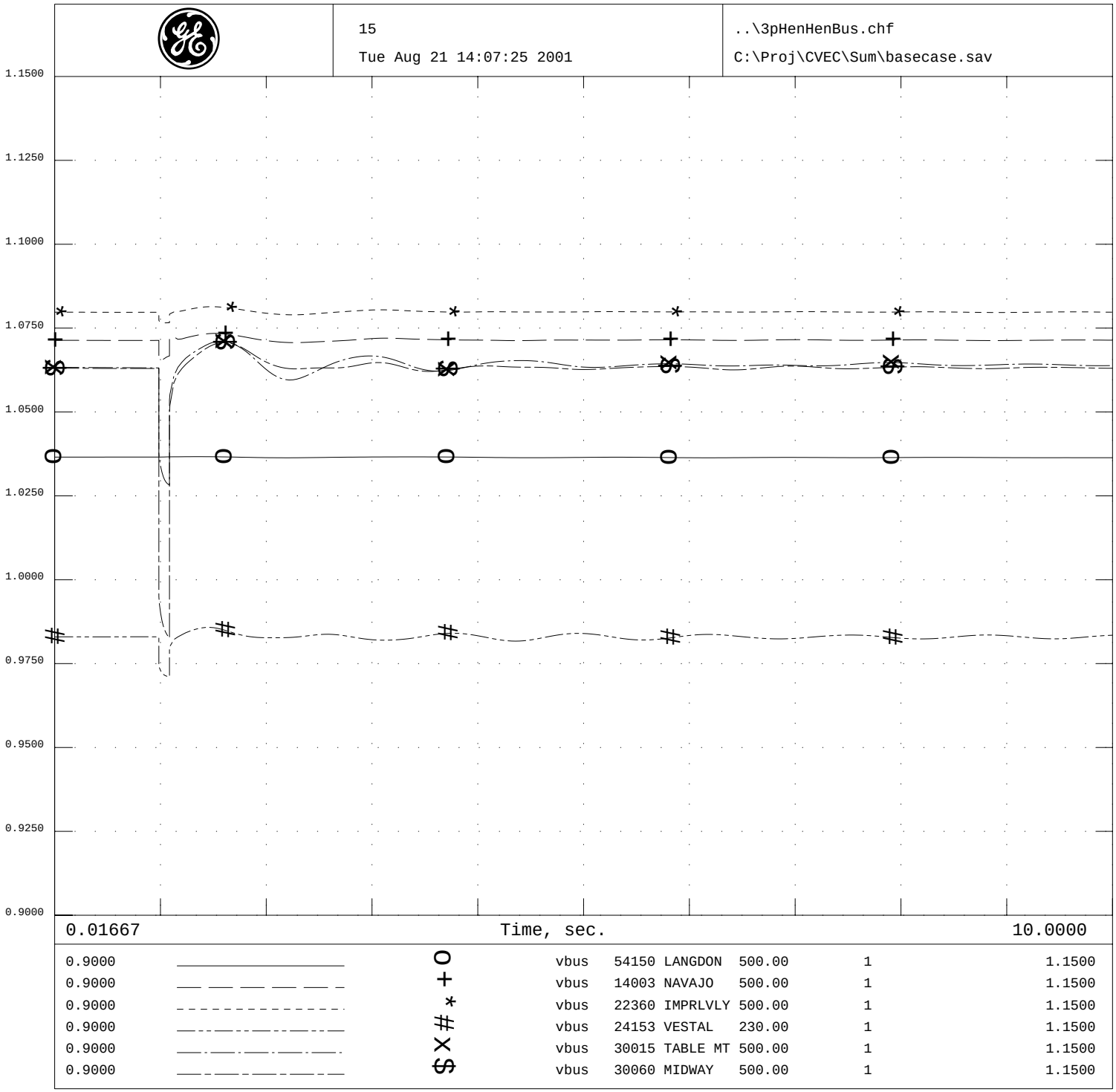
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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Central Valley Energy Center
Calpine Corporation
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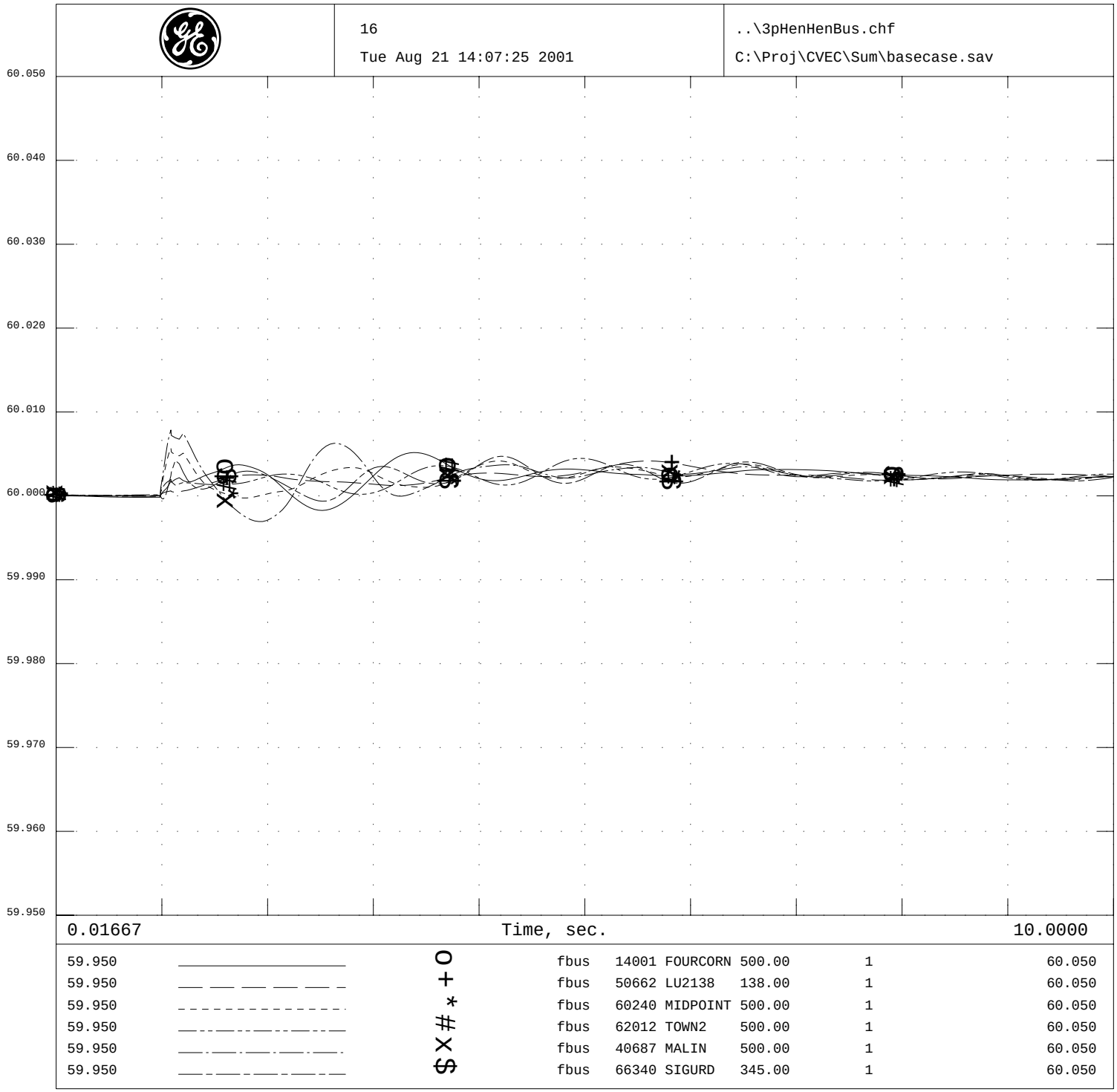

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2004 Summer Peak Base Case
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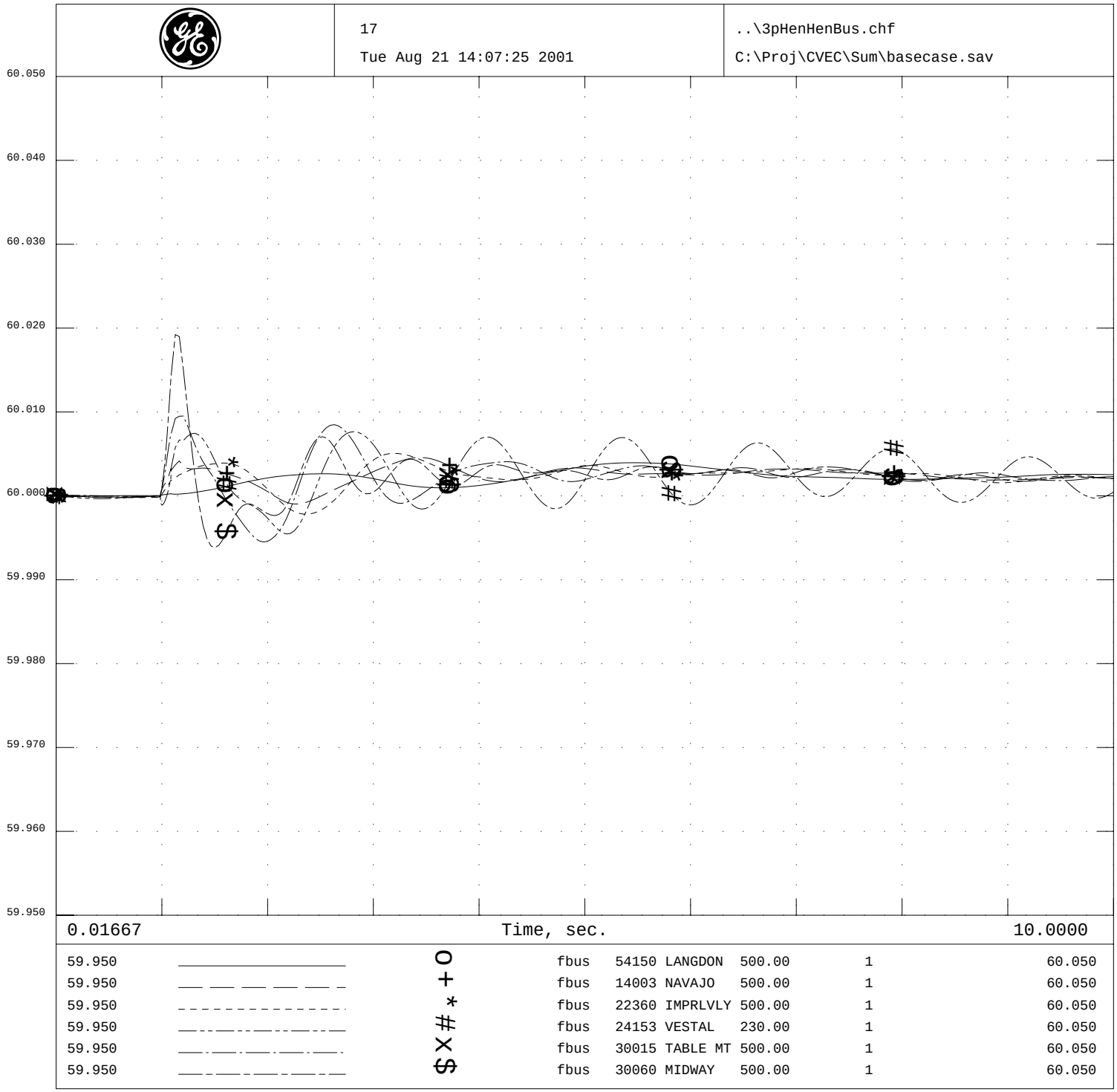
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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2004 Summer Peak Base Case
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Central Valley Energy Center
Calpine Corporation
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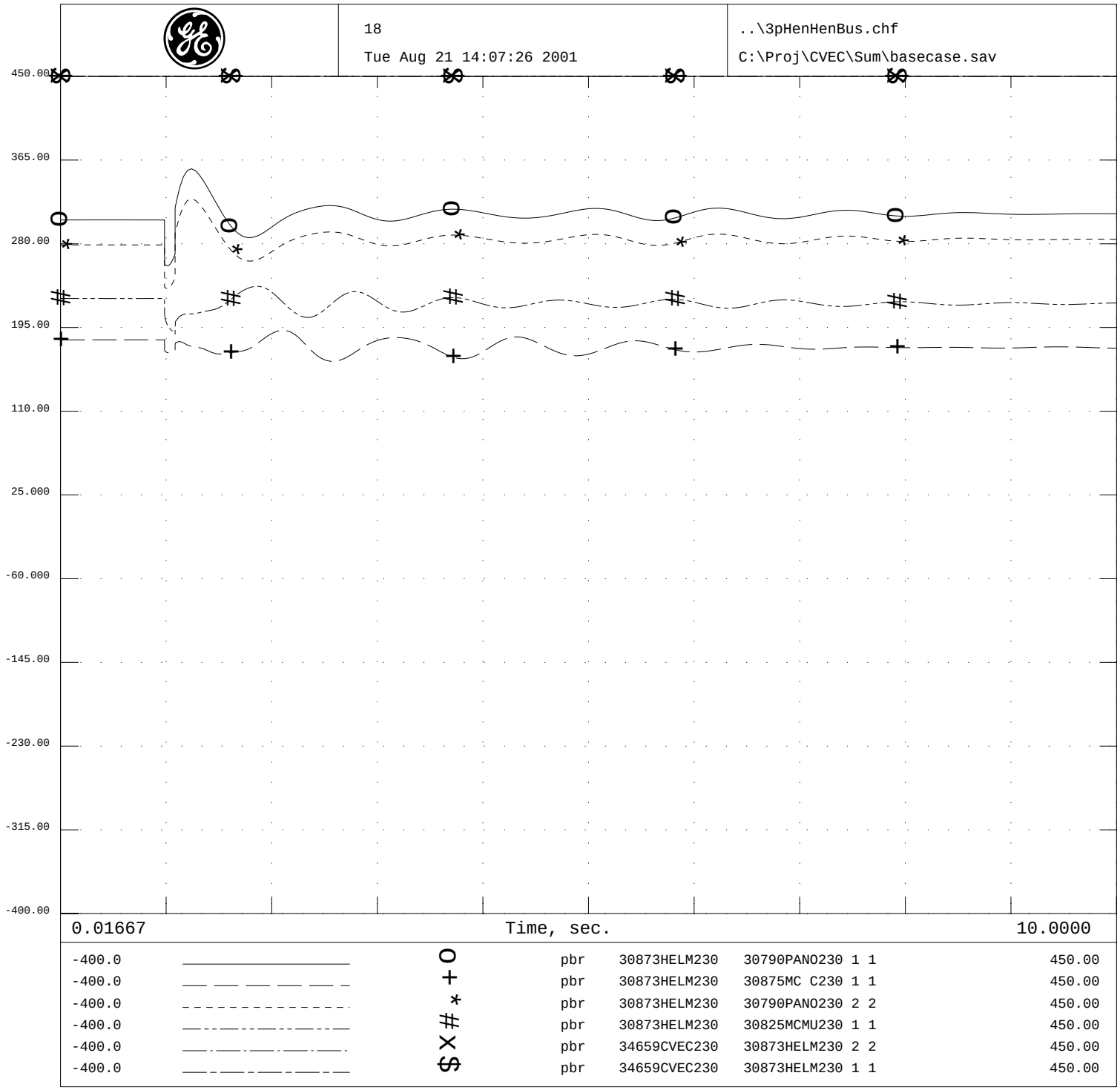

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2004 Summer Peak Base Case
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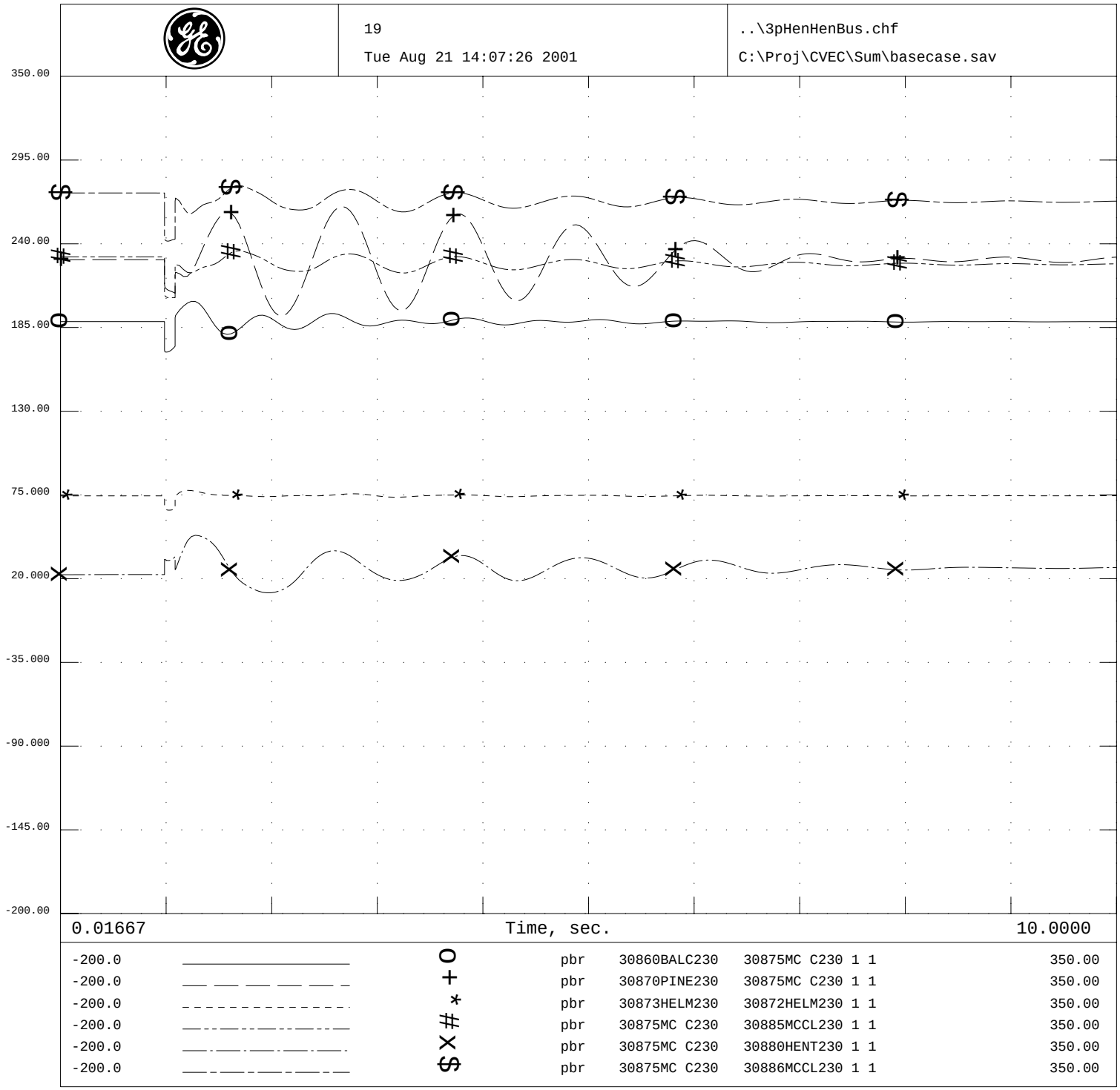
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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2004 Summer Peak Base Case
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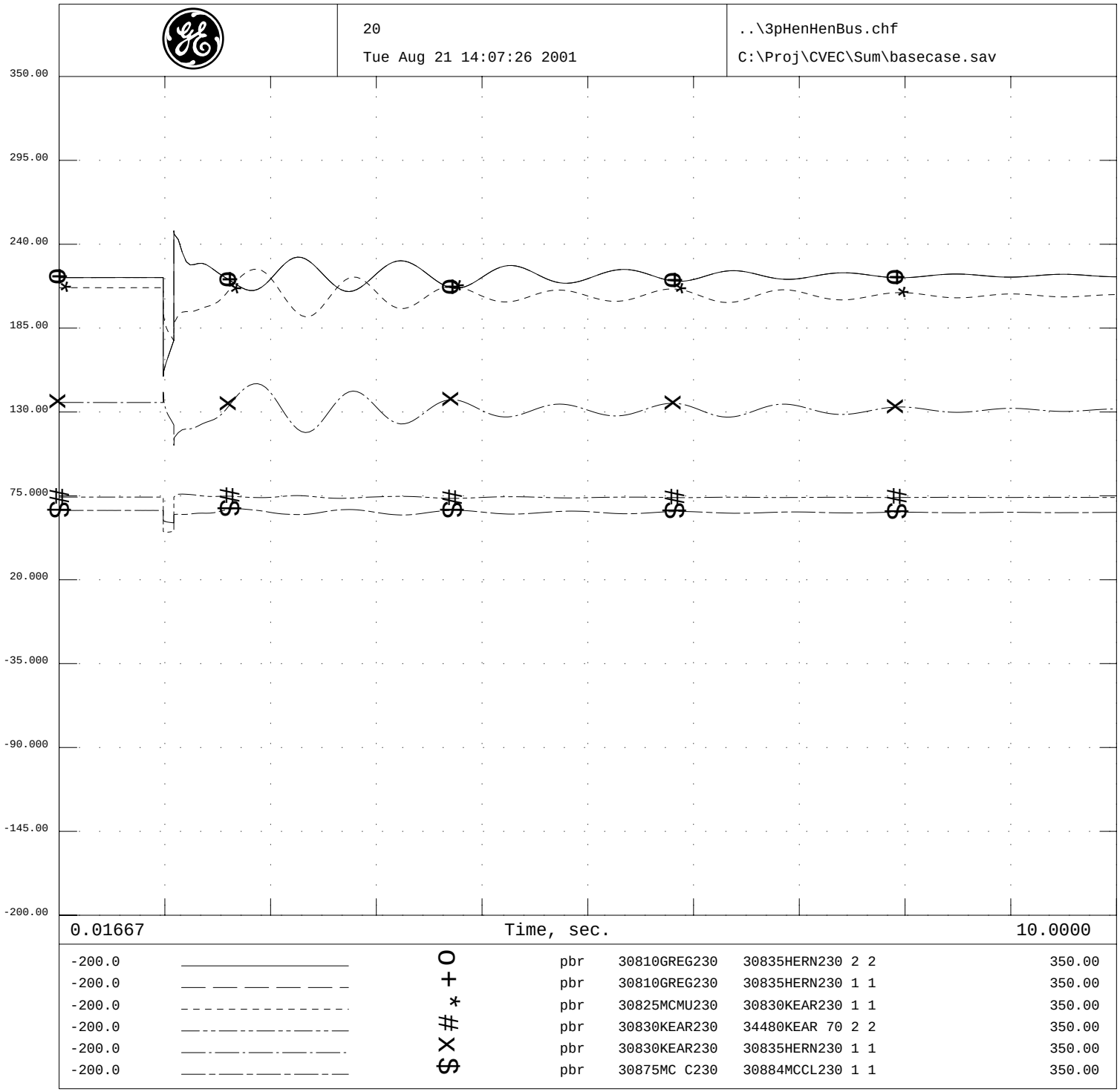

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2004 Summer Peak Base Case
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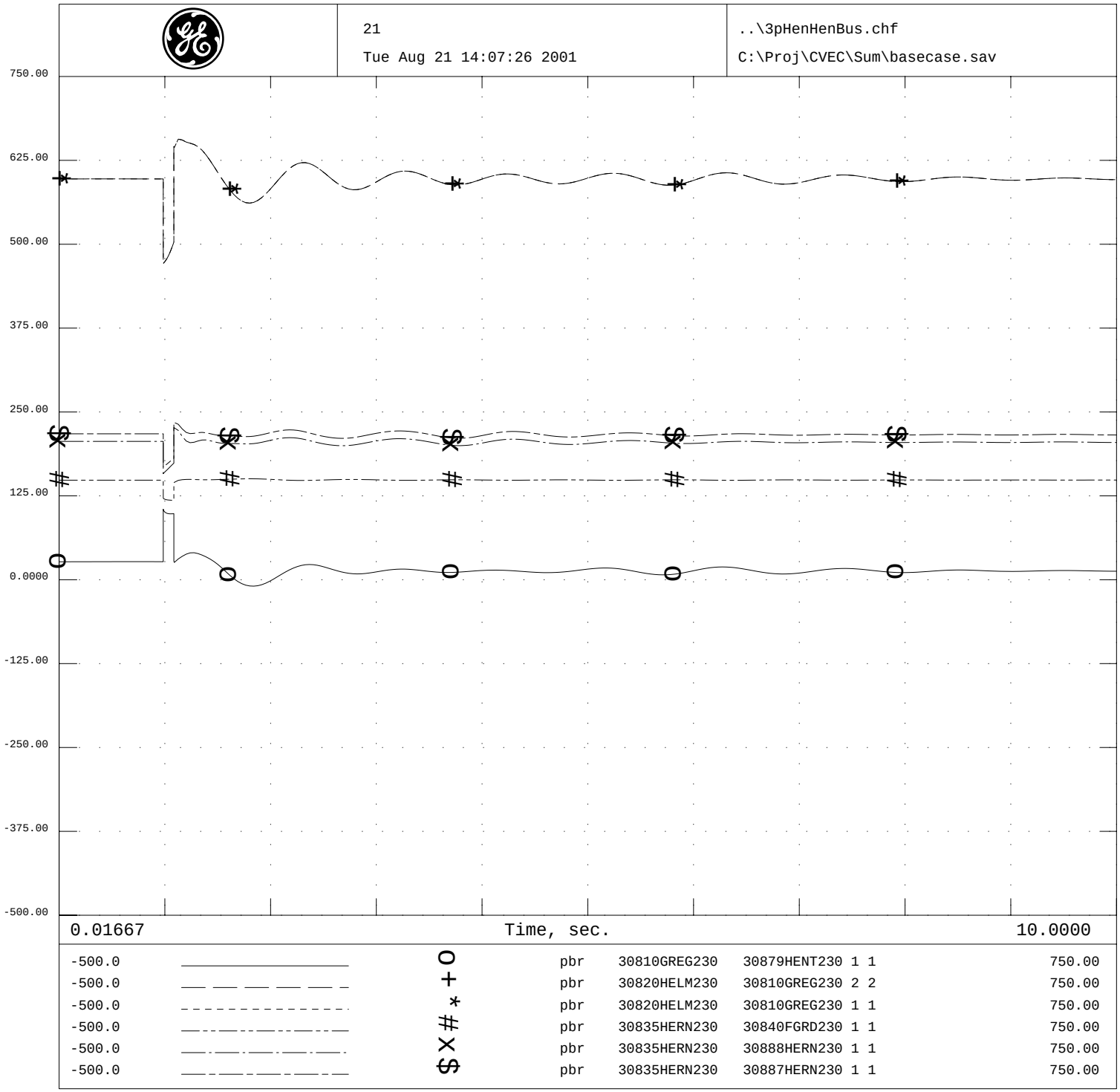

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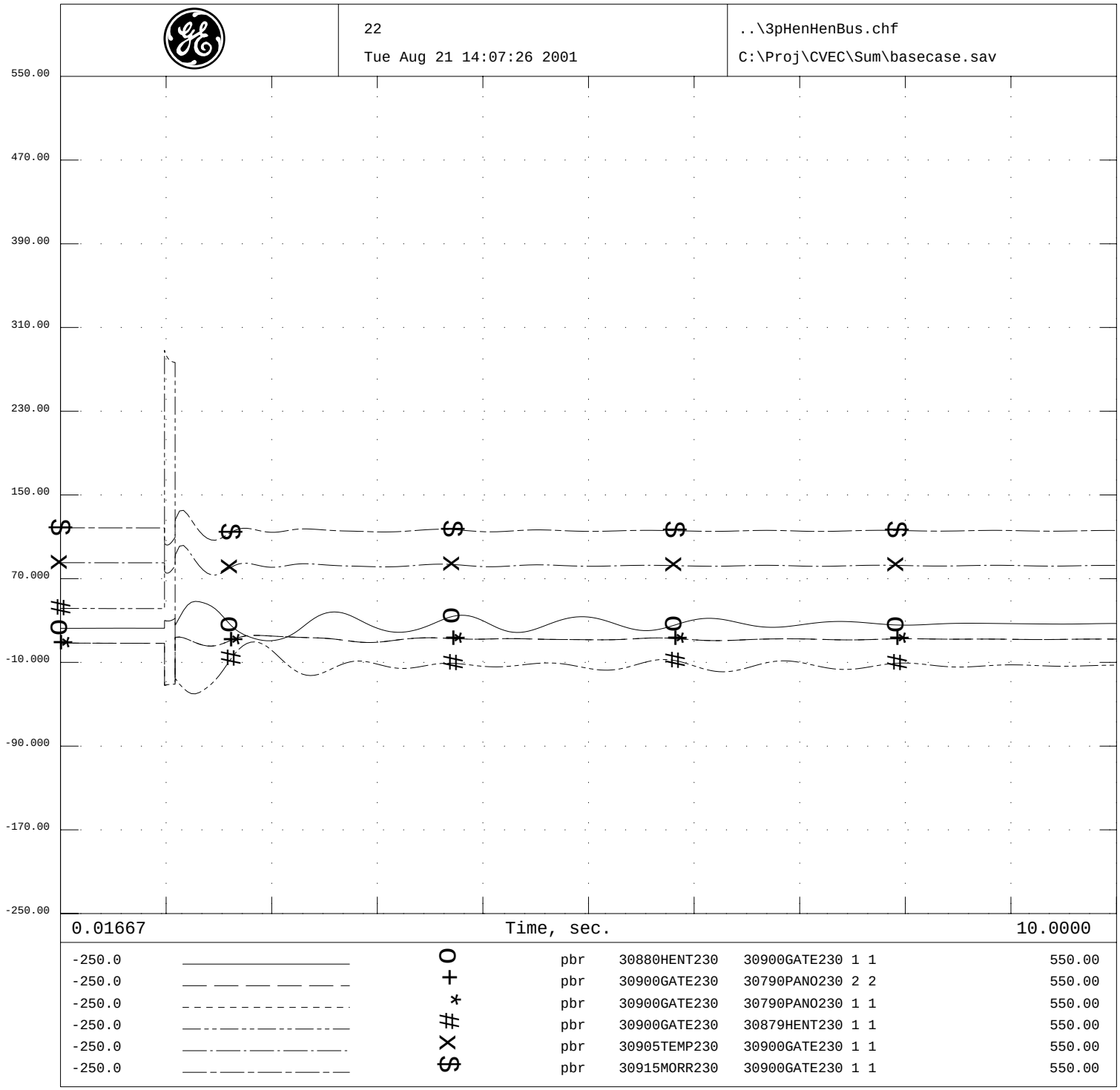

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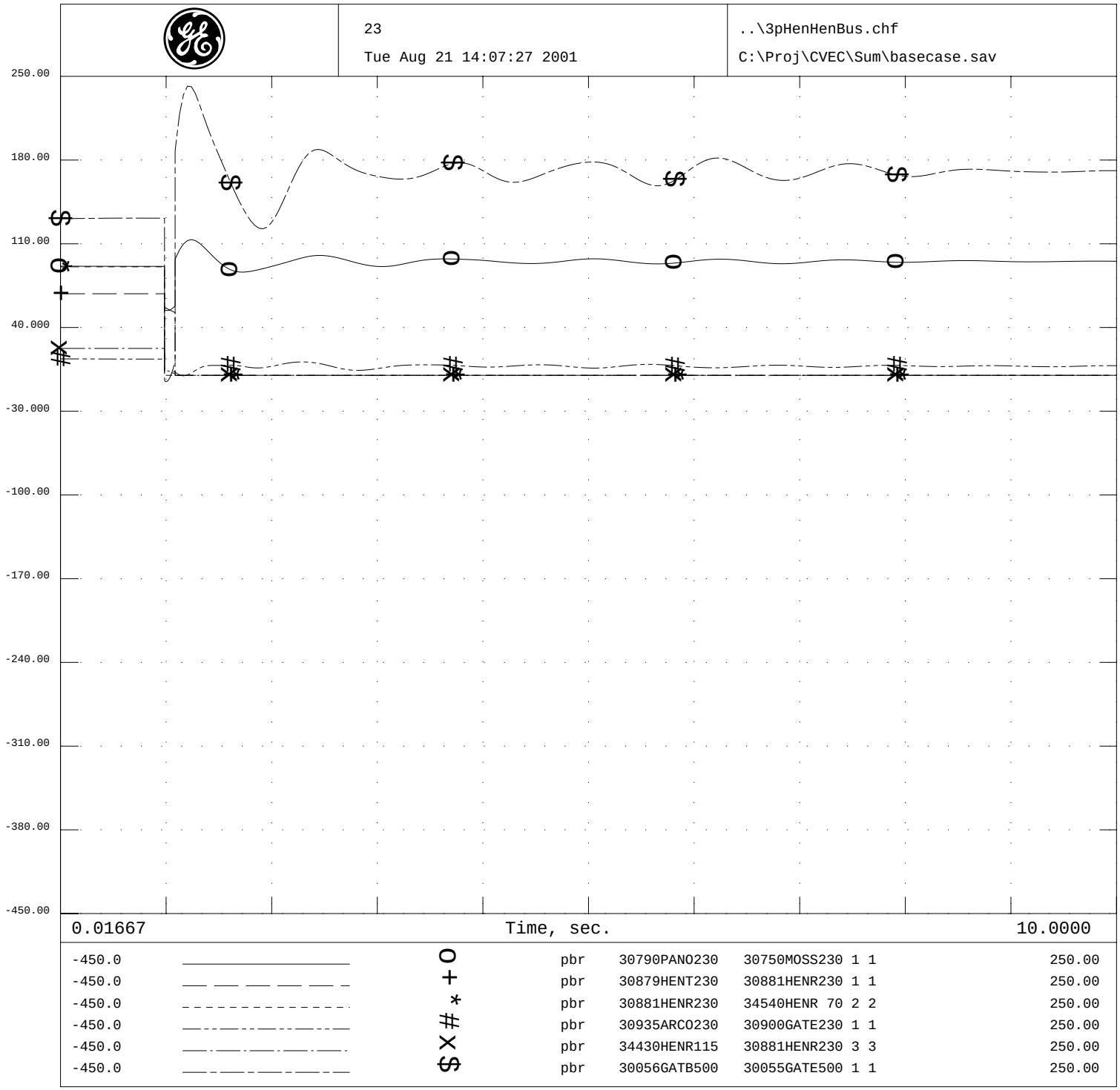

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2004 Summer Peak Base Case
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Calpine Corporation
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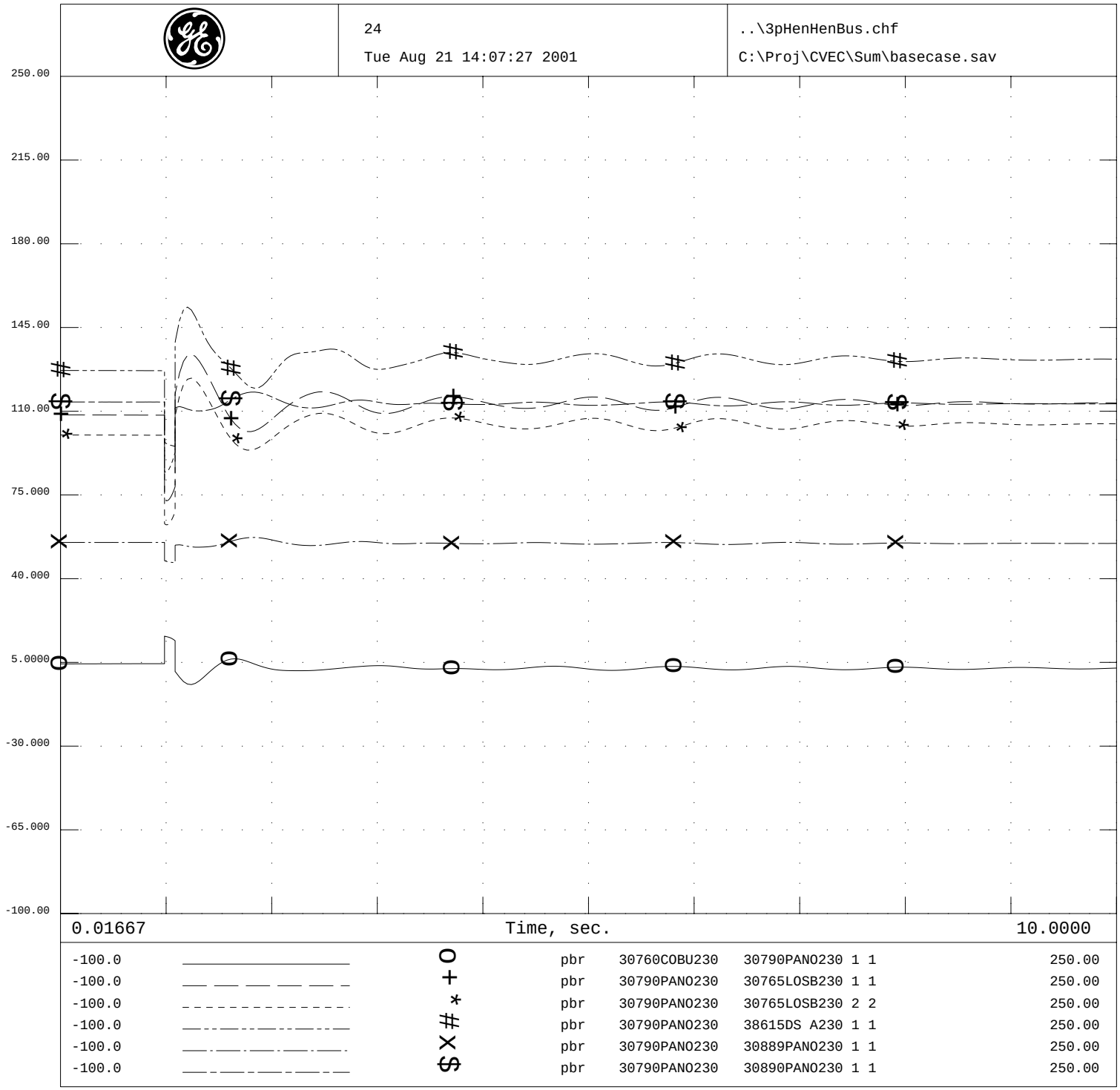

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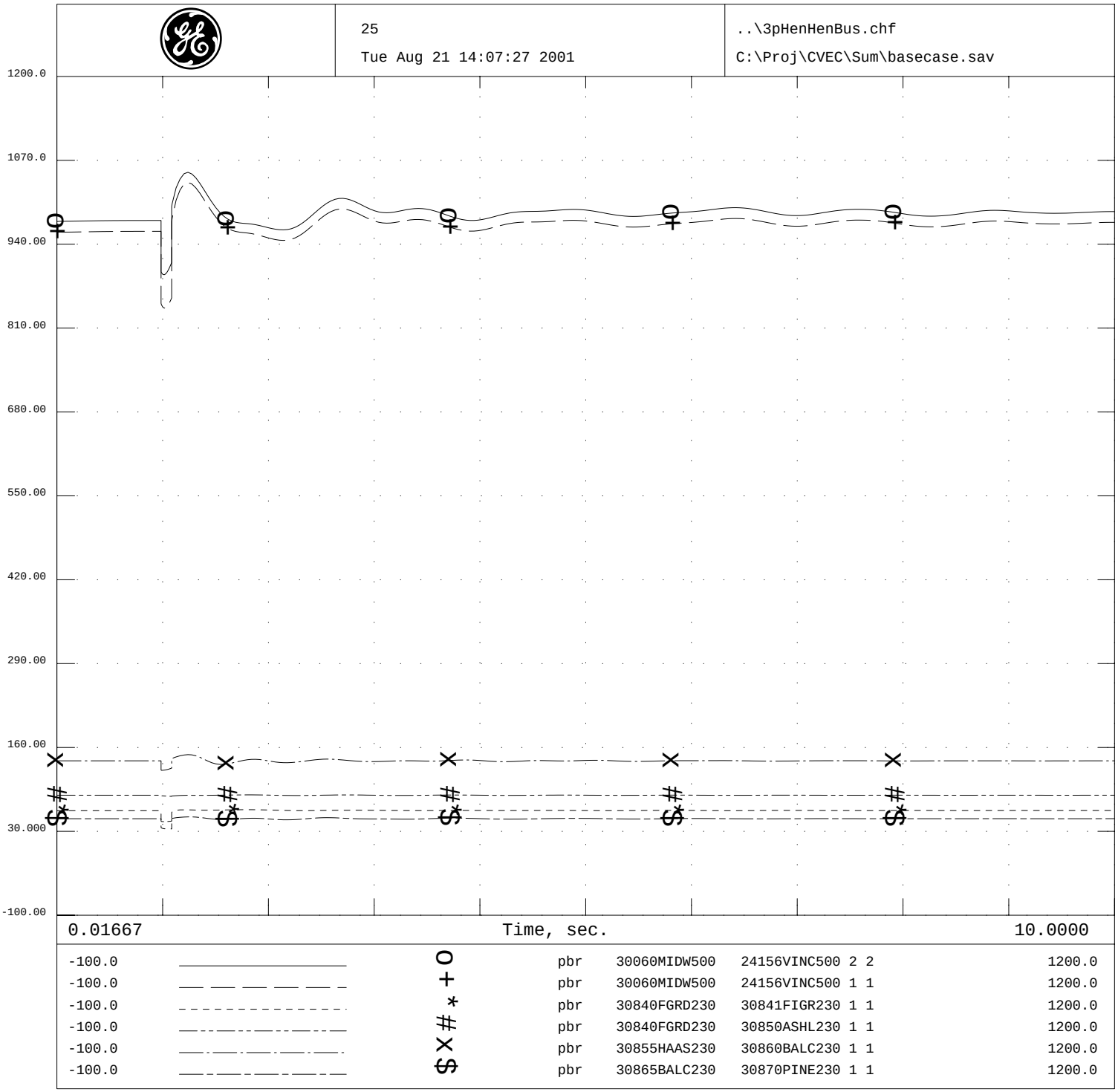

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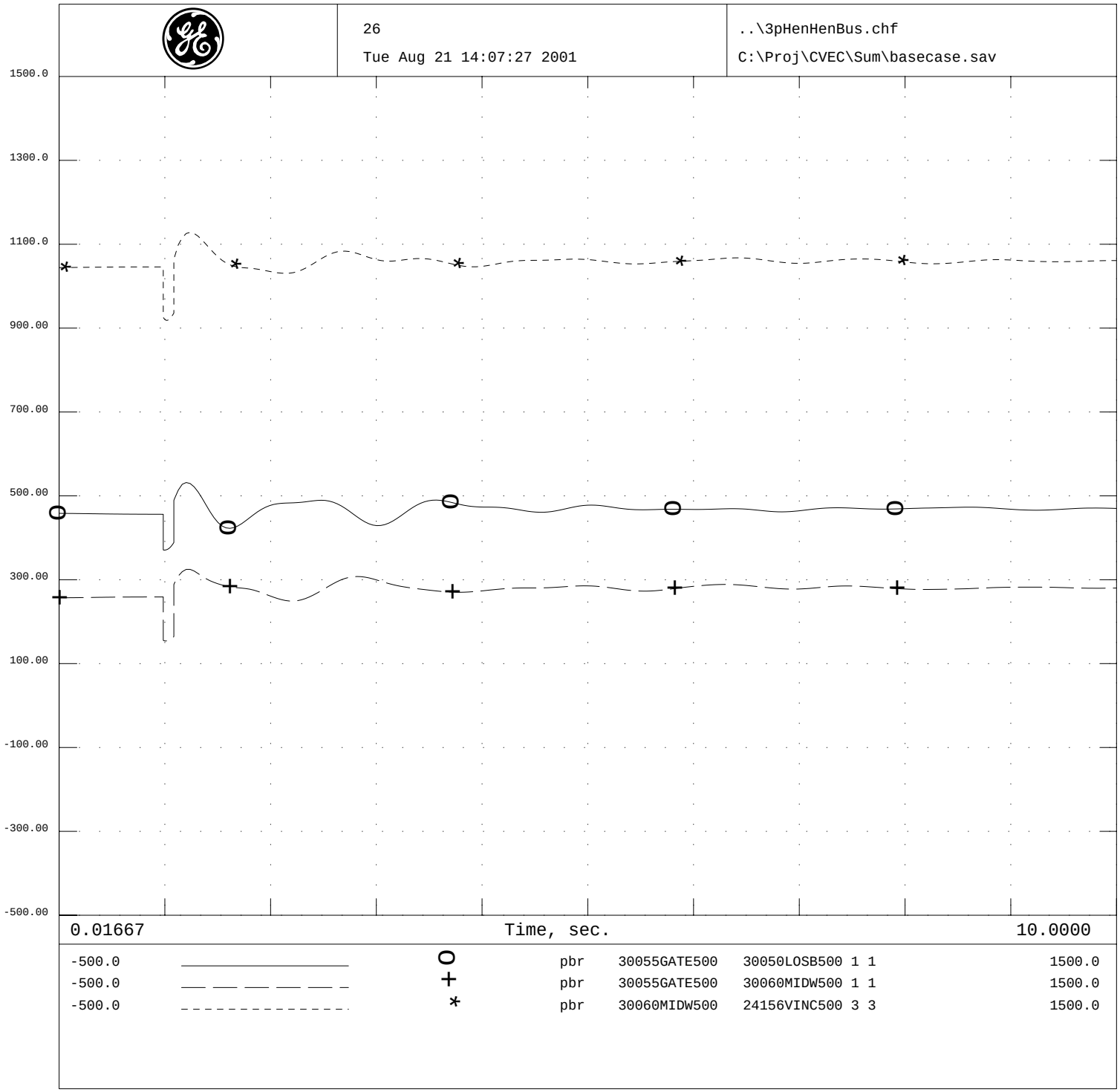

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Calpine Corporation
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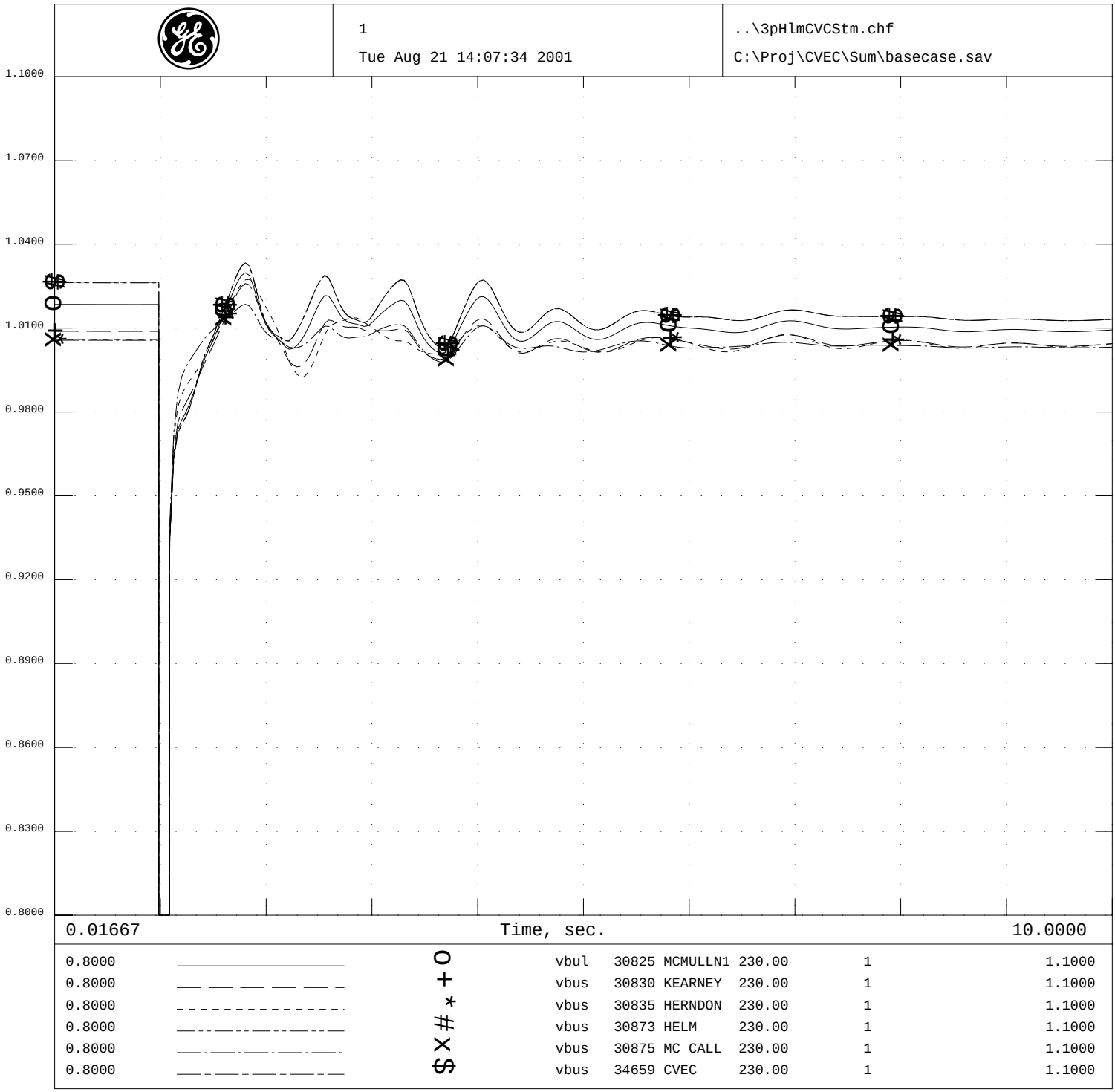
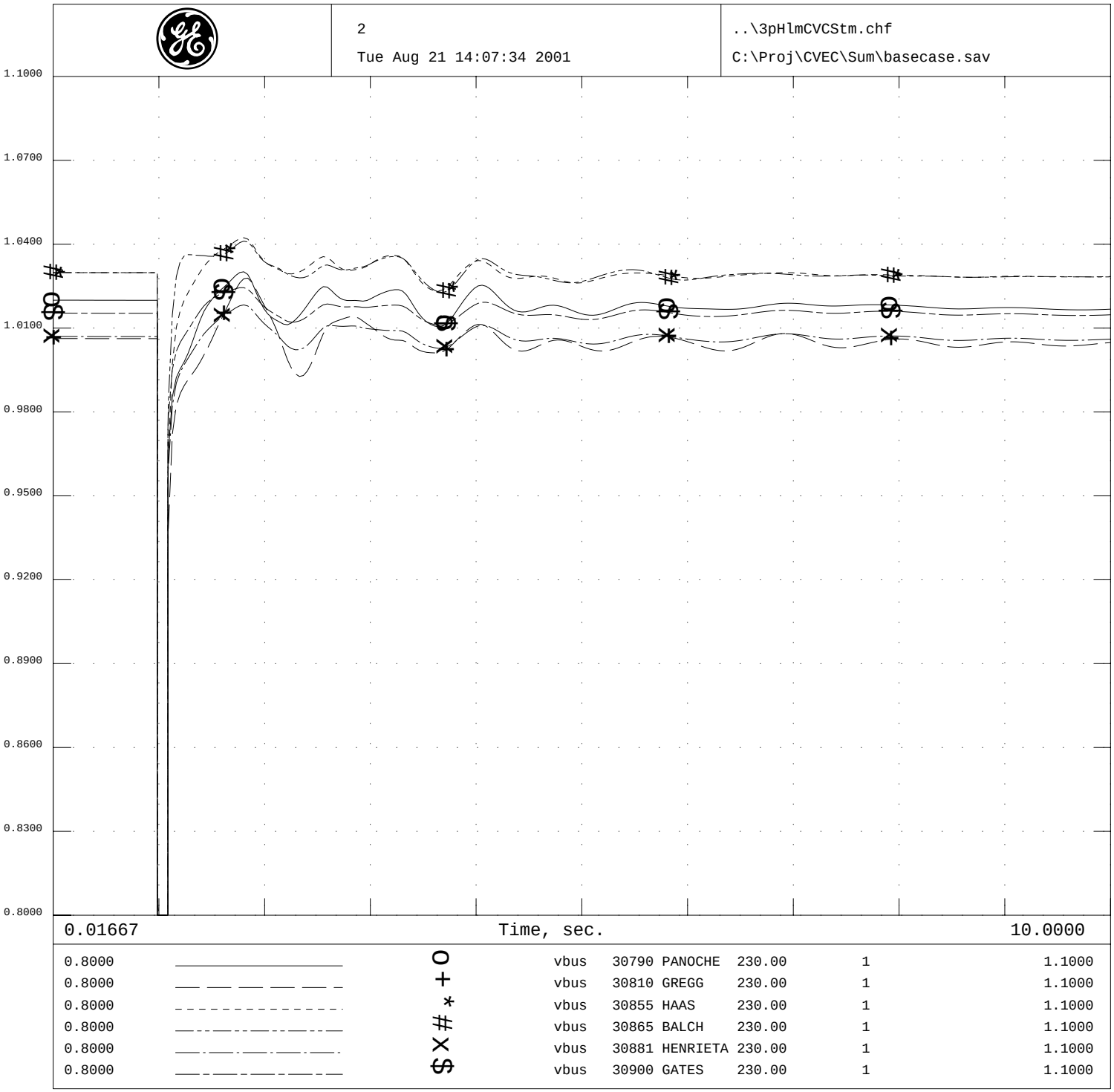


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Trip CVEC Steam Unit
3 phase 6 cycle fault at Helm 230kV bus and trip CVEC Steam Unit

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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2004 Summer Peak Base Case
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Calpine Corporation
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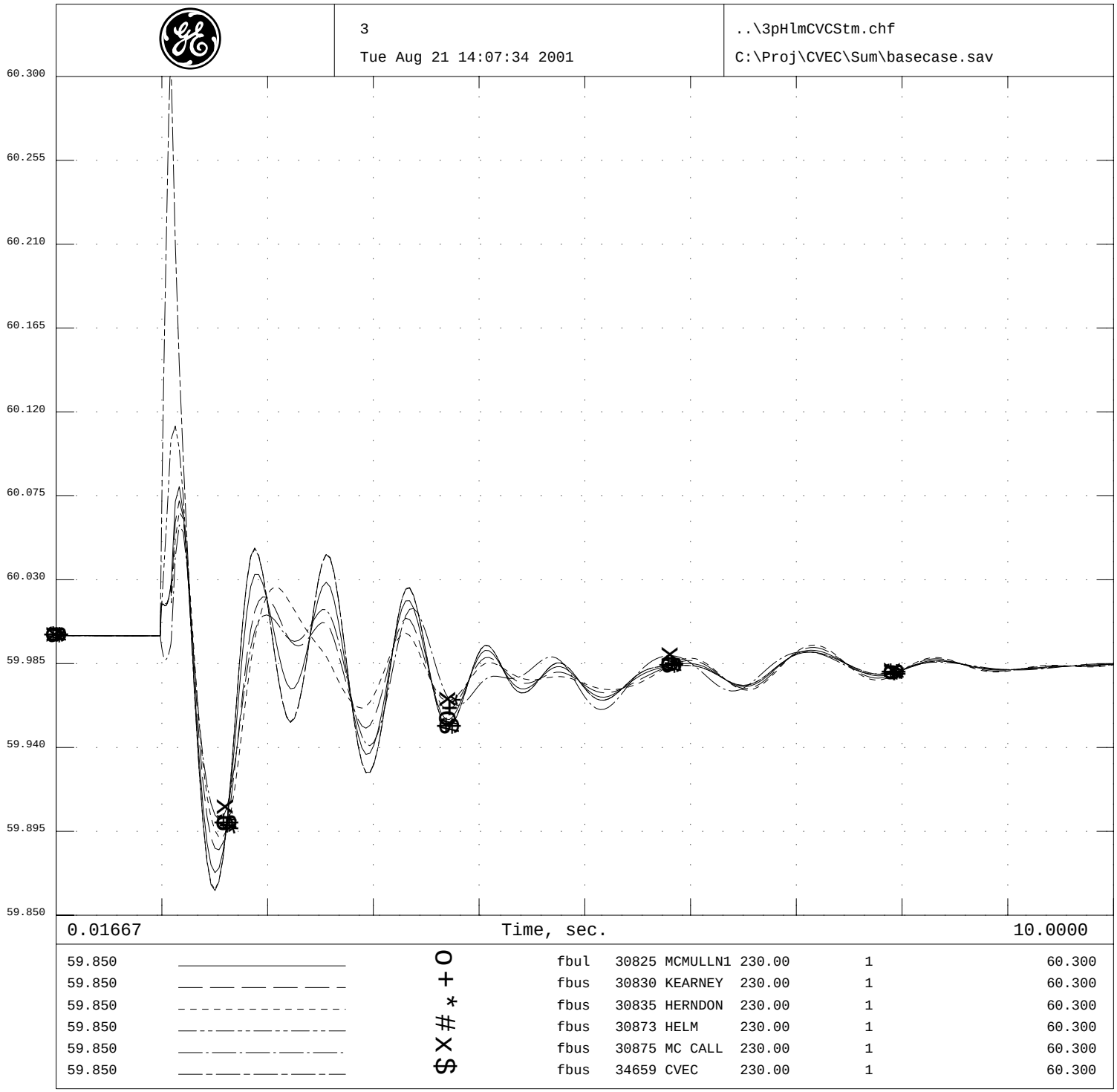

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Central Valley Energy Center
Calpine Corporation
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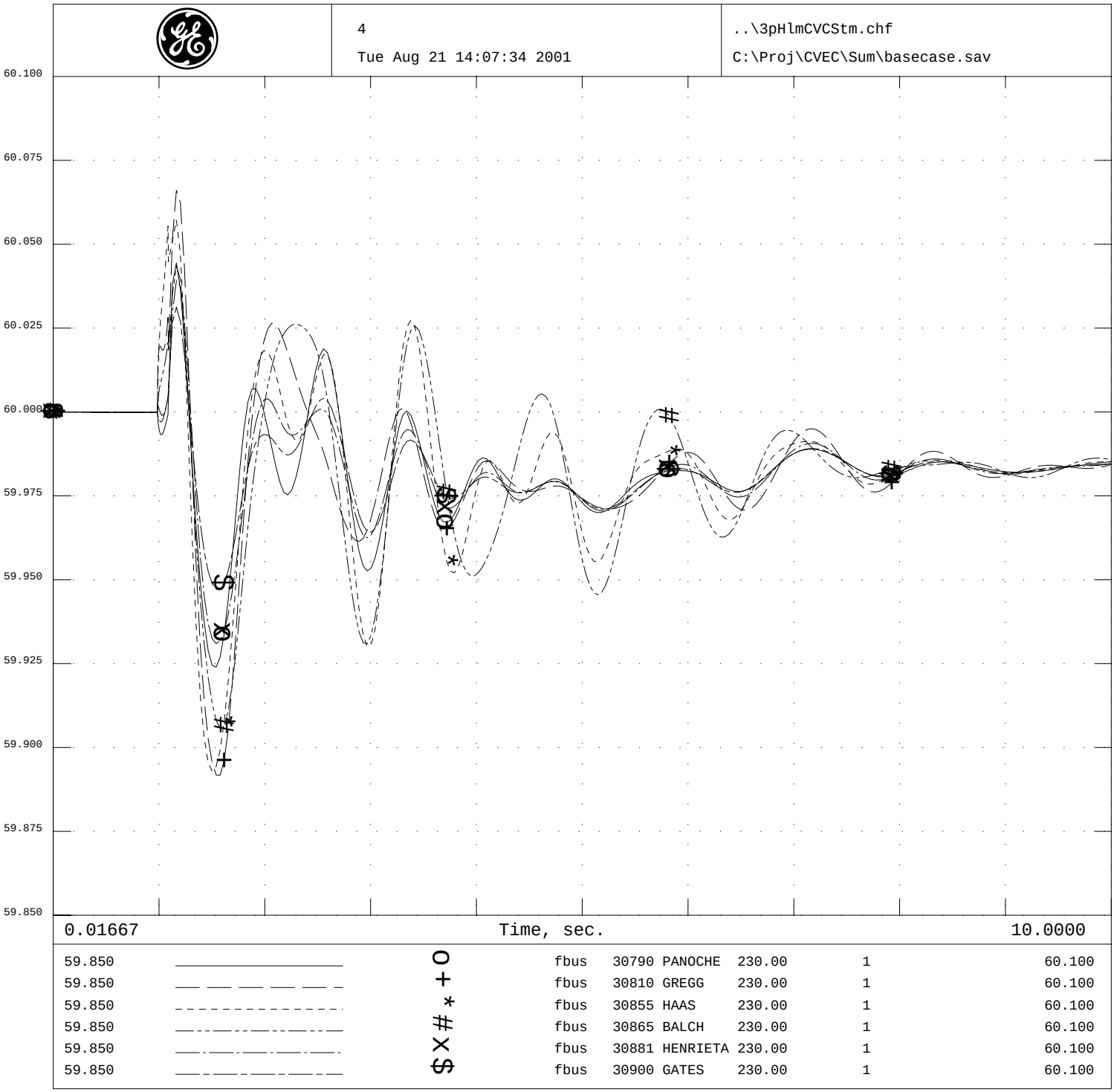

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Central Valley Energy Center
Calpine Corporation
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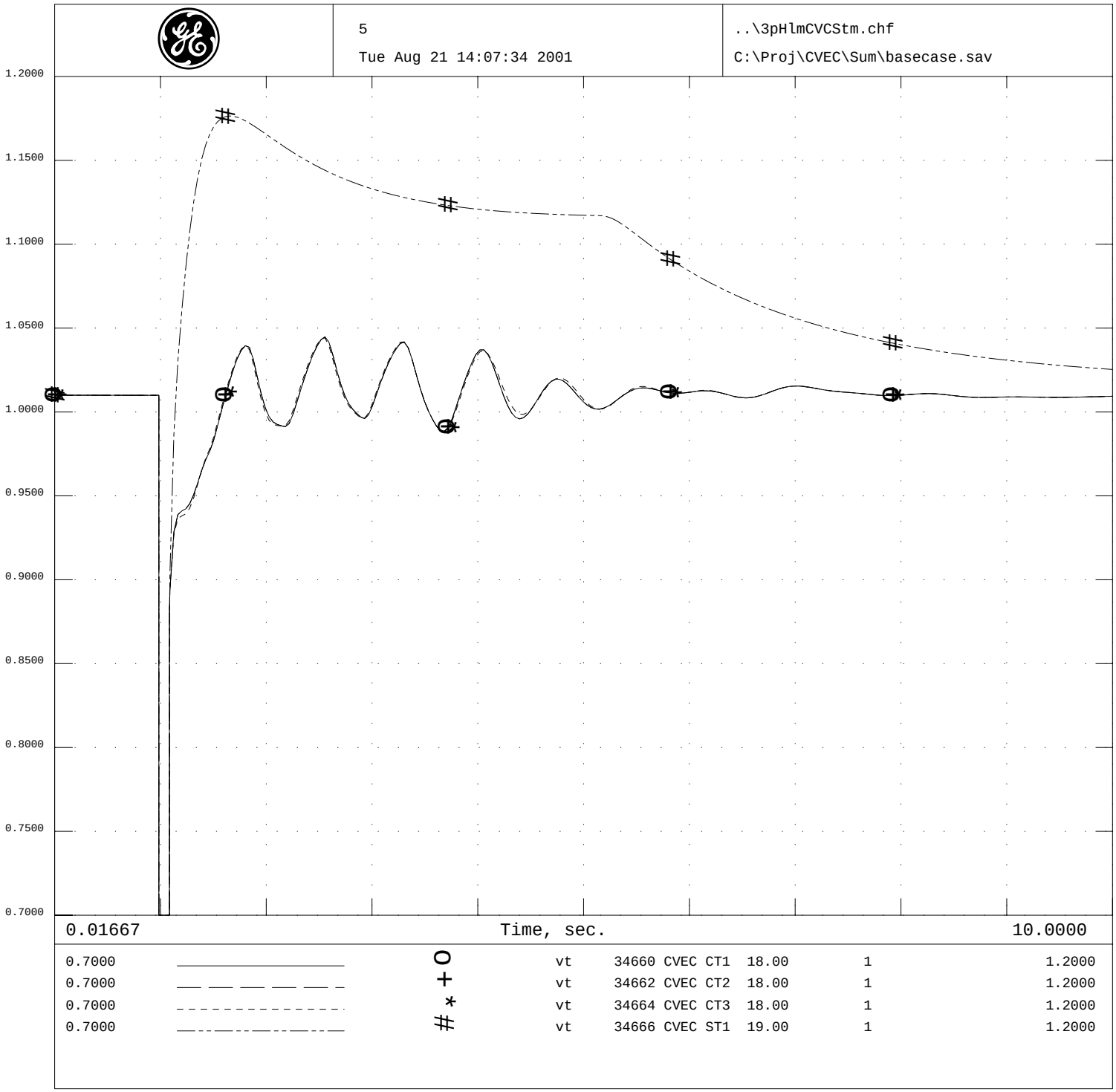

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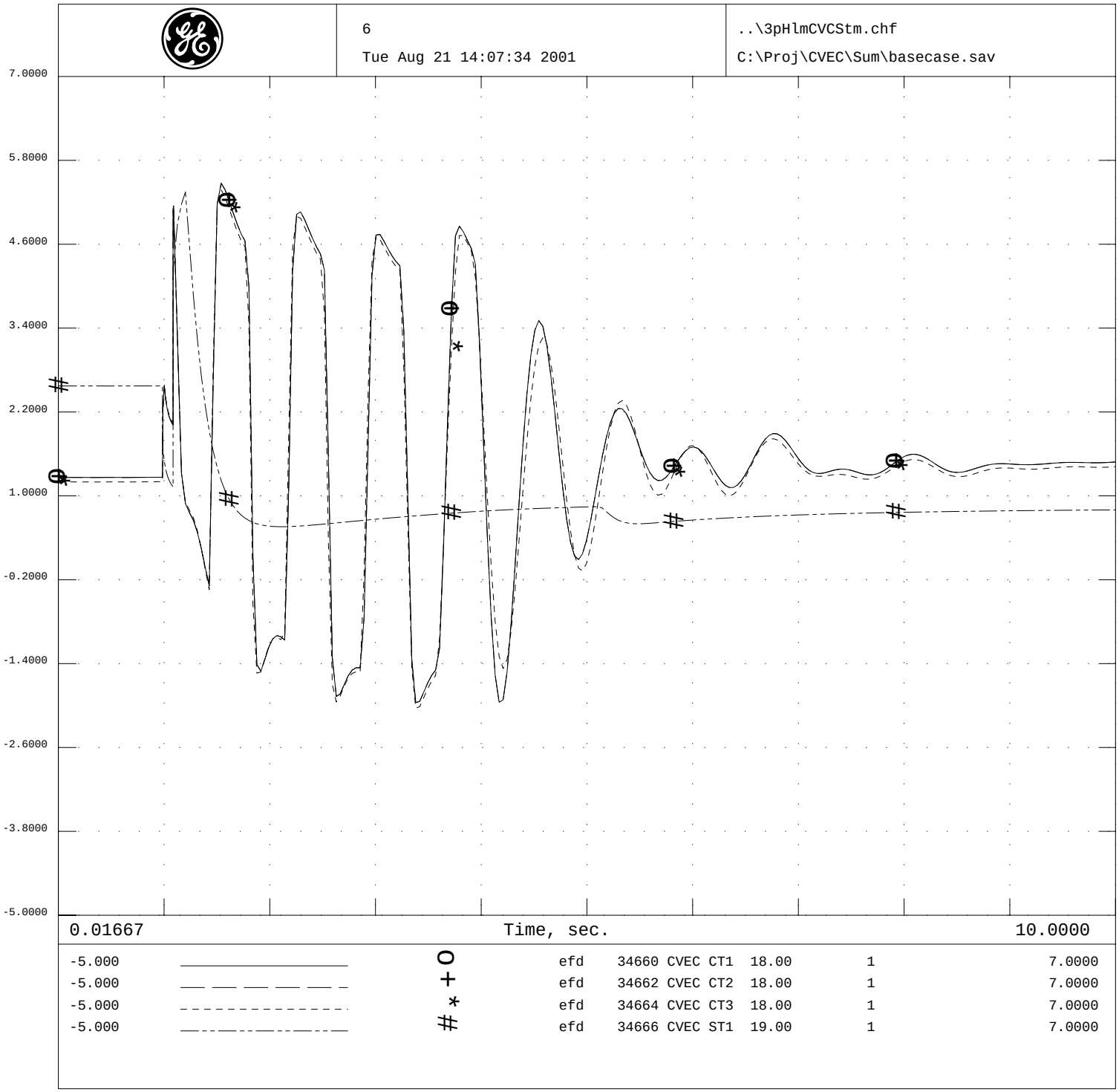
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Summer Peak Base Case
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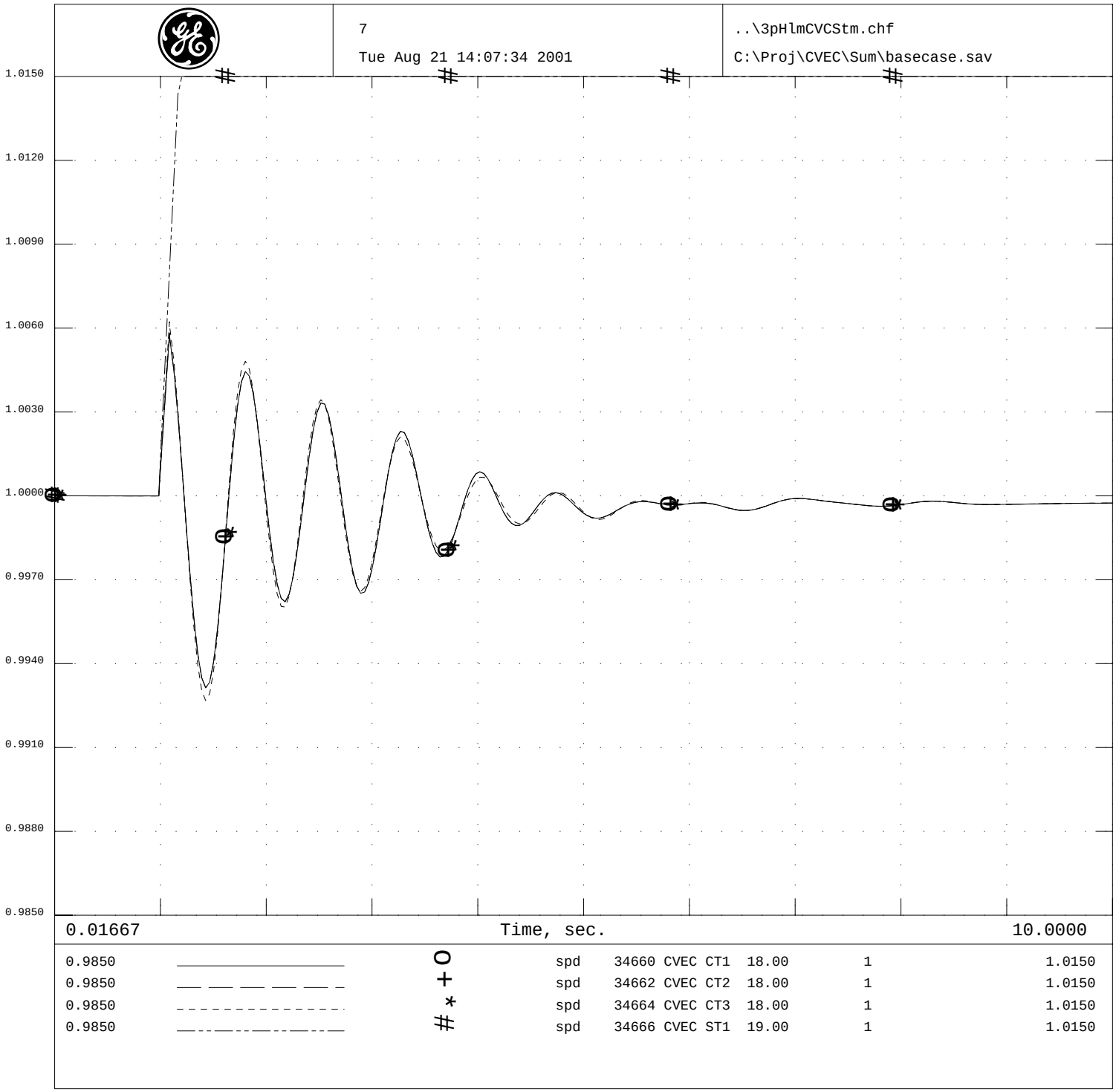
Calpine Corporation
Project Generator Field Voltages



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2004 Summer Peak Base Case
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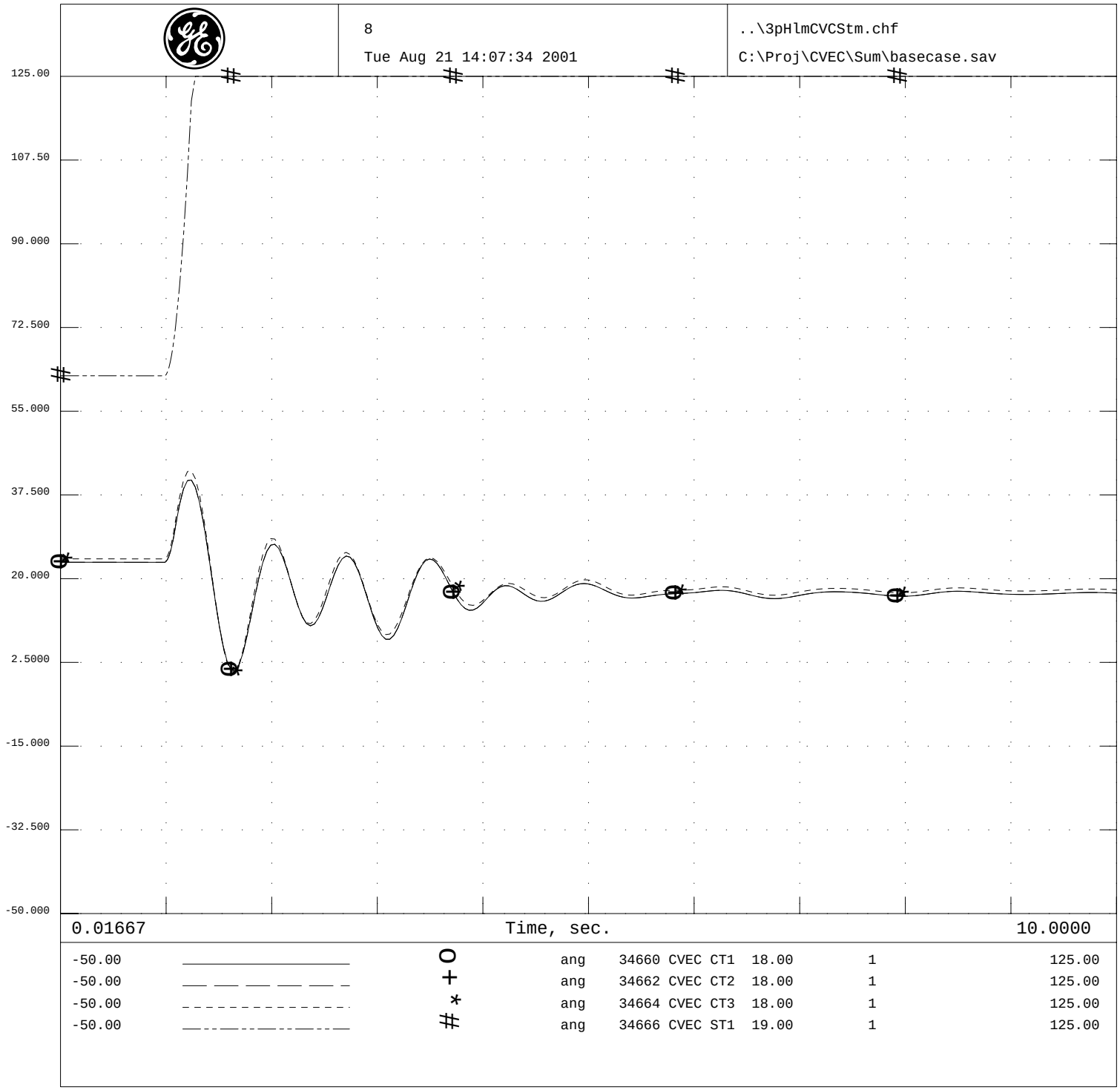
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Summer Peak Base Case
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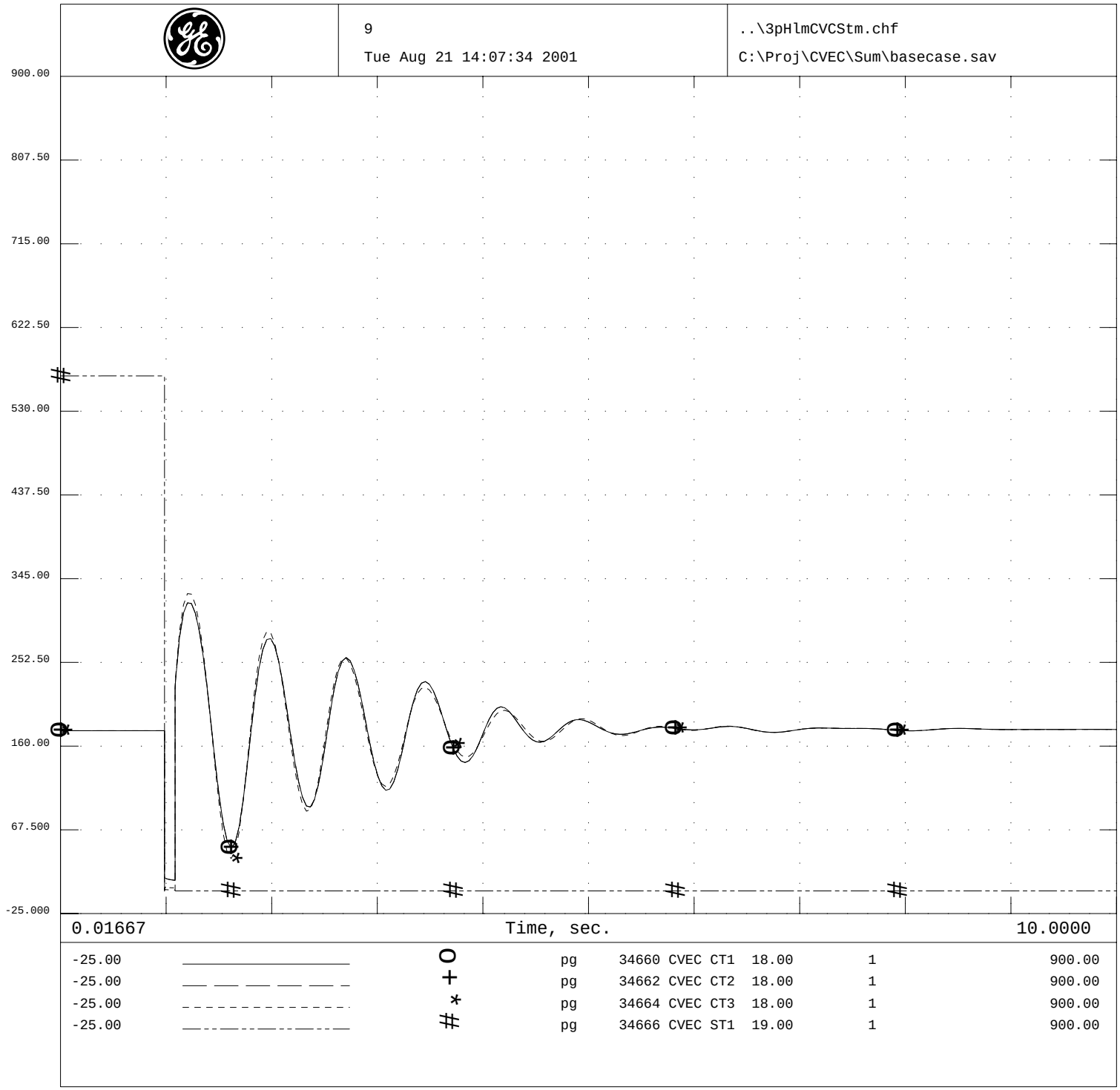
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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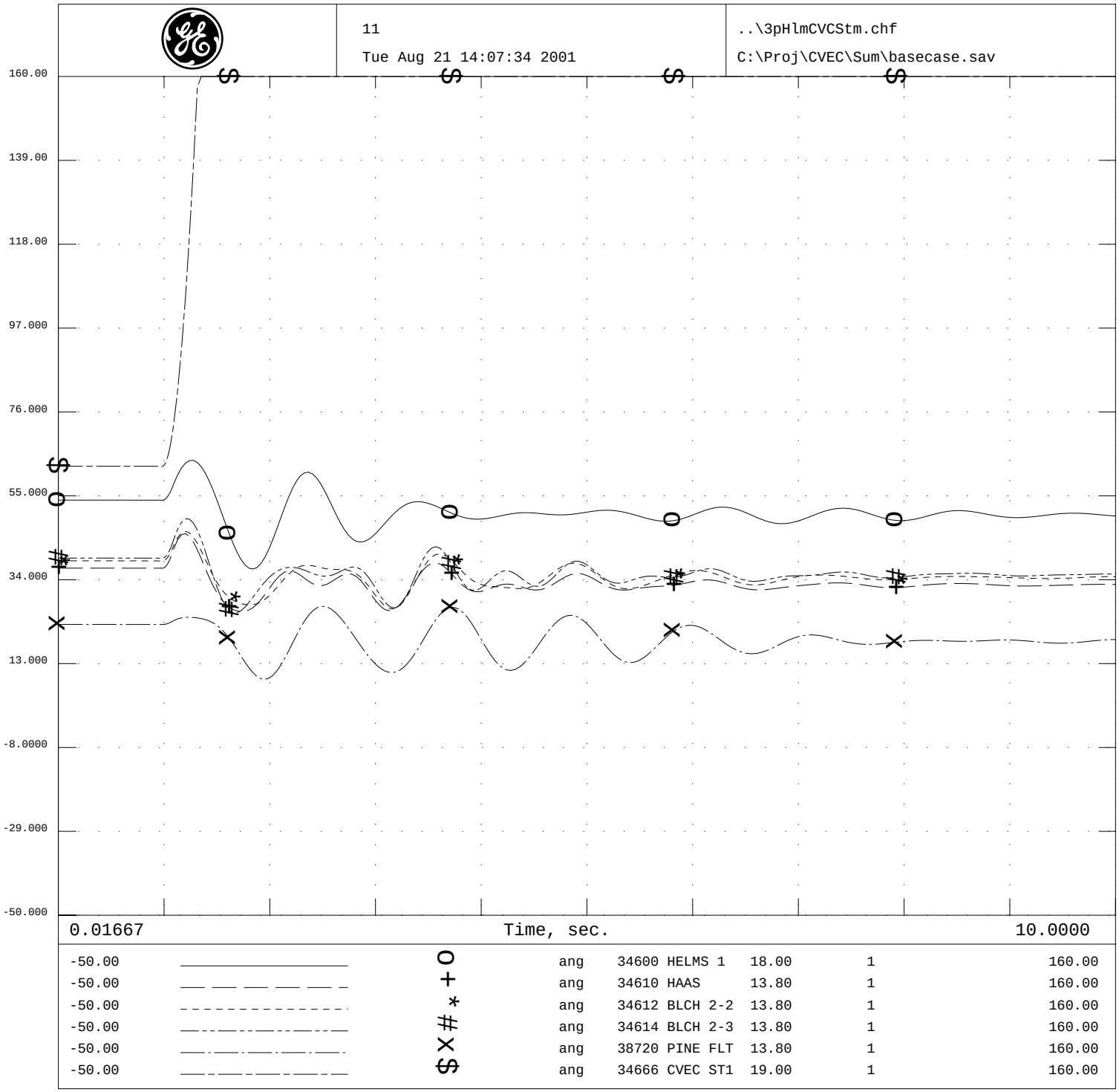
Calpine Corporation
Project Generator Terminal Power



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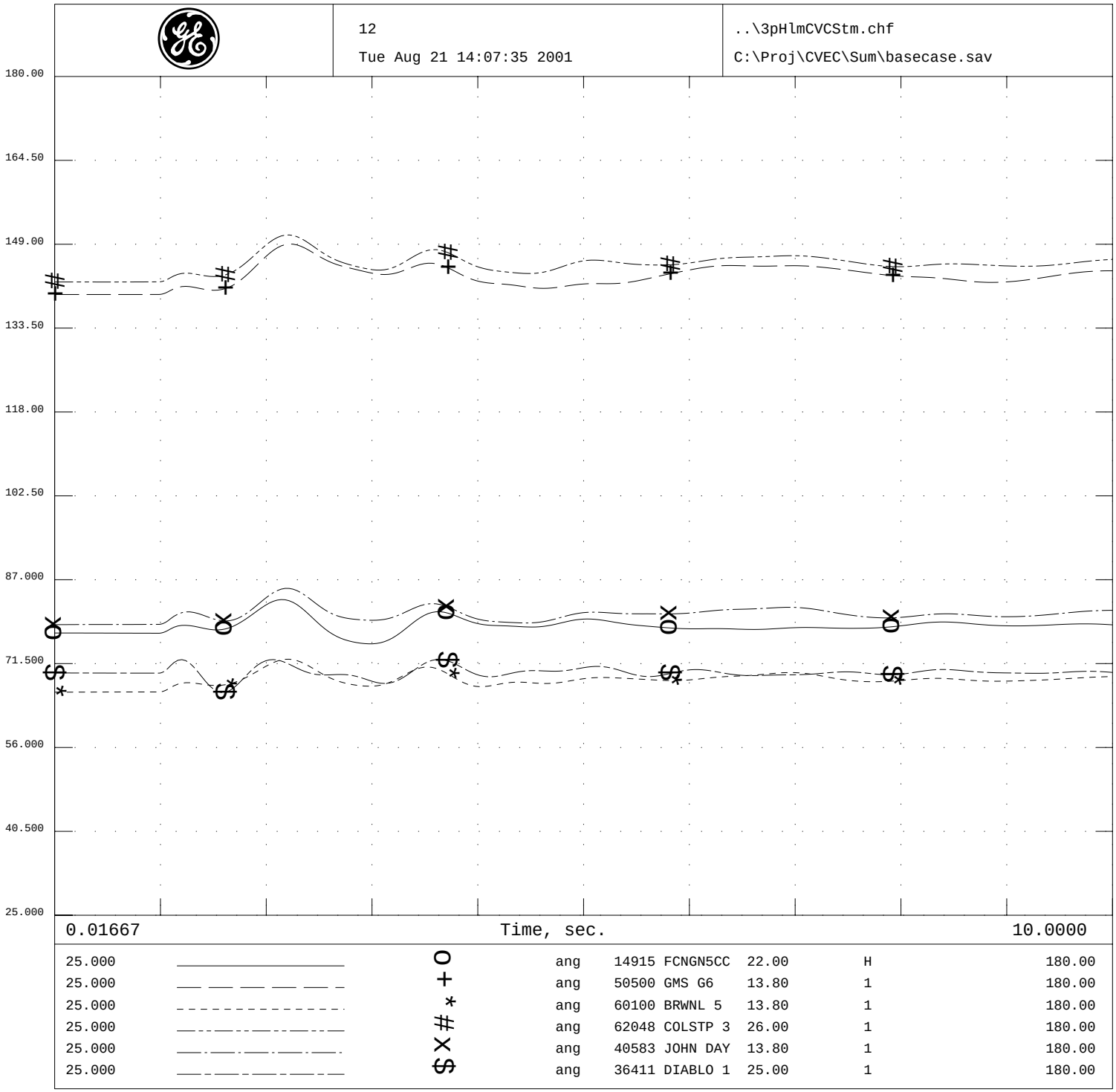
Calpine Corporation
Selected Local Rotor Angle Plots



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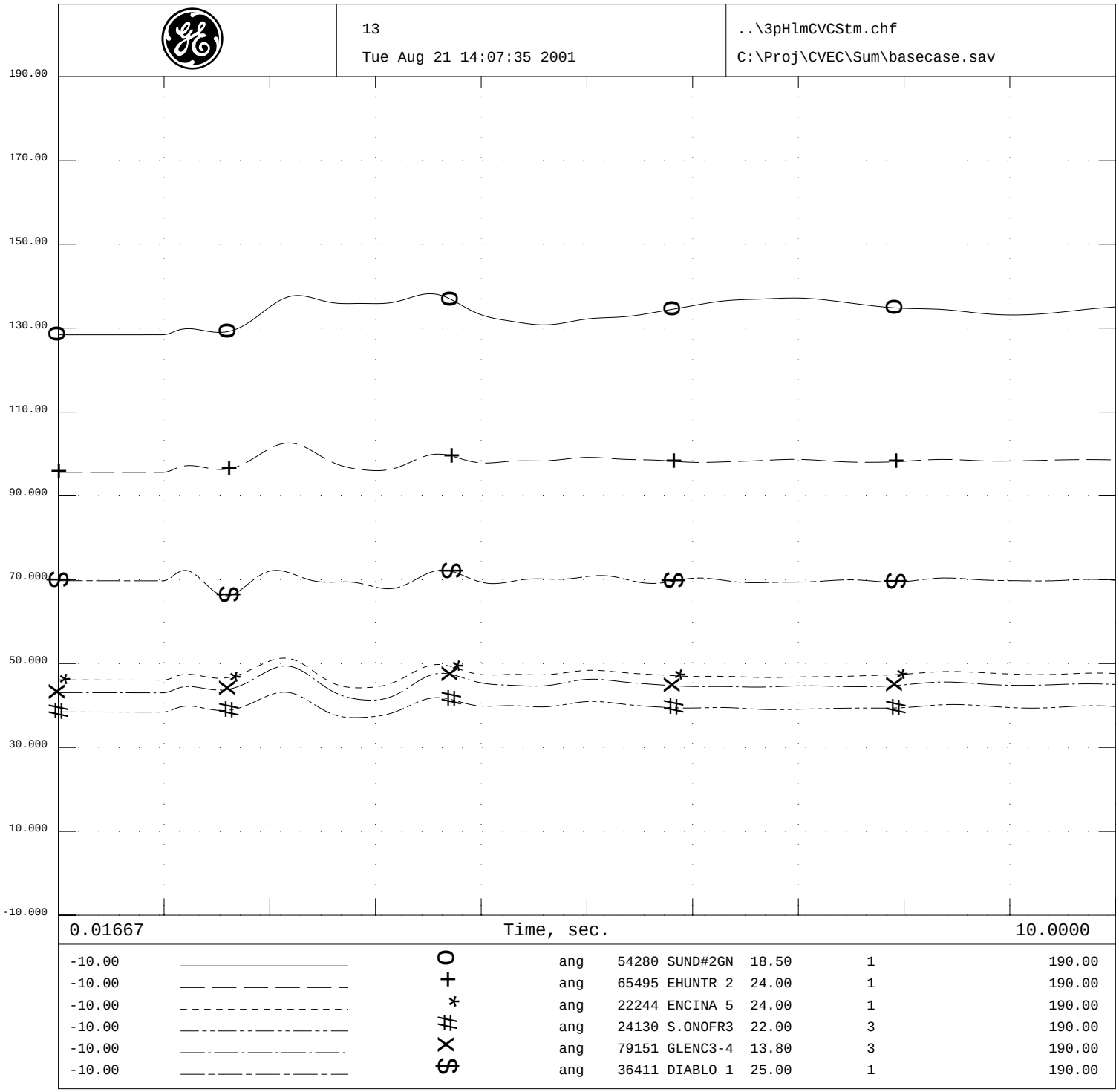
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
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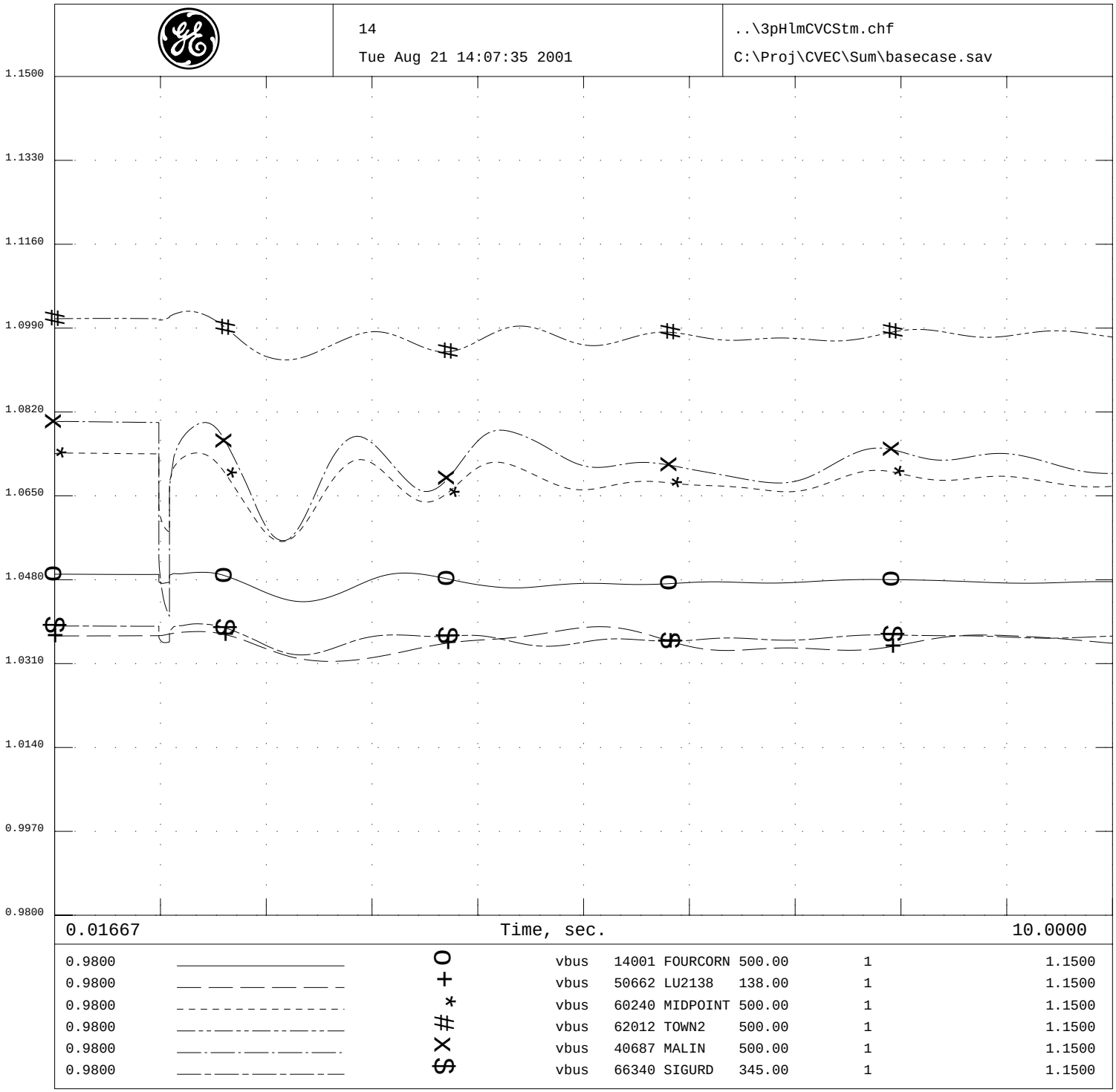

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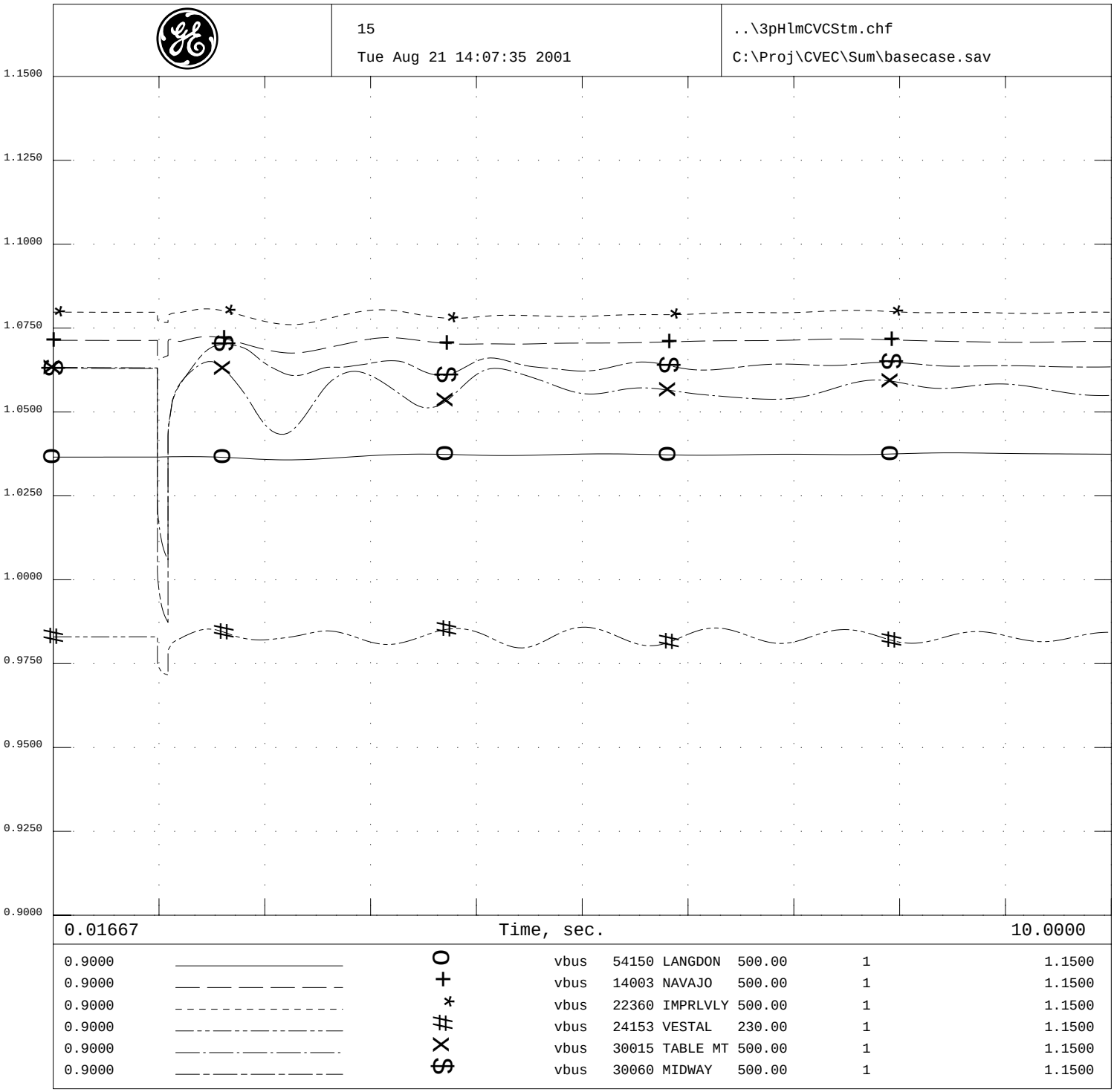
Selected WSCC Transmission Bus Voltage Plots



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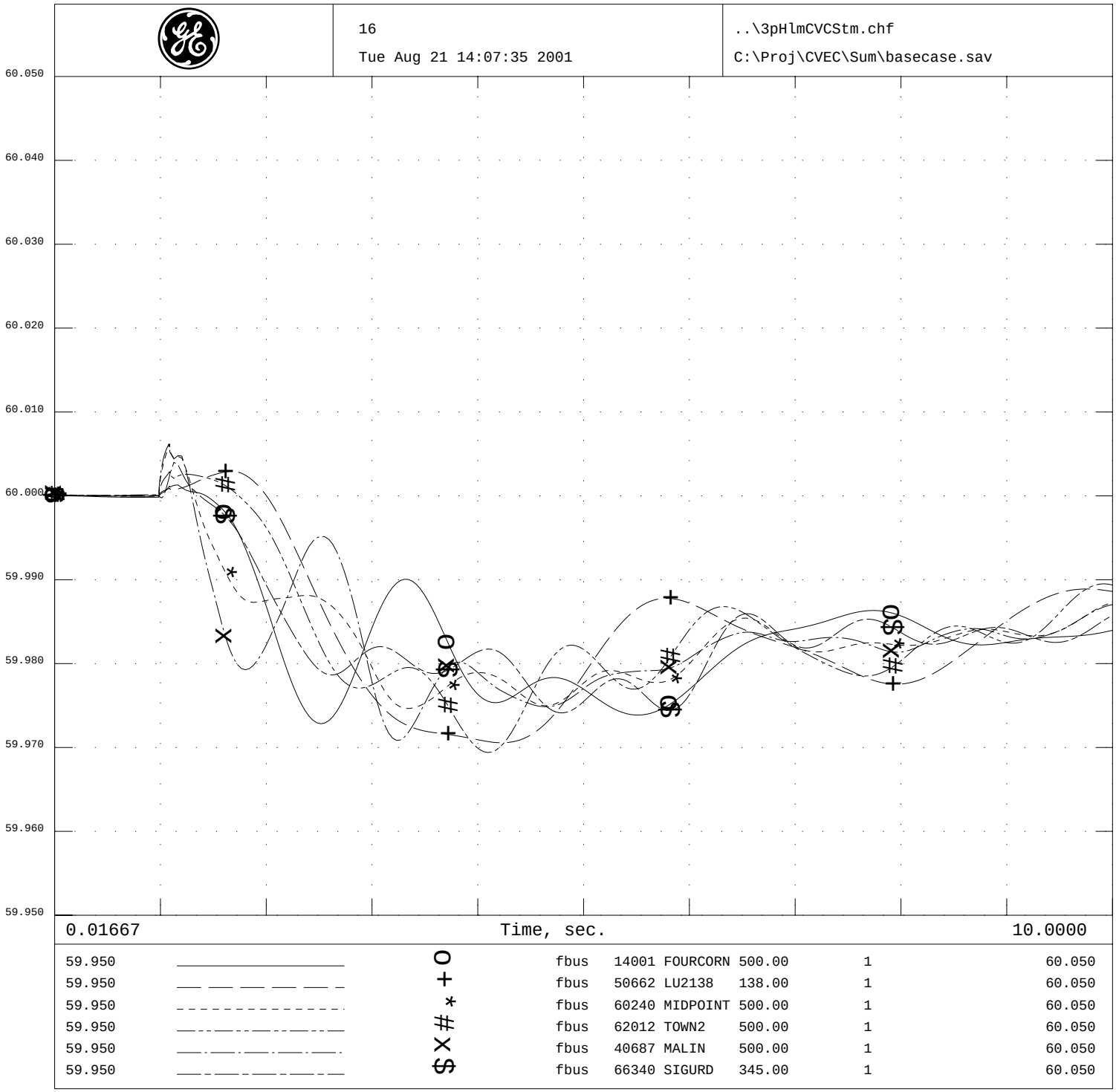

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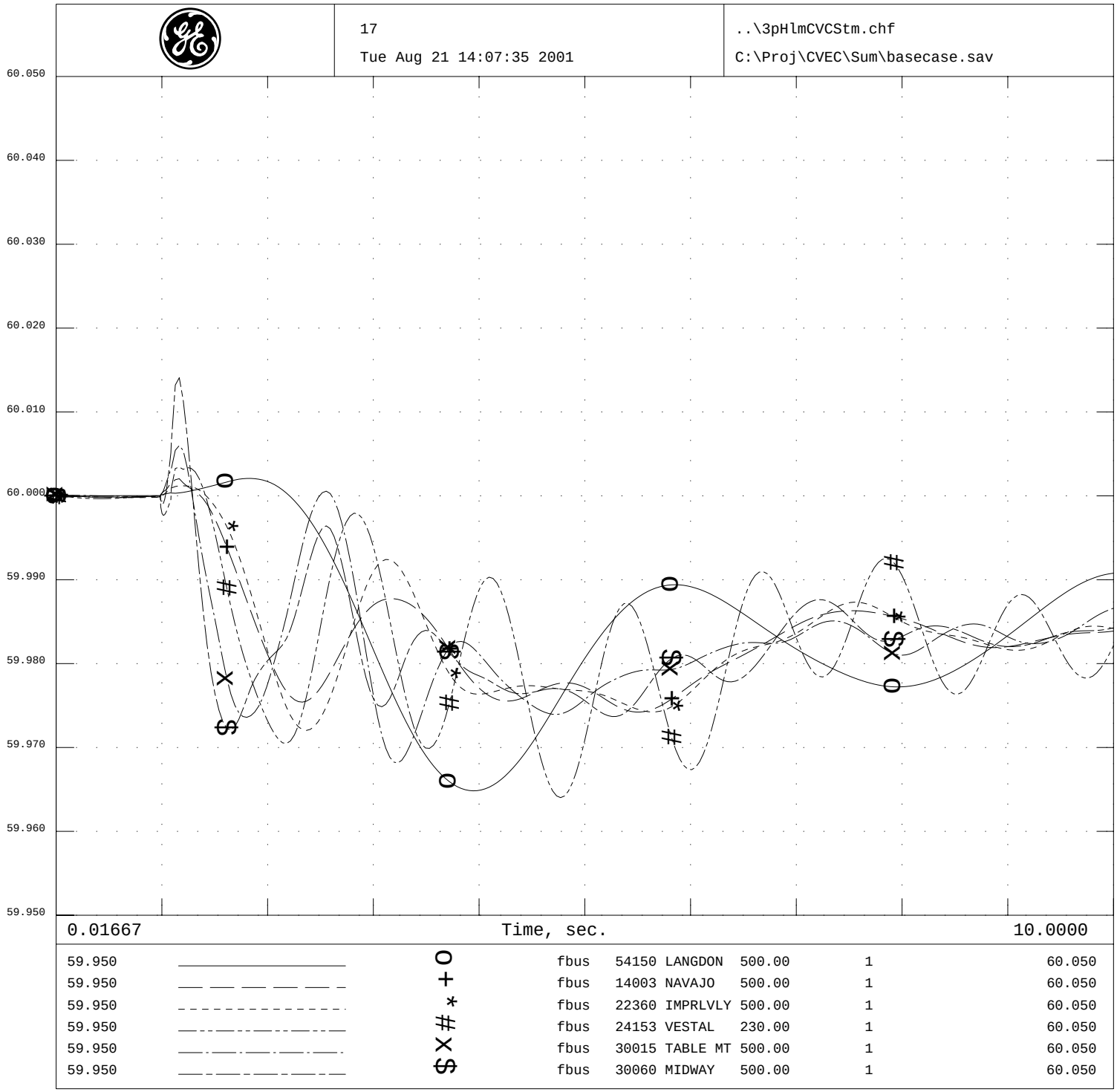

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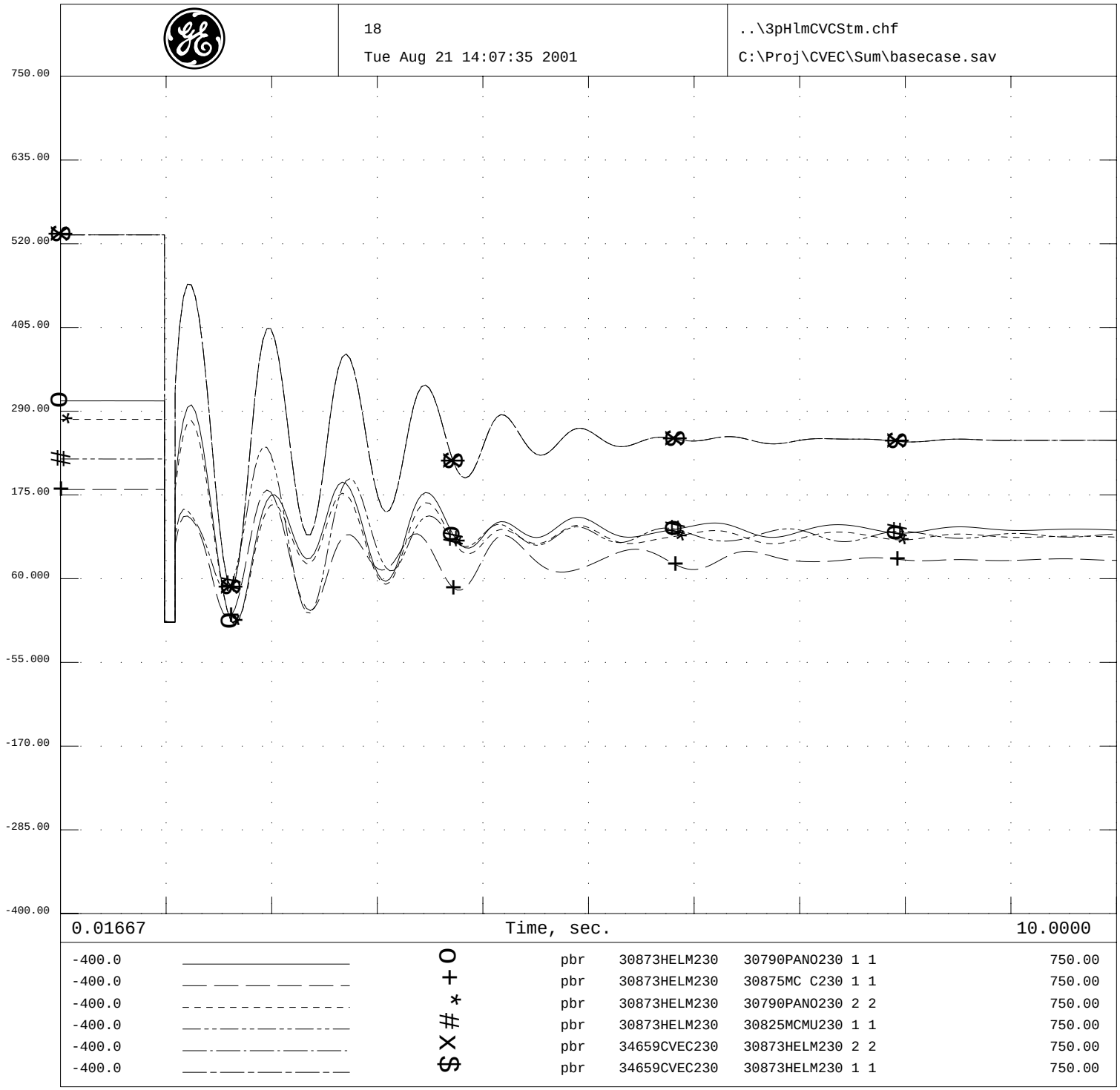

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2004 Summer Peak Base Case
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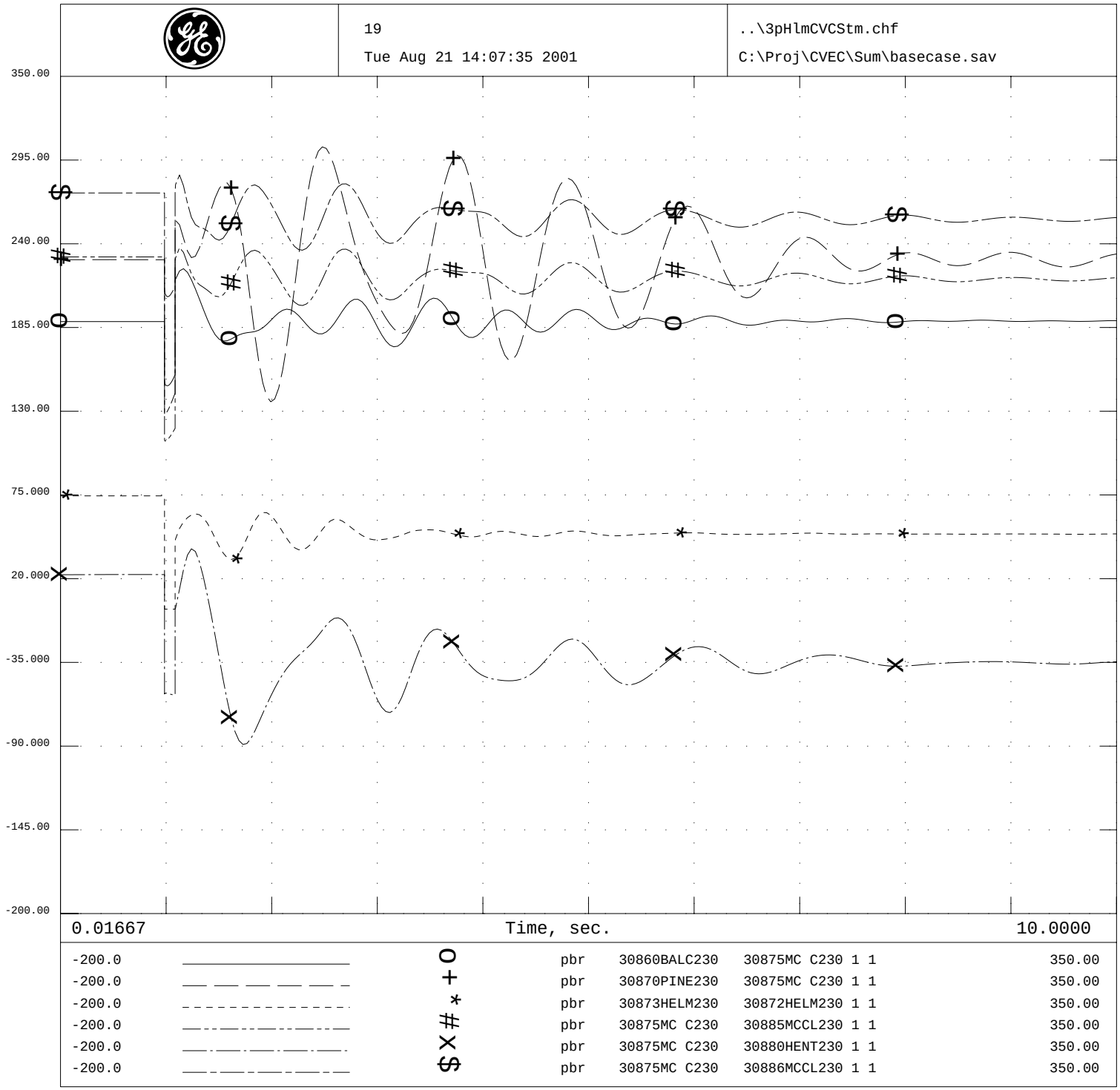
Selected Transmission Line Flows (MW)



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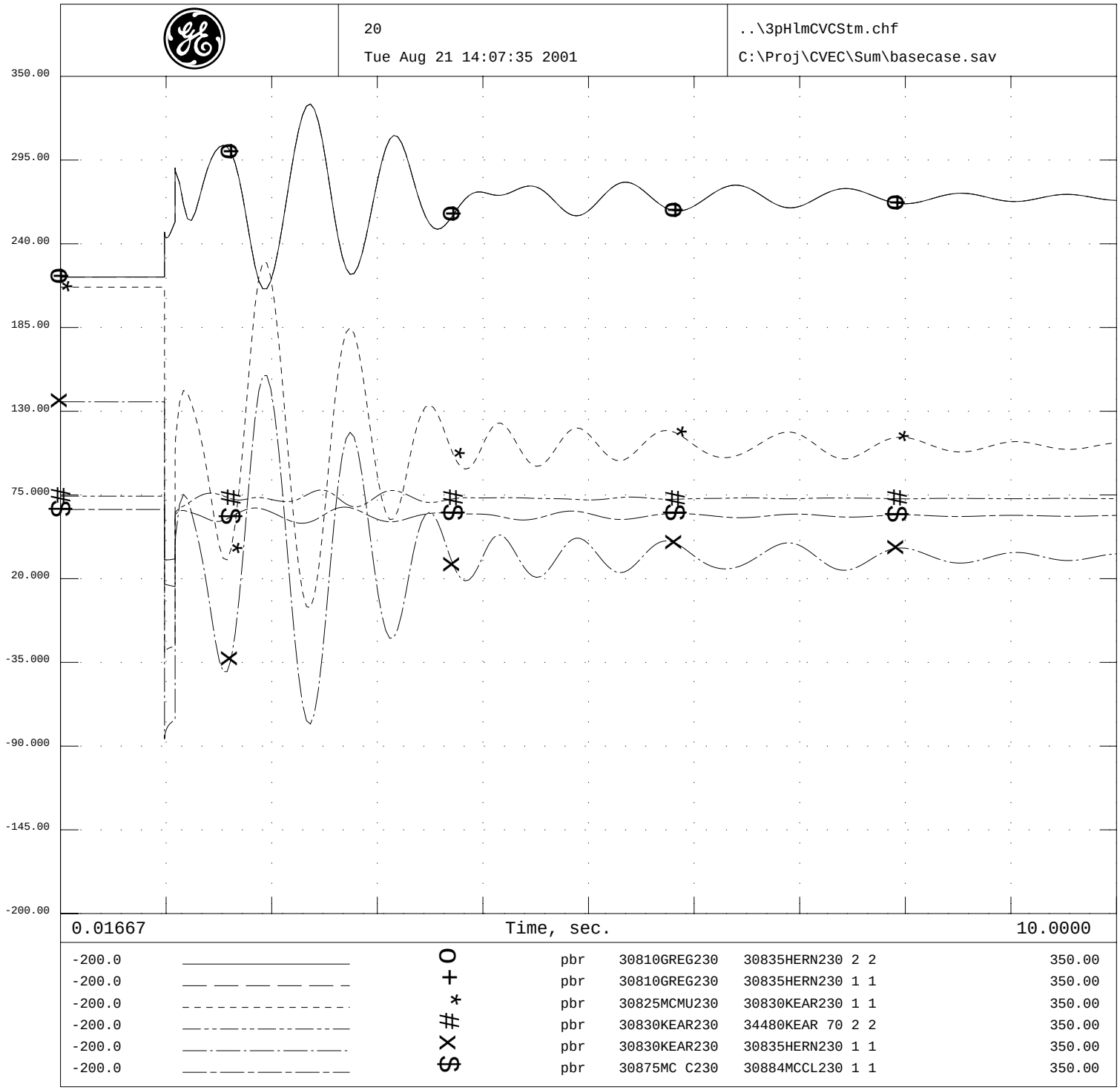

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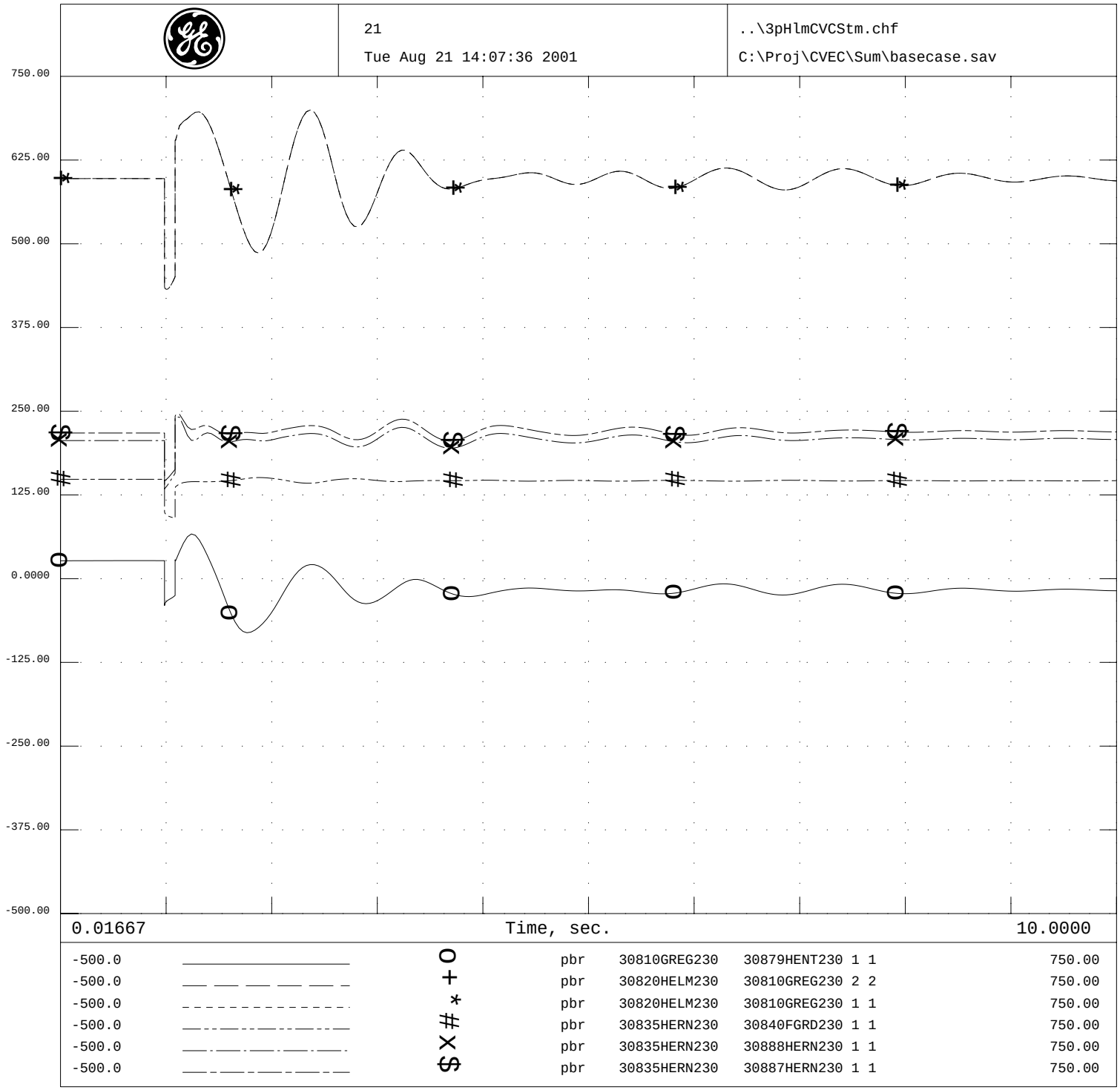

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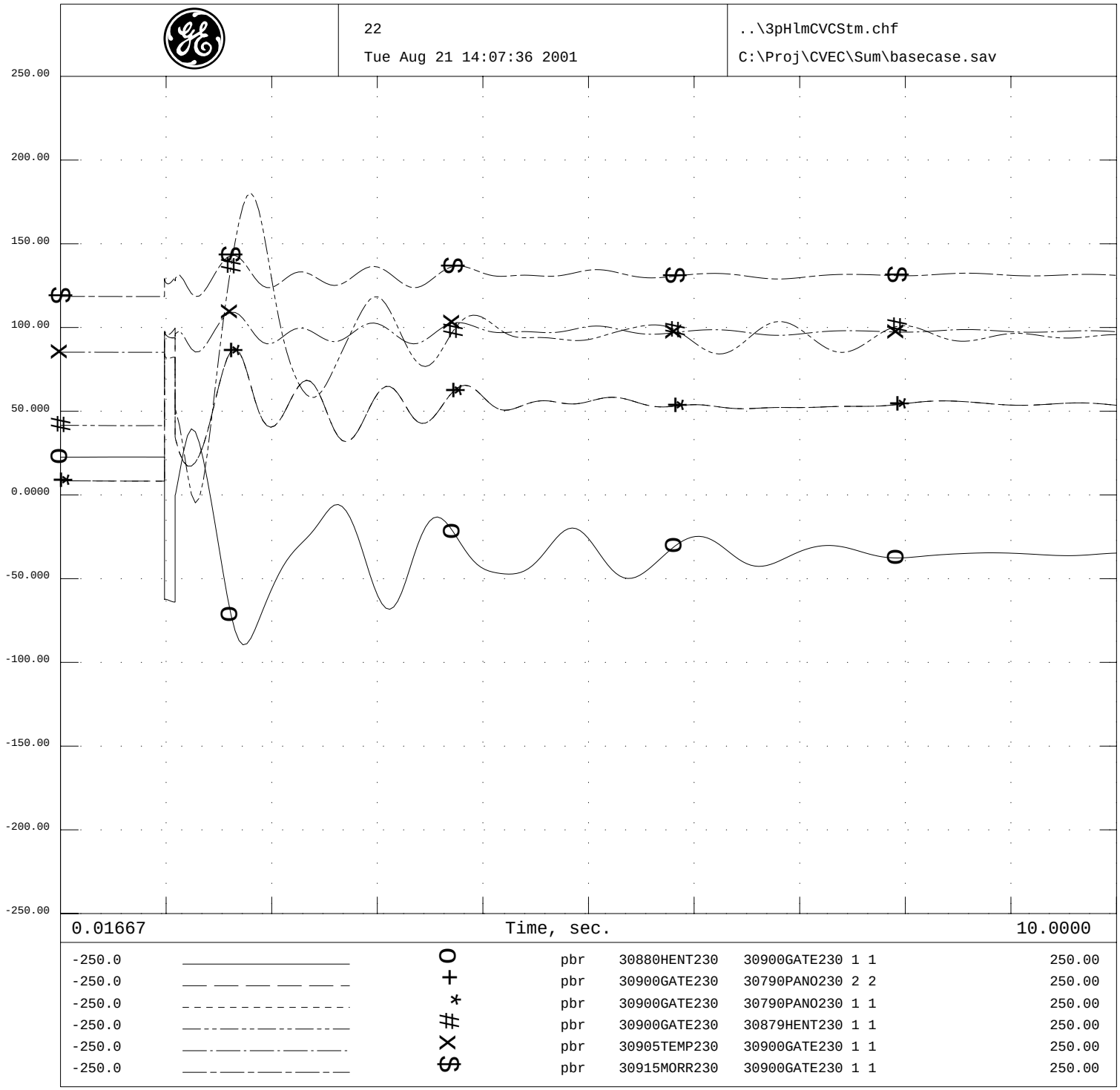

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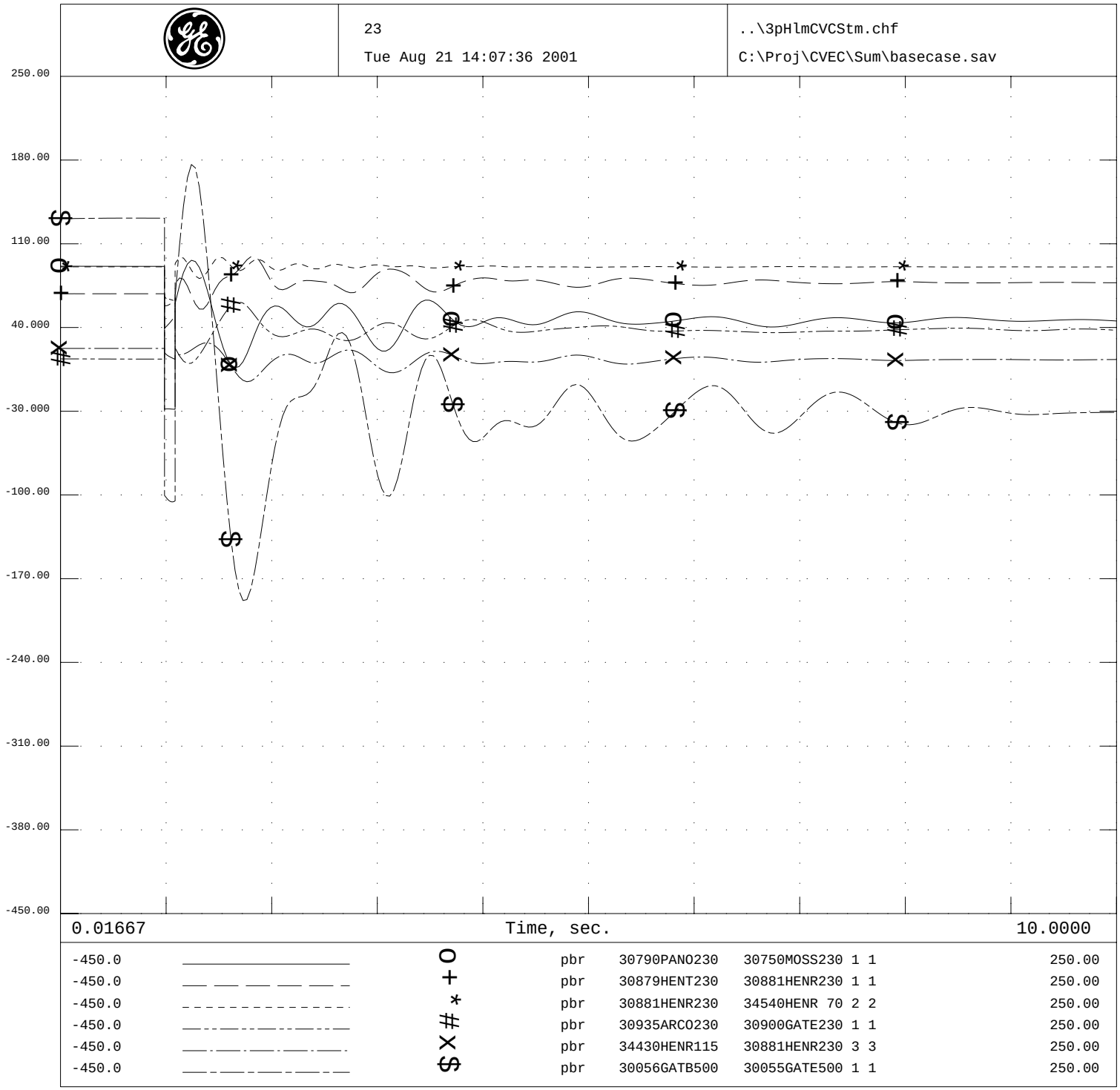

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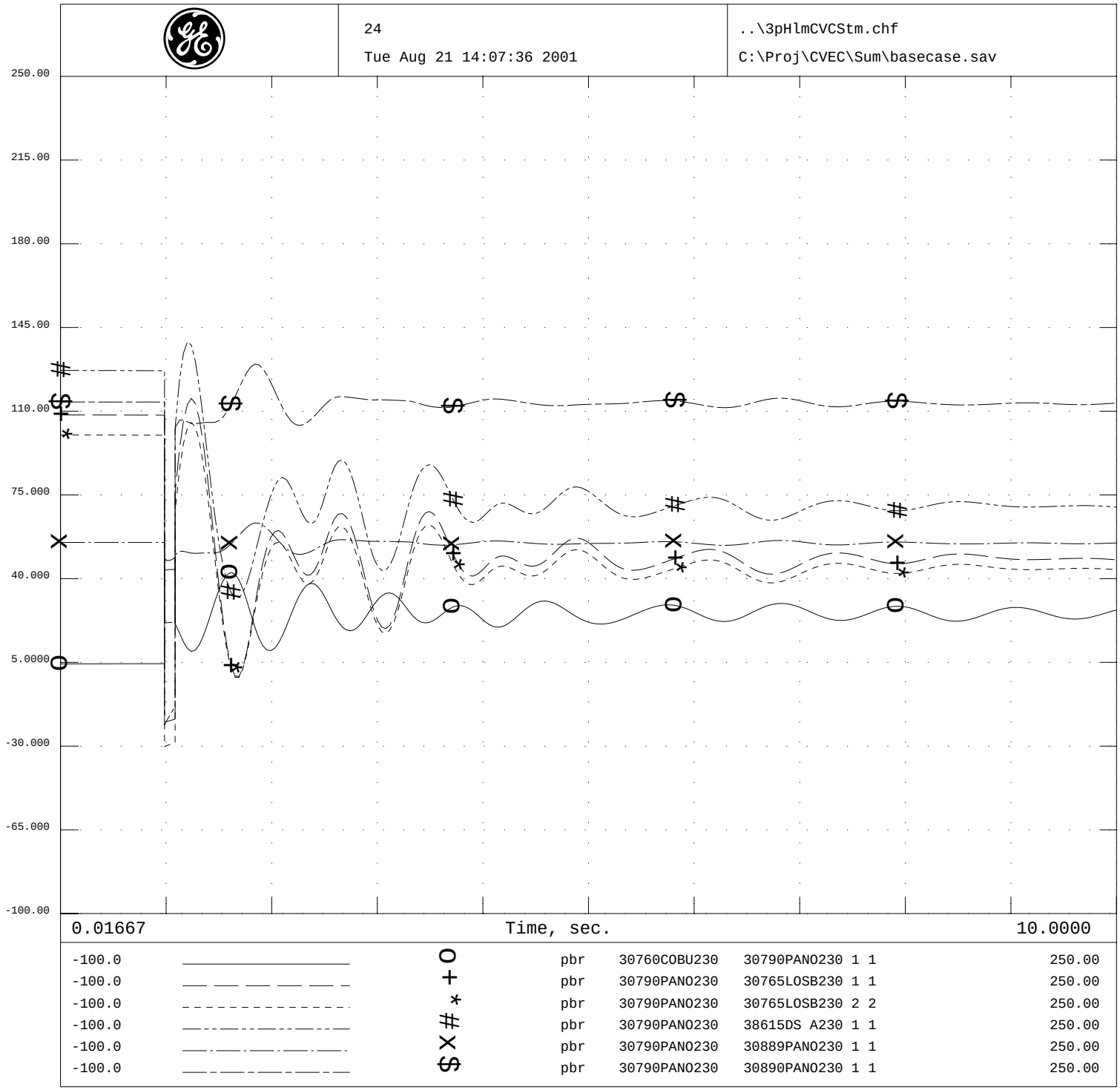

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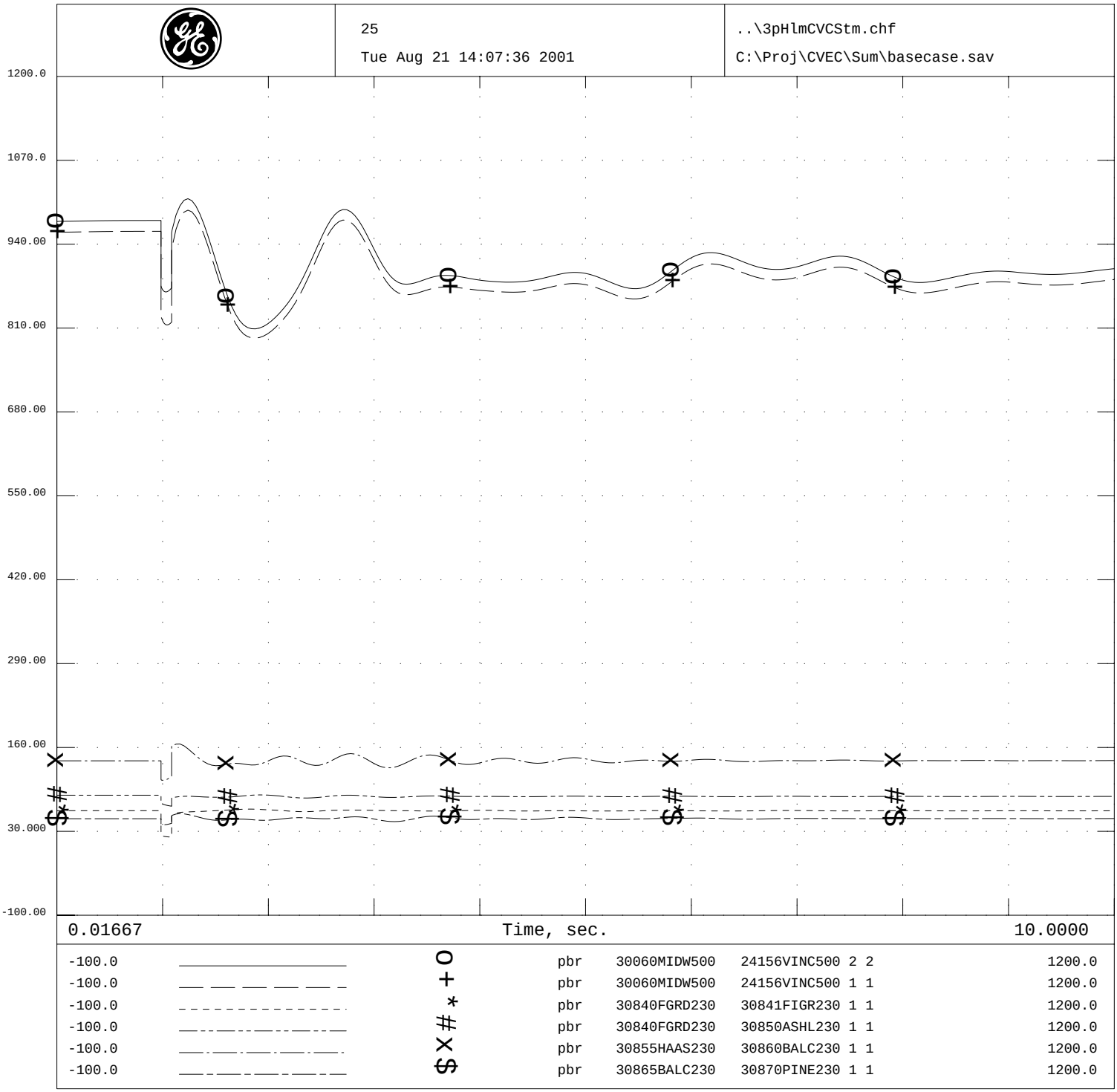

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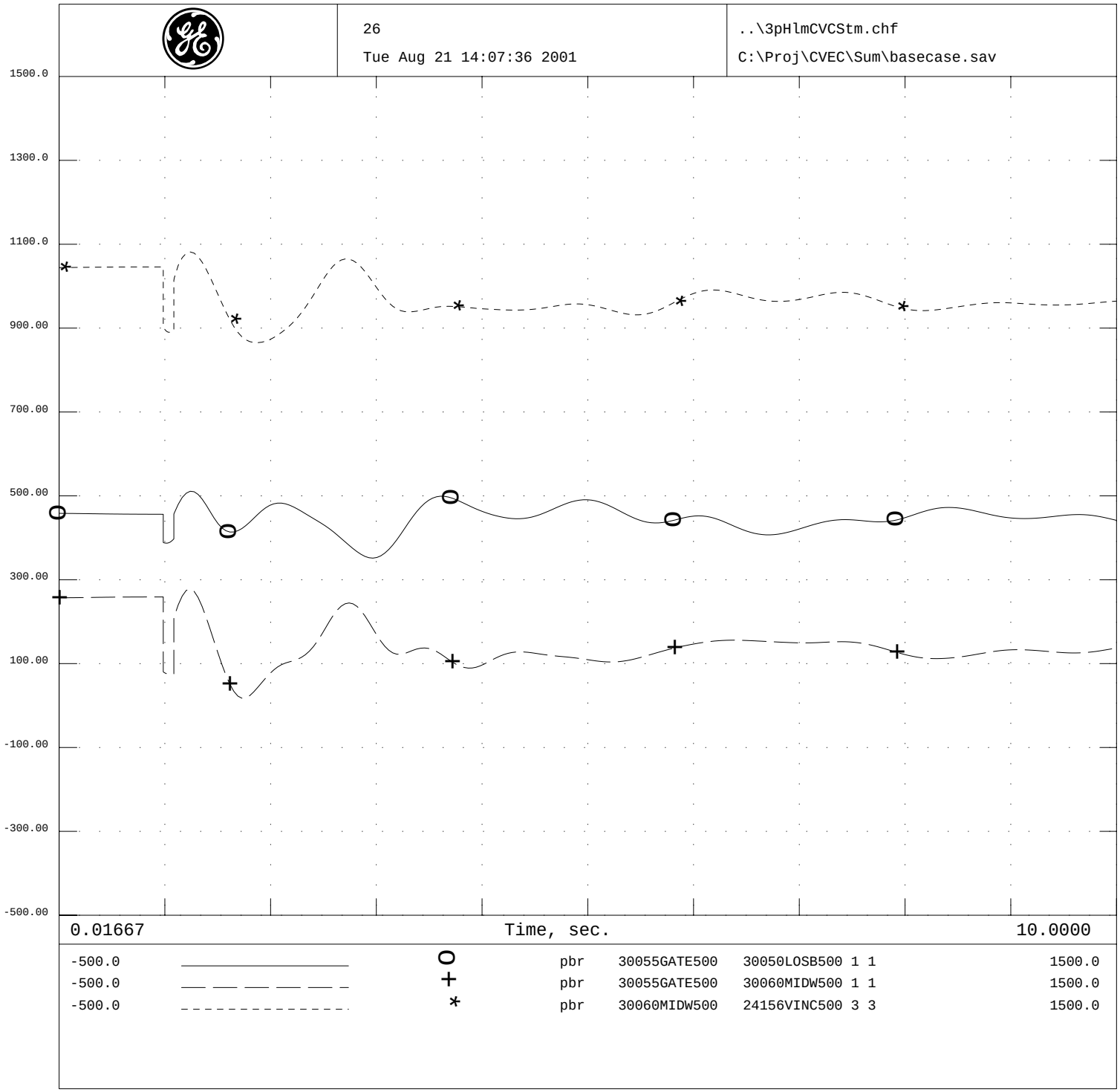

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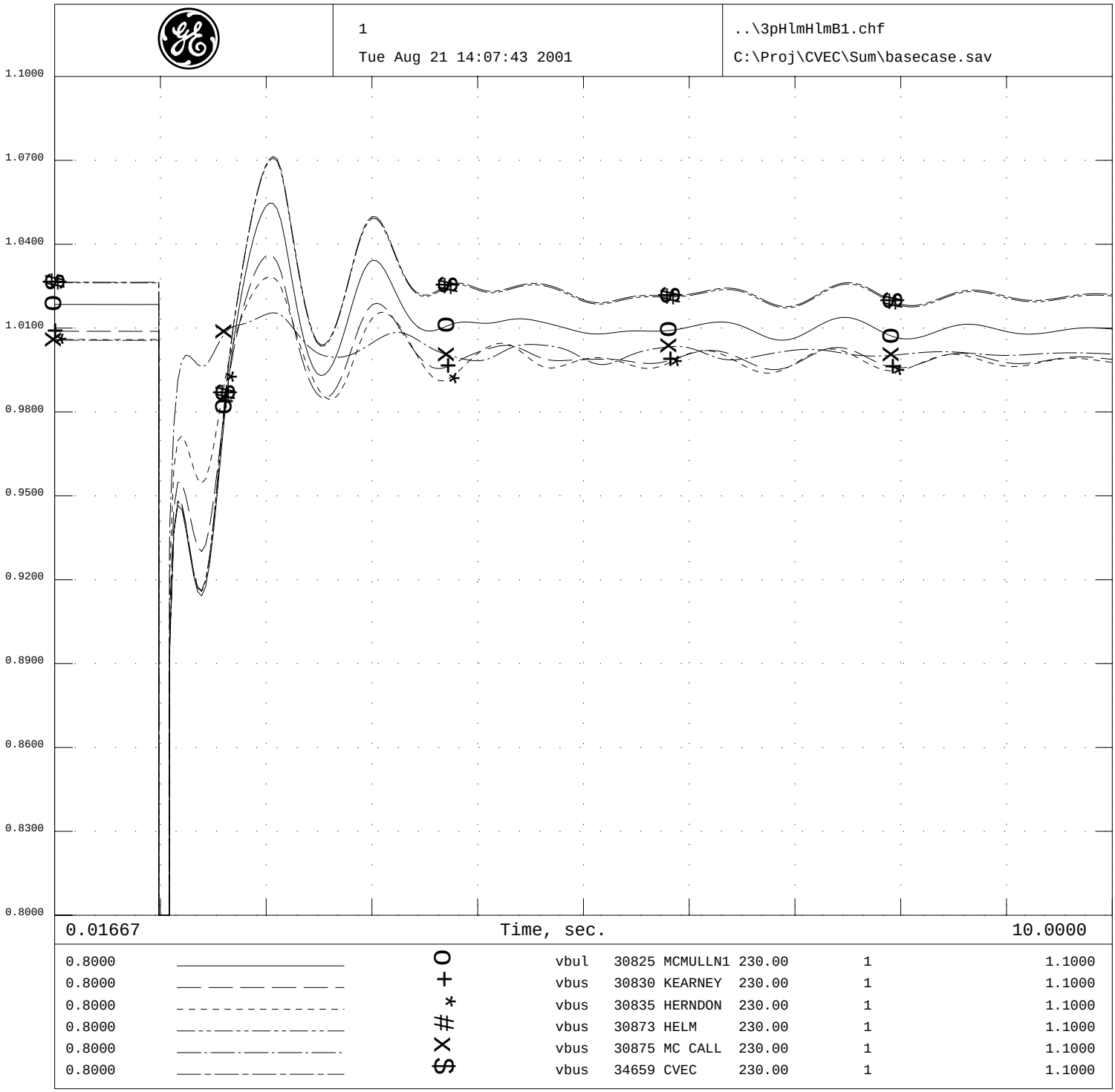

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2004 Summer Peak Base Case
CVEC @ 1100MW
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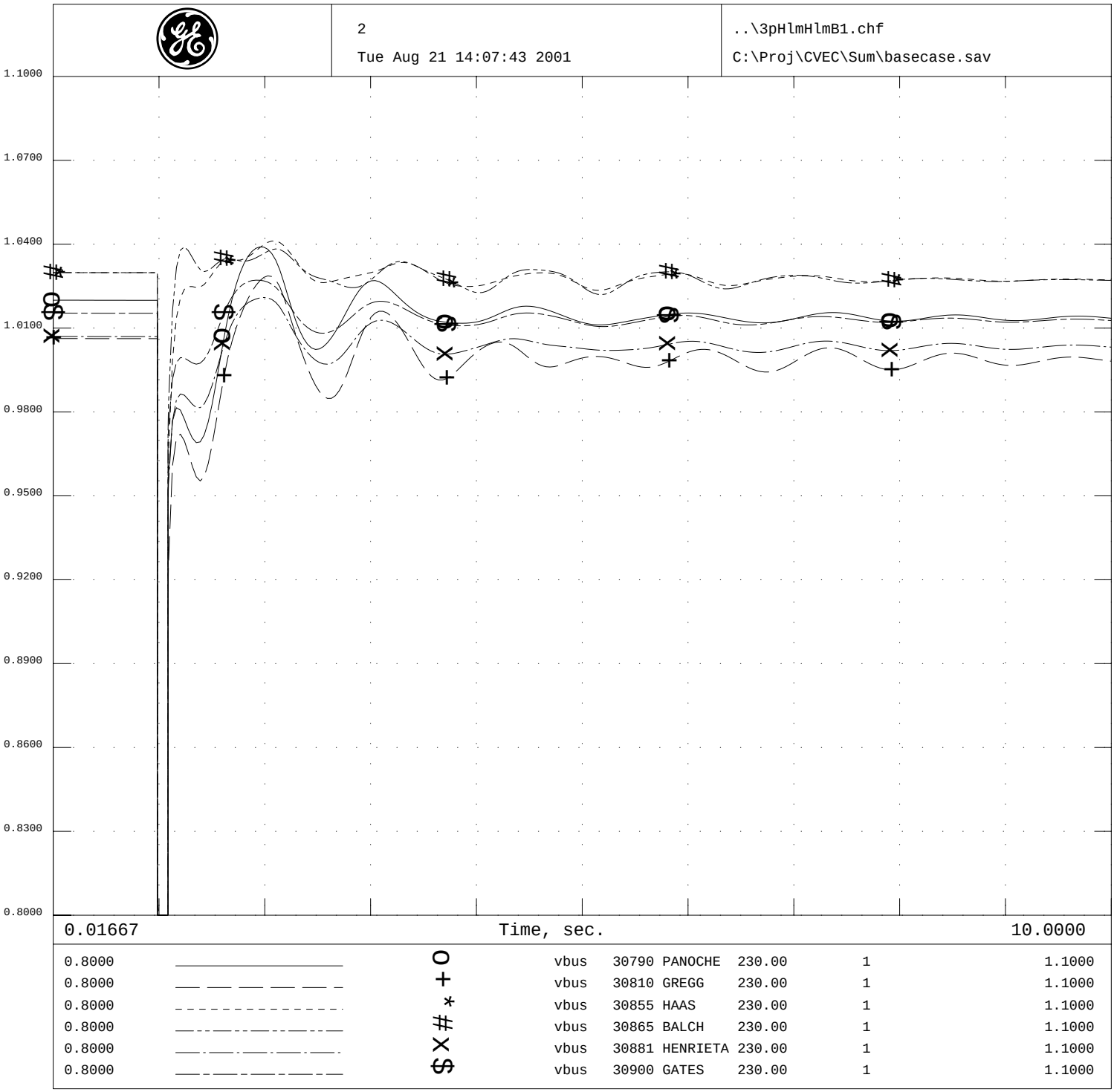
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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Calpine Corporation
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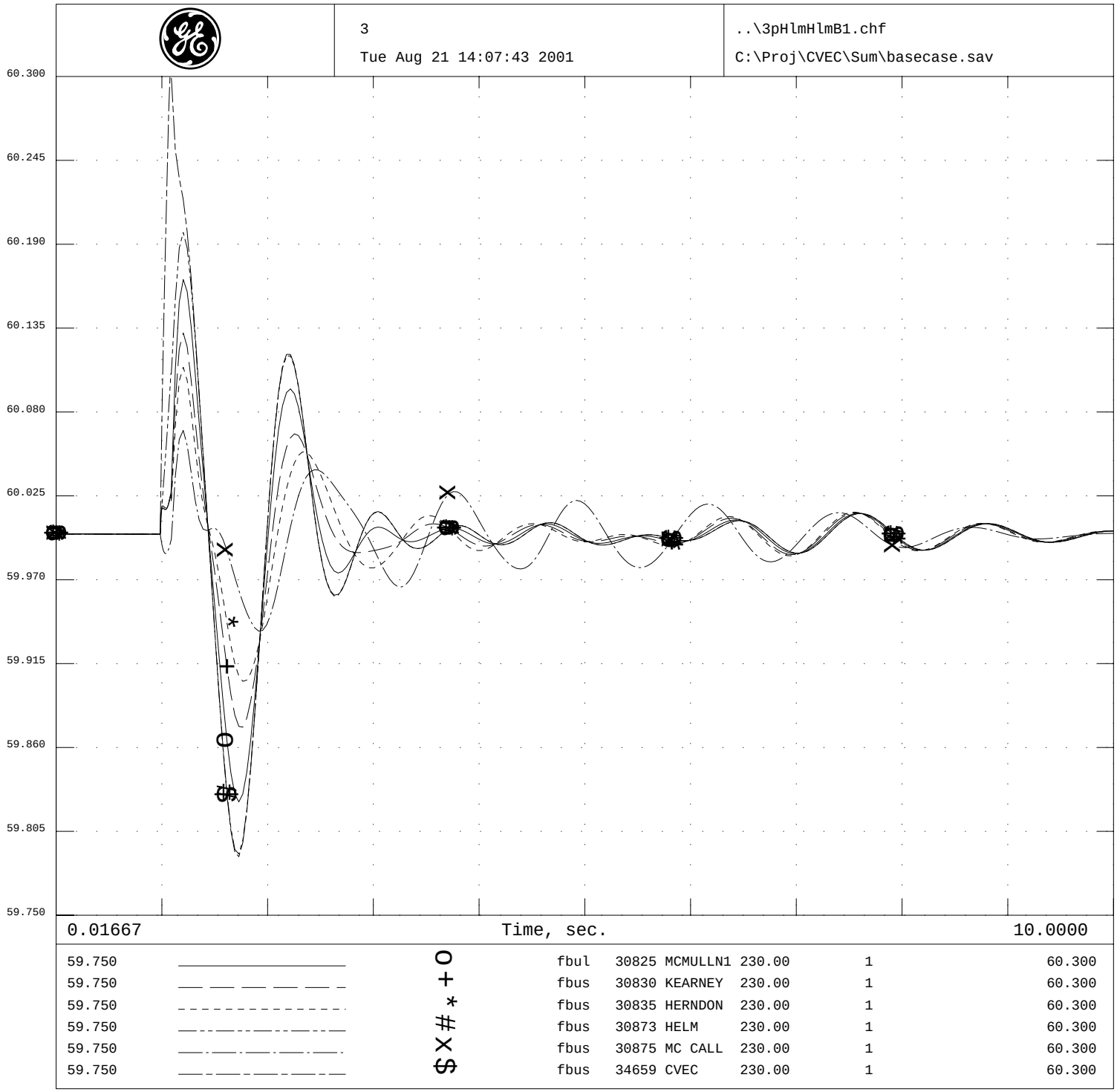

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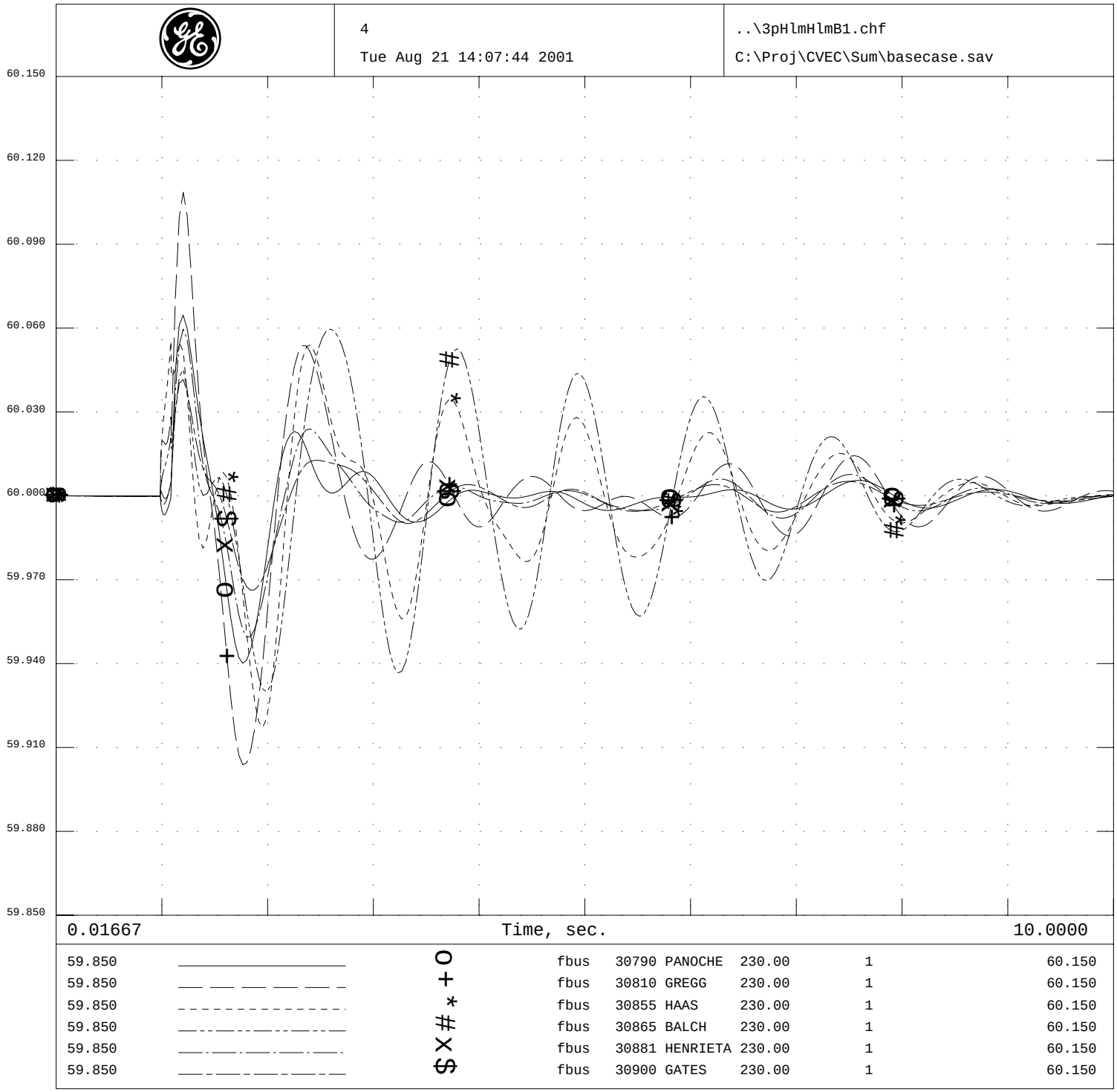
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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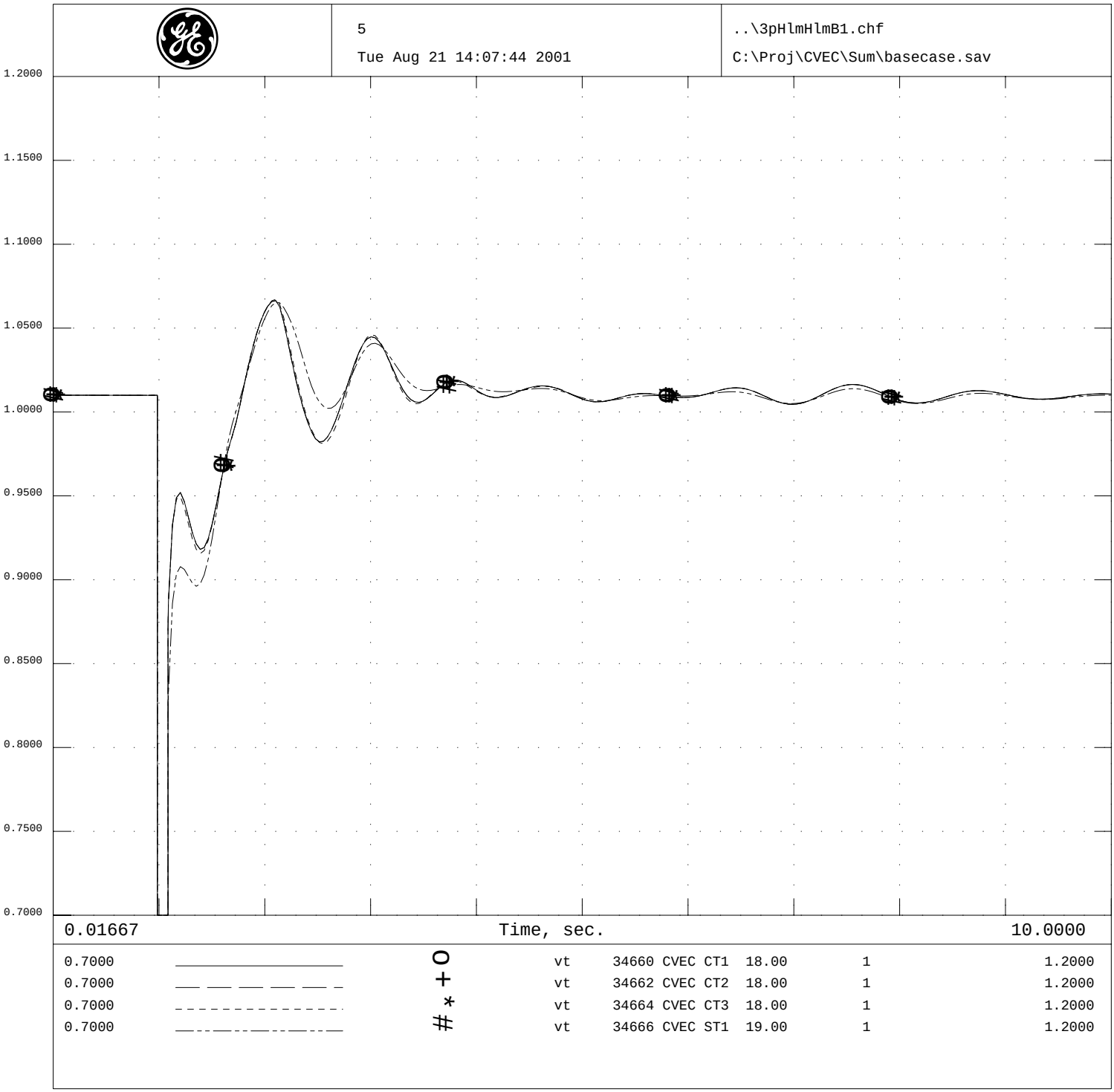

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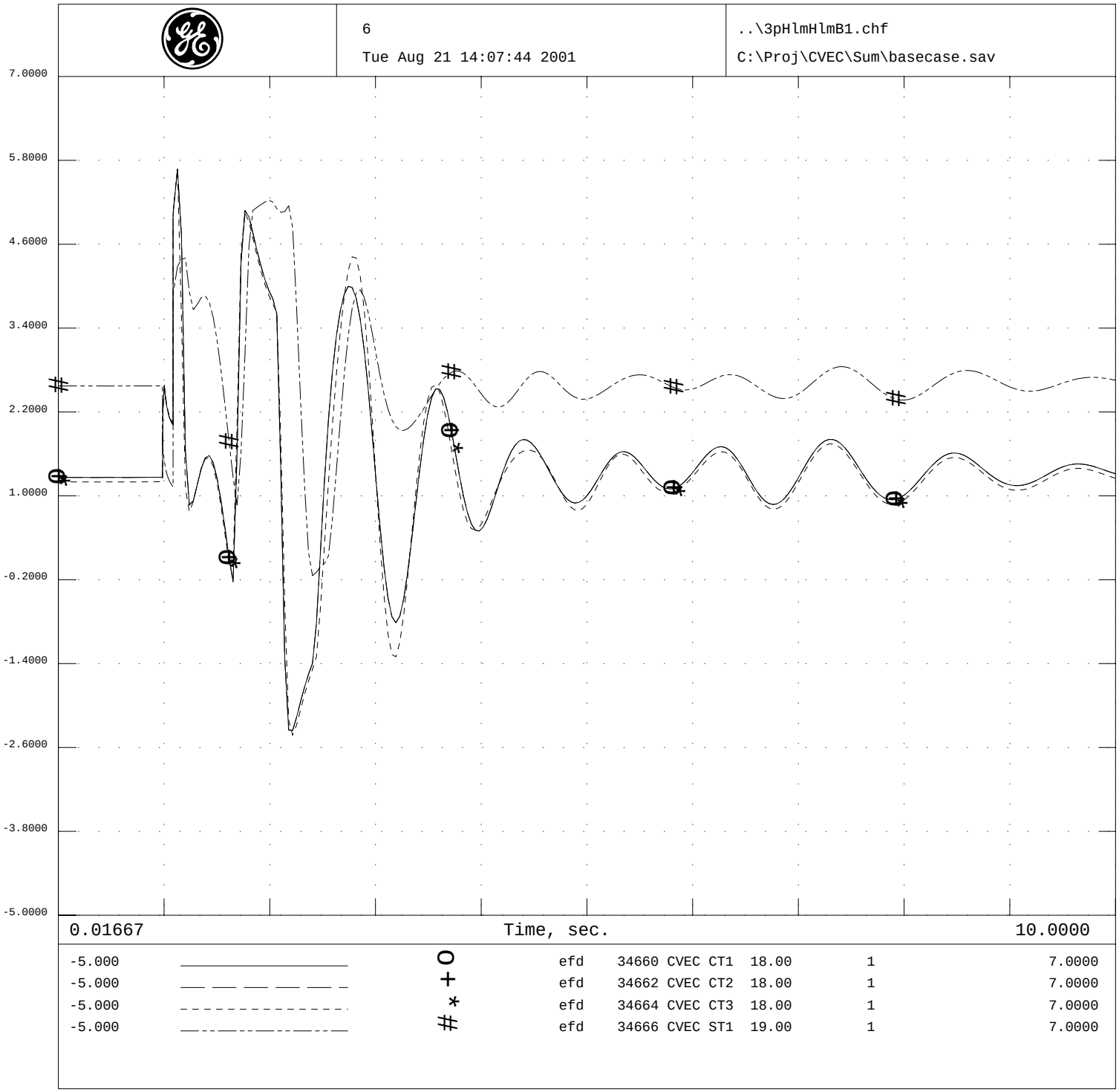
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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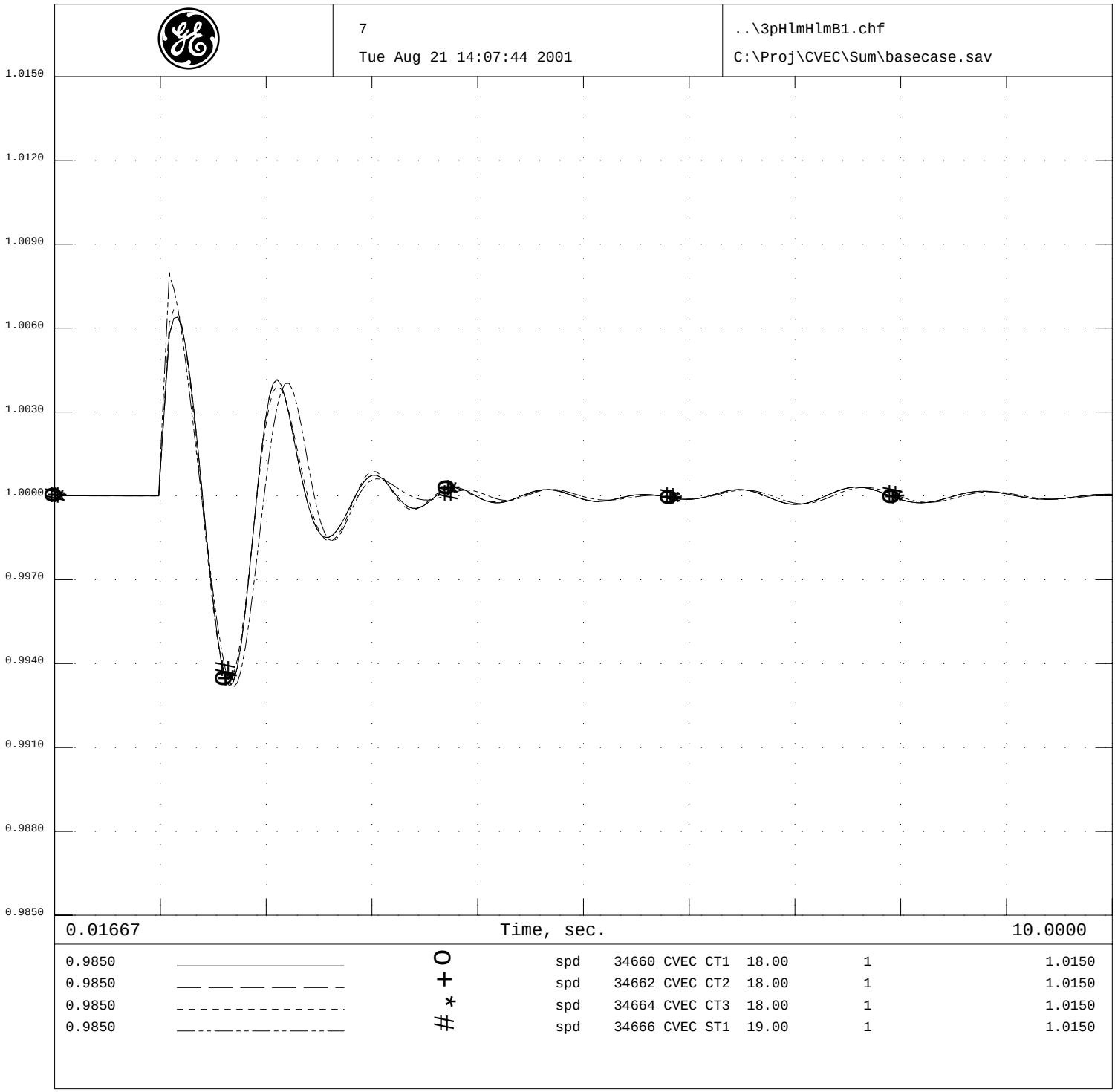
Calpine Corporation
Project Generator Field Voltages



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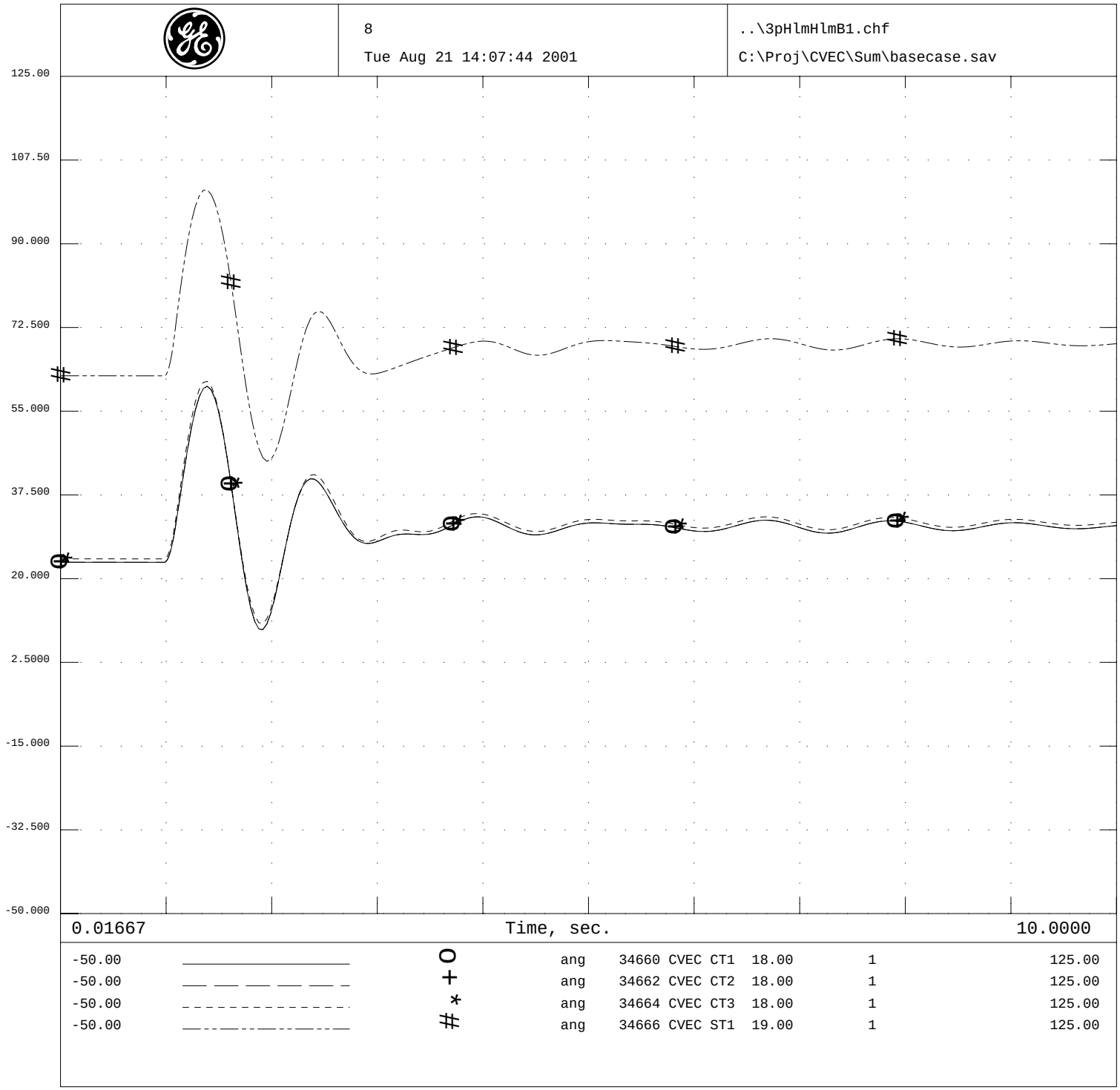
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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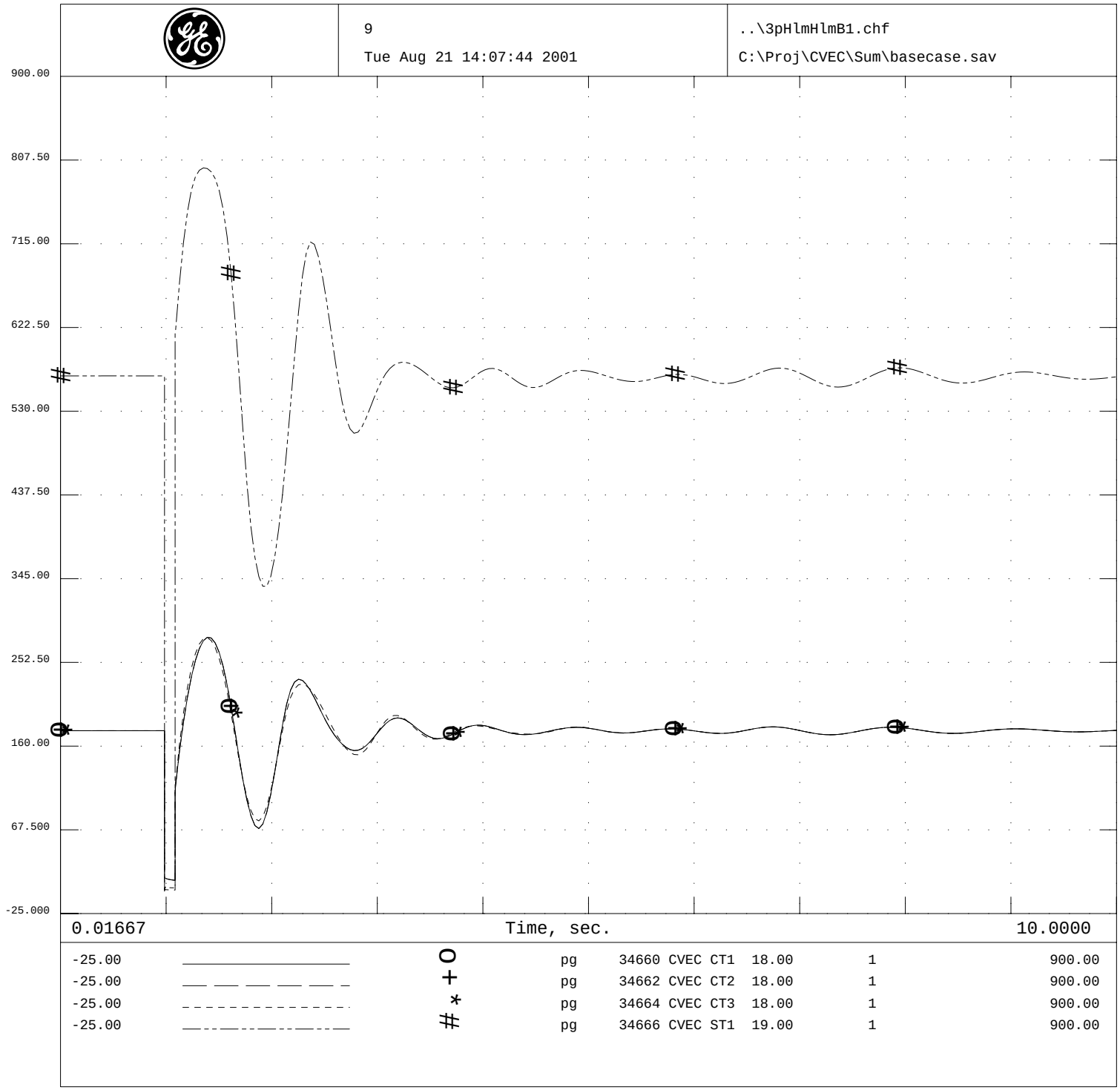
Calpine Corporation
Project Generator Rotor Angle



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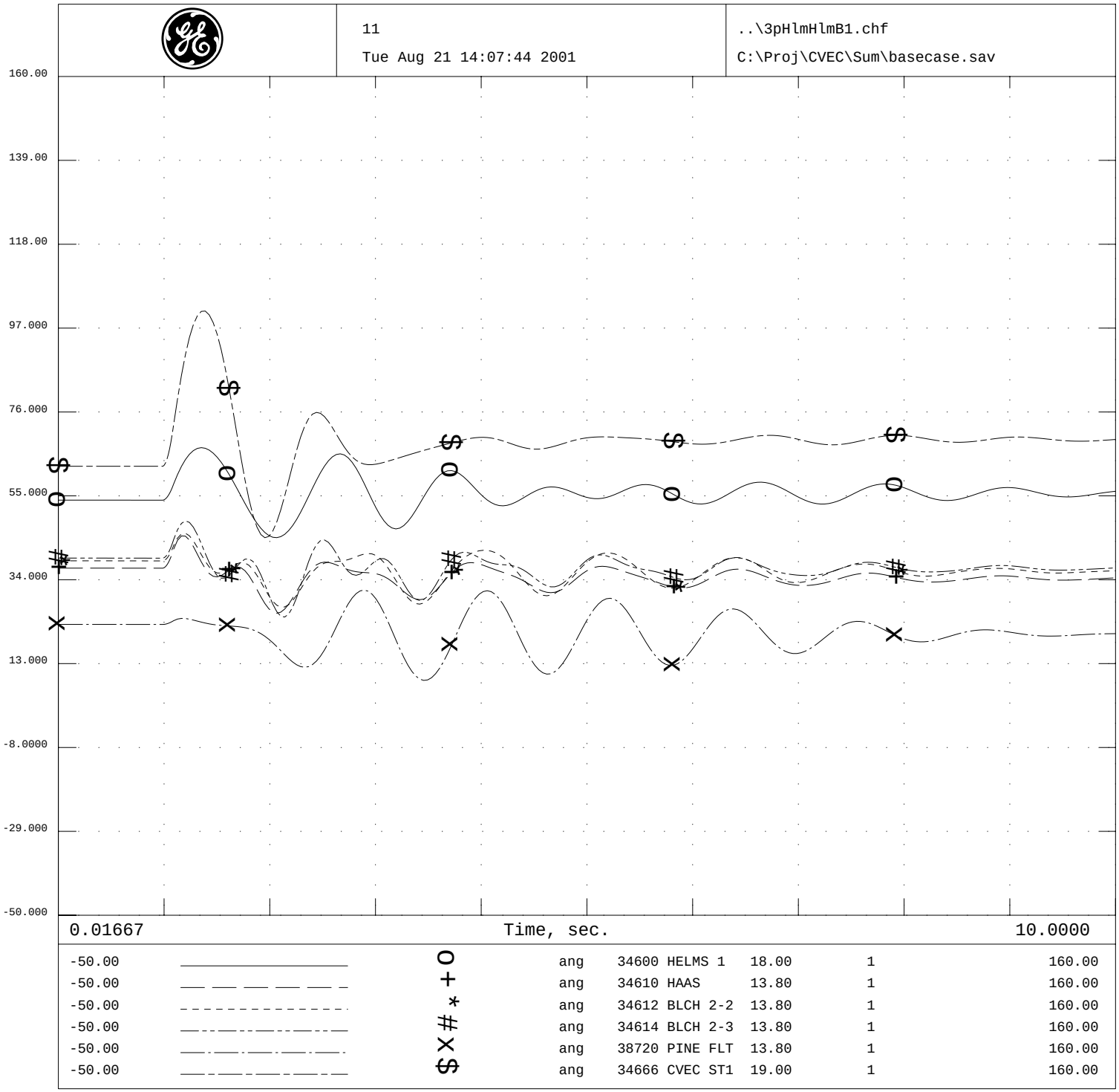
Project Generator Terminal Power



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Calpine Corporation
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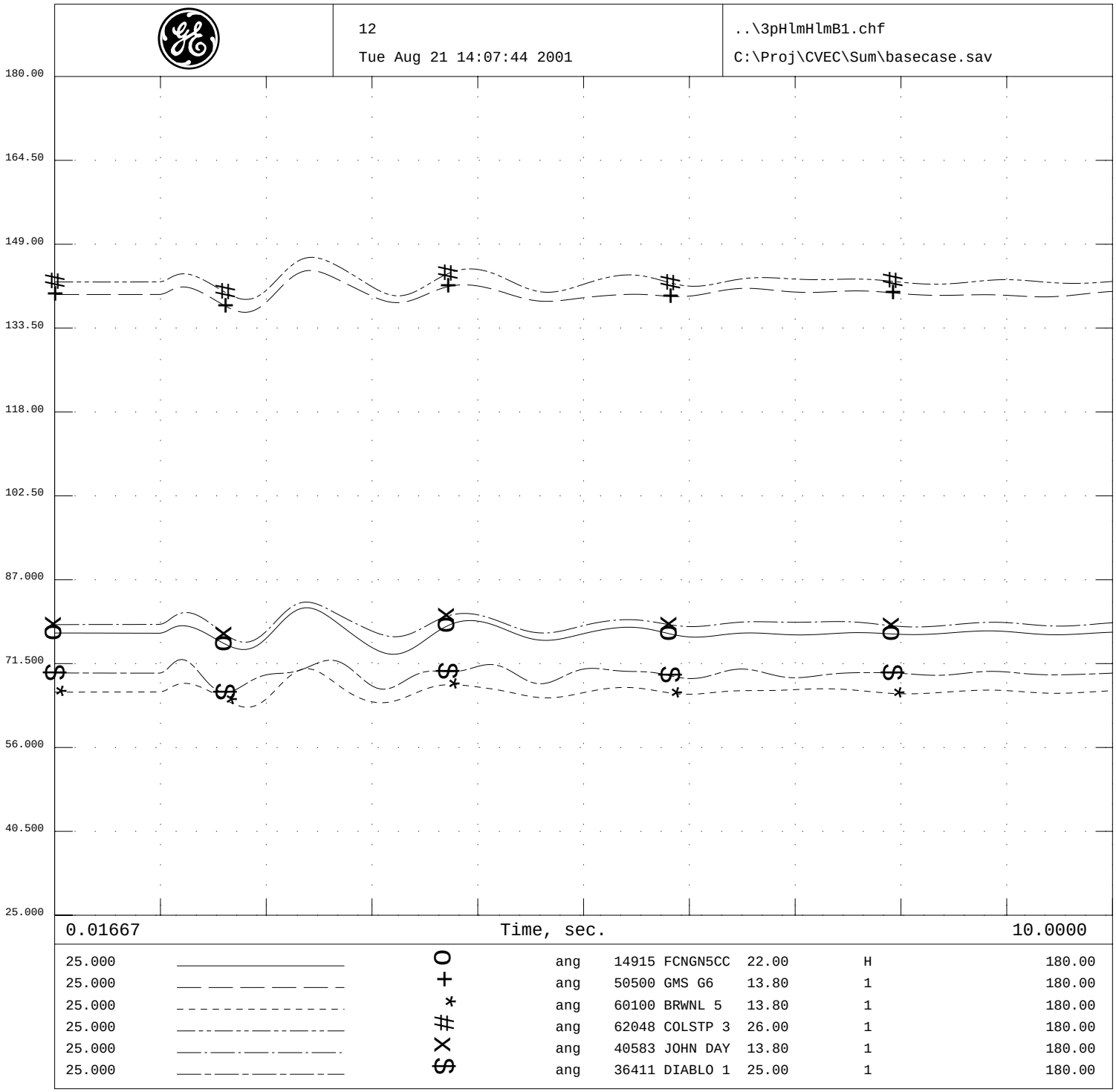

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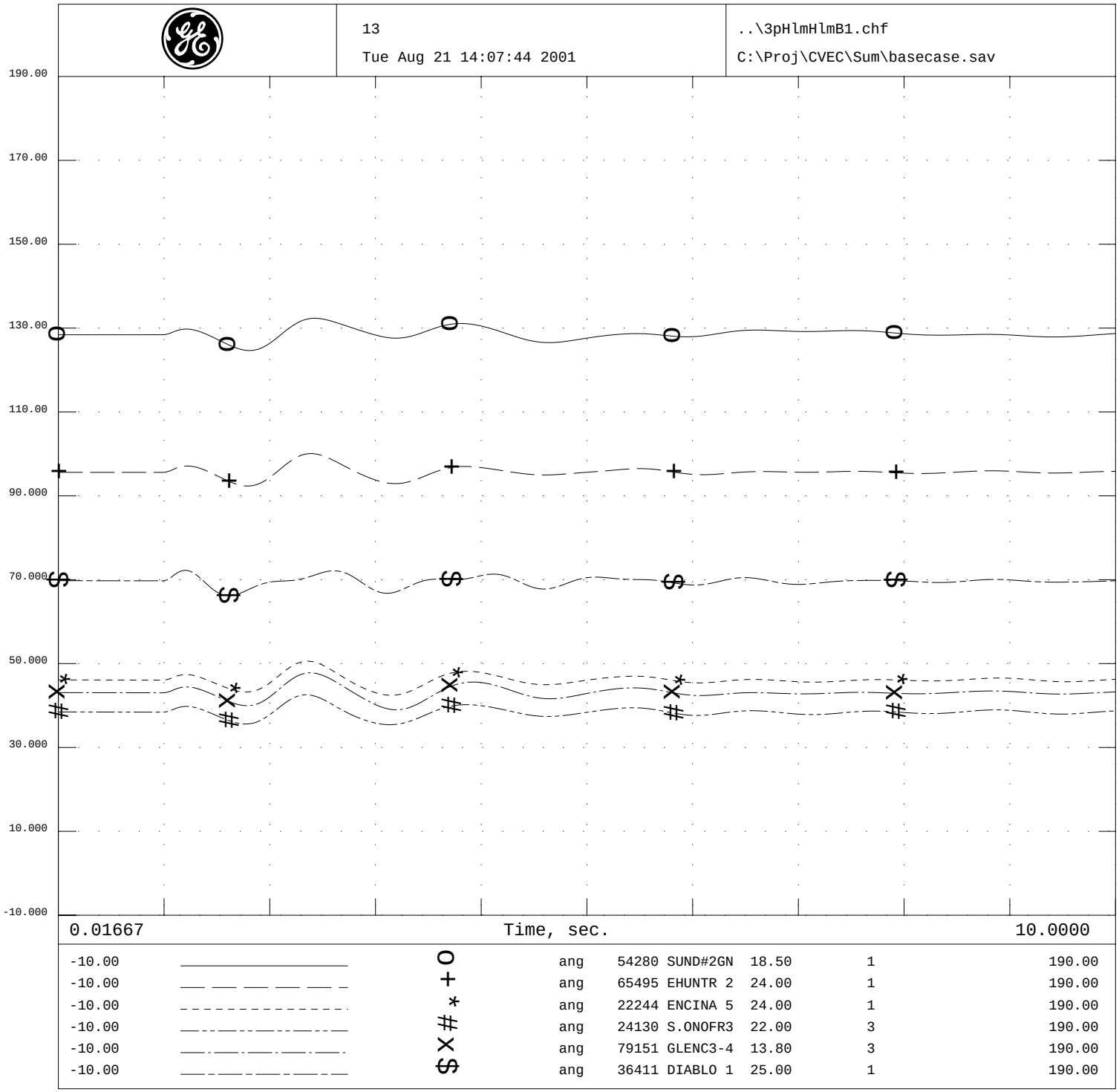

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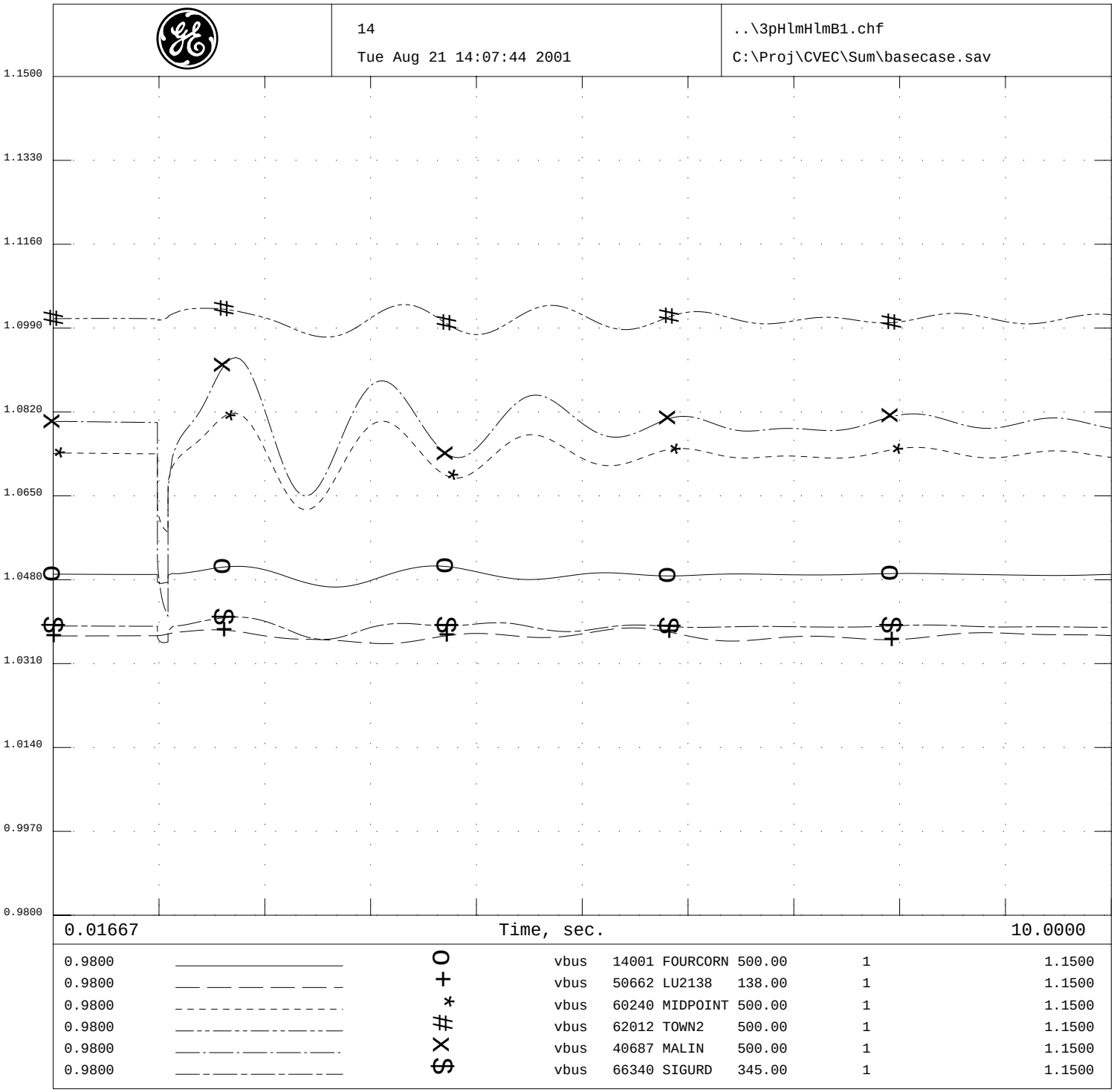

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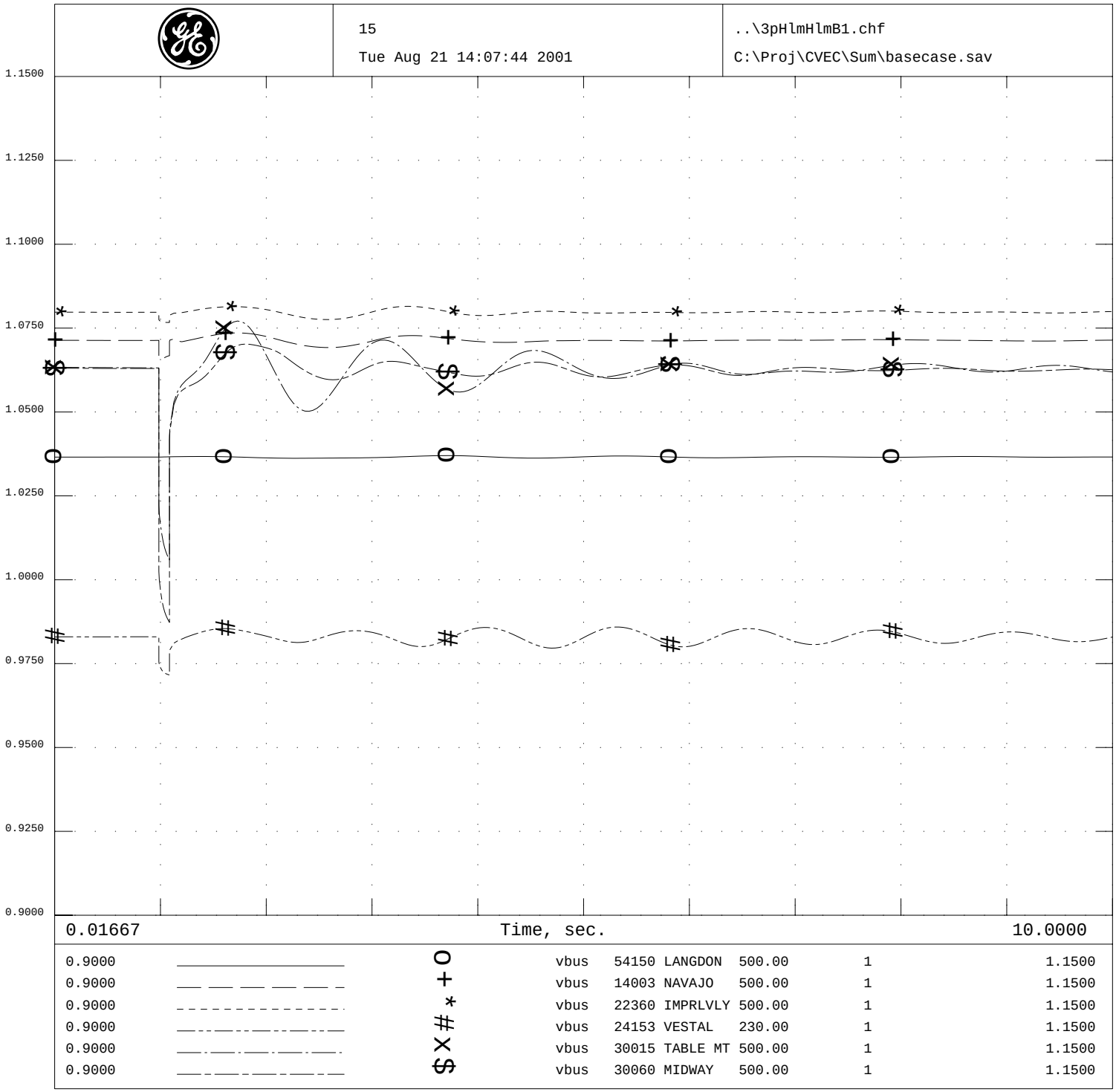

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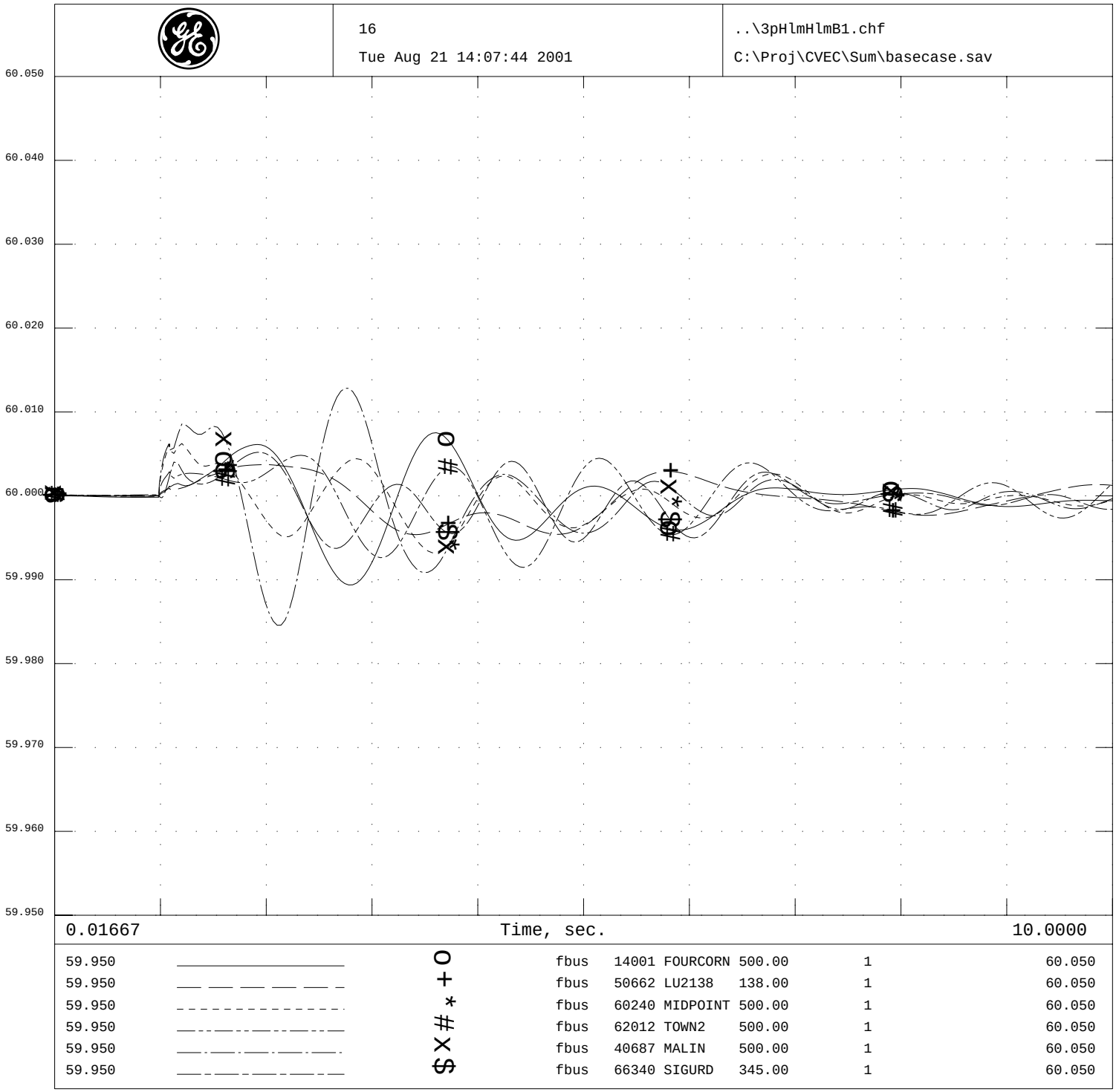

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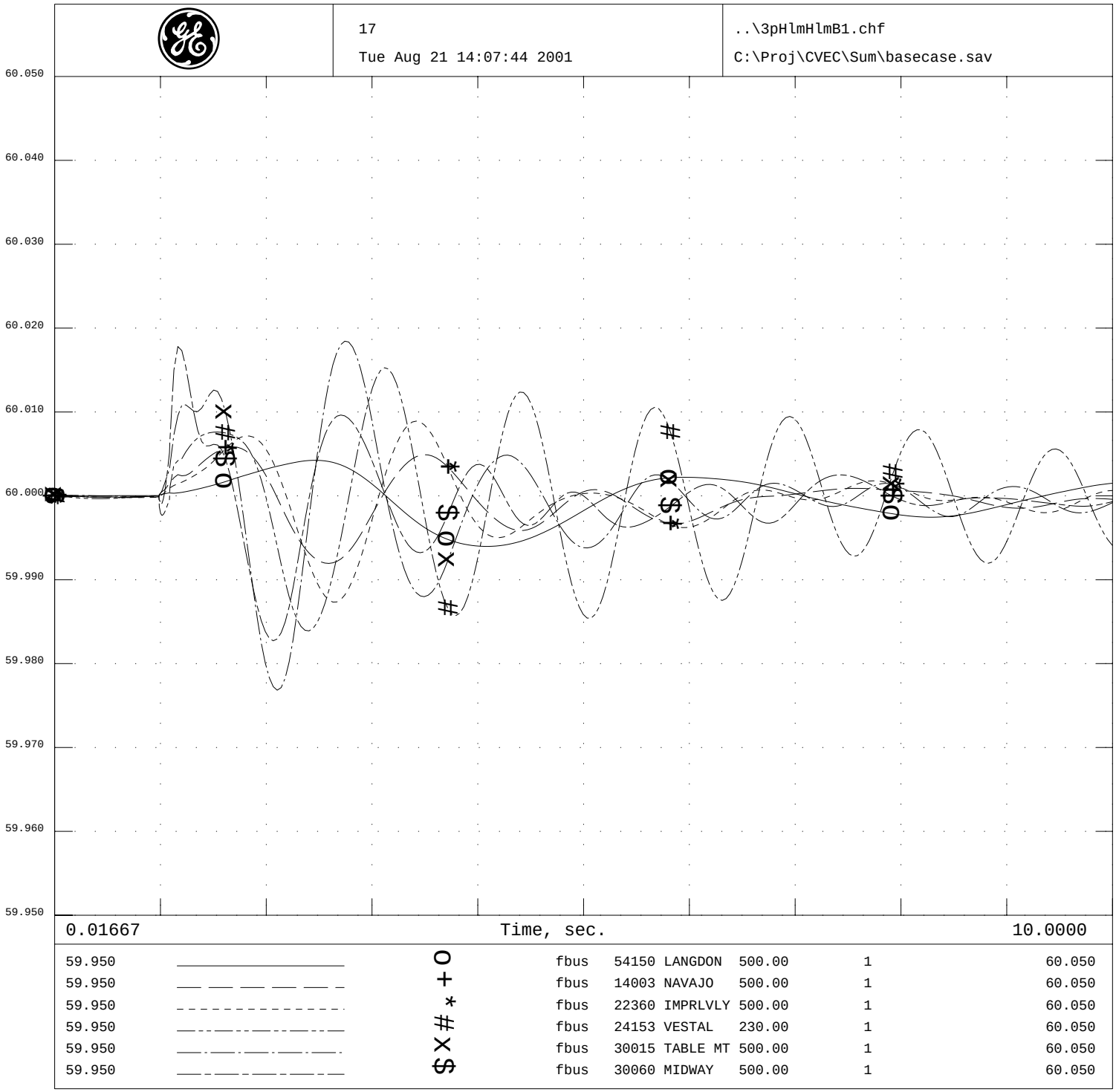

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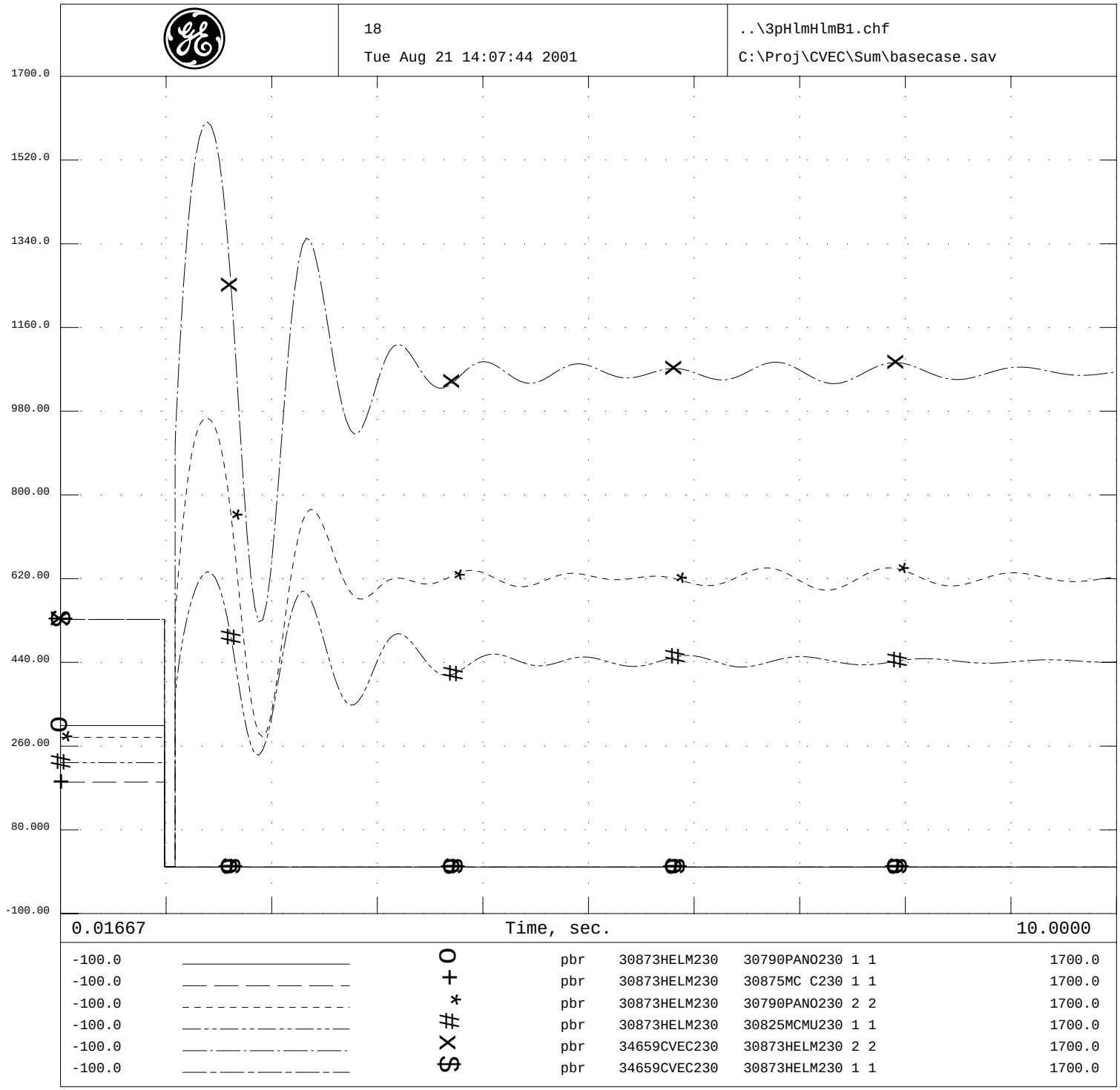

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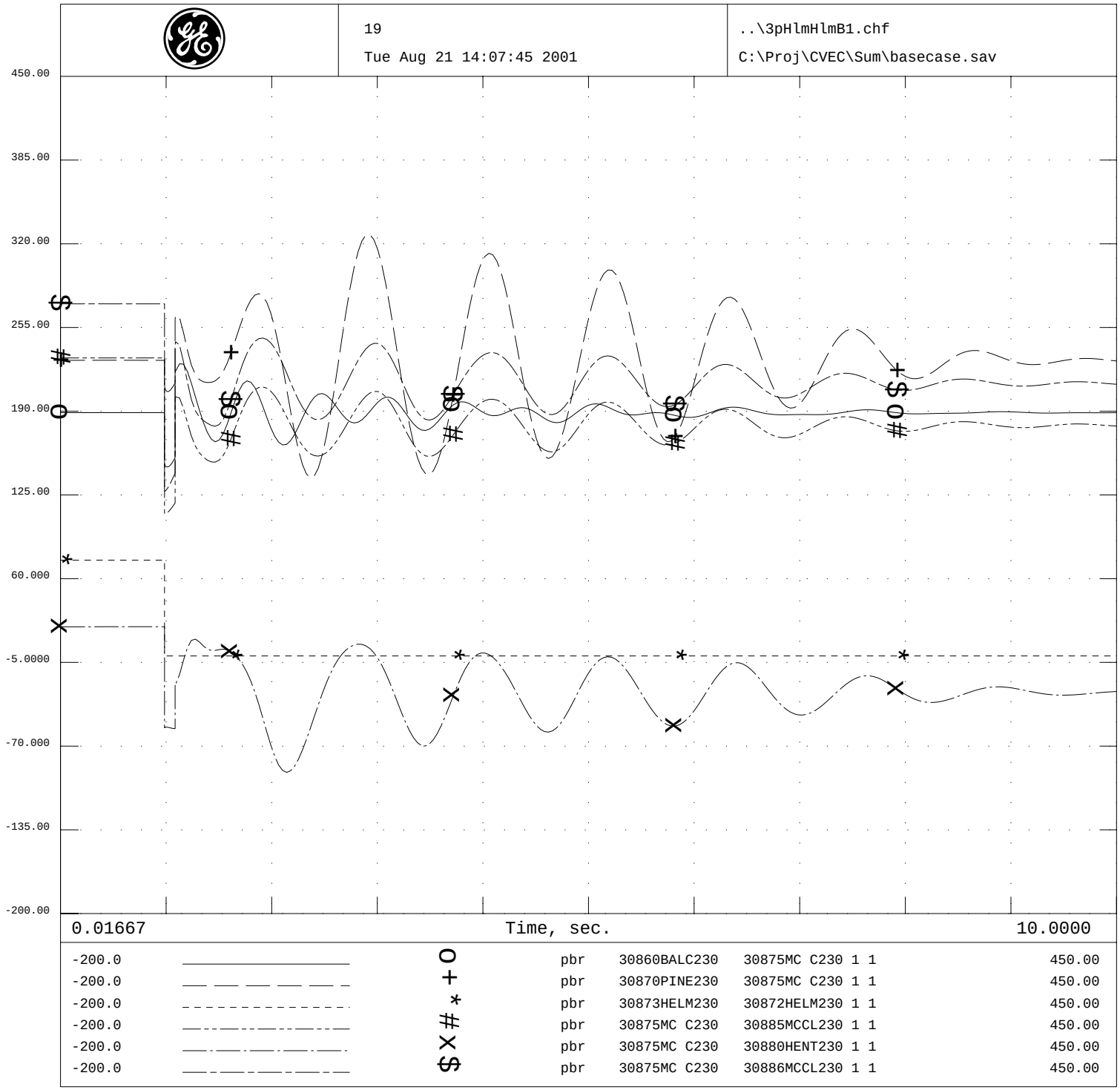

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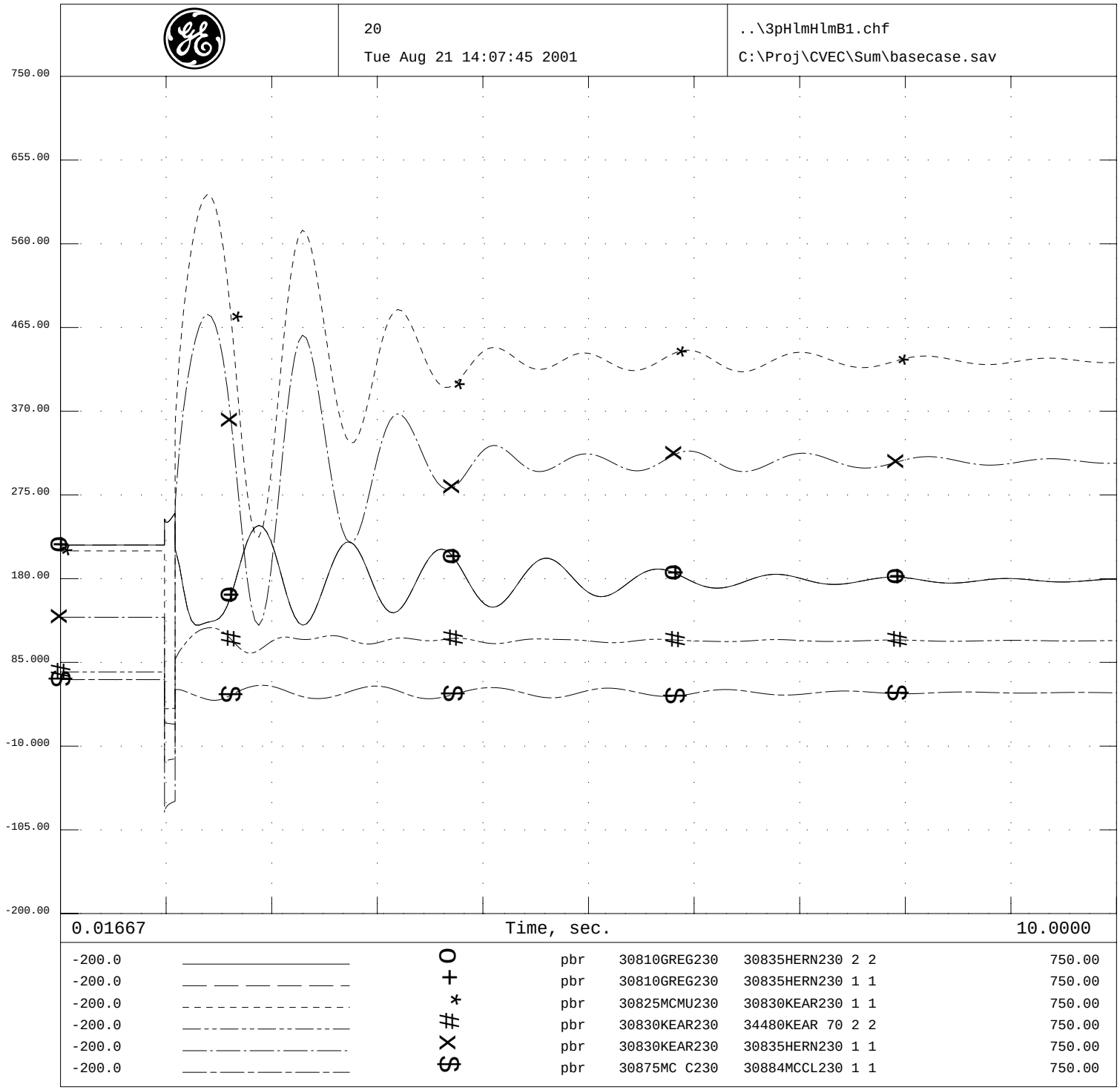

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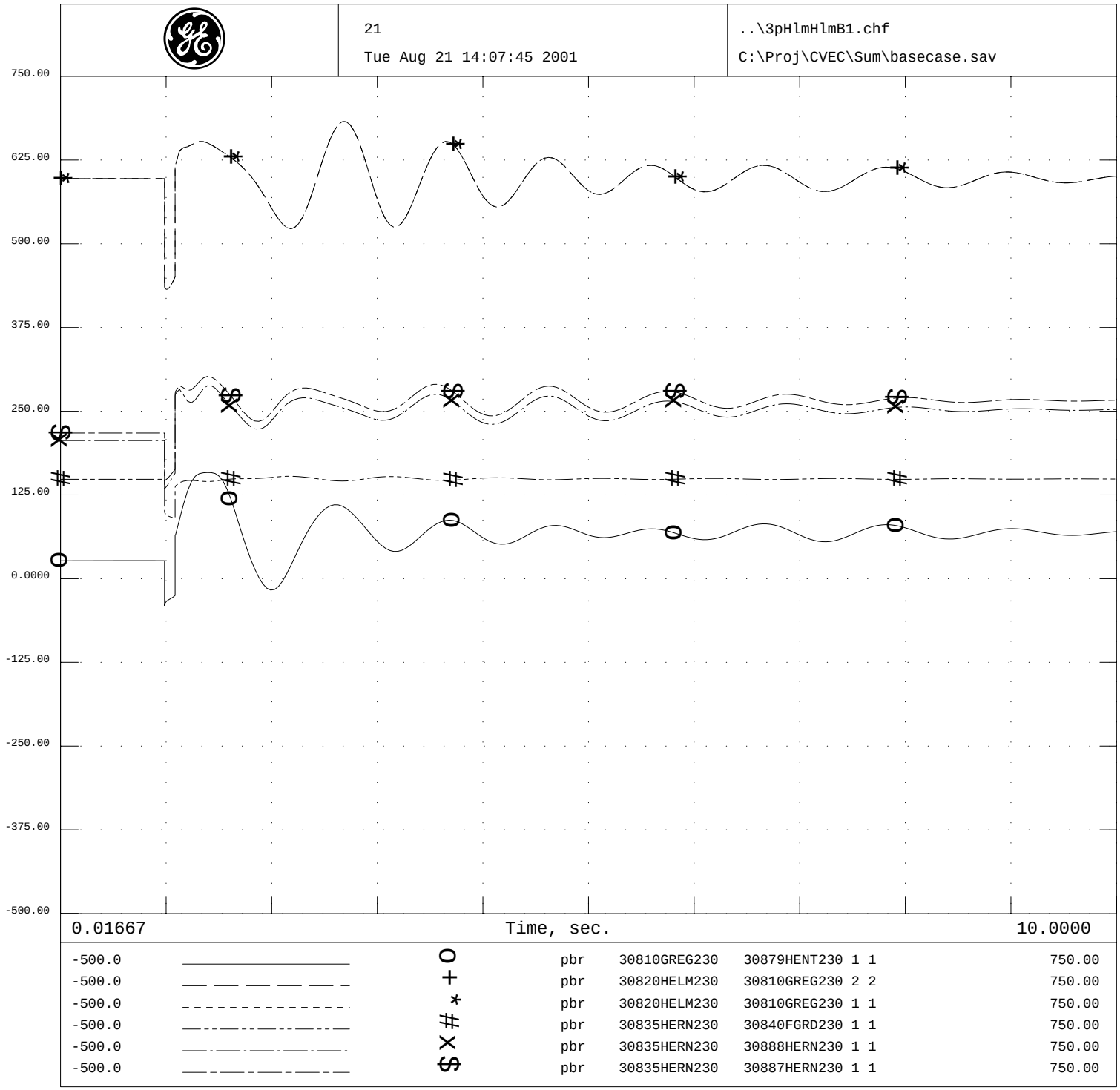

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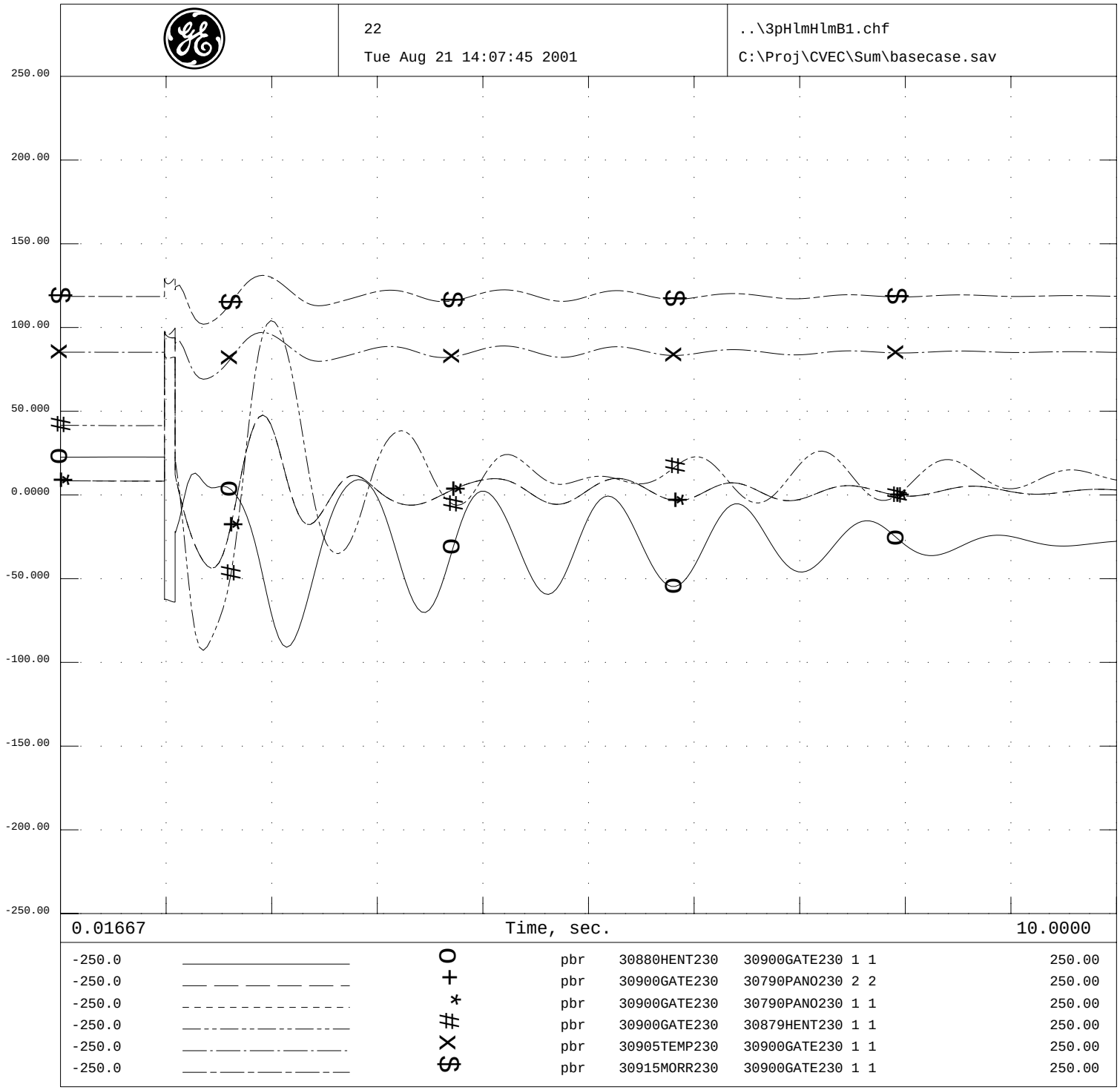

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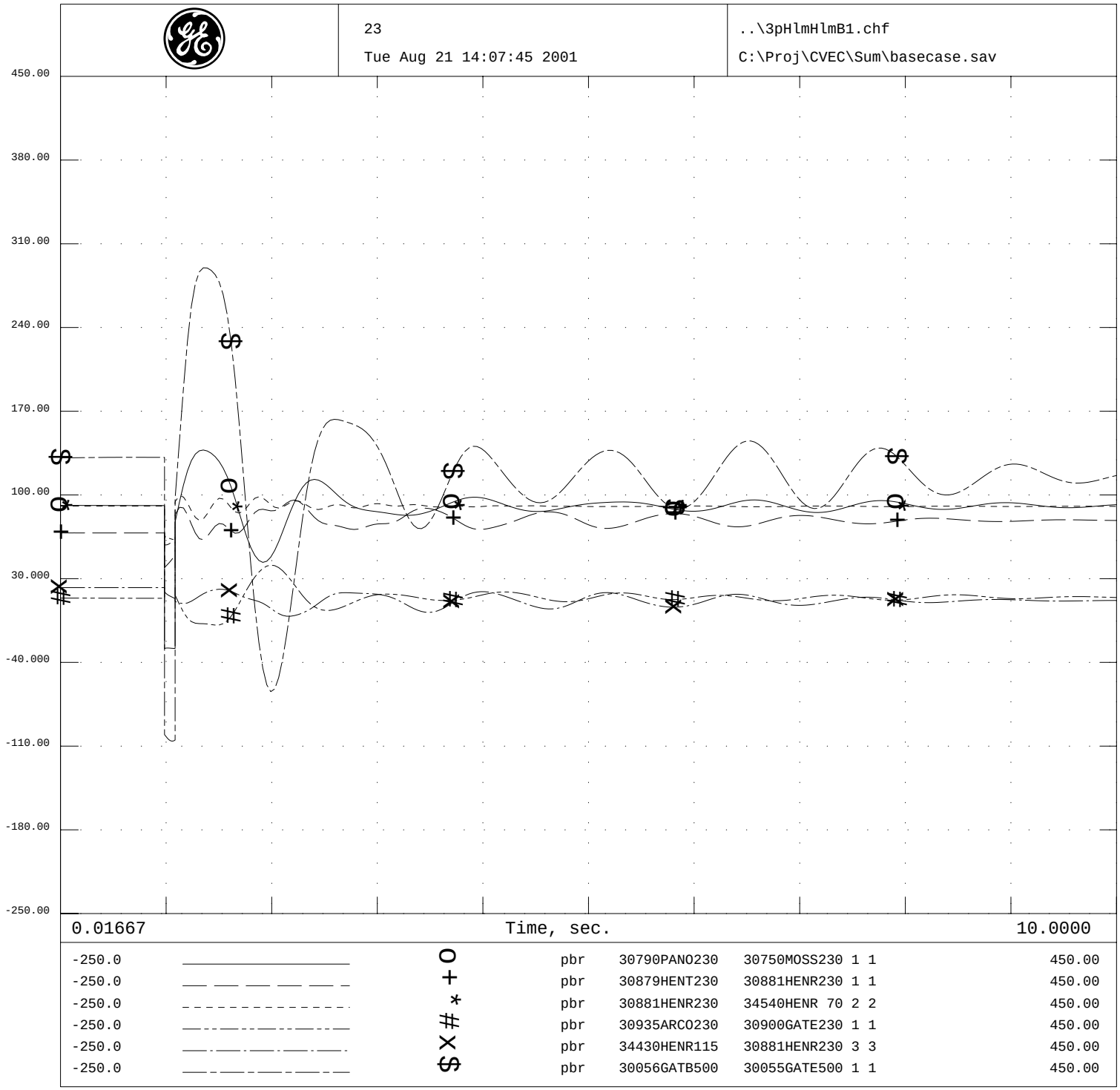

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Calpine Corporation
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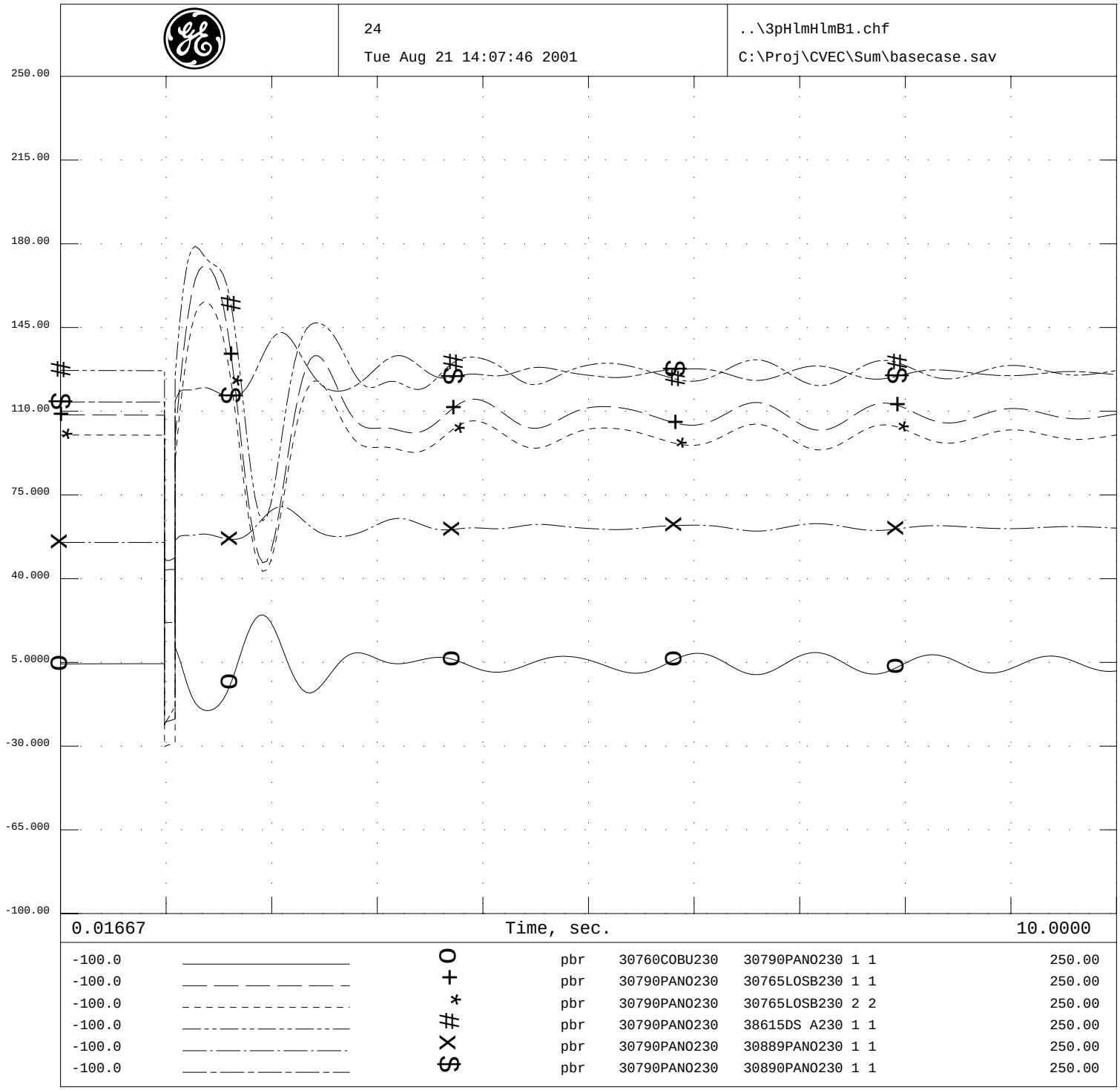
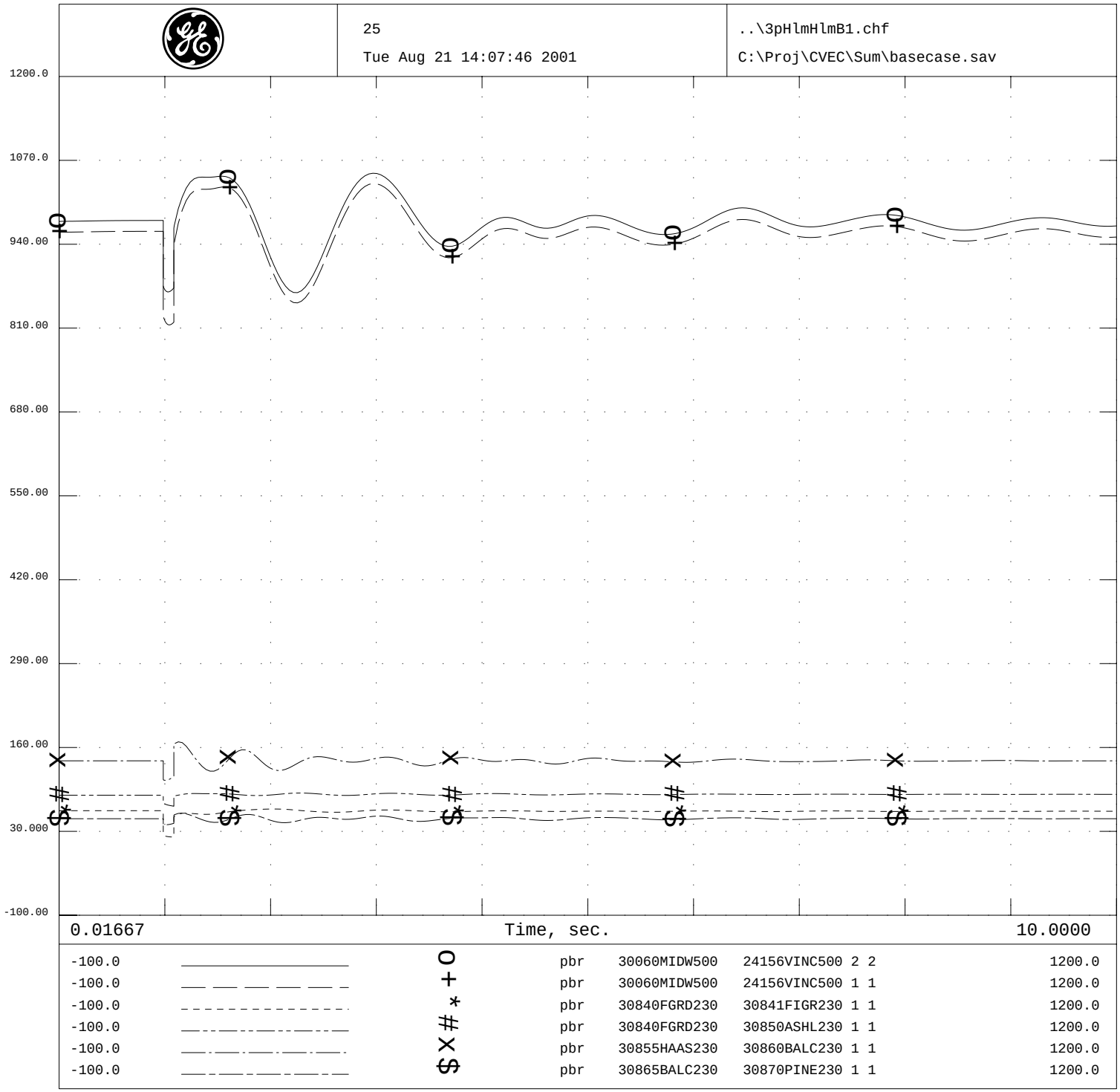


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Helm 230kV Bus #1 Outage
3 phase 6 cycle fault at Helm 230kV bus and clear bus #1

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
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Central Valley Energy Center
Calpine Corporation
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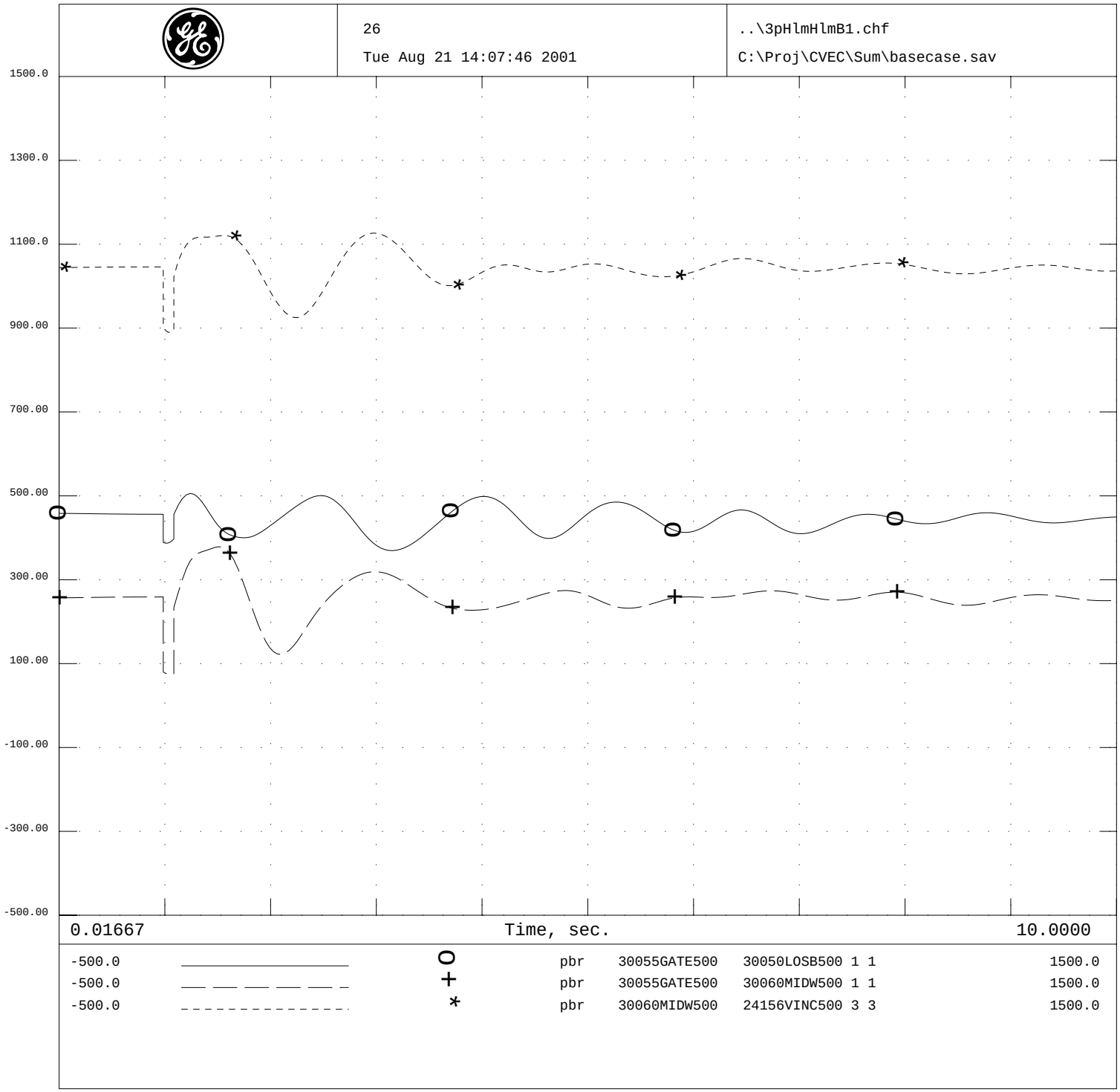

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2004 Summer Peak Base Case
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Calpine Corporation
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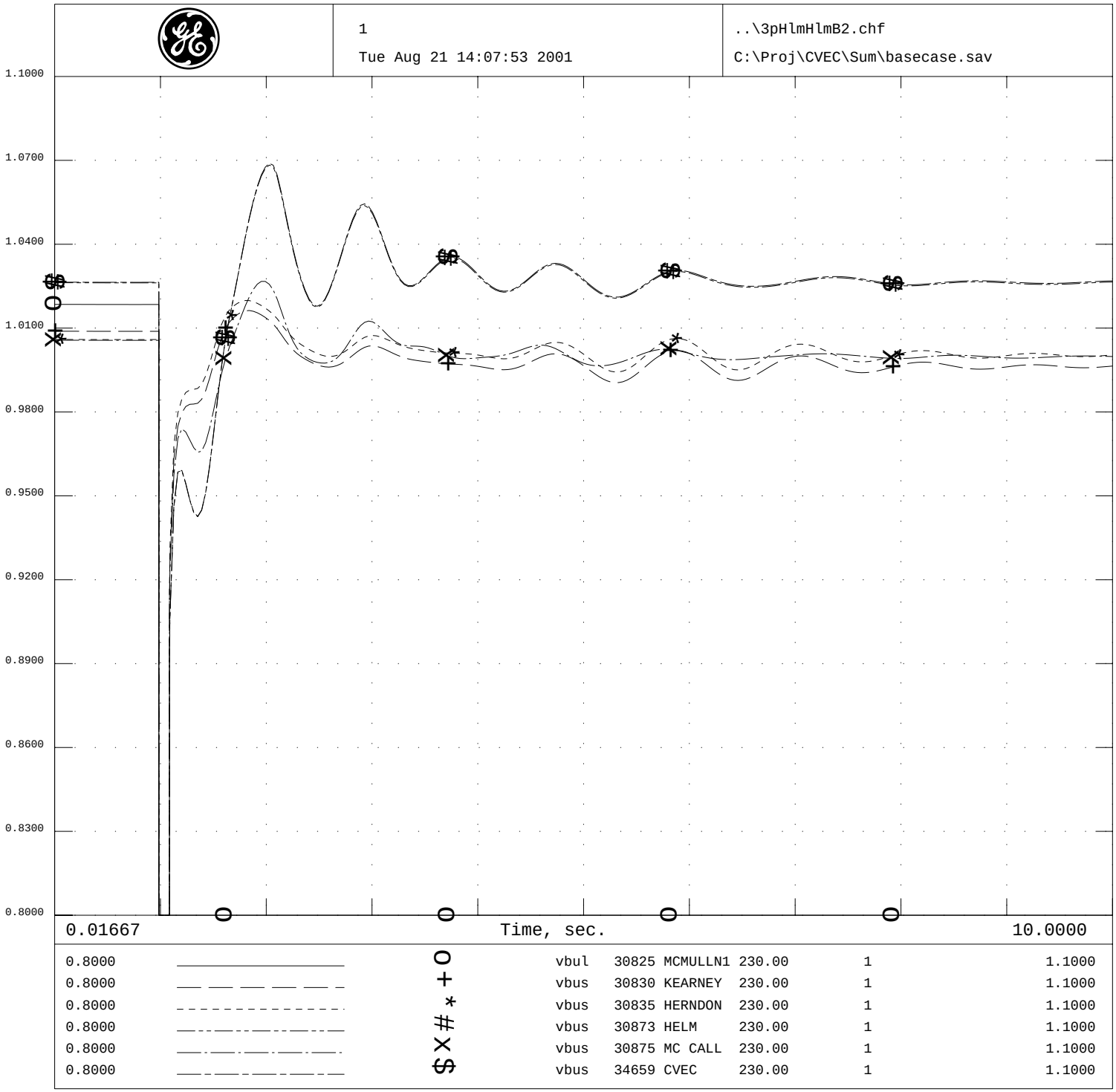
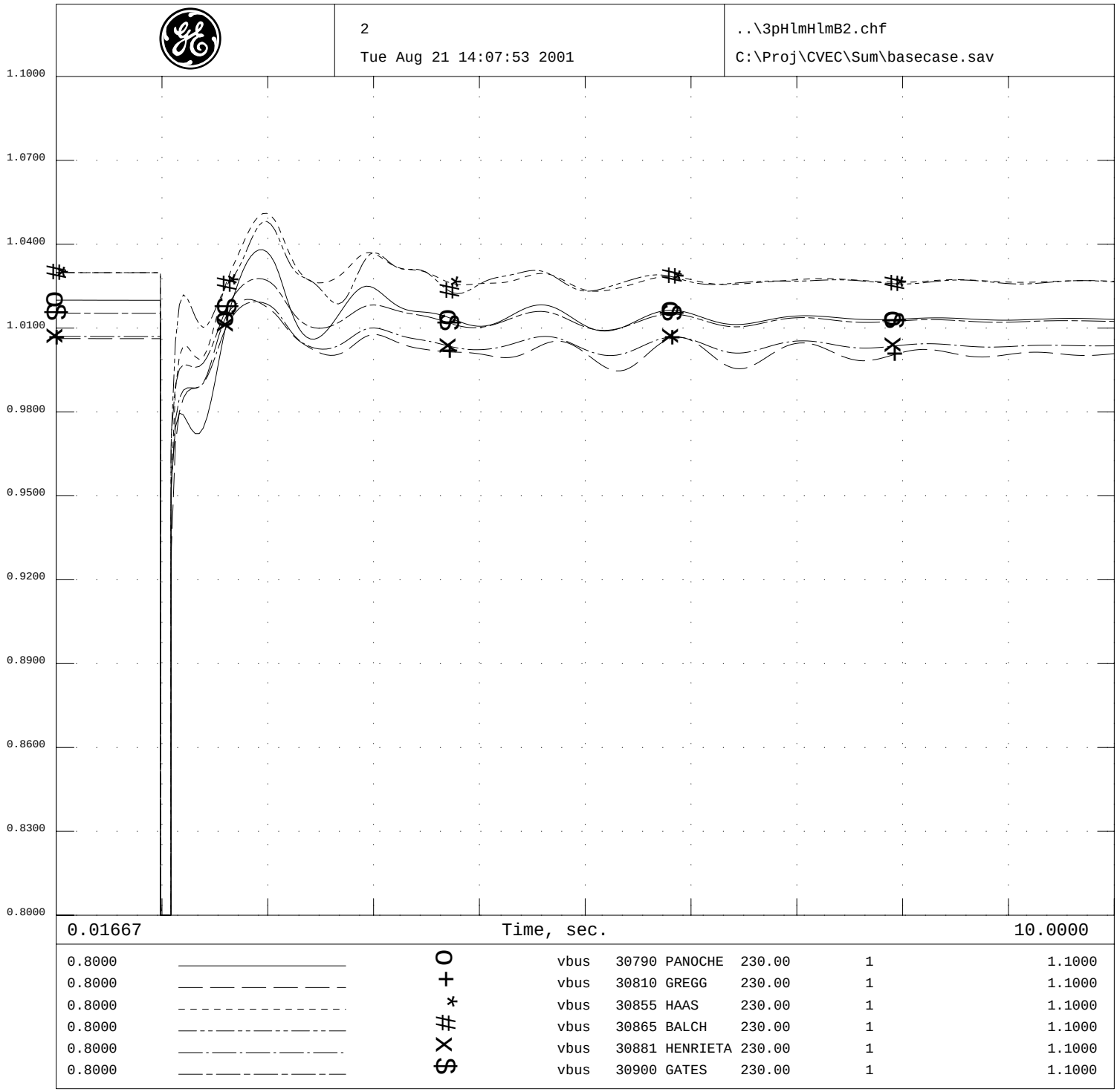


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Helm 230kV Bus #2 Outage
3 phase 6 cycle fault at Helm 230kV bus and clear bus #2

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



Calpine Corporation - Central Valley Energy Center System Impact Study
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Central Valley Energy Center
Calpine Corporation
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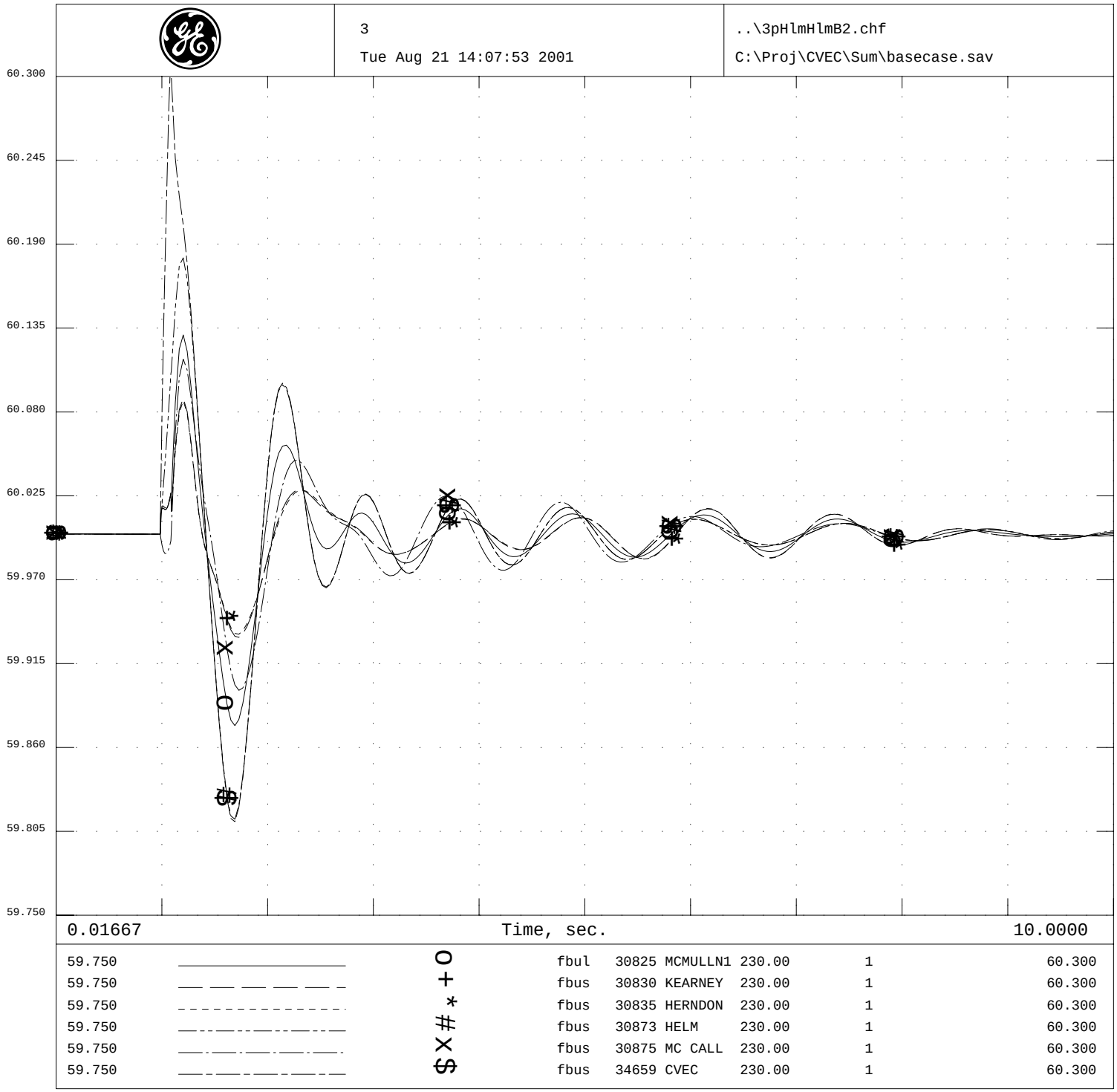

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2004 Summer Peak Base Case
CVEC @ 1100MW
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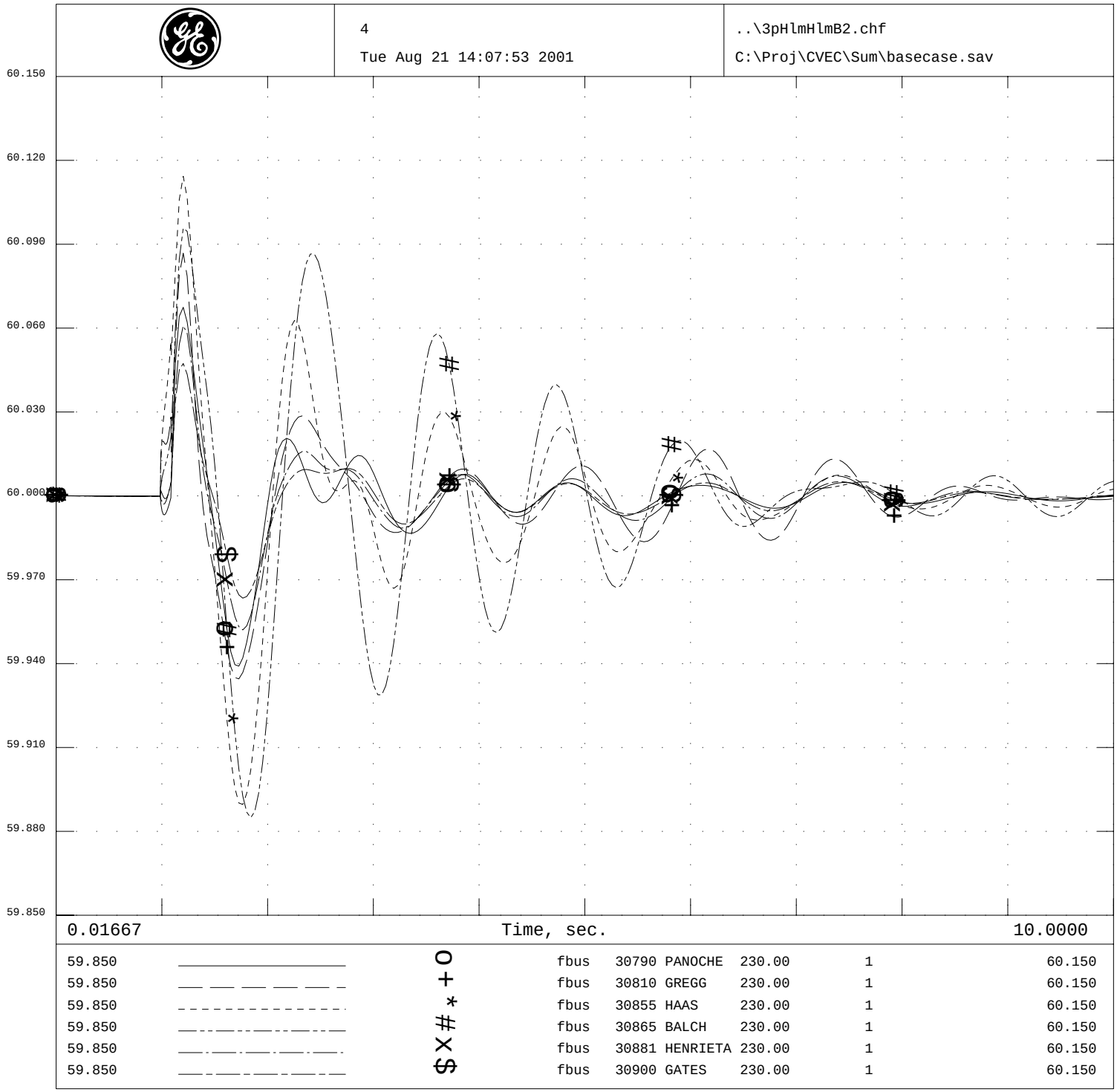
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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Calpine Corporation
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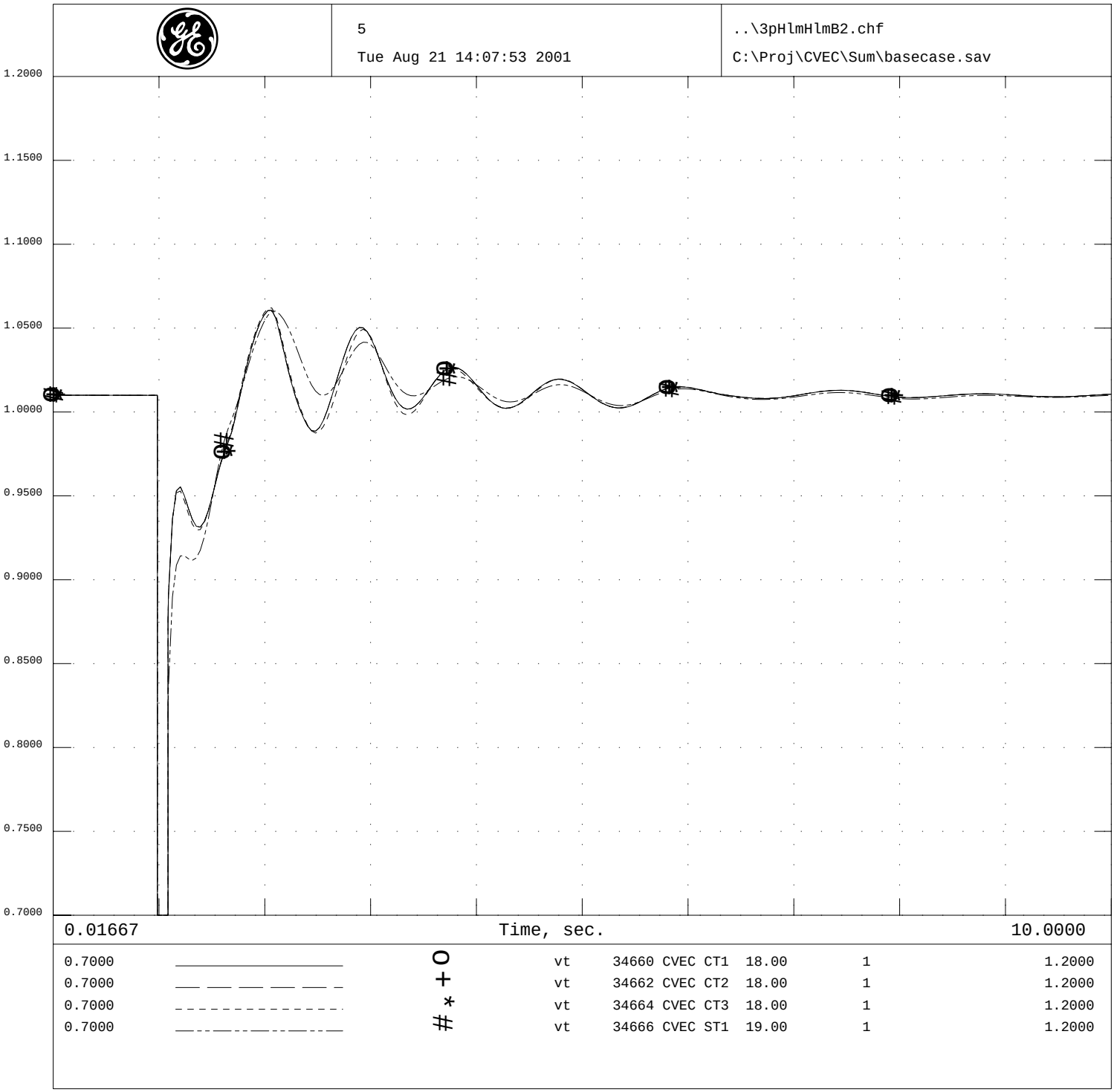

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2004 Summer Peak Base Case
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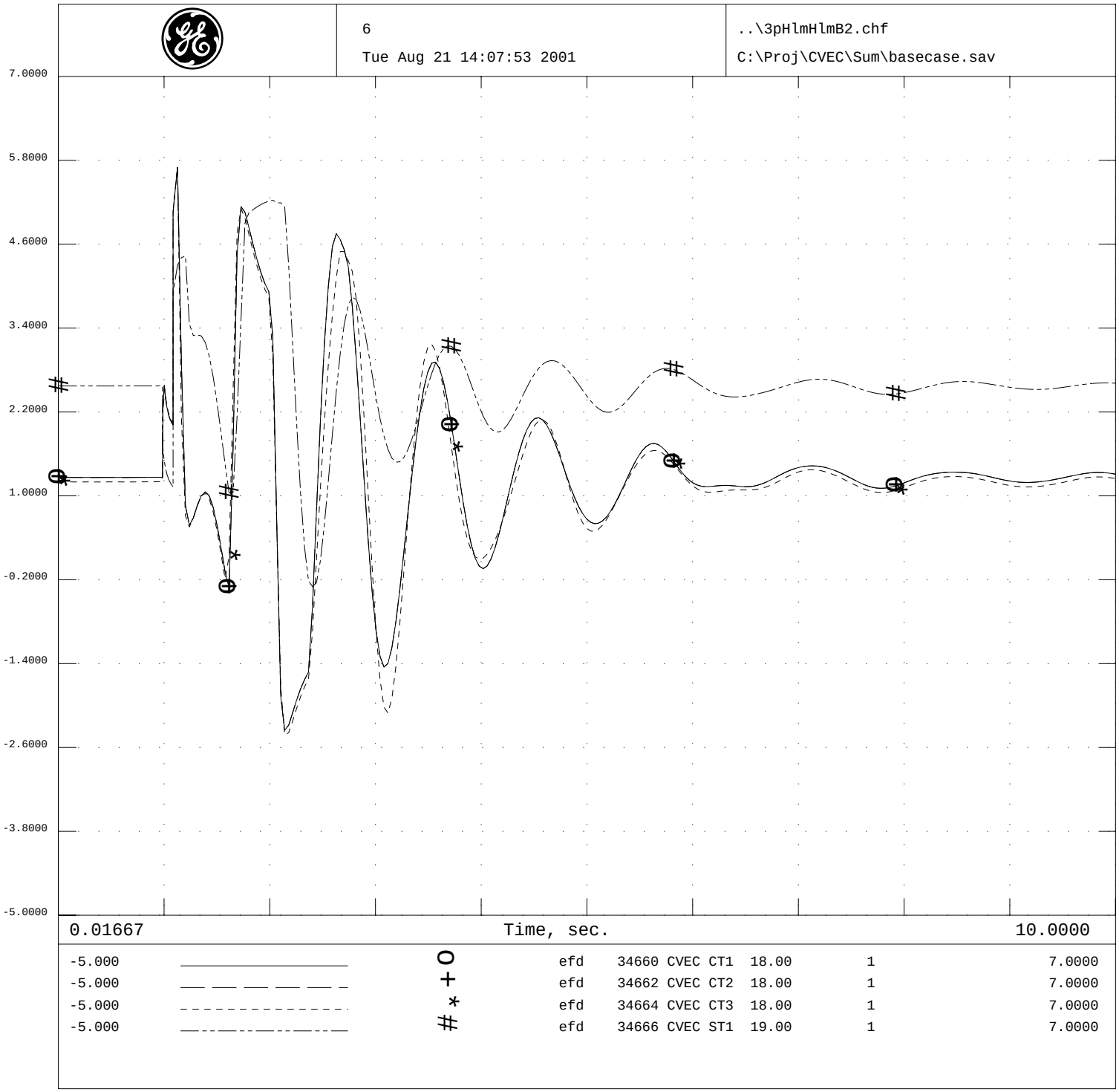
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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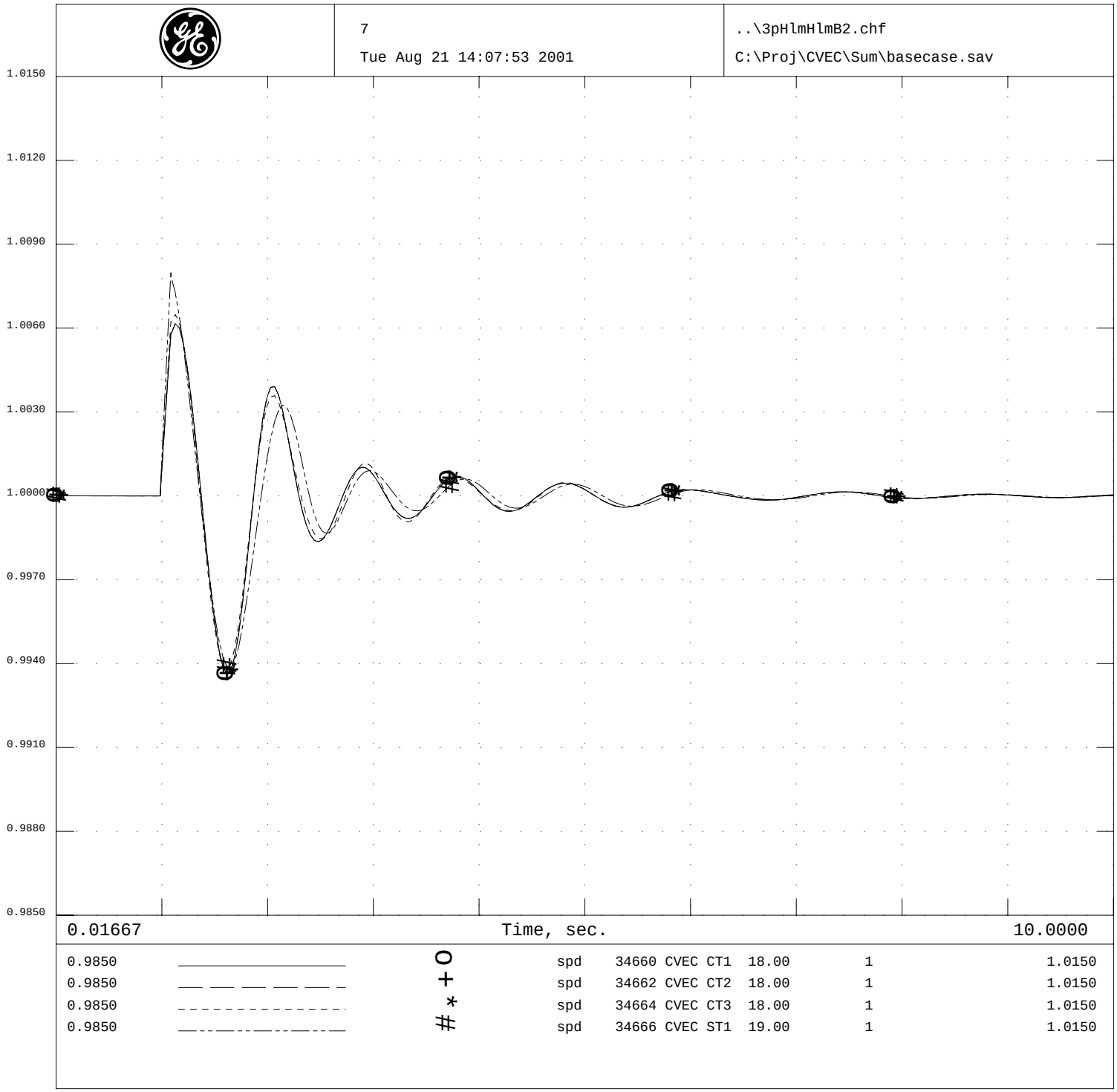
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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CVEC @ 1100MW
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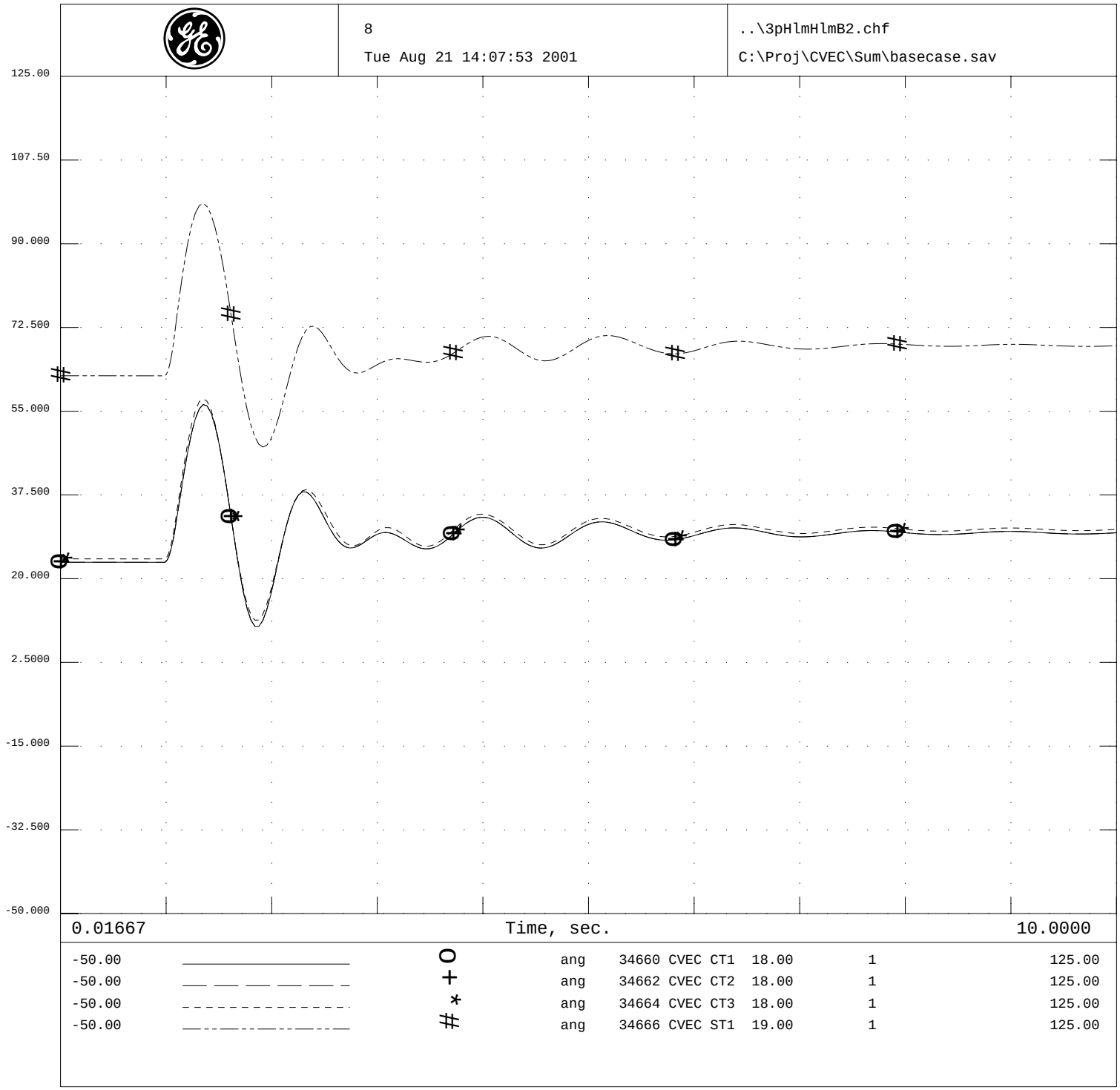
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Summer Peak Base Case
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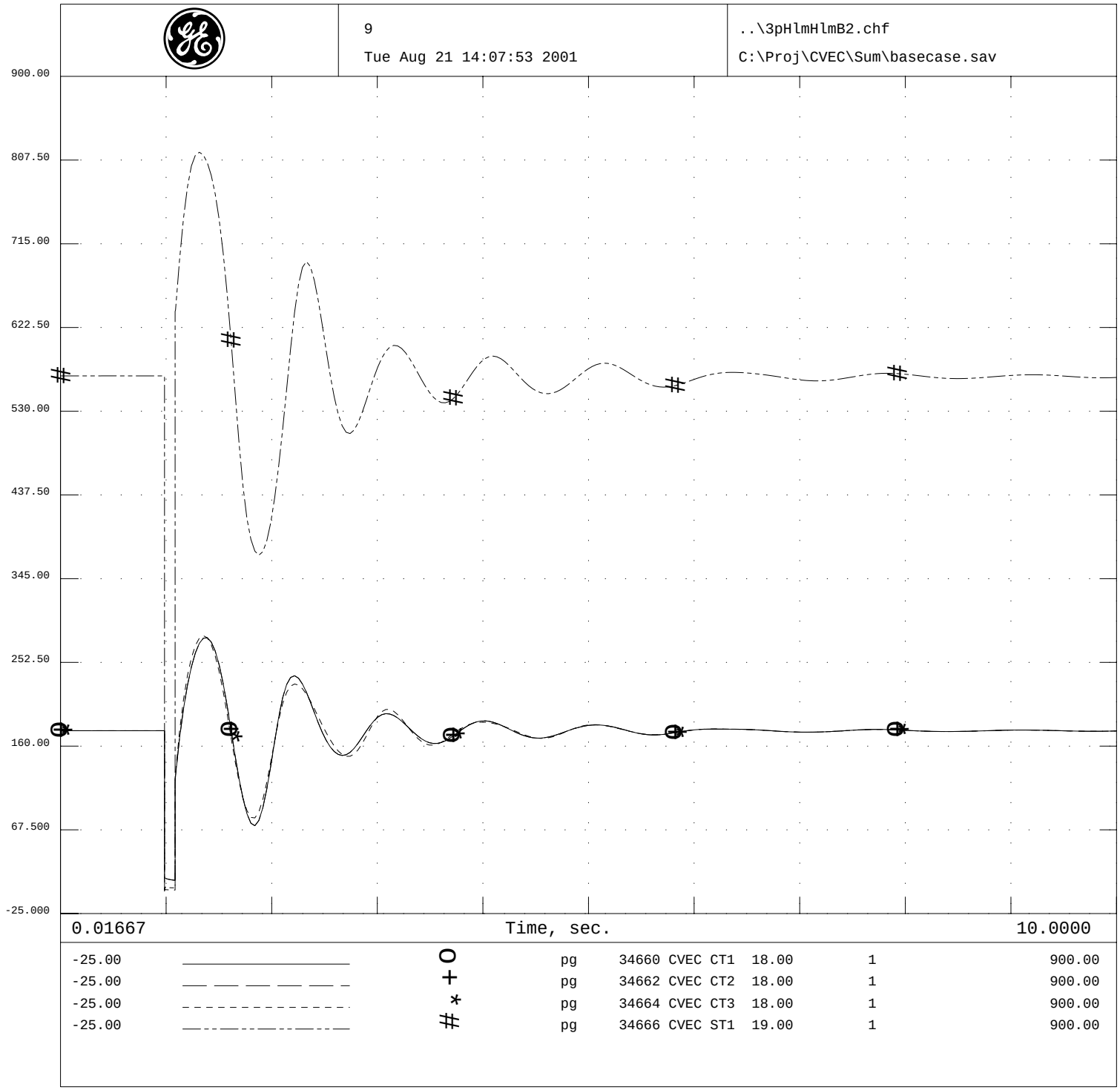
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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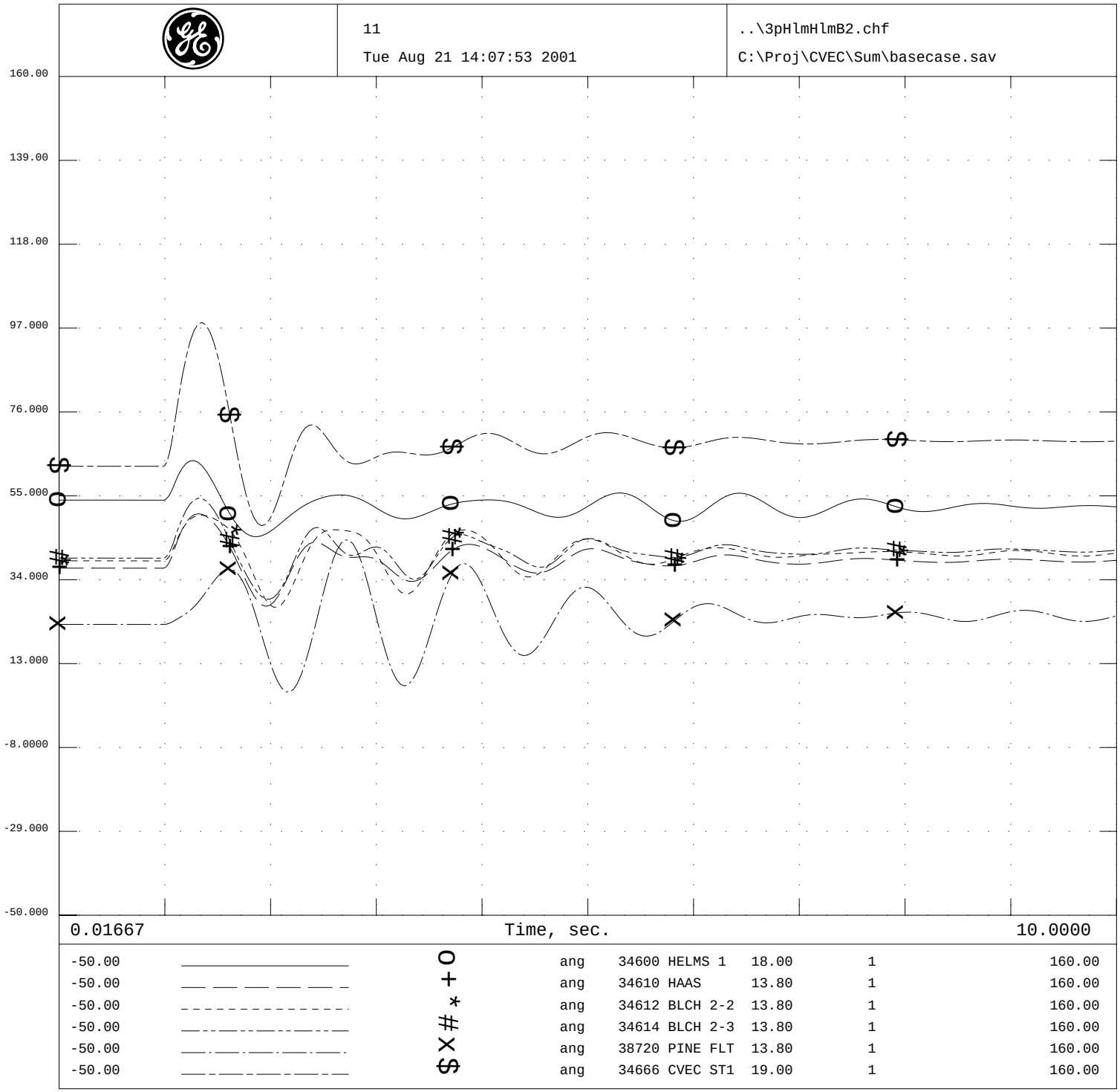
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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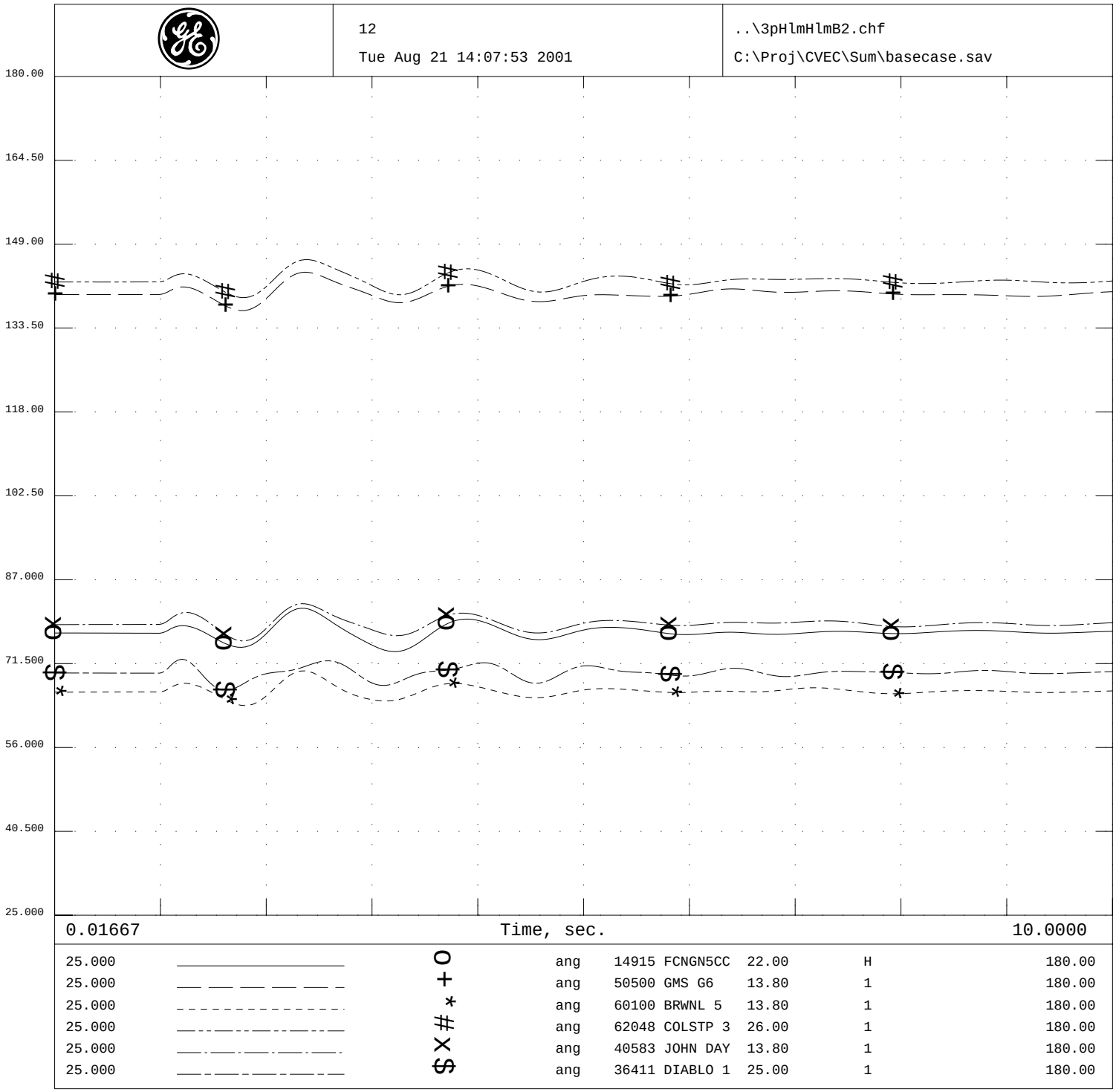
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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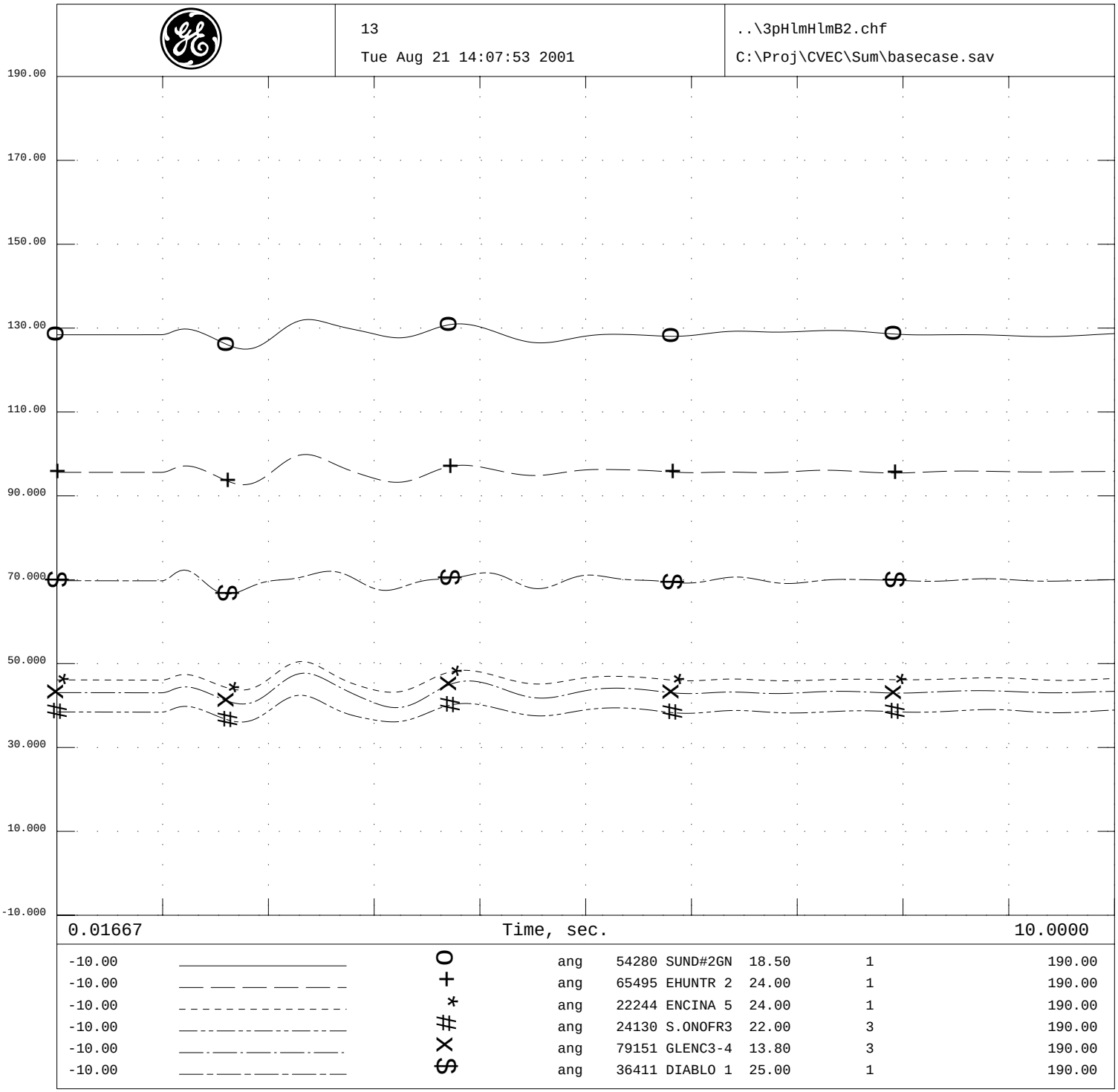
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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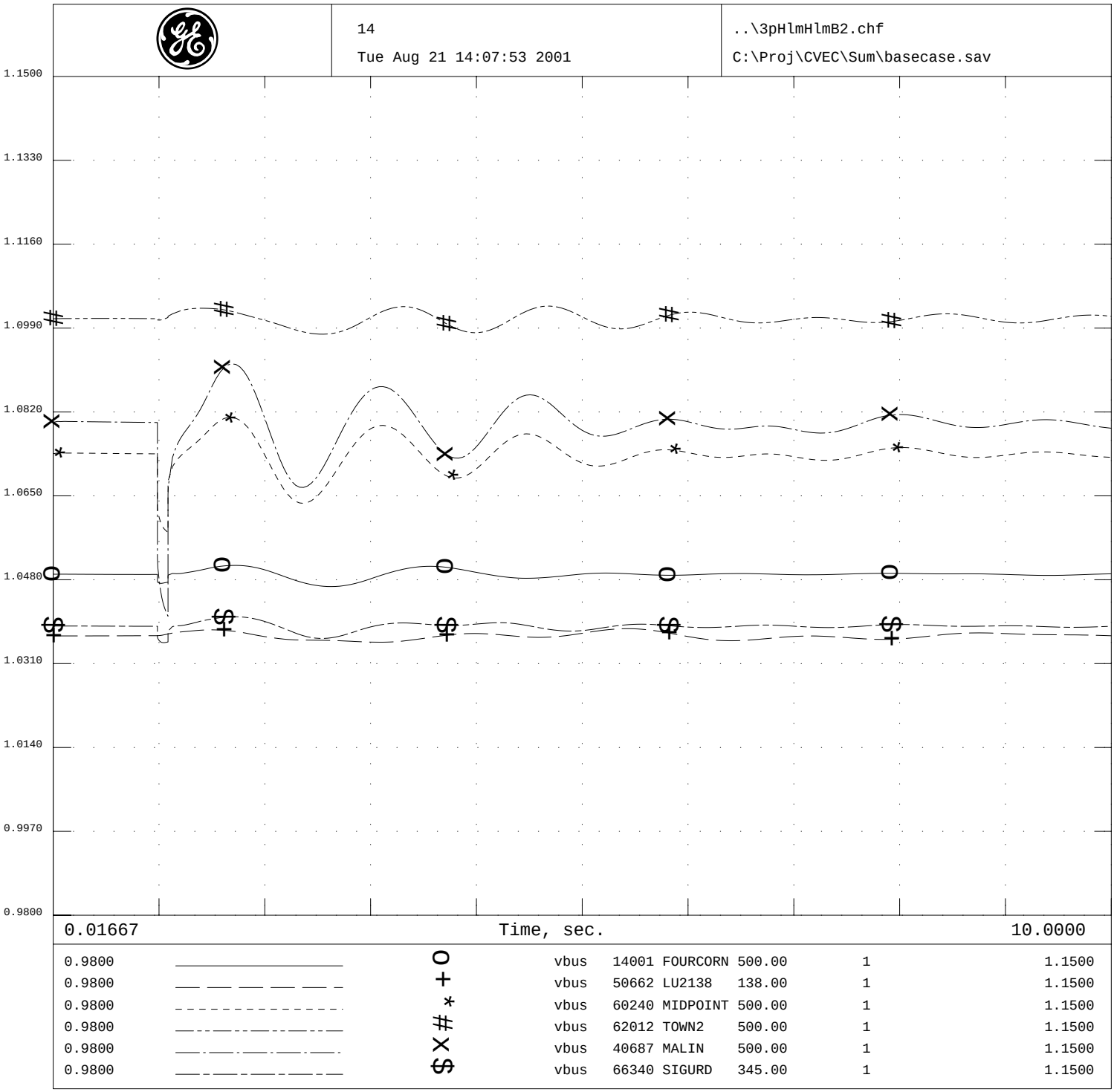
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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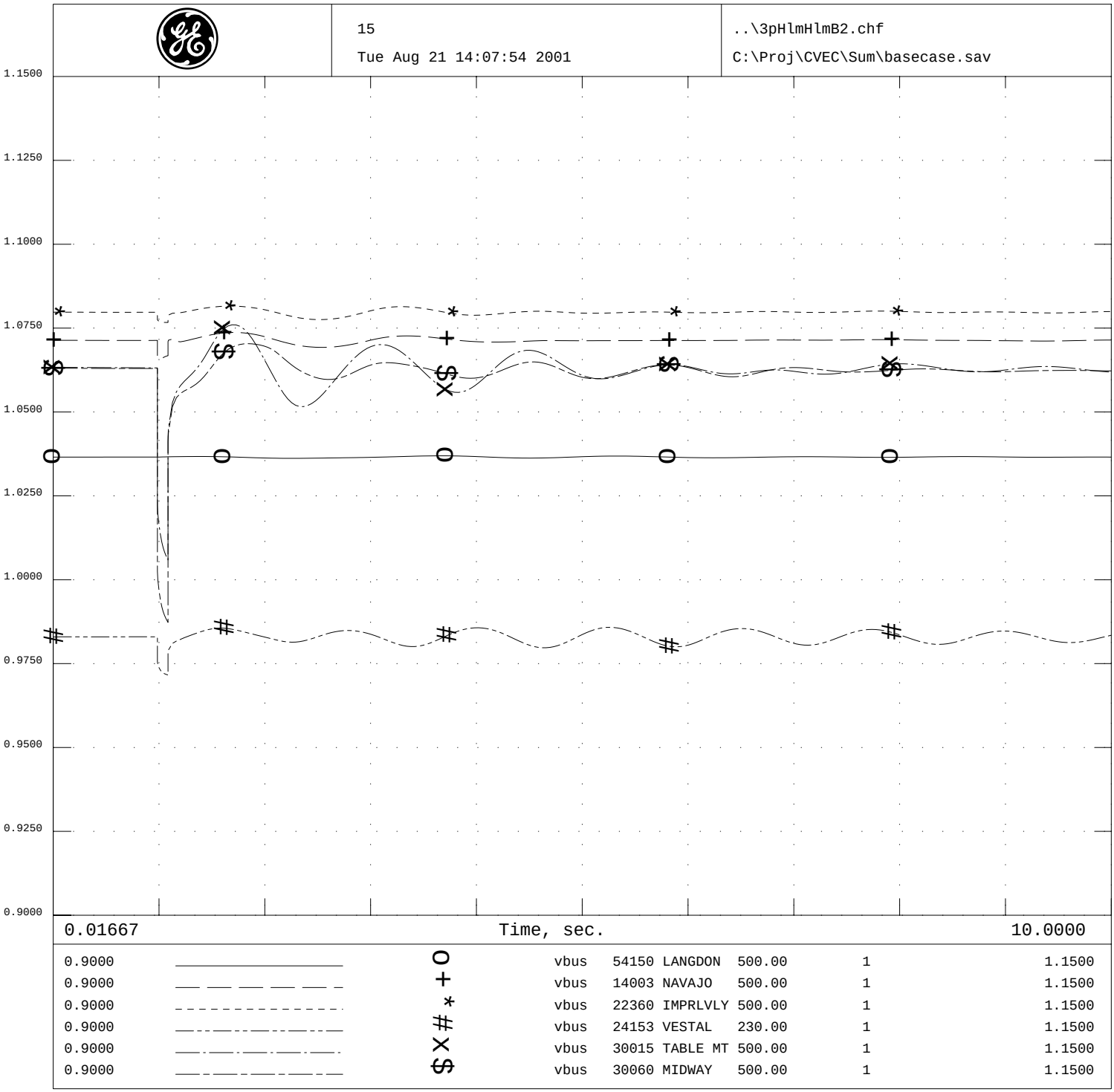
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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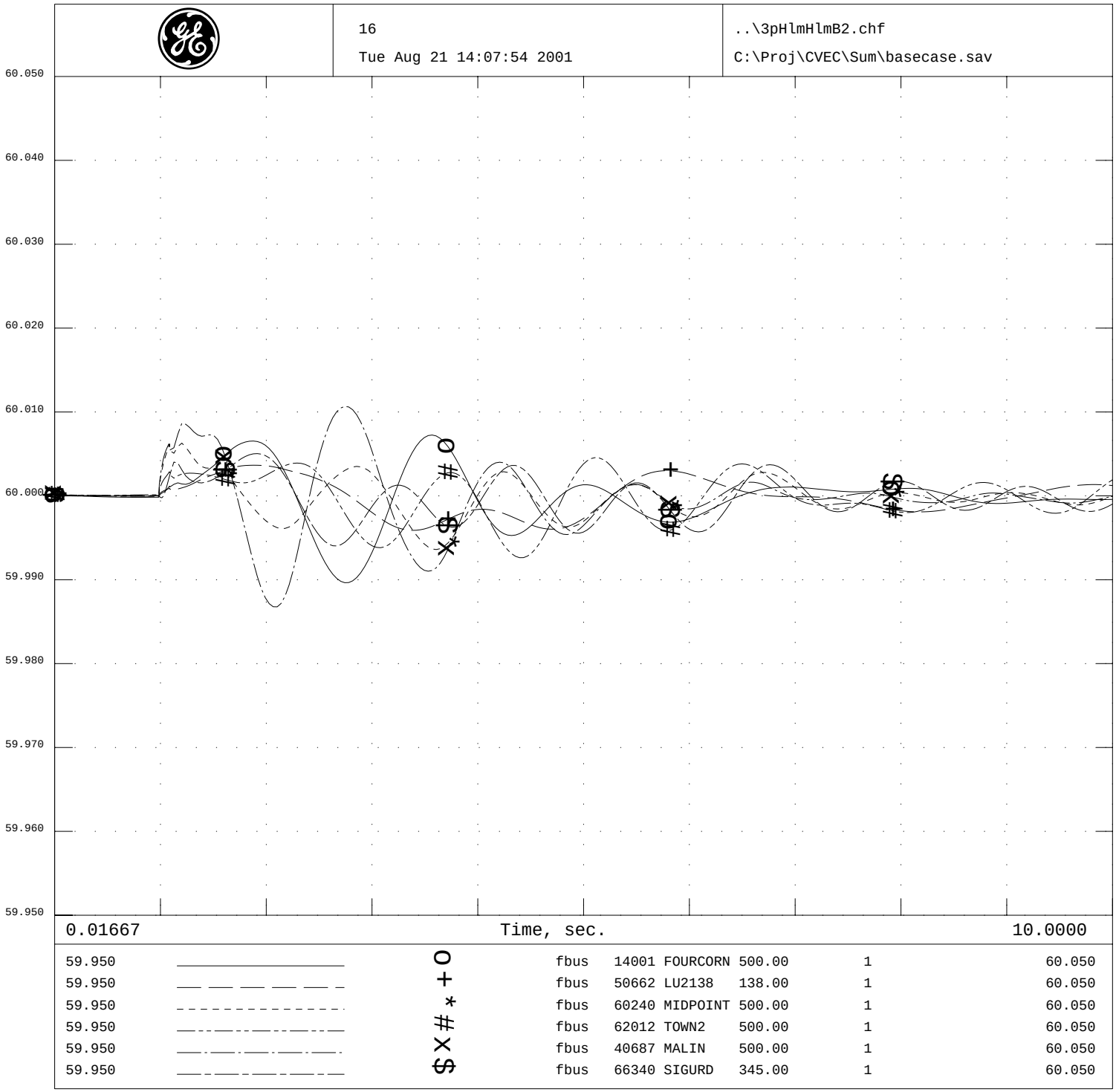

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Central Valley Energy Center
Calpine Corporation
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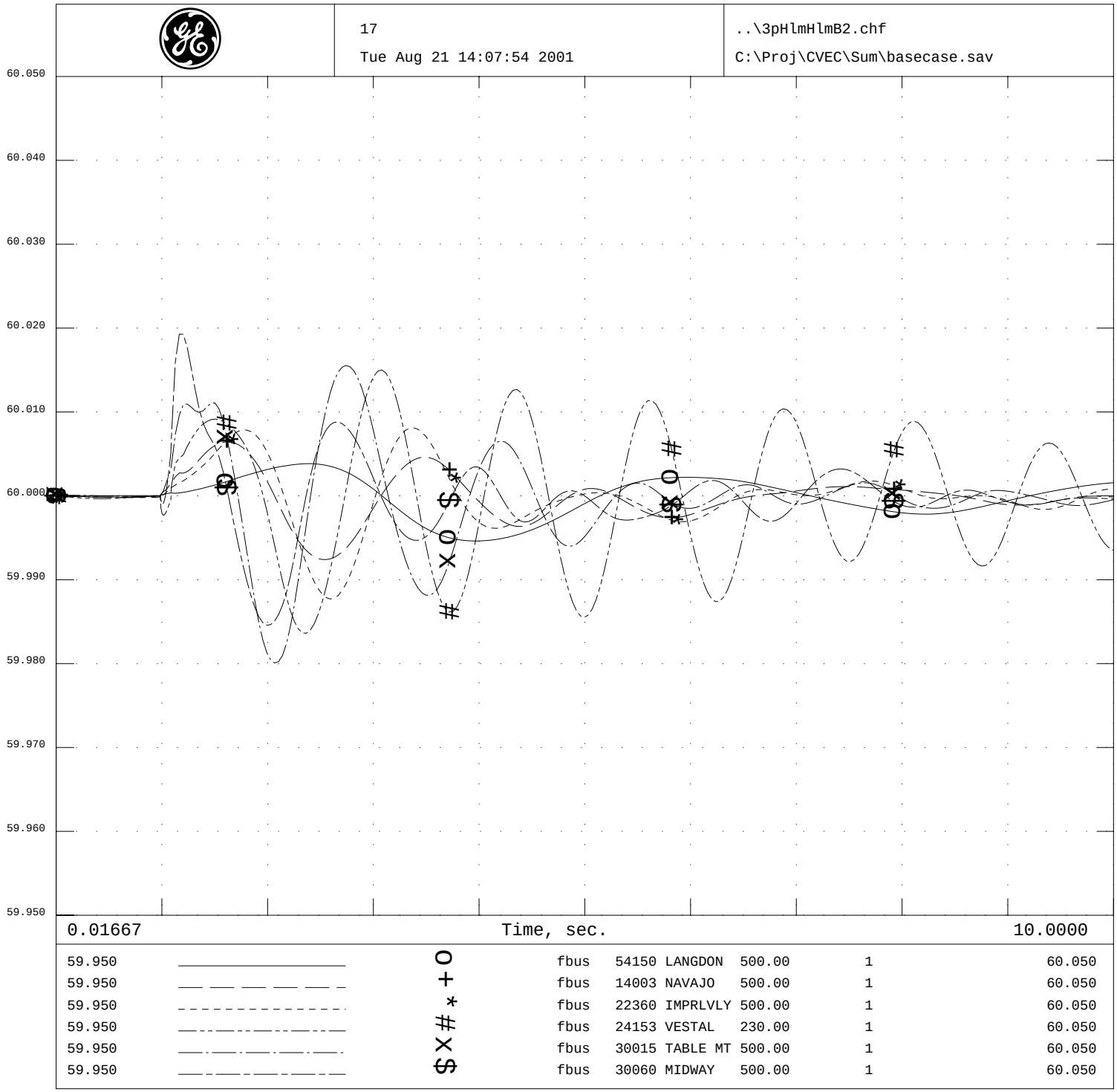

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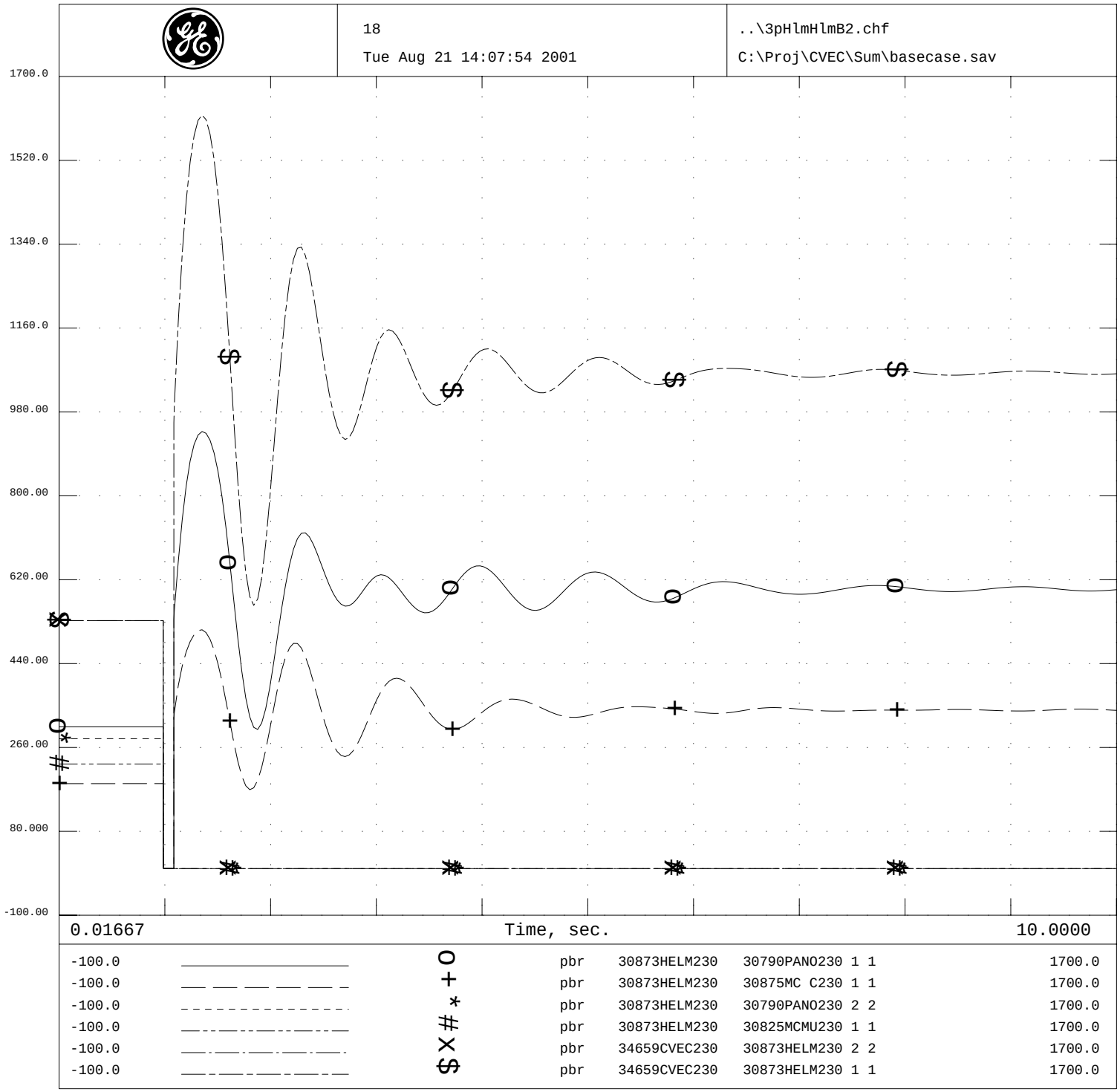

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Central Valley Energy Center
Calpine Corporation
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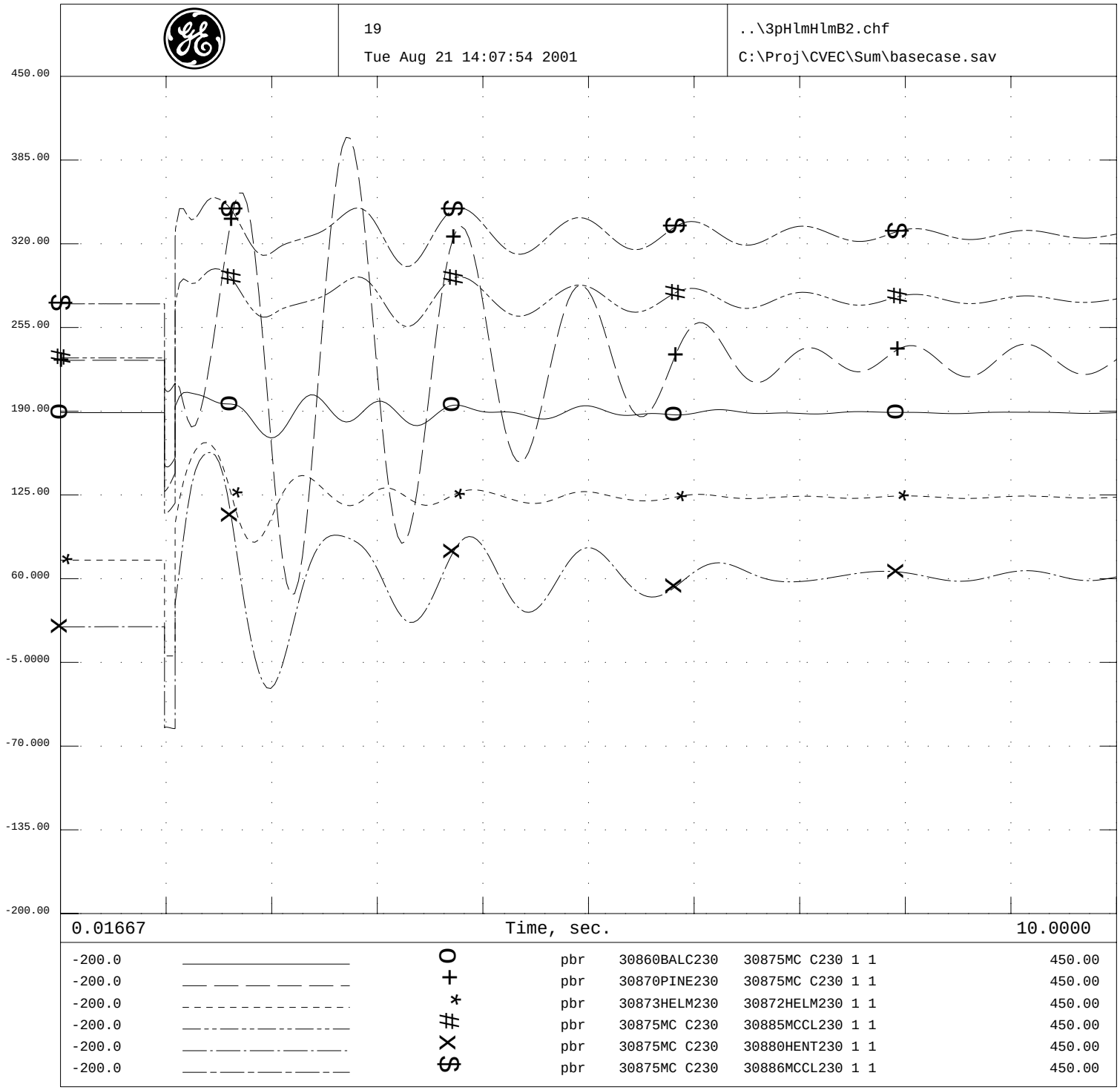

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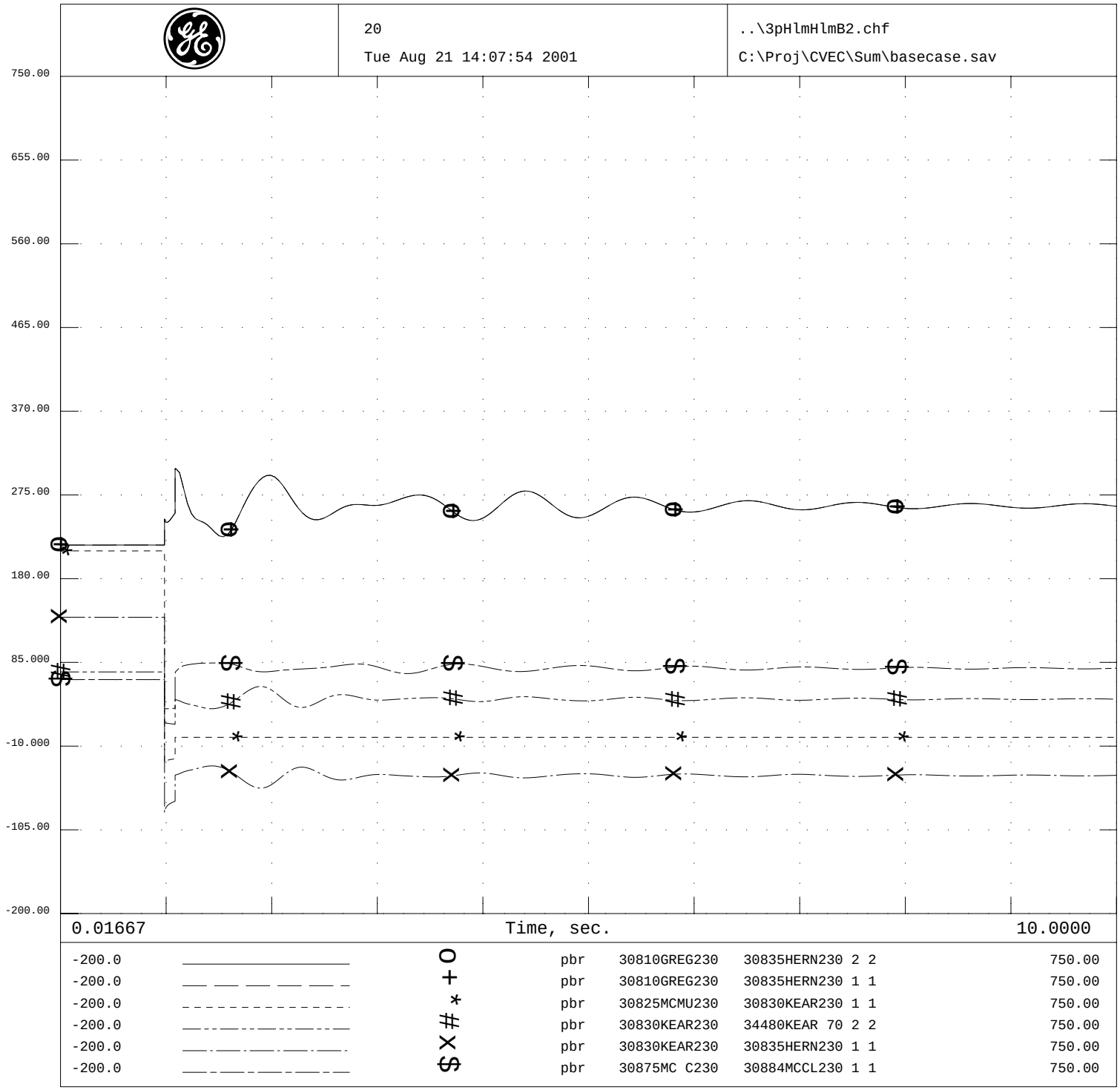

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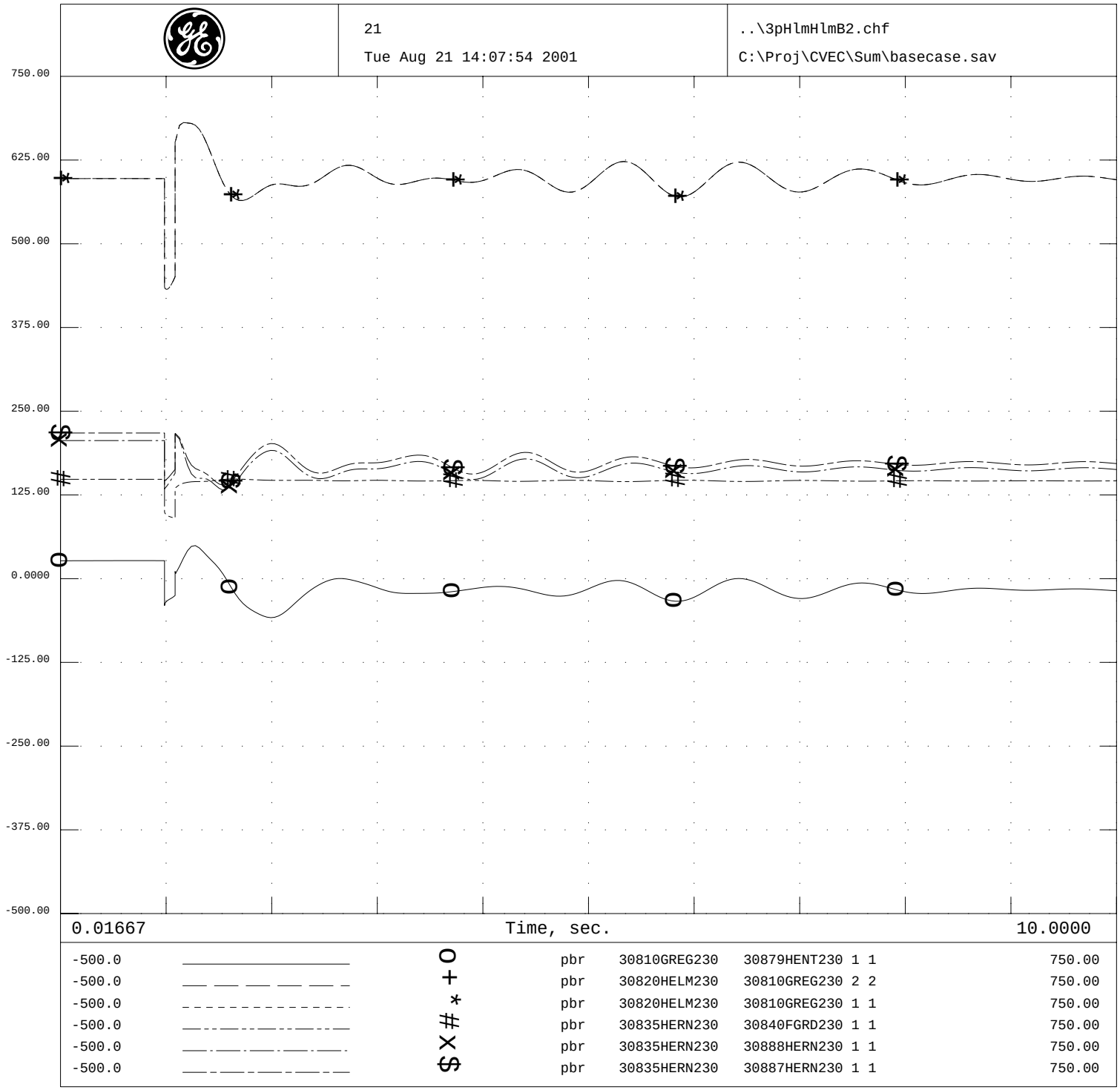

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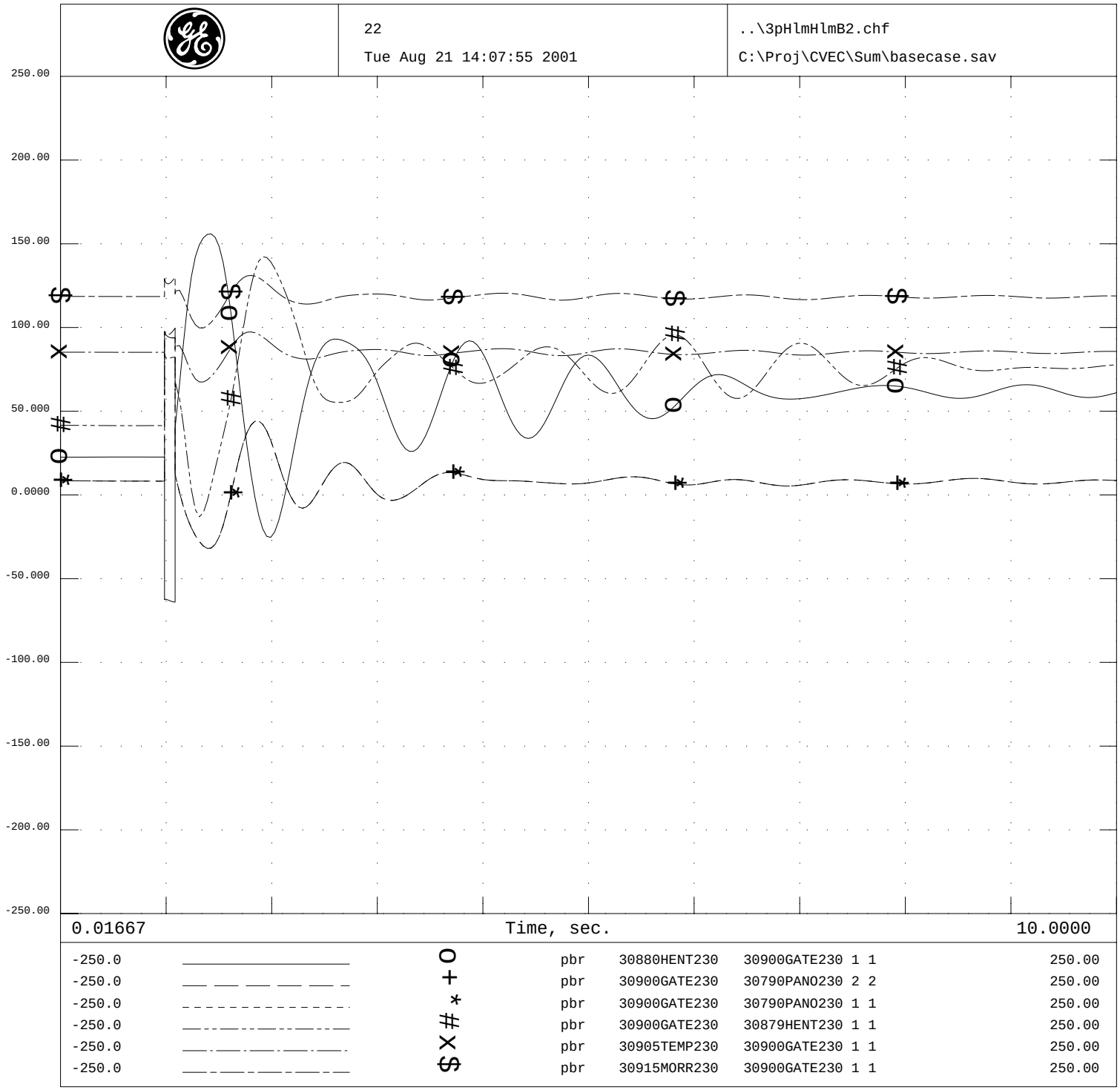

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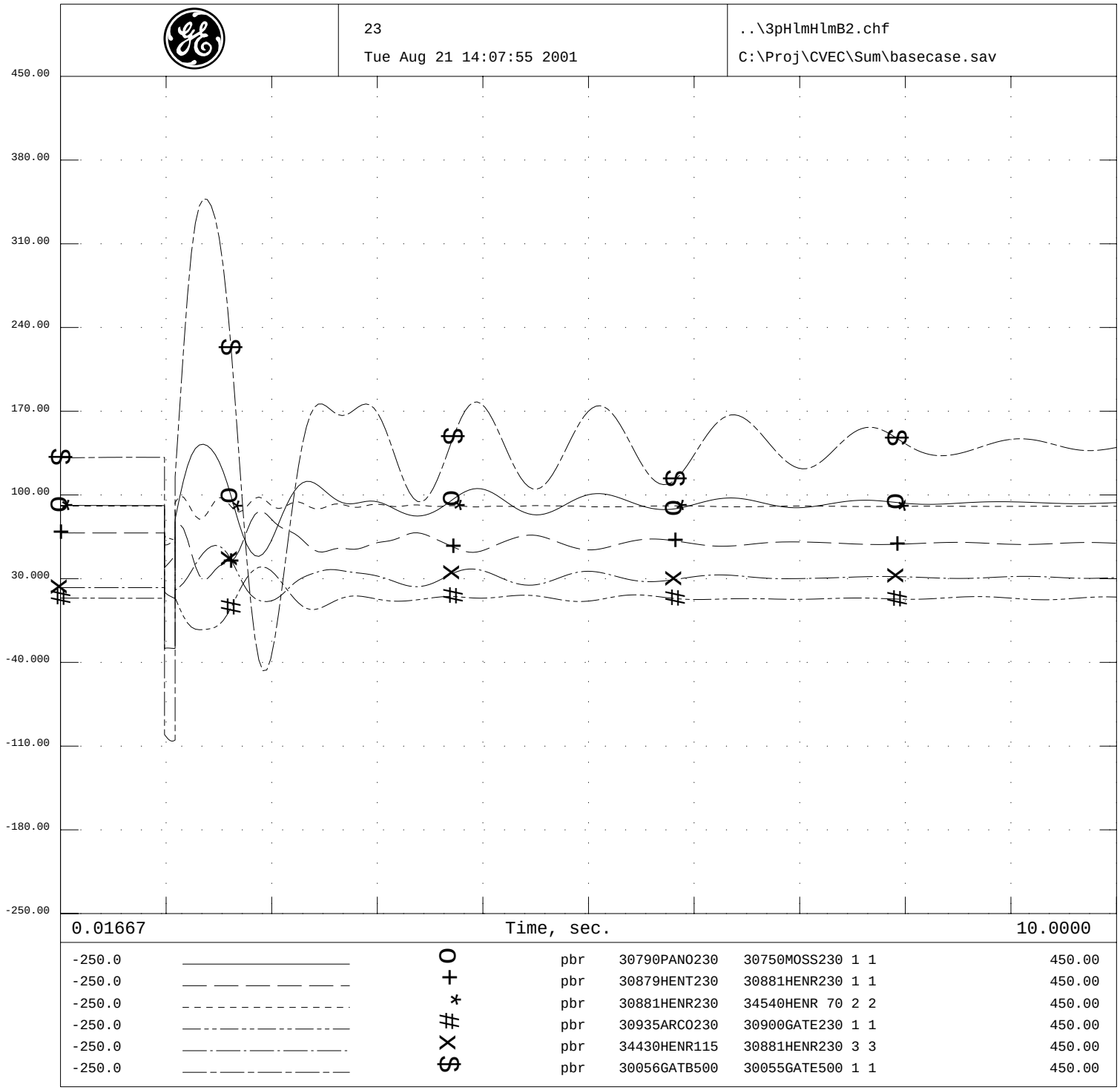

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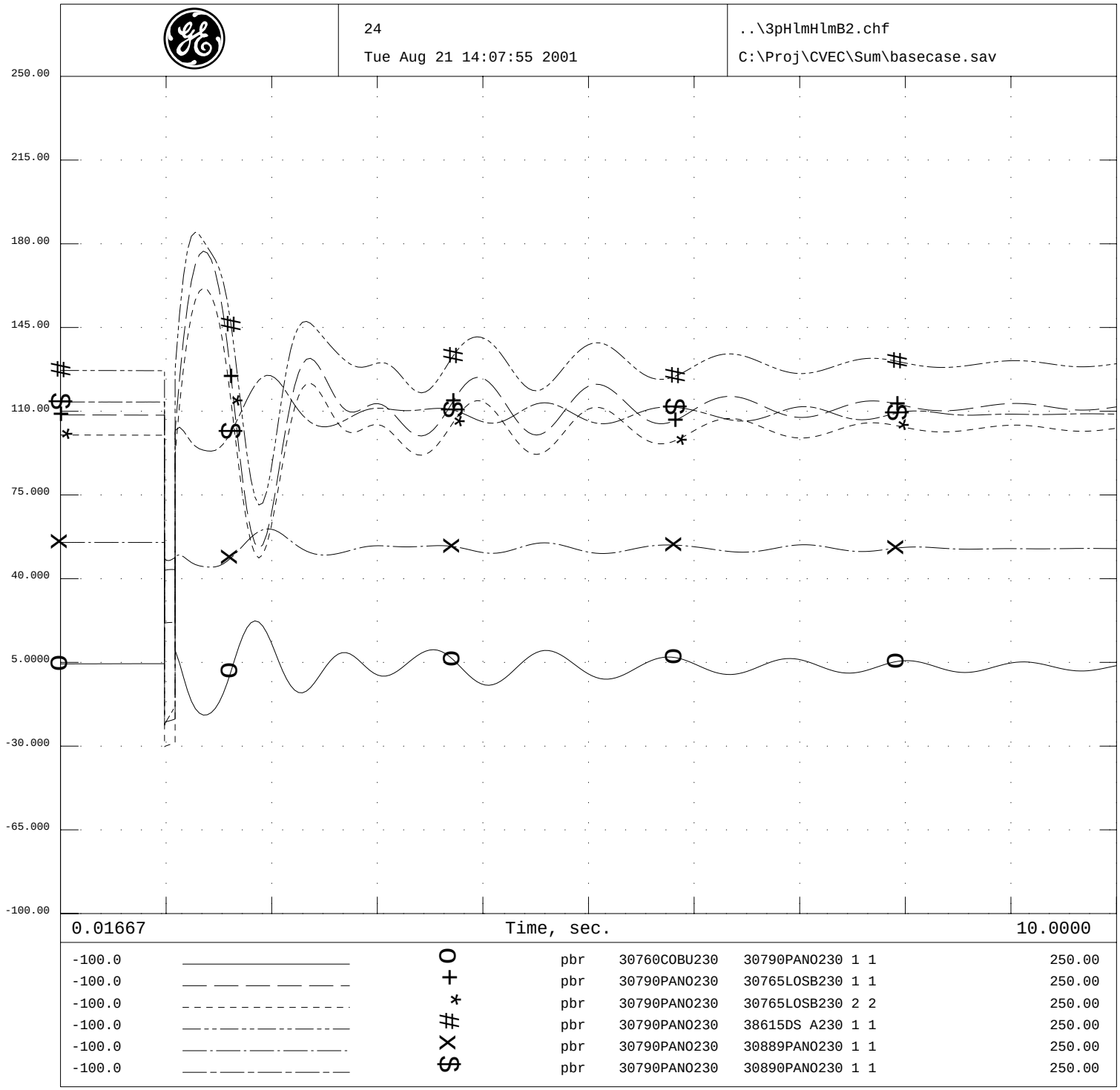

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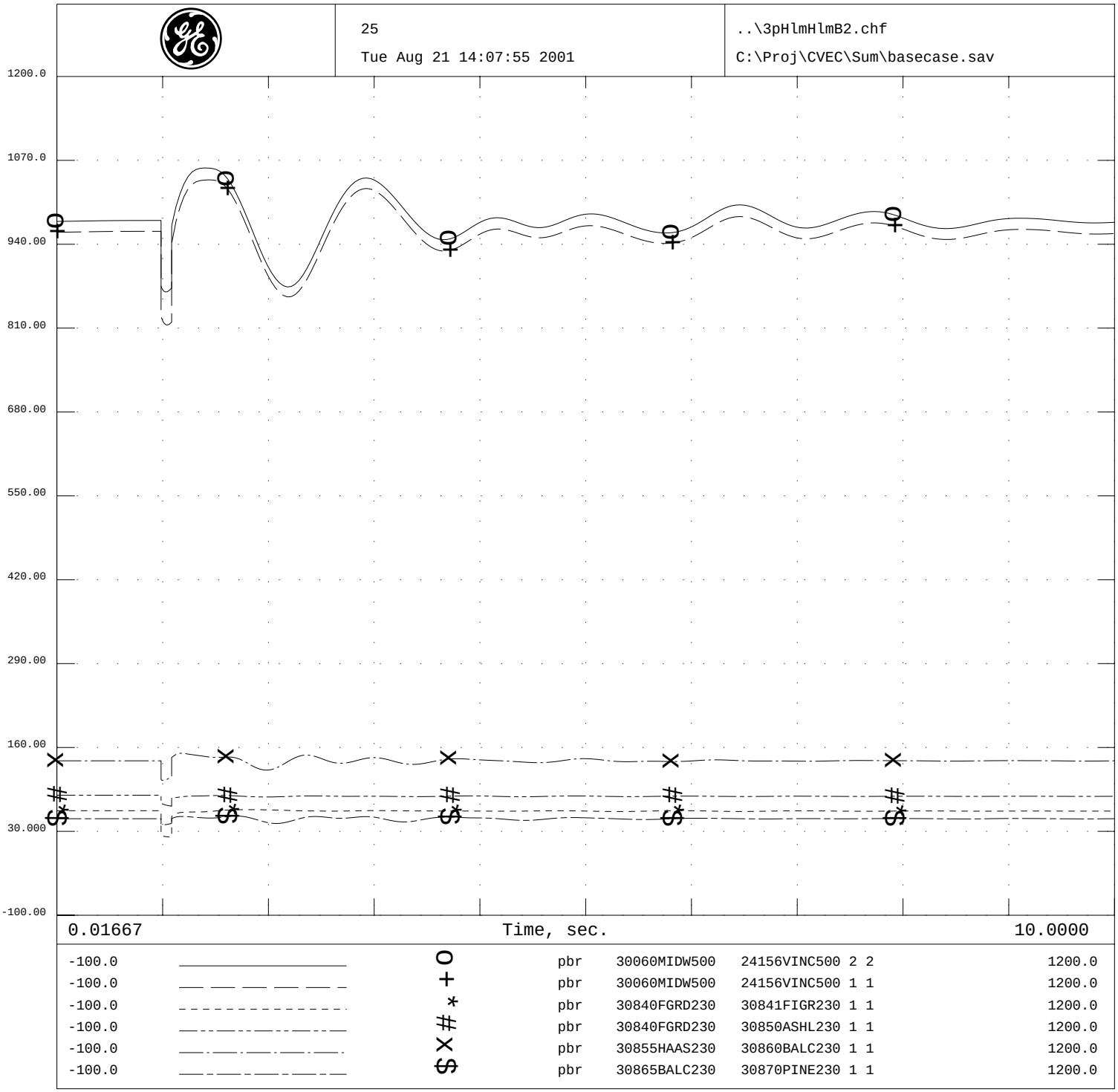

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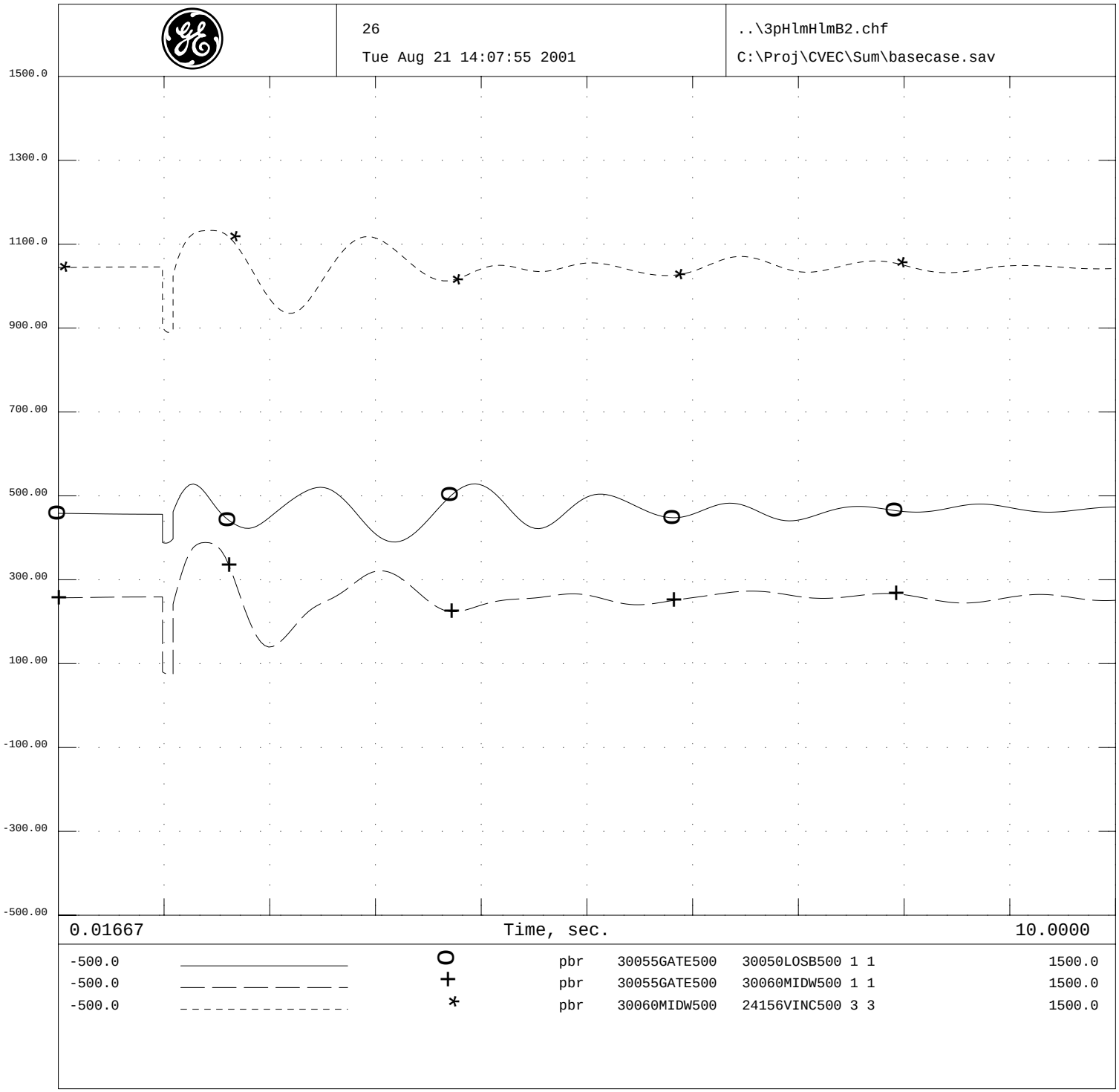

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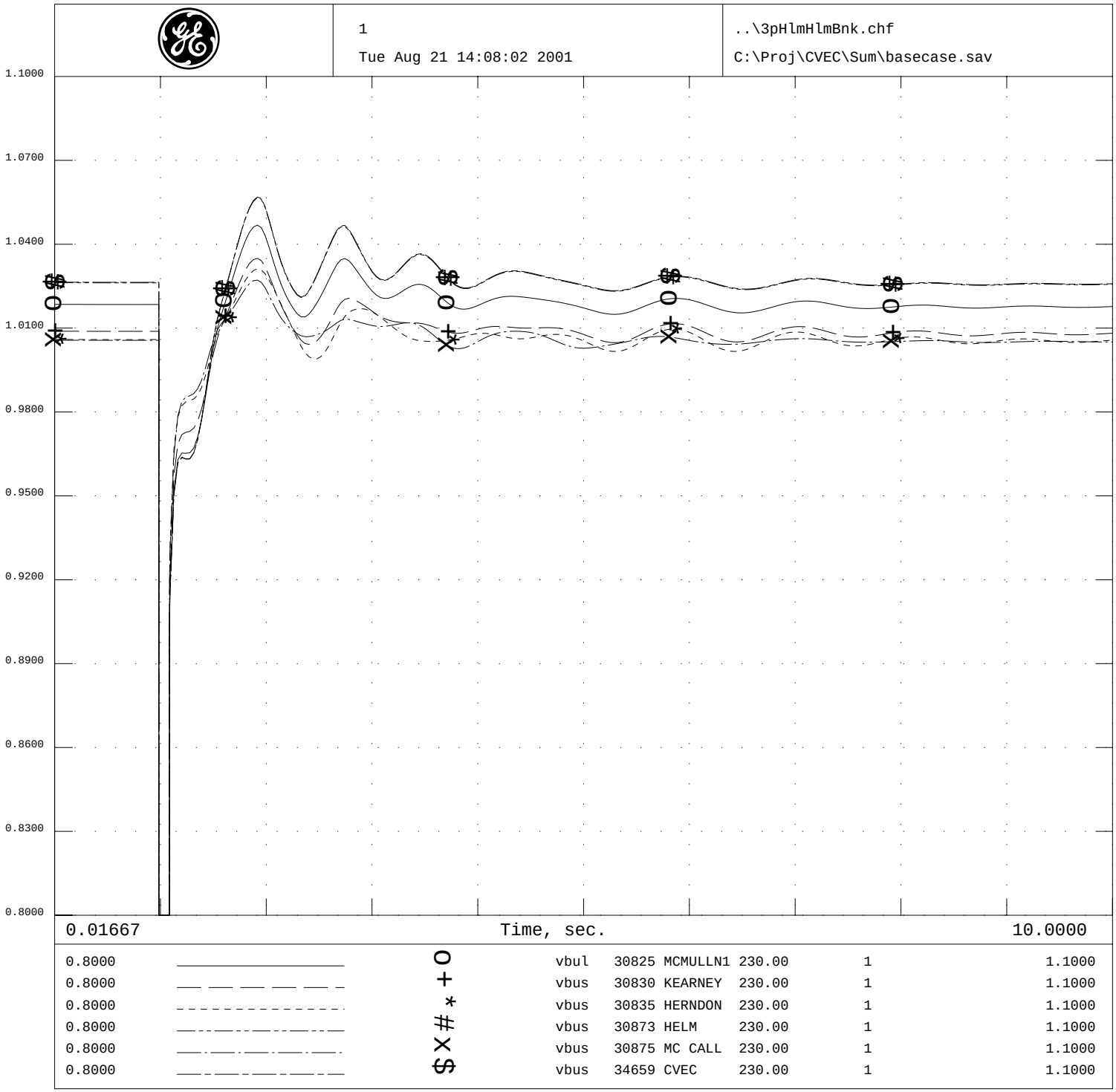

Calpine Corporation - Central Valley Energy Center System Impact Study
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Helm 230/70kV Bank Outage
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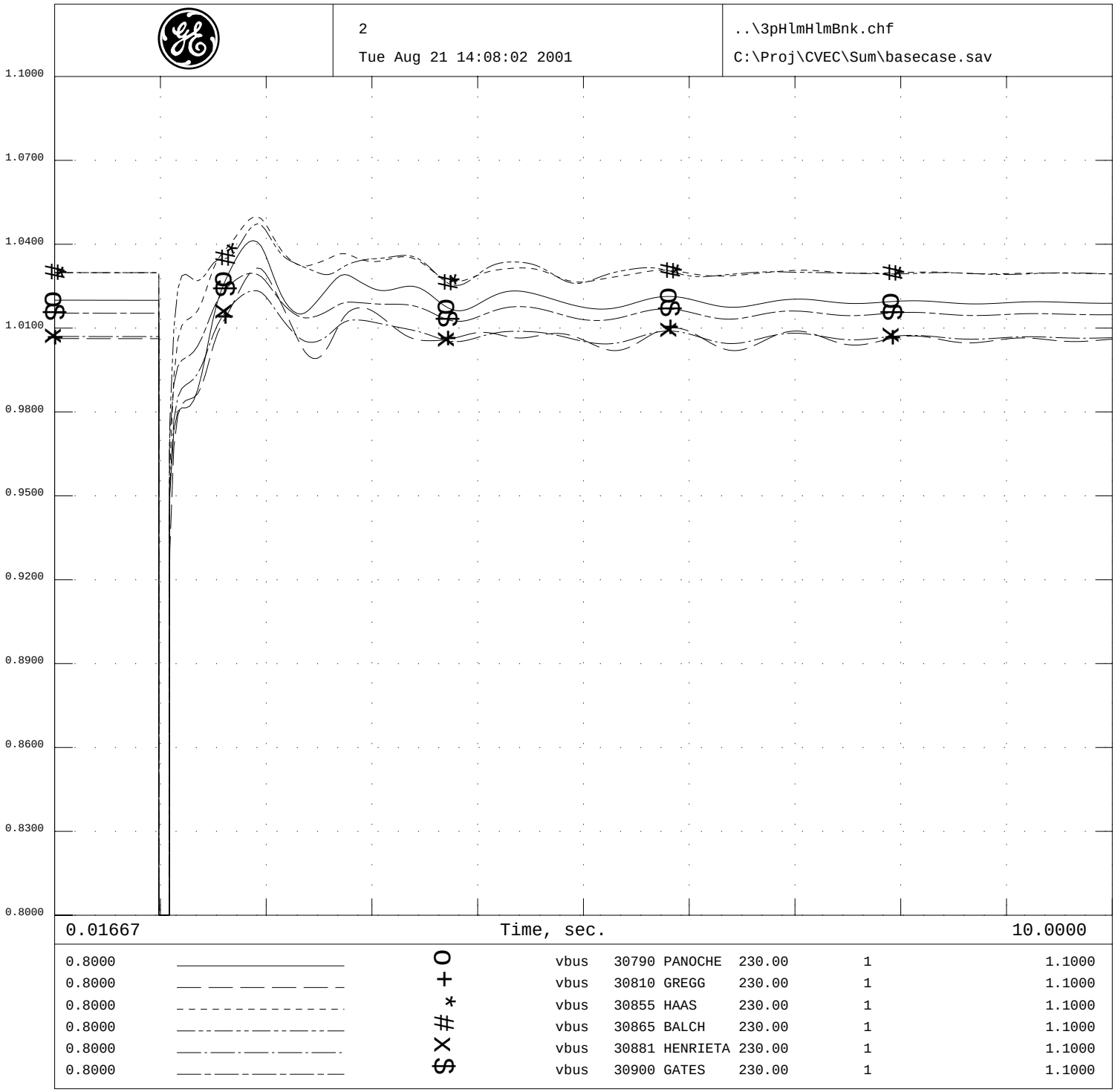
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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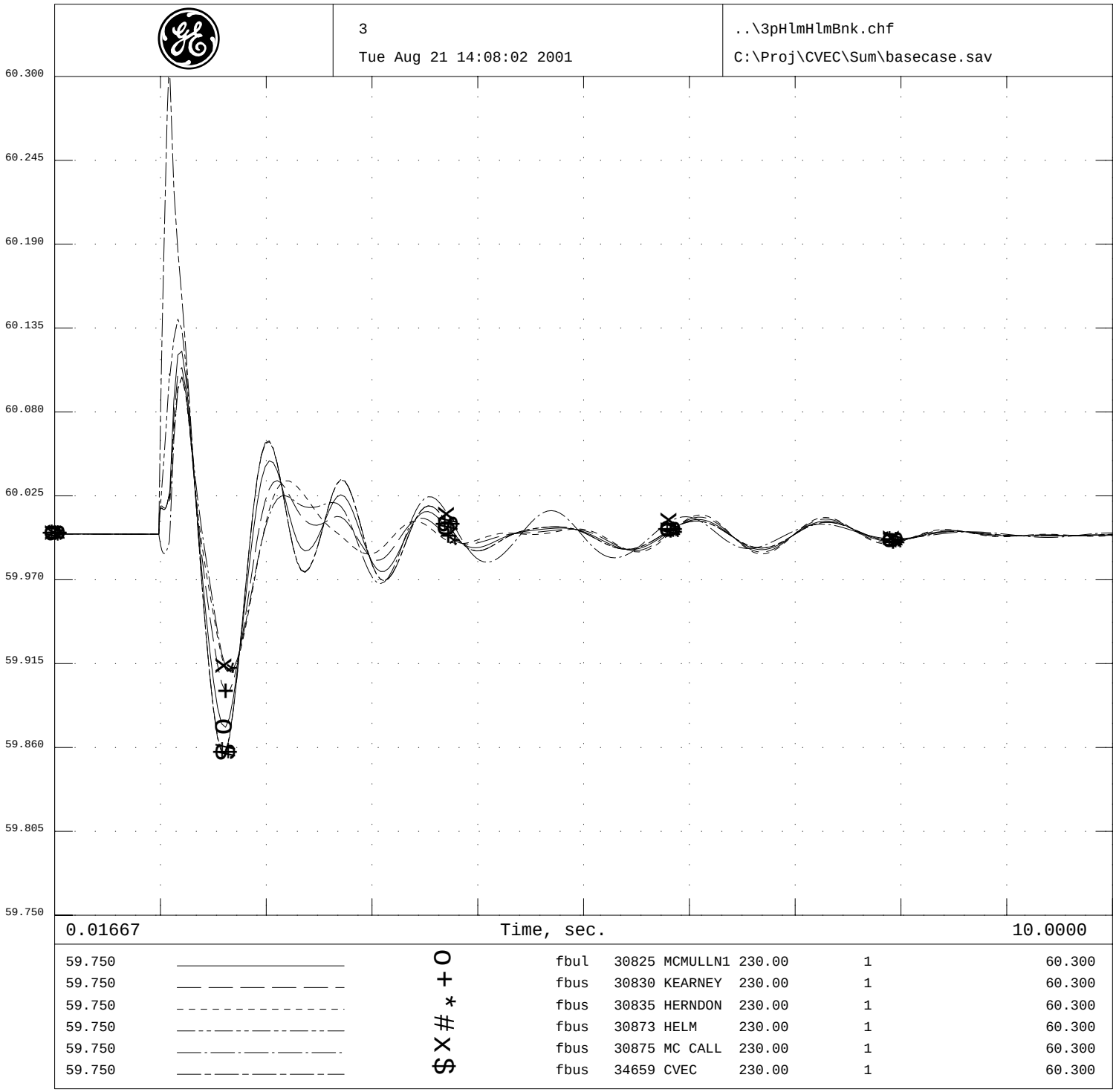

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Calpine Corporation
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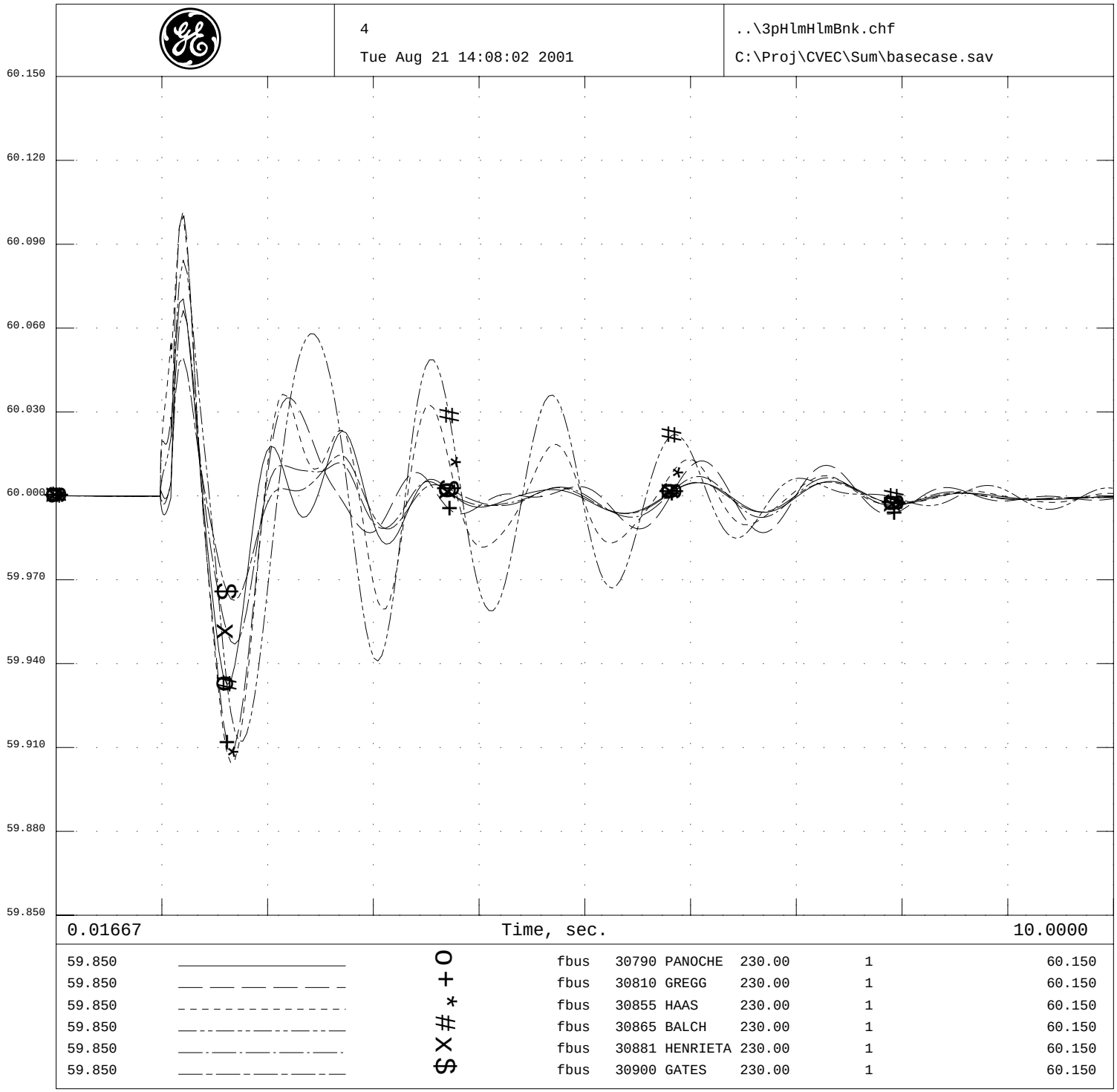

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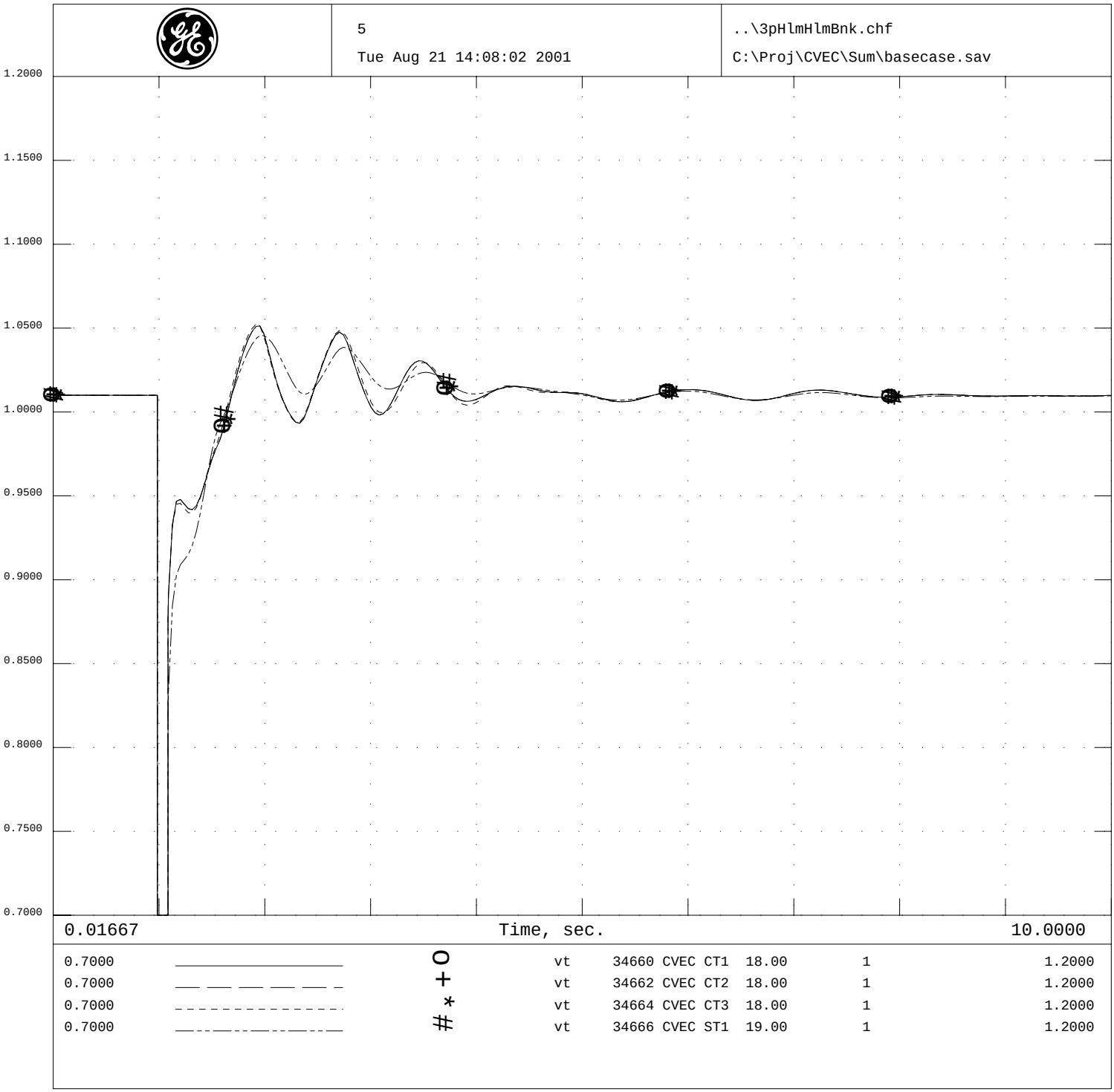

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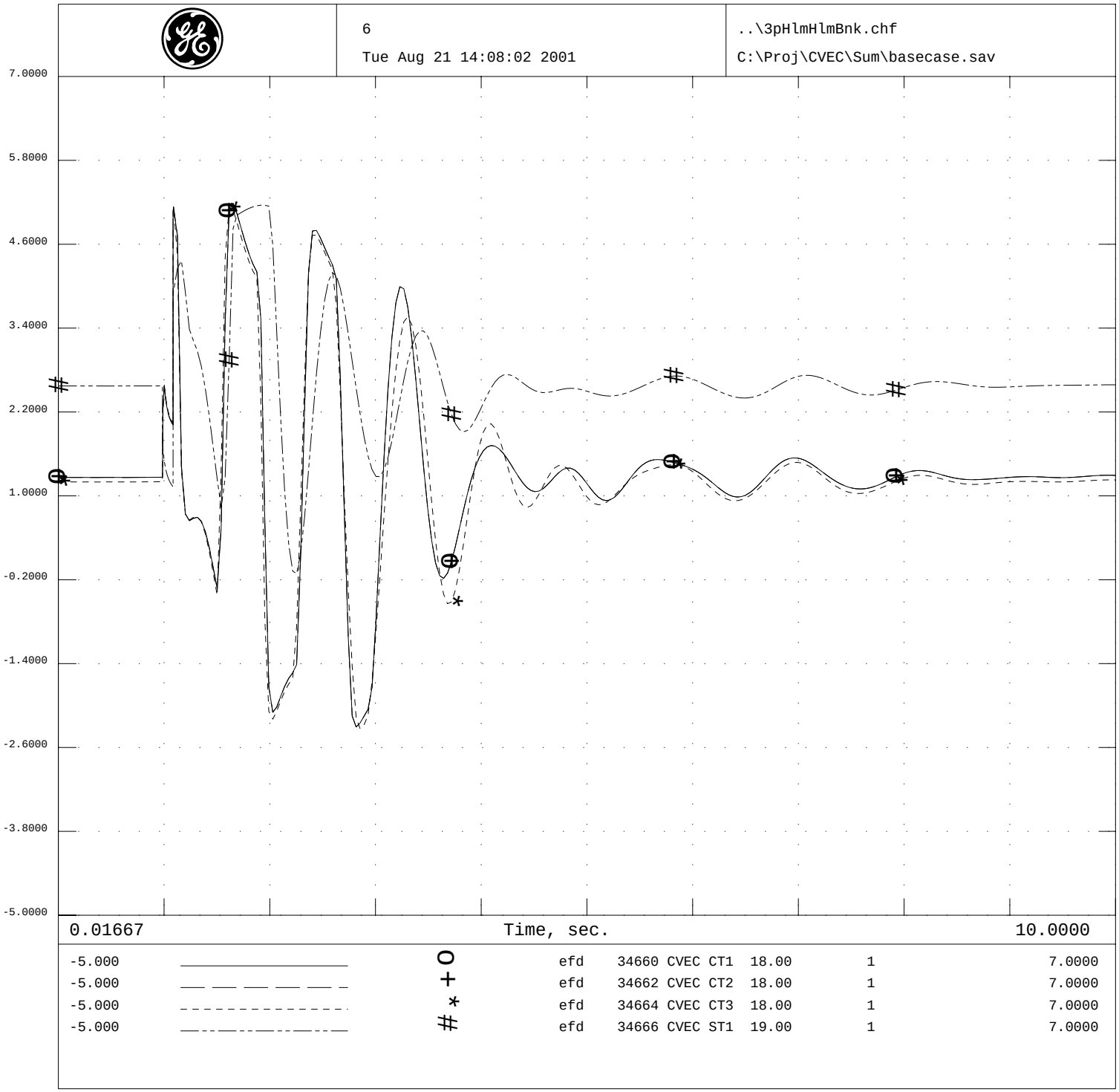
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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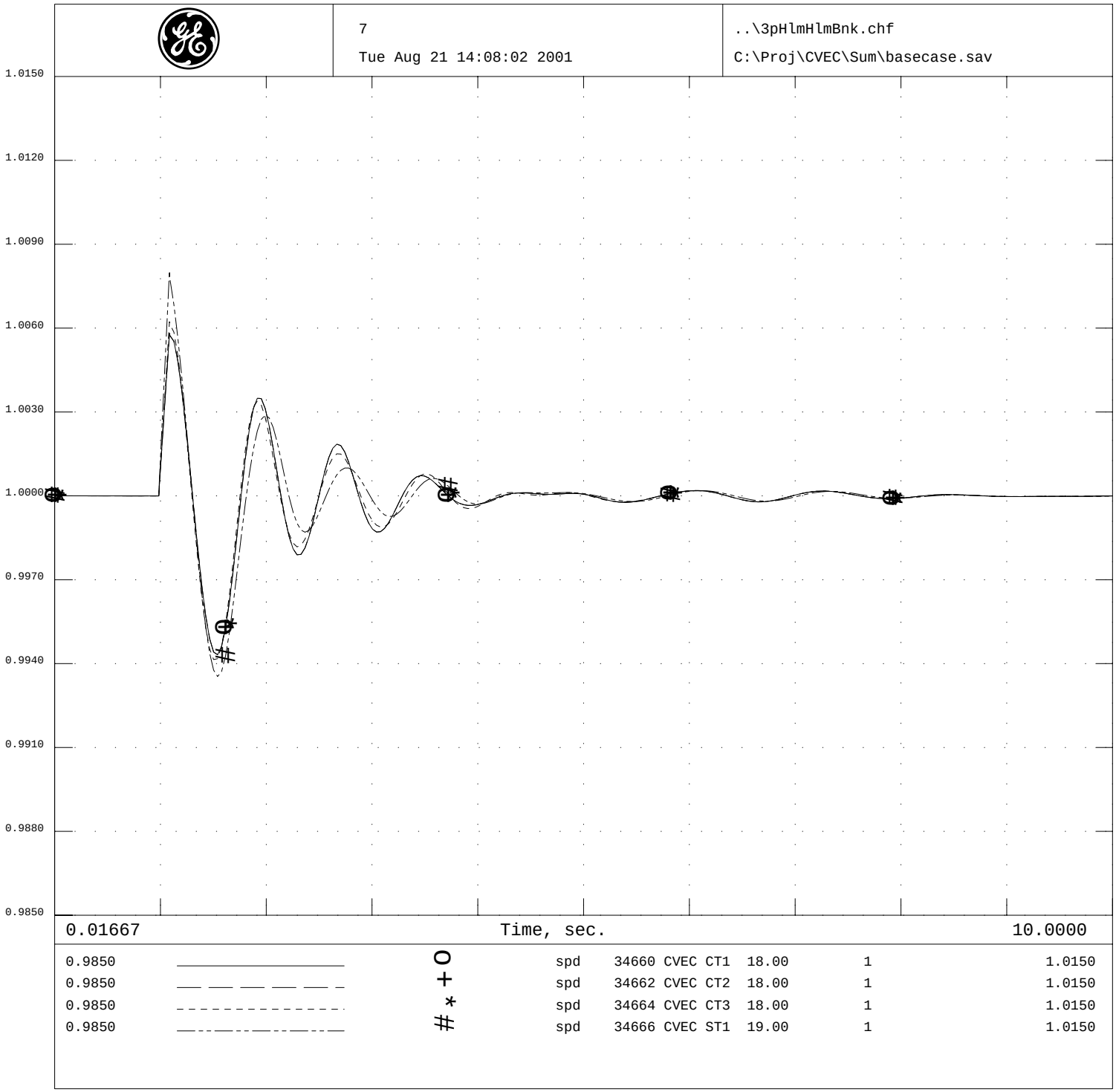
Calpine Corporation
Project Generator Field Voltages



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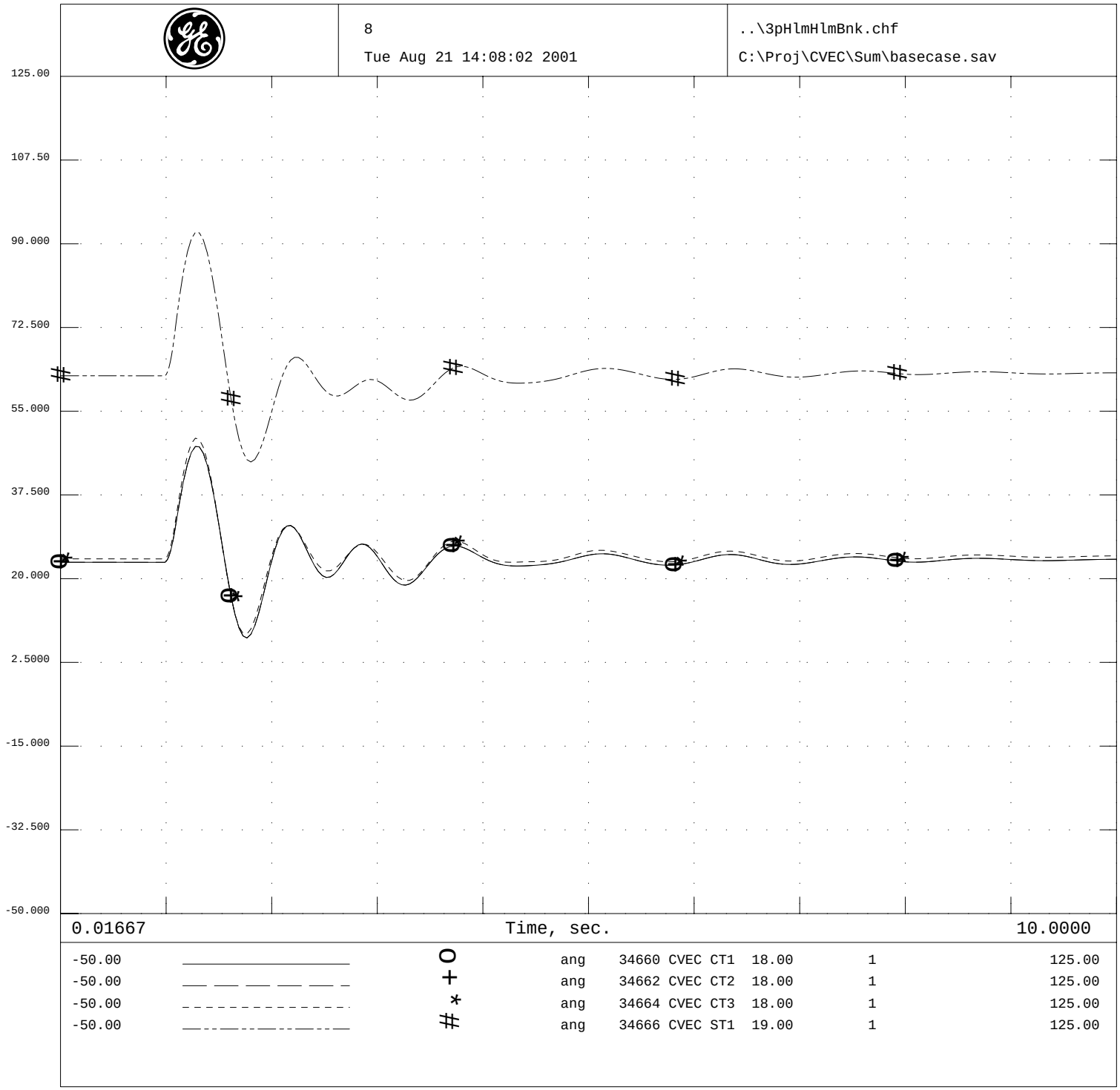
Calpine Corporation
Project Generator Rotor Speed



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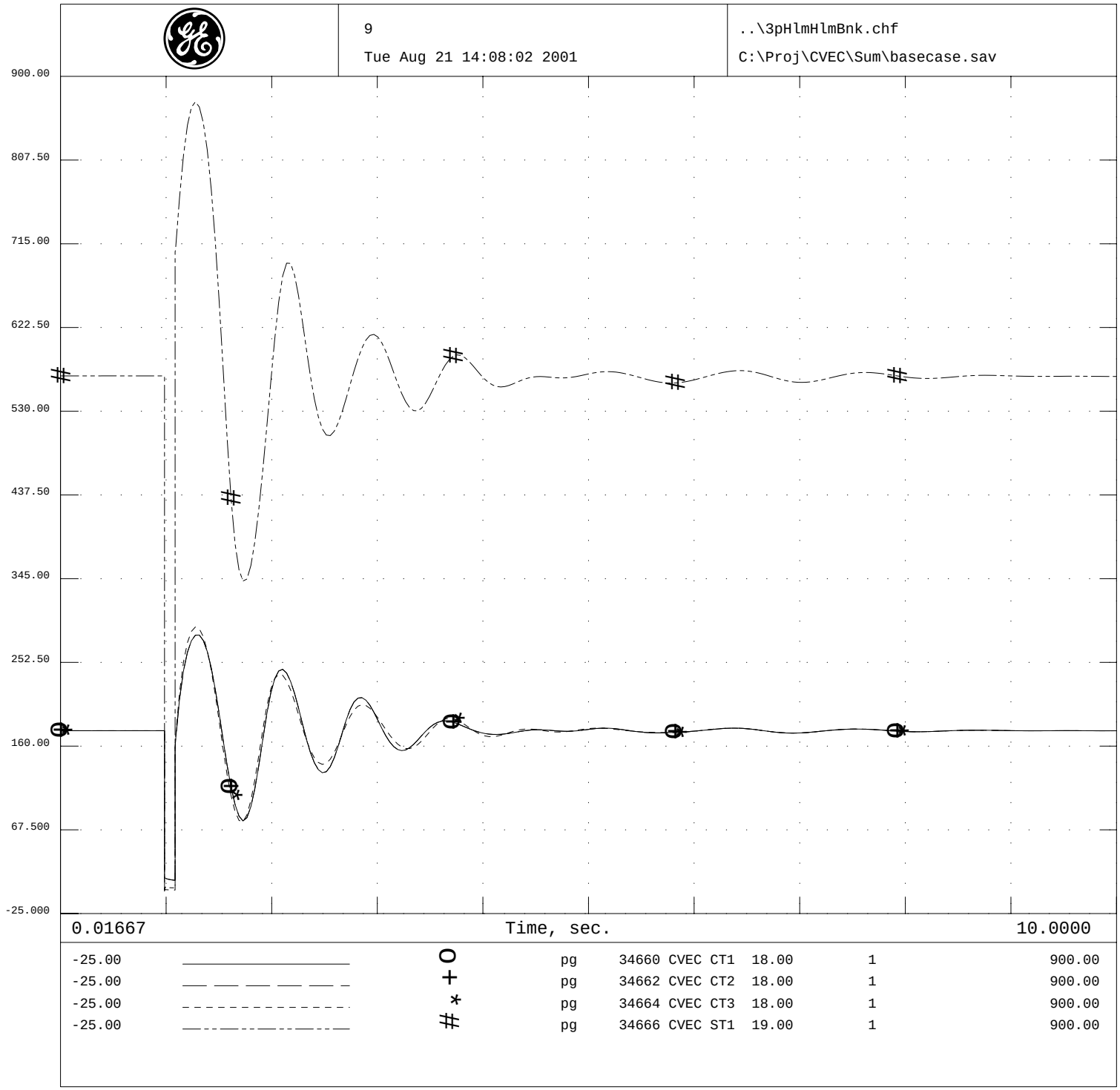
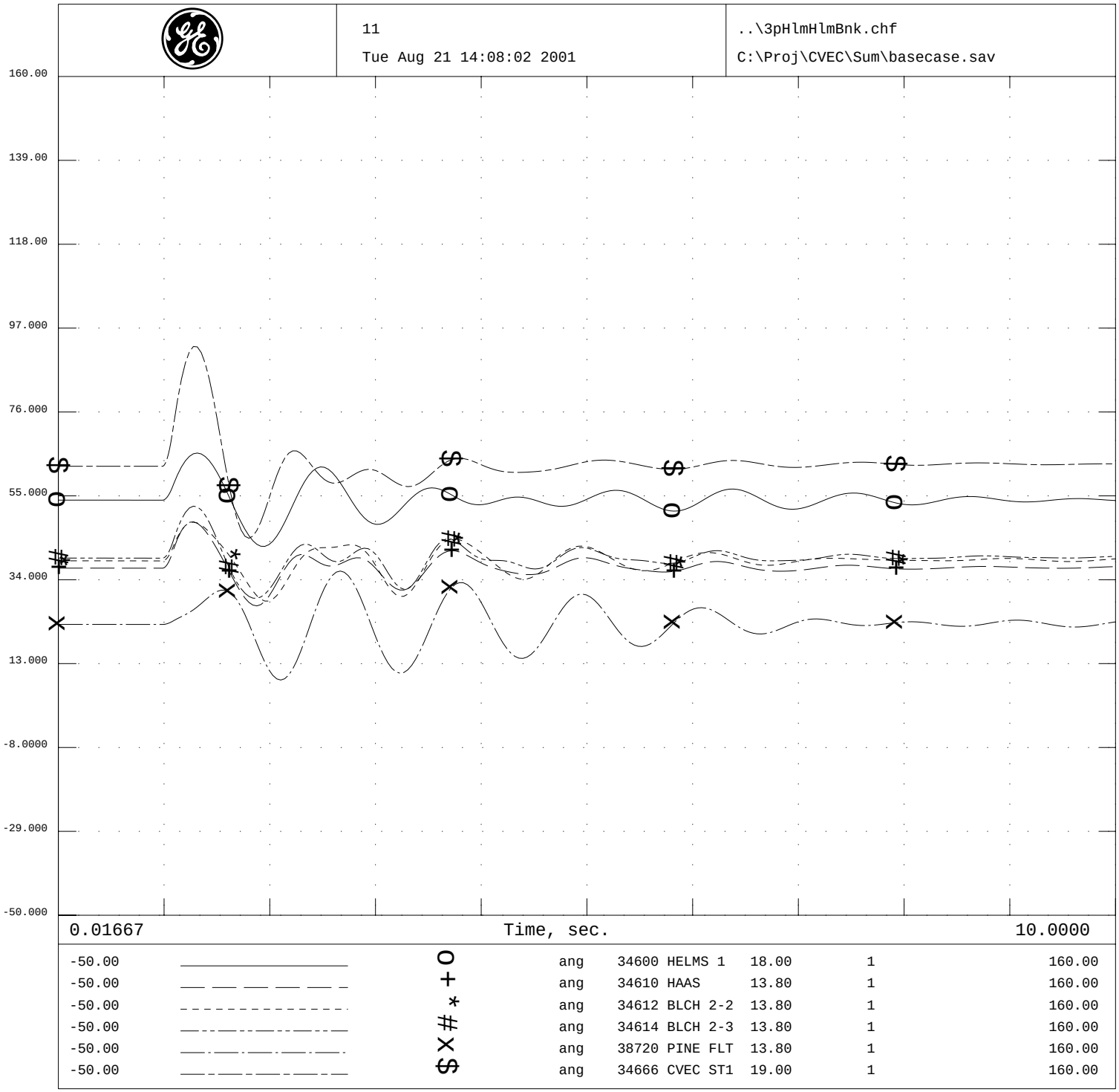
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Helm 230/70kV Bank Outage
3 phase 6 cycle fault at Helm 230kV bus and trip Helm 230/70kV bank

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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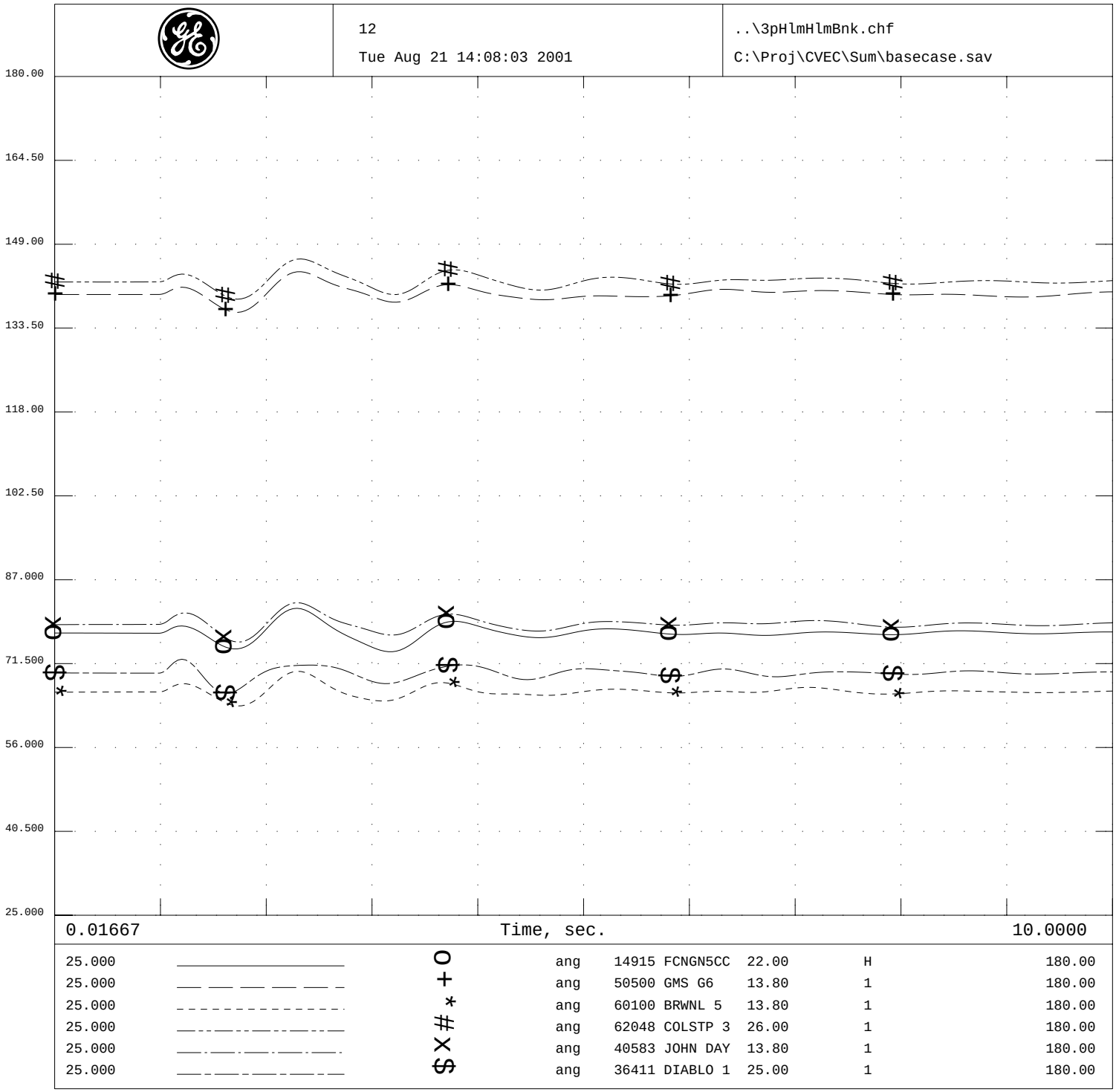
Calpine Corporation
Selected Local Rotor Angle Plots



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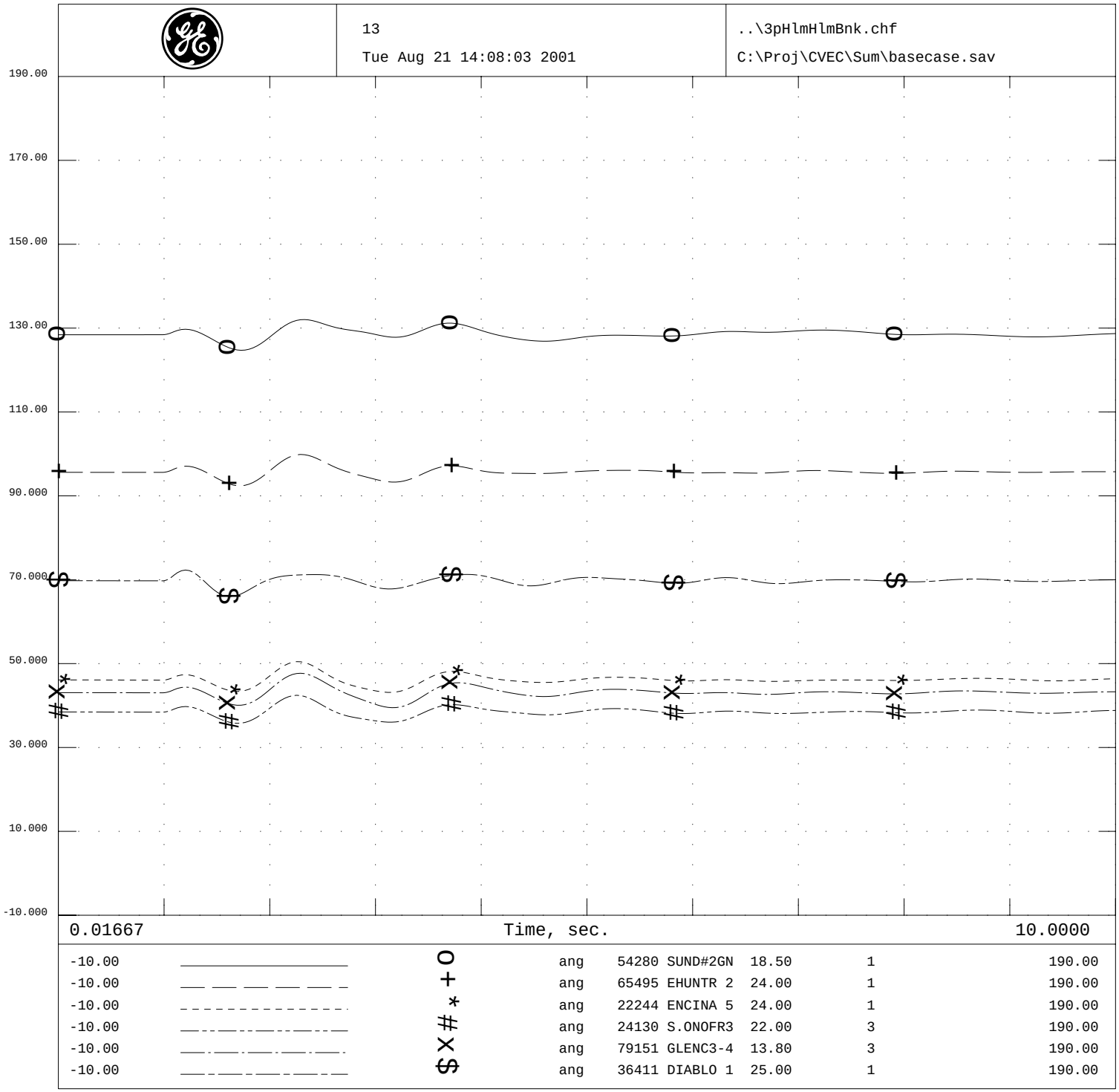
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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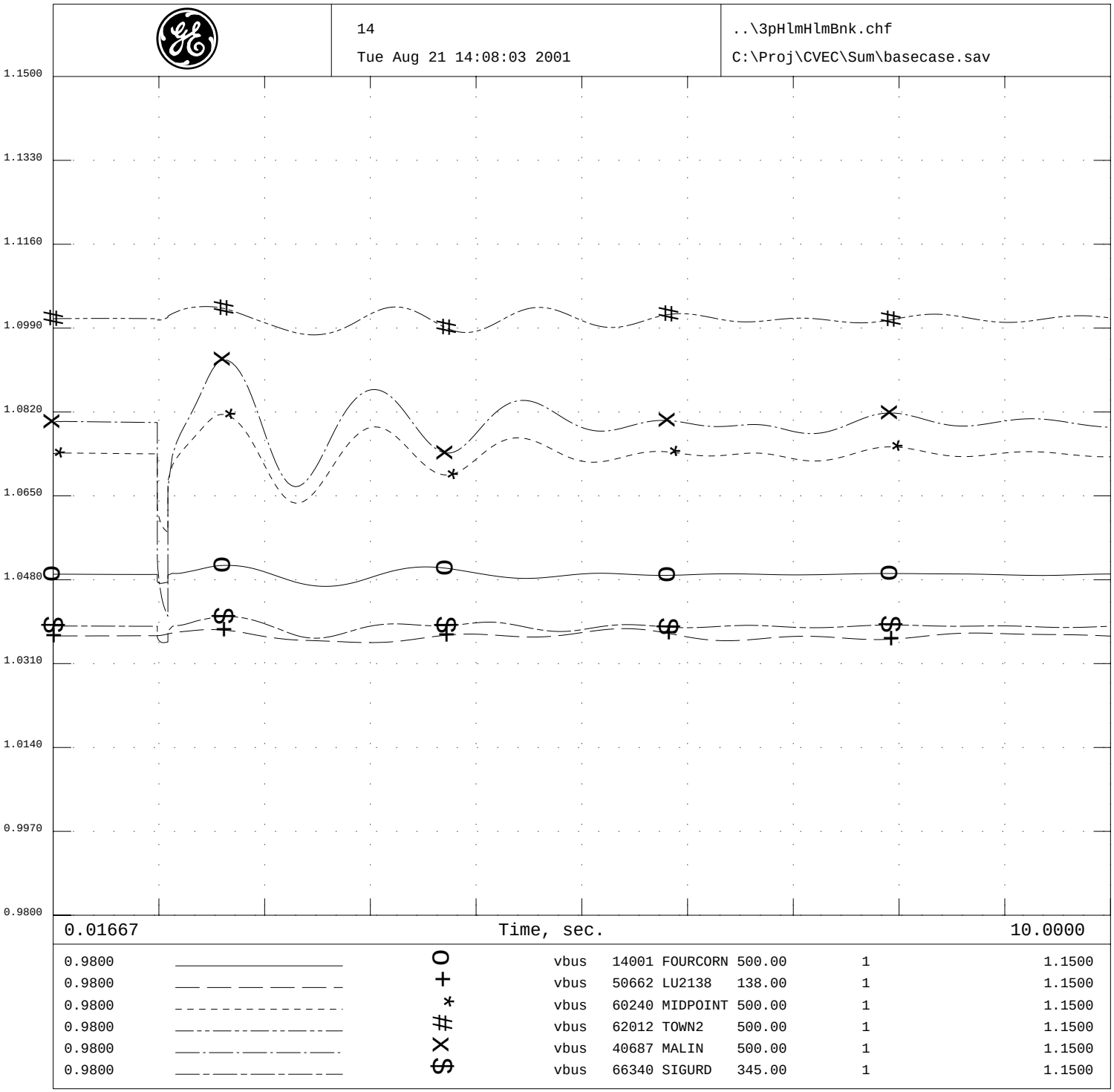

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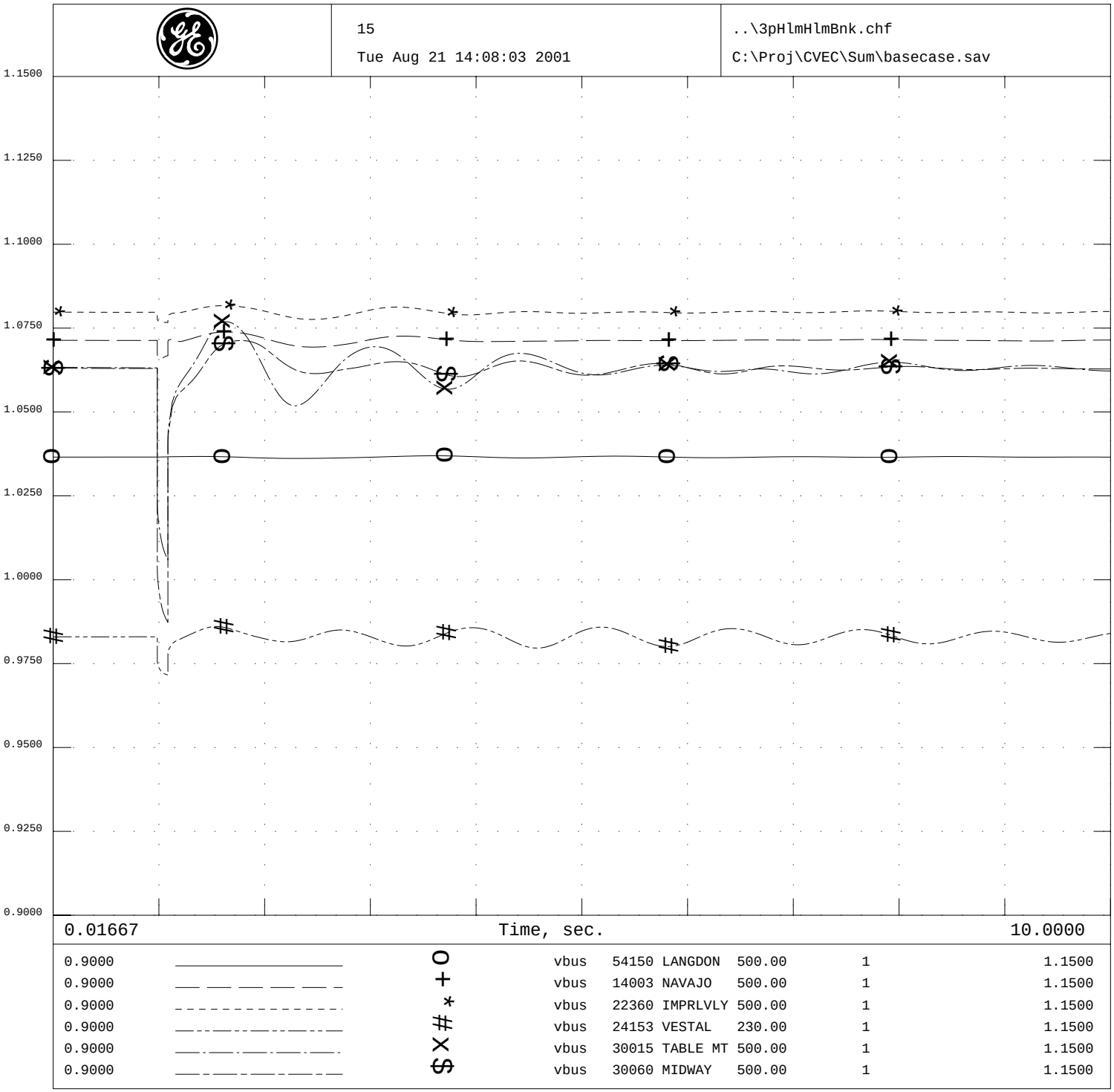

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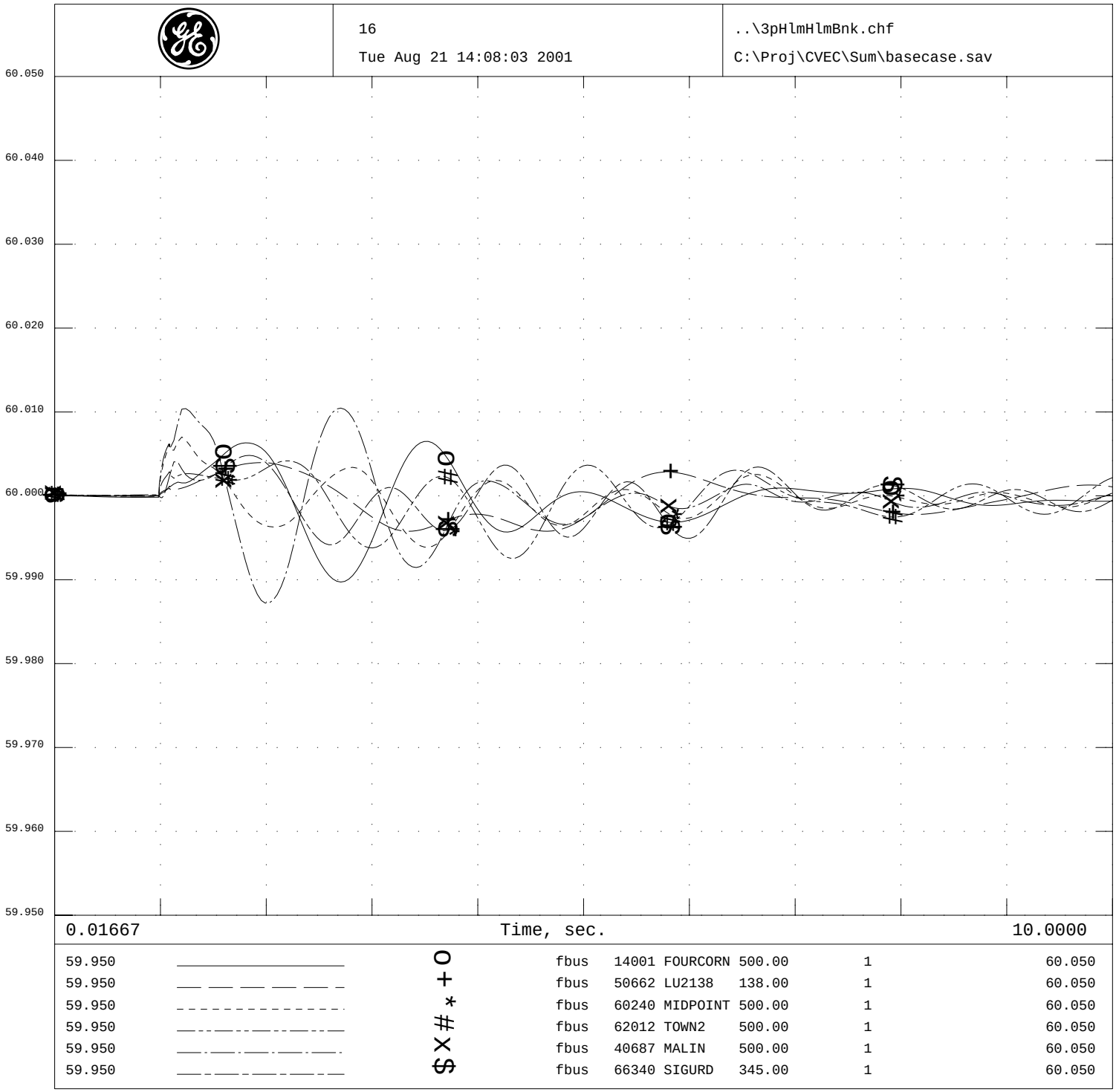

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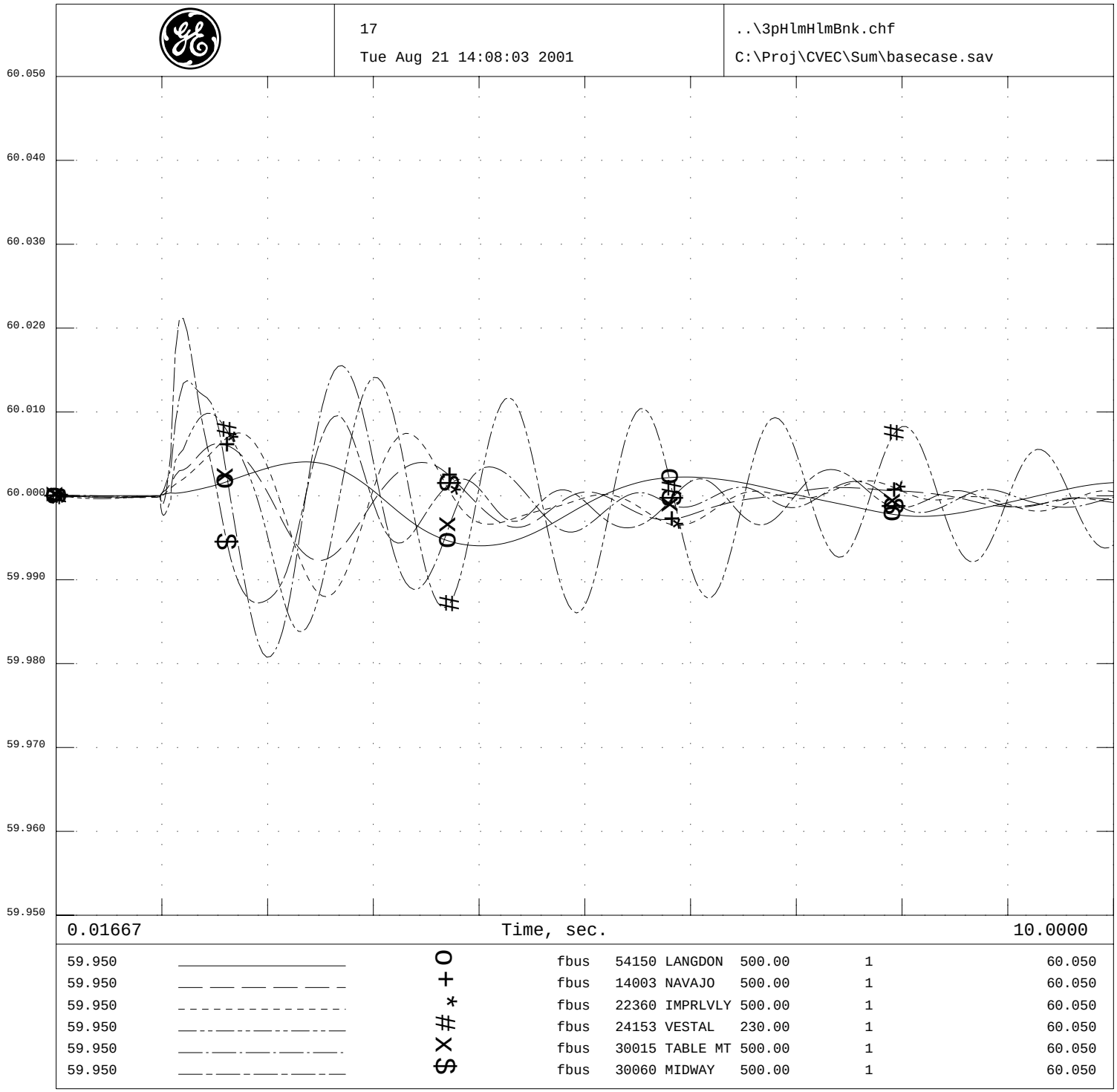

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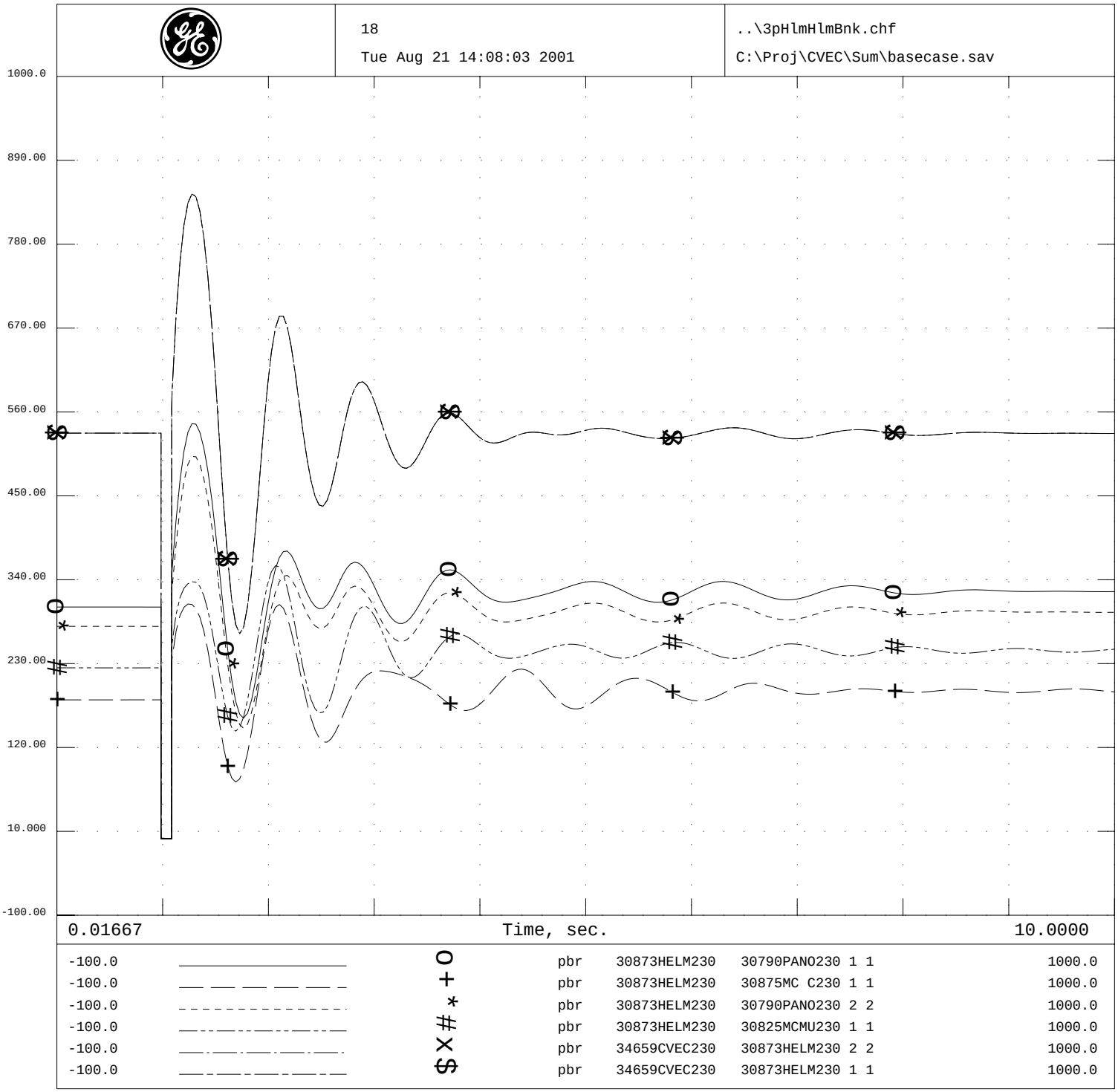

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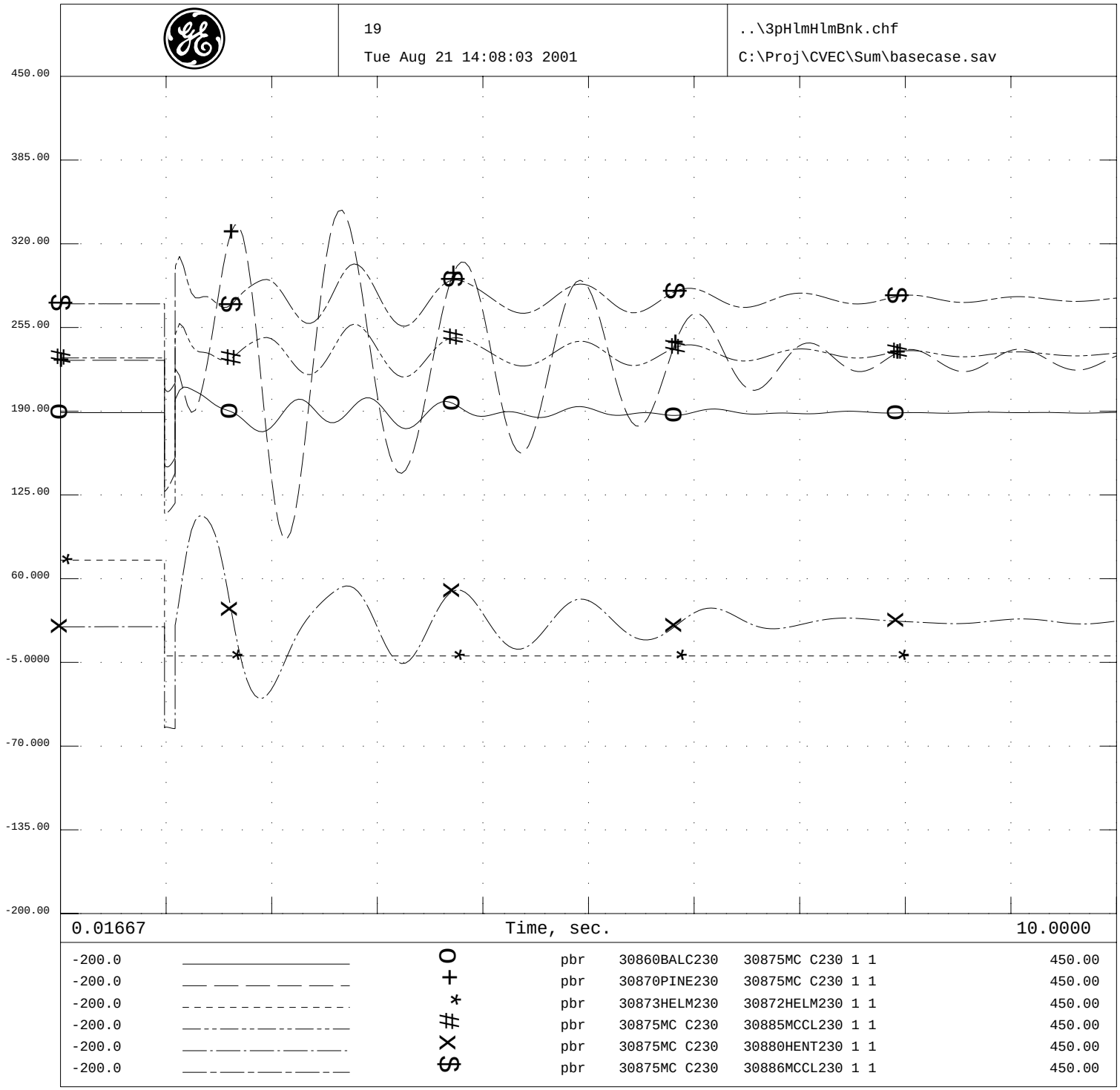
Selected Transmission Line Flows (MW)



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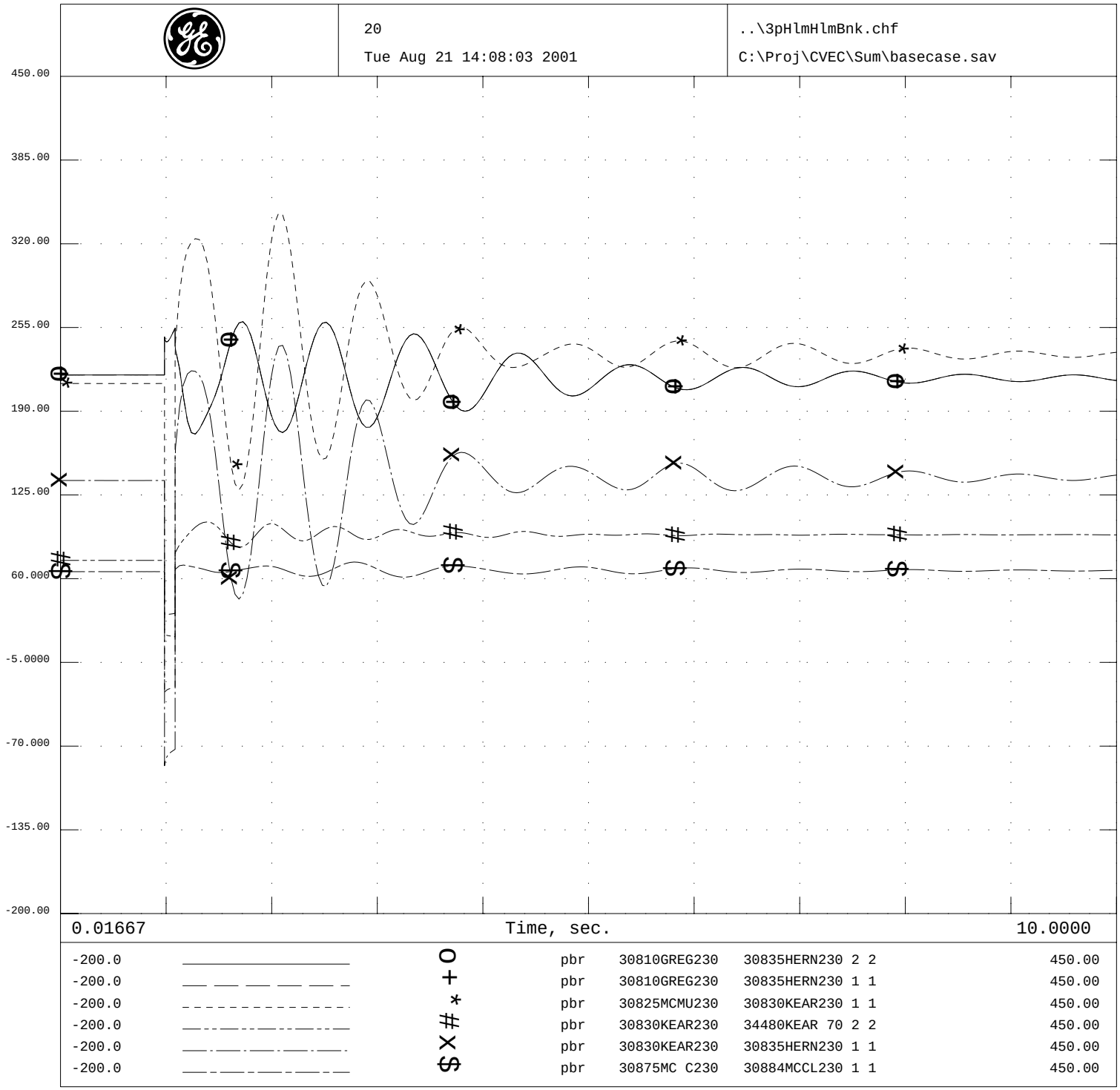

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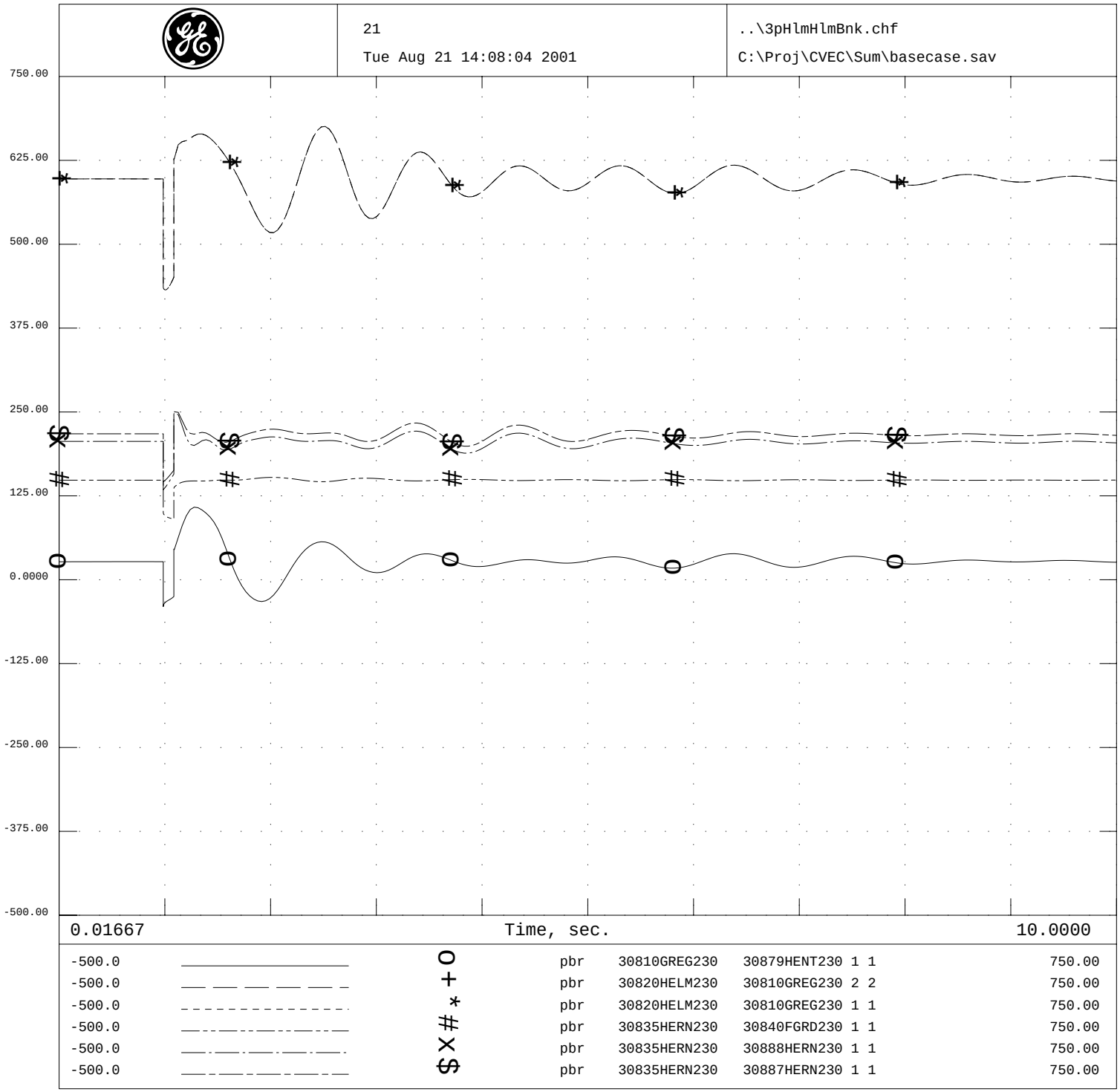

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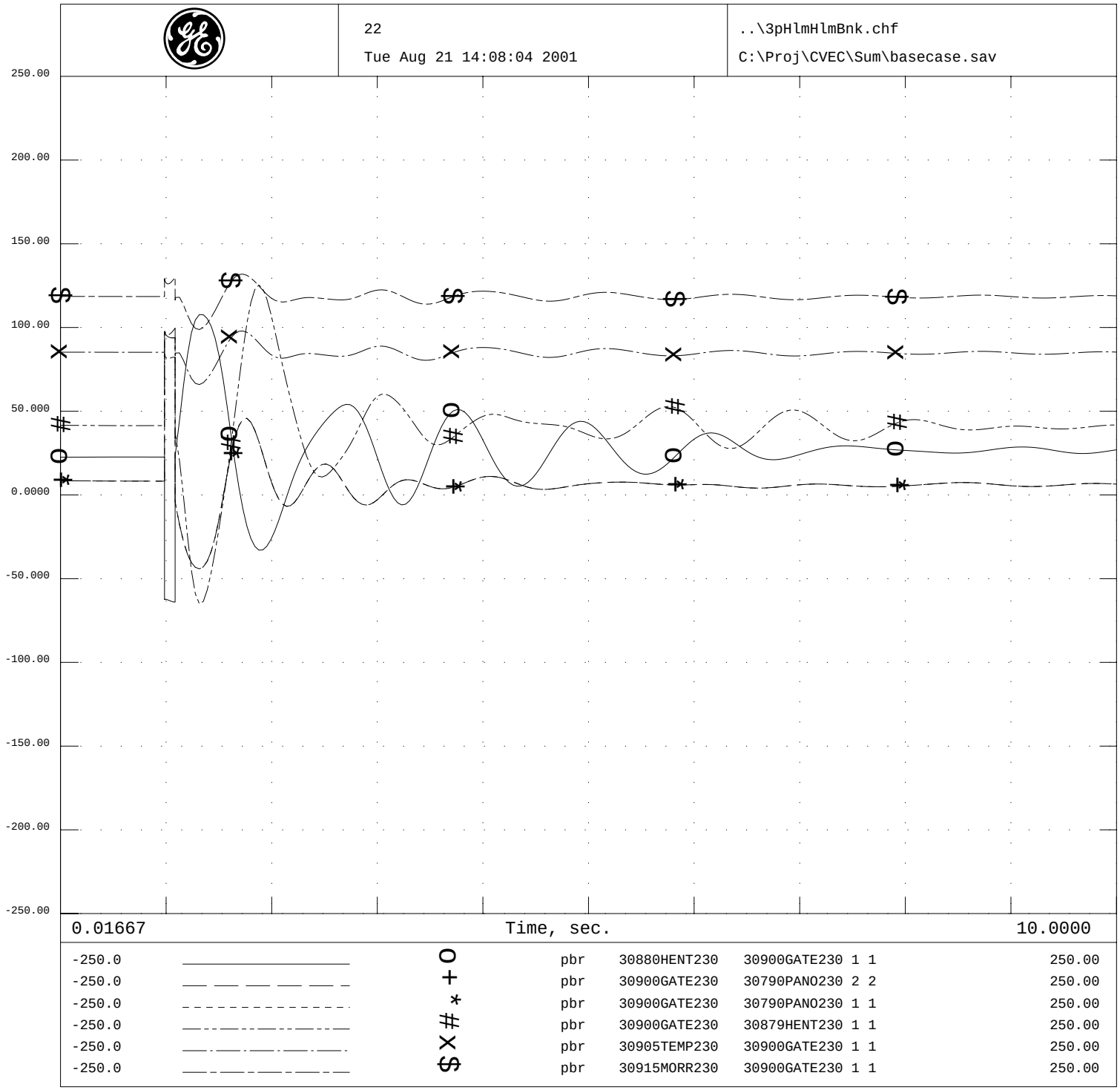

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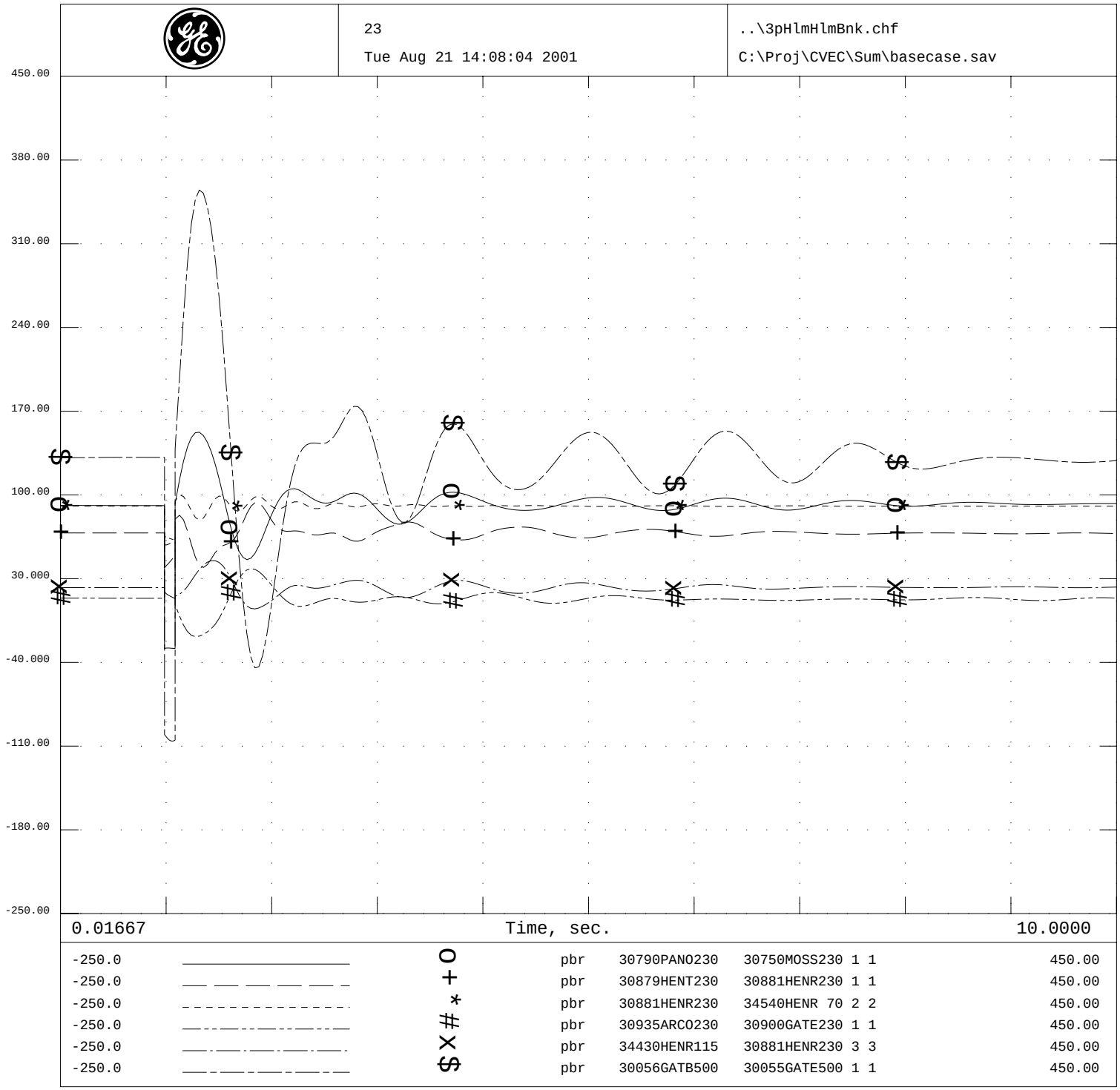

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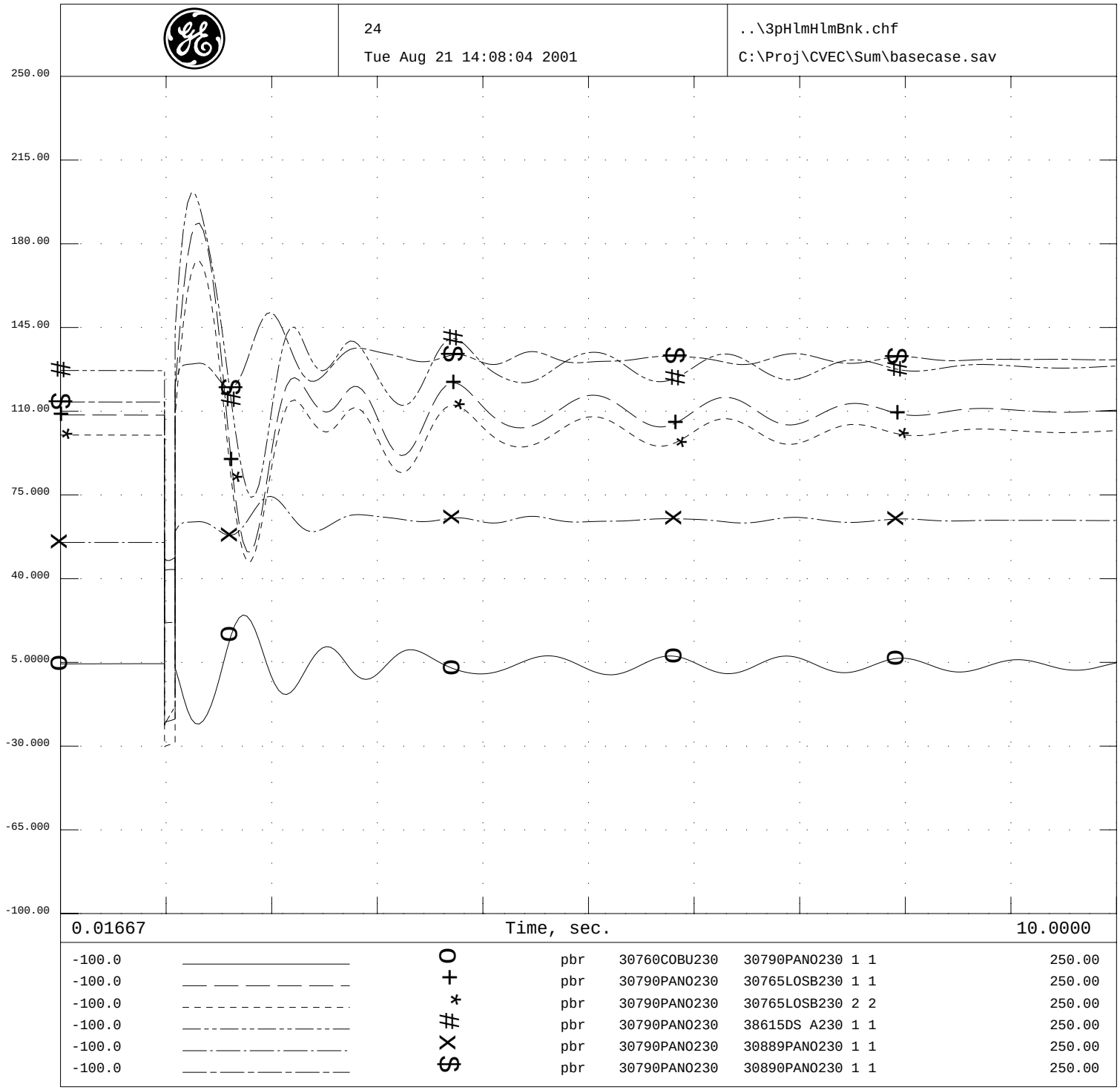

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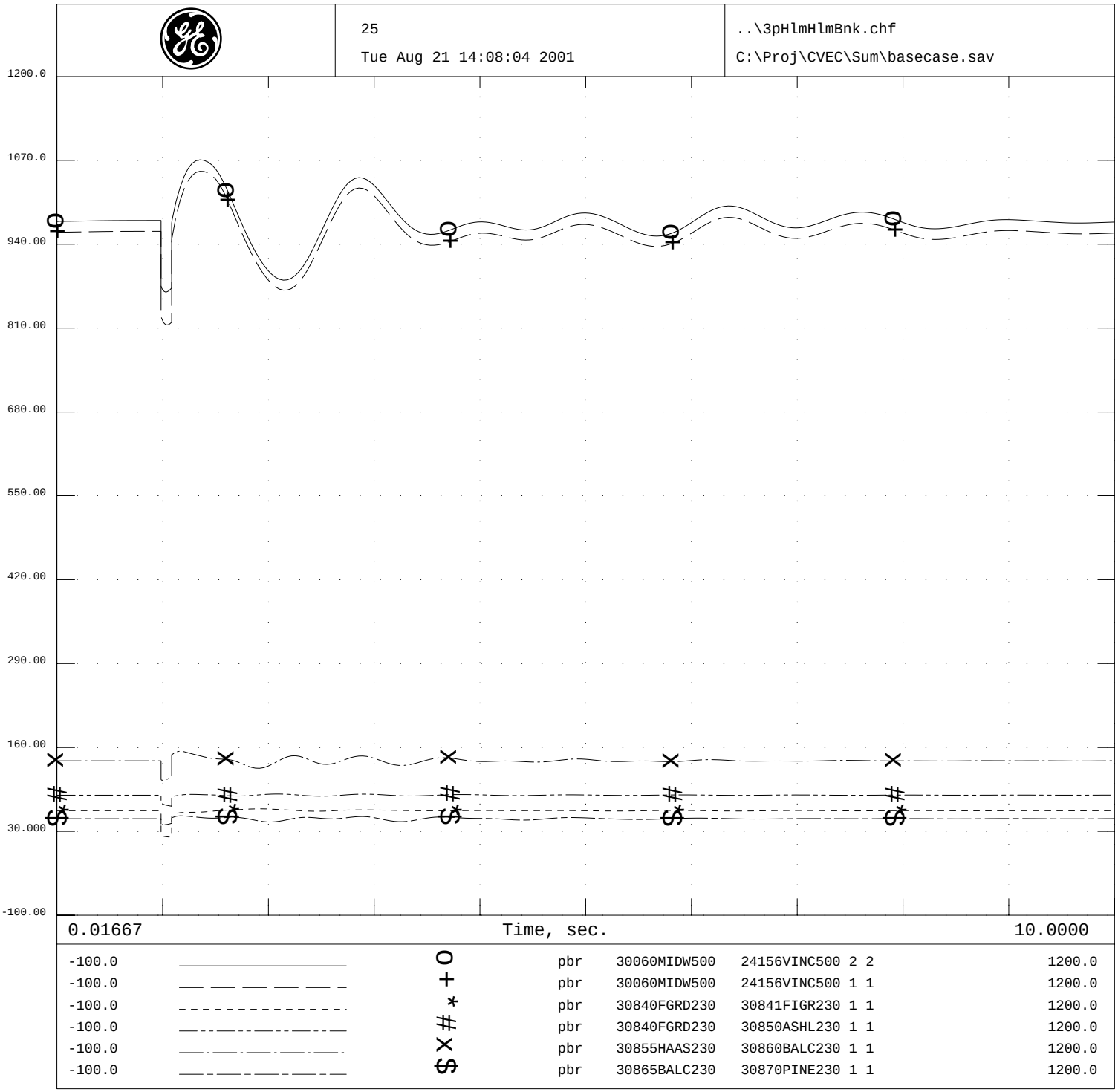

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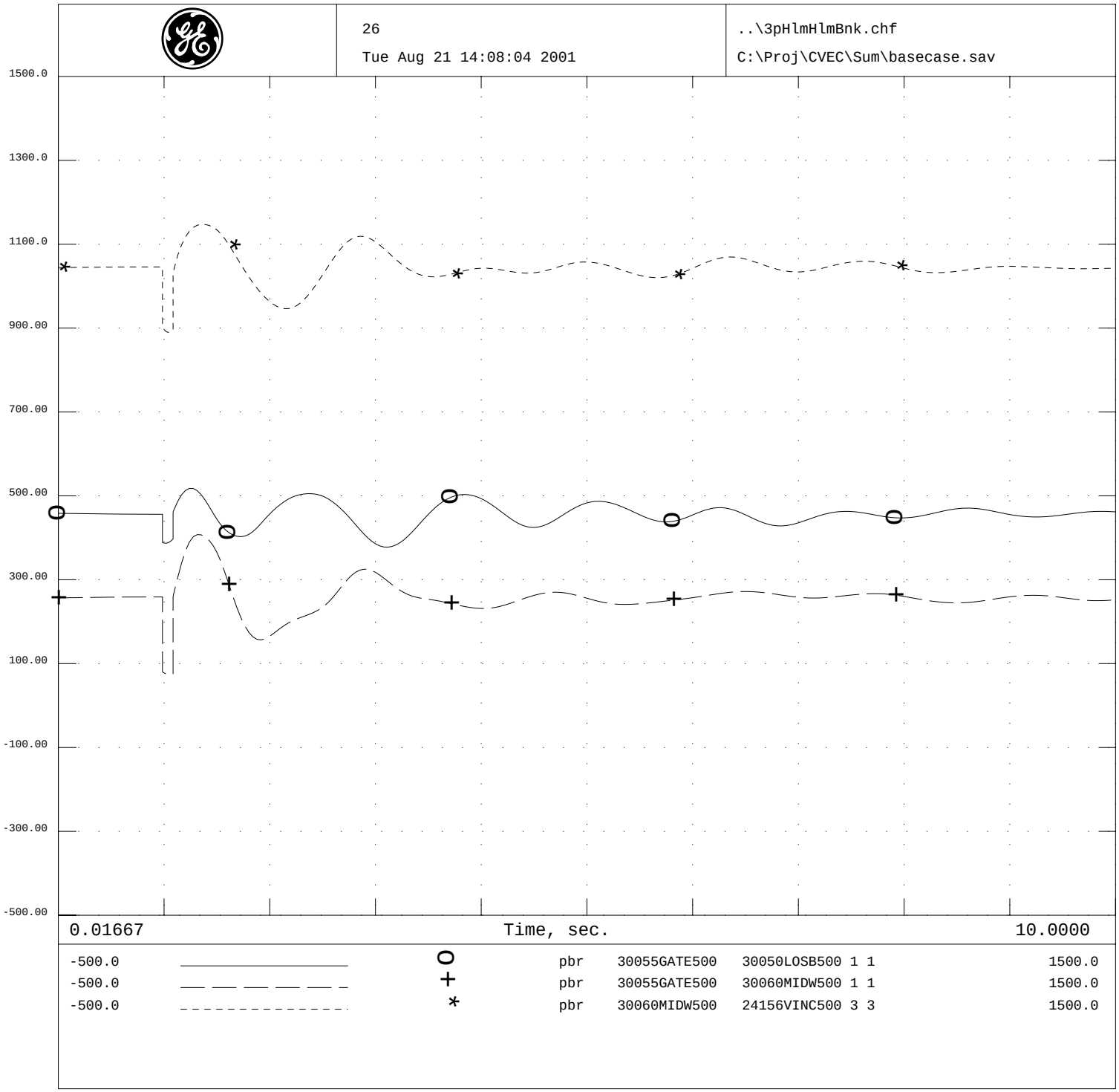

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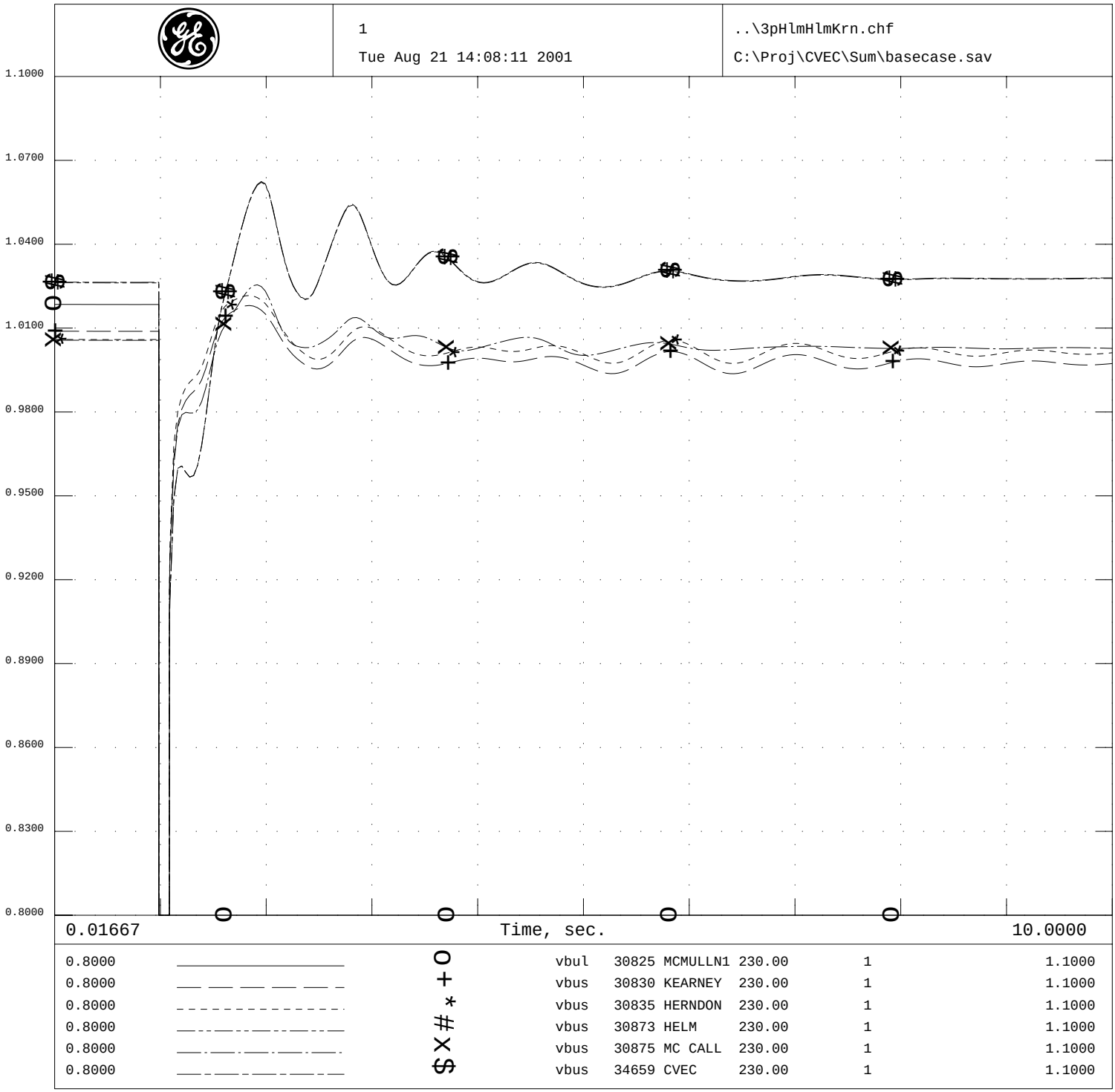

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Kearny-Helm 230kV Line Outage
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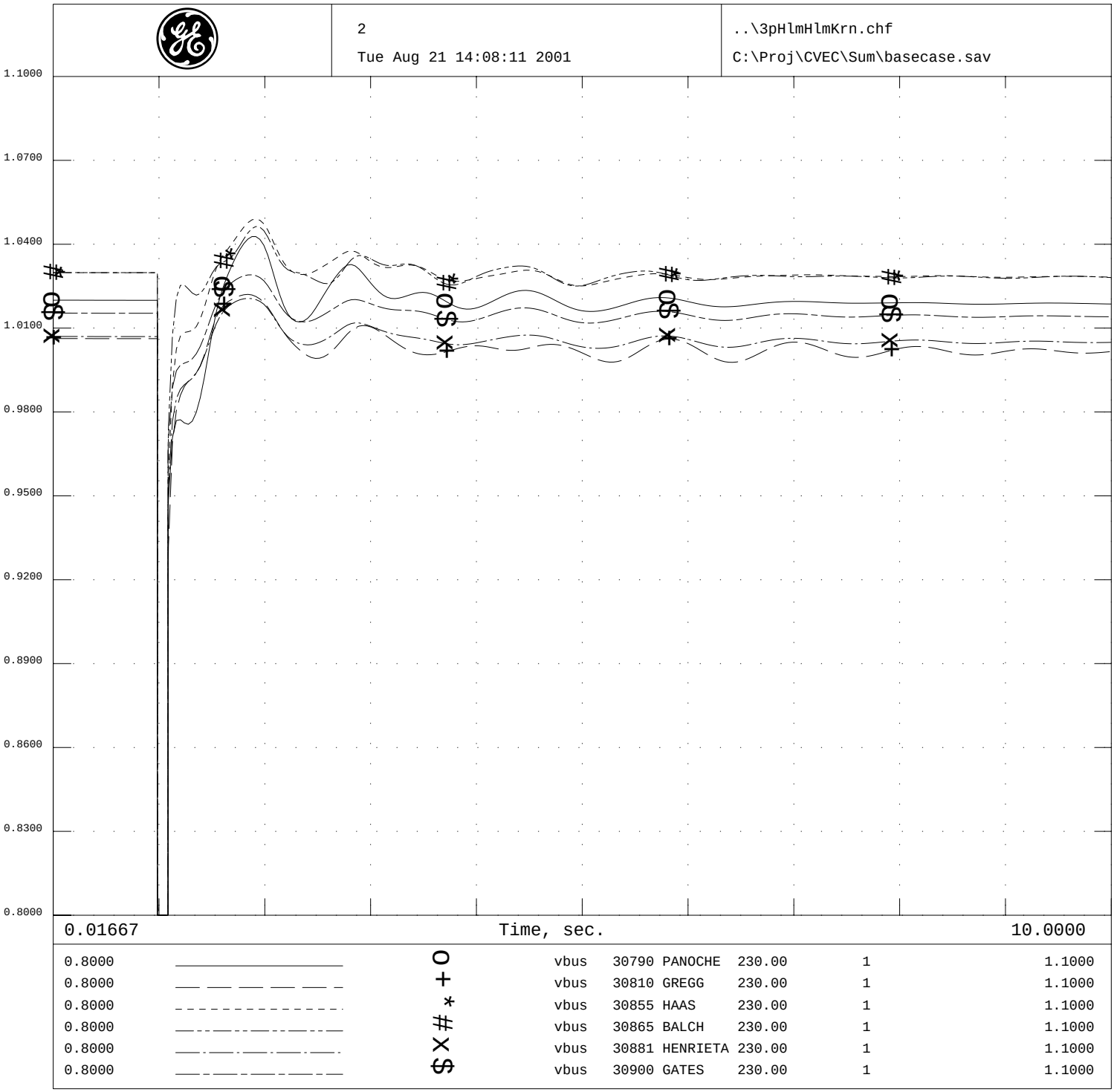
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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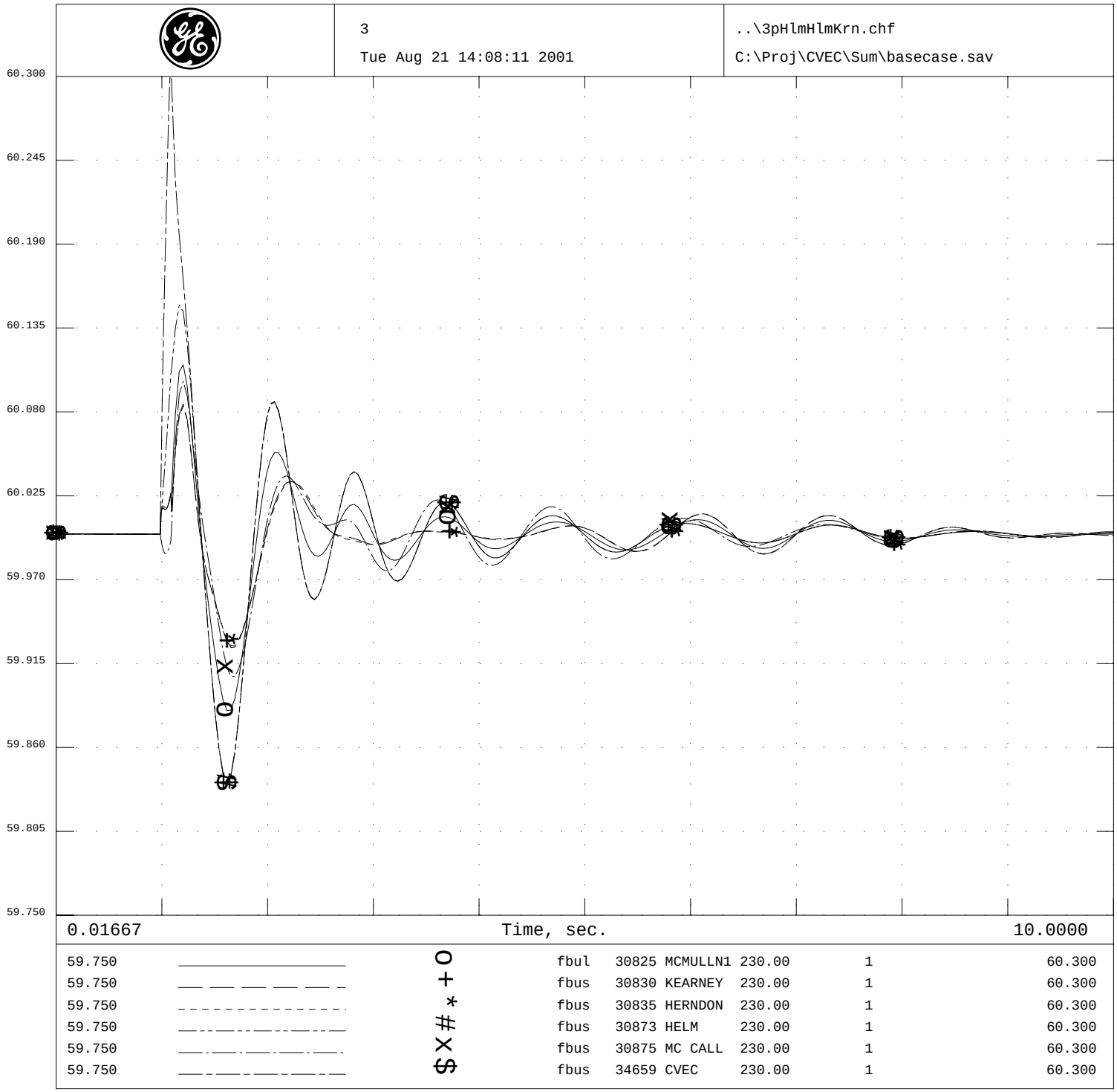

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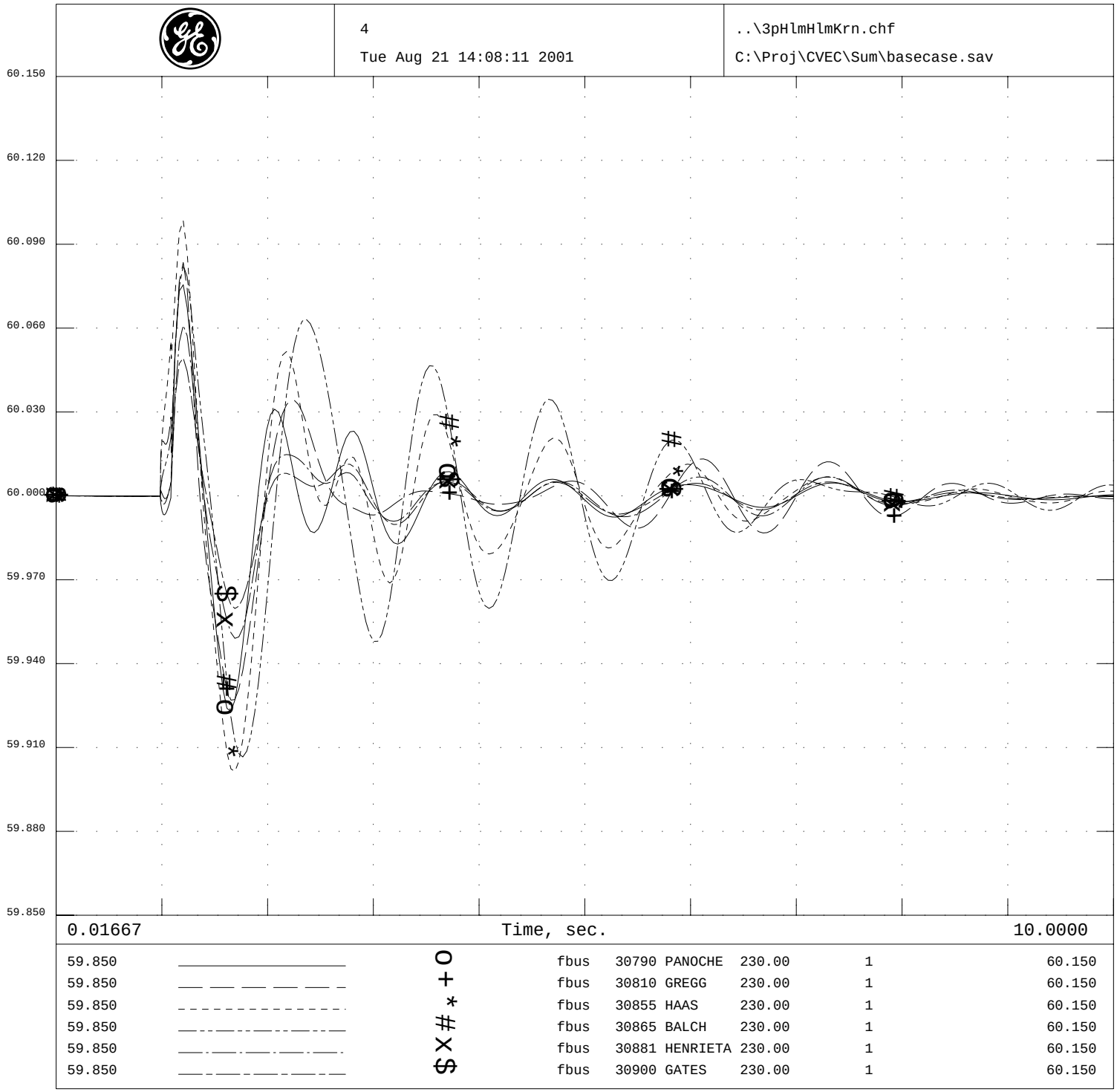
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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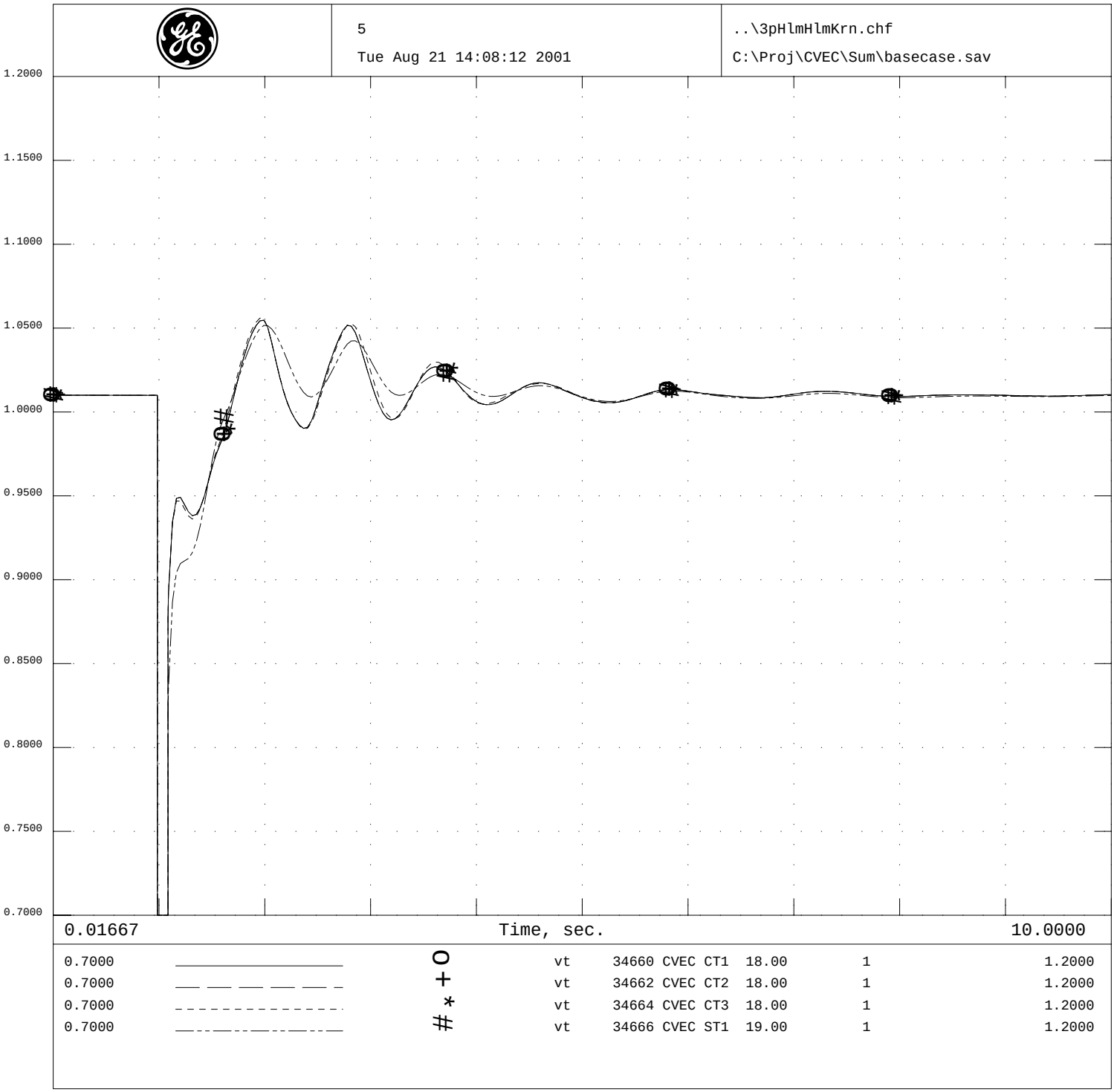

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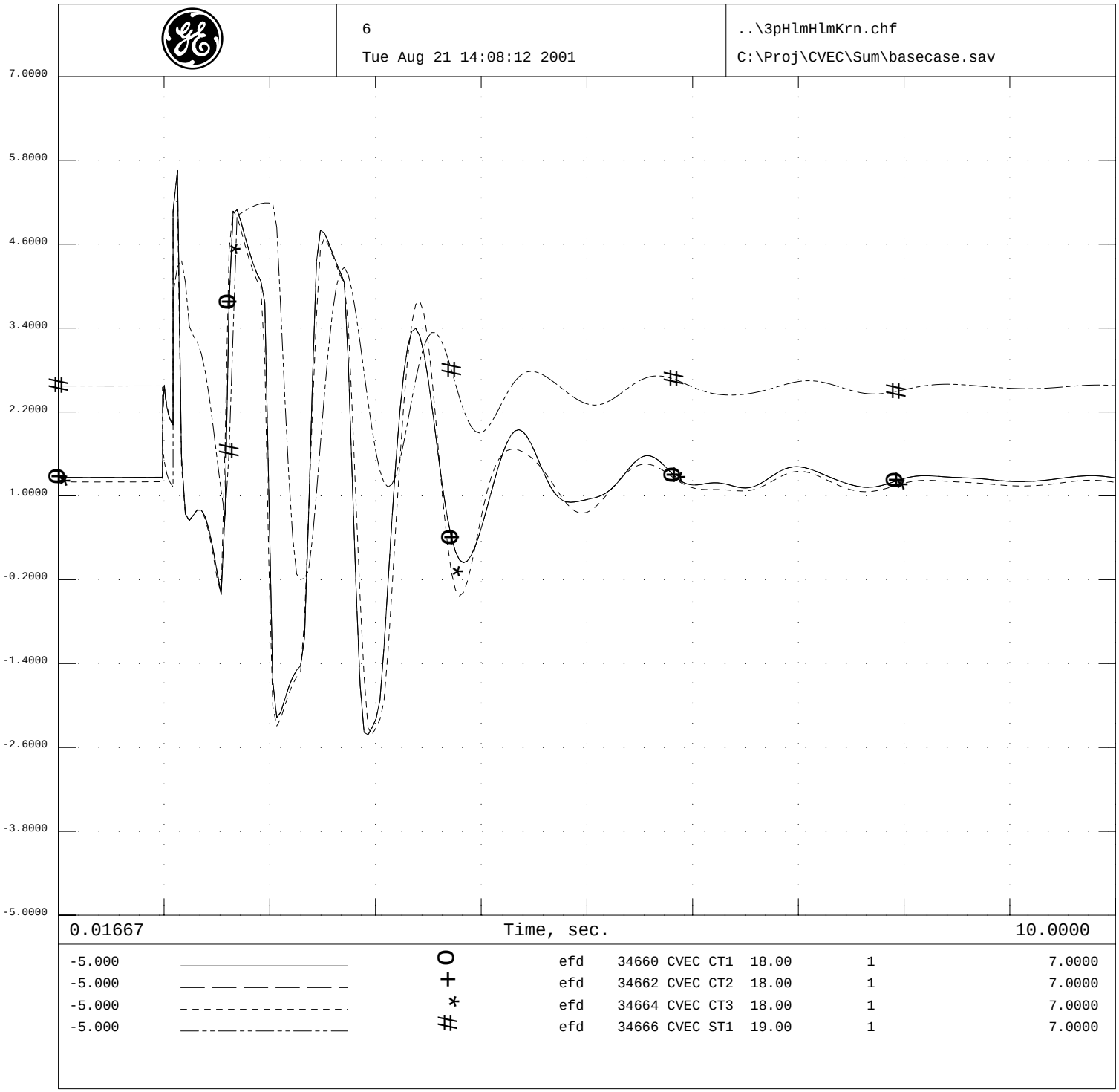
Calpine Corporation
Project Generator Terminal Voltages



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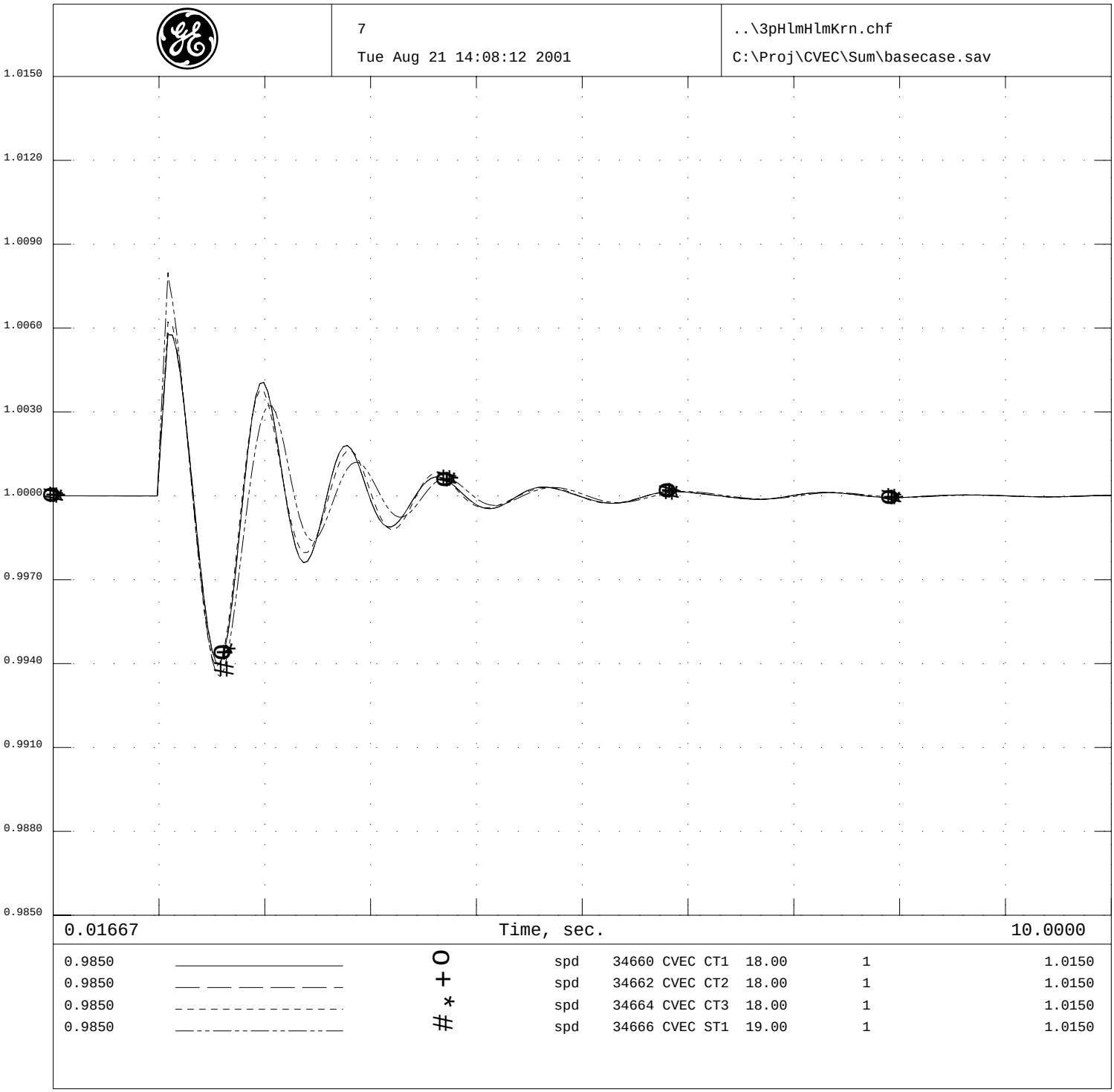
Project Generator Field Voltages



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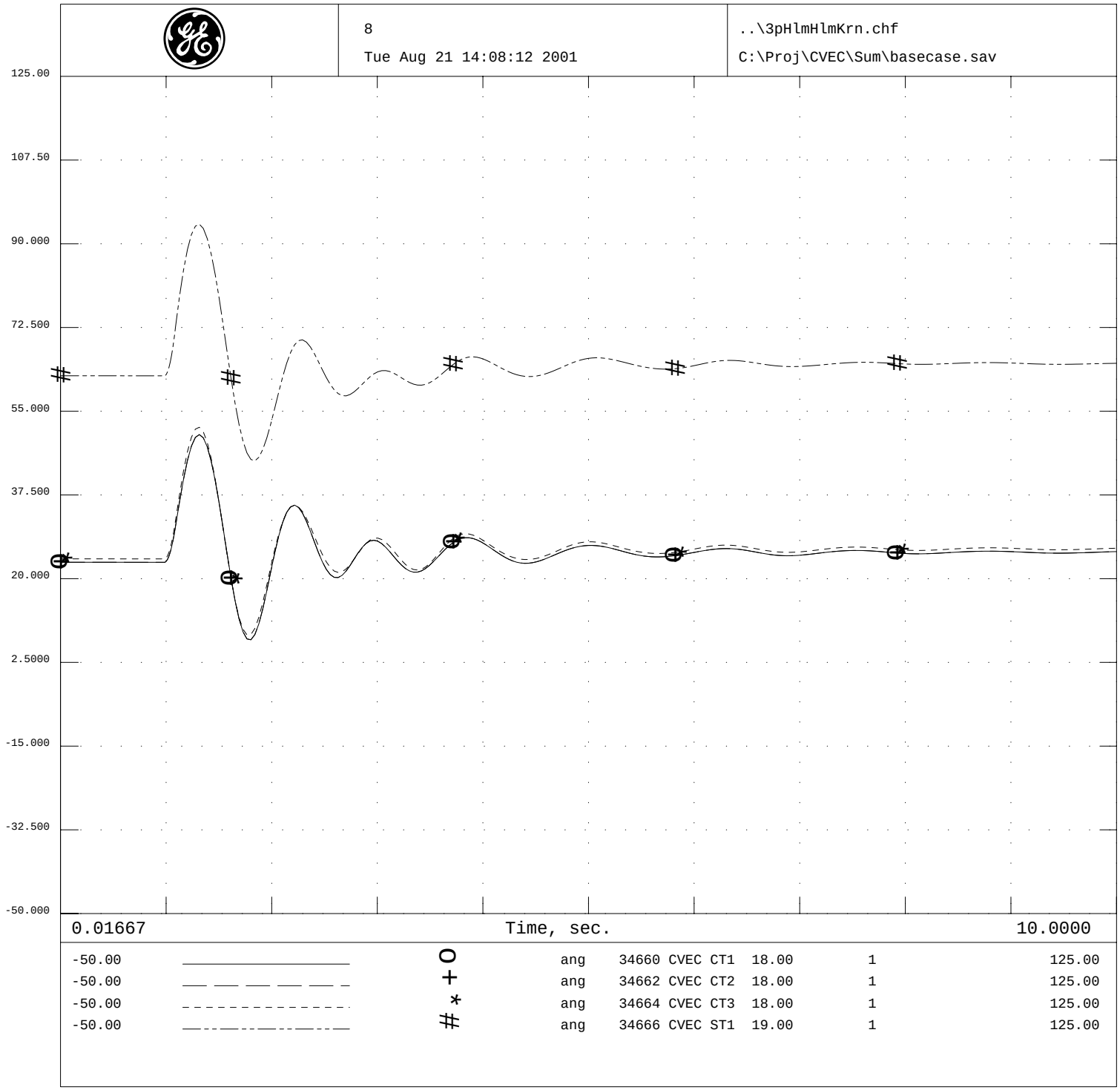
Calpine Corporation
Project Generator Rotor Speed



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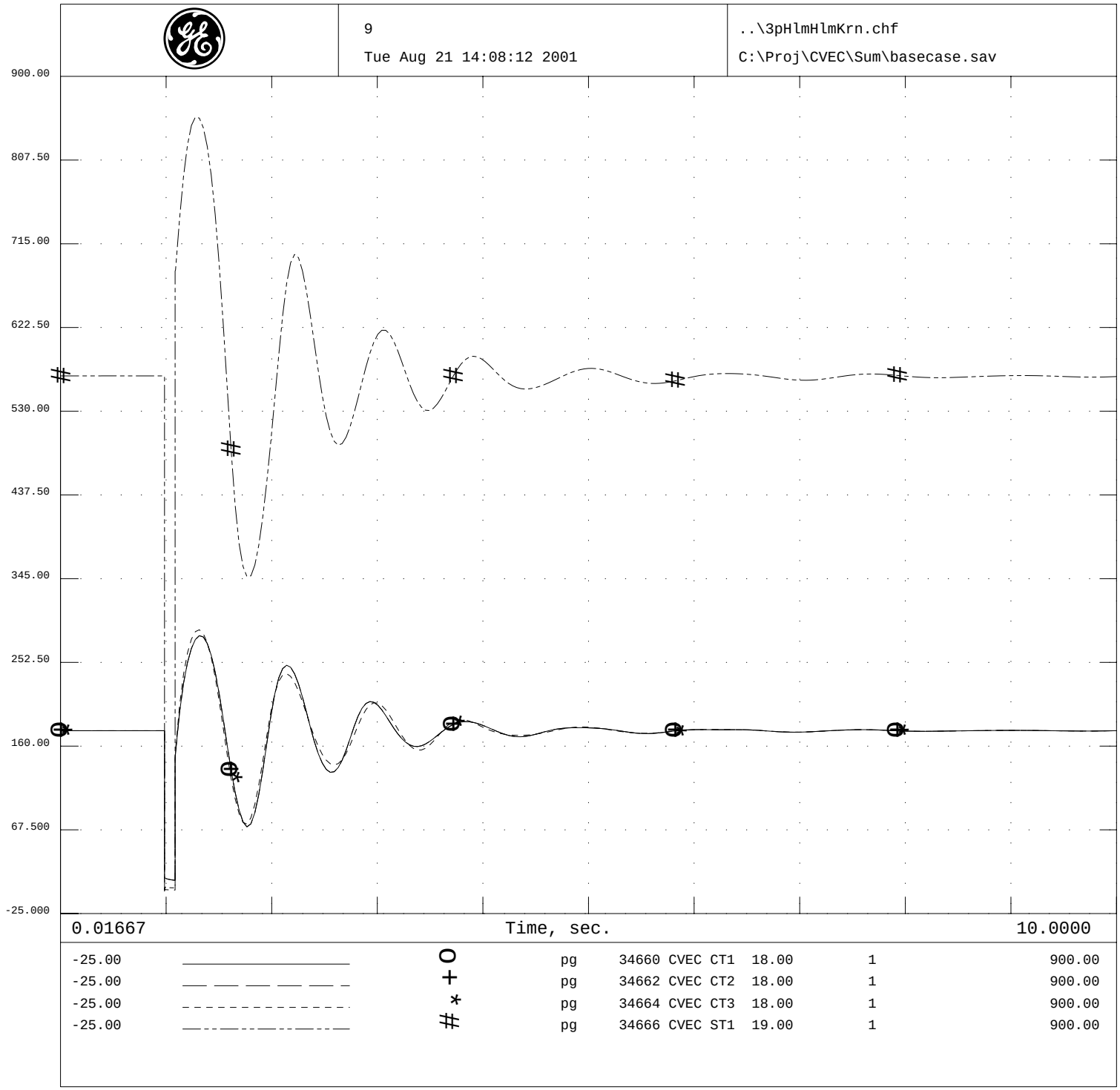

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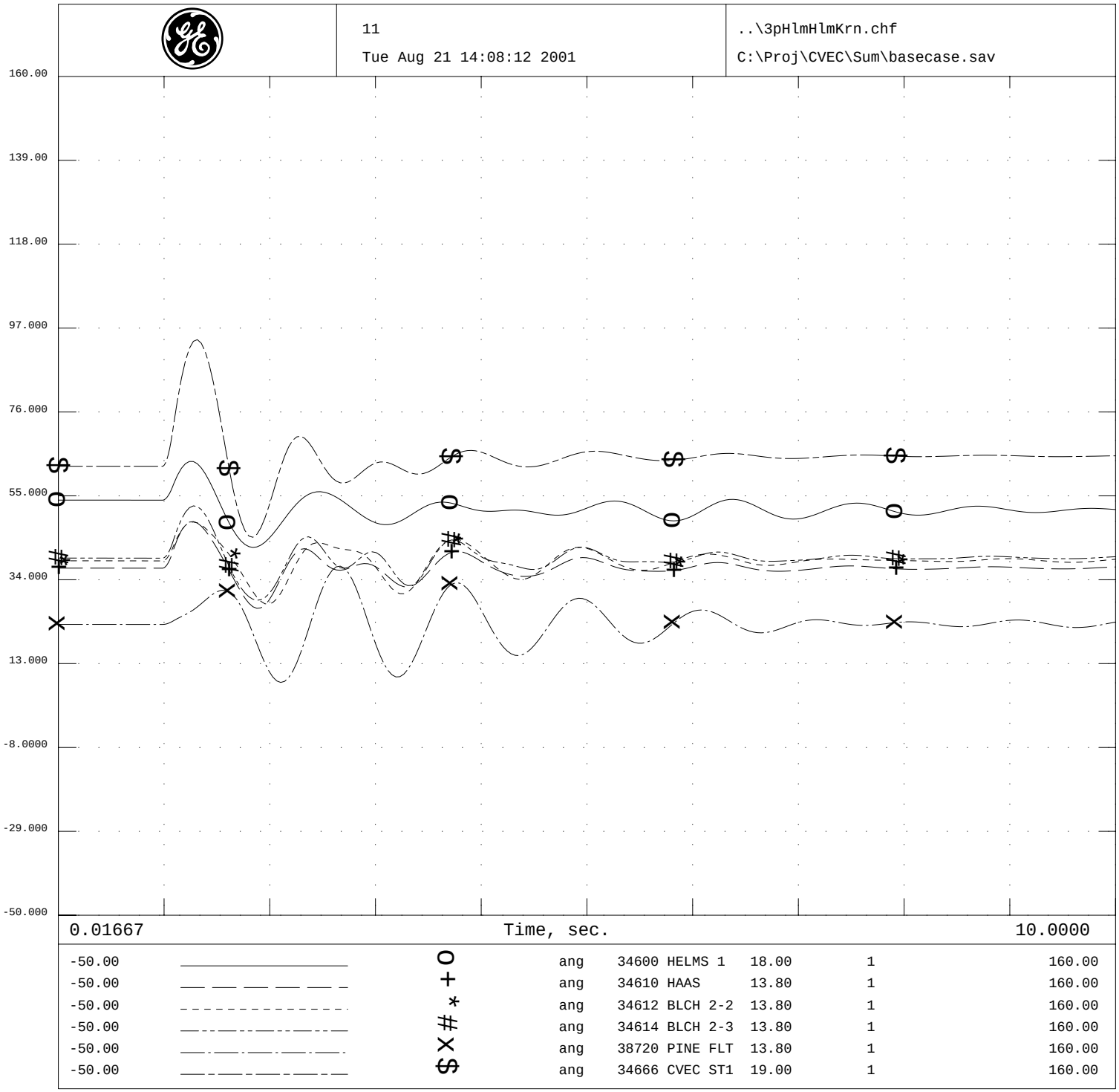

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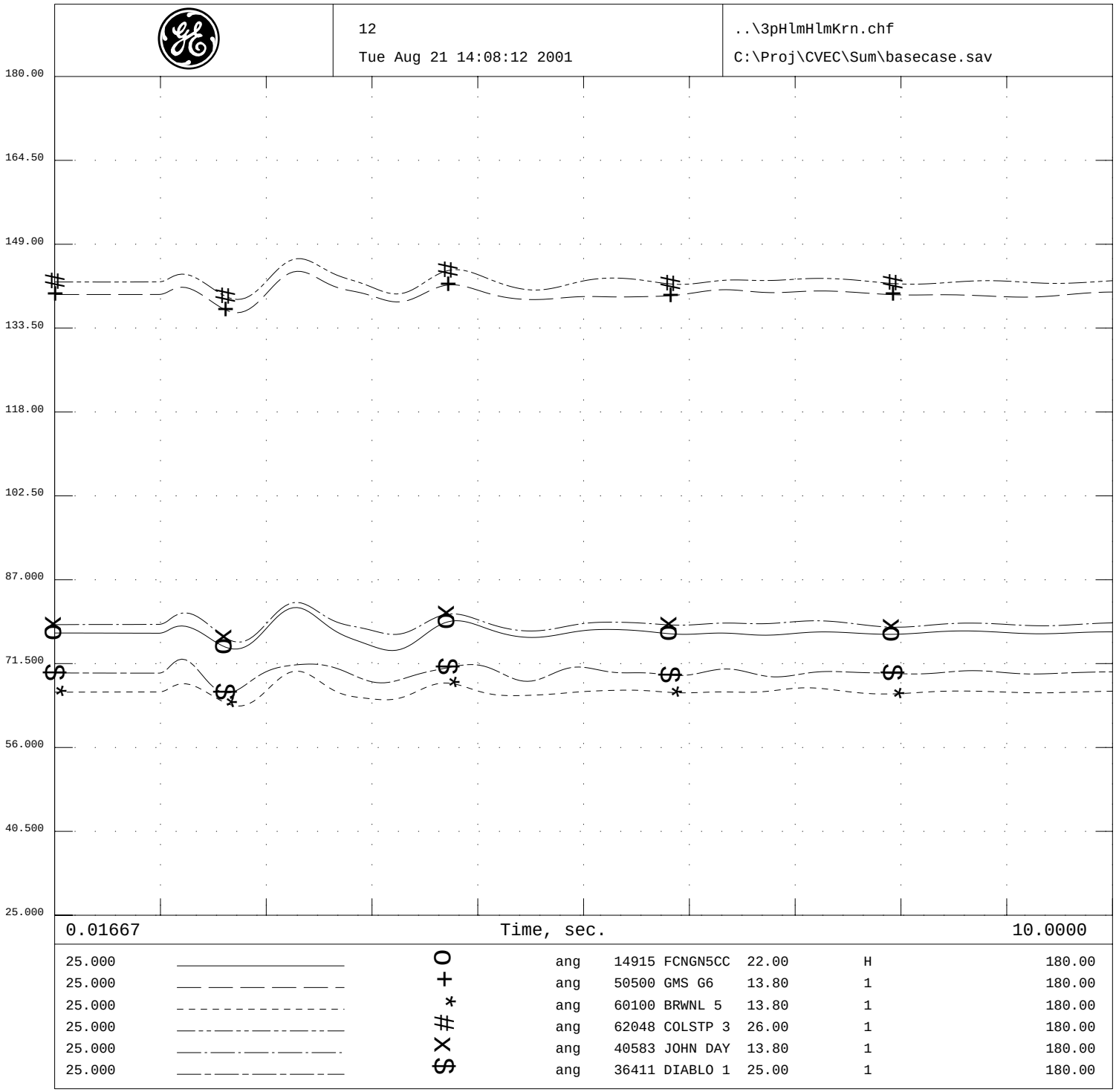

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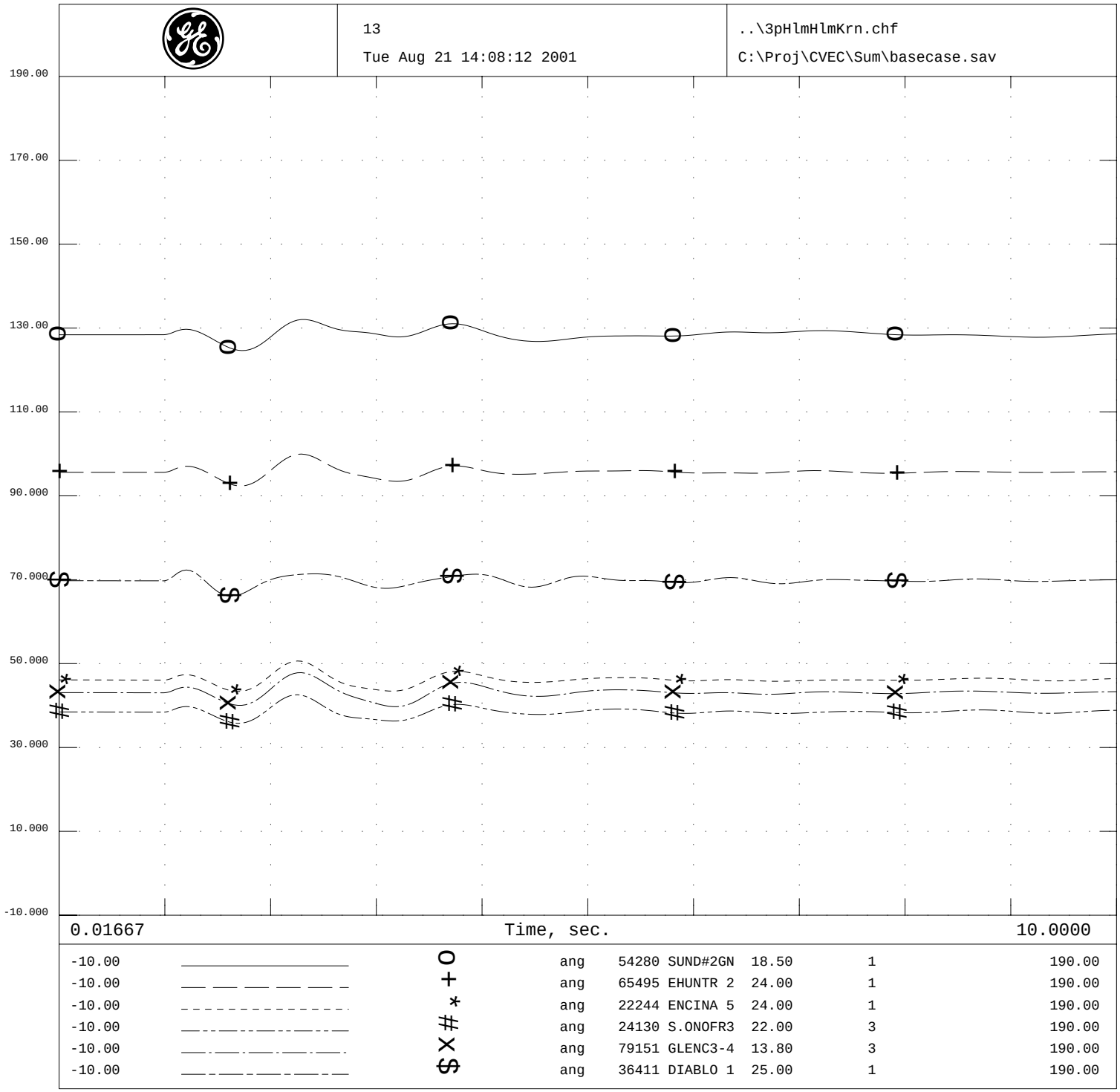

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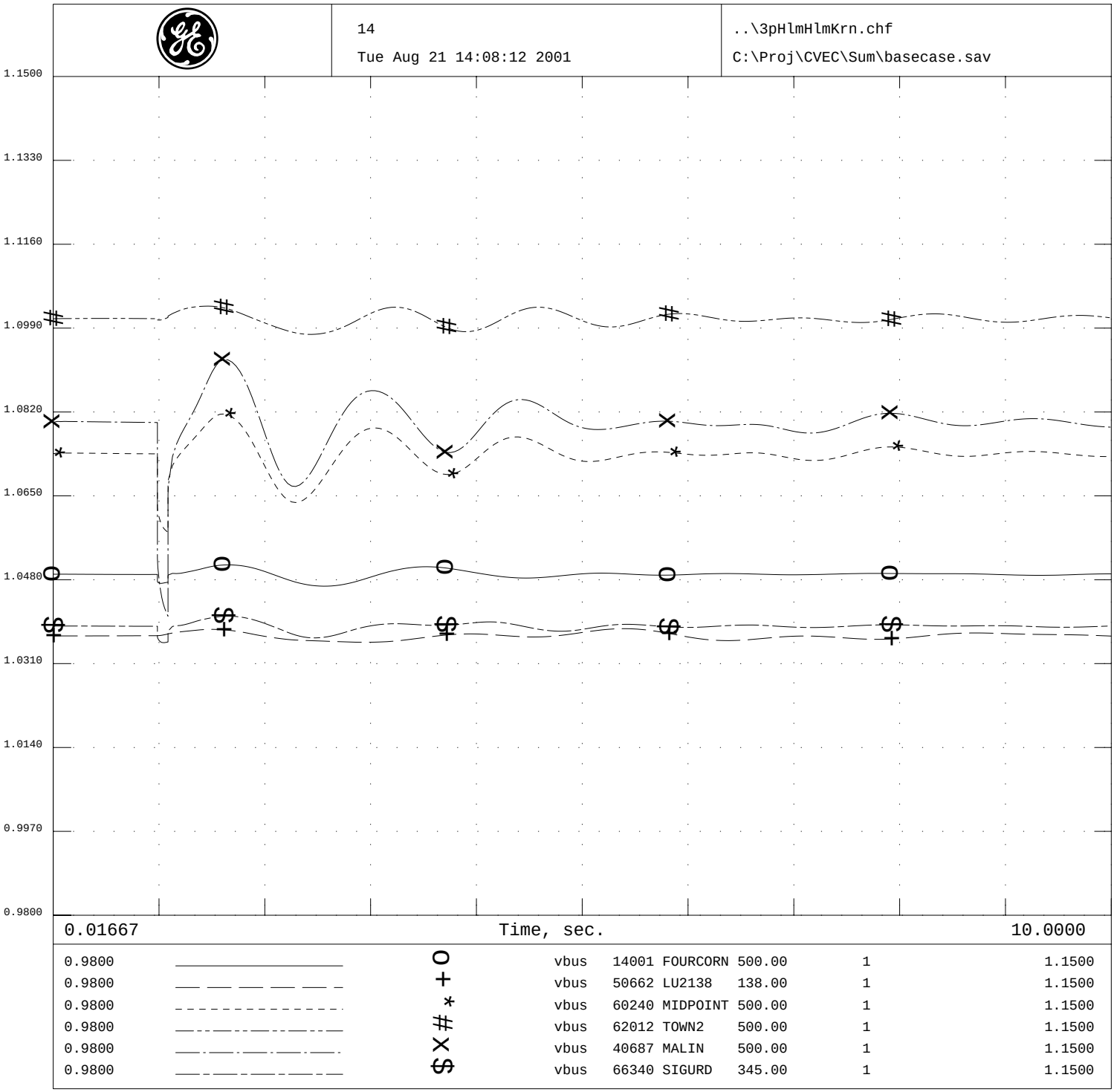

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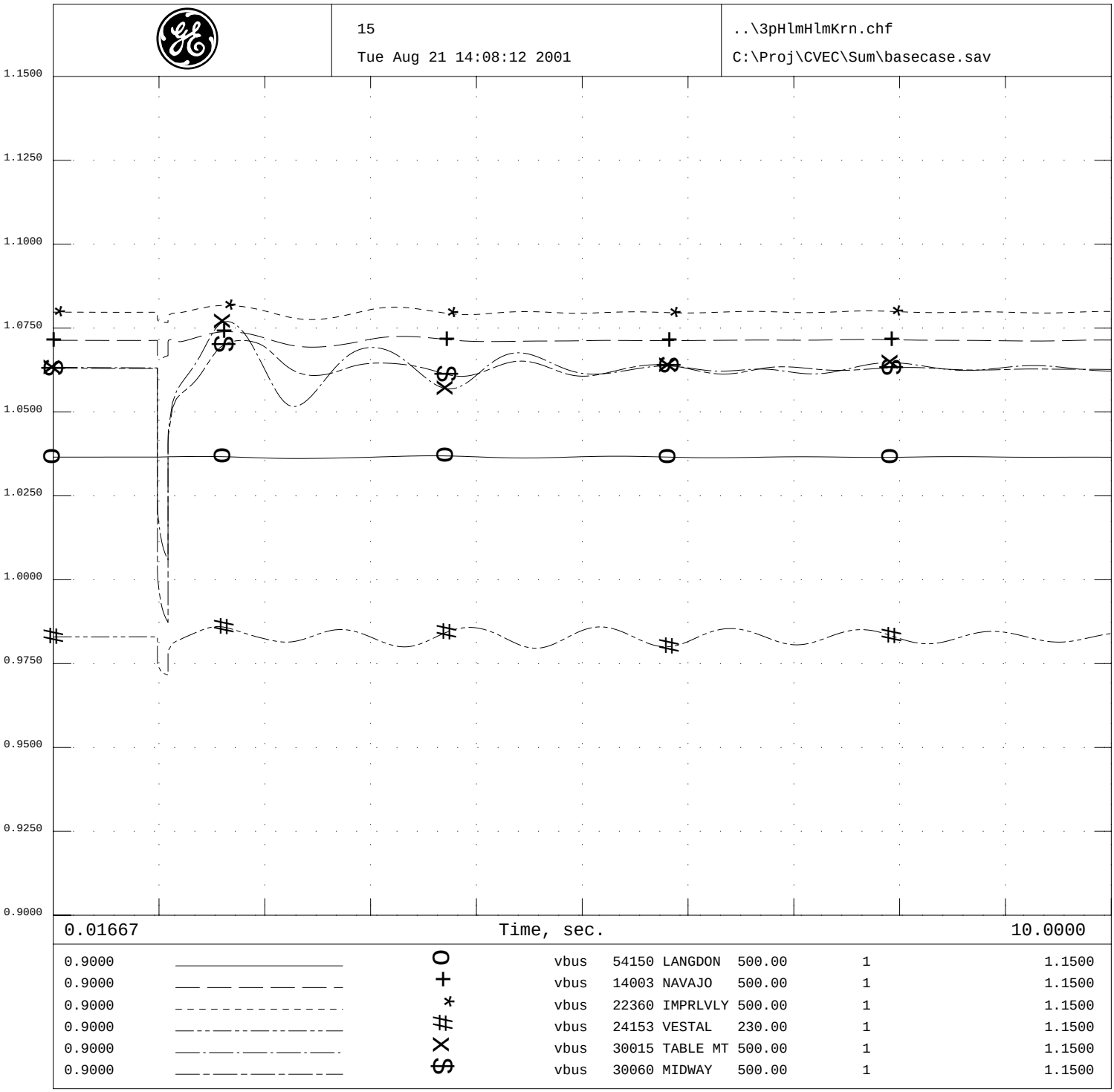

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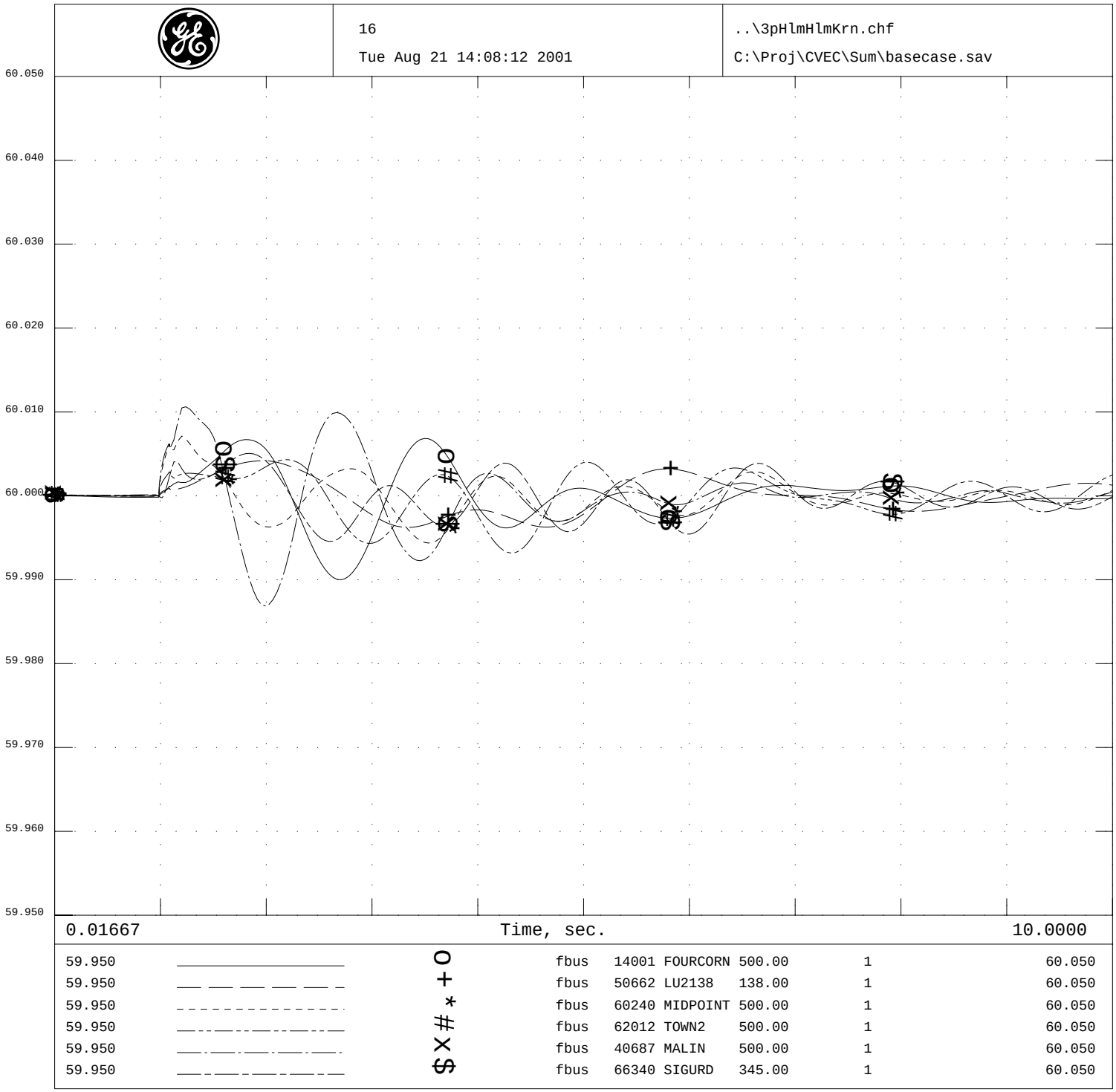

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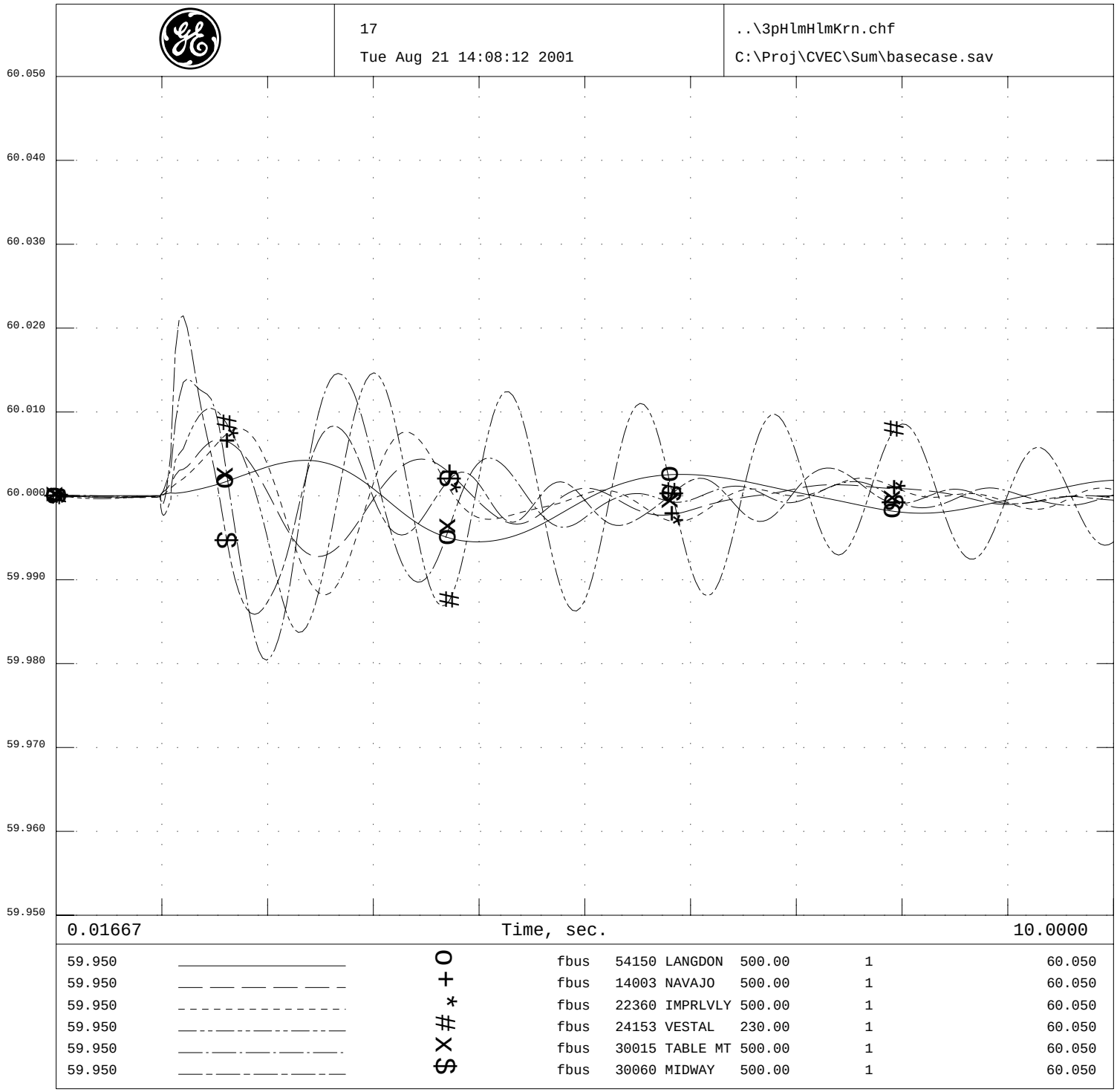

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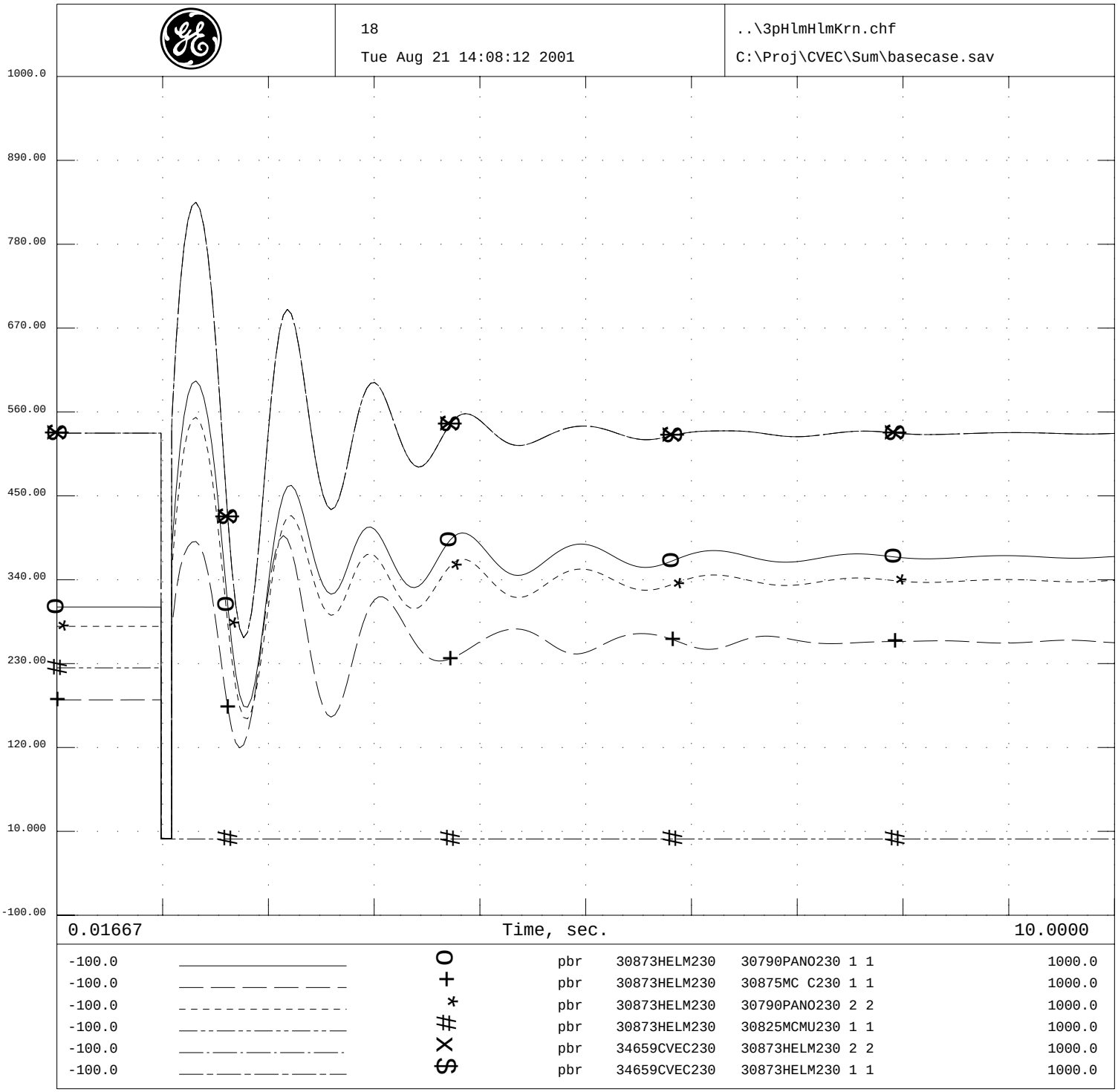

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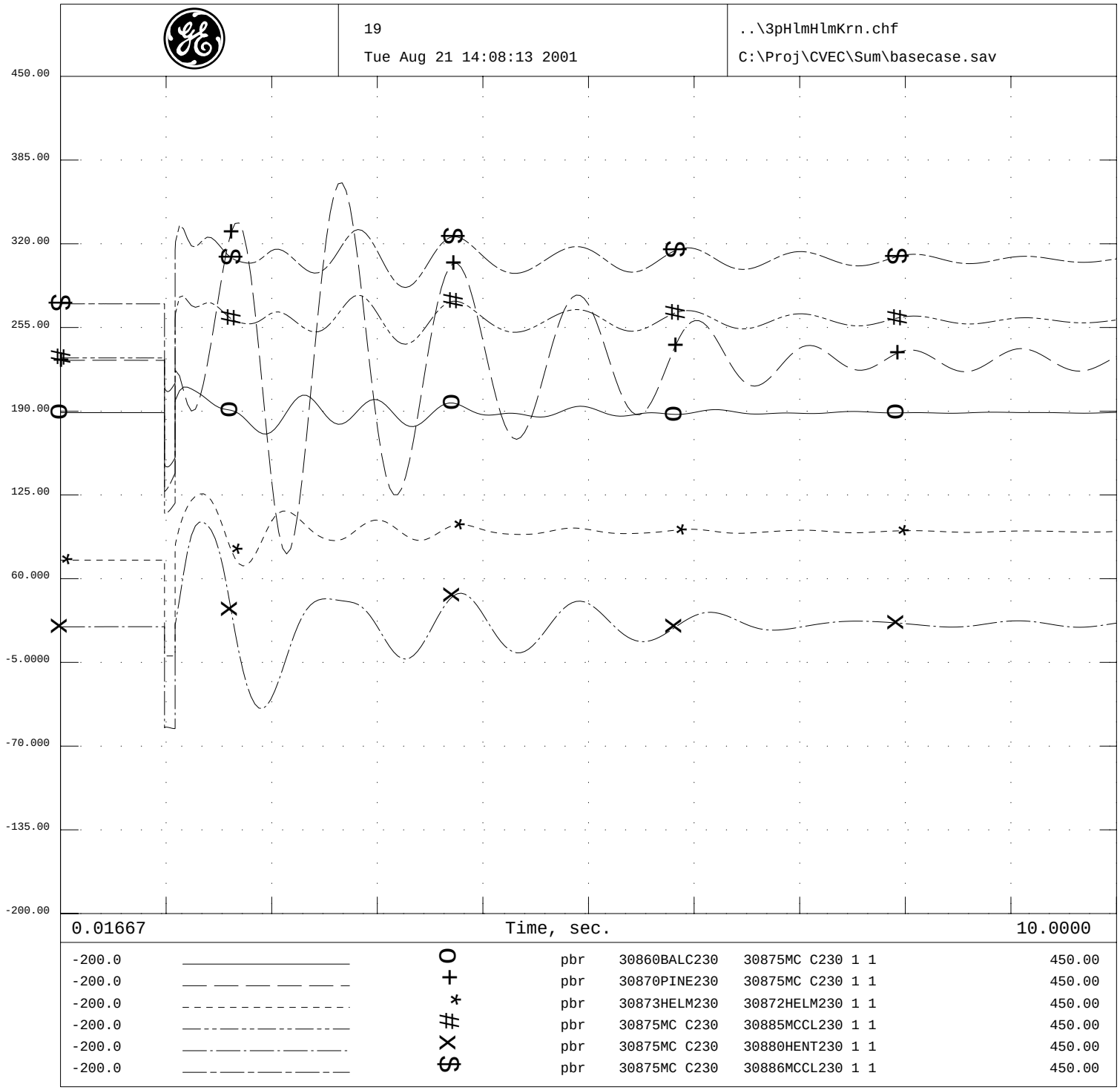

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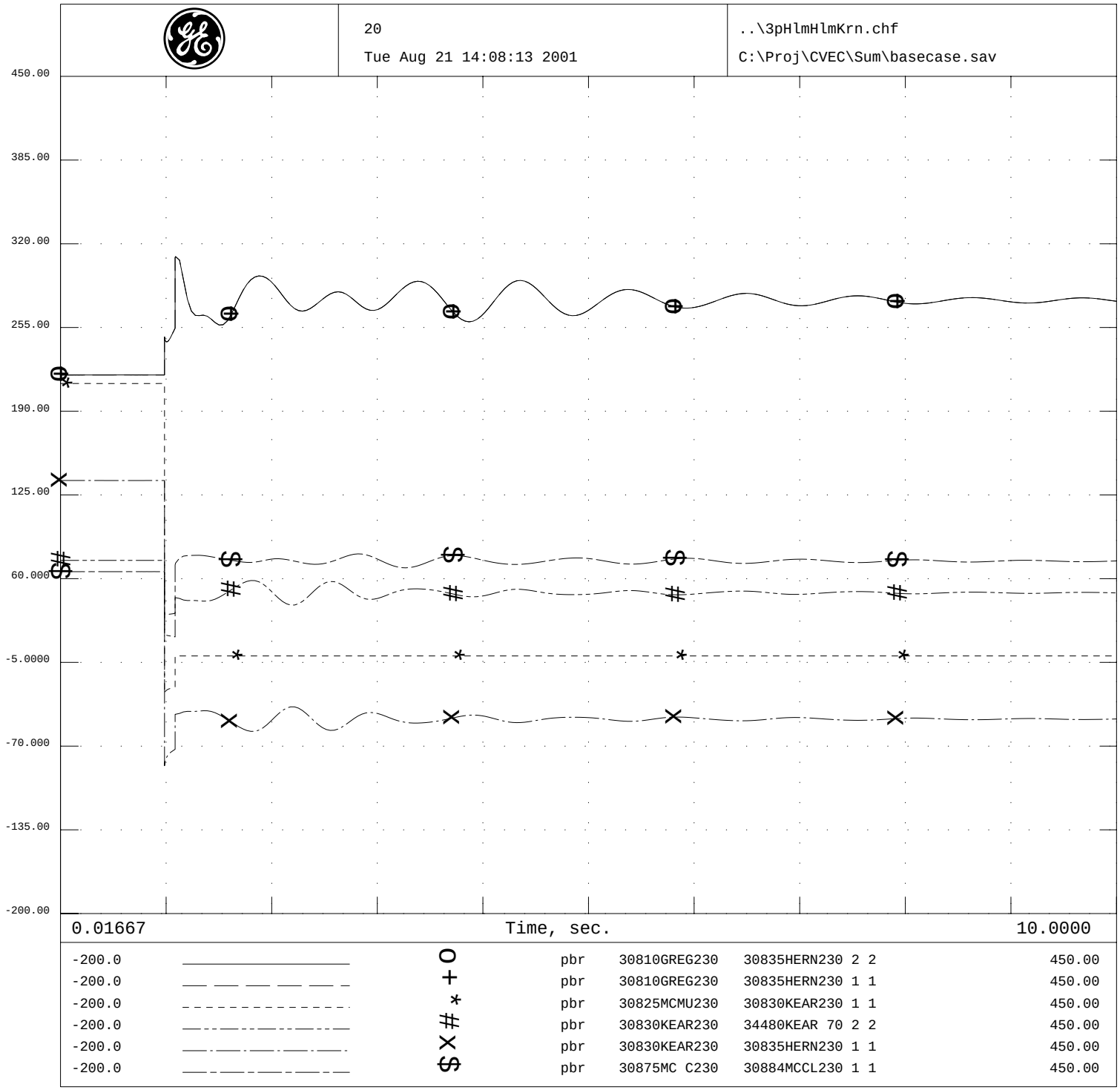
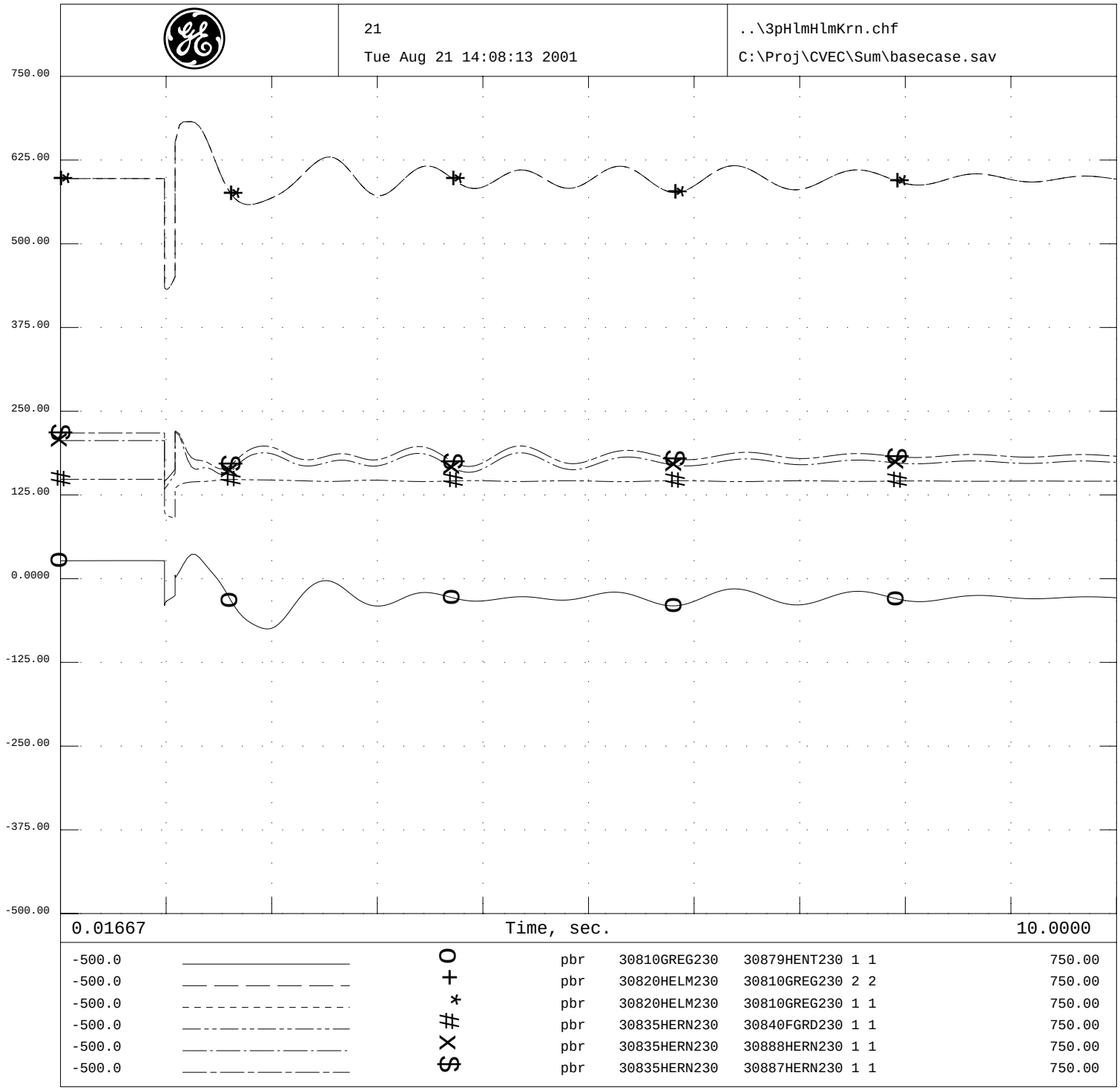


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Kearny-Helm 230kV Line Outage
3 phase 6 cycle fault at Helm 230kV bus and trip Kearny-Helm line

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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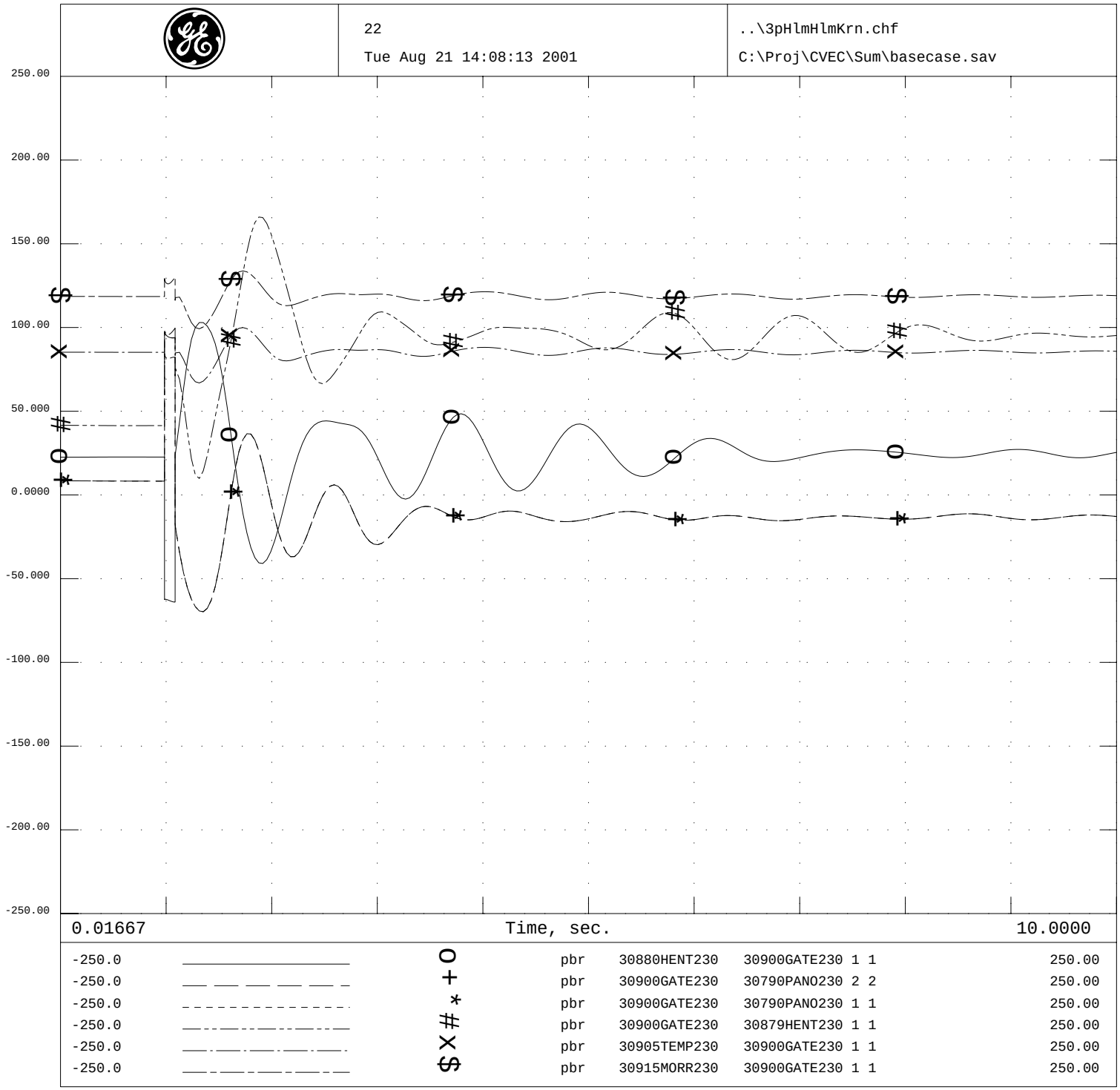

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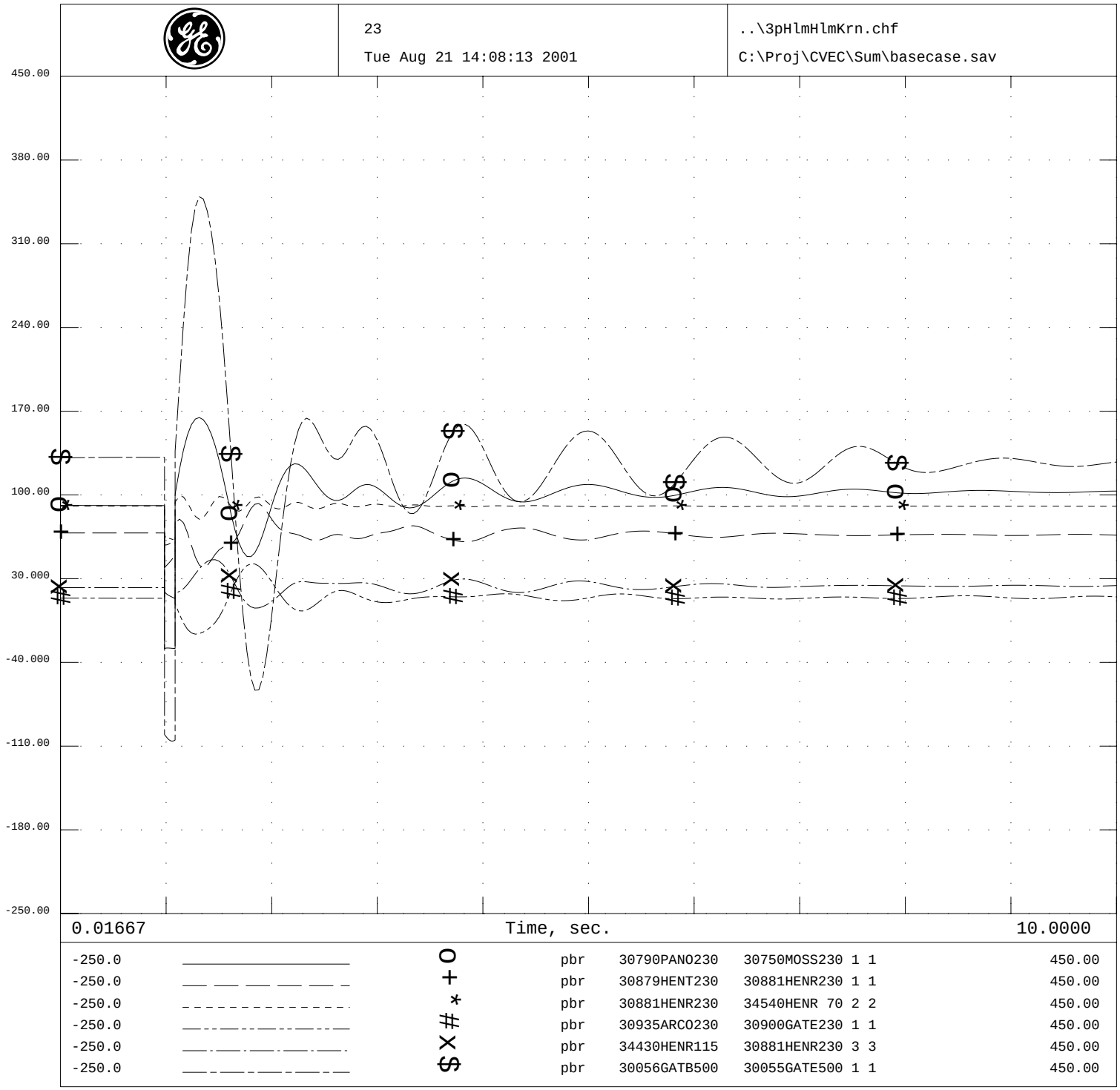

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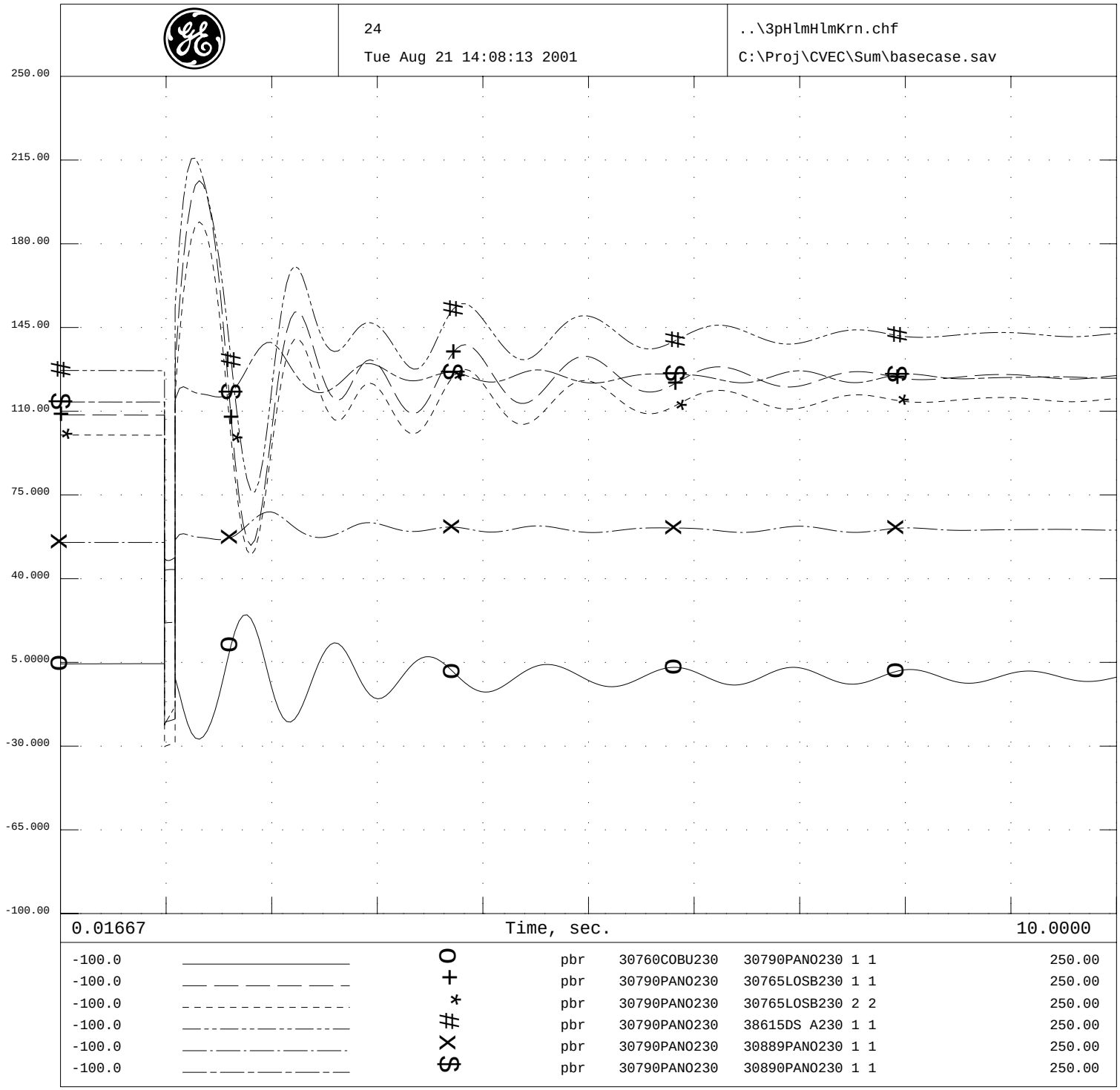

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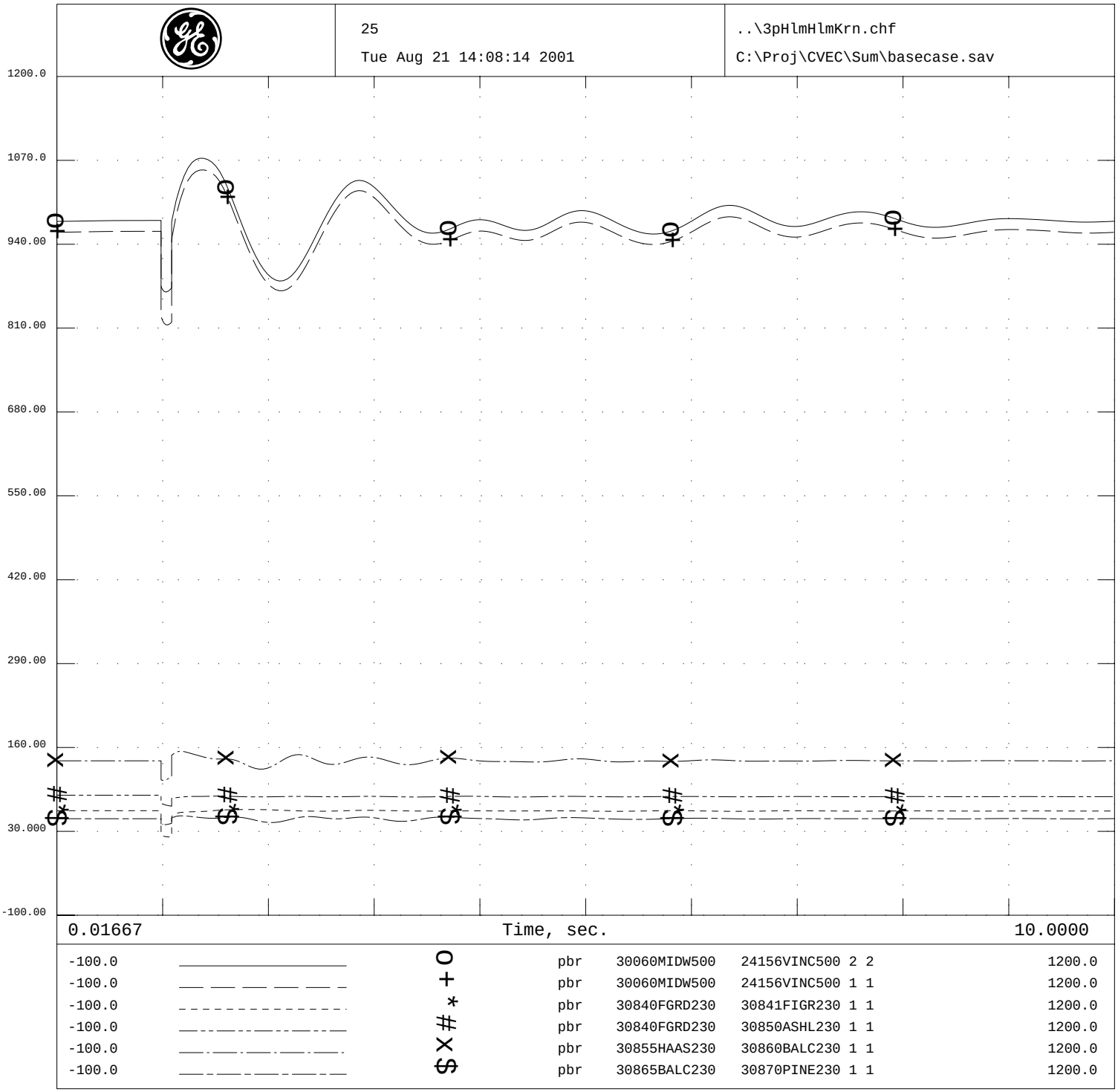

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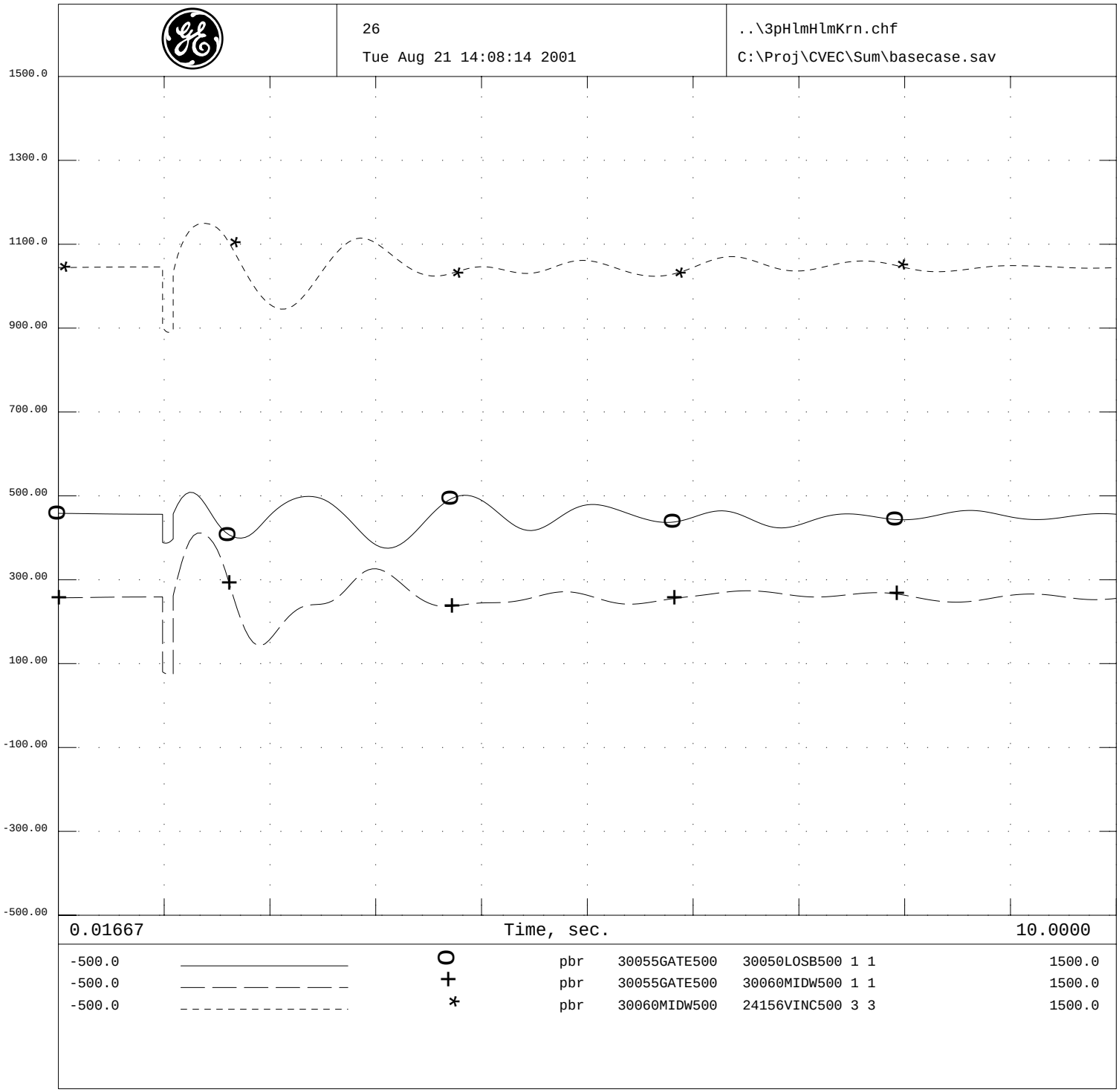

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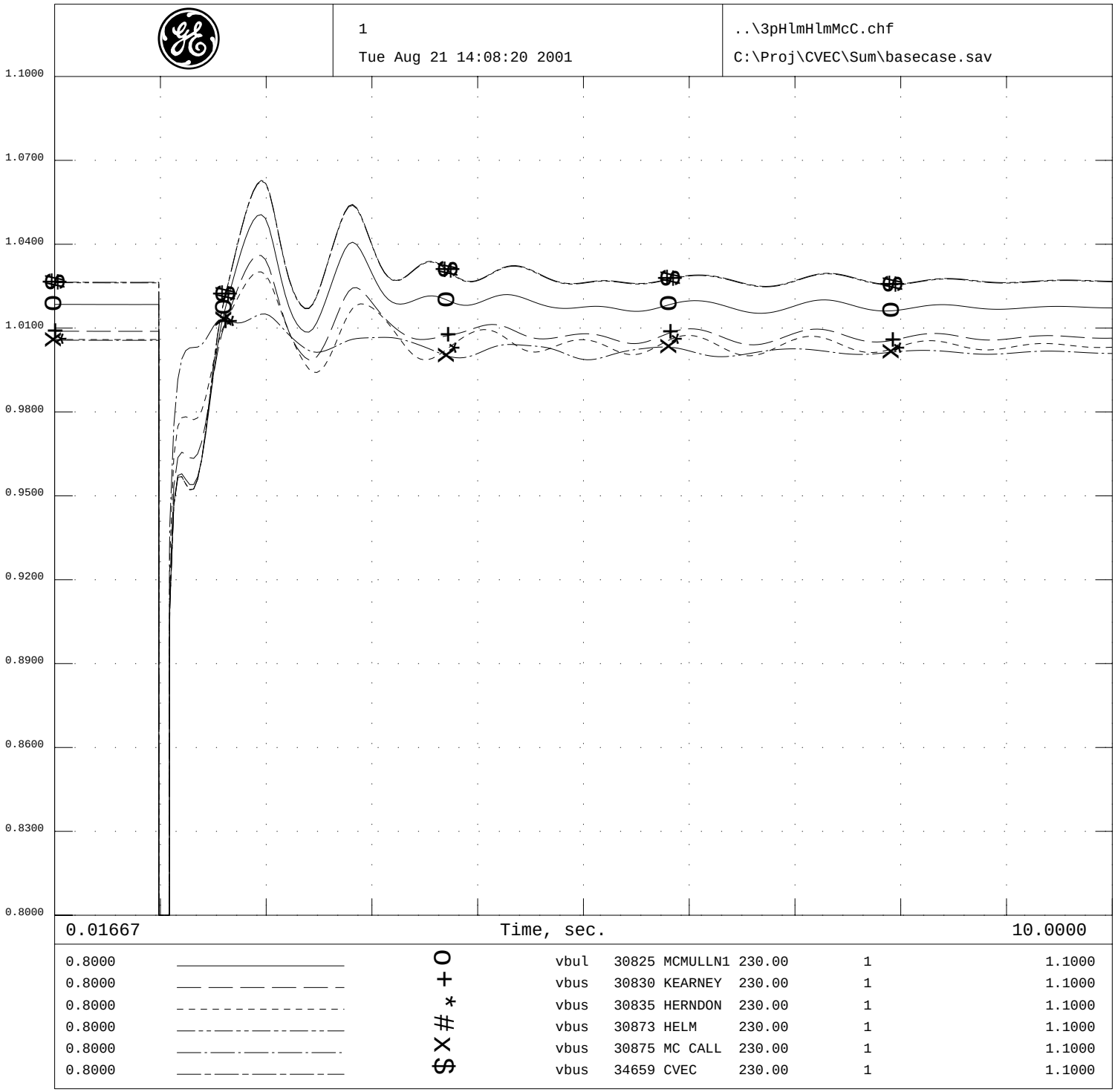

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2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Helm 230kV Line Outage
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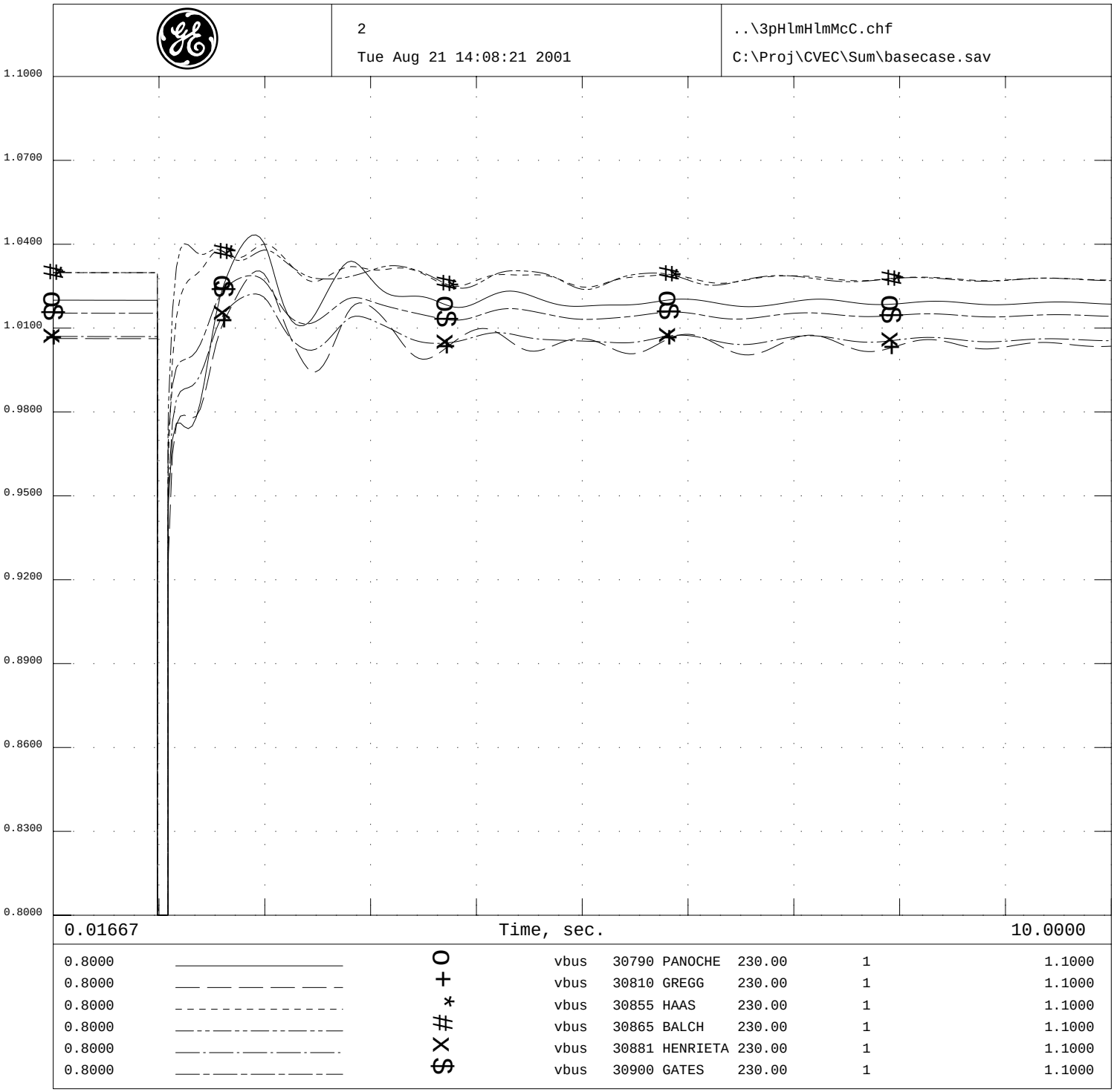
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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Calpine Corporation
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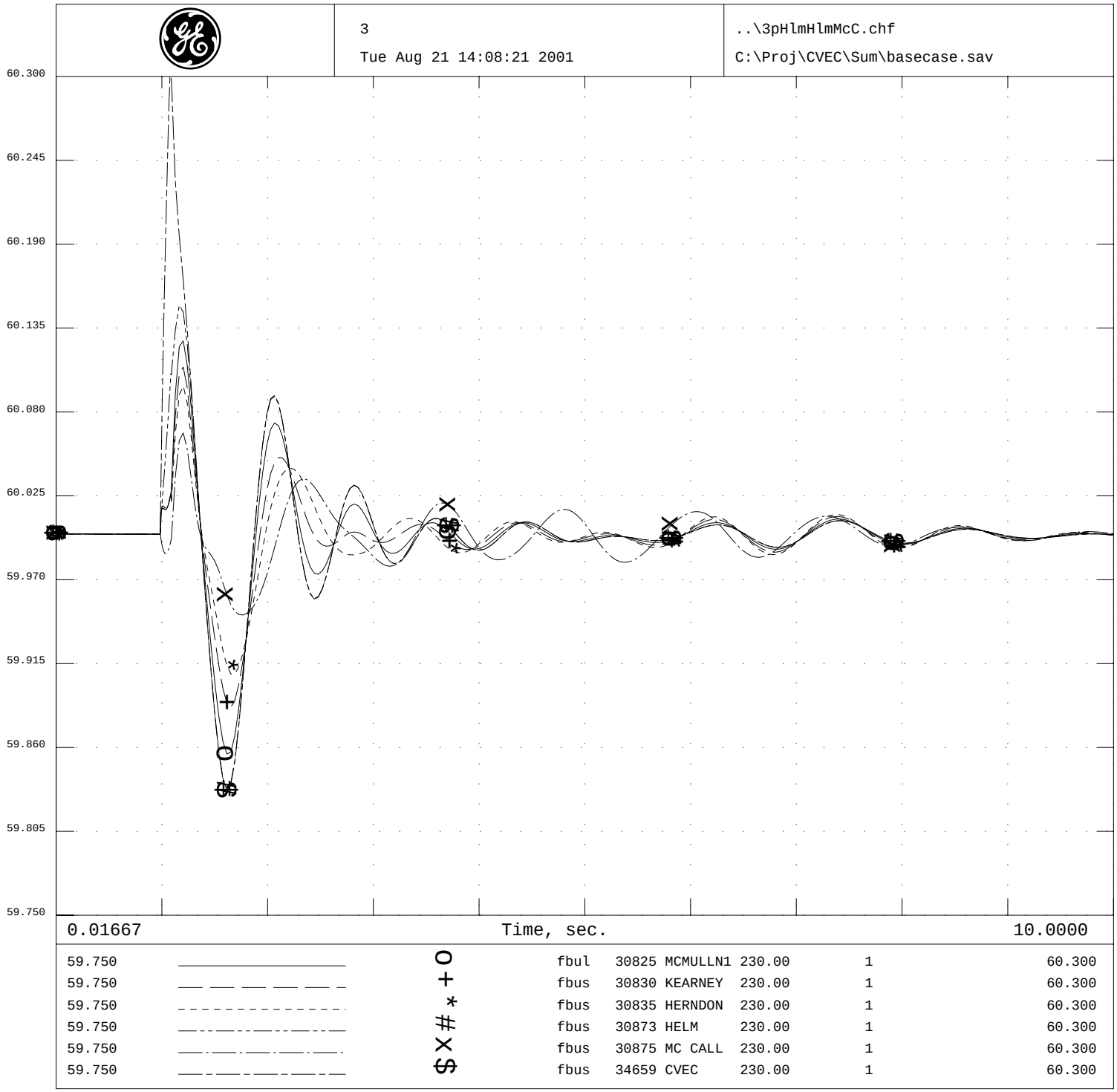

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Central Valley Energy Center
Calpine Corporation
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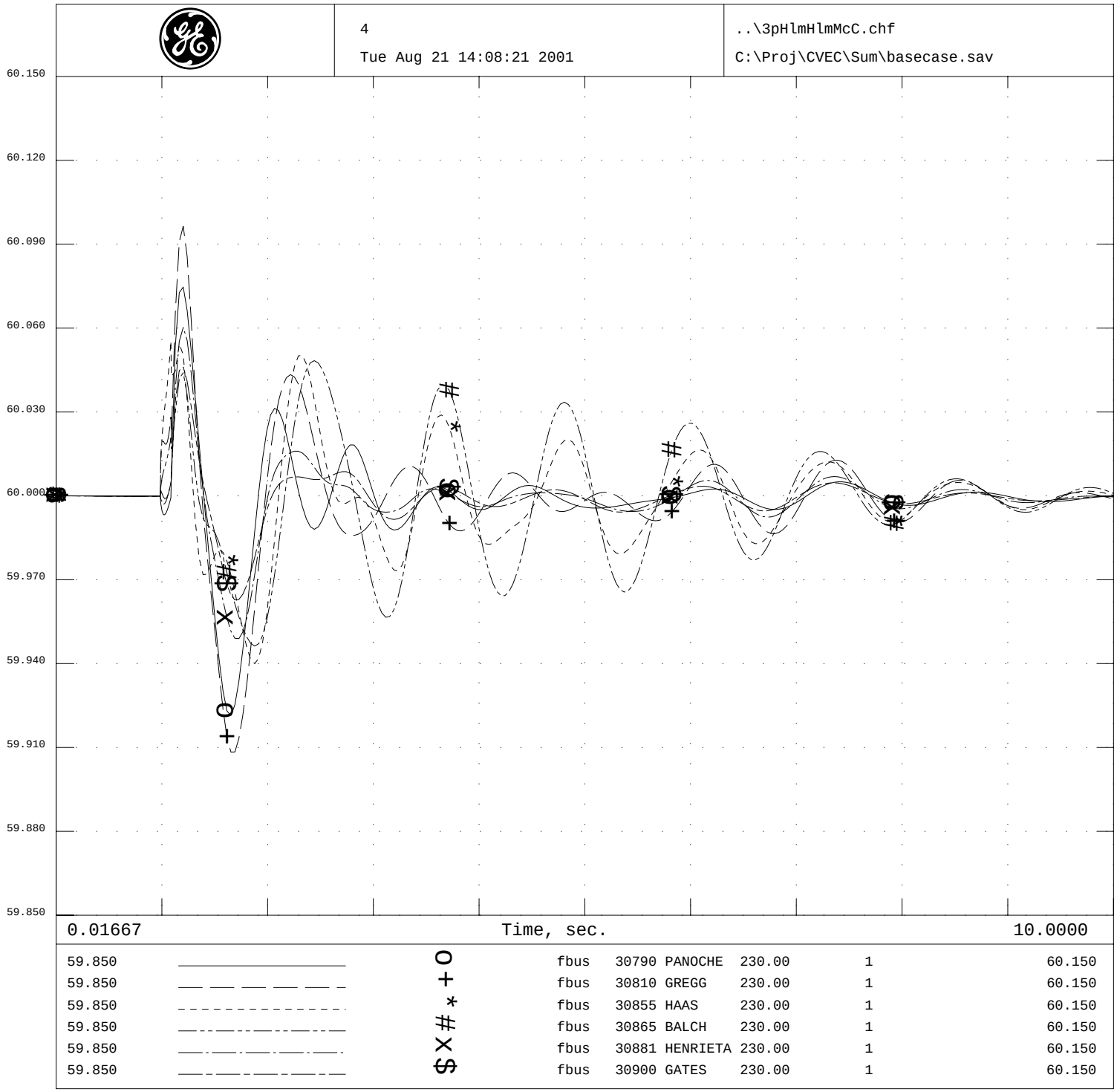

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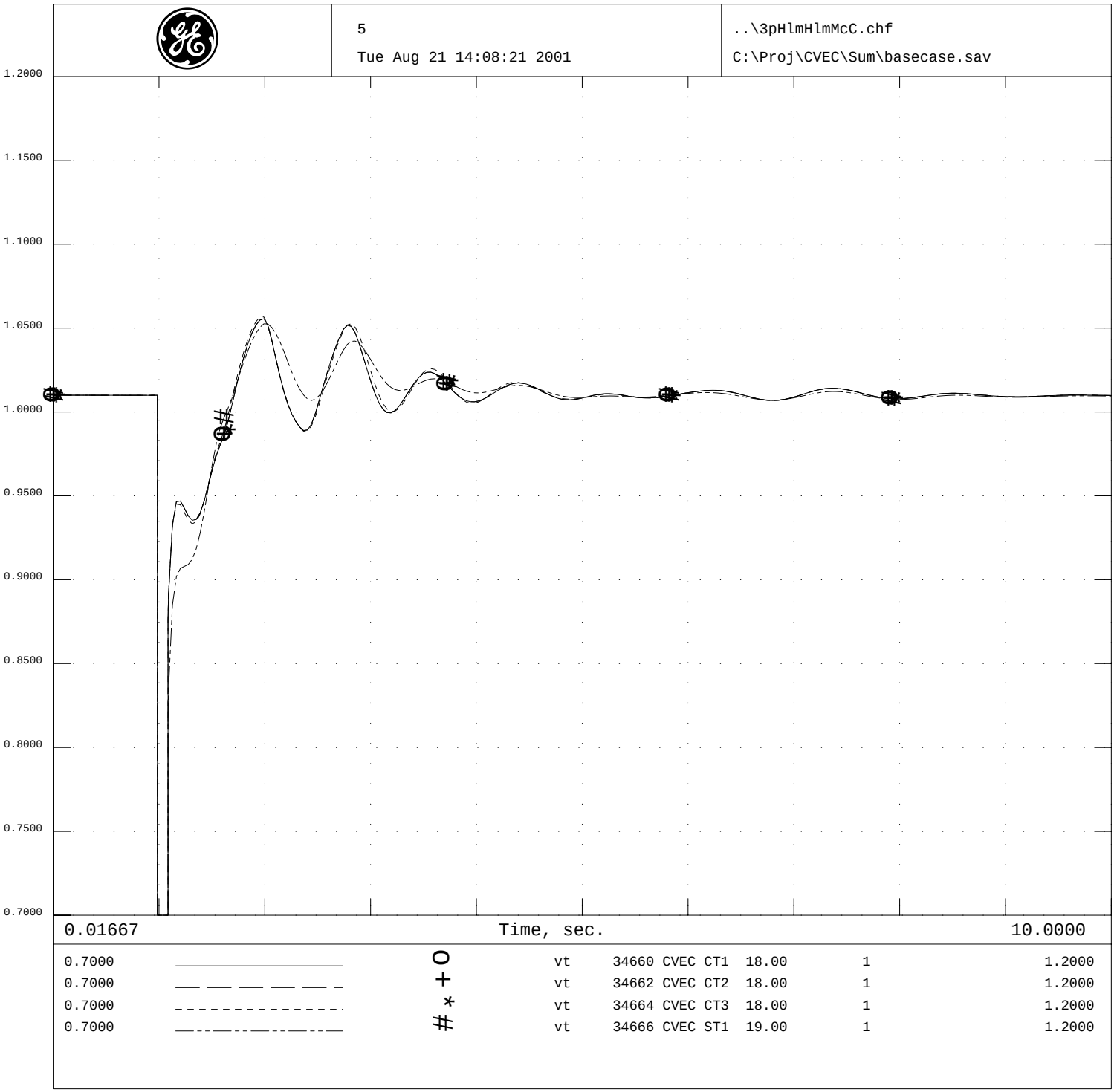

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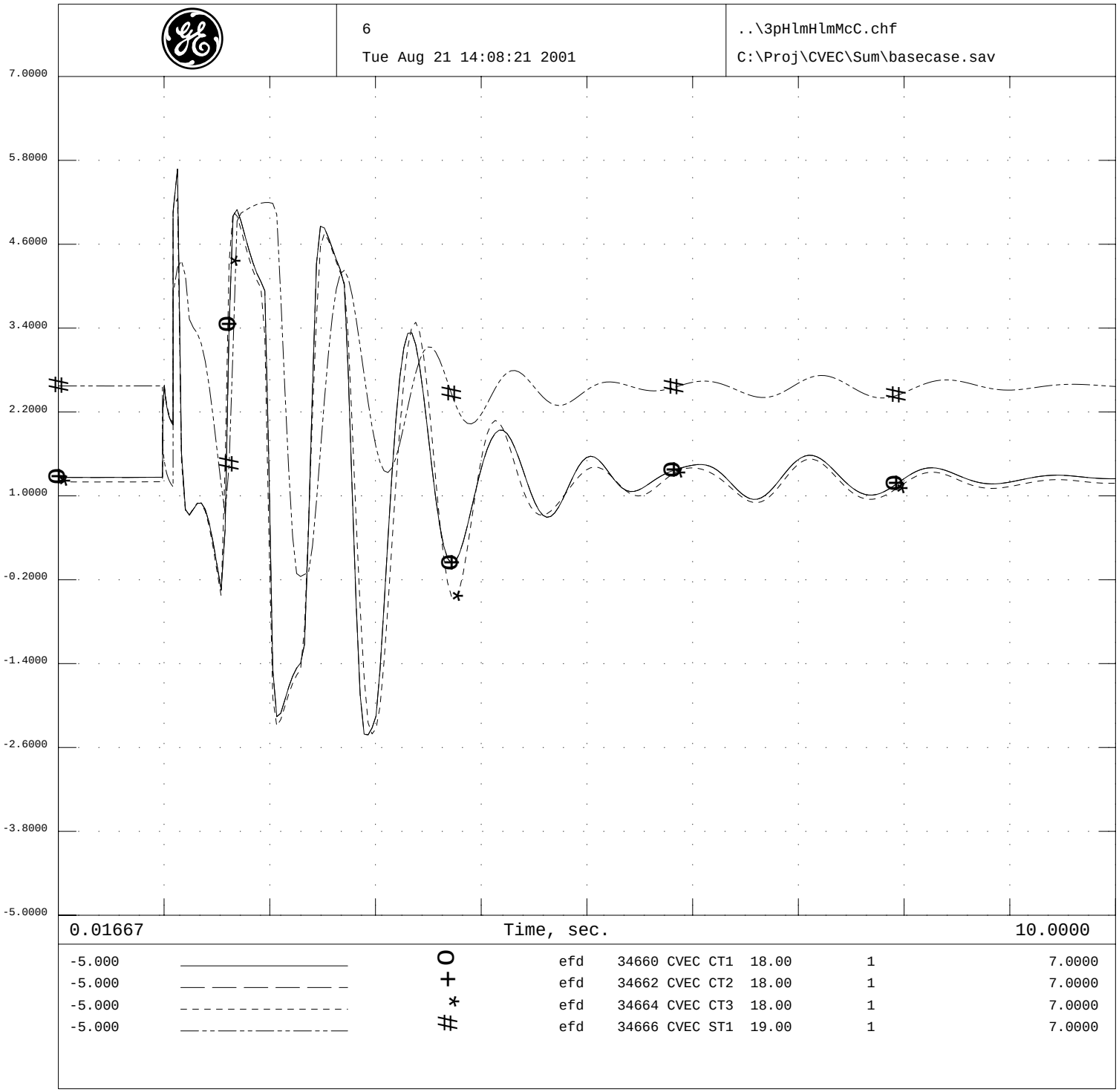
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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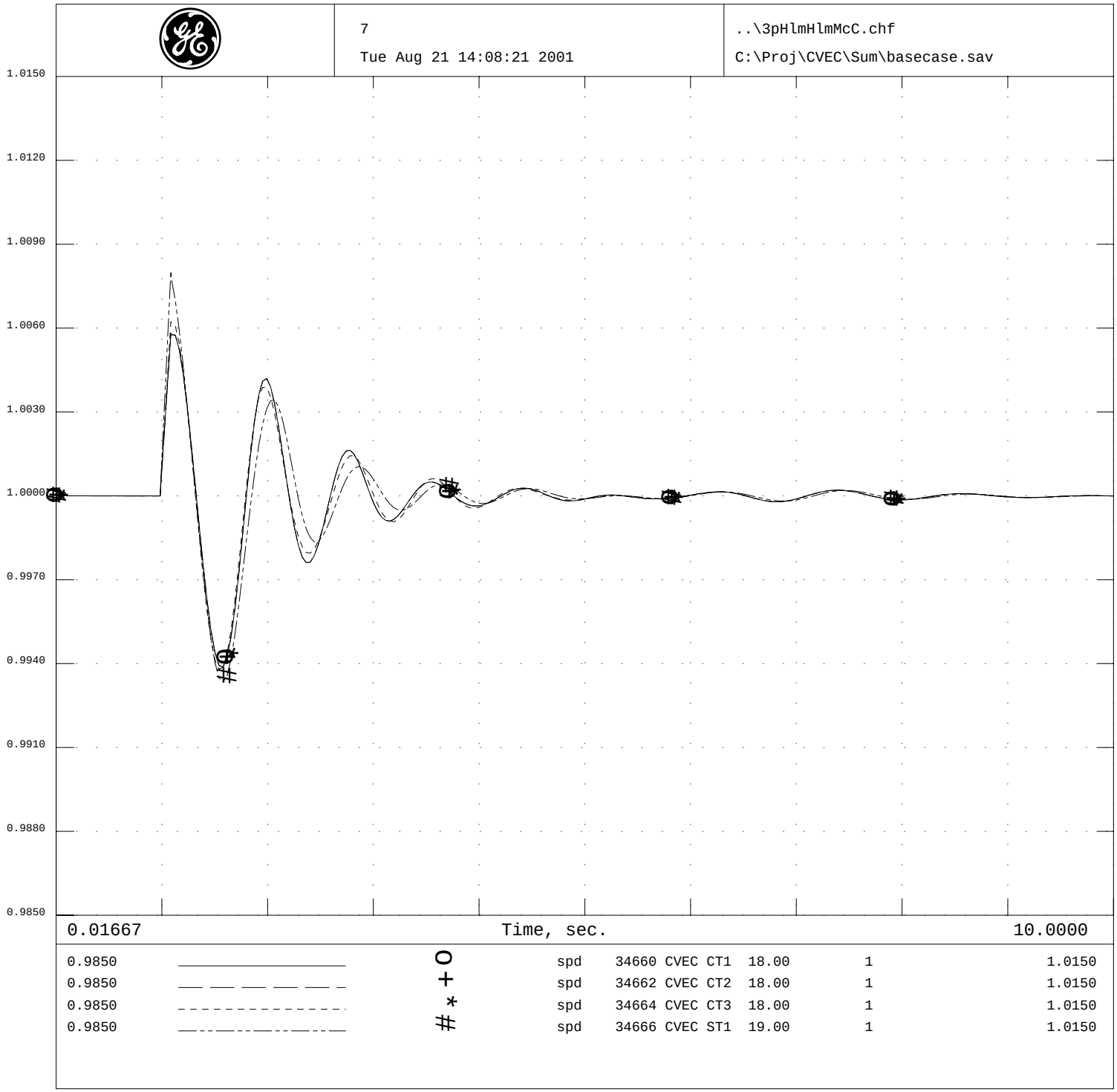
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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CVEC @ 1100MW
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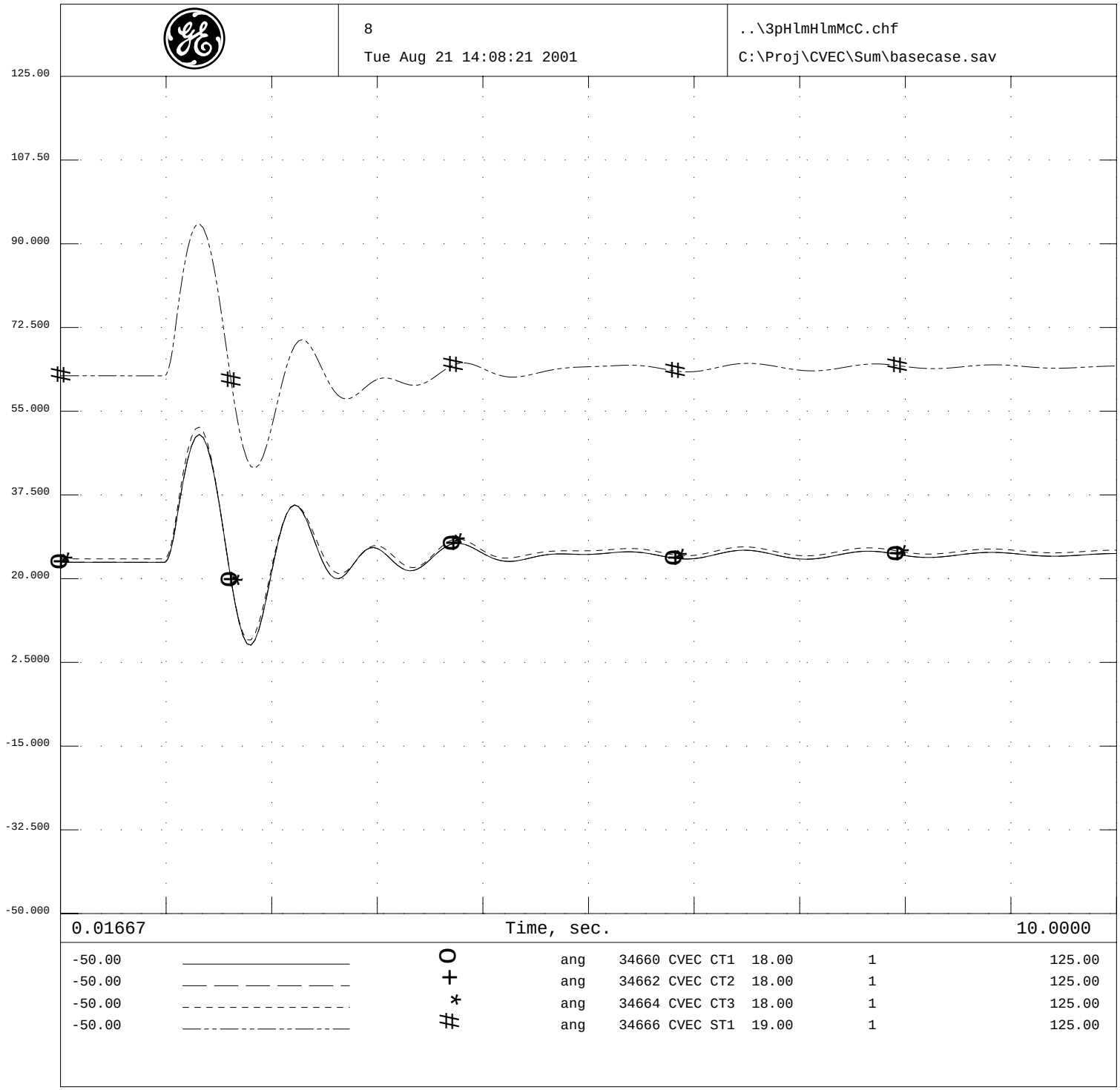
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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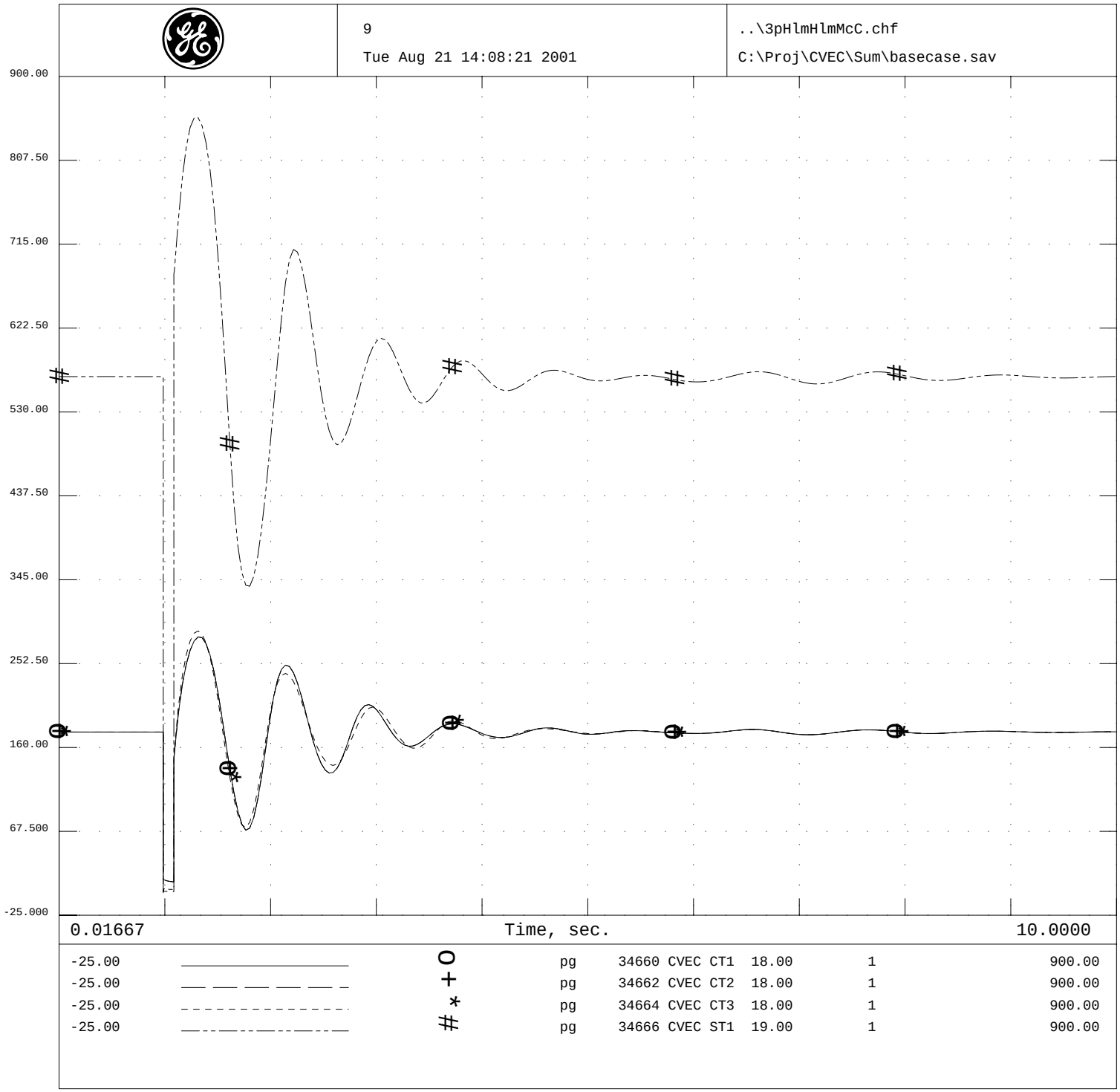
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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Calpine Corporation
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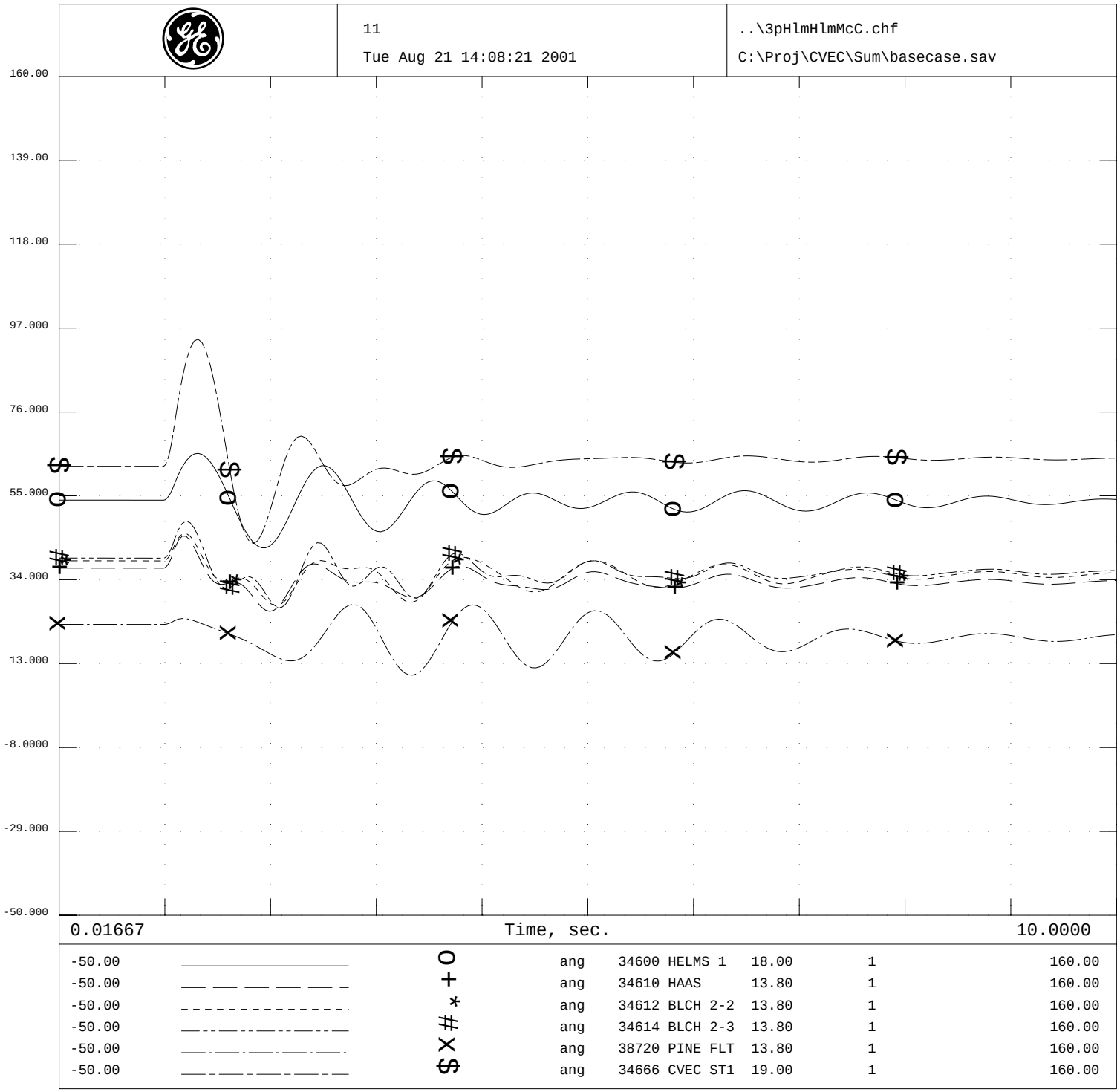

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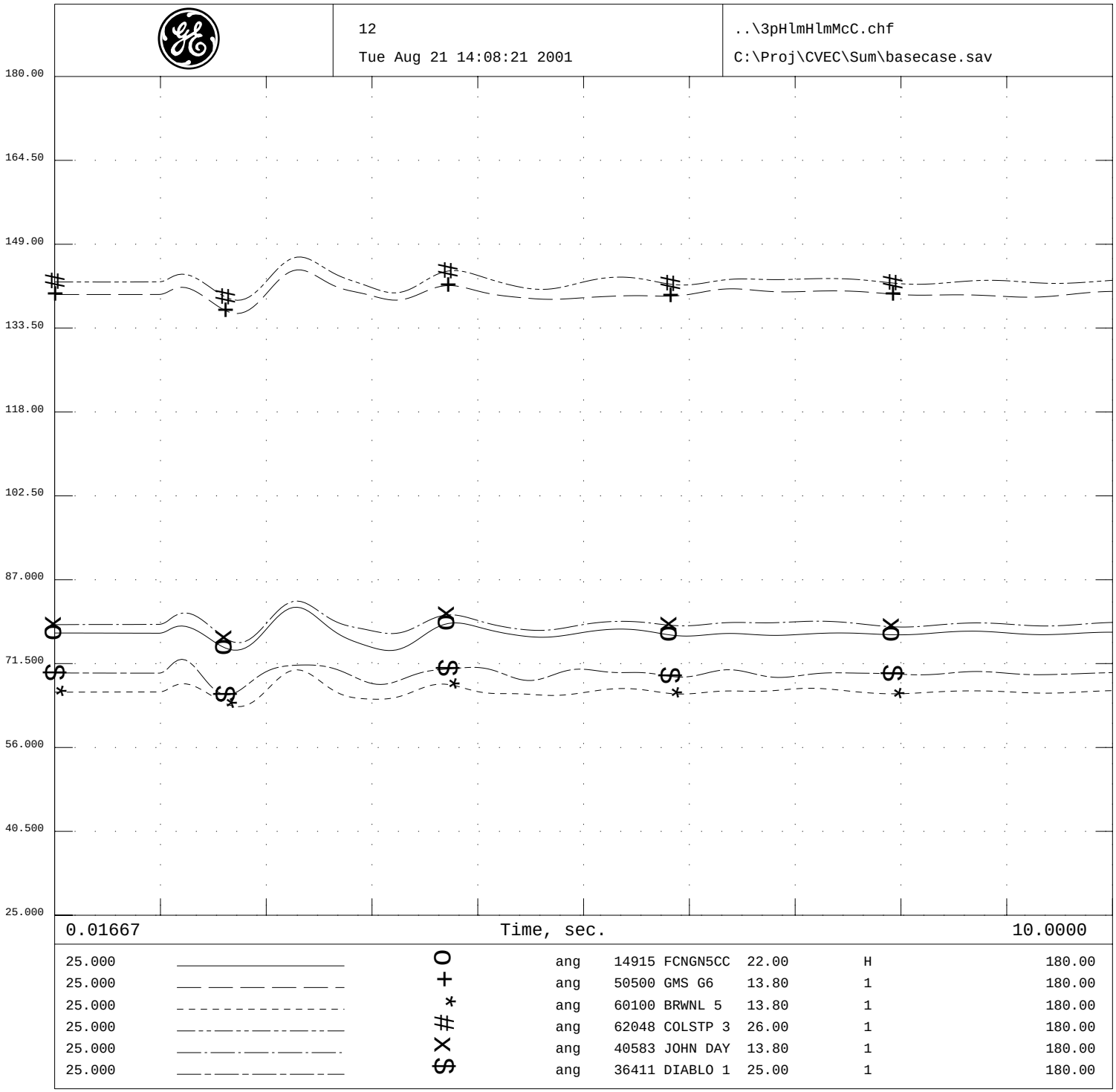
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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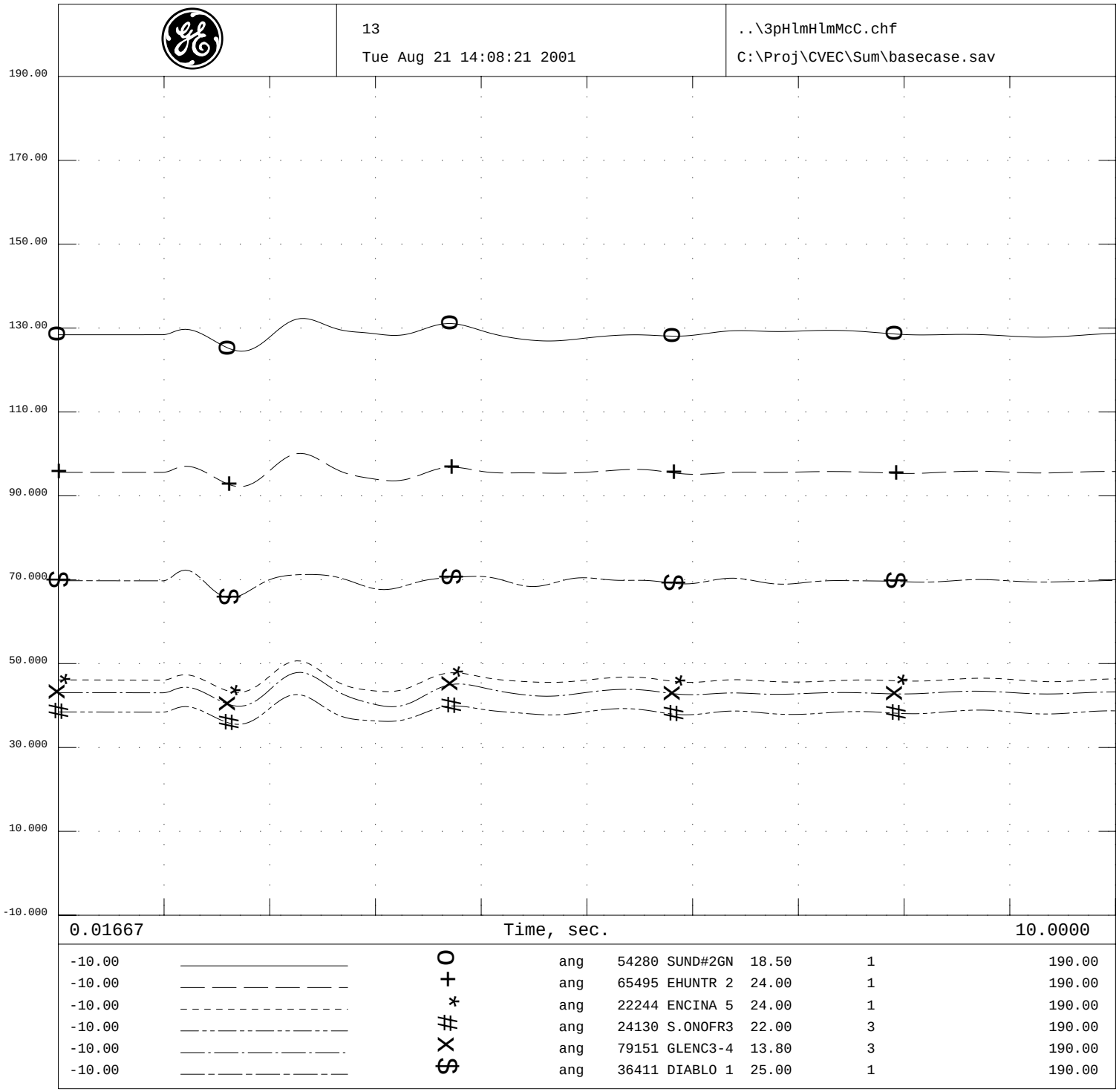
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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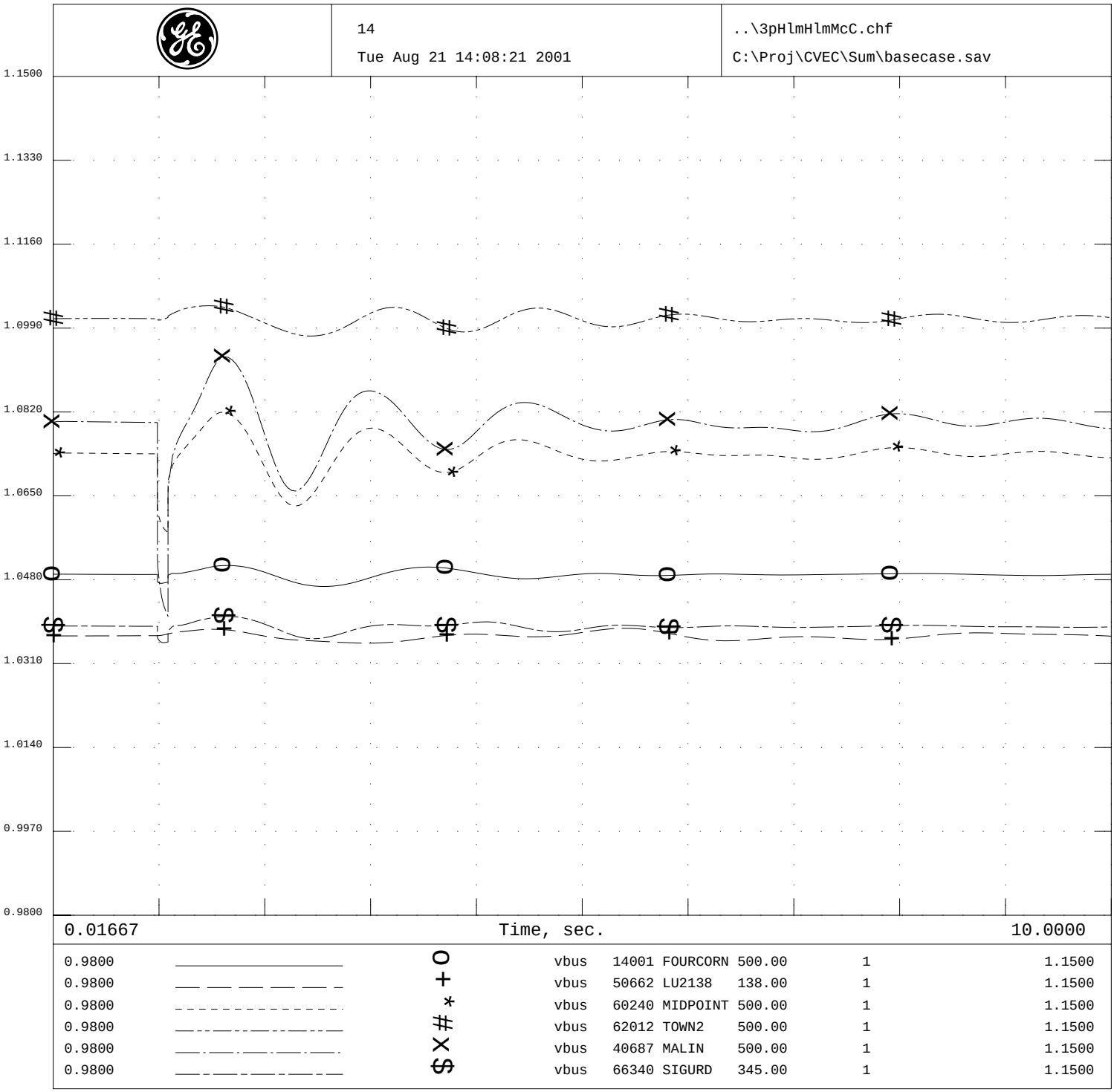

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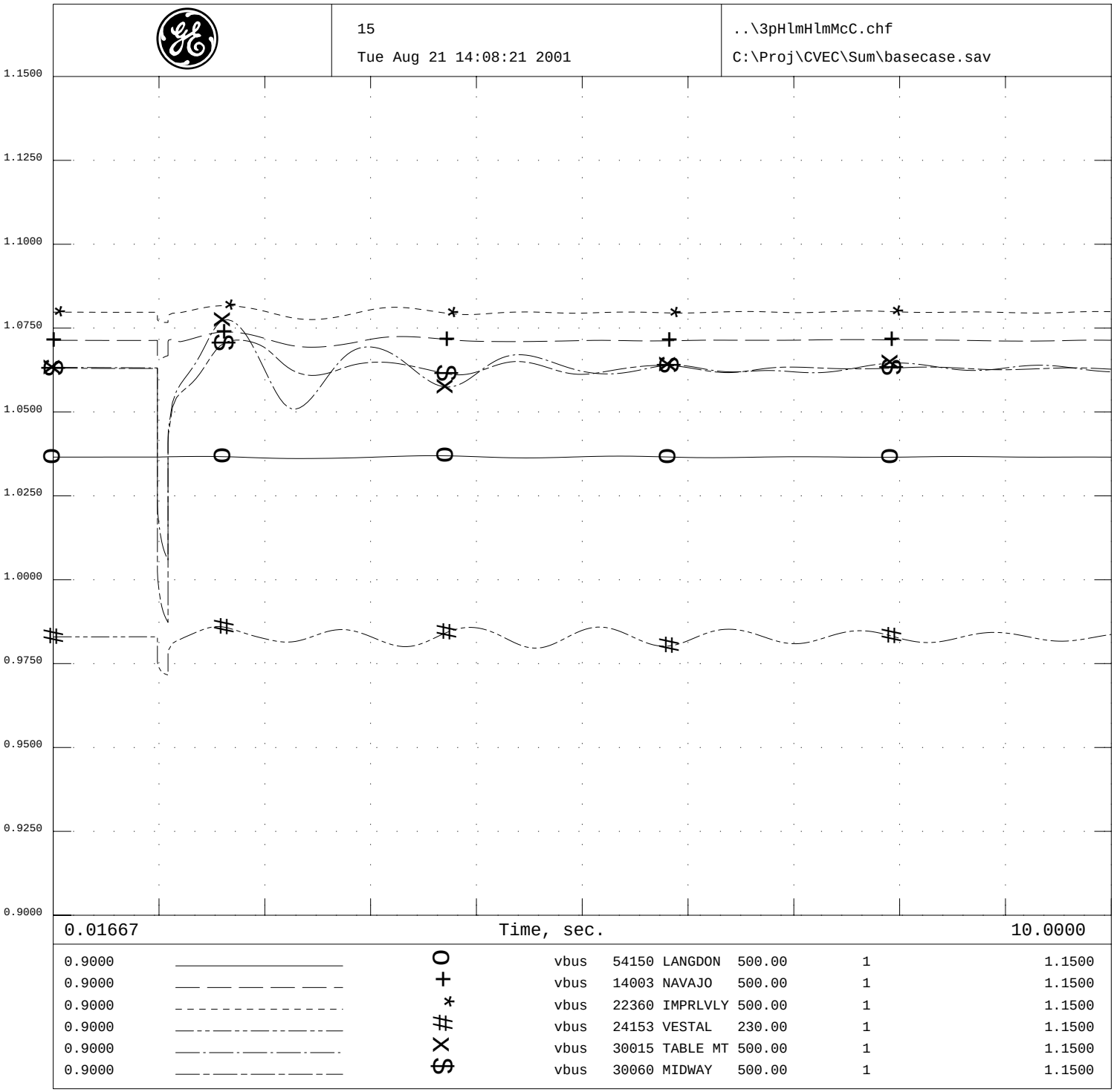

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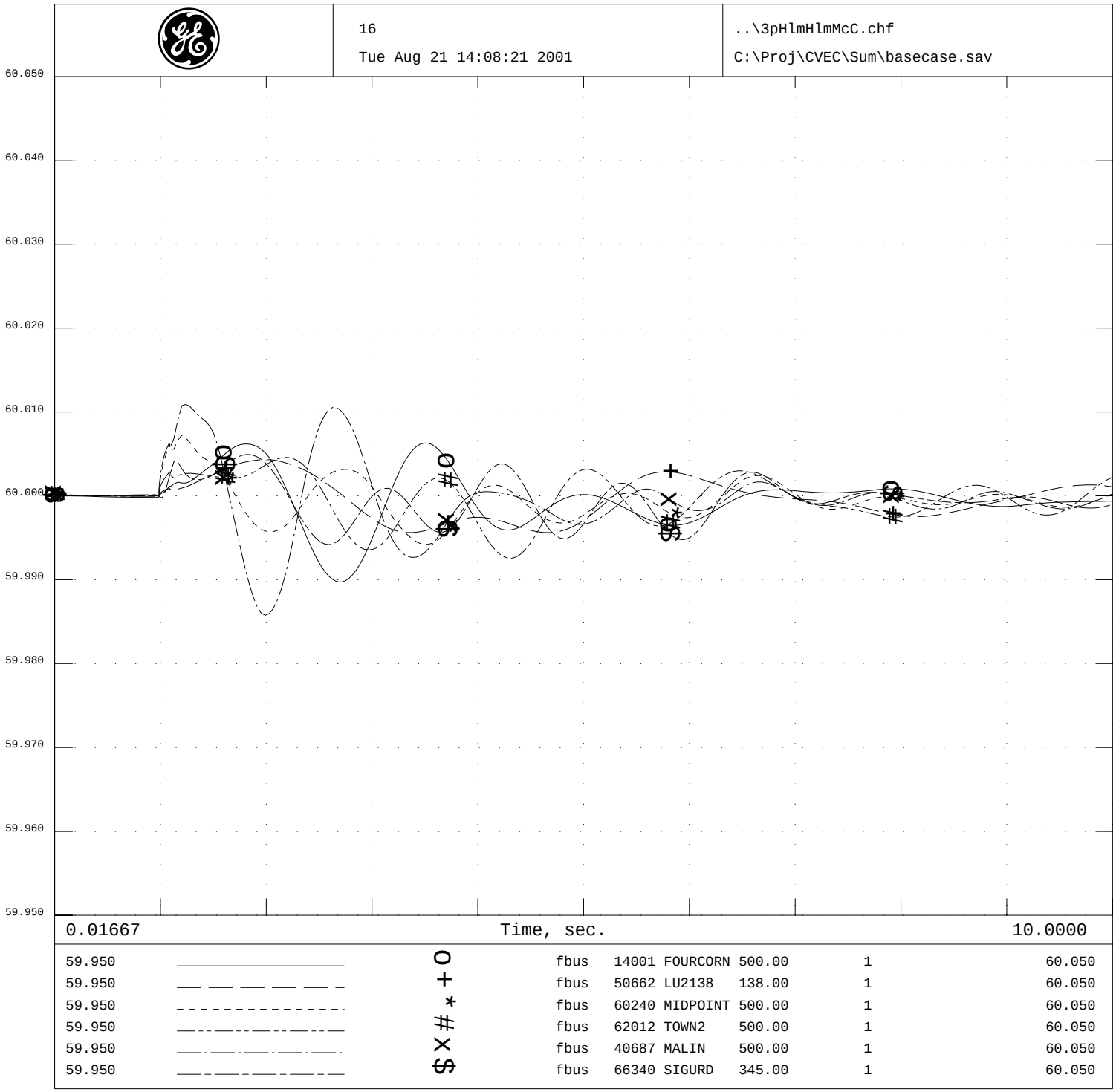

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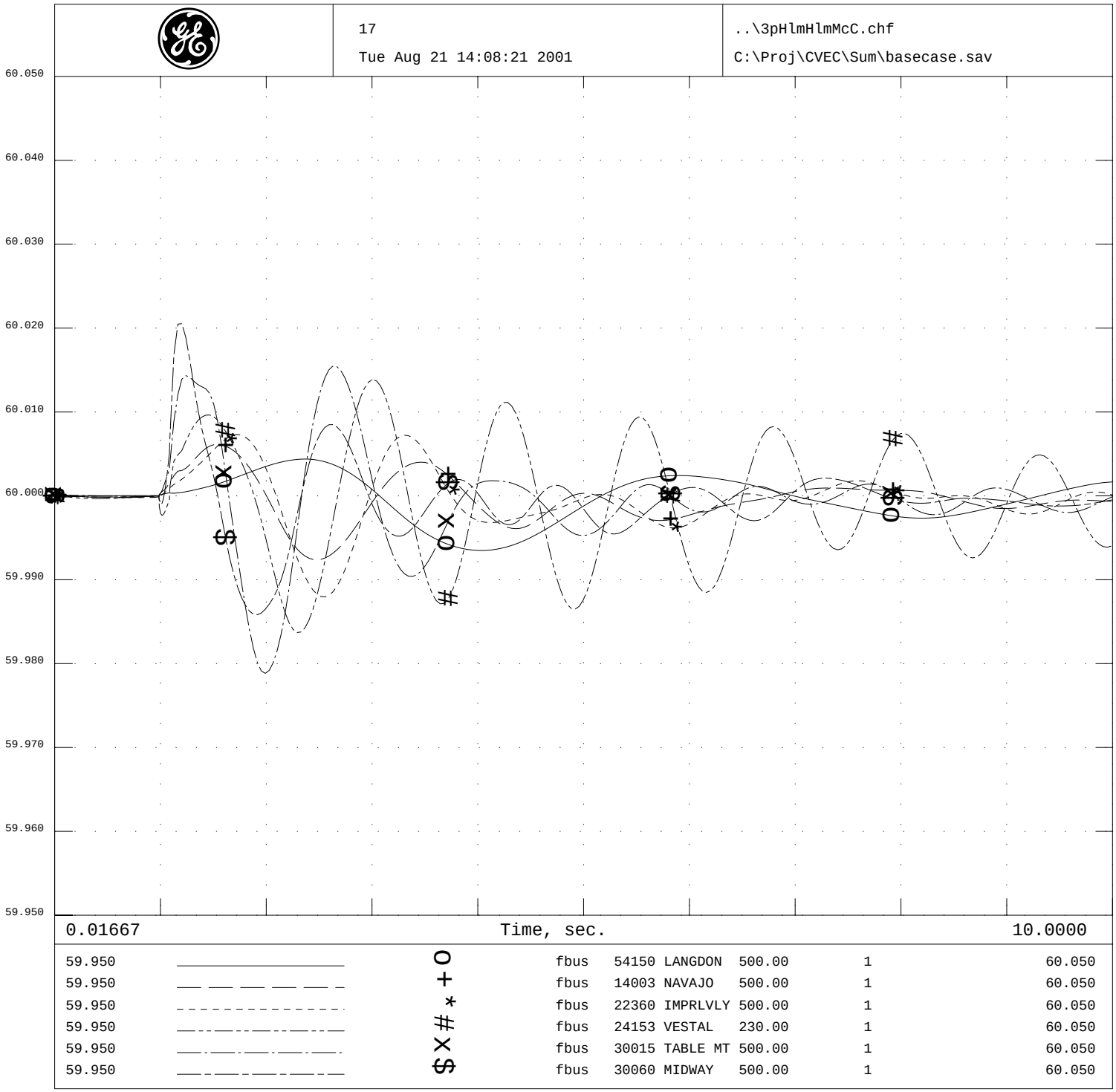

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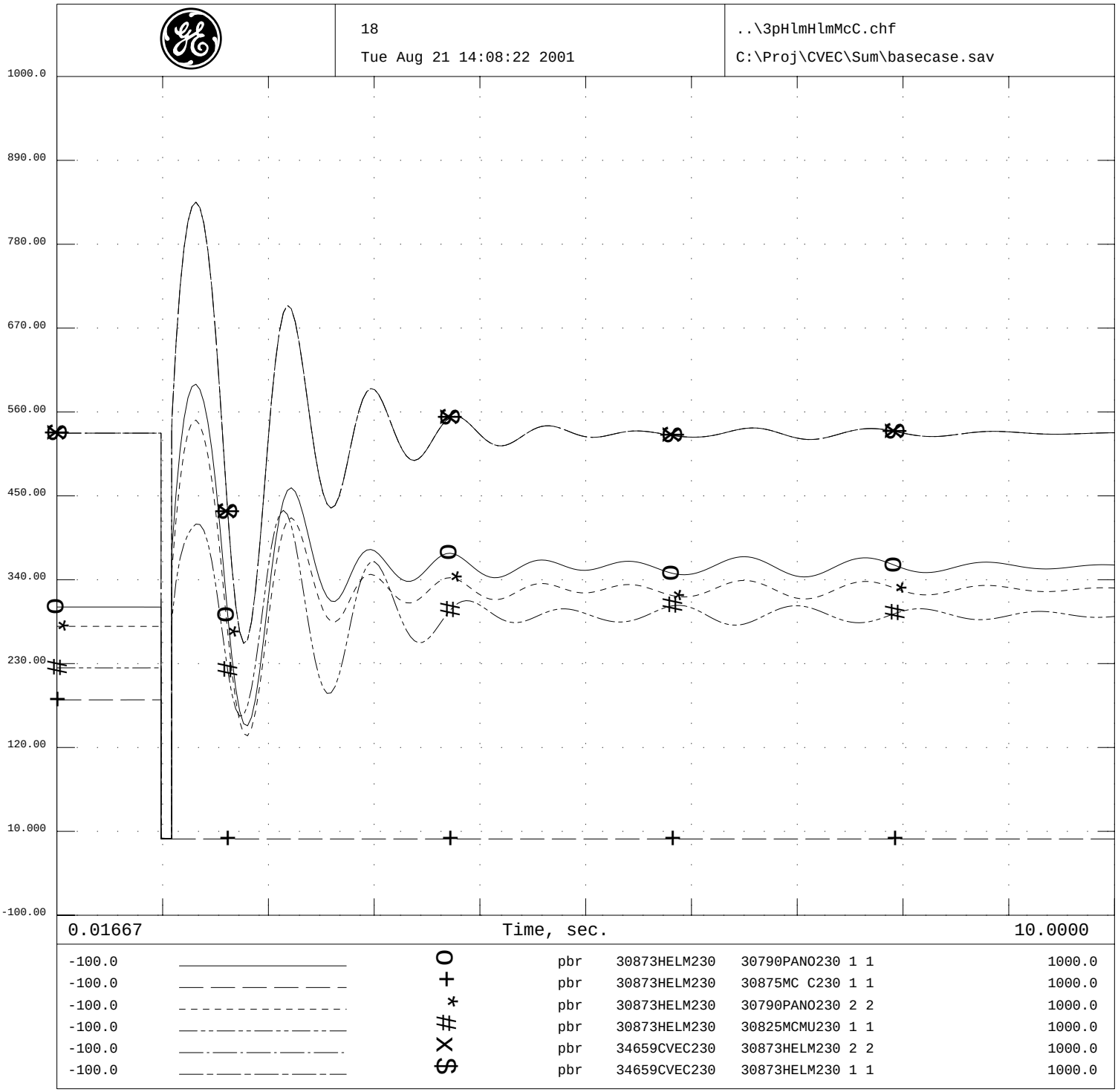

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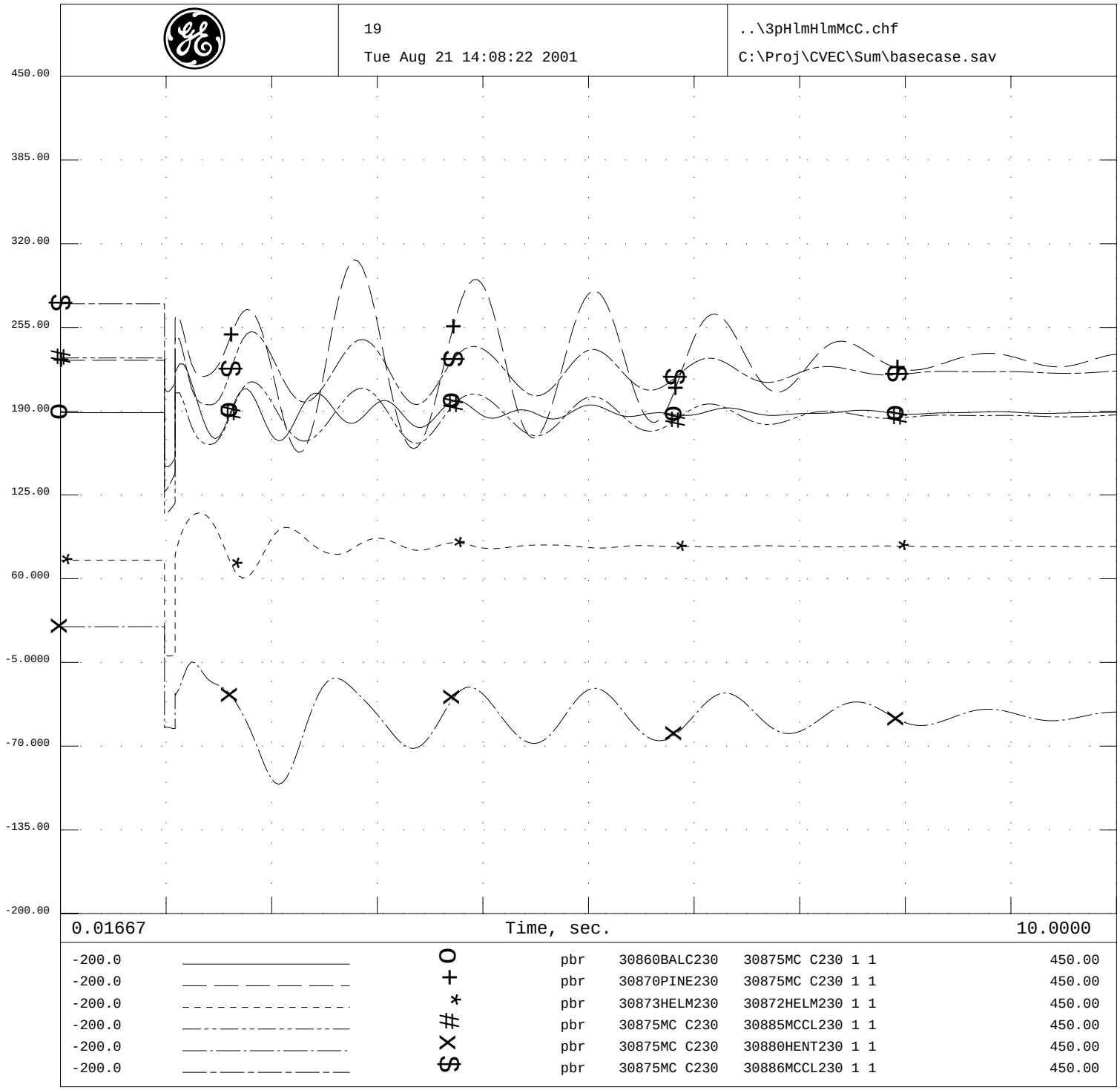

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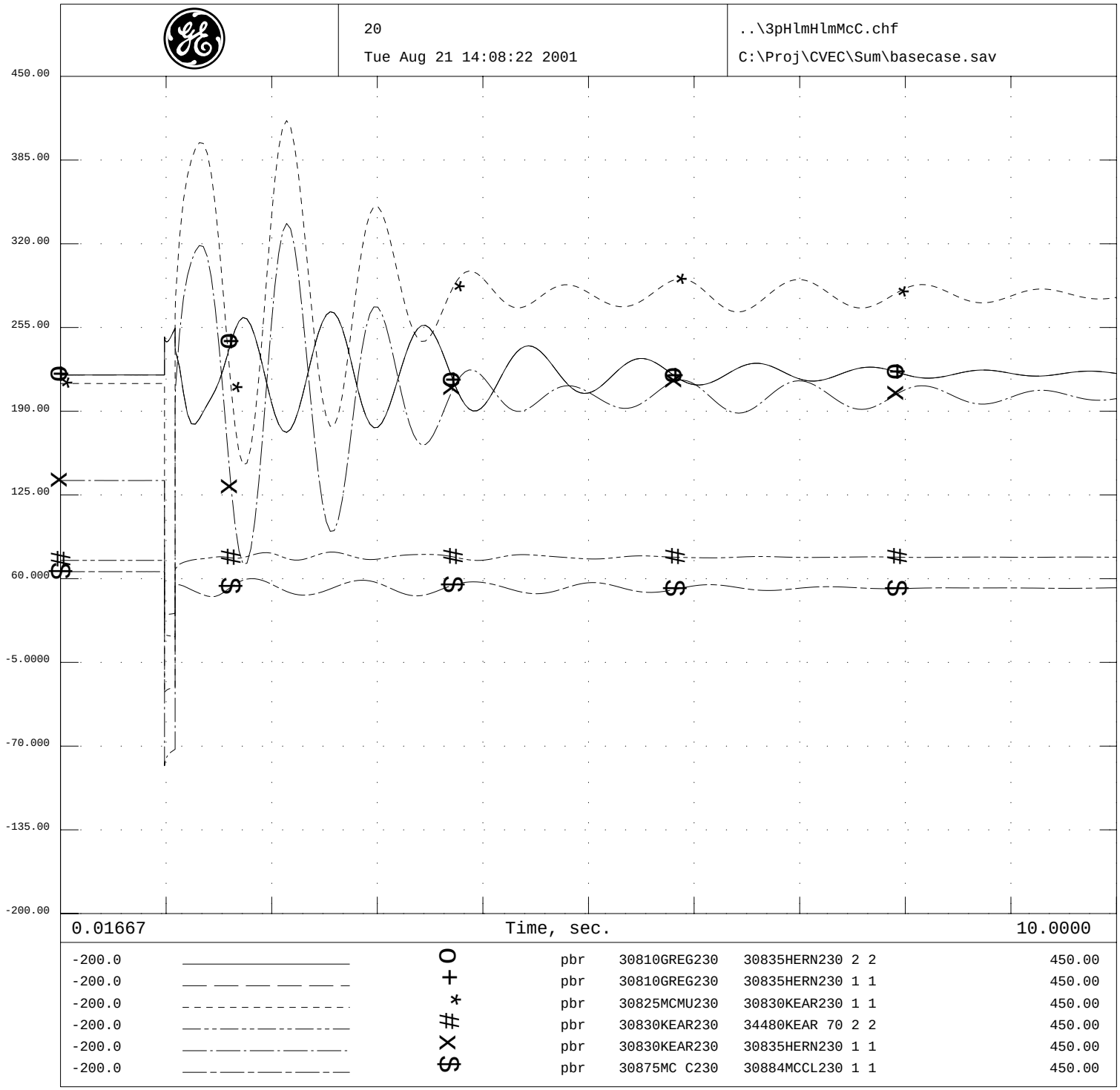

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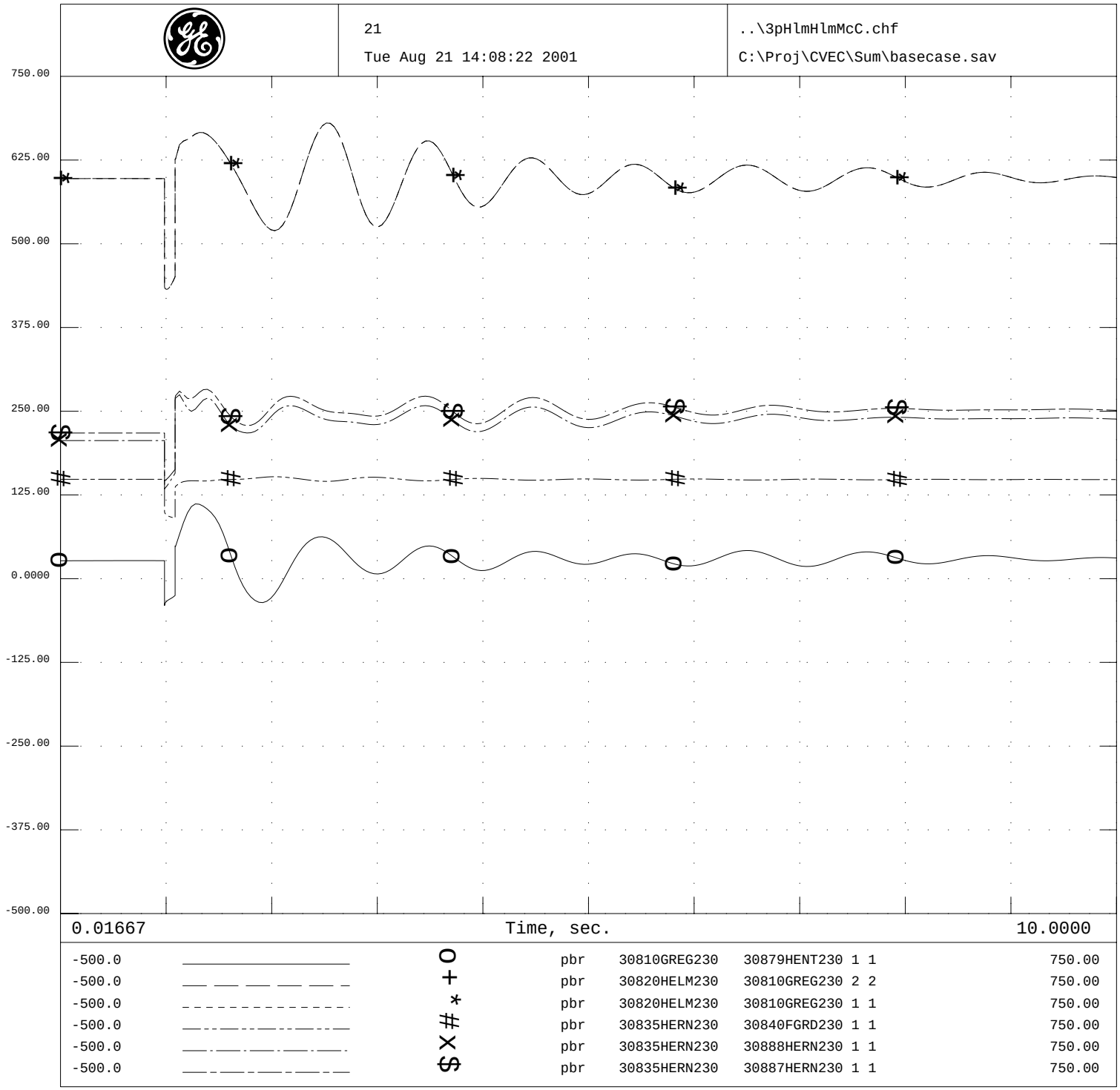

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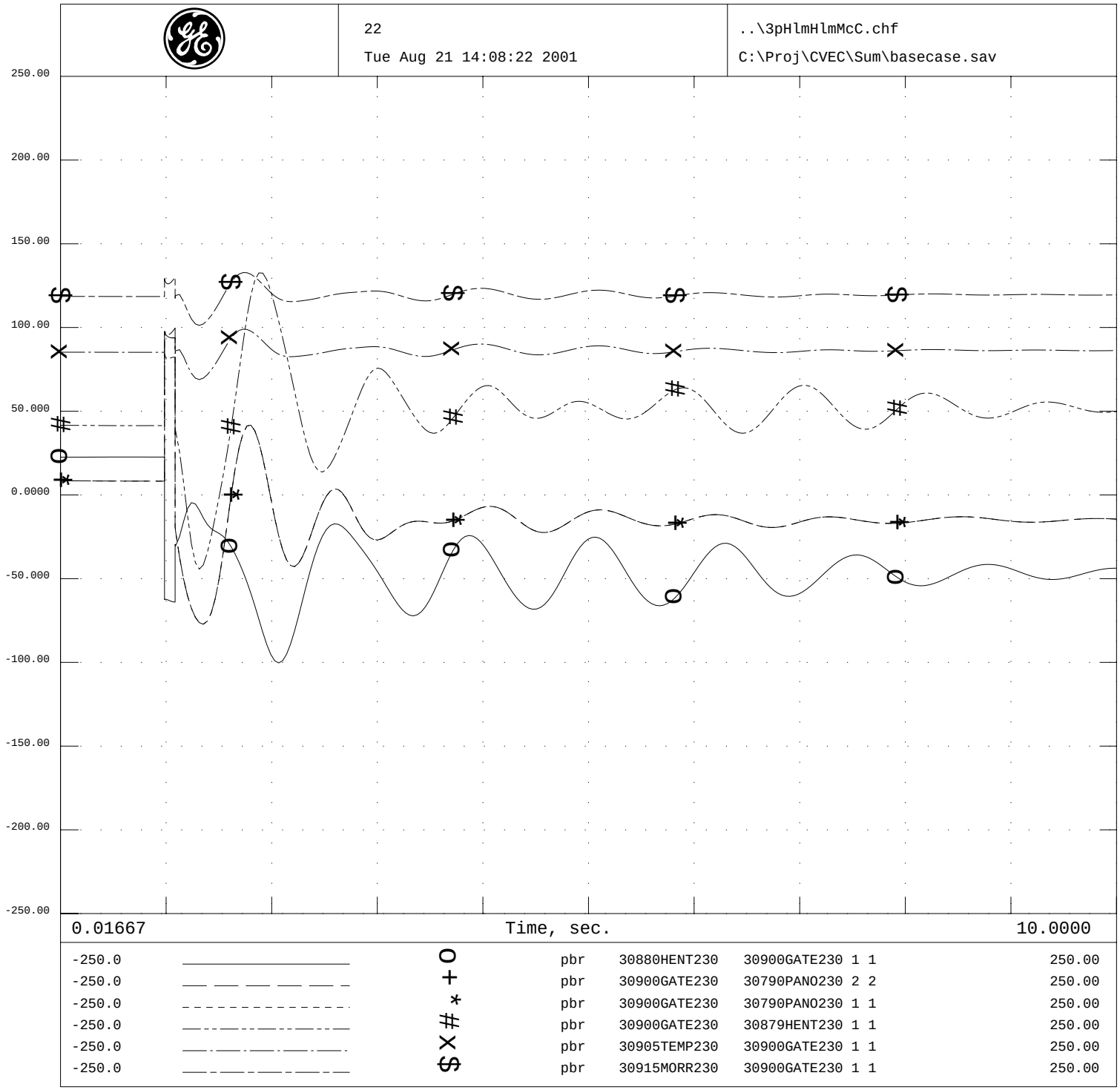

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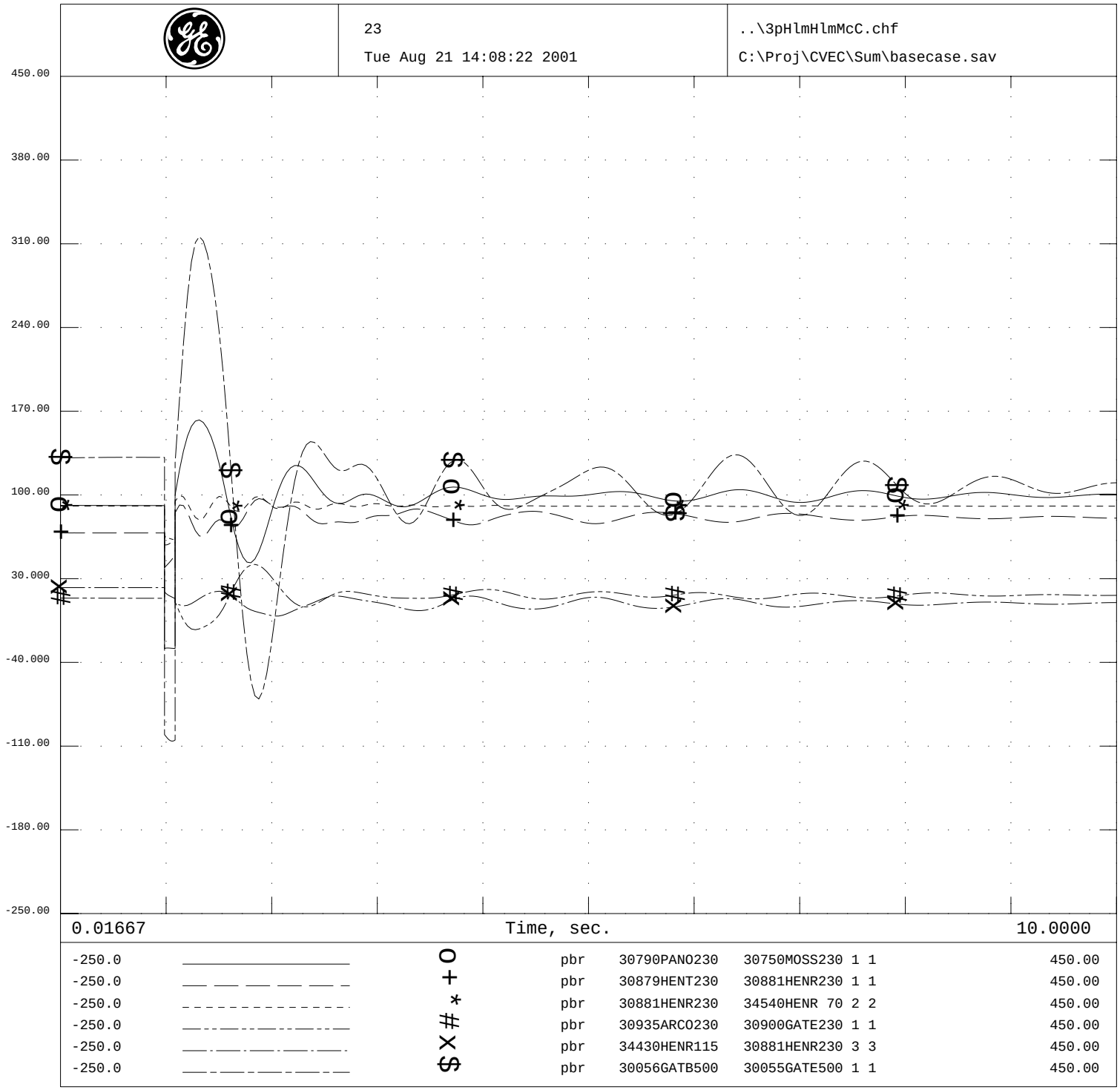

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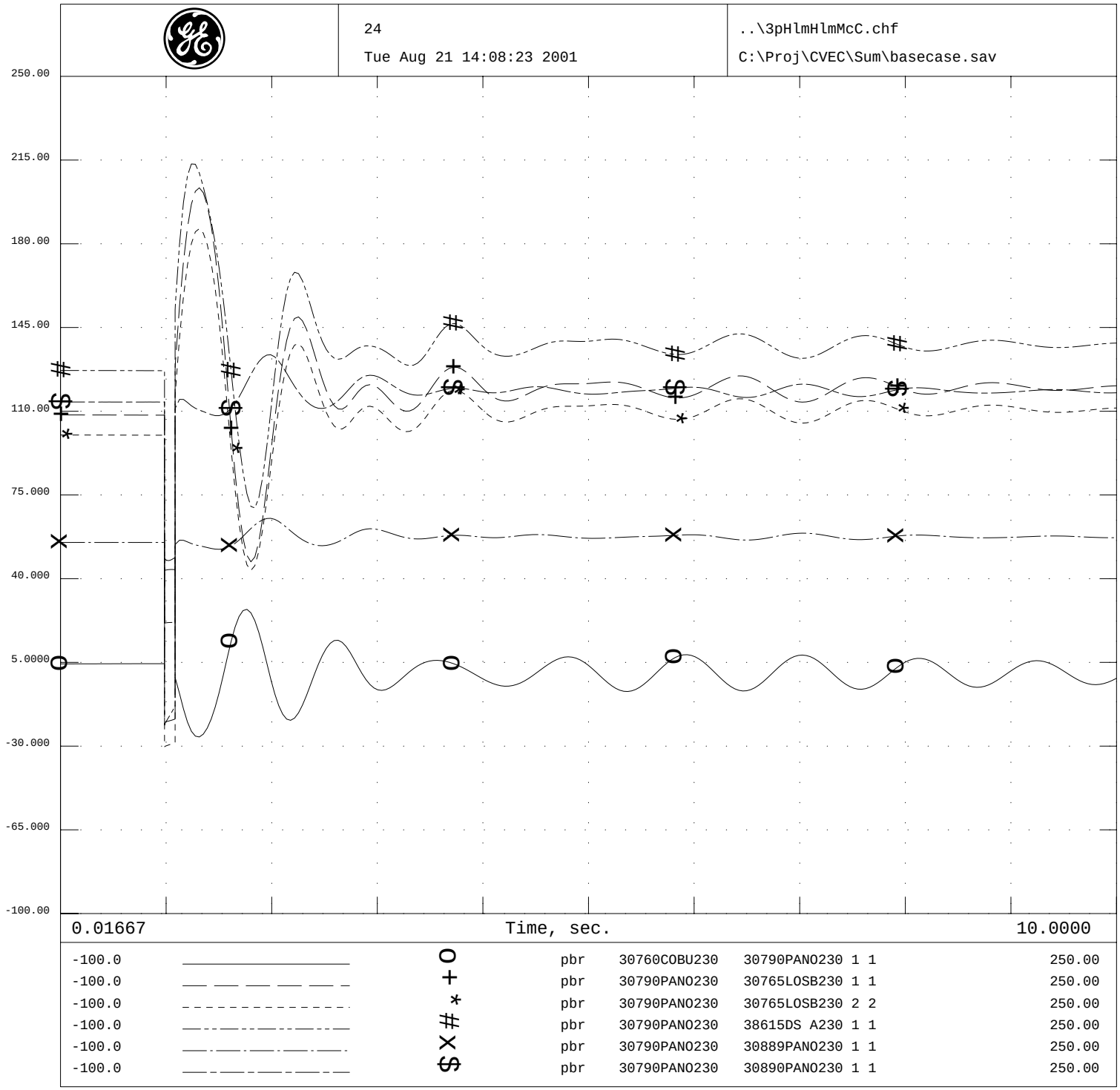

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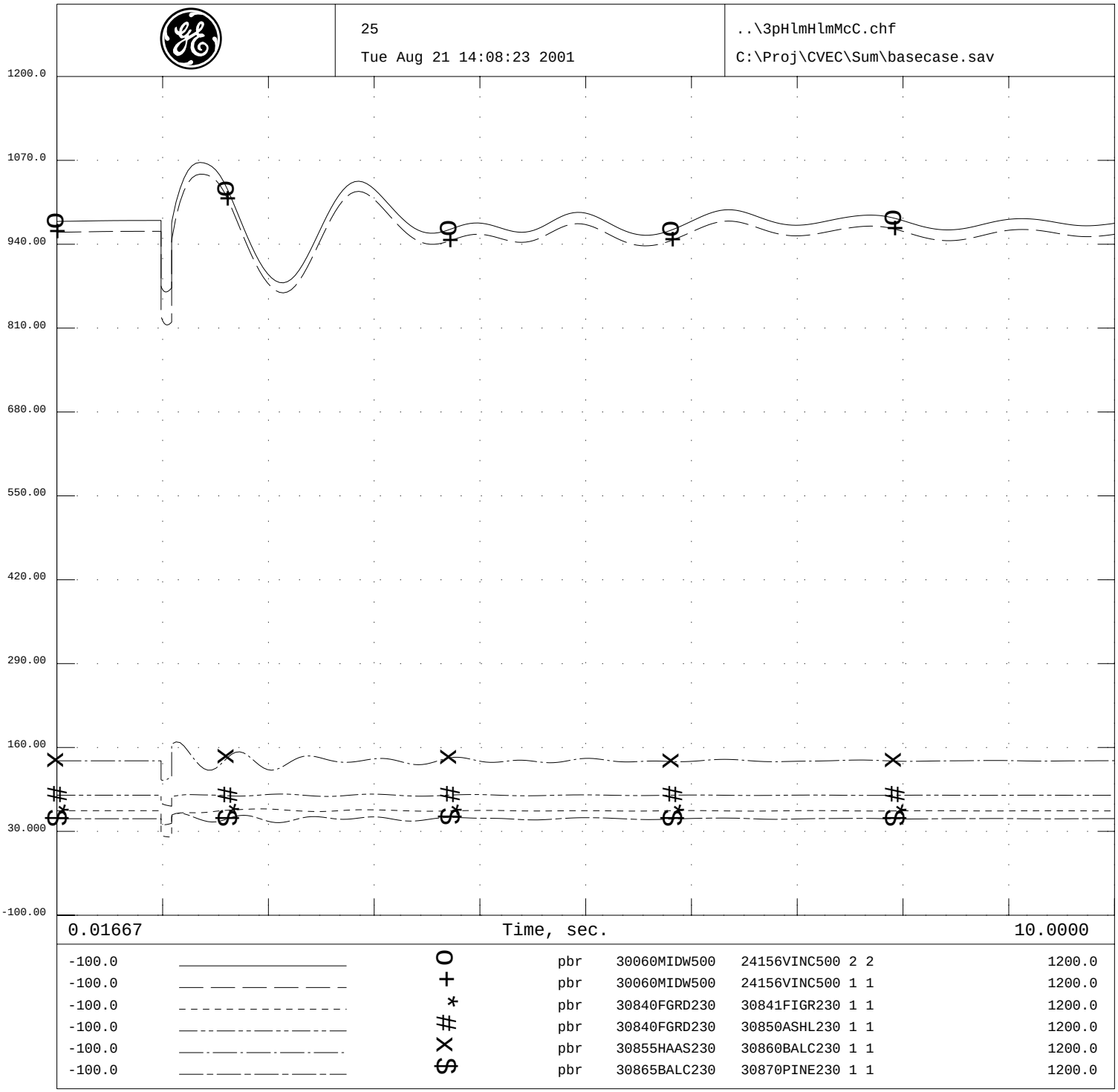

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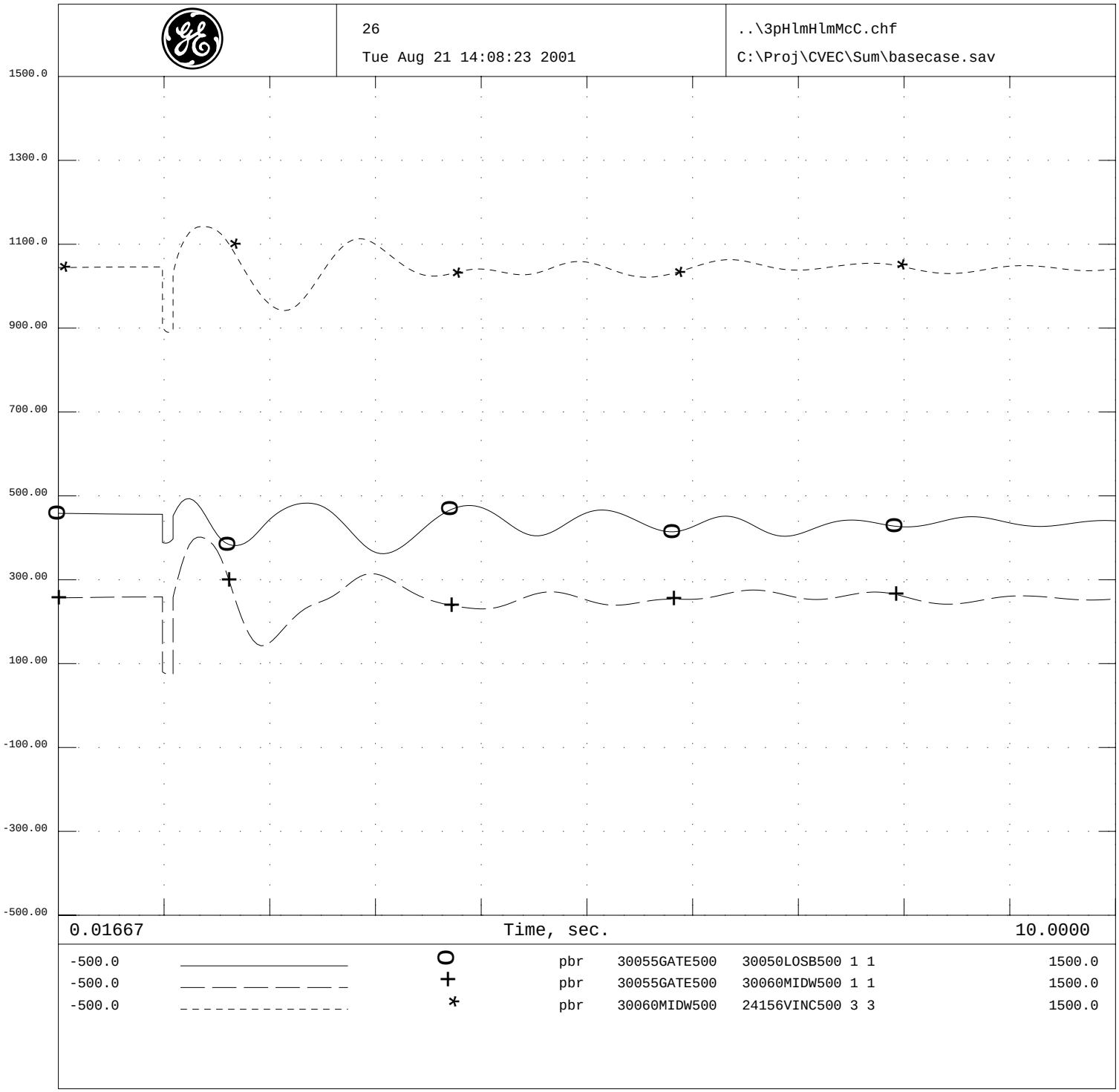

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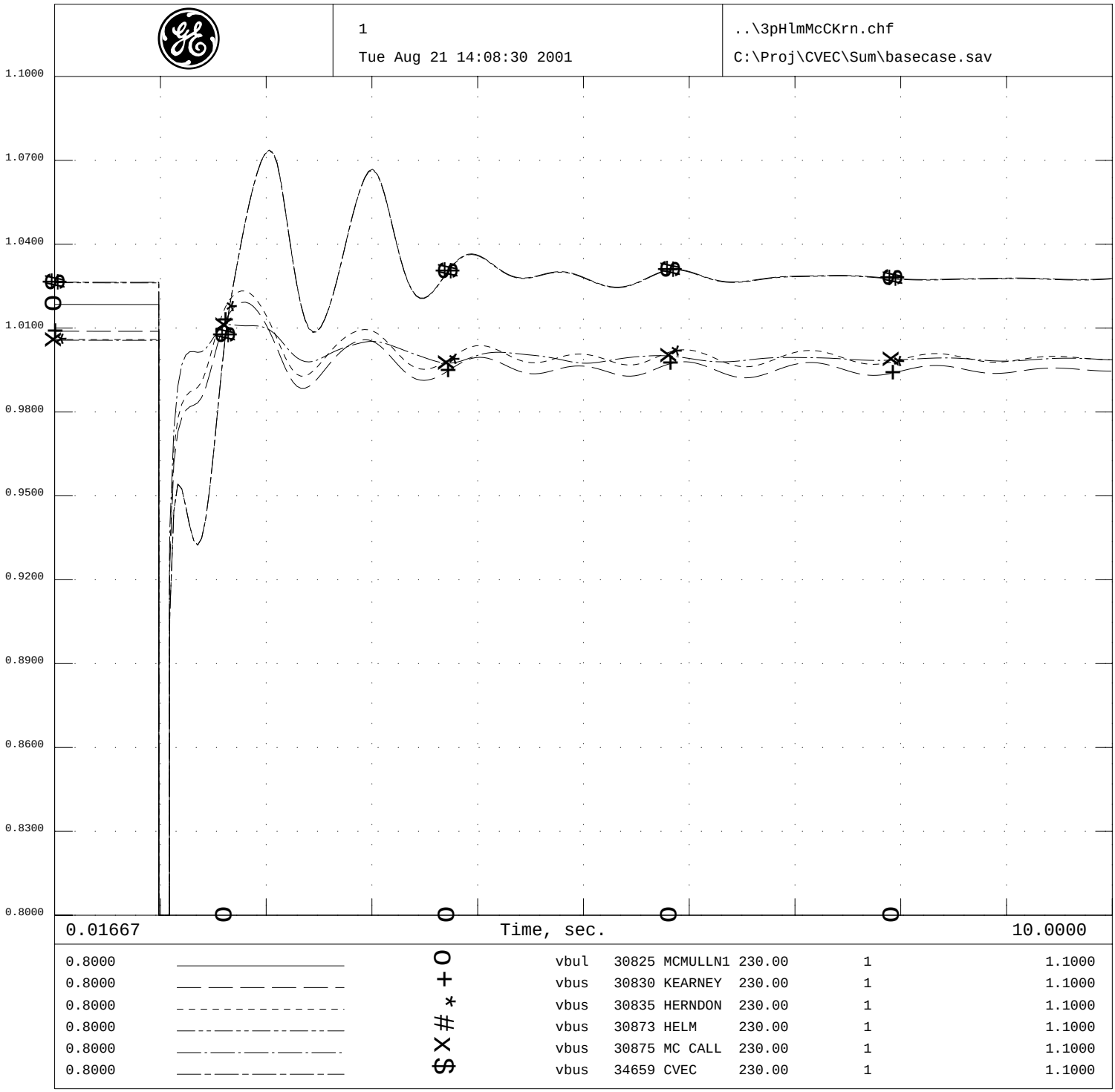

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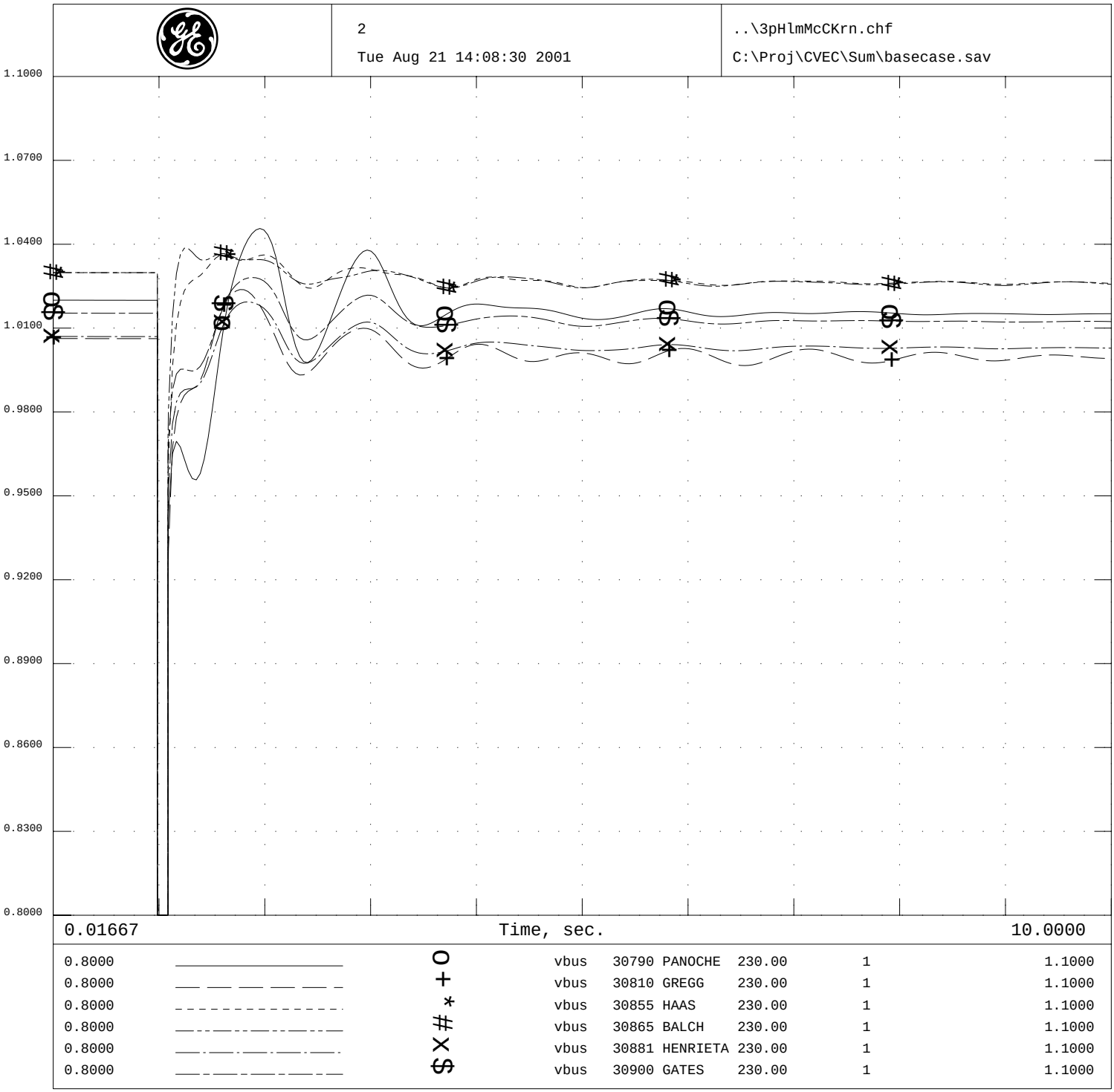
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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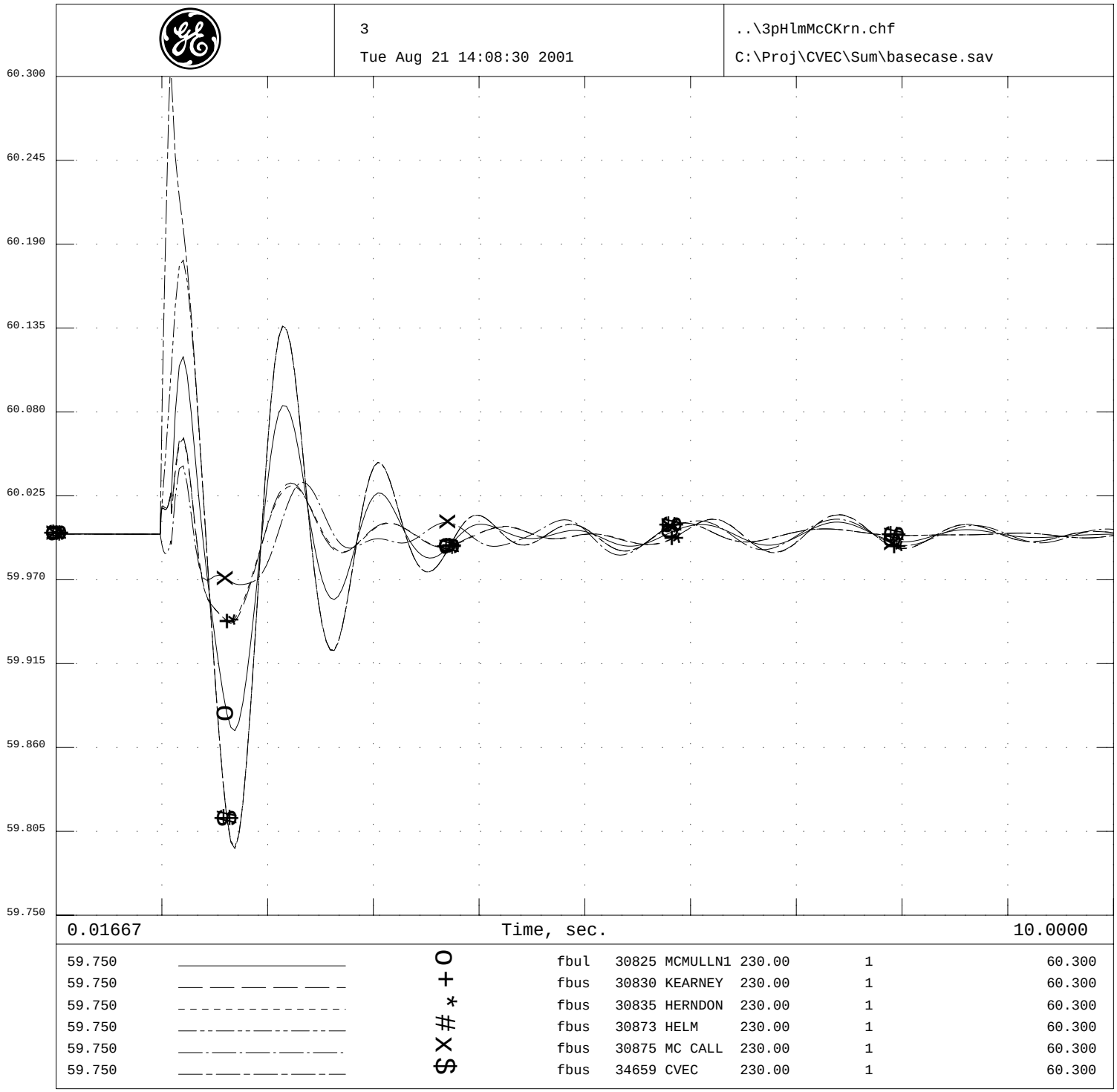

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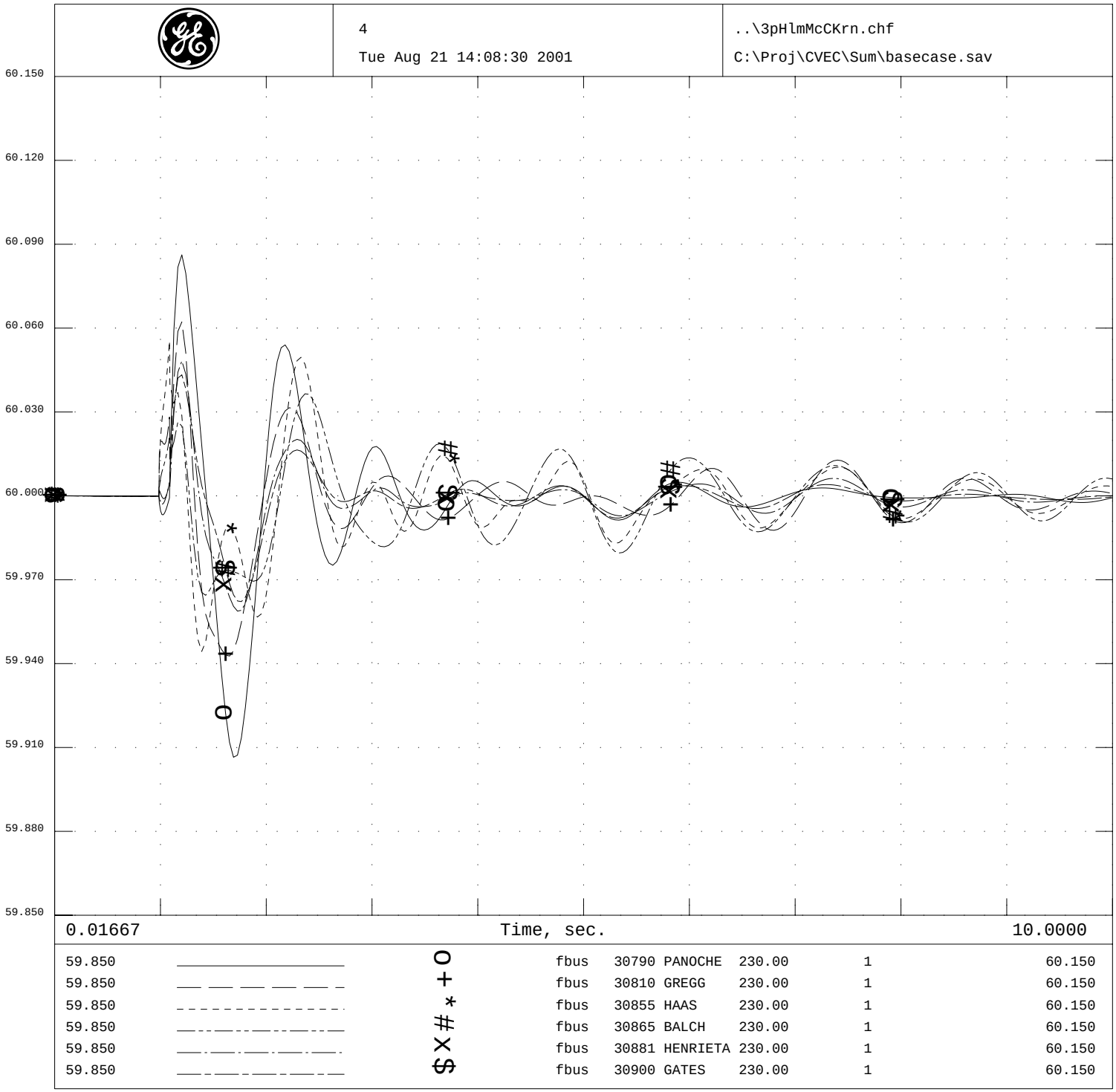
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Helm-McCall, Helm-Kearny 230kV Double Line Outage
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Central Valley Energy Center
Calpine Corporation
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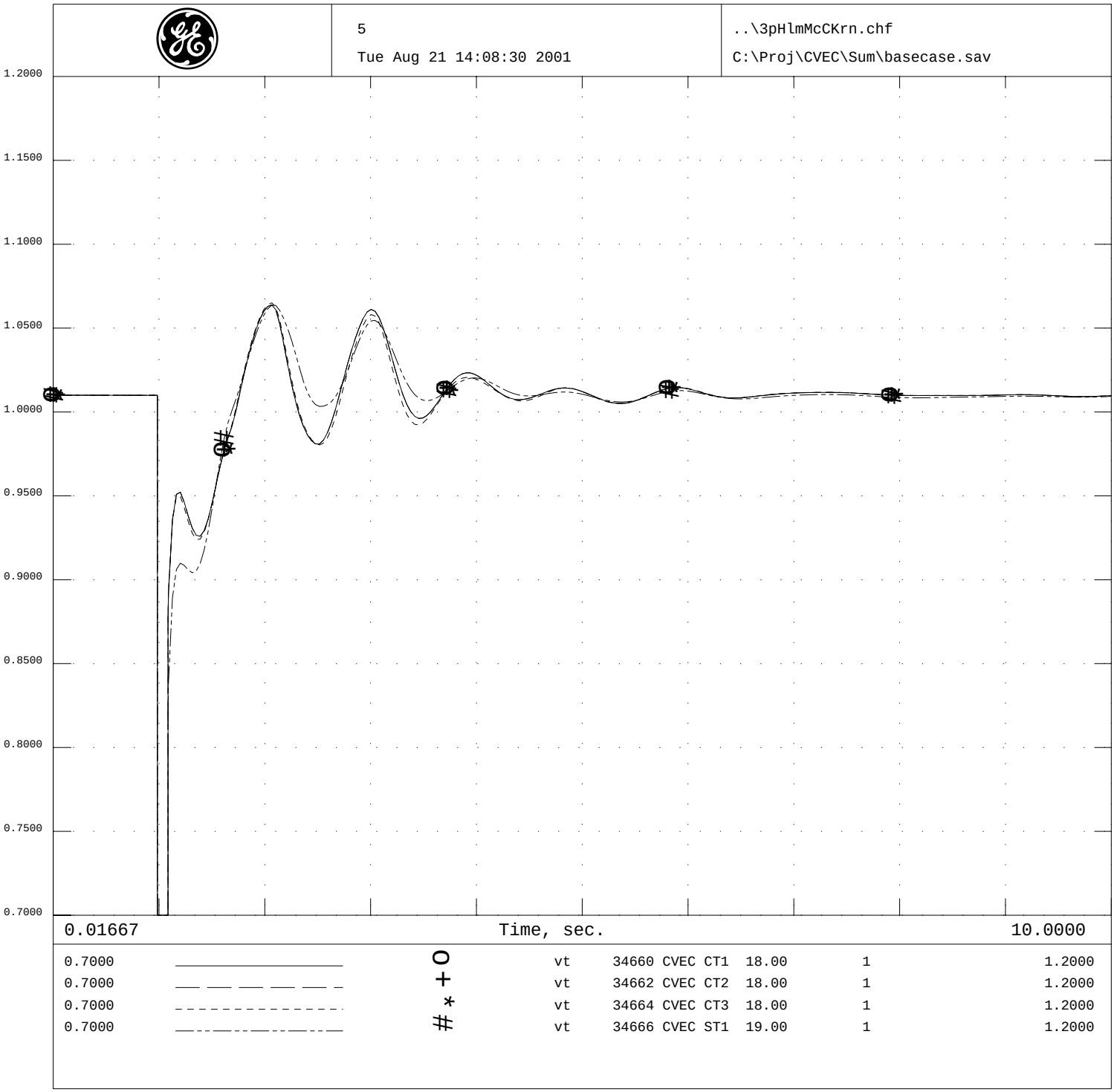

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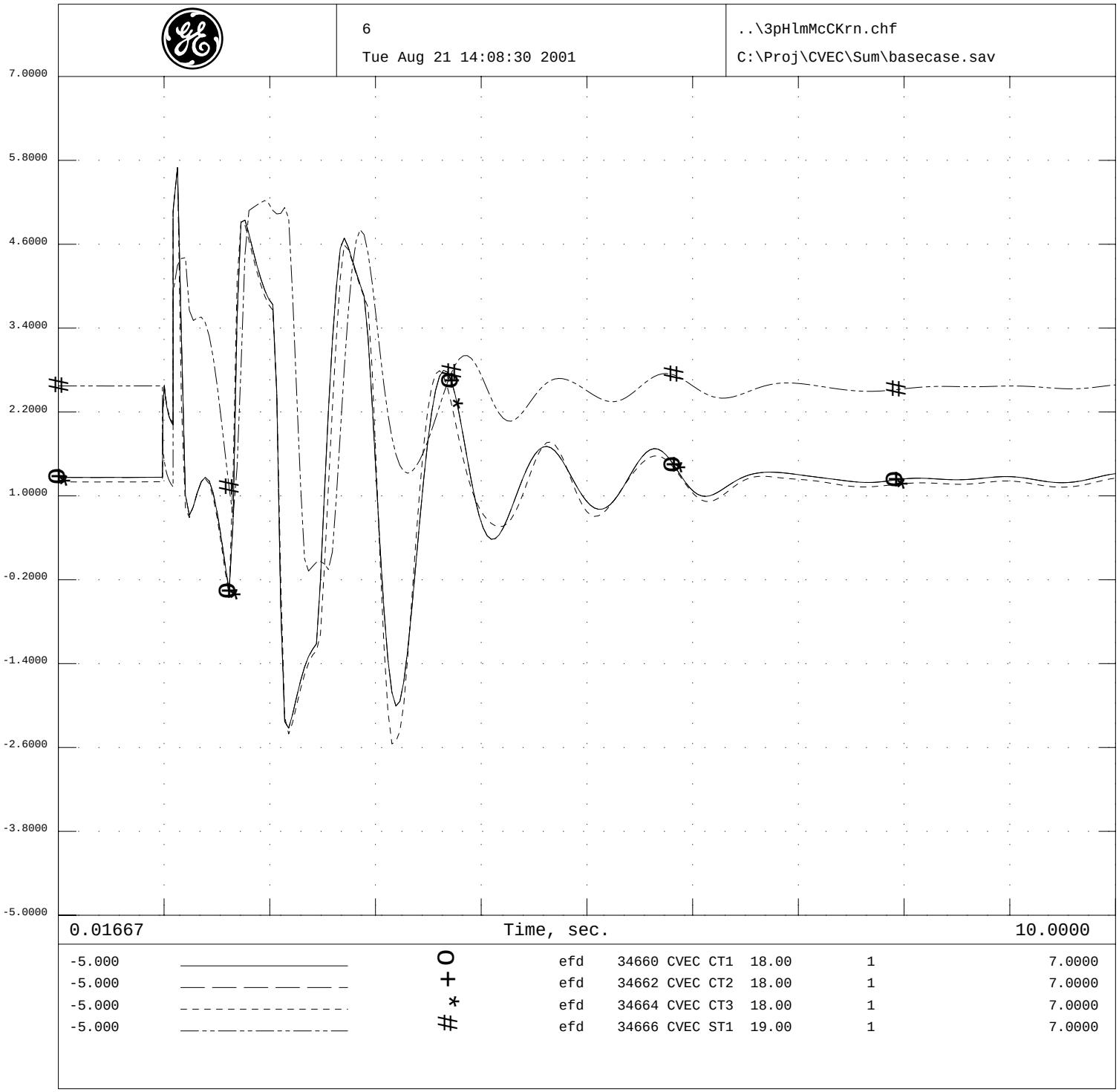
Project Generator Terminal Voltages



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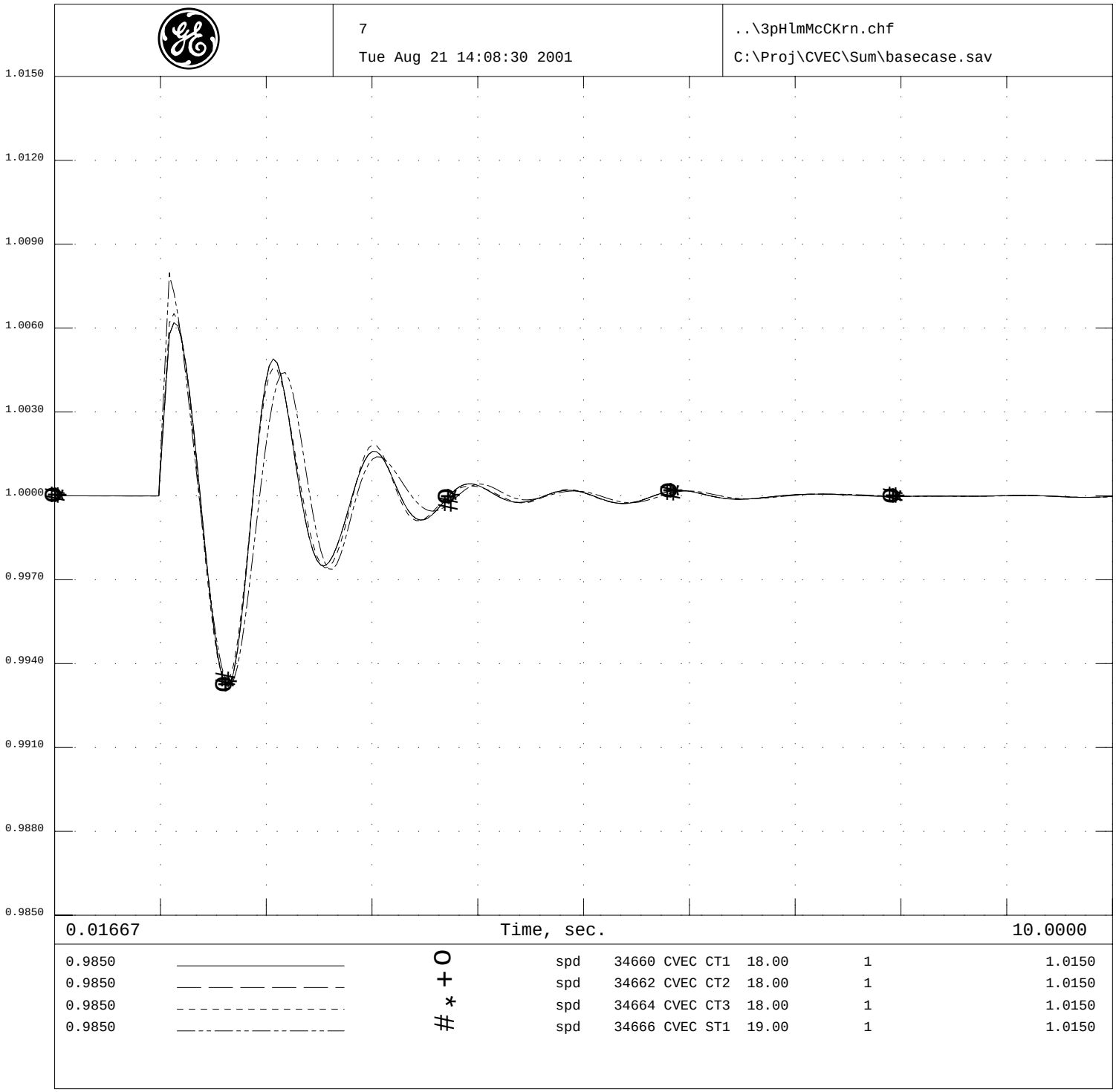
Project Generator Field Voltages



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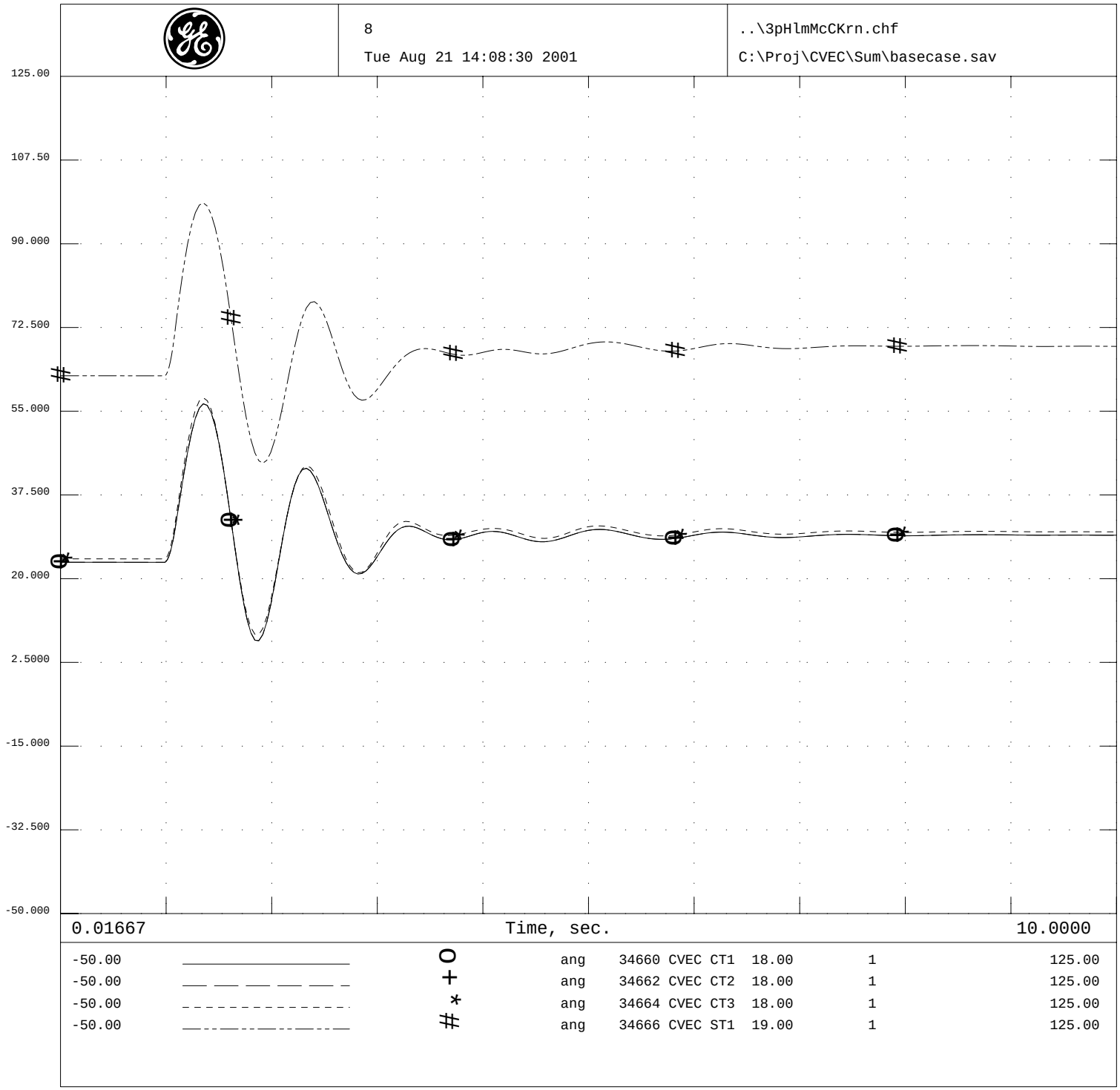
Calpine Corporation
Project Generator Rotor Speed



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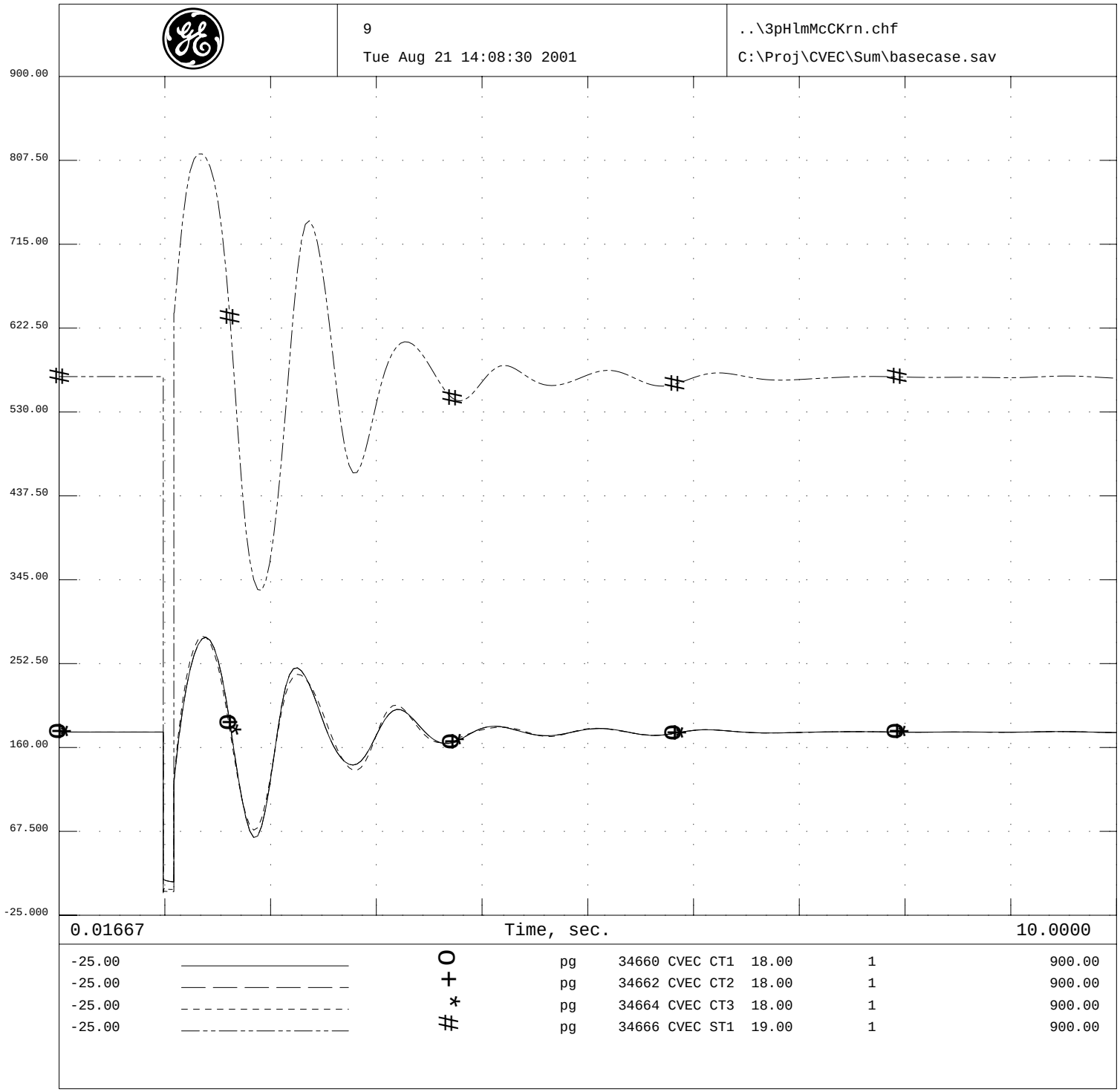
Project Generator Rotor Angle



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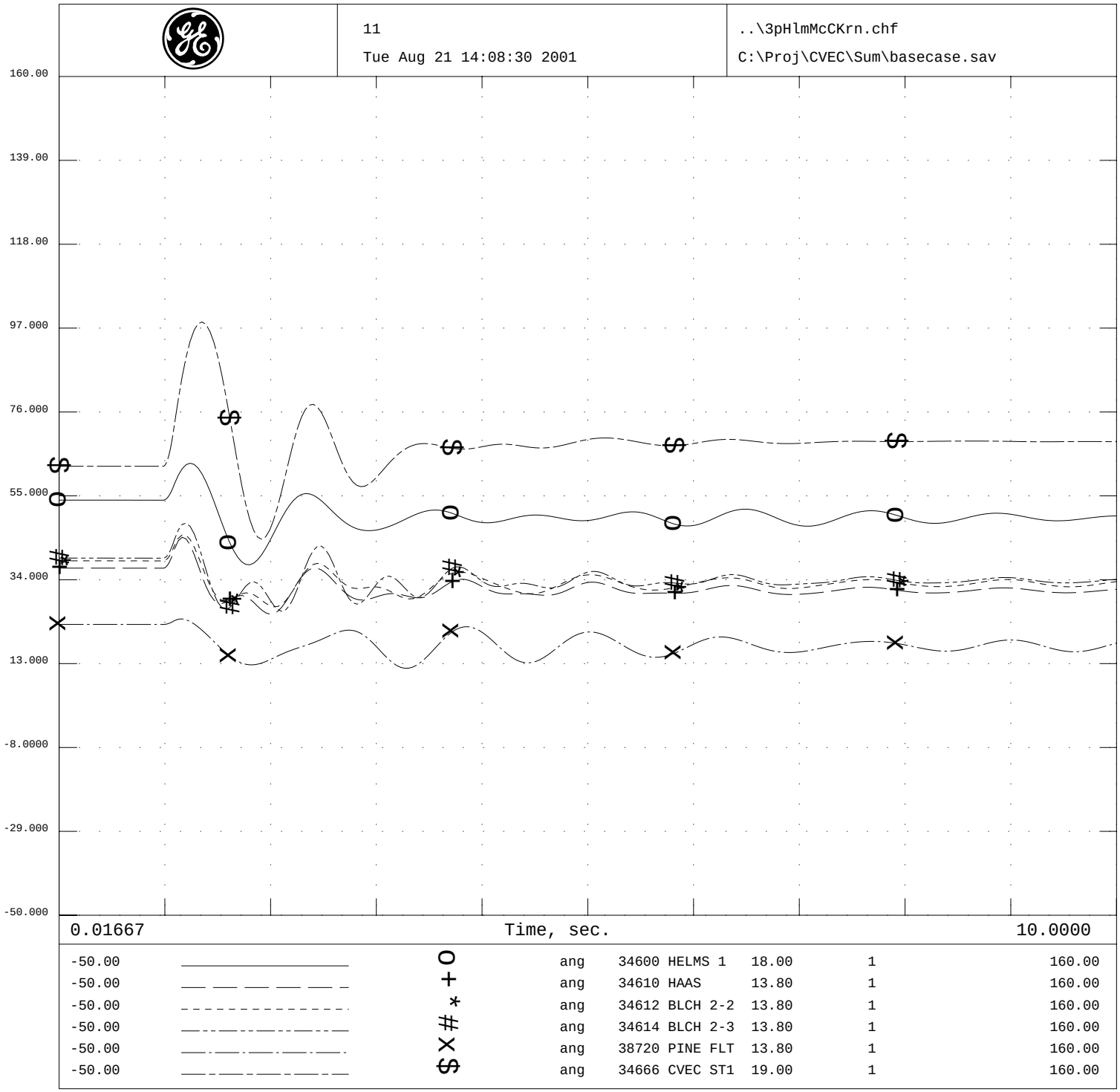

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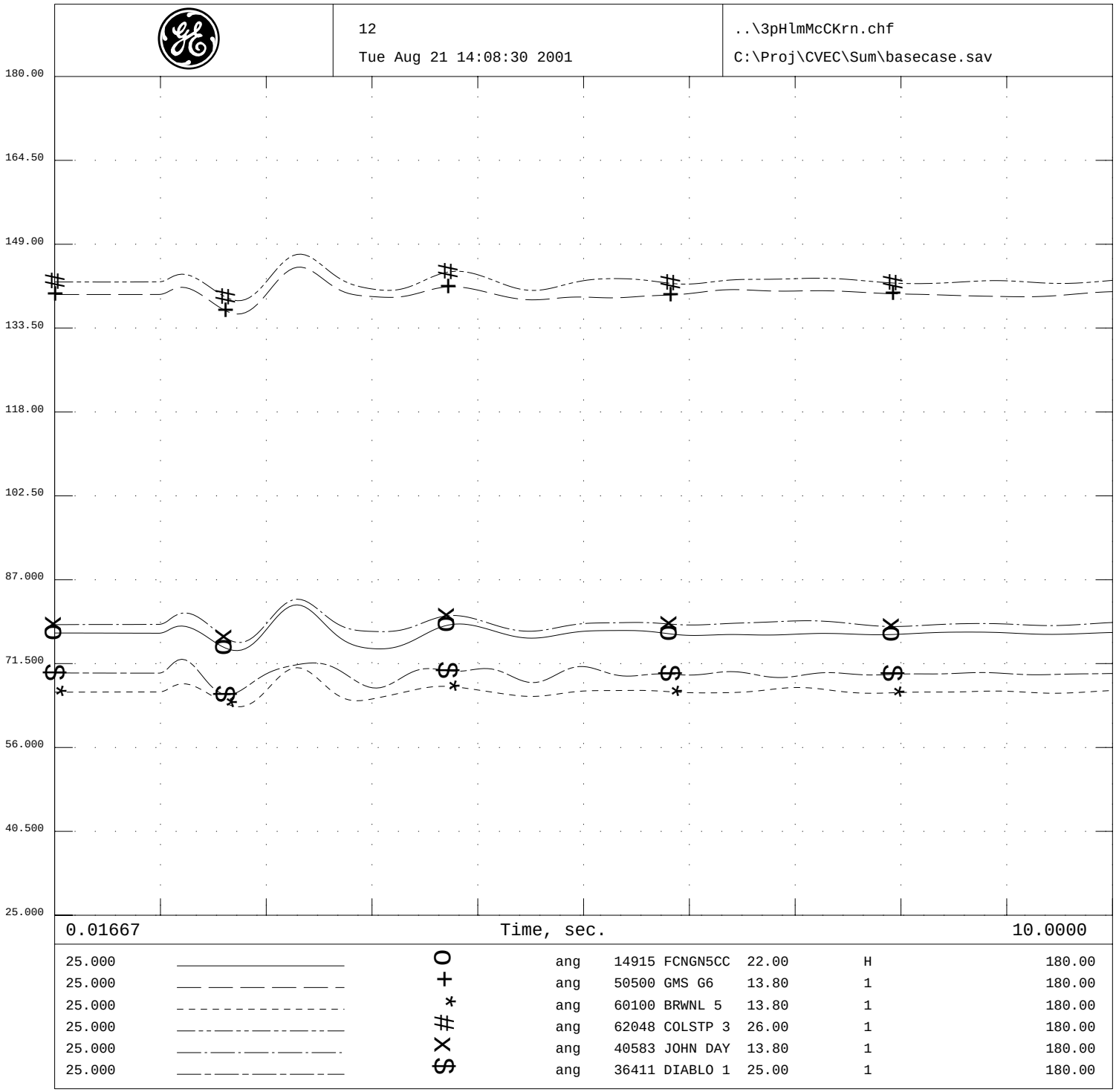
Selected Local Rotor Angle Plots



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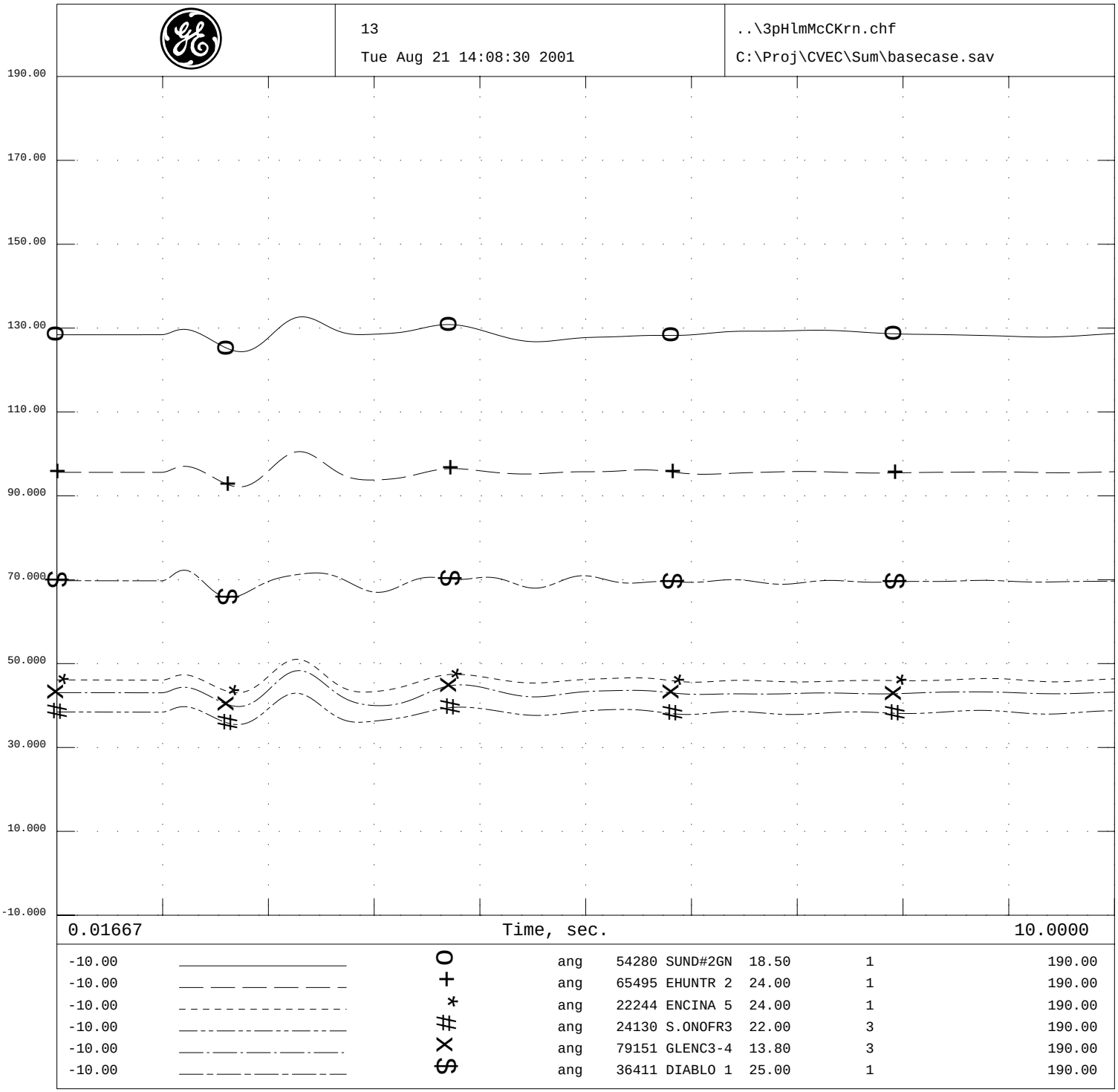

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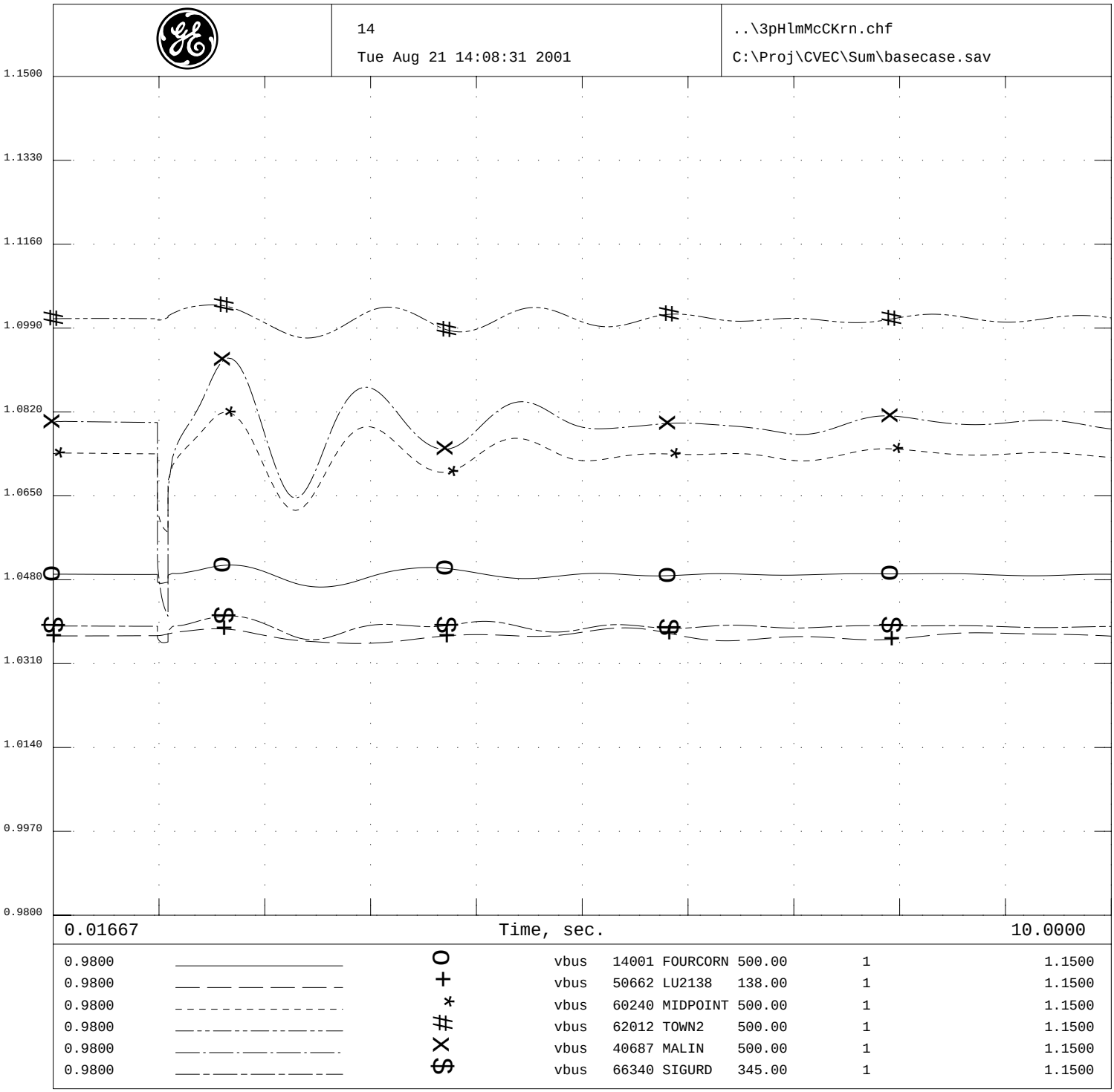

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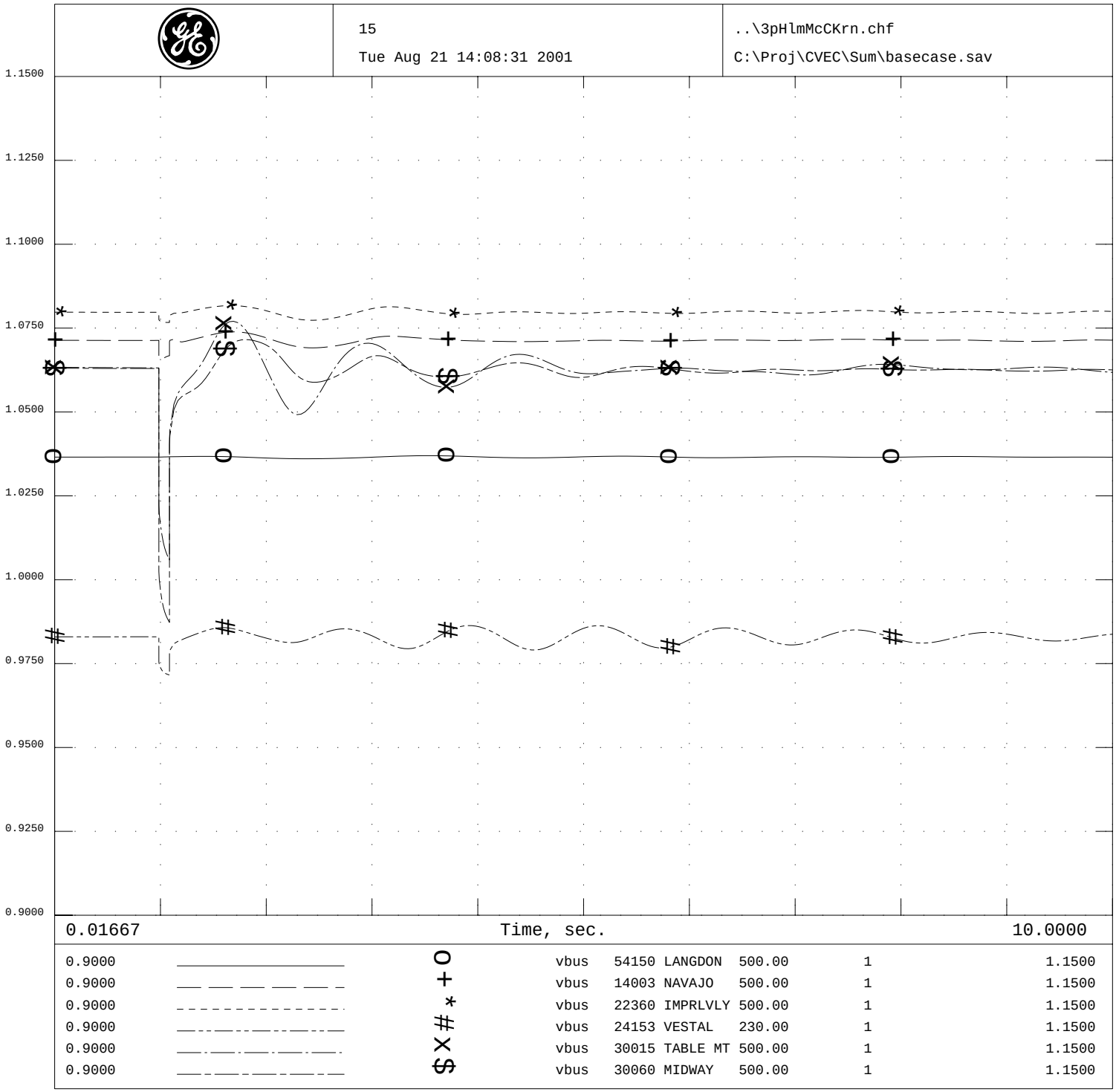

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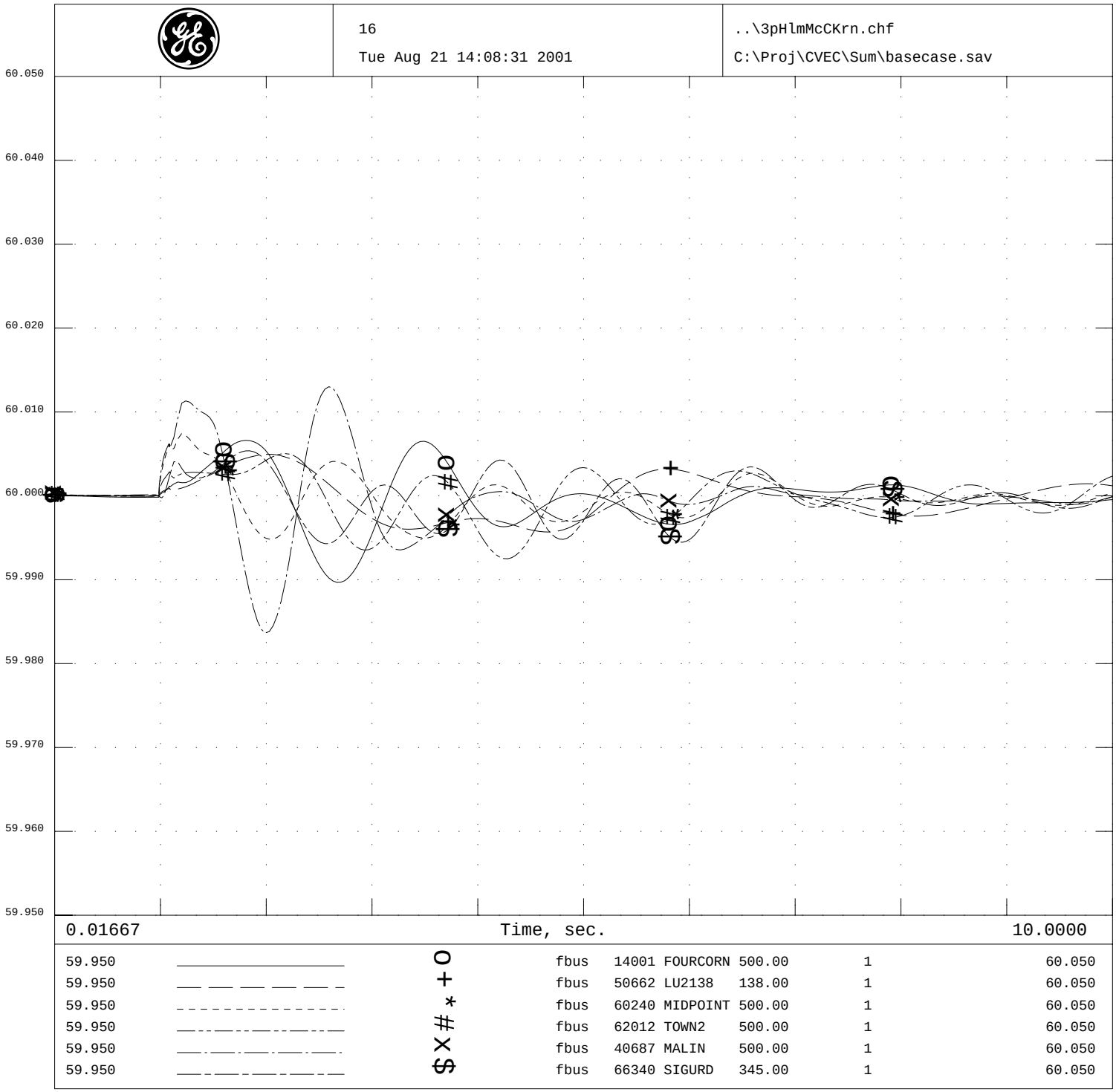

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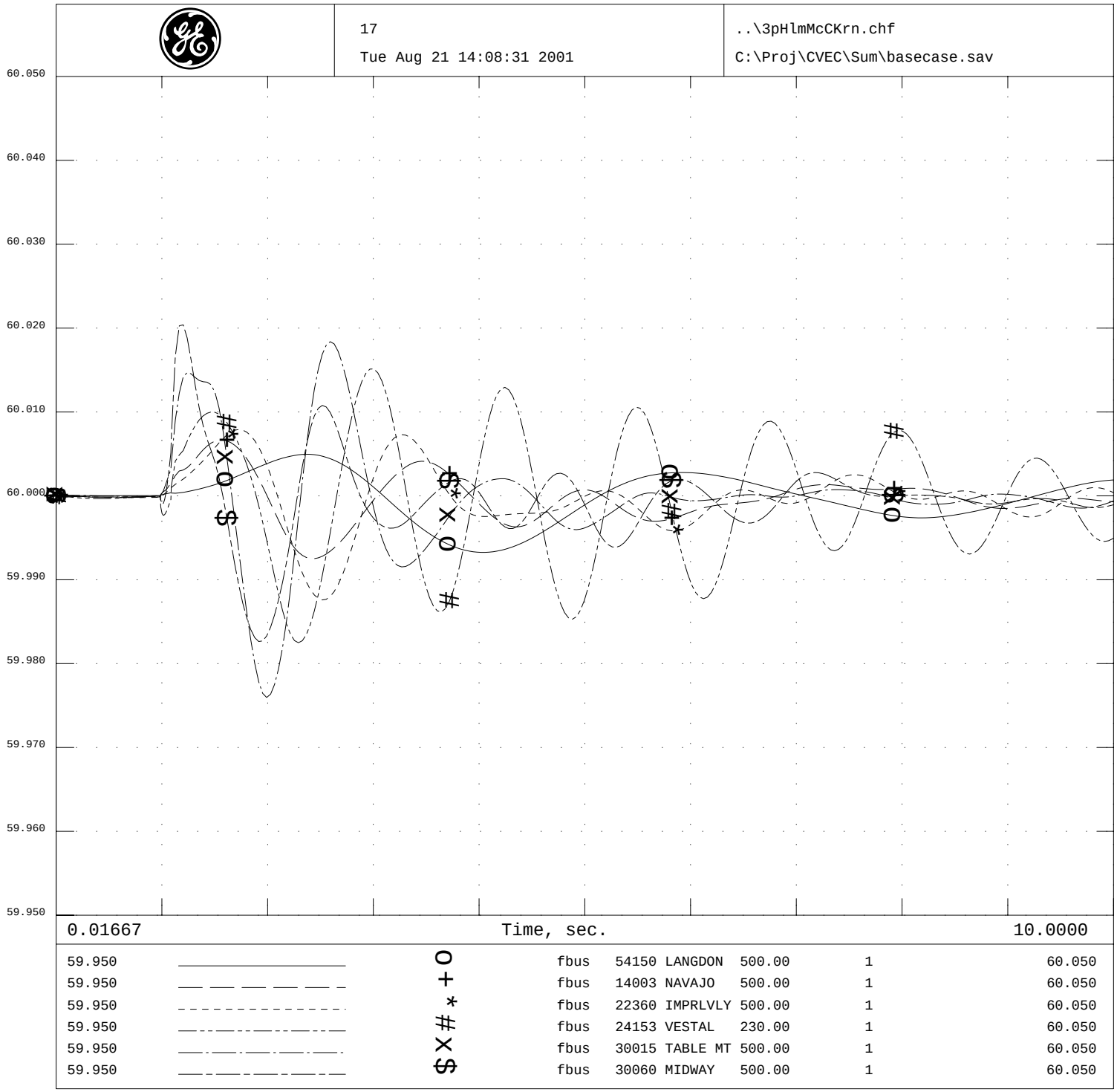

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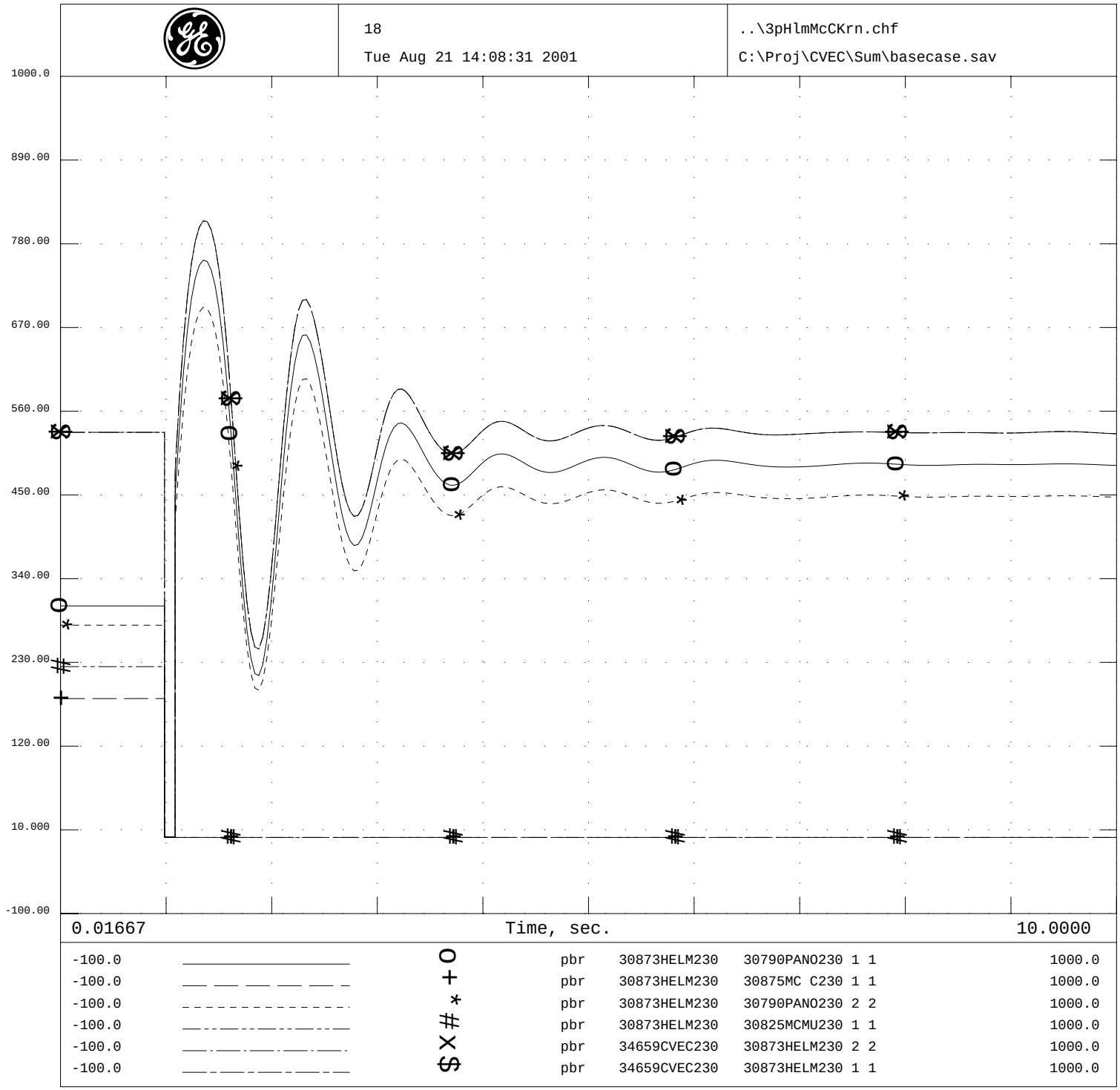

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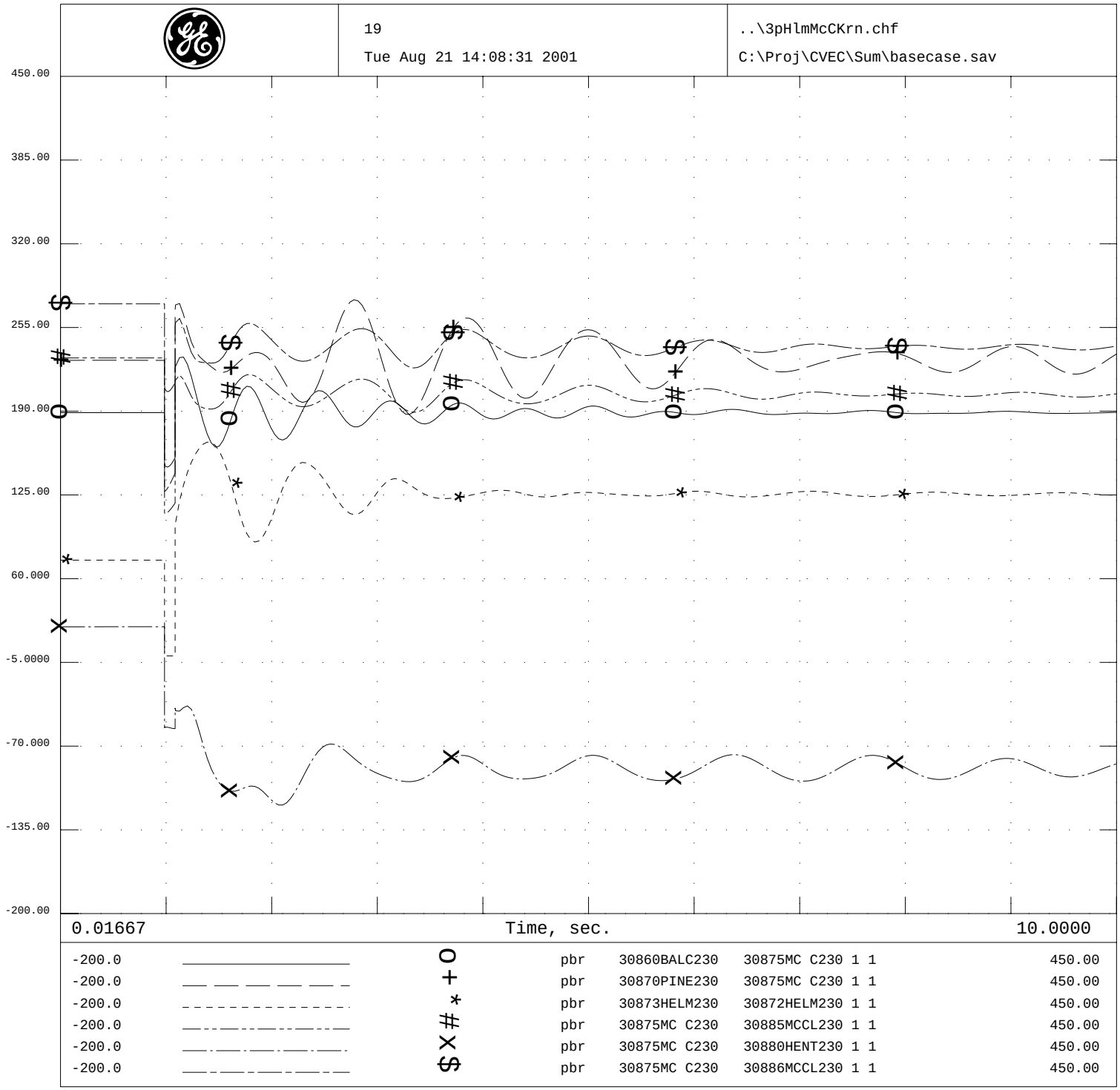
Selected Transmission Line Flows (MW)



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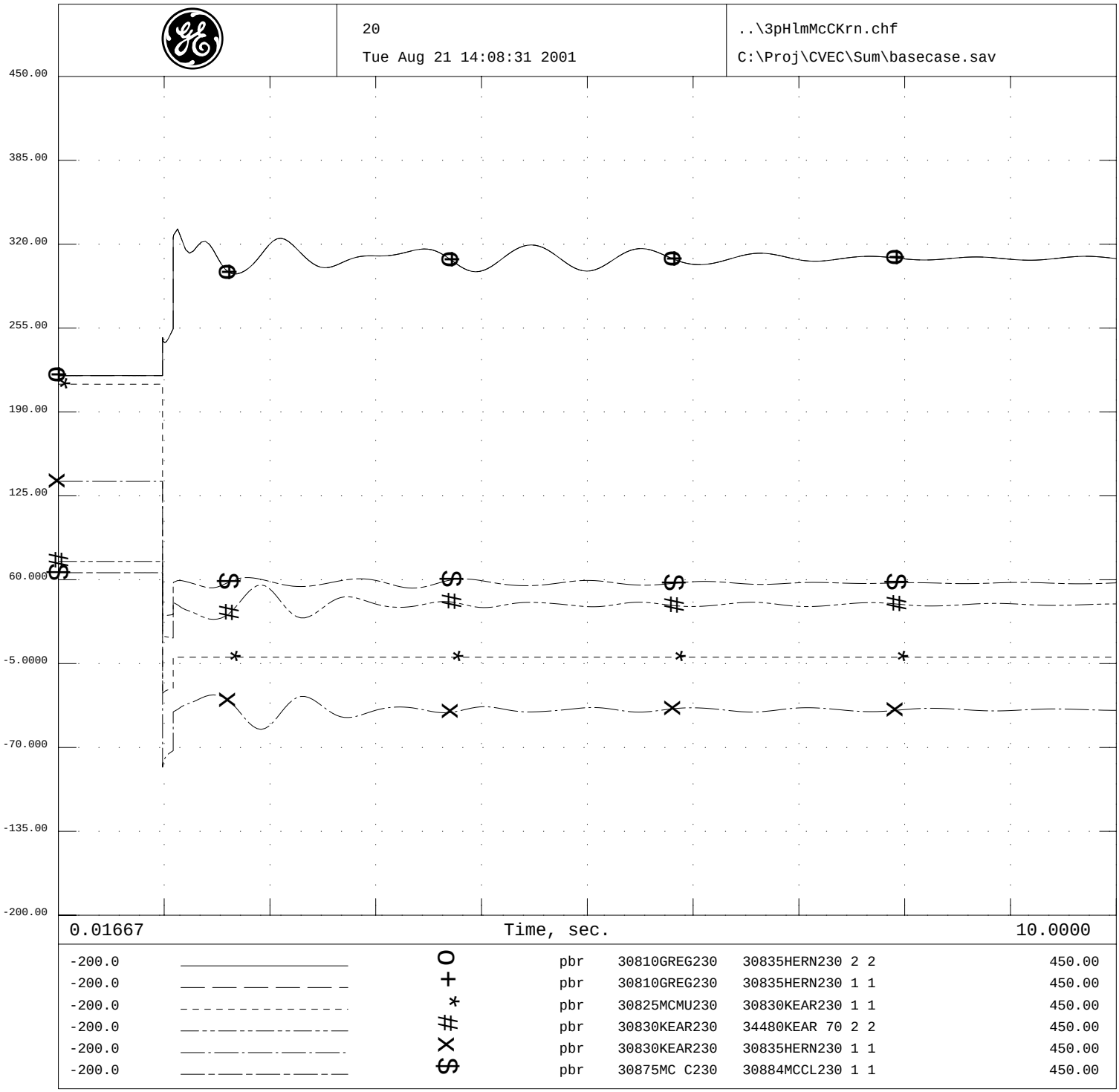

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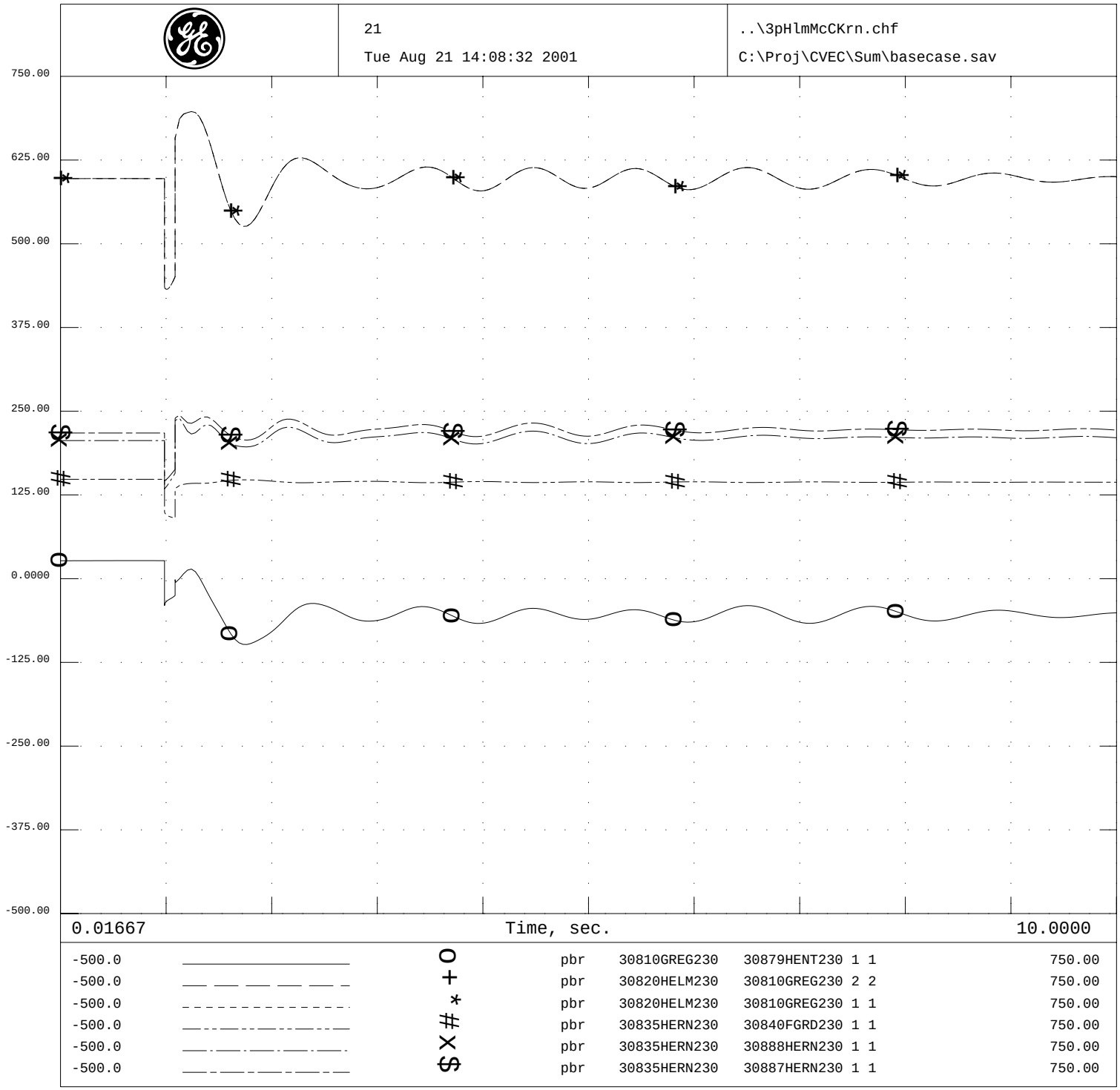

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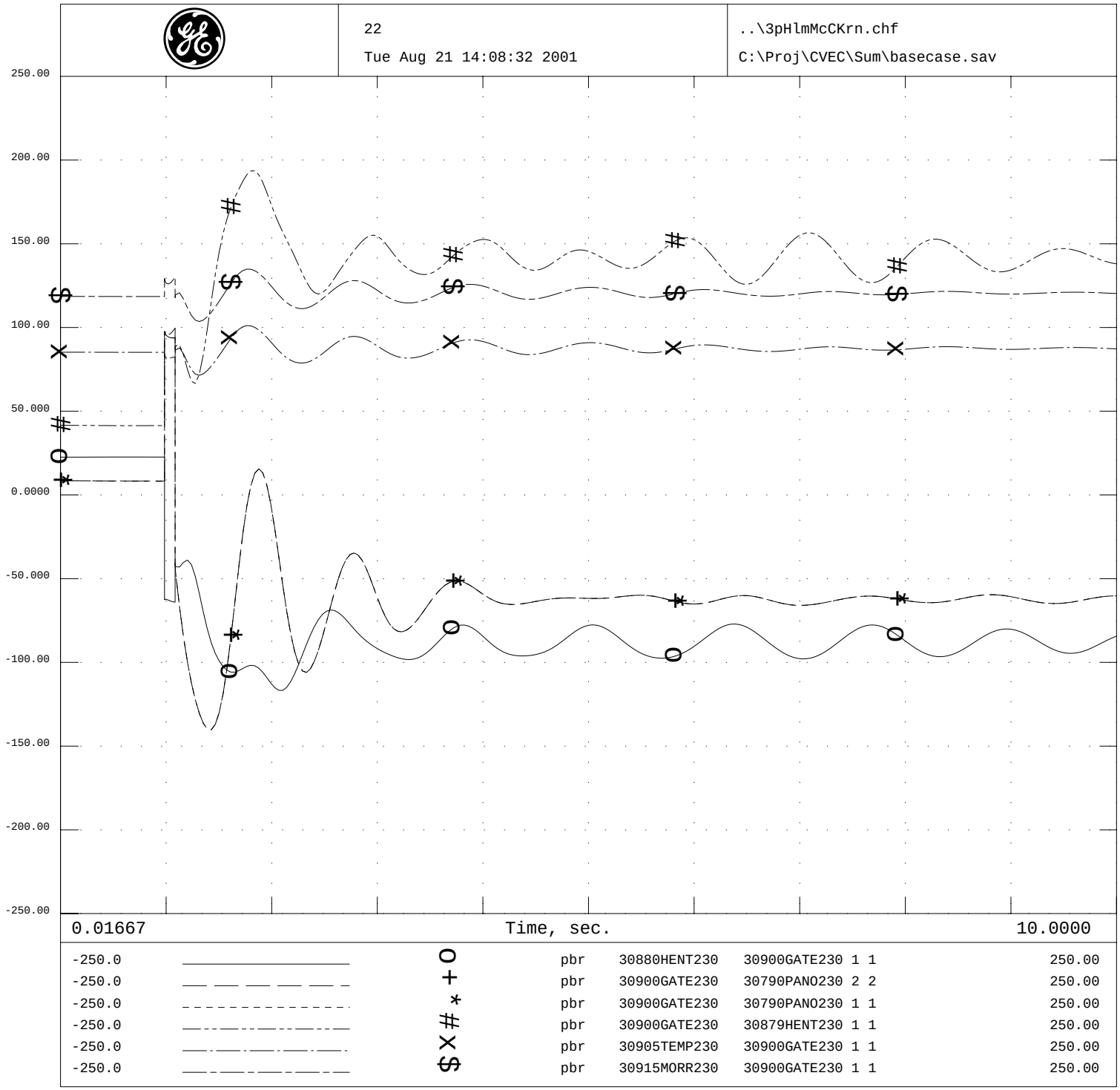

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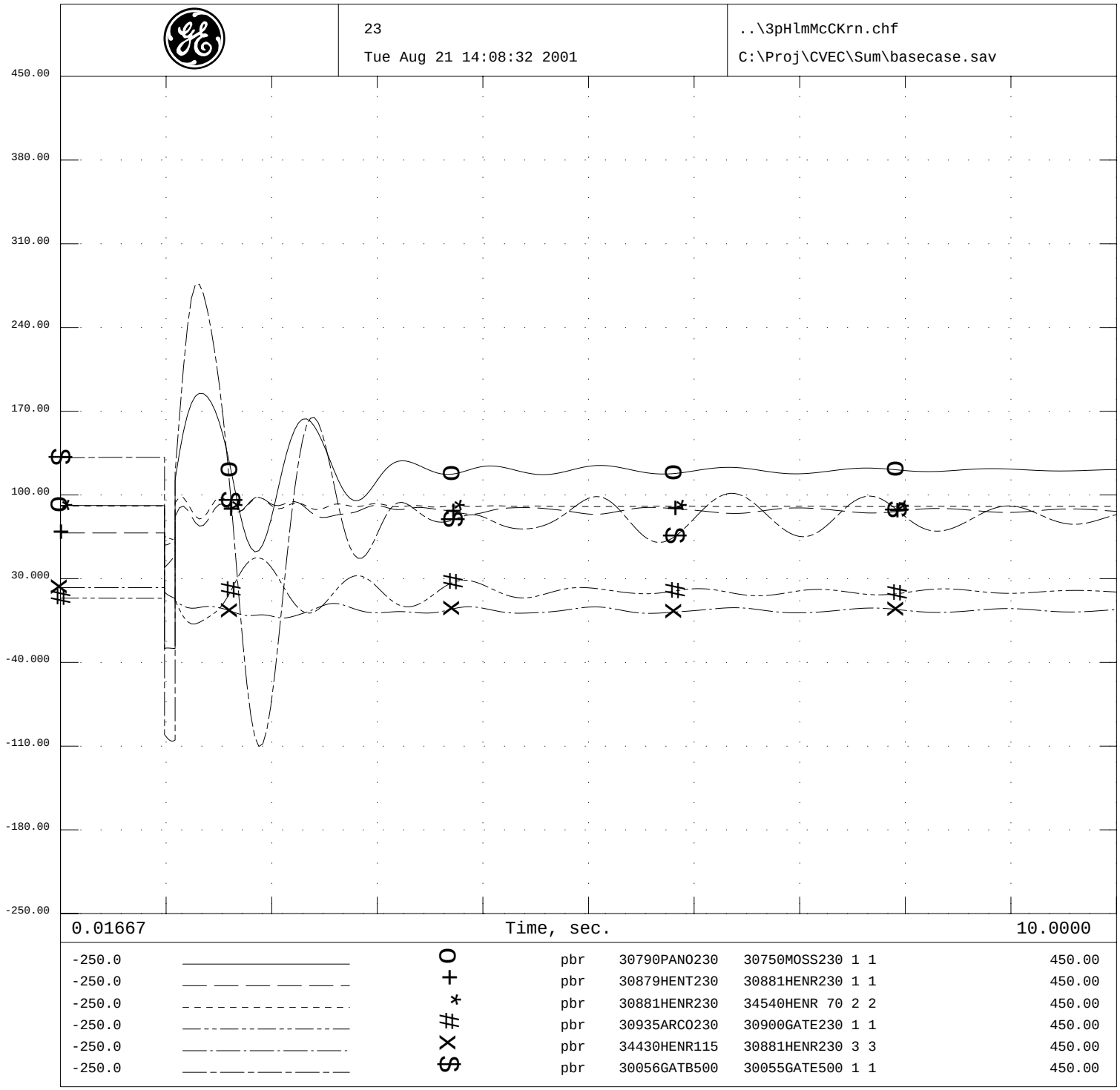

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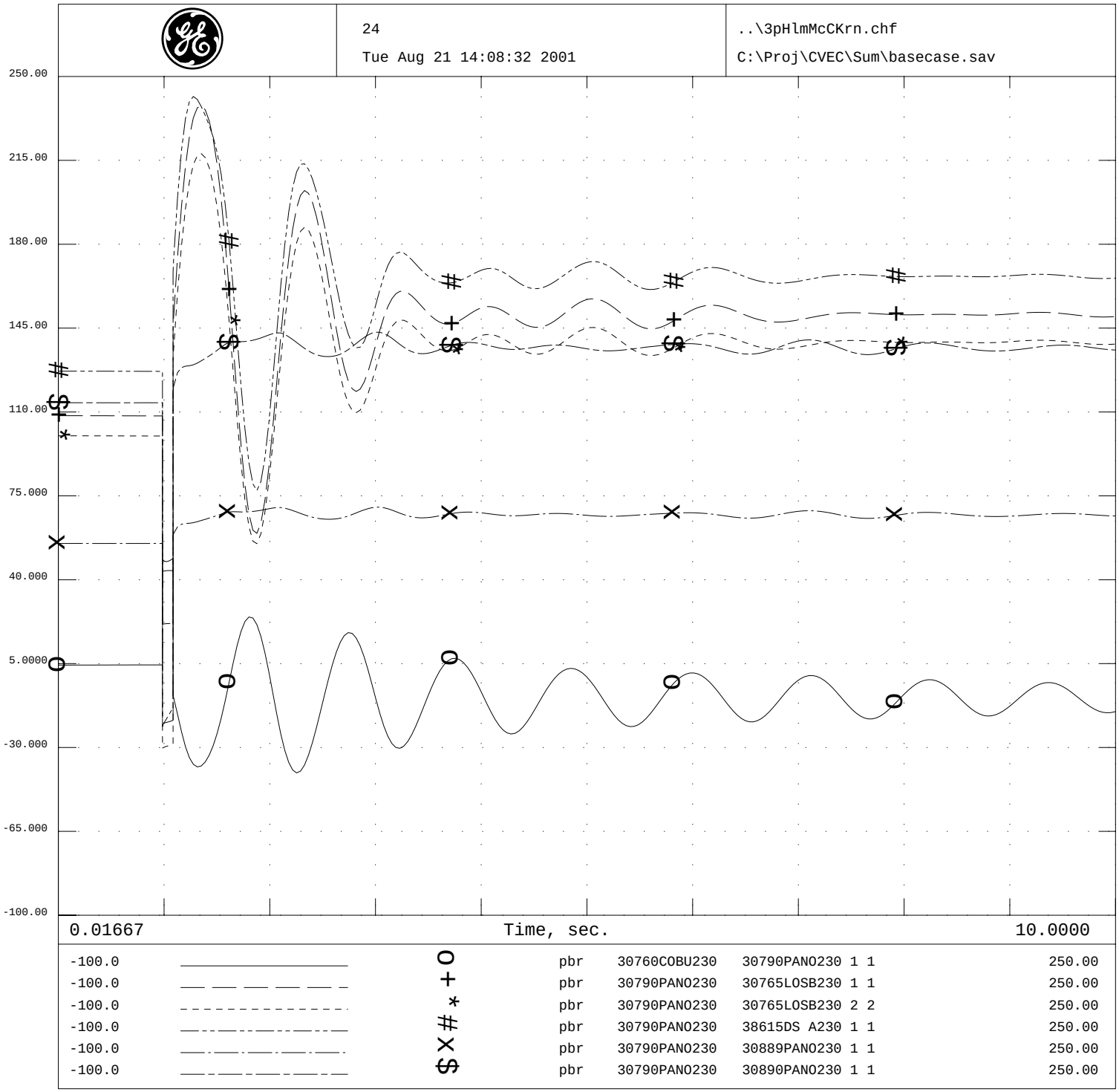

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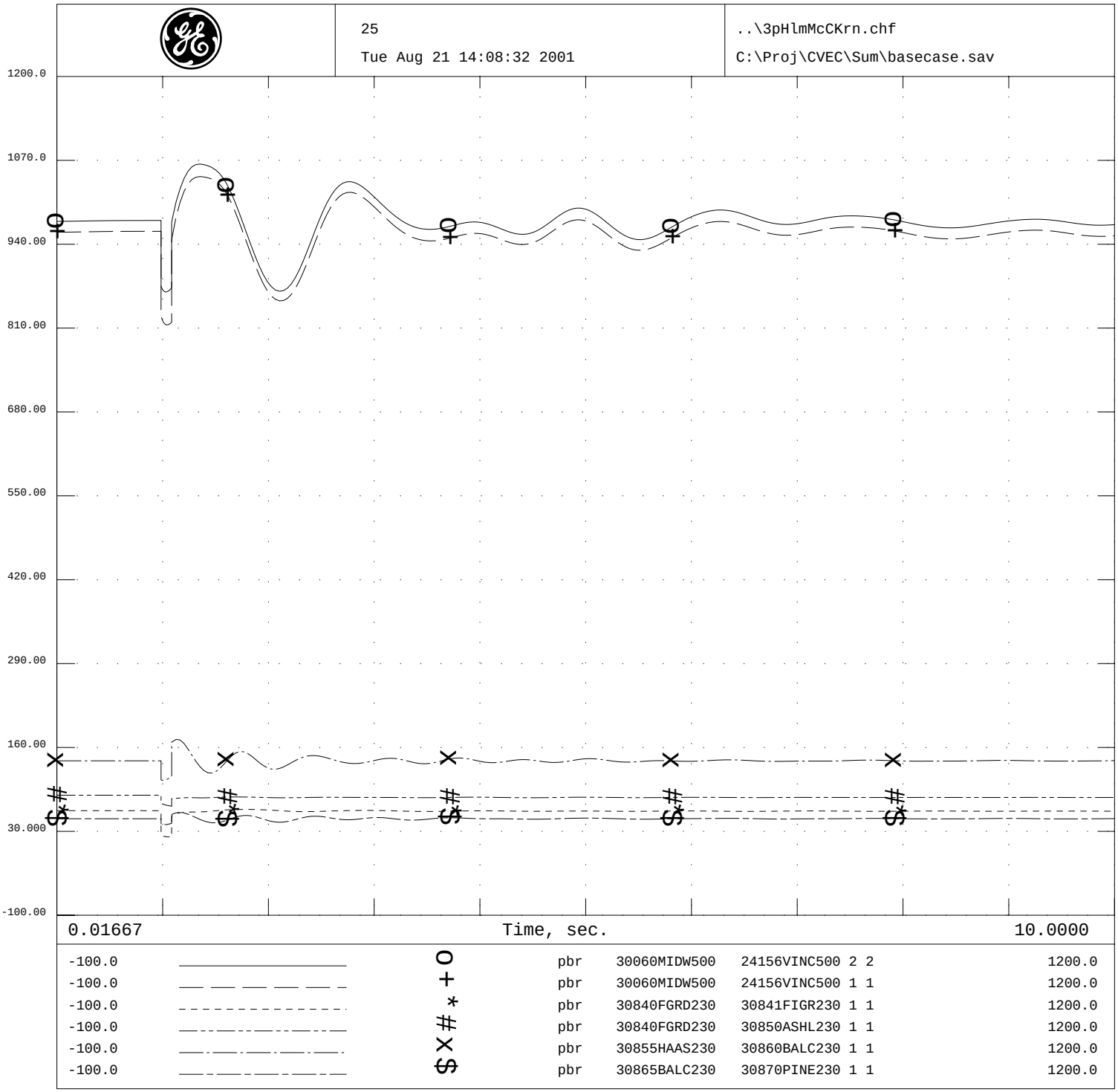

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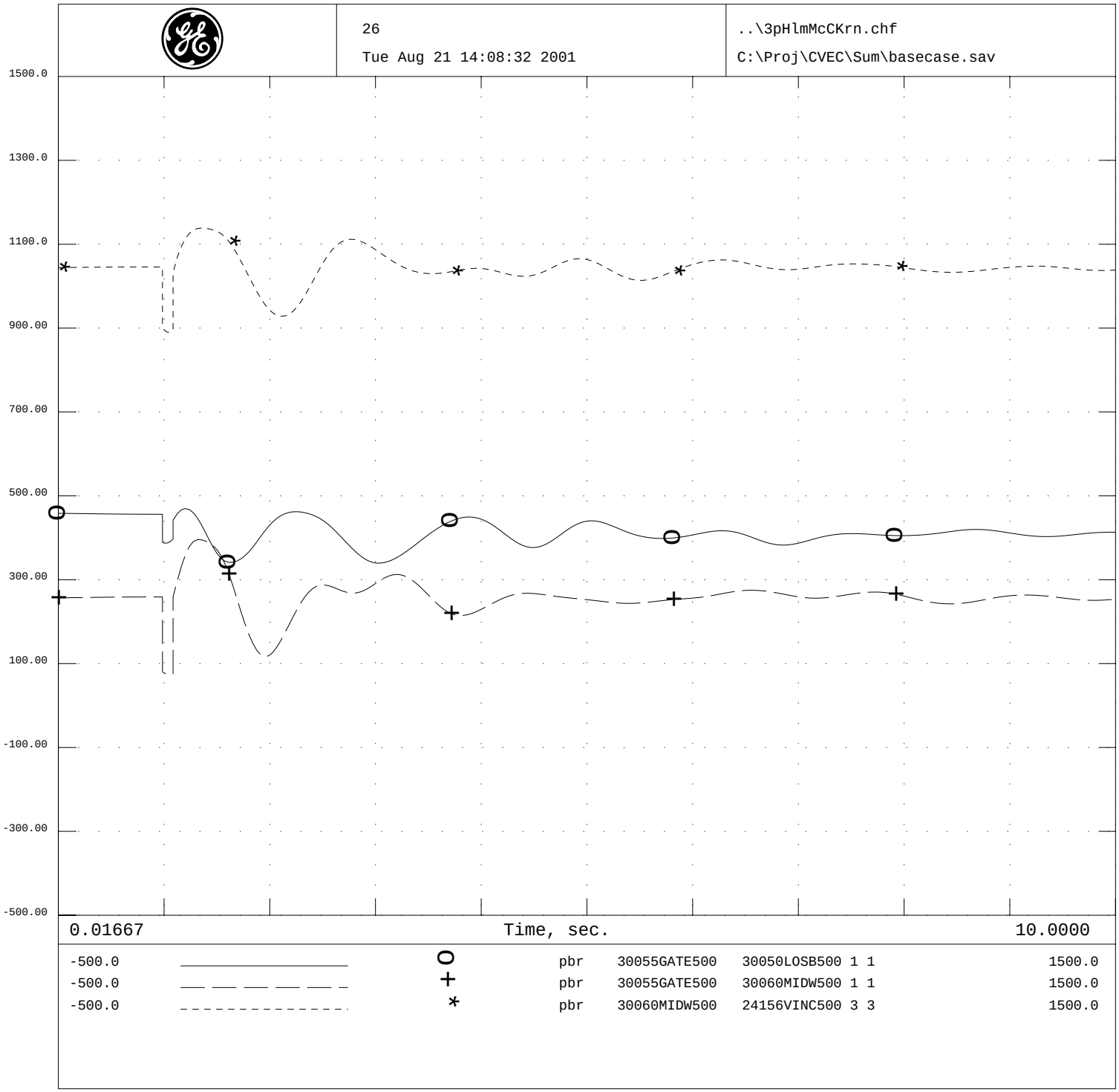

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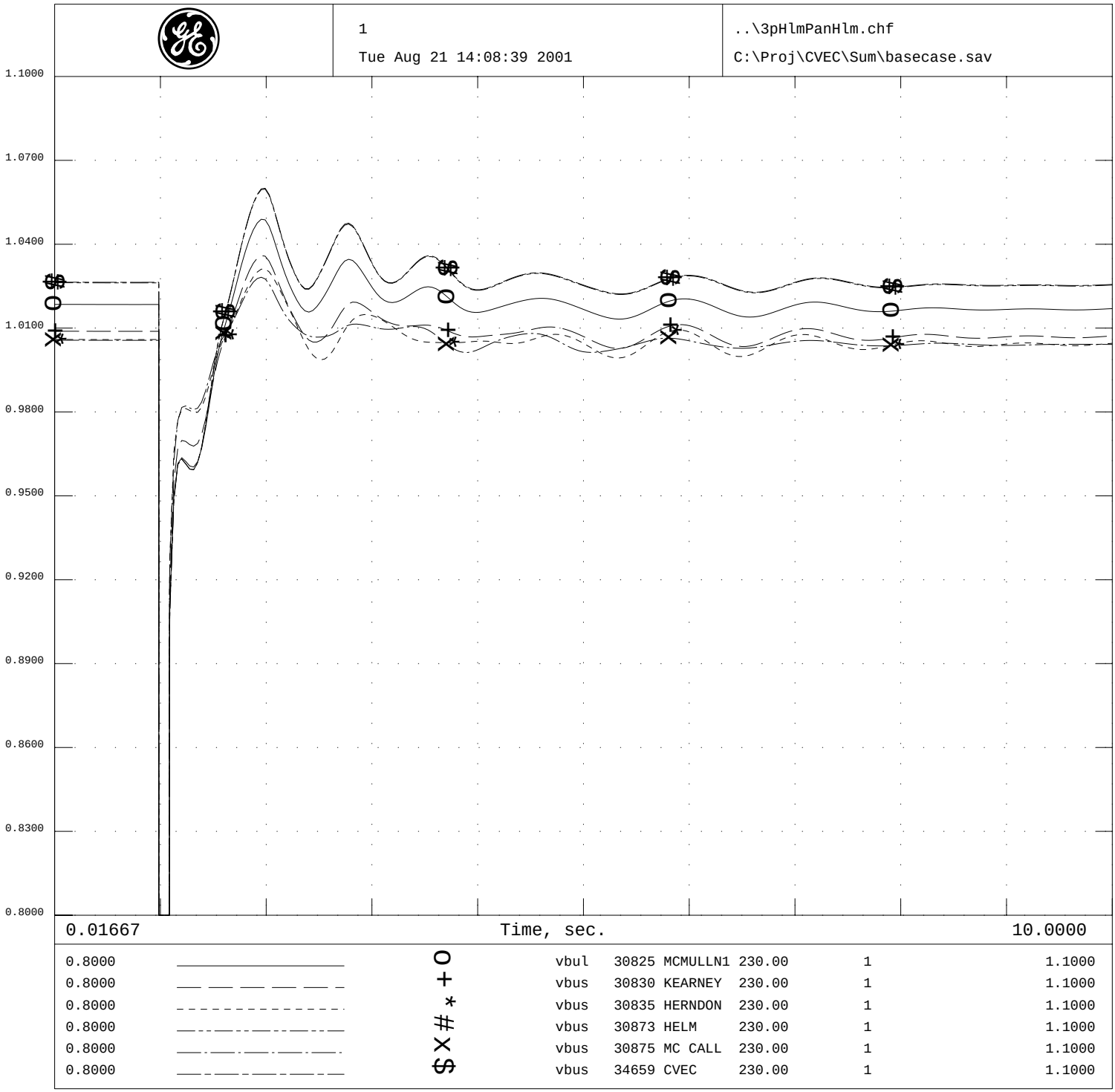

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Calpine Corporation
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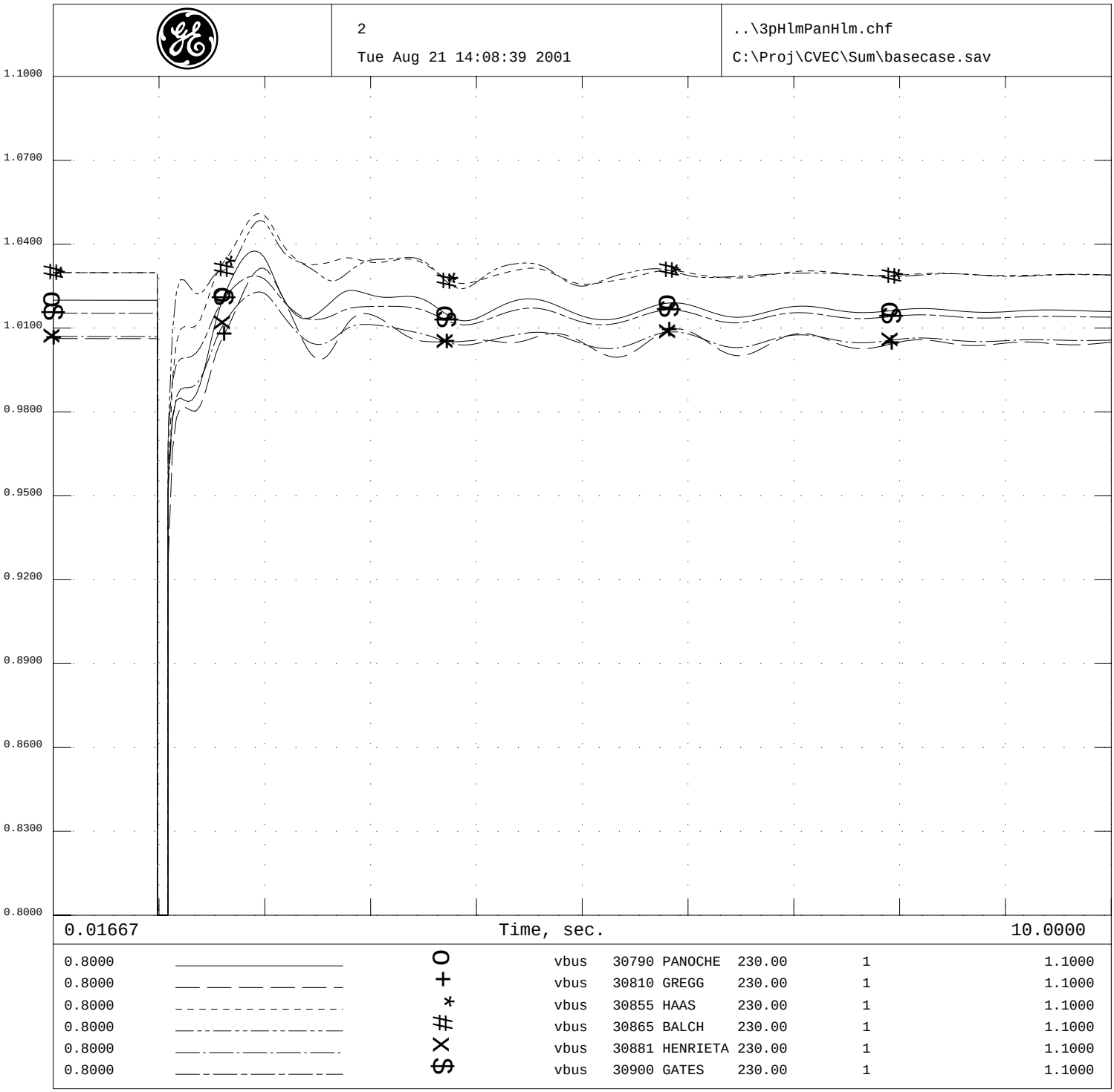

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Calpine Corporation
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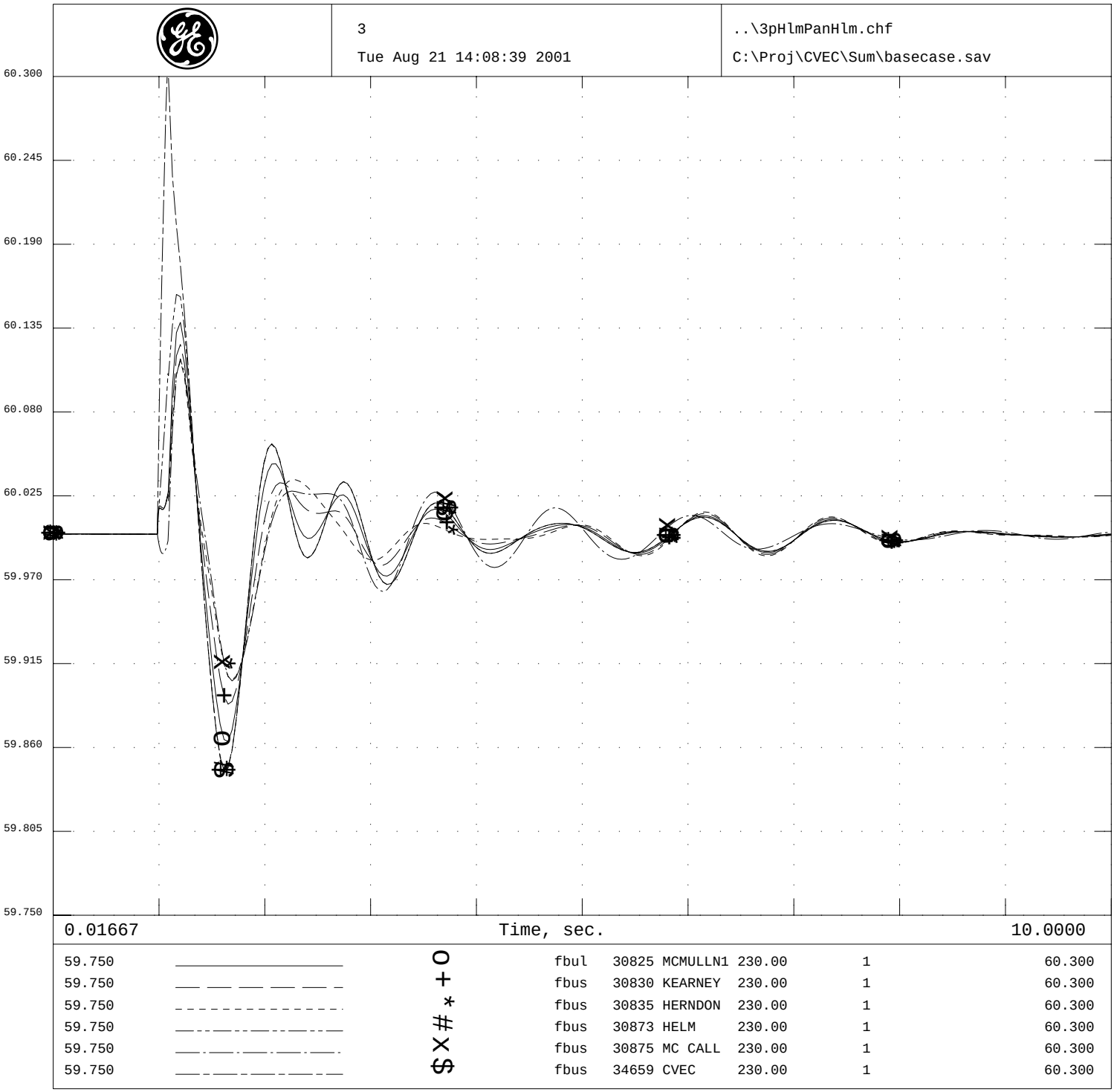

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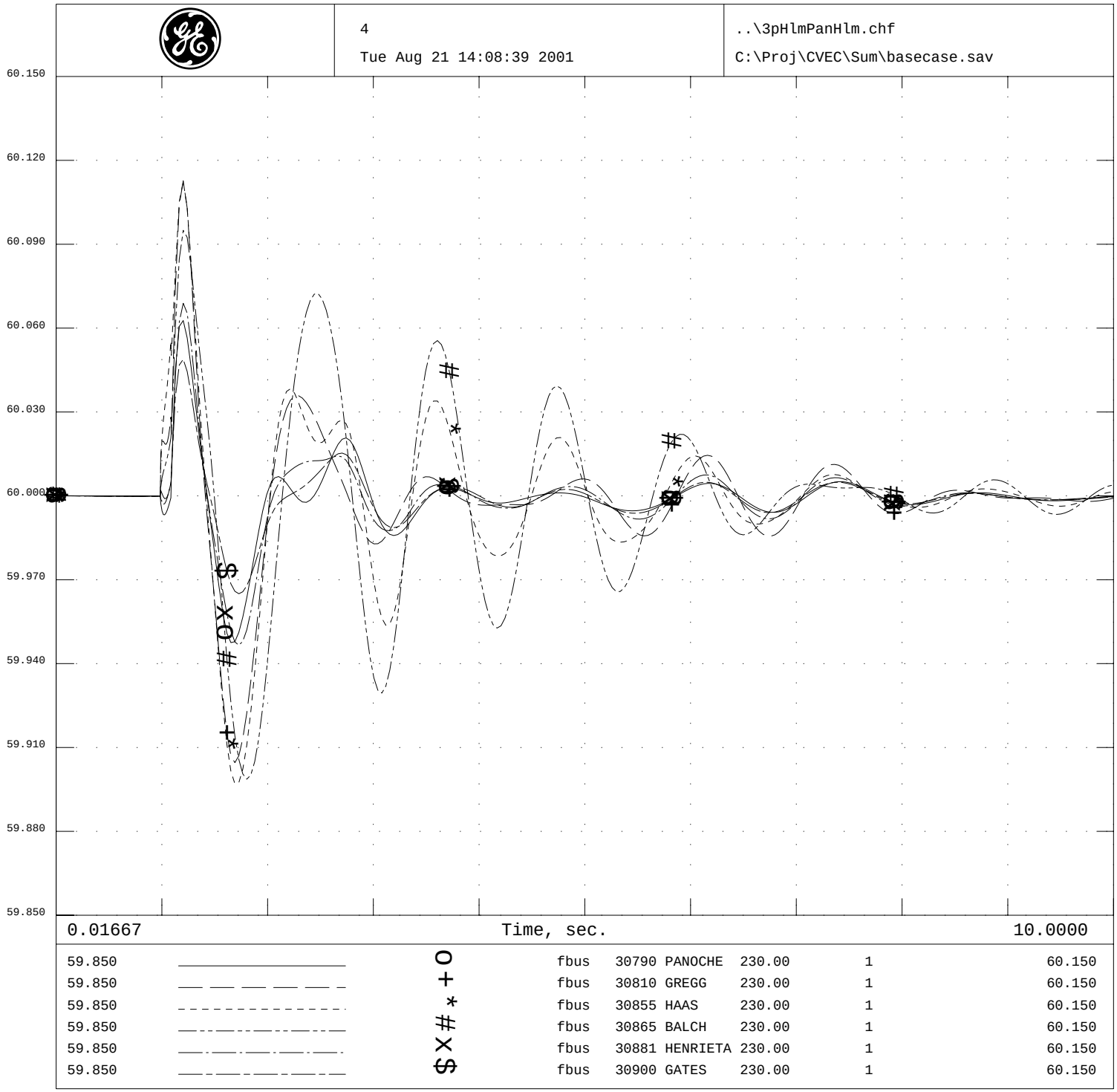

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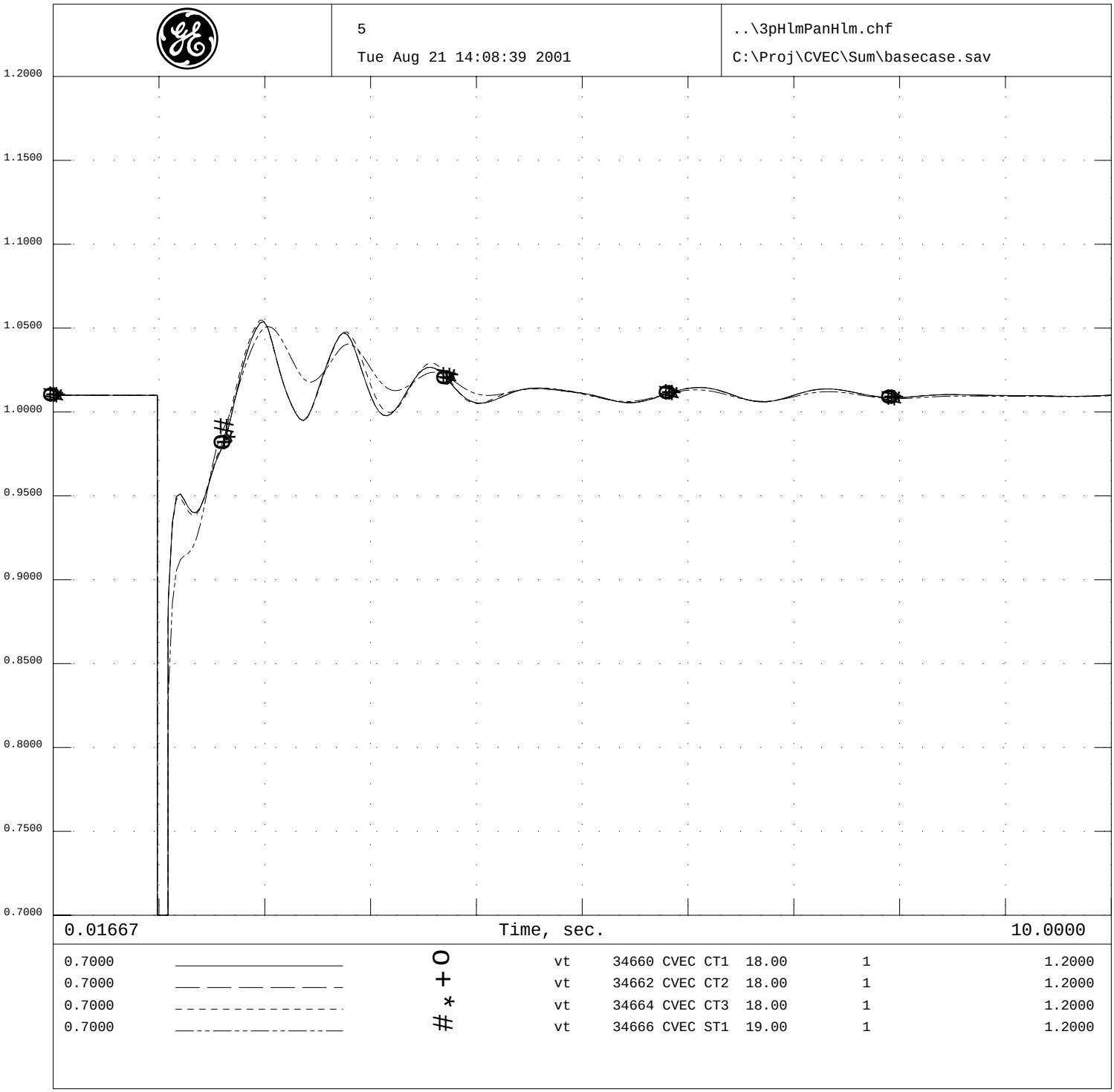

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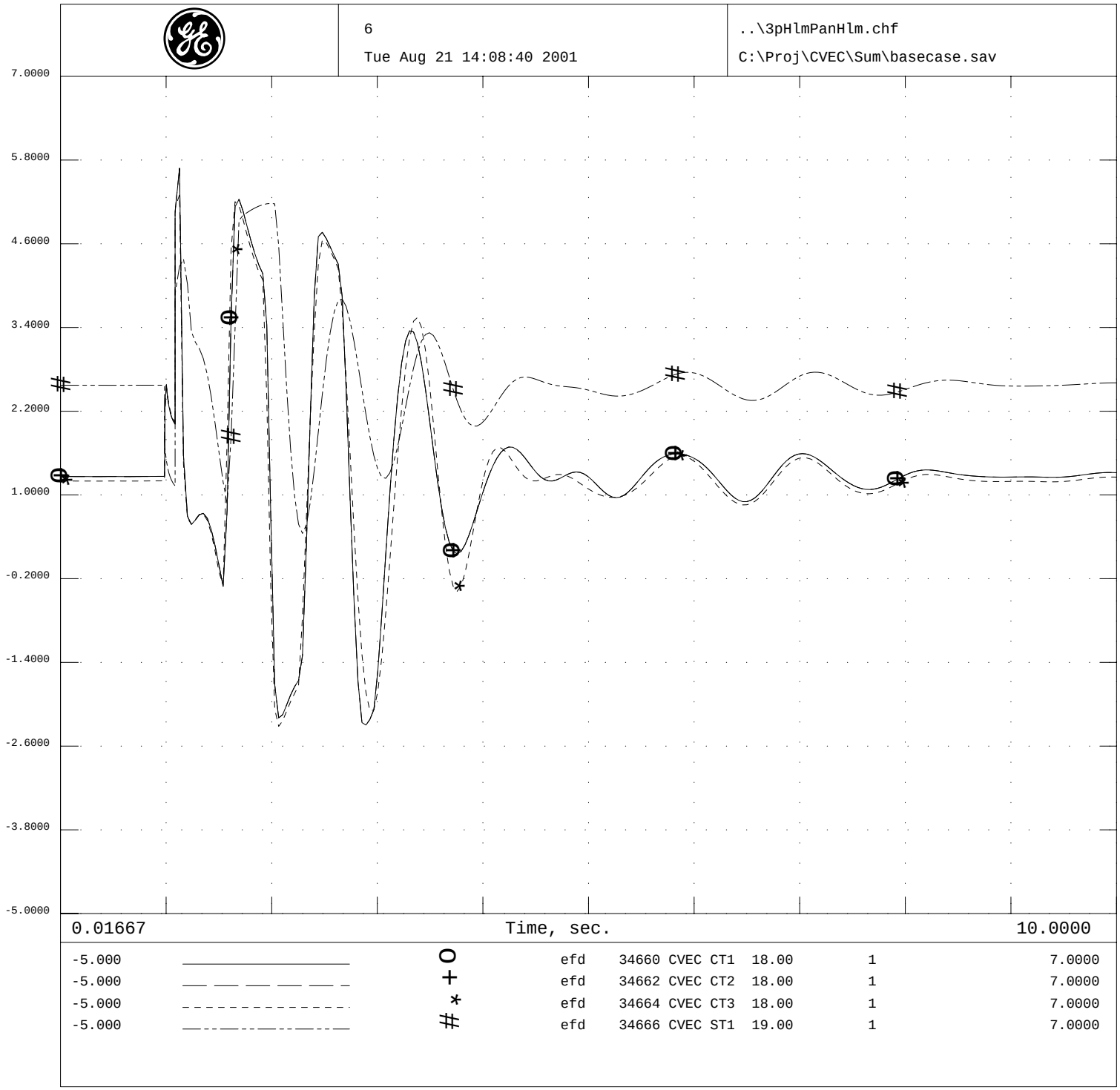

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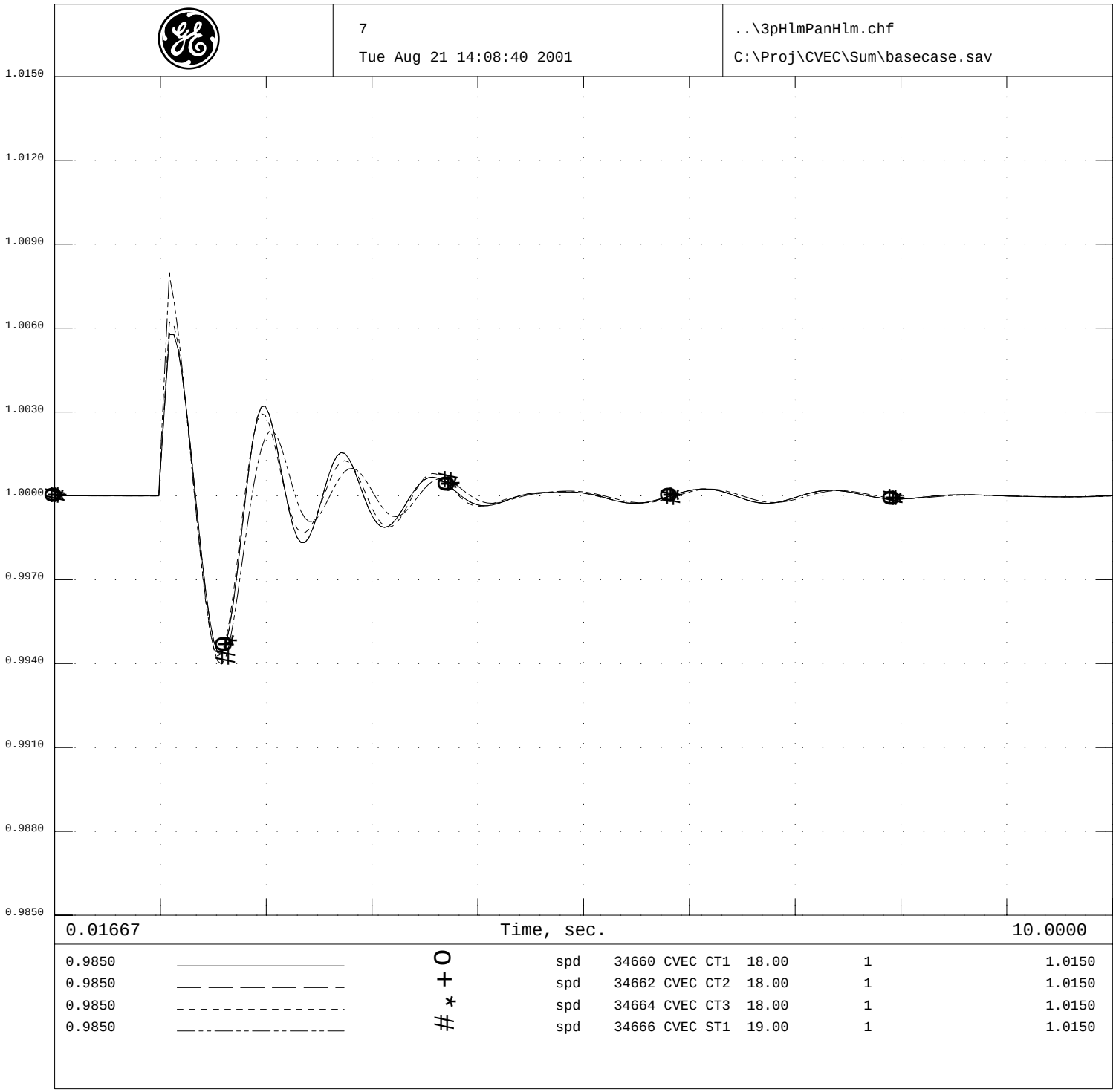

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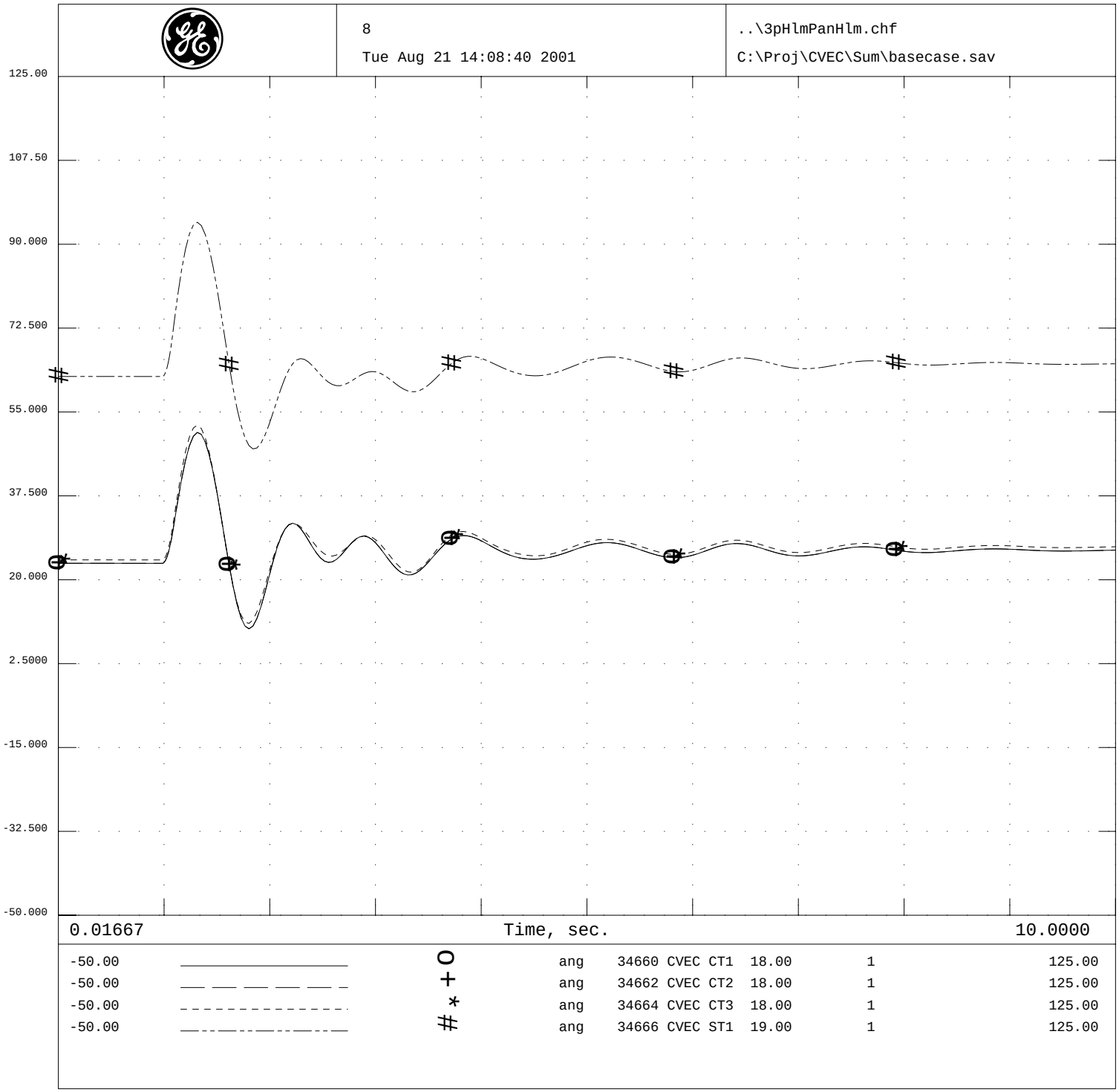

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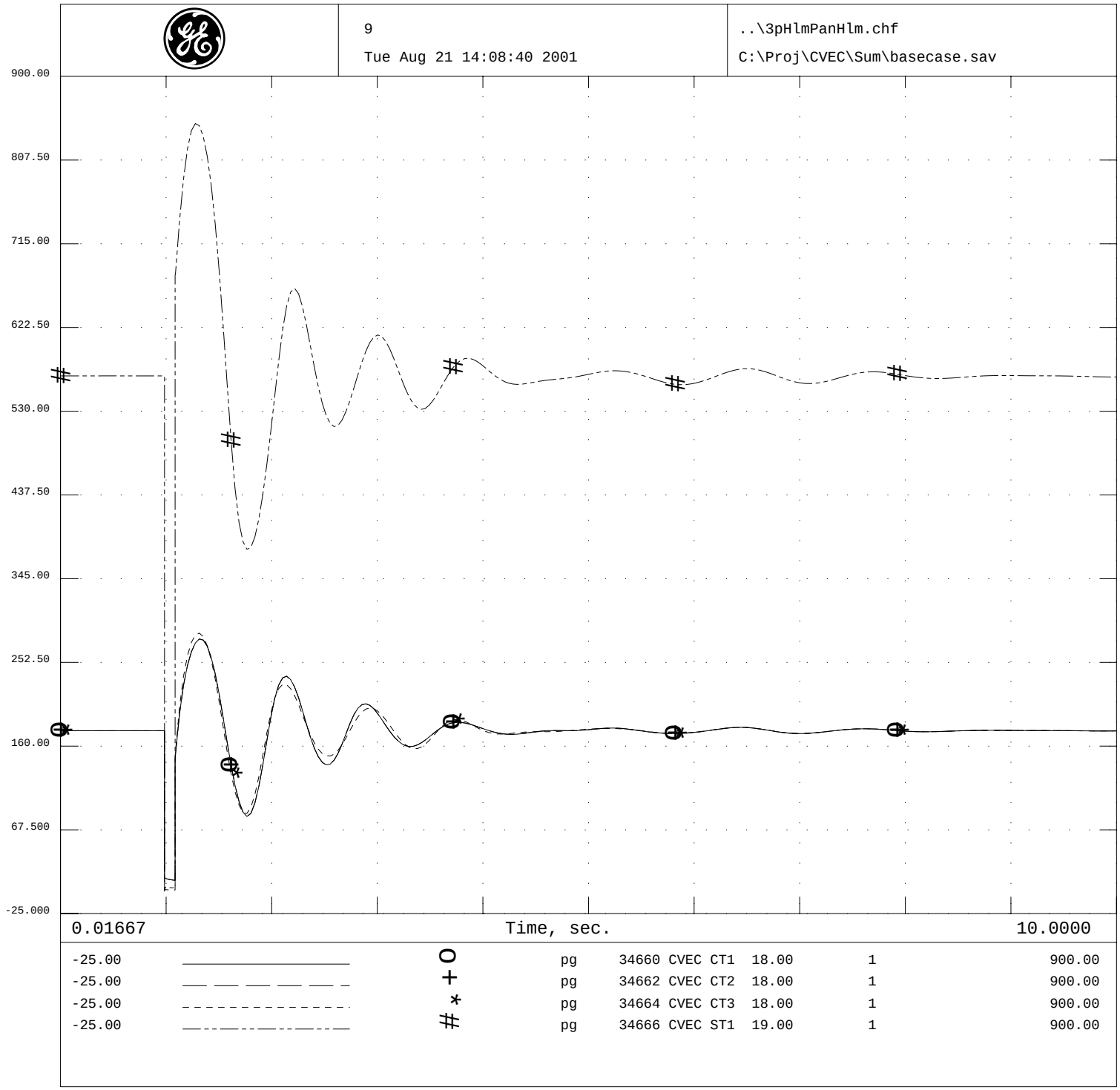

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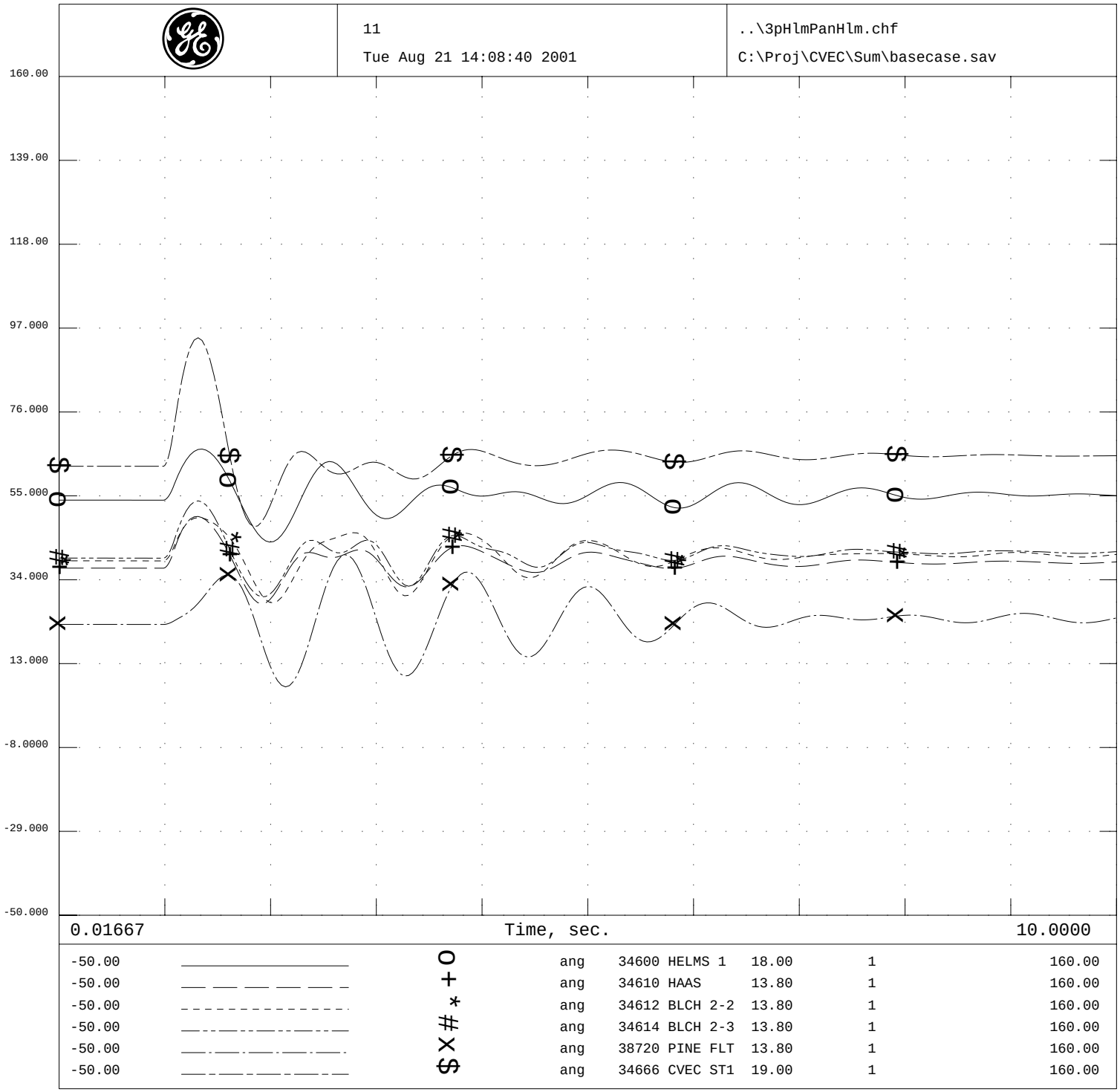

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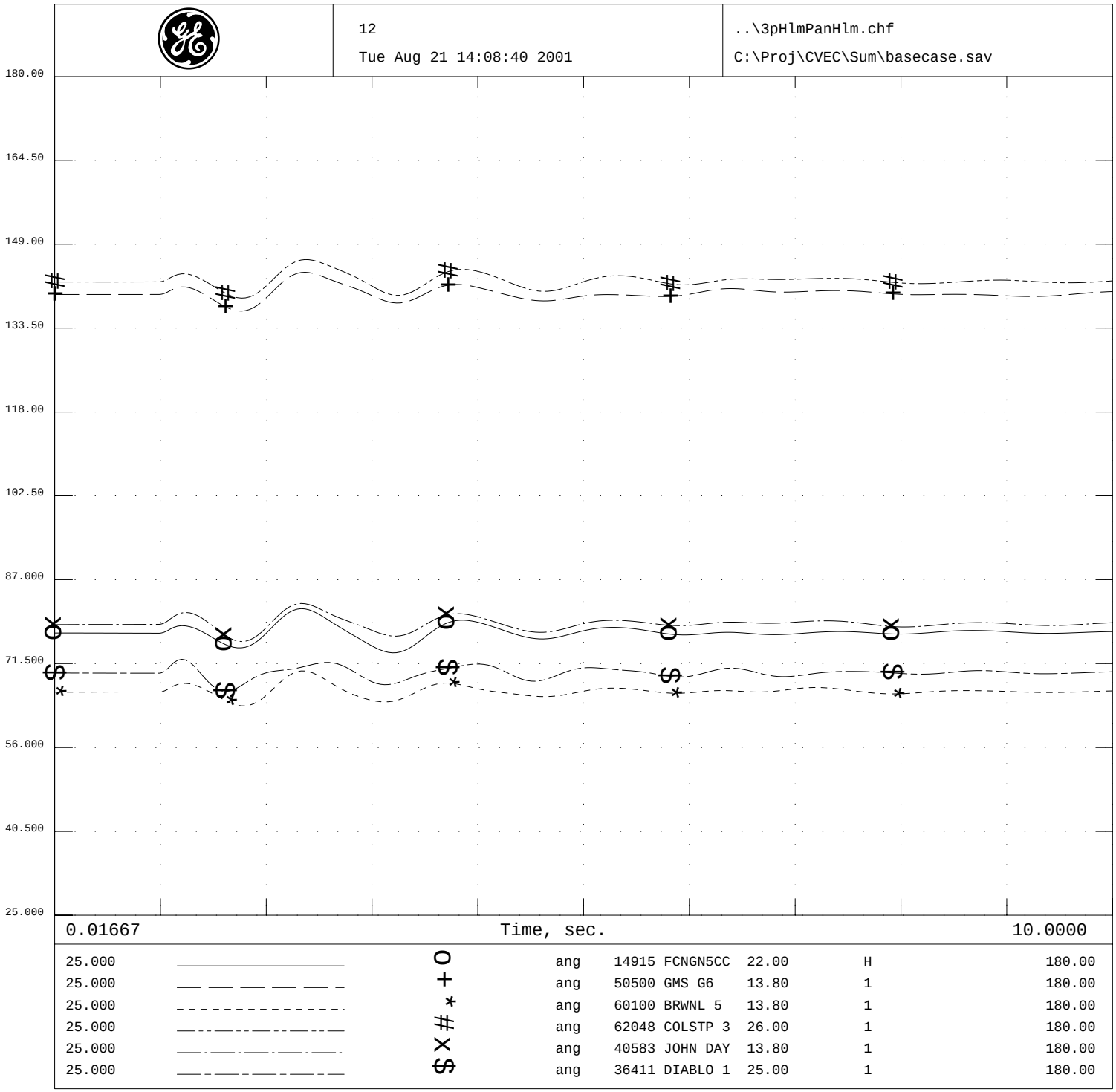

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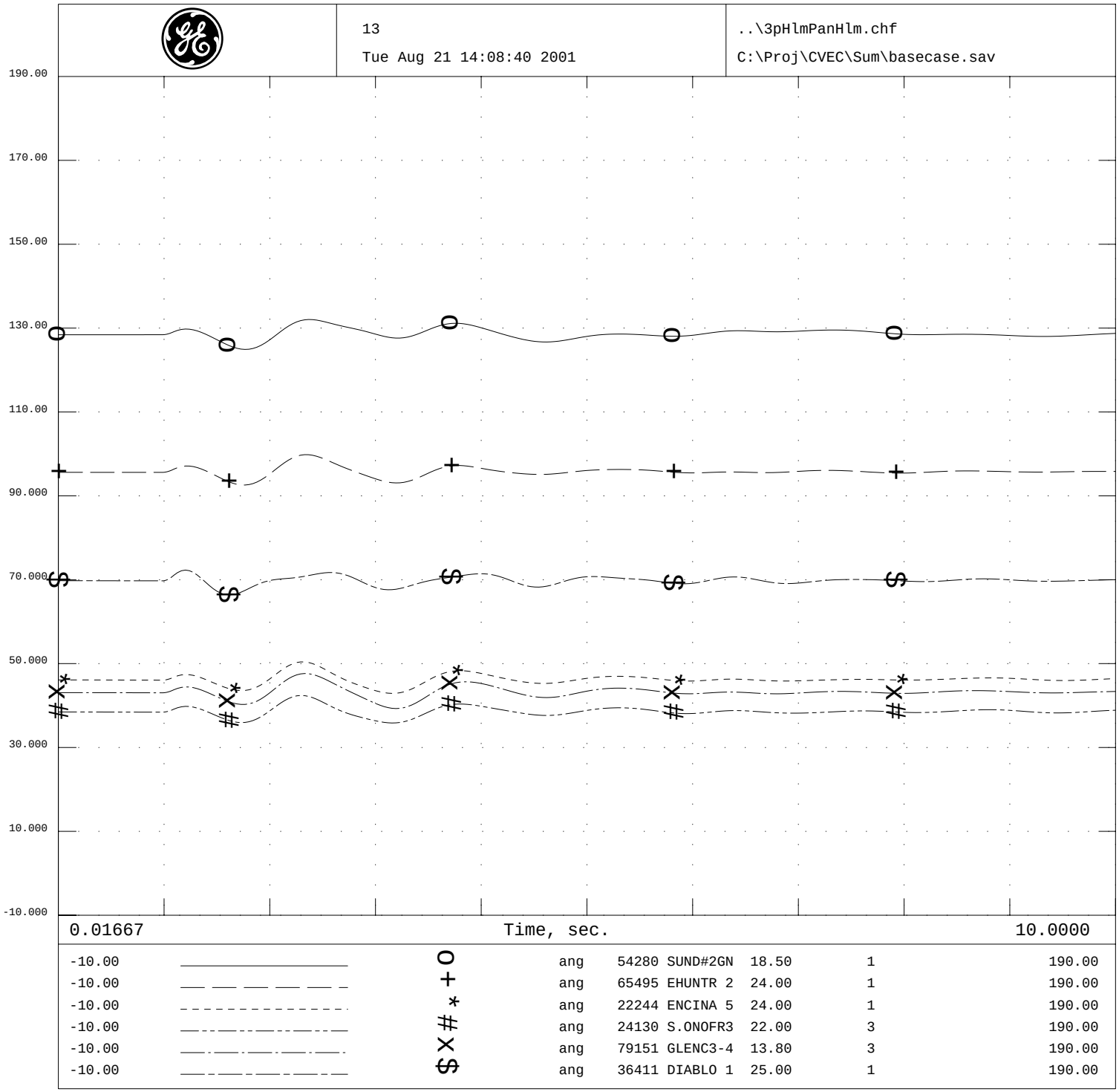

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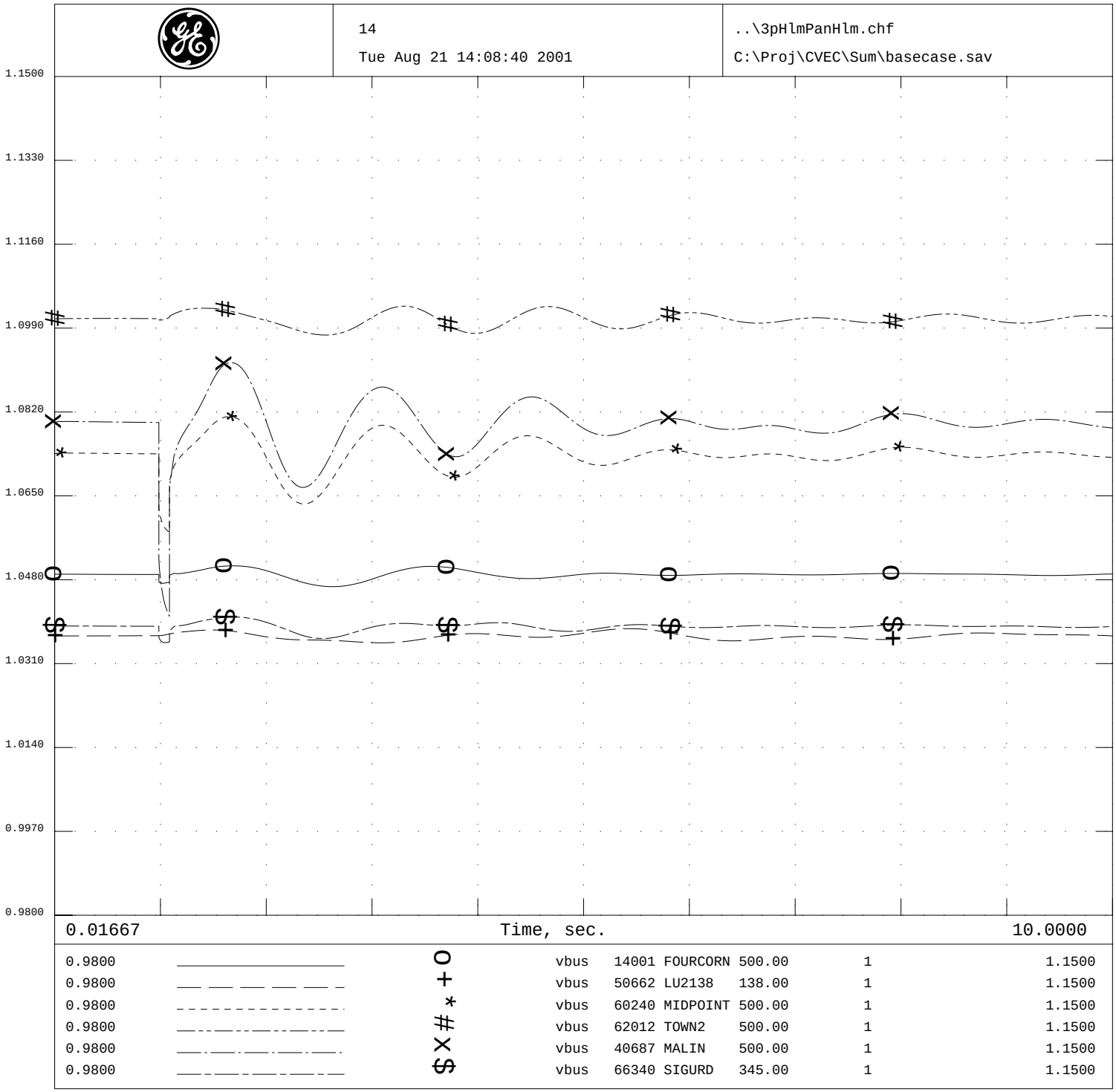

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Panoche-Helm 230kV #2 Outage
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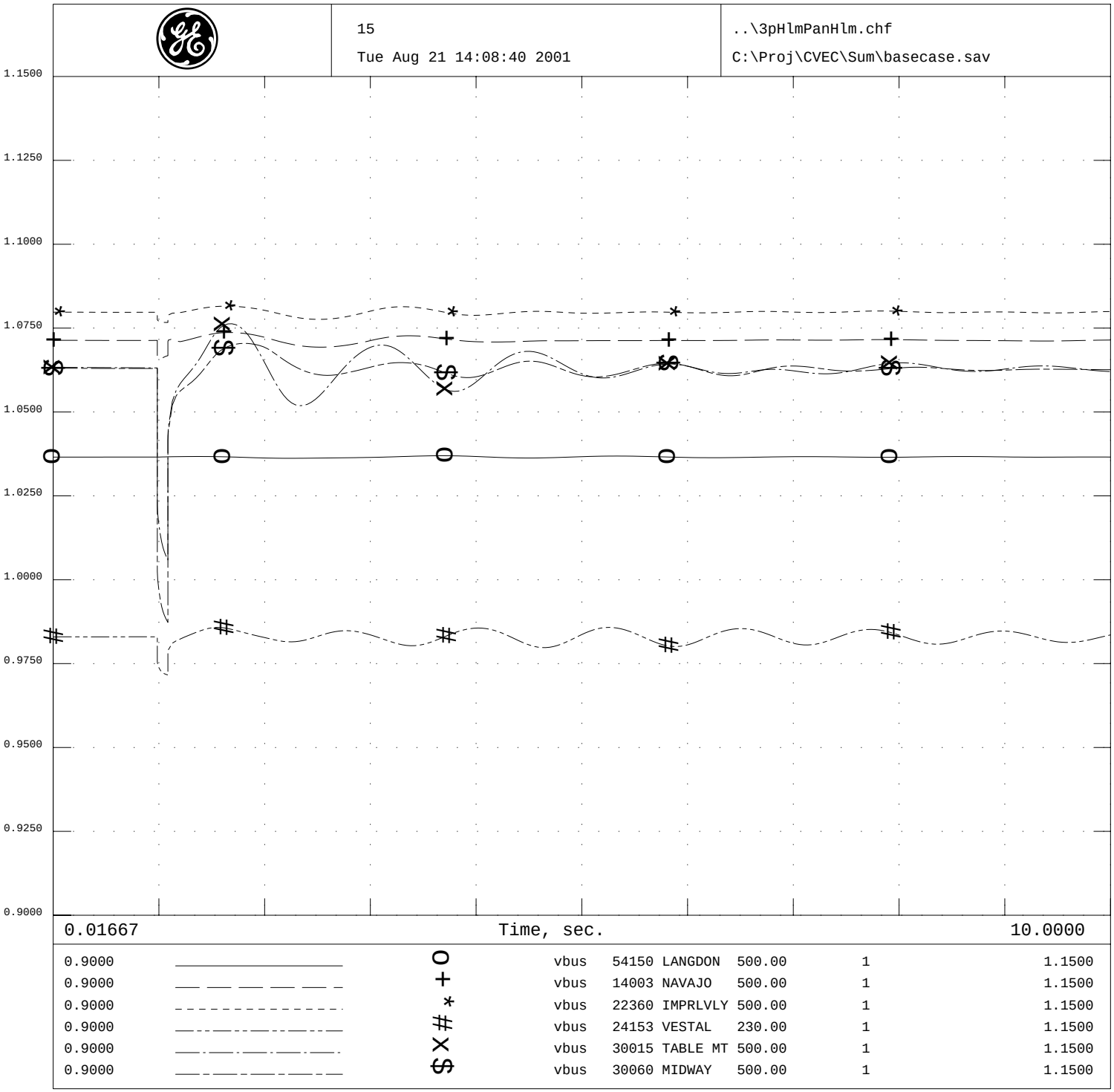
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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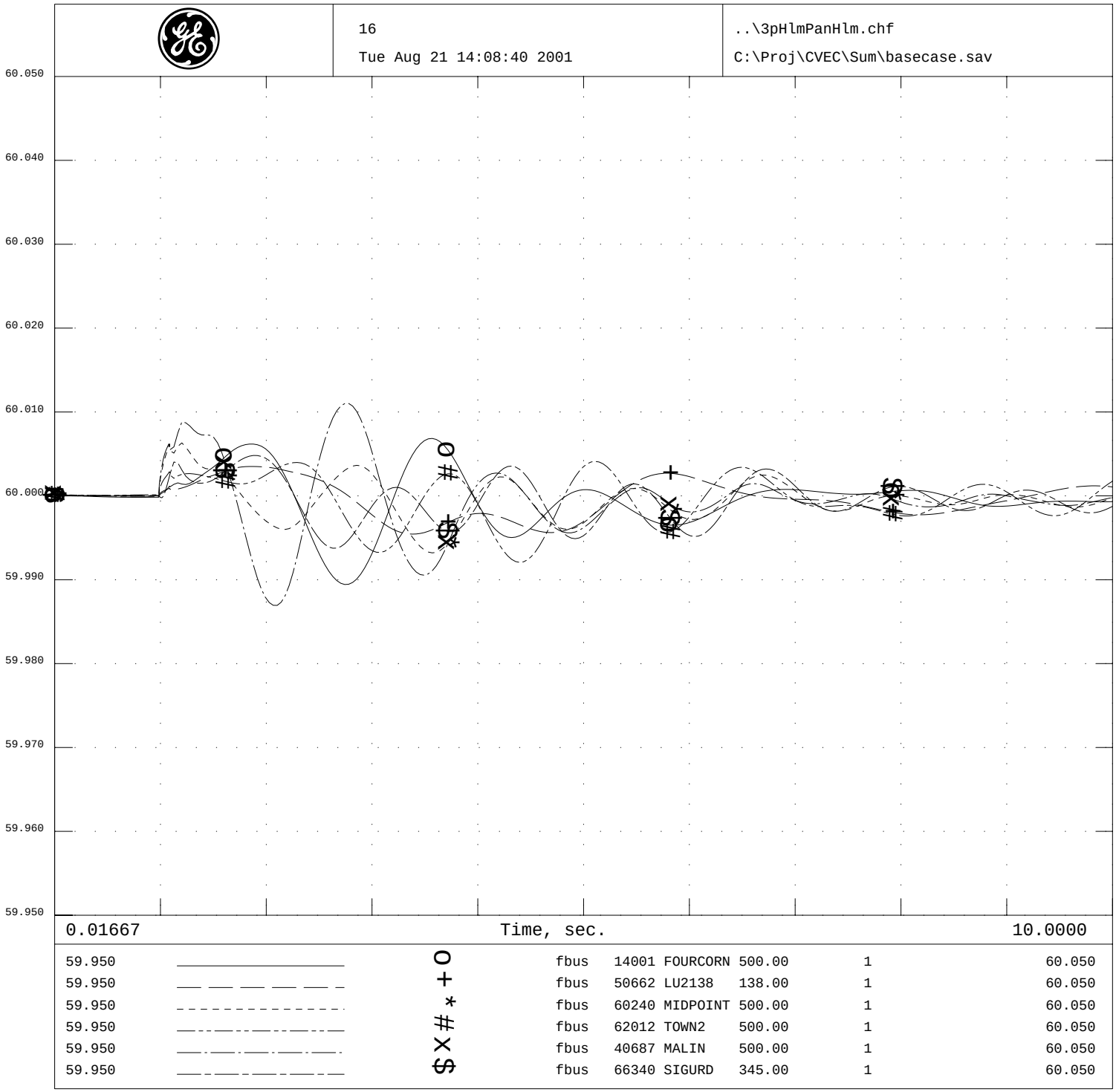

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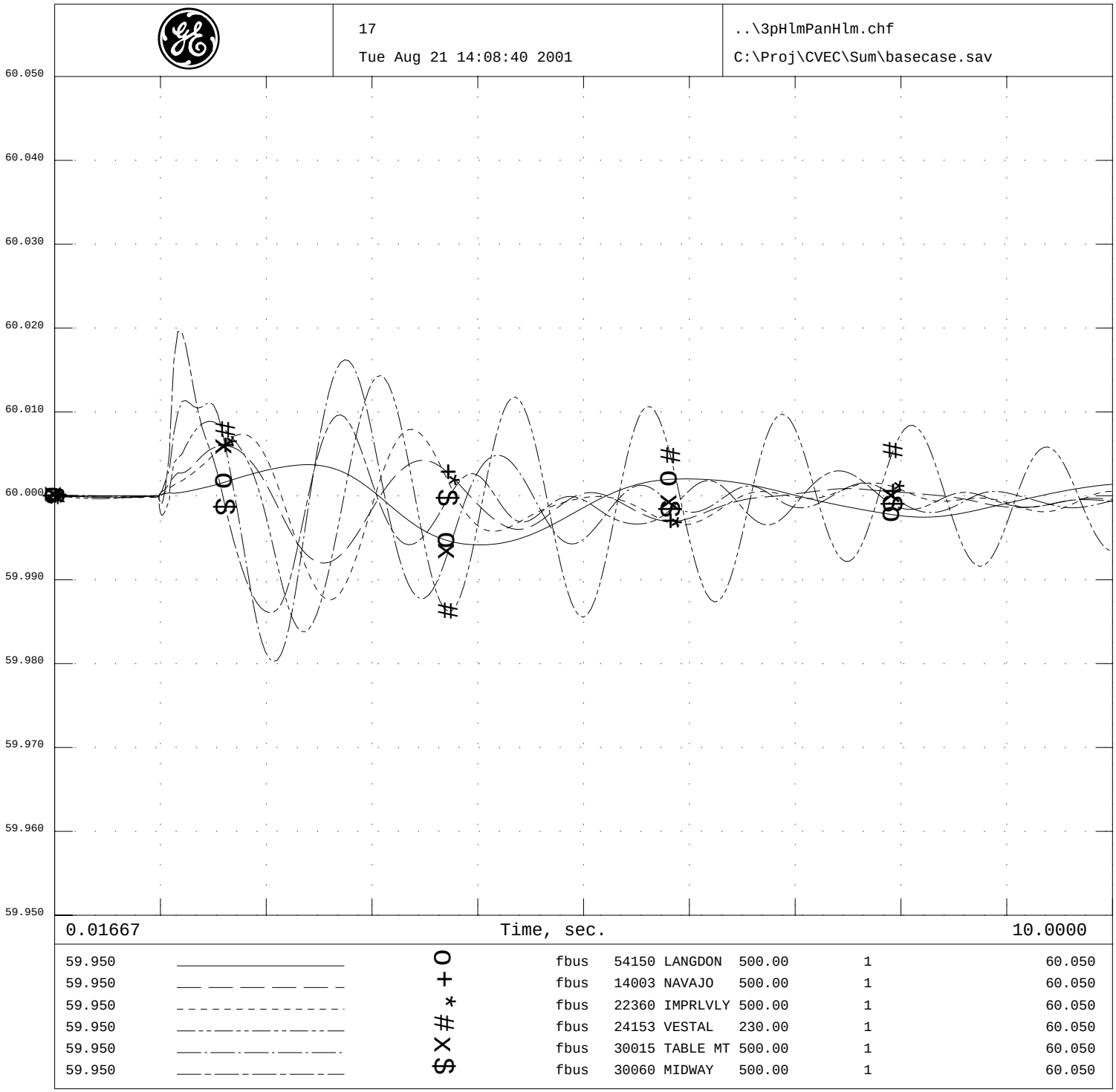

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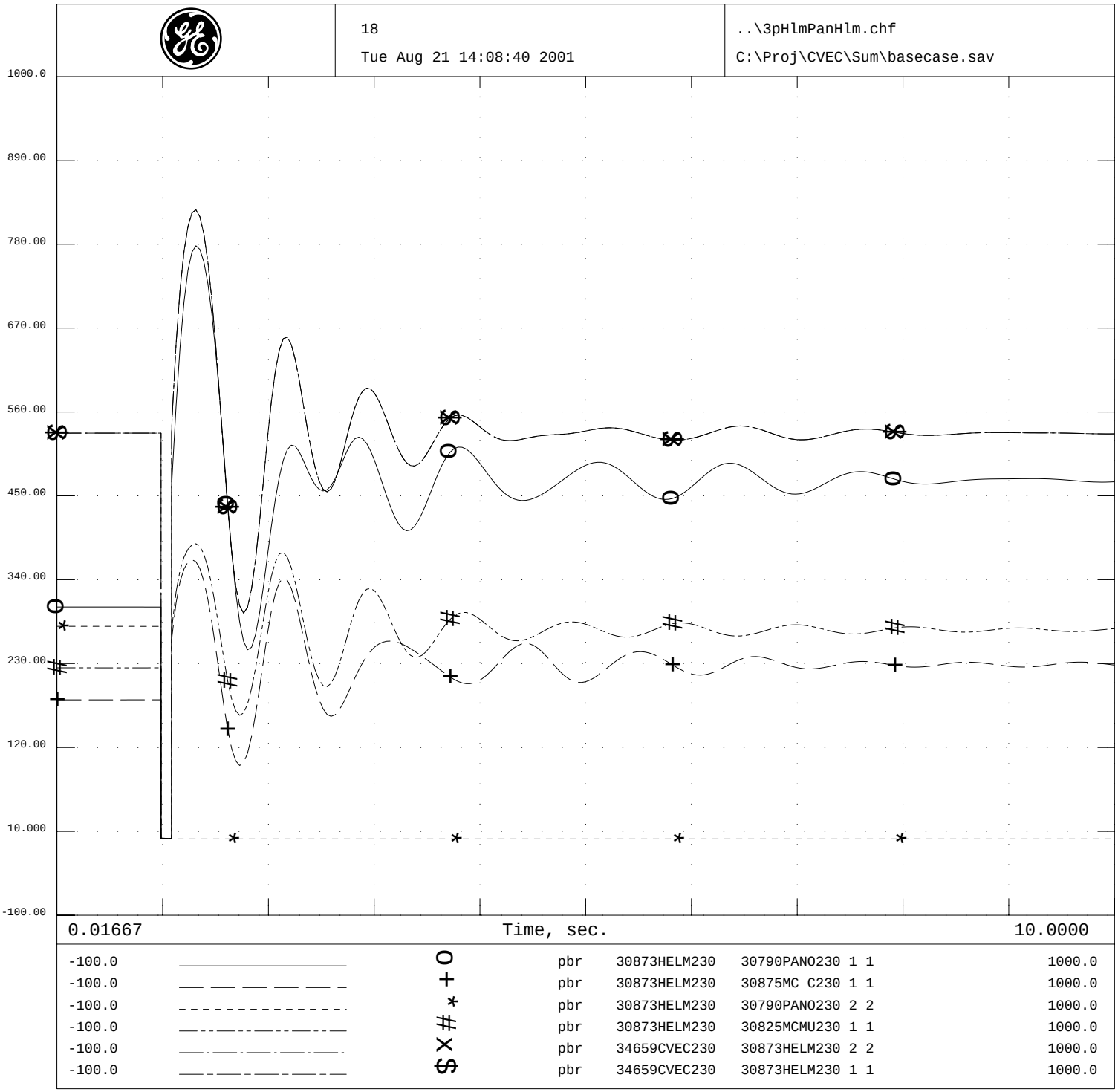

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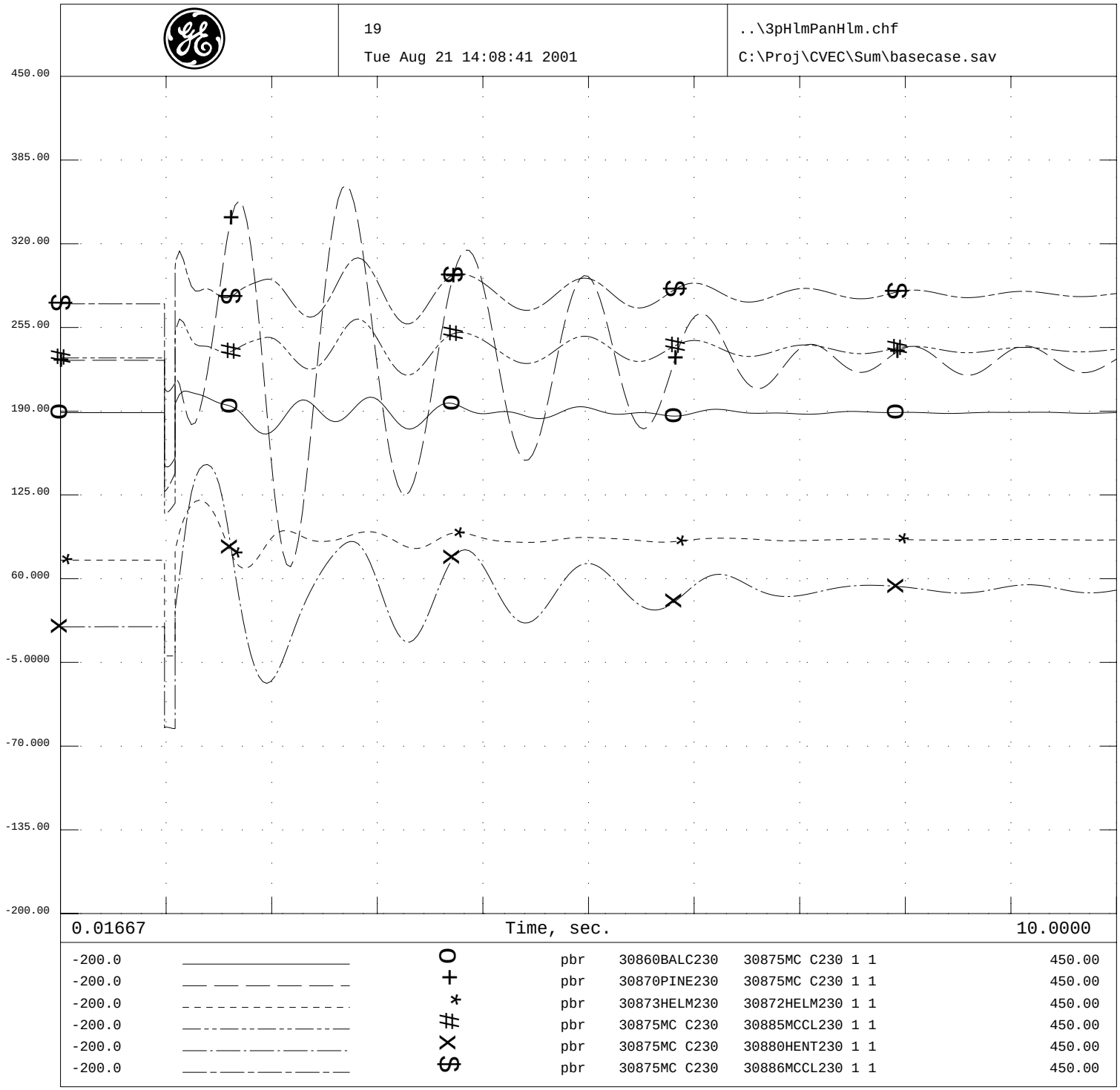

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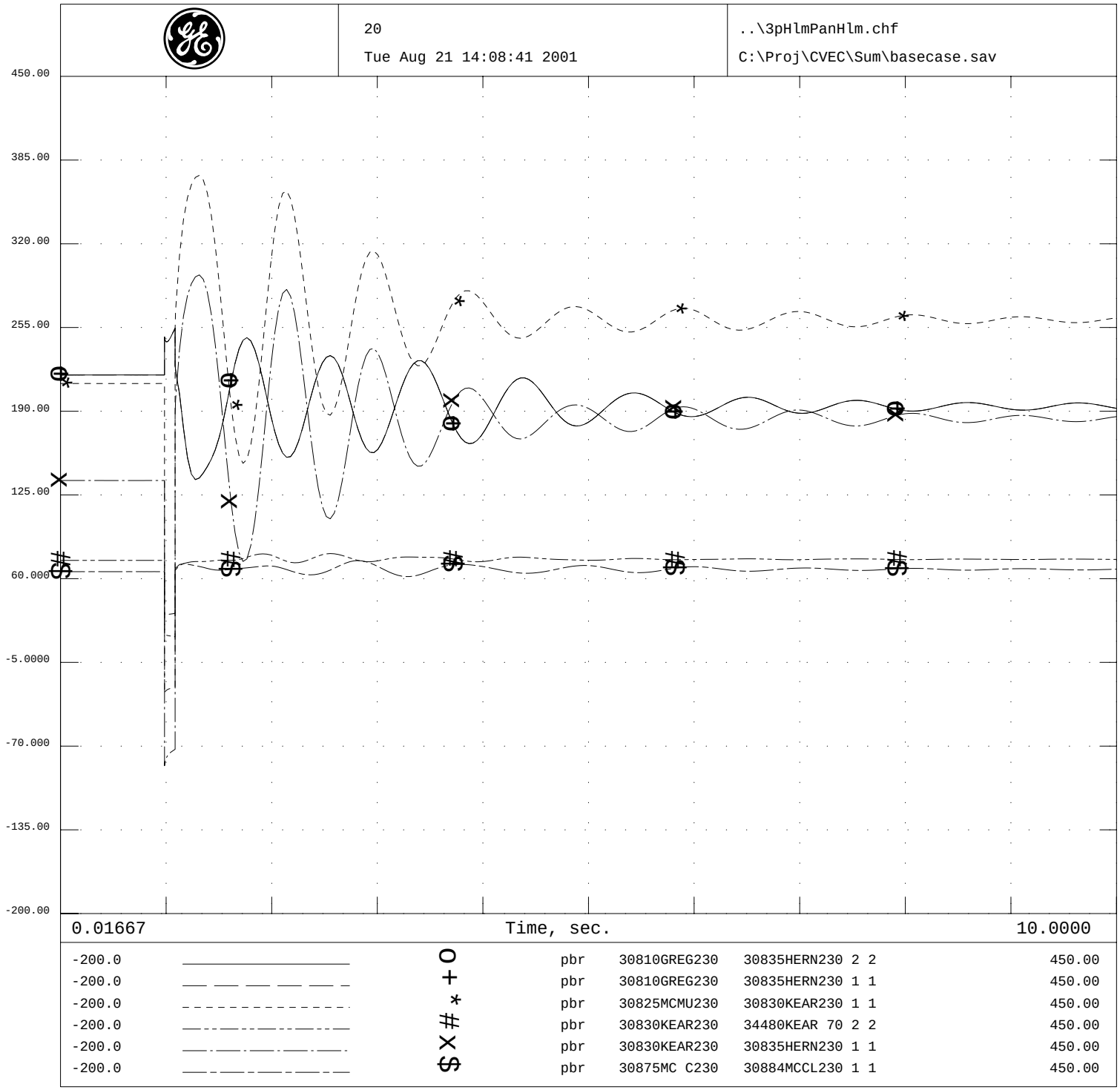

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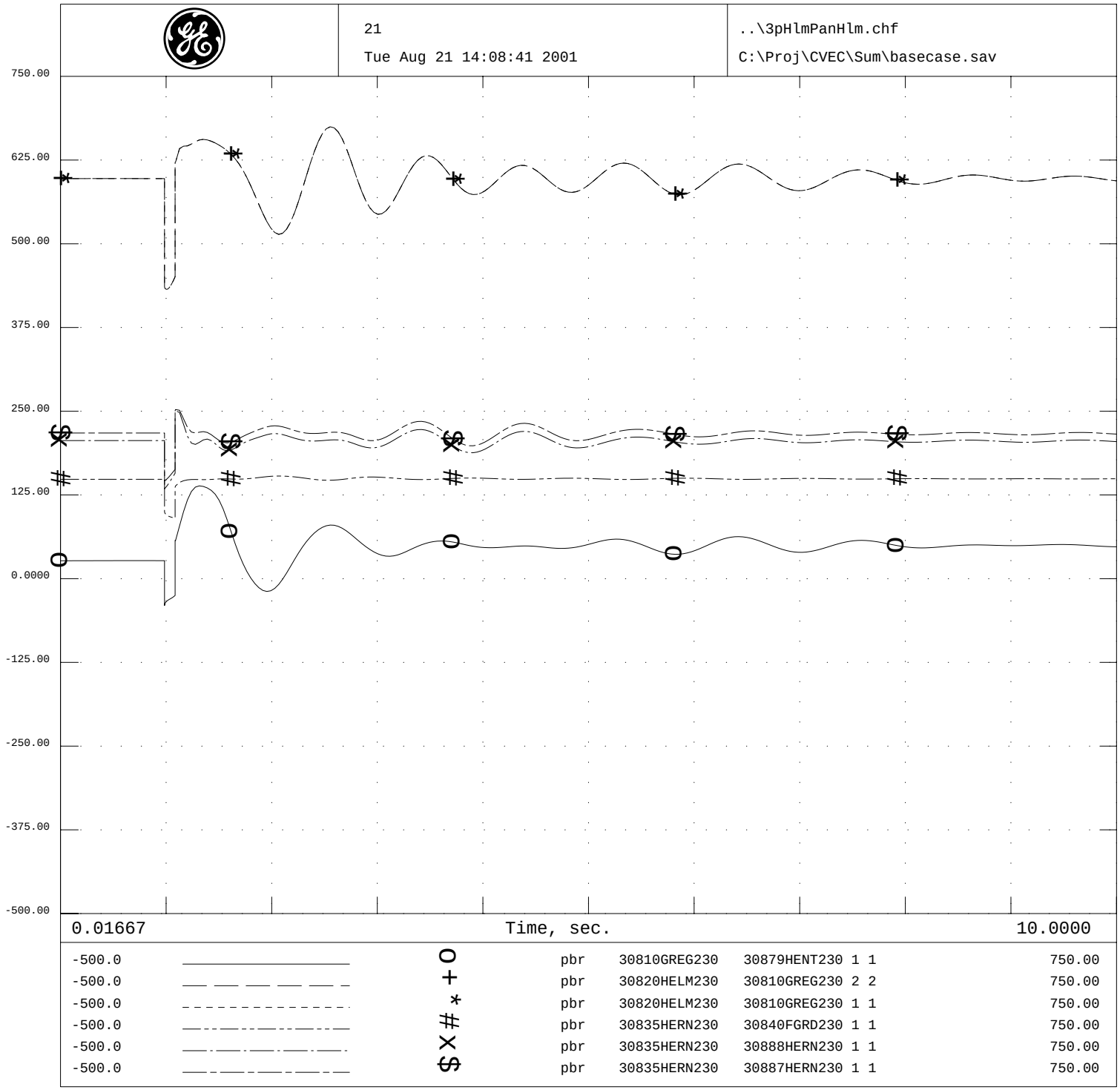

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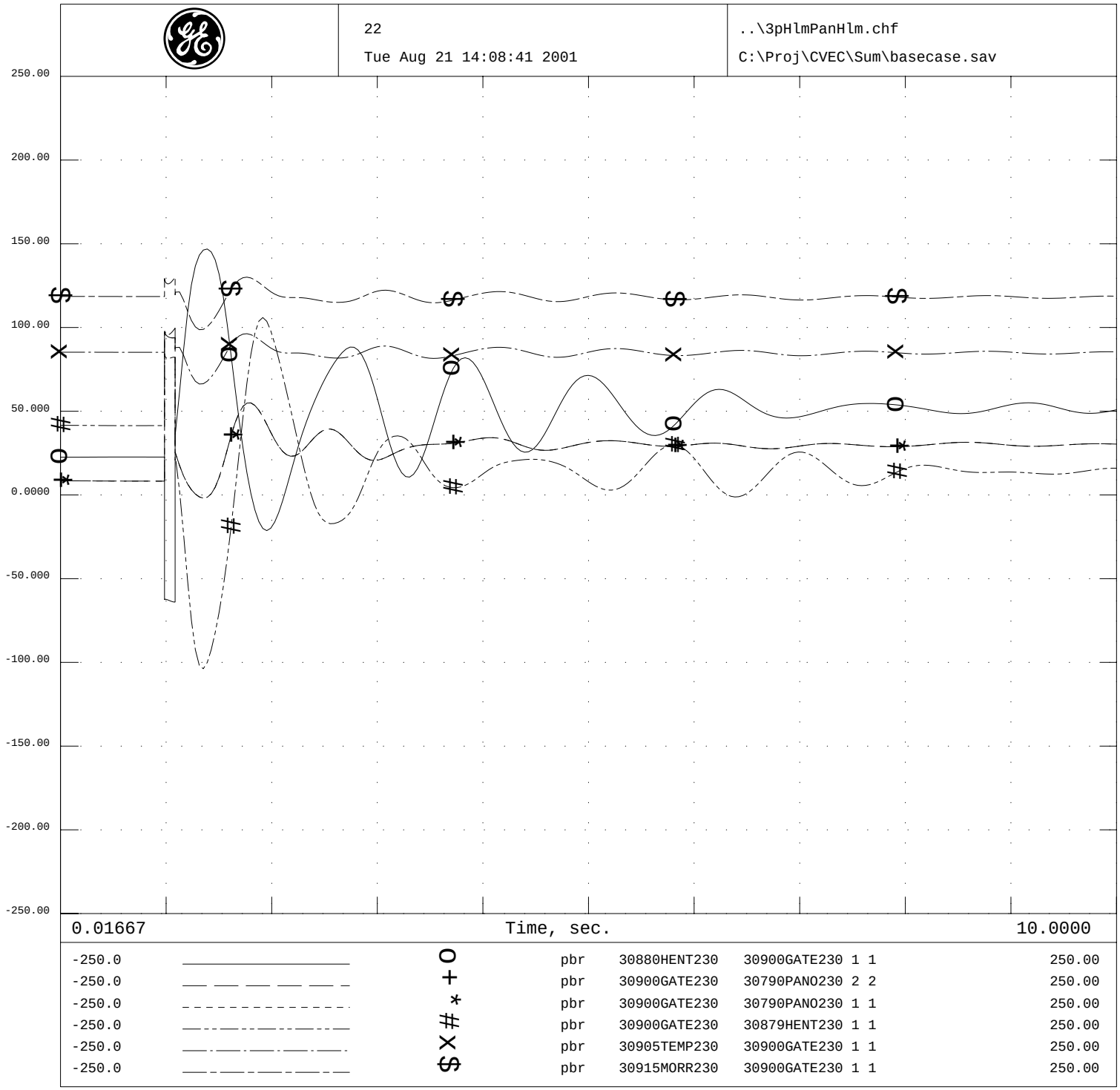

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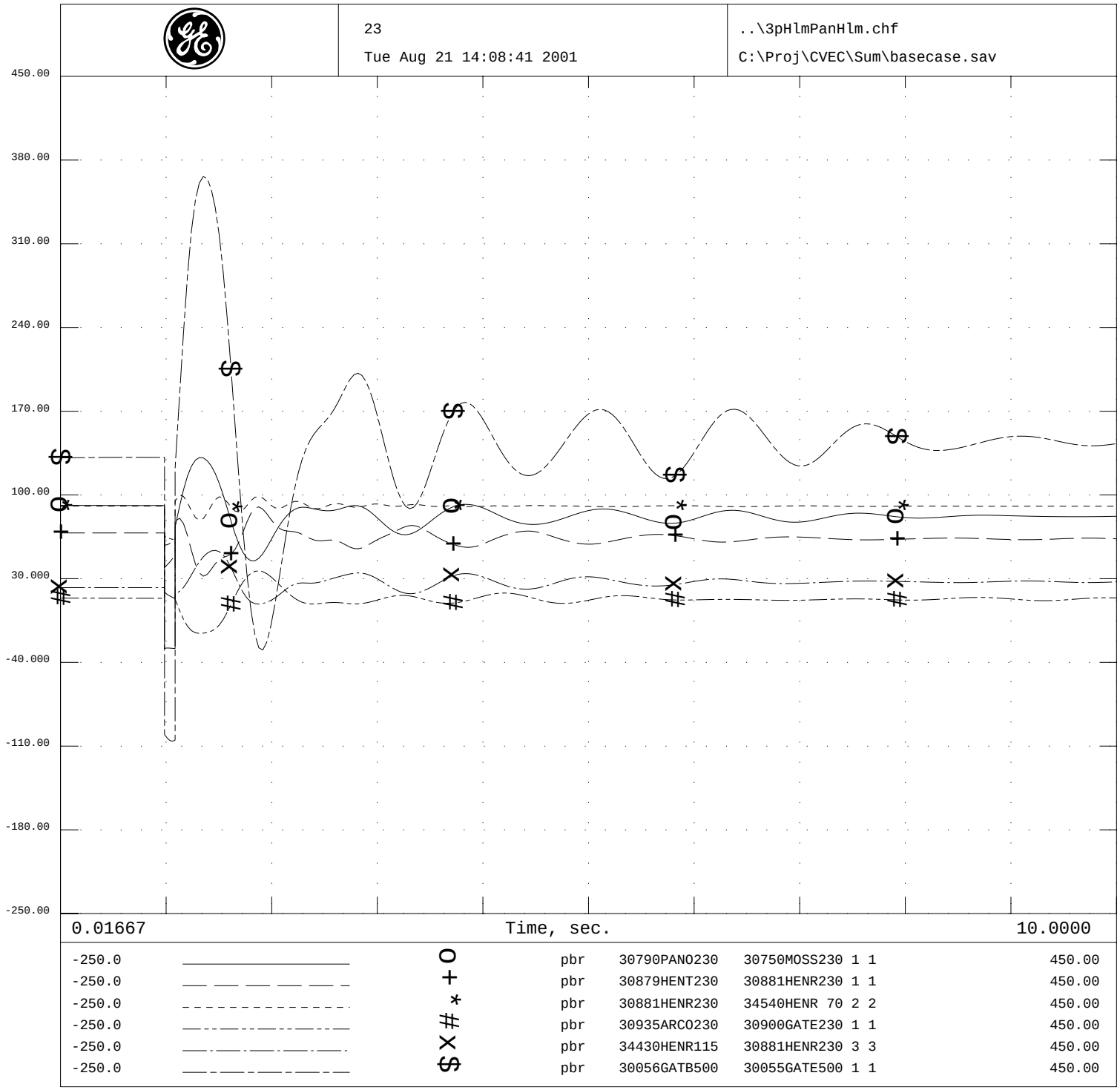

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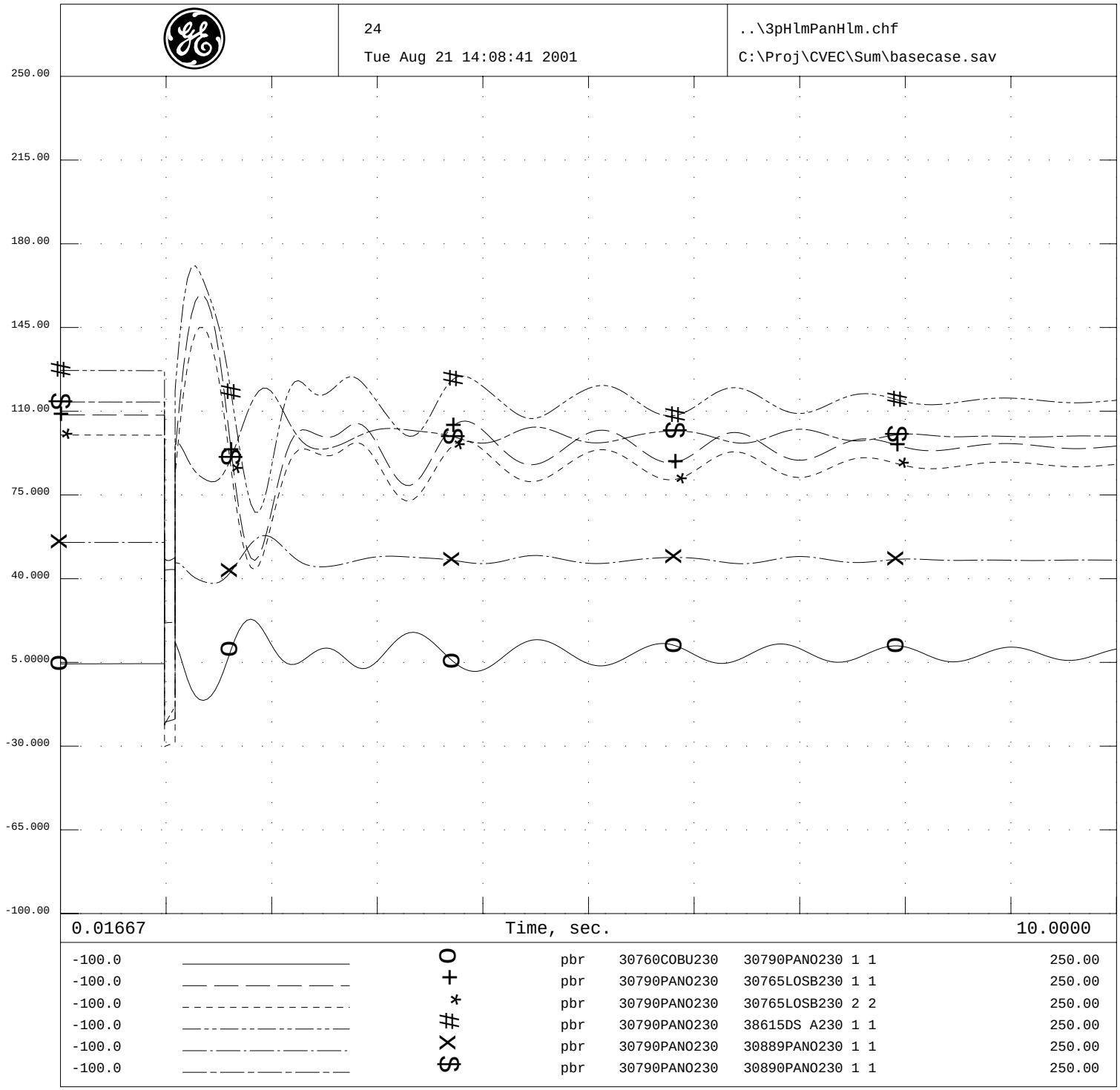

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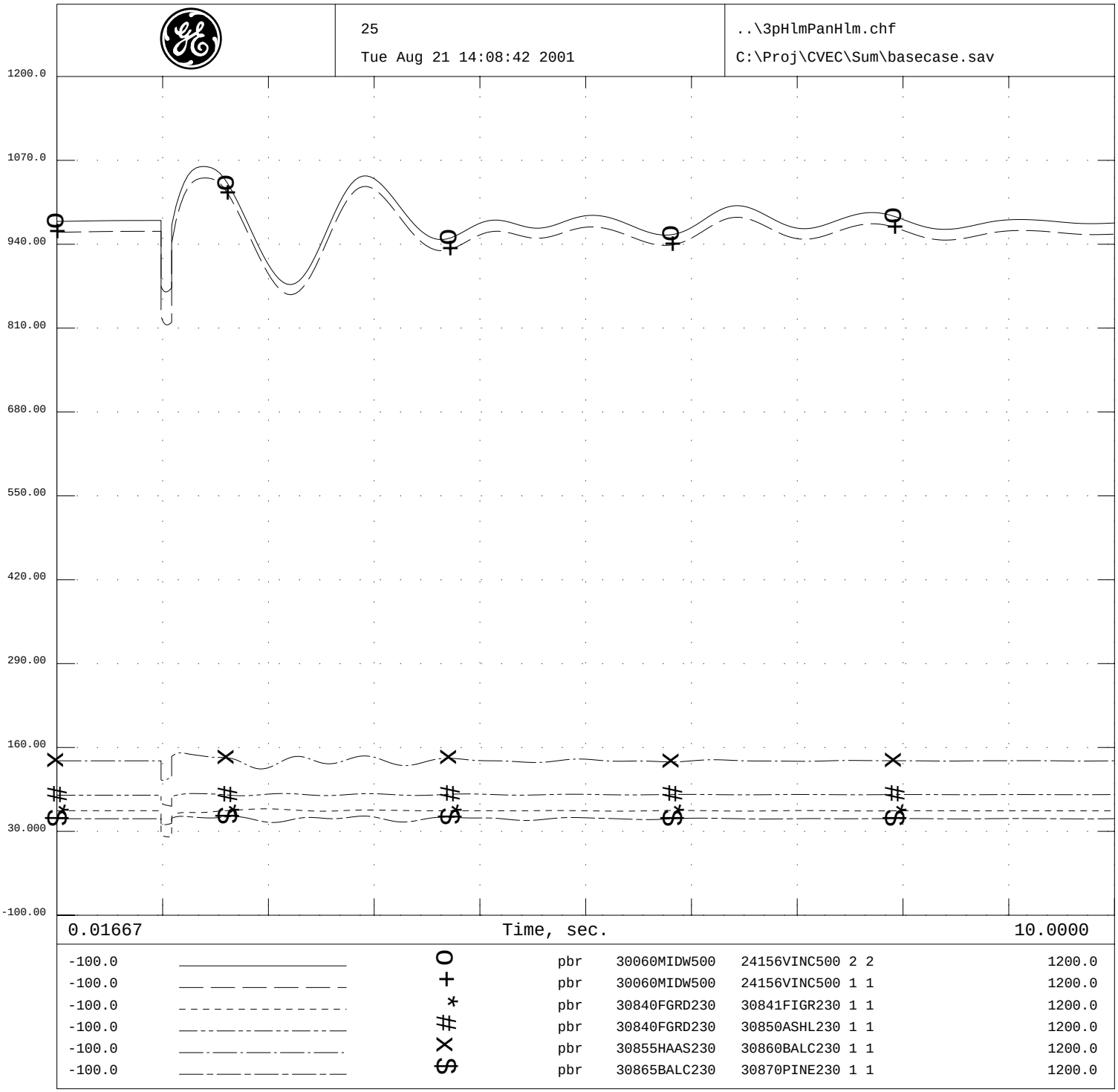

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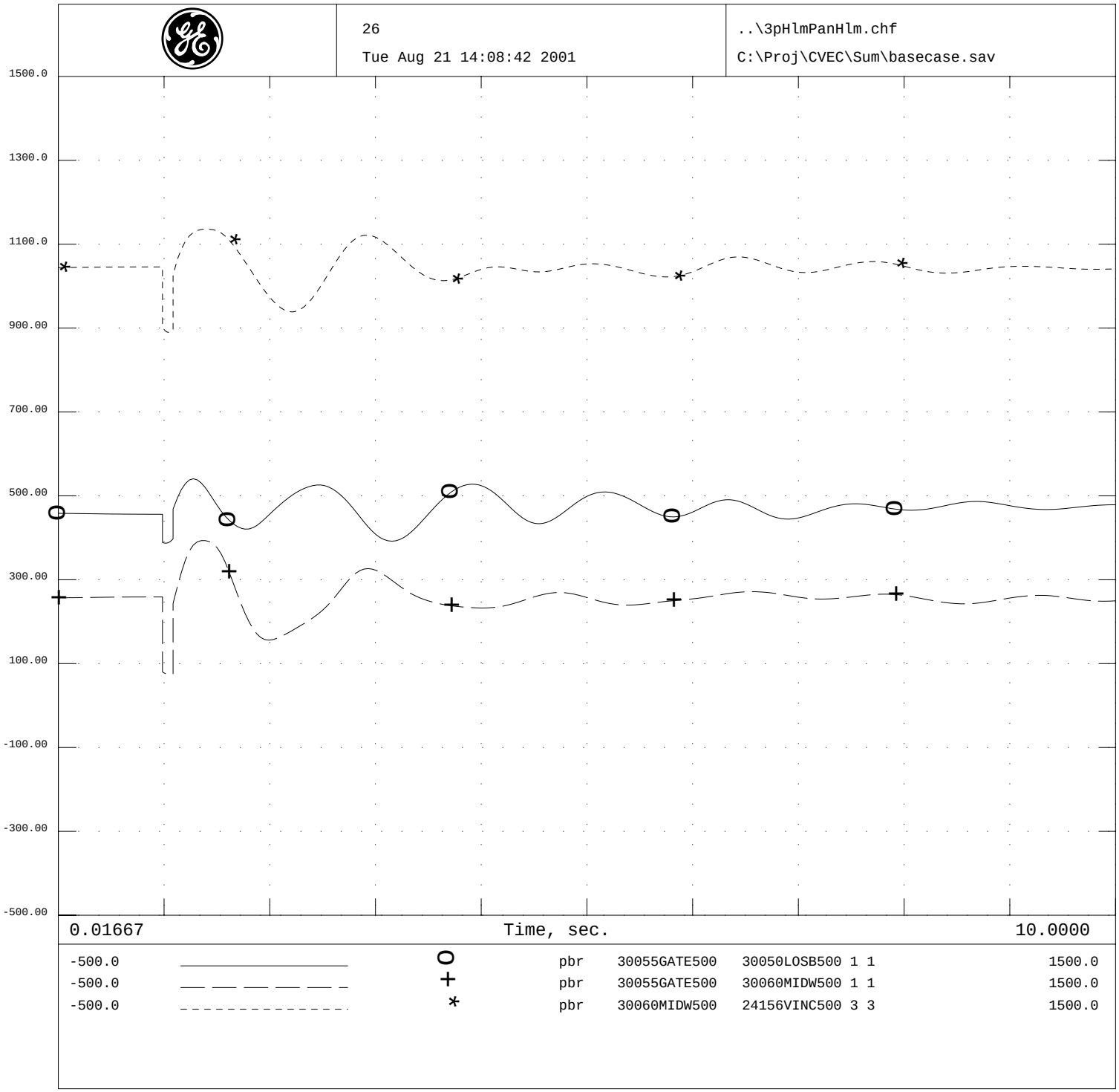

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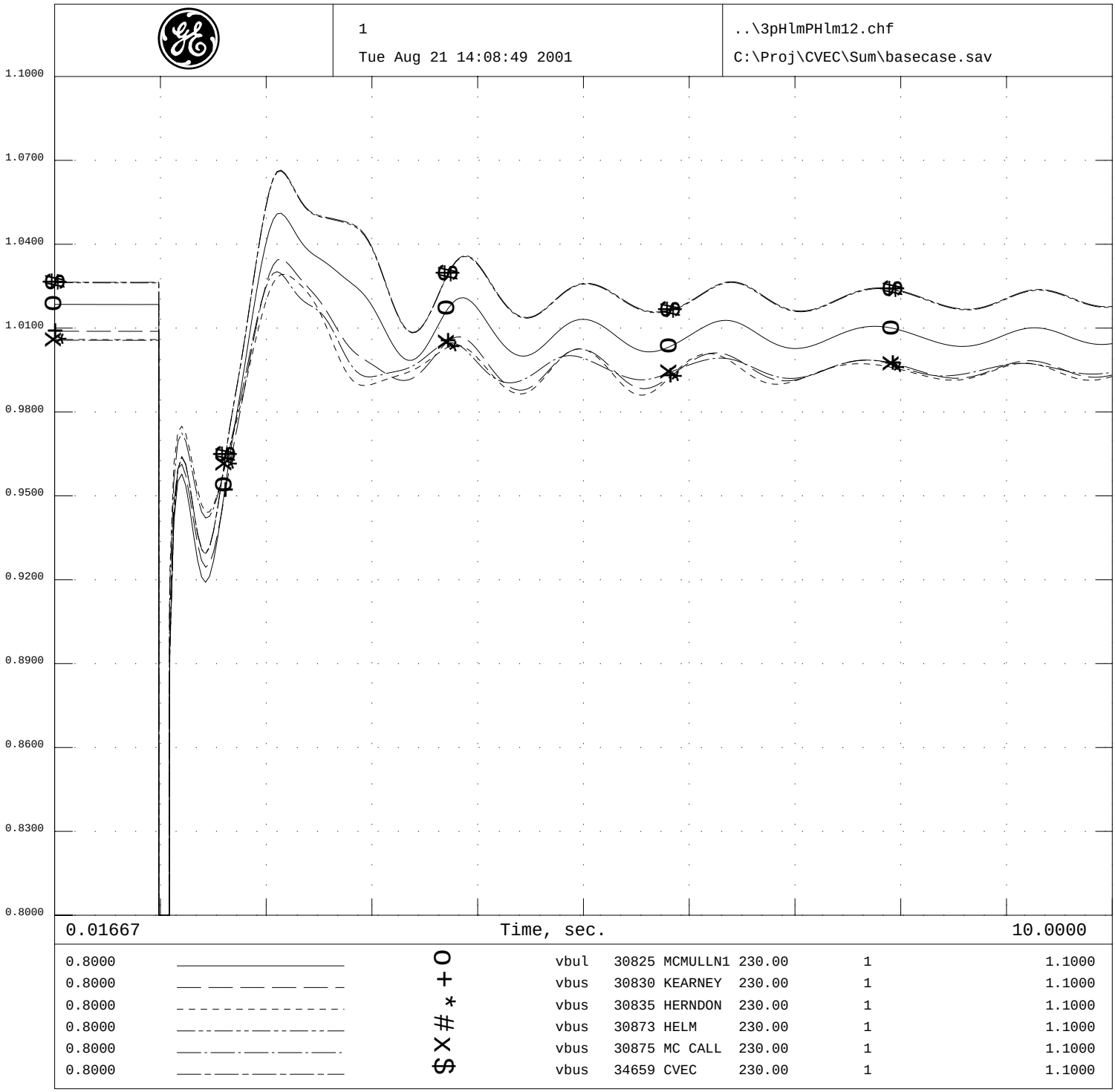

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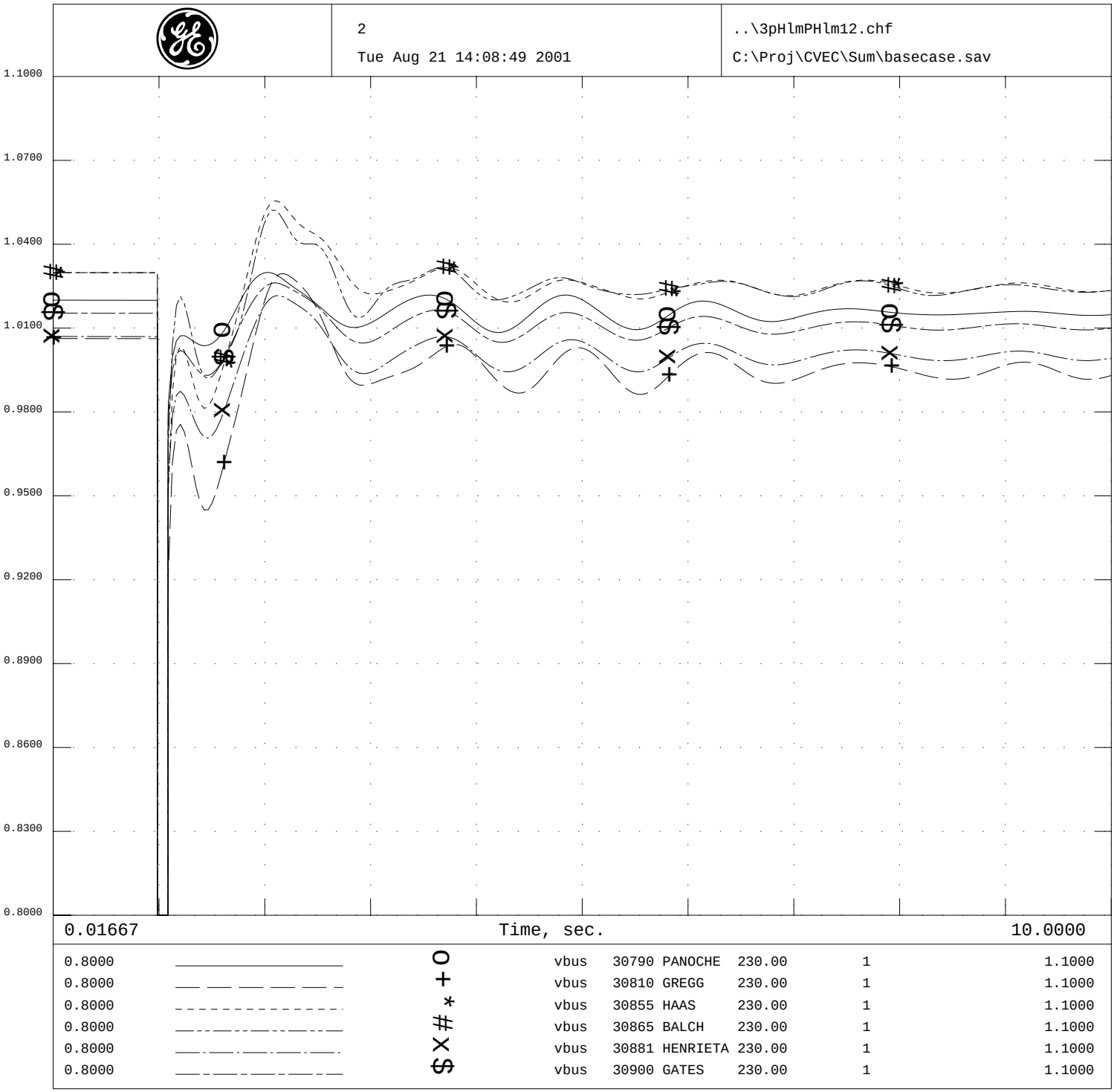
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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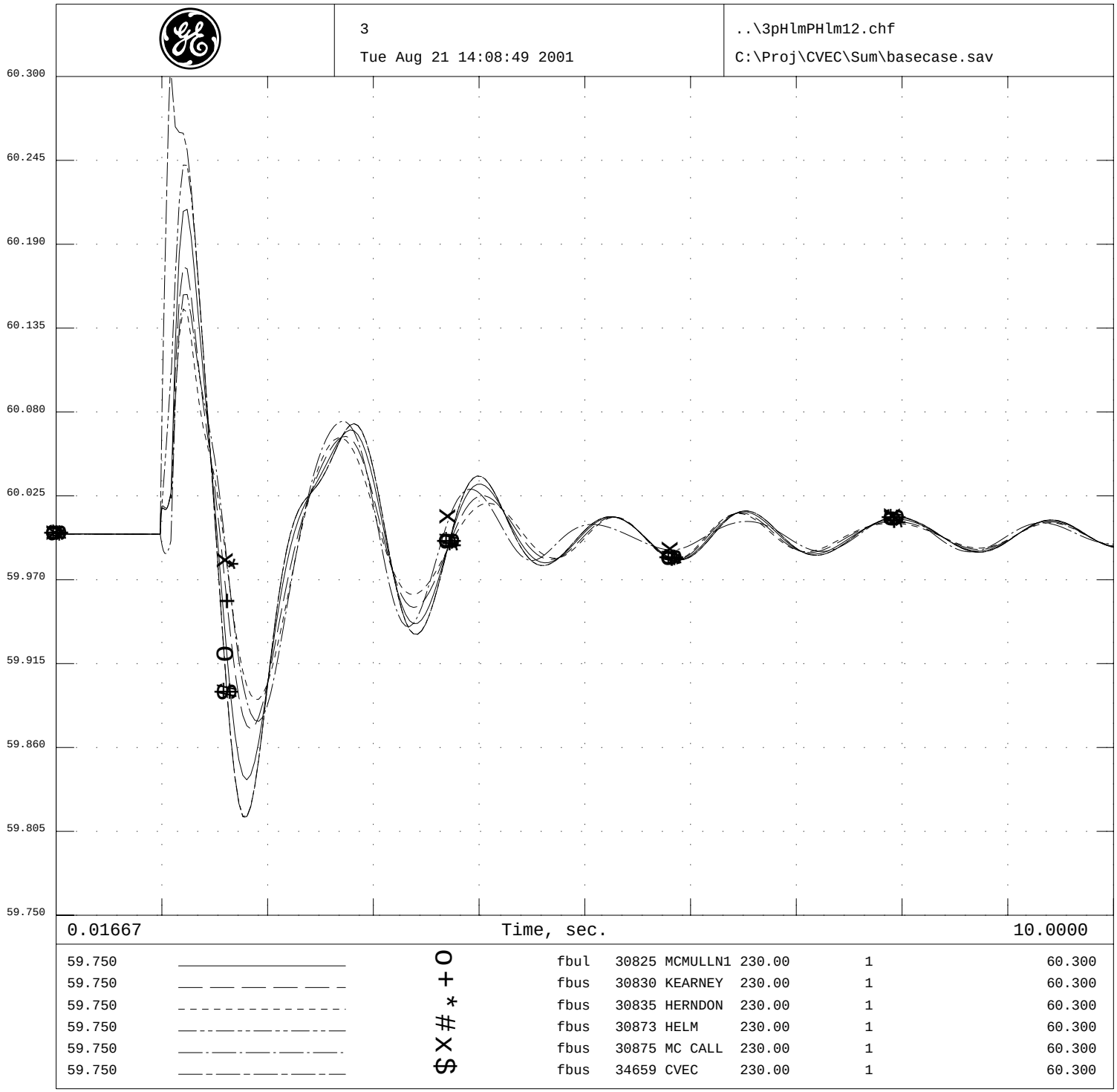

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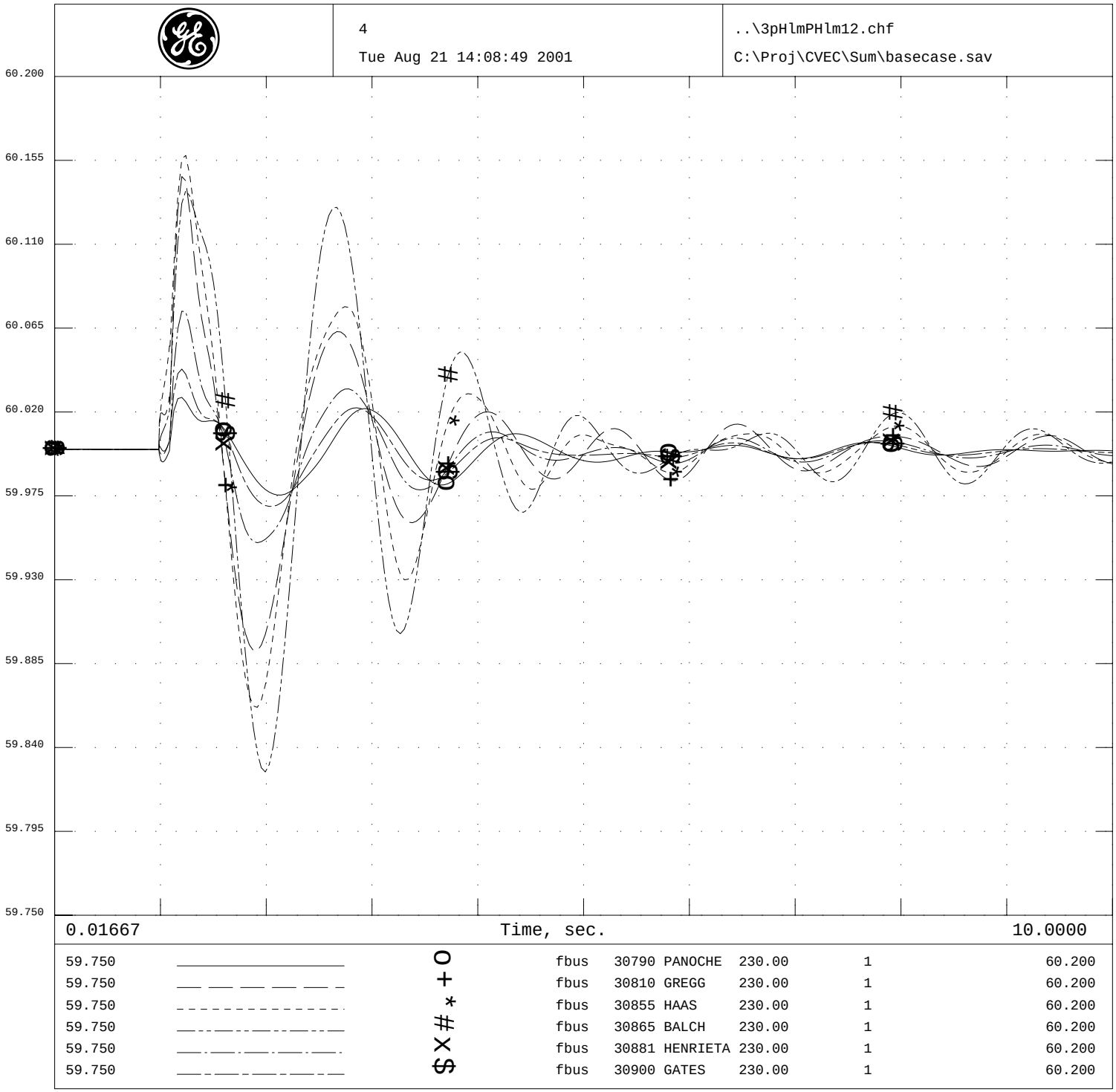
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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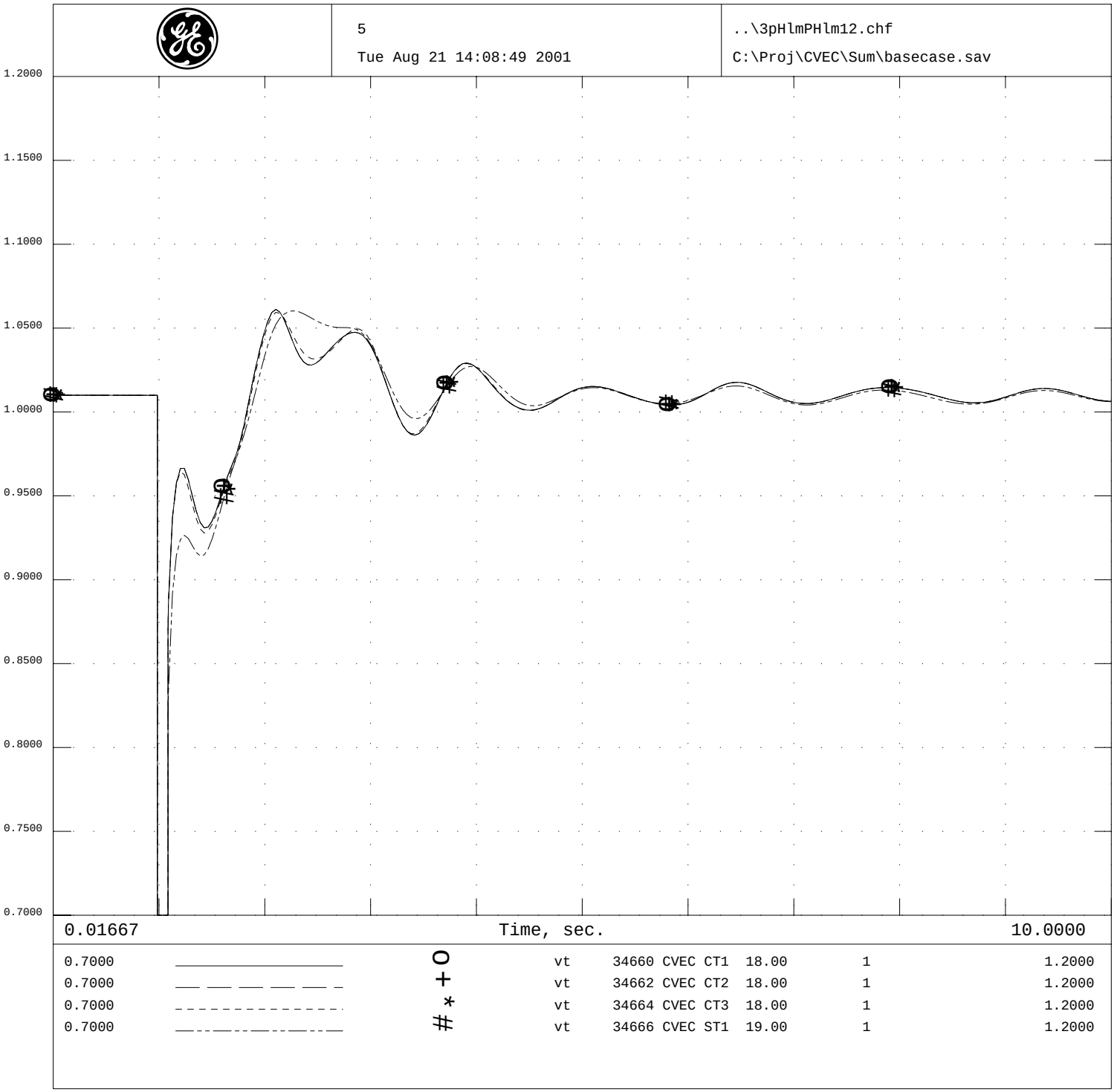

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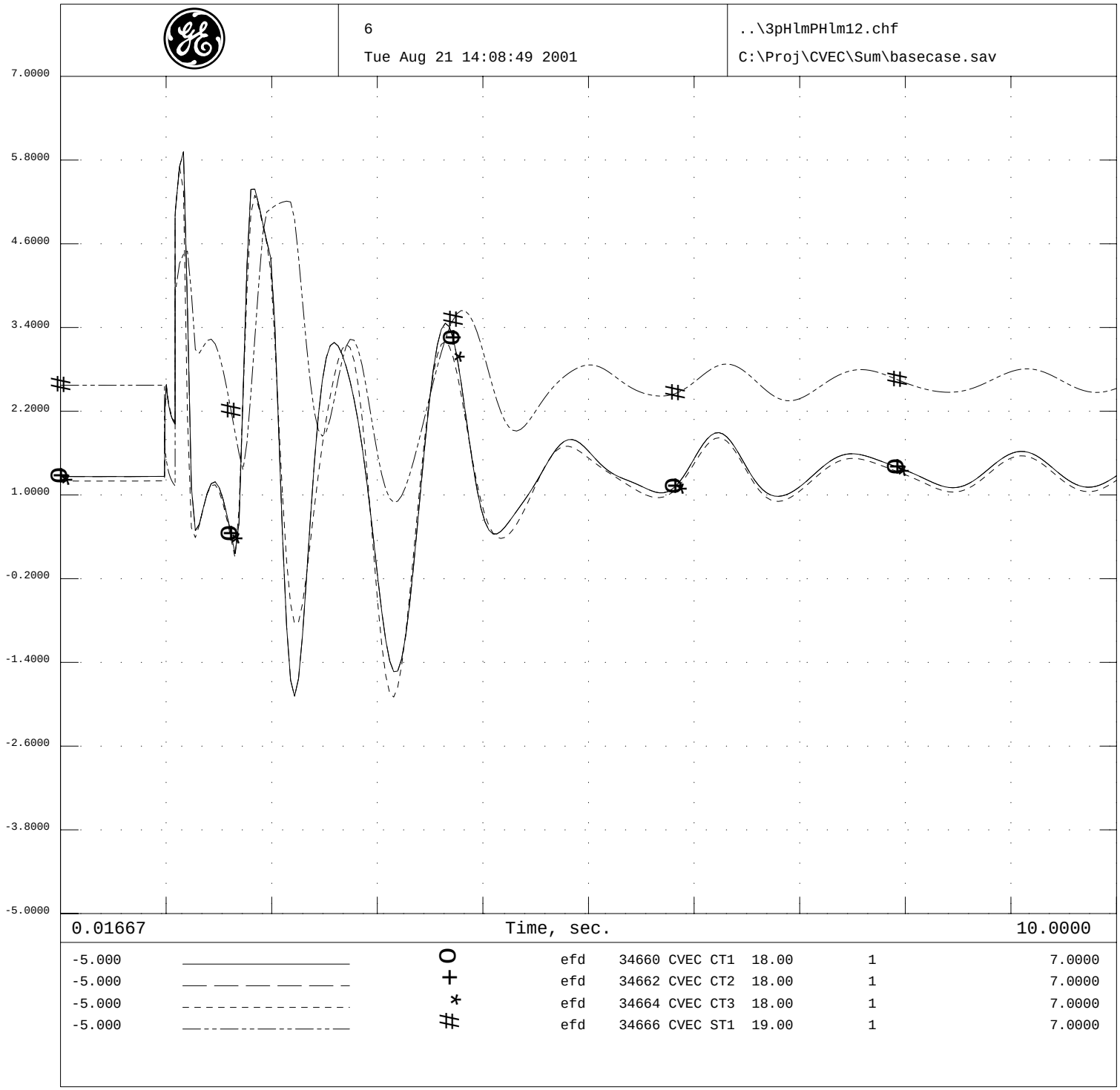
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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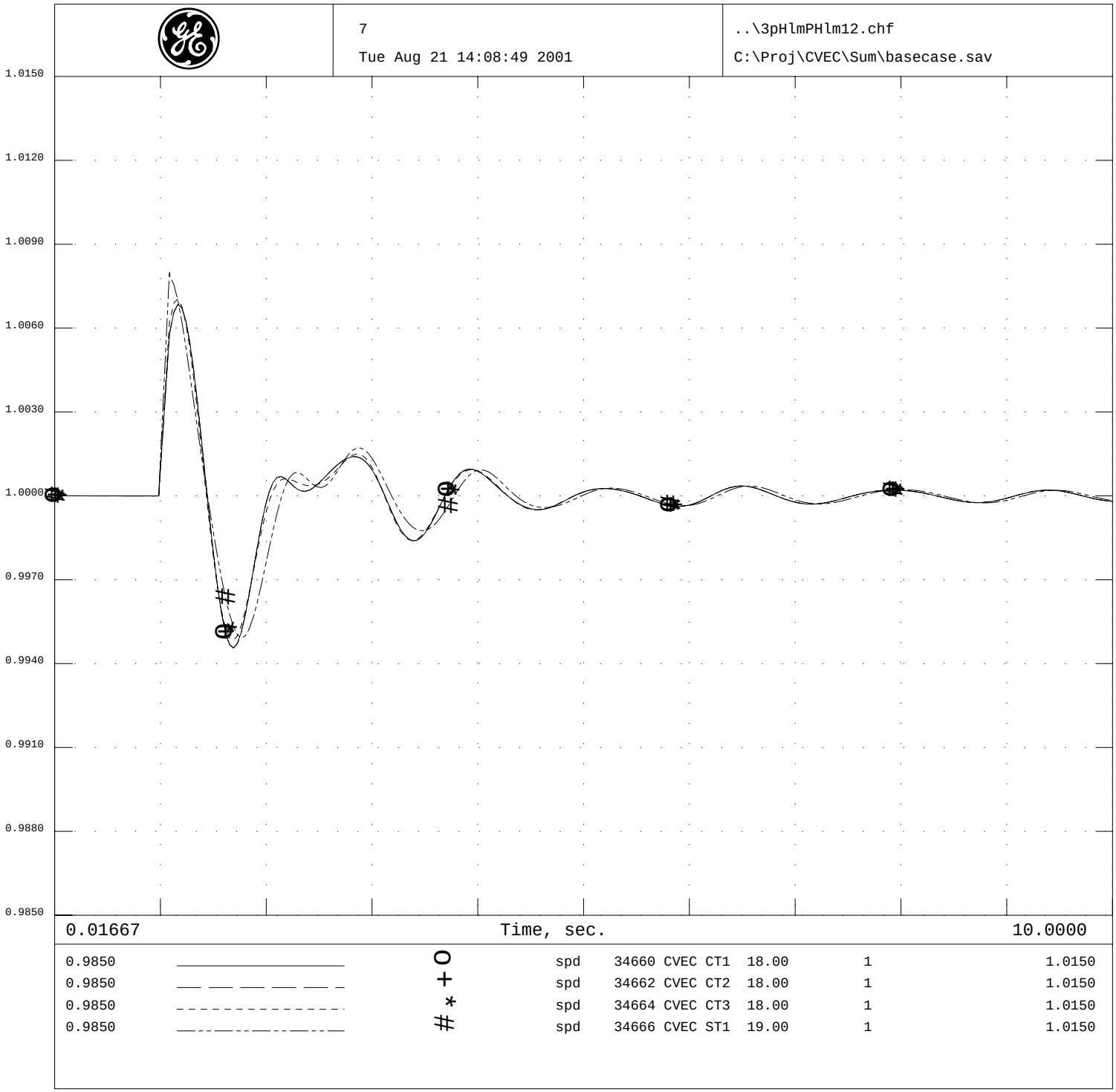
Calpine Corporation
Project Generator Field Voltages



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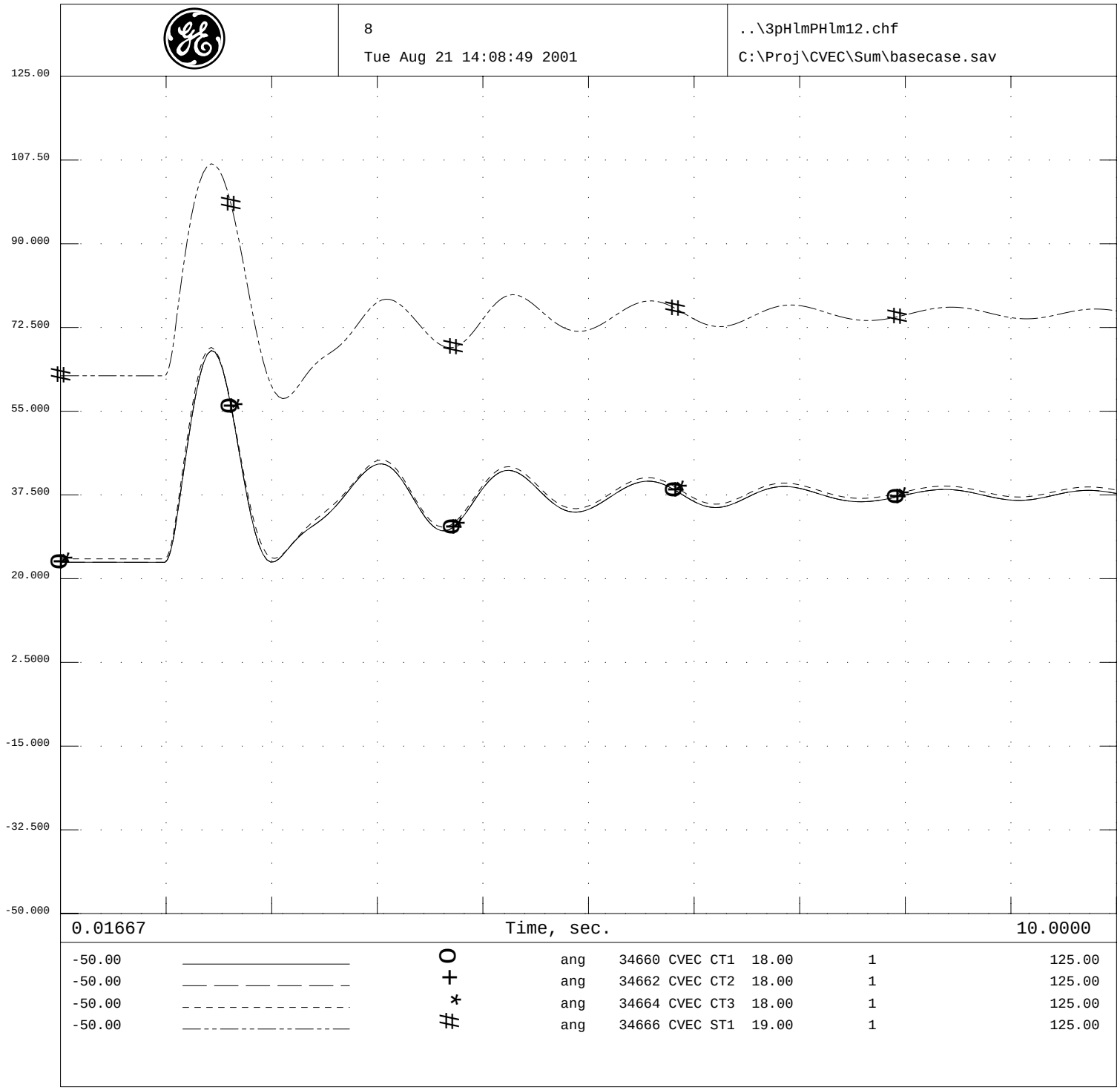
Calpine Corporation
Project Generator Rotor Speed



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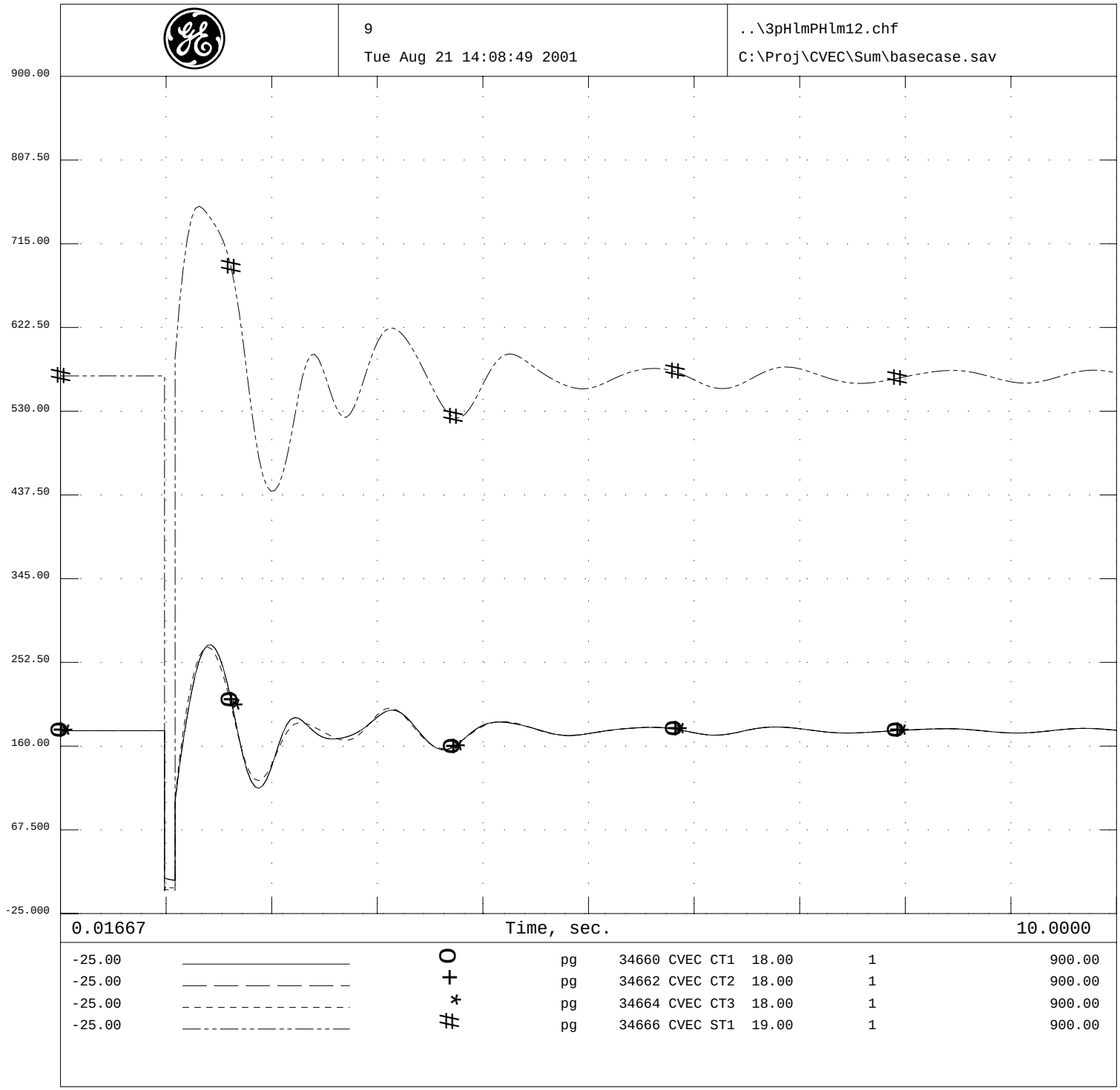
Calpine Corporation
Project Generator Rotor Angle



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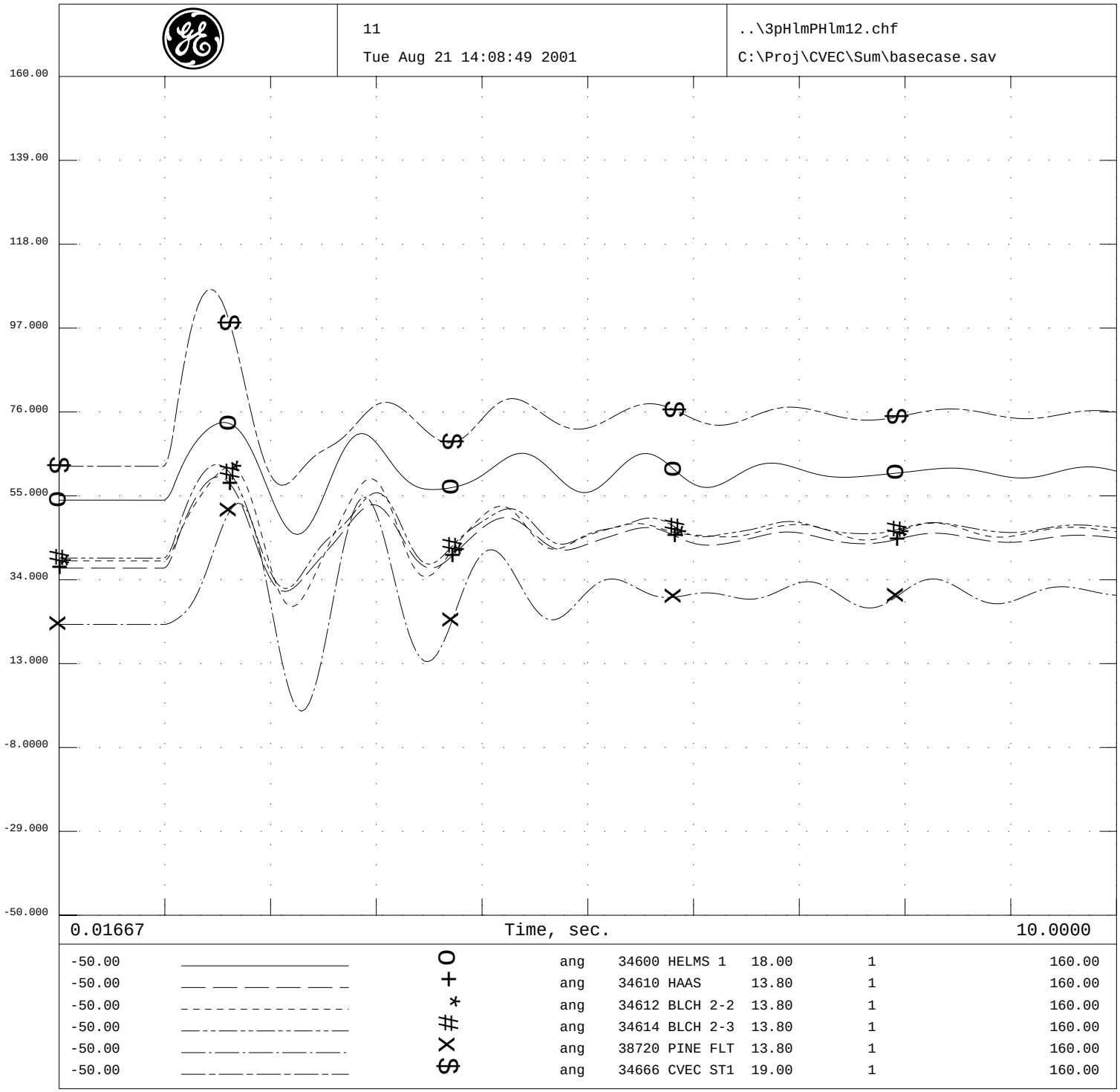

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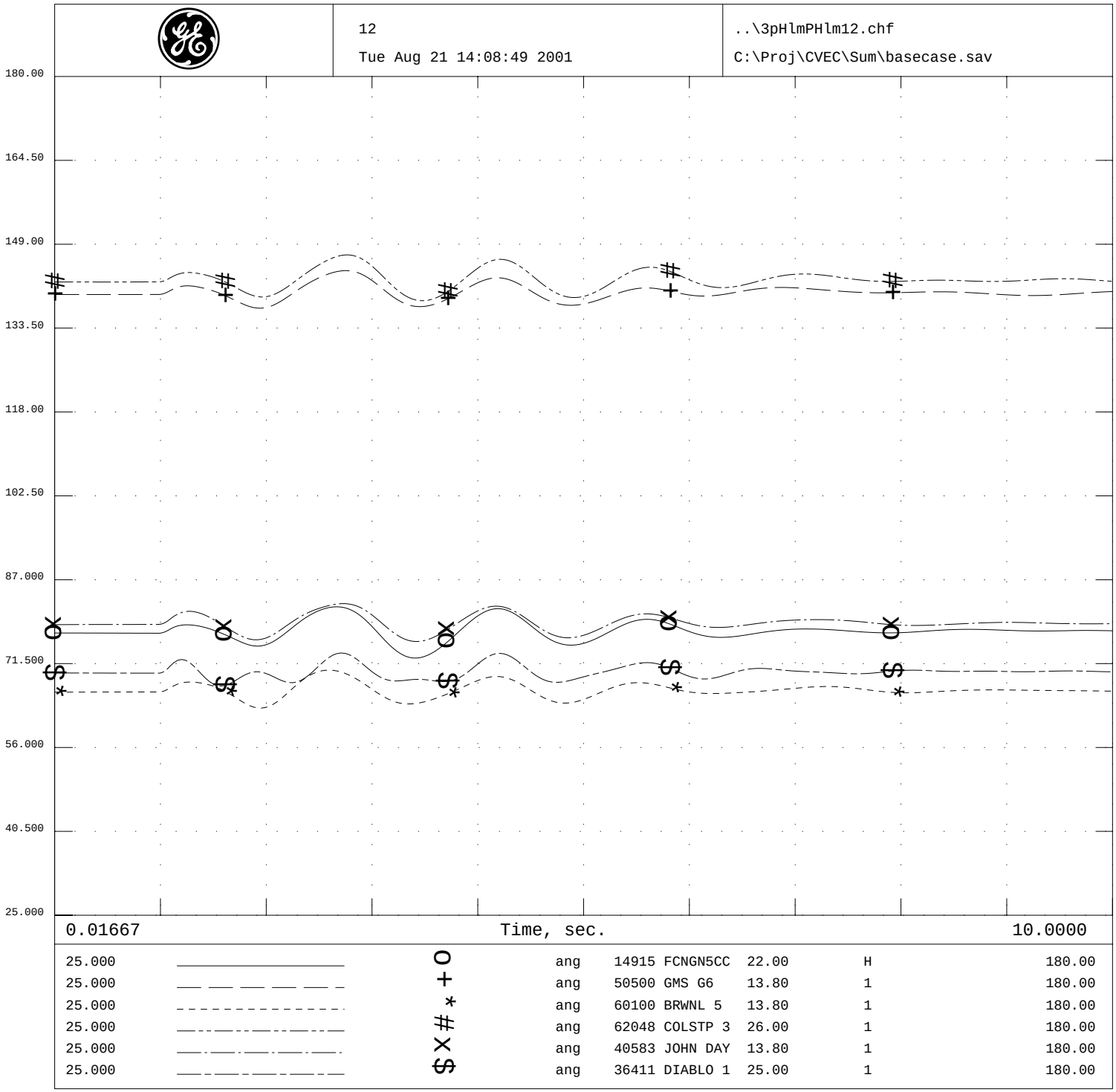

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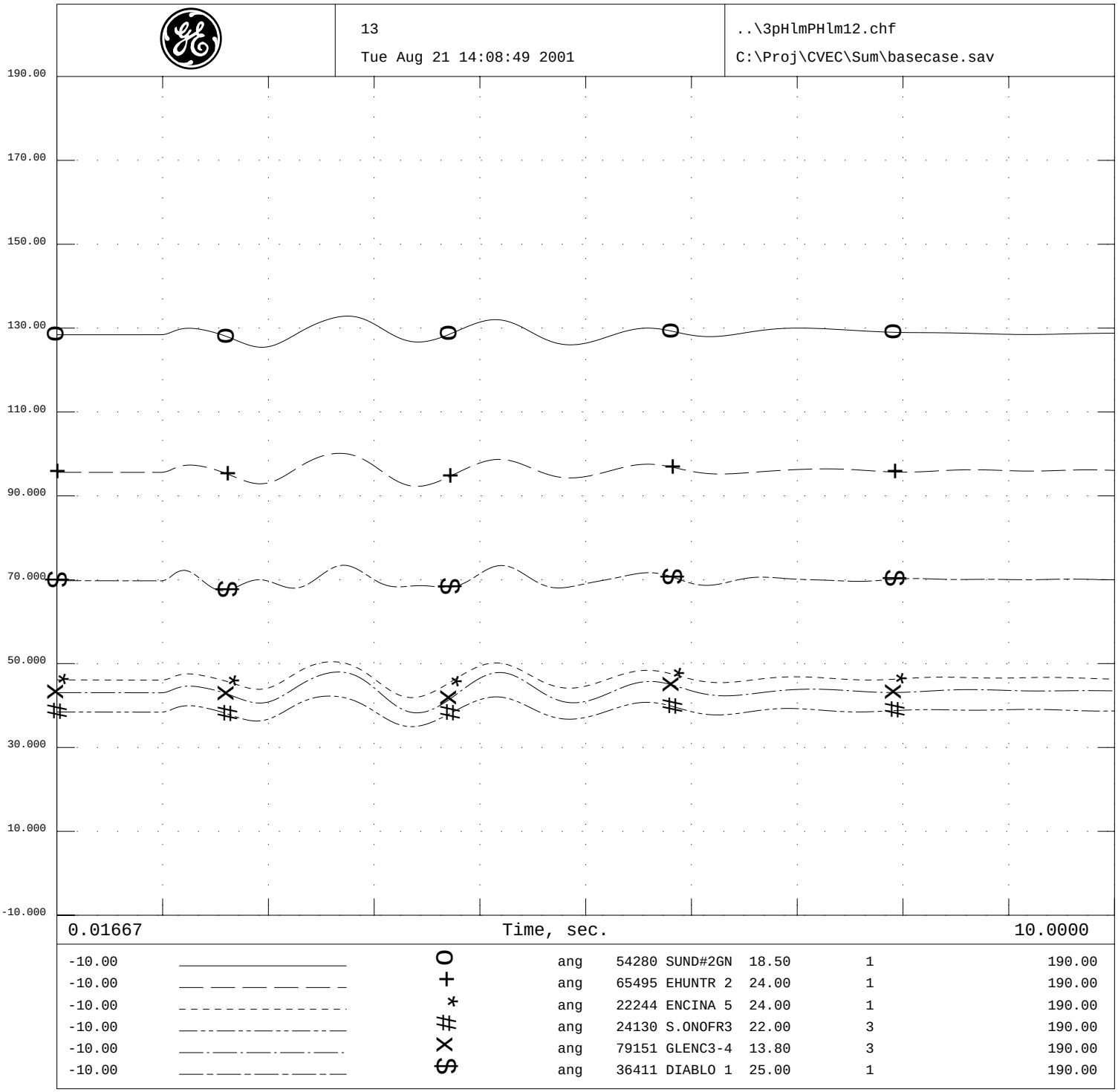

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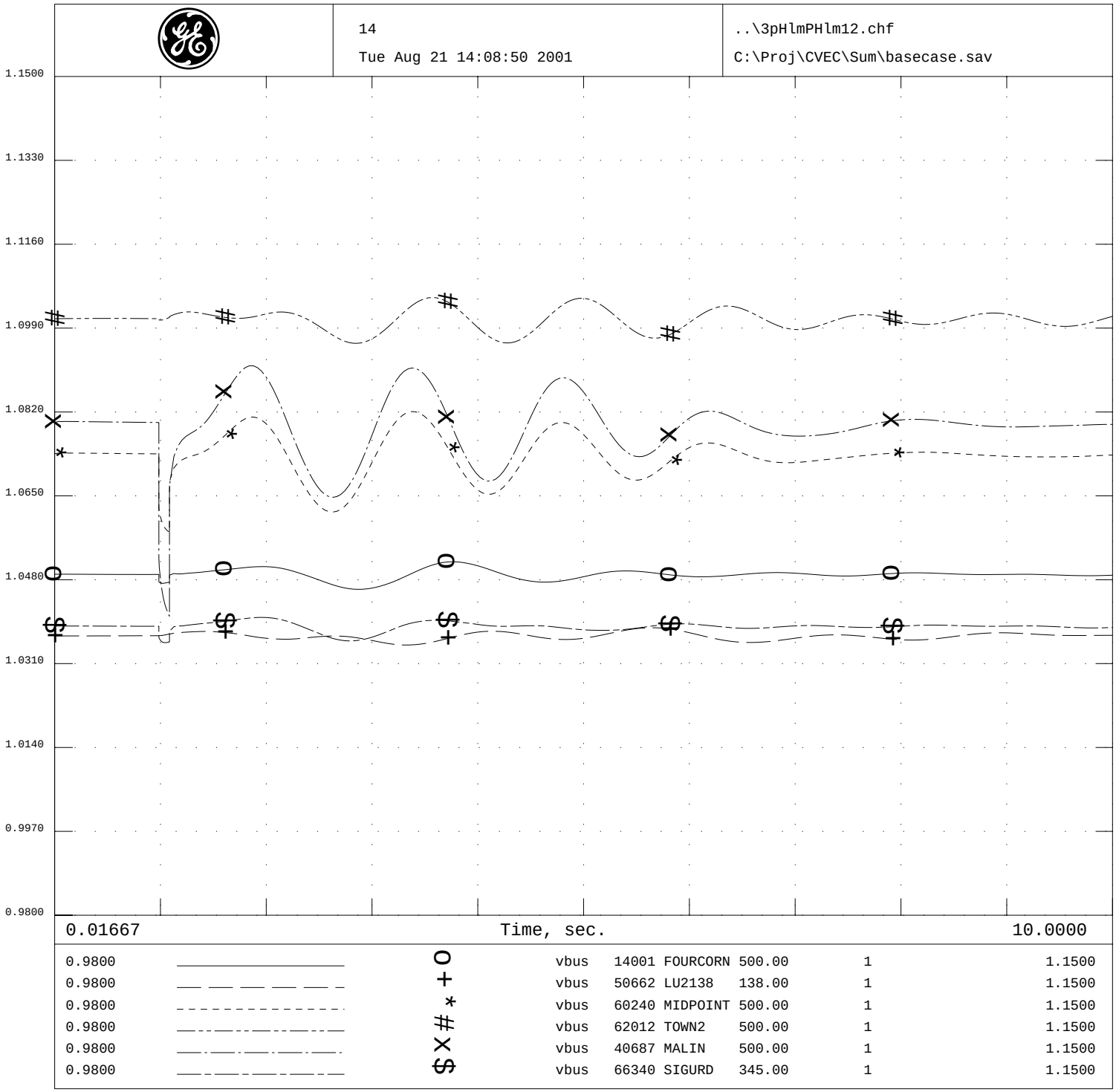

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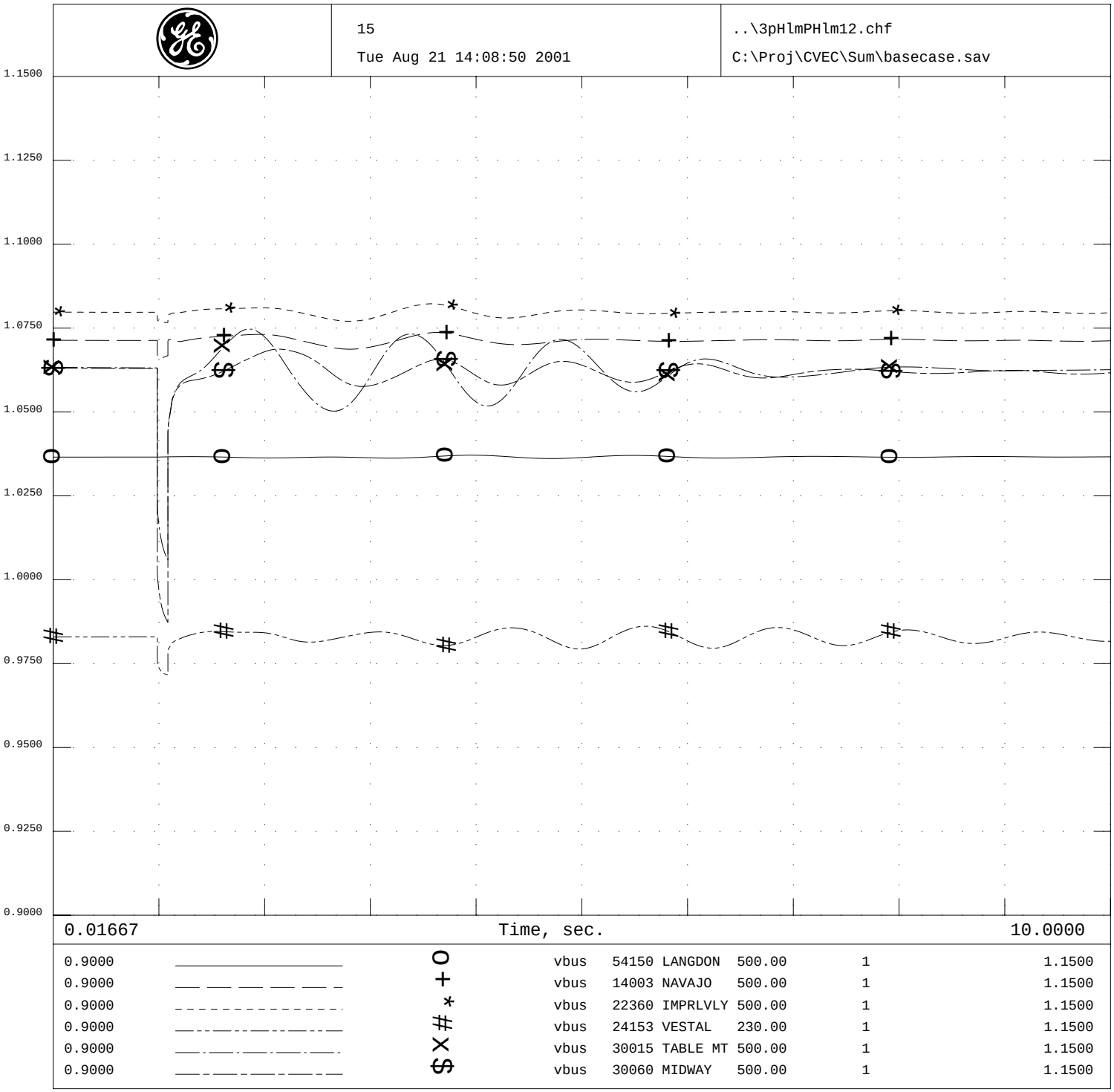

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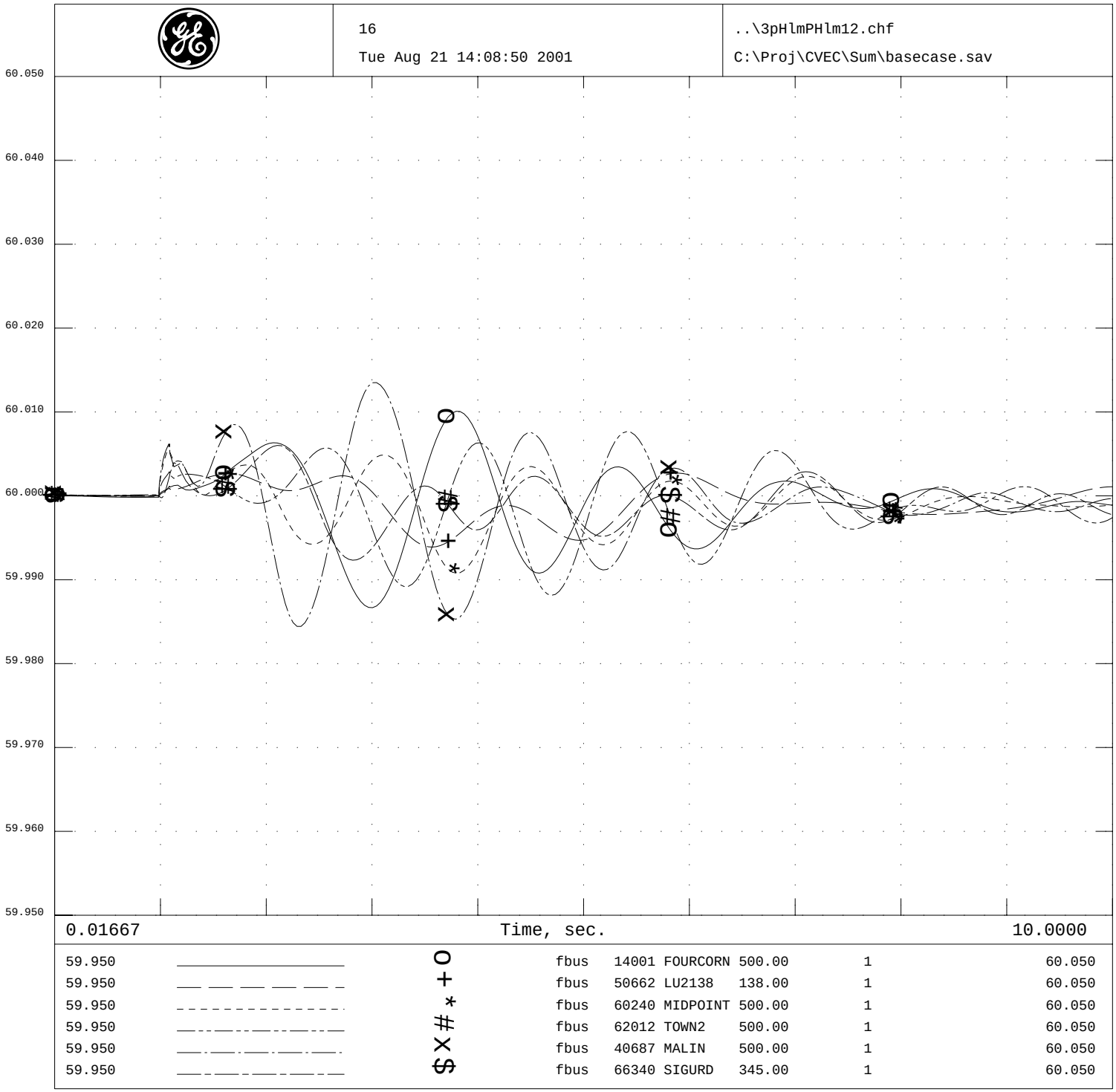

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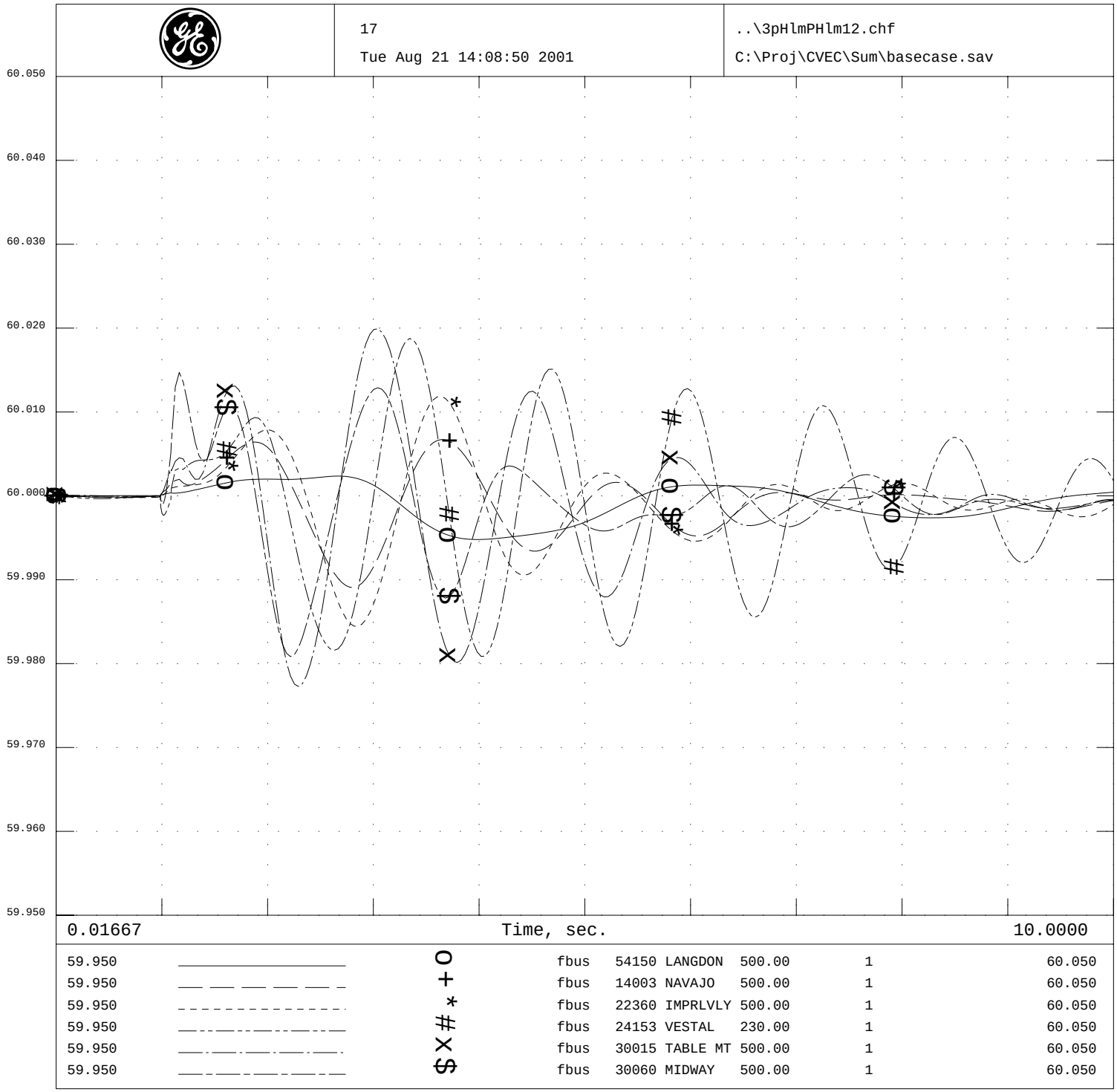

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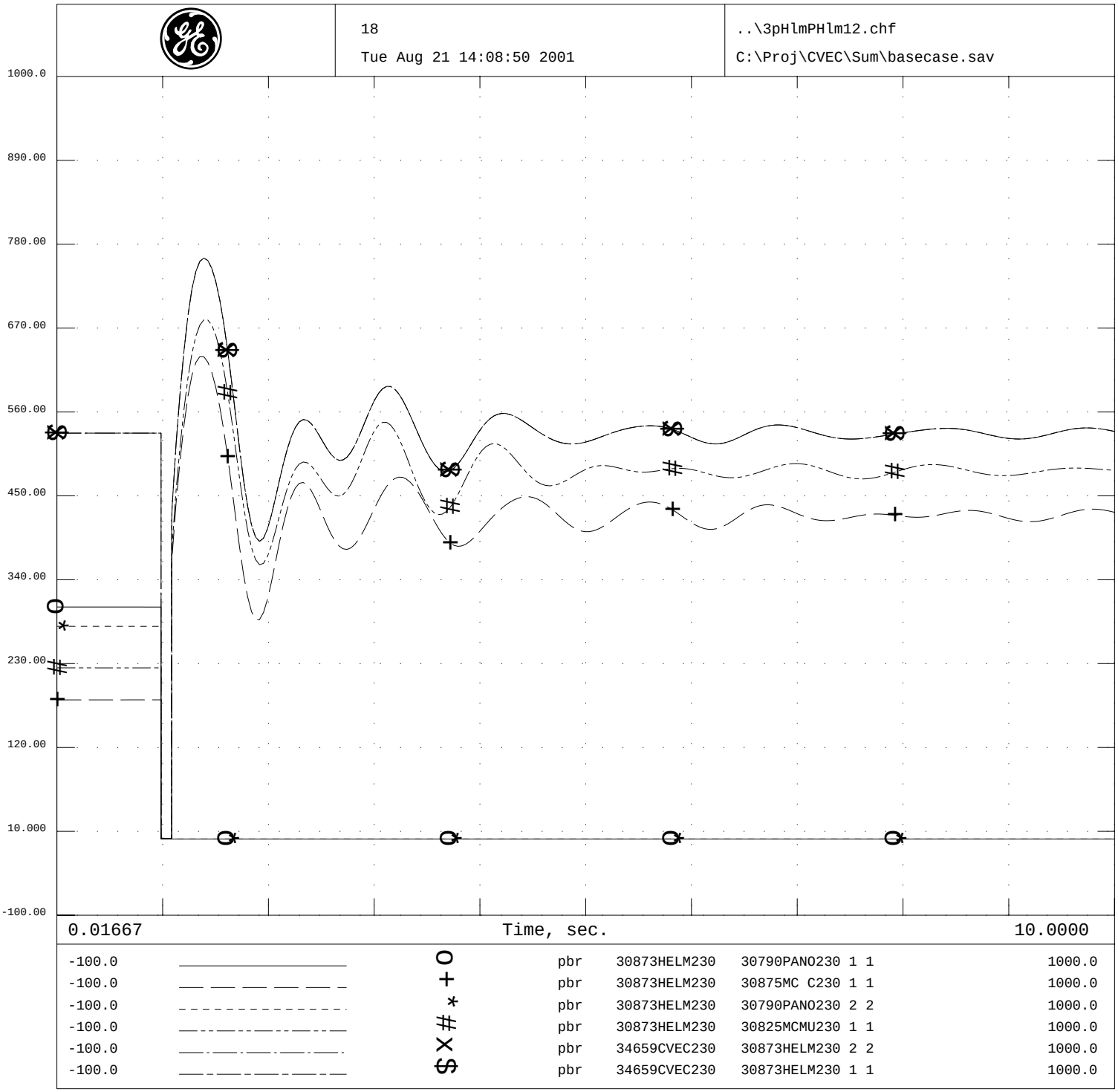

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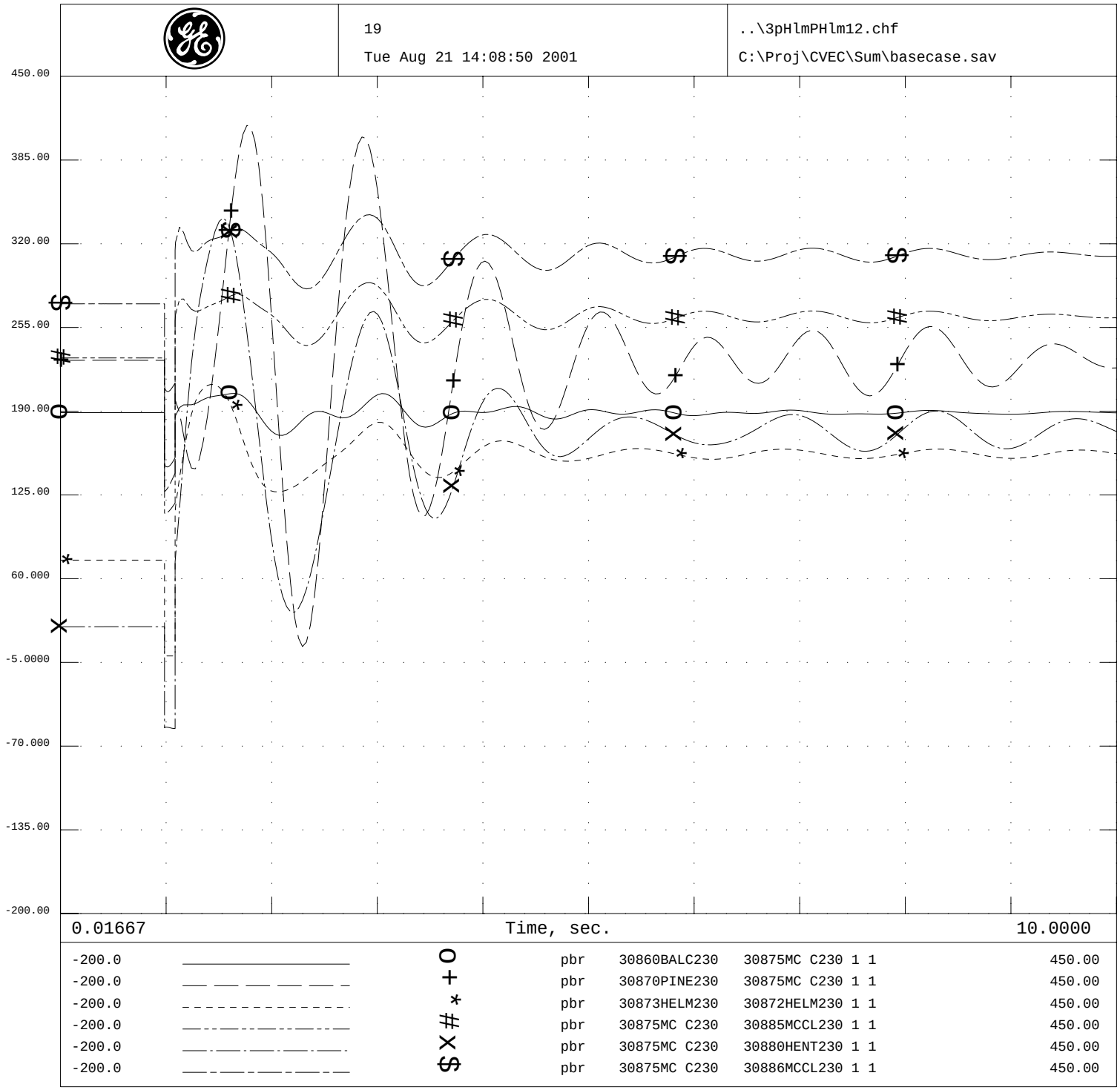

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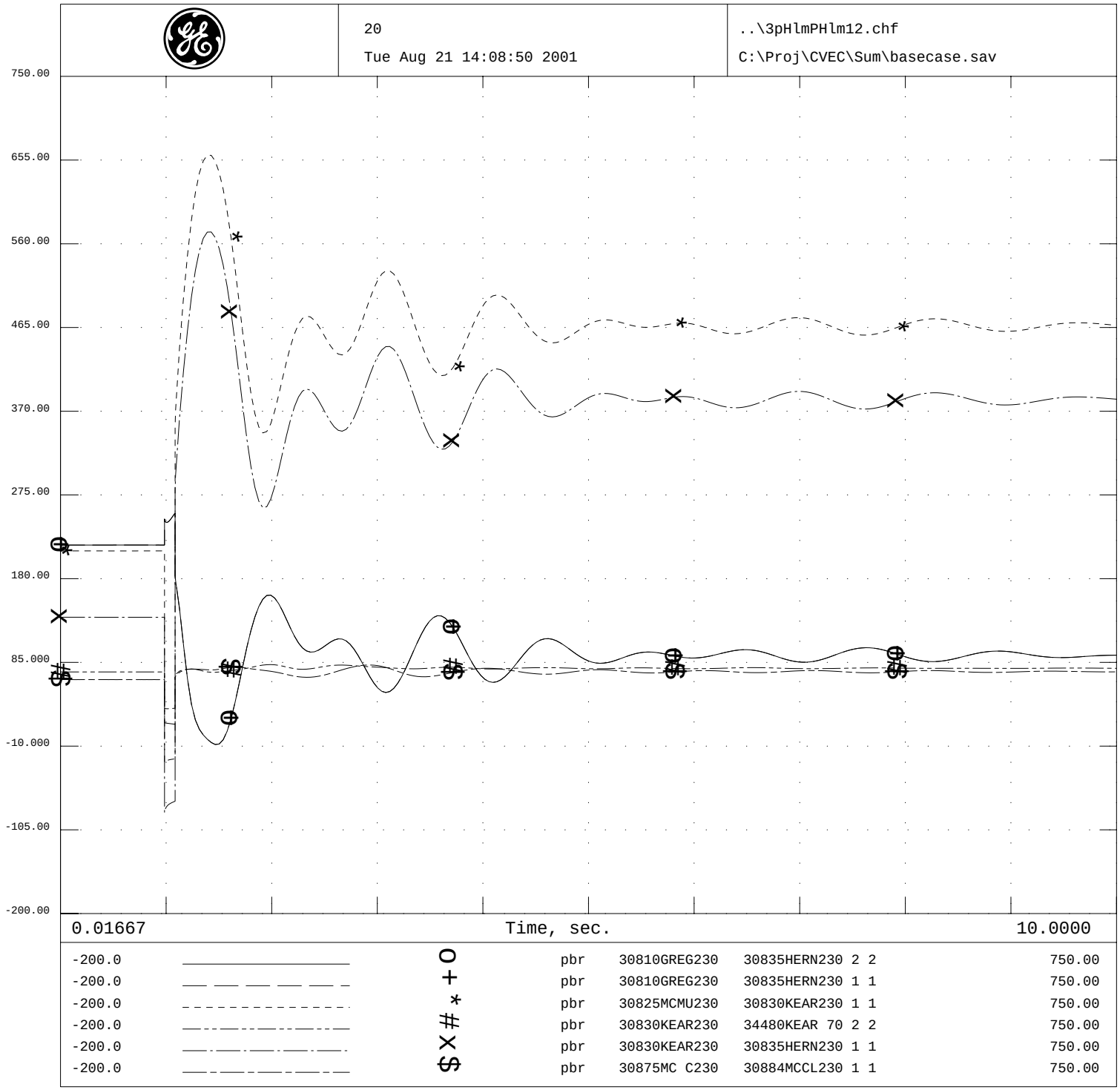

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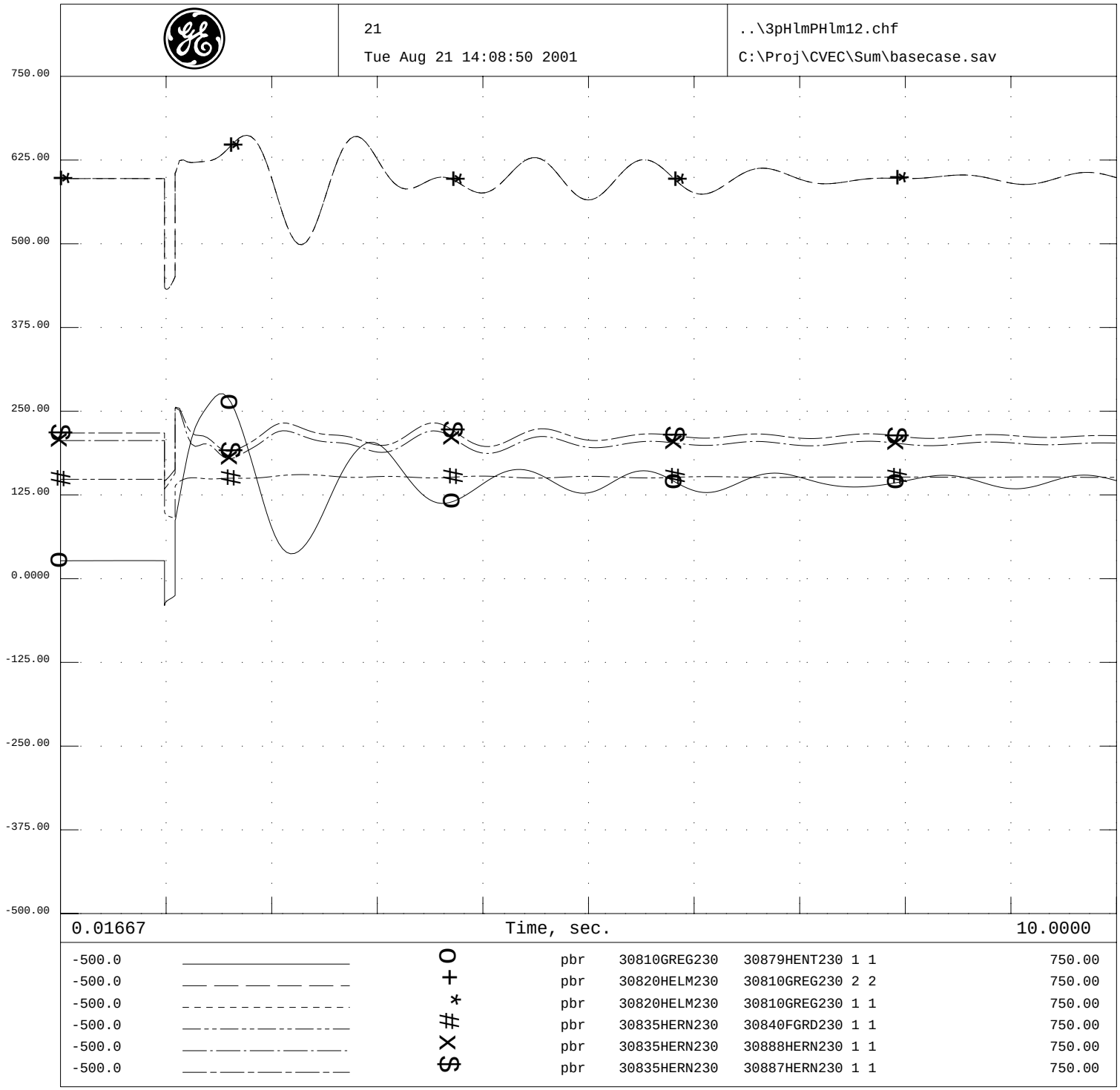

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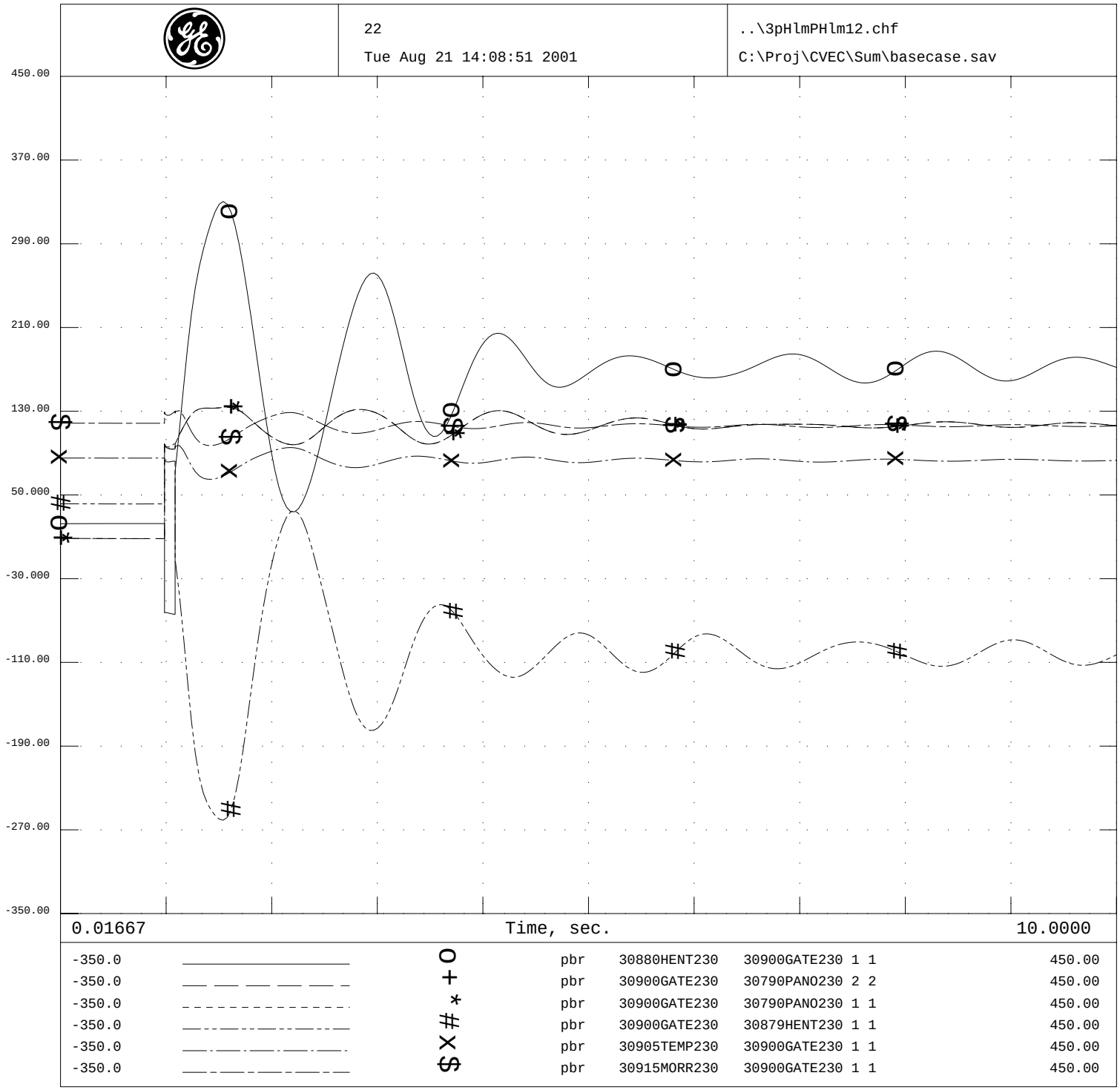

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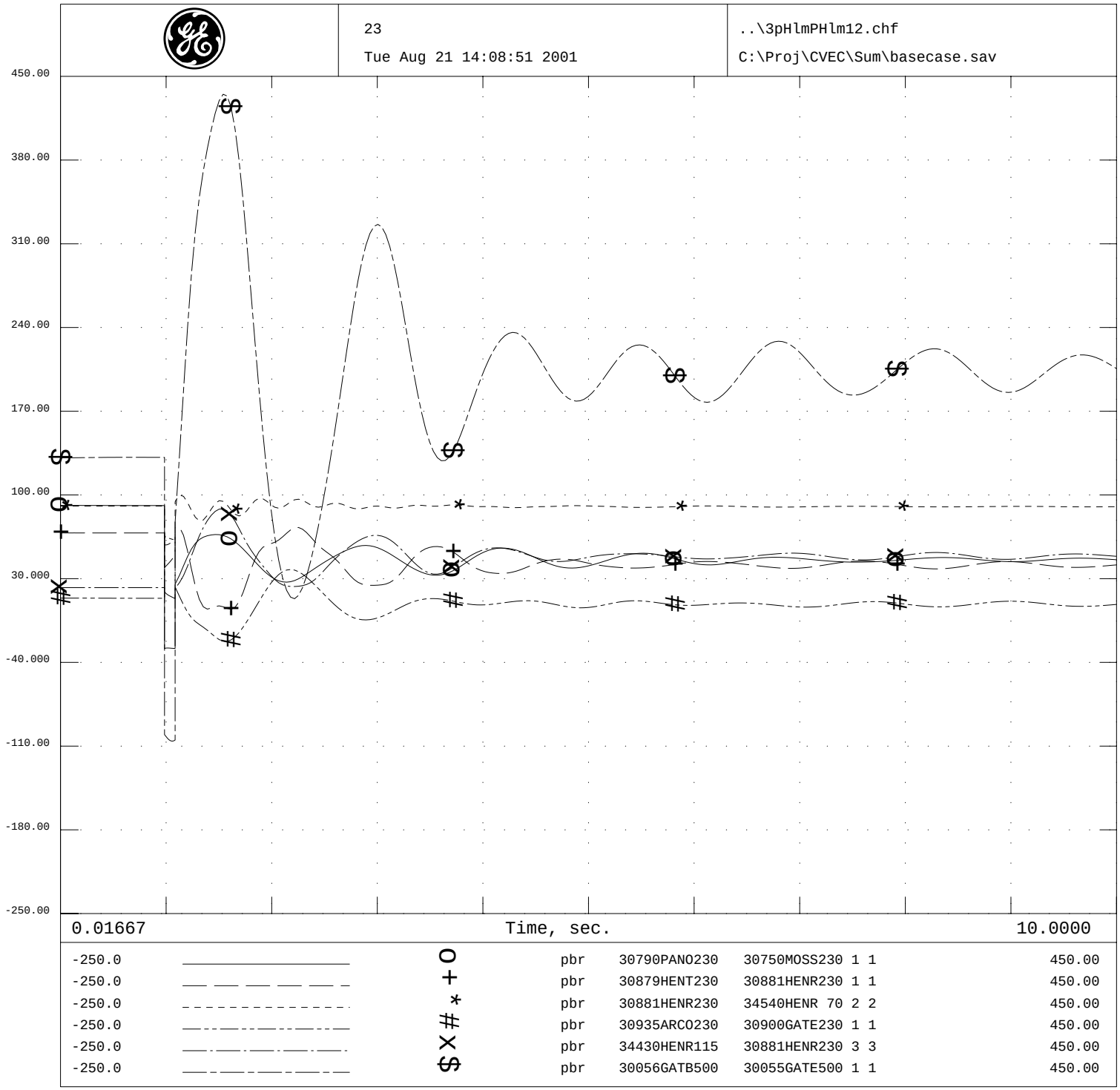

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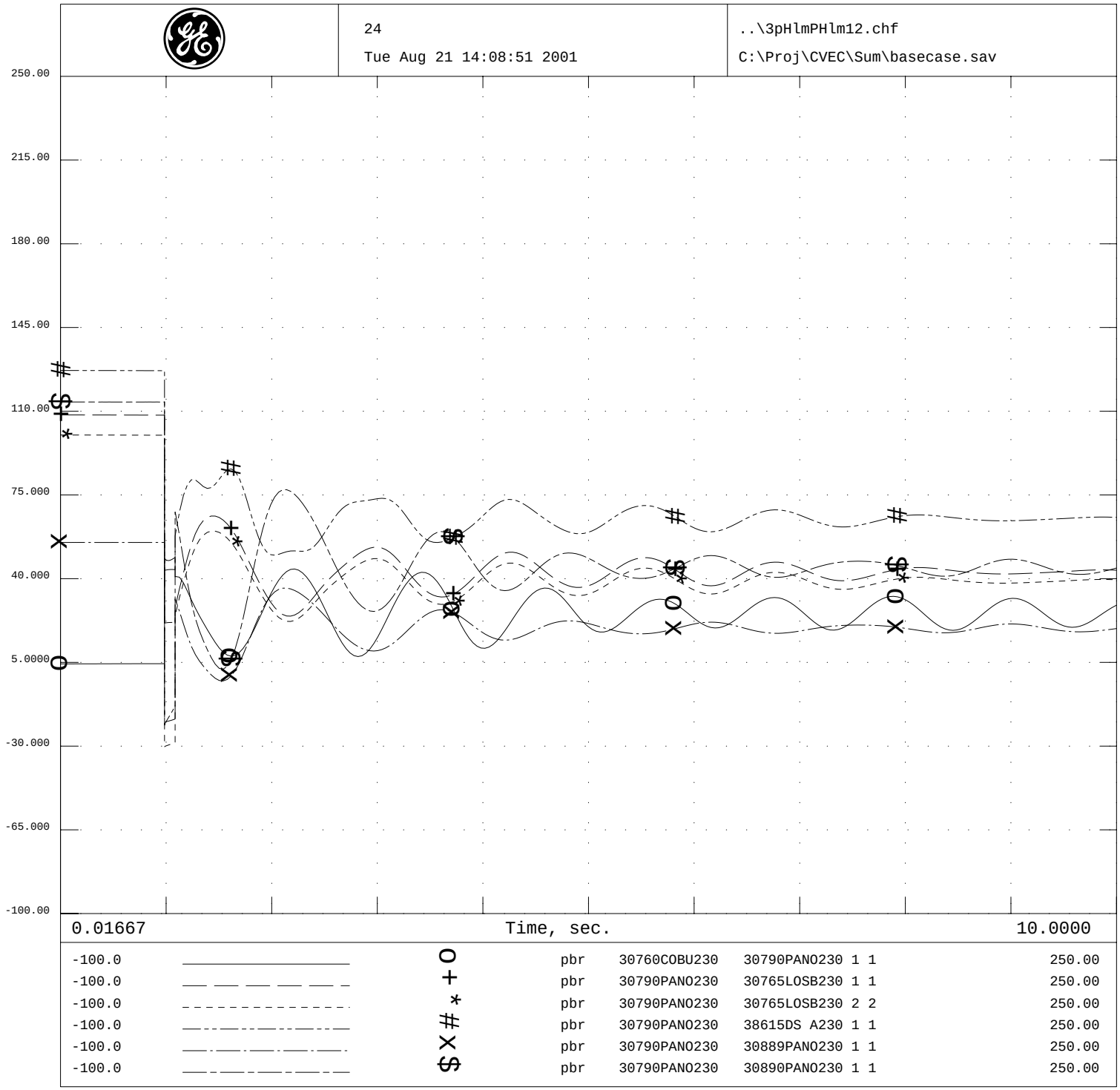
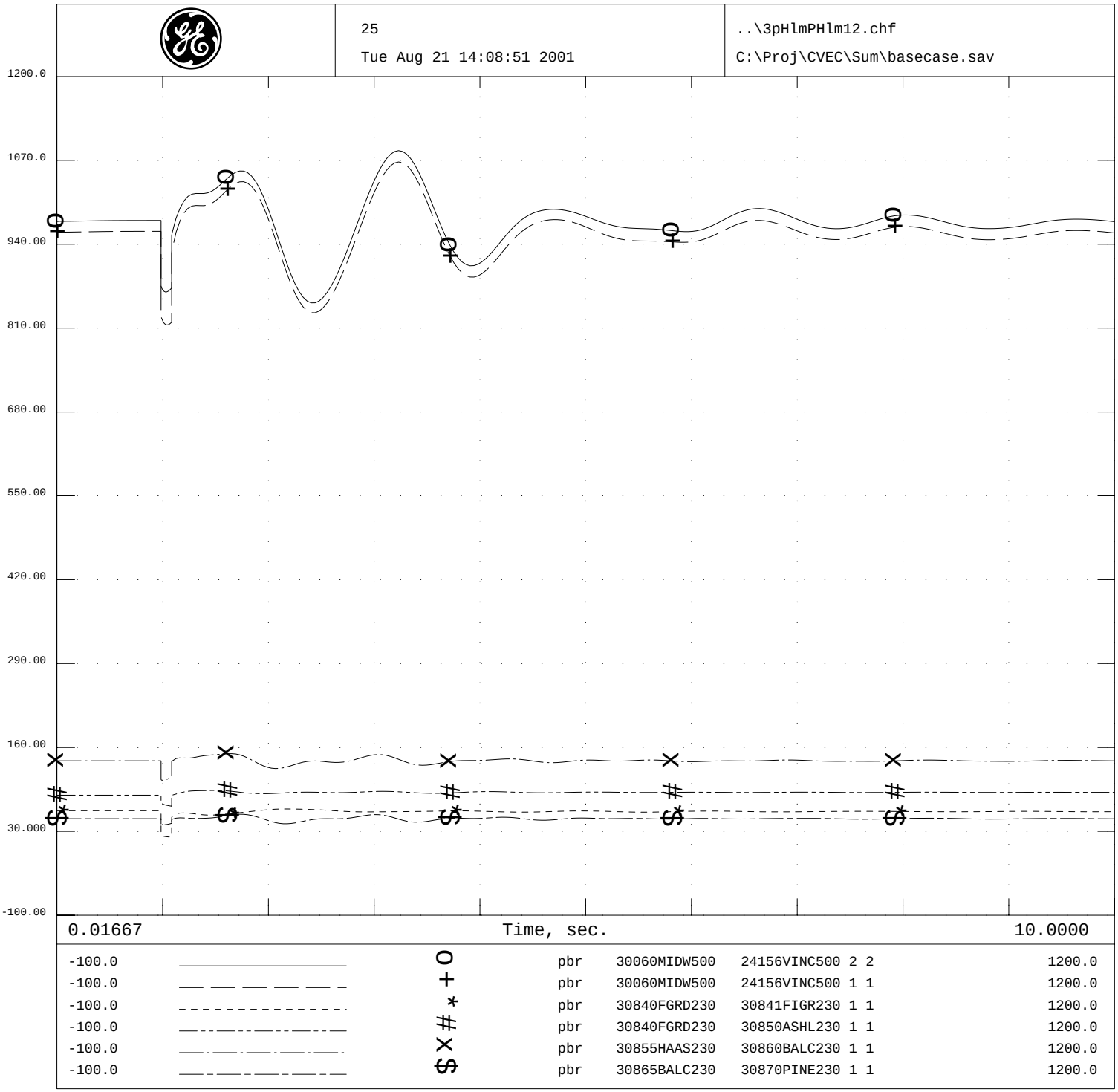


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Helm-Panoche #1,2 230kV Double Outage
3 phase 6 cycle fault at Helm 230kV bus and trip both Panoche-Helm lines

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Helm-Panoche #1,2 230kV Double Outage
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Central Valley Energy Center
Calpine Corporation
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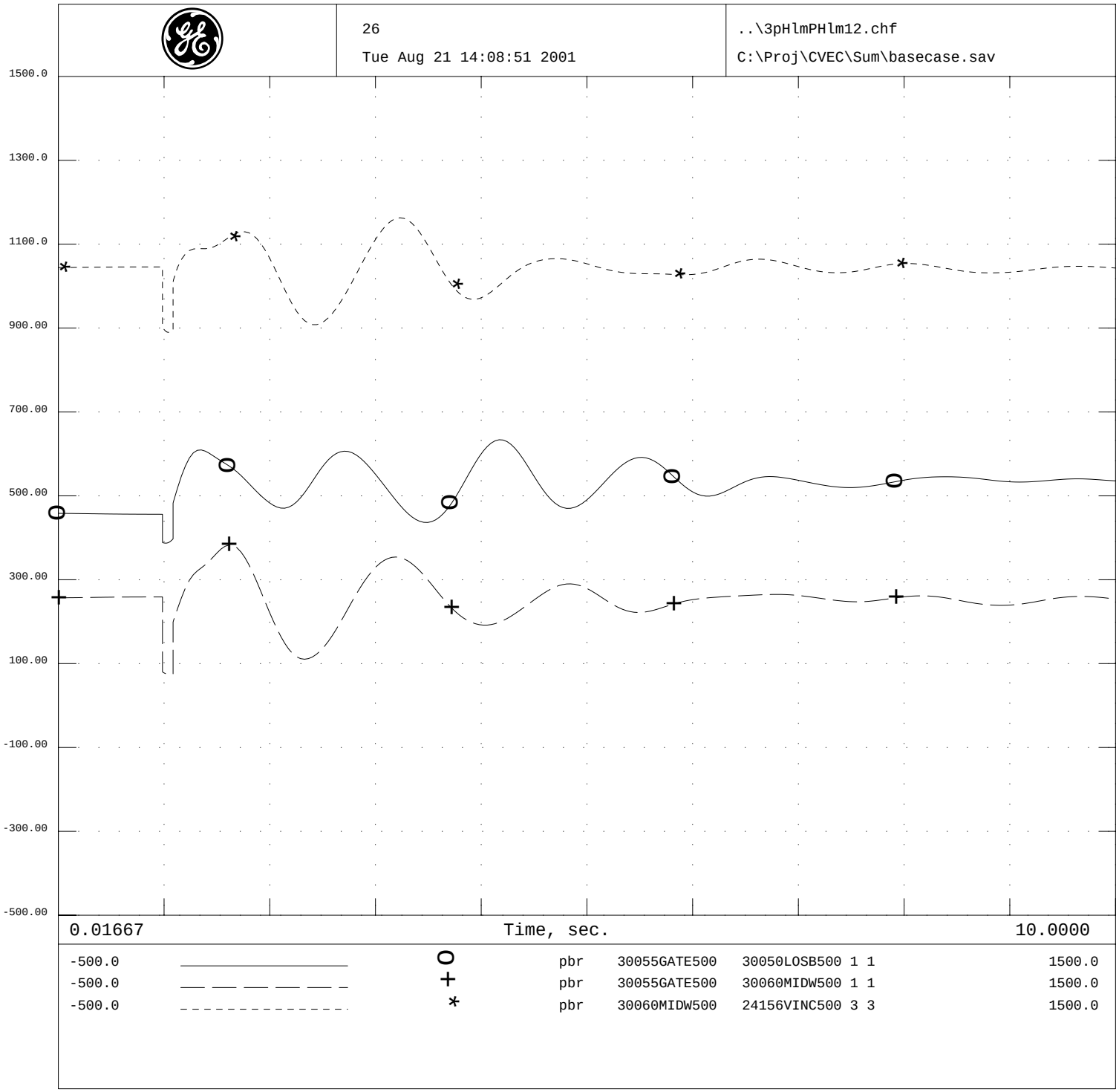

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Helm-Panoche #1,2 230kV Double Outage
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Central Valley Energy Center
Calpine Corporation
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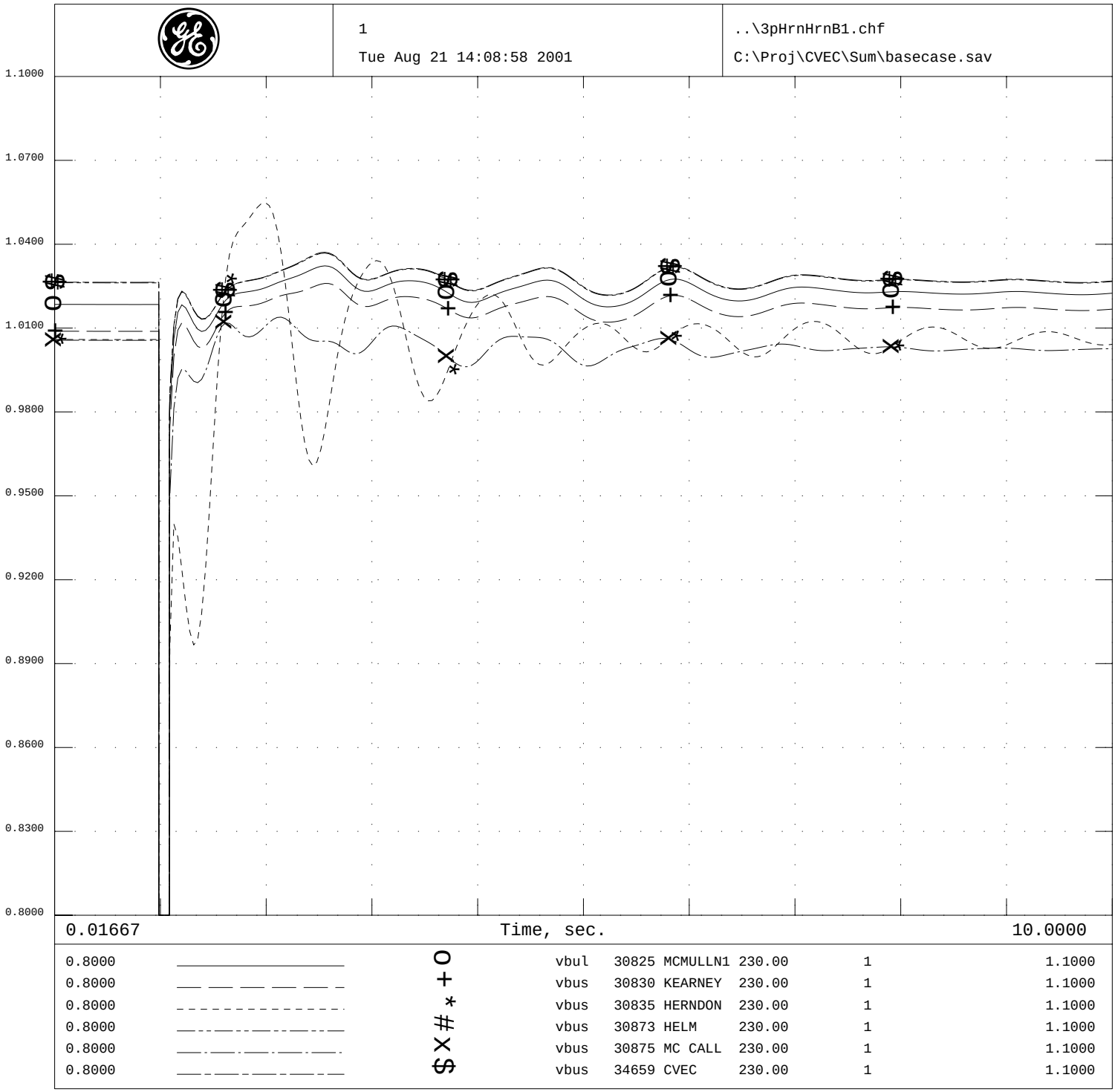
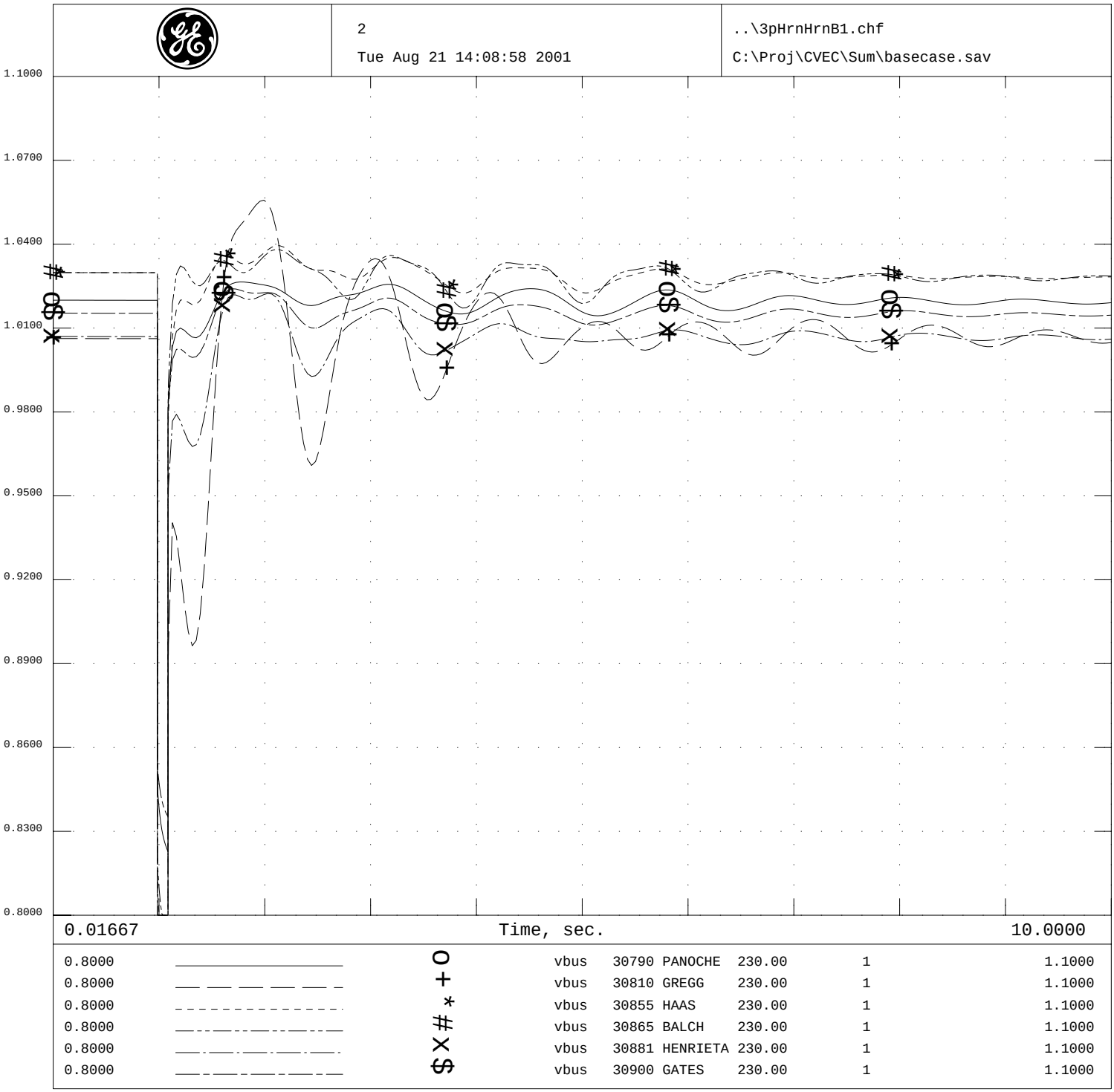


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Herndon 230kV Bus #1 Outage
3 phase 6 cycle fault at Herndon 230kV bus and clear bus #1

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
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Central Valley Energy Center
Calpine Corporation
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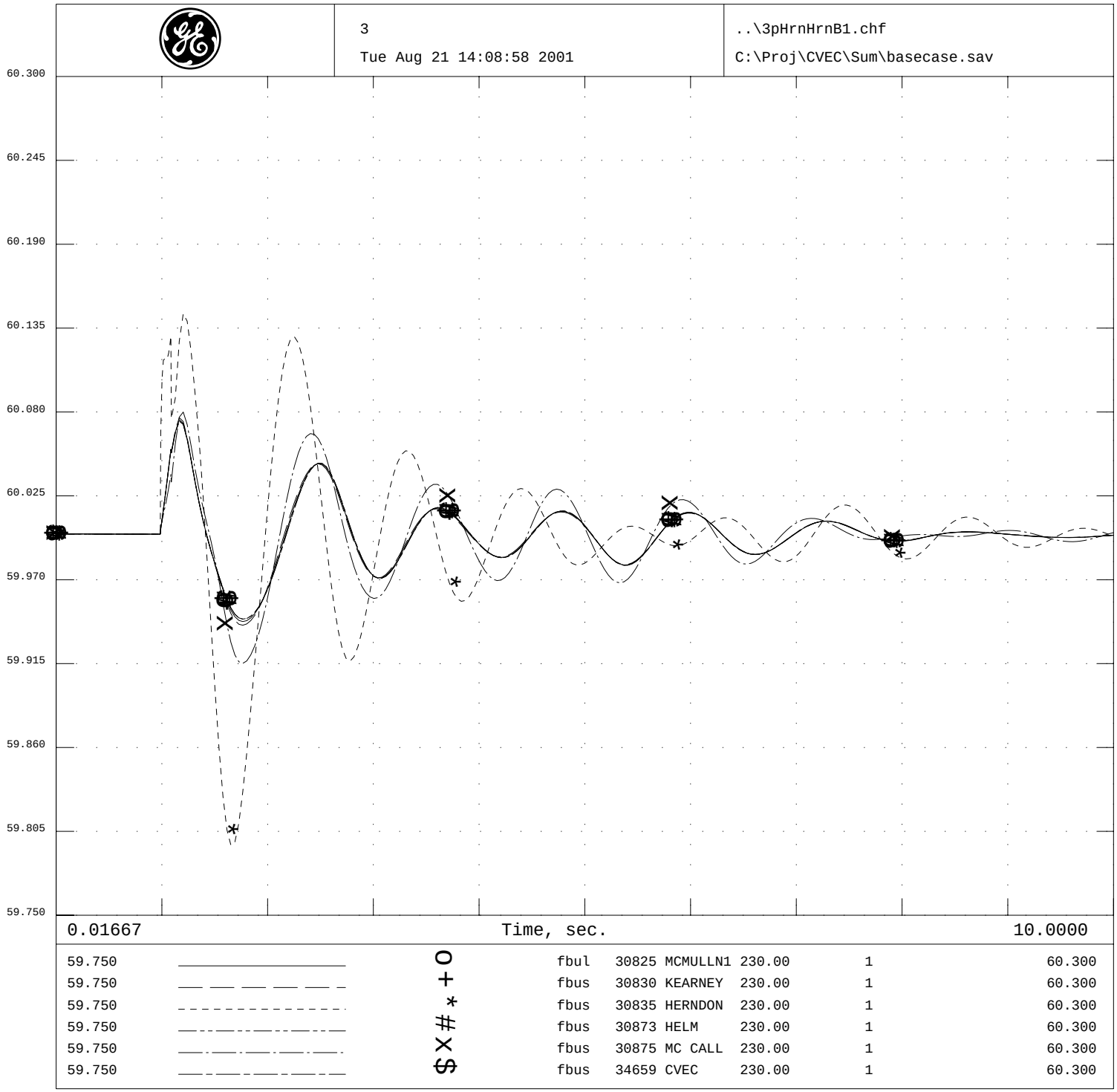

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
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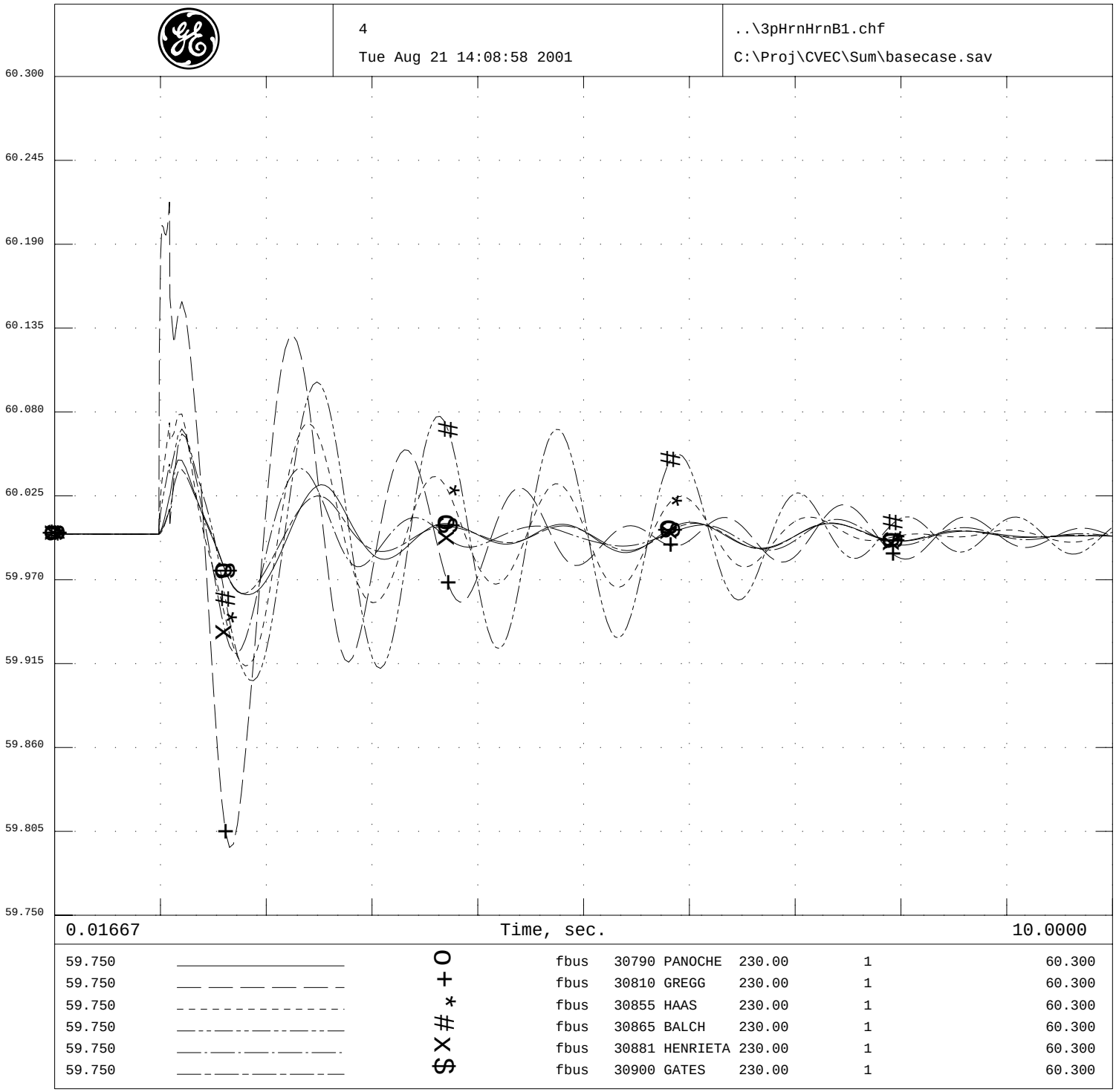
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
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Central Valley Energy Center
Calpine Corporation
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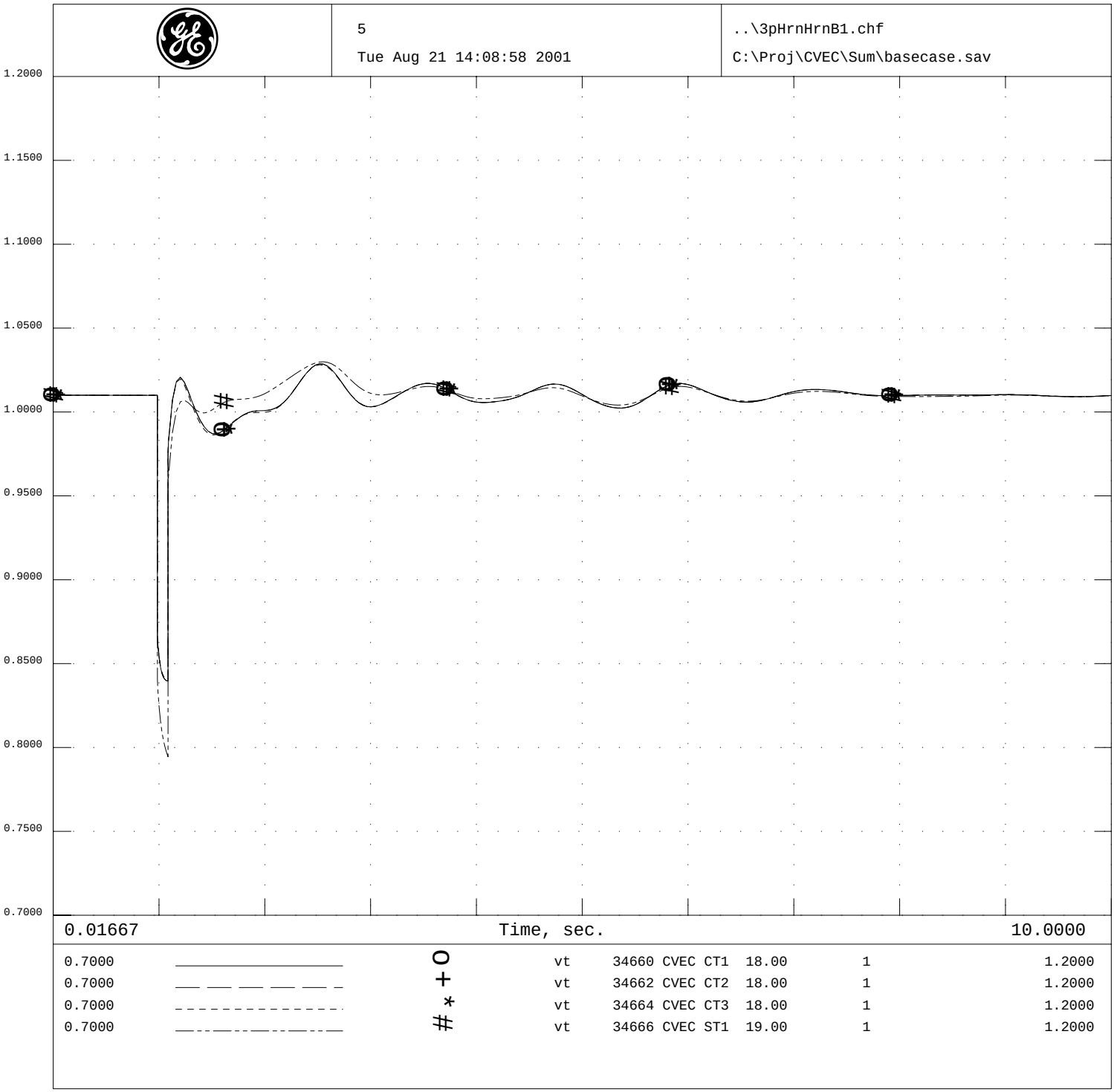

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Herndon 230kV Bus #1 Outage
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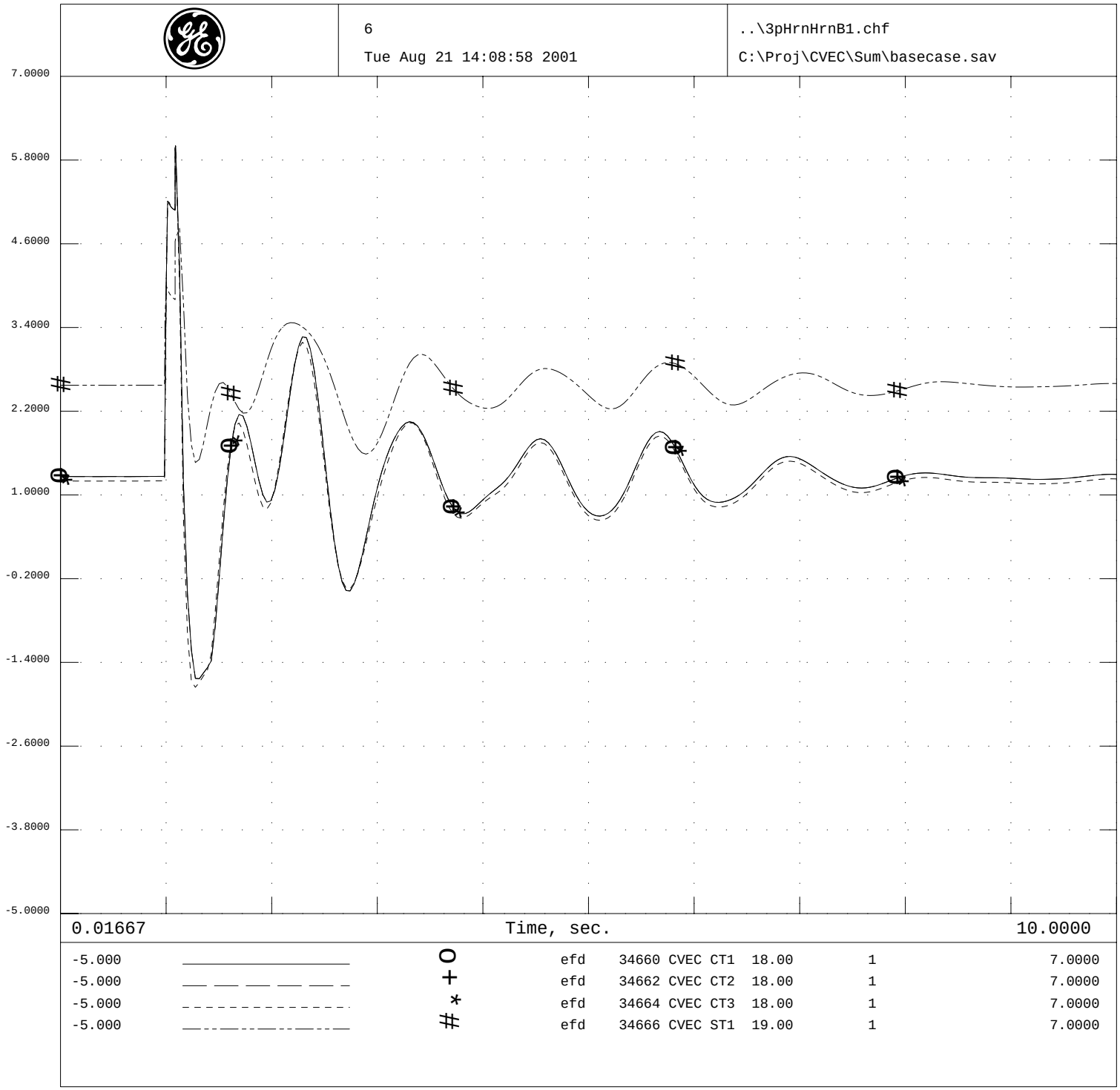
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
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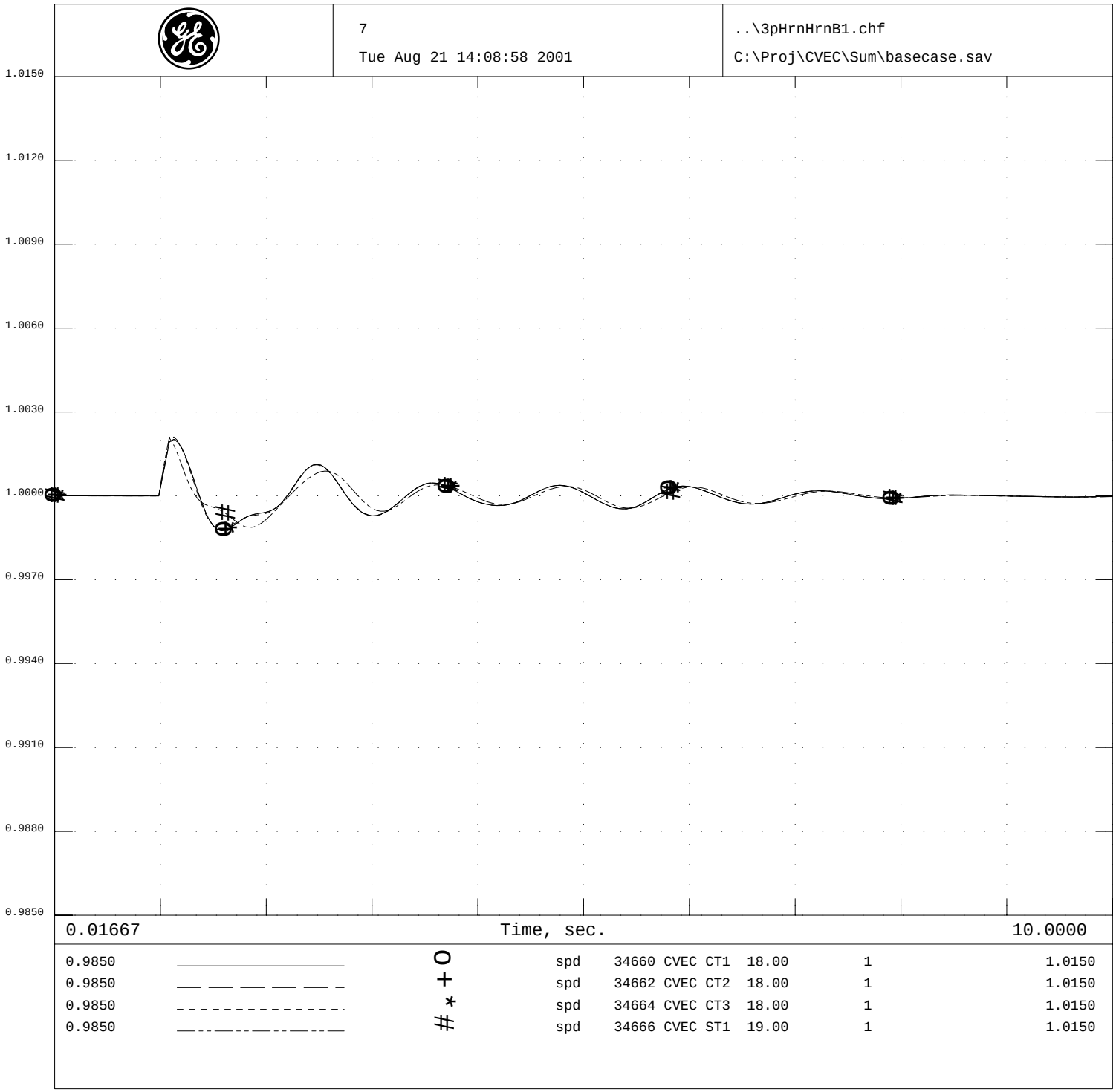
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Herndon 230kV Bus #1 Outage
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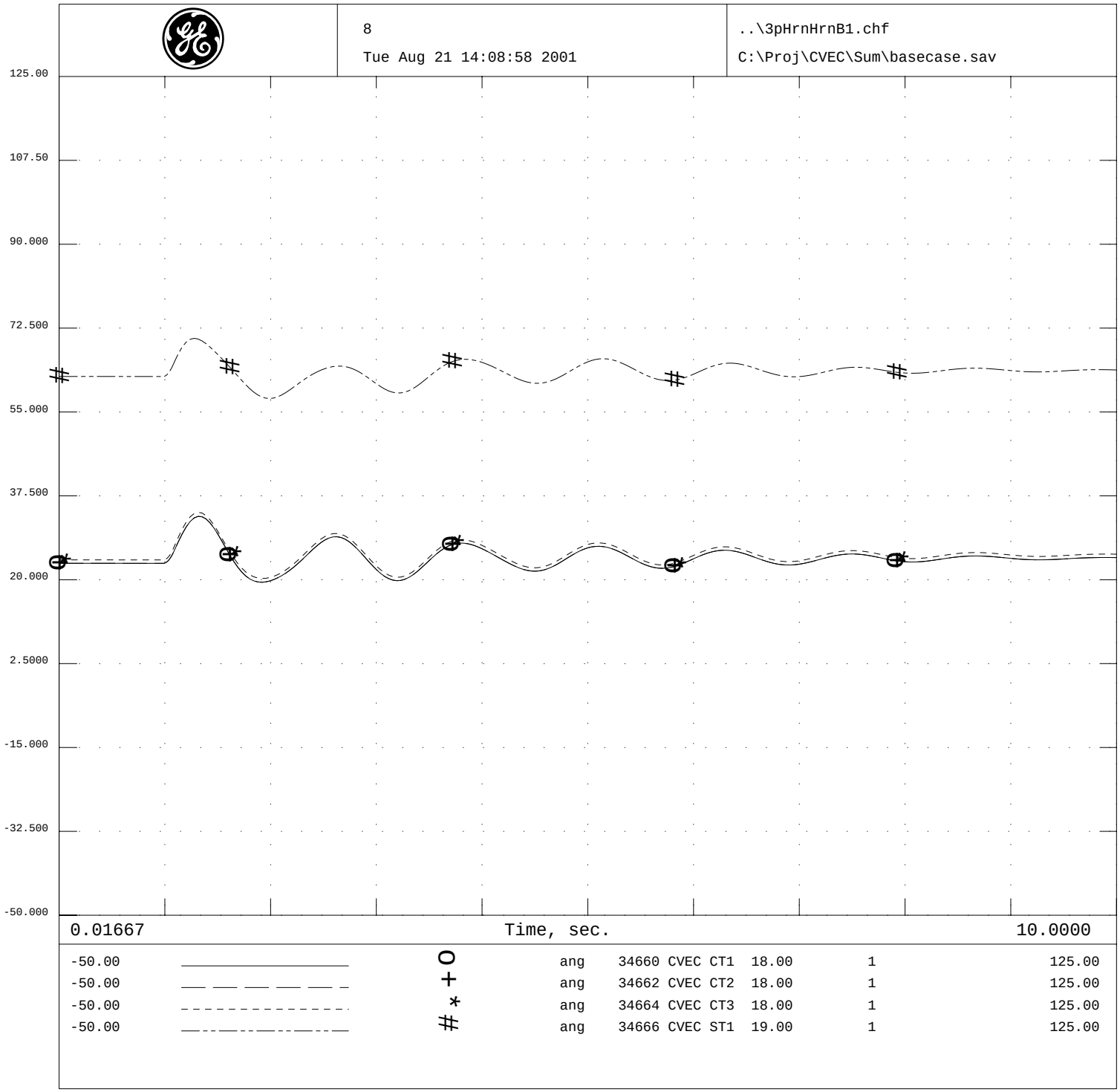
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Herndon 230kV Bus #1 Outage
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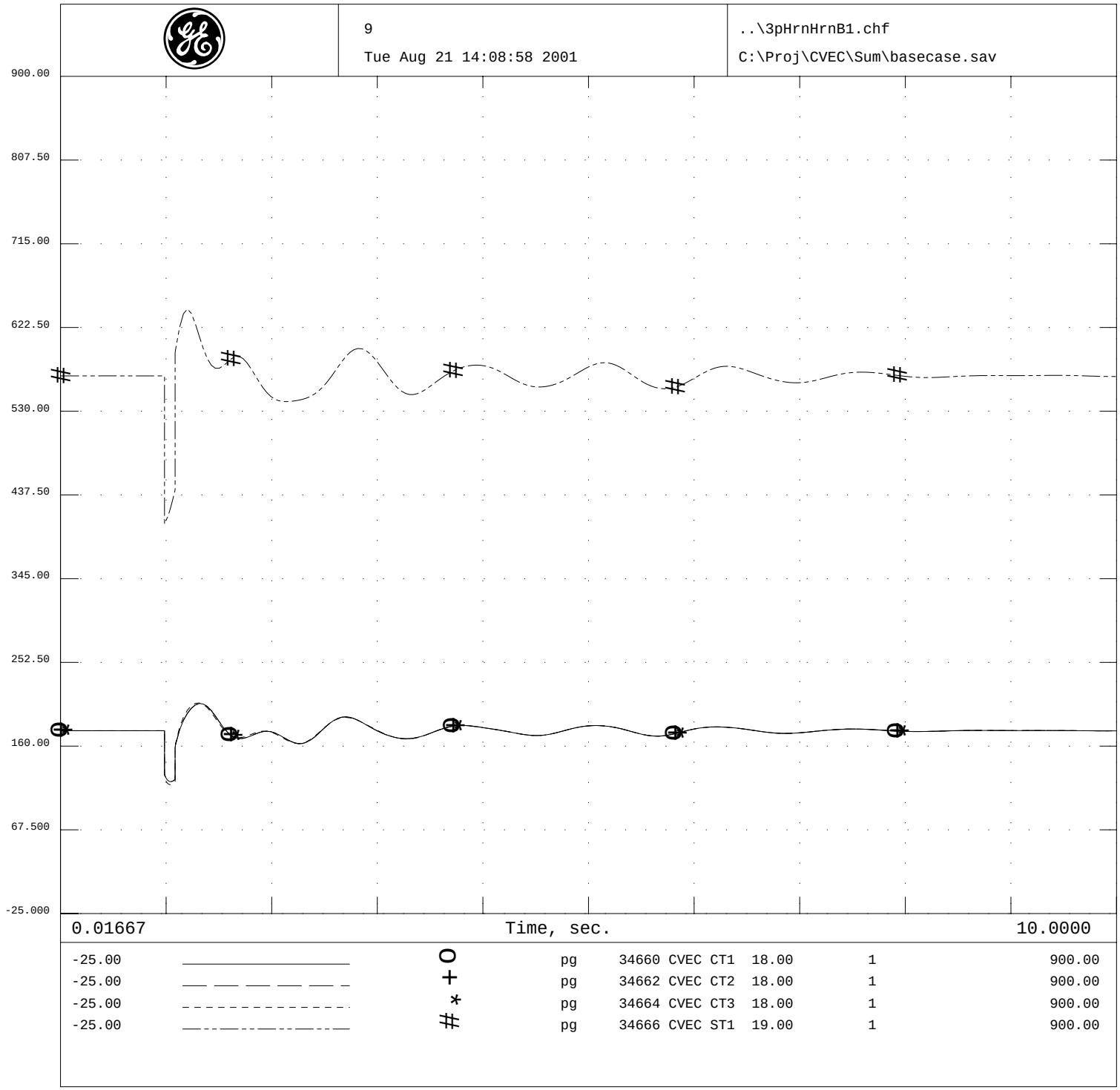
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Herndon 230kV Bus #1 Outage
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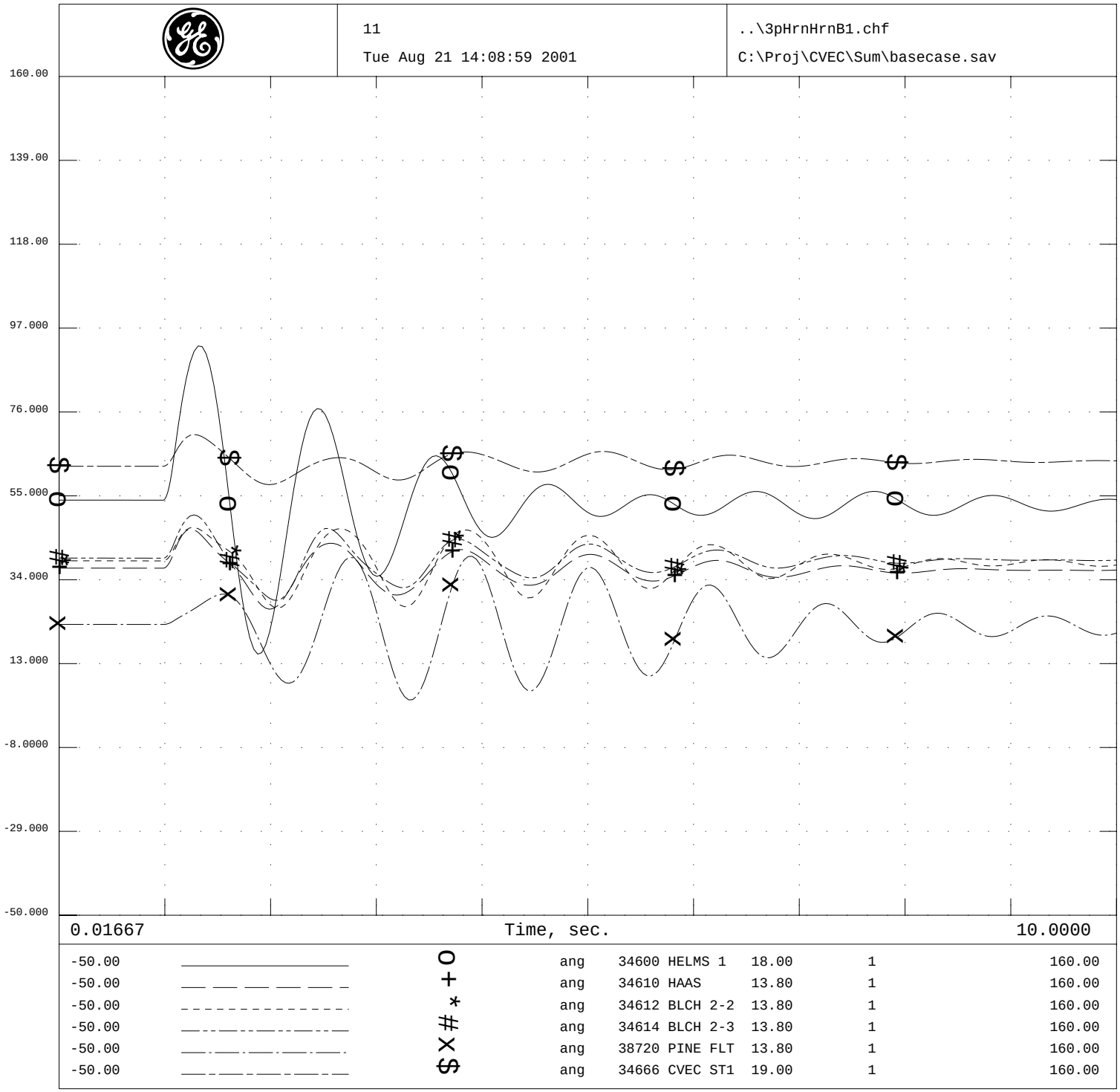
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Herndon 230kV Bus #1 Outage
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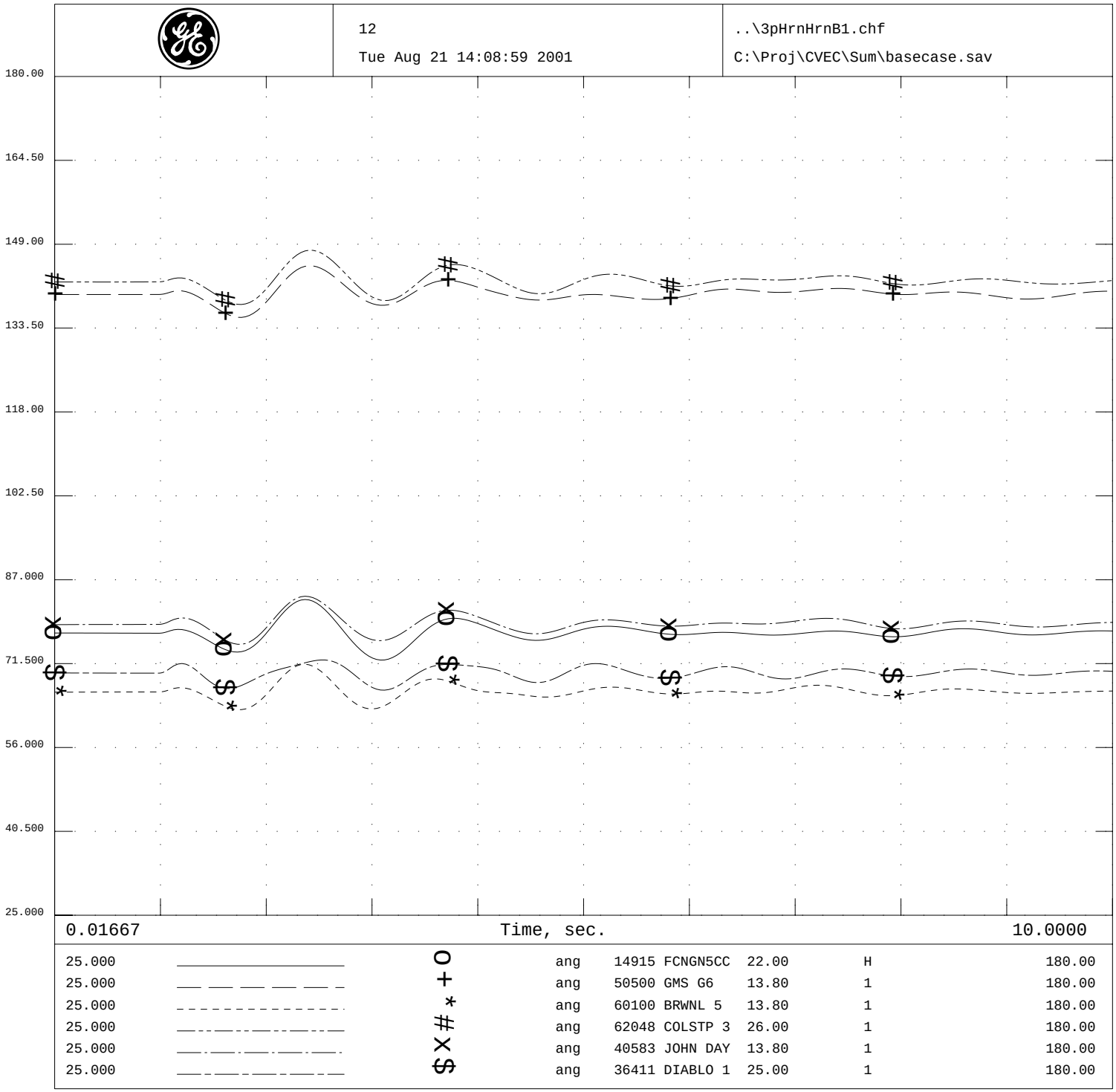
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
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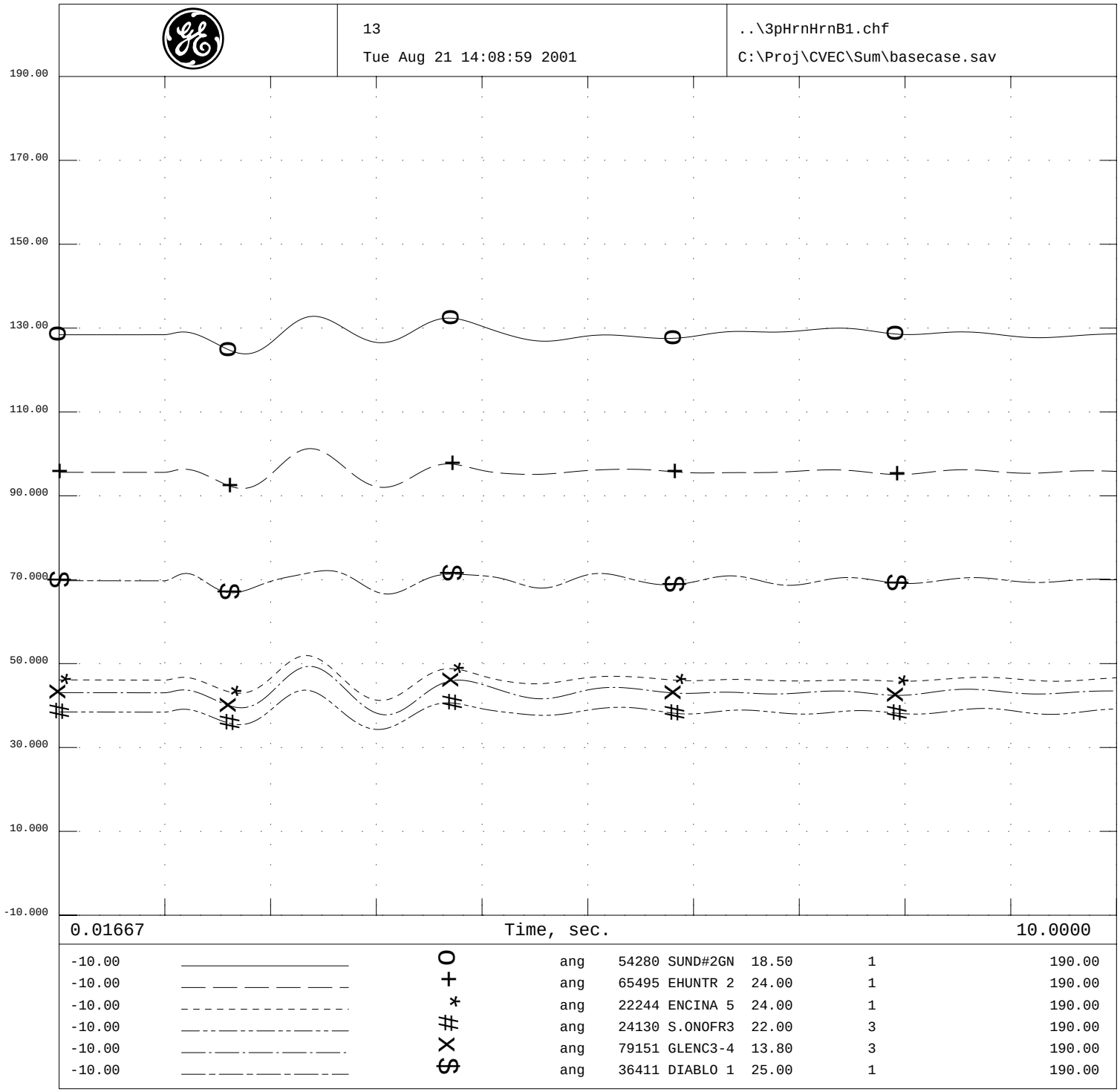
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
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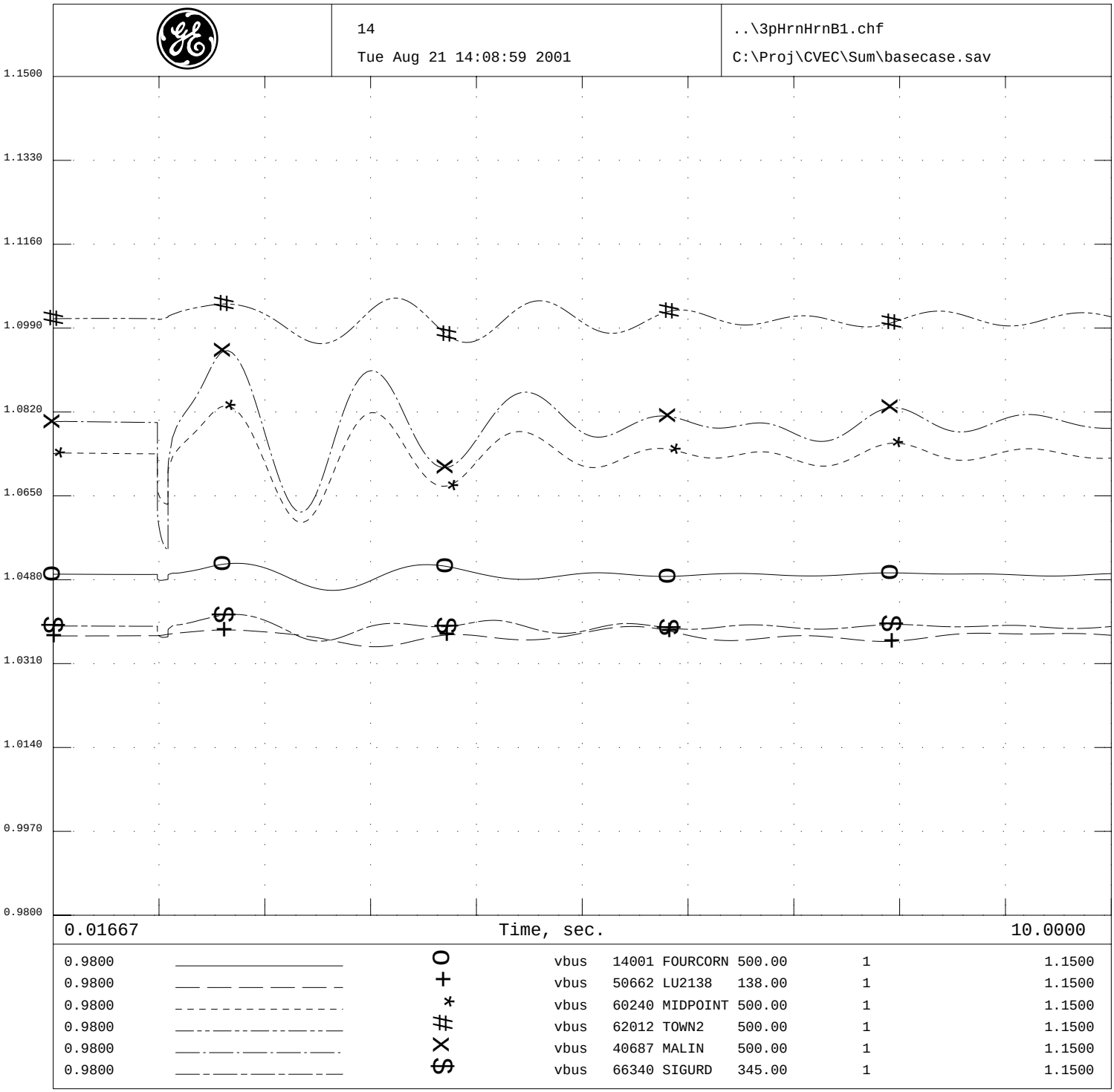
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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2004 Summer Peak Base Case
CVEC @ 1100MW
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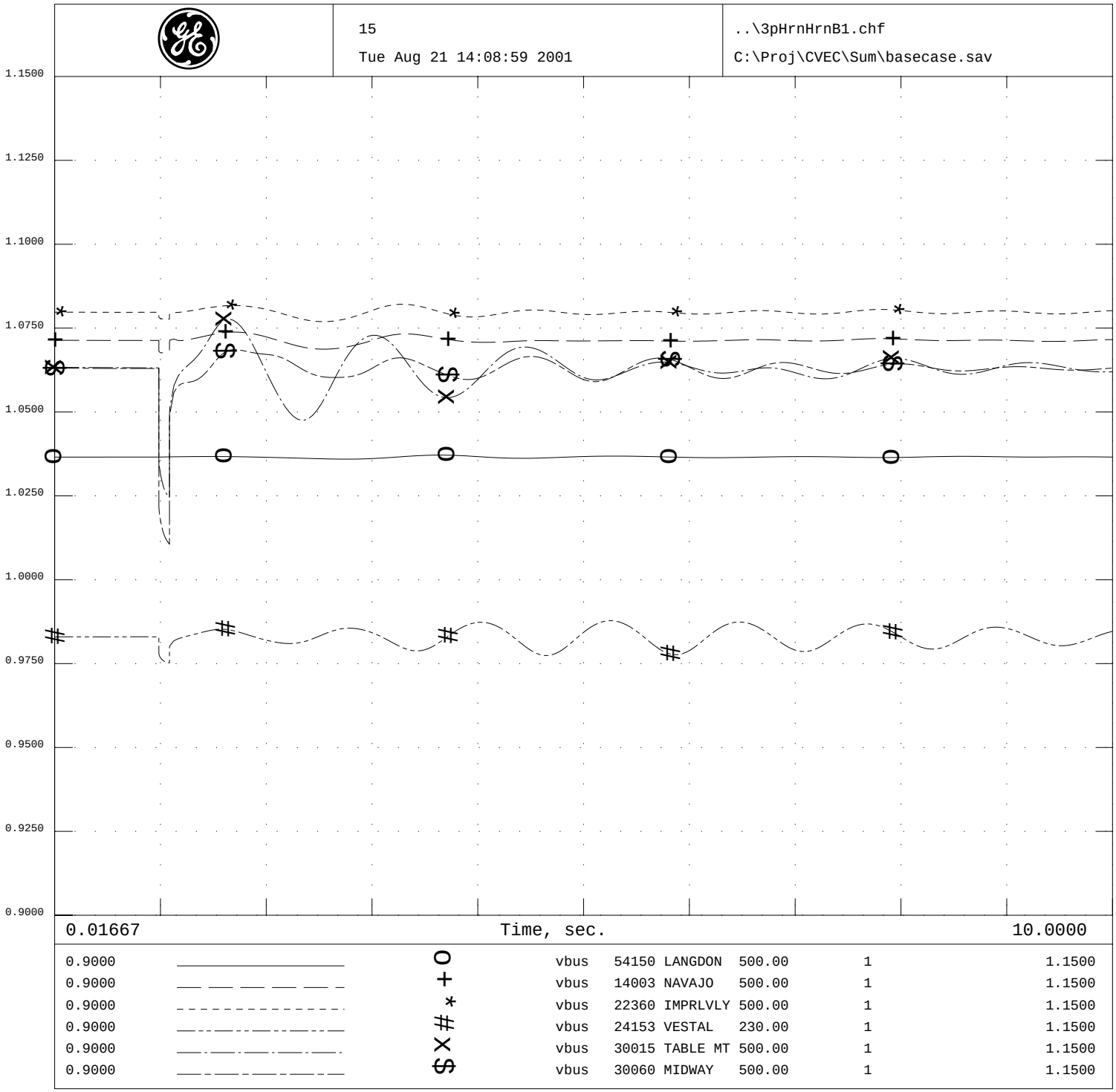
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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Calpine Corporation
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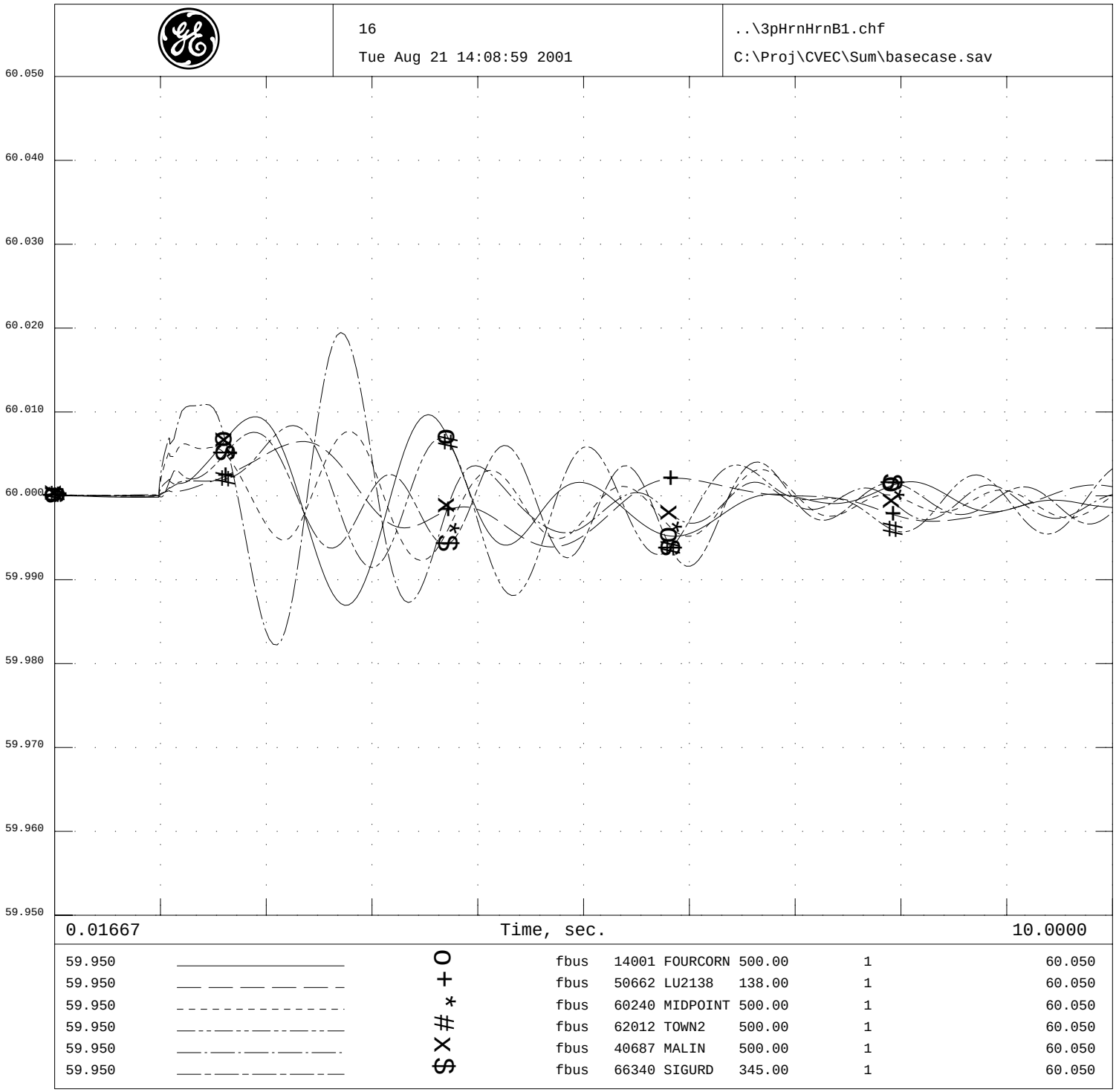

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
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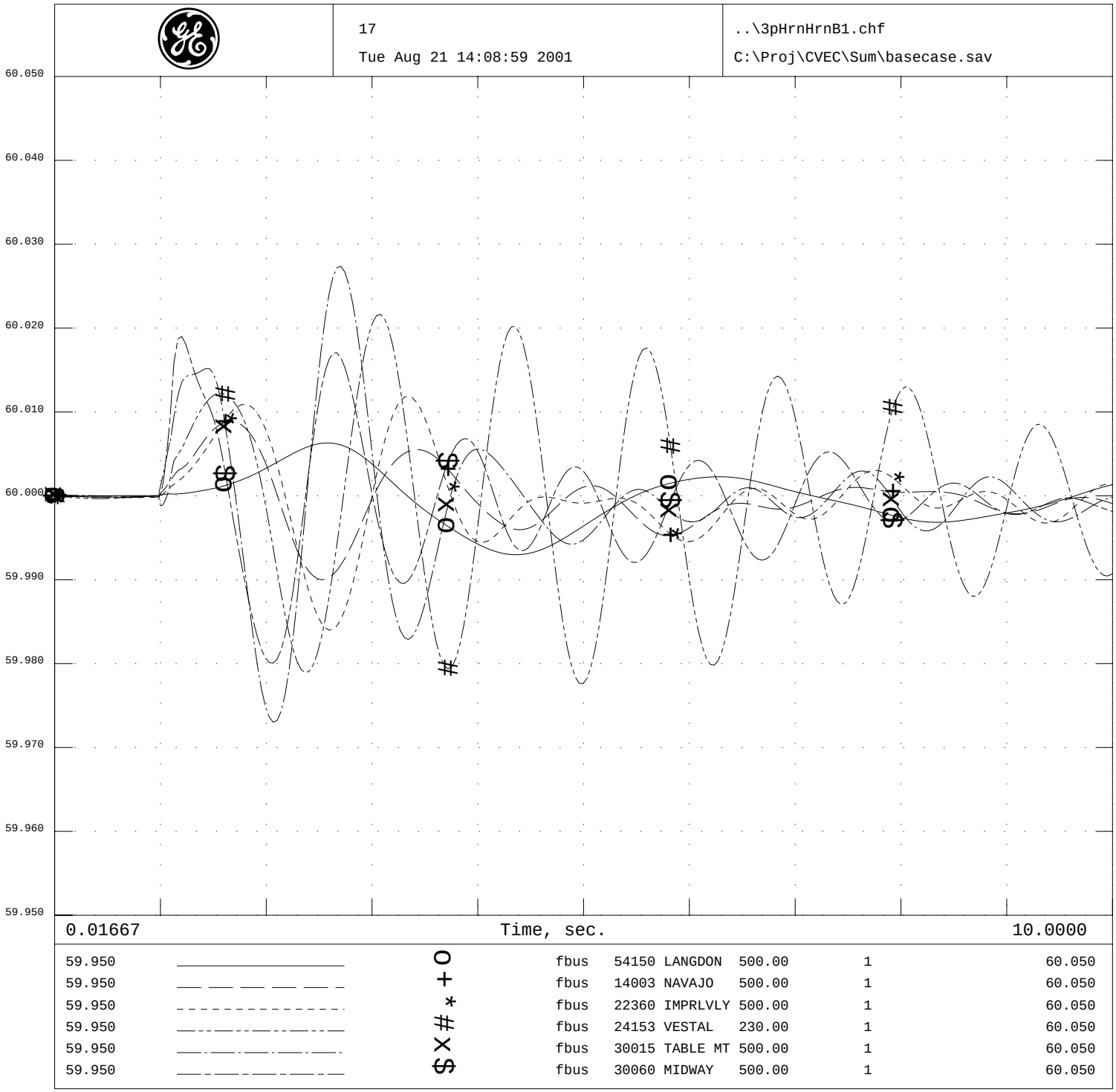
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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Calpine Corporation
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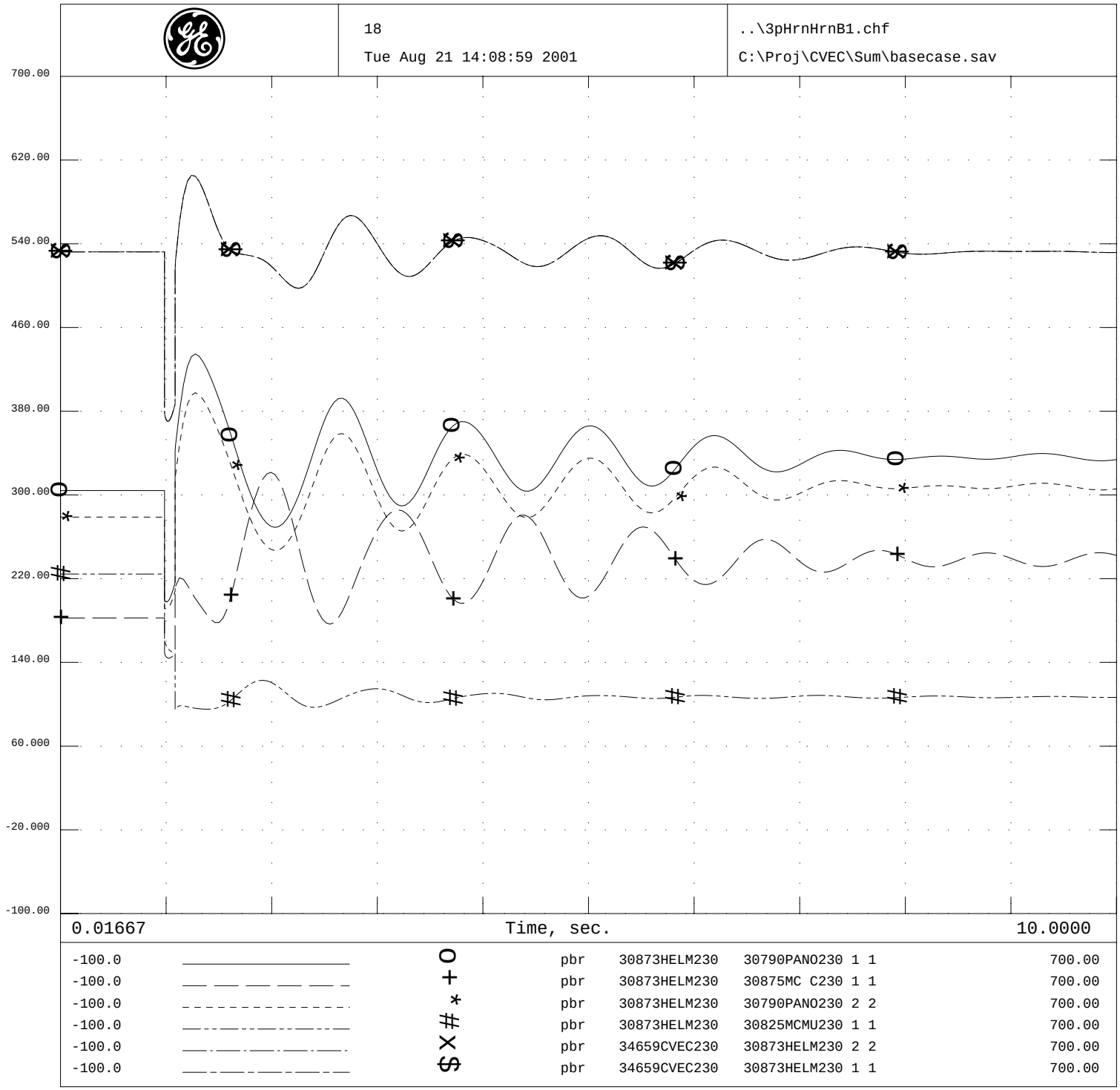

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2004 Summer Peak Base Case
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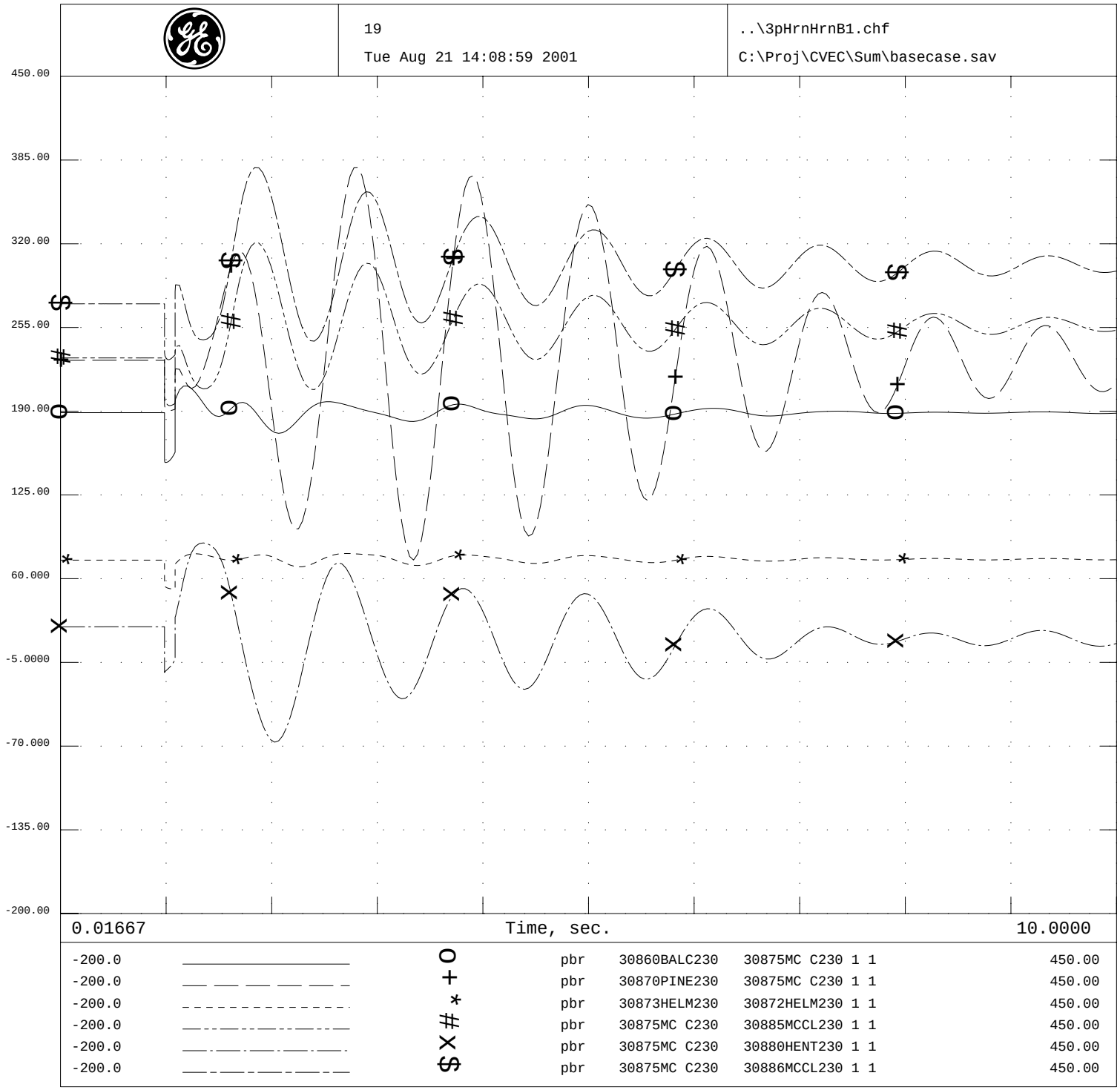
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
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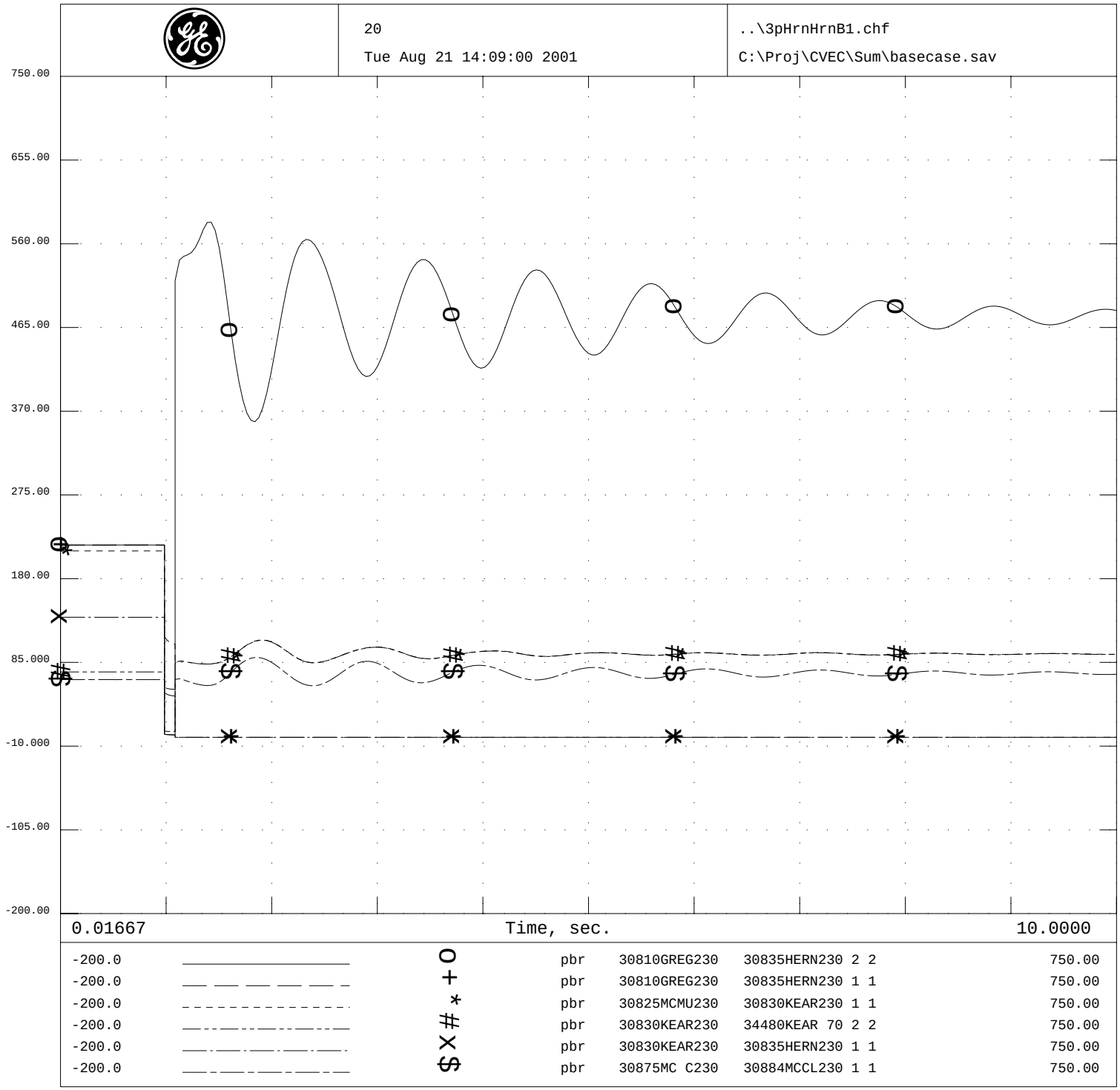

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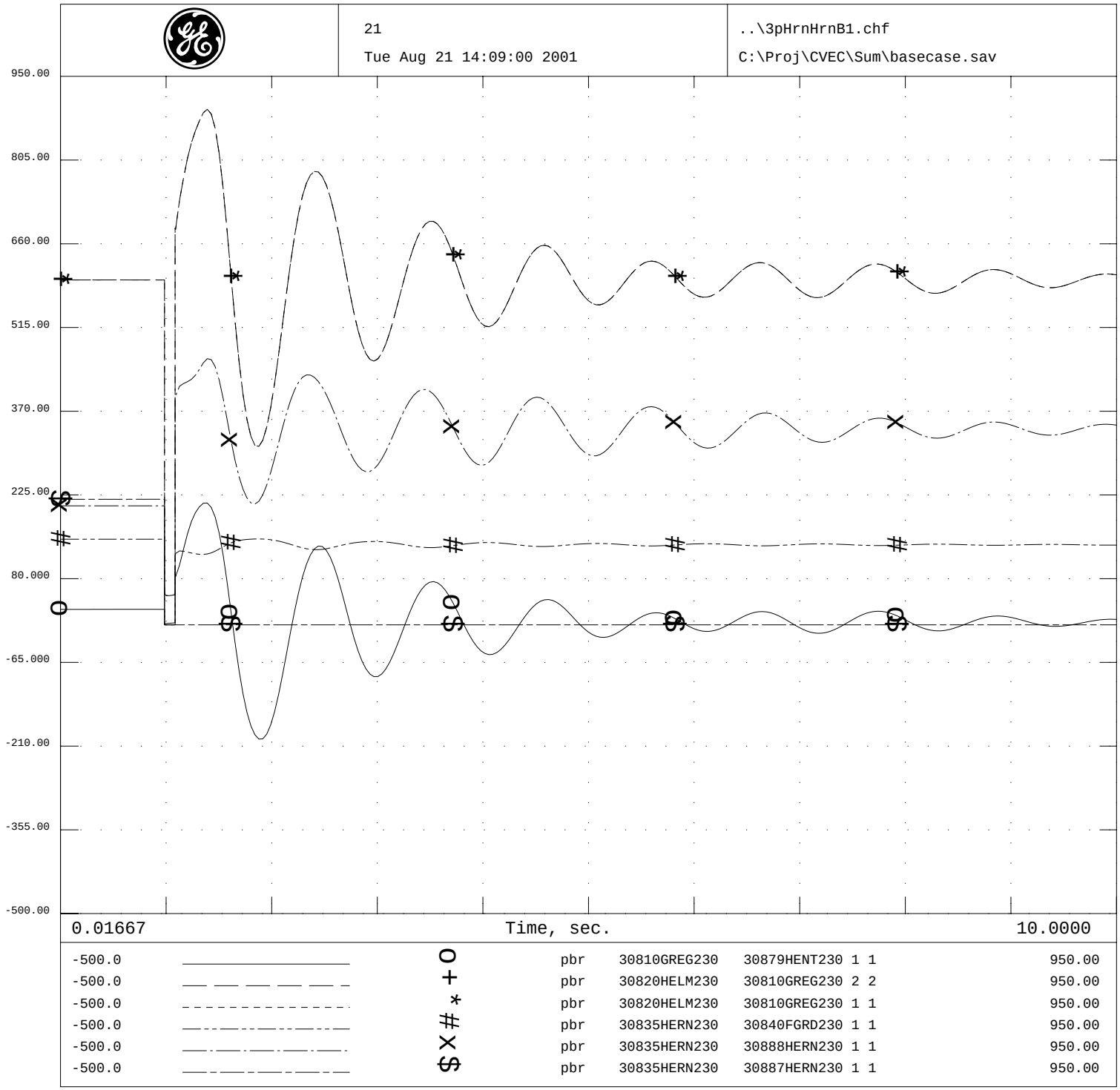

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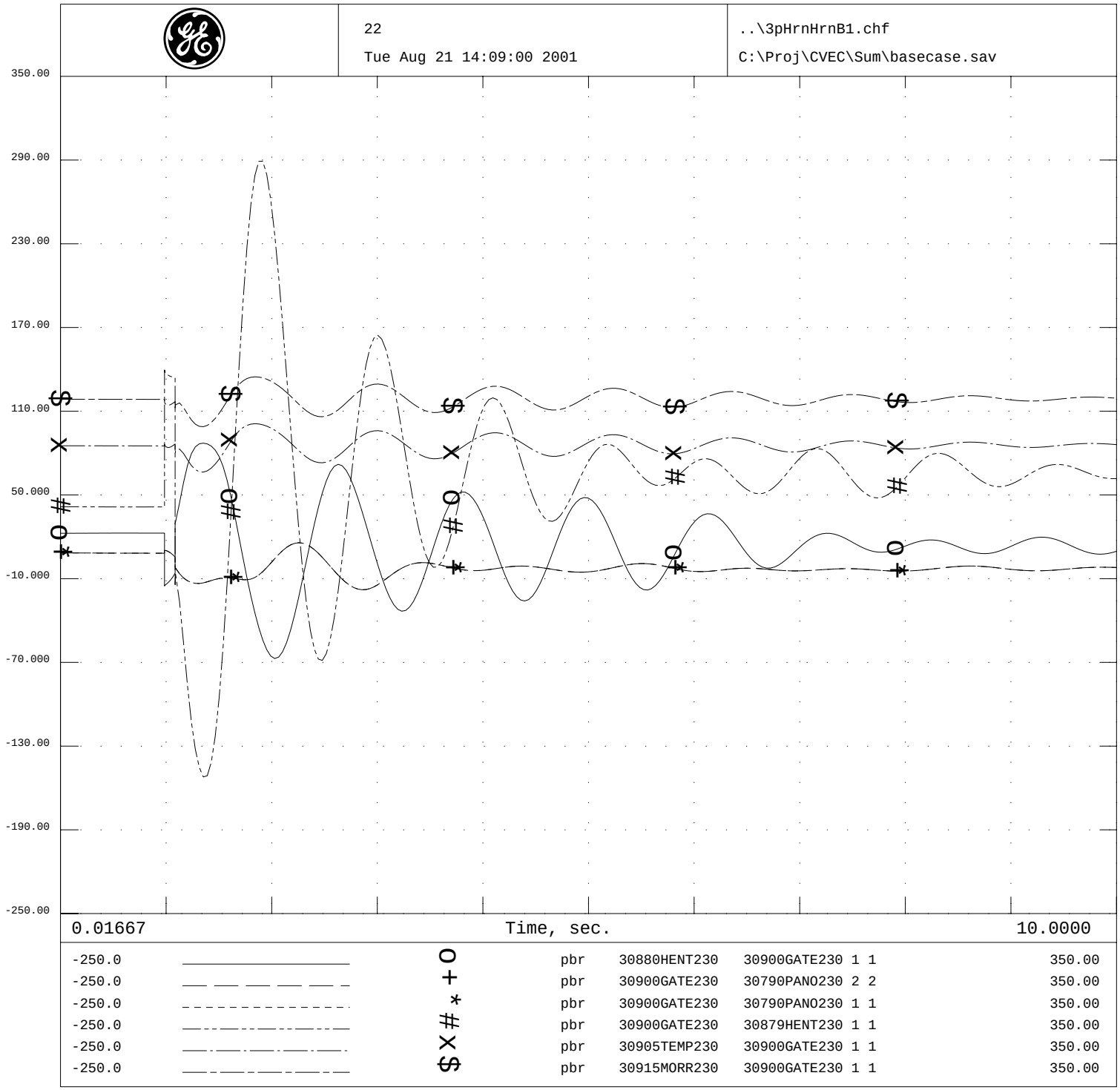

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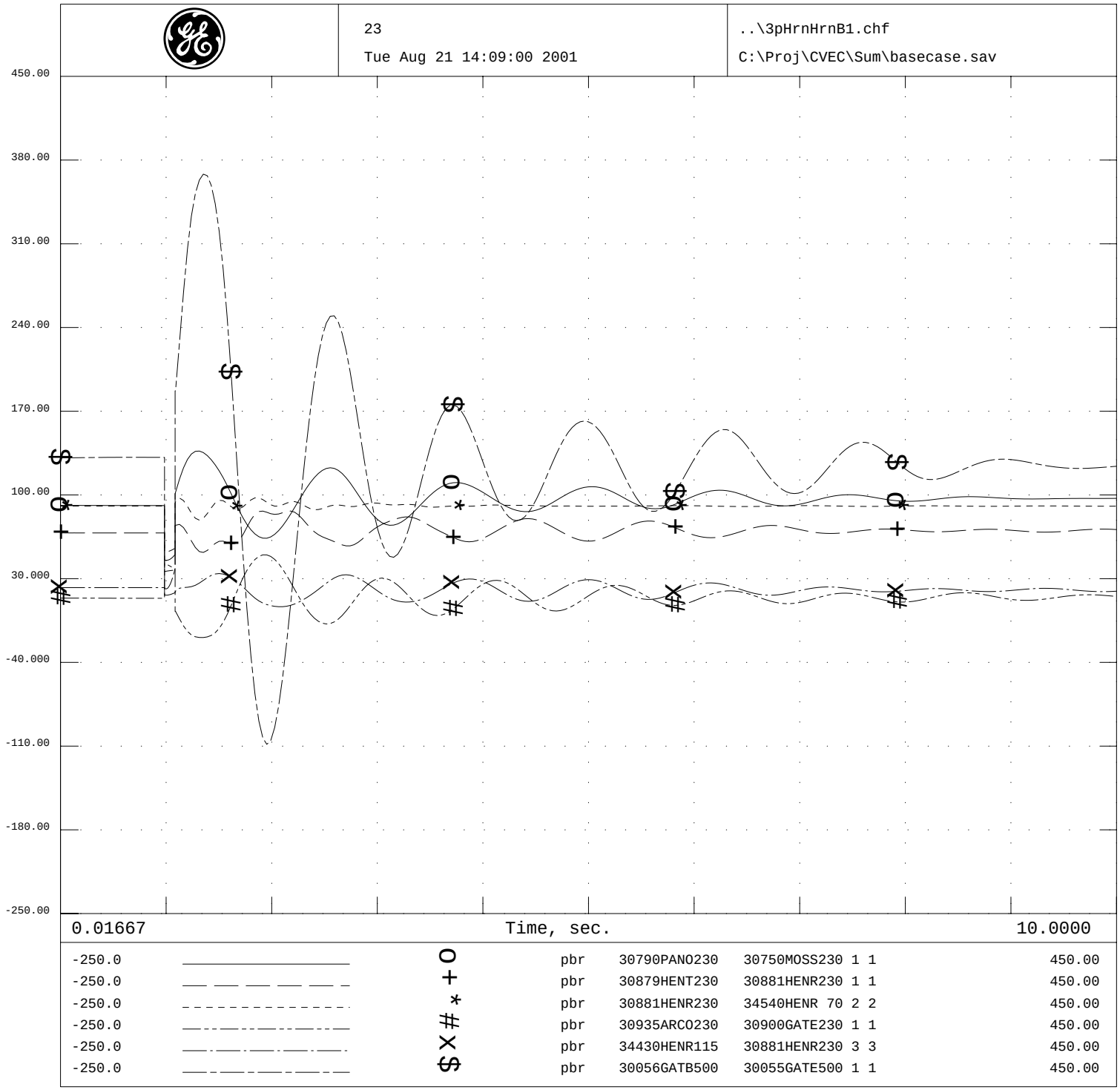

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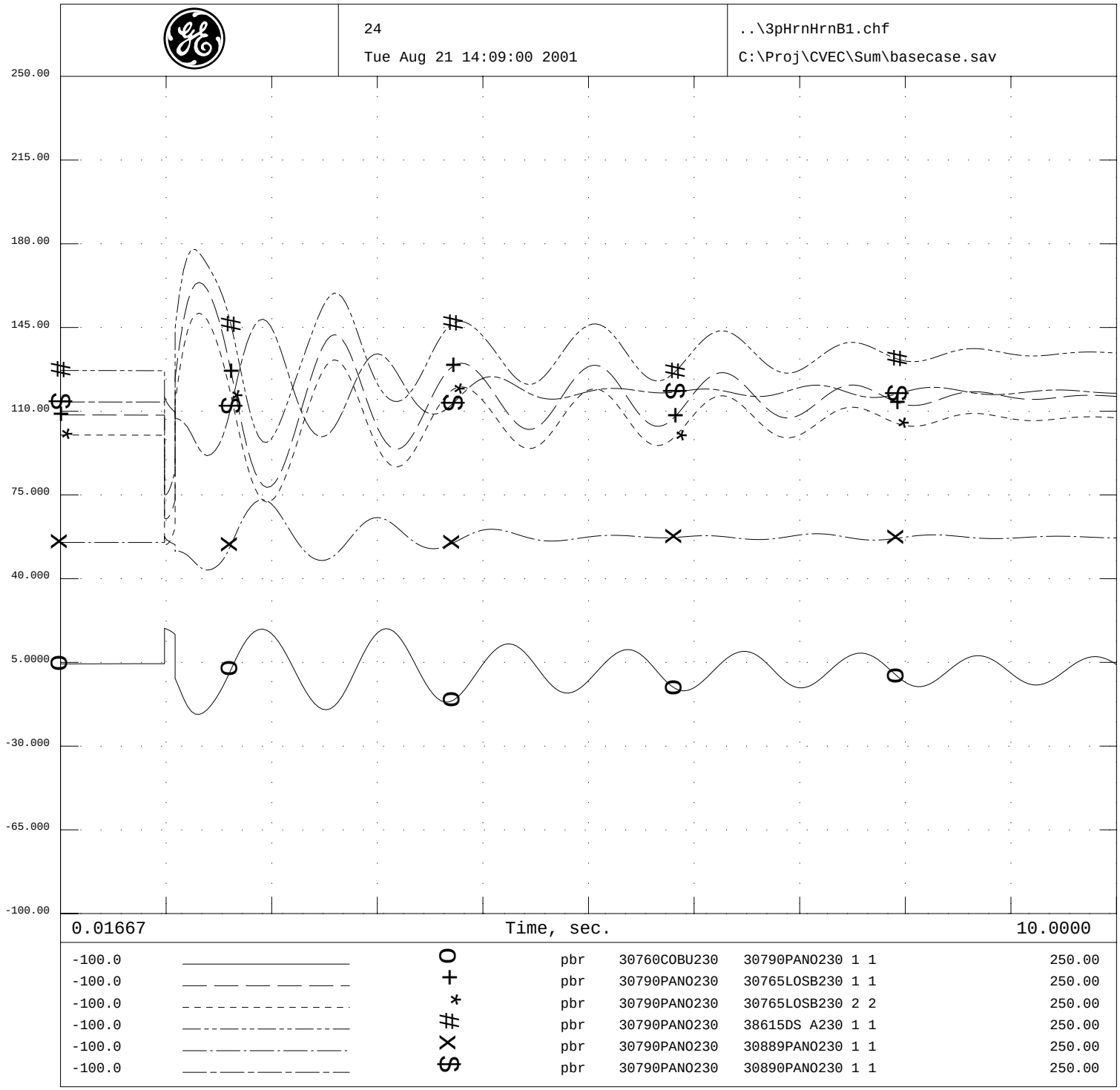

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Calpine Corporation
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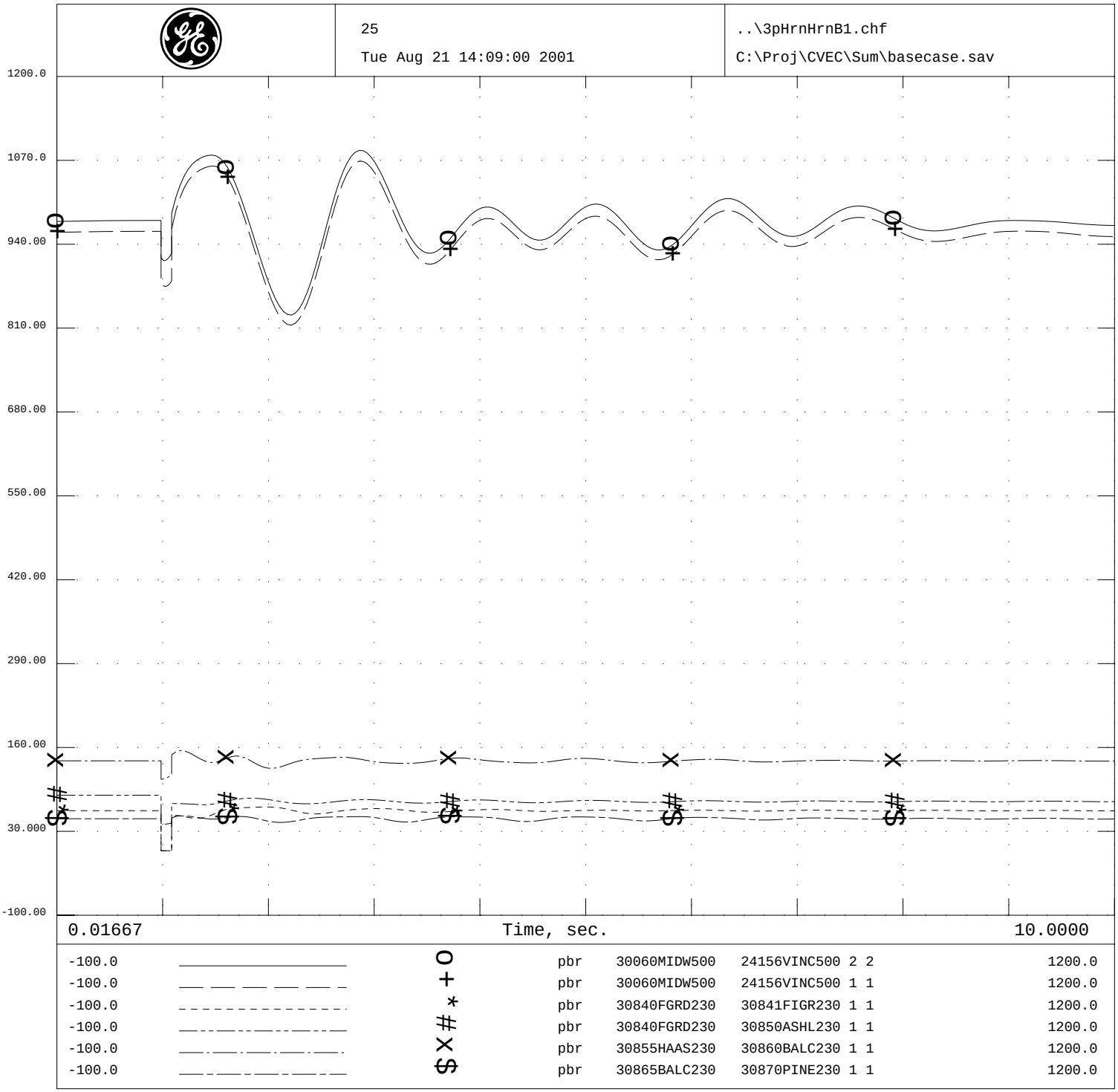

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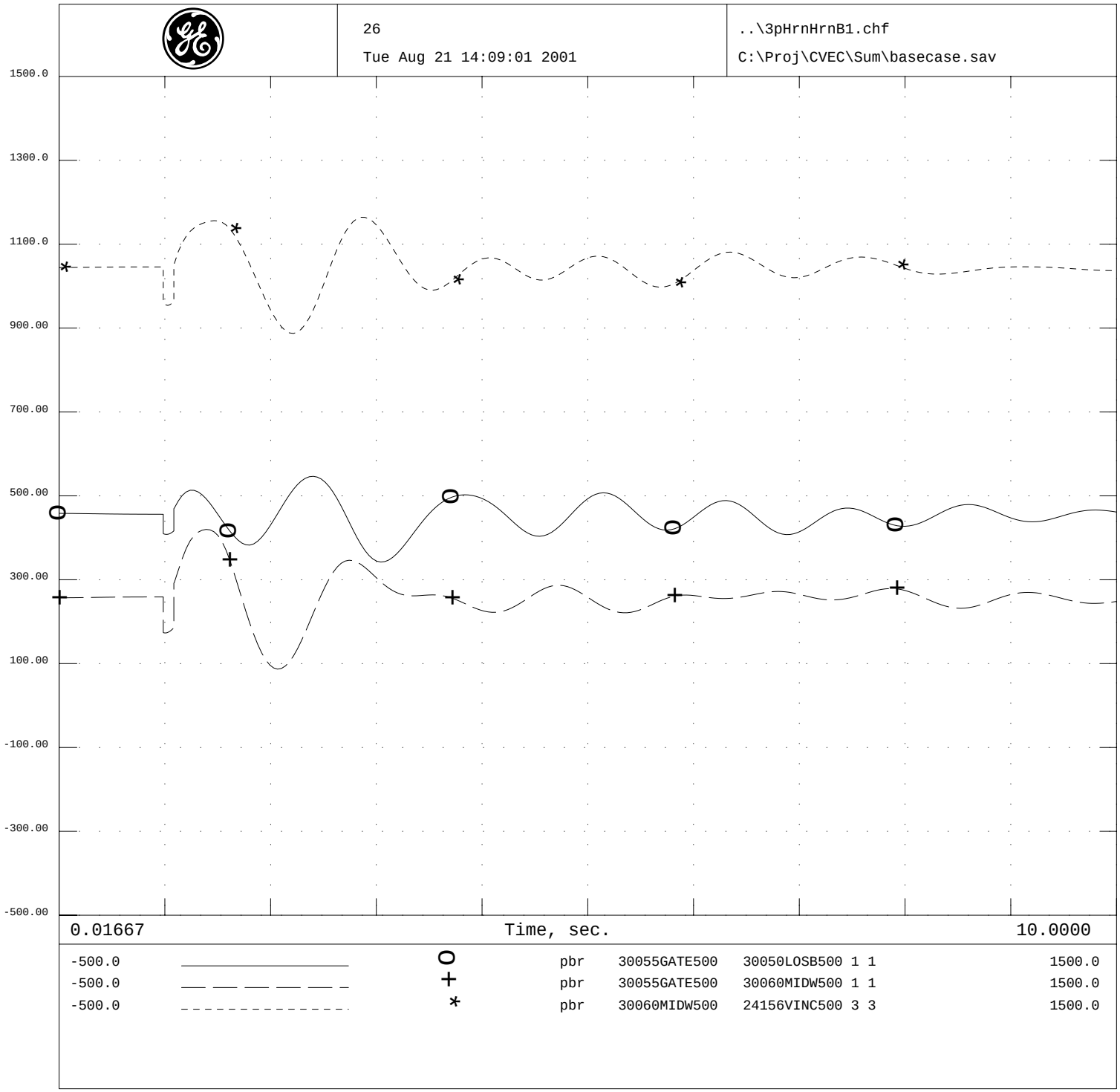

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Calpine Corporation
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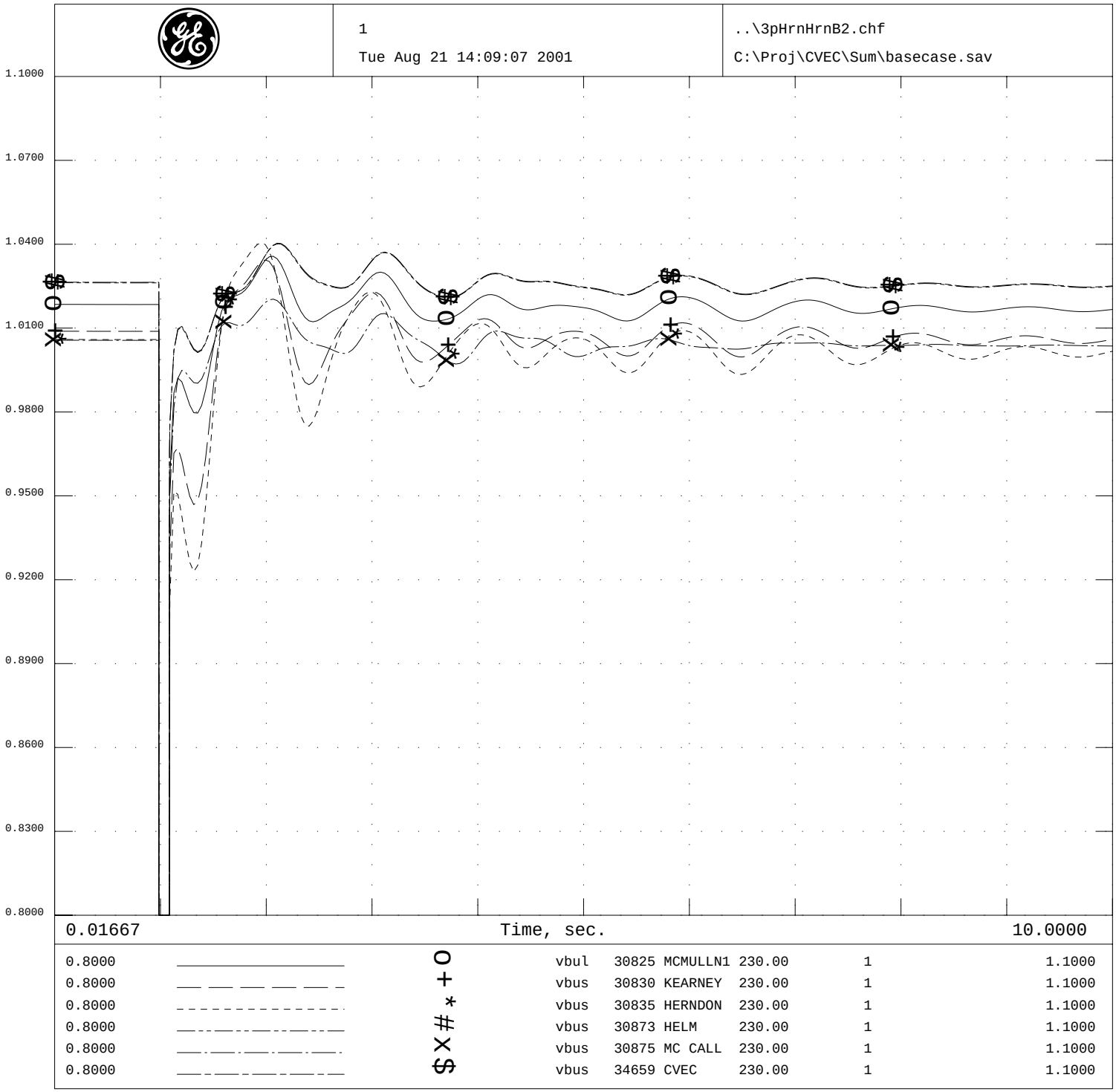

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Herndon 230kV Bus #2 Outage
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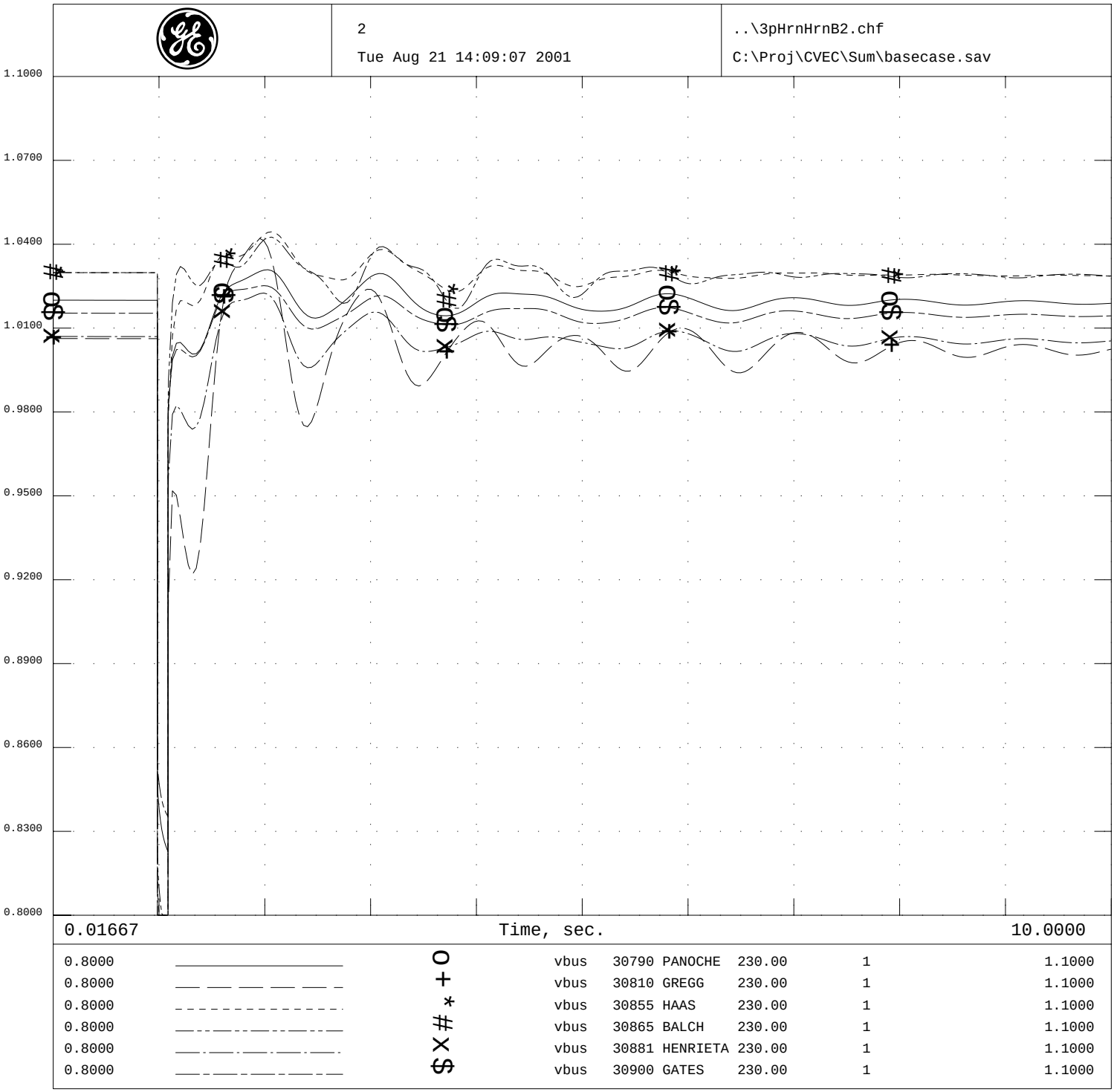
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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Calpine Corporation
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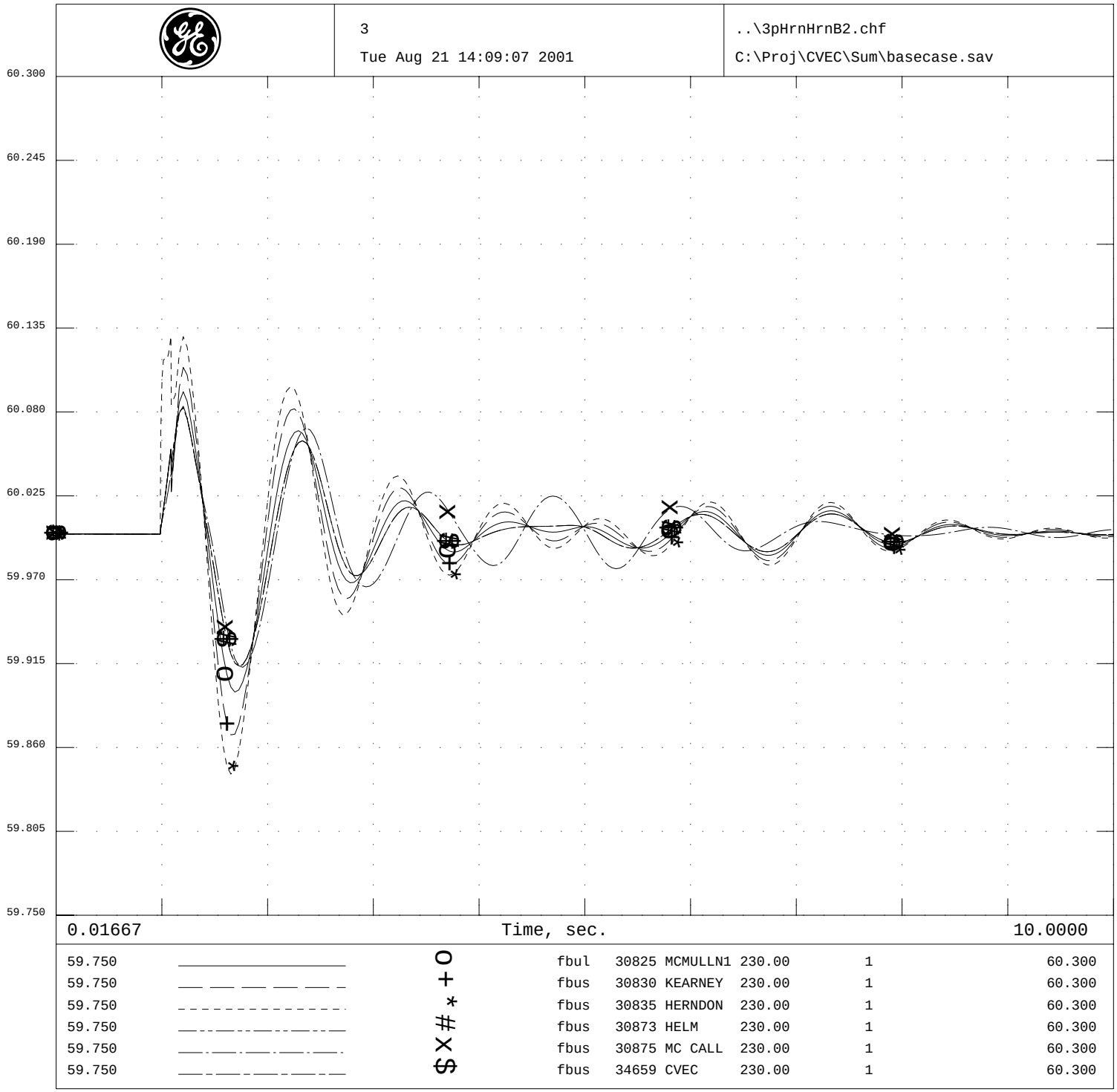

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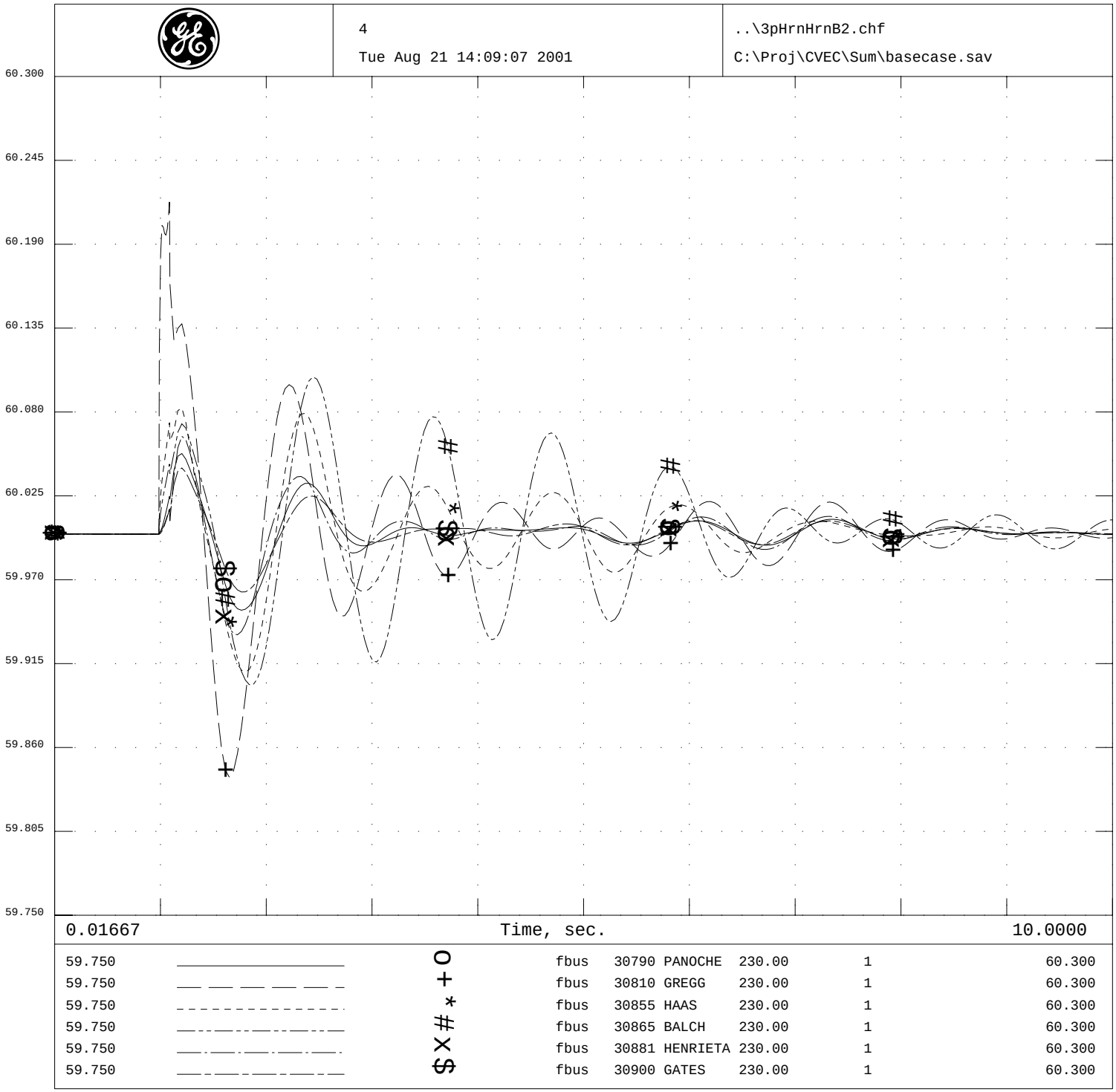
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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Calpine Corporation
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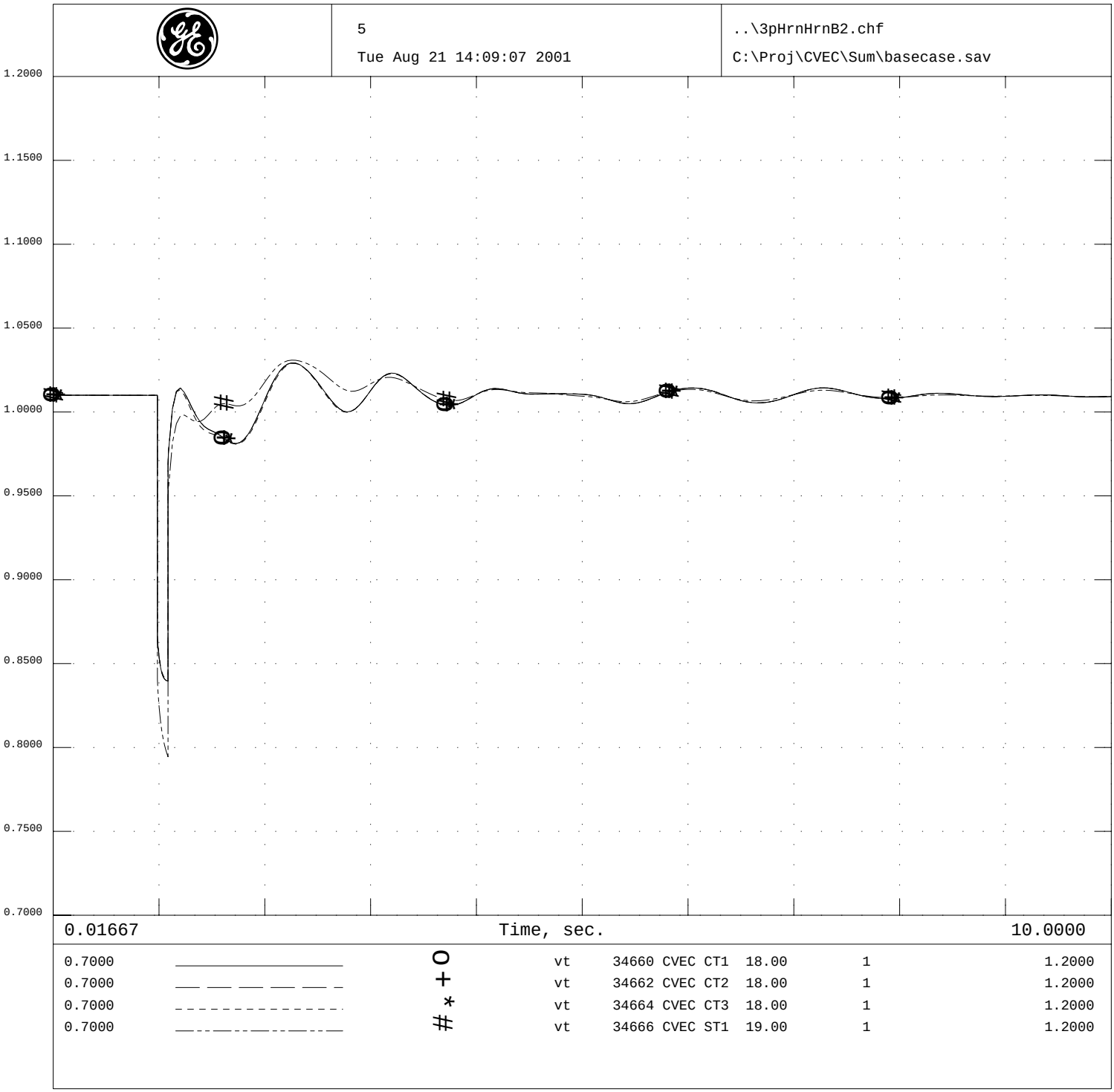

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2004 Summer Peak Base Case
CVEC @ 1100MW
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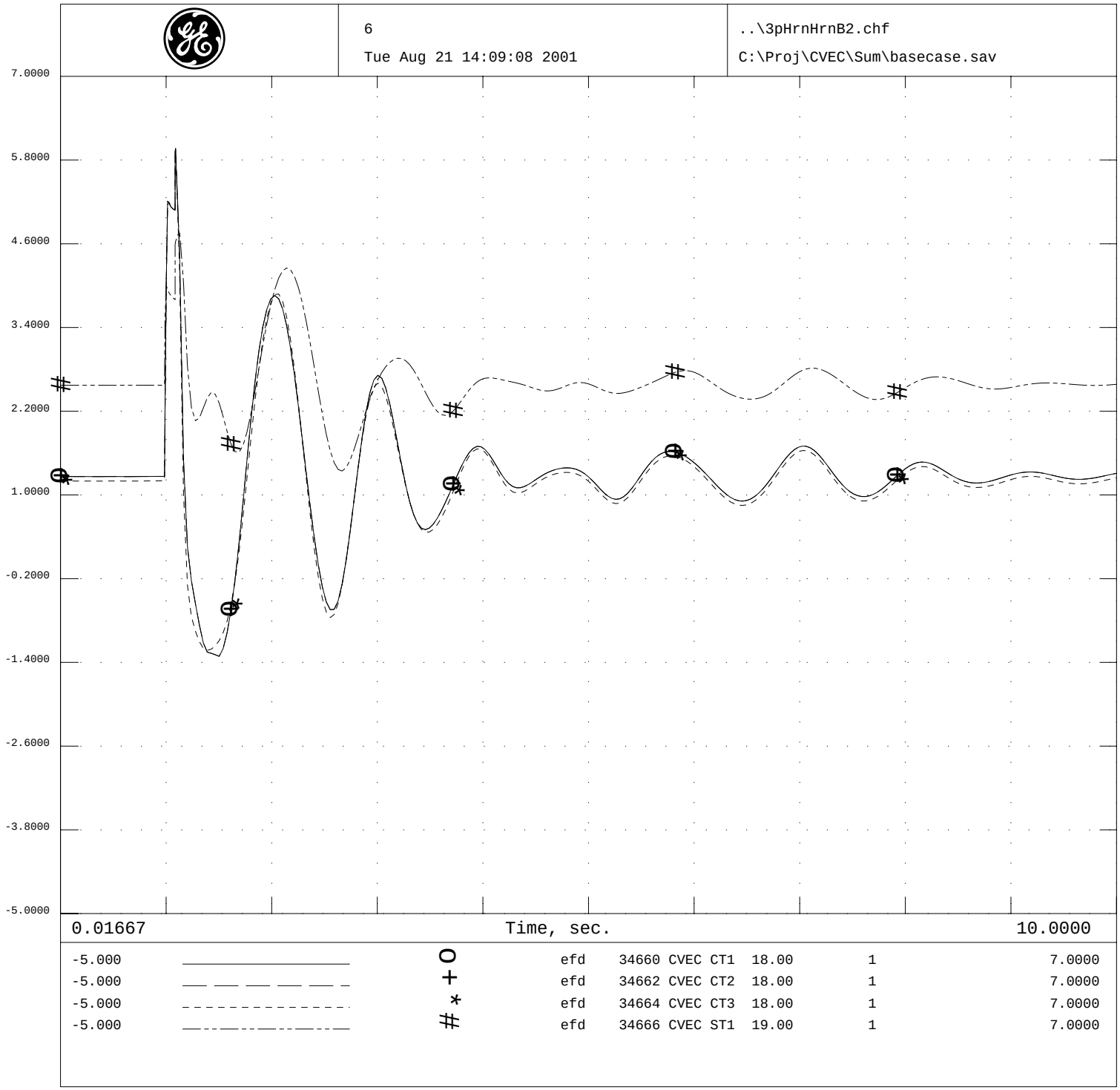
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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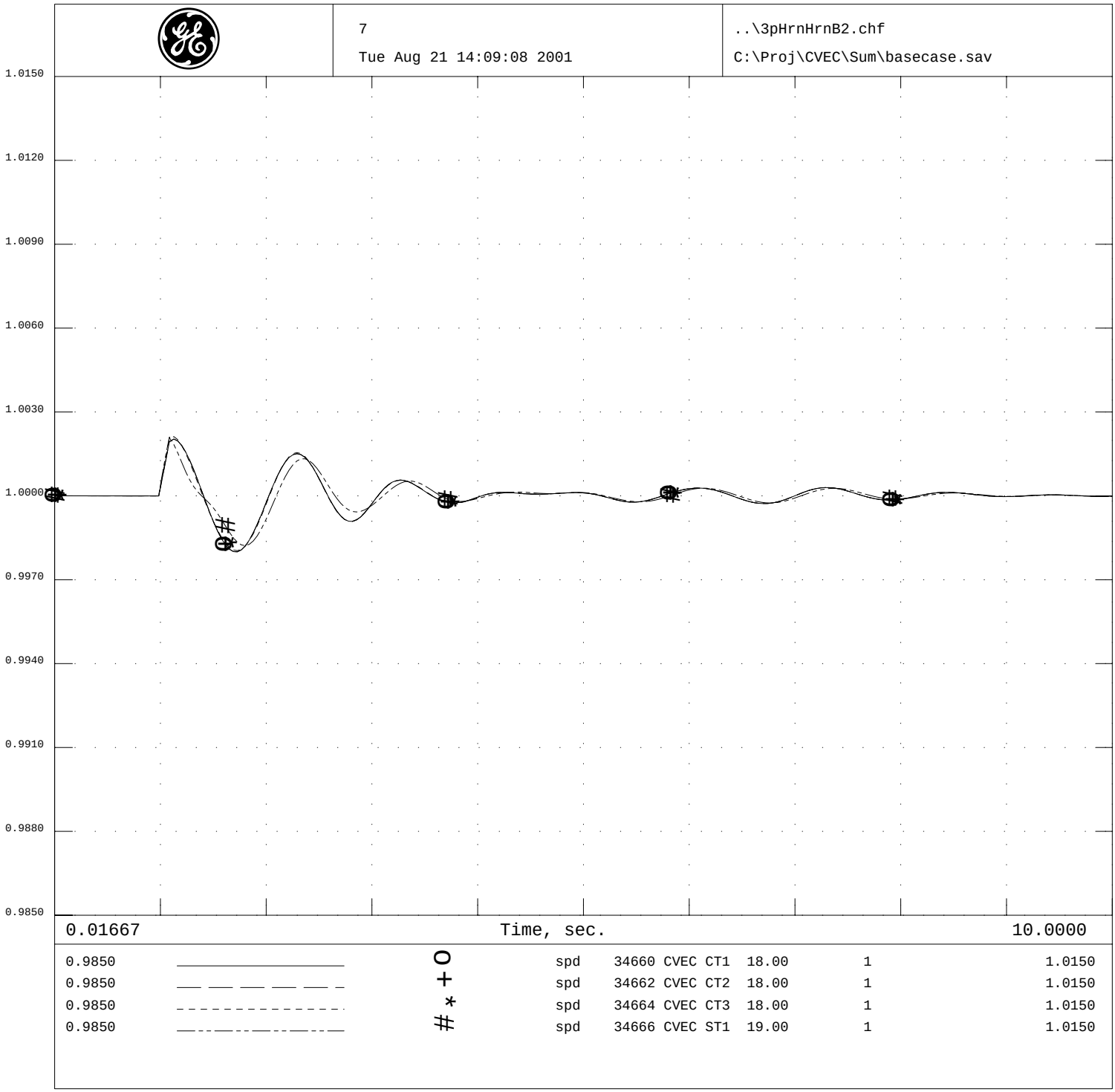
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Summer Peak Base Case
CVEC @ 1100MW
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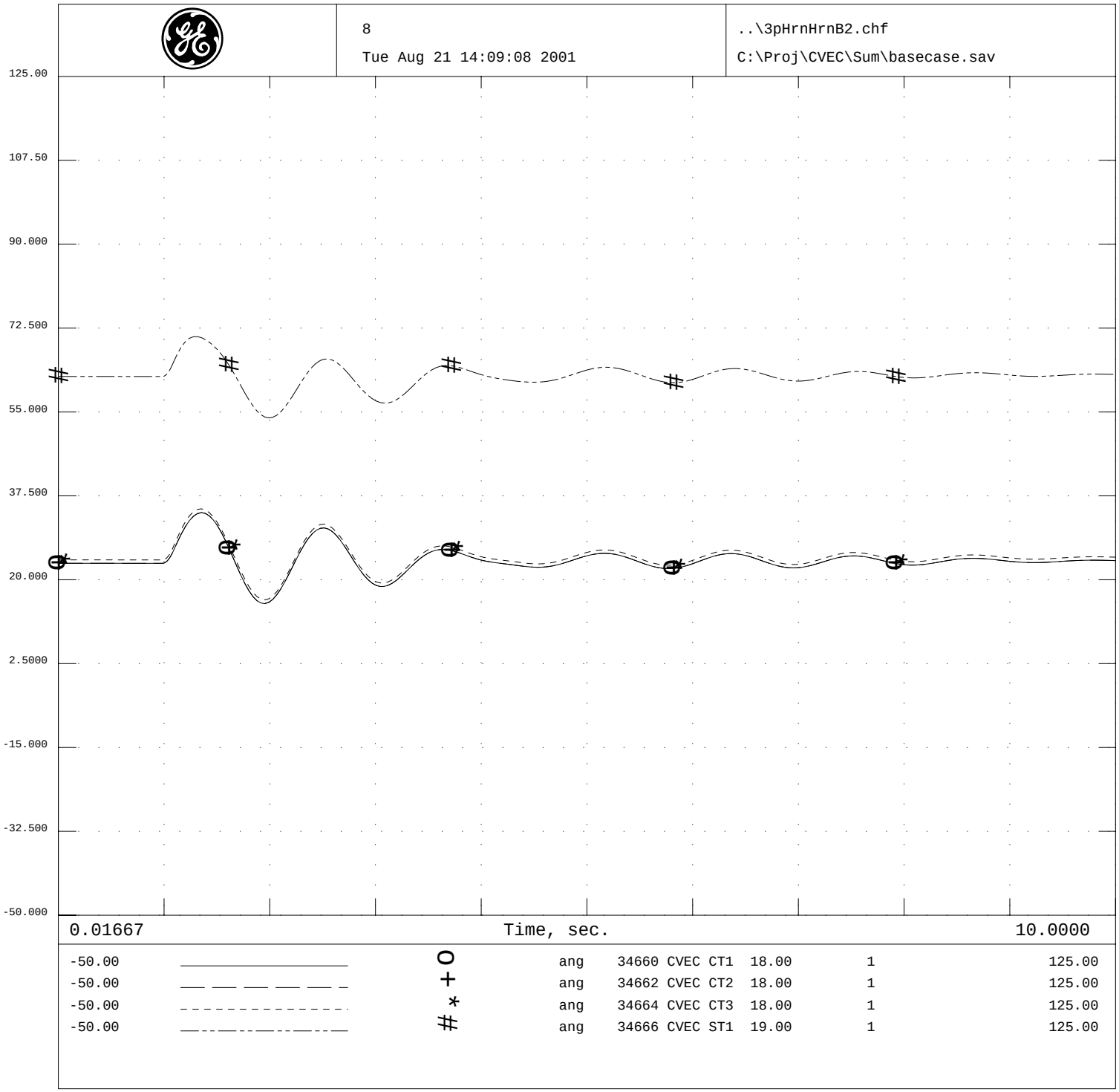
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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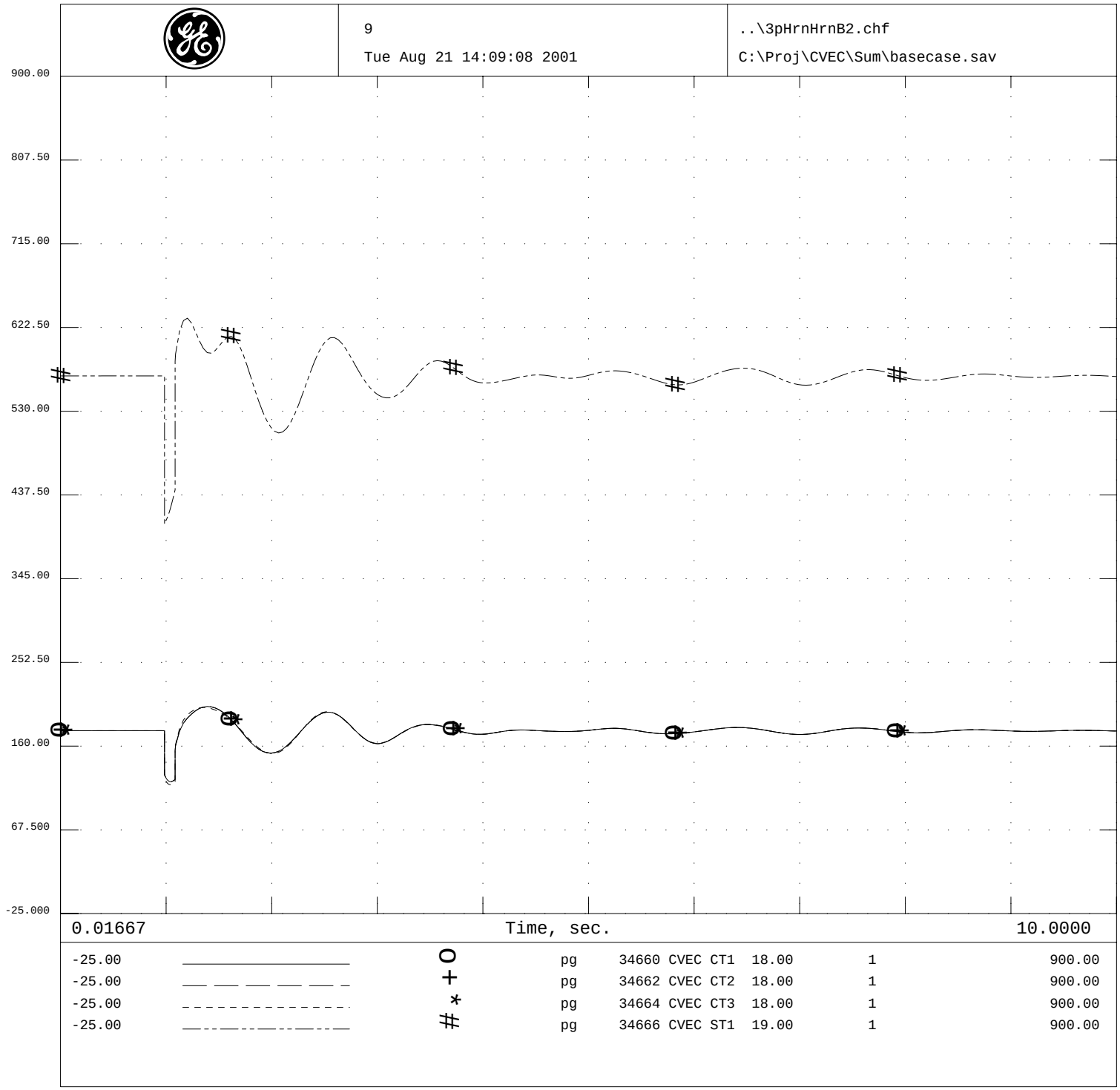
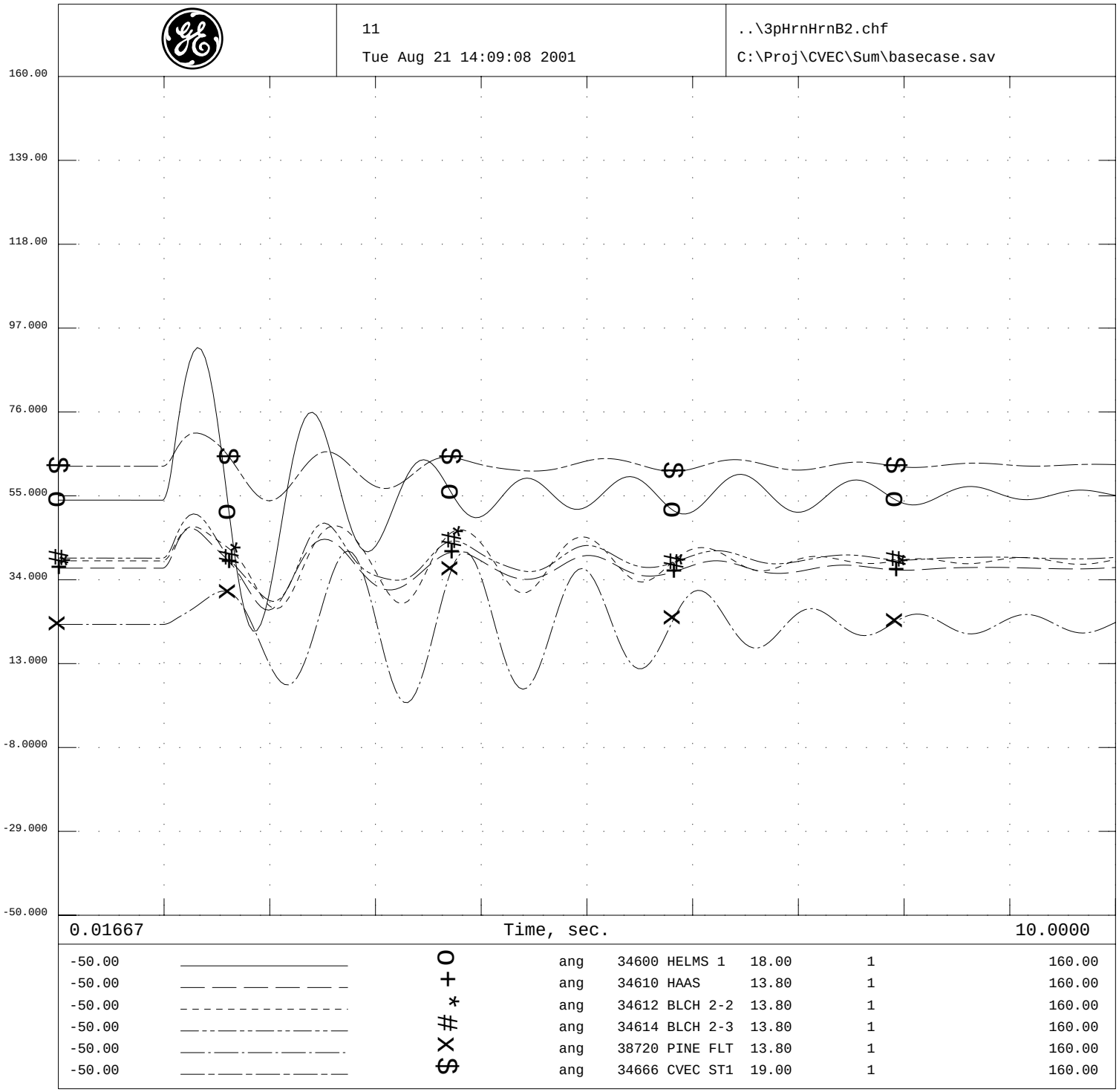
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Herndon 230kV Bus #2 Outage
3 phase 6 cycle fault at Herndon 230kV bus and clear bus #2

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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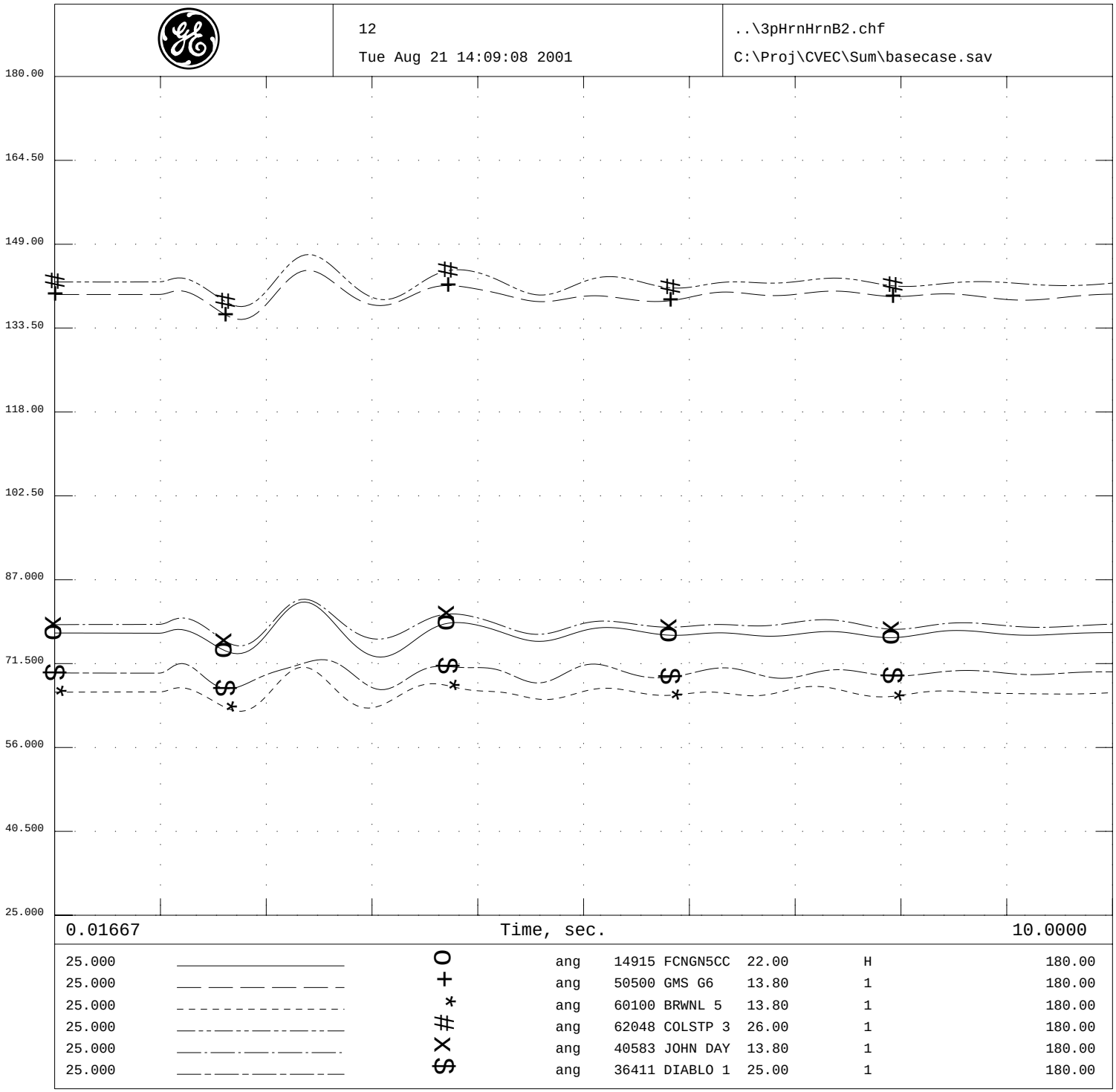
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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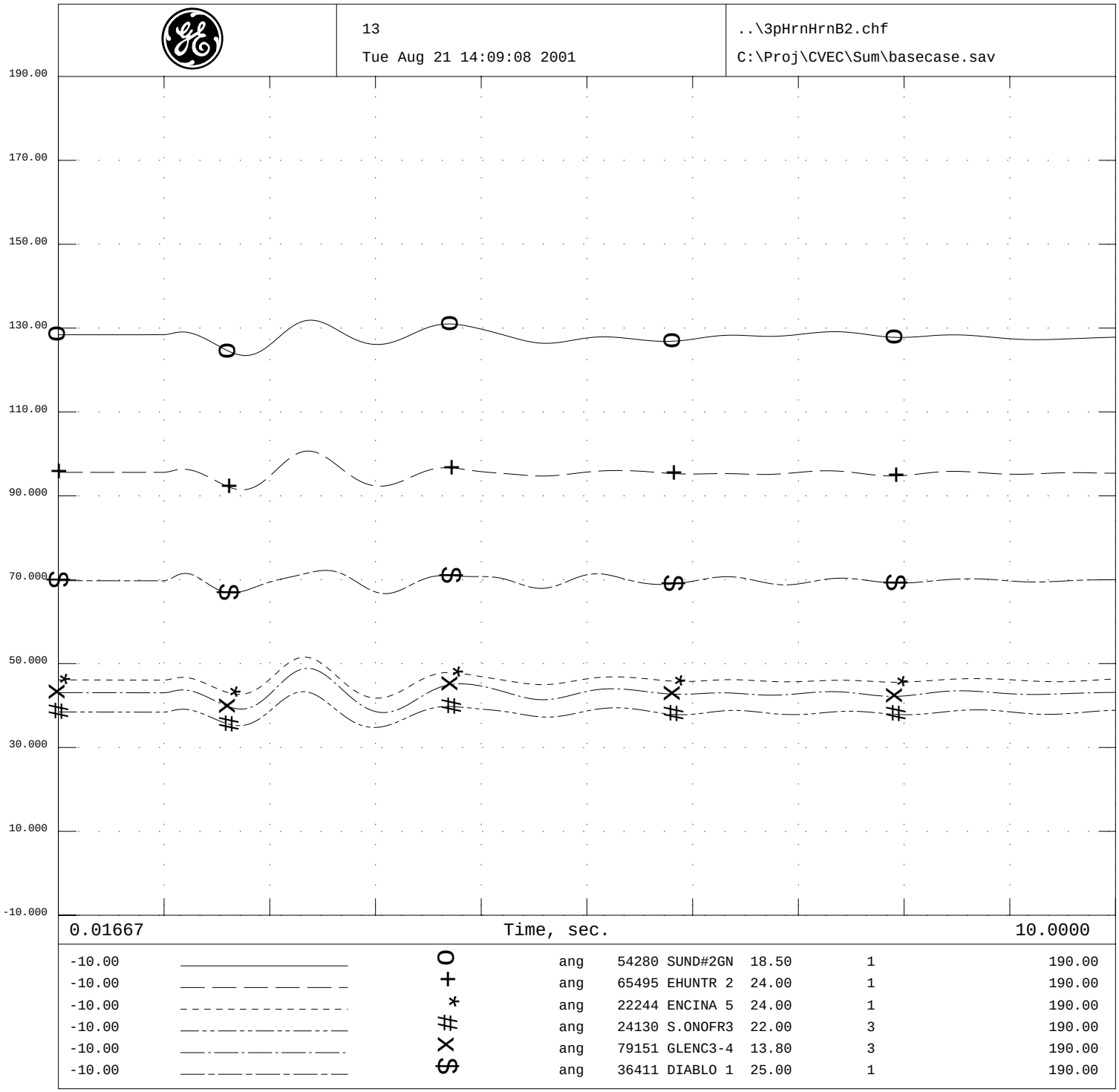
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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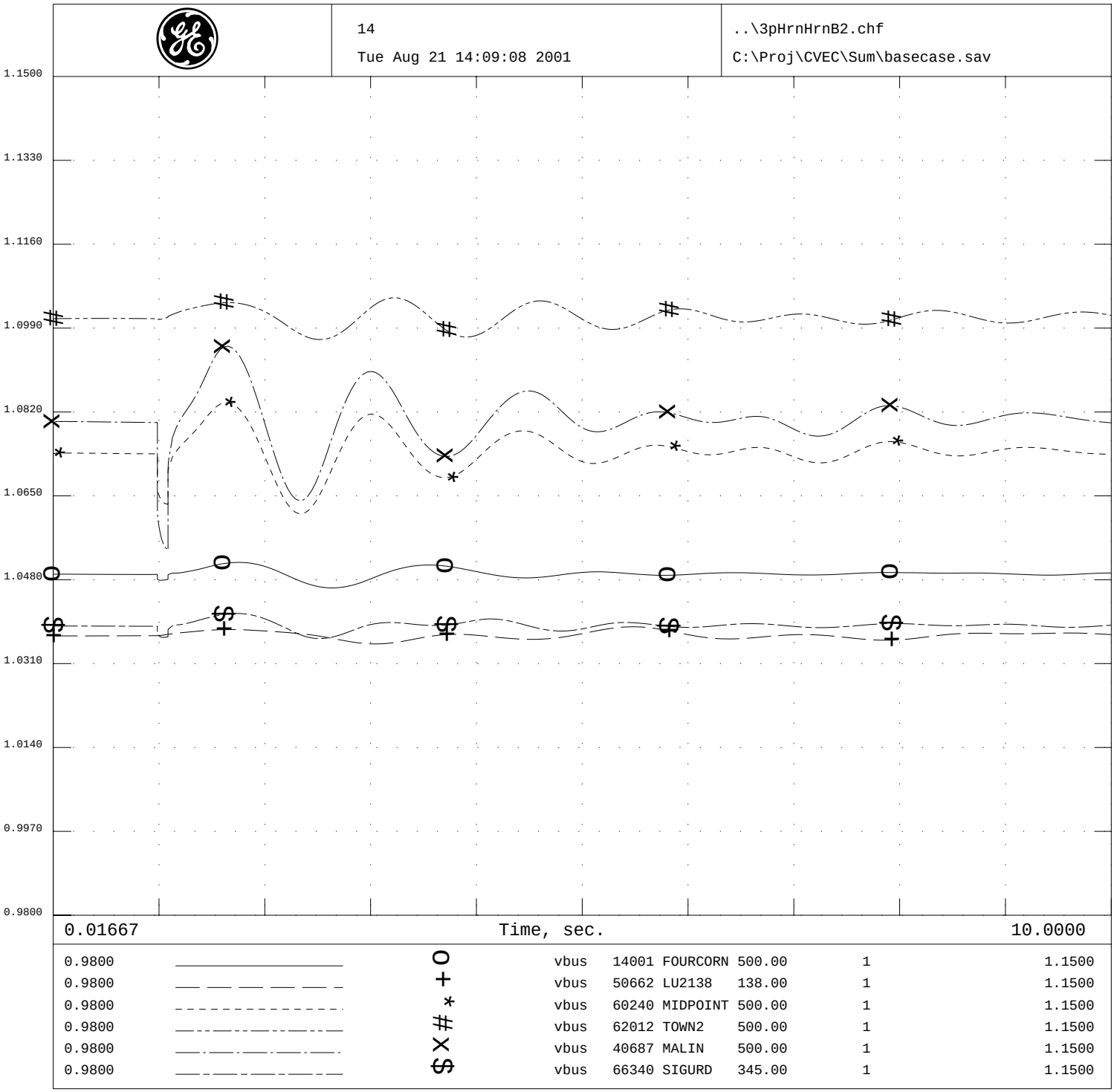

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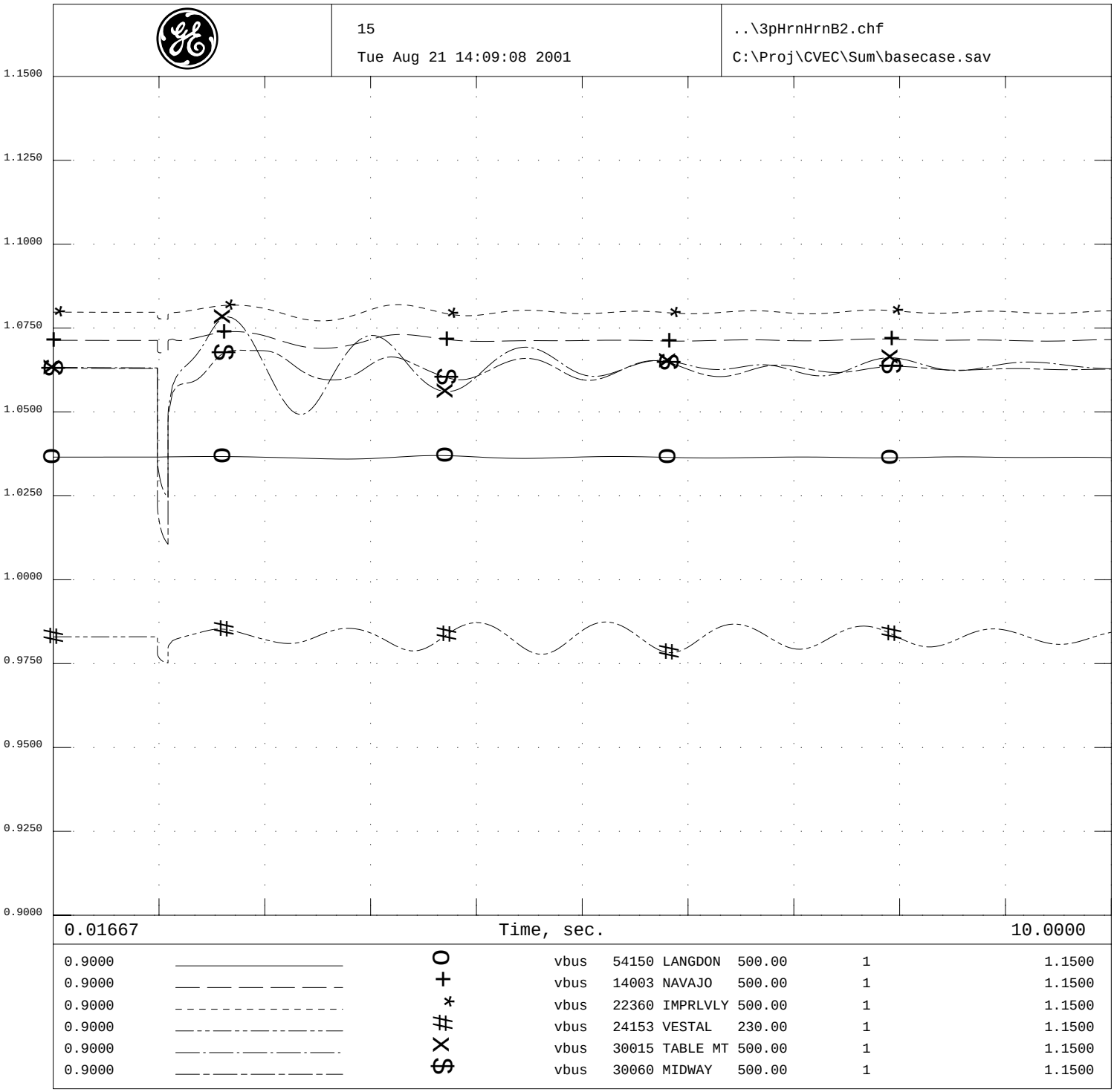
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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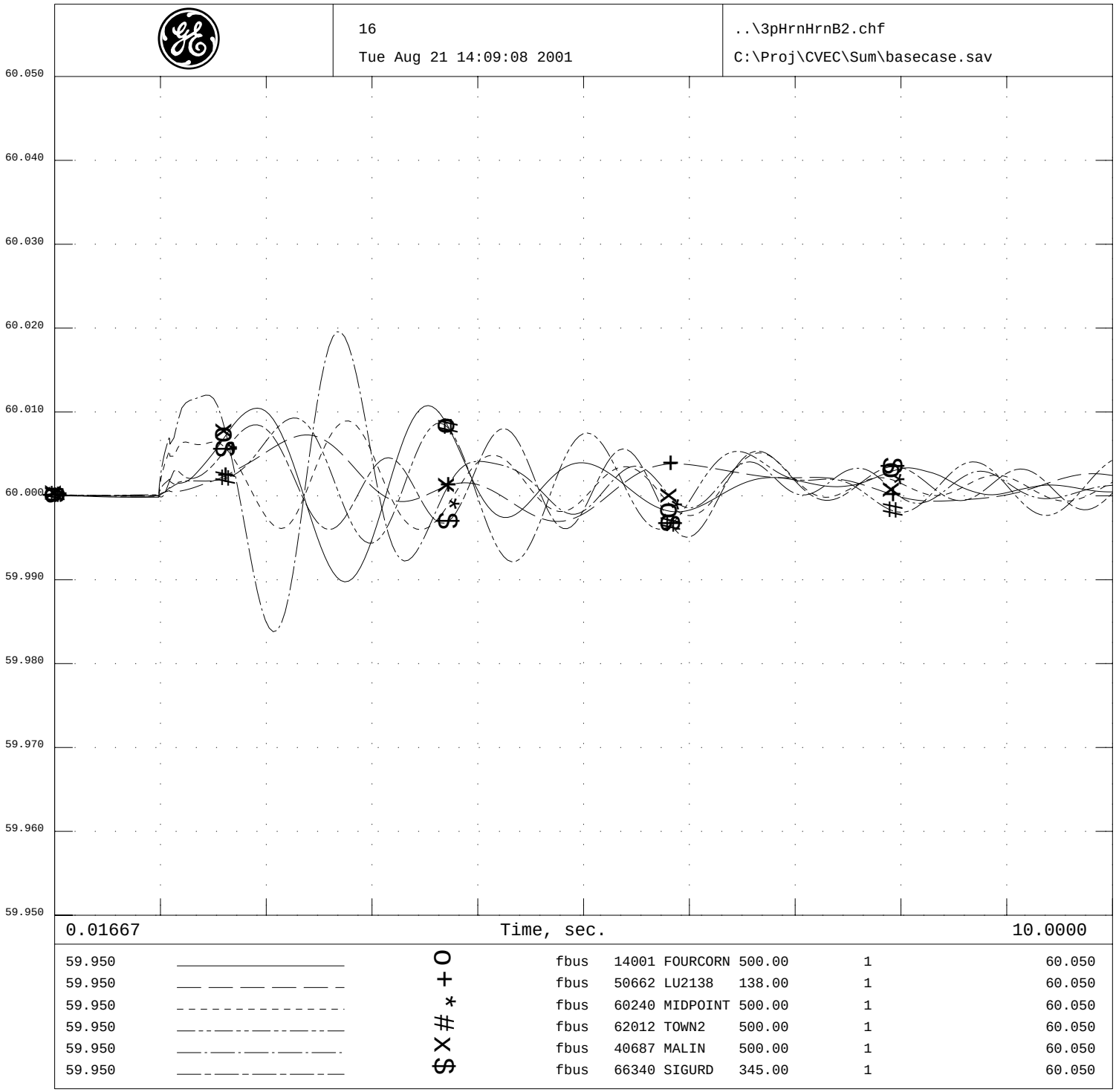

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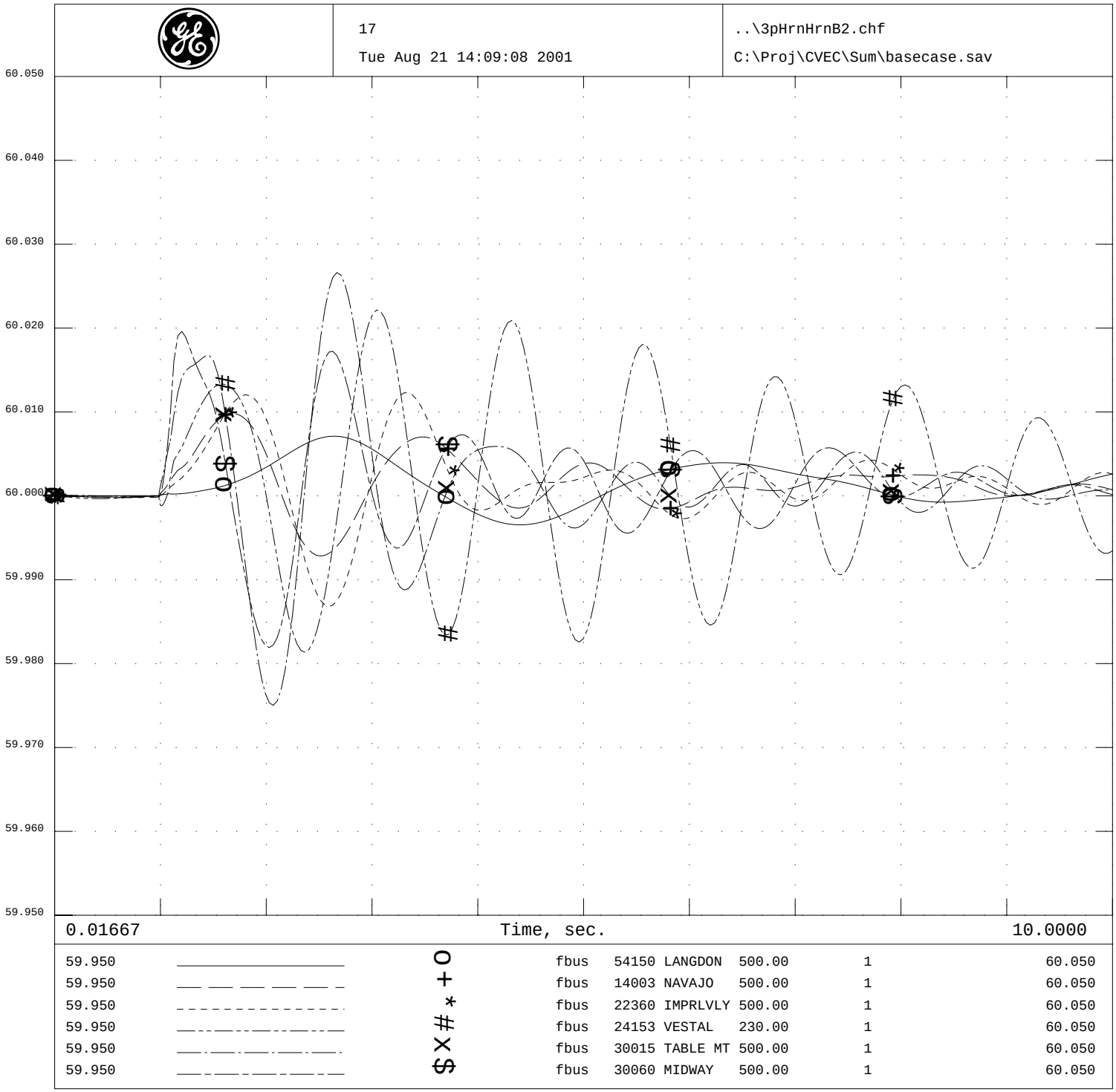
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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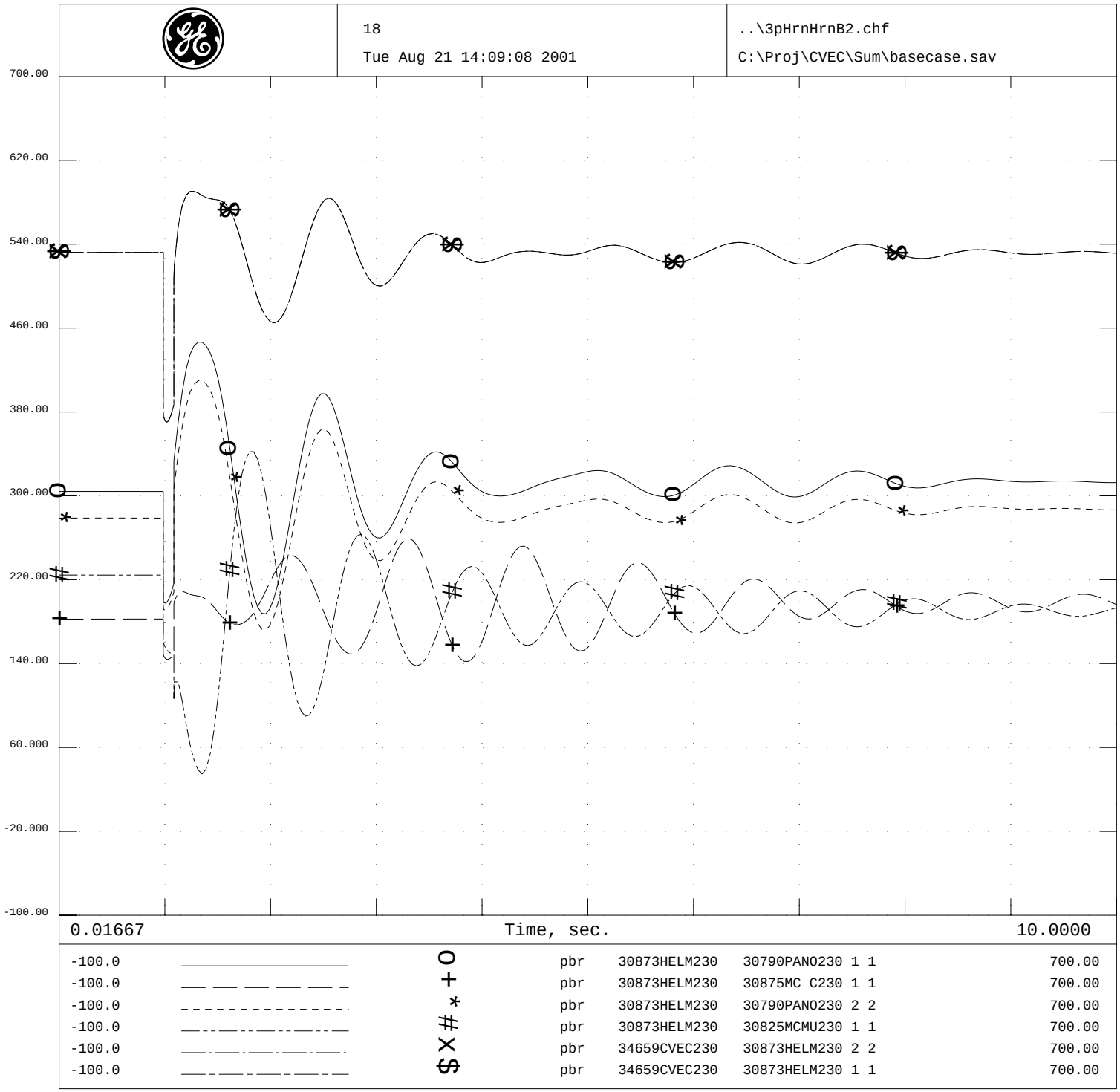

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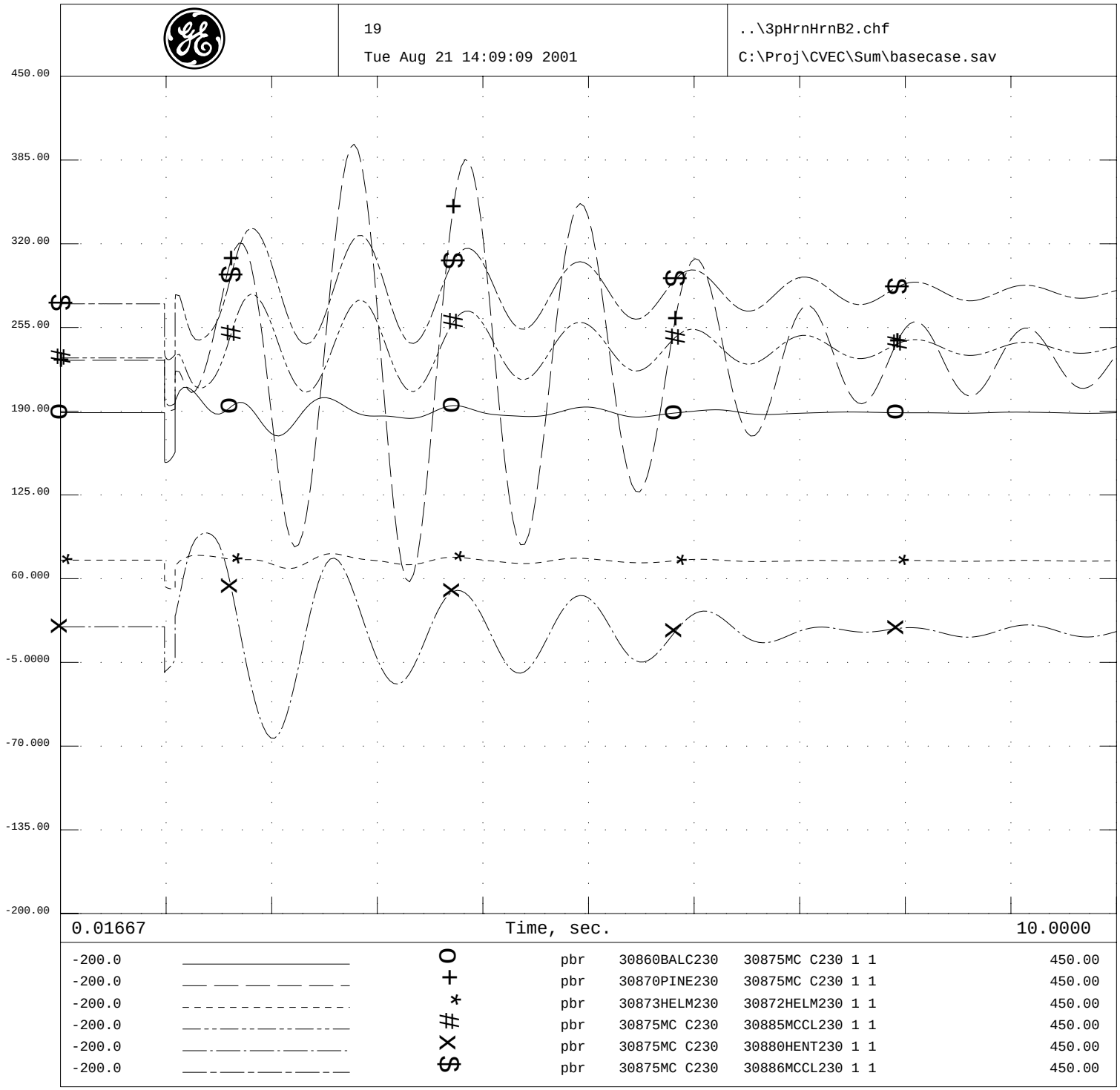
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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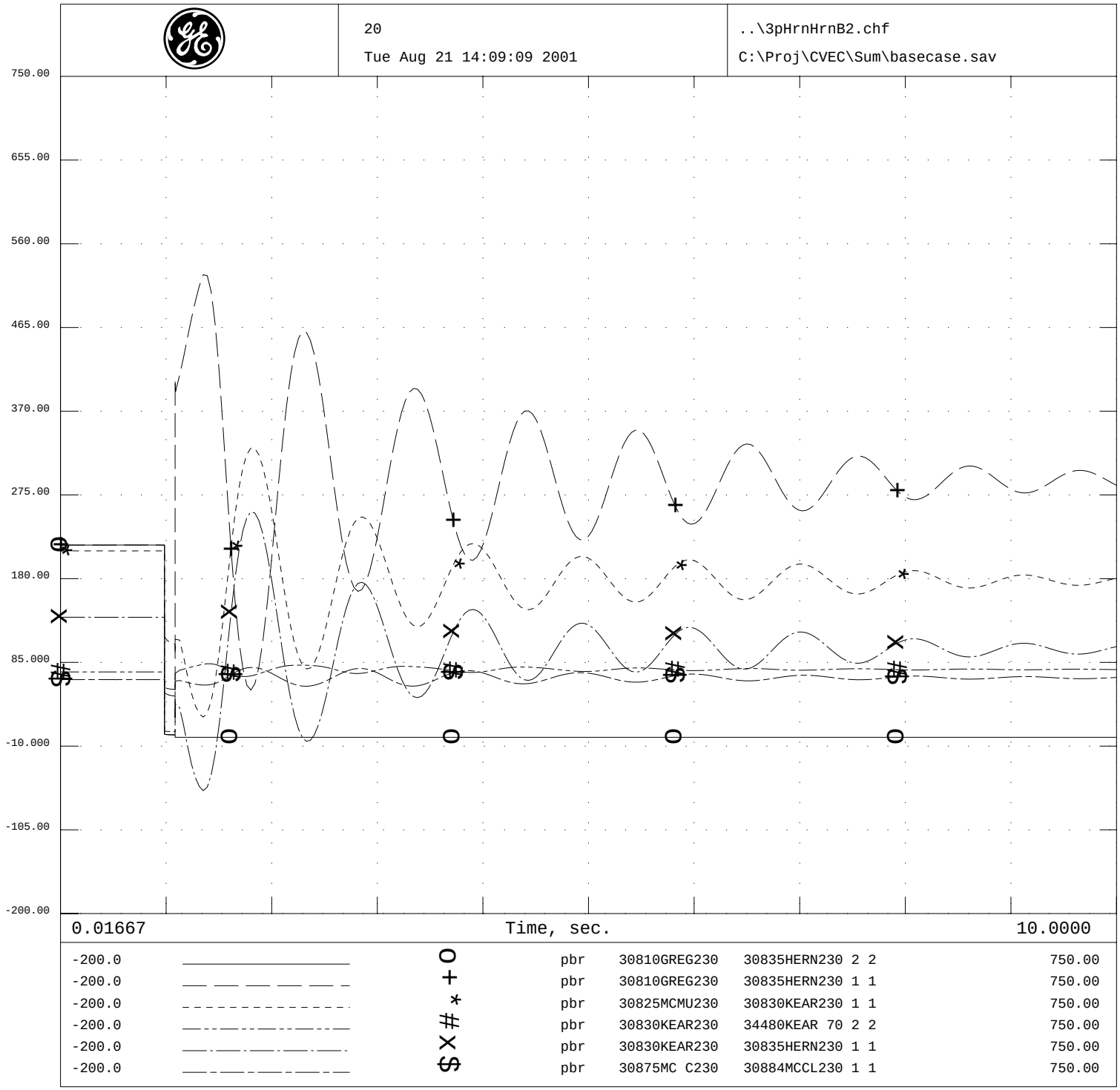

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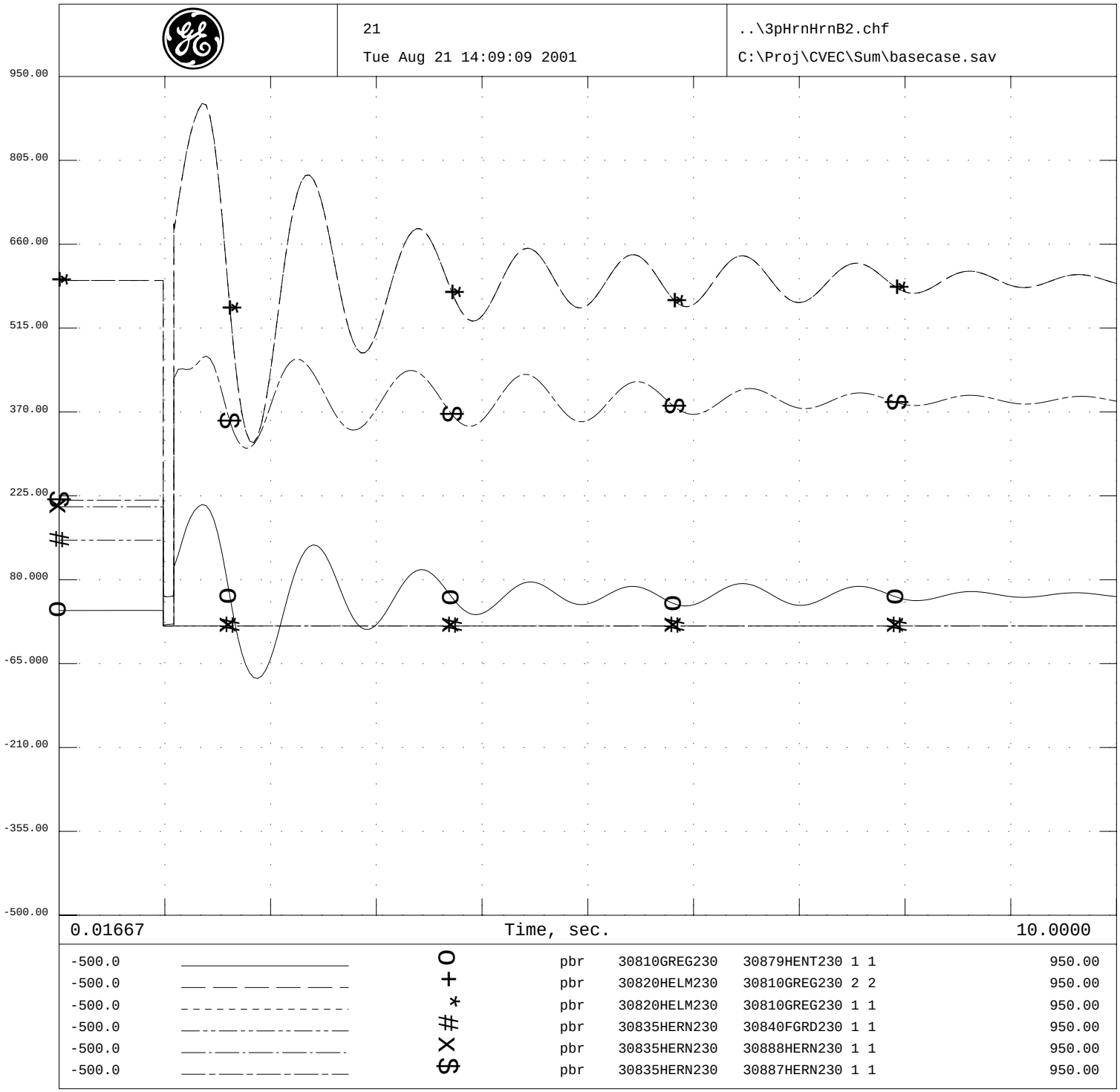

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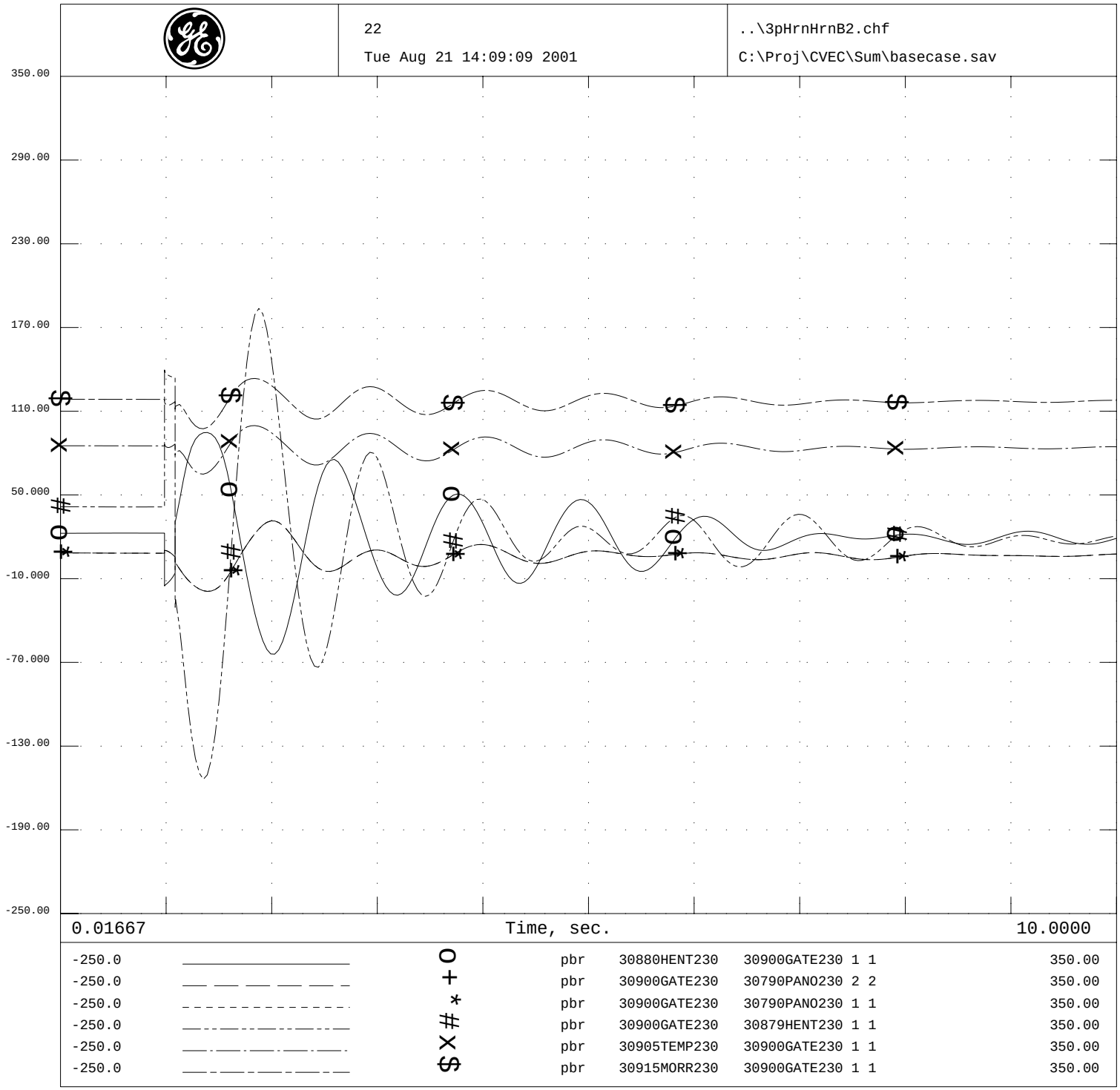

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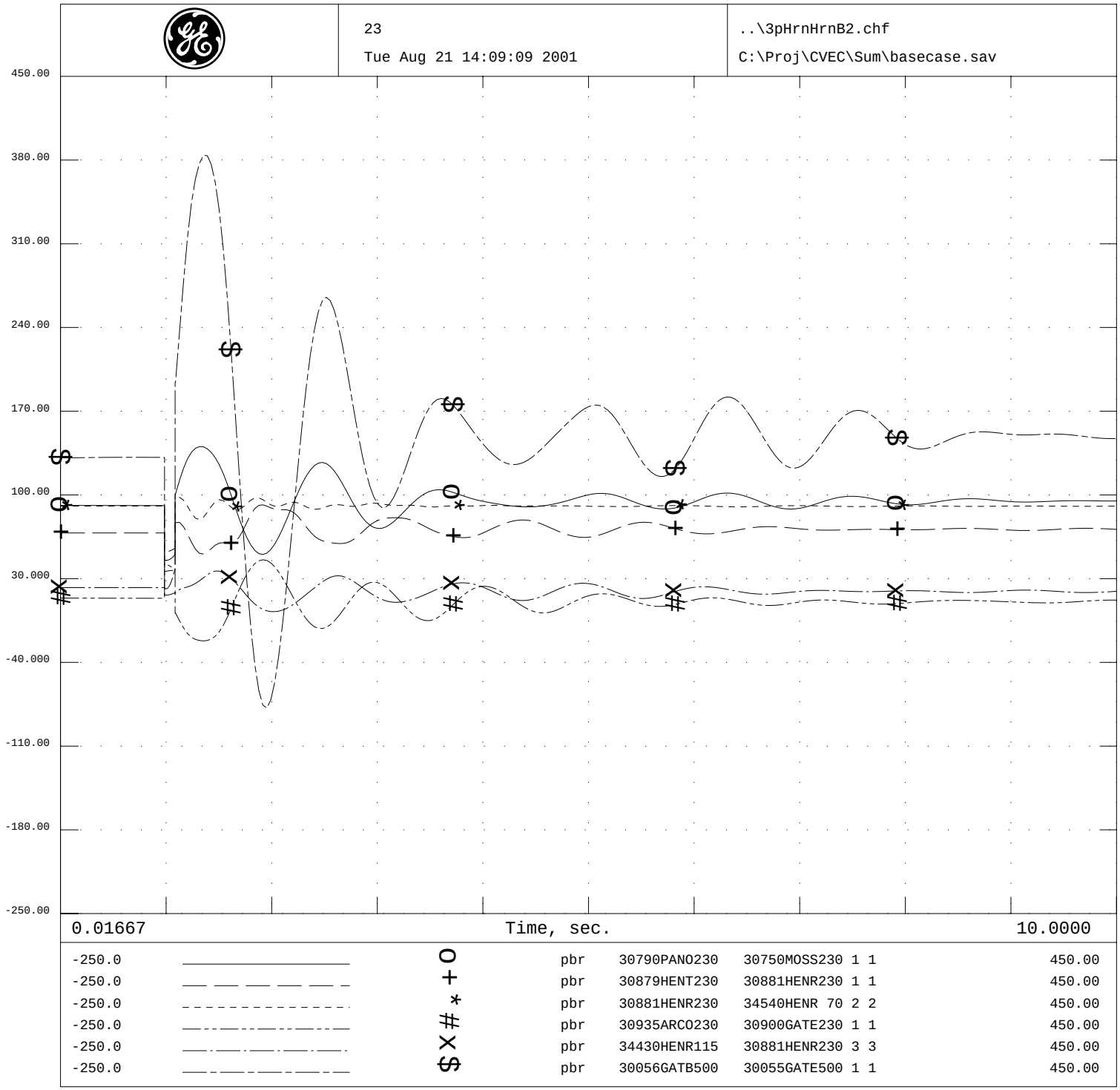

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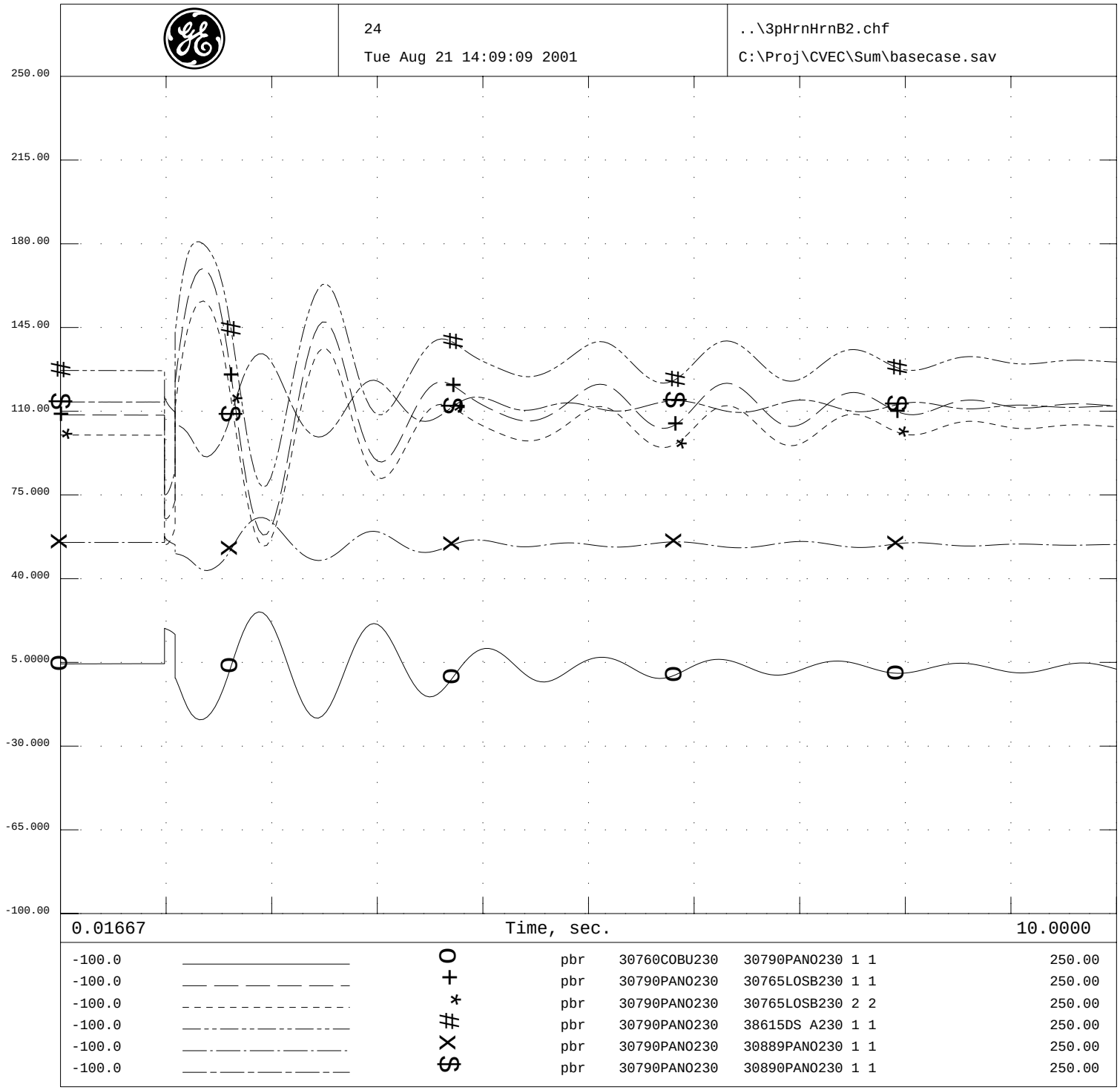

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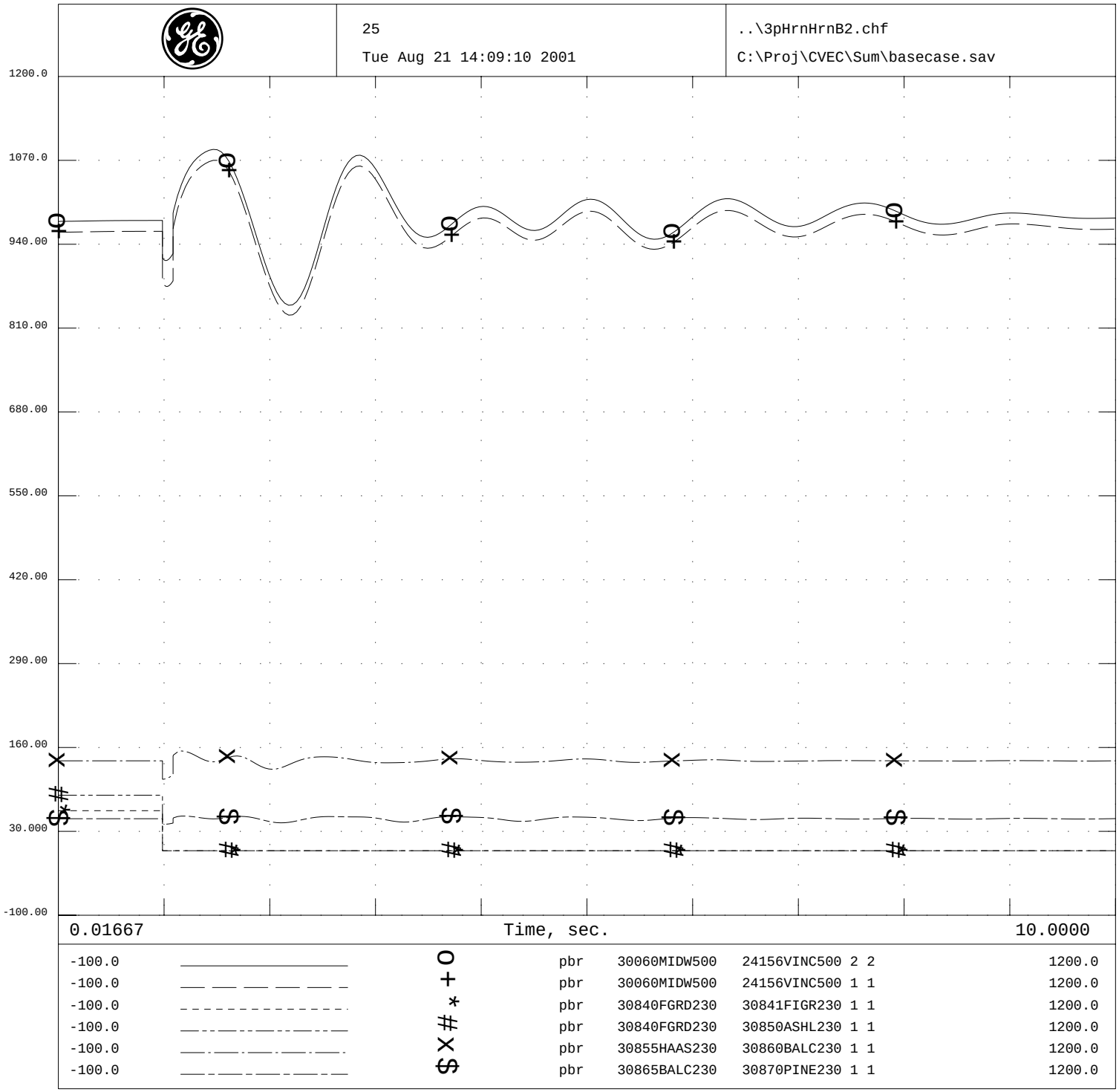

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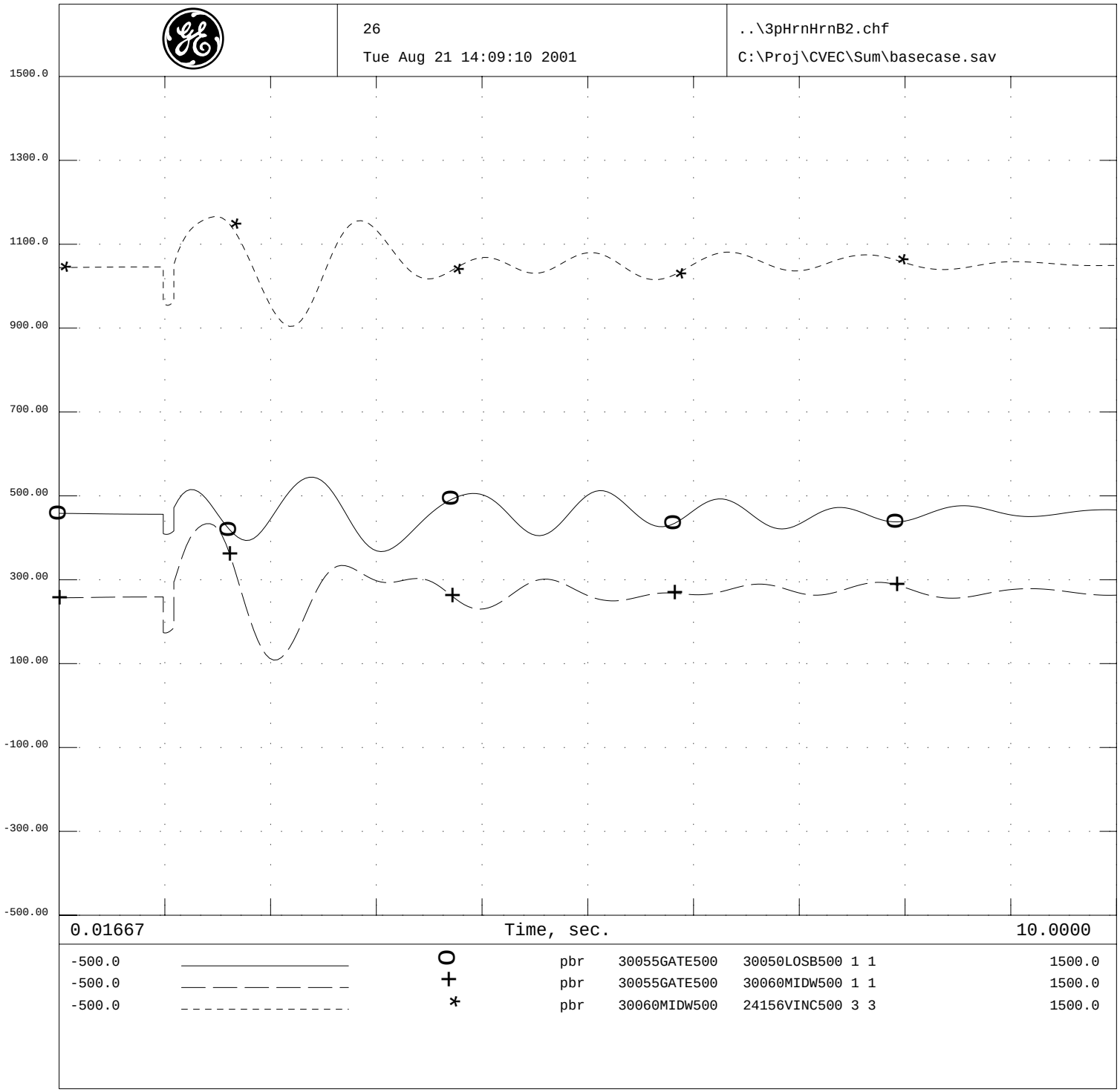

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Calpine Corporation
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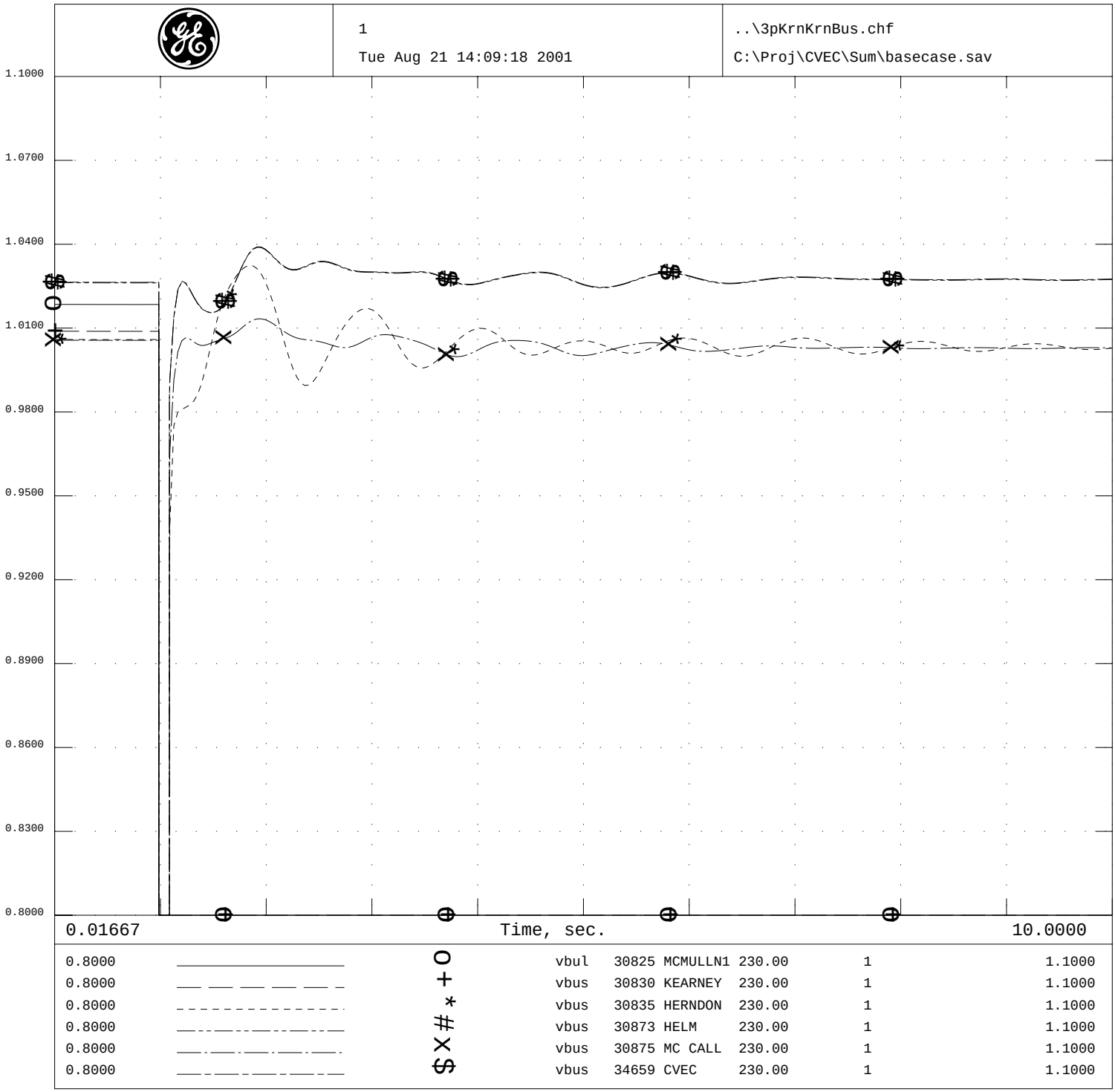

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Kearny 230kV Bus Outage
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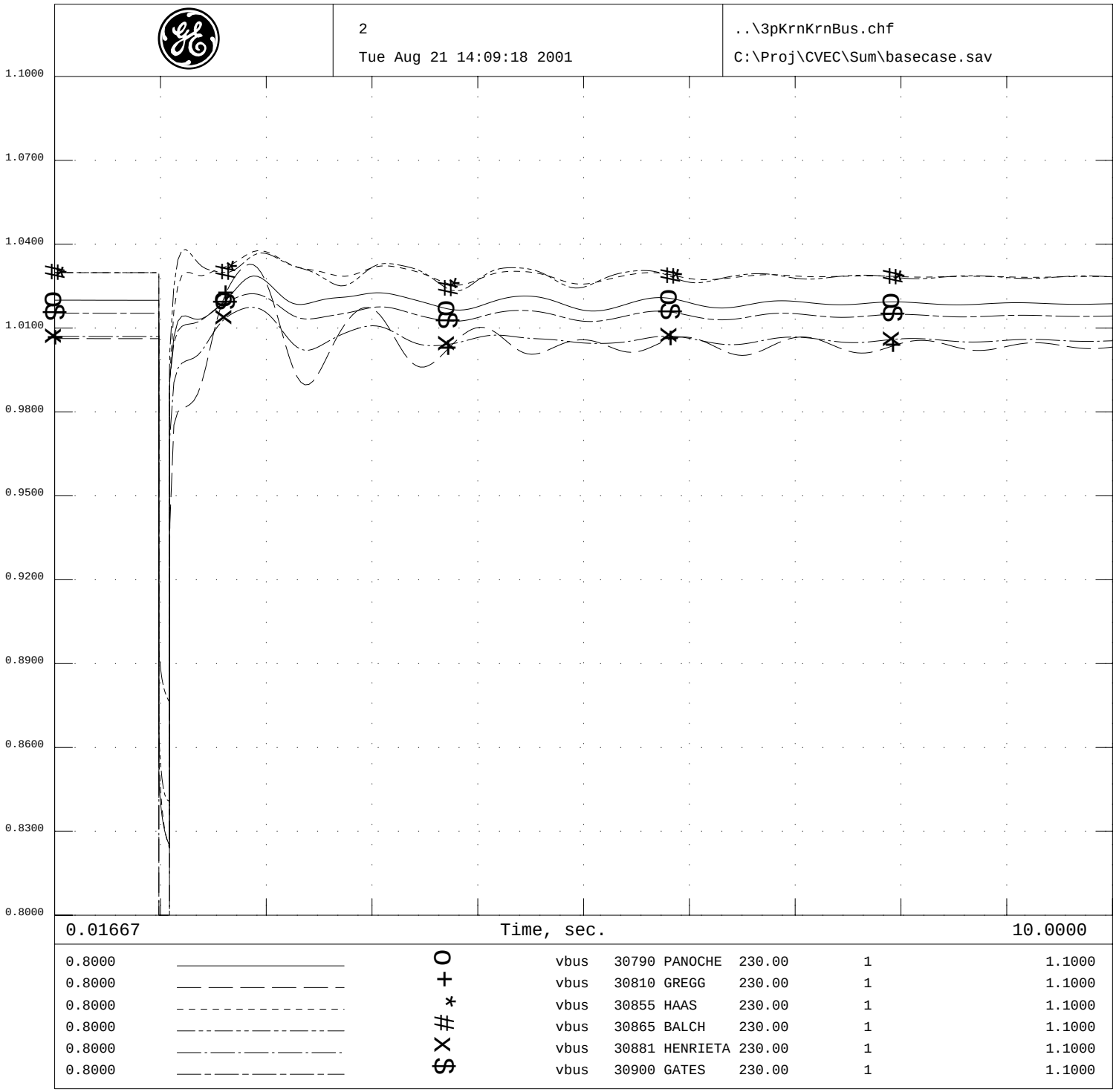
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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Calpine Corporation
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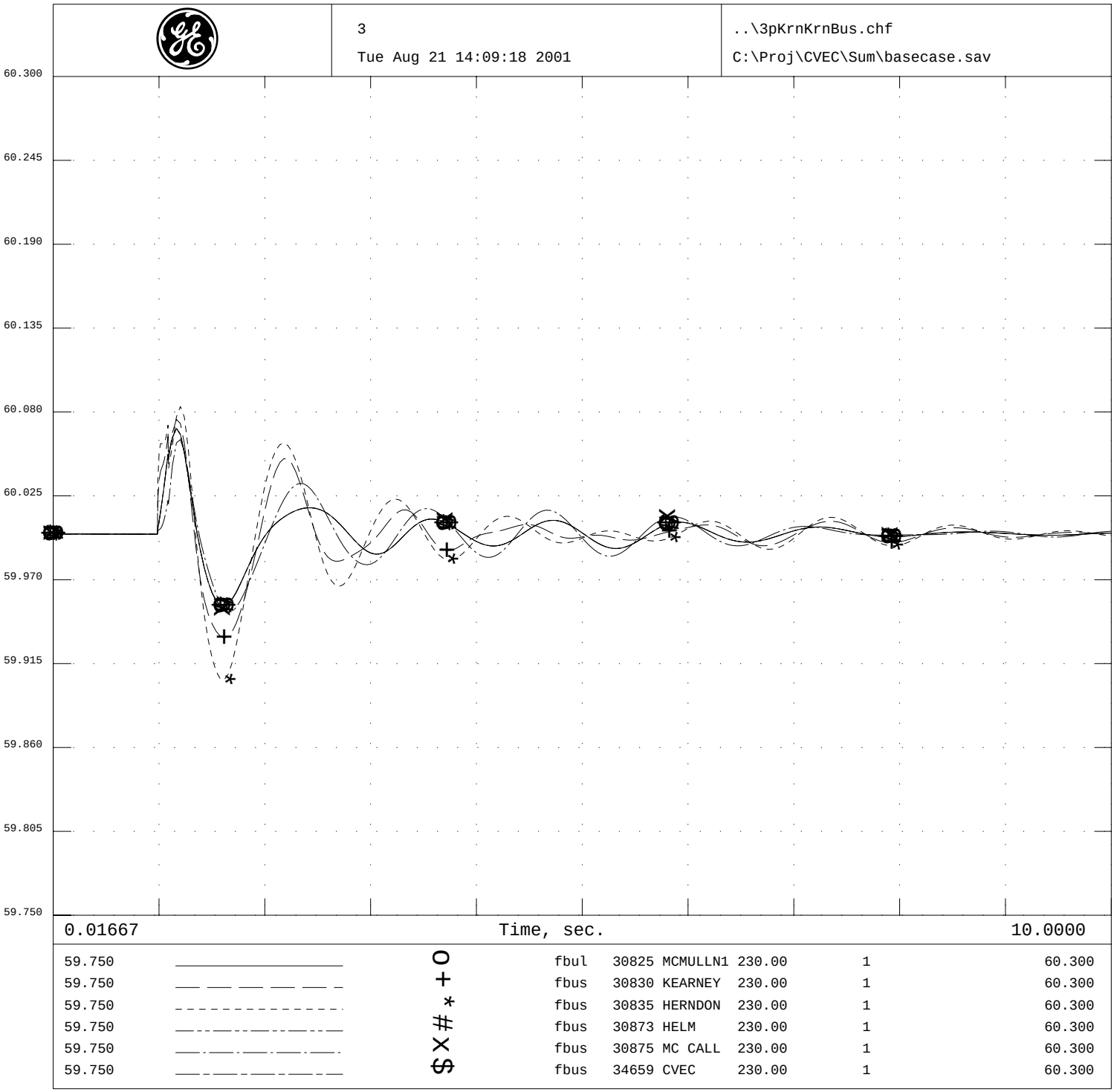

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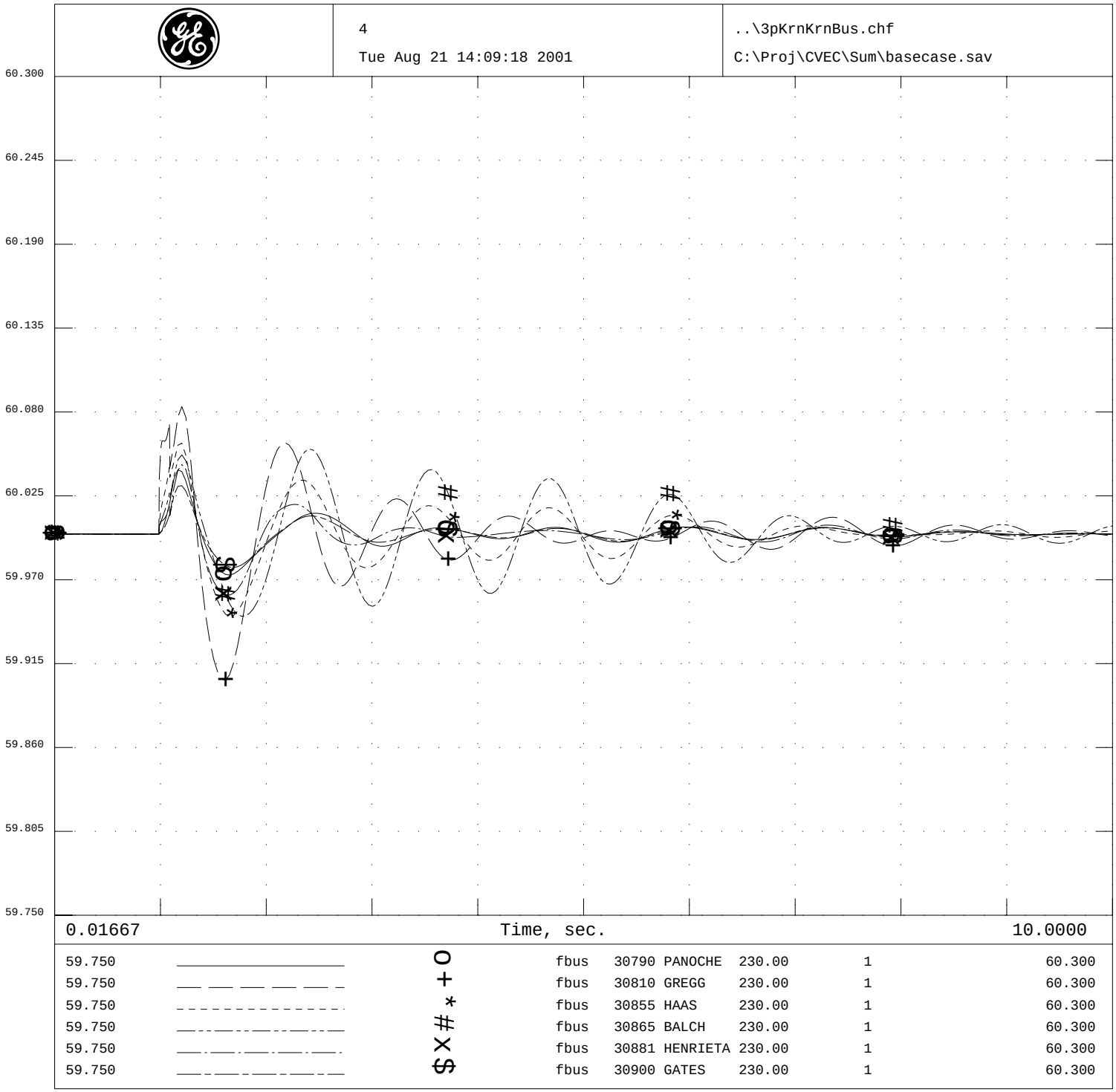
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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Calpine Corporation
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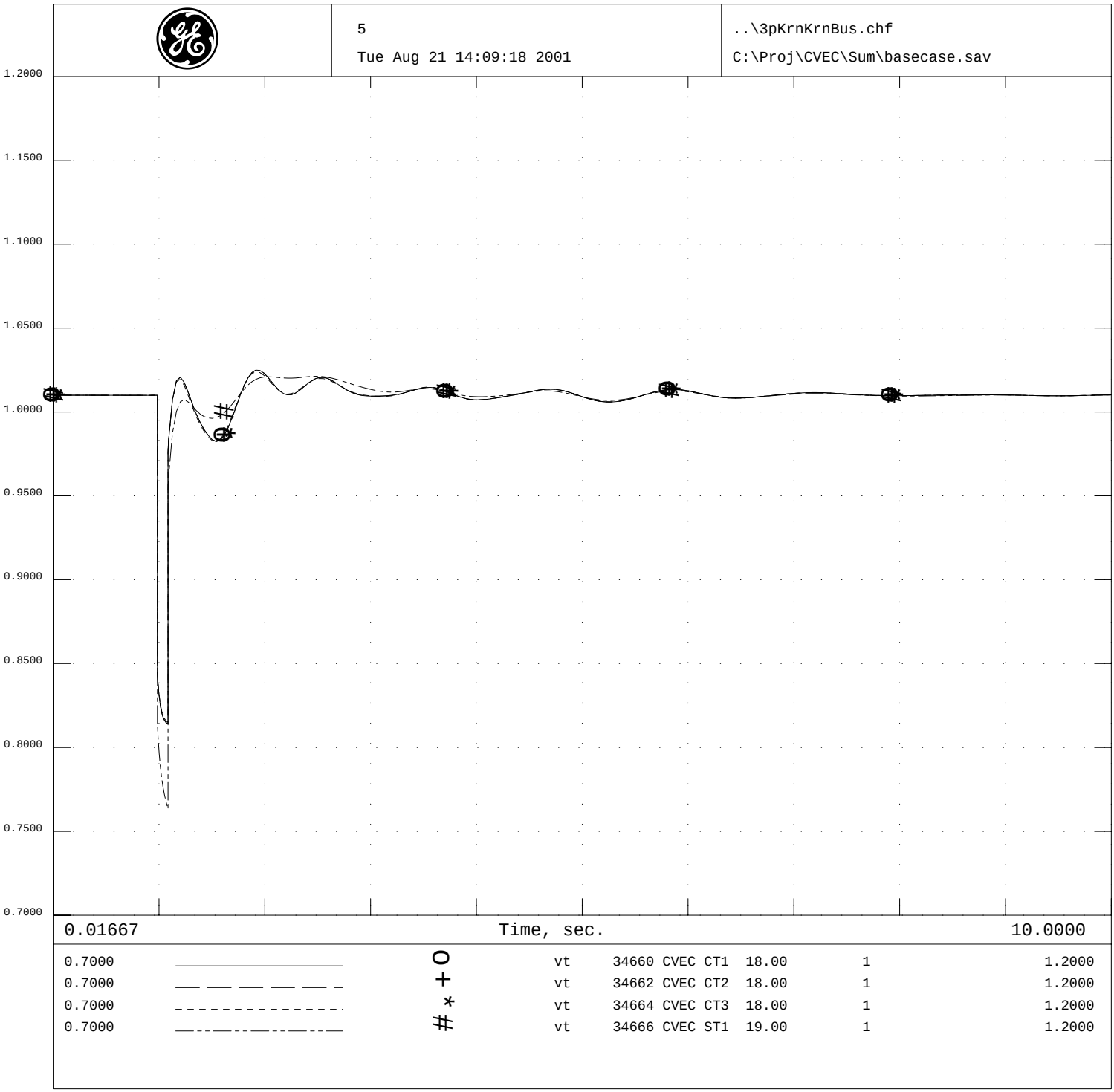

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2004 Summer Peak Base Case
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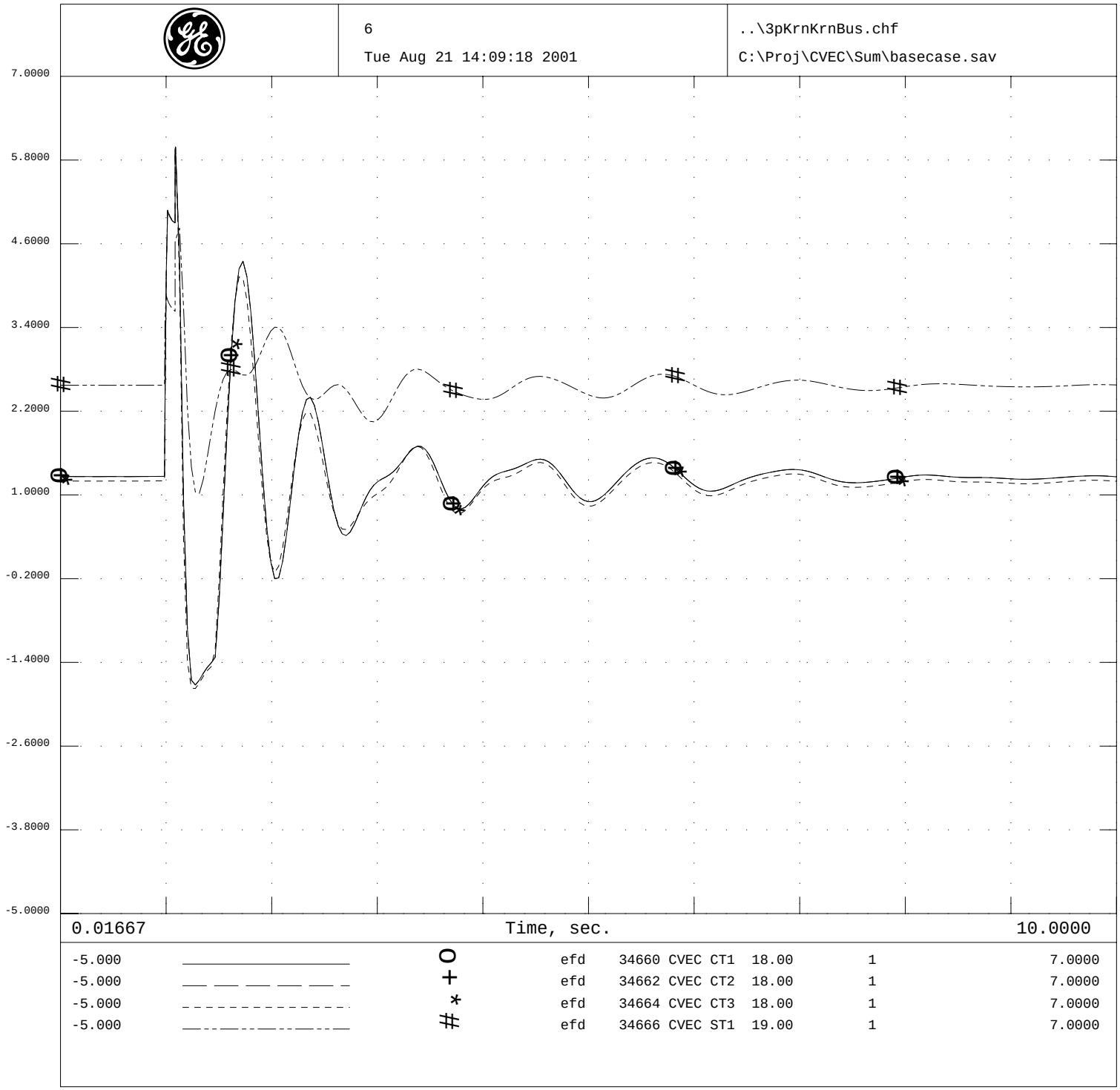
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Summer Peak Base Case
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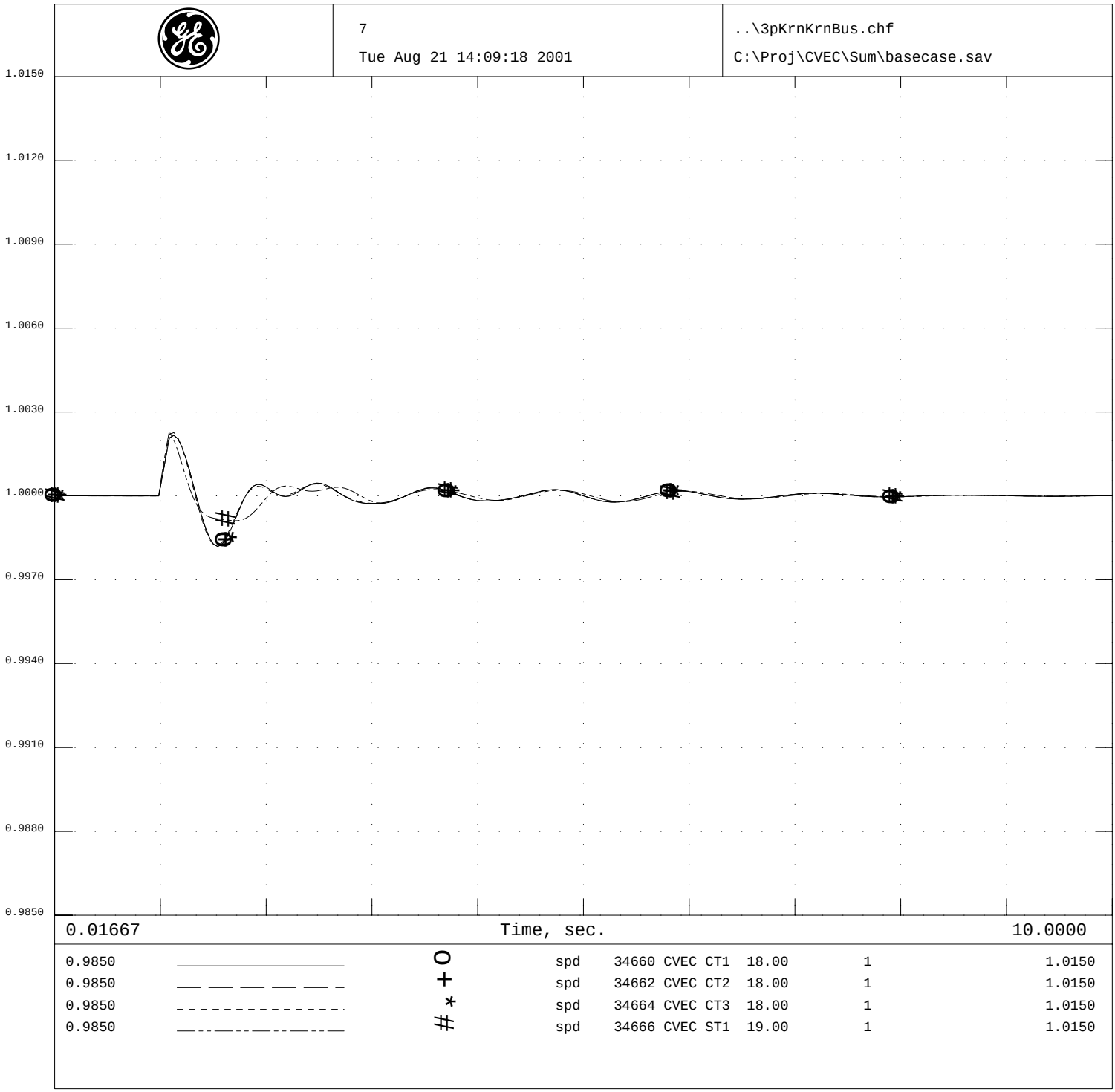
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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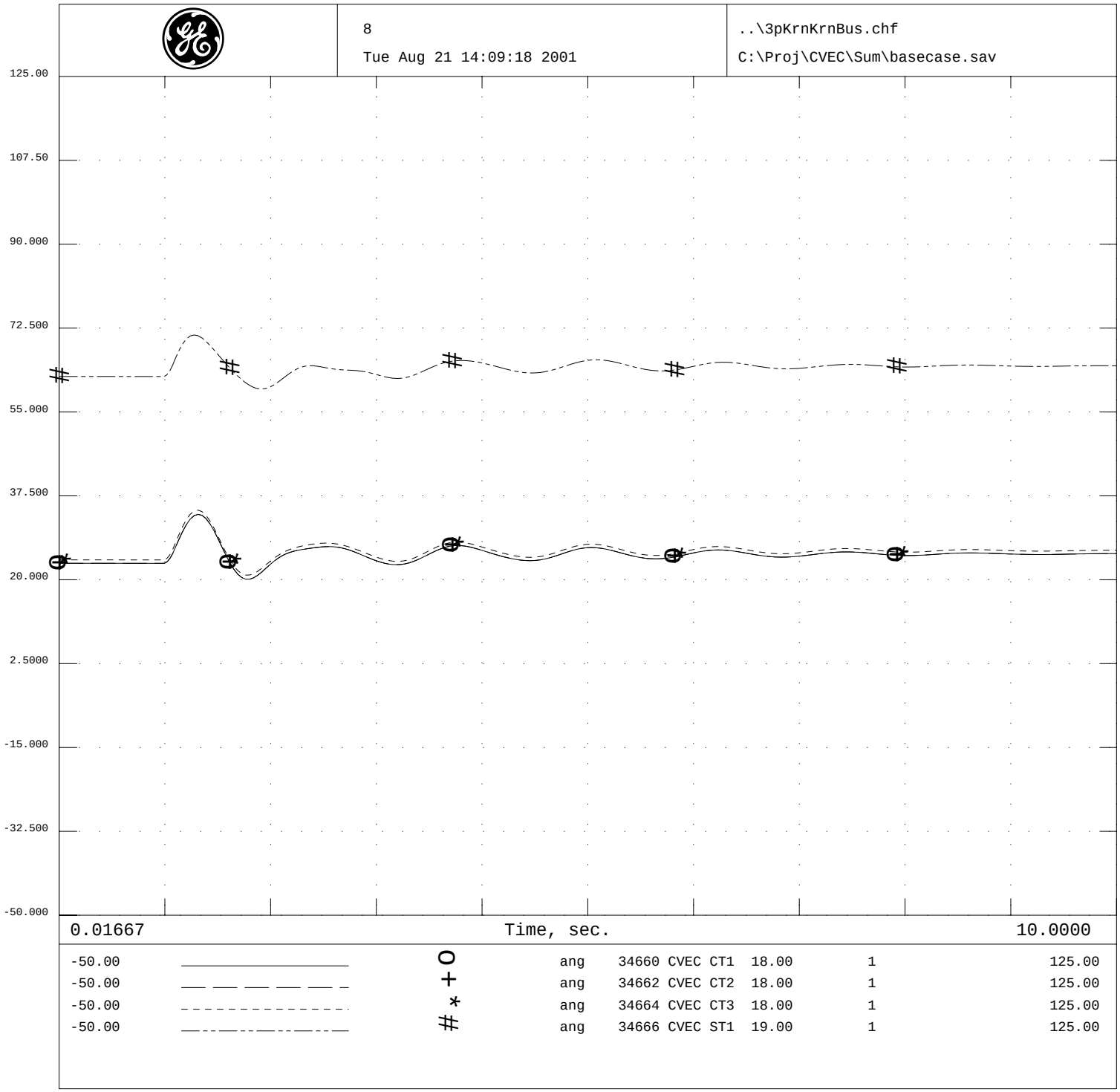
Calpine Corporation
Project Generator Rotor Speed



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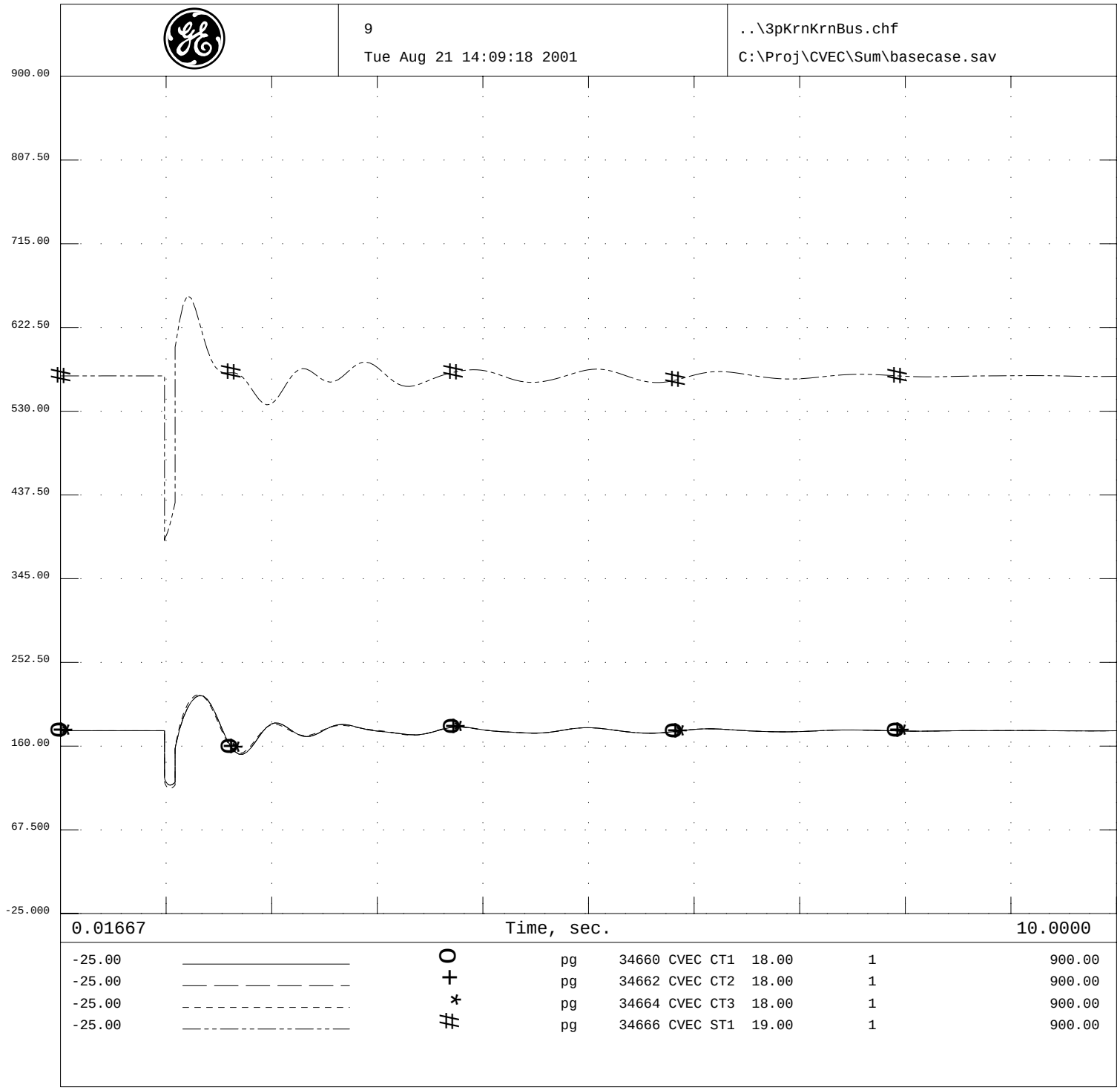
Calpine Corporation
Project Generator Rotor Angle



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Calpine Corporation
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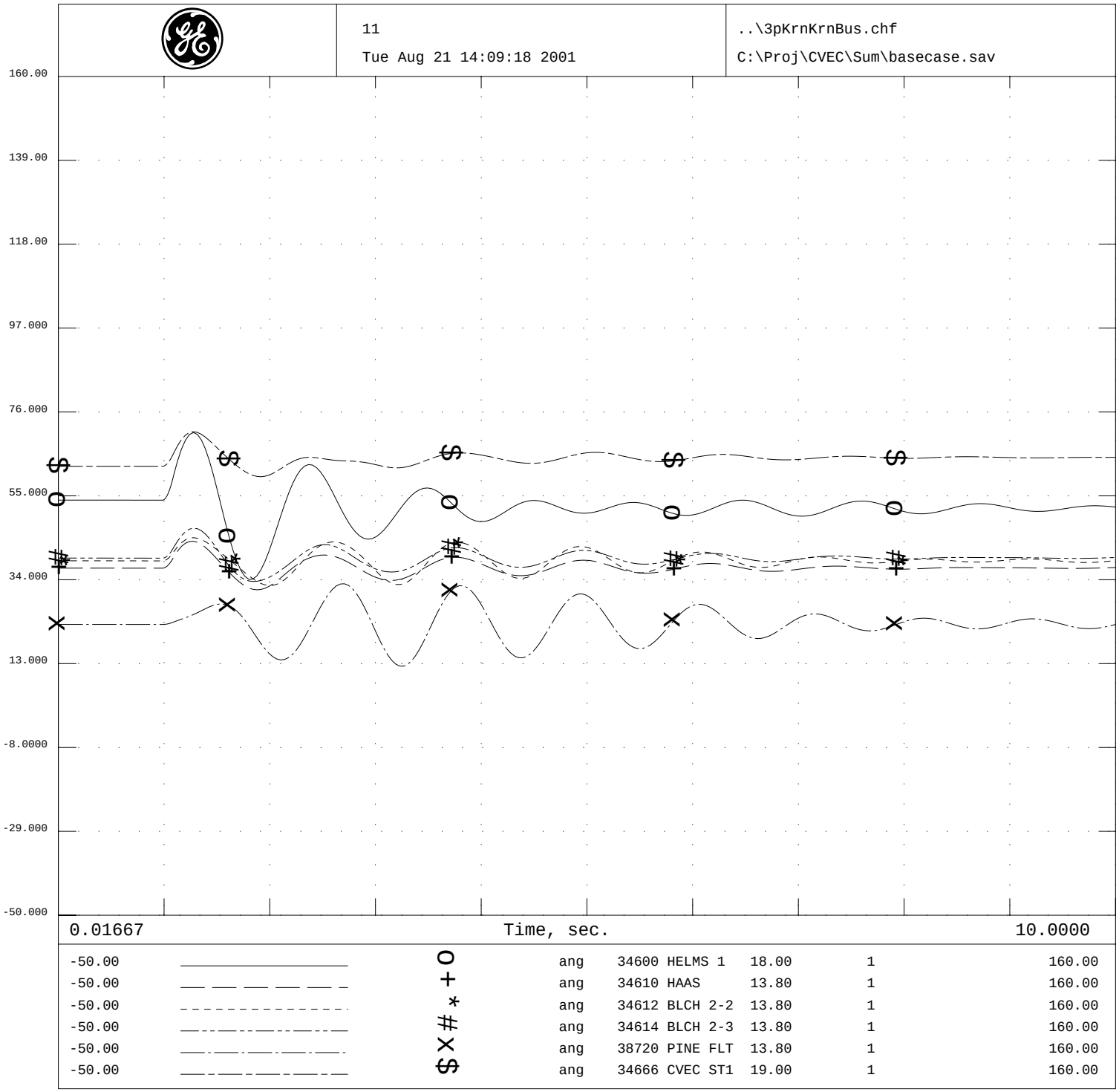

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Calpine Corporation
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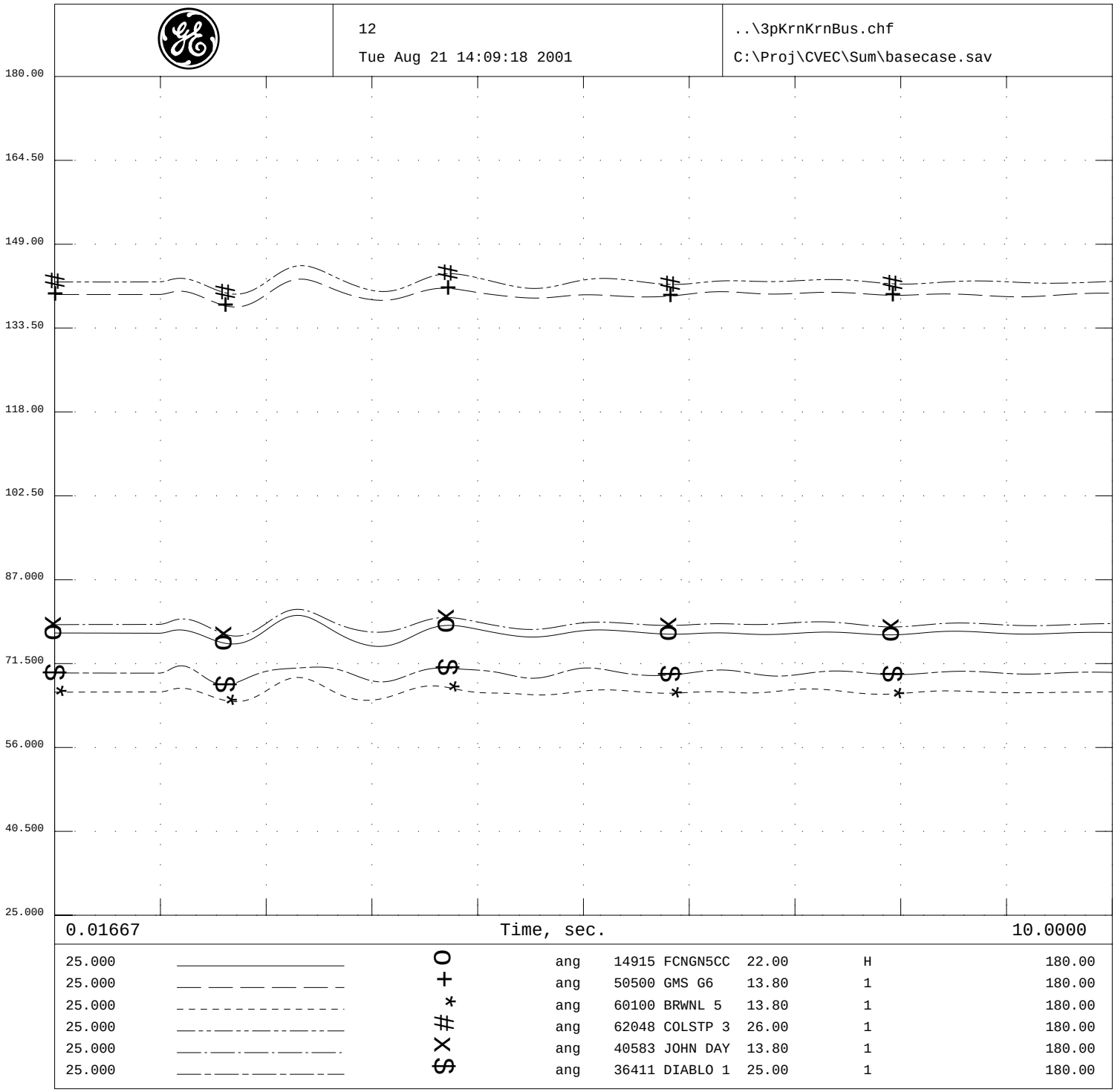

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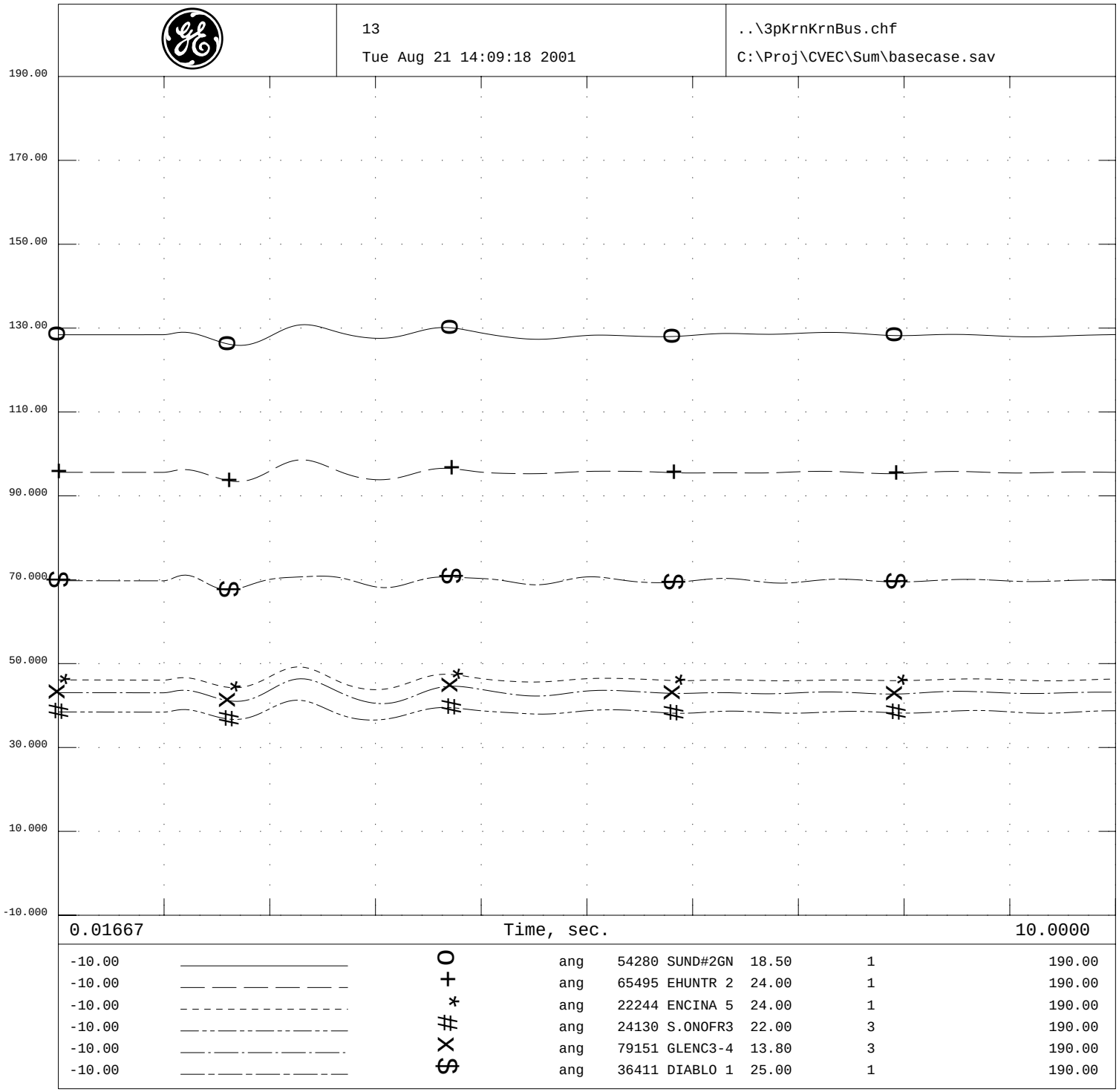

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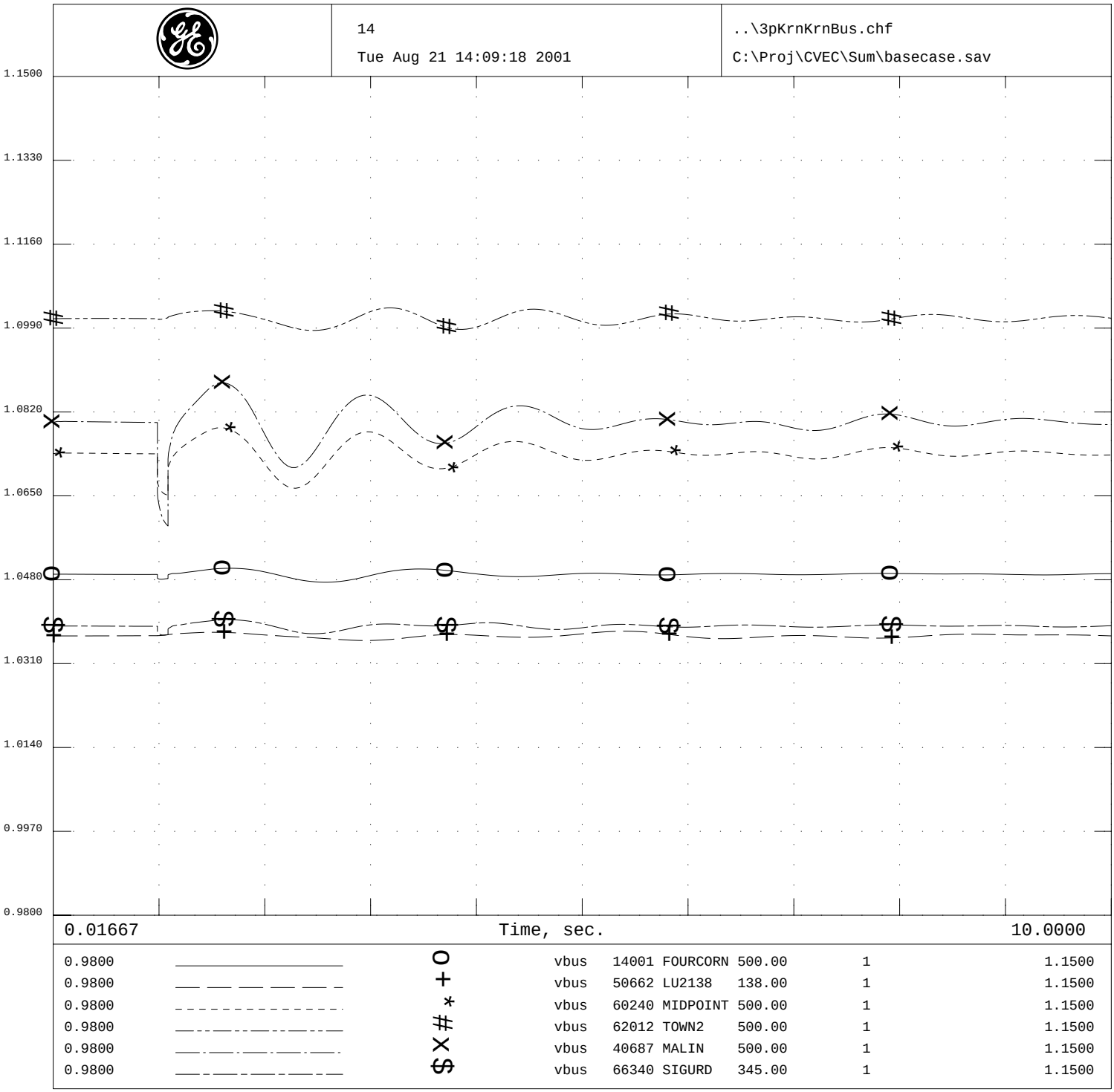

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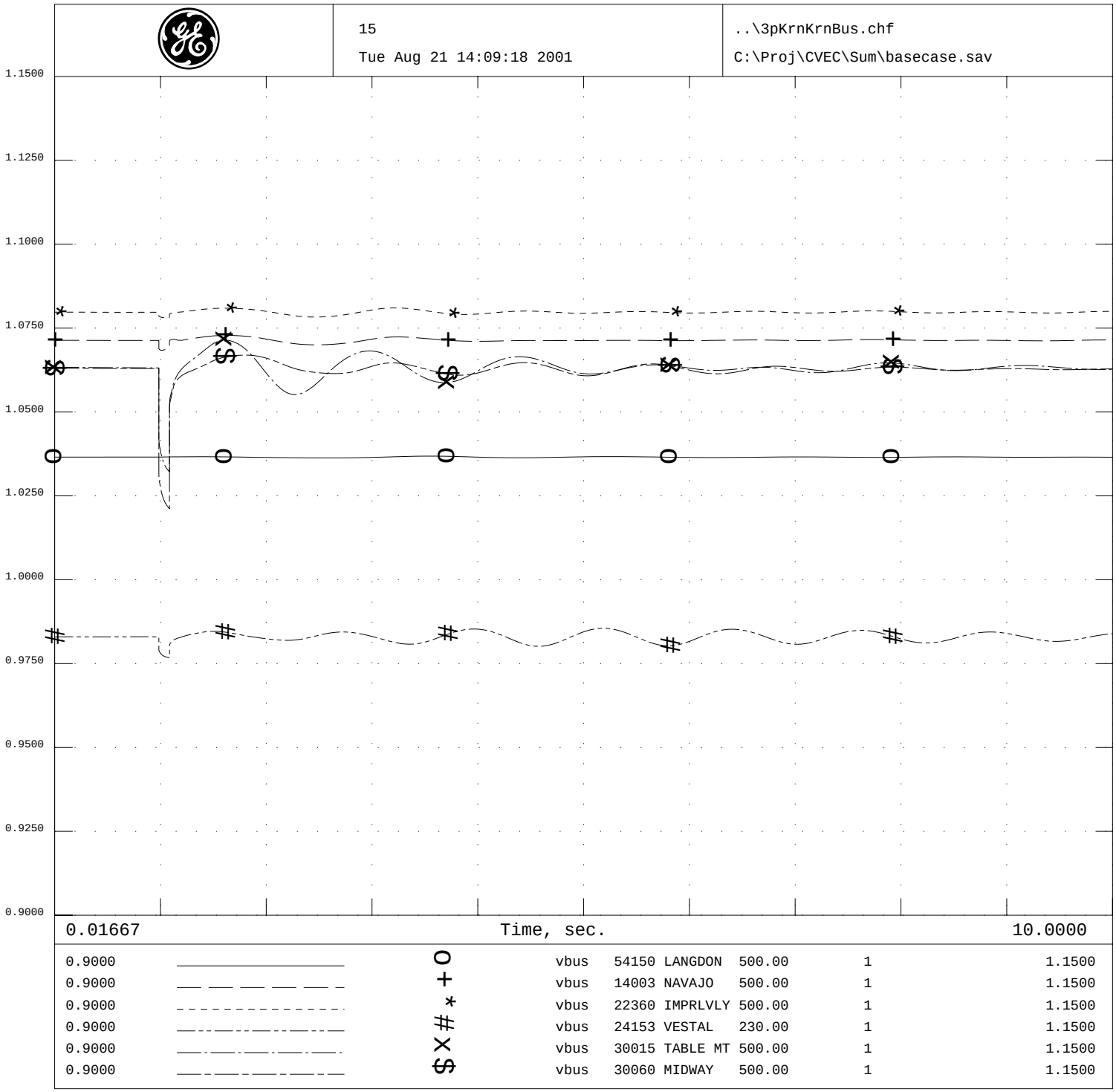

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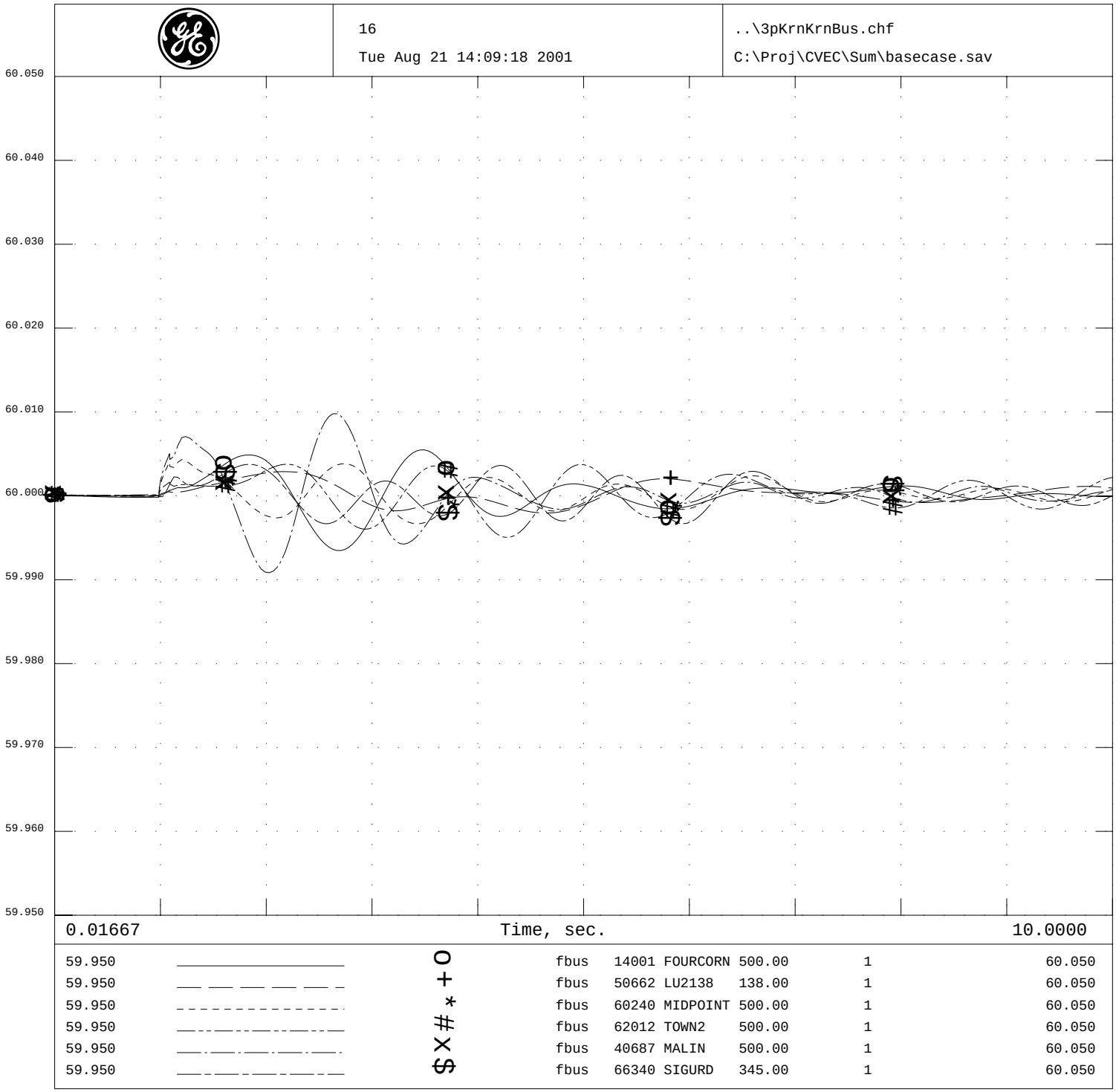

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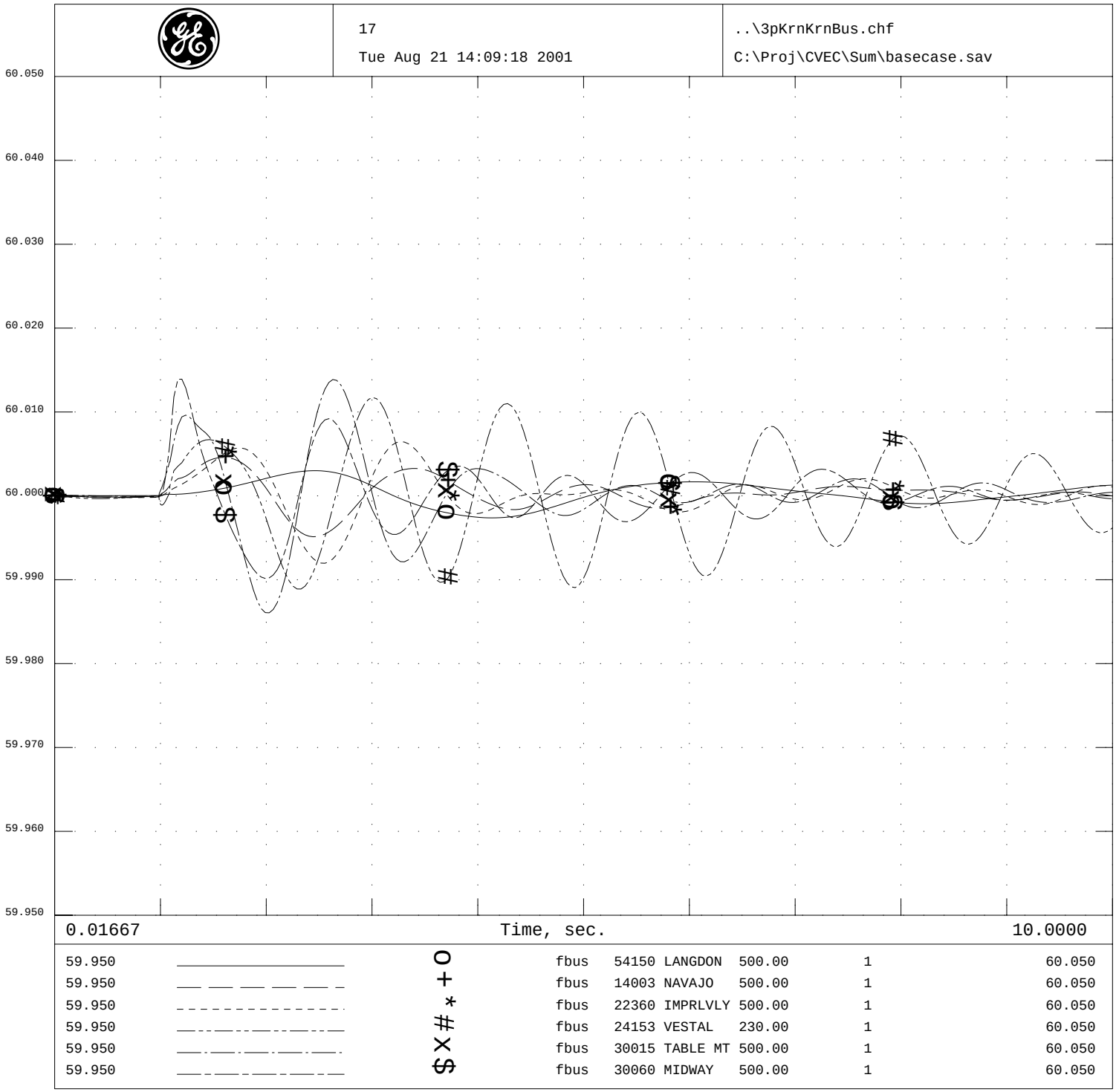

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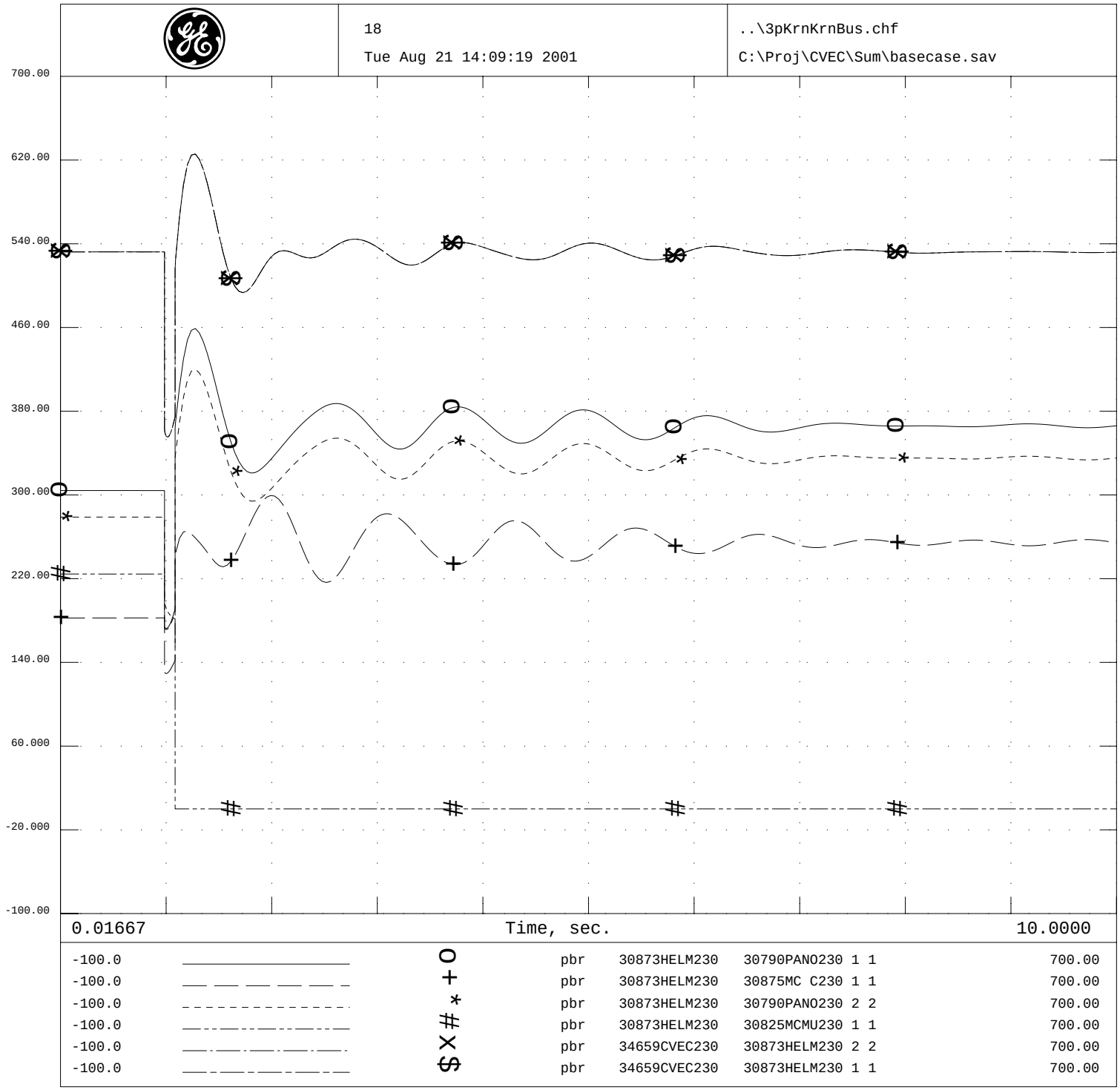

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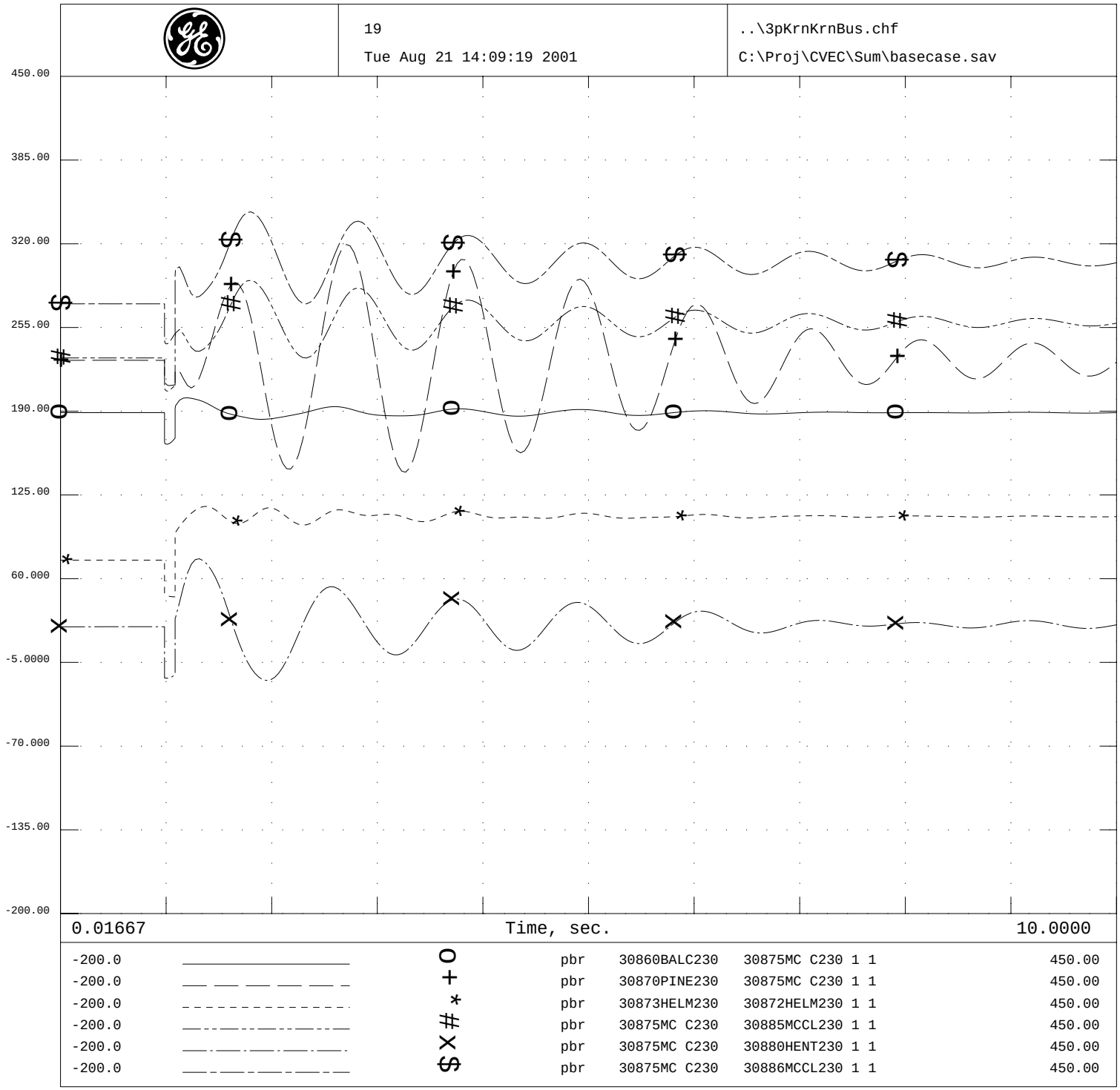

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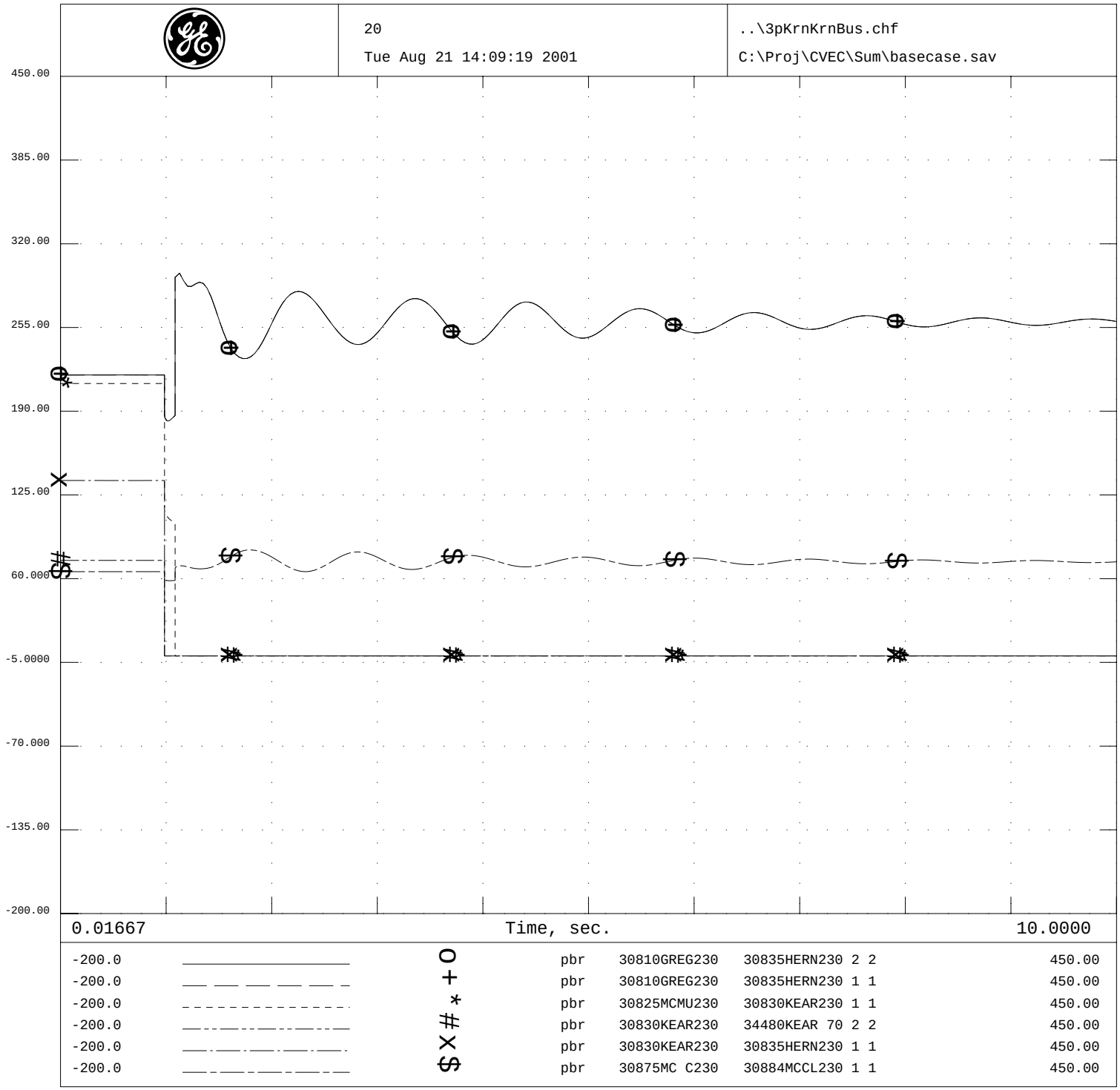

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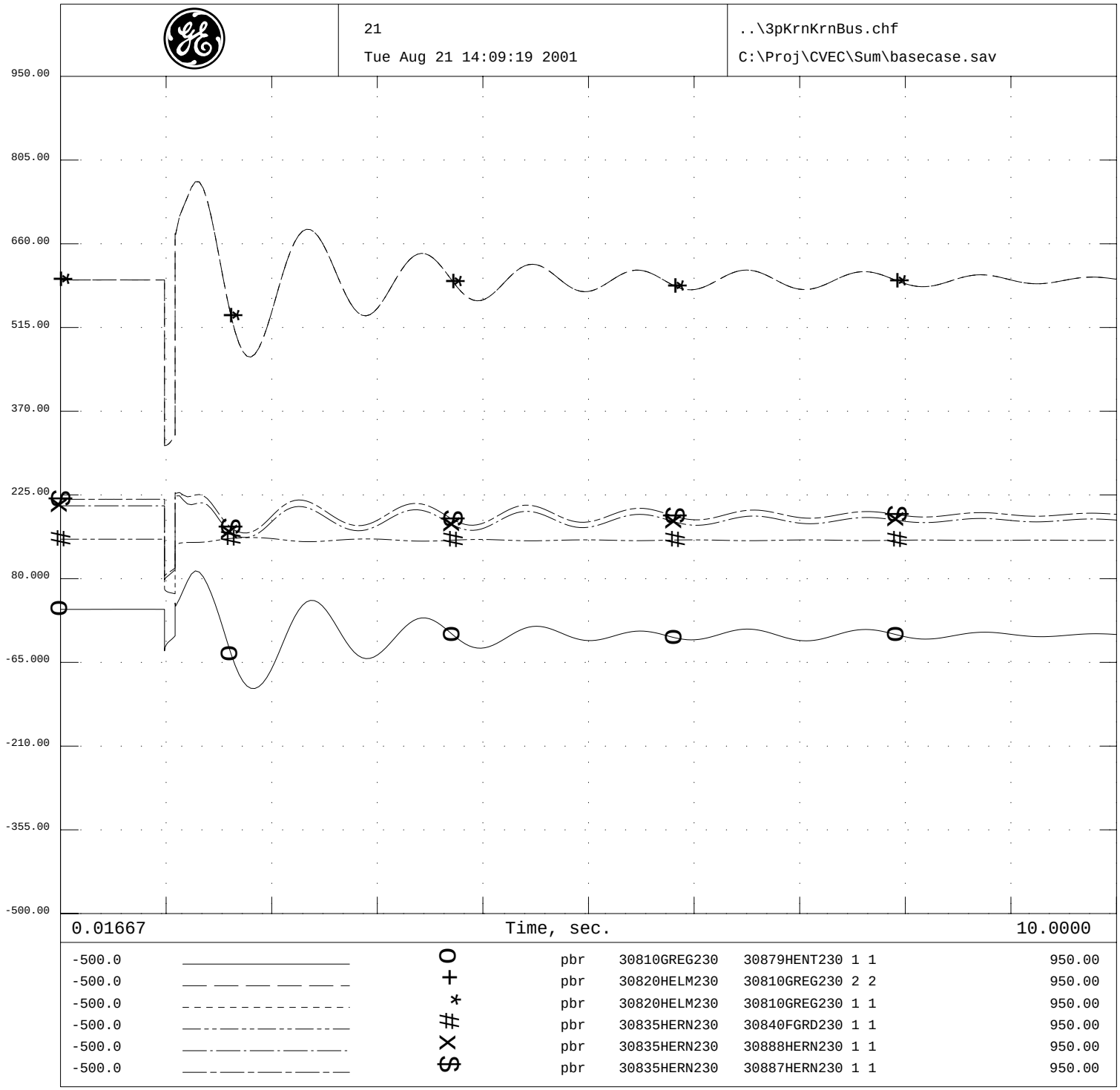

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Kearny 230kV Bus Outage
3 phase 6 cycle fault at Kearny 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
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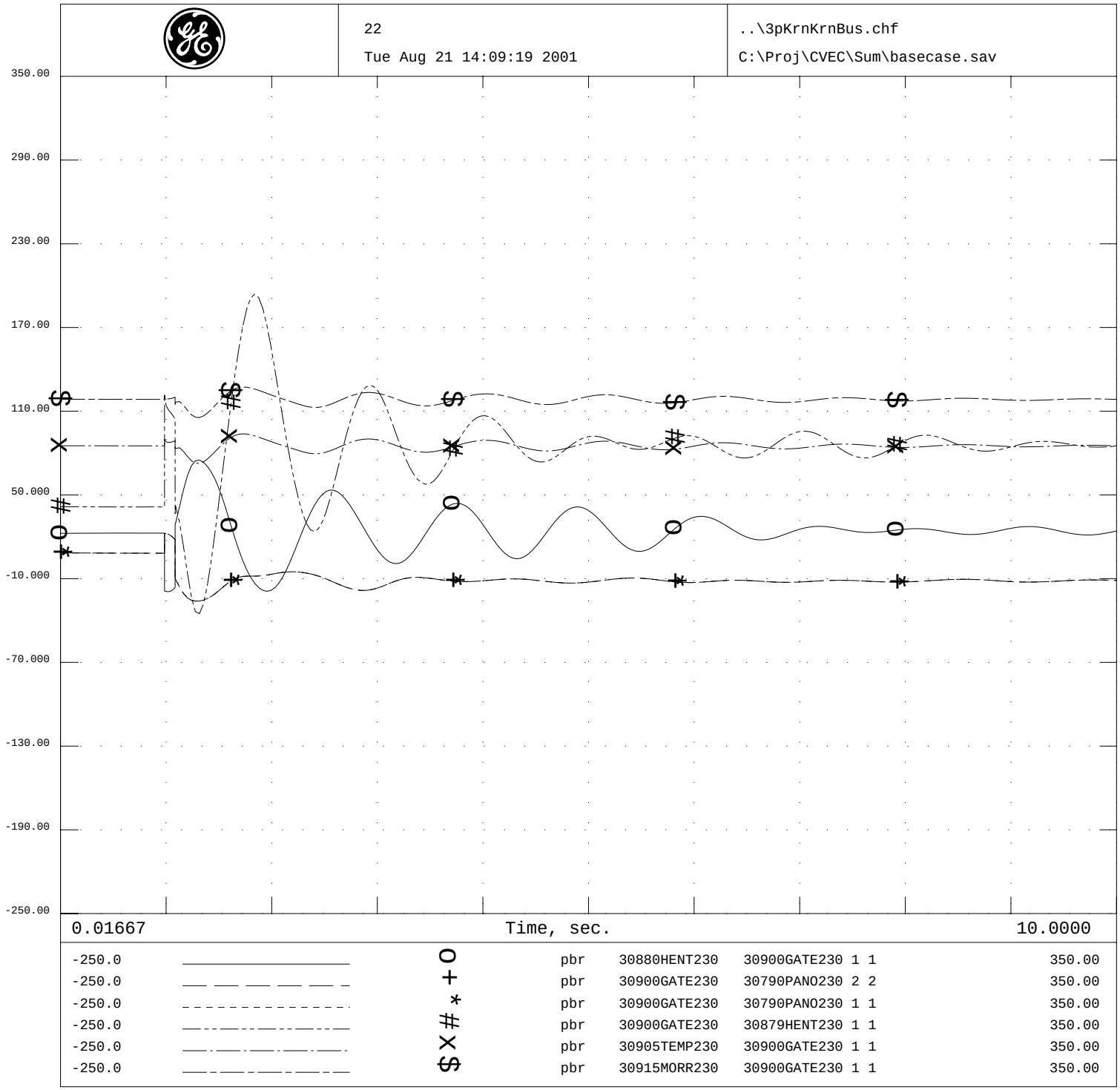

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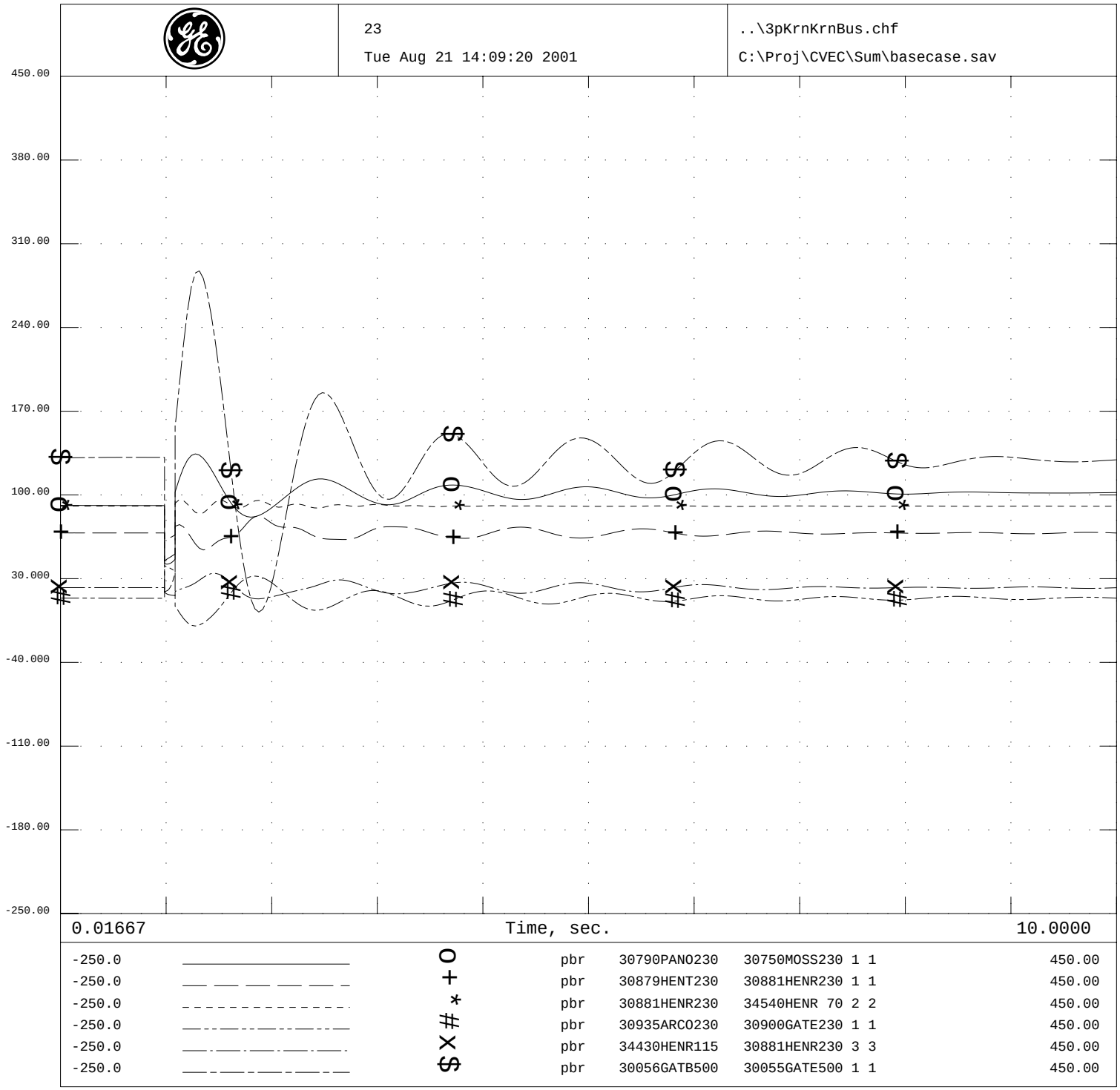

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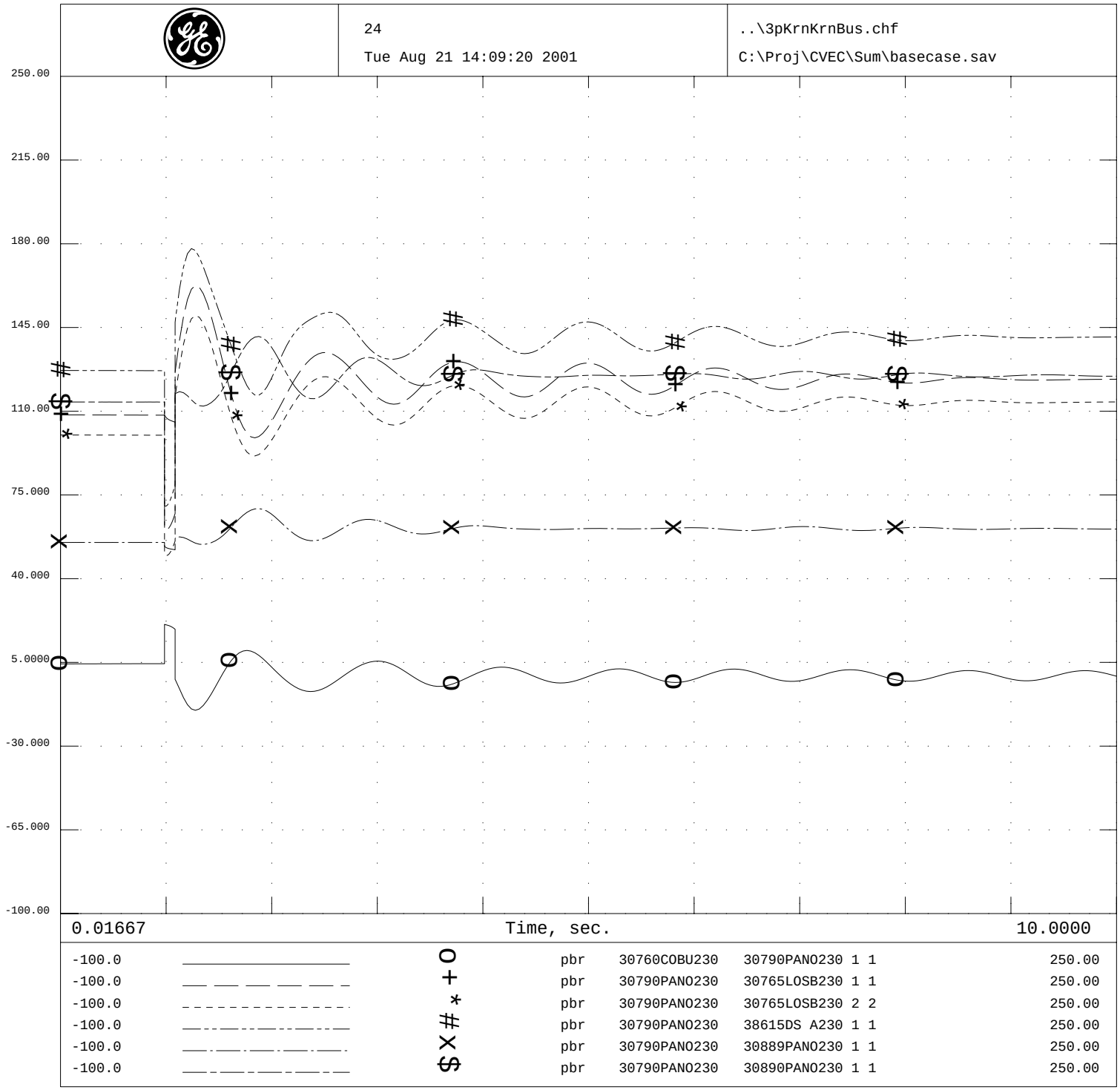

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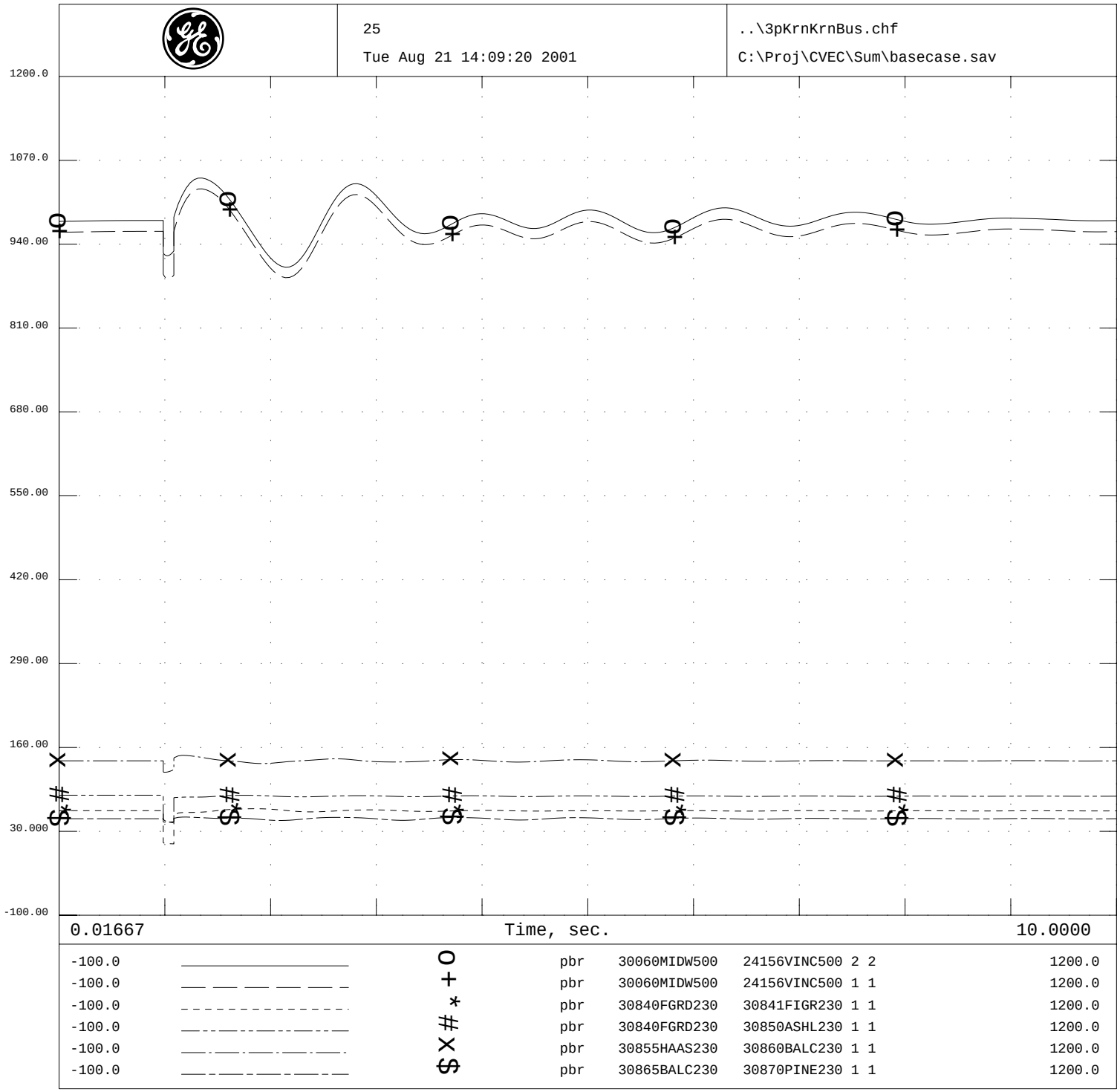

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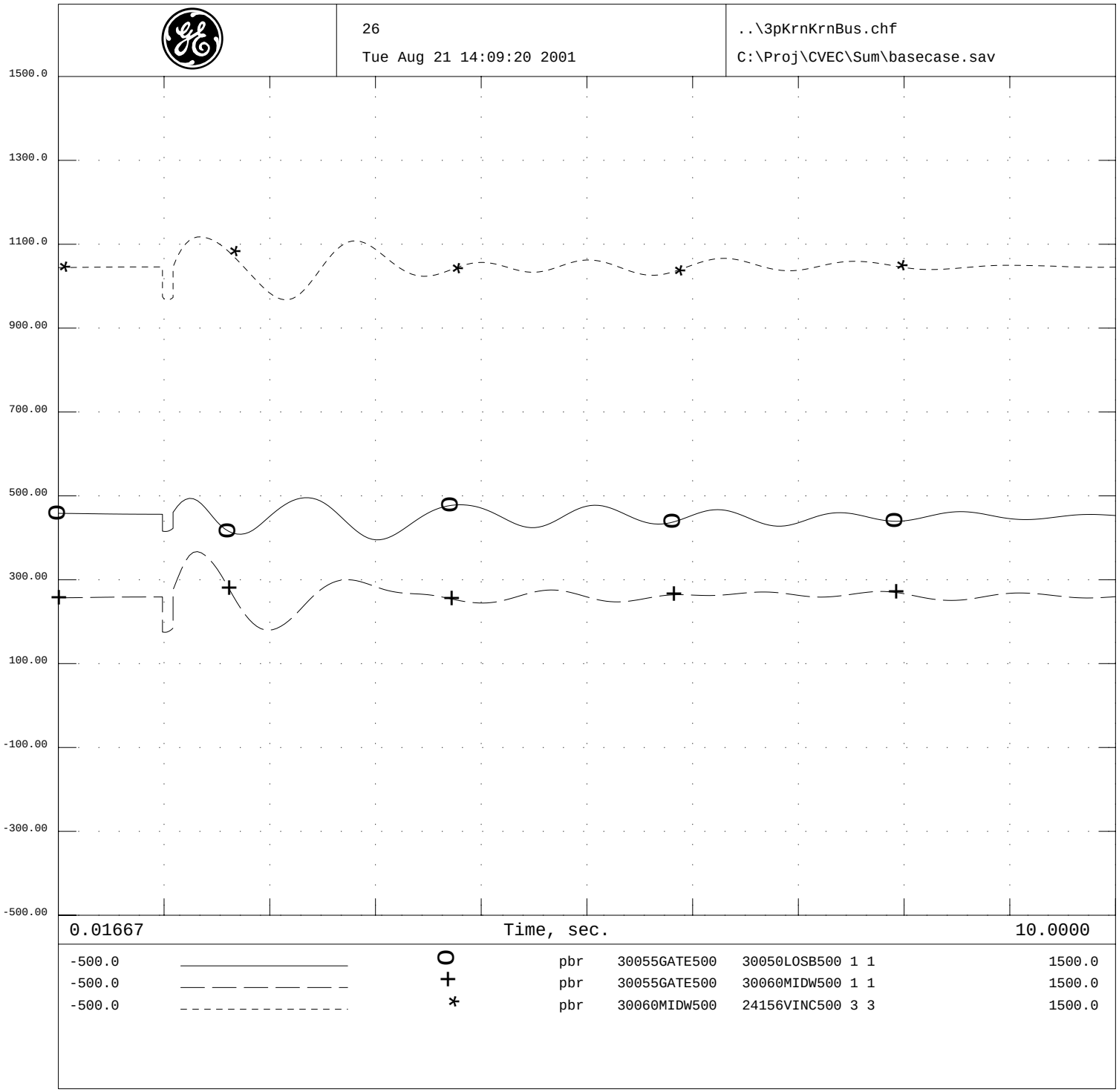

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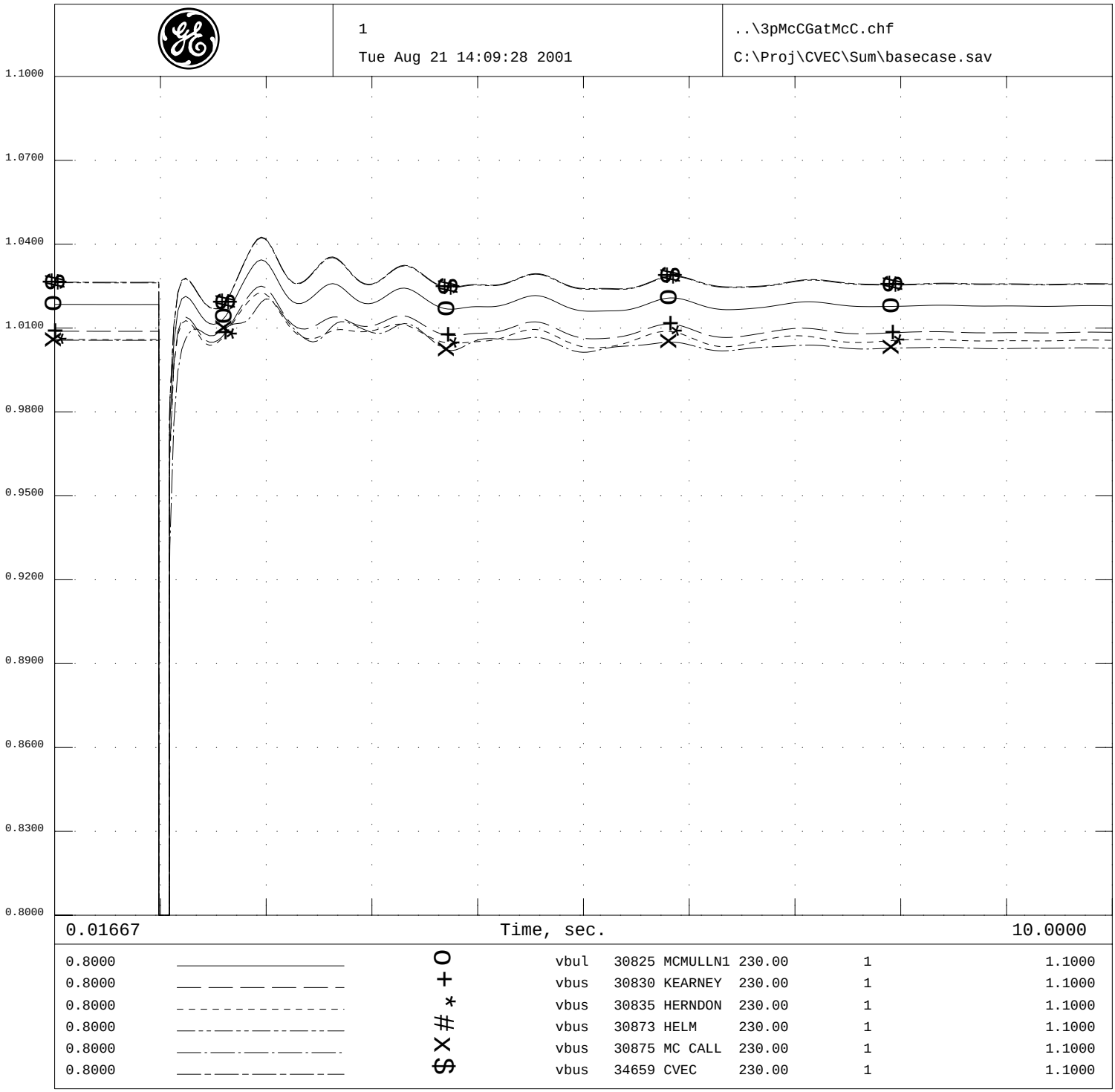
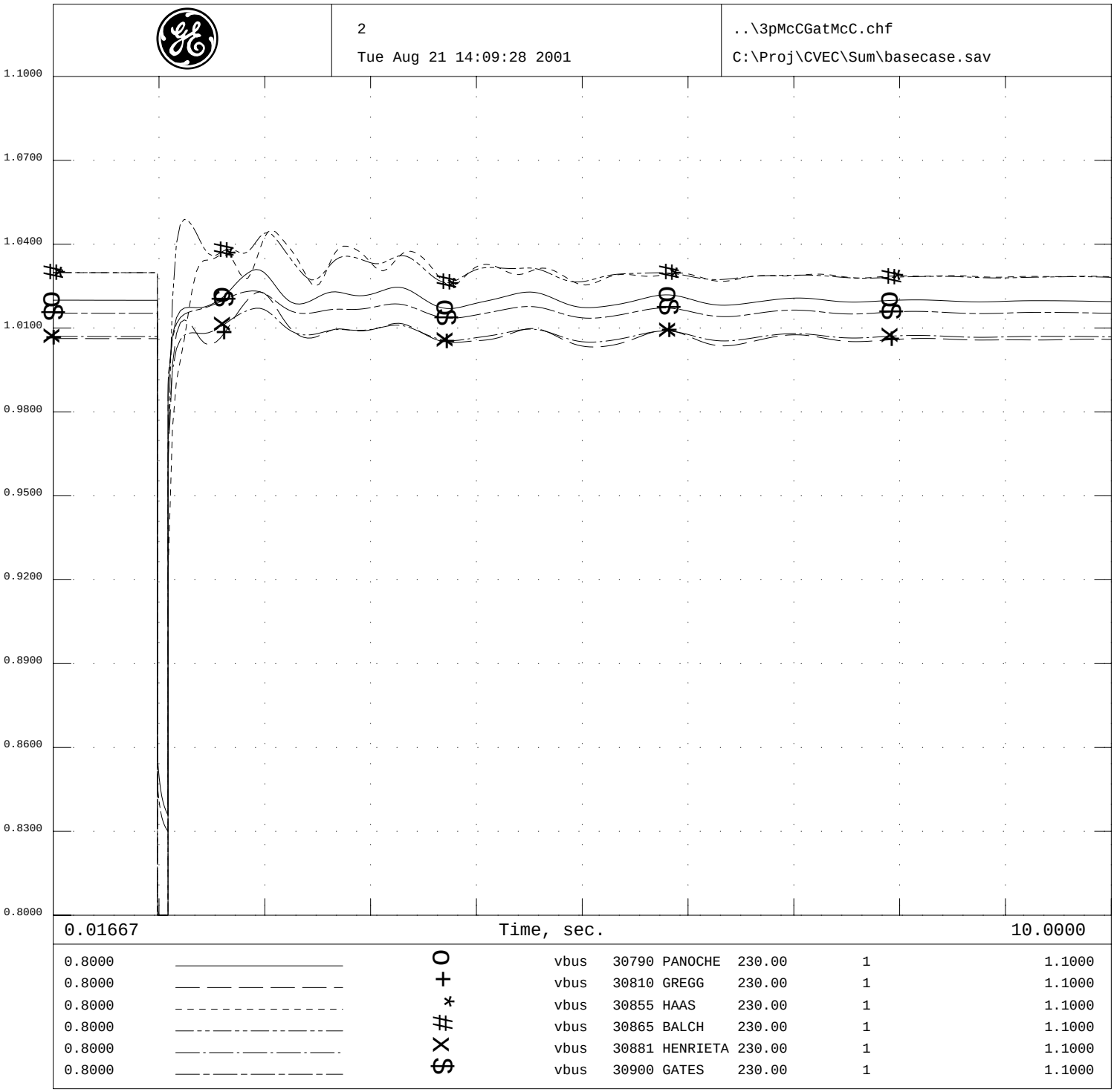


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Gates-McCall 230kV Line Outage
3 phase 6 cycle fault at McCall 230kV bus and trip Gates-McCall 230kV line

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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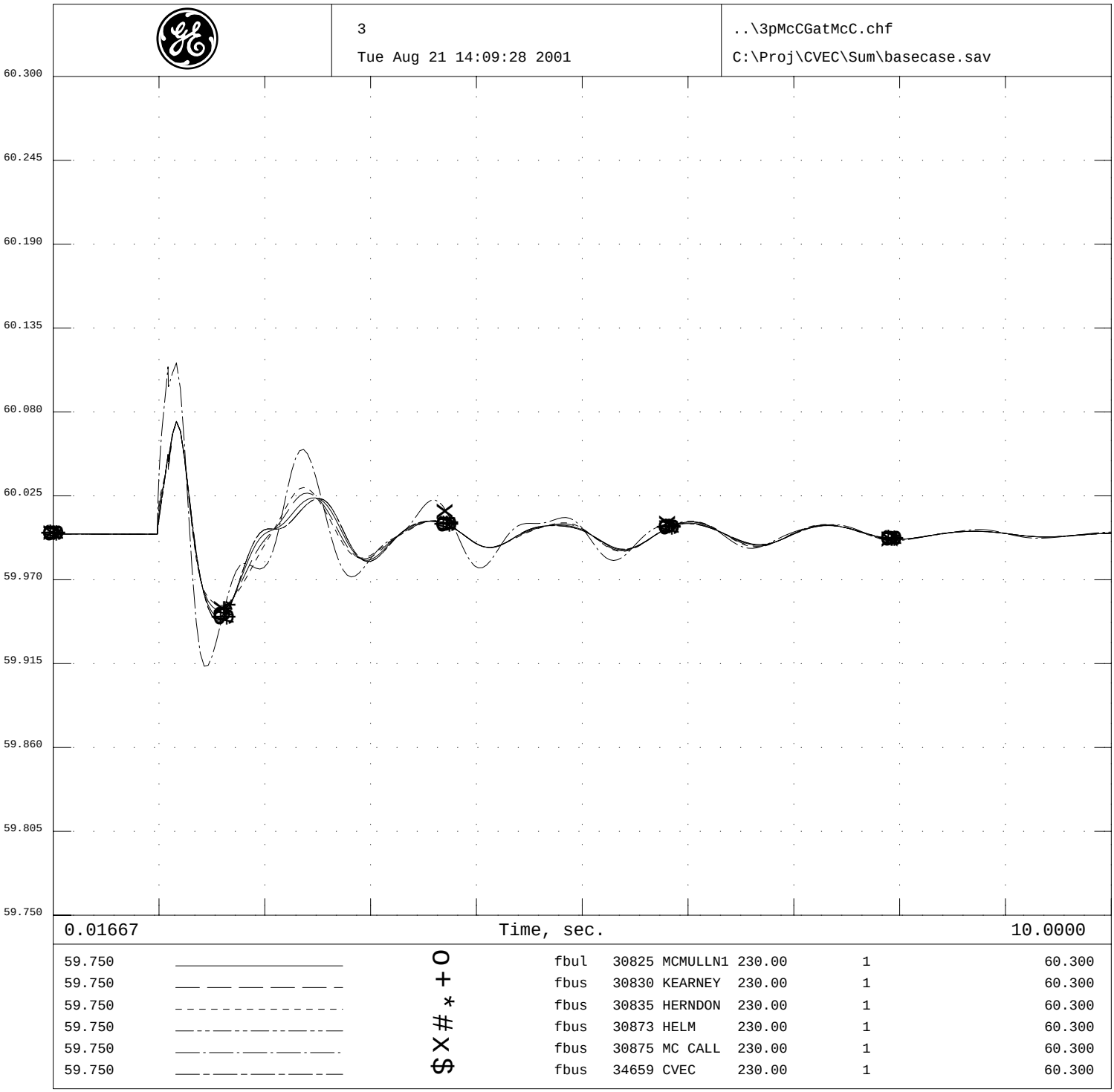

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Calpine Corporation
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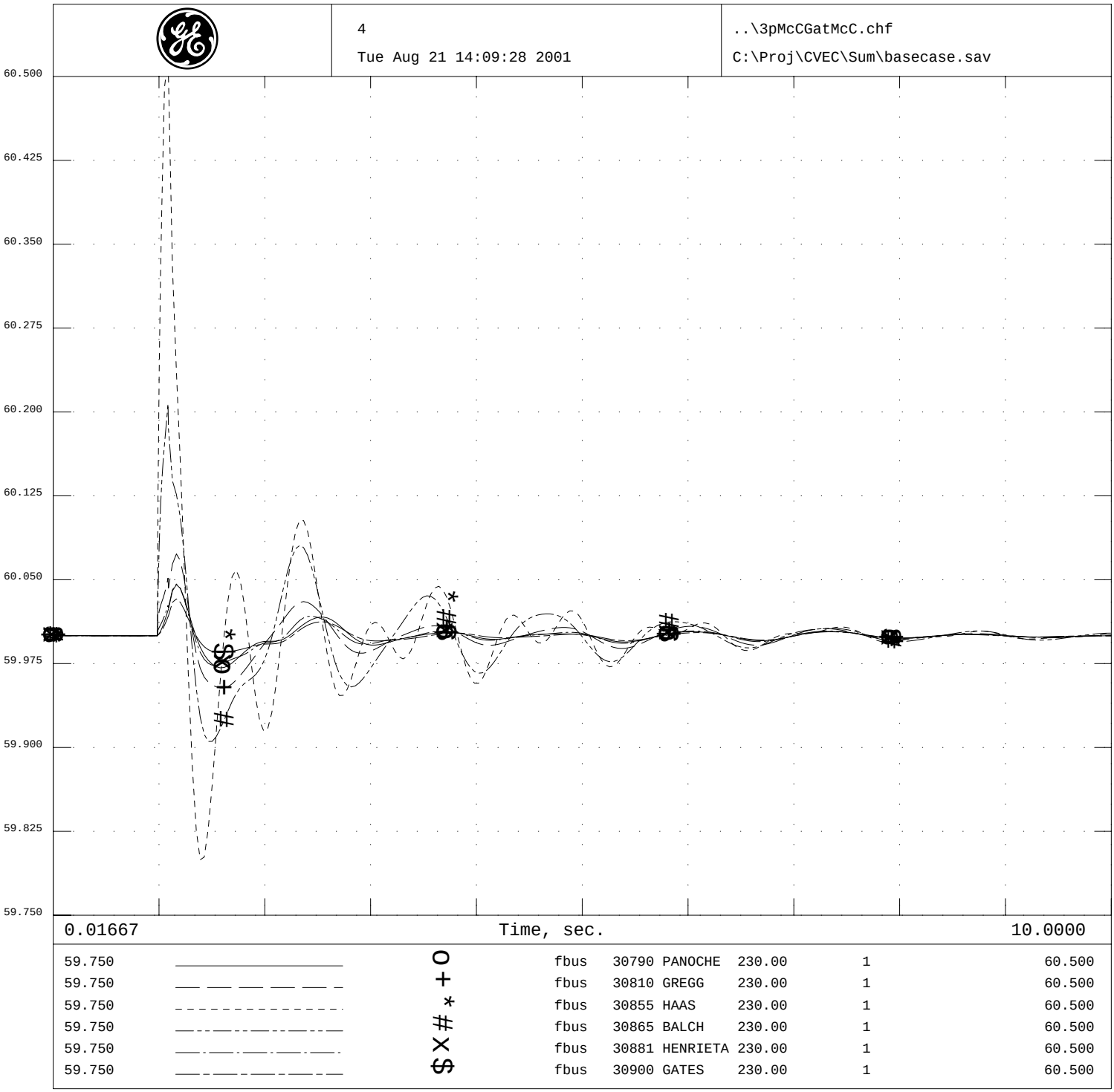

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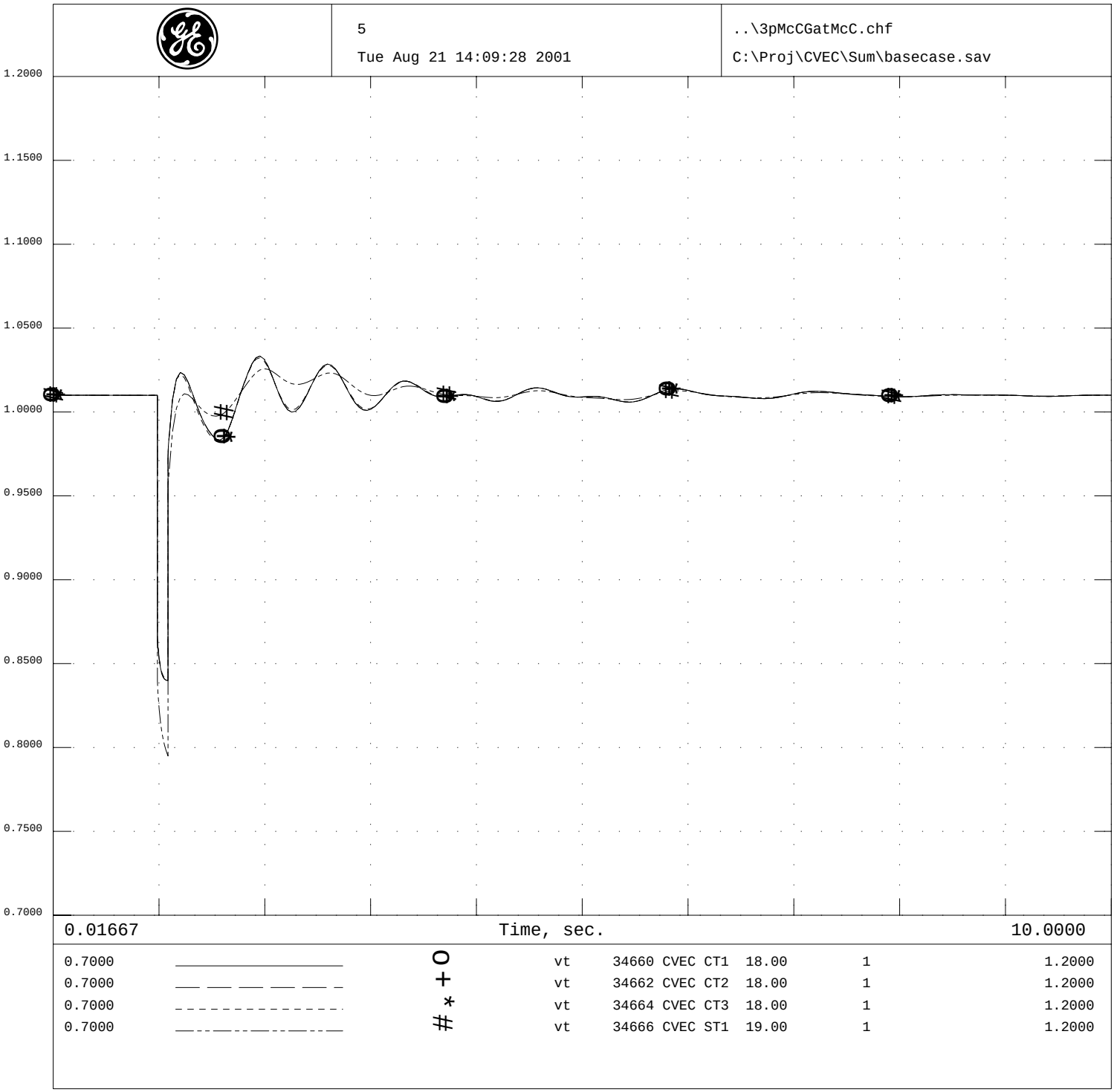

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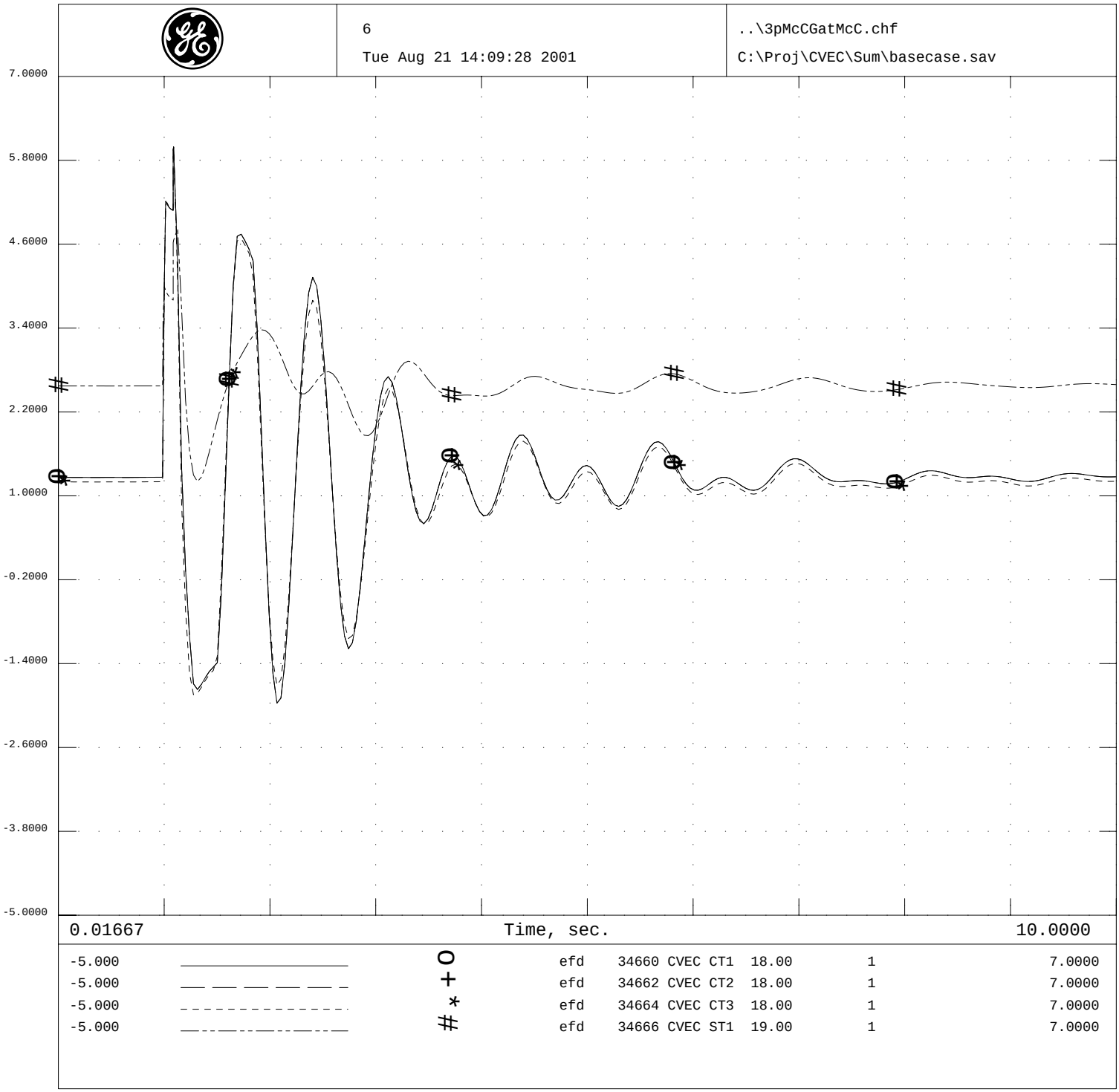
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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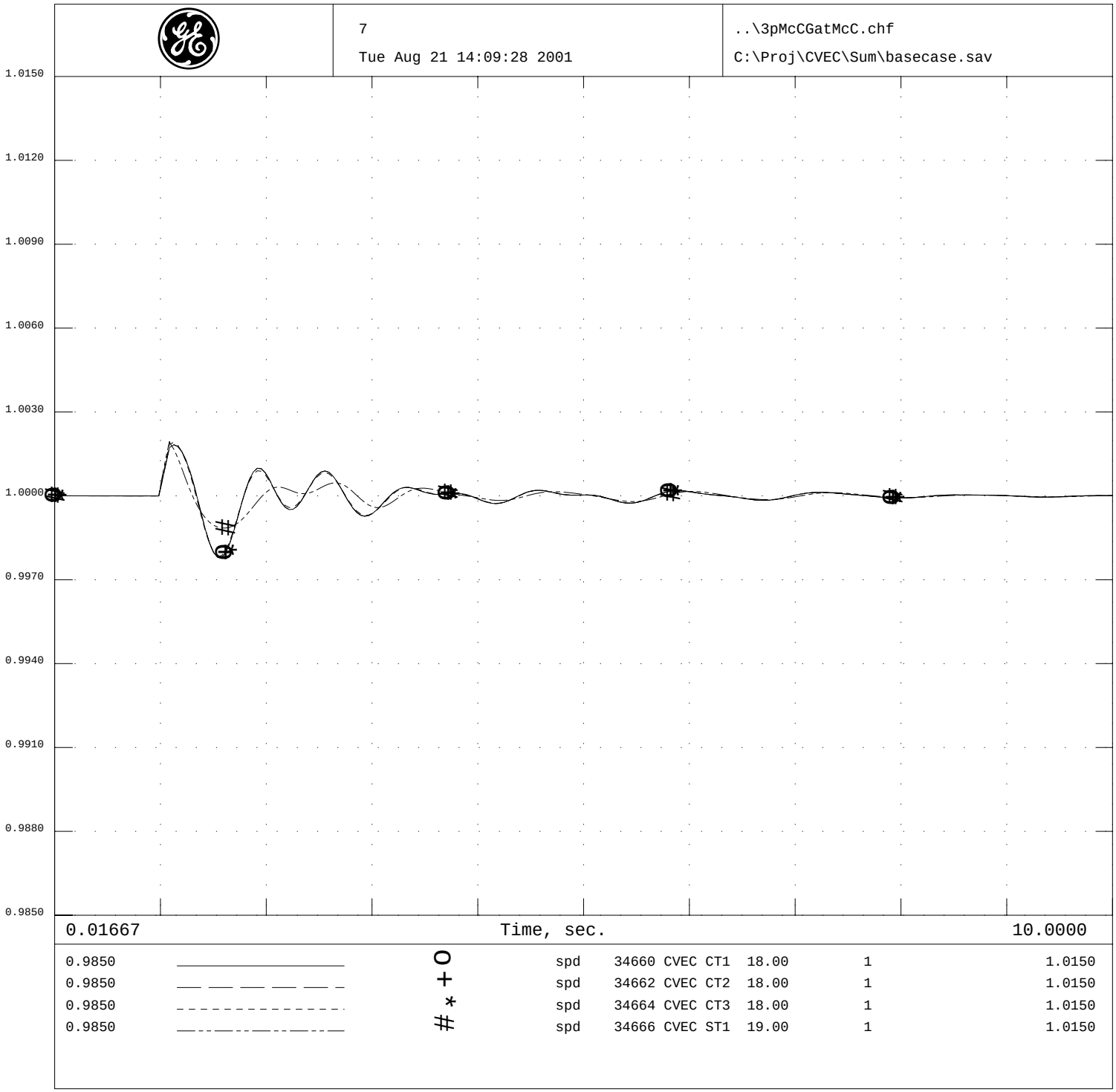
Calpine Corporation
Project Generator Field Voltages



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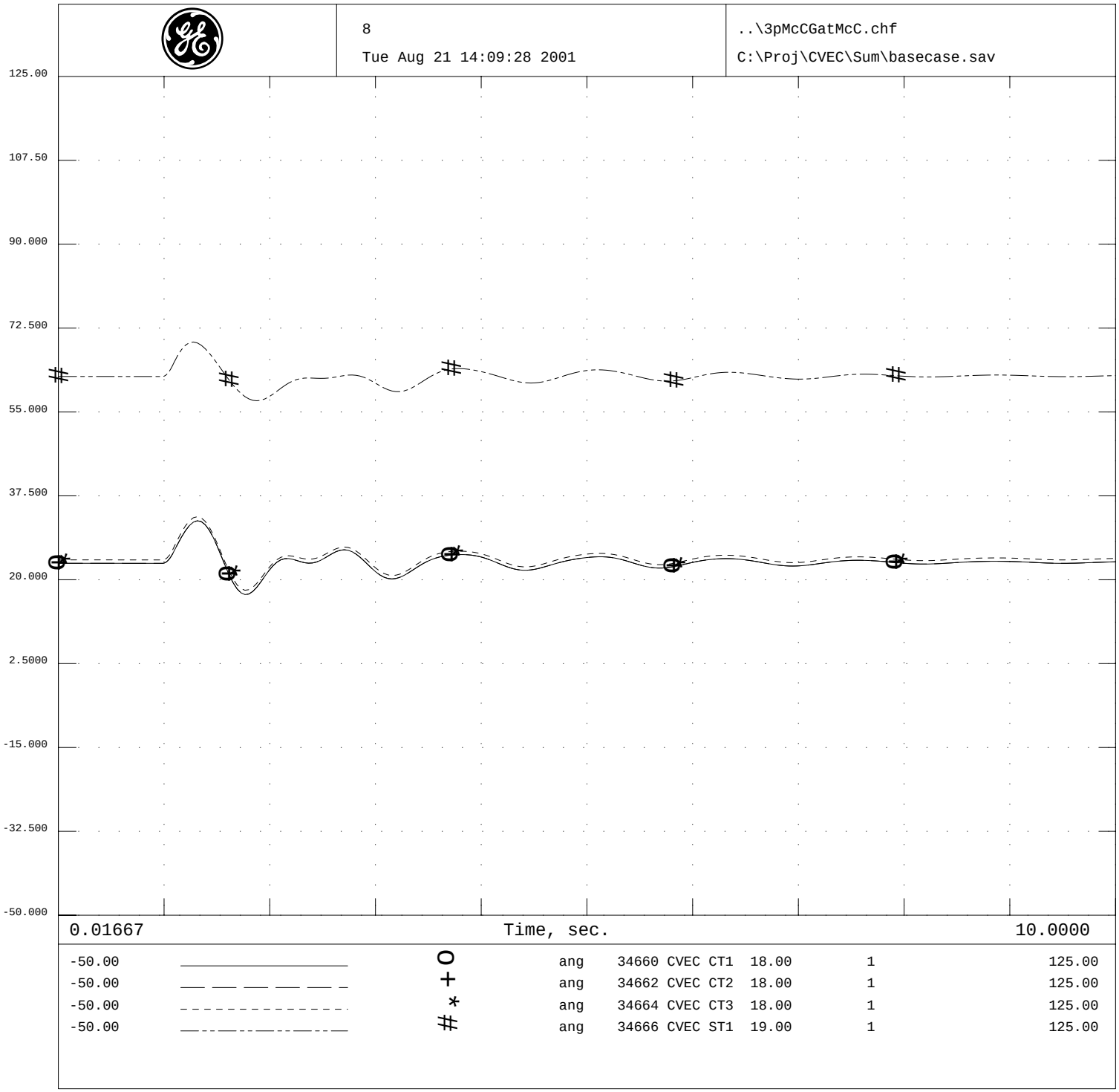
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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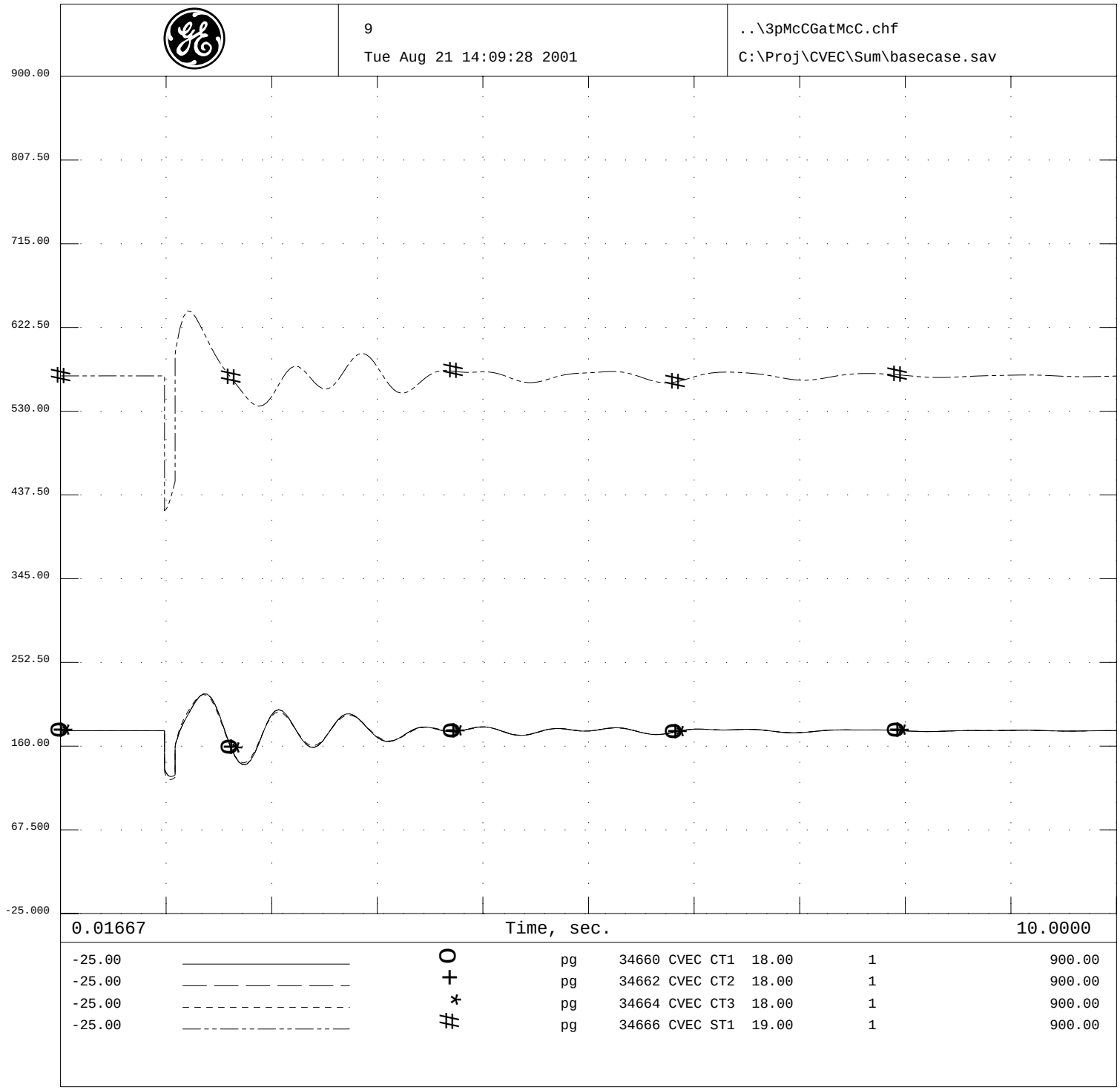
Calpine Corporation
Project Generator Rotor Angle



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Calpine Corporation
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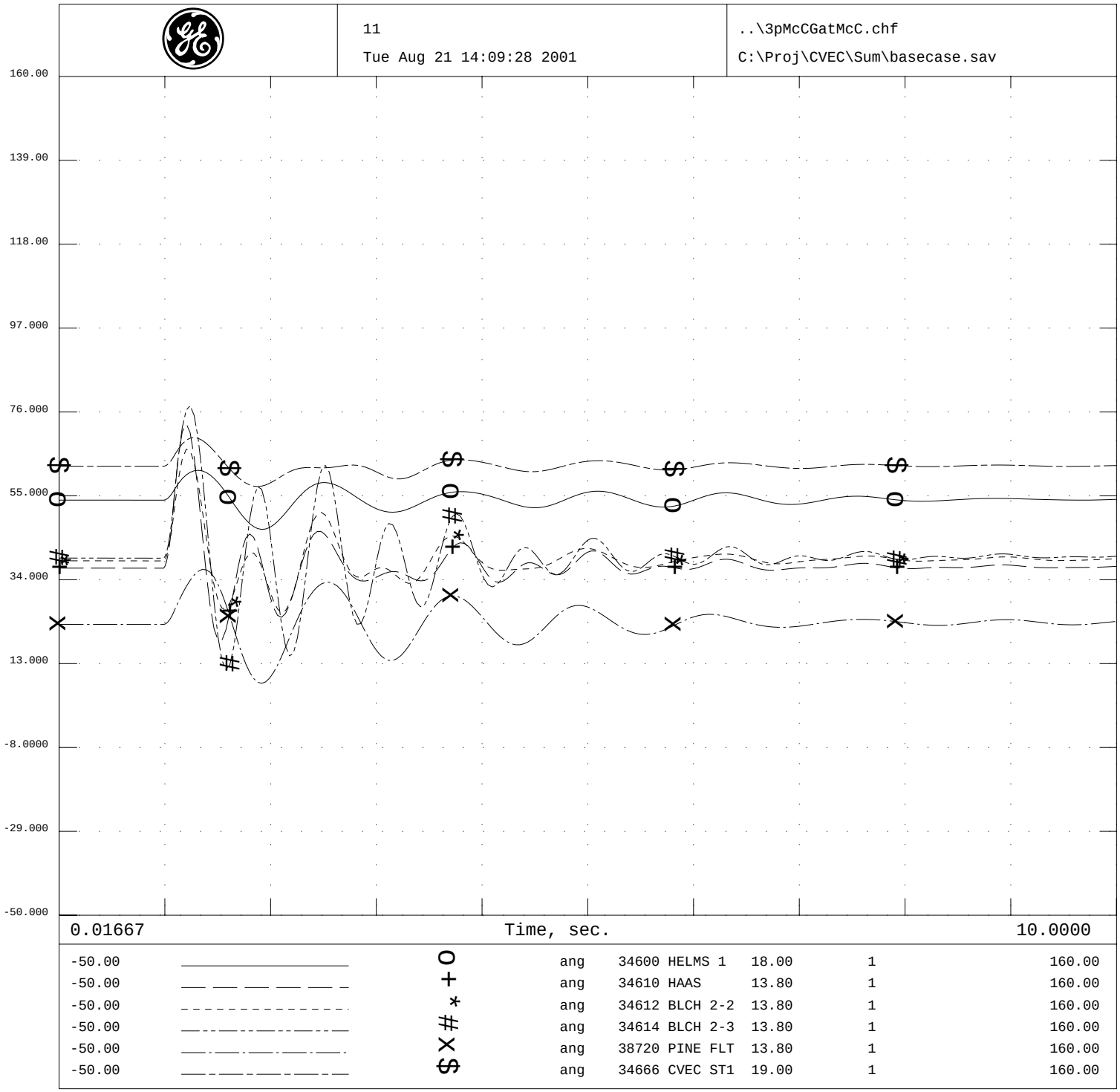

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Calpine Corporation
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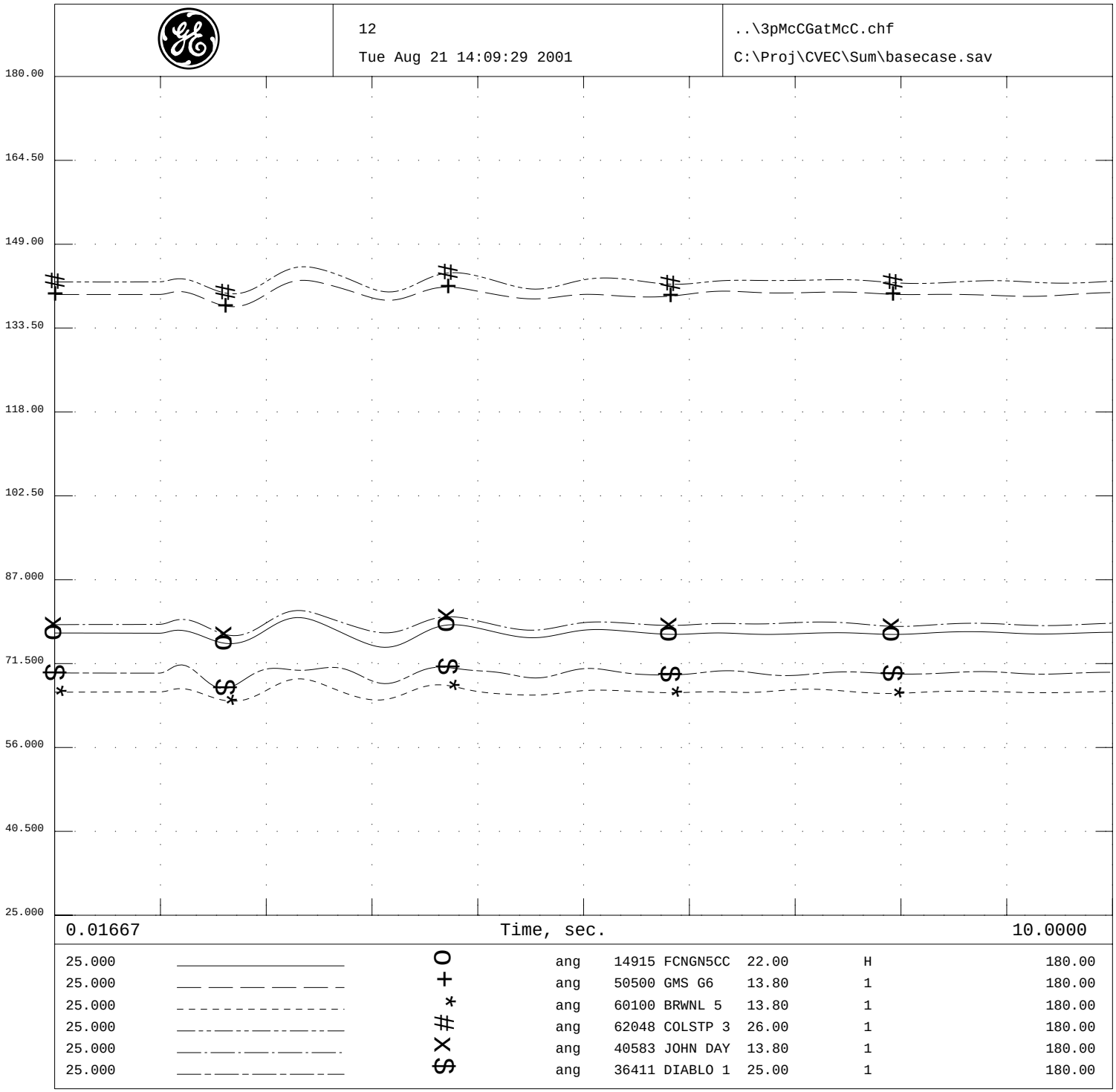

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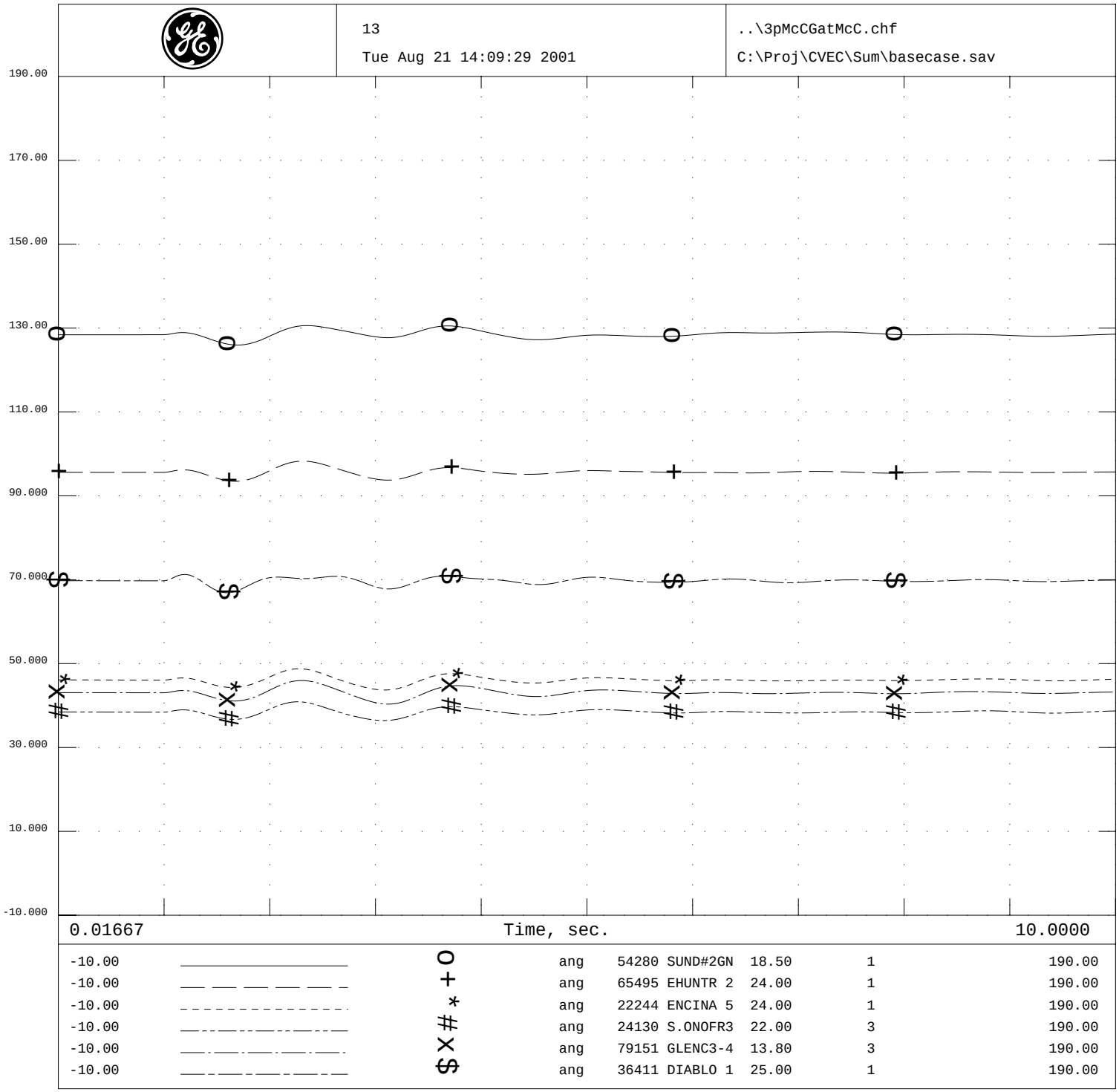
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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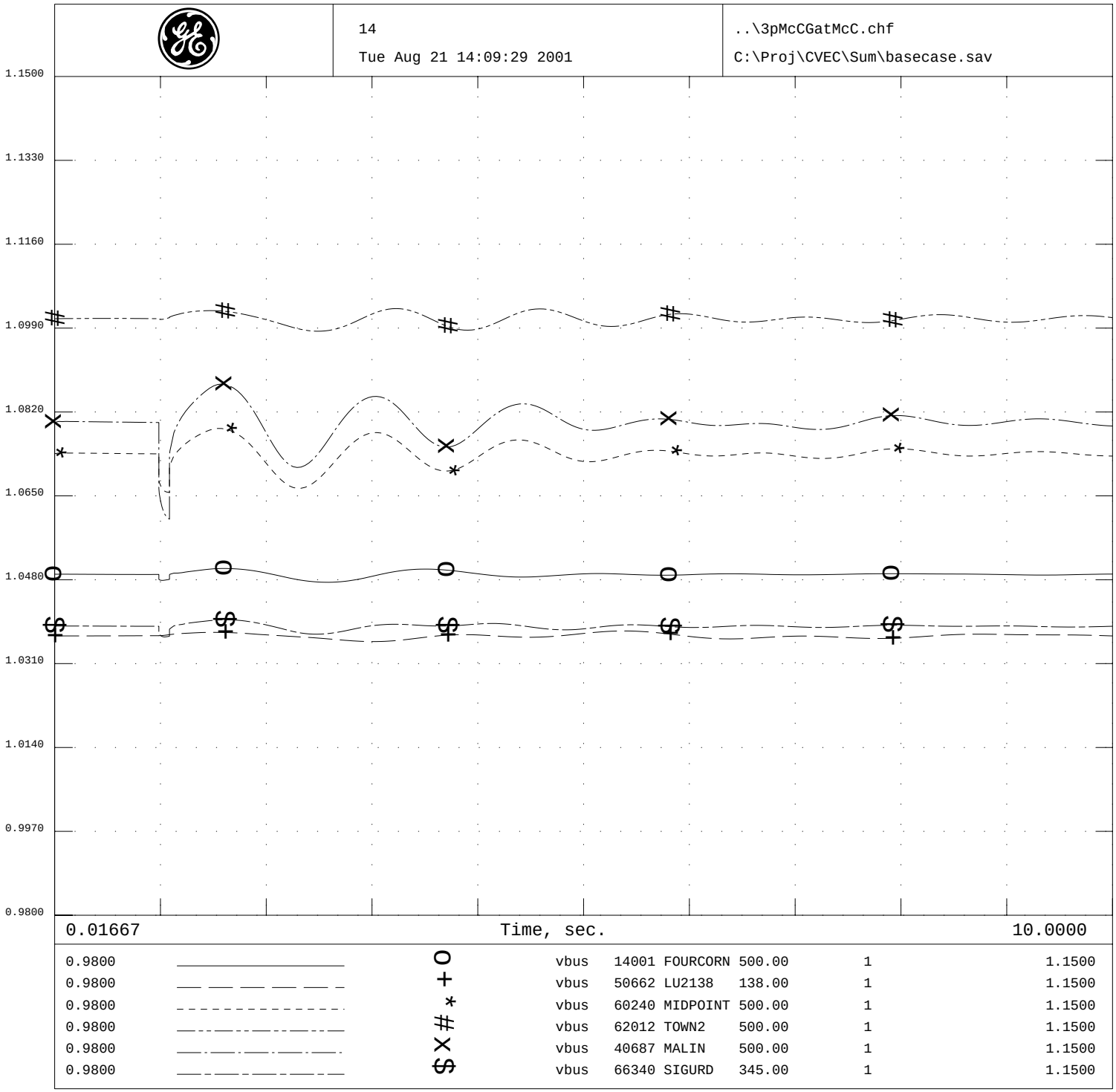

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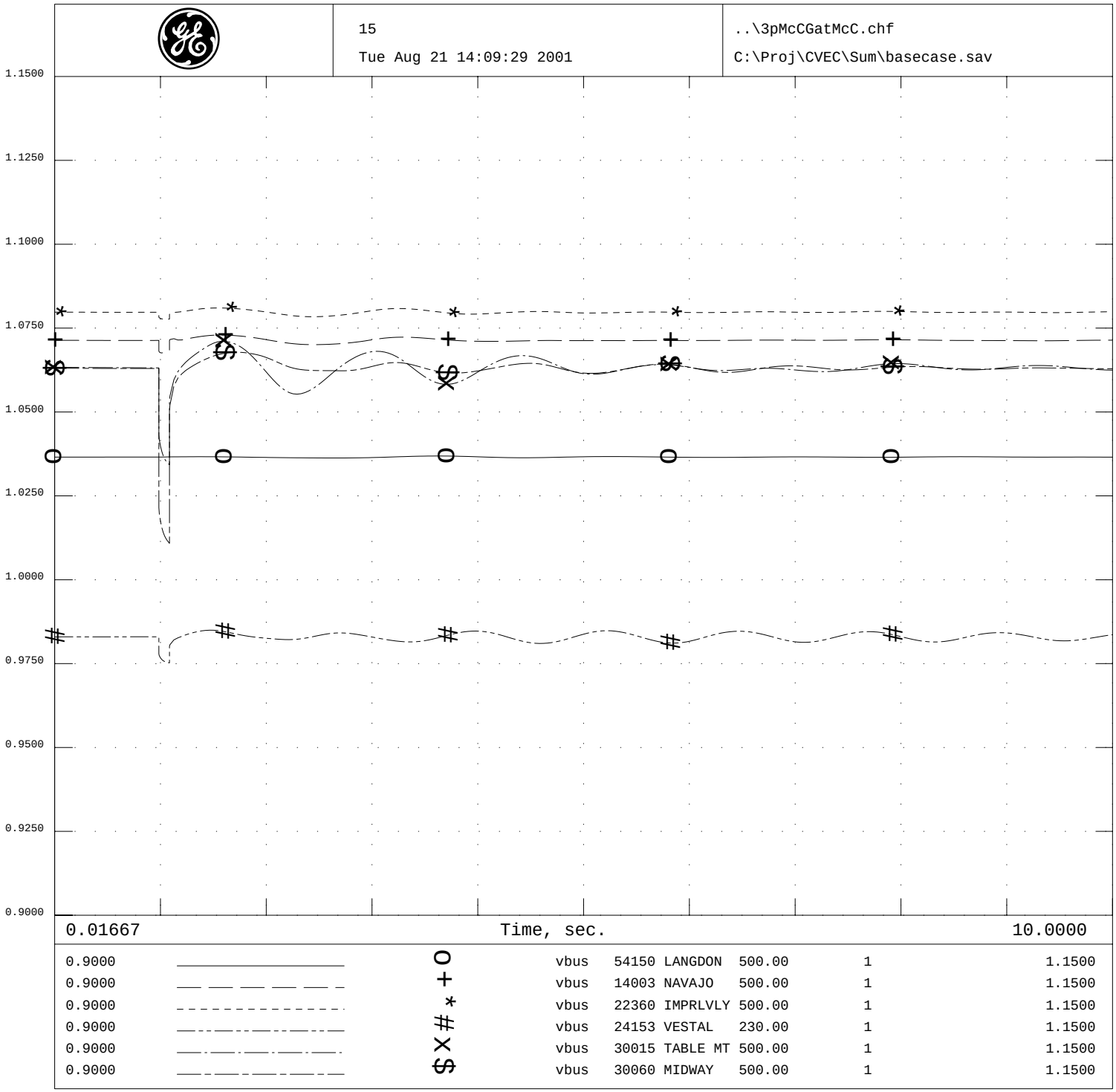

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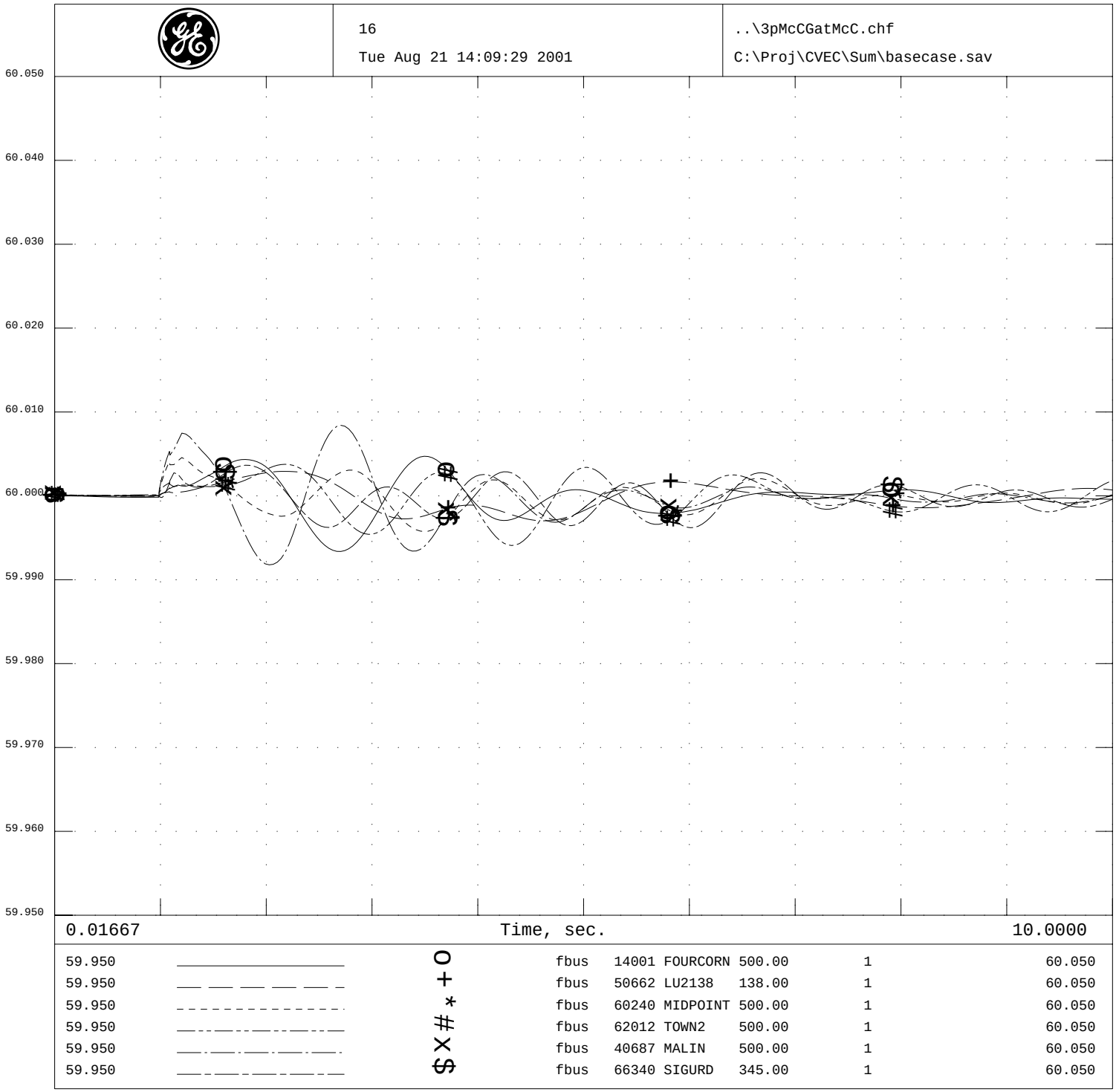

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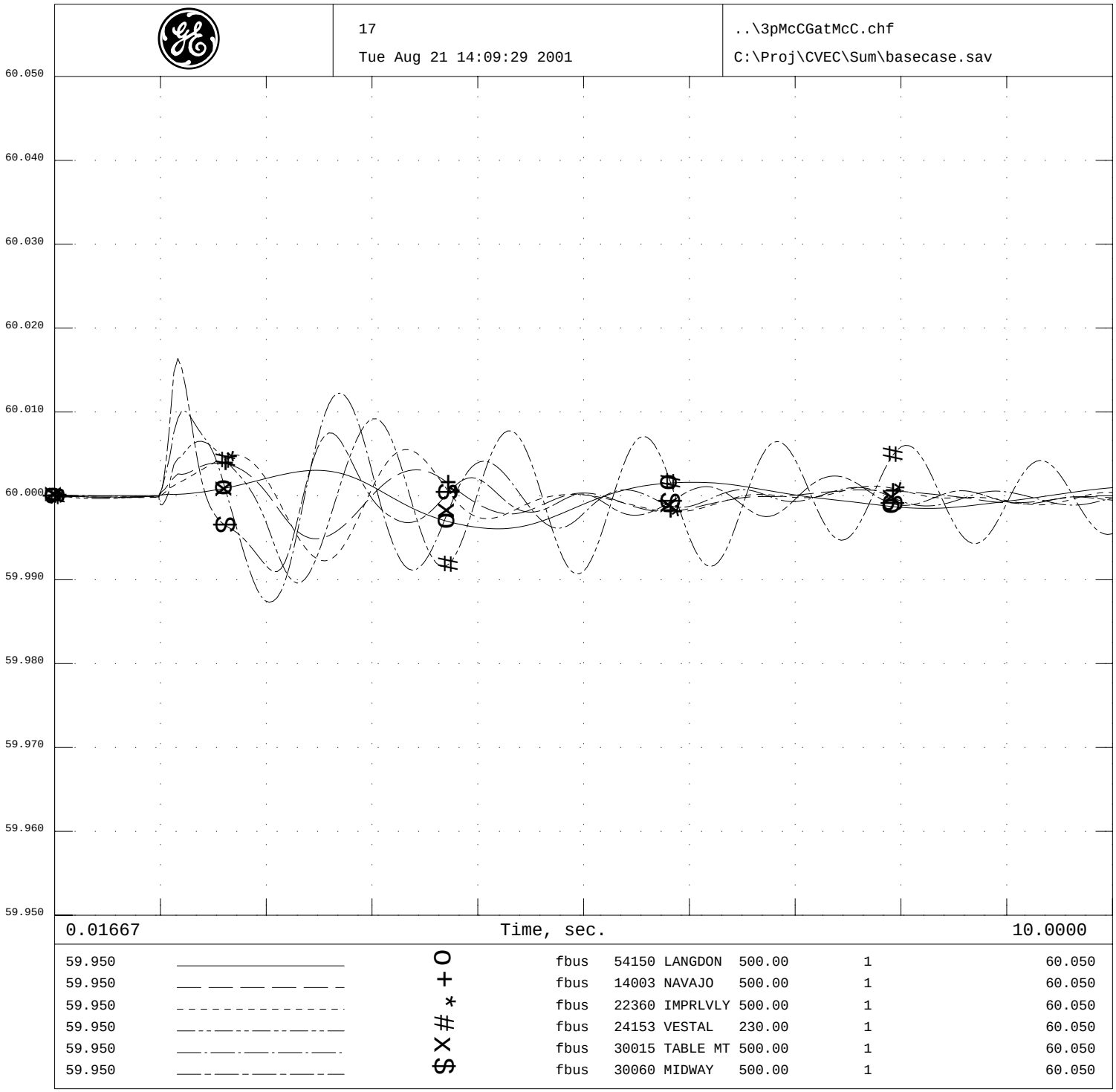

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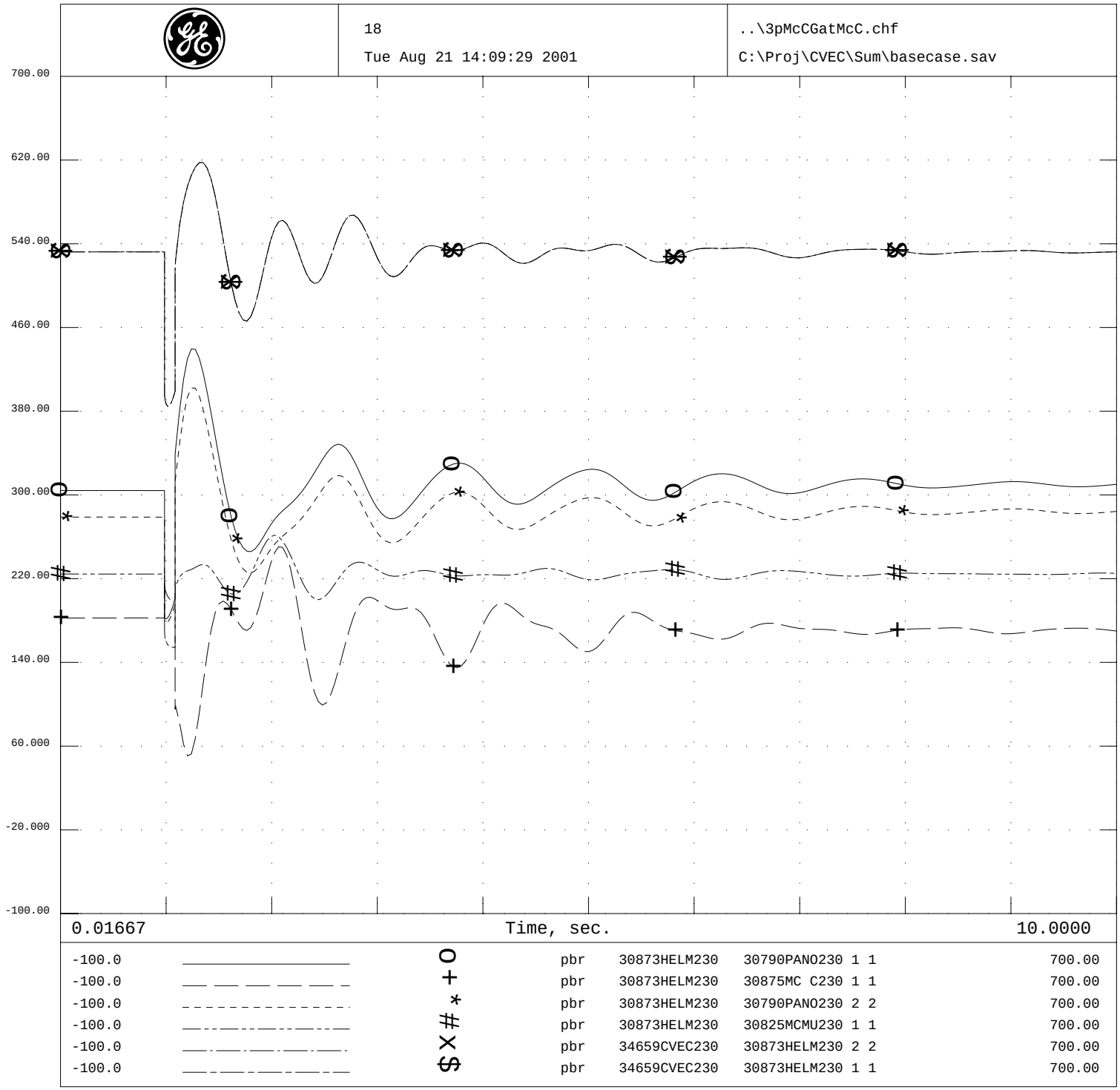

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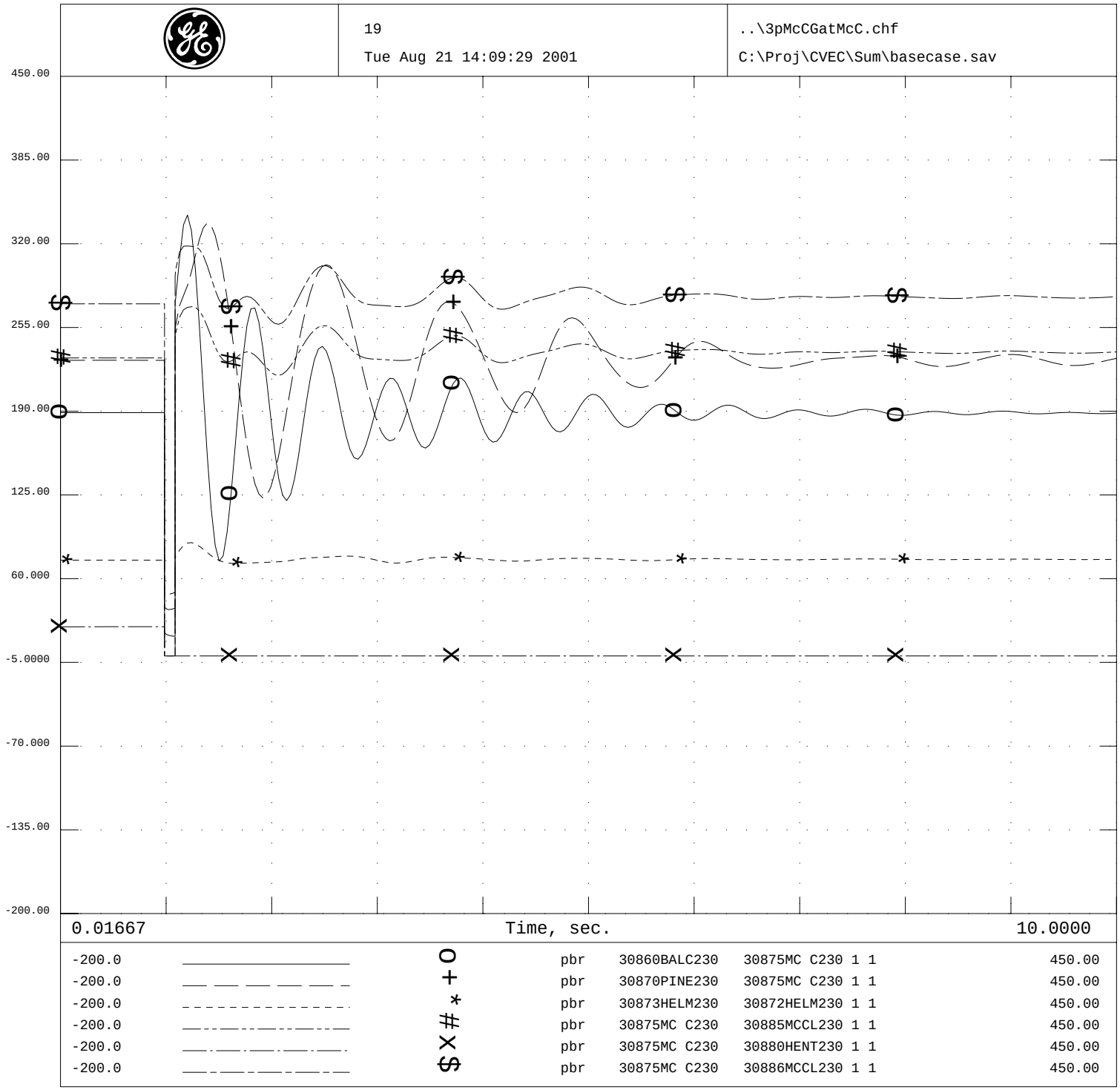

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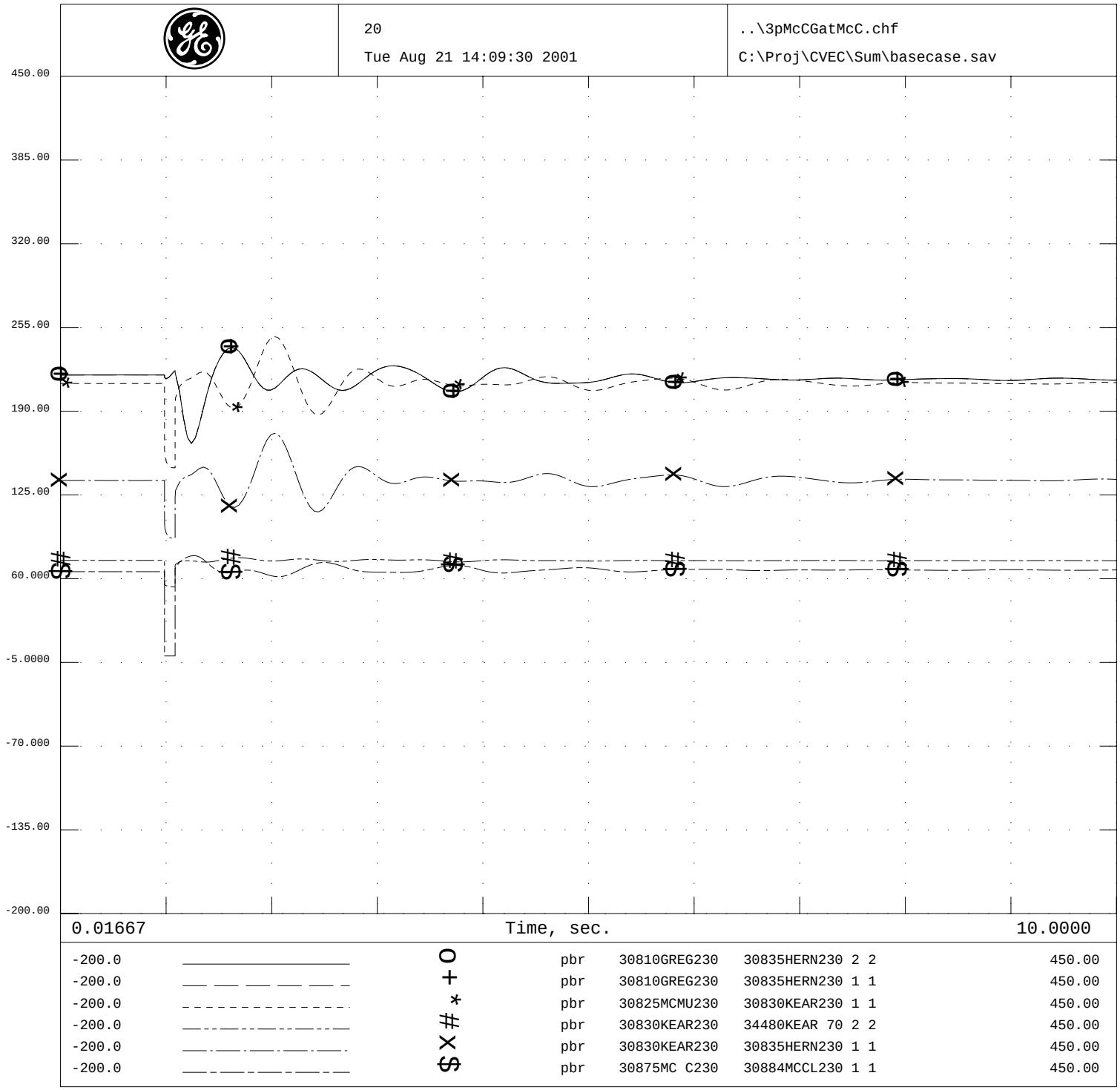

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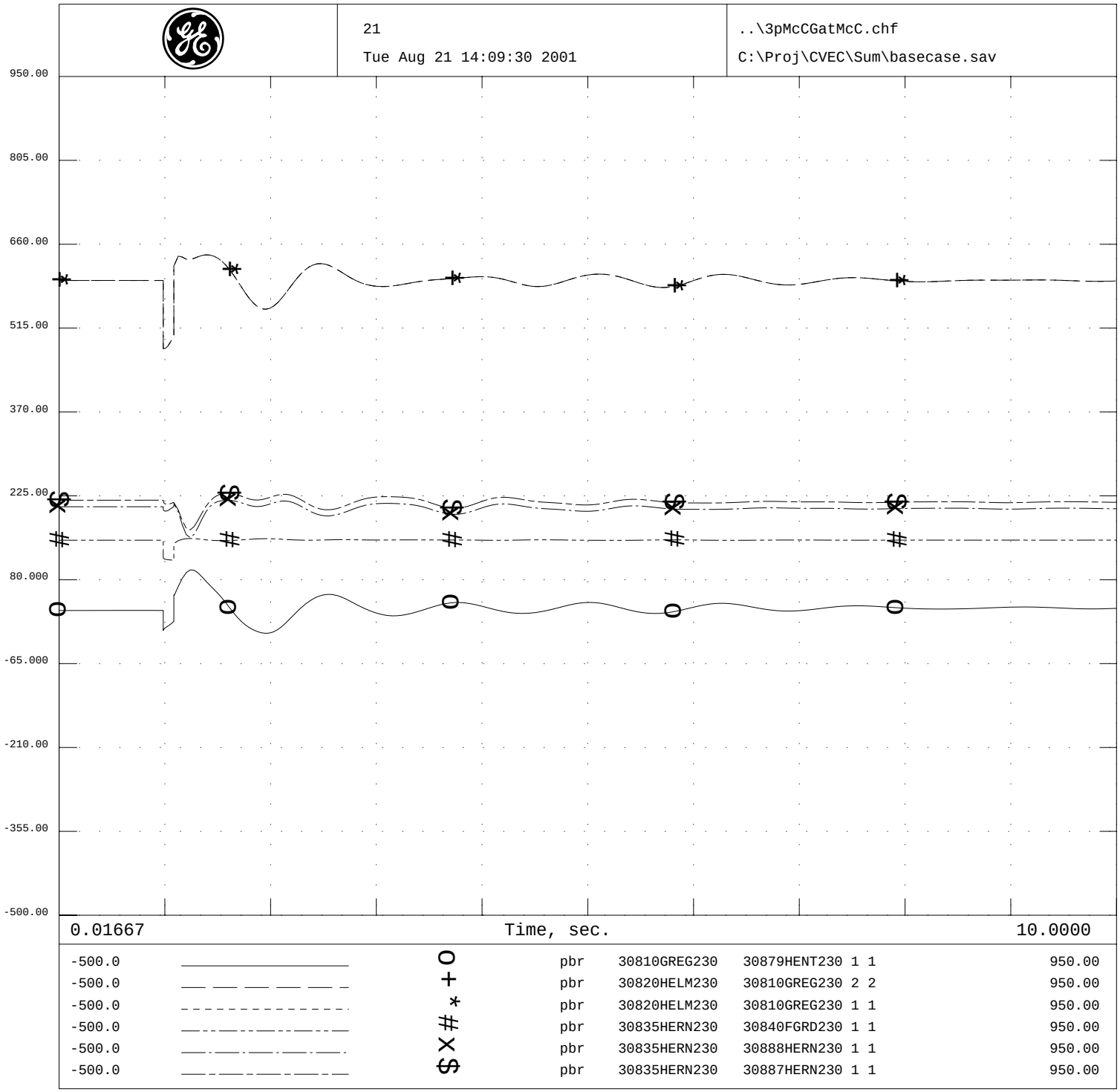

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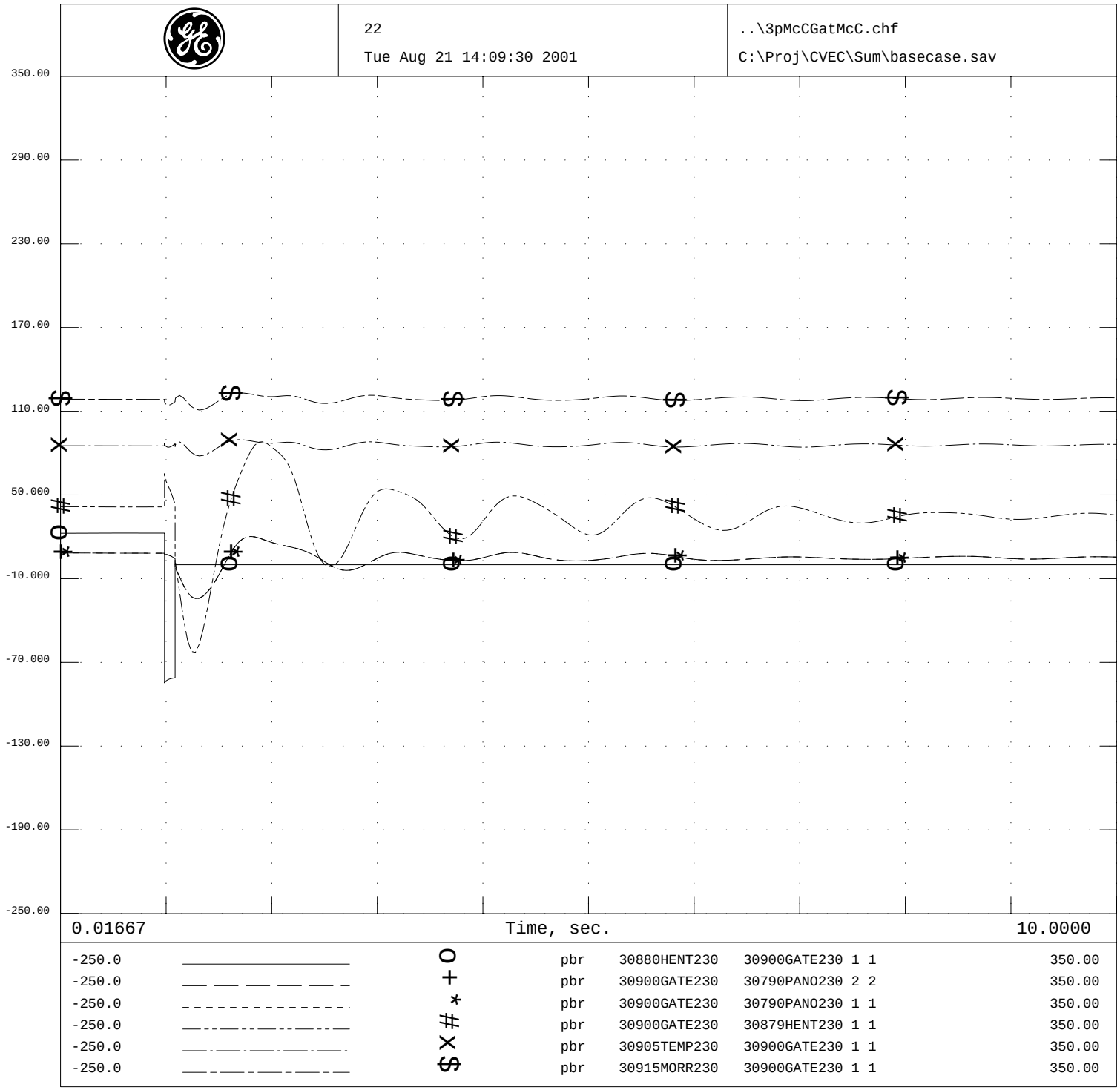

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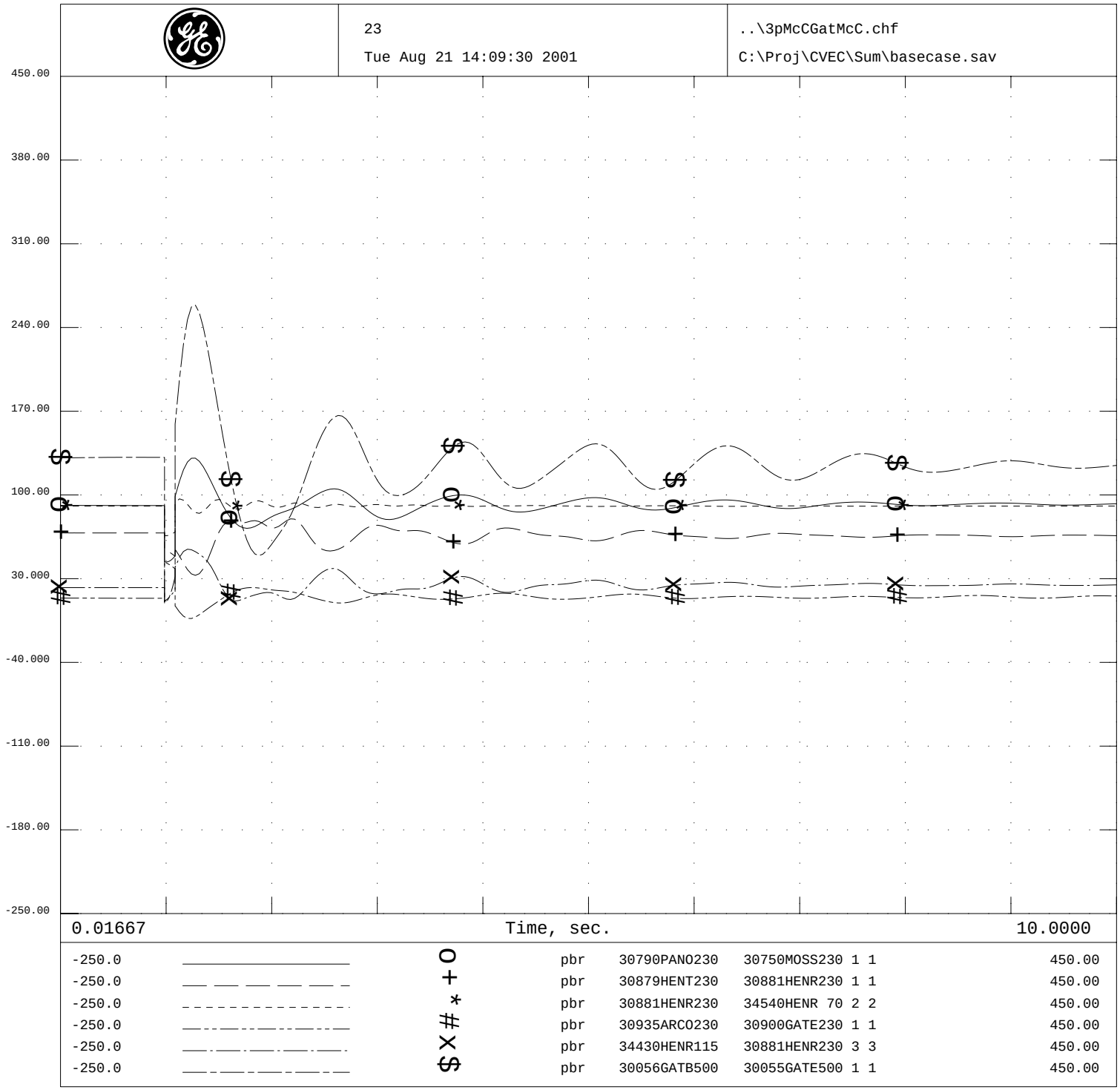

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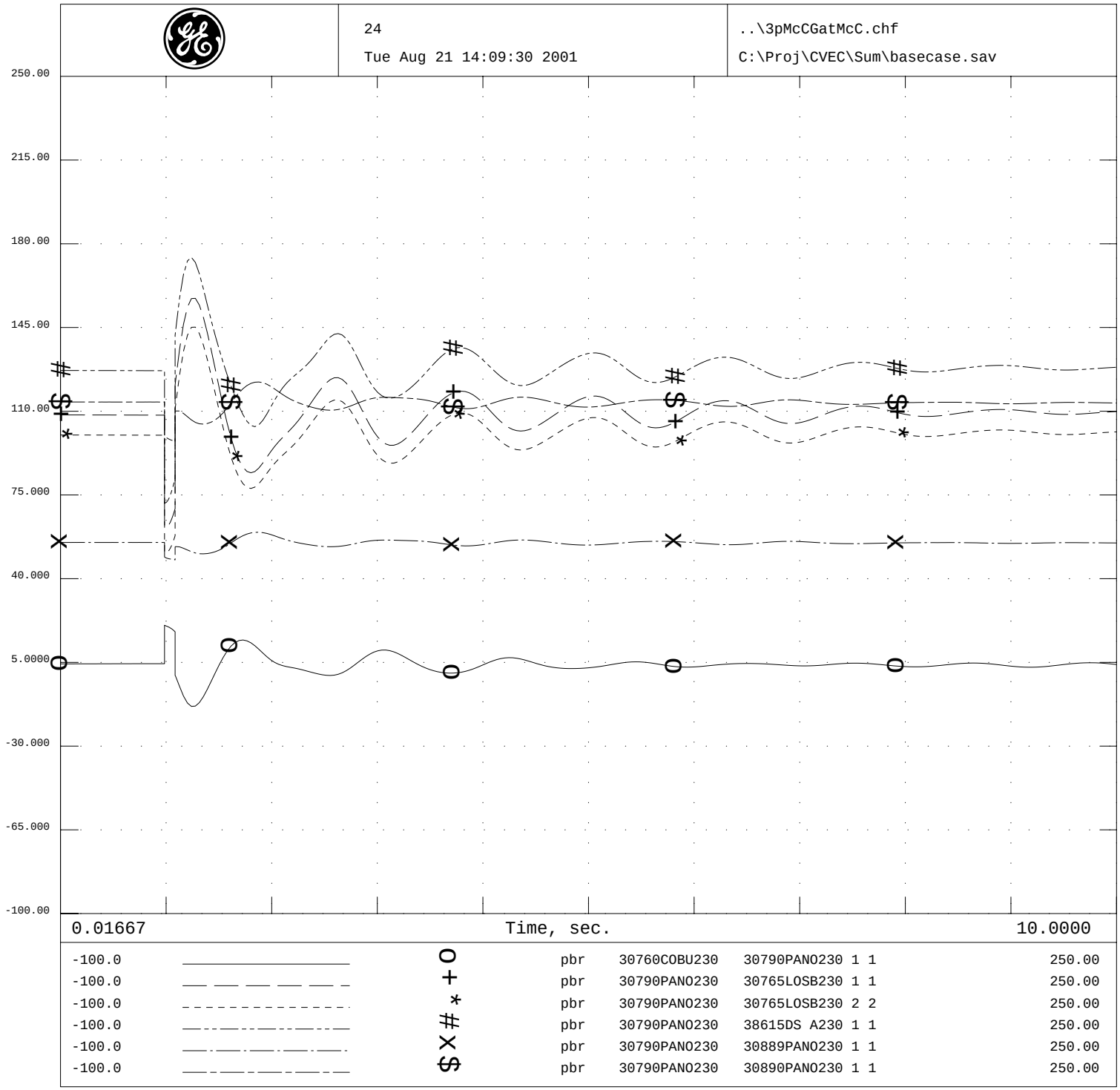

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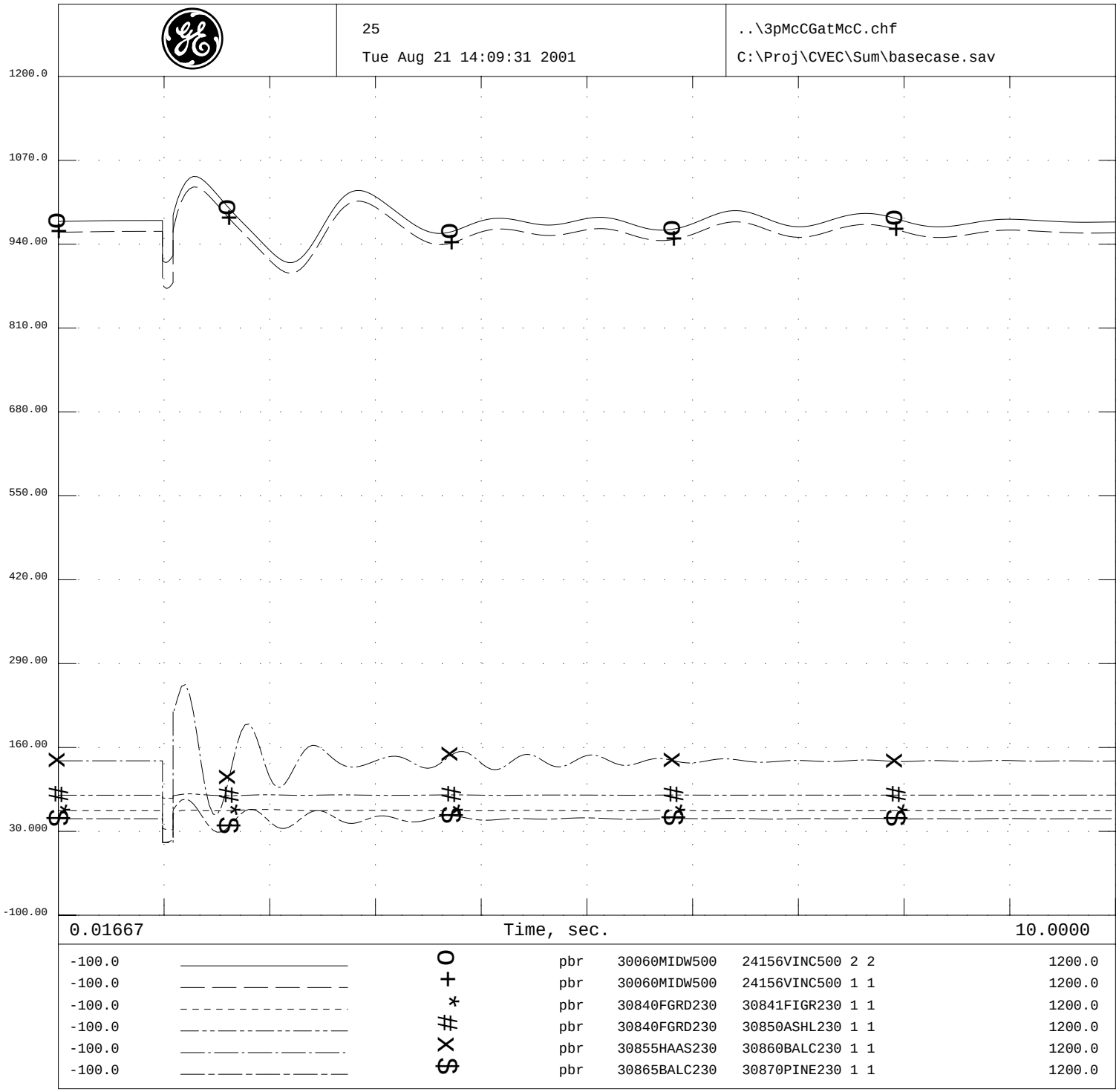

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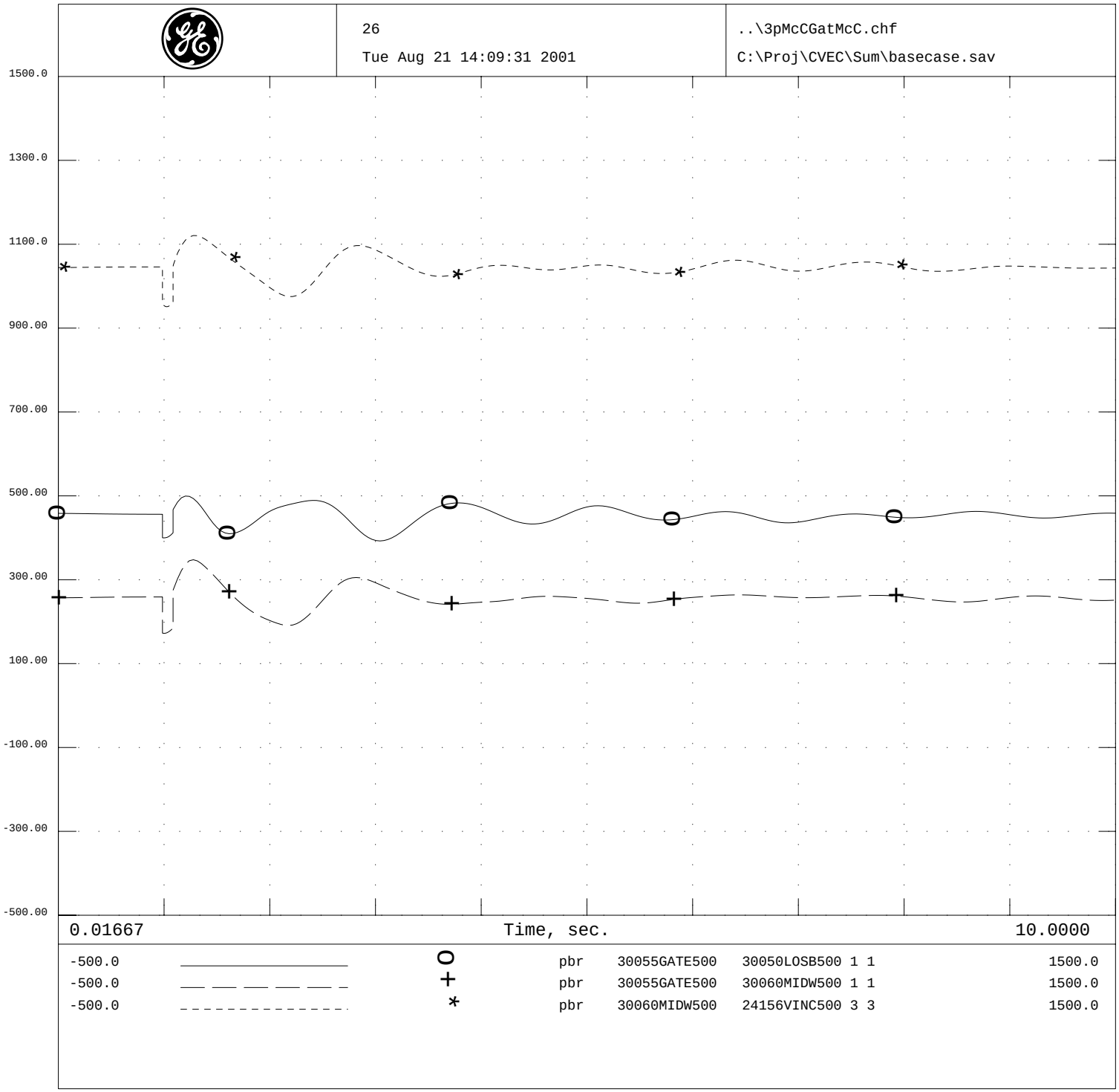

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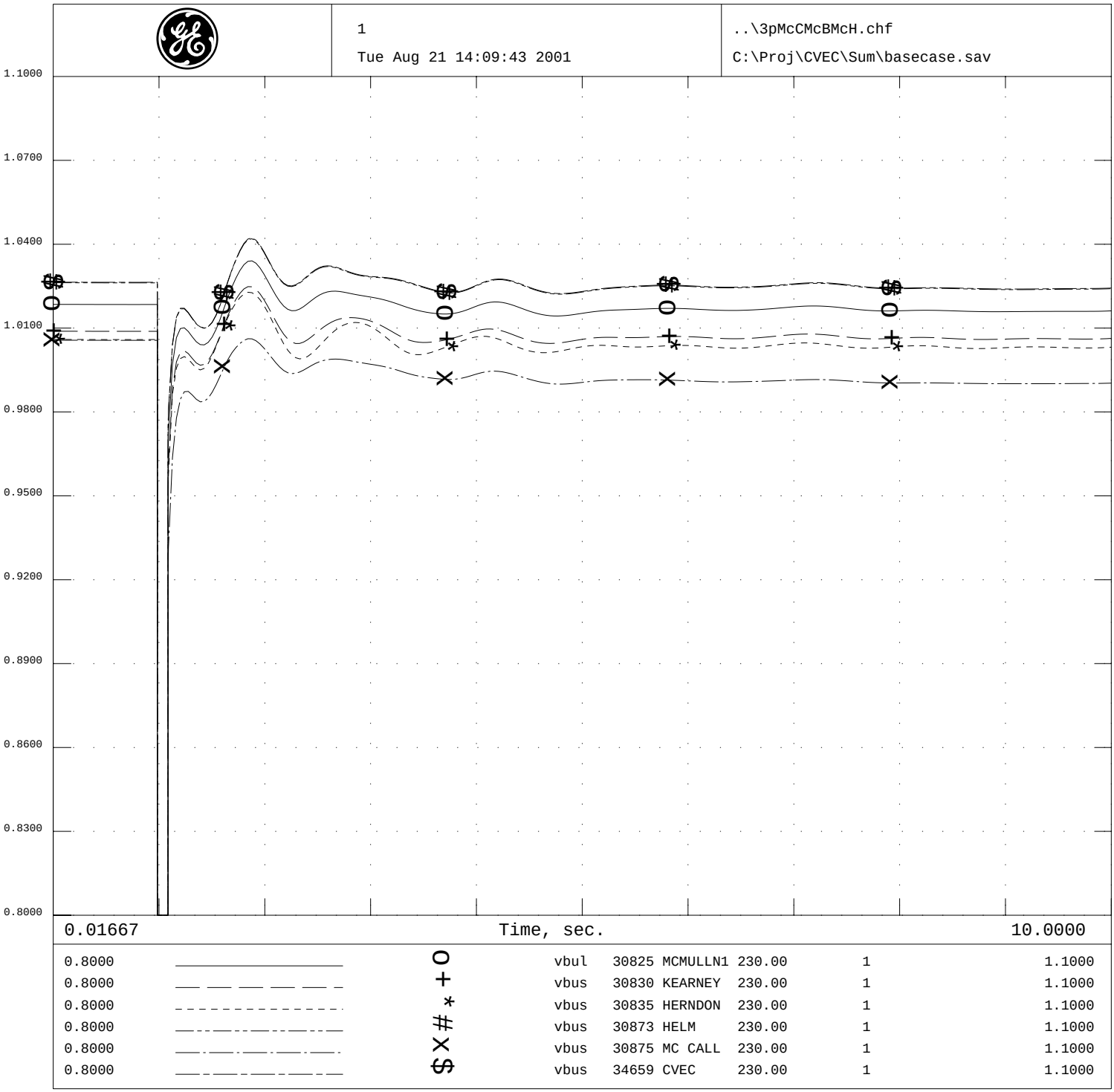

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McCall-Balch, McCall-Haas 230kV Double Line Outage
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Central Valley Energy Center
Calpine Corporation
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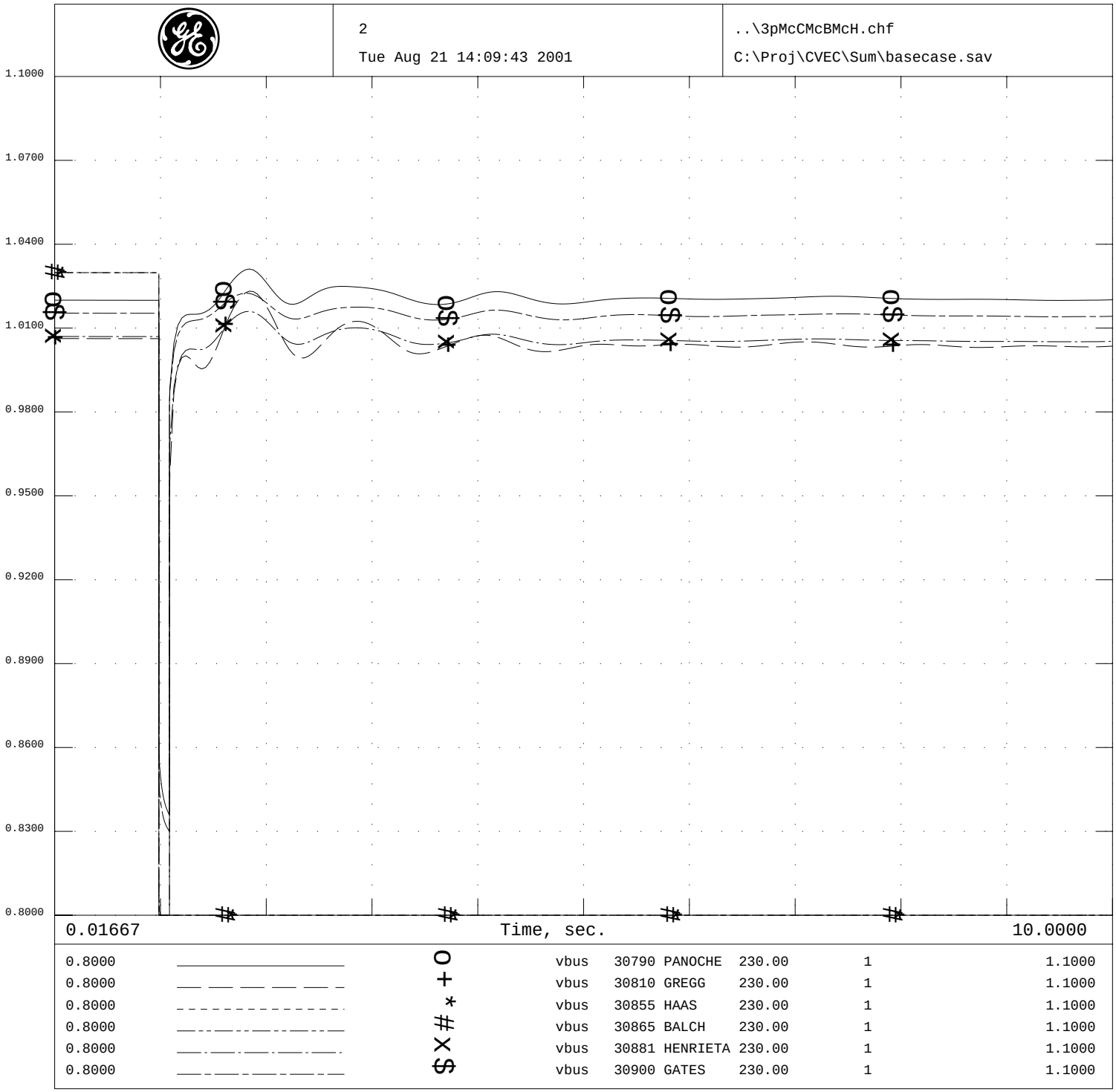

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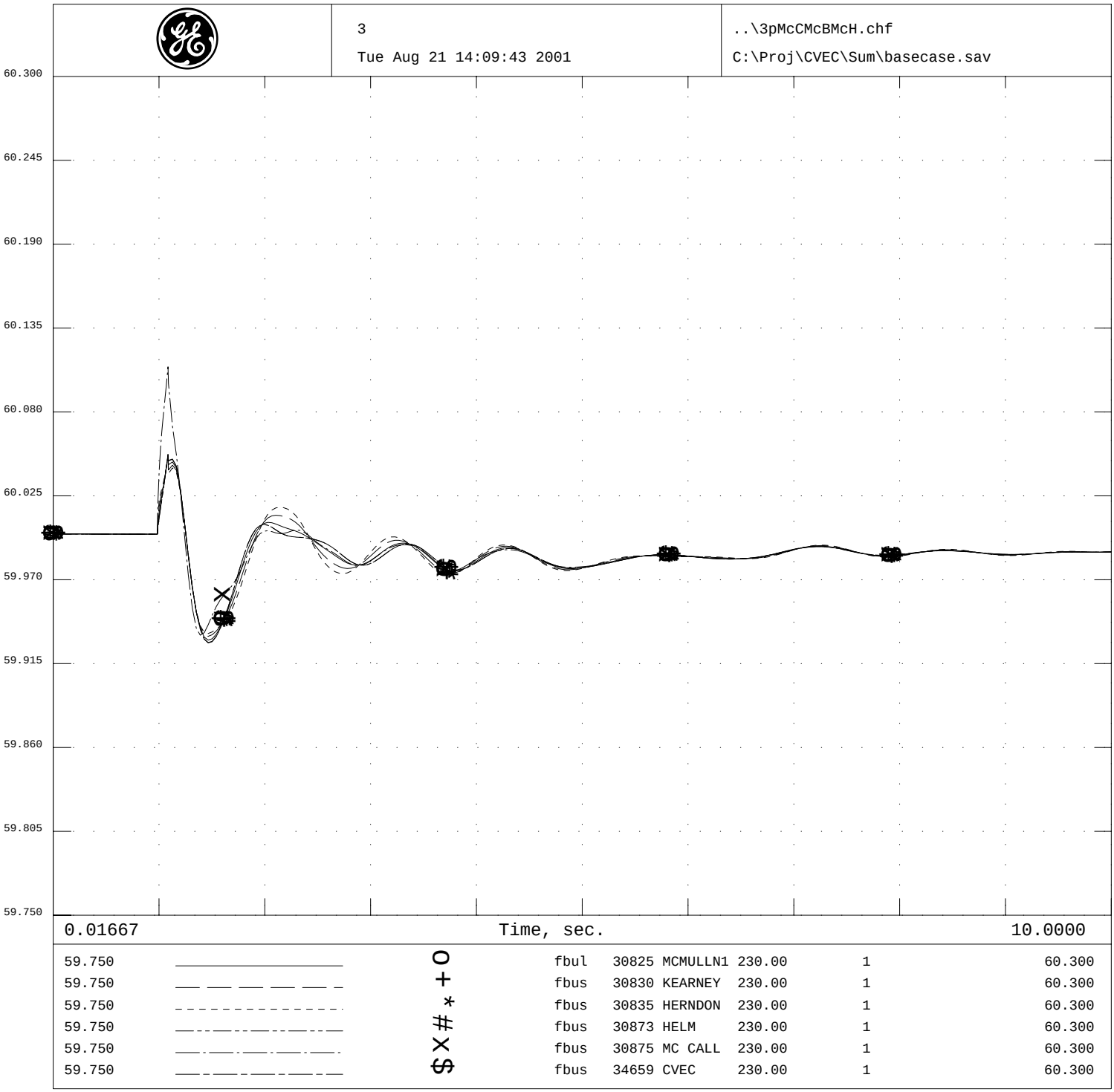

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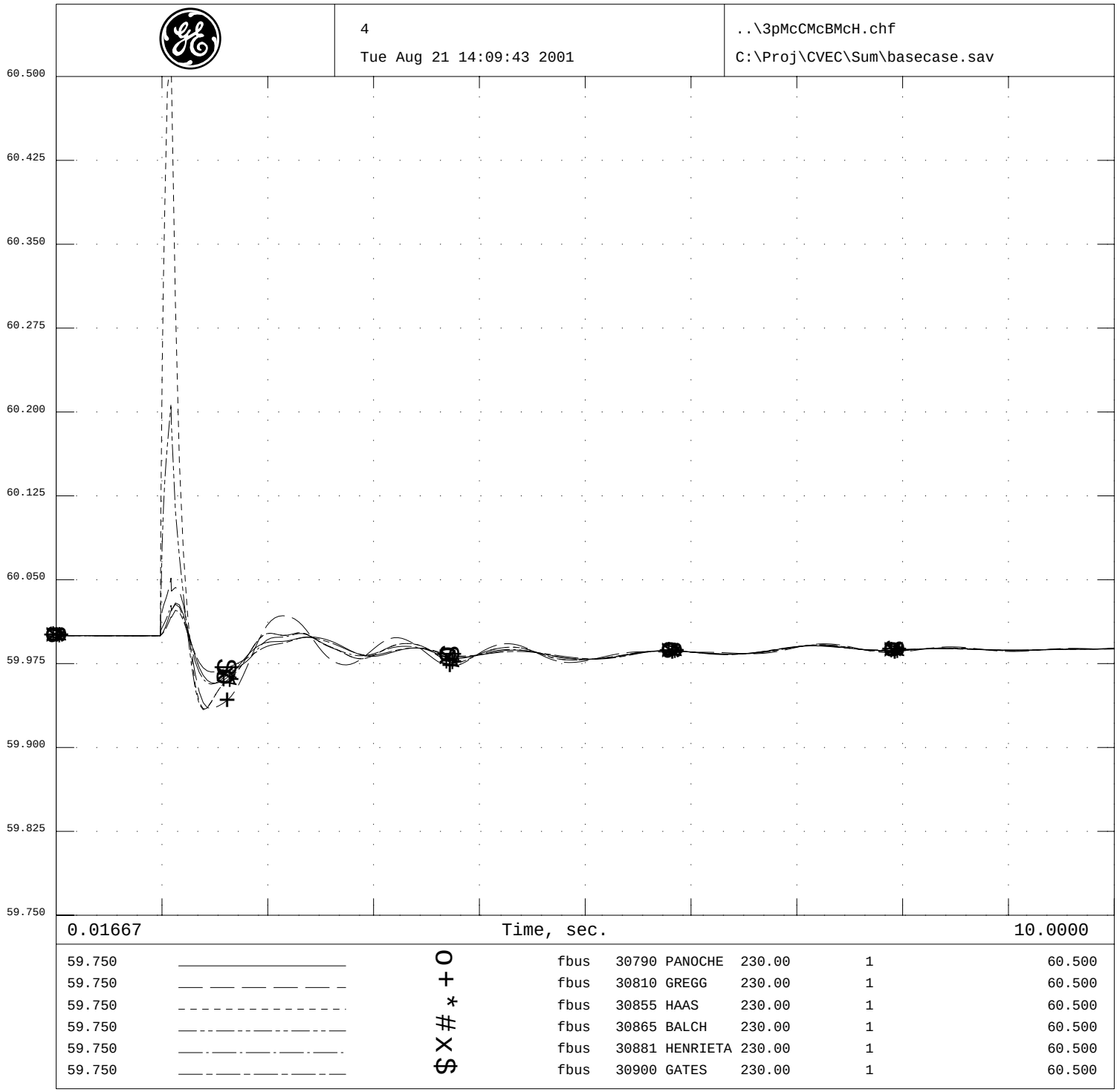

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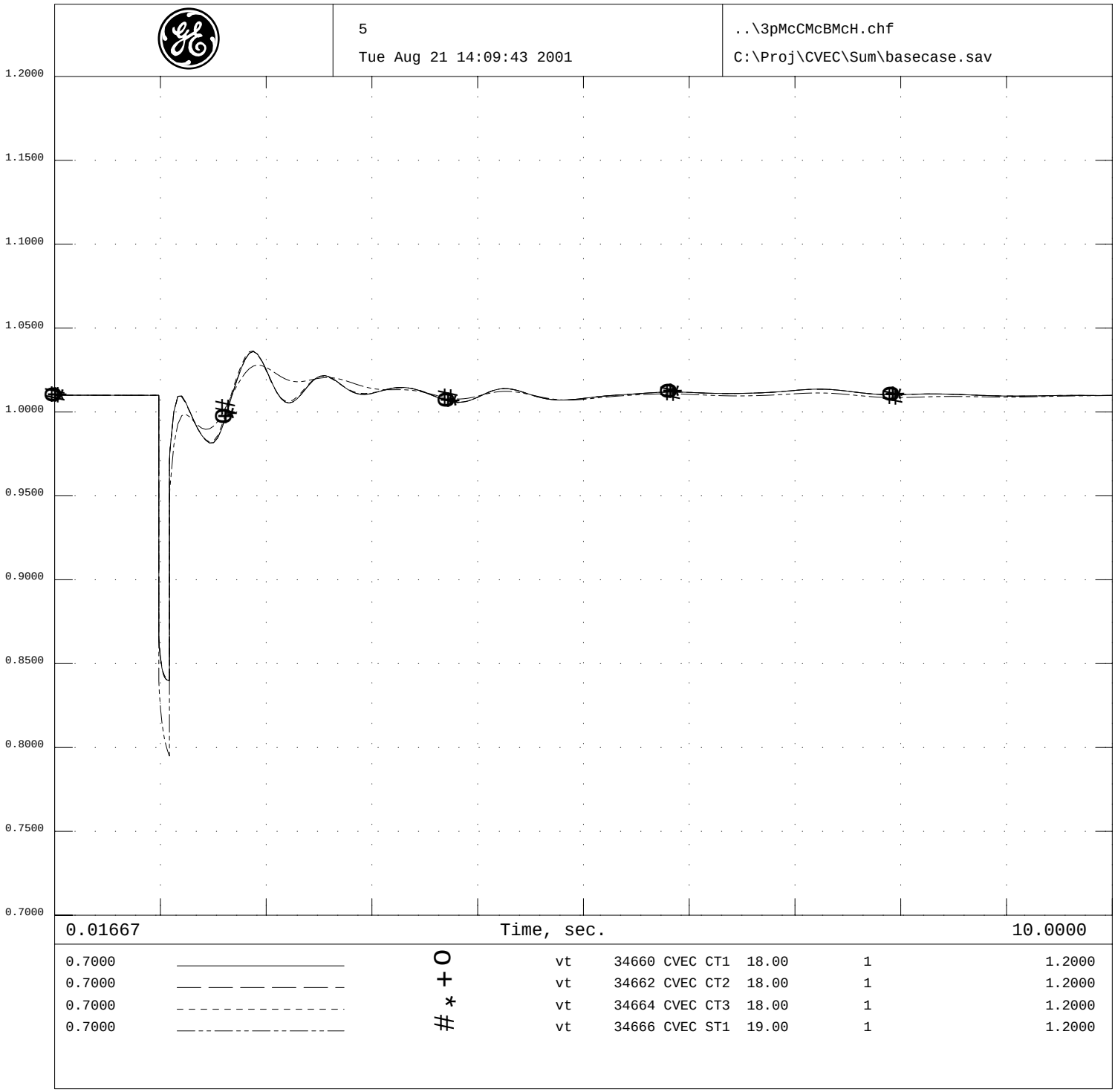

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
McCall-Balch, McCall-Haas 230kV Double Line Outage
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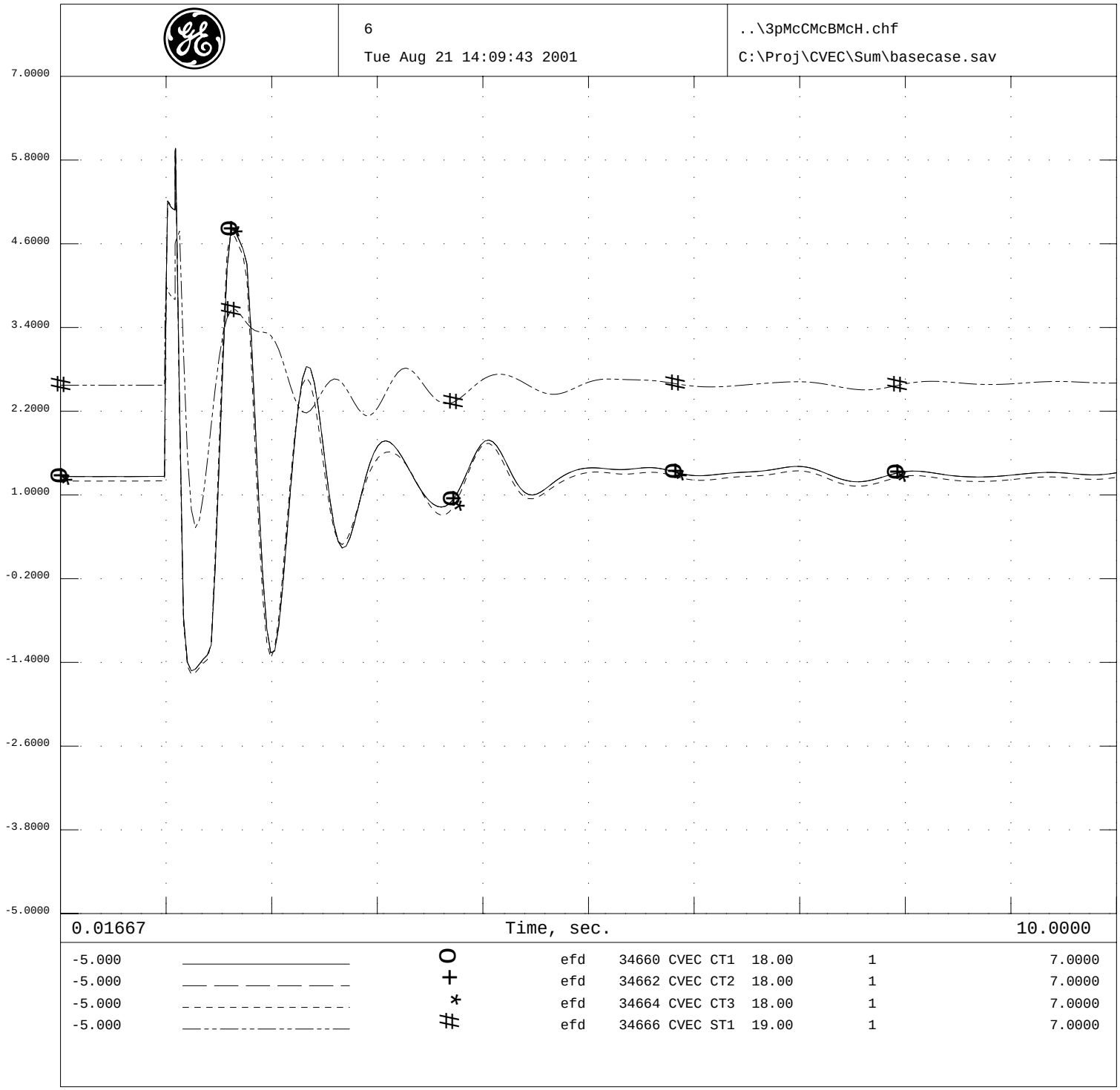
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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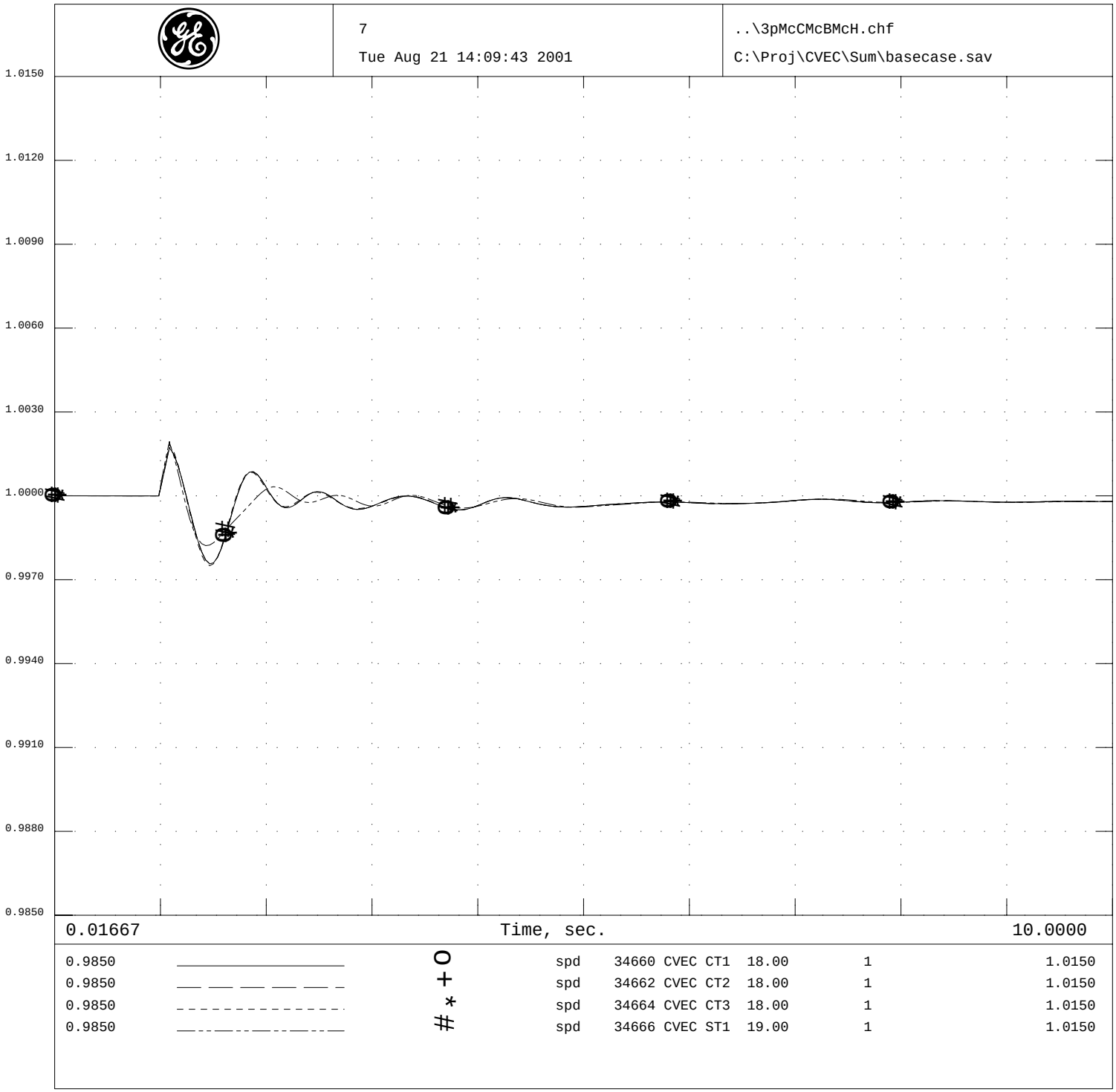

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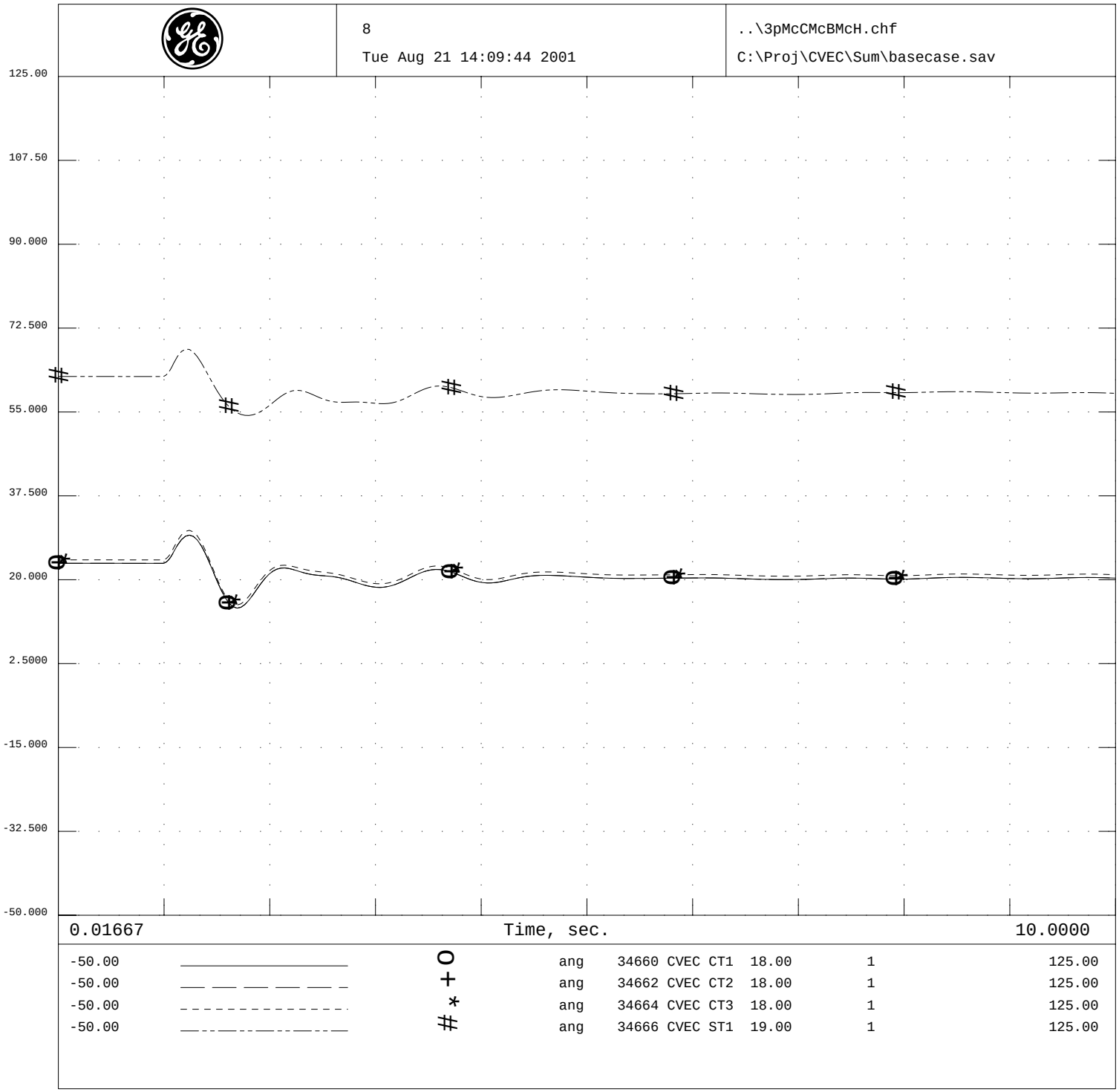
Calpine Corporation
Project Generator Rotor Speed



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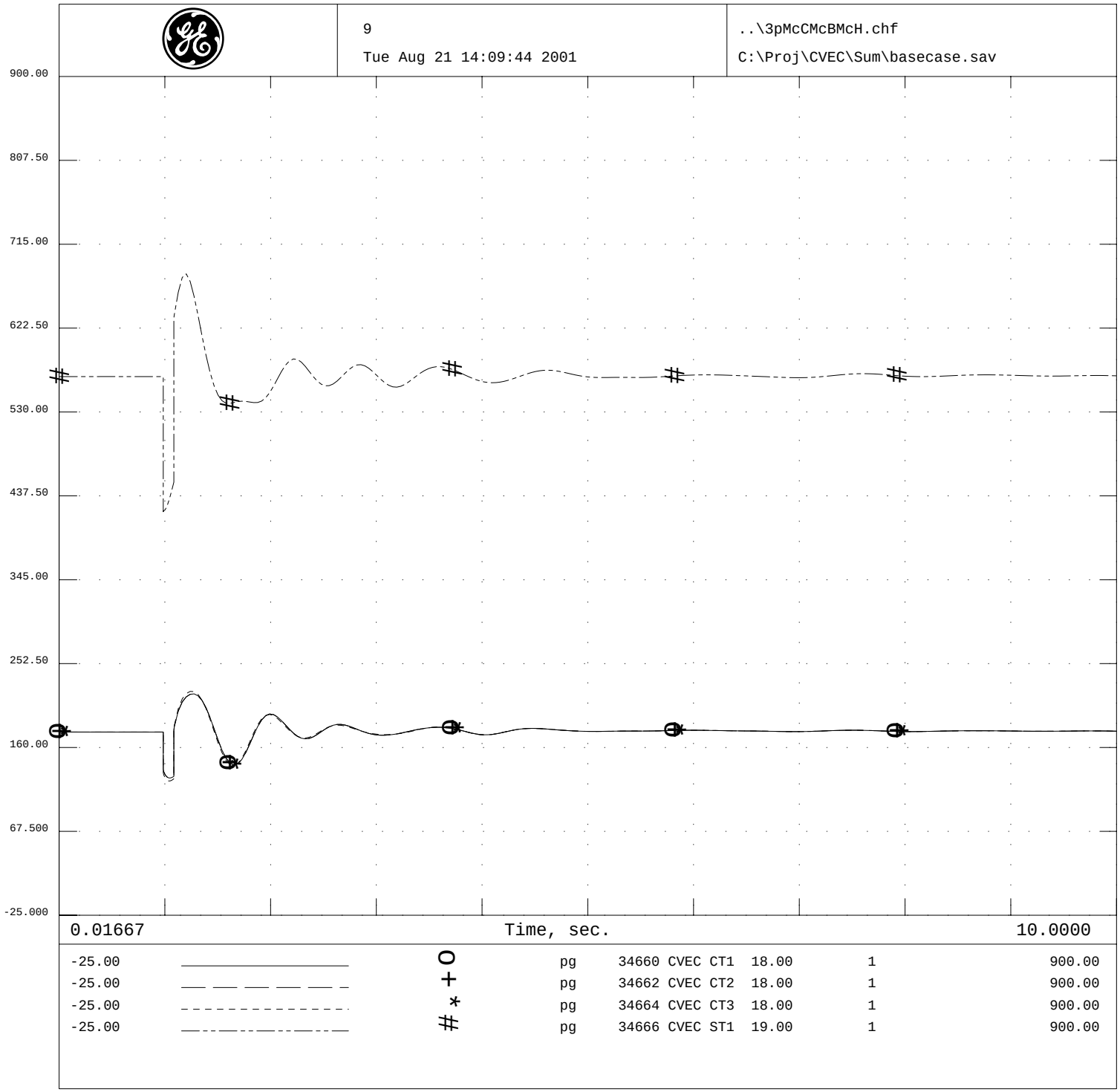
Project Generator Rotor Angle



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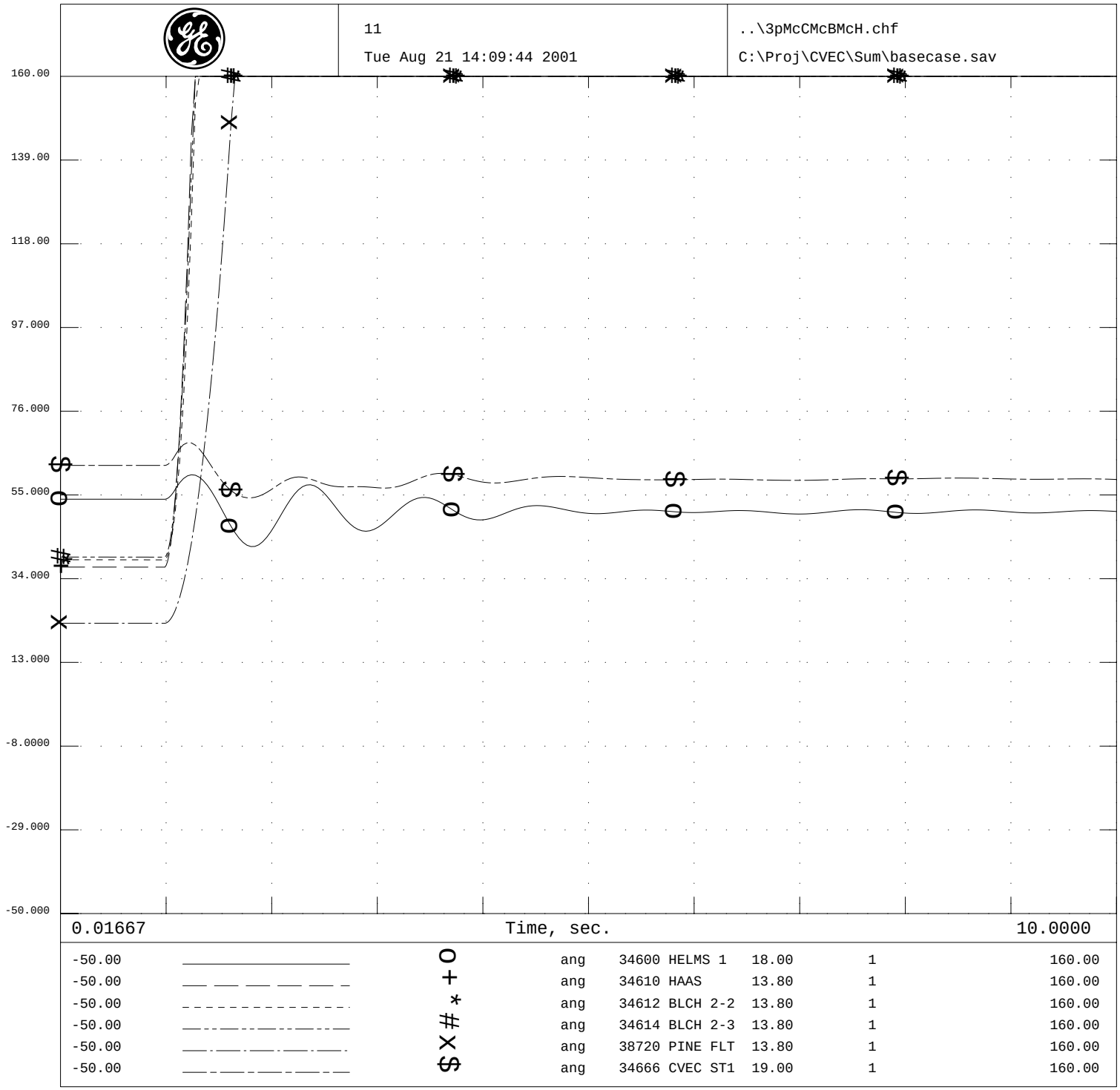

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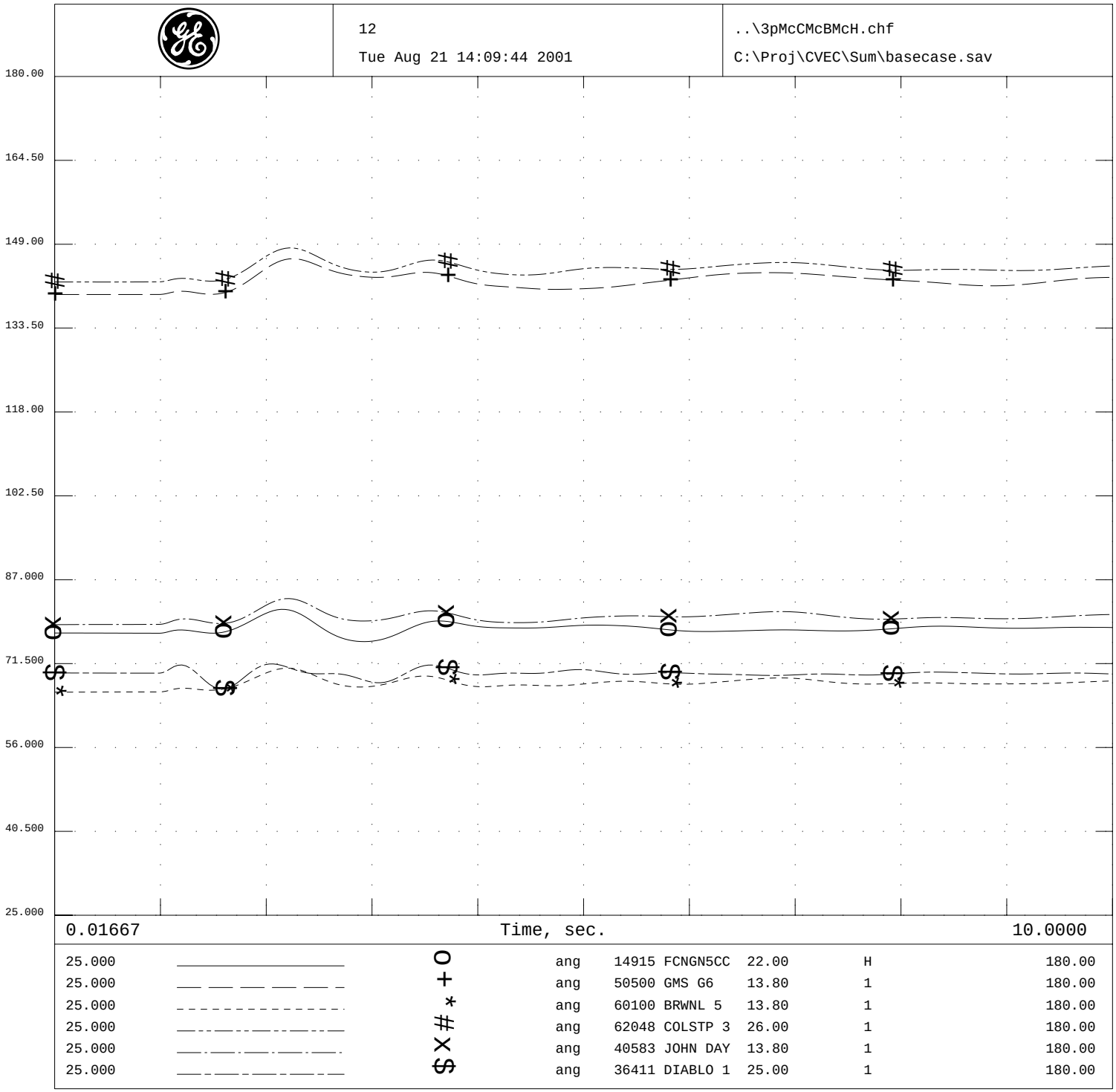
Selected Local Rotor Angle Plots



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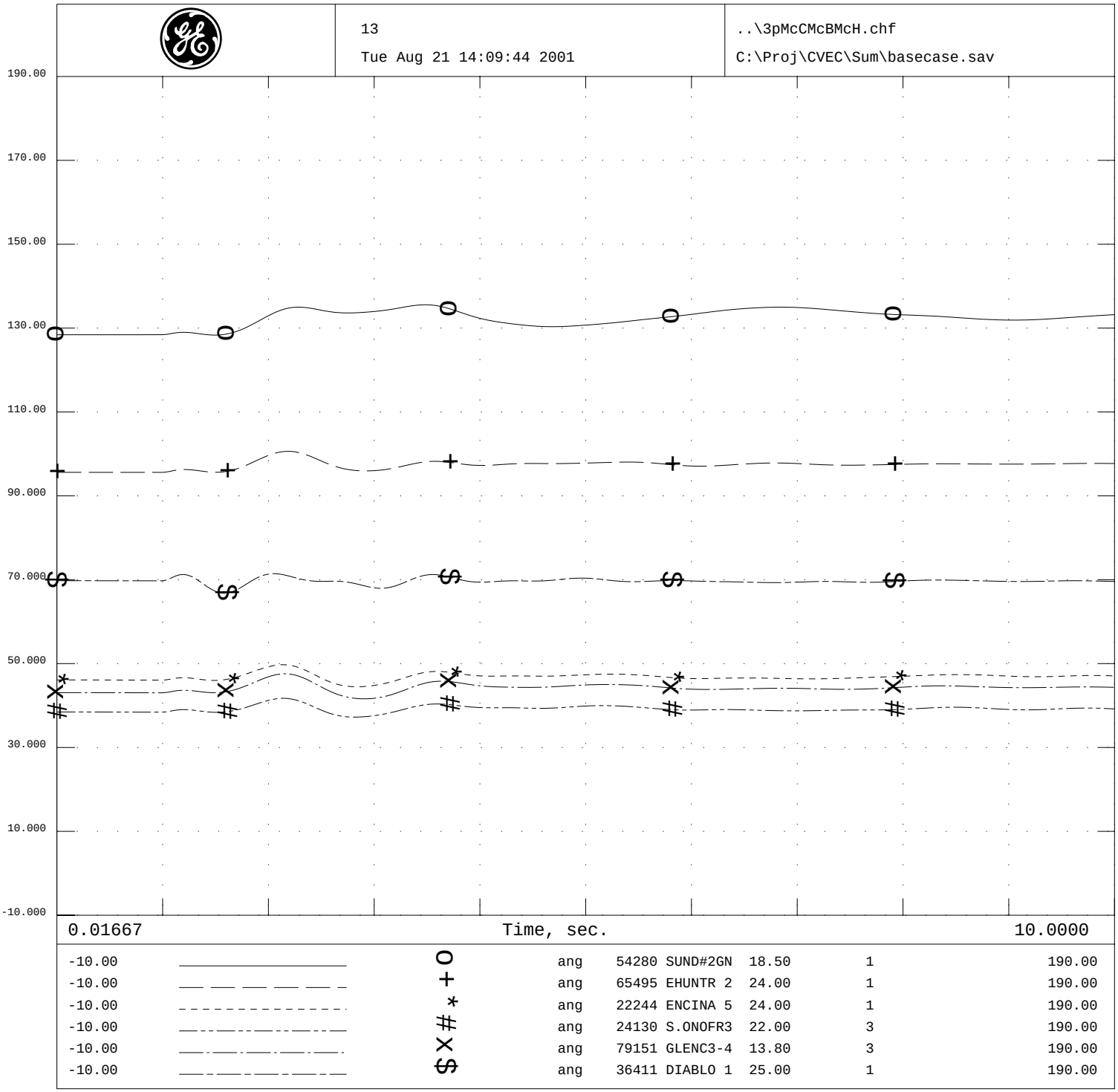
Selected WSCC Transmission Bus Angle Plots



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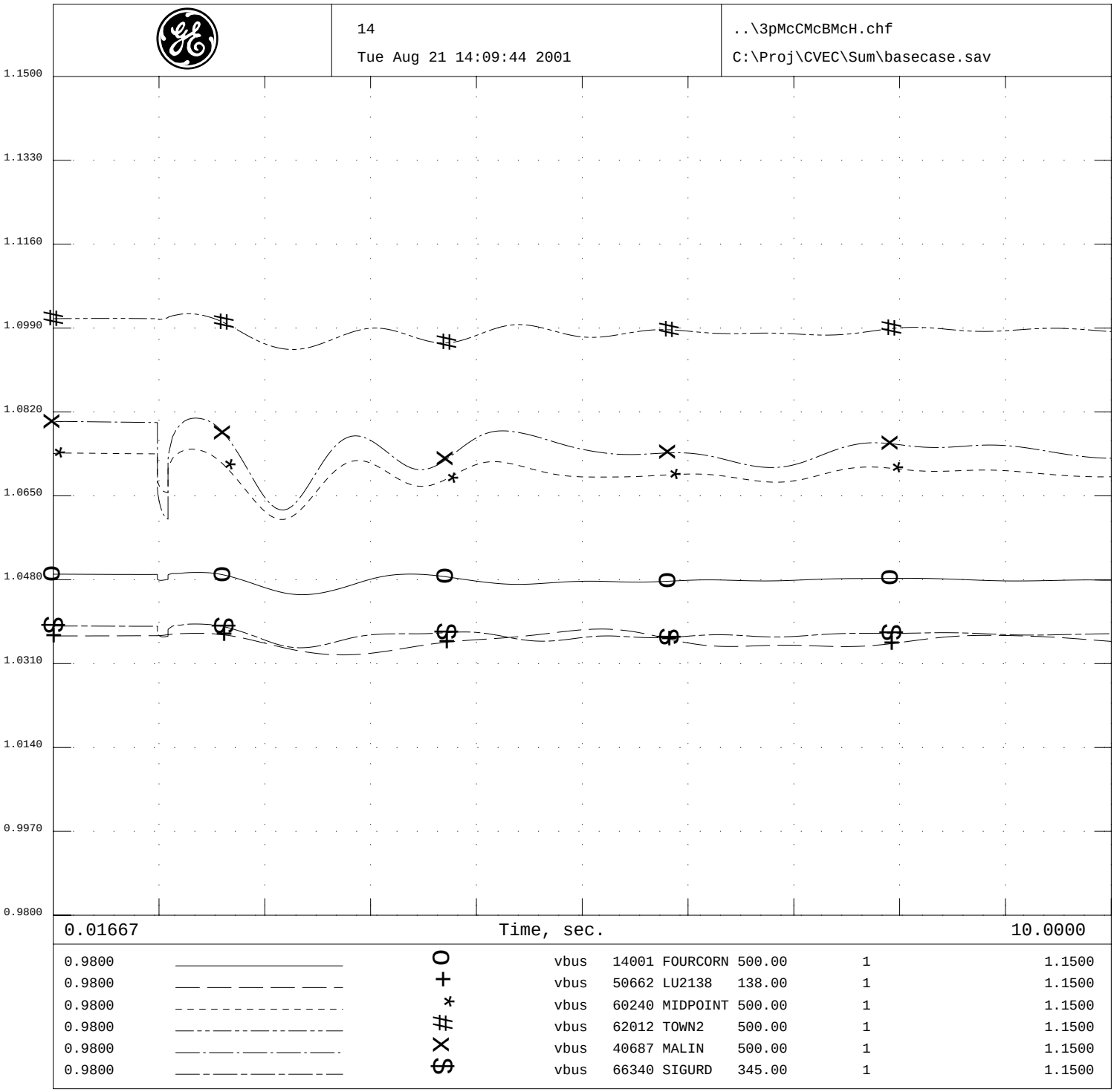

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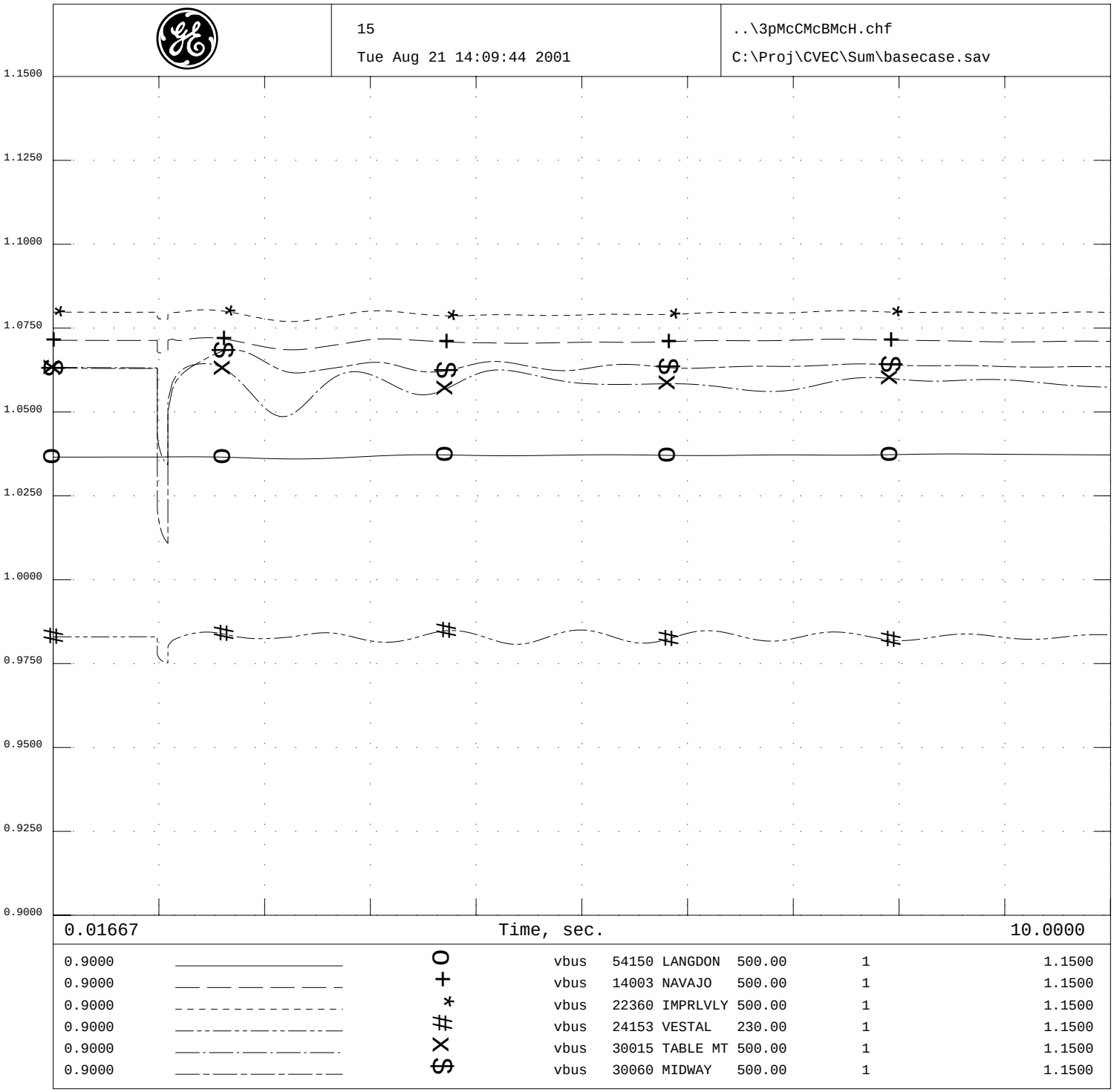

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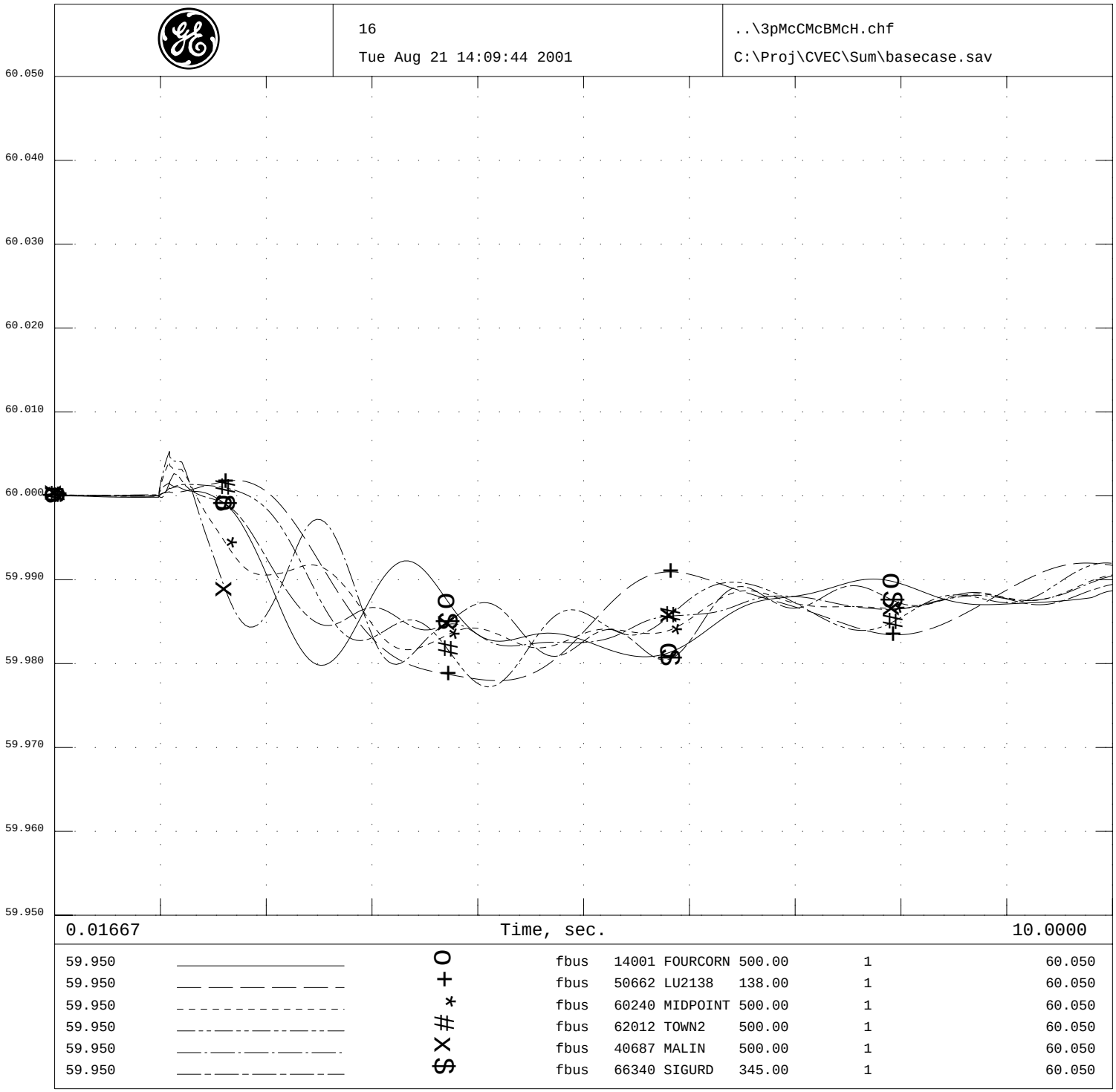

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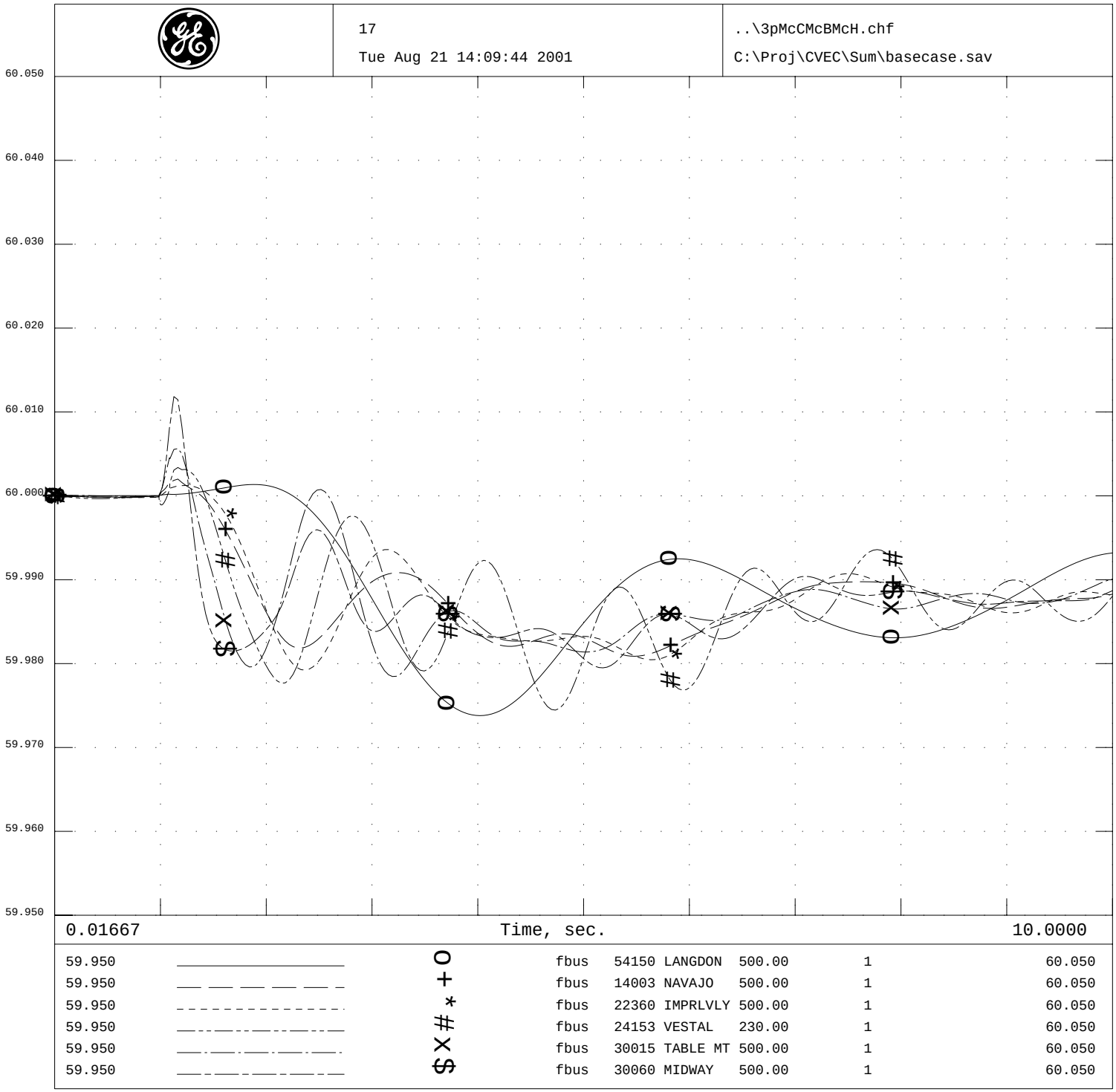

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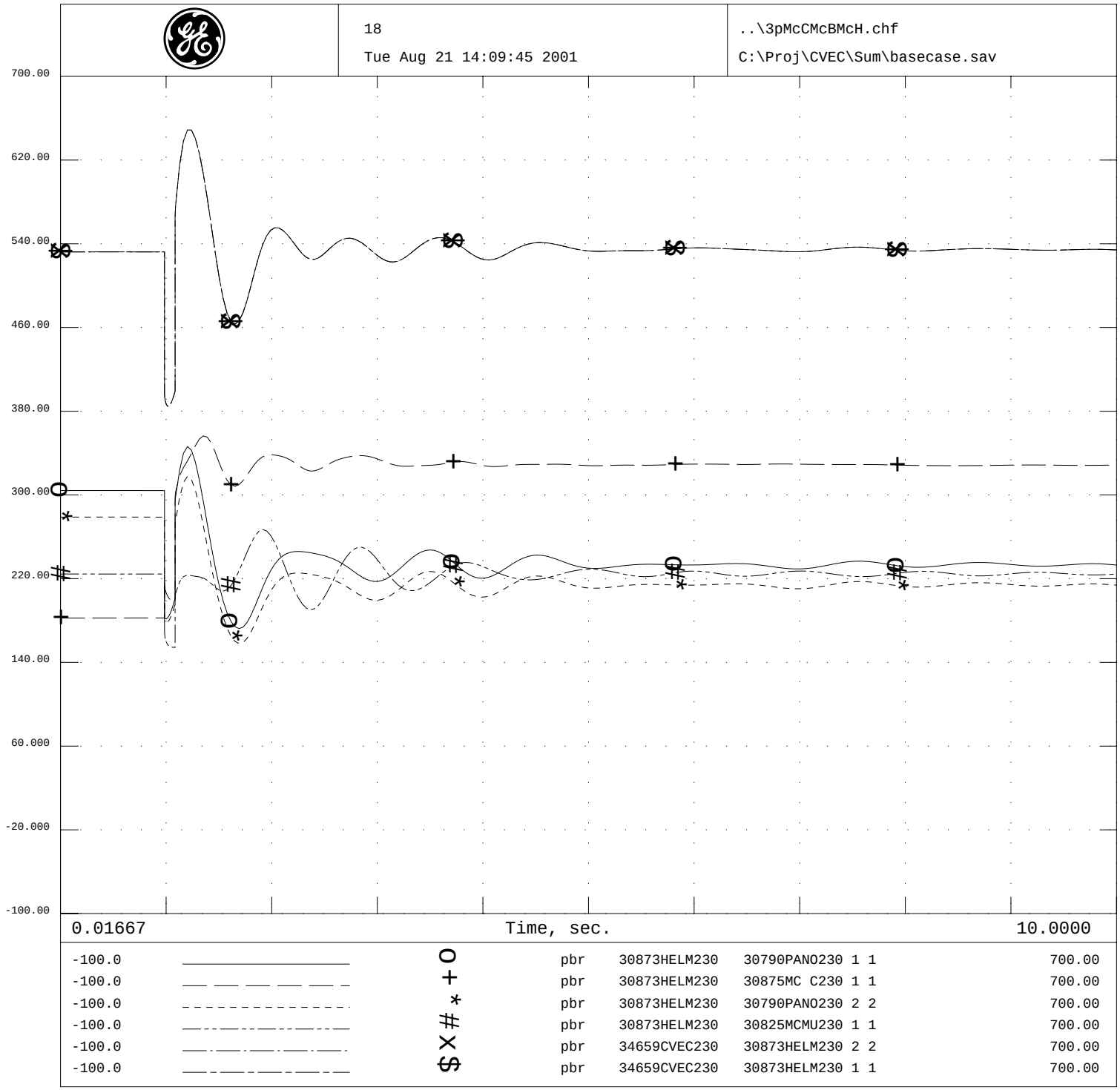

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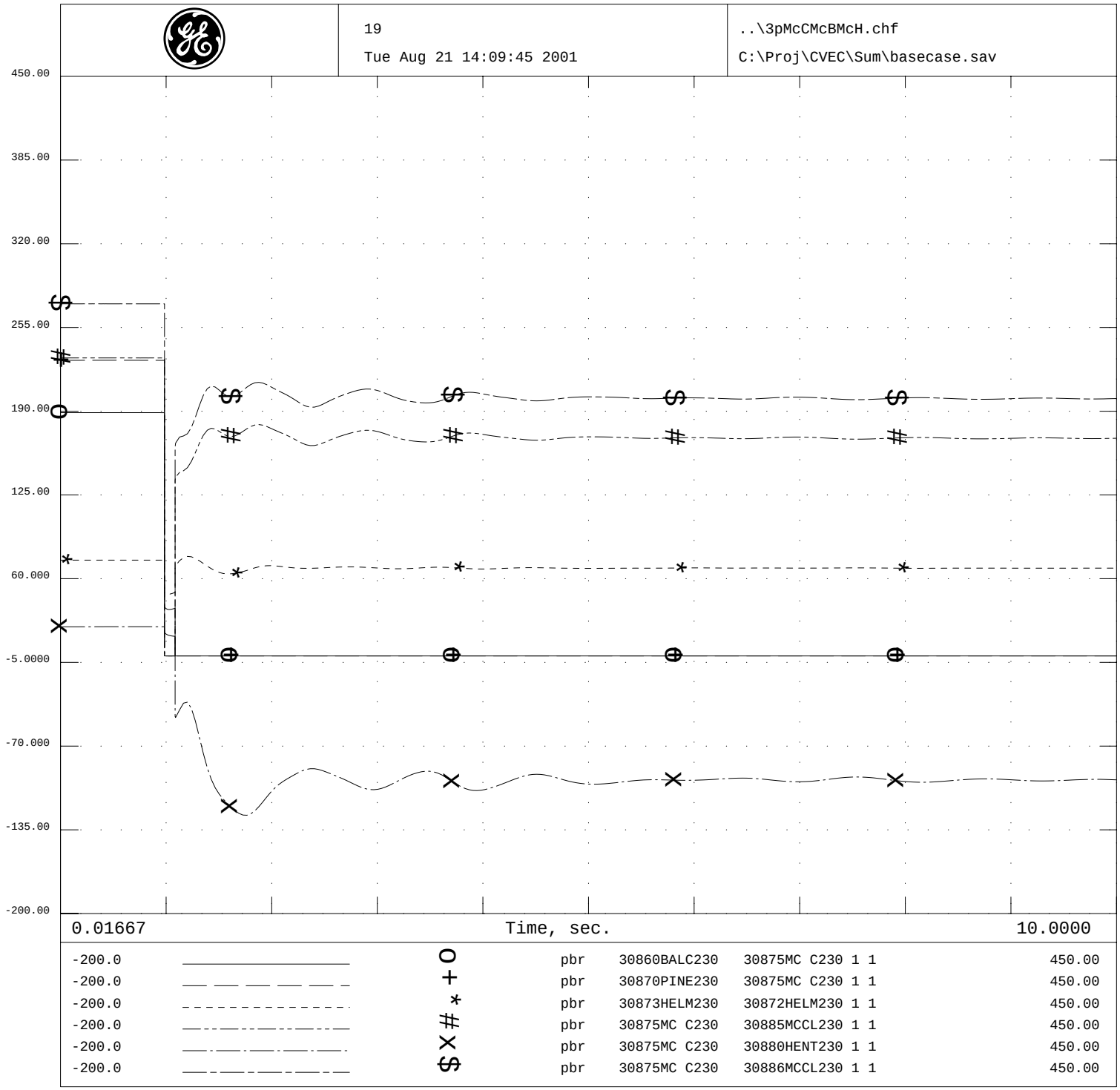
Selected Transmission Line Flows (MW)



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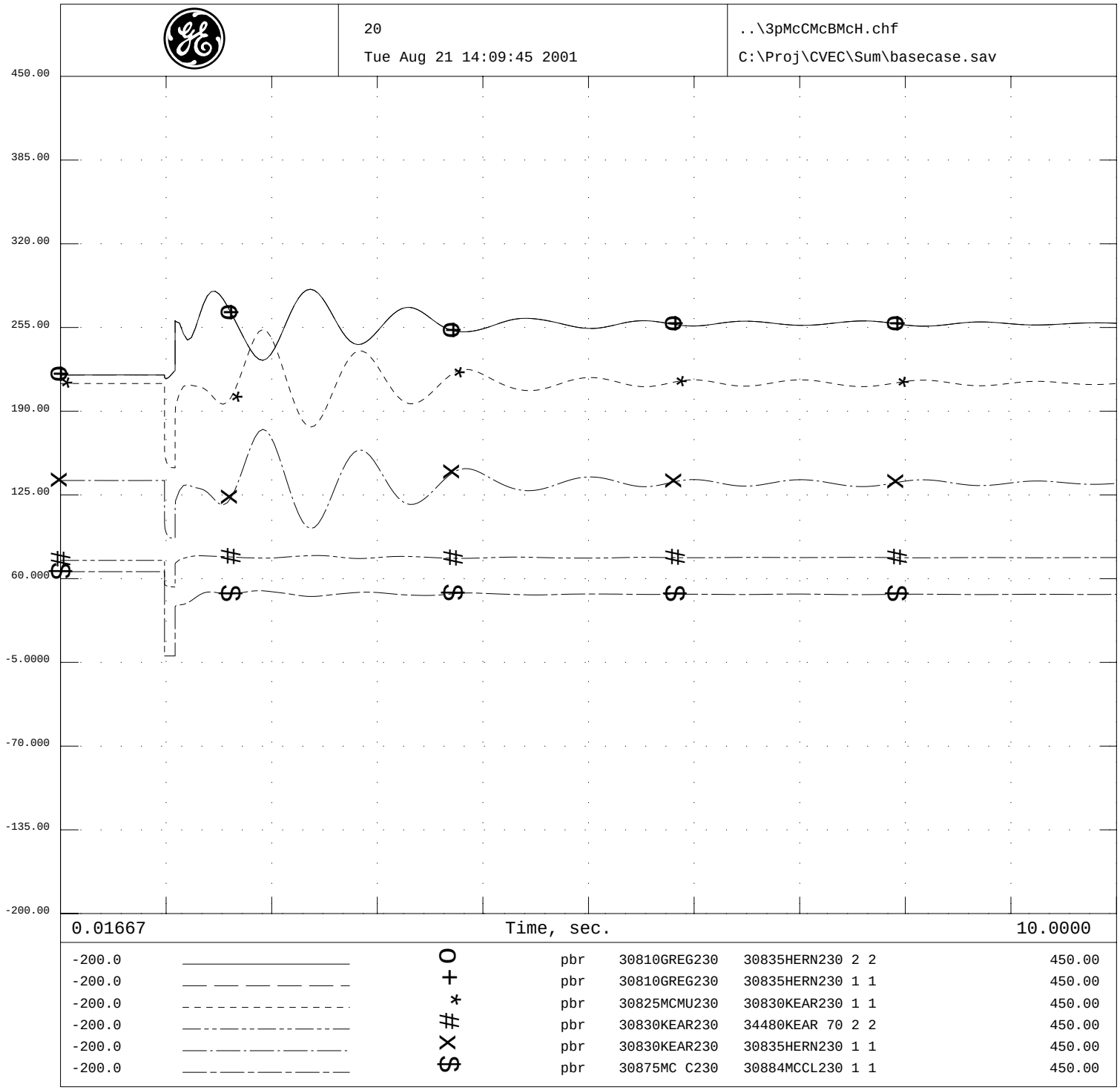

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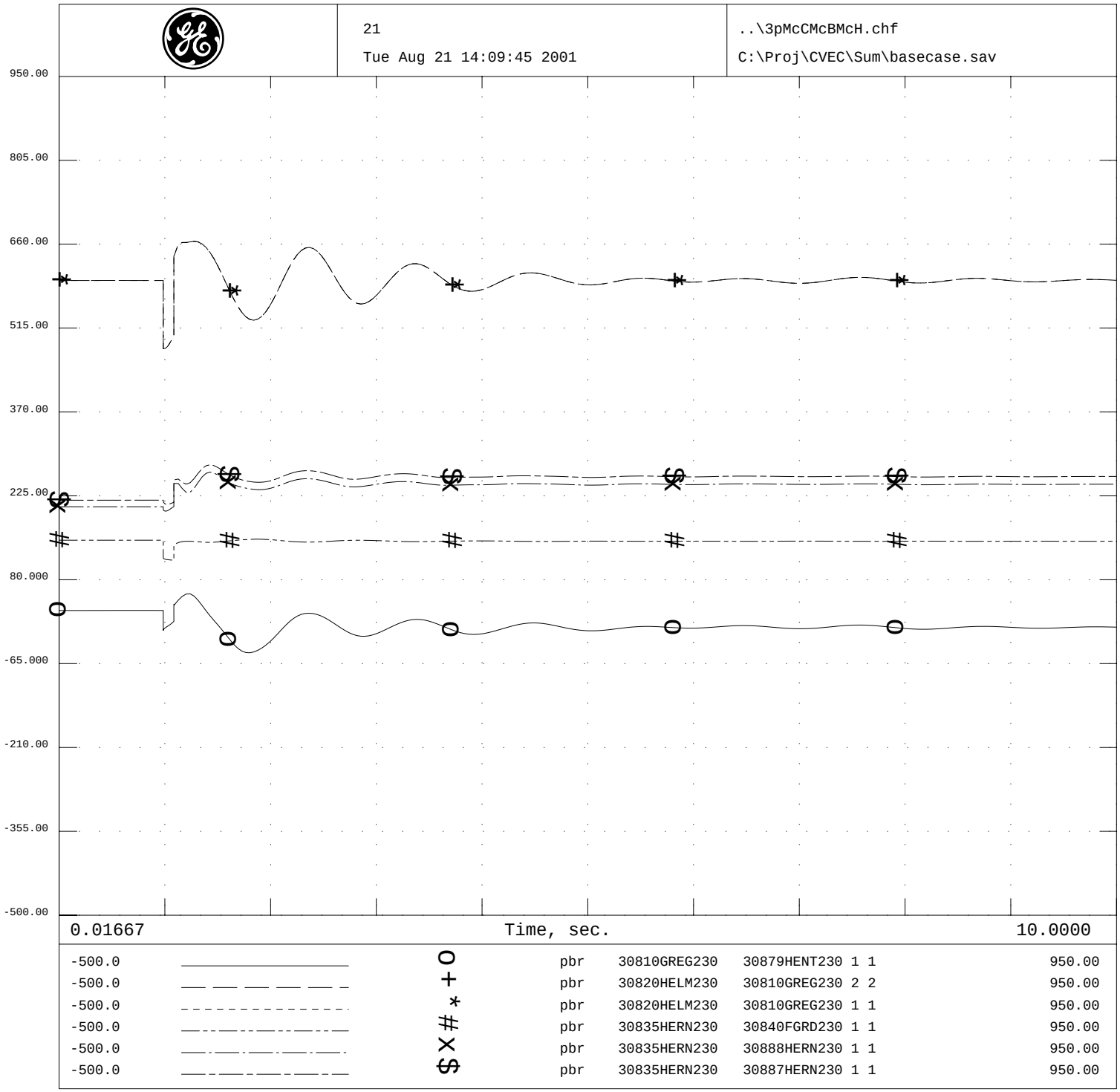

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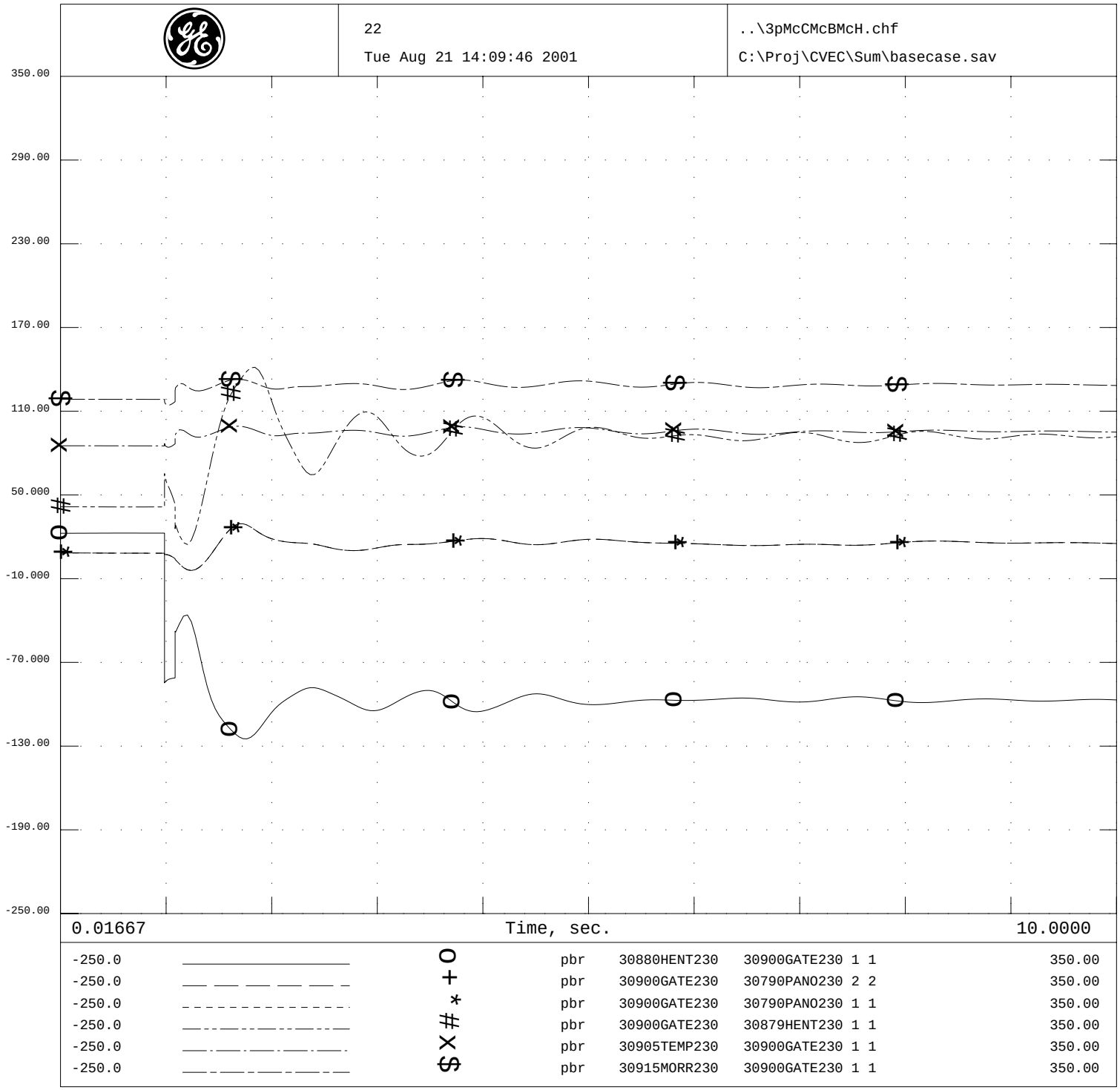

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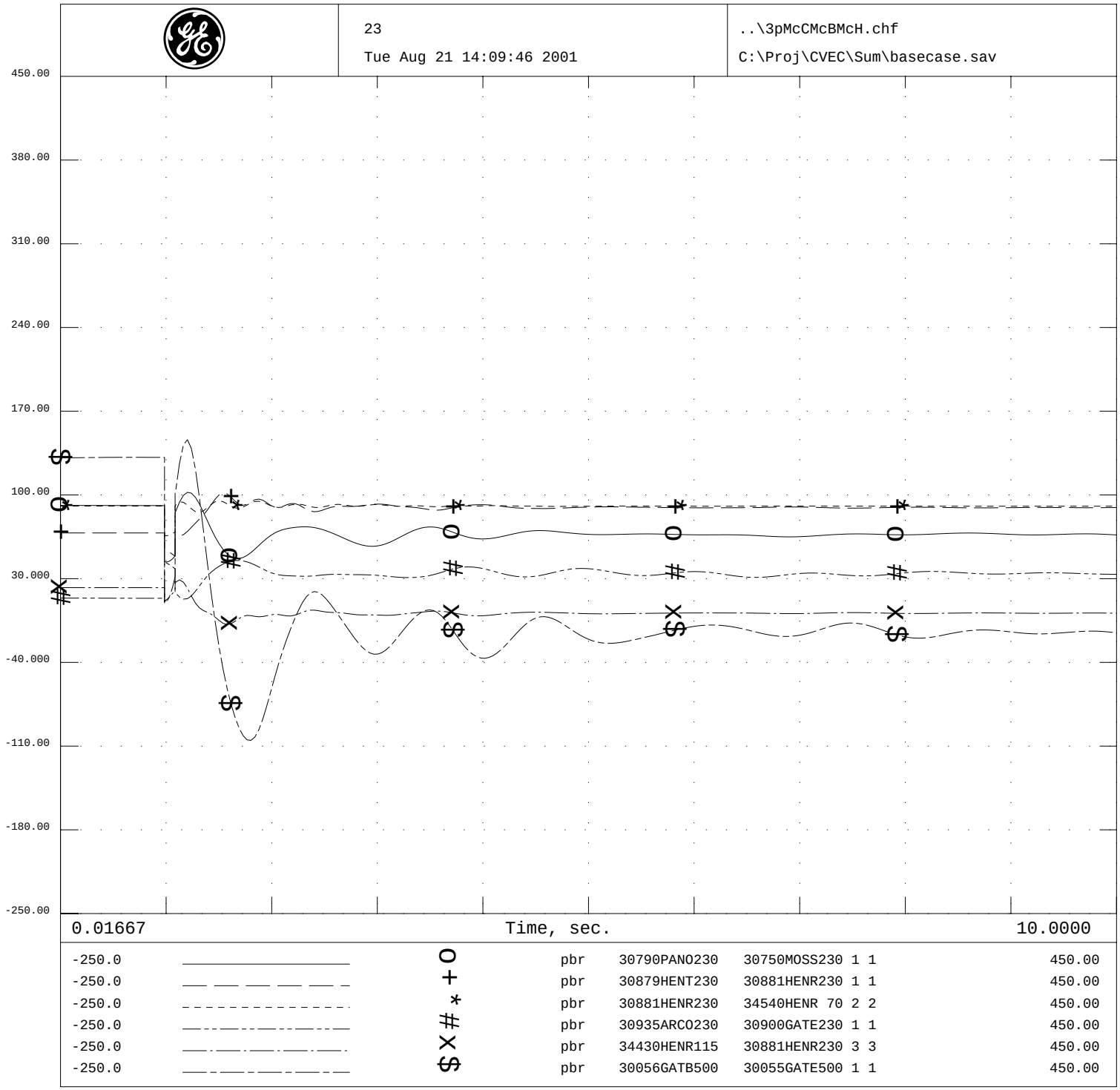

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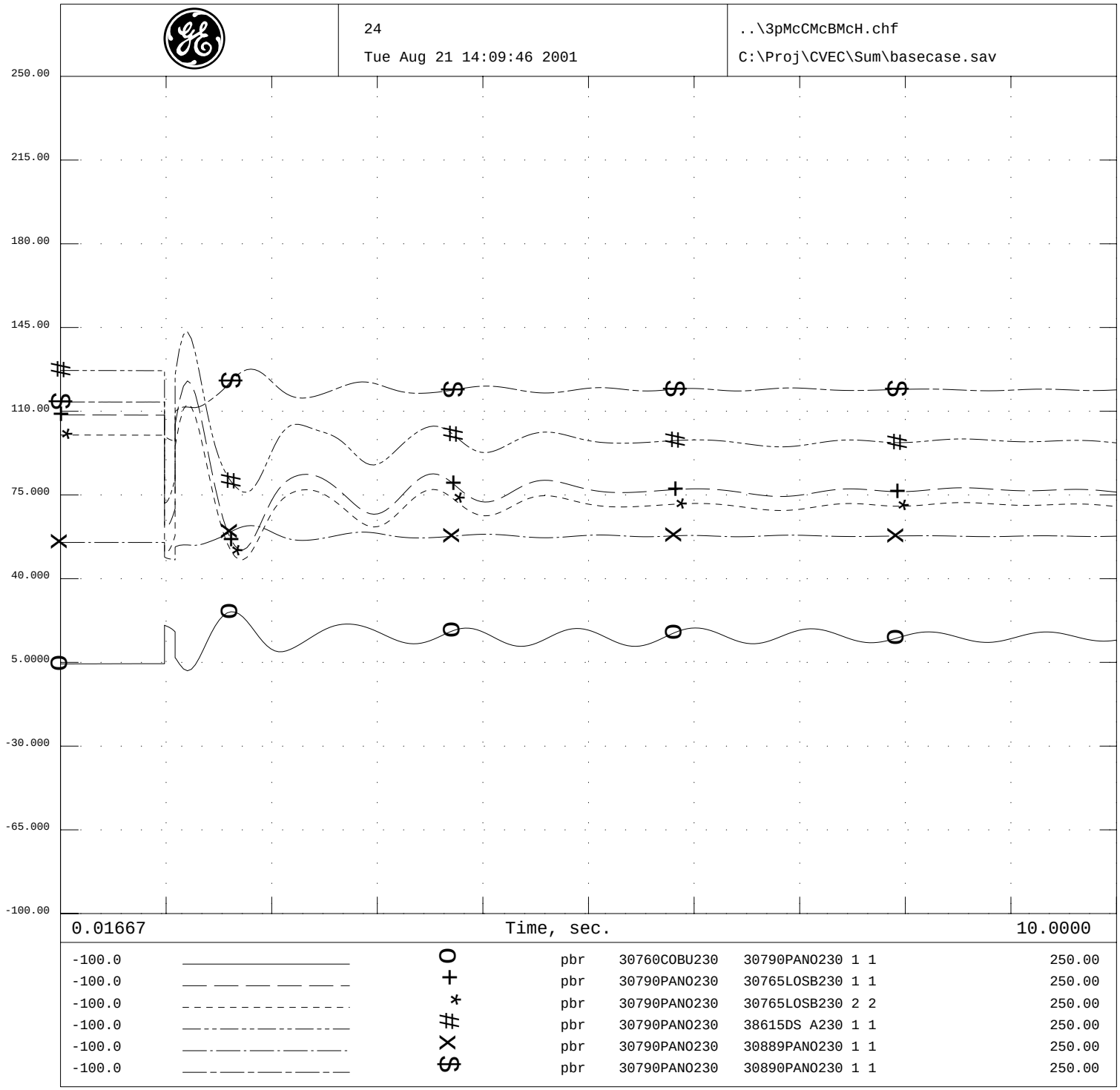

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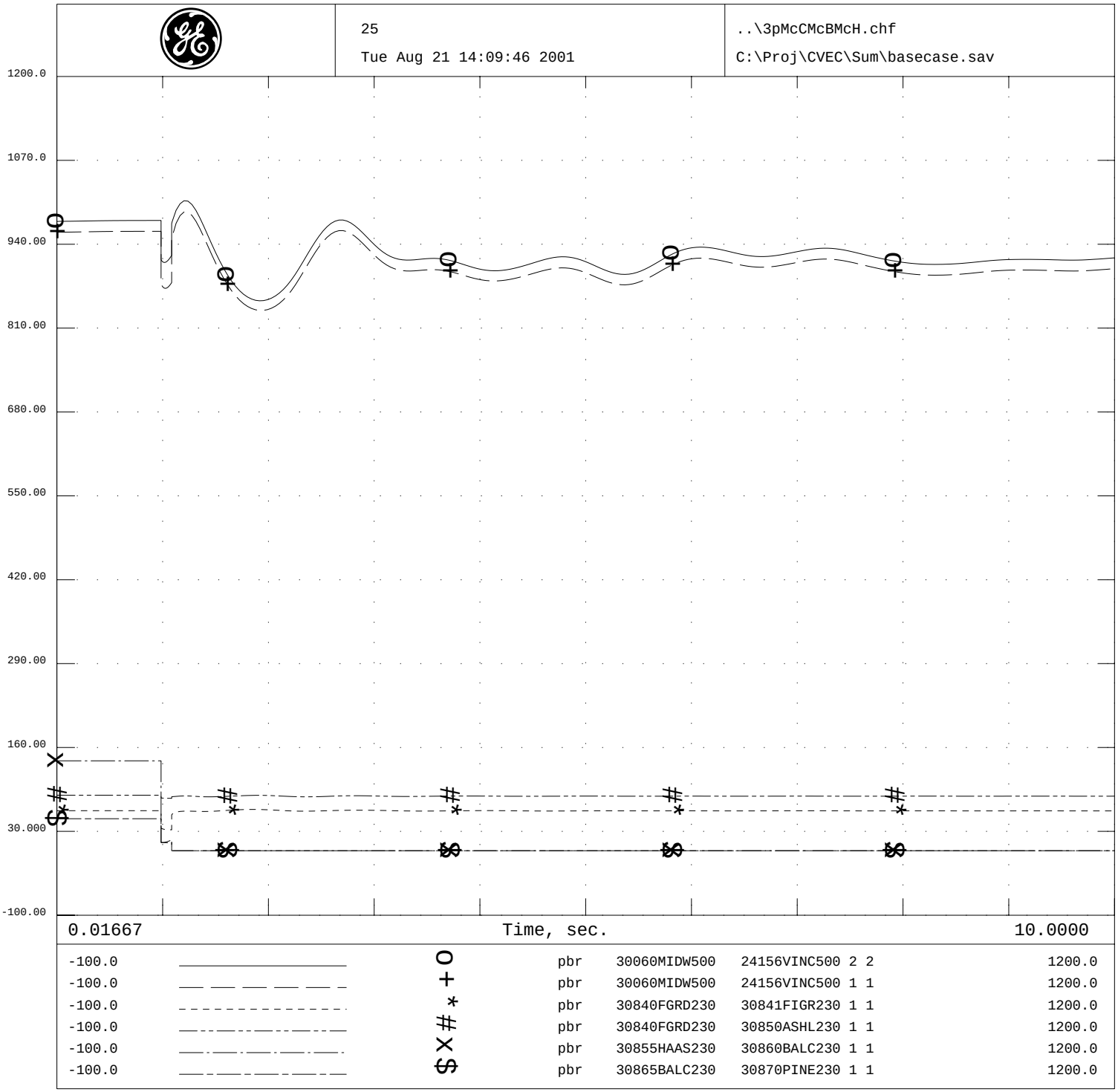

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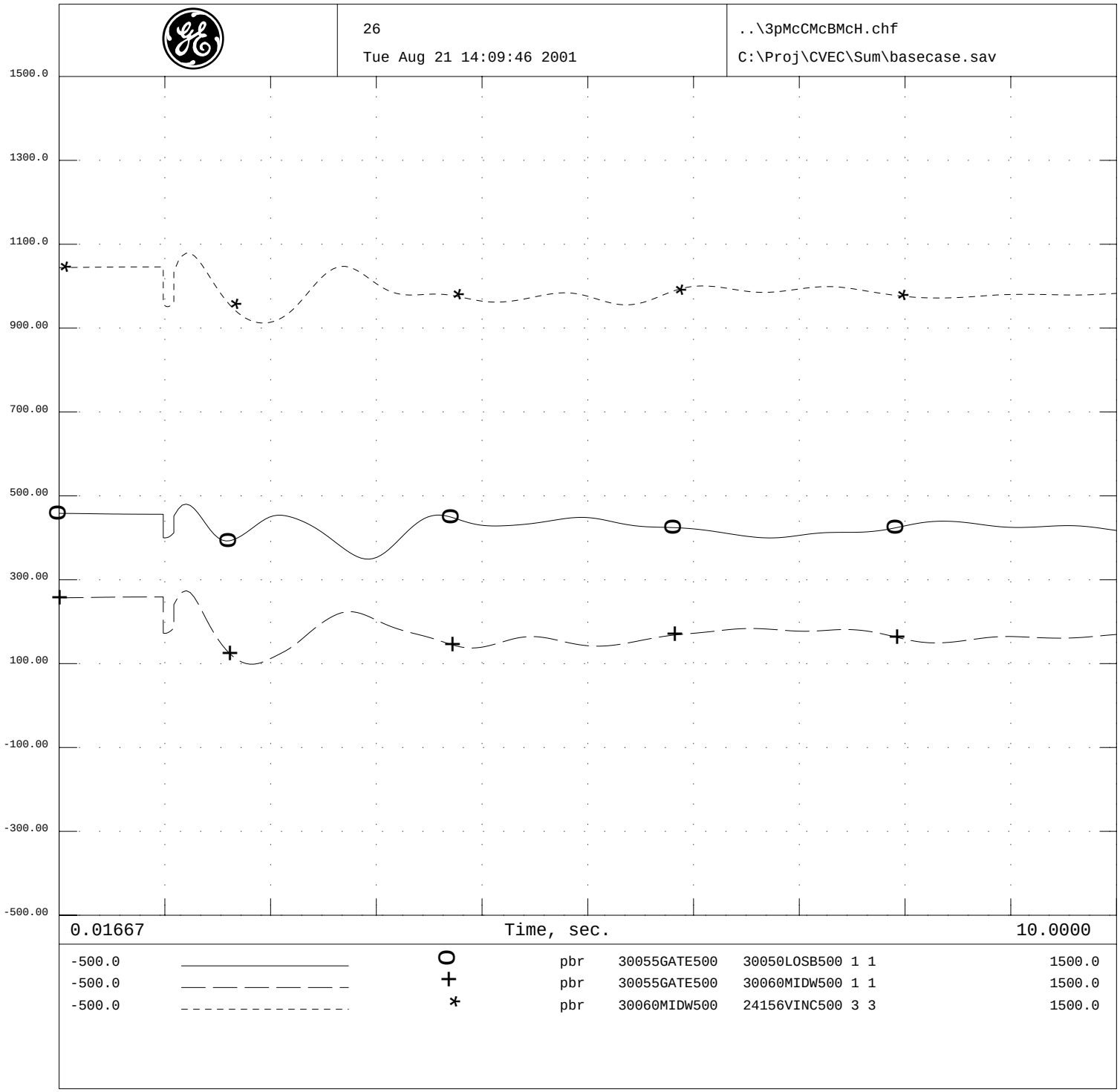

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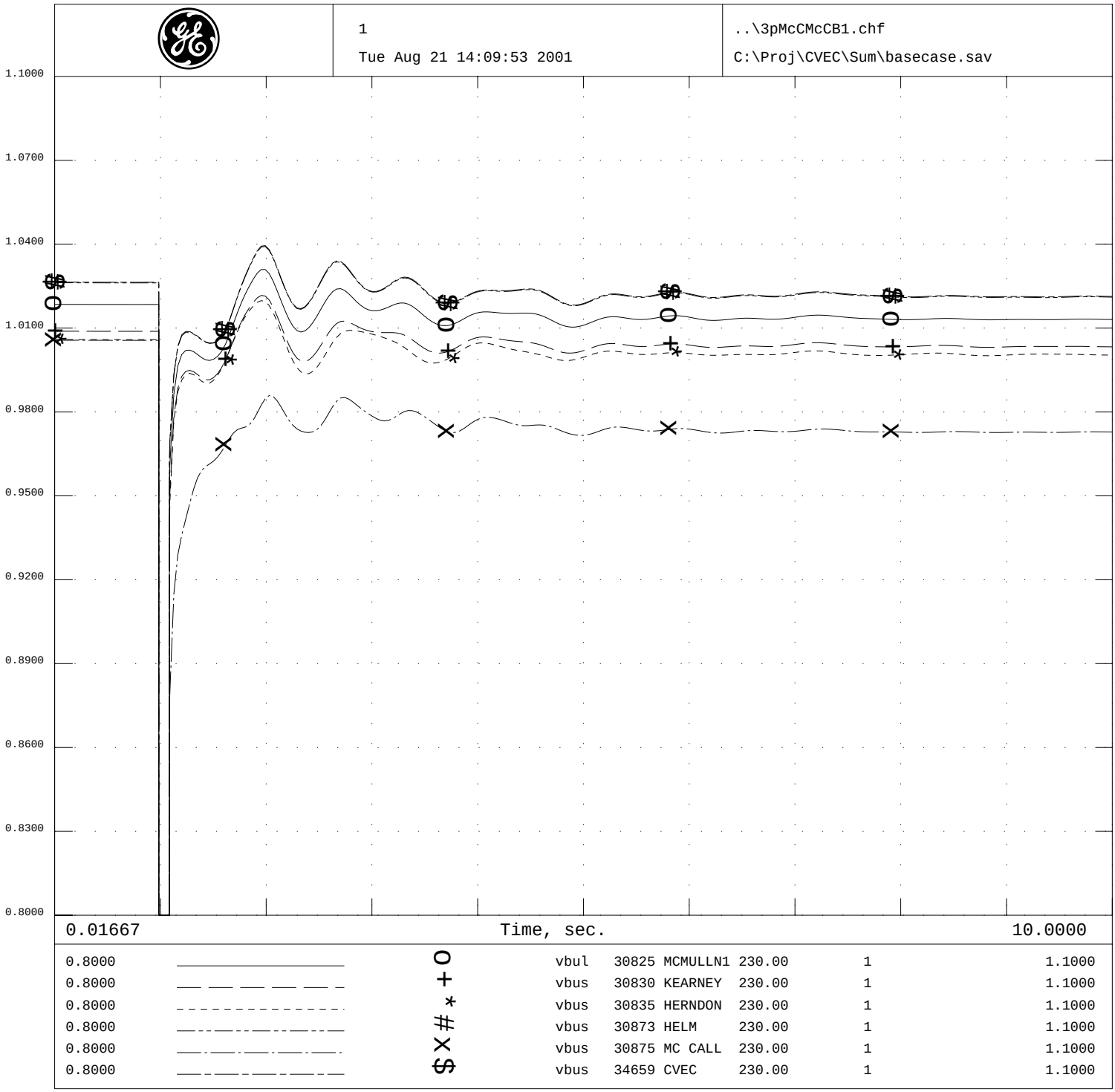

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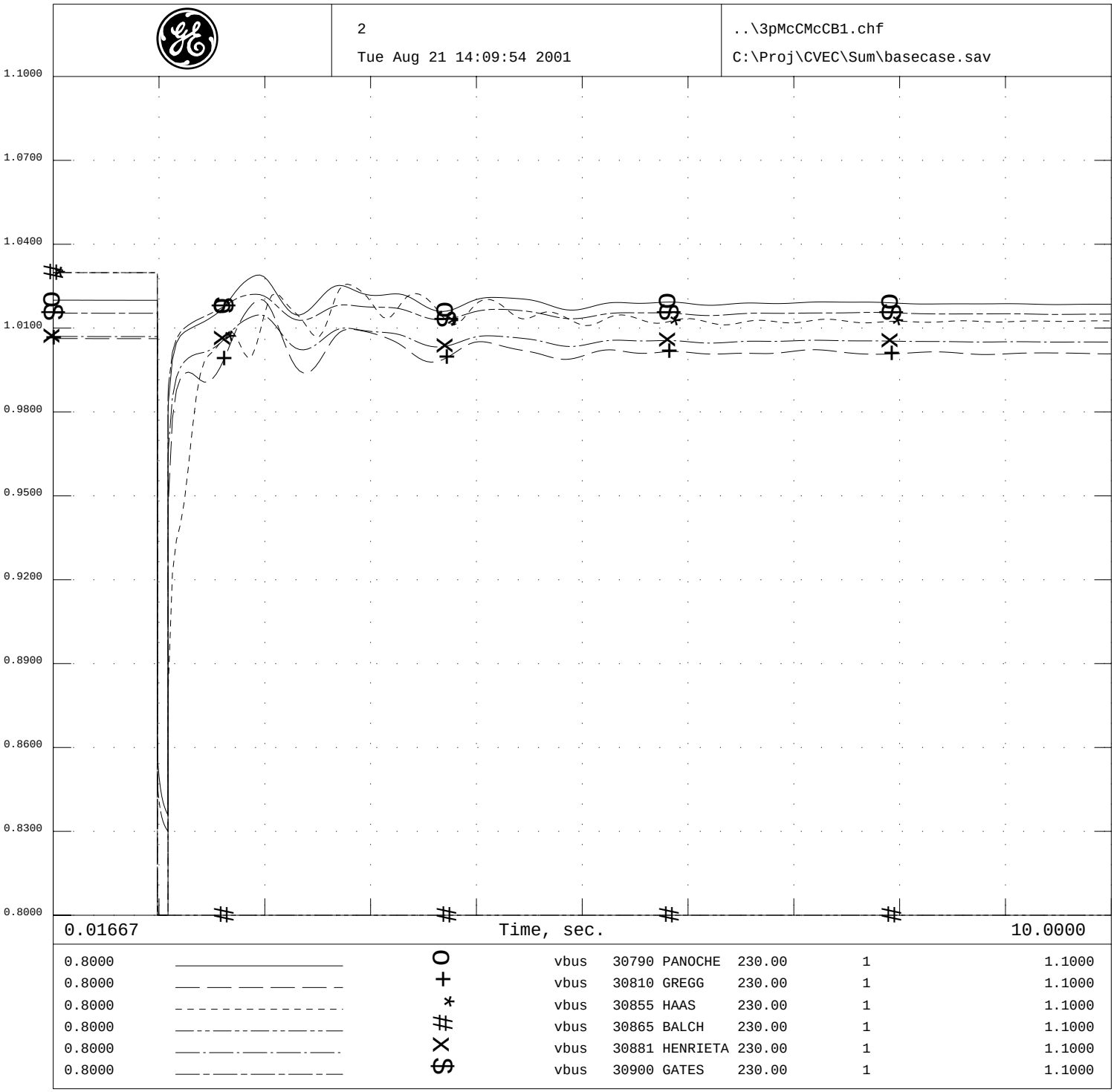
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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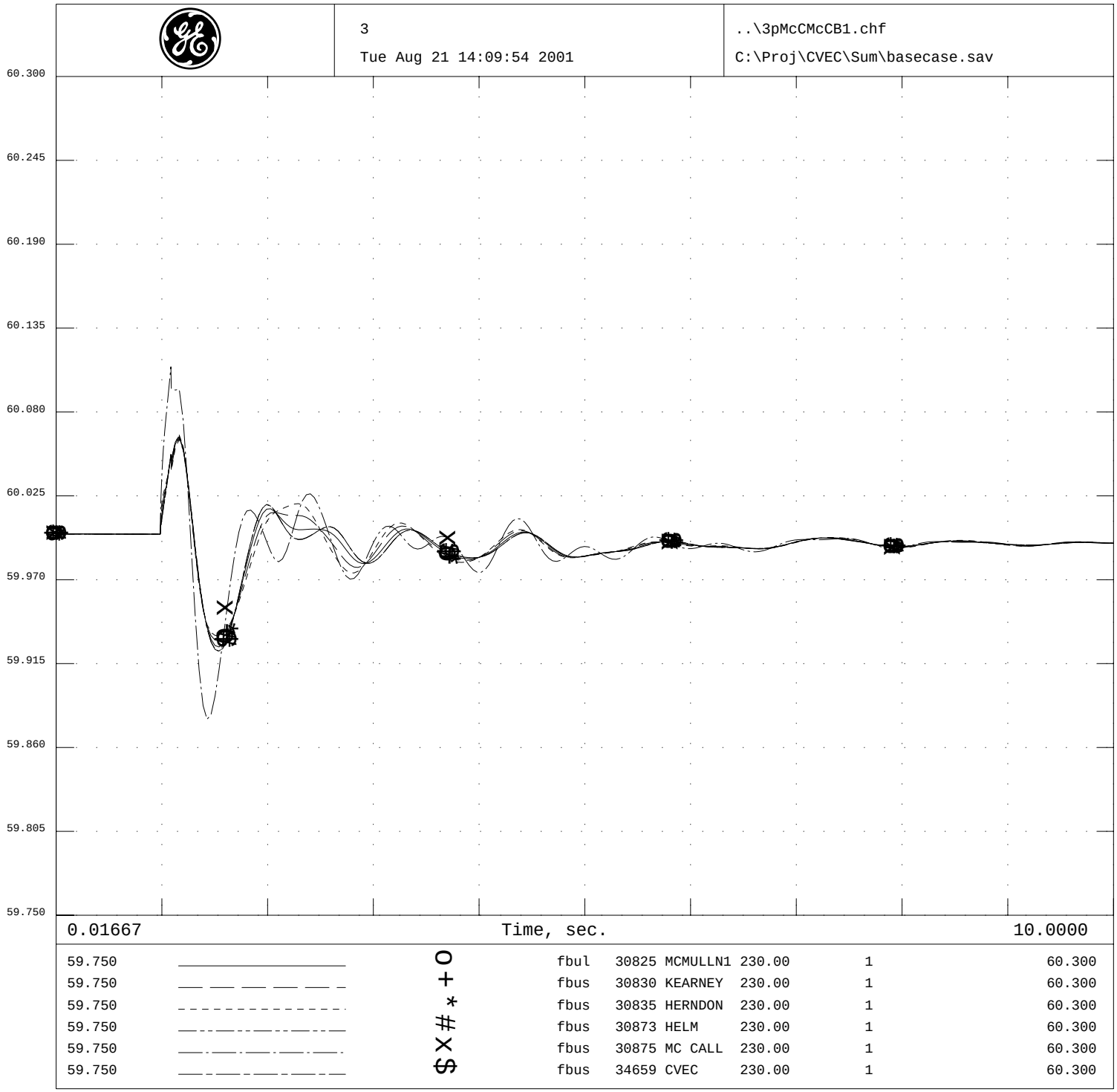

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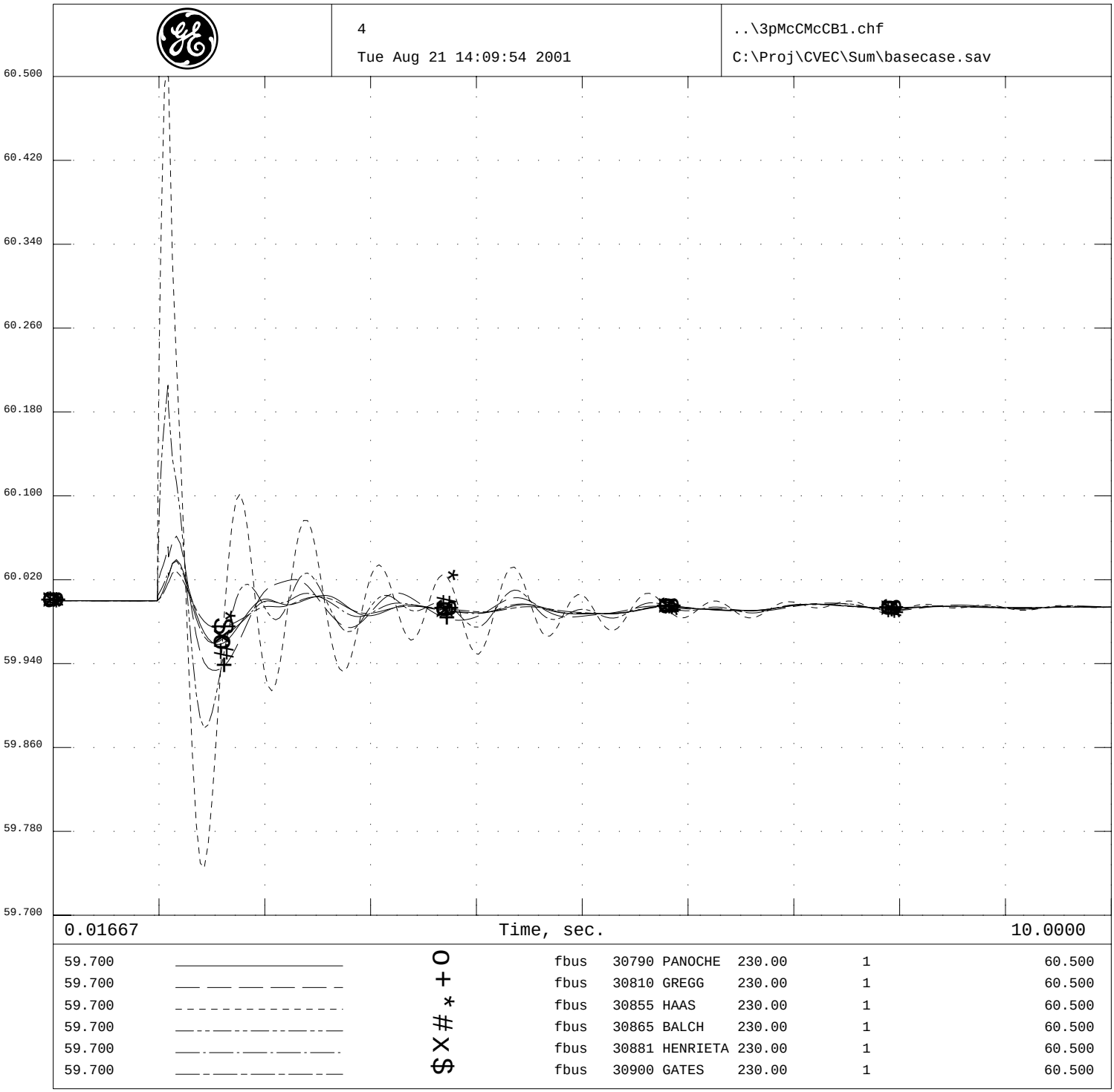

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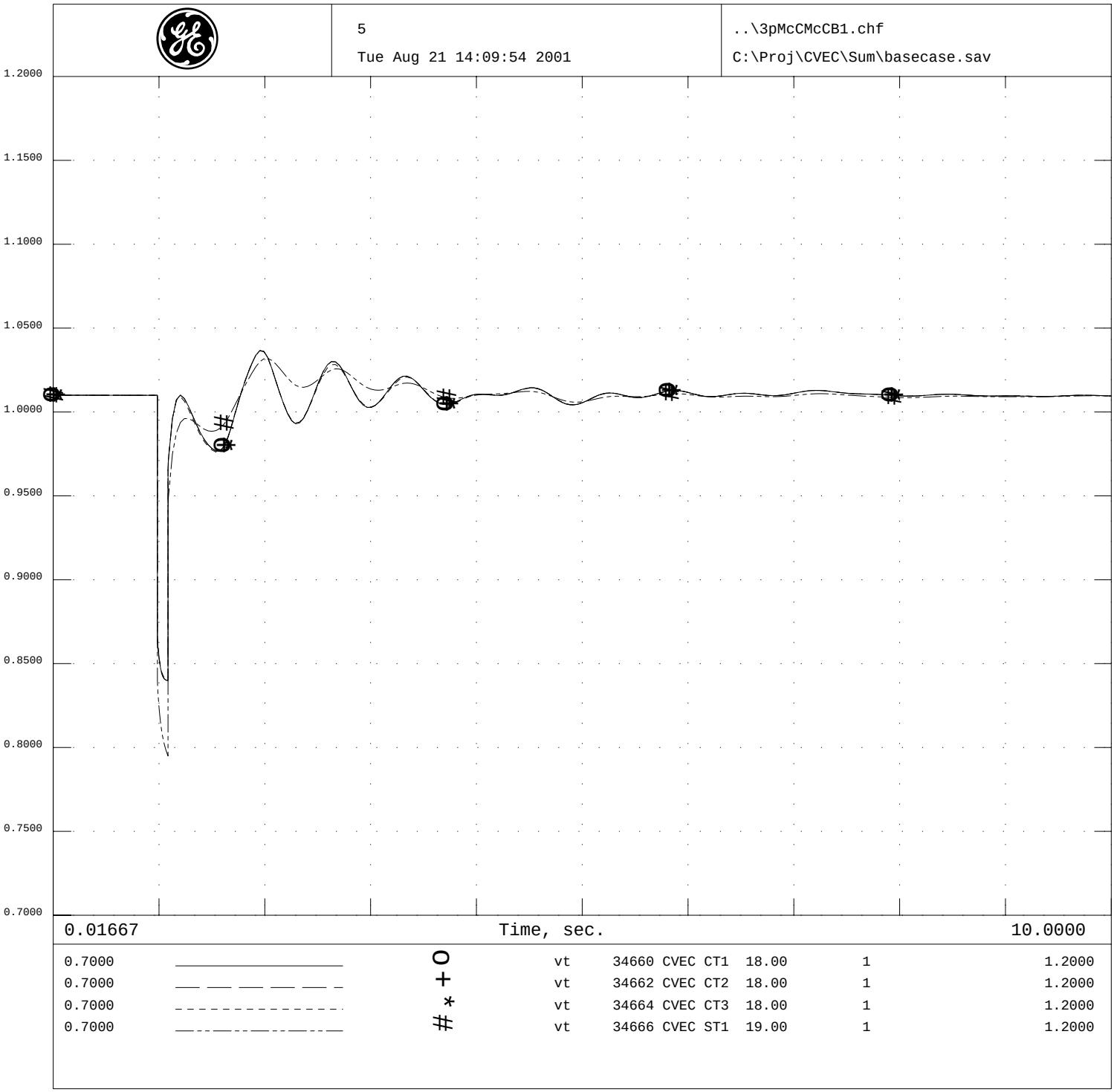

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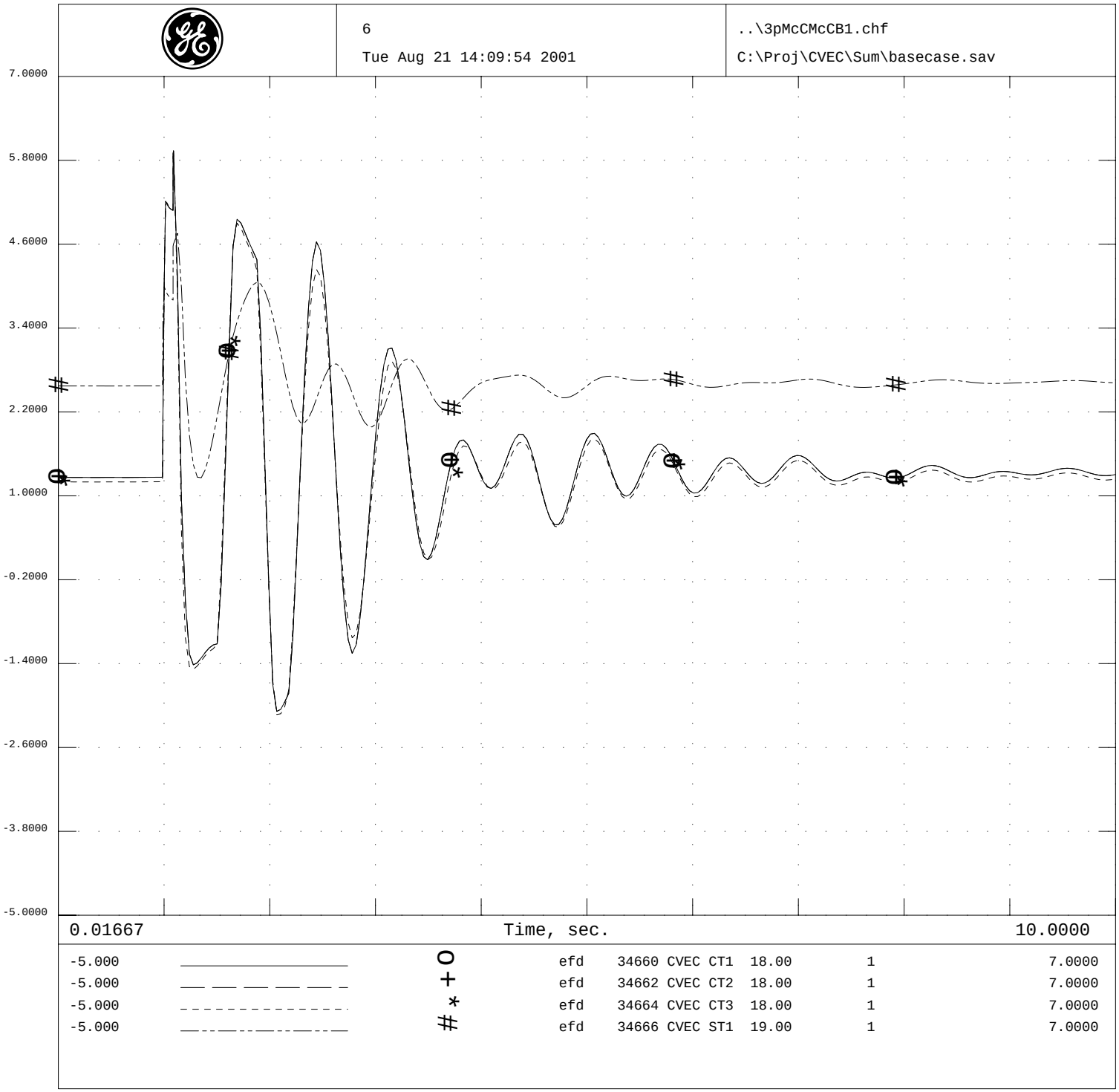

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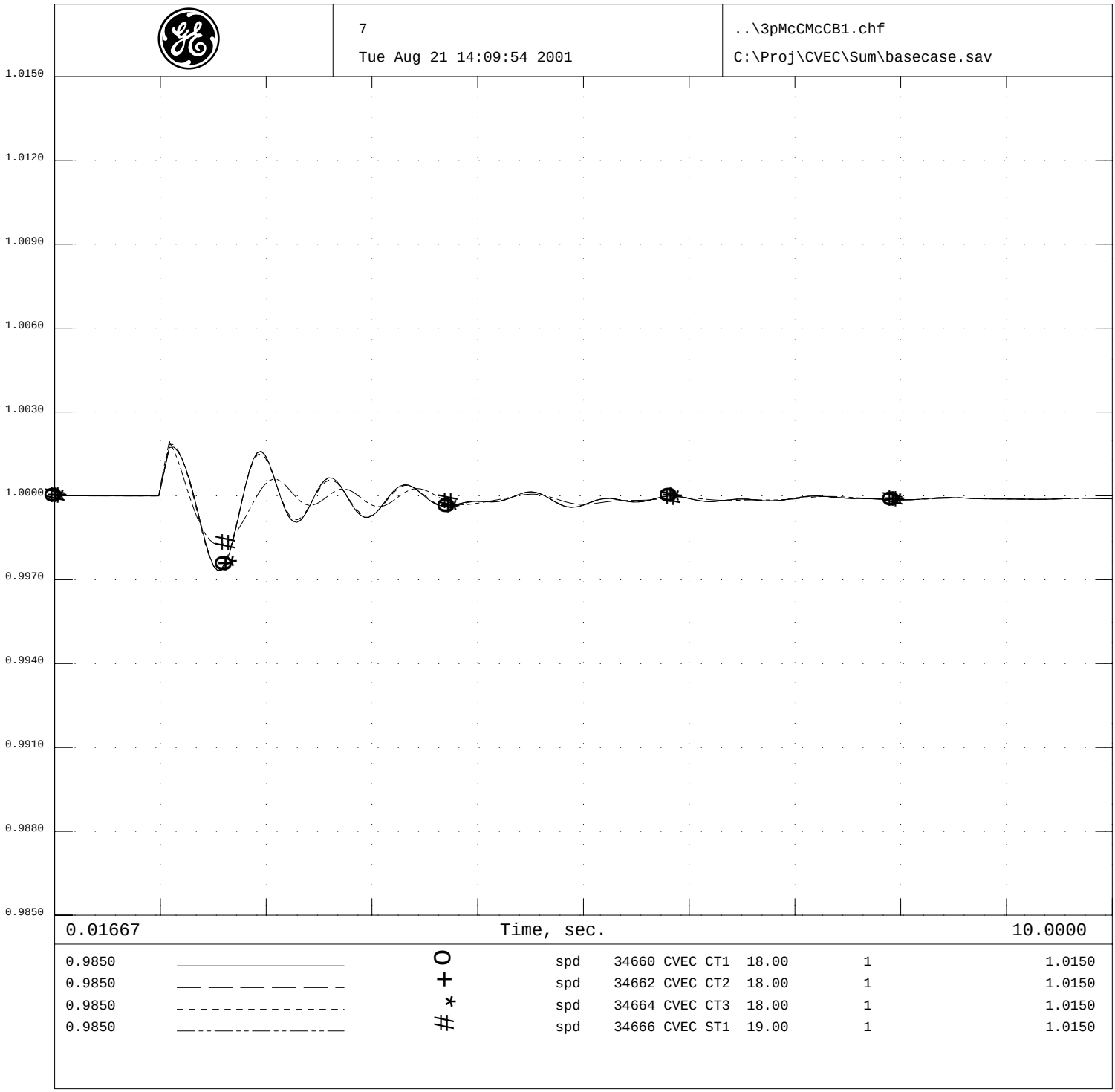

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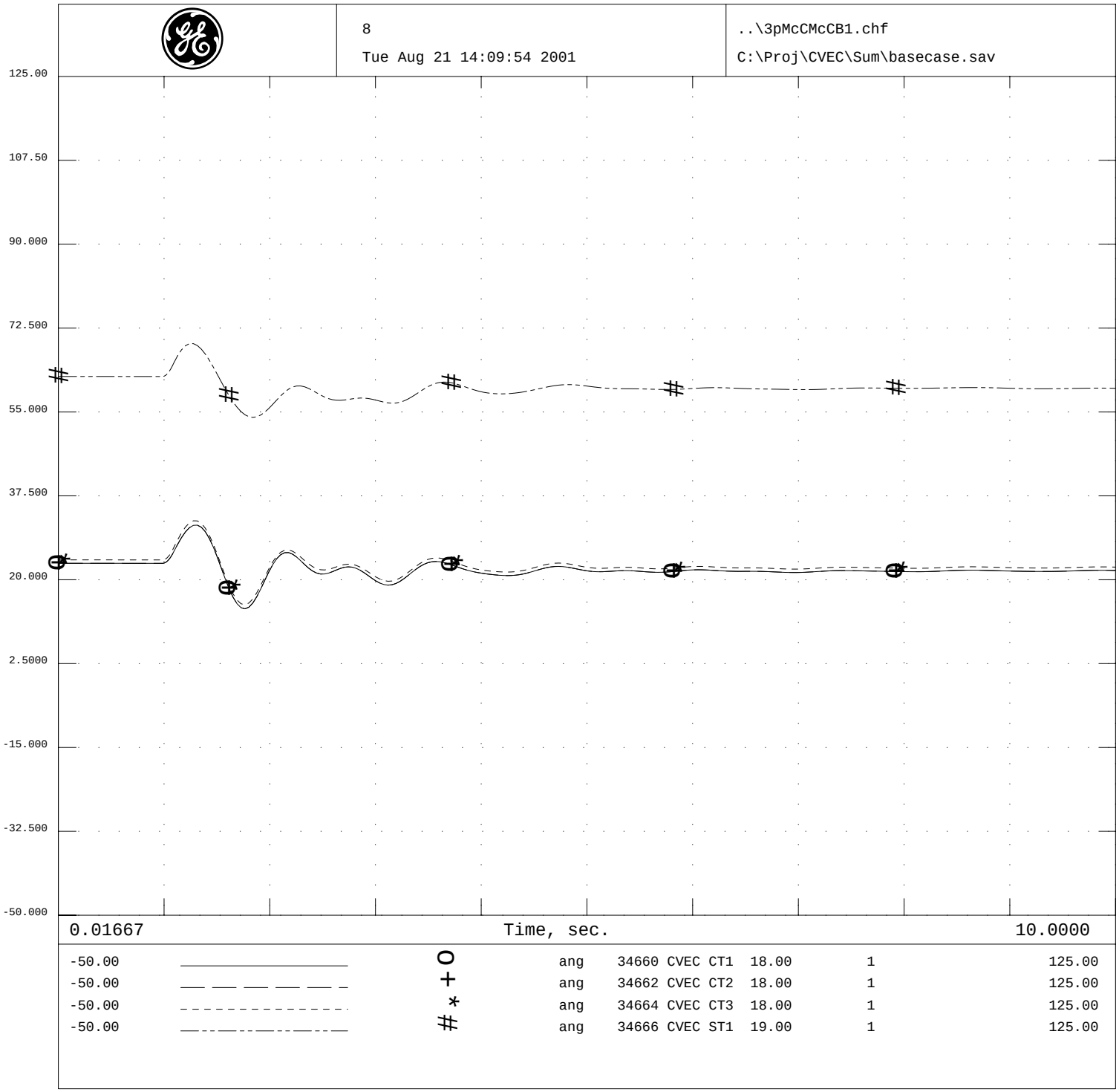

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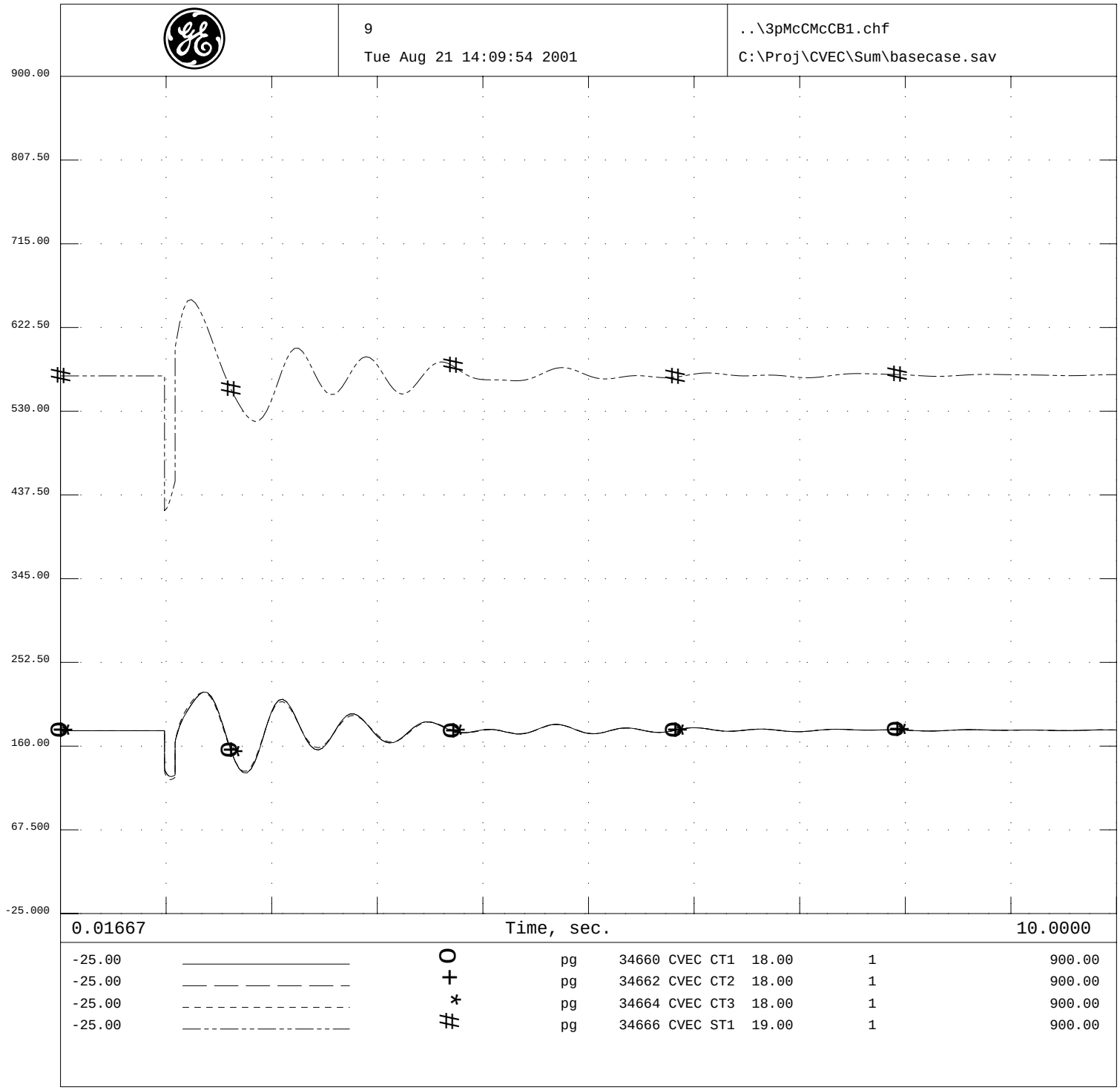

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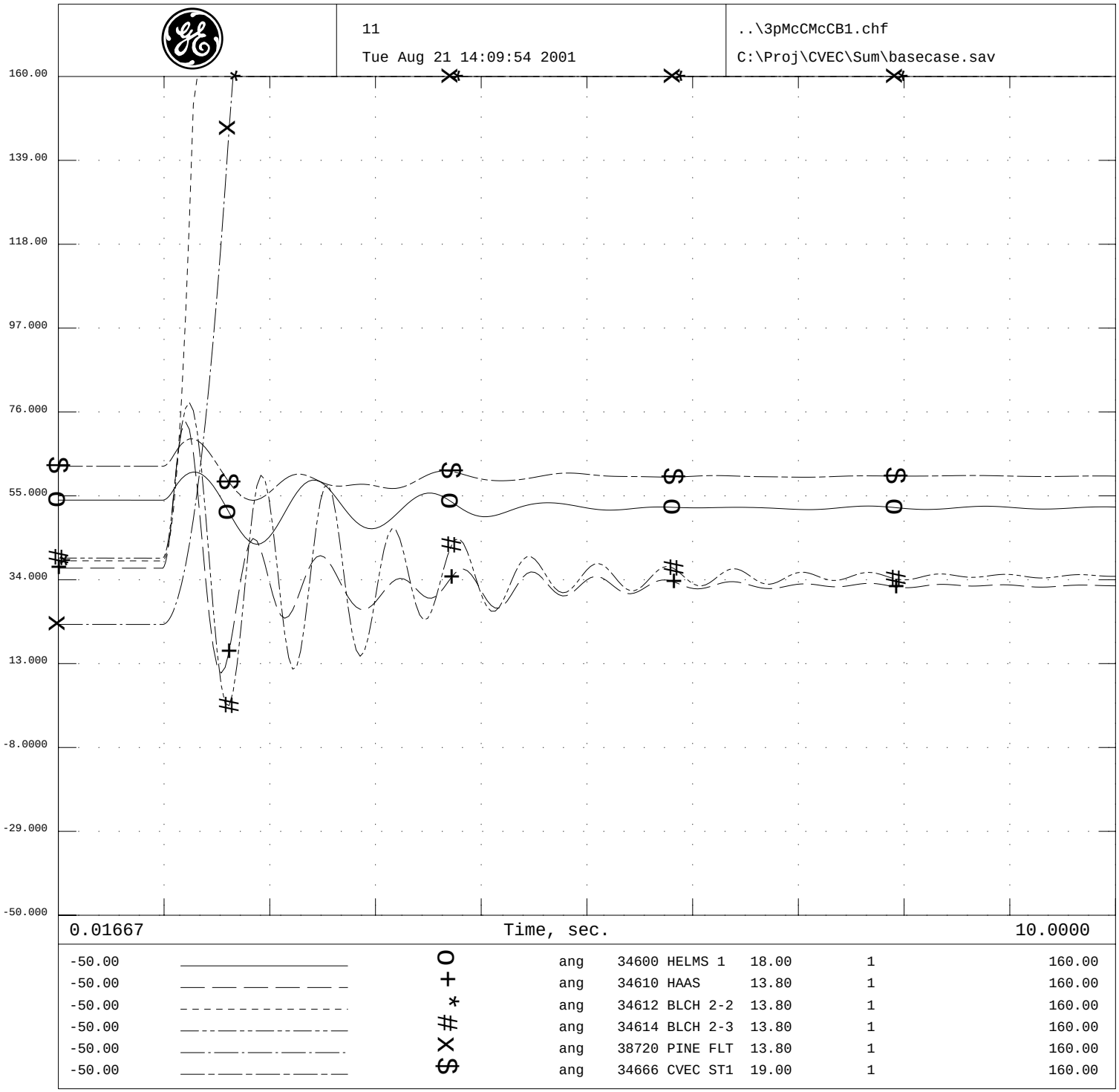

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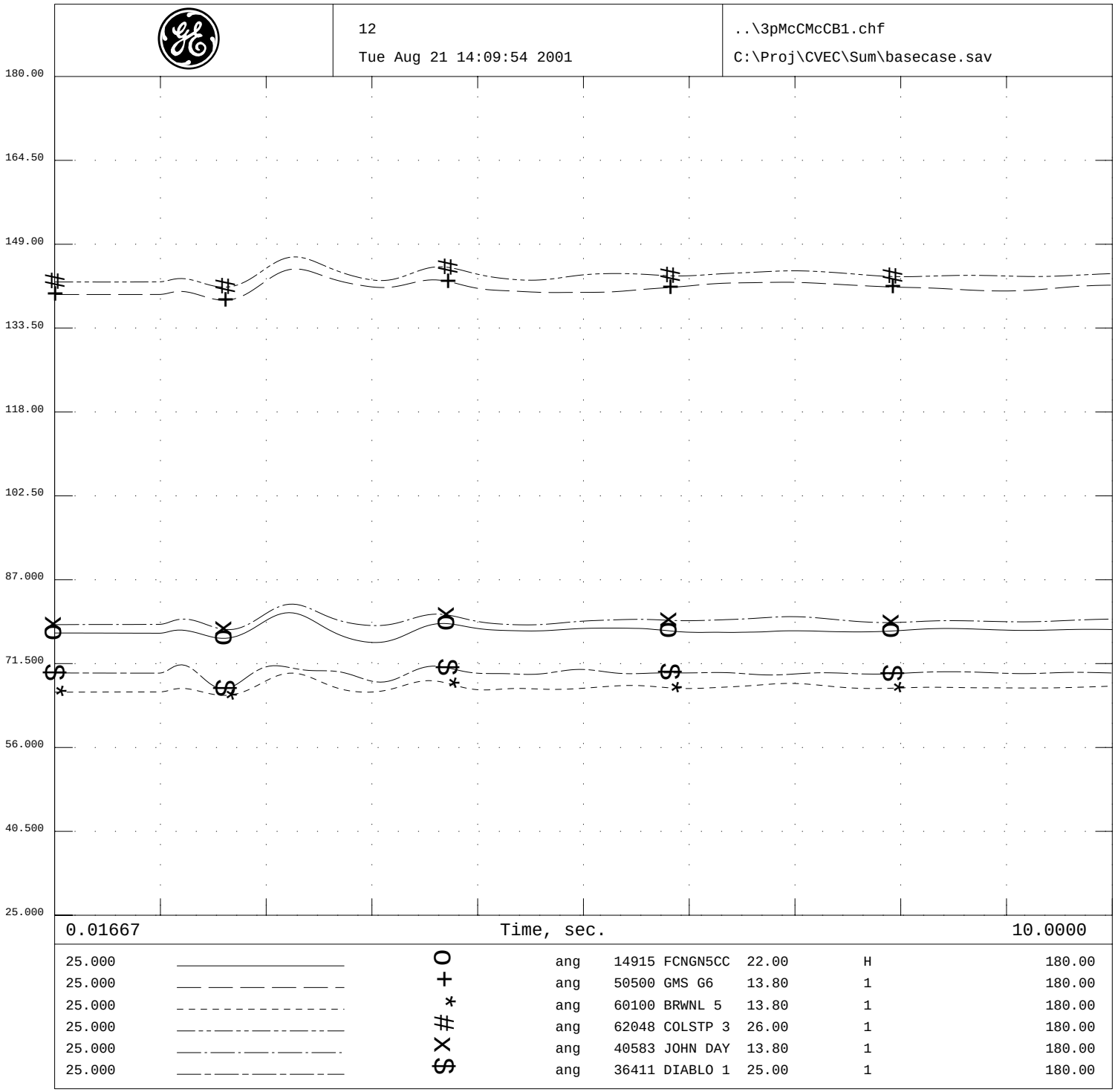

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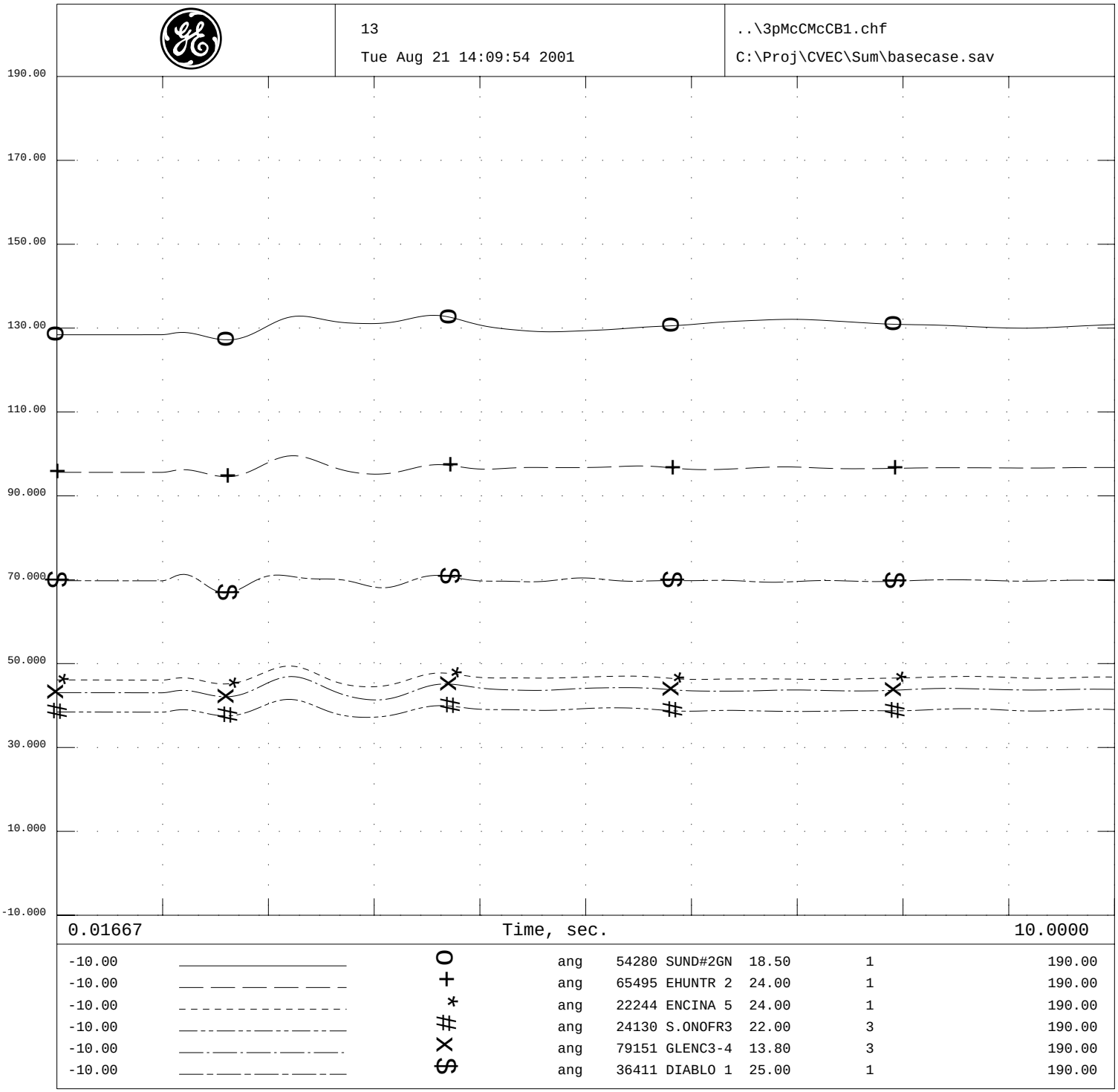

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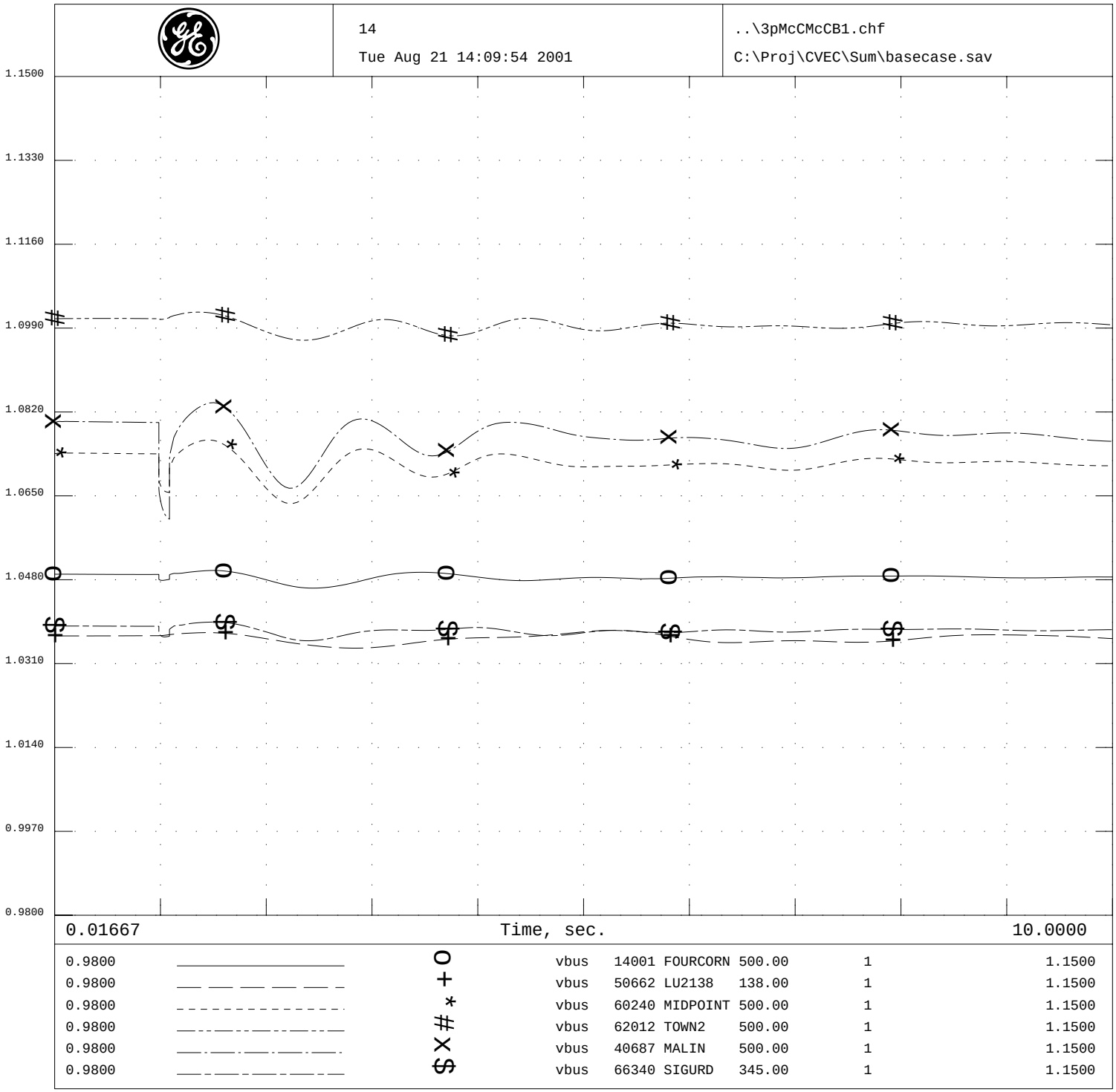

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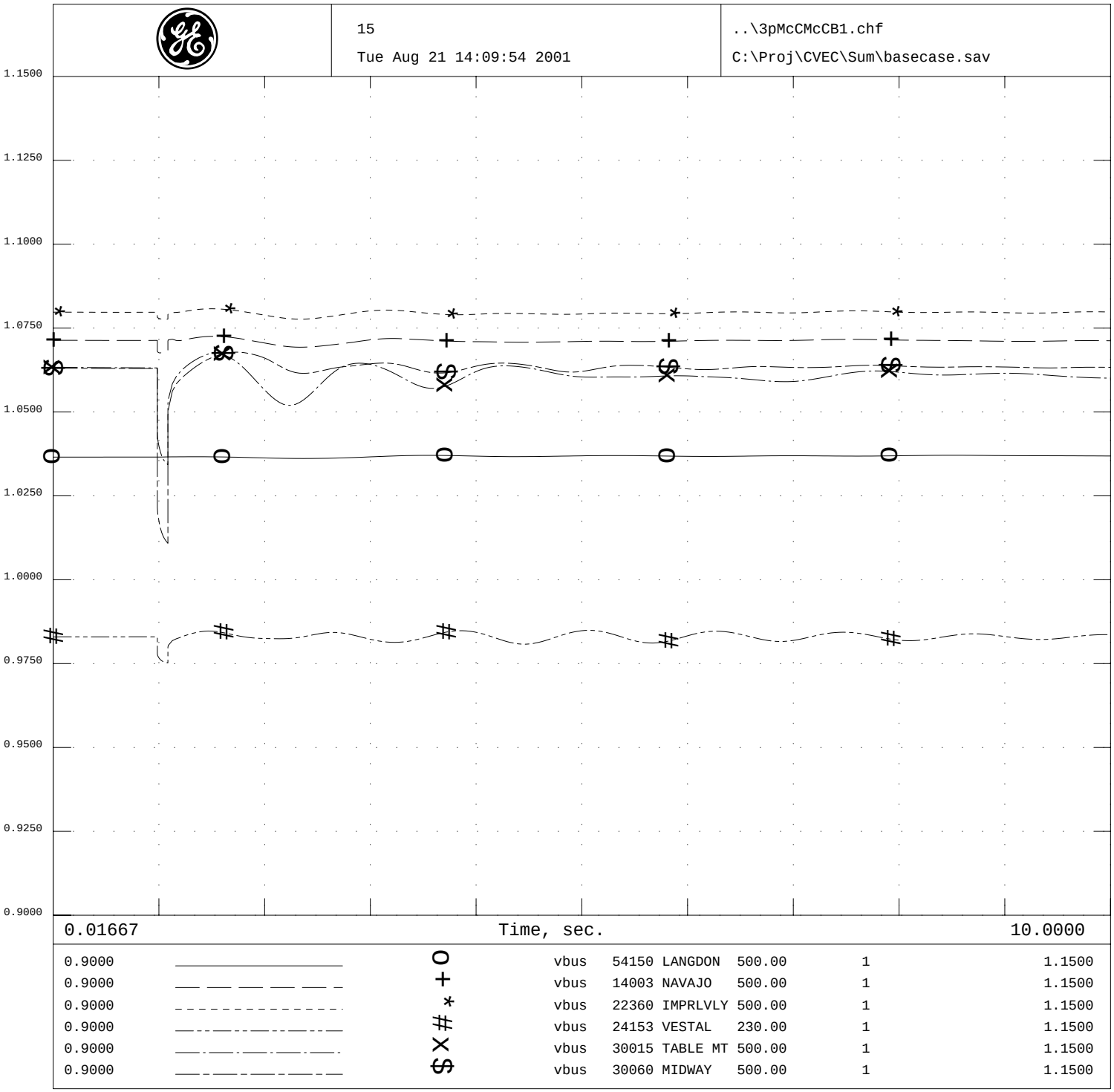

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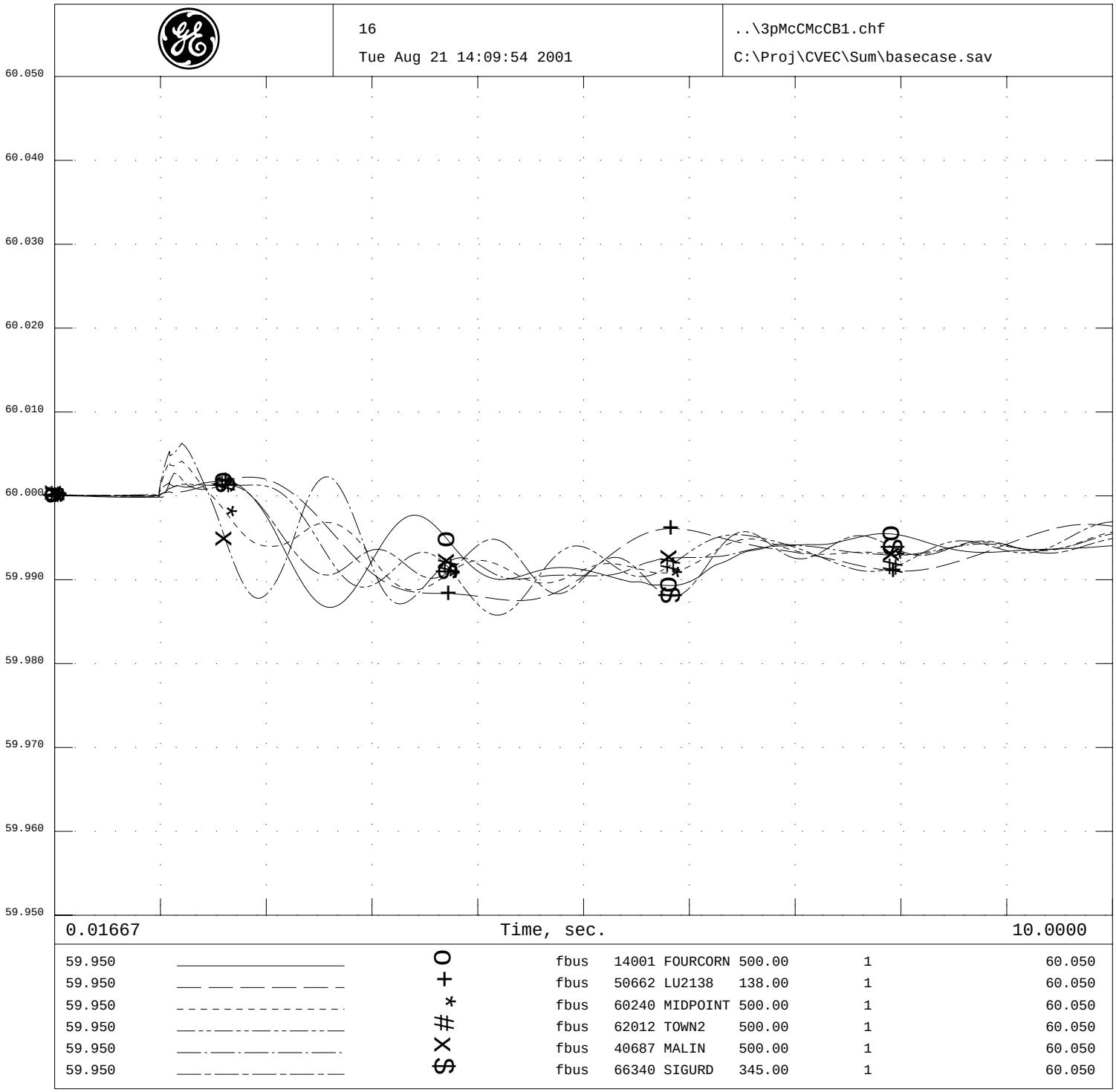
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
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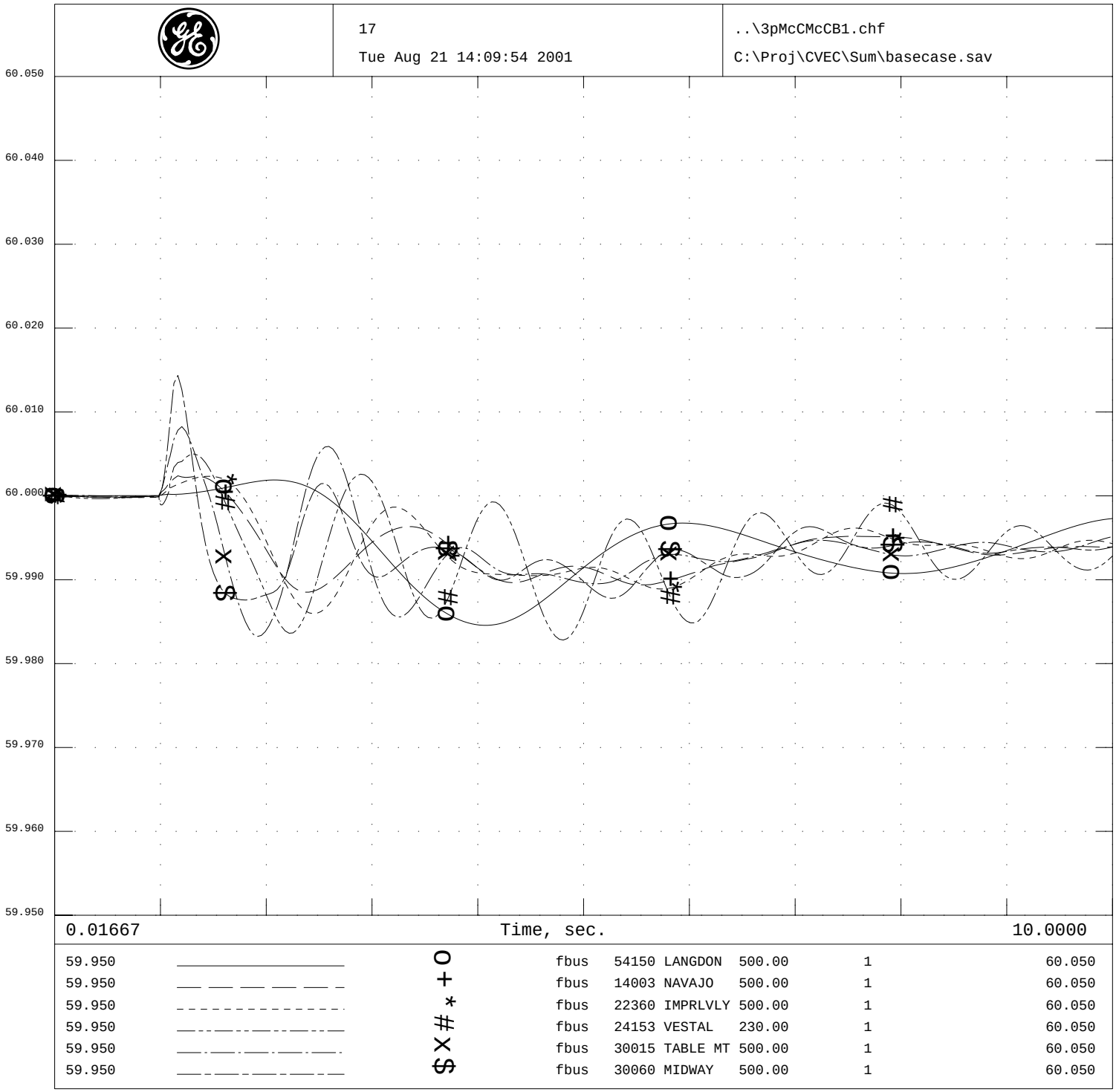

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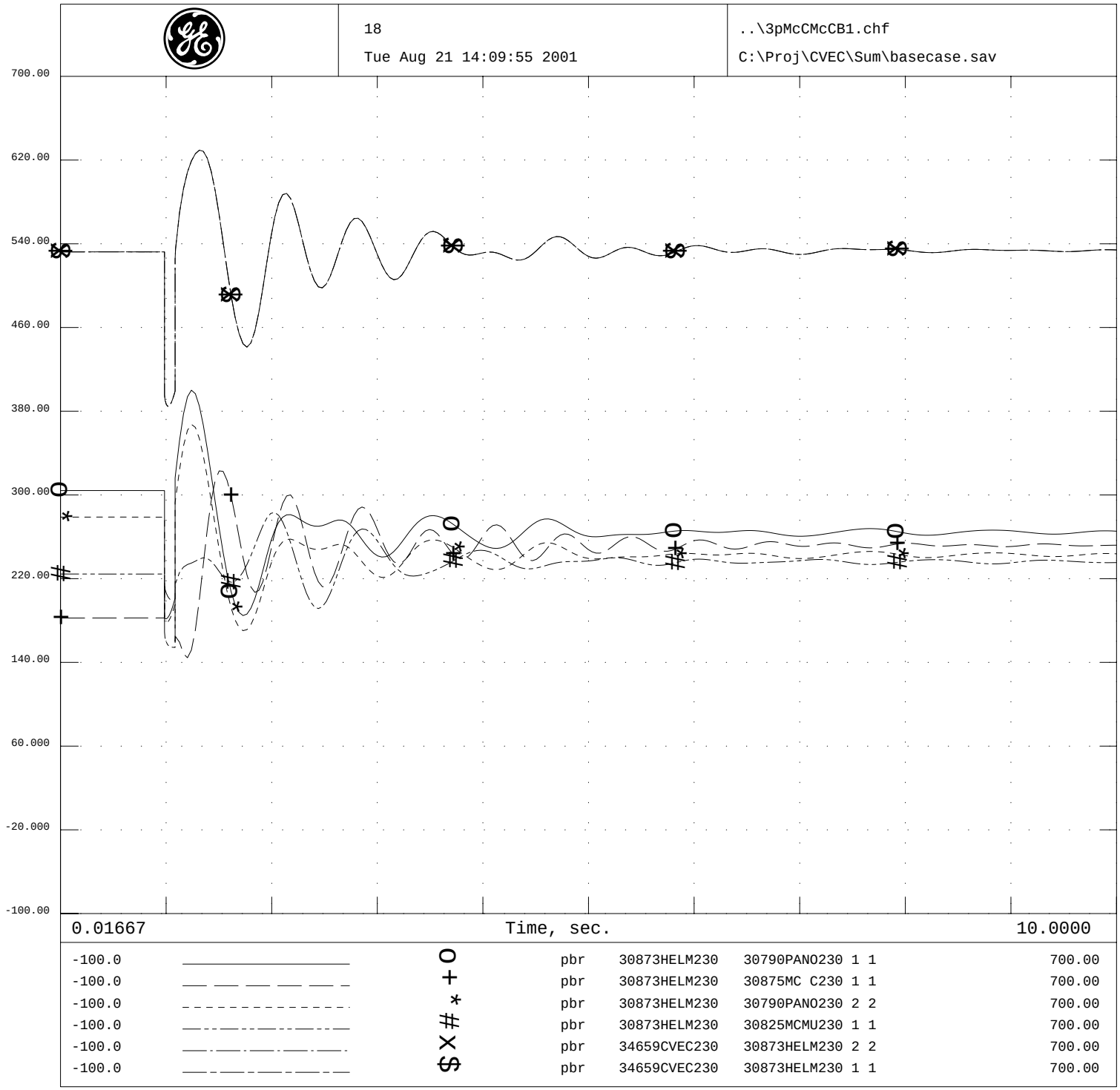

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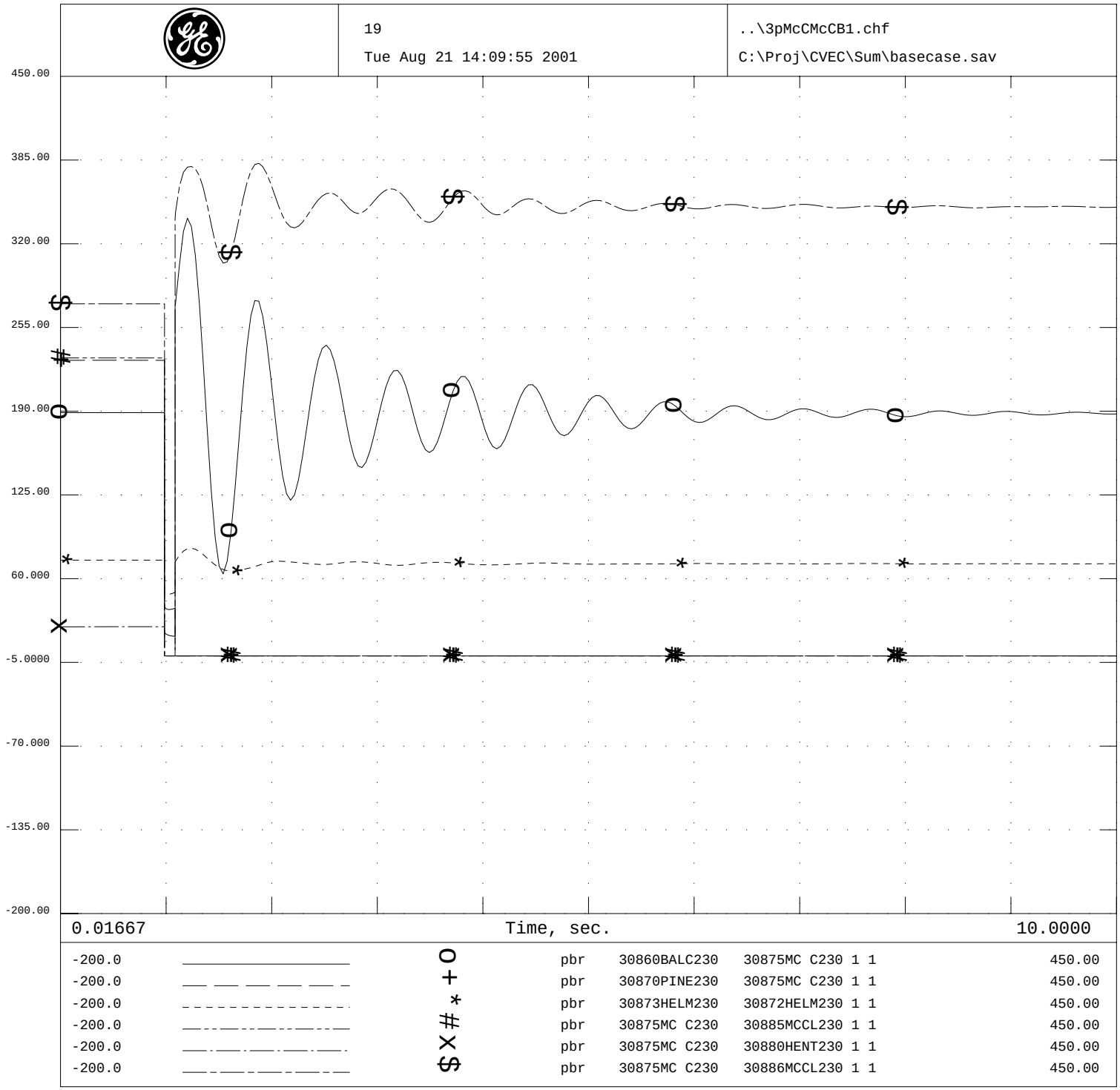
Selected Transmission Line Flows (MW)



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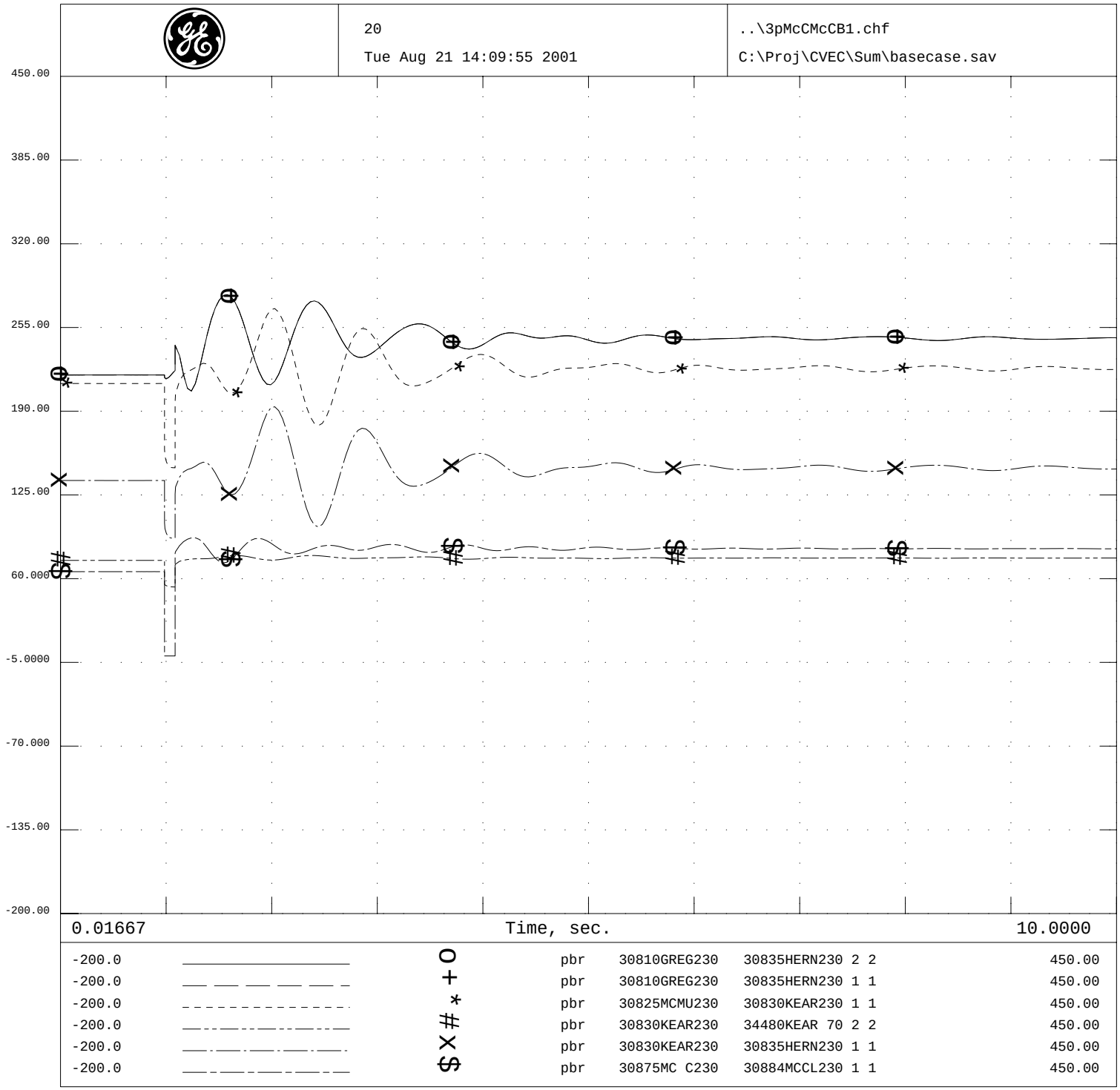

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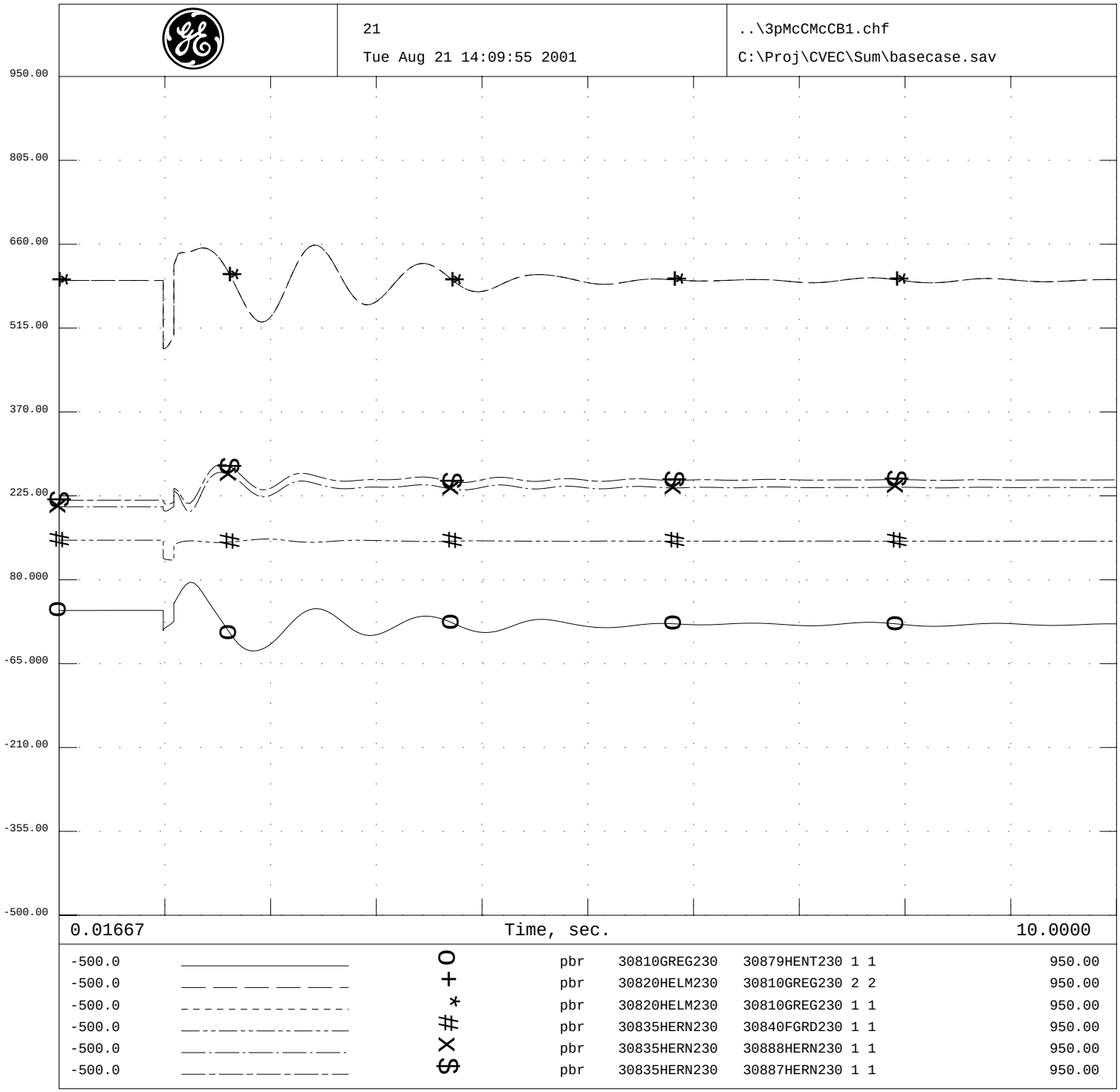

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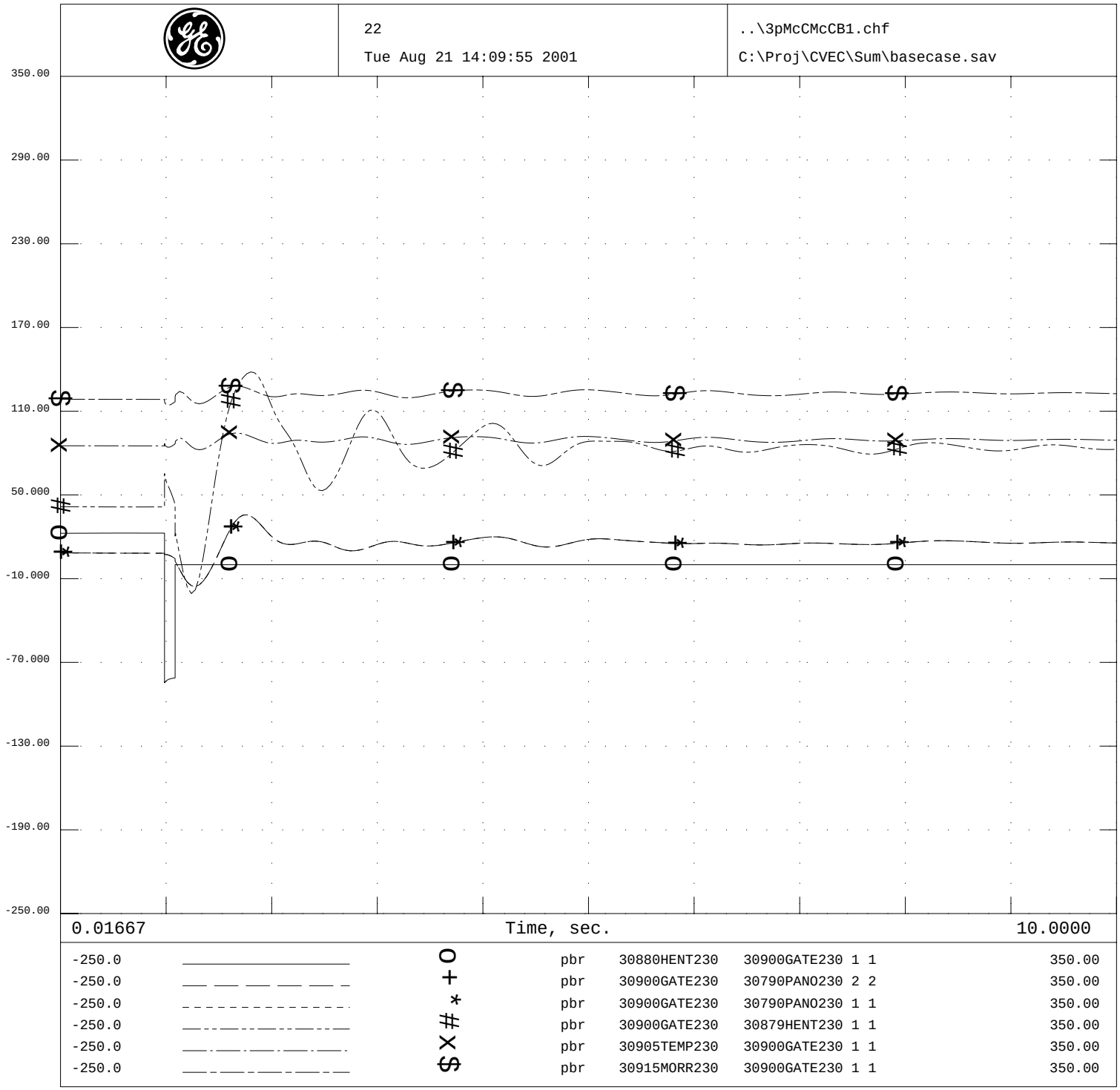

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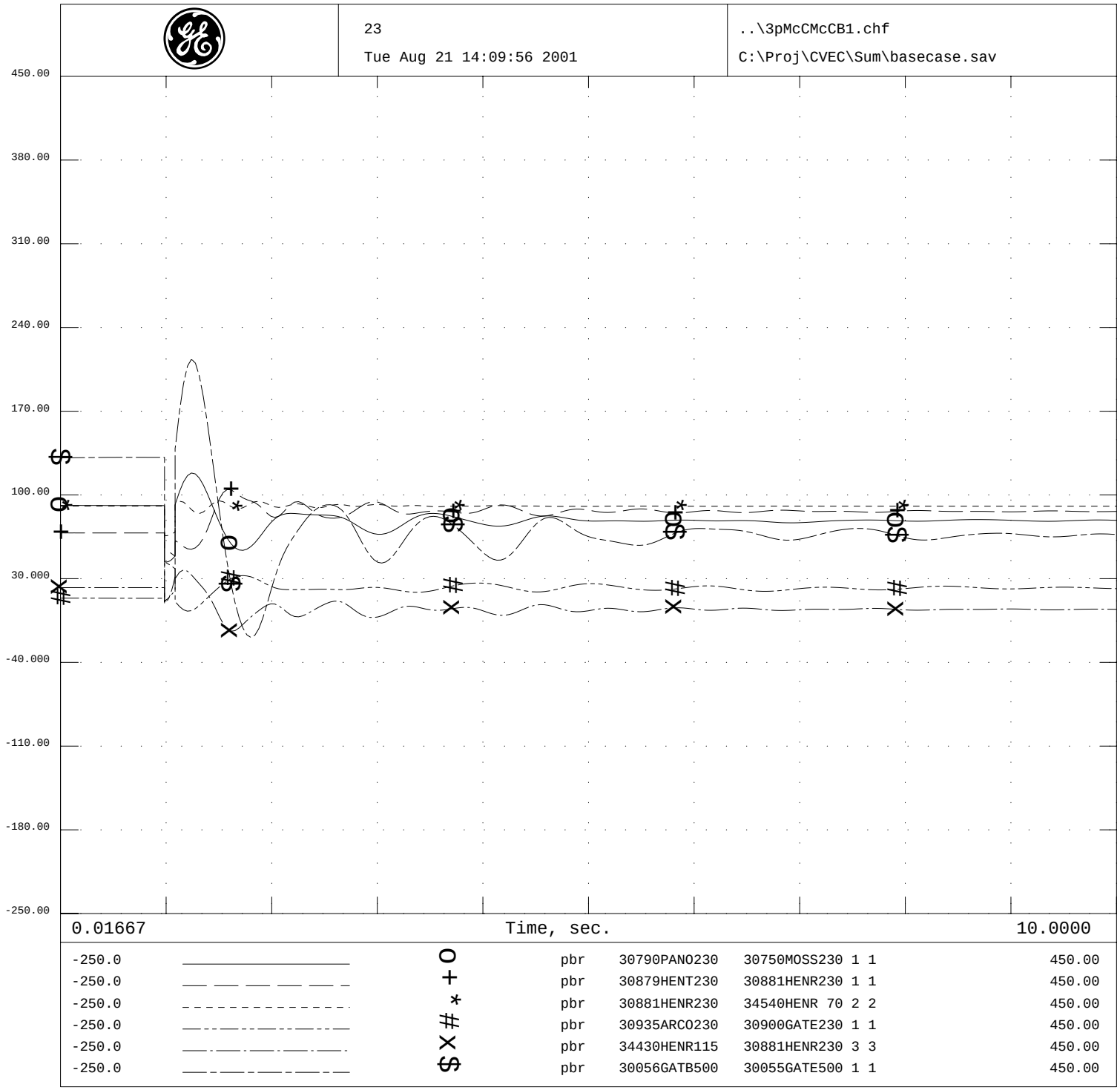

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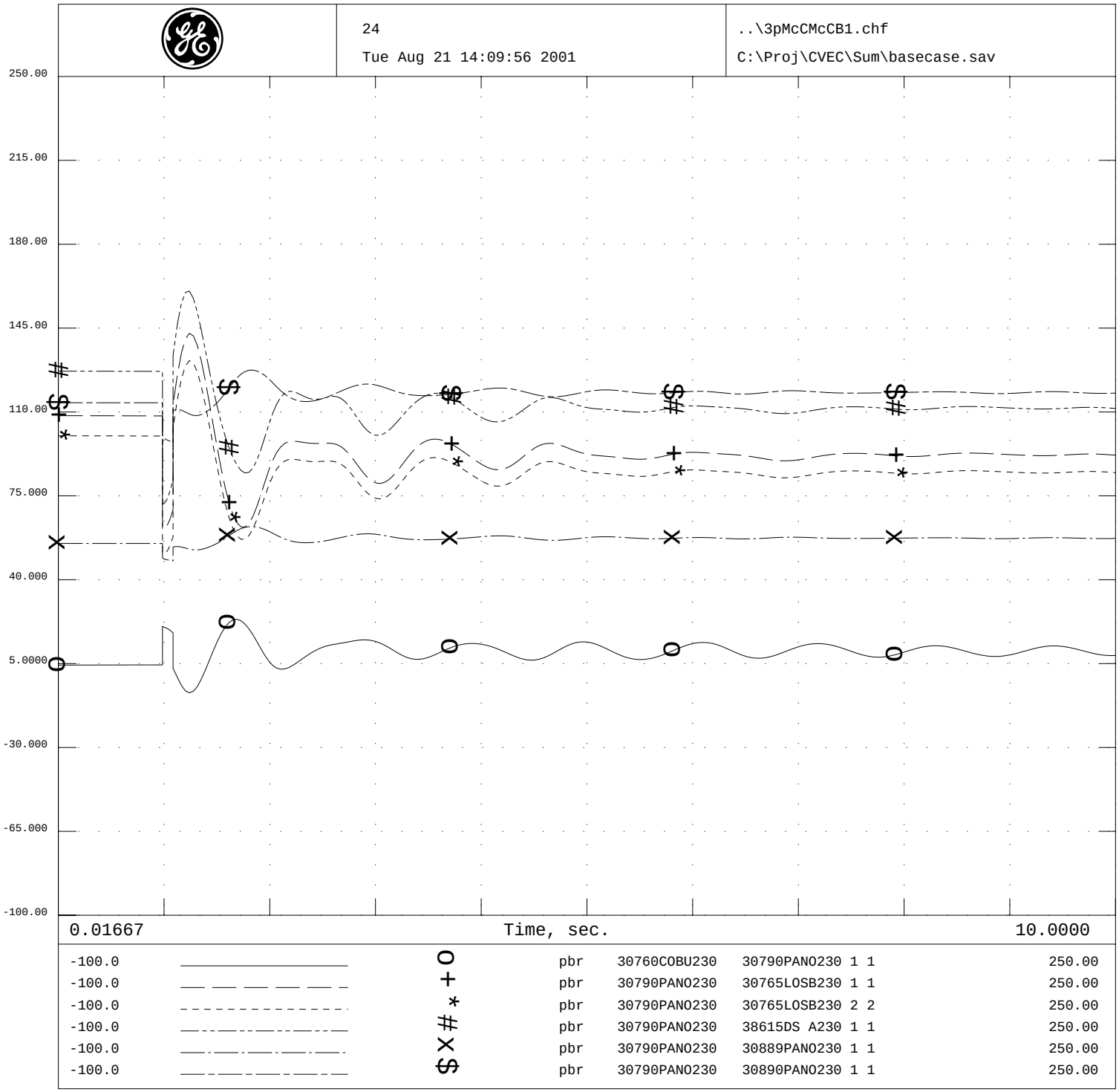

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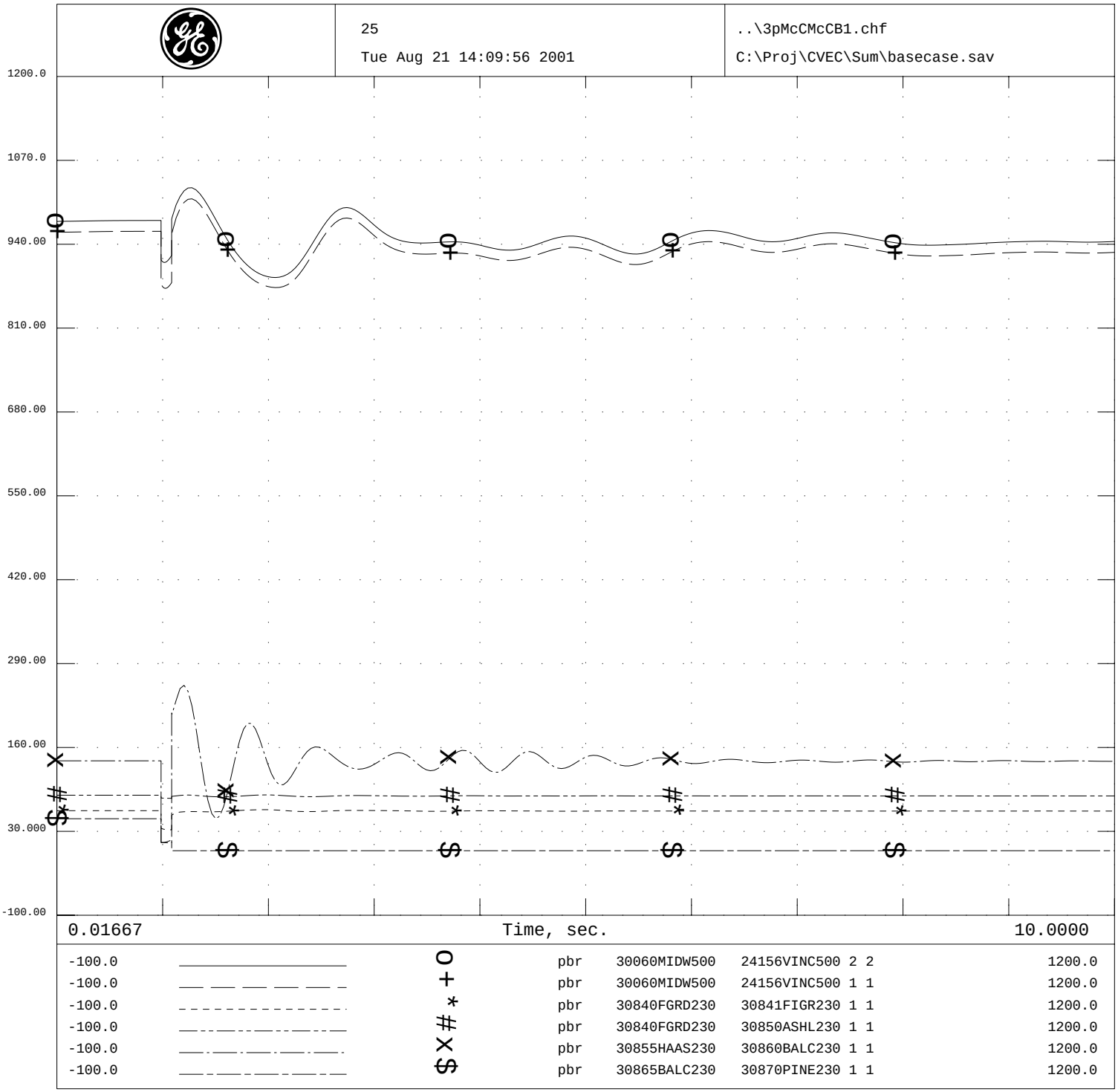

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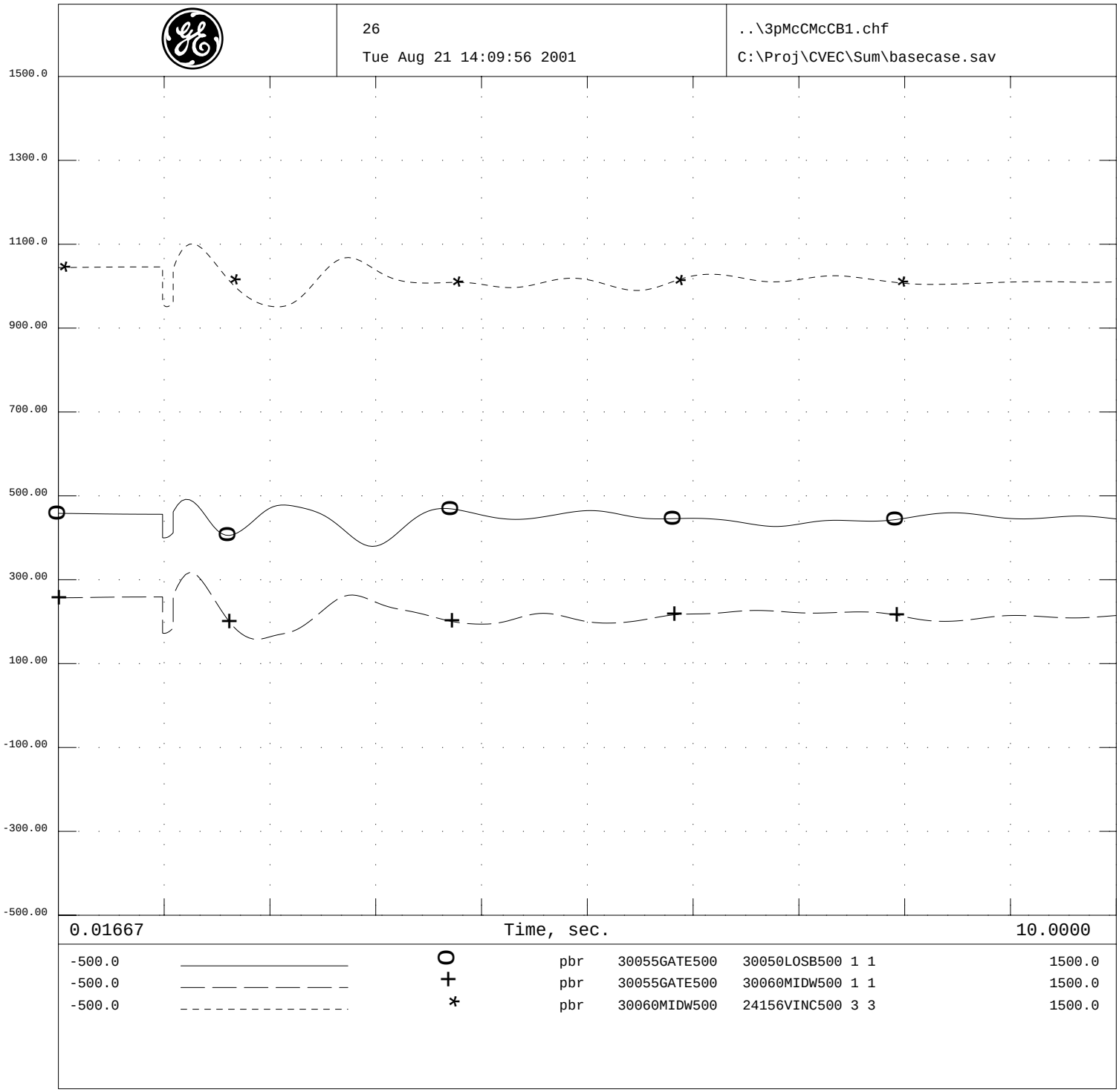

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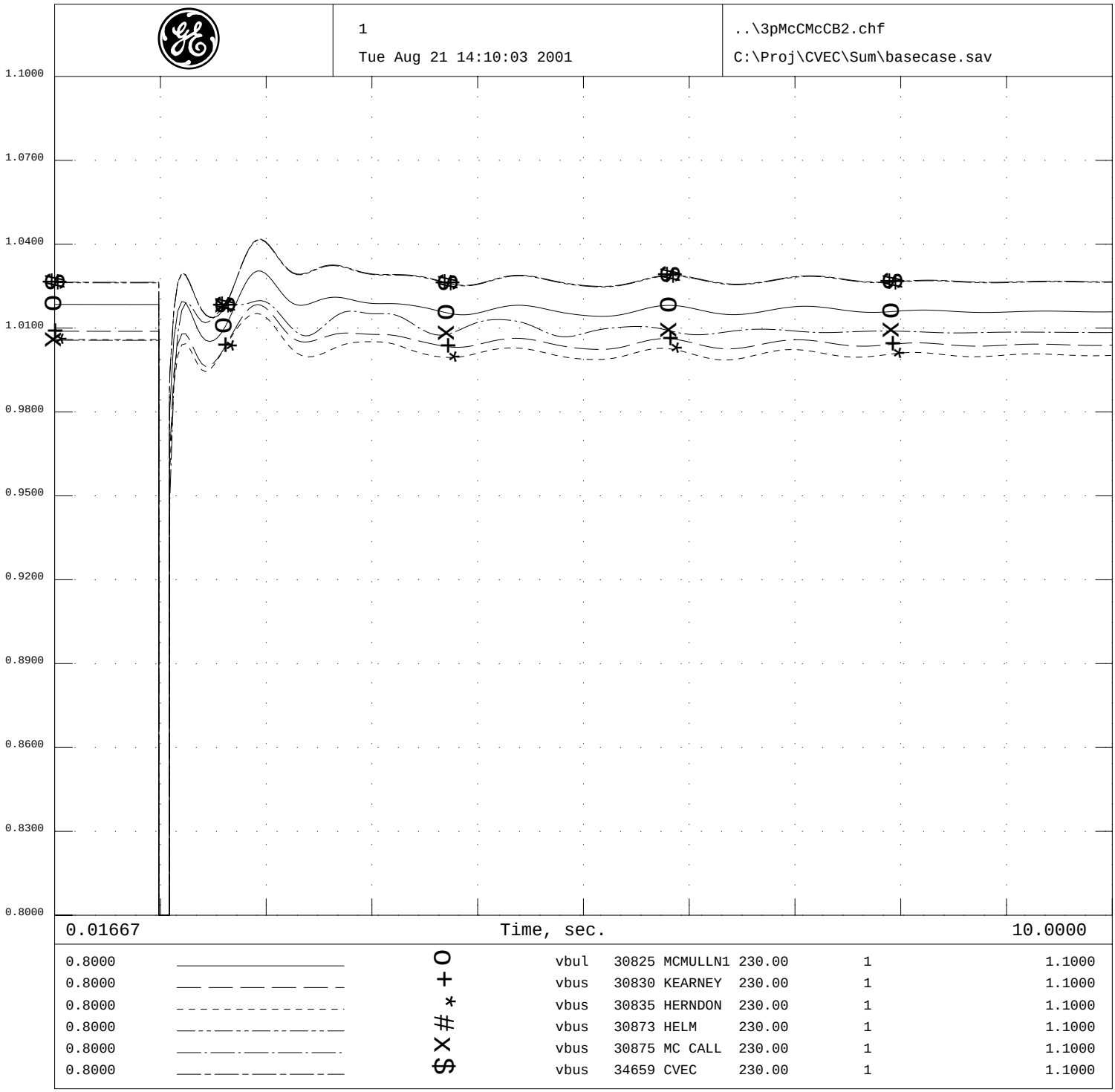

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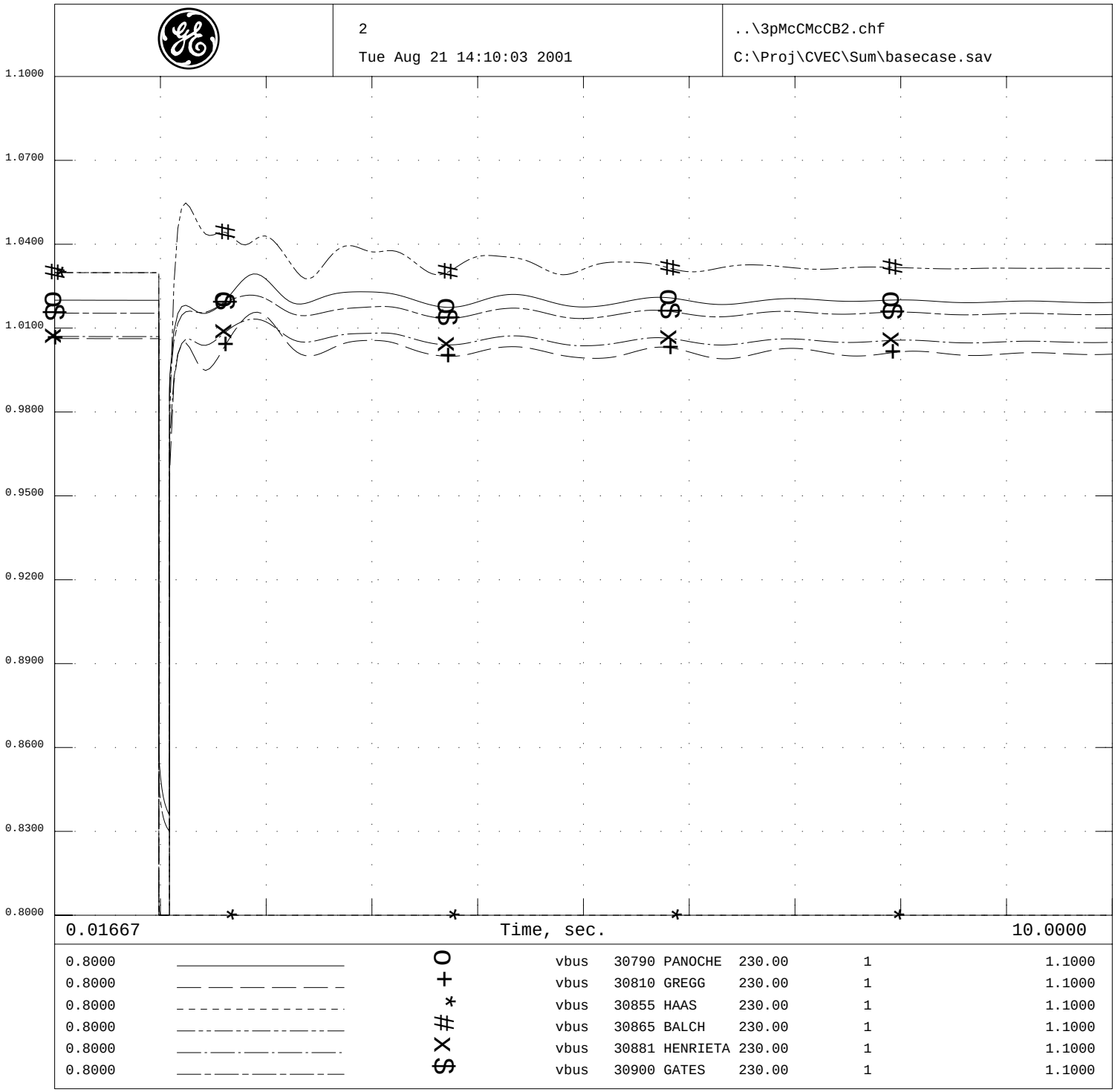
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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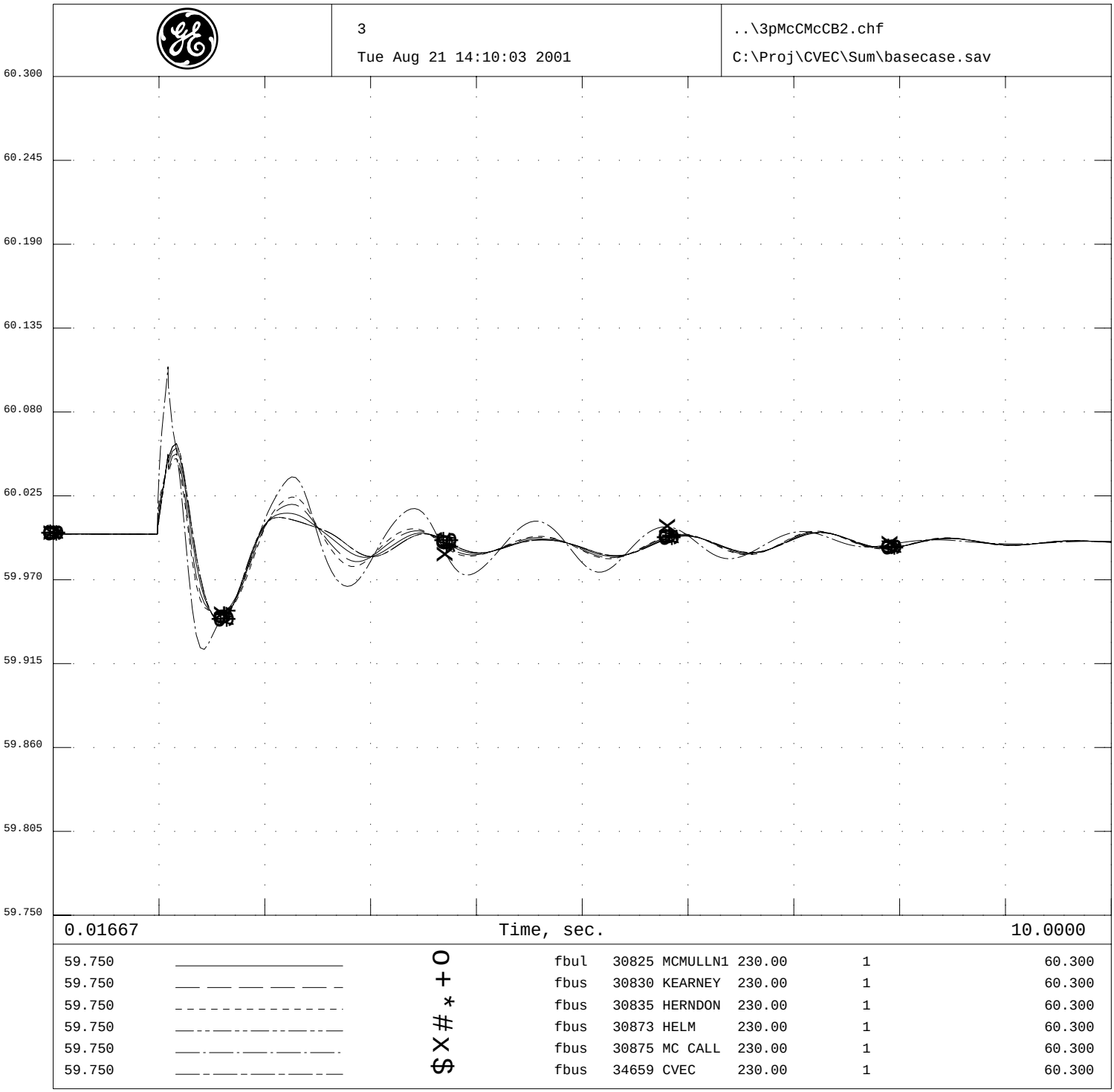

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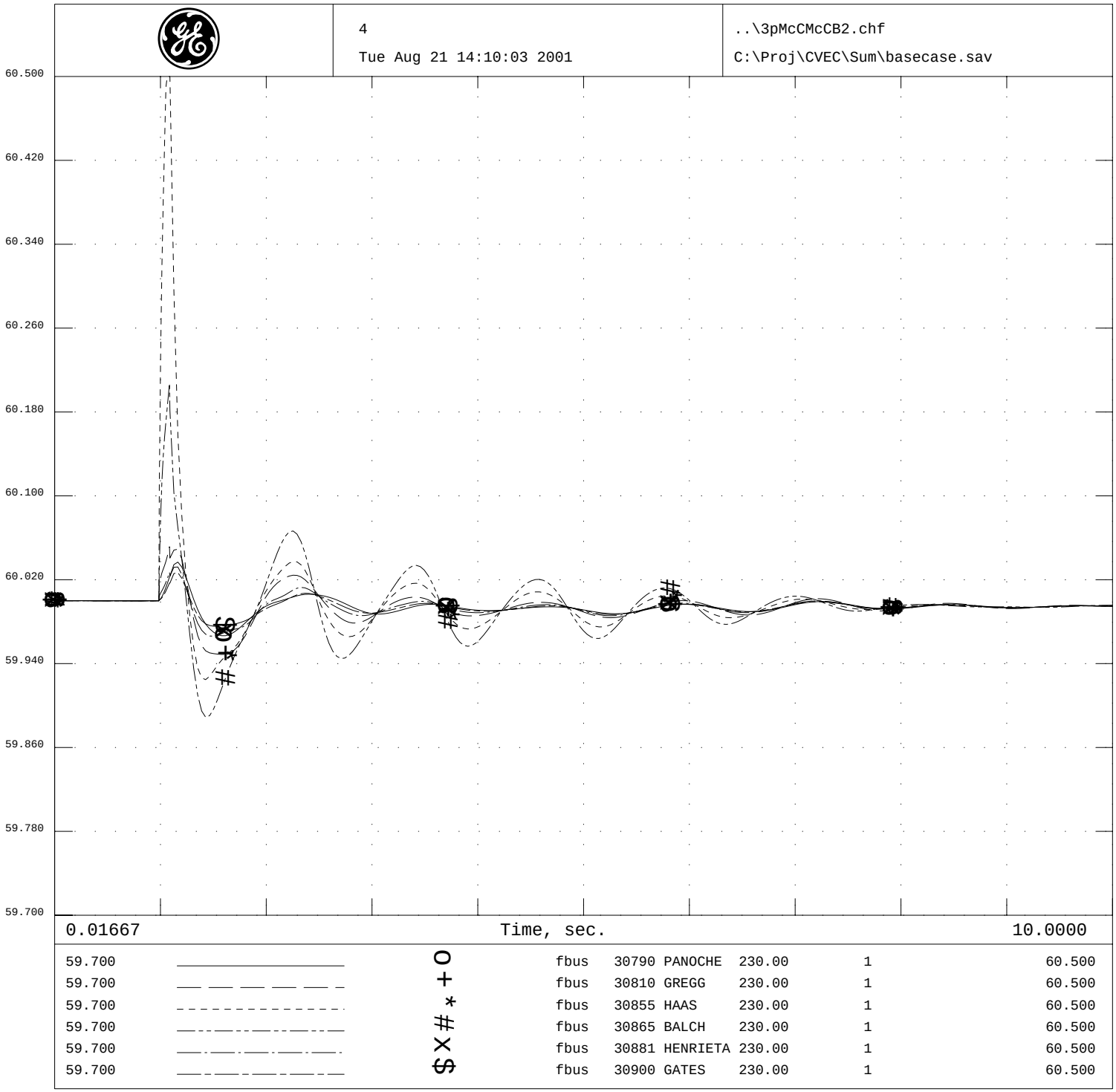
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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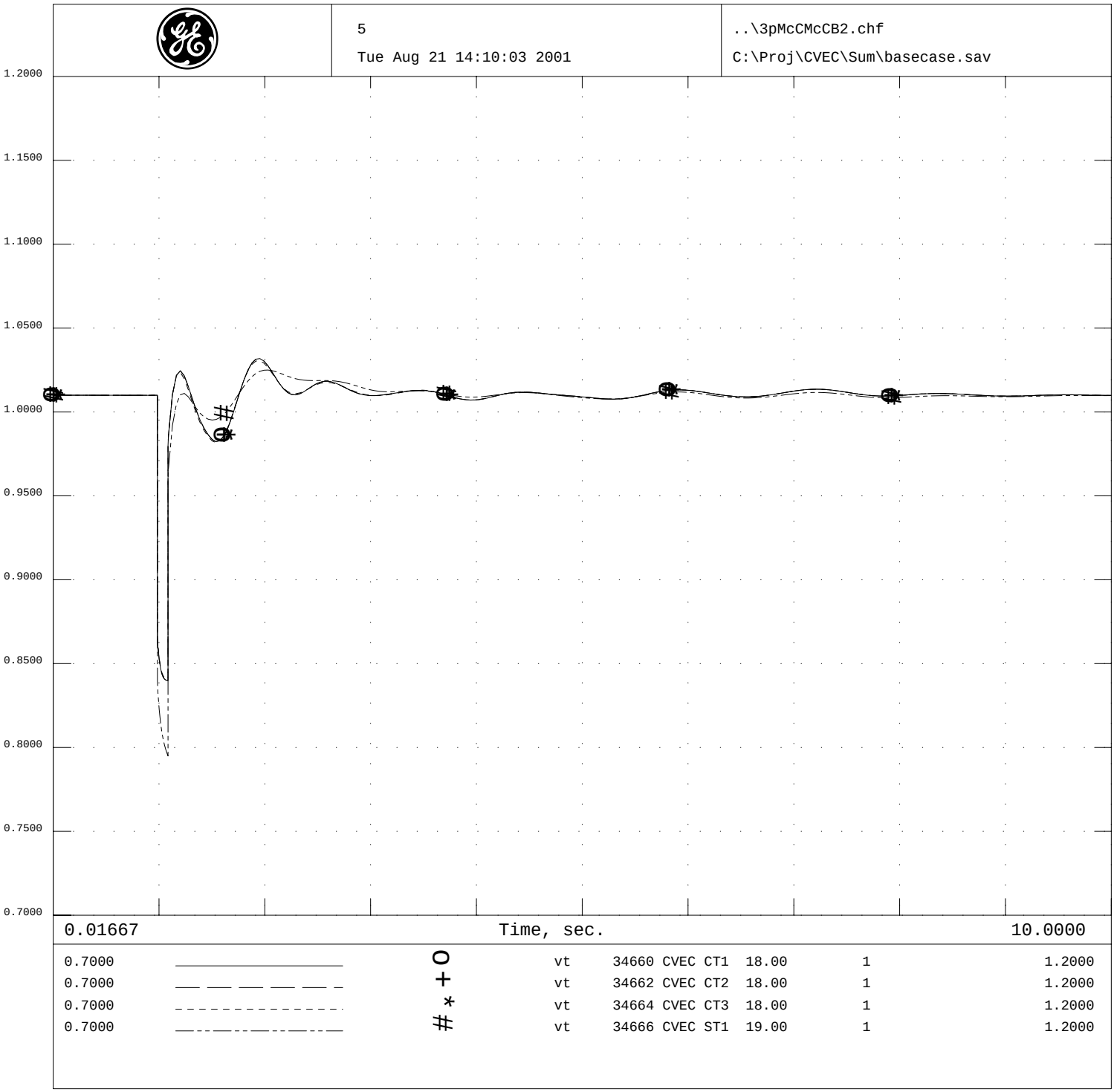

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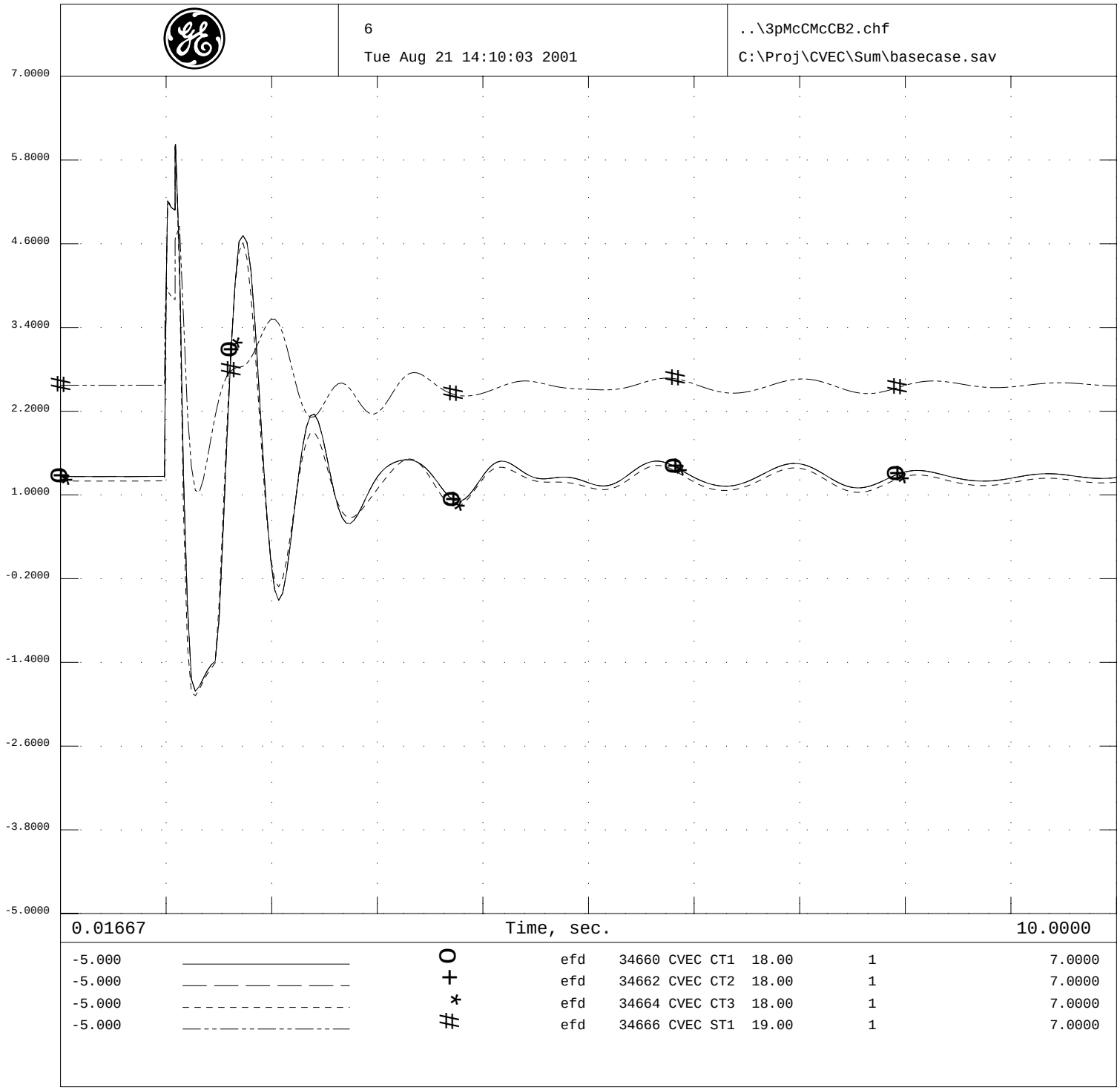
Calpine Corporation
Project Generator Terminal Voltages



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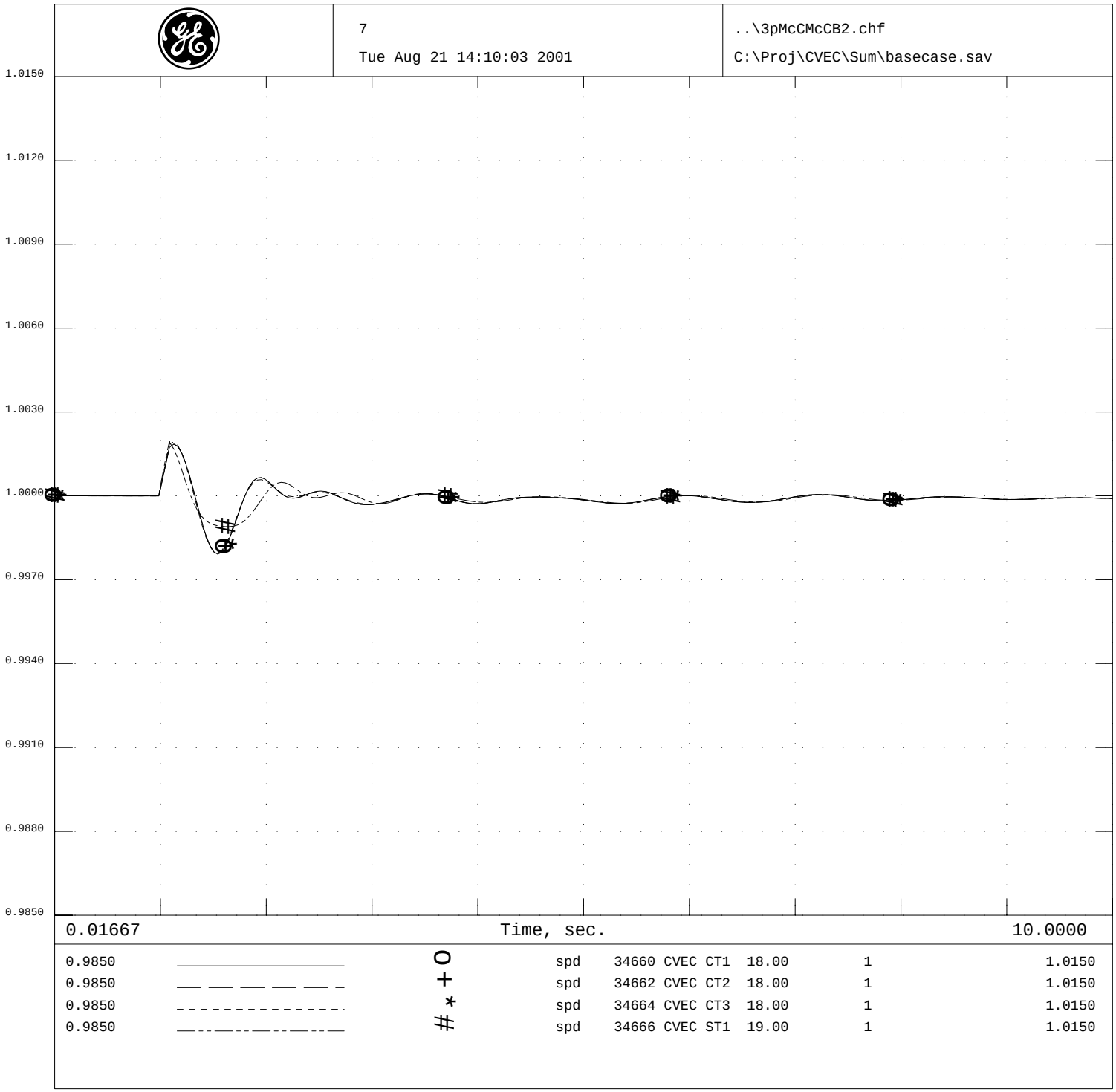
Calpine Corporation
Project Generator Field Voltages



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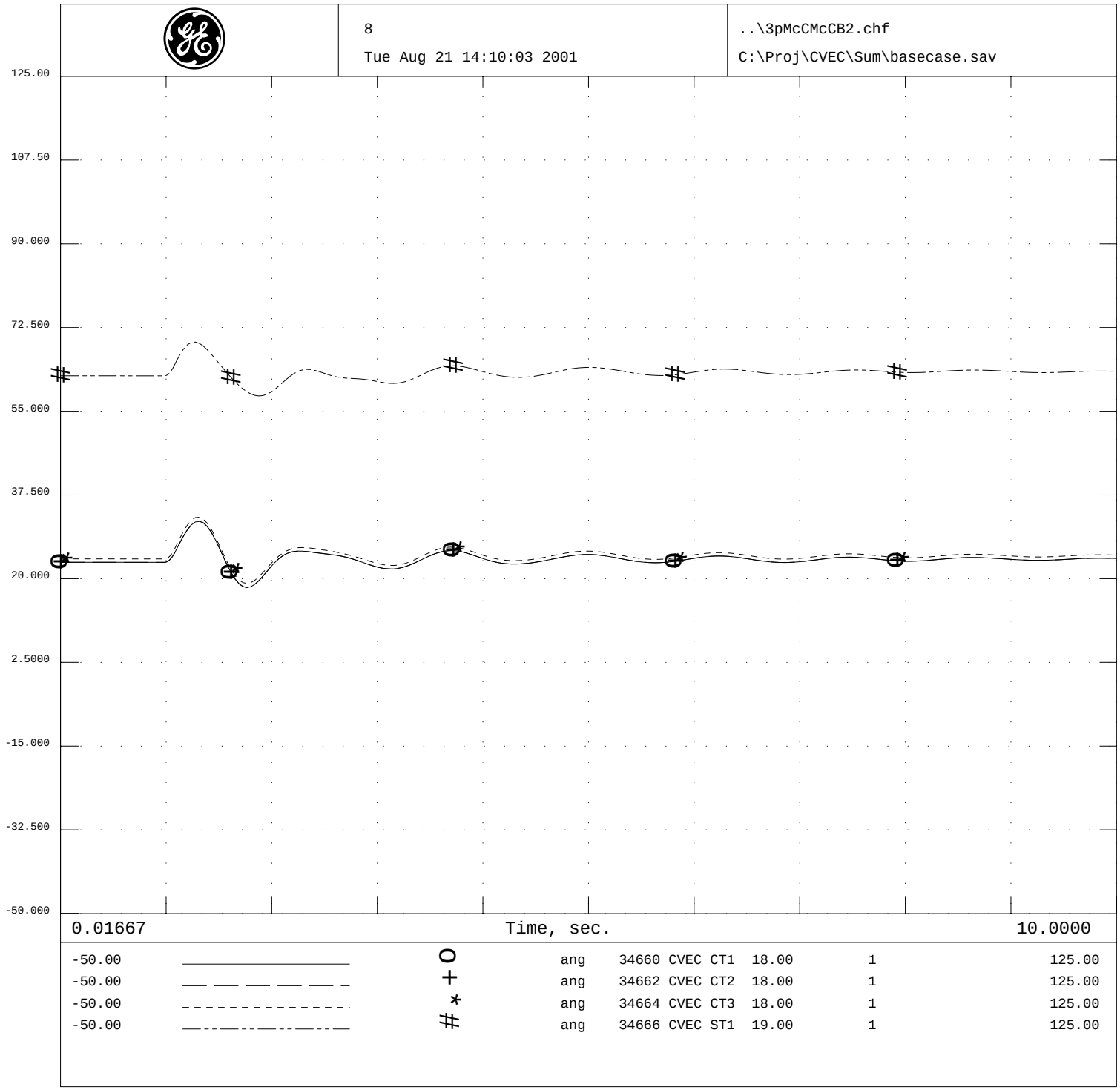
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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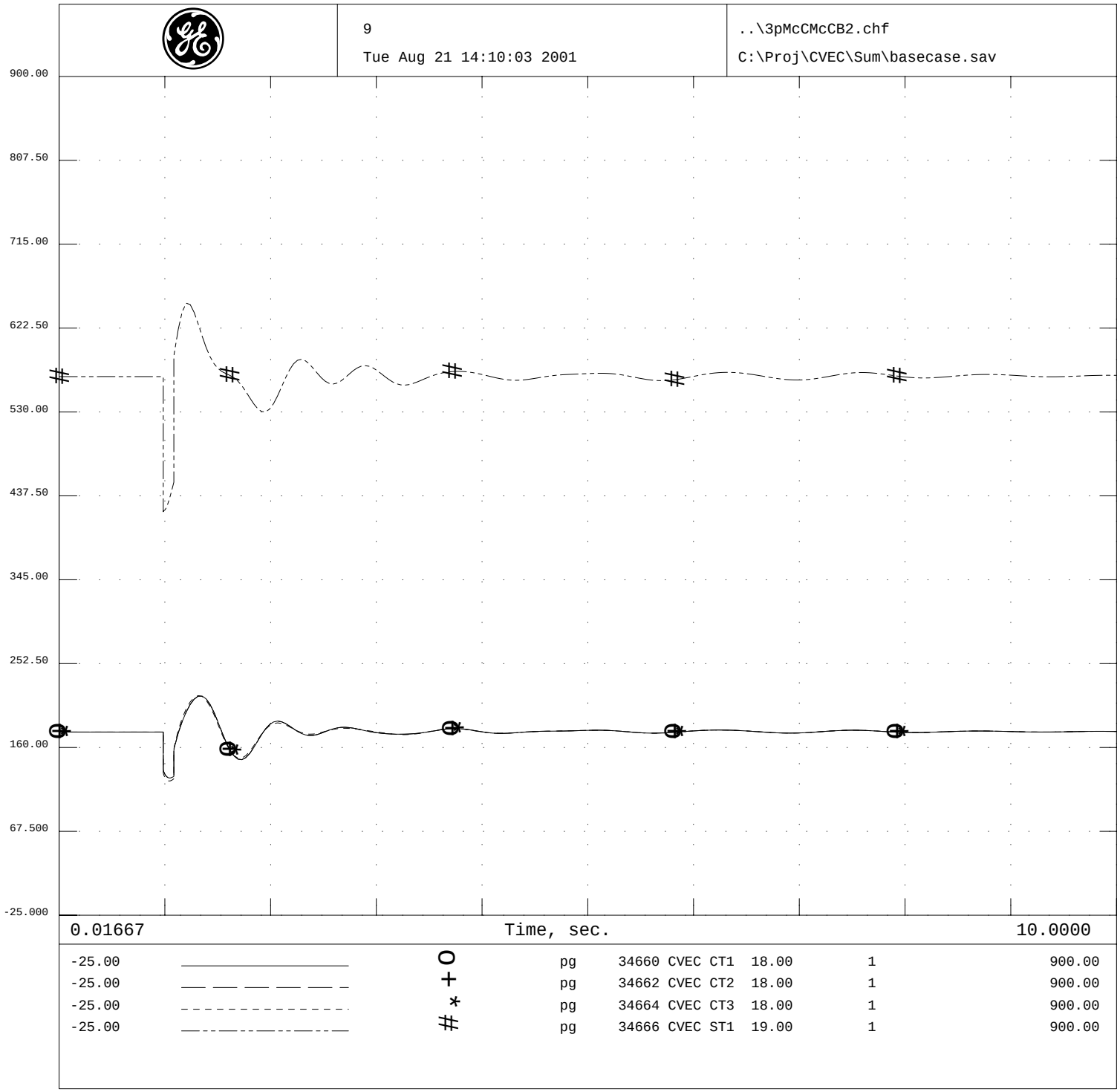
Calpine Corporation
Project Generator Rotor Angle



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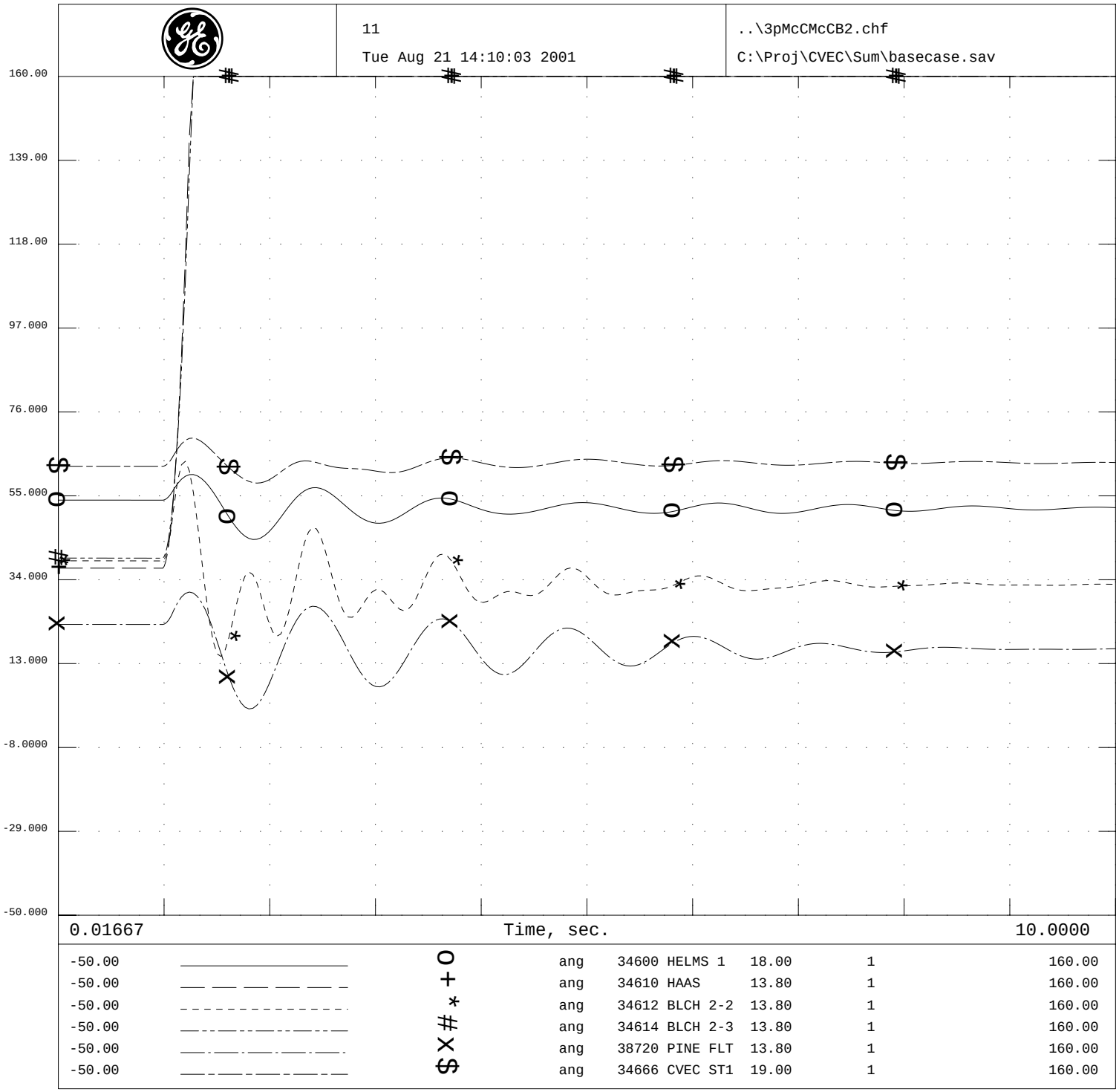

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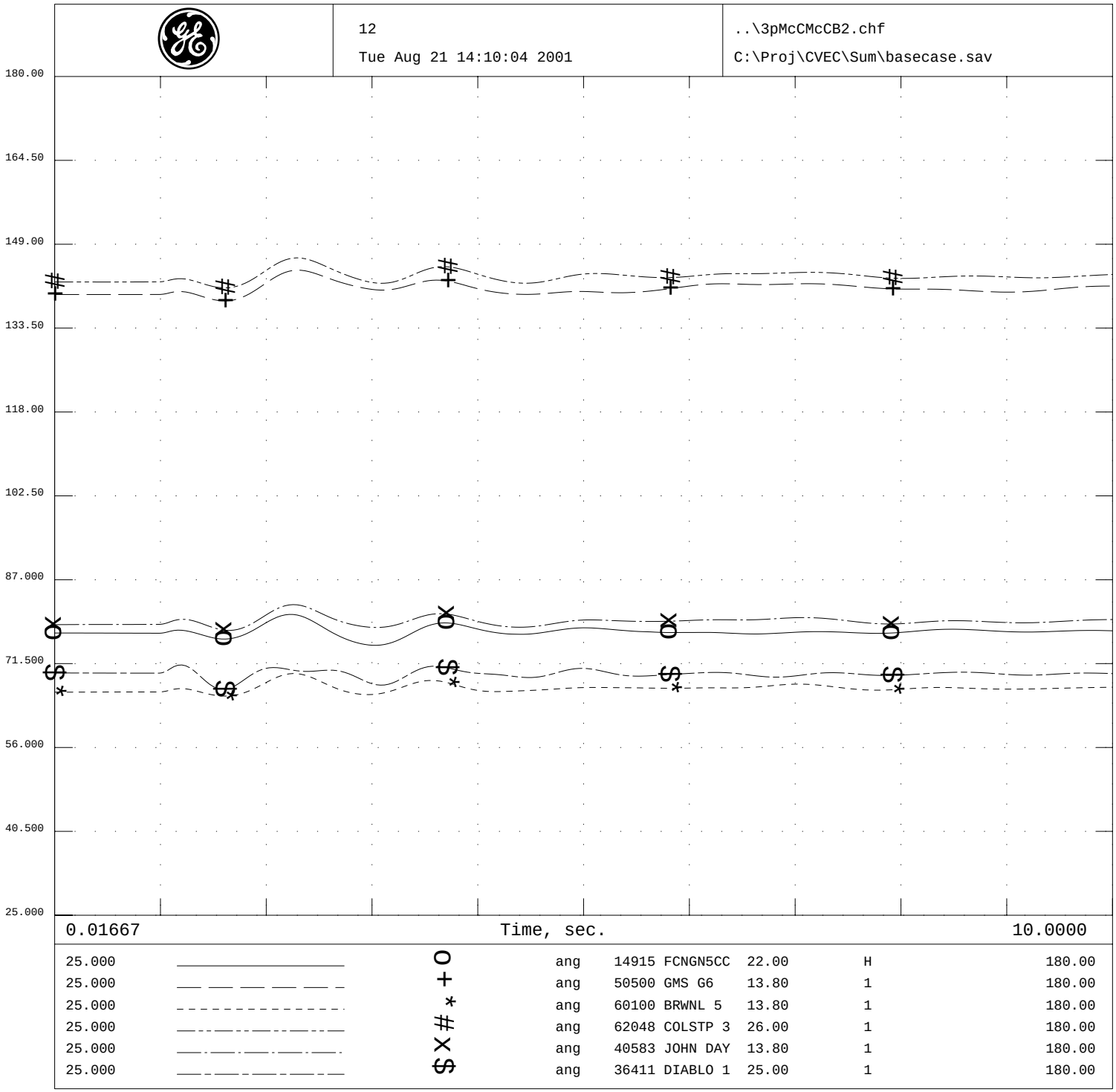
Calpine Corporation
Selected Local Rotor Angle Plots



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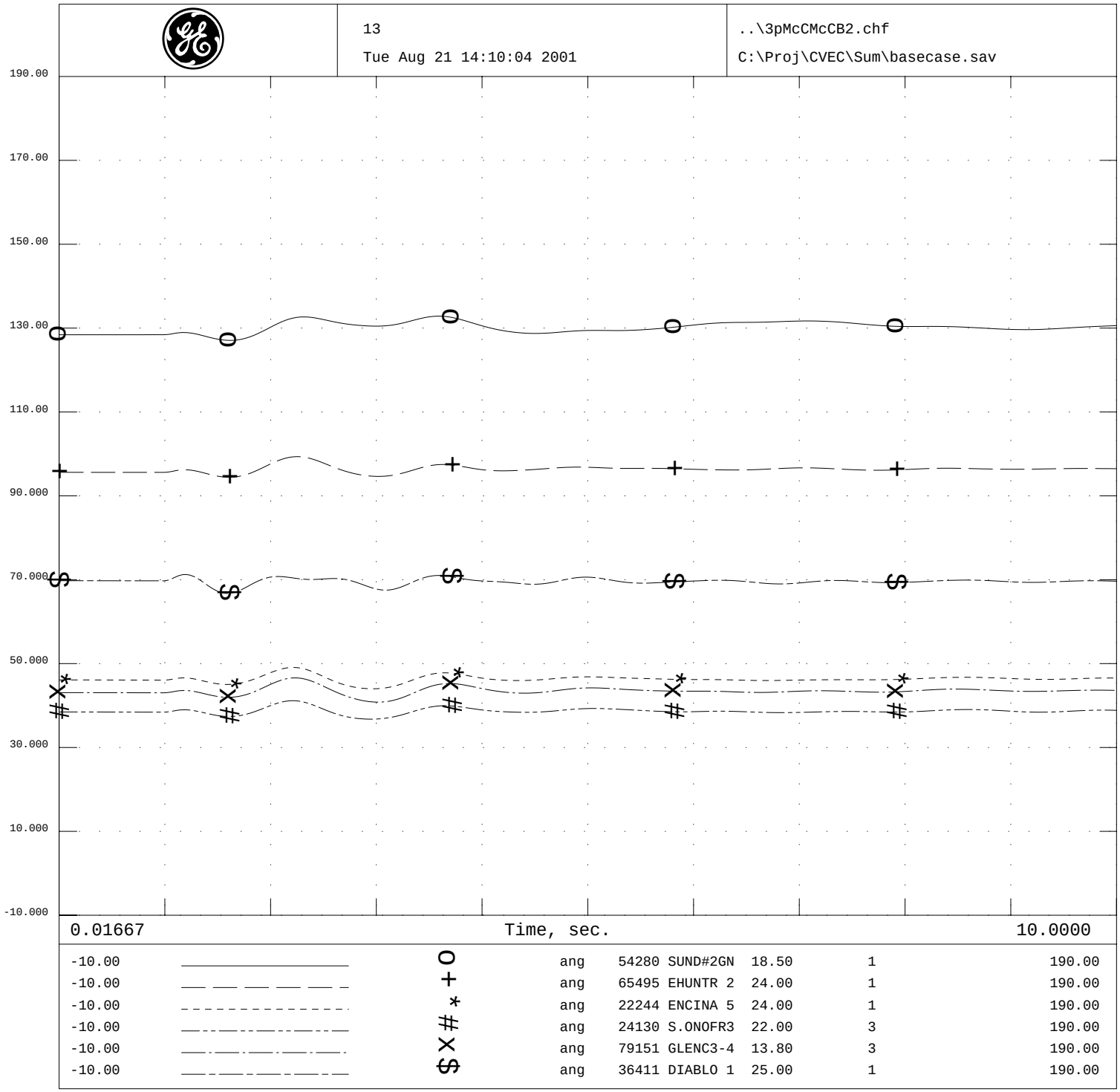

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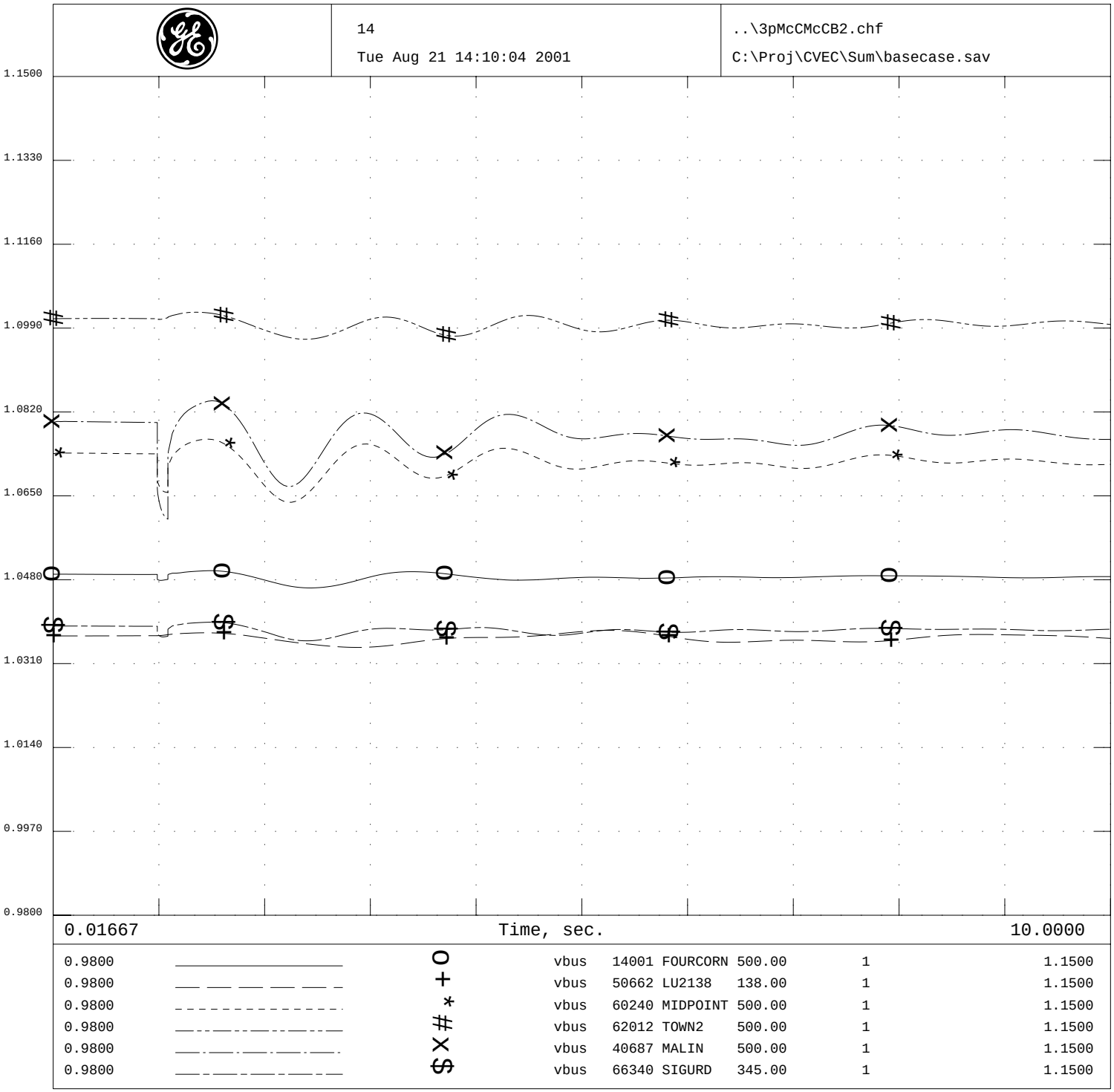

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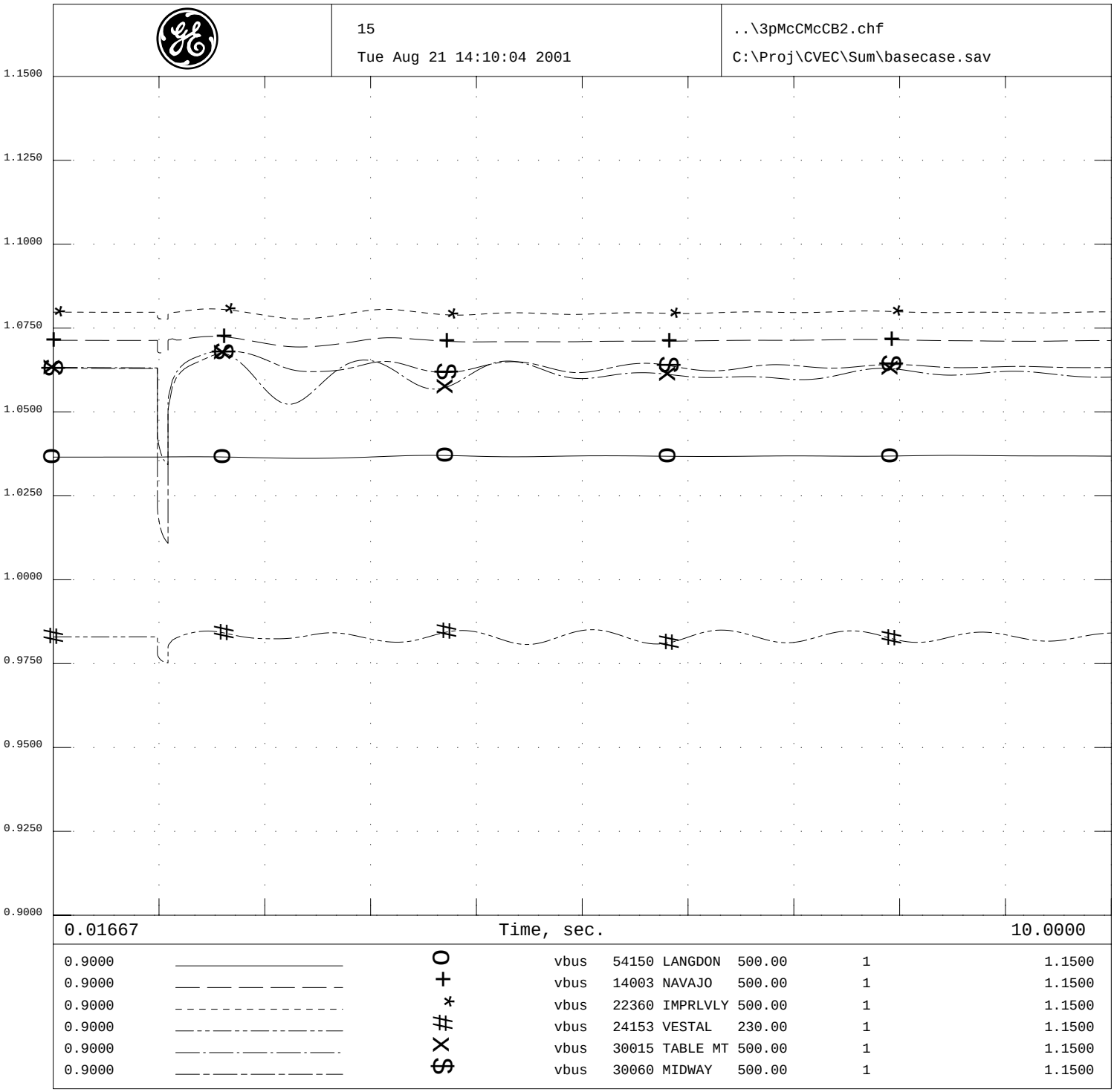

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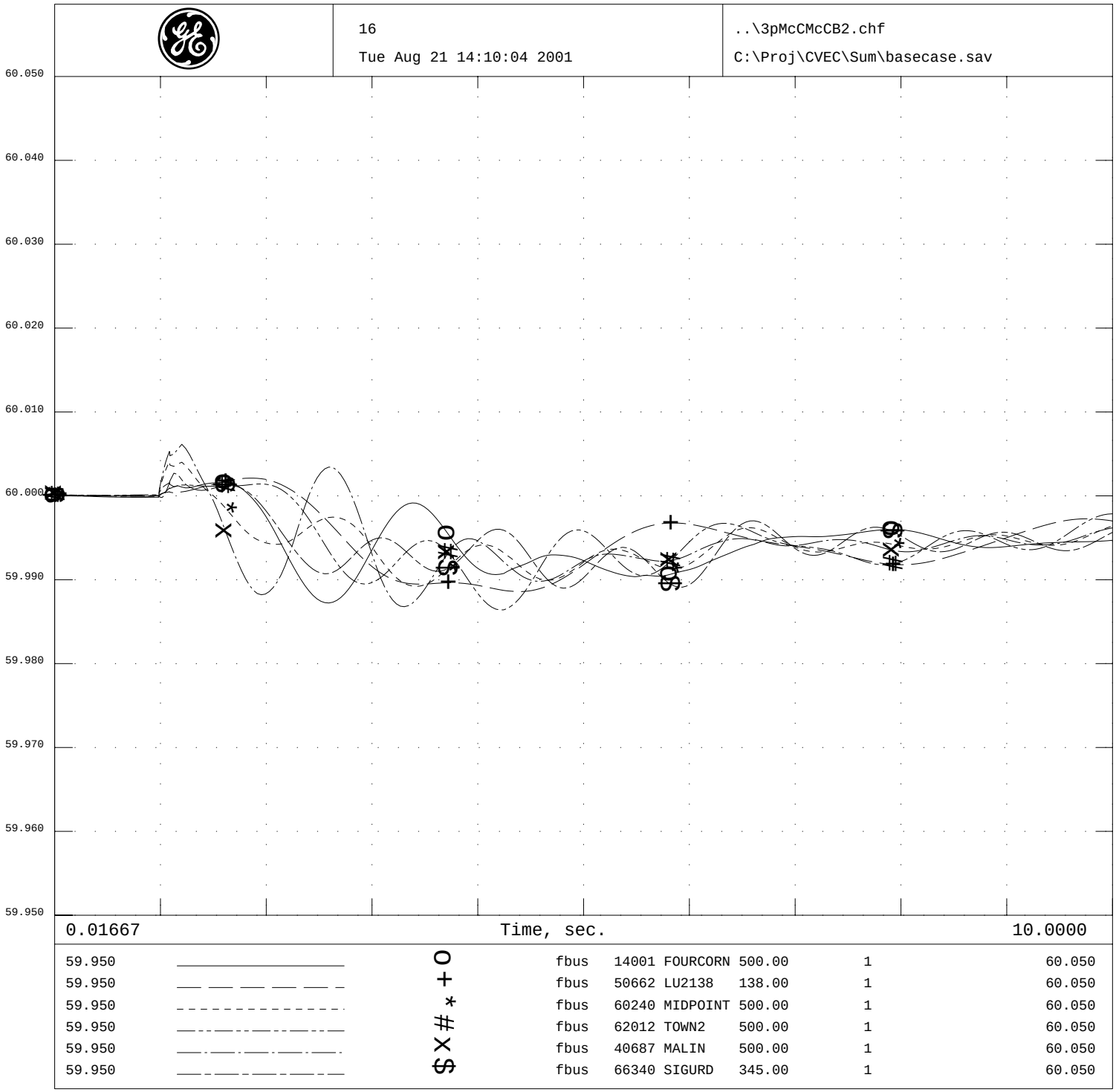

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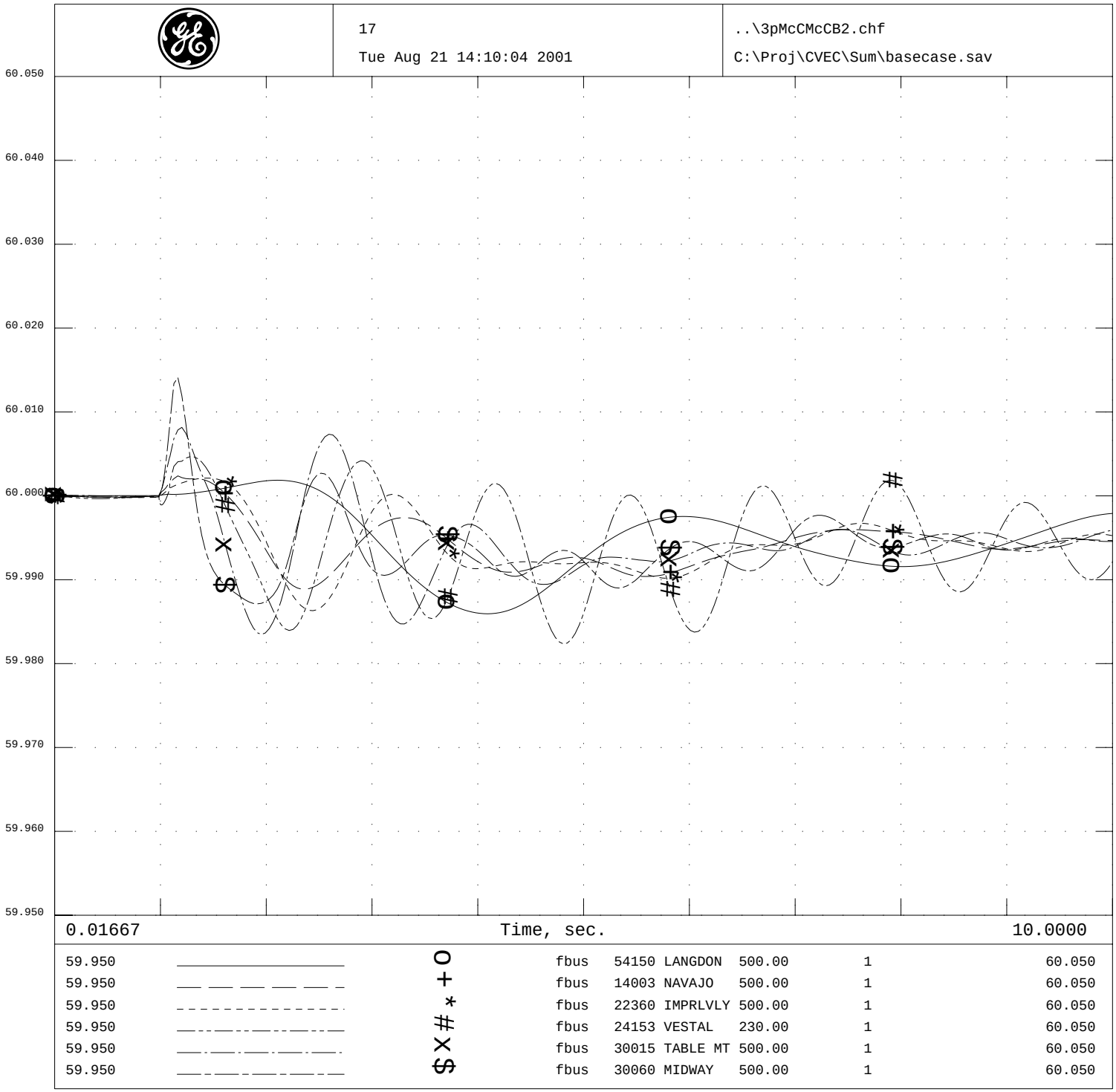

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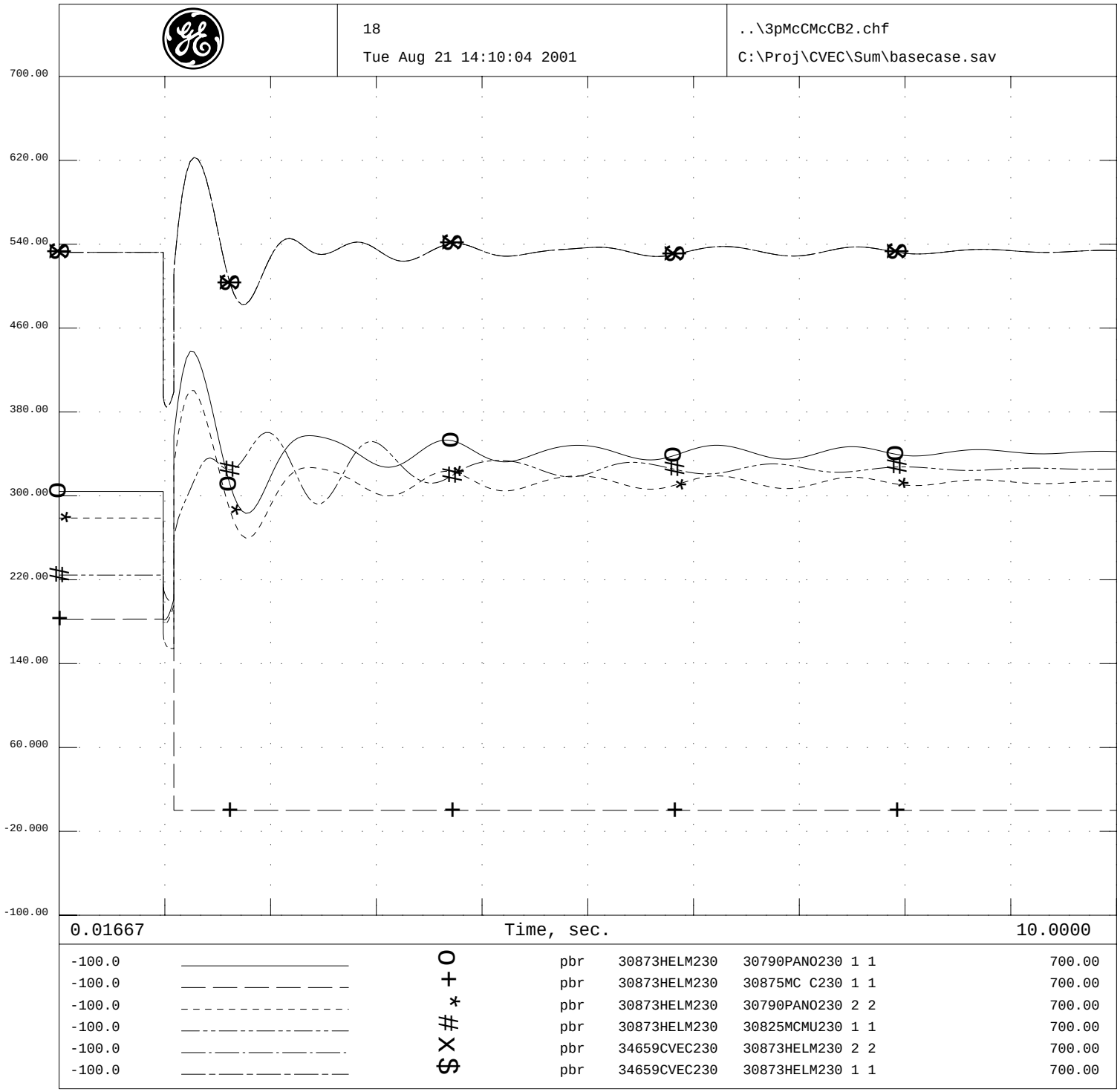

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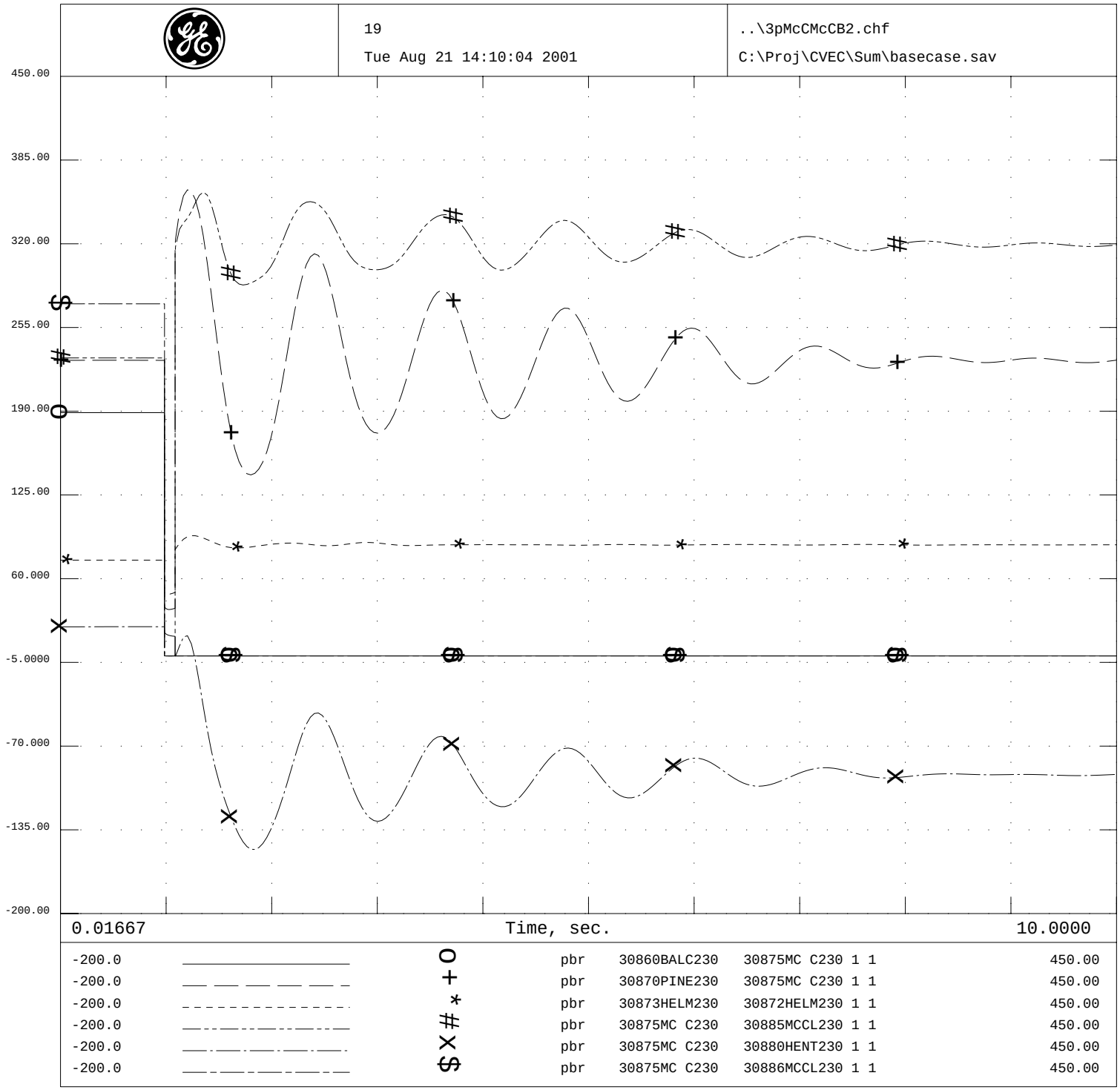

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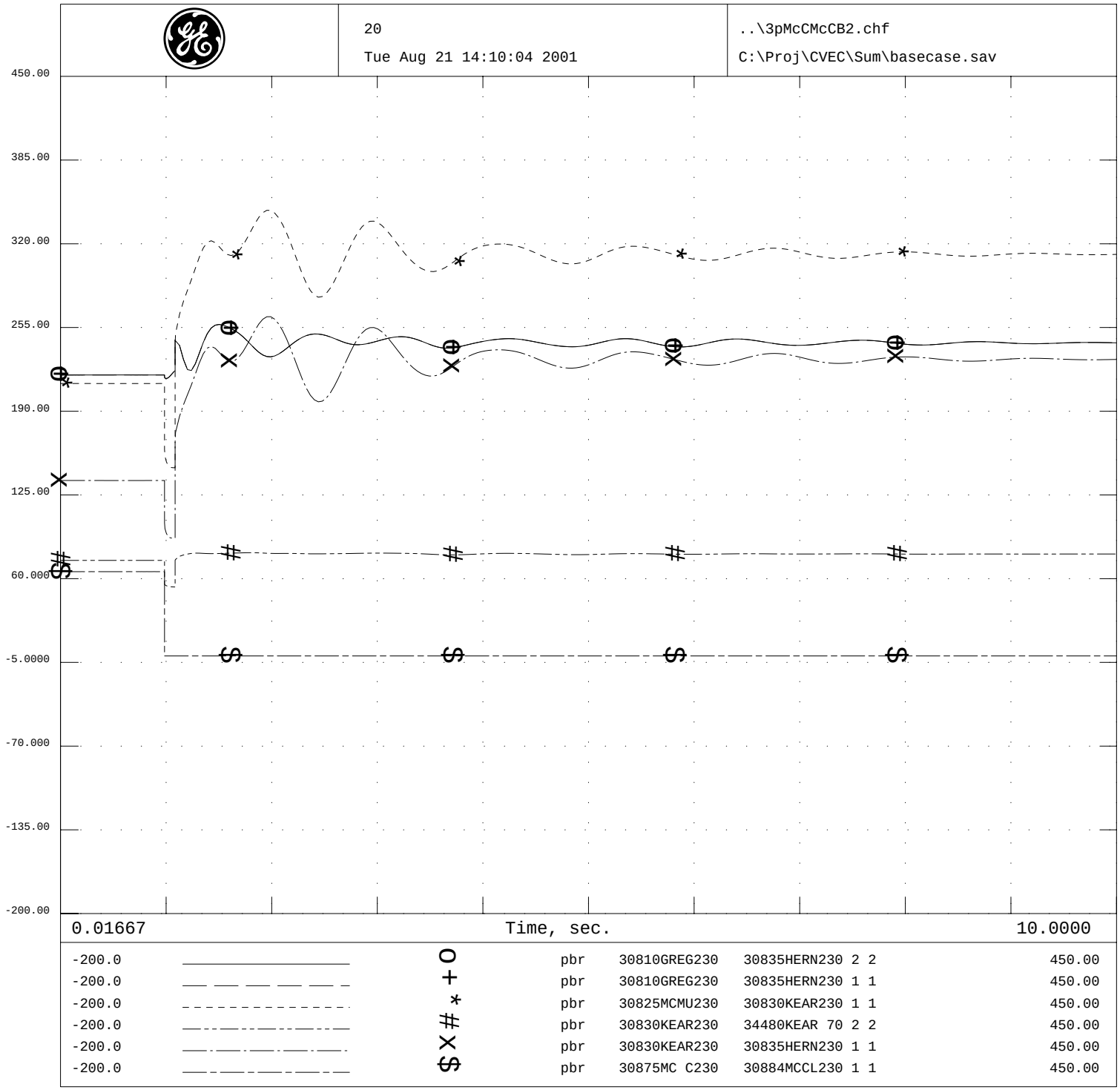

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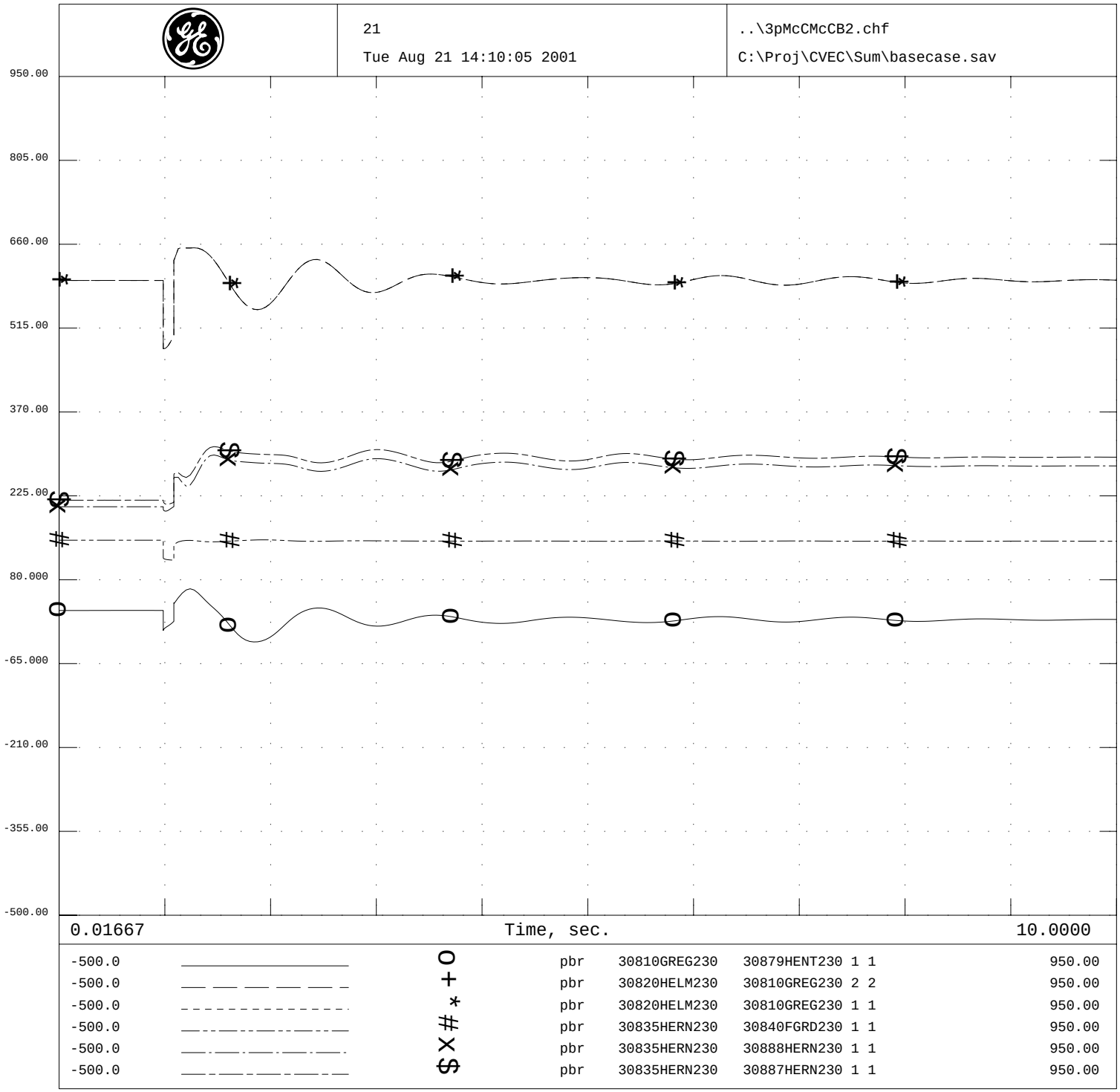

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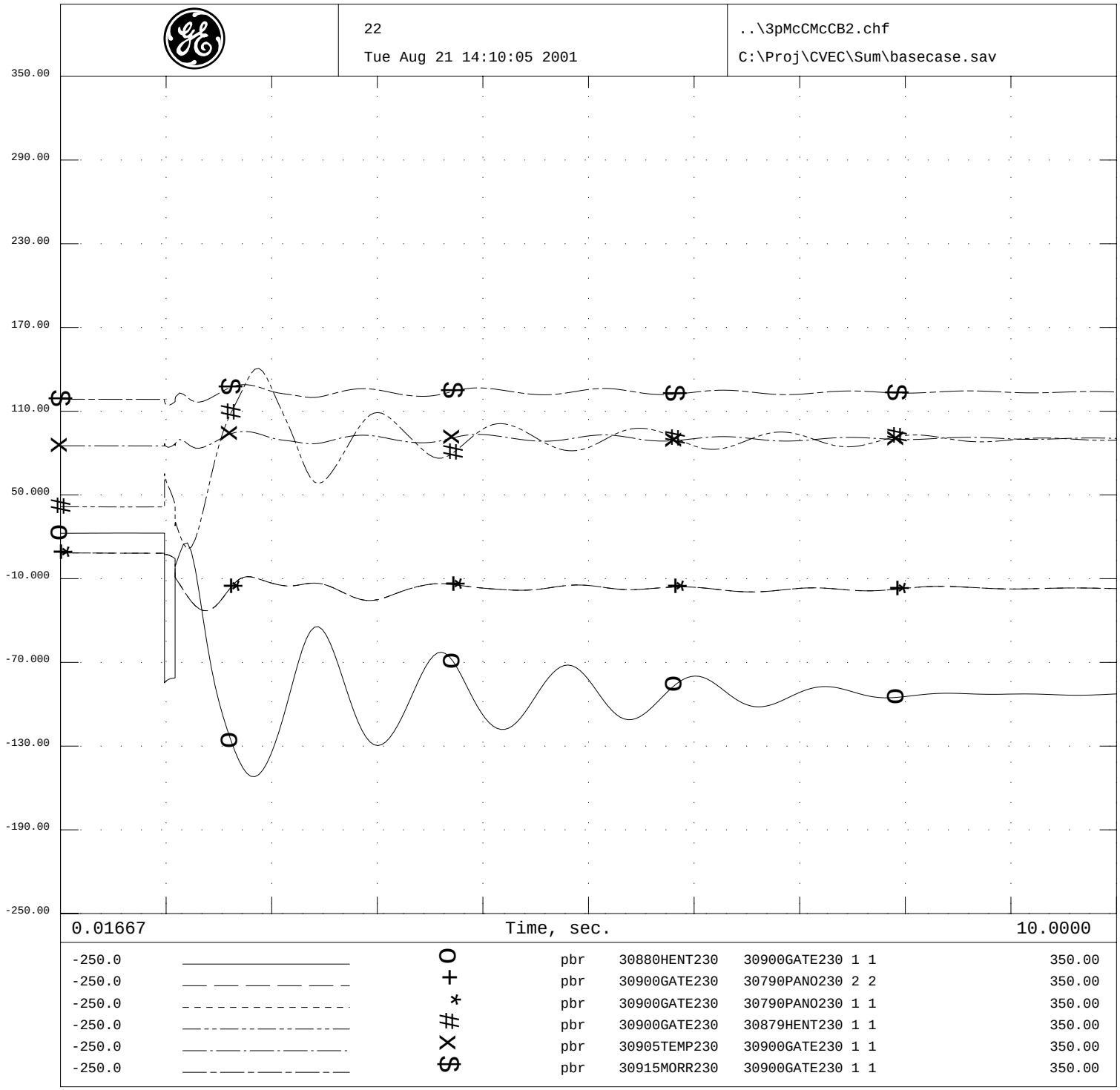

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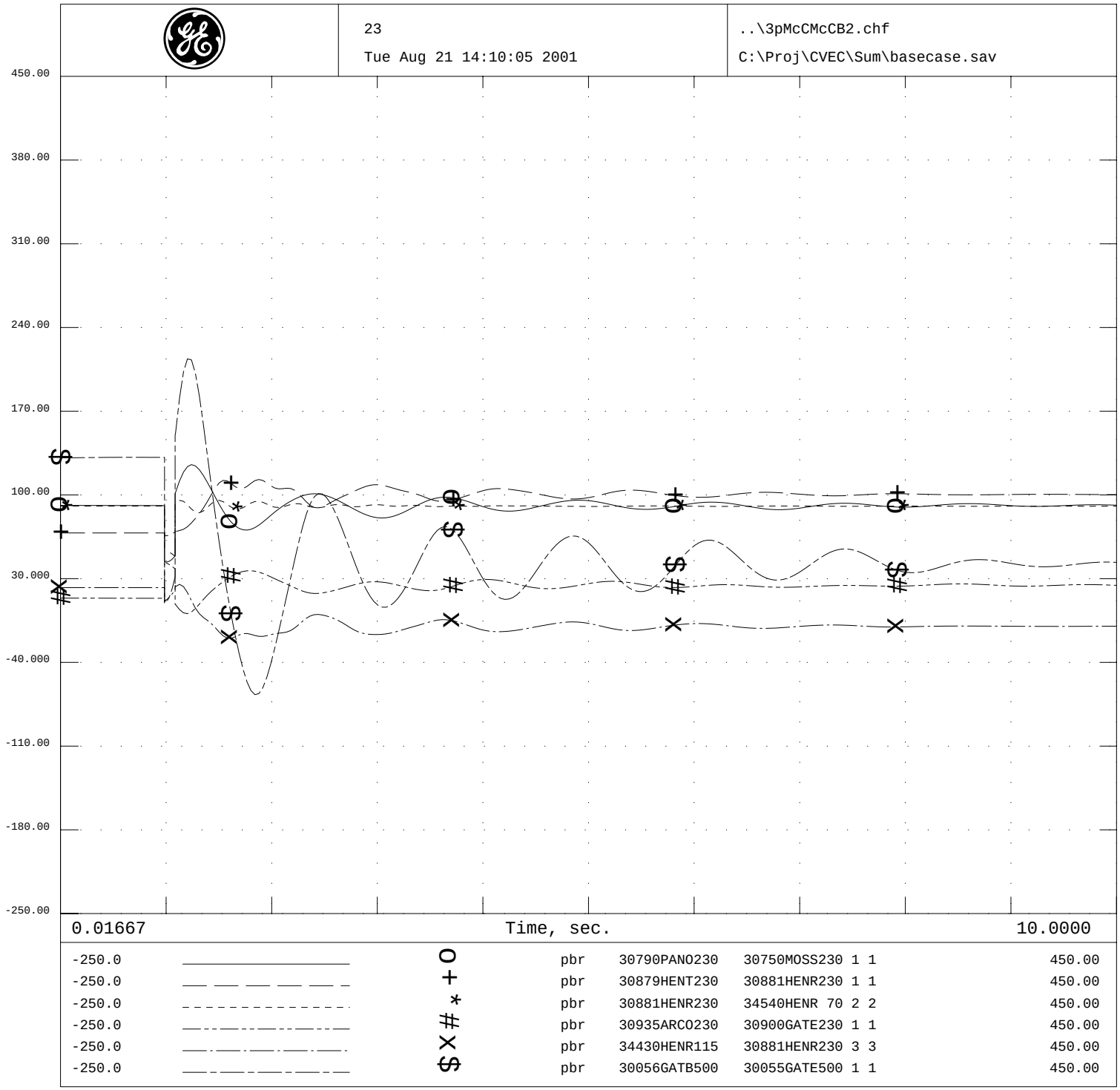

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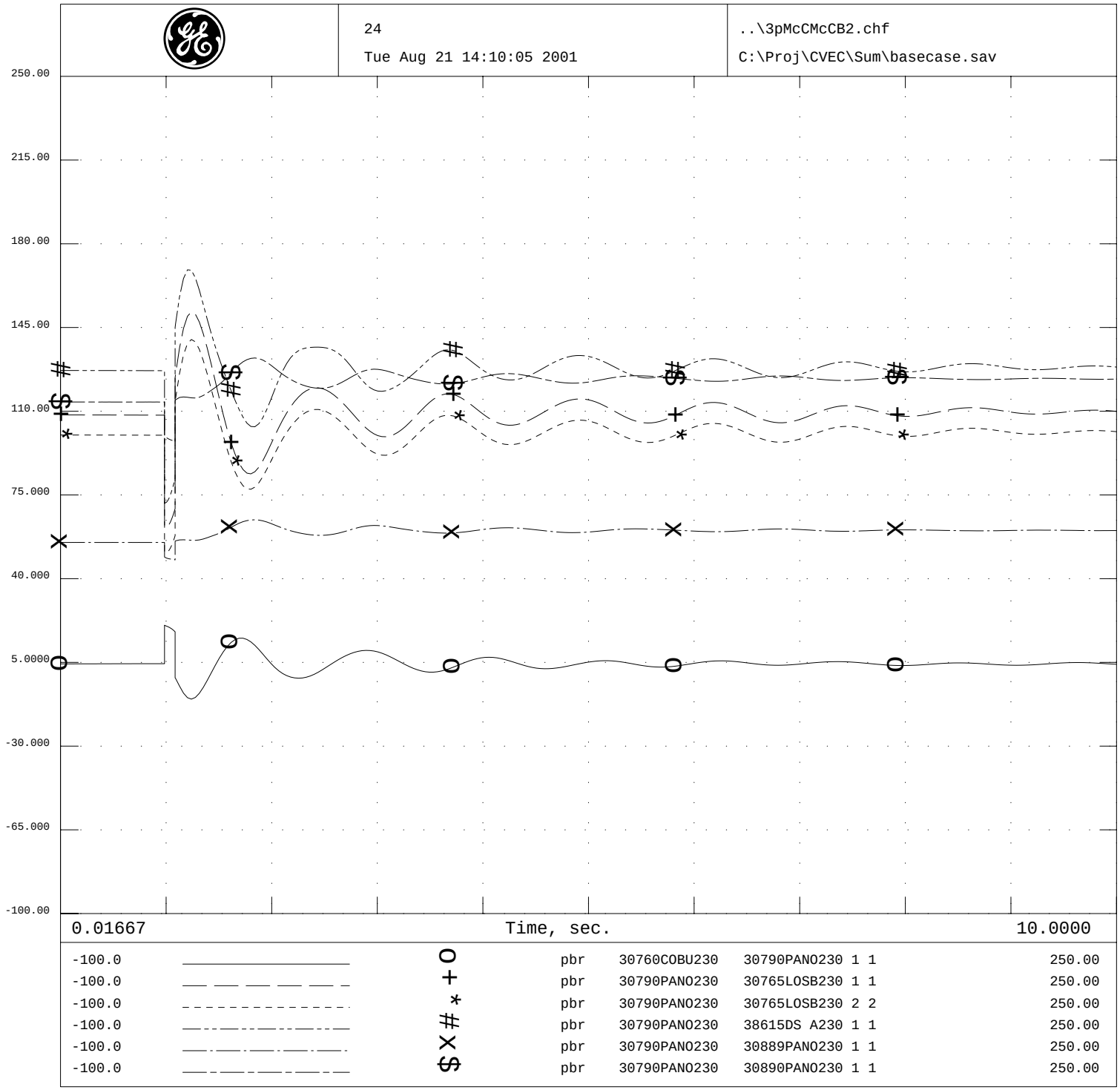

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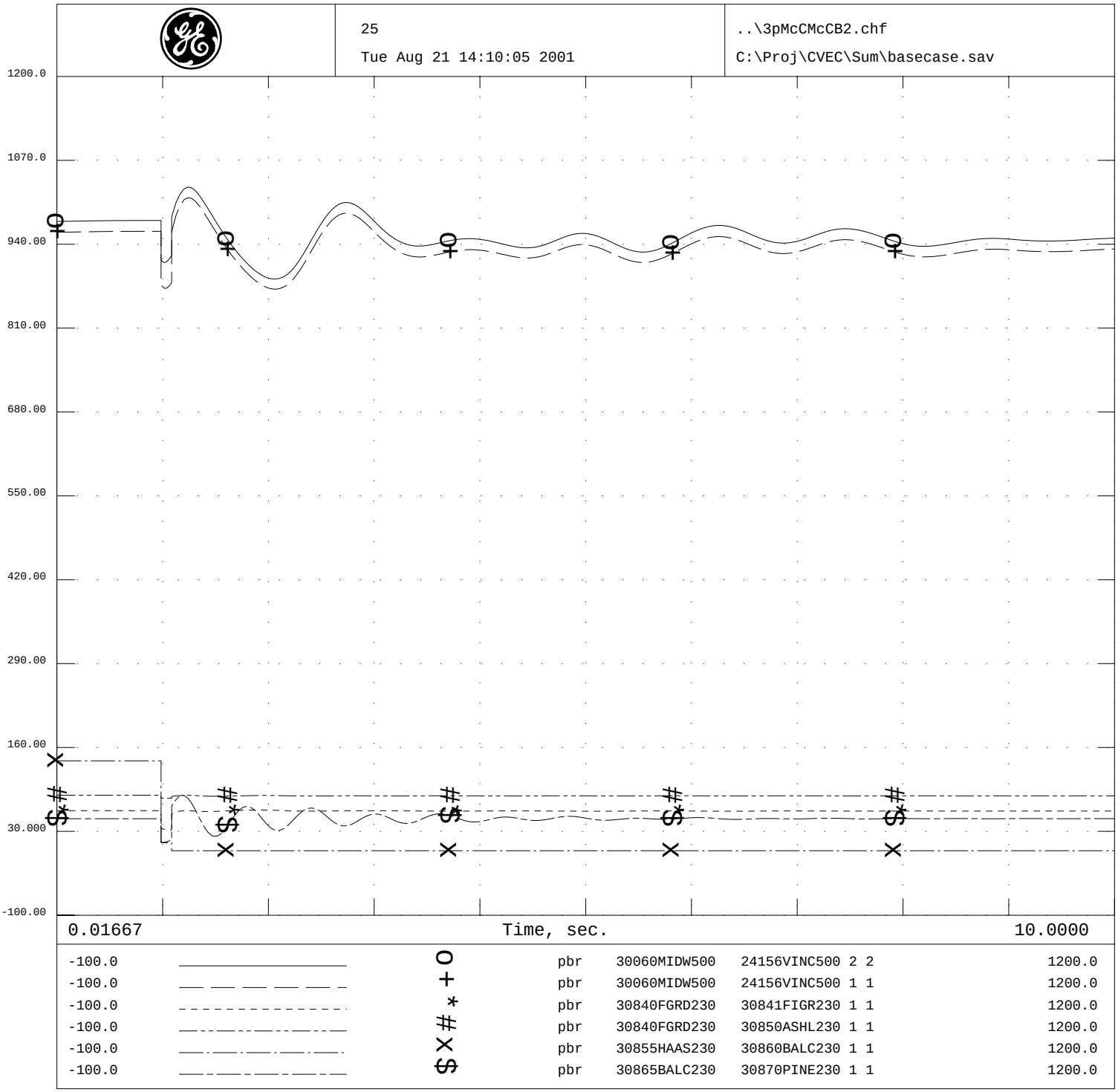

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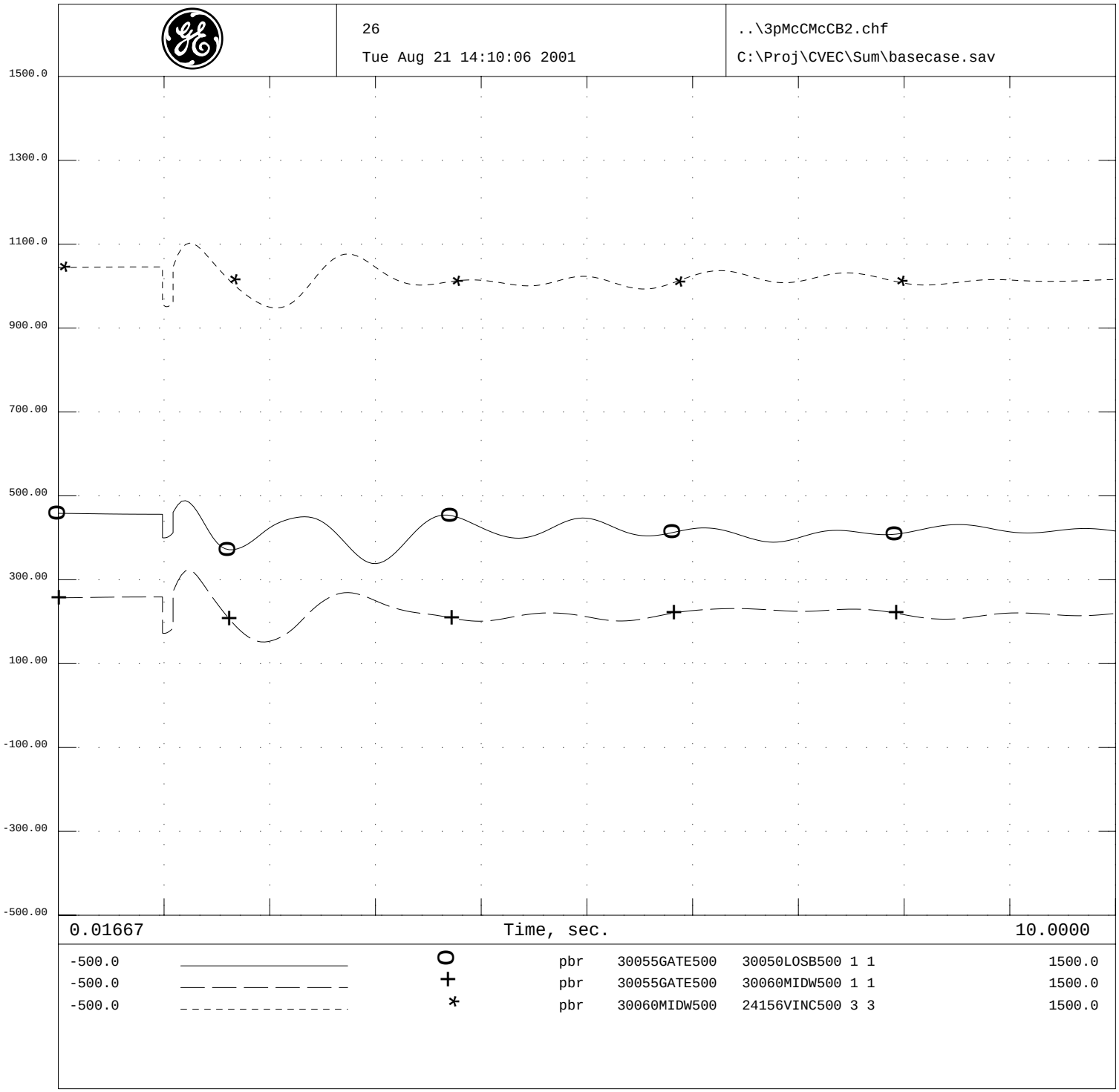

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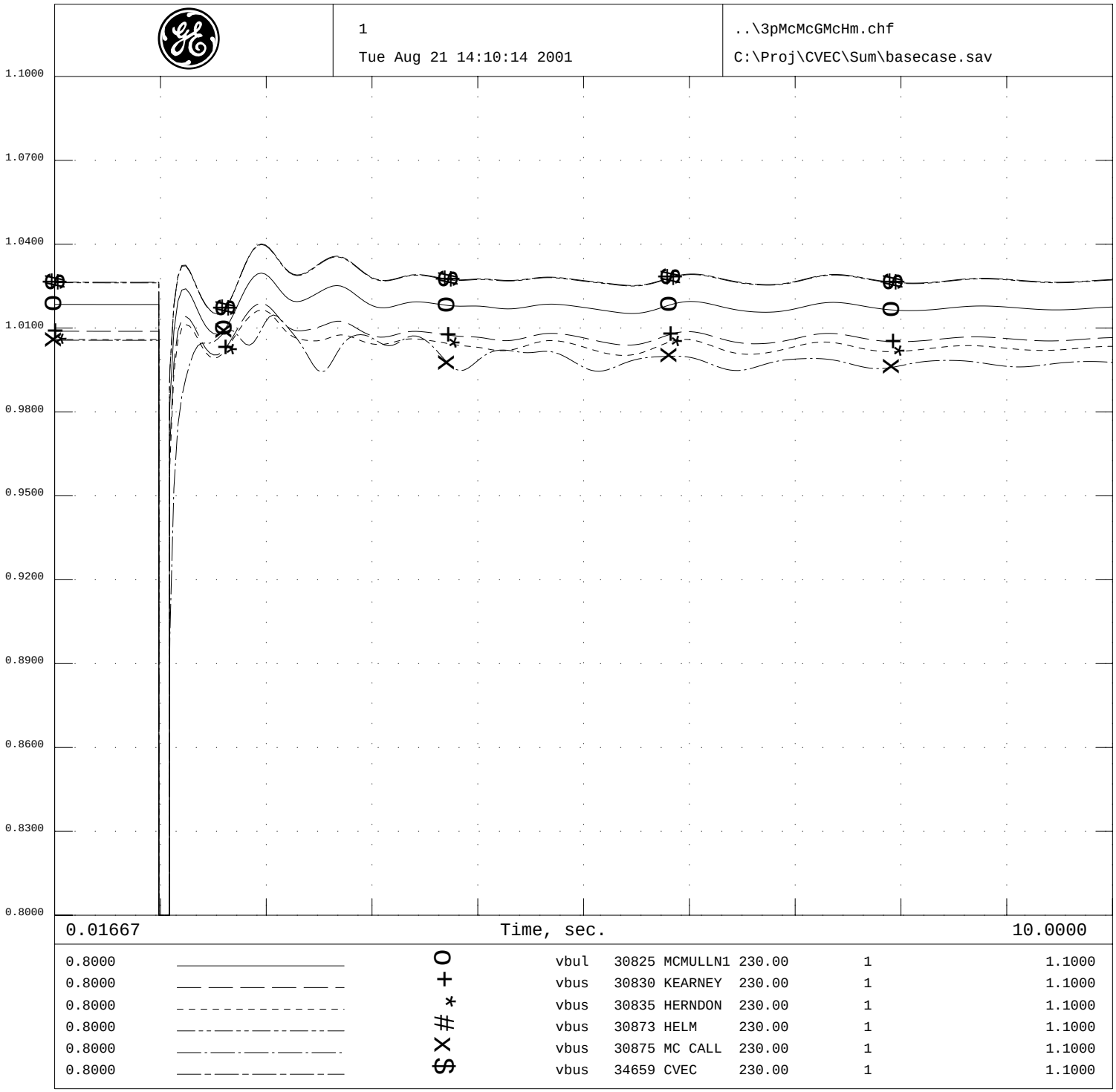

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
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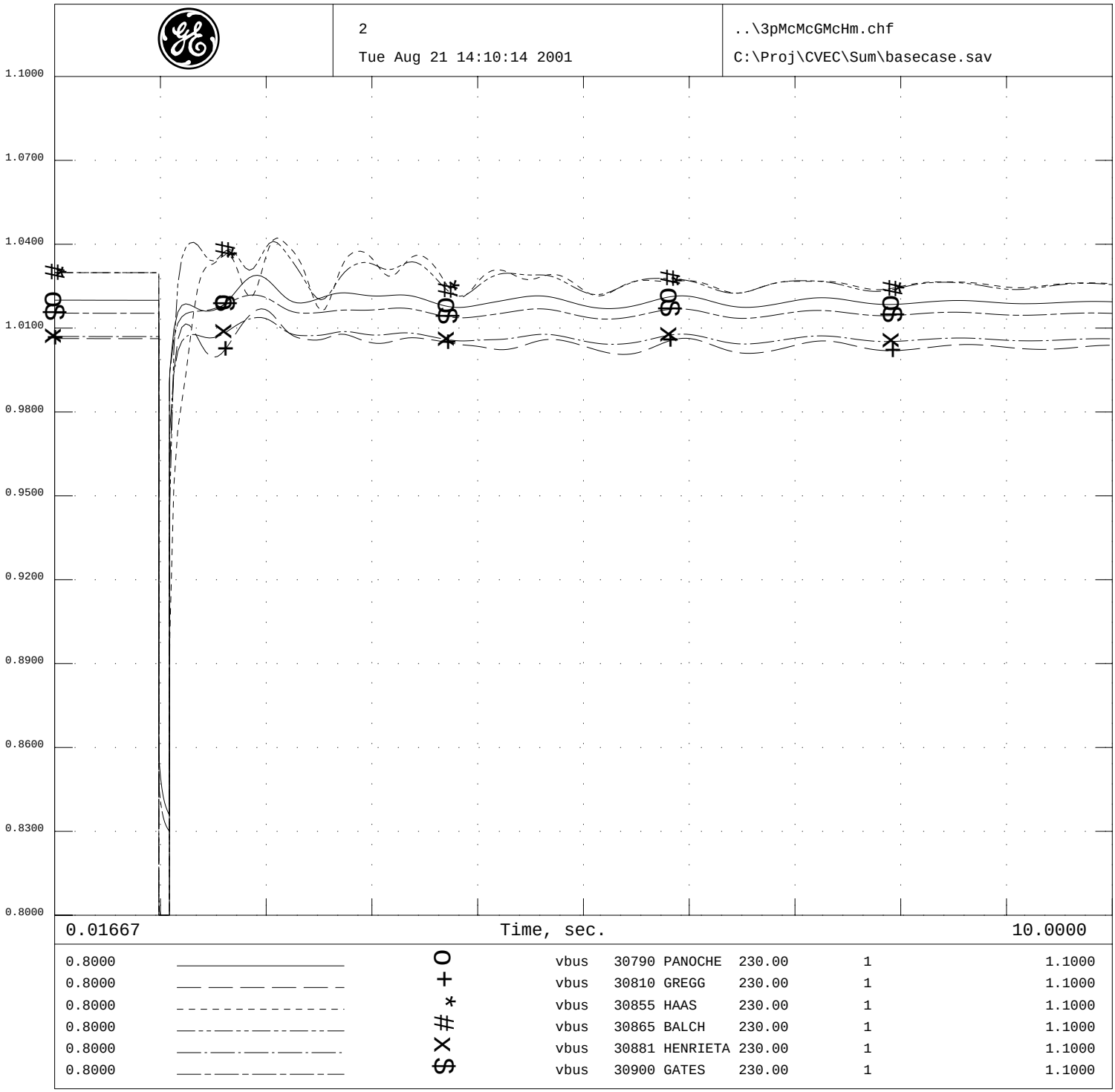
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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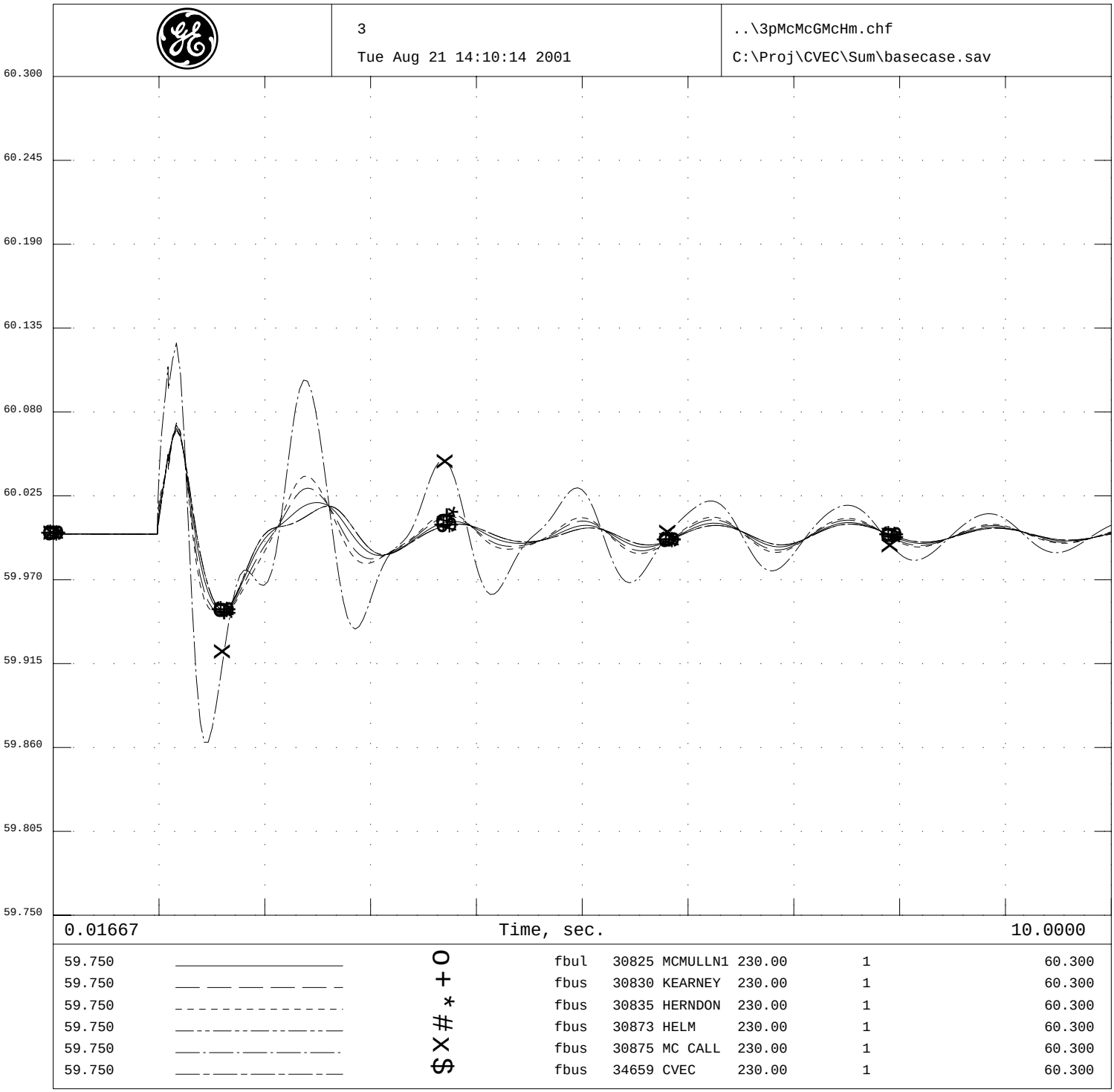

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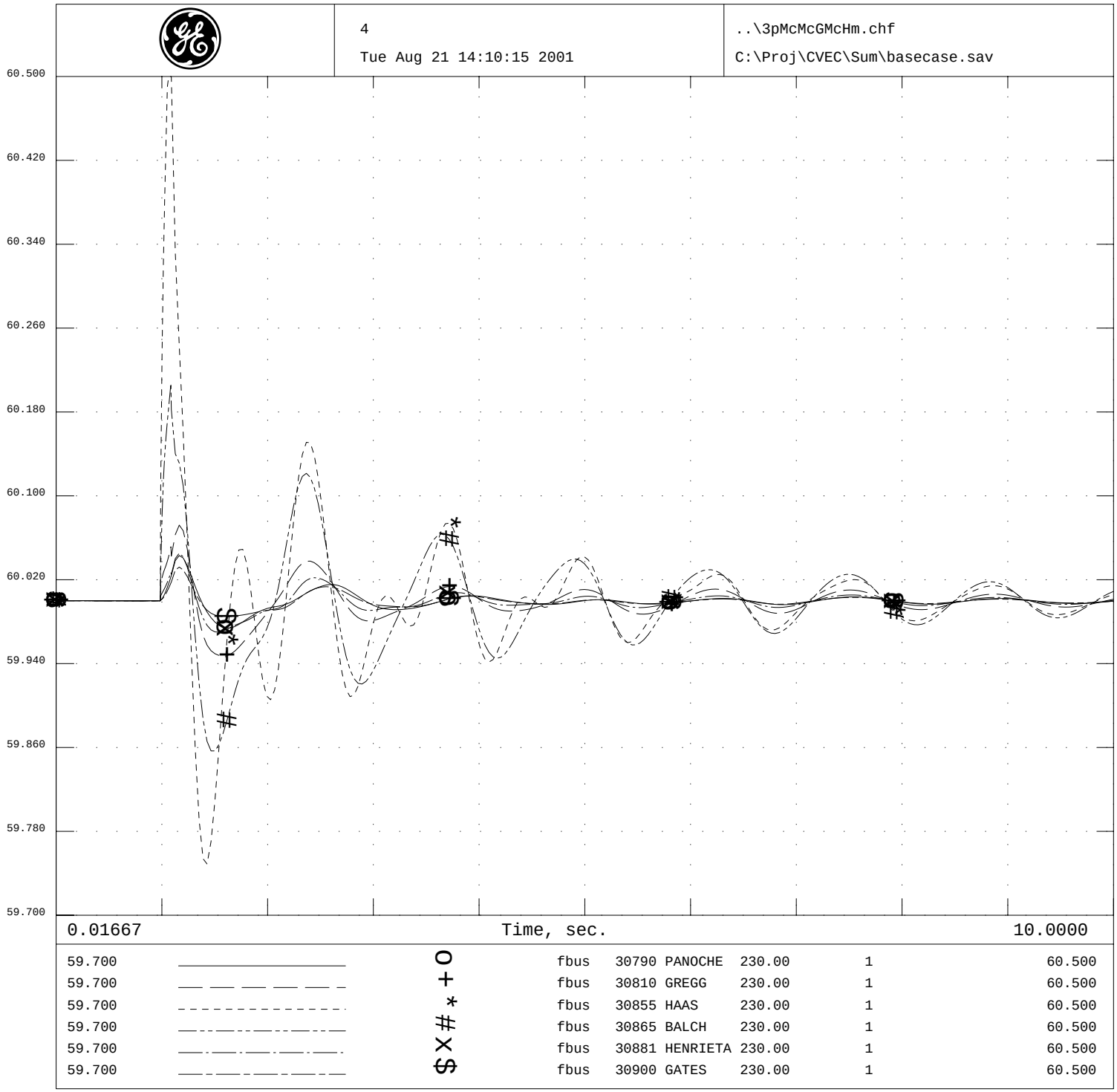
Selected Bus Frequency Plots Adjacent to Fault



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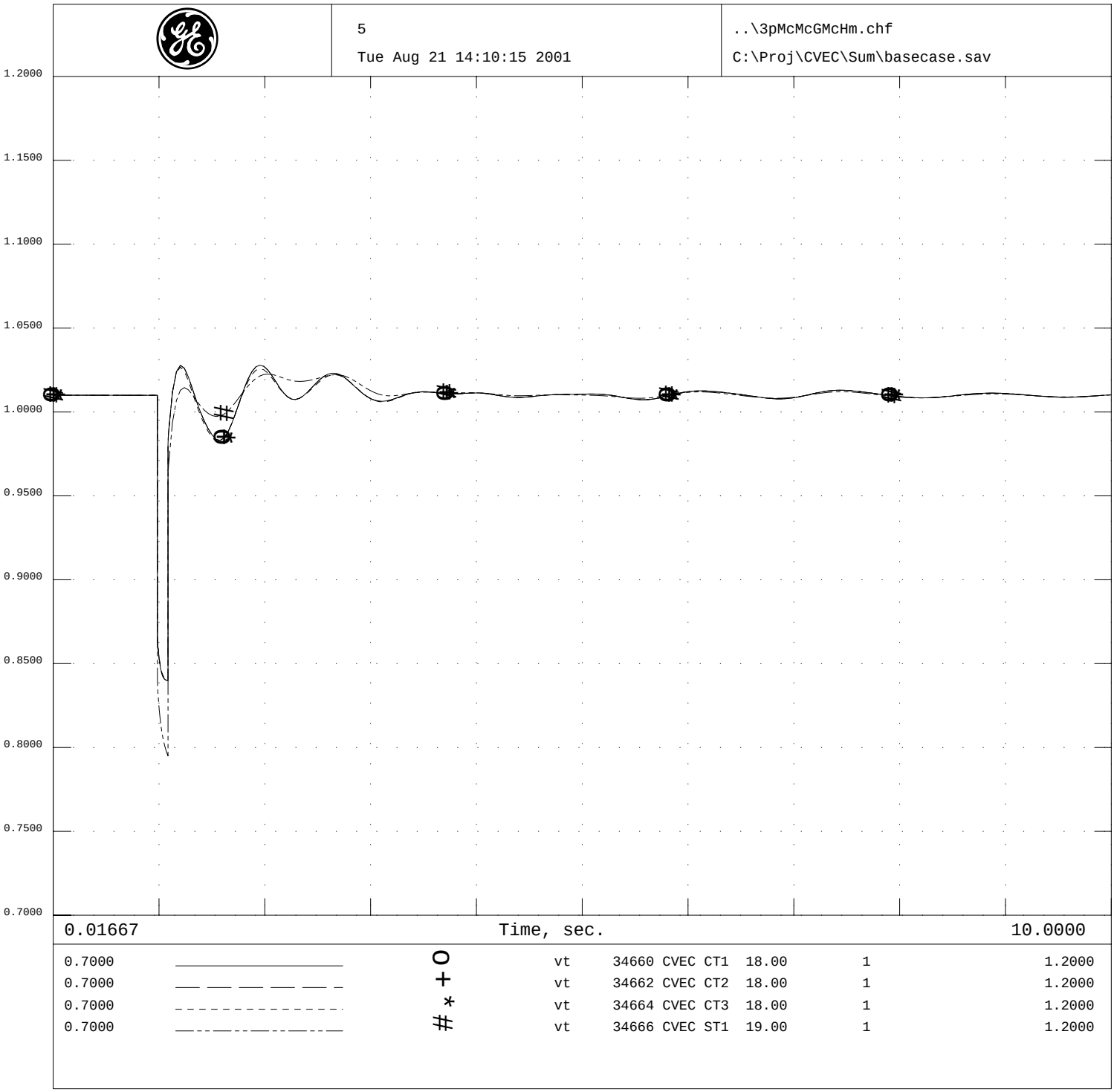

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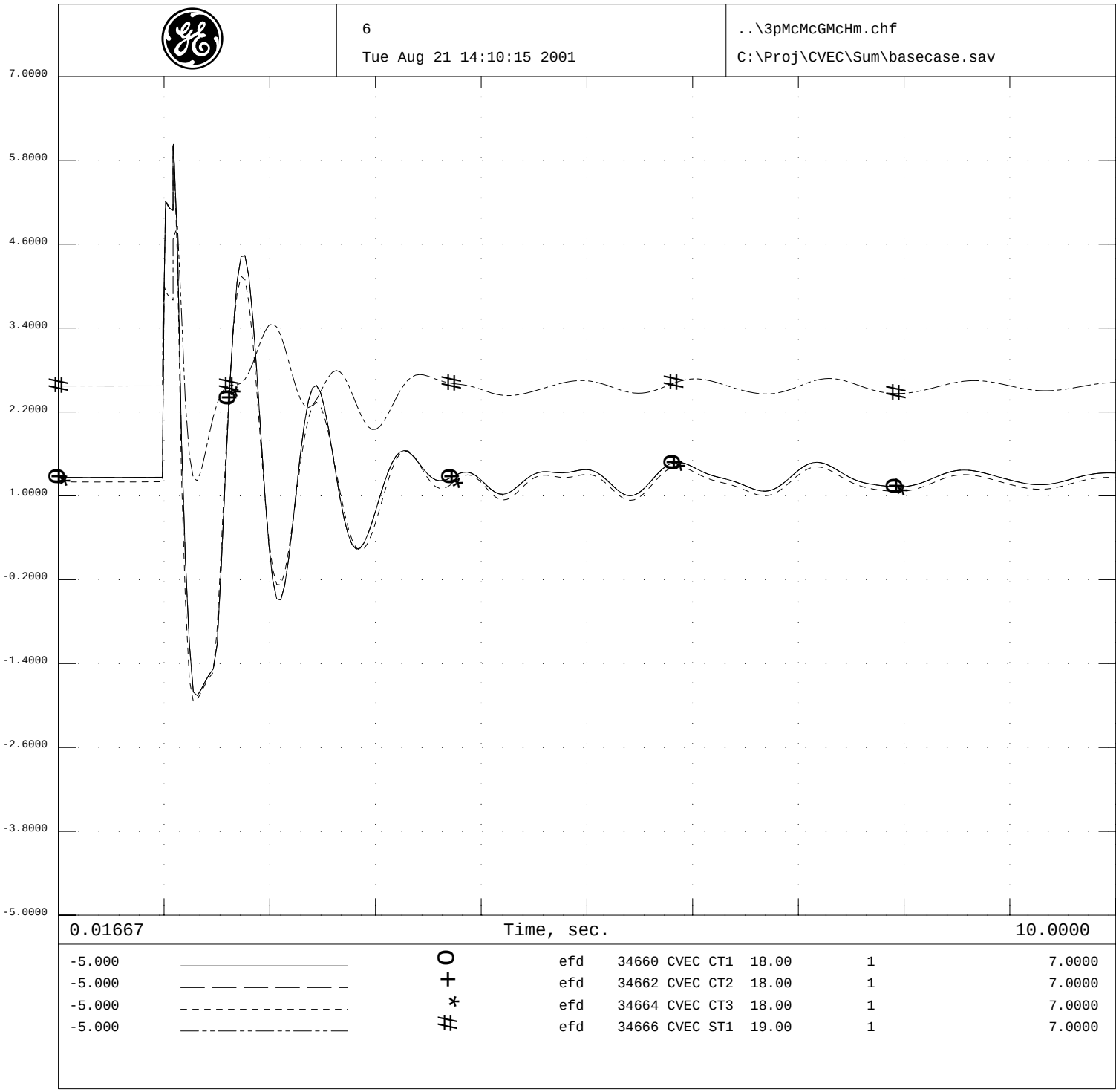
Project Generator Terminal Voltages



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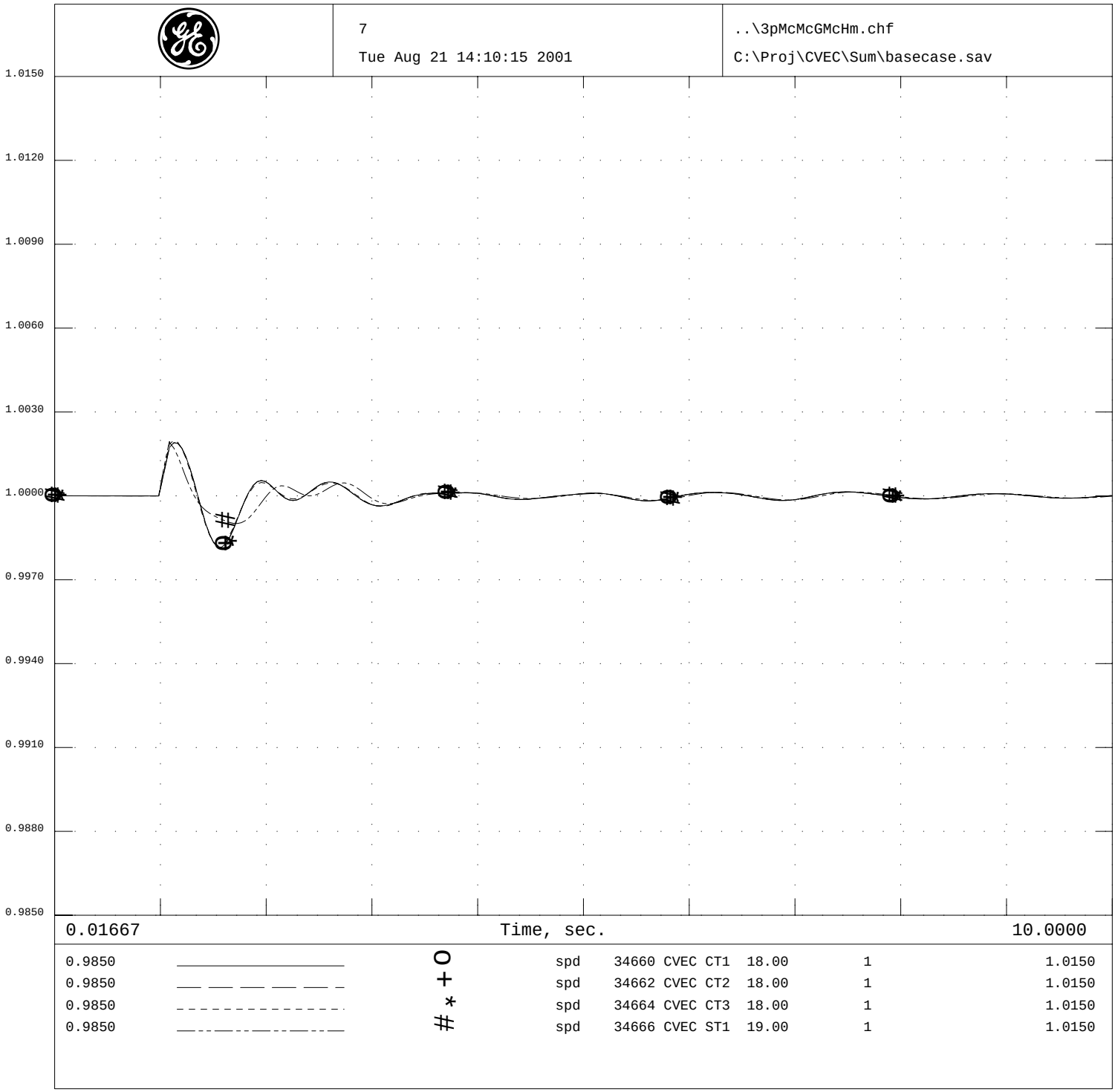

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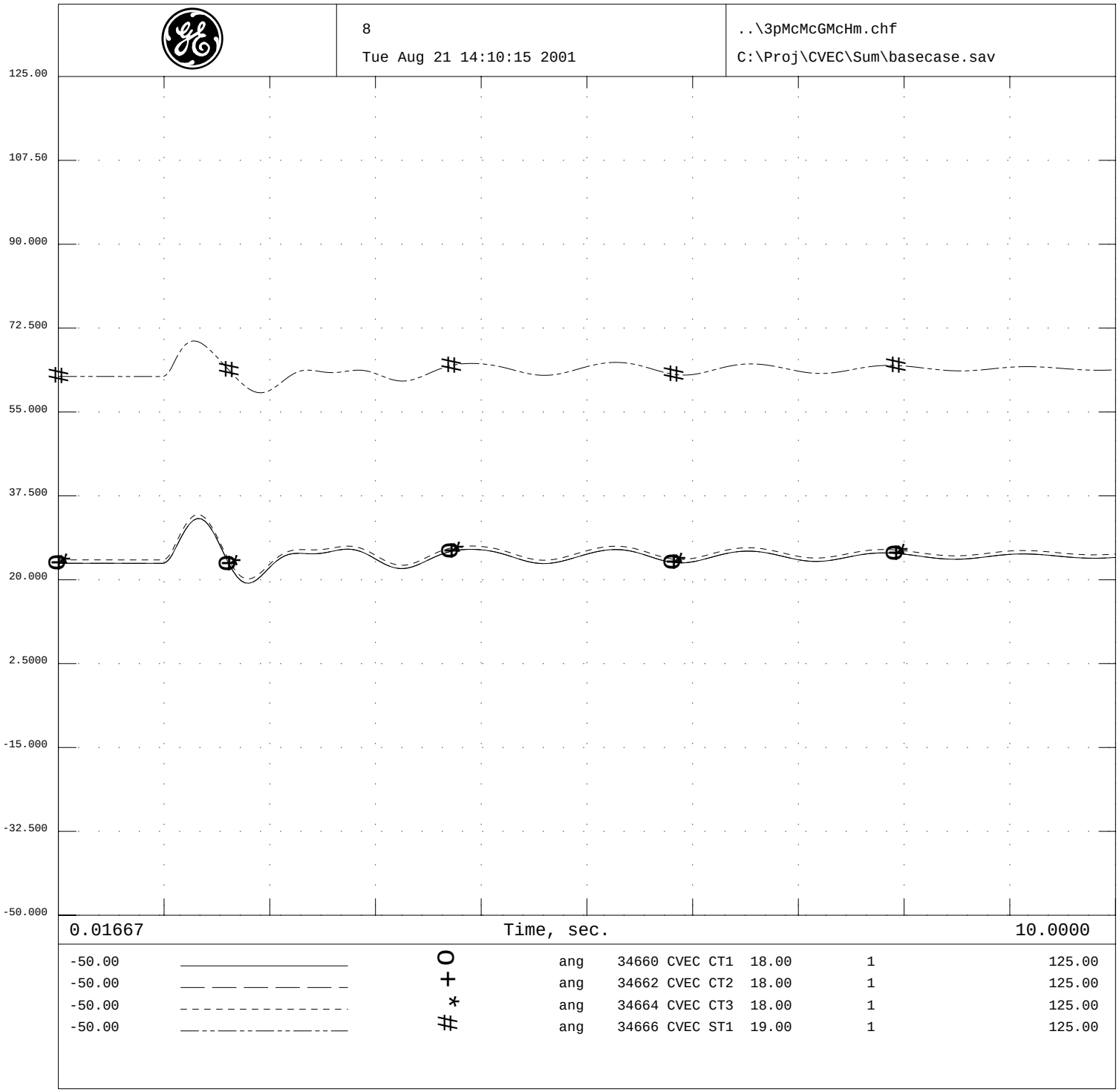
Project Generator Rotor Speed



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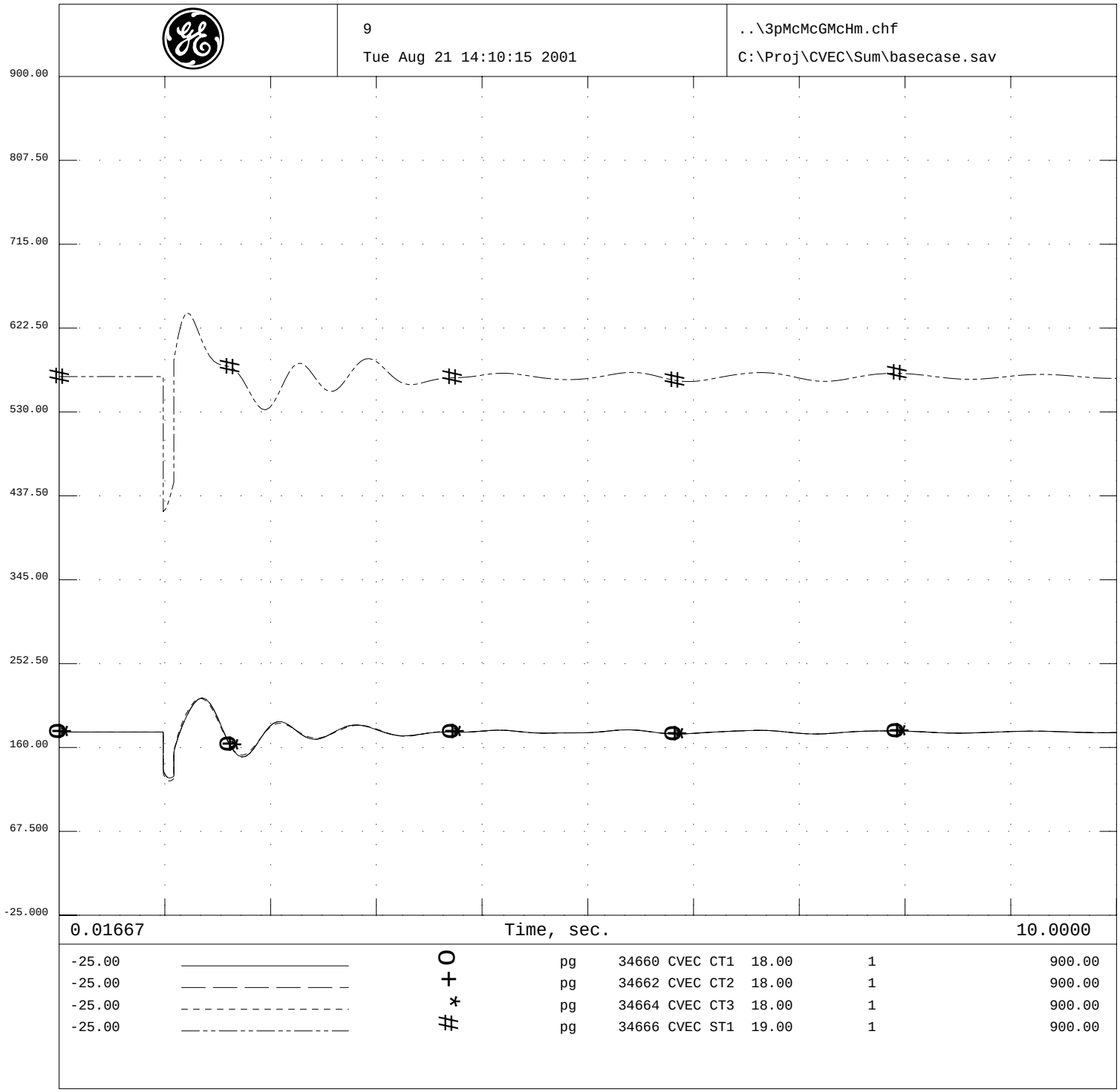
Project Generator Rotor Angle



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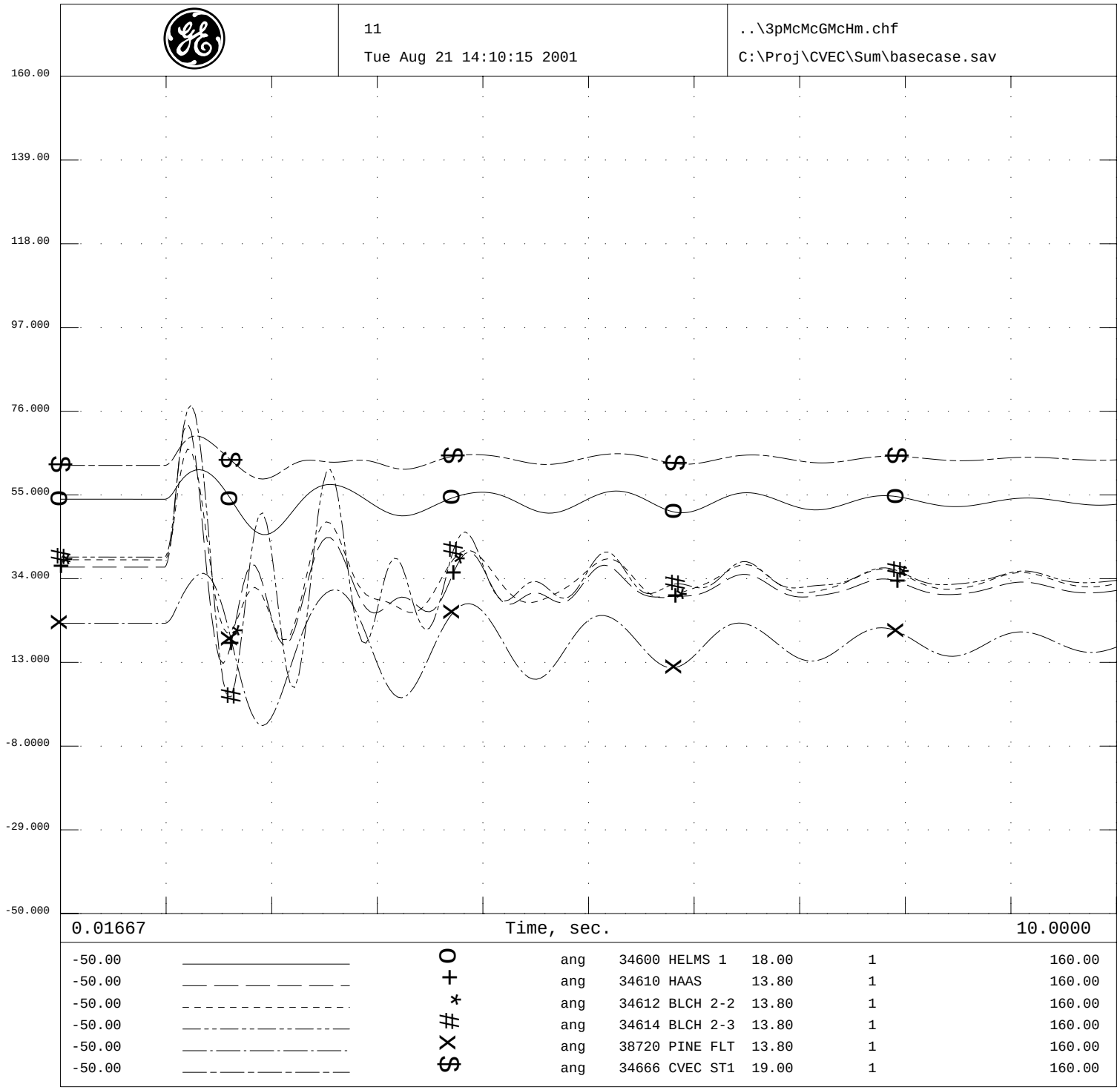

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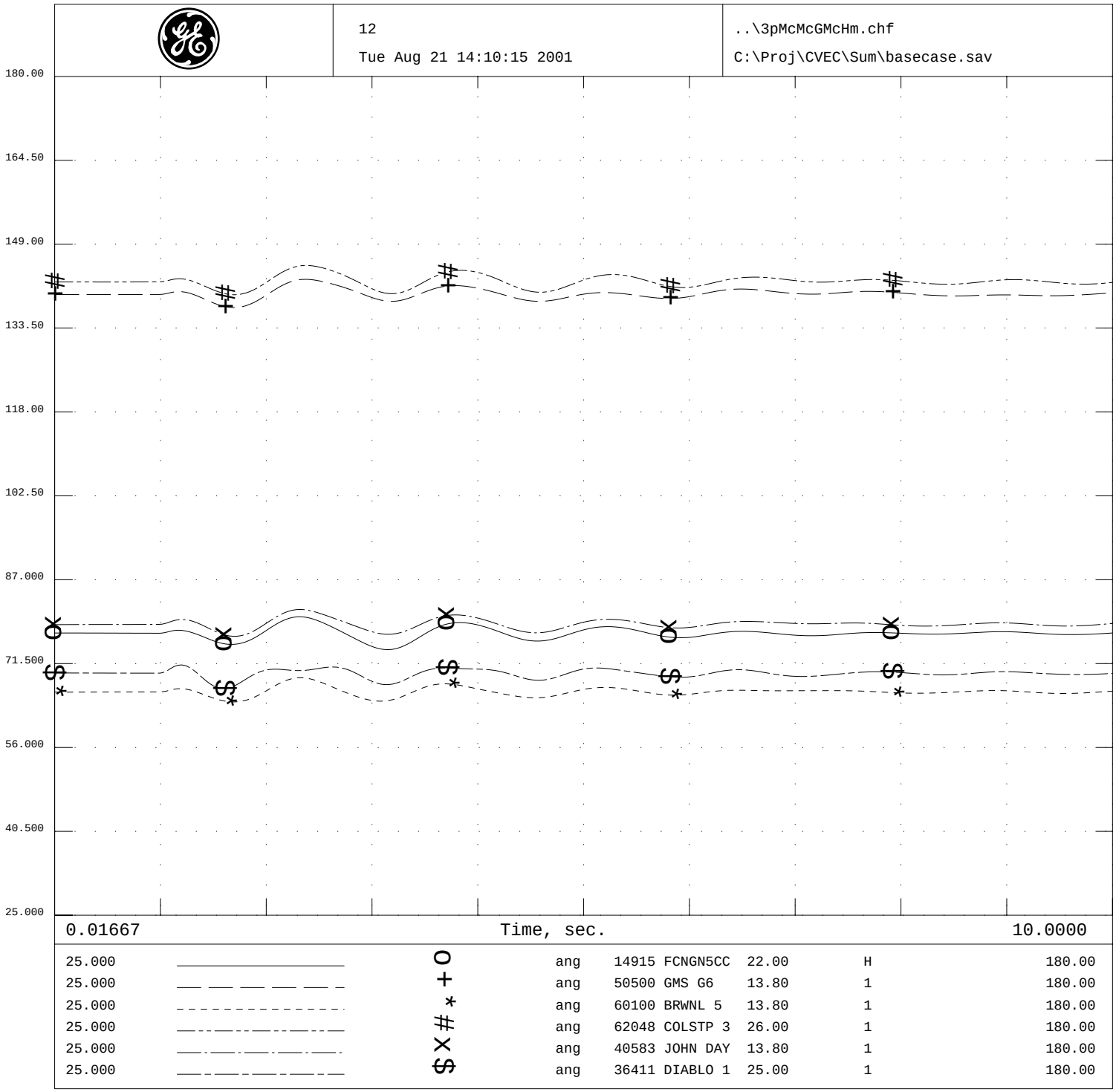
Selected Local Rotor Angle Plots



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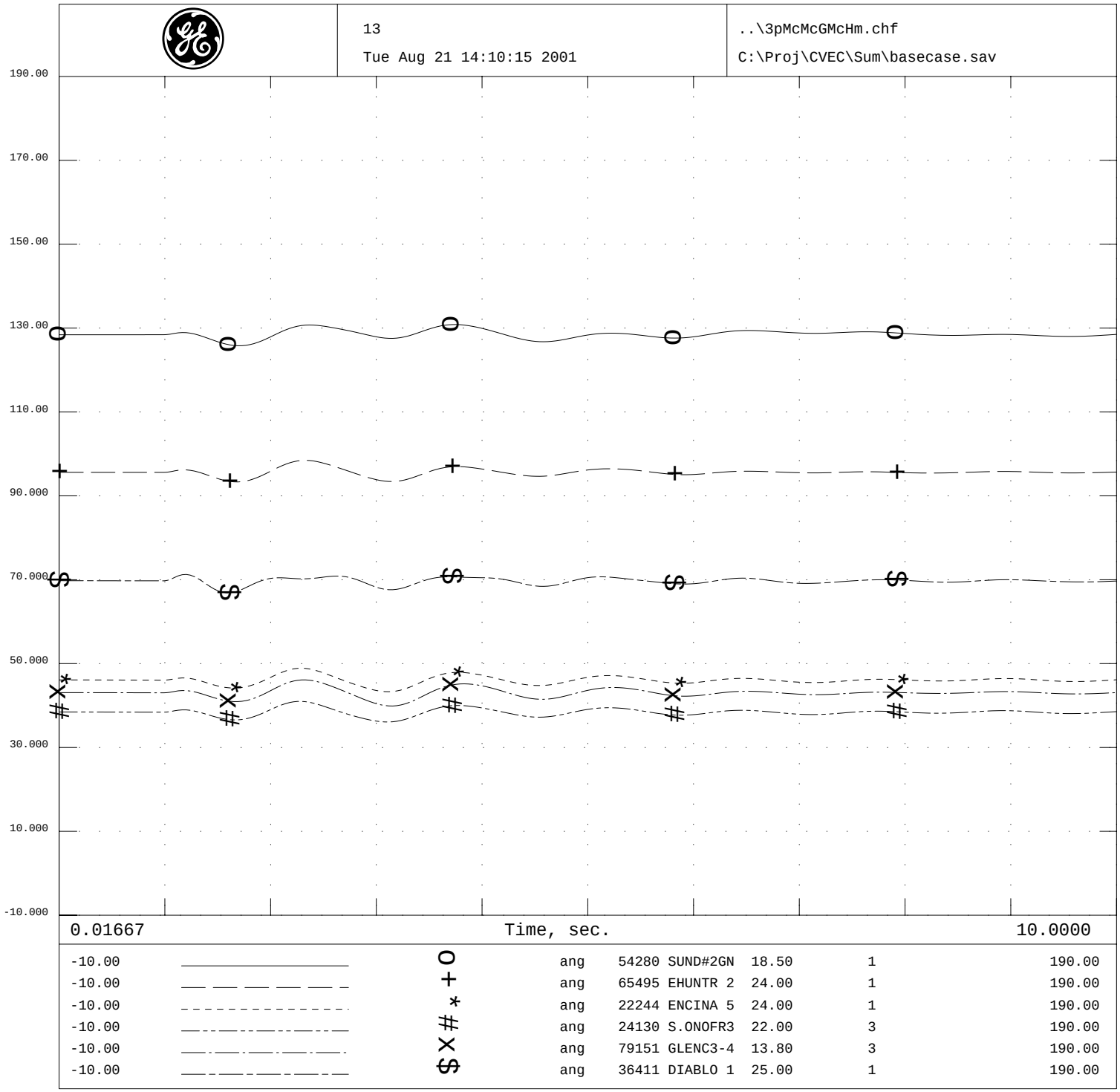
Selected WSCC Transmission Bus Angle Plots



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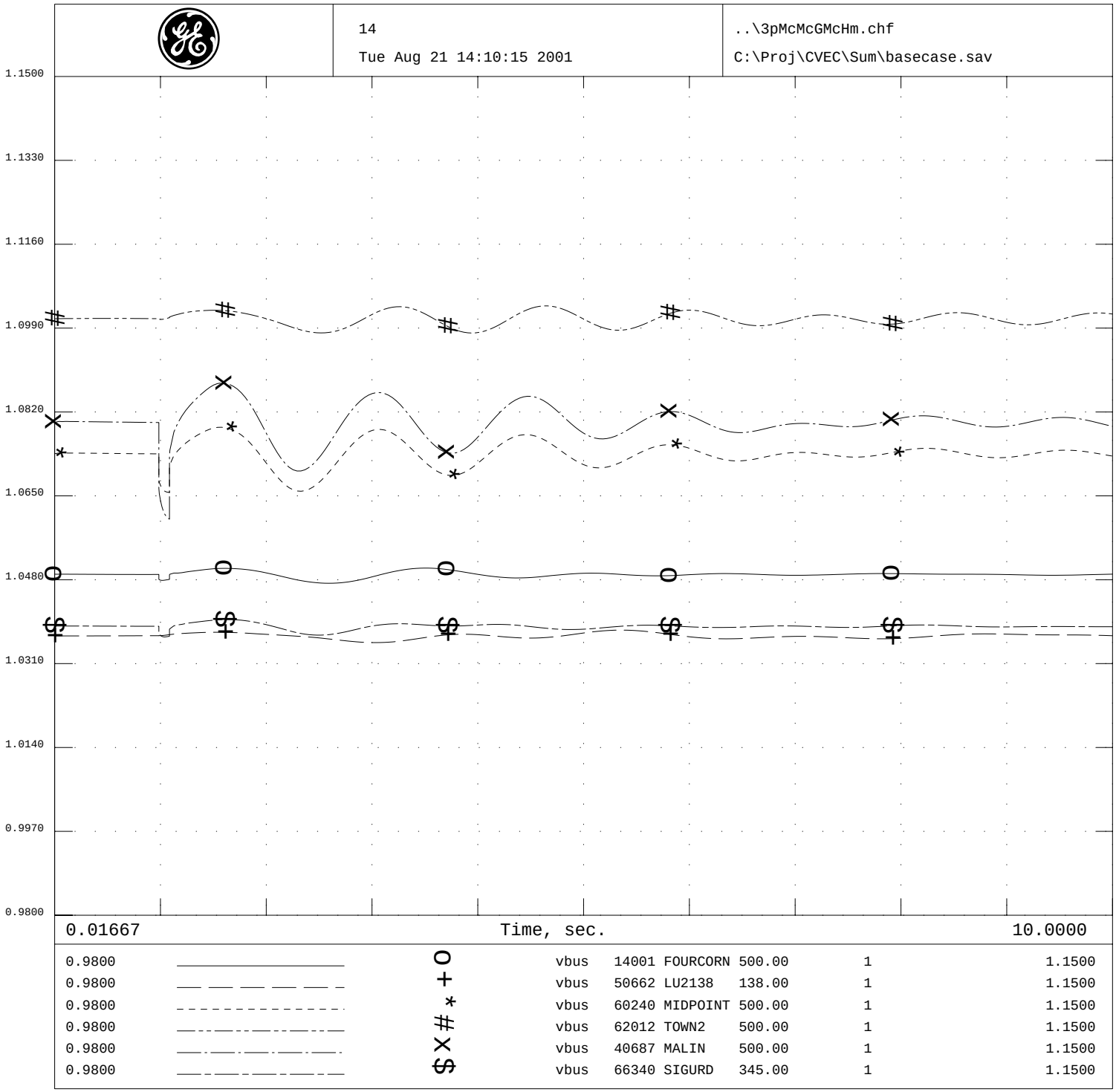

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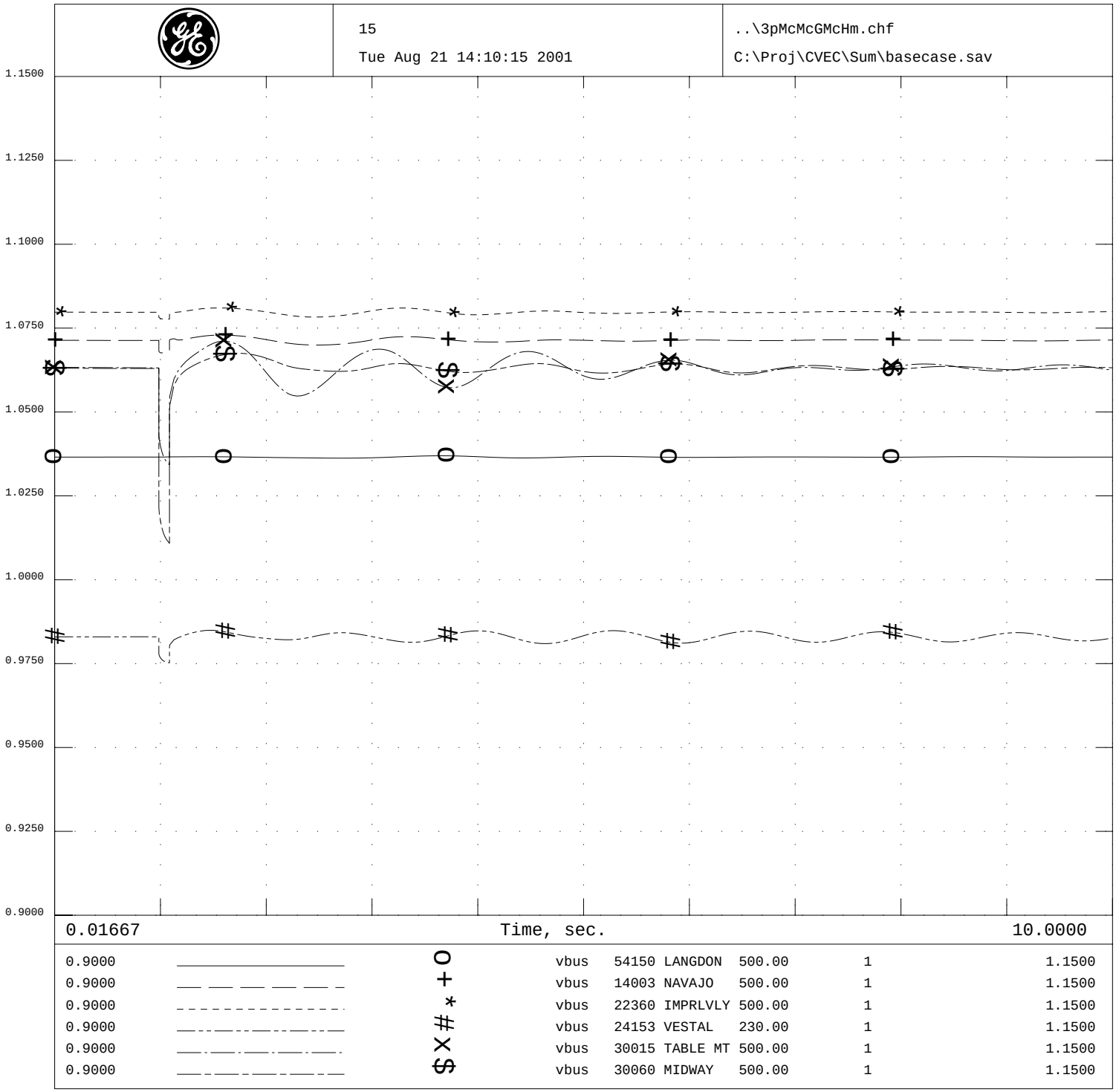
Selected WSCC Transmission Bus Voltage Plots



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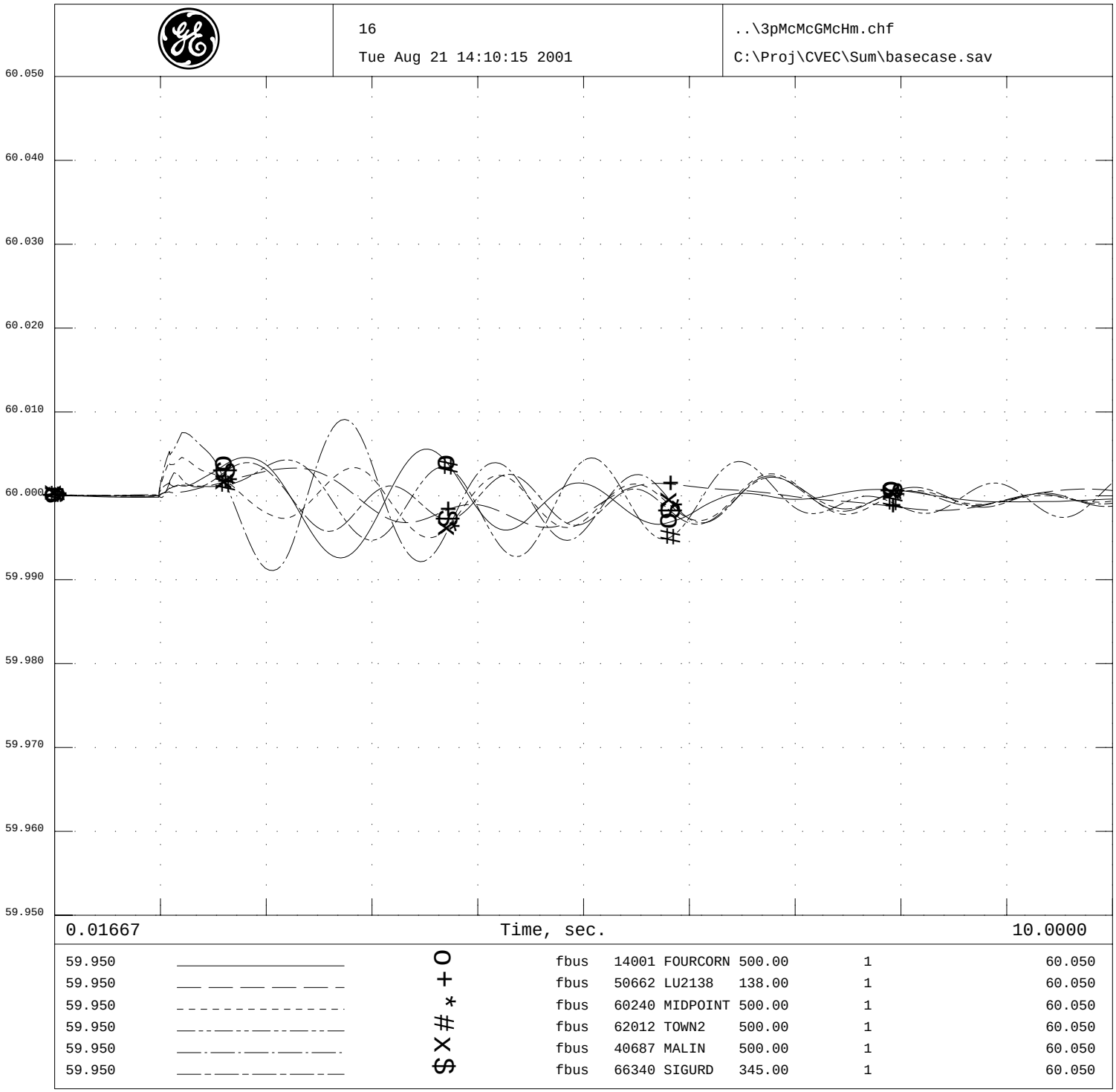

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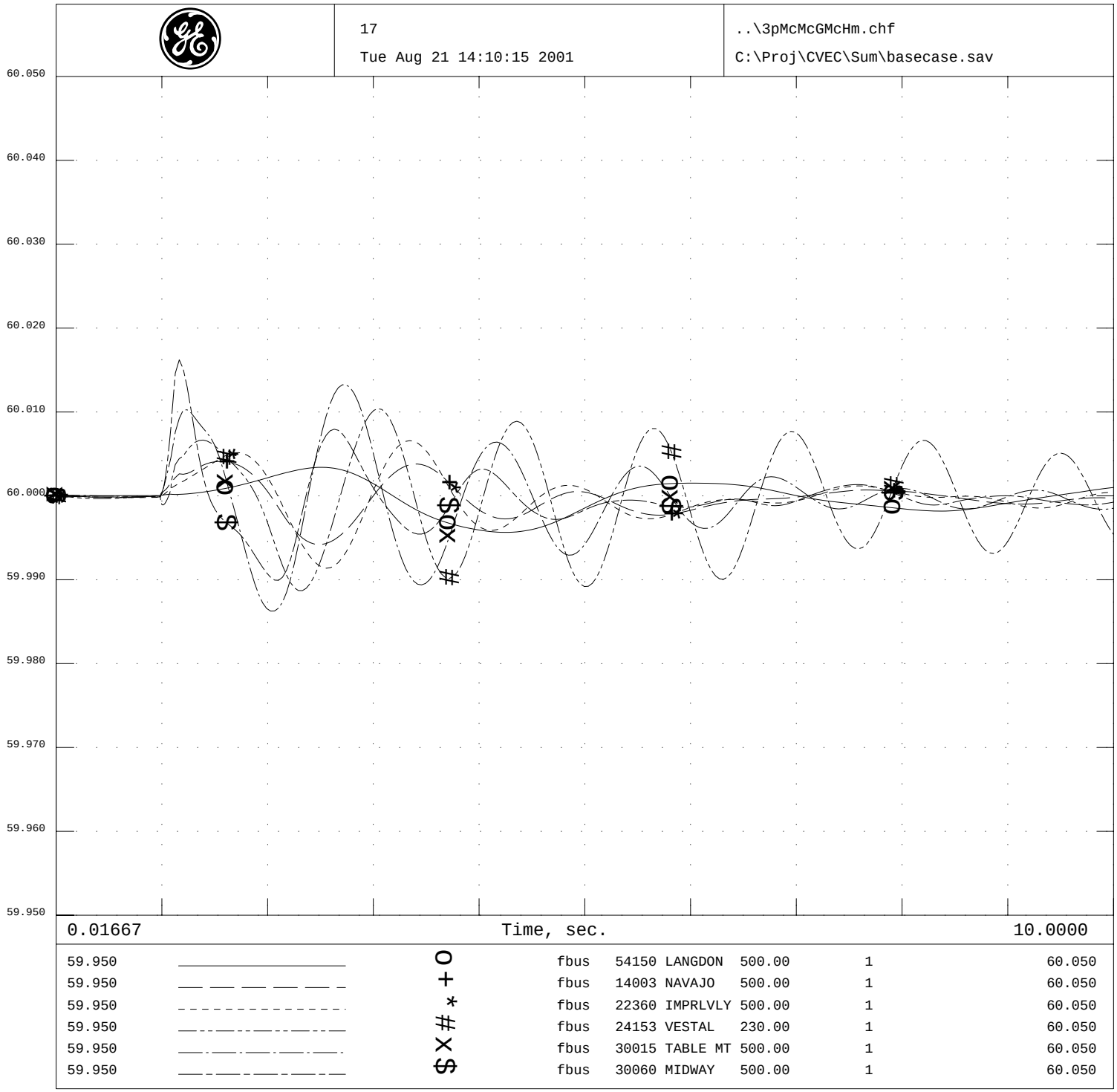

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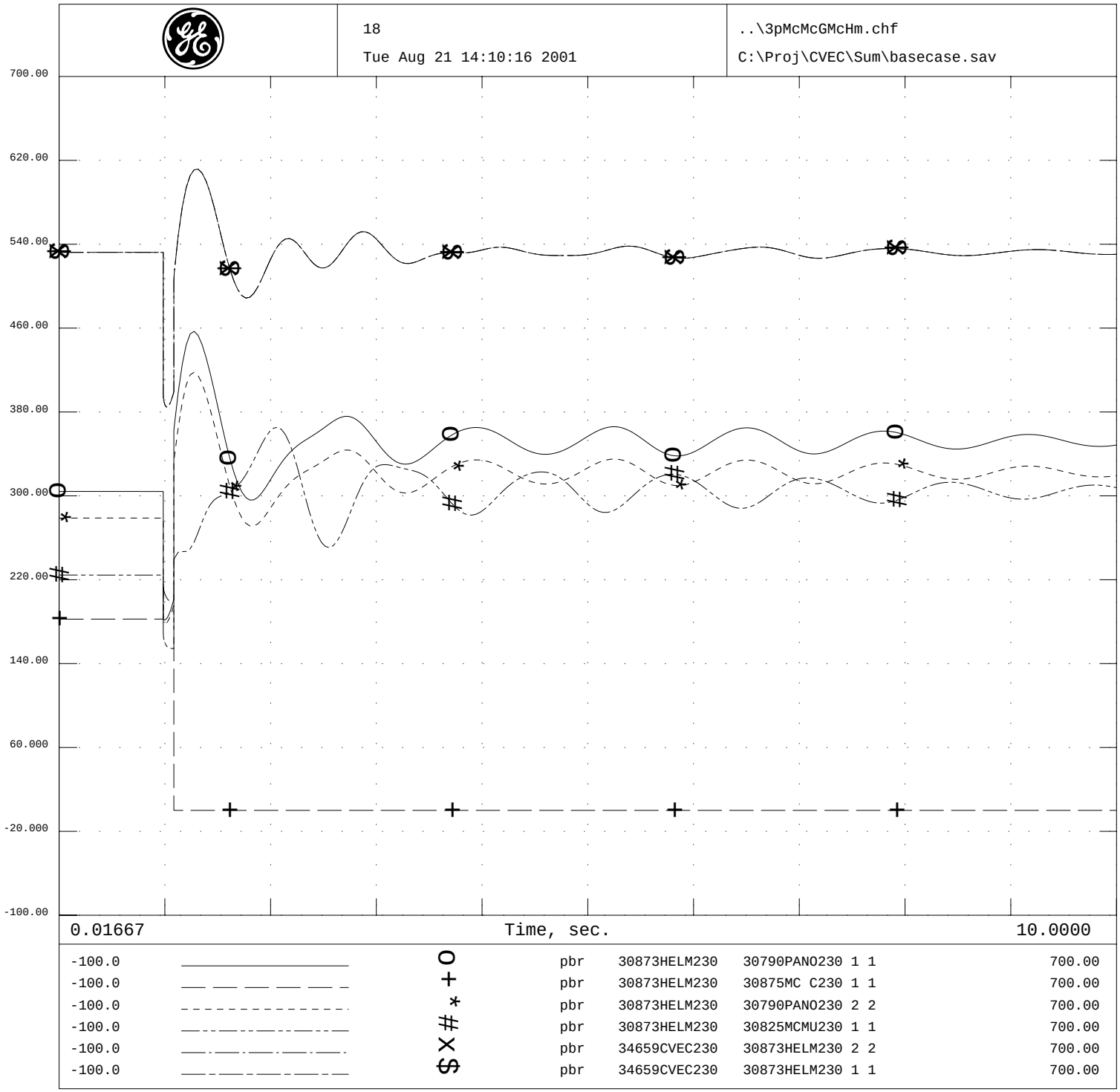

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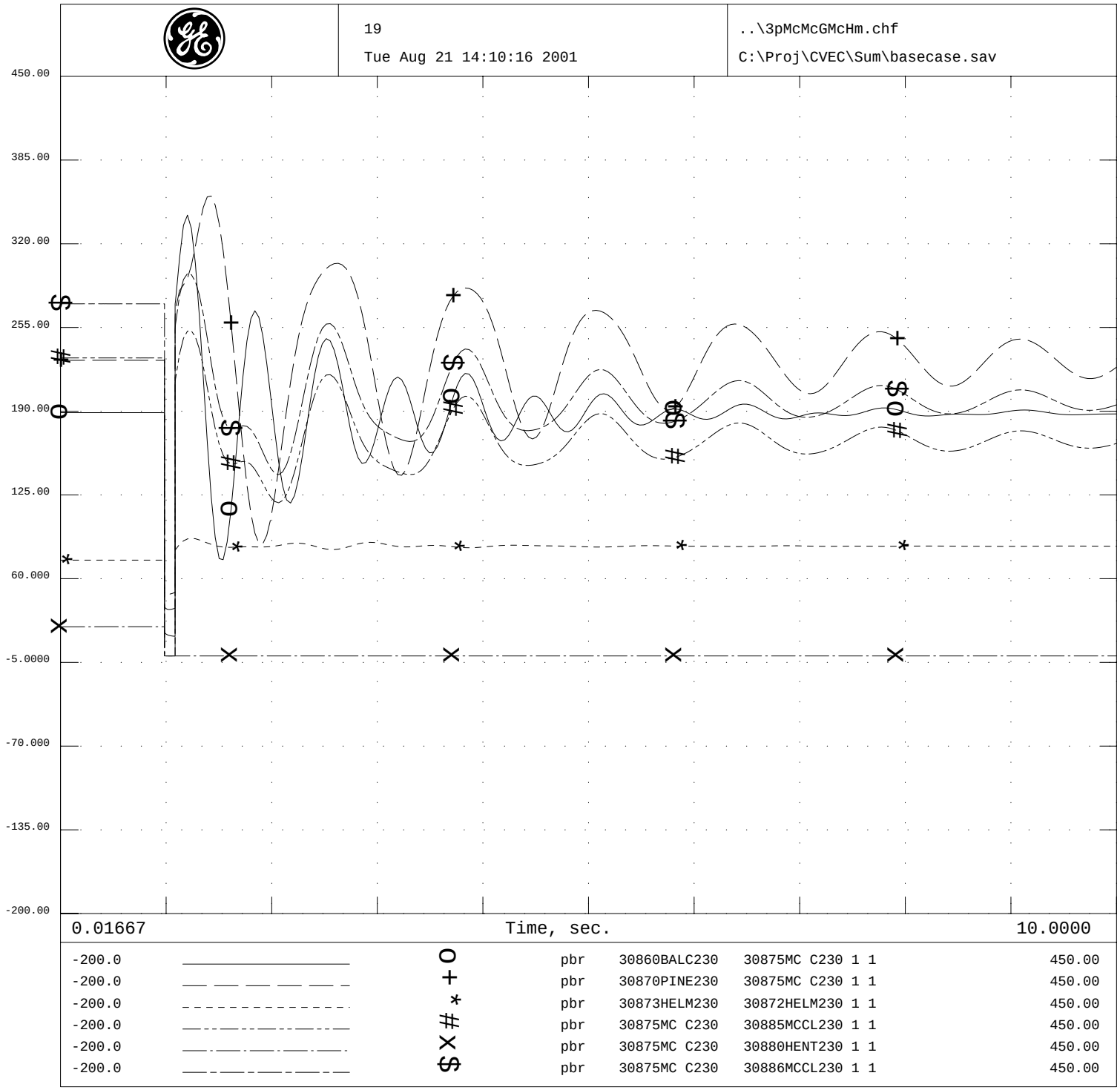
Selected Transmission Line Flows (MW)



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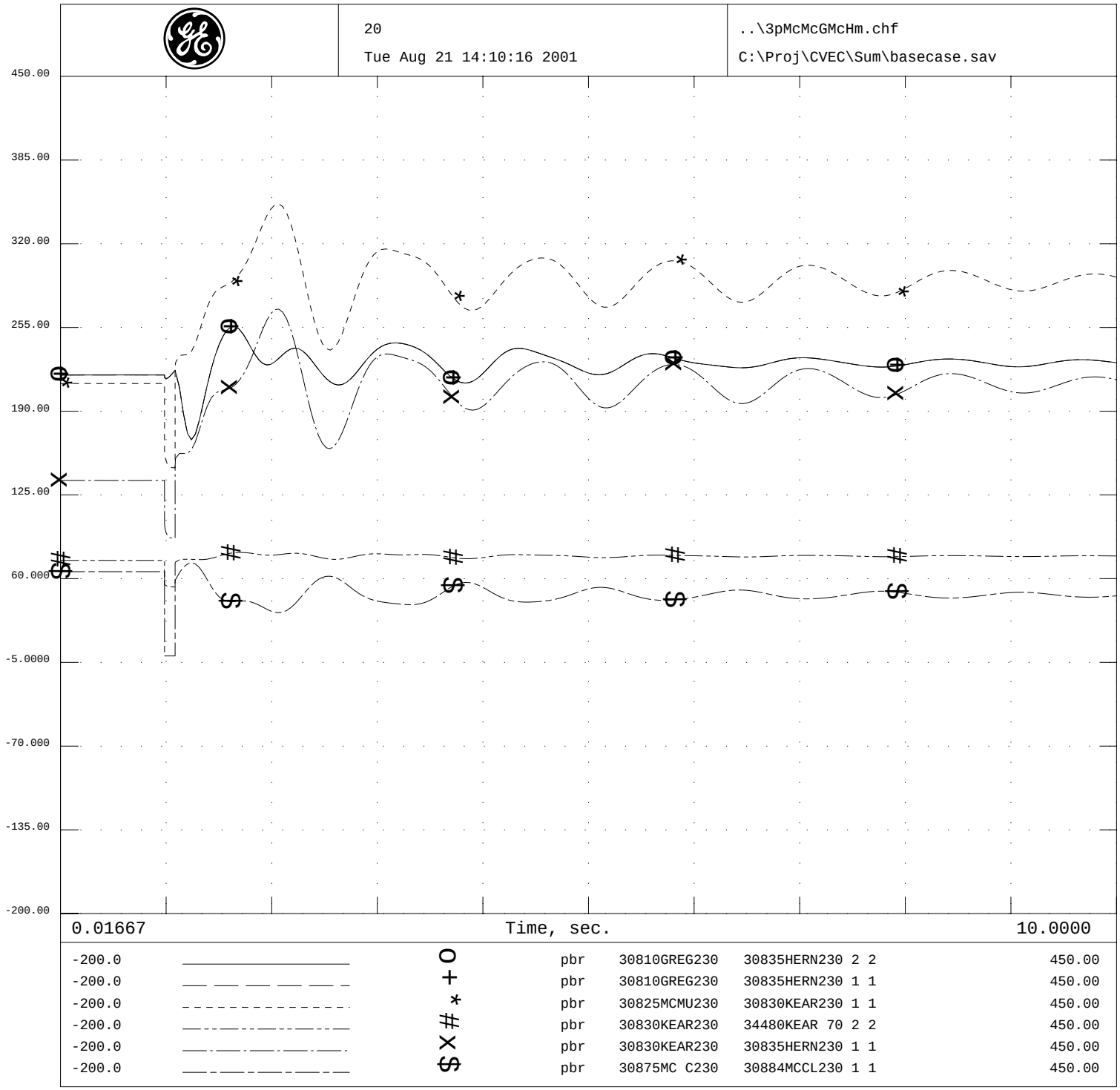

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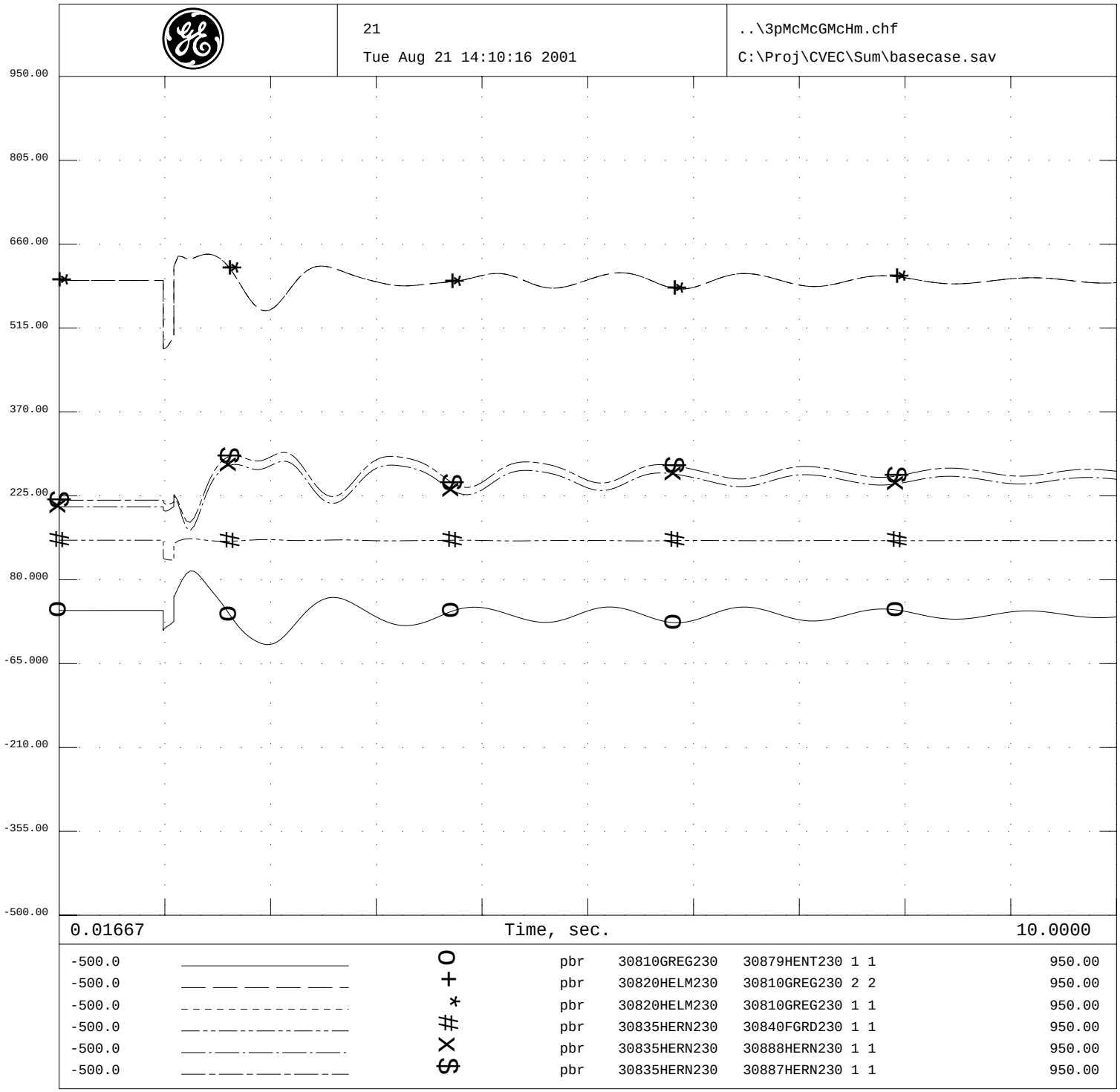

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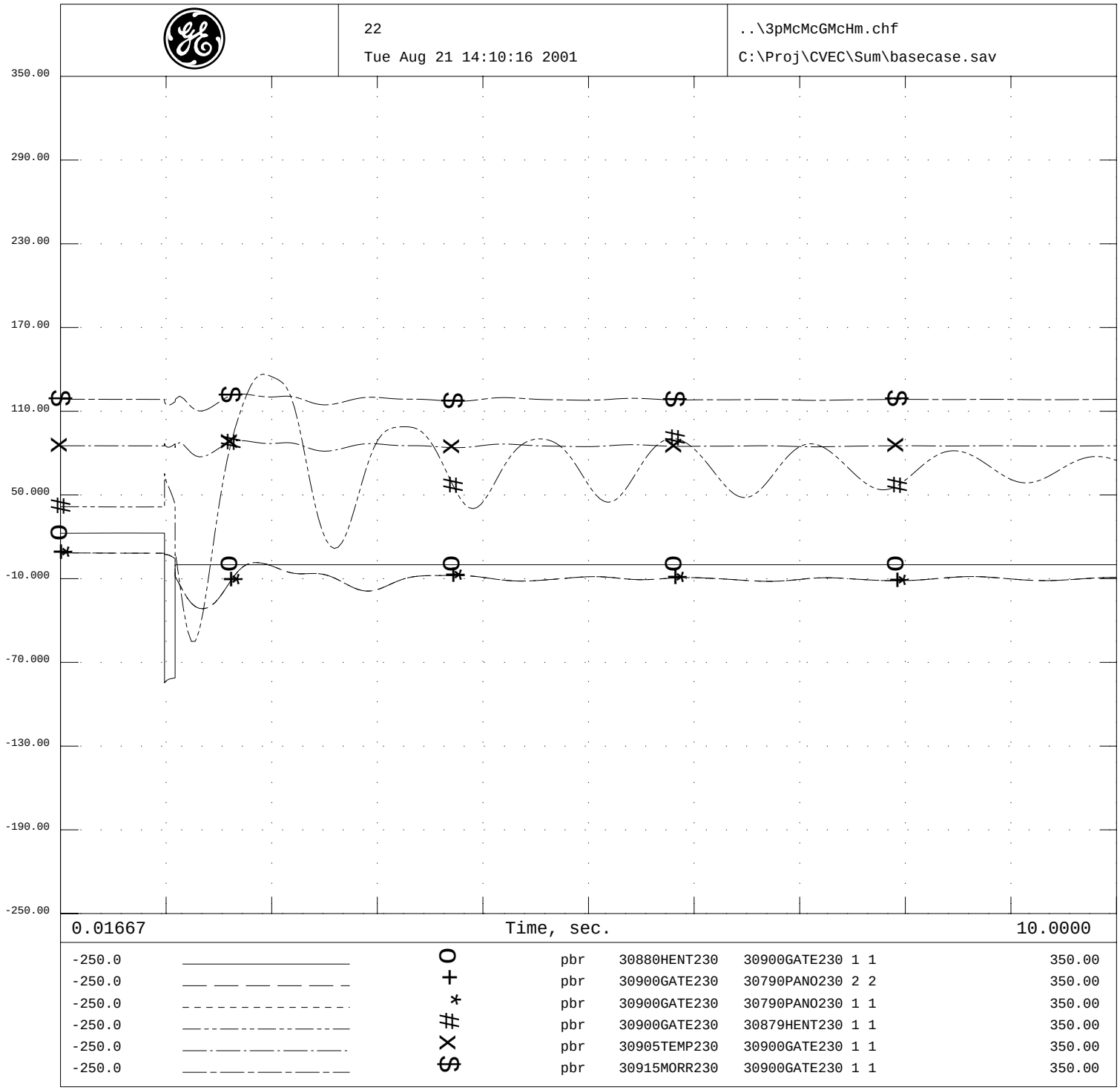

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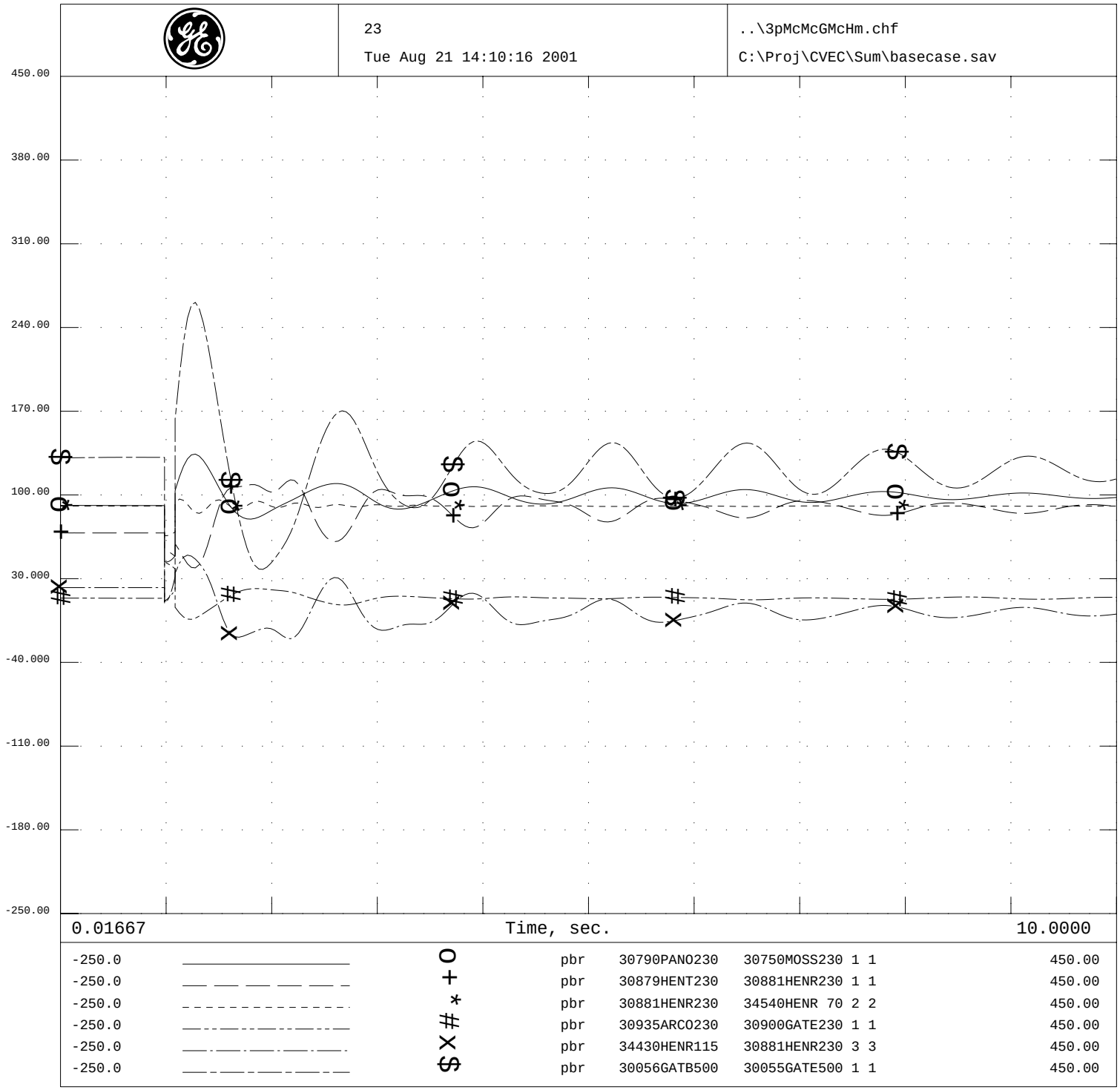

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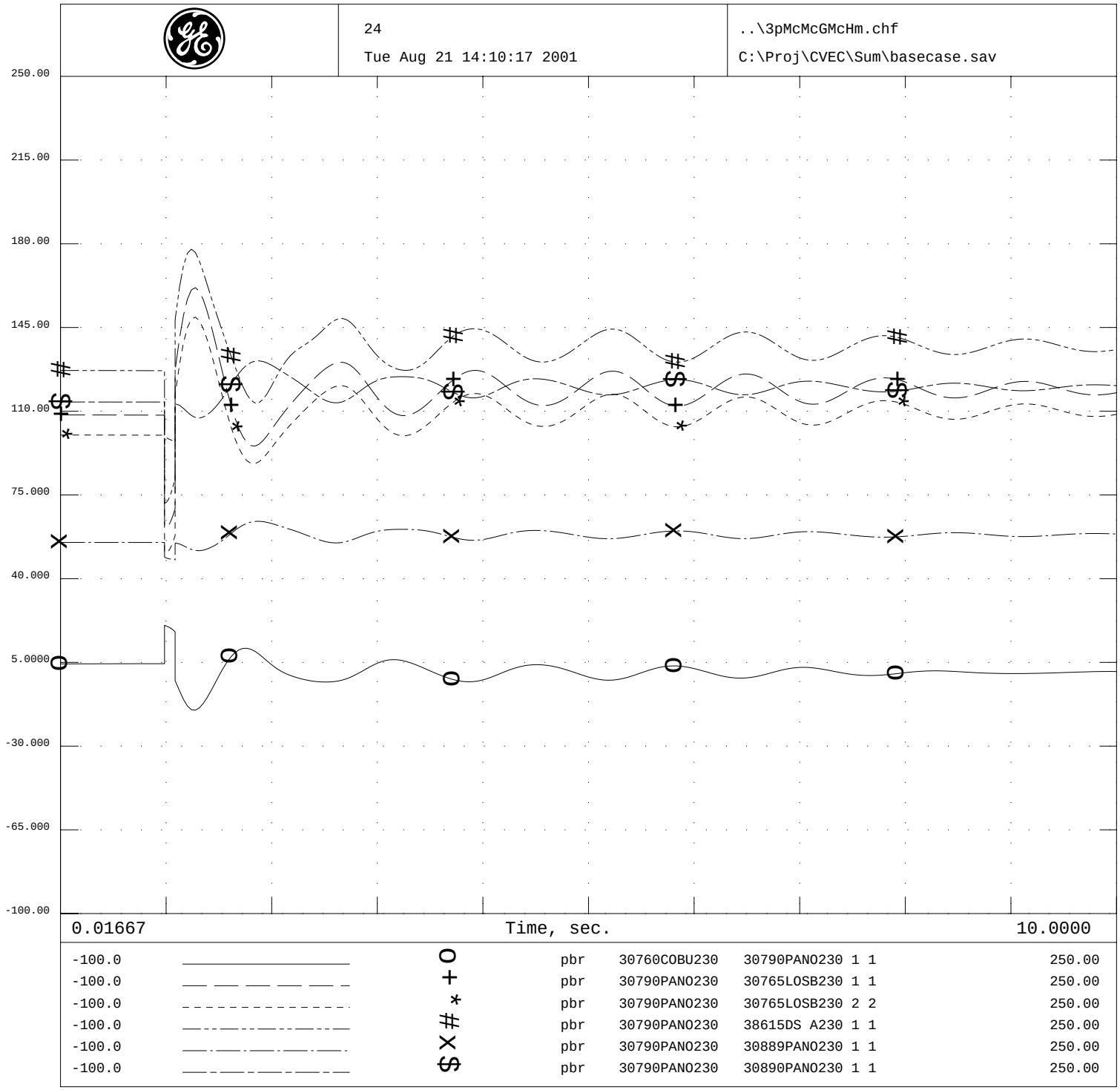

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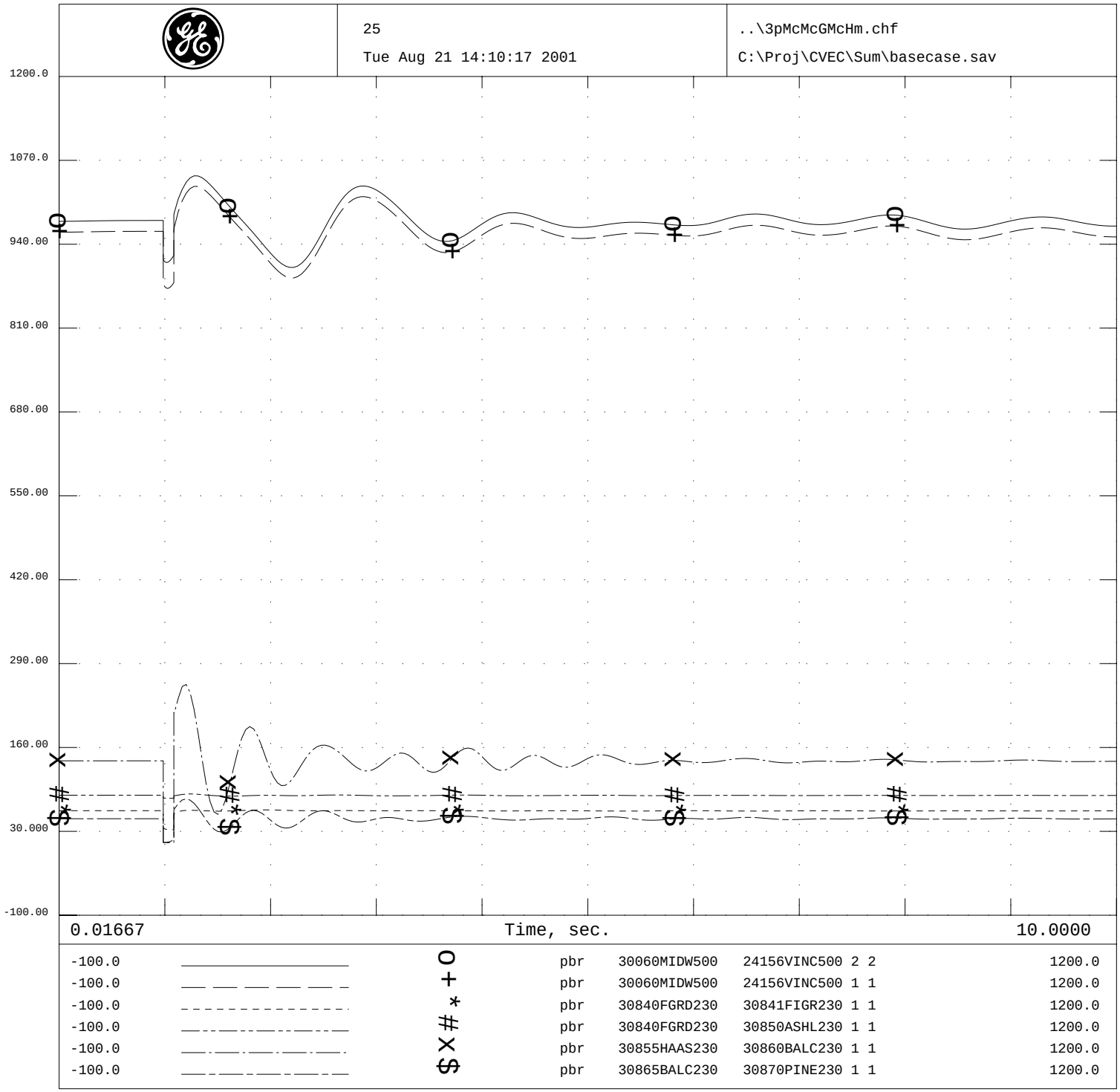

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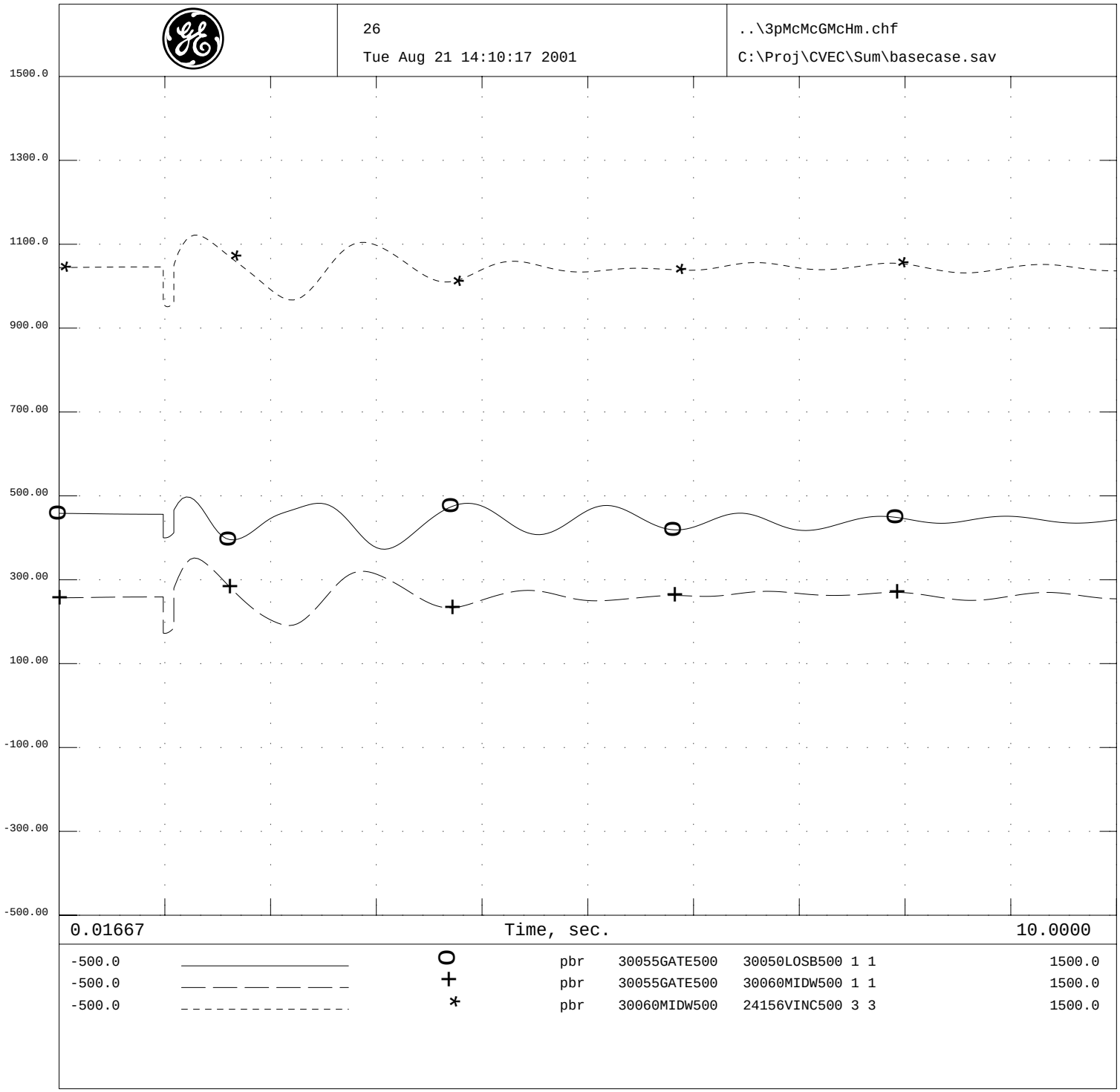

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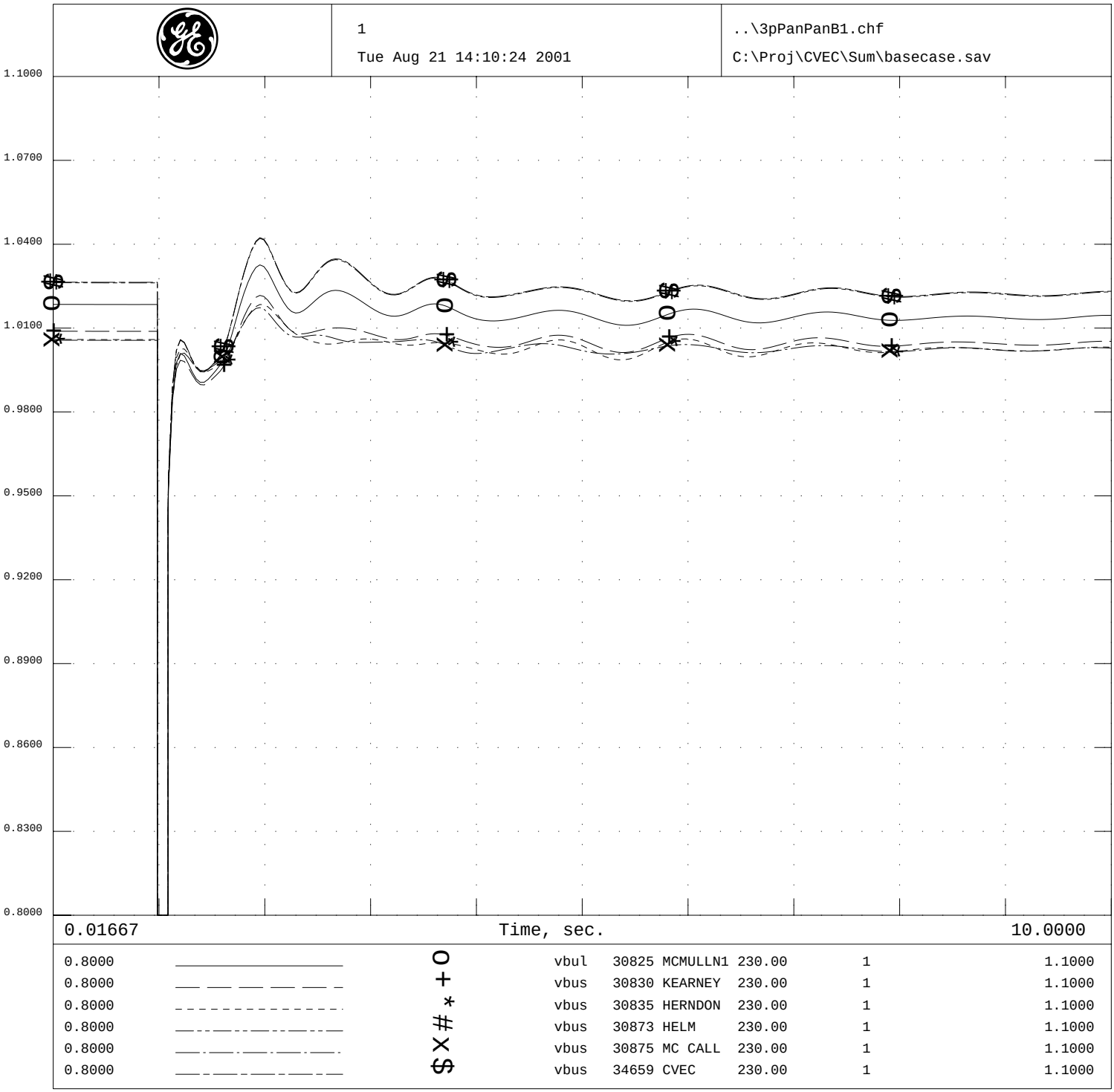

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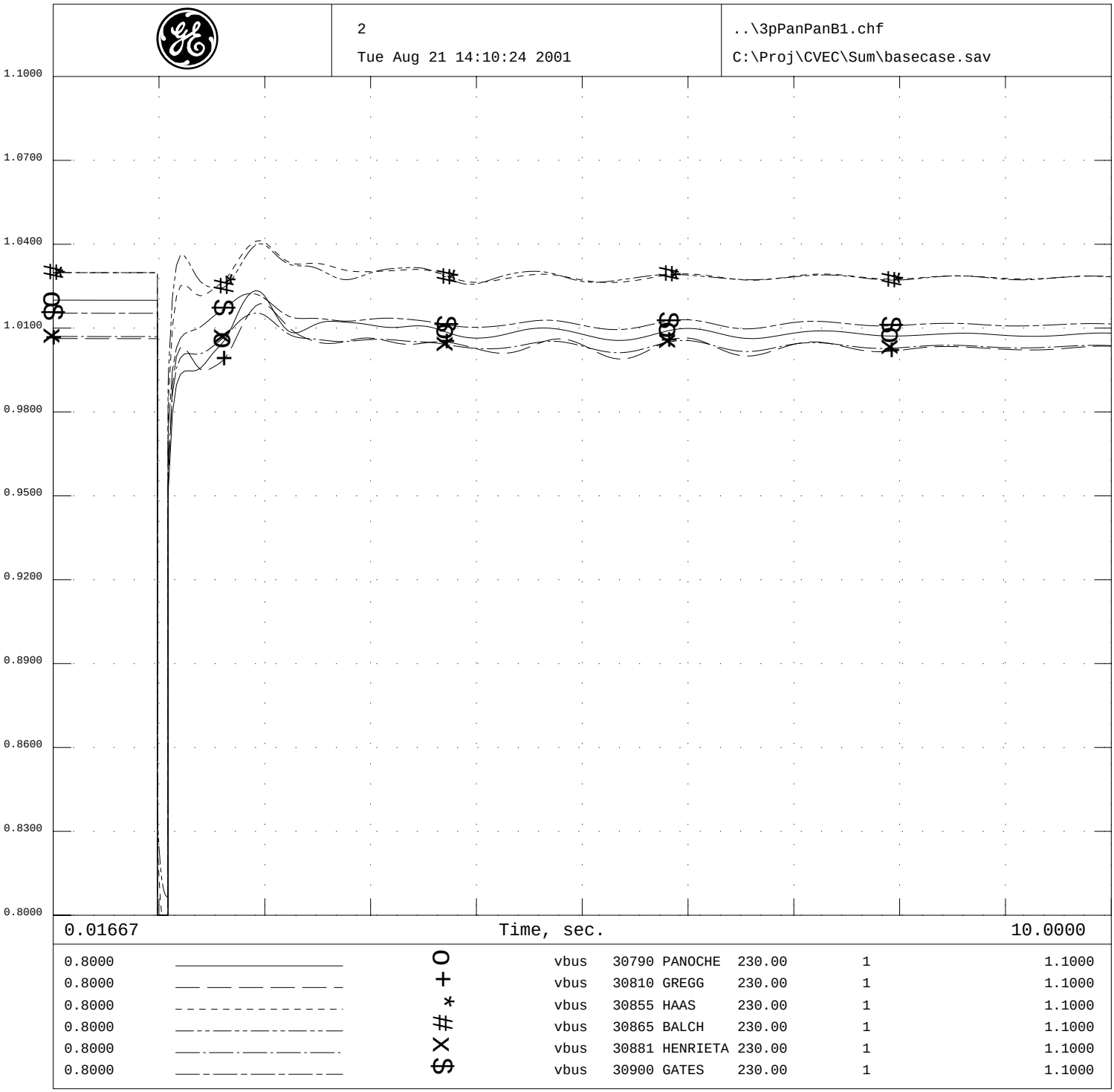
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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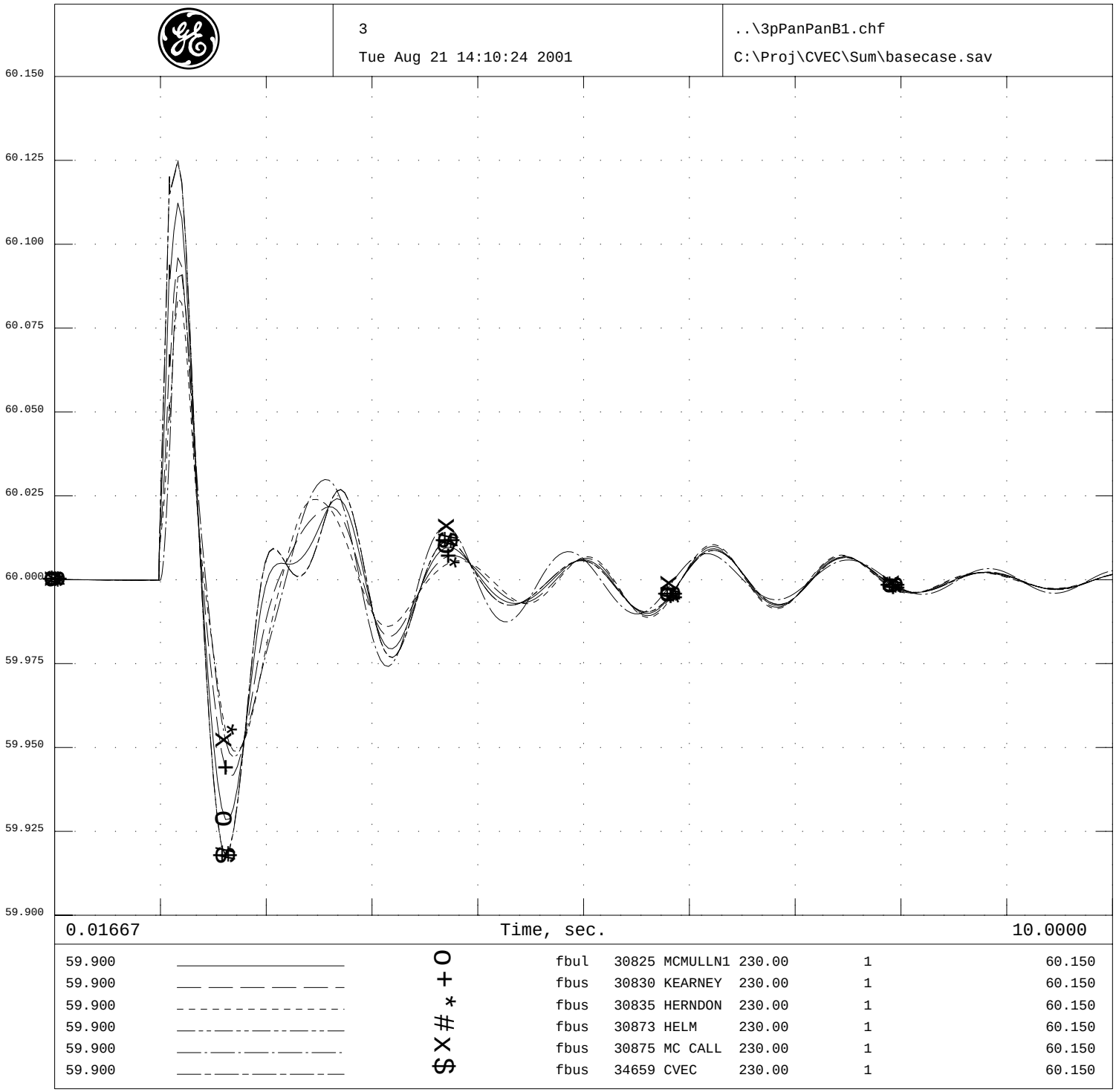

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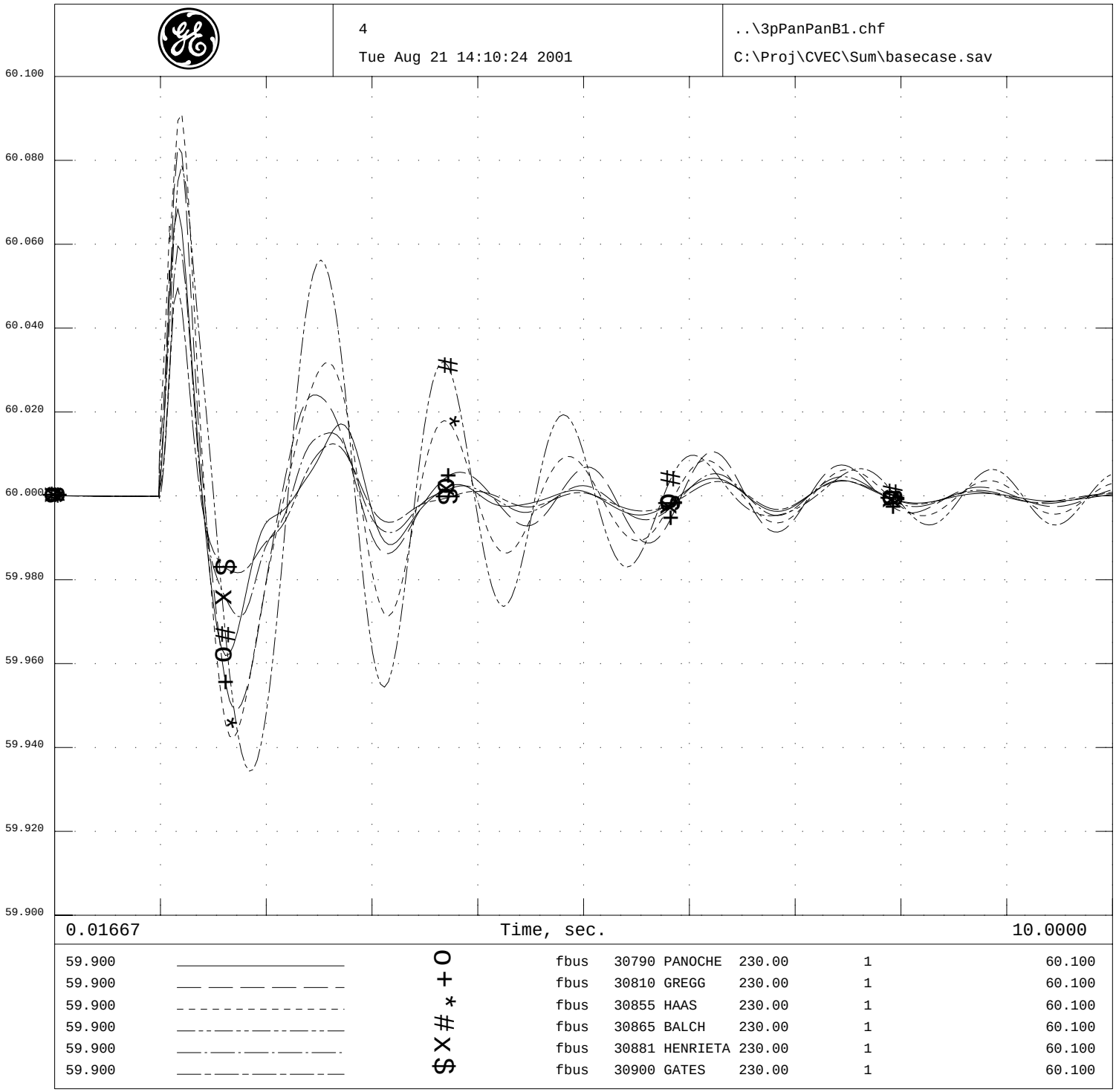

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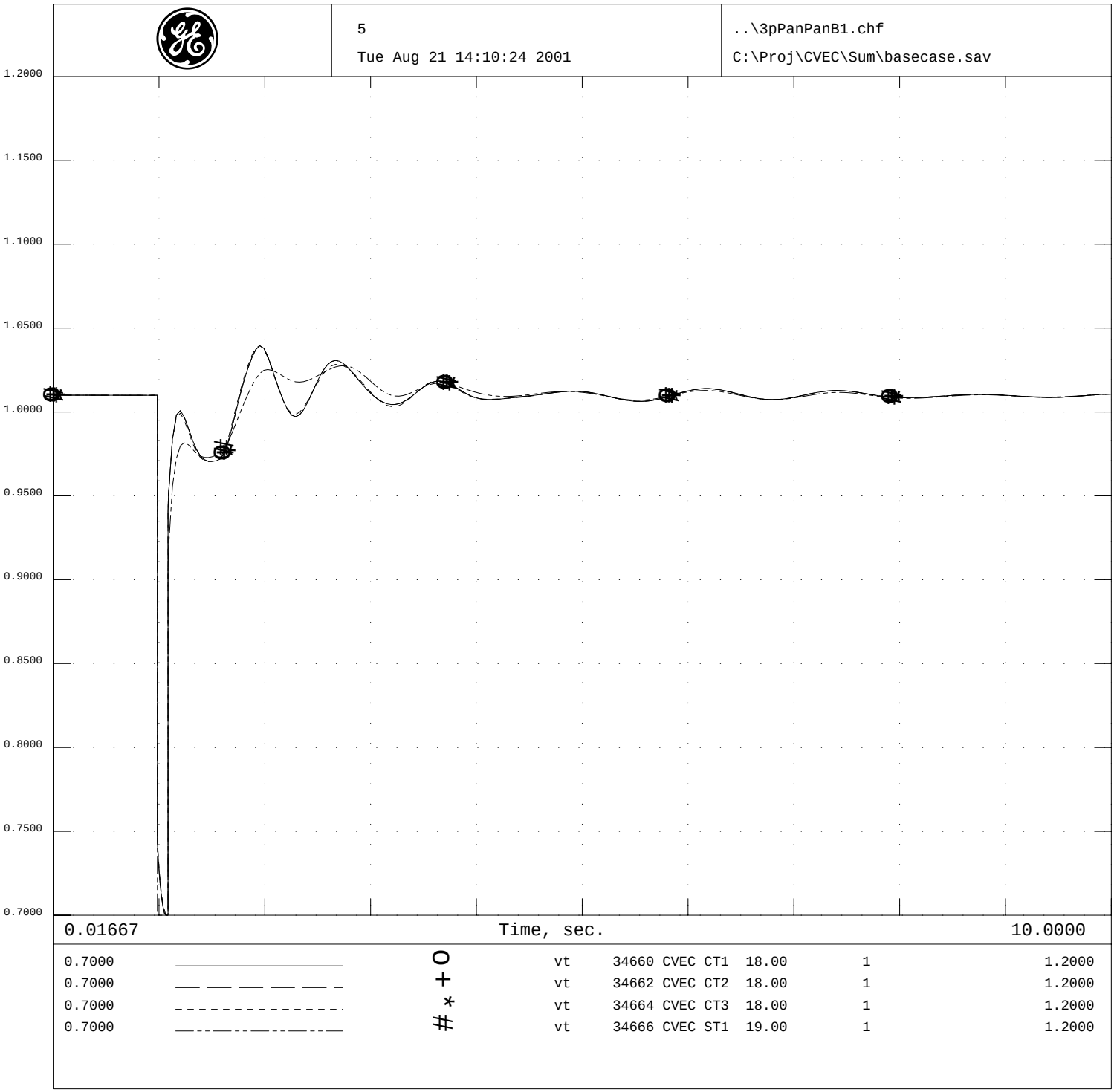

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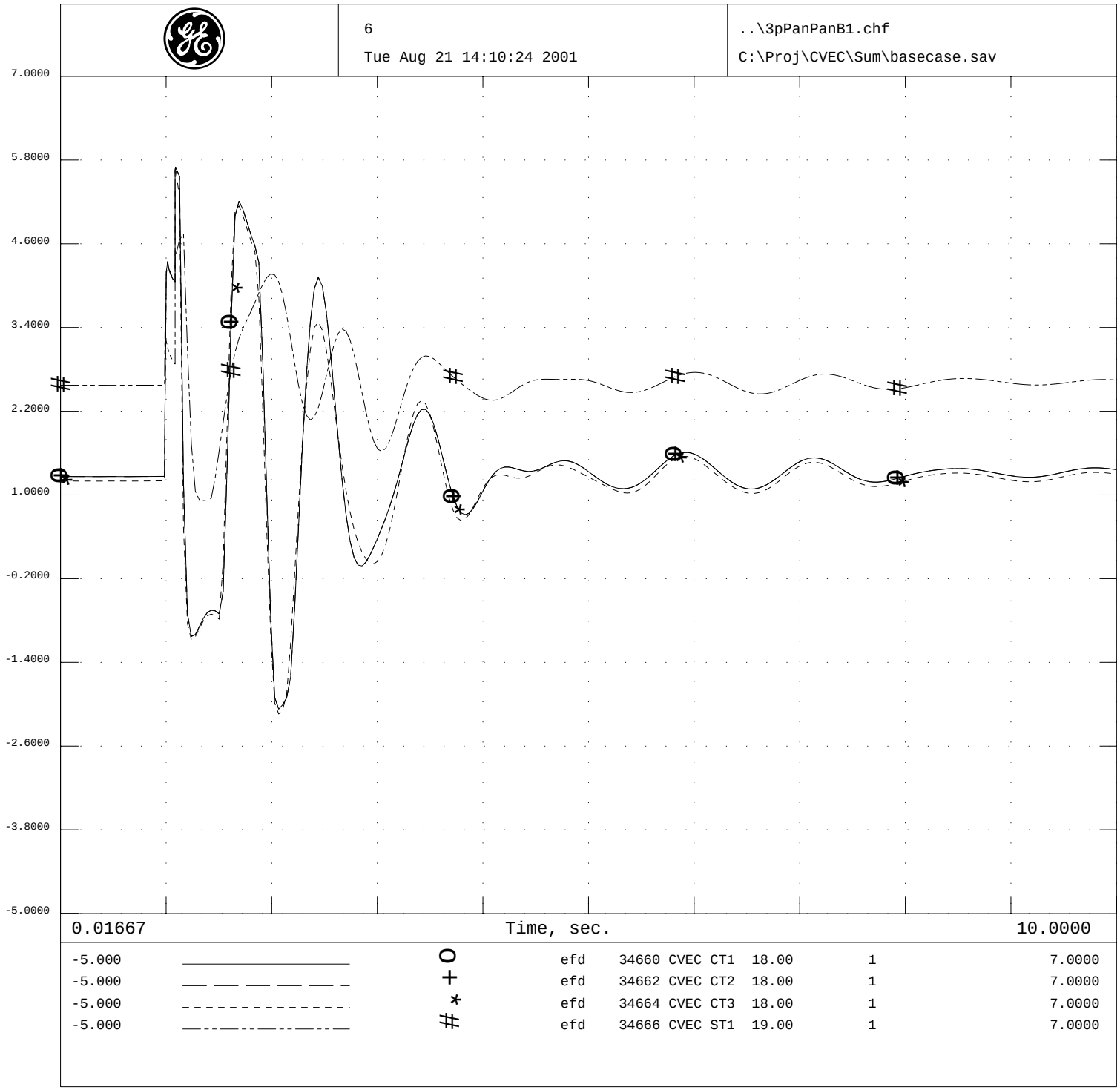
Calpine Corporation
Project Generator Terminal Voltages



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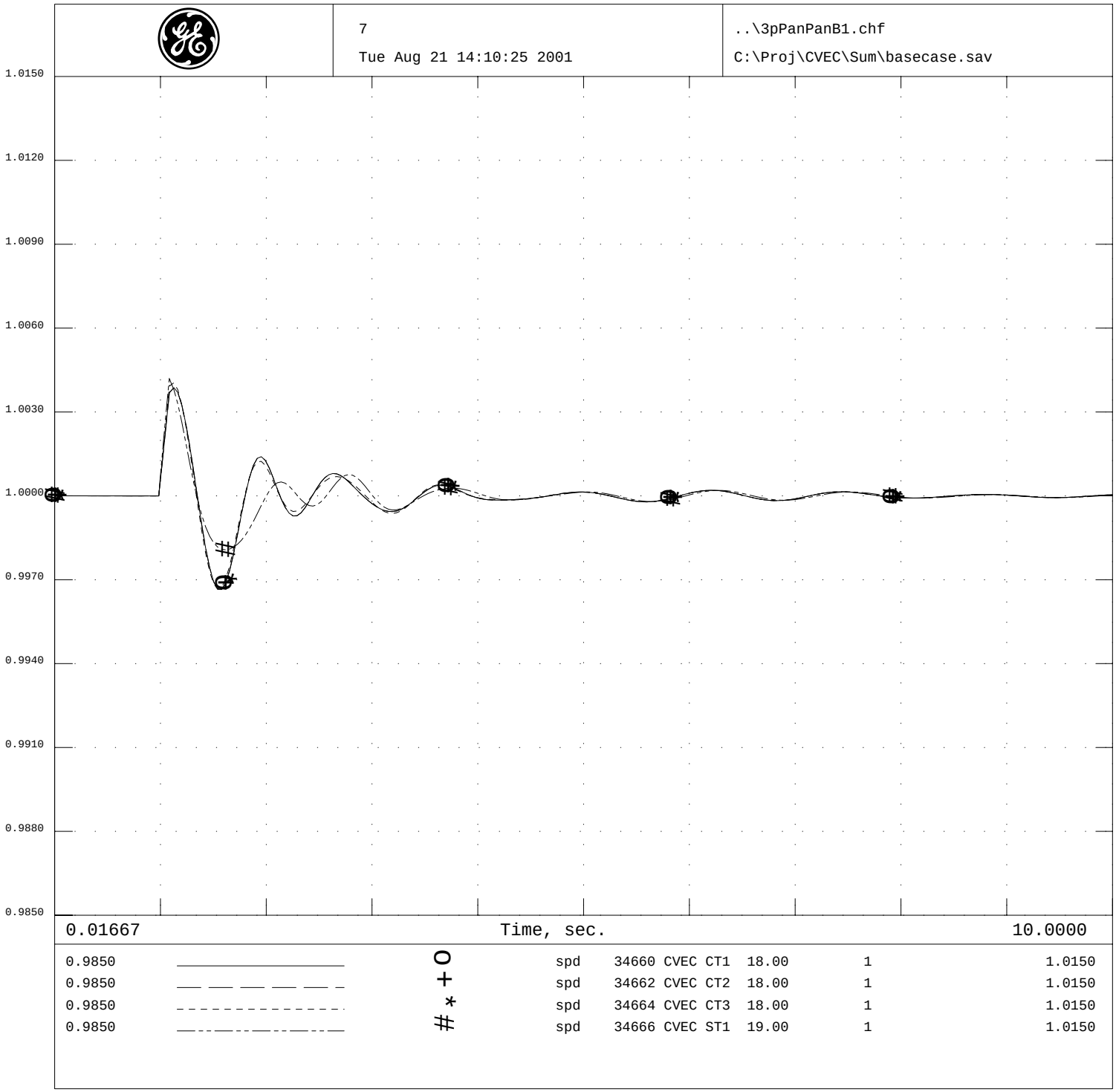

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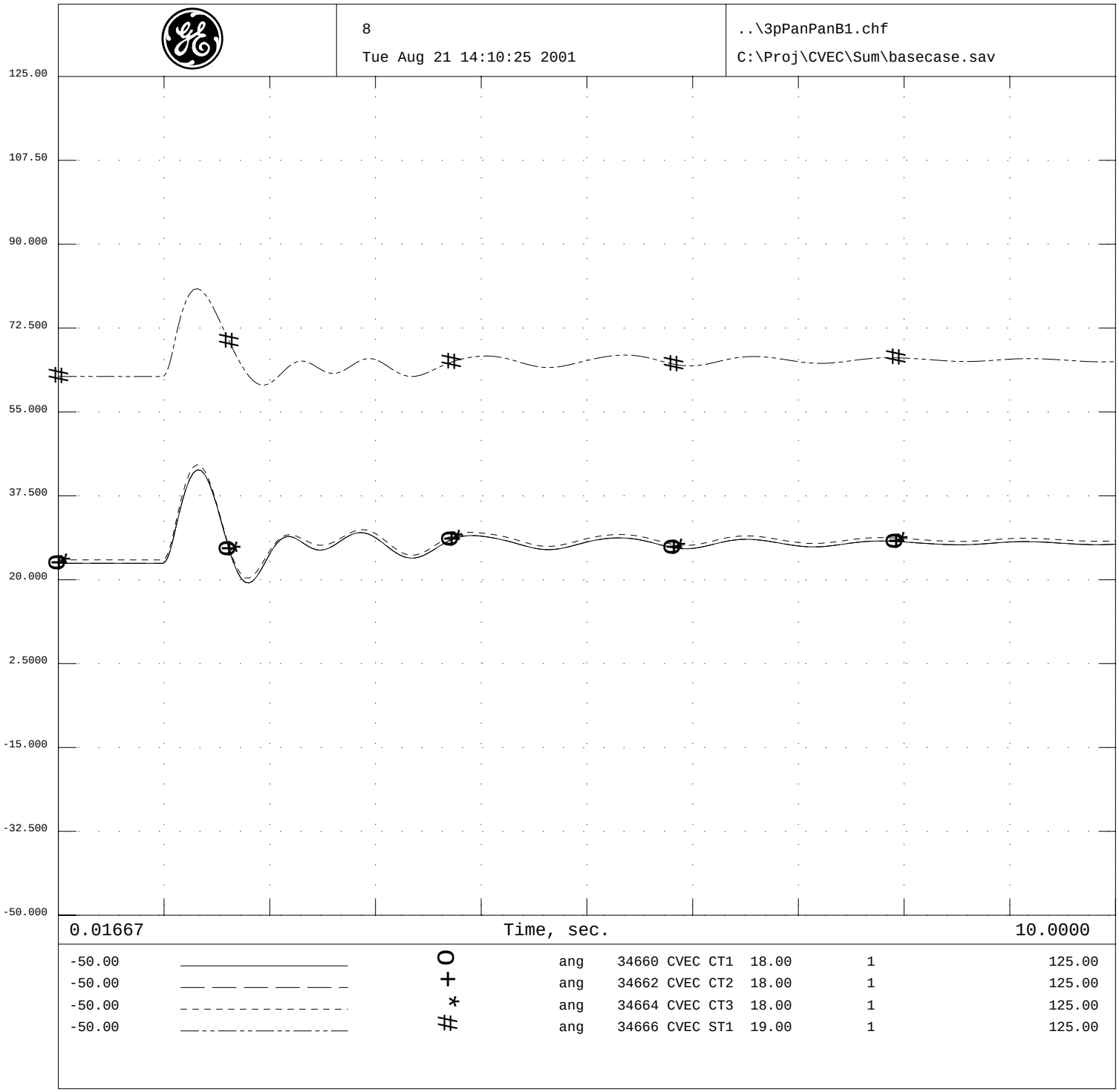

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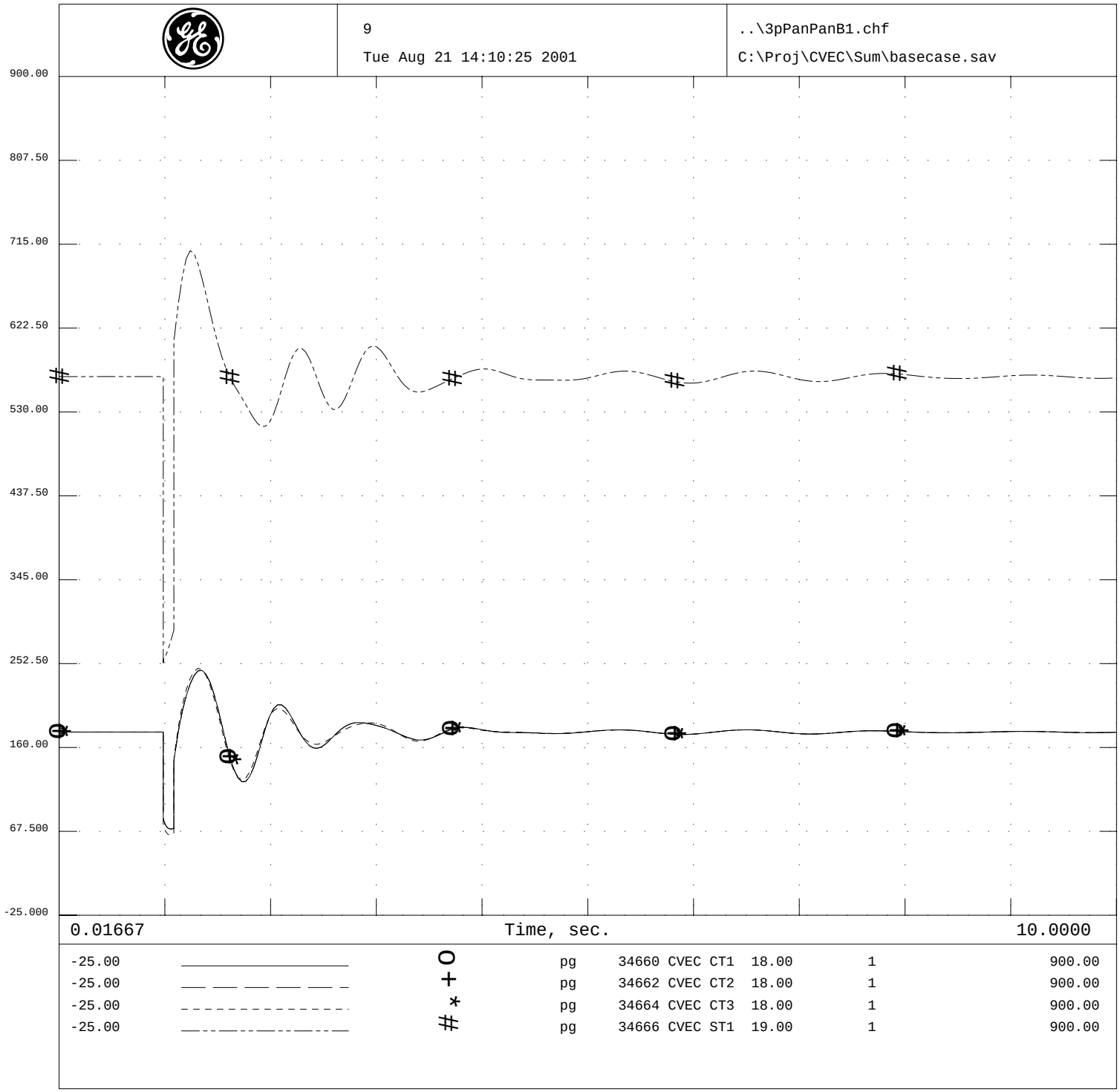

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Calpine Corporation
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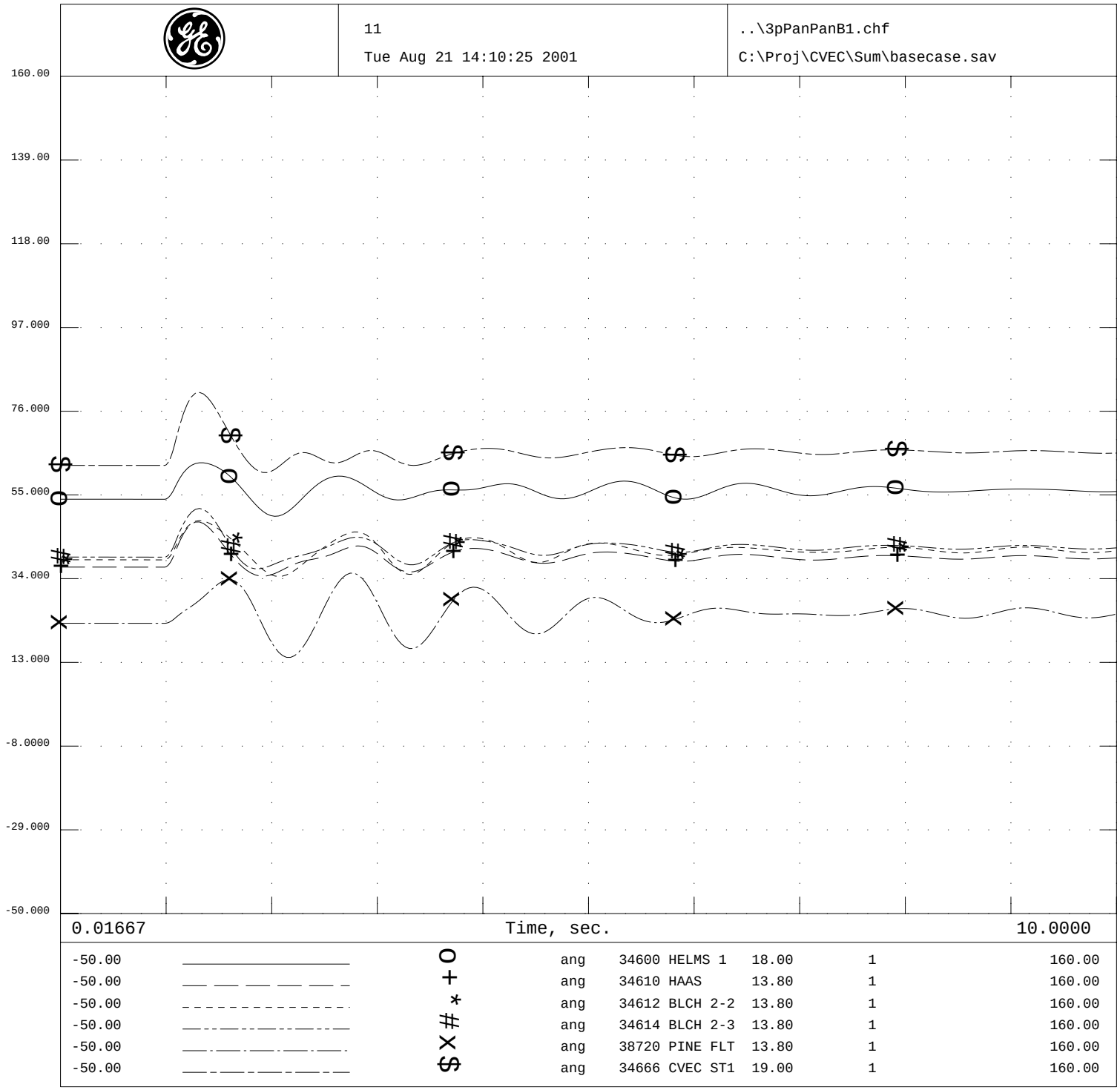
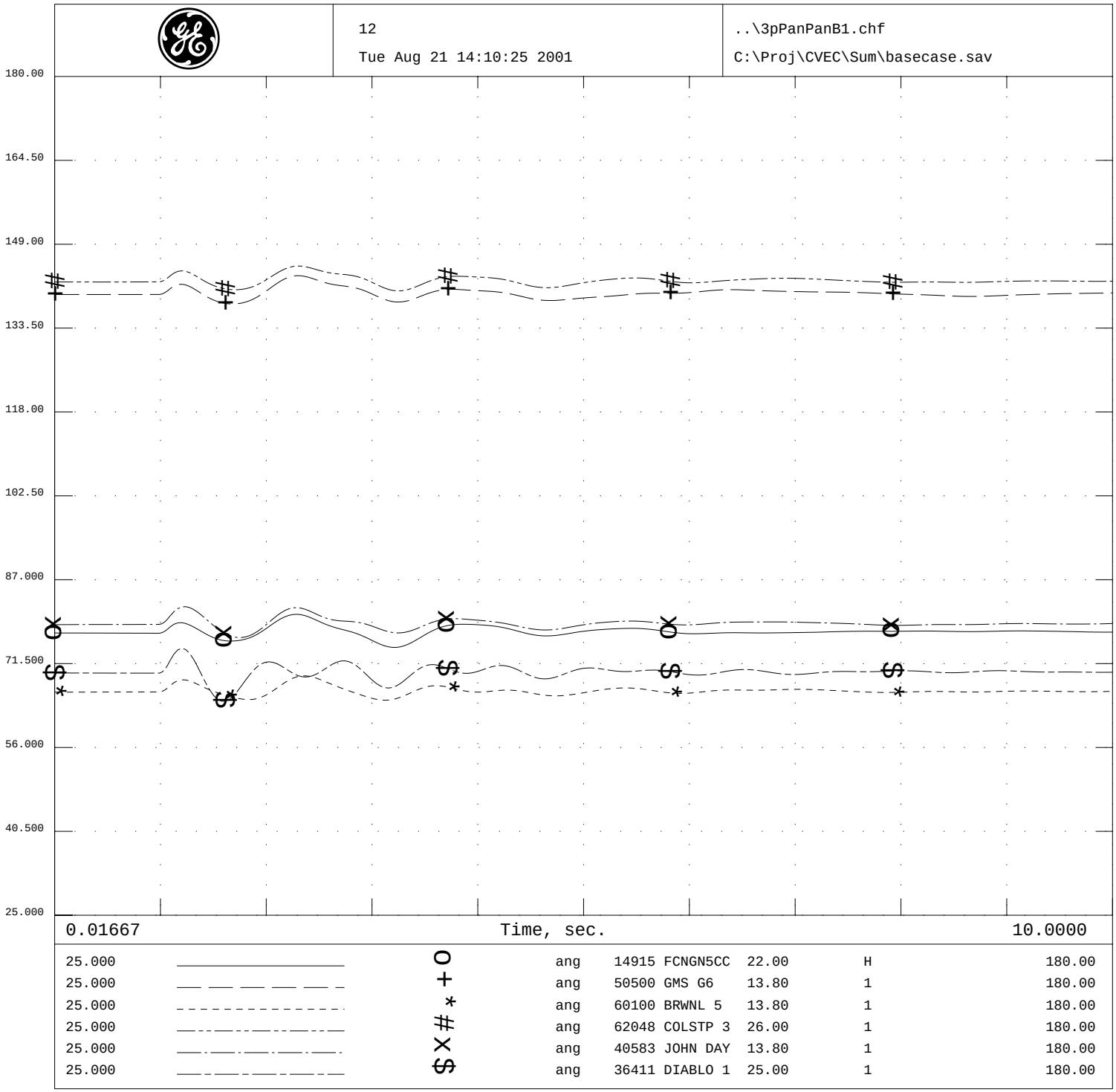


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Panoche 230kV Bus #1 Outage
3 phase 6 cycle fault at Panoche 230kV bus and clear bus #1

Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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2004 Summer Peak Base Case
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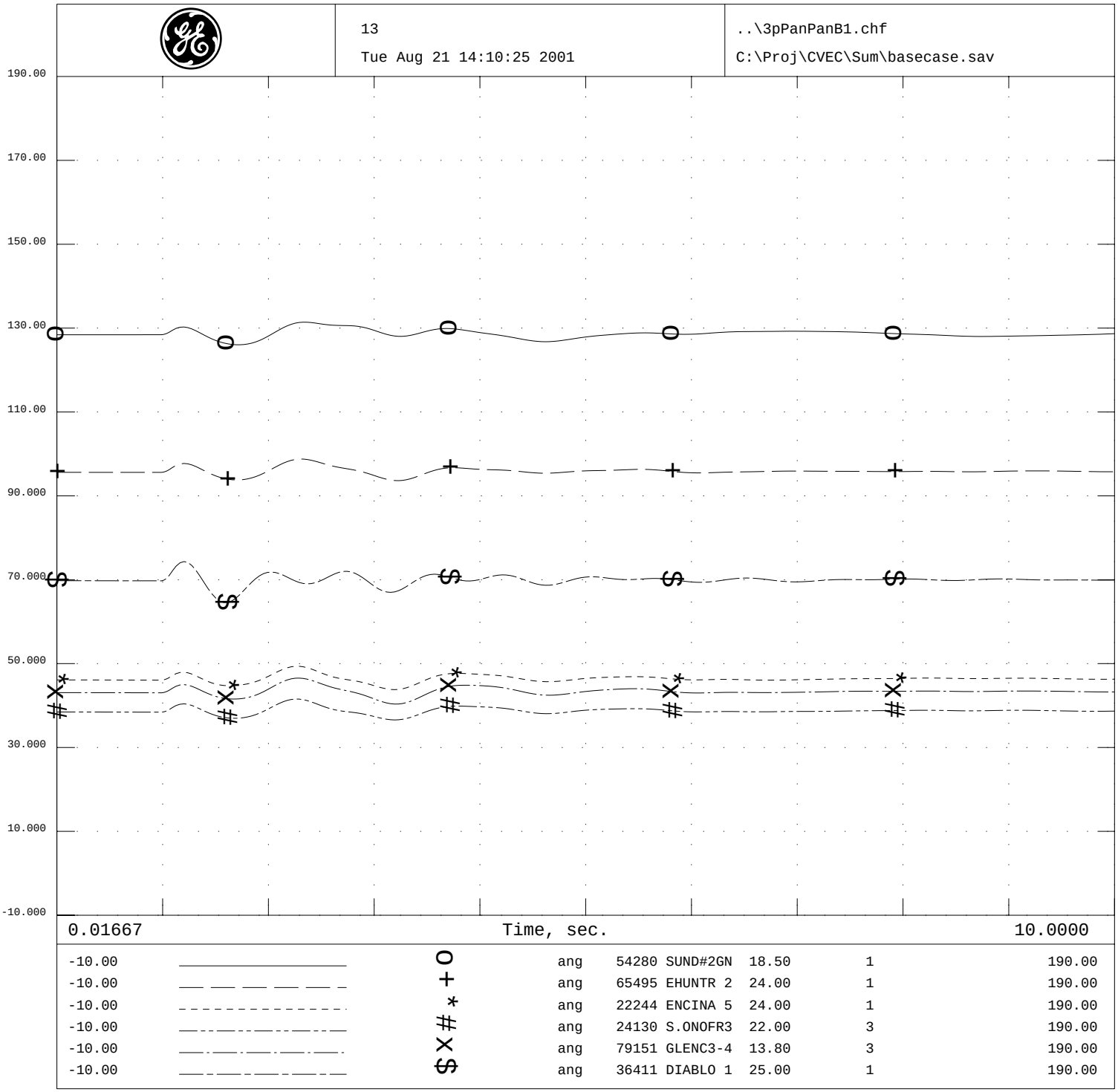
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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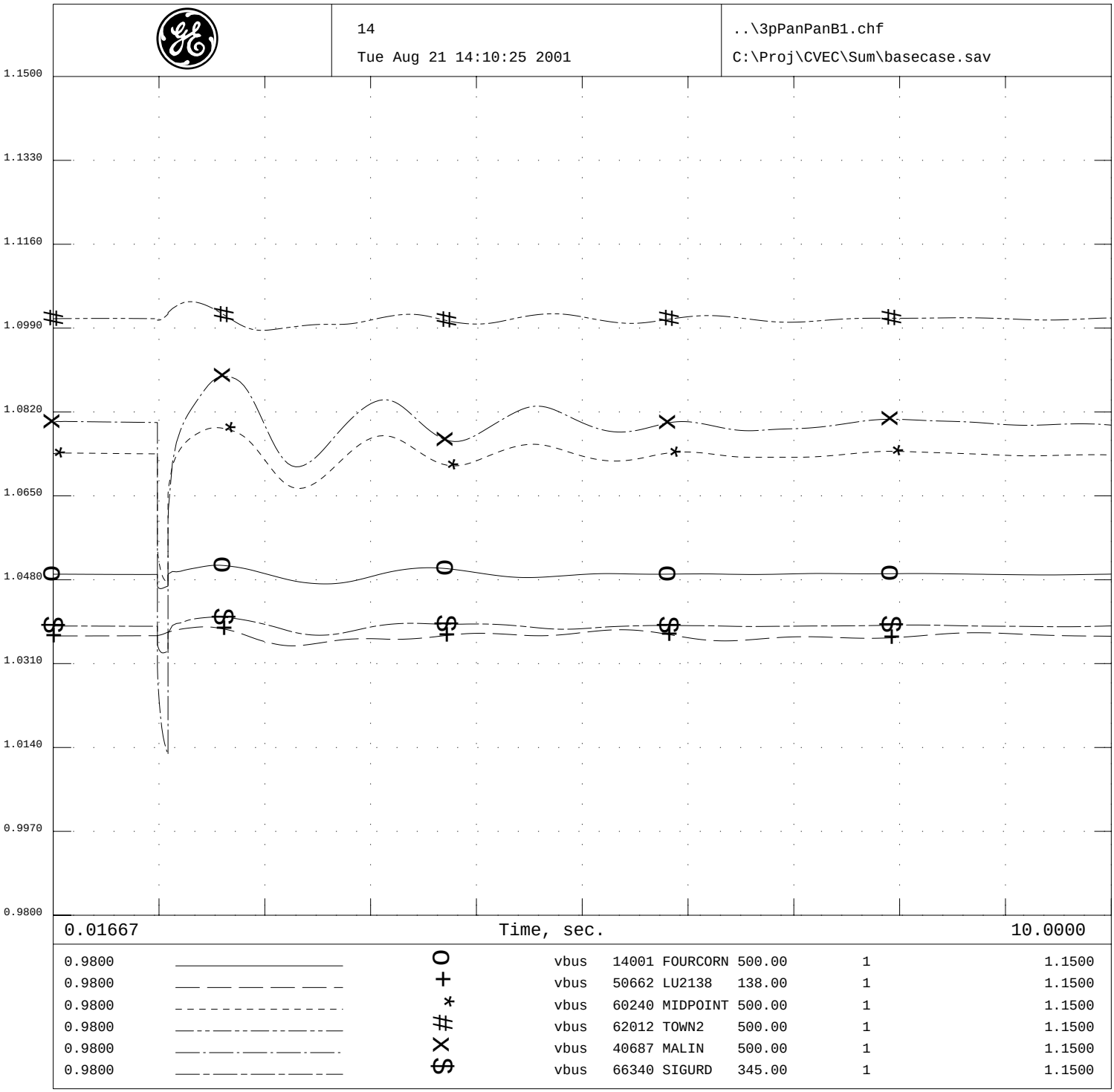

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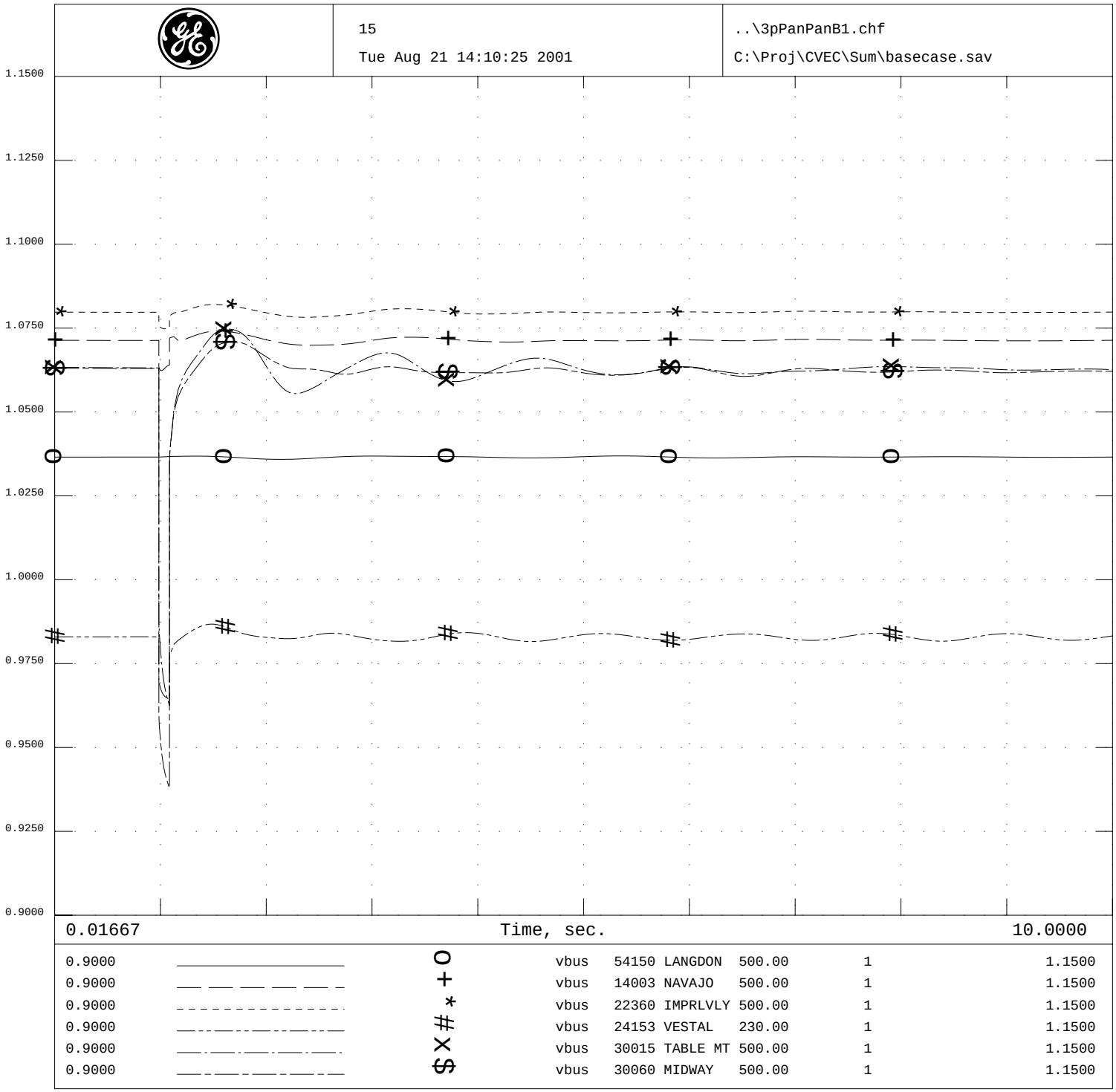
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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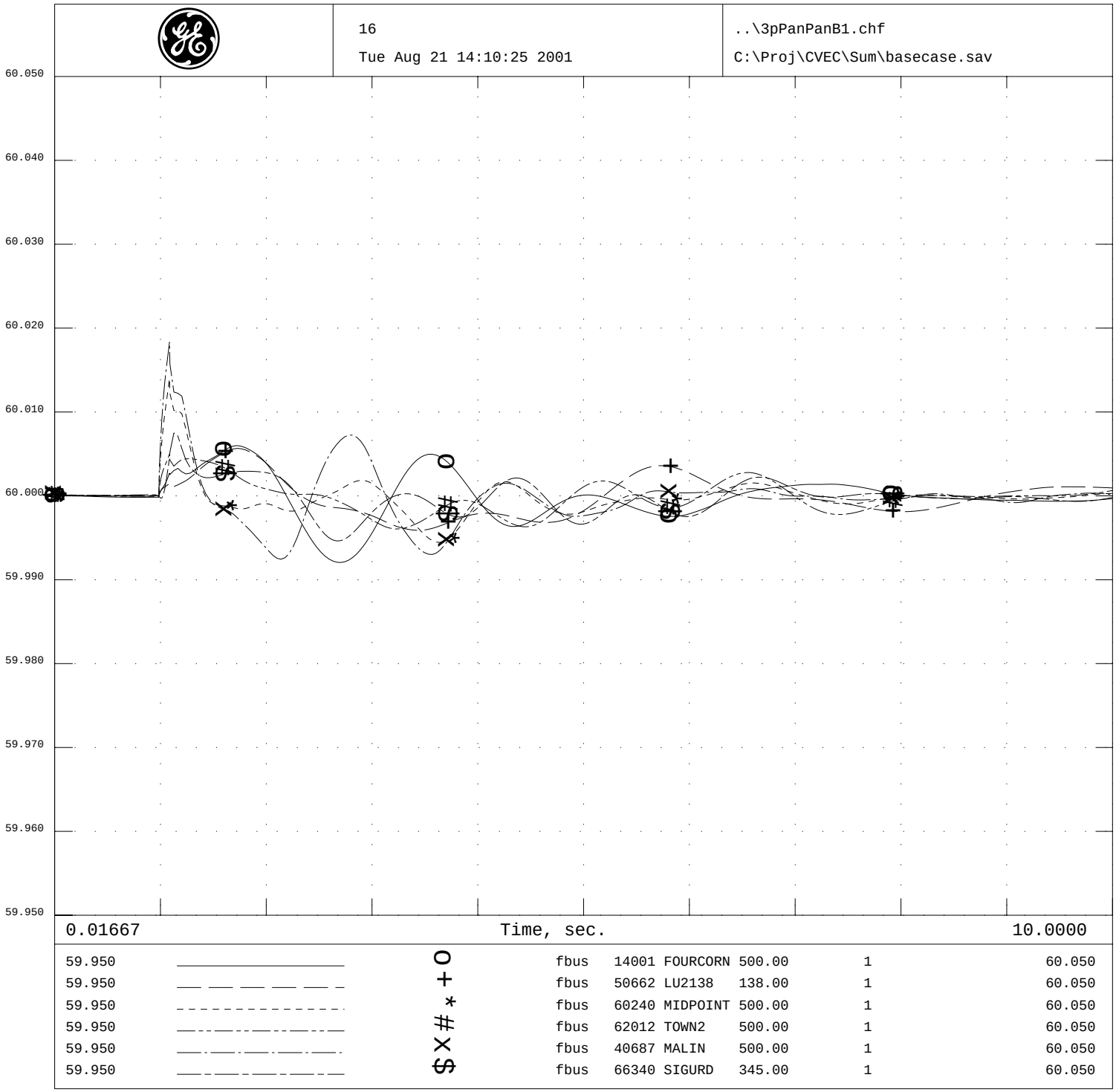

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2004 Summer Peak Base Case
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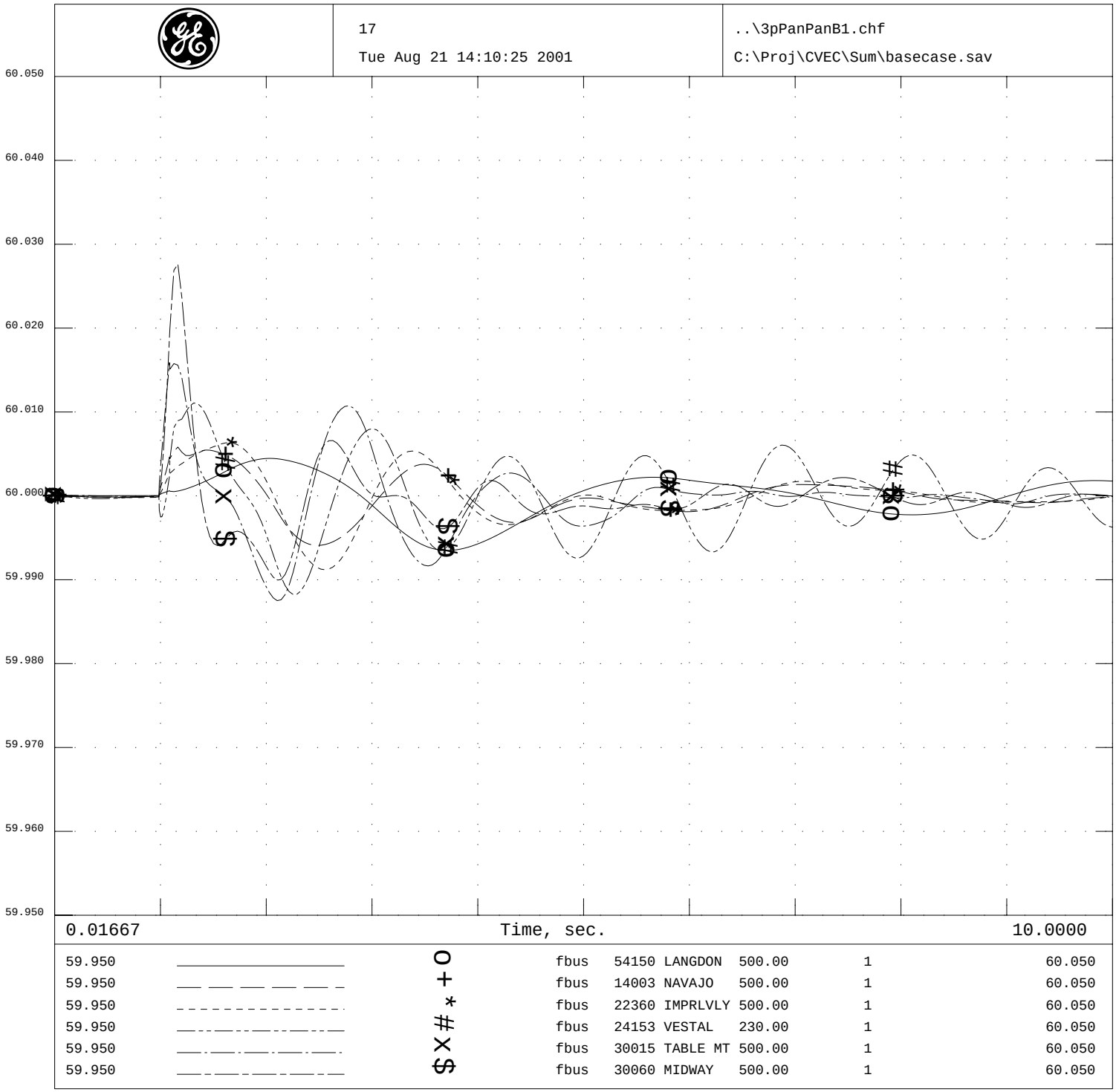
Selected WSCC Transmission Bus Frequency Plots



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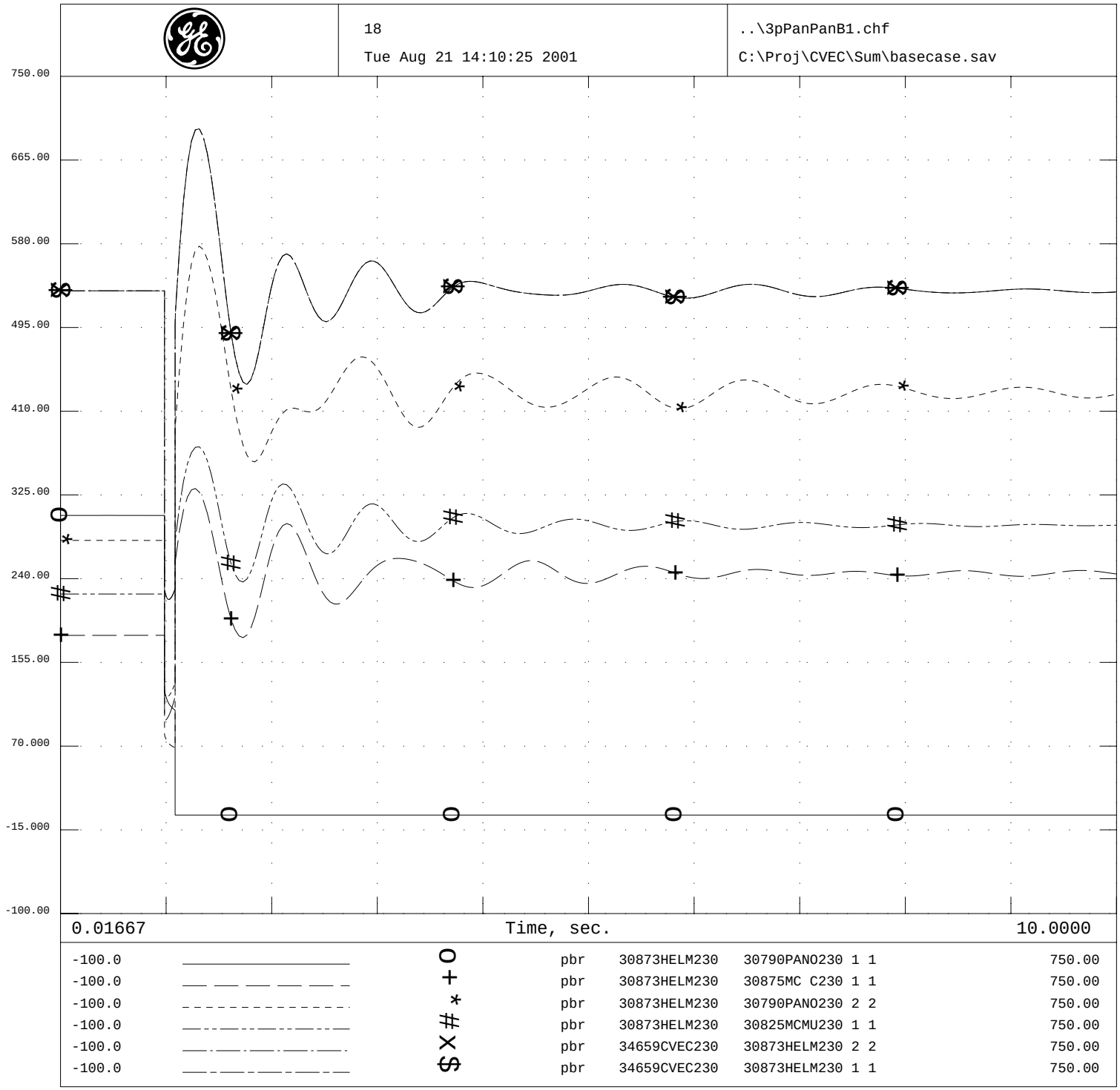

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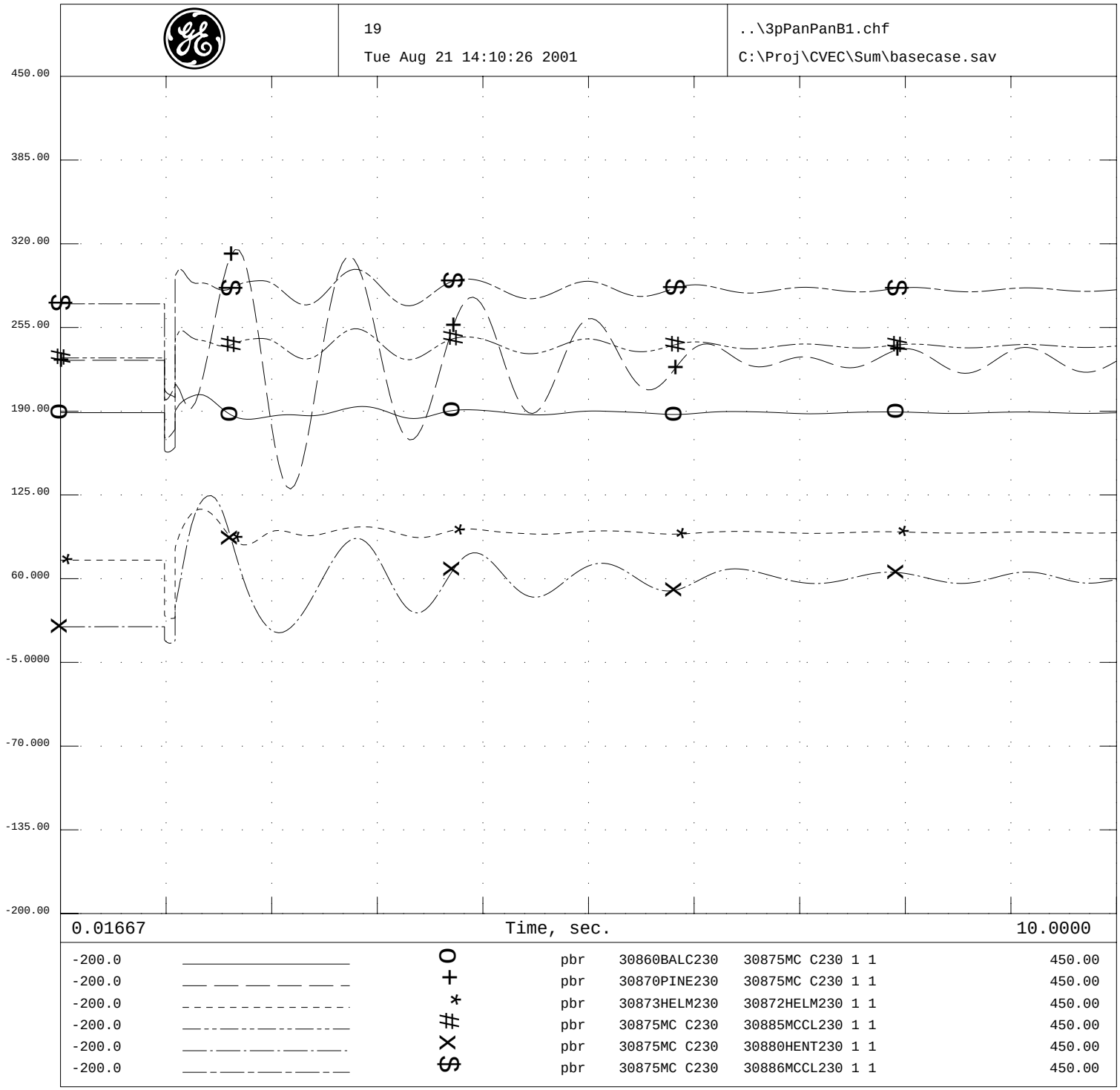
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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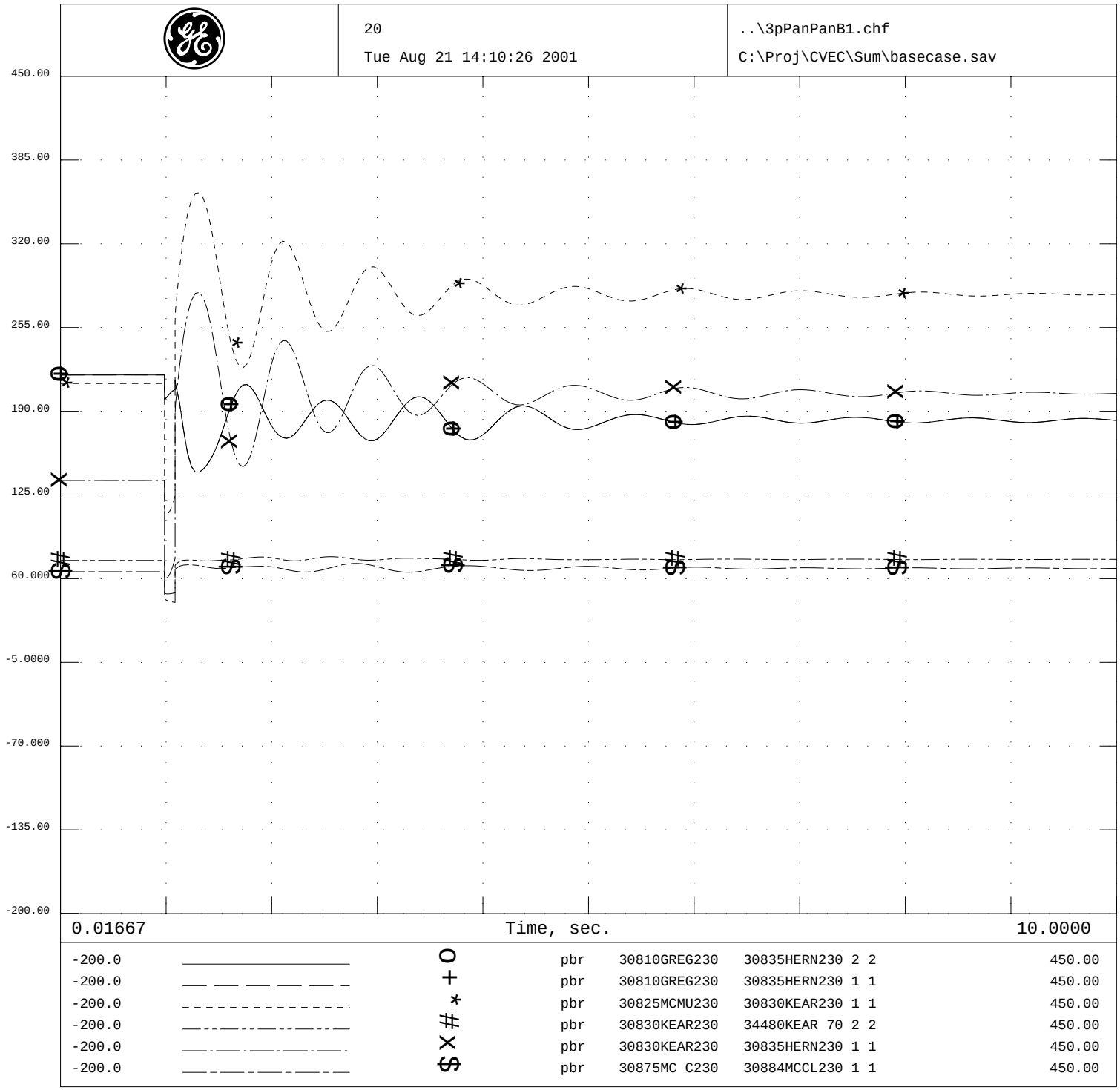

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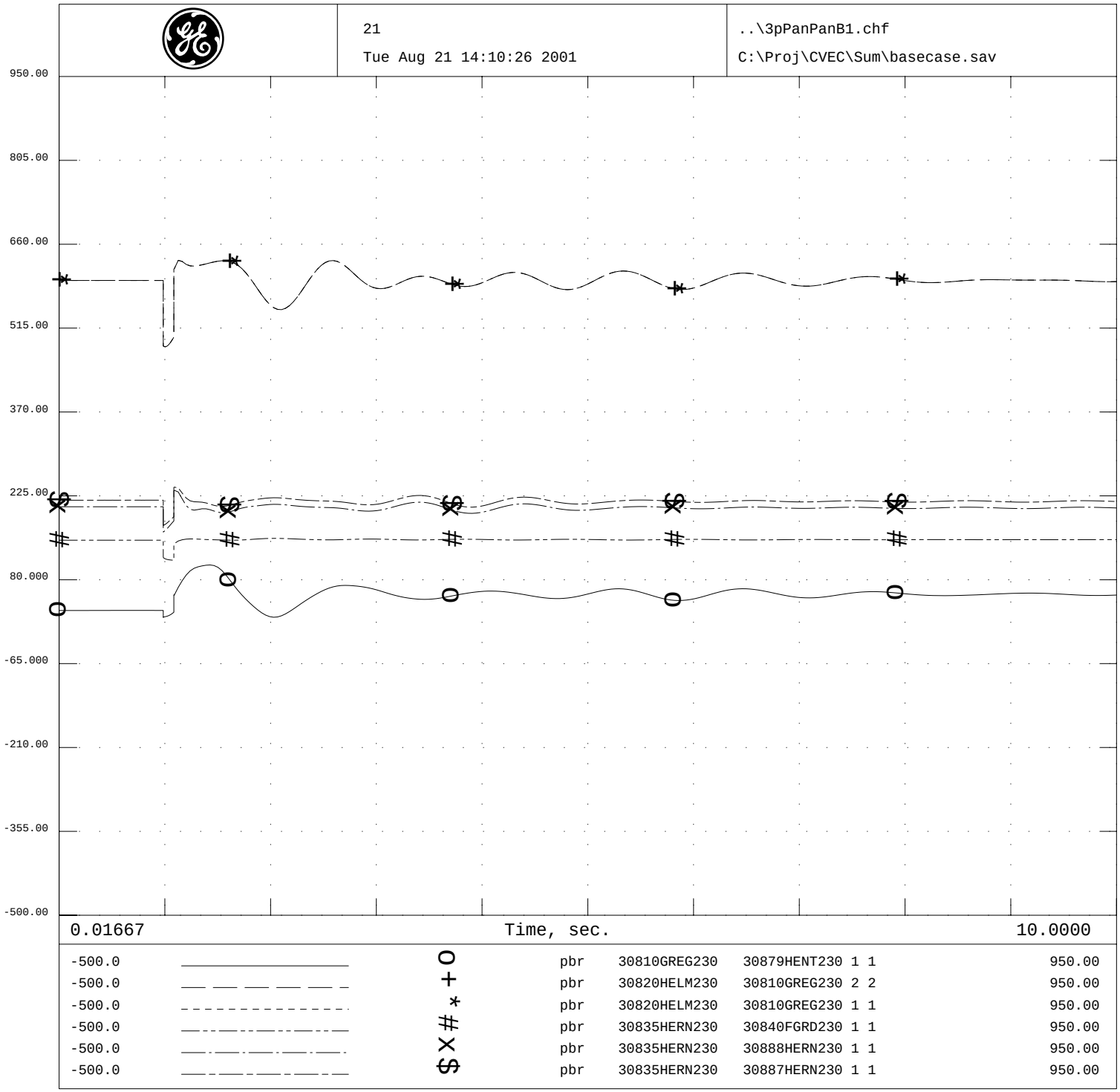

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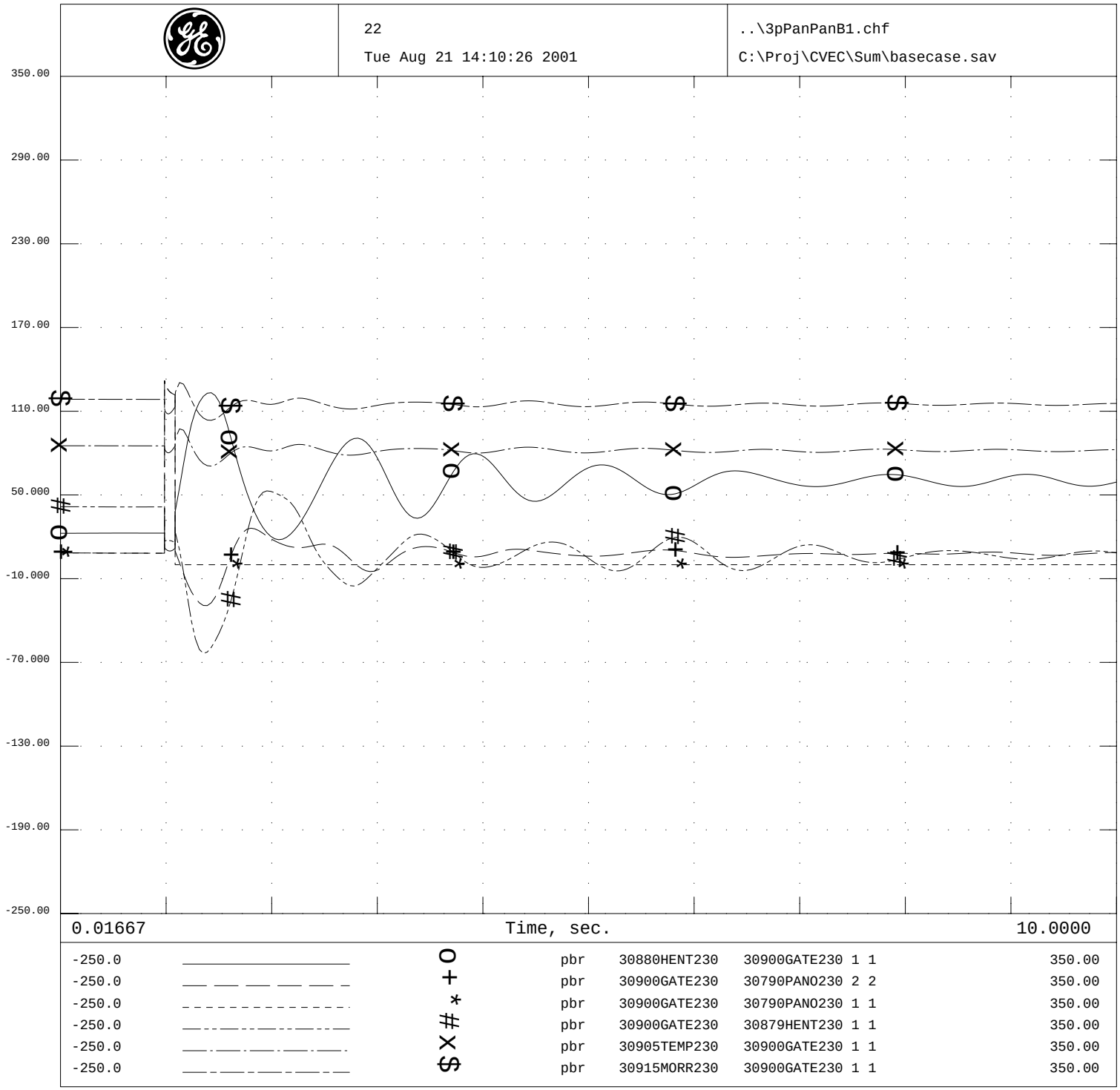

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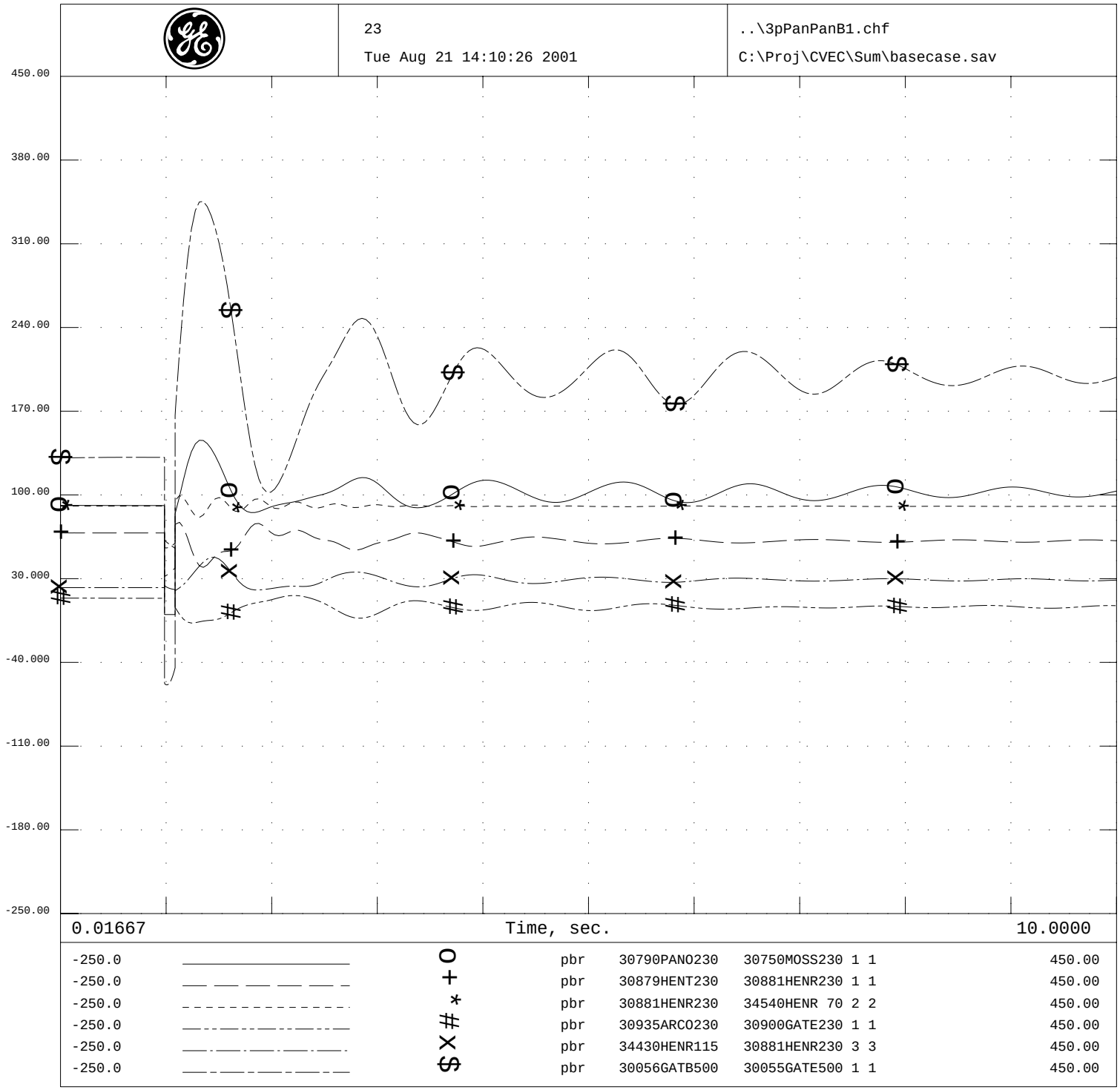

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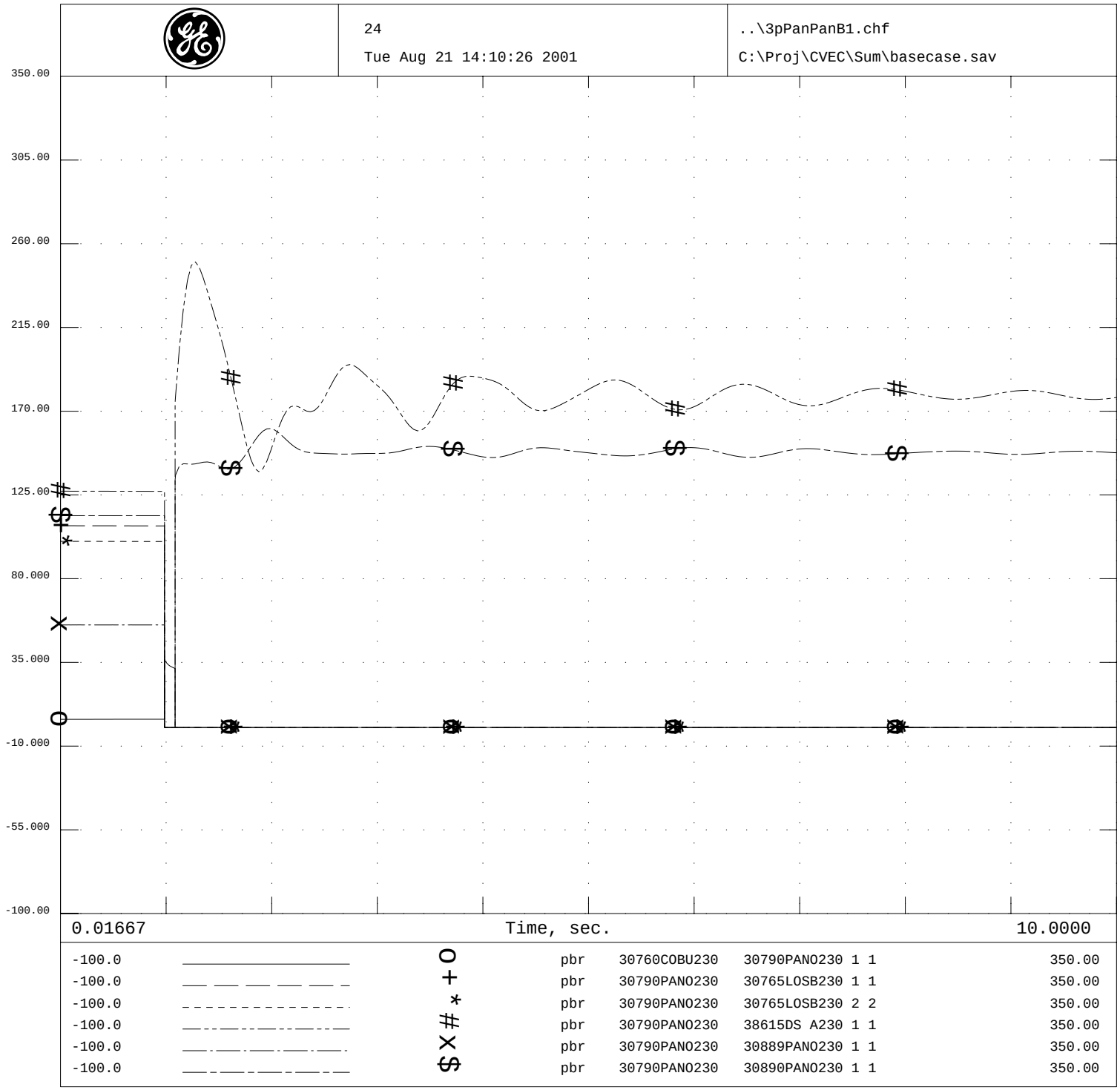

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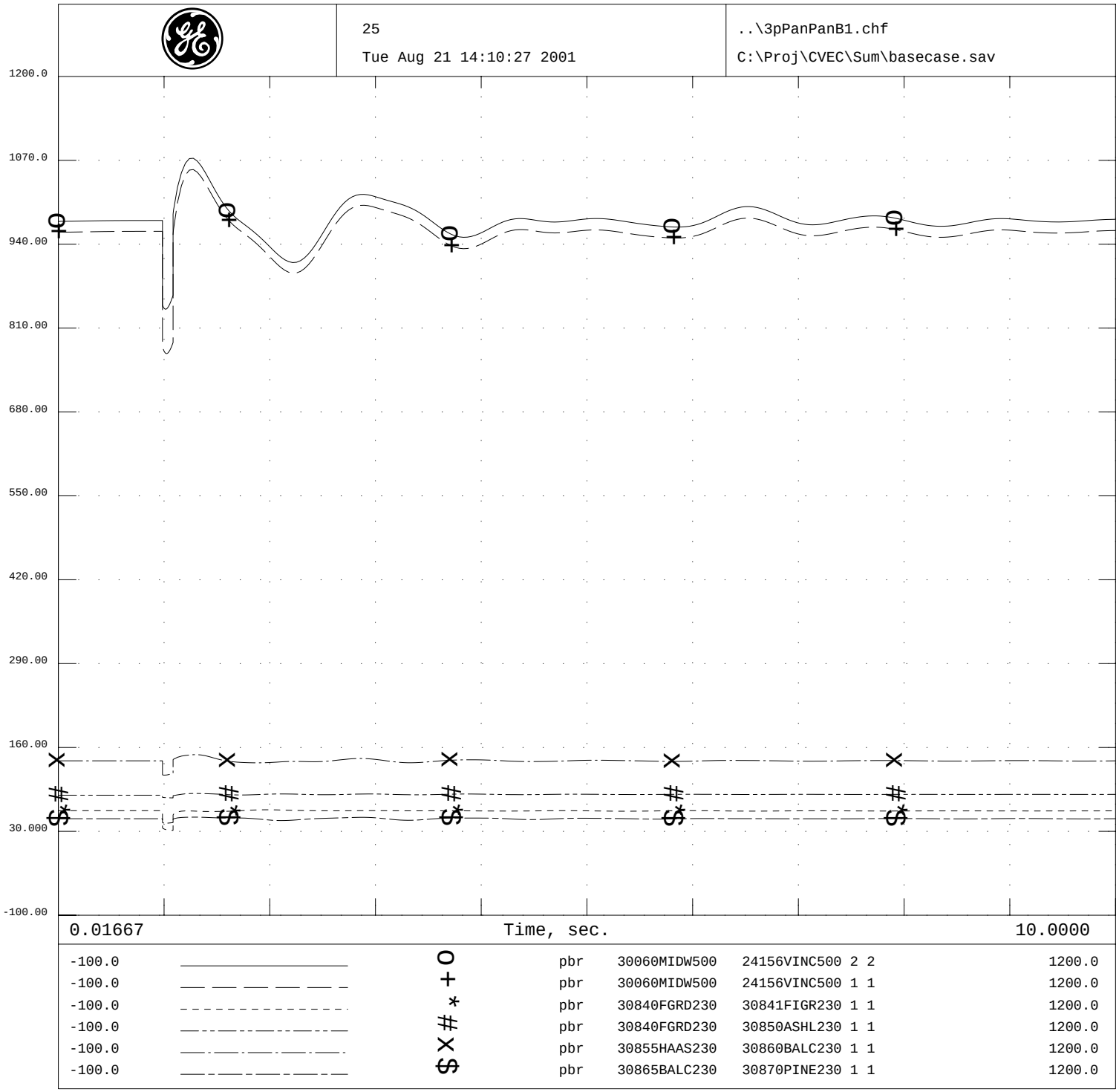

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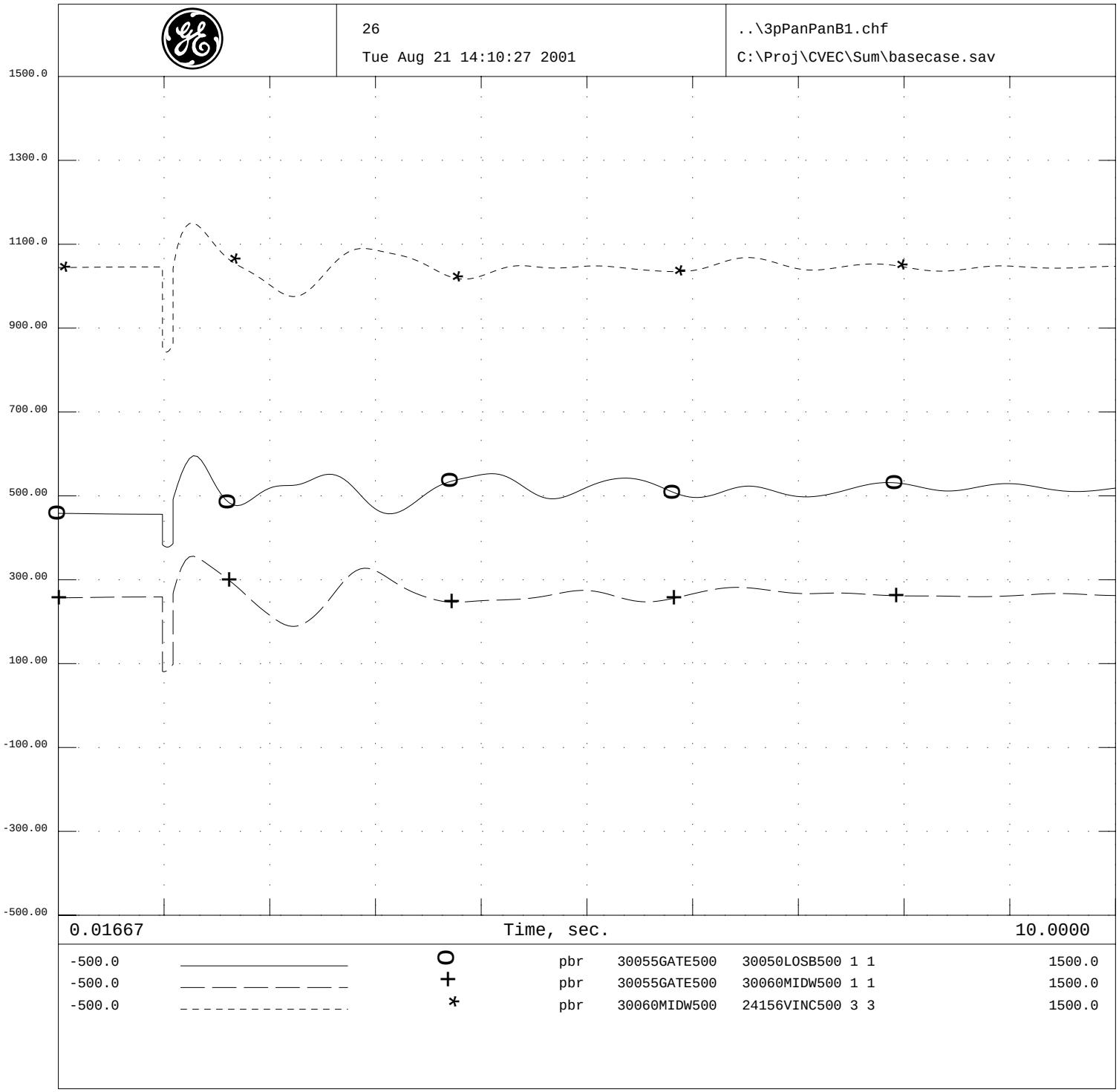

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Calpine Corporation
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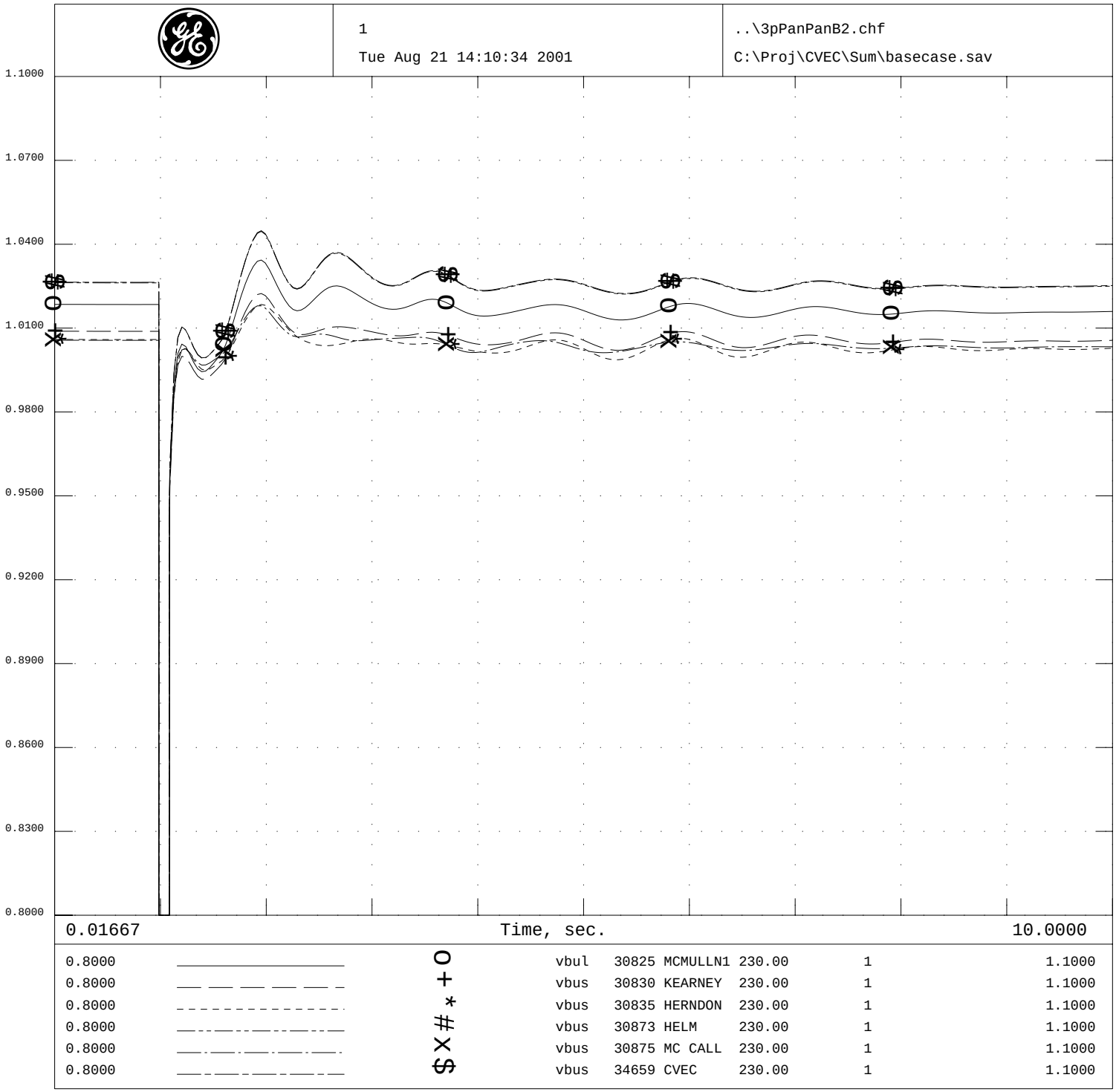

Calpine Corporation - Central Valley Energy Center System Impact Study
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Panoche 230kV Bus #2 Outage
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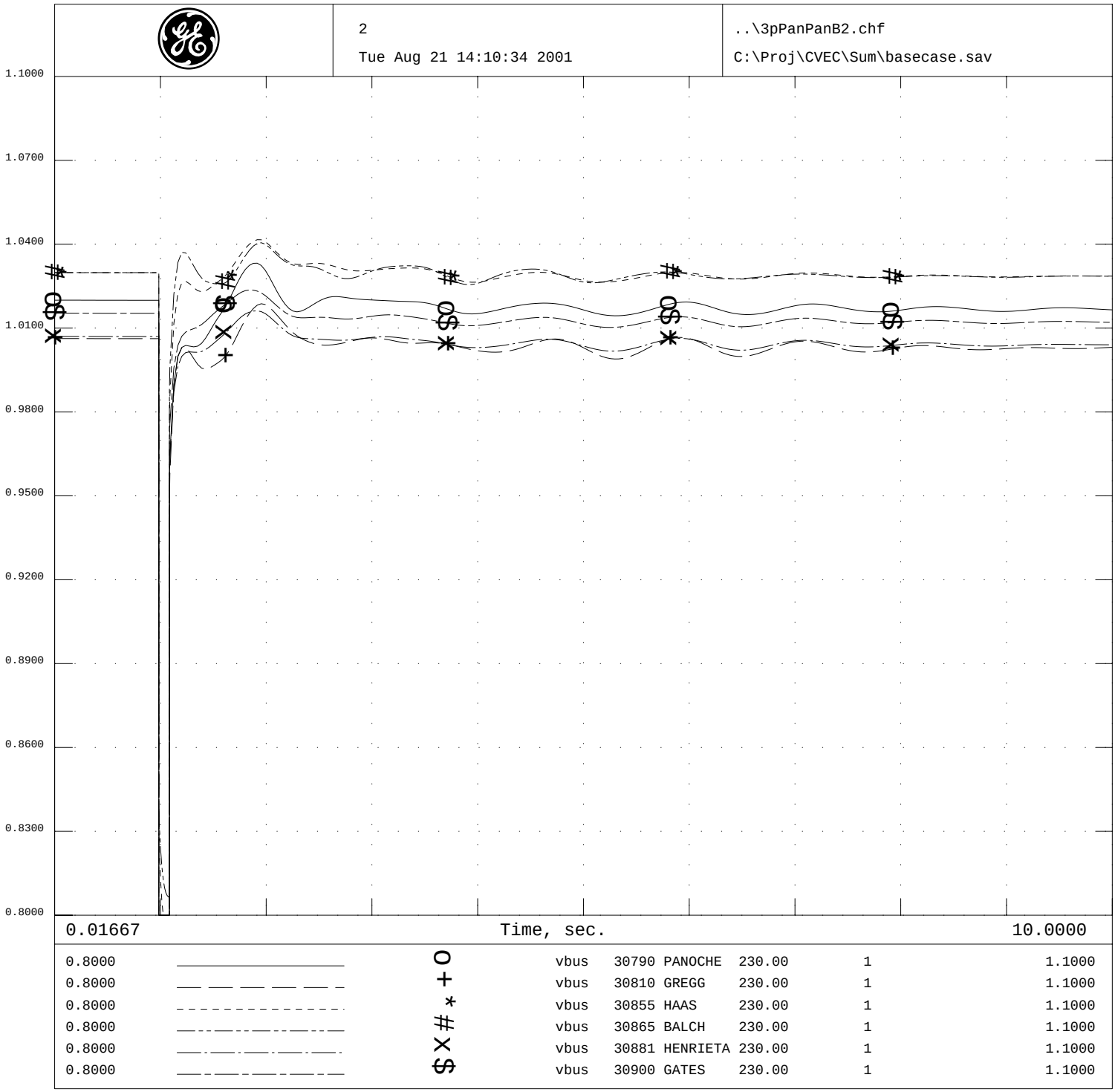
Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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Calpine Corporation
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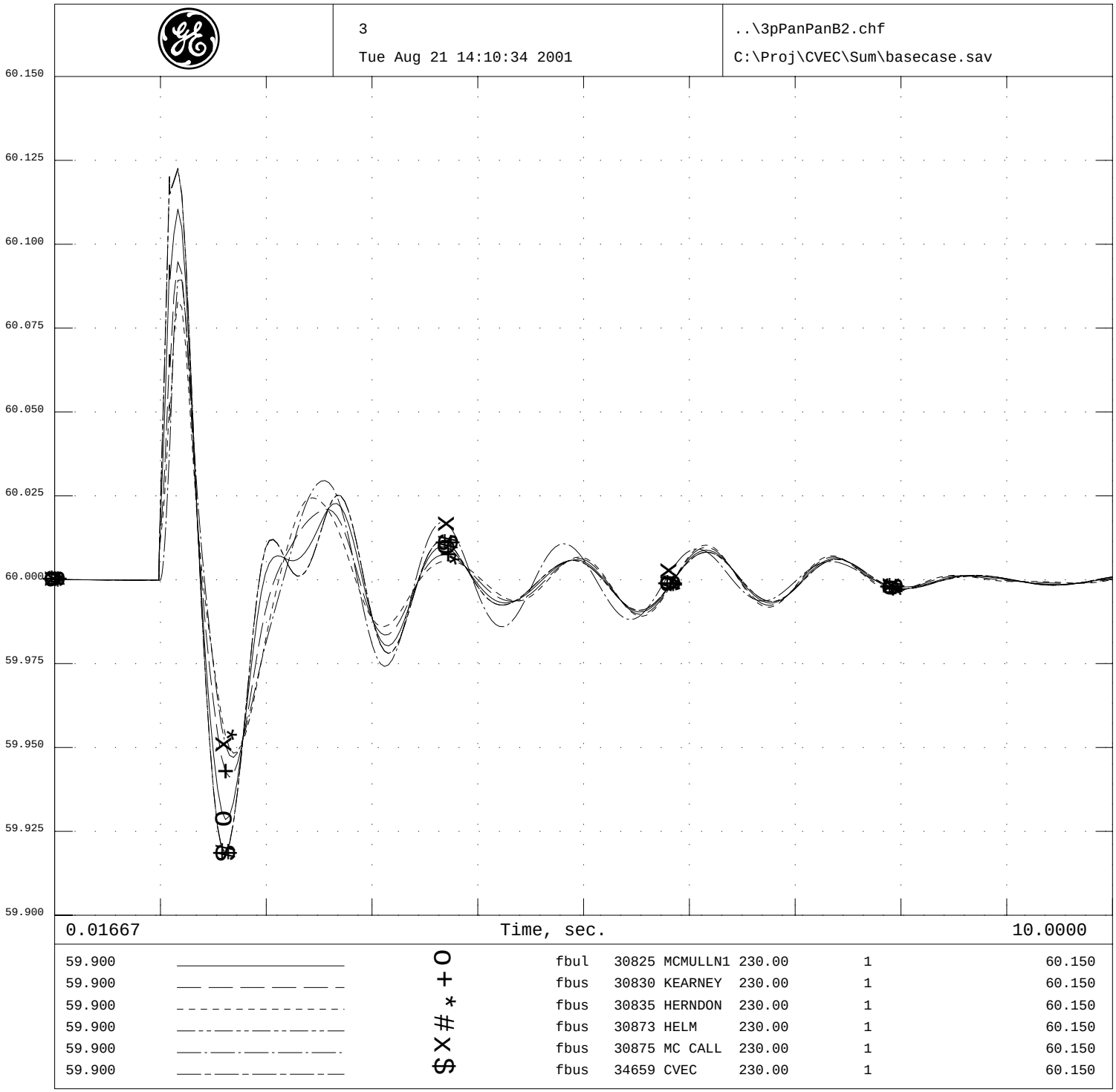

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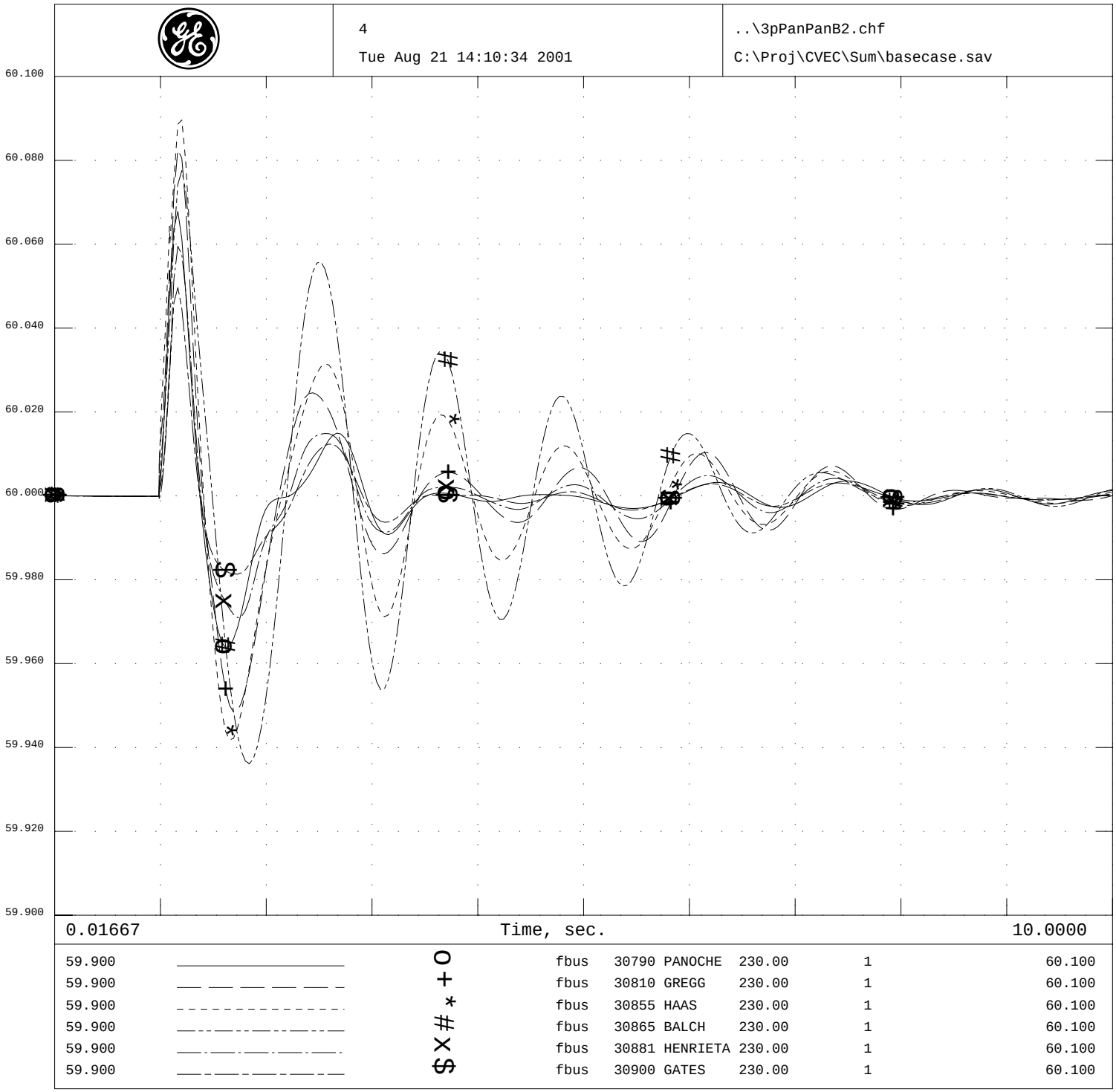
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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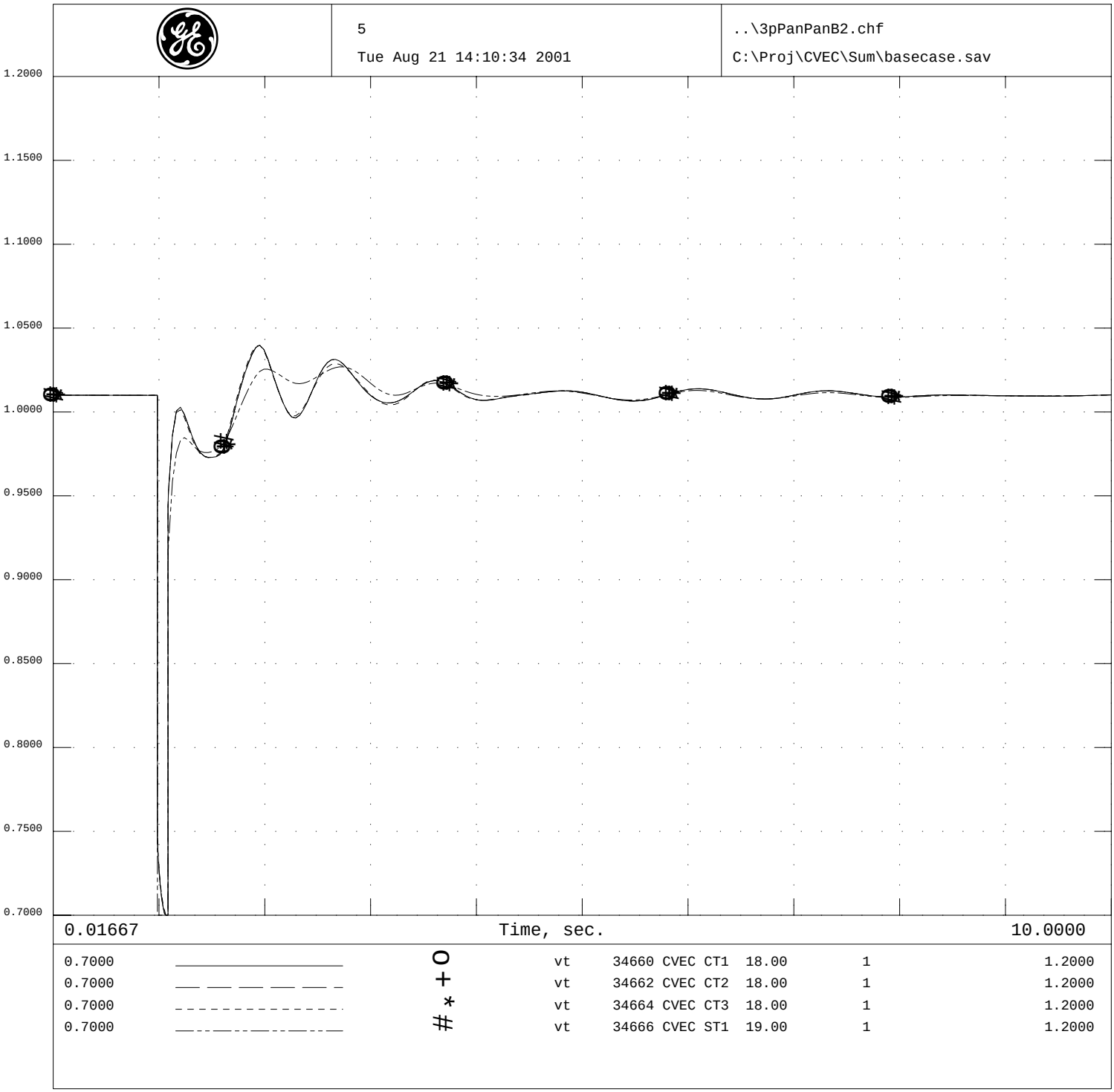

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2004 Summer Peak Base Case
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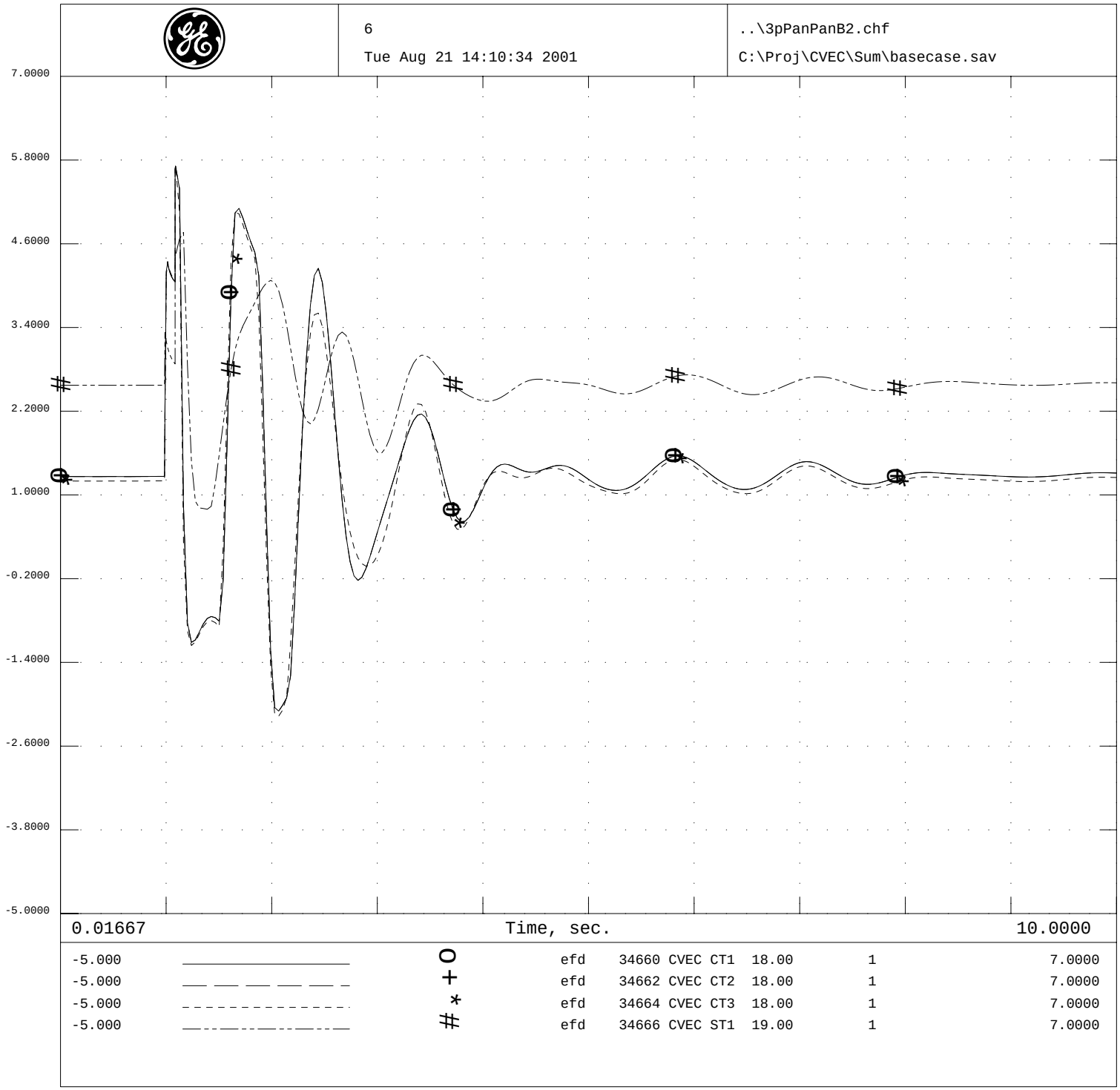
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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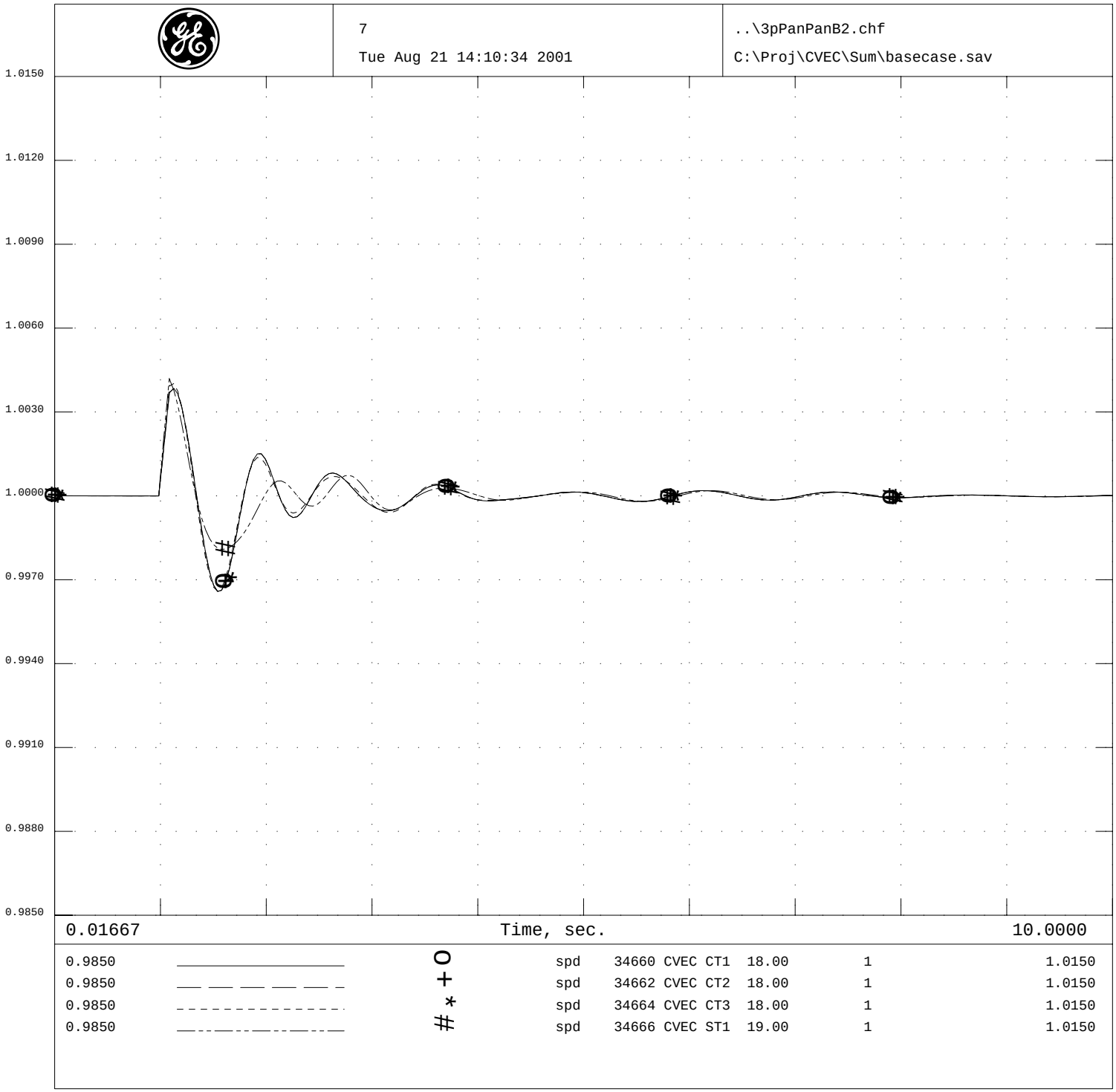
Calpine Corporation
Project Generator Field Voltages



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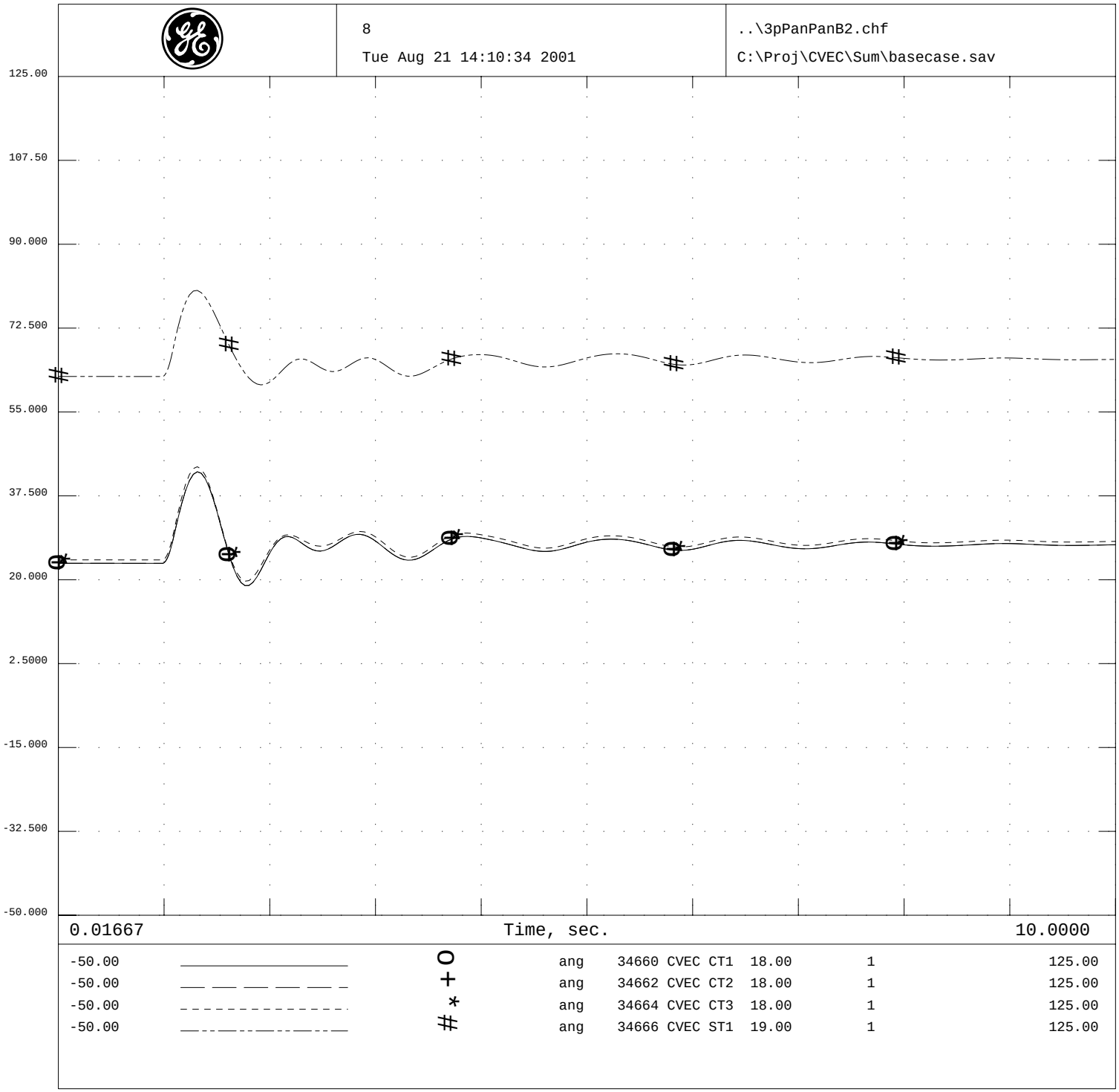
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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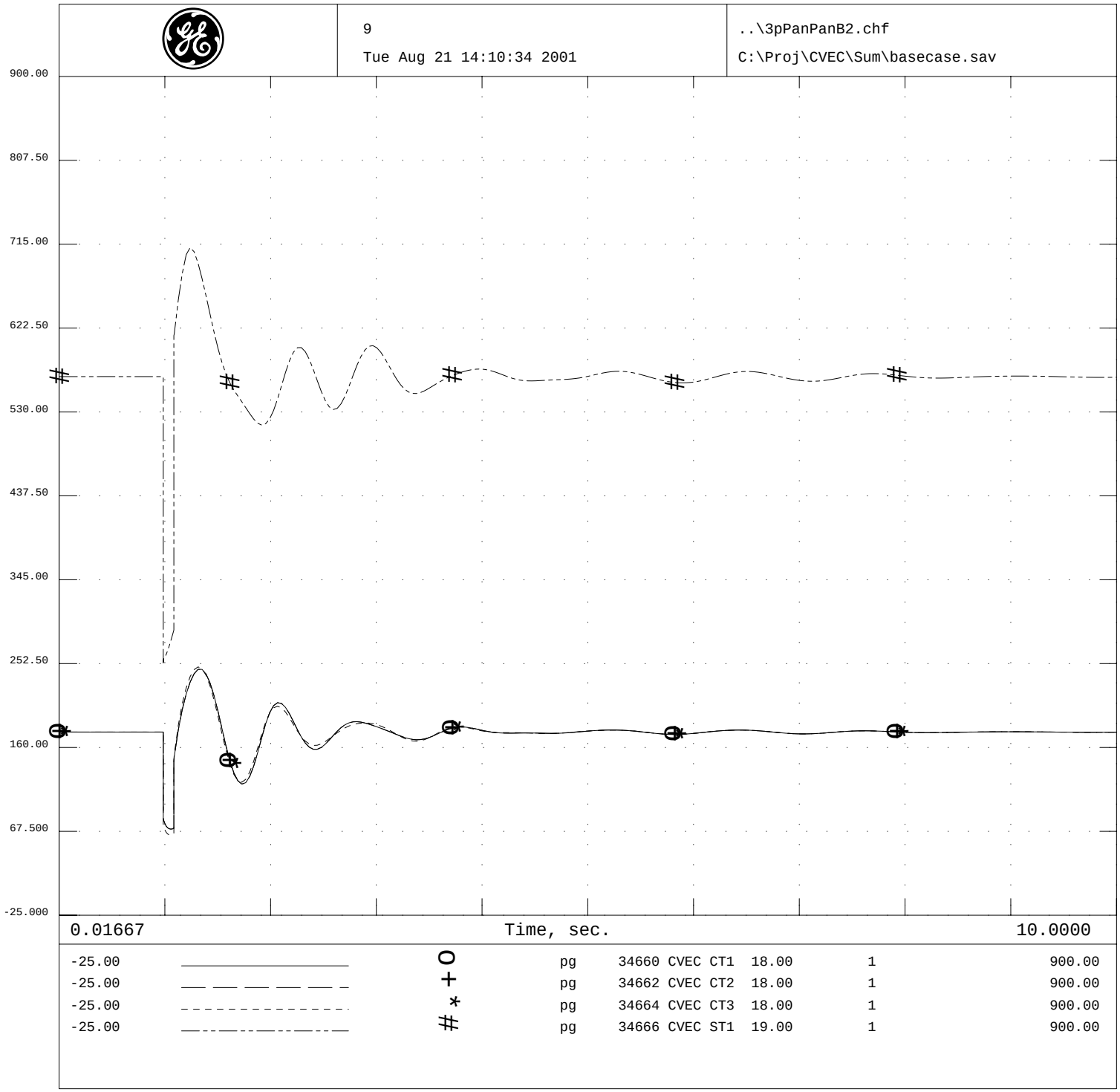
Calpine Corporation
Project Generator Rotor Angle



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Calpine Corporation
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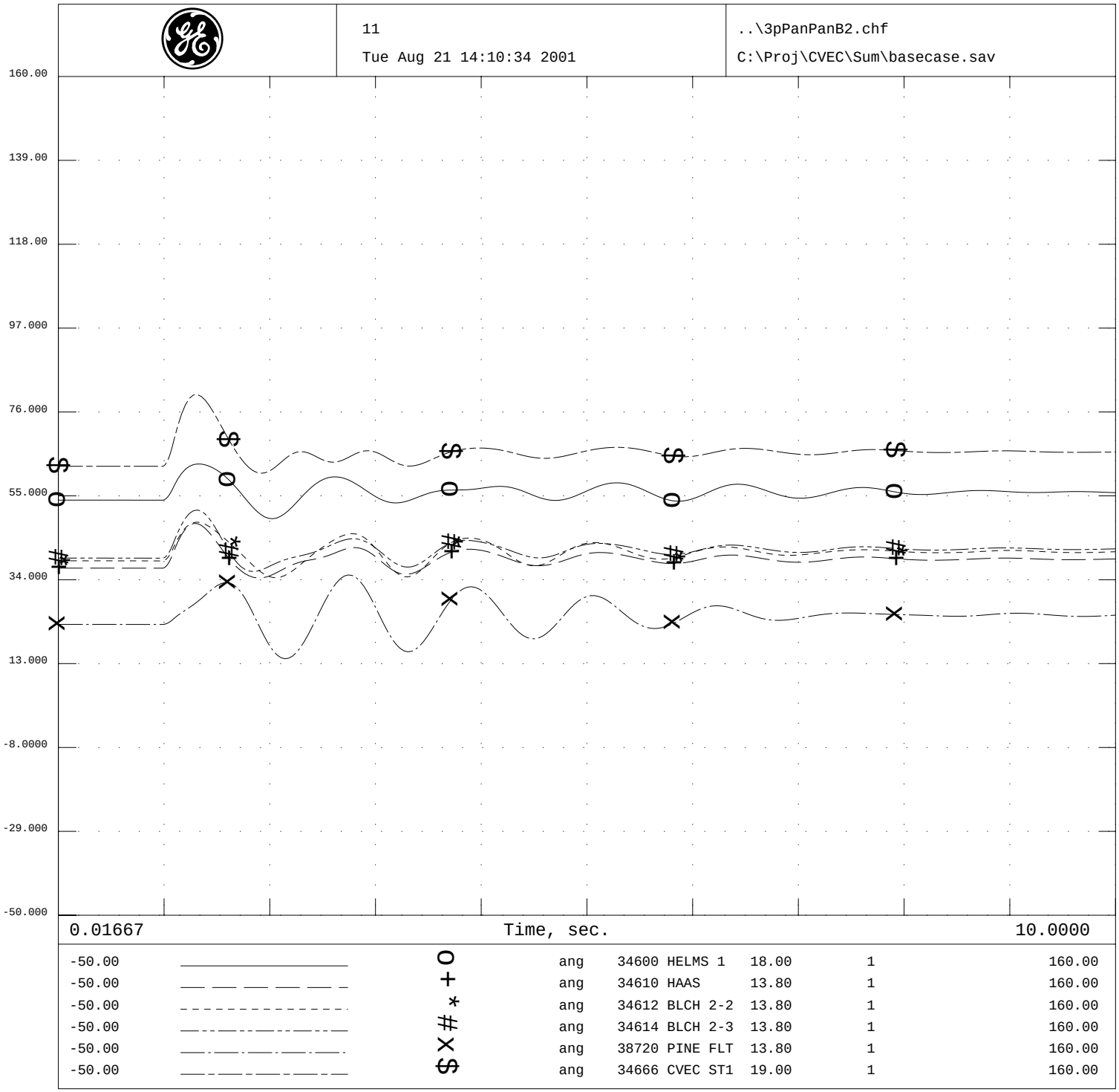

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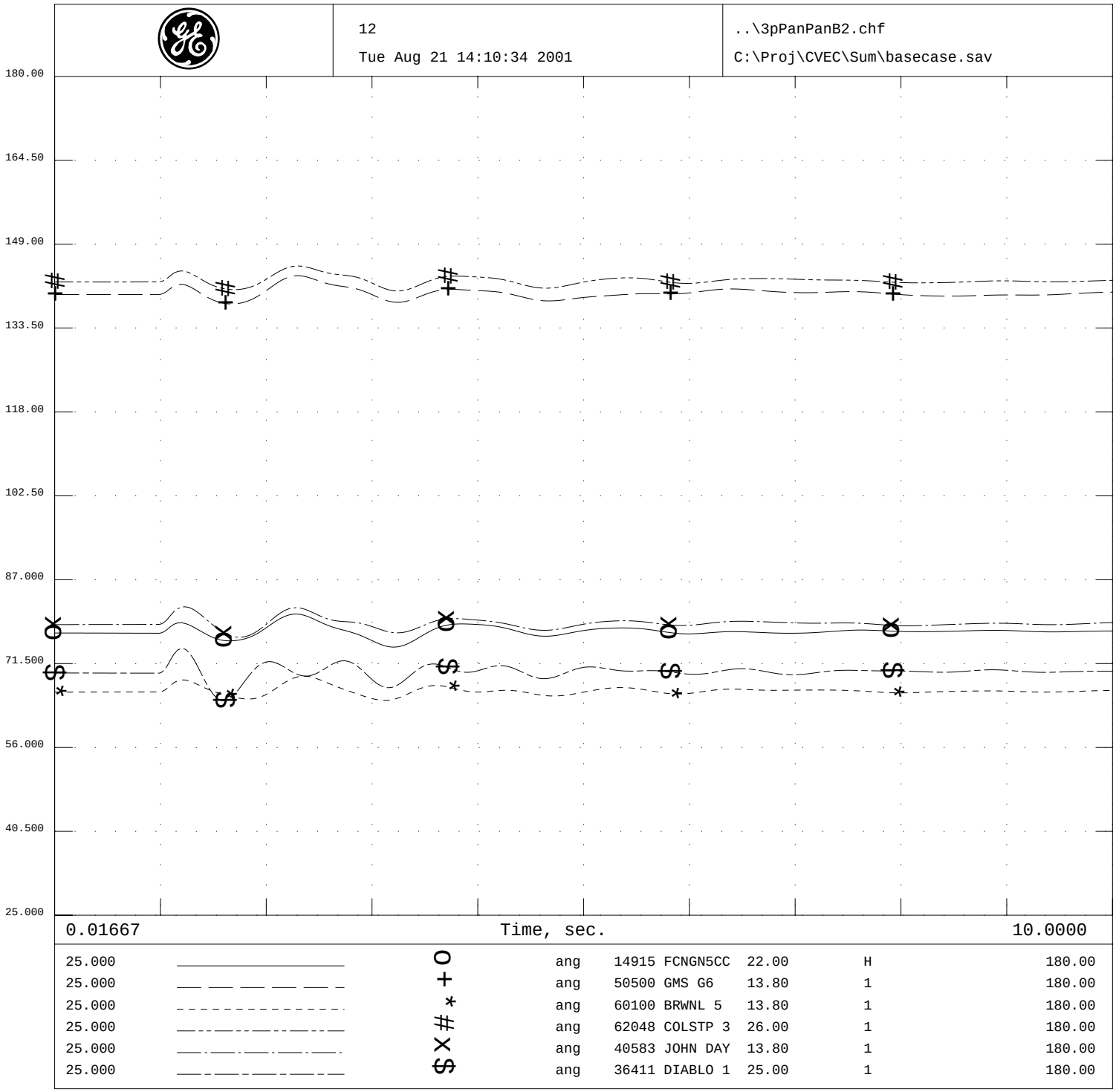

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Calpine Corporation
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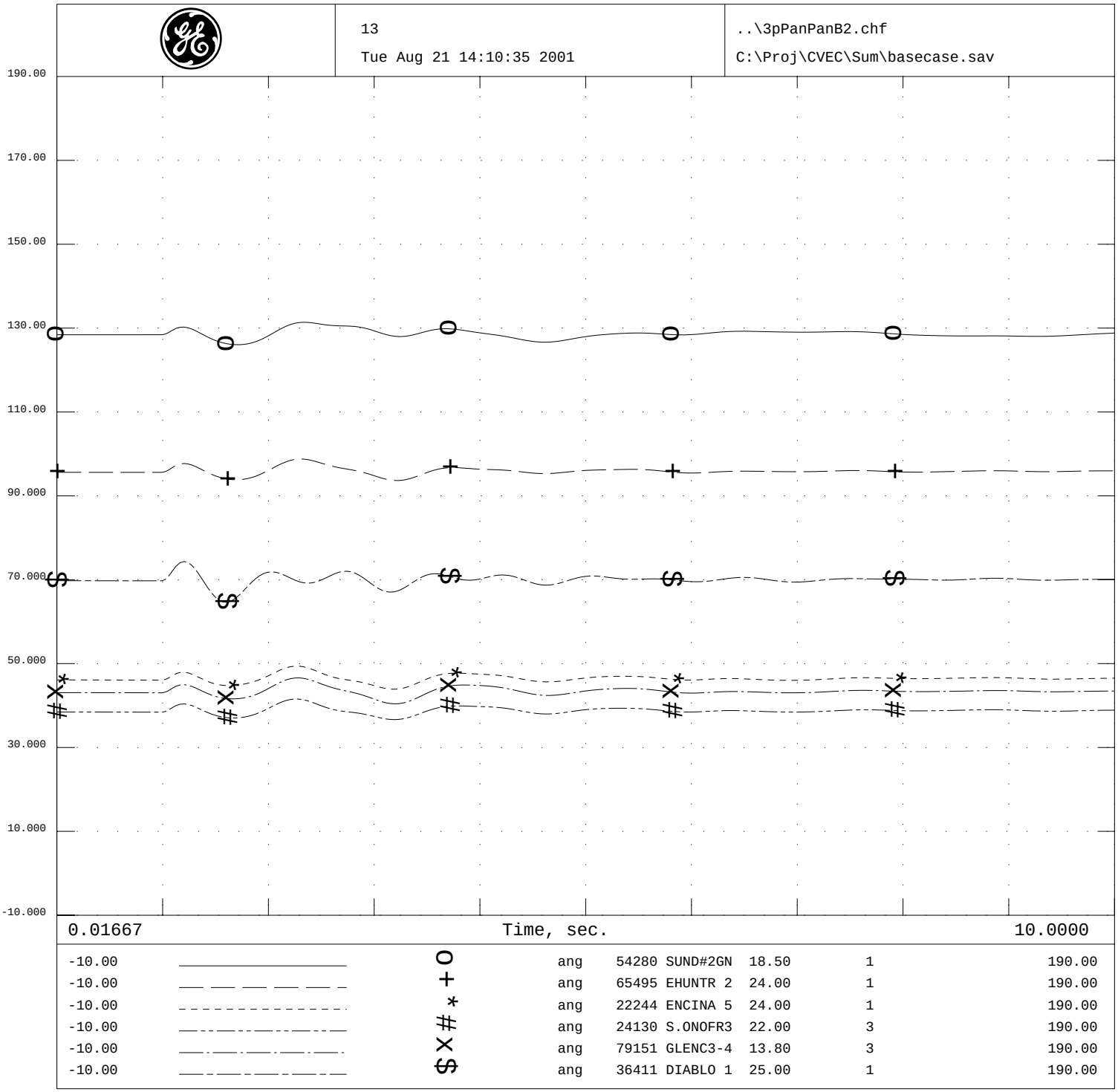

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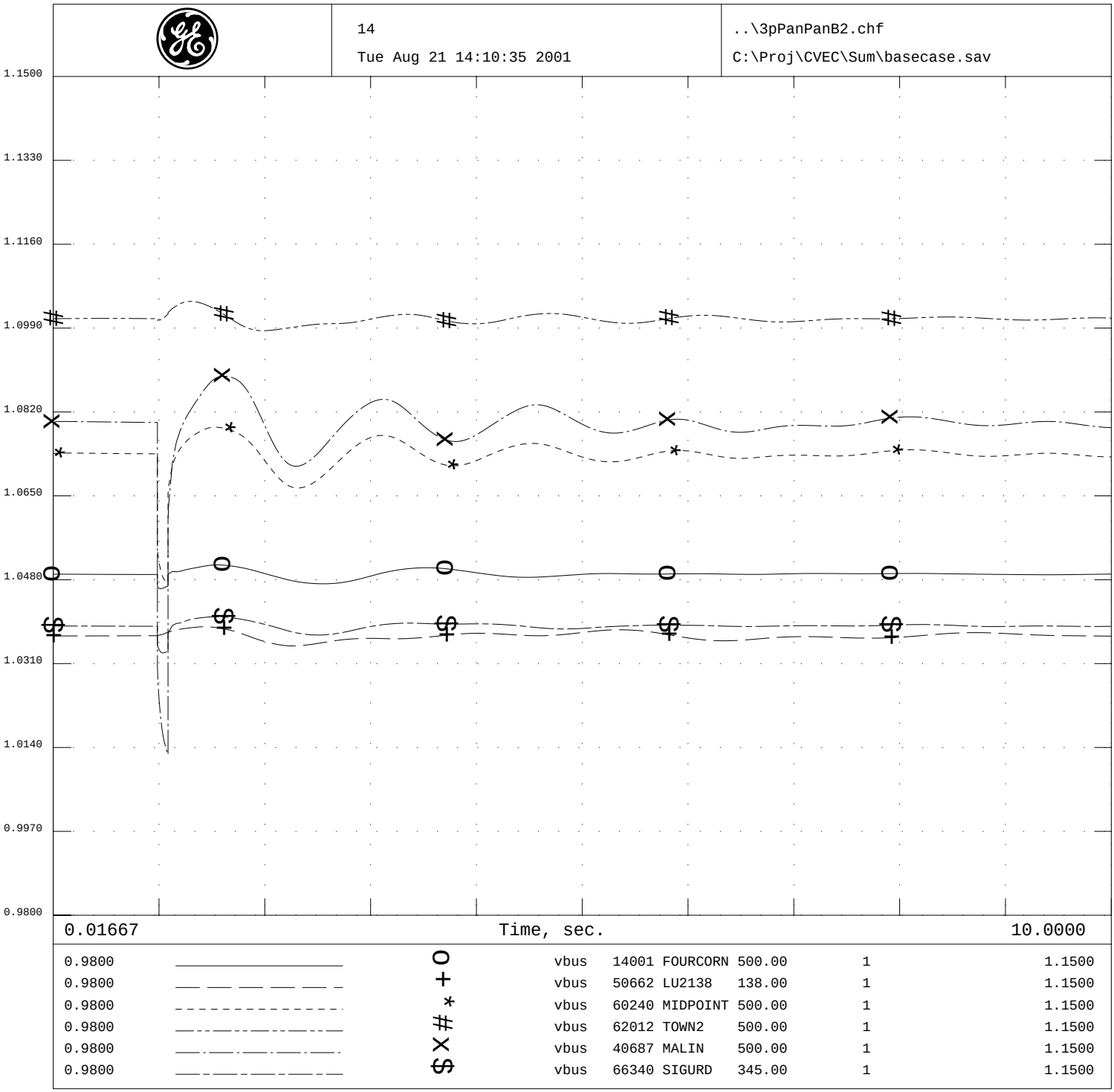

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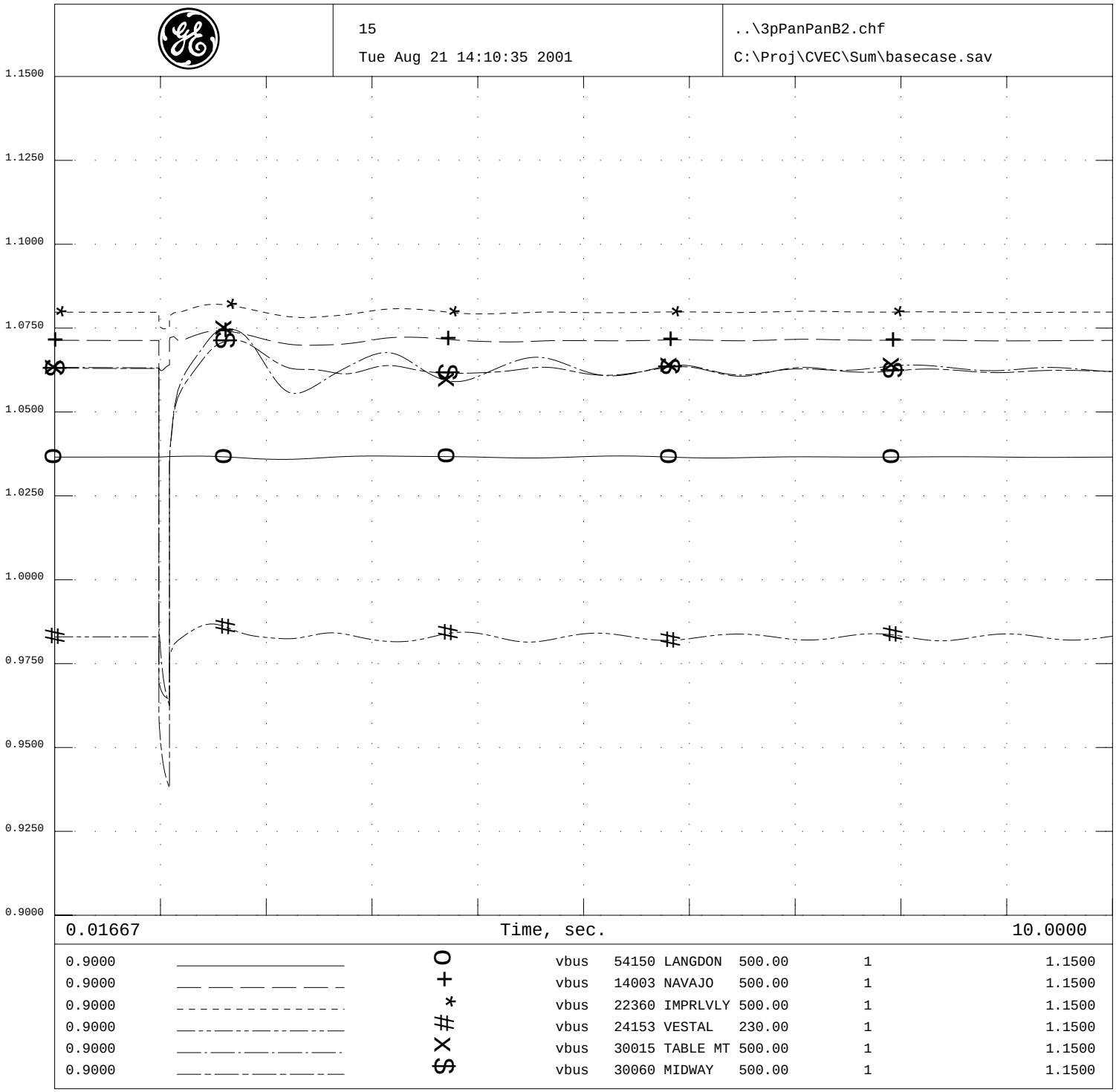

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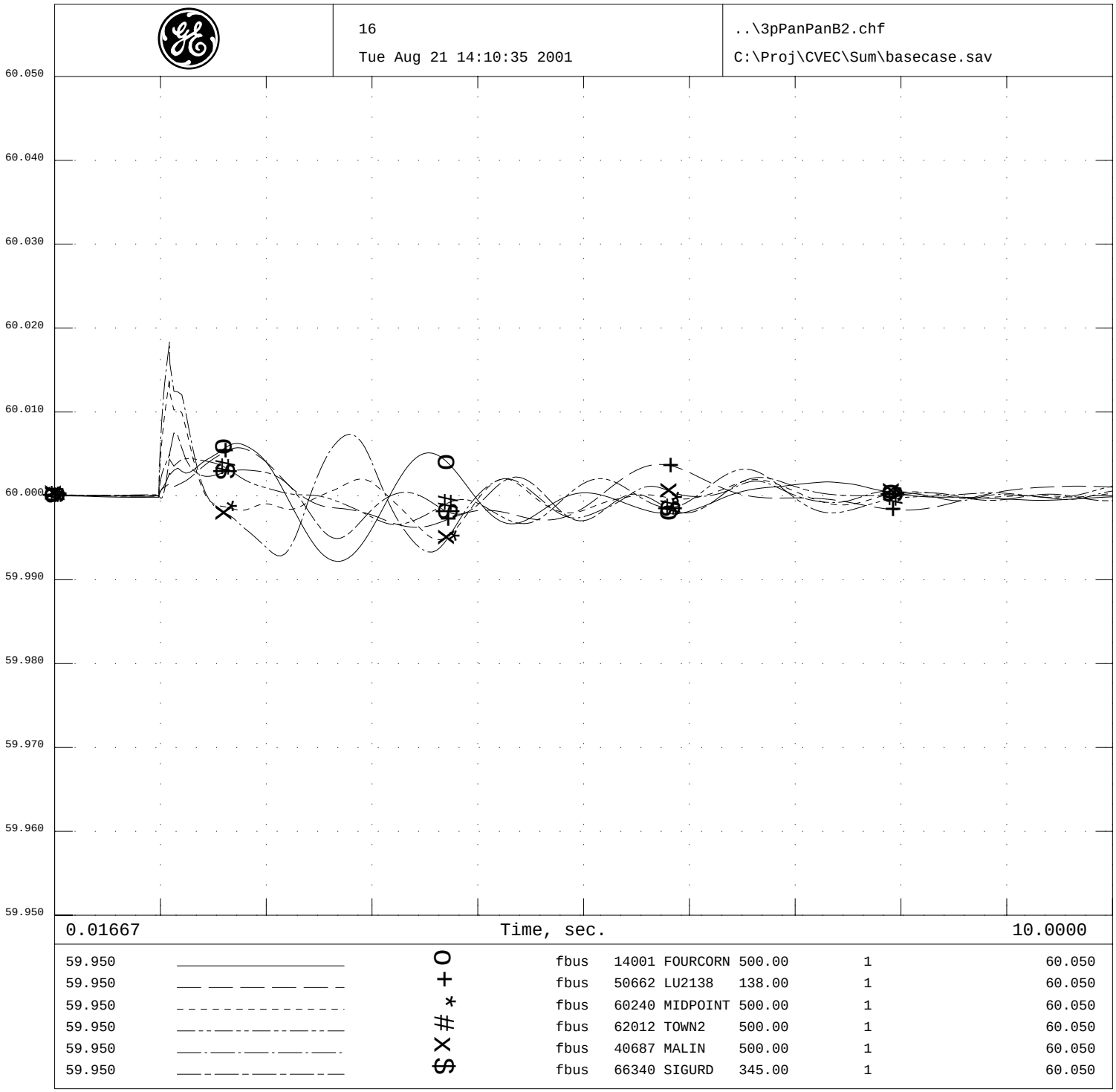

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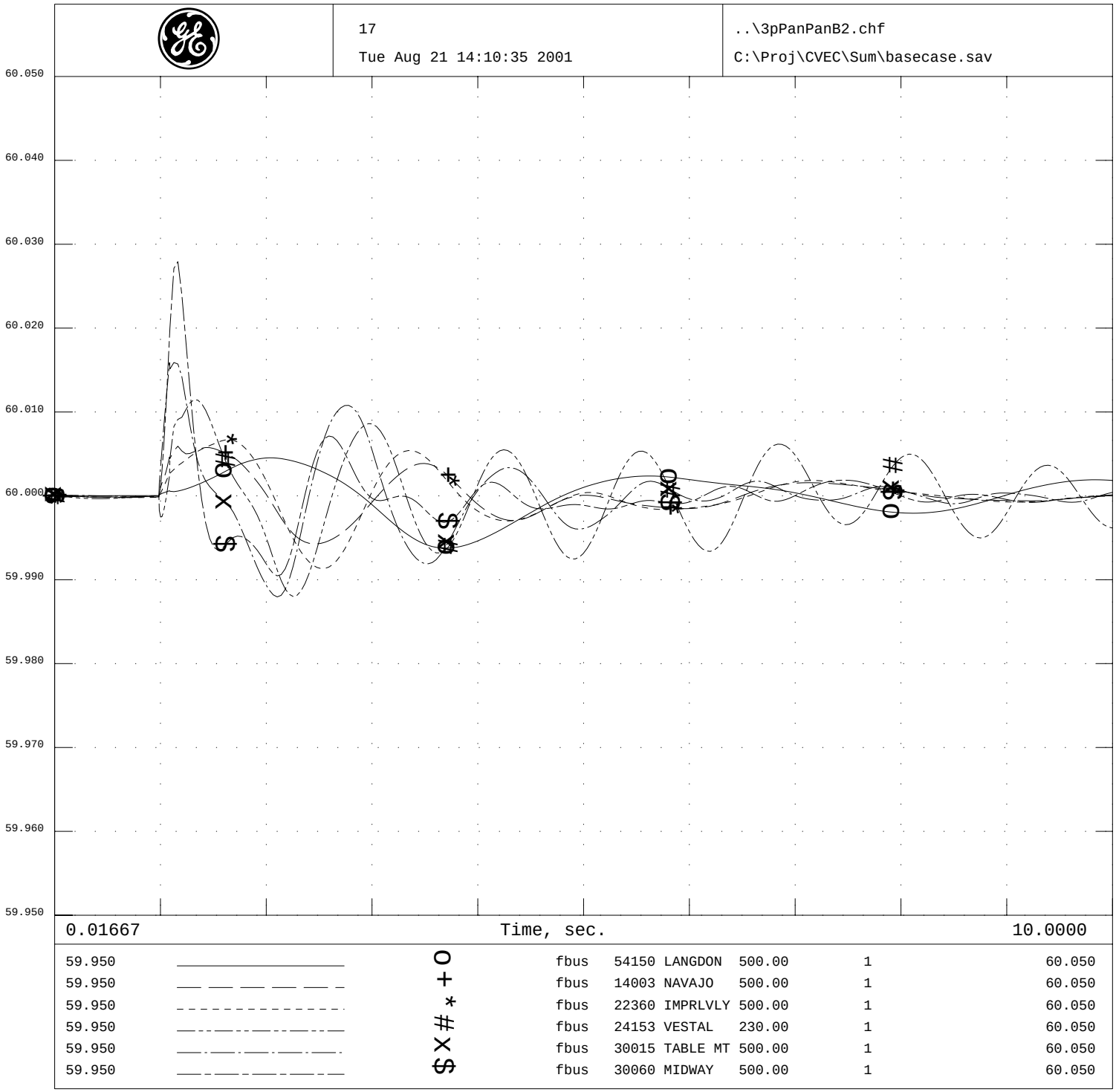

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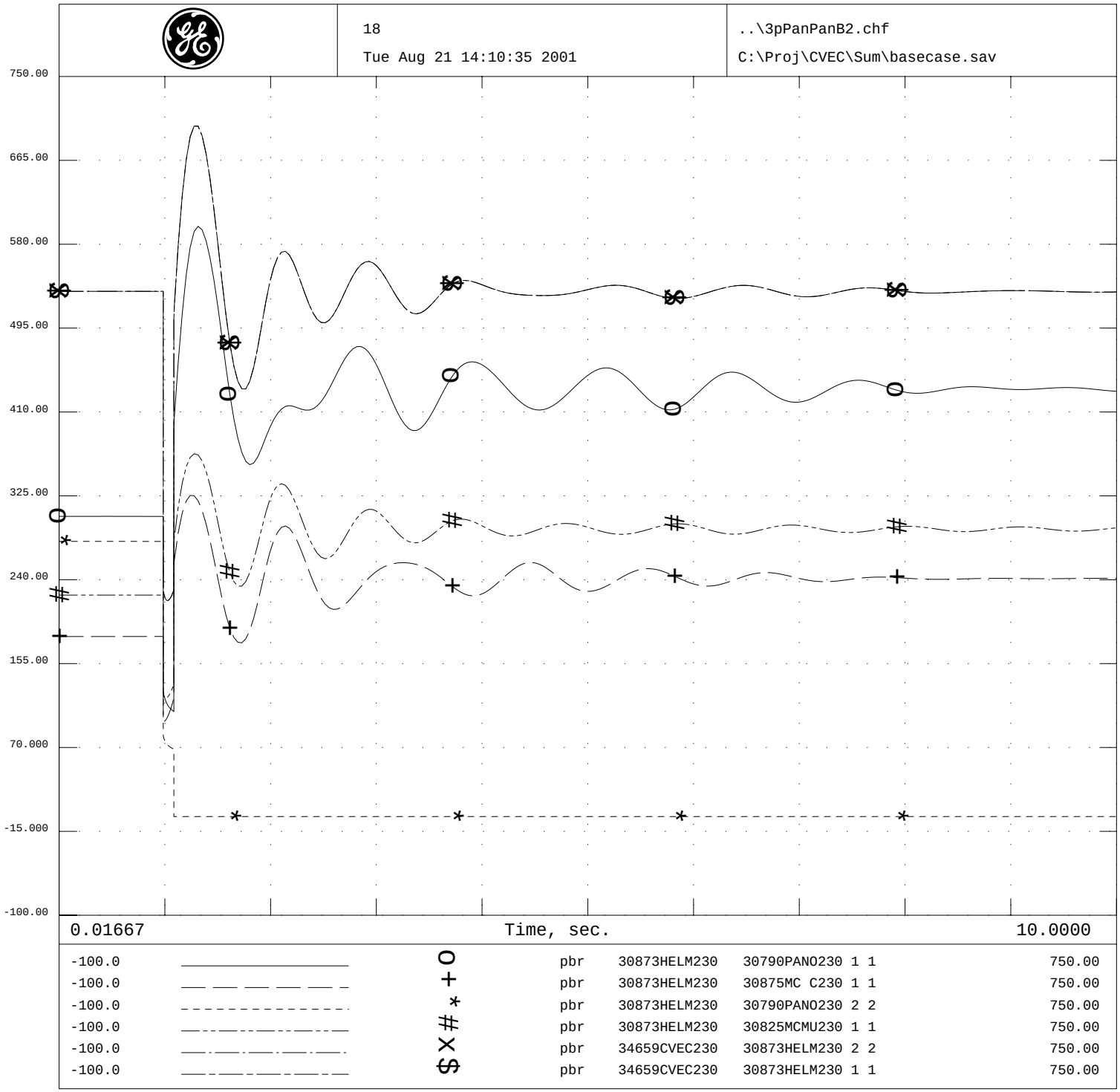

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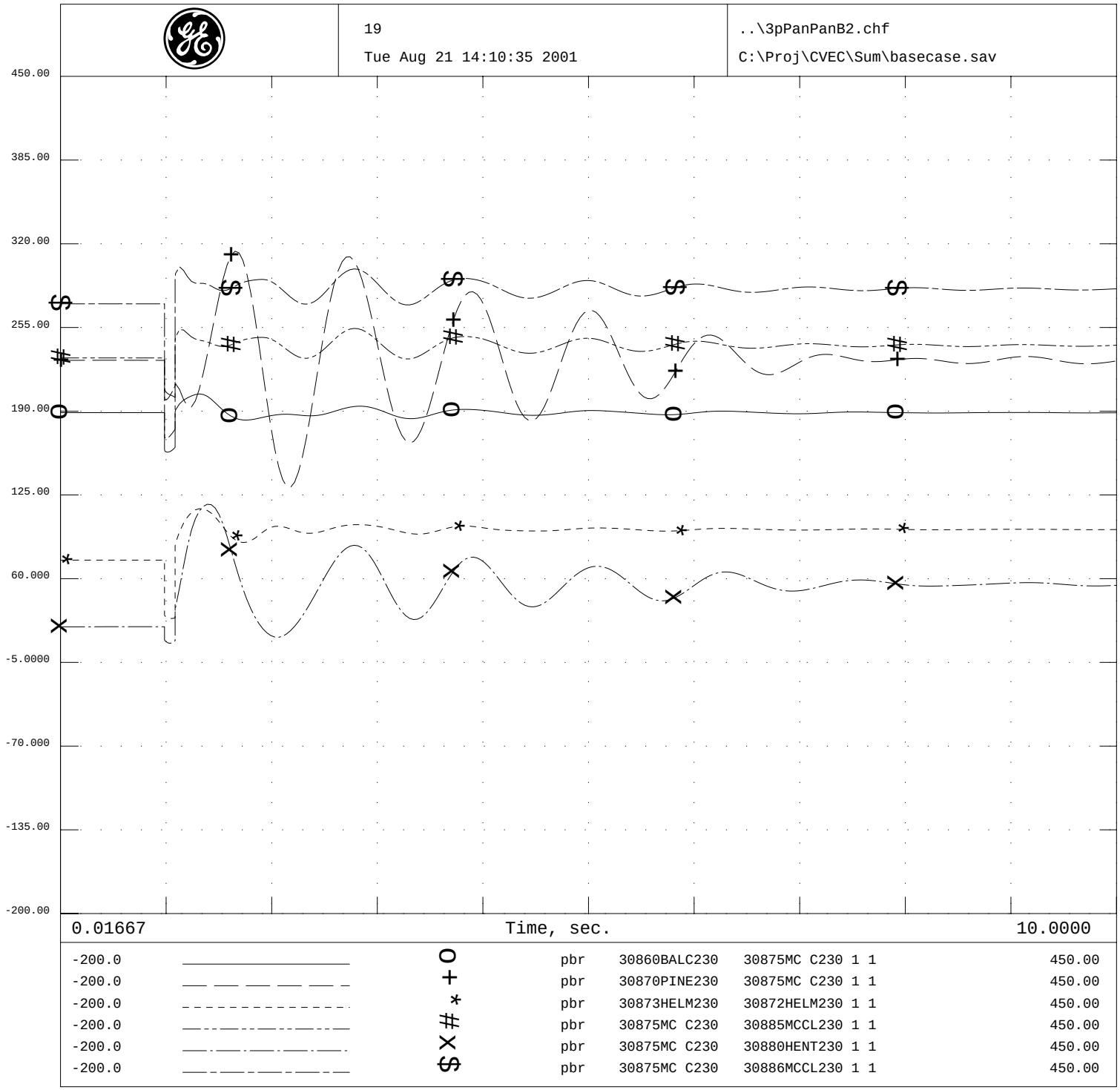

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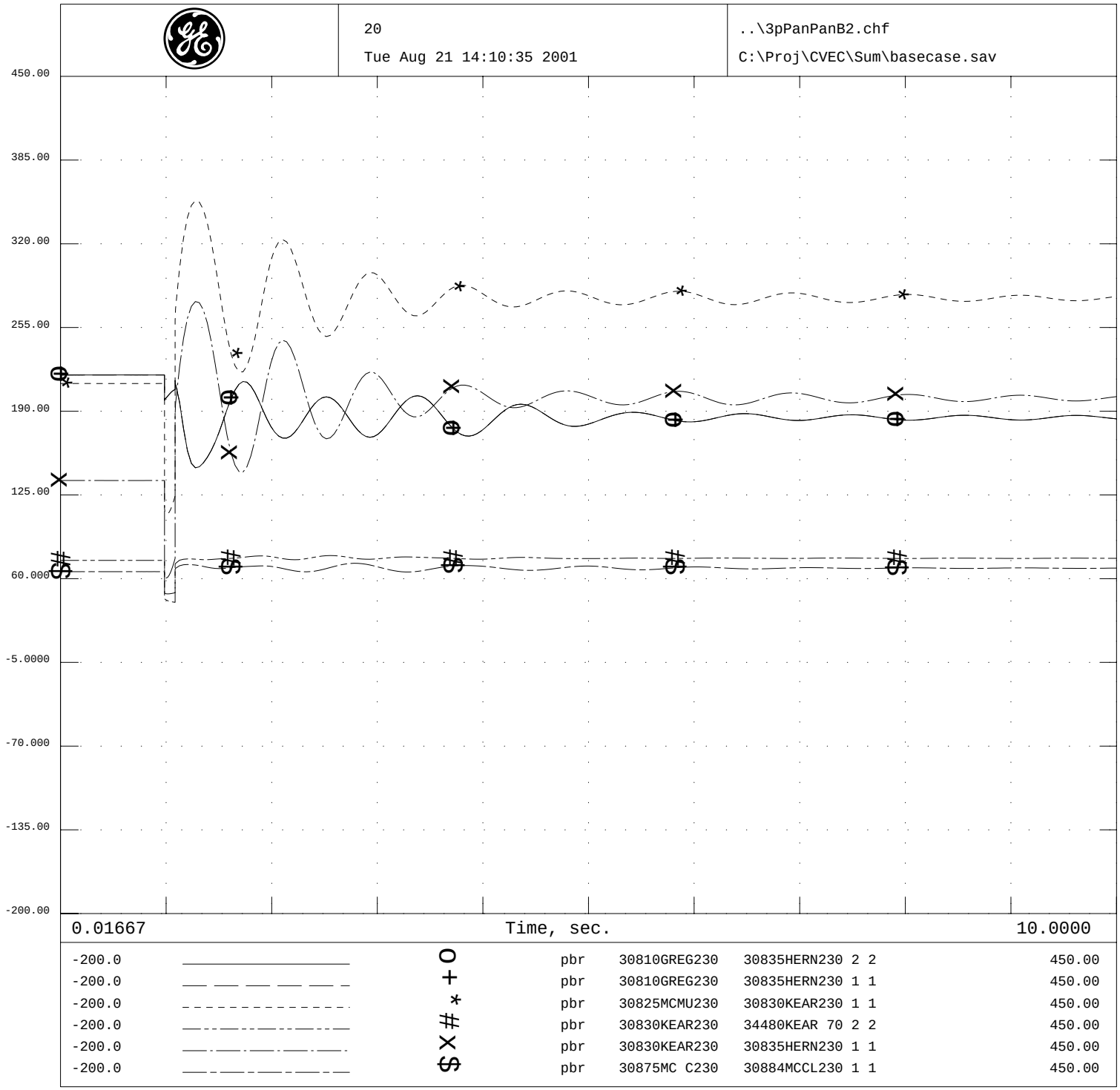

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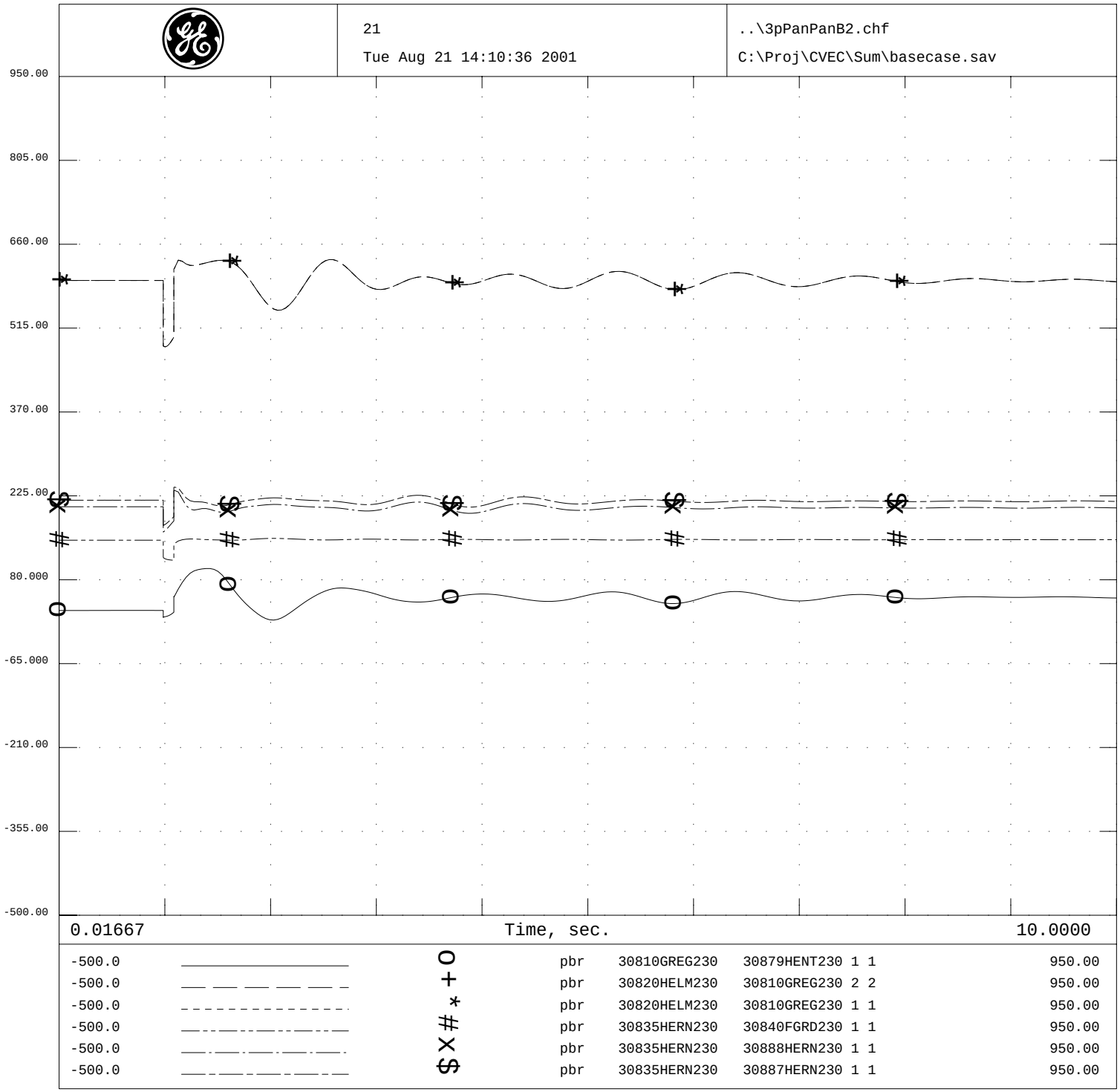

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Calpine Corporation
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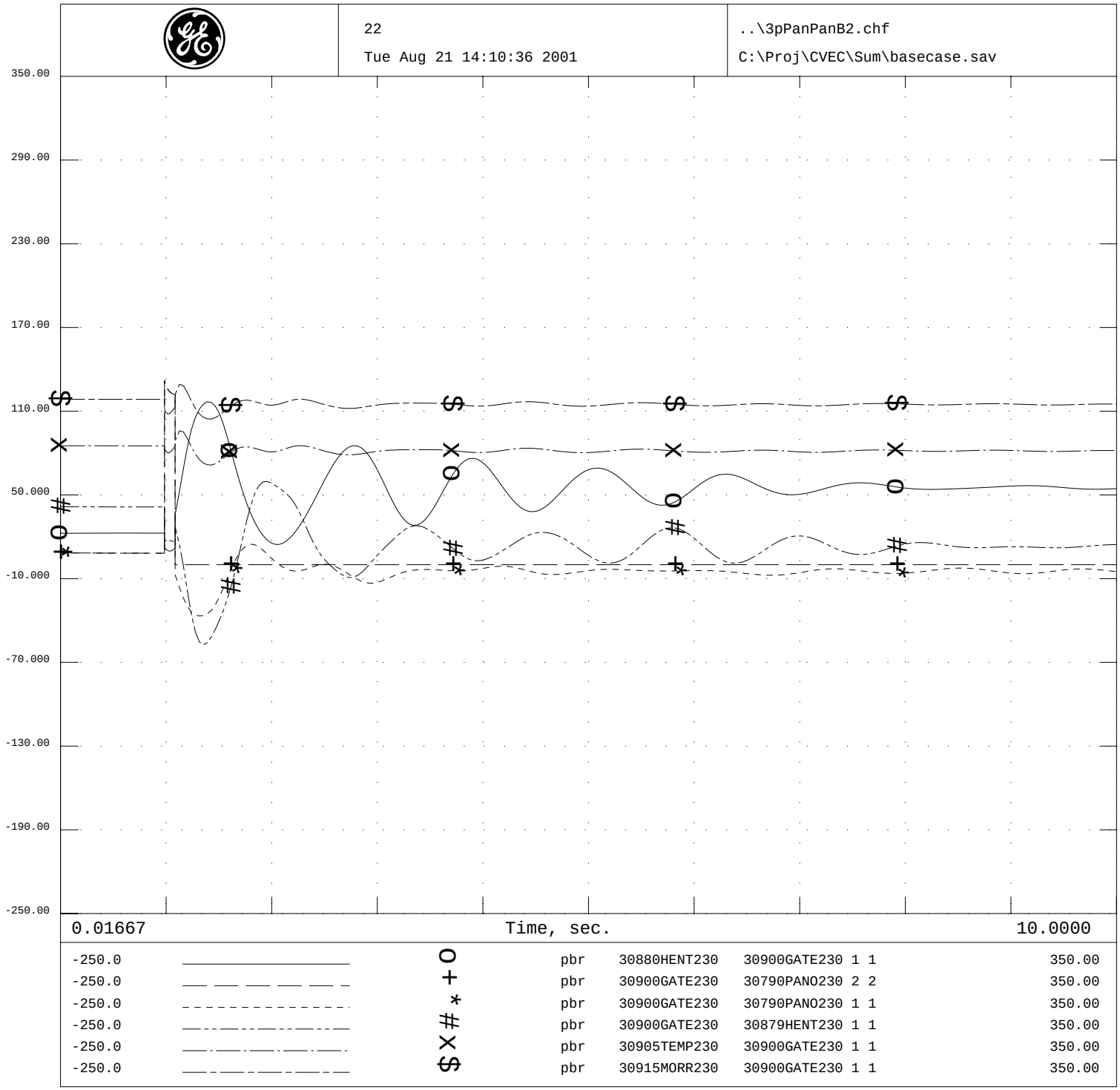
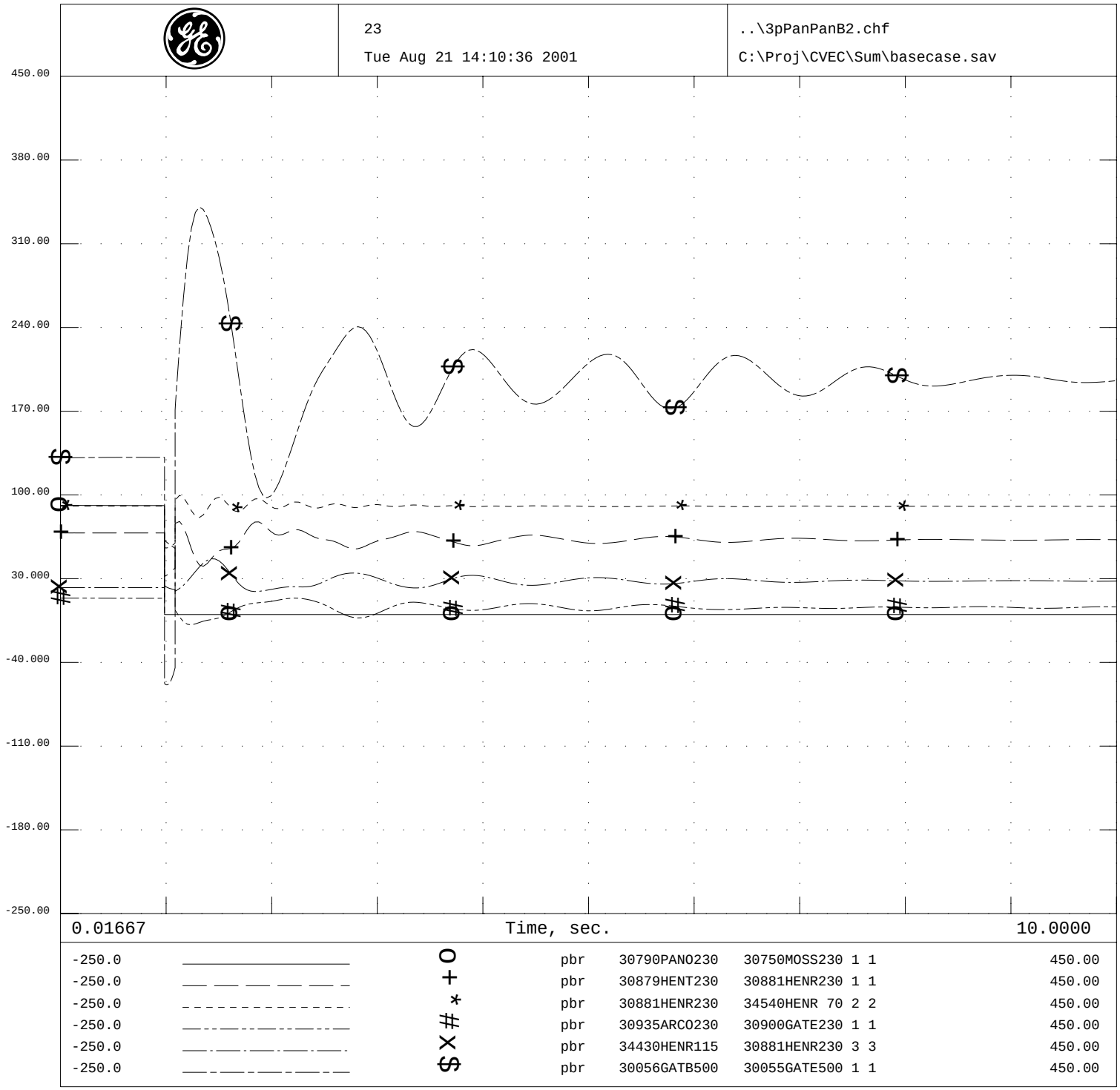


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Panoche 230kV Bus #2 Outage
3 phase 6 cycle fault at Panoche 230kV bus and clear bus #2

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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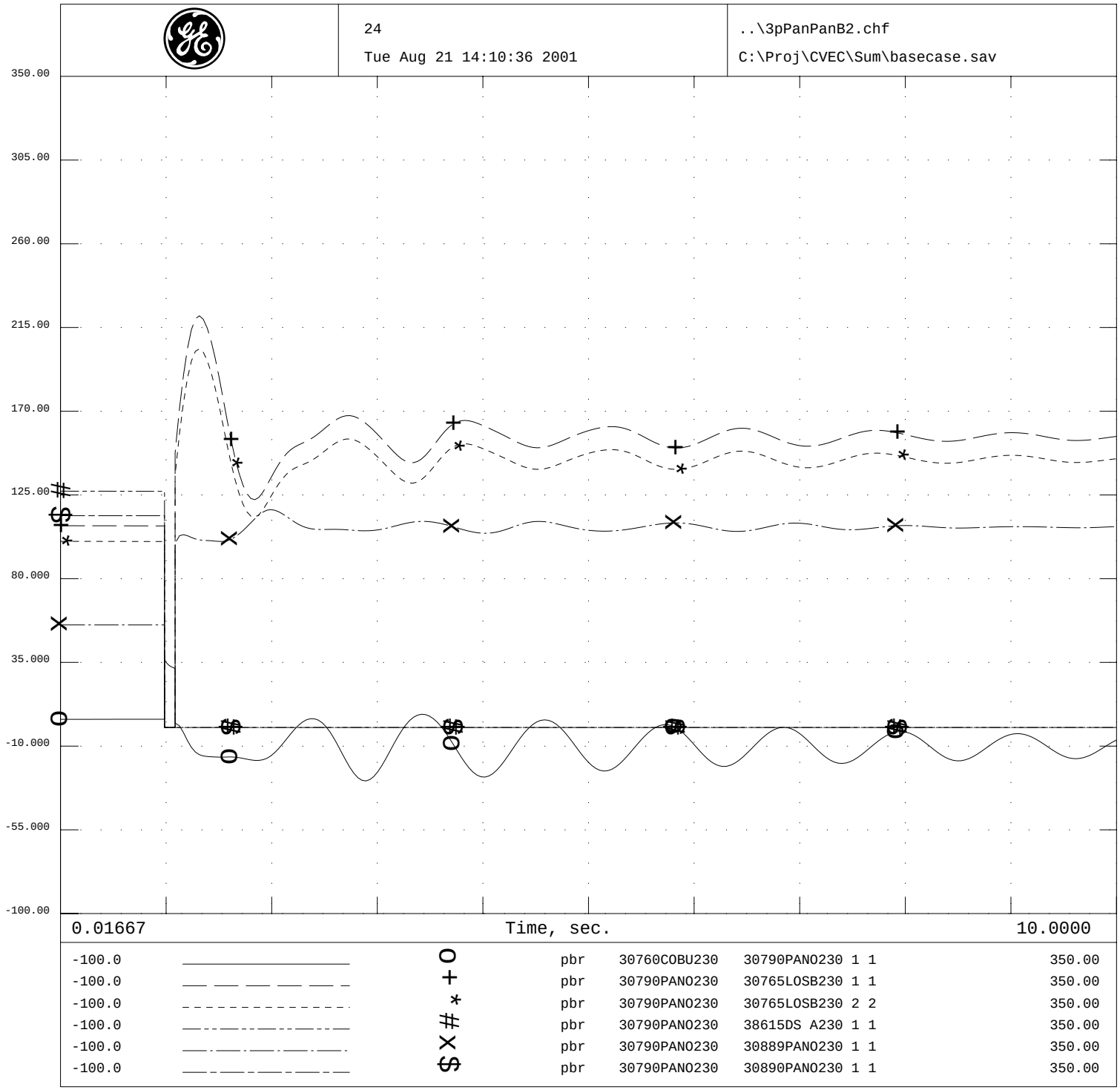

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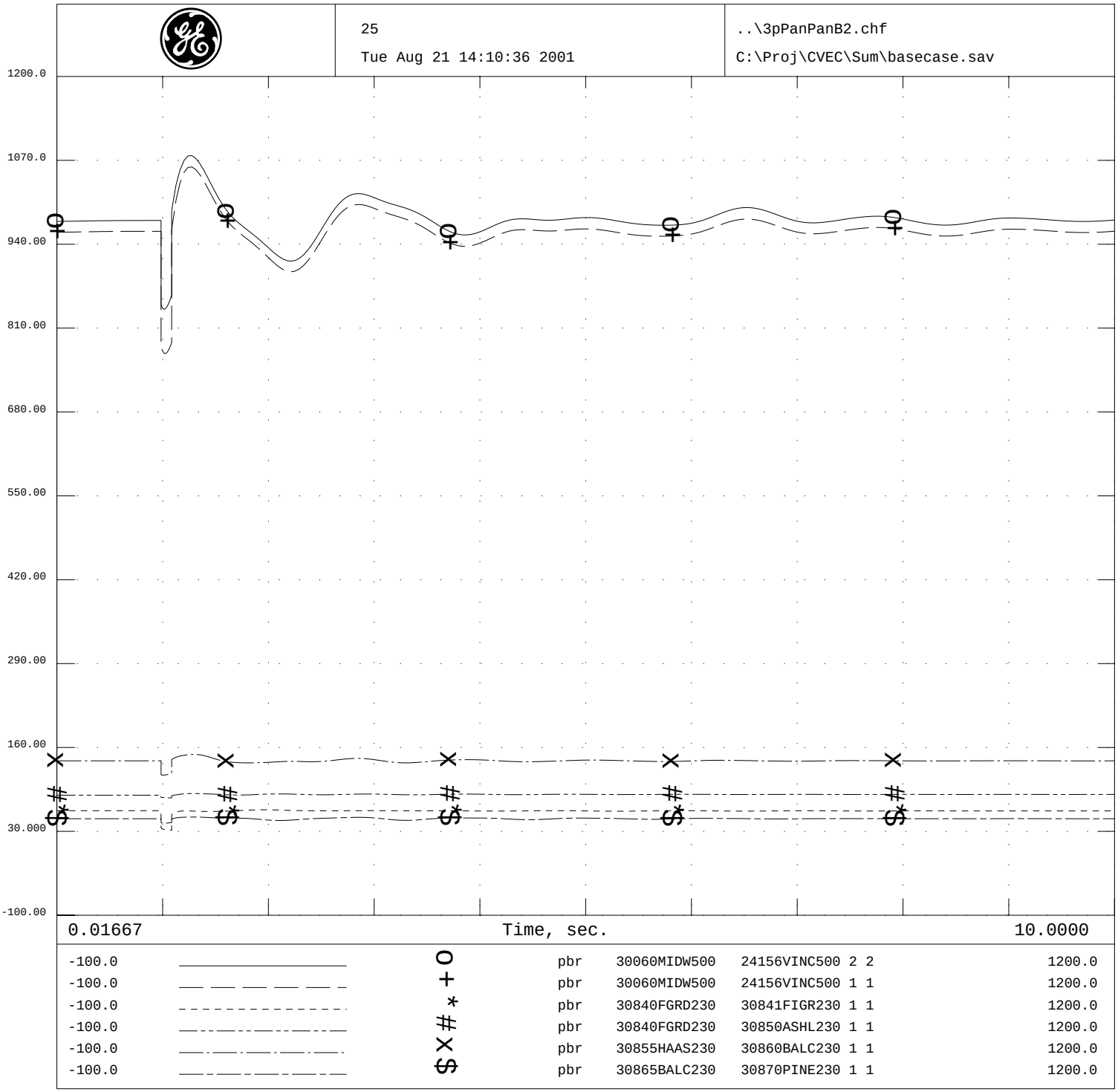

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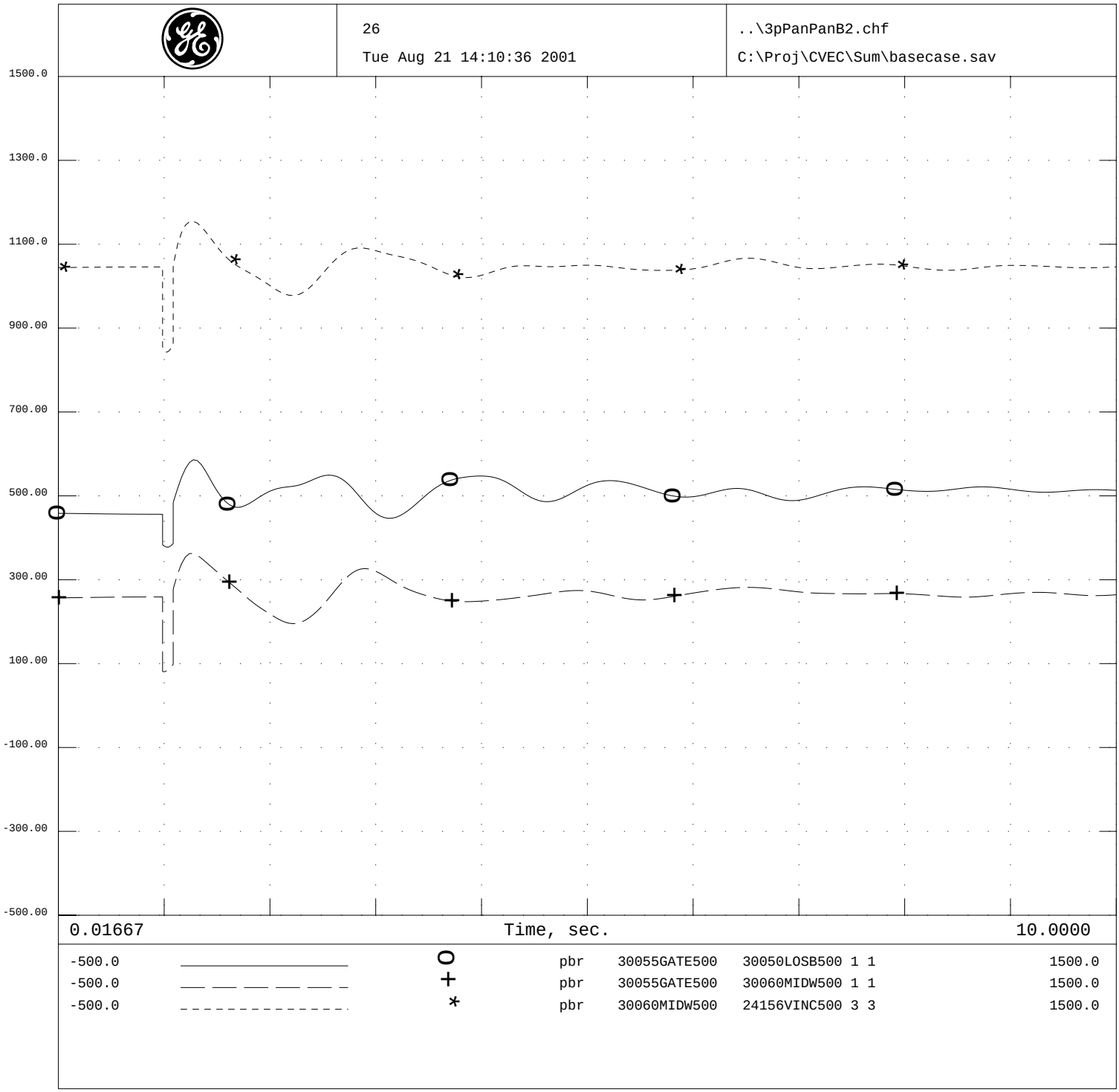

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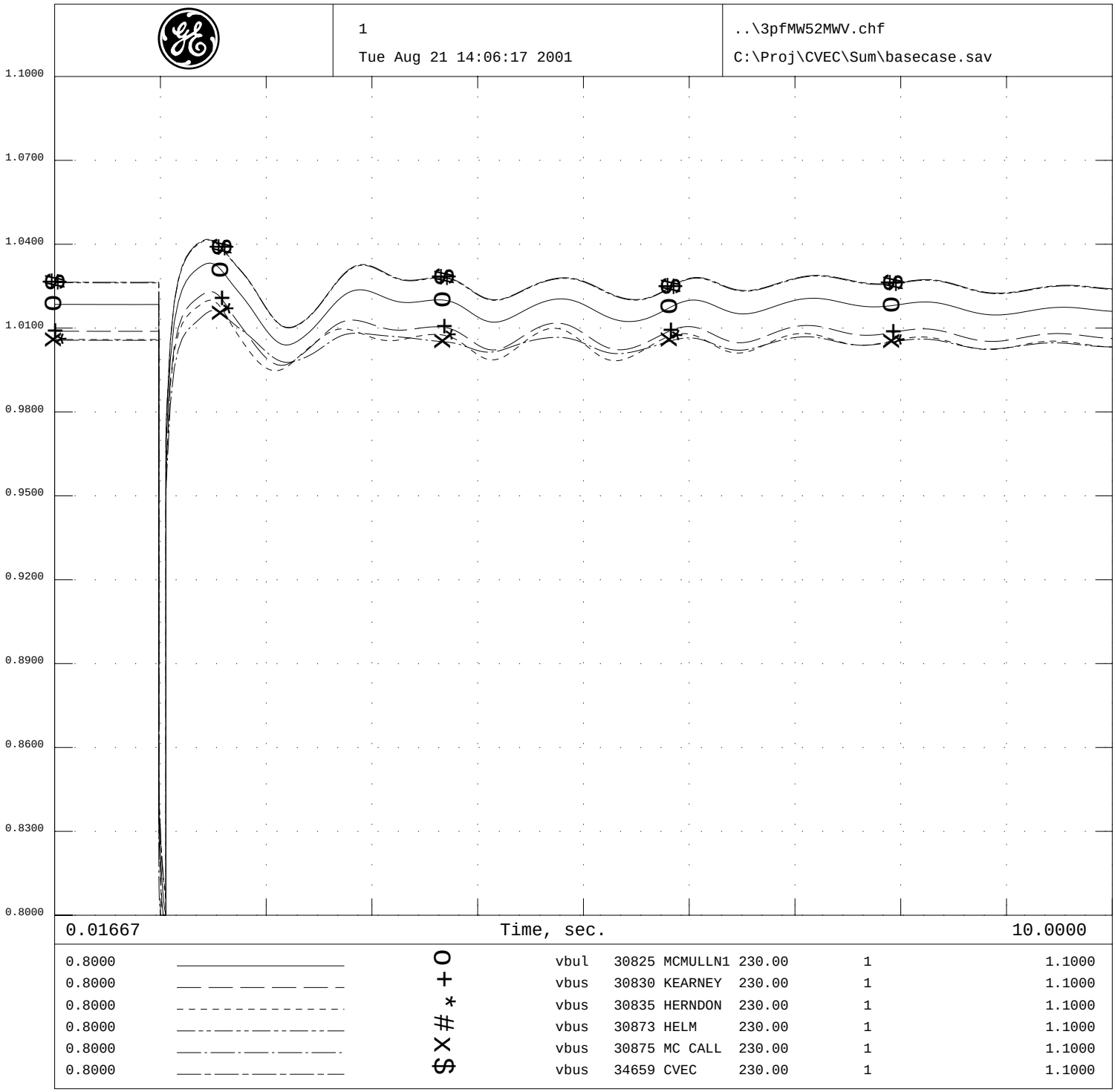
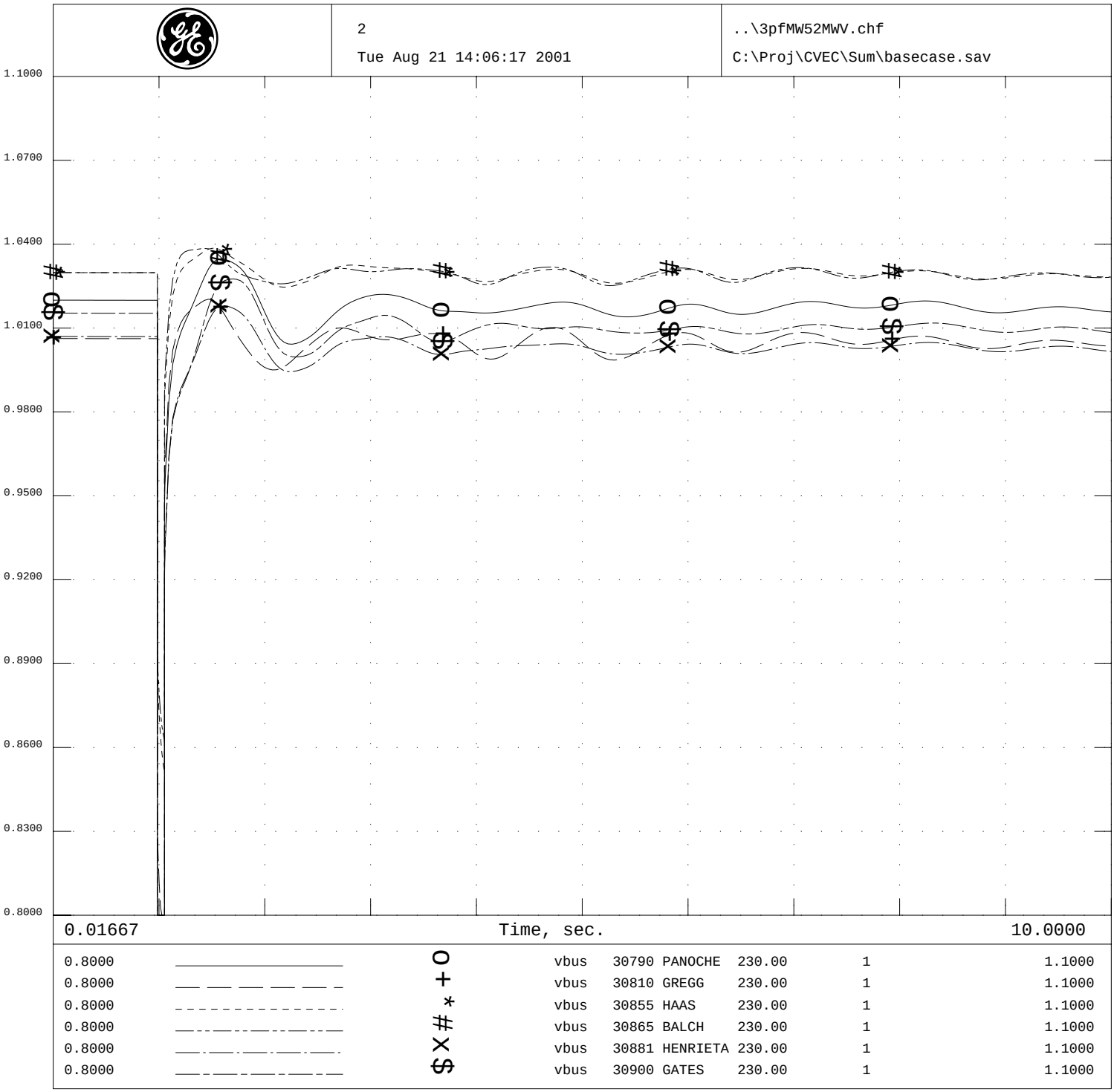


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Summer Peak Base Case
CVEC @ 1100MW
Midway-Vincent 500kV Double Line Outage
3 phase 4 cycle fault at Midway 500 and trip two Midway-Vincent 500kV lines

Central Valley Energy Center
Calpine Corporation
Selected PG&E Transmission Bus Voltage Plots Adjacent to Fault



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2004 Summer Peak Base Case
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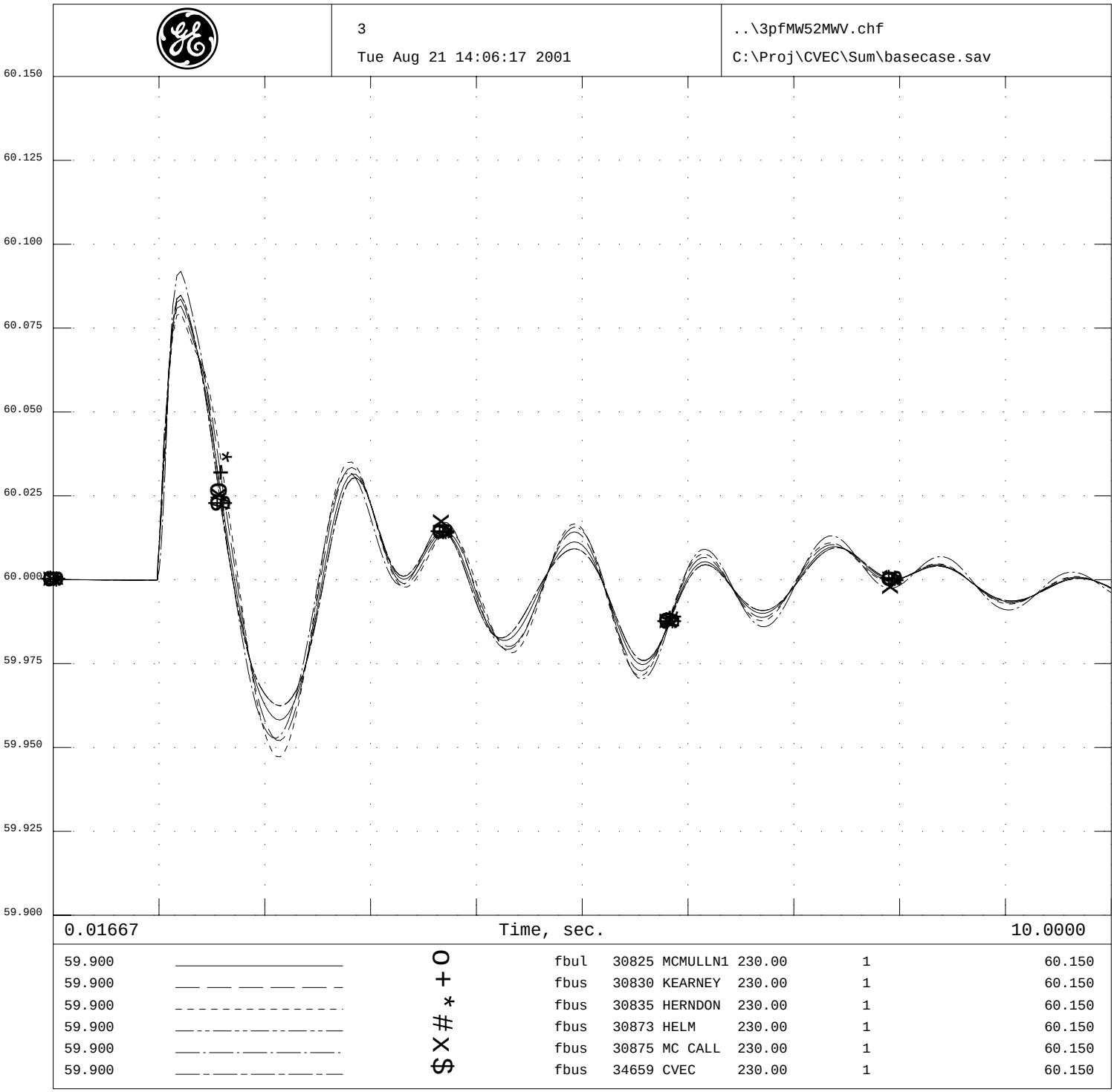

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2004 Summer Peak Base Case
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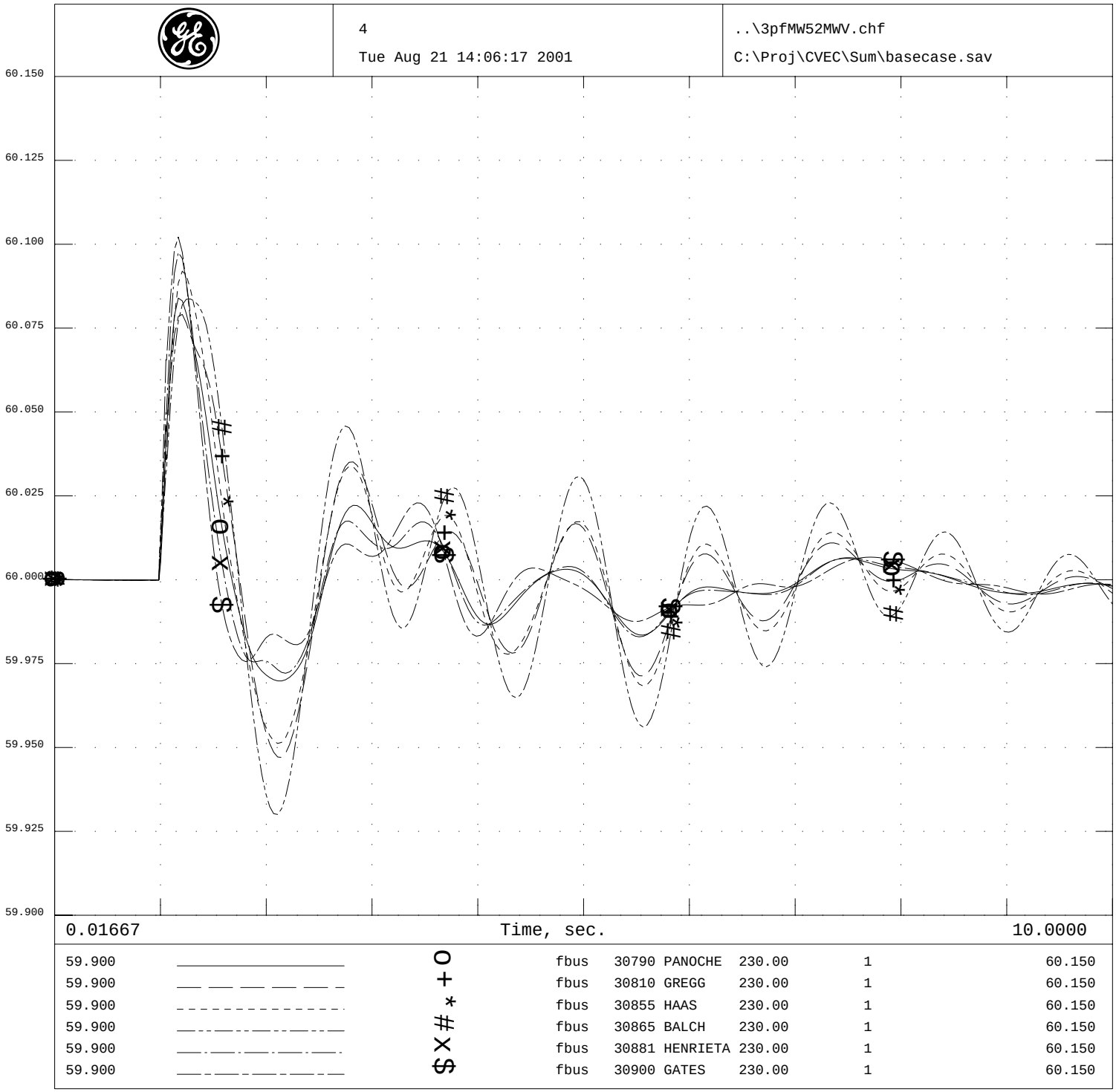
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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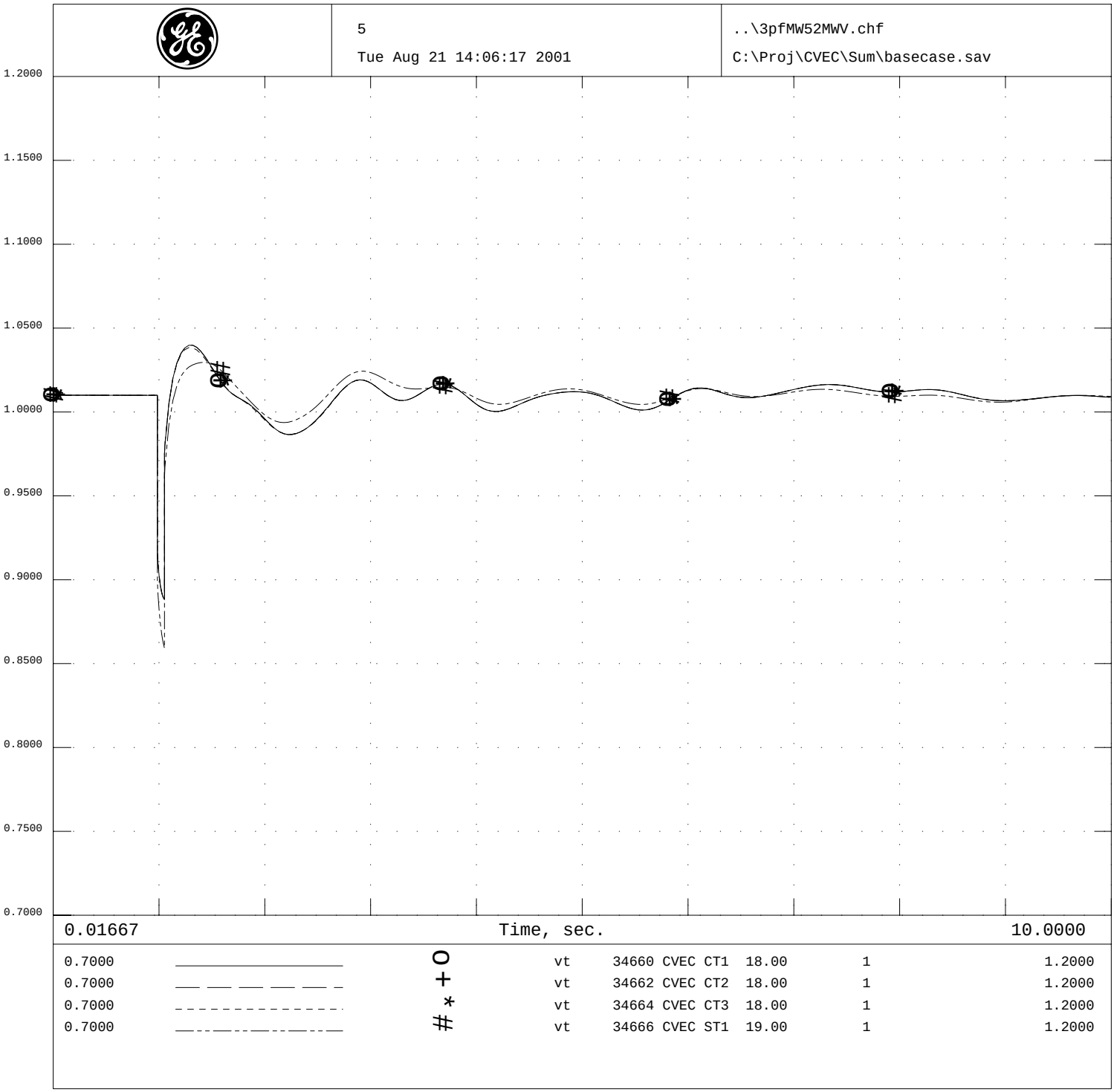

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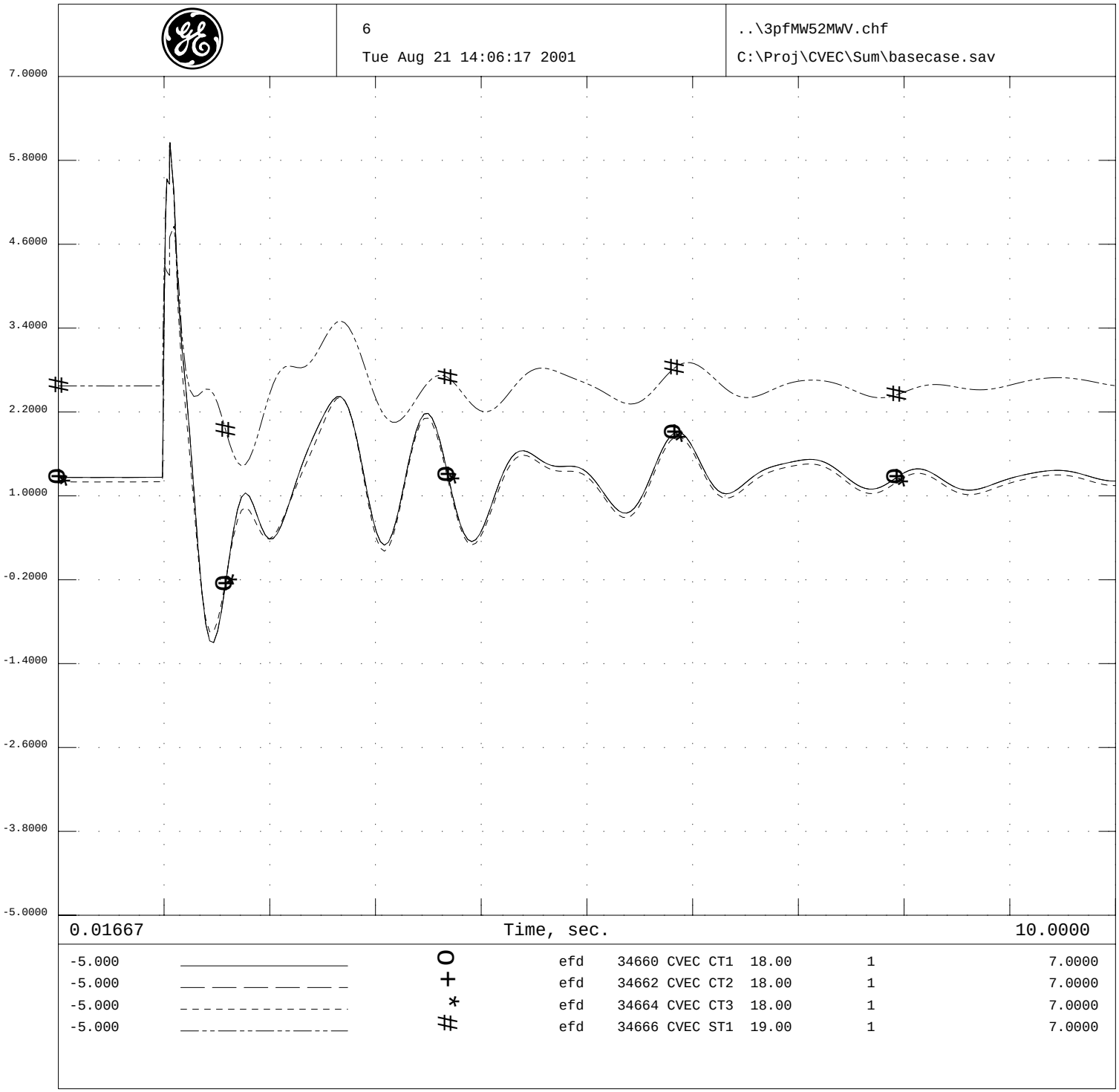
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Summer Peak Base Case
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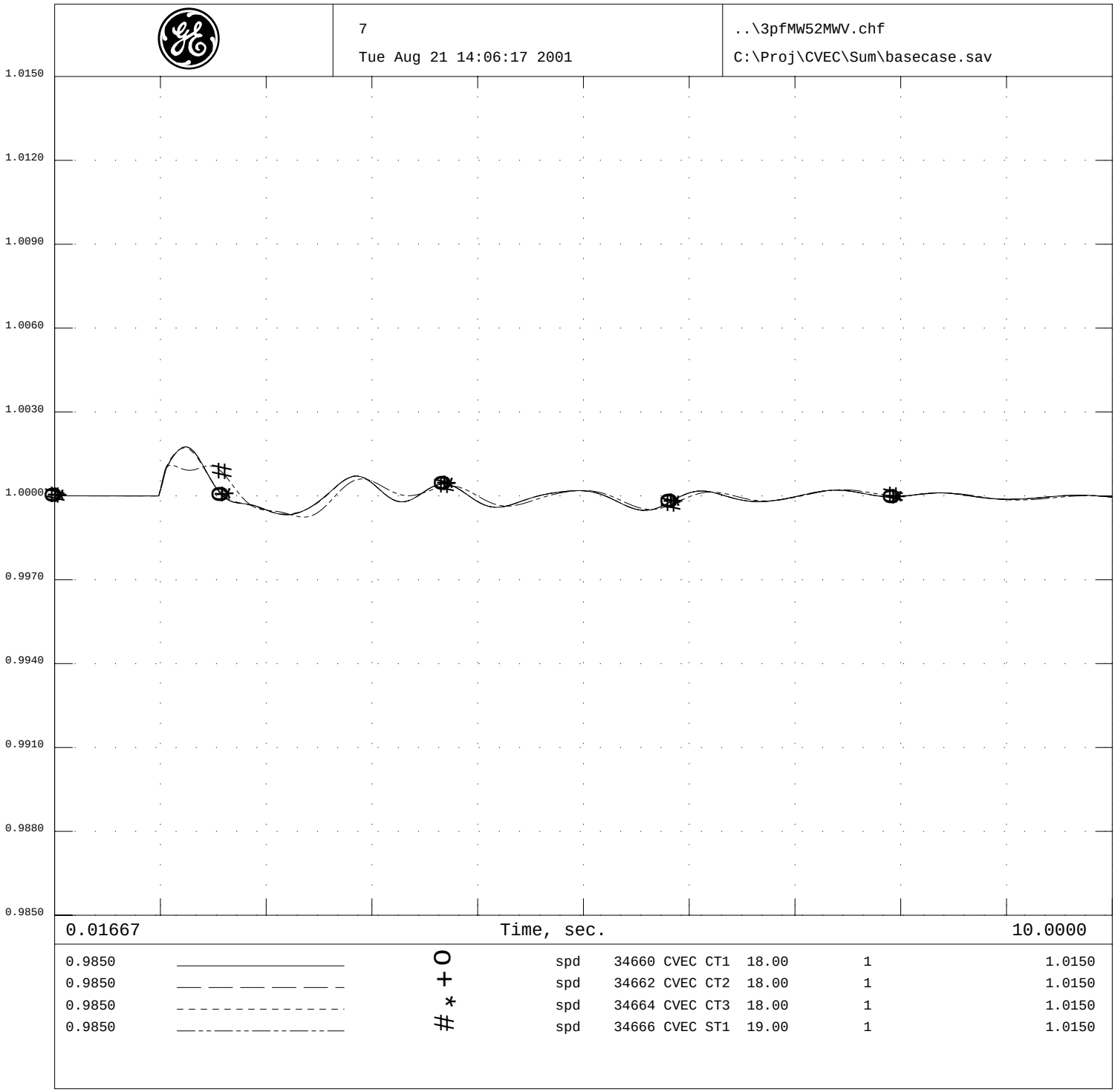
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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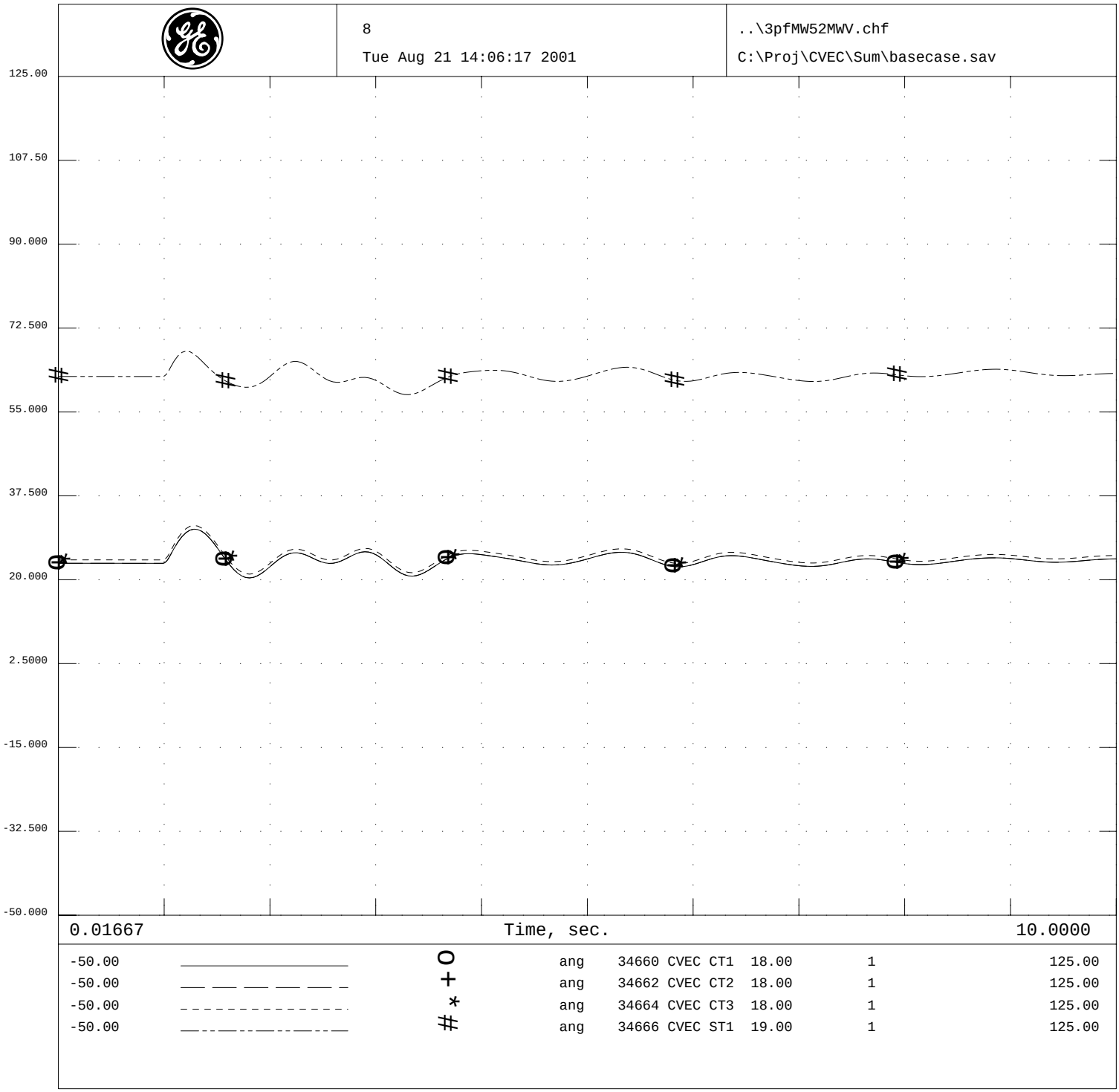
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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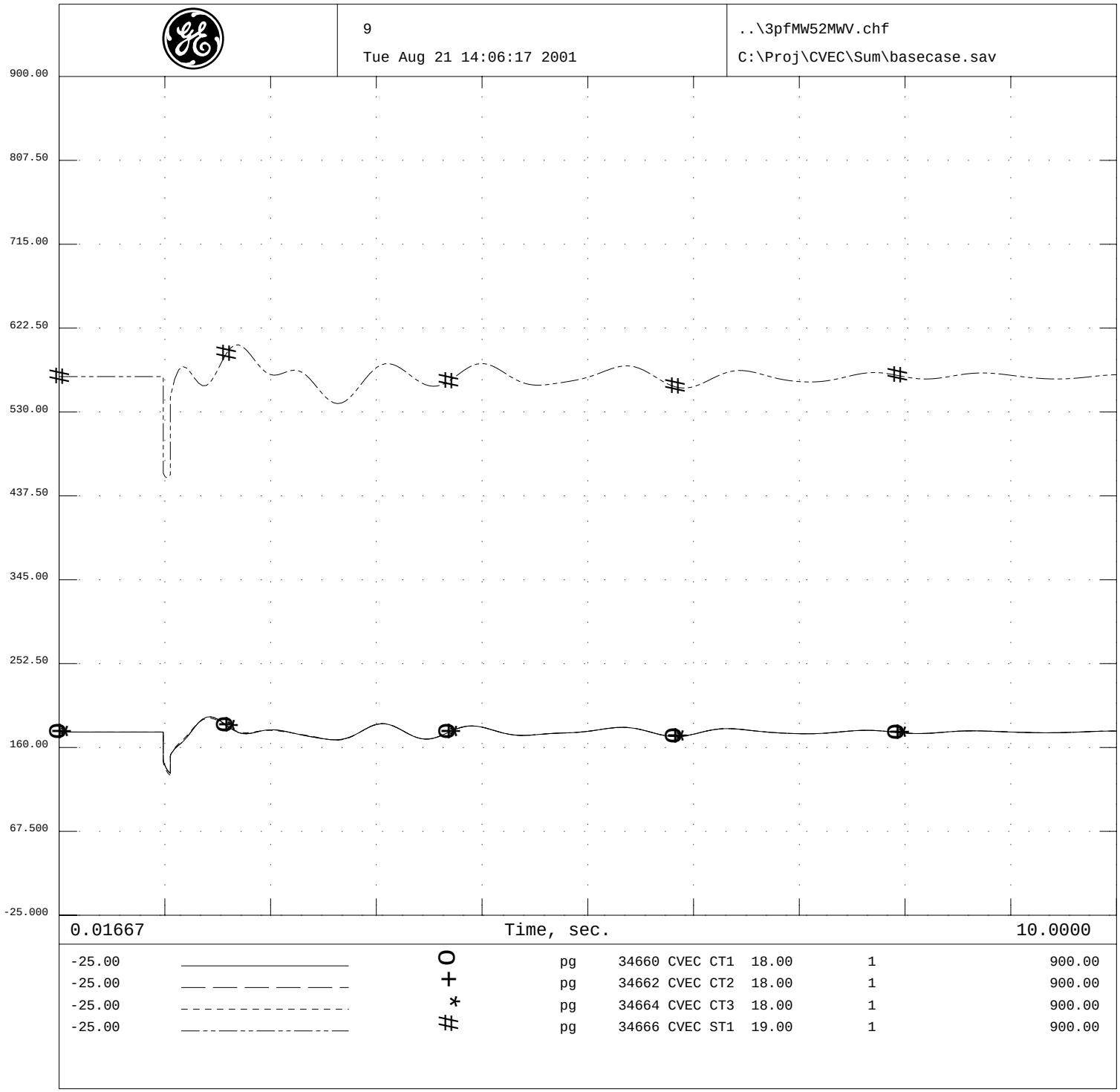
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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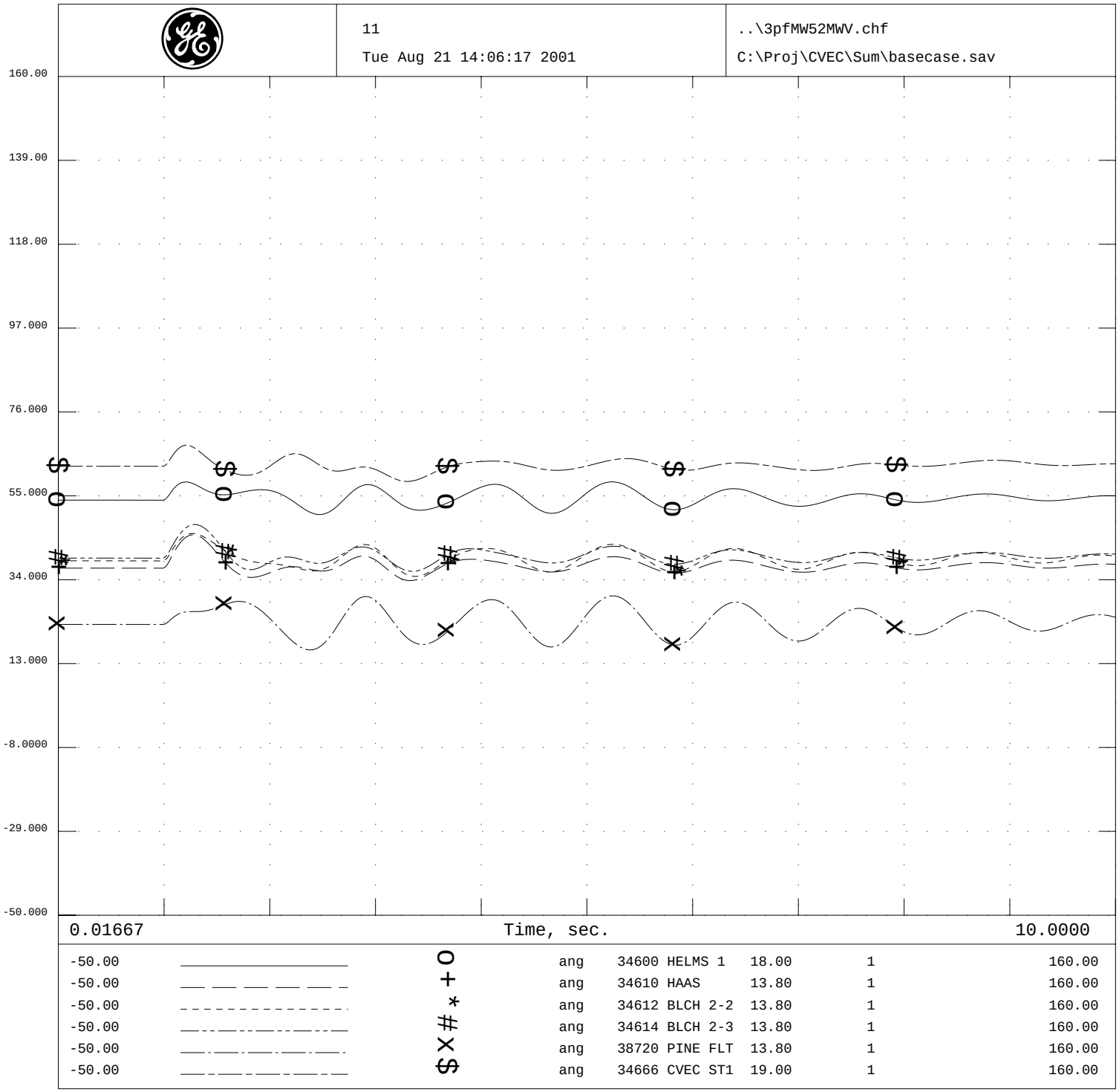
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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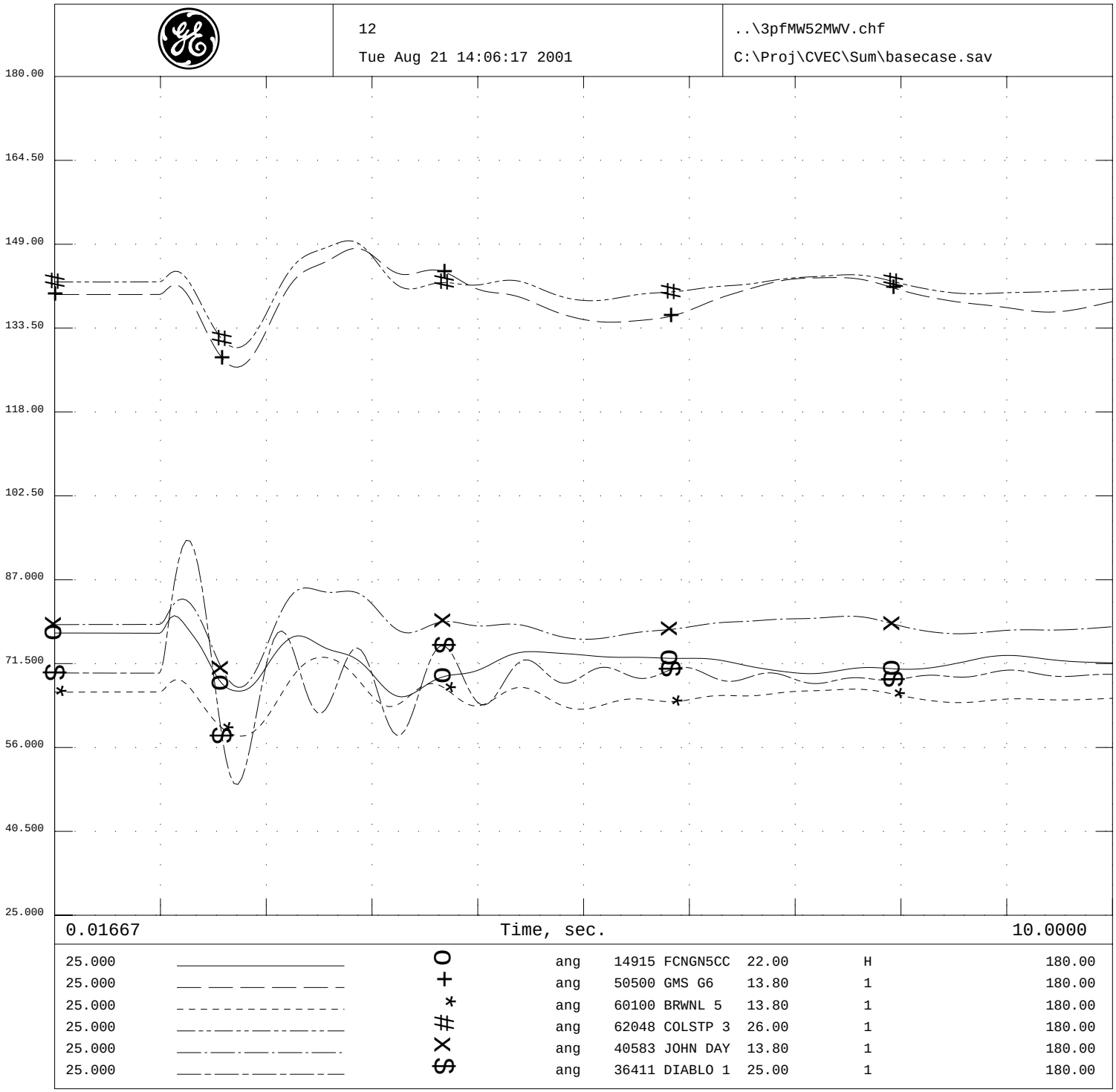
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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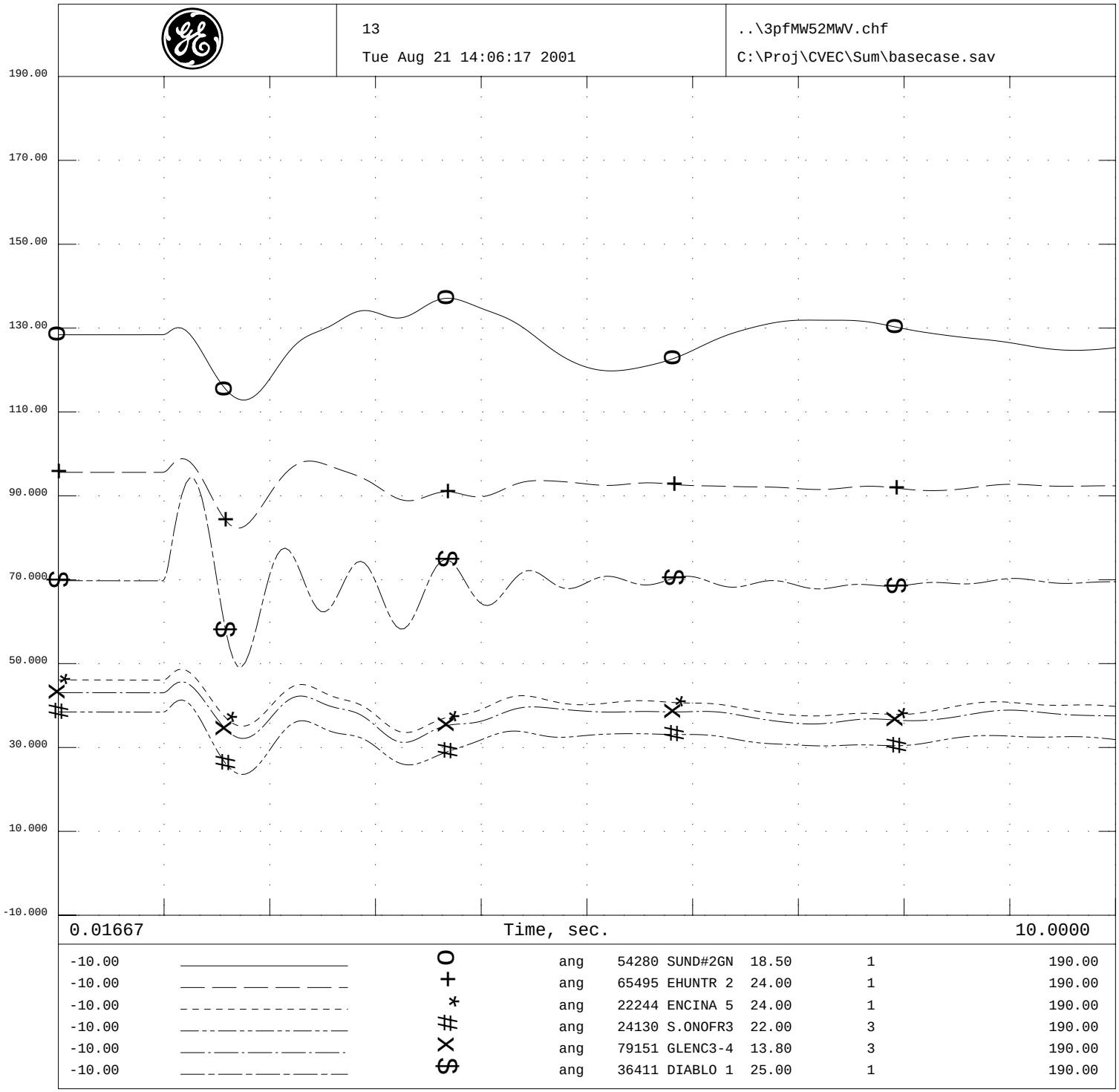
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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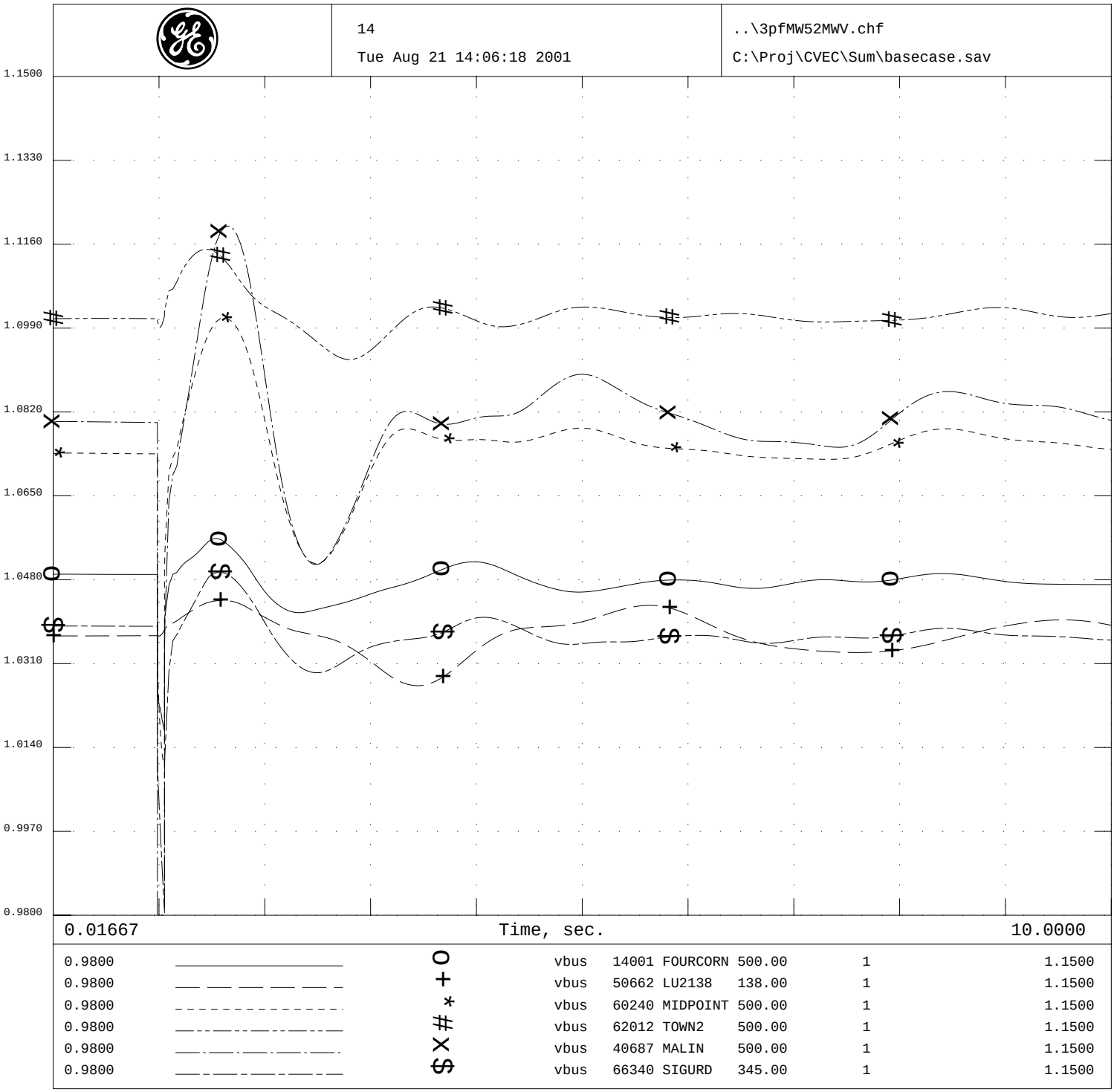

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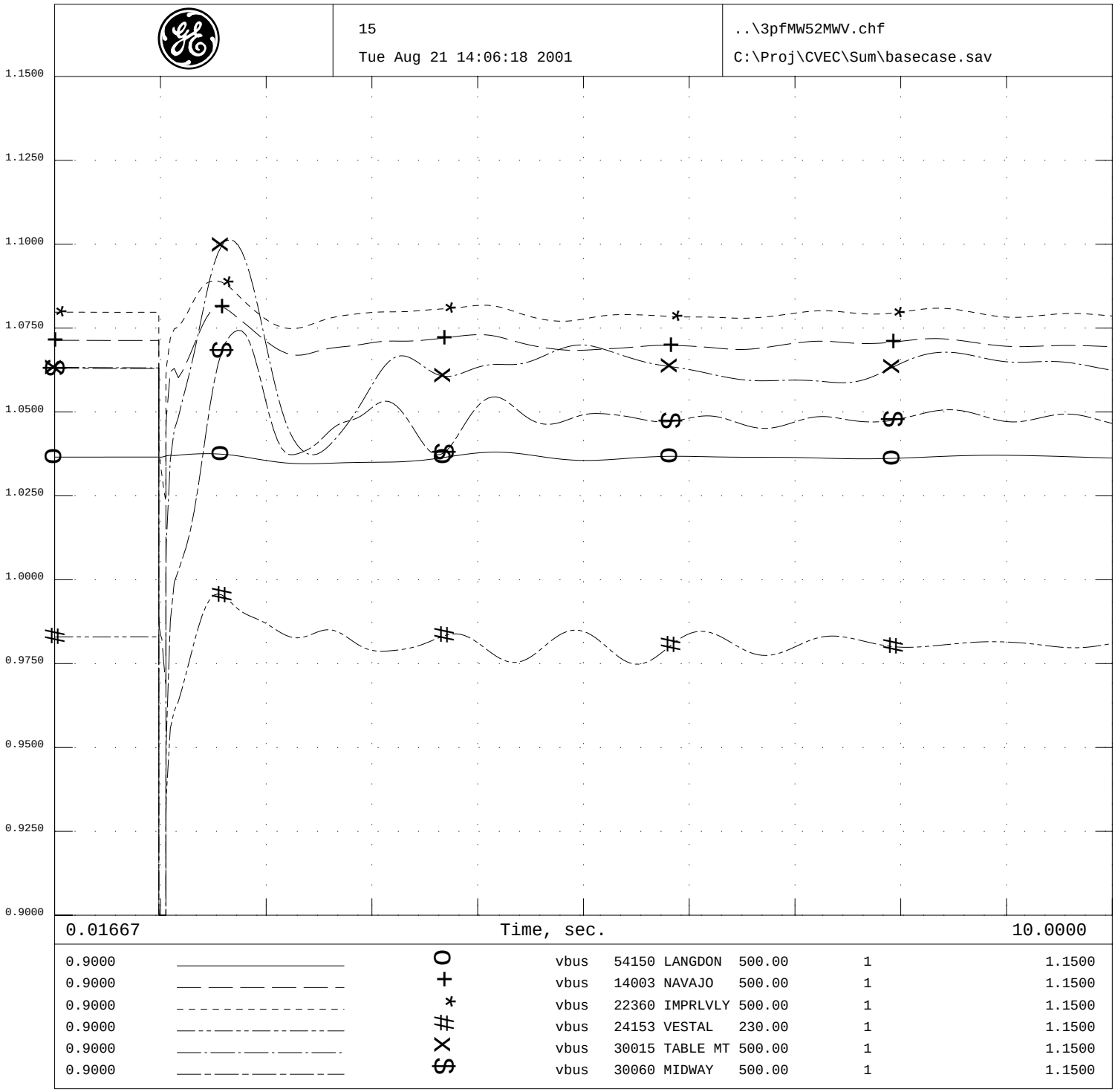

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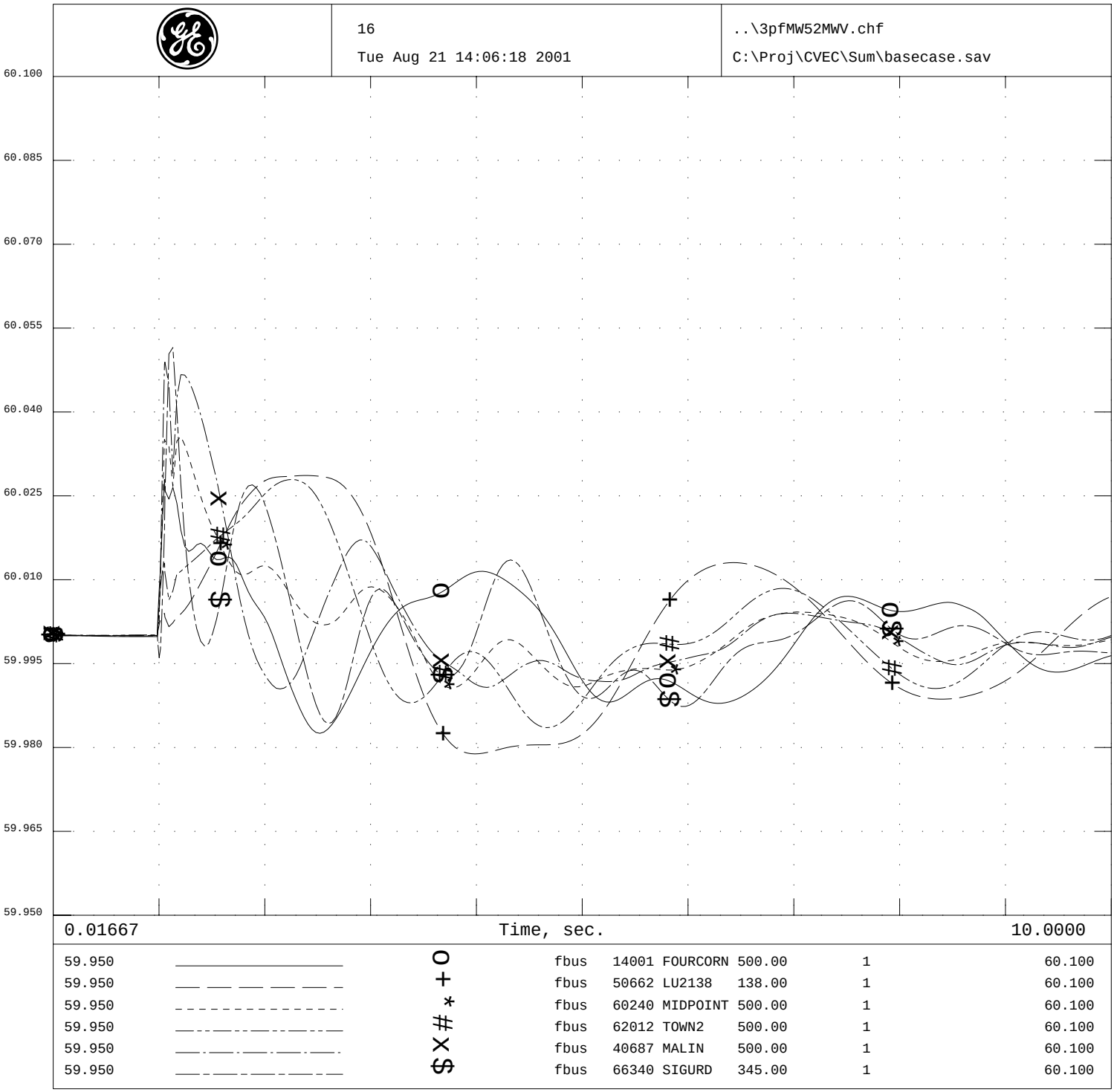

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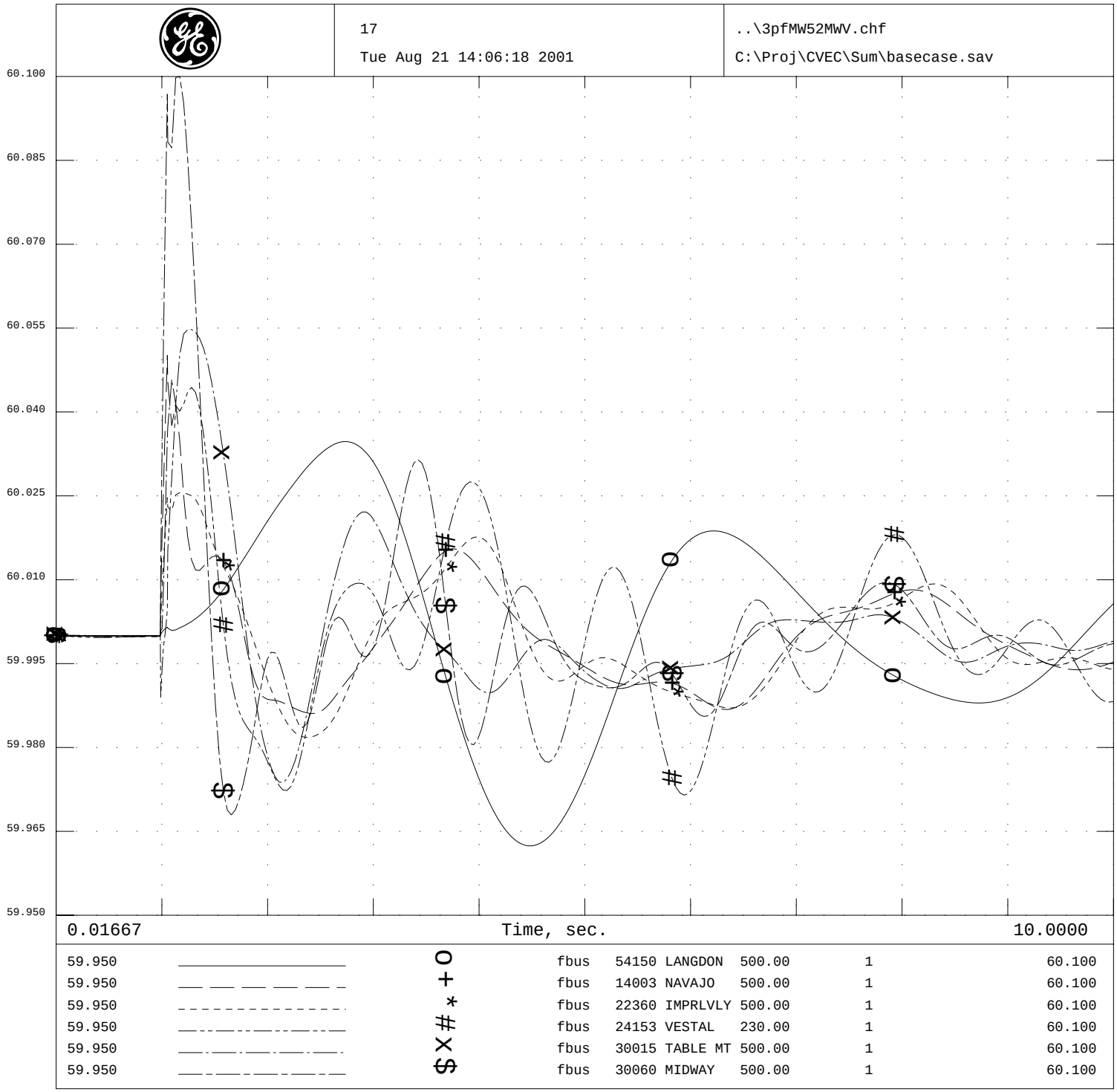

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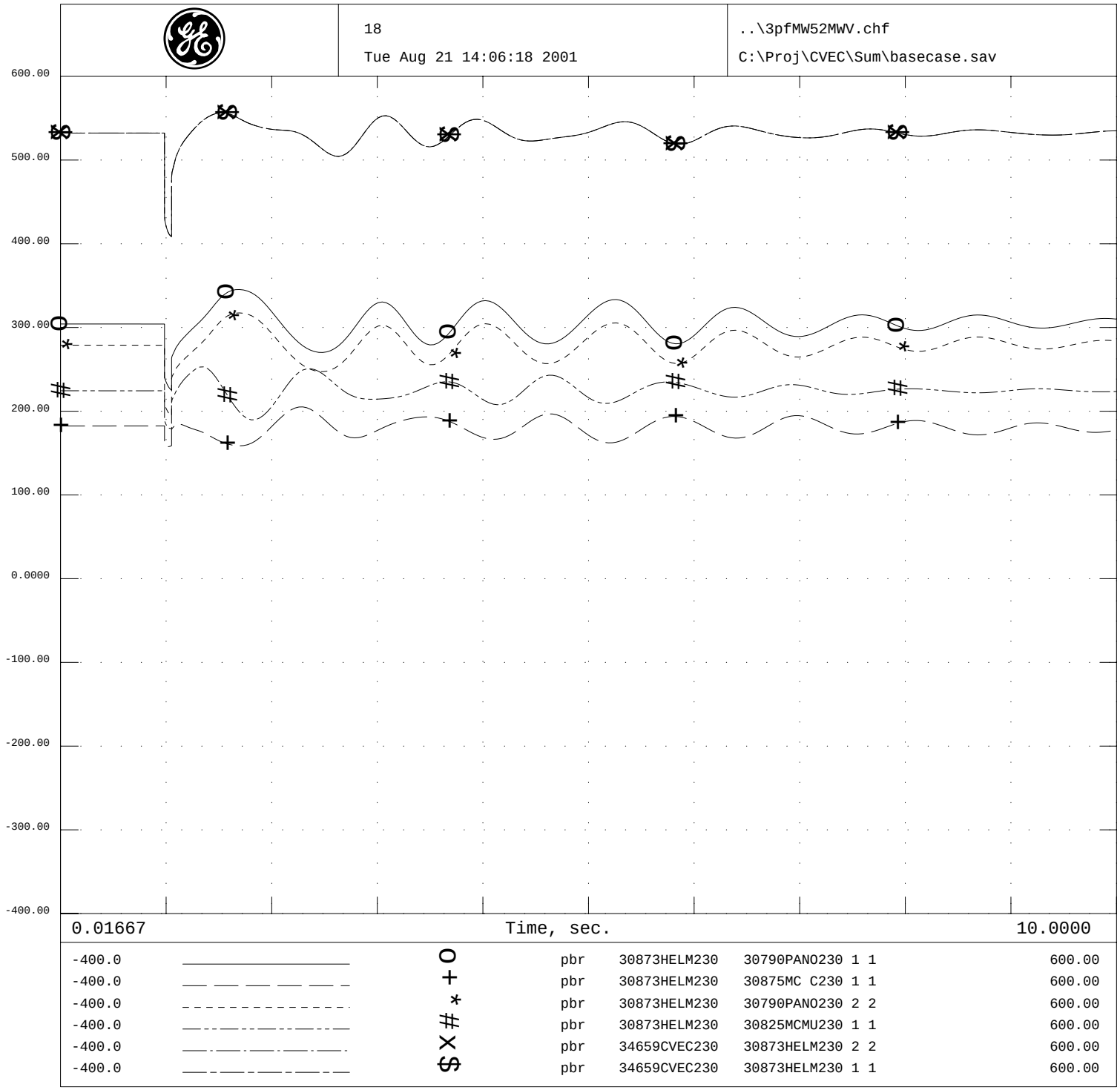

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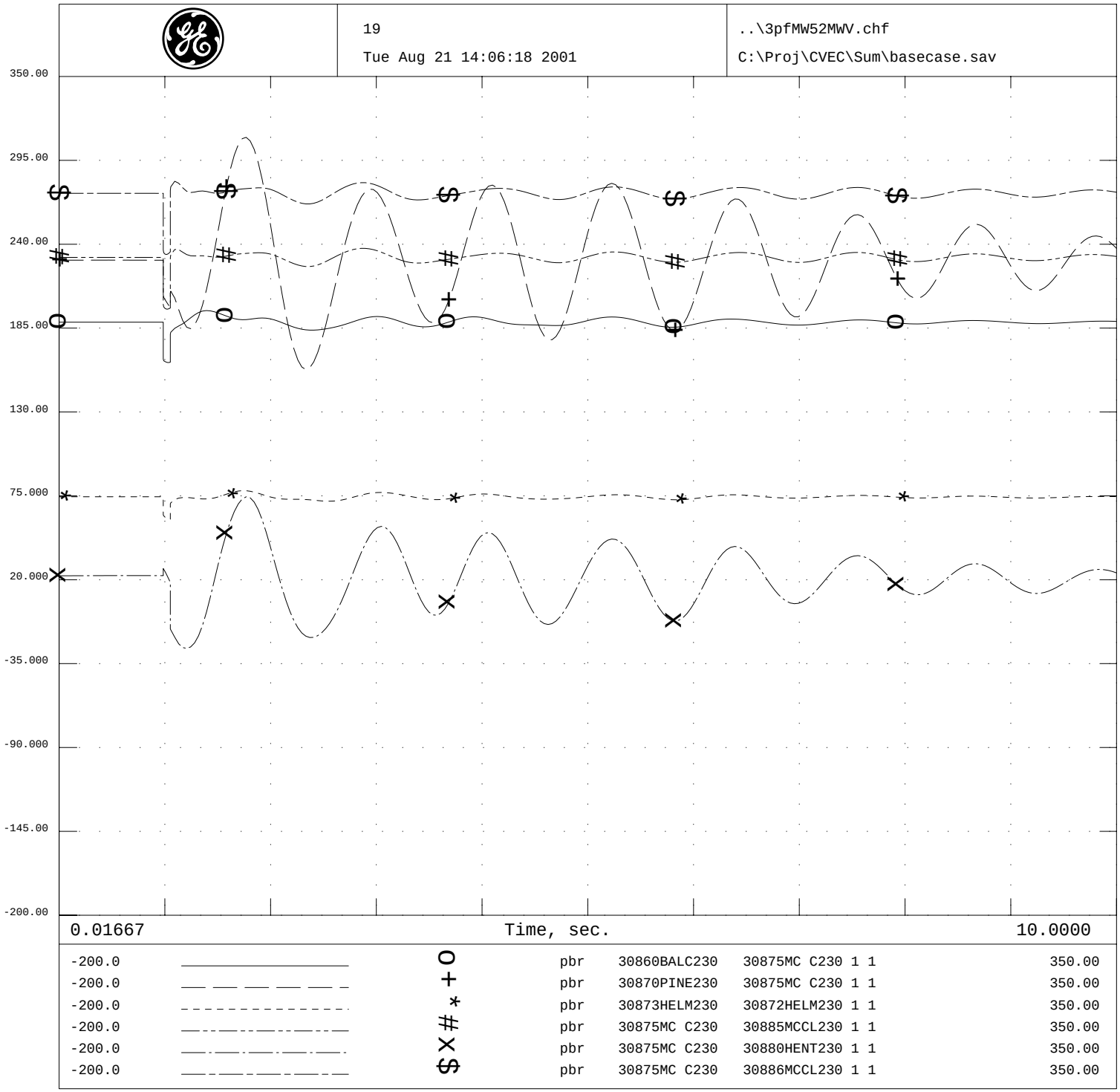

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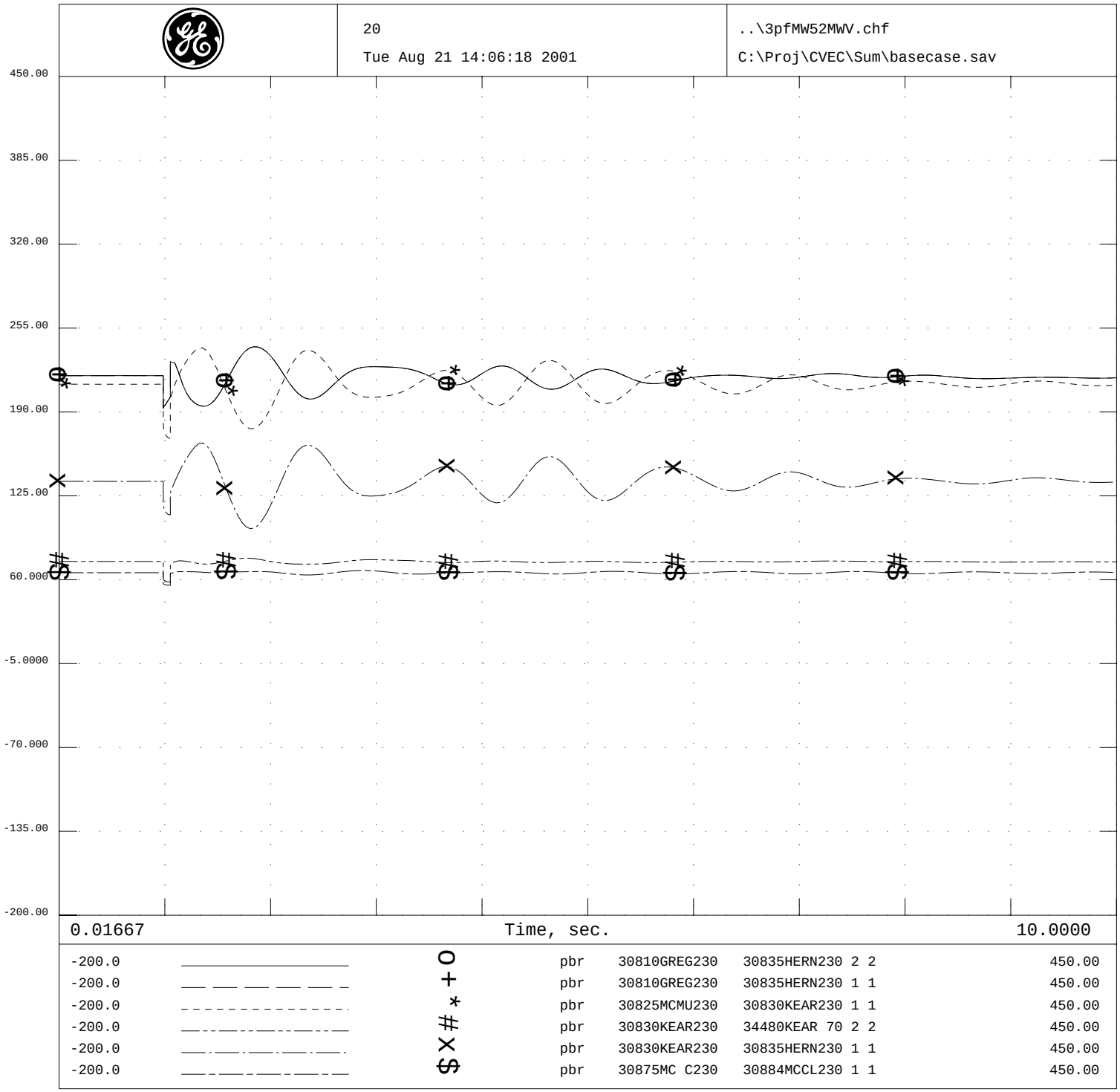

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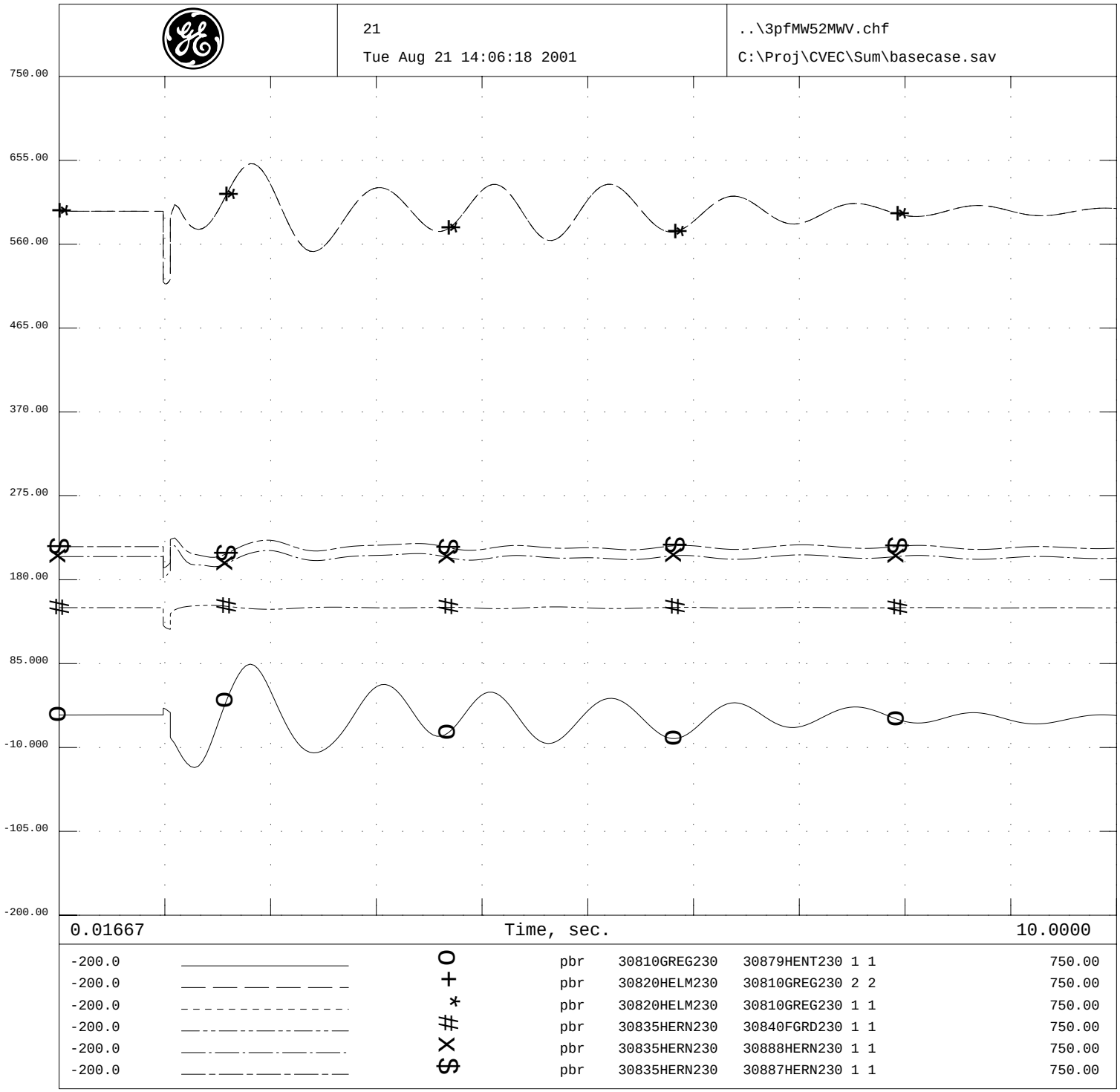

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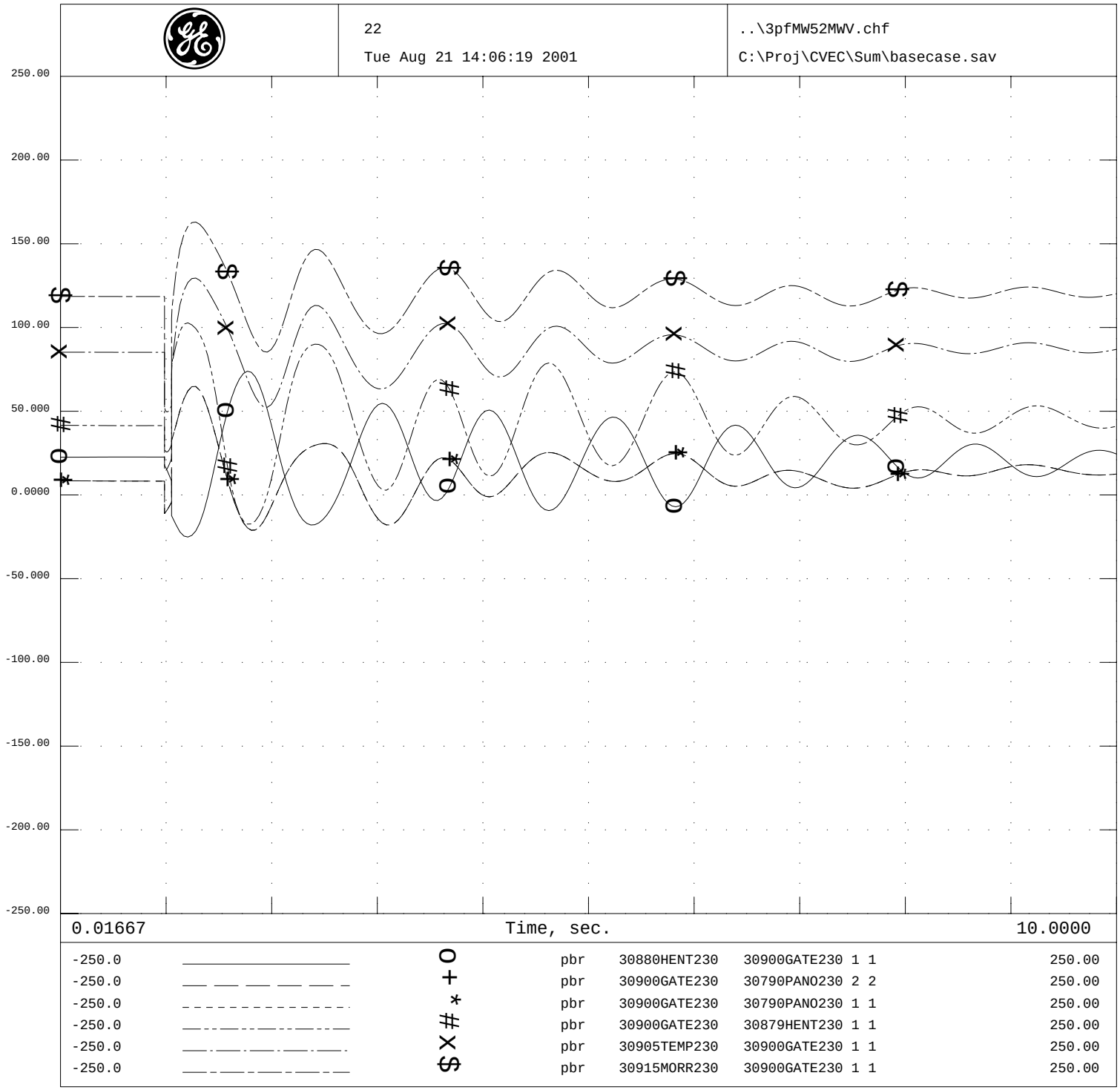

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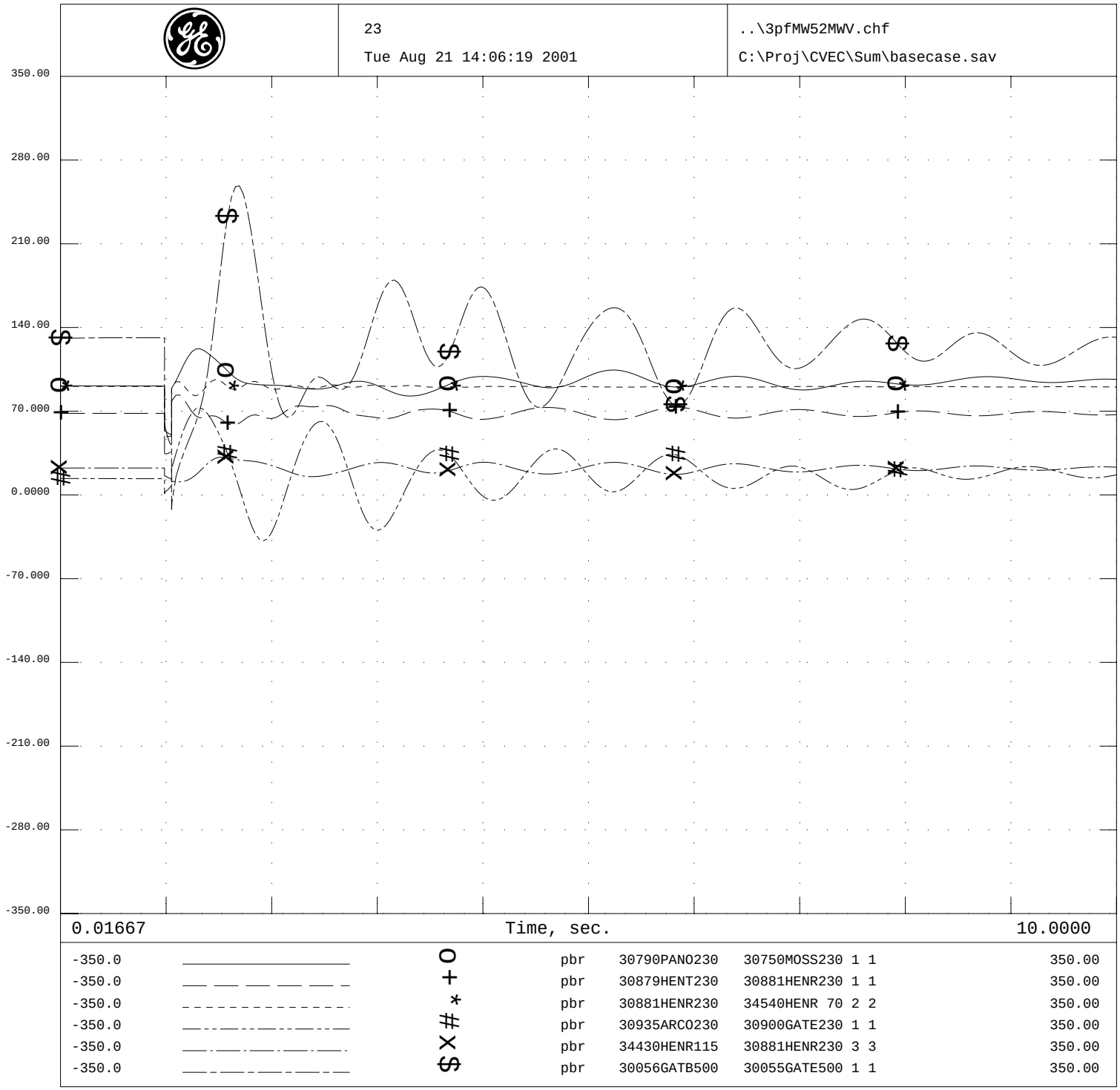

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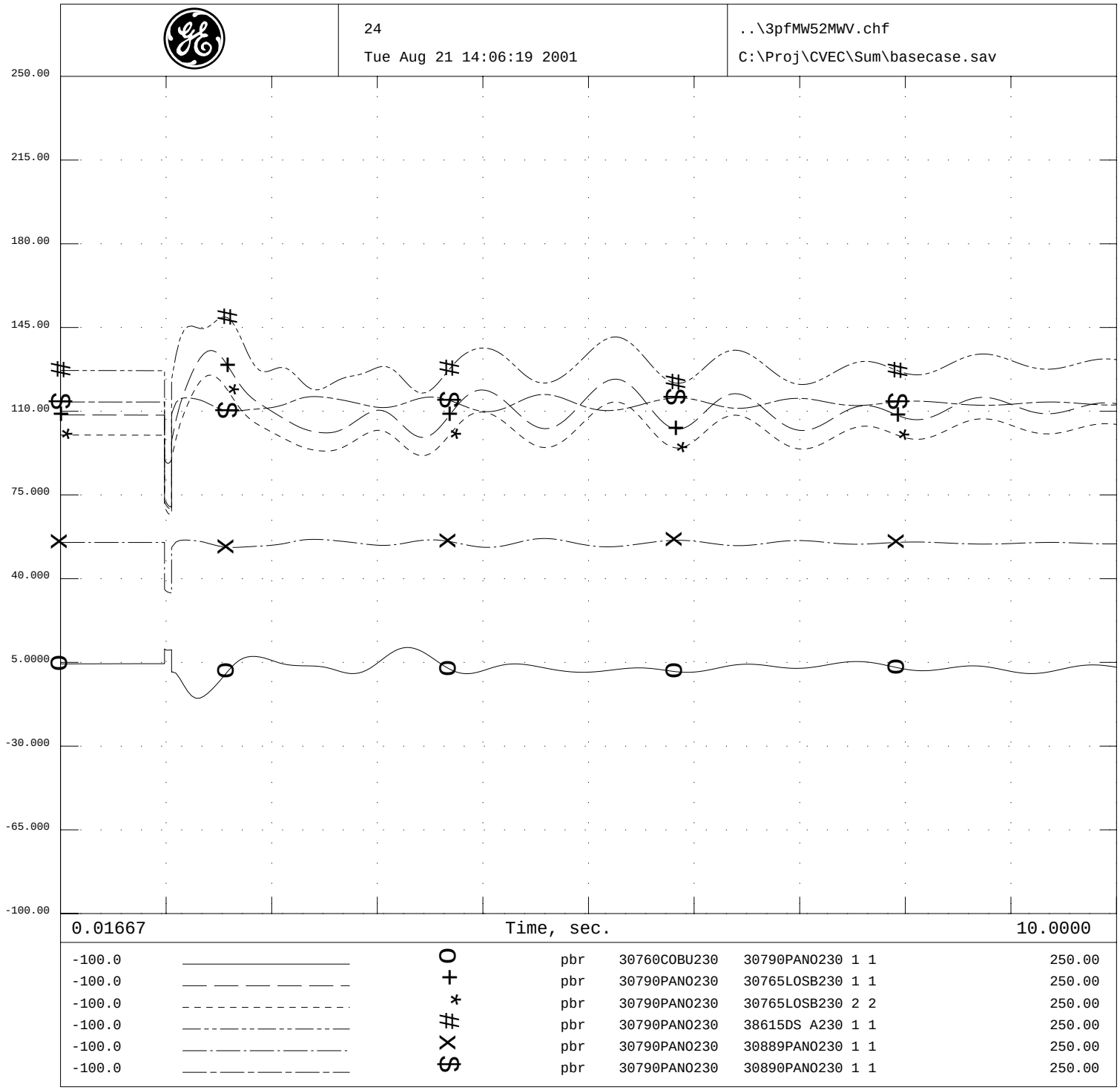

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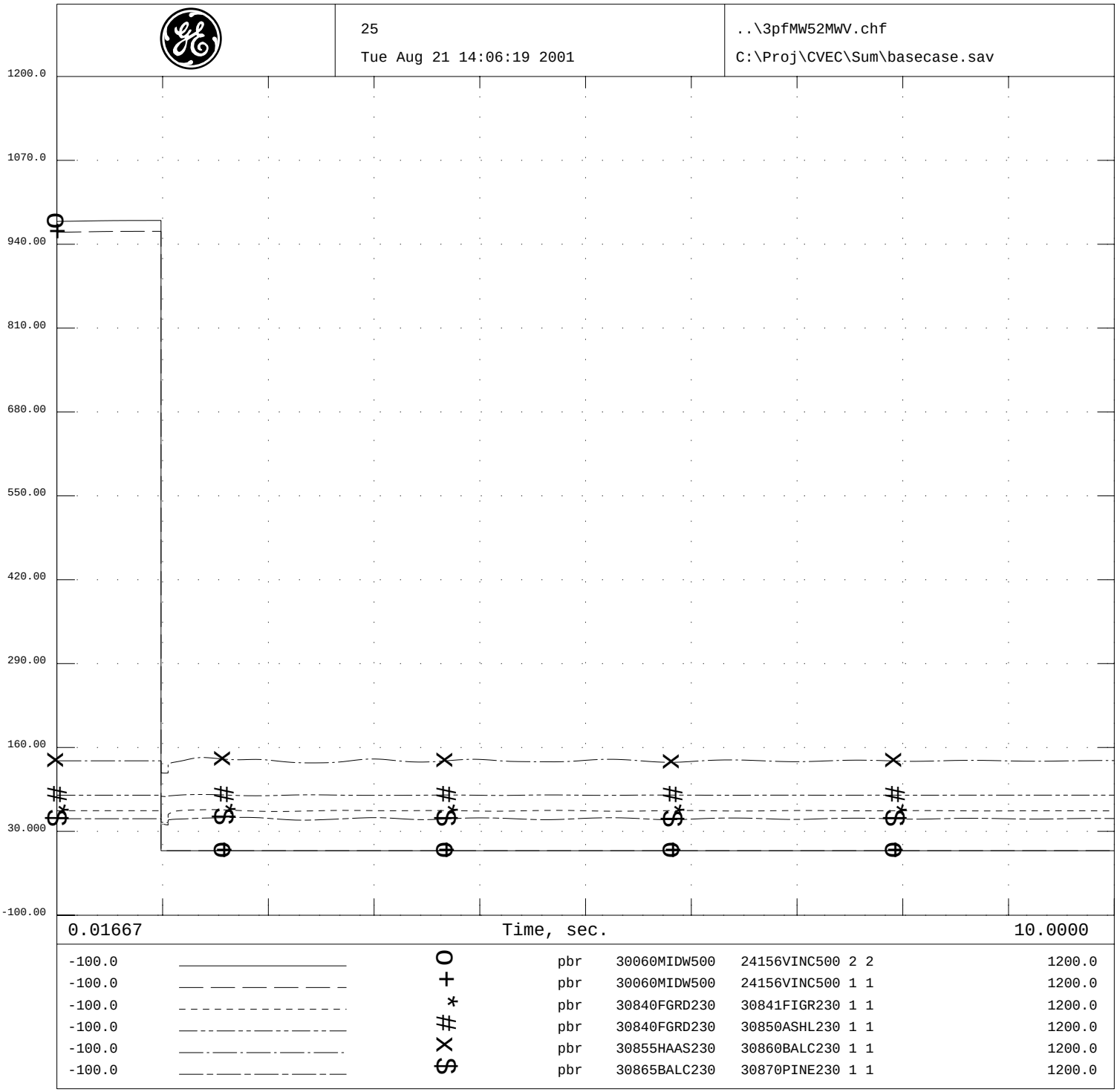

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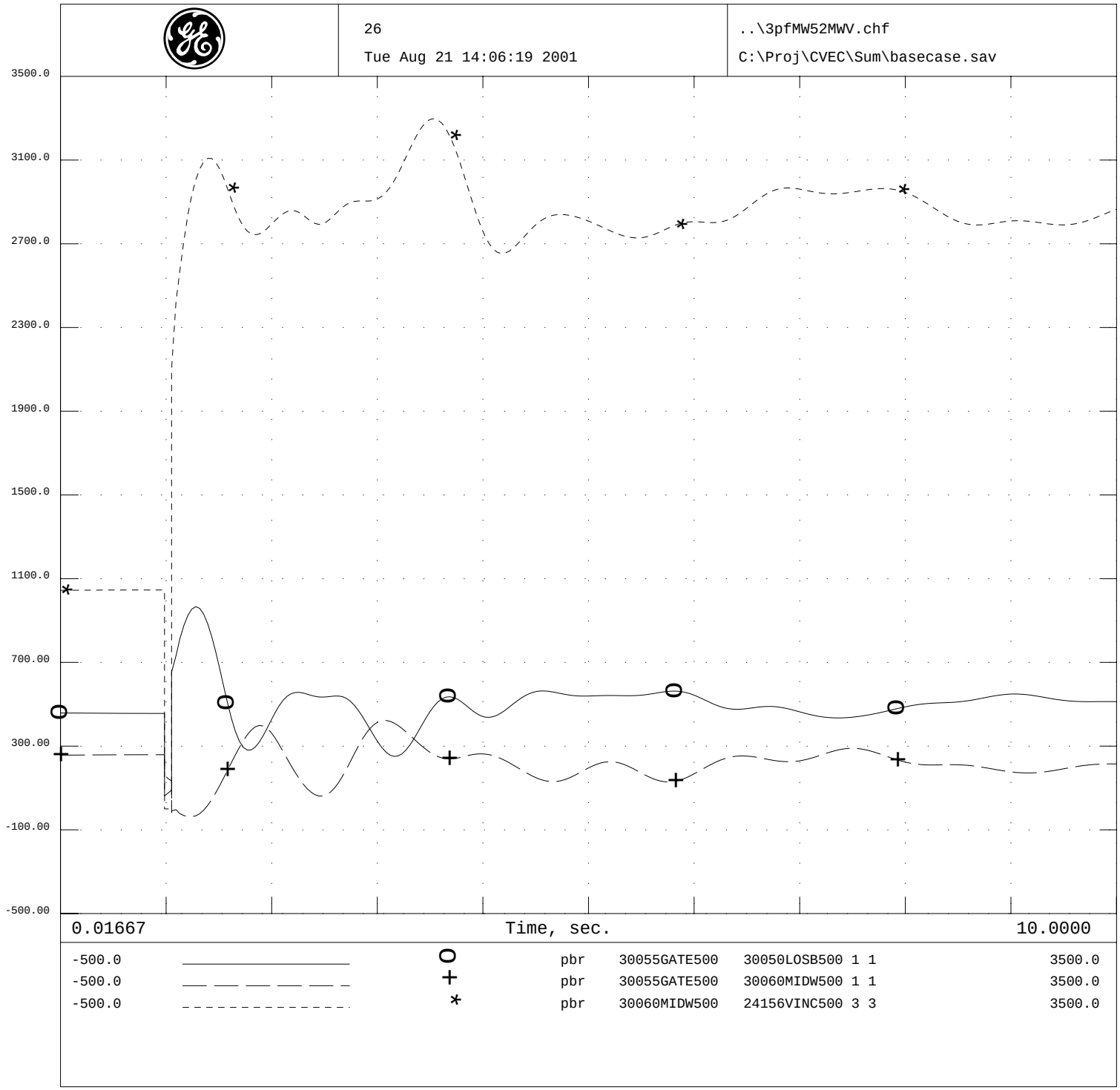

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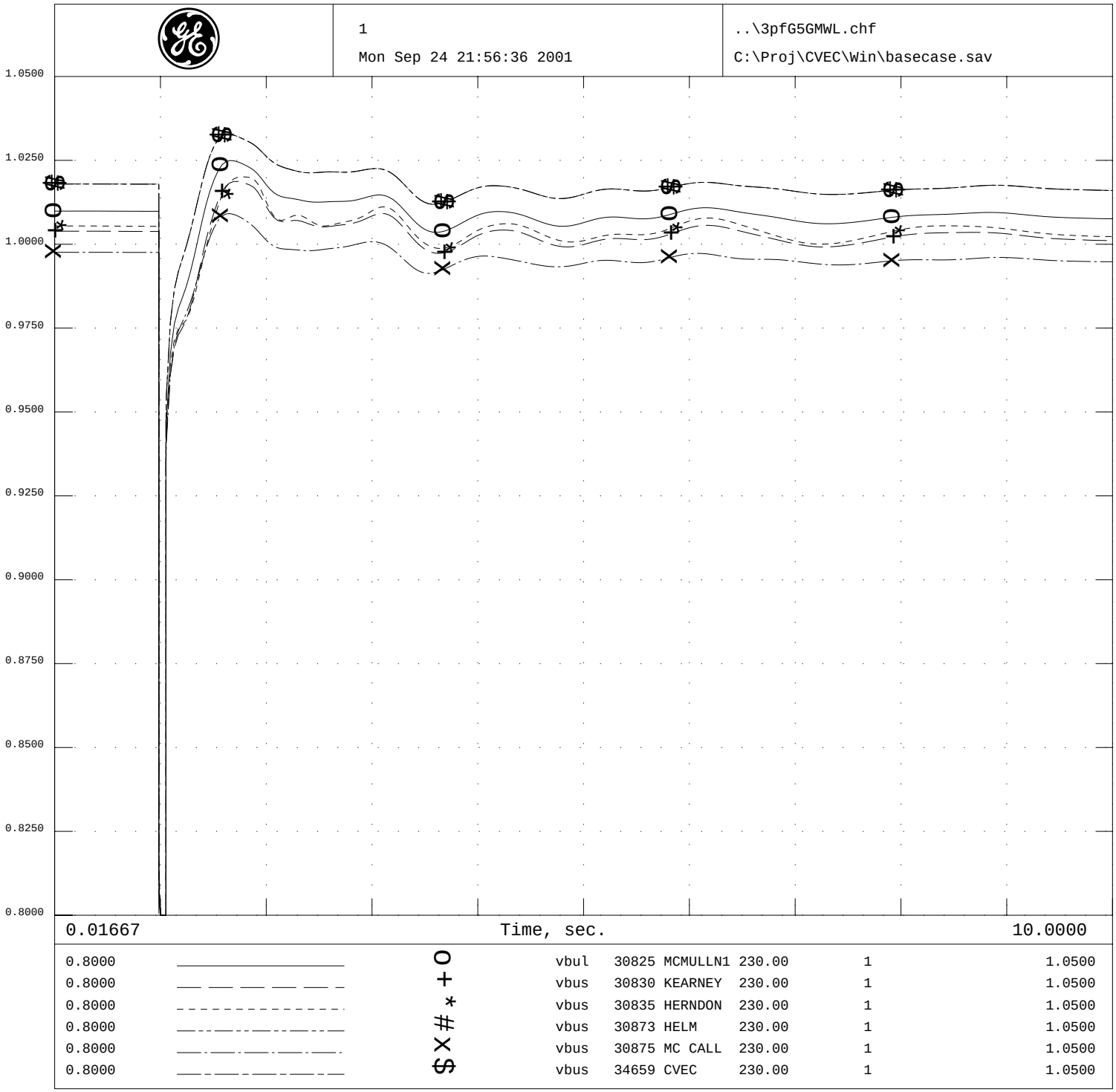
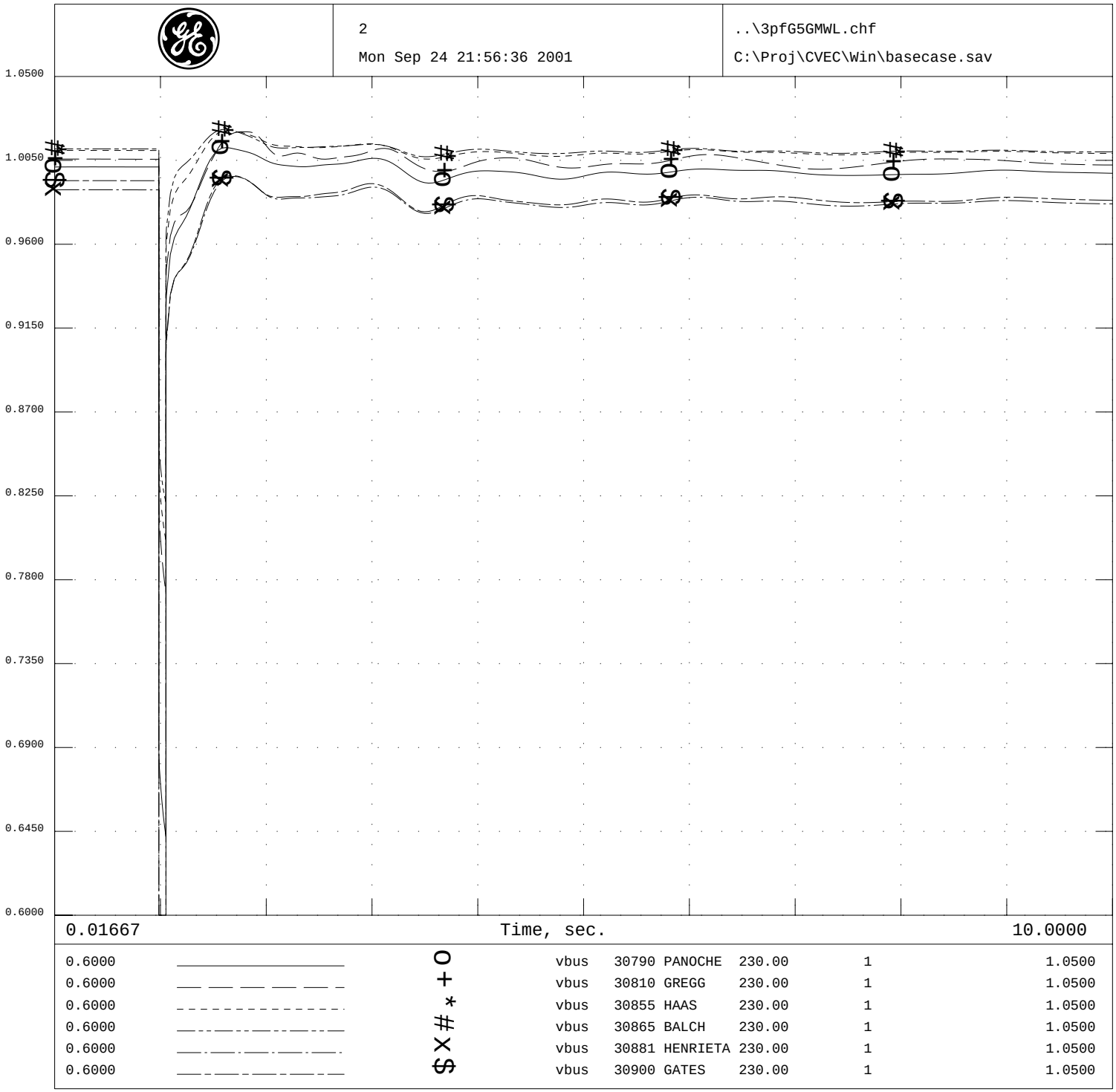


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Winter Off-Peak Base Case
CVEC @ 1100MW
Gates-Midway 500kV Line Outage
3 phase 4 cycle fault at Gates 500kV and trip Gates-Midway 500kV line

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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Calpine Corporation
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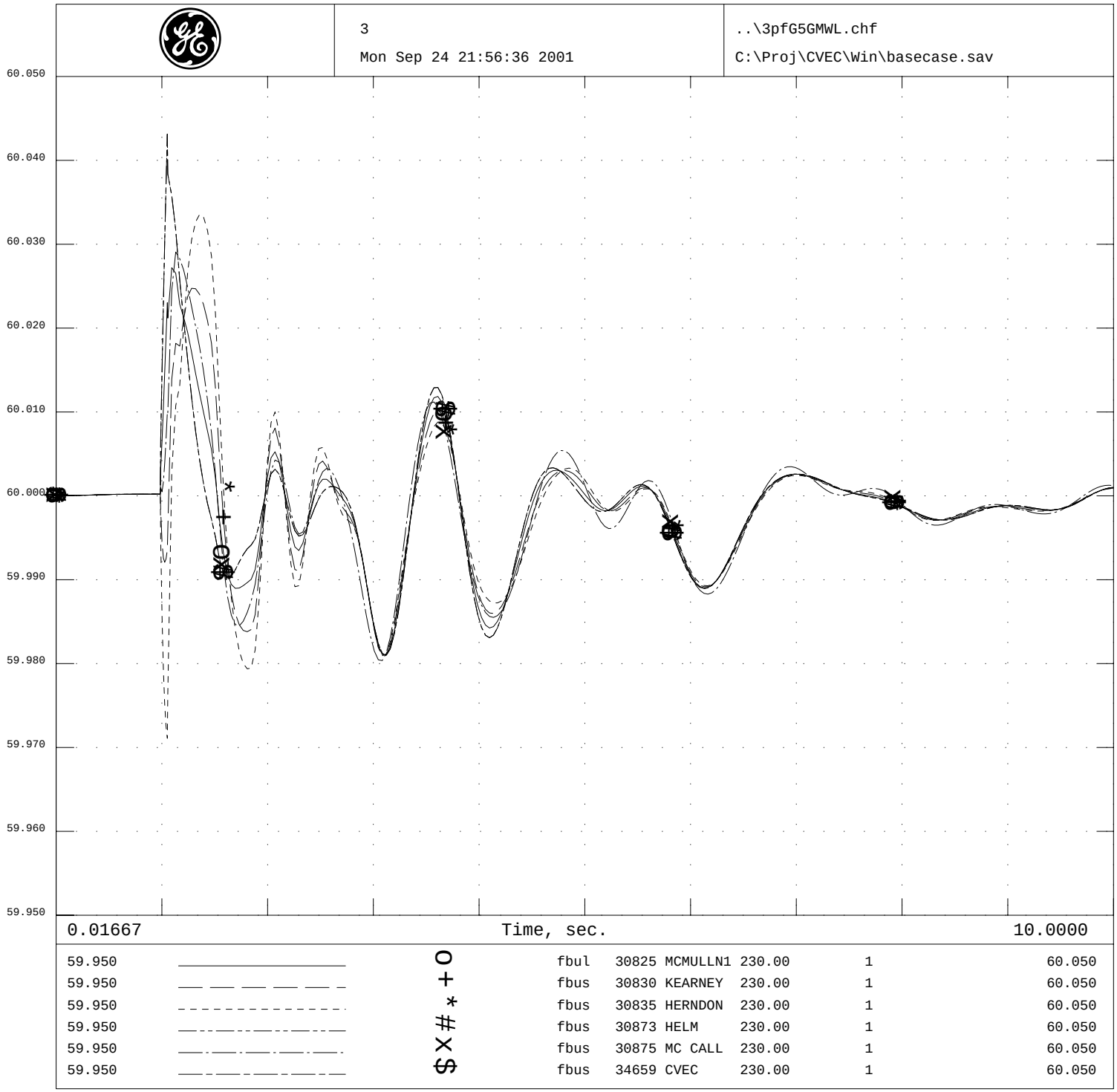

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Calpine Corporation
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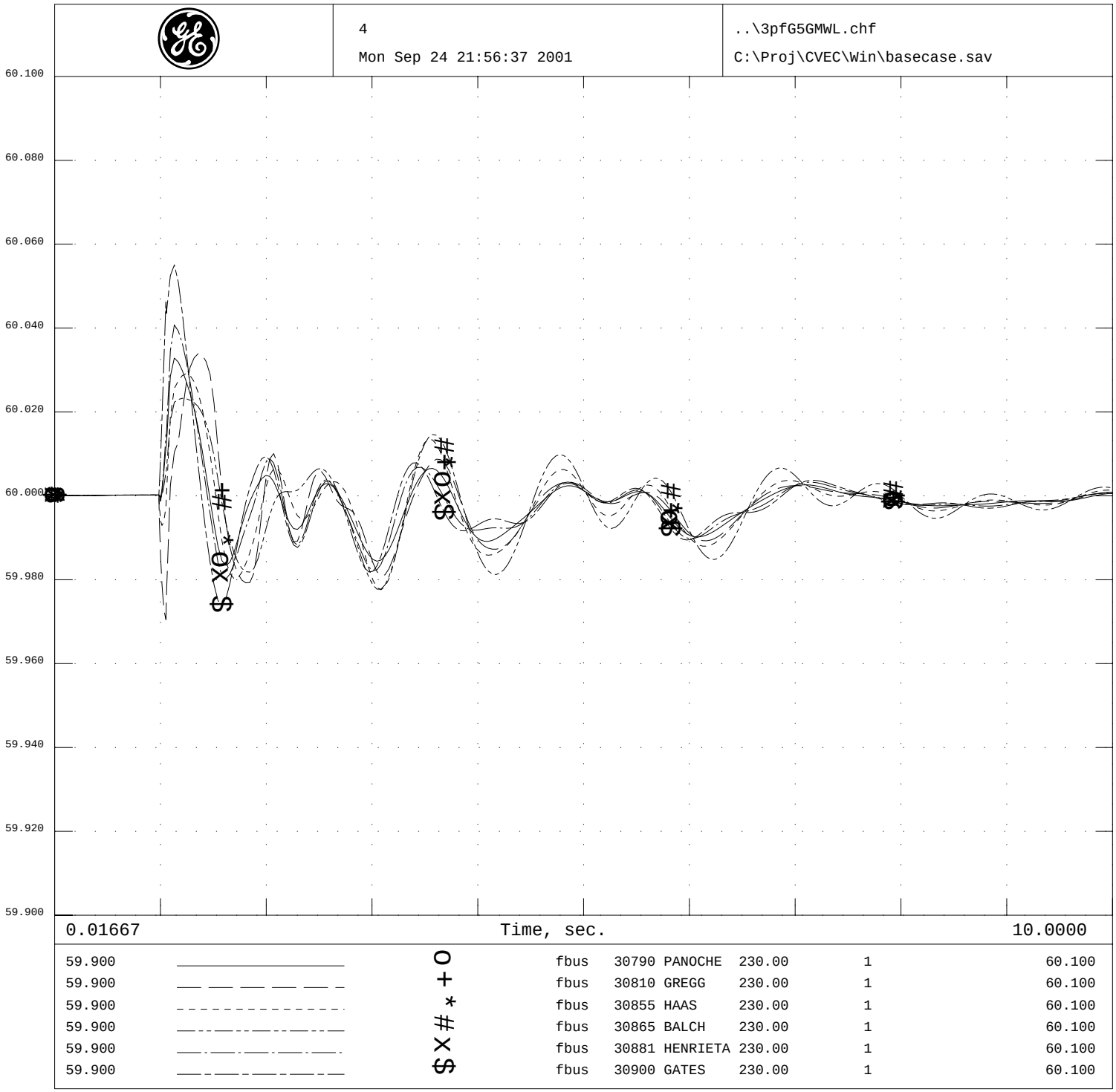

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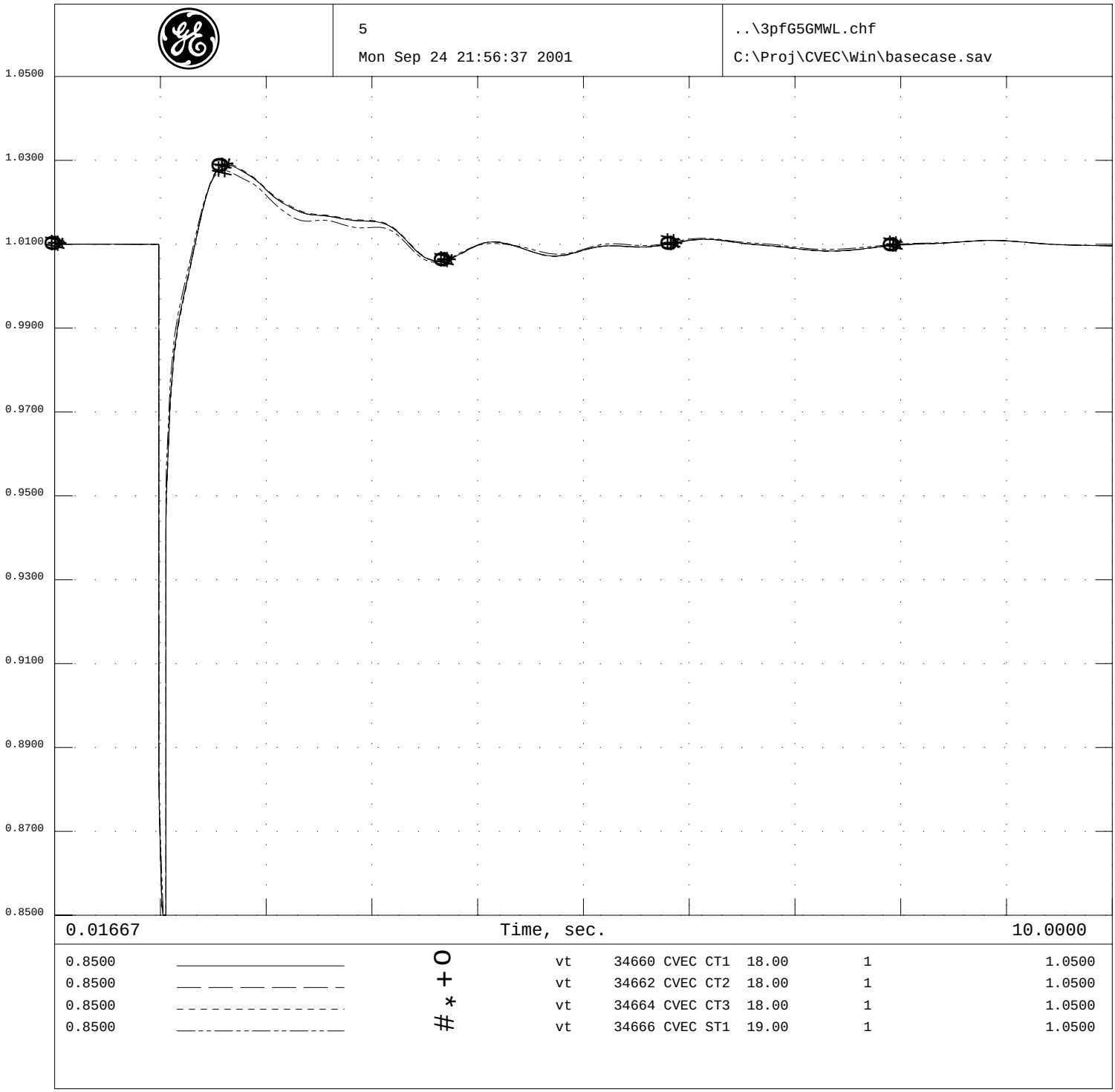

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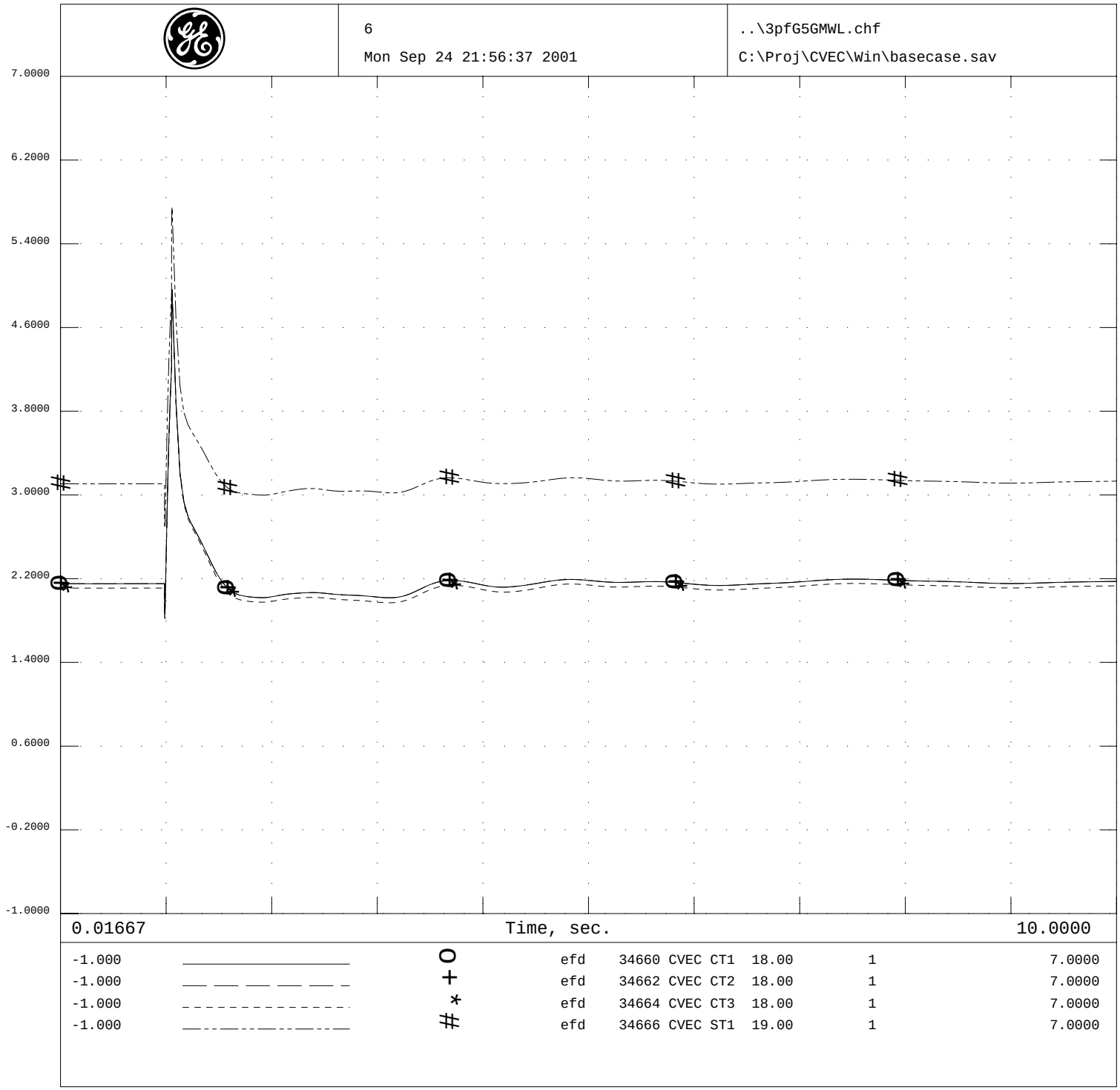
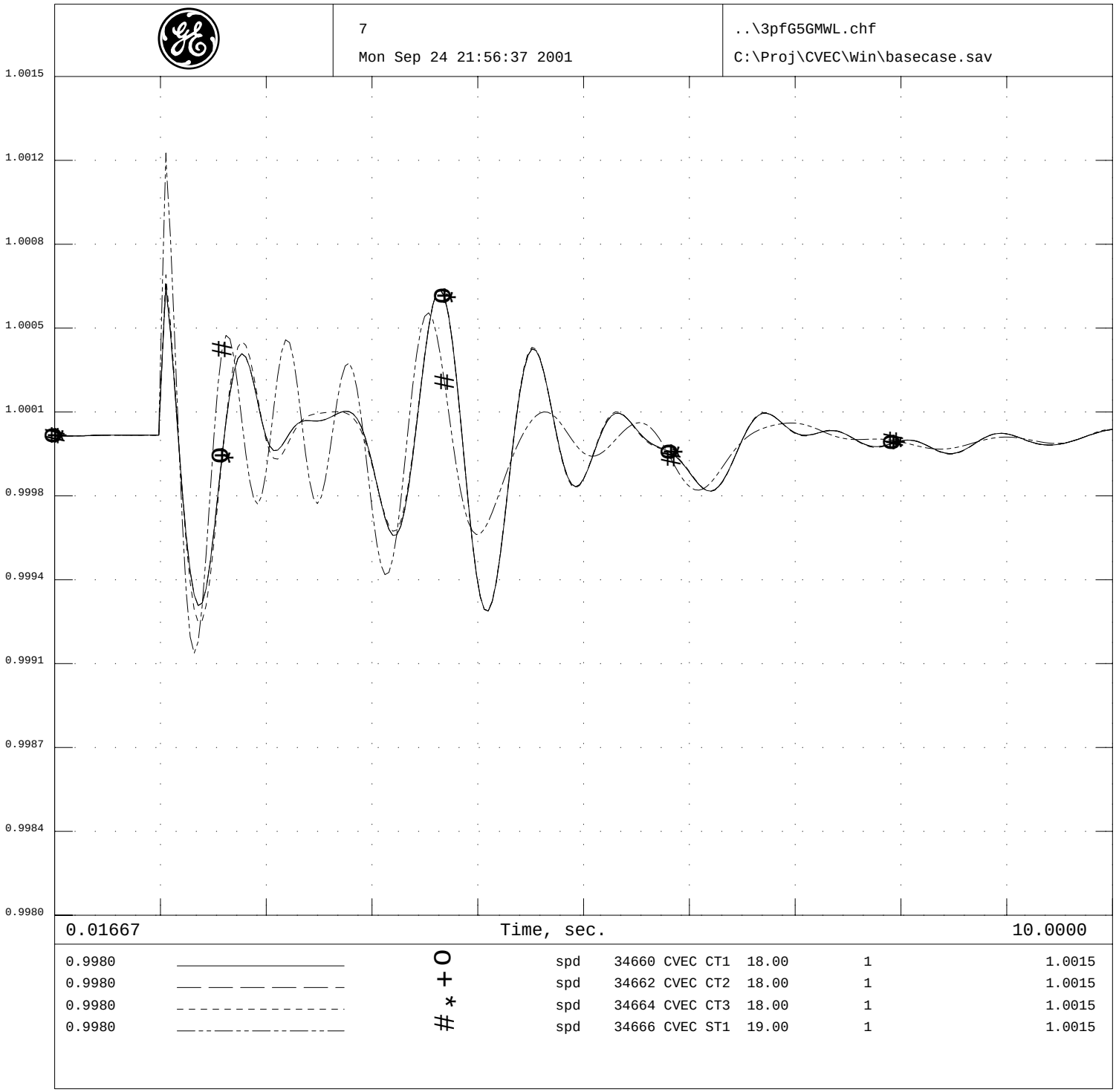
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Winter Off-Peak Base Case
CVEC @ 1100MW
Gates-Midway 500kV Line Outage
3 phase 4 cycle fault at Gates 500kV and trip Gates-Midway 500kV line

Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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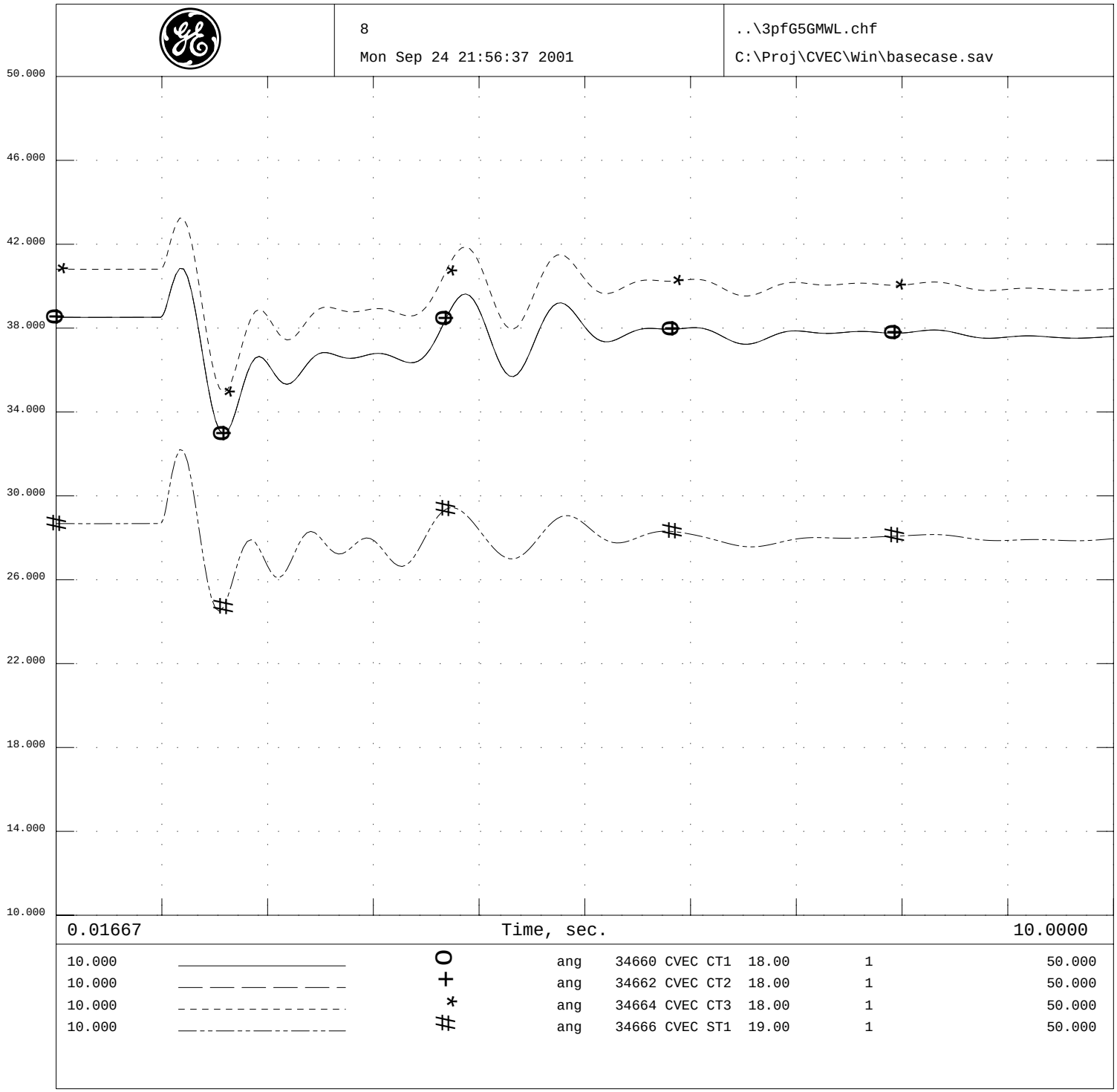
Project Generator Rotor Speed



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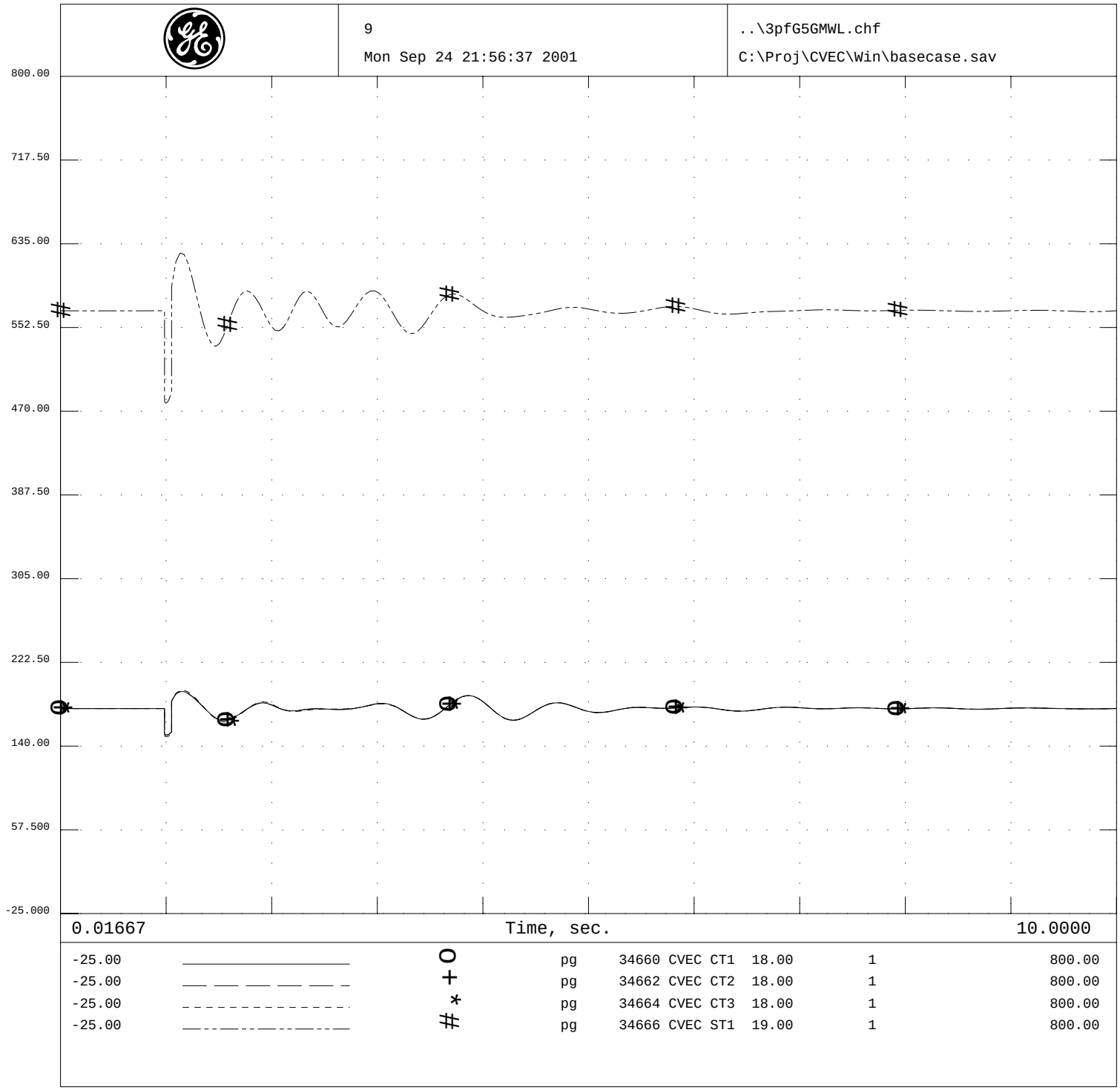
Project Generator Rotor Angle



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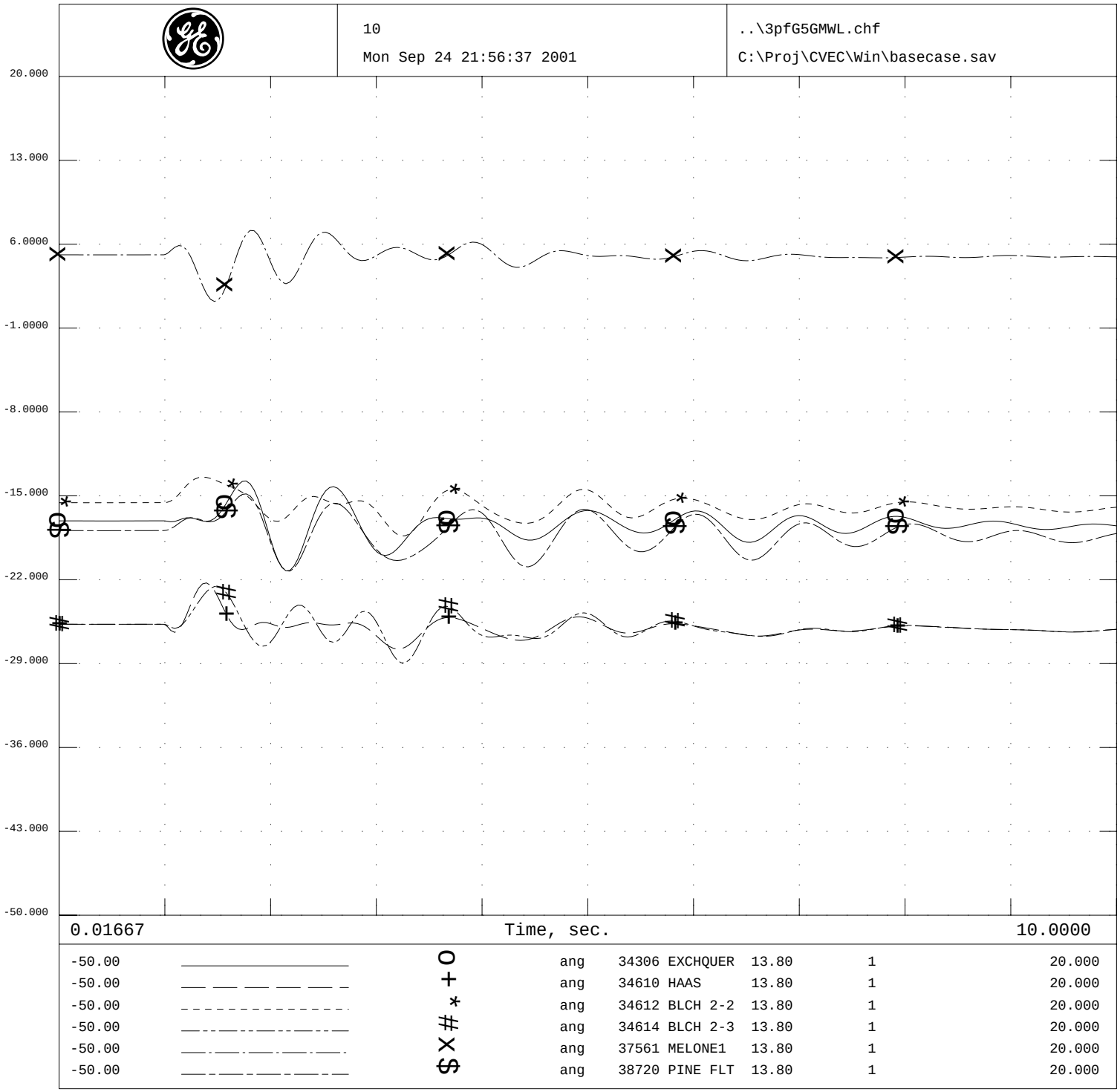

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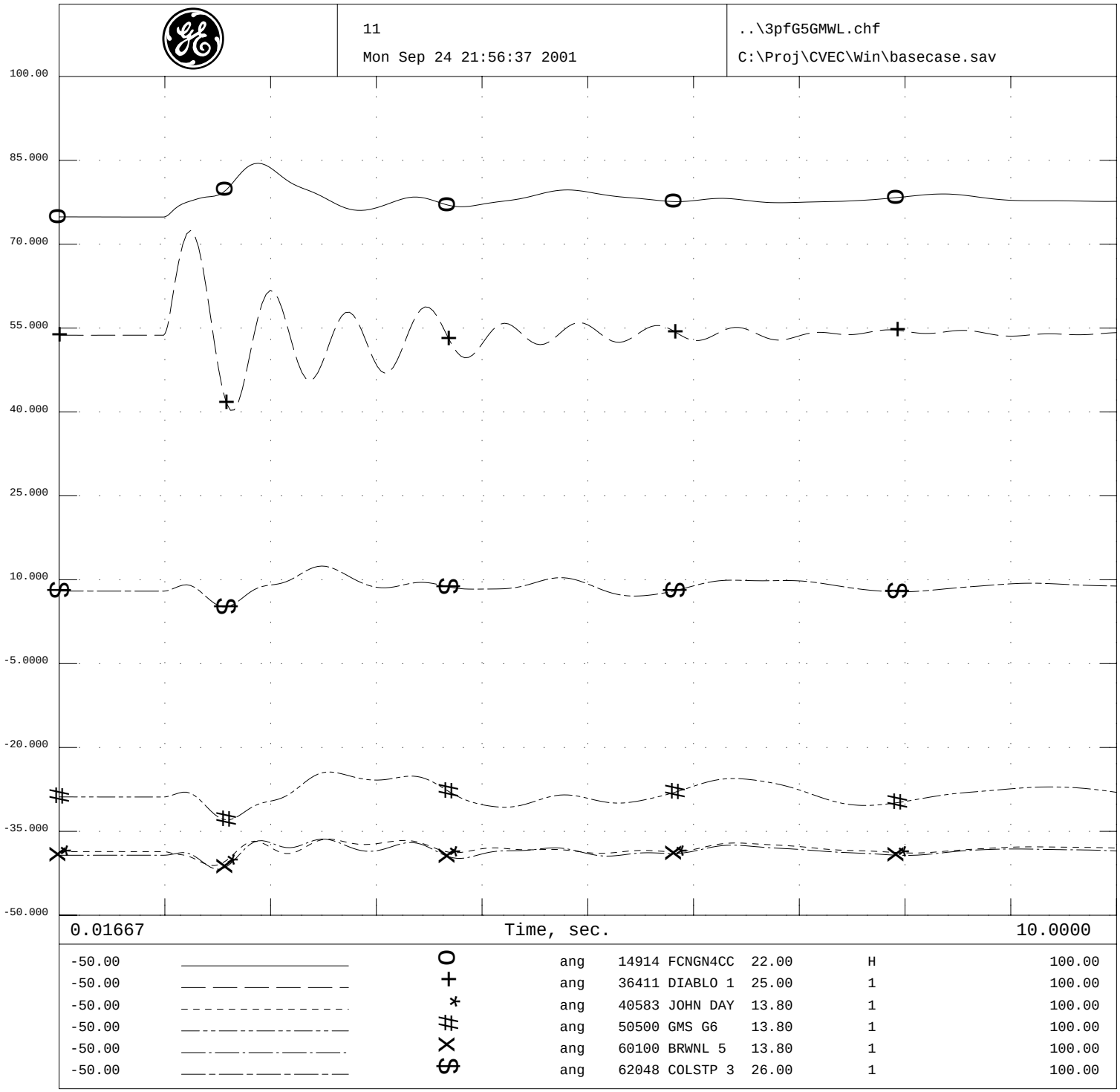

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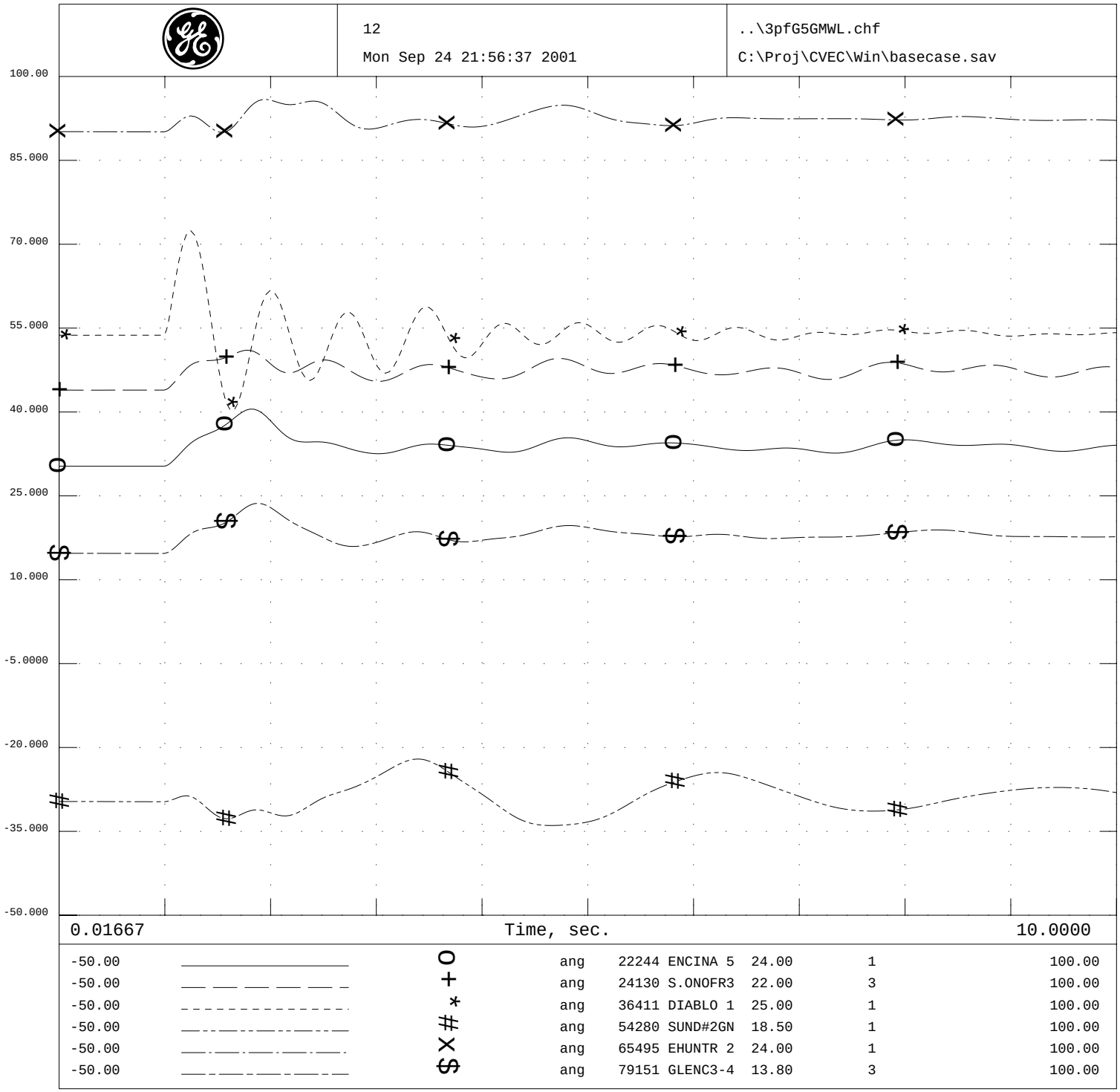
Selected WSCC Transmission Bus Angle Plots



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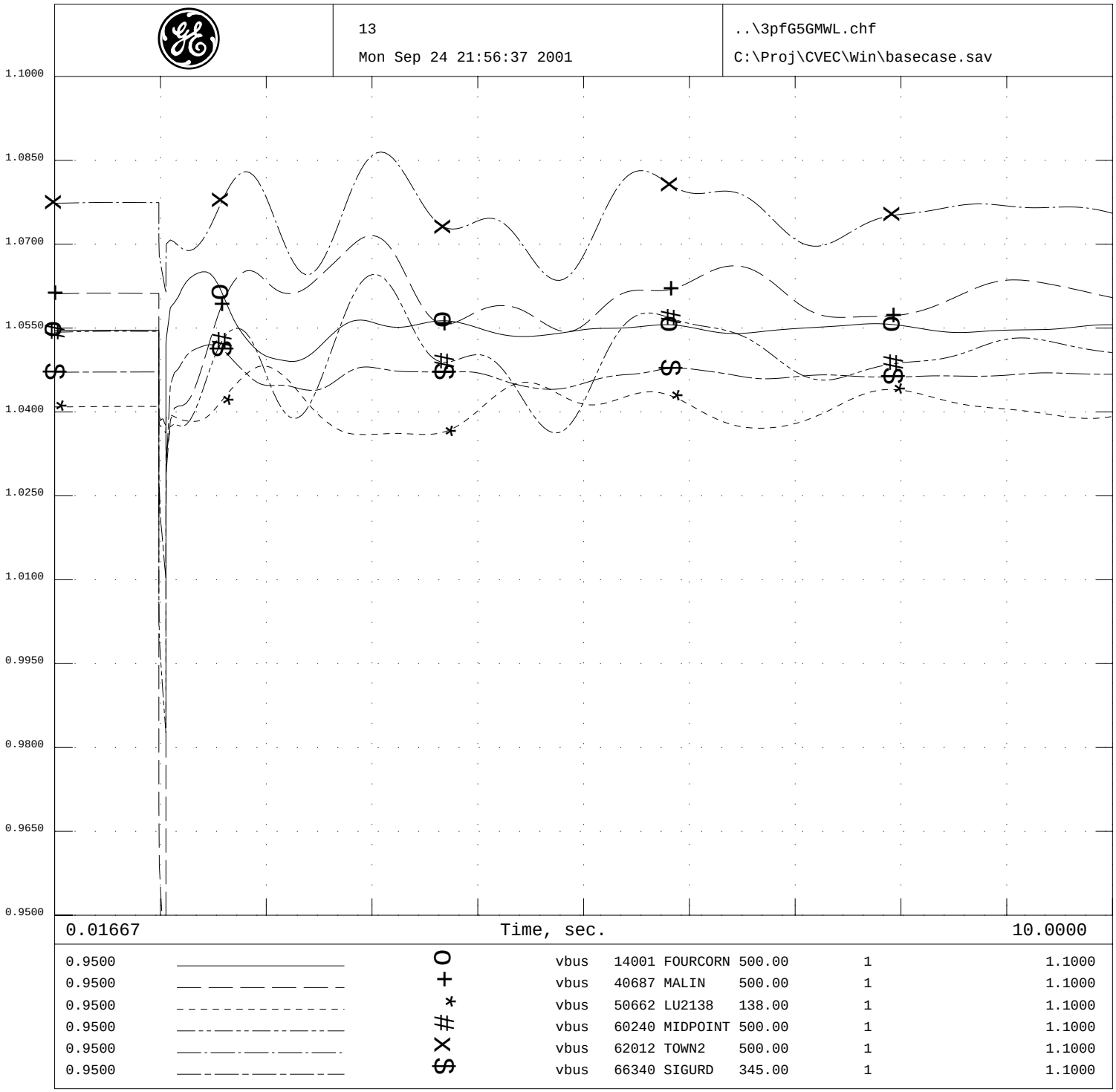

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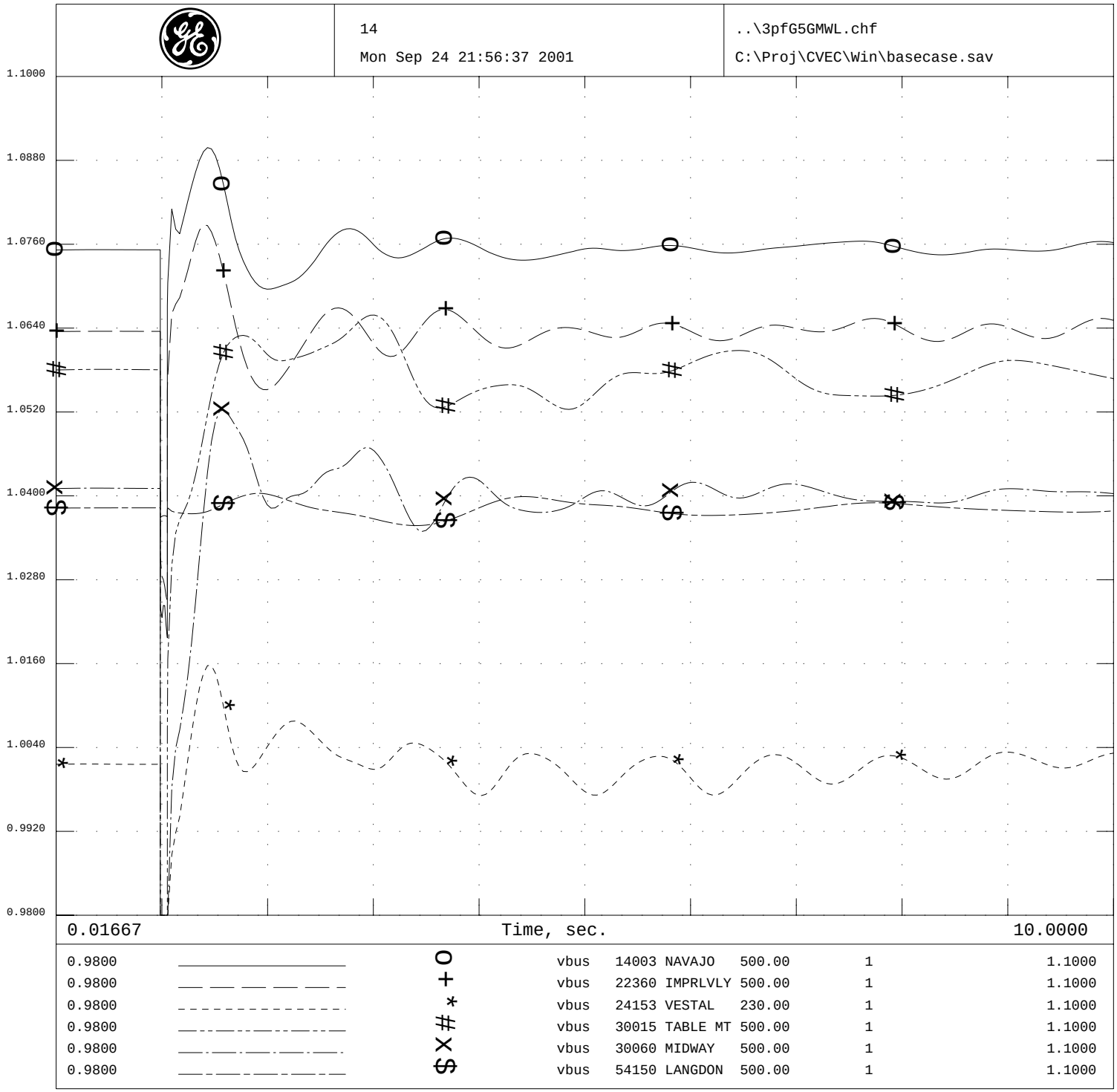

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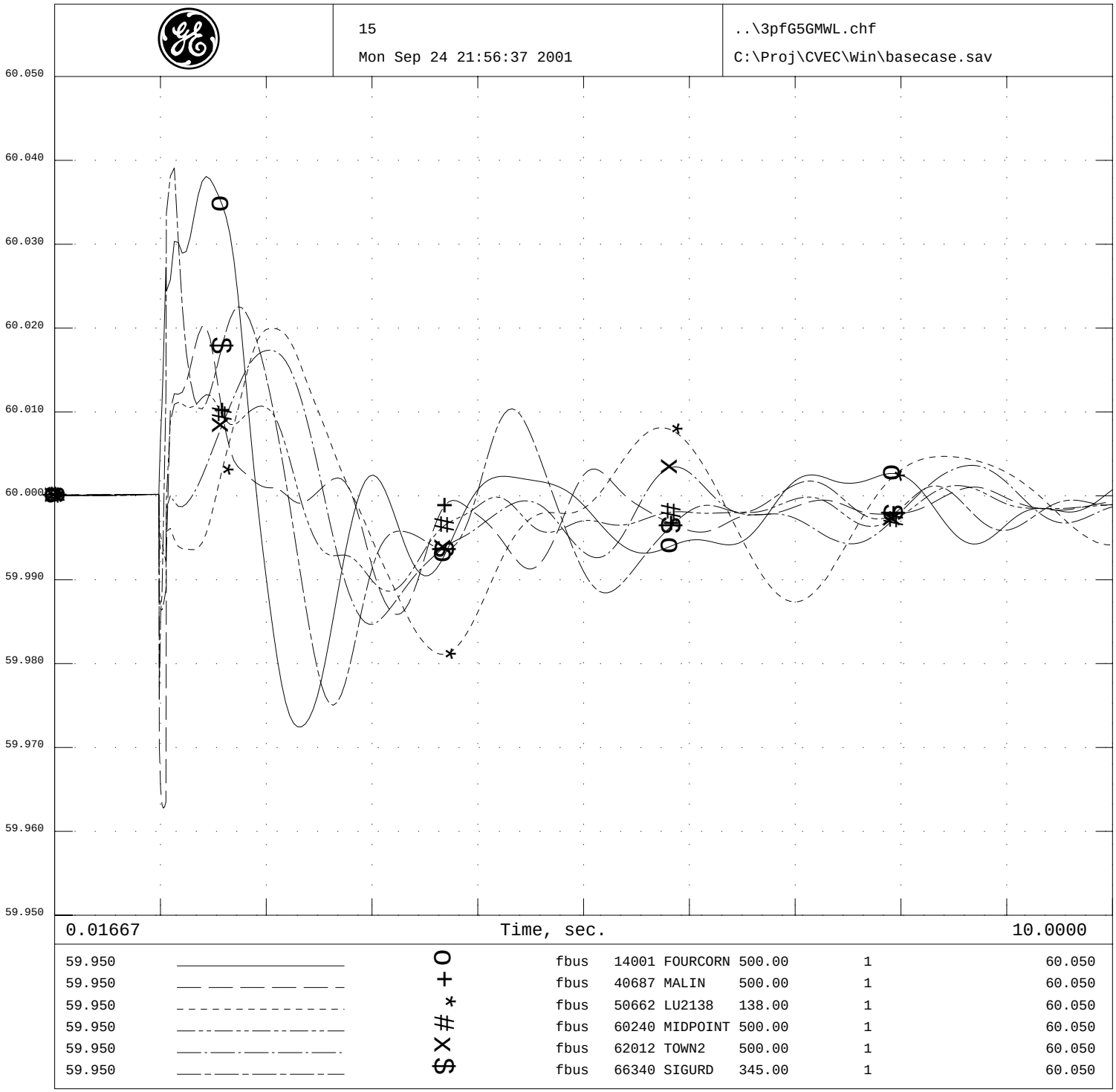

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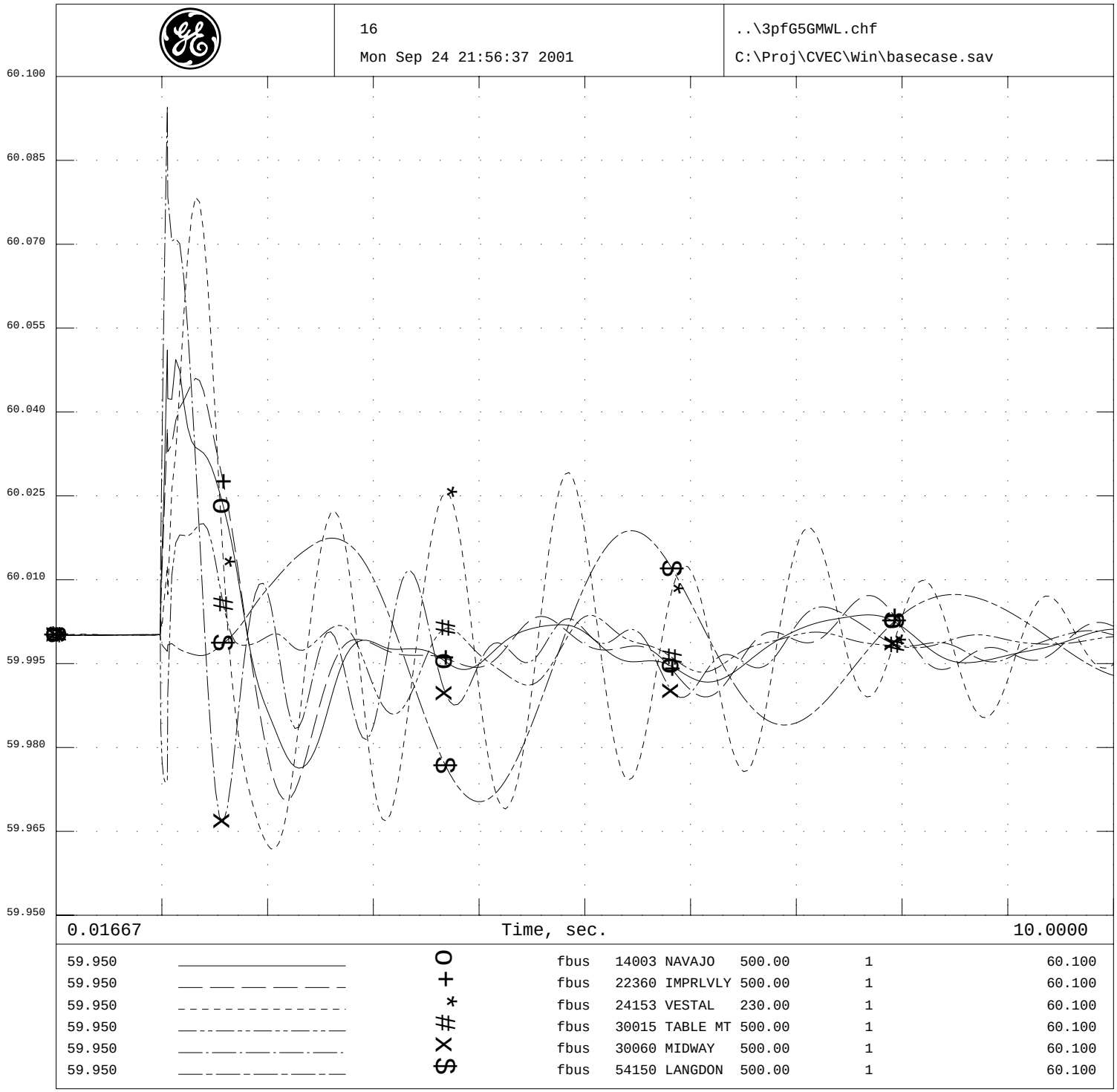

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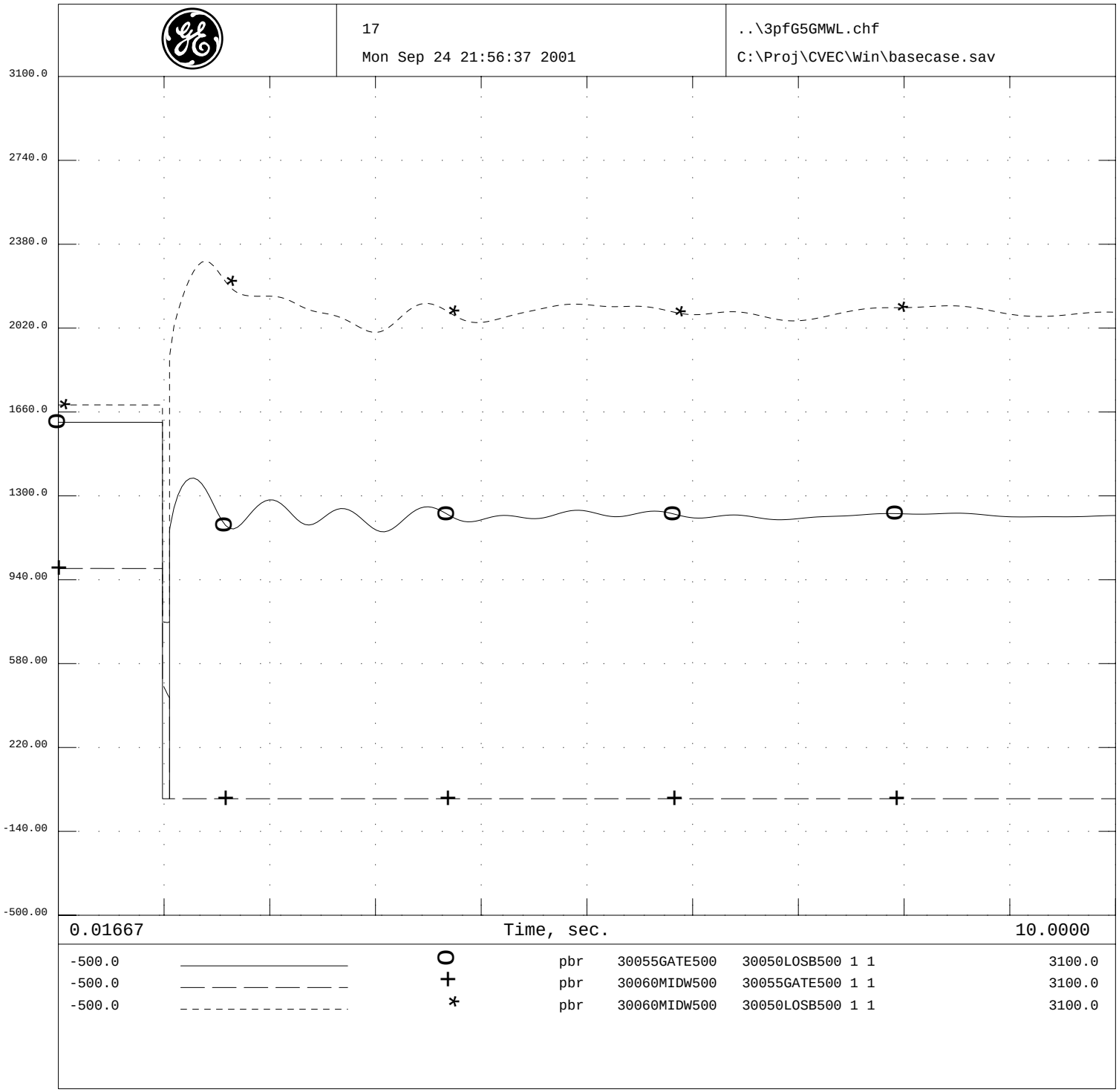

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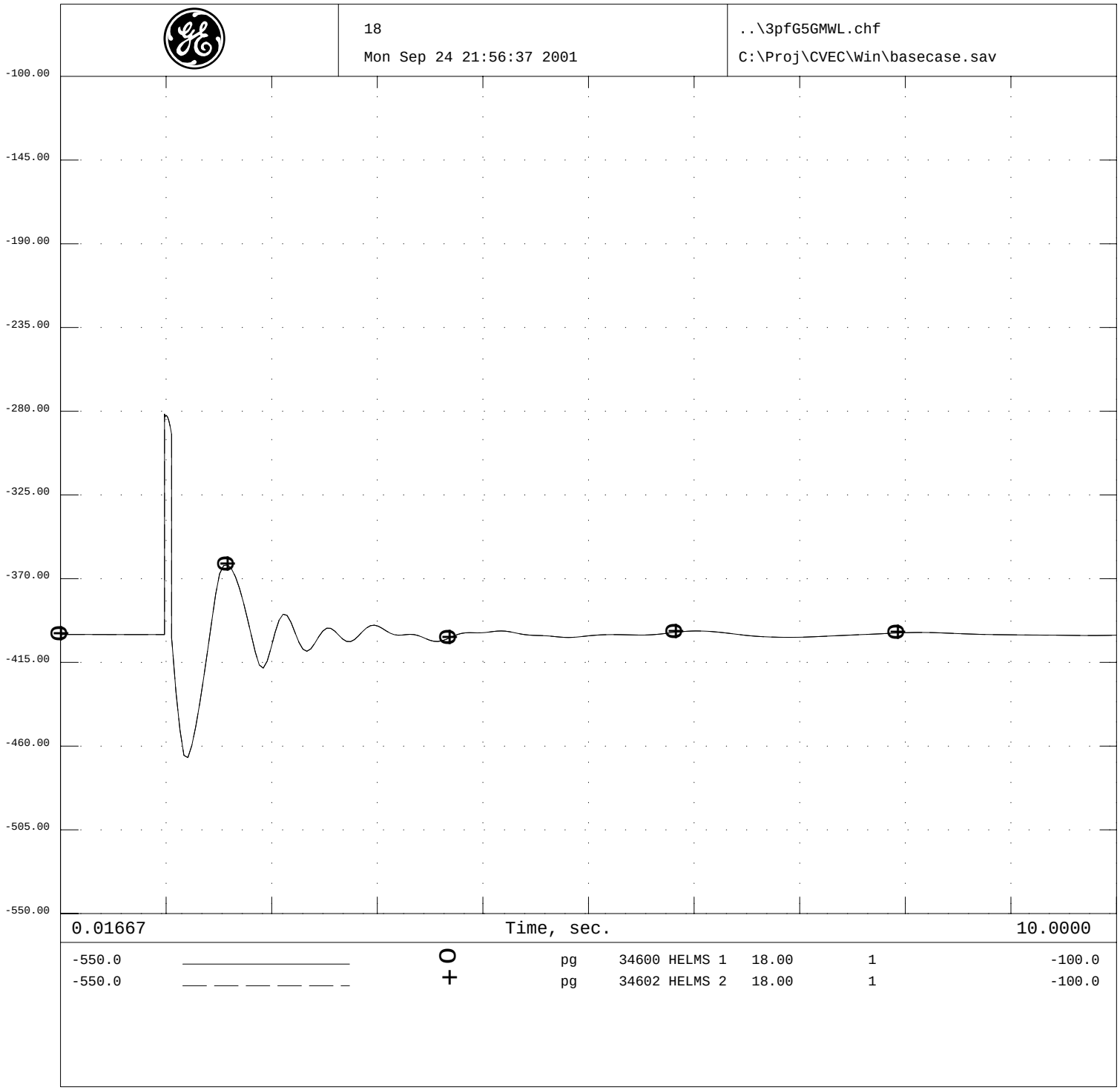

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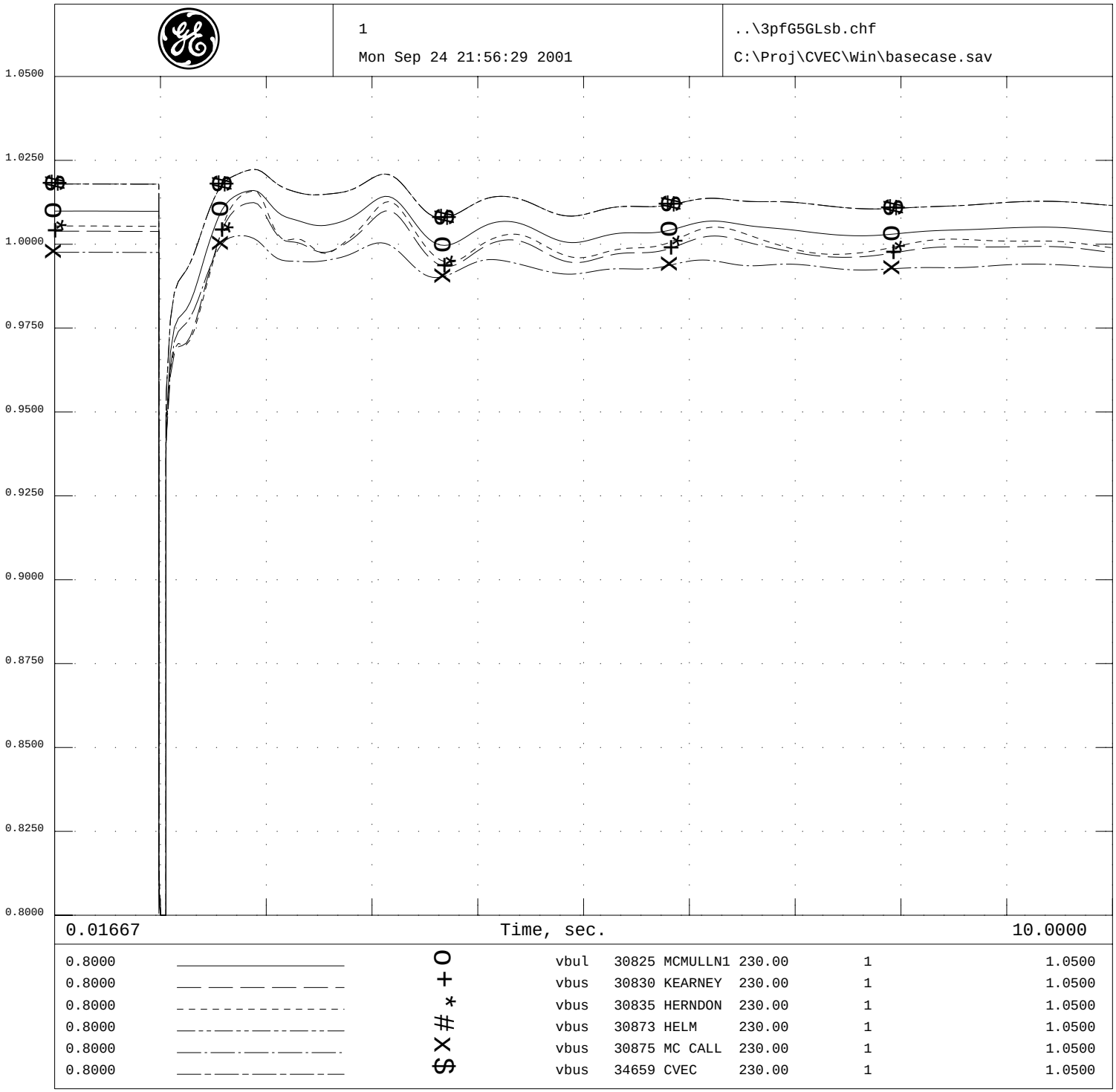

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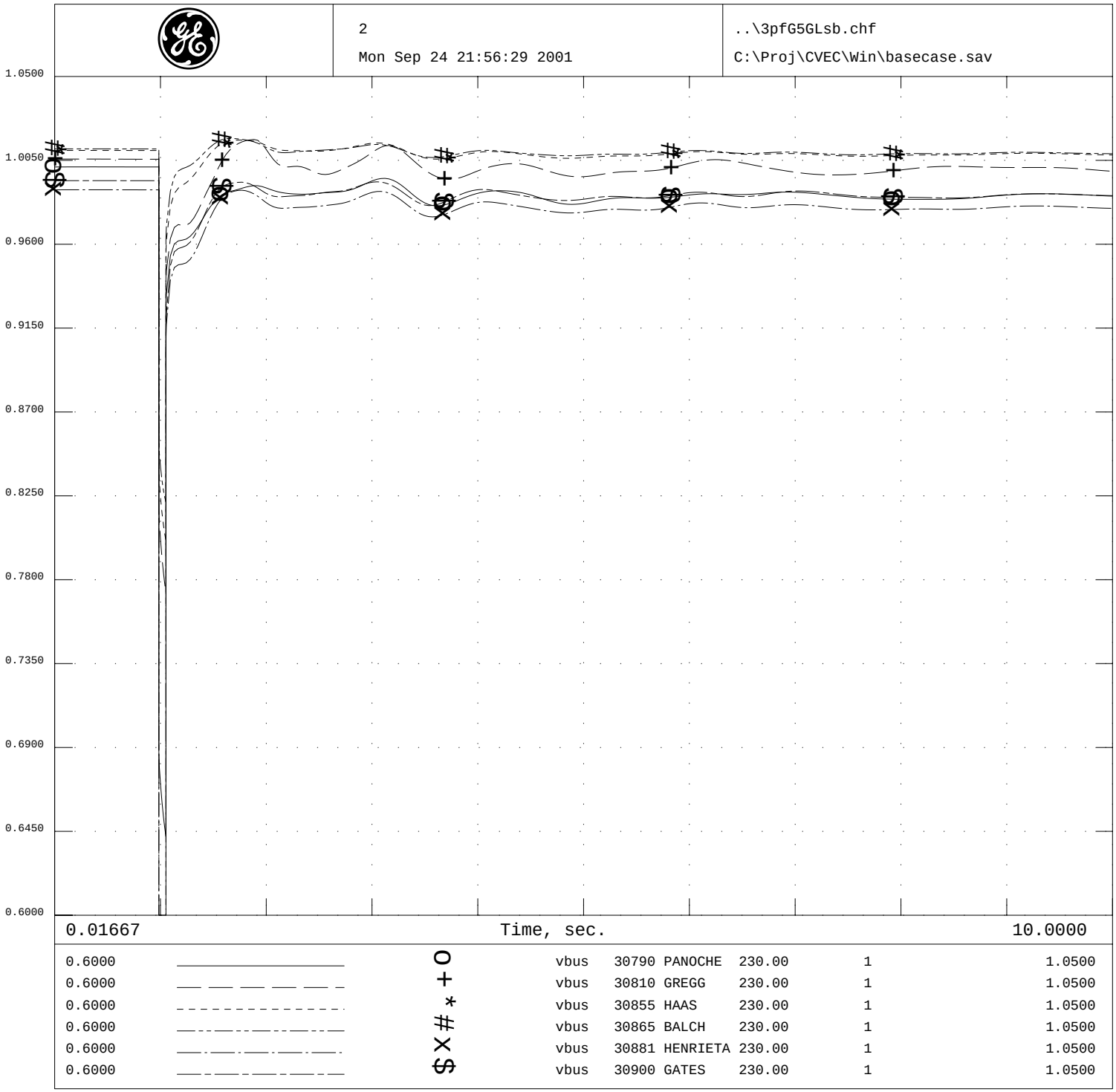

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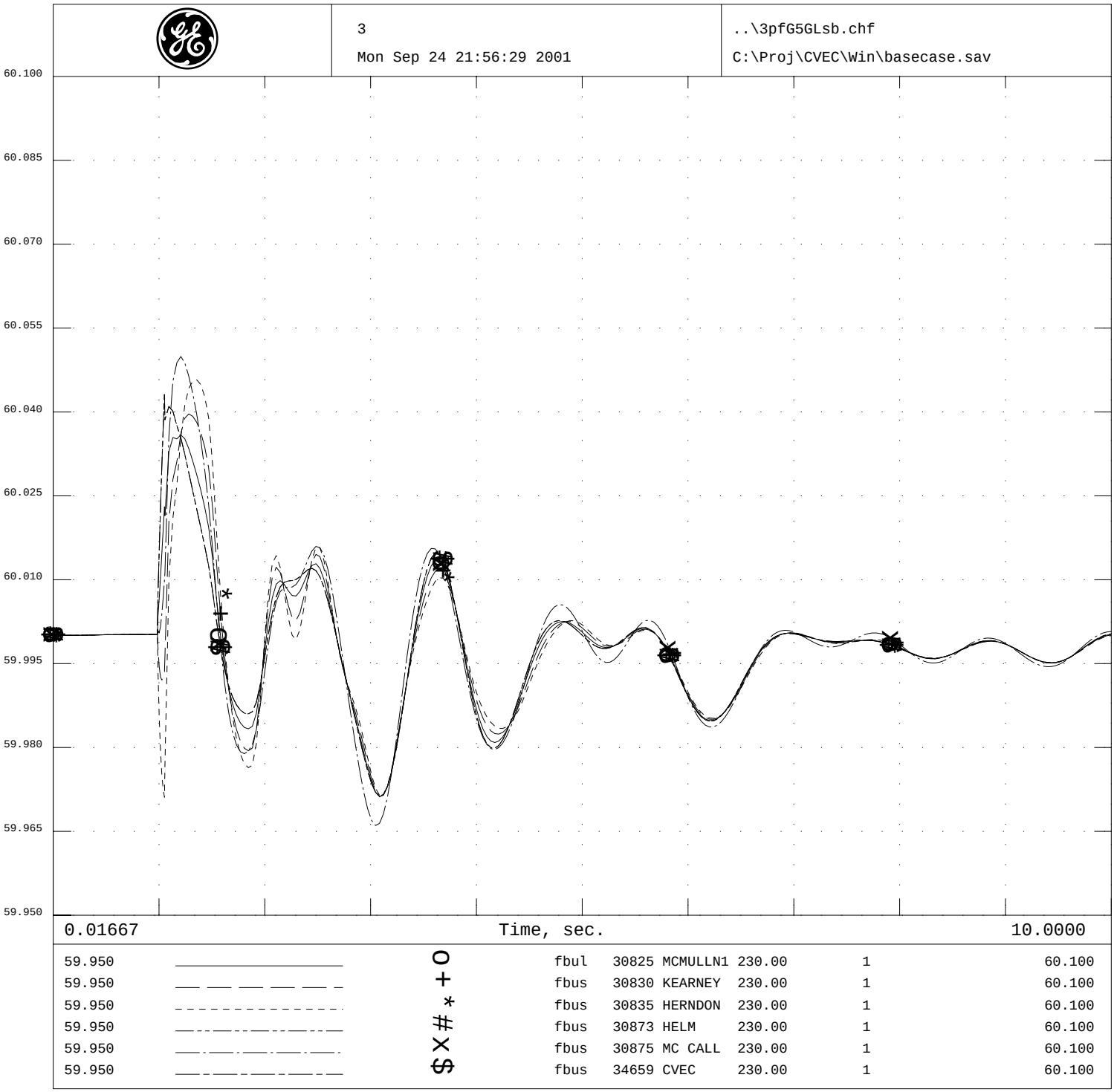

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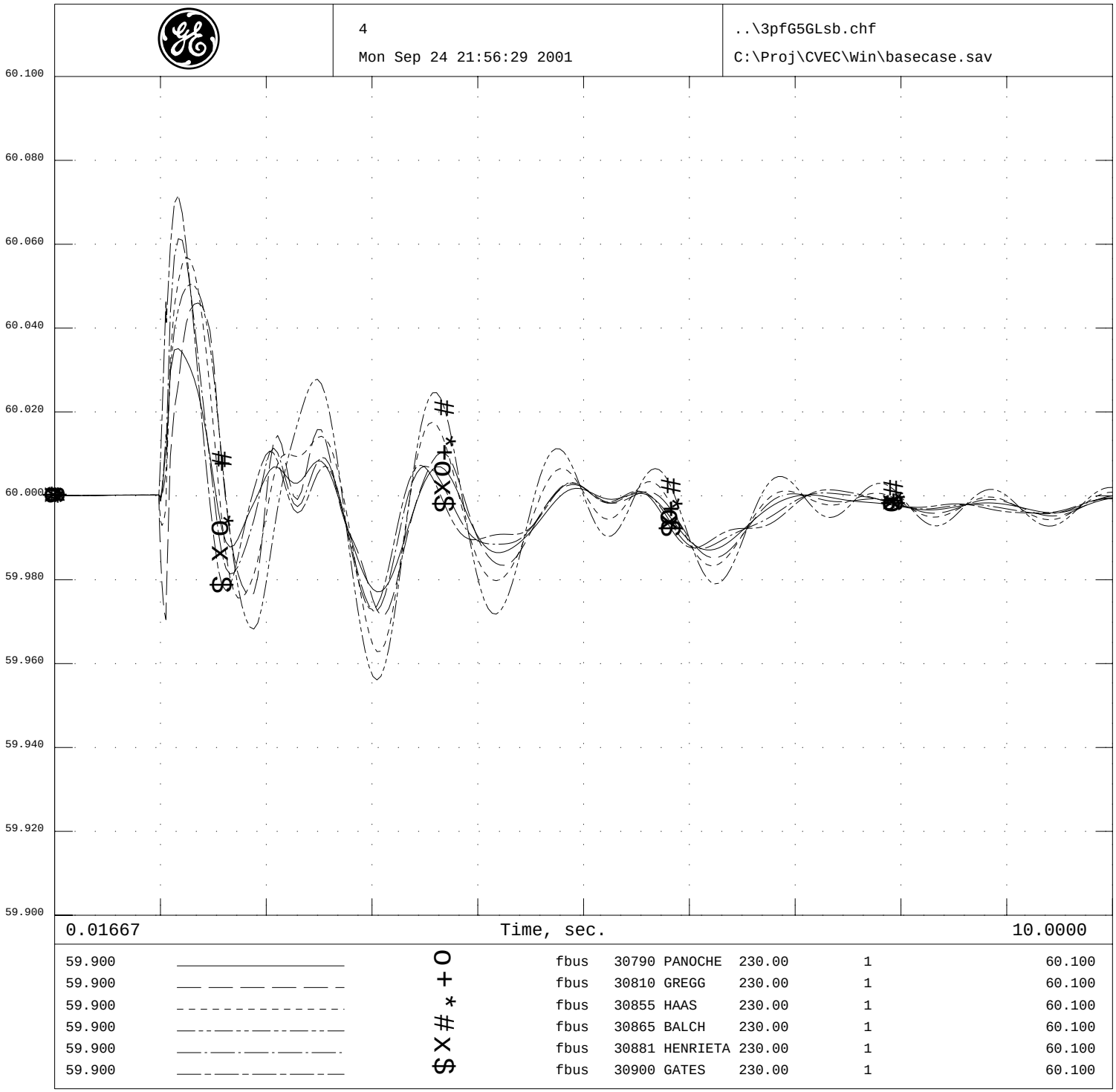

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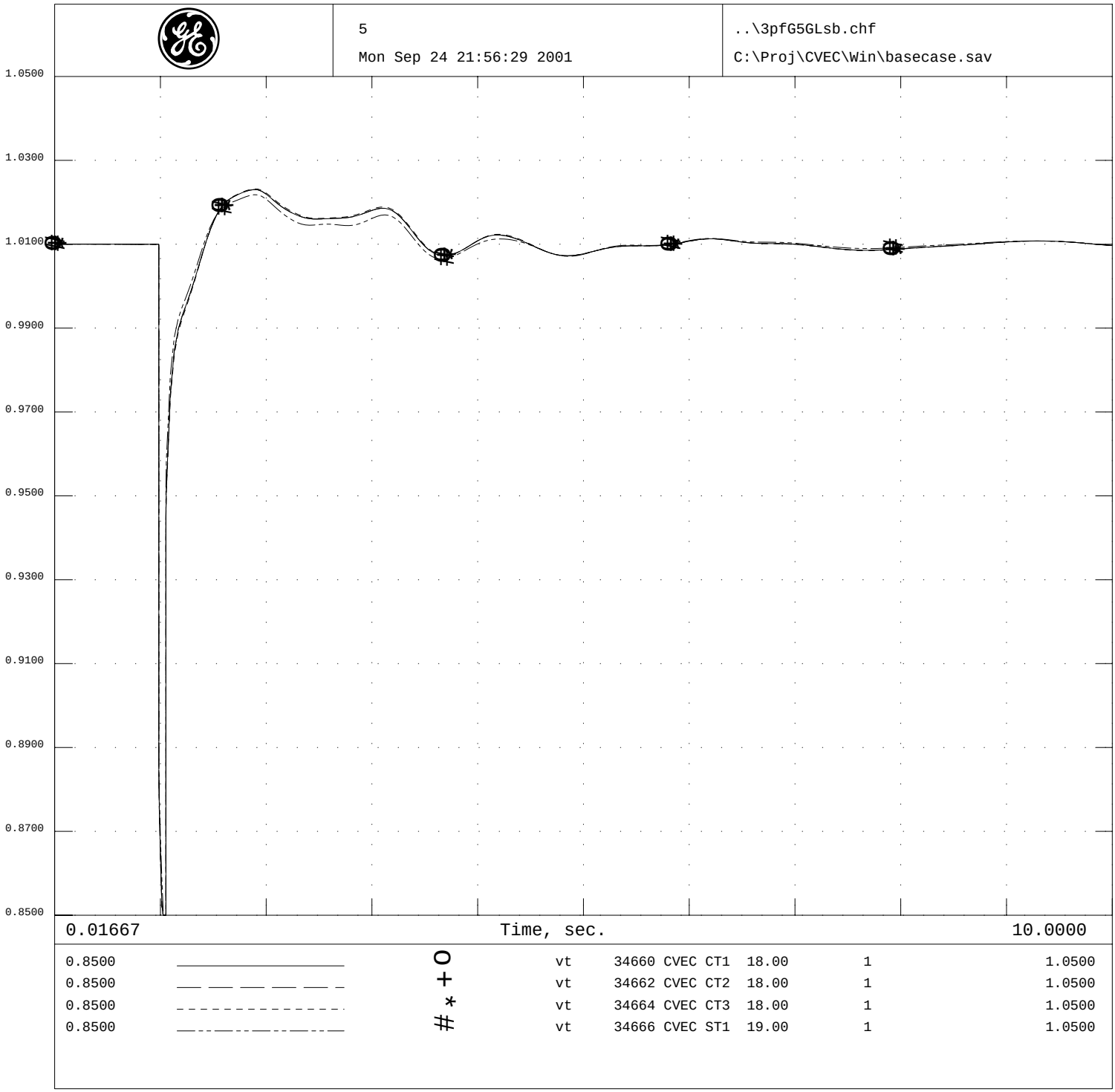

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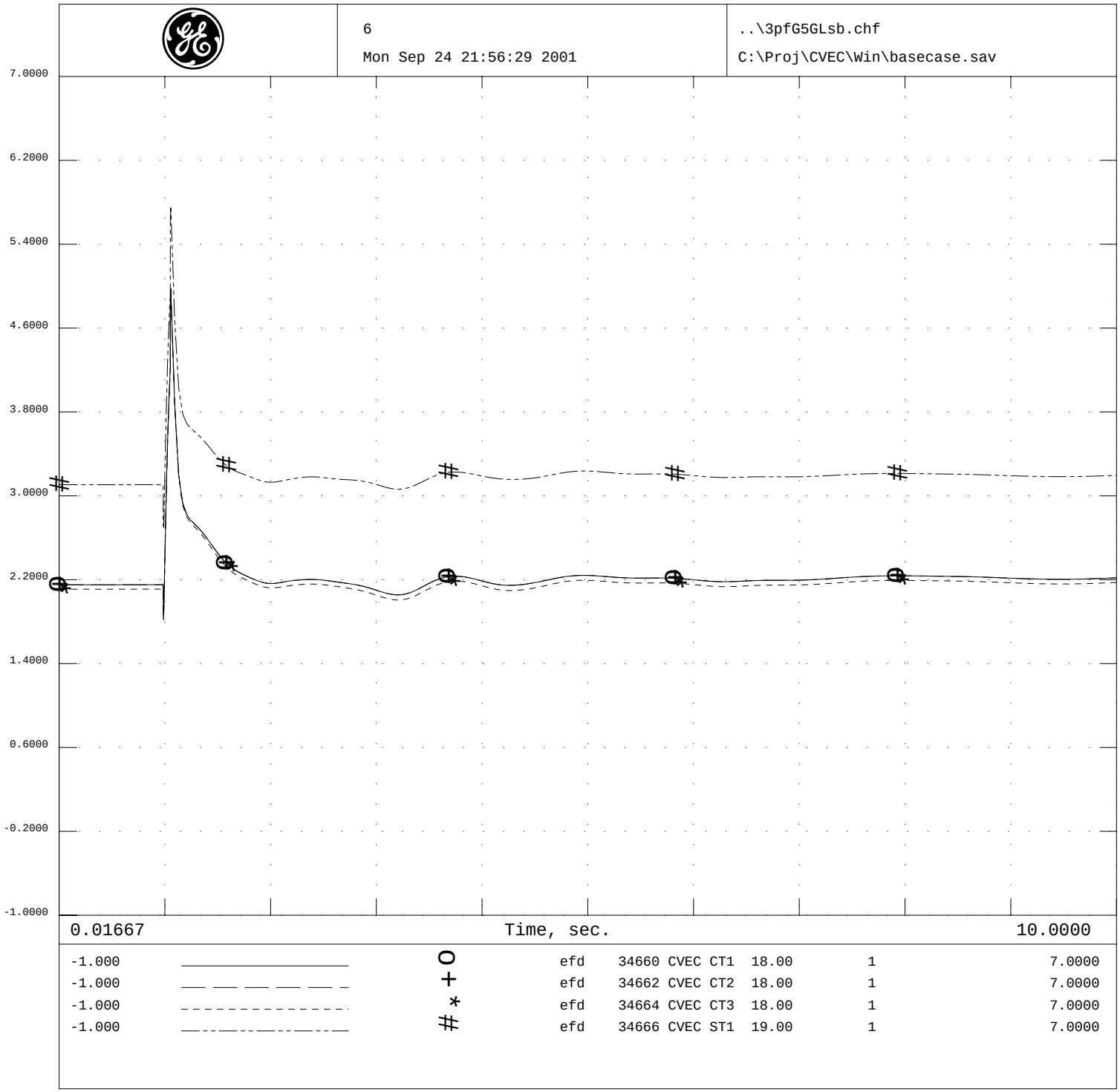
Project Generator Terminal Voltages



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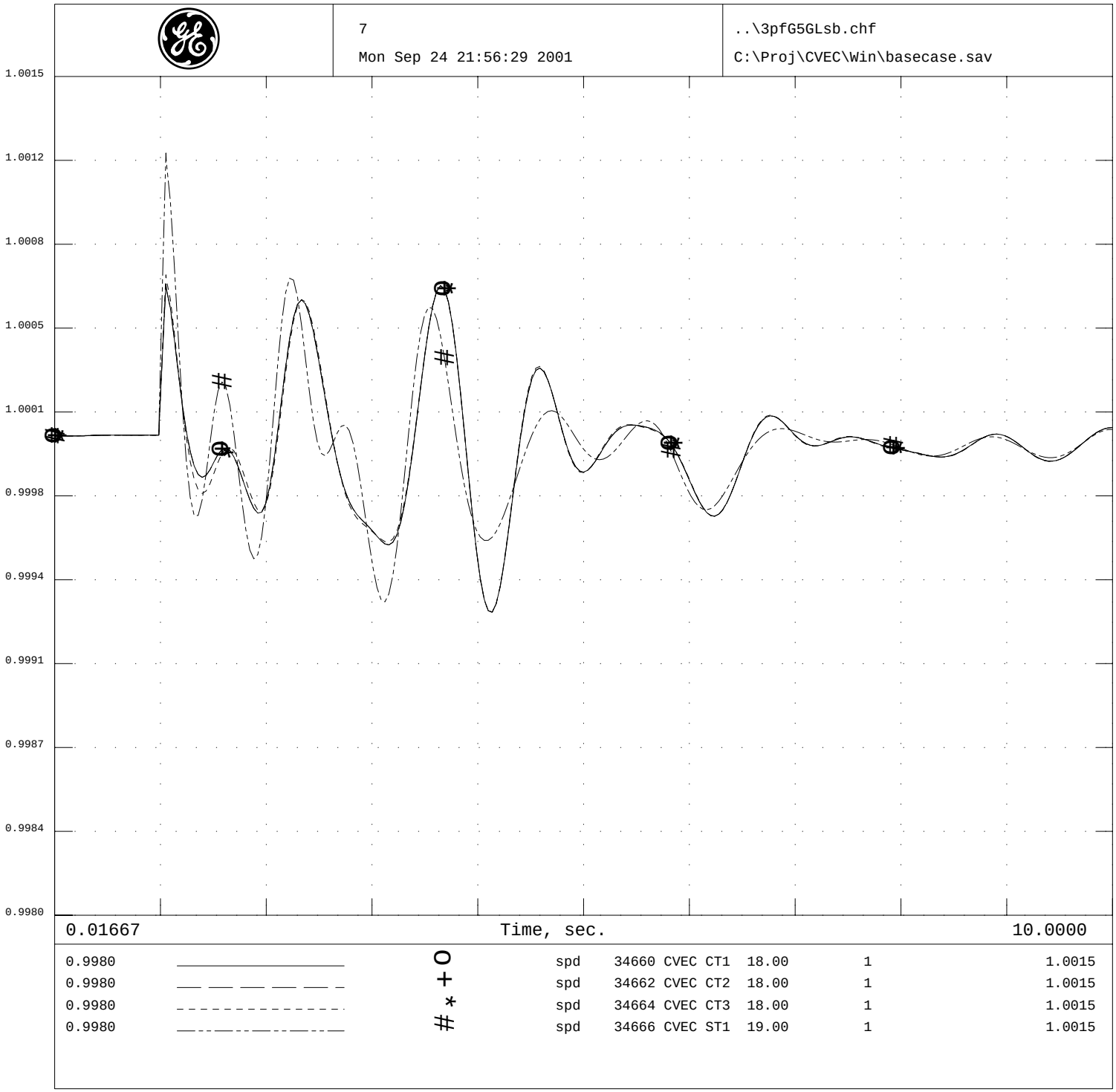

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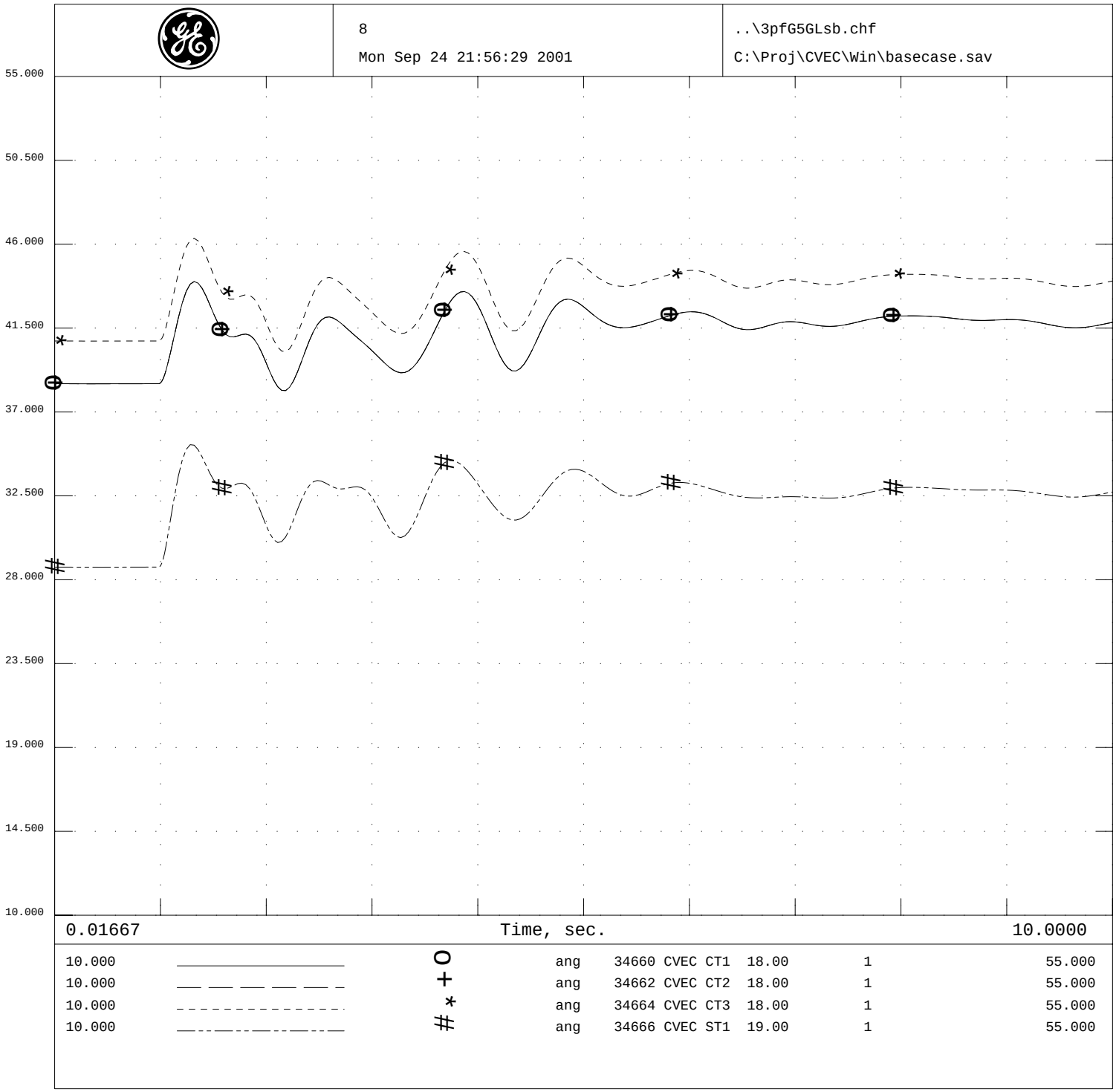
Project Generator Rotor Speed



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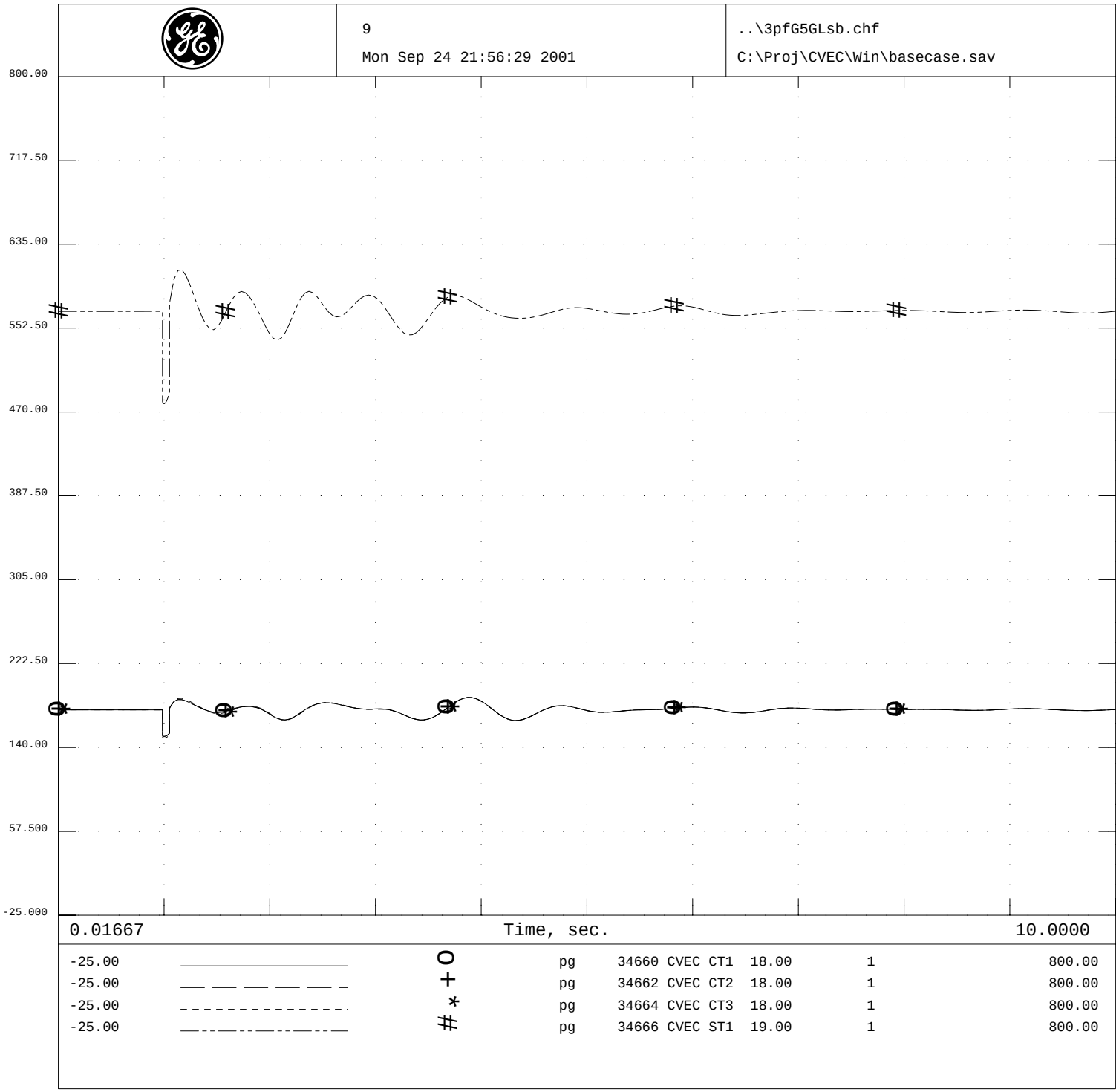
Project Generator Rotor Angle



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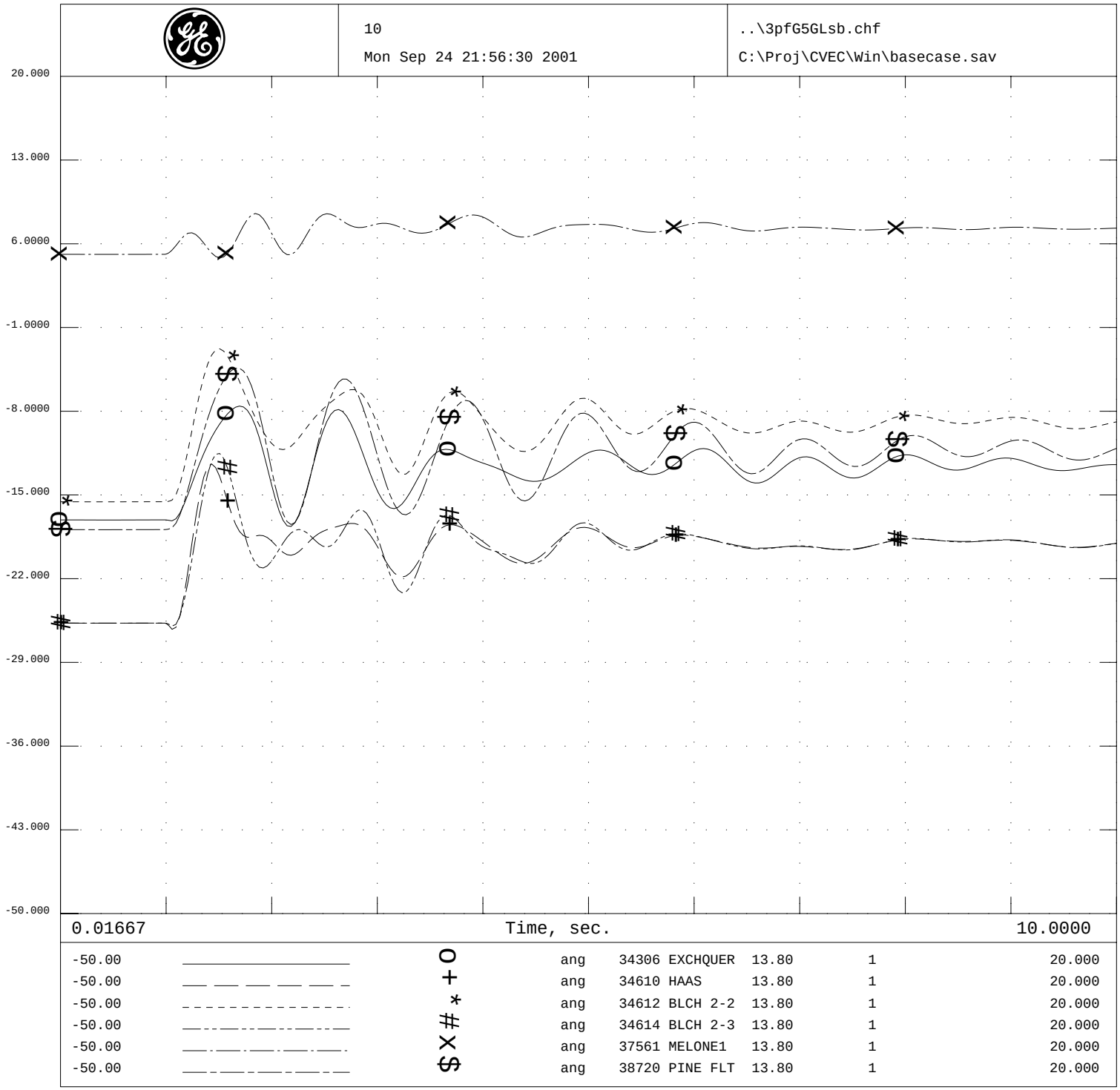

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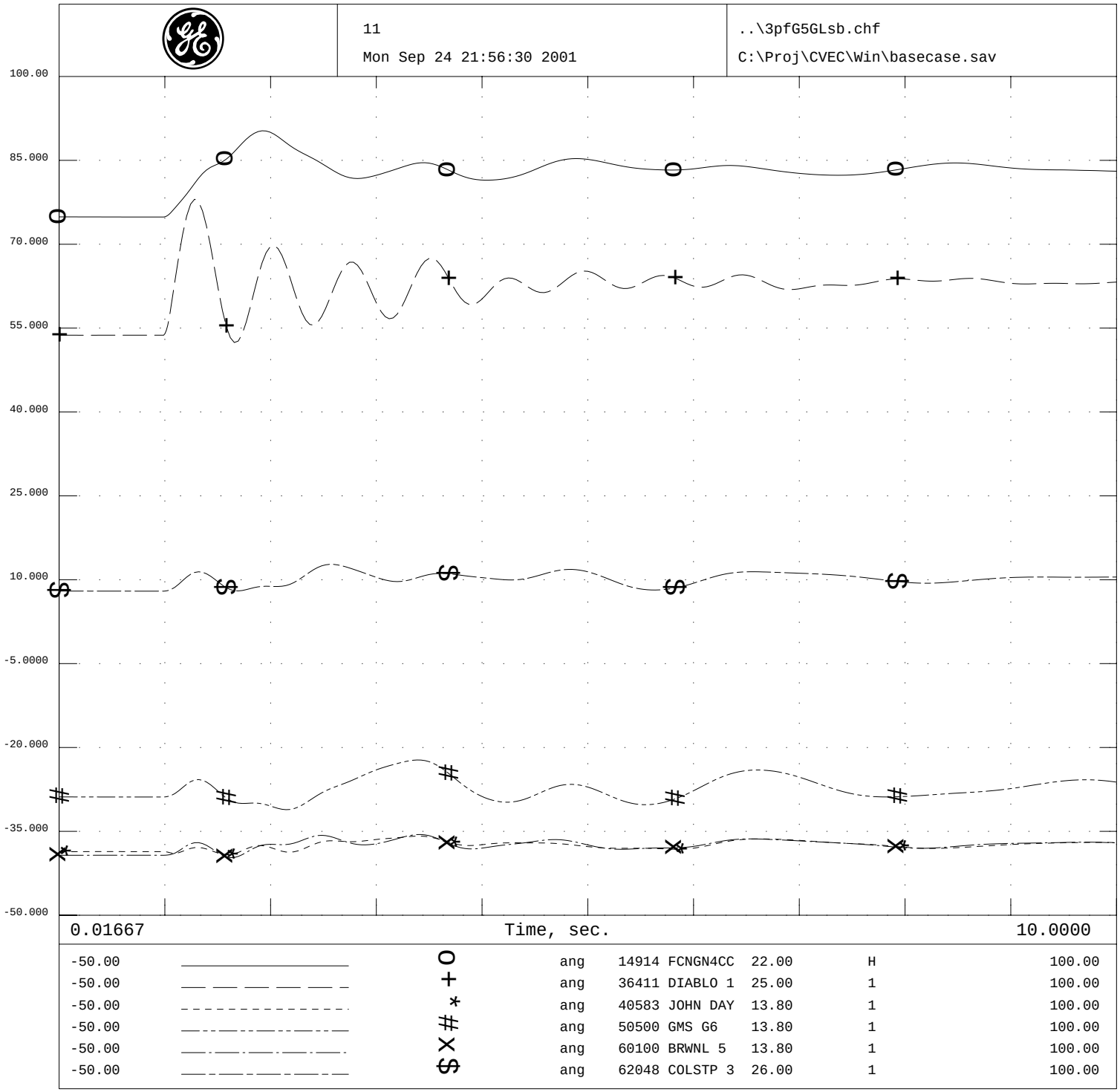

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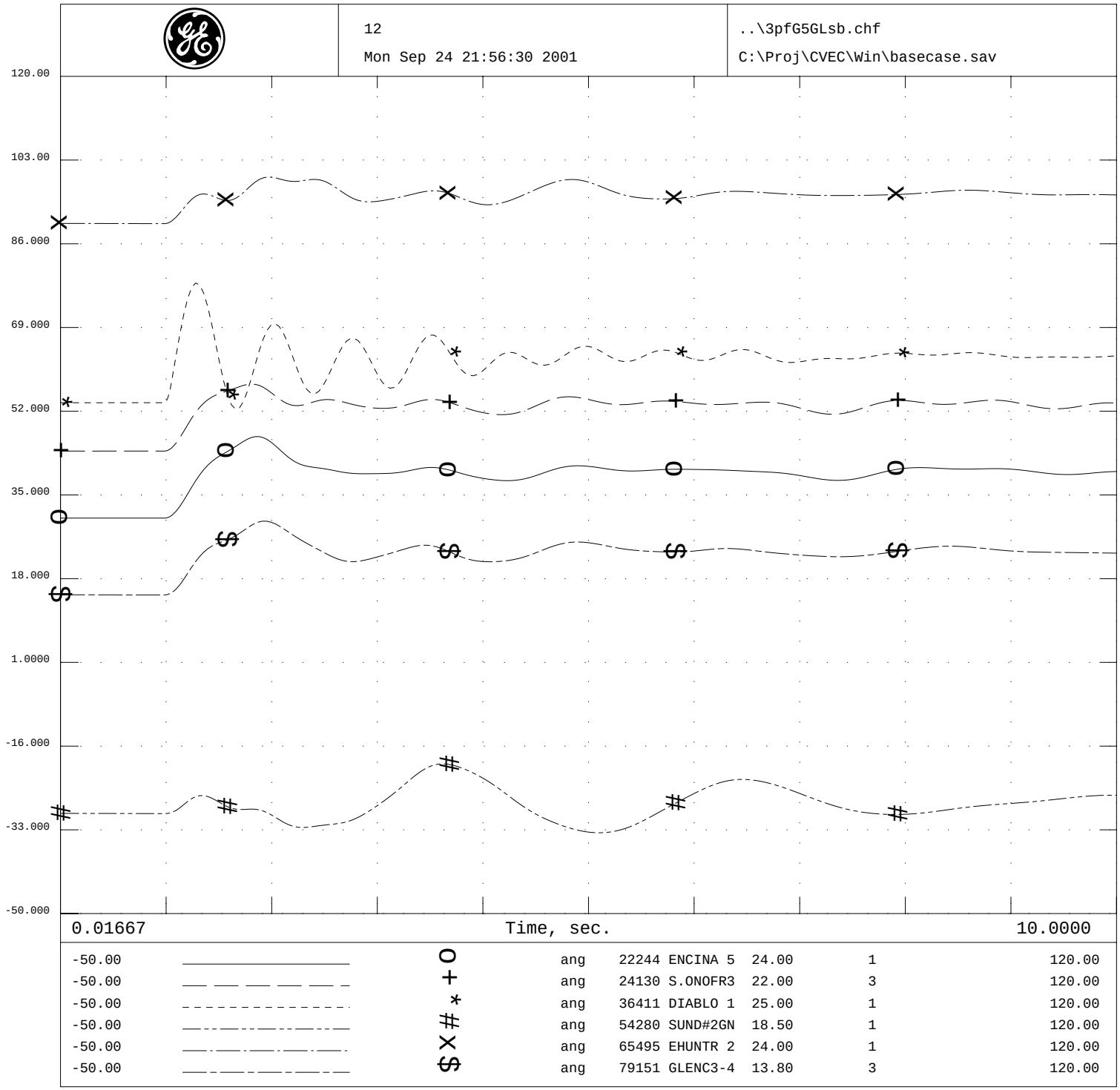

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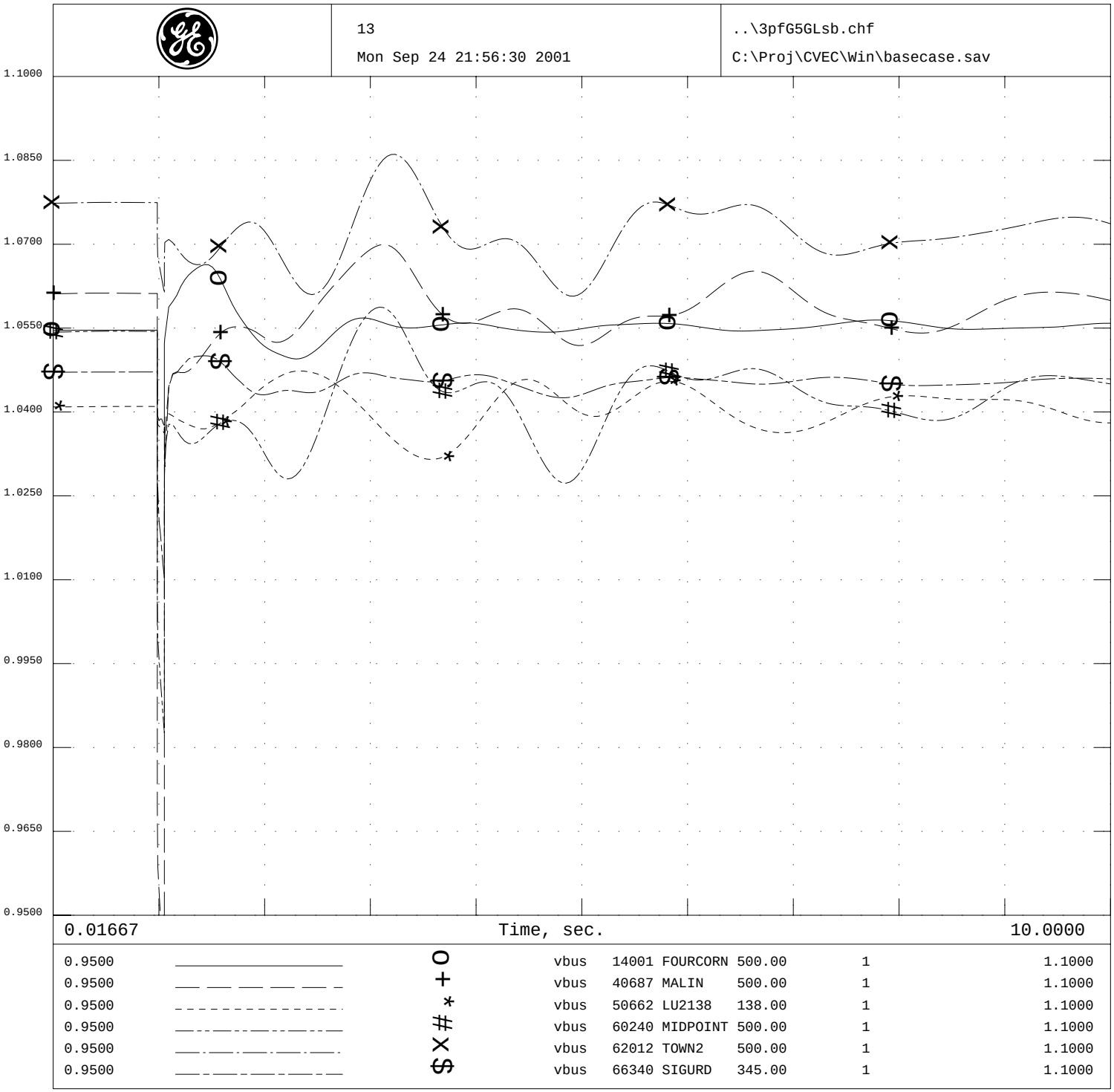

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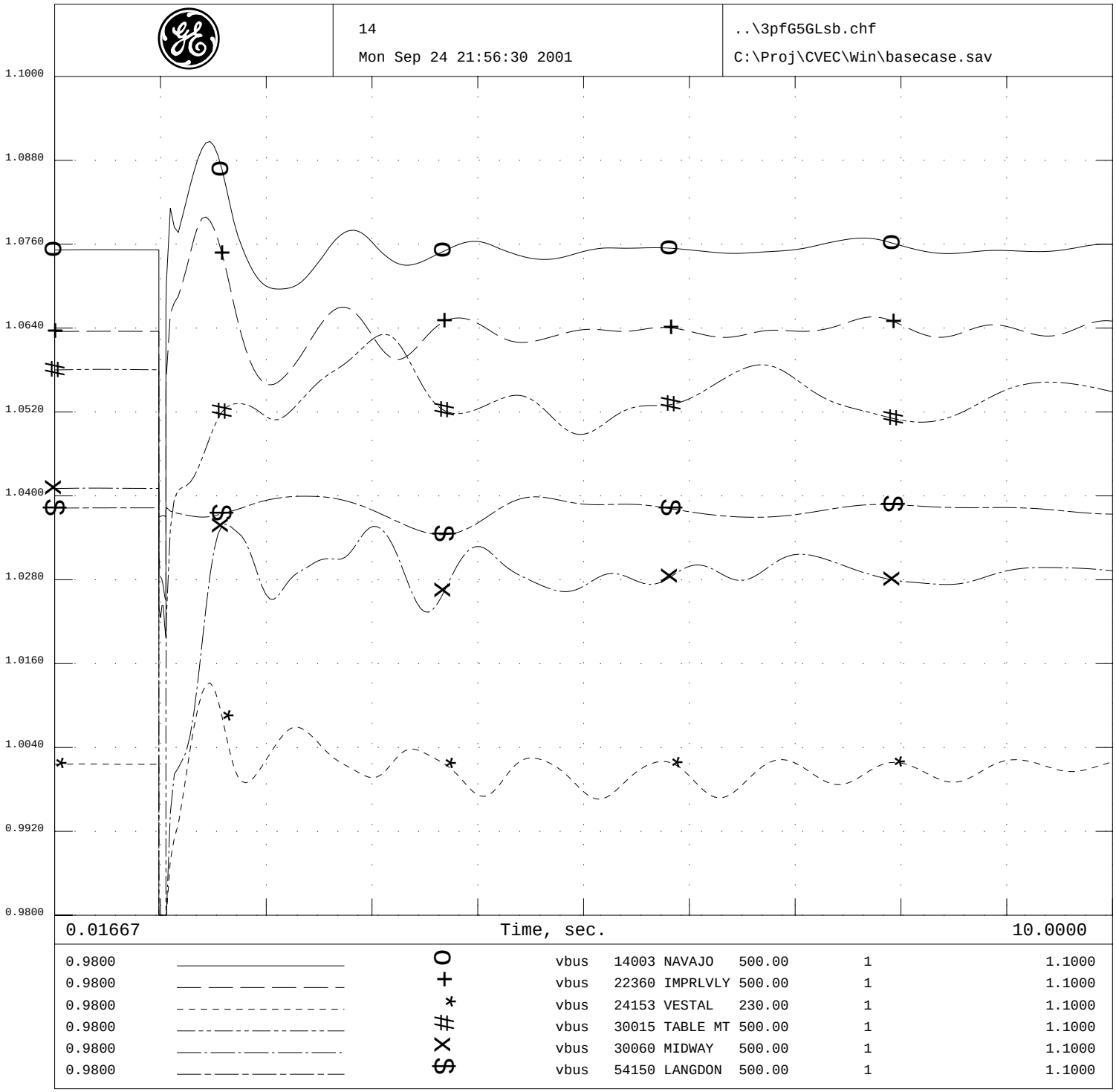

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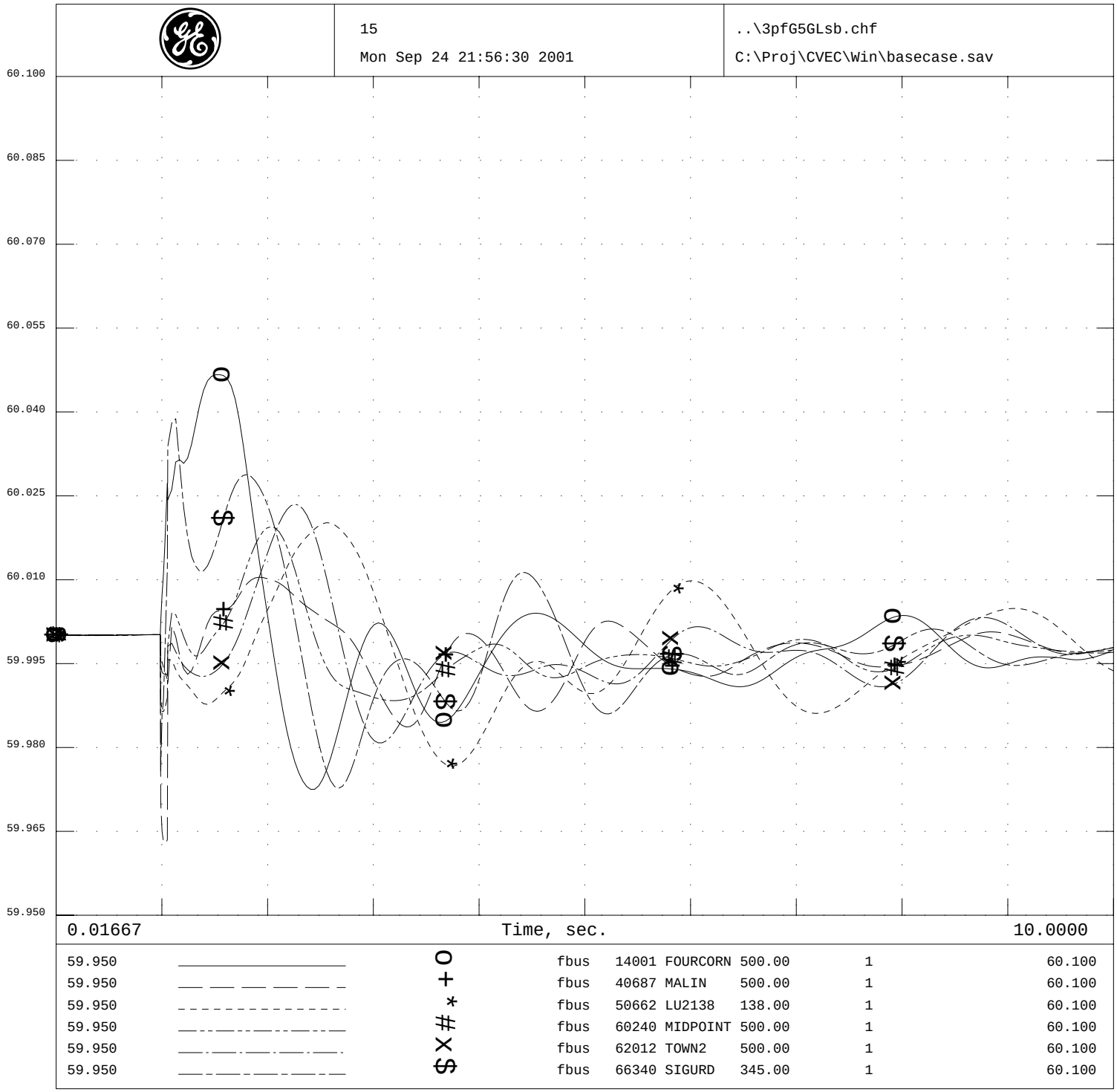

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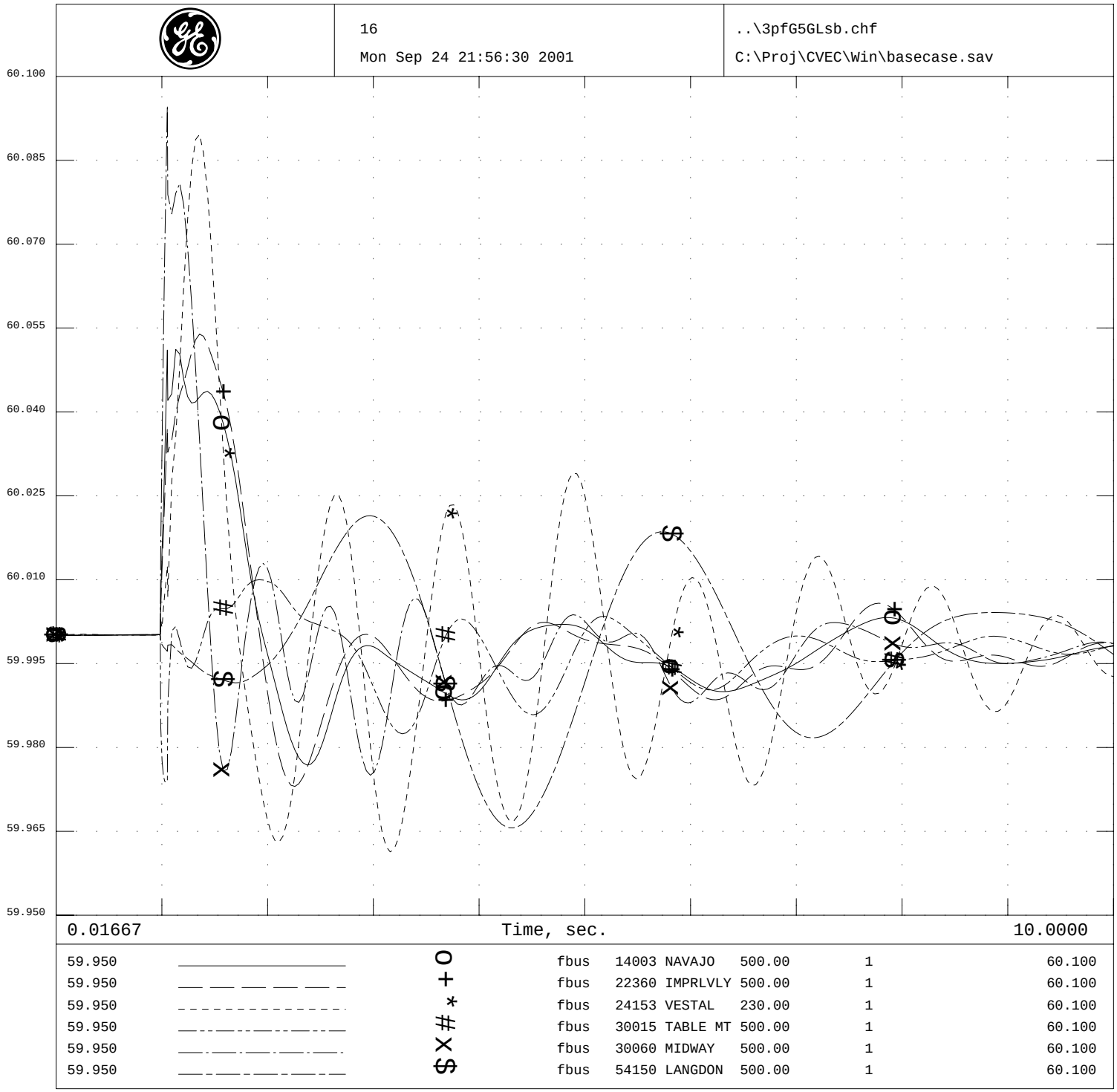

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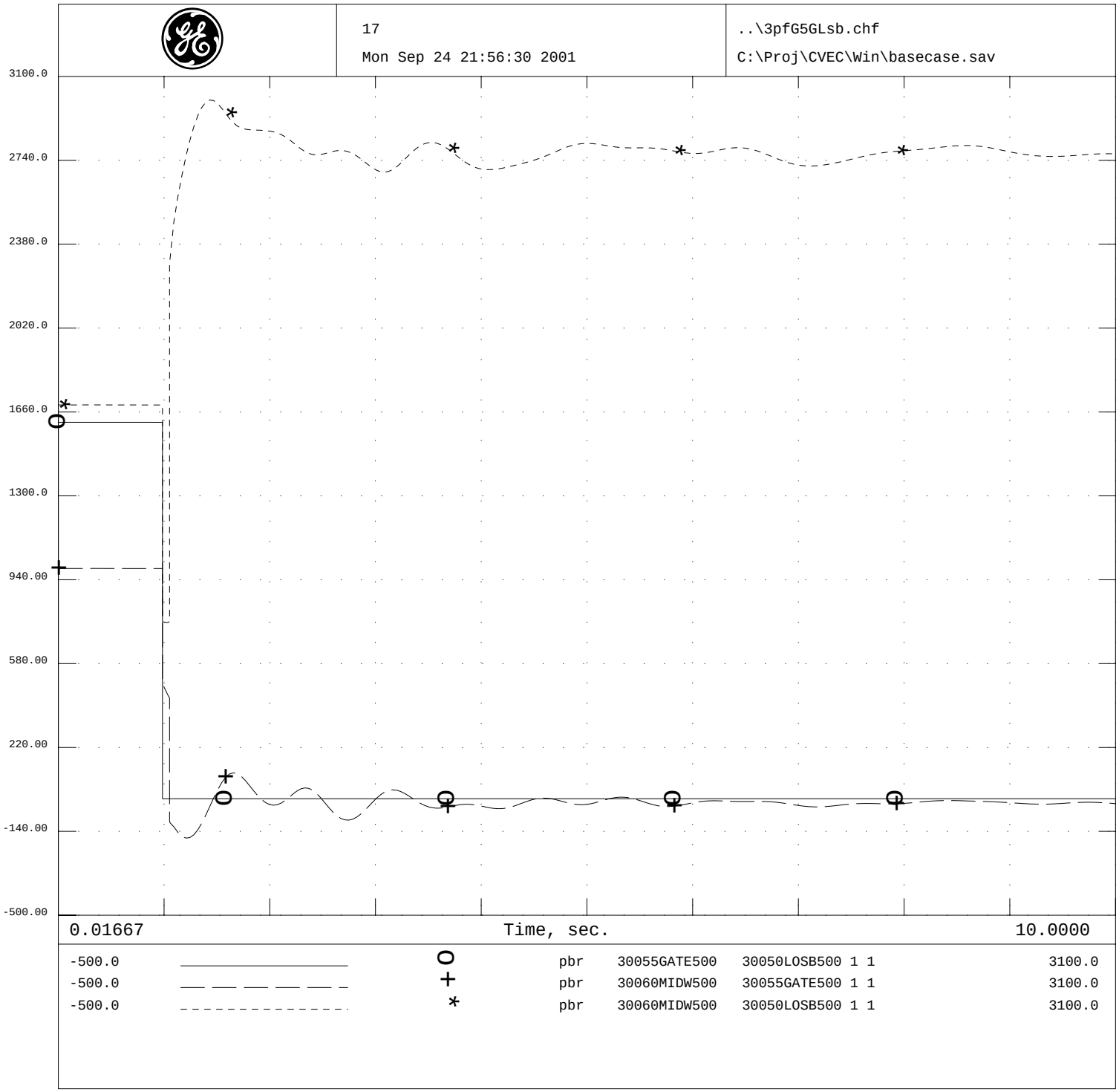

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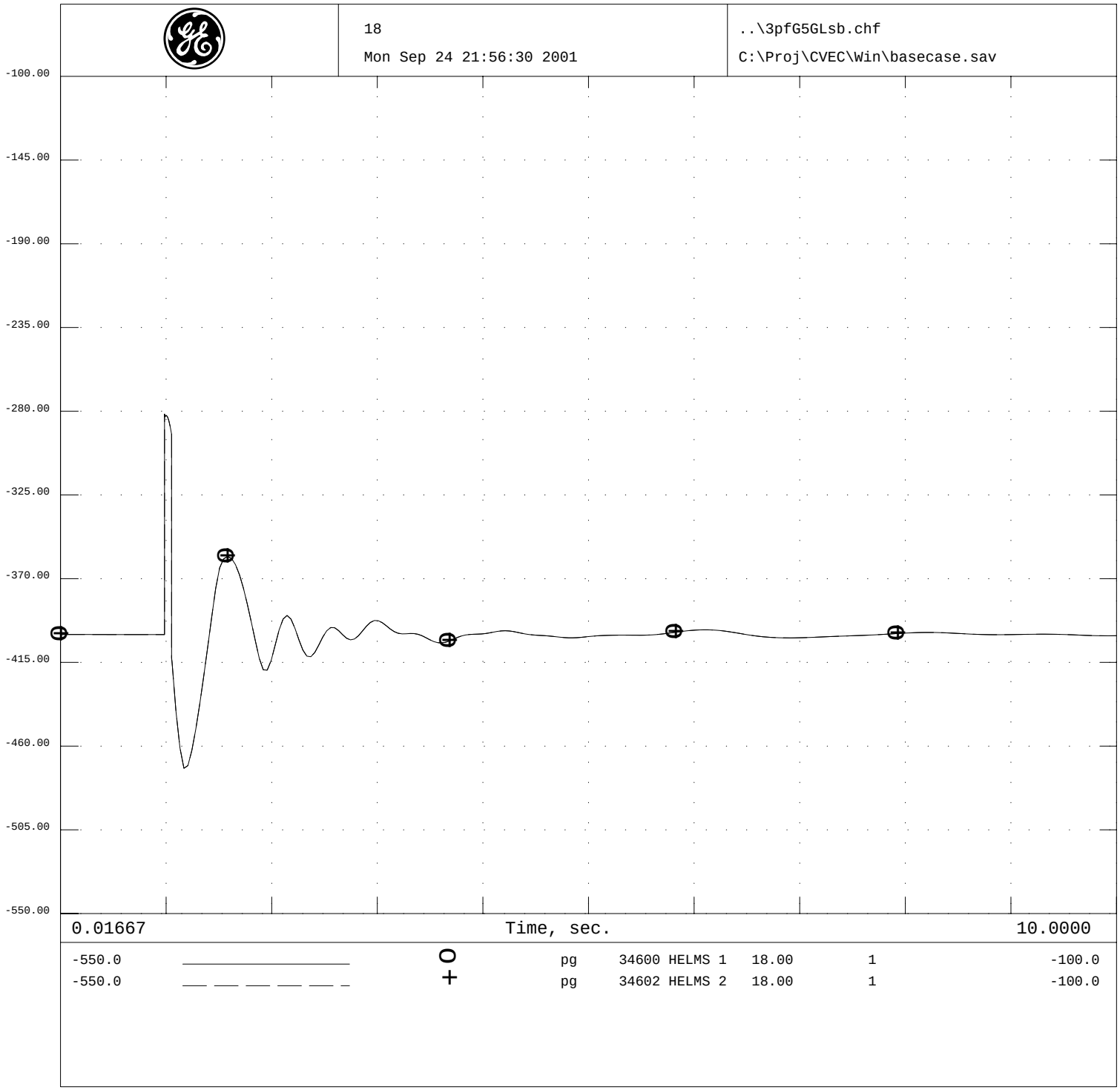

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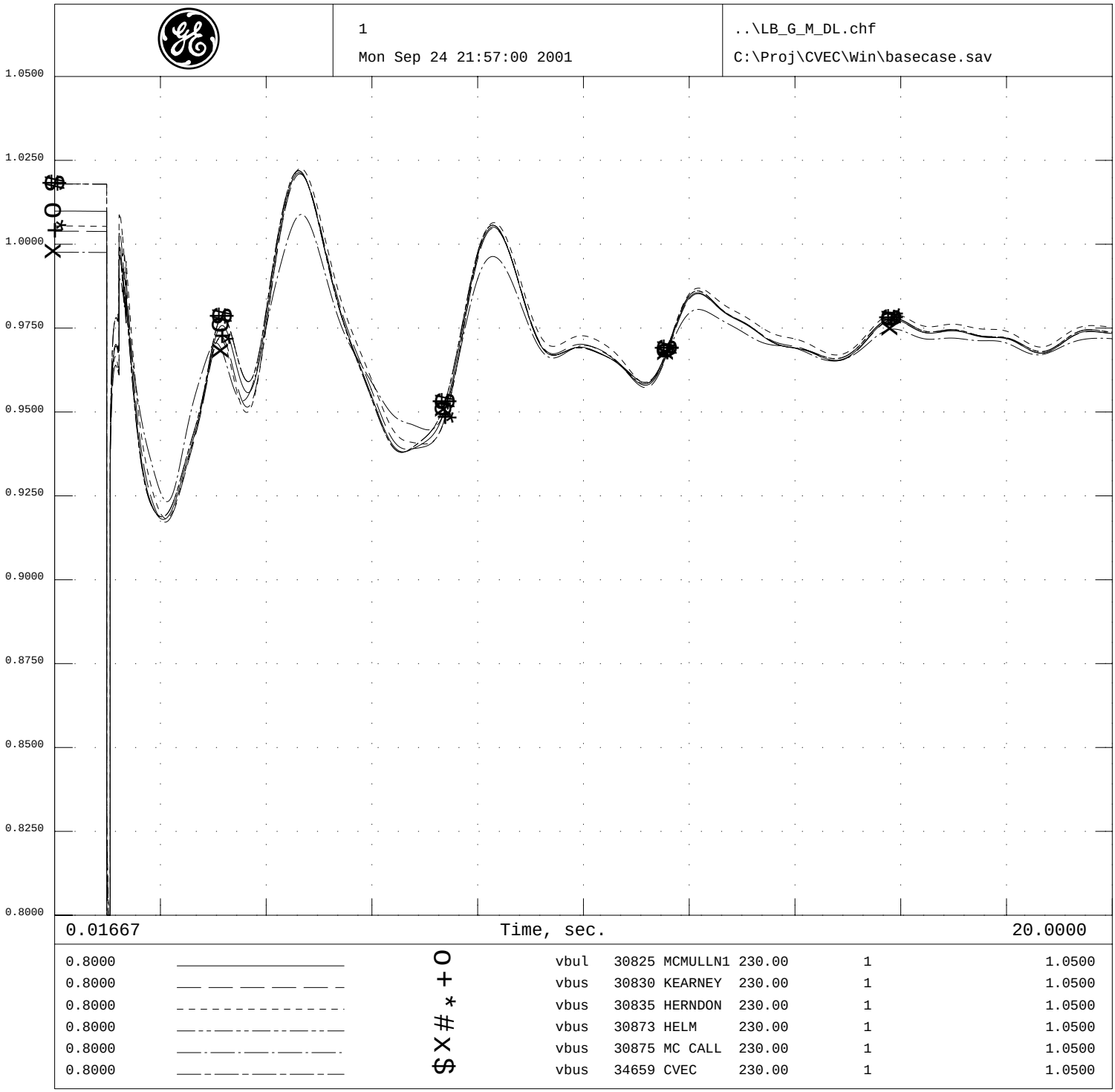

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Double line outage south of Los Banos 500
Fault on Los Banos 500 kV bus

Central Valley Energy Center
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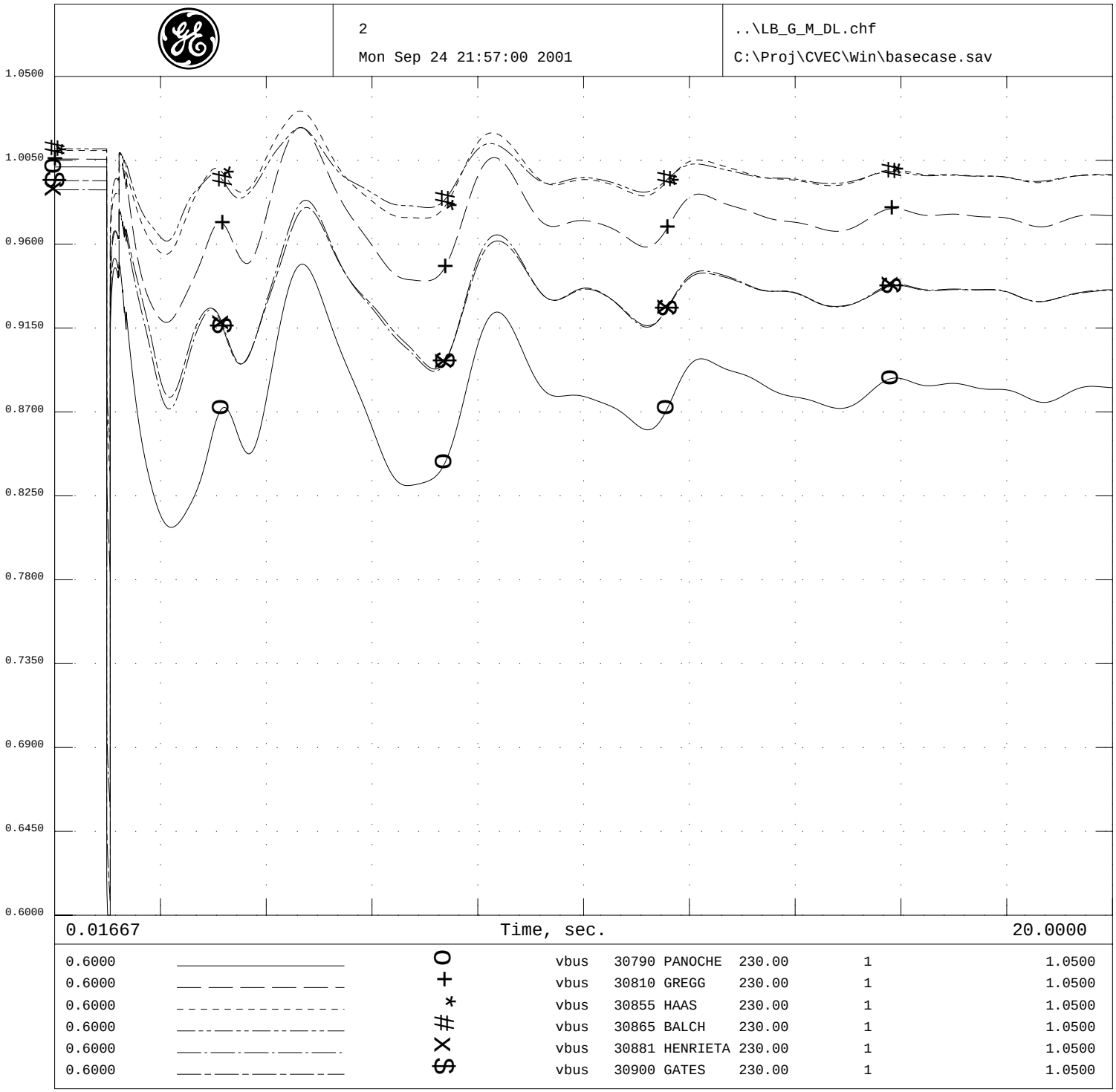

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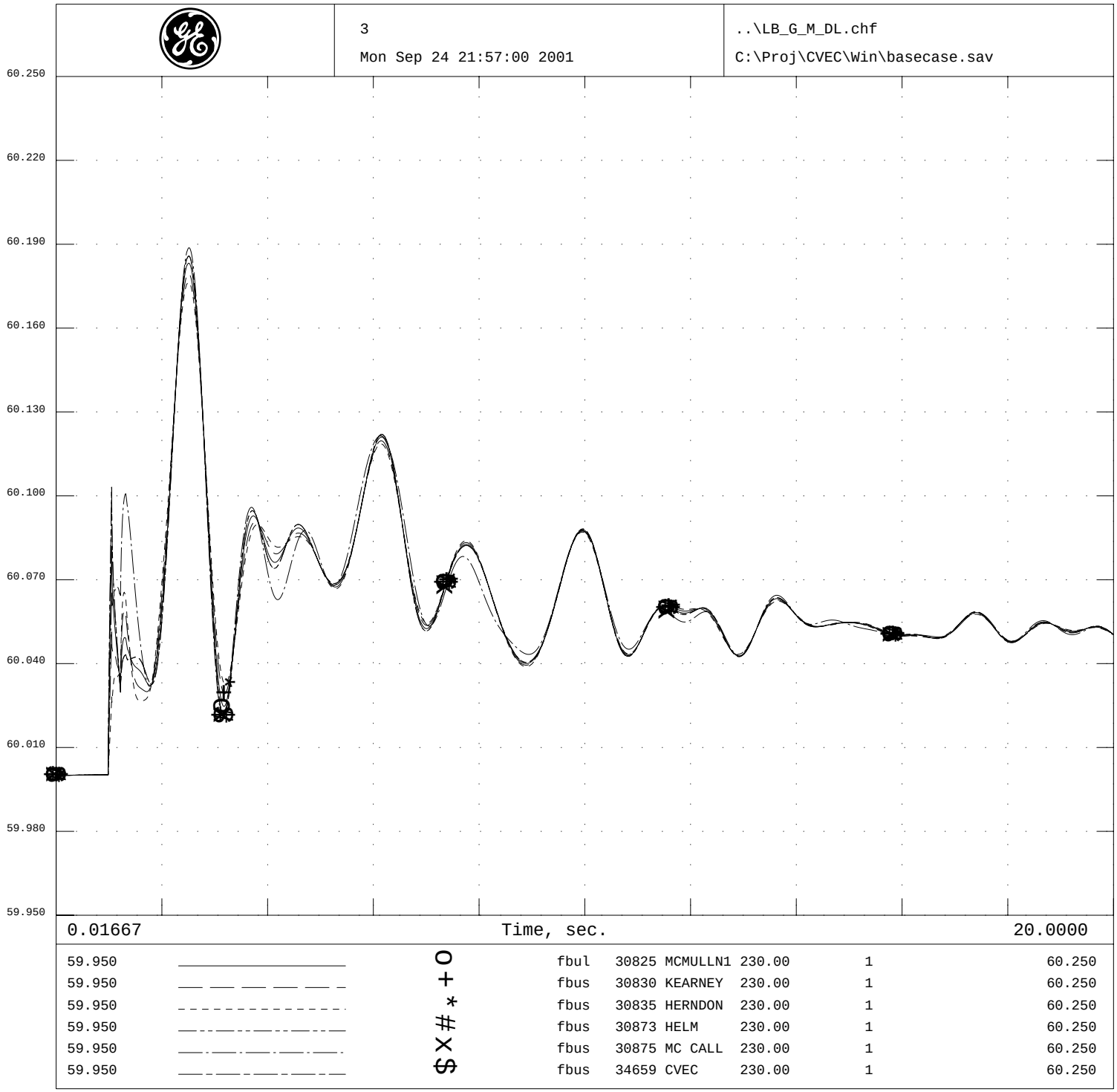

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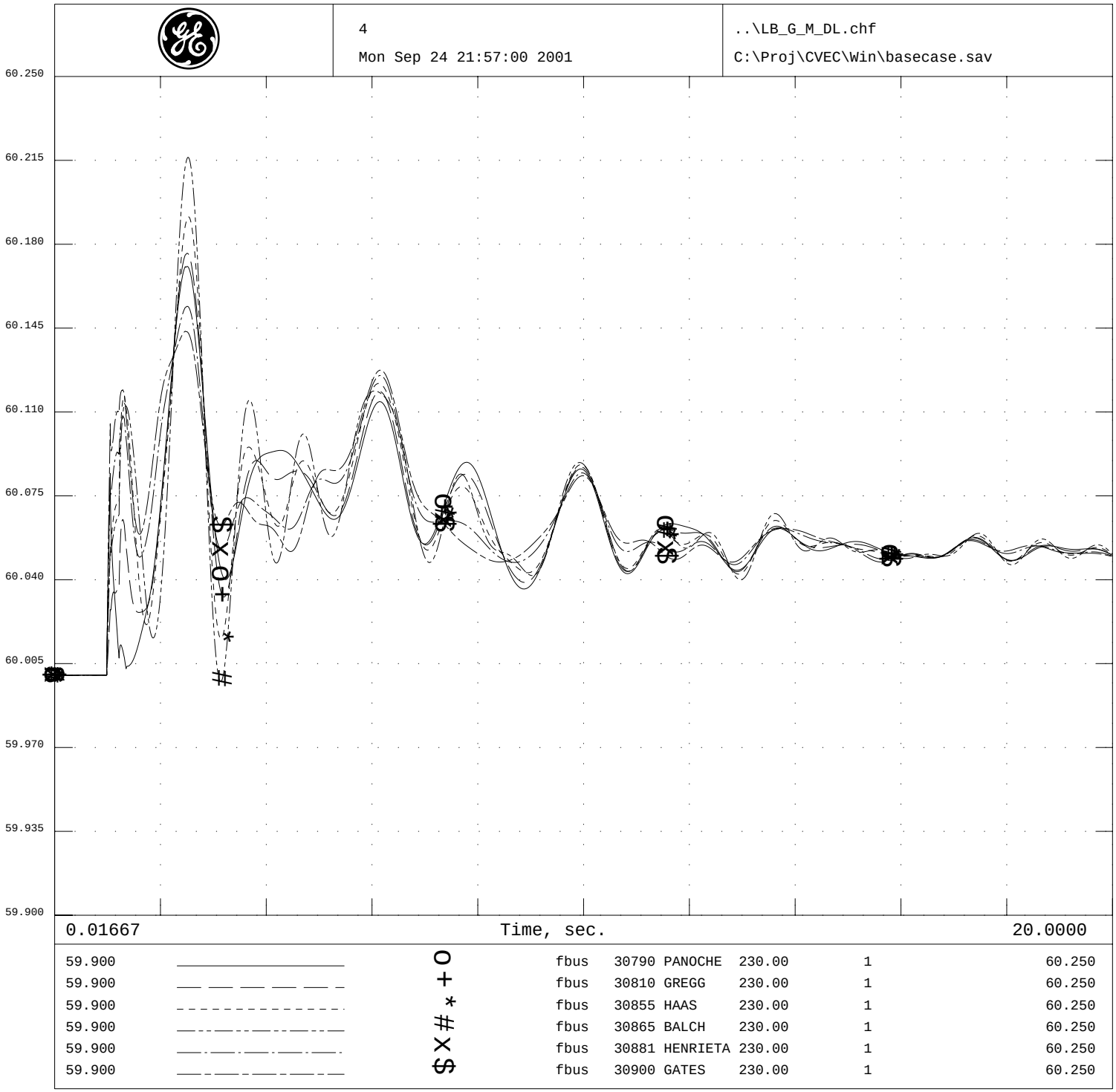

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Calpine Corporation
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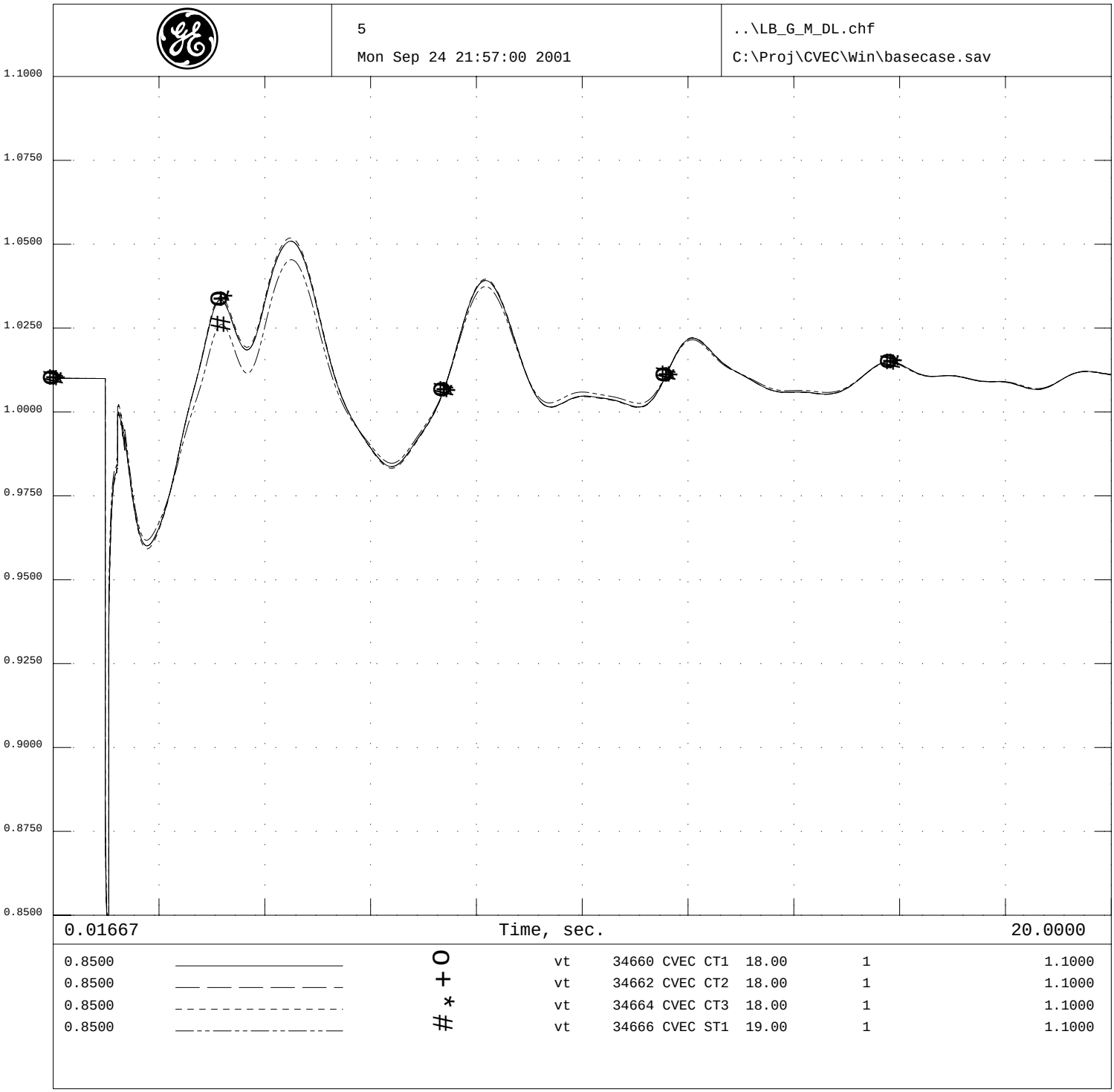
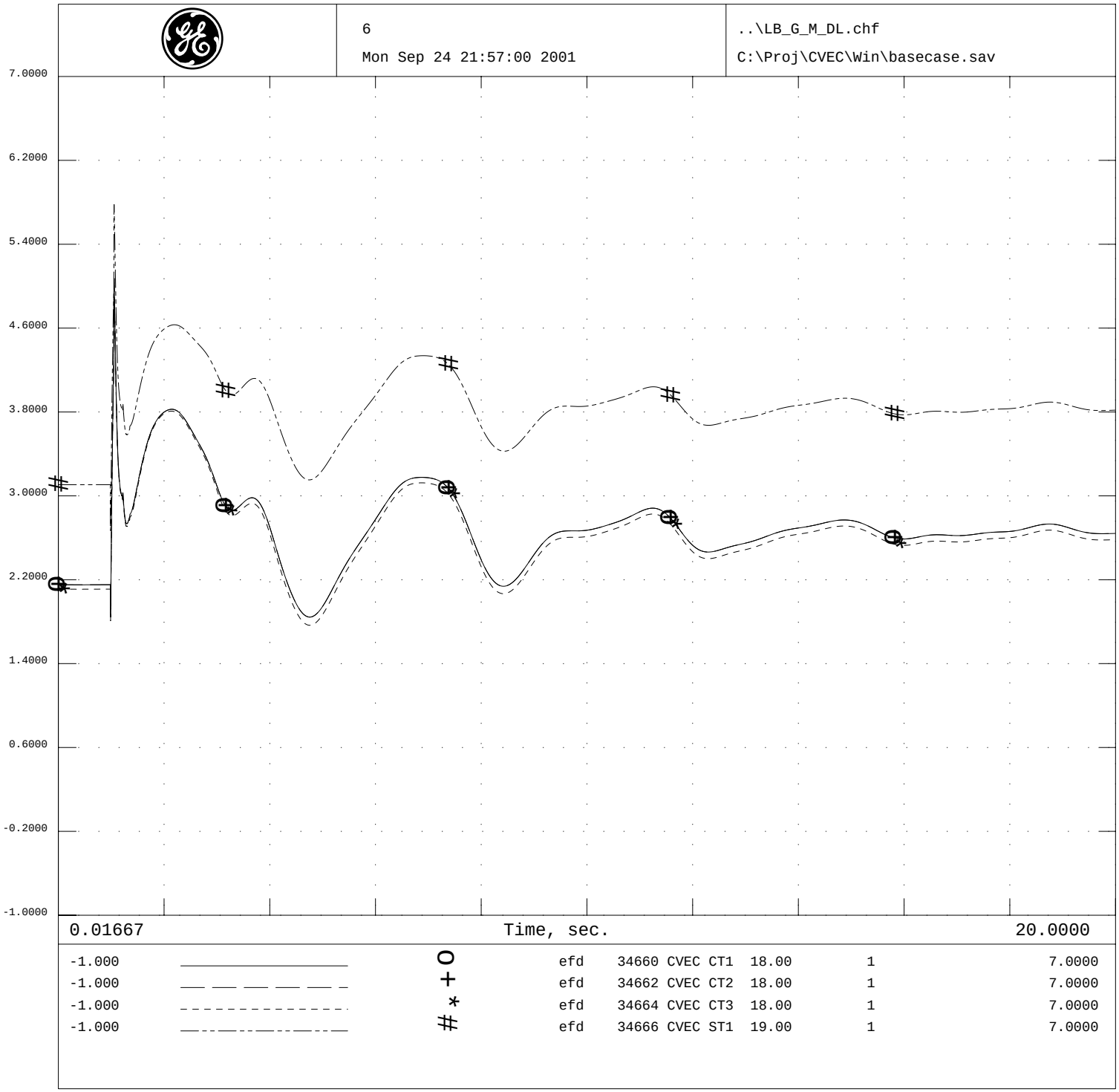


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Winter Off-Peak Base Case
CVEC @ 1100MW
Double line outage south of Los Banos 500
Fault on Los Banos 500 kV bus

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Winter Off-Peak Base Case
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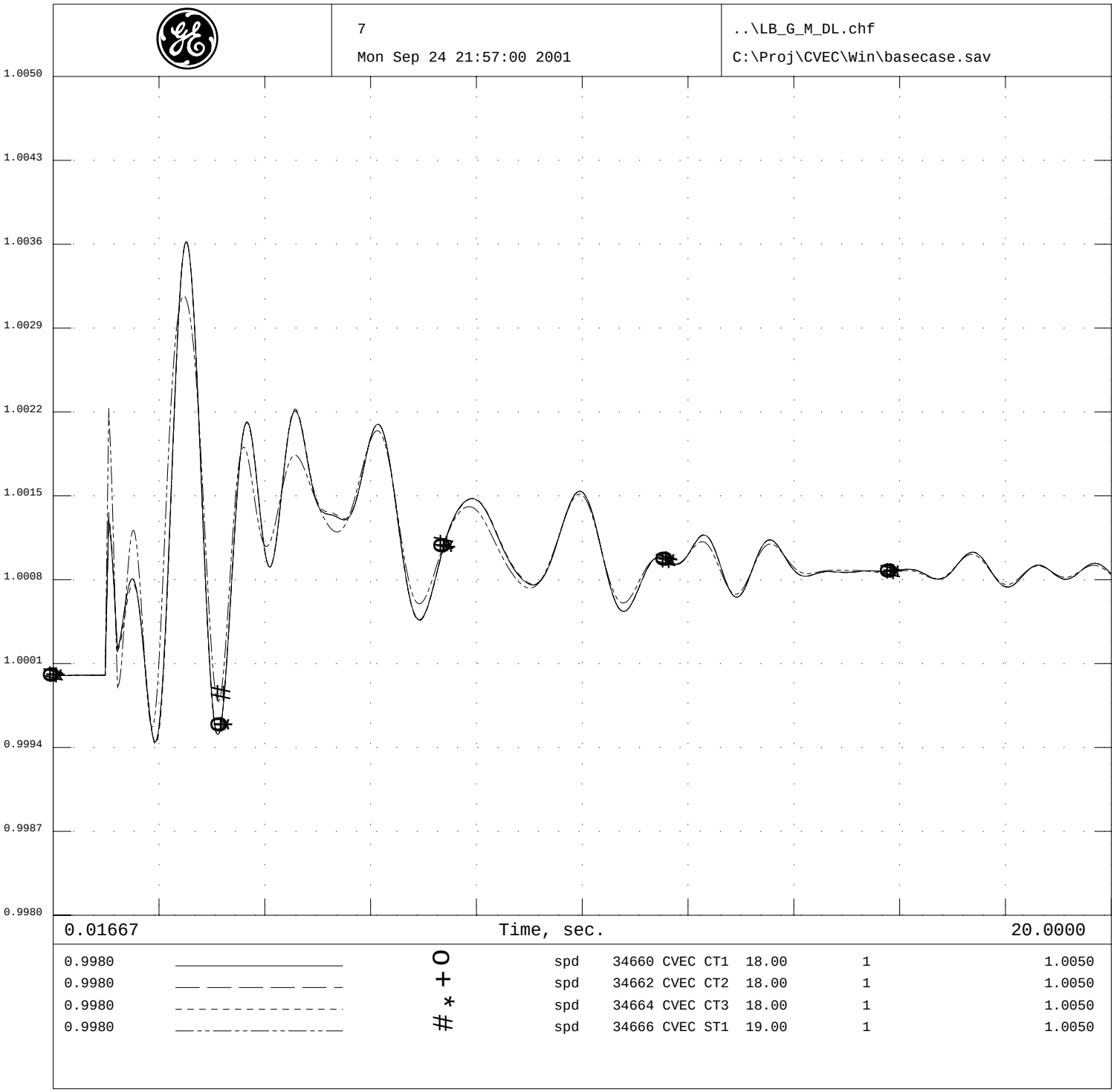
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Winter Off-Peak Base Case
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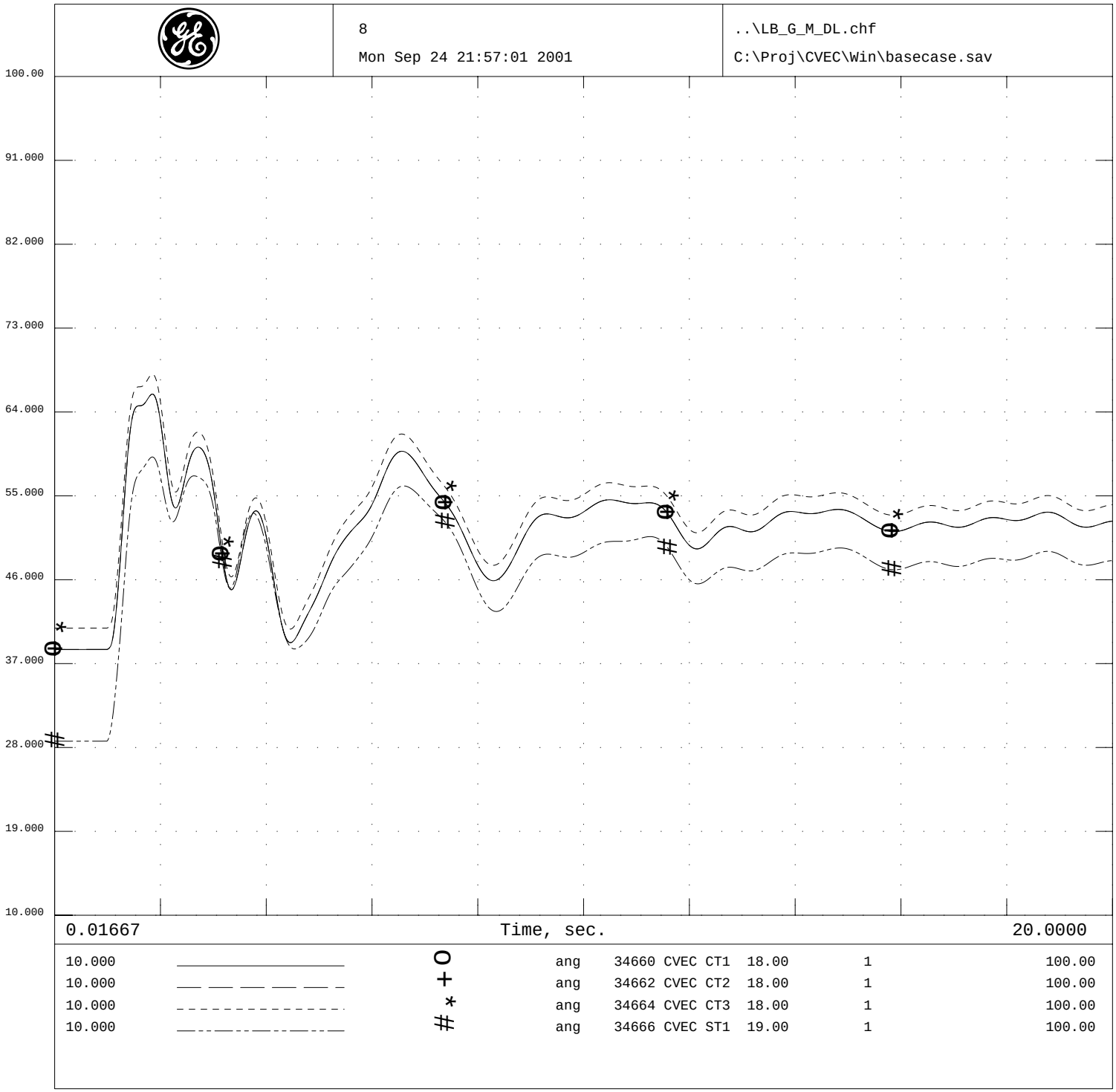
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Winter Off-Peak Base Case
CVEC @ 1100MW
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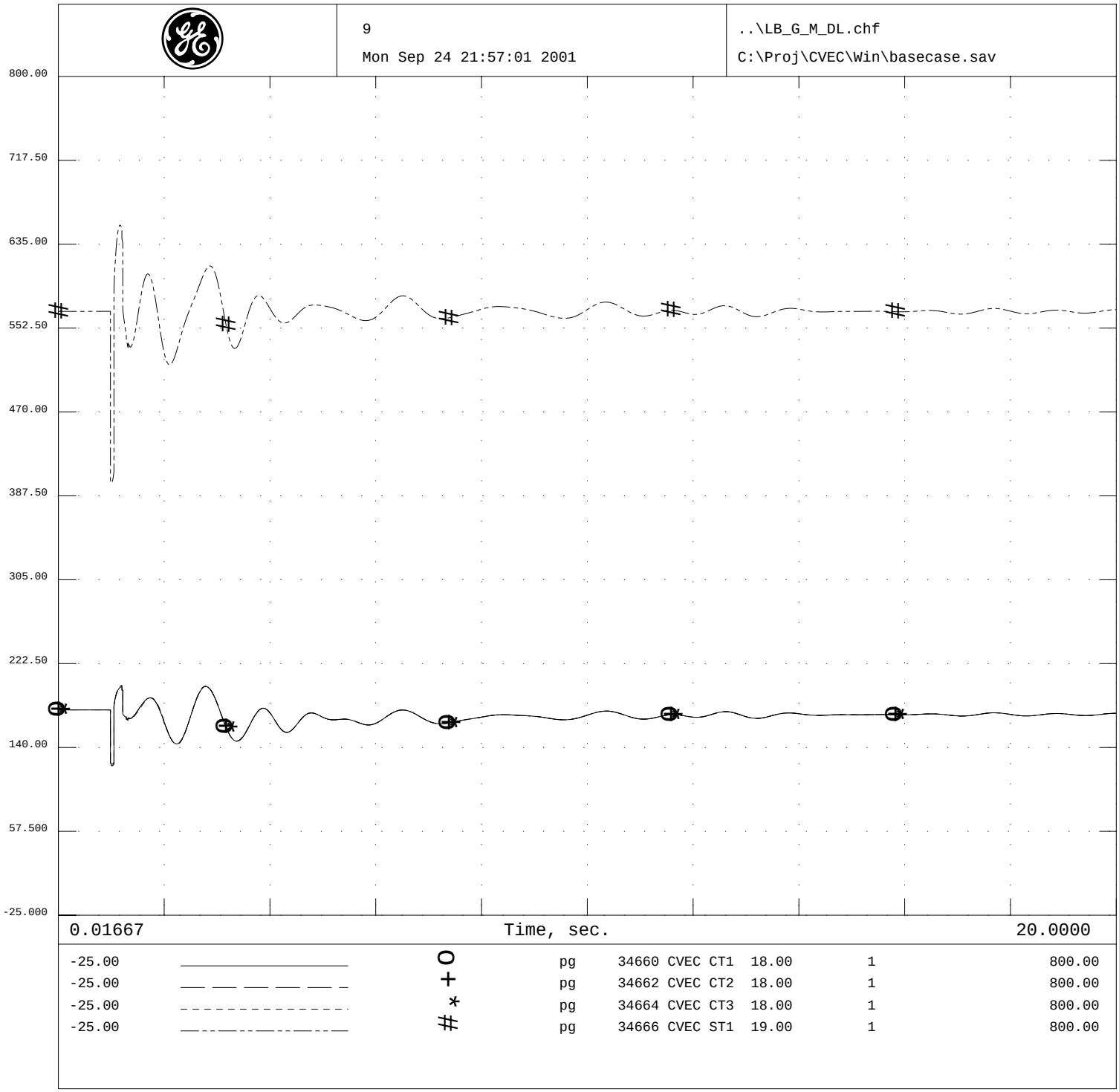
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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CVEC @ 1100MW
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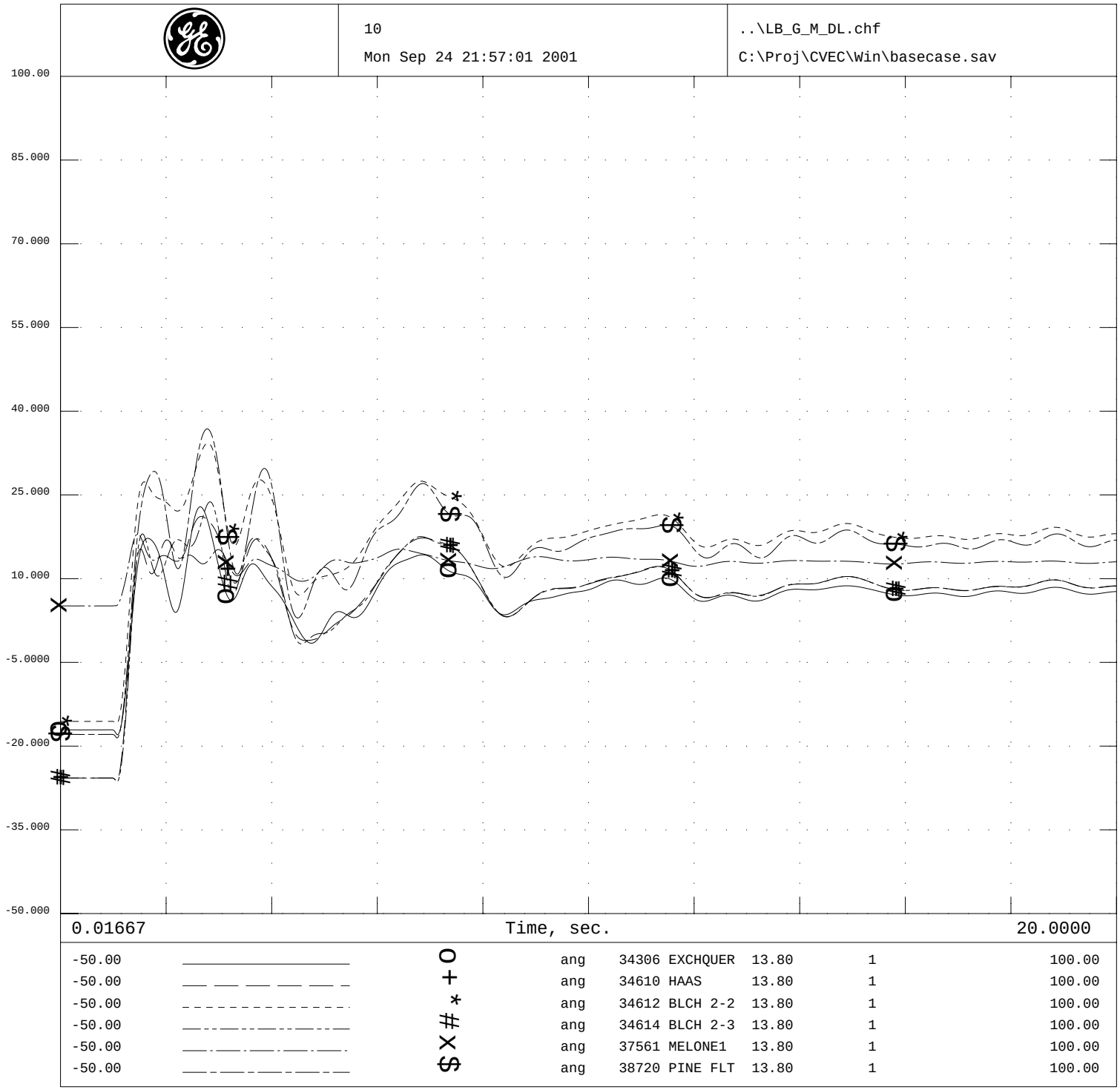
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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2004 Winter Off-Peak Base Case
CVEC @ 1100MW
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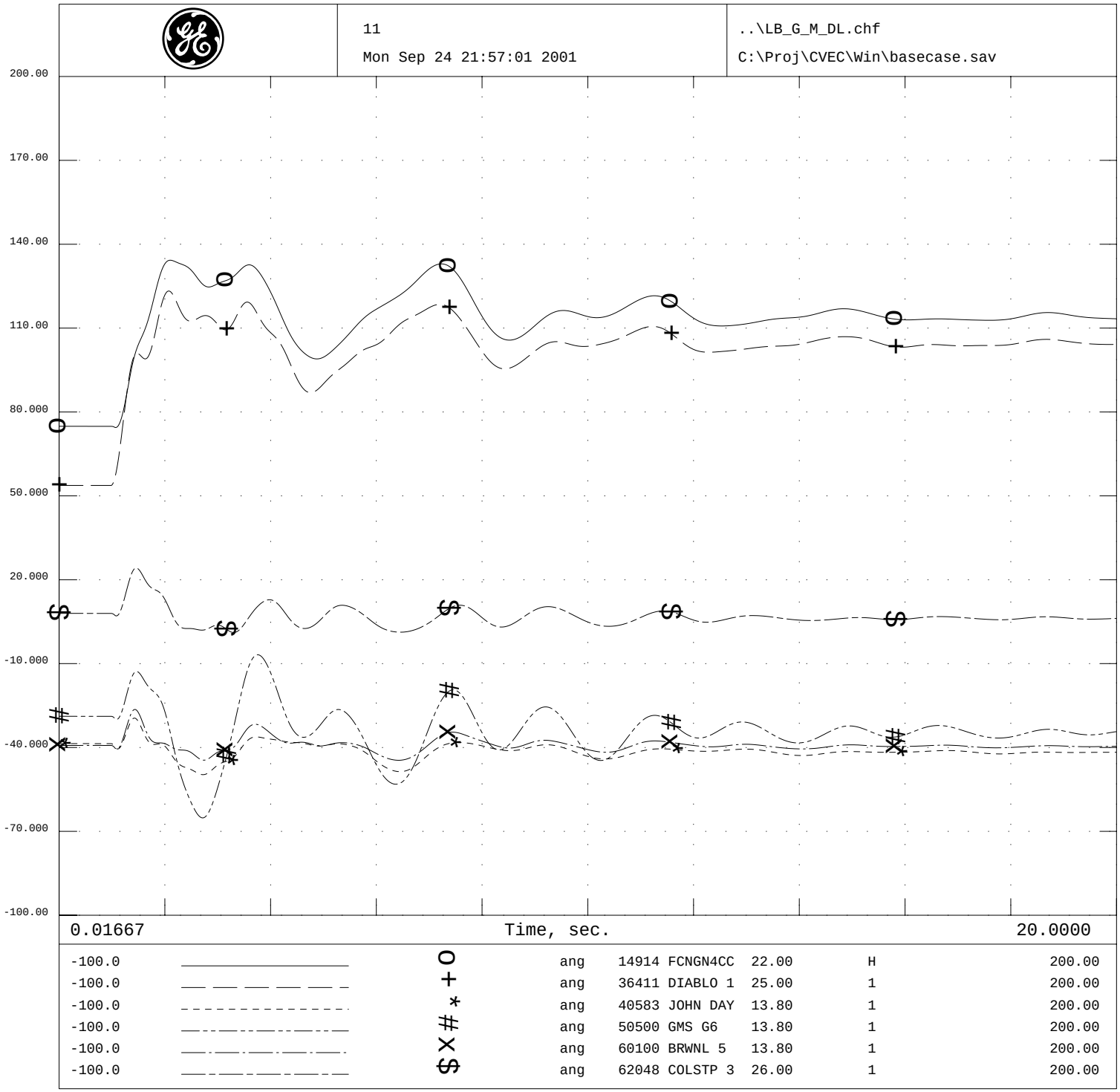
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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2004 Winter Off-Peak Base Case
CVEC @ 1100MW
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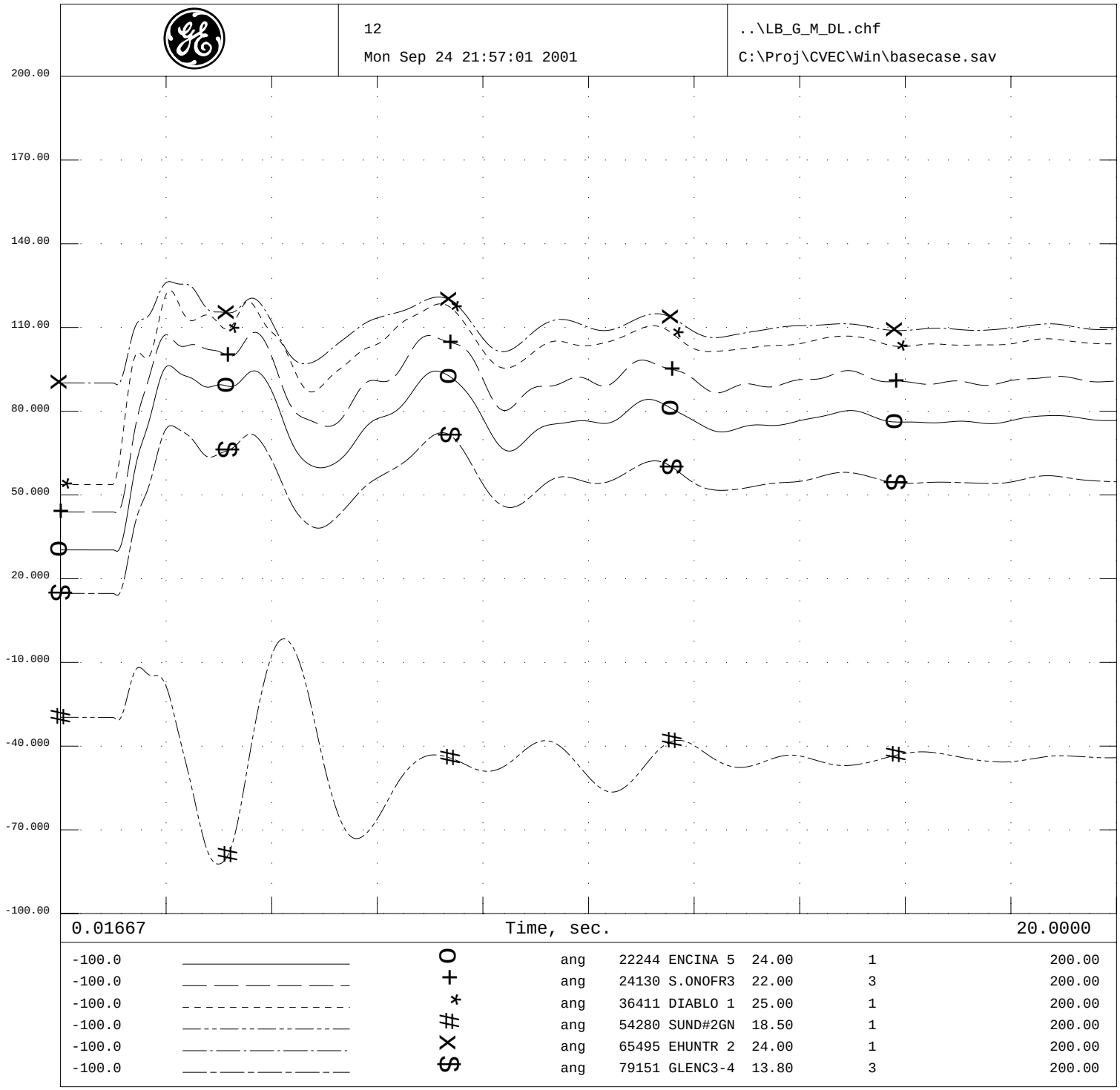
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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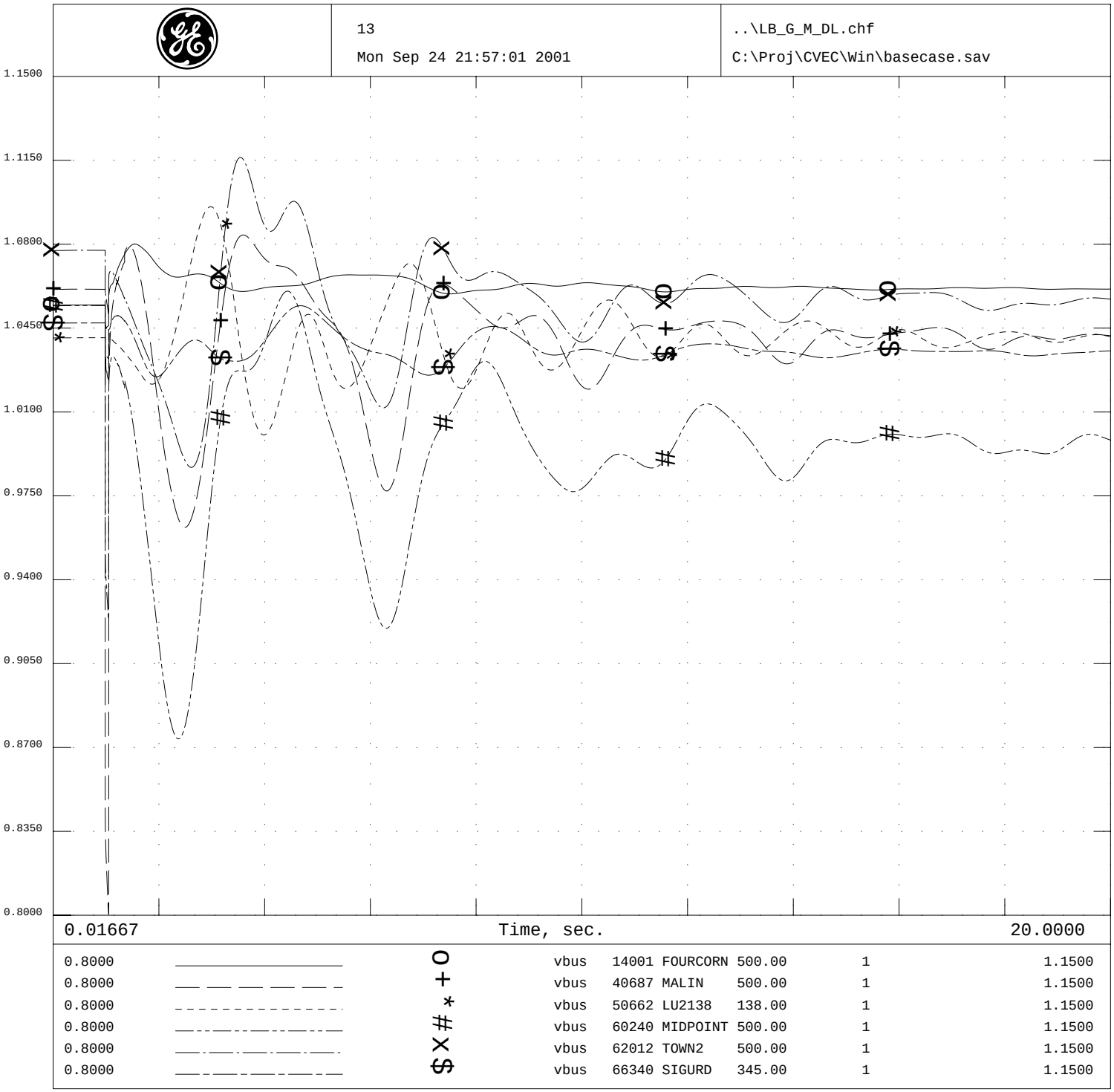

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2004 Winter Off-Peak Base Case
CVEC @ 1100MW
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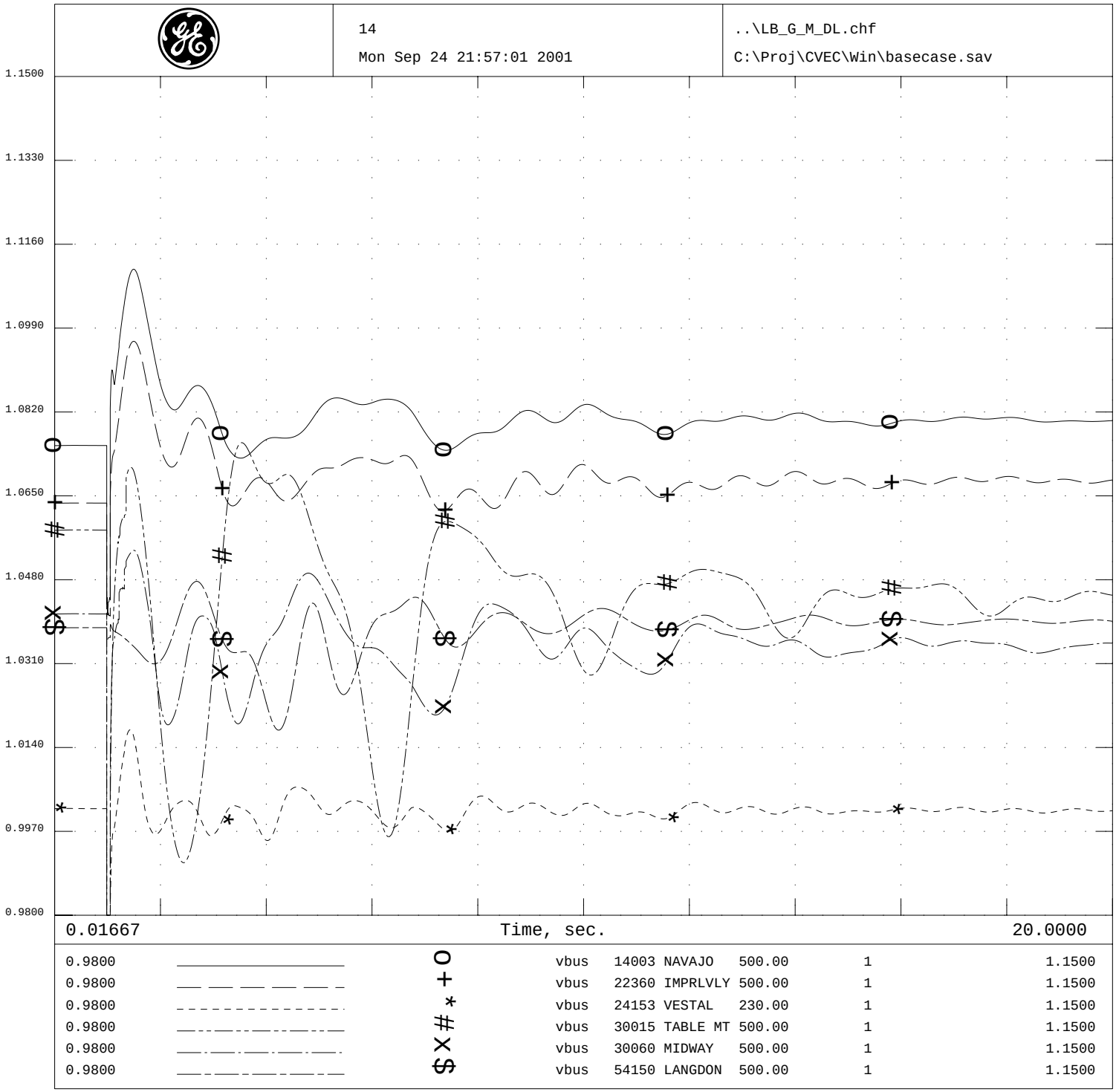
Selected WSCC Transmission Bus Voltage Plots



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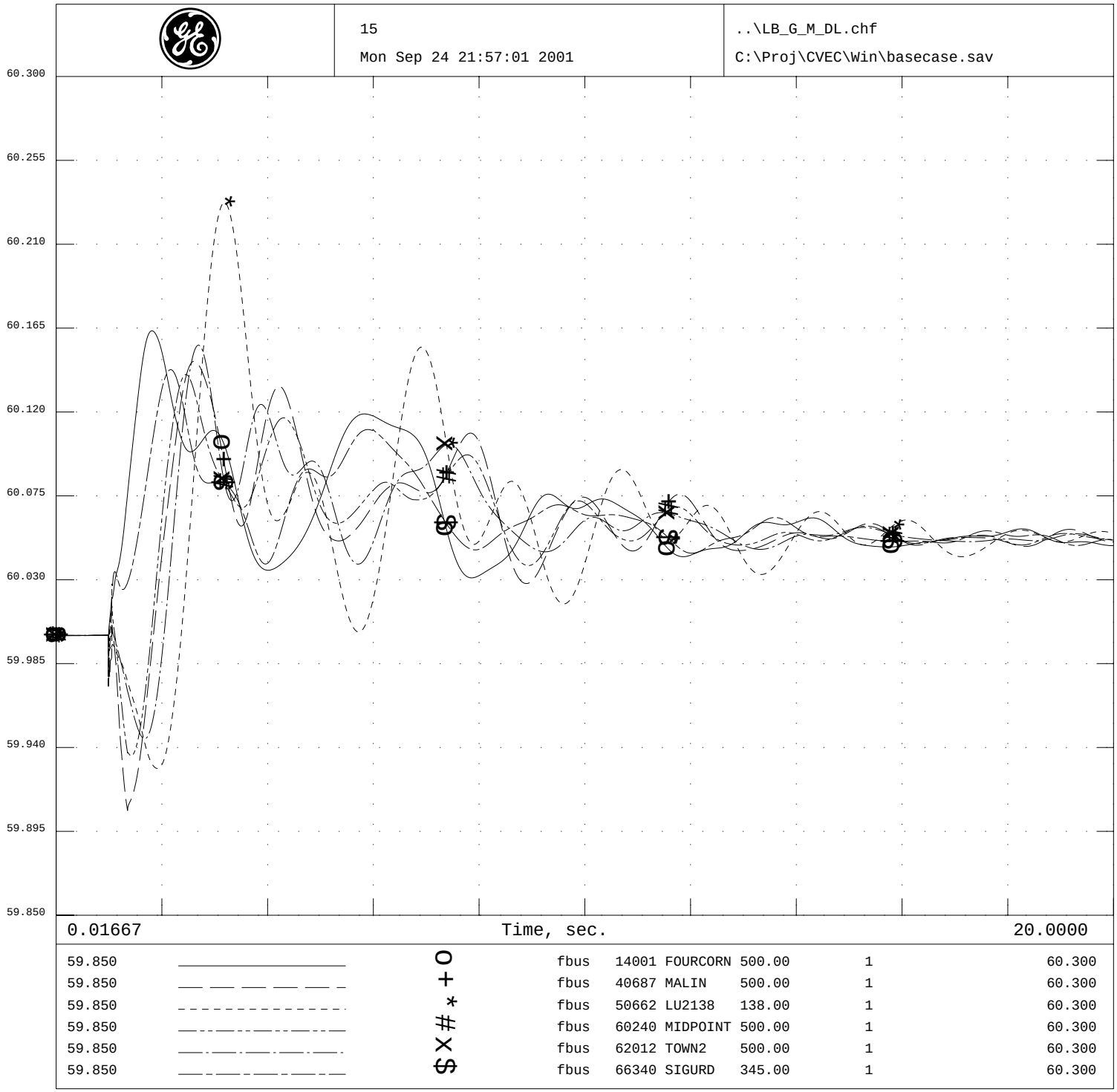

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2004 Winter Off-Peak Base Case
CVEC @ 1100MW
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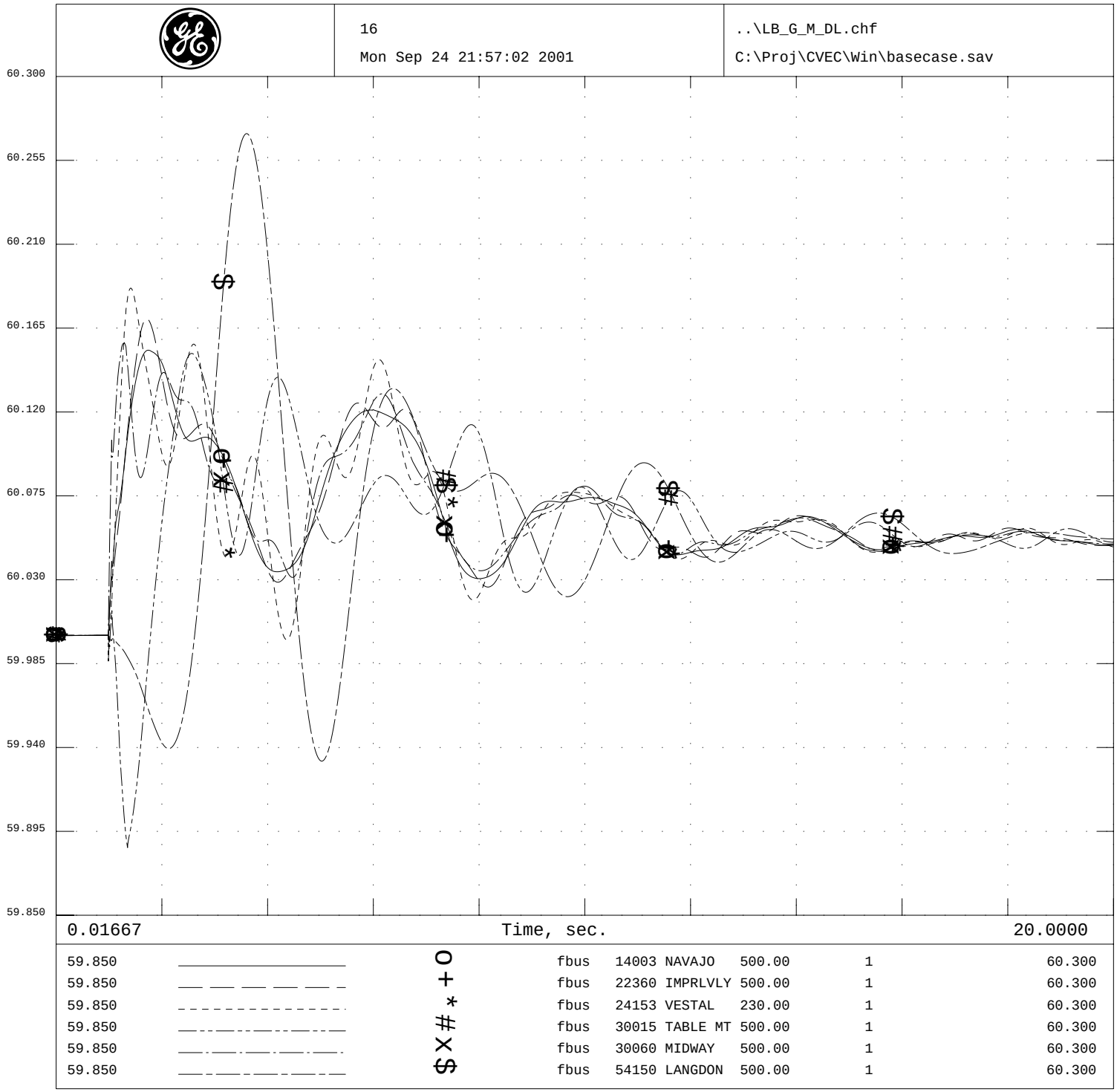
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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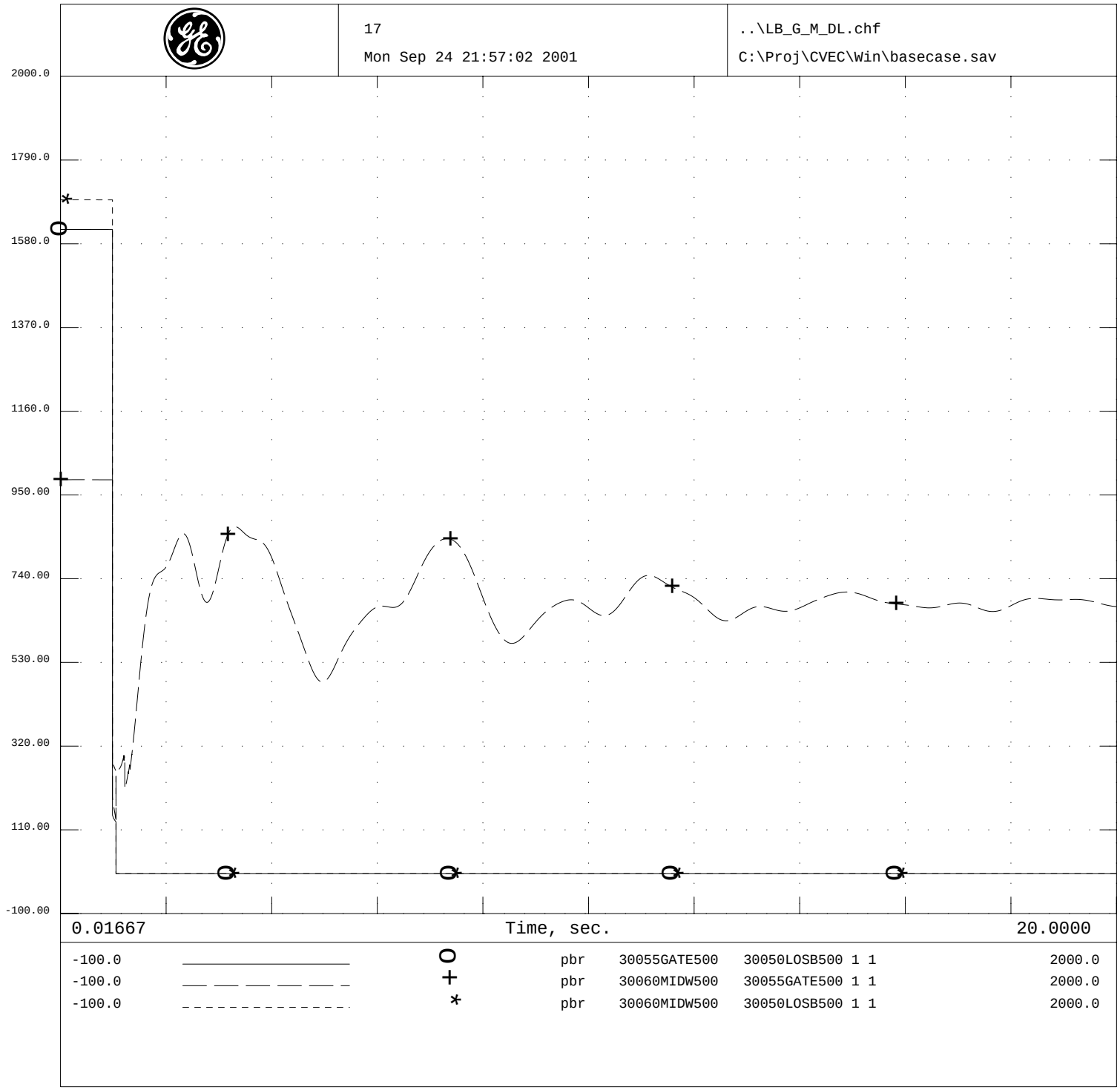

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2004 Winter Off-Peak Base Case
CVEC @ 1100MW
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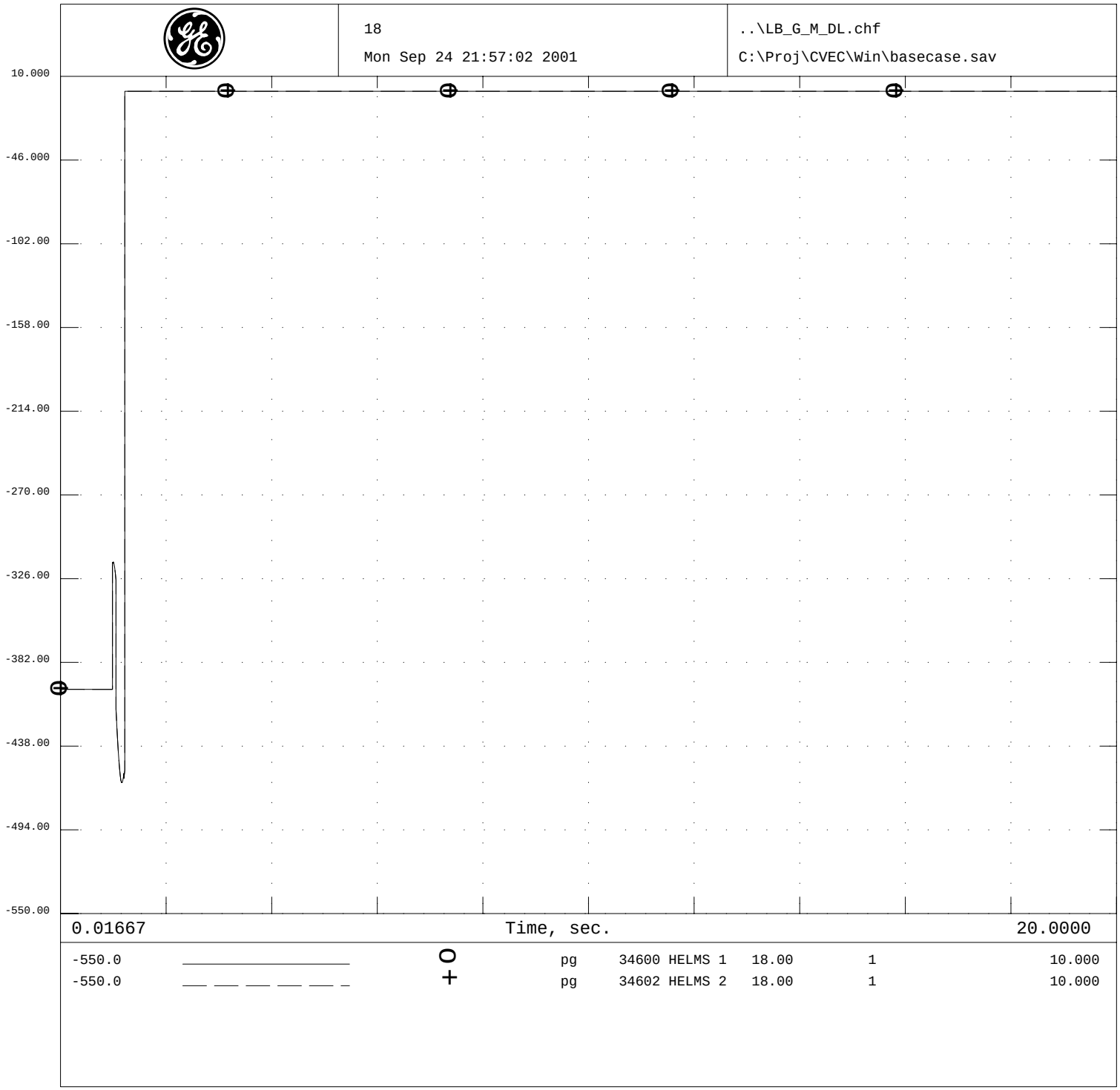
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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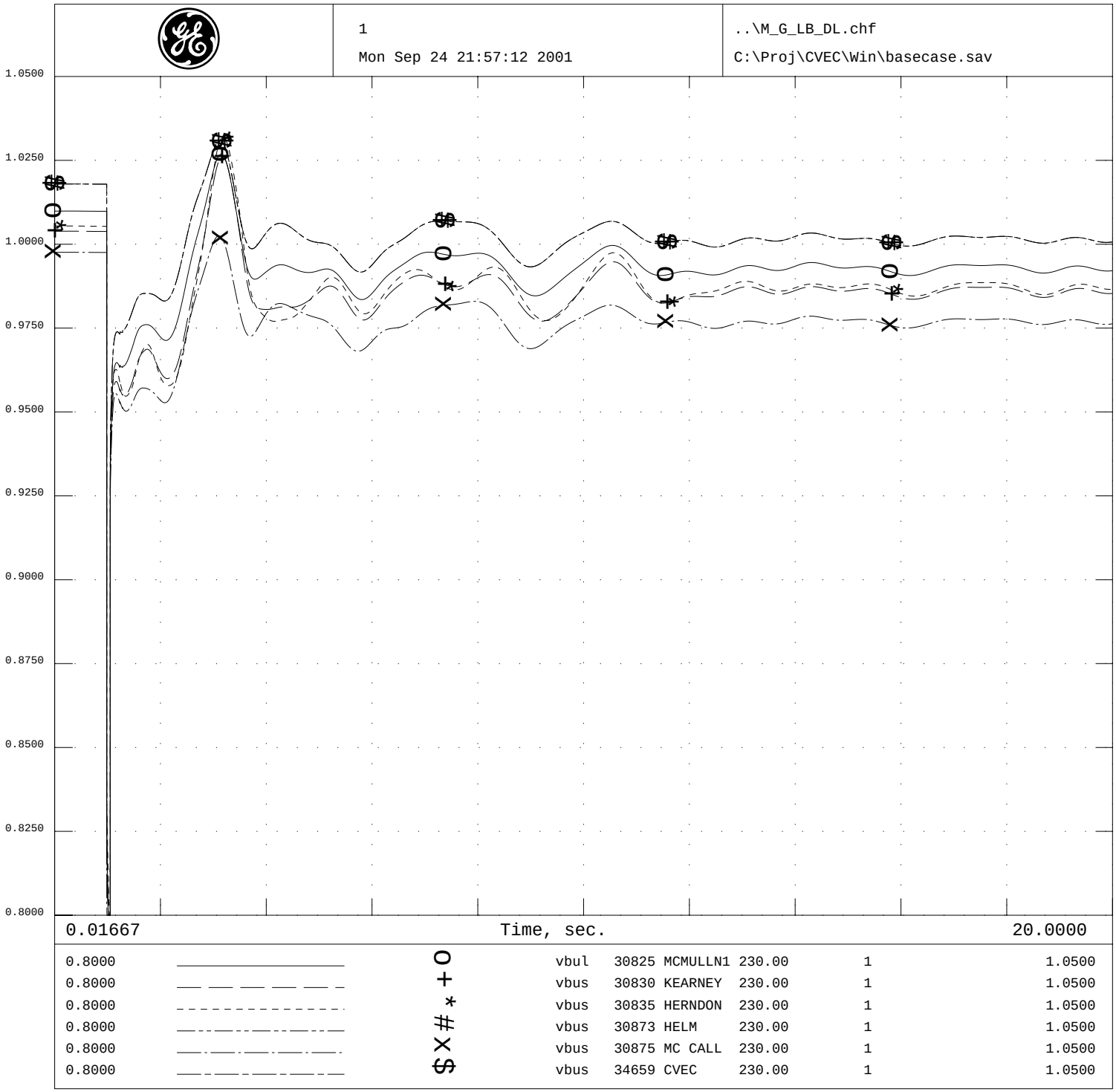
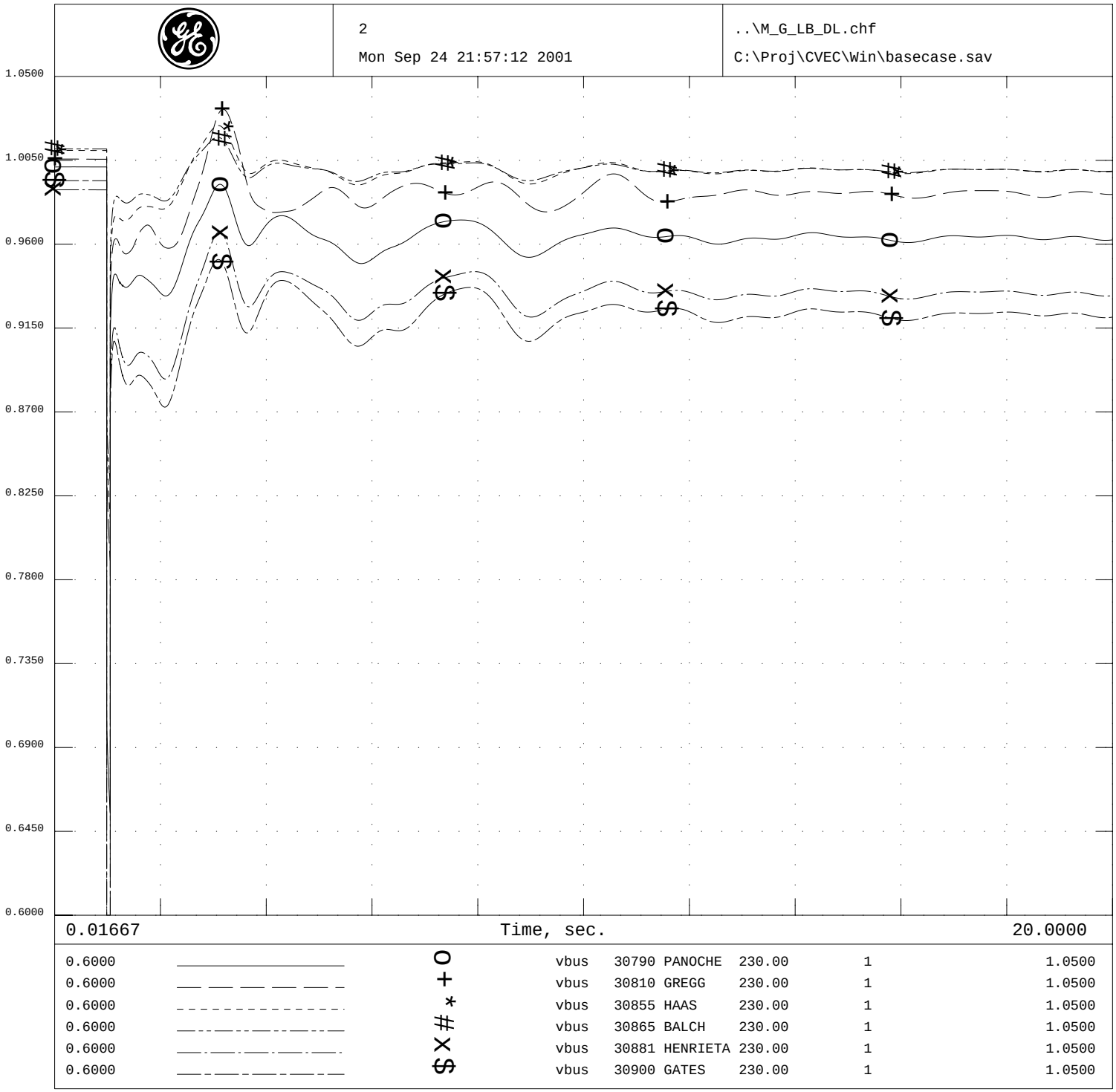


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Winter Off-Peak Base Case
CVEC @ 1100MW
Double line outage north of Midway 500
Fault on Midway 500 kV bus

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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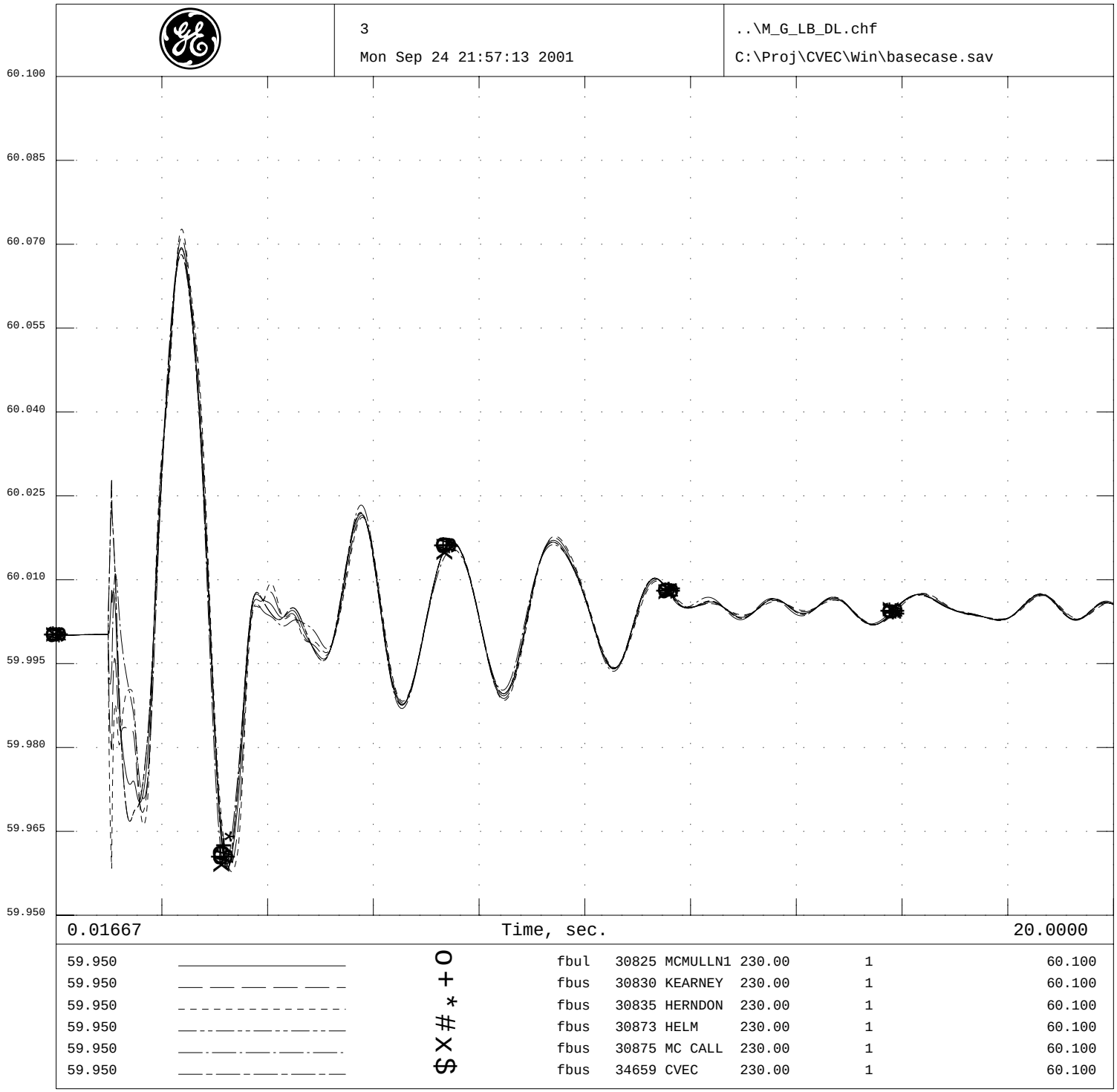

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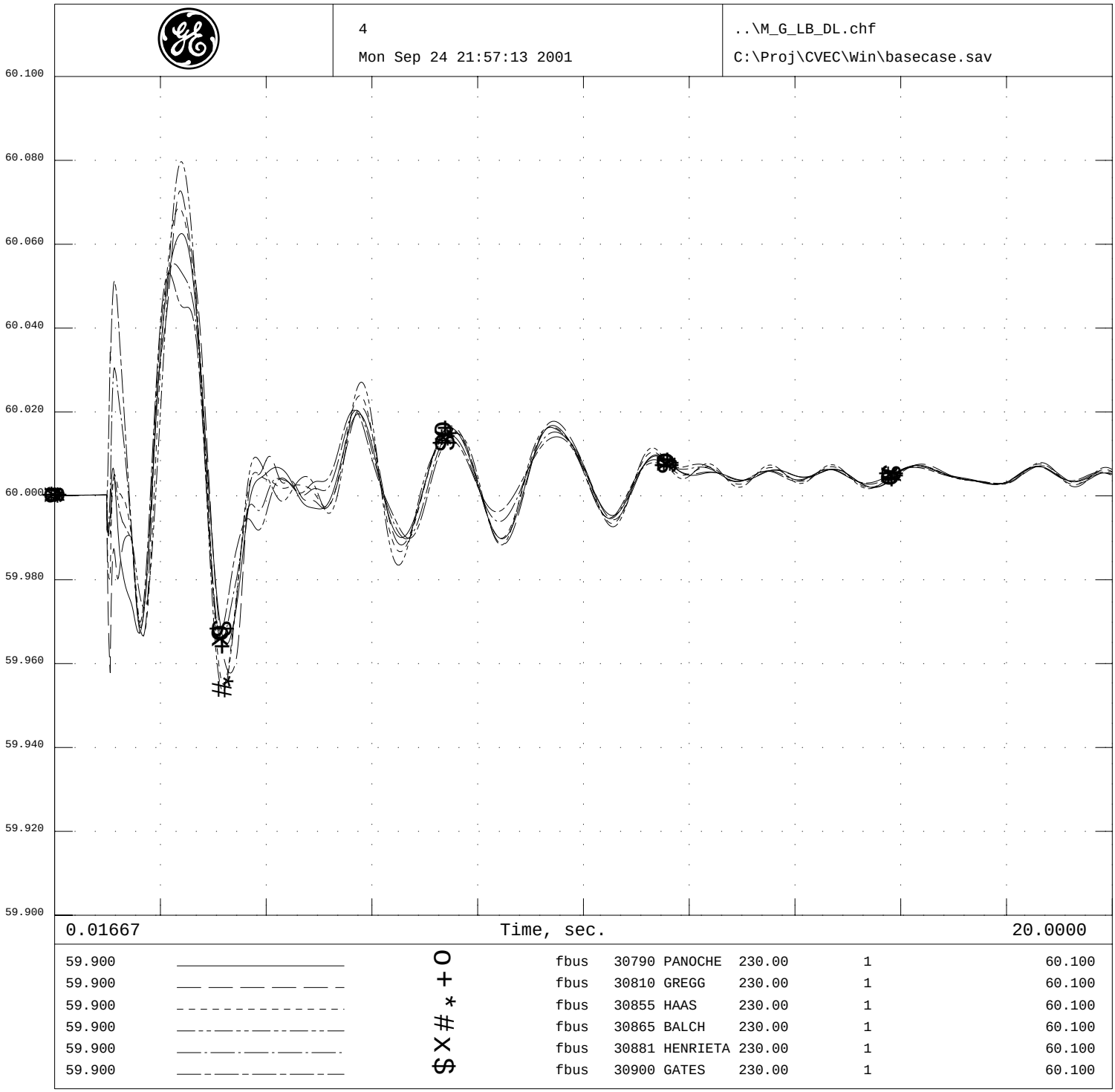

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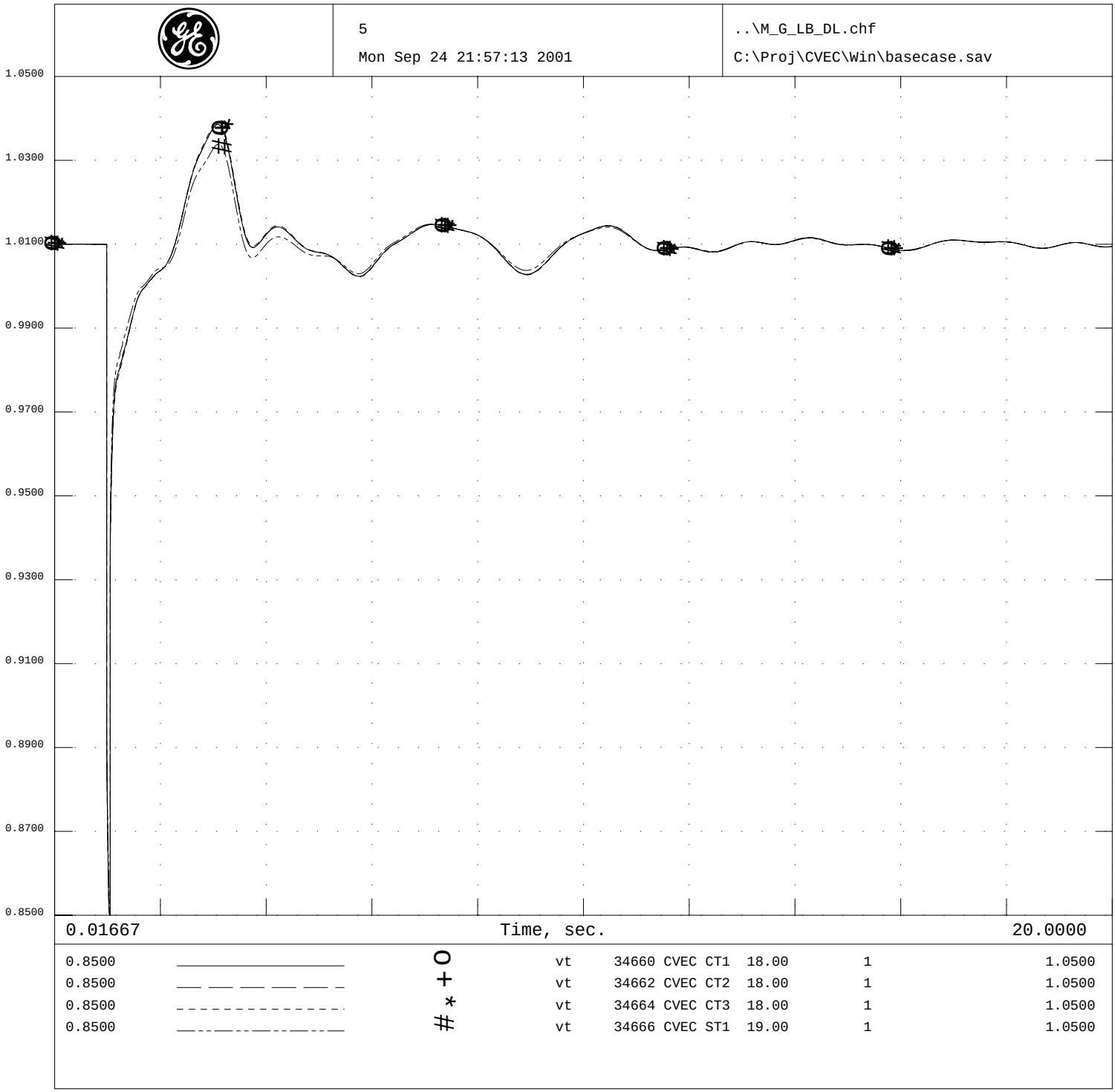

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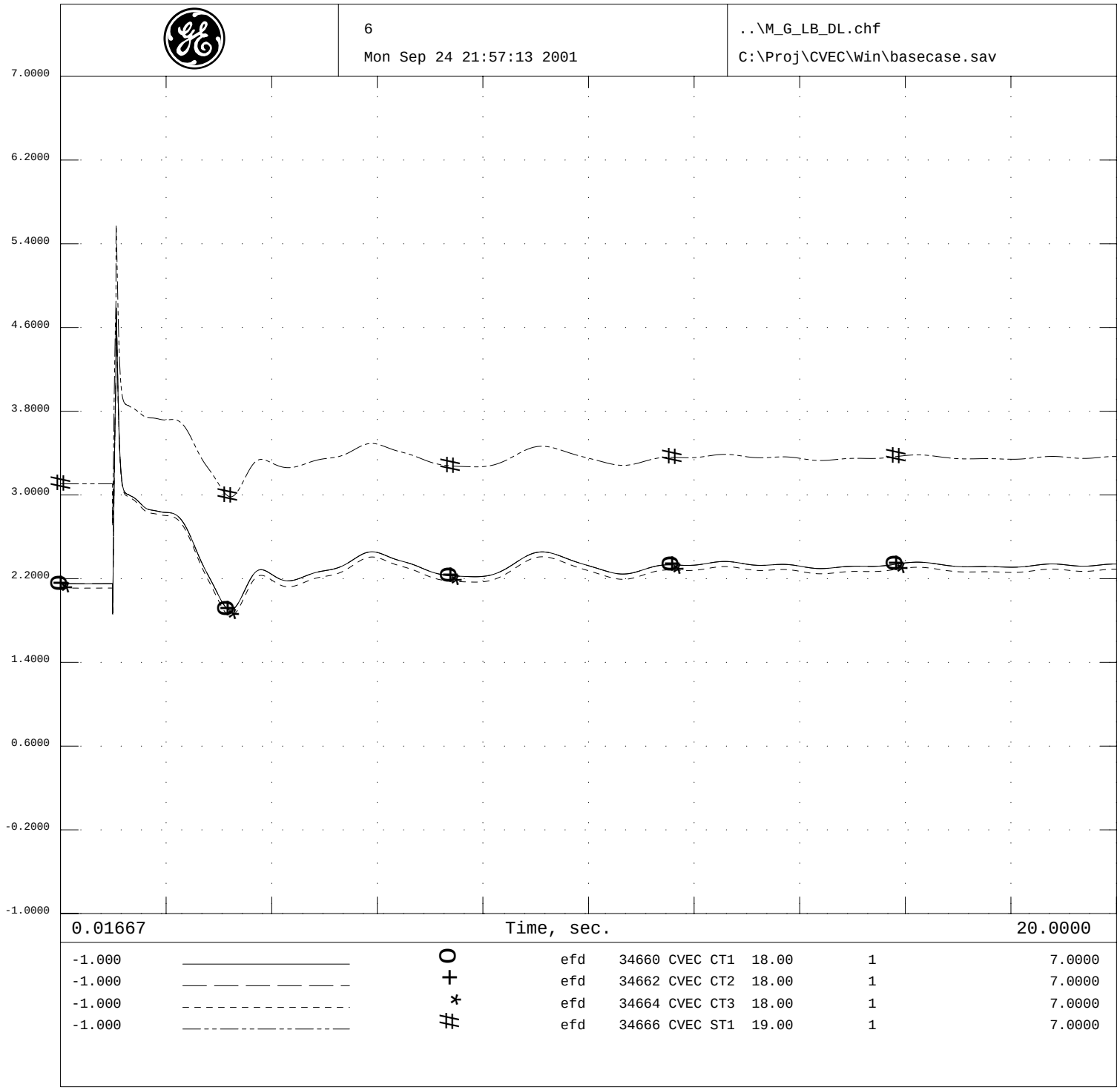
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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Double line outage north of Midway 500
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Calpine Corporation
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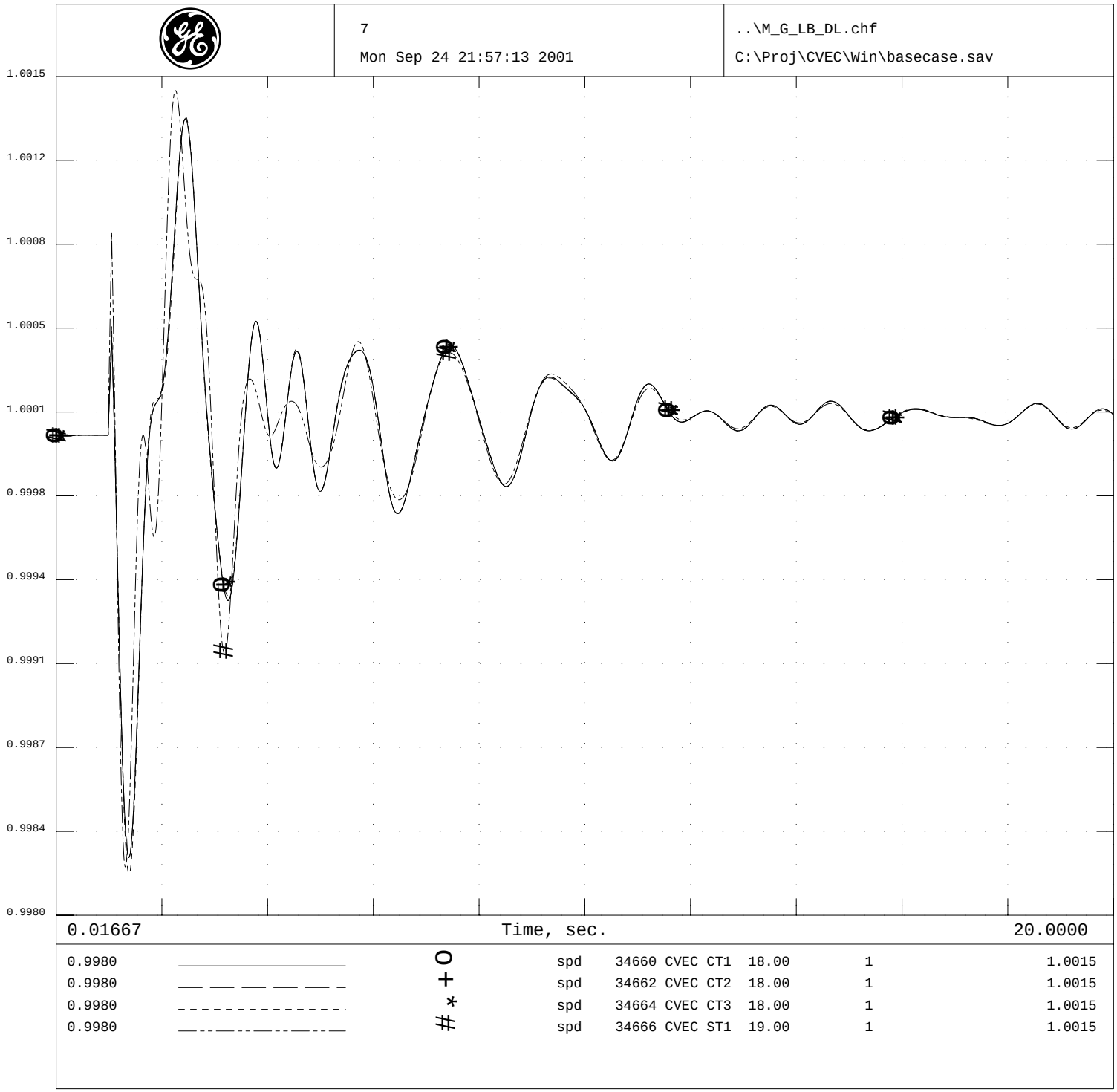

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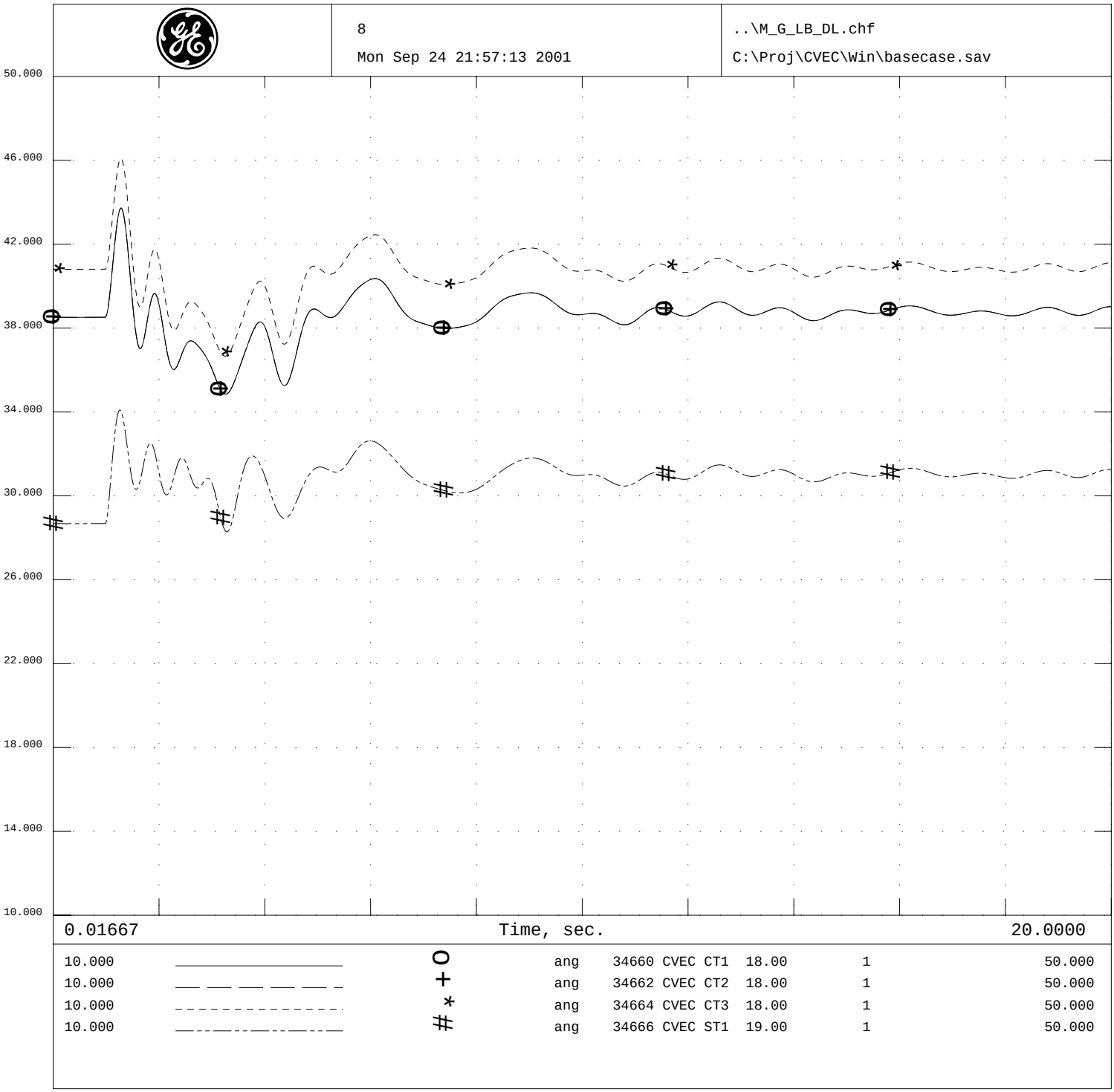
Calpine Corporation
Project Generator Rotor Speed



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2004 Winter Off-Peak Base Case
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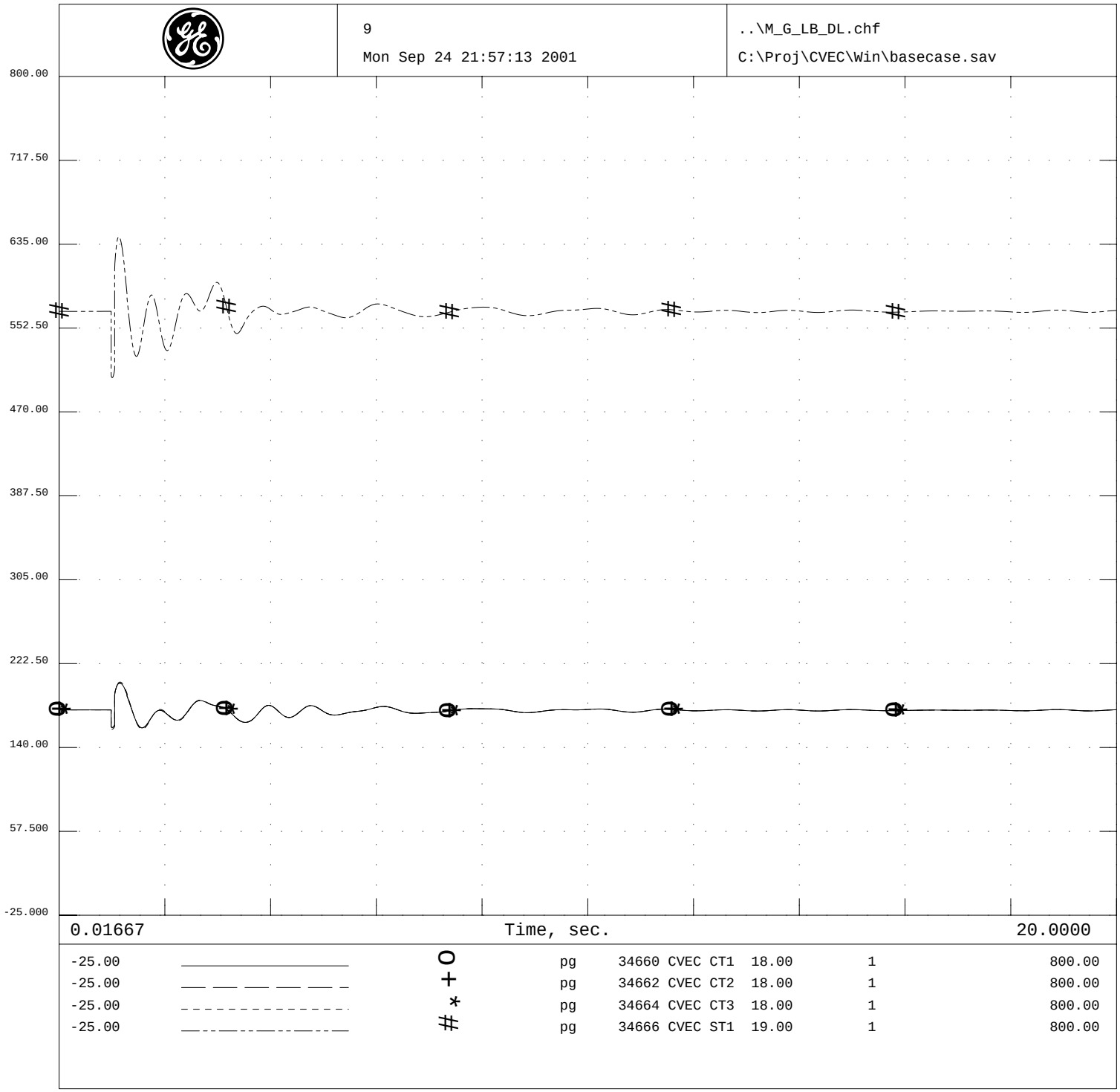
Calpine Corporation
Project Generator Rotor Angle



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2004 Winter Off-Peak Base Case
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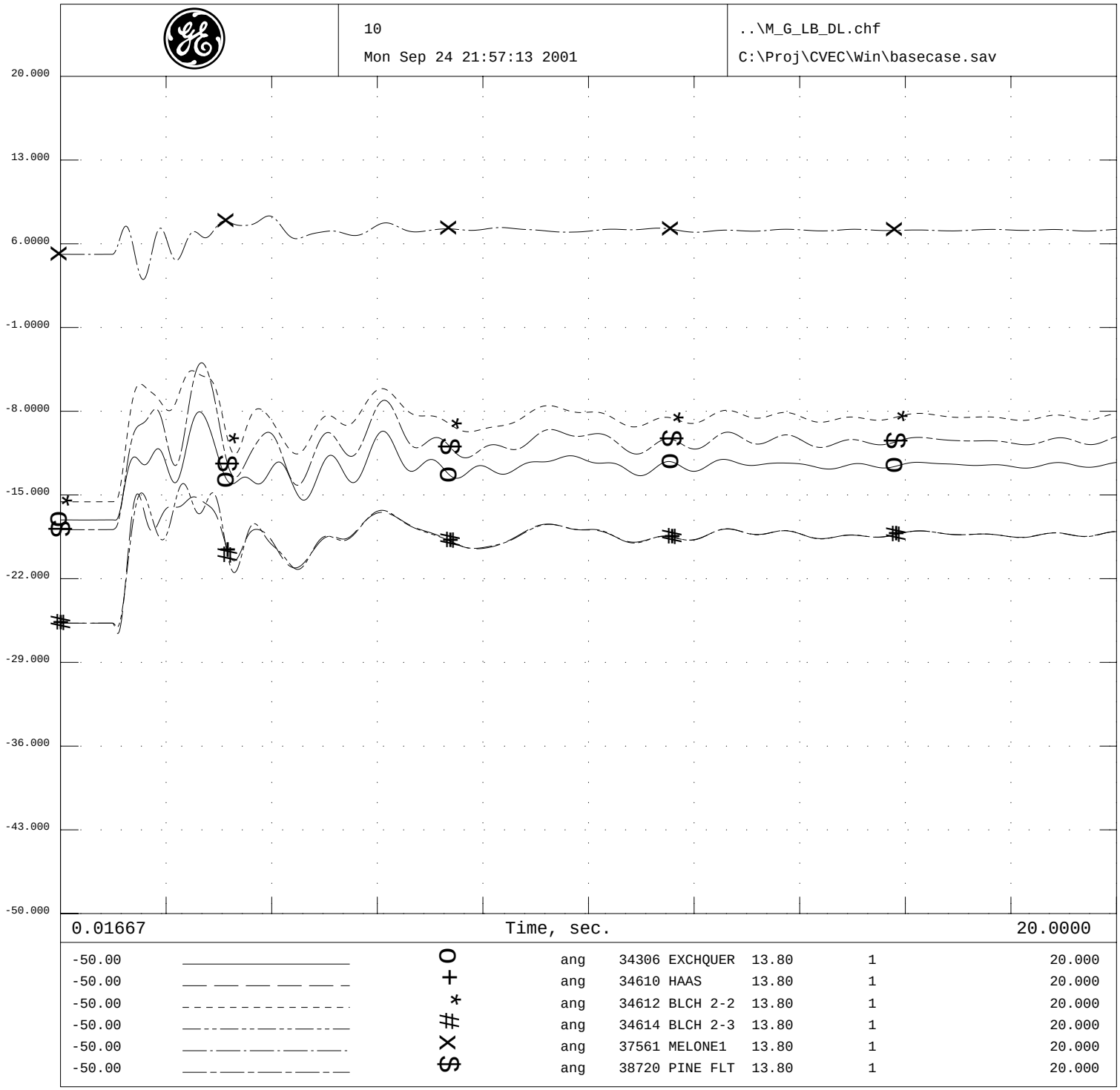
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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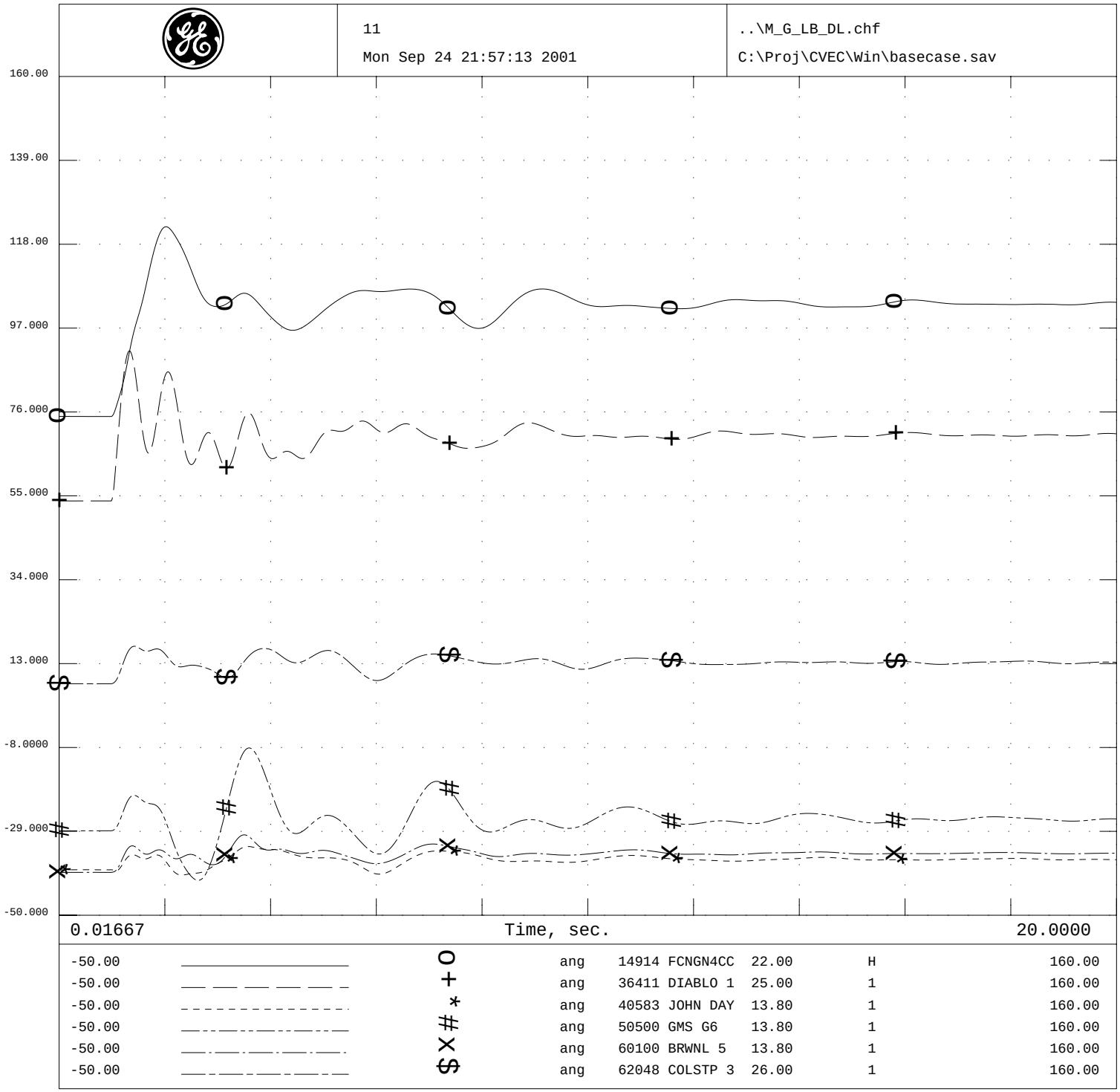

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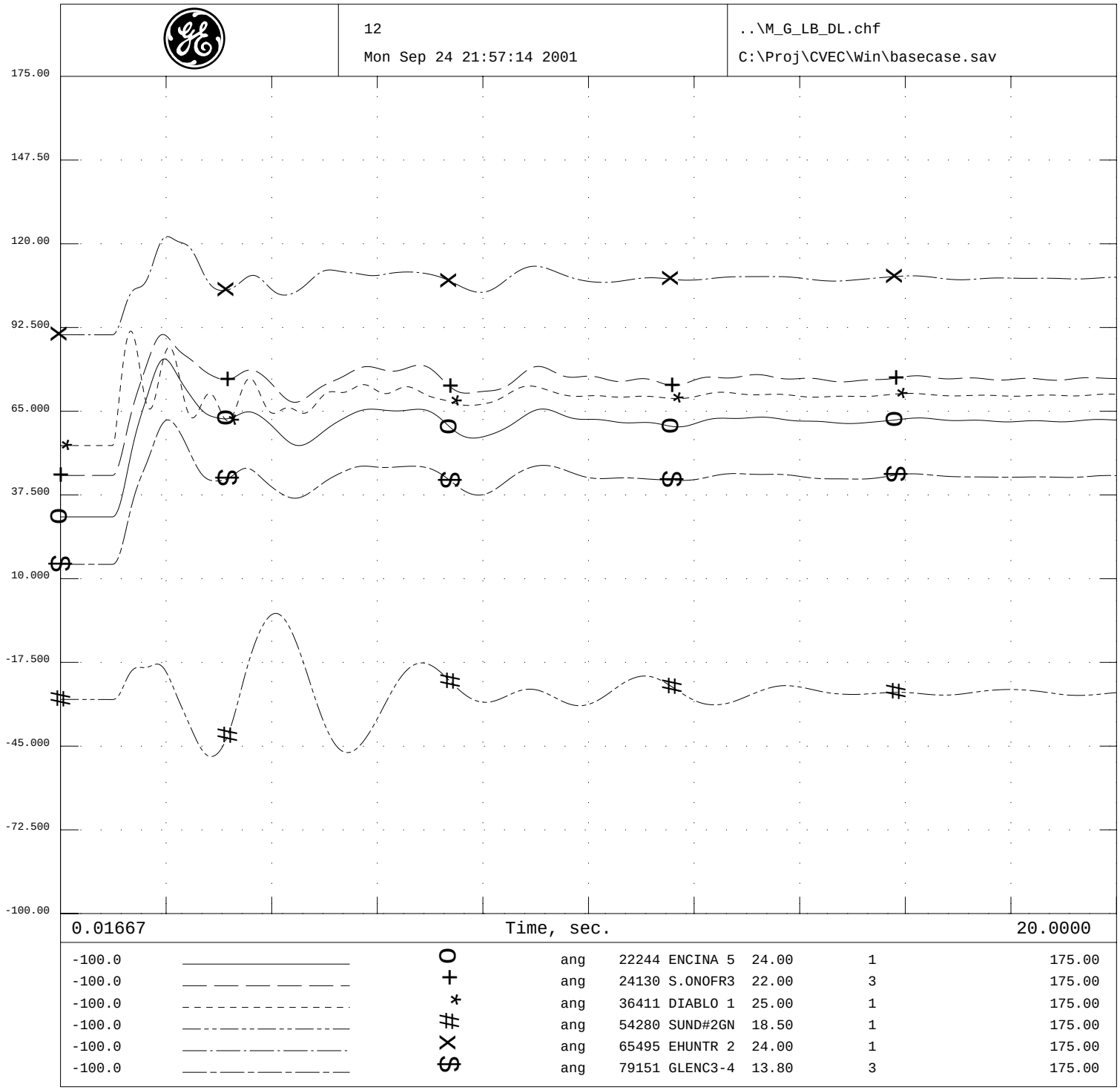

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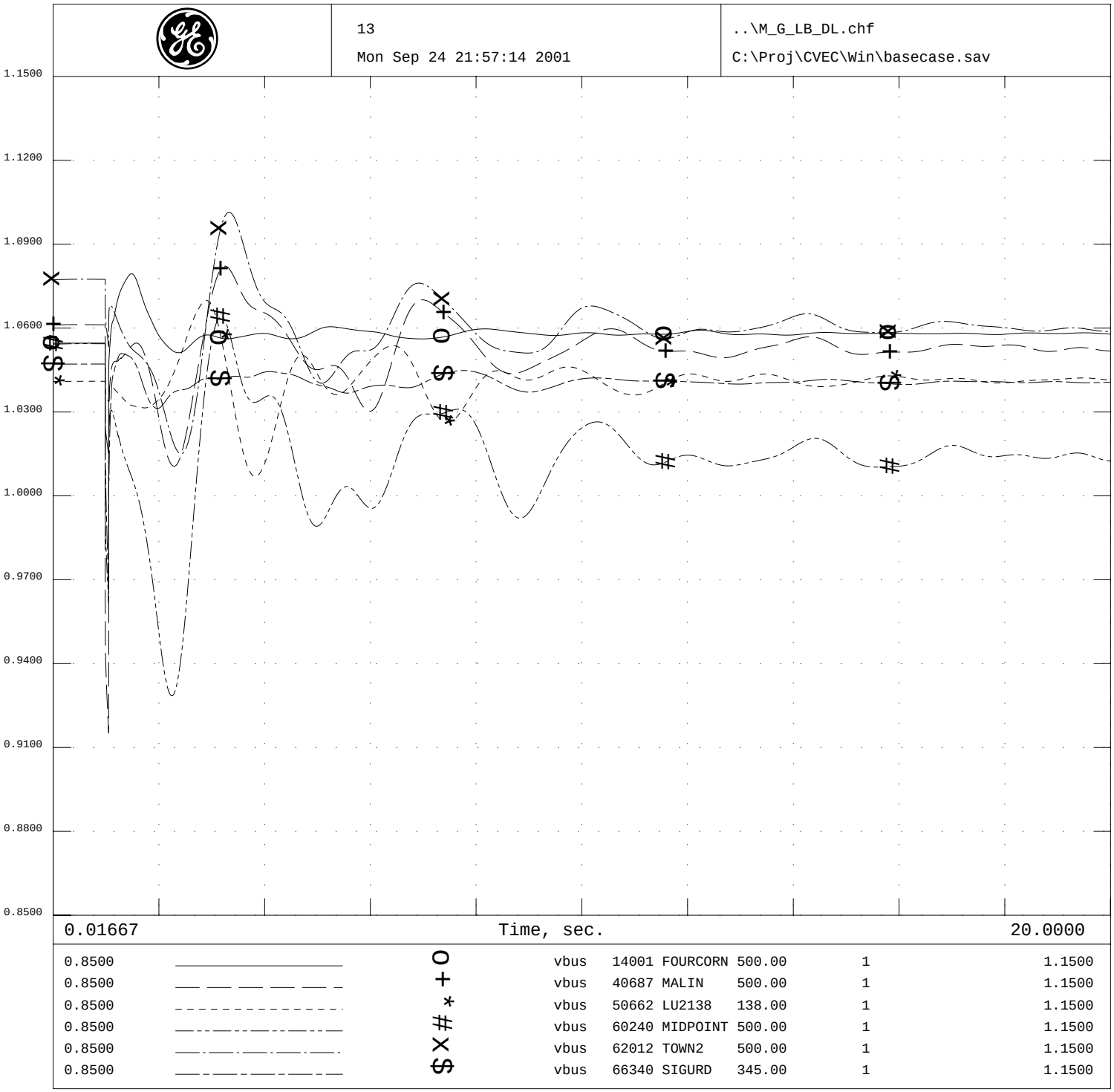

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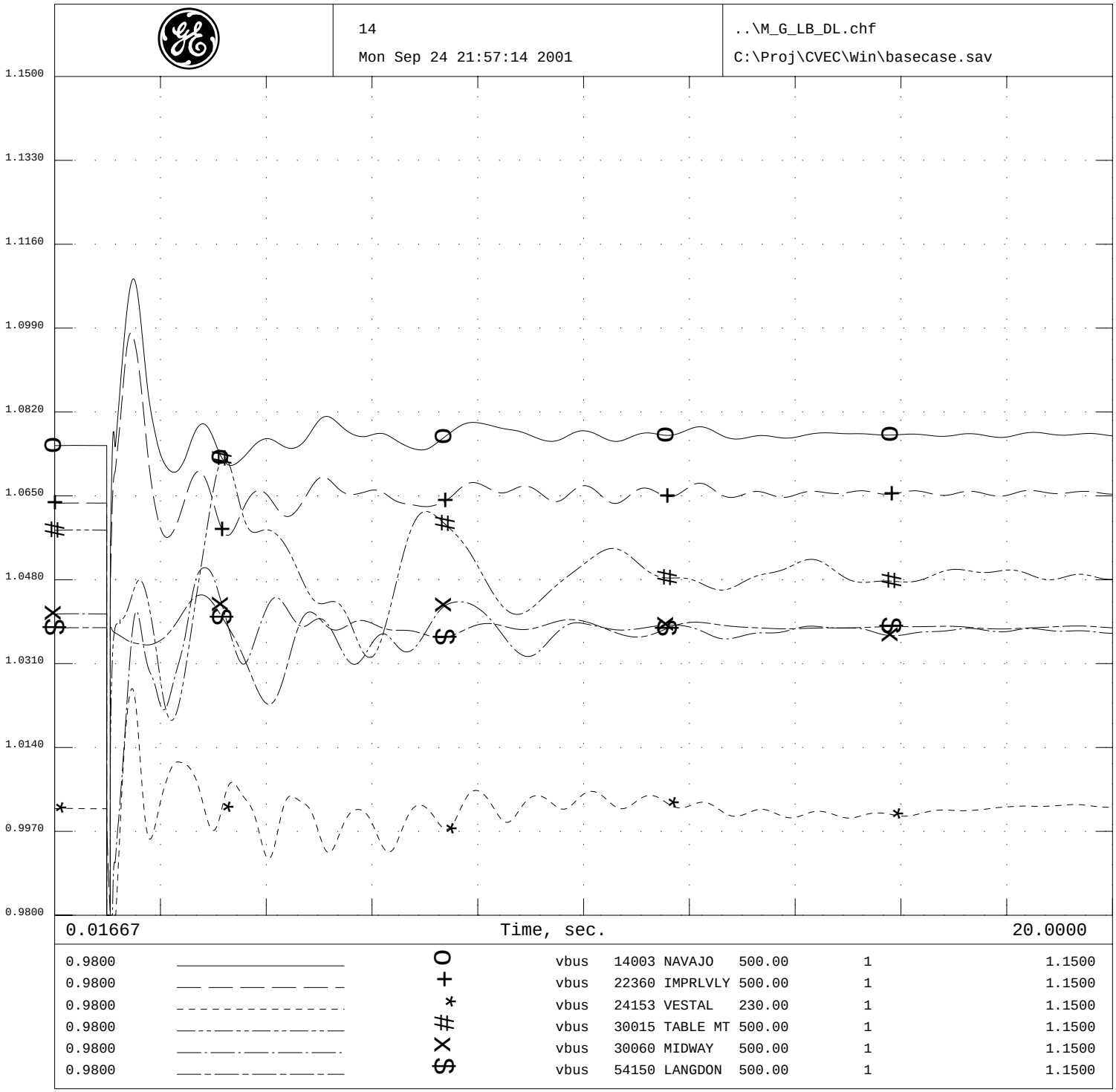

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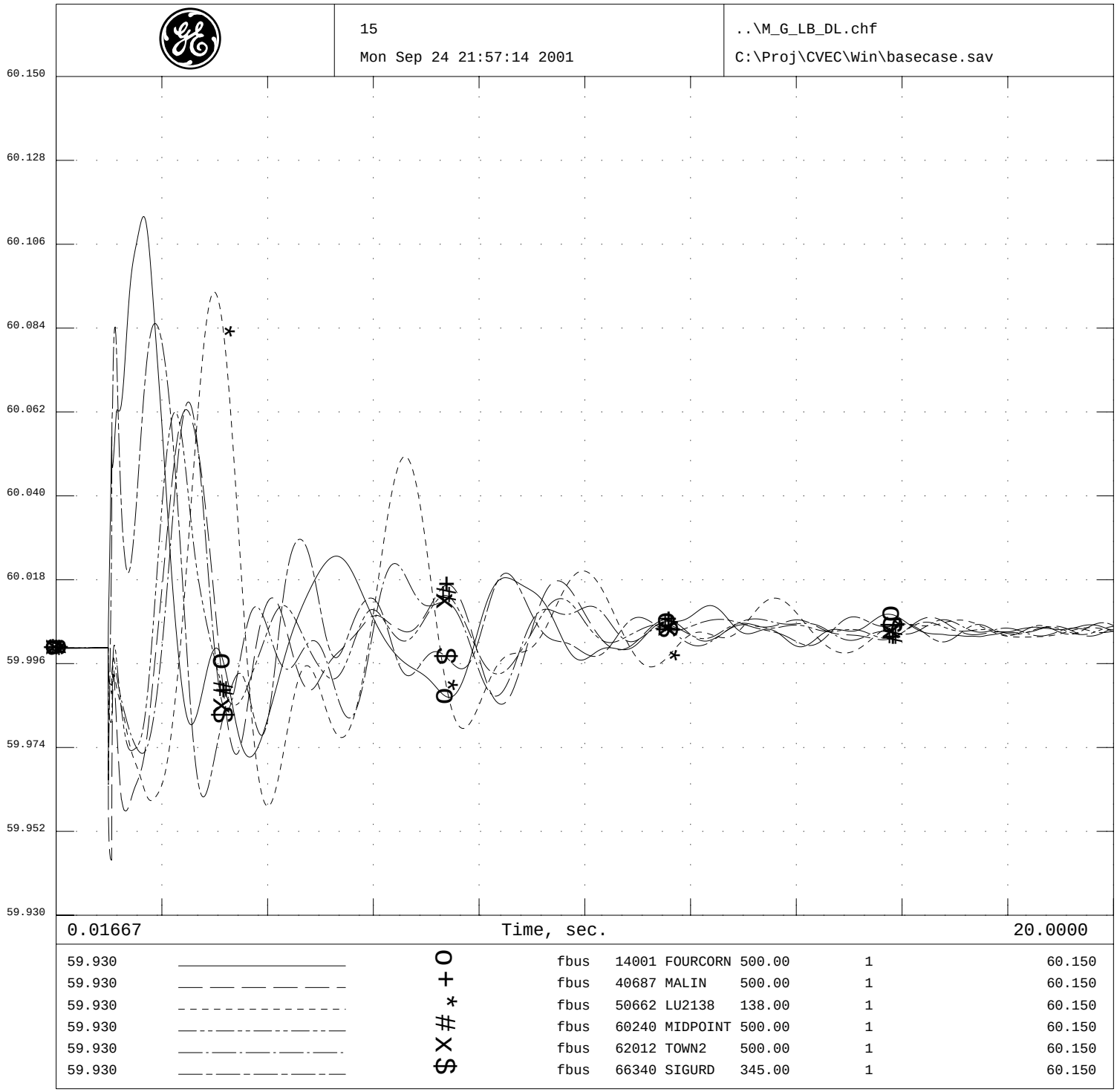

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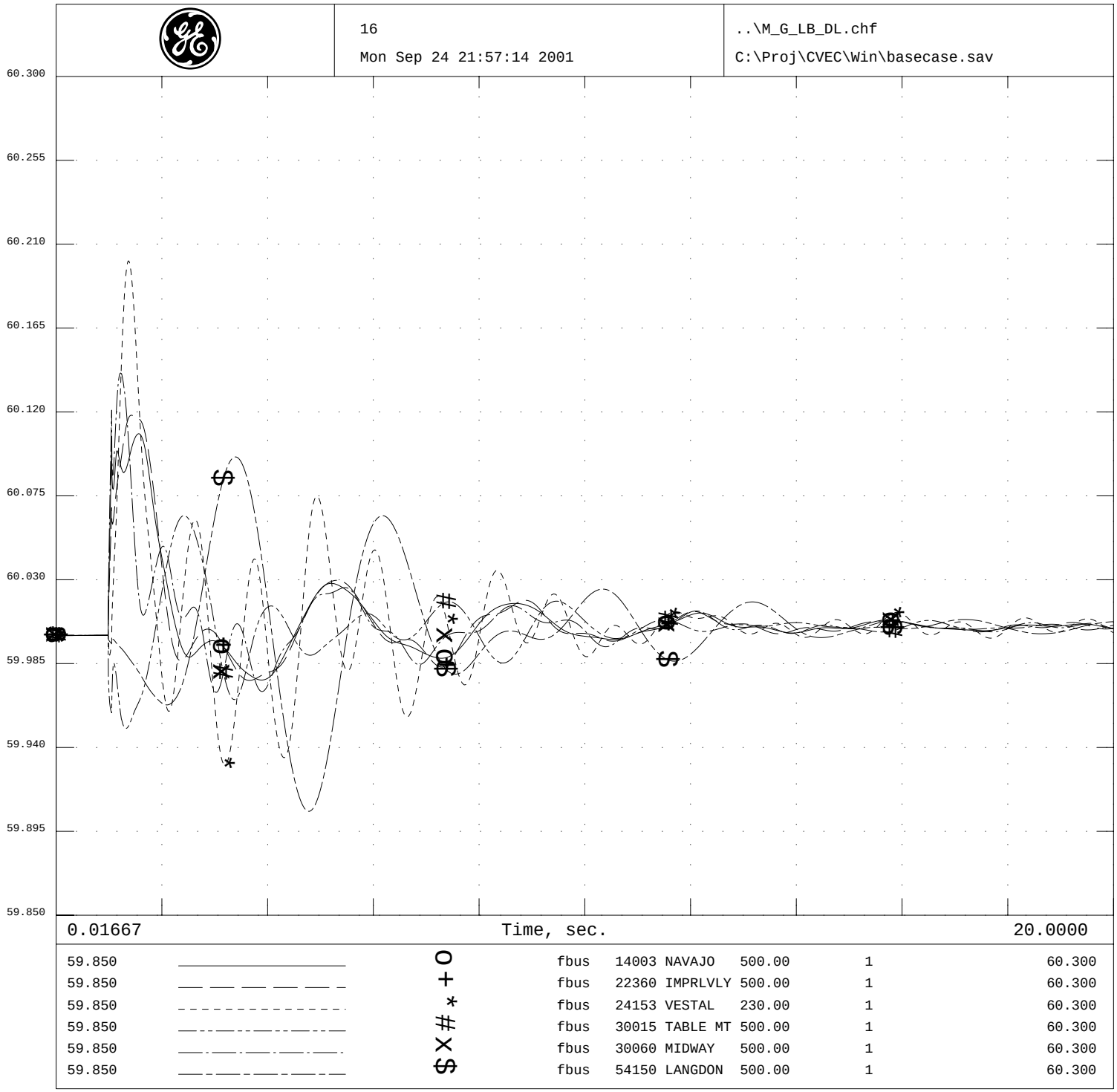

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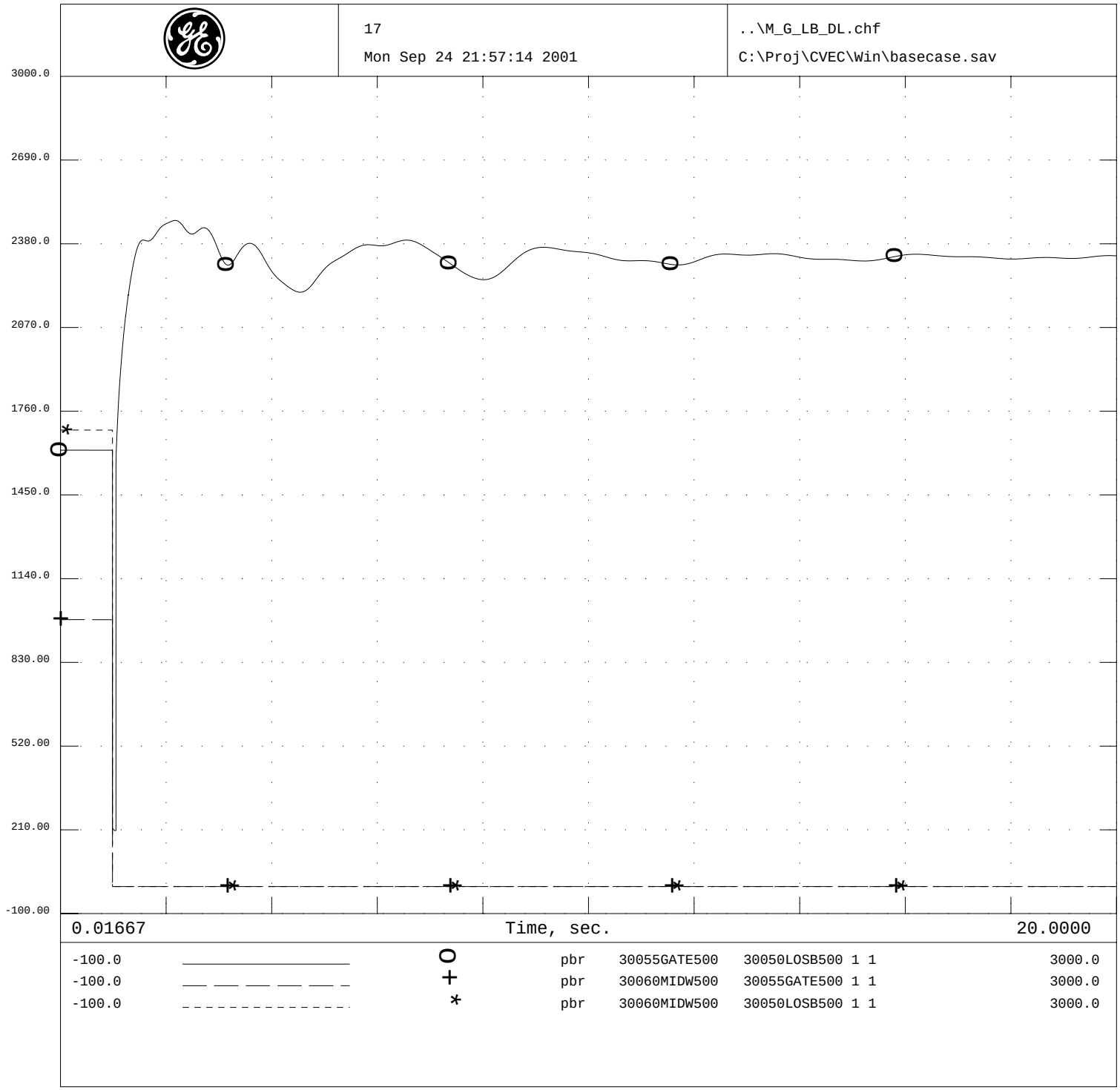

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Calpine Corporation
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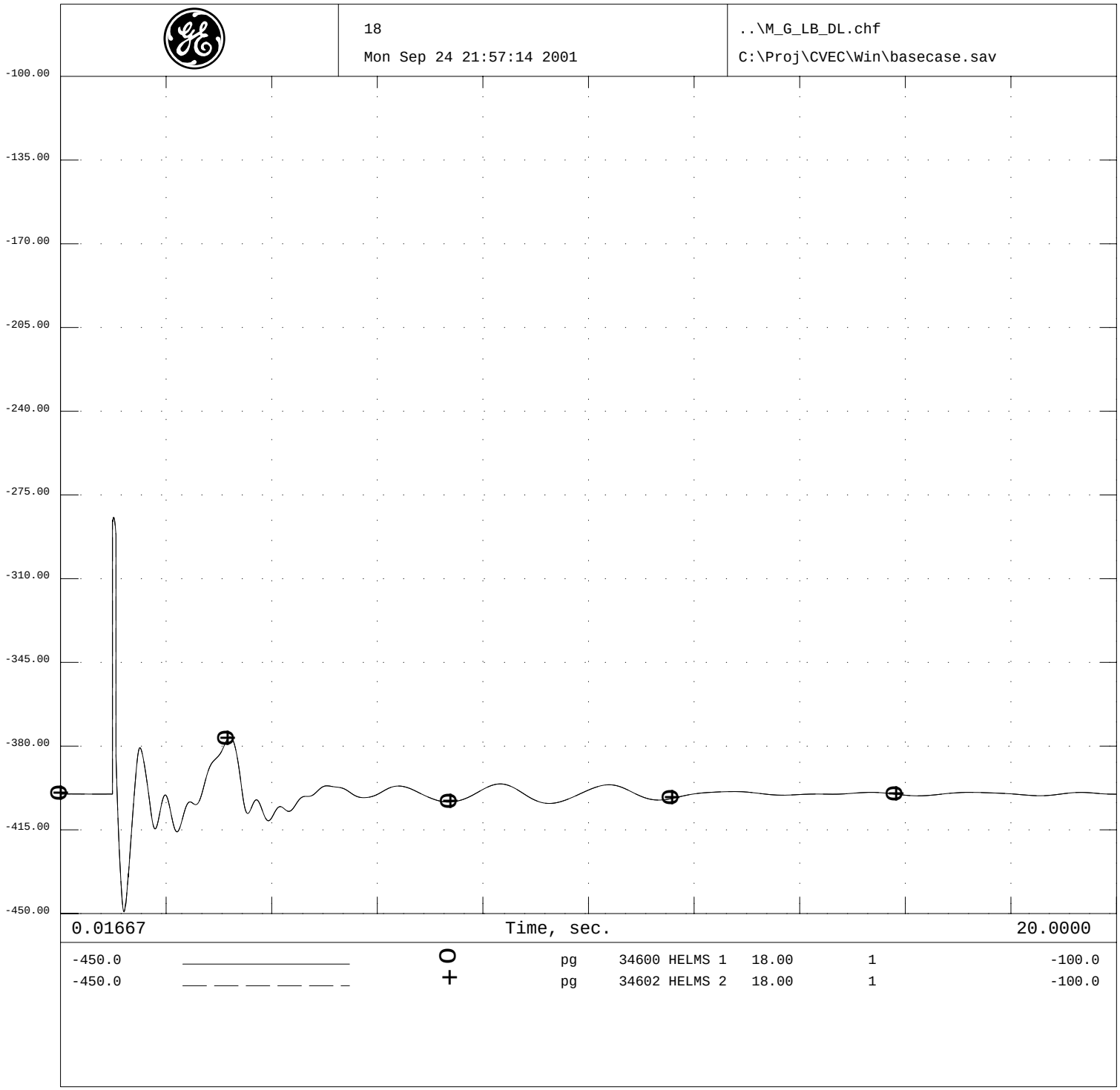

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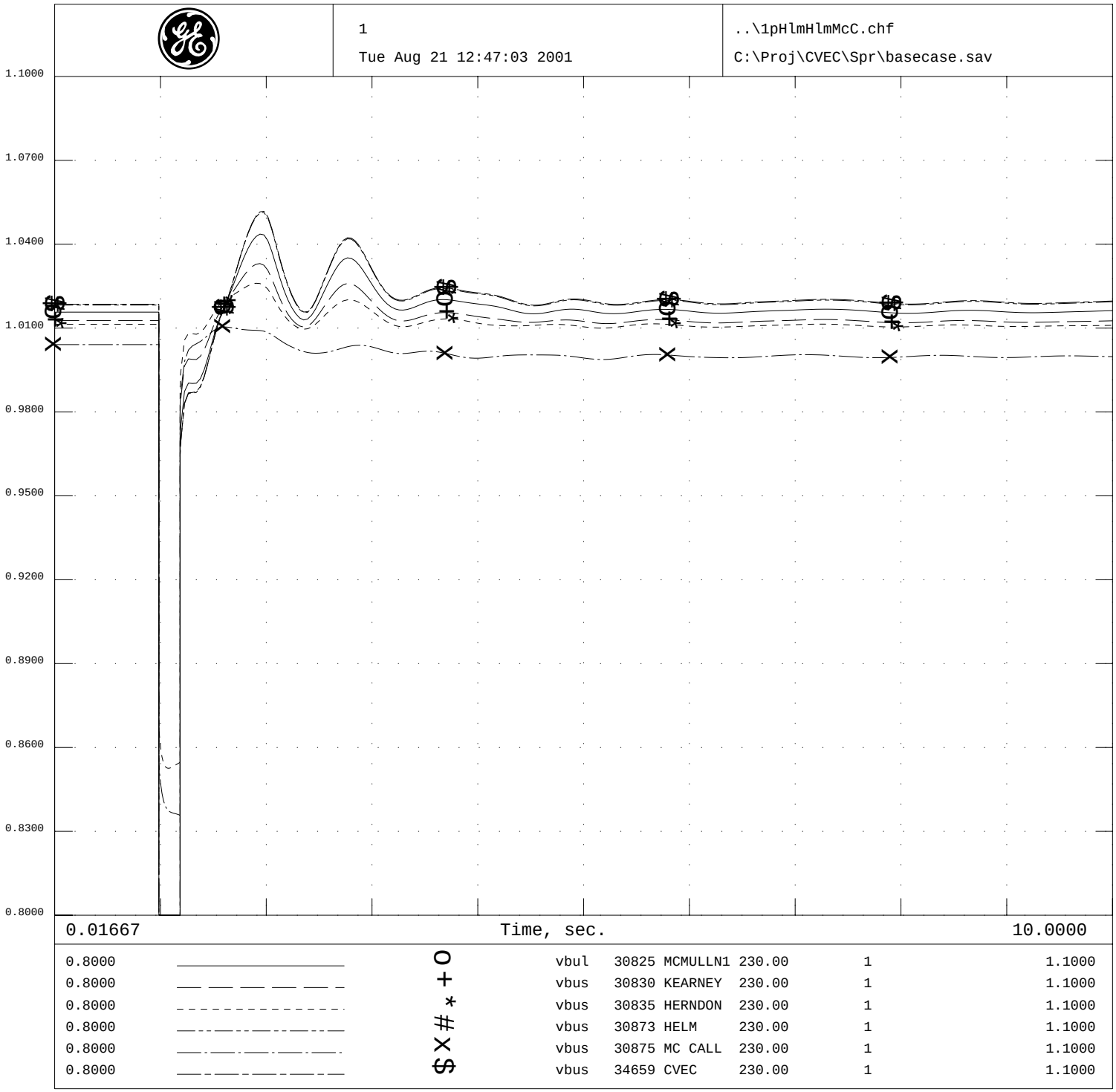
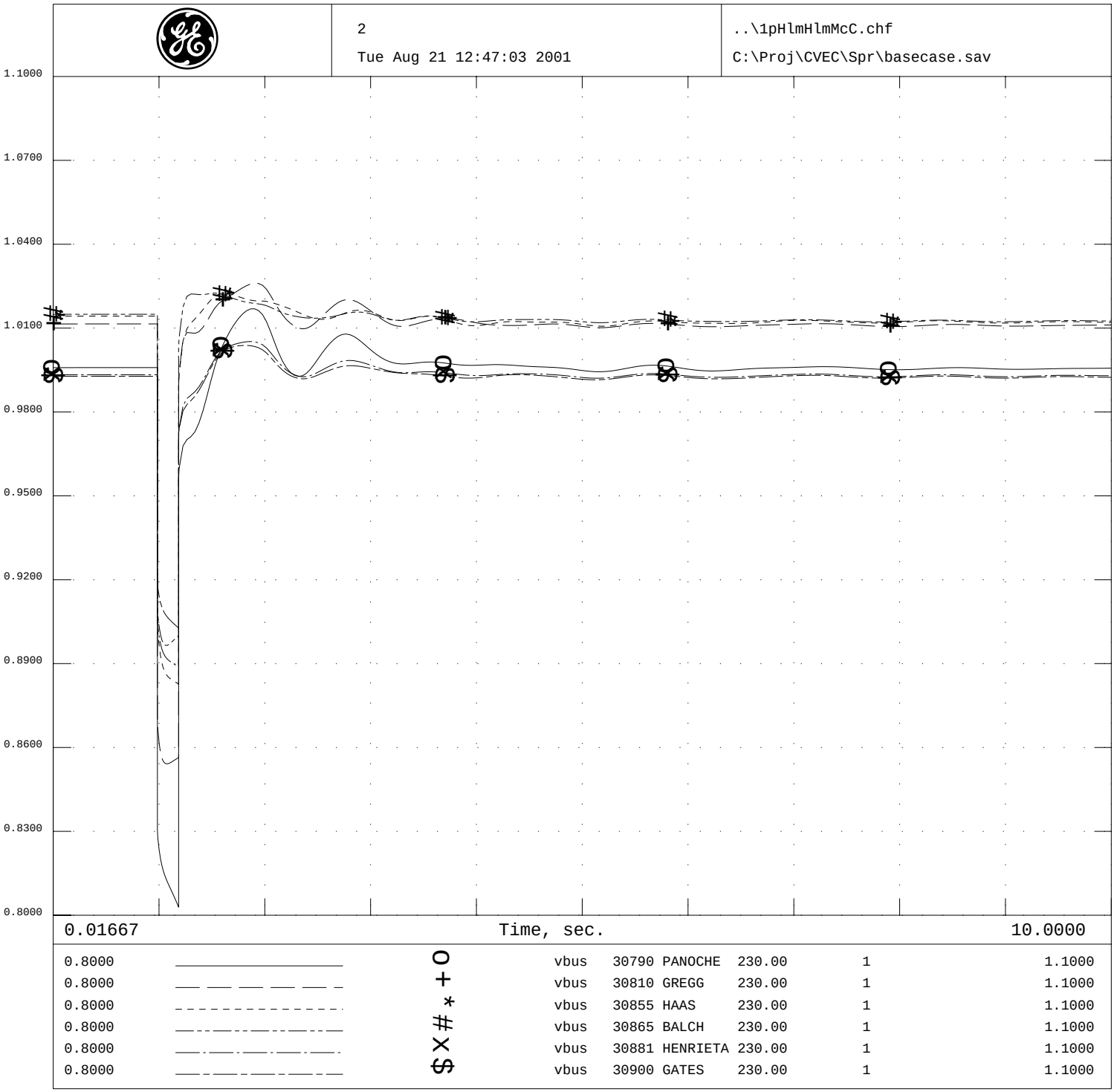


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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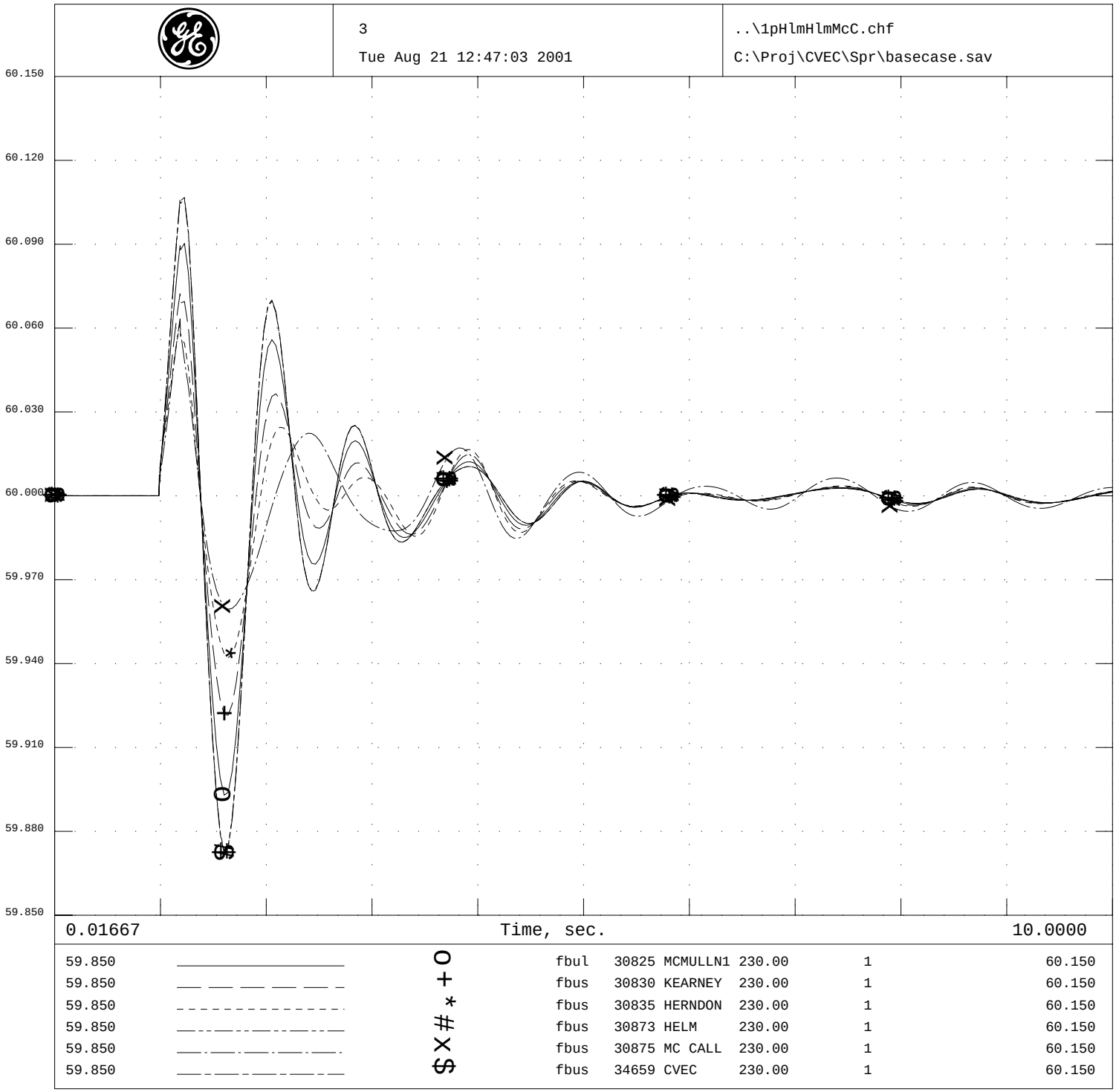

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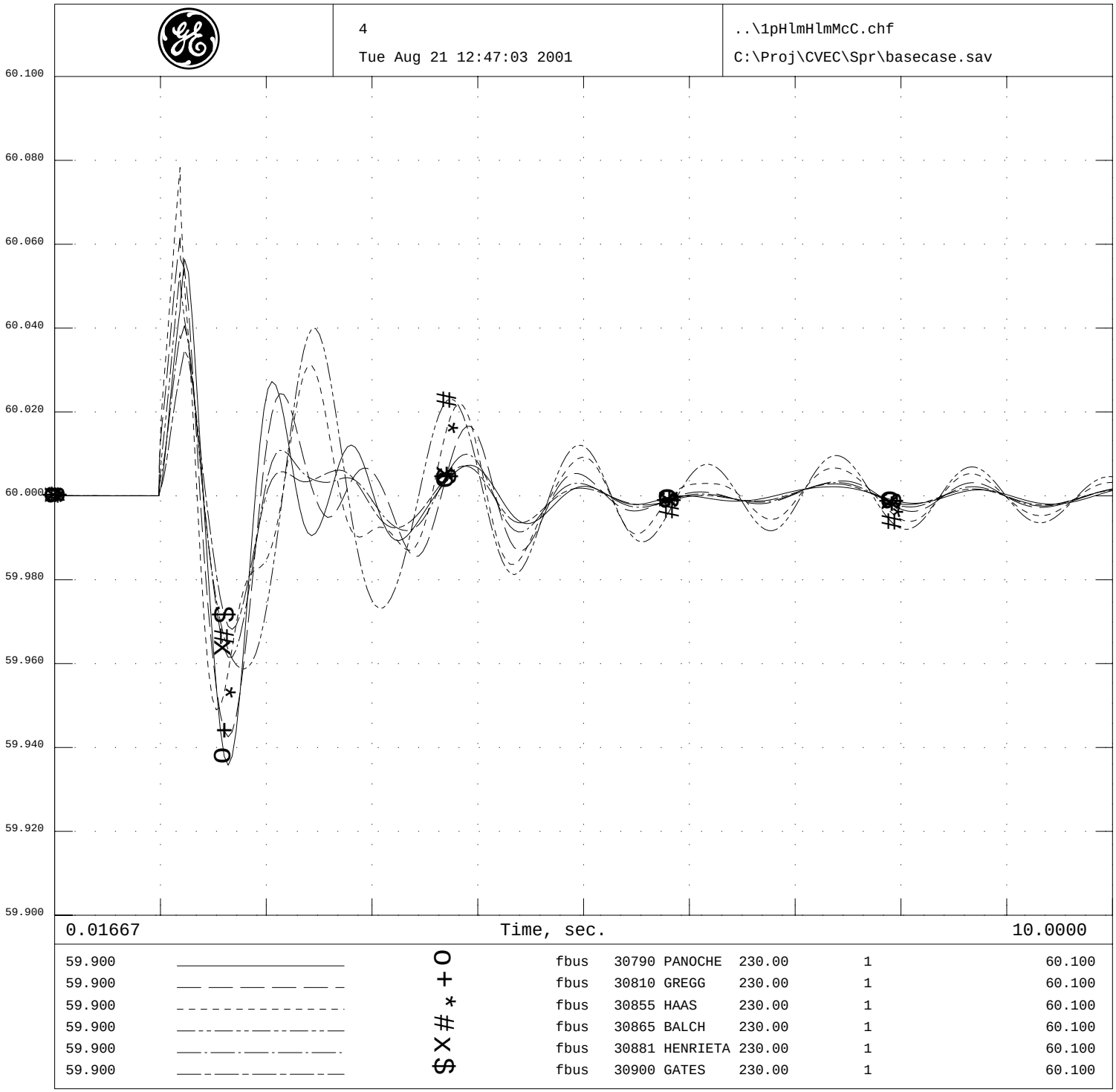

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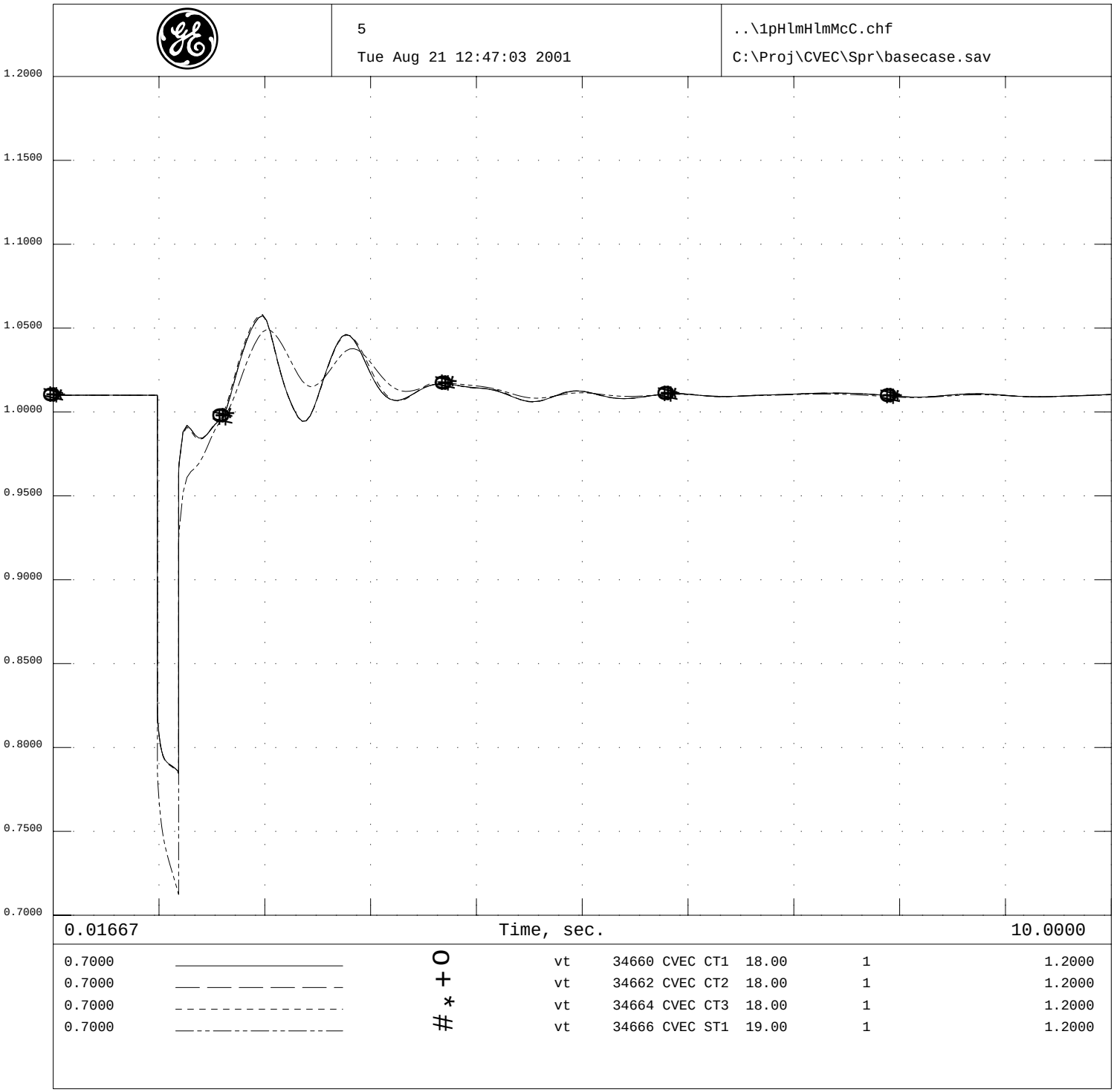

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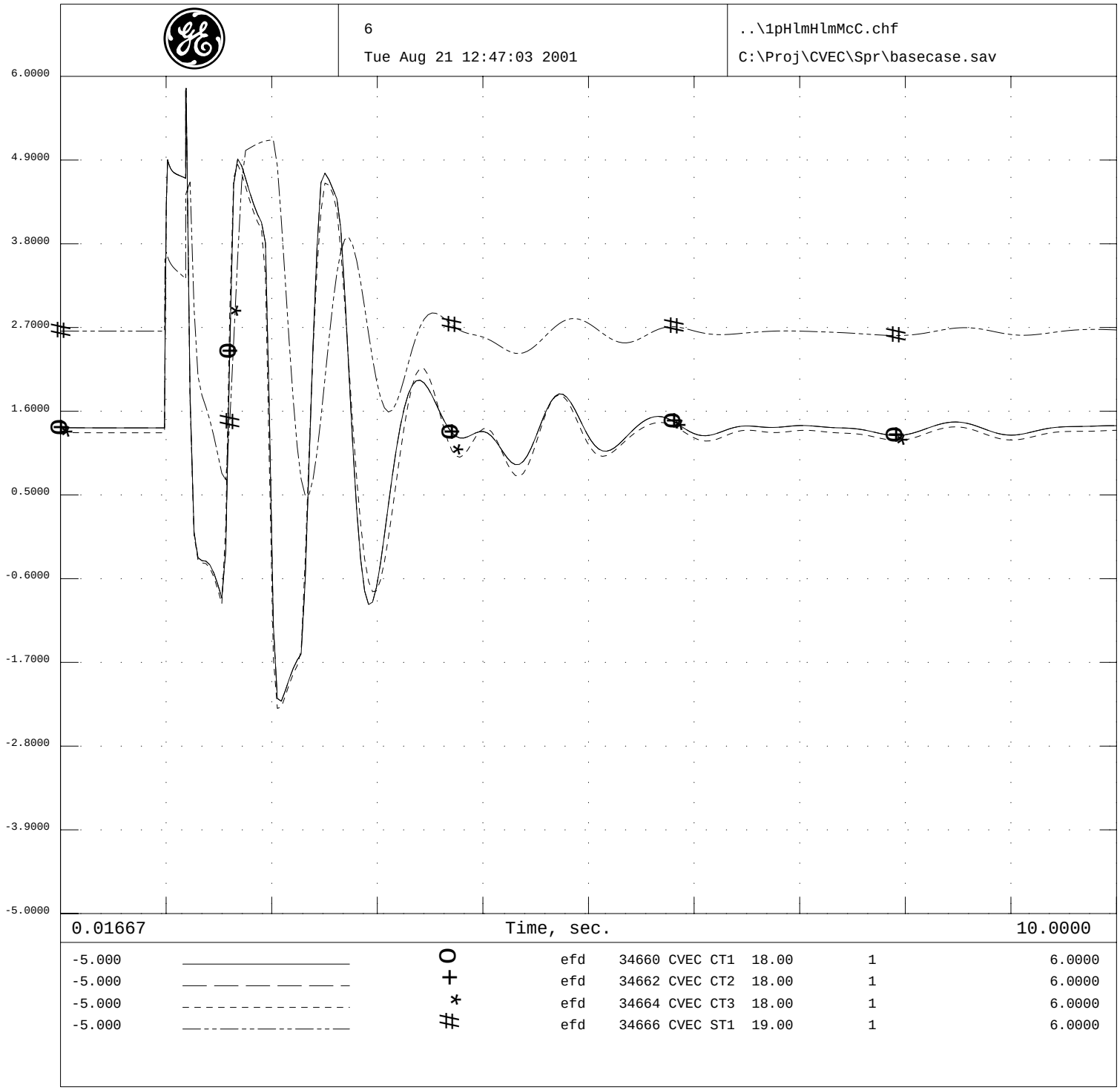
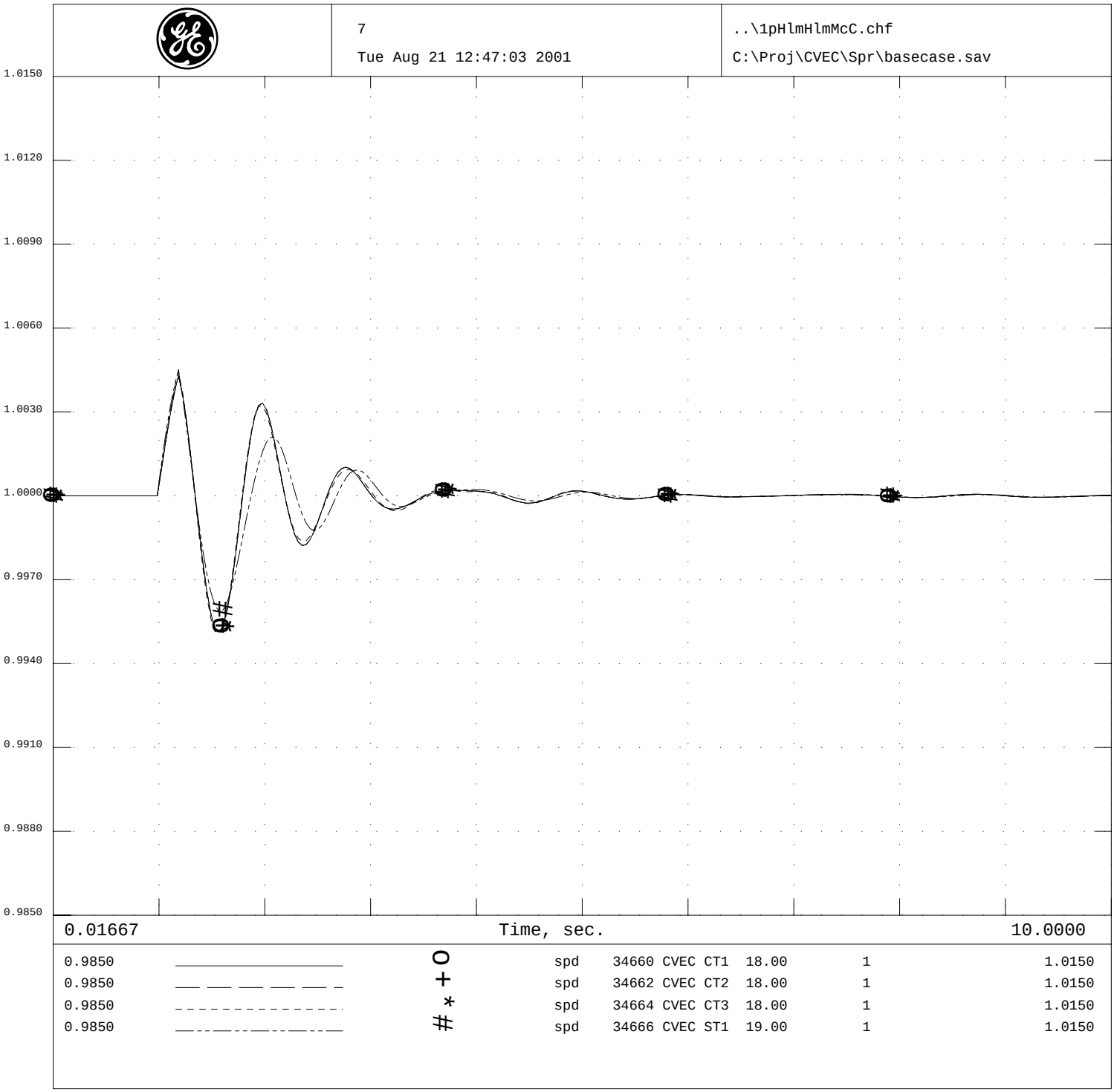
Calpine Corporation
Project Generator Terminal Voltages



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall-Helm 230kV Outage
1 phase 12 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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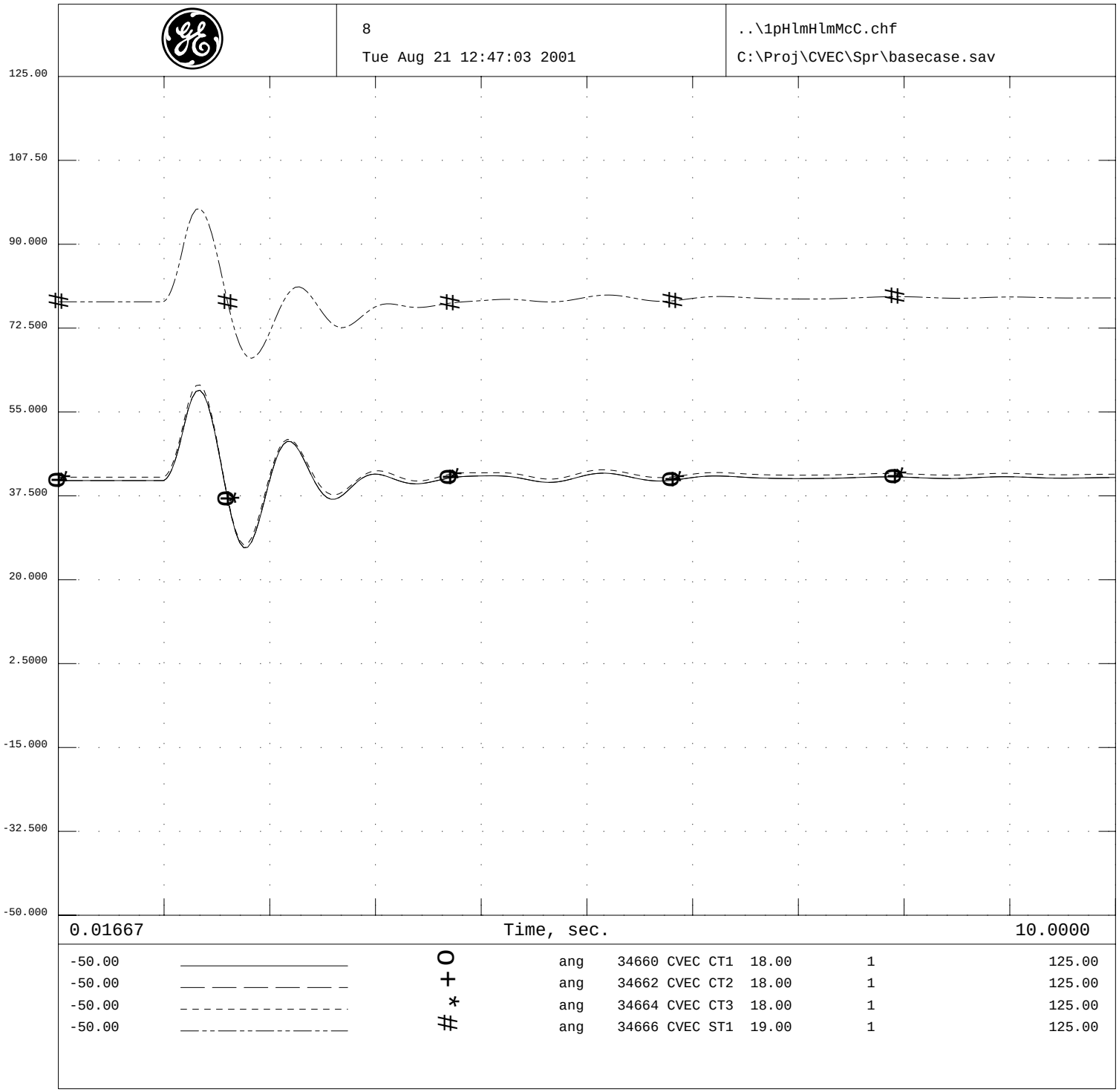
Calpine Corporation
Project Generator Rotor Speed



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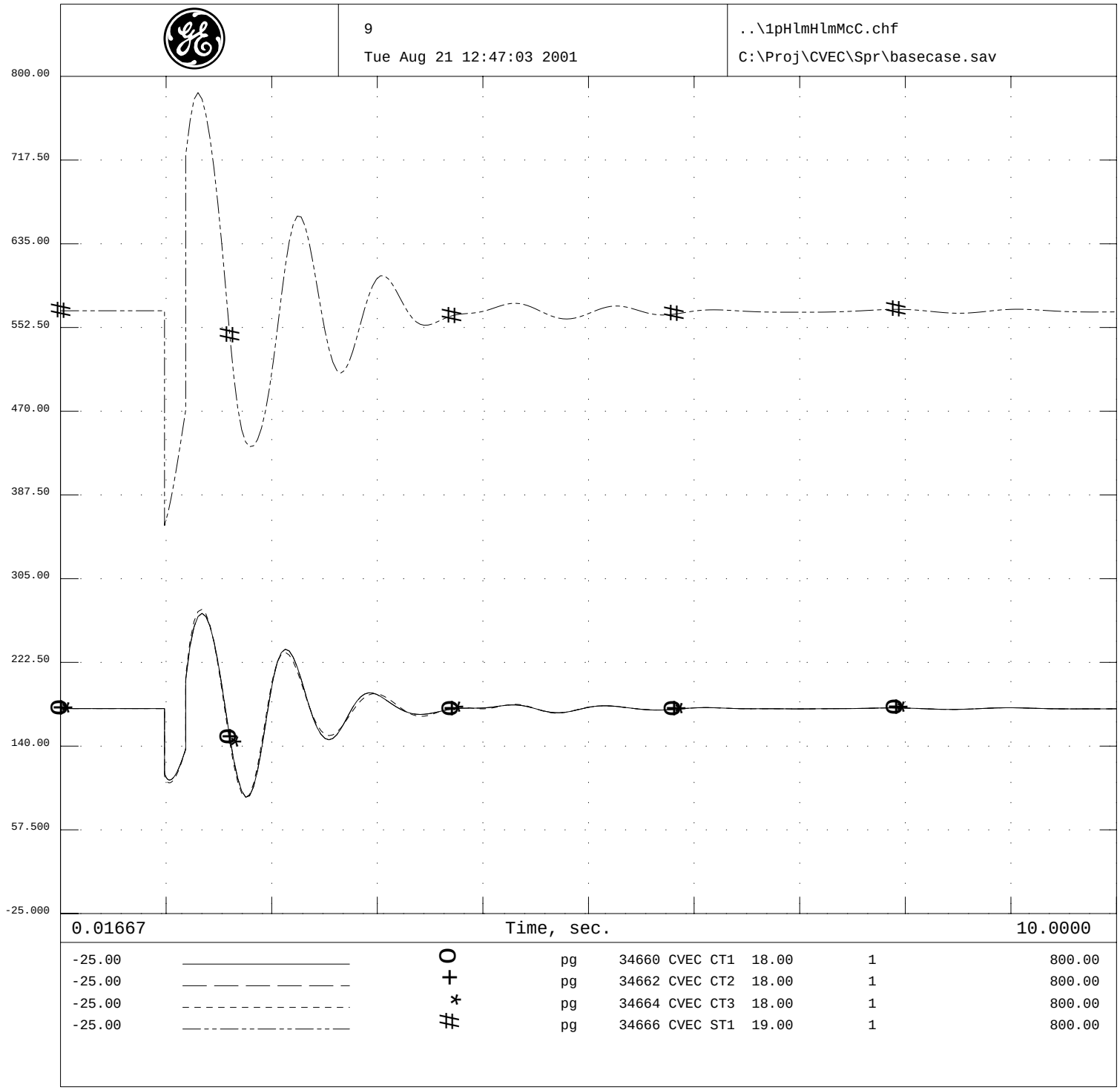
Calpine Corporation
Project Generator Rotor Angle



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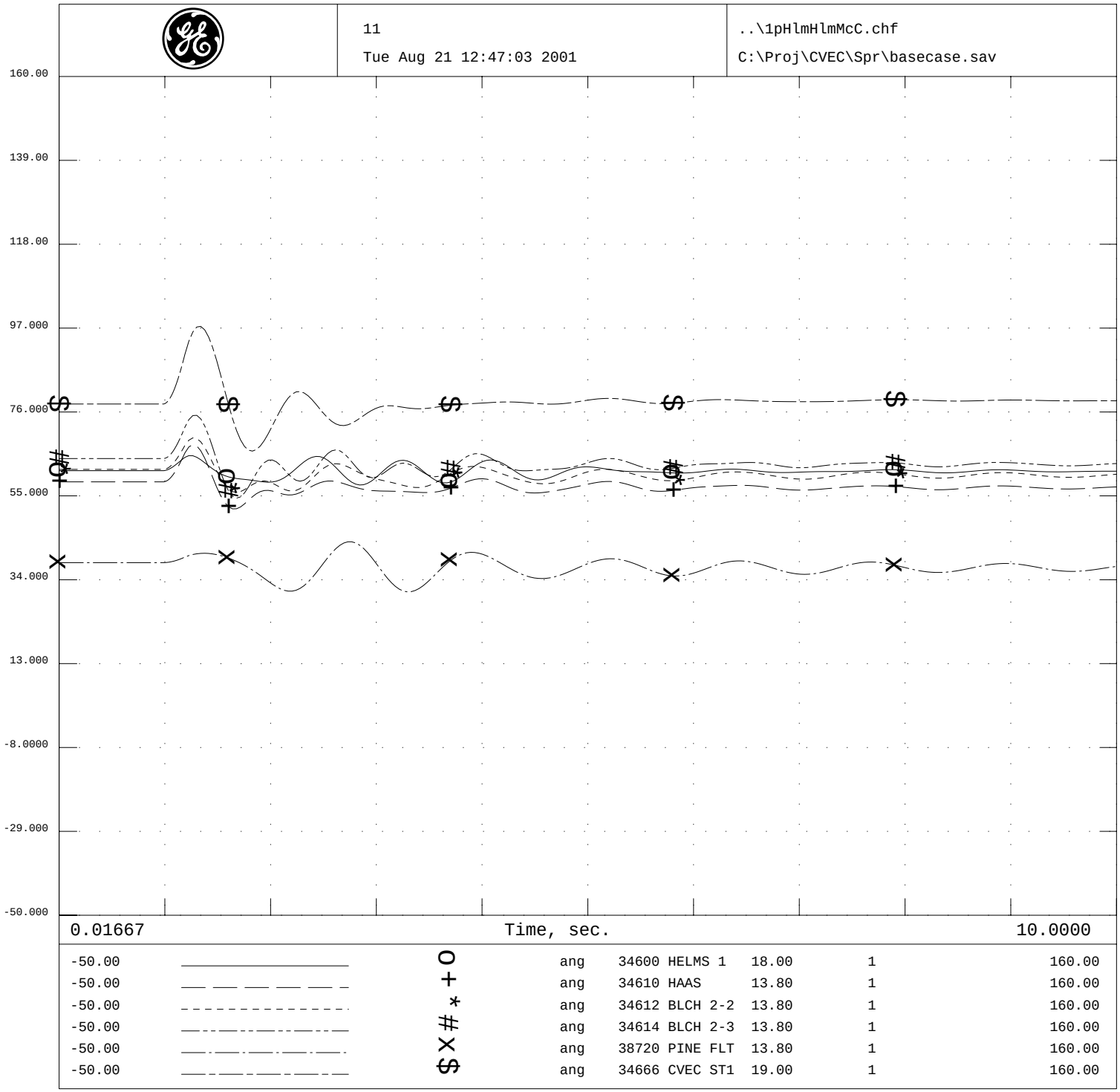
Project Generator Terminal Power



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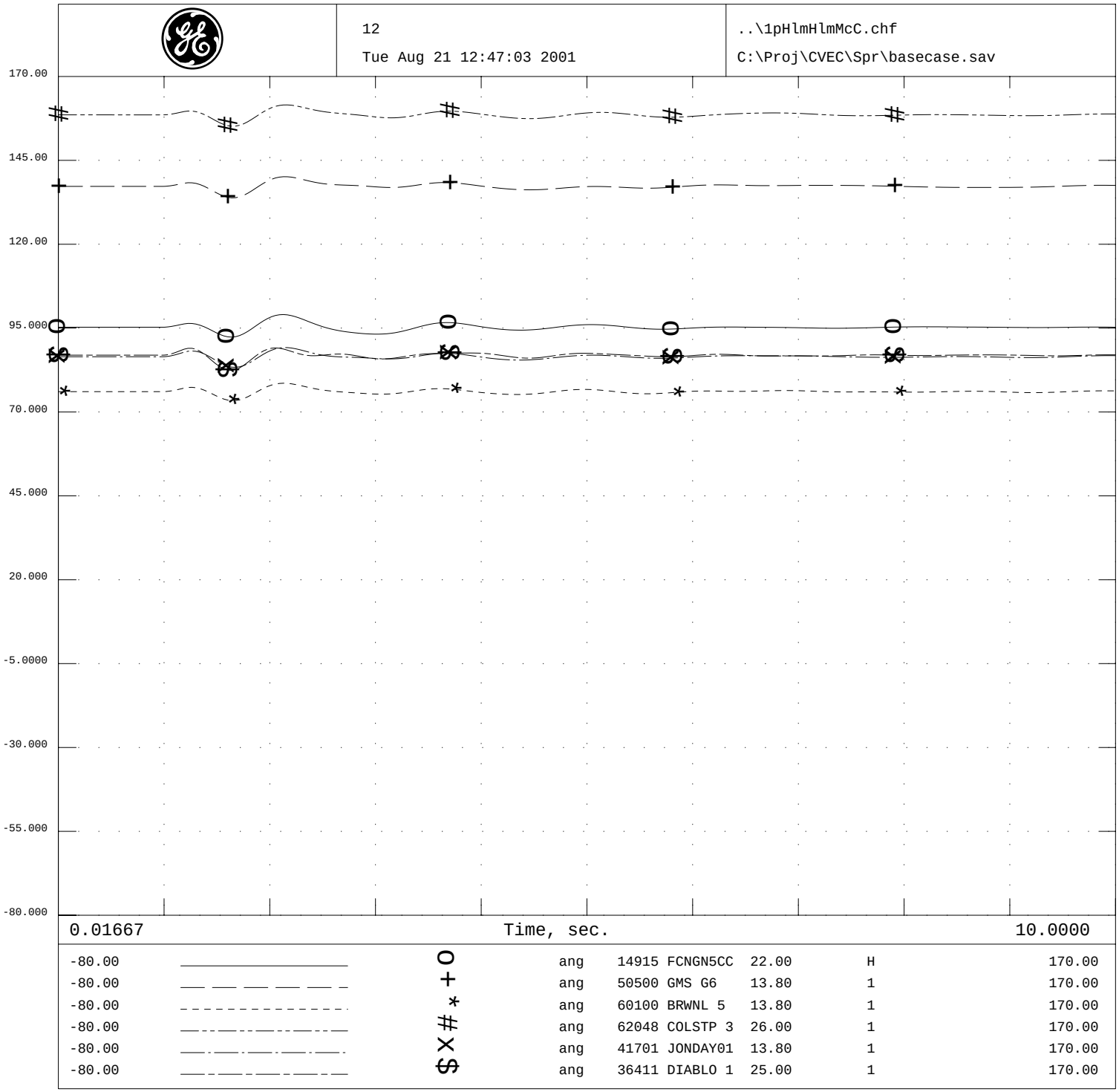
Selected Local Rotor Angle Plots



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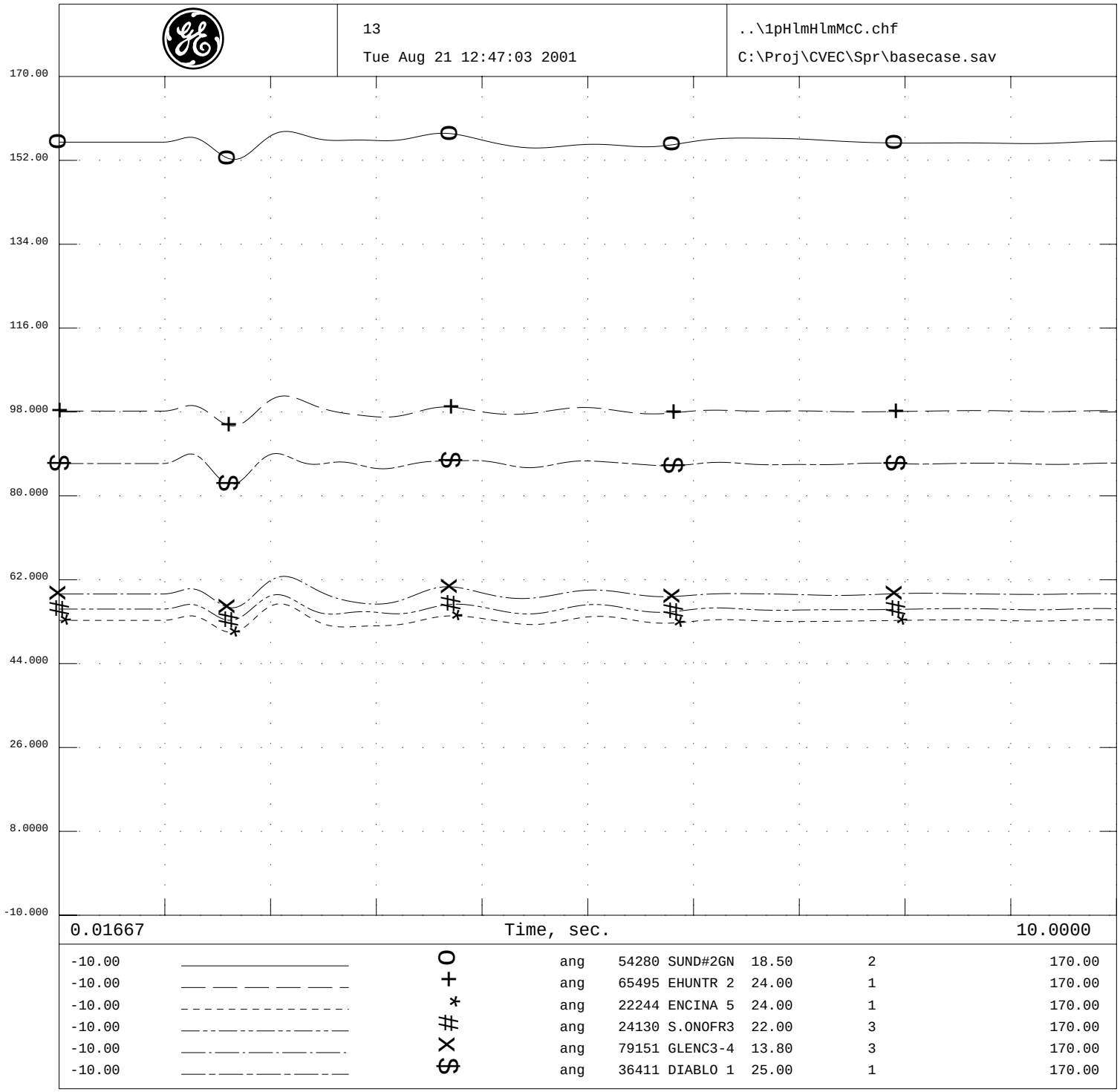
Selected WSCC Transmission Bus Angle Plots



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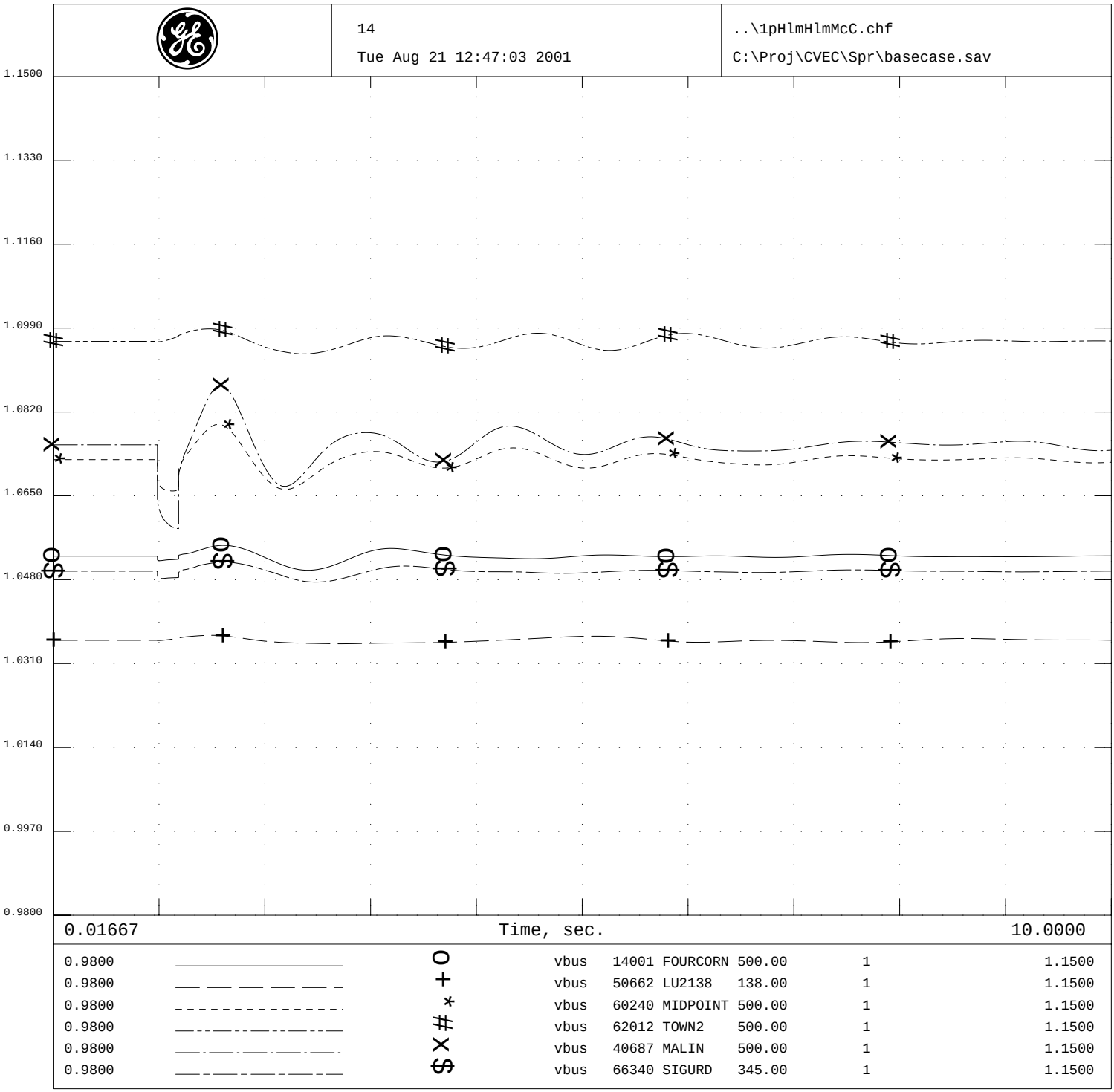

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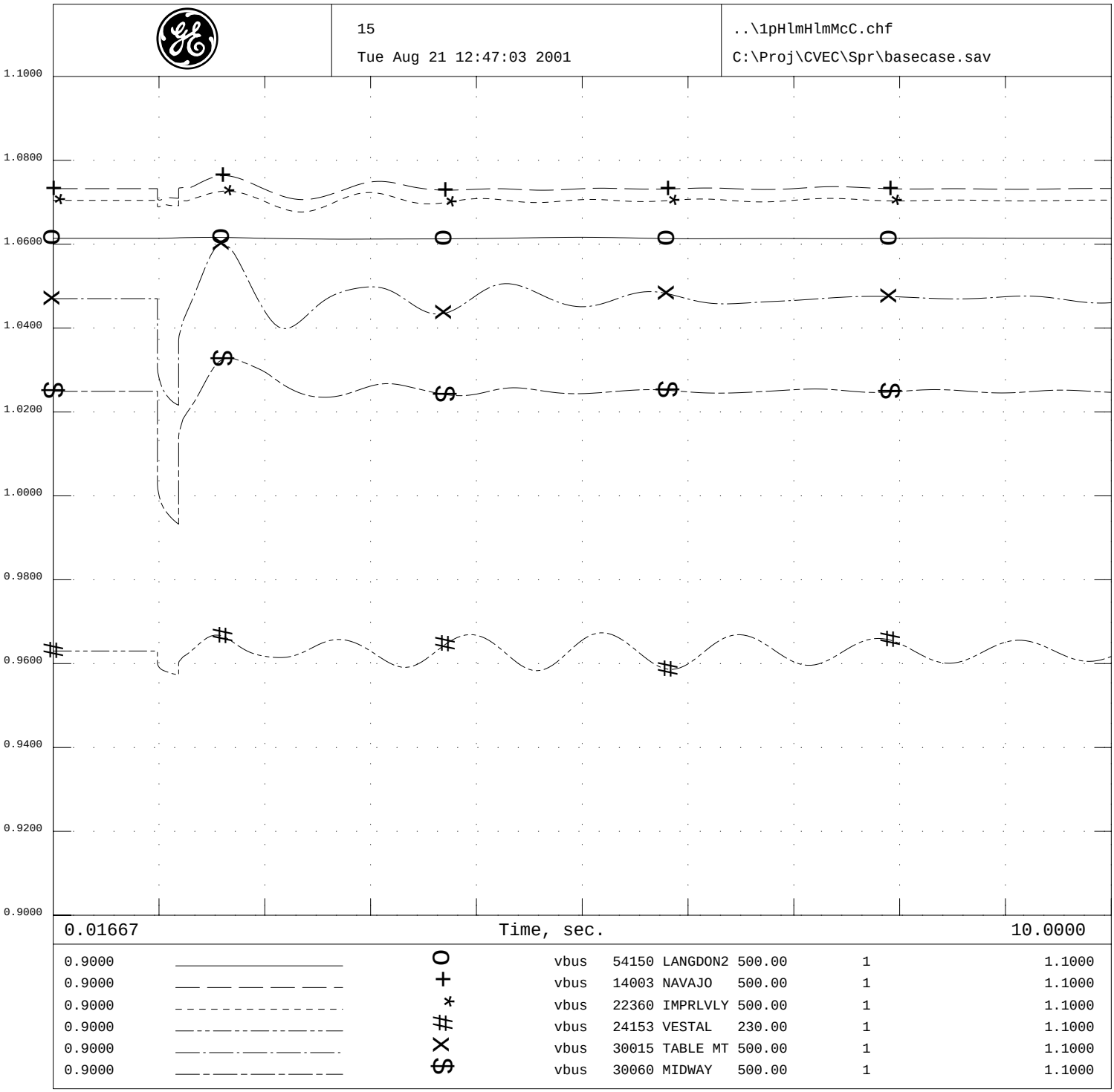
Selected WSCC Transmission Bus Voltage Plots



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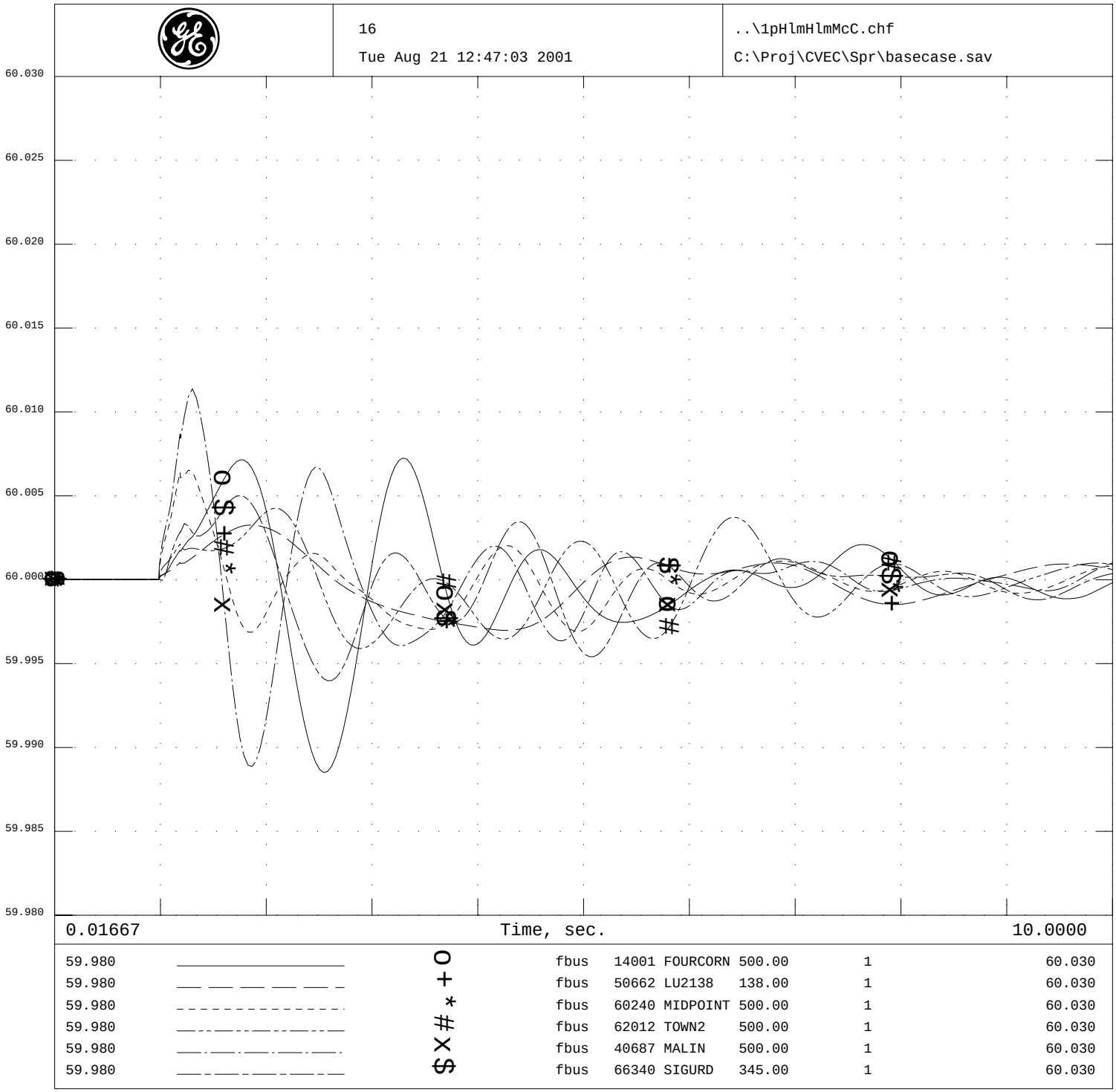

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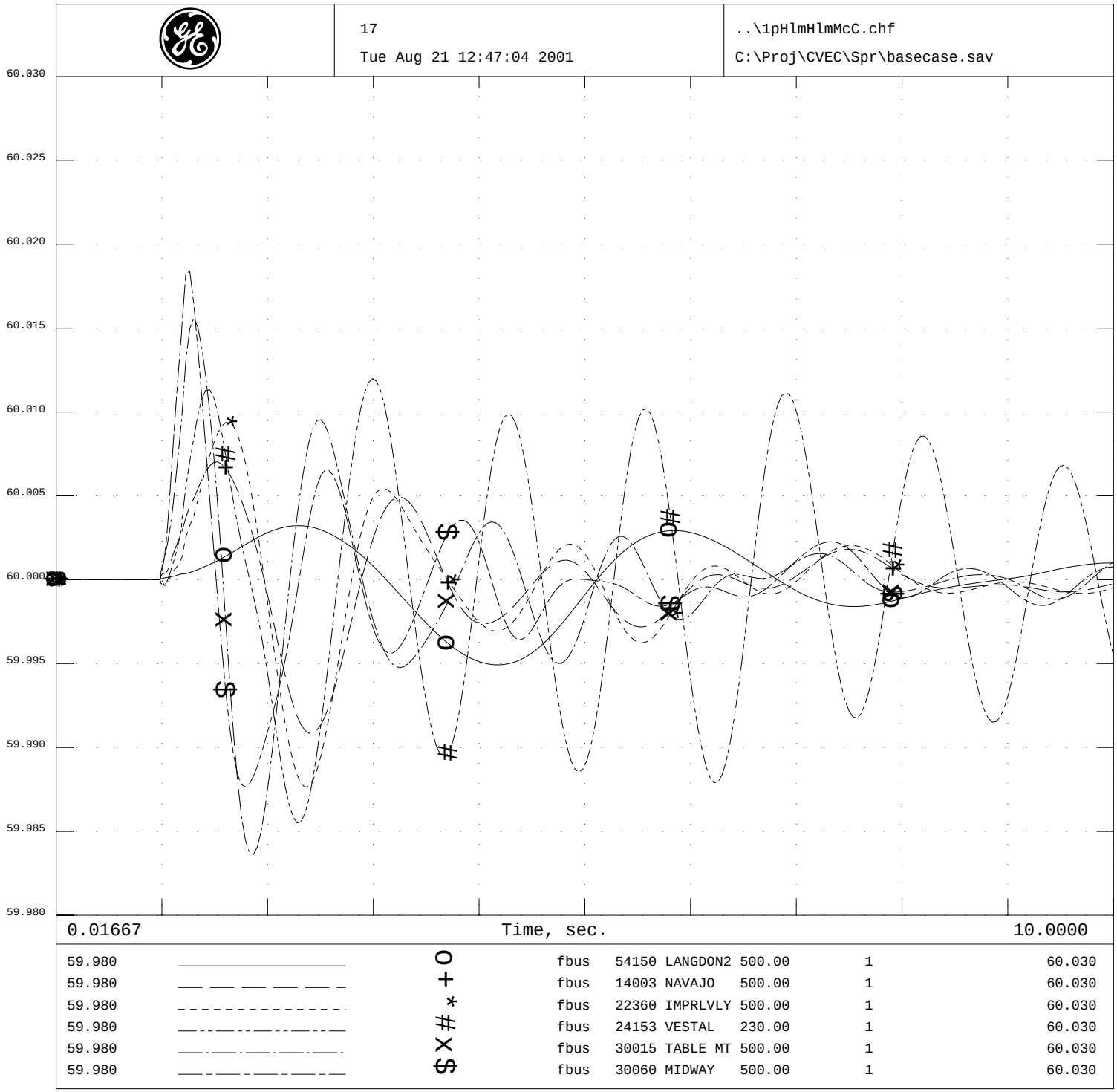

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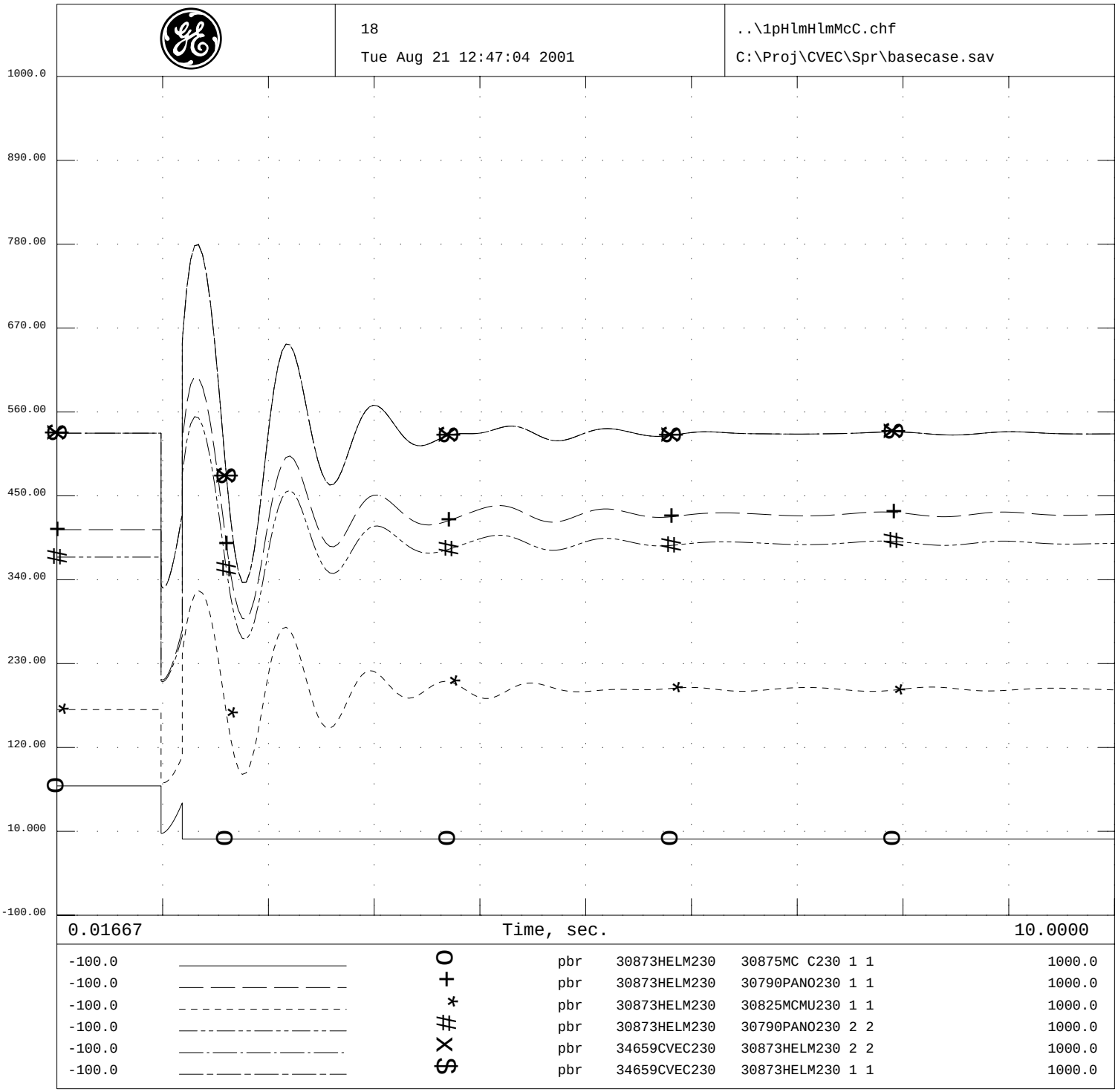

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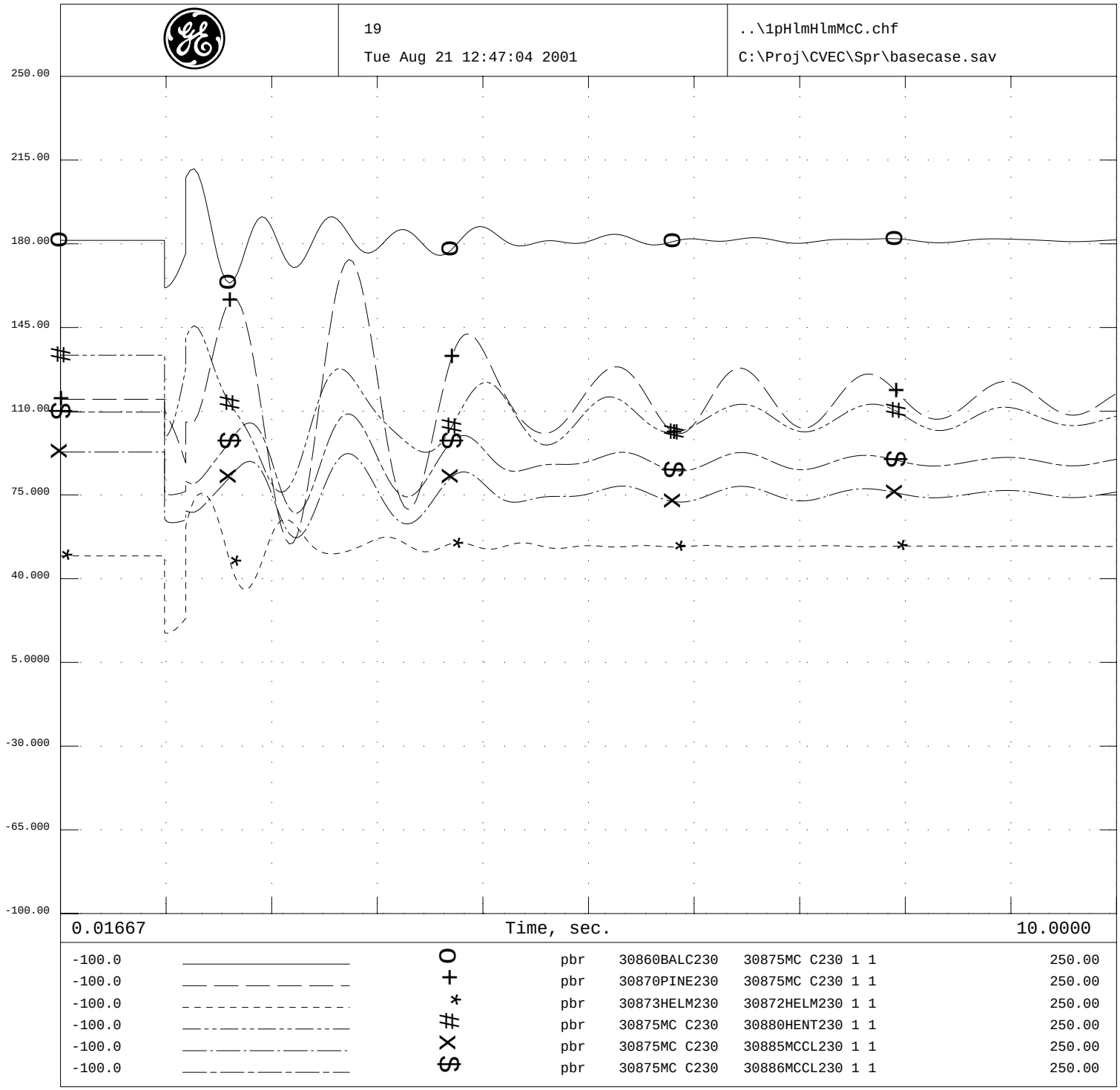
Selected Transmission Line Flows (MW)



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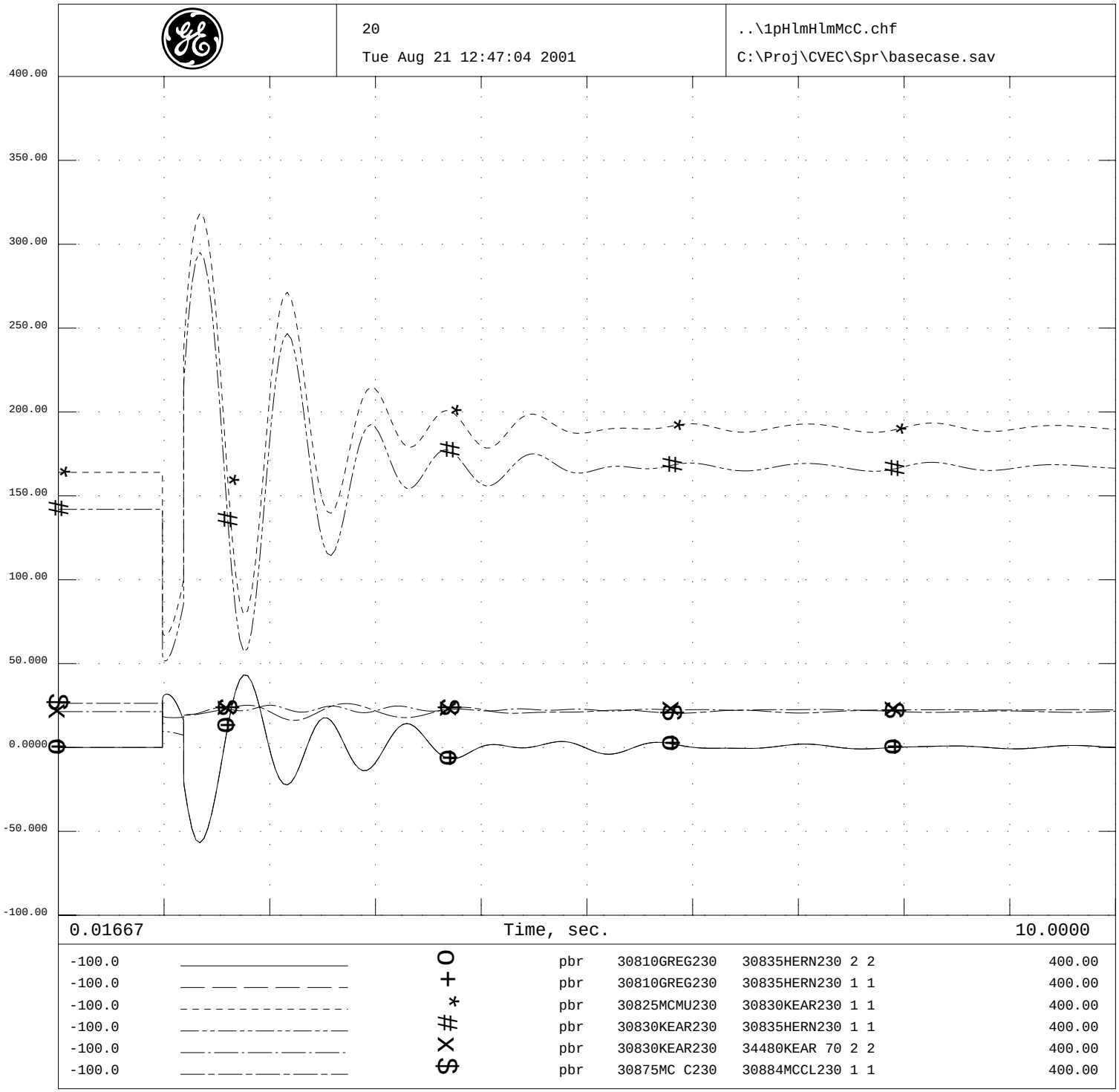

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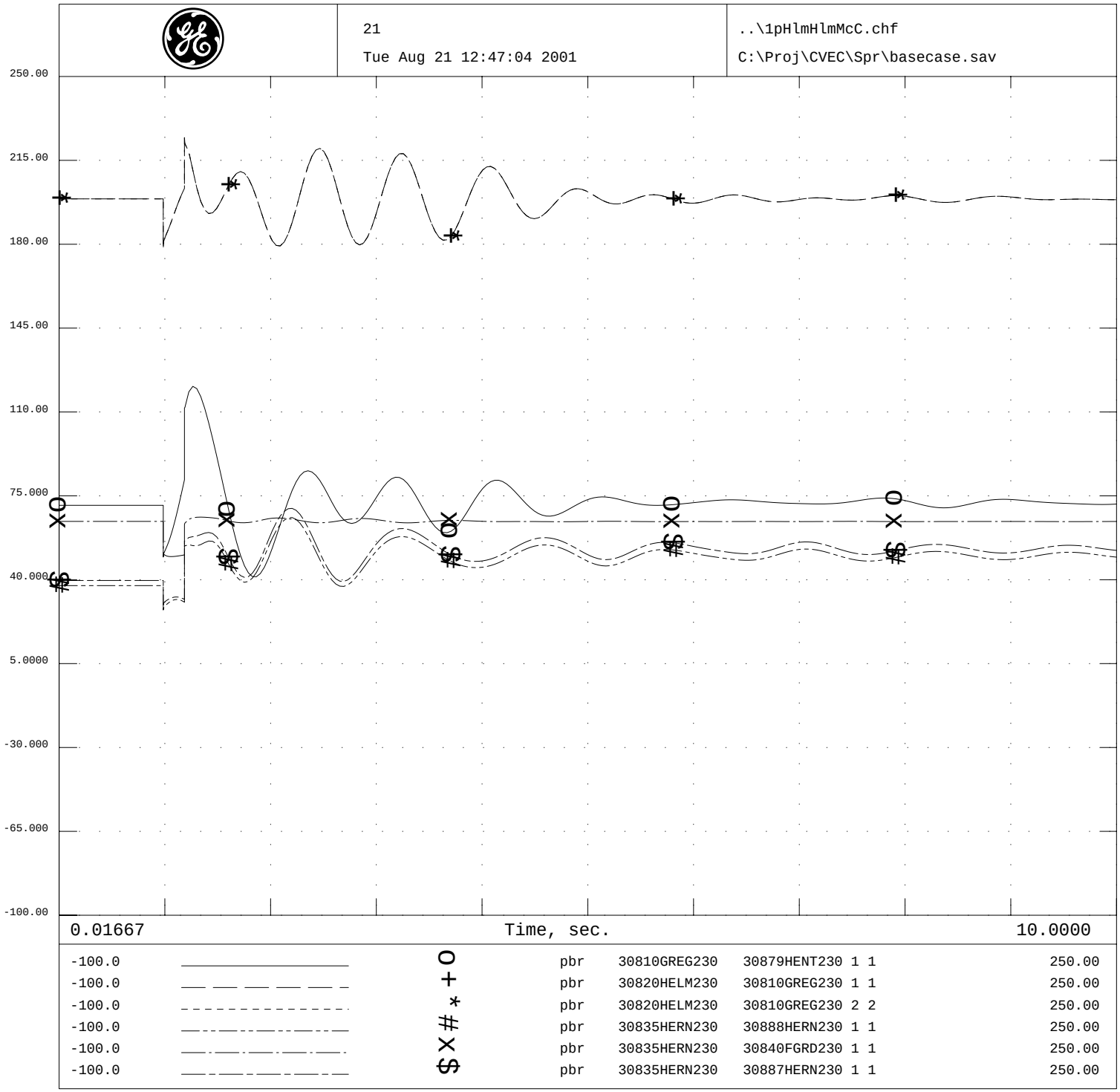

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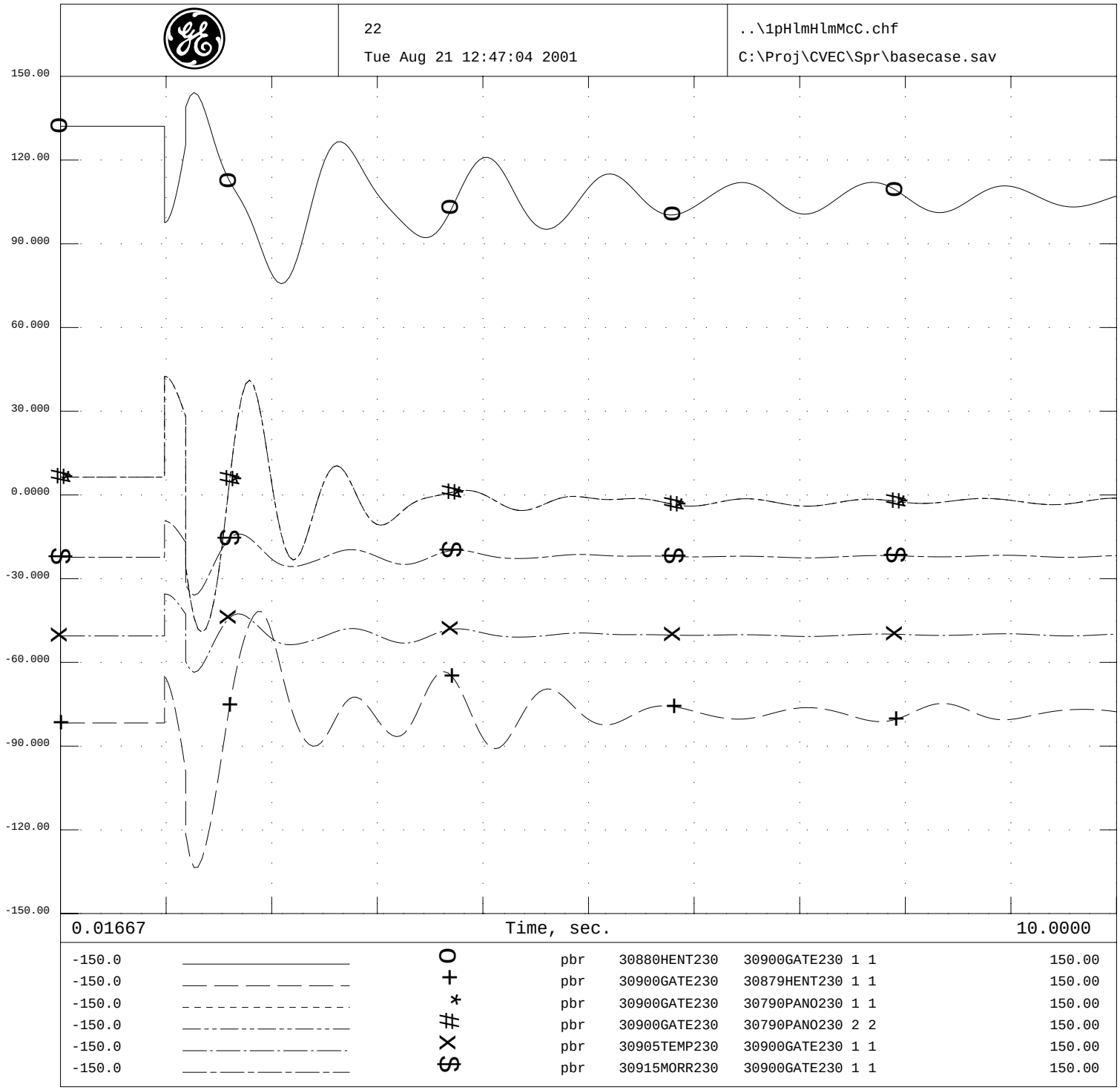

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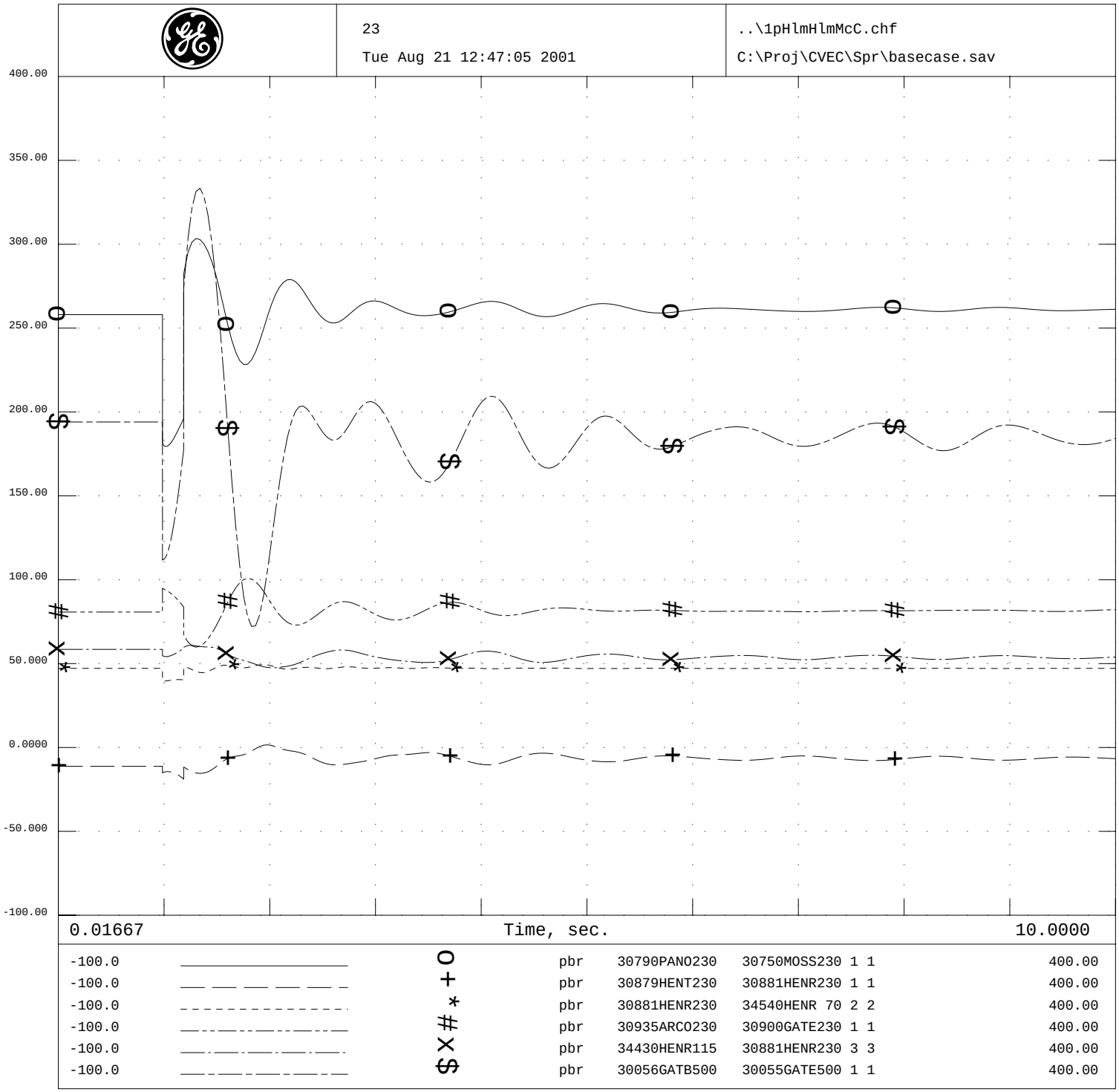

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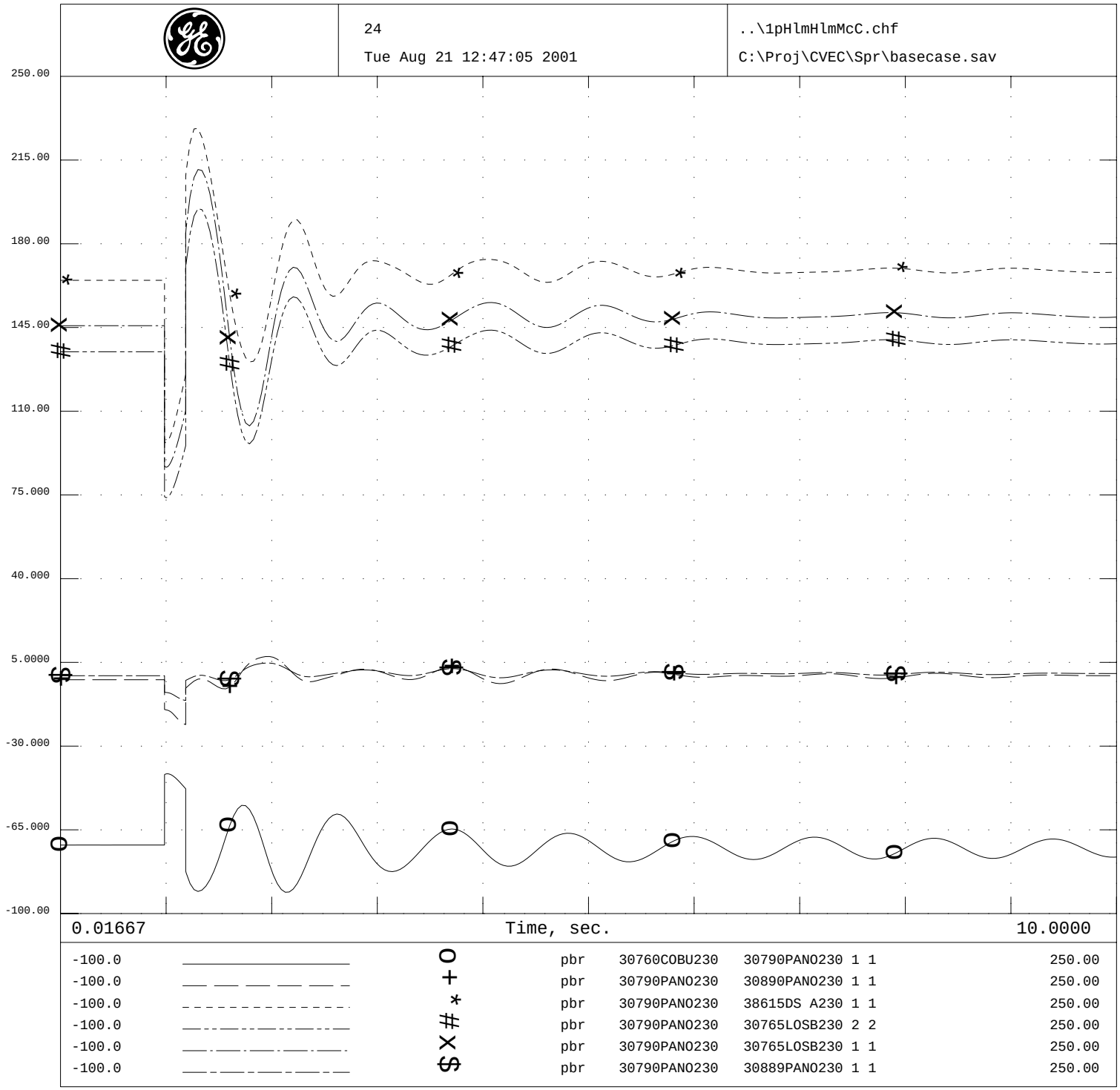

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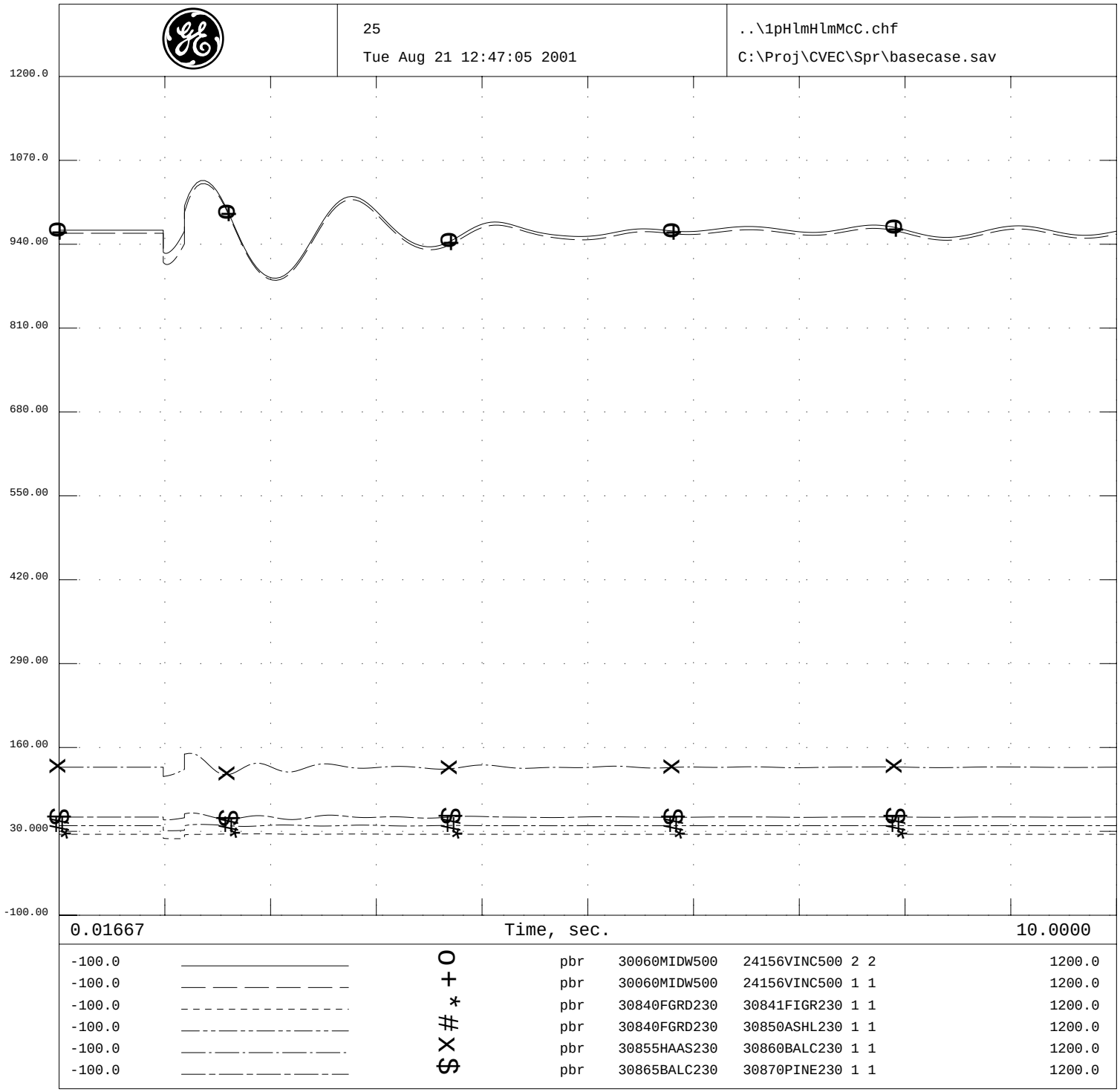

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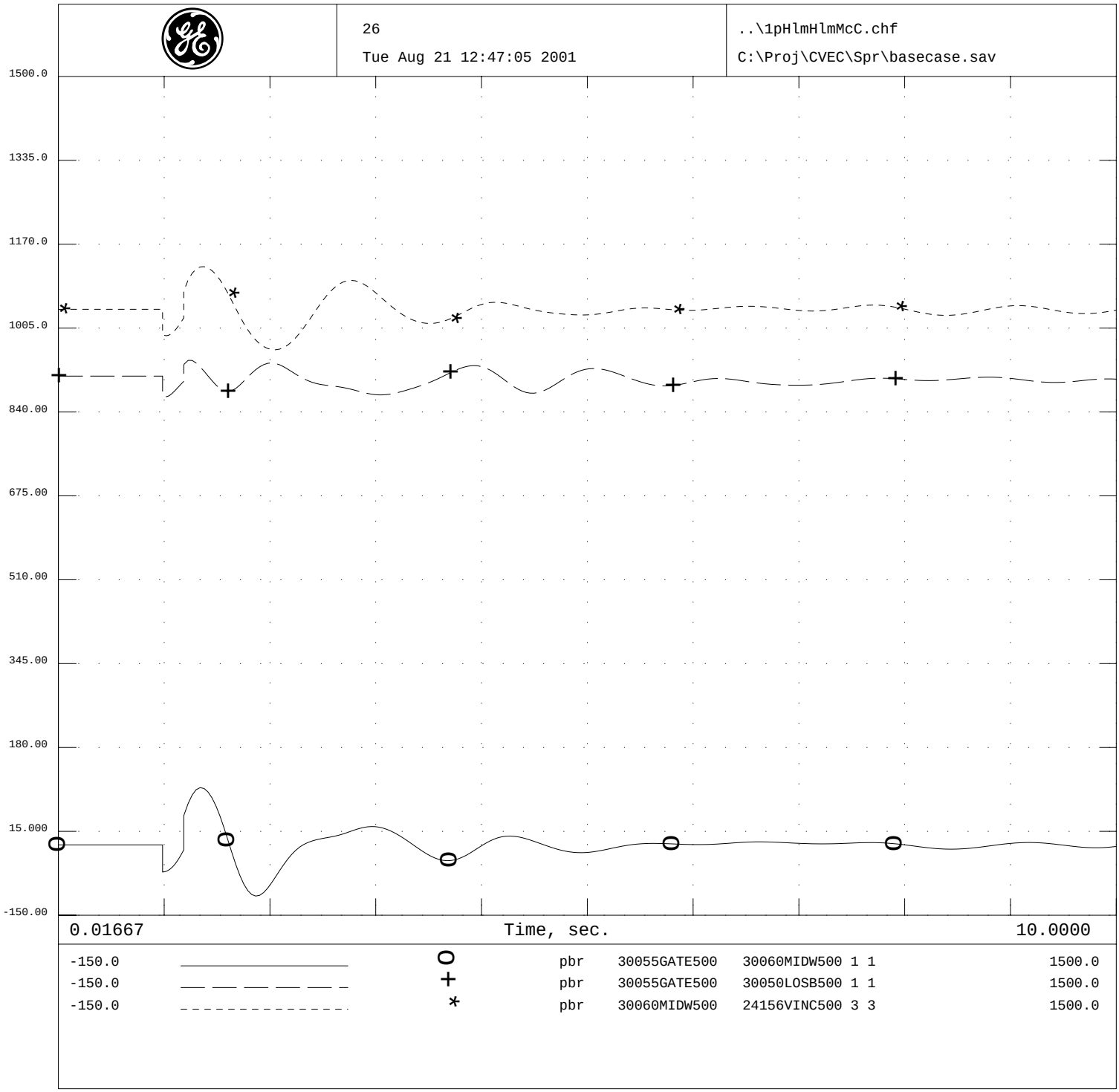

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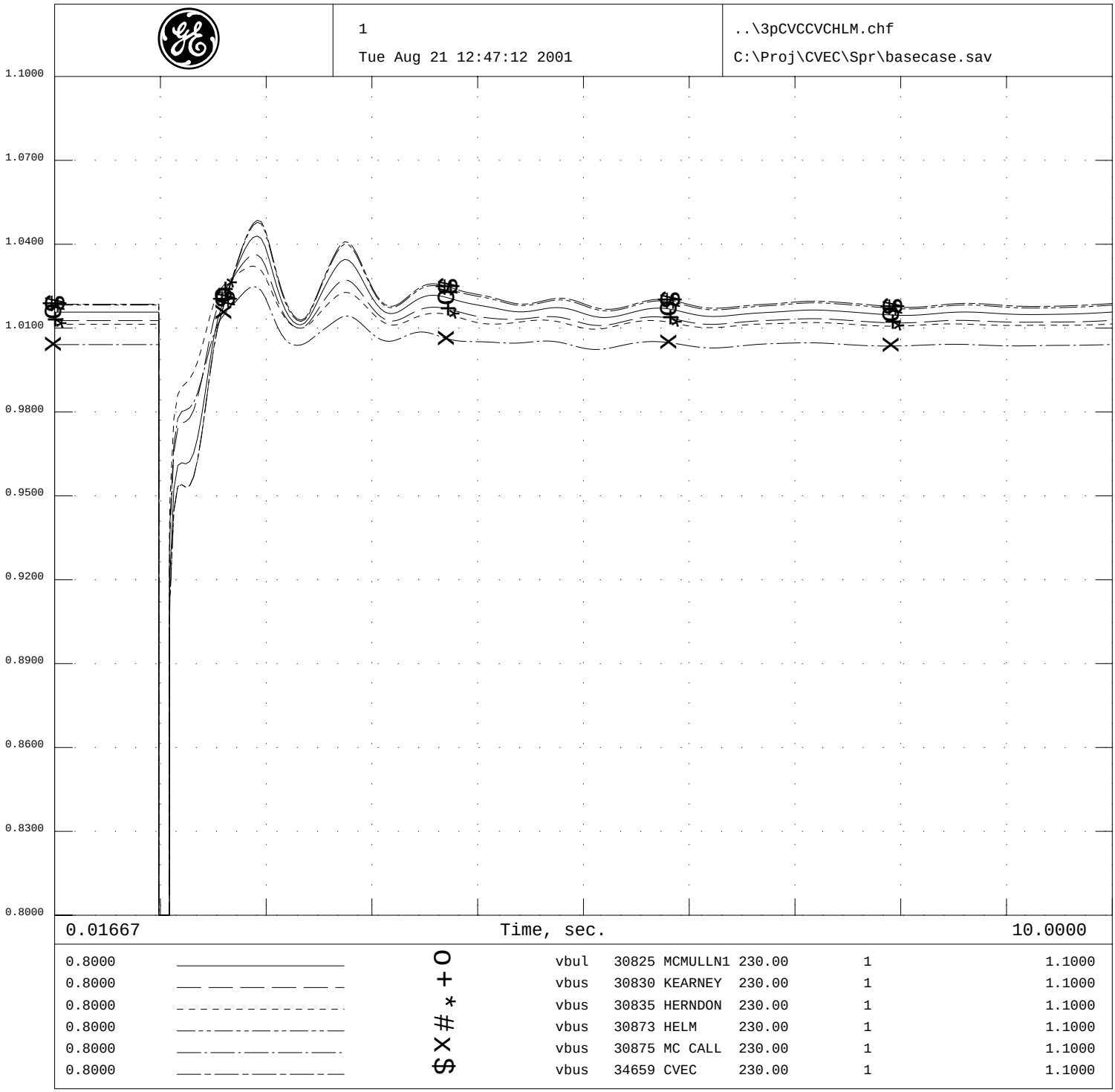

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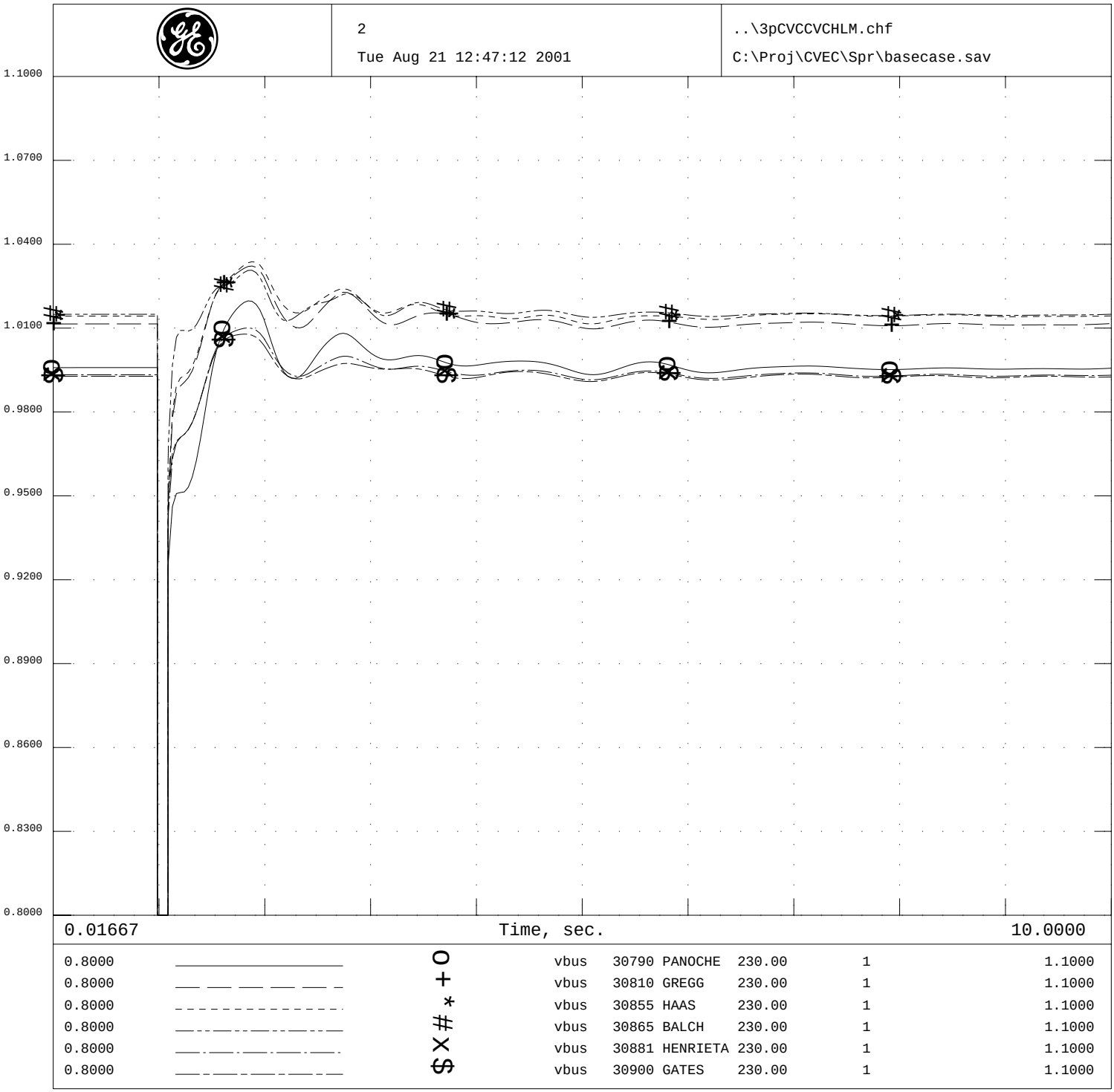
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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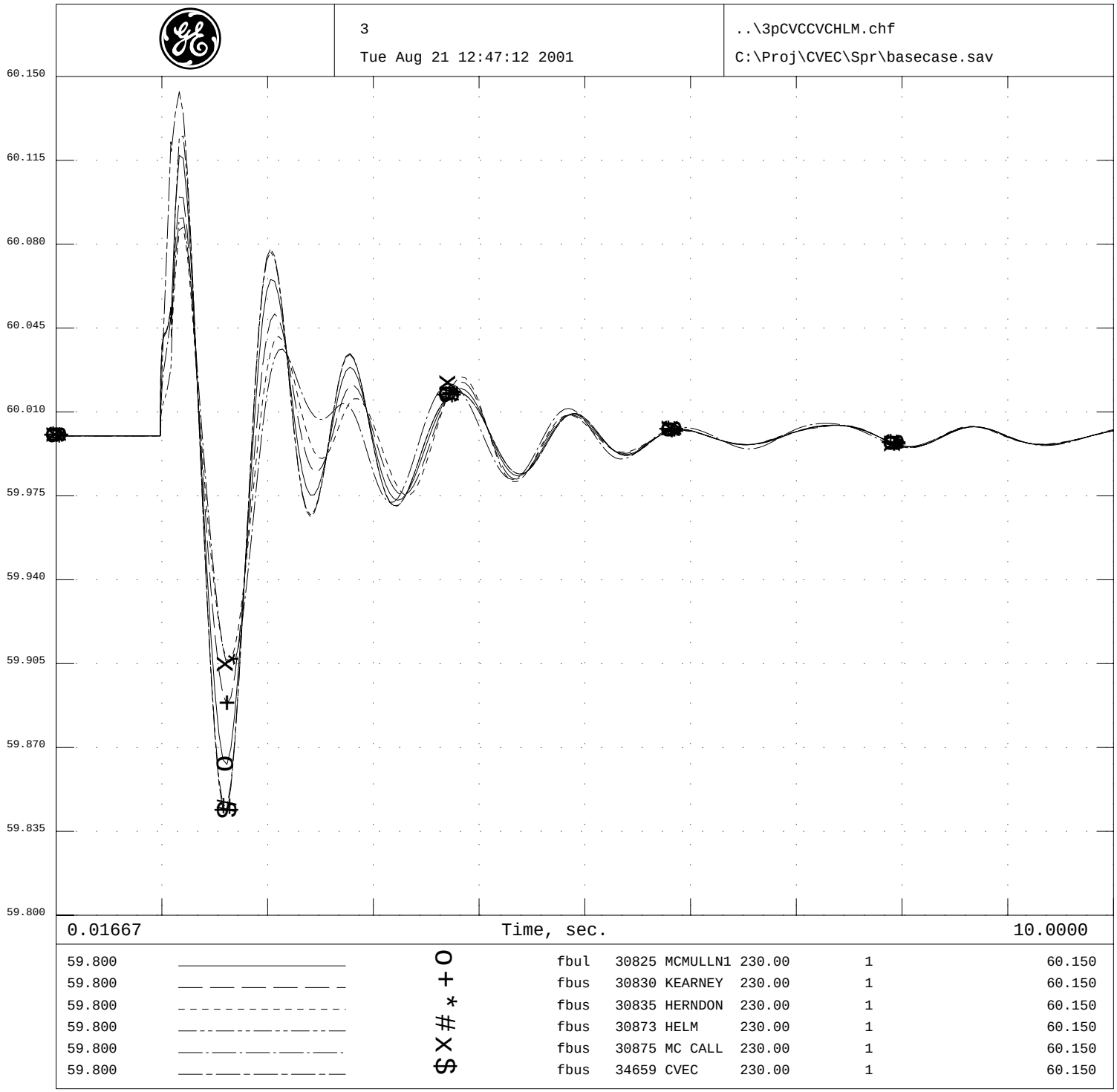

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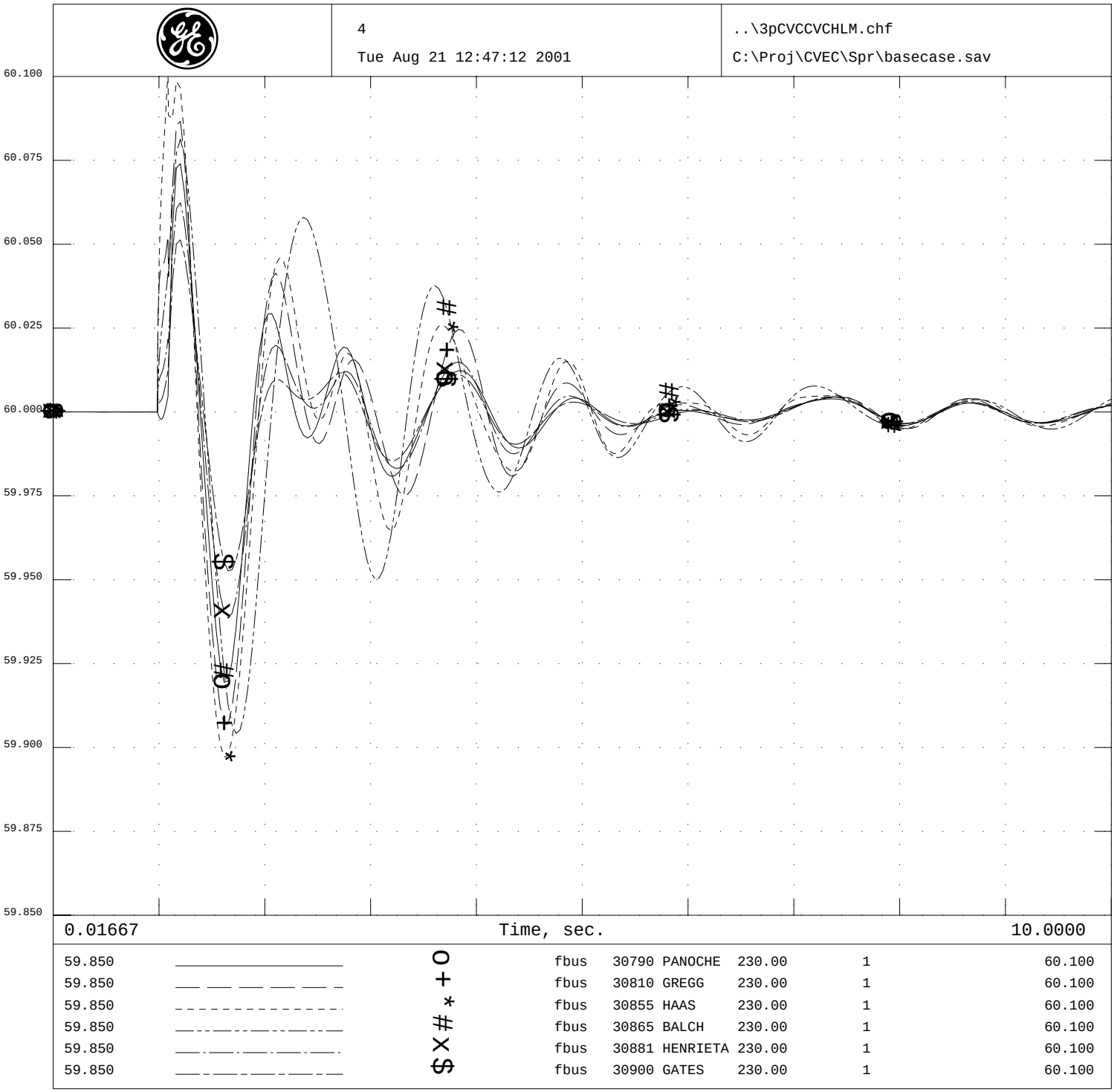

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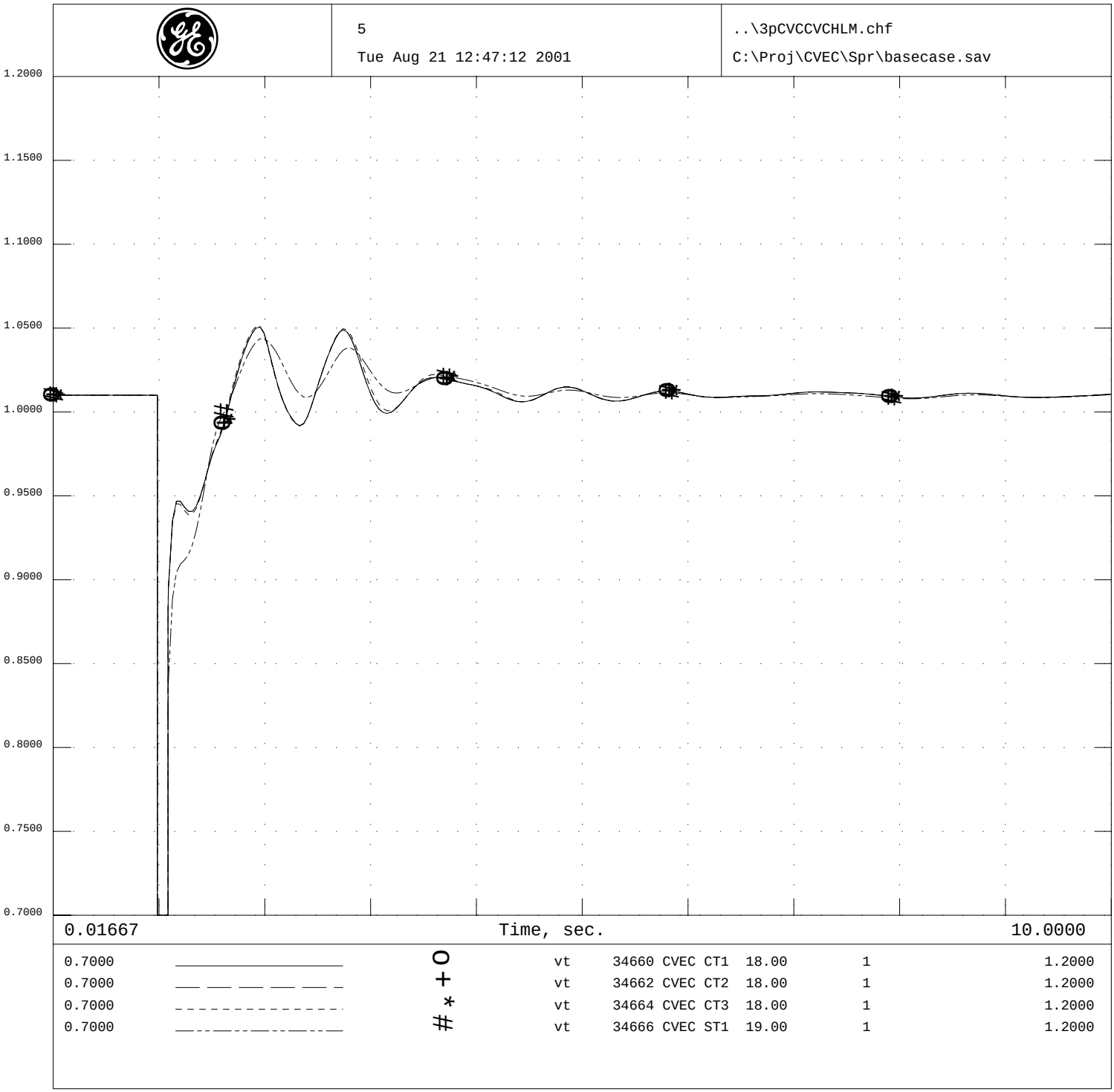

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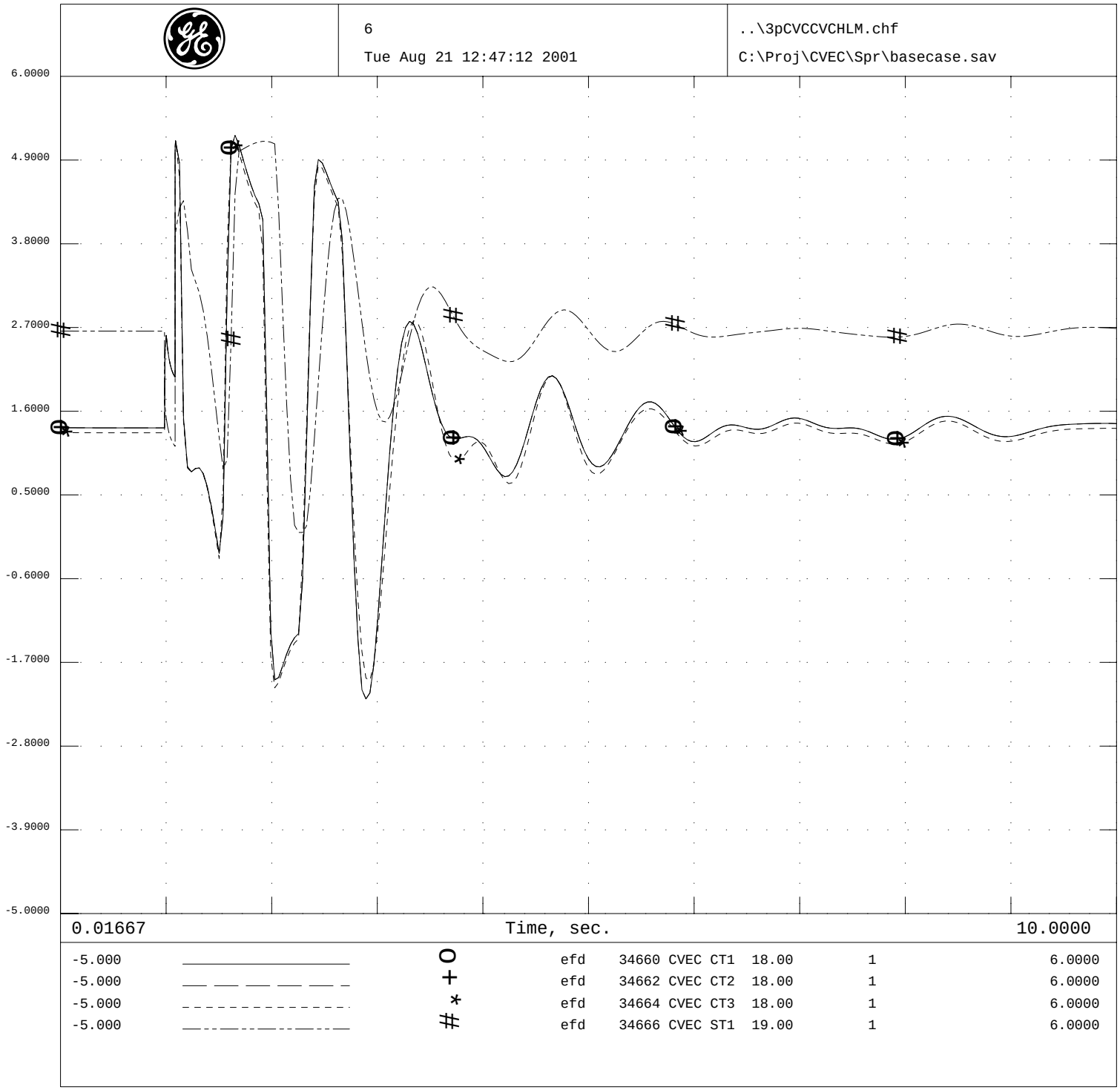

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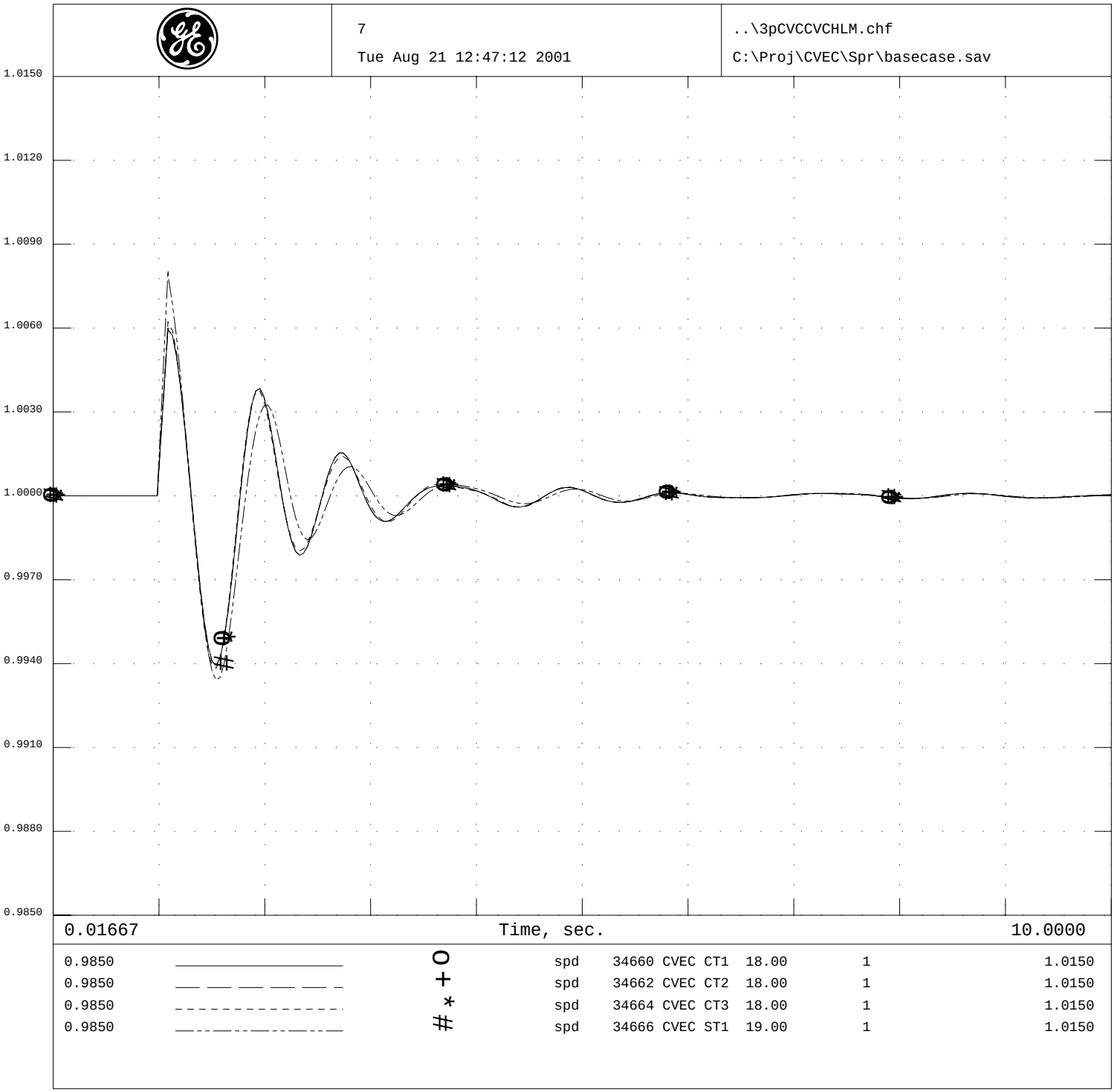

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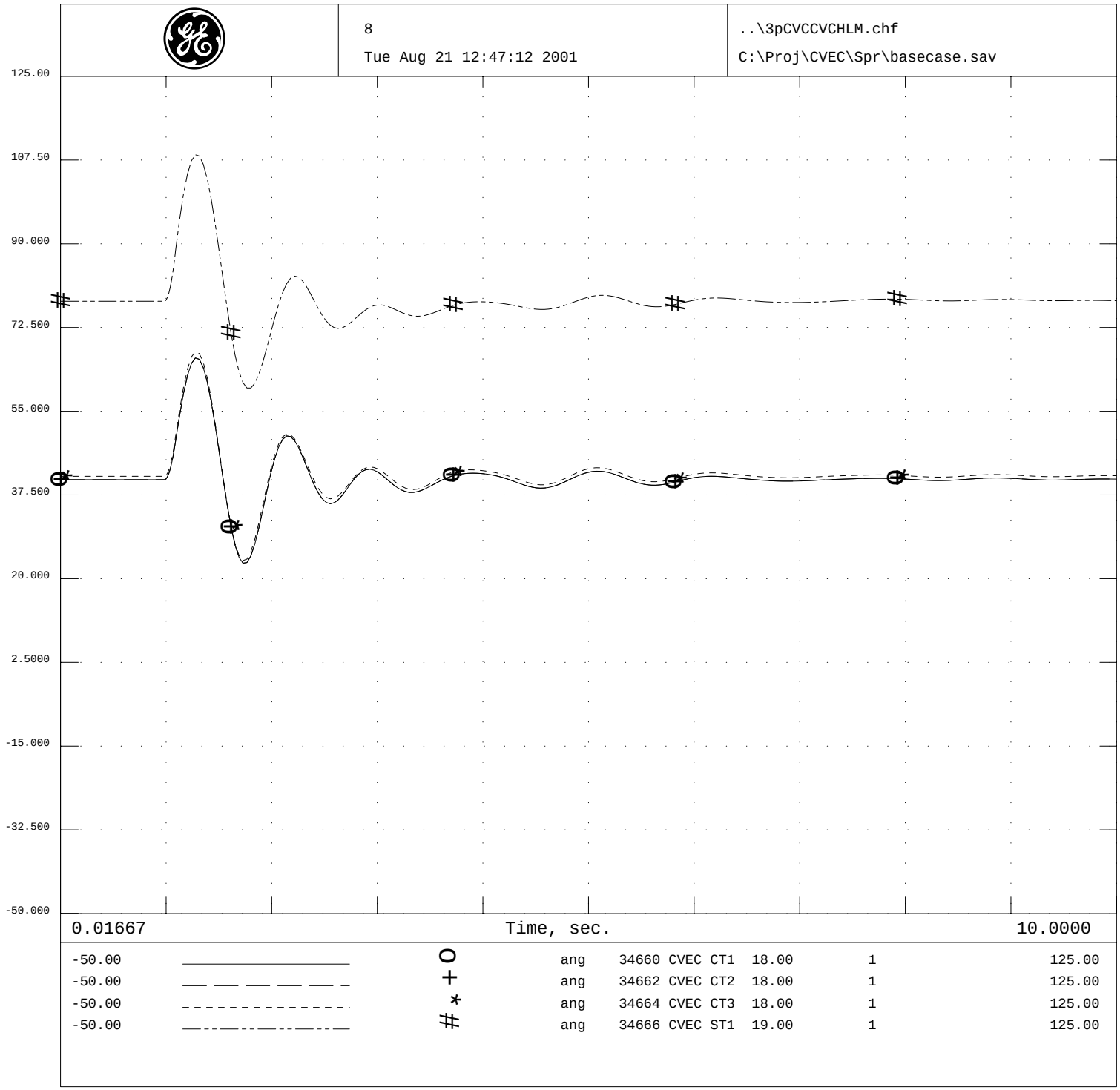

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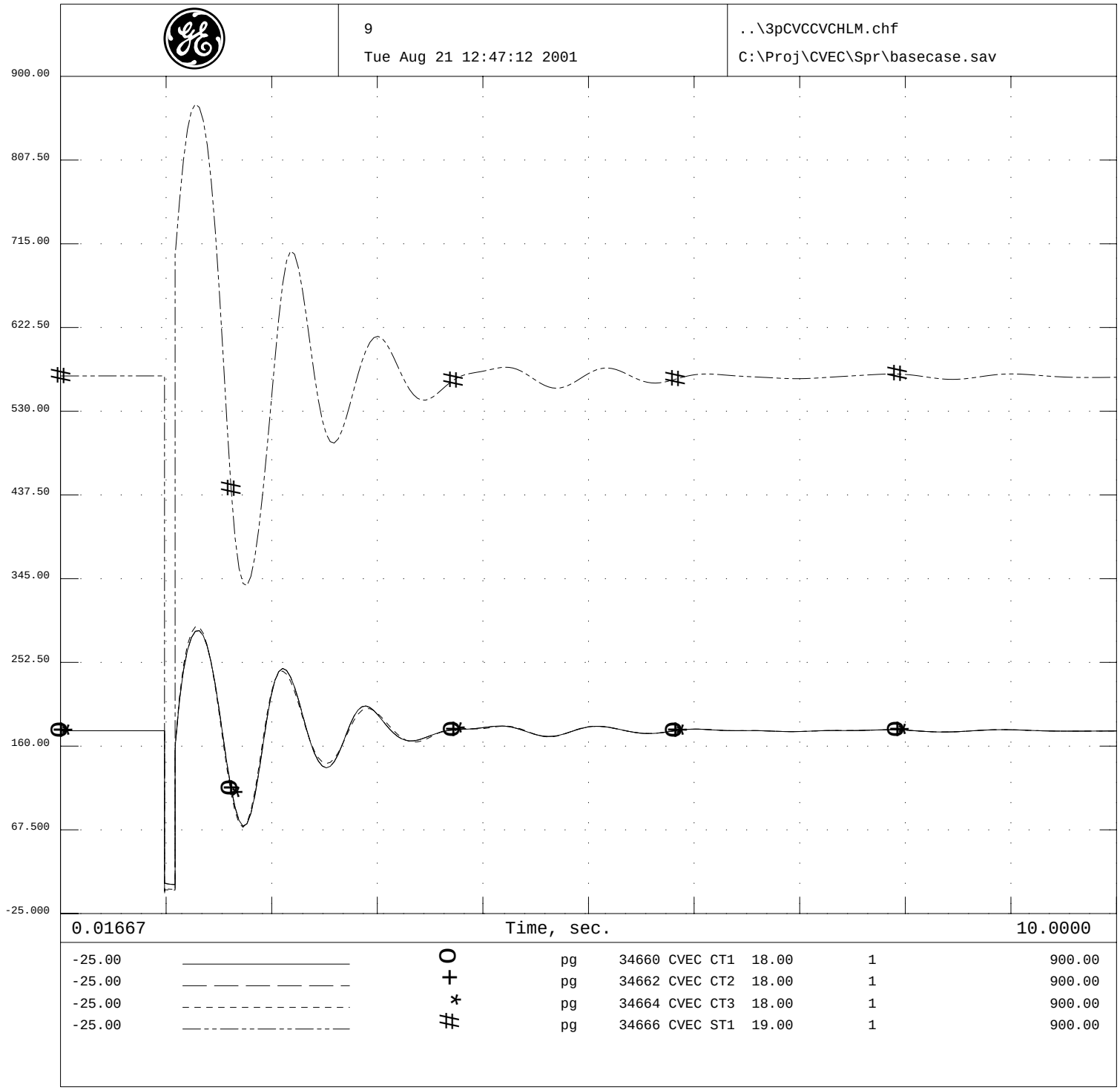

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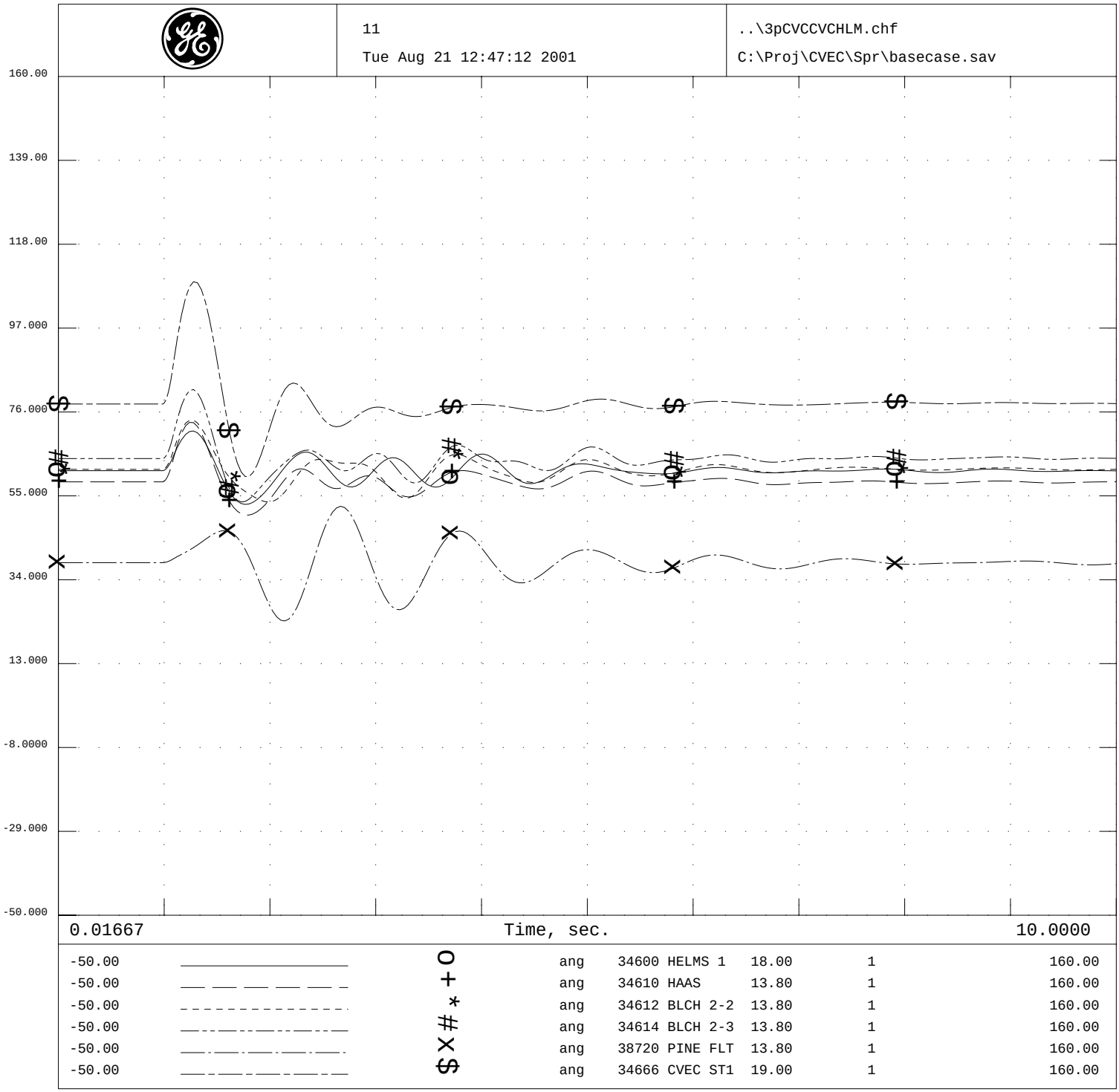

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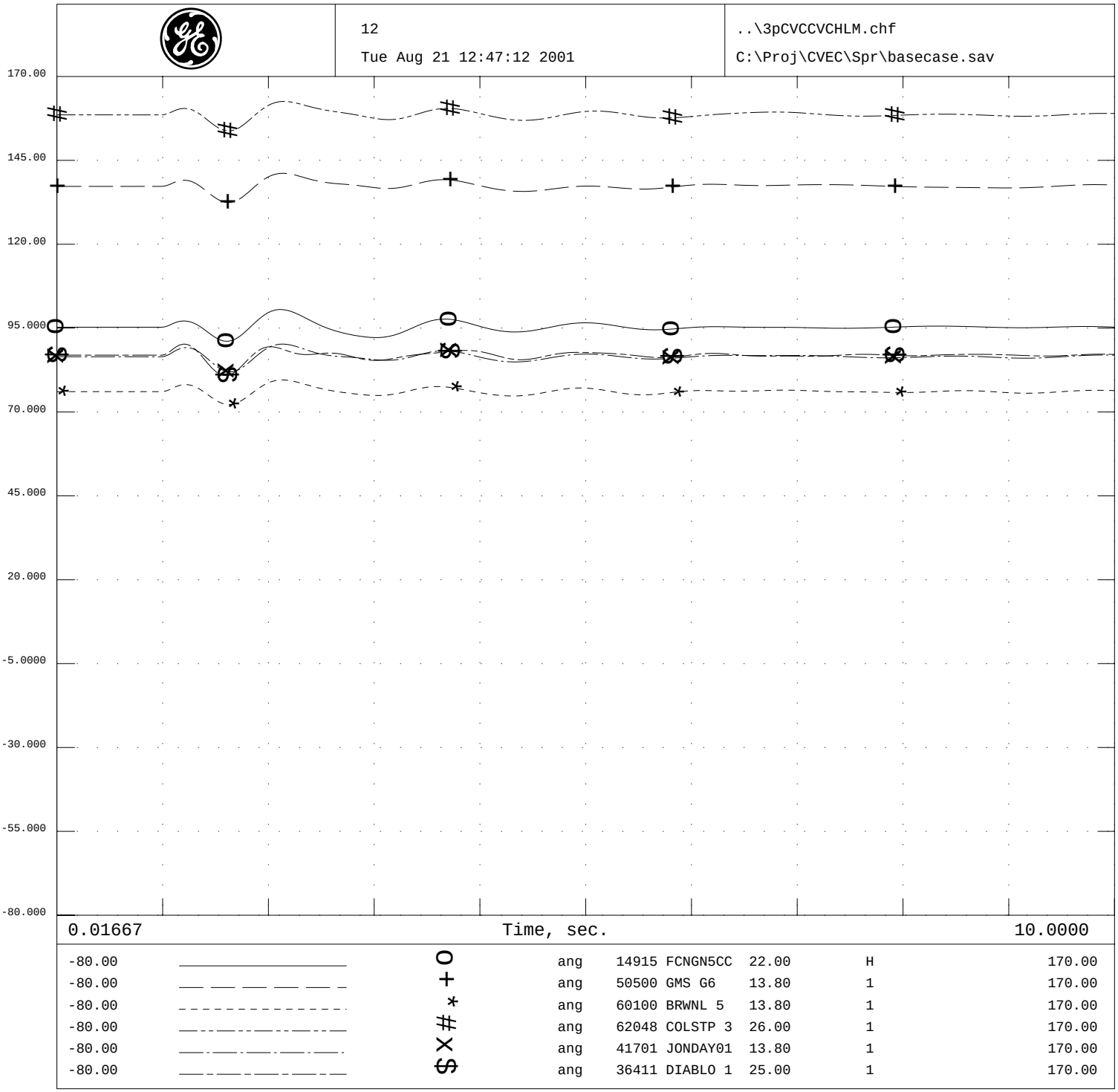

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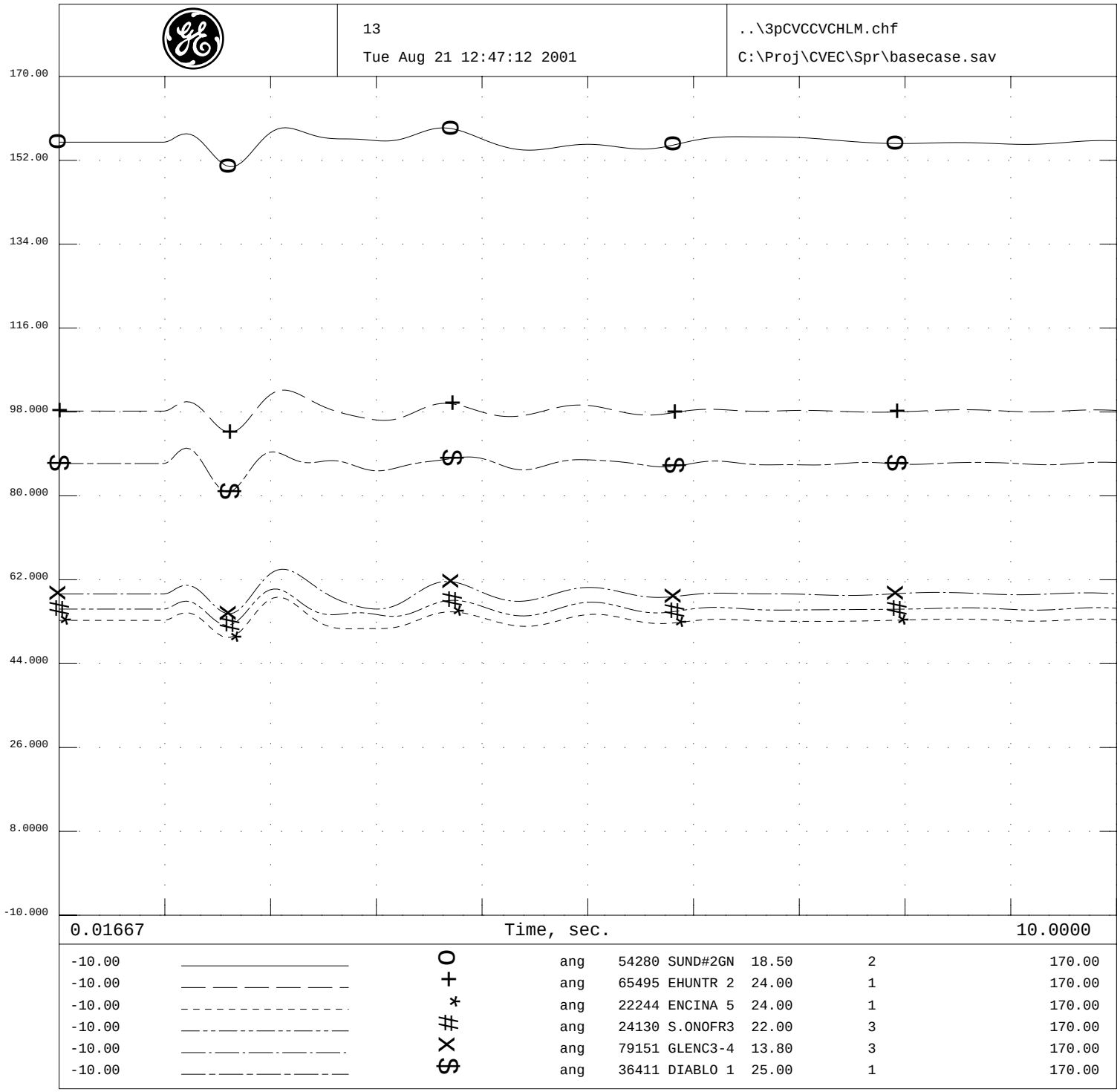

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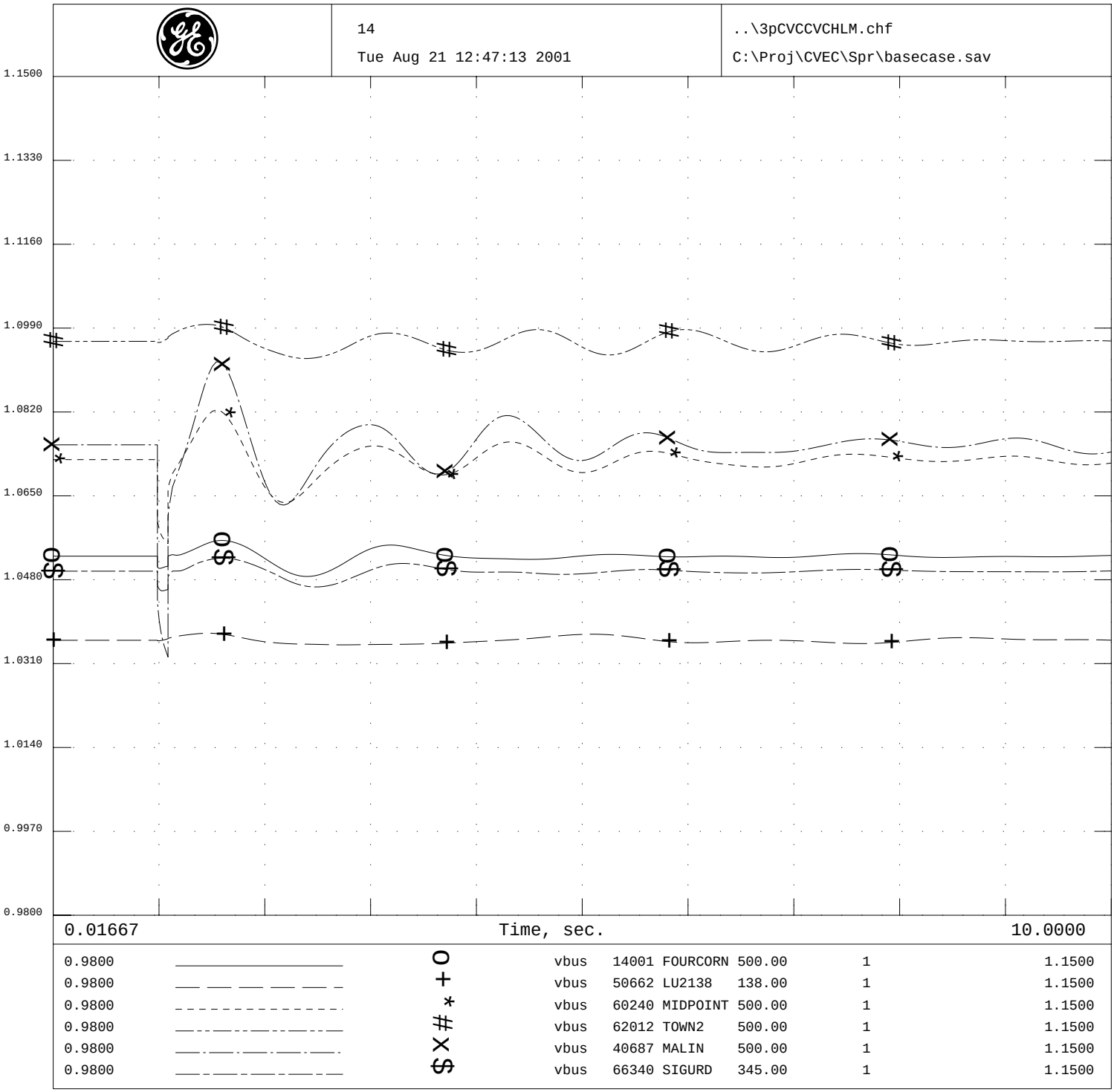

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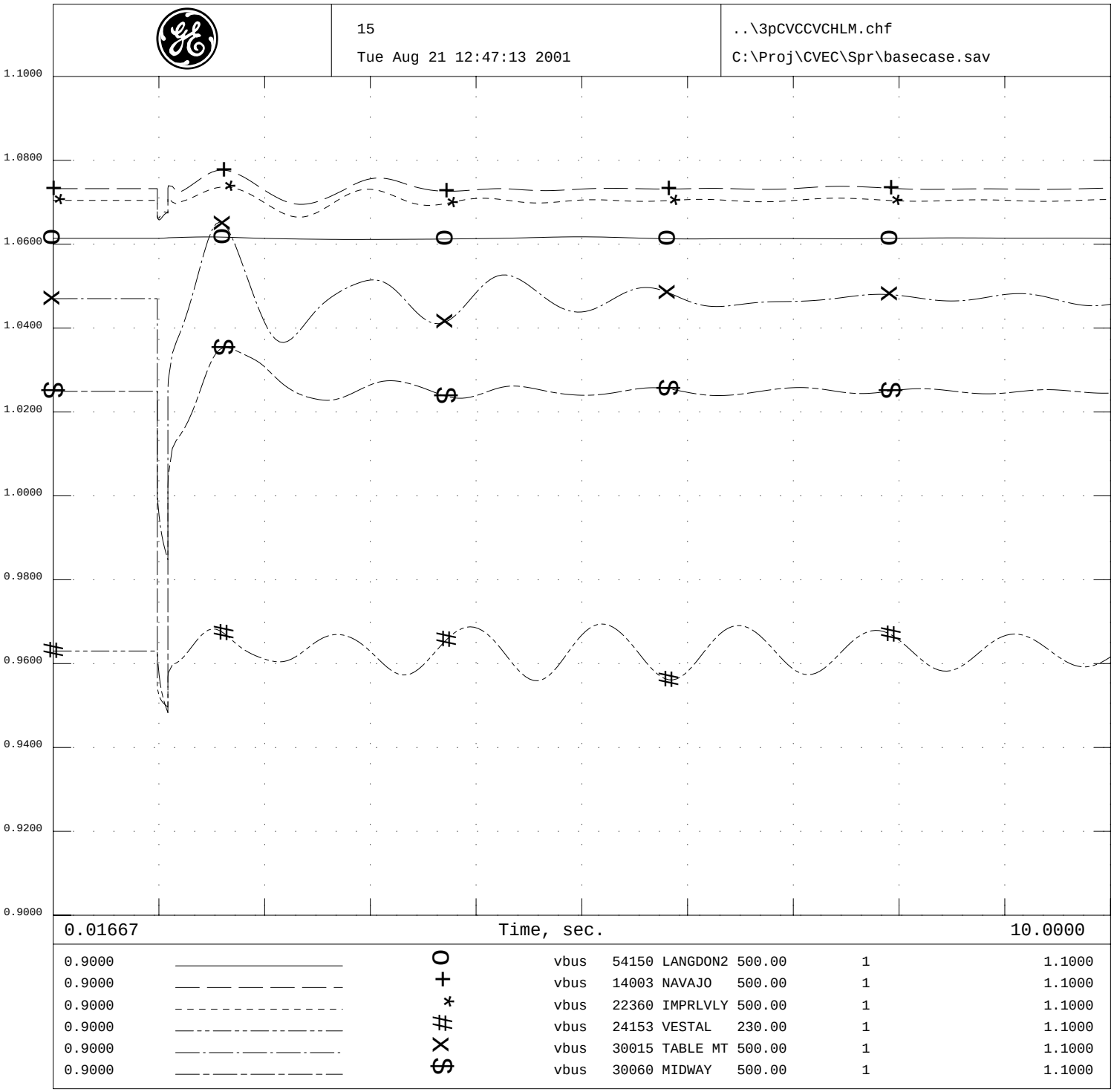

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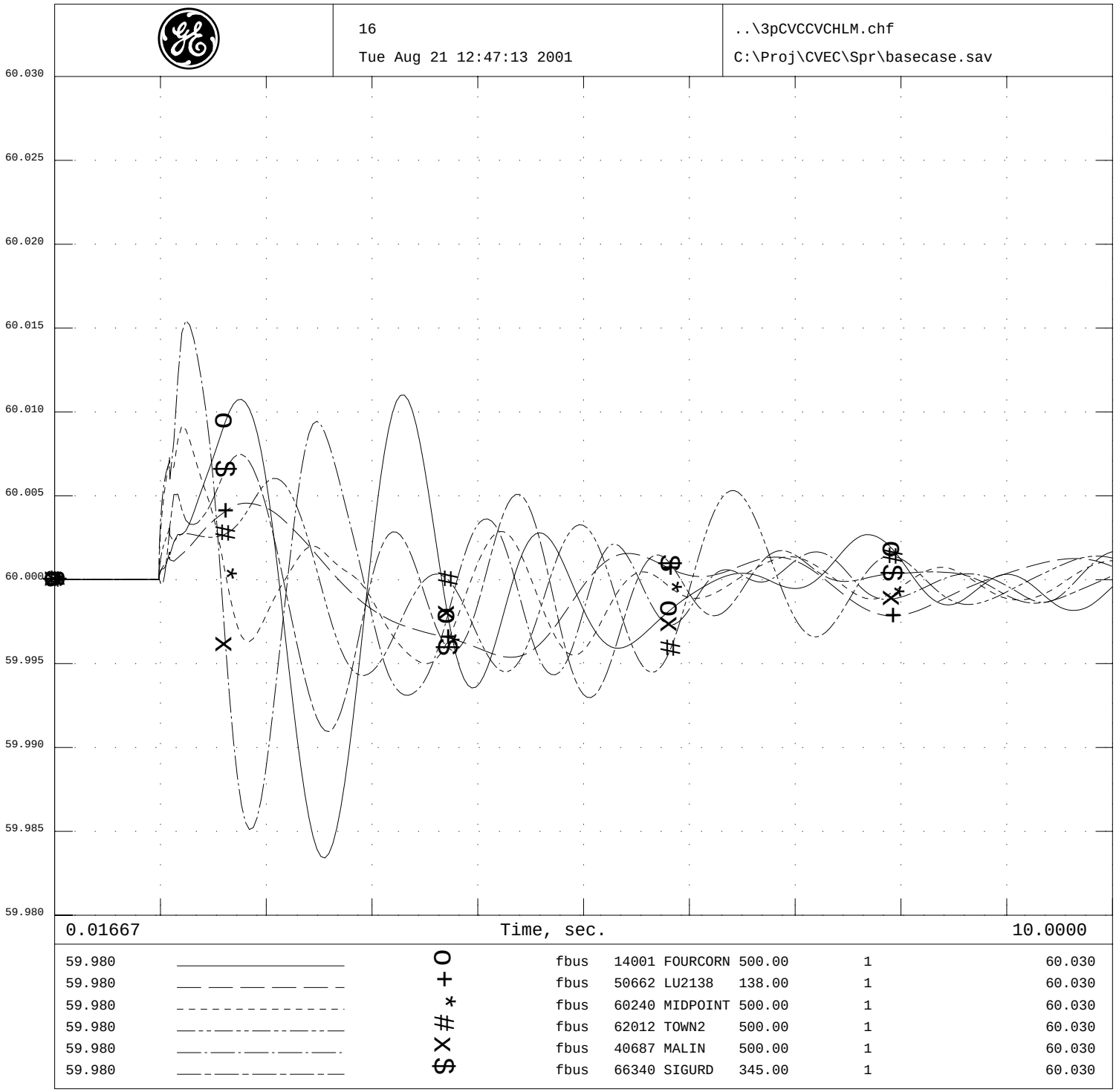

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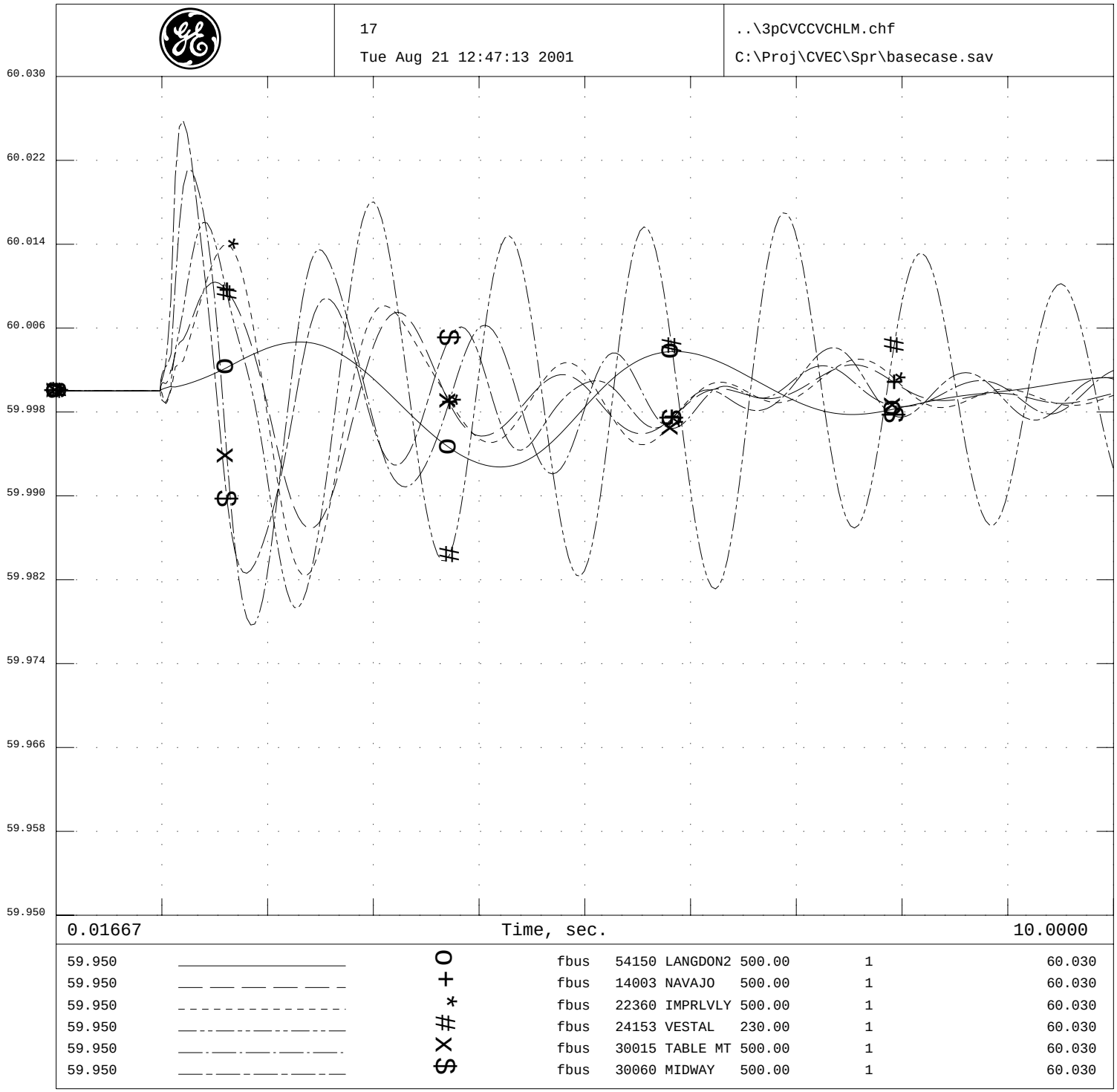
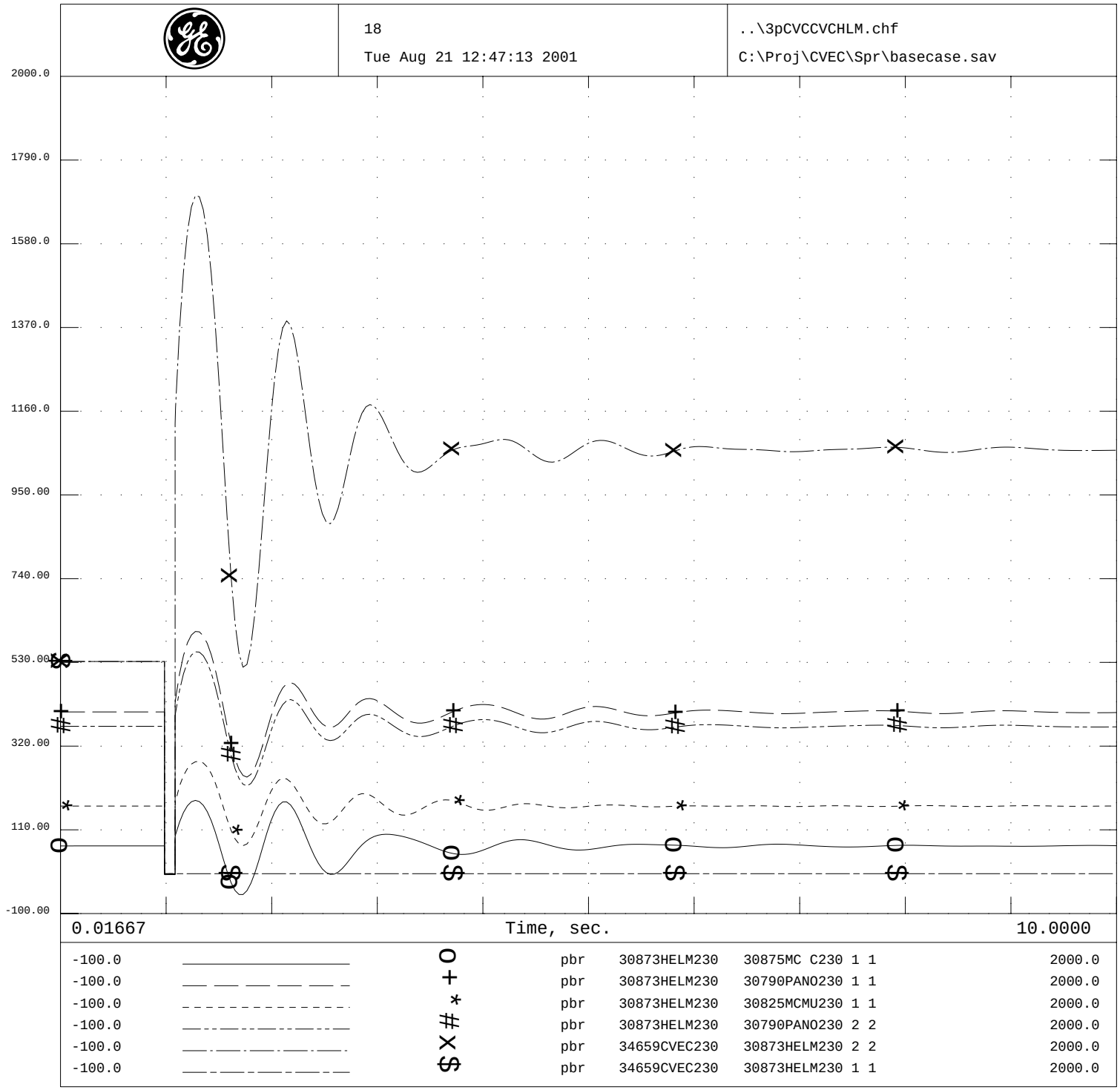


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
CVEC-Helm 230kV #1 Outage
3 phase 6 cycle fault at CVEC 230kV bus and trip CVEC-Helm #1 line

Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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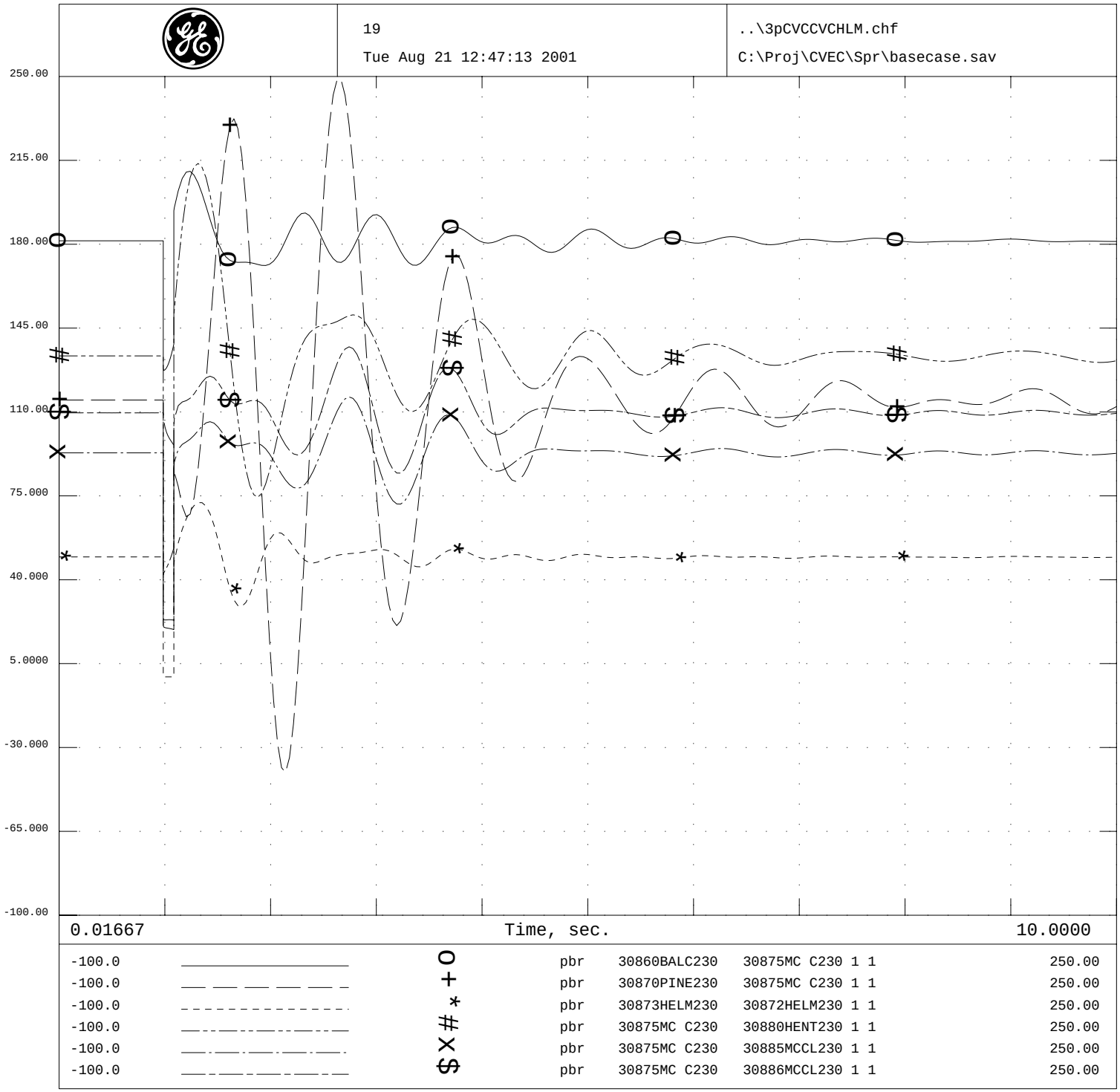
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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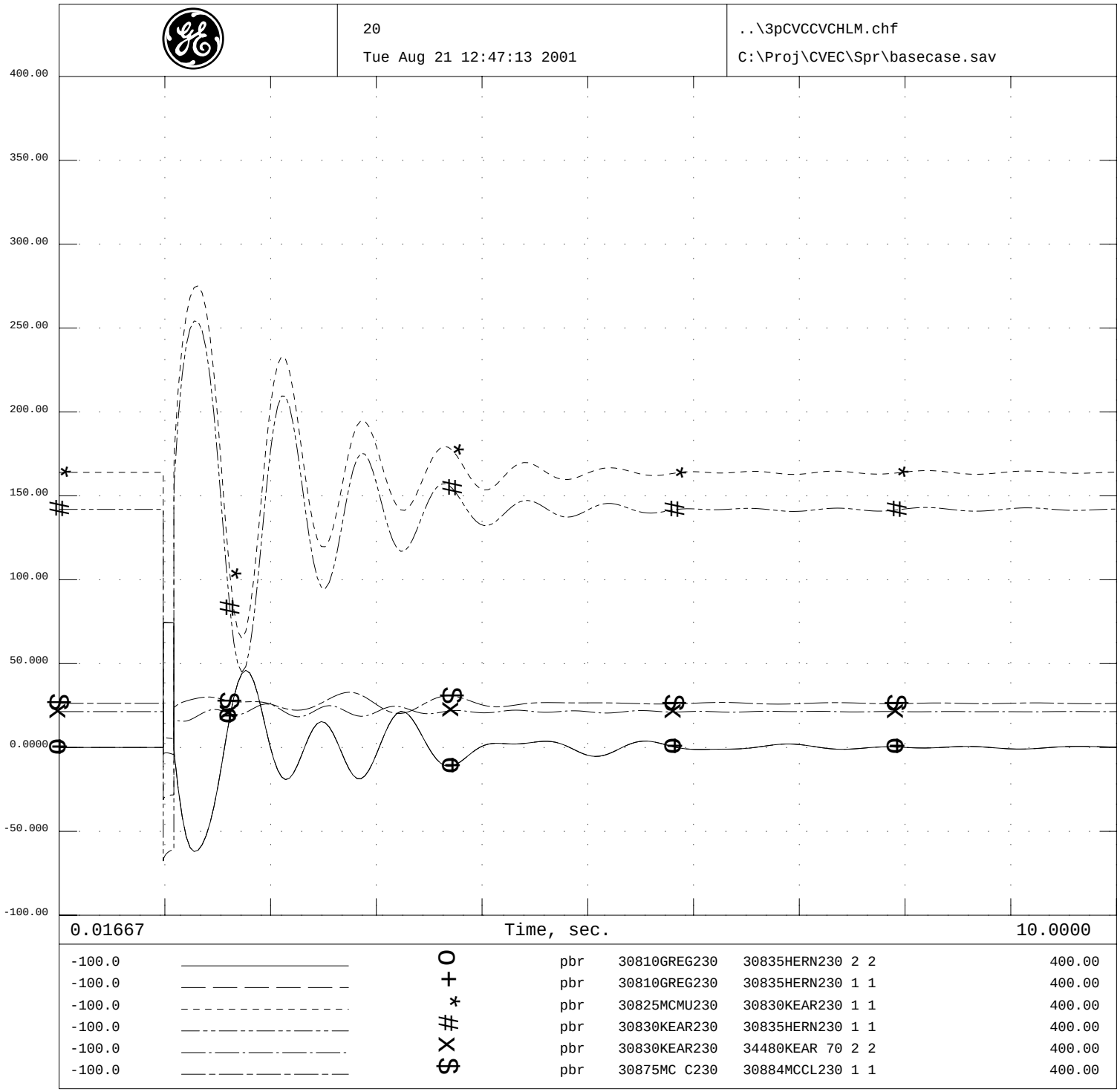

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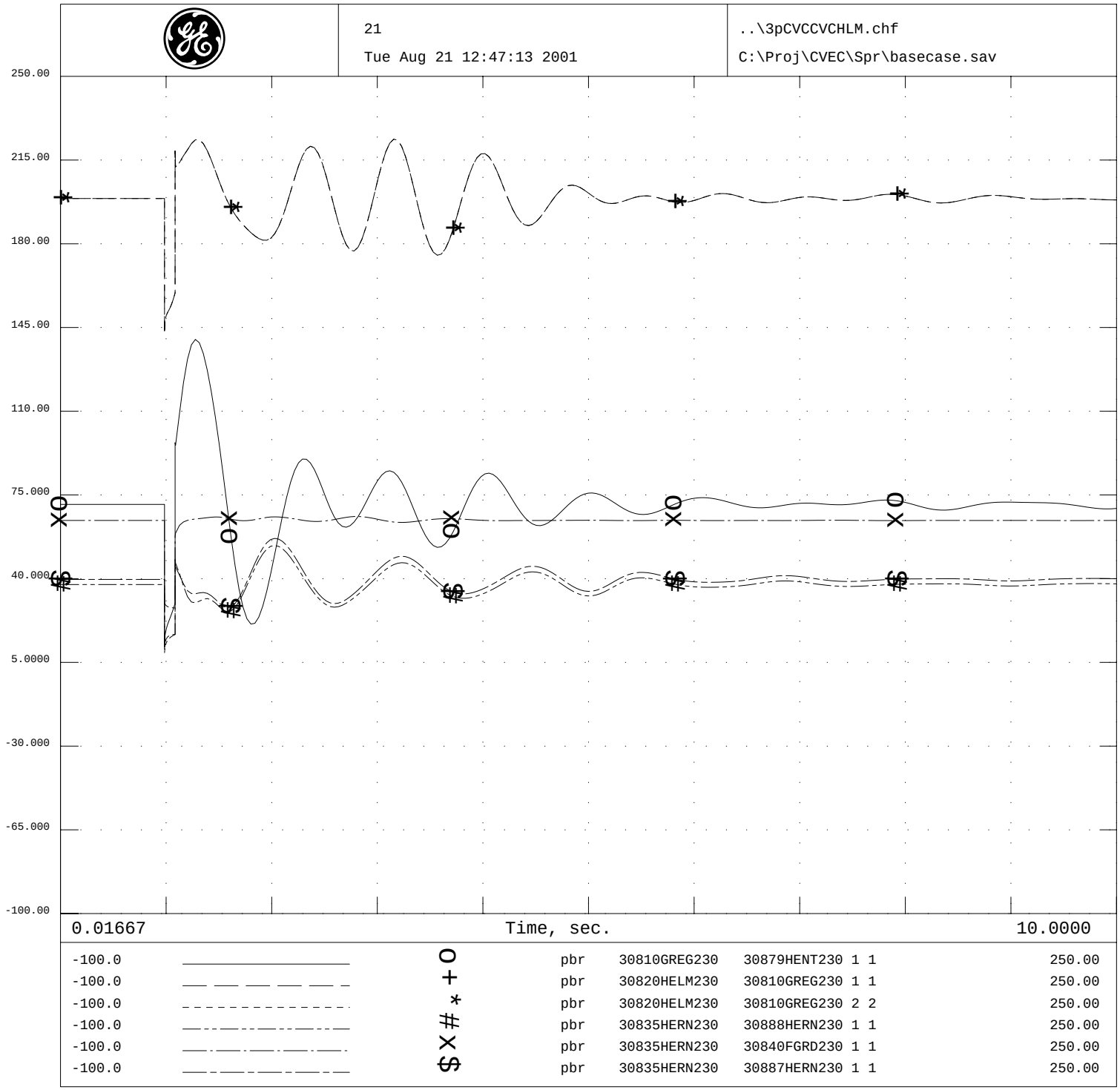

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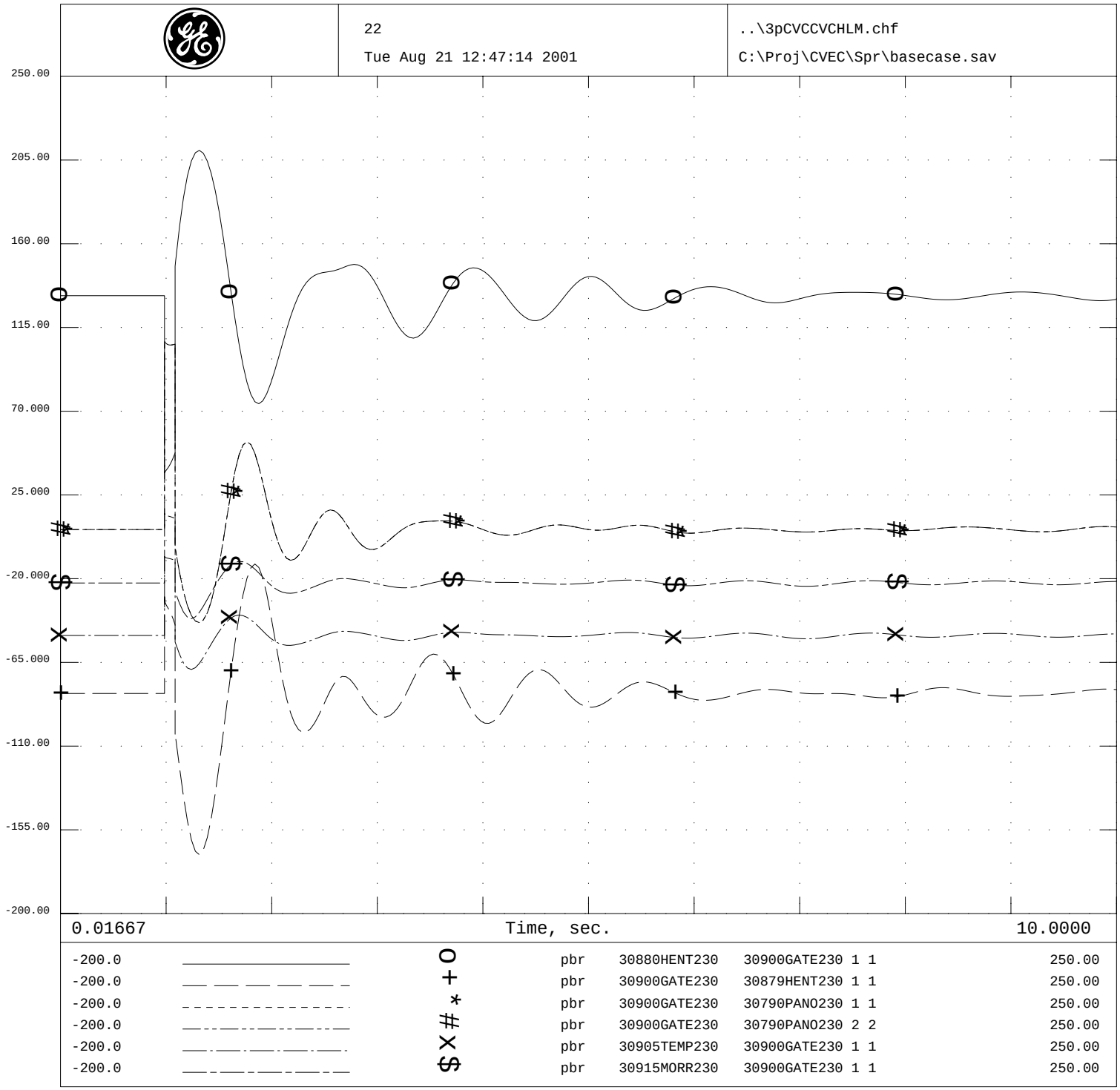

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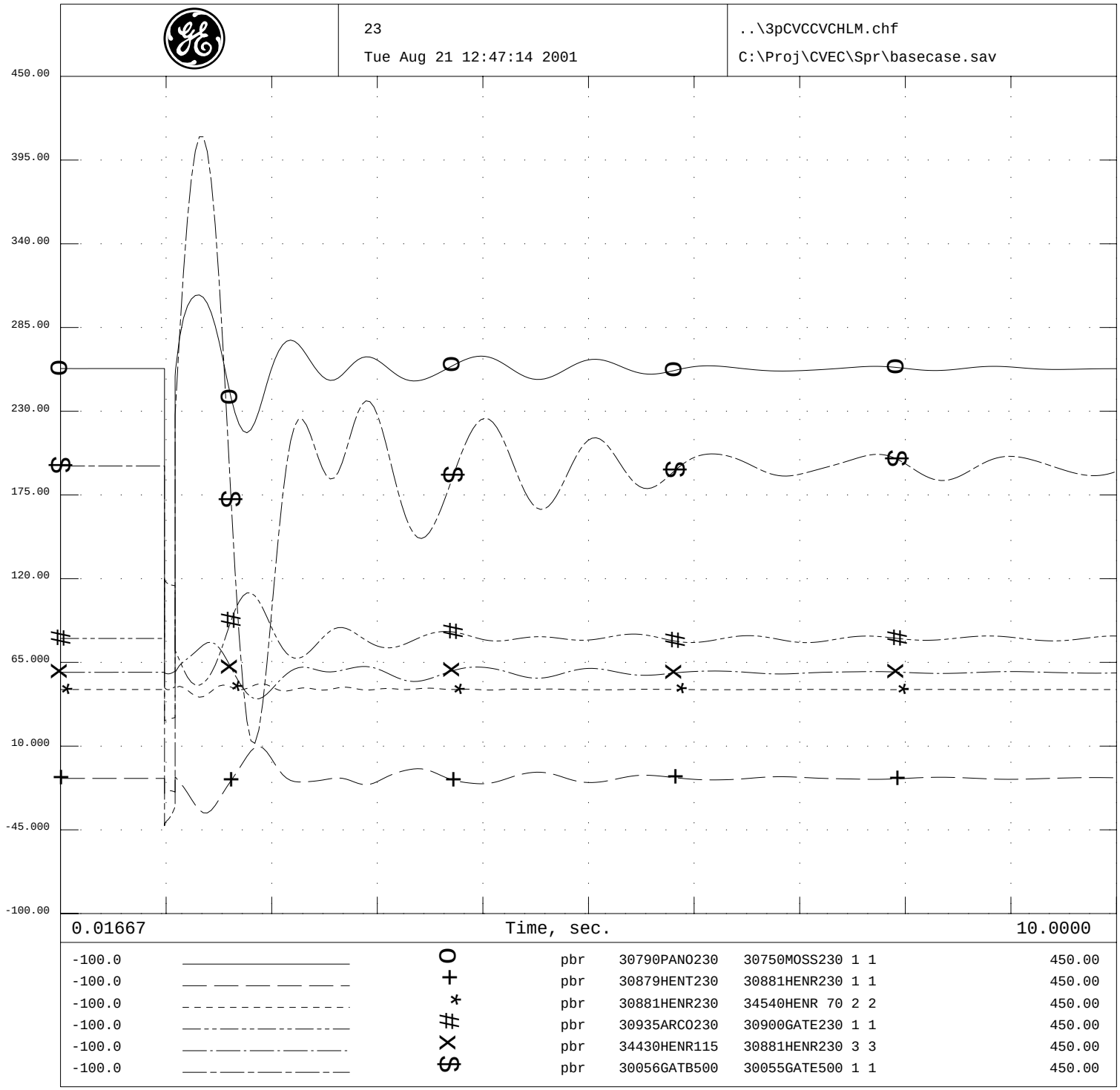

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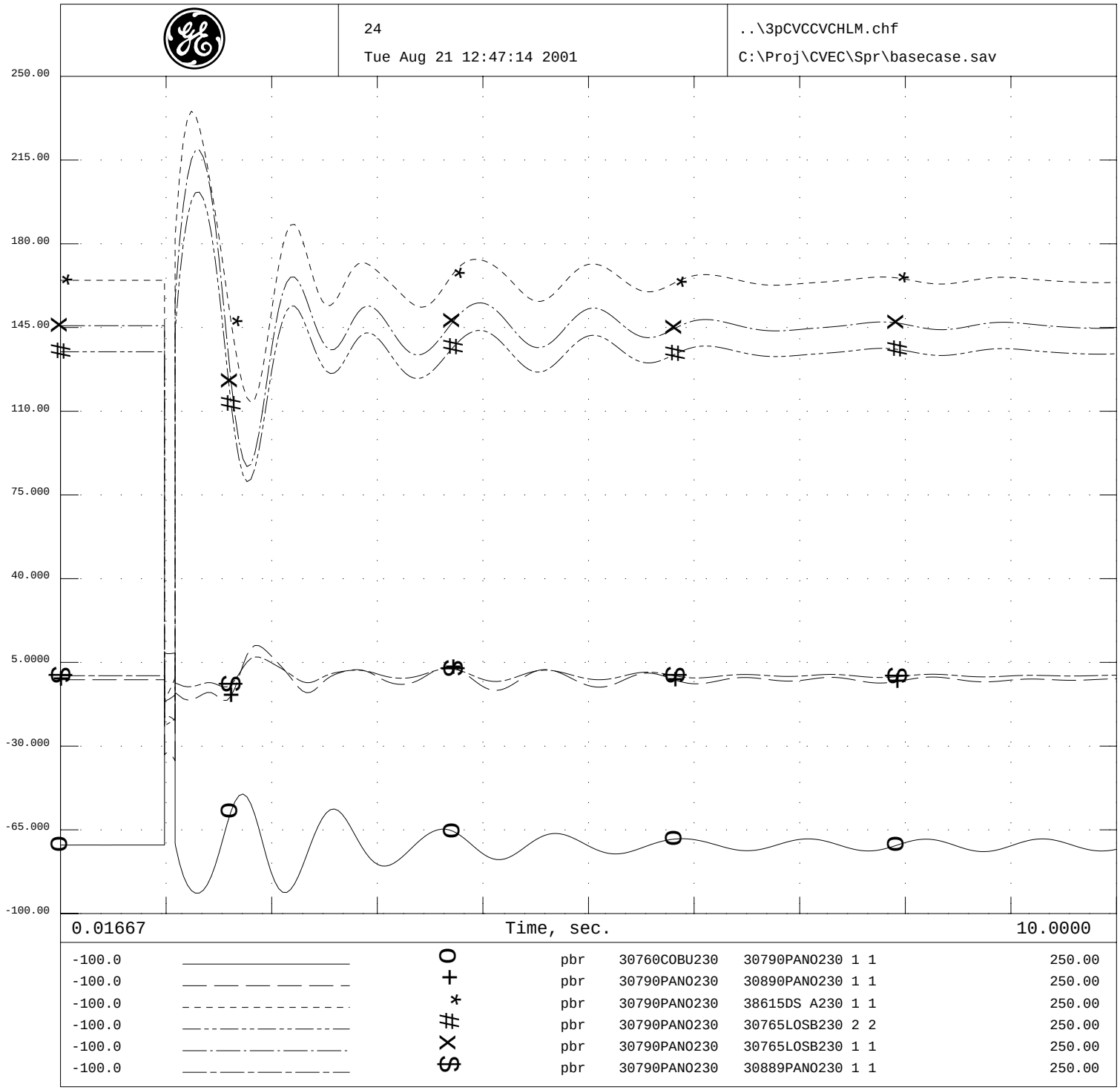

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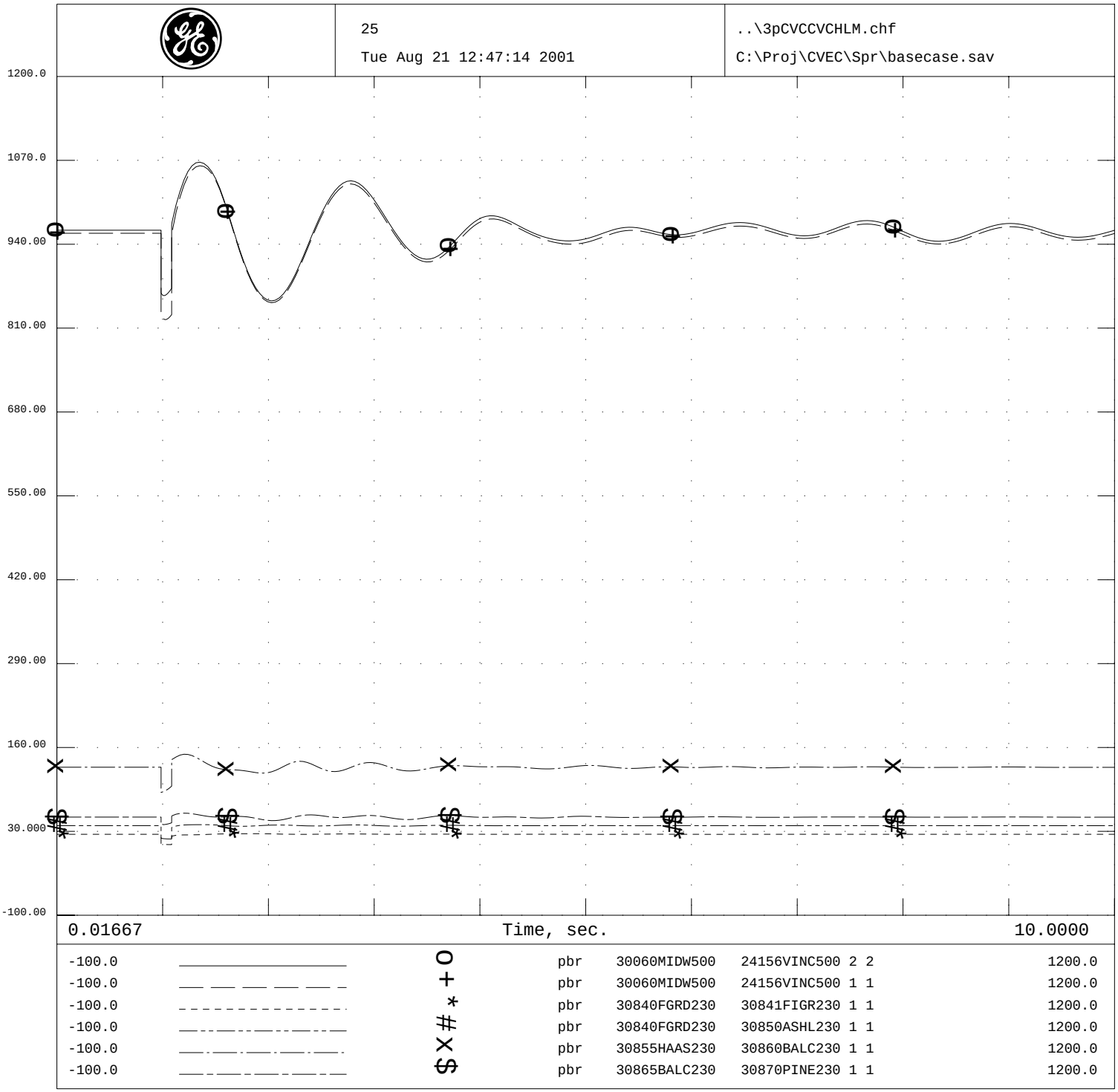

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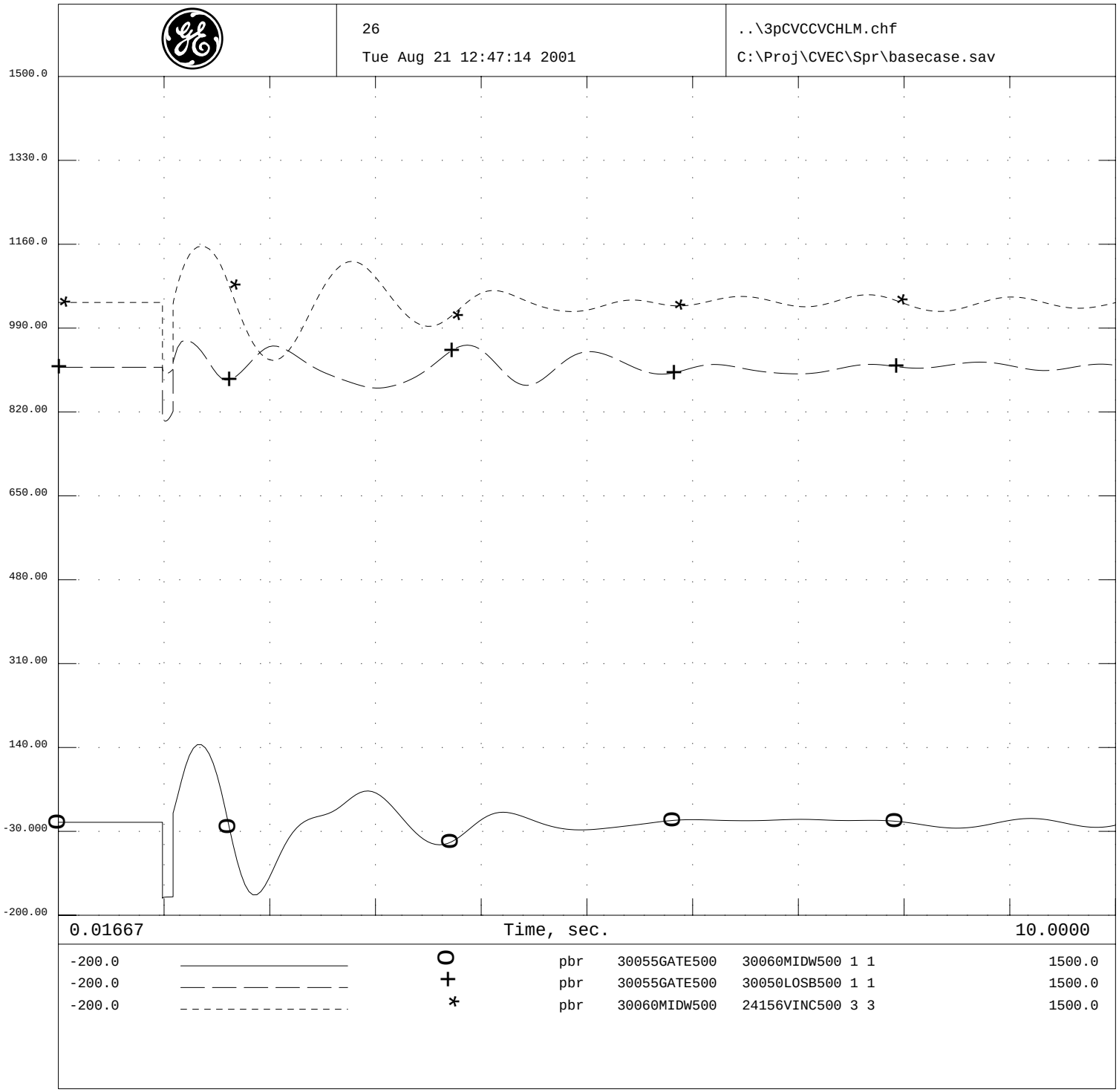

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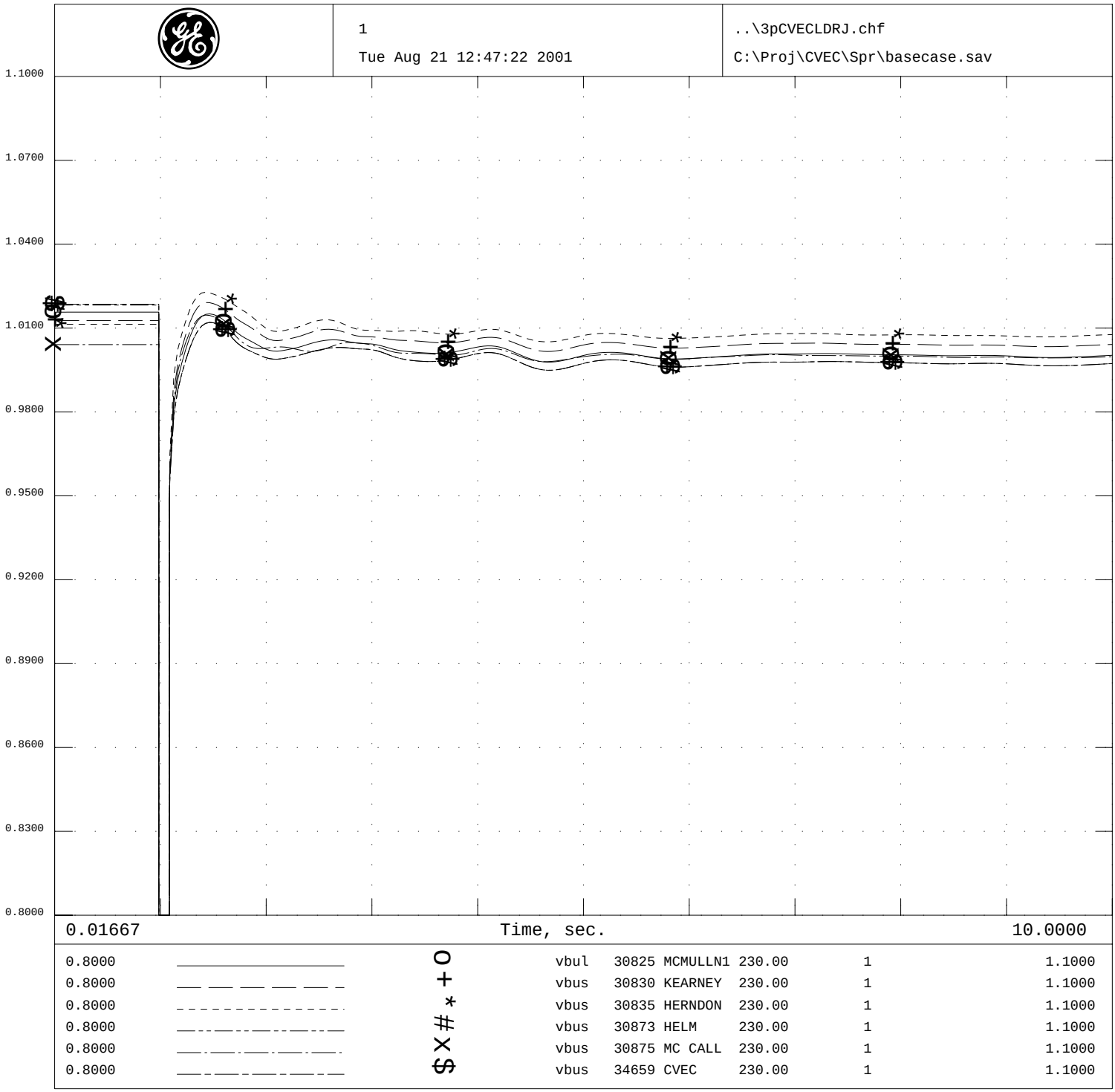

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2004 Heavy Spring Base Case
CVEC @ 1100MW
CVEC Load Rejection
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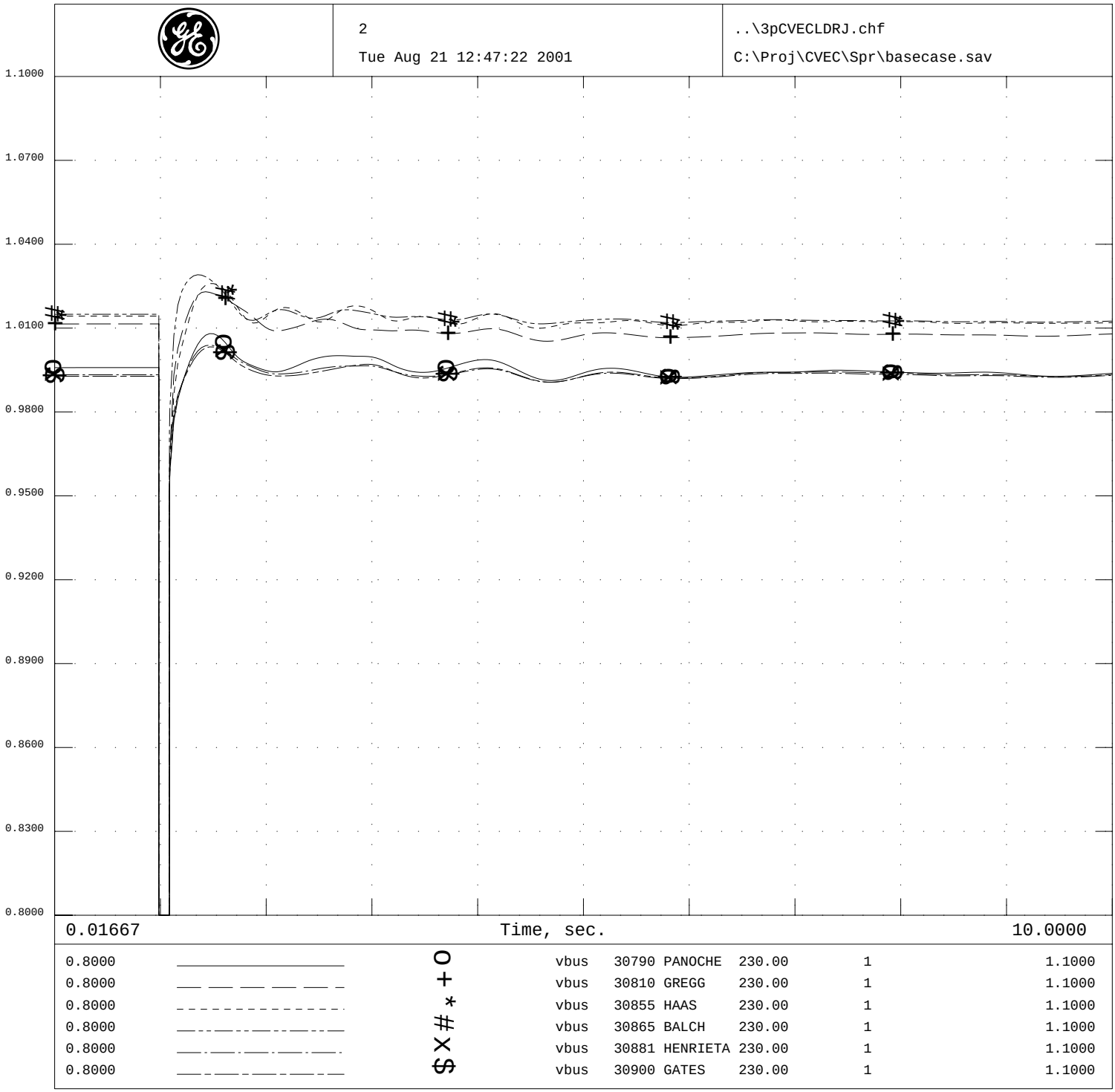
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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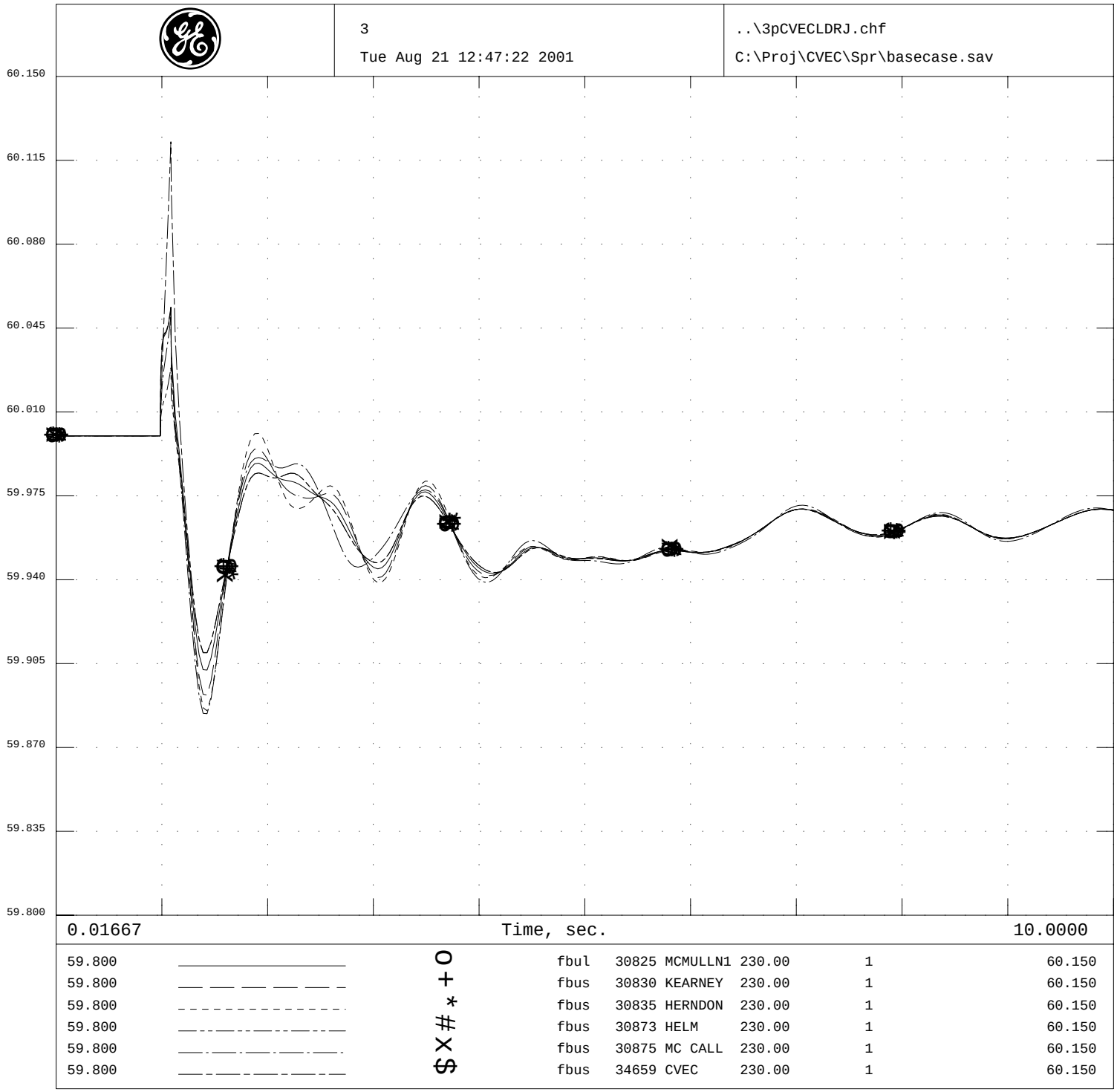

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2004 Heavy Spring Base Case
CVEC @ 1100MW
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Central Valley Energy Center
Calpine Corporation
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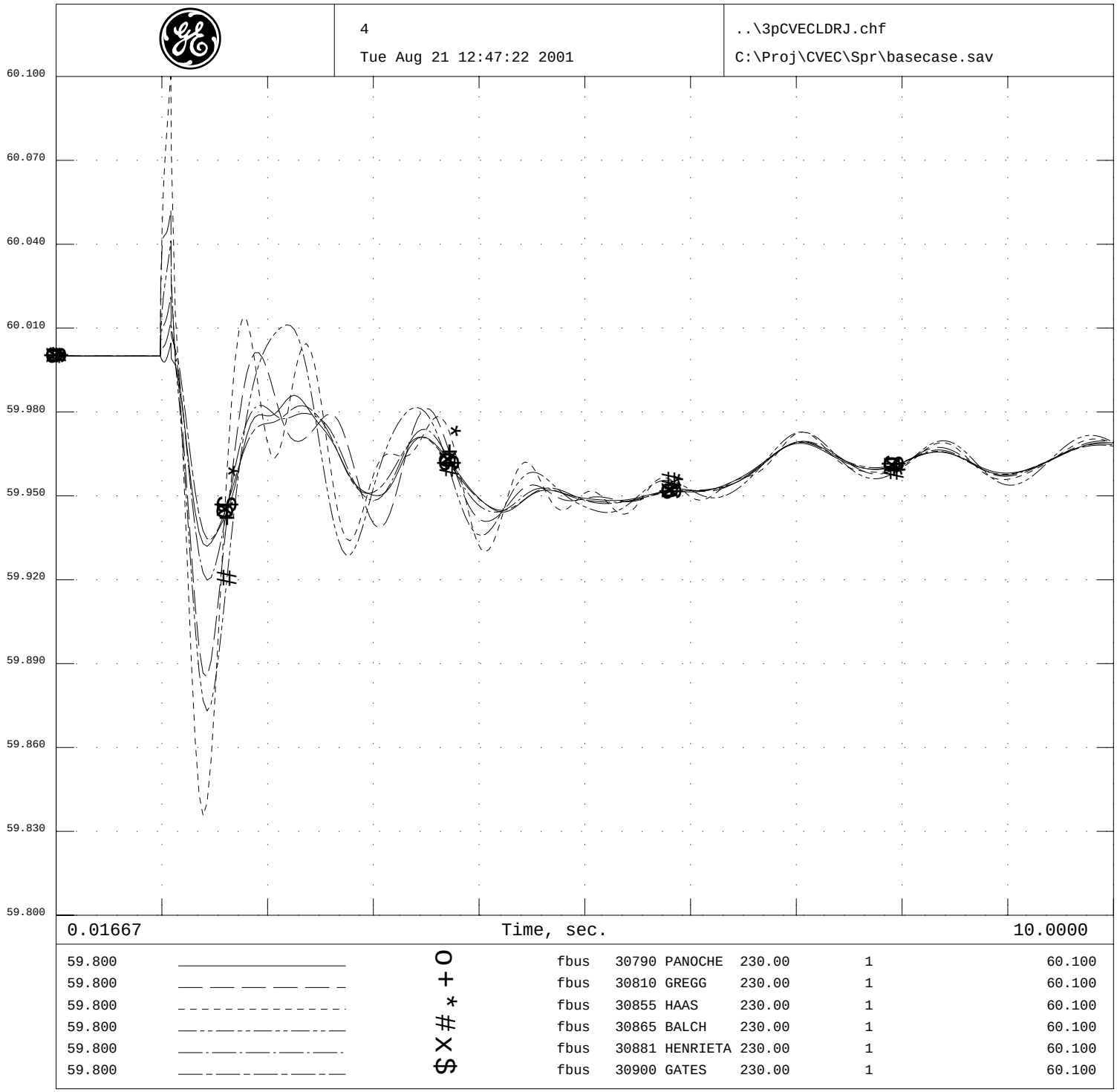

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2004 Heavy Spring Base Case
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Calpine Corporation
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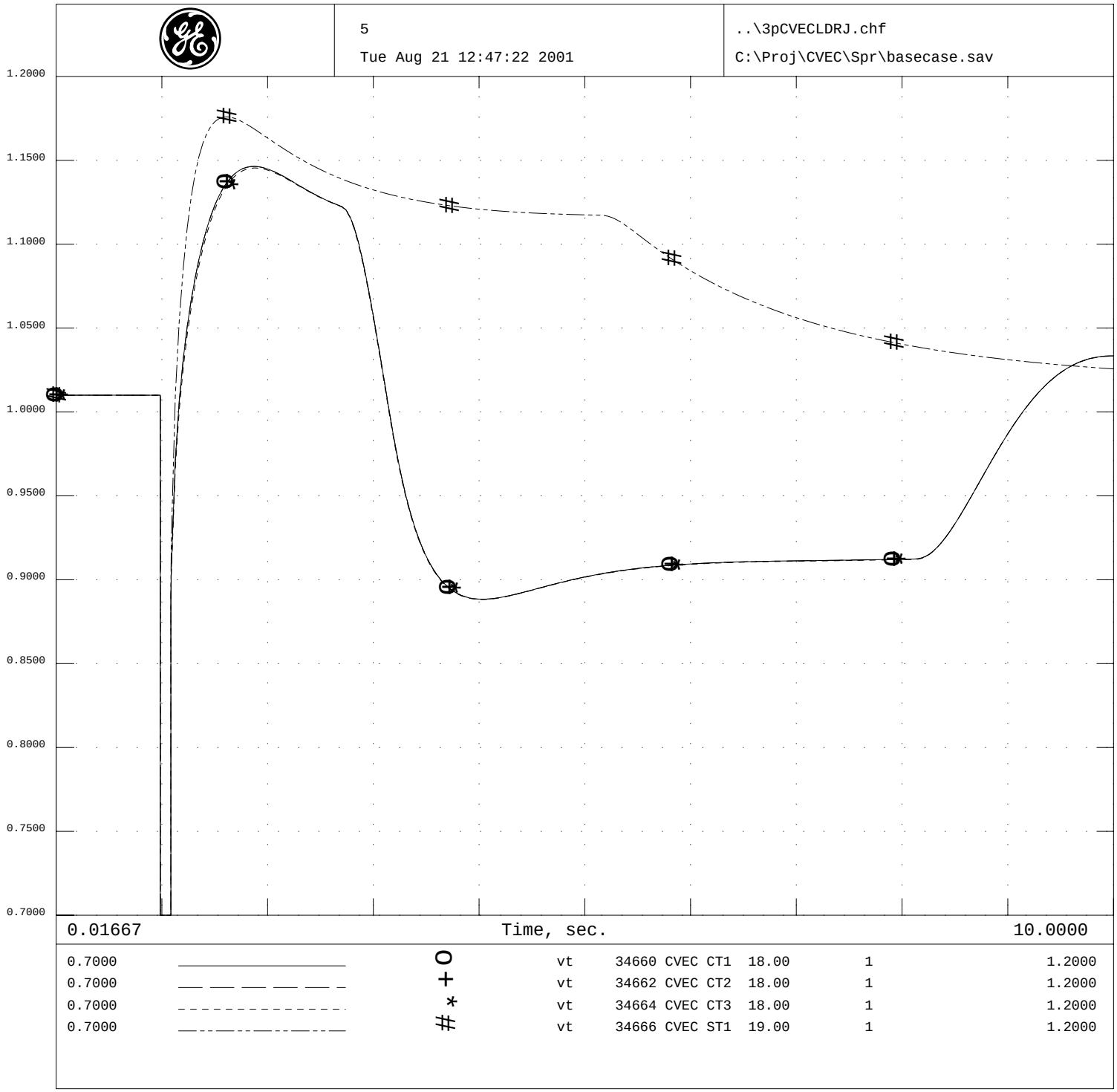

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2004 Heavy Spring Base Case
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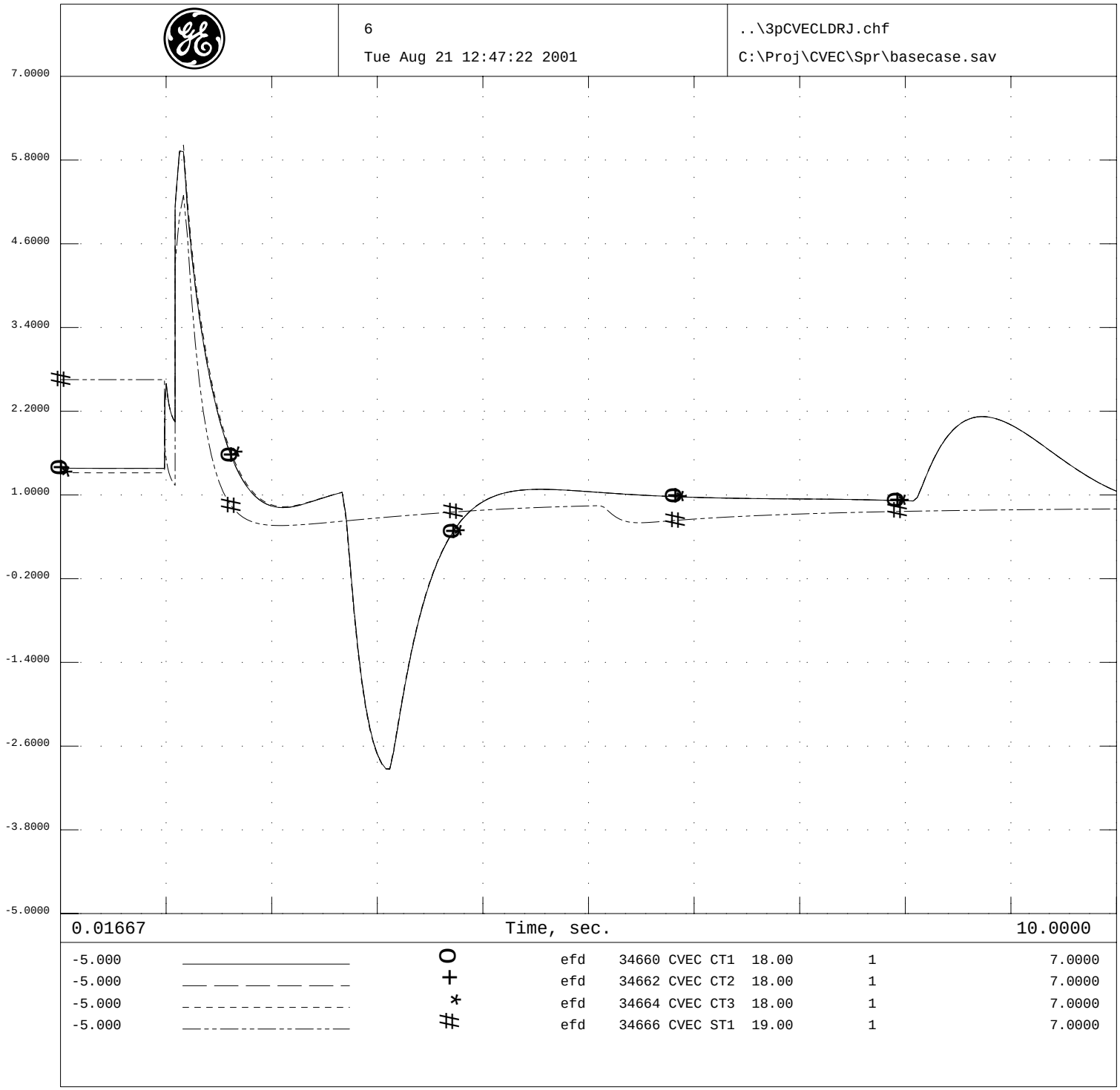
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Heavy Spring Base Case
CVEC @ 1100MW
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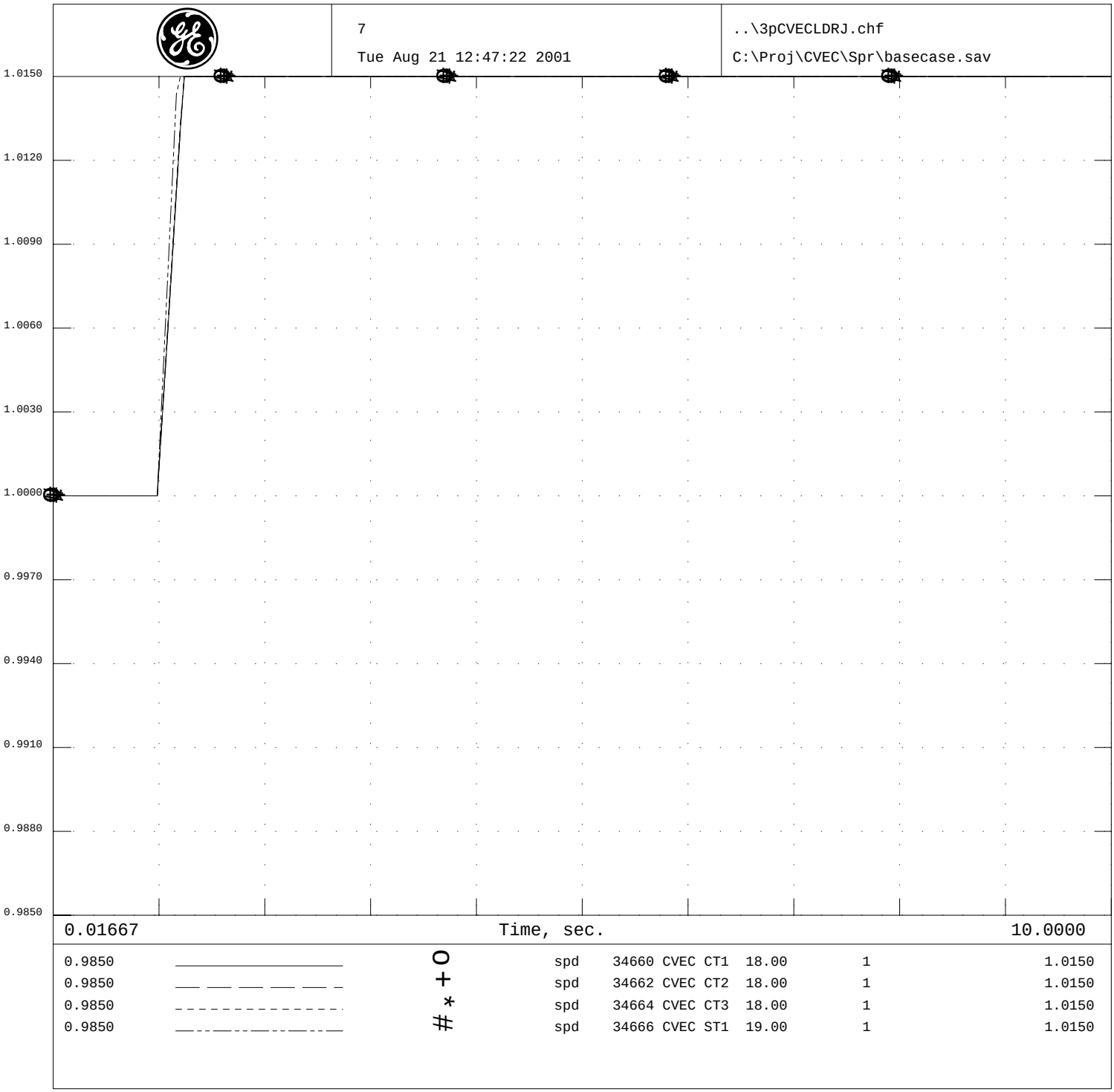
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
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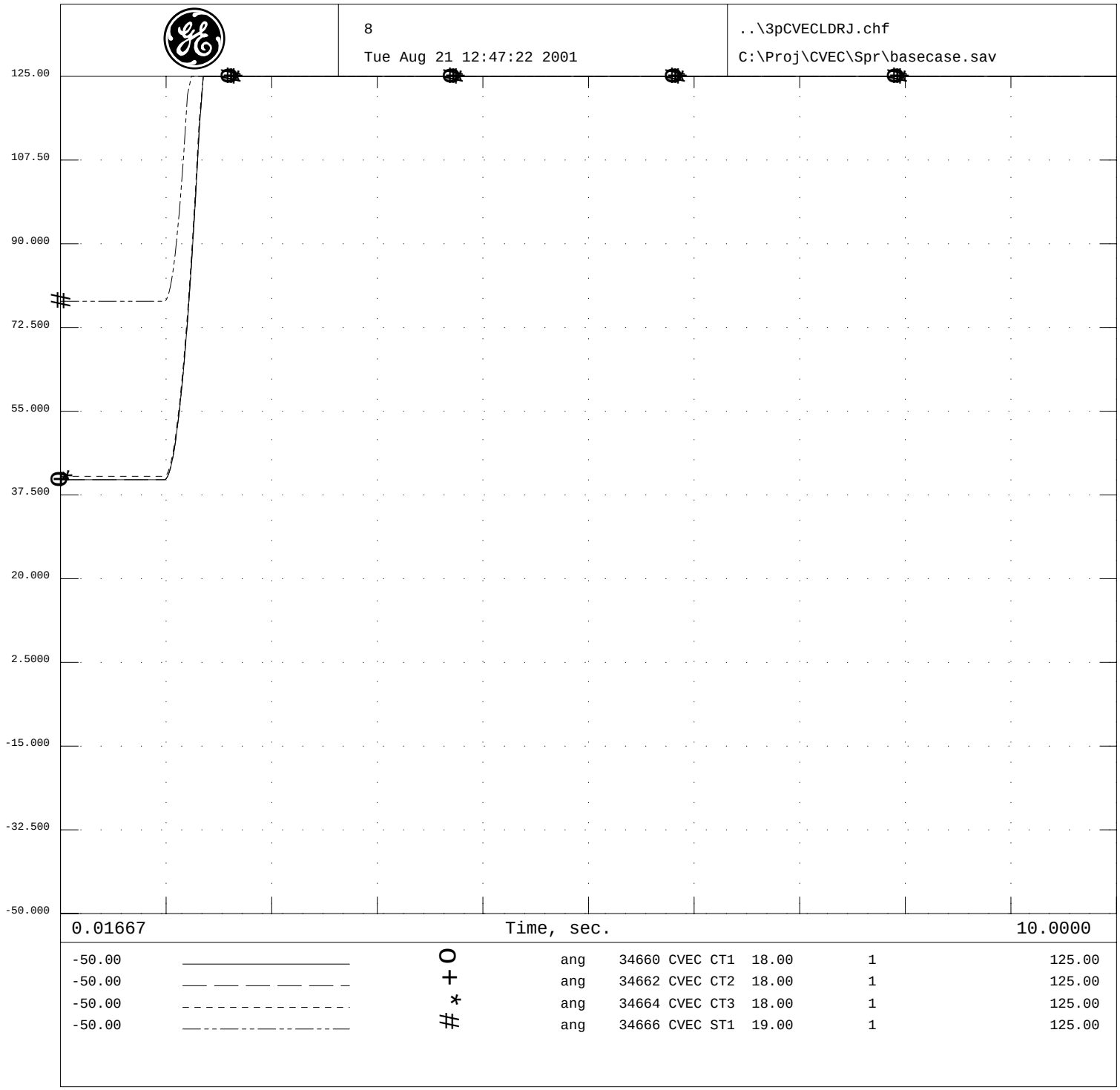
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Heavy Spring Base Case
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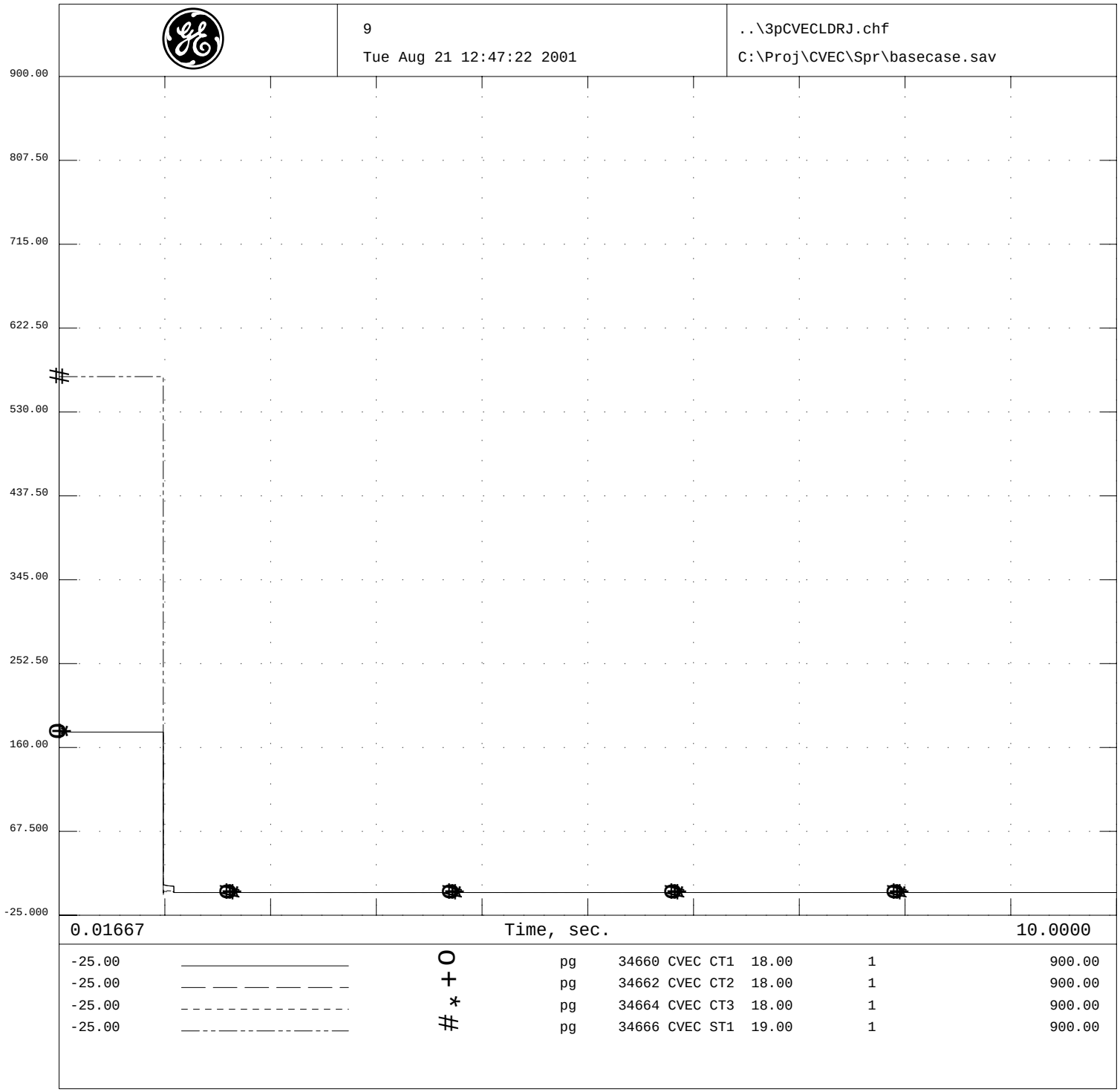
Calpine Corporation
Project Generator Rotor Angle



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Calpine Corporation
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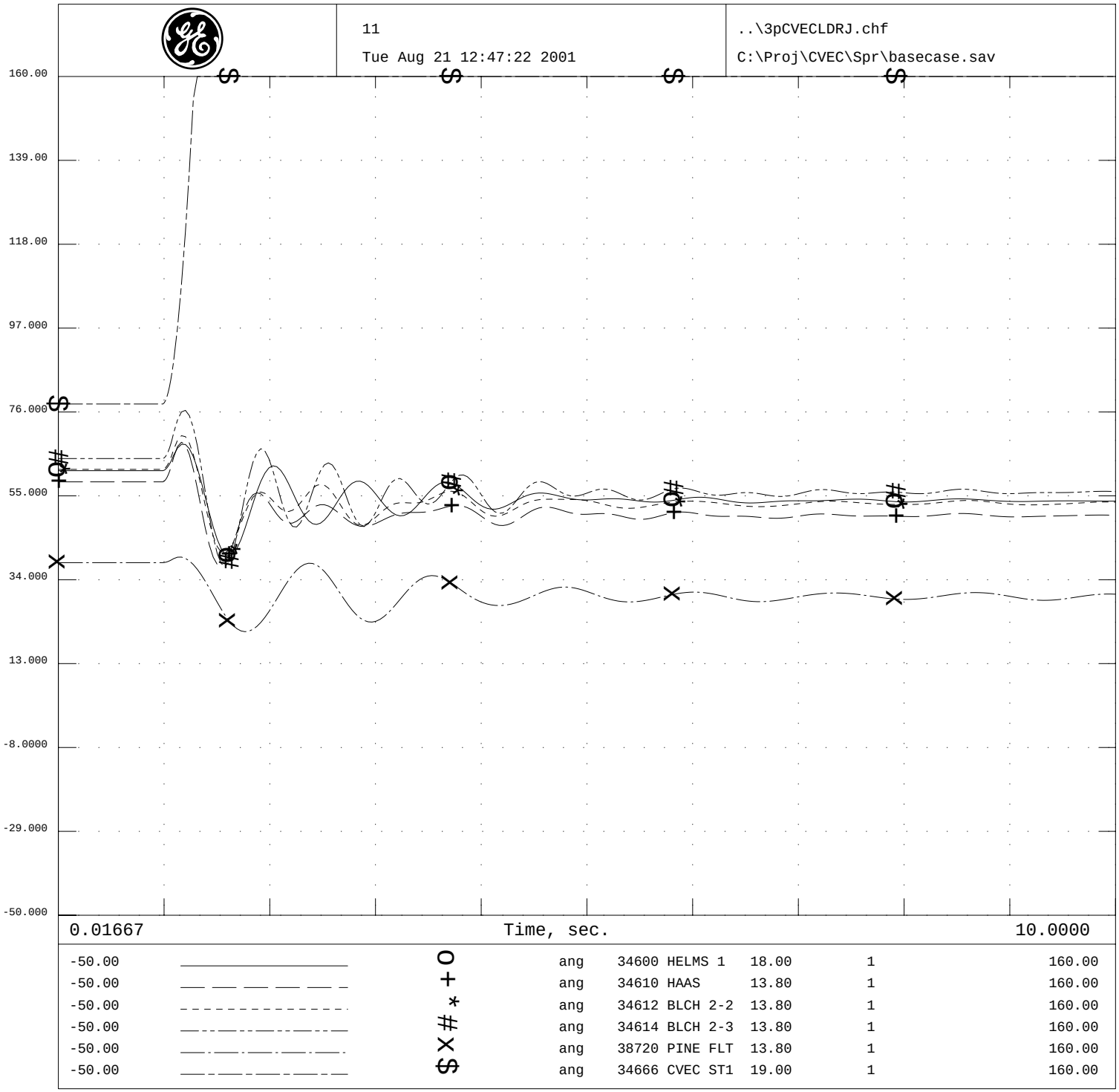

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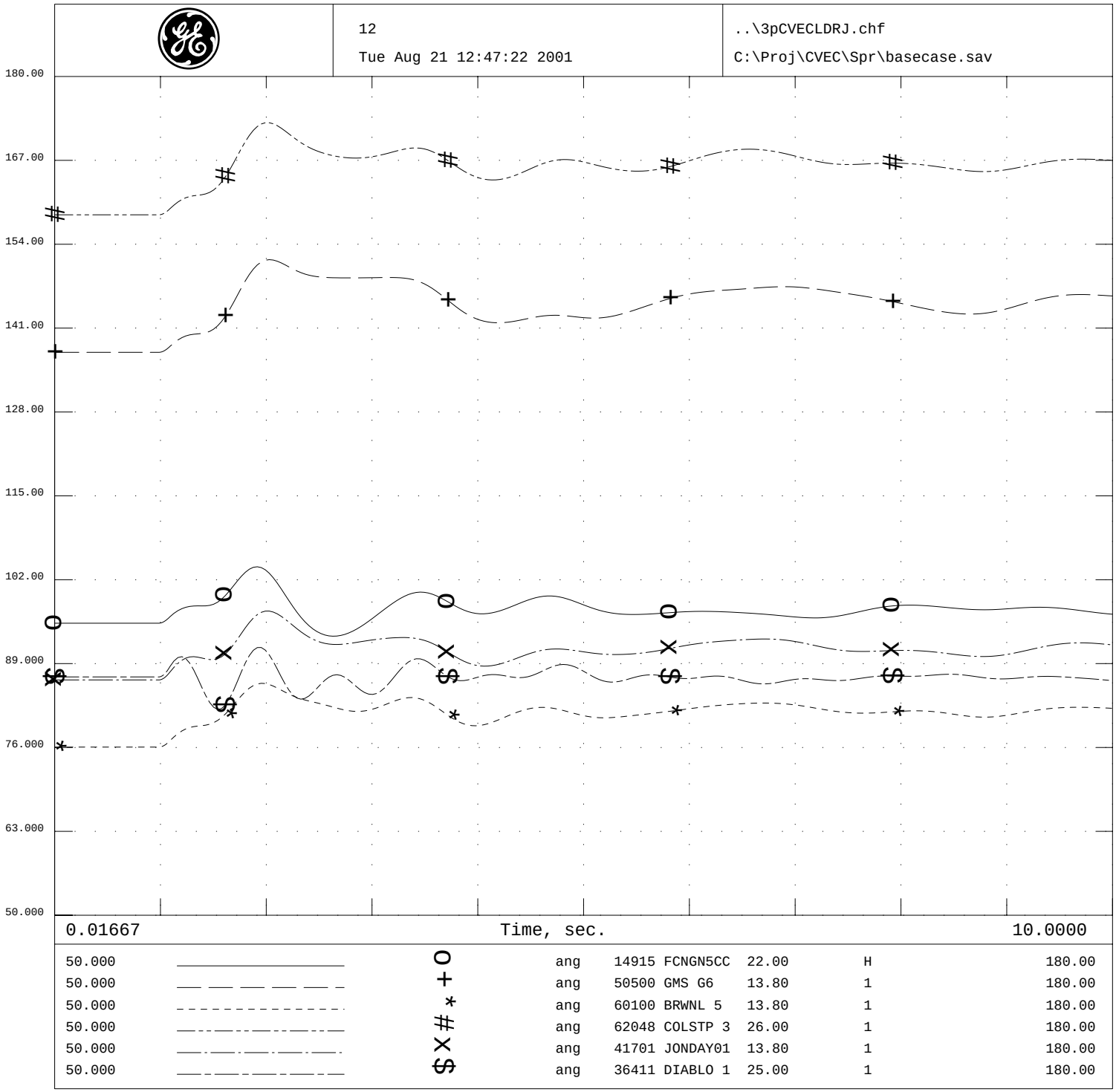
Calpine Corporation
Selected Local Rotor Angle Plots



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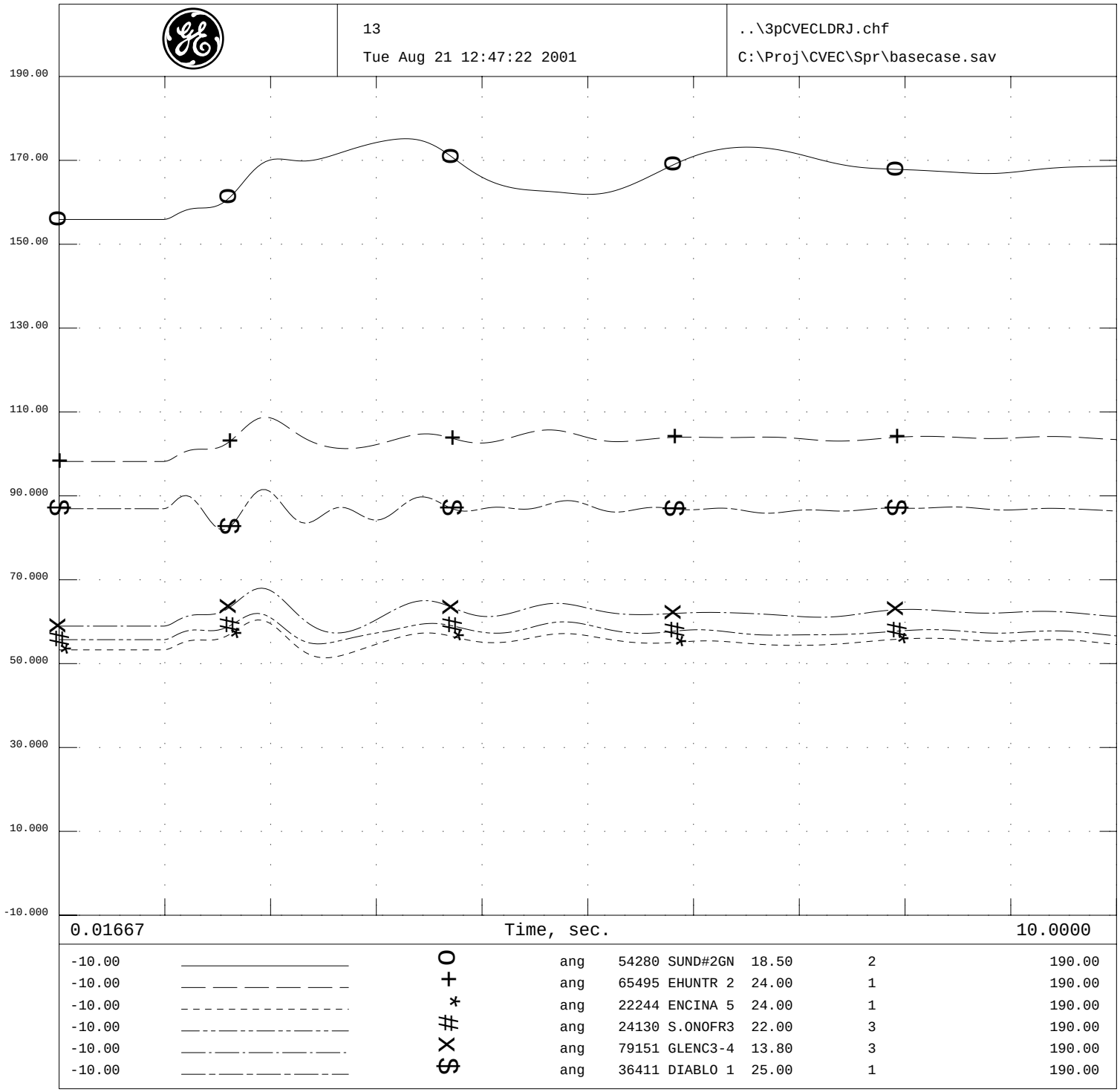

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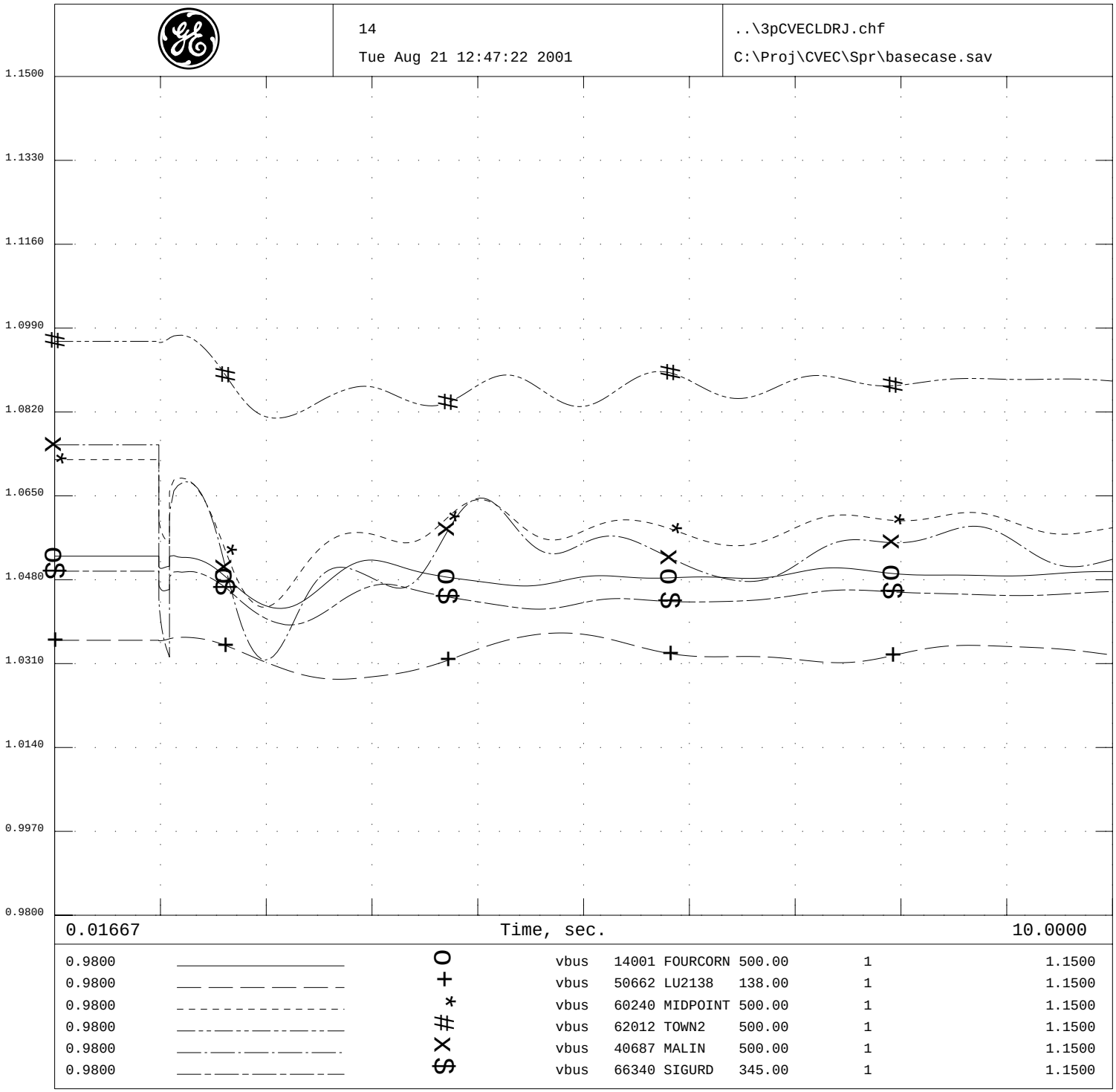

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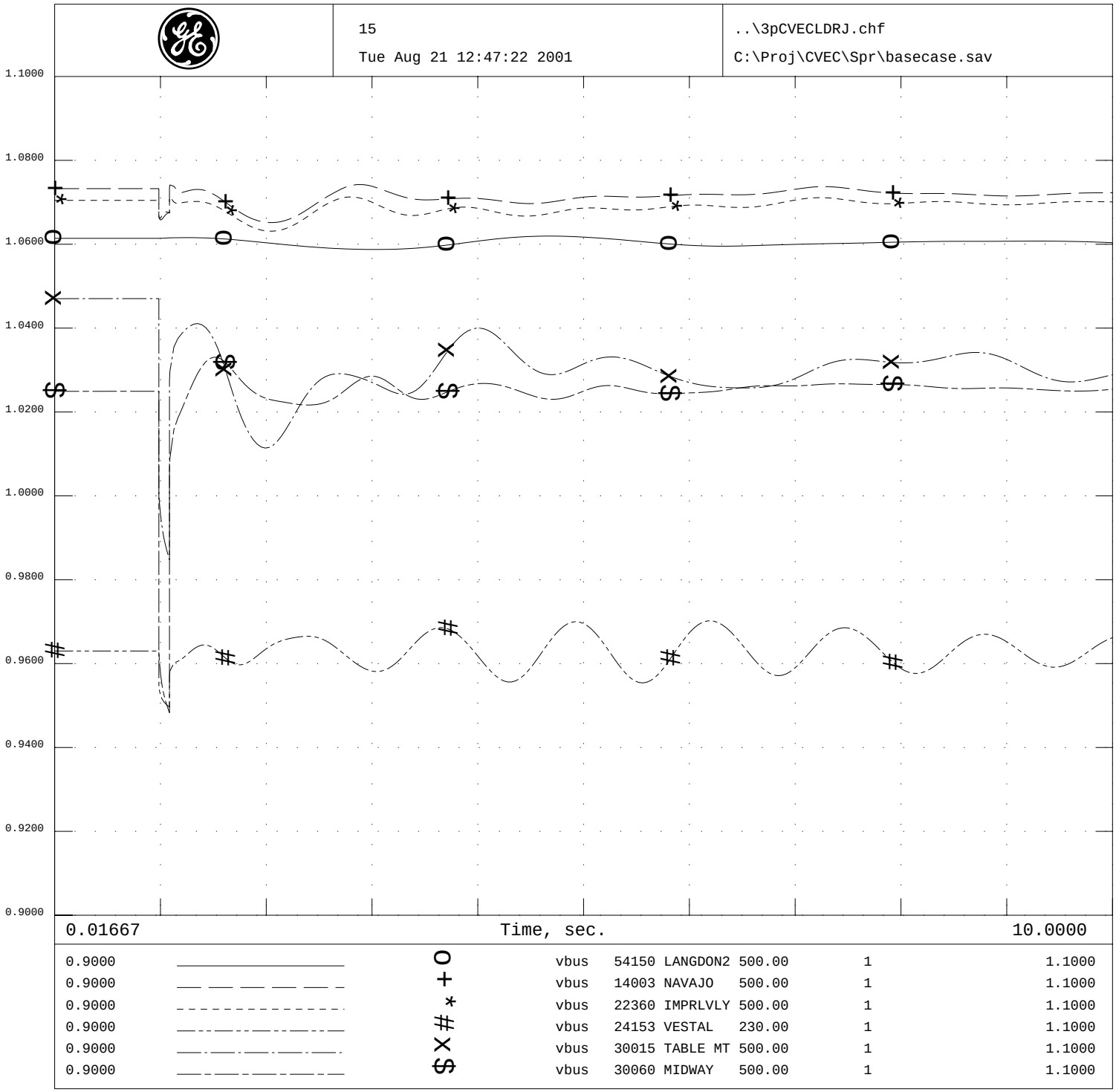

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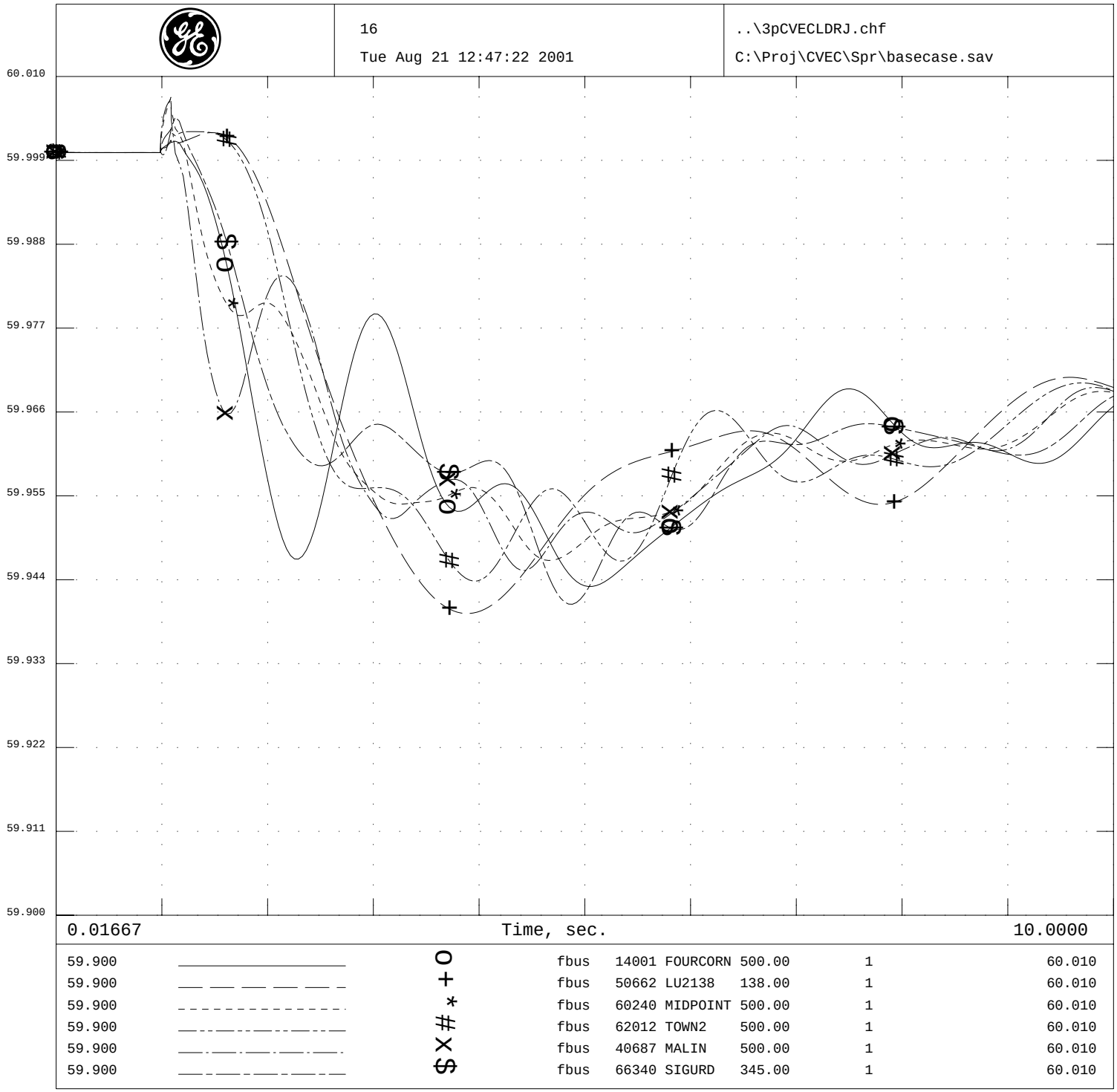

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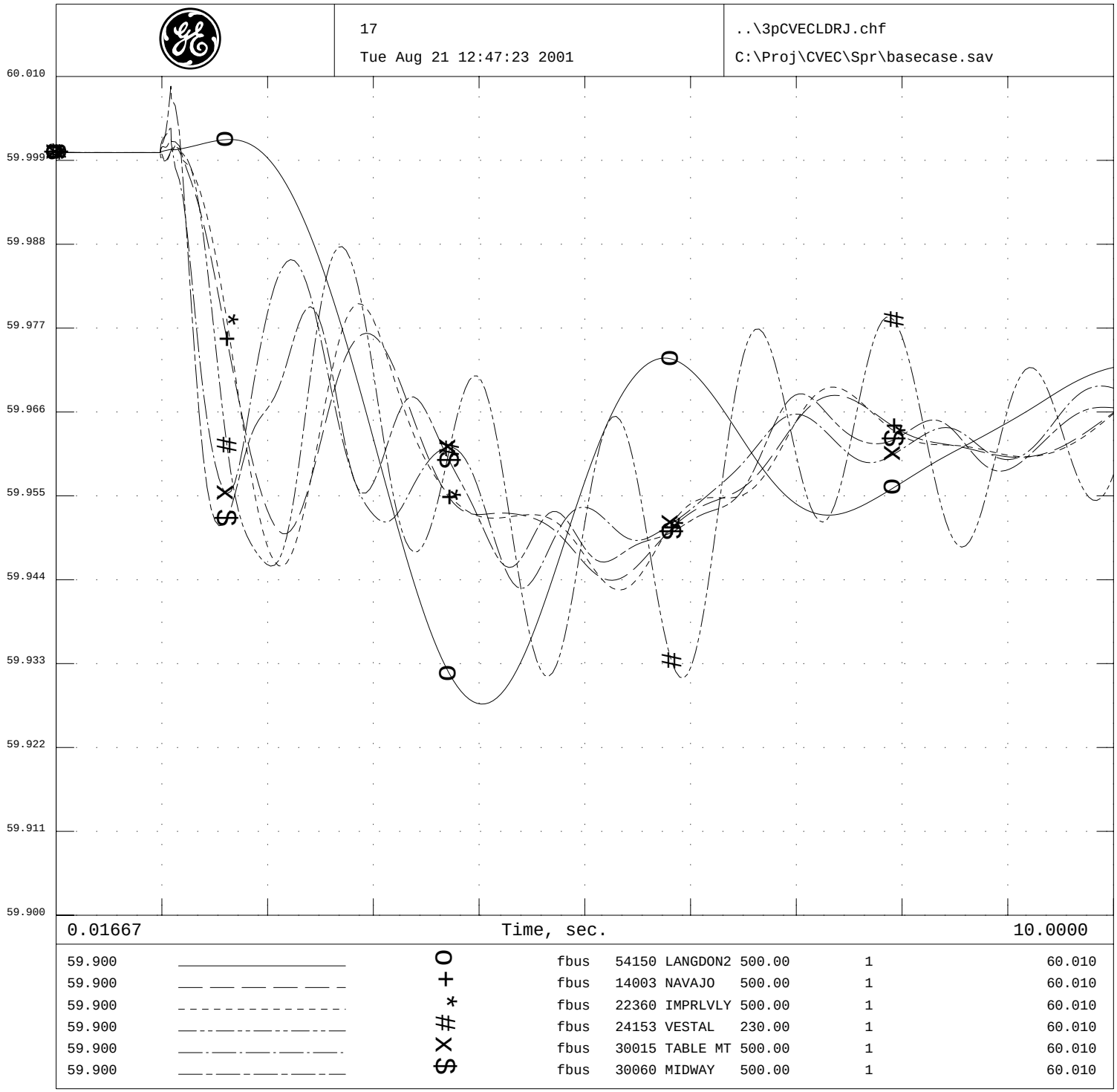

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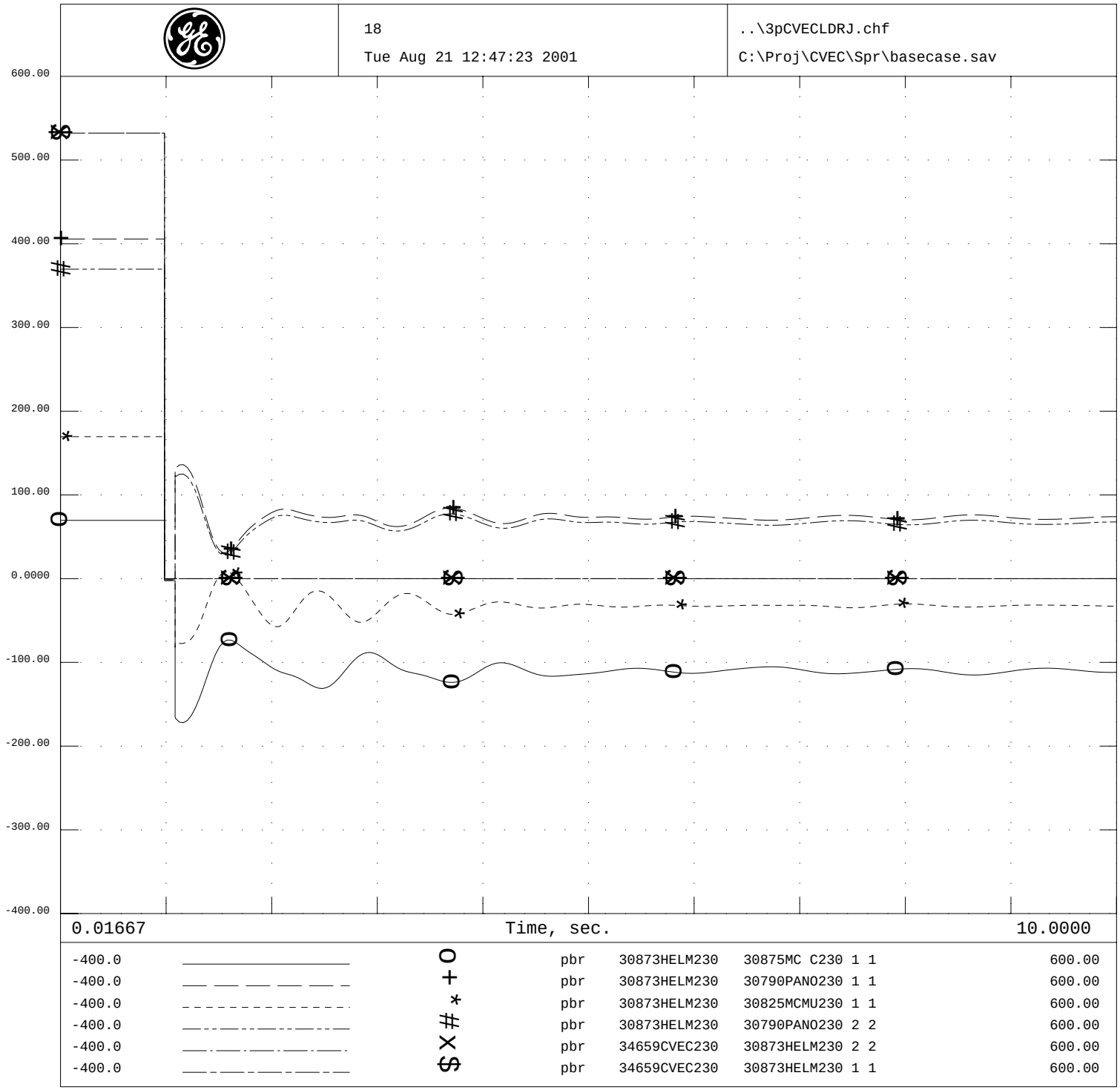

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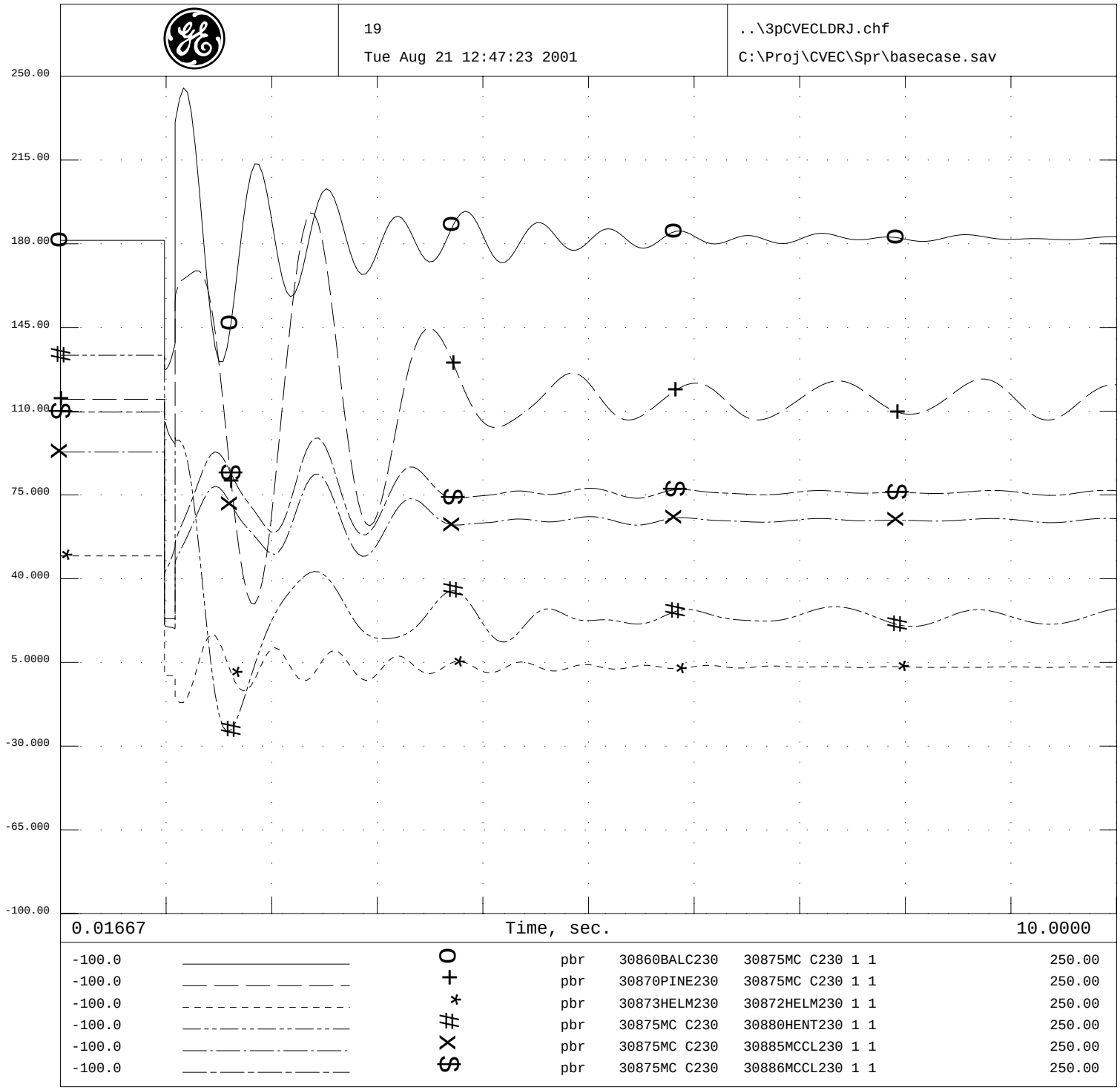

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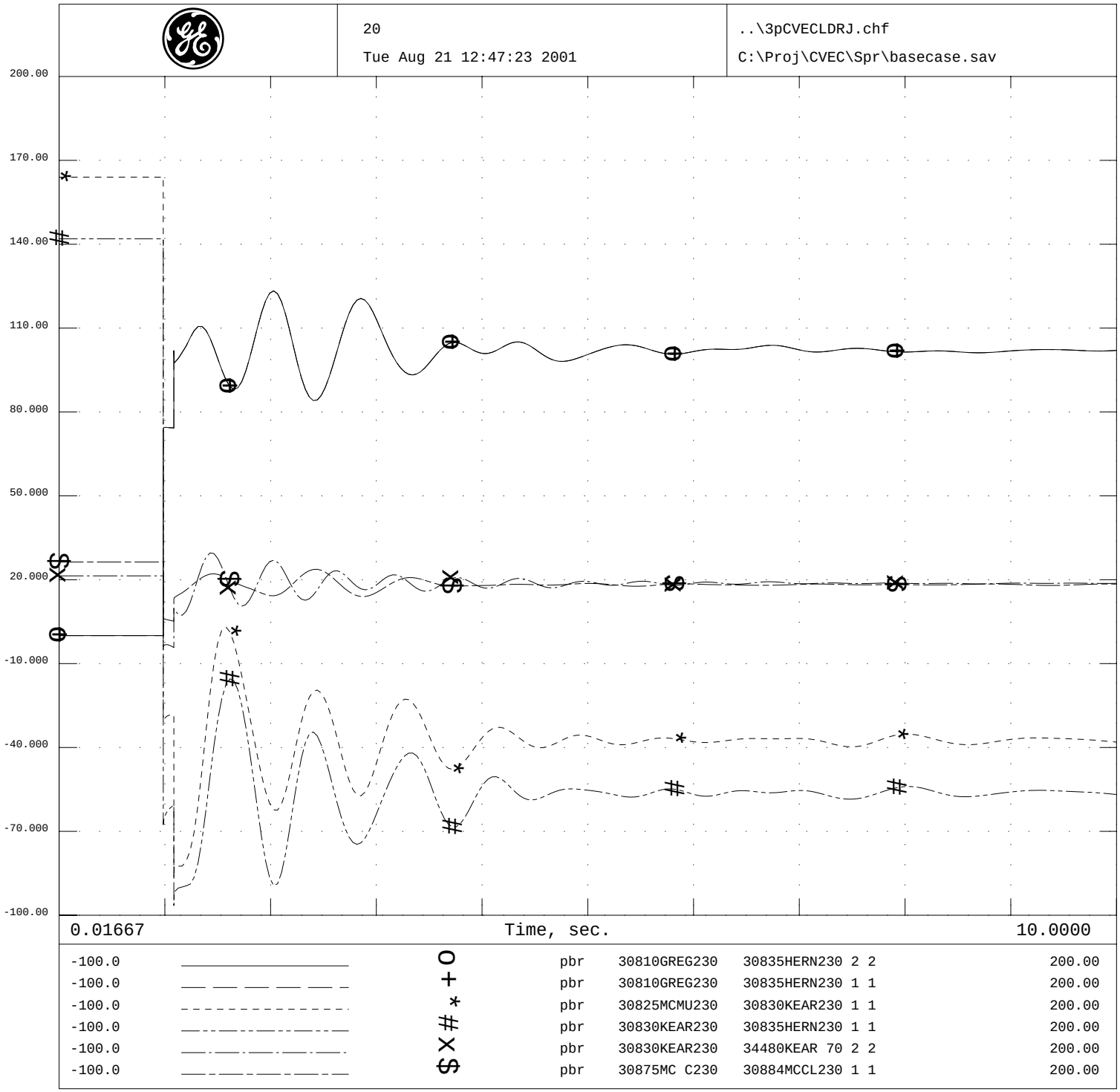

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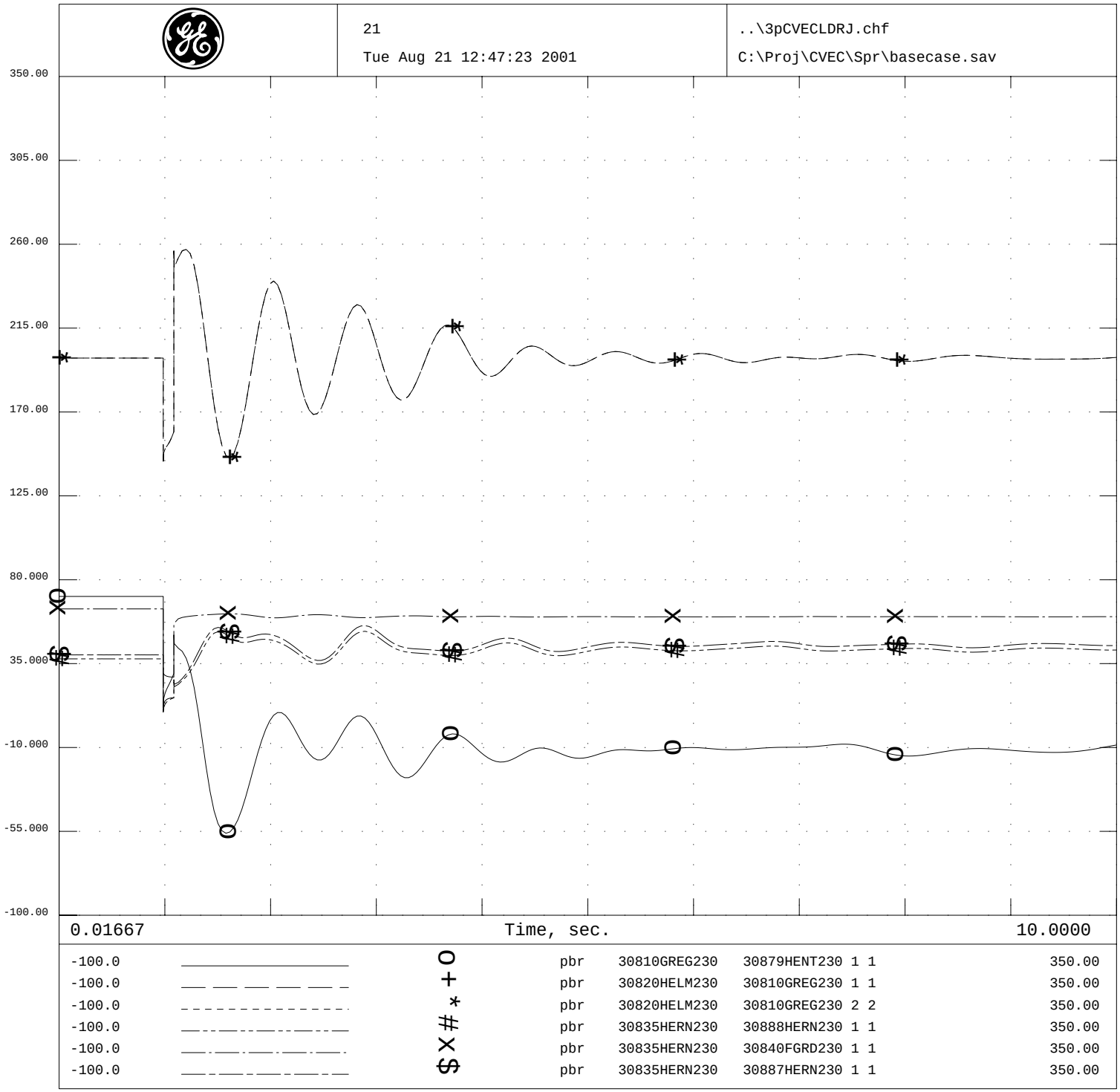

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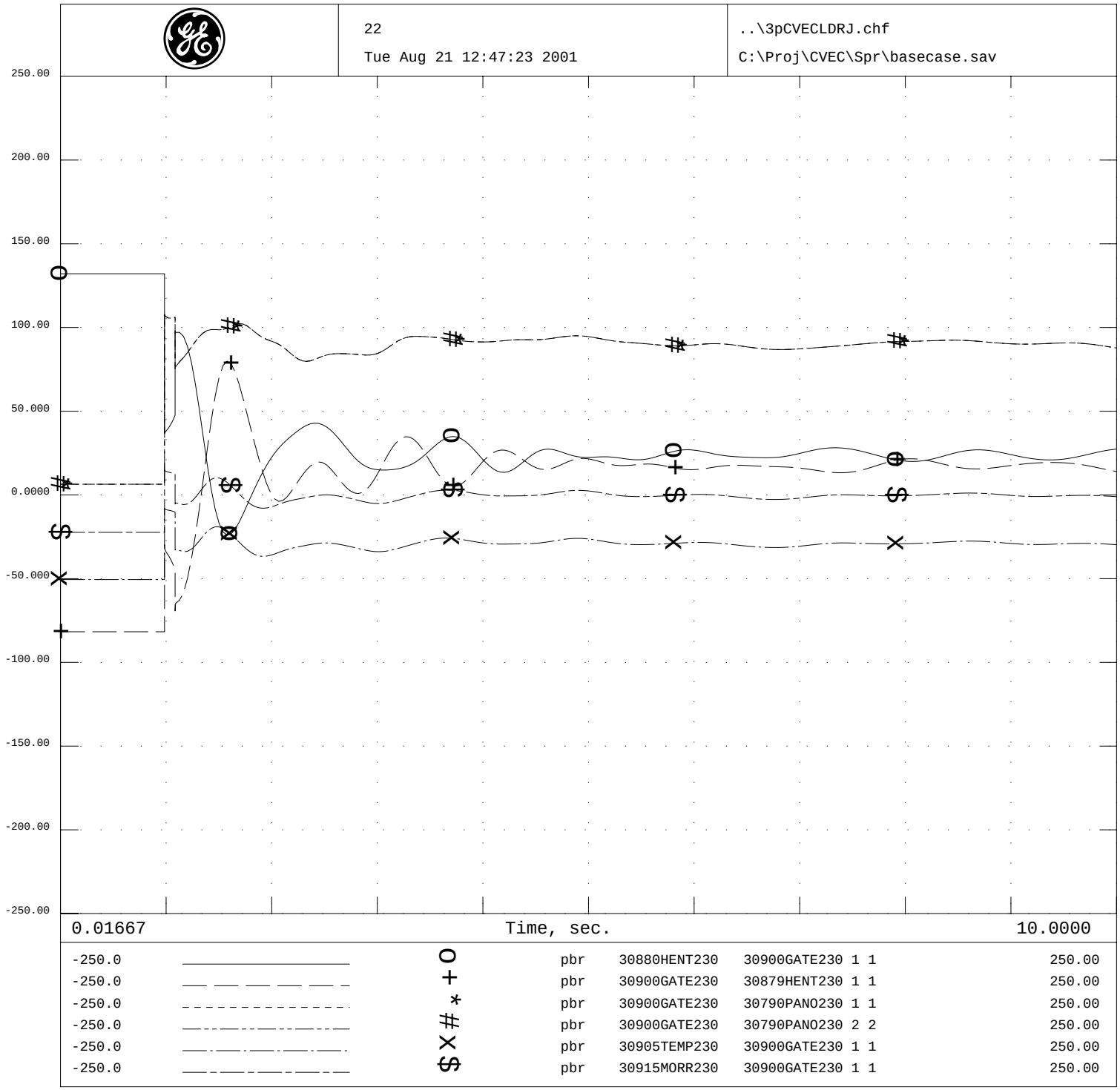

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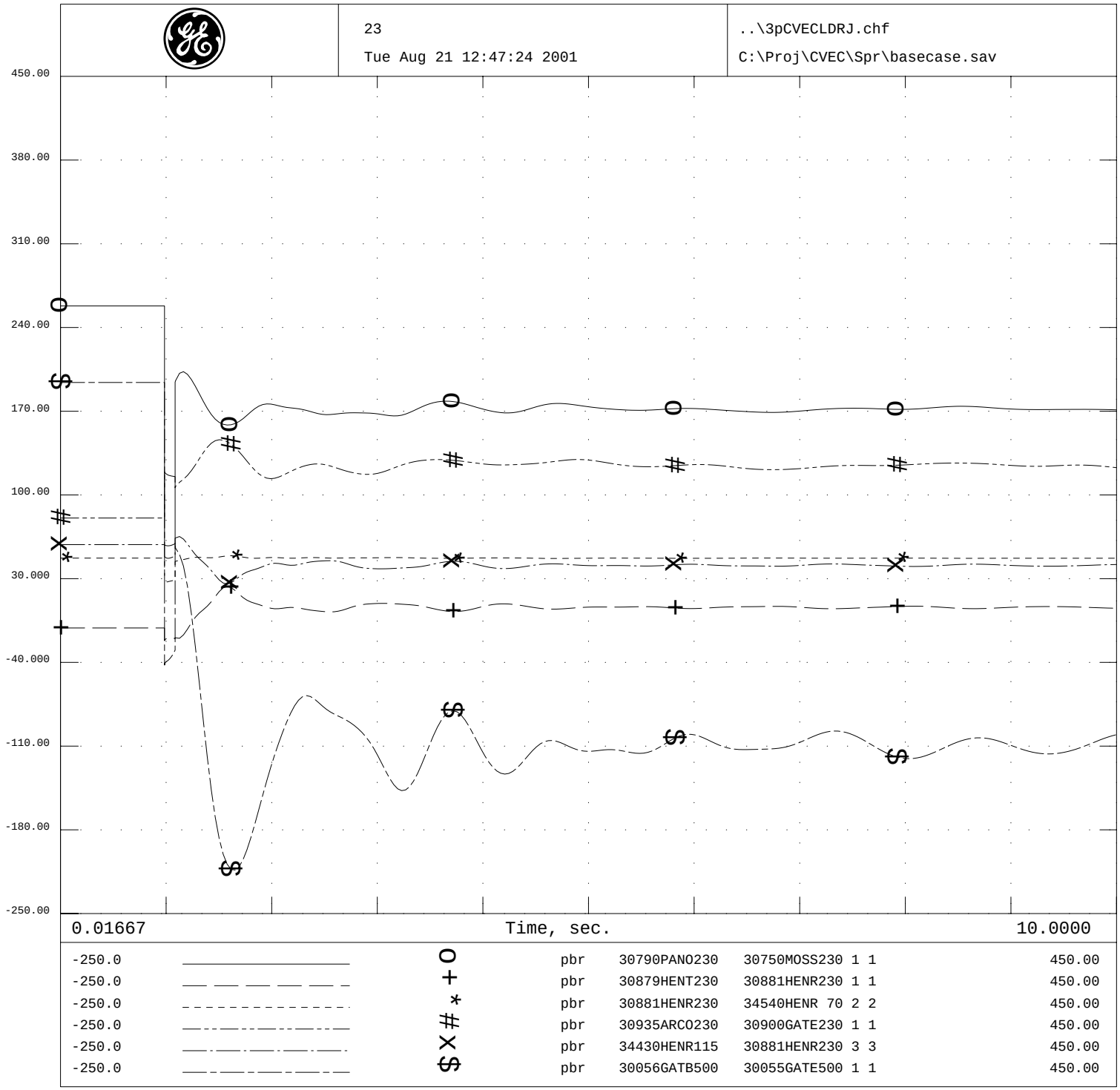

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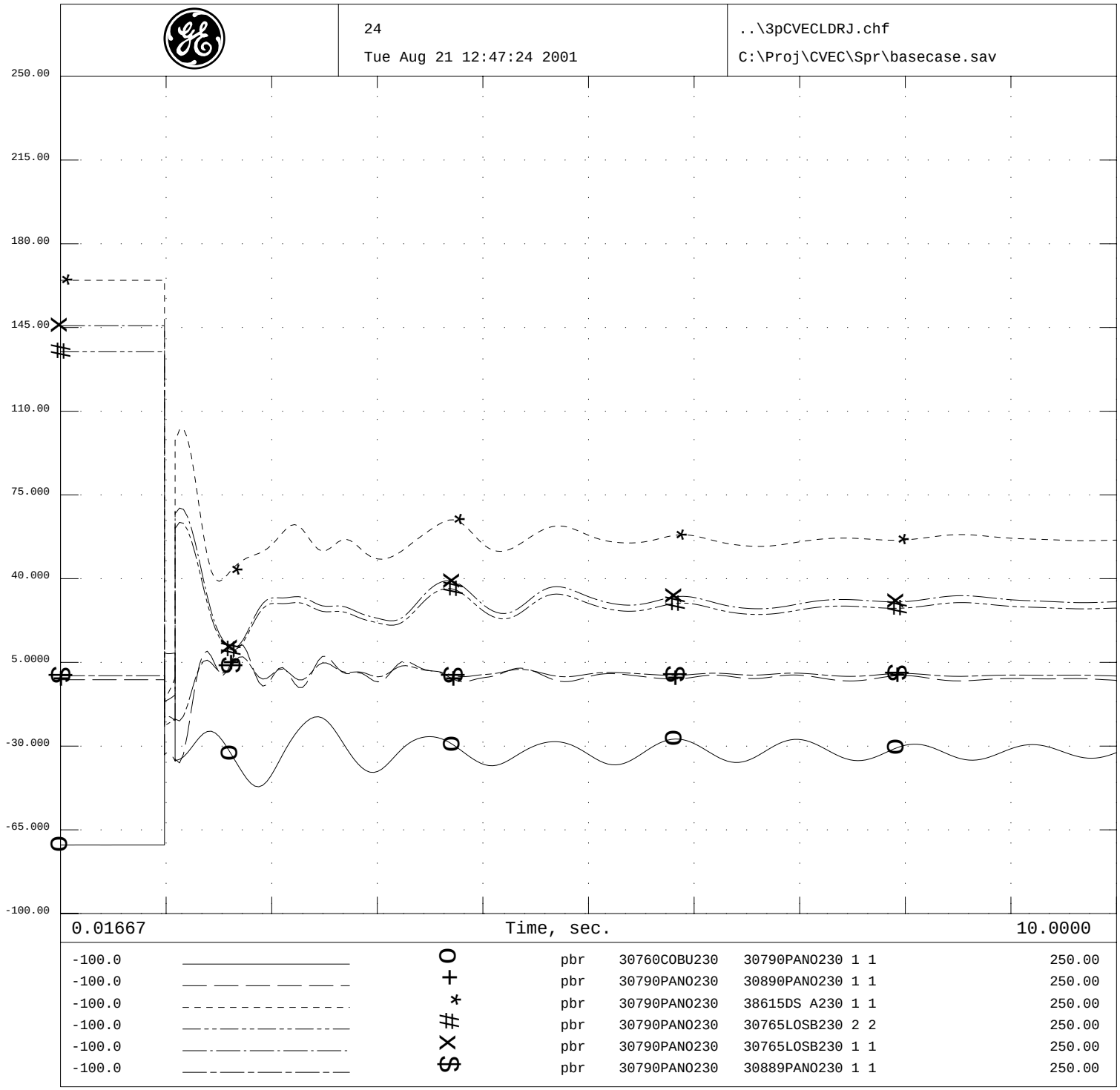

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2004 Heavy Spring Base Case
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Calpine Corporation
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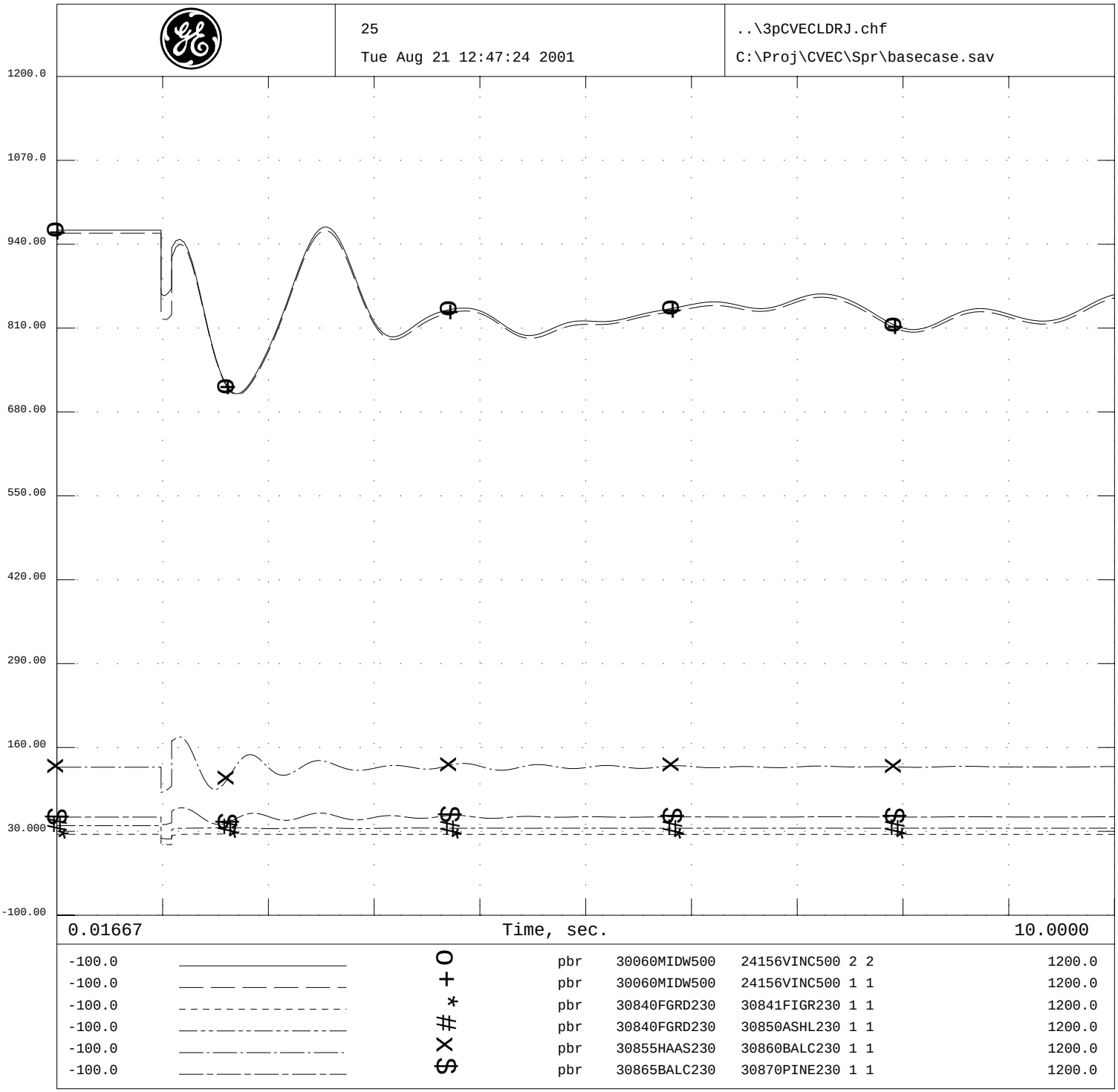

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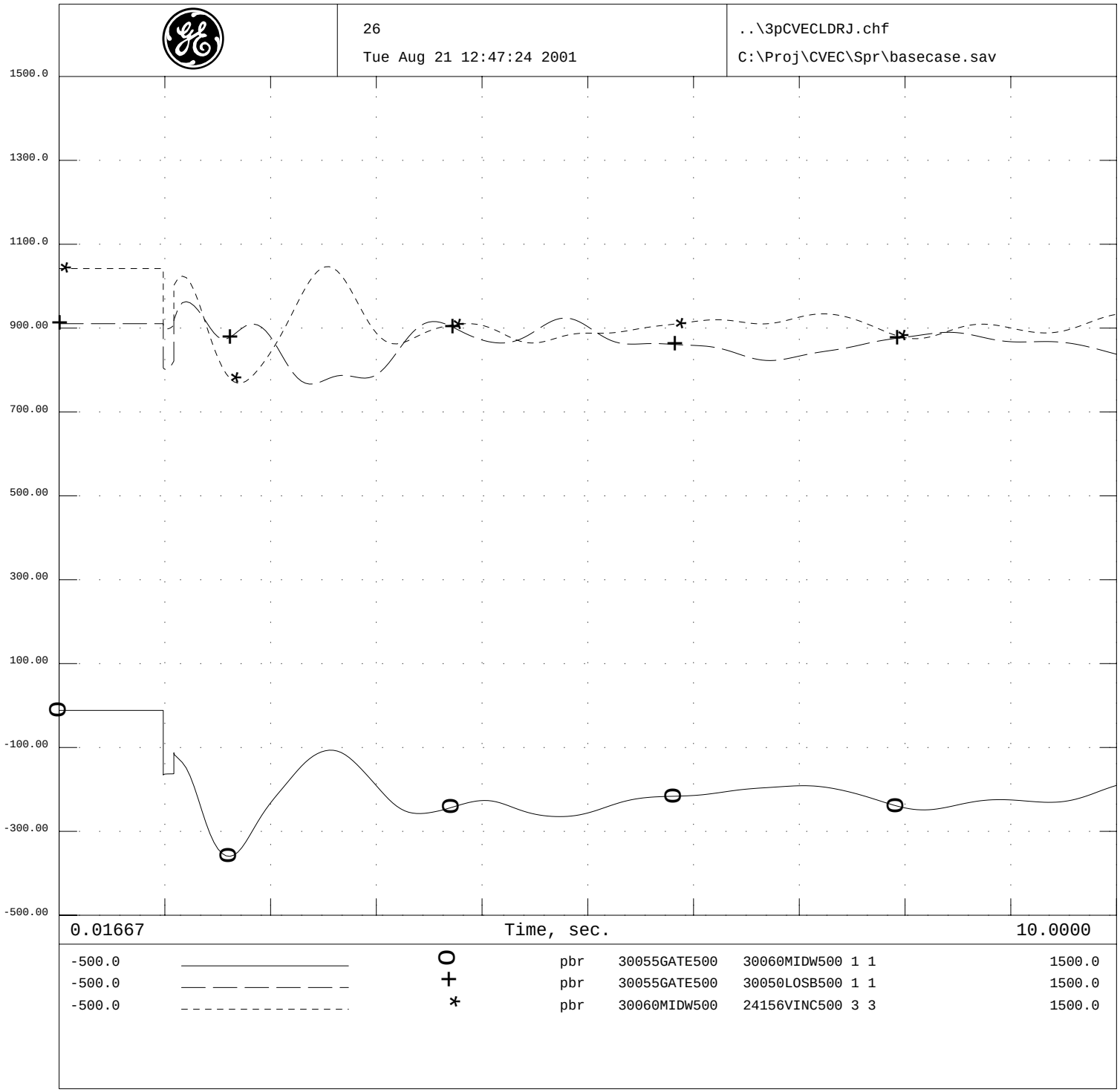

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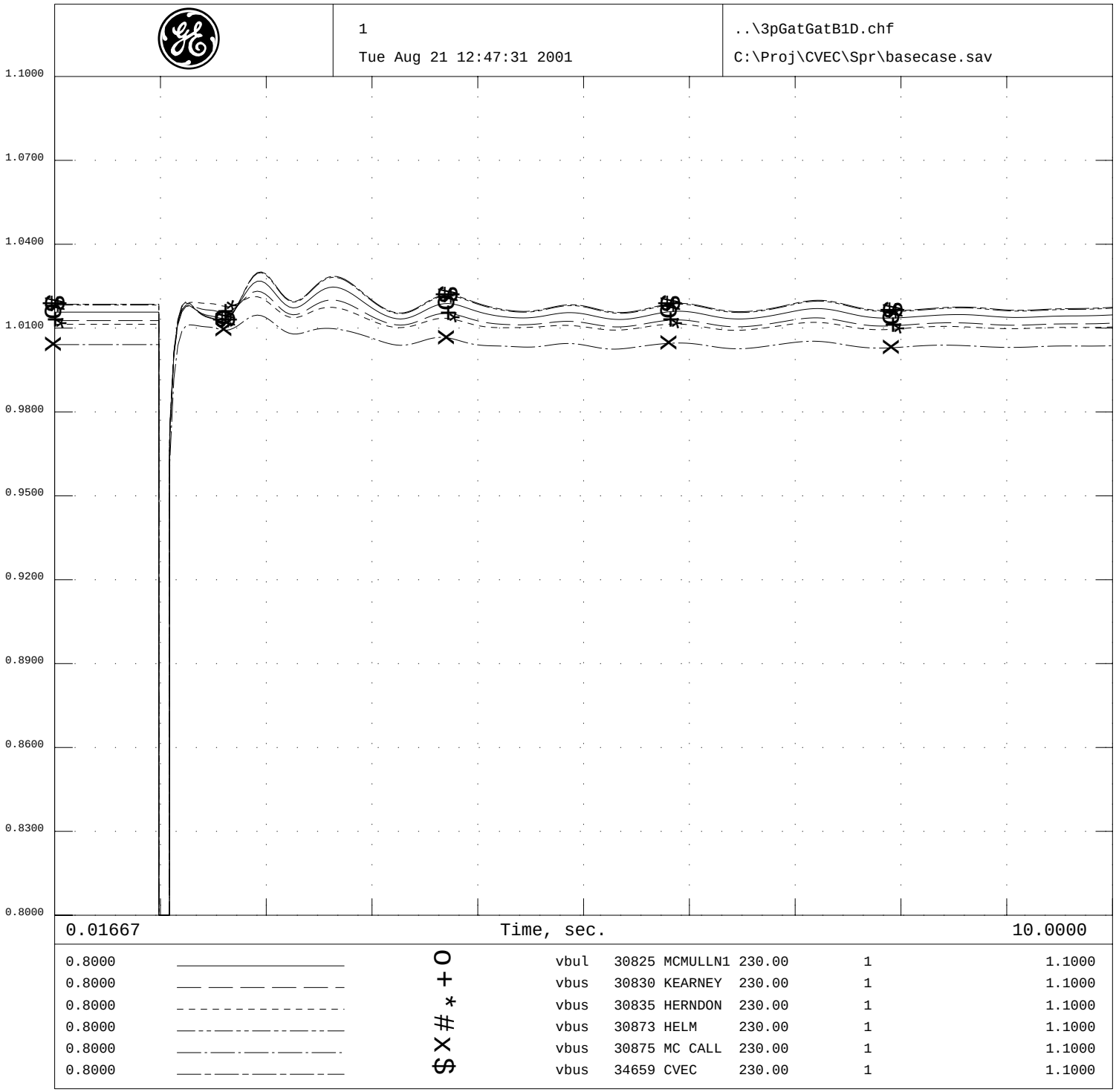

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2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 1D Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 1D

Central Valley Energy Center
Calpine Corporation
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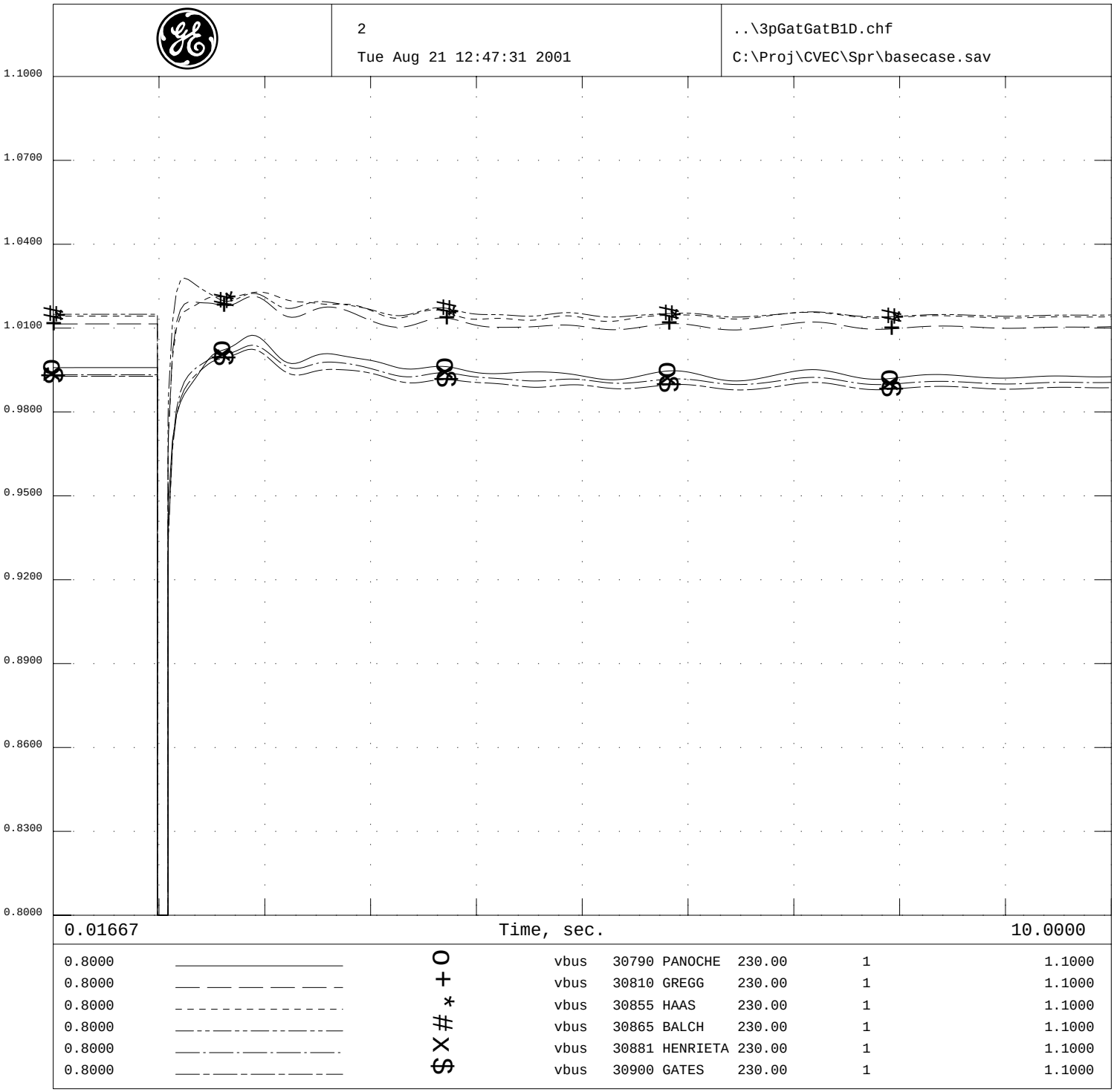

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 1D Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 1D

Central Valley Energy Center
Calpine Corporation
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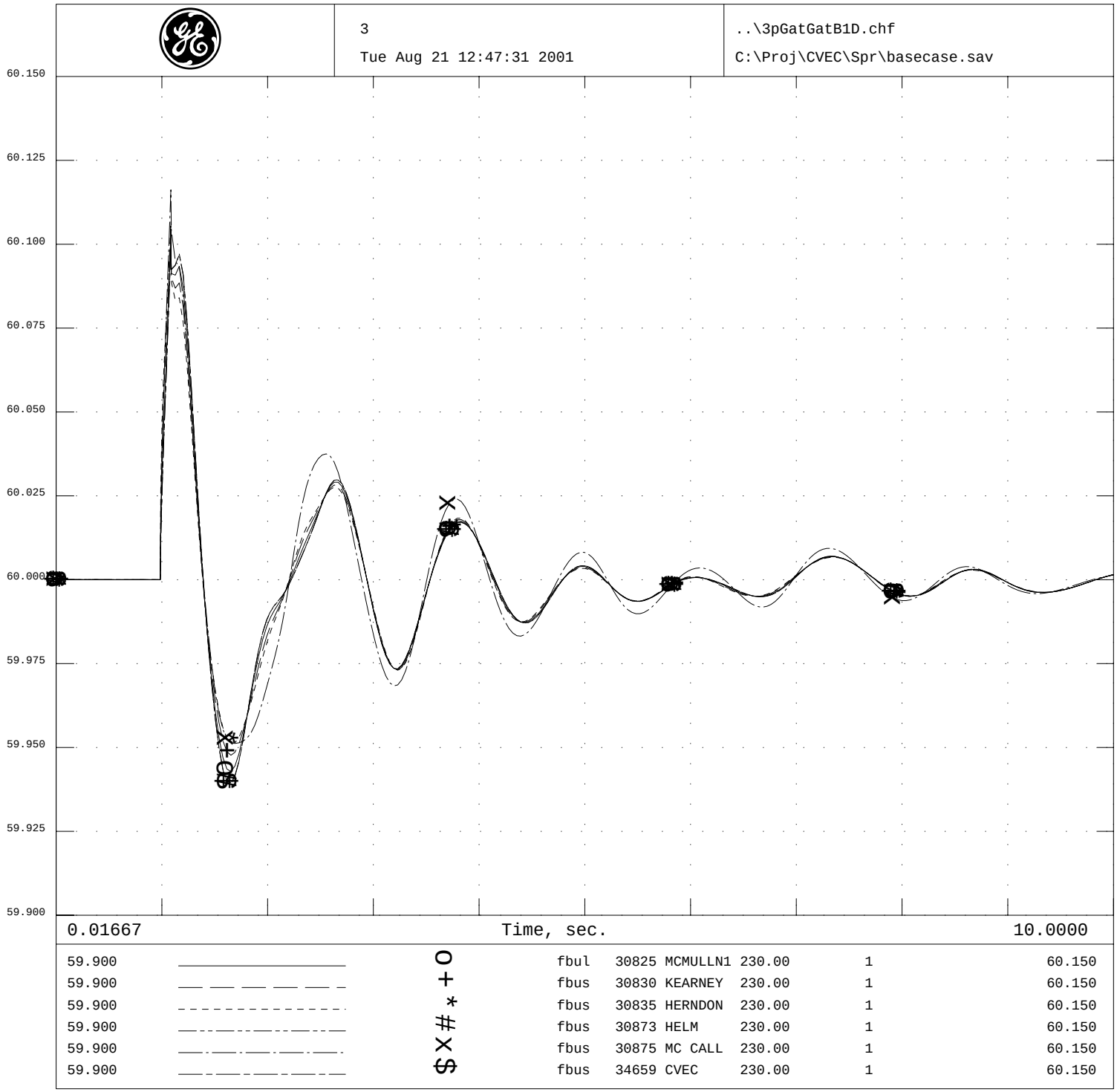

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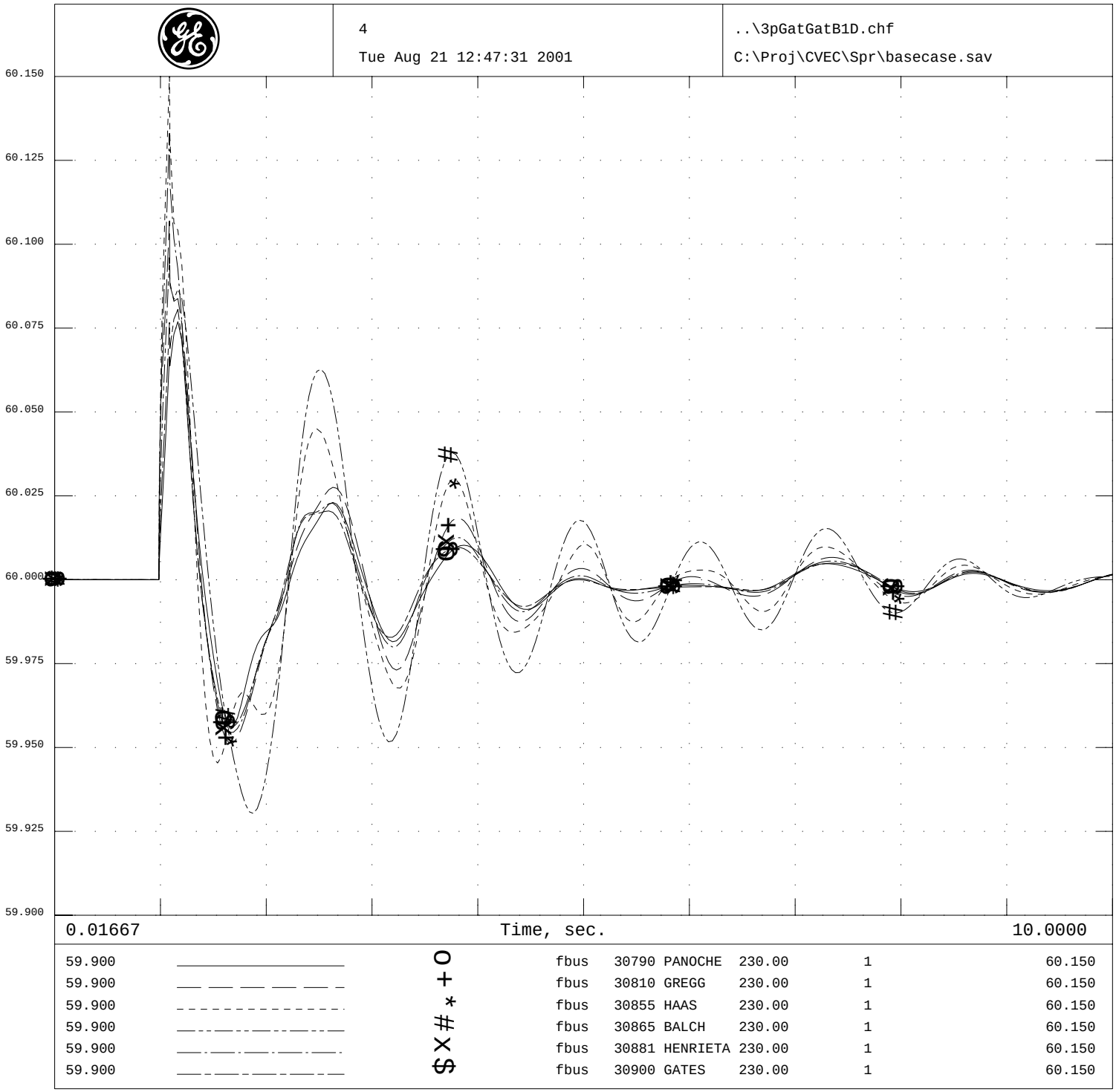
Selected Bus Frequency Plots Adjacent to Fault



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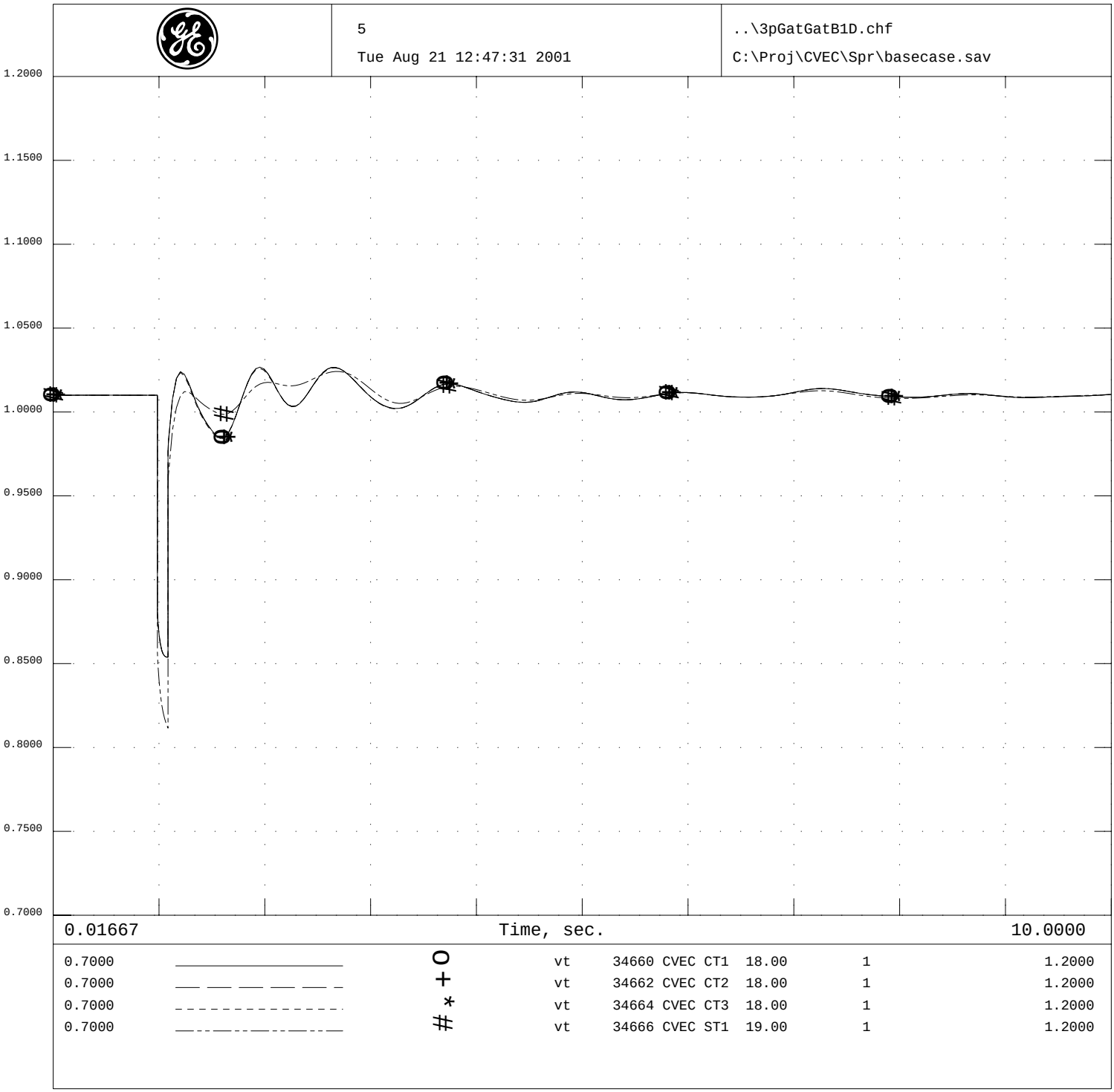

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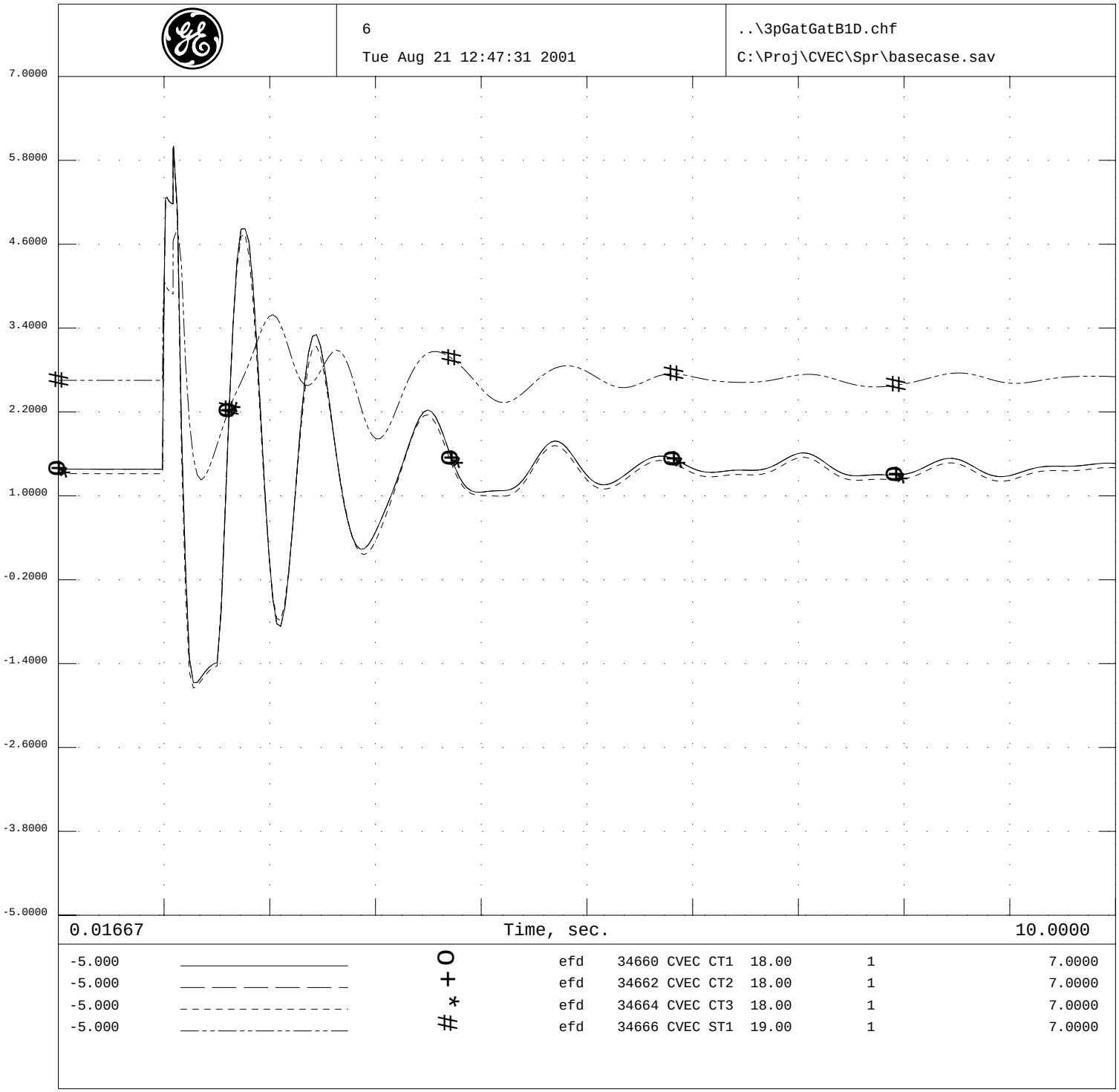
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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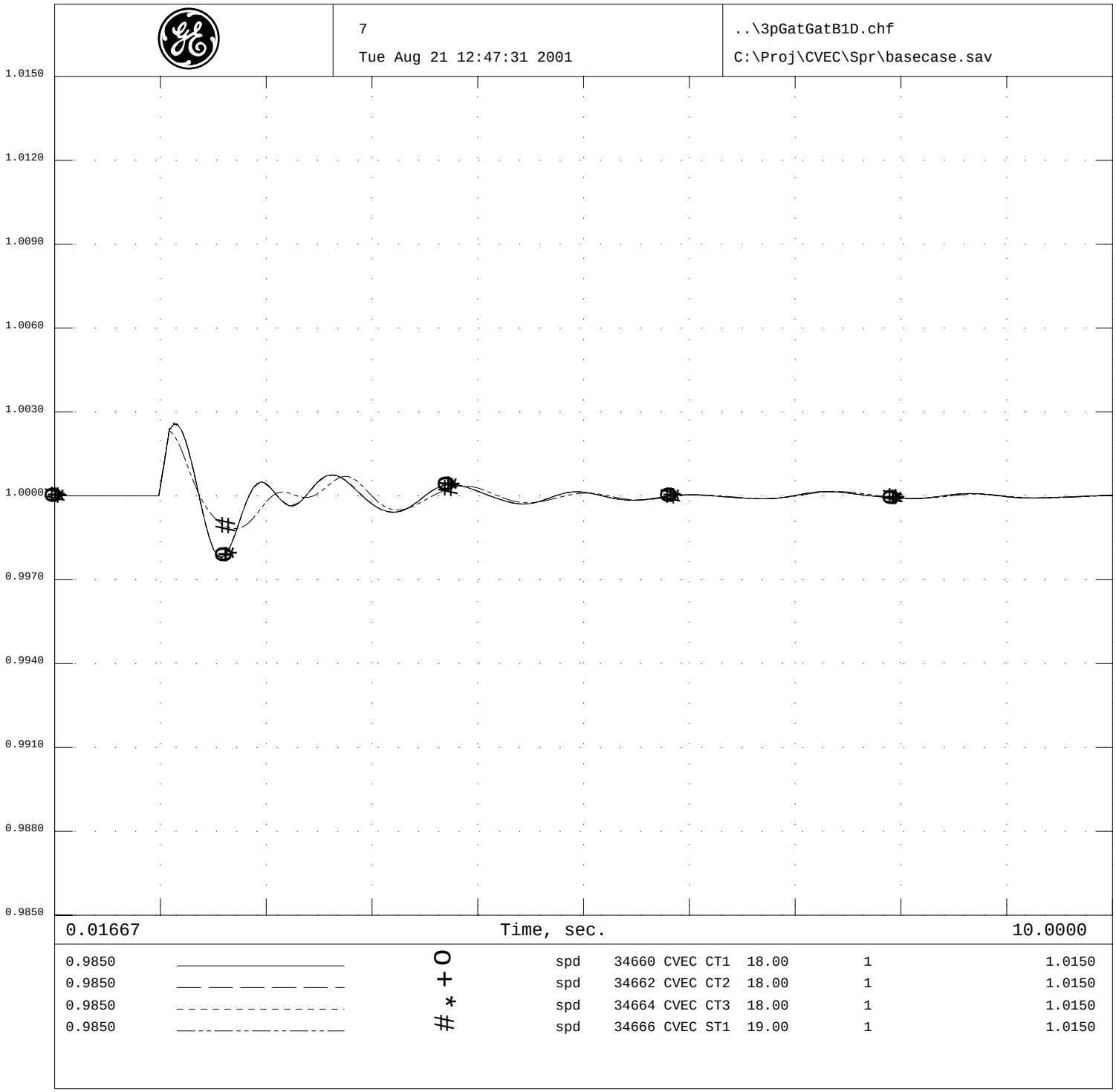
Project Generator Field Voltages



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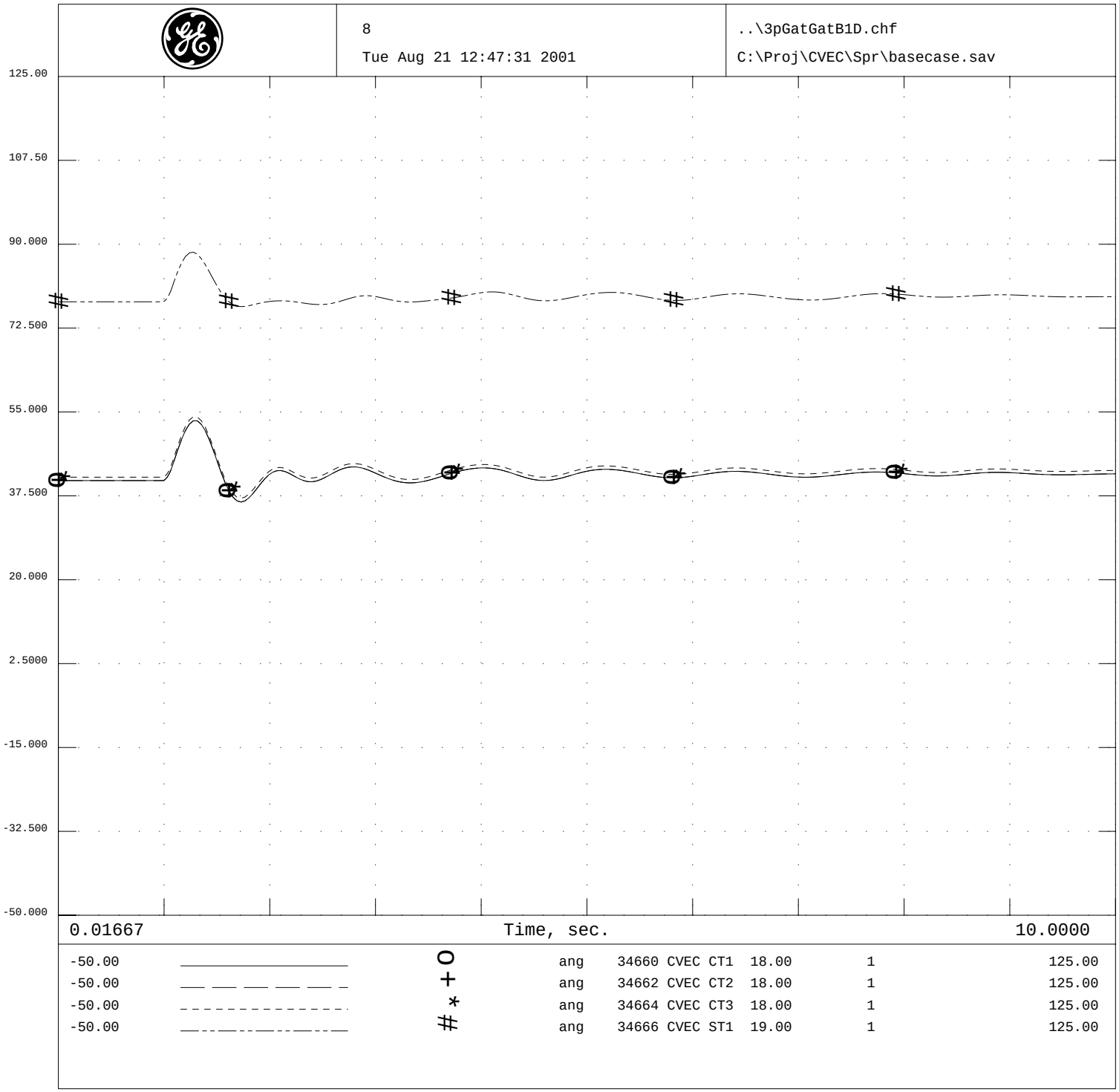
Project Generator Rotor Speed



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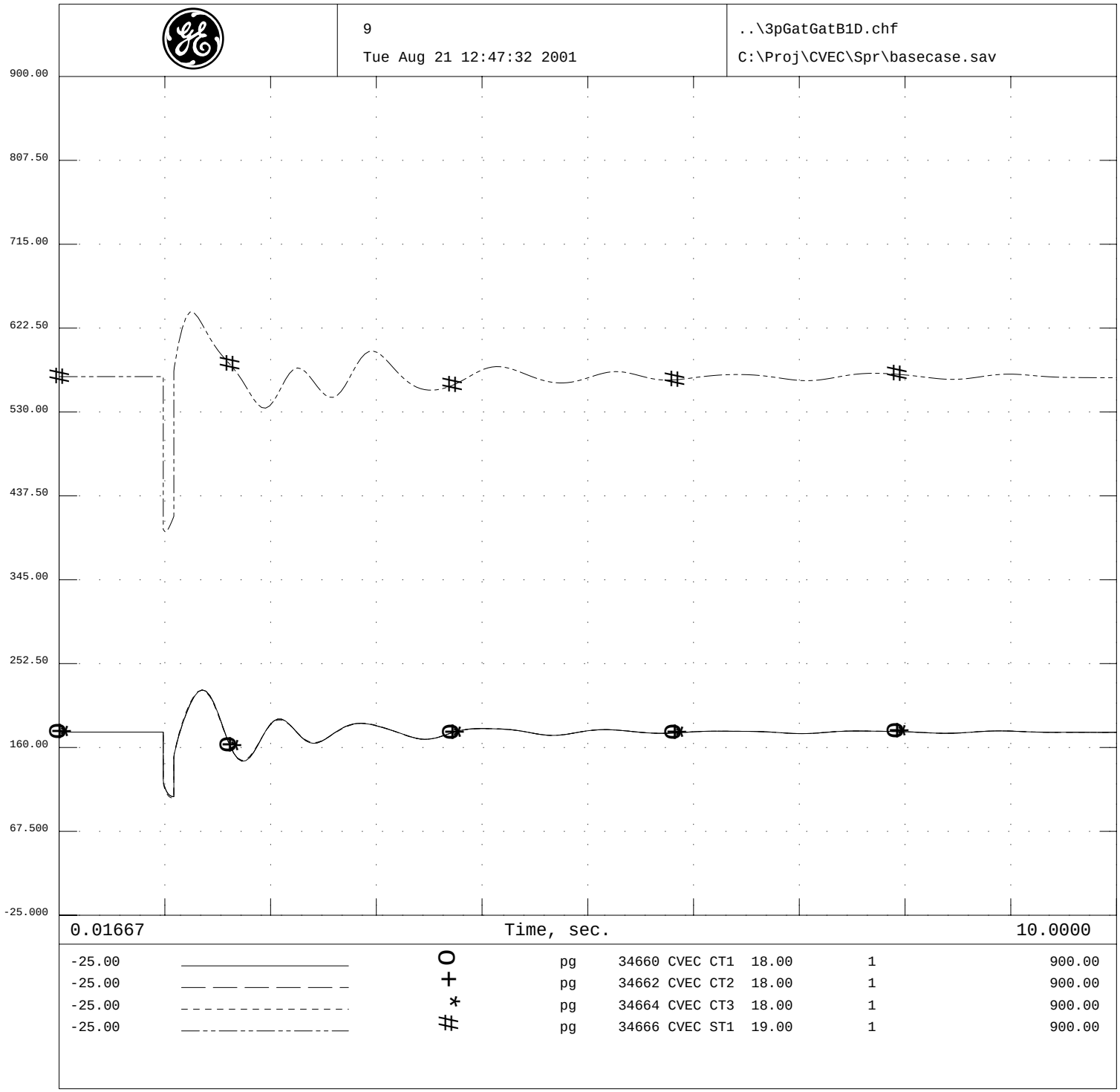
Project Generator Rotor Angle



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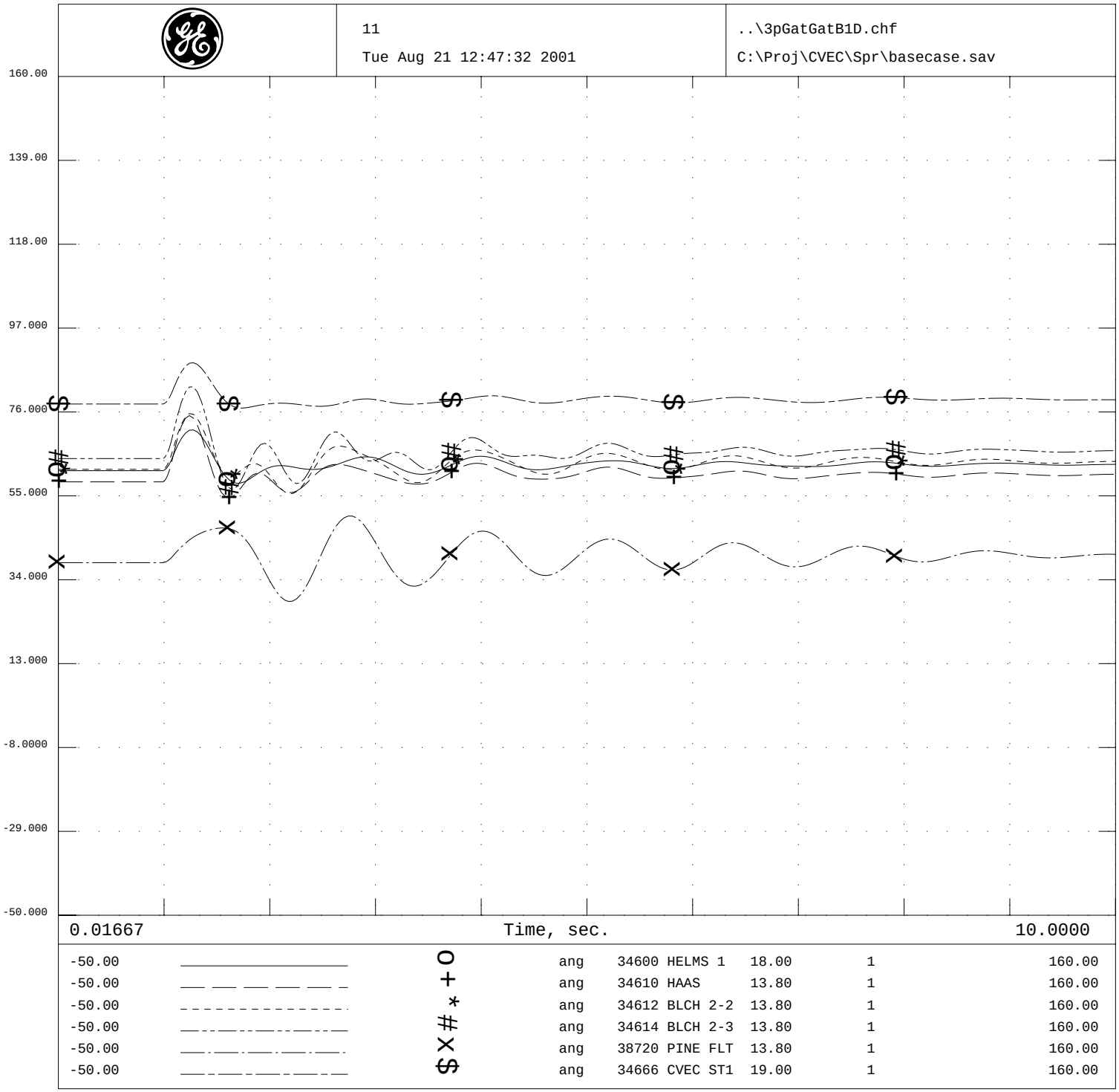
Calpine Corporation
Project Generator Terminal Power



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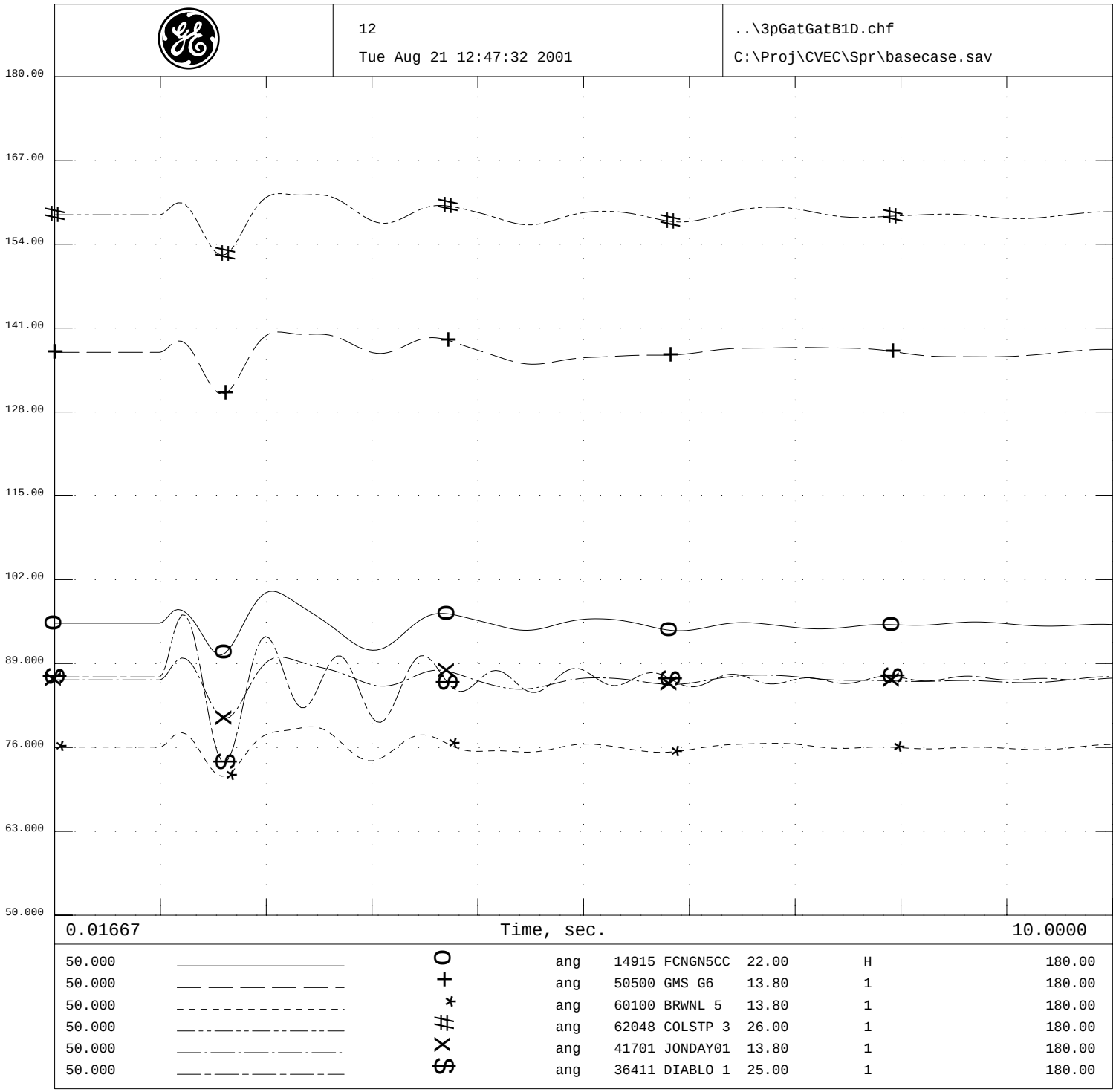
Selected Local Rotor Angle Plots



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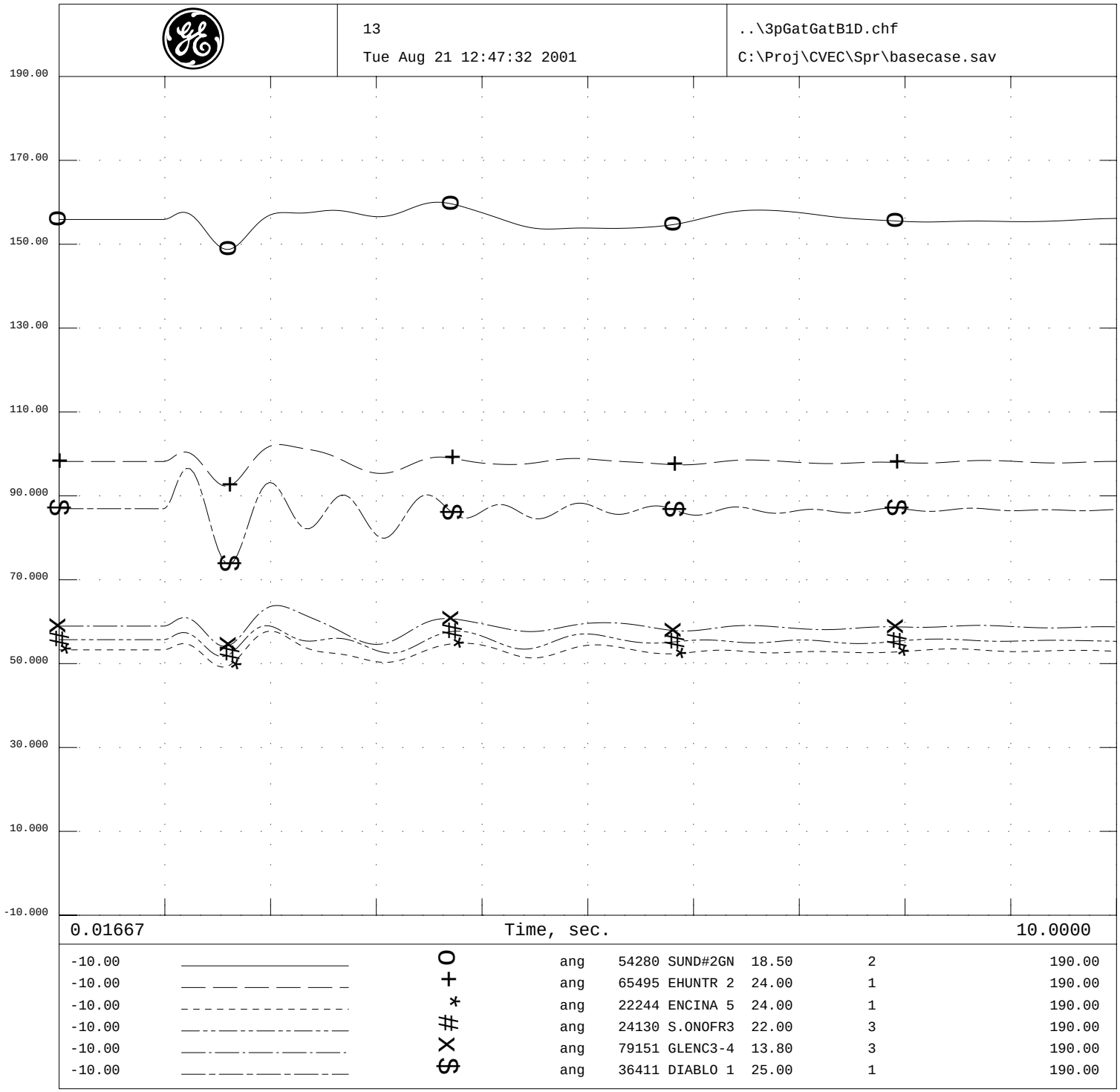
Selected WSCC Transmission Bus Angle Plots



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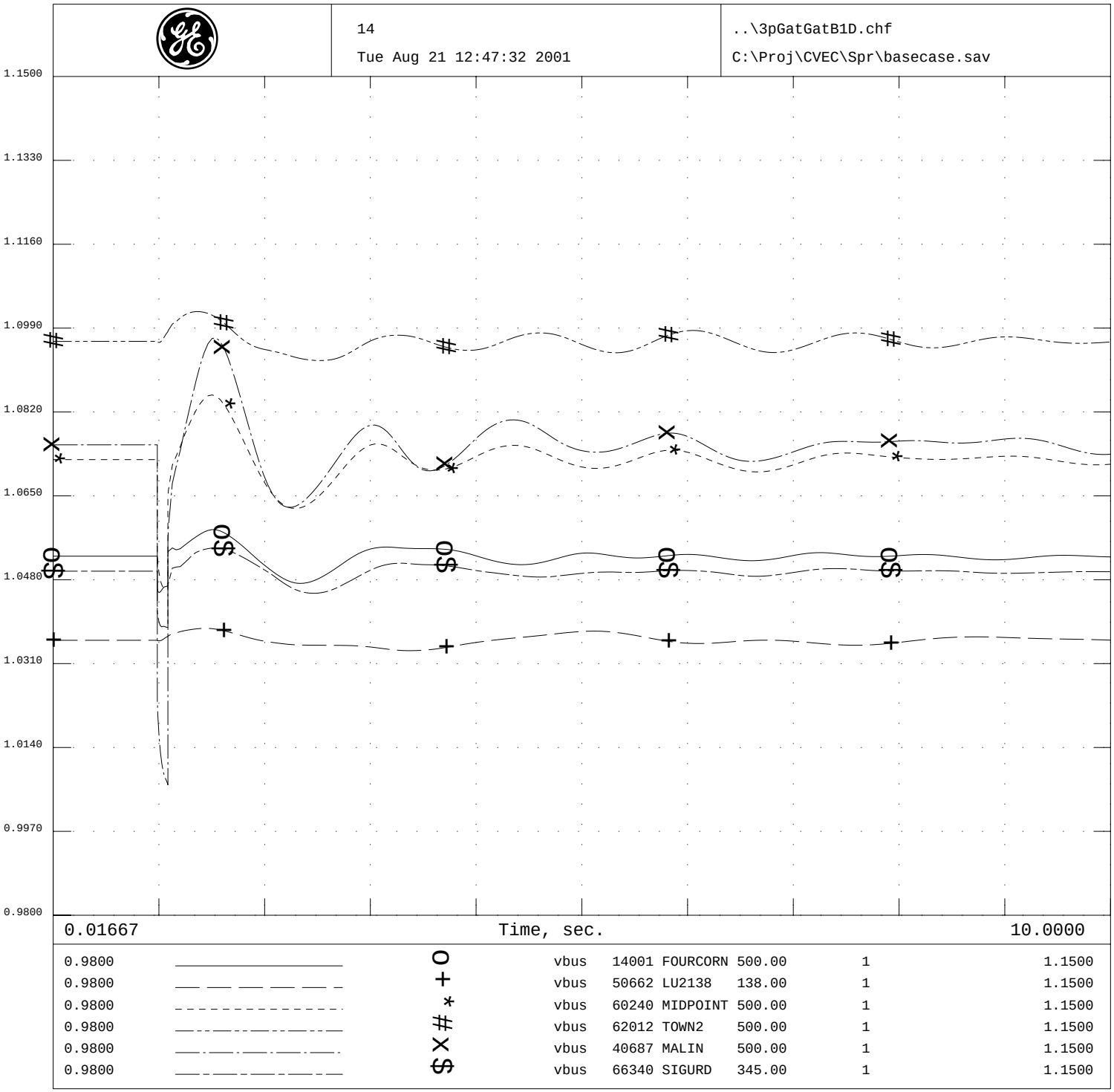

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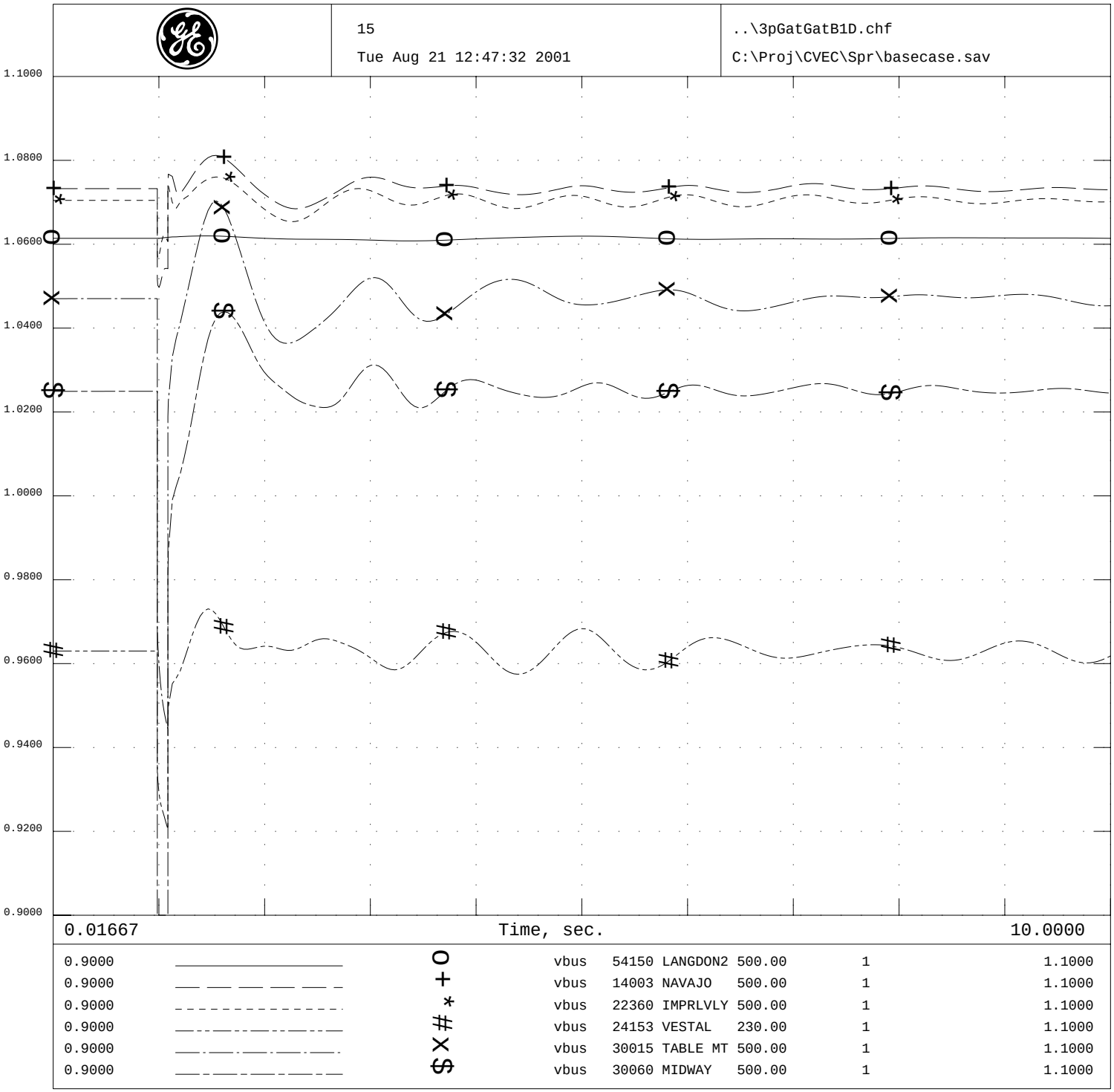

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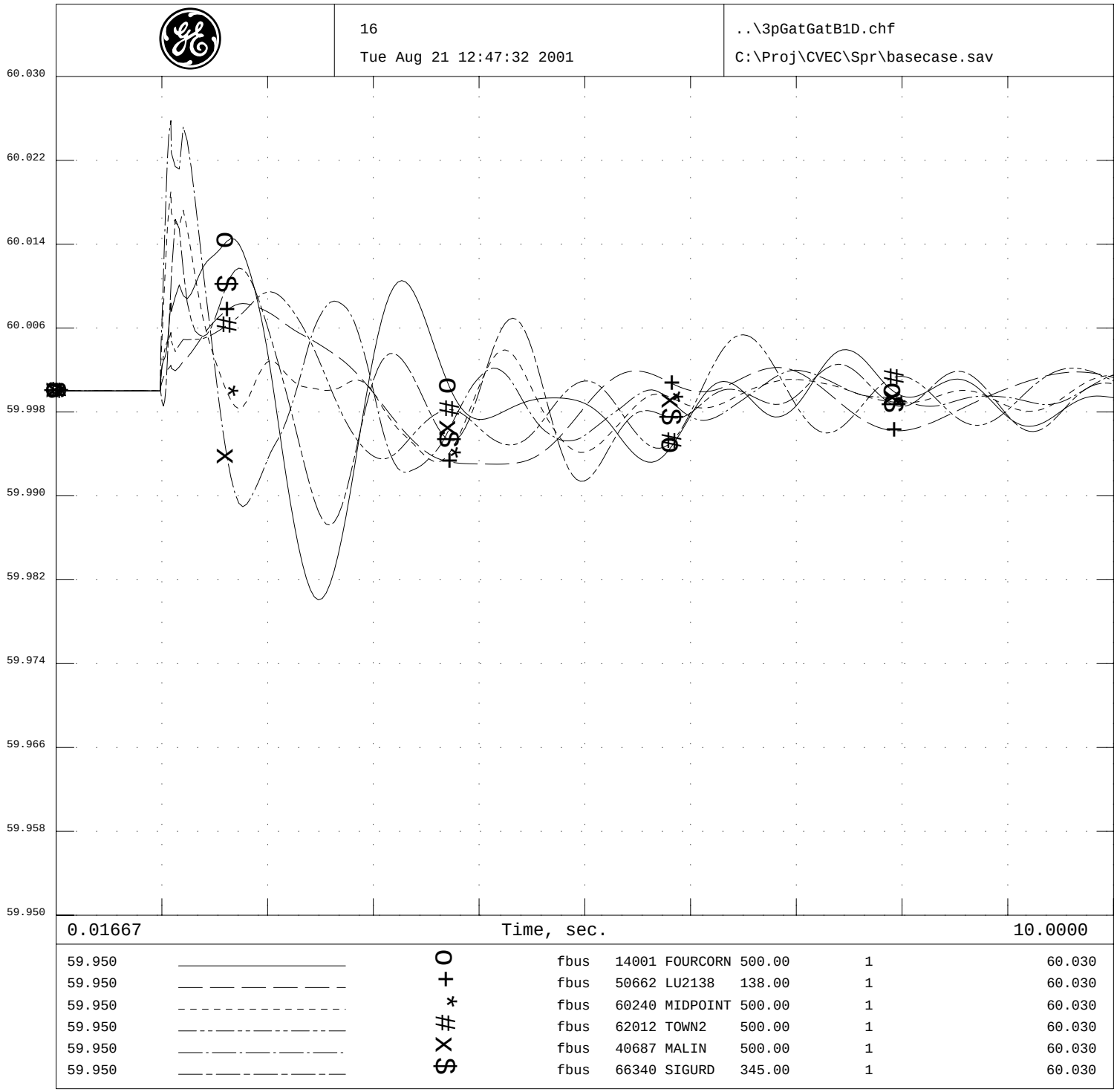

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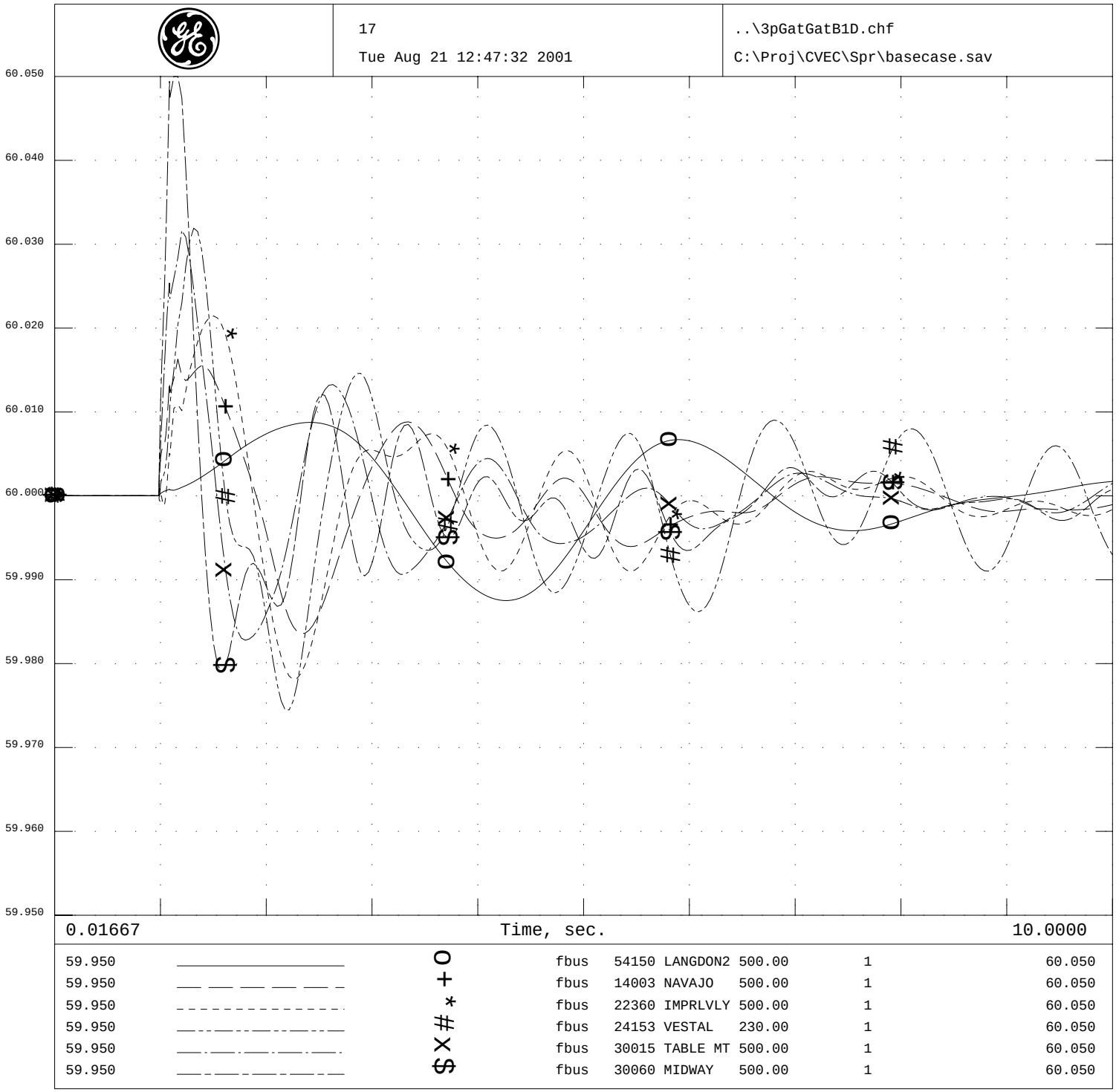

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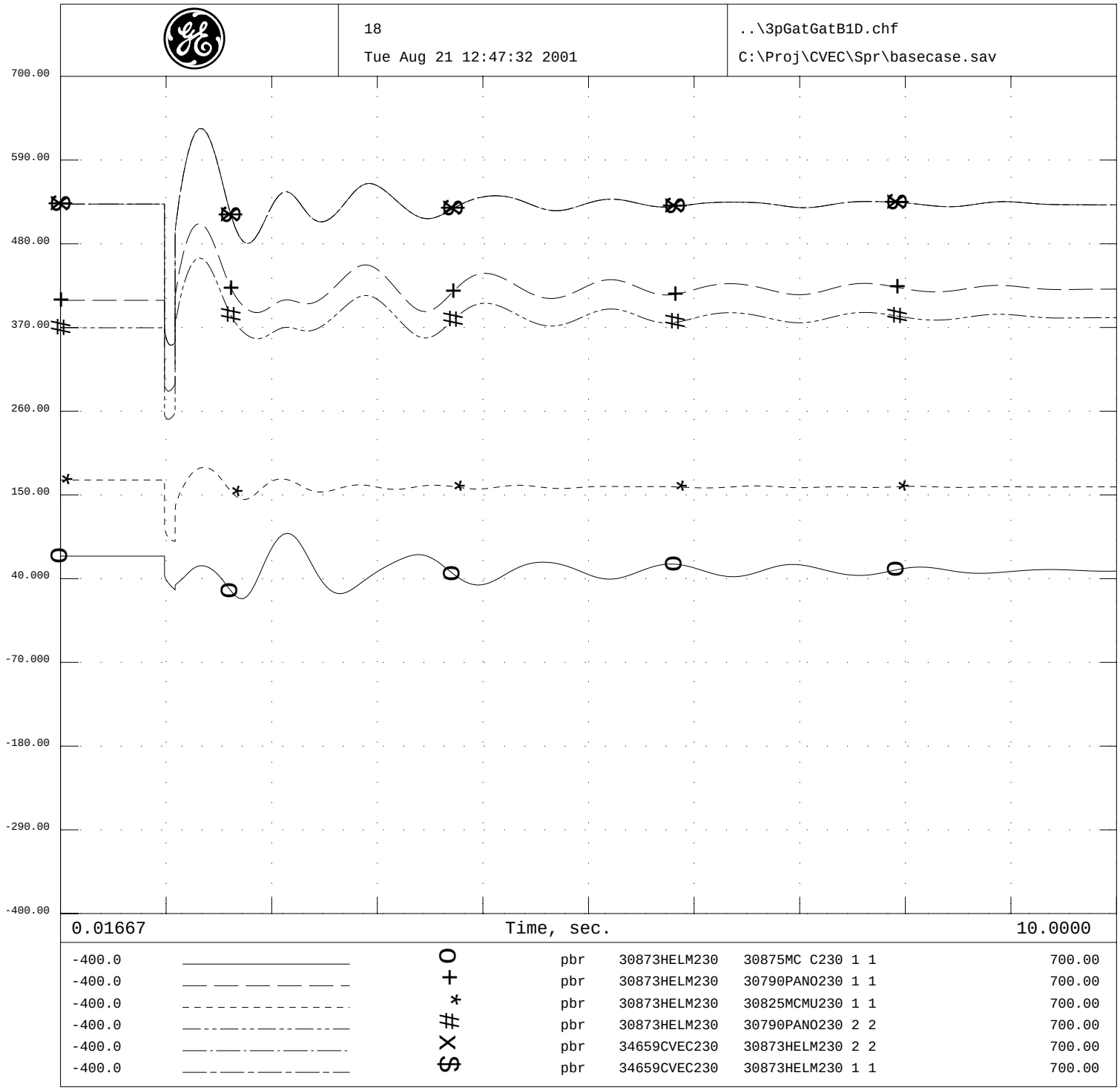

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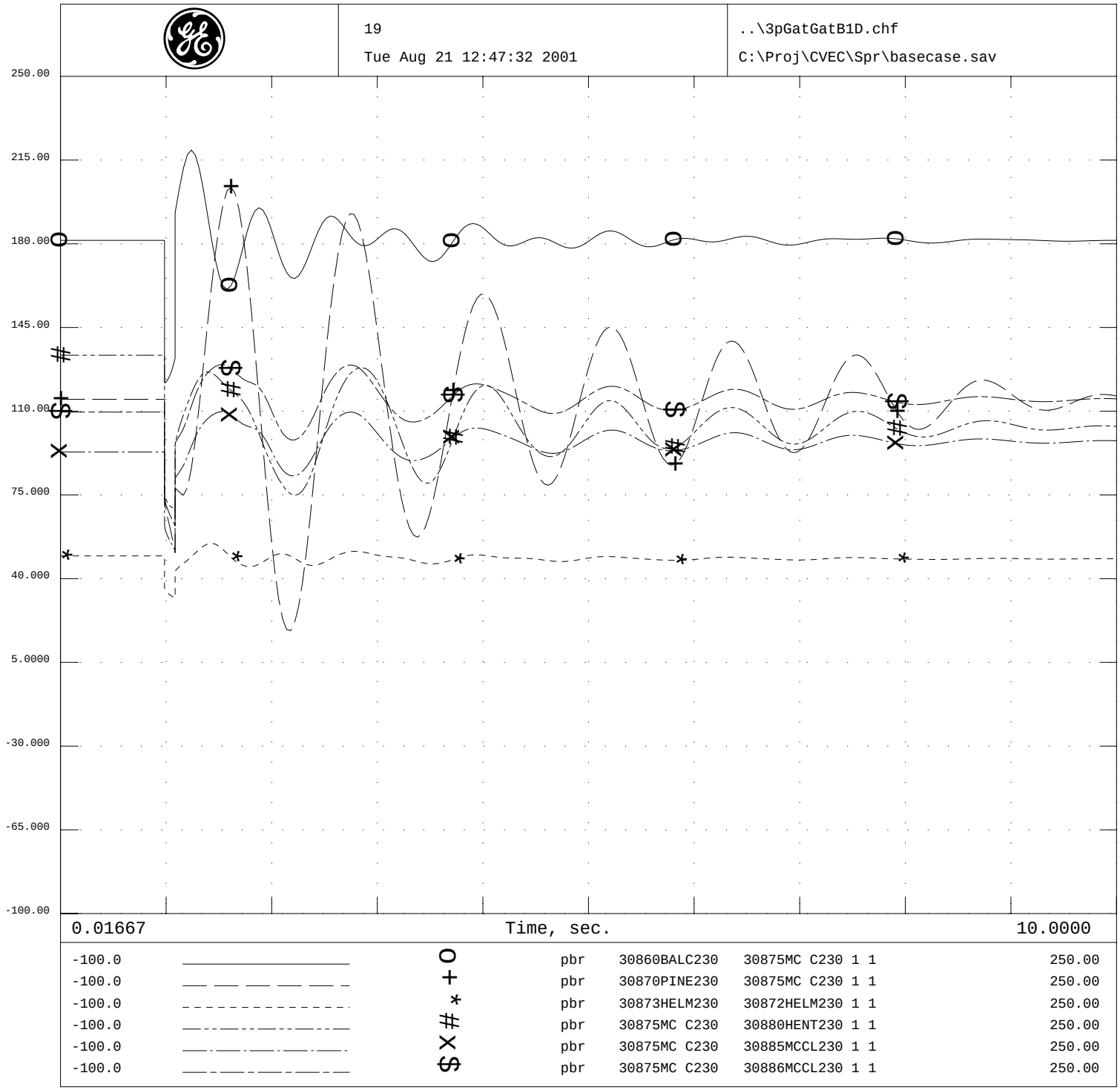

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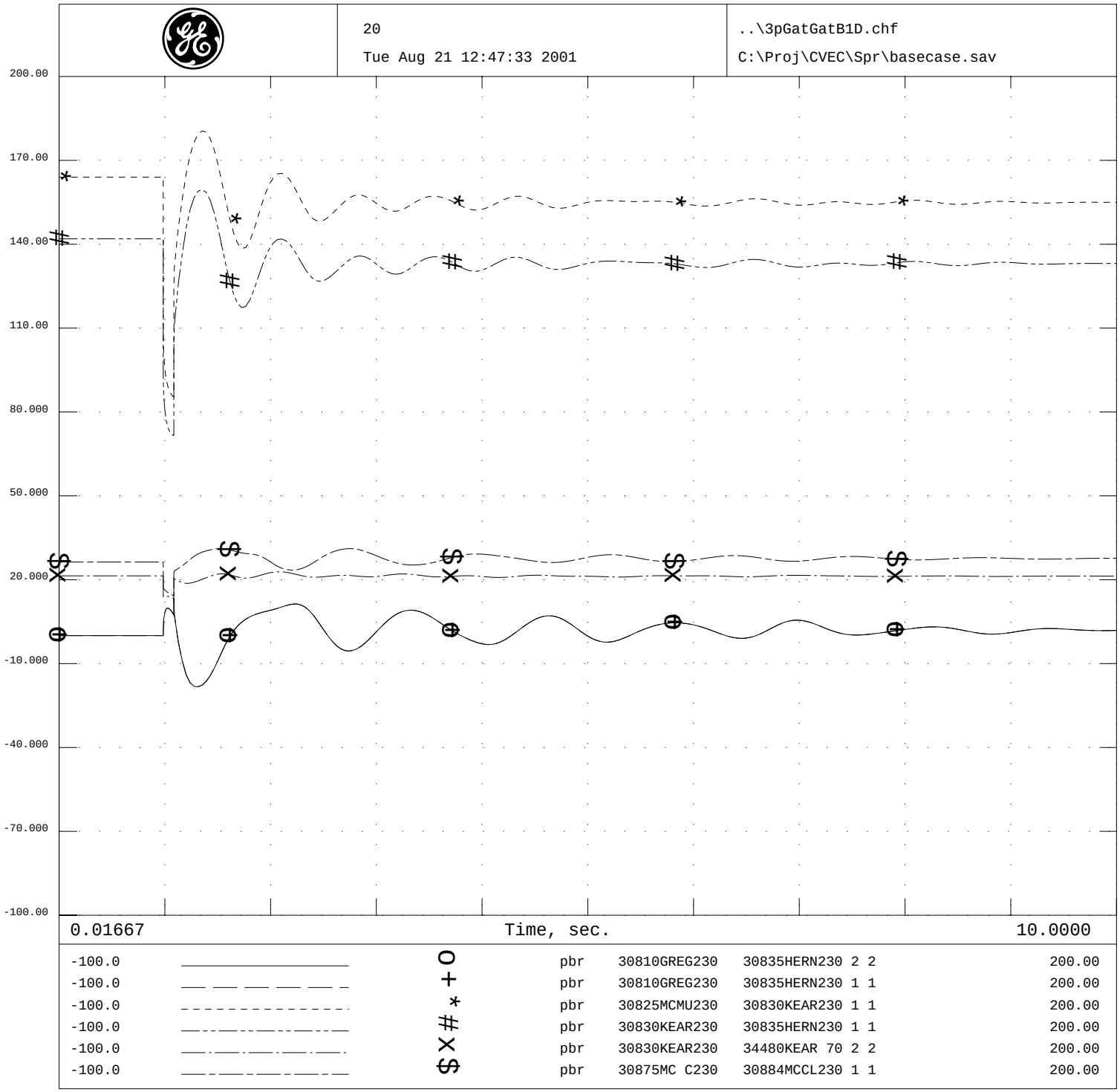

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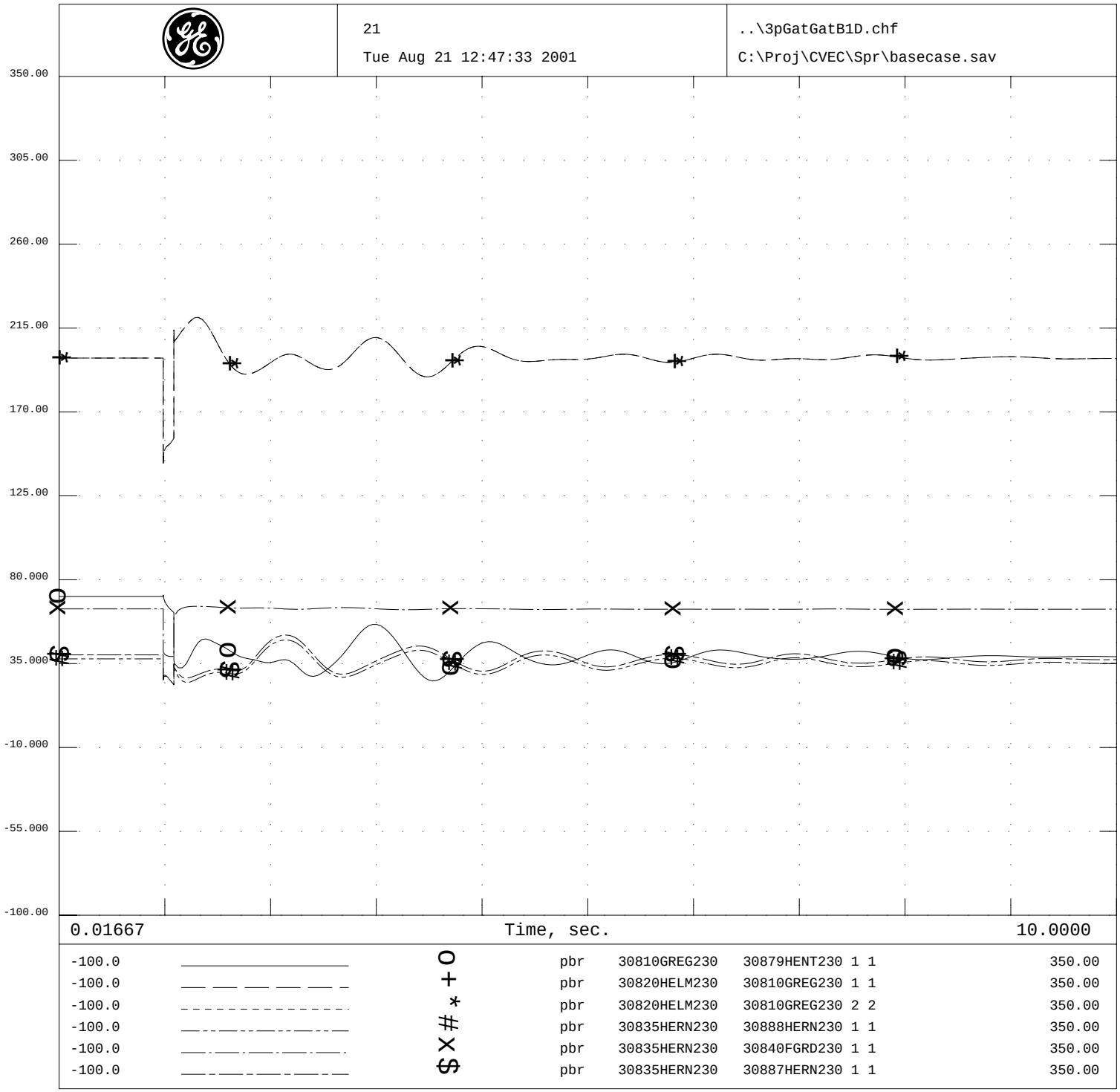

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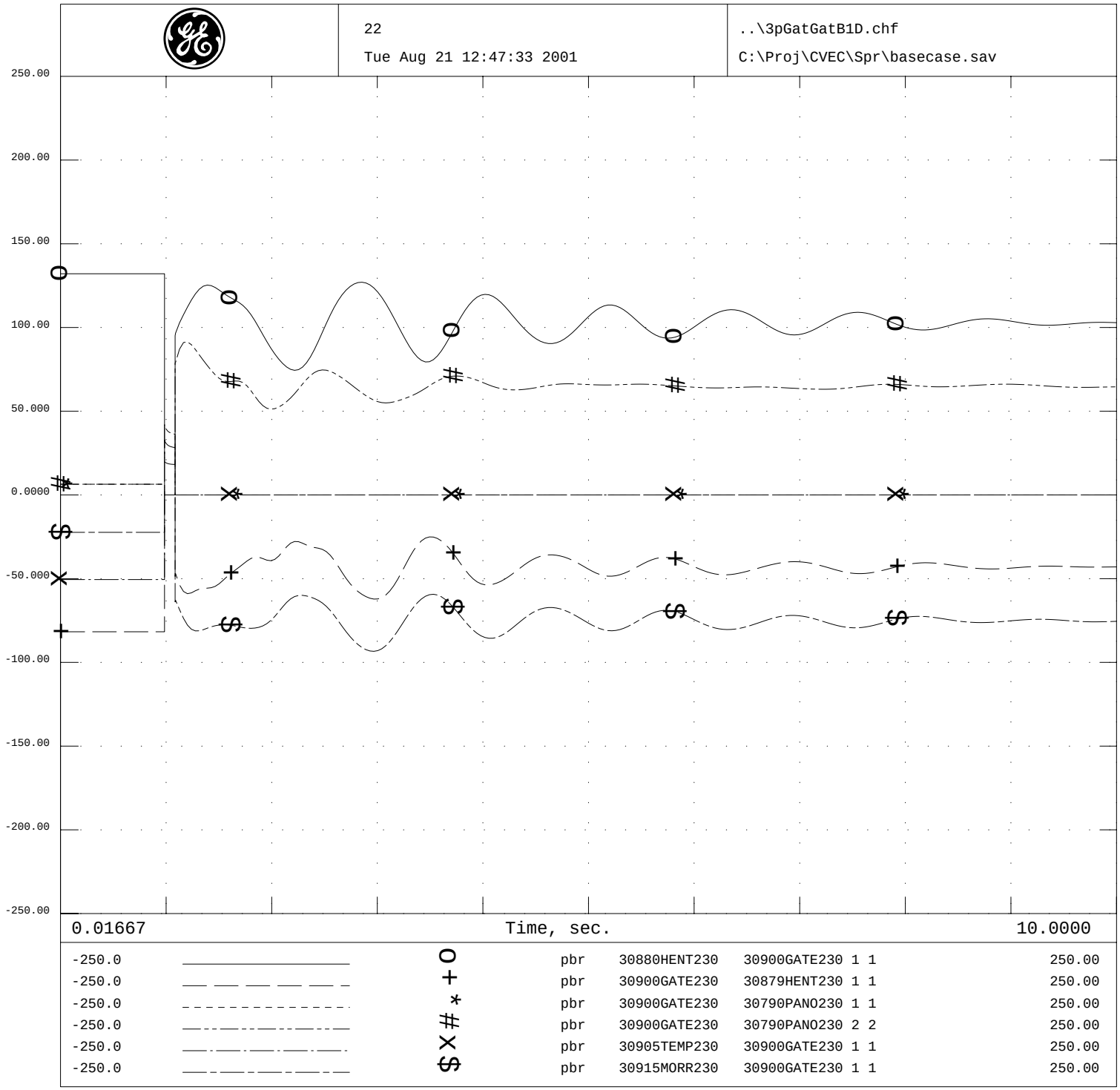

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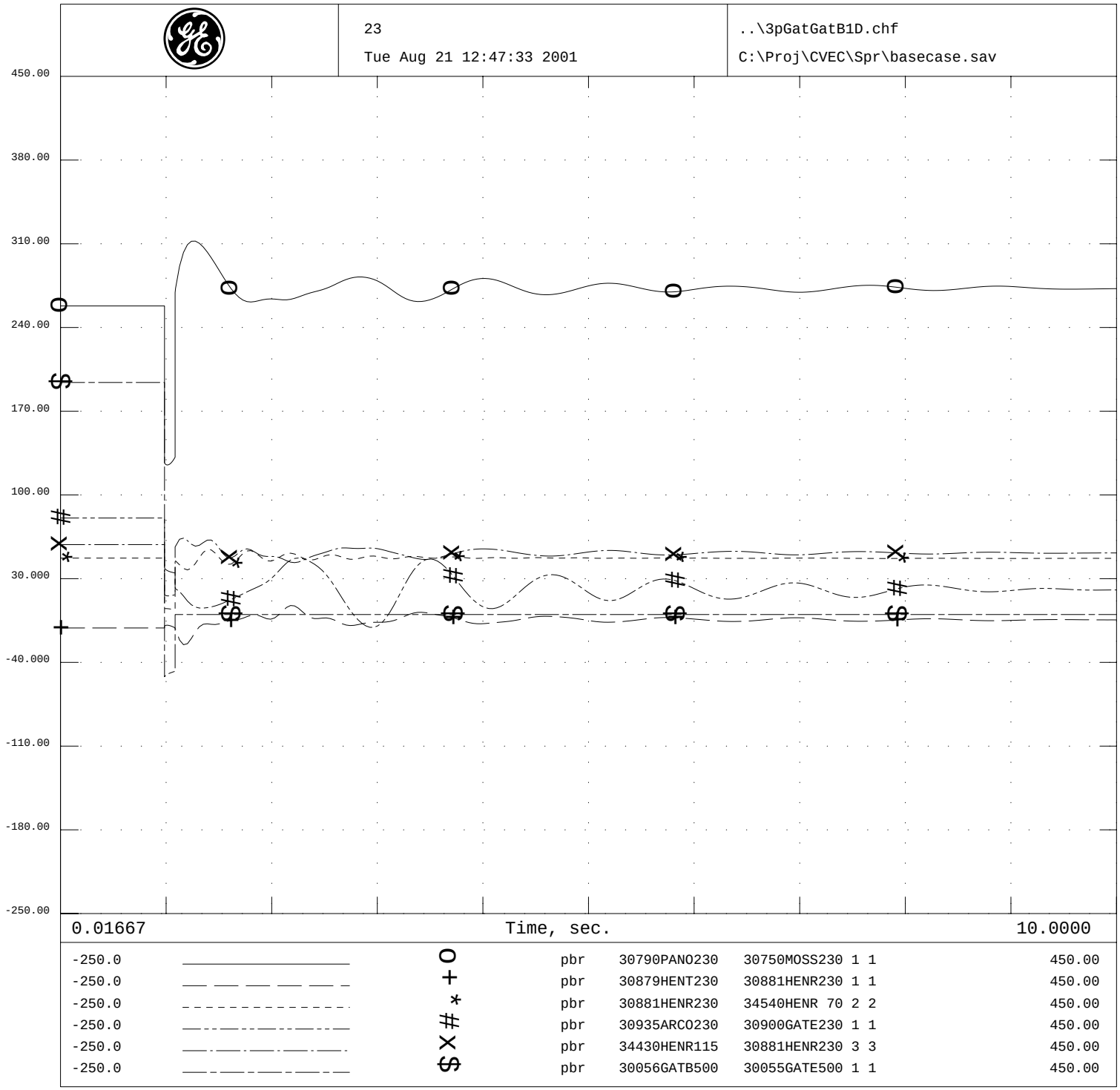

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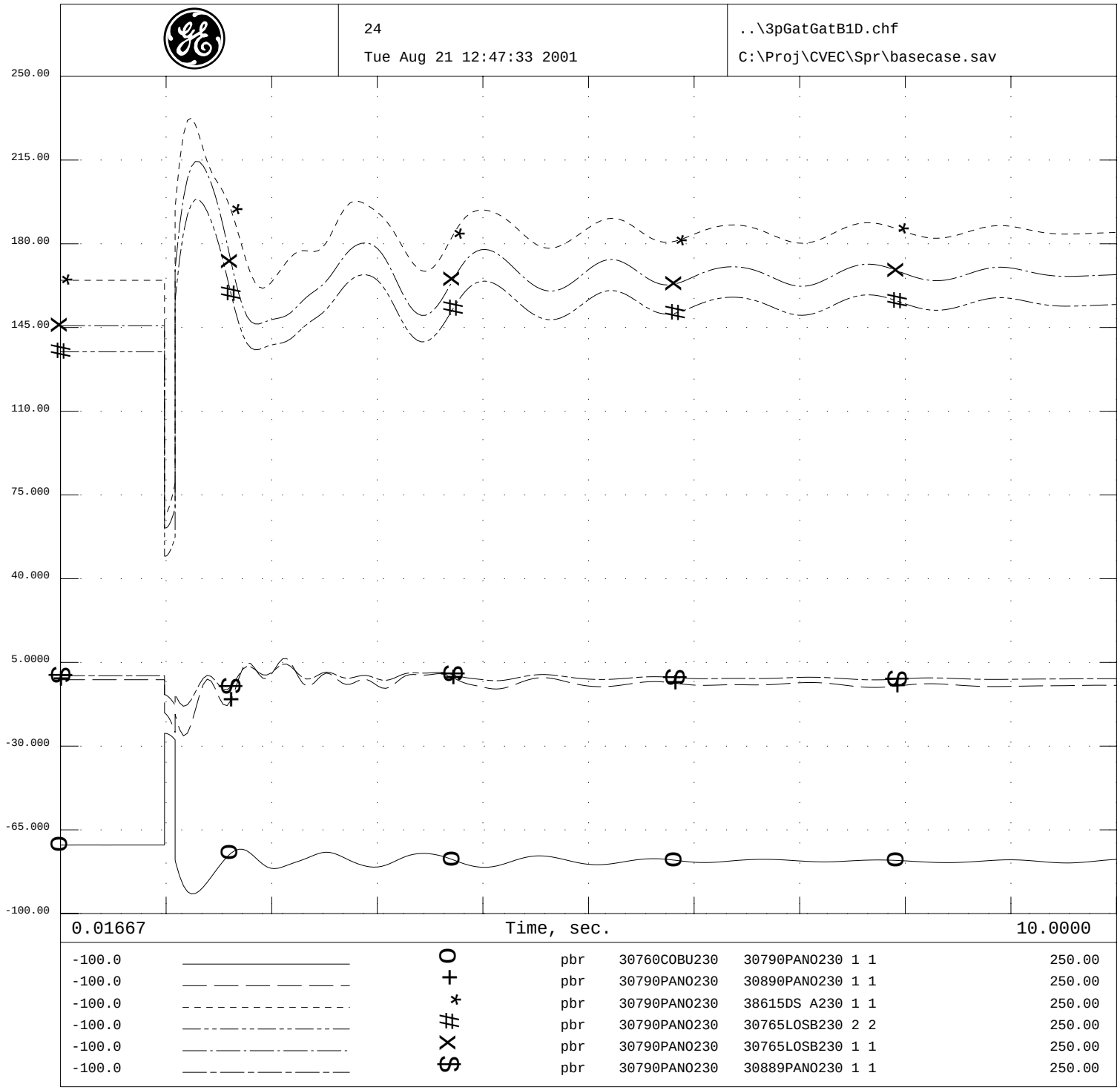

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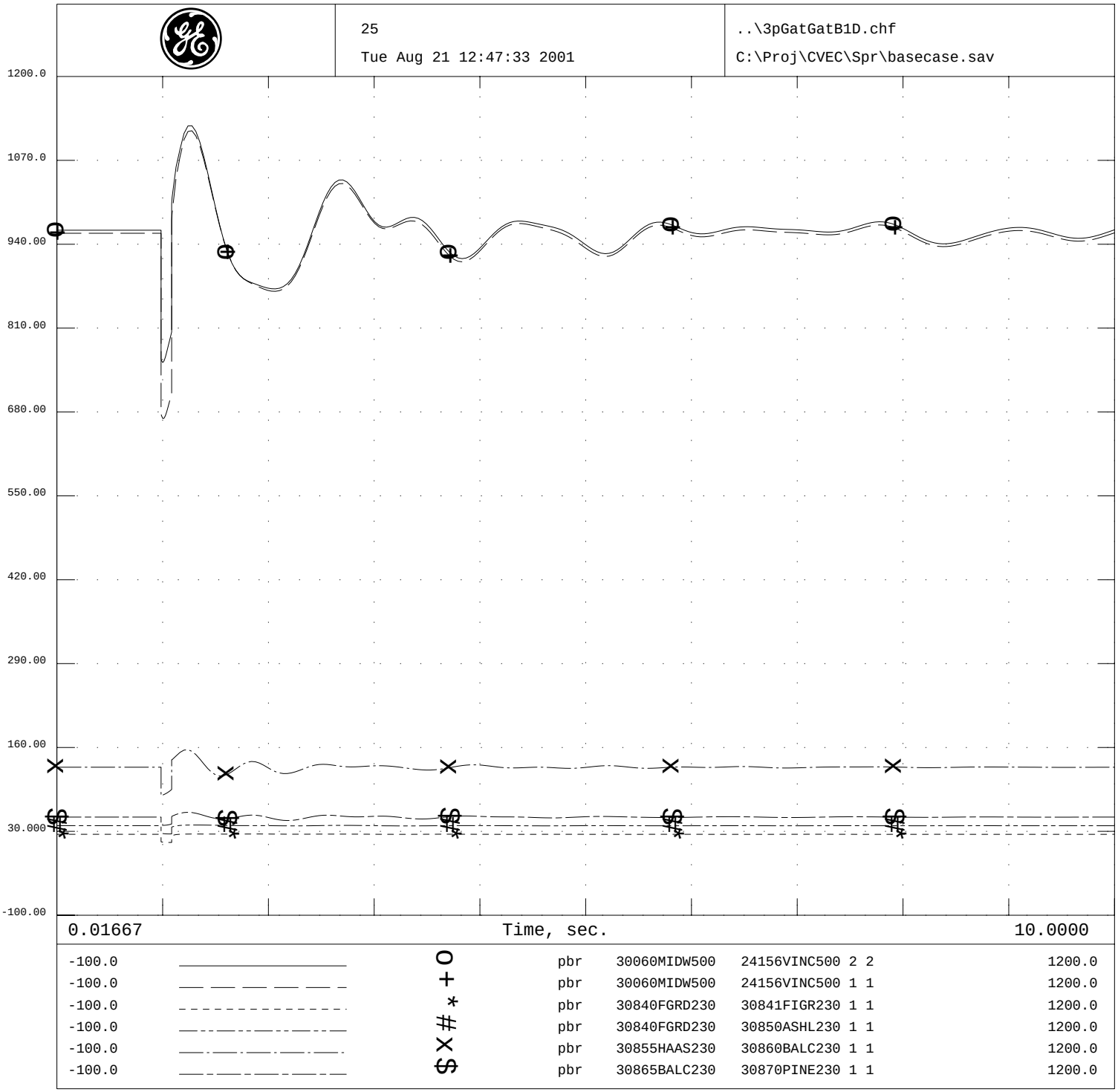

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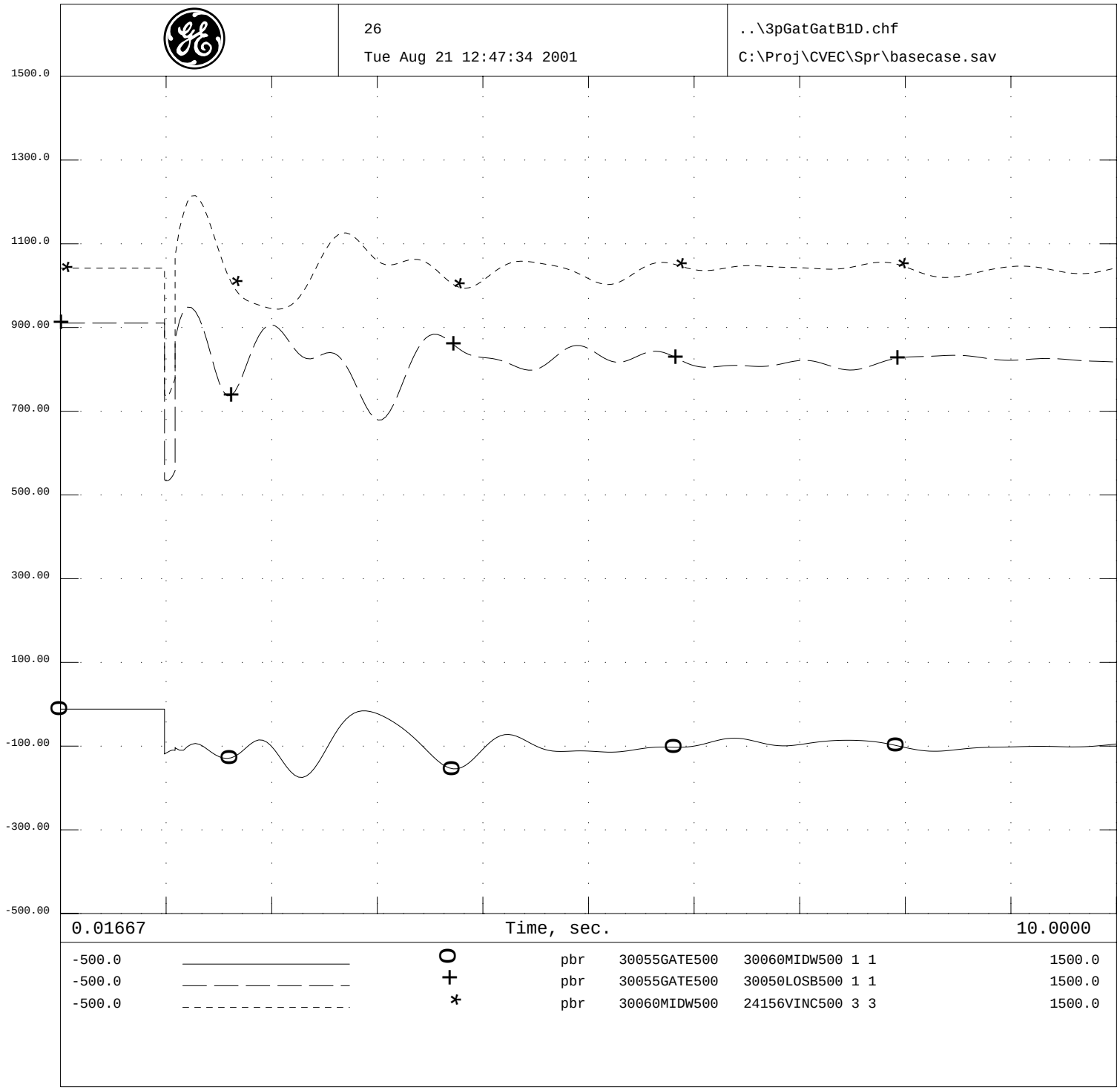

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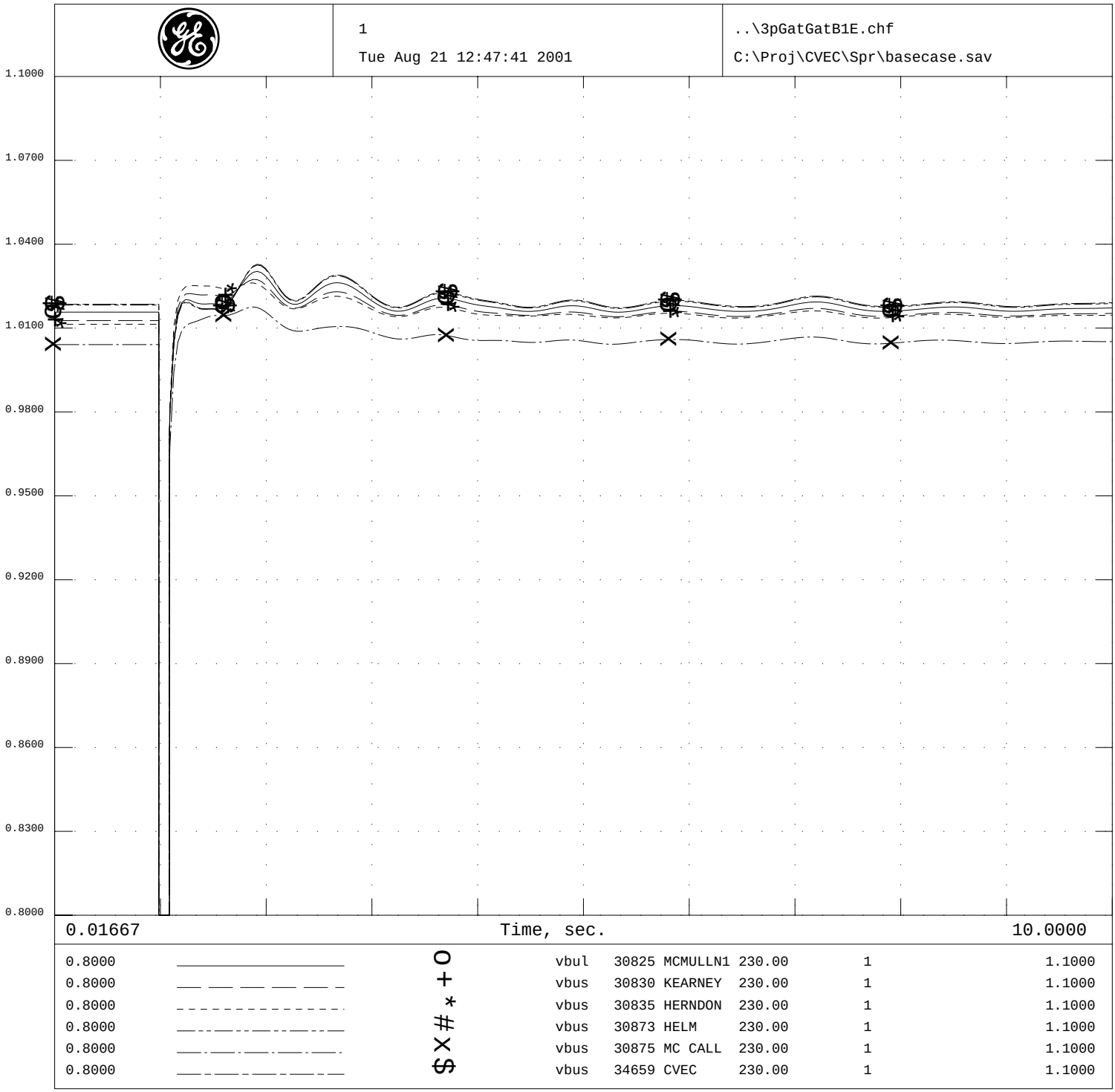

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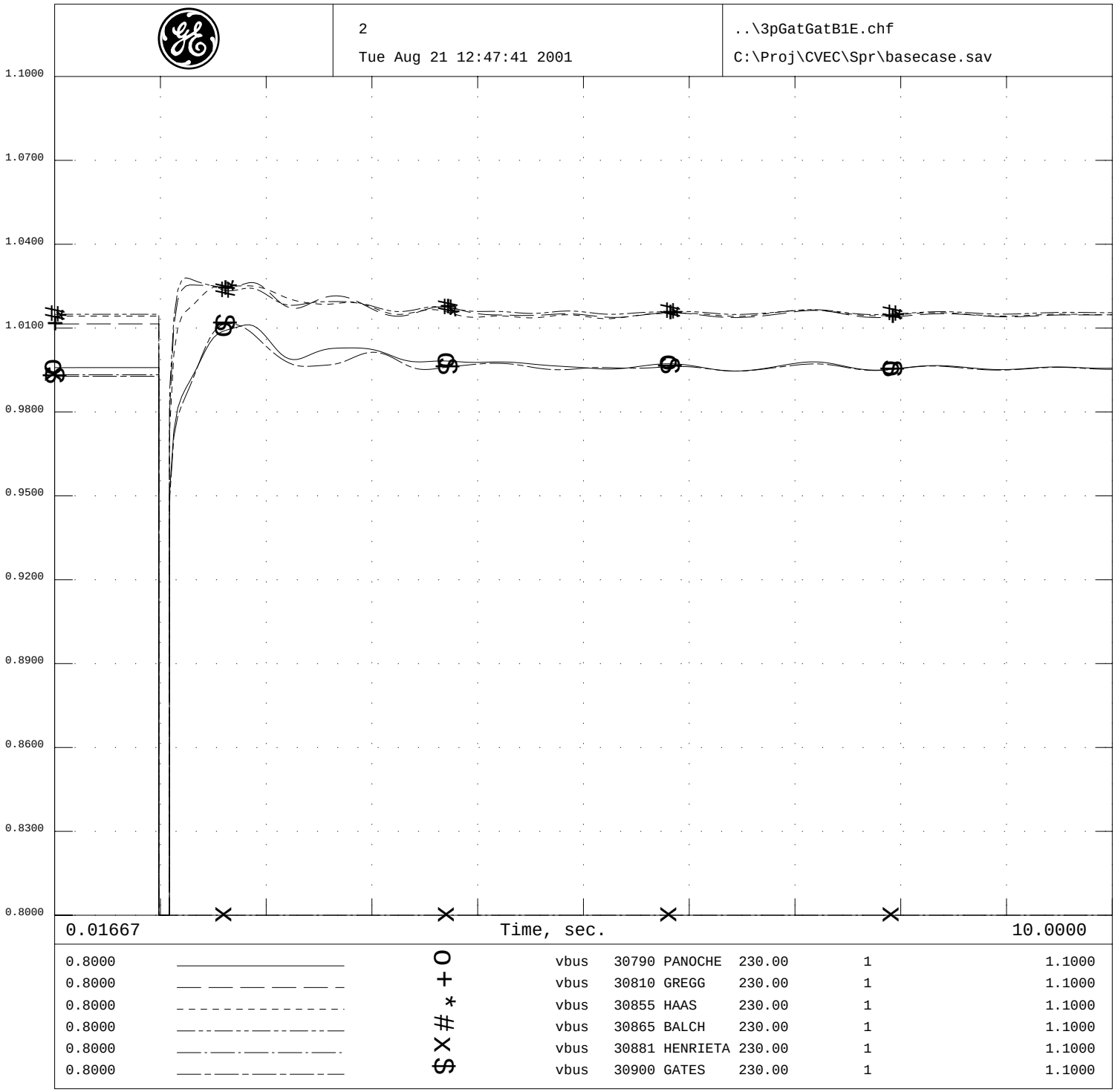

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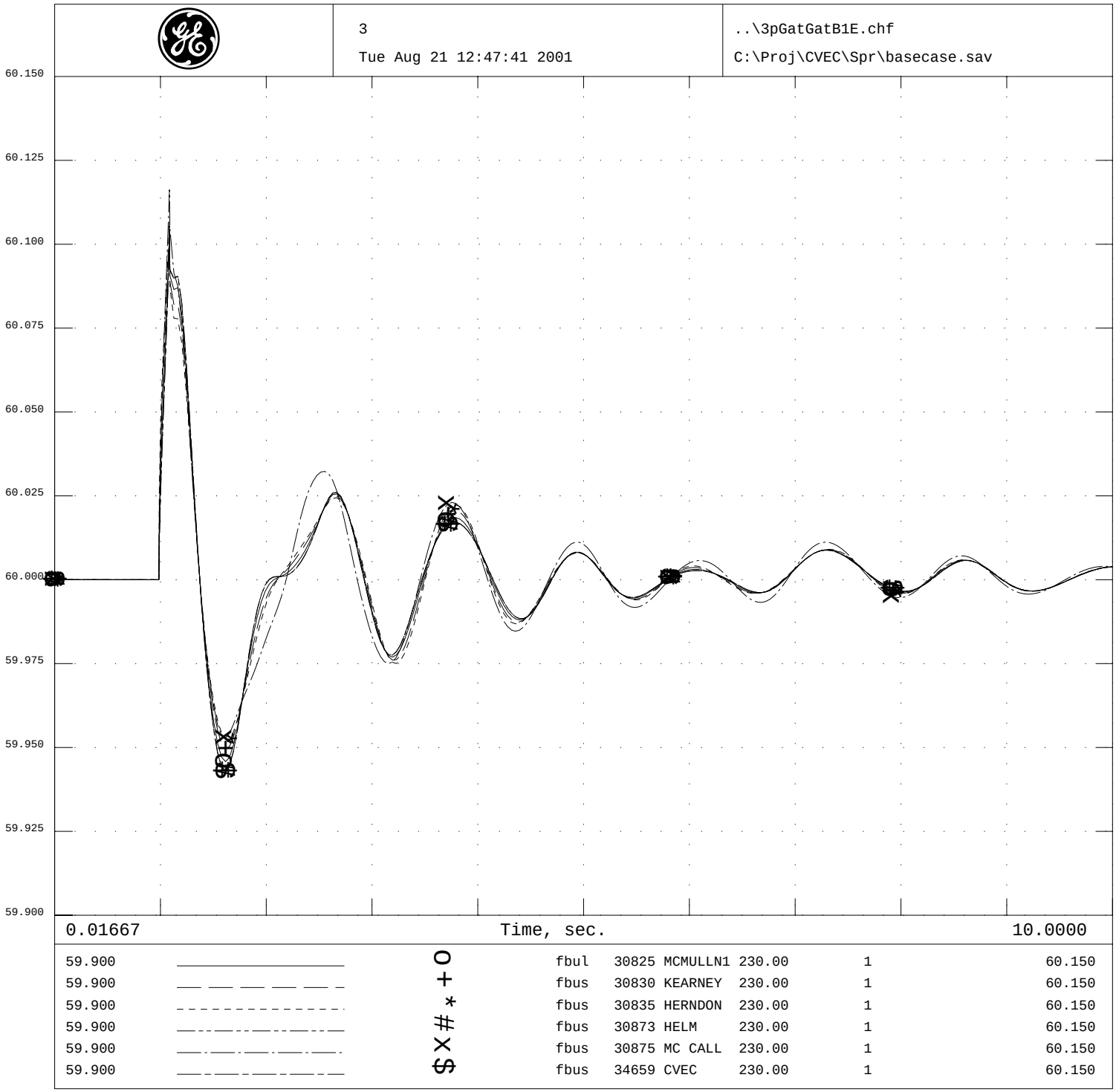

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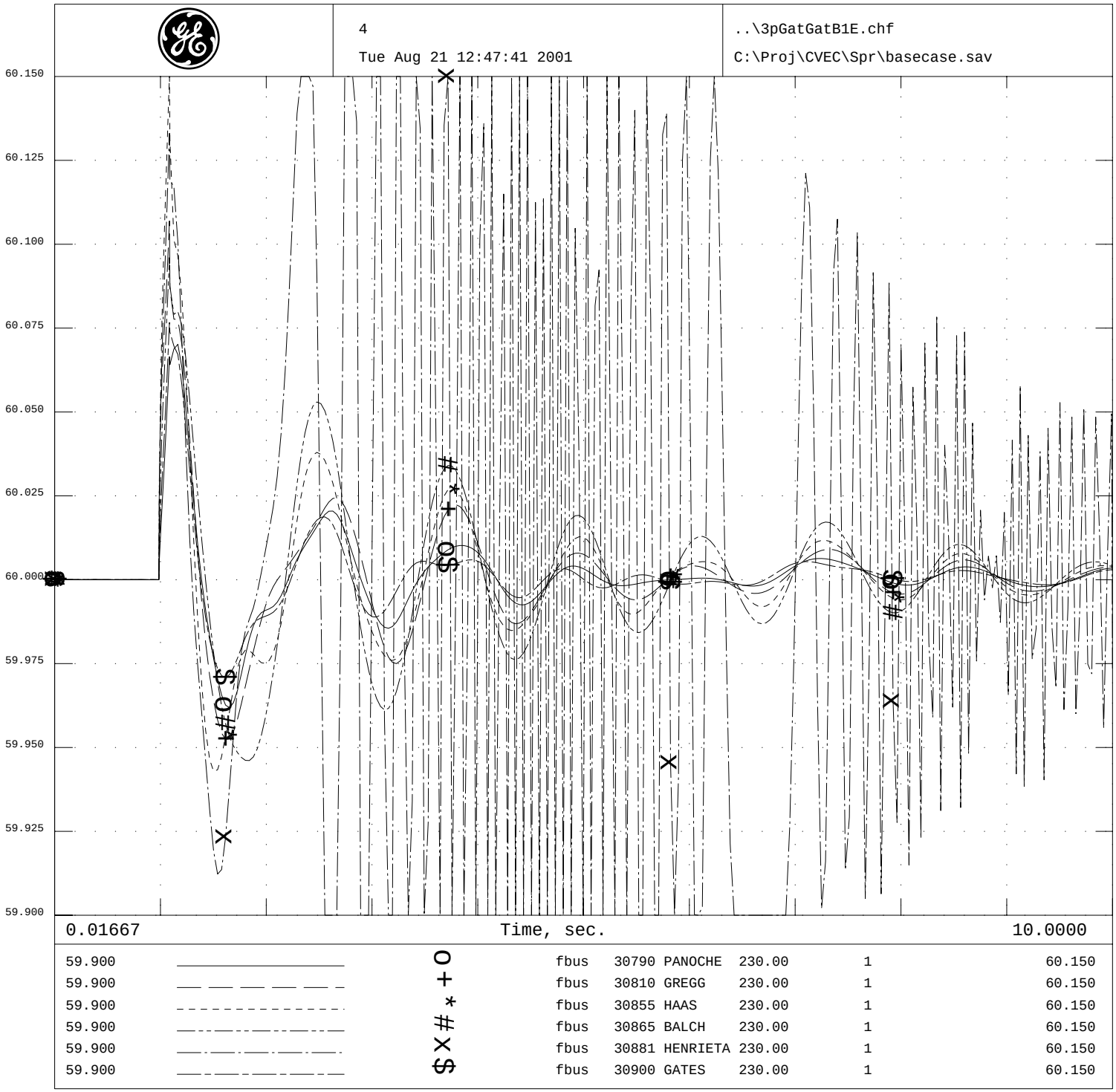

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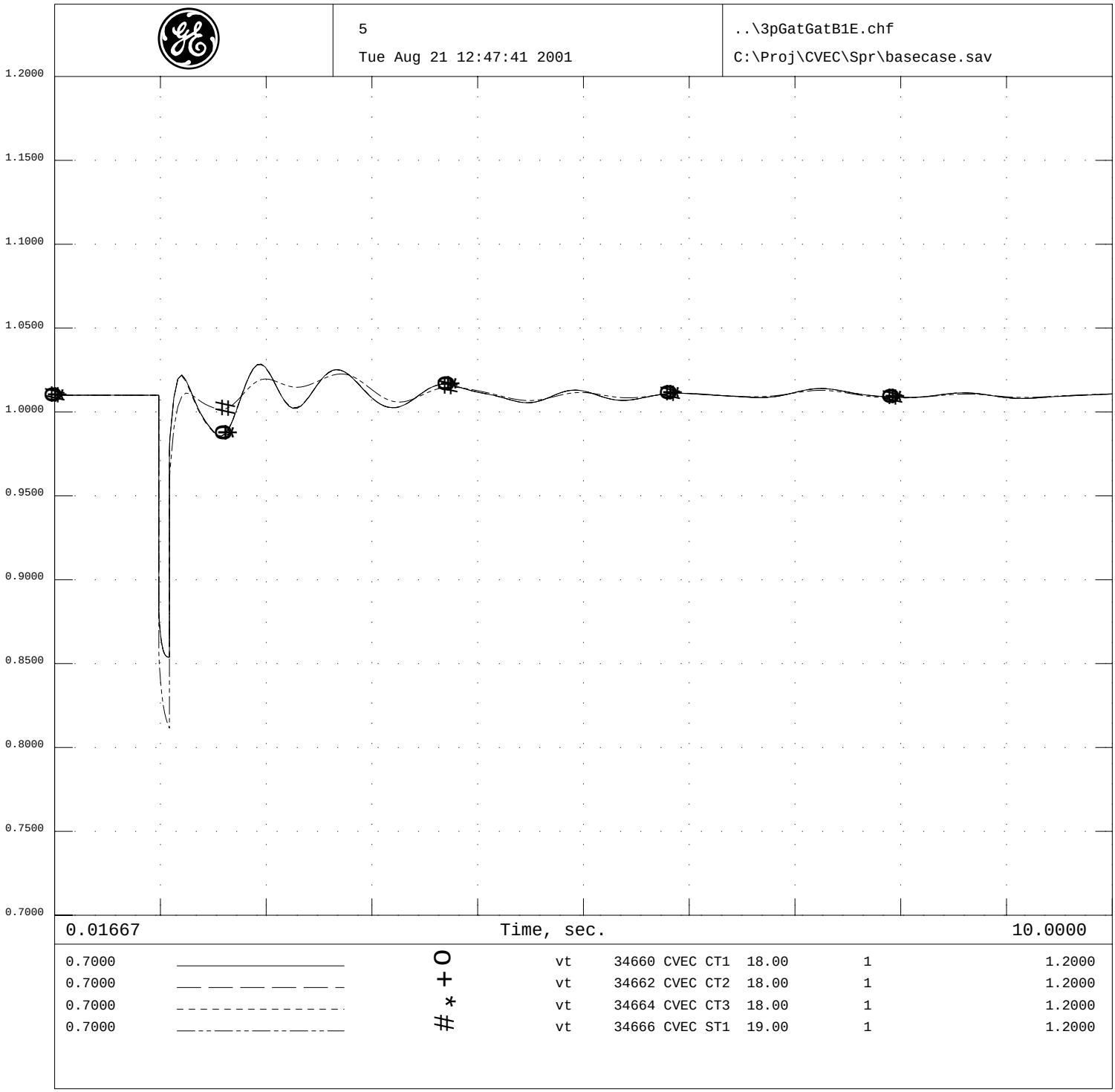

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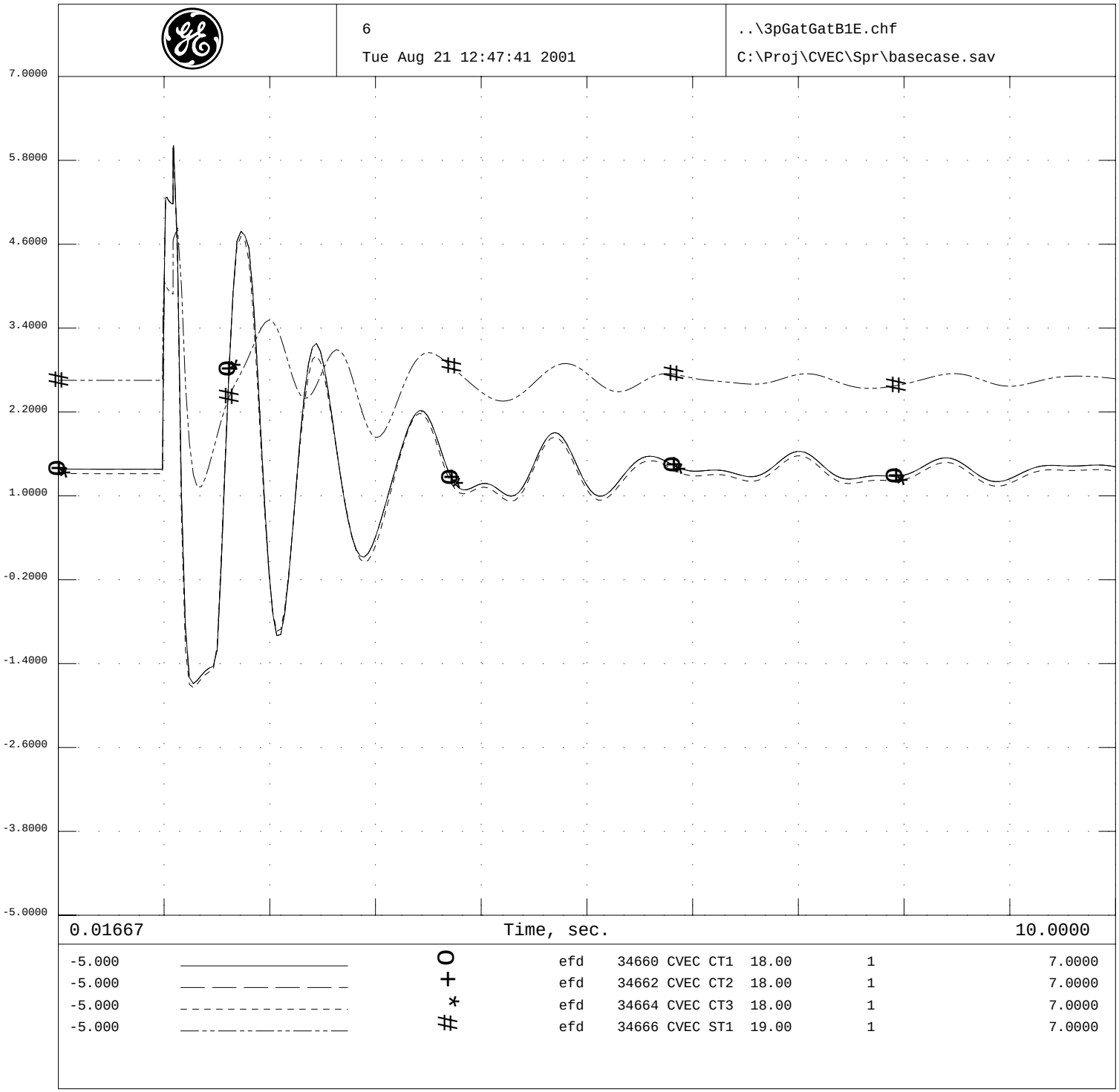

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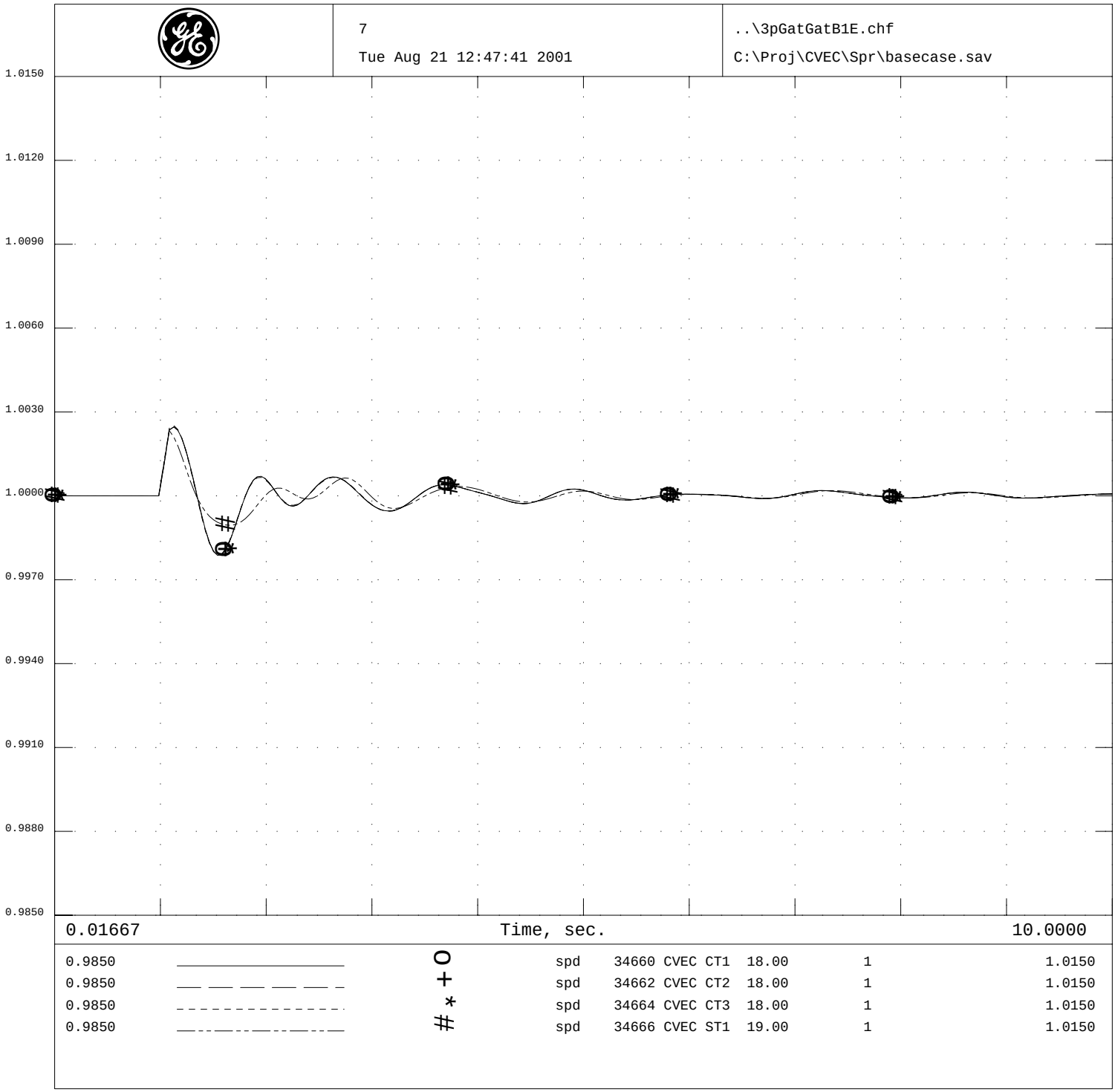

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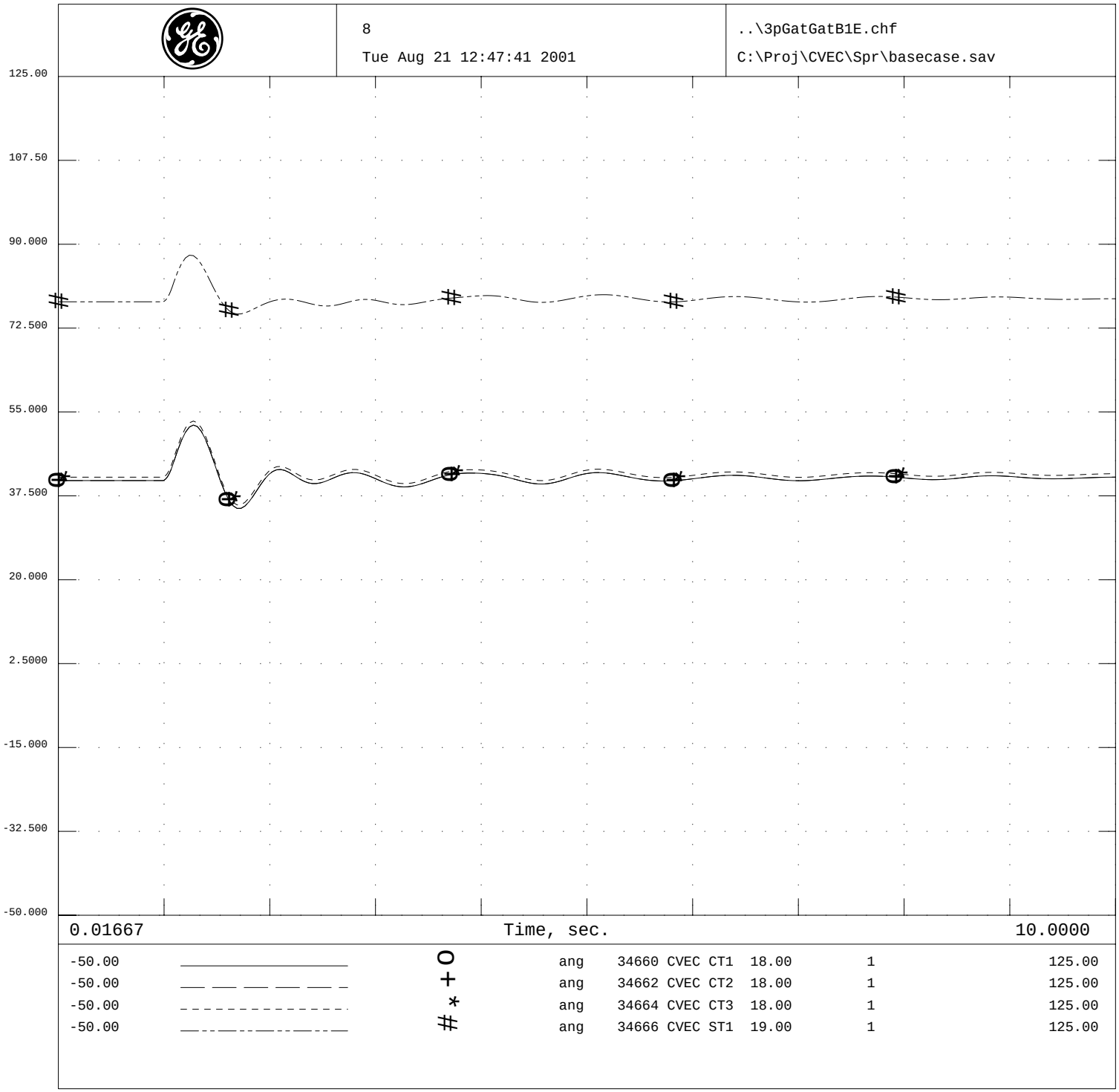
Project Generator Rotor Speed



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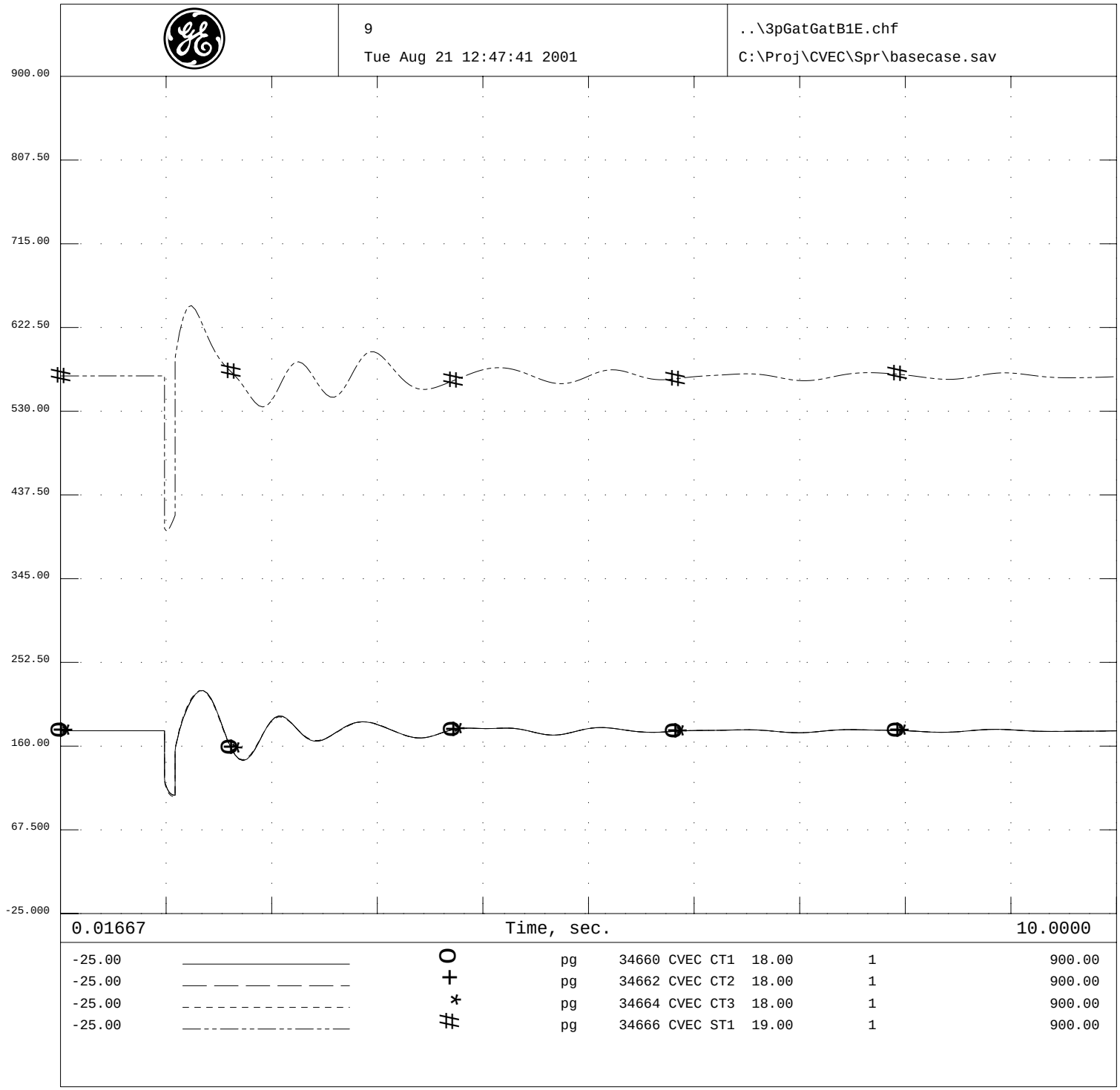

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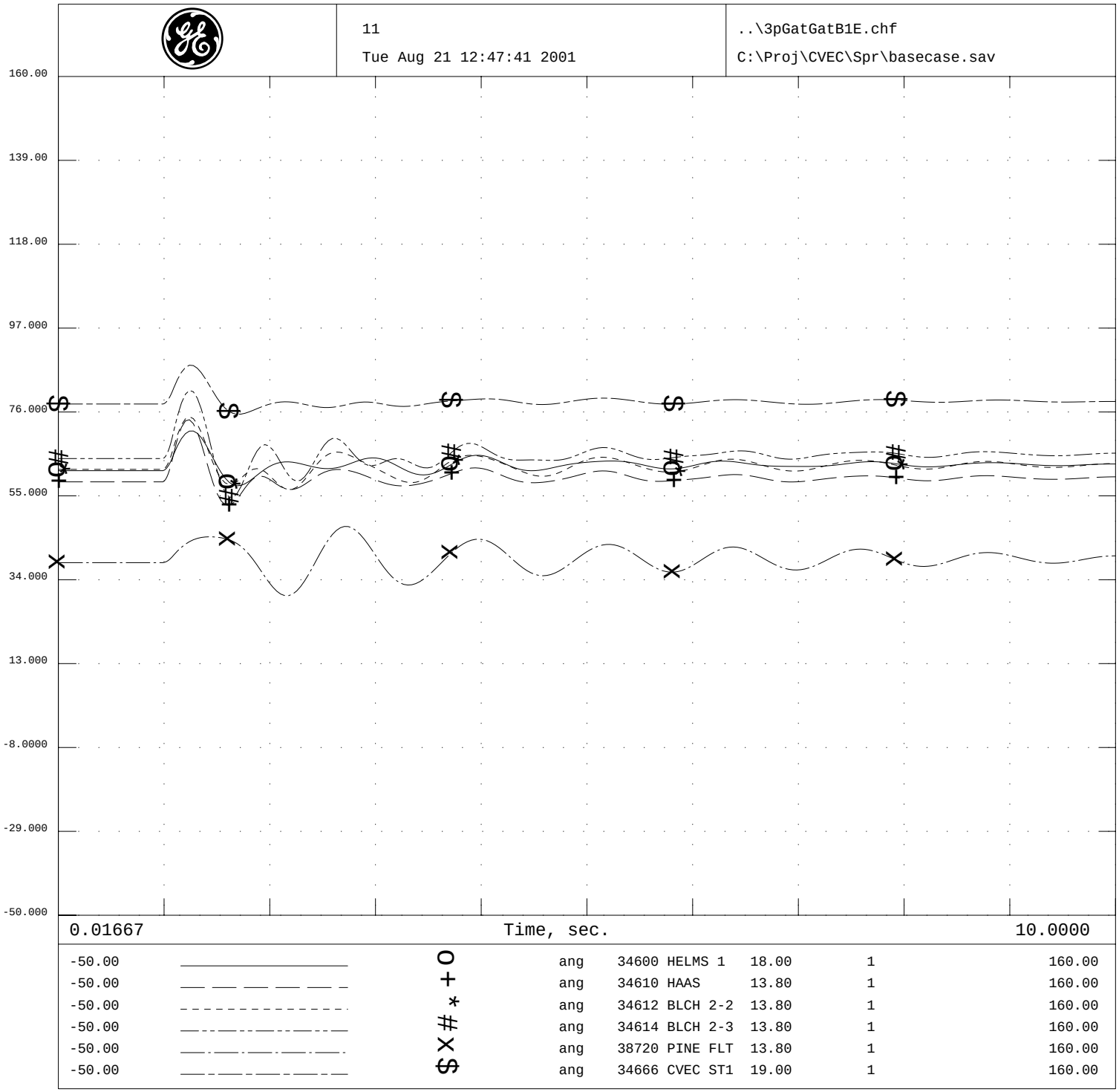

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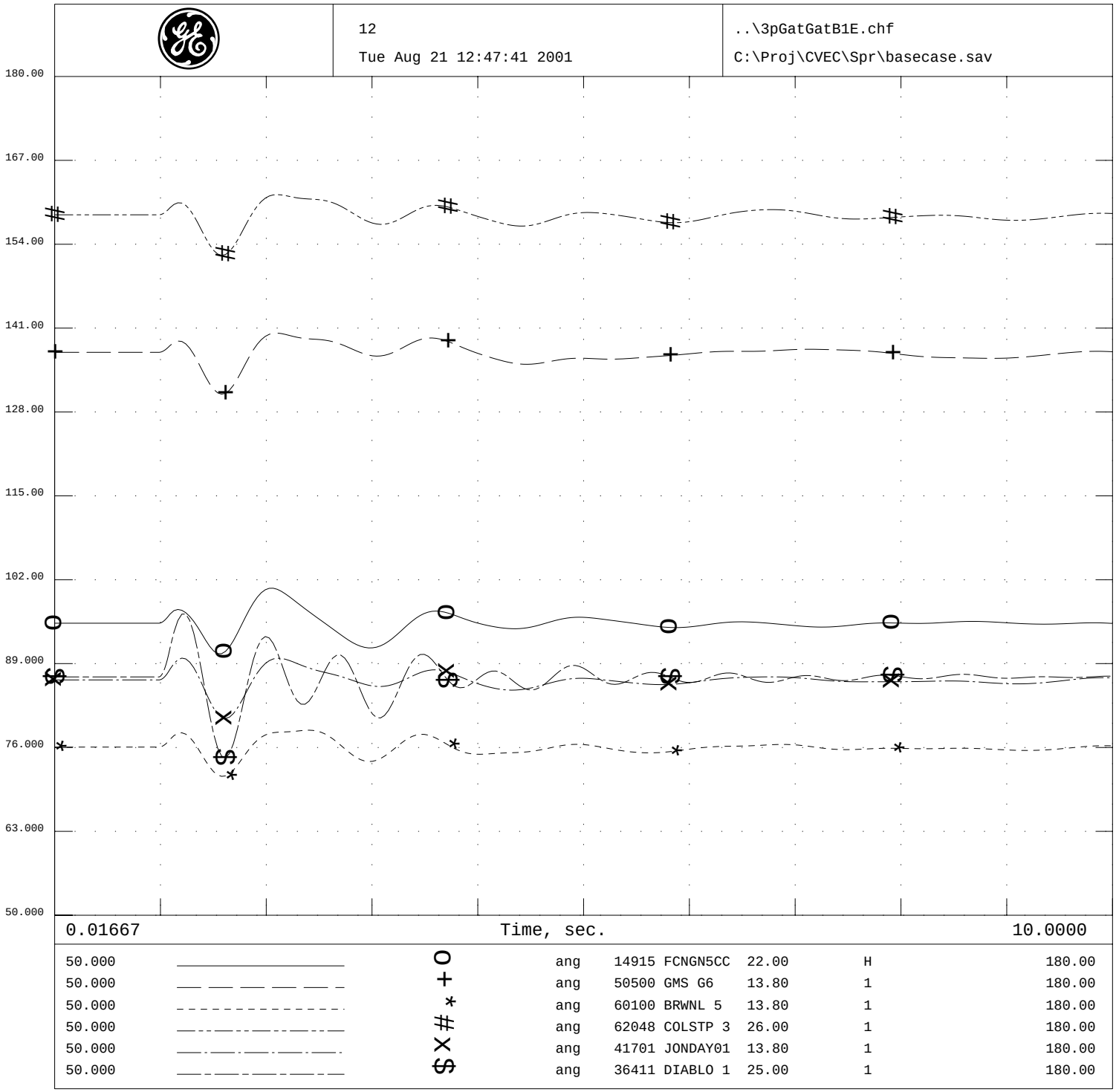

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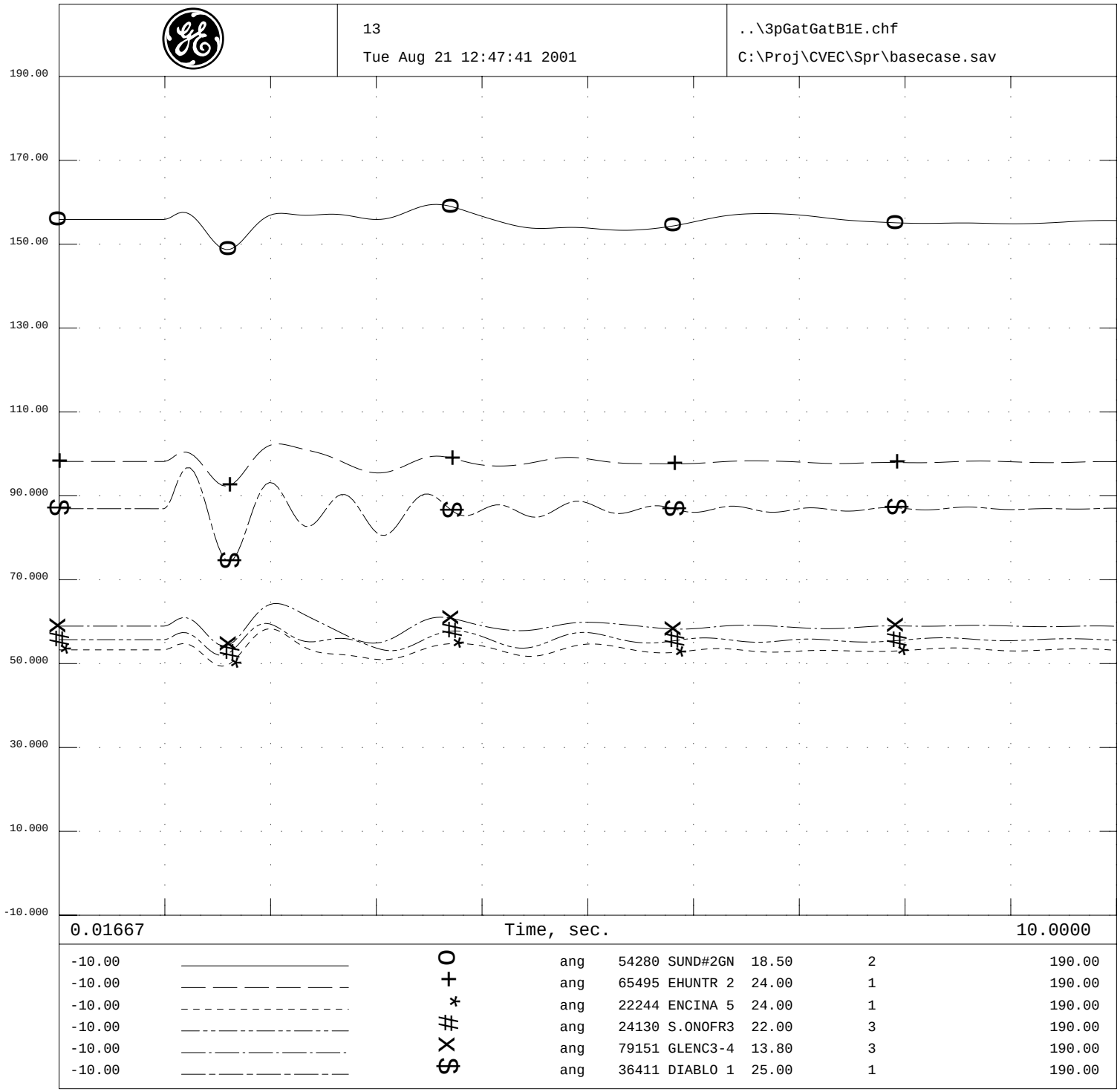

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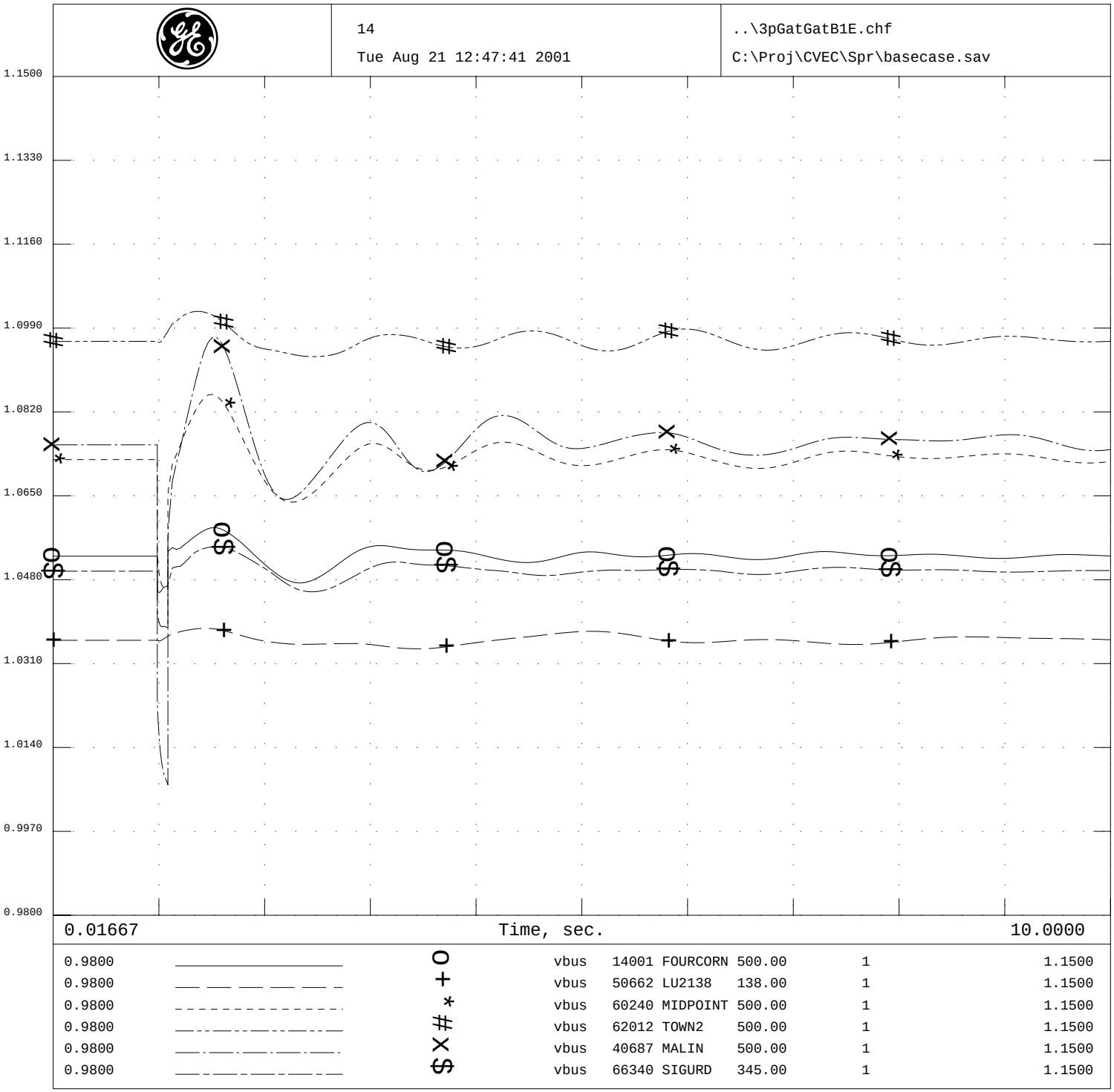
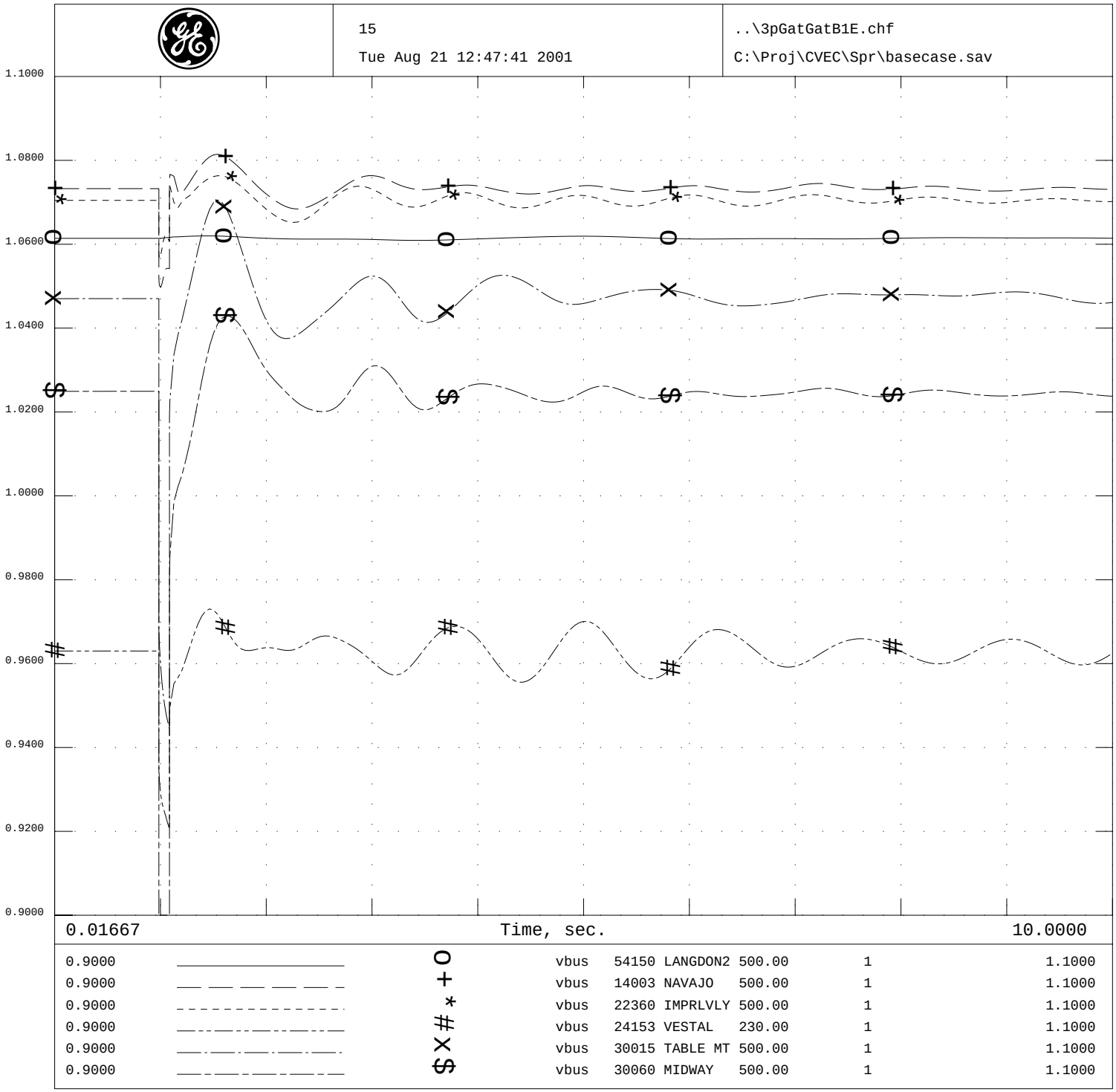


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 1E Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 1E

Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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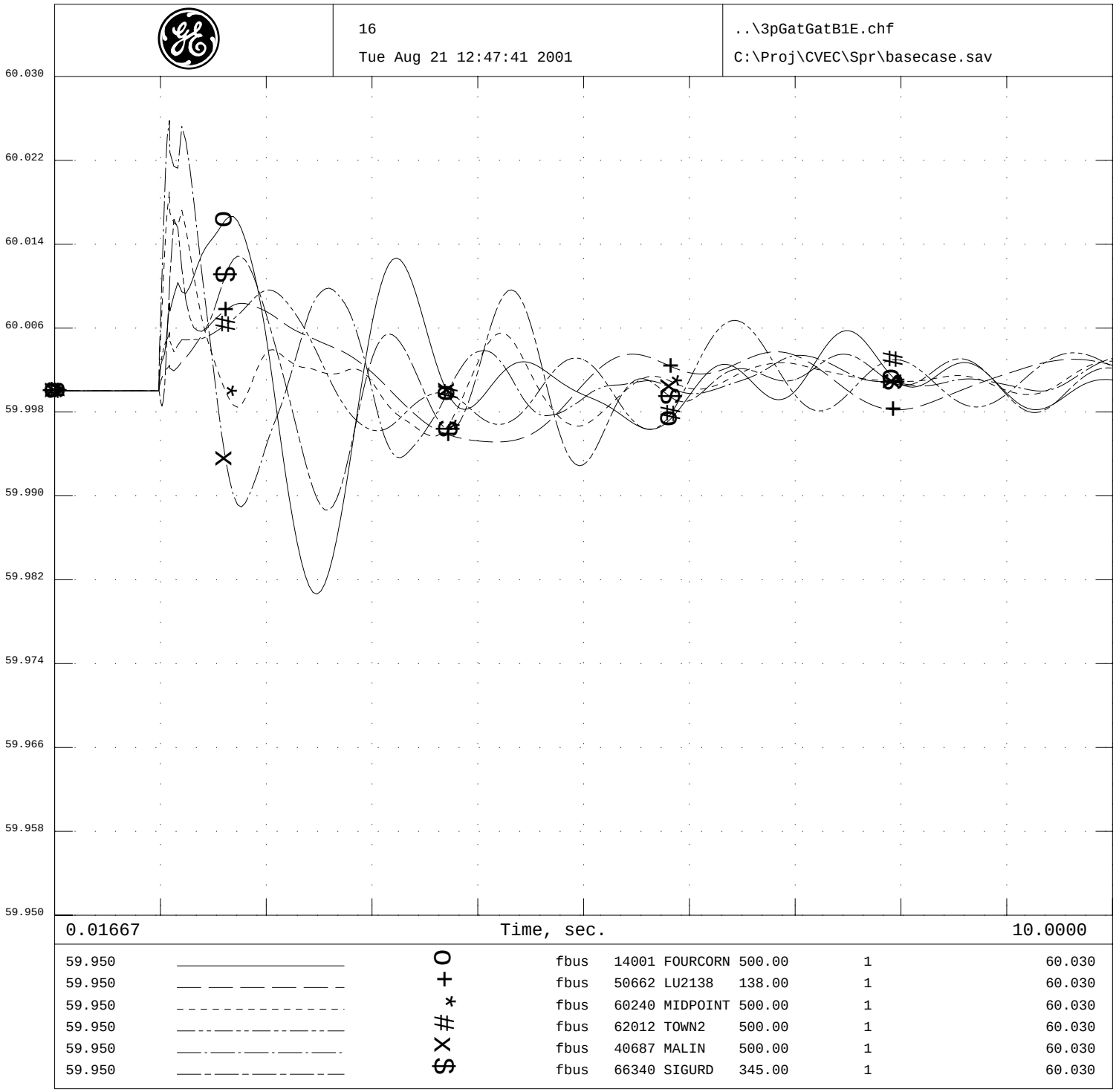

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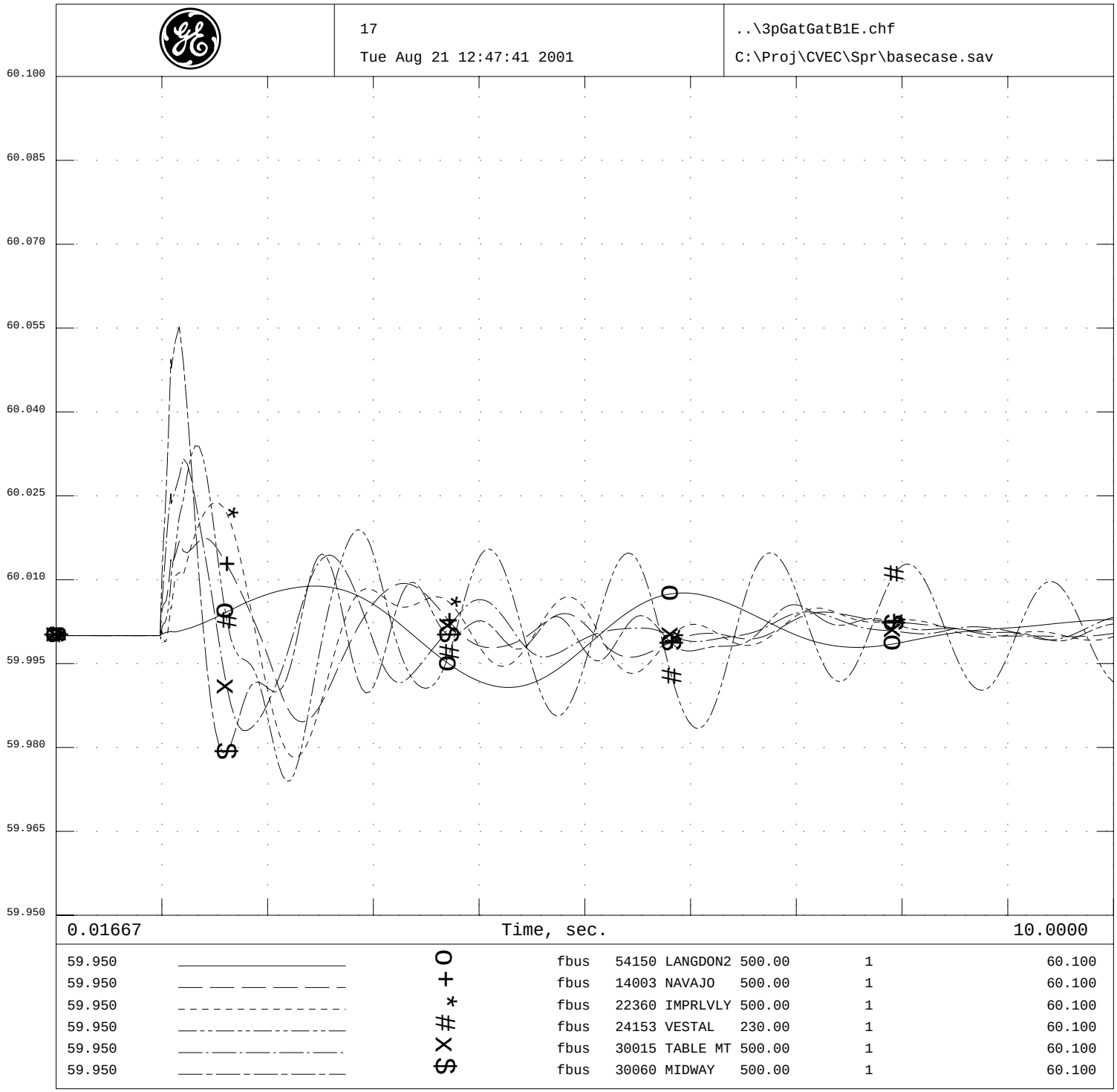
Selected WSCC Transmission Bus Frequency Plots



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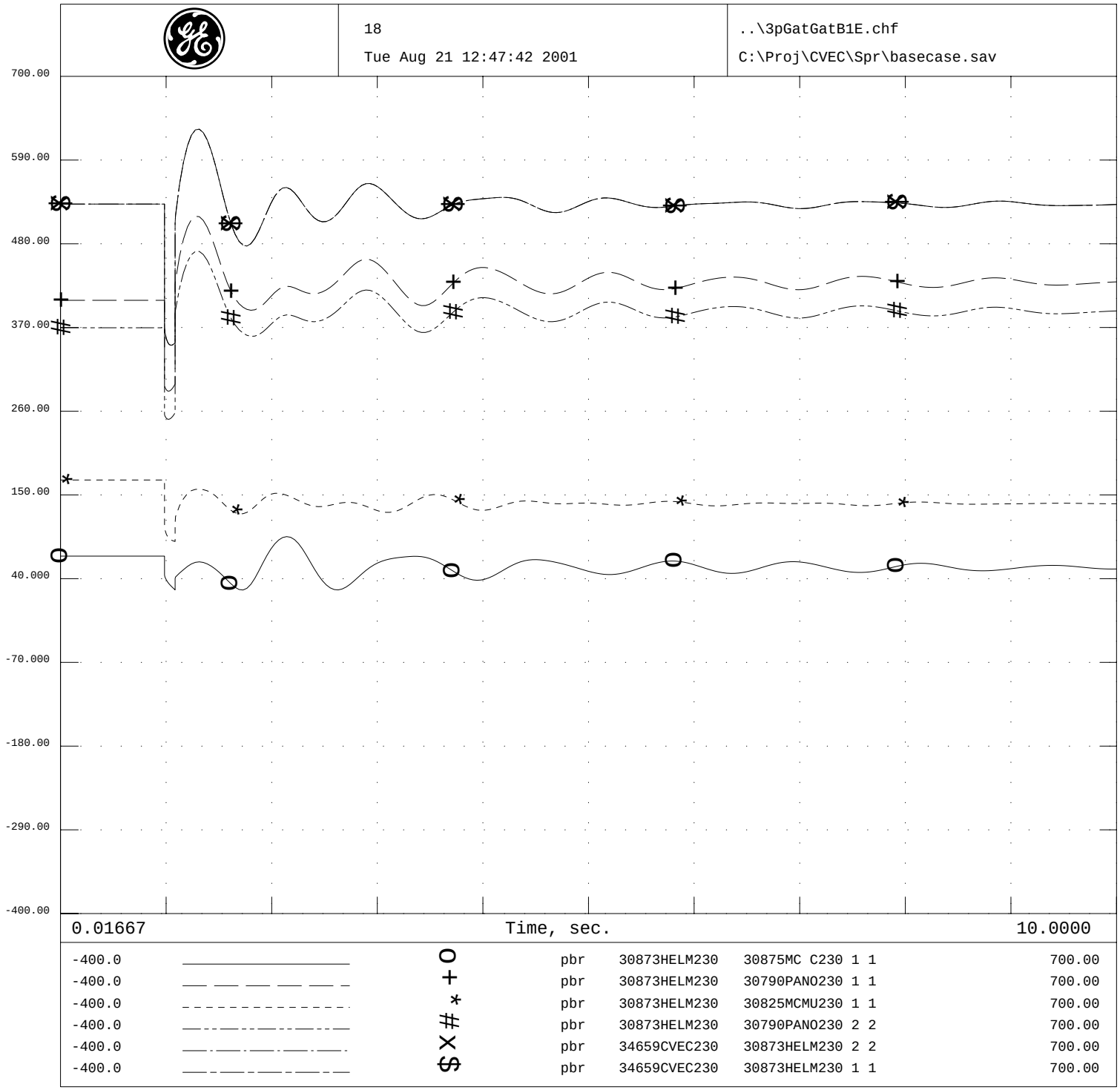

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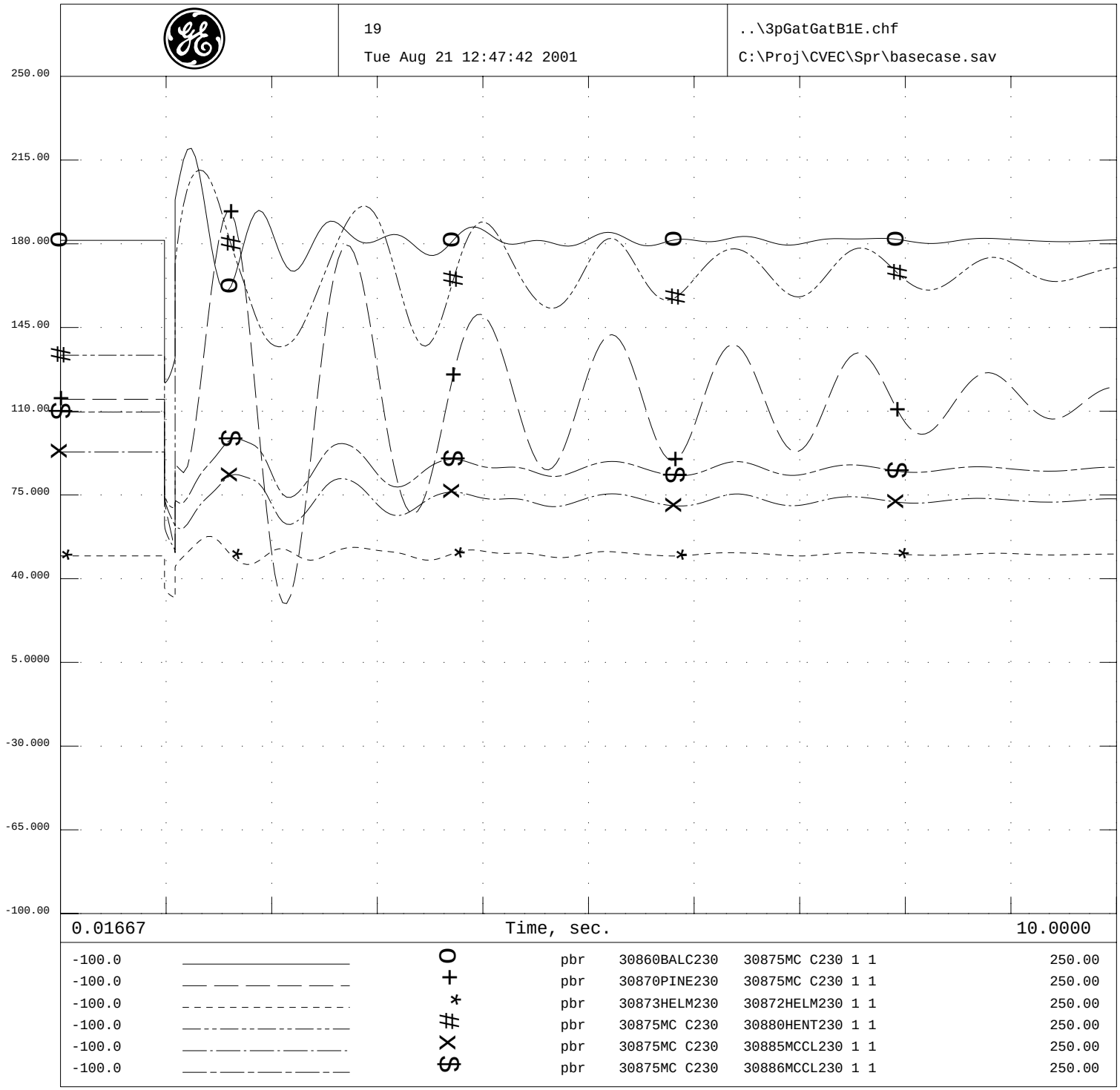
Selected Transmission Line Flows (MW)



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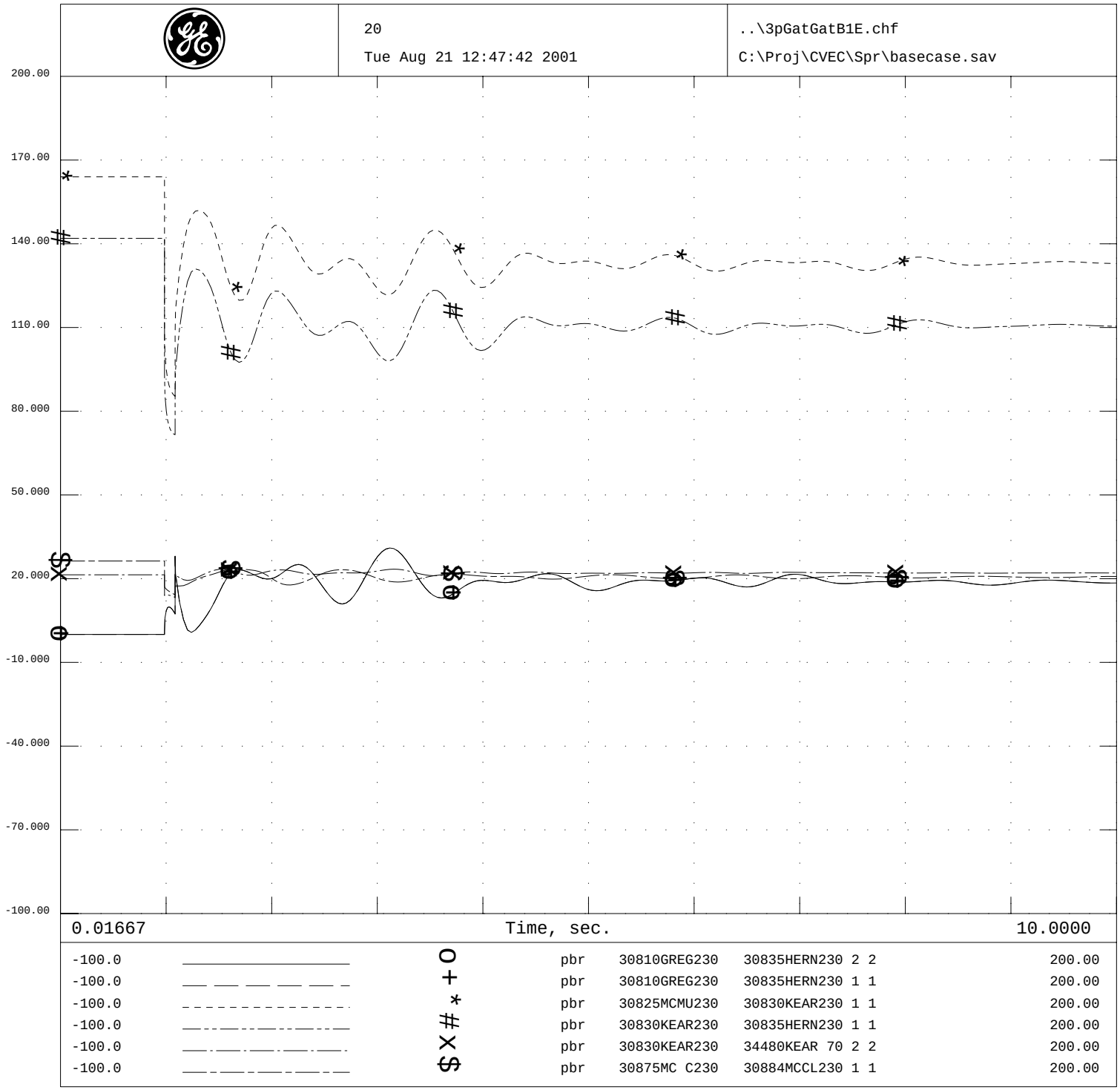

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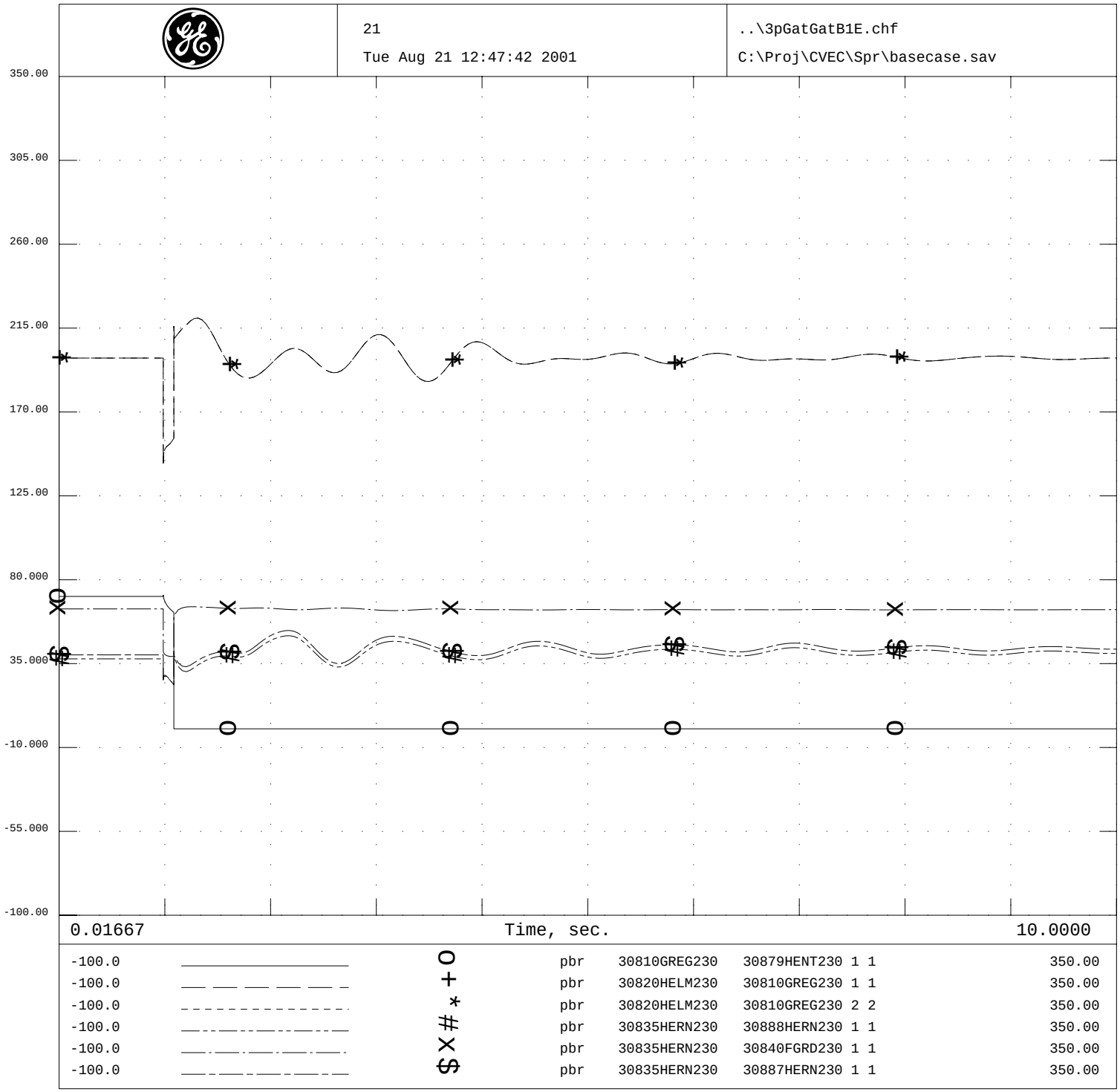

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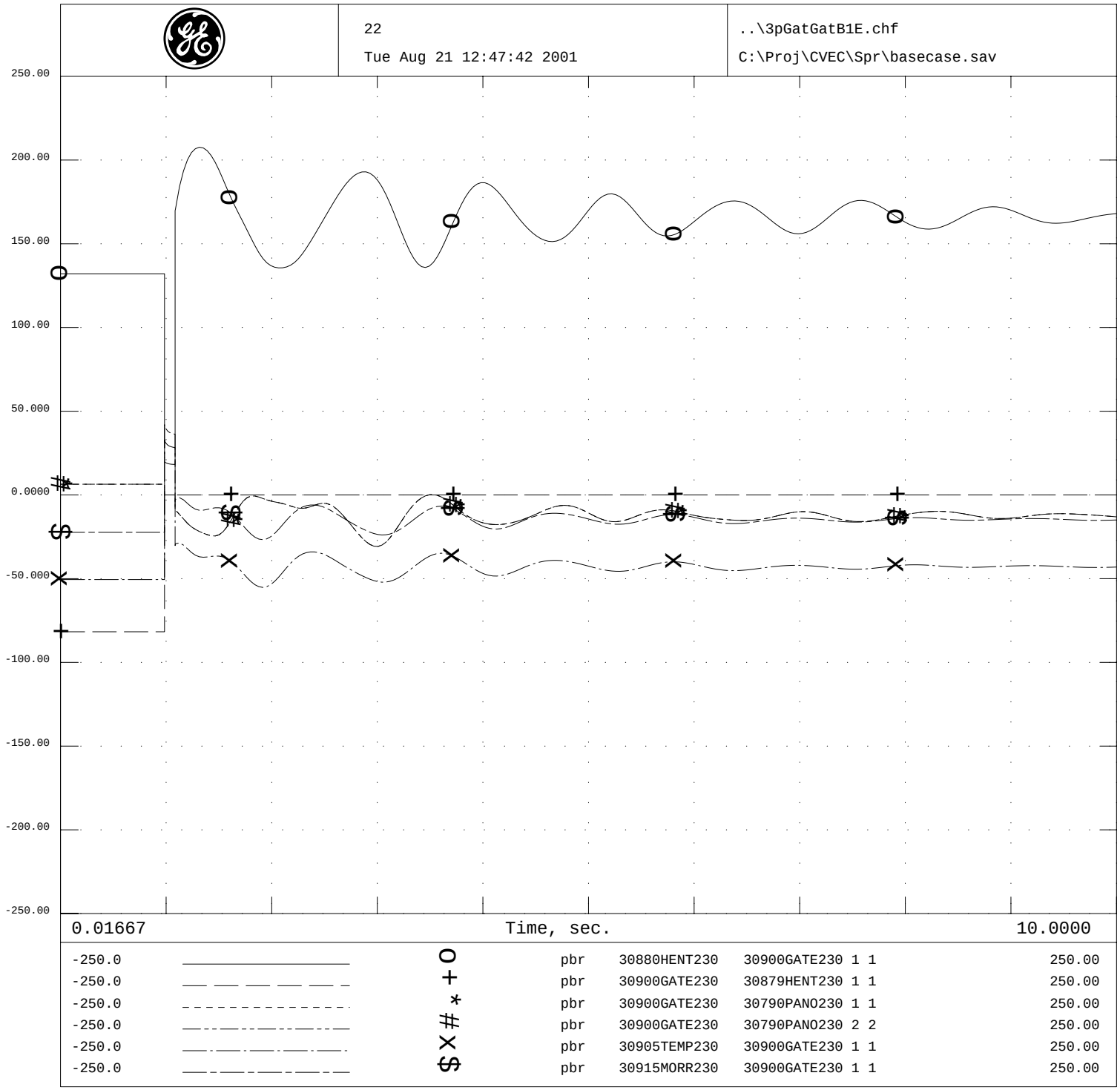

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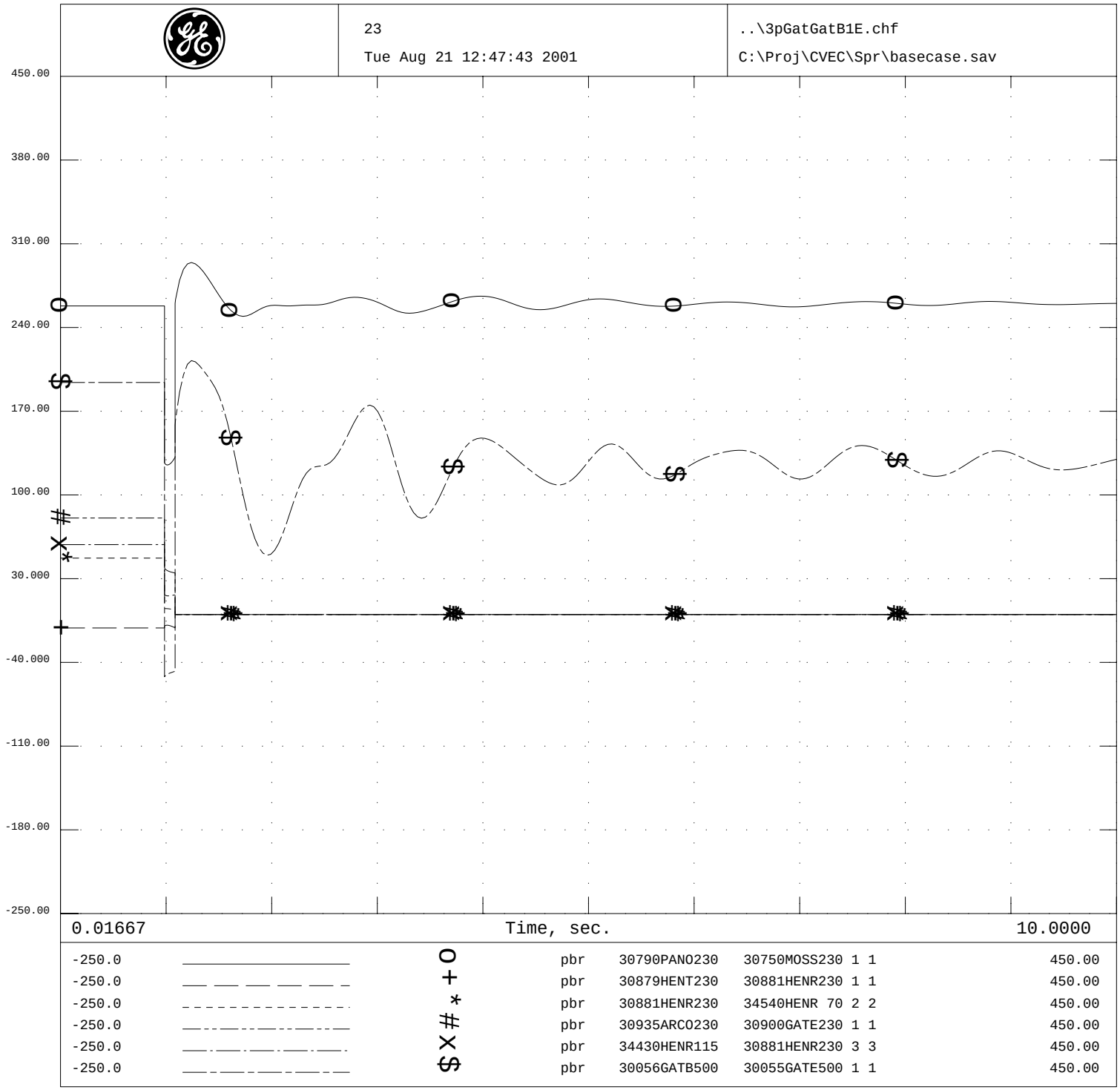

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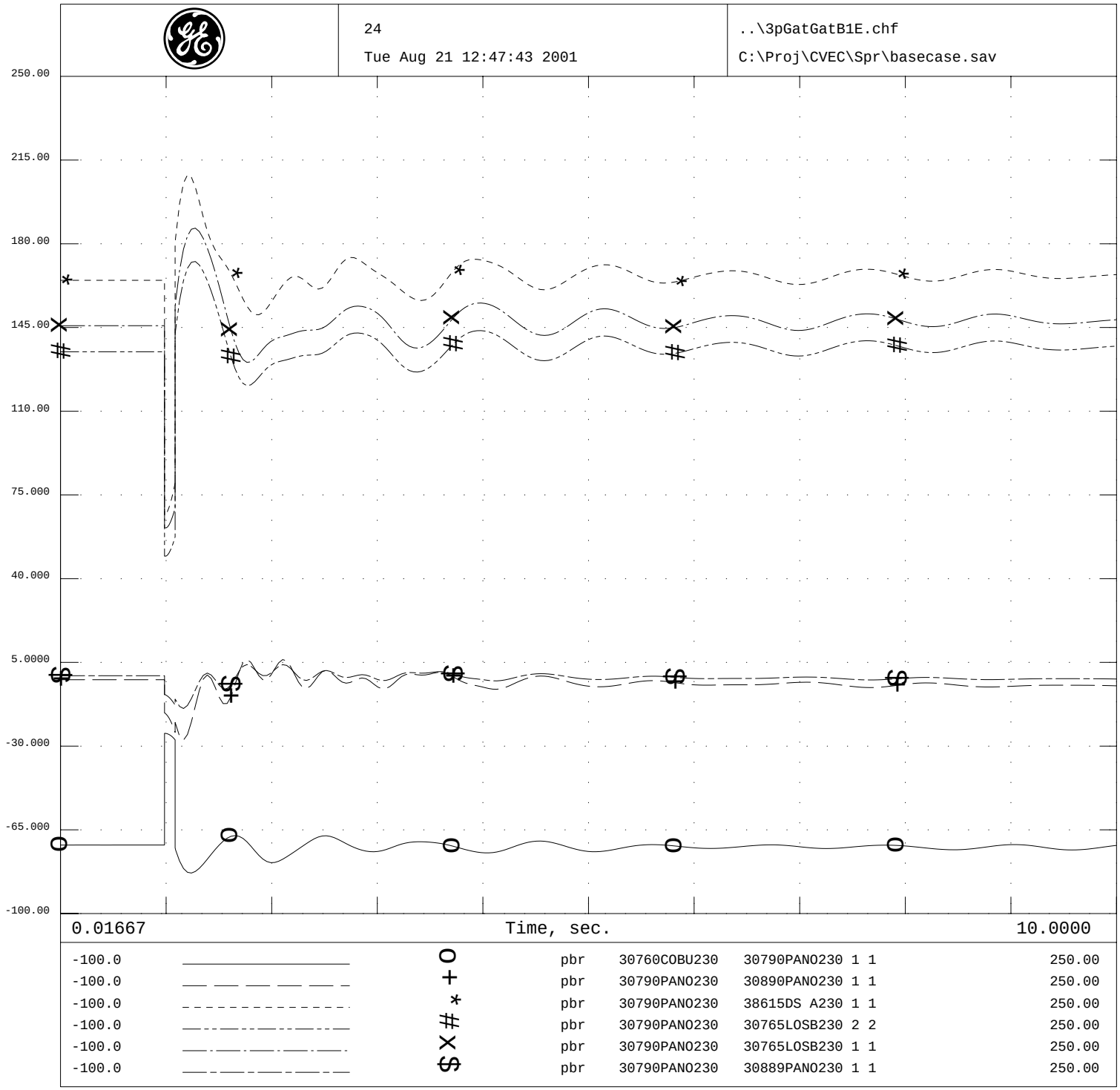

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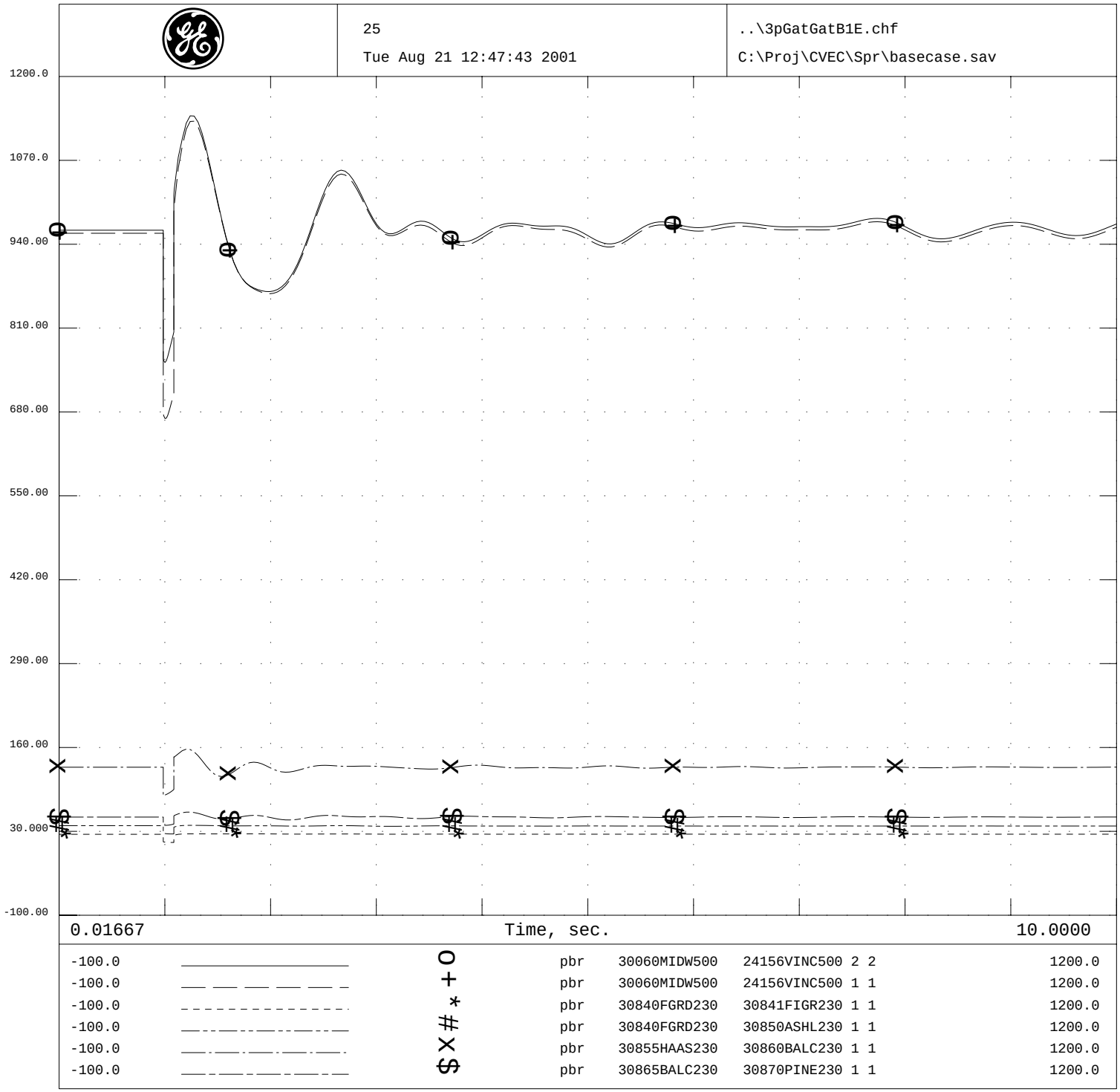

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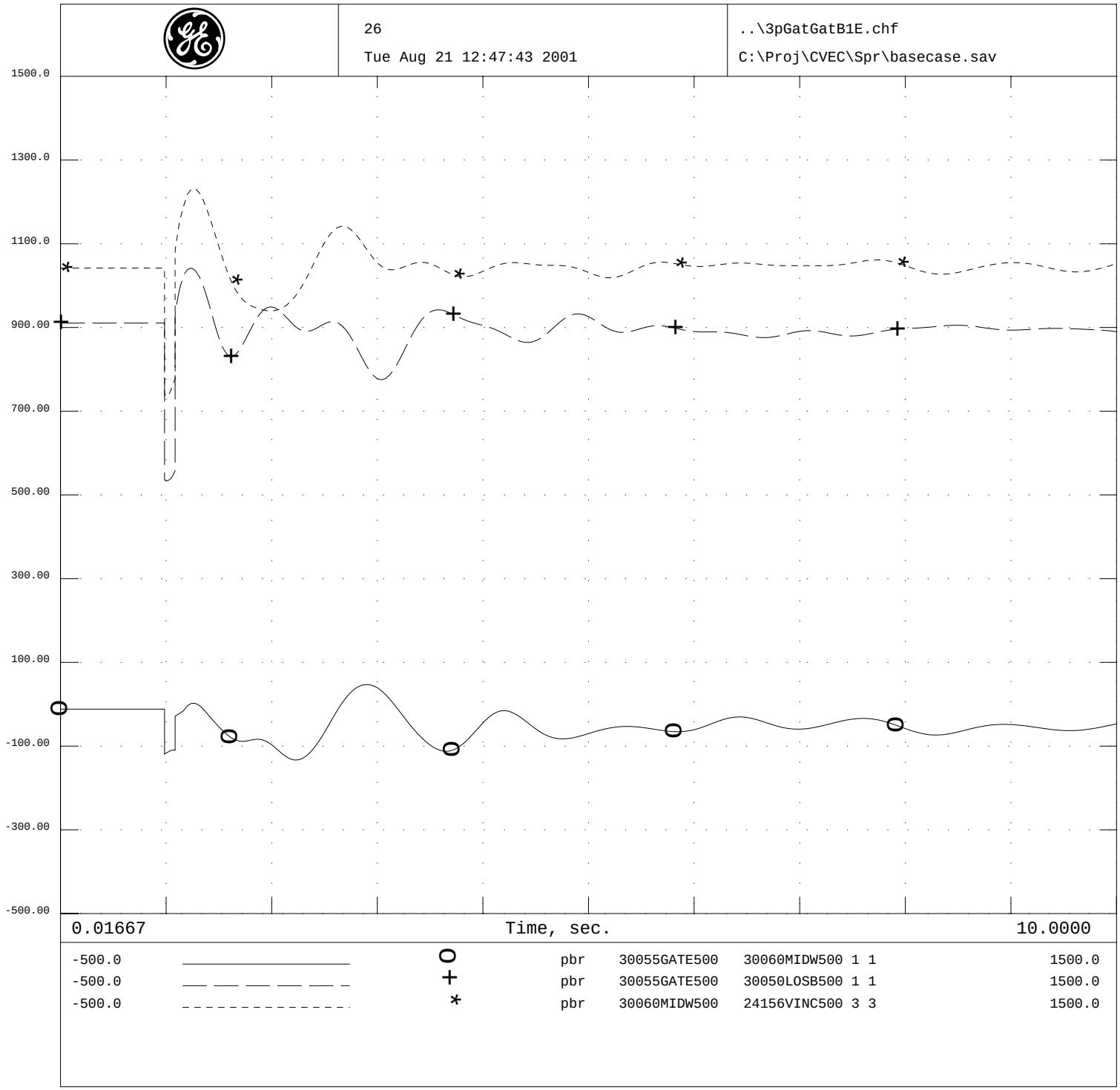

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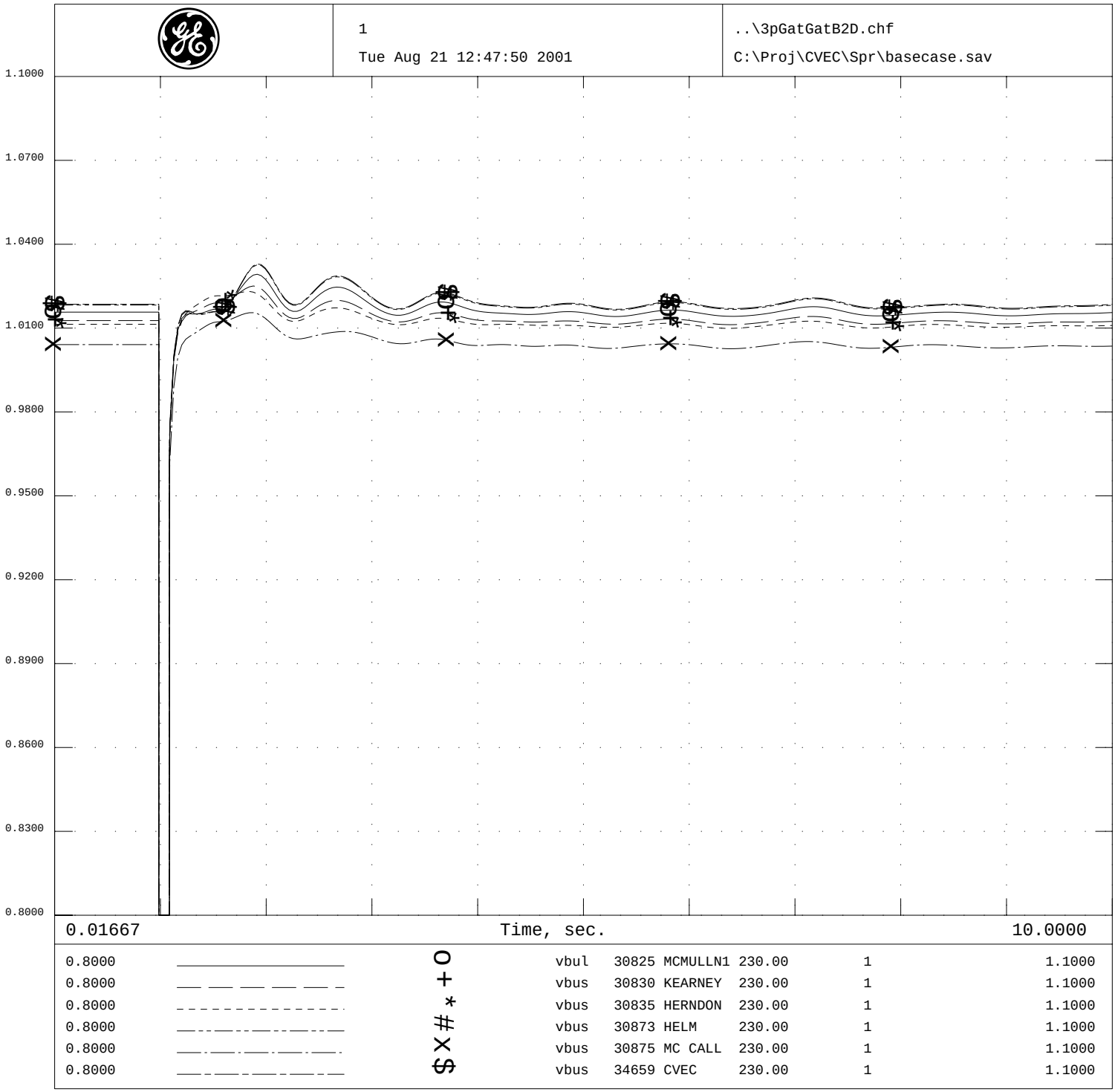

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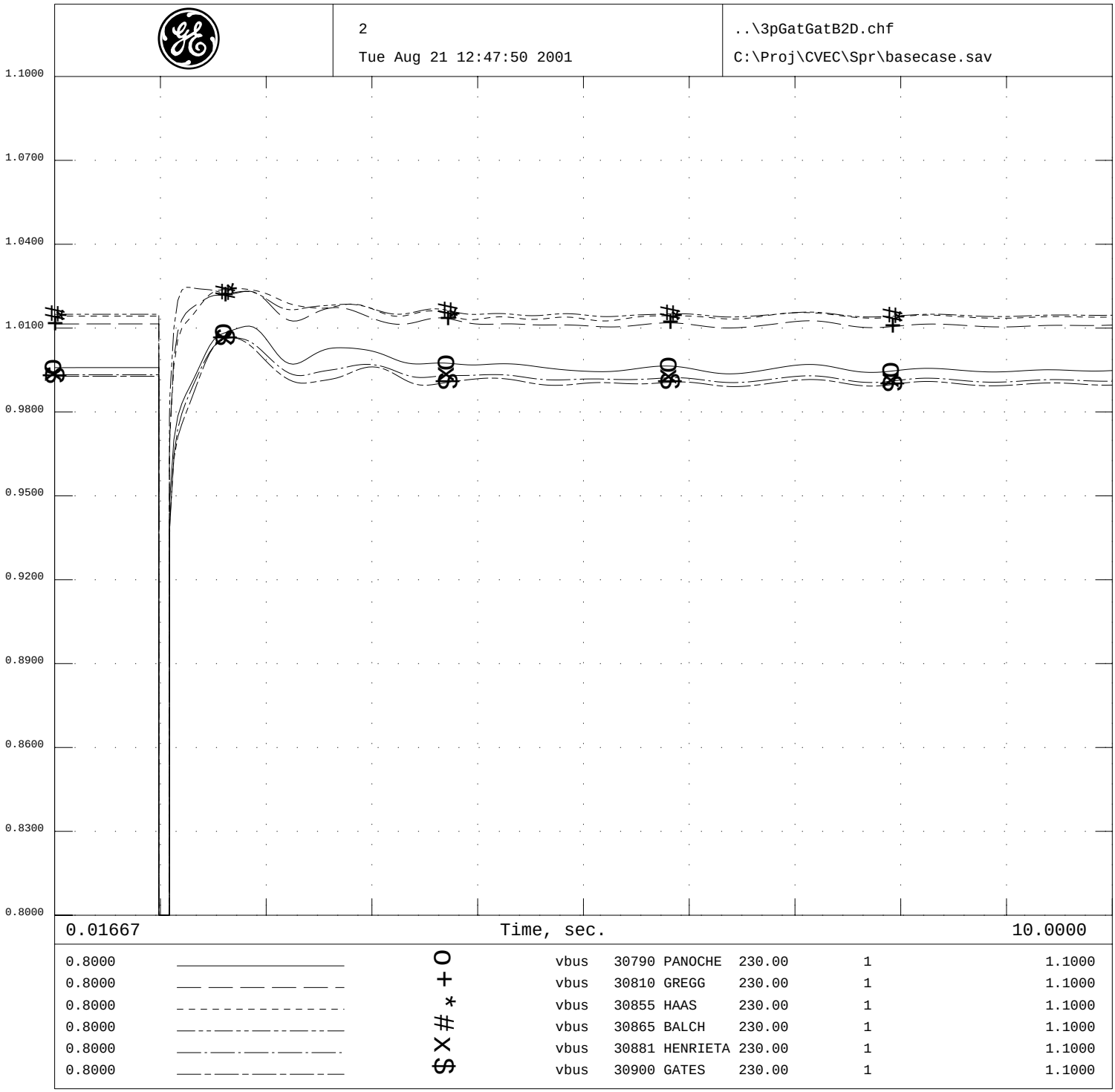
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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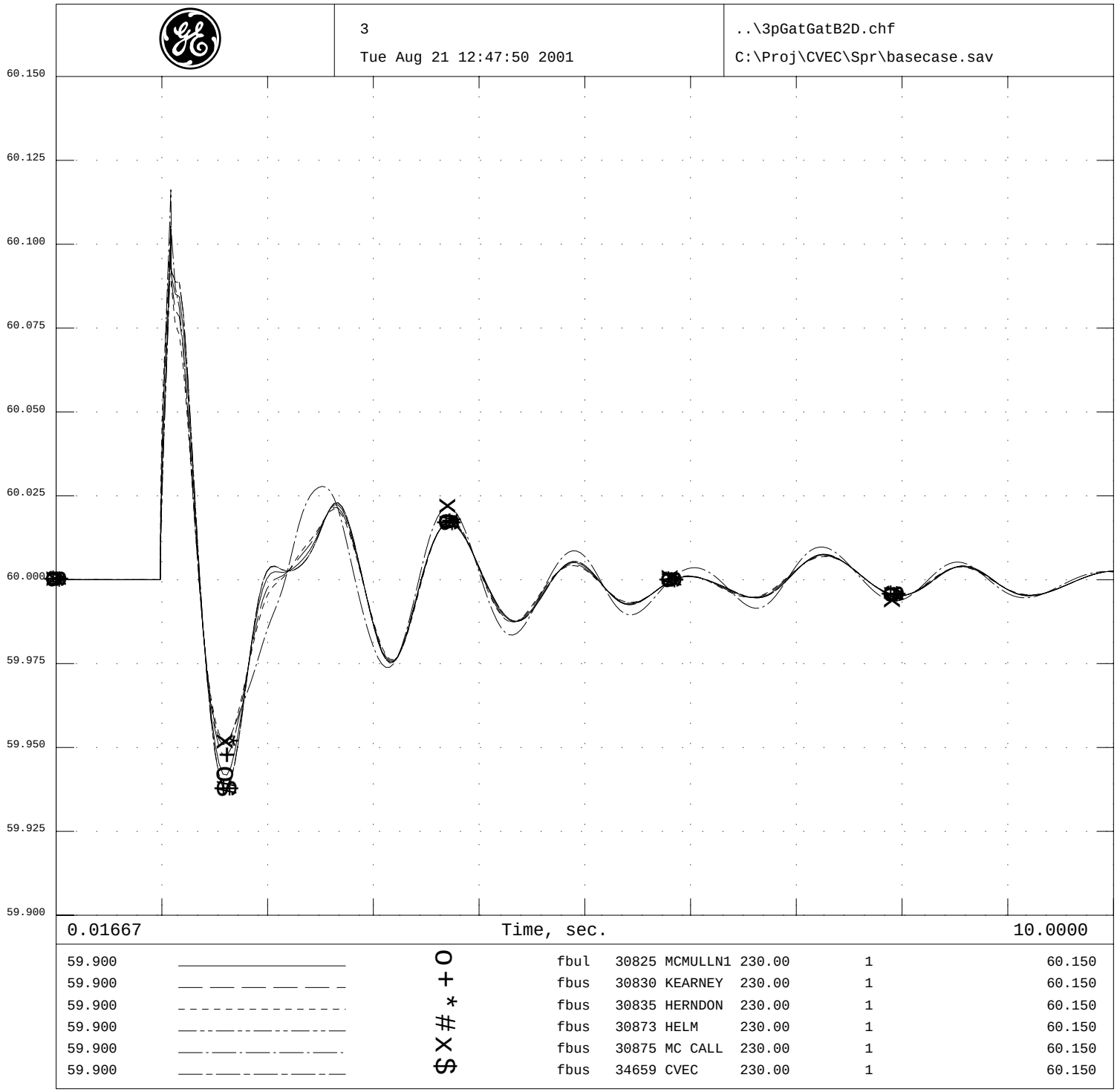

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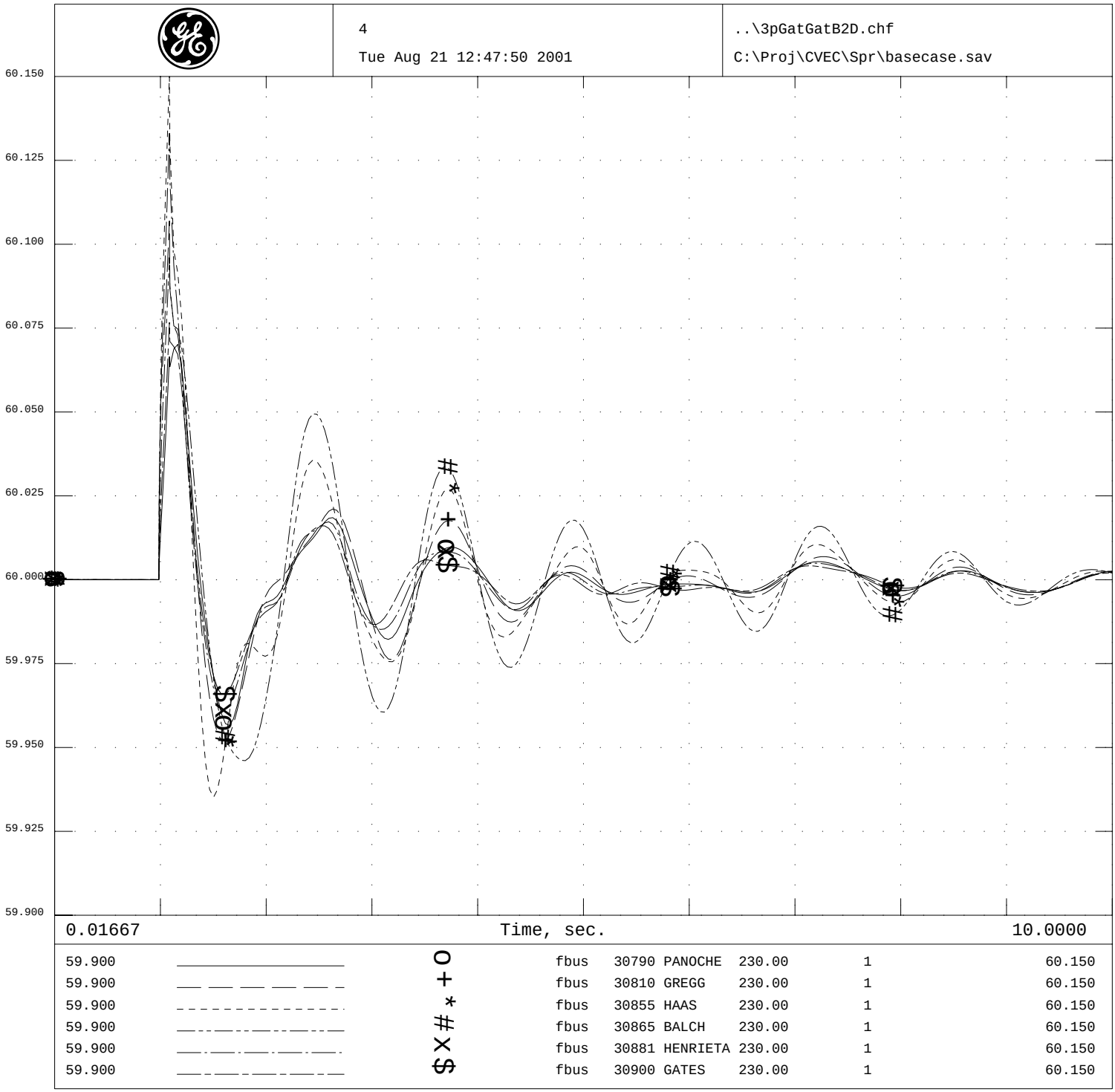
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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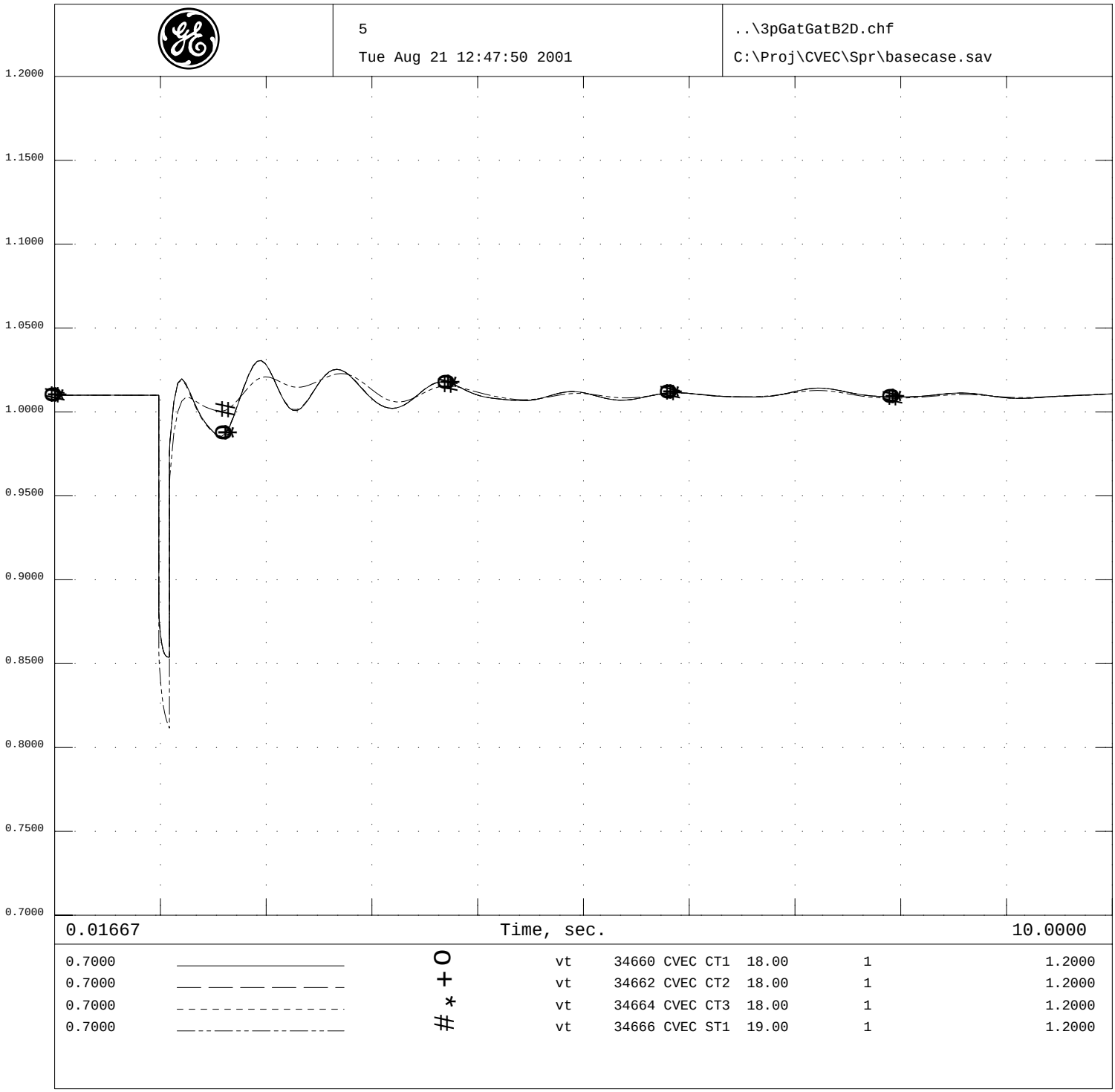

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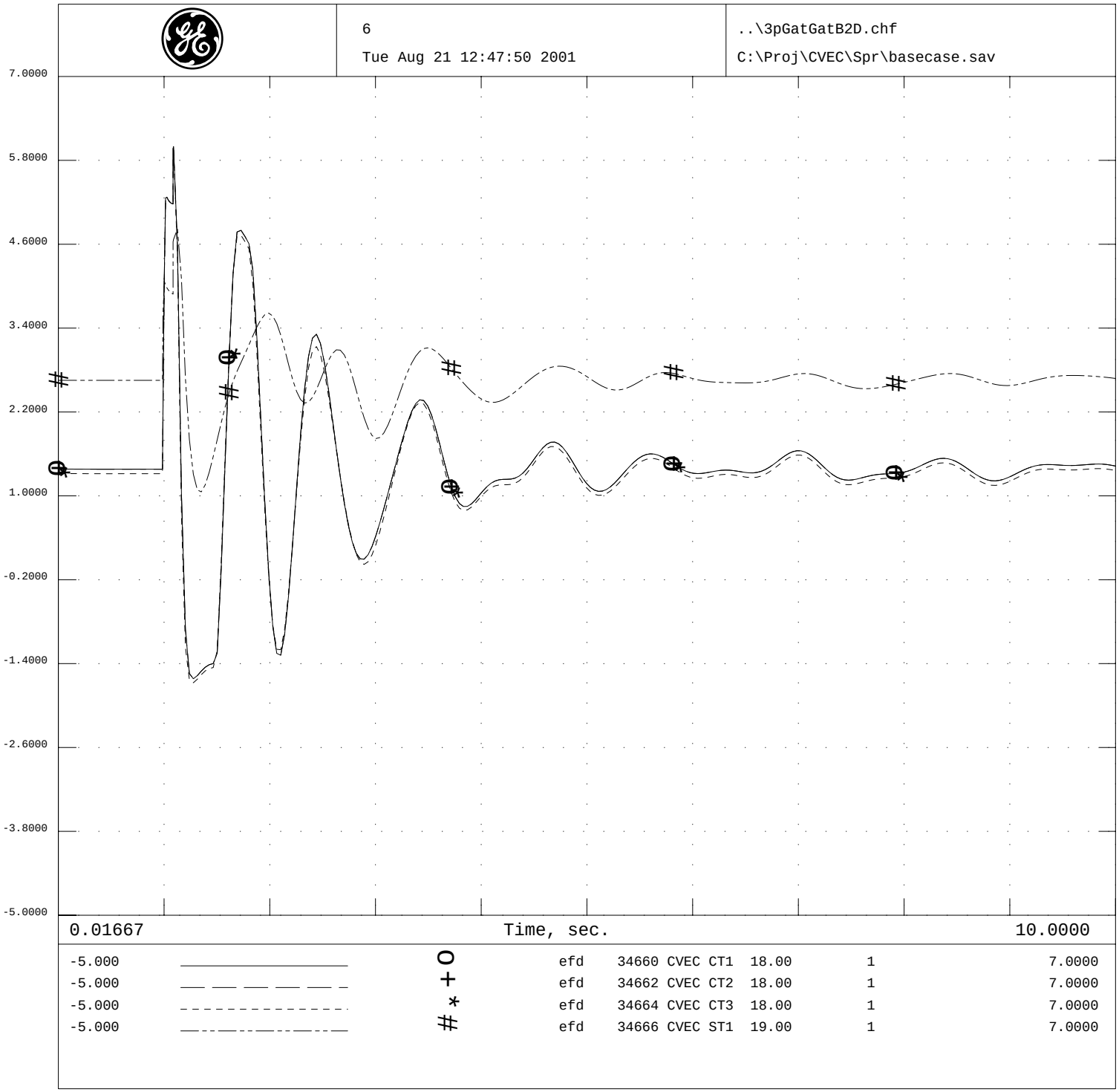
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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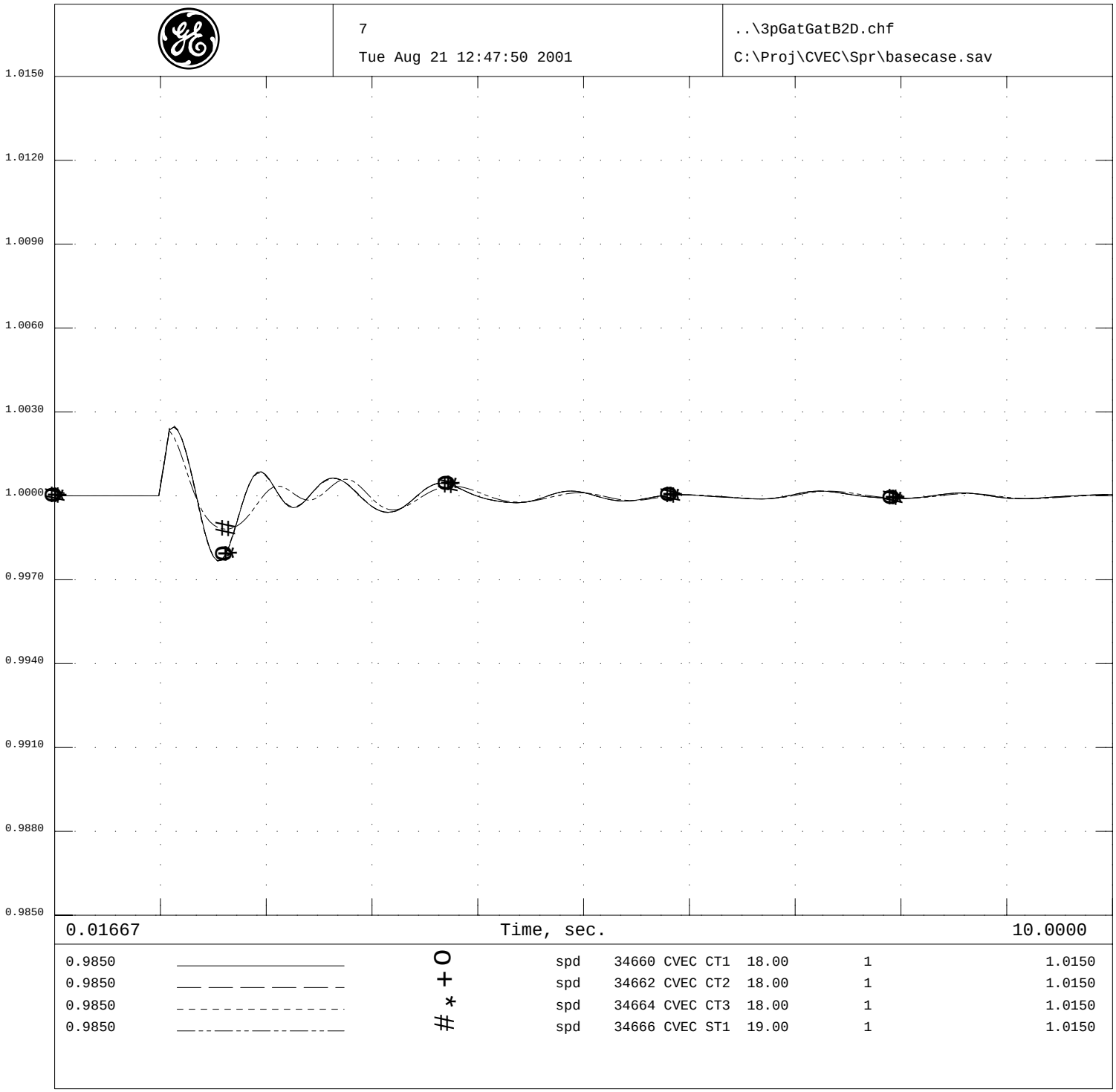
Project Generator Field Voltages



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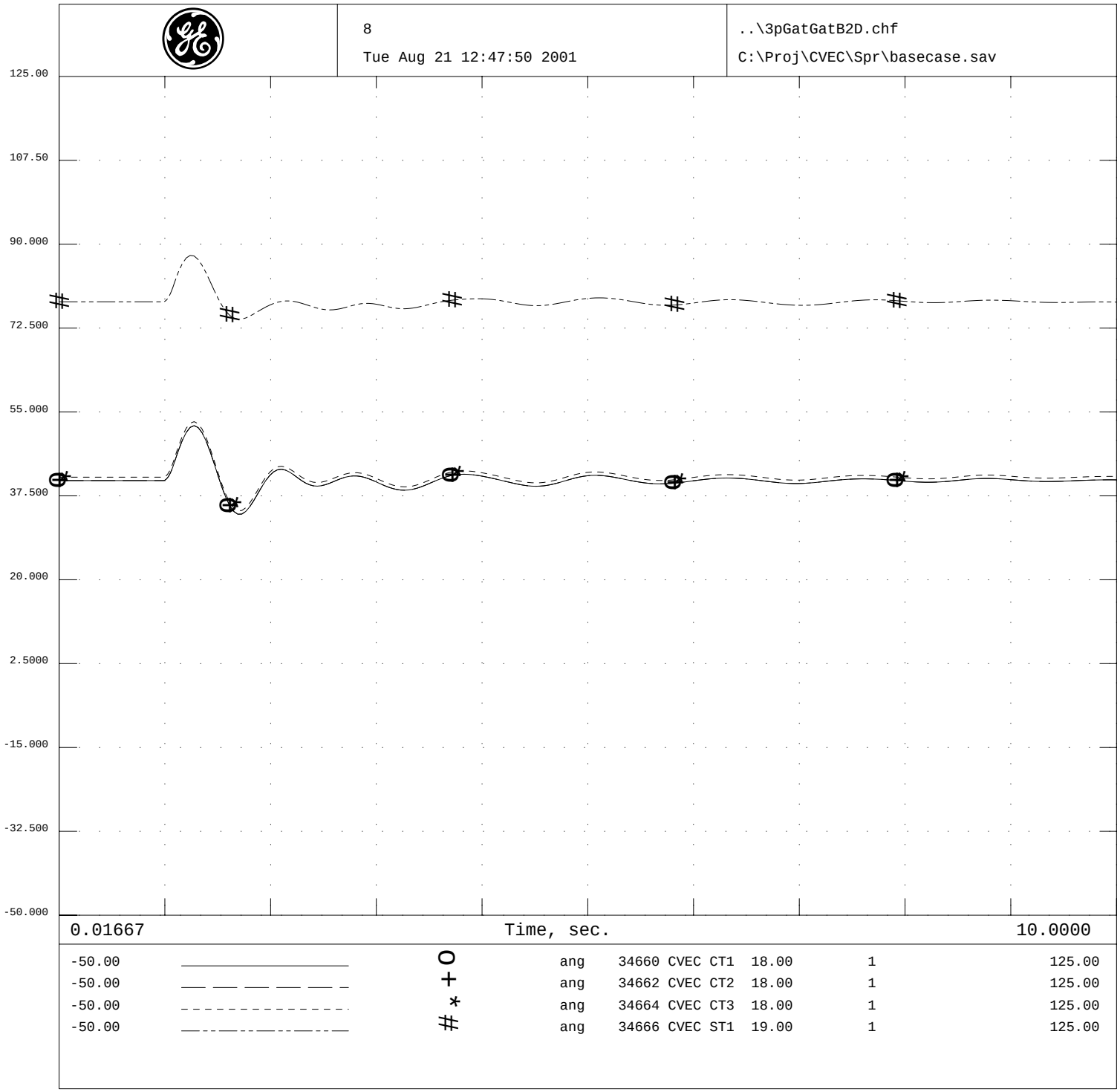
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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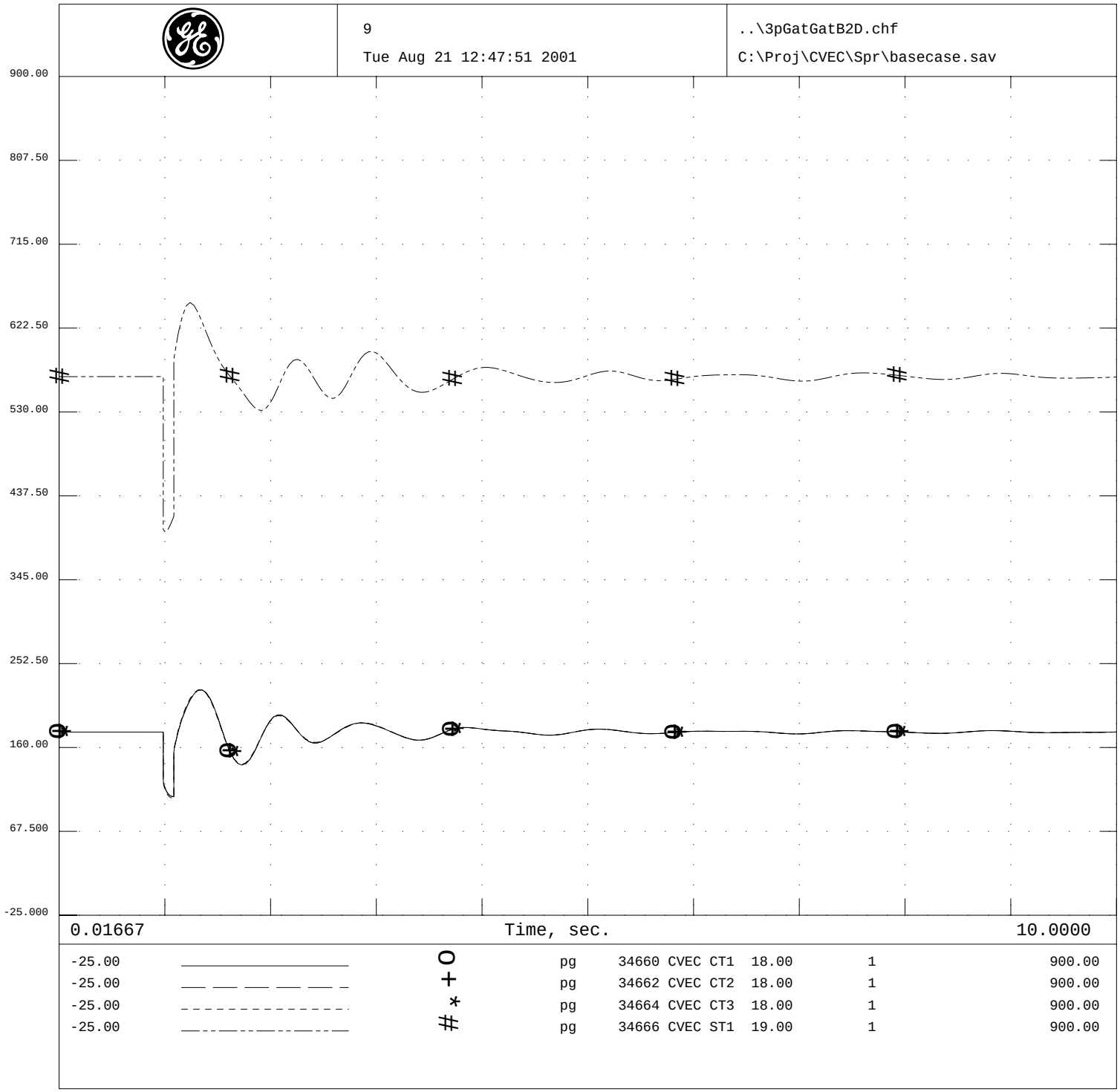
Project Generator Rotor Angle



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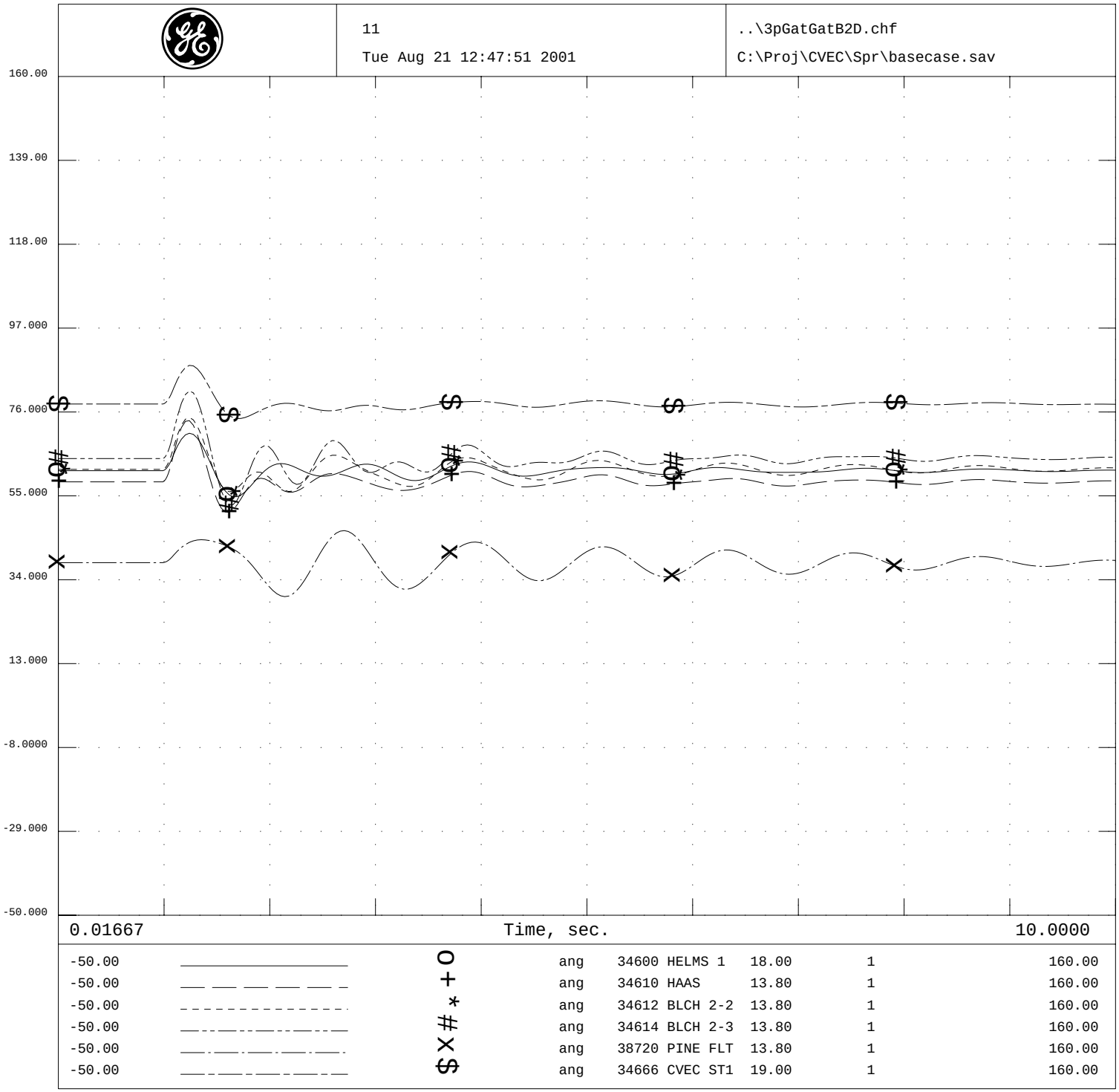
Project Generator Terminal Power



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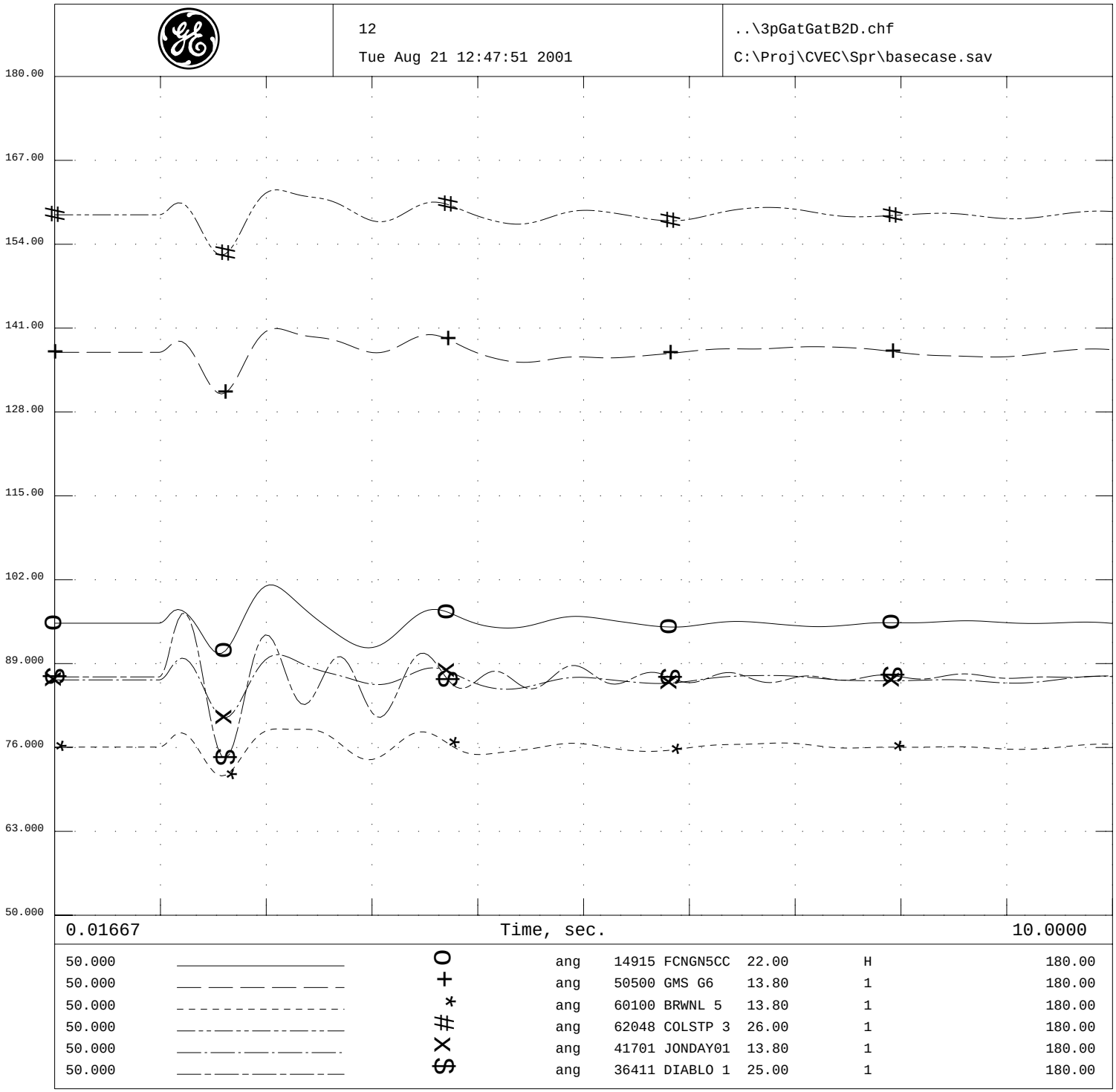
Selected Local Rotor Angle Plots



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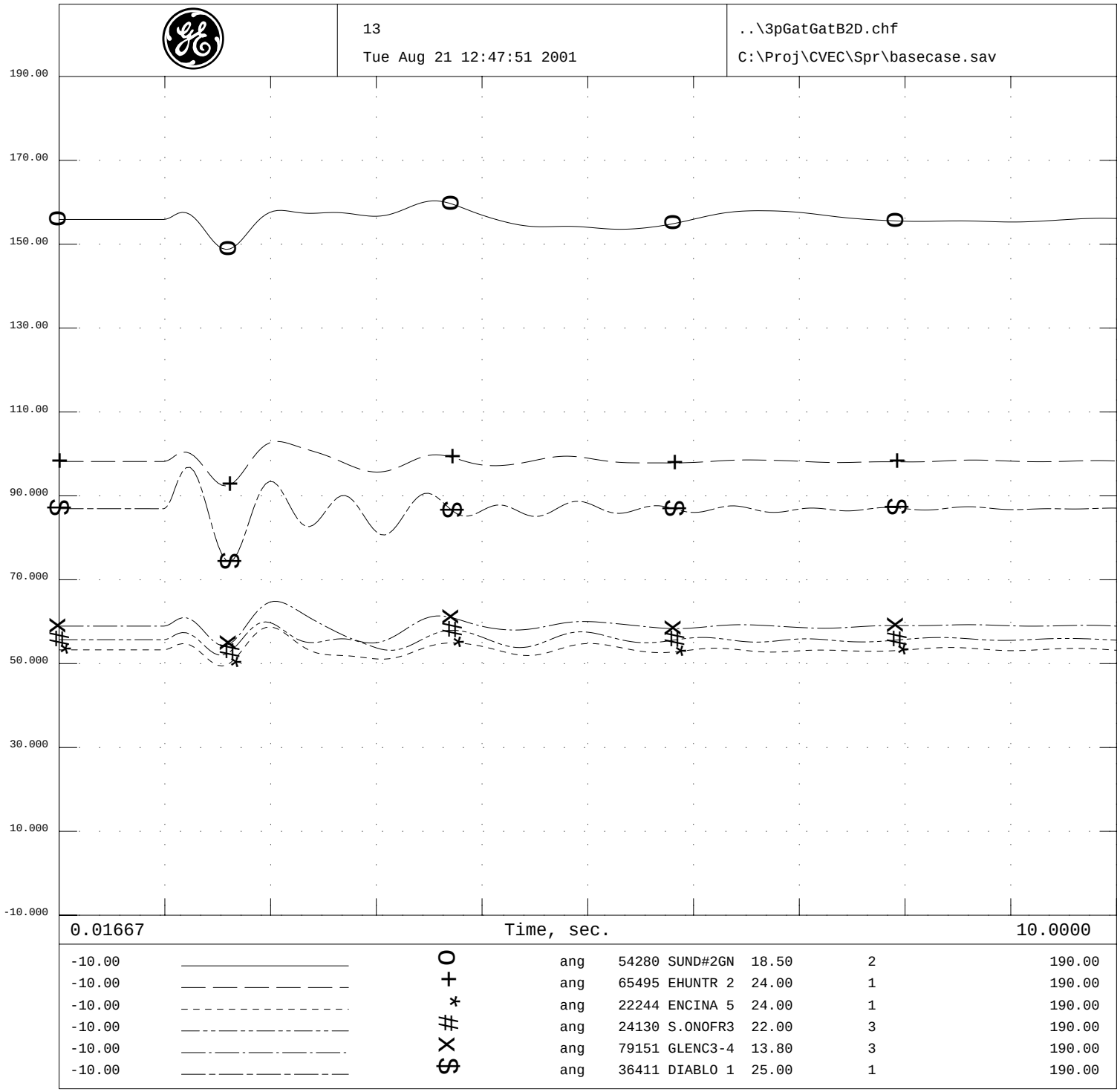

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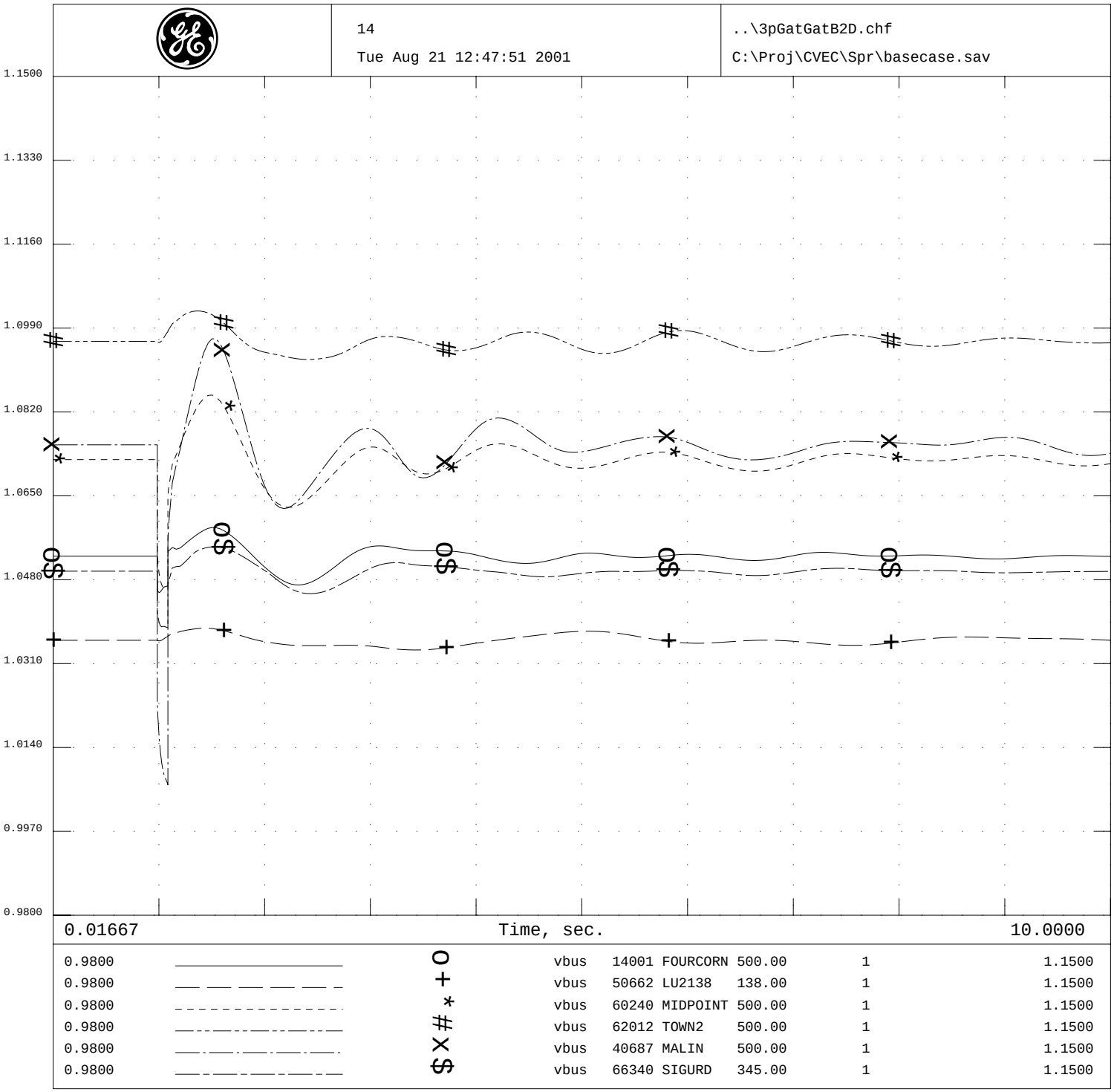

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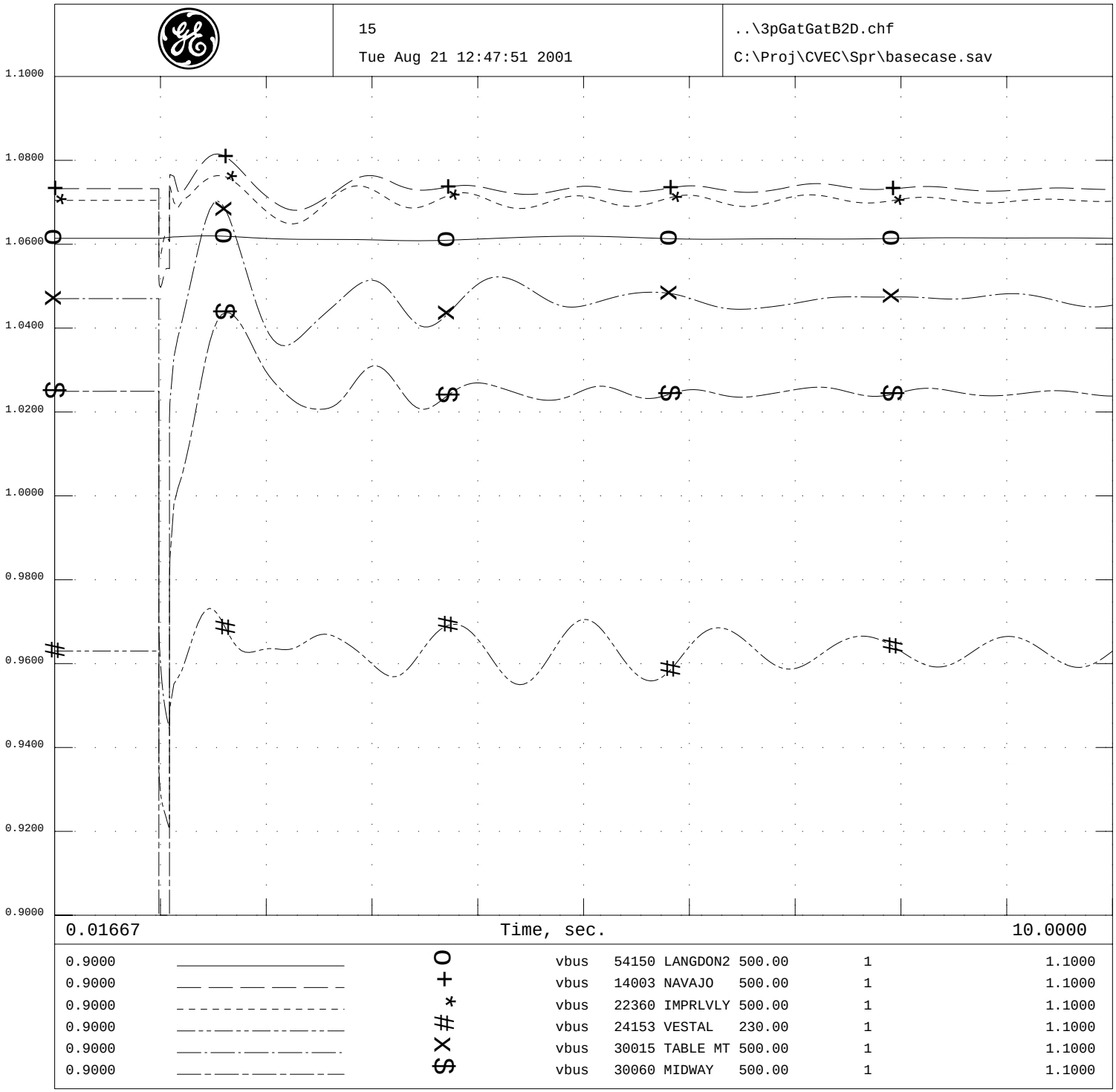

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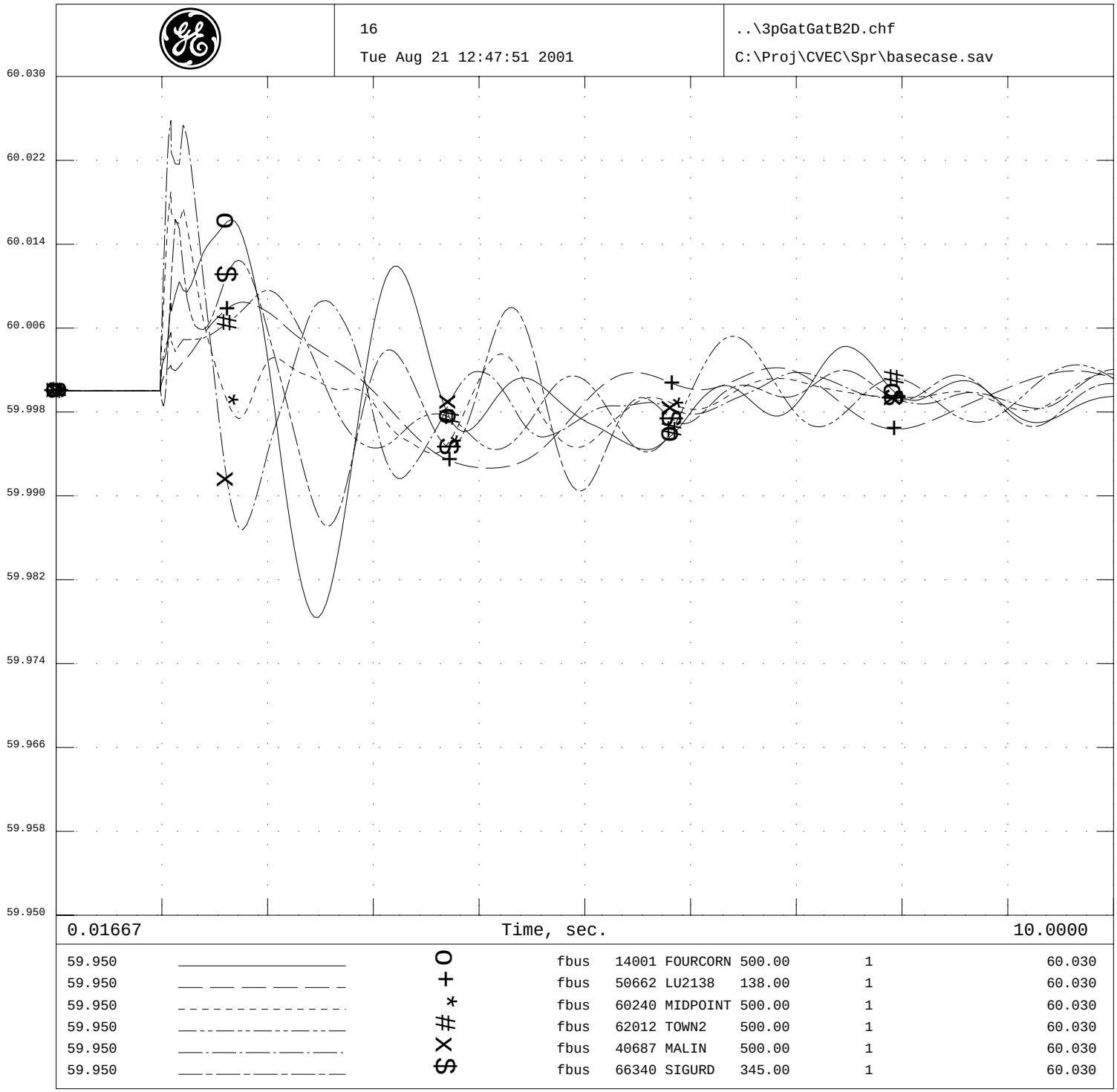

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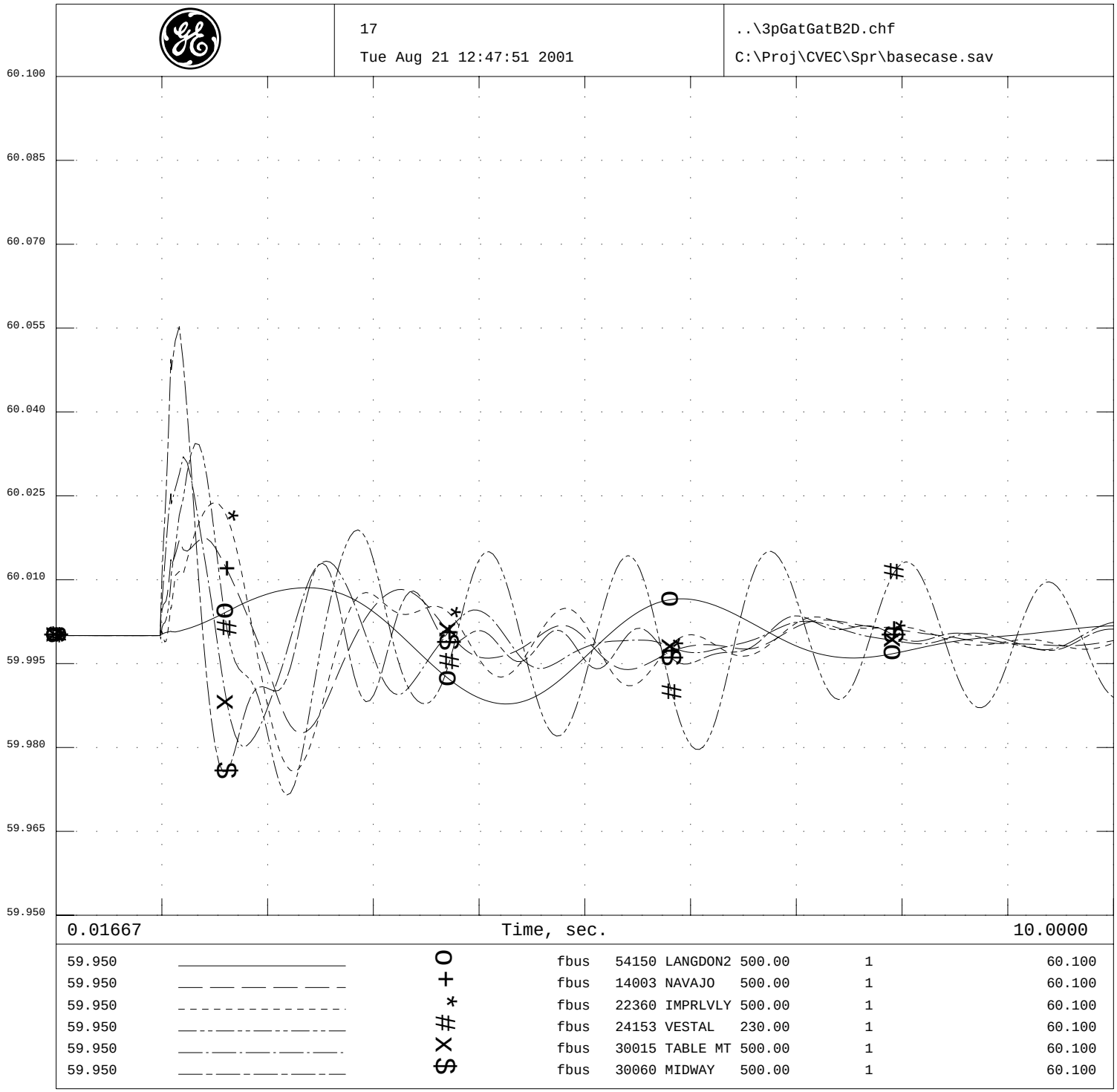

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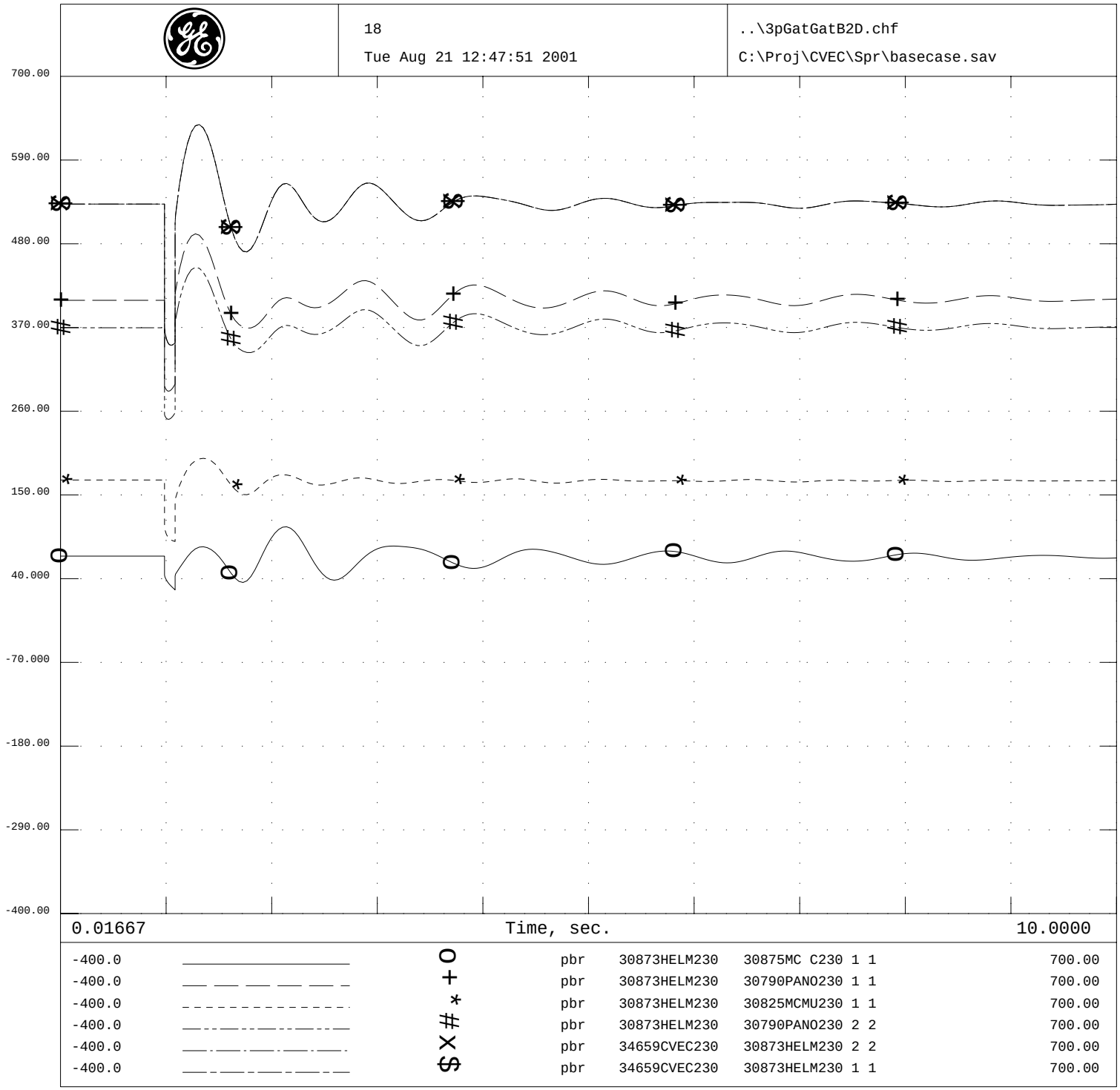

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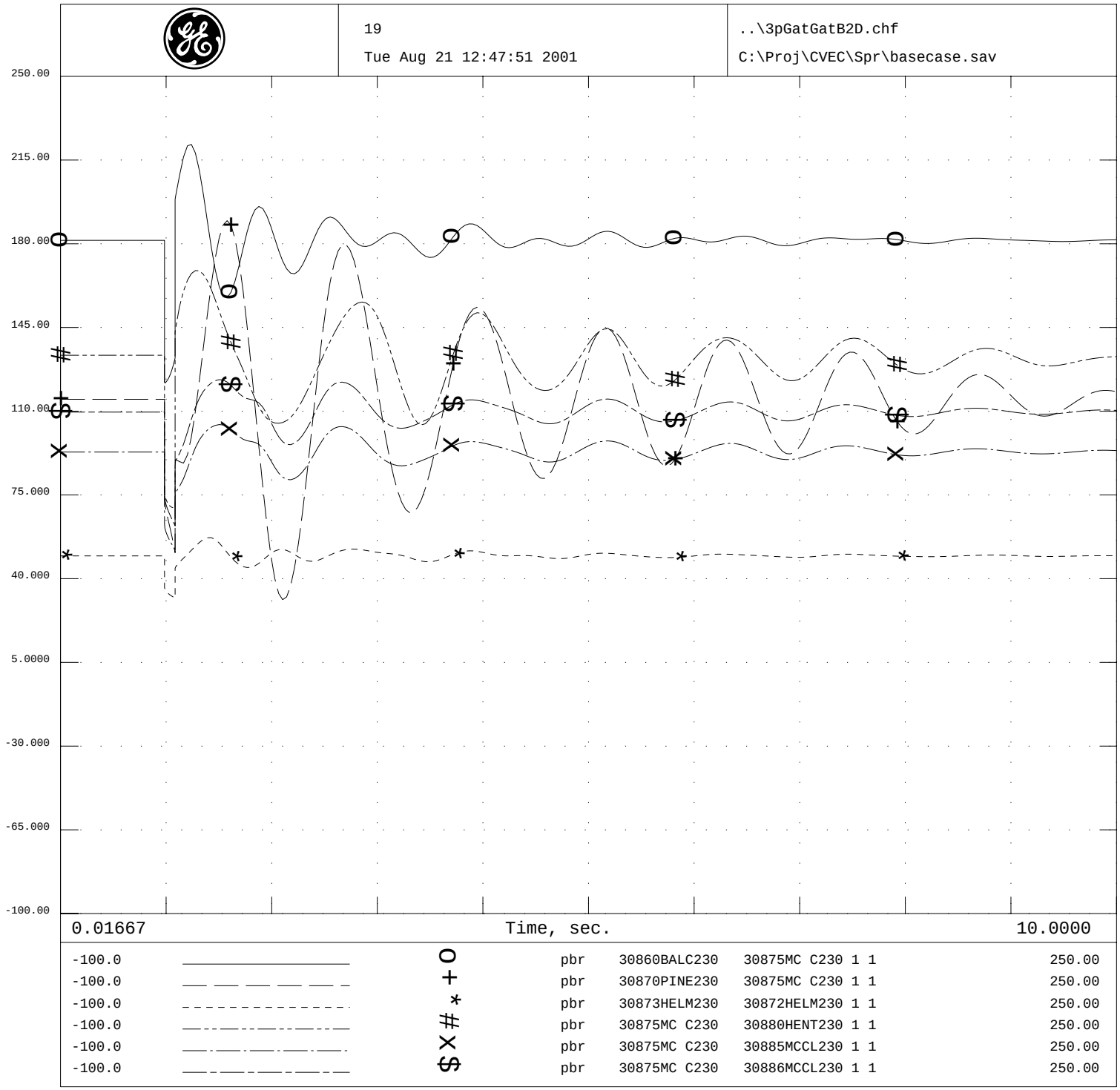

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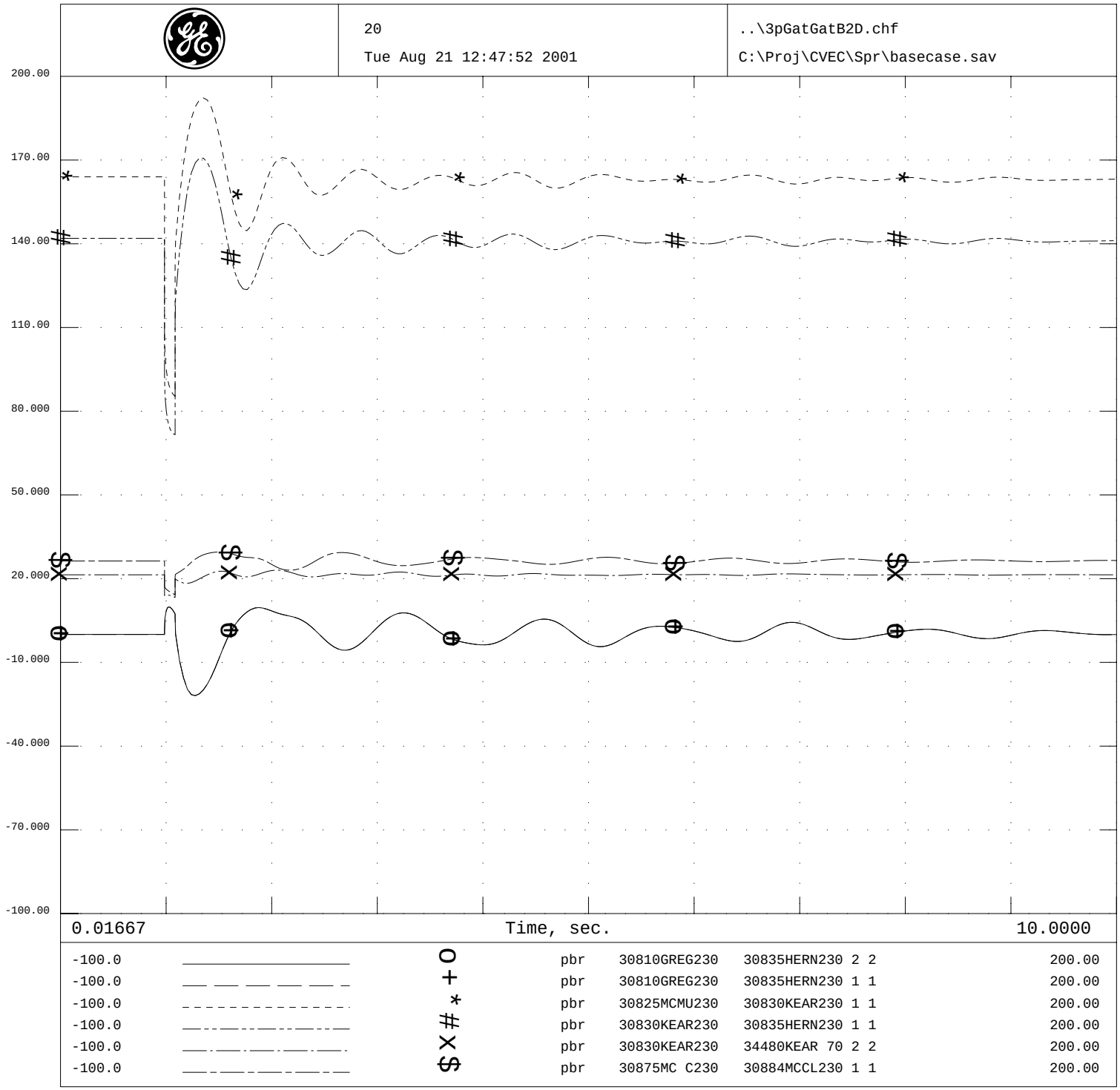

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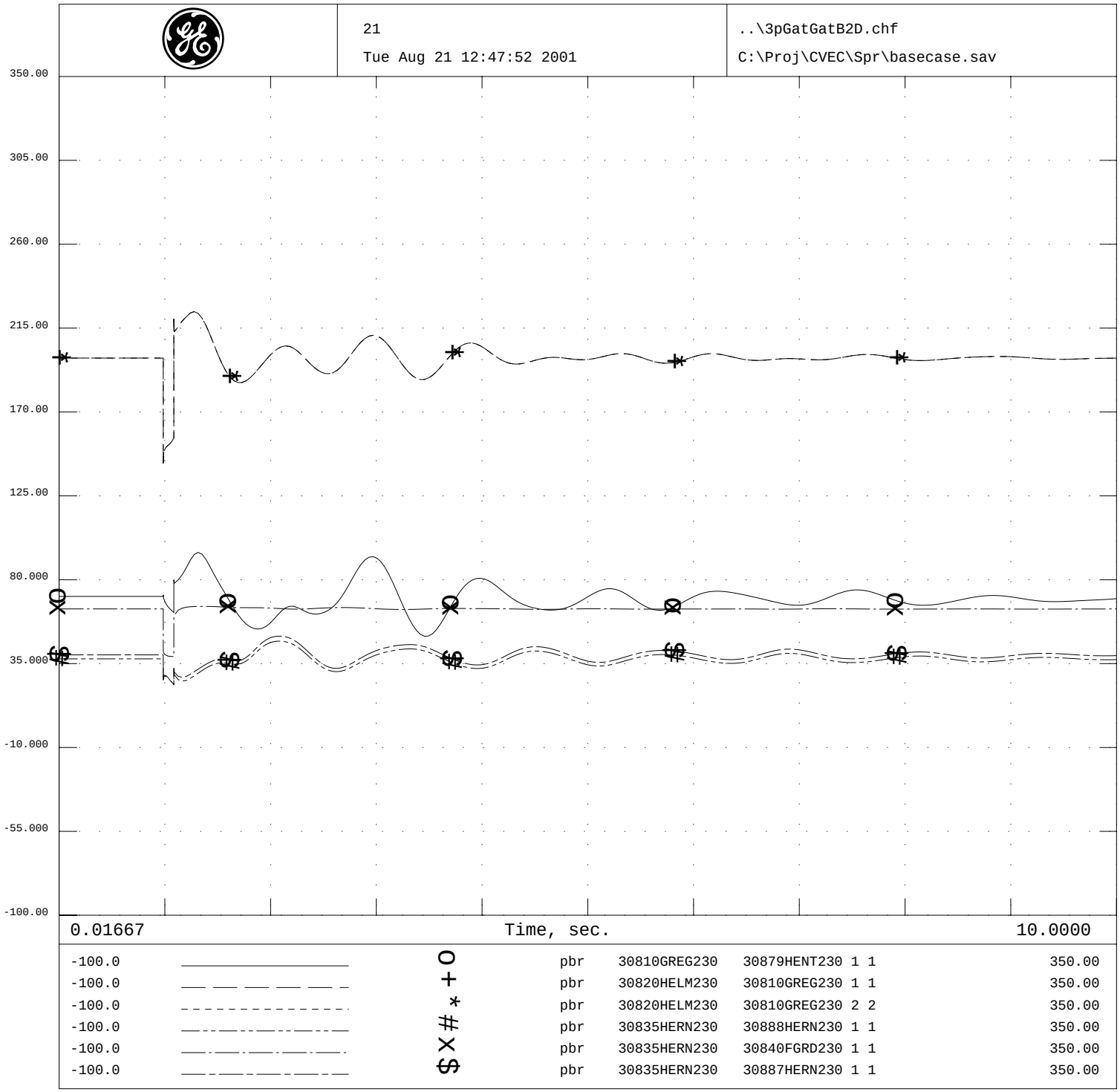

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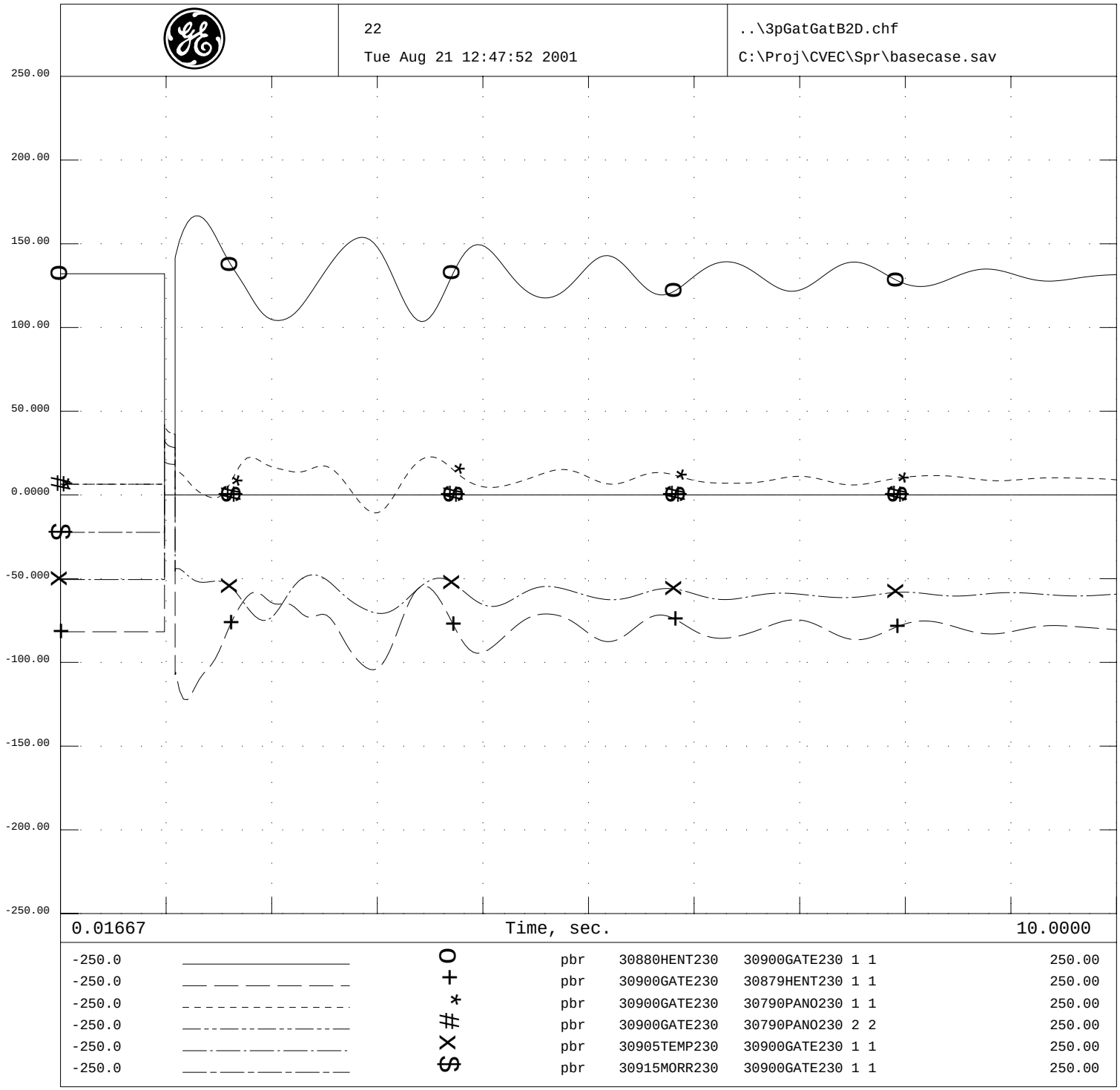

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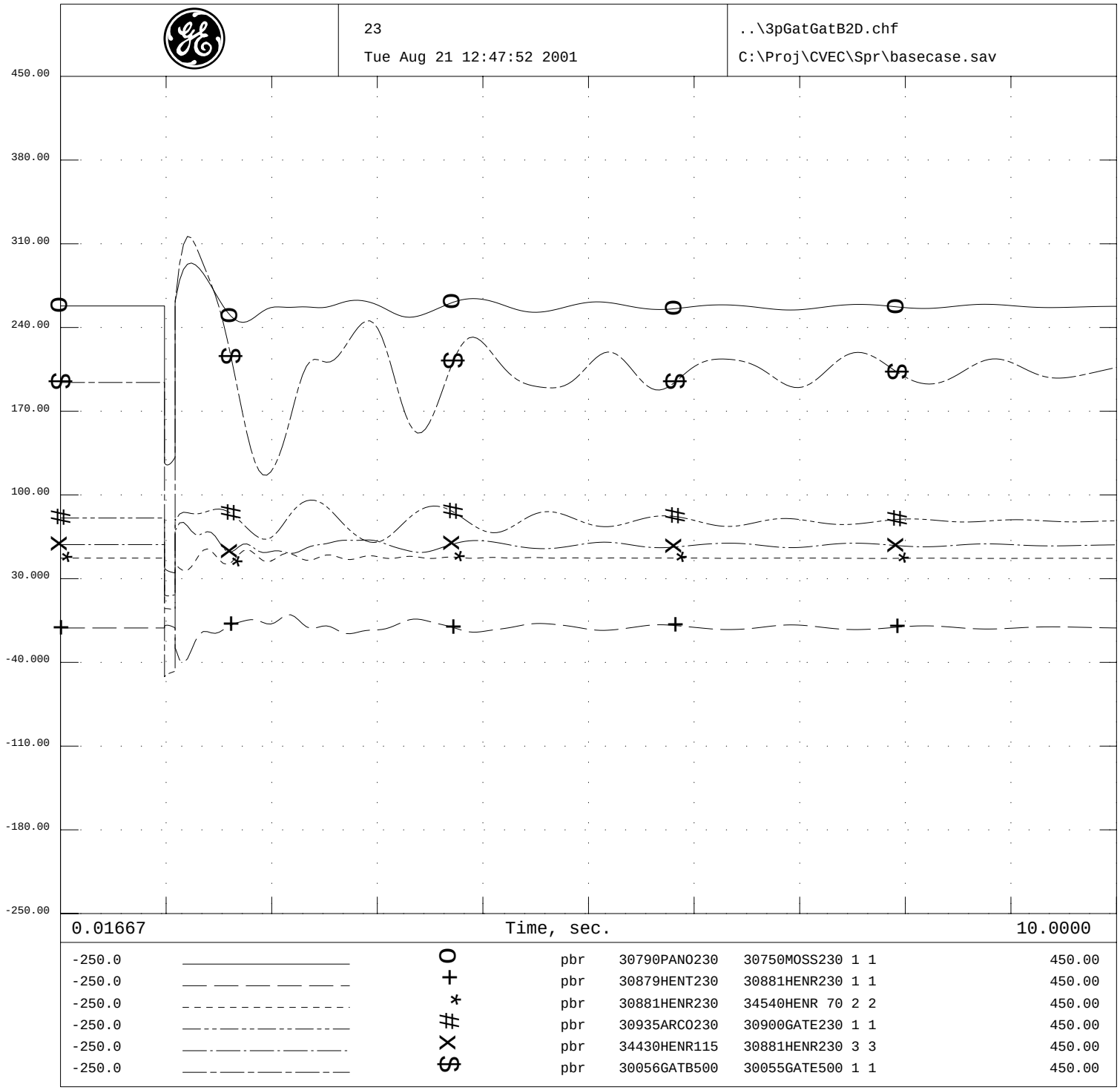

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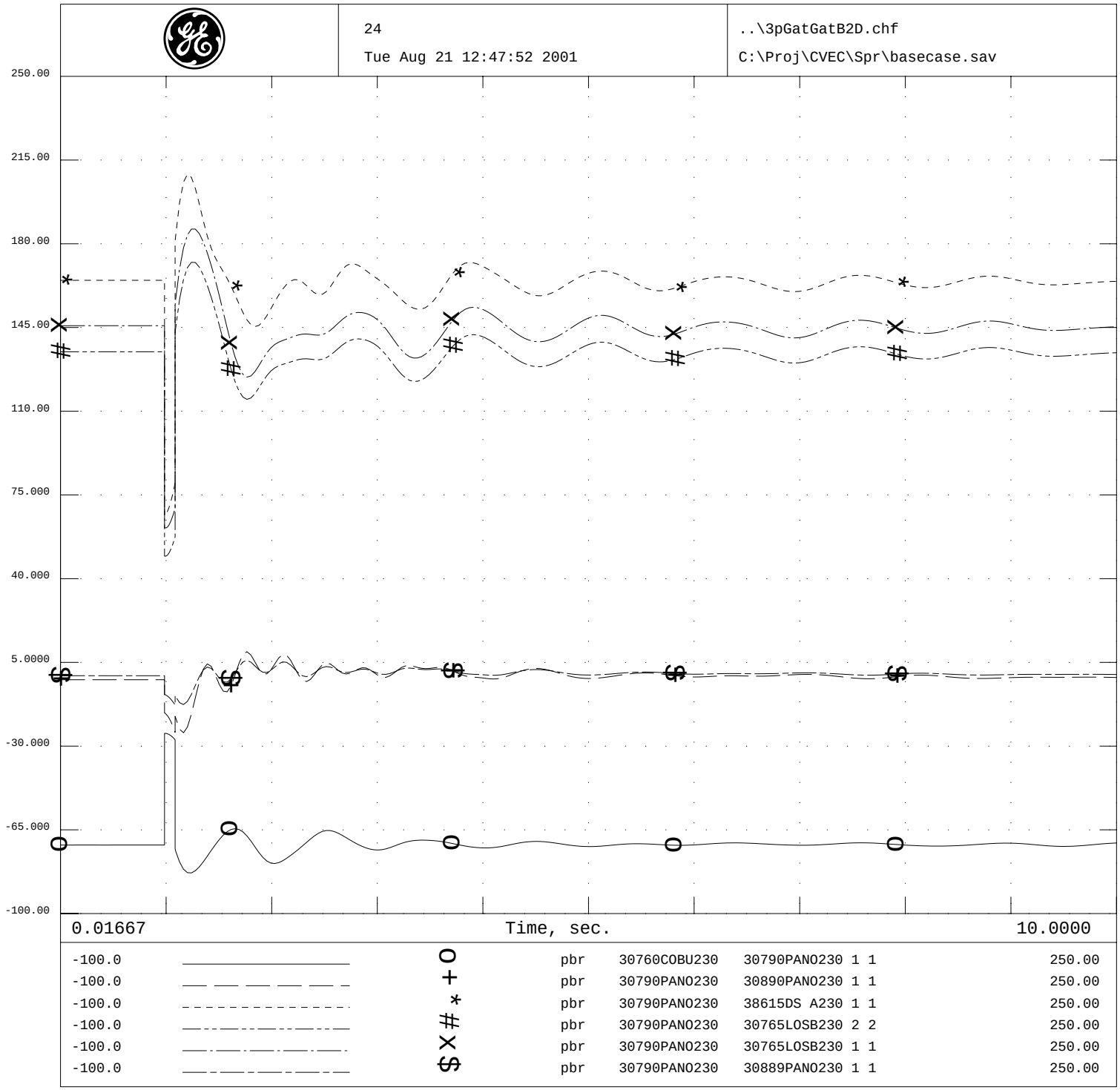

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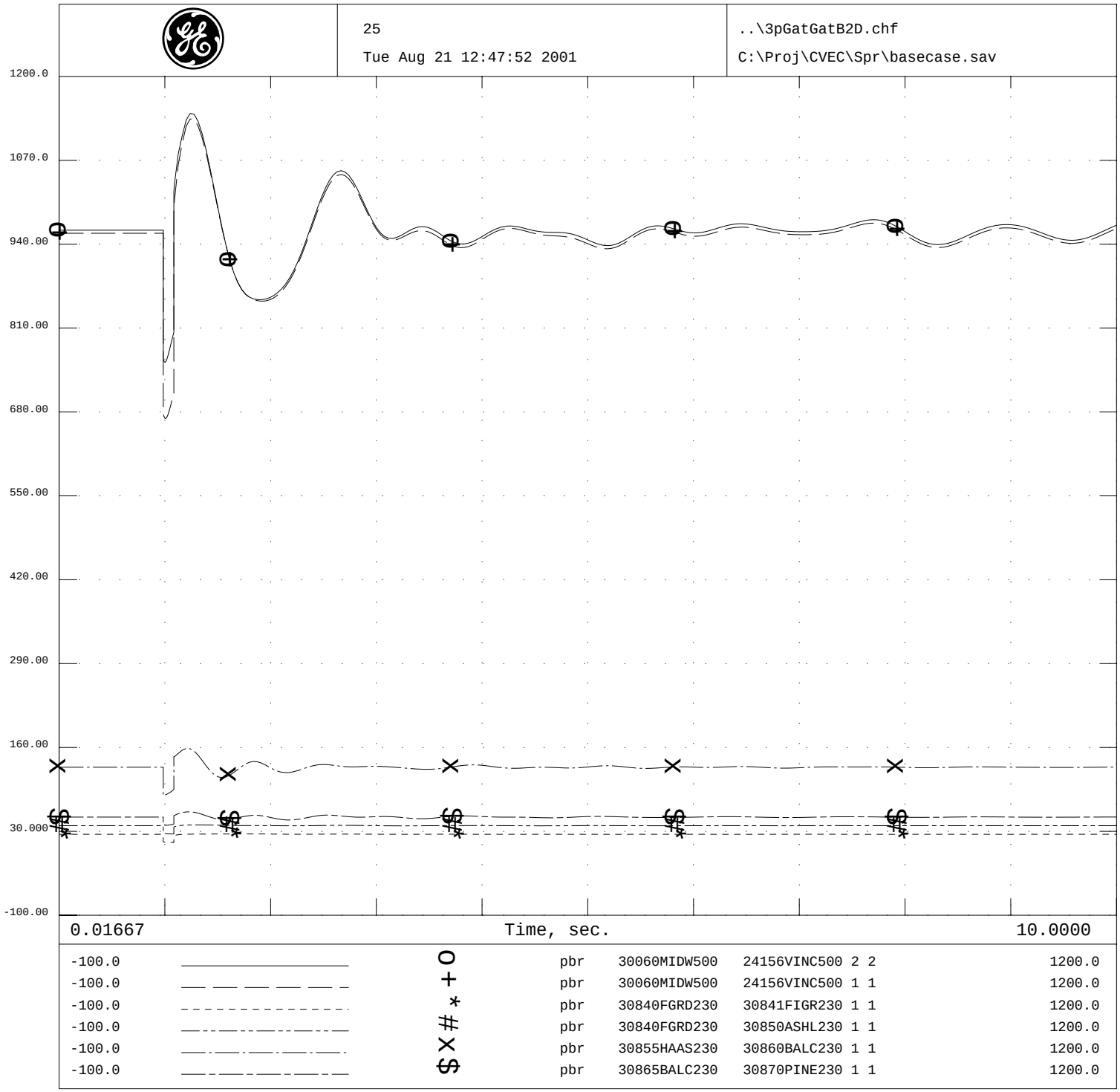
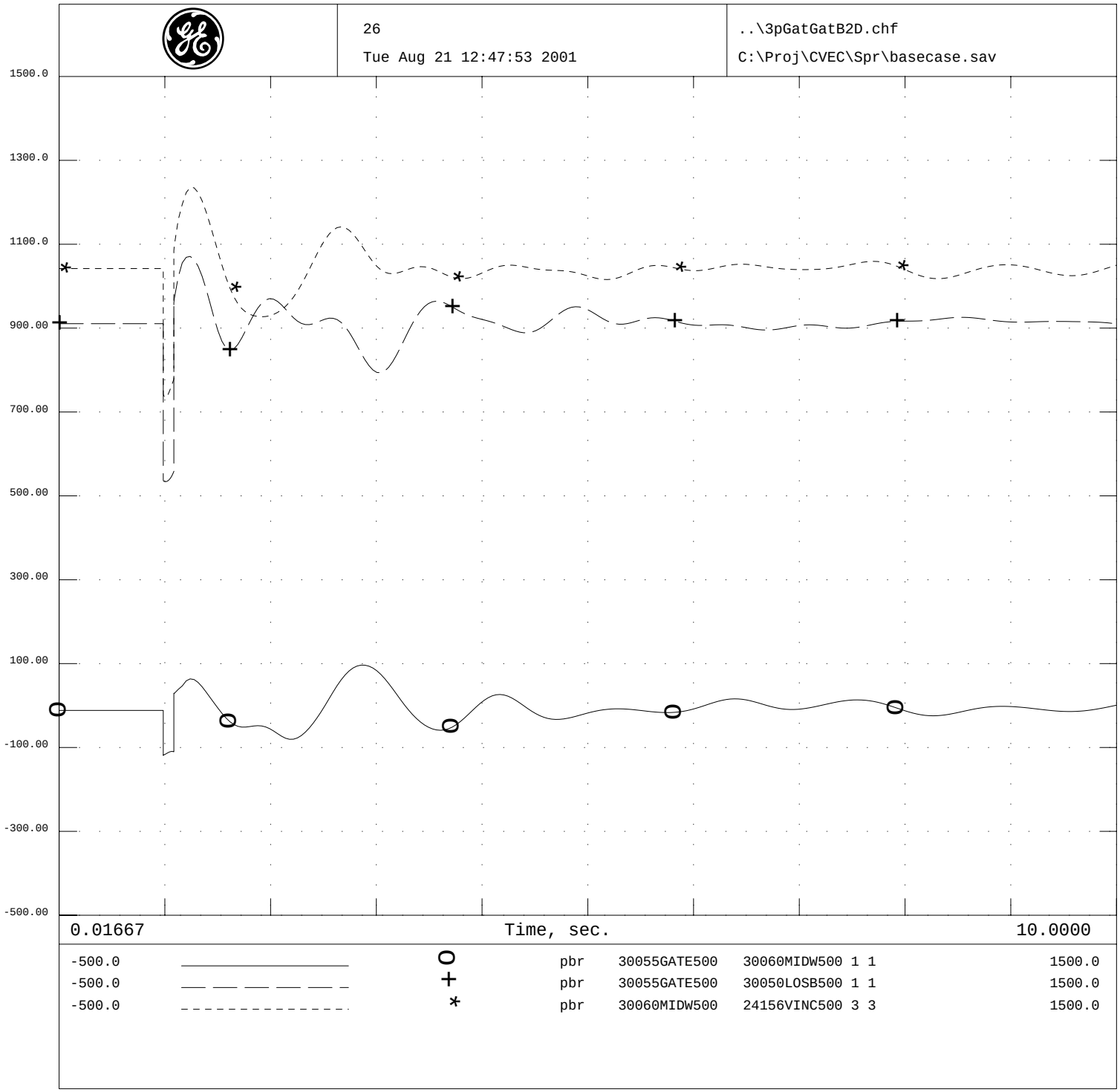


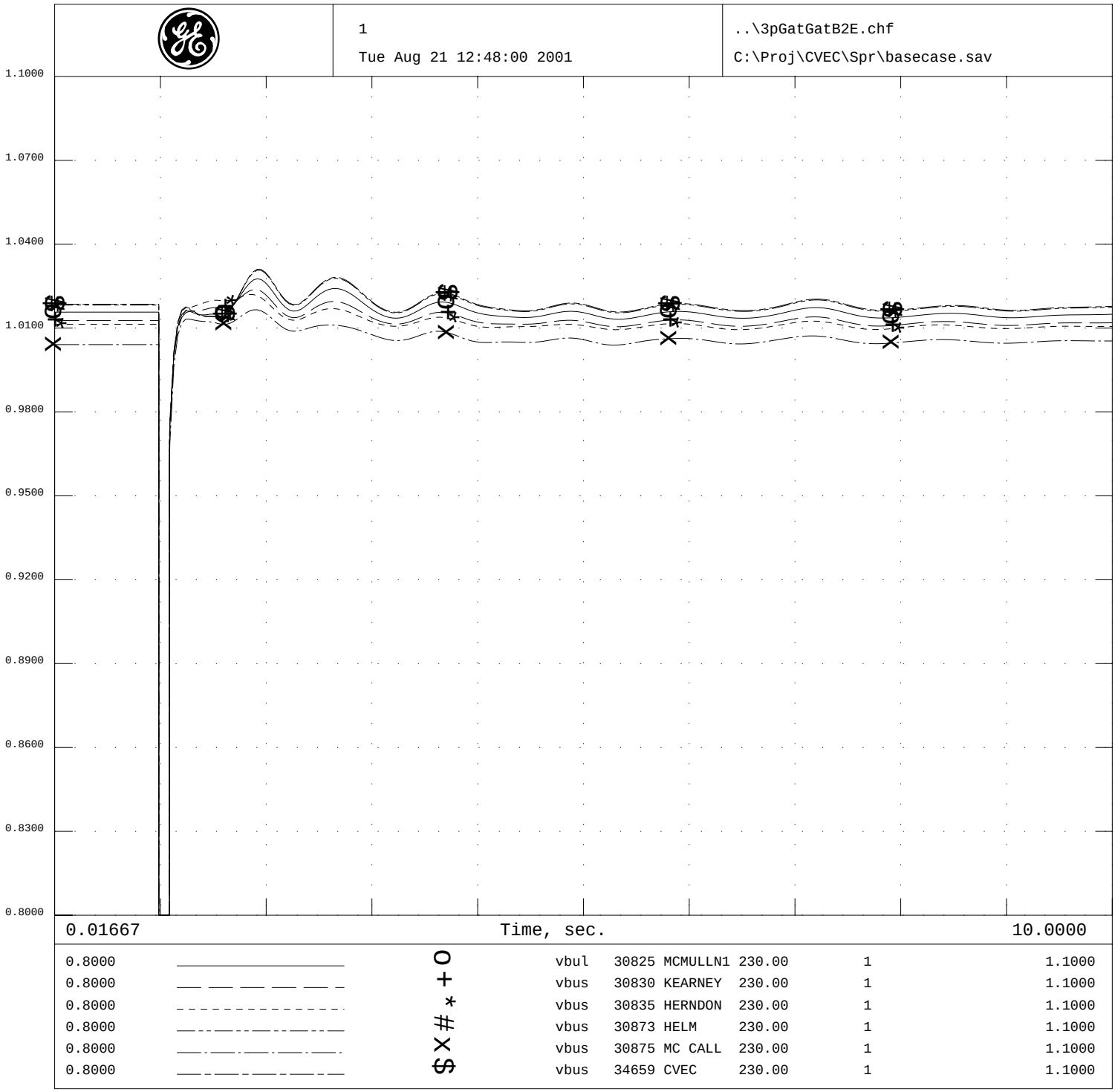
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 2D Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 2D

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



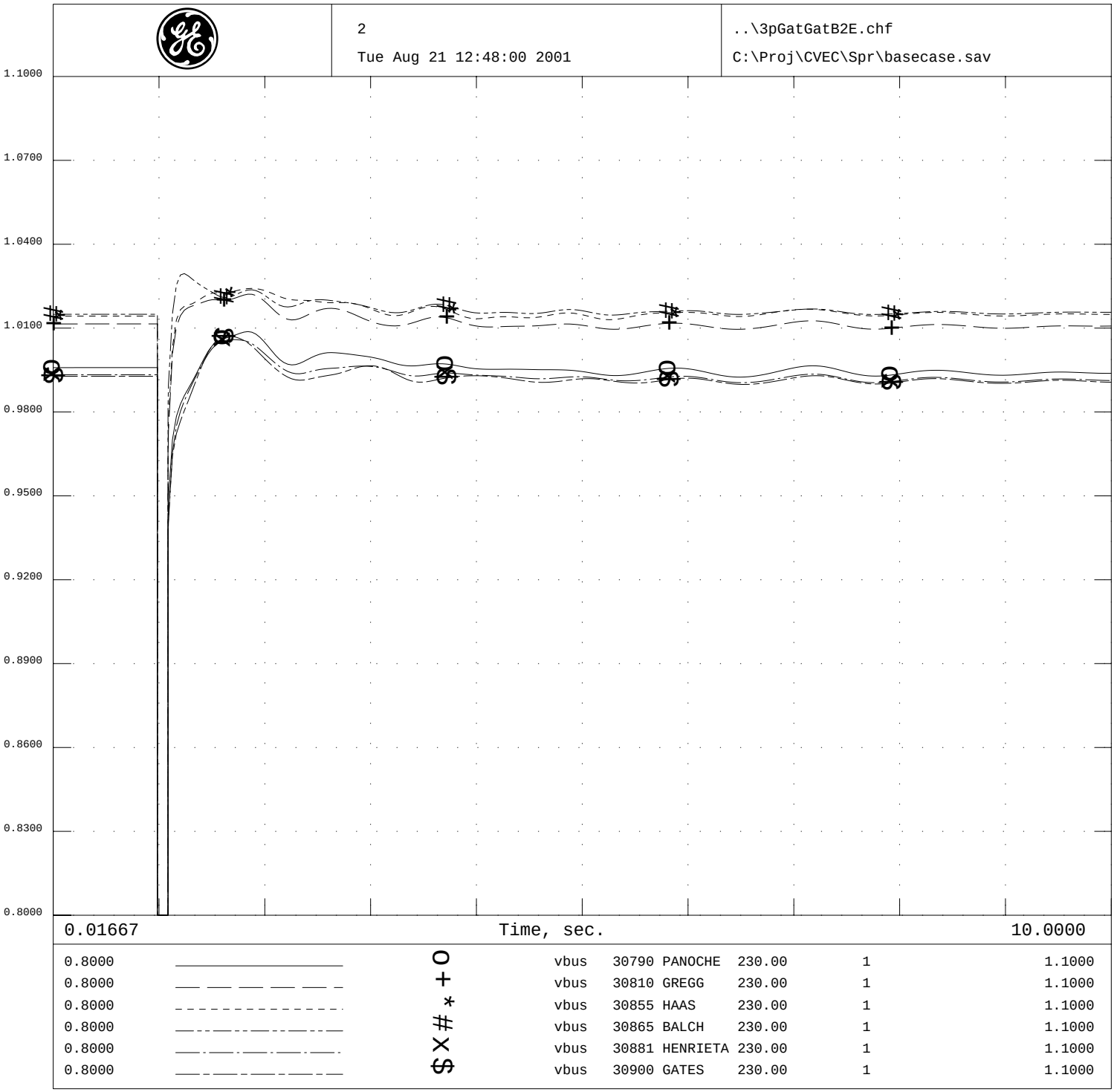
Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 2D Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 2D

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 2E Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 2E

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
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Calpine Corporation
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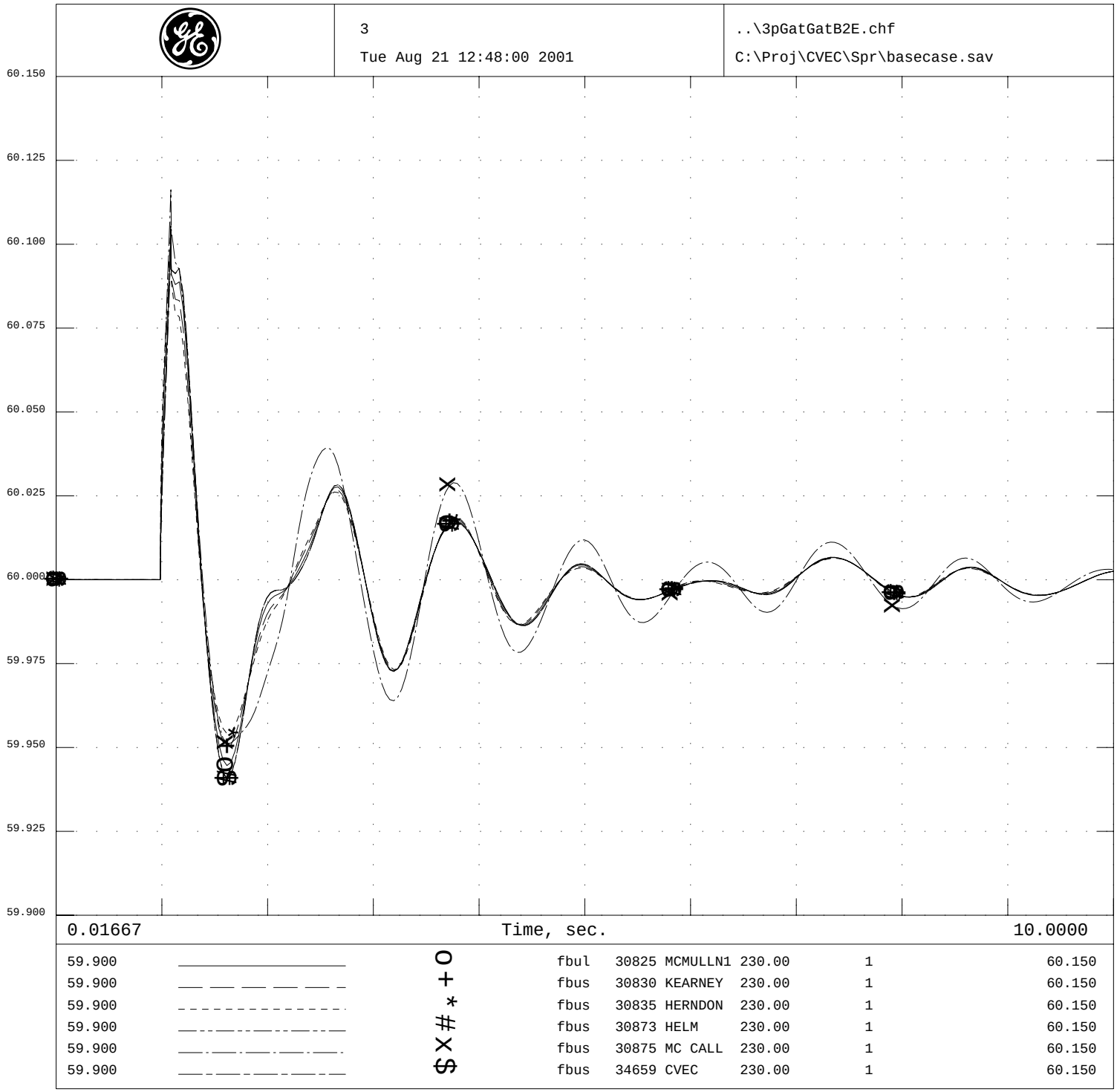
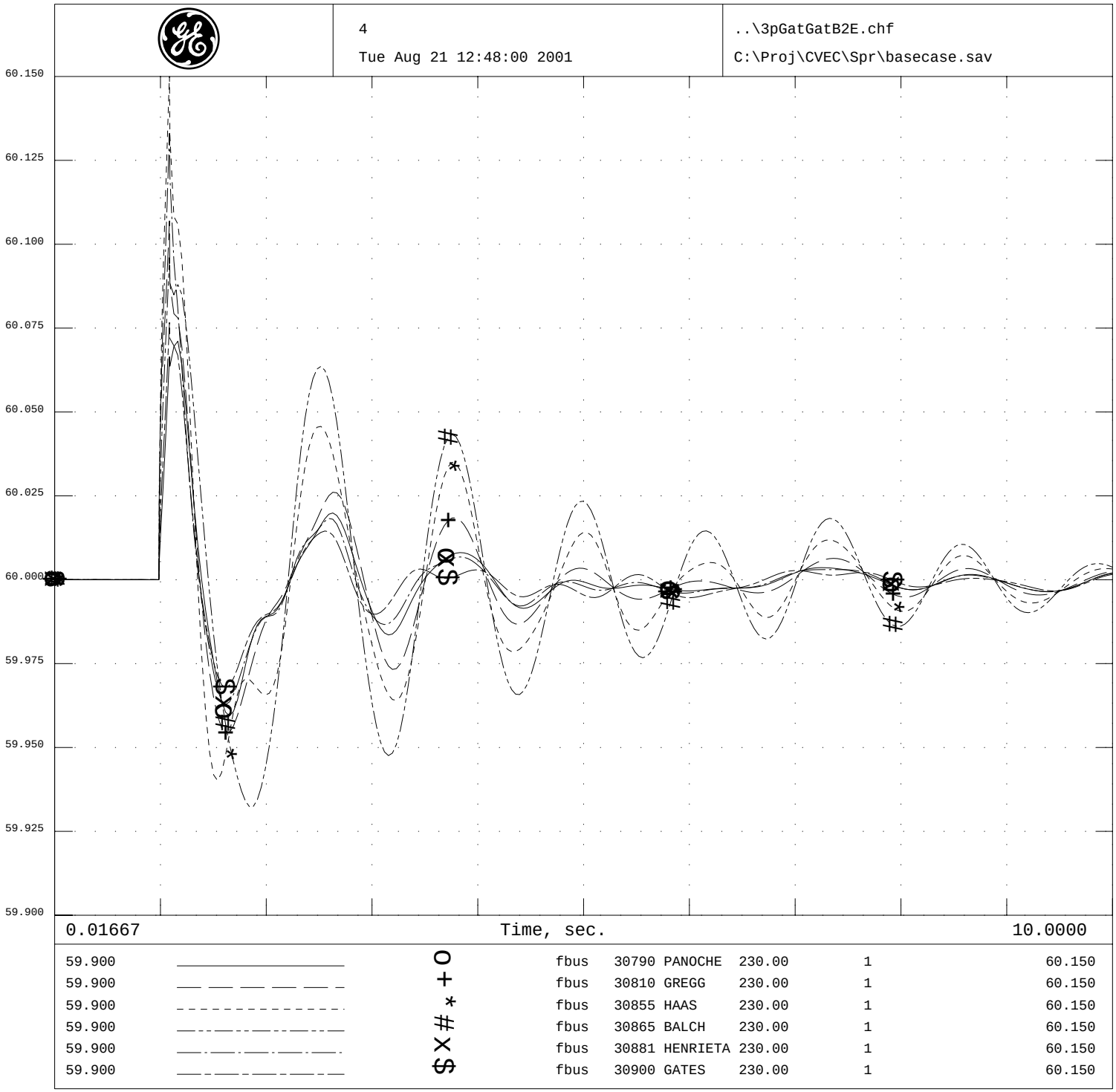


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 2E Outage
3 phase 6 cycle fault at Gates 230kV bus and clear bus 2E

Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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2004 Heavy Spring Base Case
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Calpine Corporation
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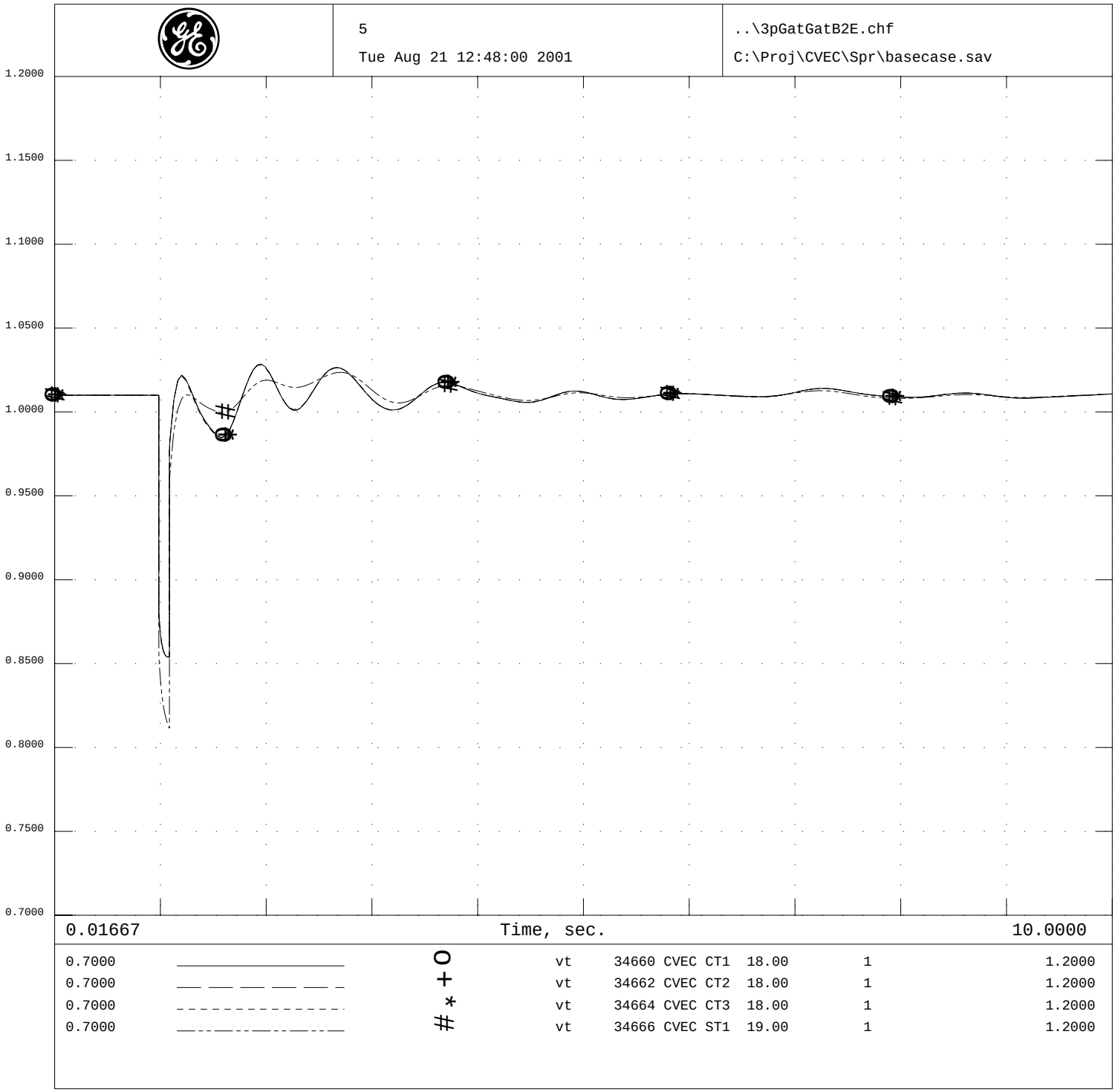

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2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 2E Outage
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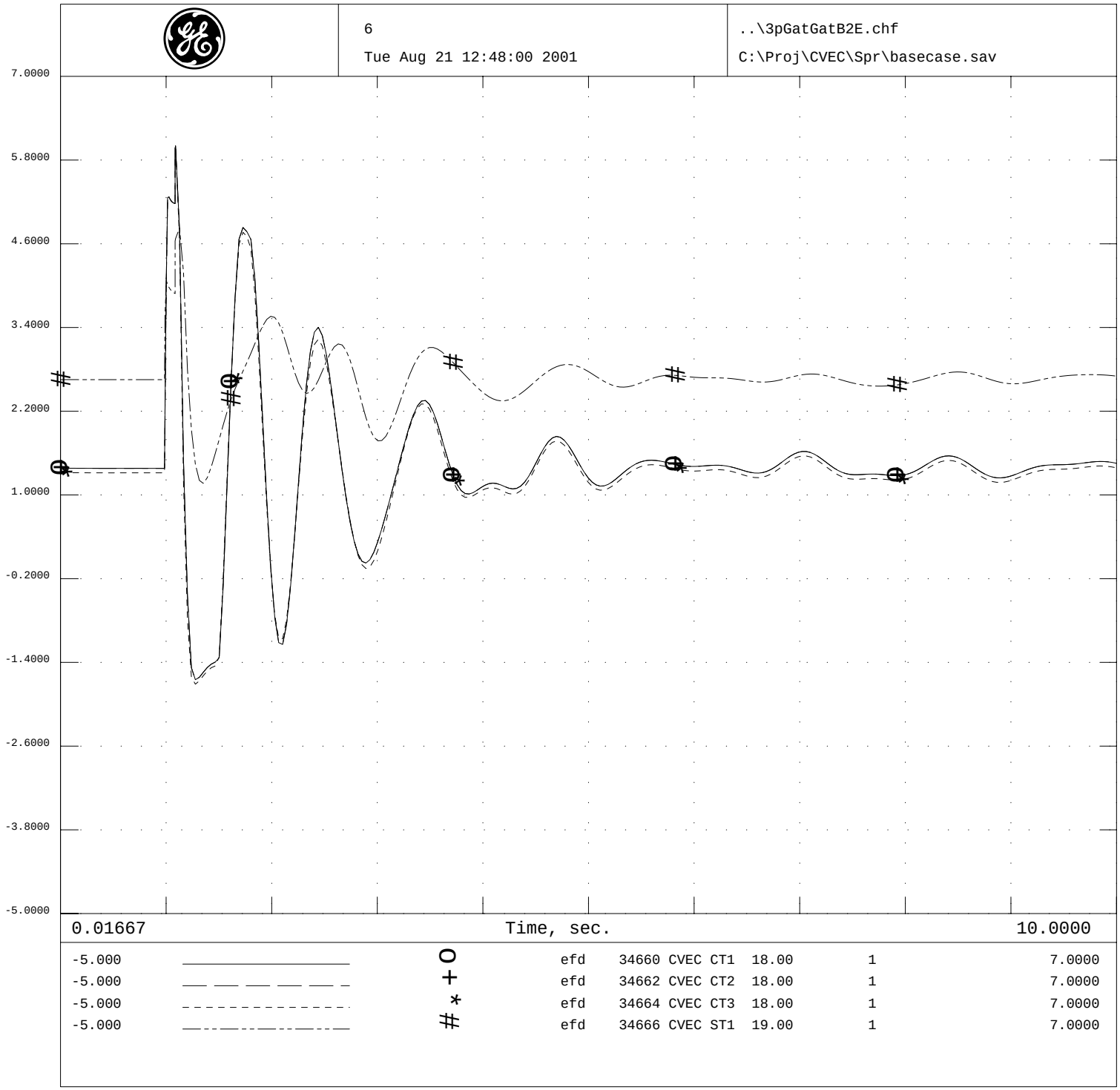
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Heavy Spring Base Case
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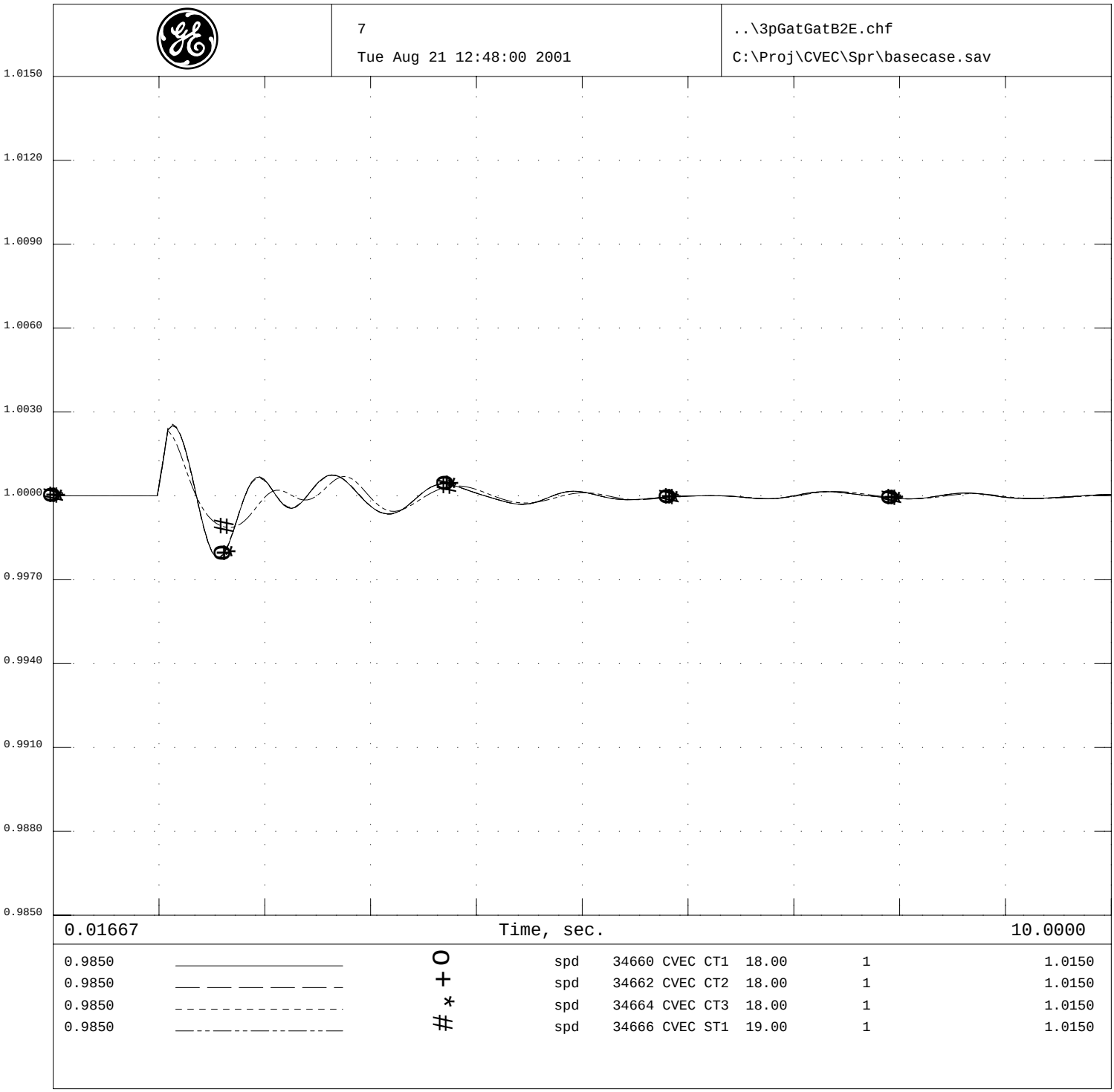
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 2E Outage
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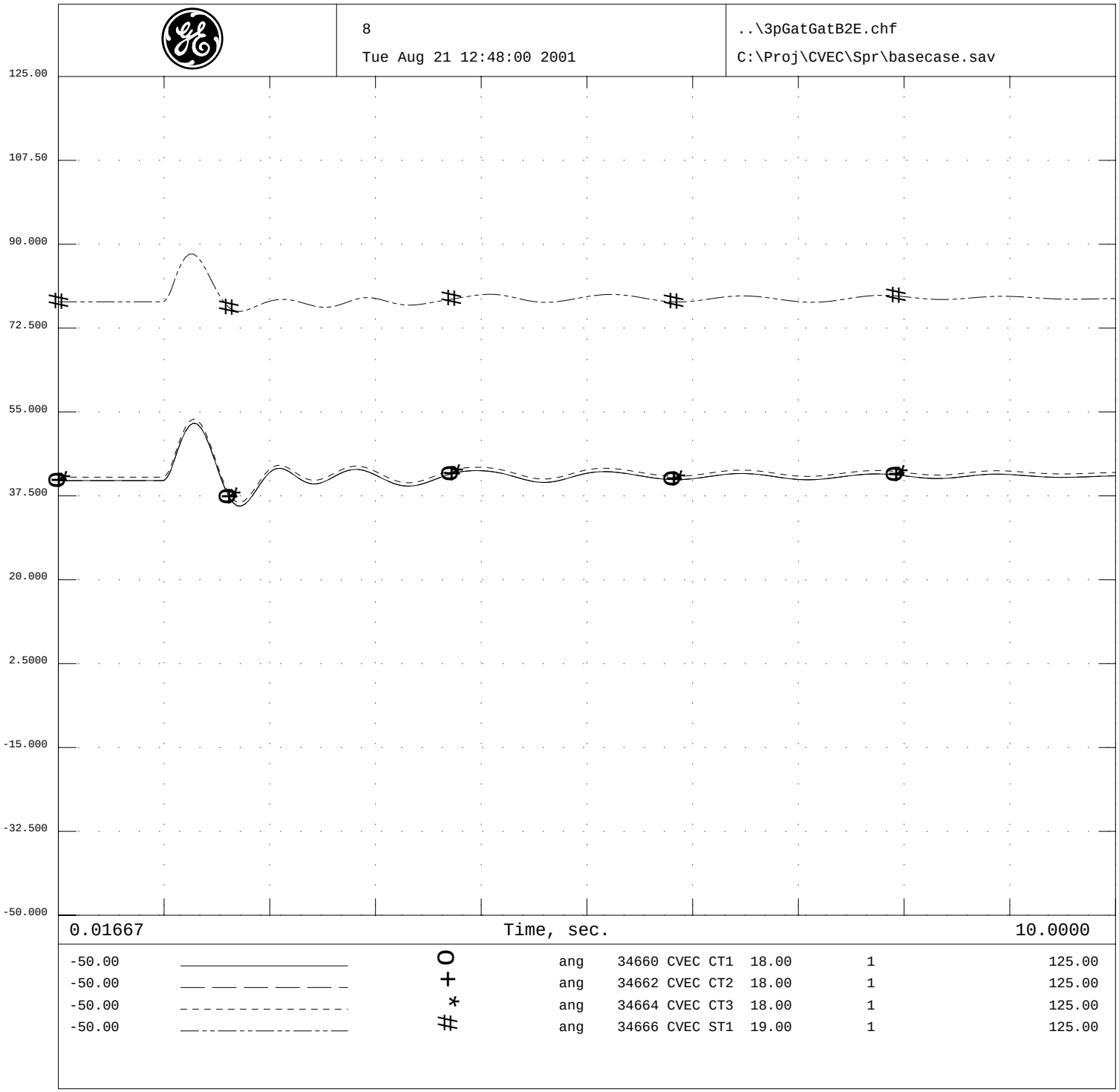
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Gates 230kV Bus 2E Outage
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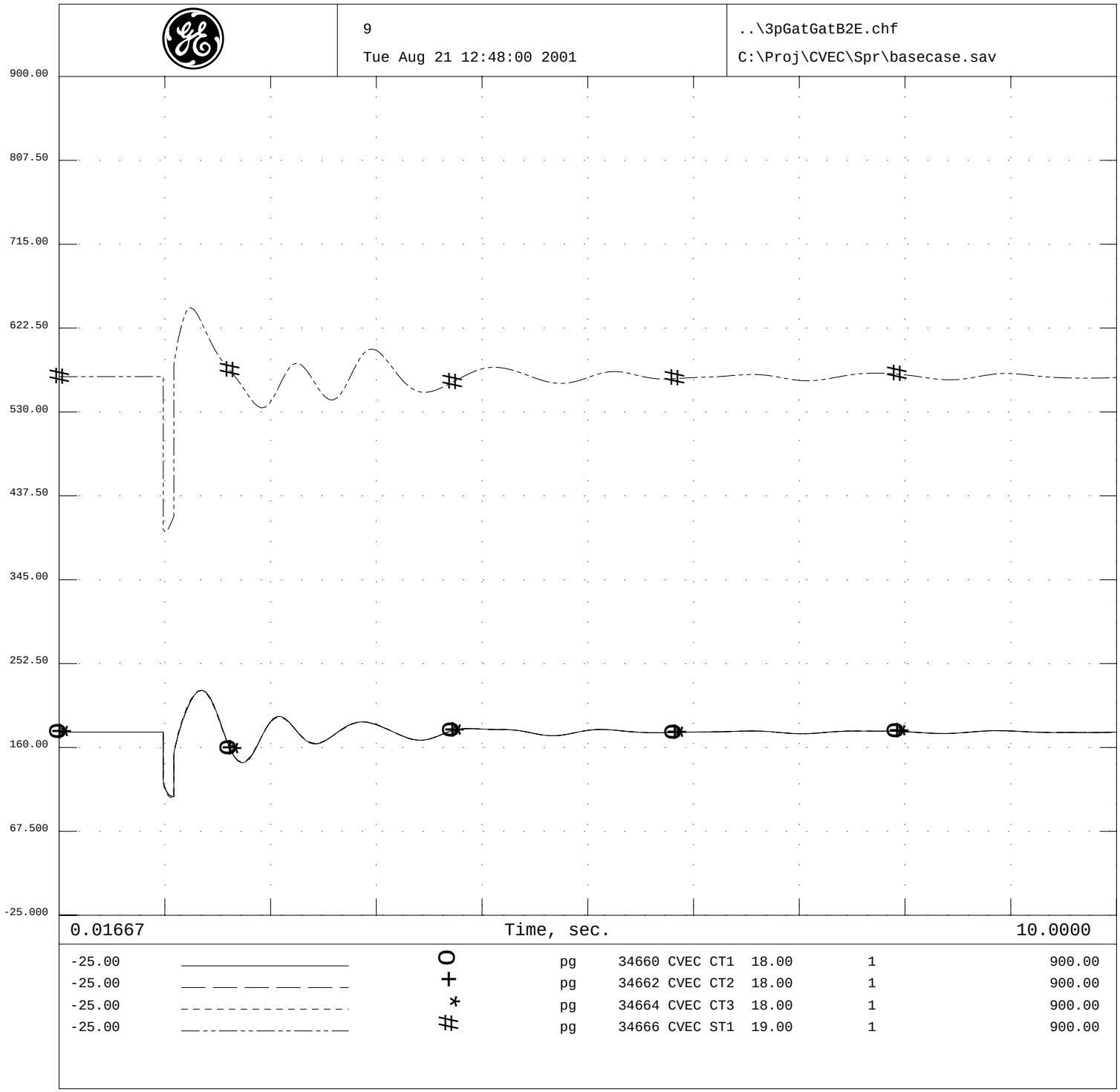
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
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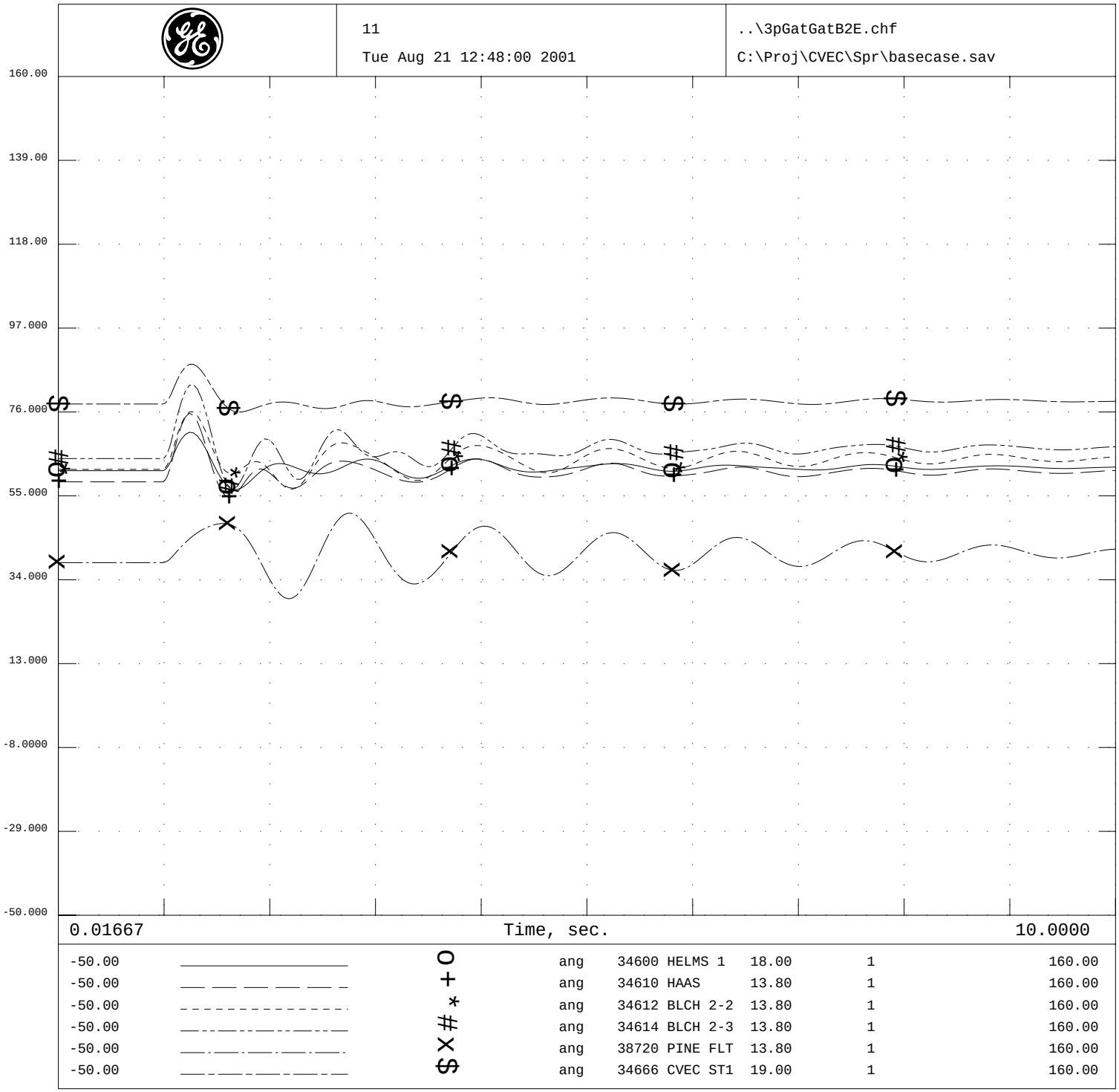
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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2004 Heavy Spring Base Case
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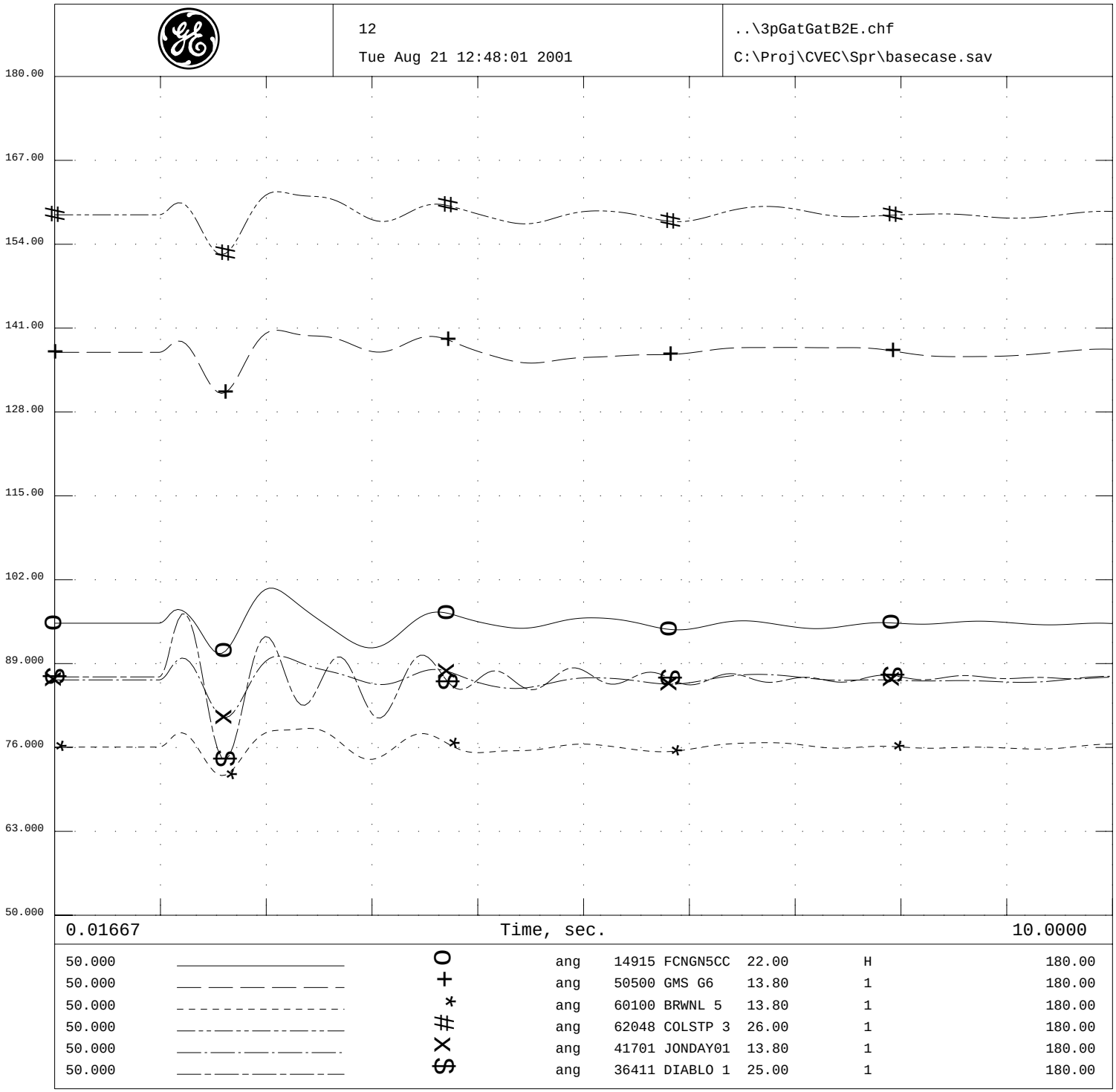
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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2004 Heavy Spring Base Case
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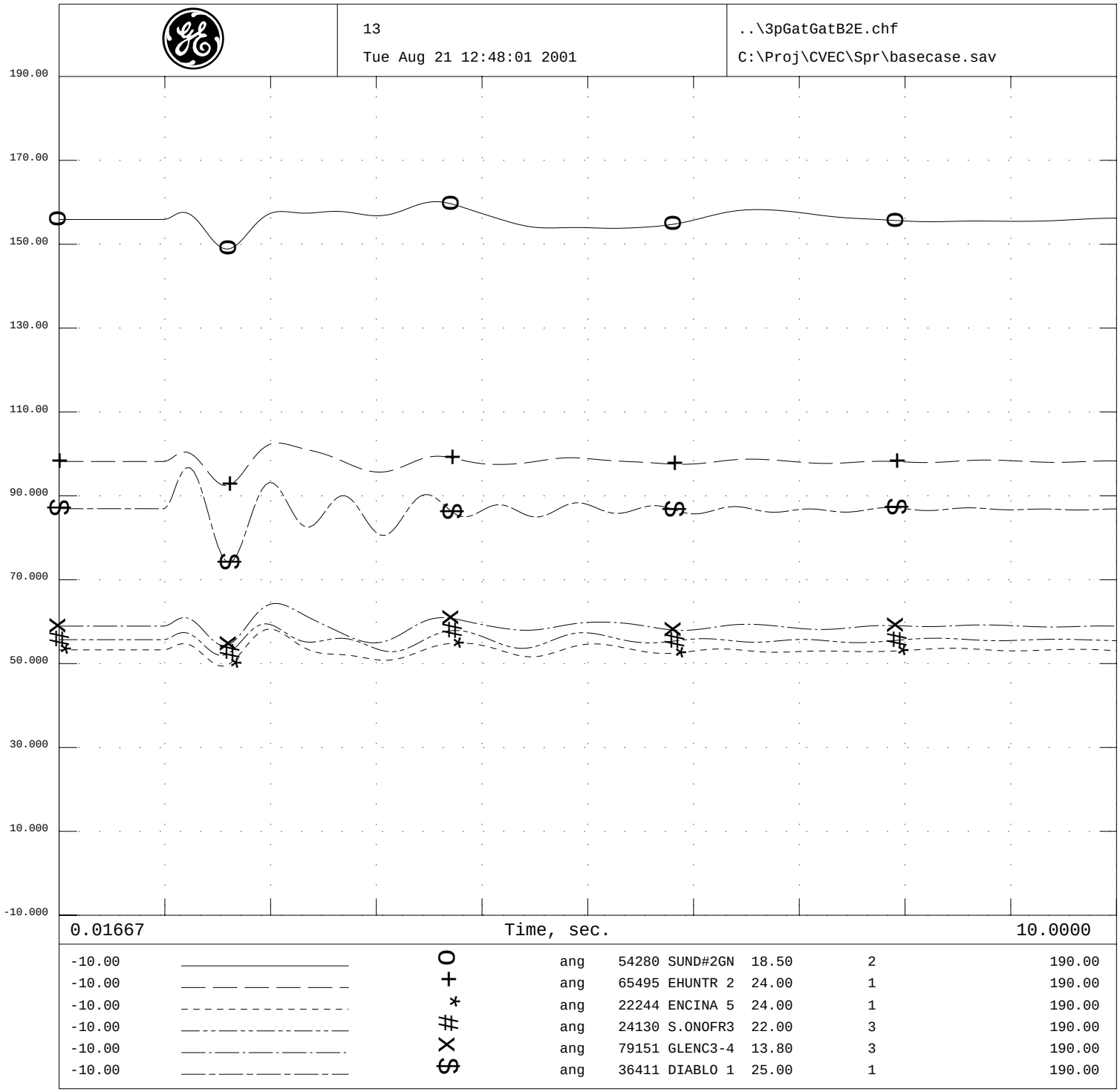
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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Calpine Corporation
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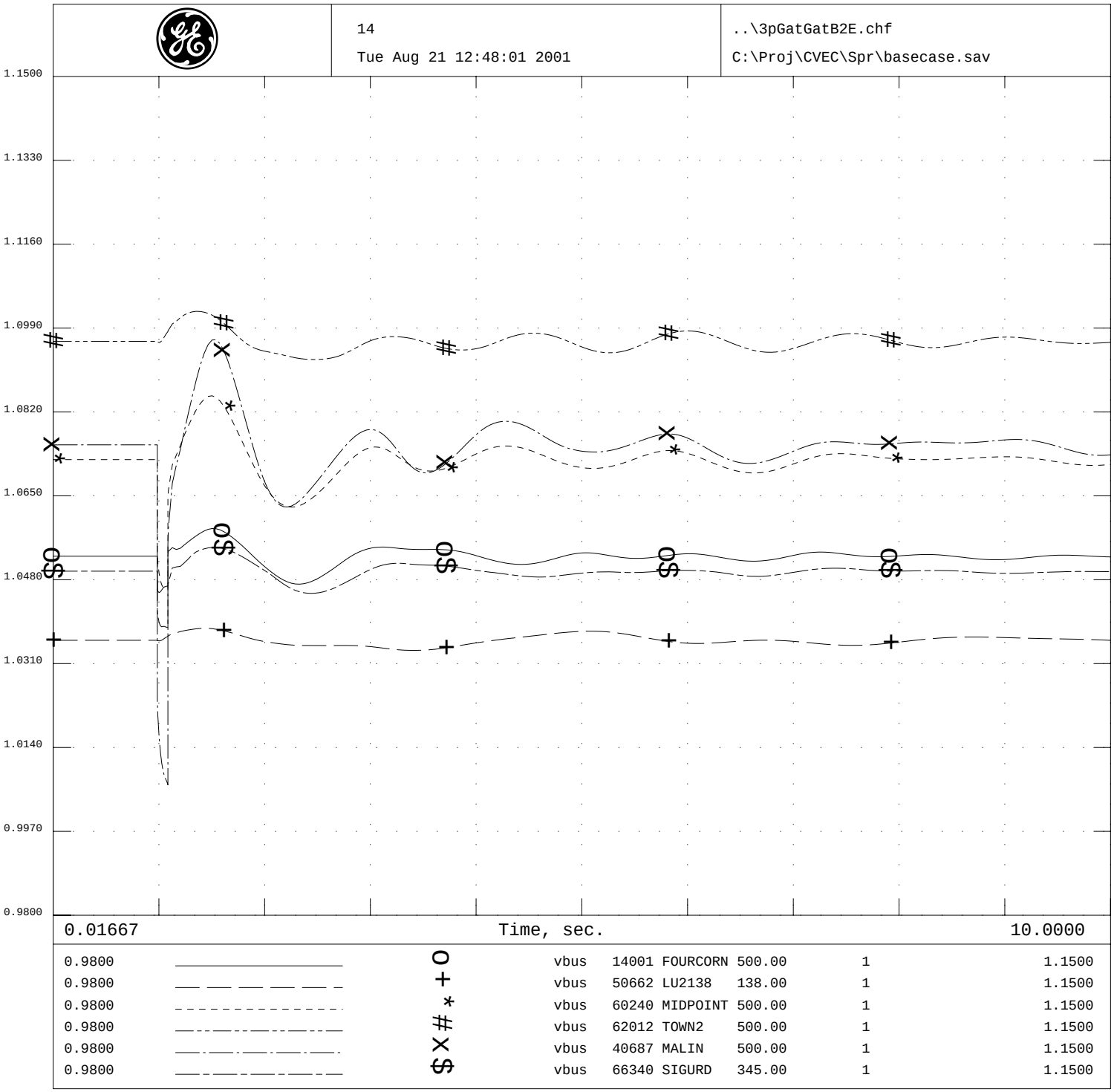

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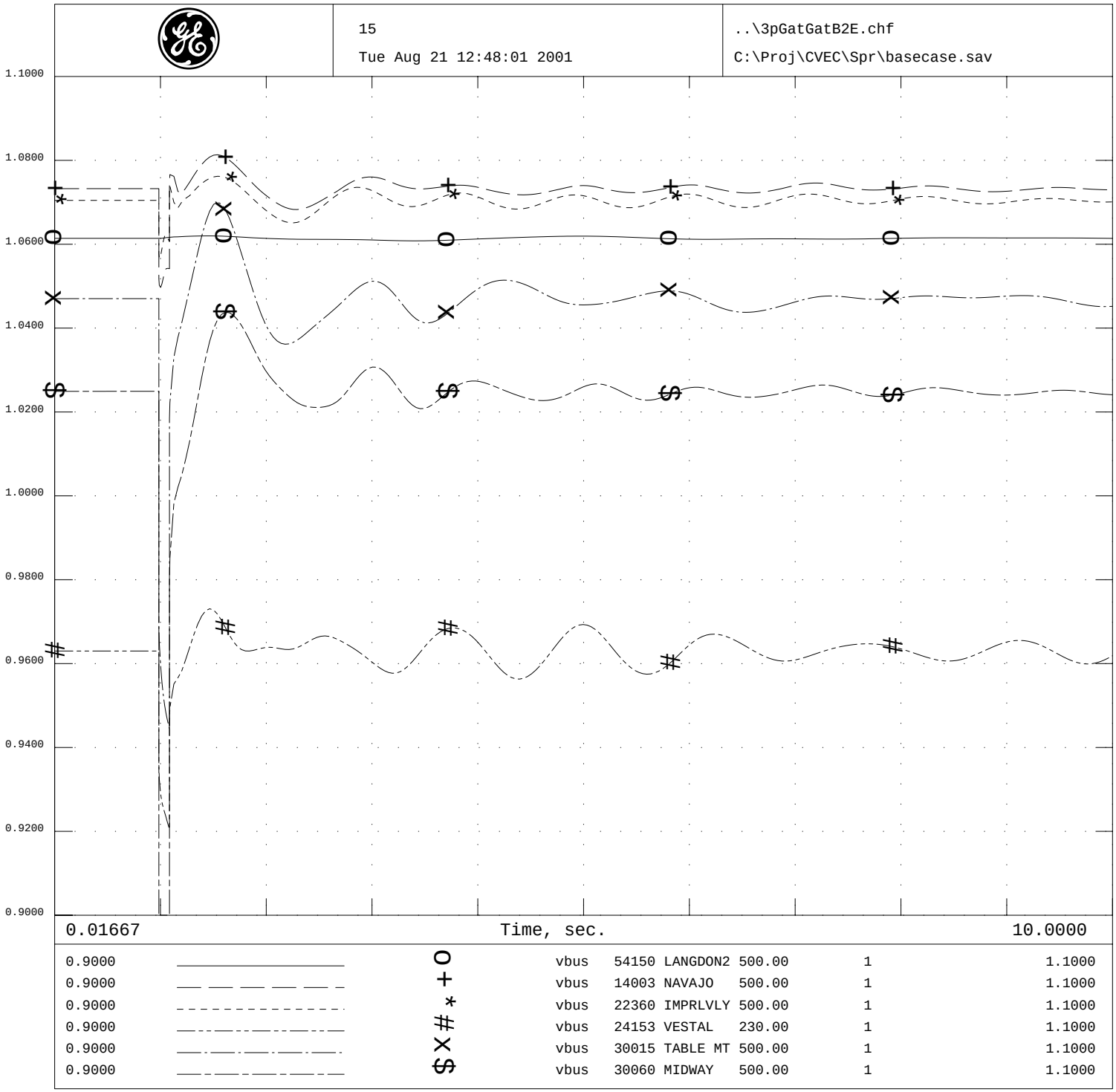
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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Calpine Corporation
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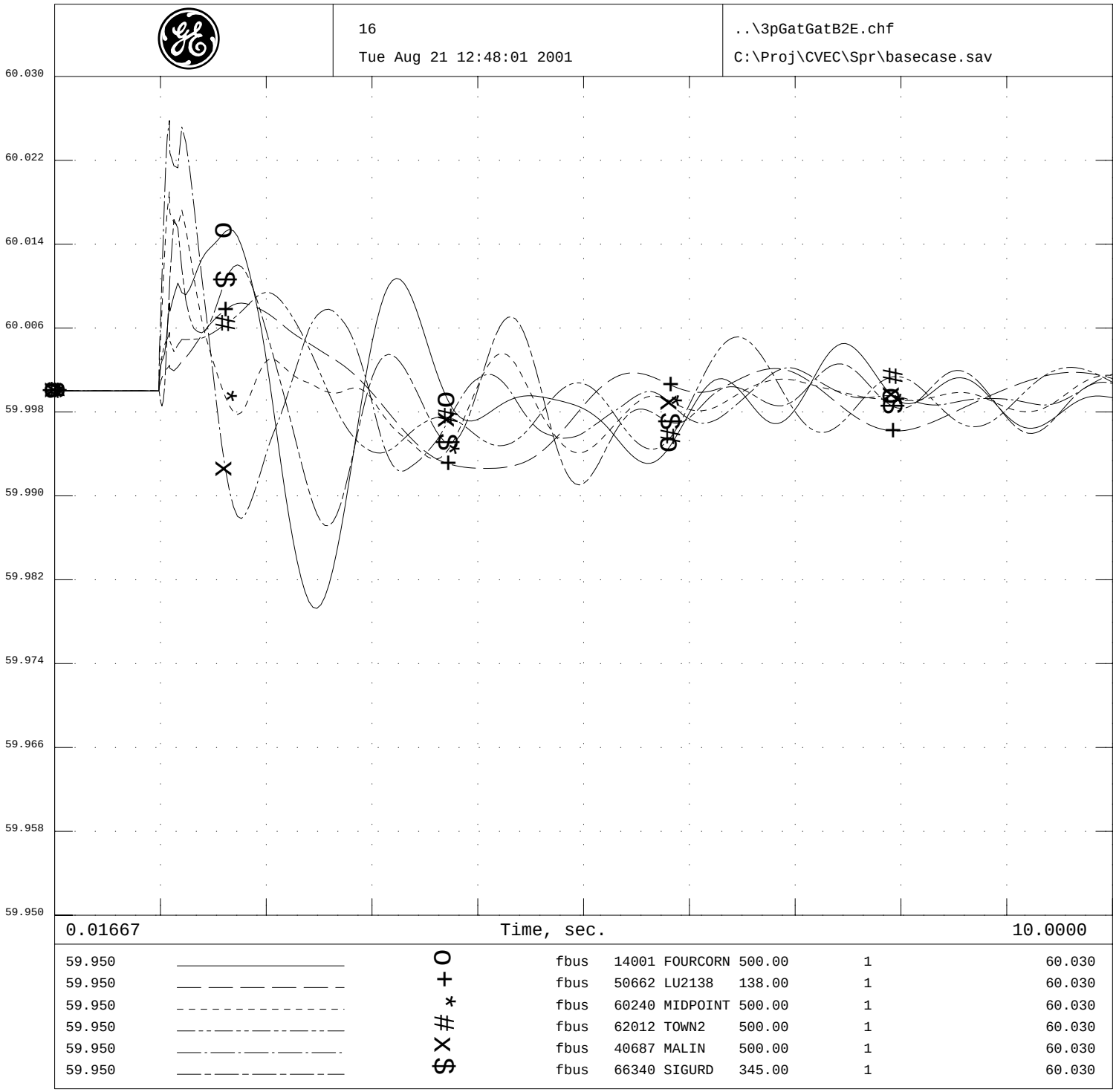

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2004 Heavy Spring Base Case
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Central Valley Energy Center
Calpine Corporation
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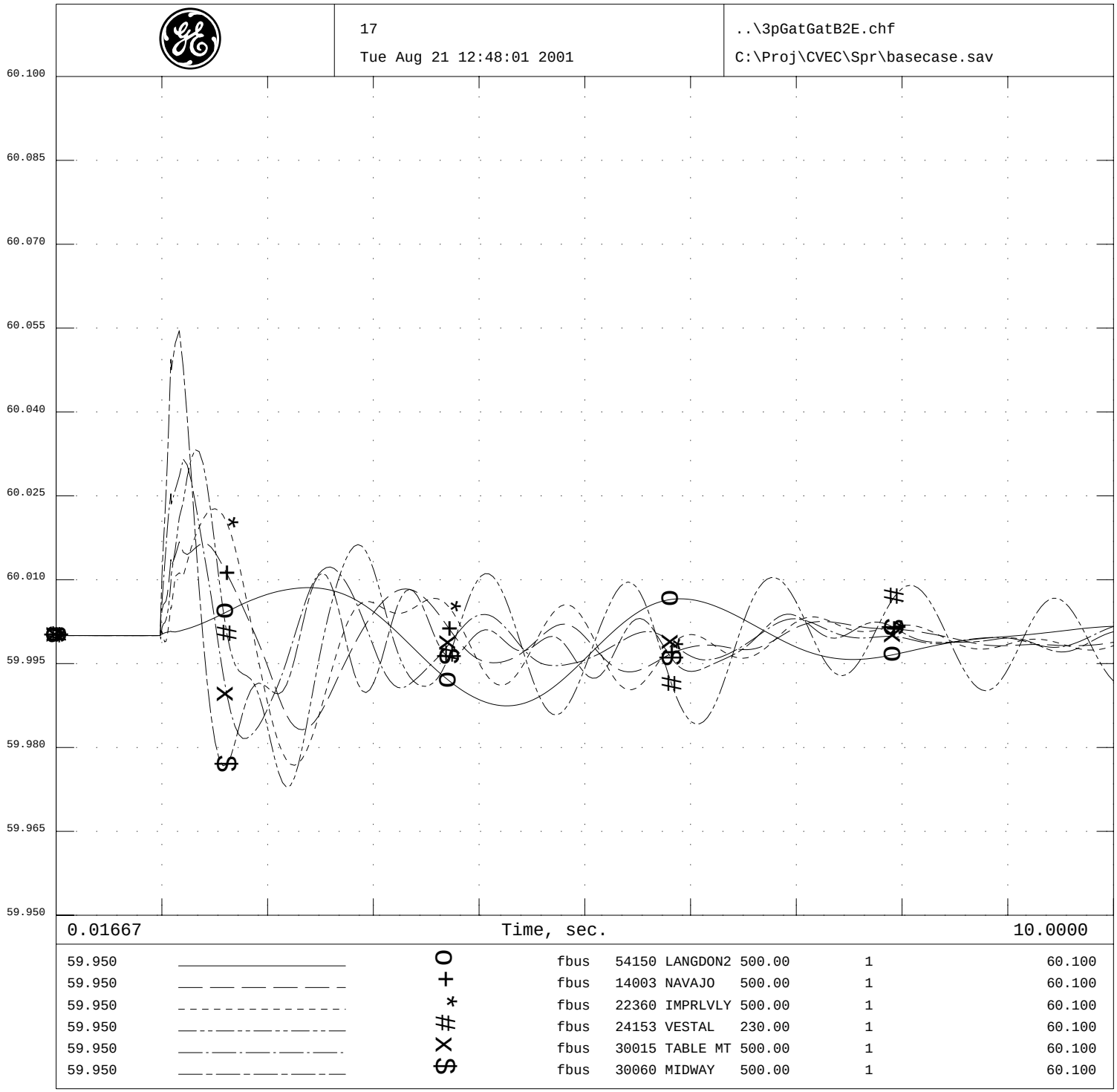

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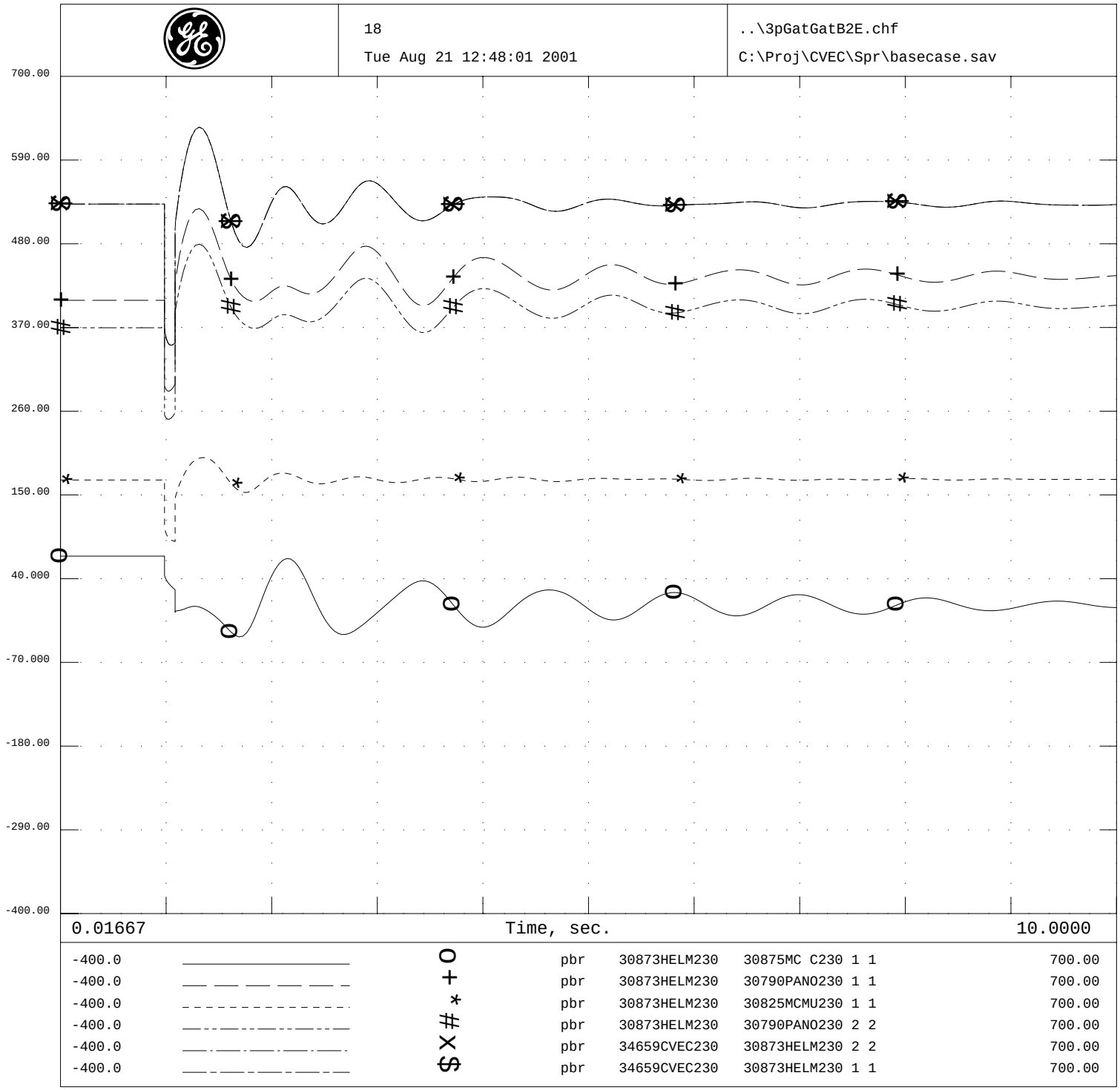

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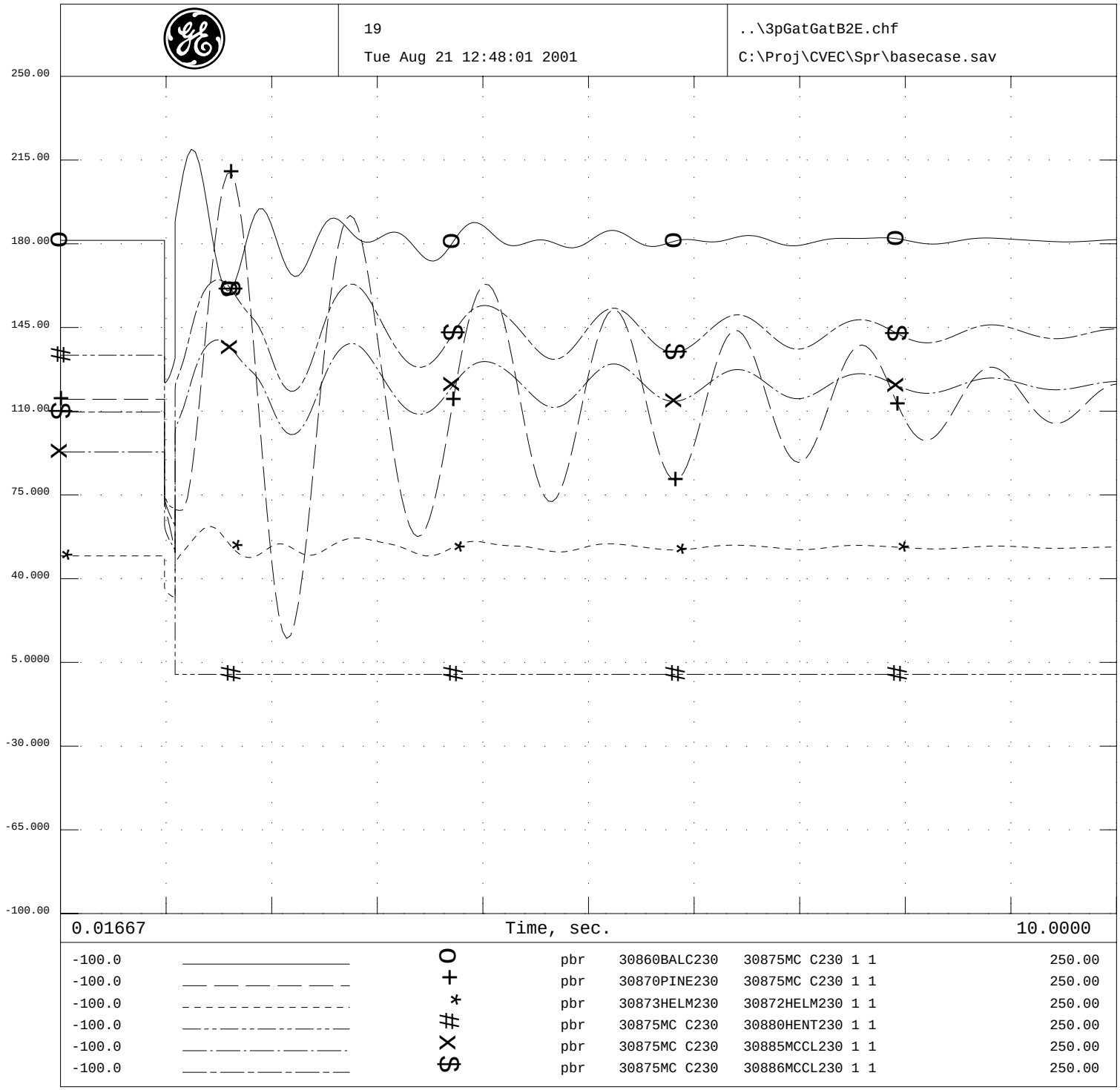
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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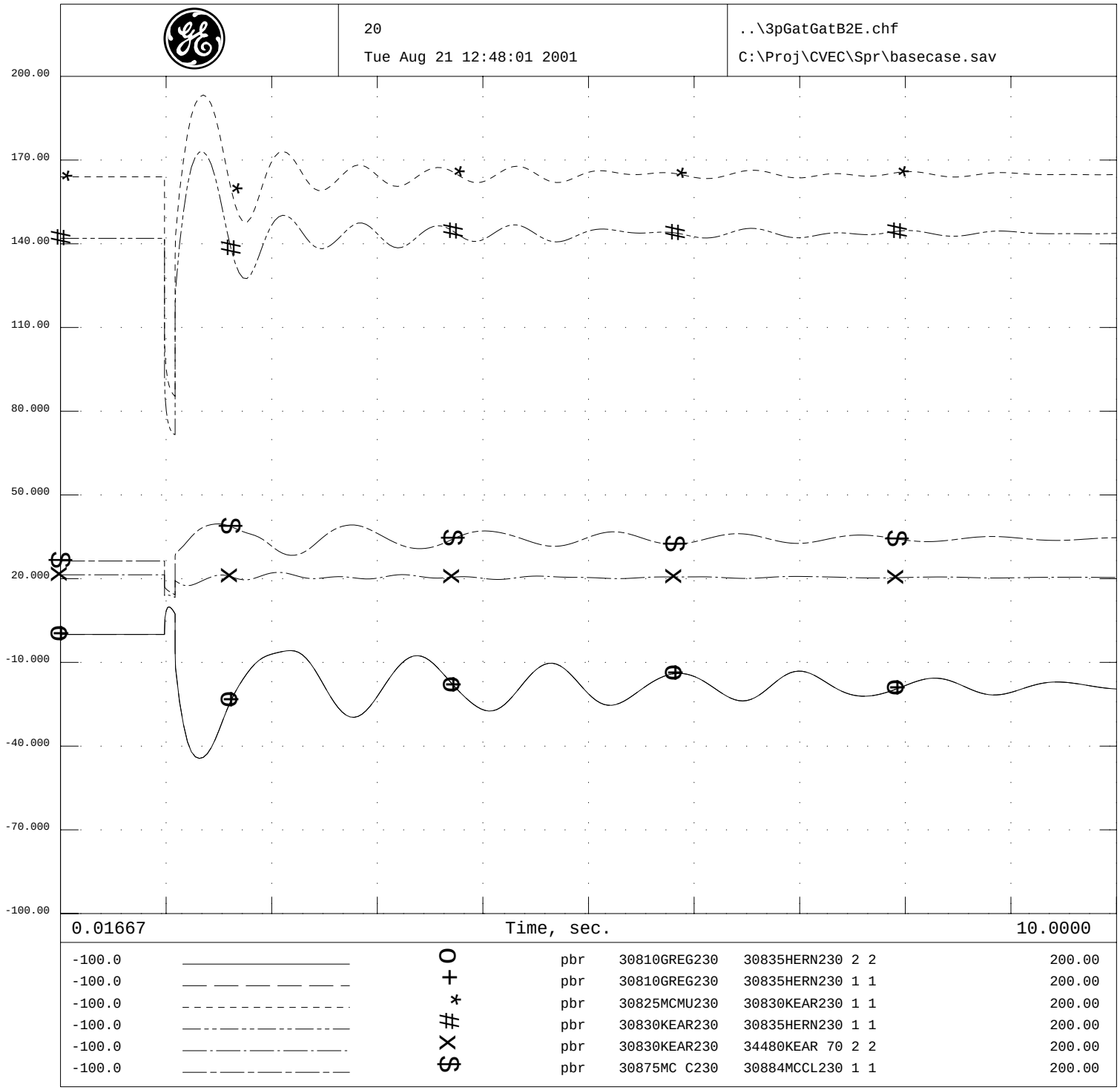

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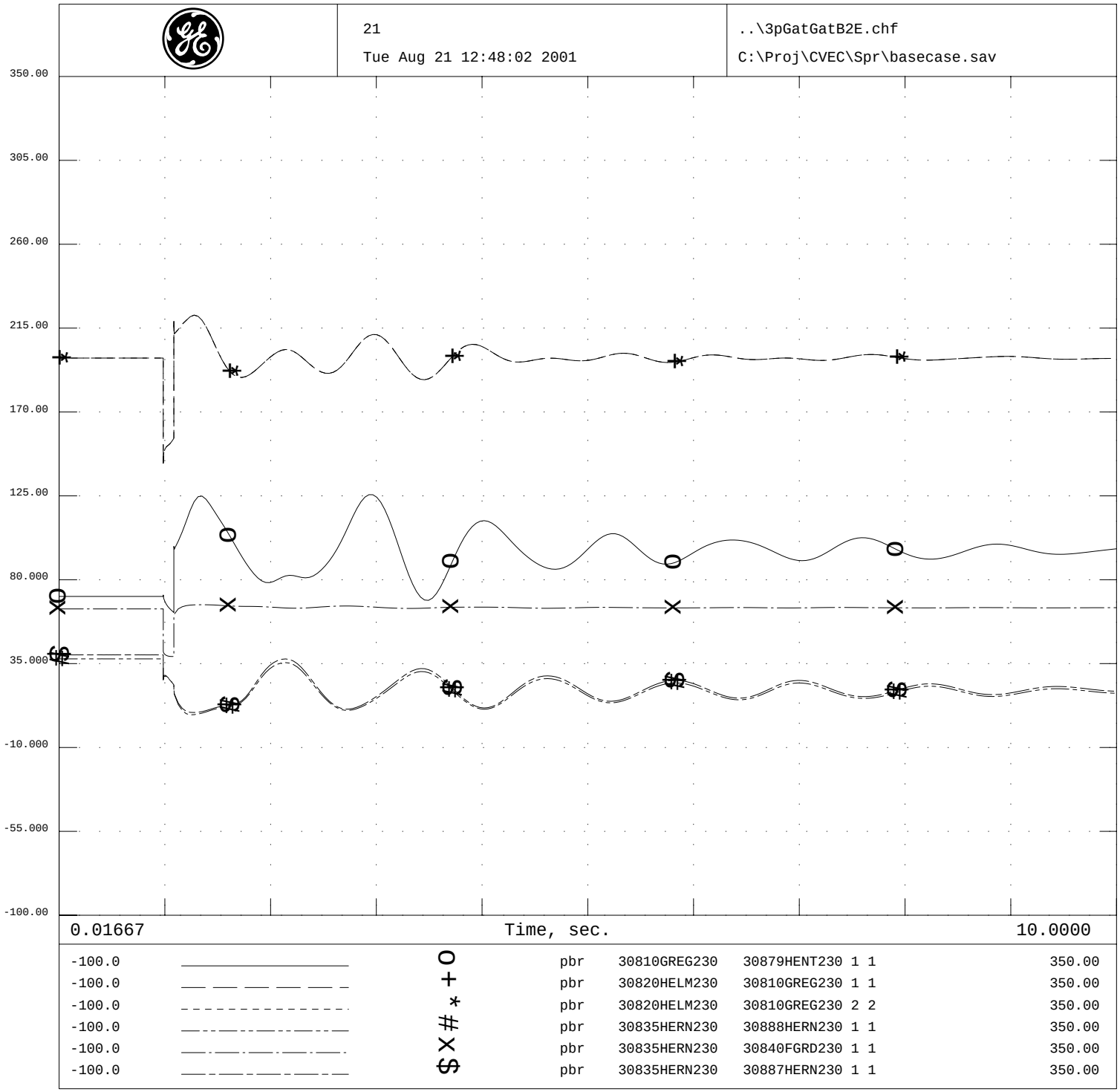

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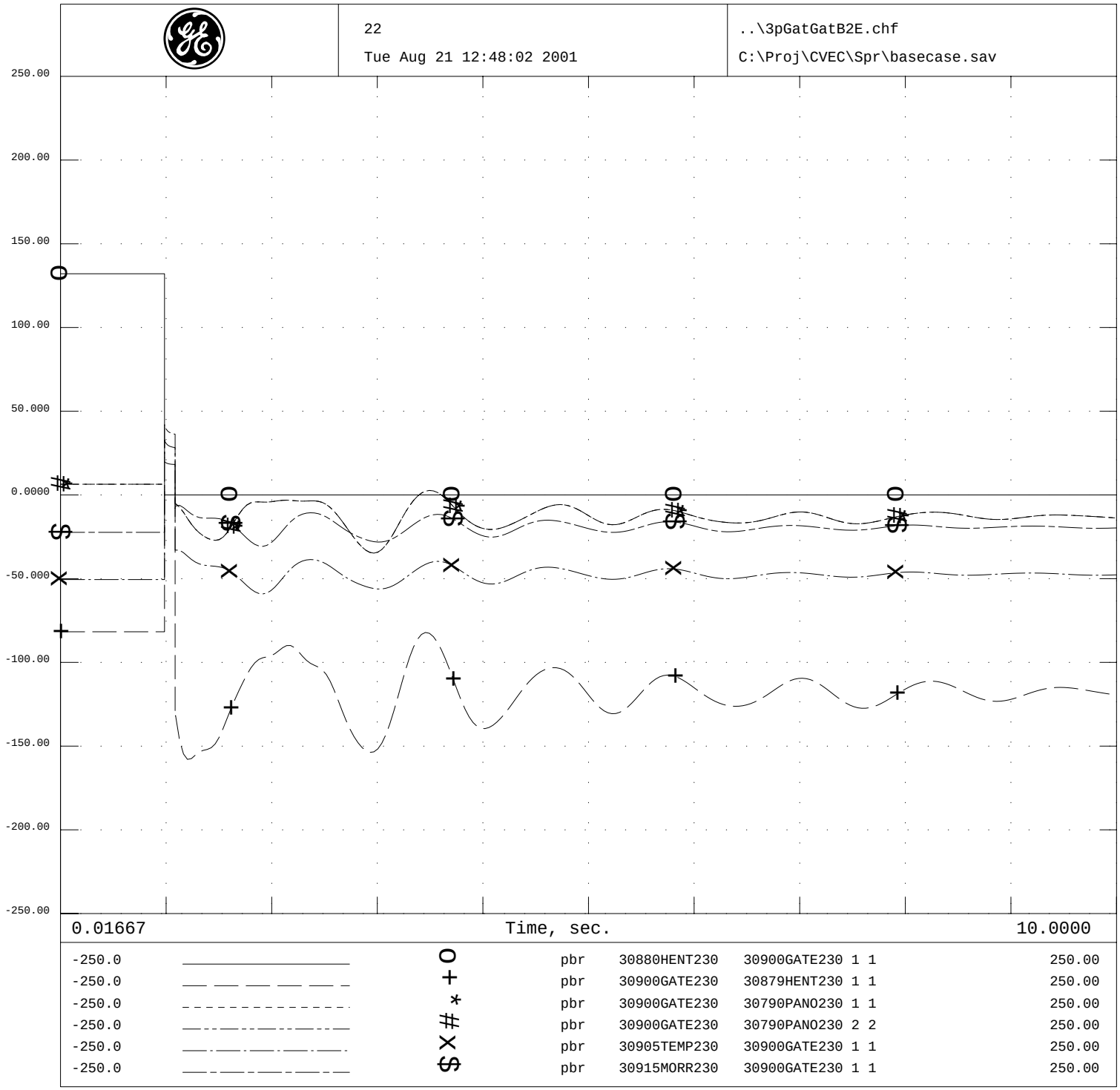

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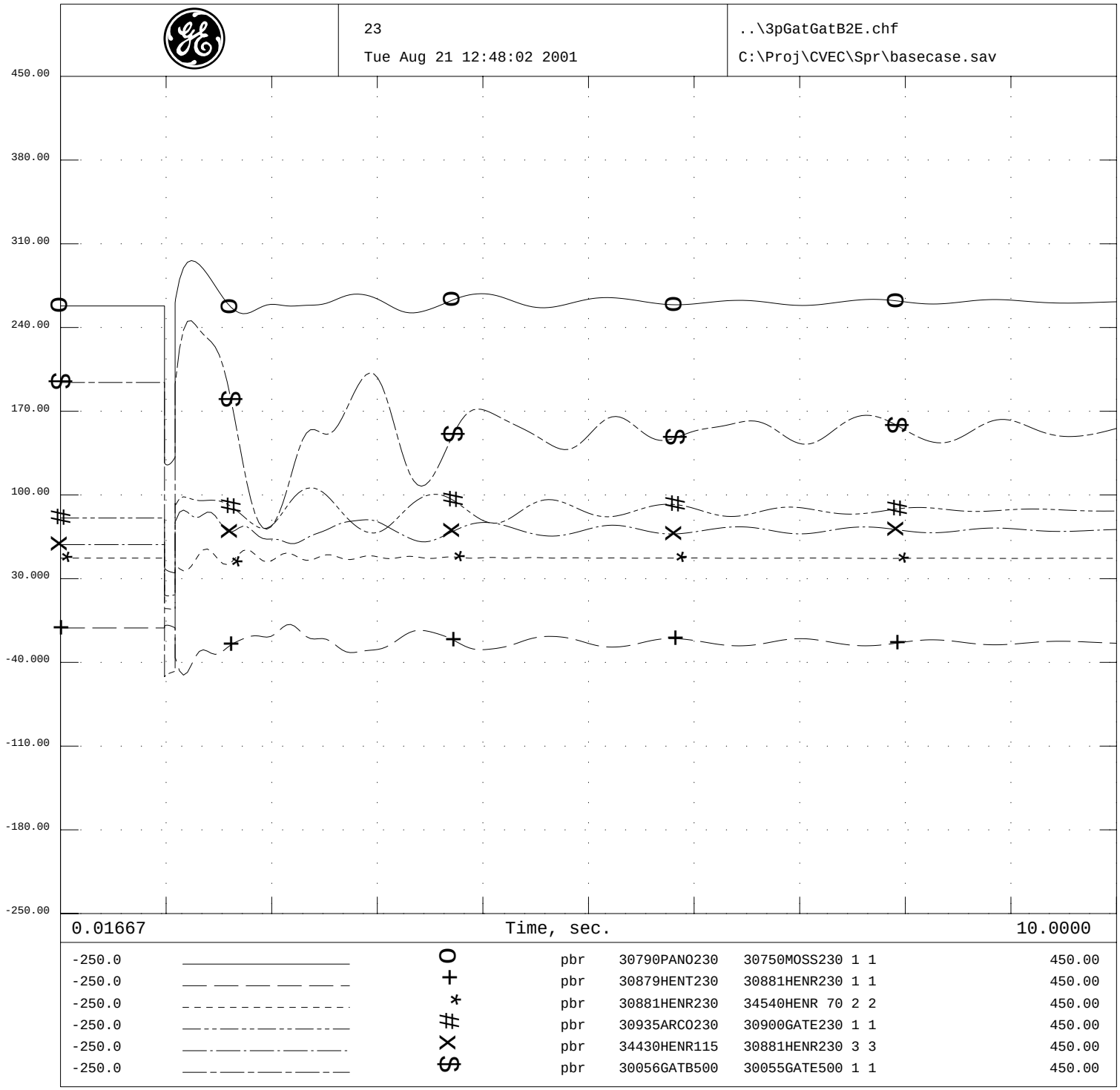

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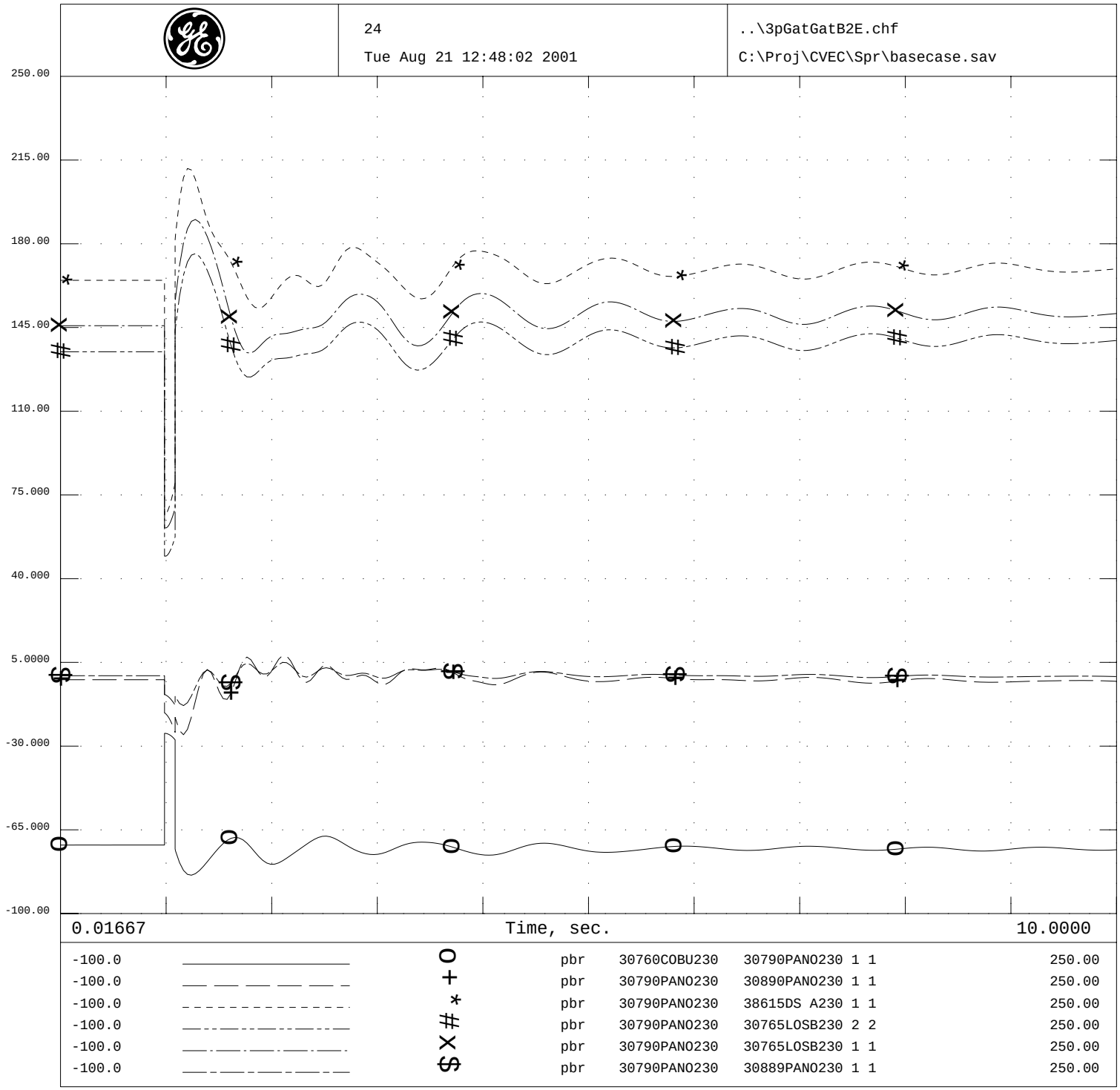

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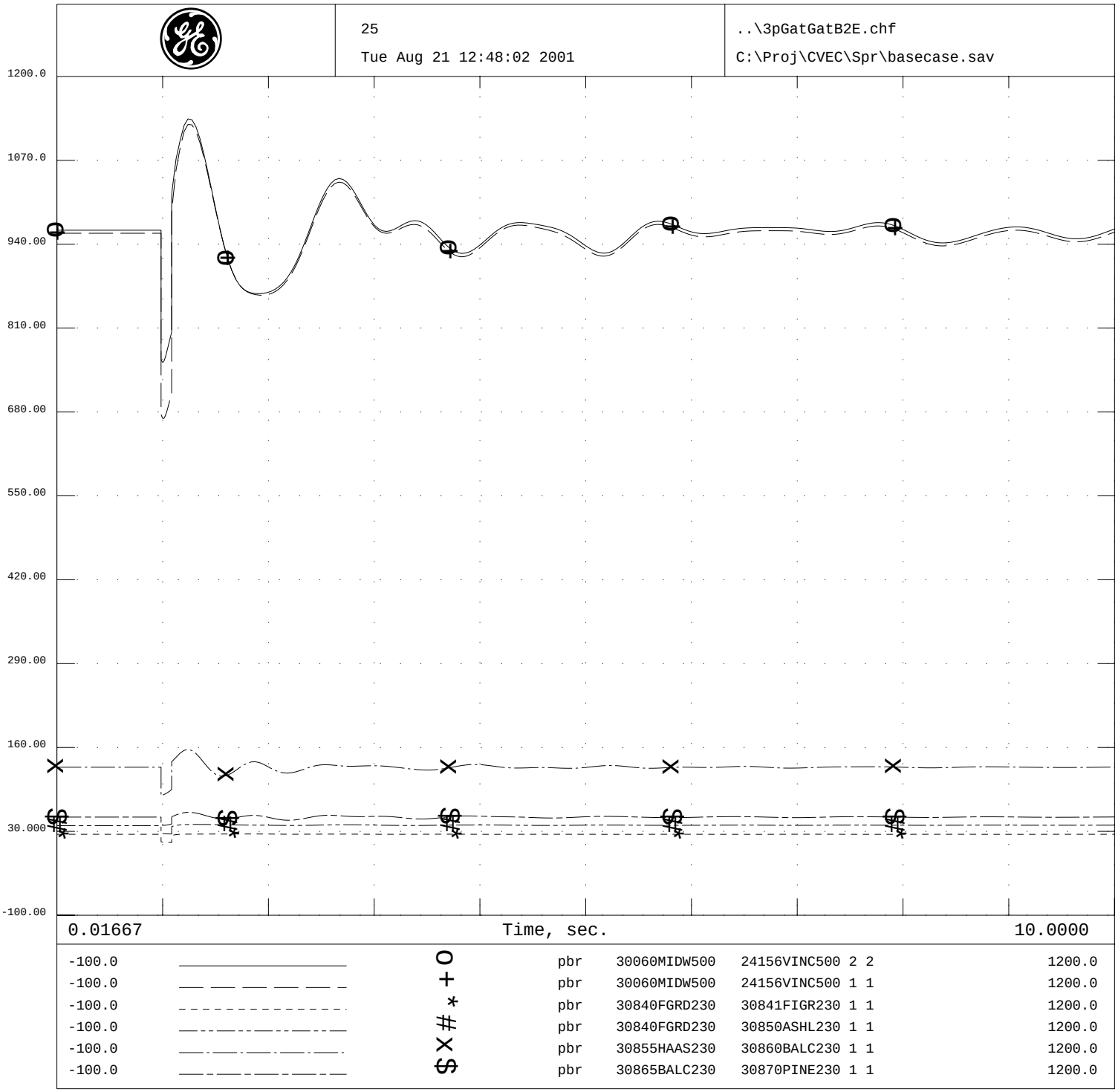

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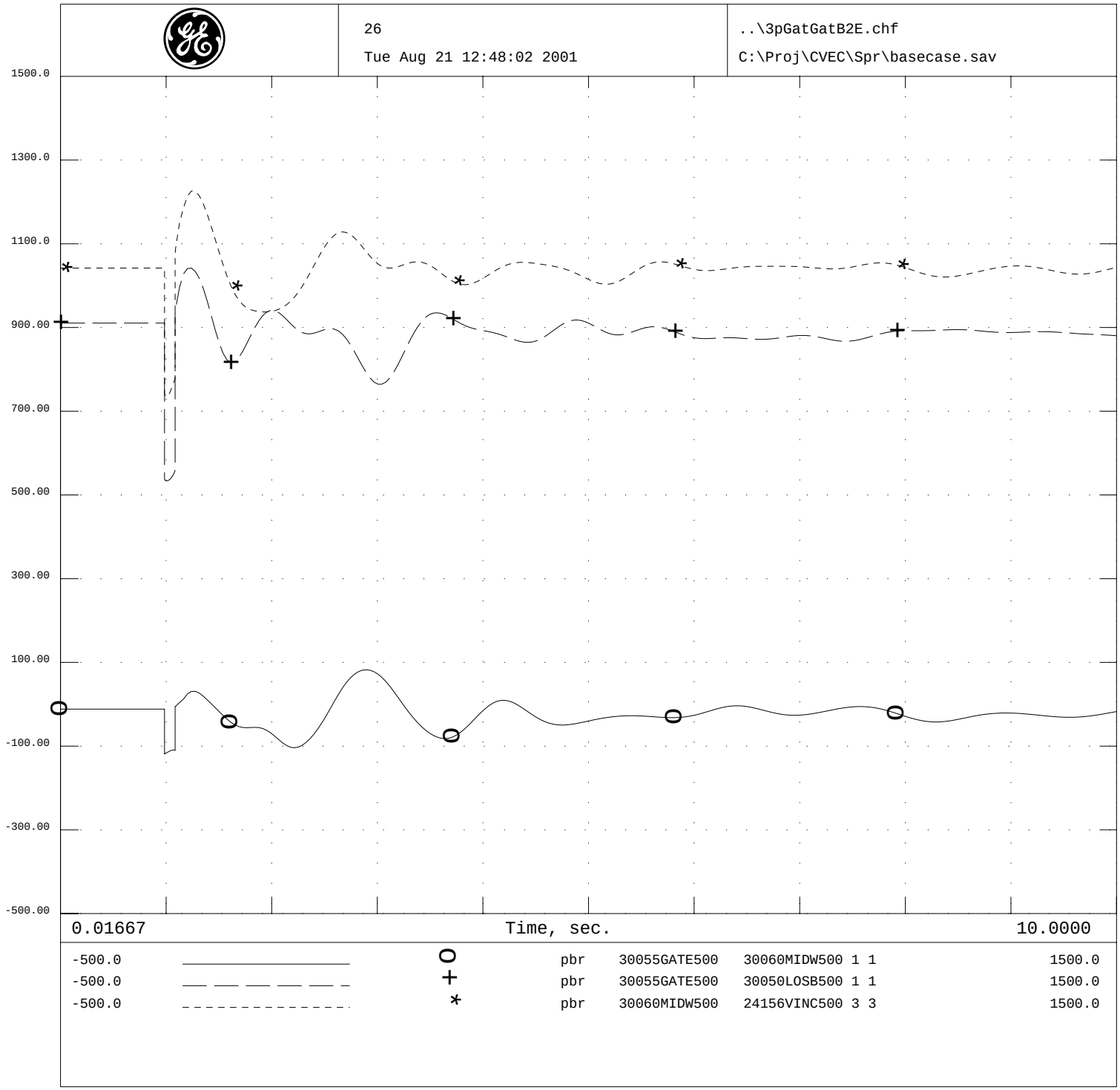

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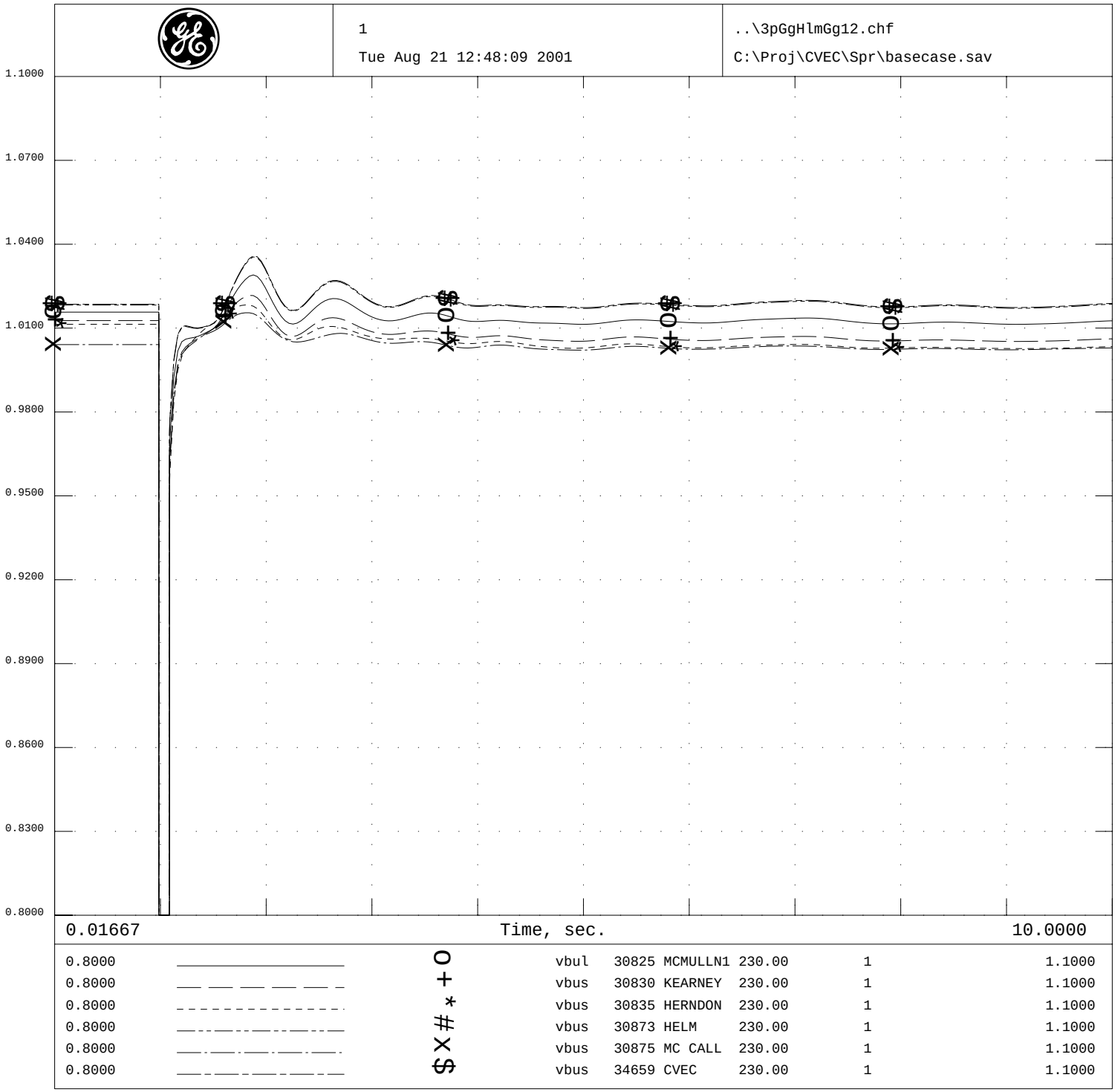

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
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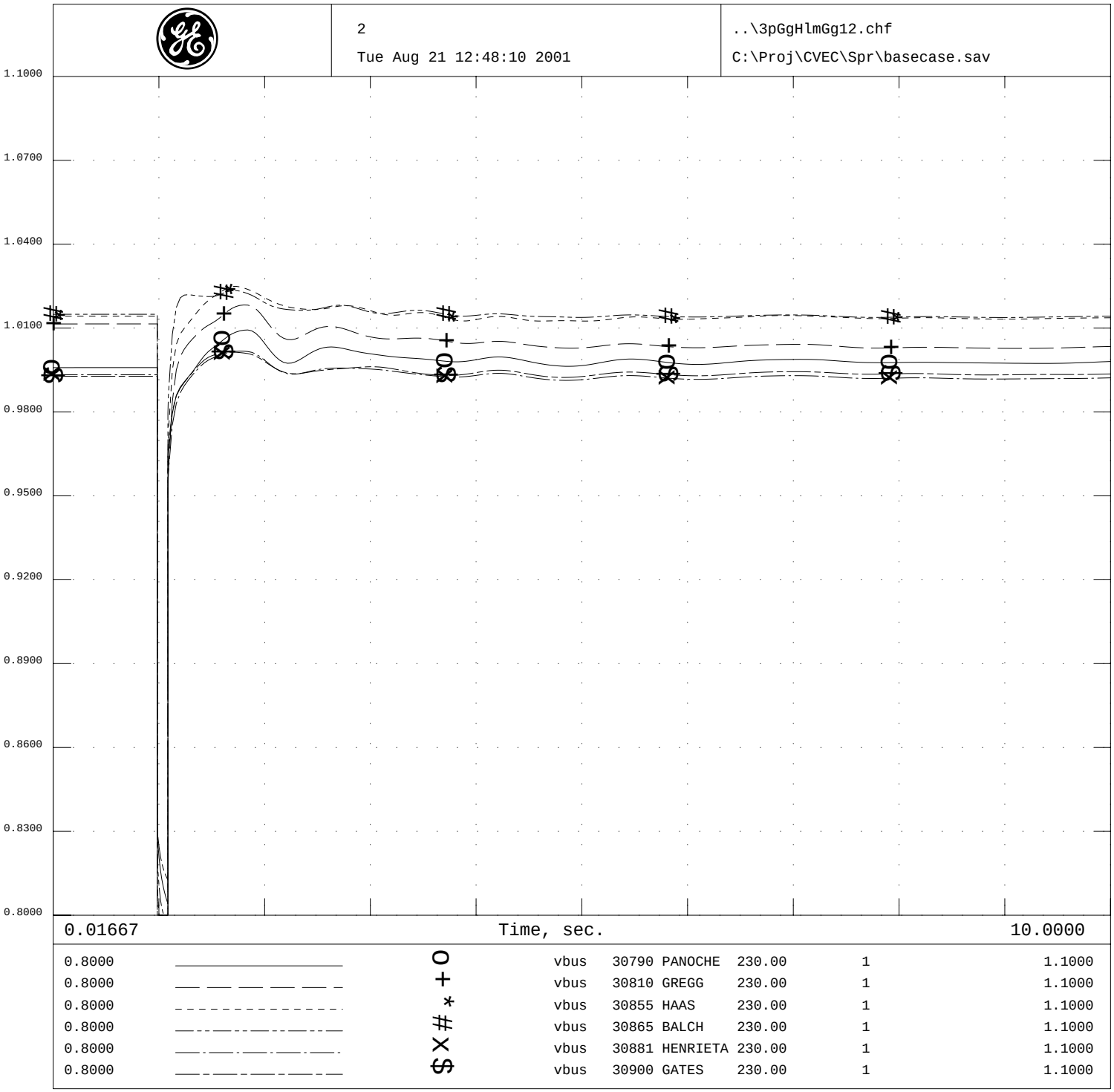
Gregg-Helms #1,2 230kV Double Line Outage
3 phase 6 cycle fault at Gregg 230kV bus and trip both Gregg-Helms 230kV lines

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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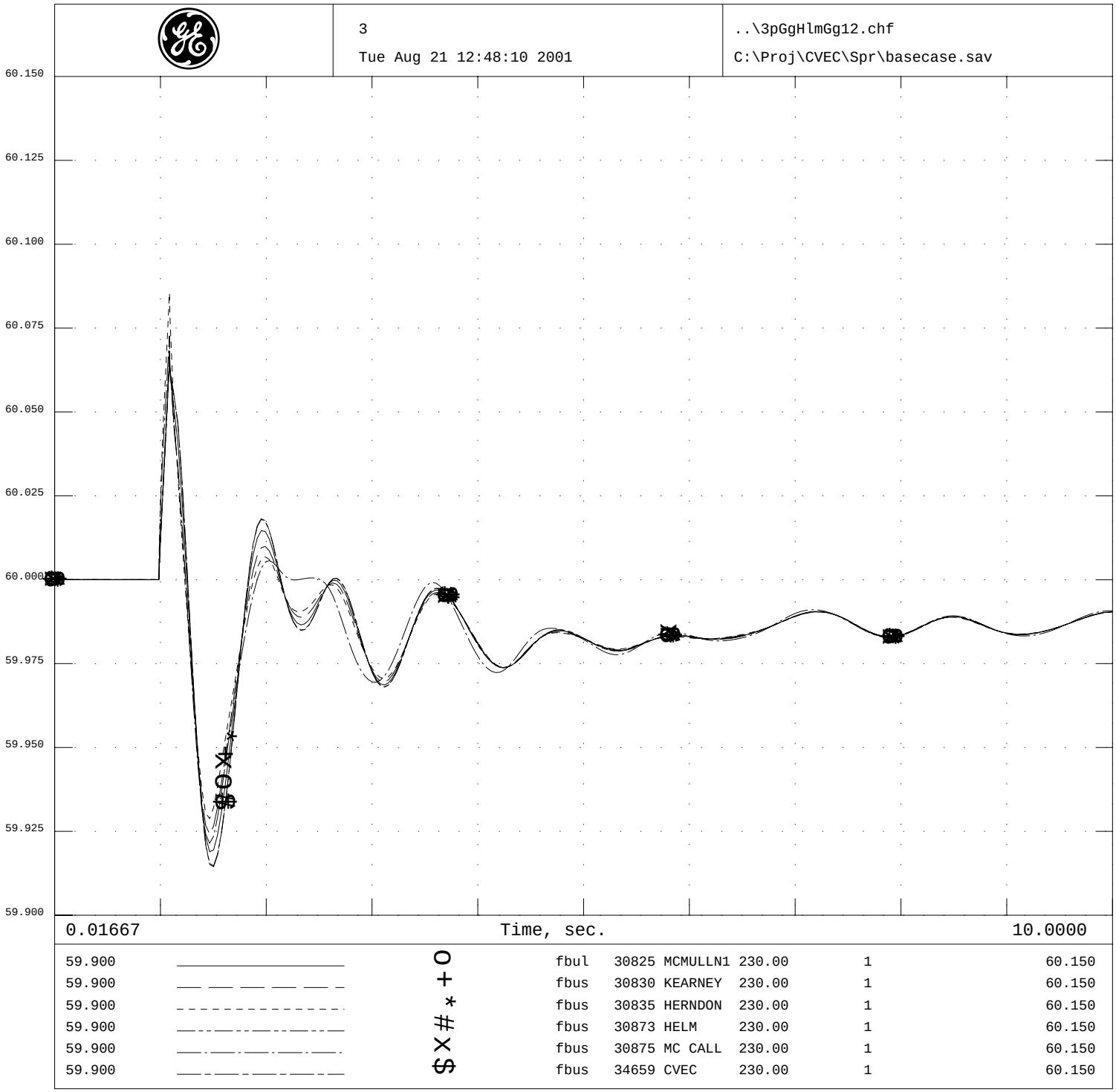

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Calpine Corporation
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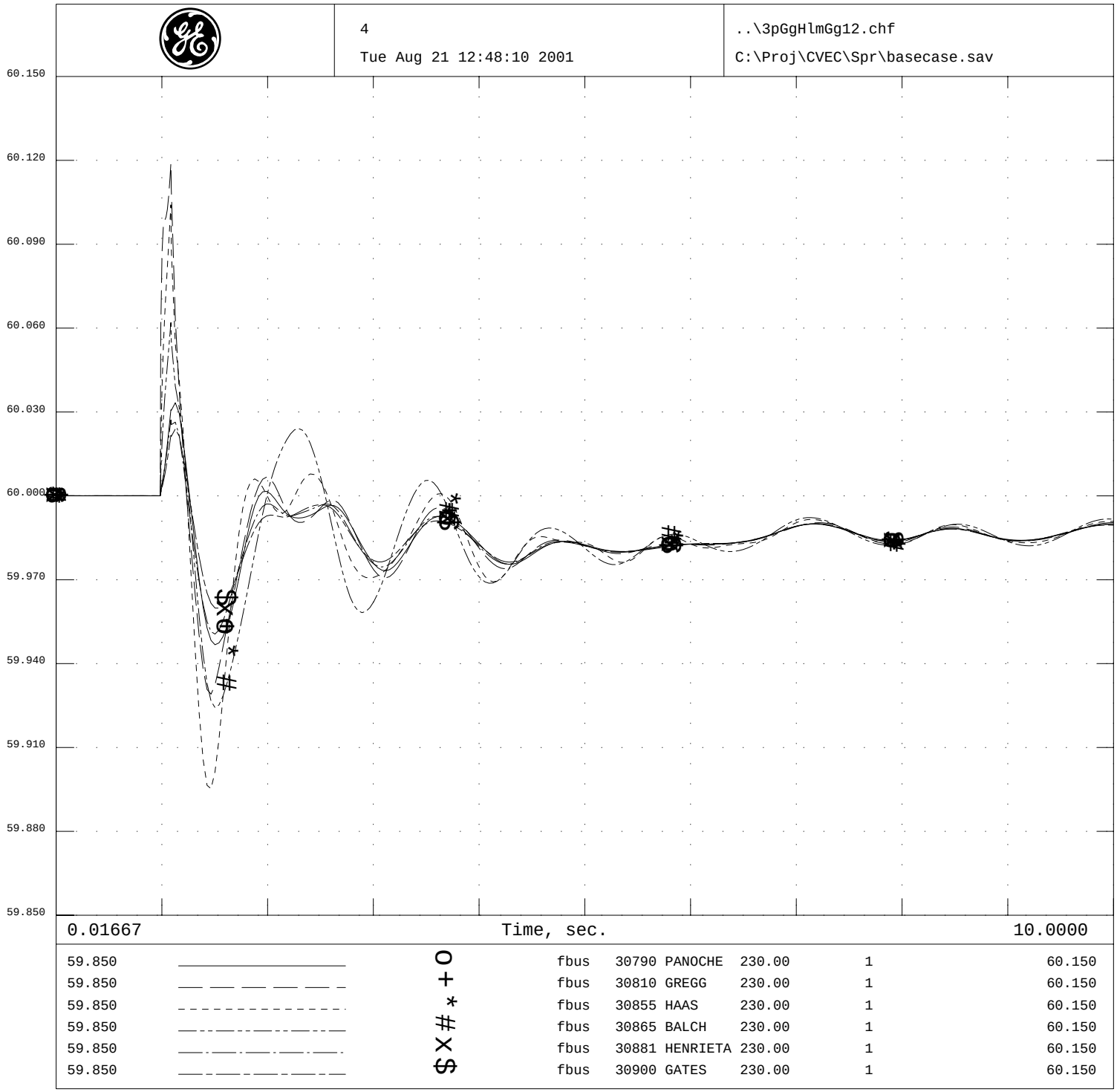

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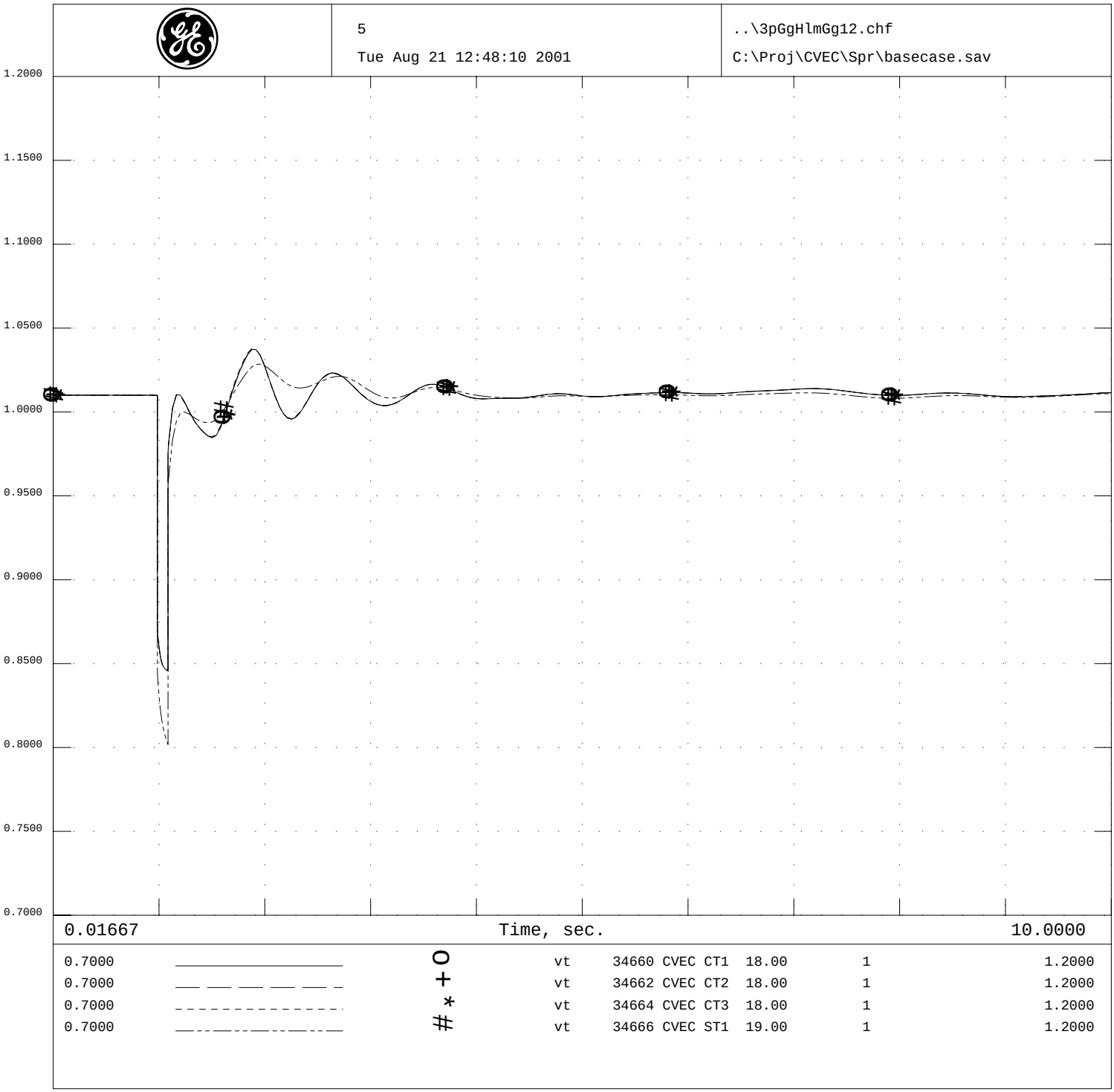

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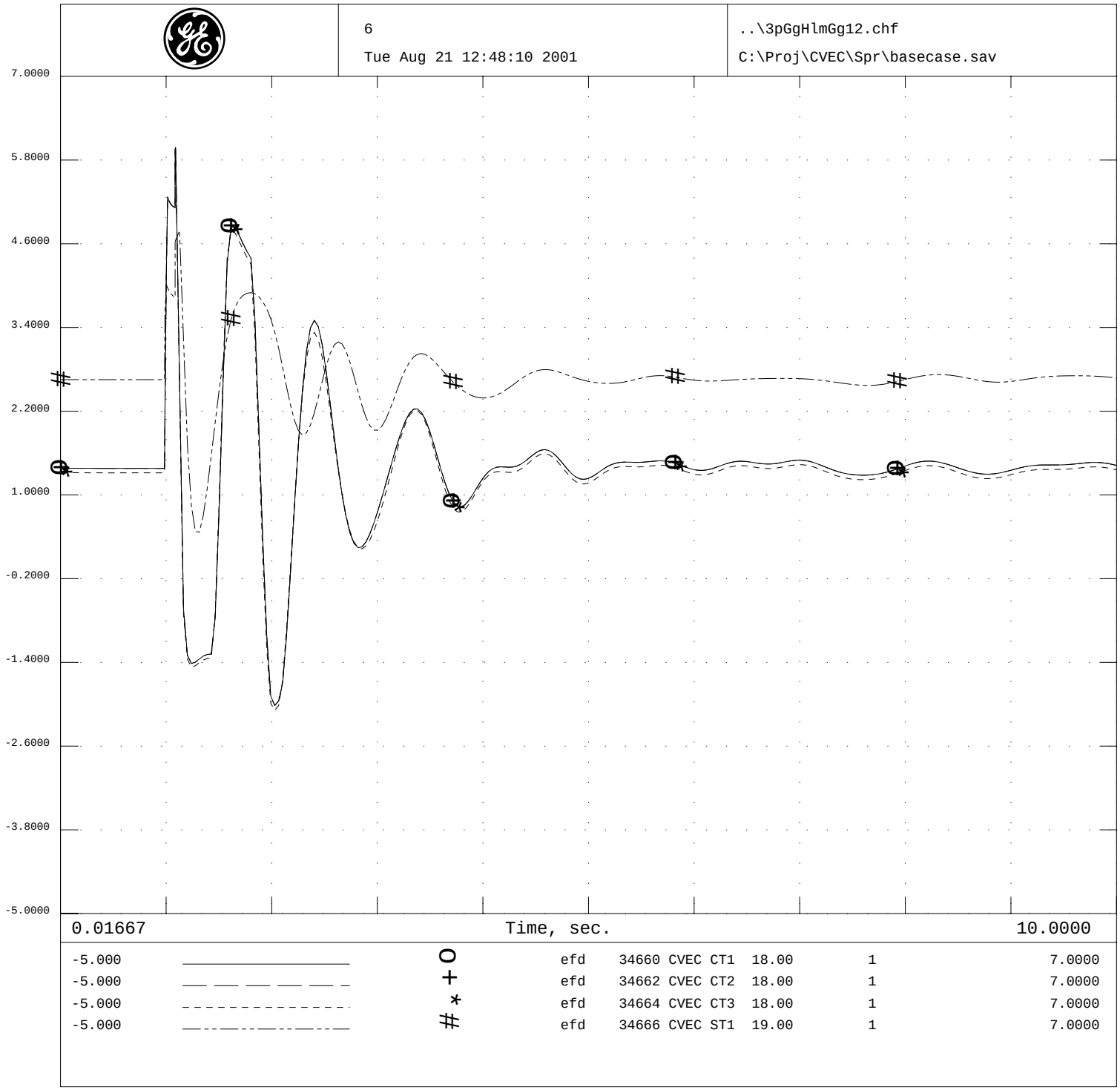
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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Calpine Corporation
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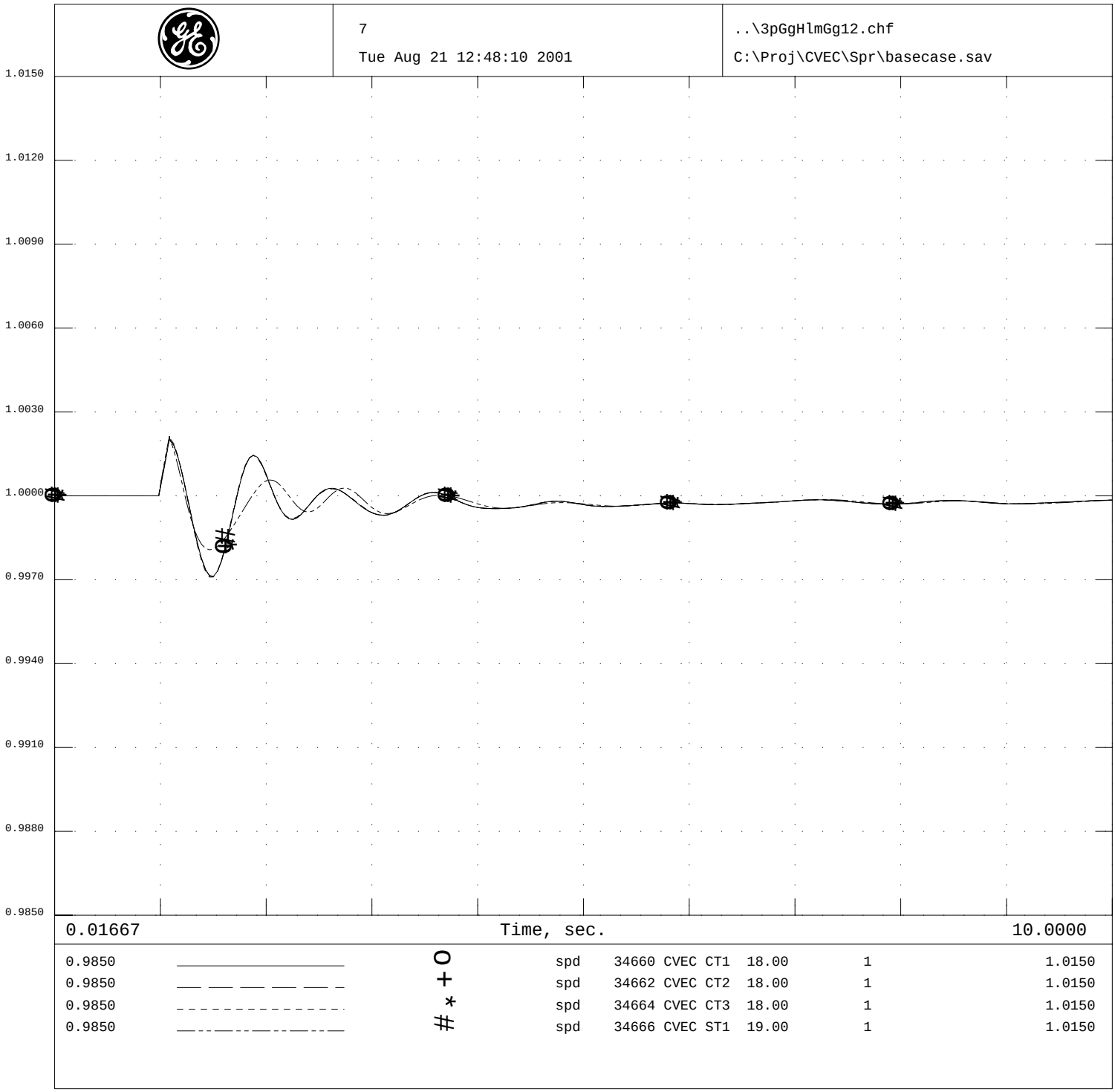

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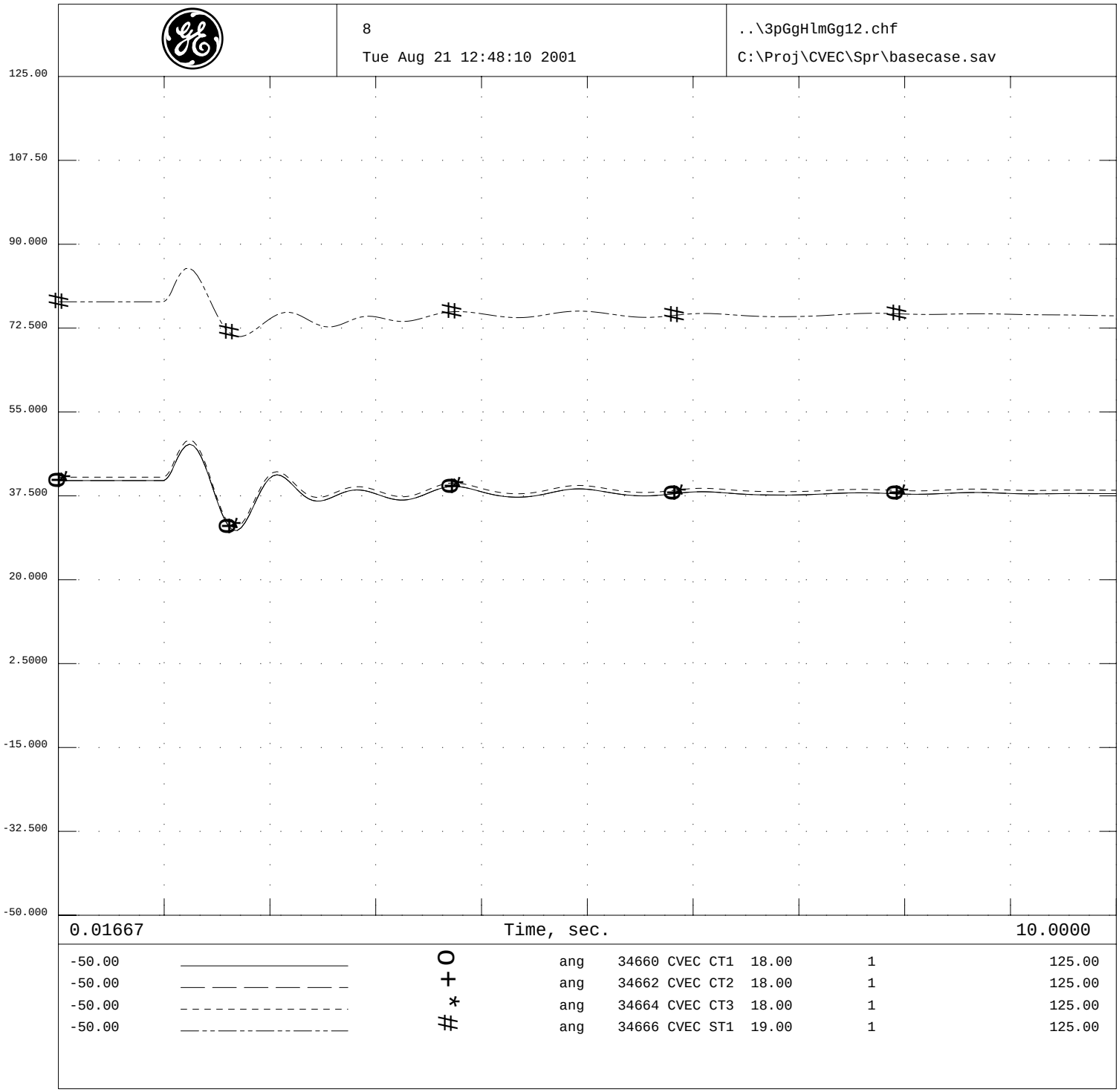
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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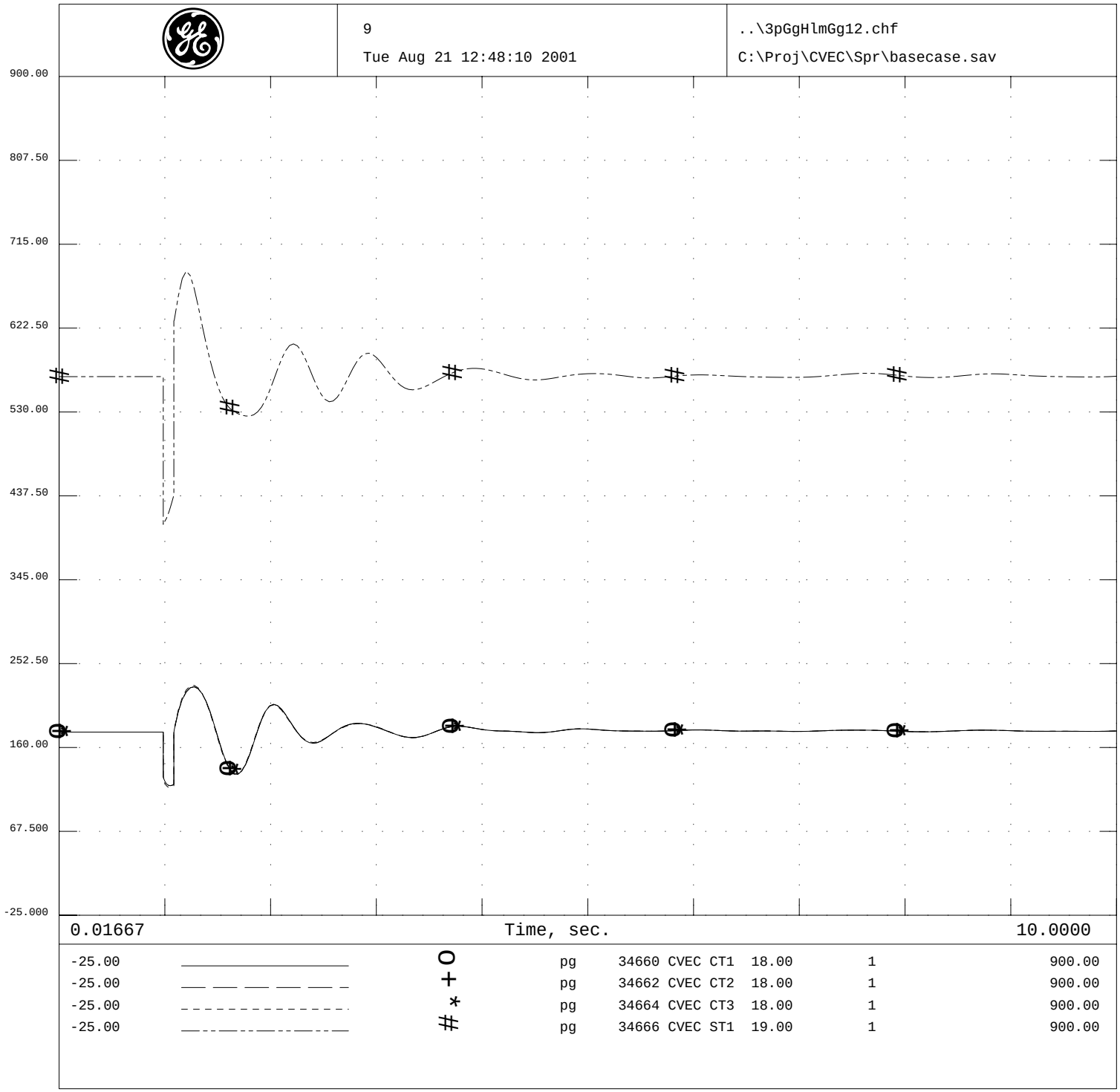
Project Generator Rotor Angle



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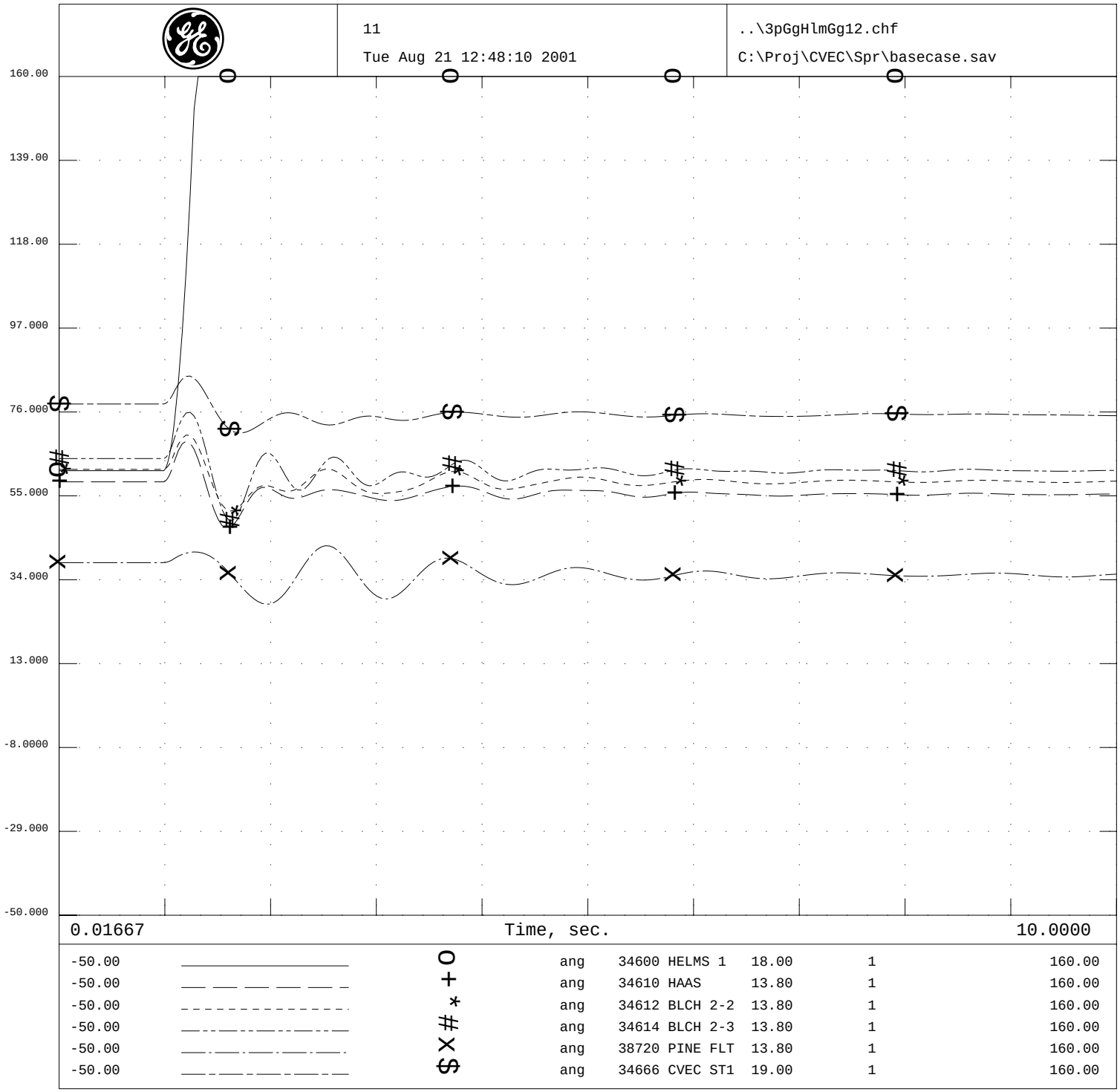
3 phase 6 cycle fault at Gregg 230kV bus and trip both Gregg-Helms 230kV lines

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
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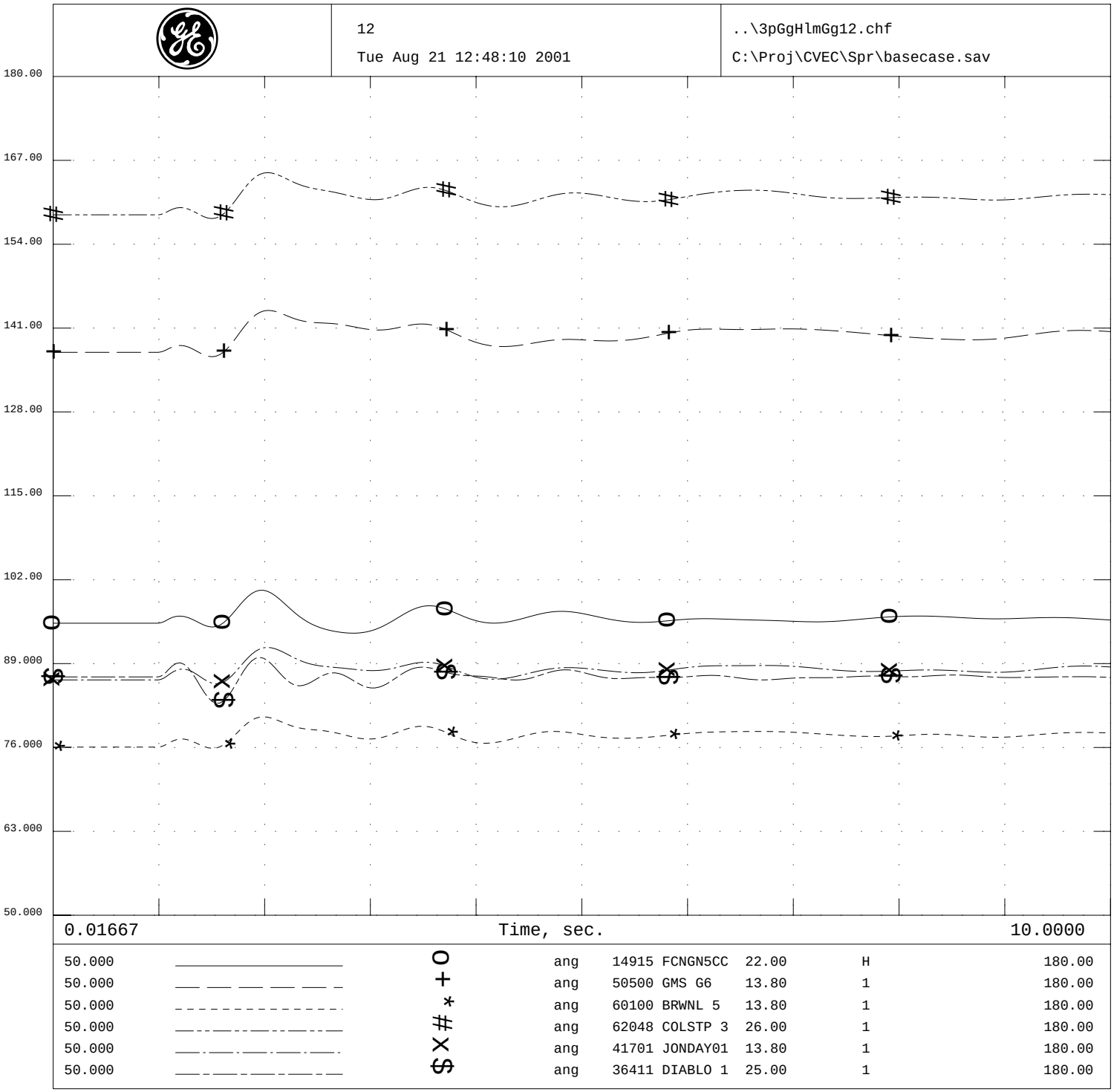
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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Central Valley Energy Center
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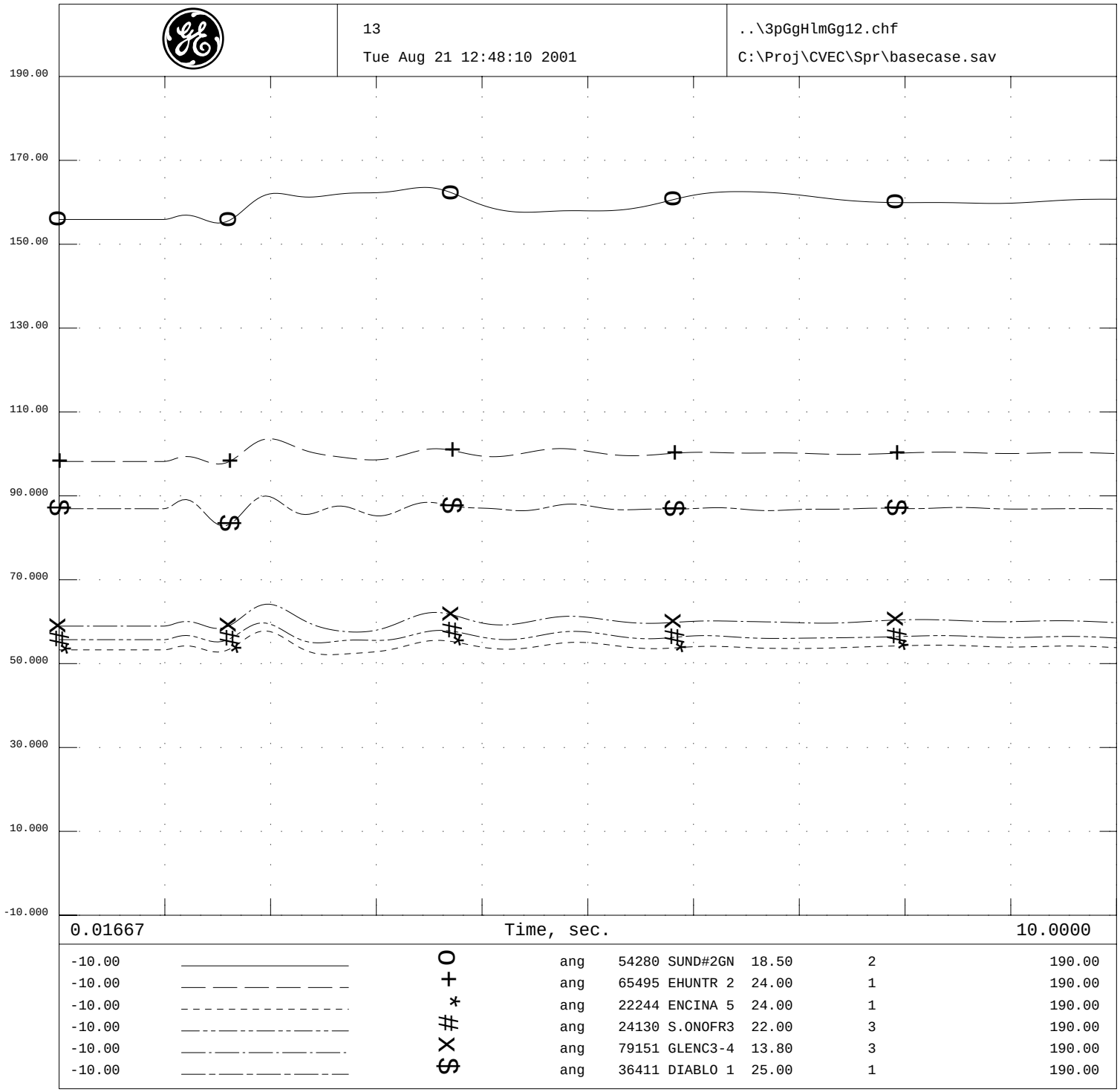
Selected WSCC Transmission Bus Angle Plots



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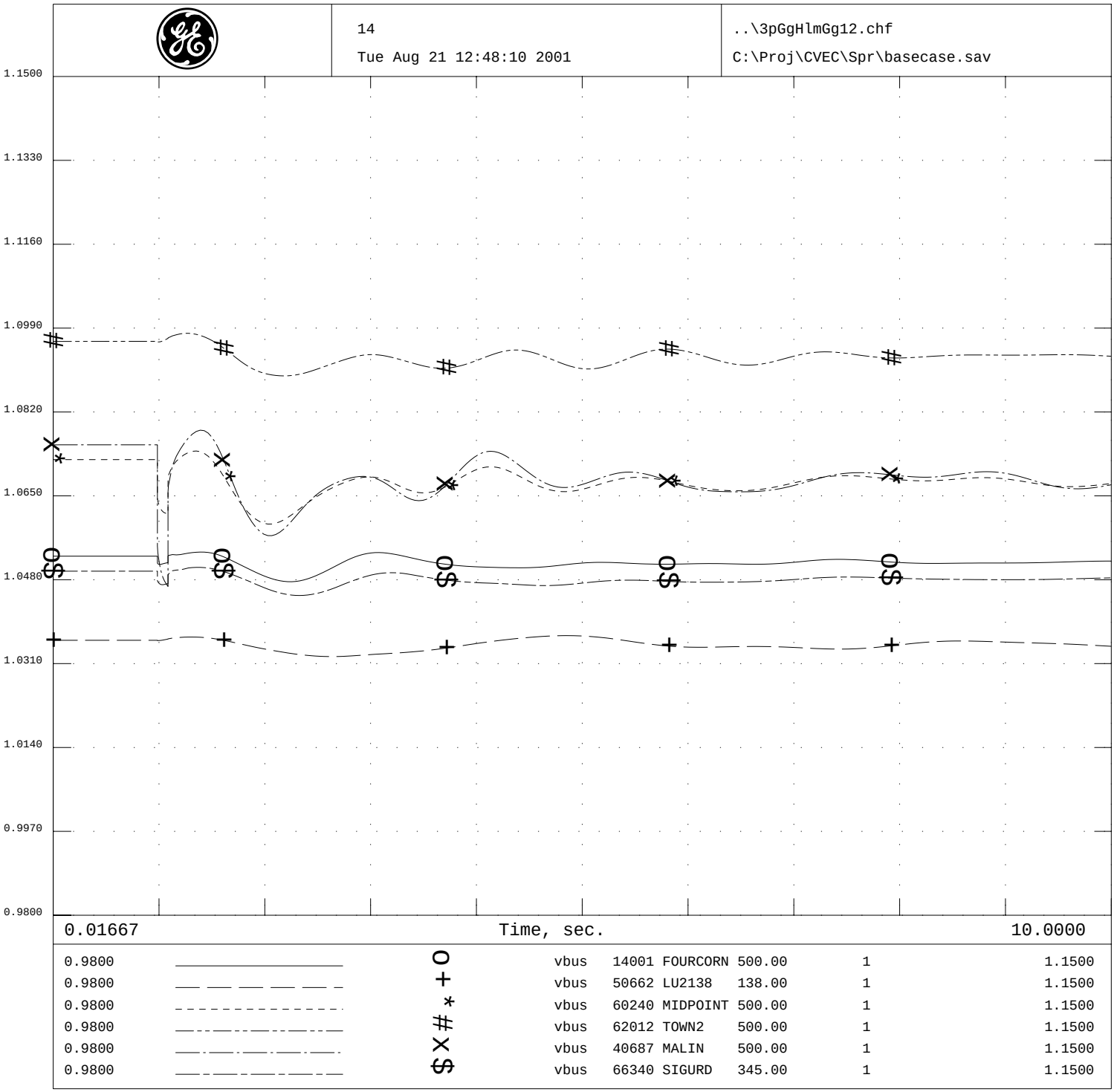

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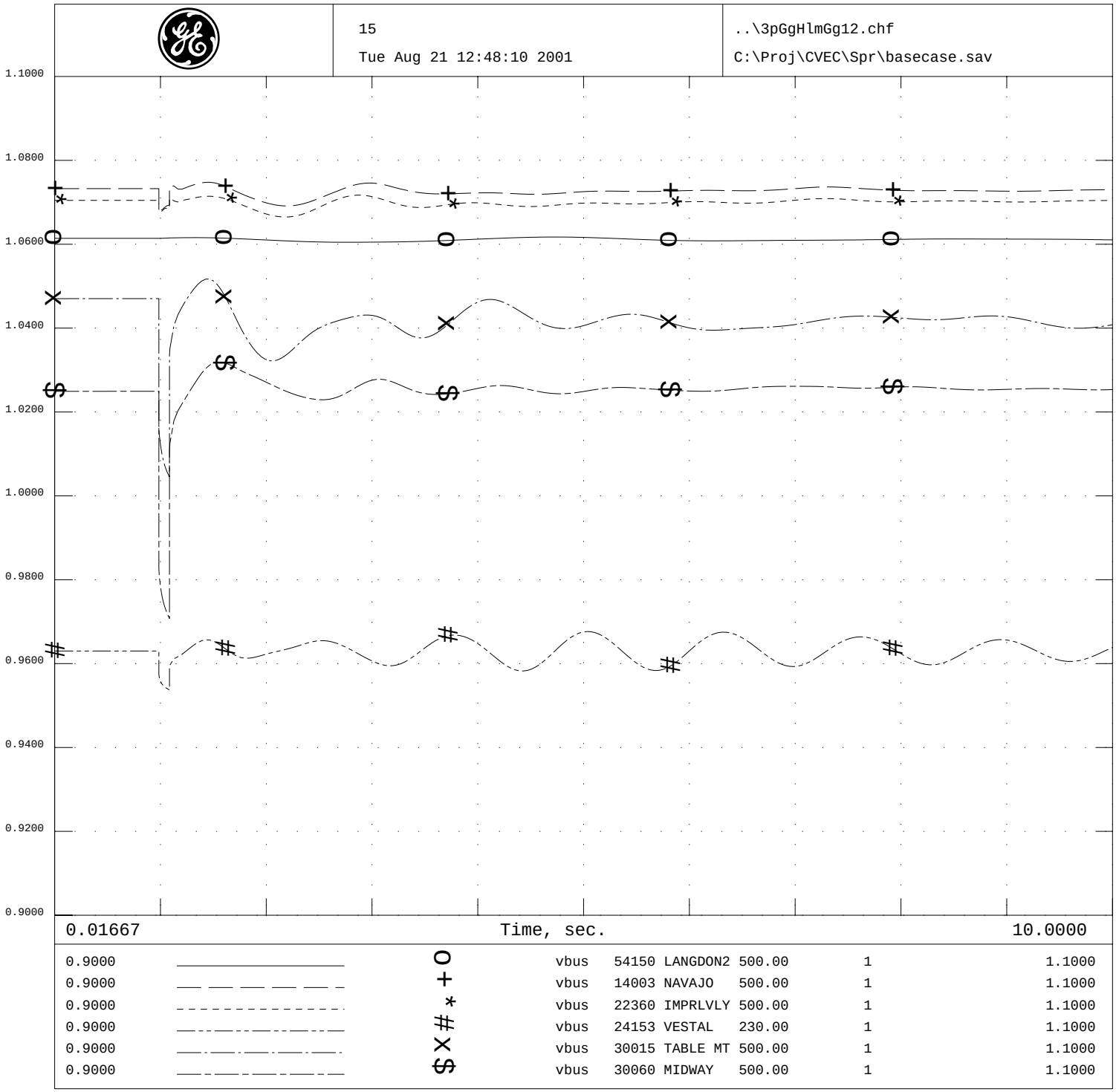
Selected WSCC Transmission Bus Voltage Plots



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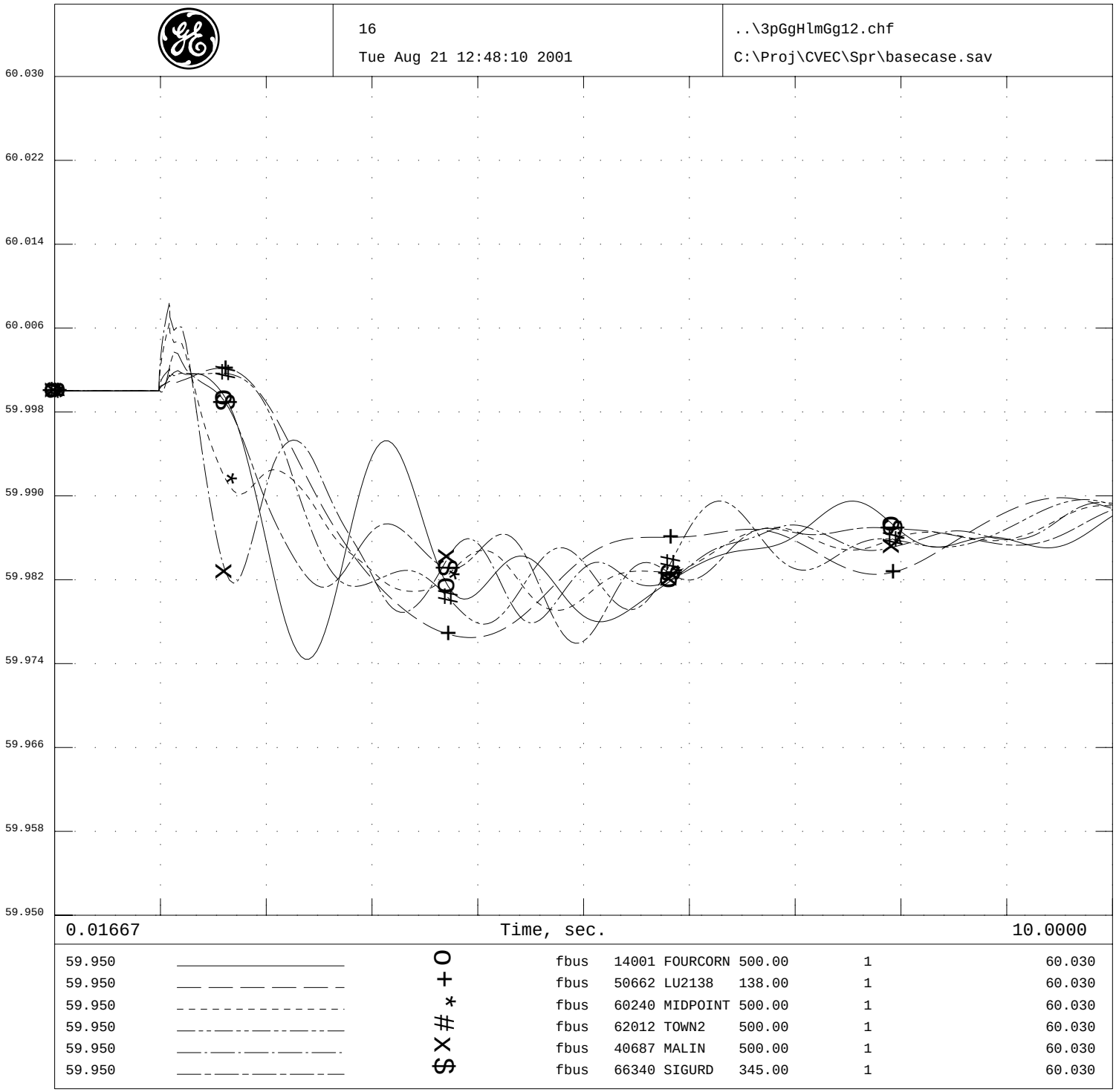

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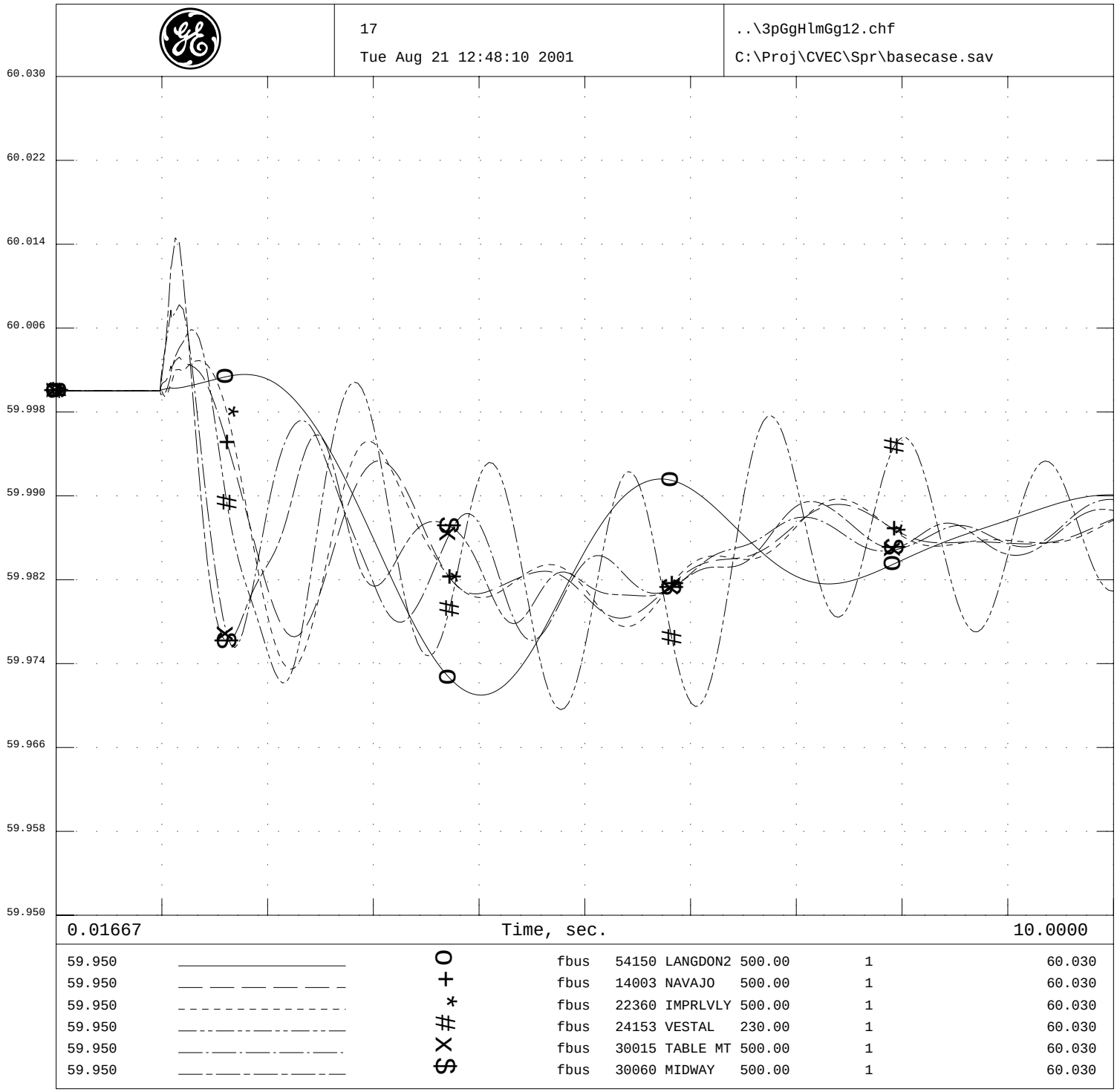

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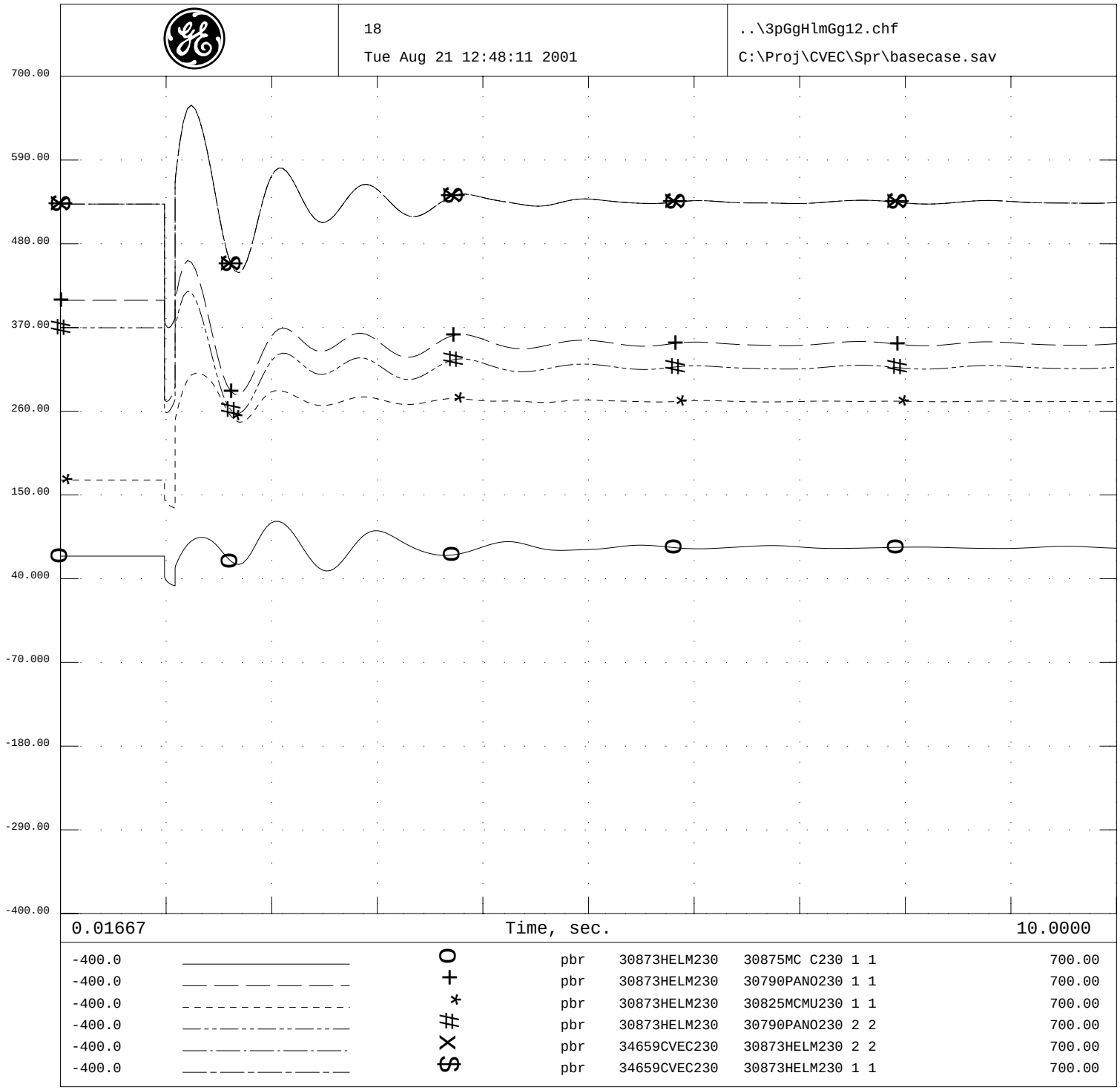

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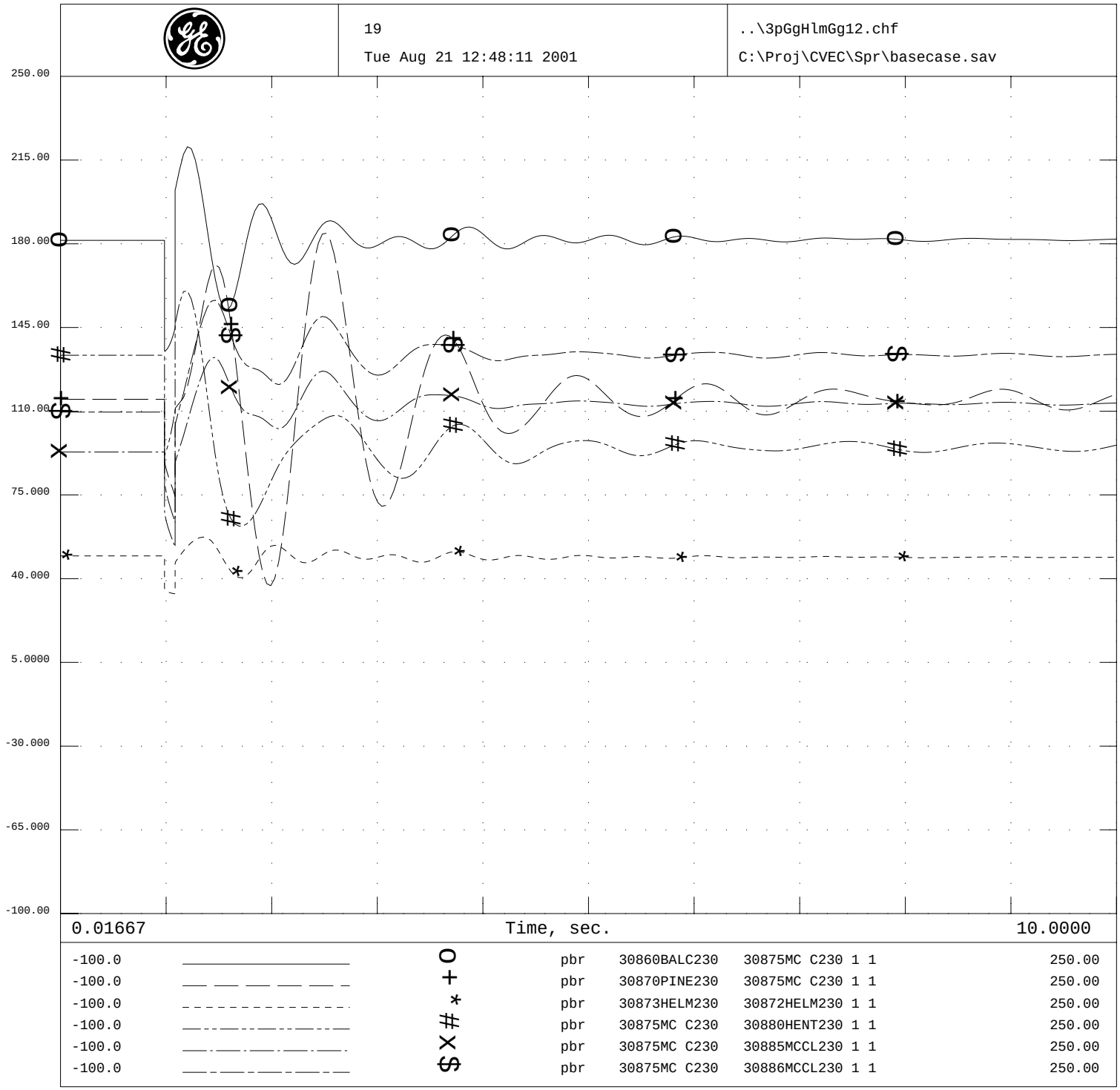
Selected Transmission Line Flows (MW)



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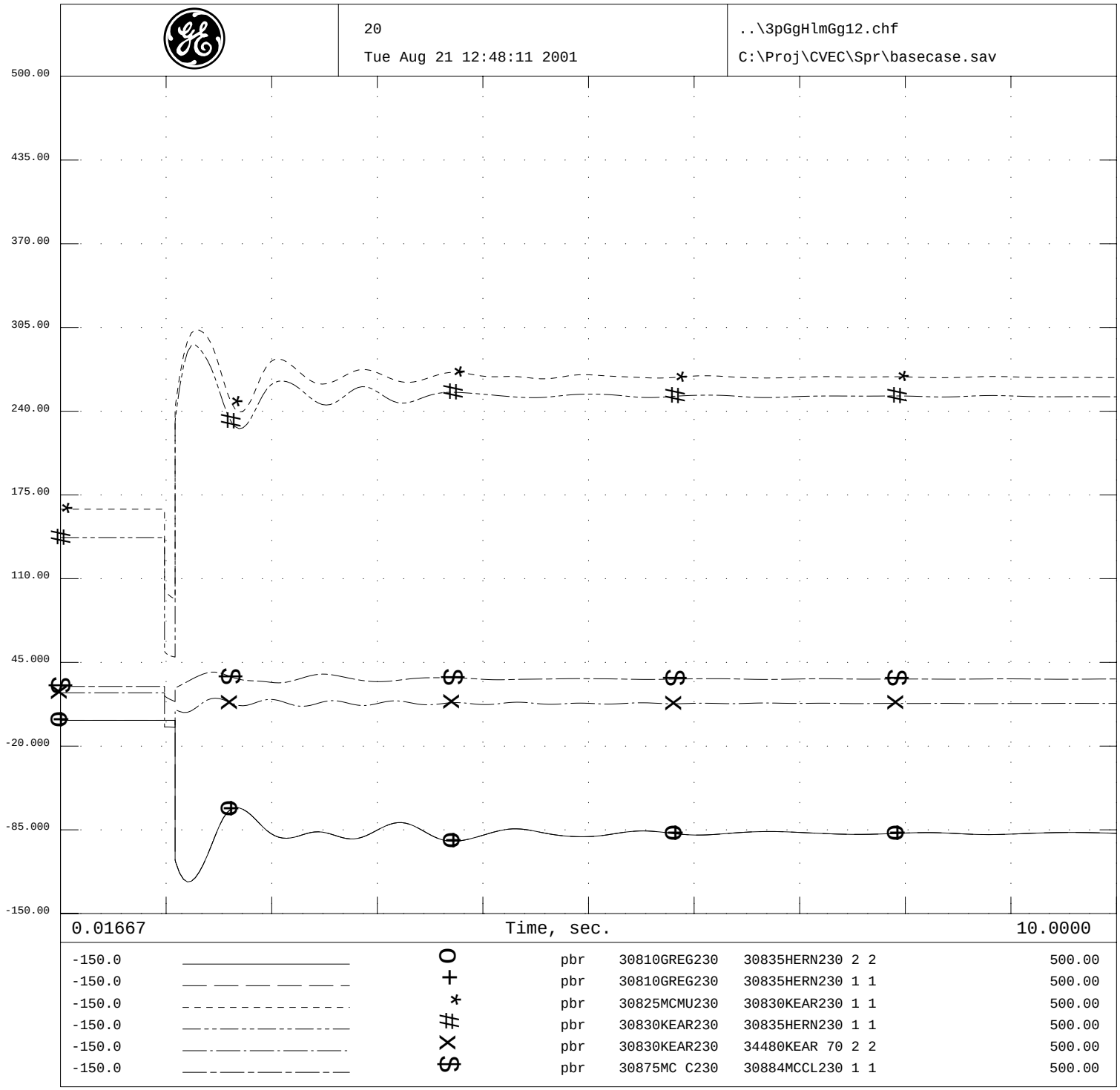

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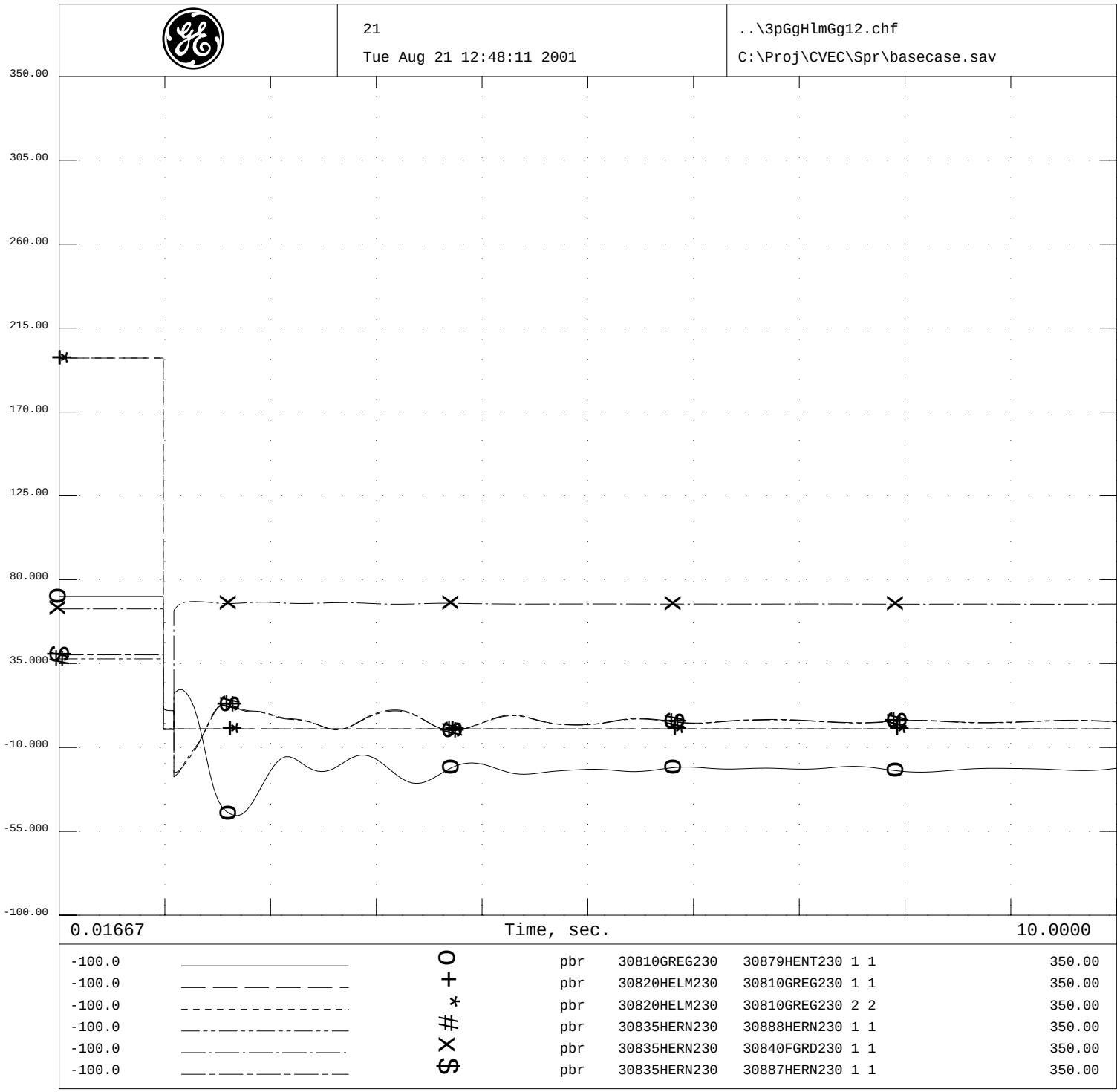

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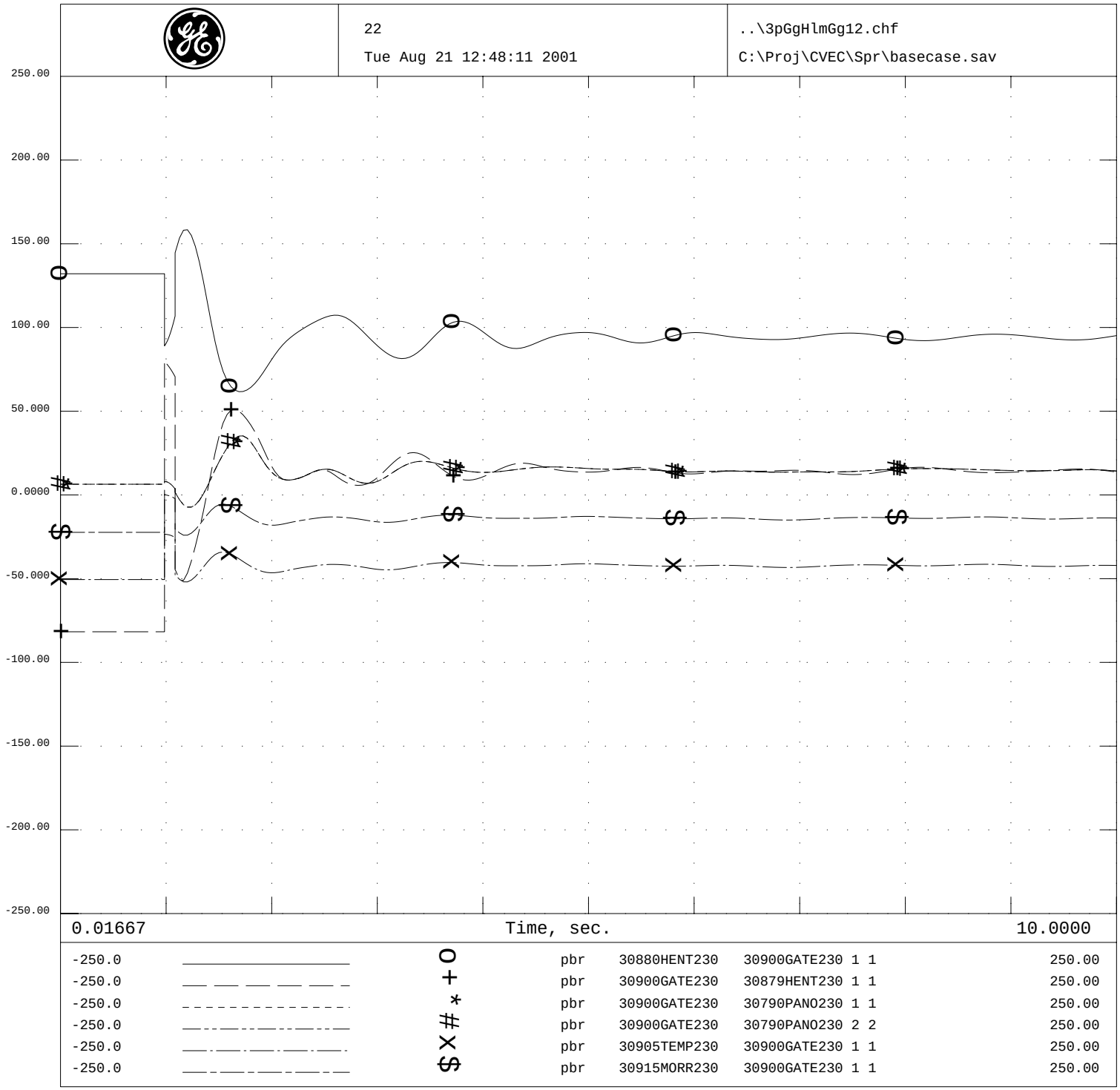

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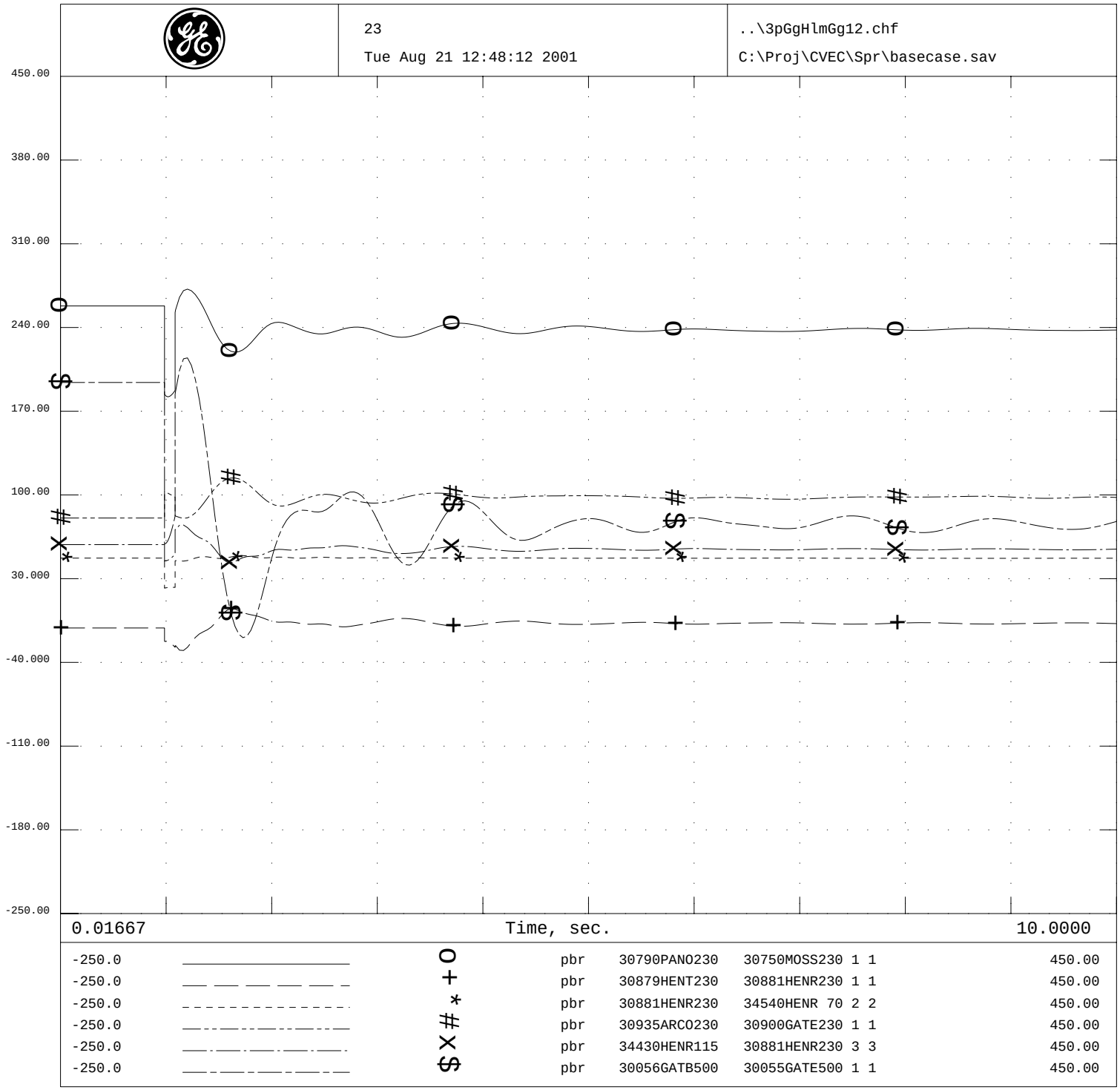

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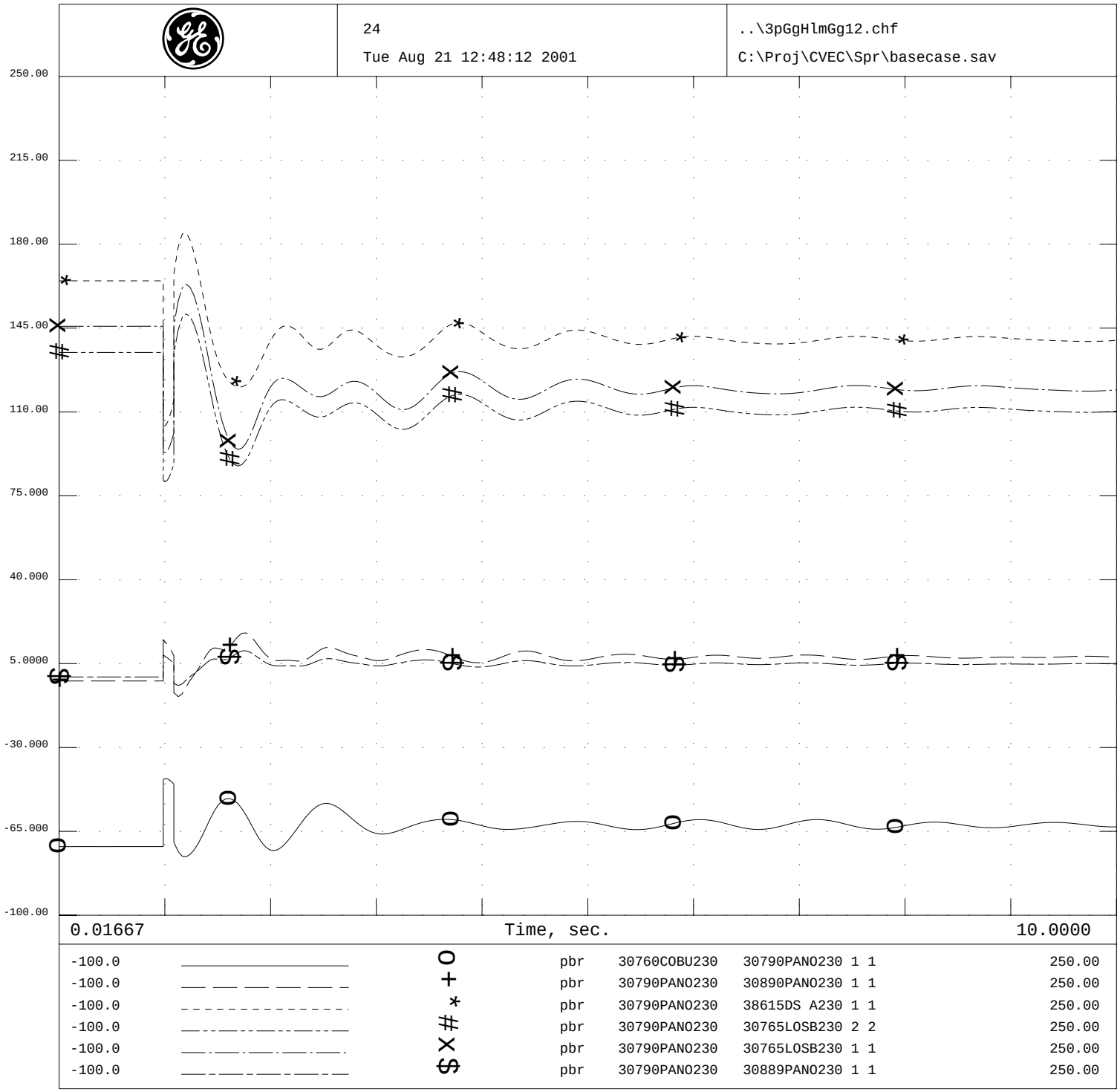

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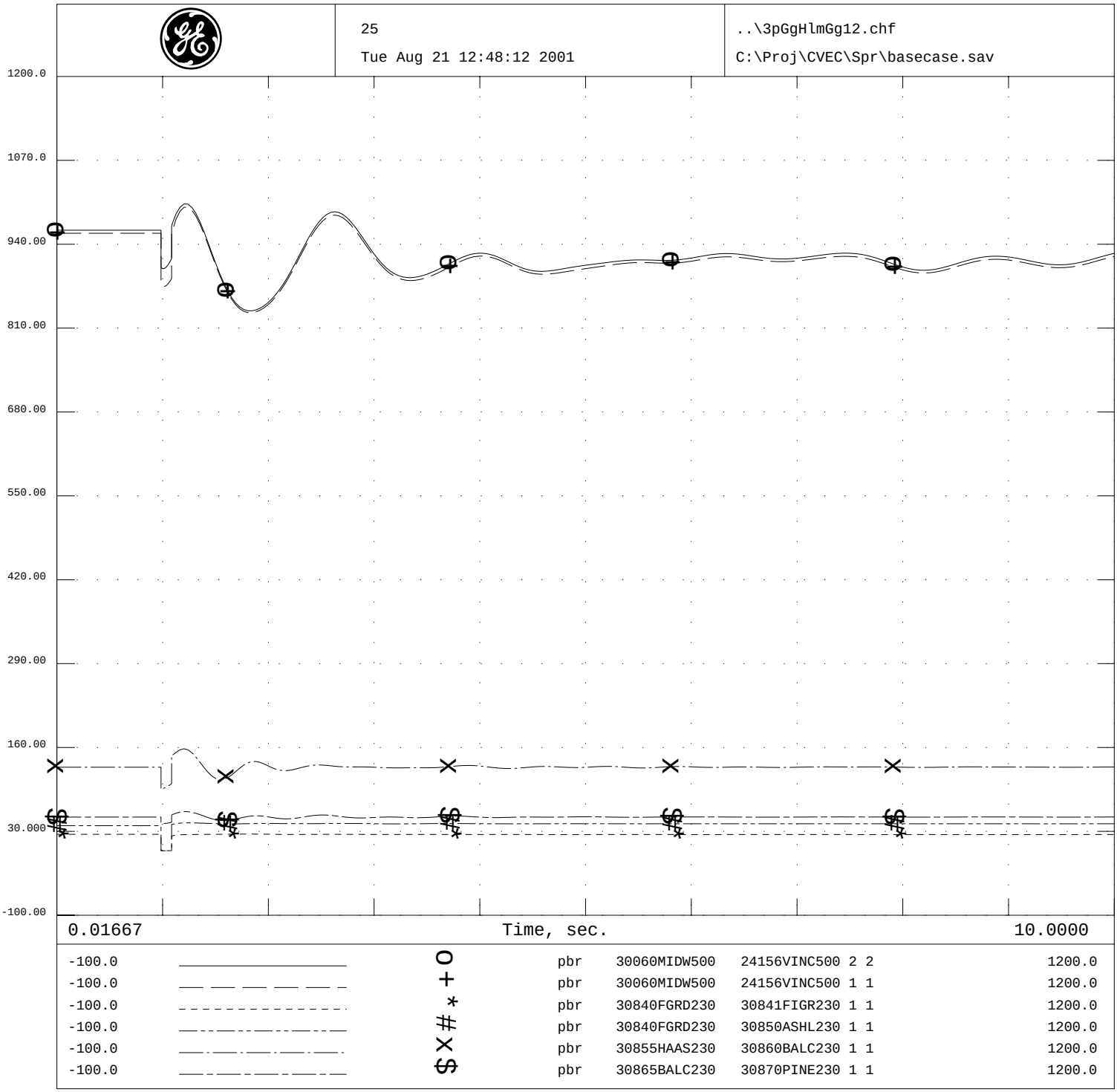

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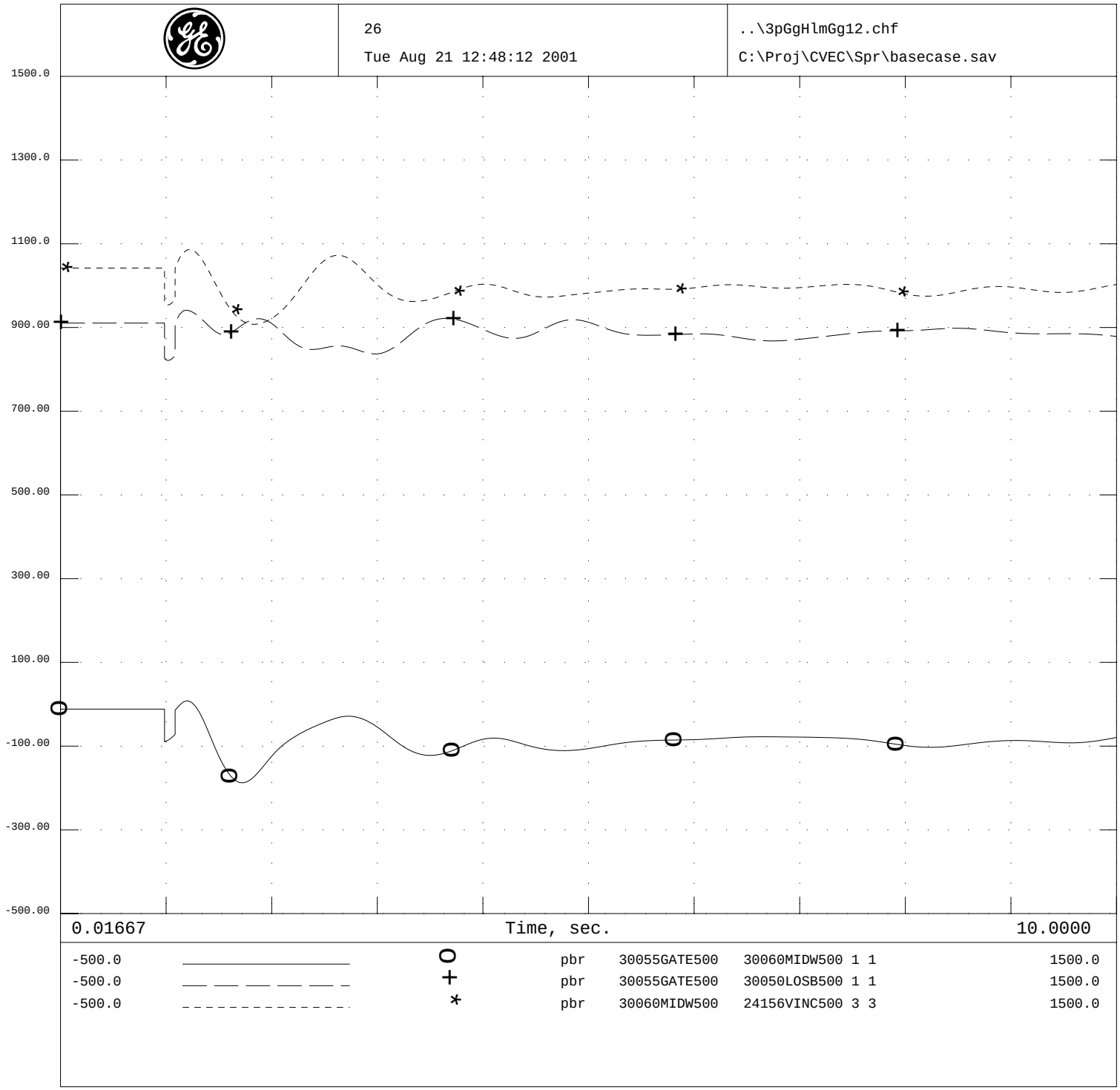

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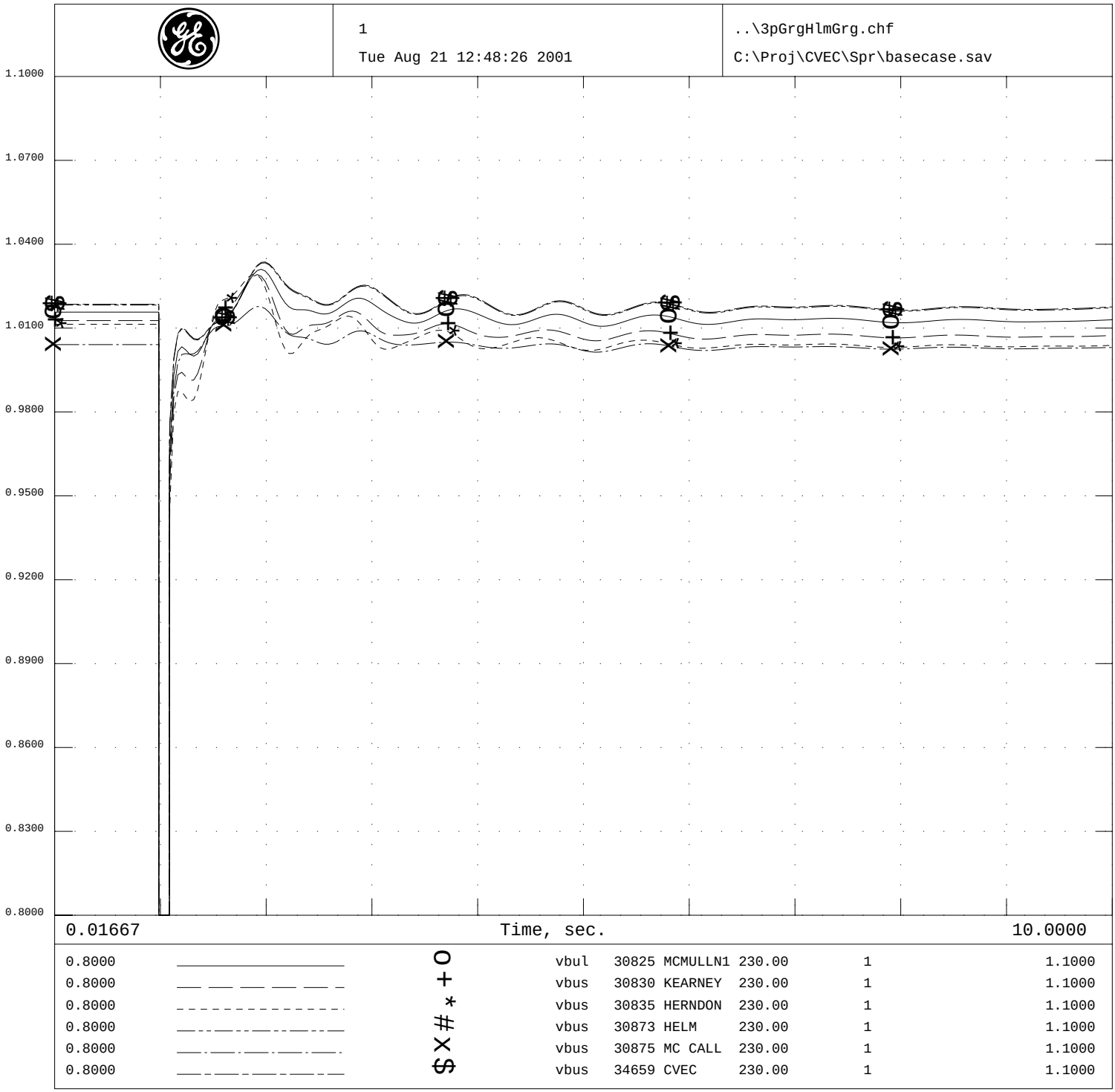

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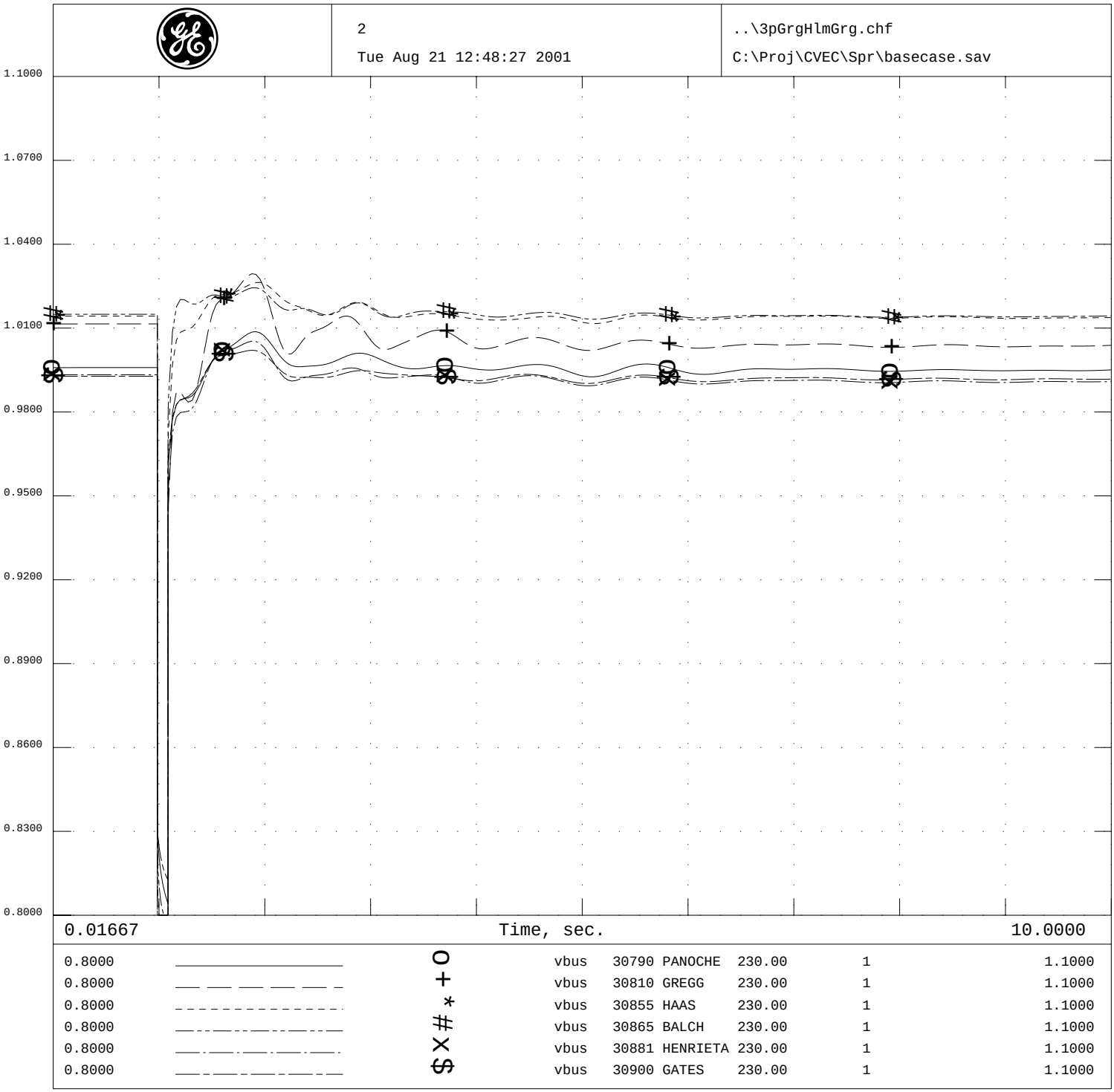
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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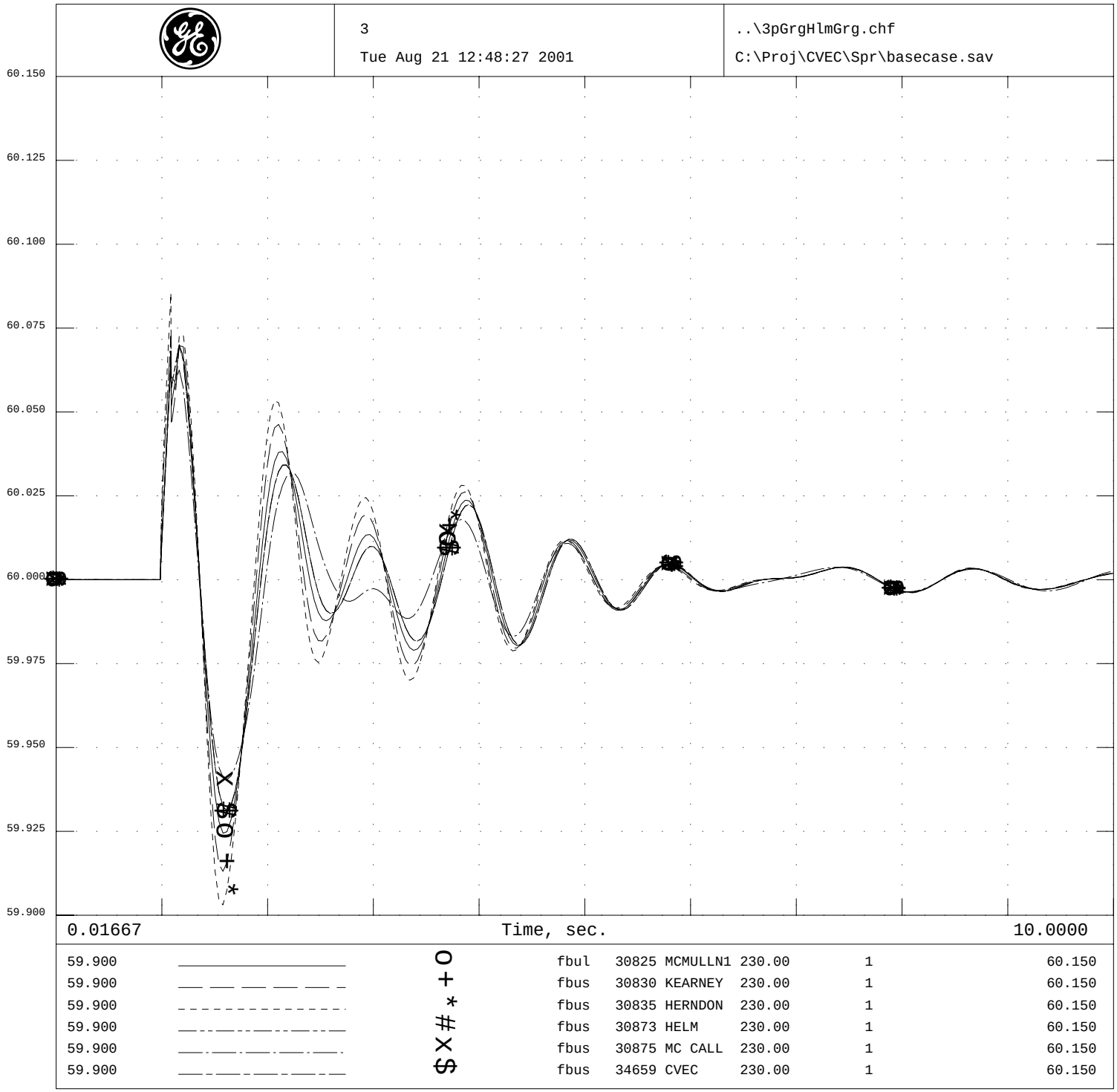

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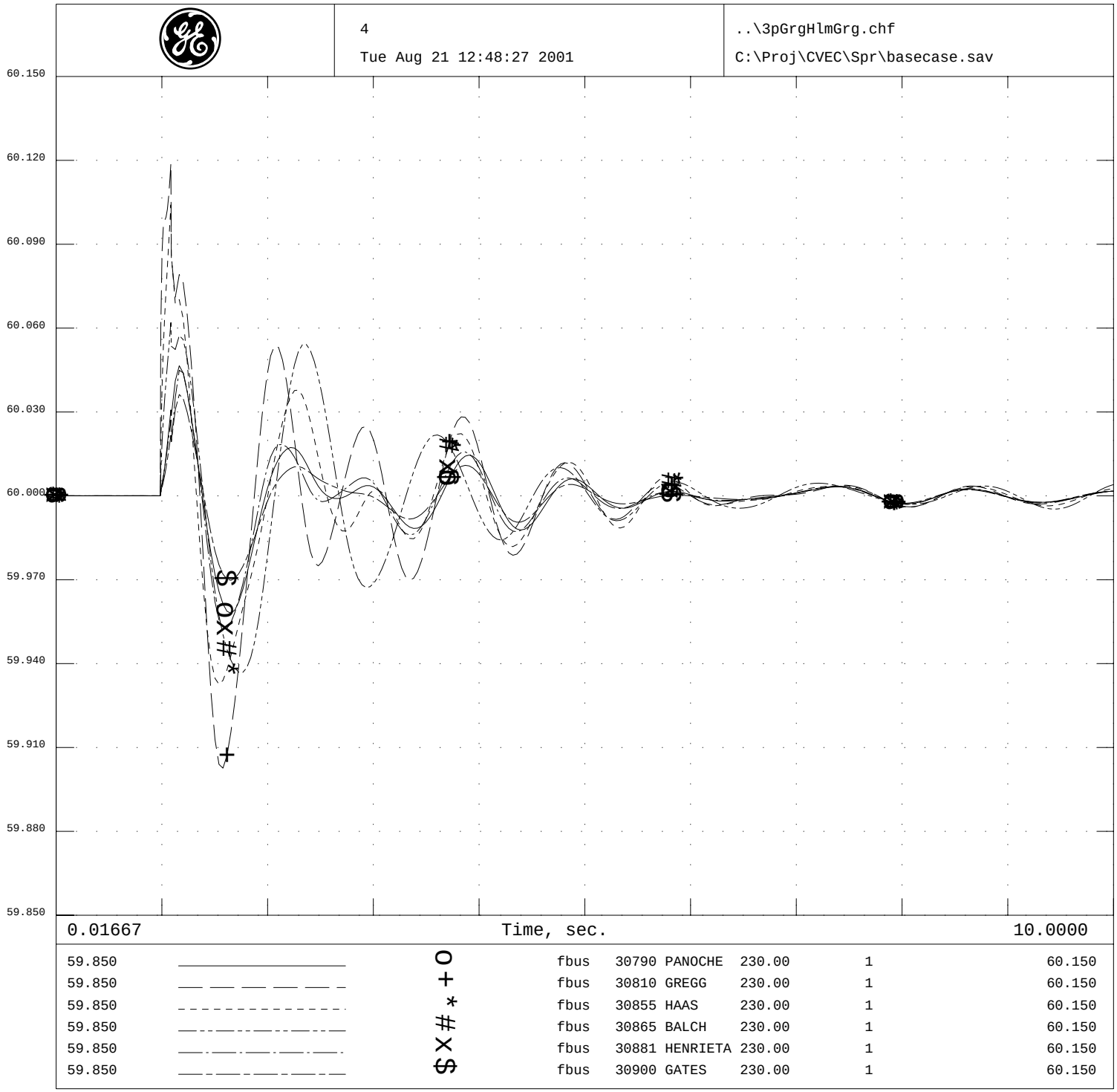
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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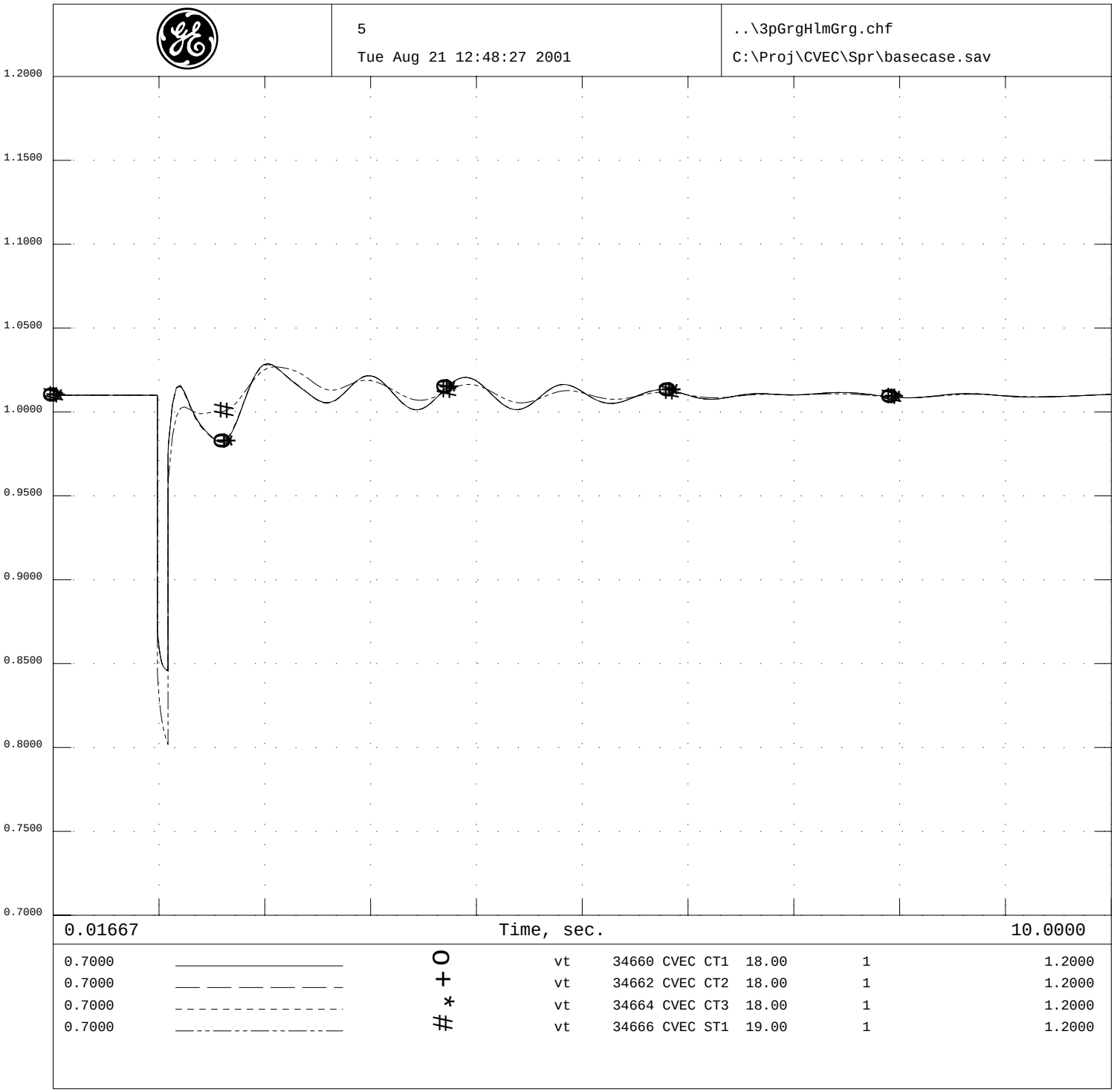

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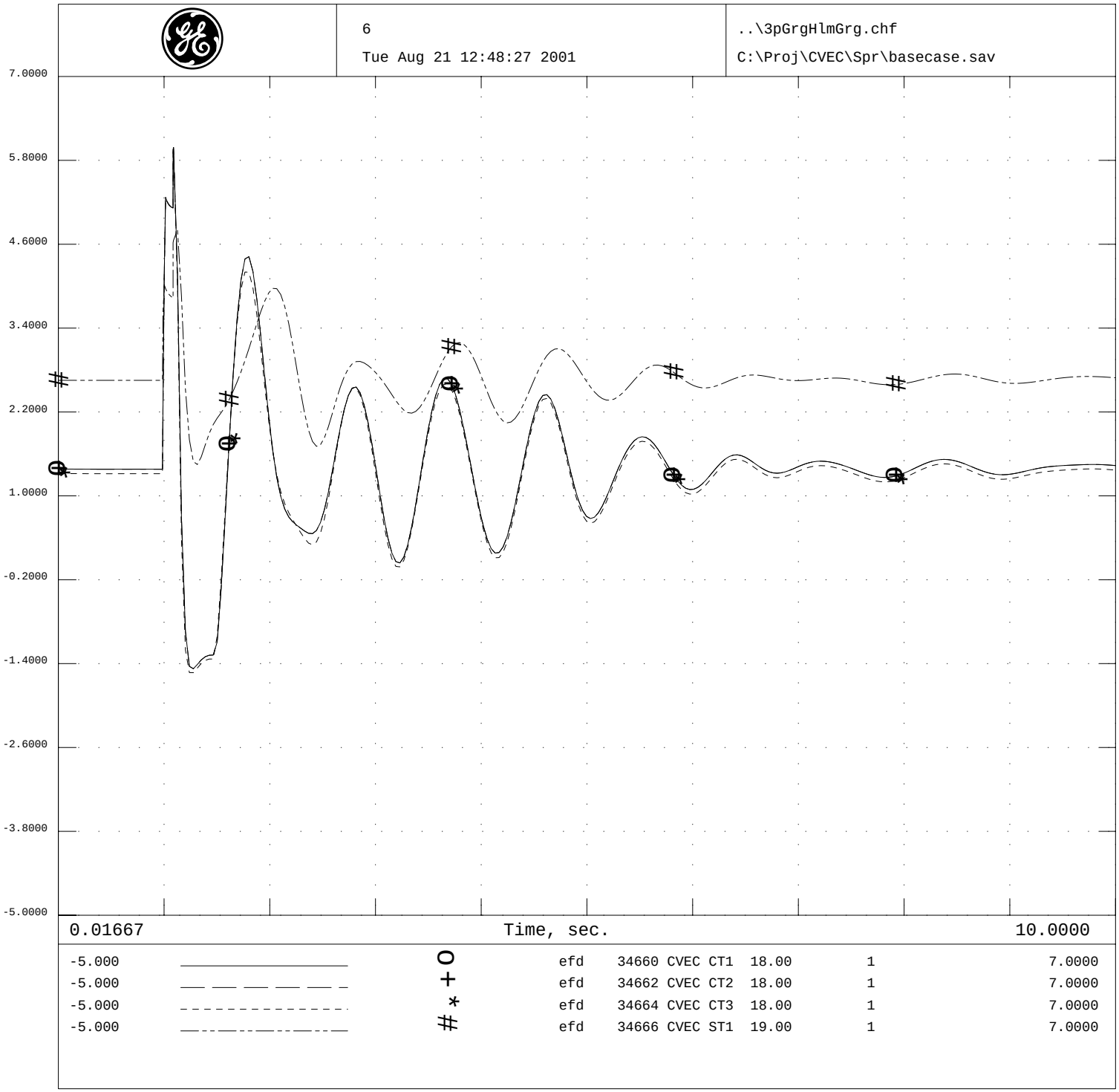
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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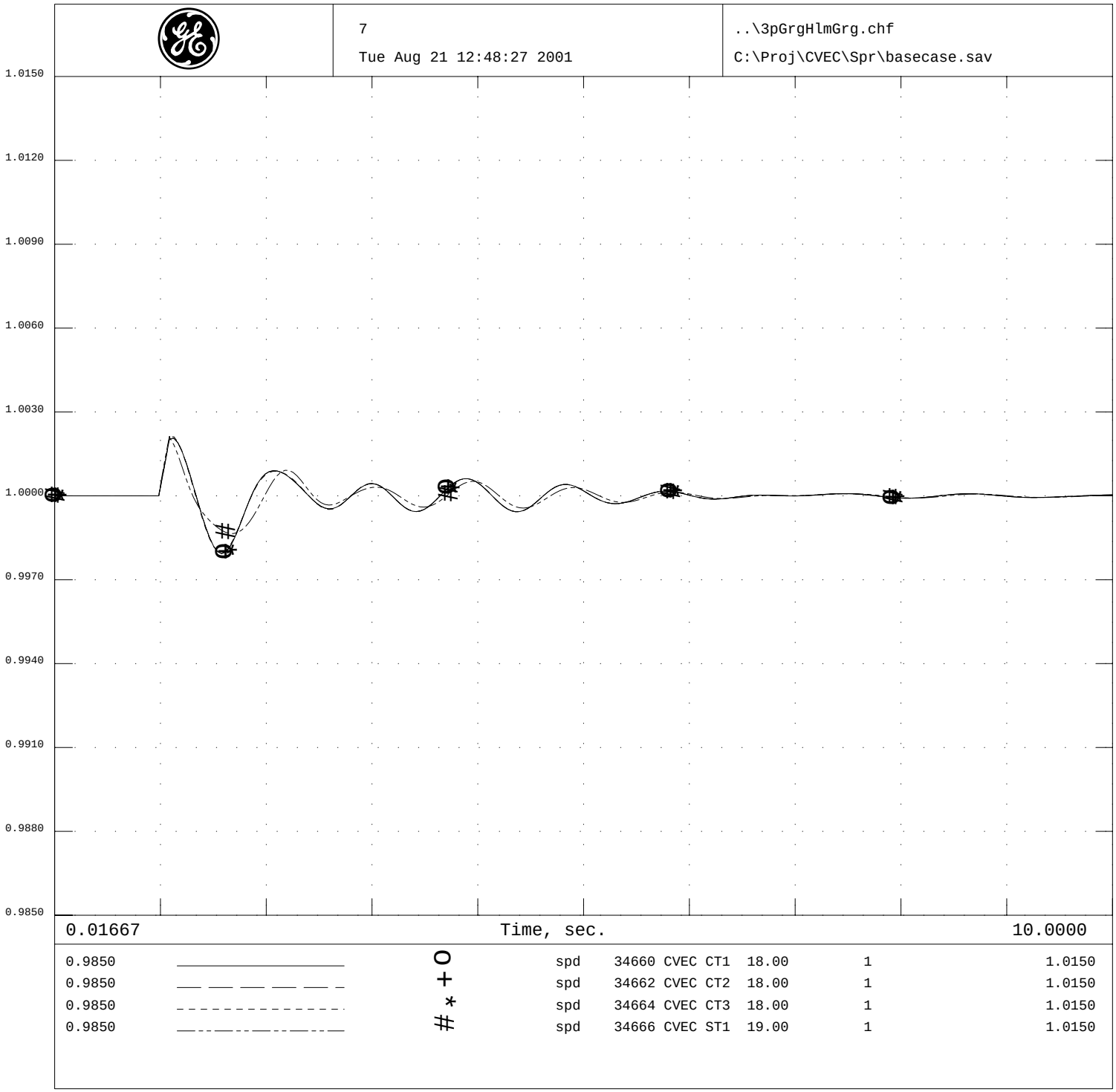
Project Generator Field Voltages



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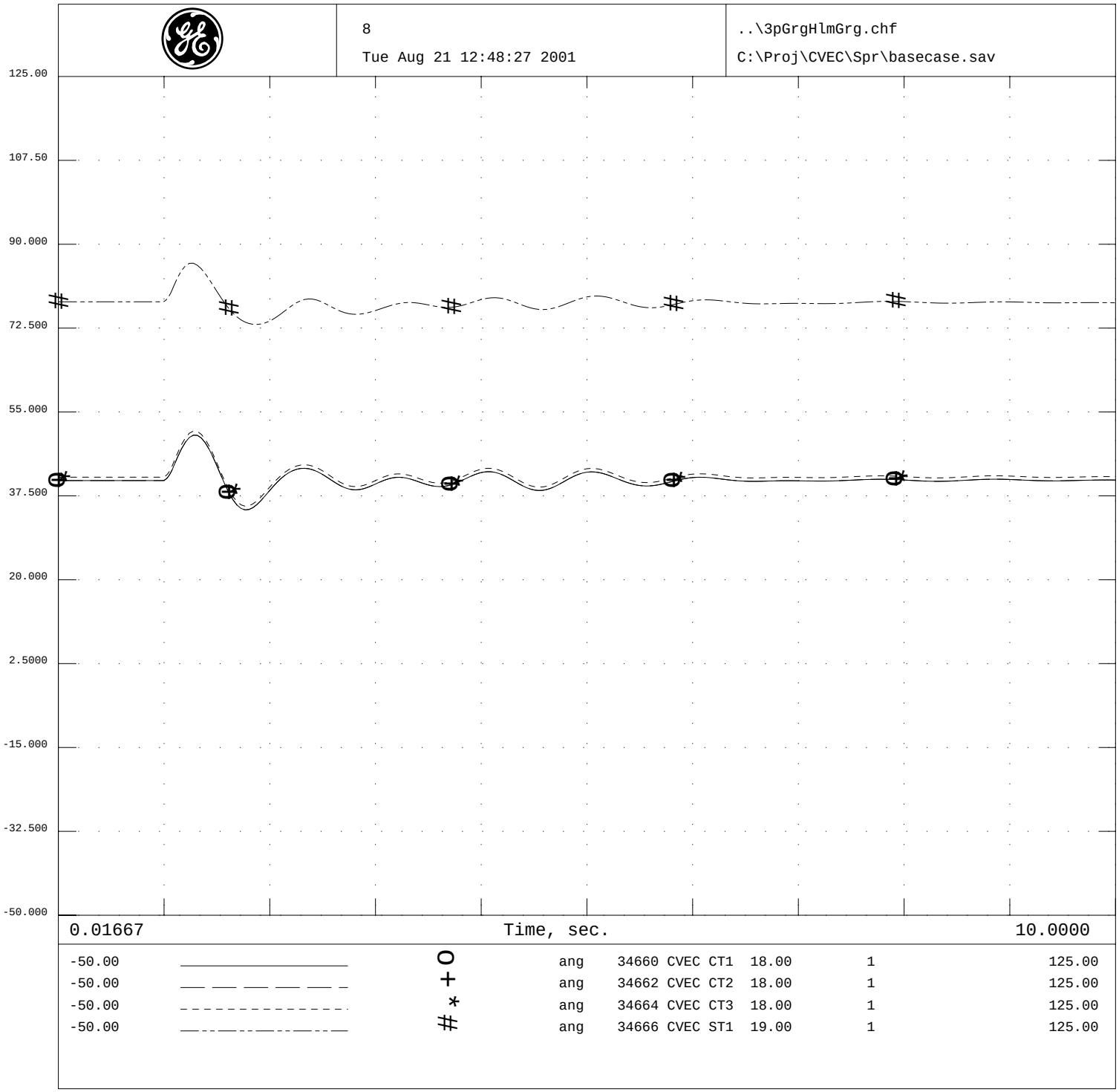
Project Generator Rotor Speed



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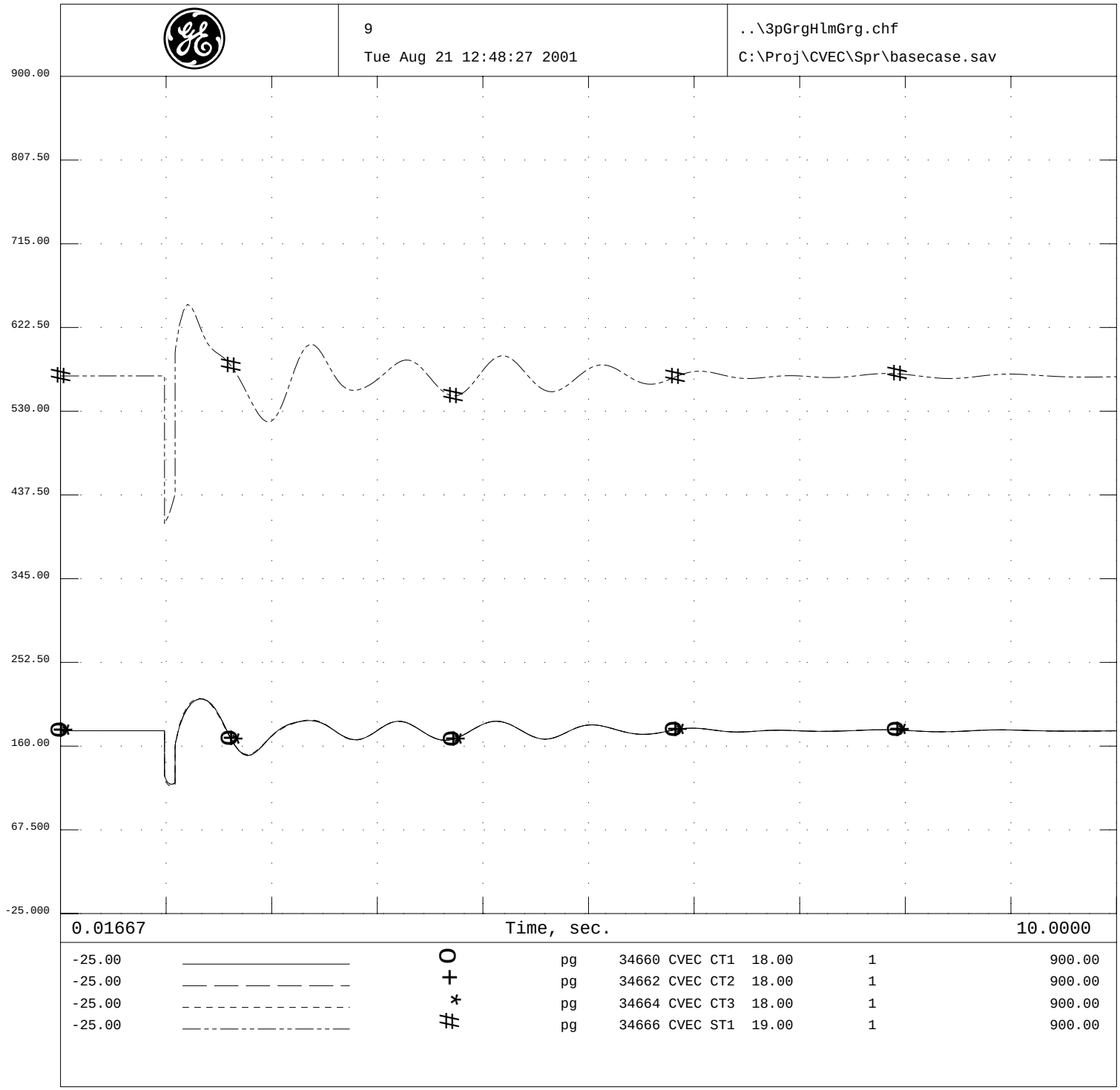

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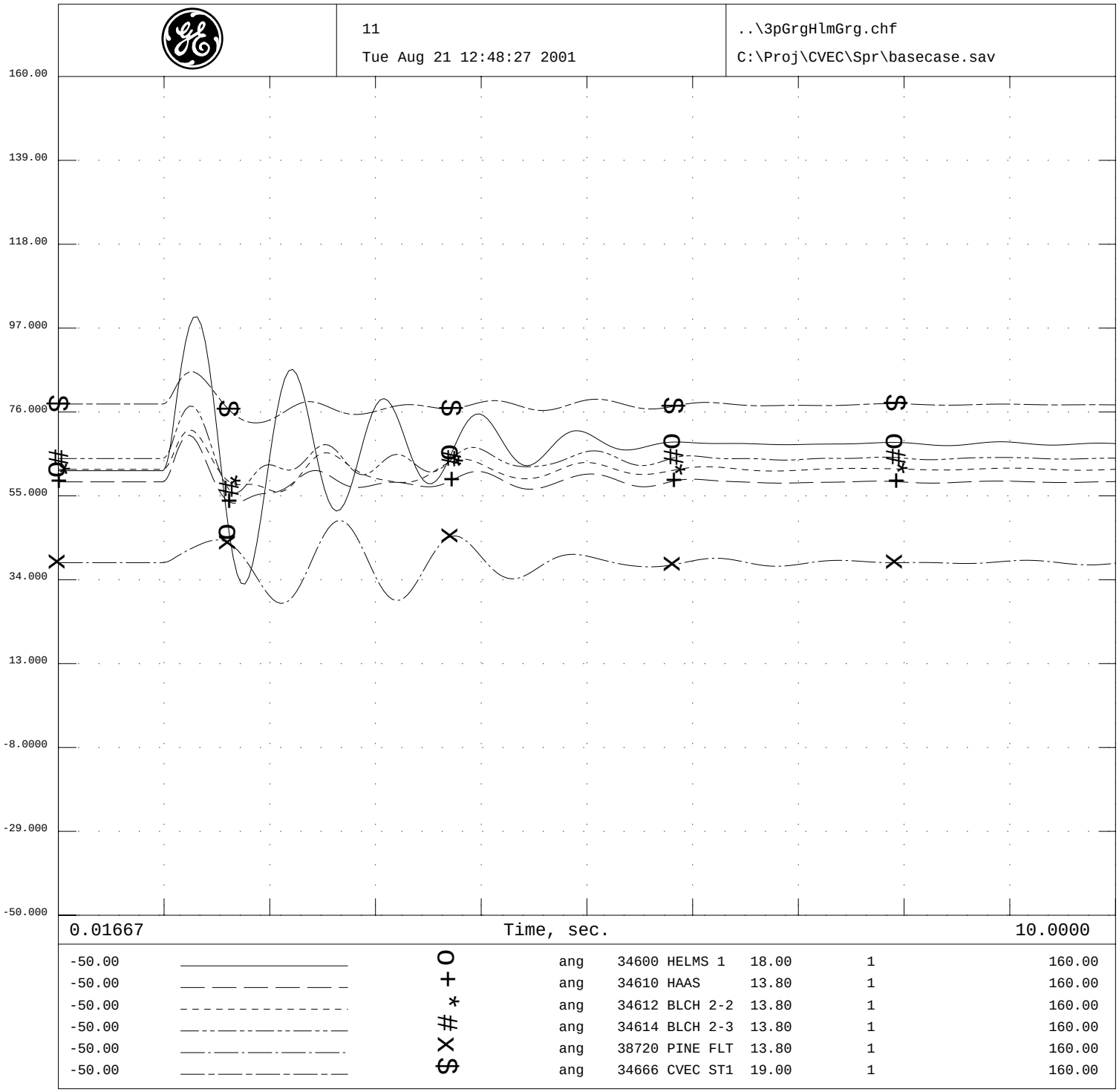

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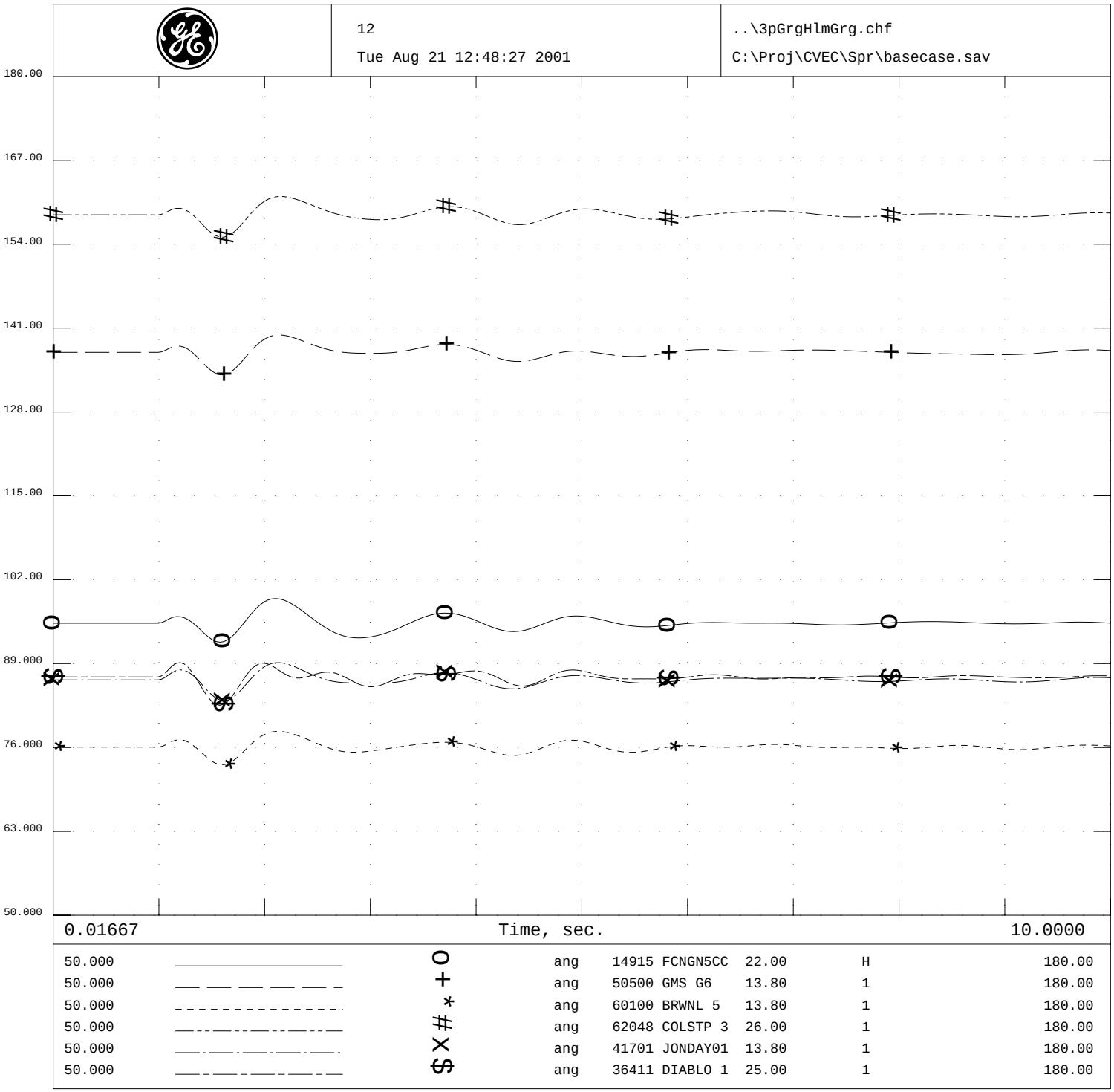

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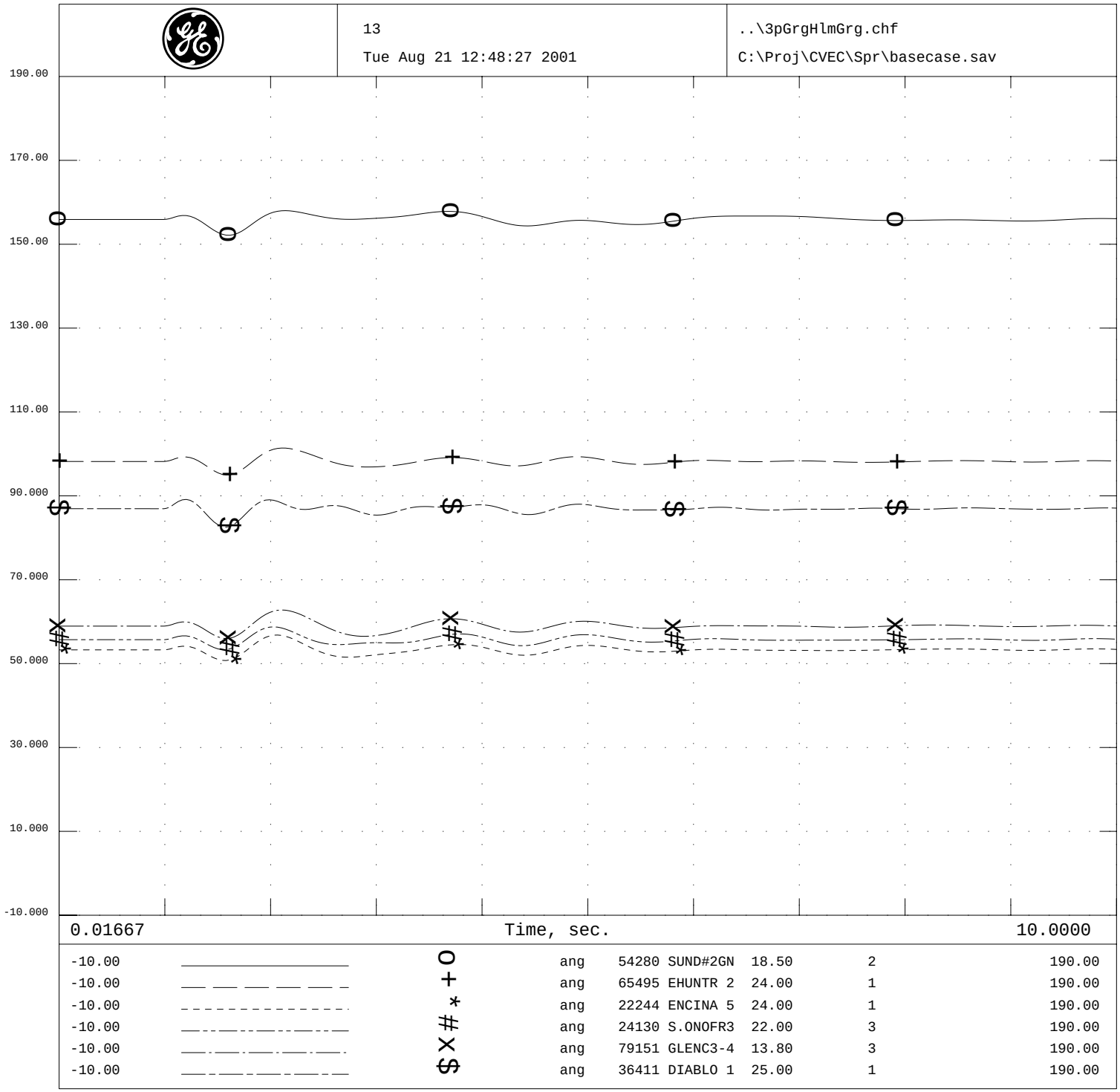

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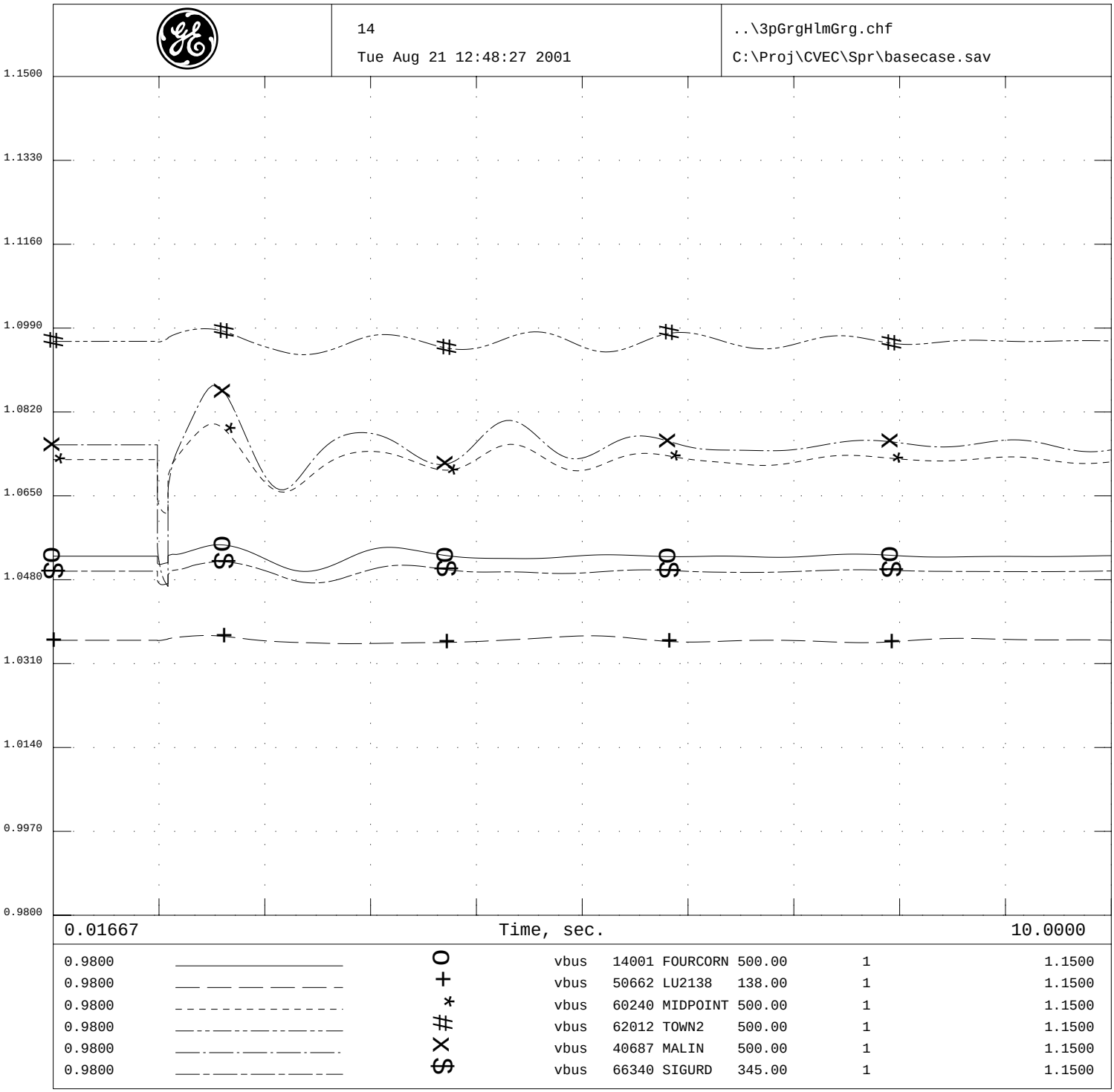

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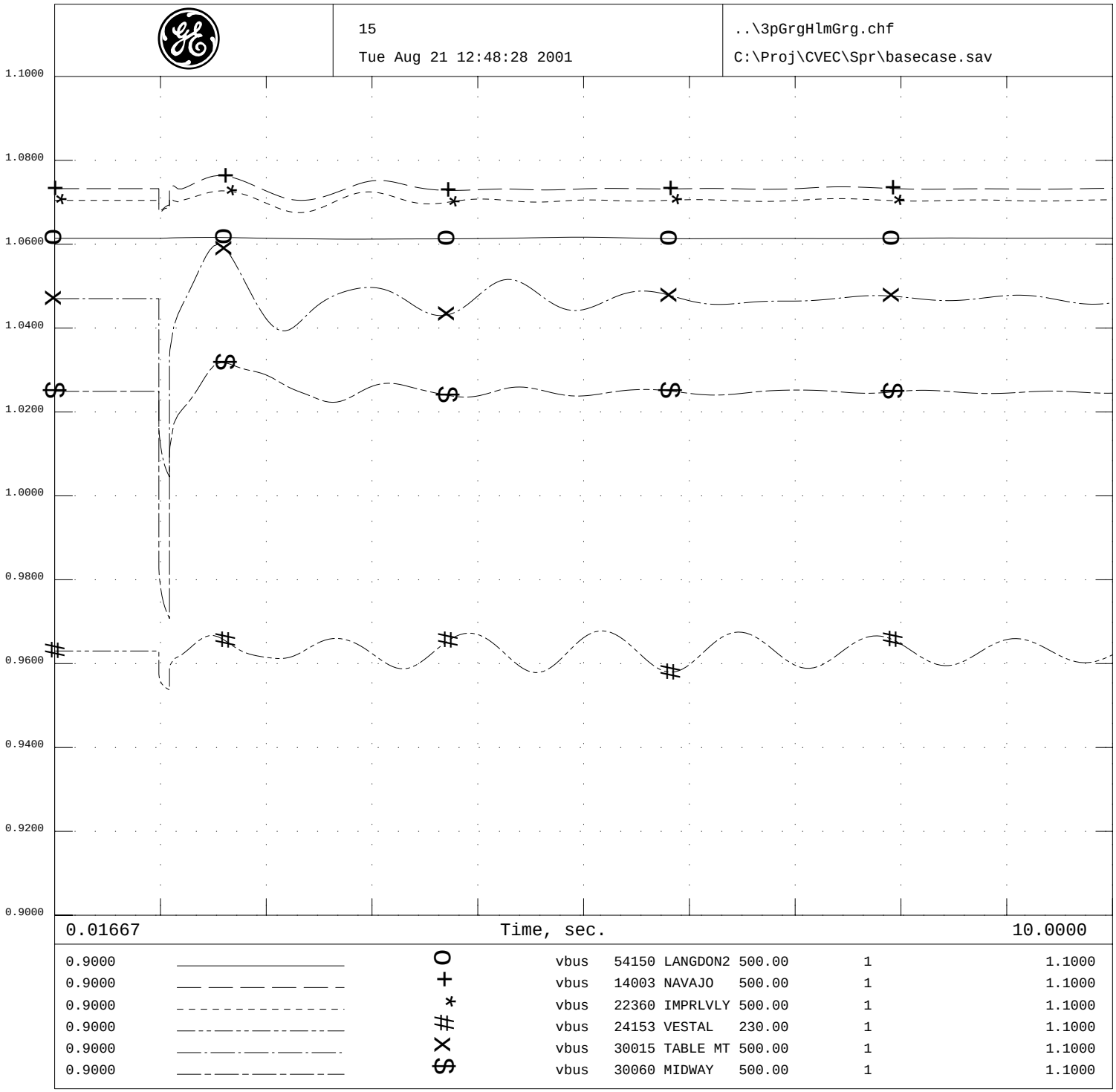

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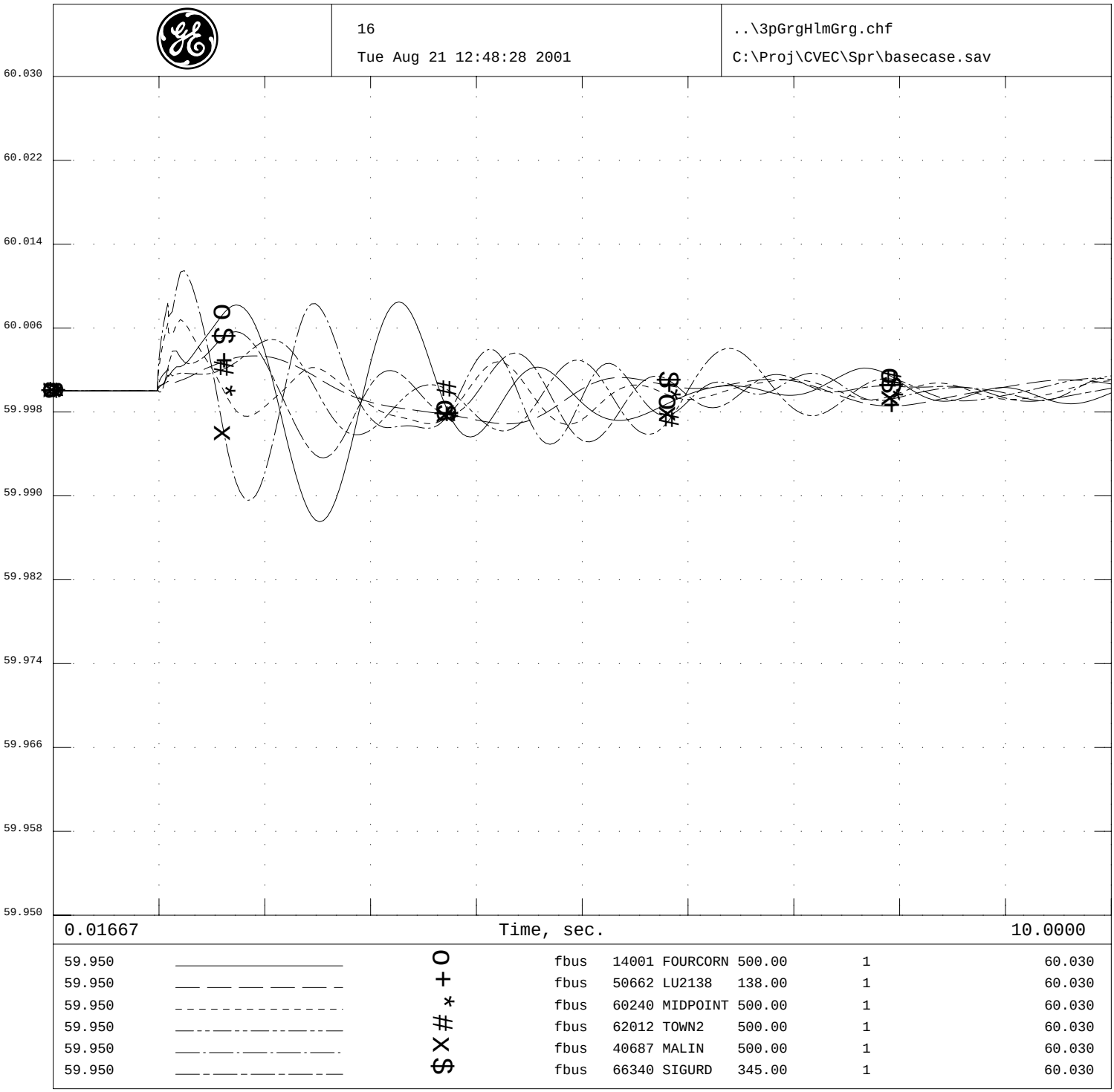

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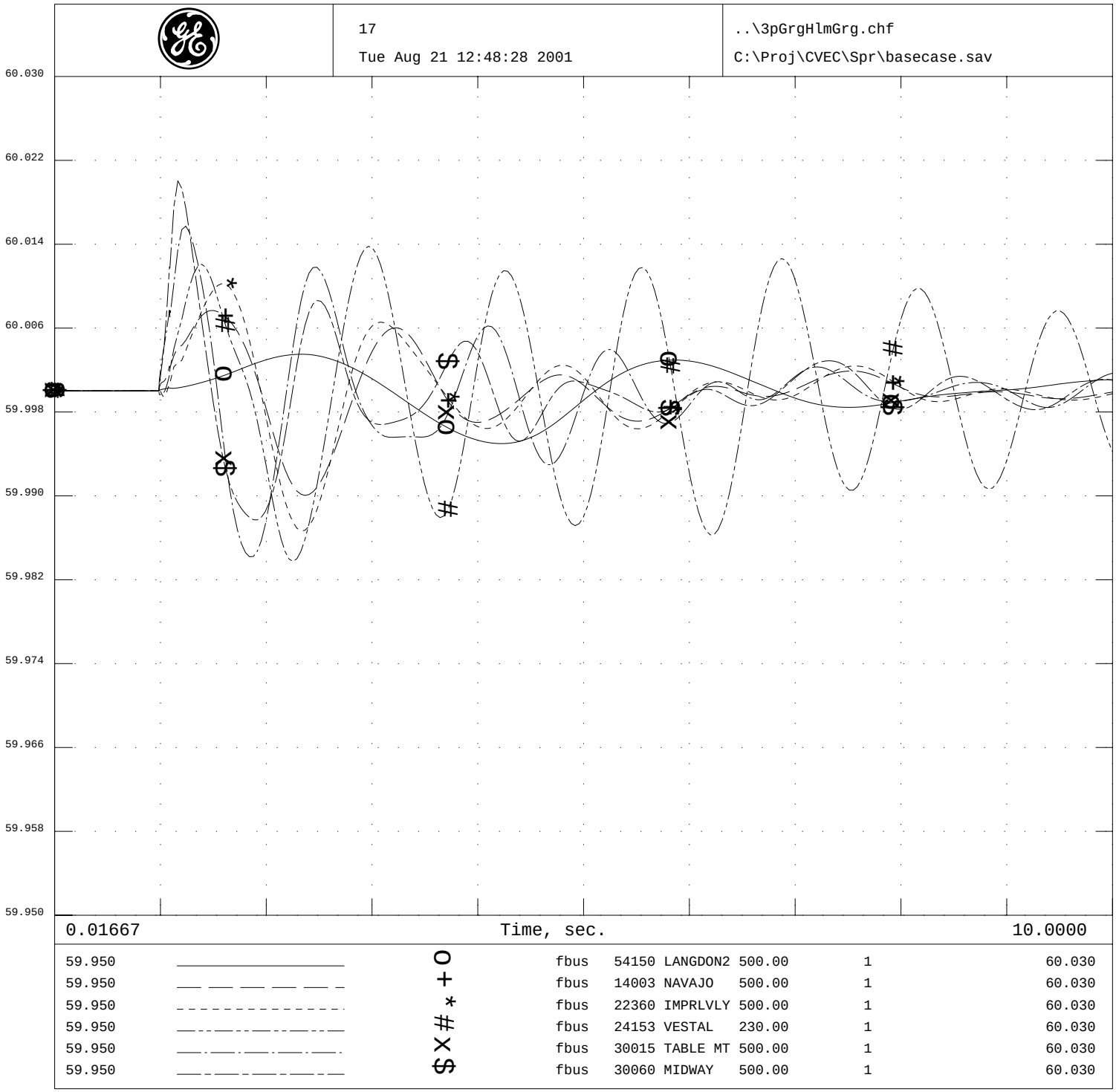

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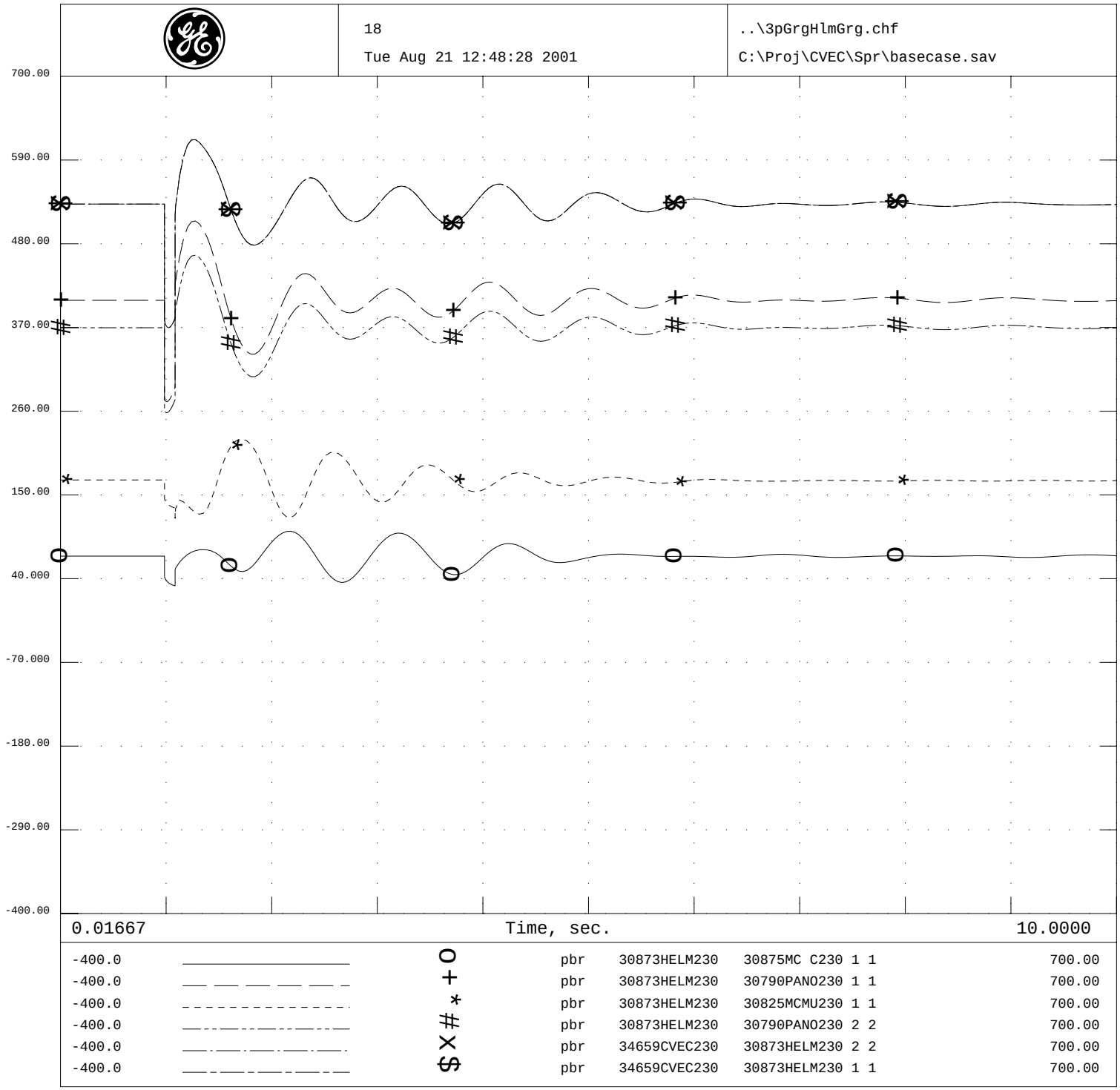

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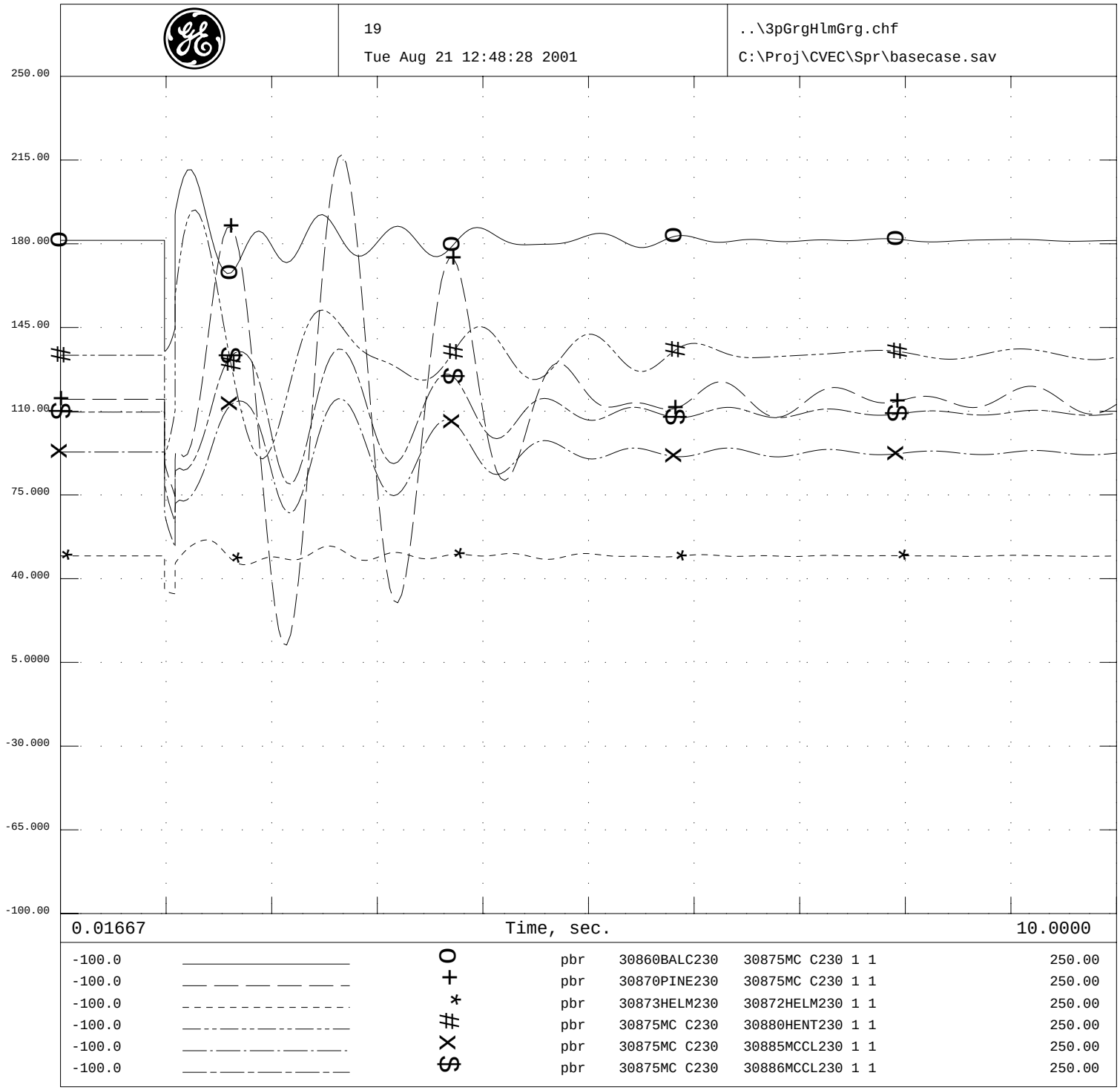

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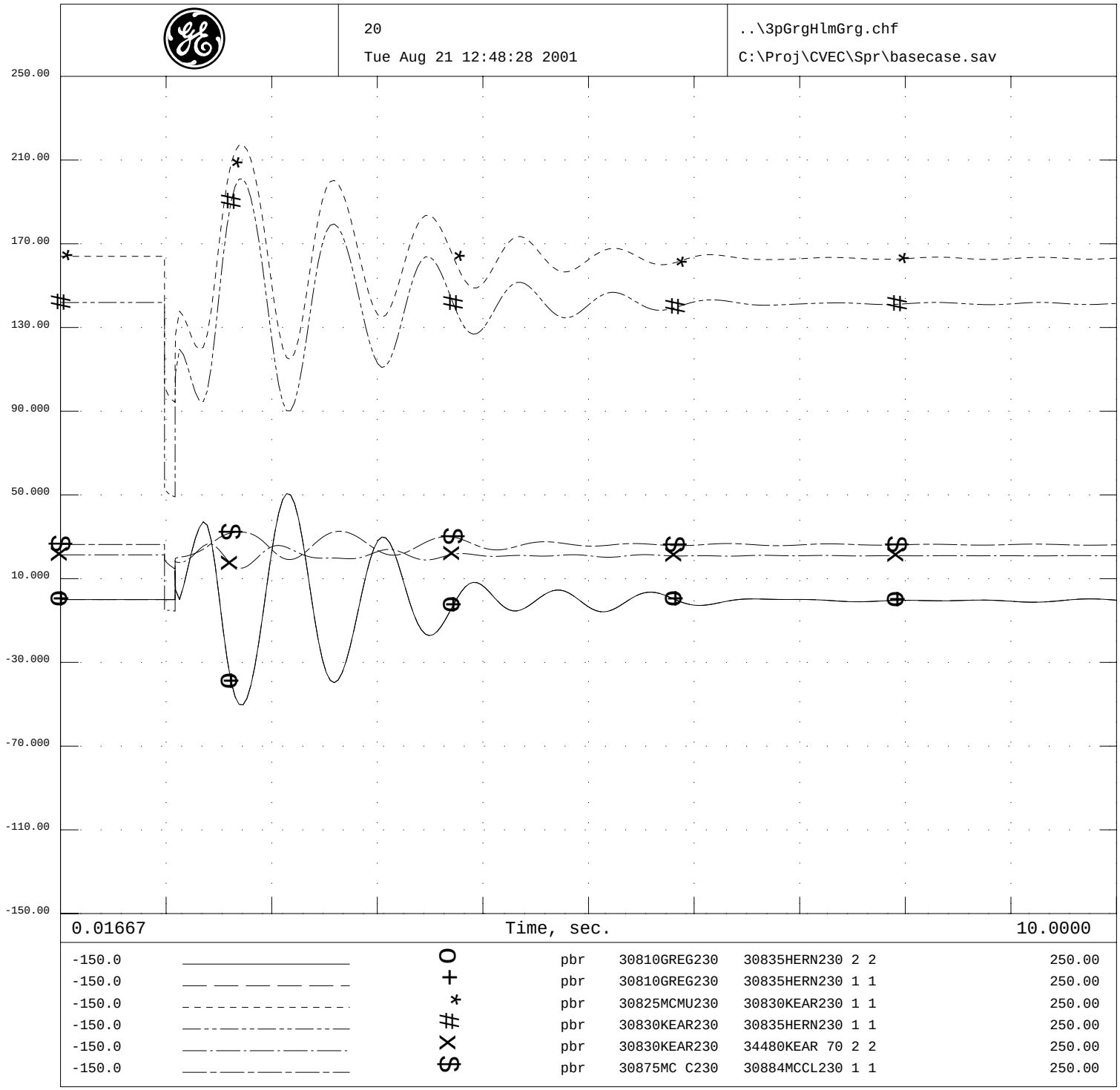

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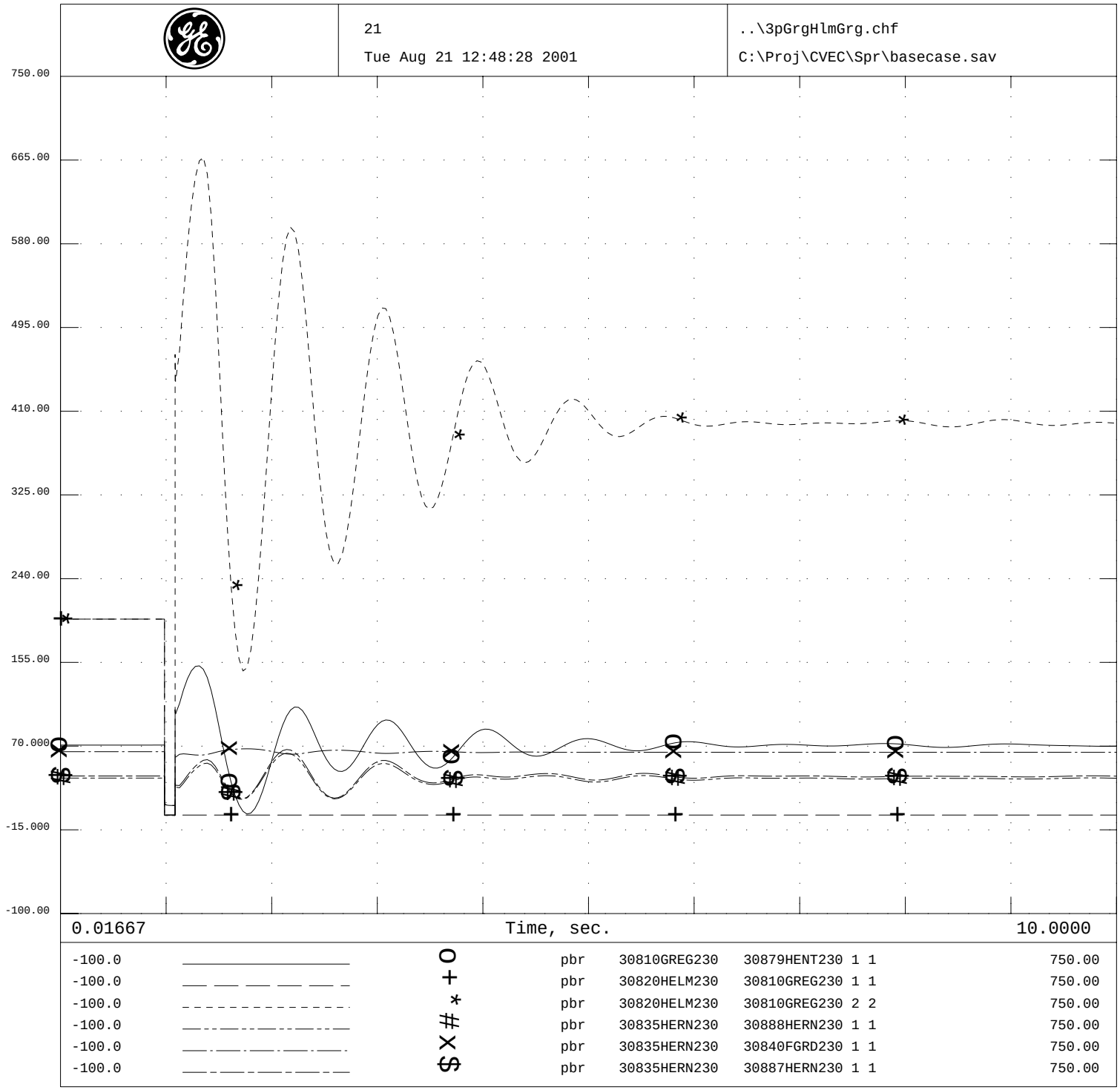
Gregg-Helms 230kV Outage
3 phase 6 cycle fault at Gregg 230kV bus and trip Gregg-Helms 230kV line

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
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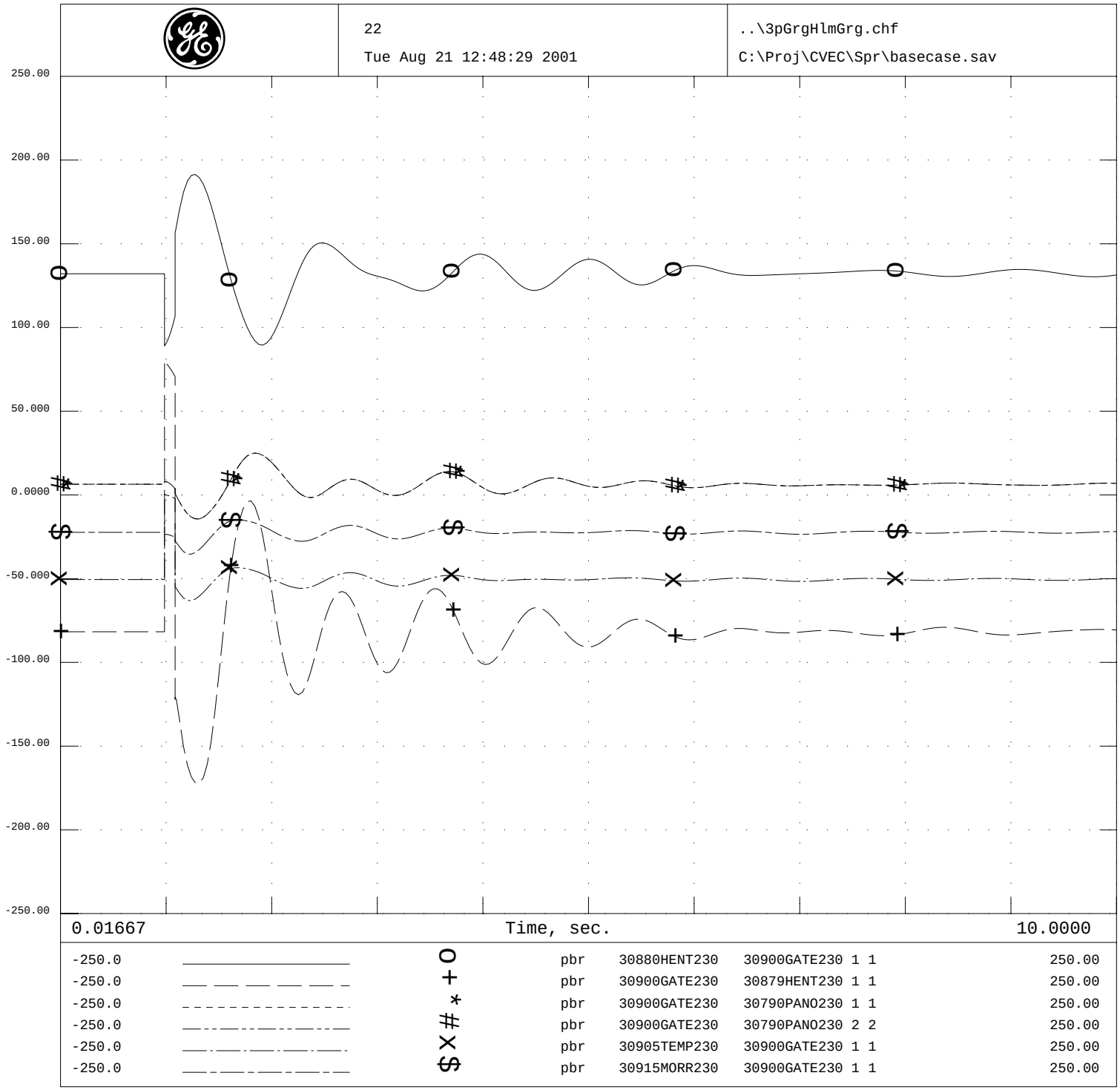

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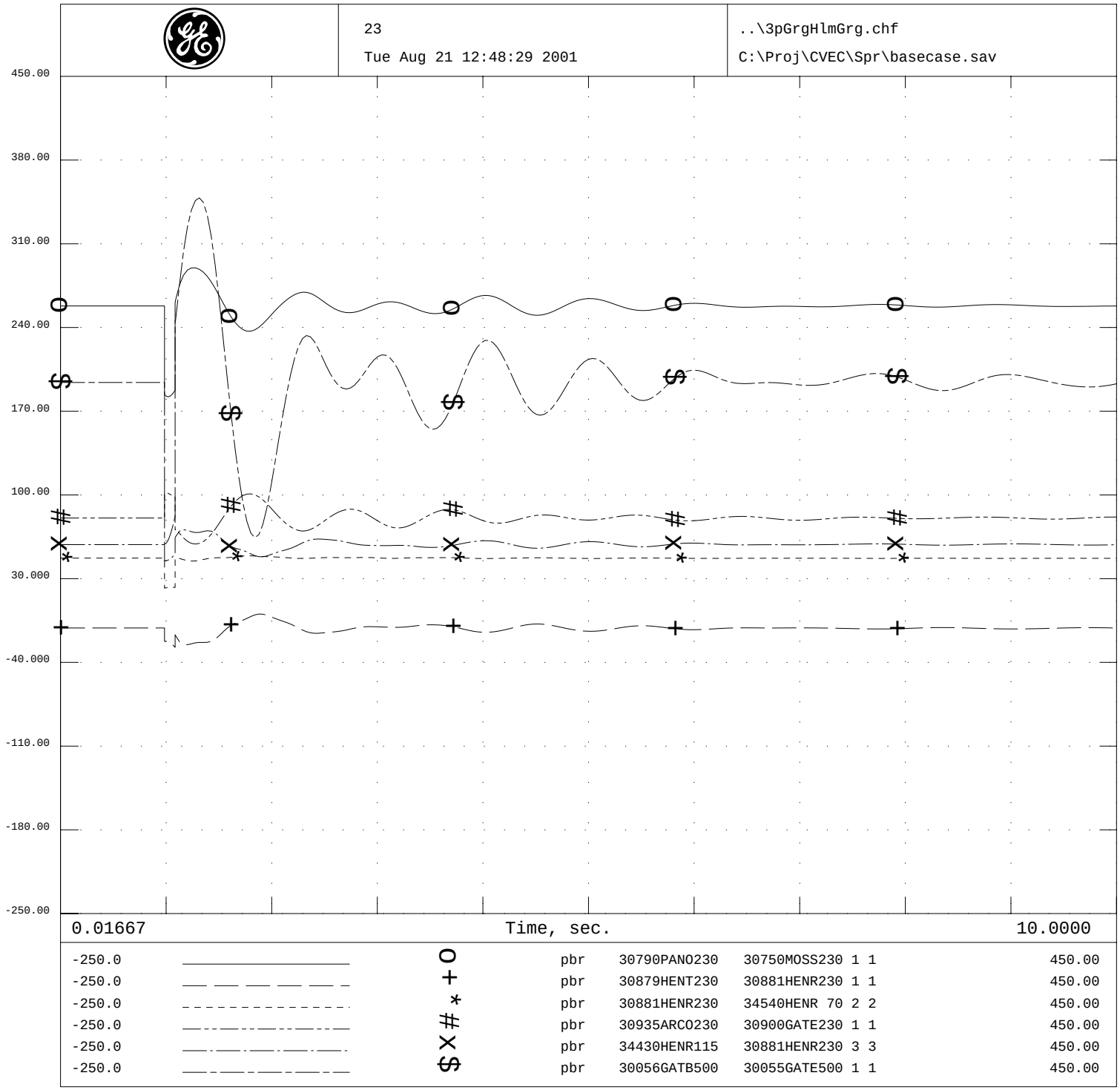

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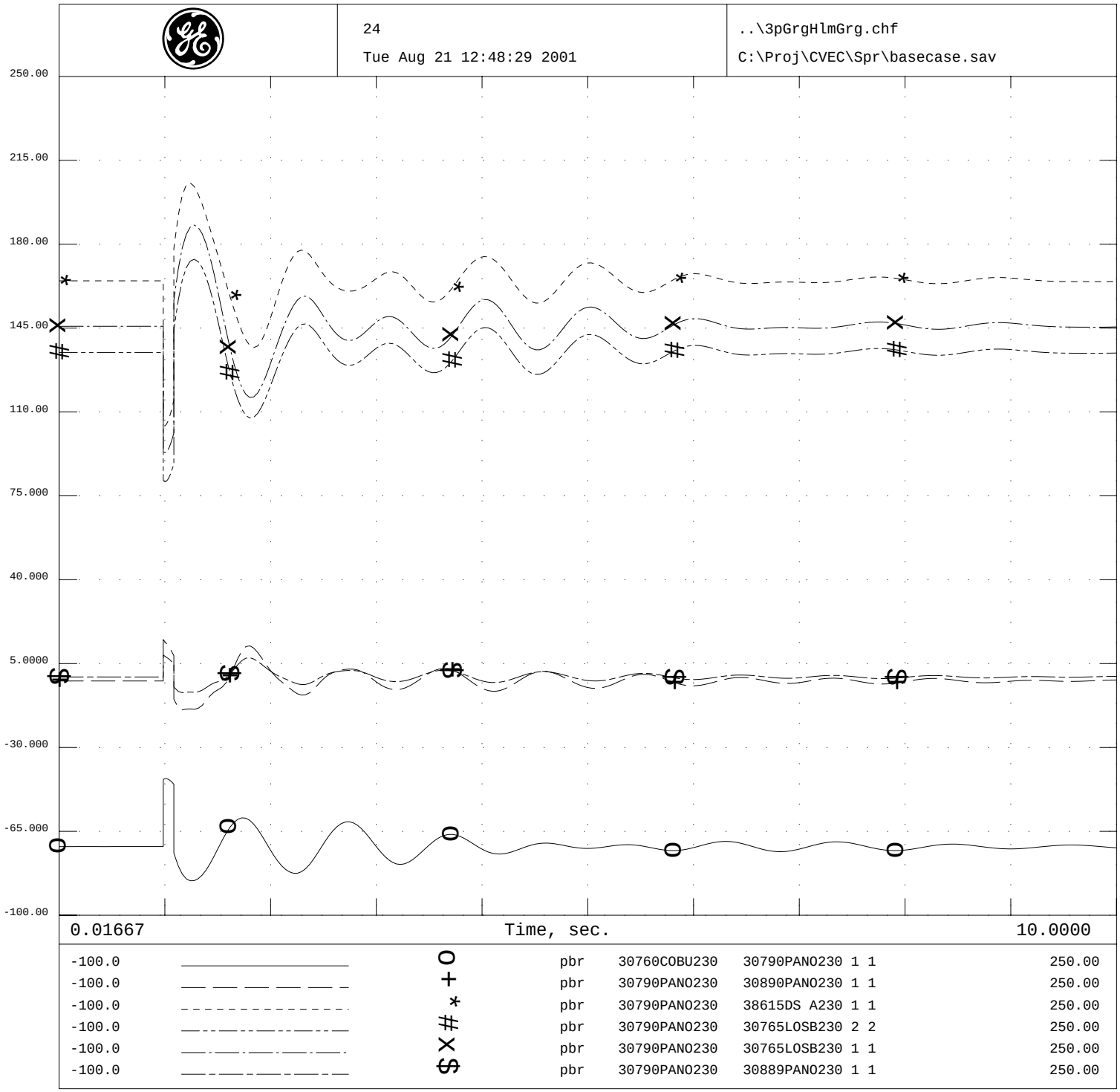

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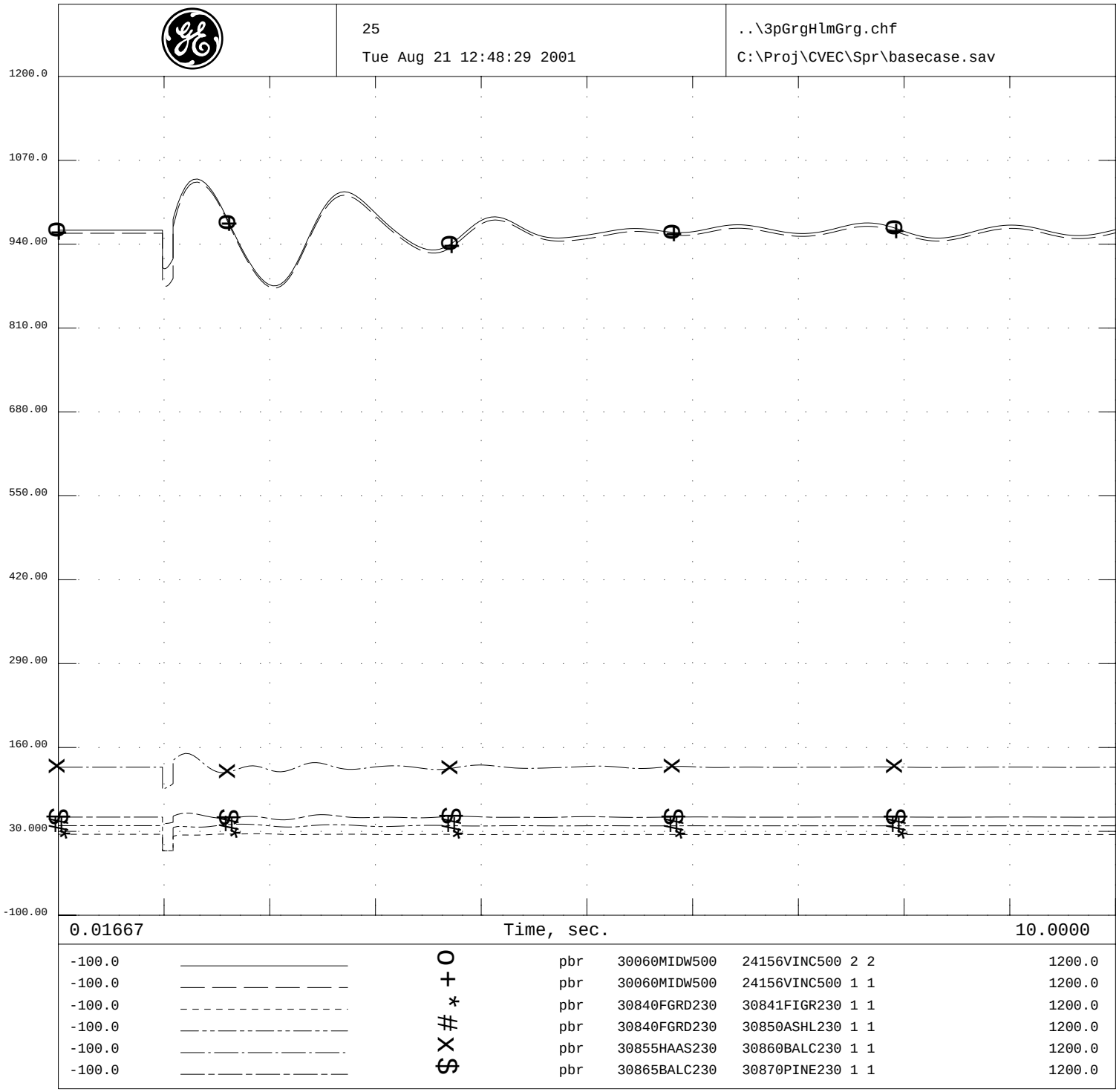

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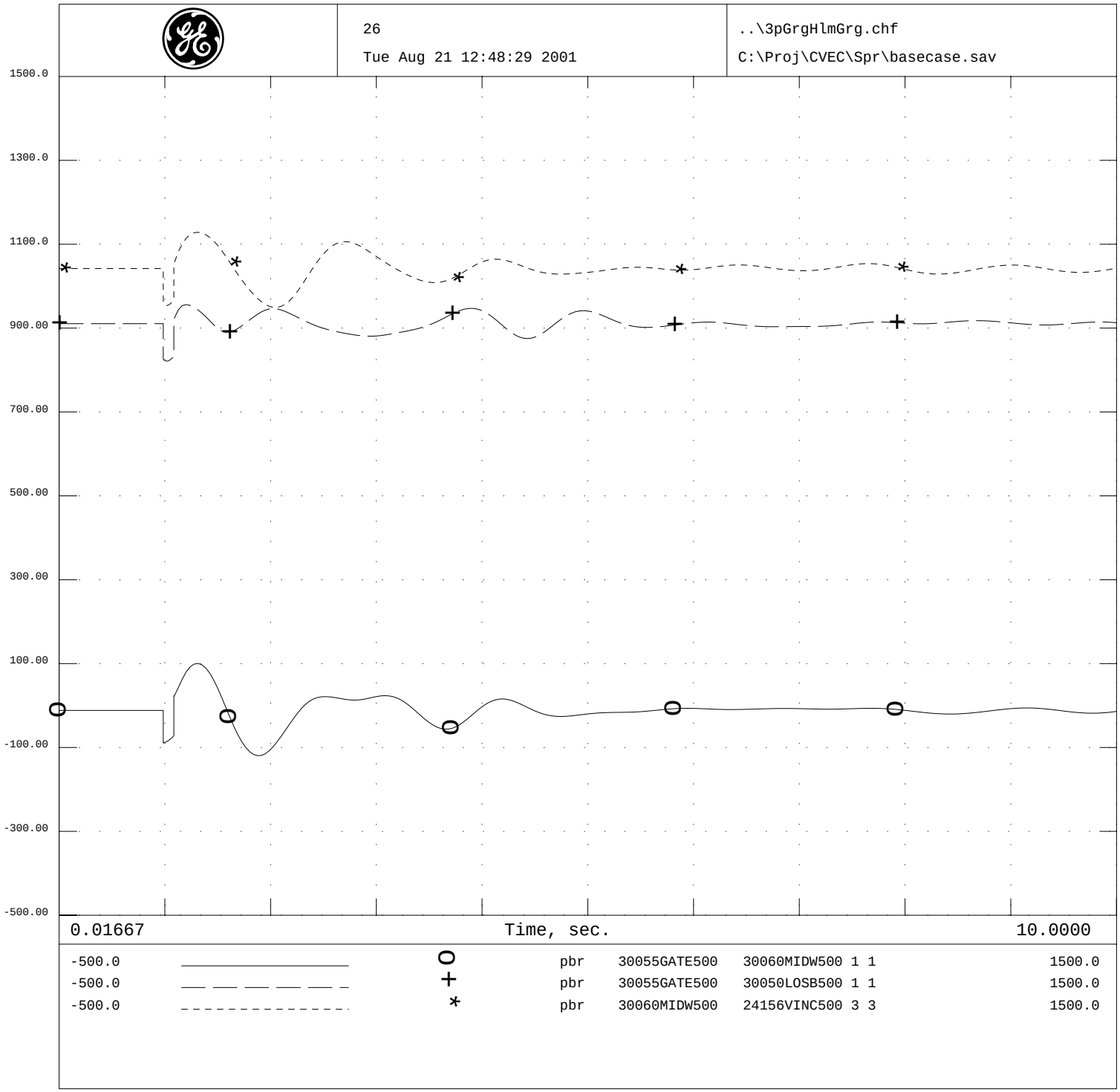

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Calpine Corporation
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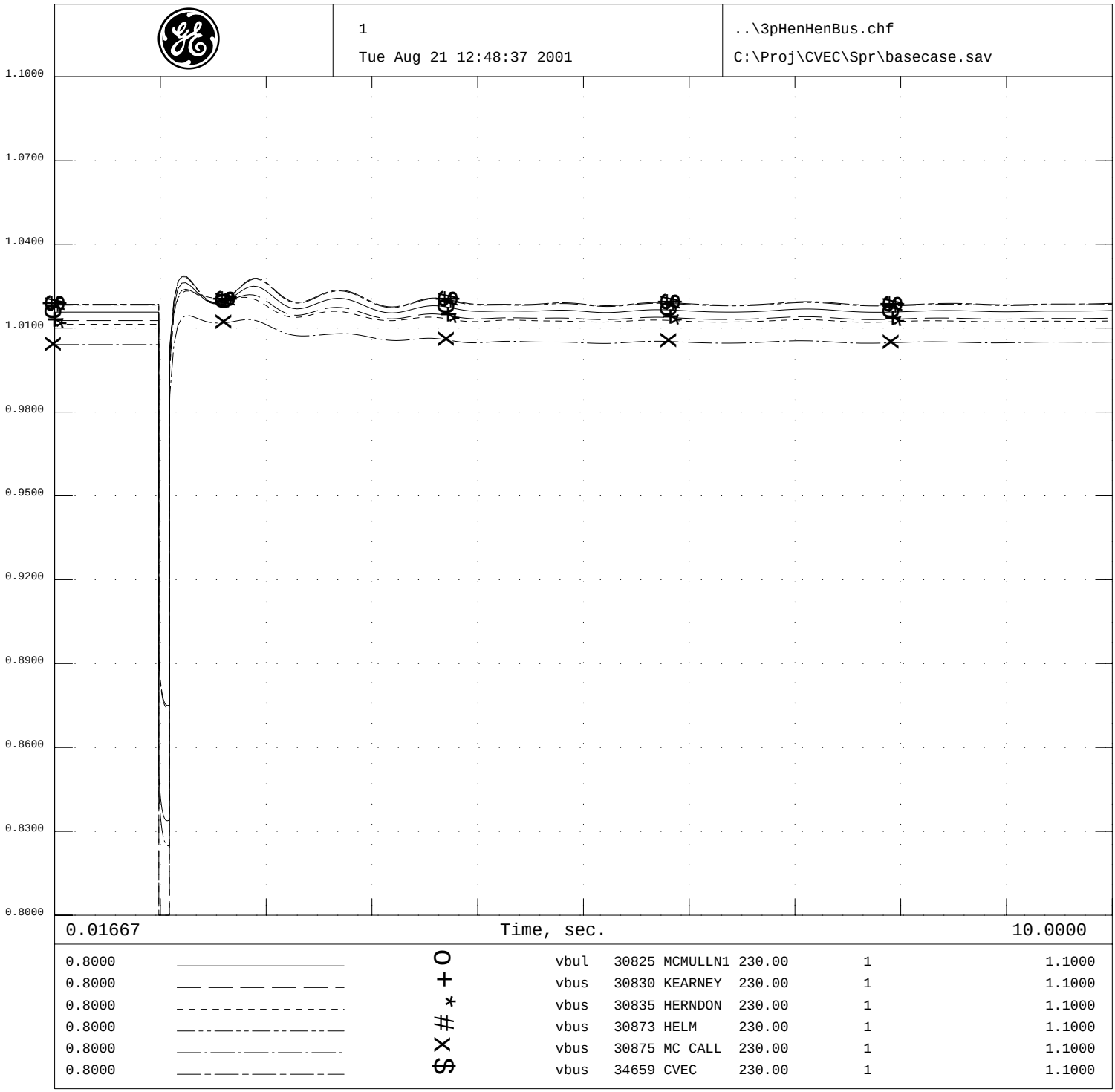
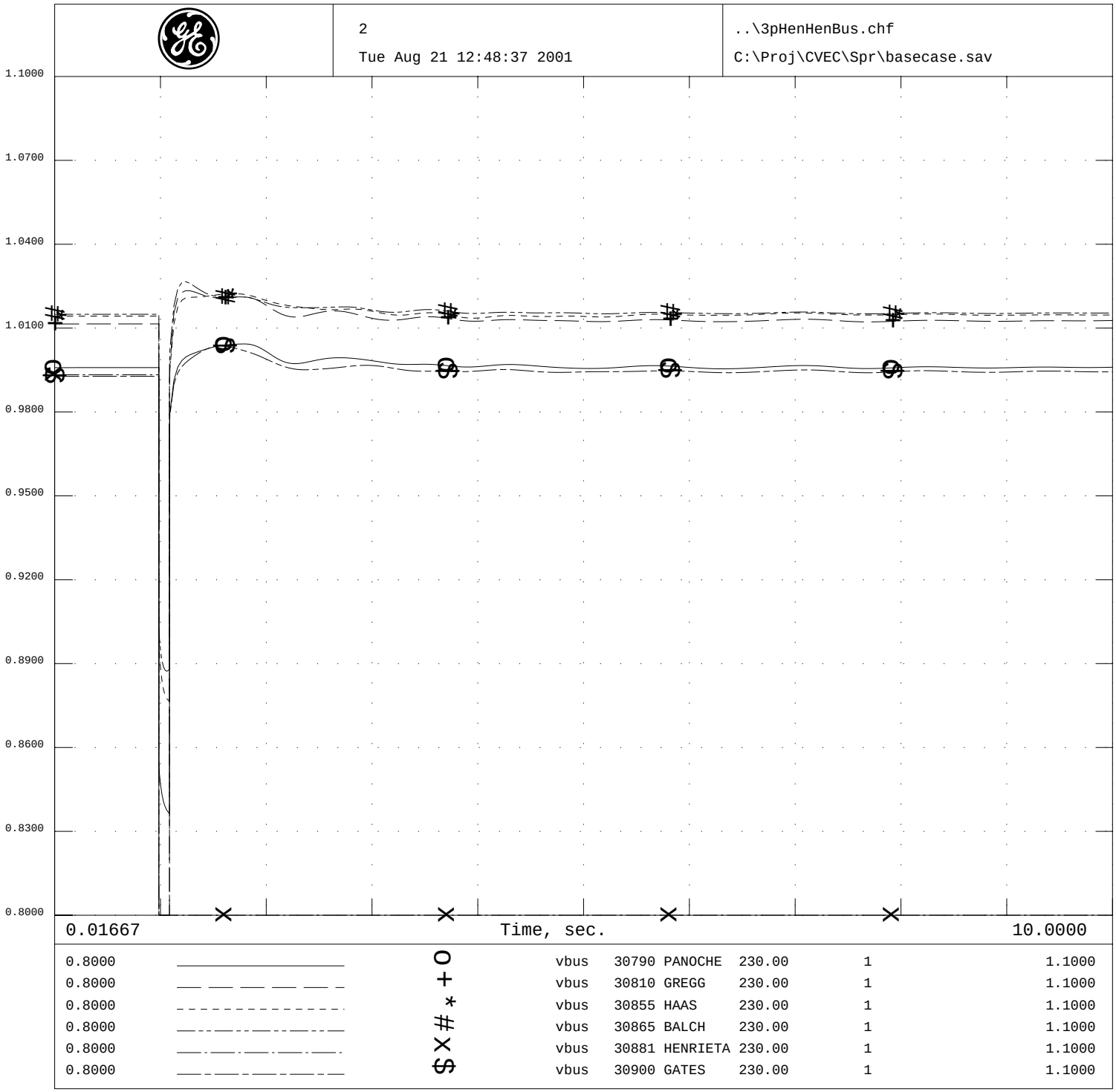


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Henrietta 230kV Bus Outage
3 phase 6 cycle fault at Henrietta 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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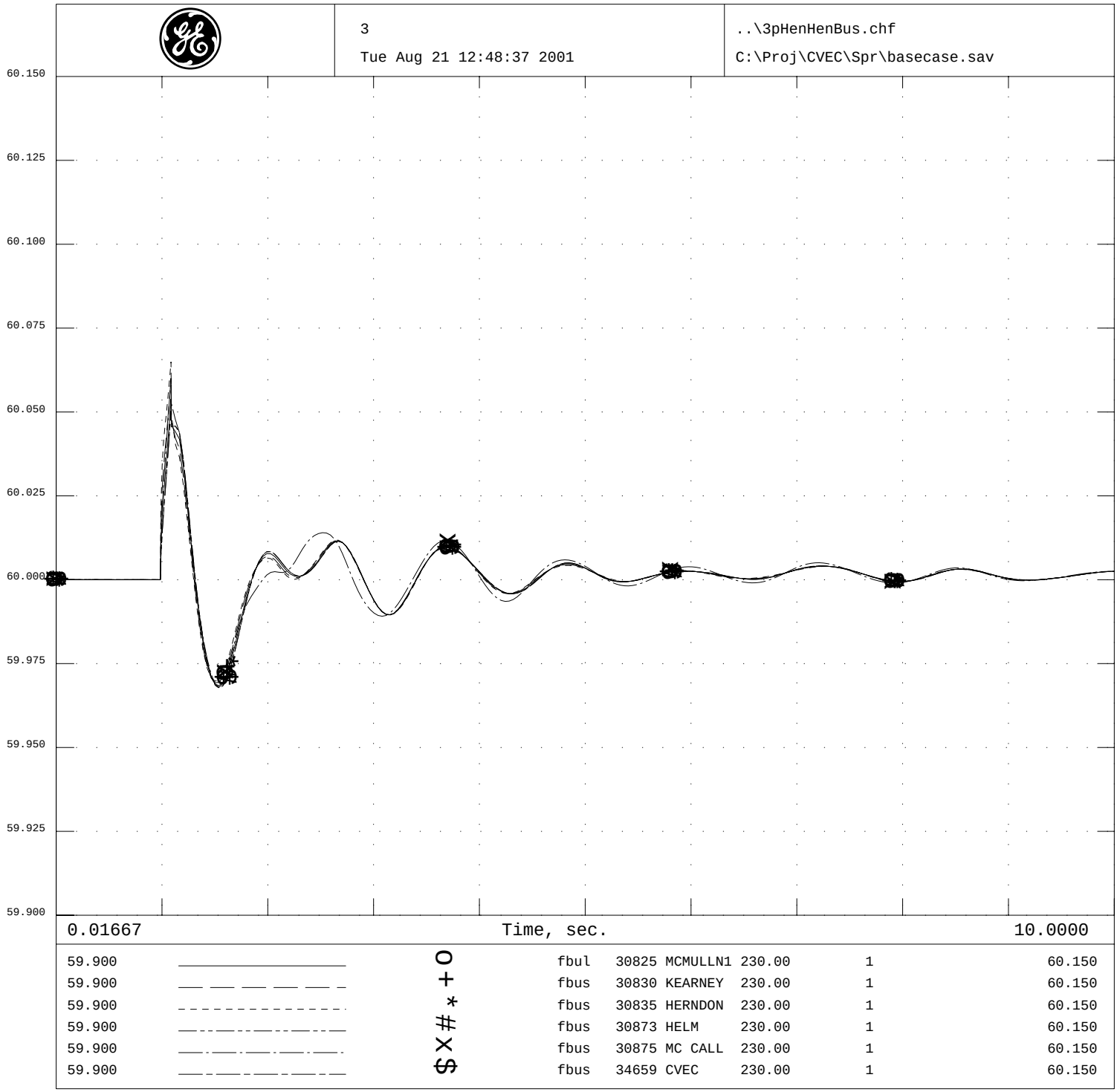

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2004 Heavy Spring Base Case
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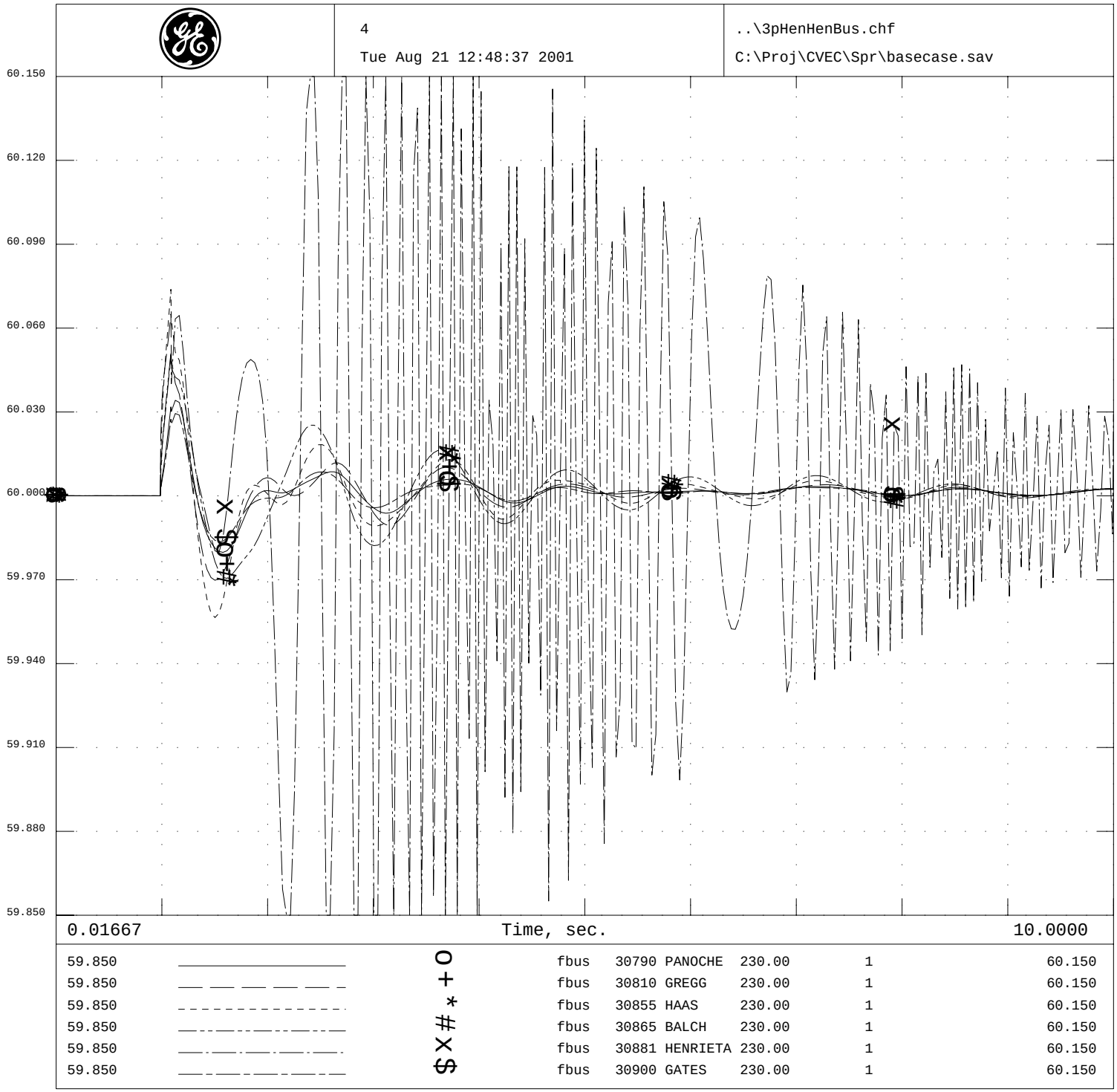
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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Calpine Corporation
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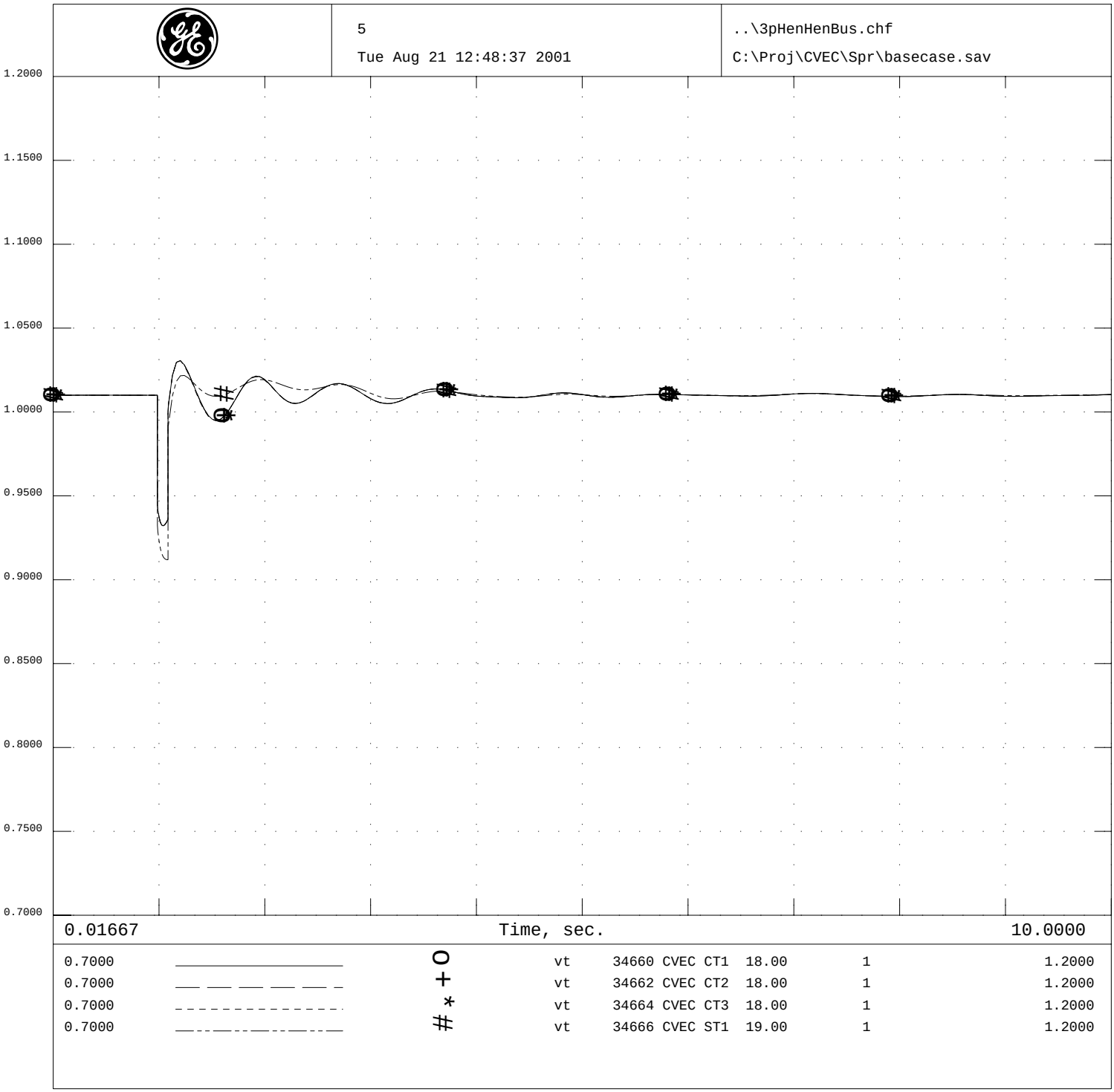

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2004 Heavy Spring Base Case
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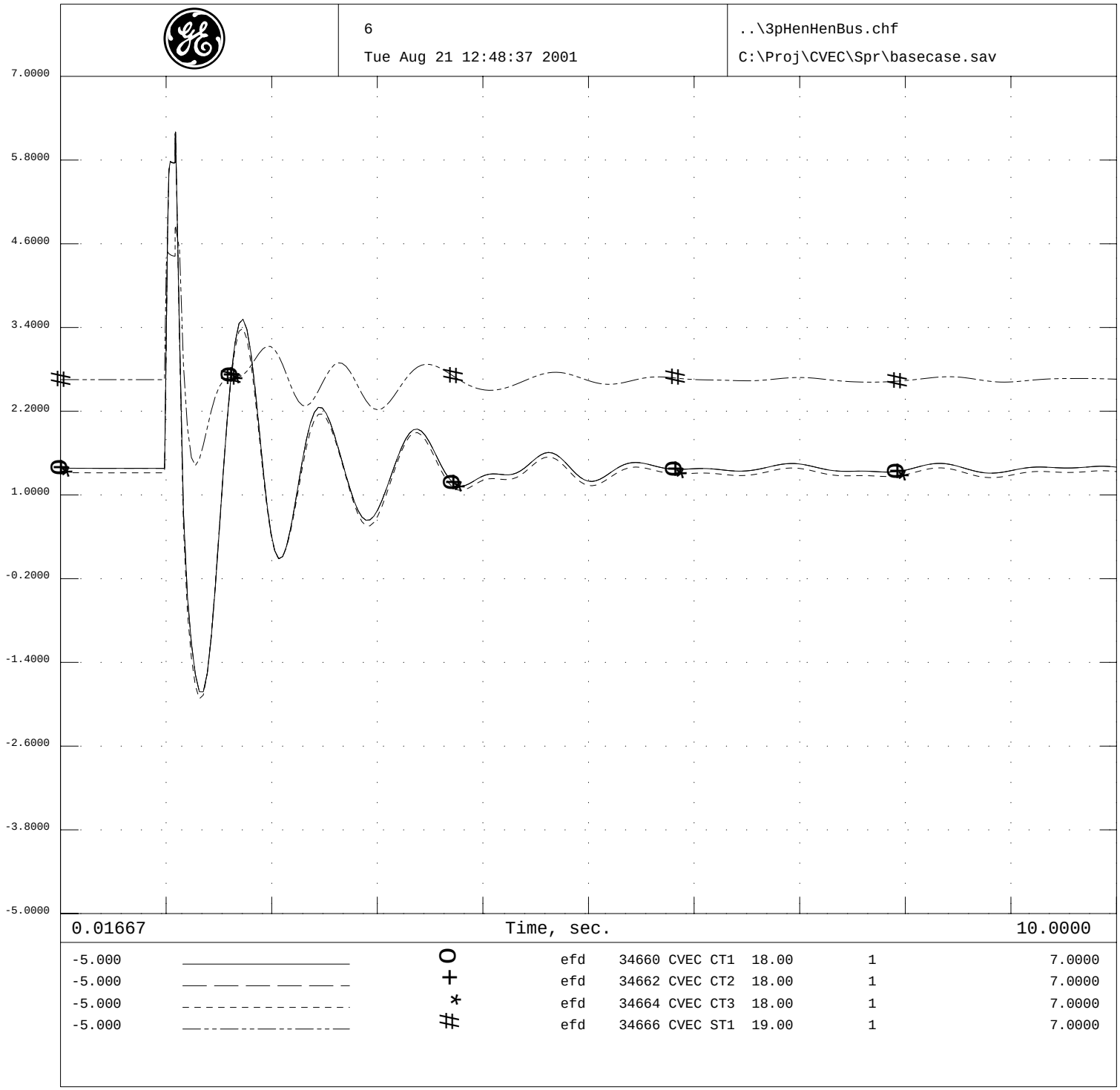
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Heavy Spring Base Case
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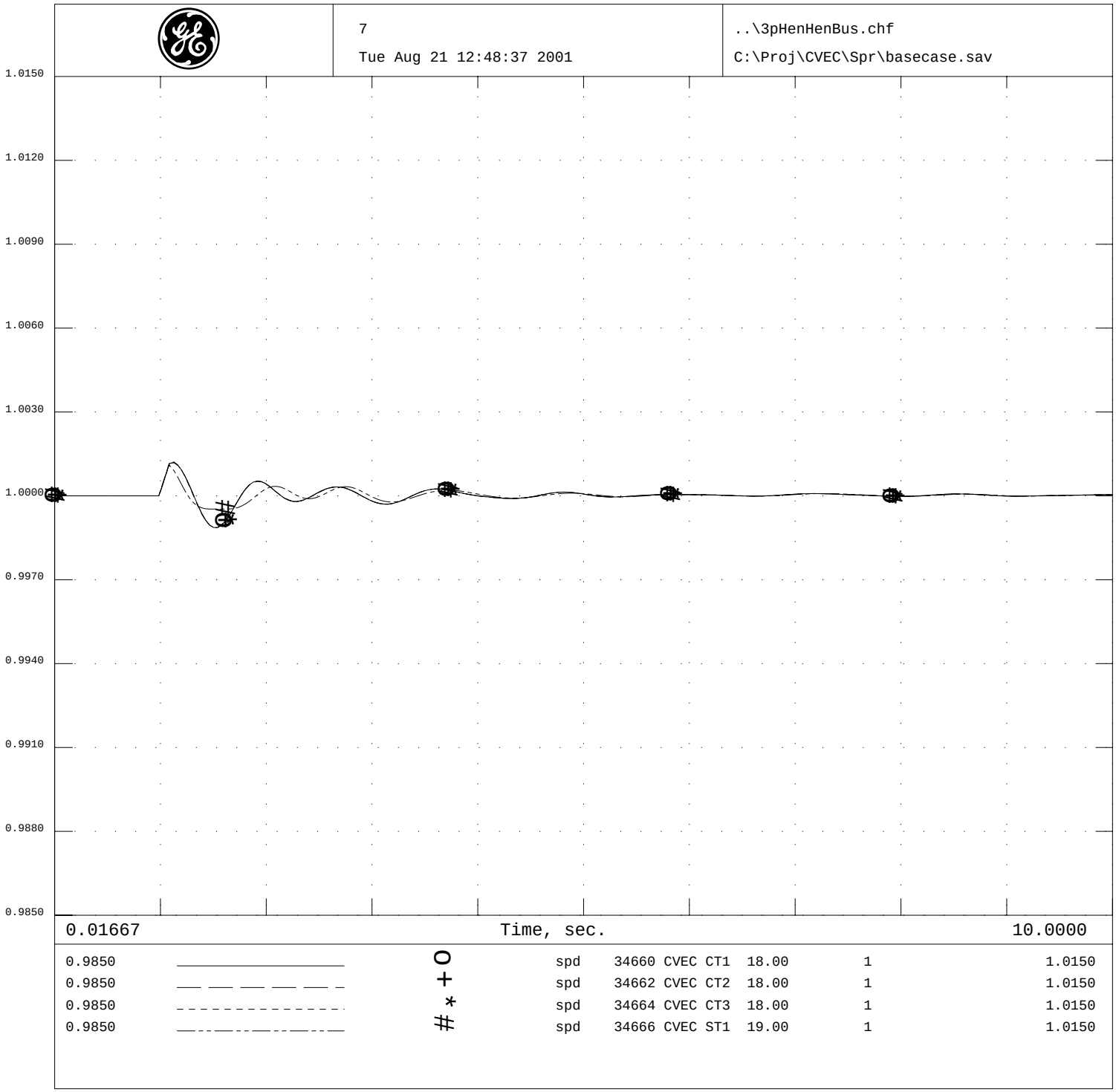
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
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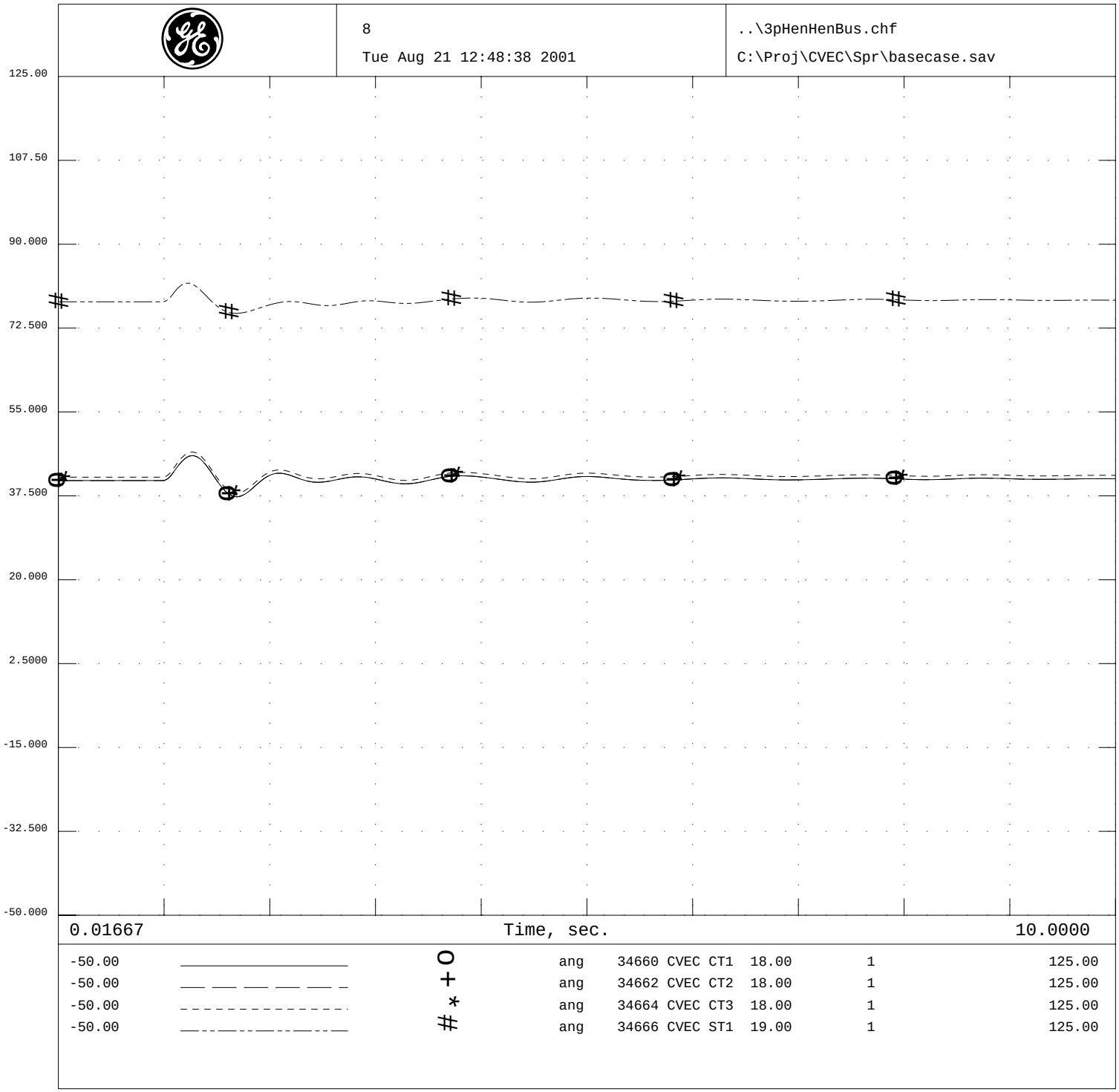
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Heavy Spring Base Case
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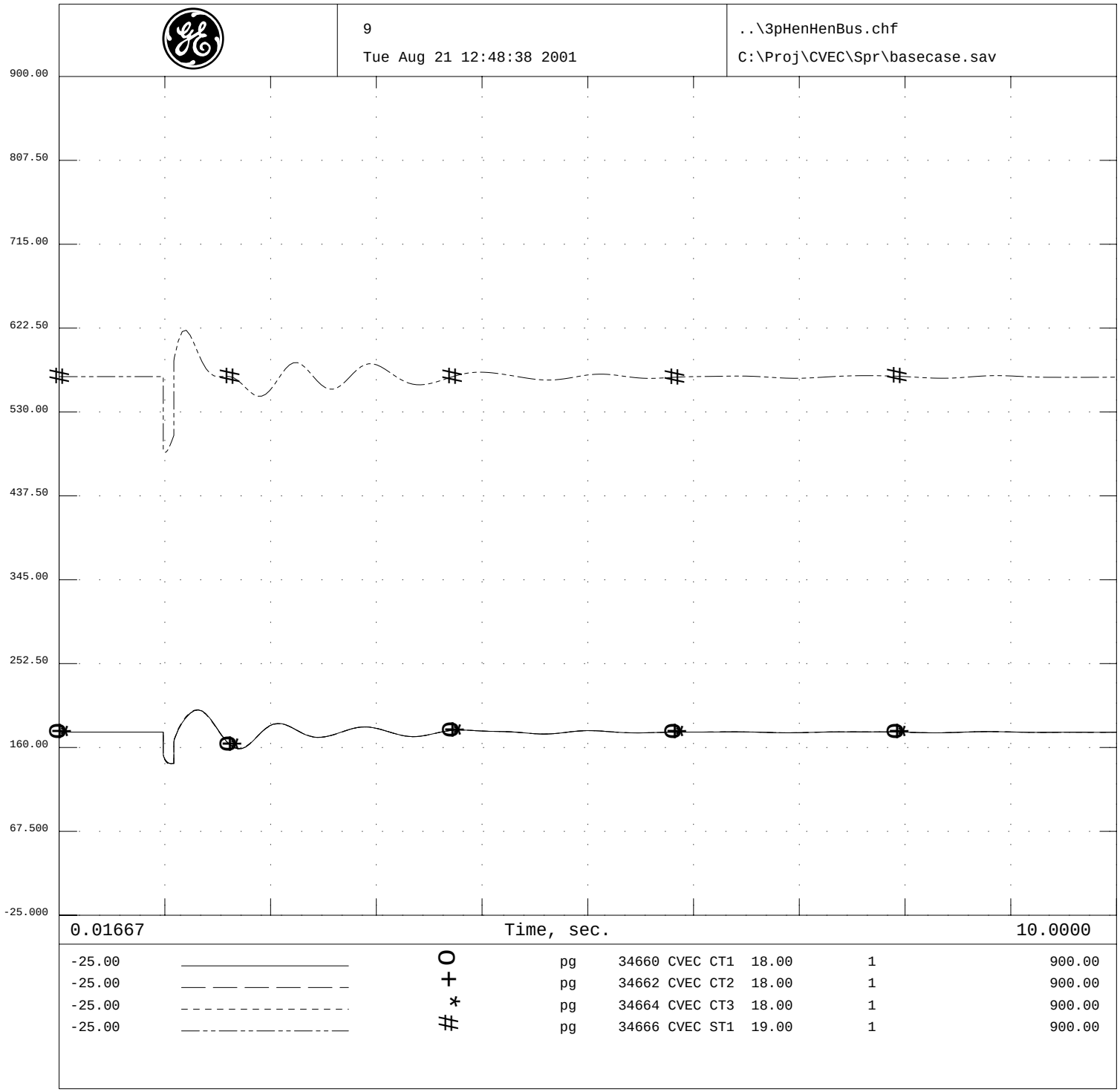
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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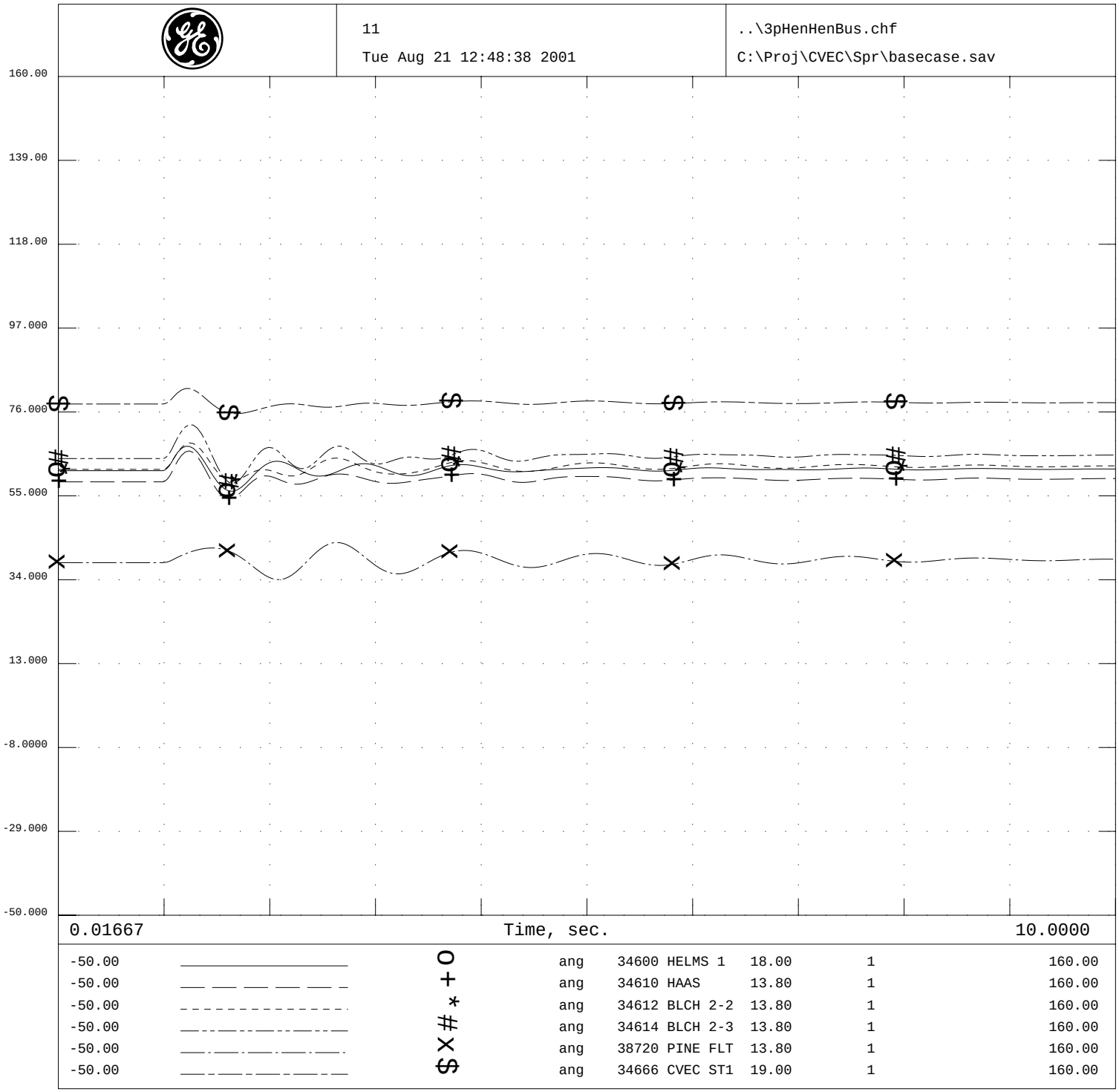
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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2004 Heavy Spring Base Case
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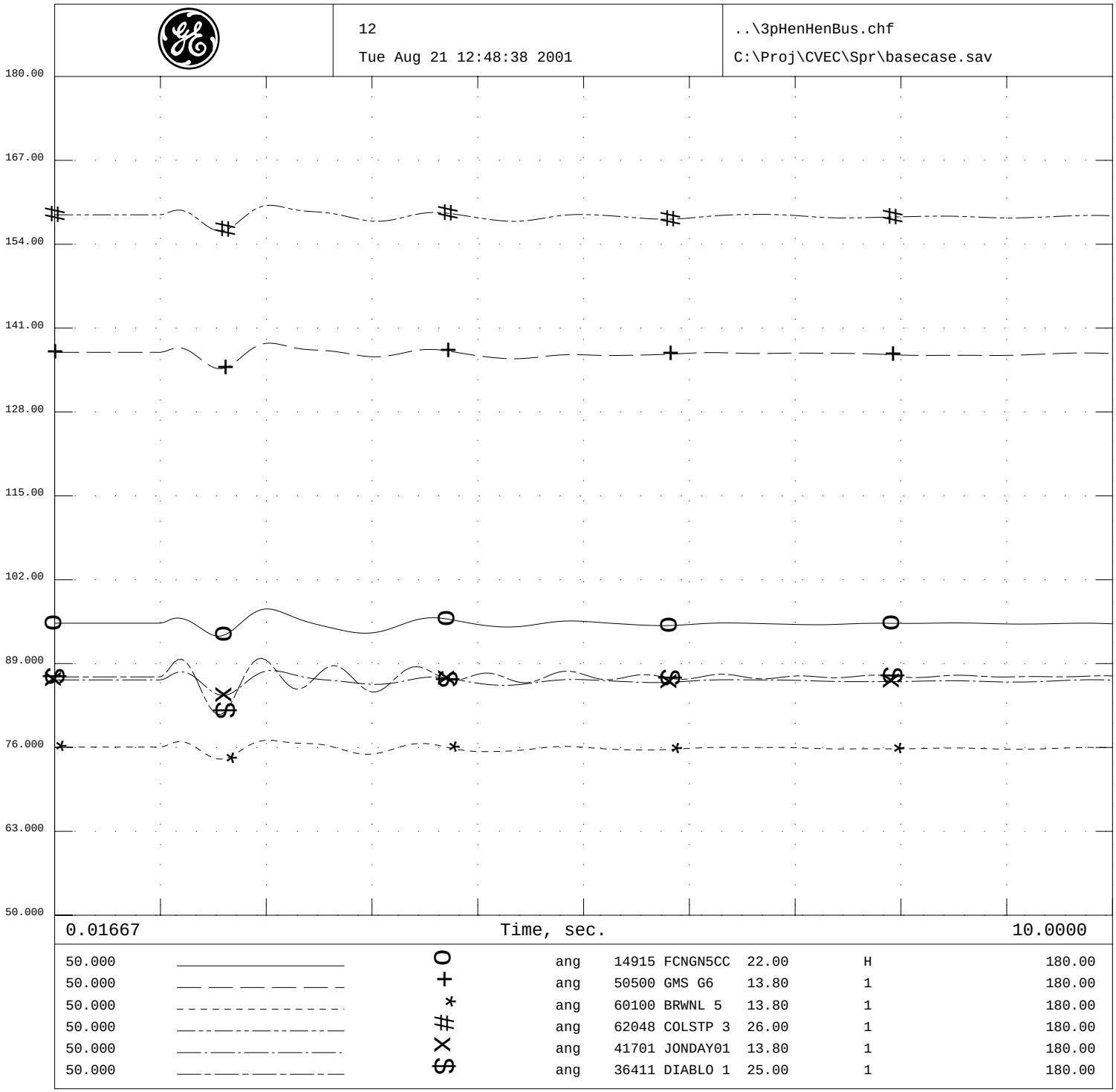
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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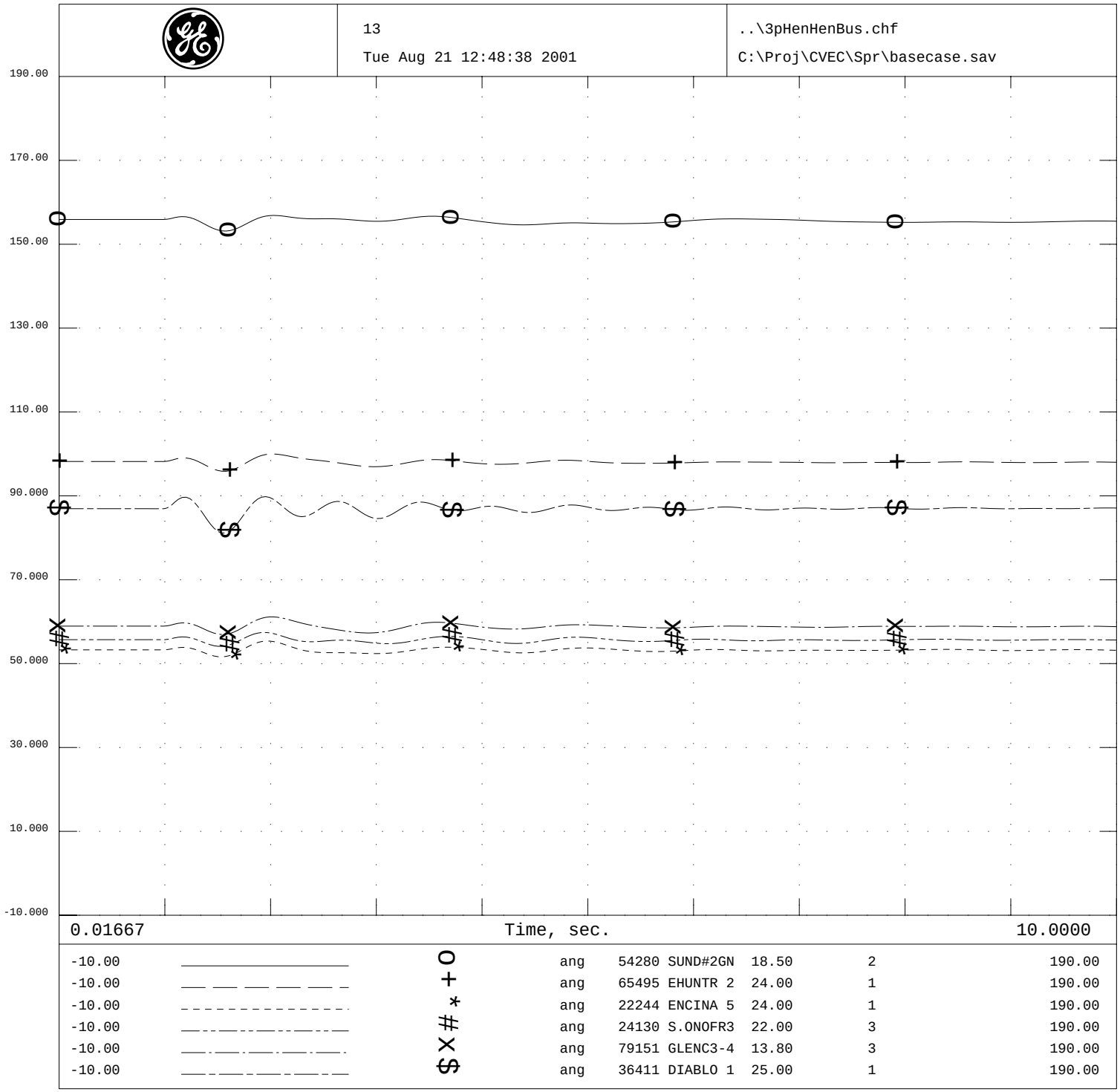
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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Central Valley Energy Center
Calpine Corporation
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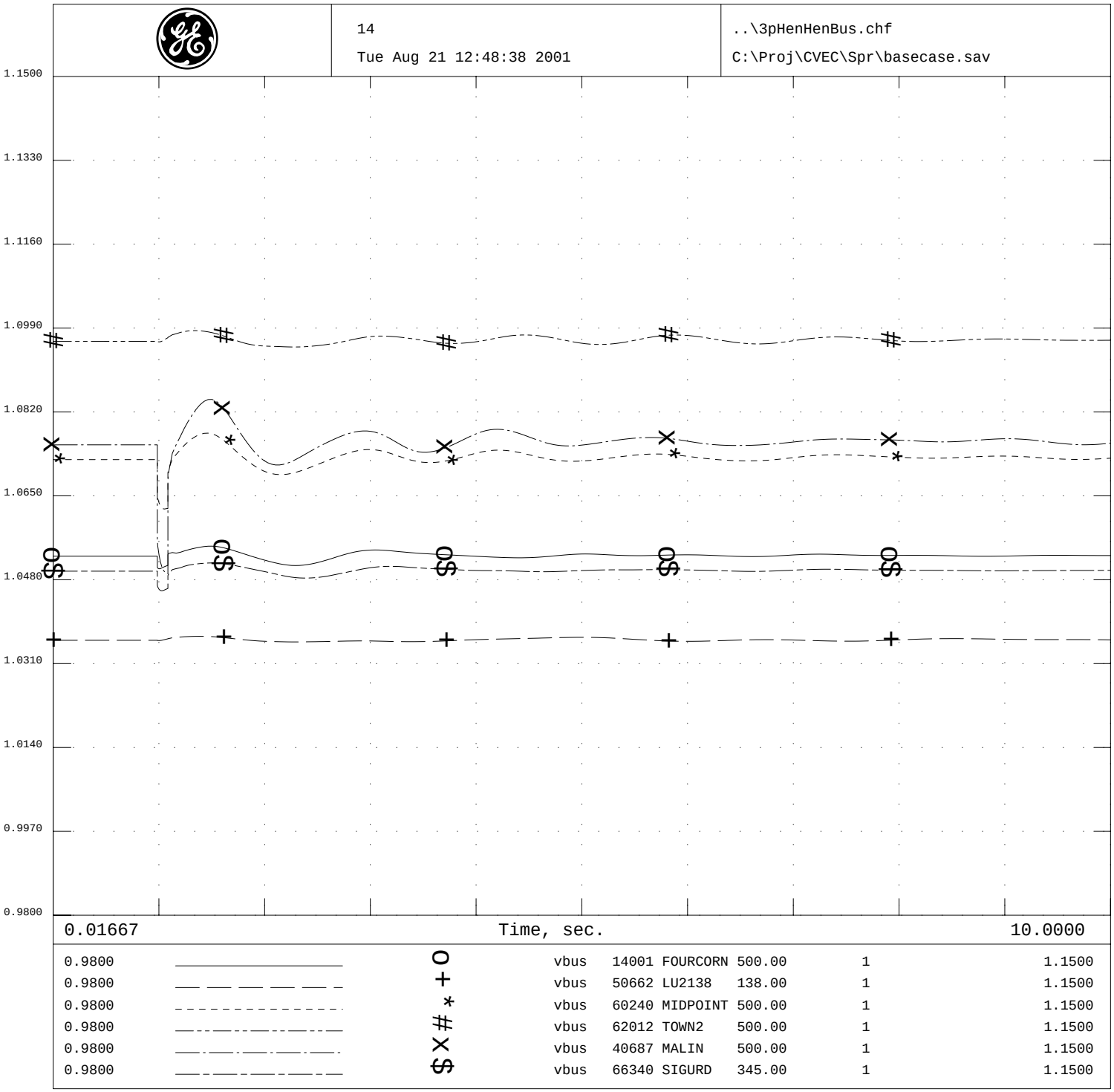

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Central Valley Energy Center
Calpine Corporation
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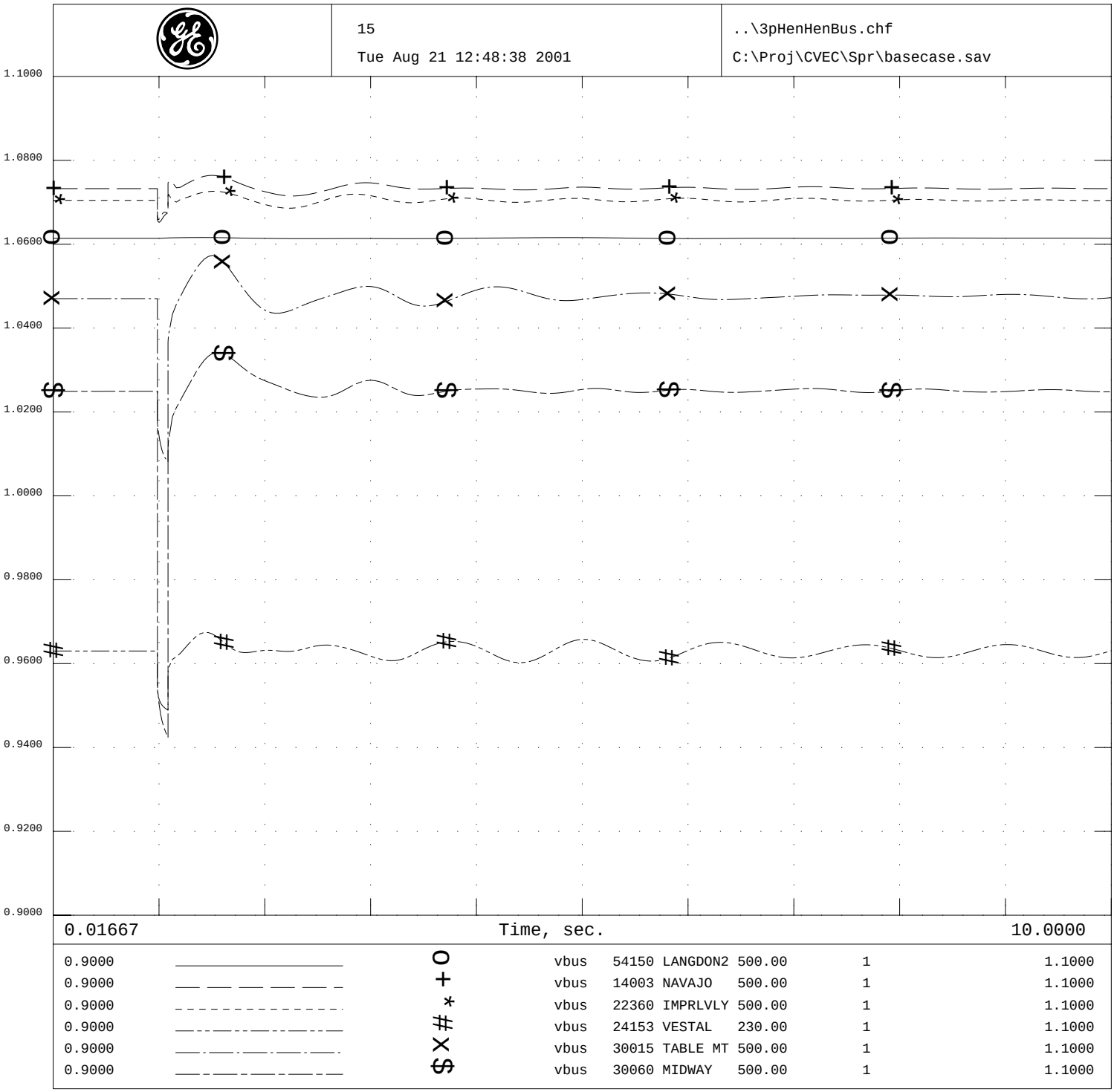

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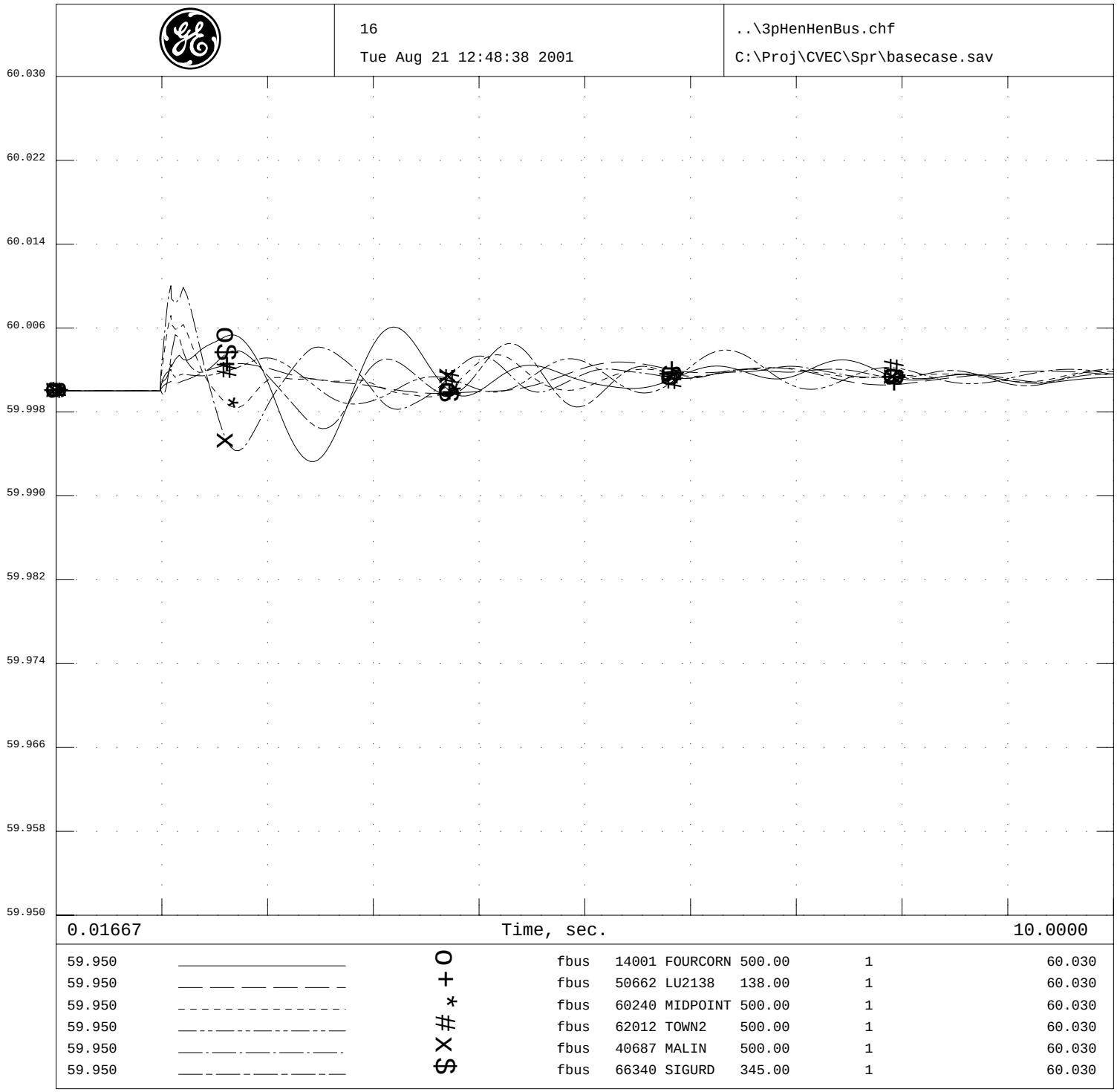

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Central Valley Energy Center
Calpine Corporation
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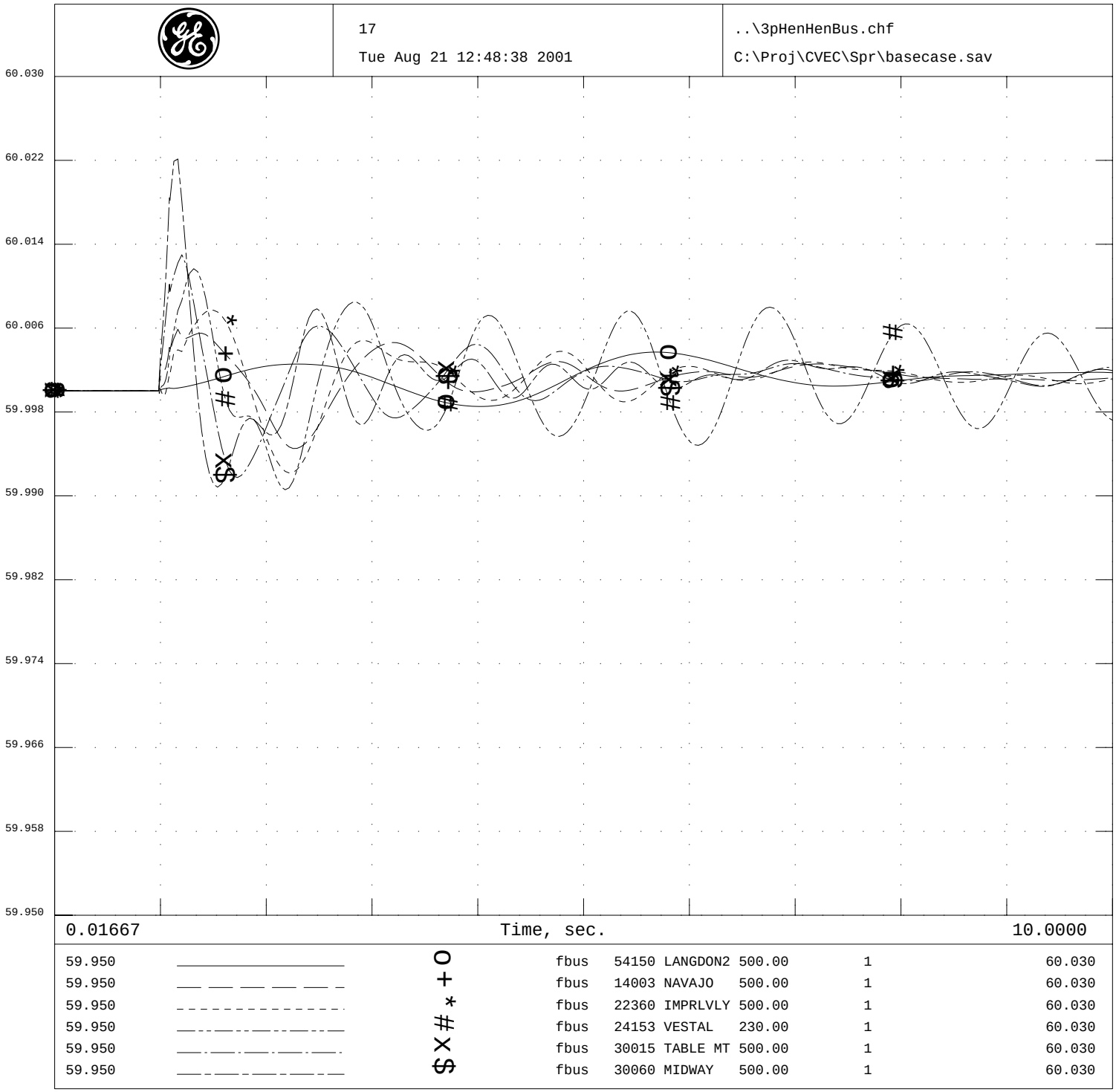

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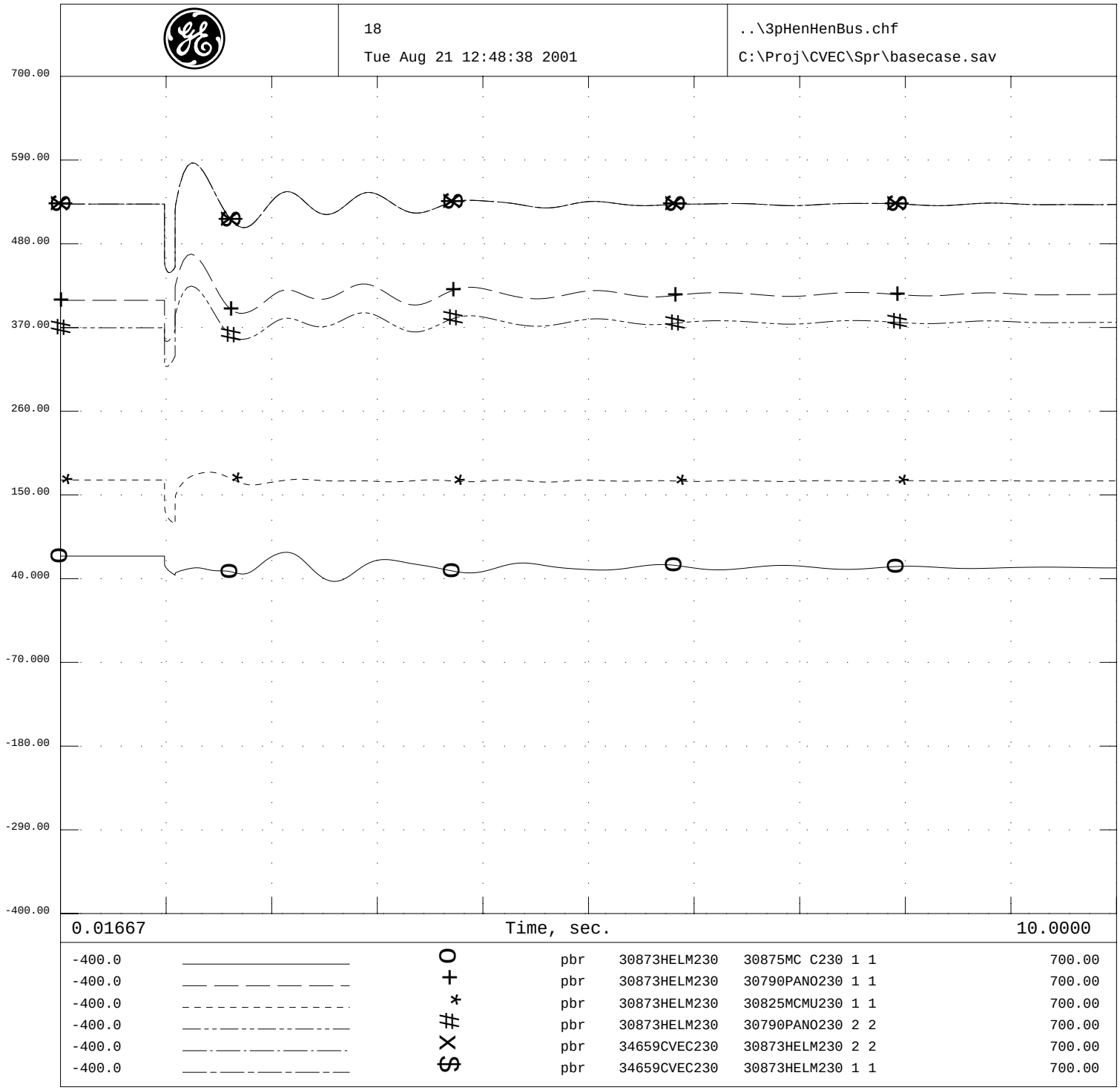

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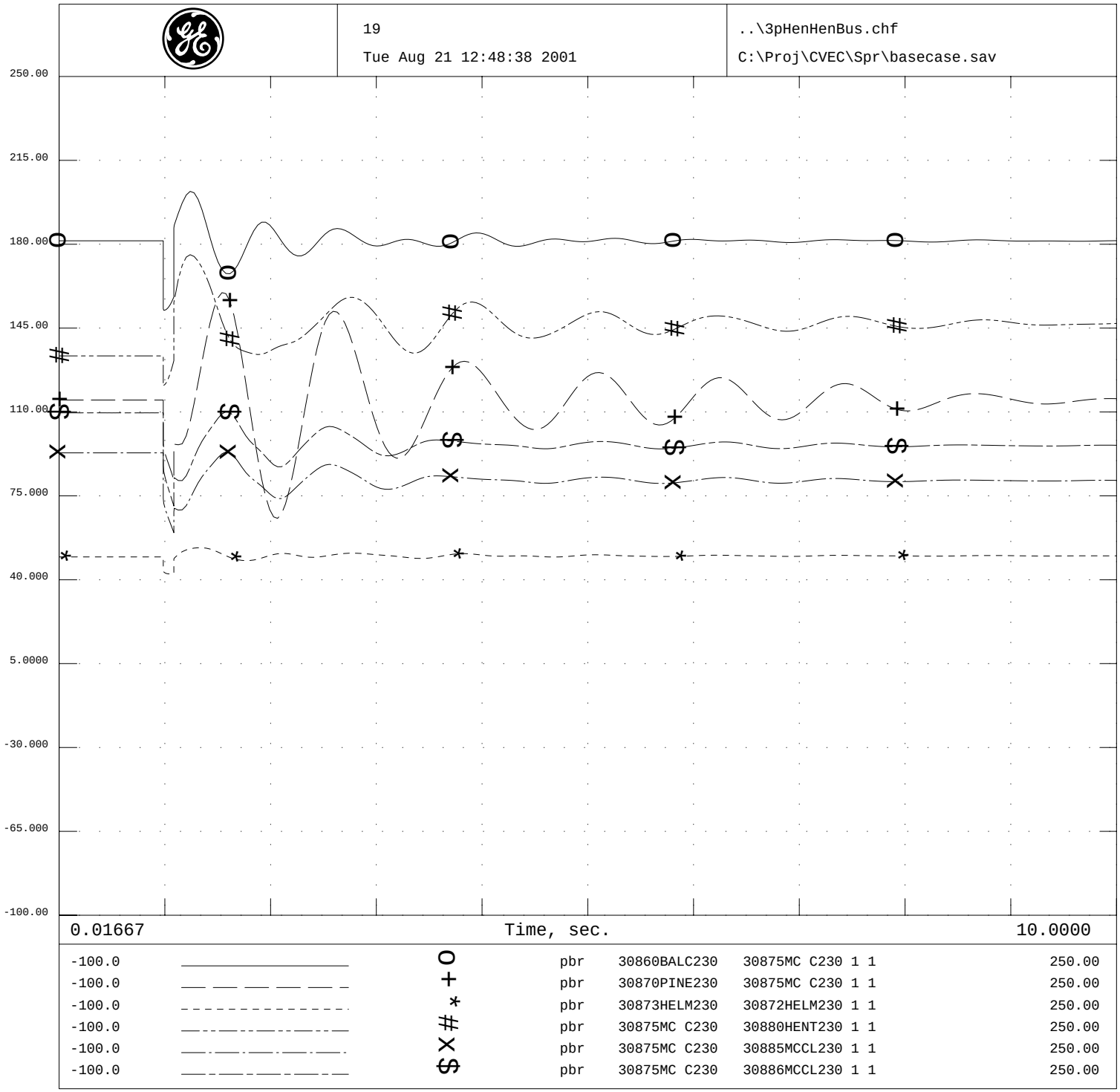

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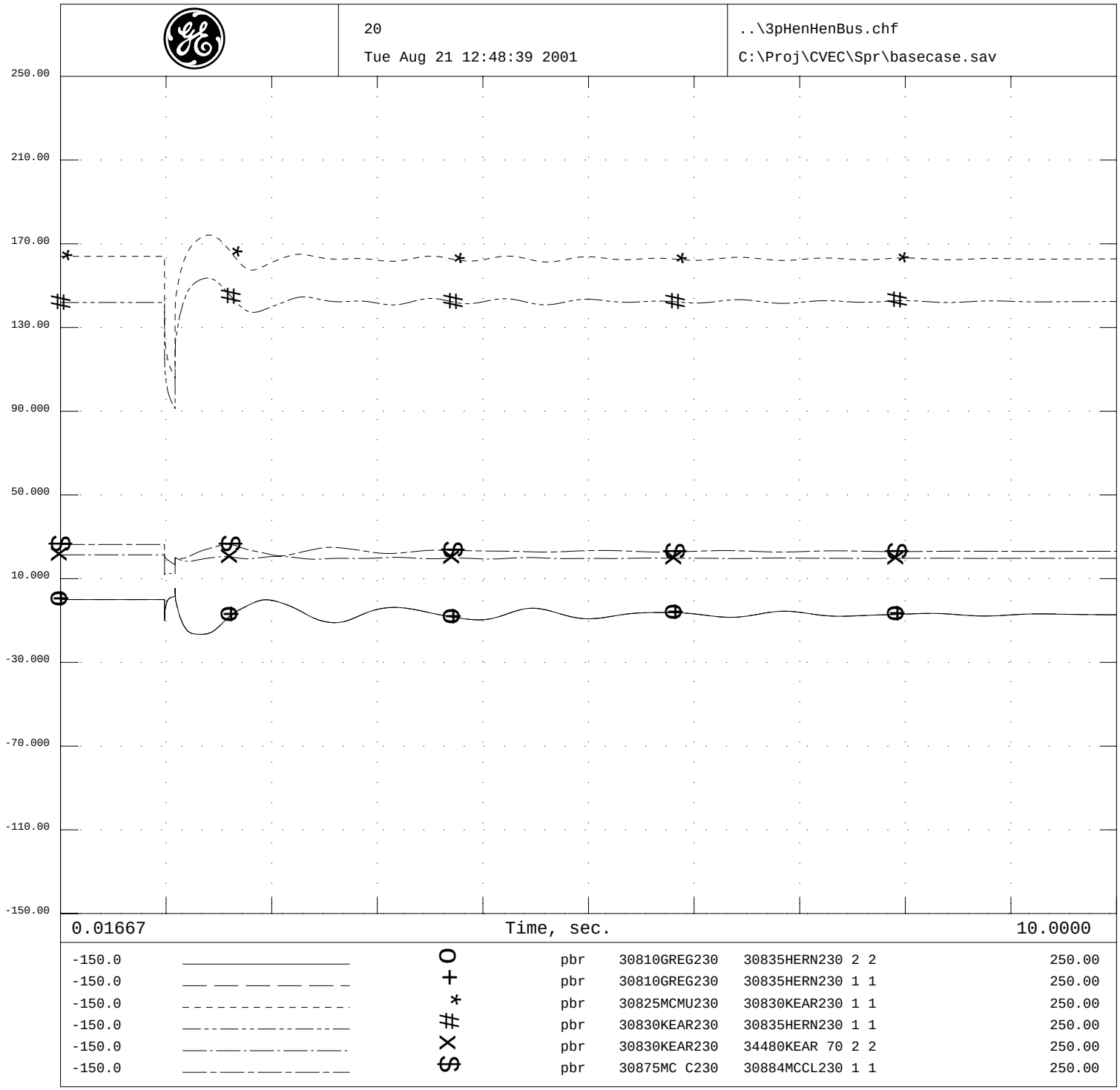

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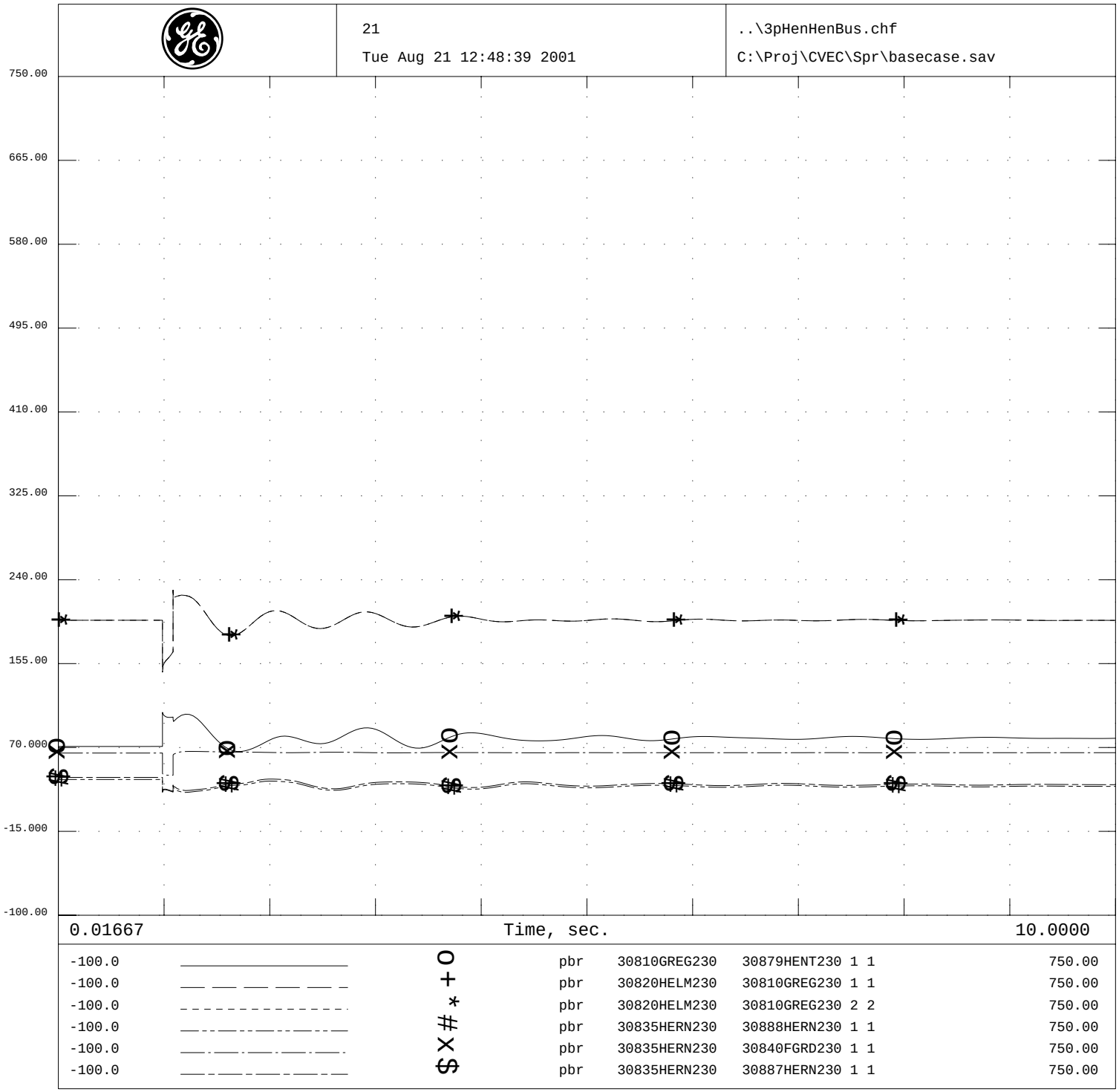

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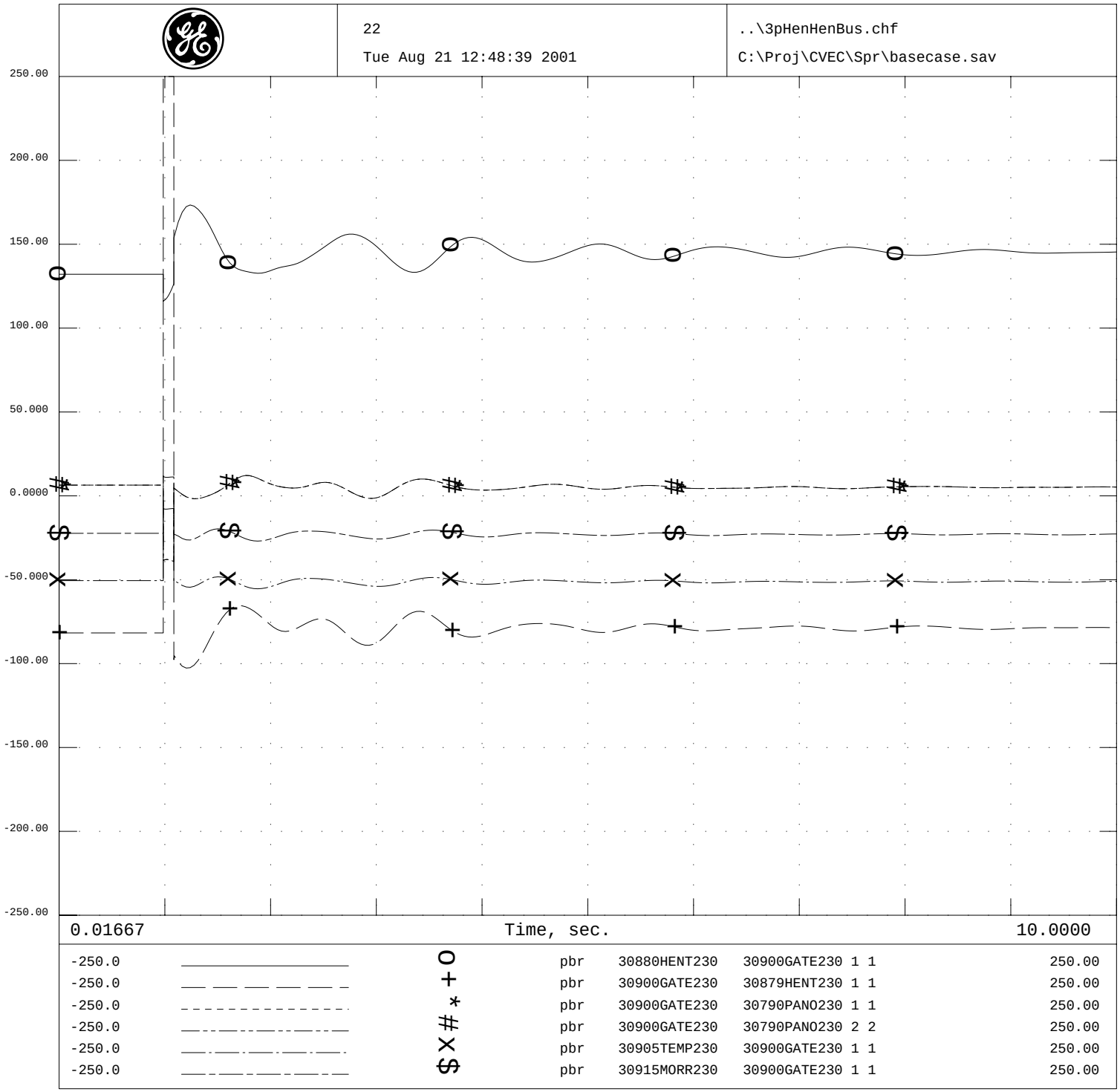

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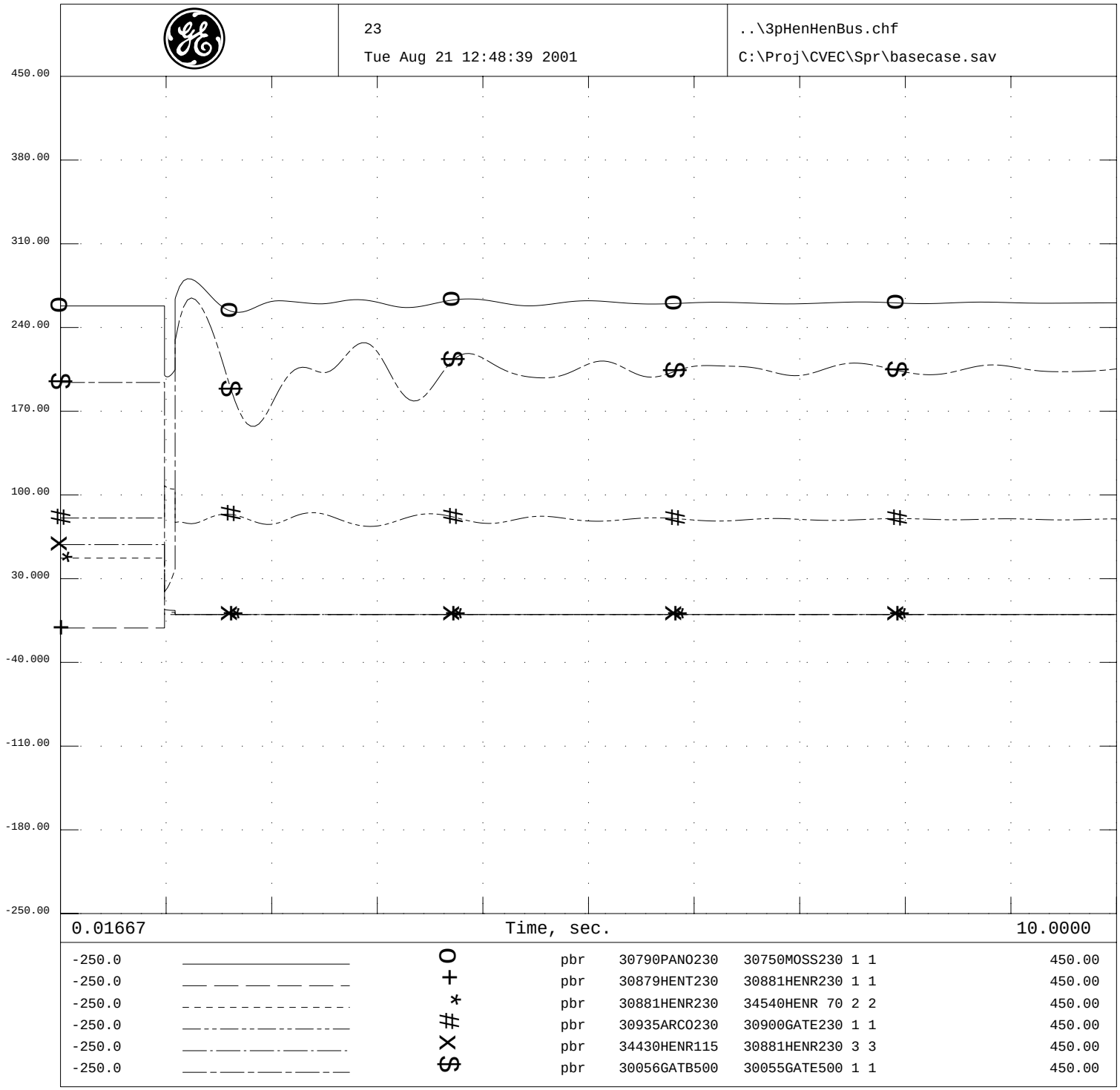

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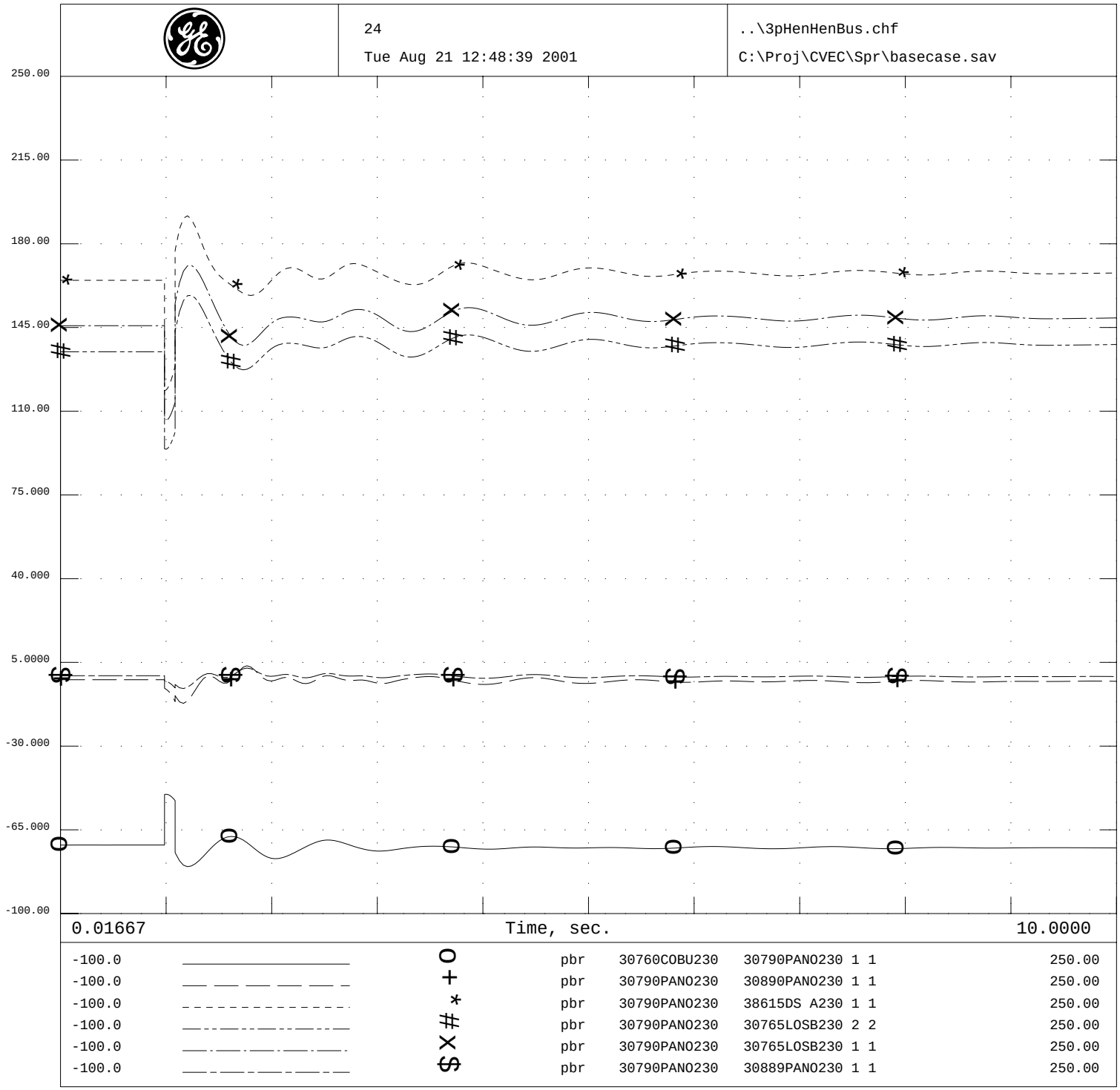

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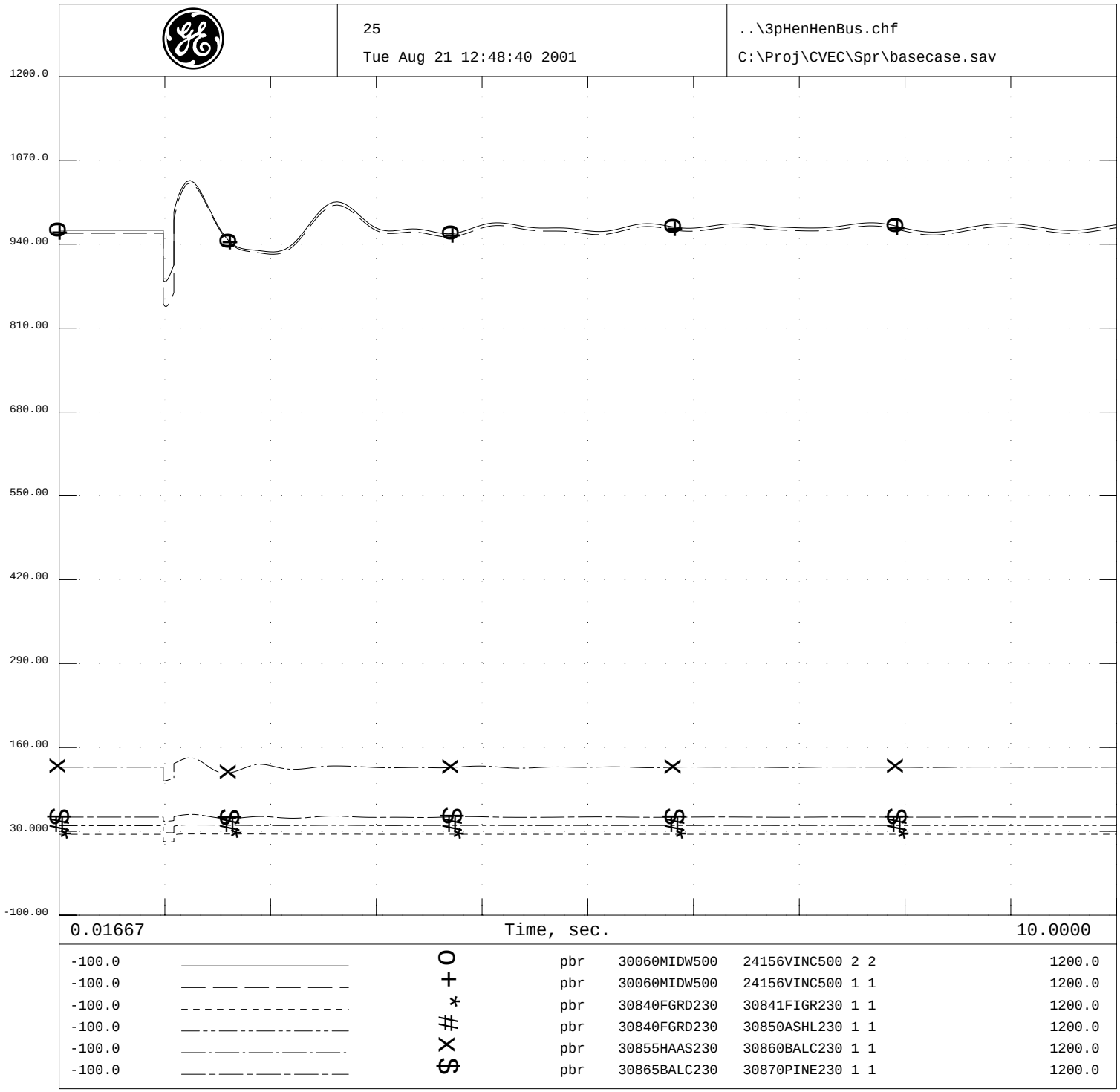

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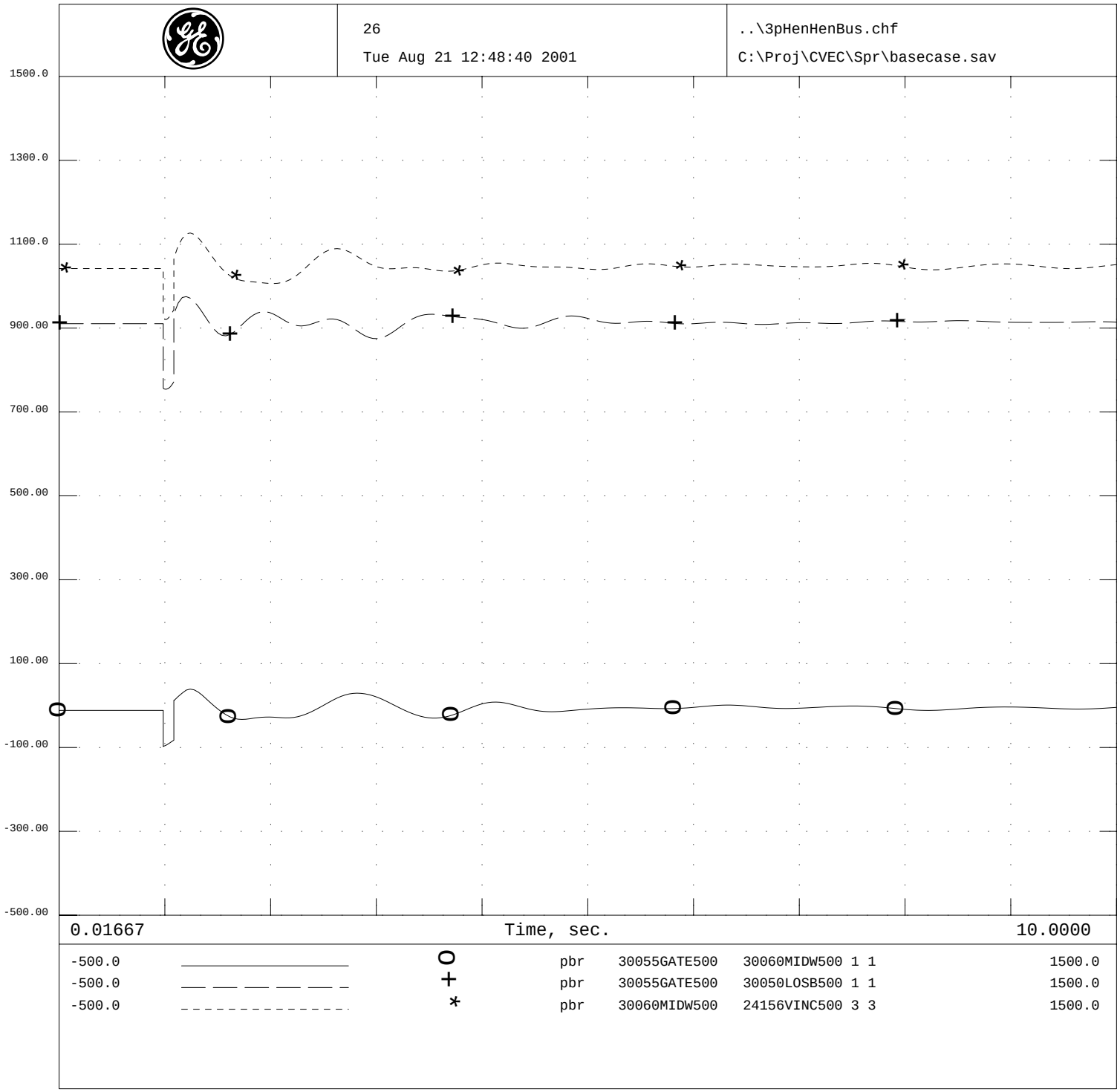

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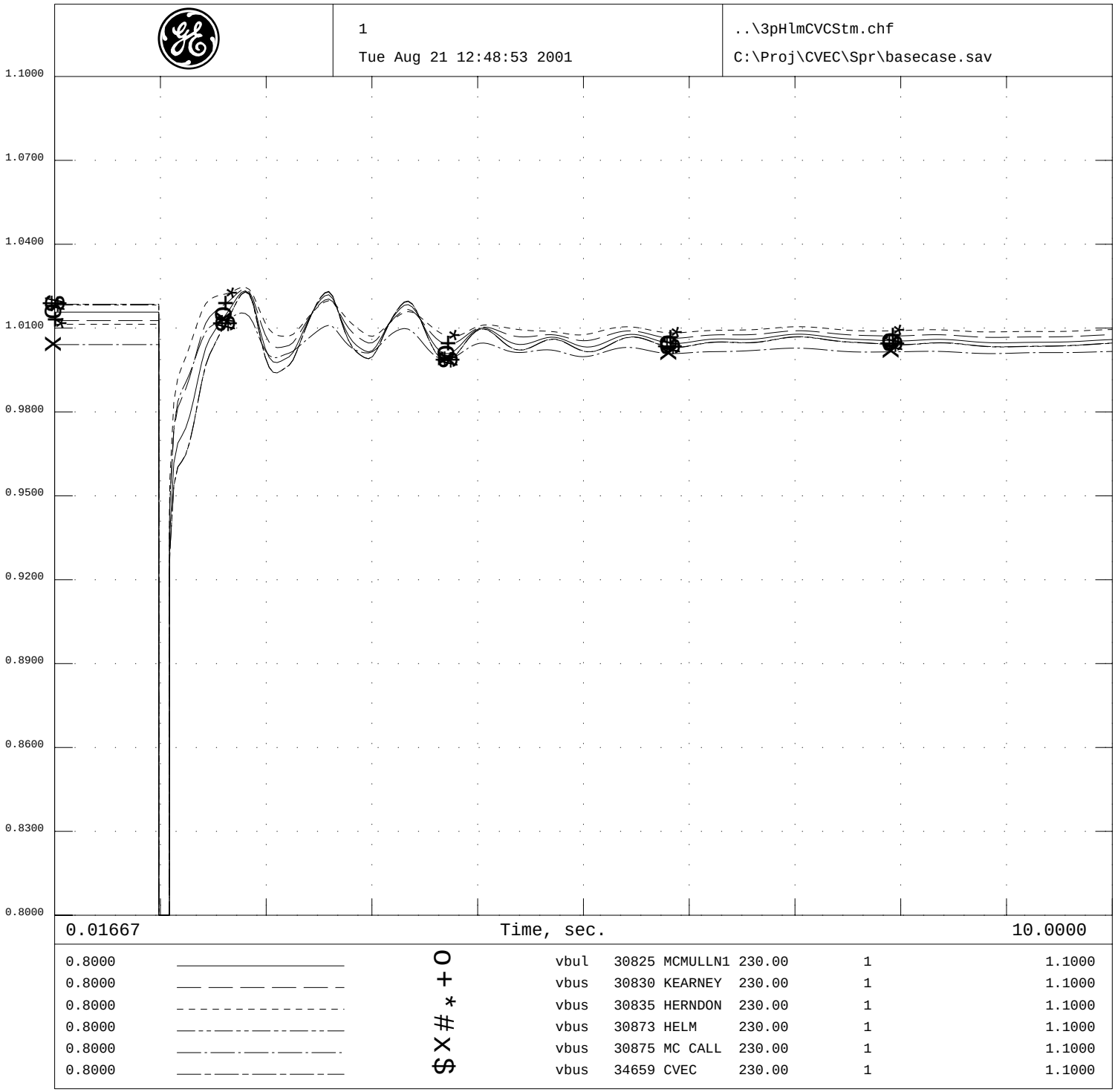
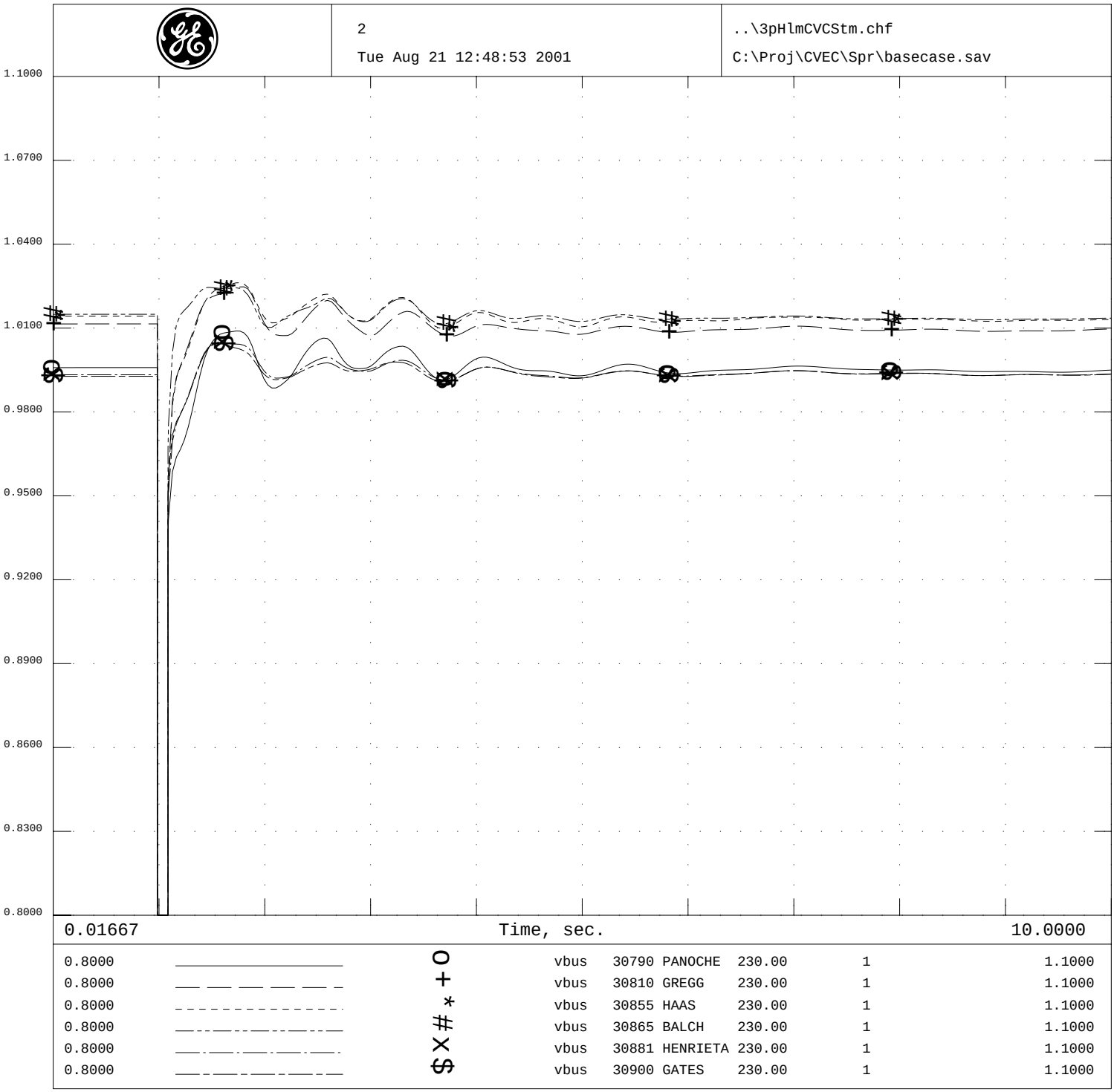


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Trip CVEC Steam Unit
3 phase 6 cycle fault at Helm 230kV bus and trip CVEC Steam Unit

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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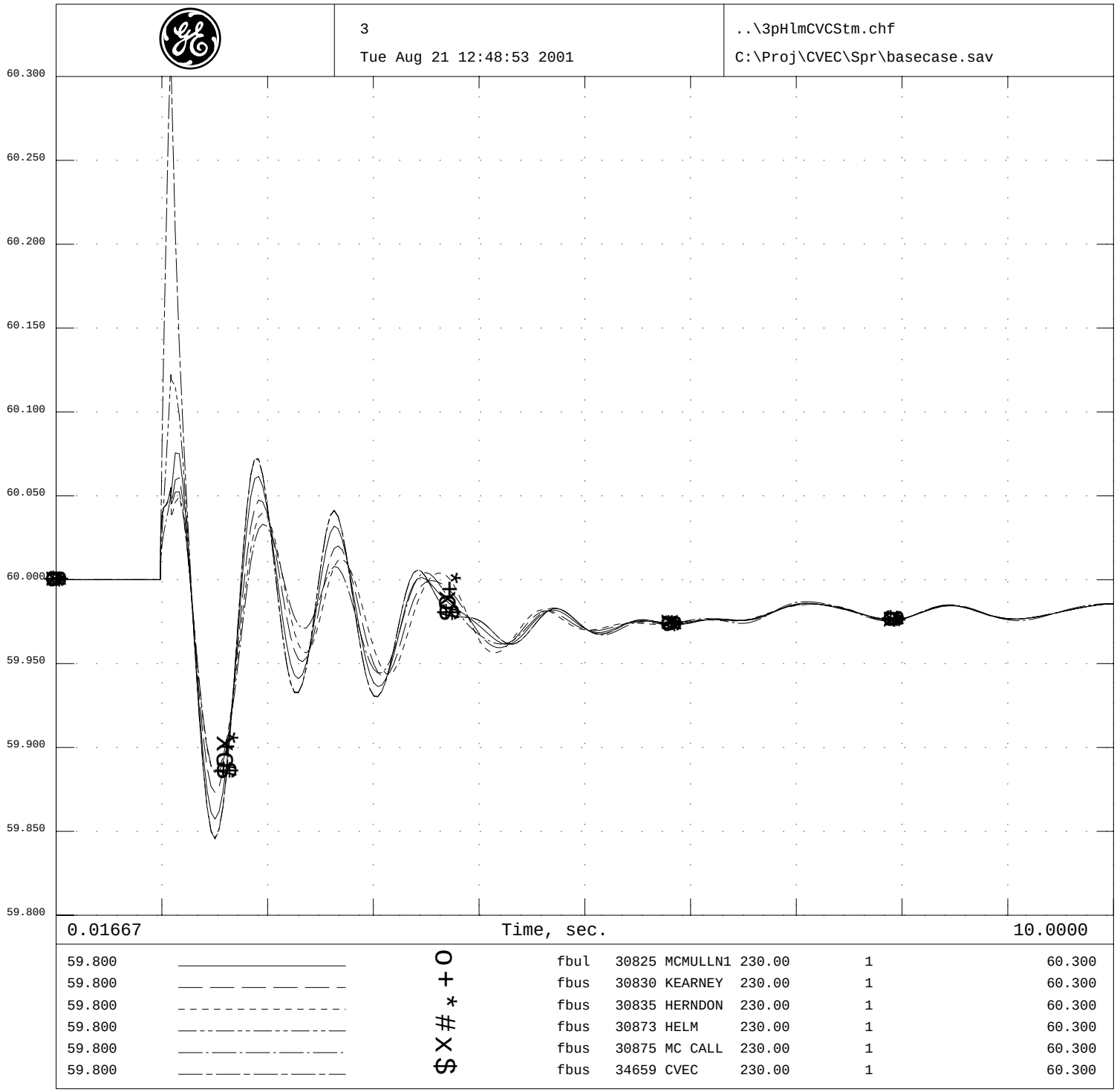

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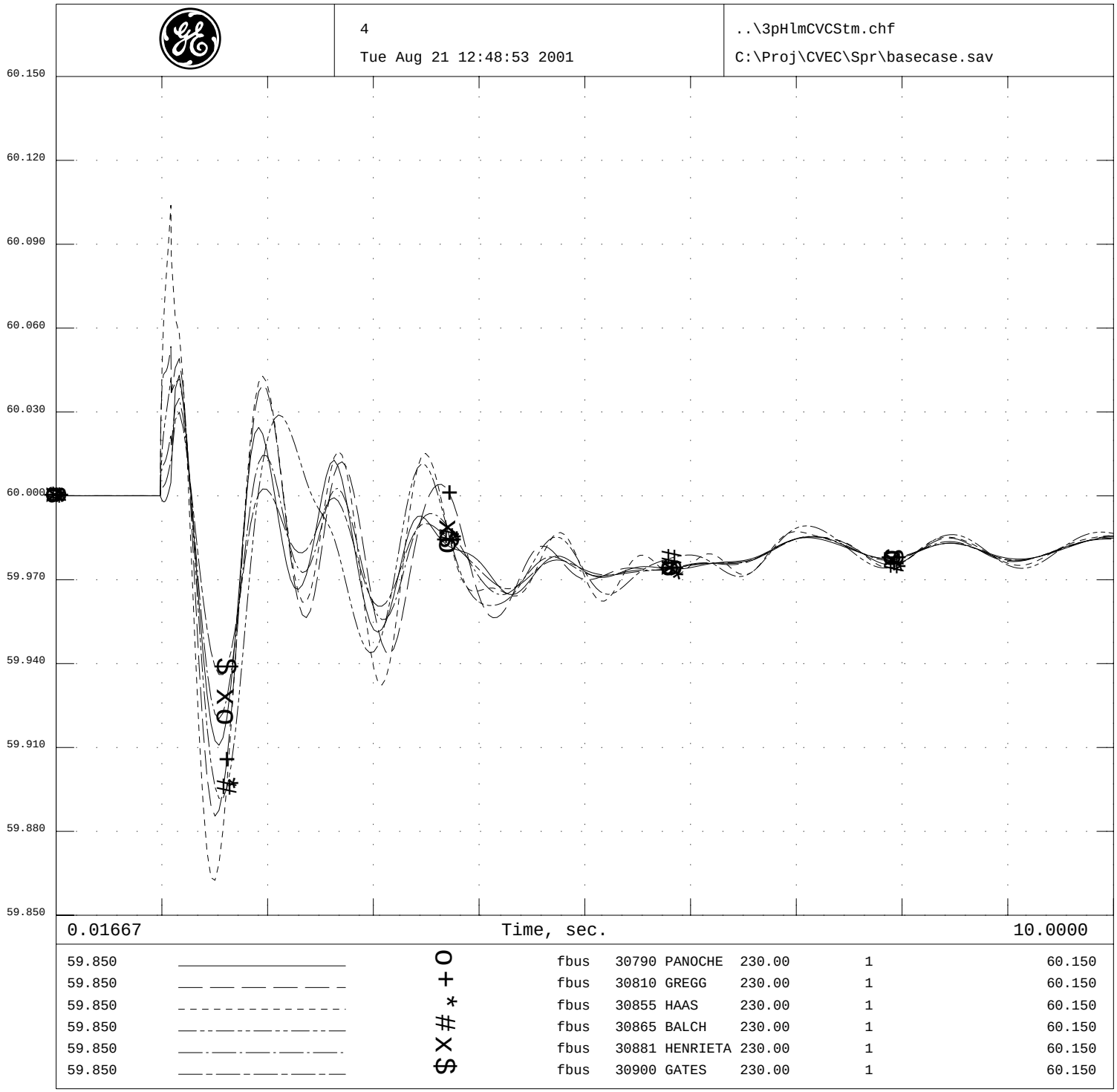
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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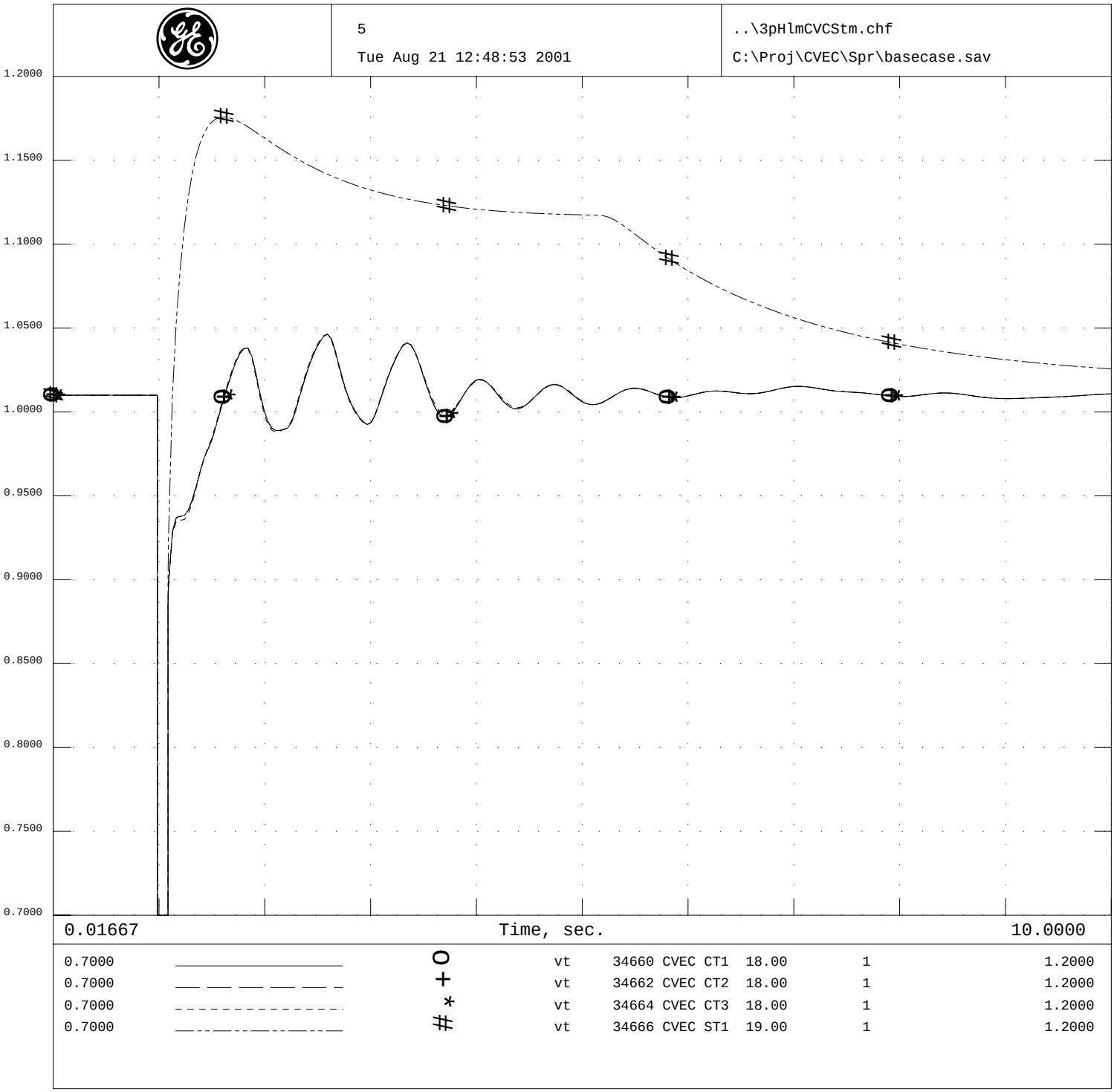

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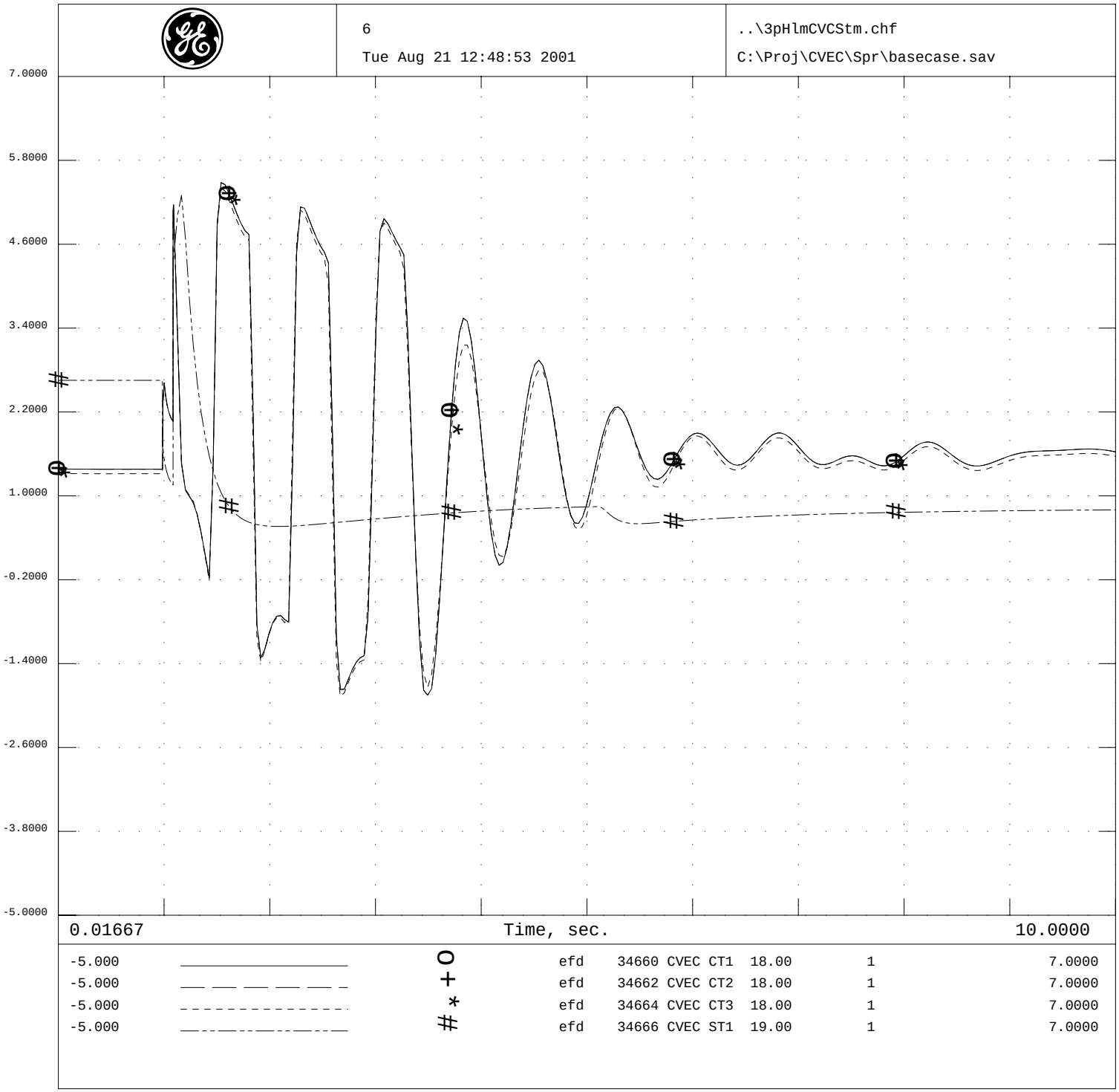
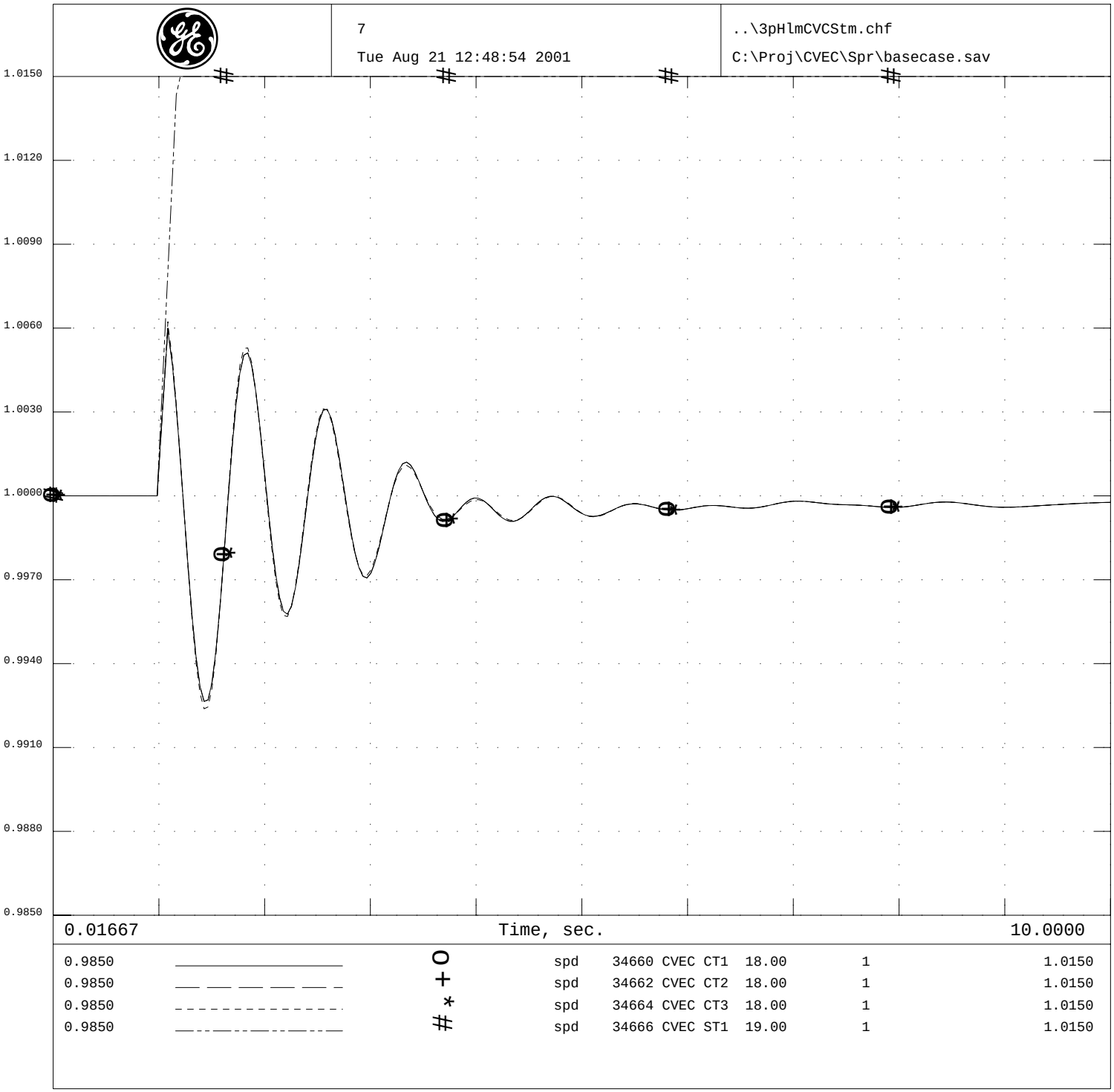
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Trip CVEC Steam Unit
3 phase 6 cycle fault at Helm 230kV bus and trip CVEC Steam Unit

Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
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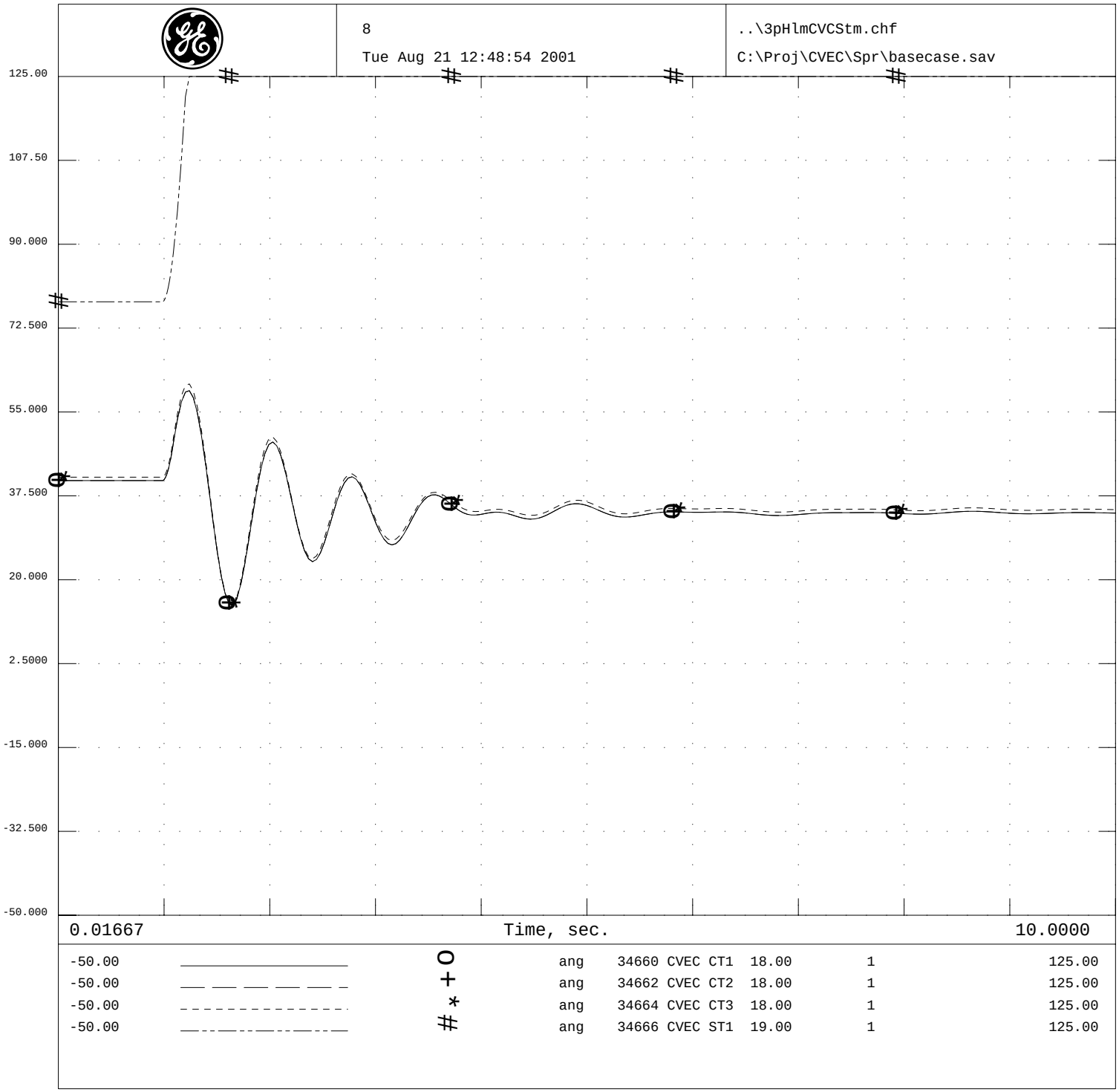
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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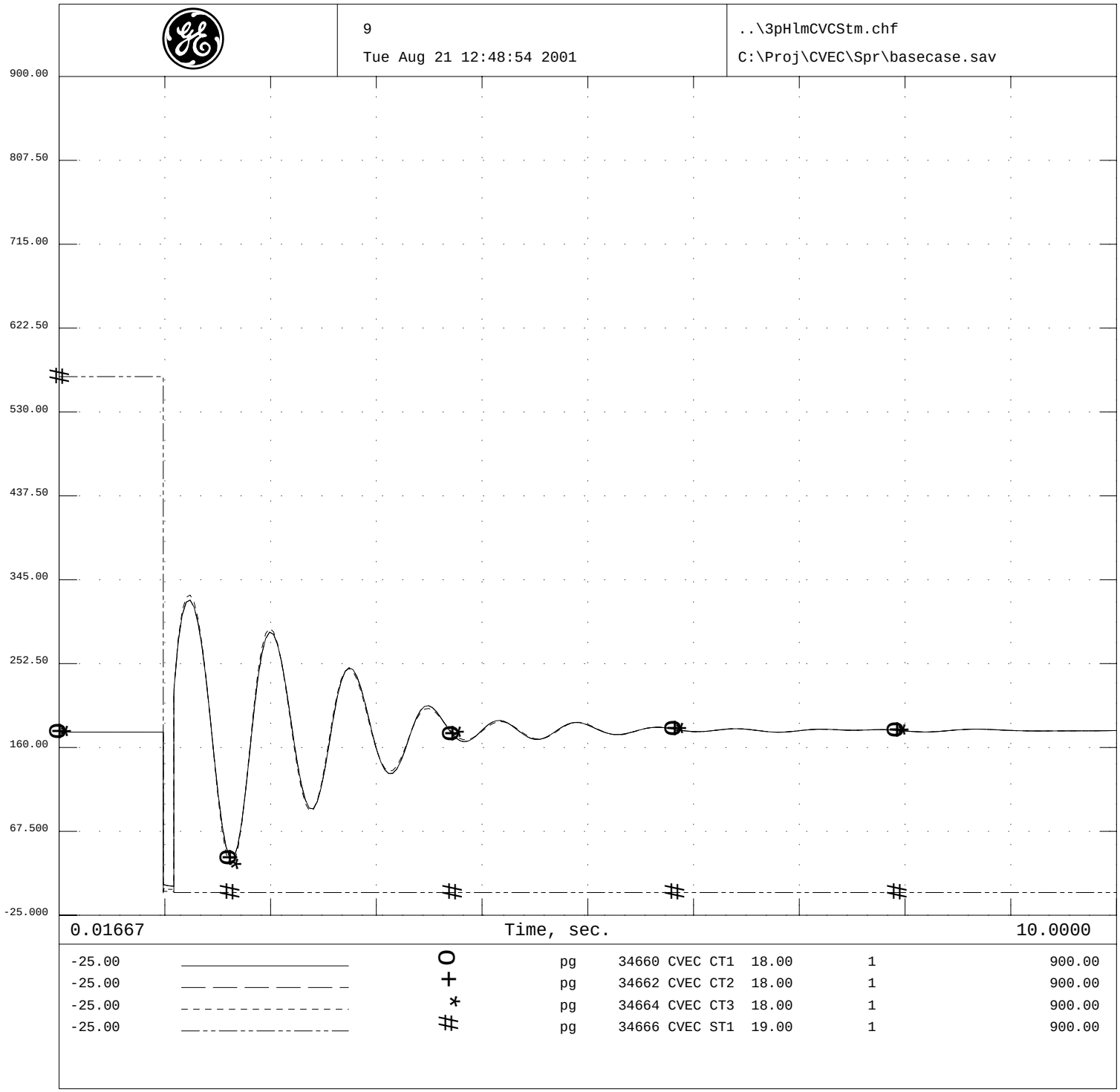
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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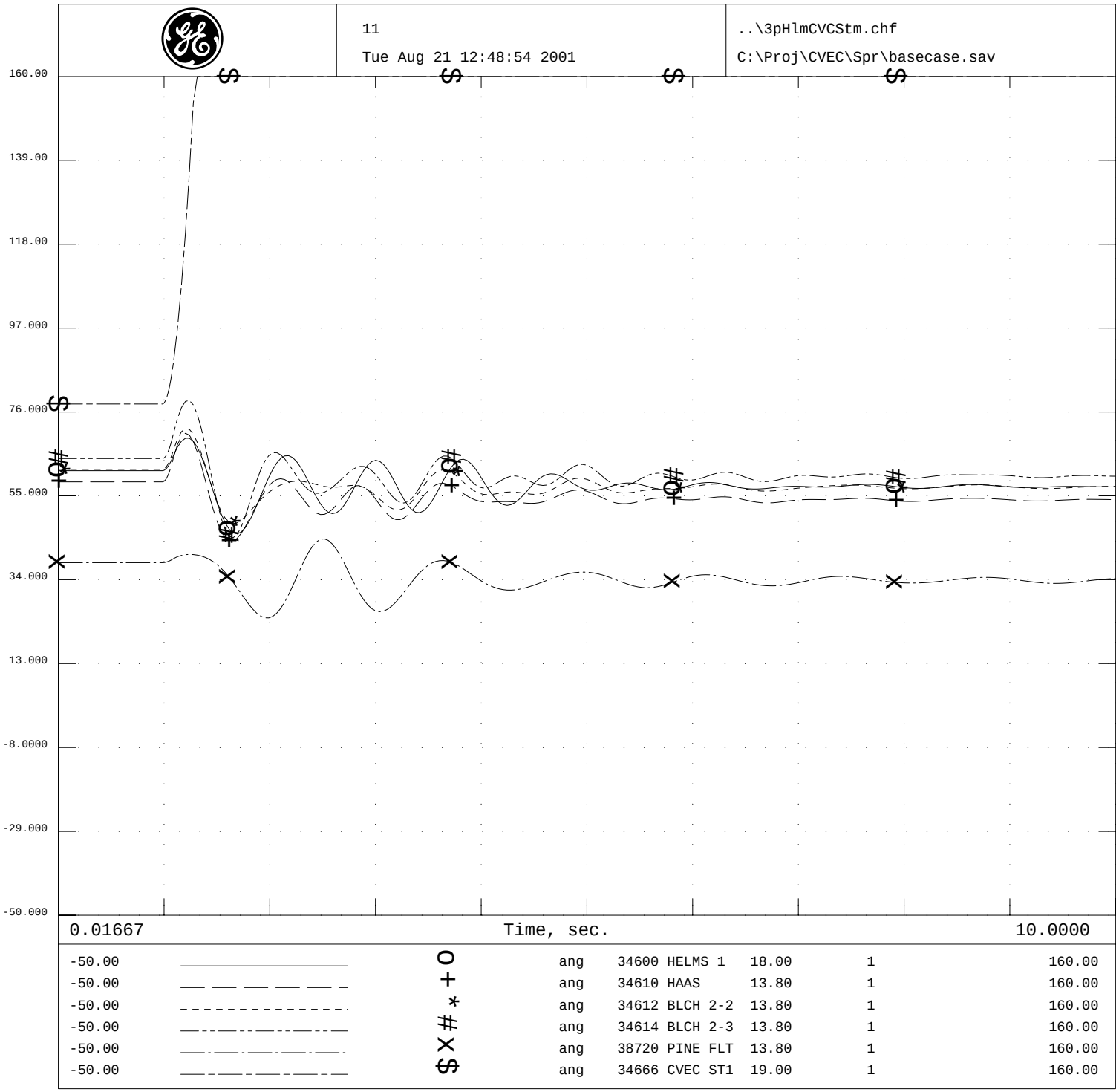
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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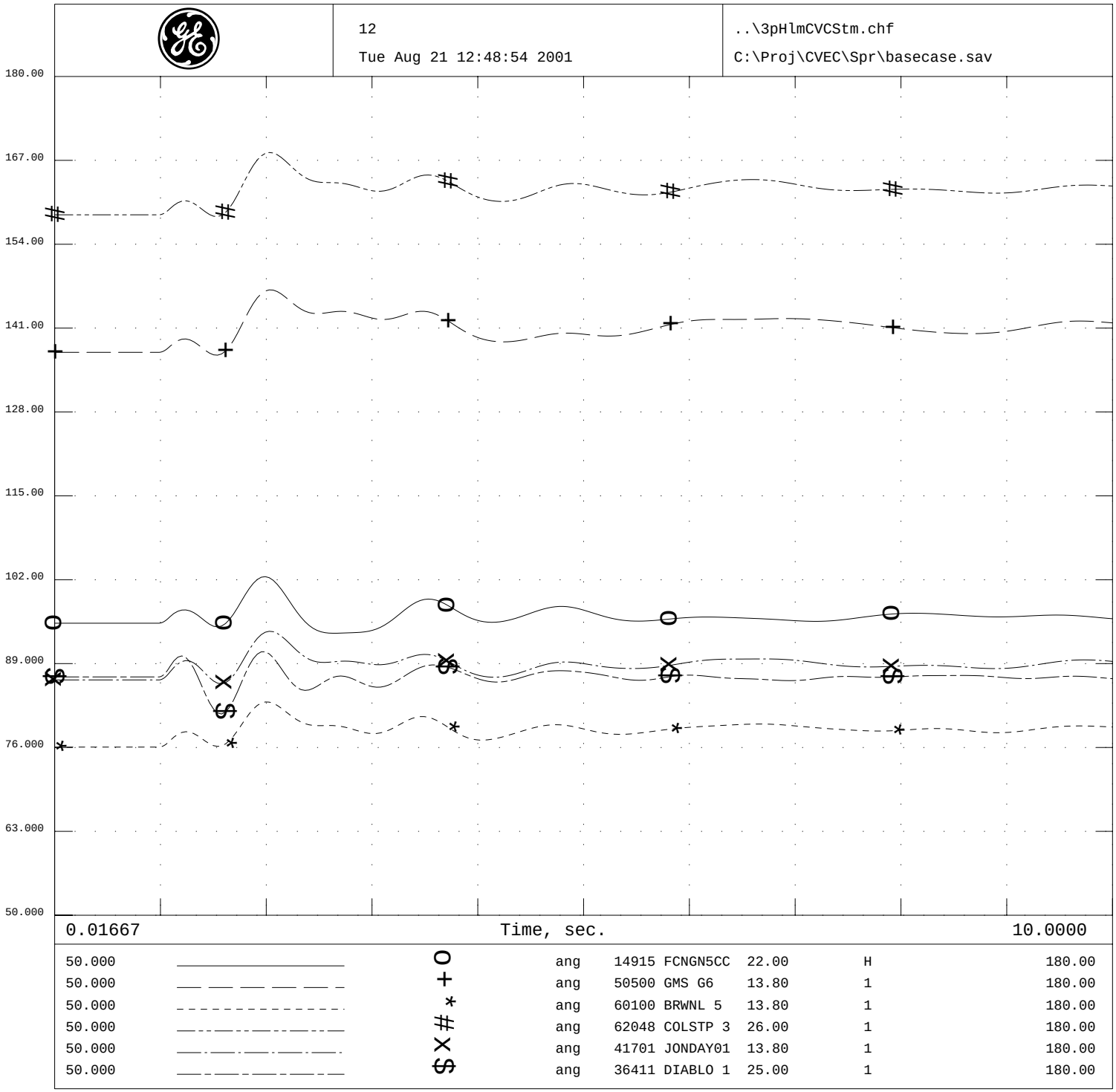
Calpine Corporation
Selected Local Rotor Angle Plots



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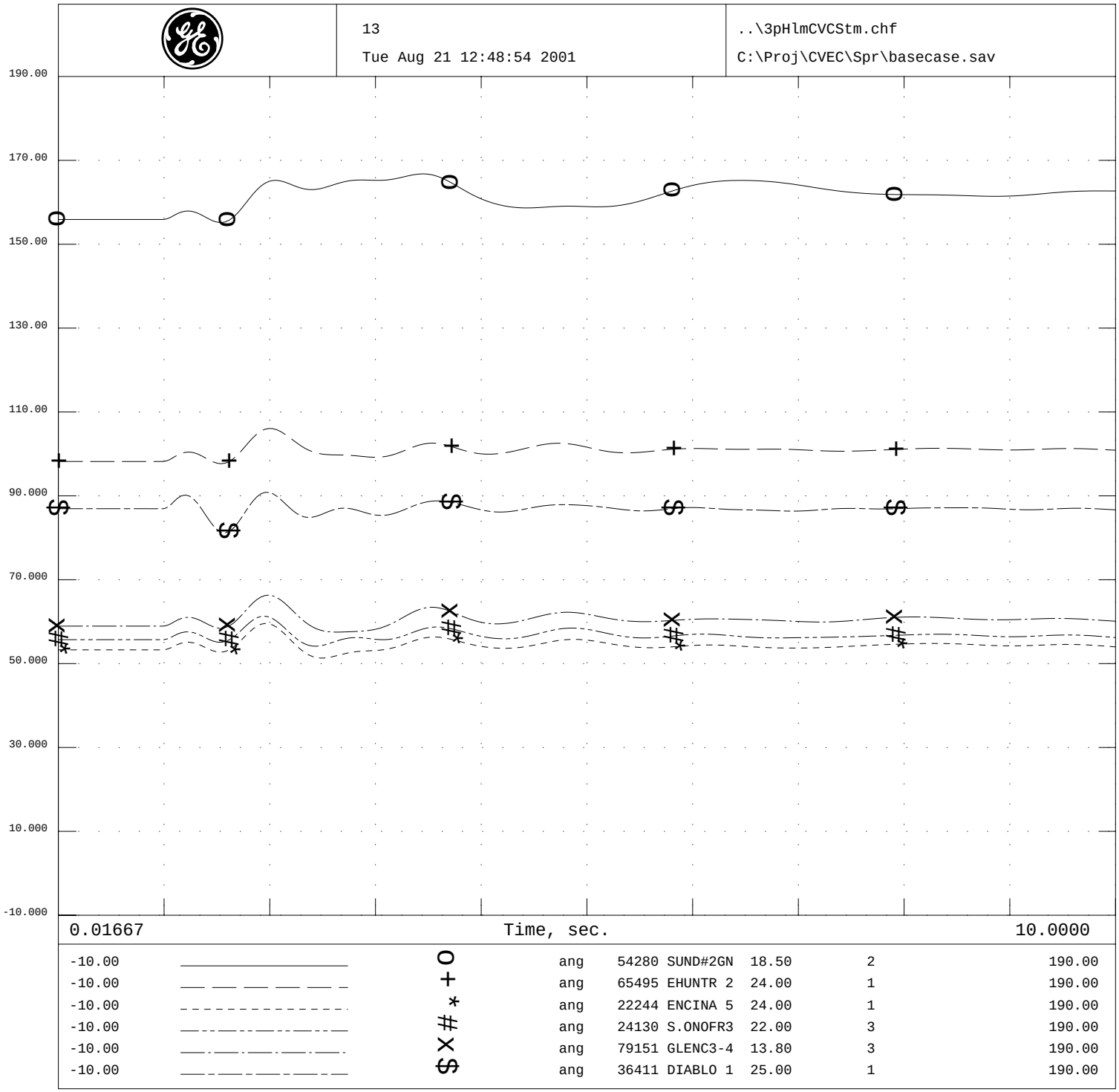
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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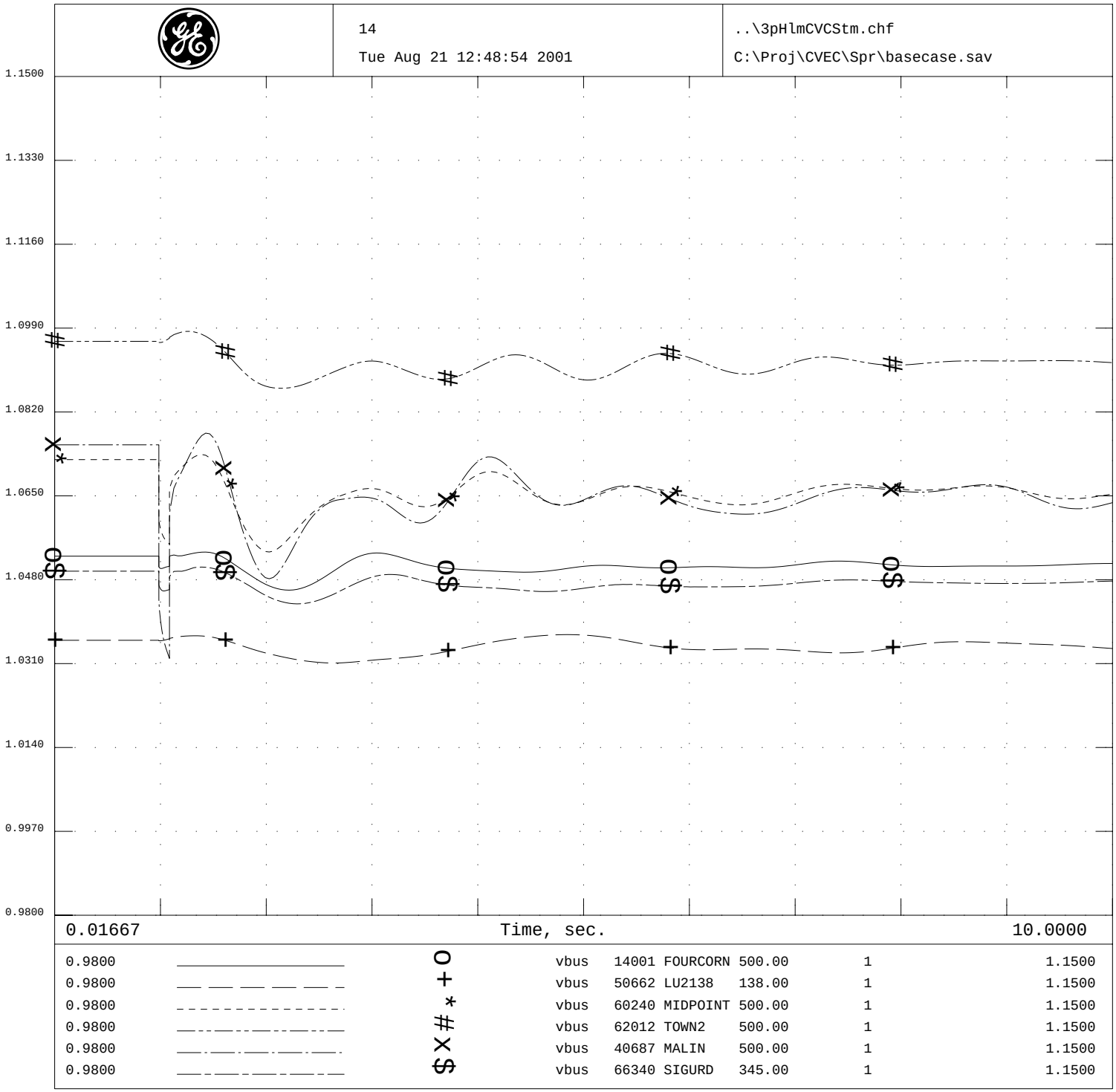

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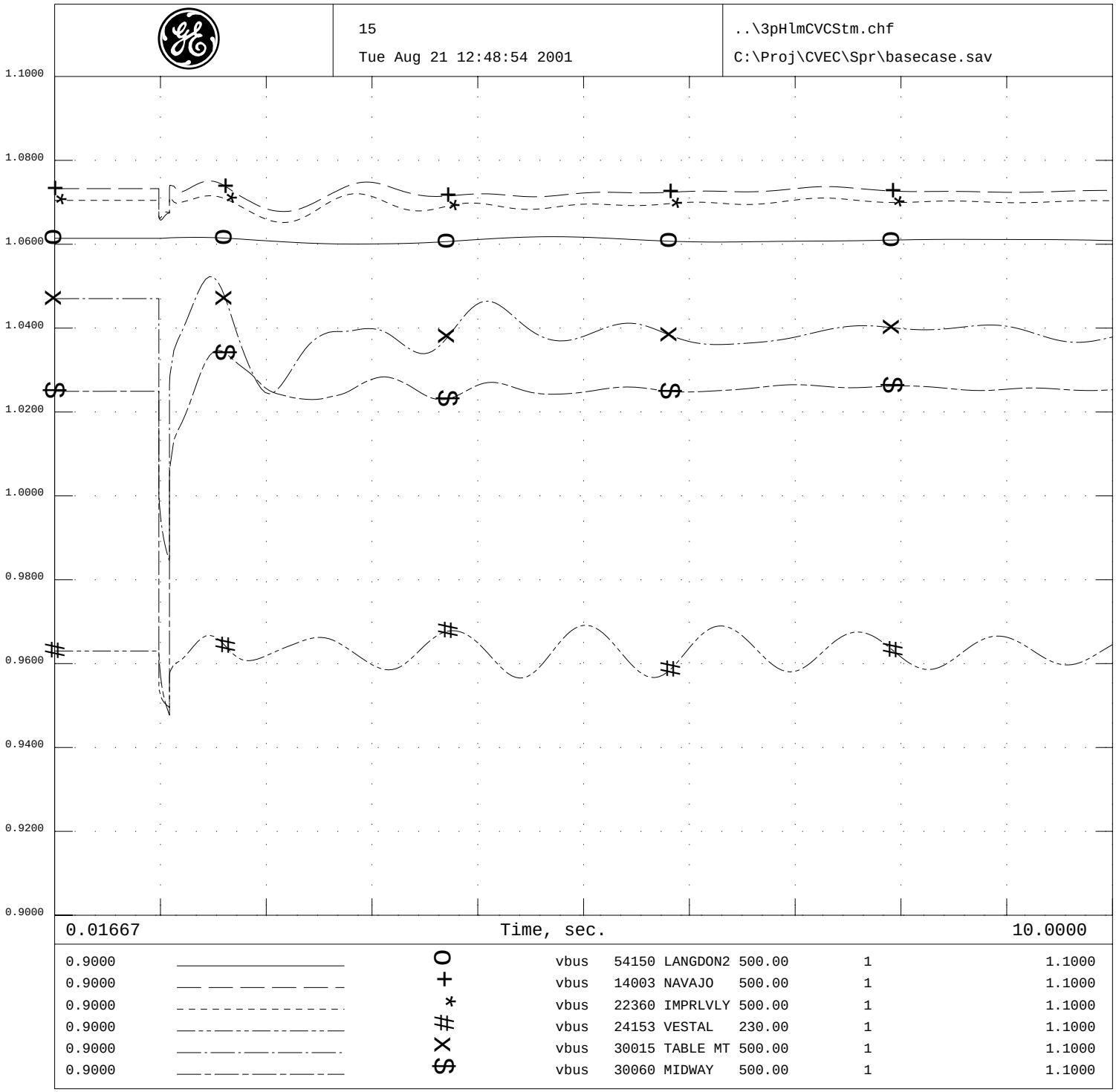
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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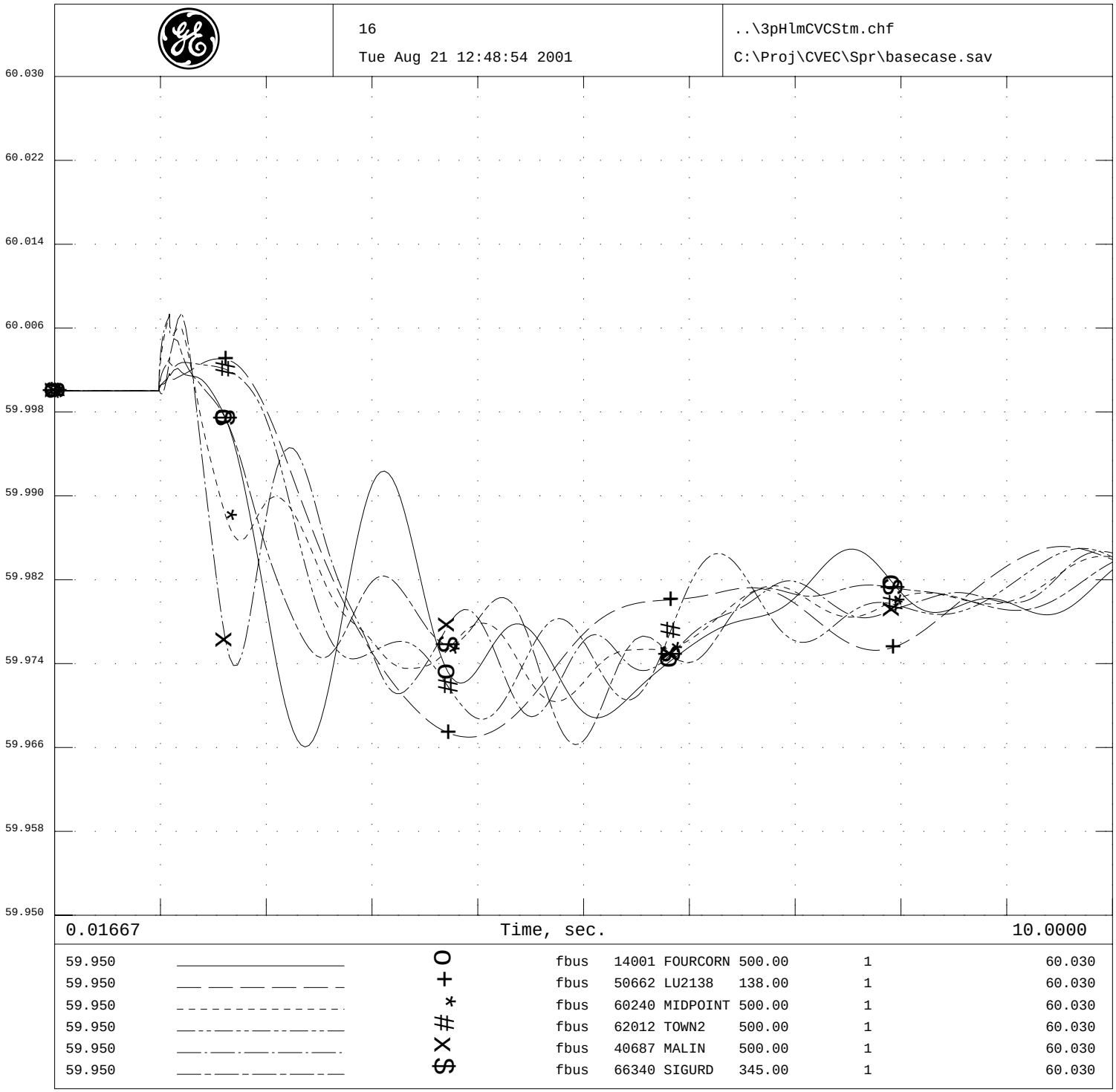

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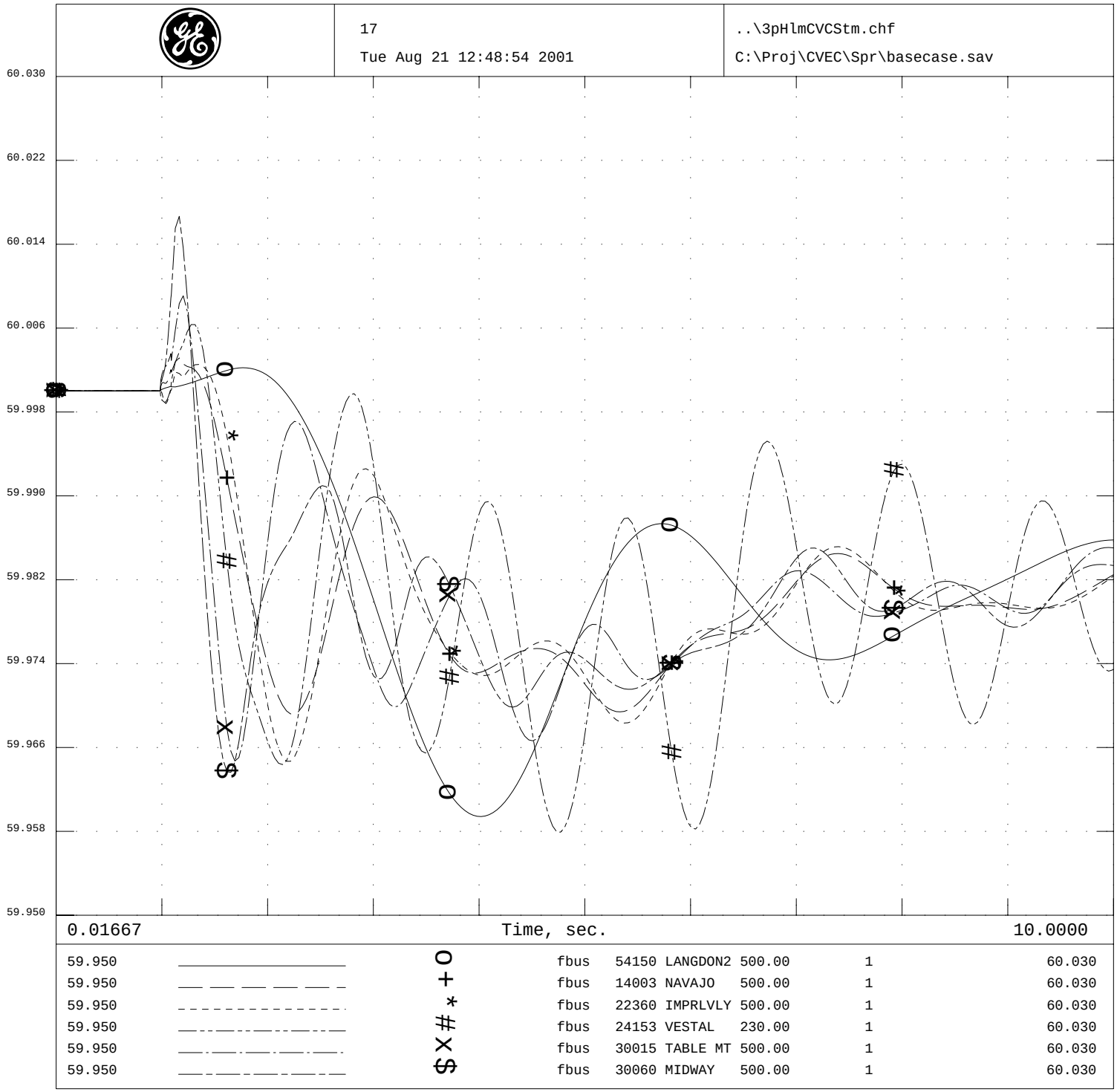
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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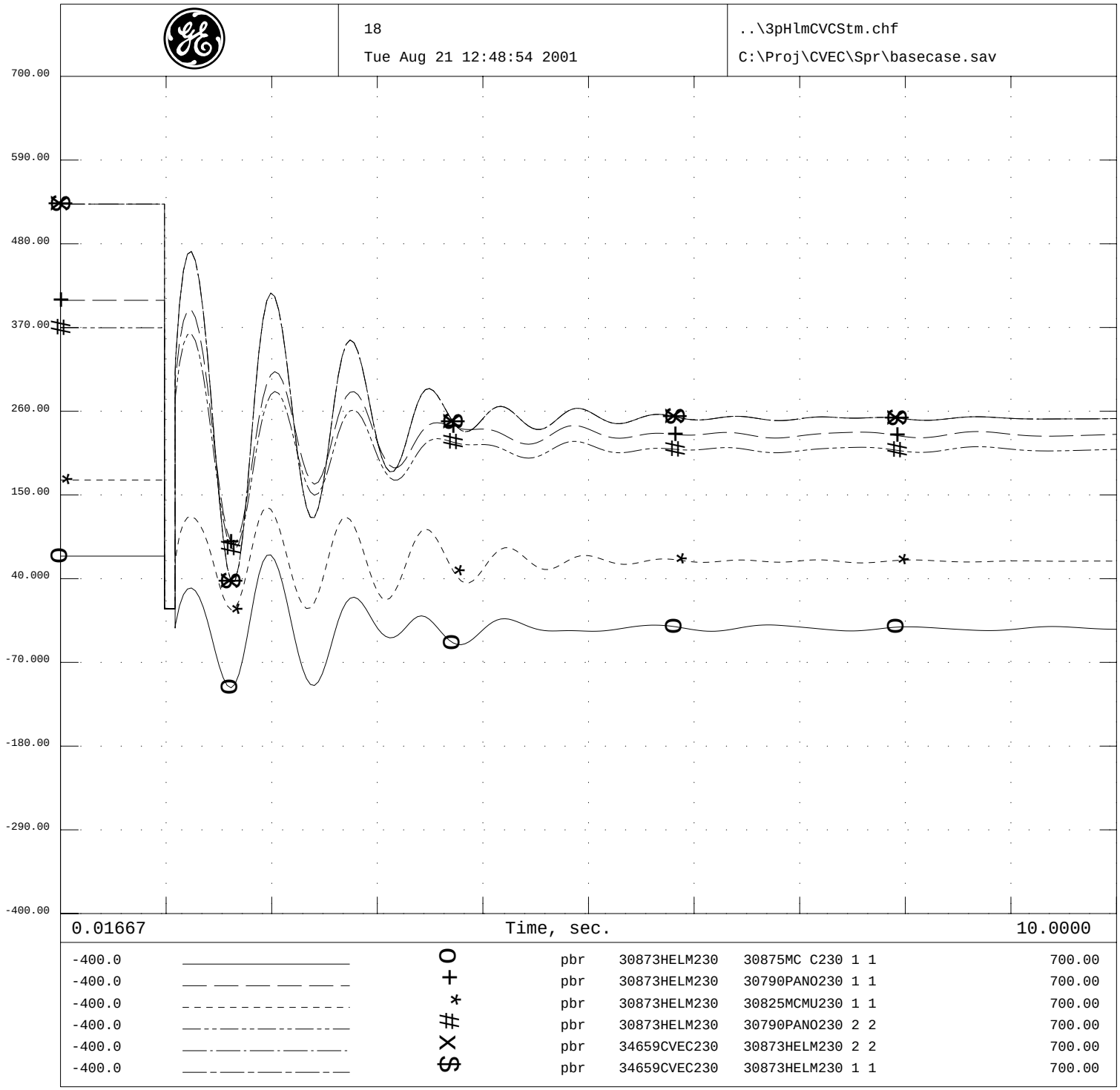

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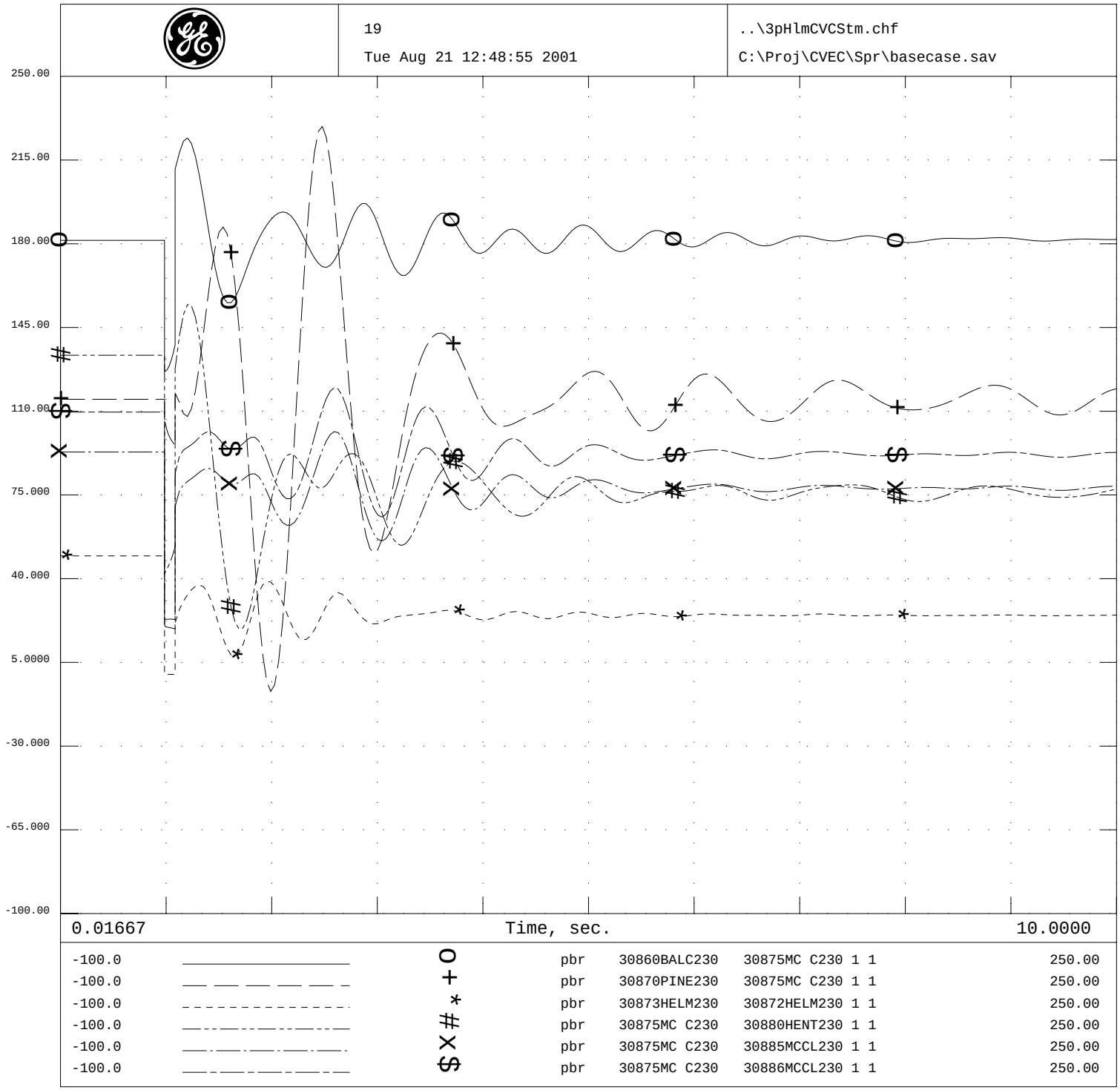
Calpine Corporation
Selected Transmission Line Flows (MW)



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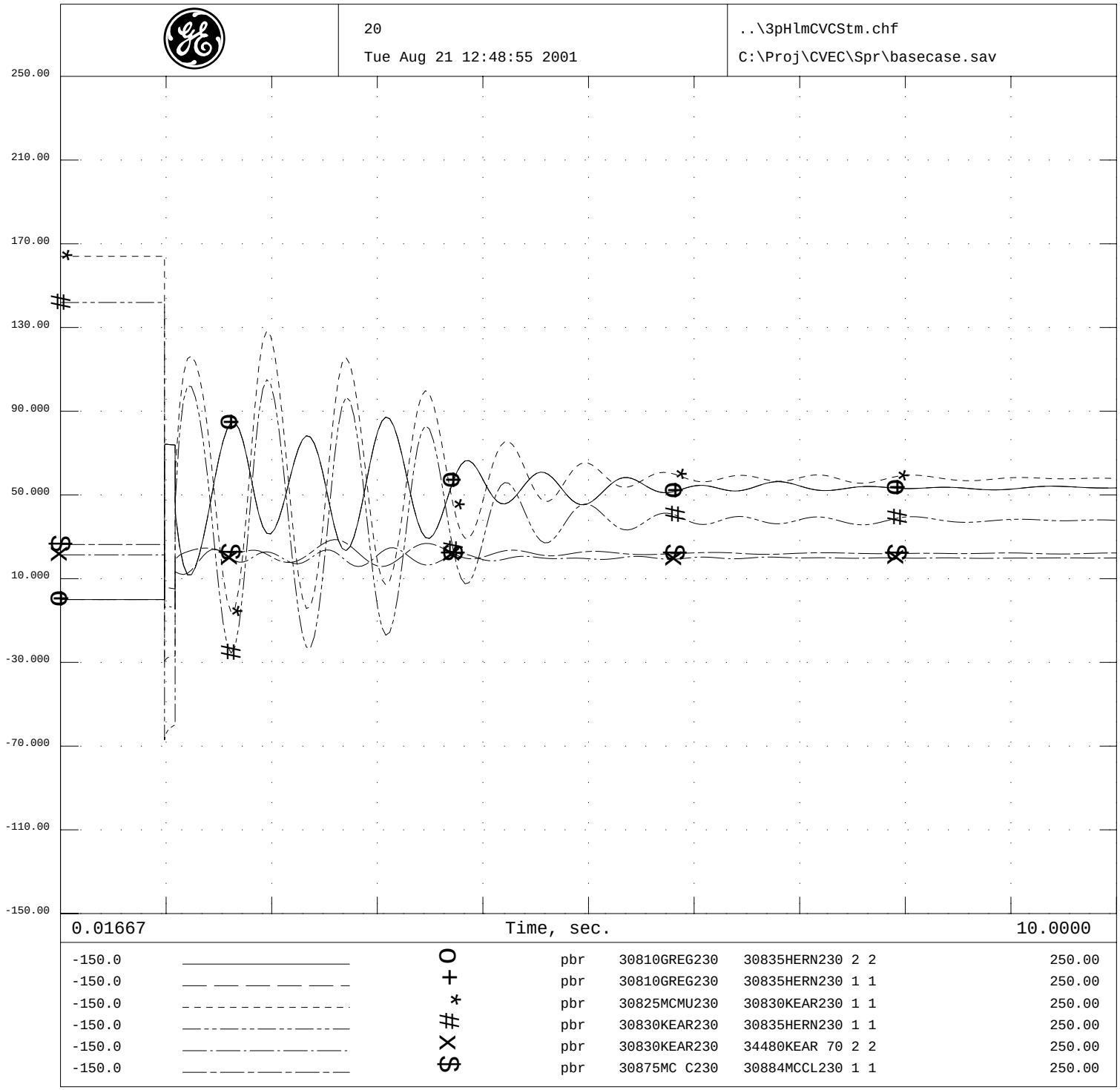

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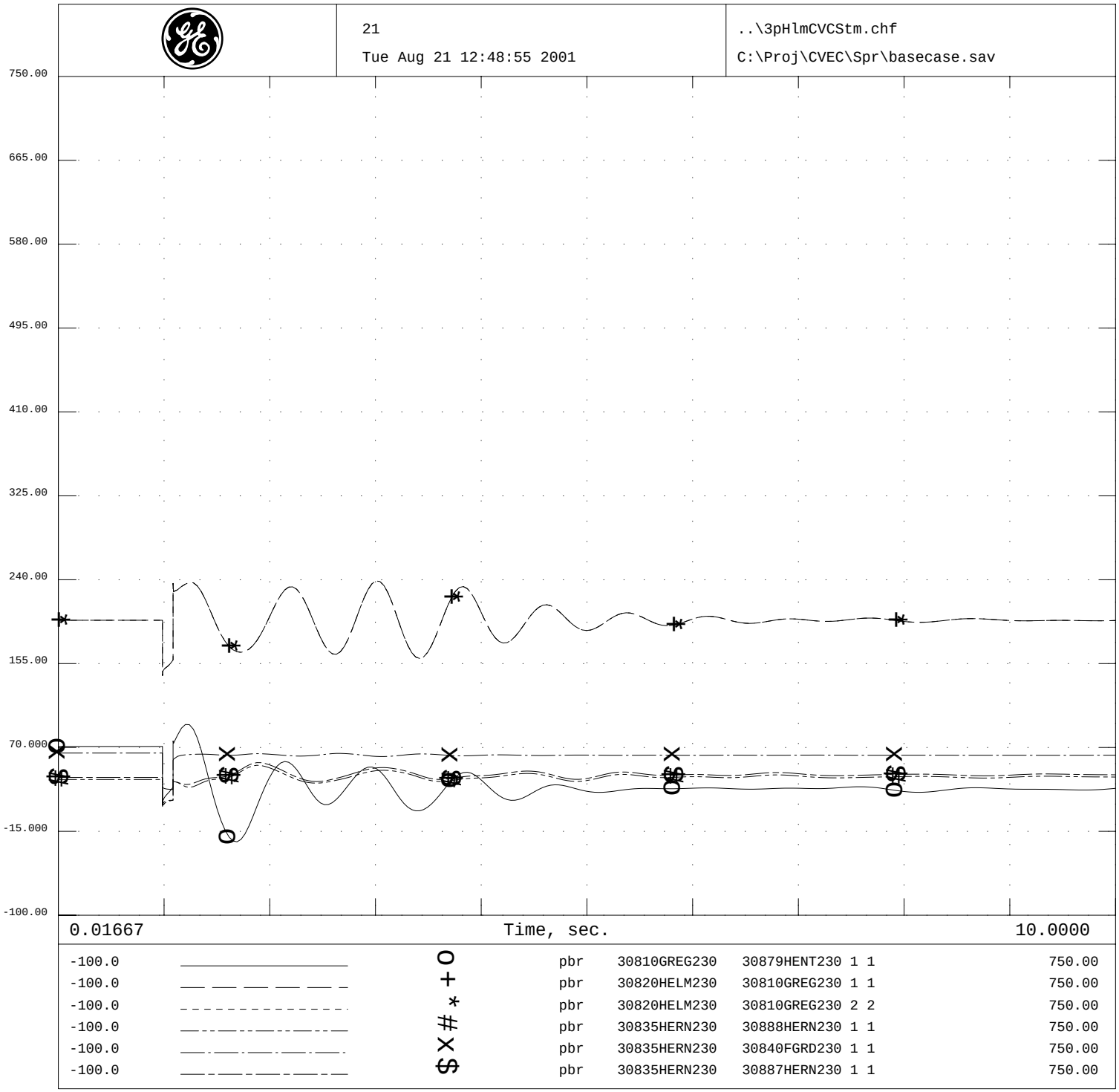

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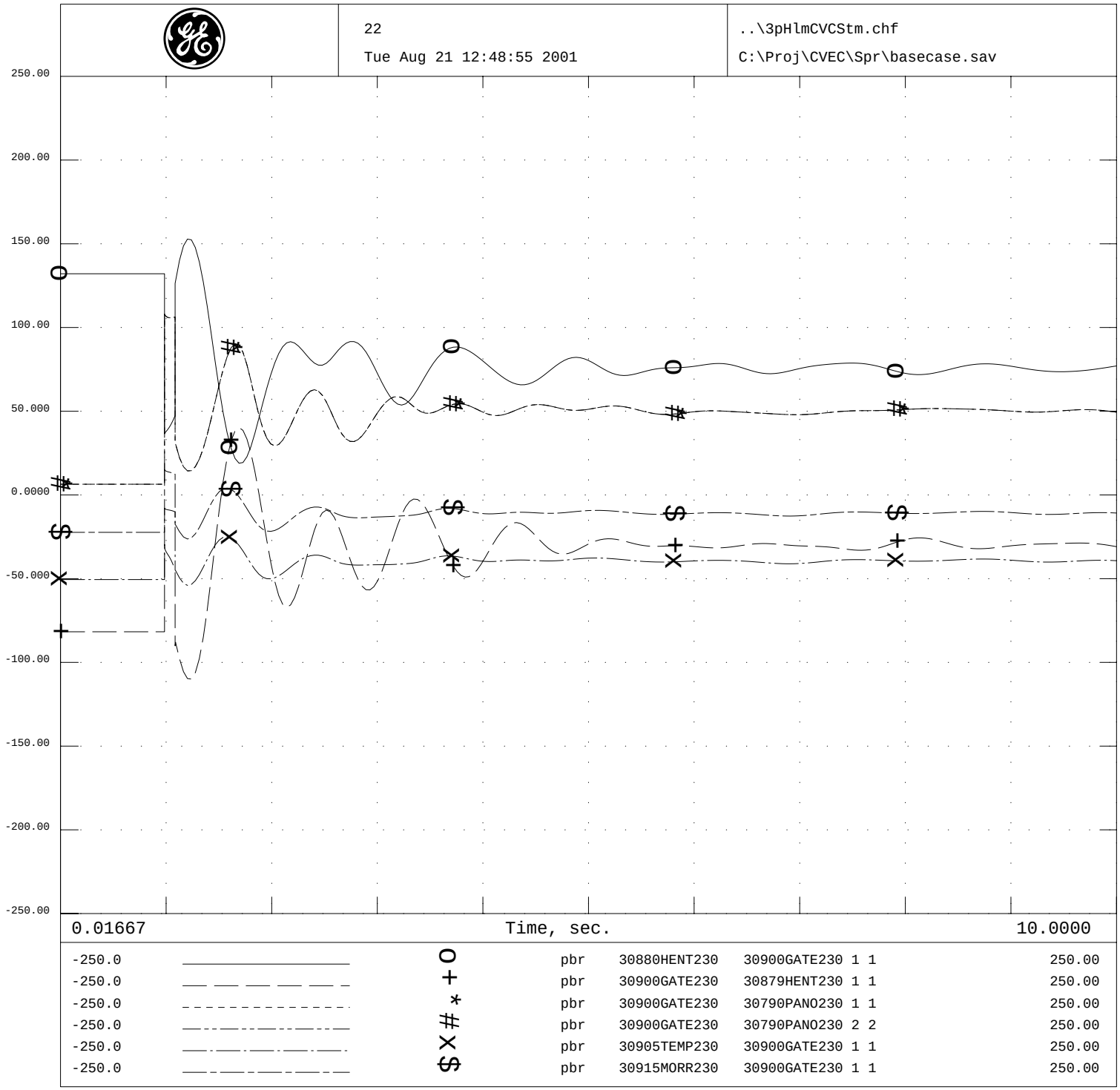

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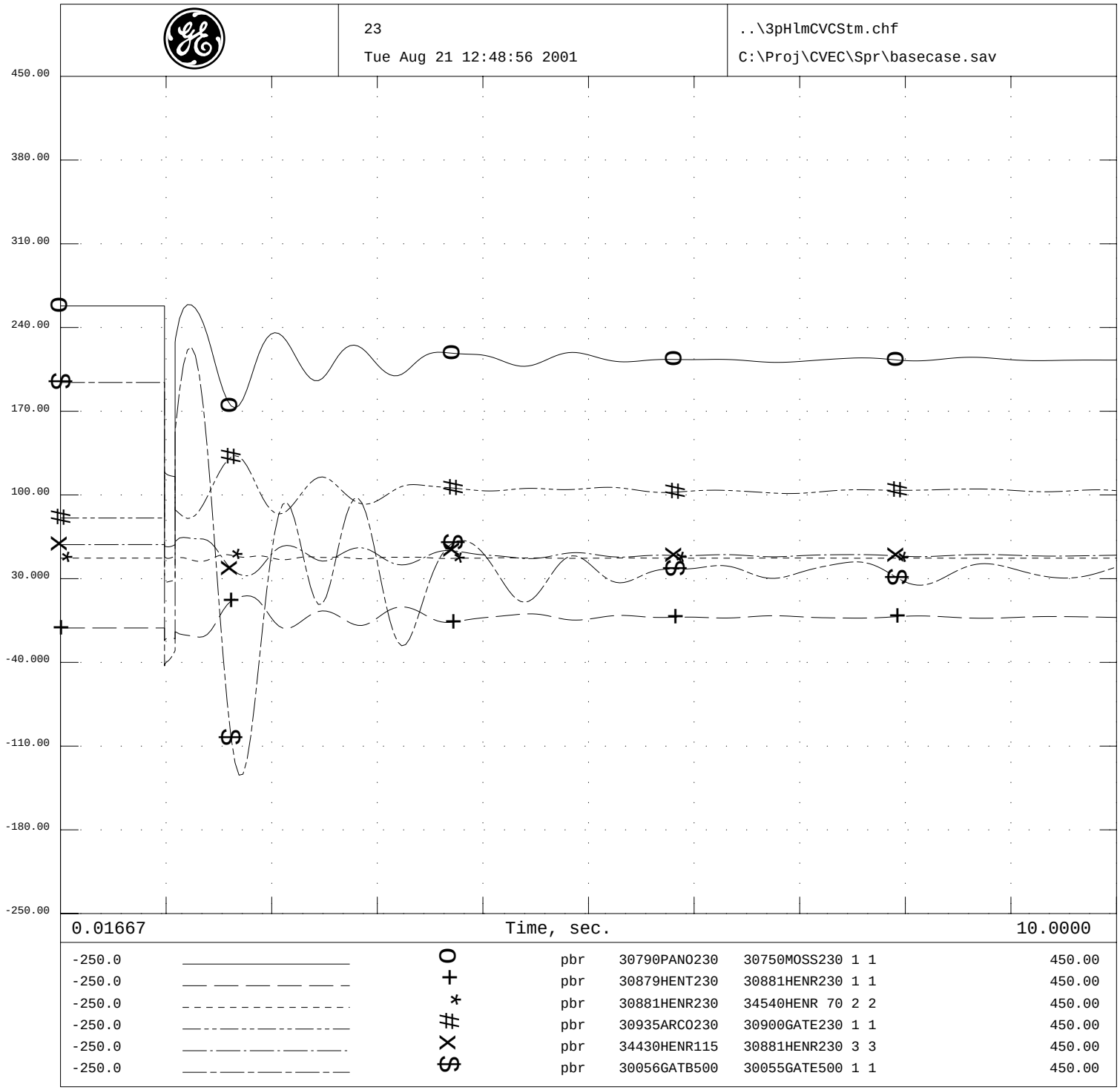

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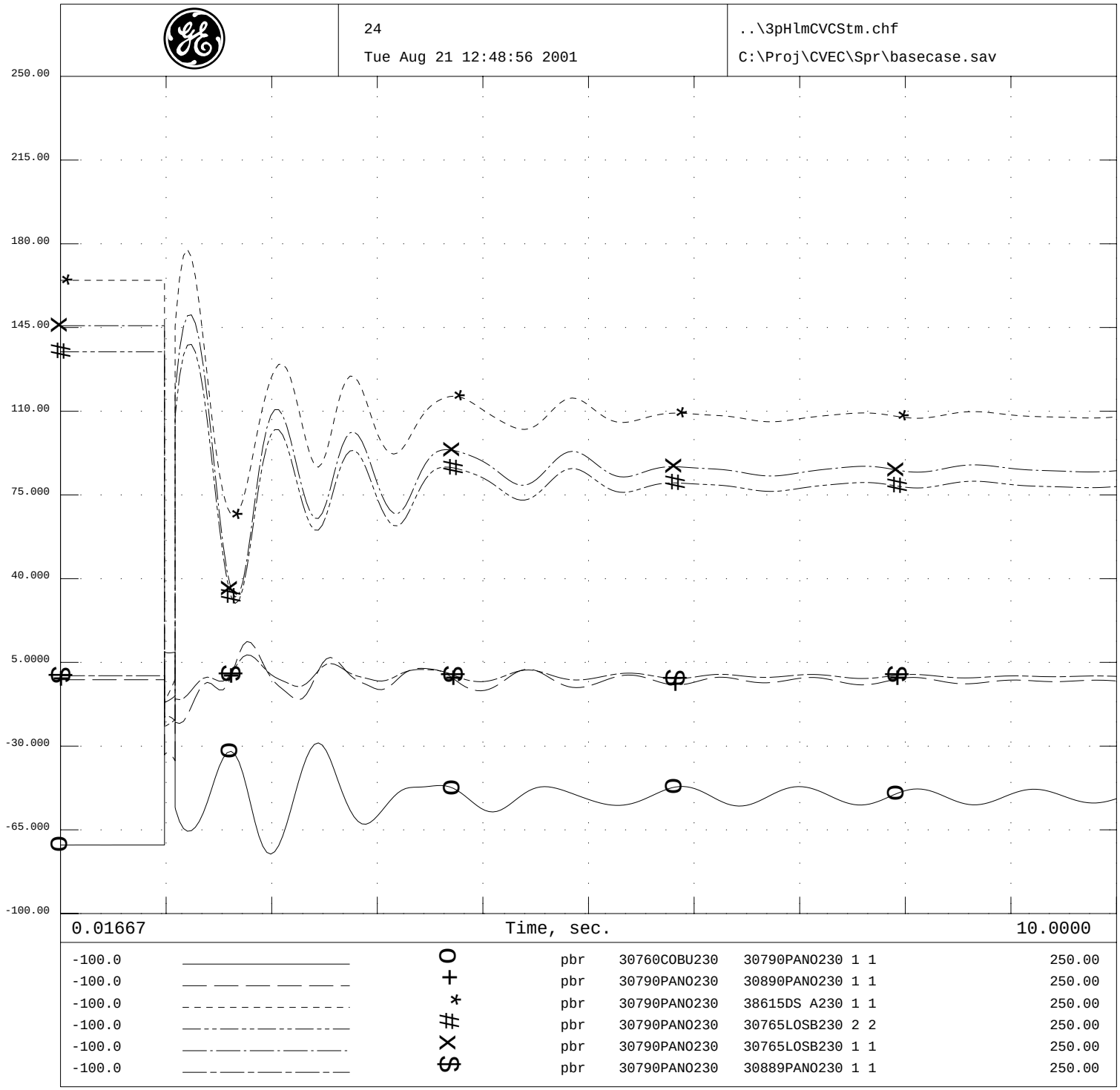

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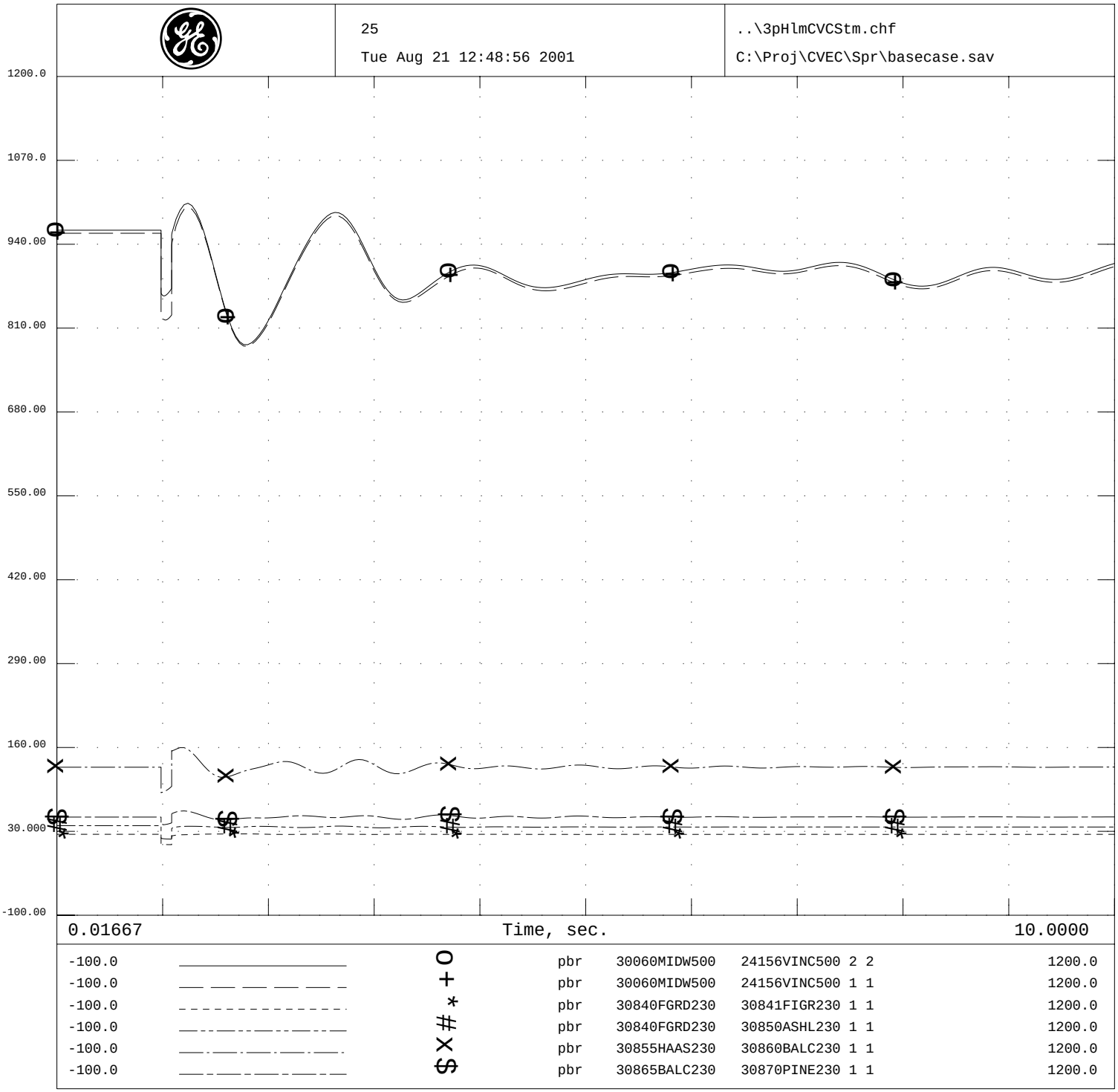

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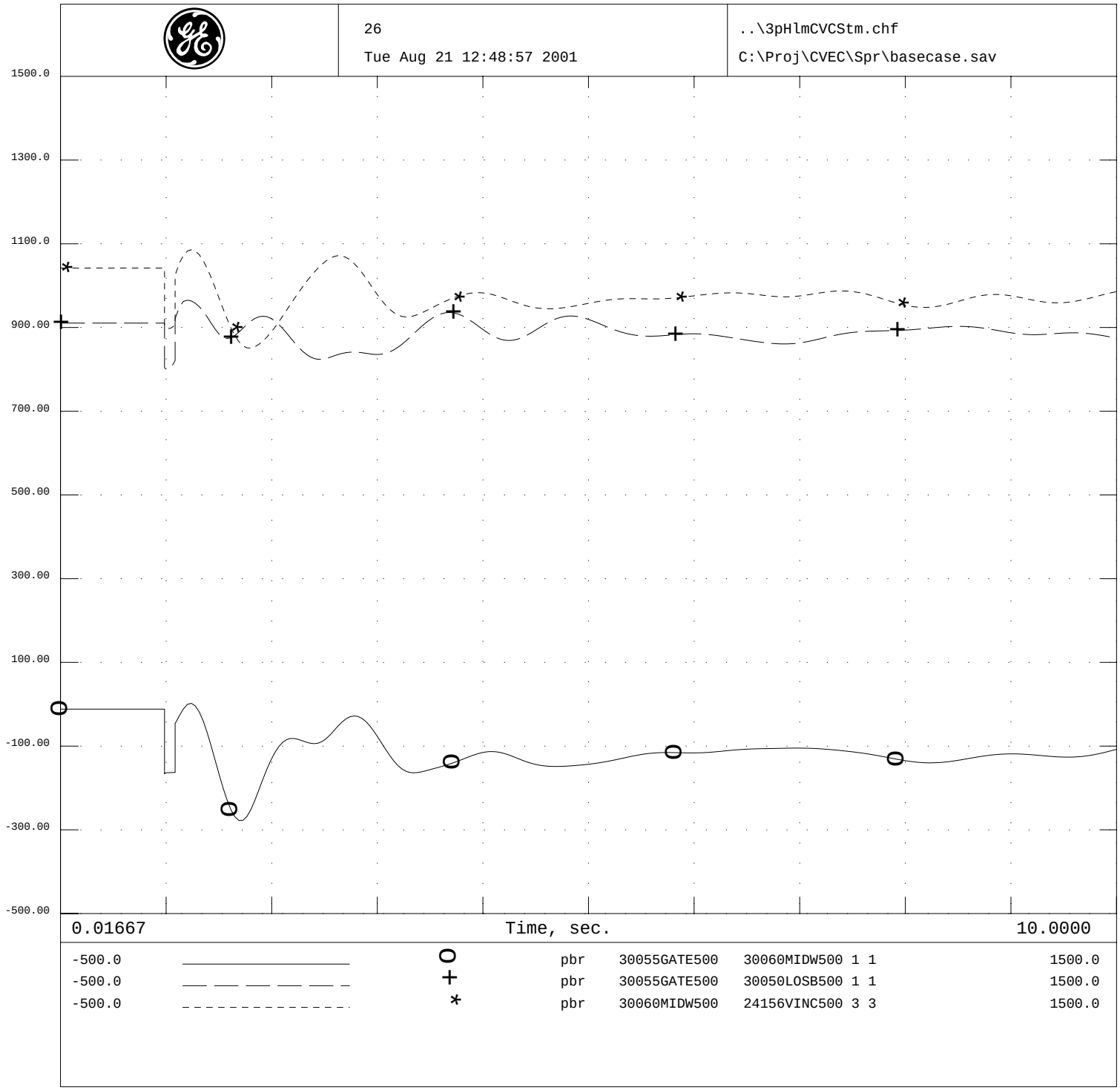

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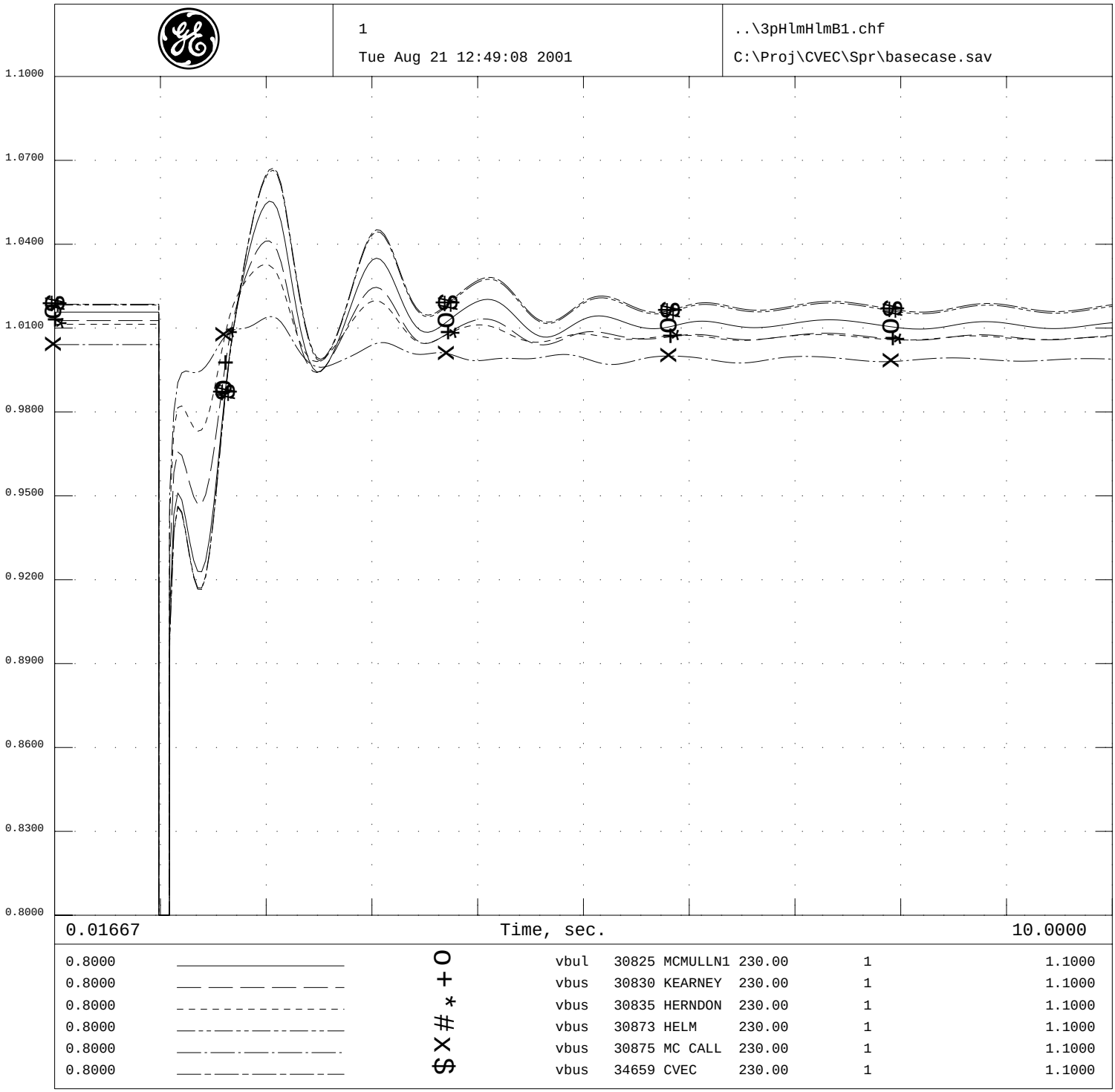

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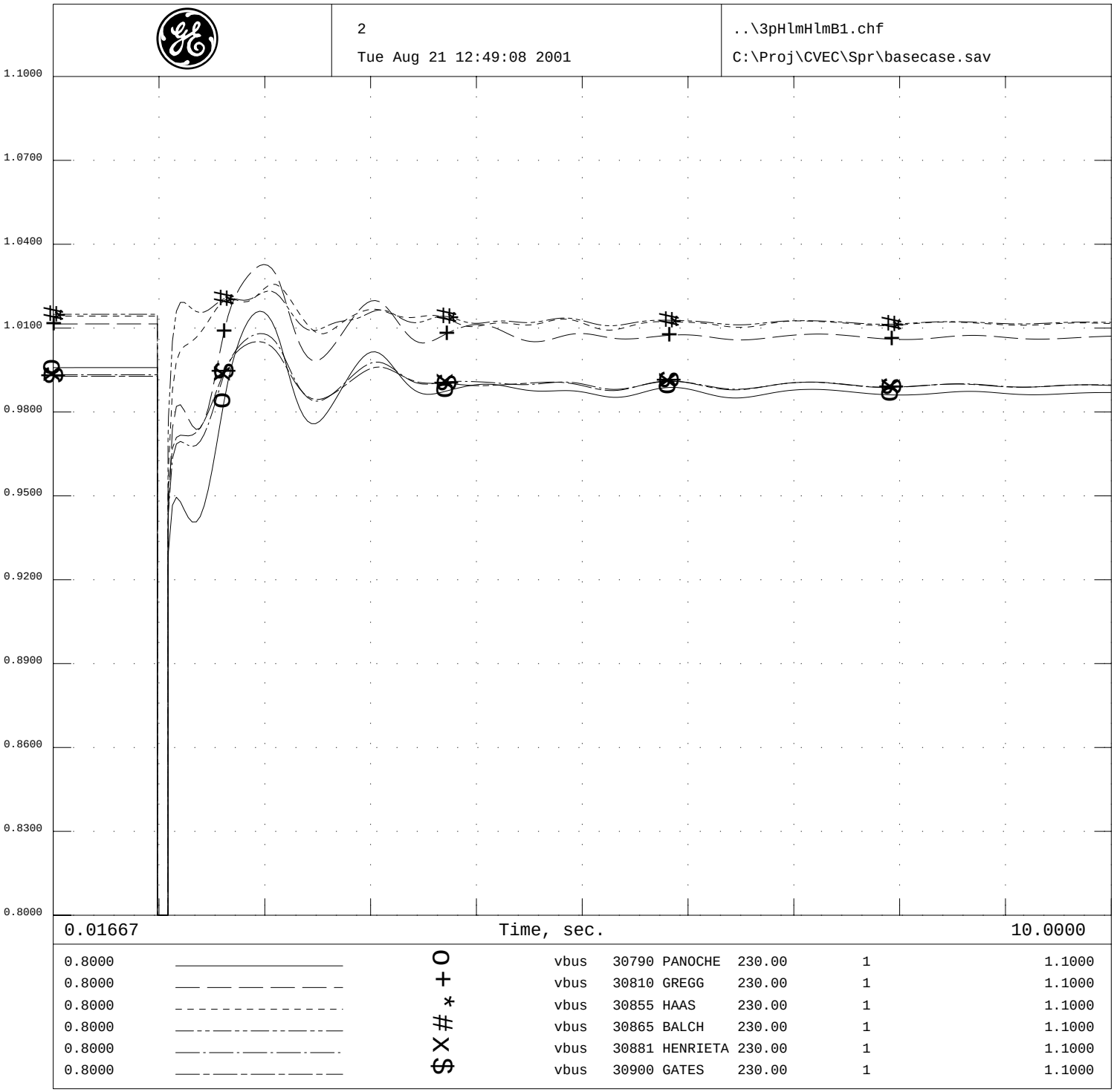
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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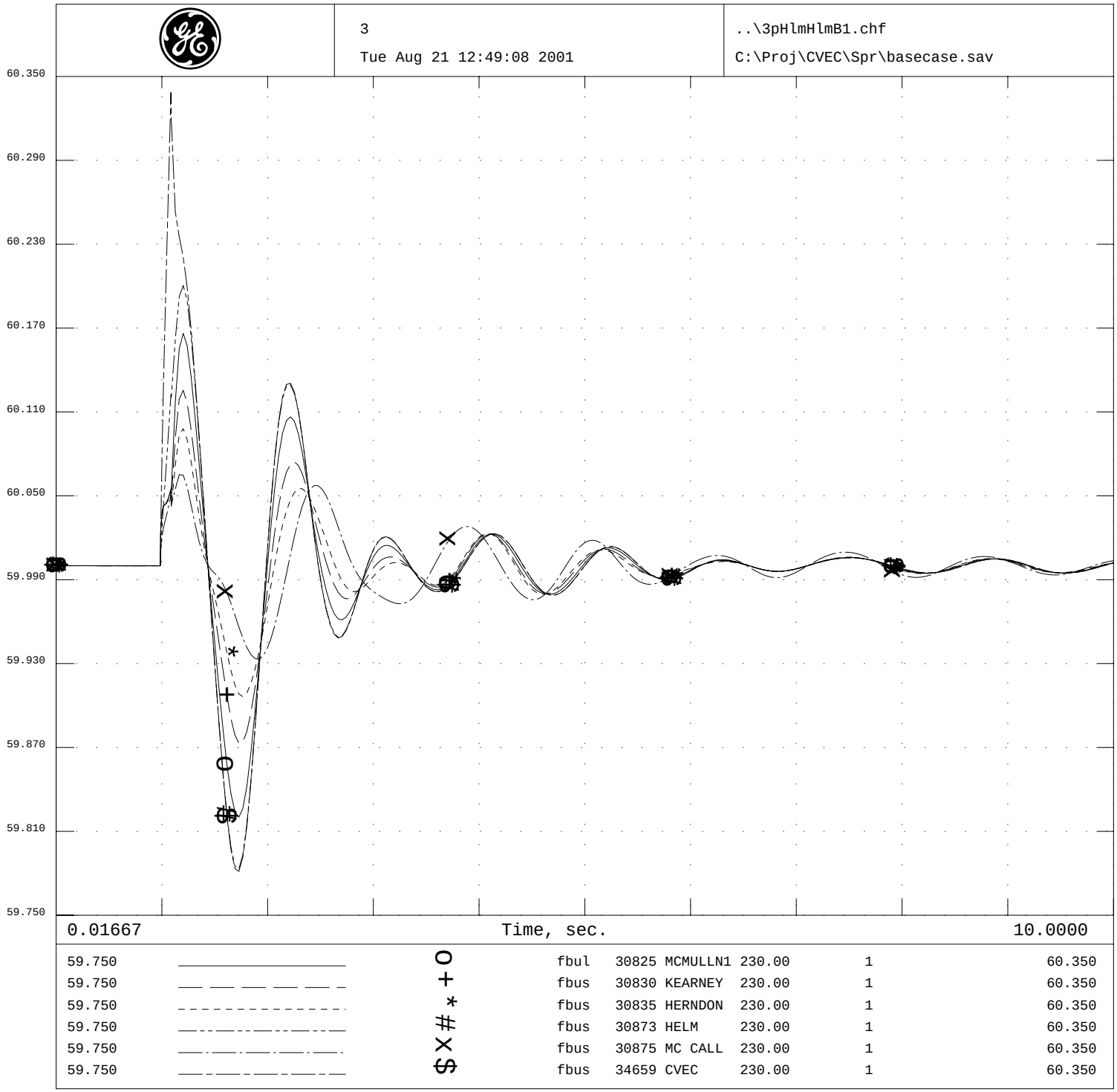

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Calpine Corporation
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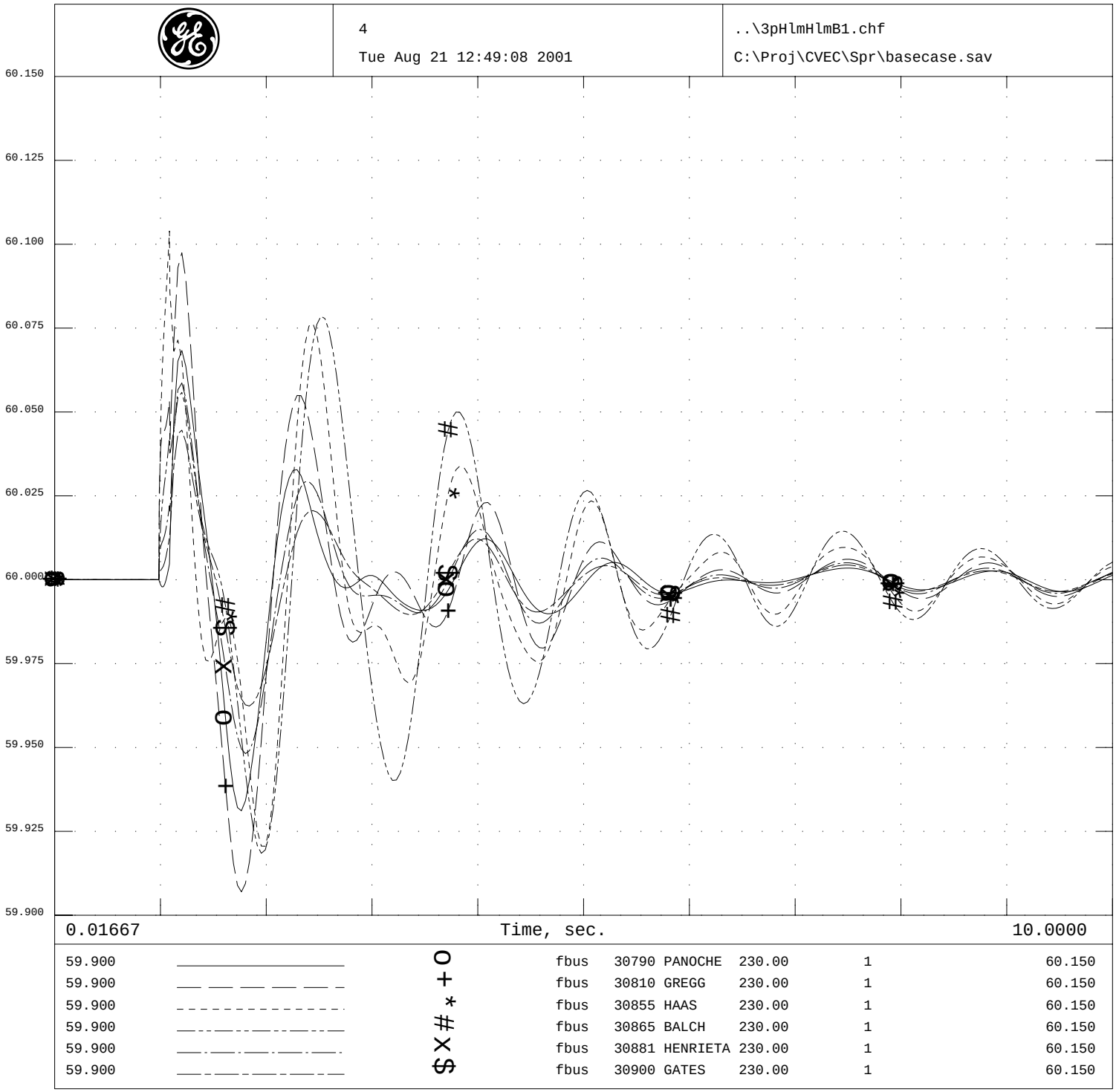

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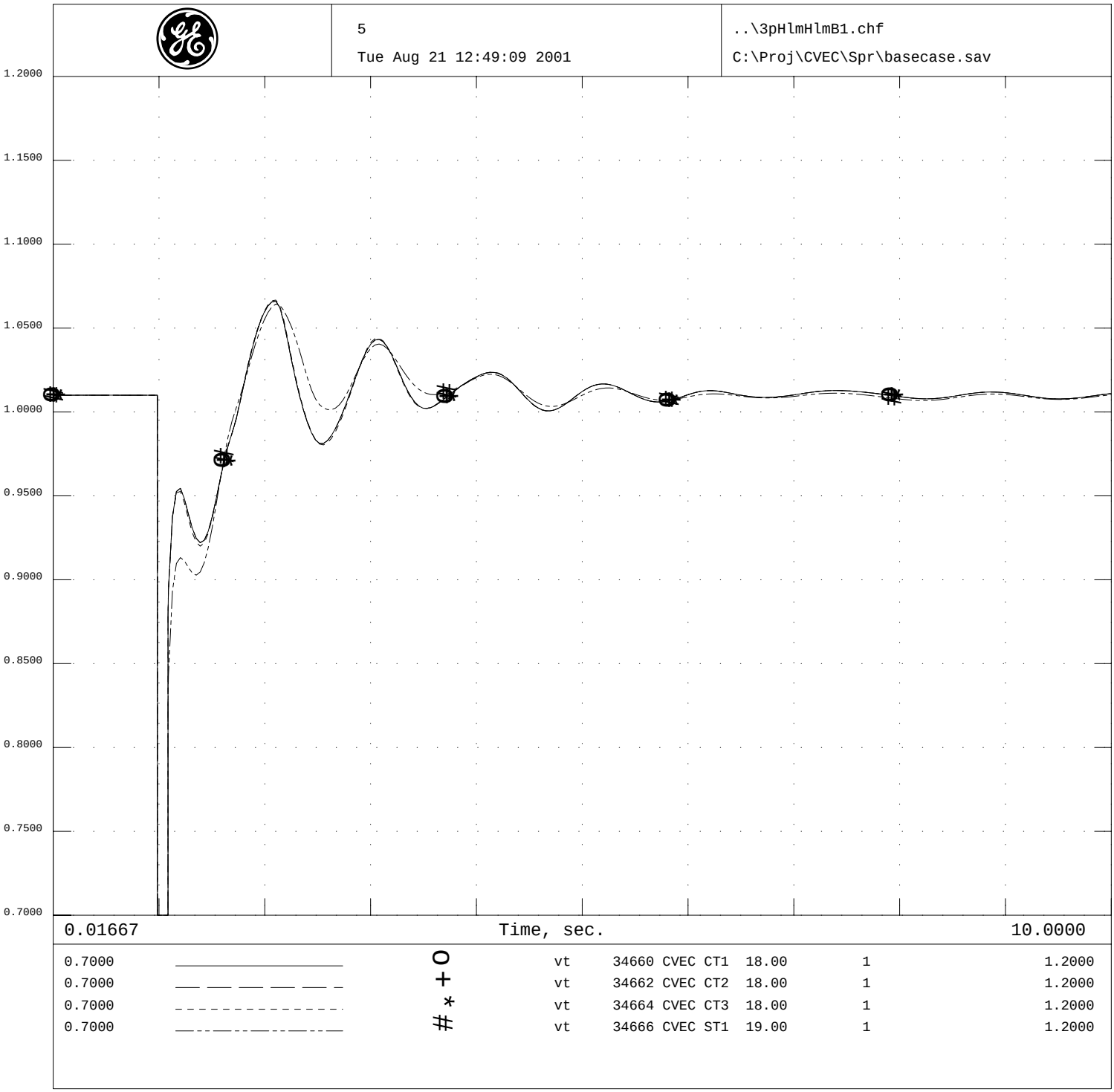

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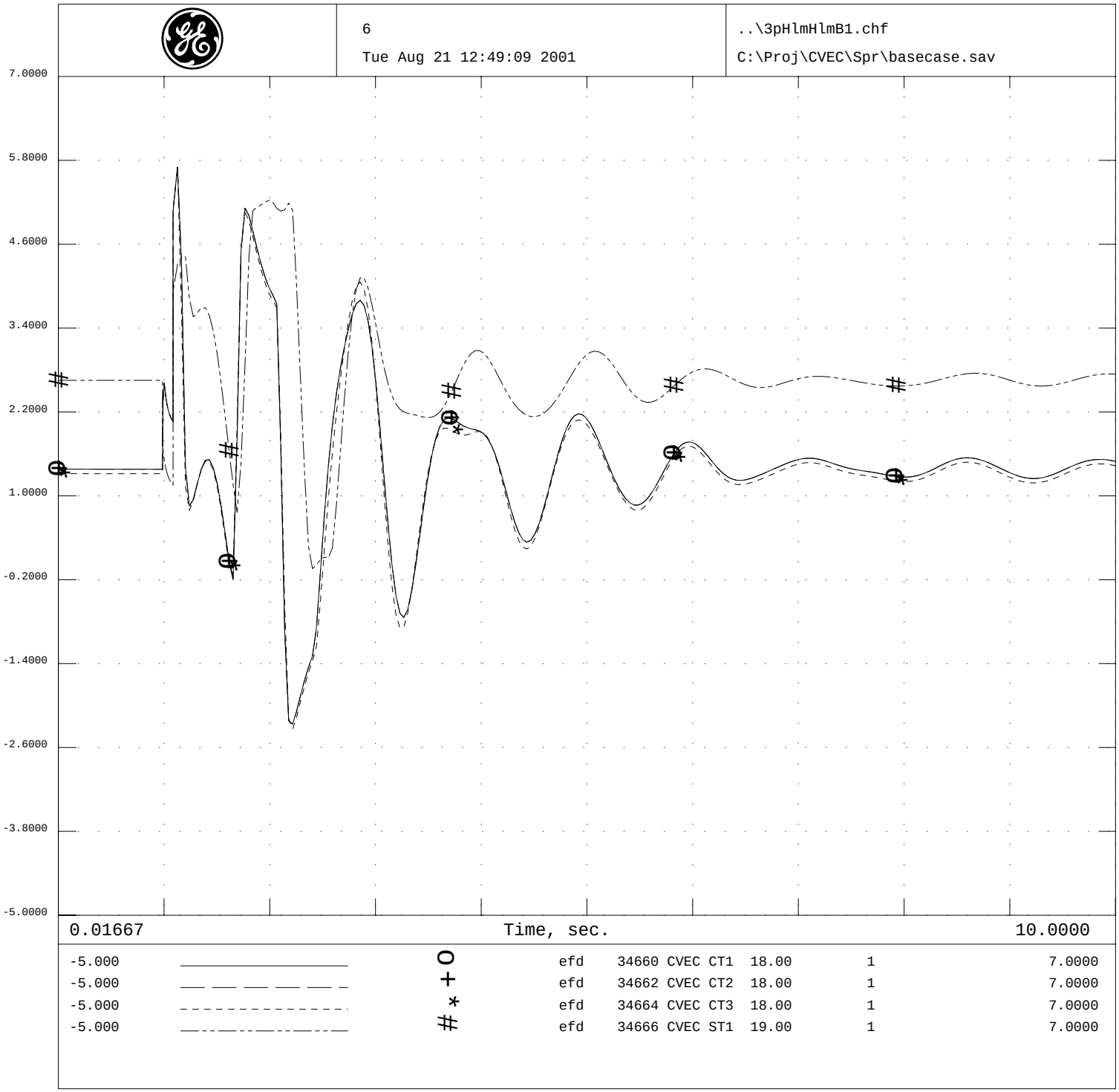
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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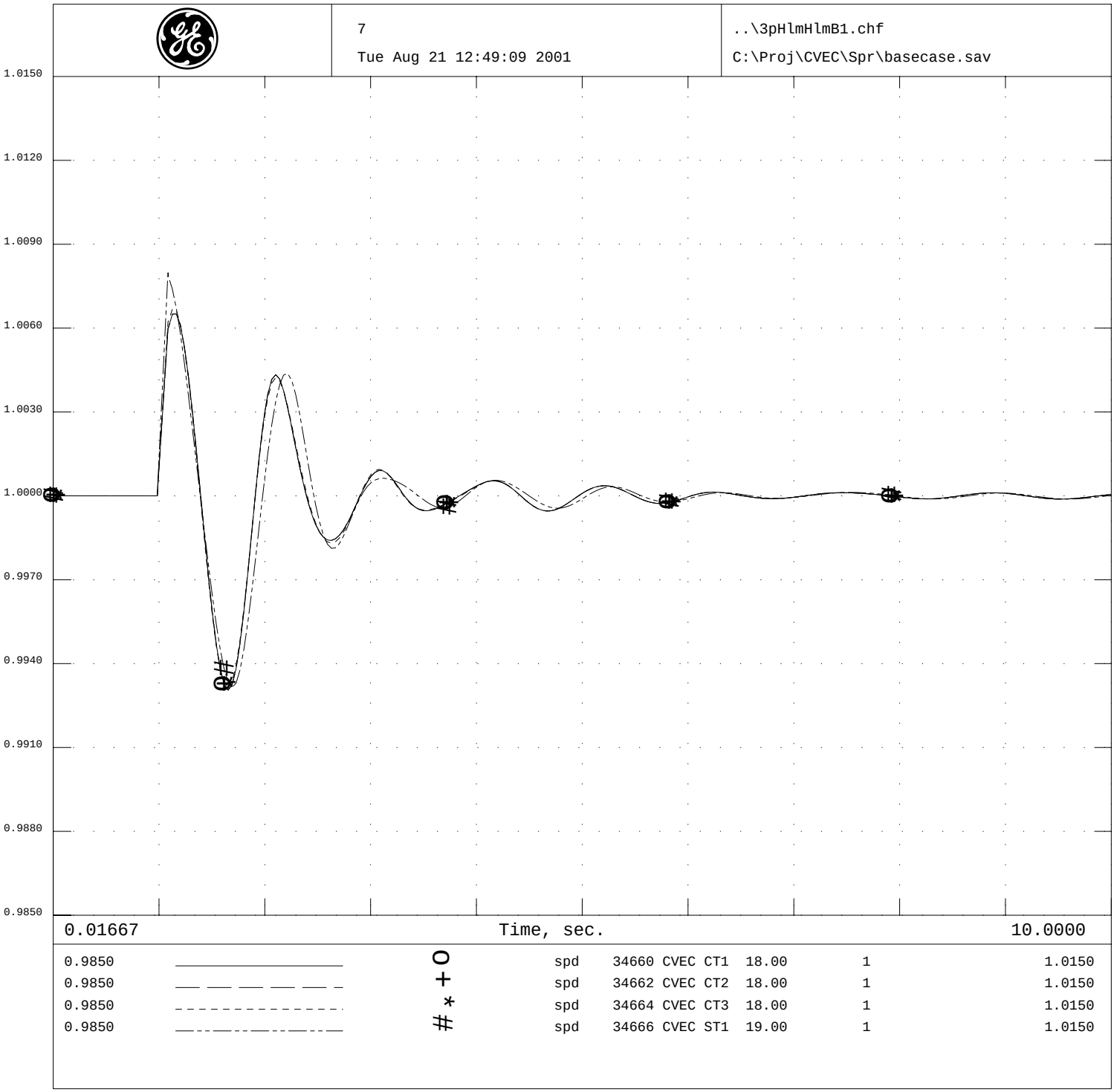

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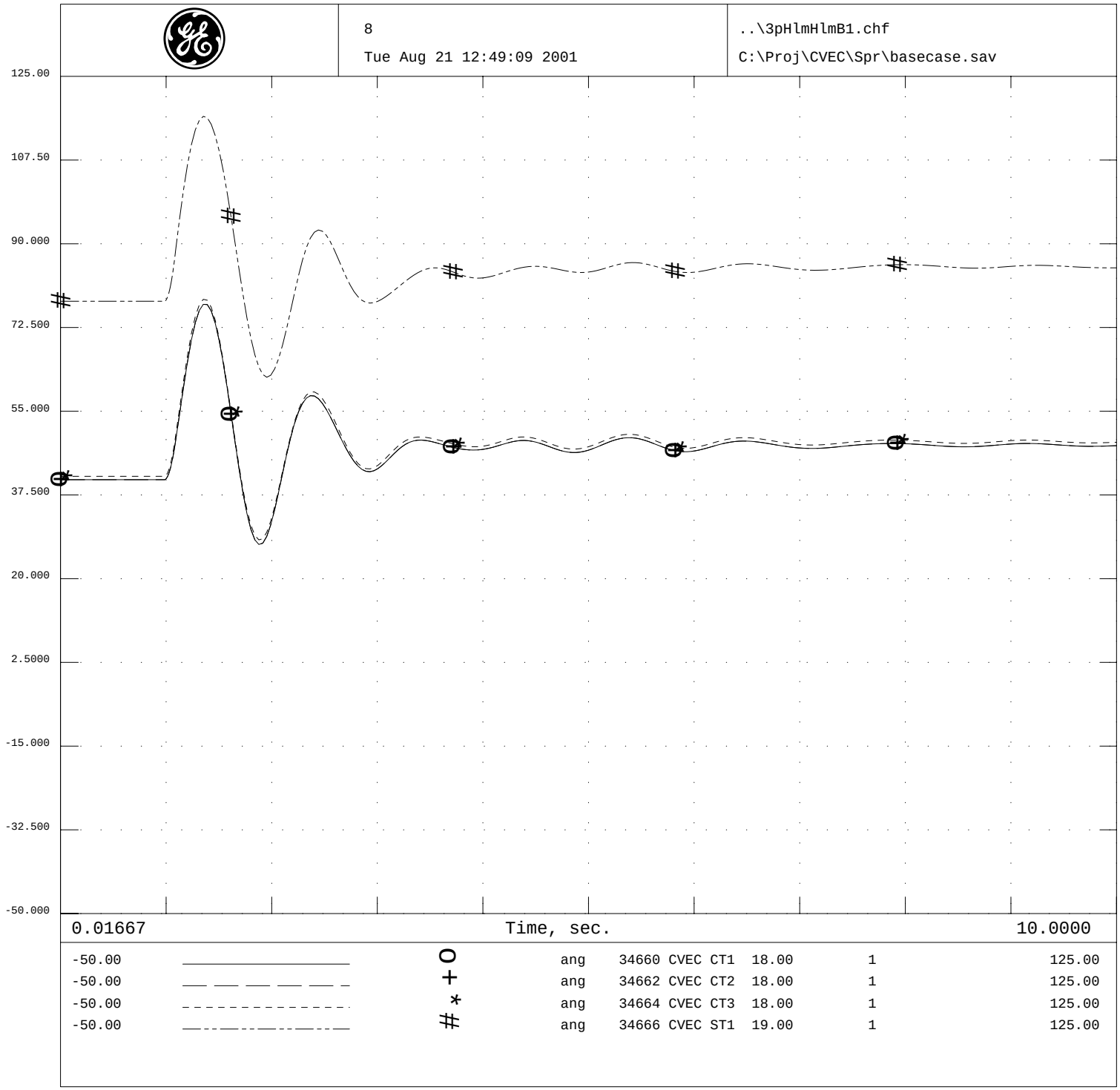
Project Generator Rotor Speed



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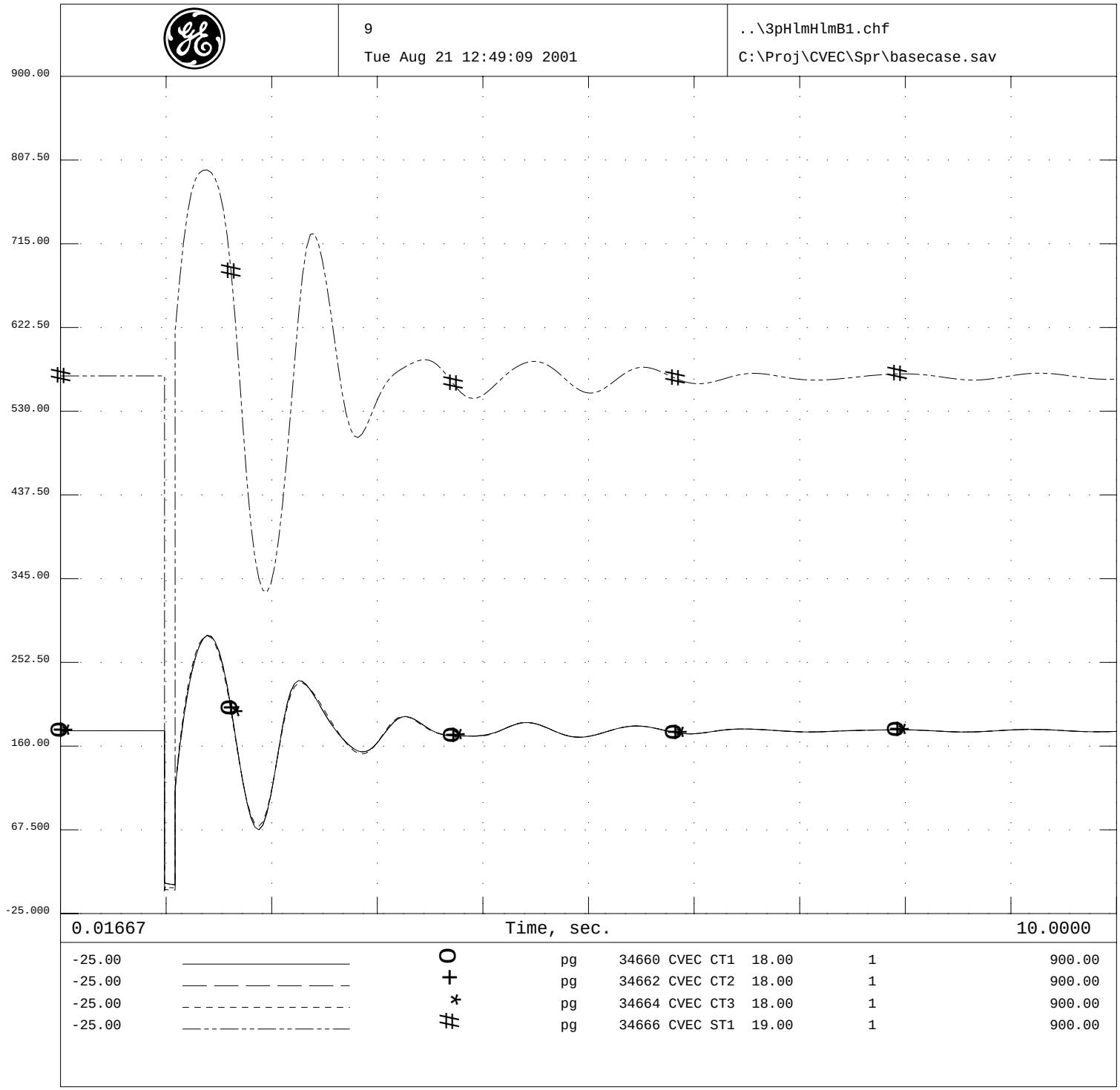
Project Generator Rotor Angle



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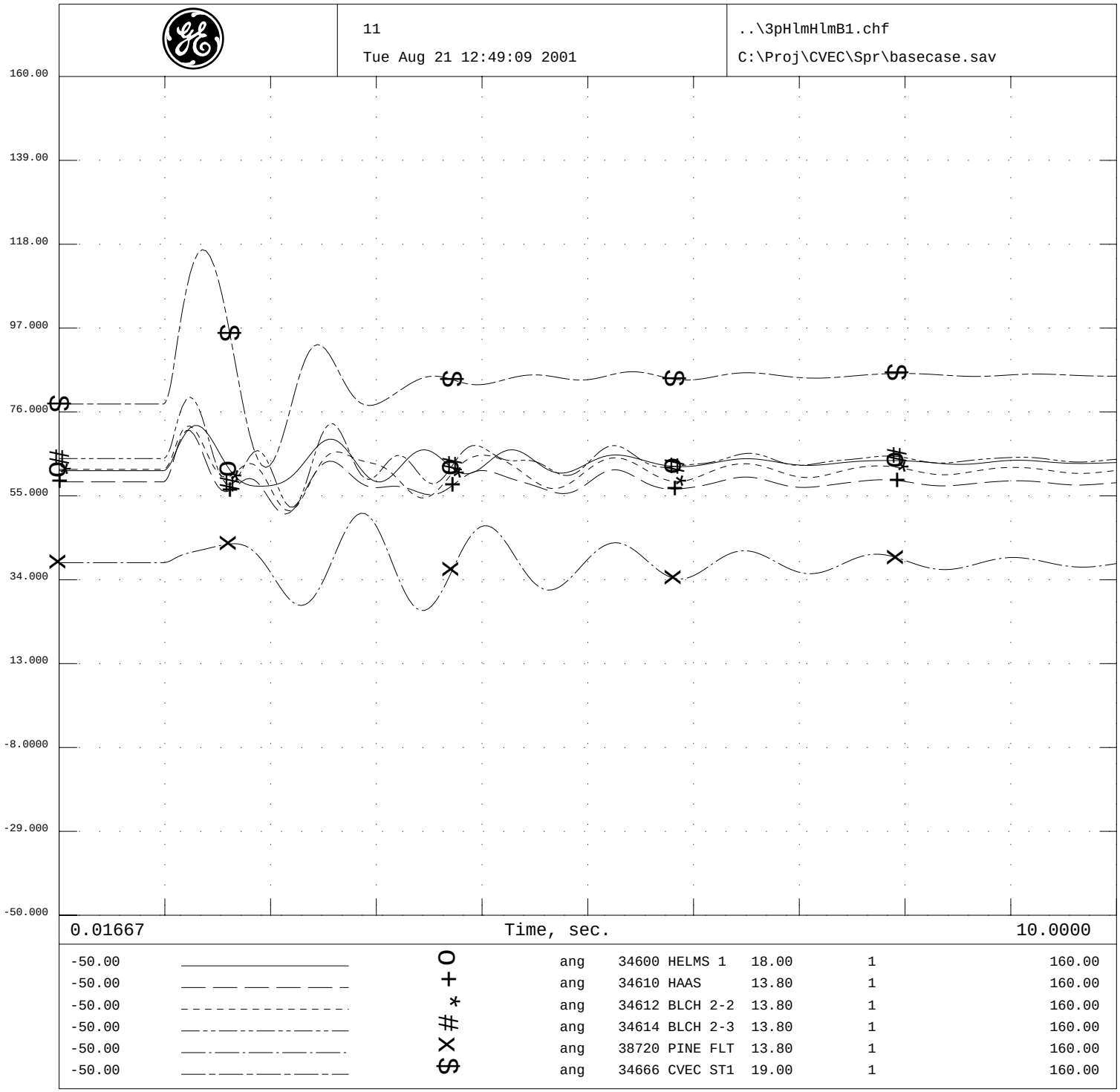

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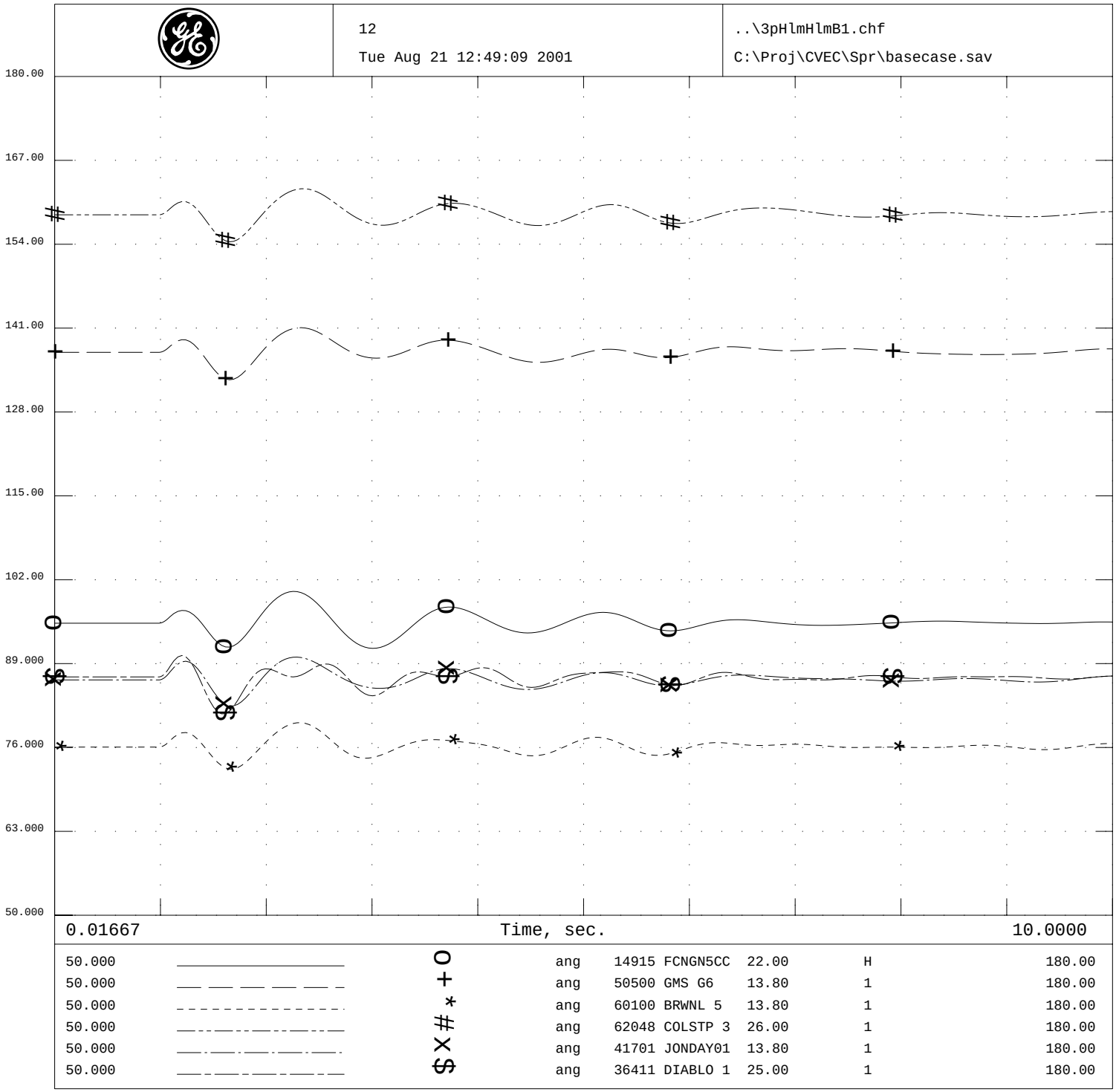

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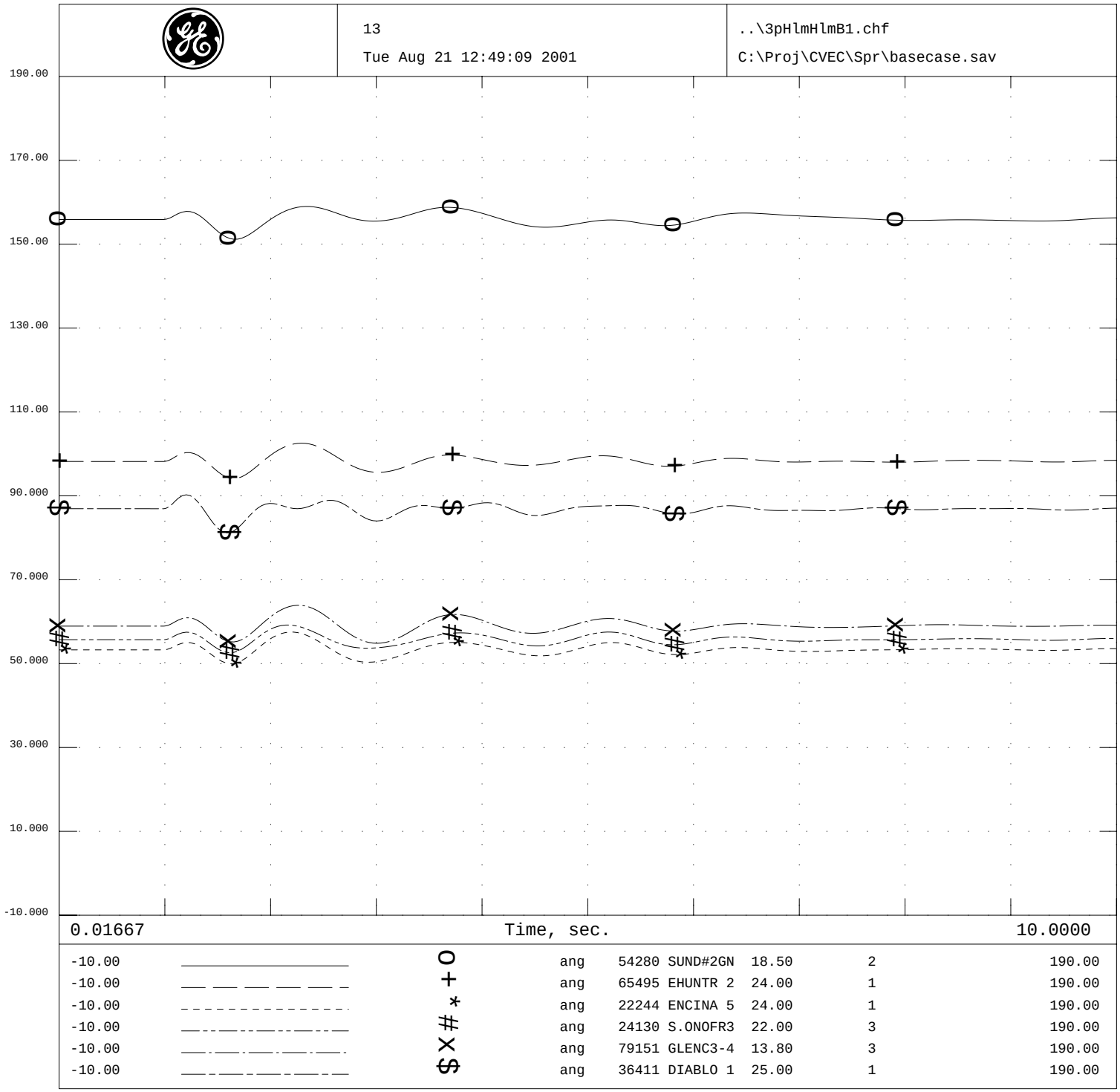

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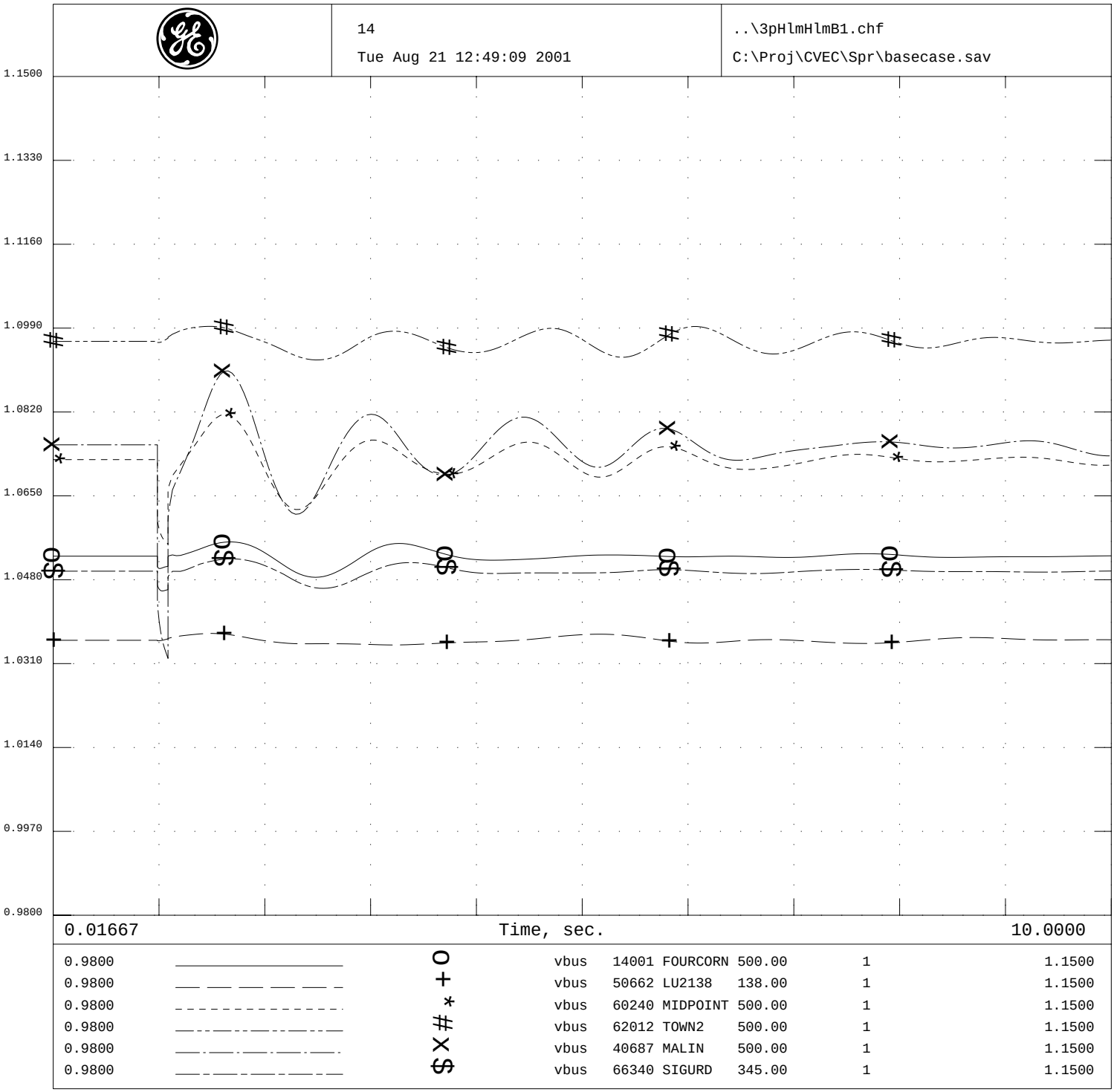

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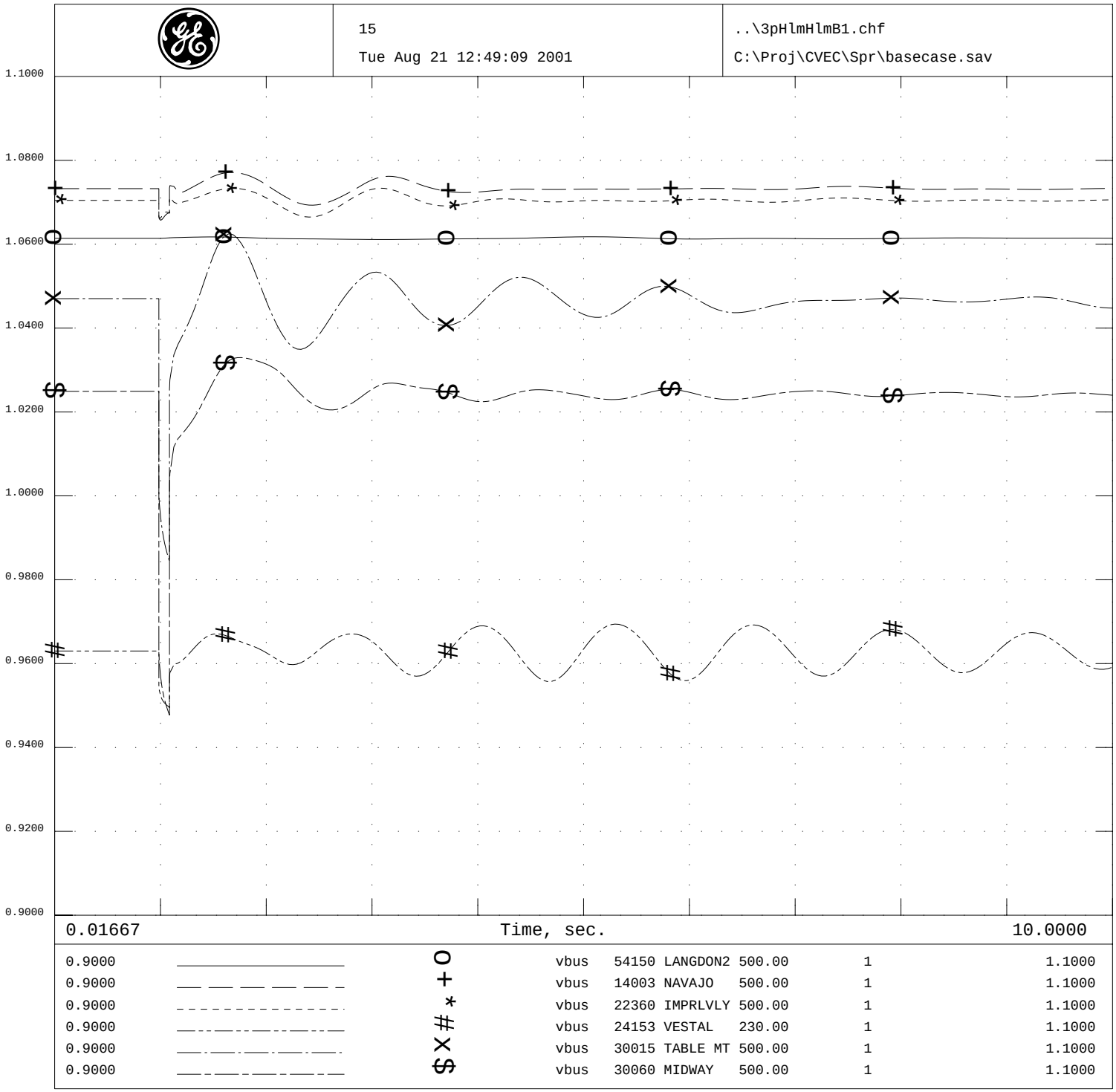

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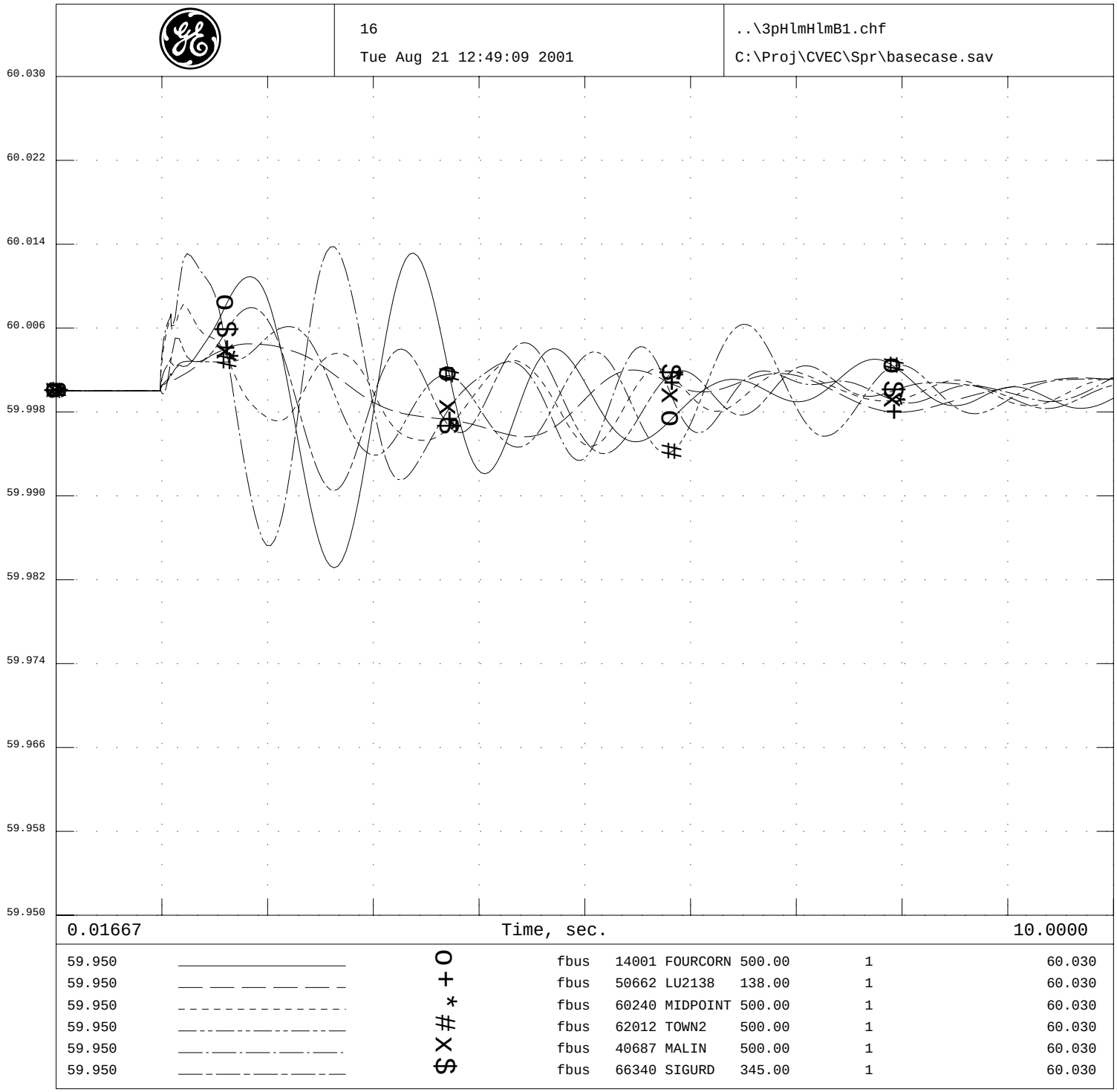

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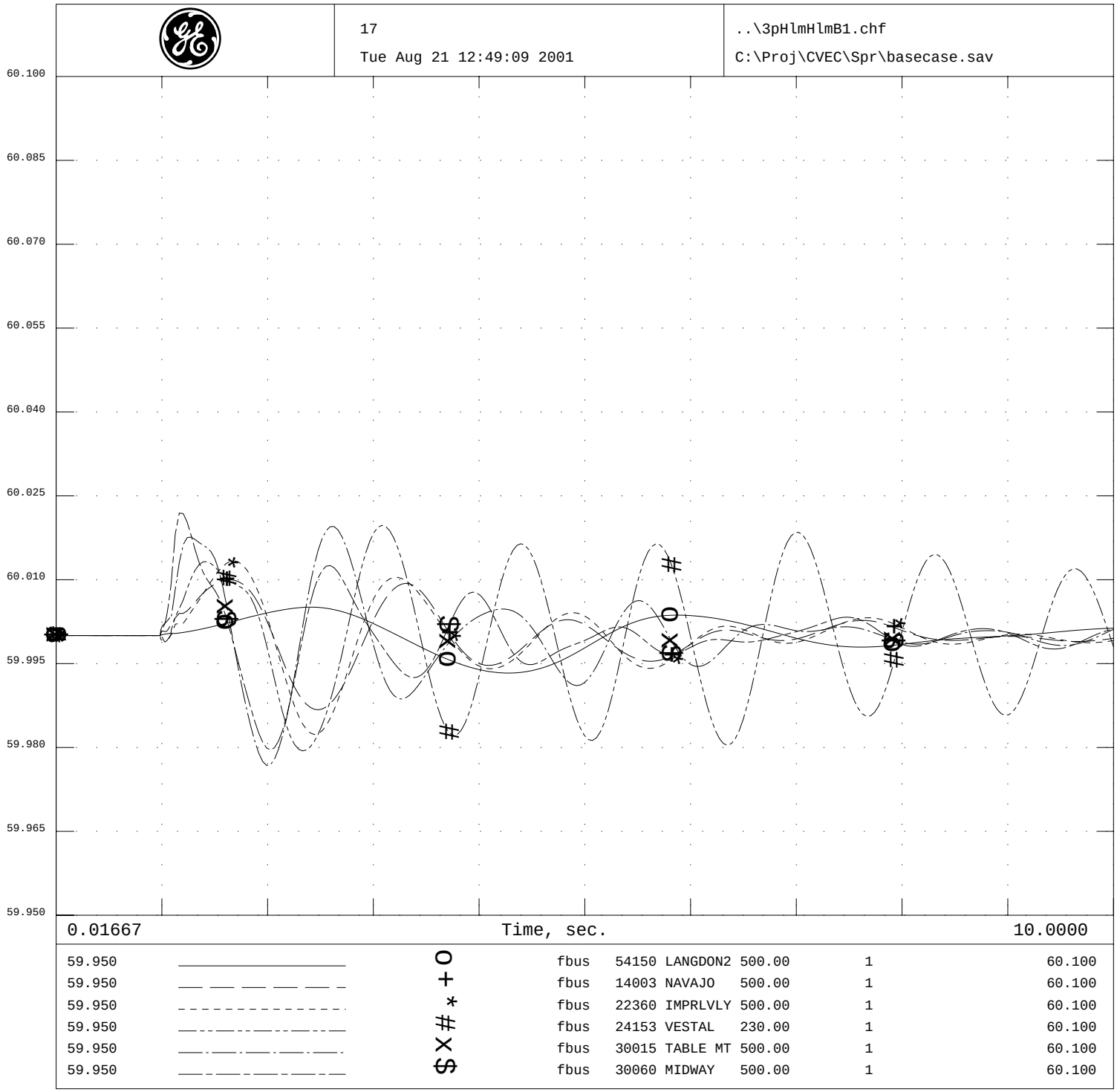

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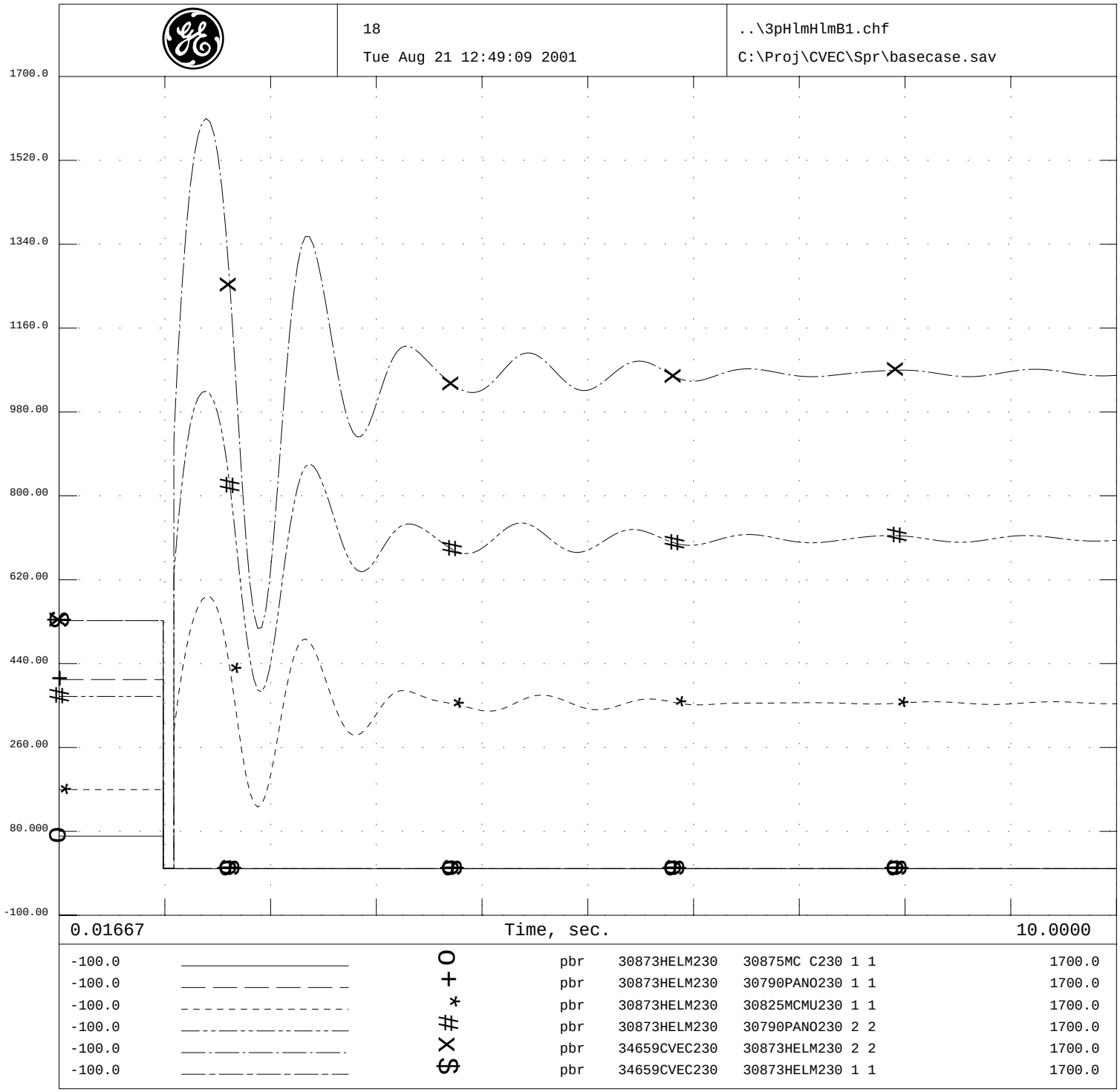

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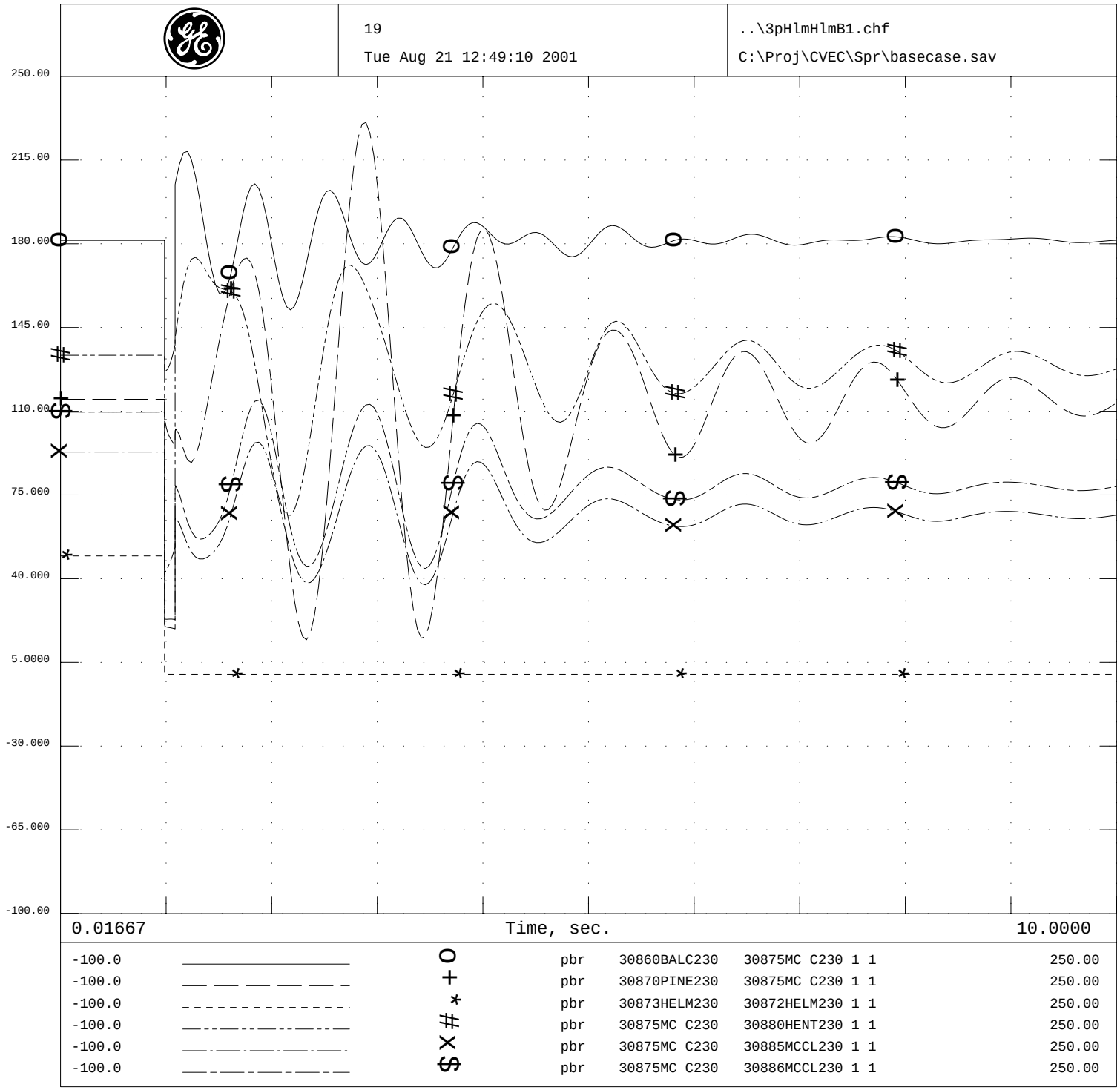
3 phase 6 cycle fault at Helm 230kV bus and clear bus #1

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
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Central Valley Energy Center
Calpine Corporation
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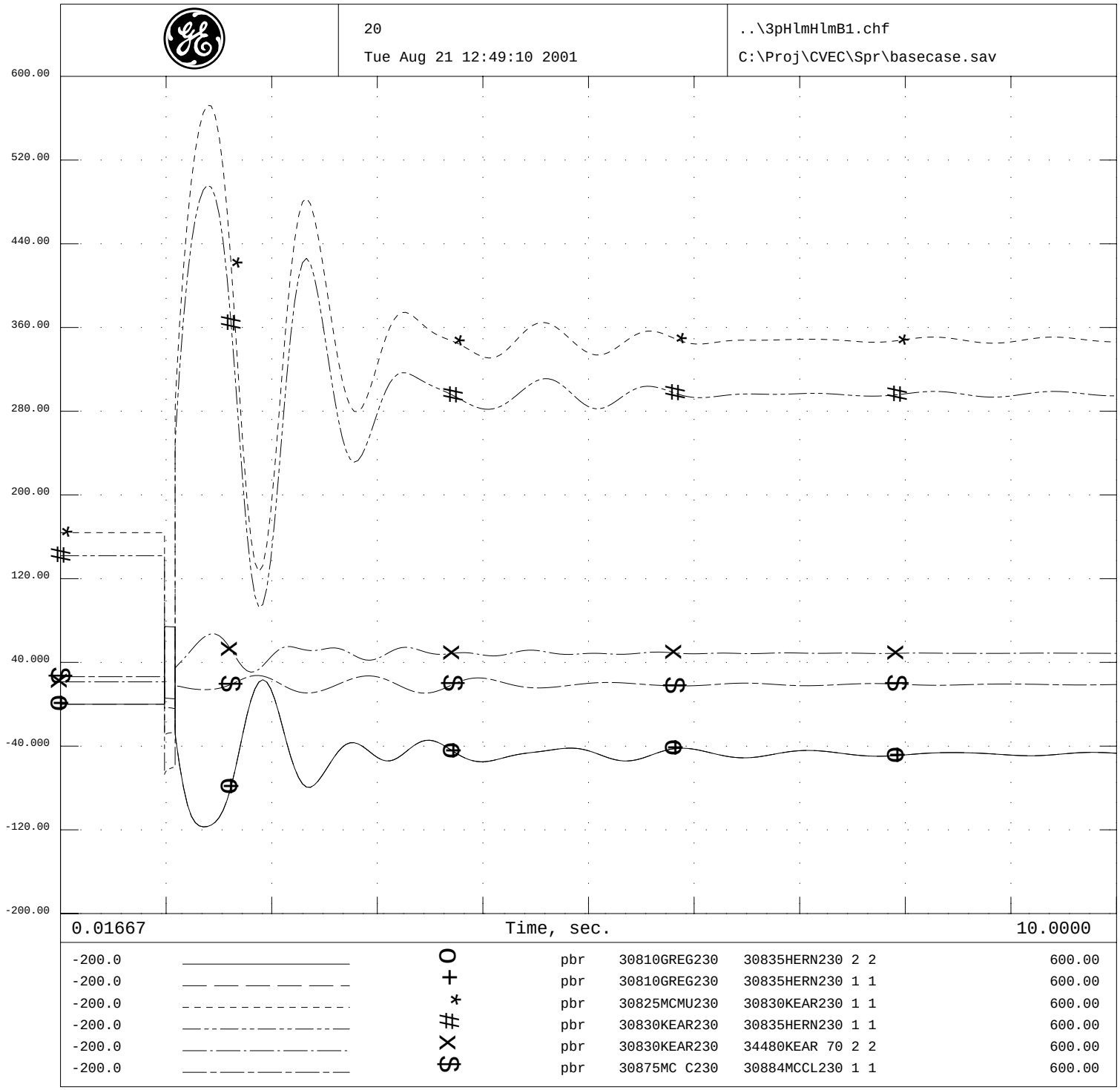

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2004 Heavy Spring Base Case
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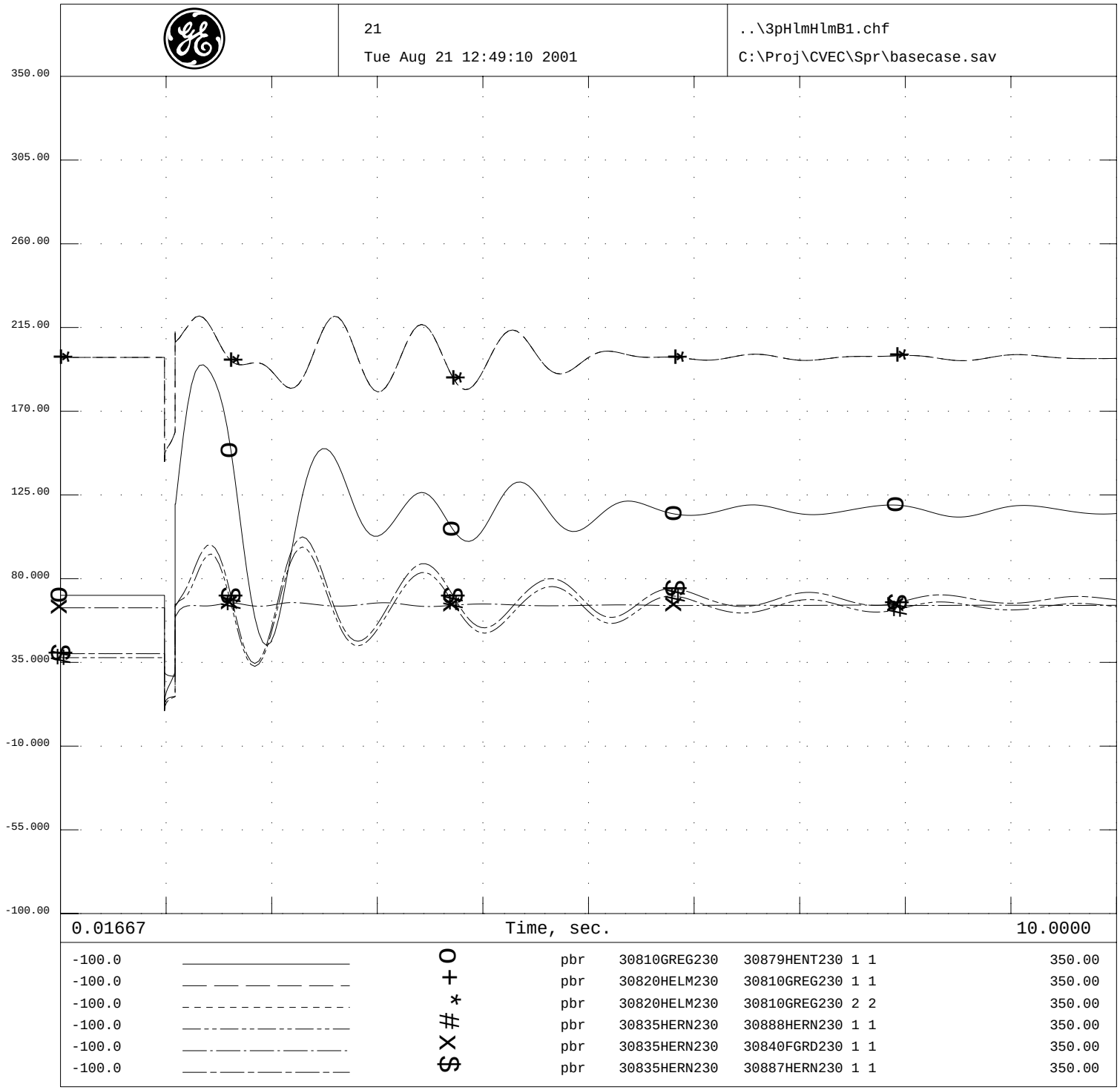

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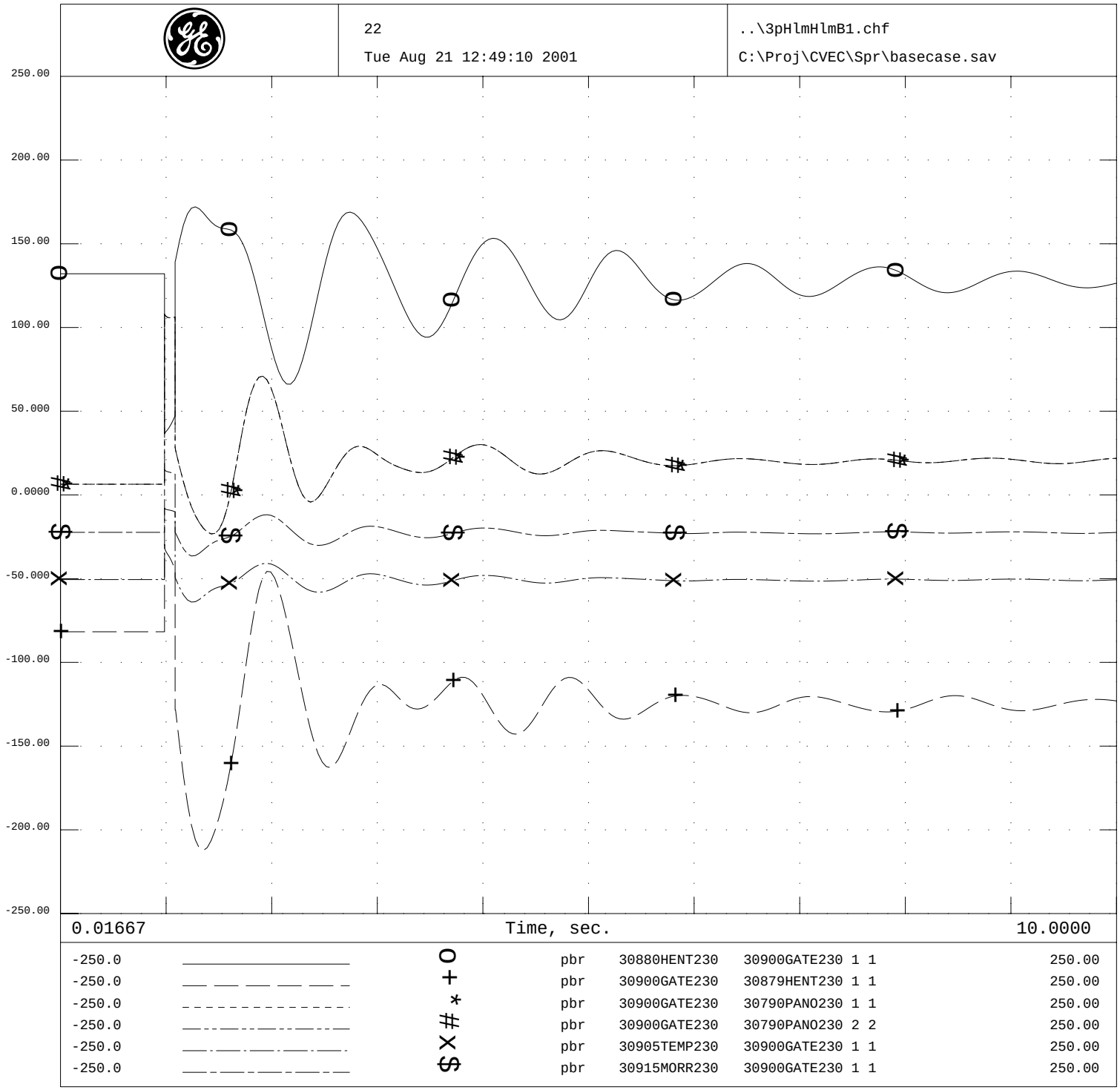

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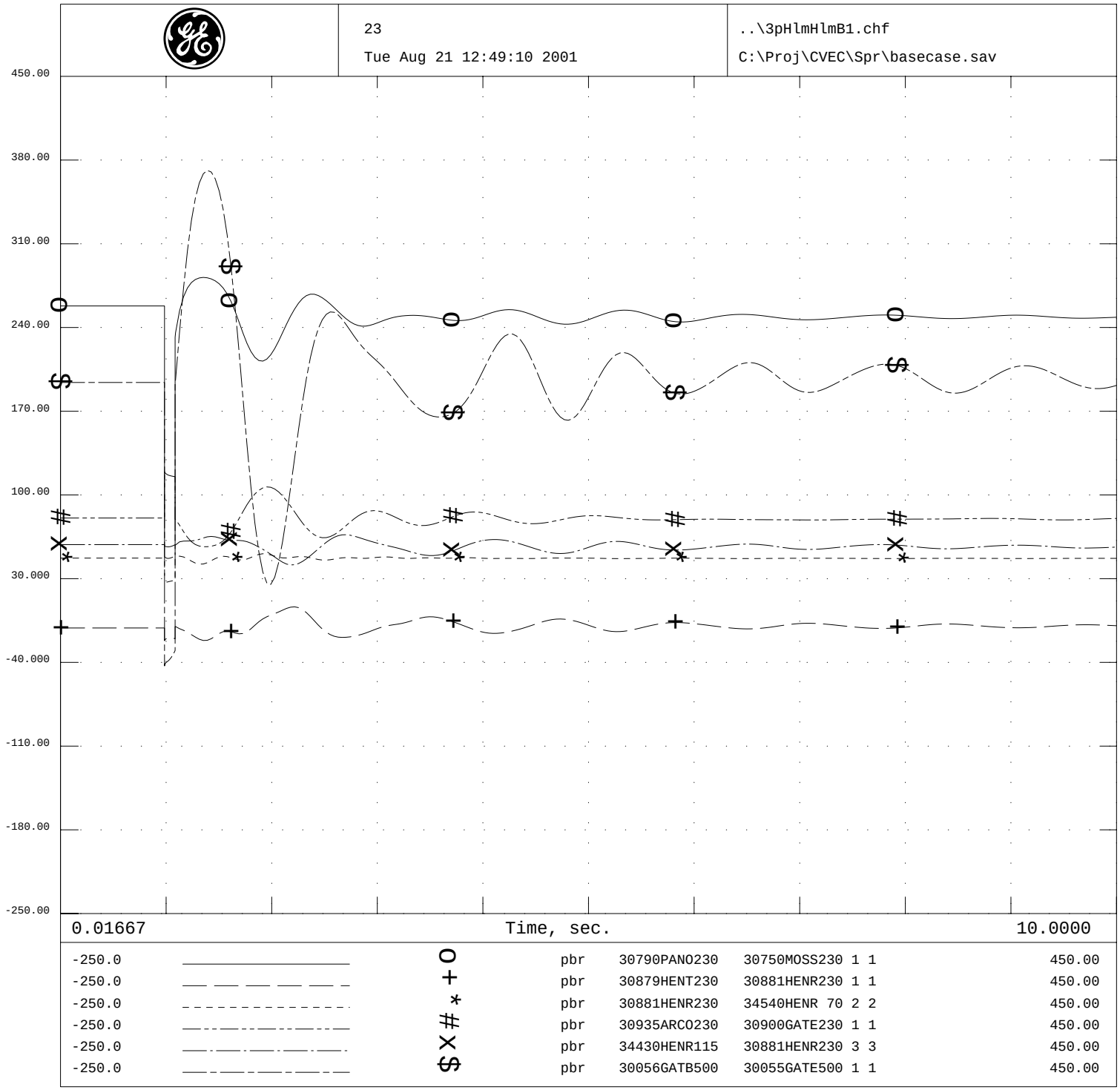

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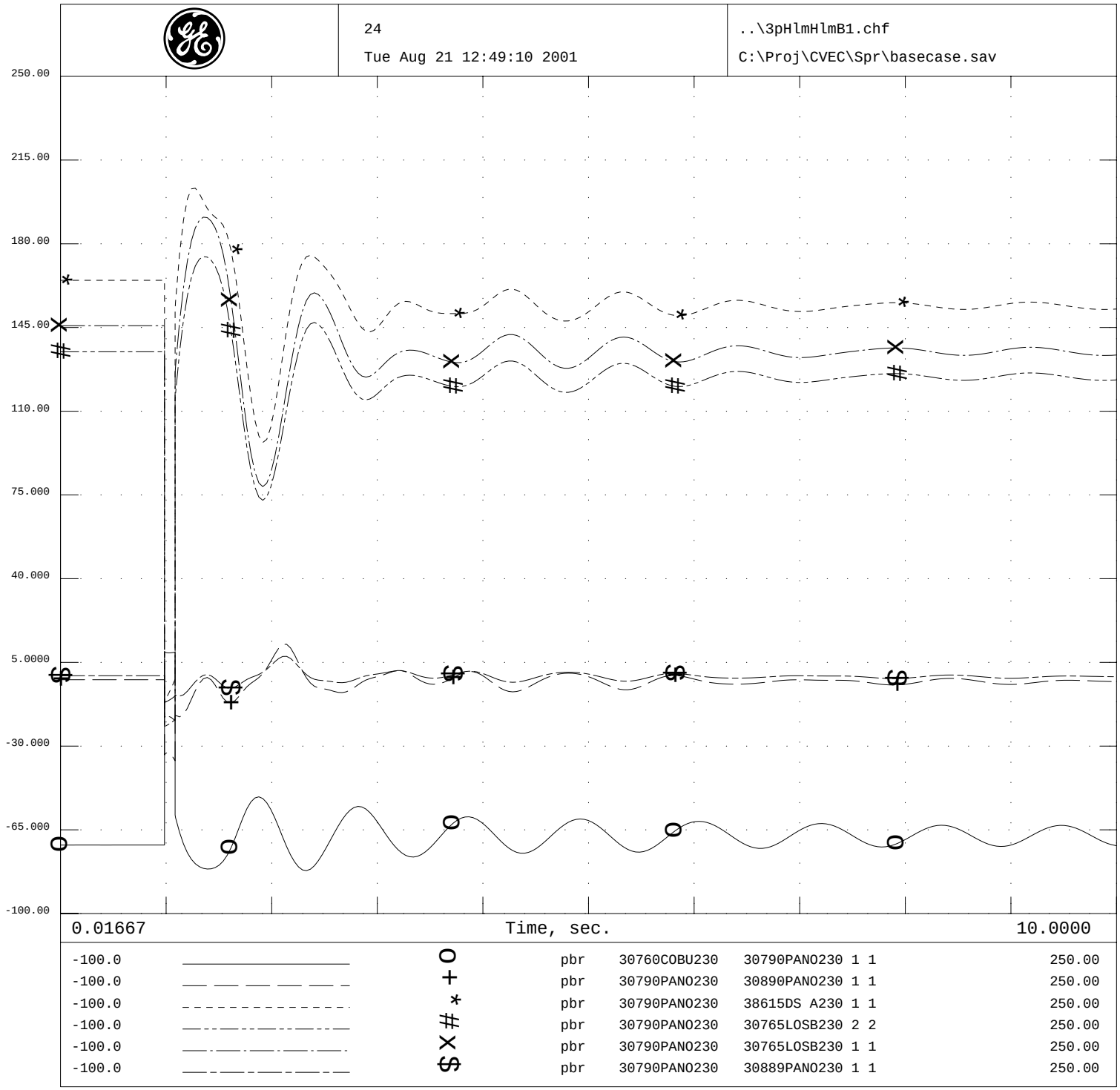

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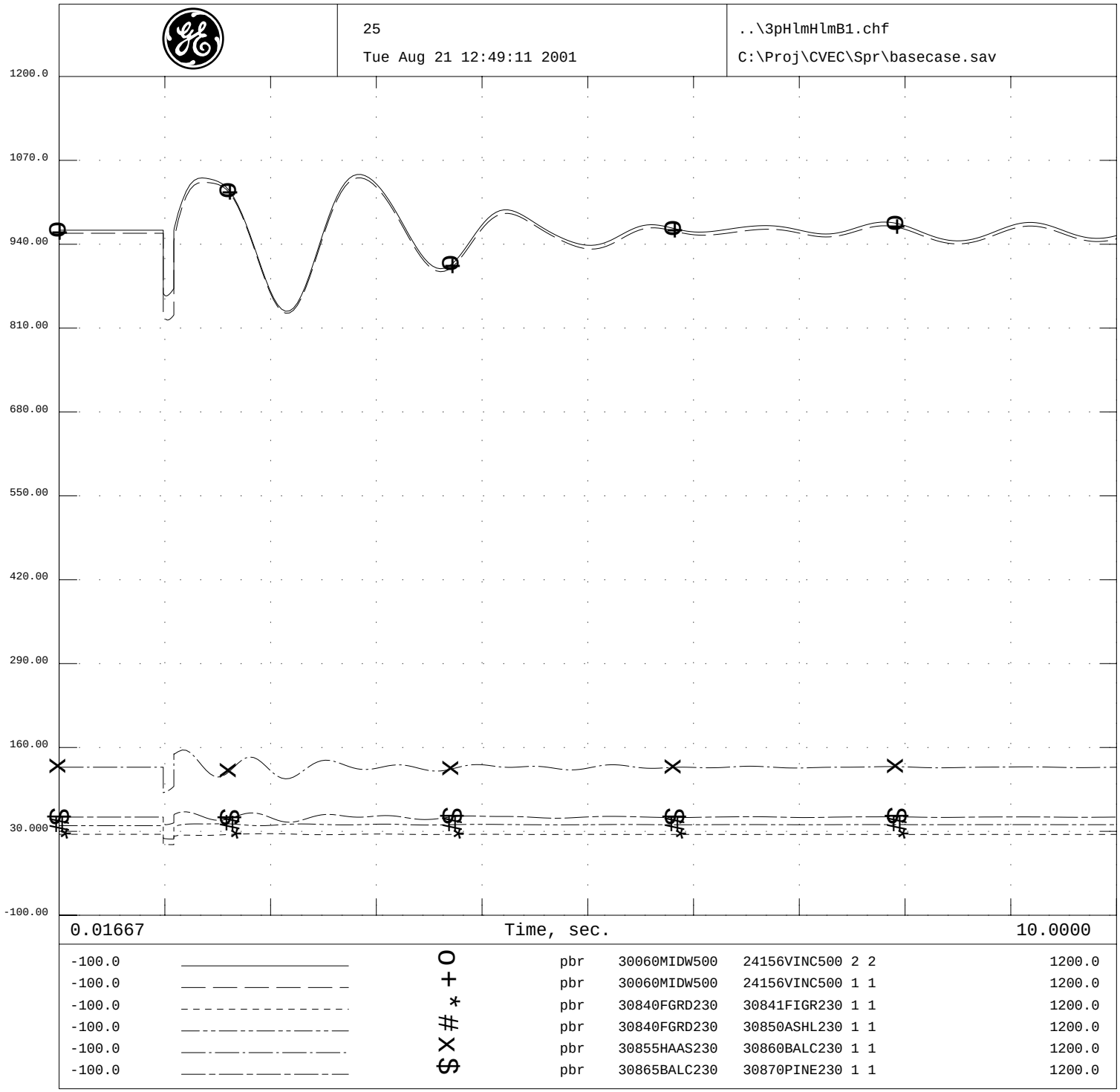

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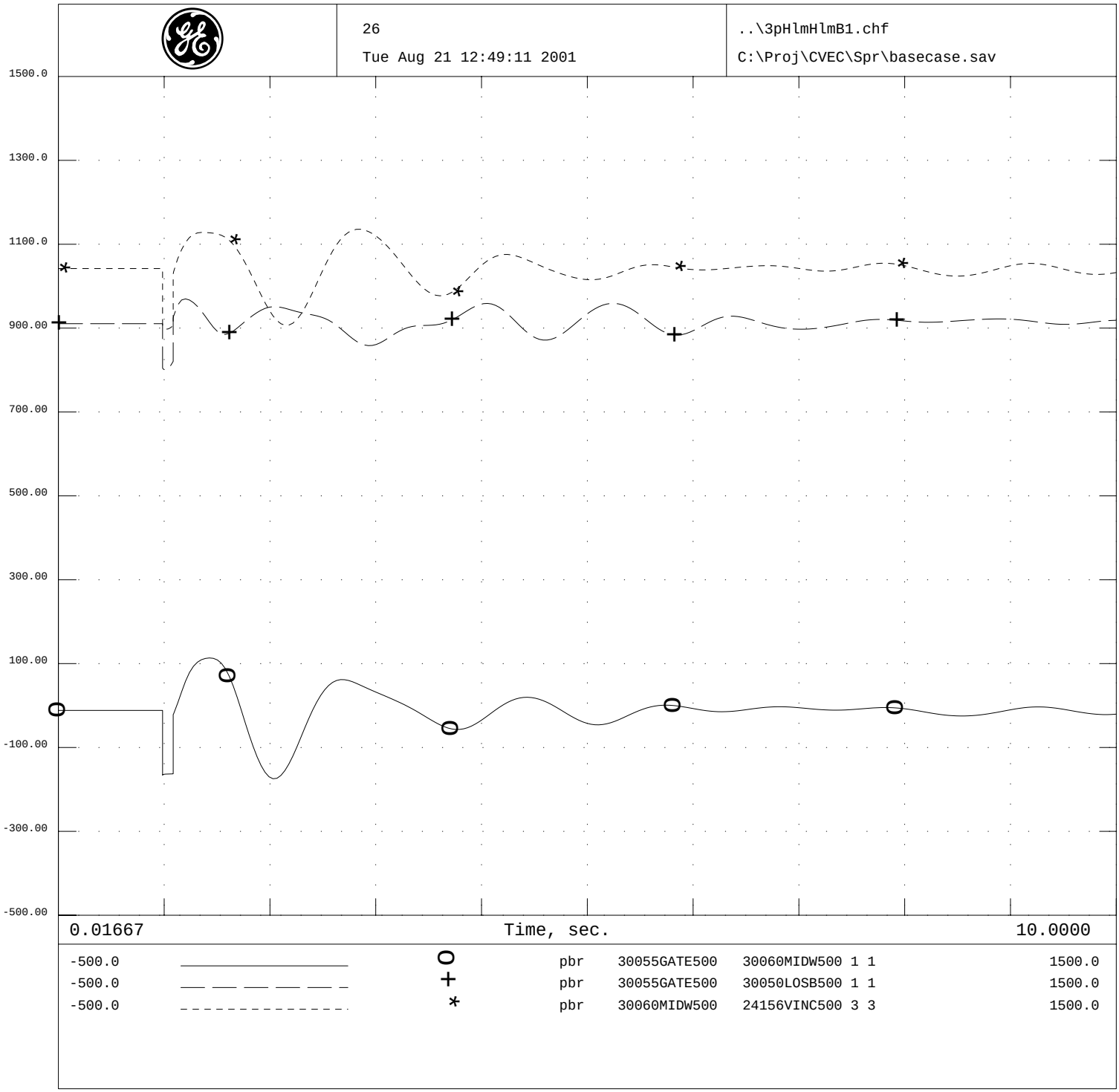

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Calpine Corporation
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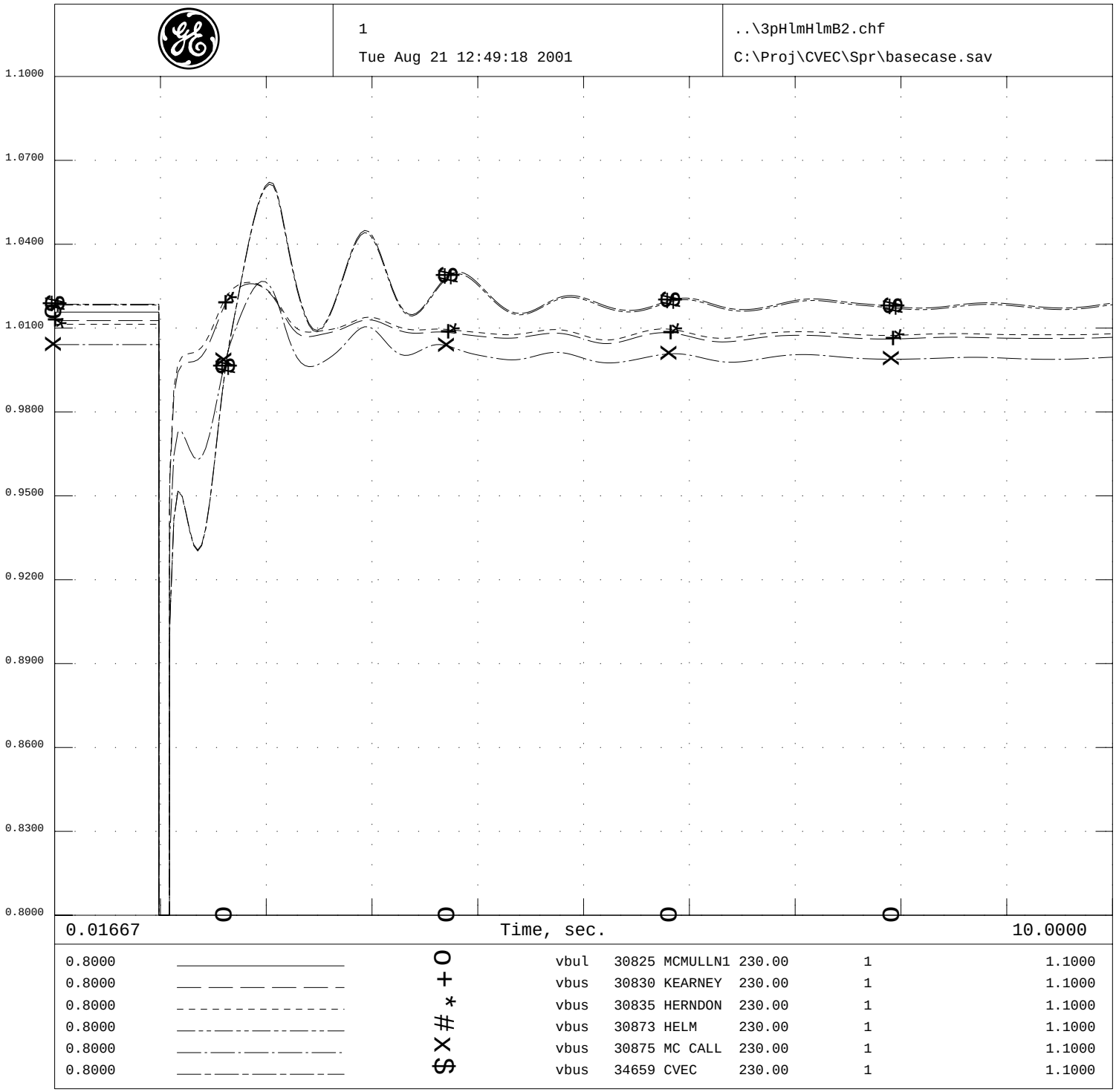
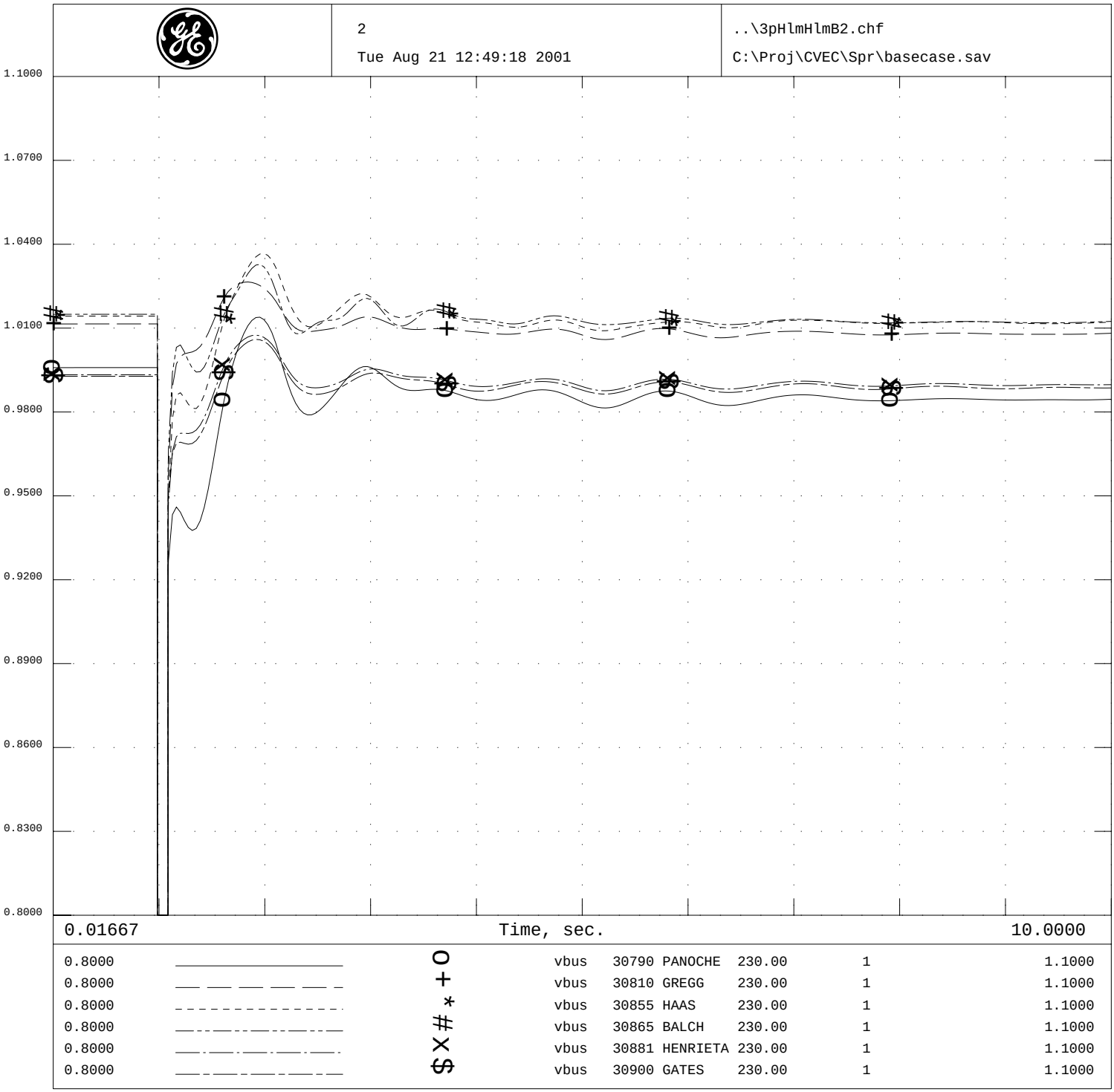


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Helm 230kV Bus #2 Outage
3 phase 6 cycle fault at Helm 230kV bus and clear bus #2

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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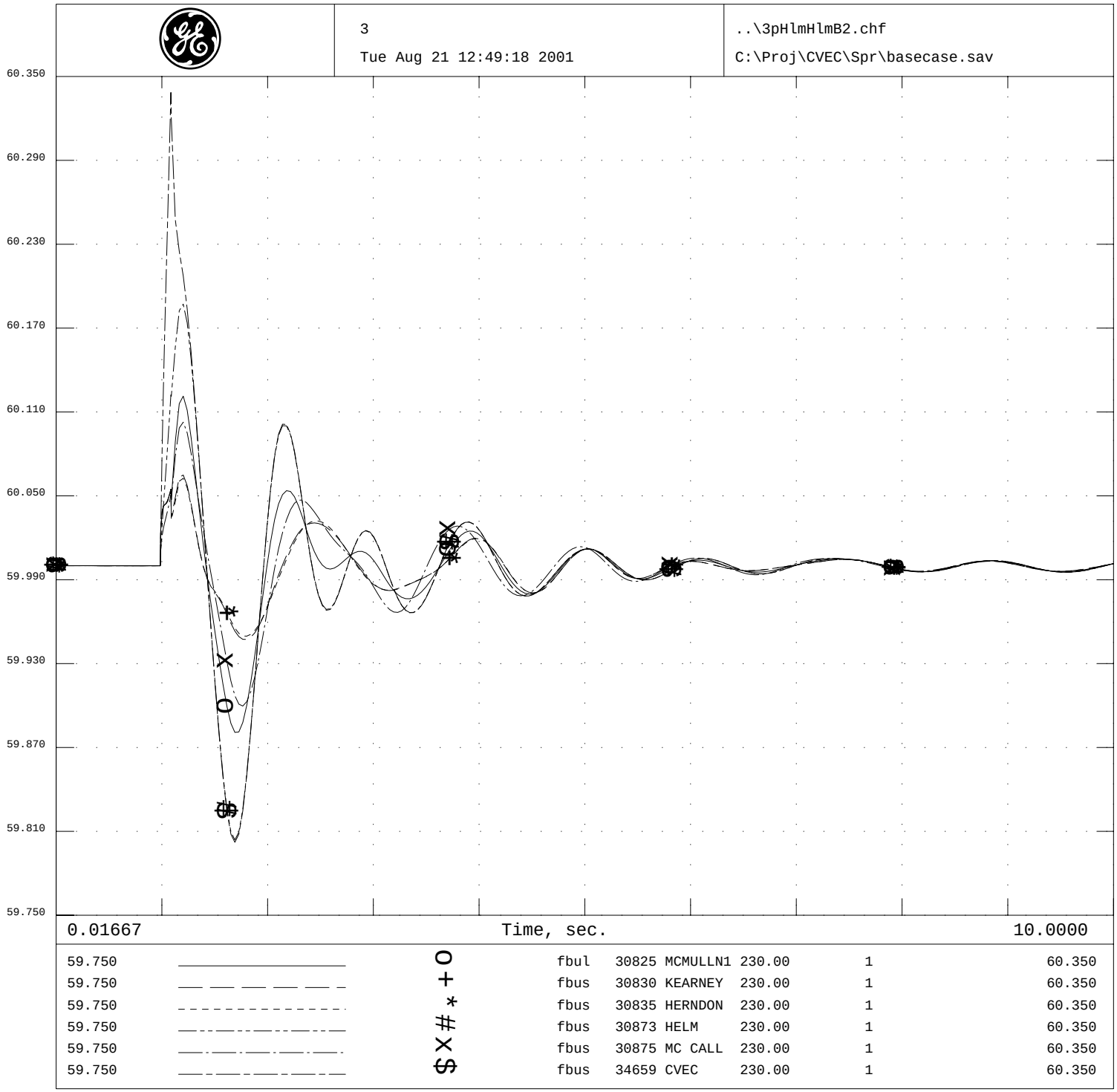

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Helm 230kV Bus #2 Outage
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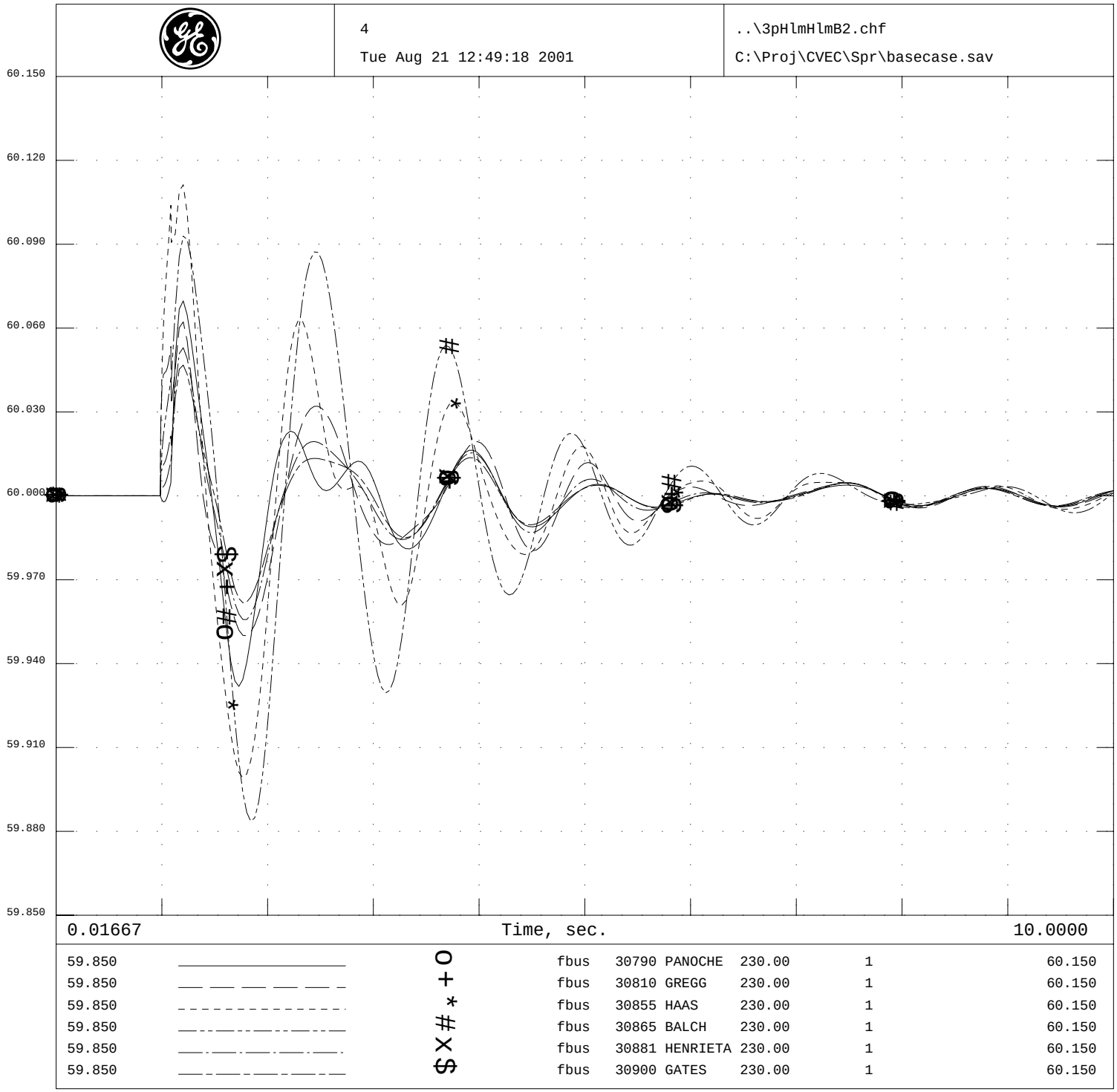
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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Calpine Corporation
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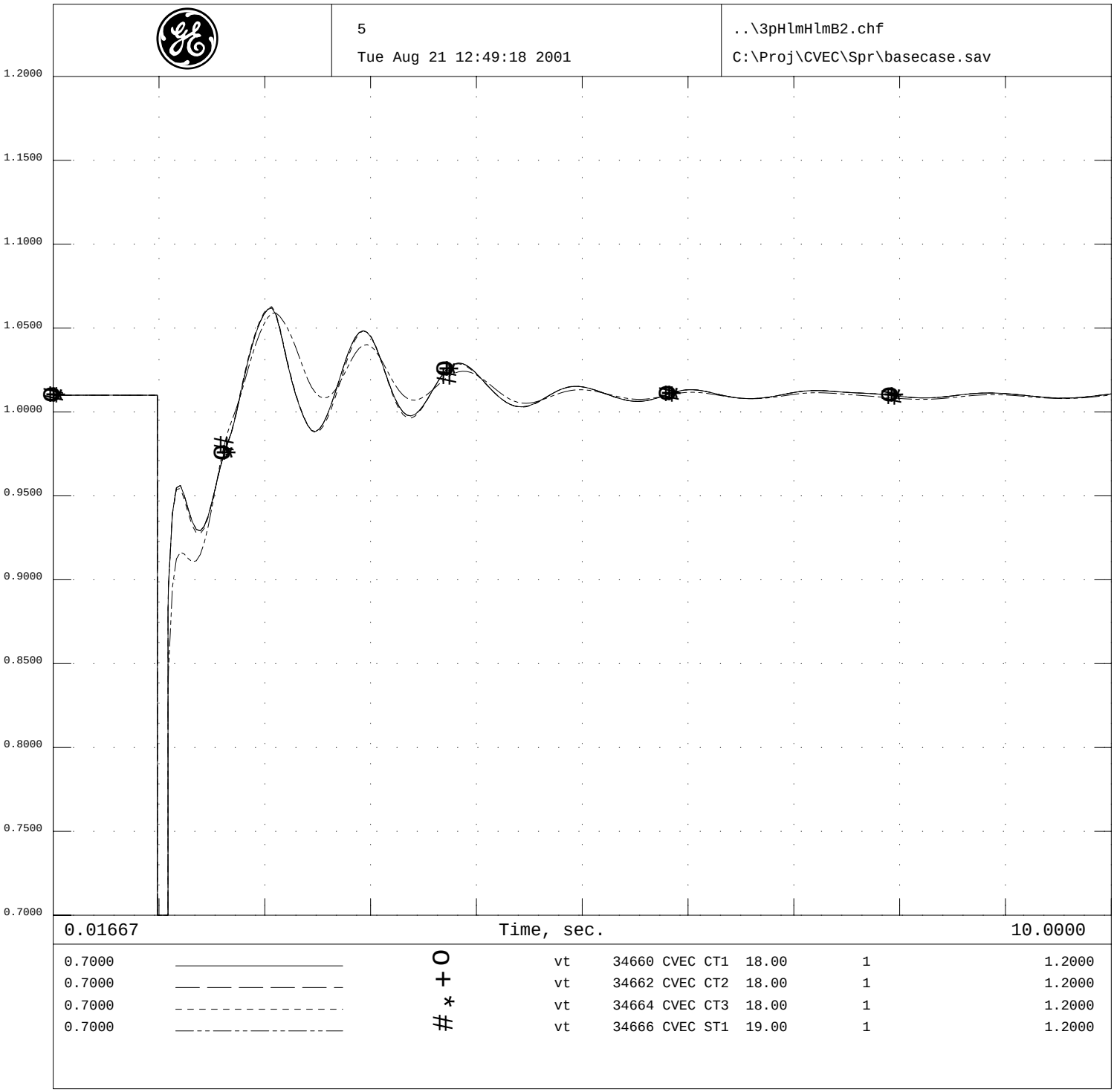

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2004 Heavy Spring Base Case
CVEC @ 1100MW
Helm 230kV Bus #2 Outage
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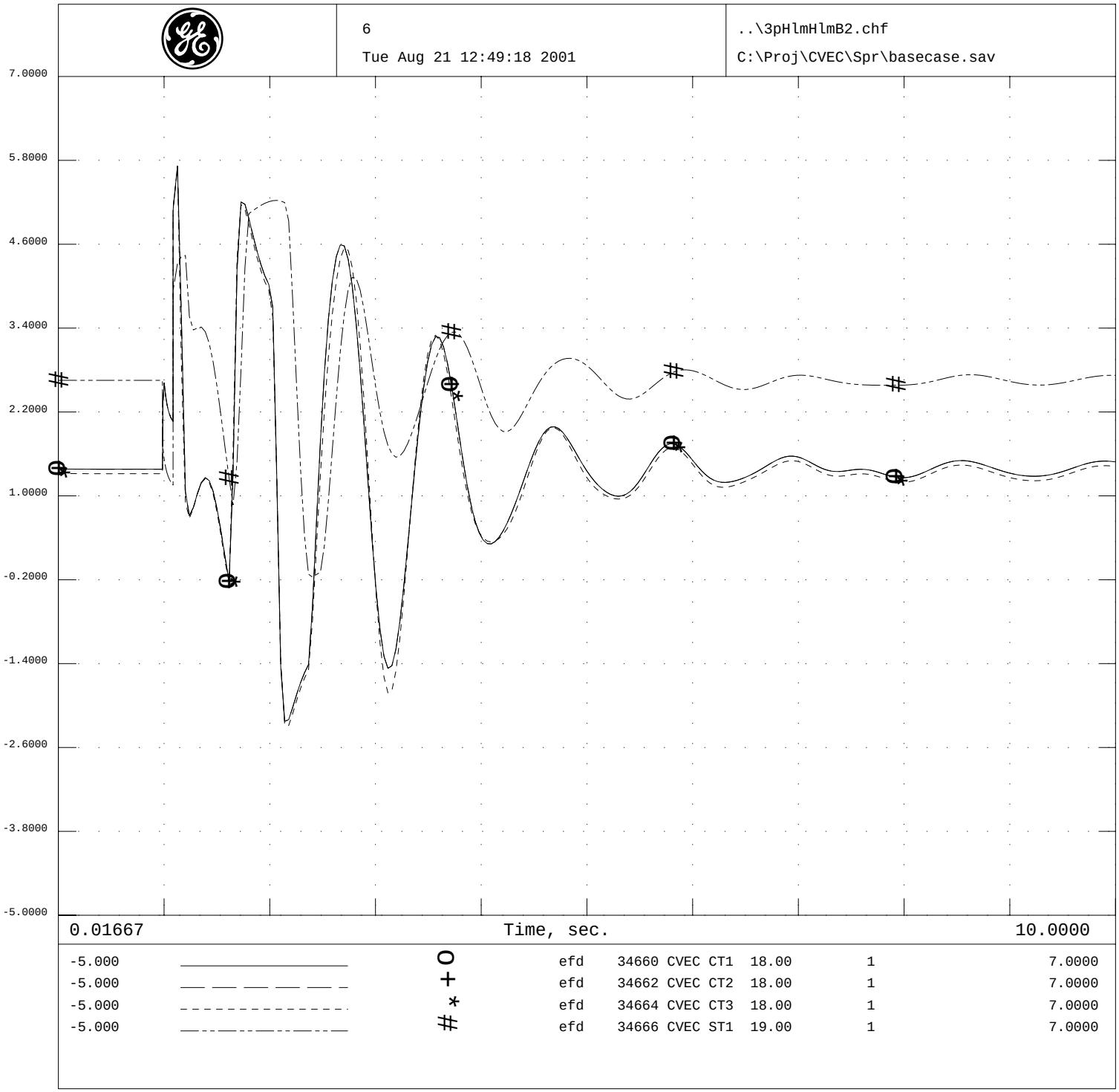
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Heavy Spring Base Case
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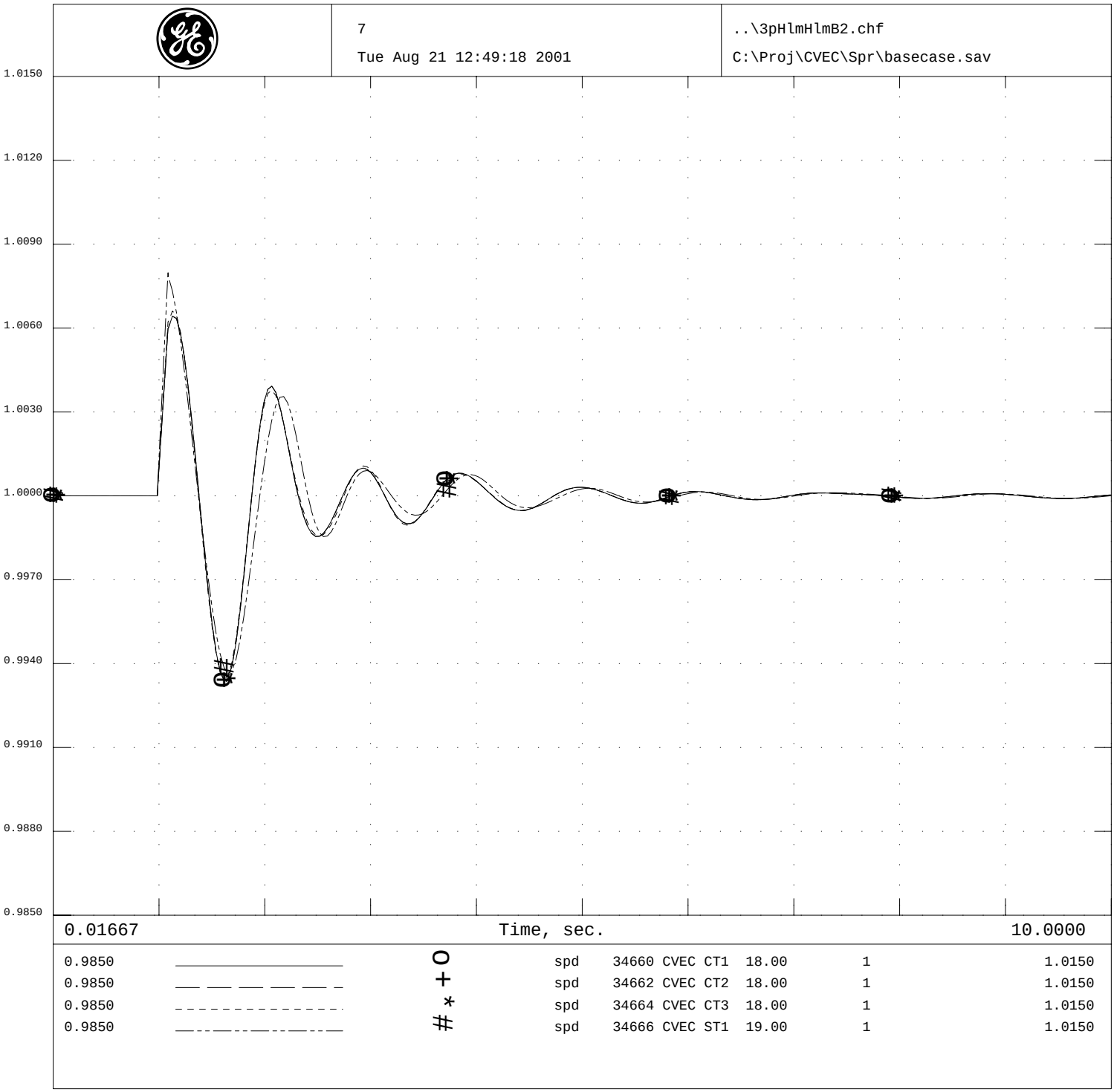
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
CVEC @ 1100MW
Helm 230kV Bus #2 Outage
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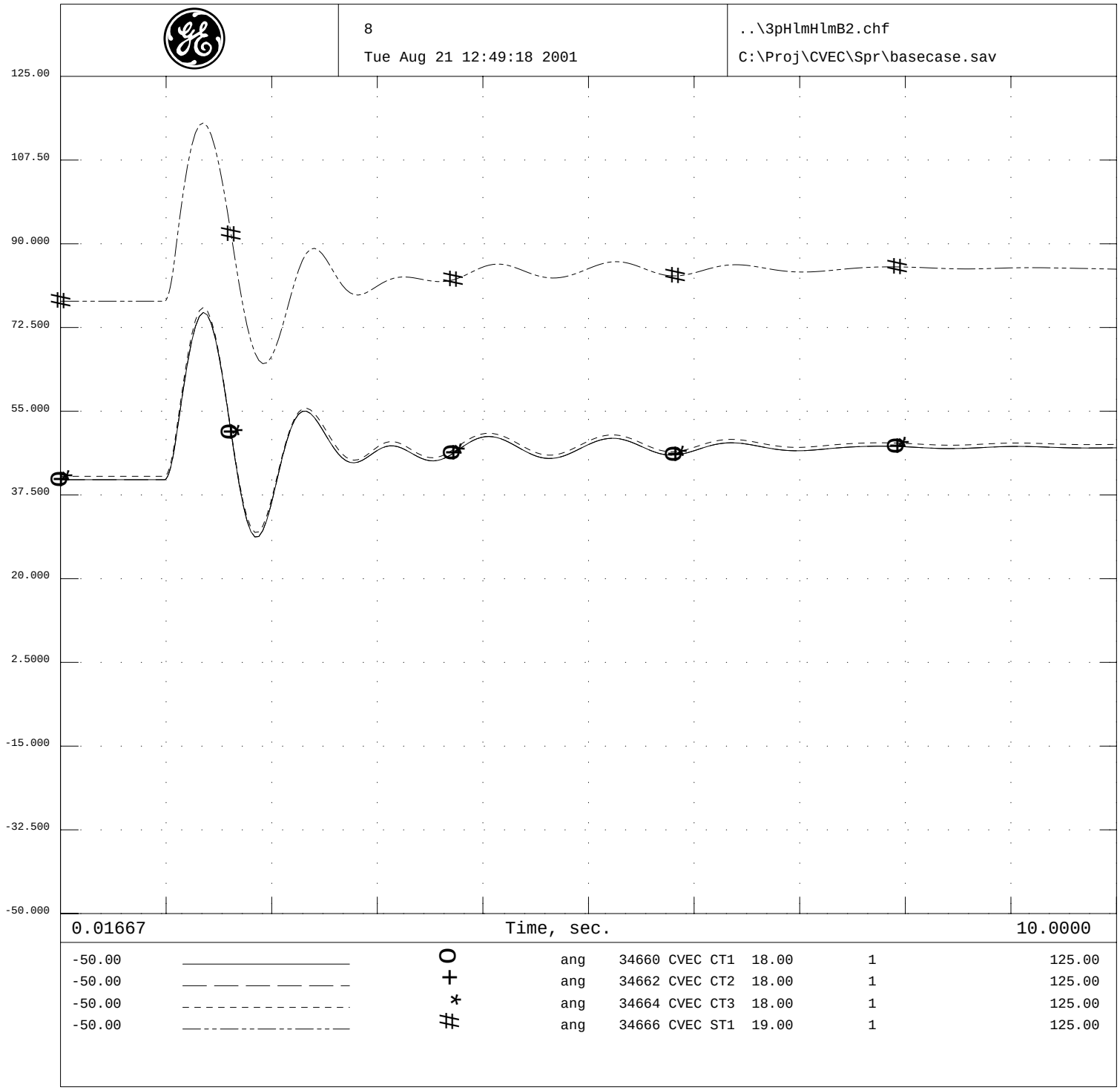
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Heavy Spring Base Case
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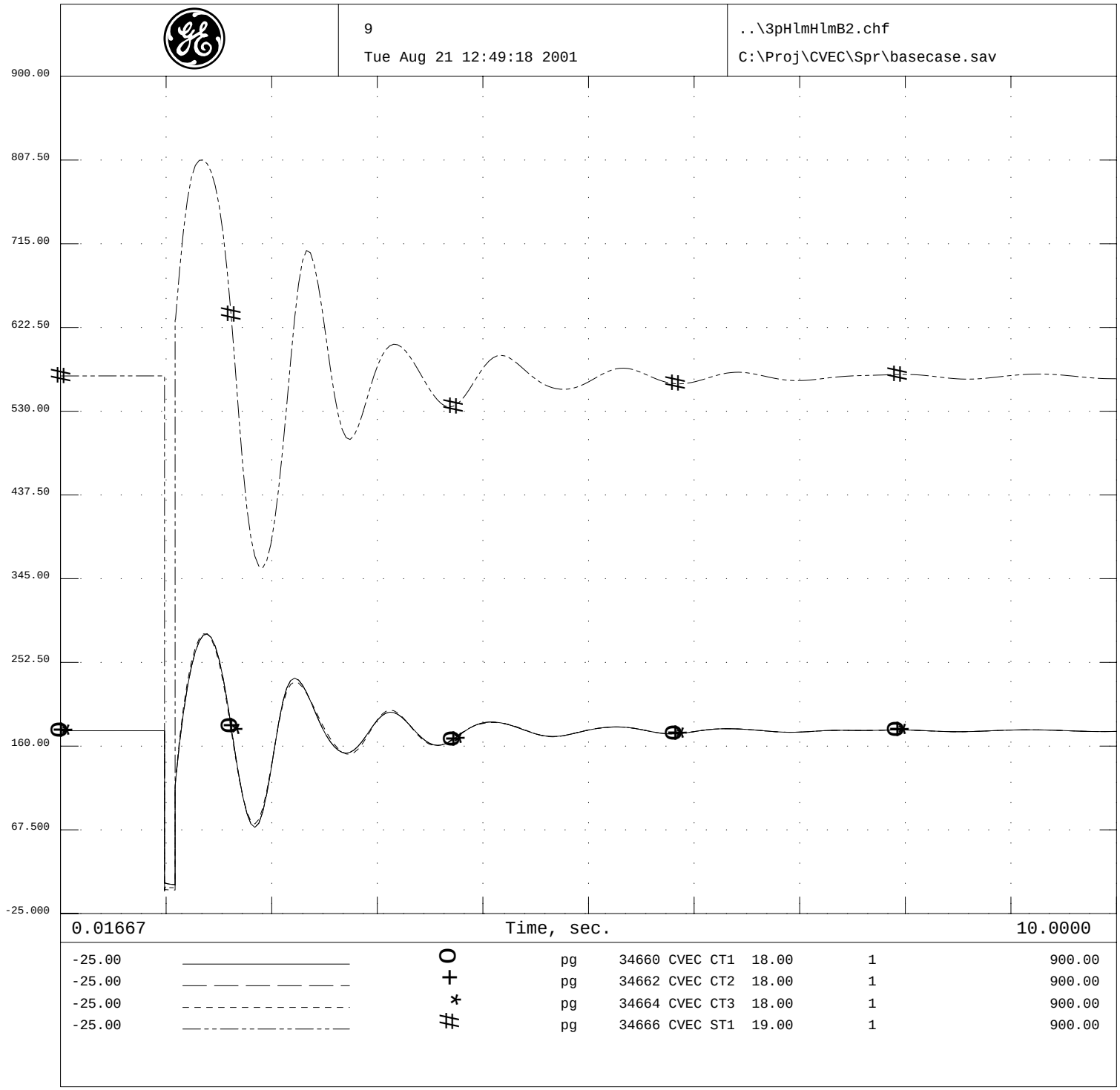
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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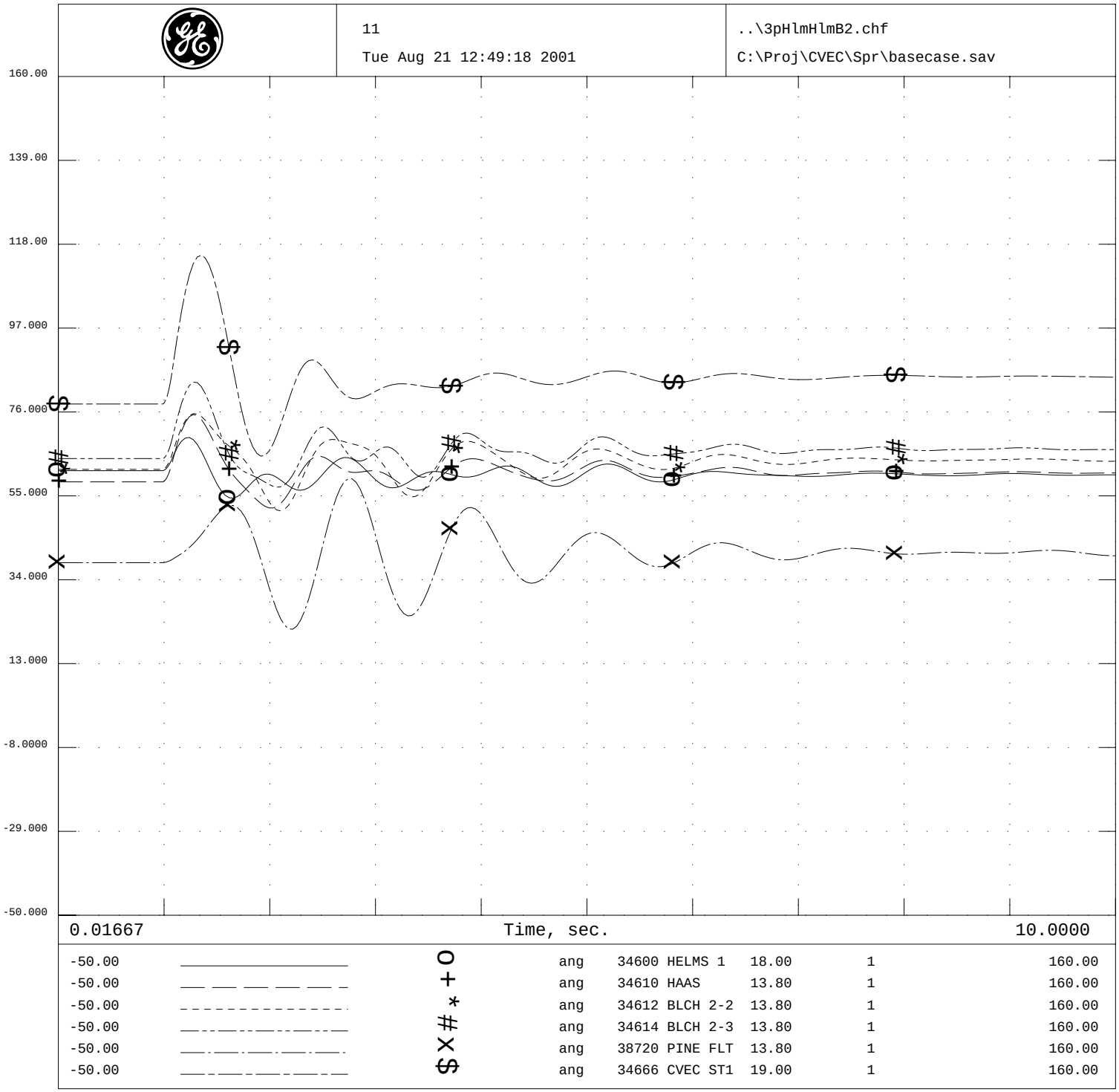
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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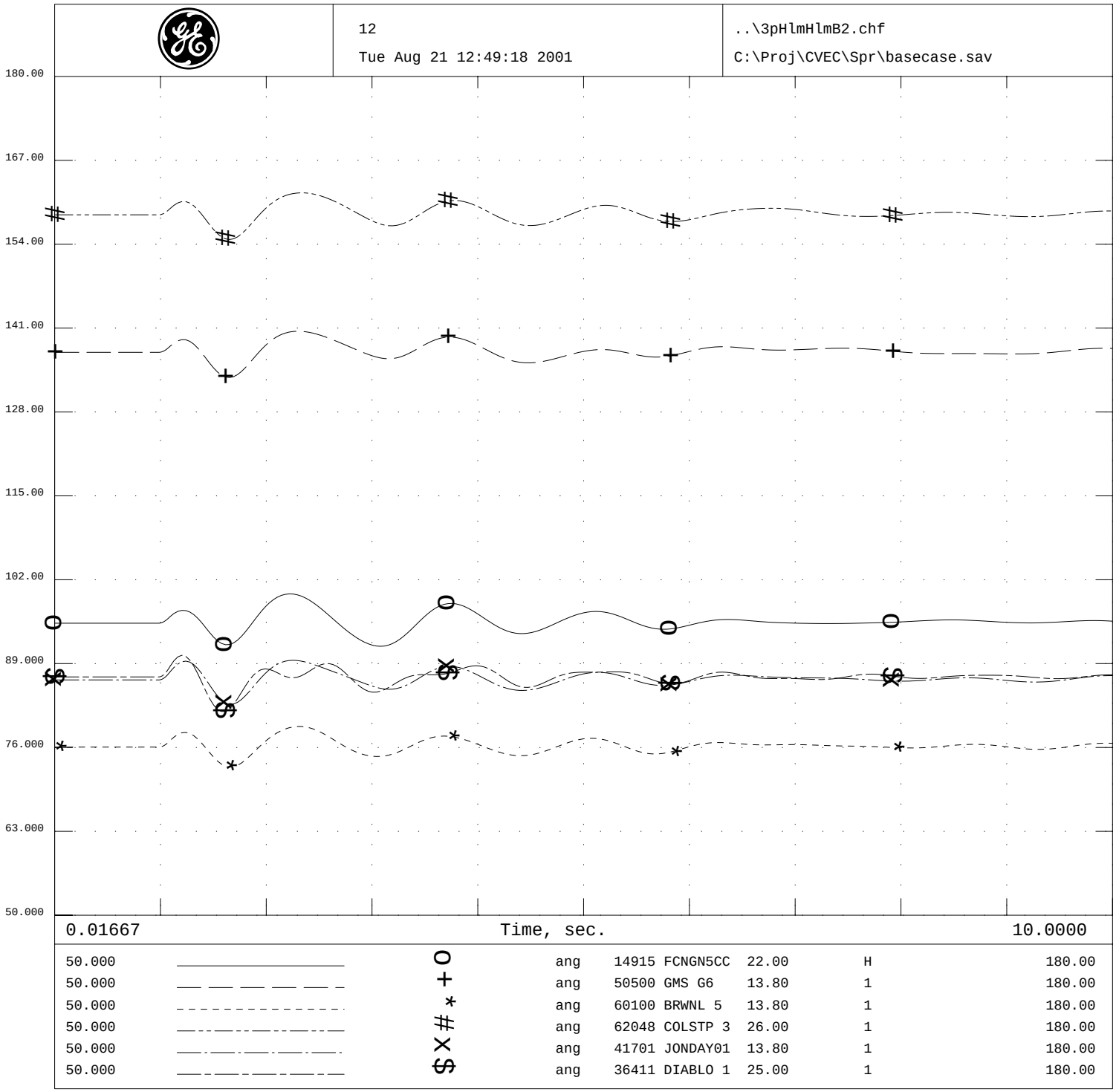
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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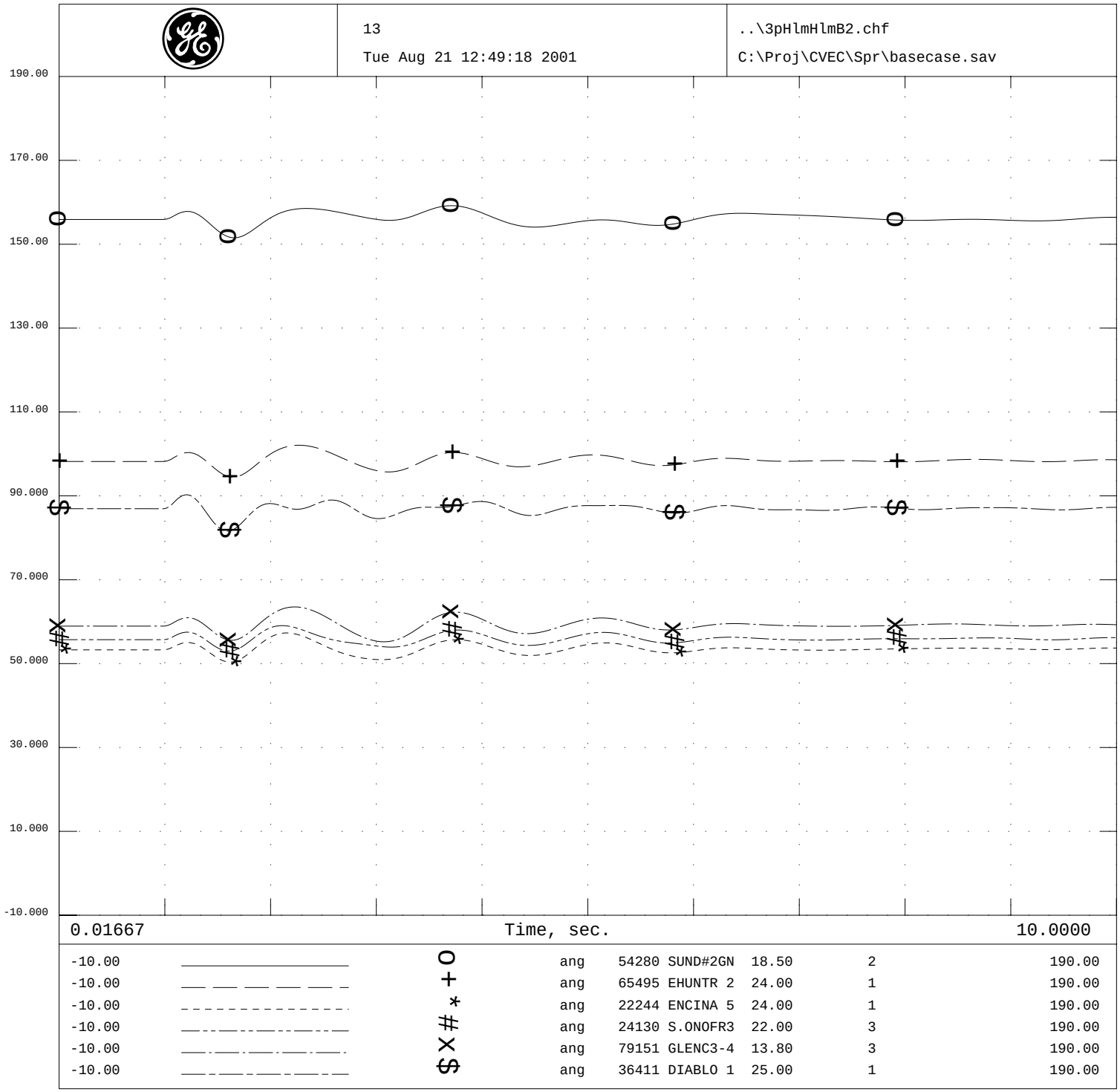
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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Calpine Corporation
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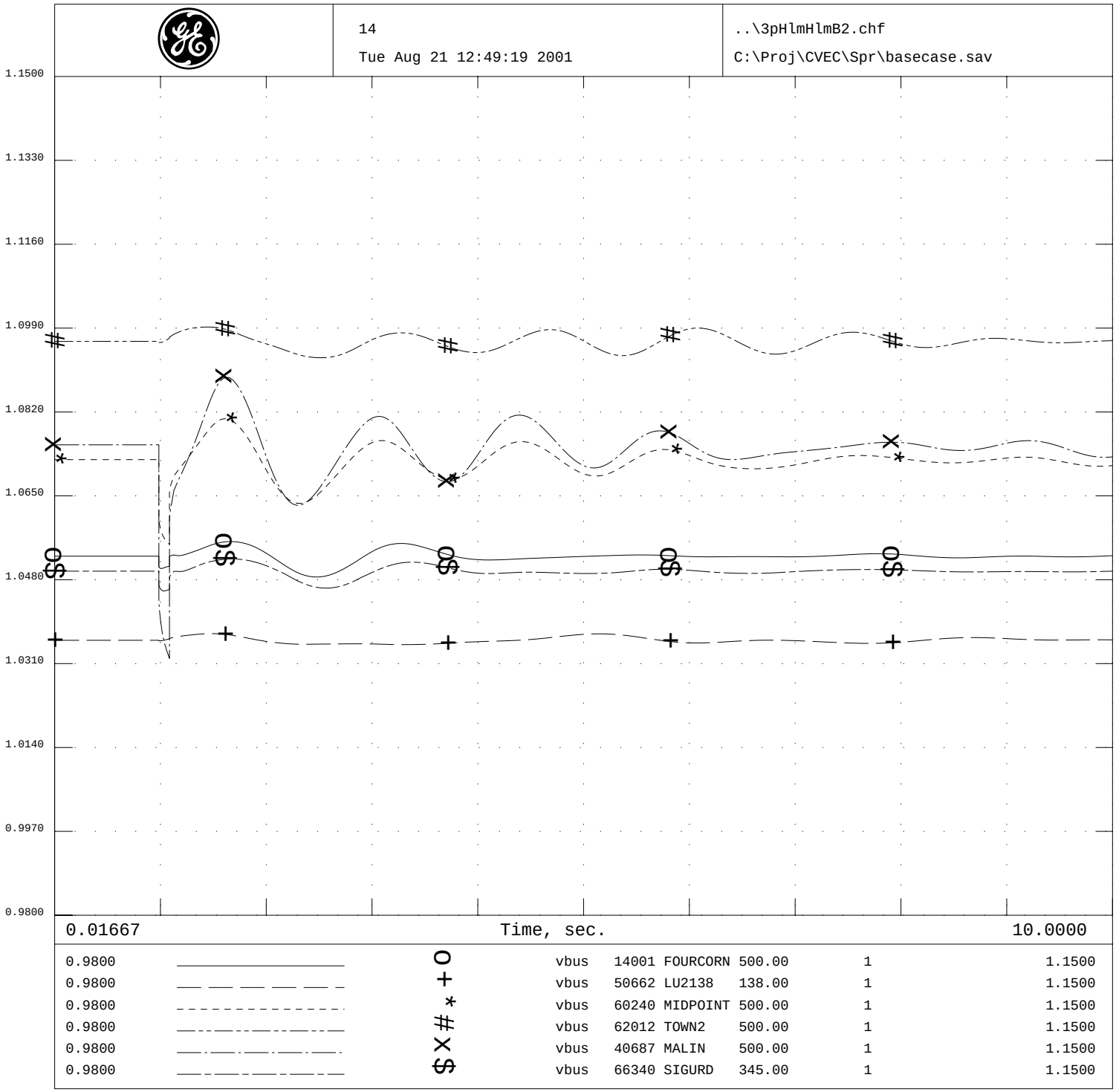

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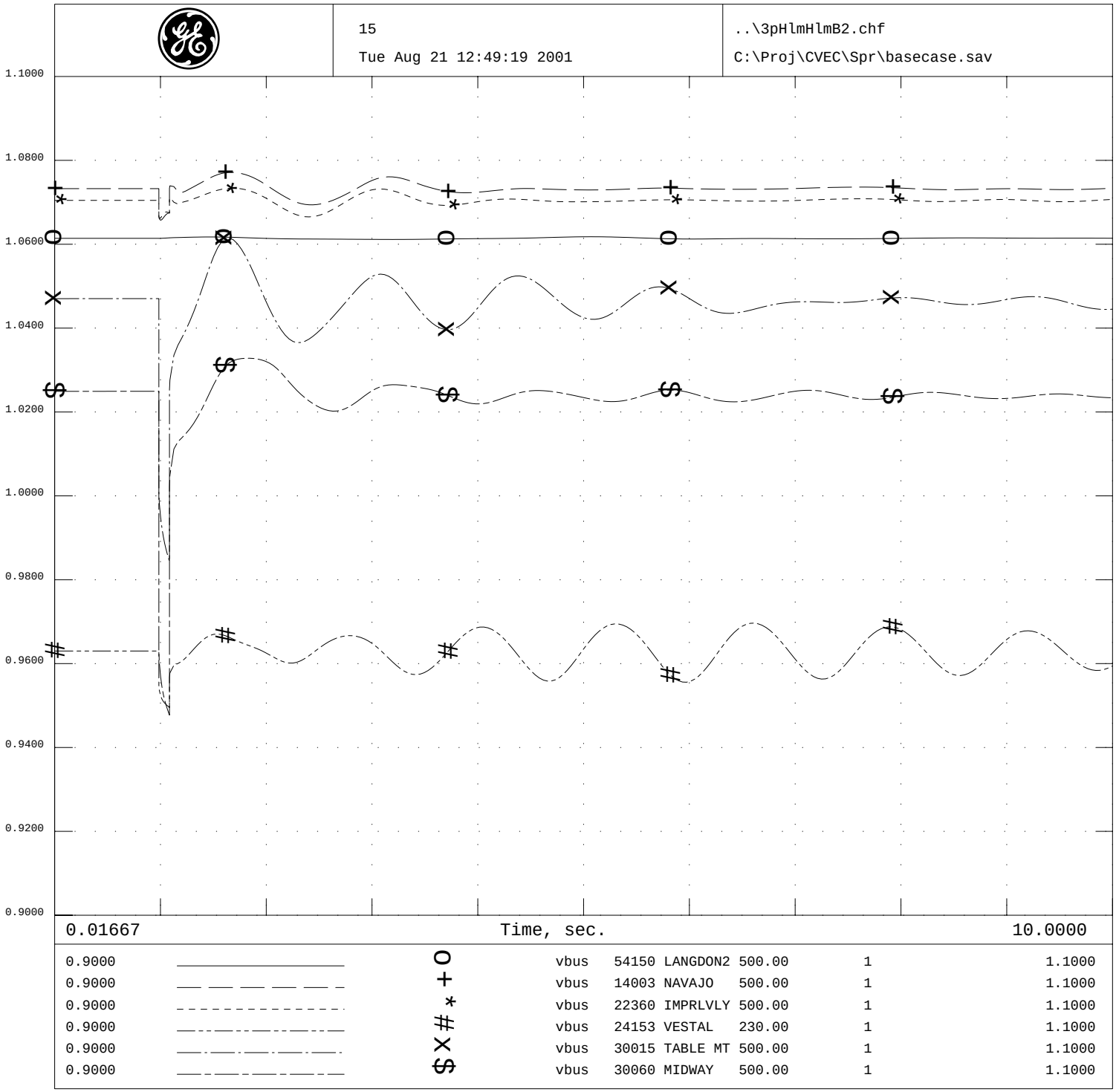
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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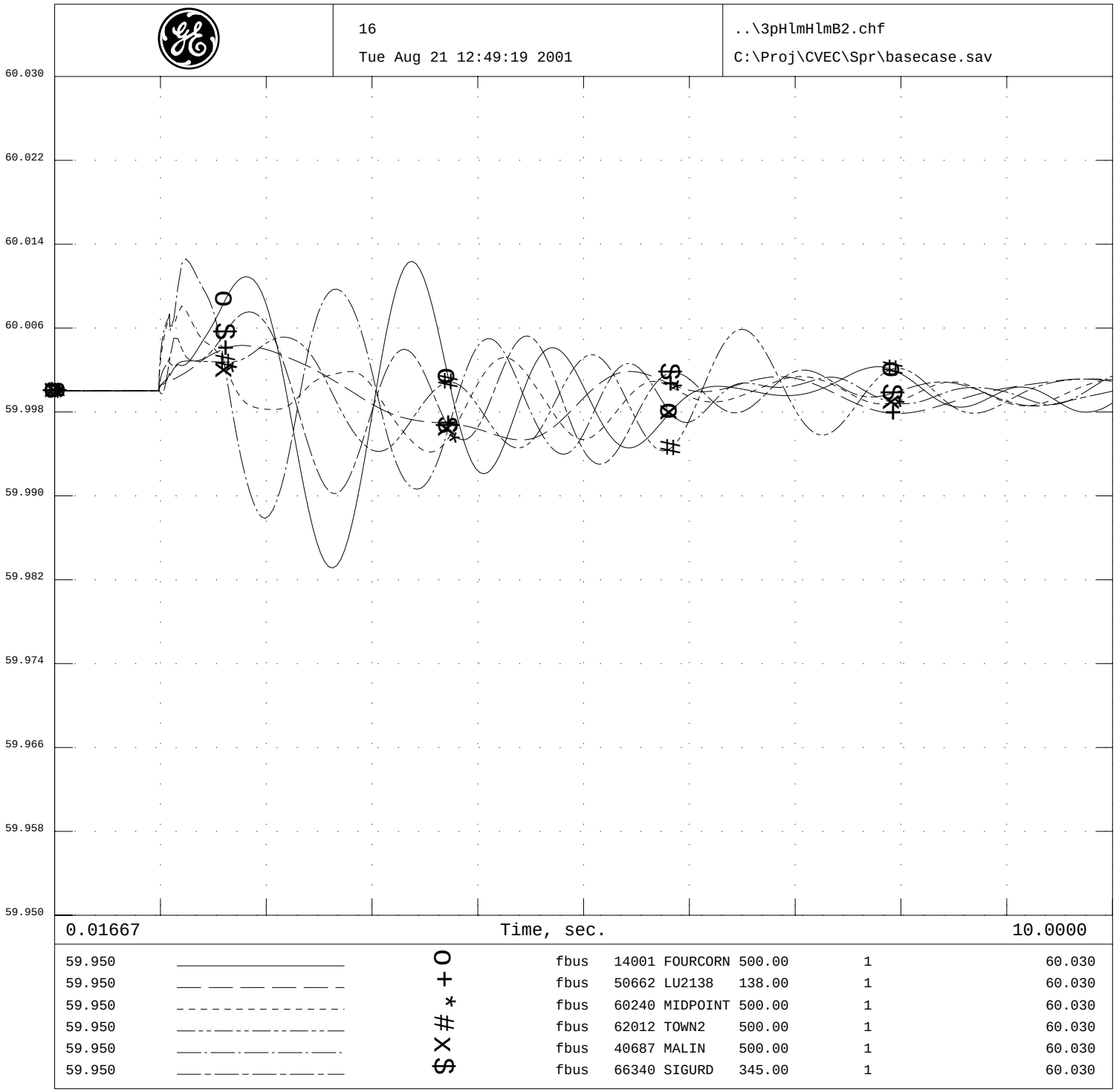

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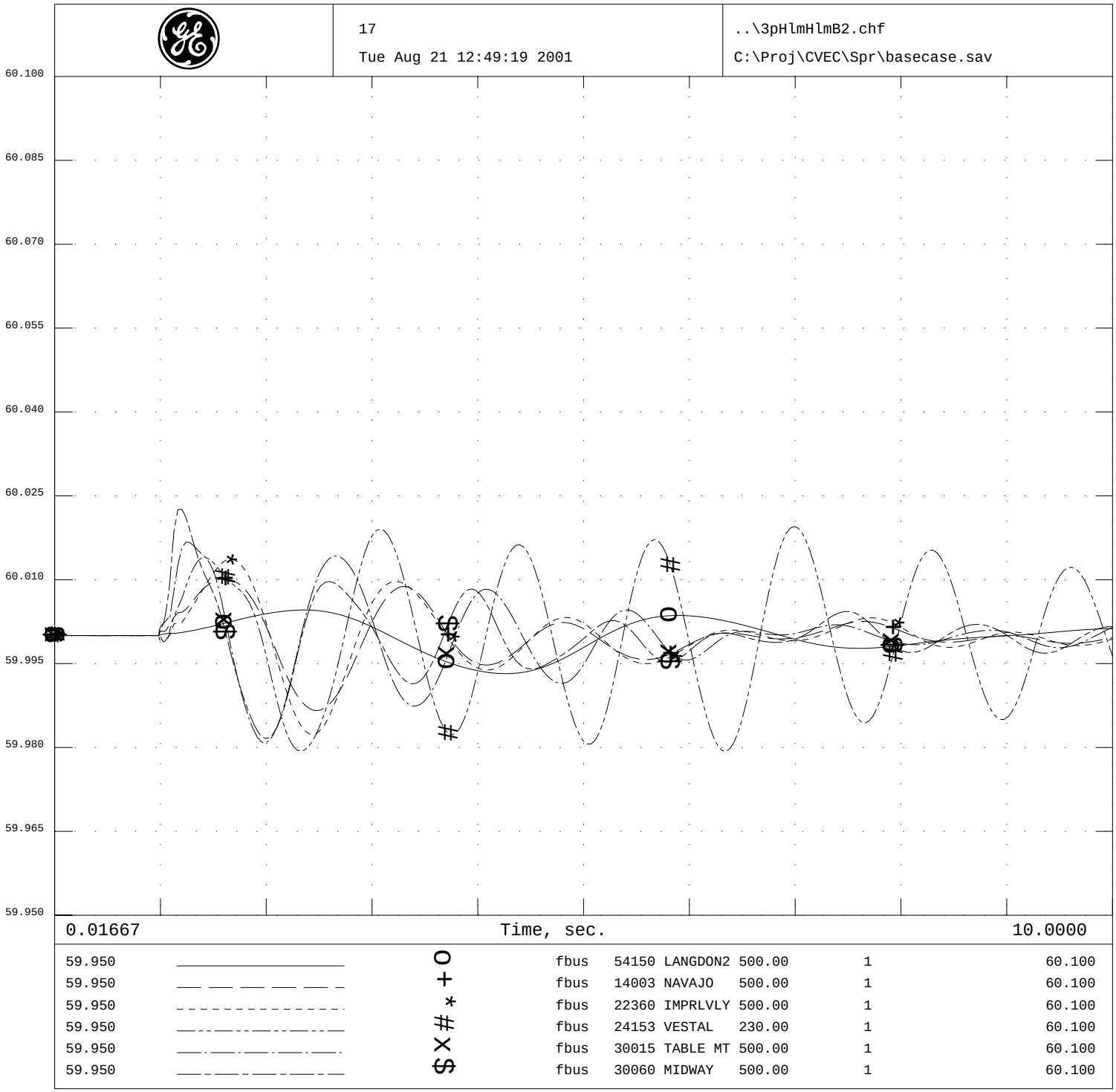

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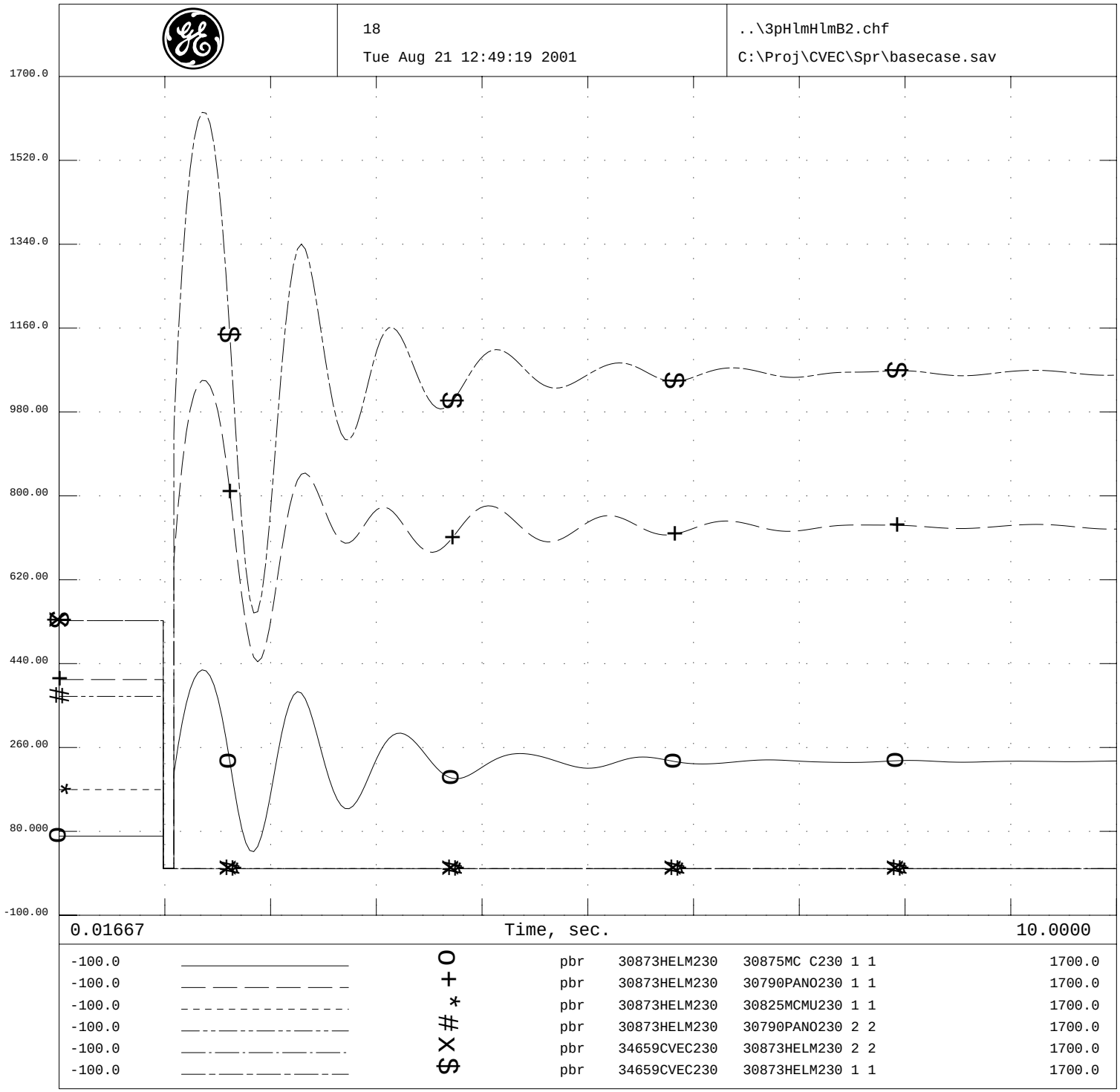

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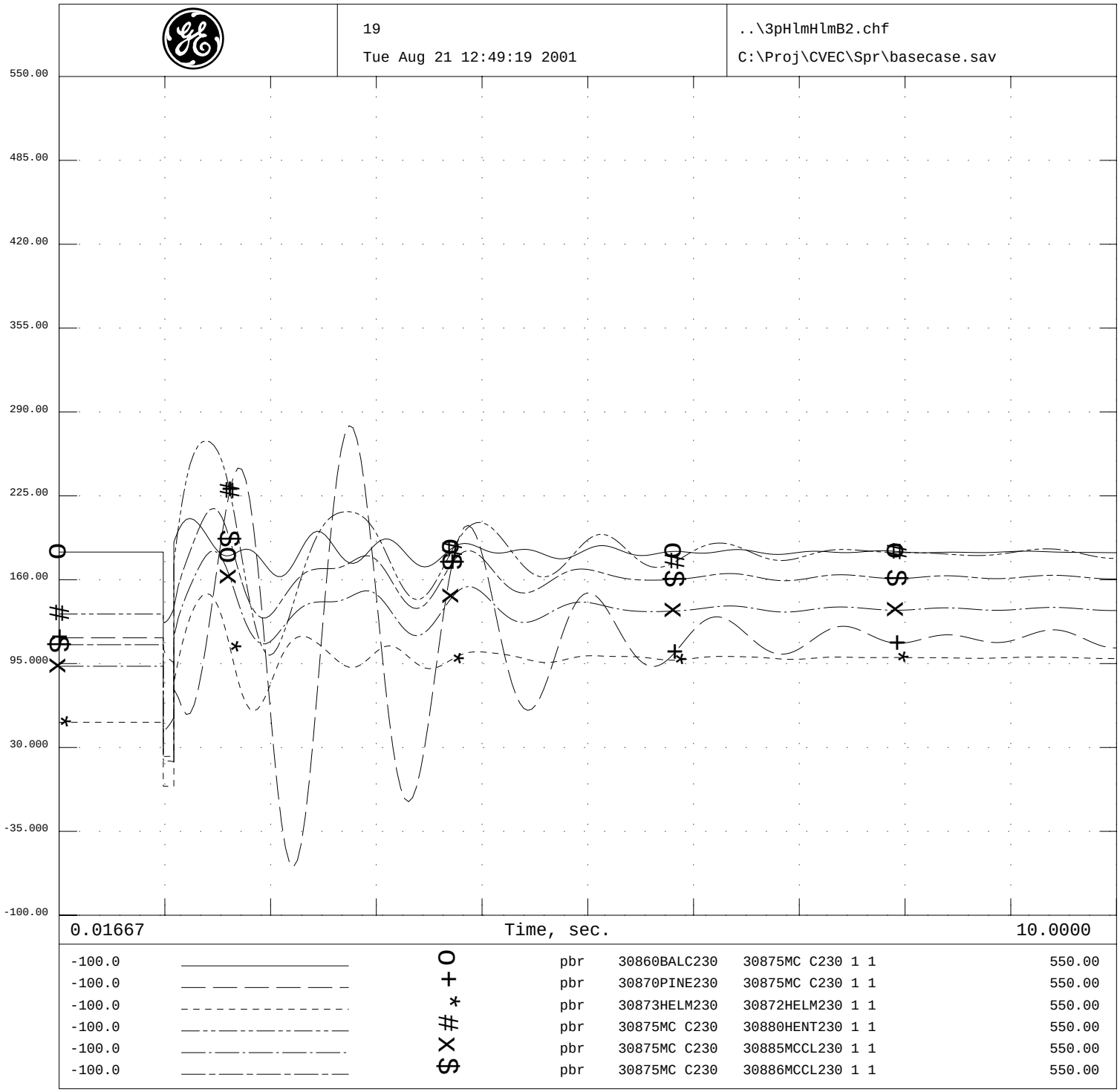

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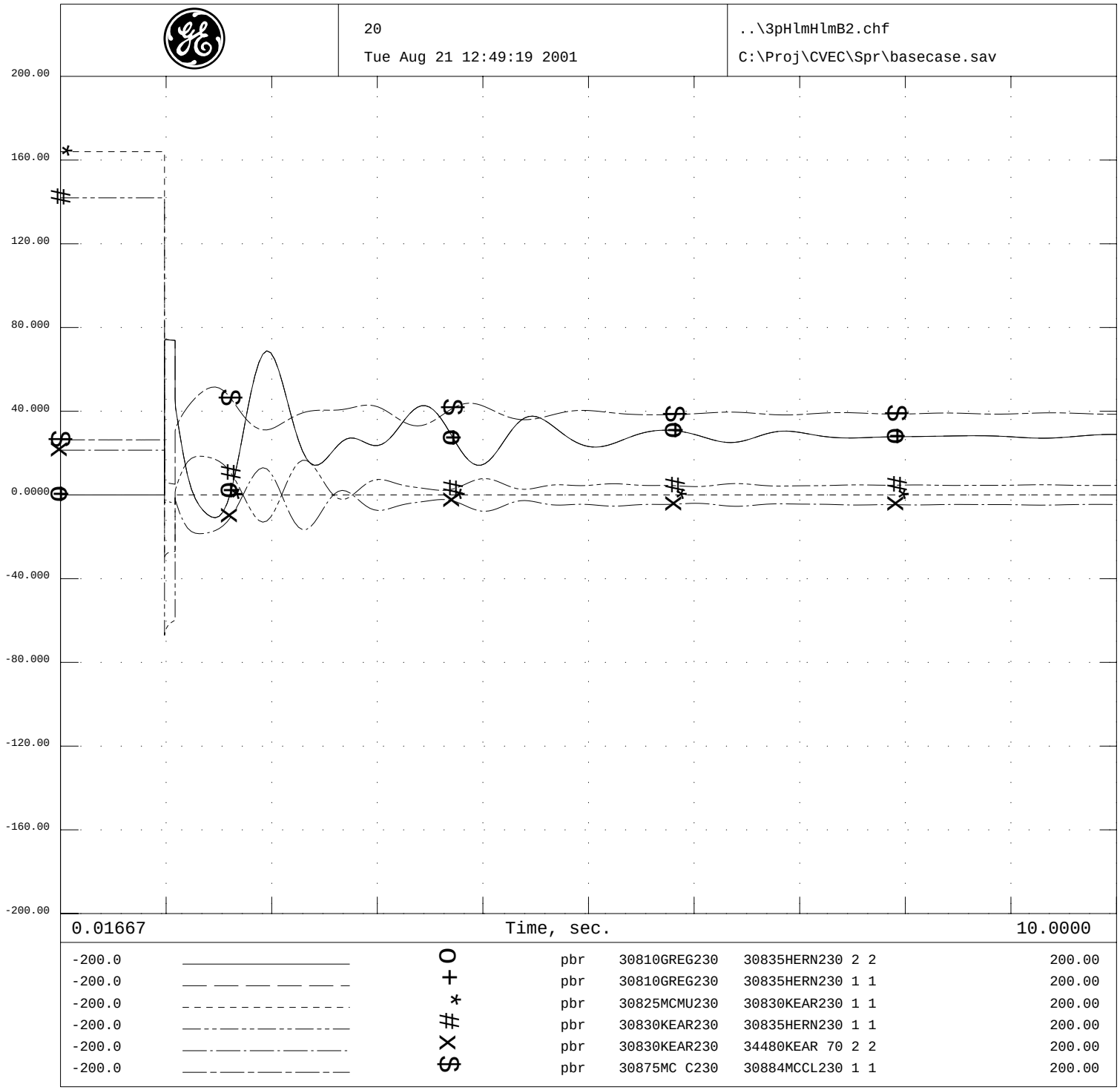

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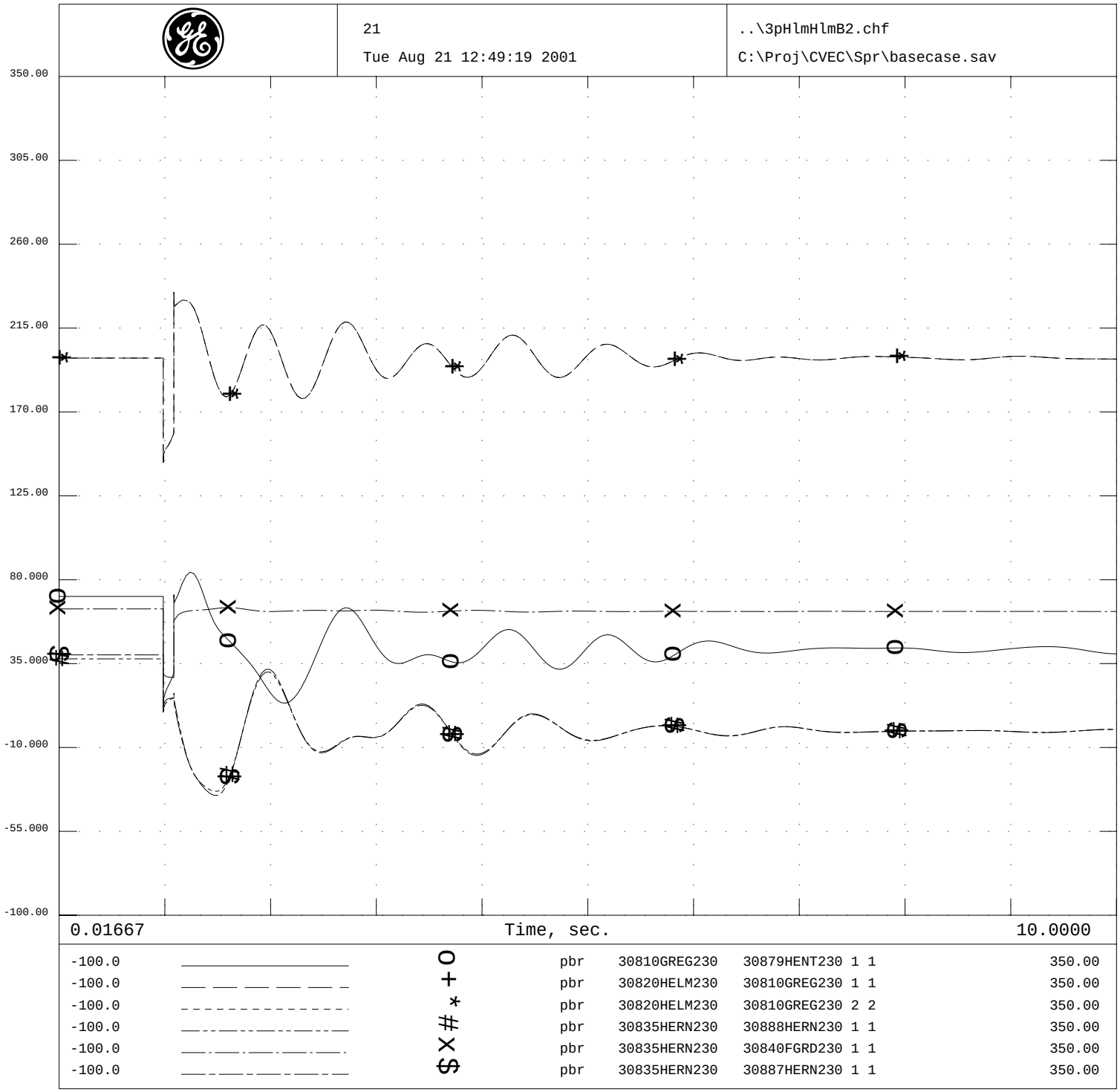

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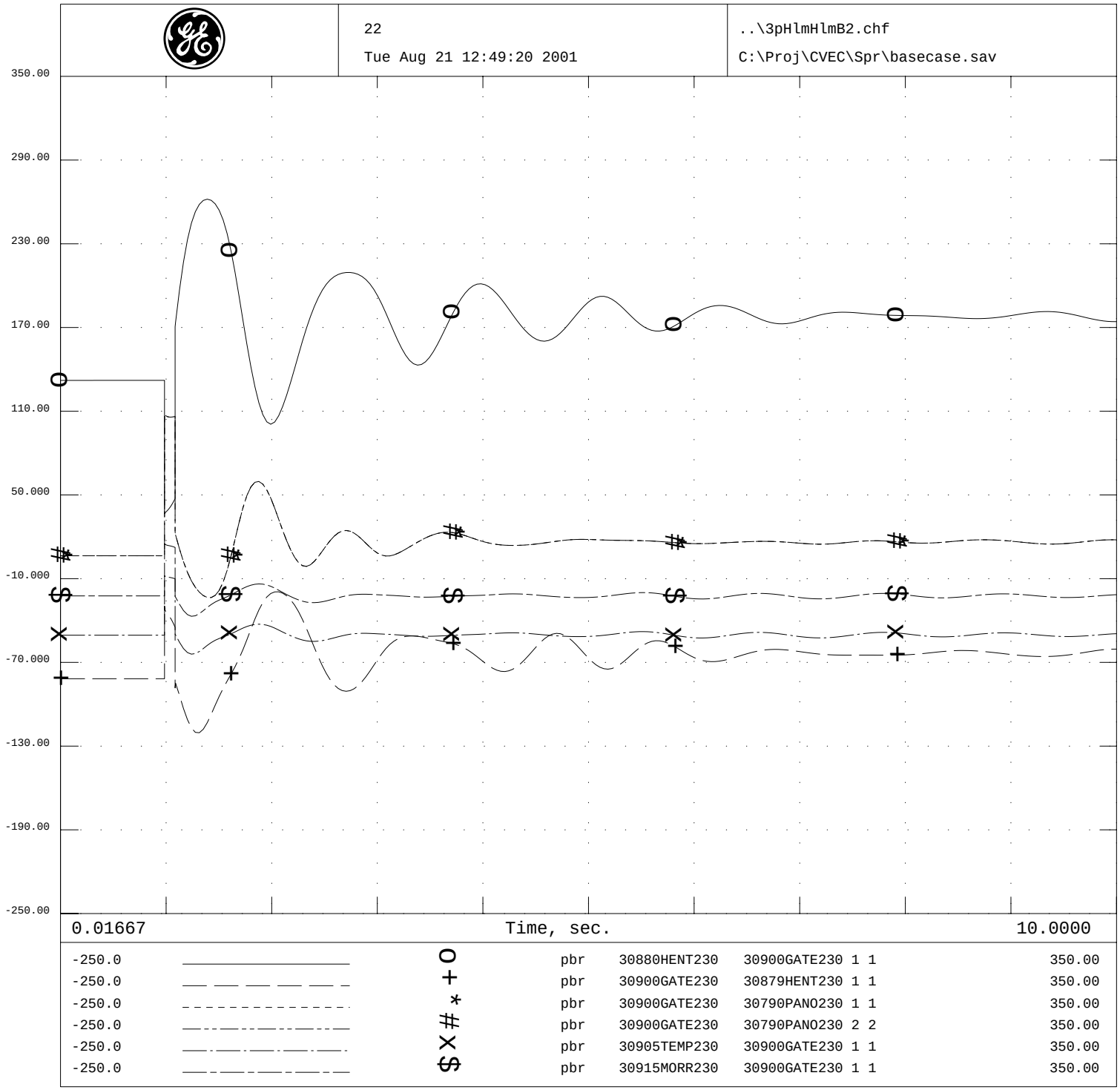

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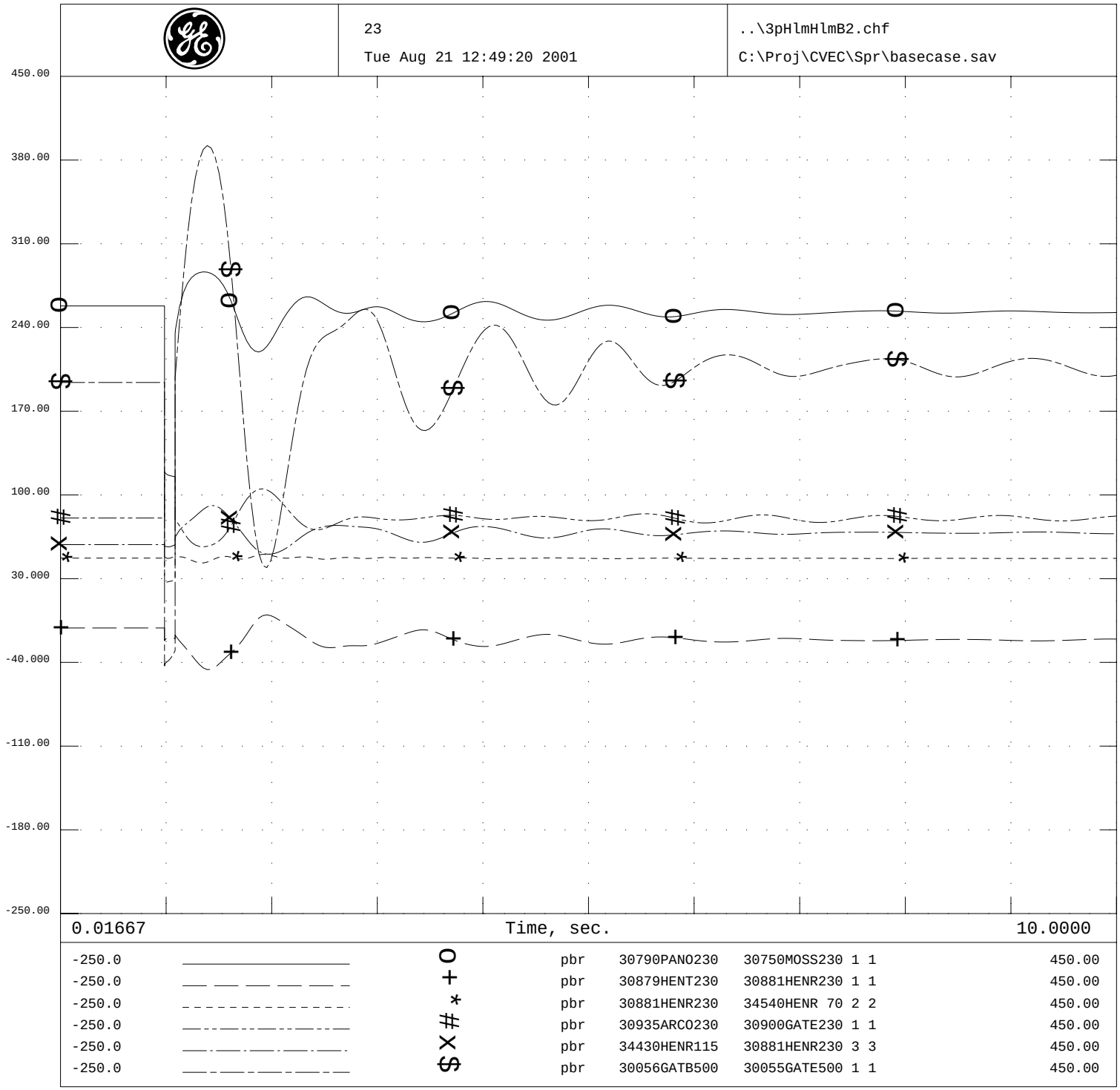

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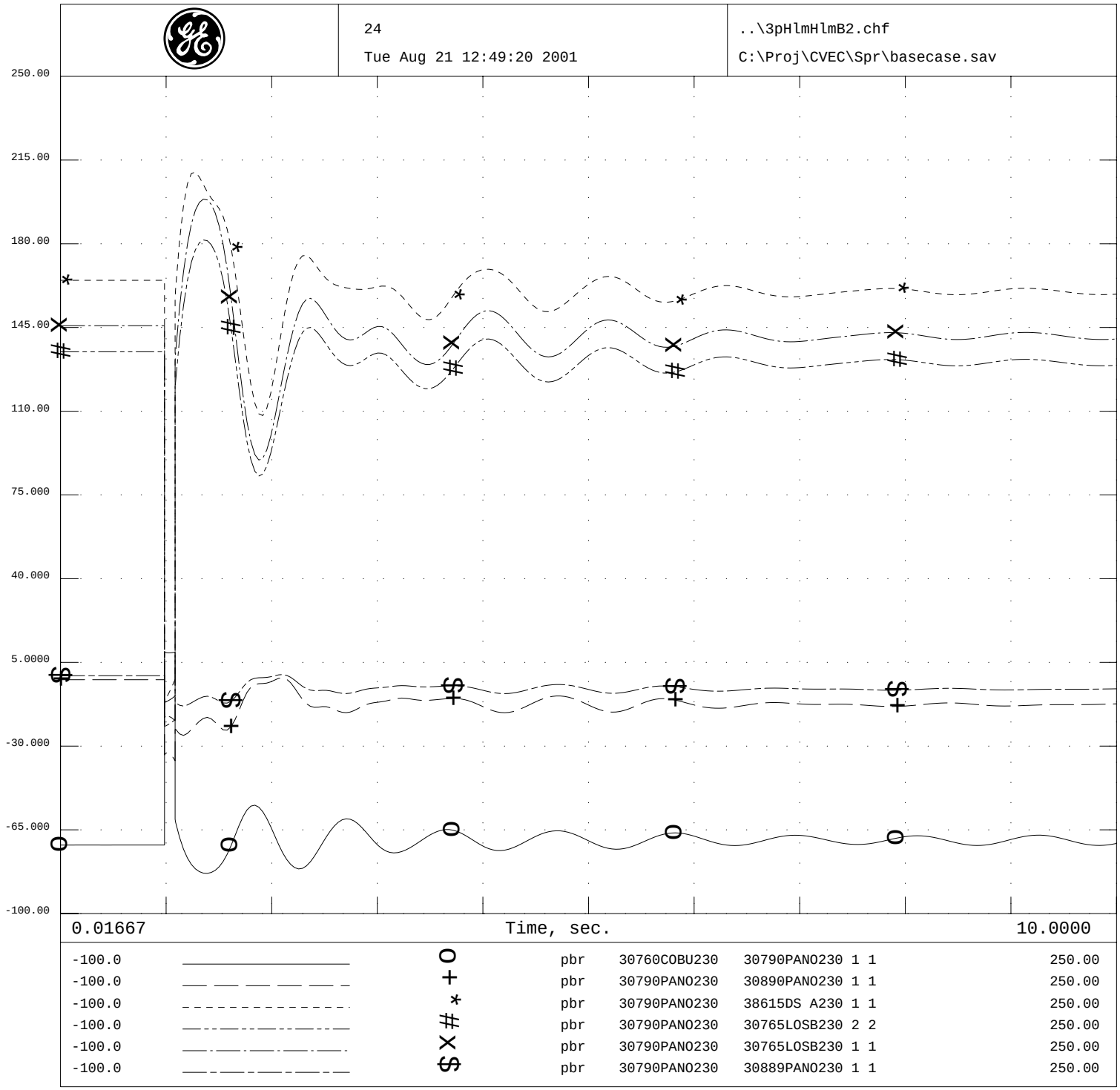

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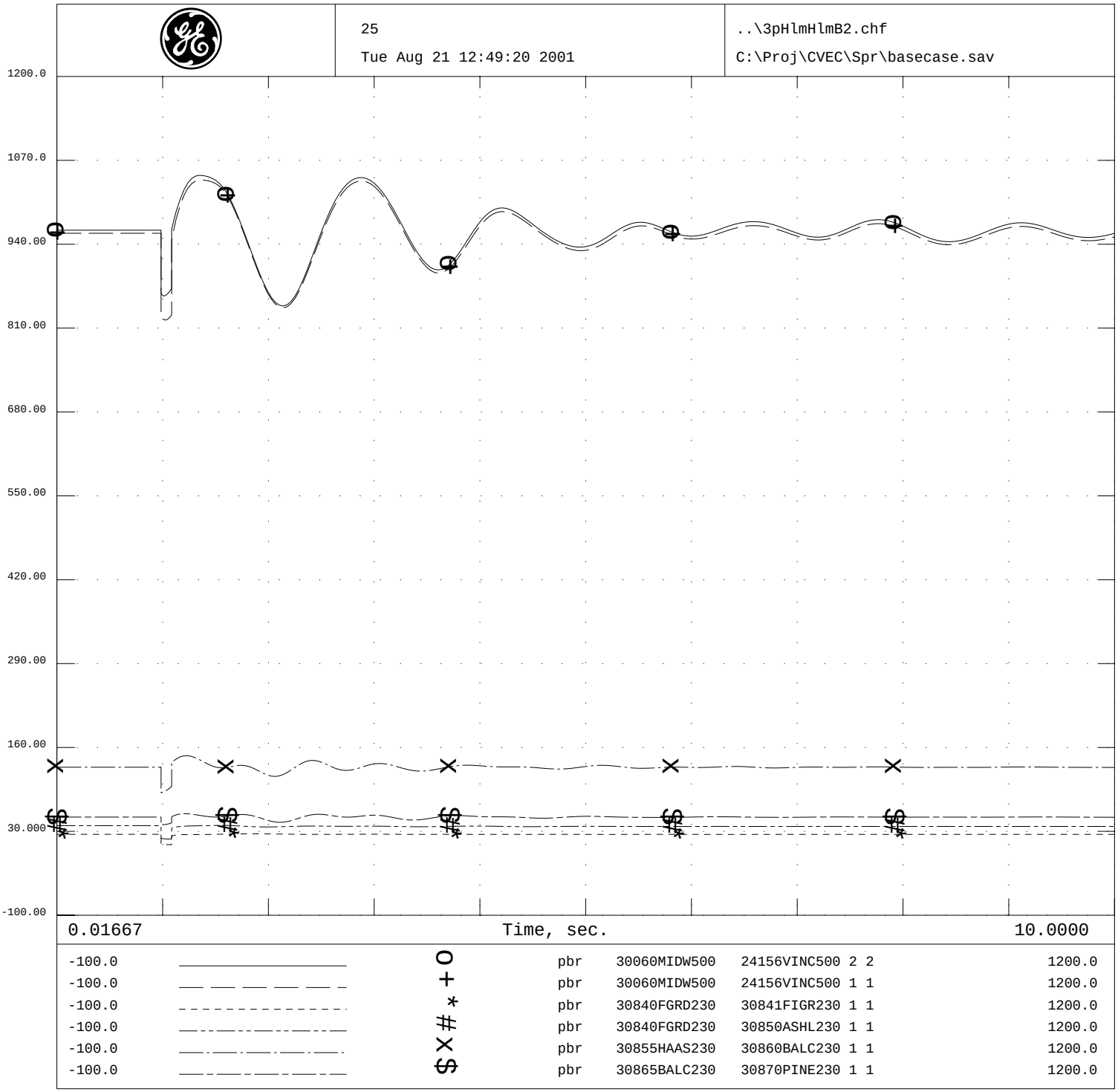

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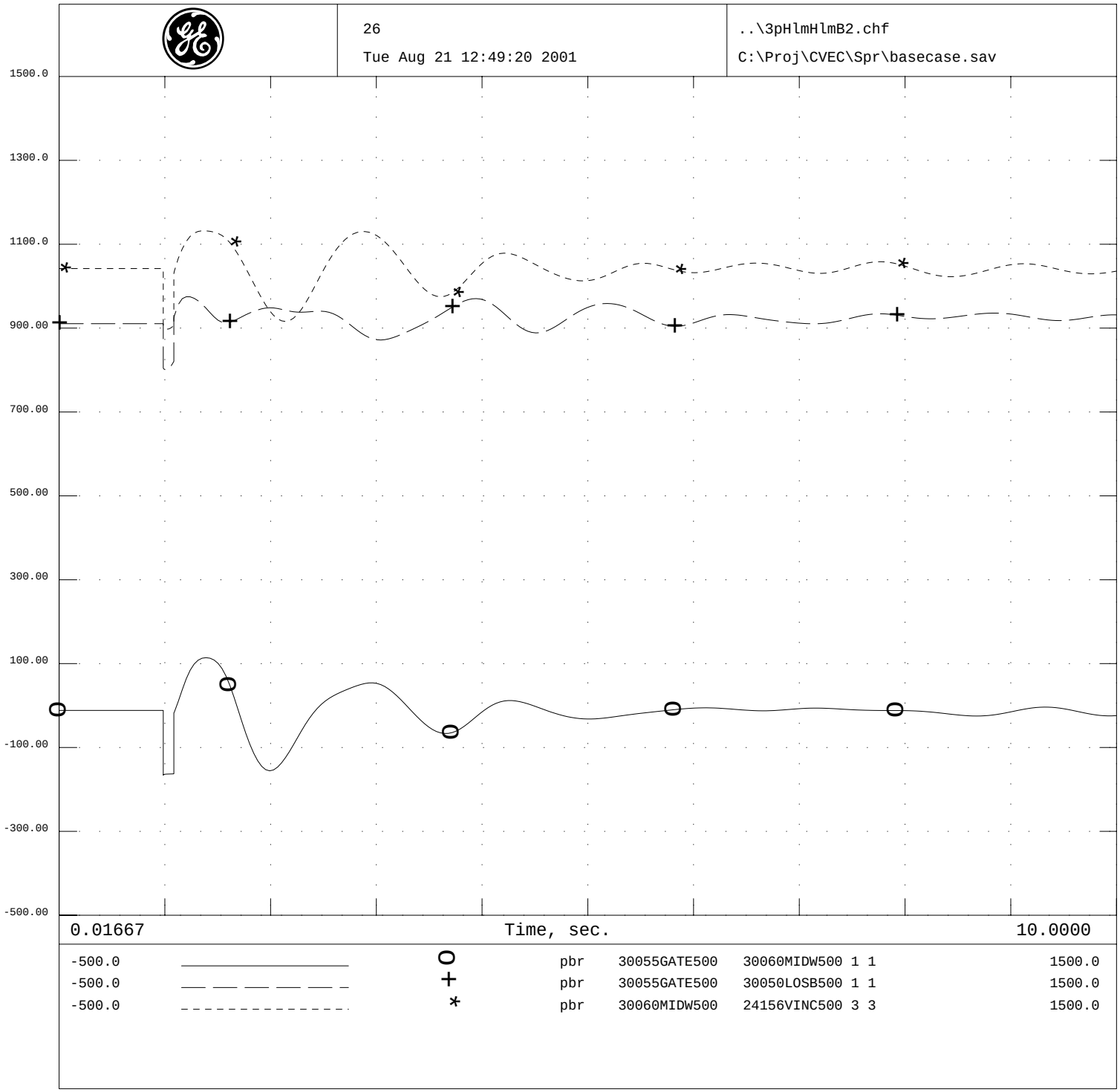

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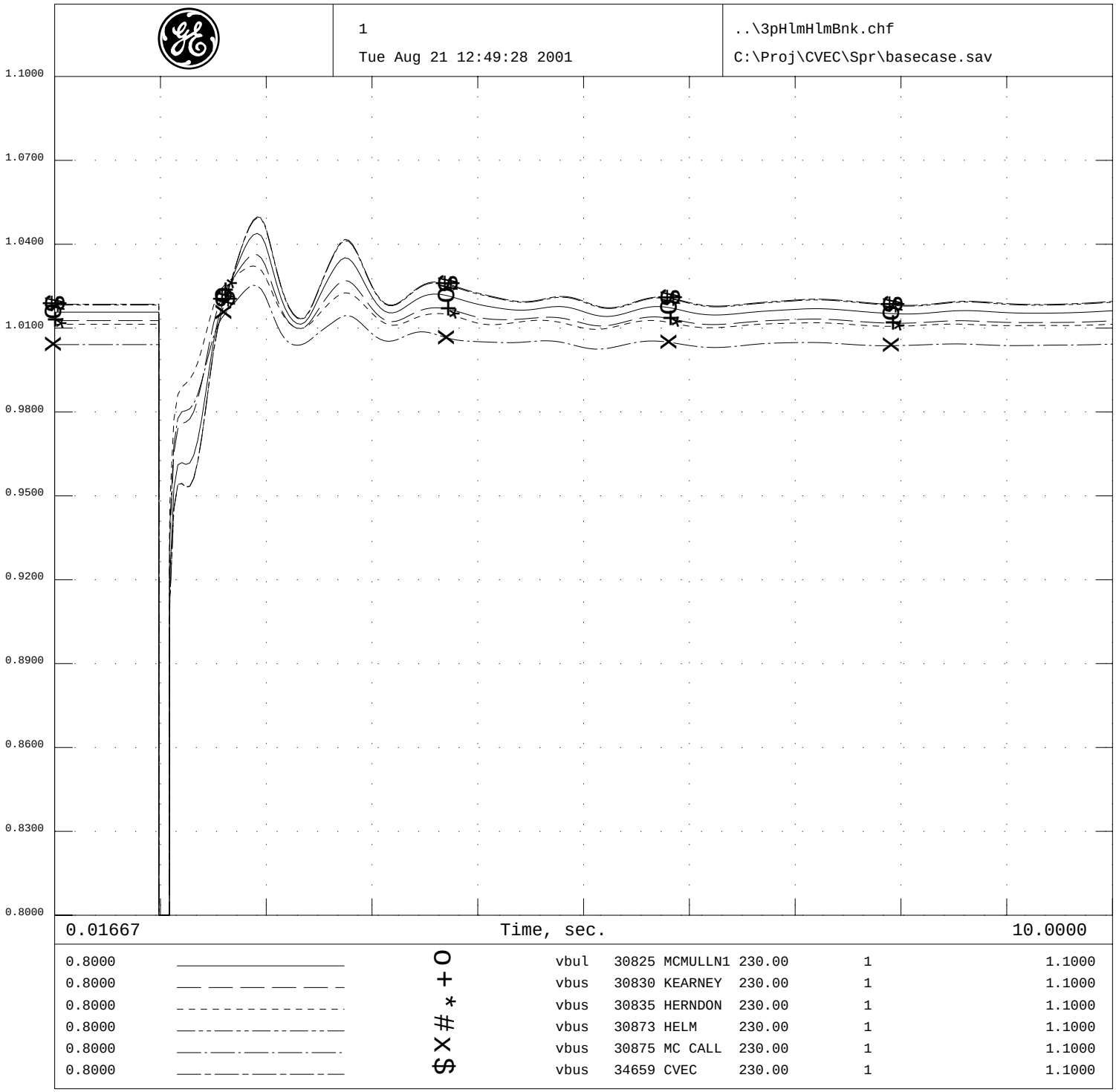
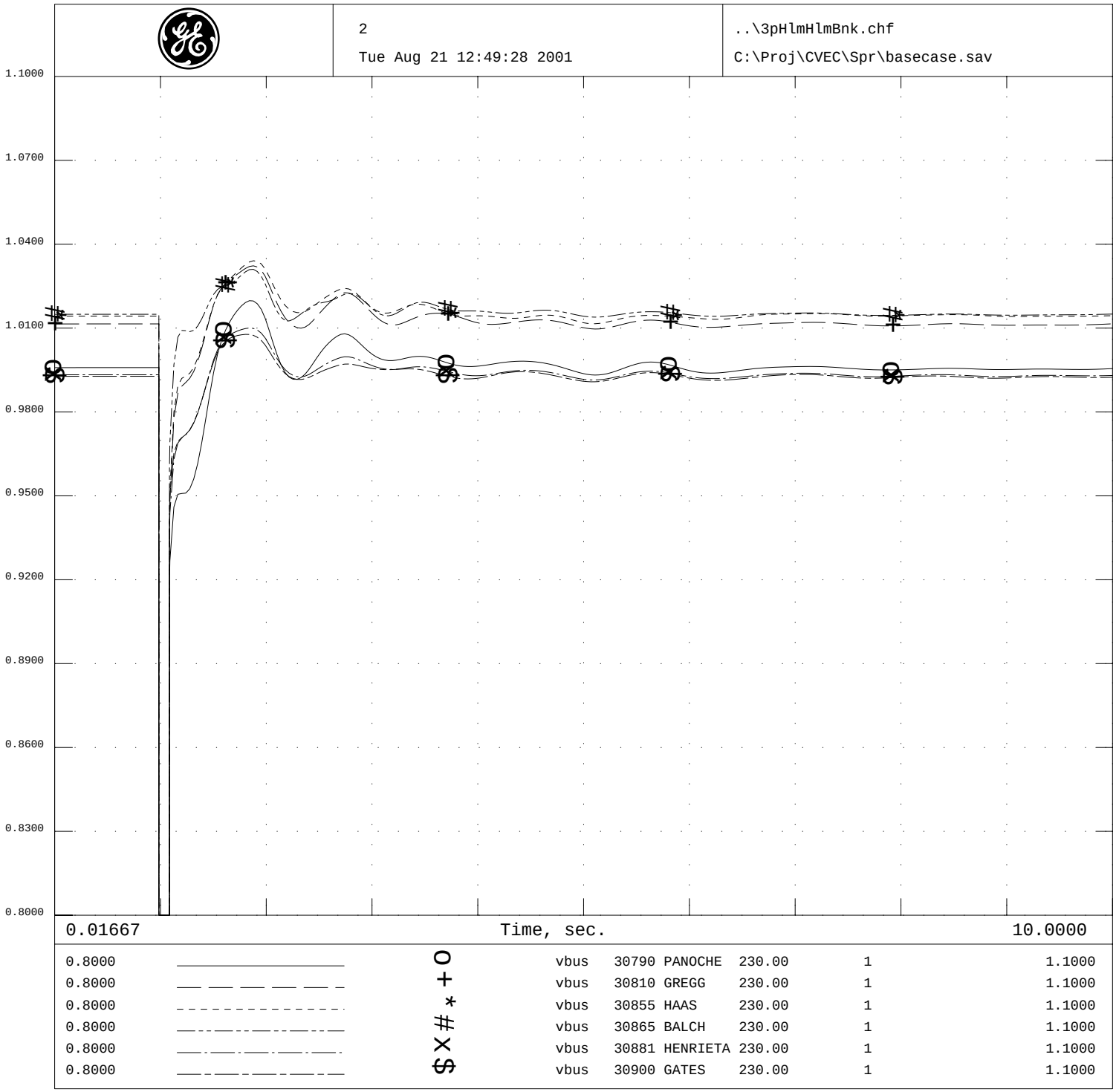


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Helm 230/70kV Bank Outage
3 phase 6 cycle fault at Helm 230kV bus and trip Helm 230/70kV bank

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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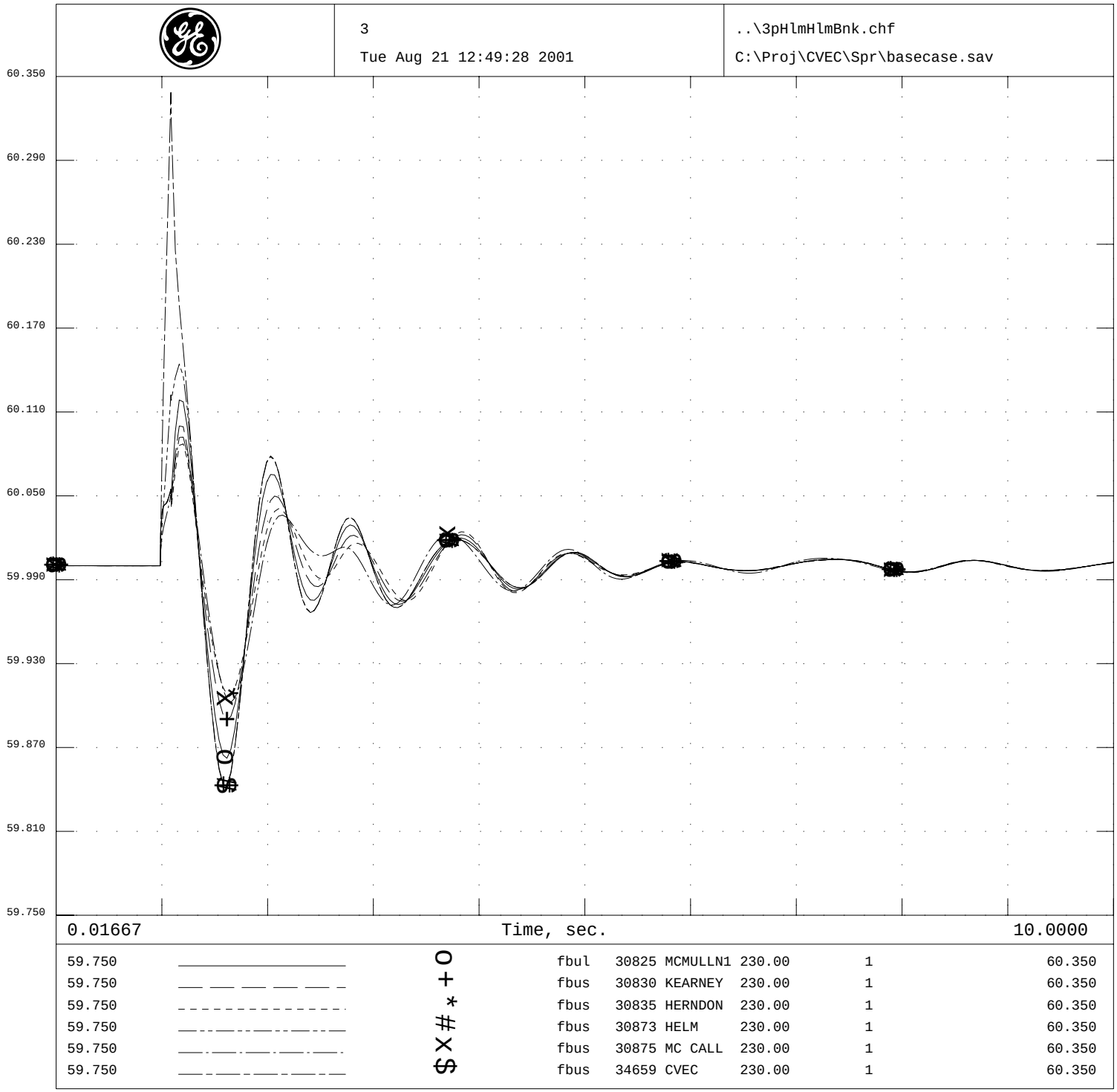

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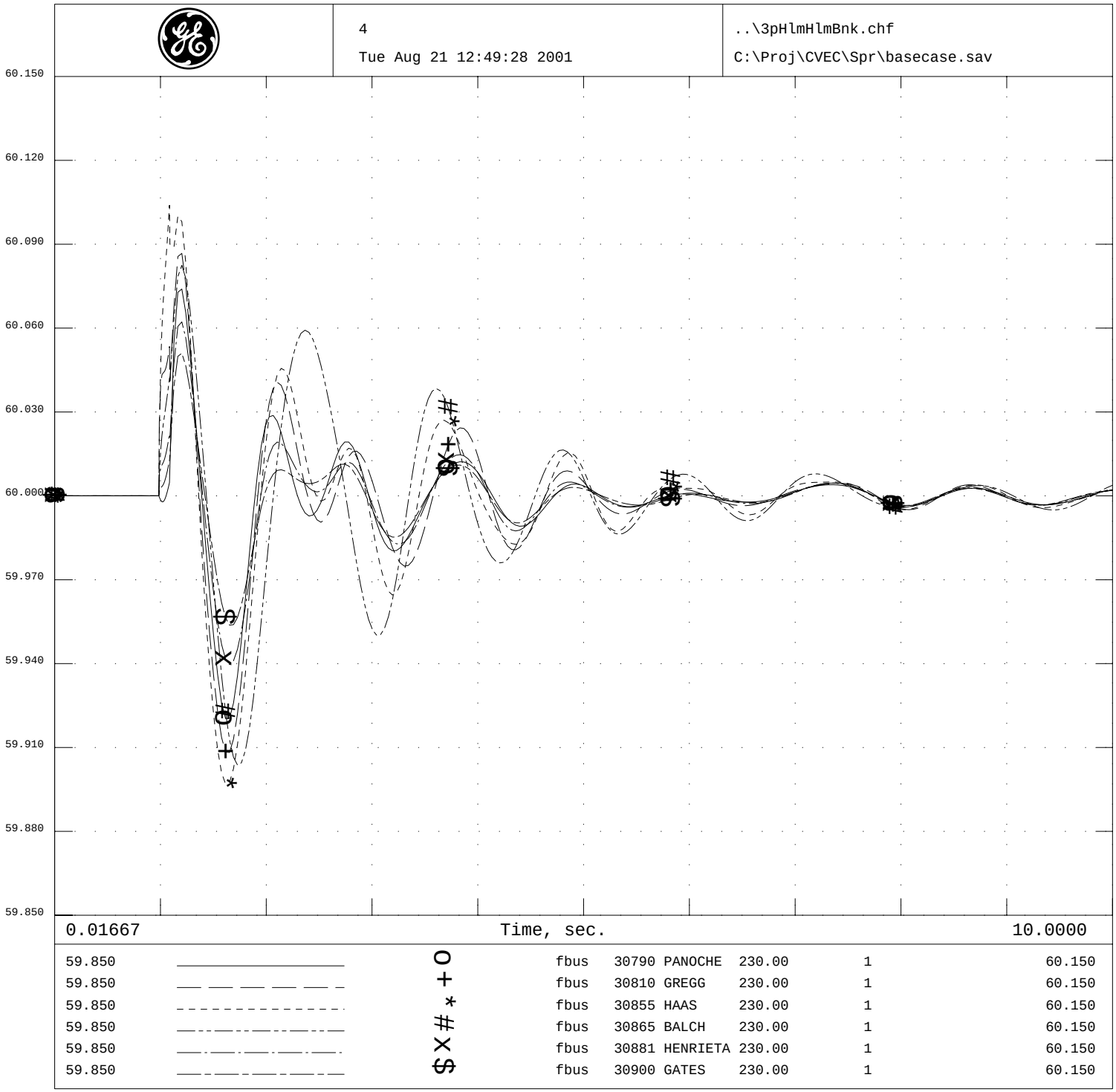
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Helm 230/70kV Bank Outage
3 phase 6 cycle fault at Helm 230kV bus and trip Helm 230/70kV bank

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Calpine Corporation
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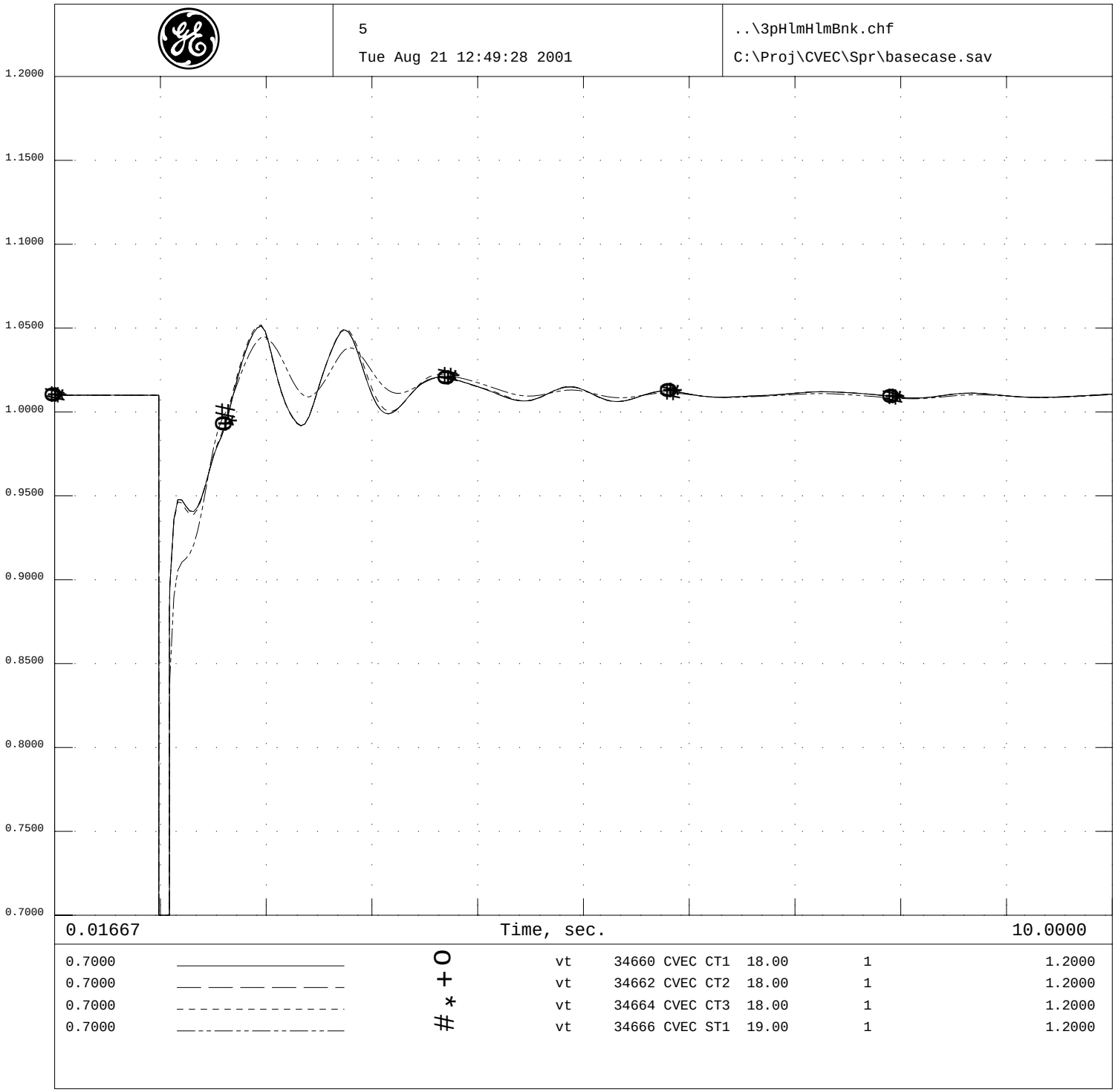

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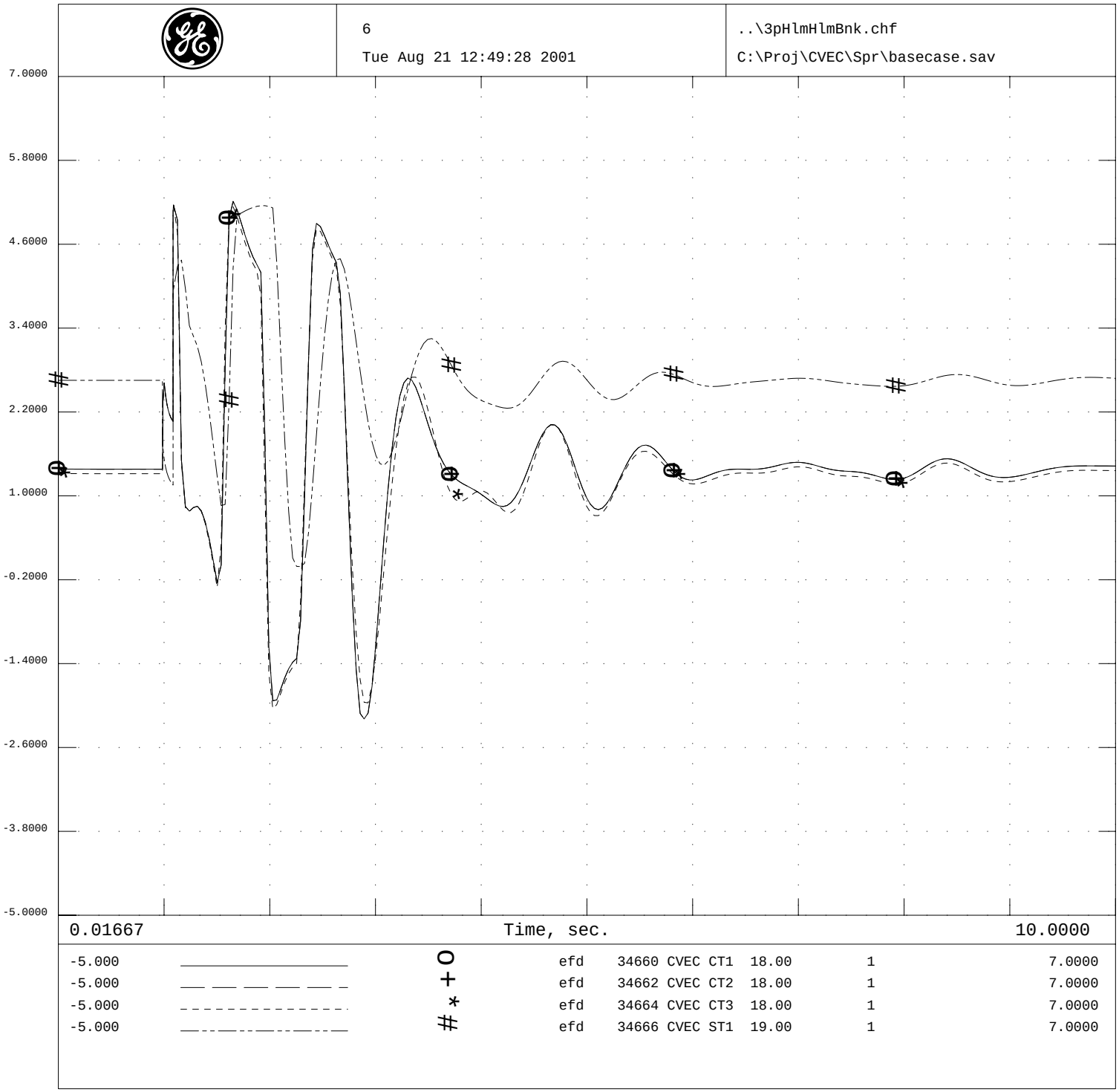
Calpine Corporation
Project Generator Terminal Voltages



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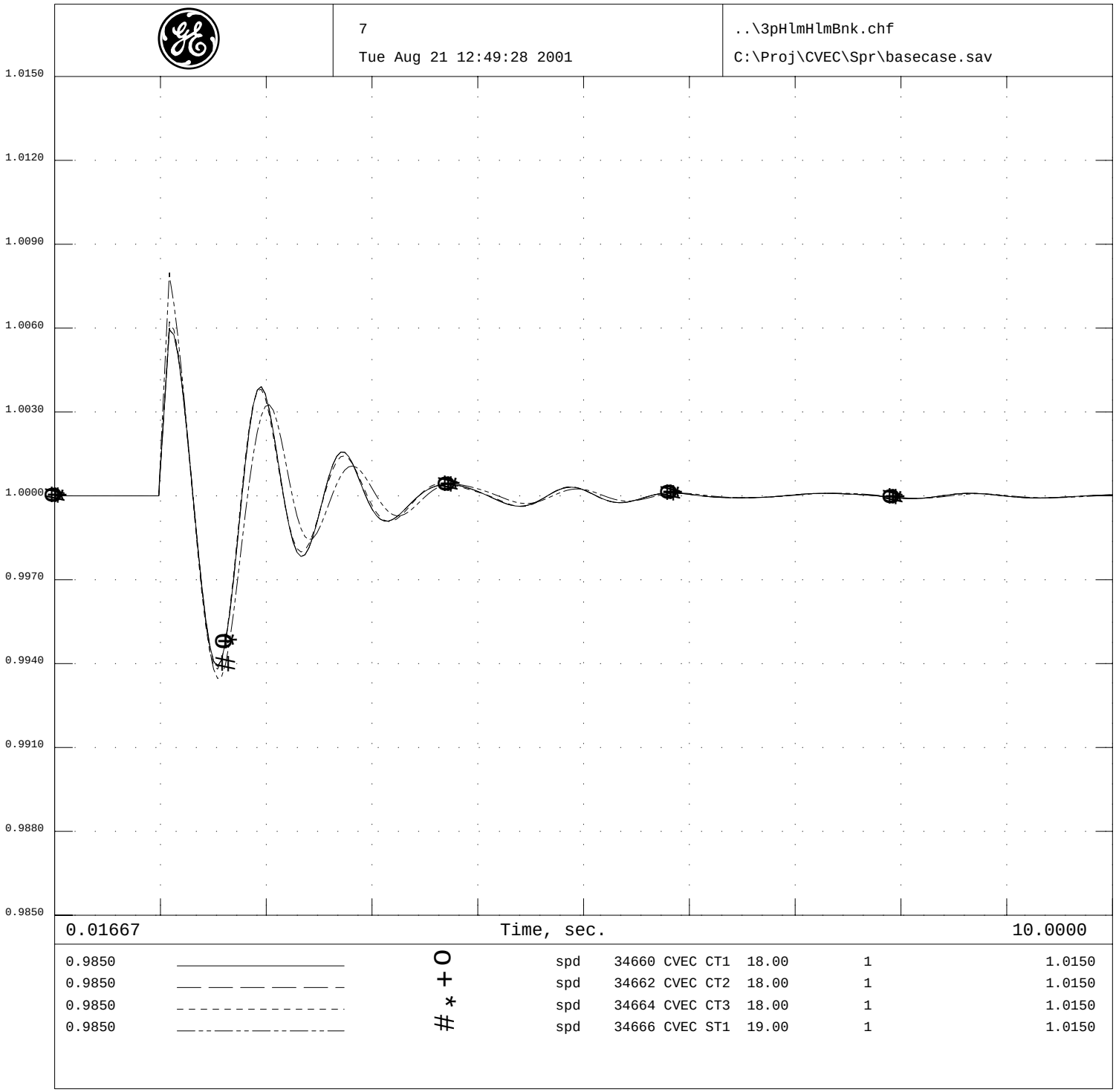
Project Generator Field Voltages



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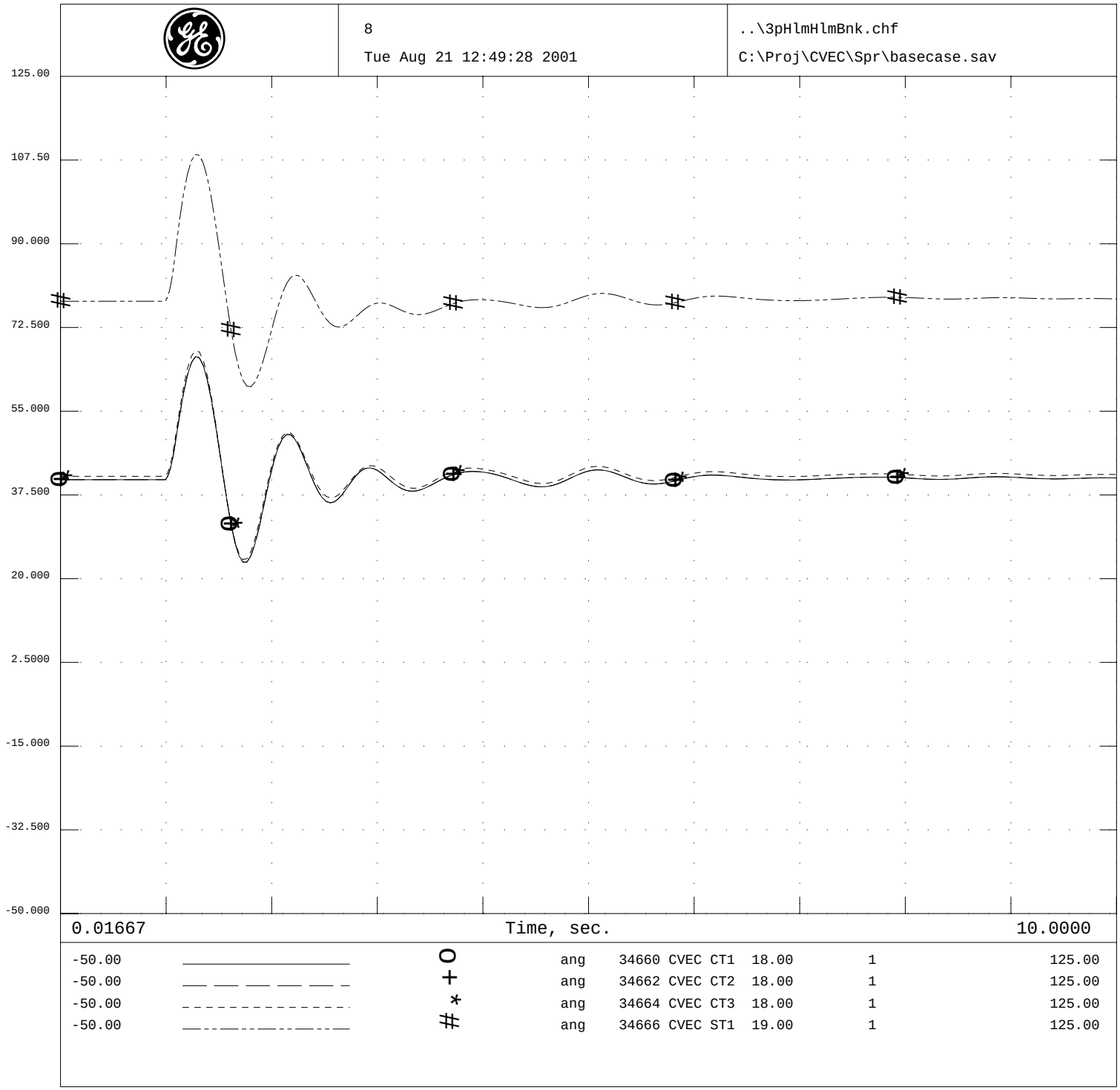
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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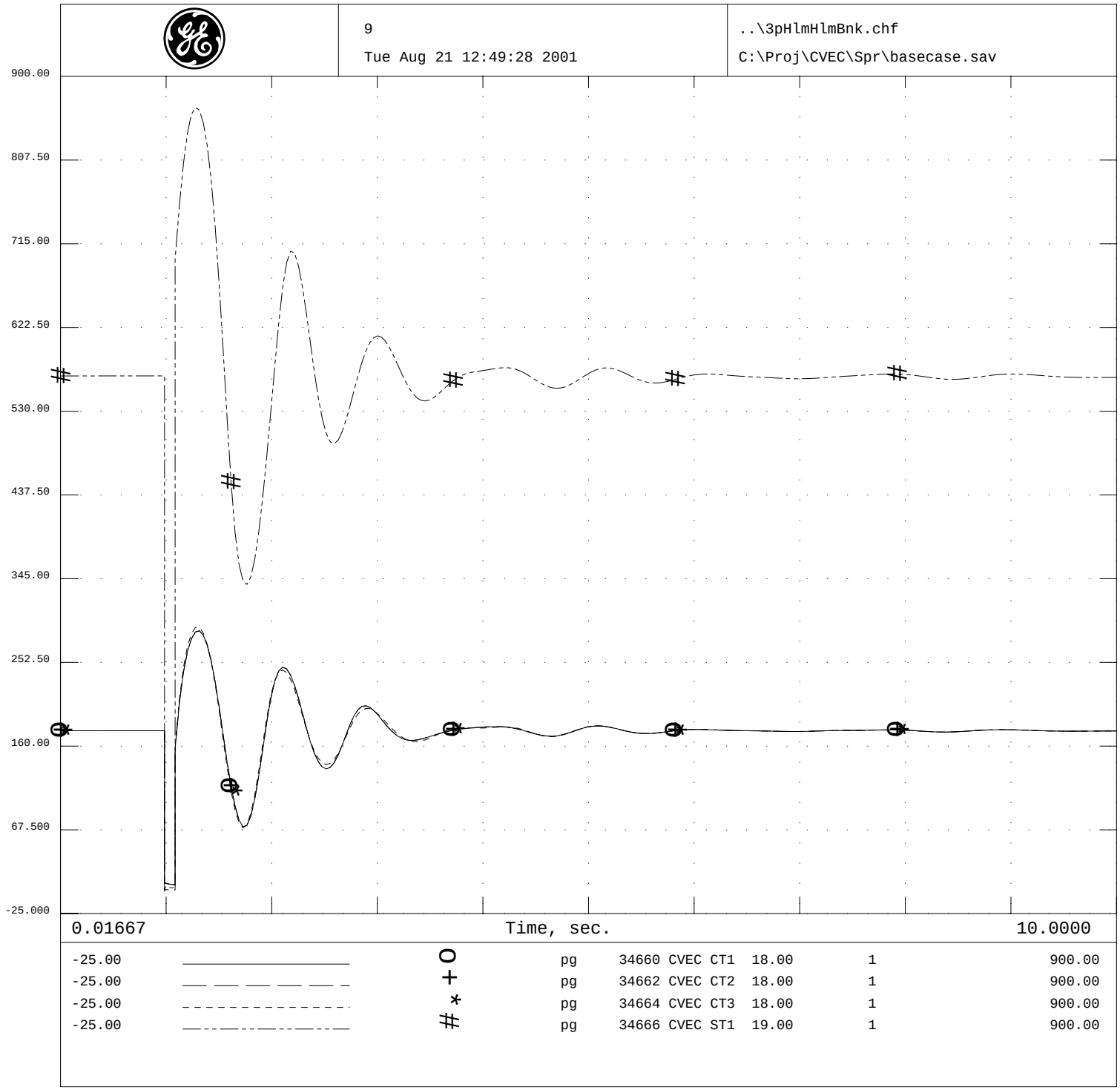
Calpine Corporation
Project Generator Rotor Angle



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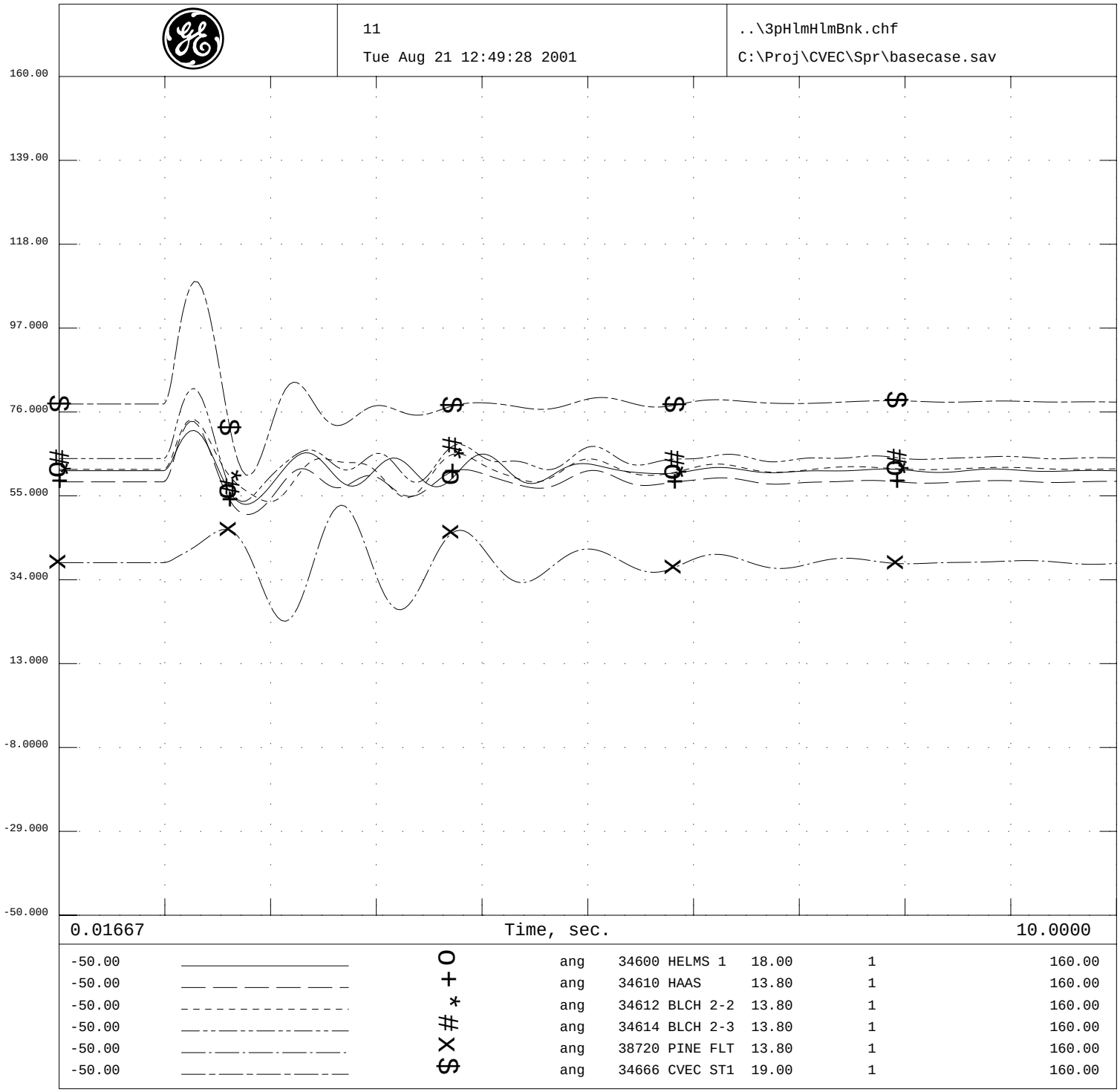
Project Generator Terminal Power



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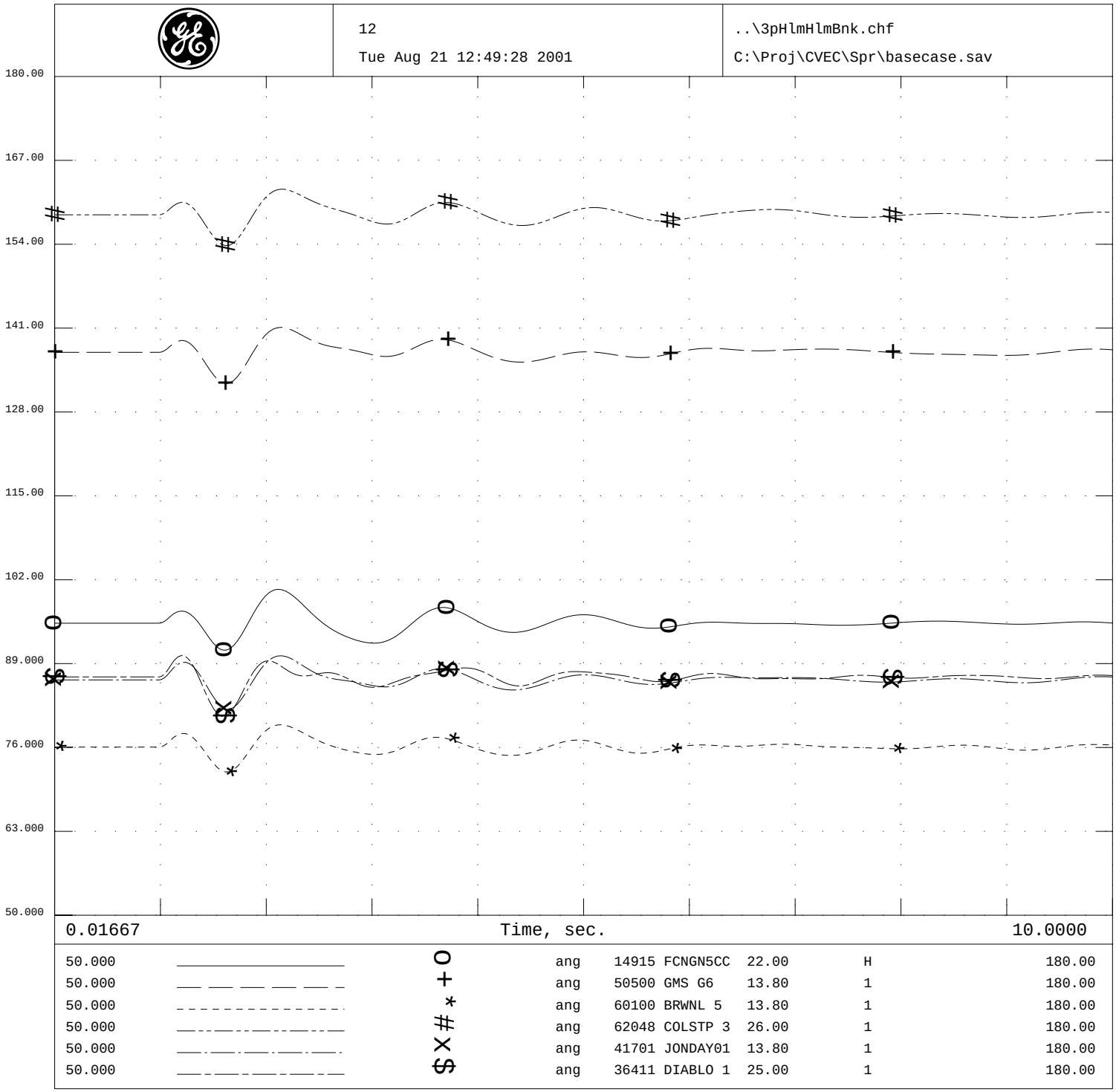
Selected Local Rotor Angle Plots



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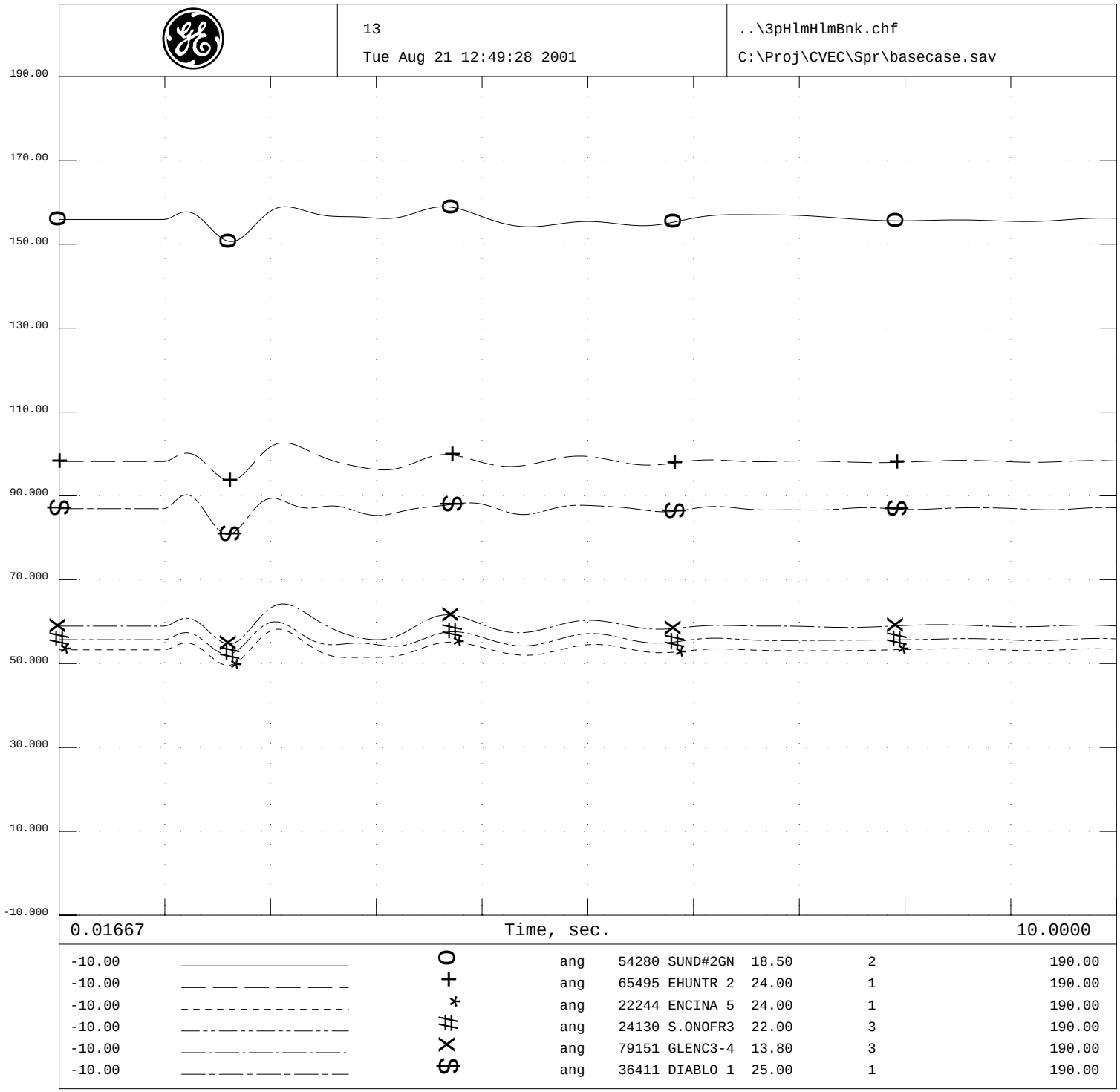
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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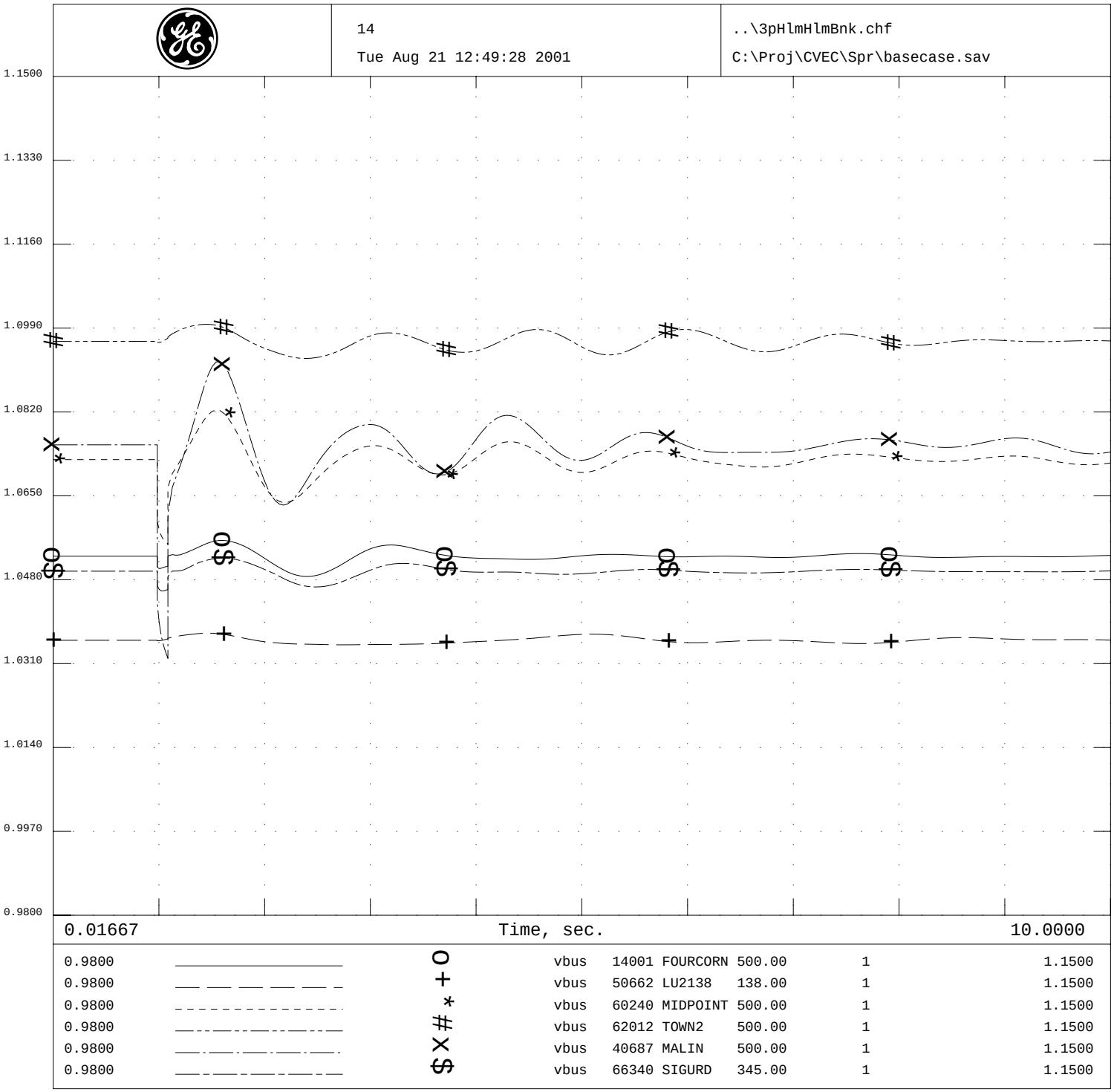

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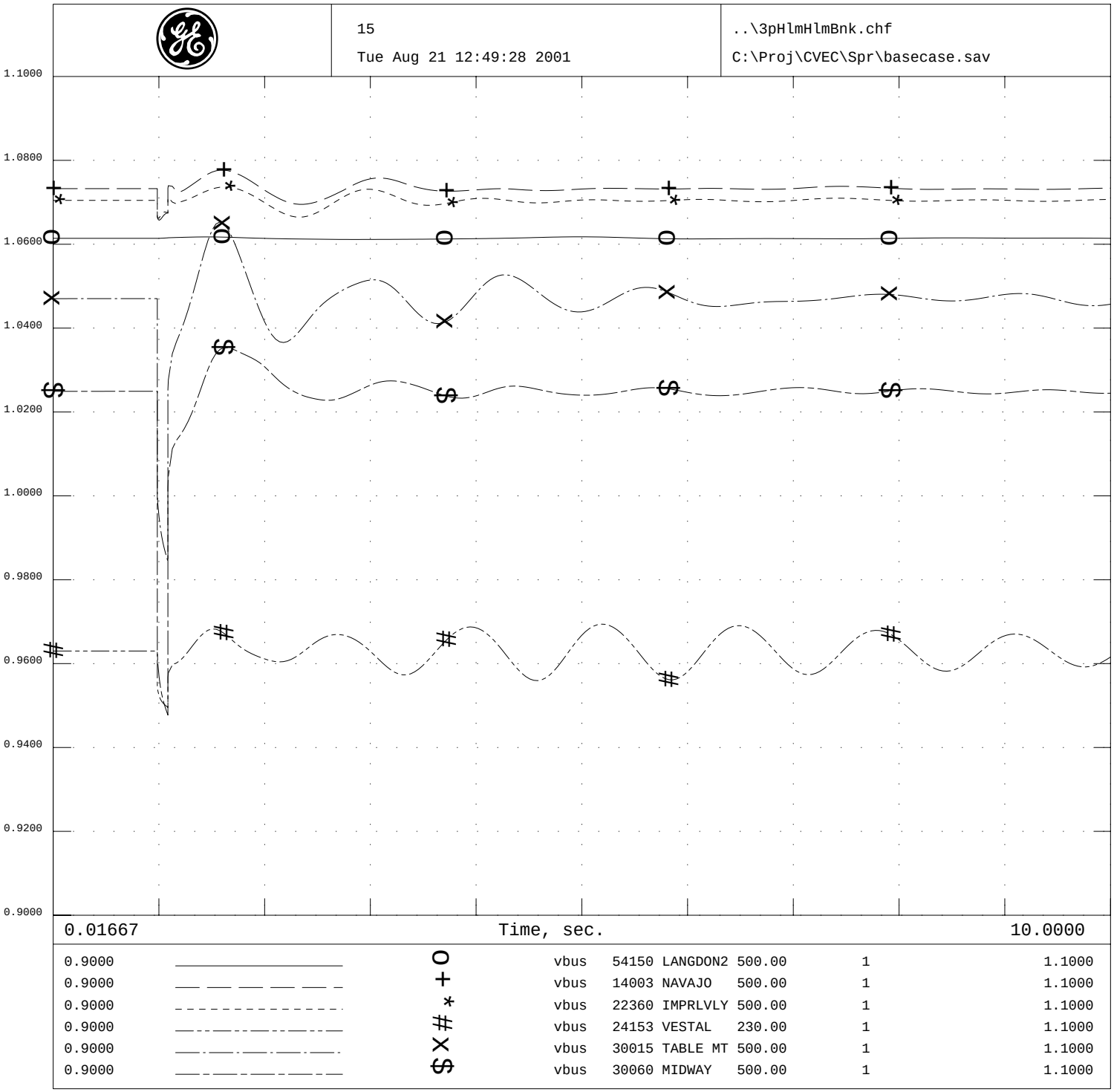

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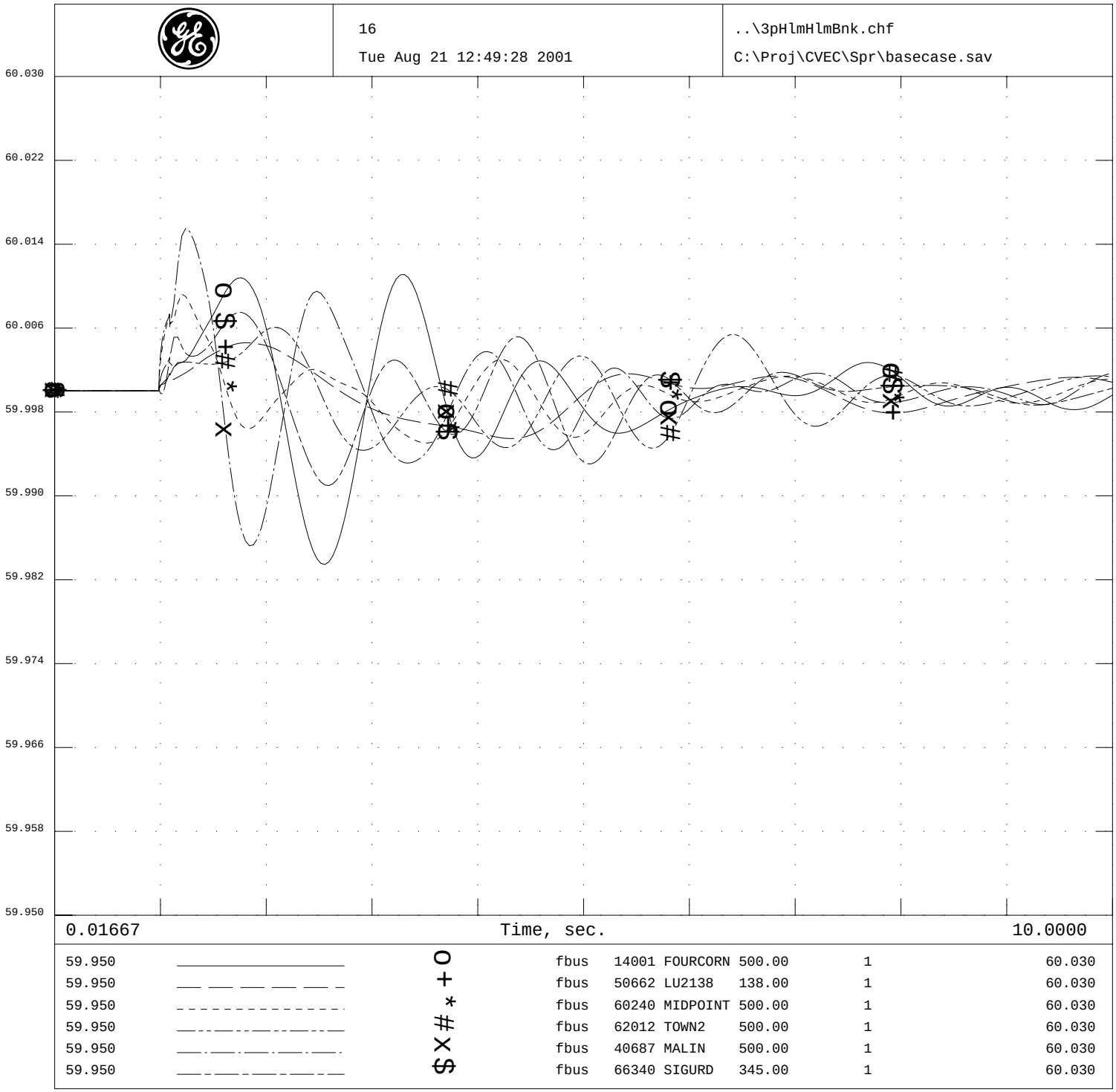

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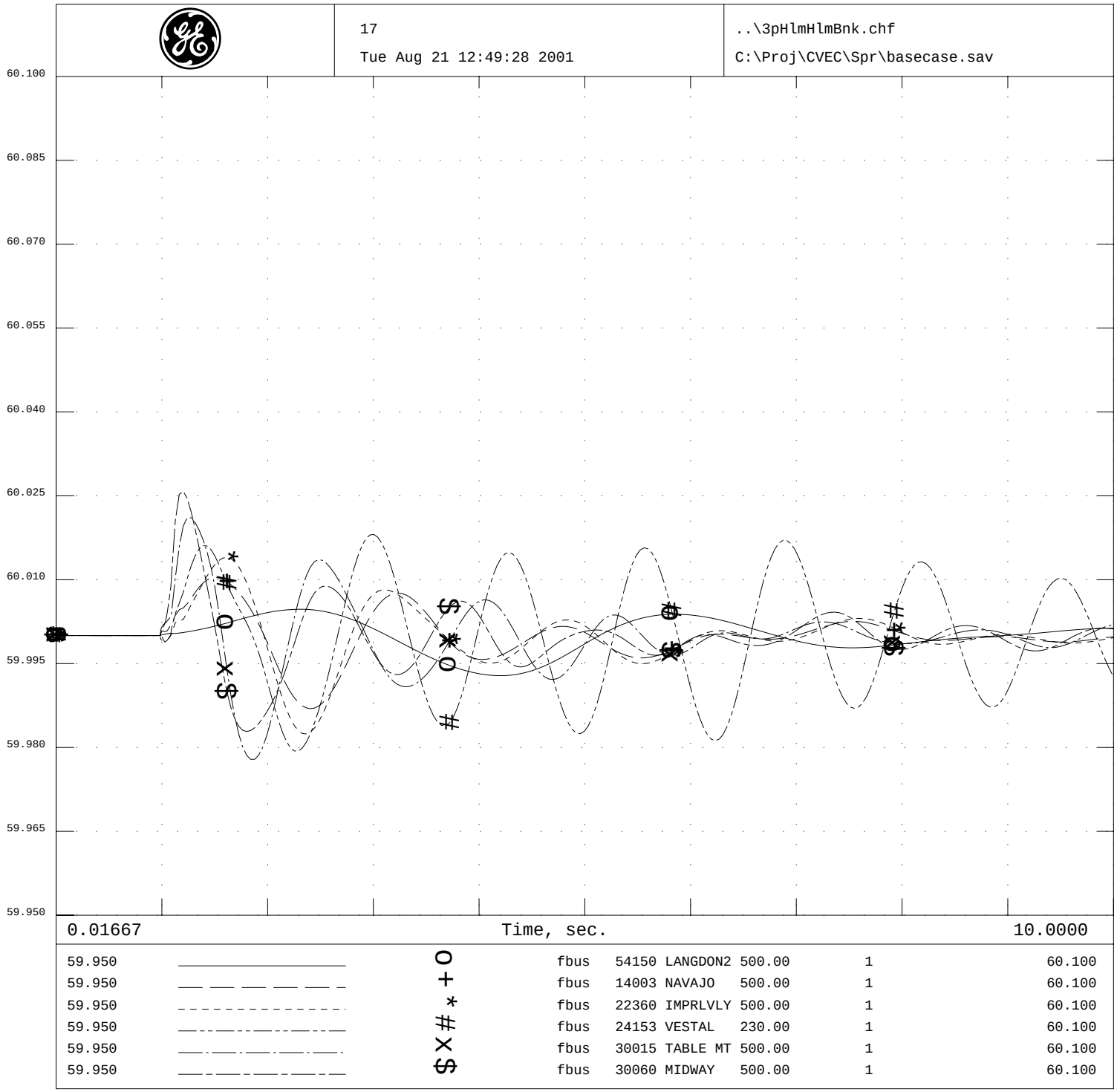

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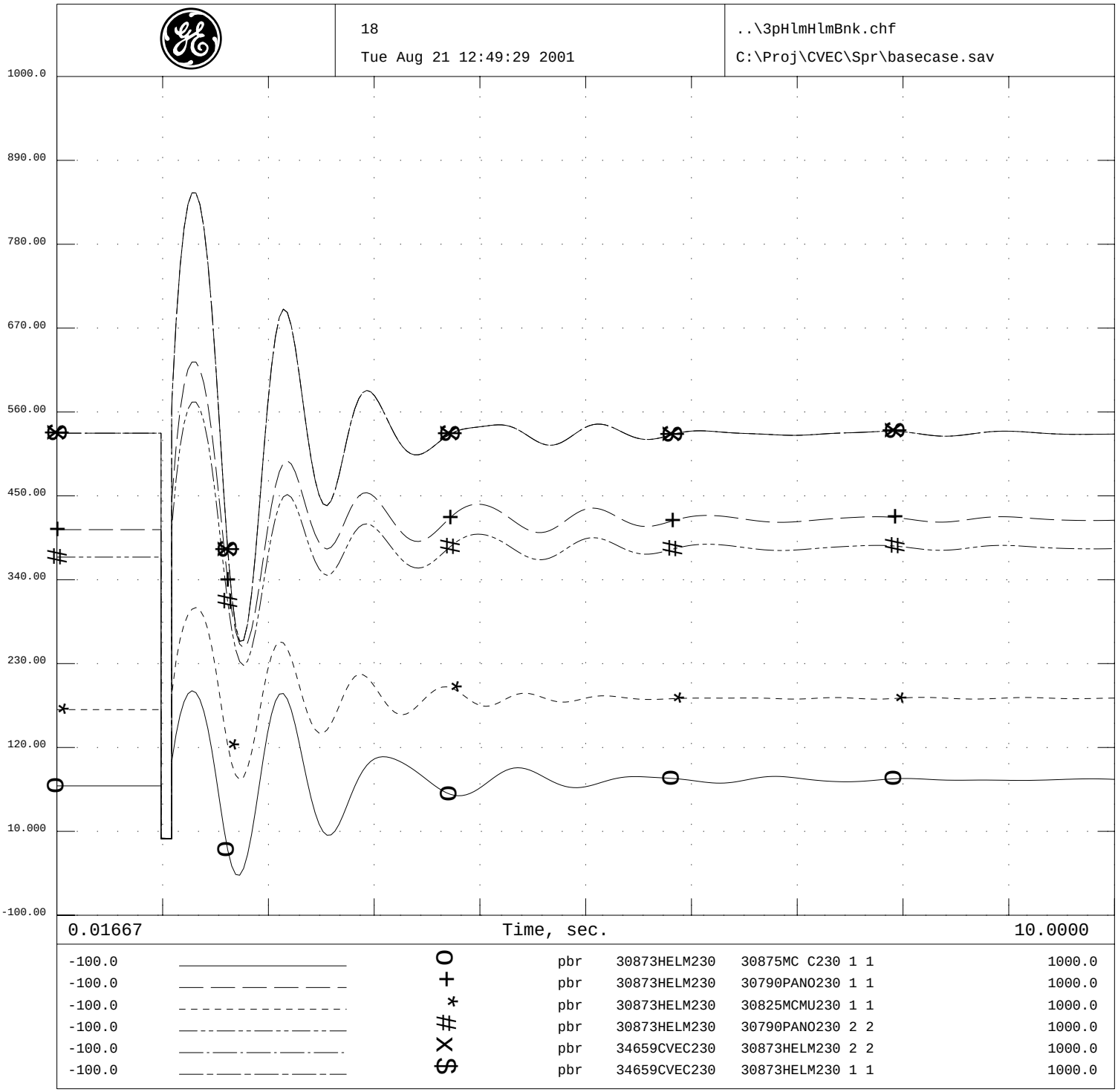

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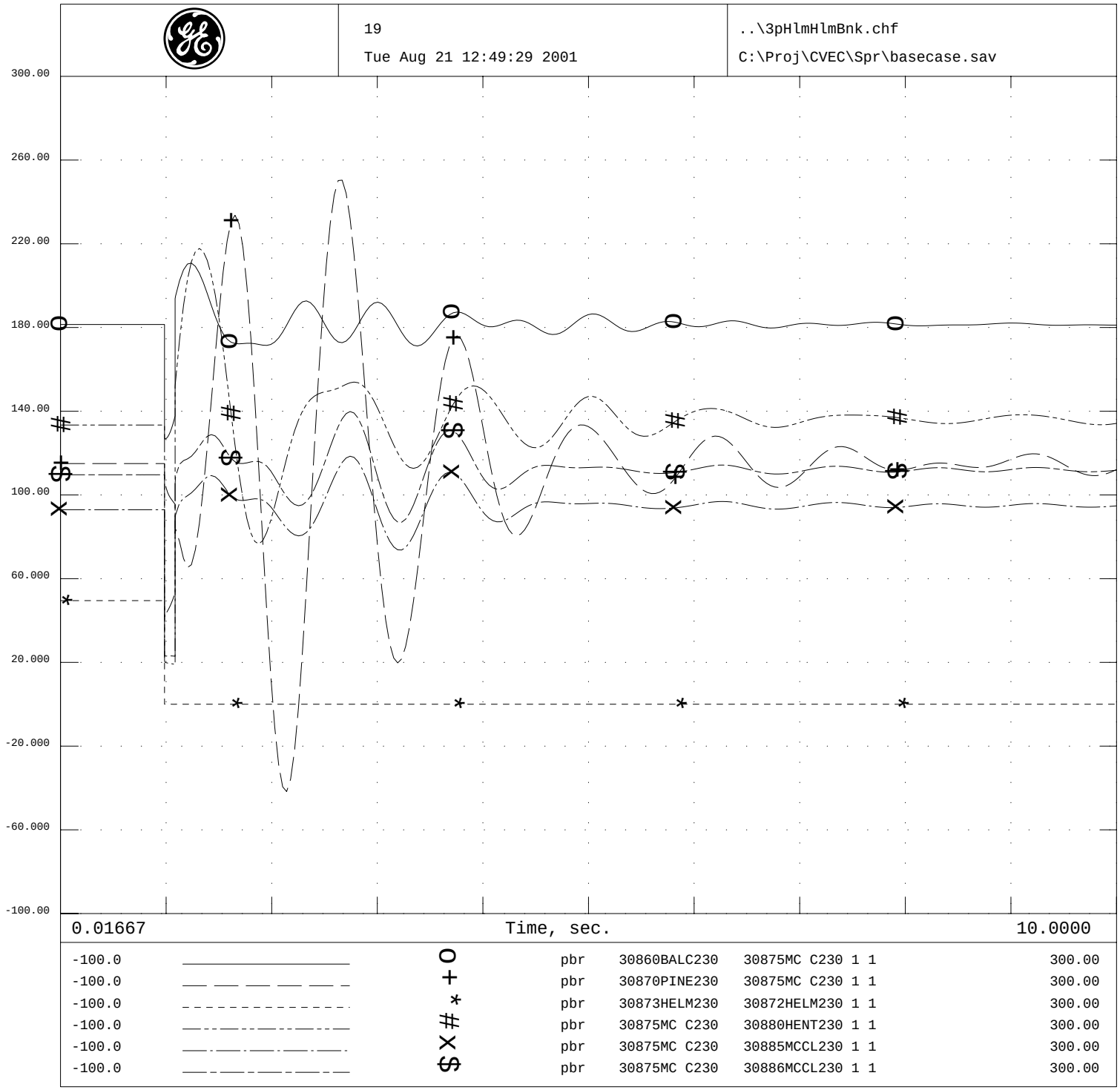
Calpine Corporation
Selected Transmission Line Flows (MW)



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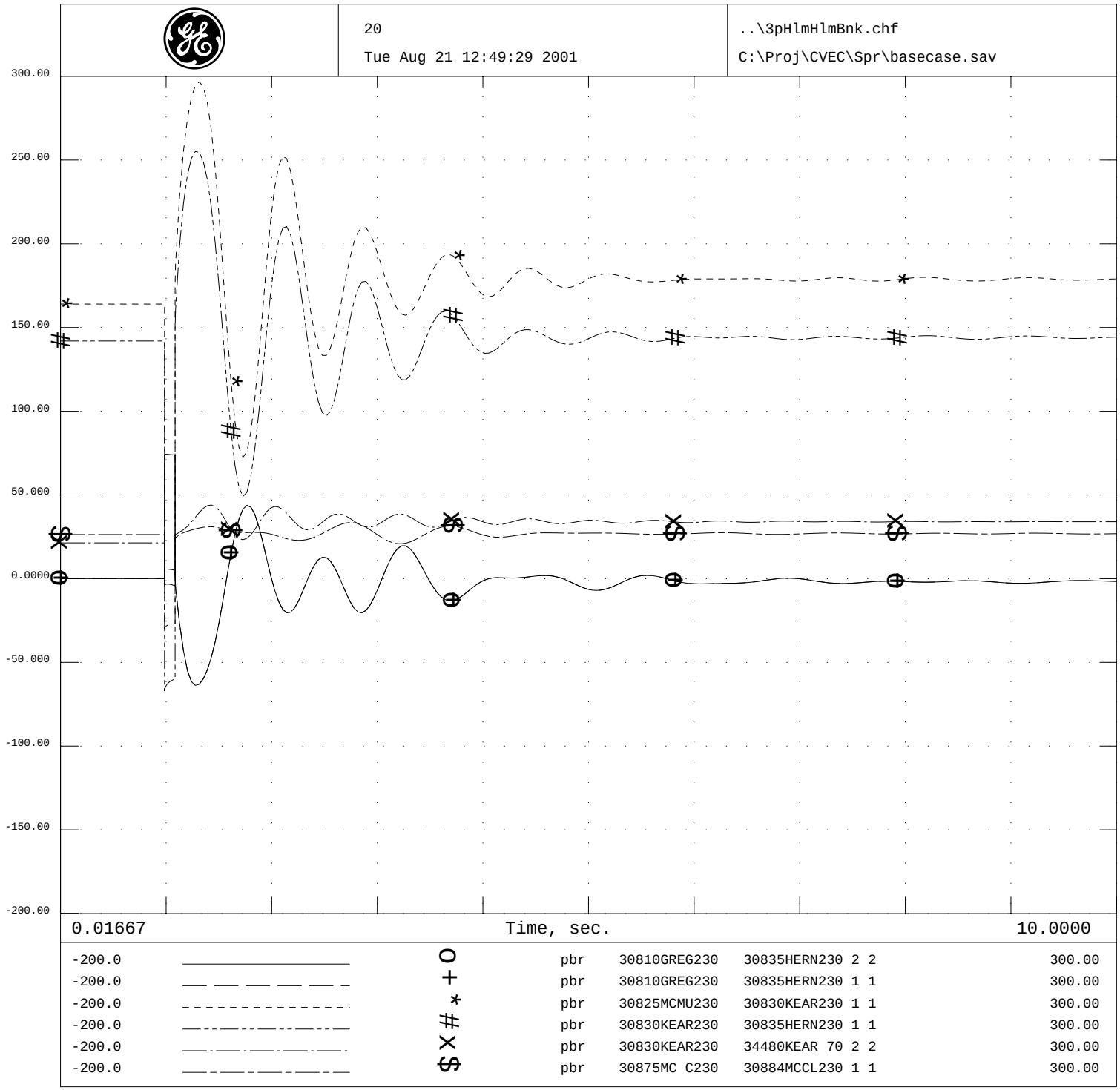

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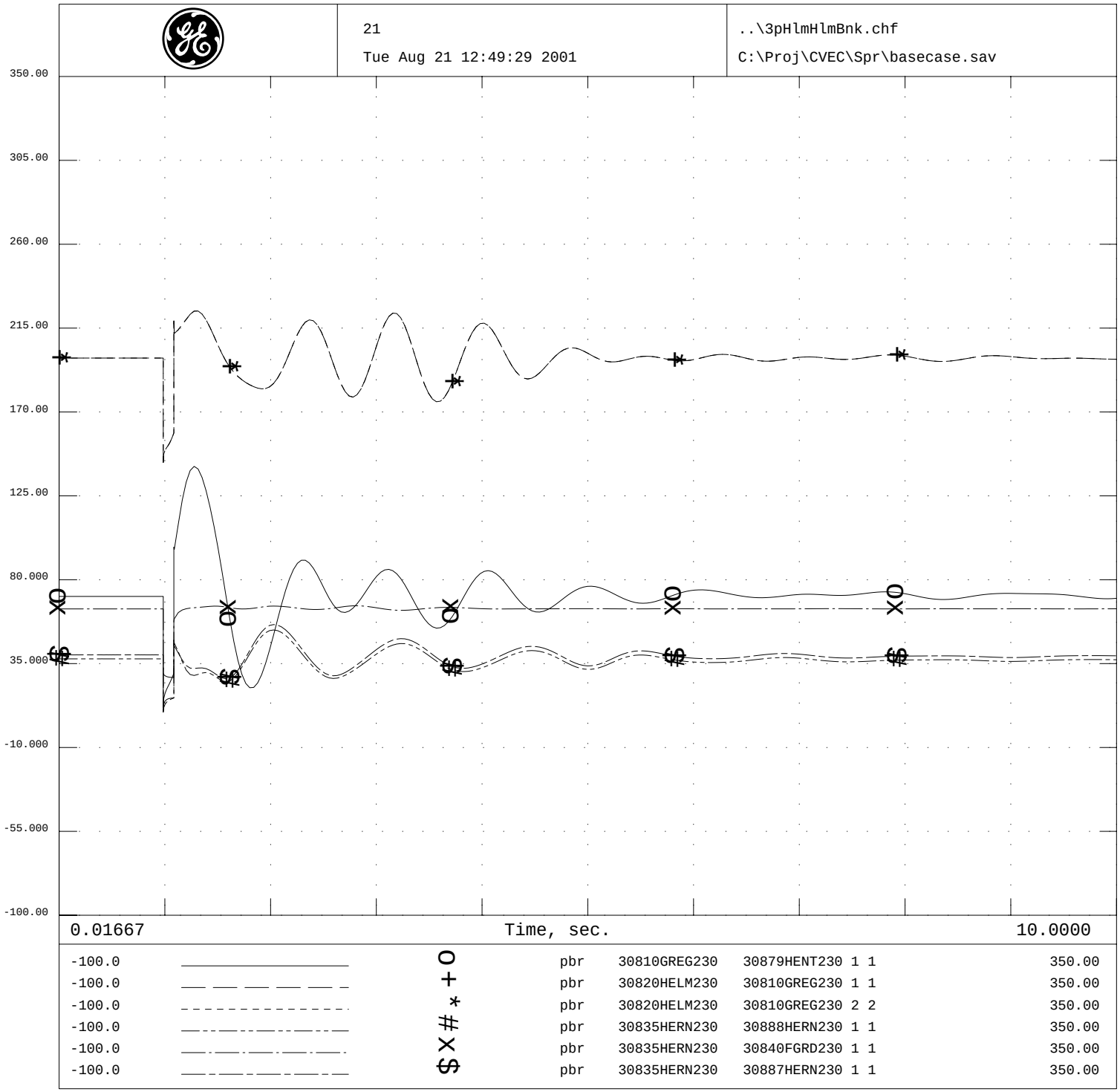

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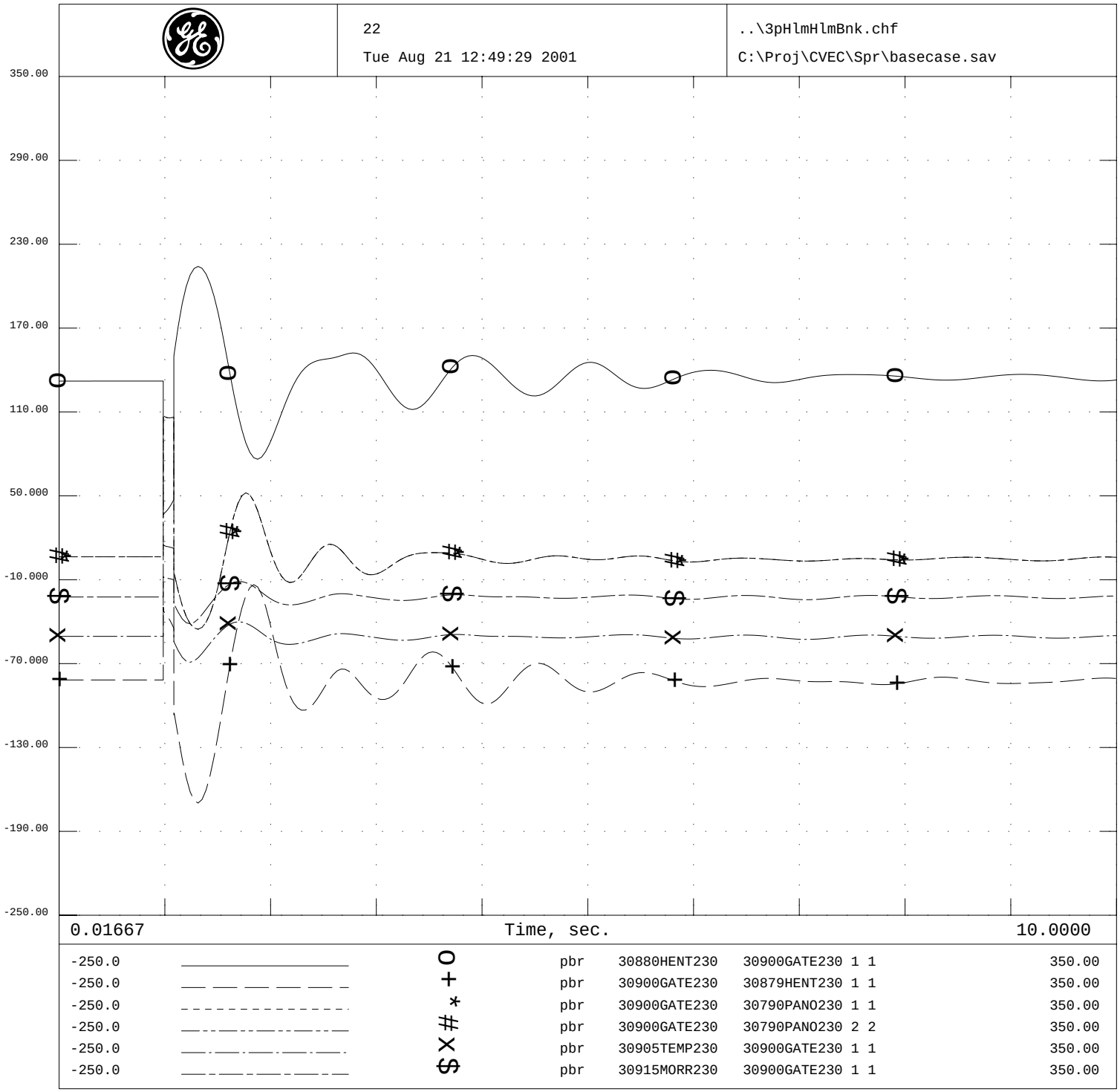

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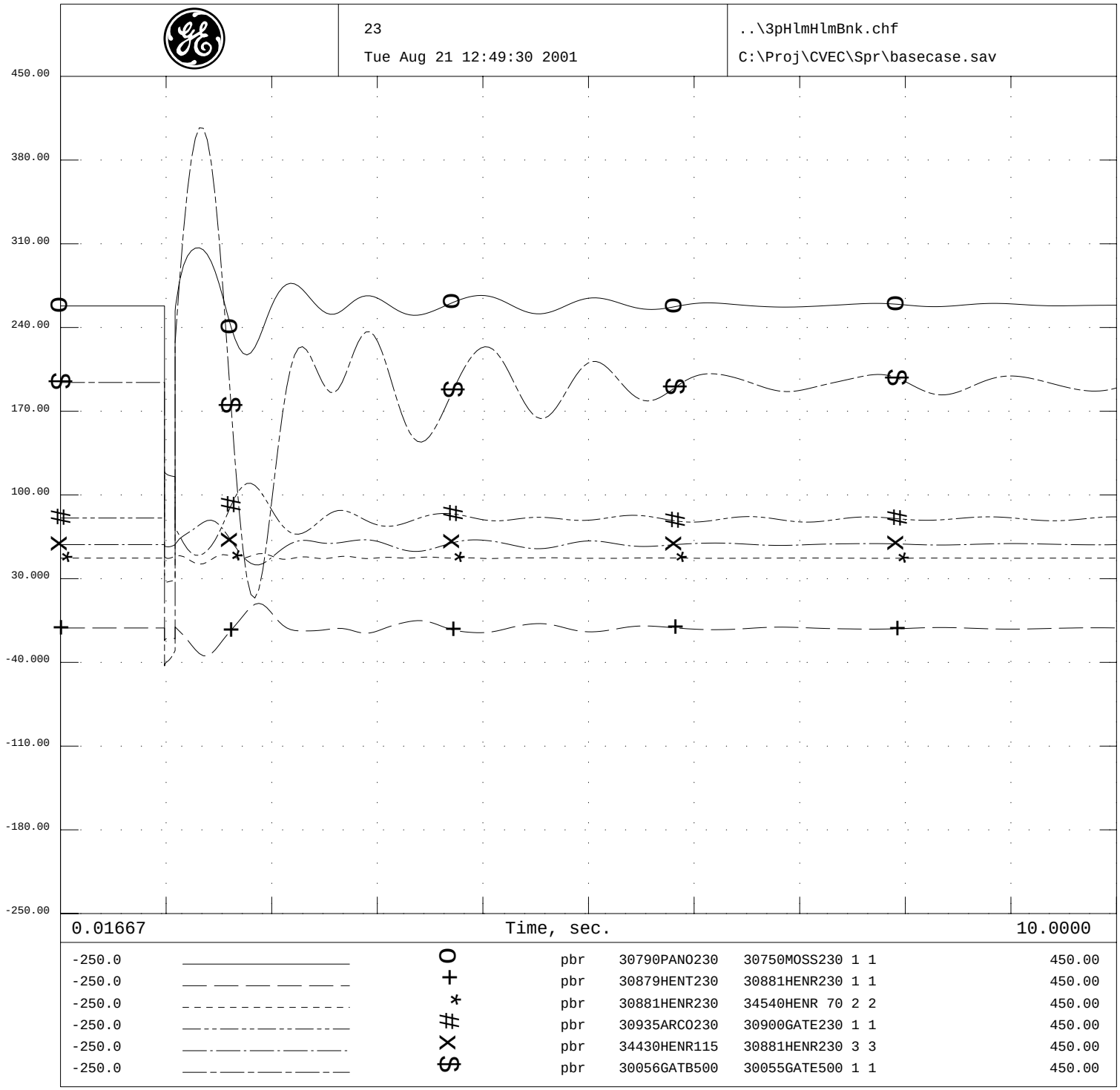

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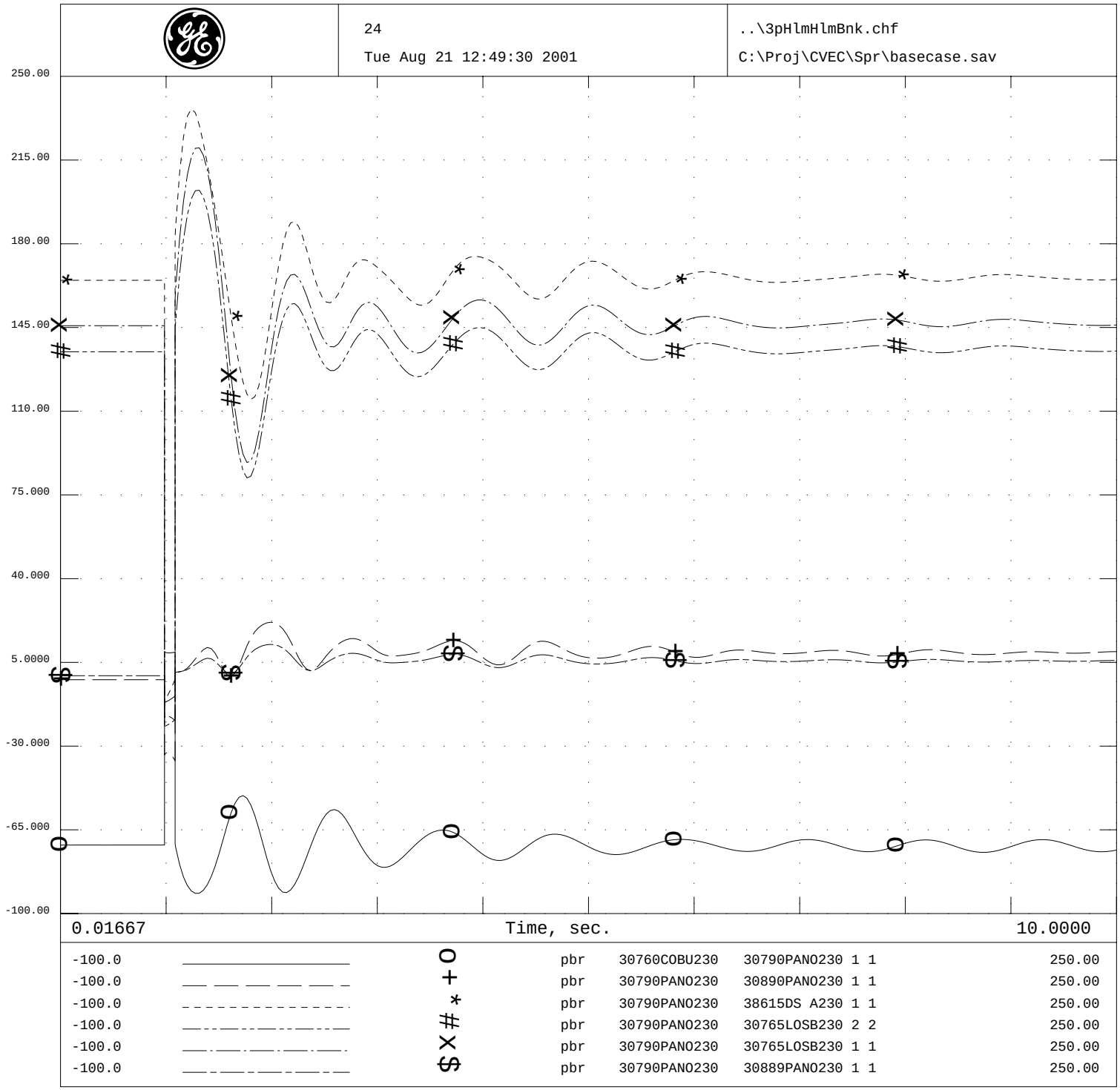

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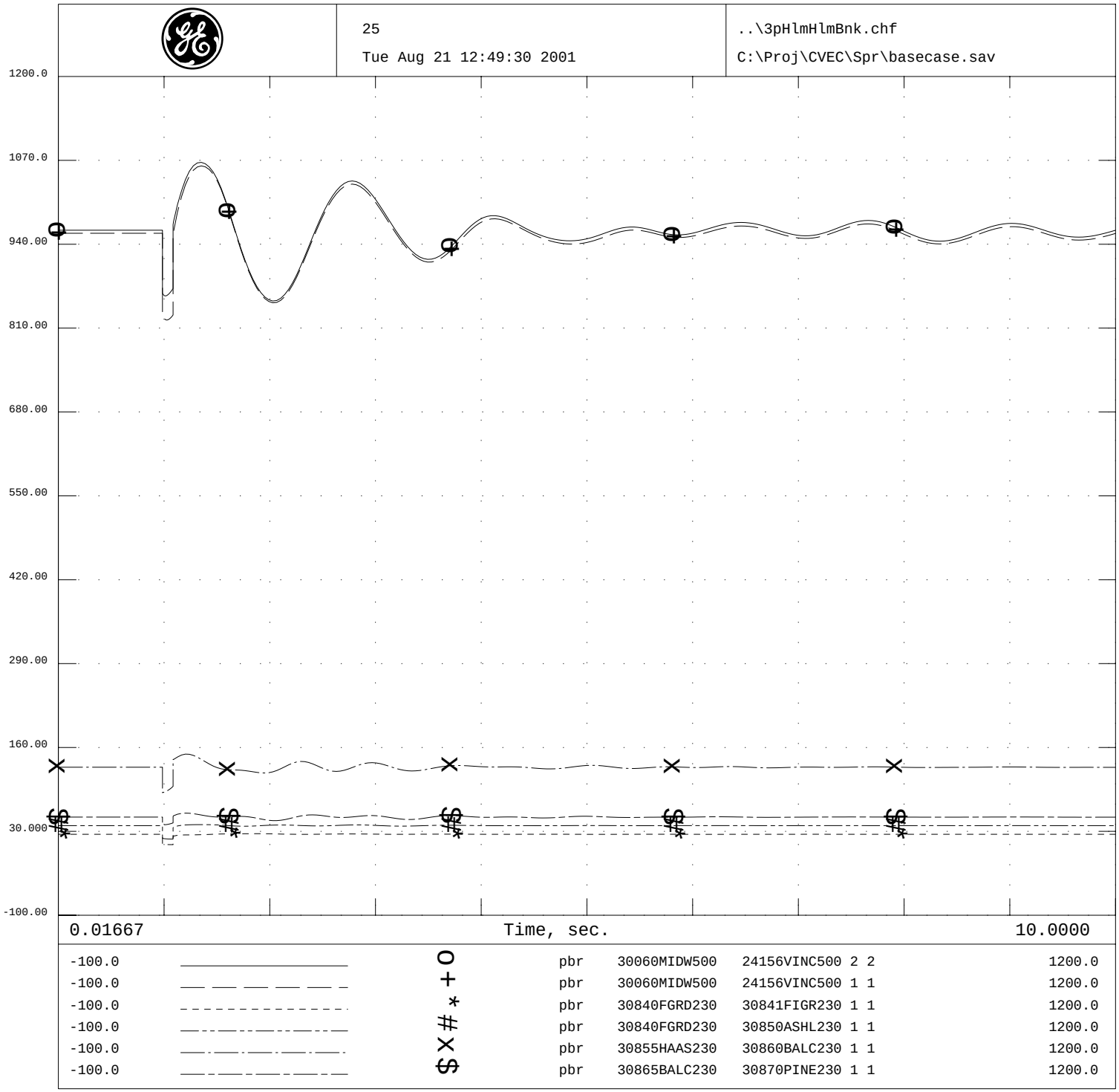

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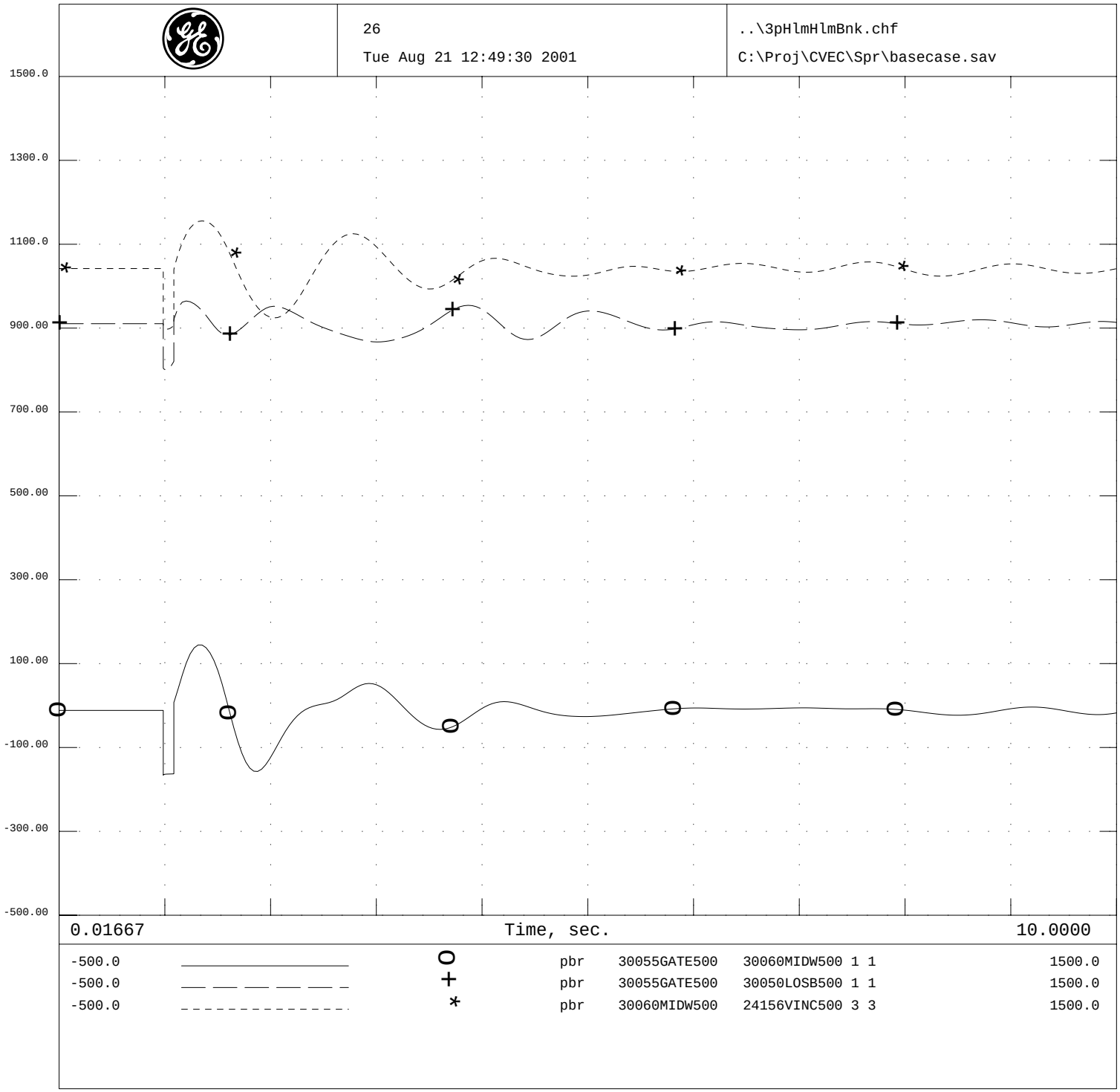

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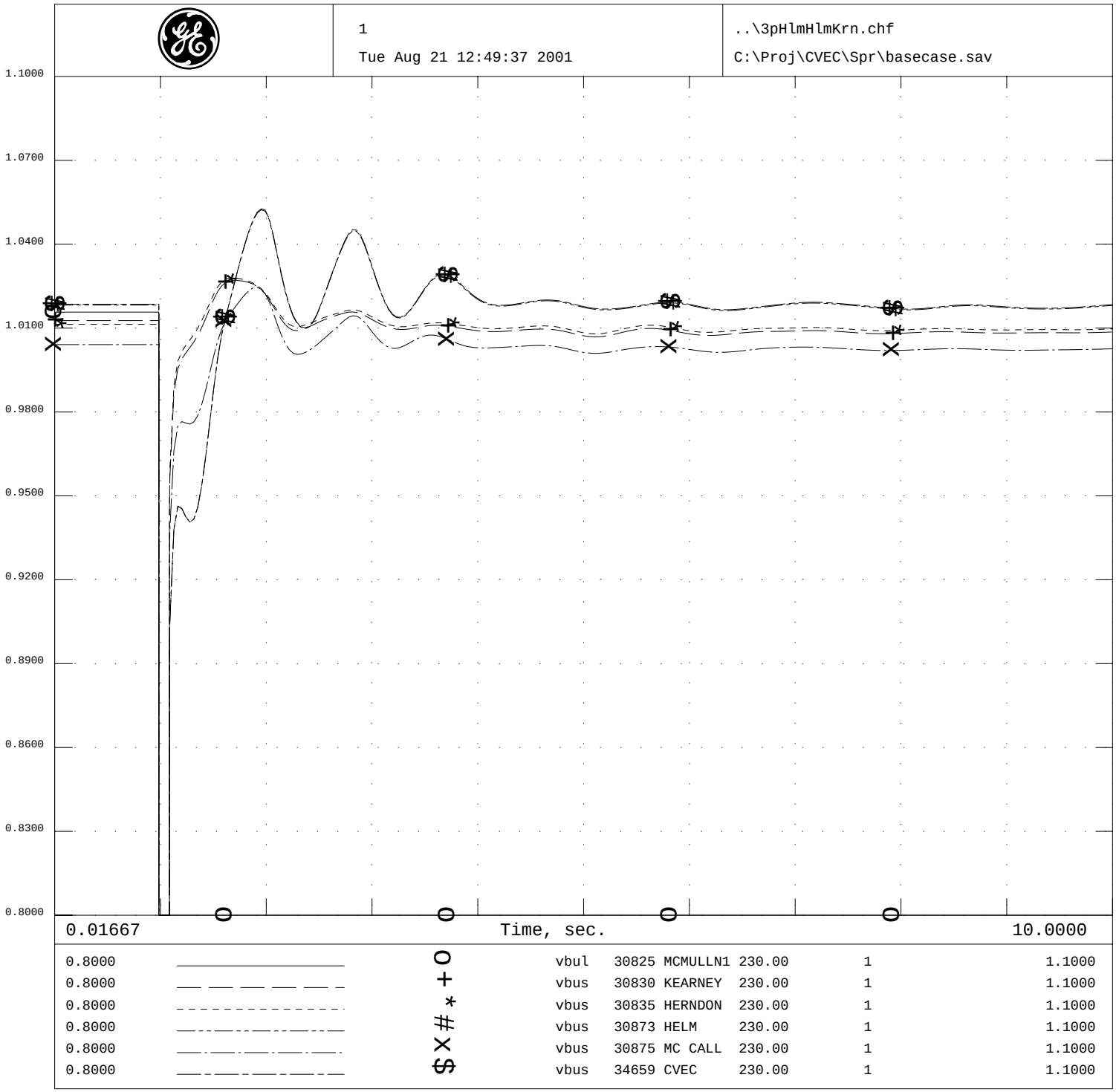

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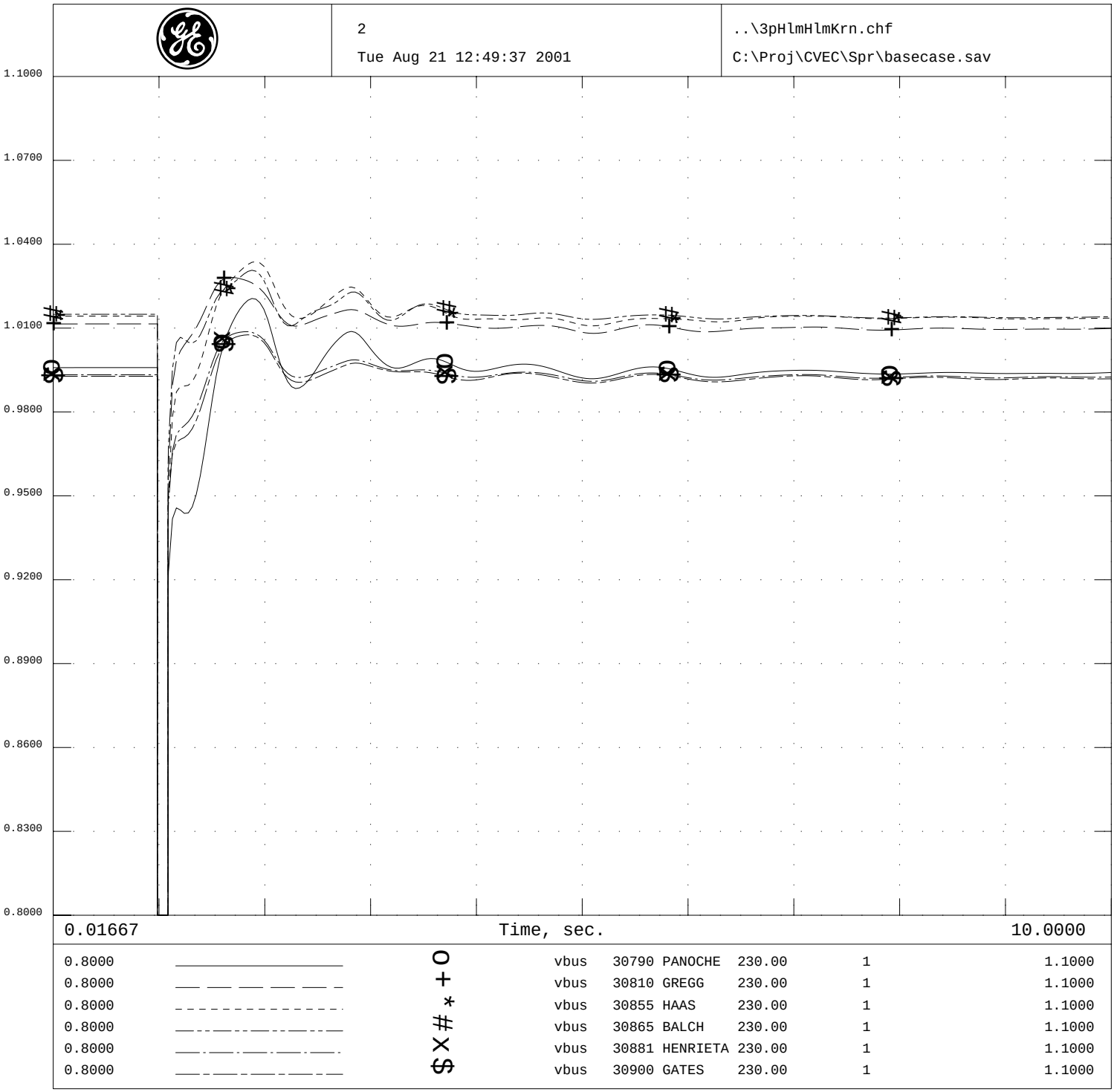
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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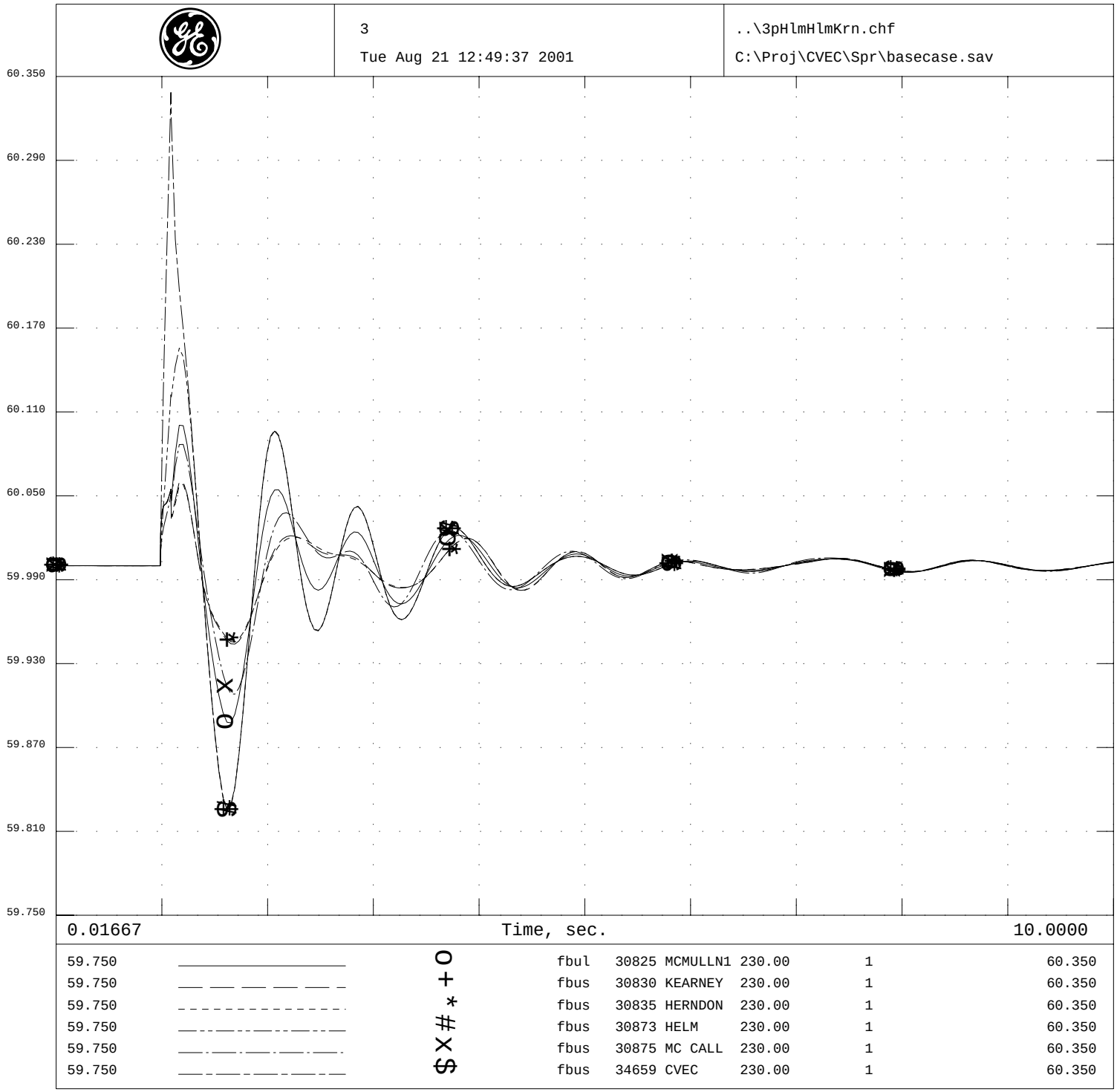

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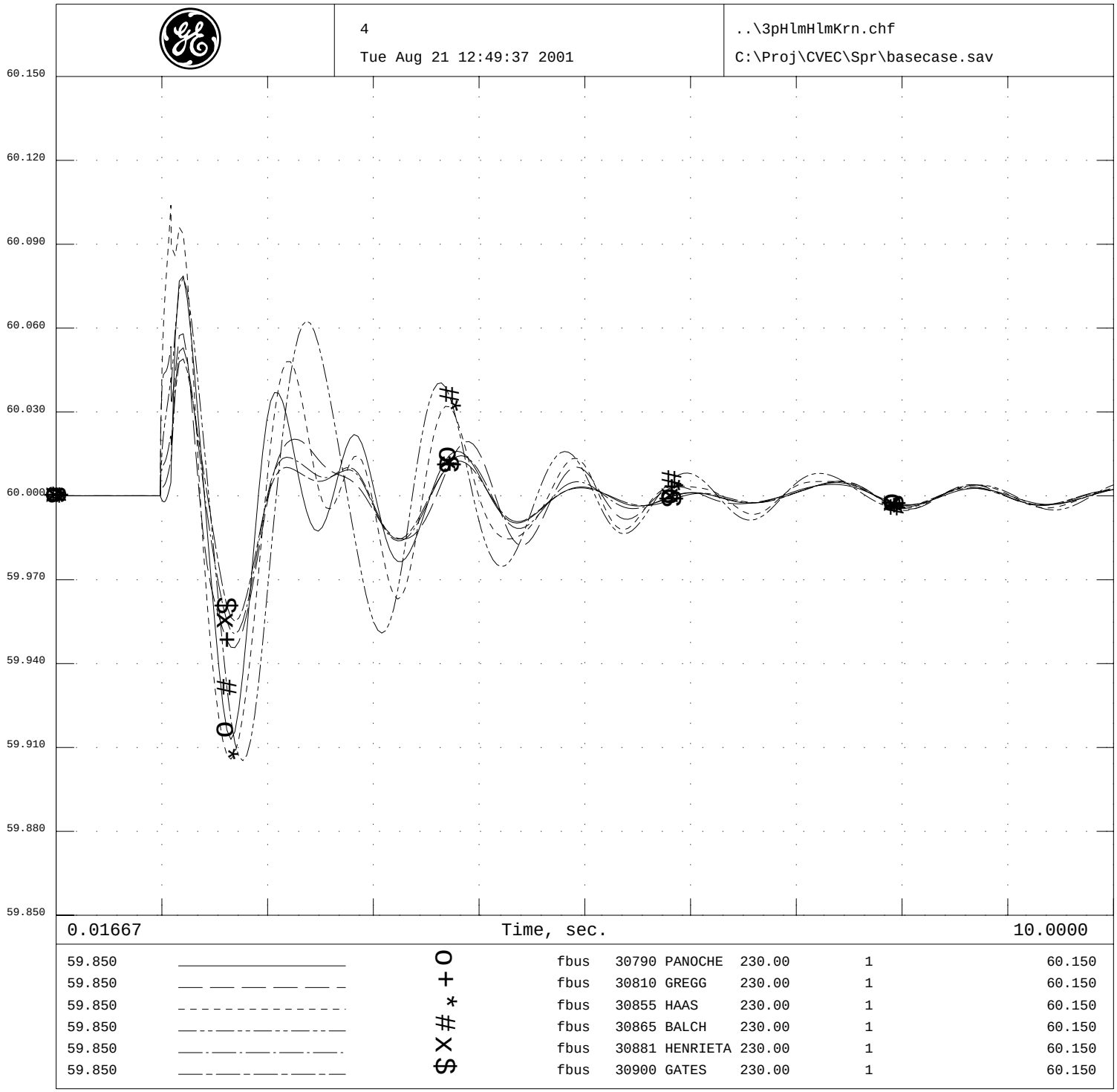

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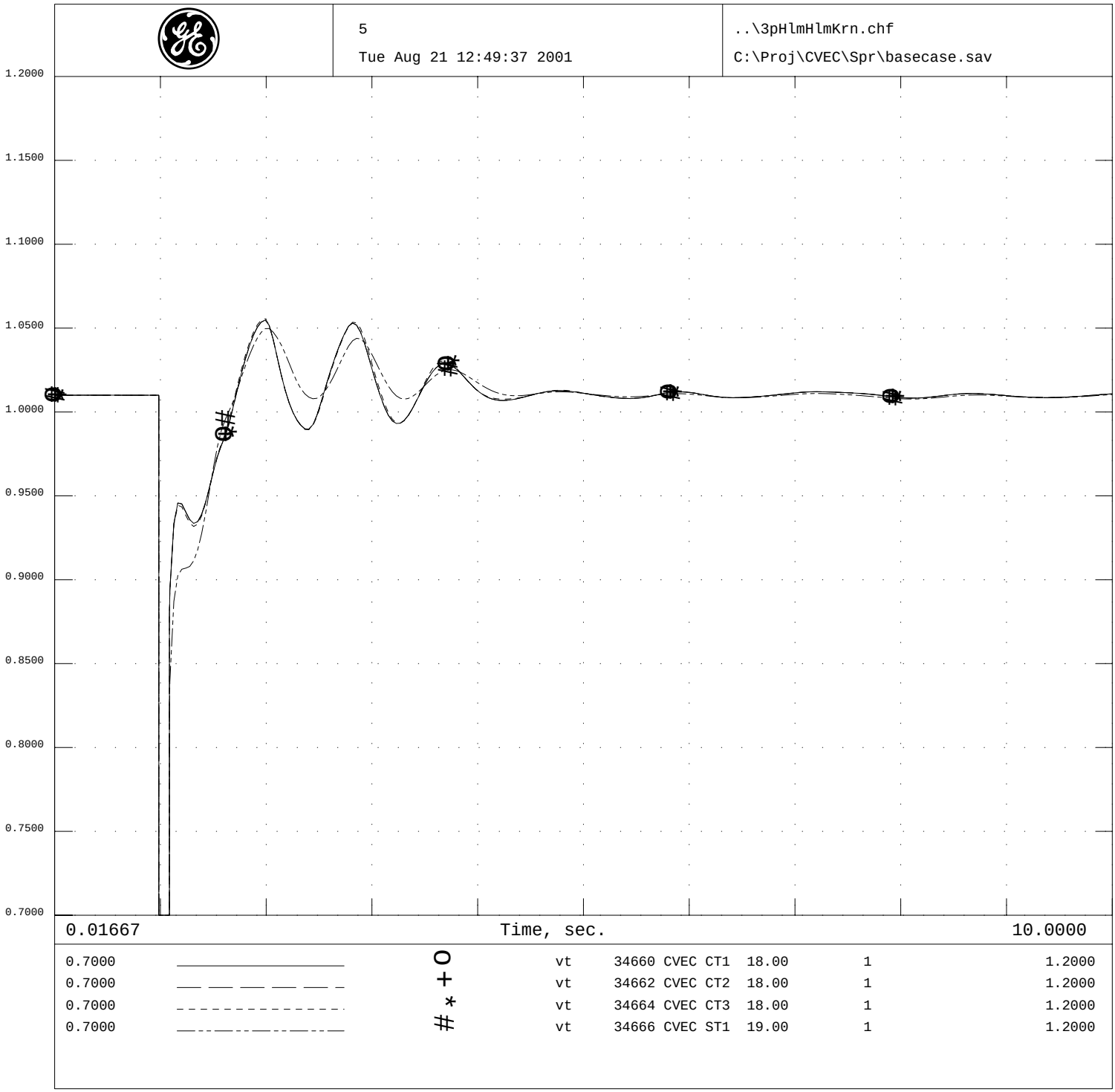

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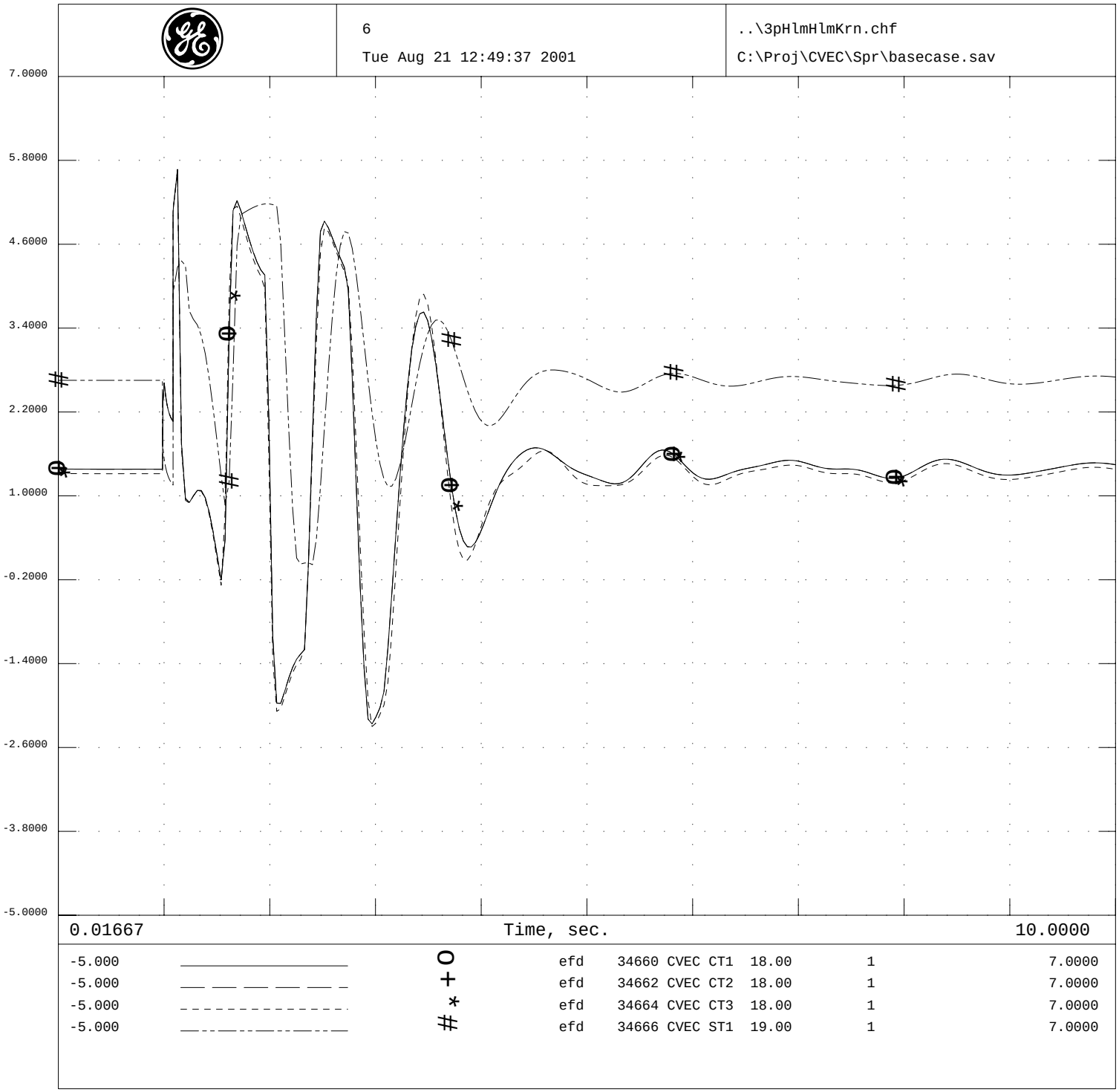
Project Generator Terminal Voltages



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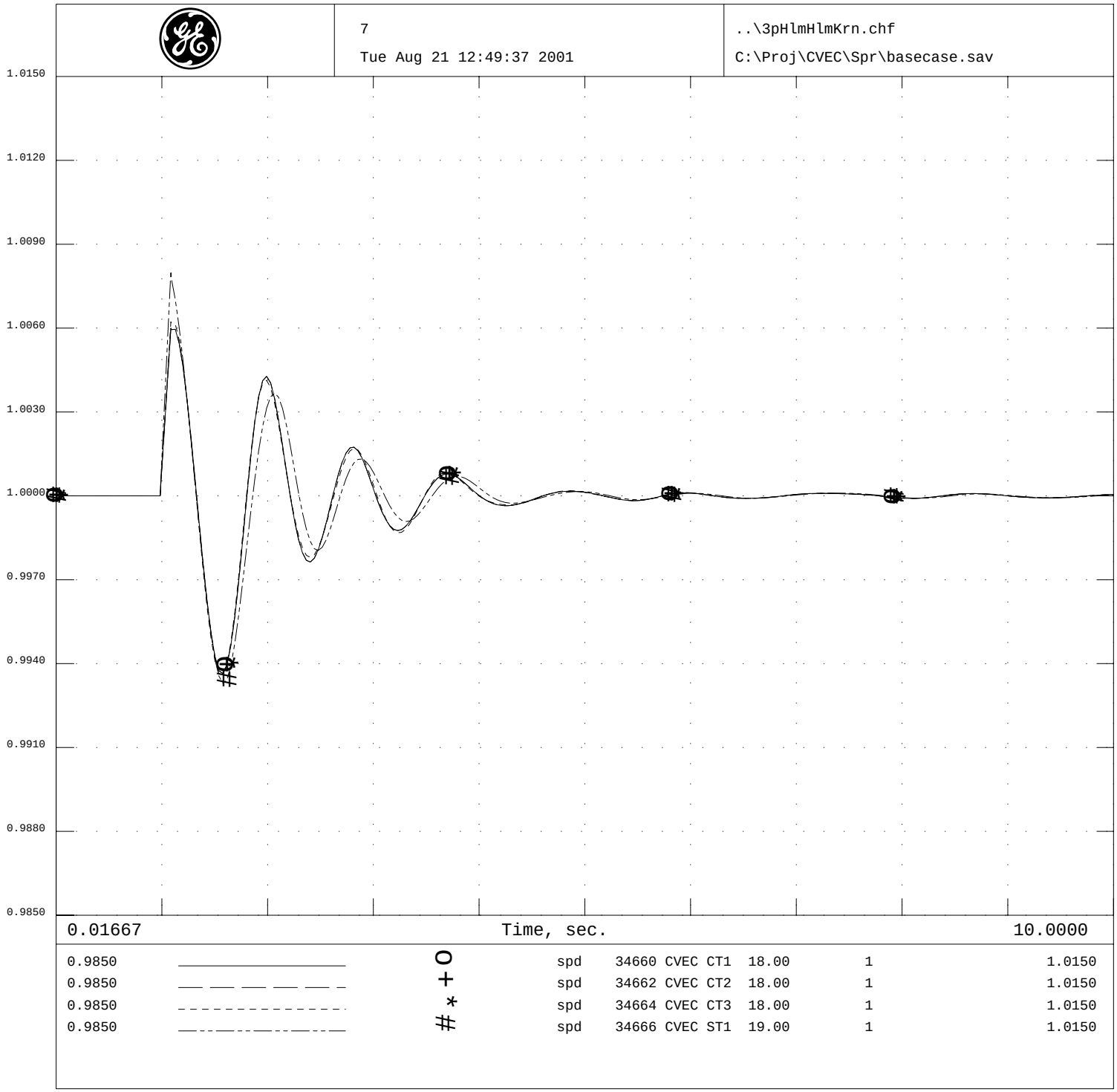

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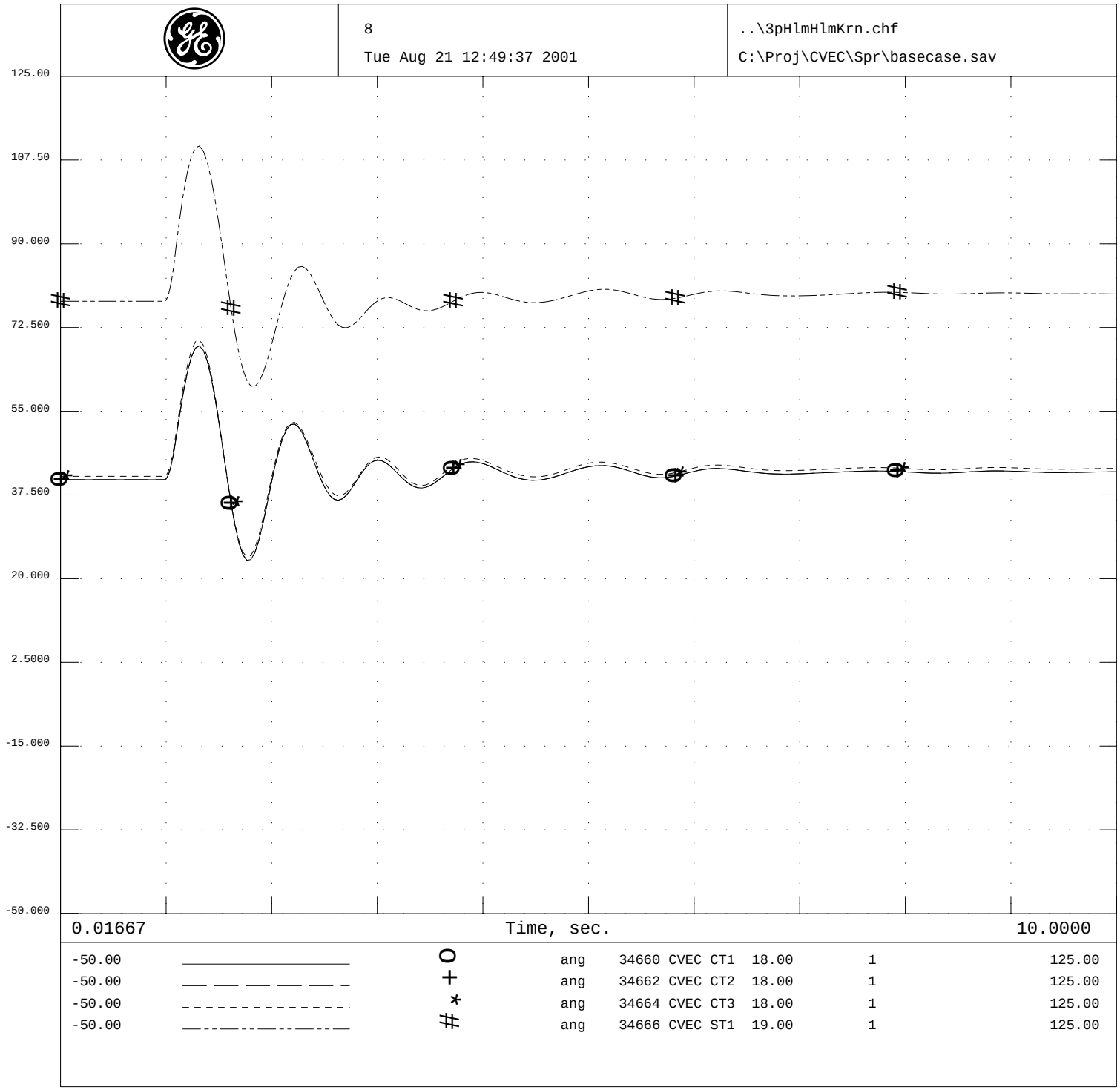

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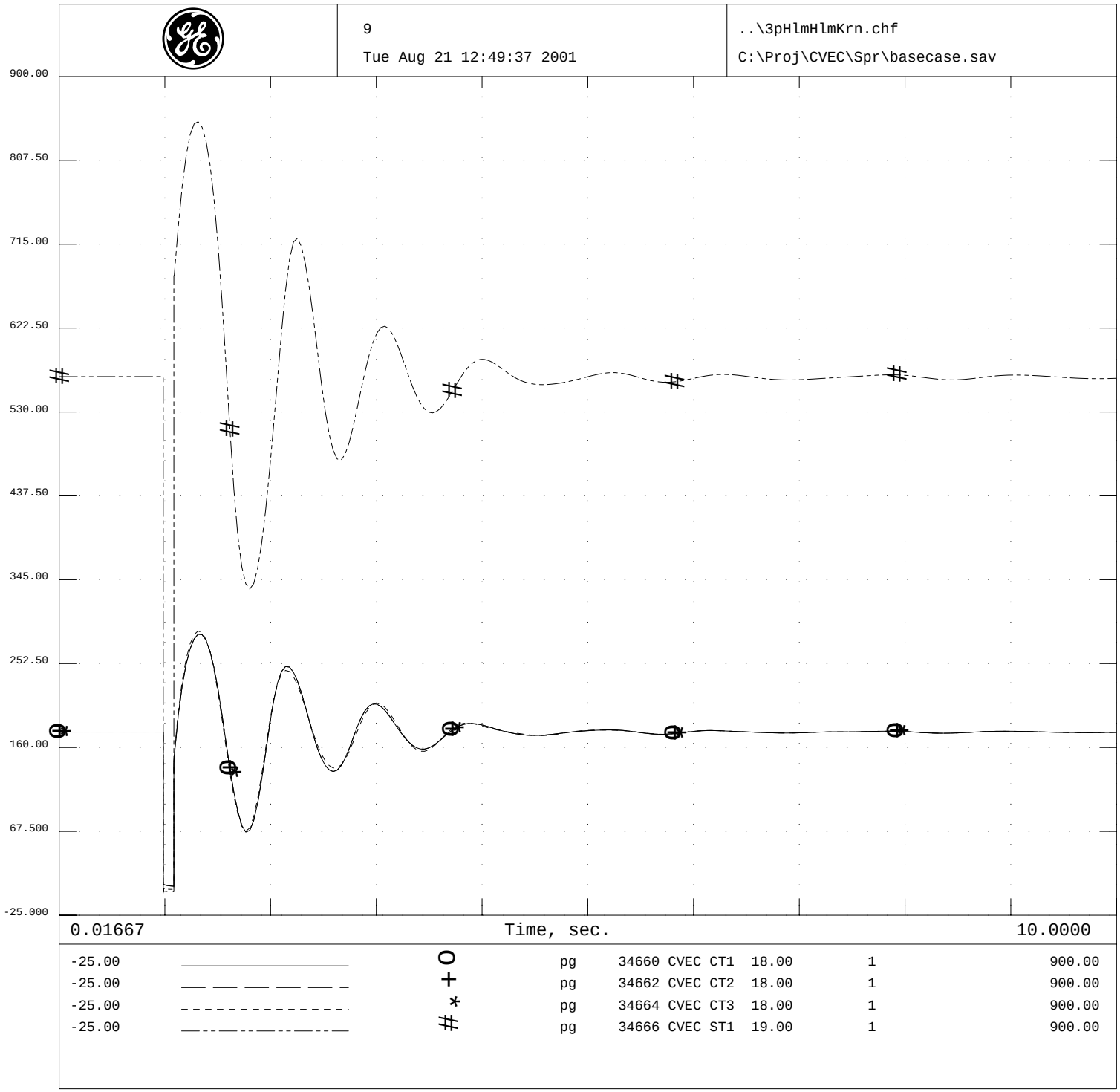

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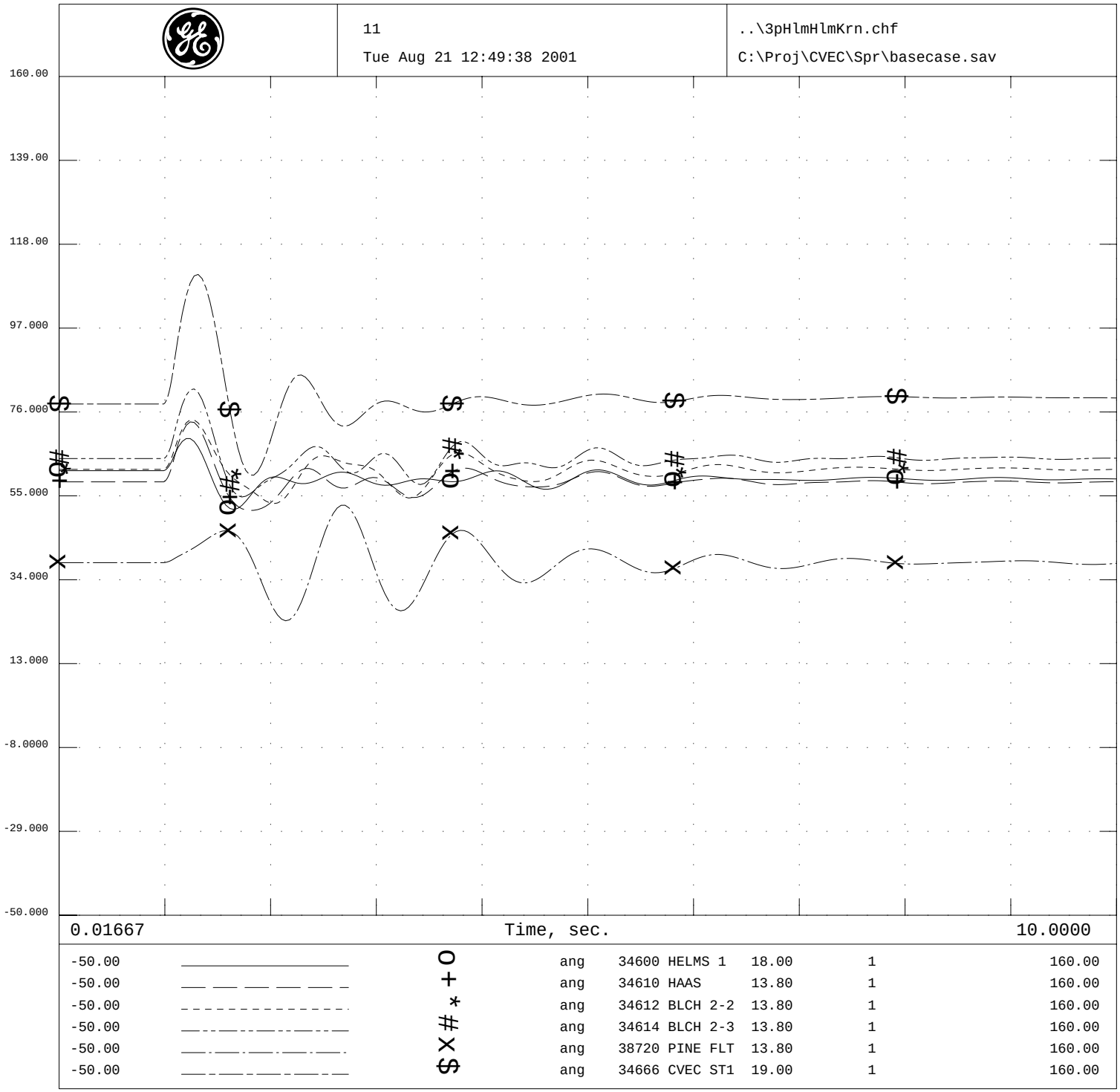

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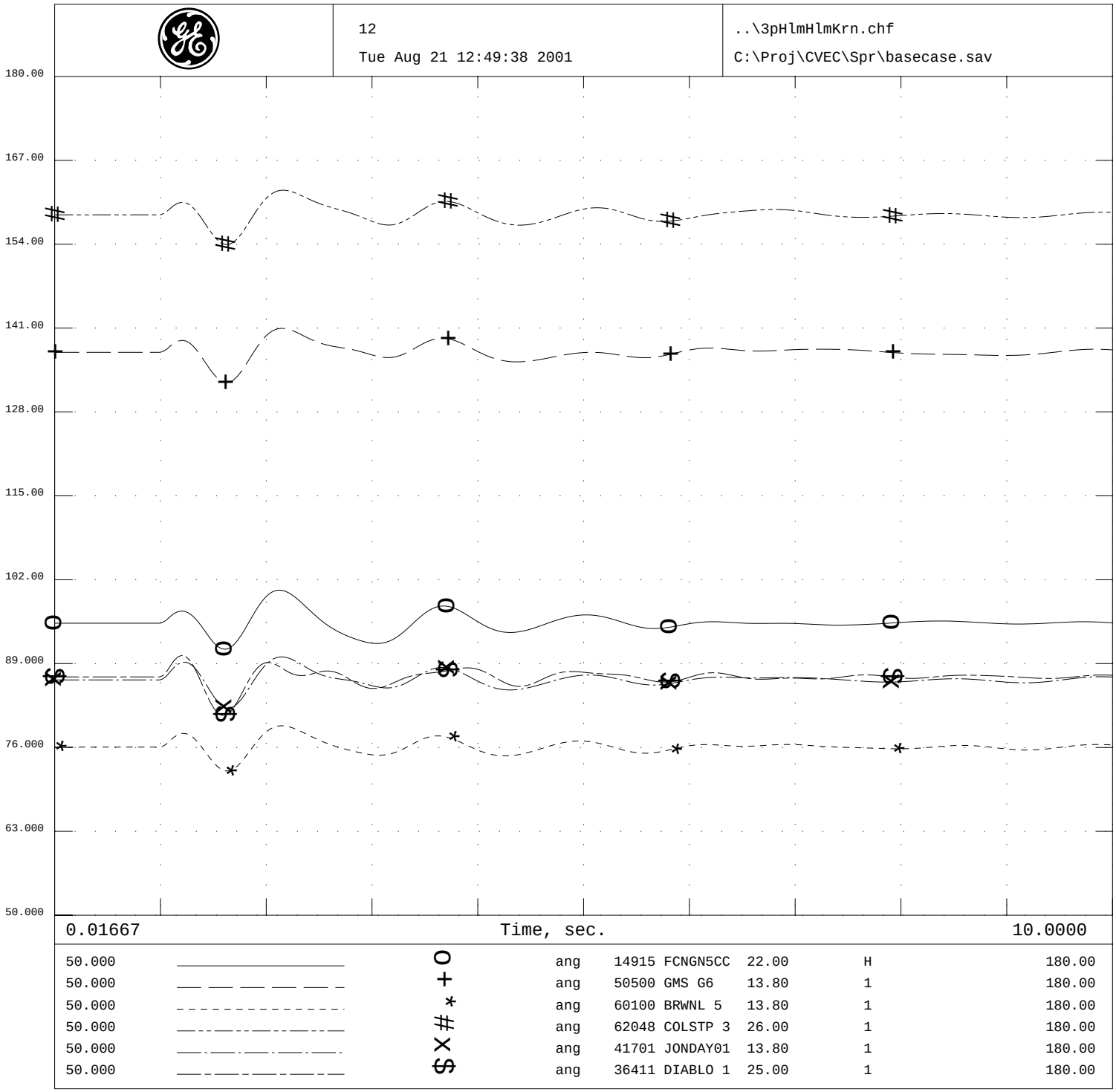

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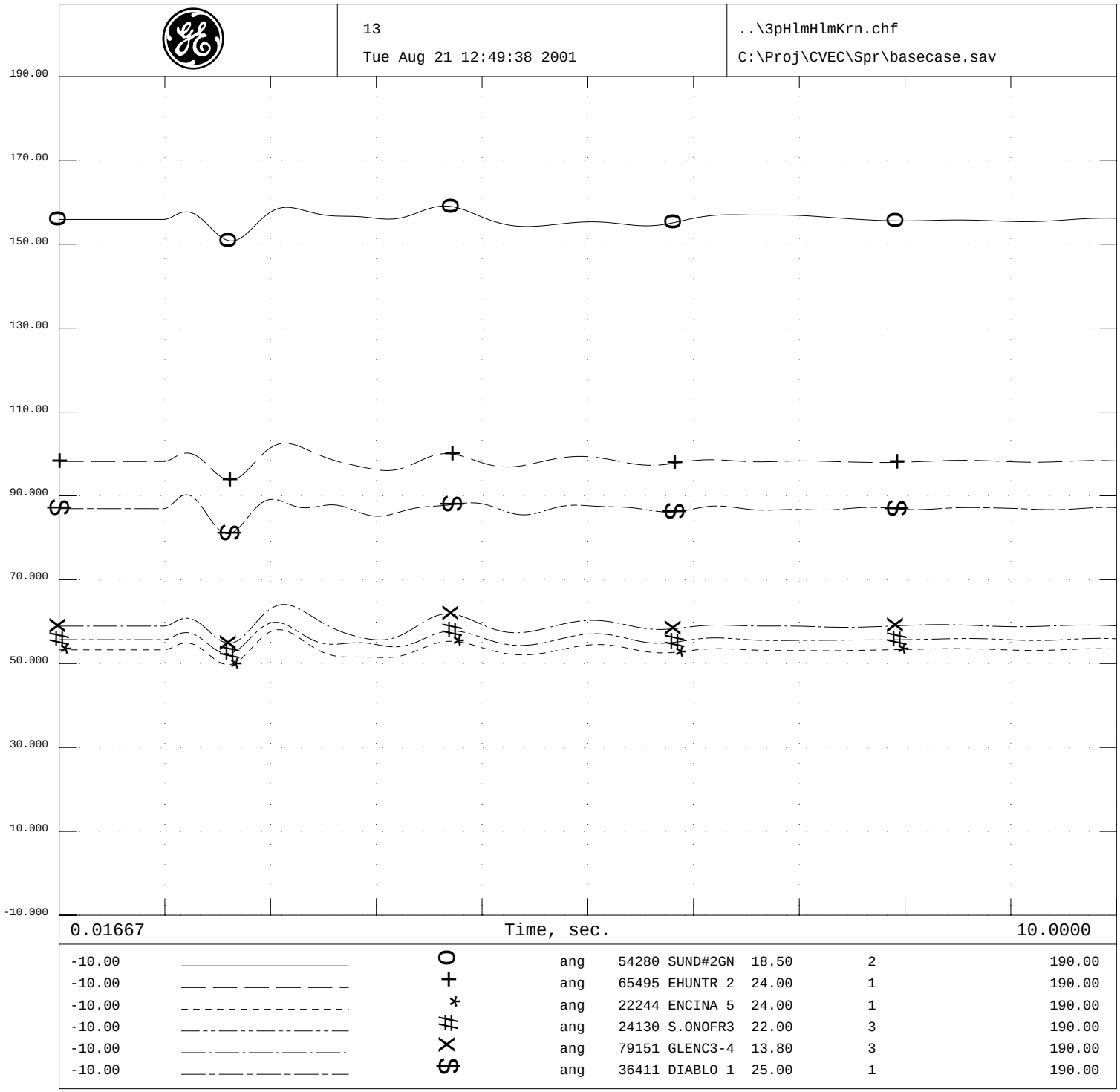

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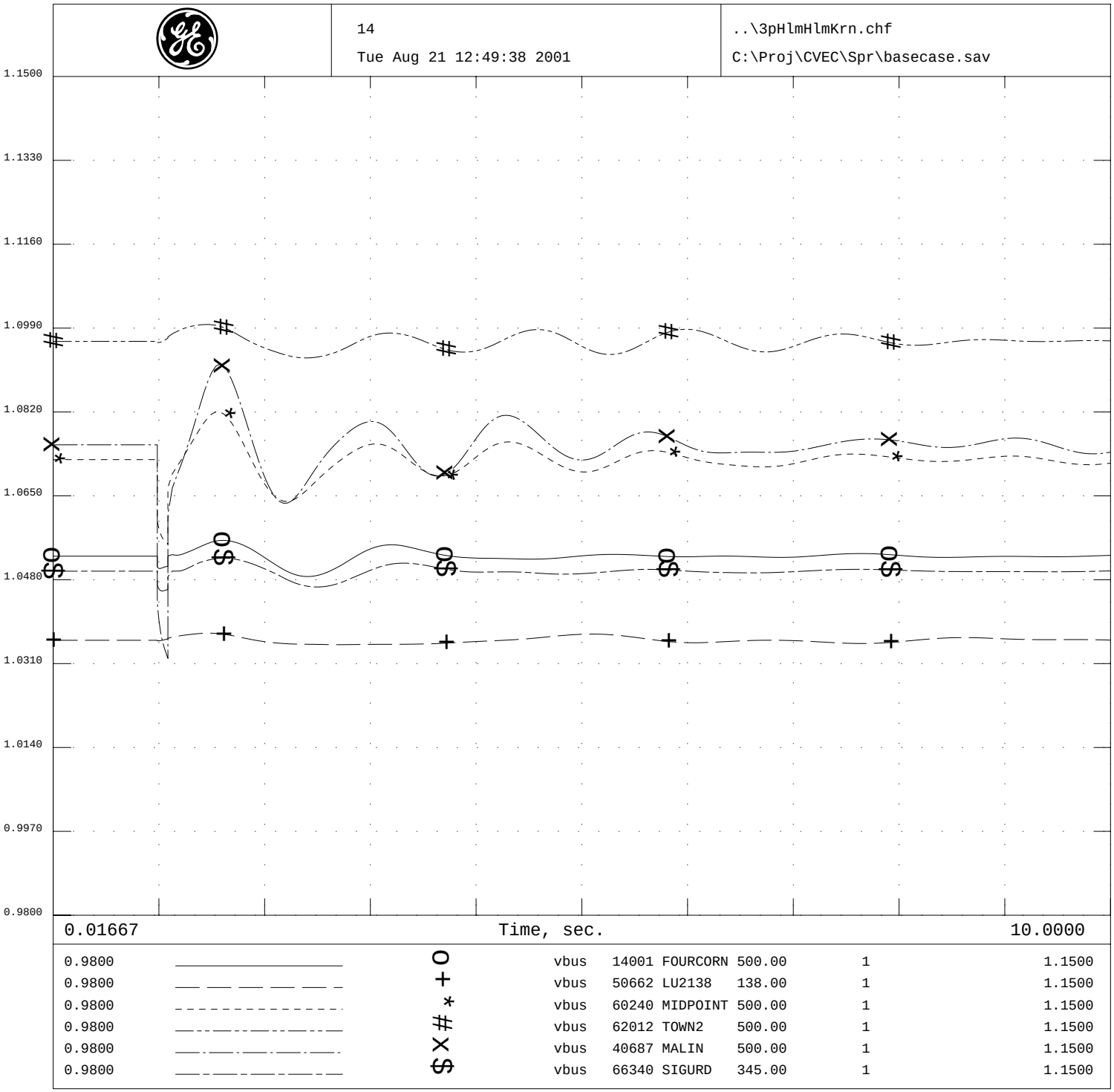

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Calpine Corporation
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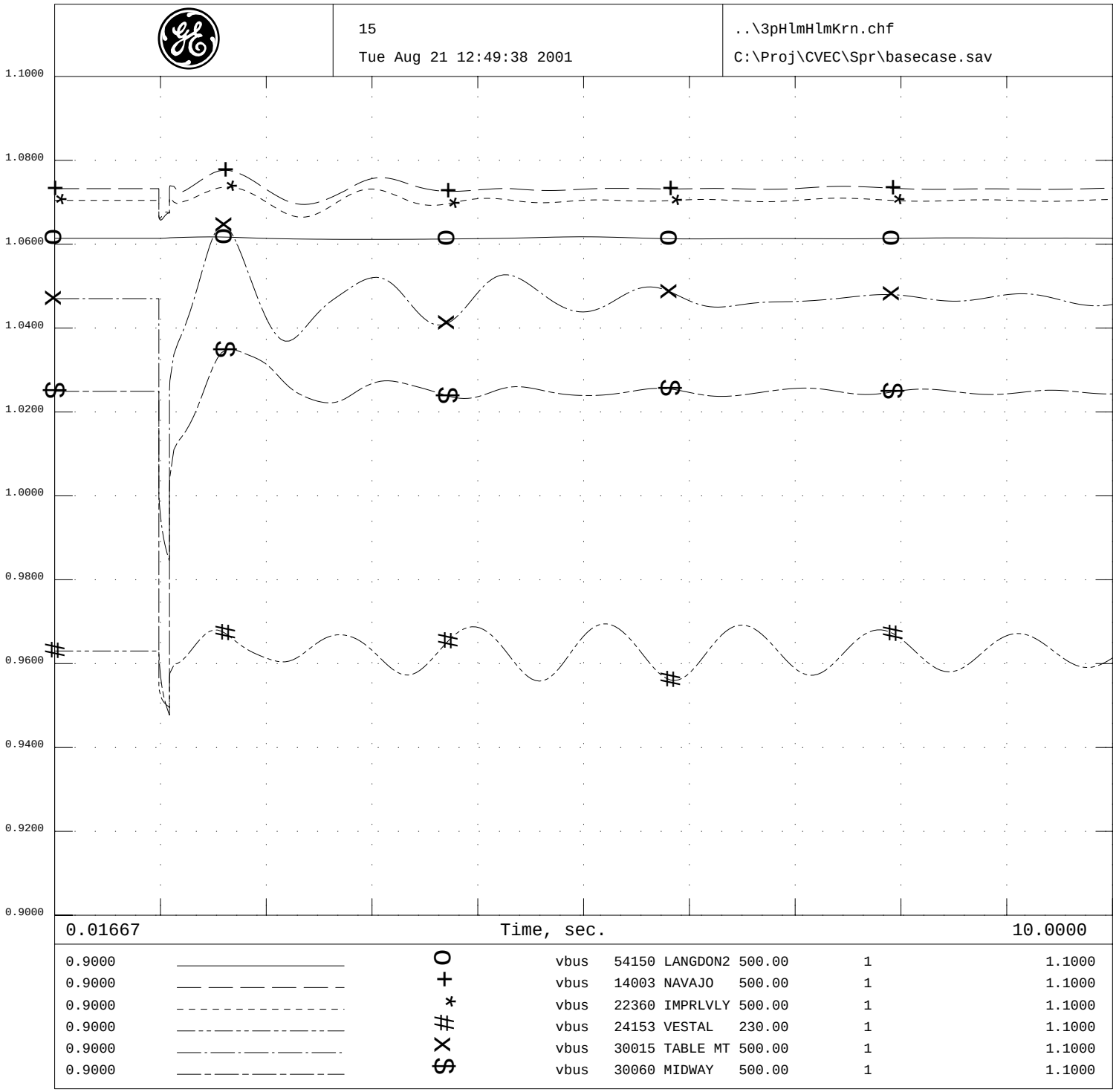

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
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Central Valley Energy Center
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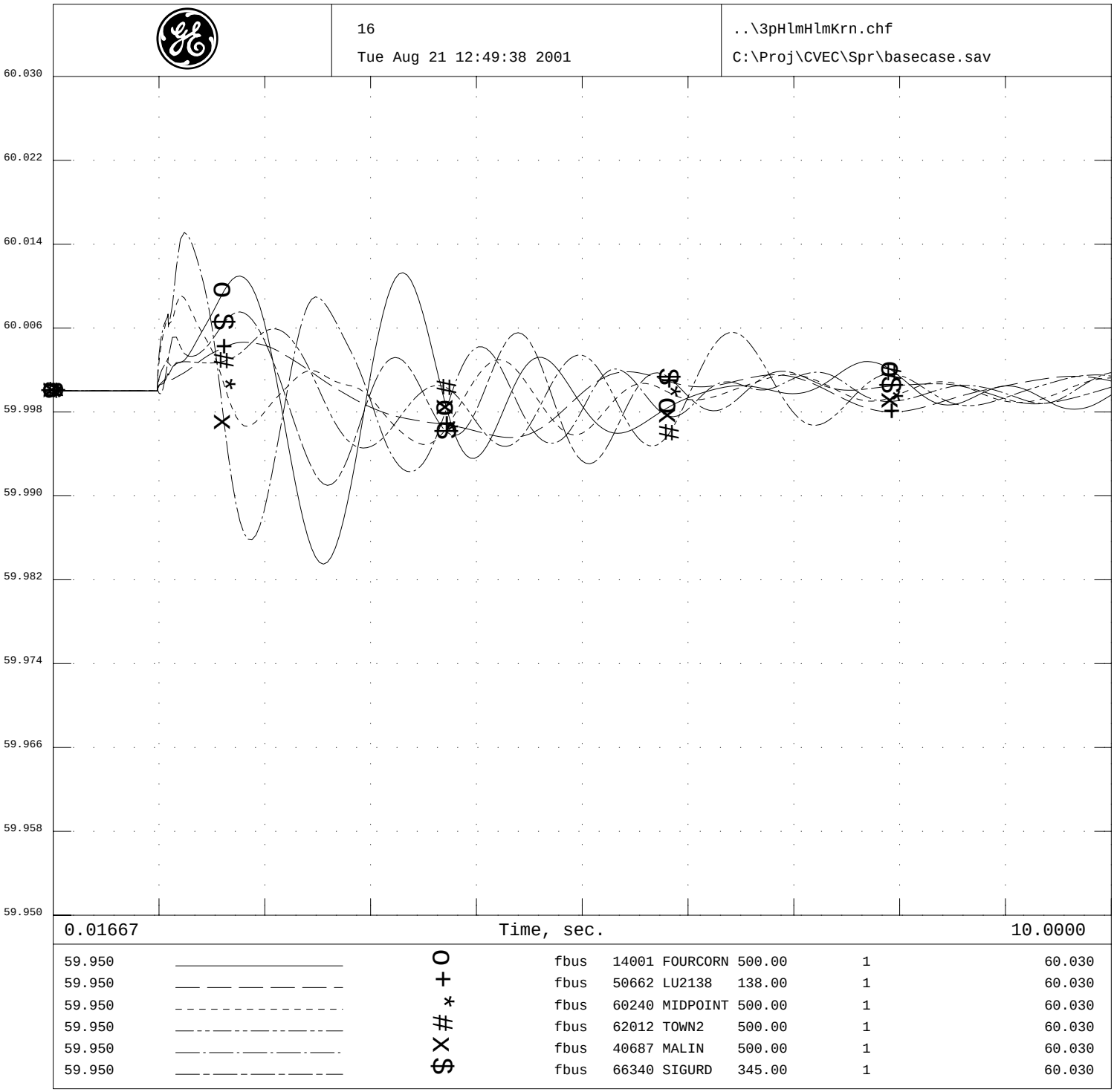

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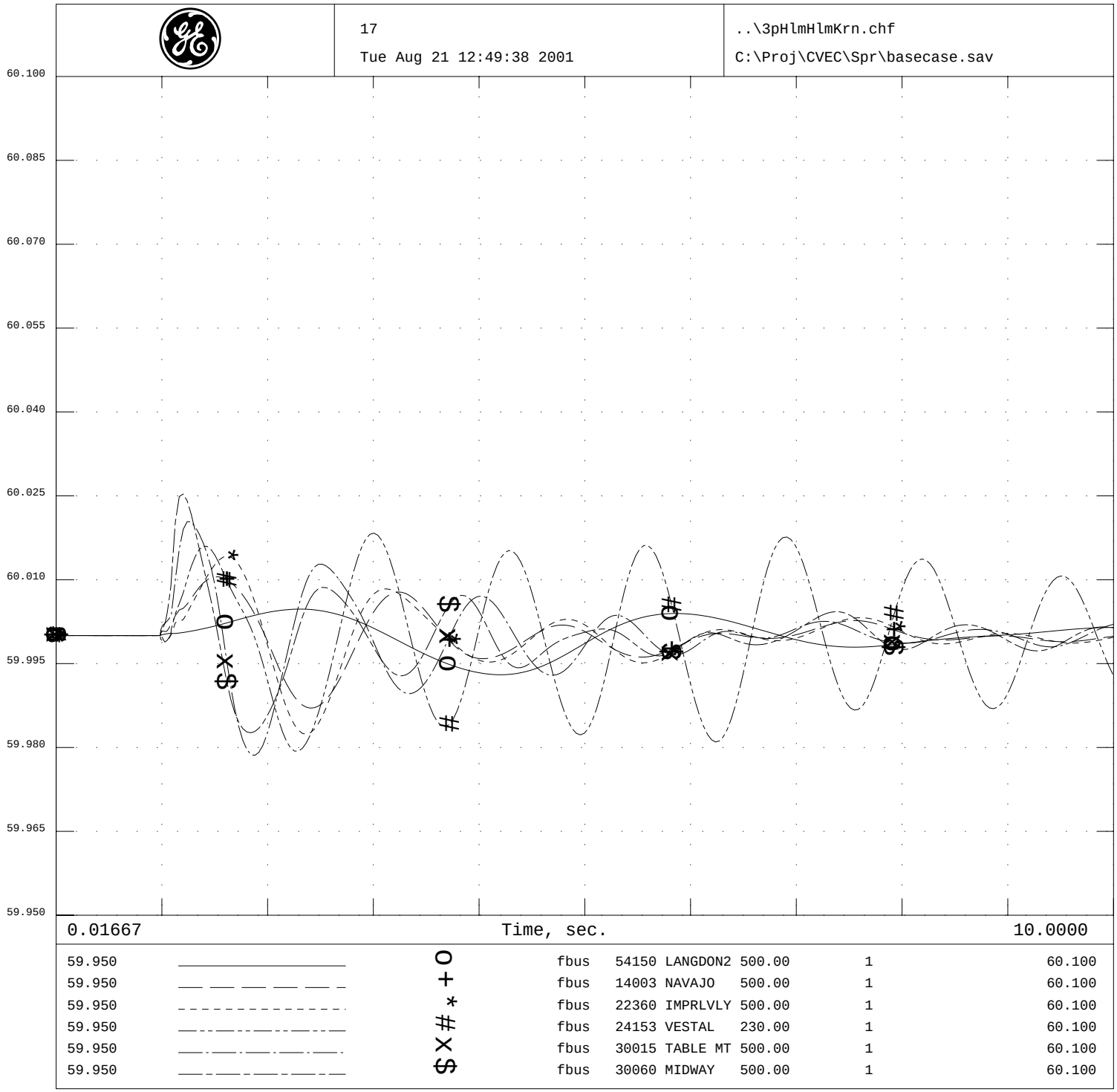

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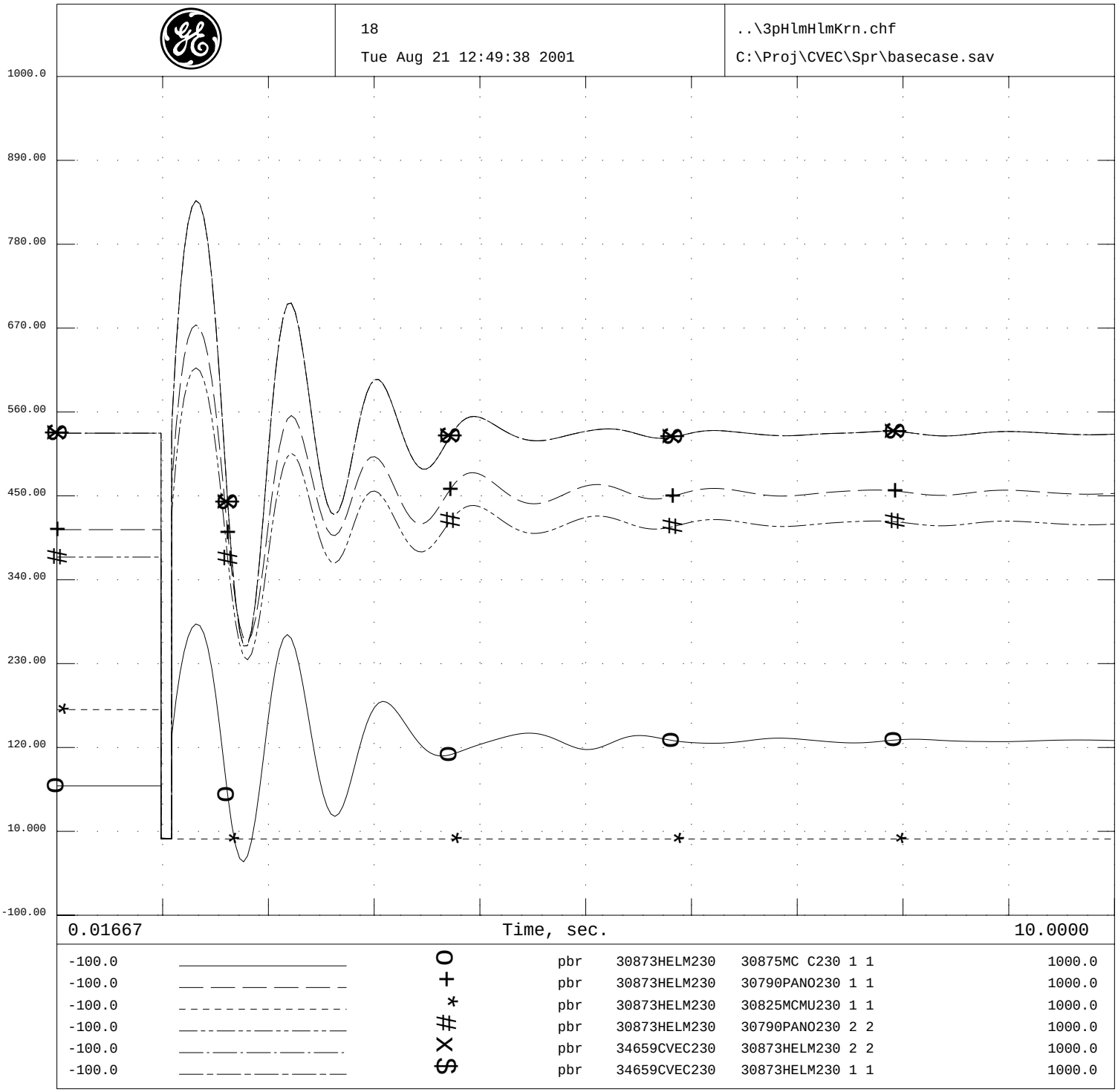

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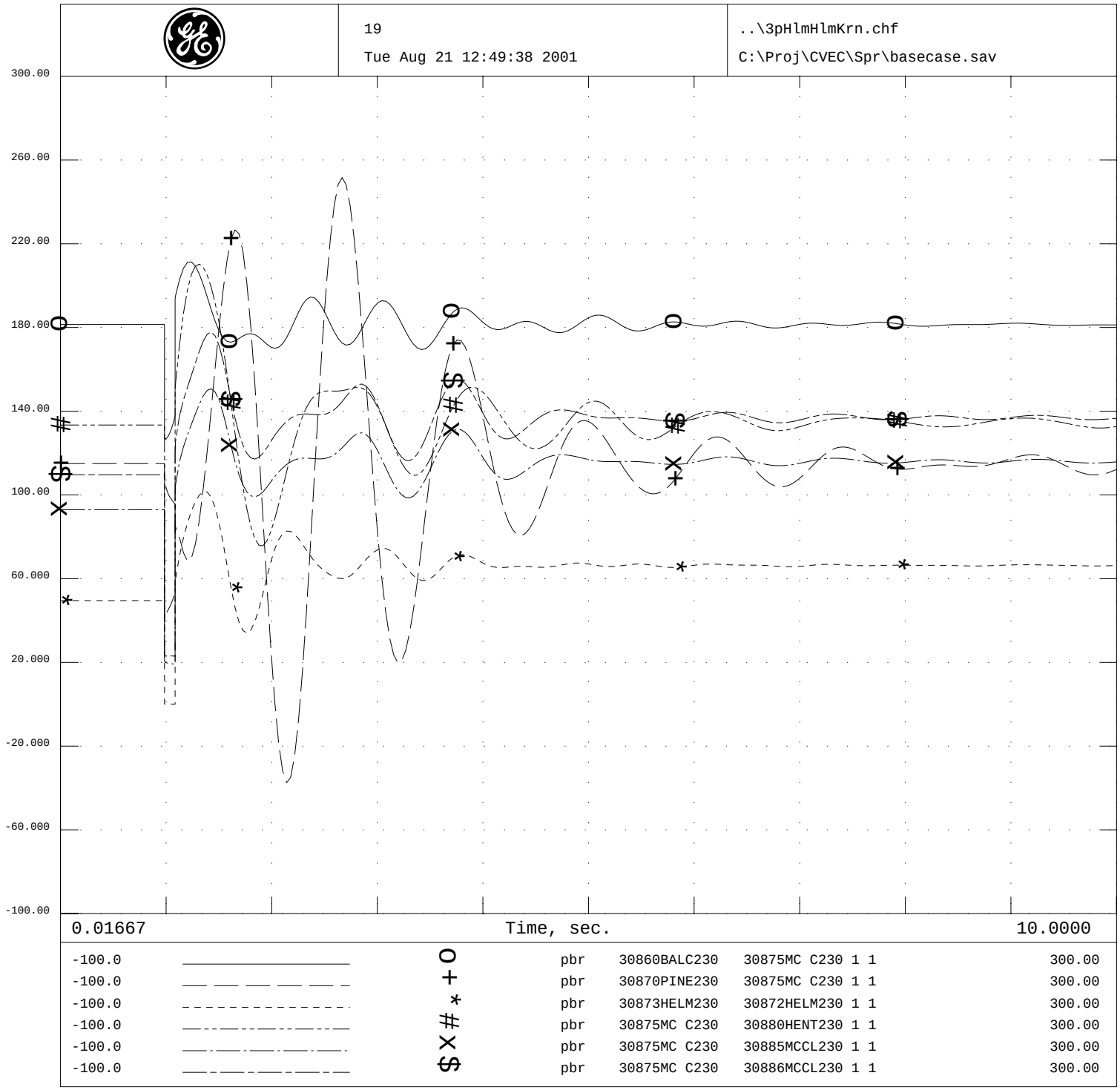

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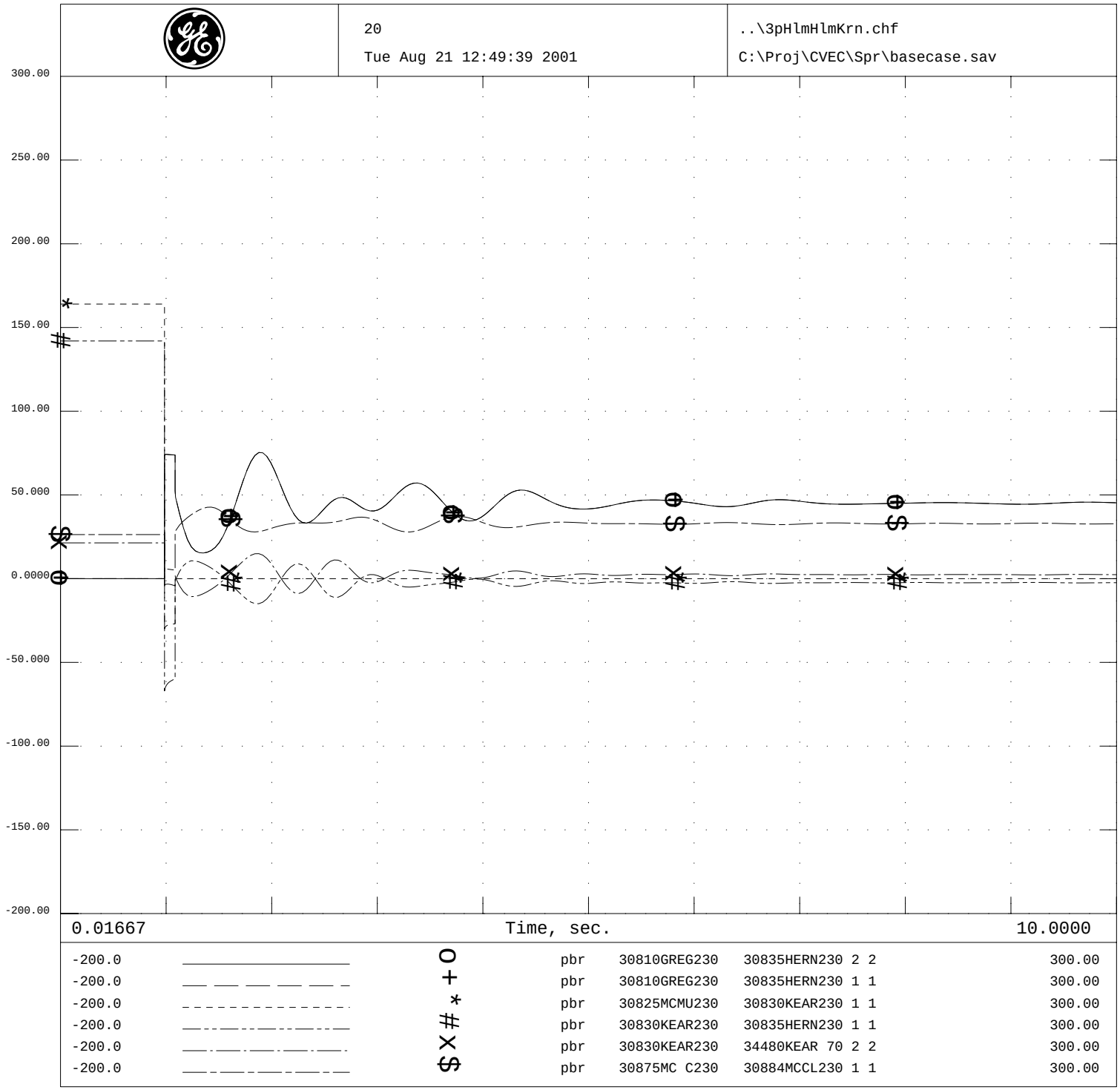

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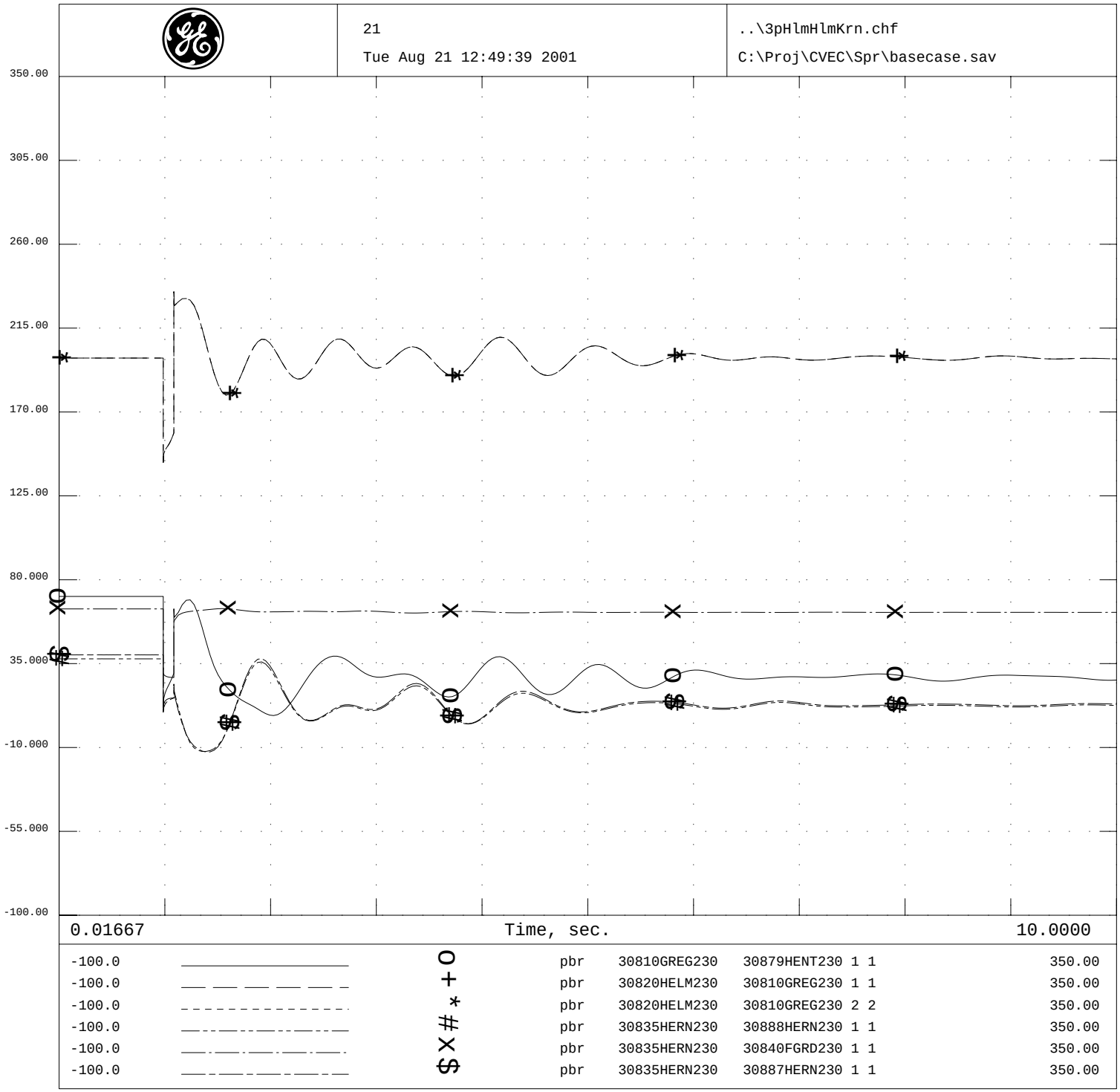

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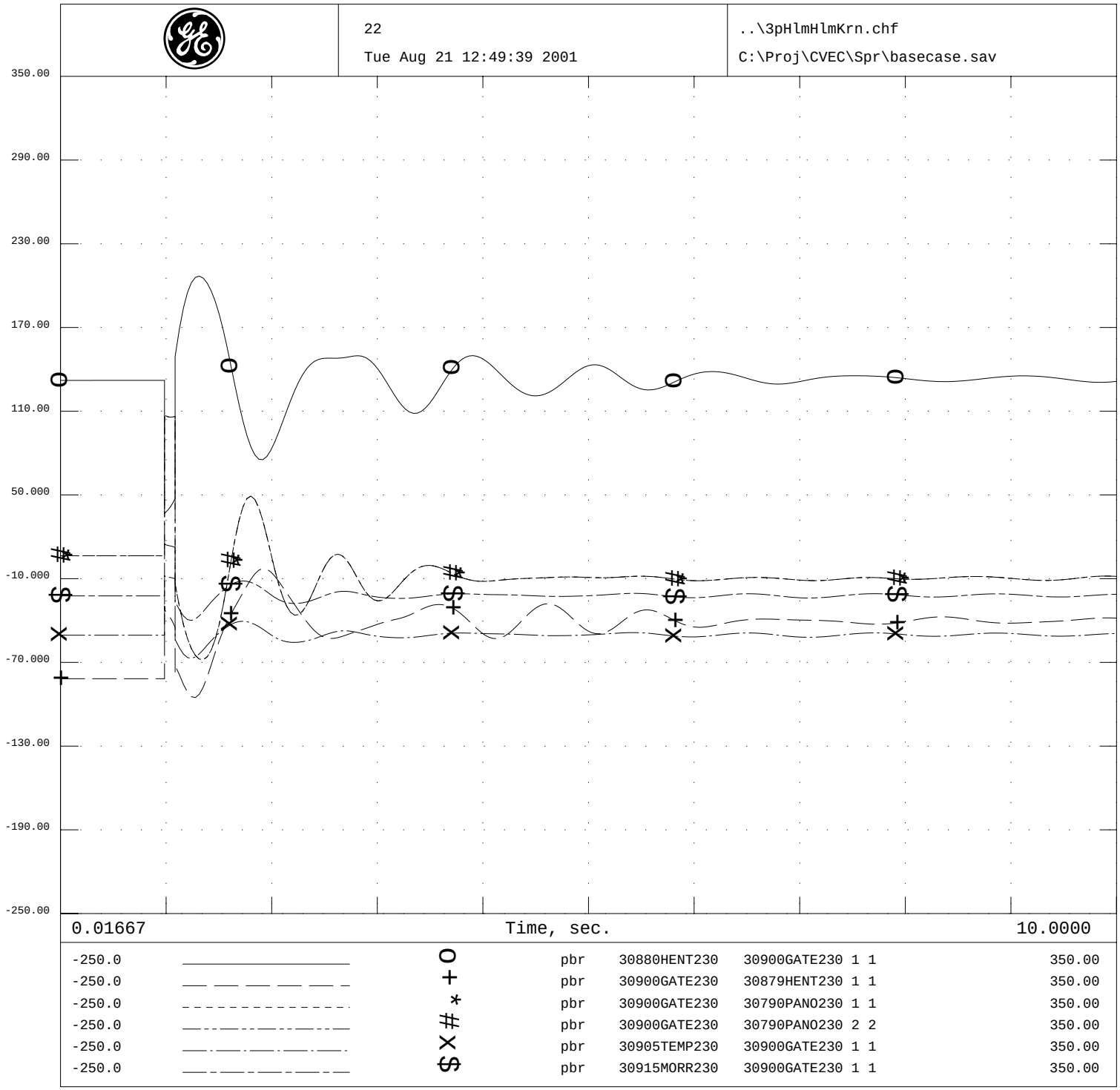

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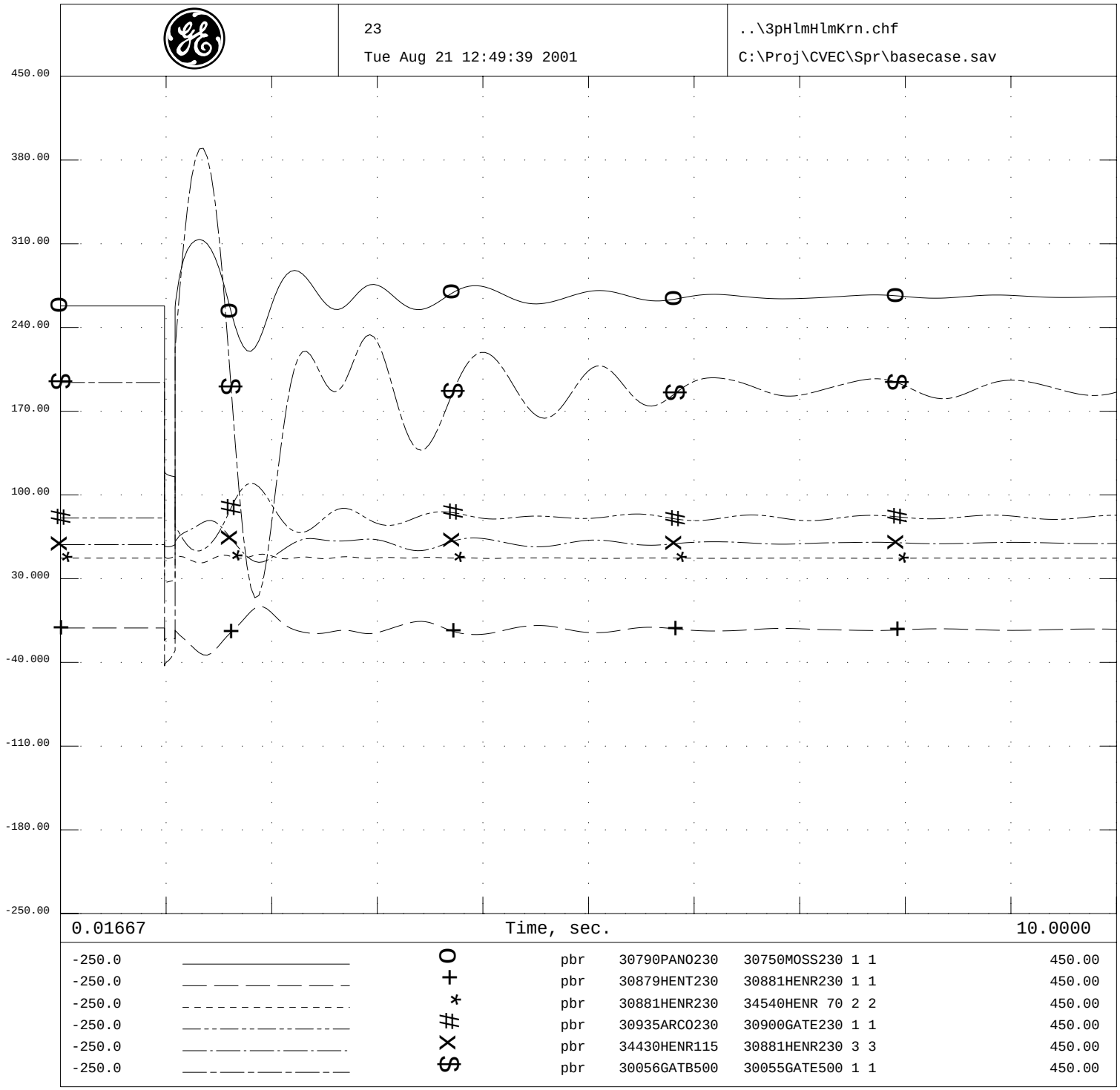

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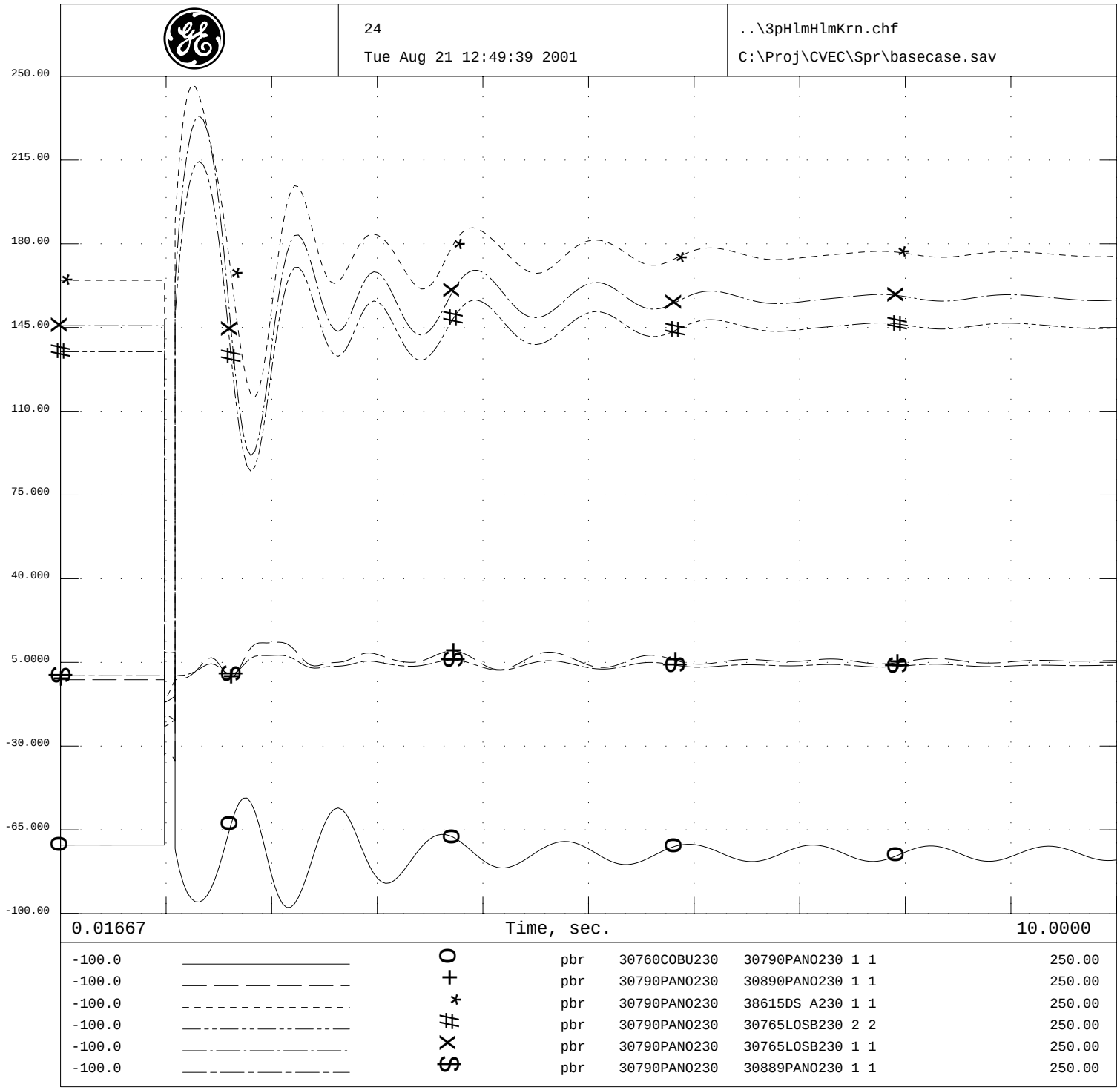

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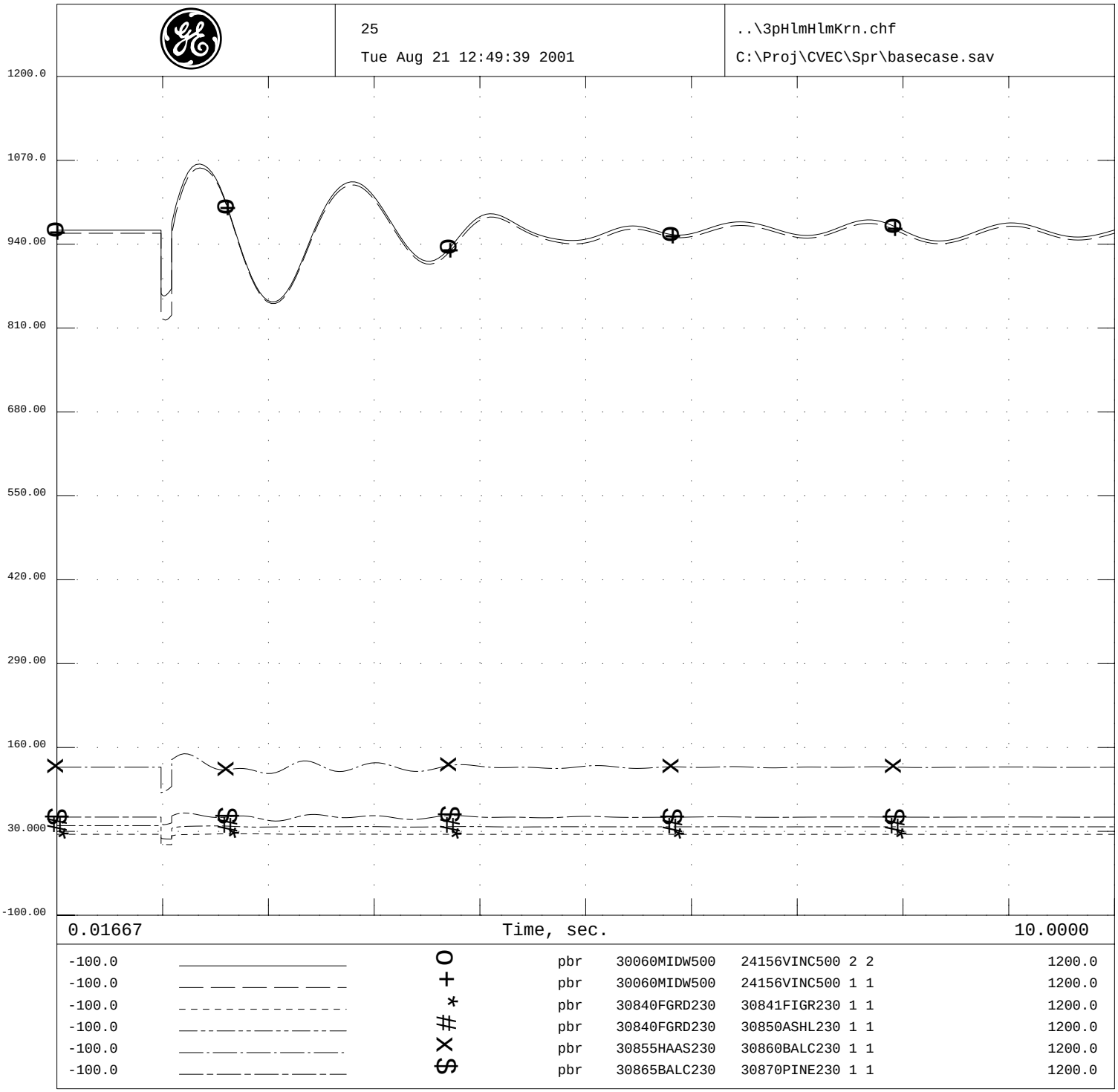

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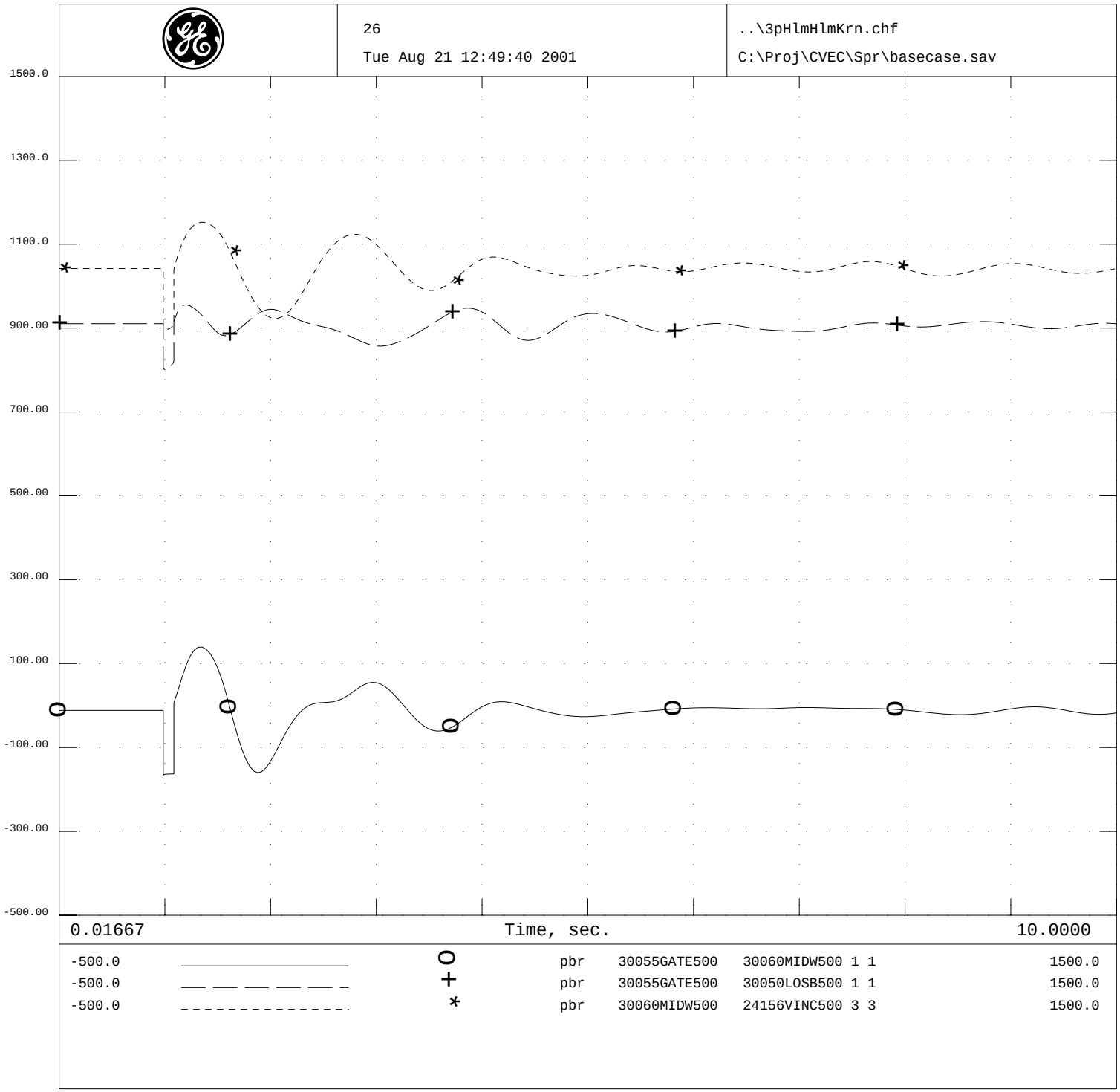

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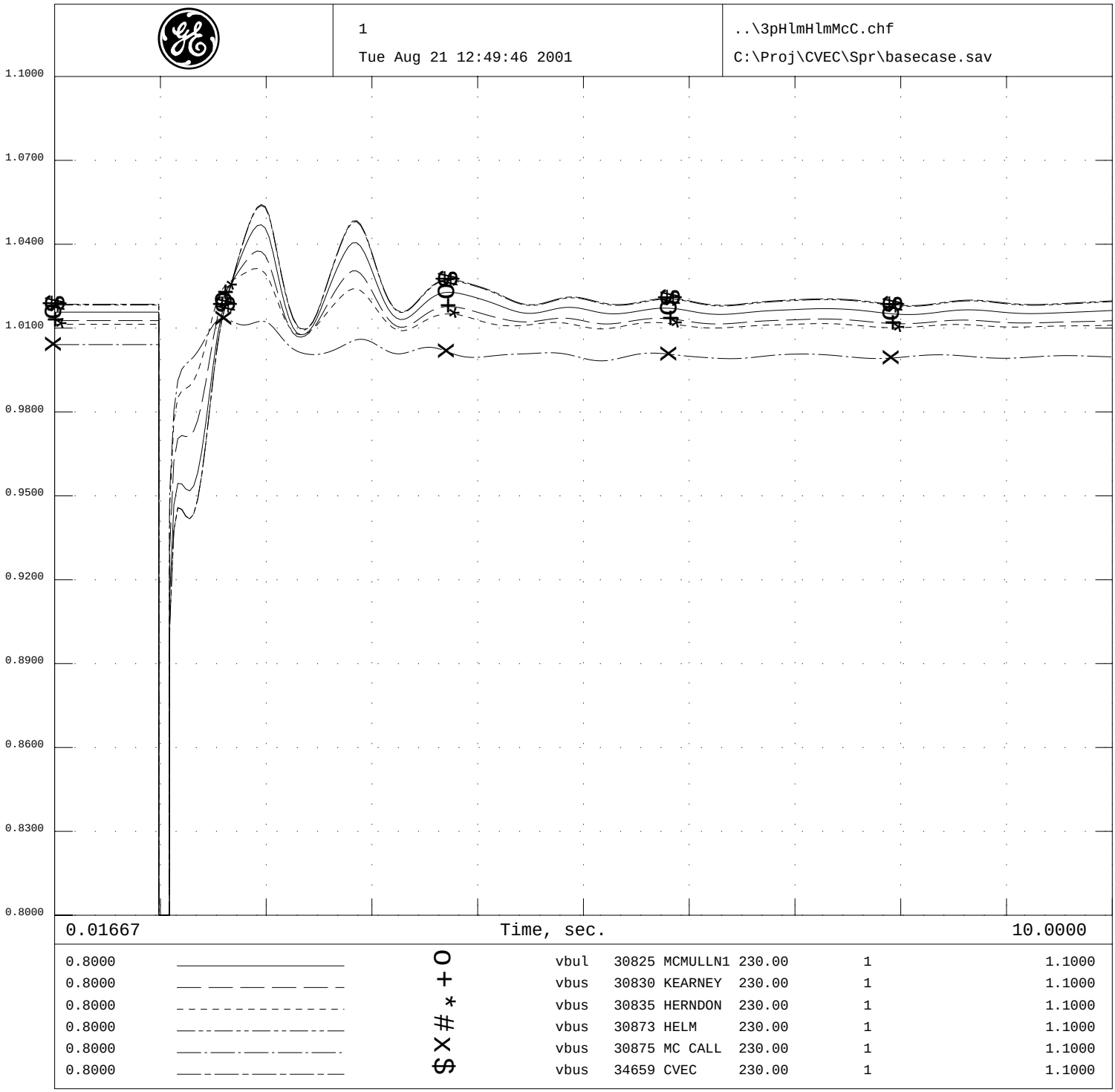

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Calpine Corporation
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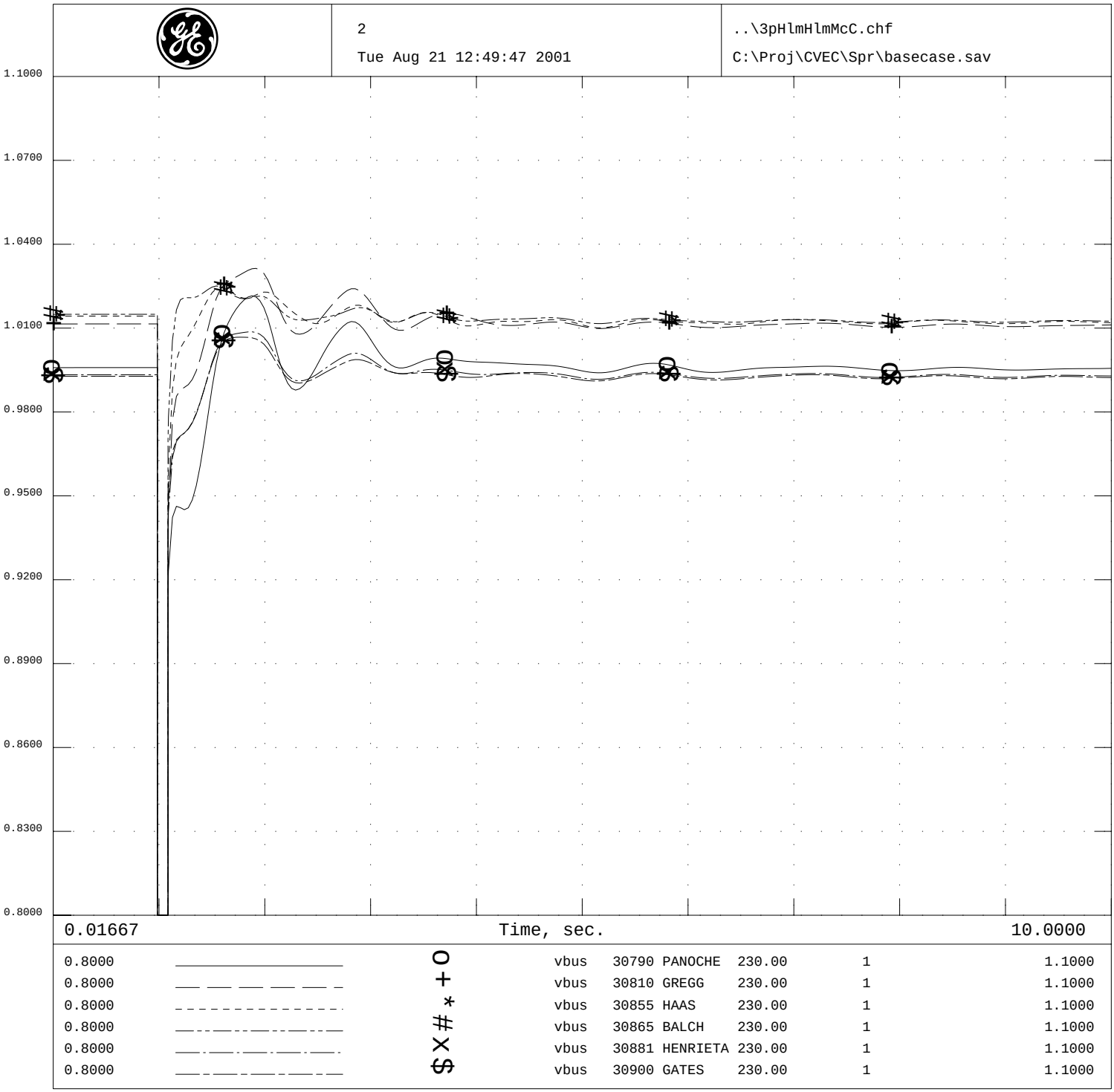

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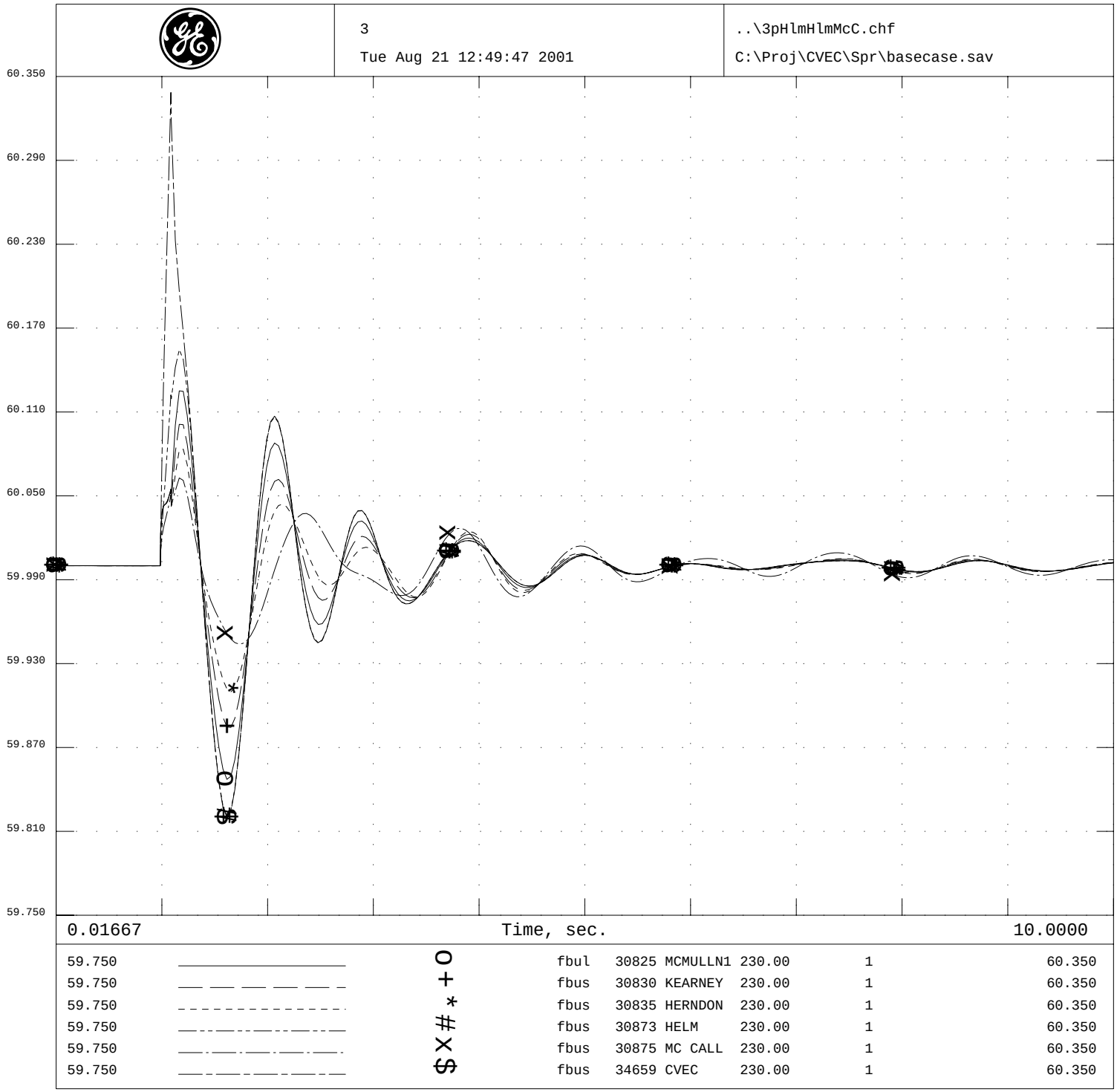

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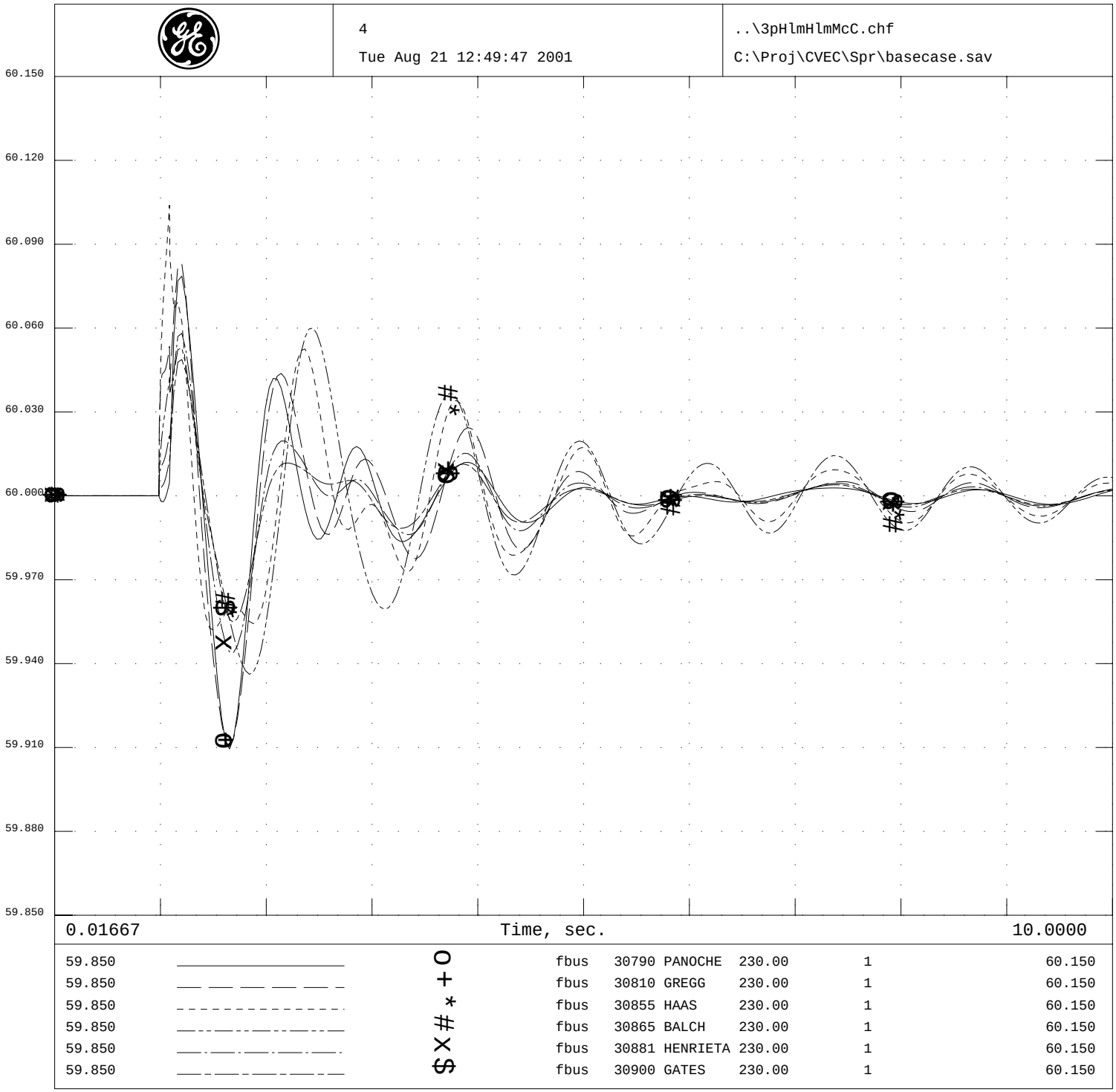

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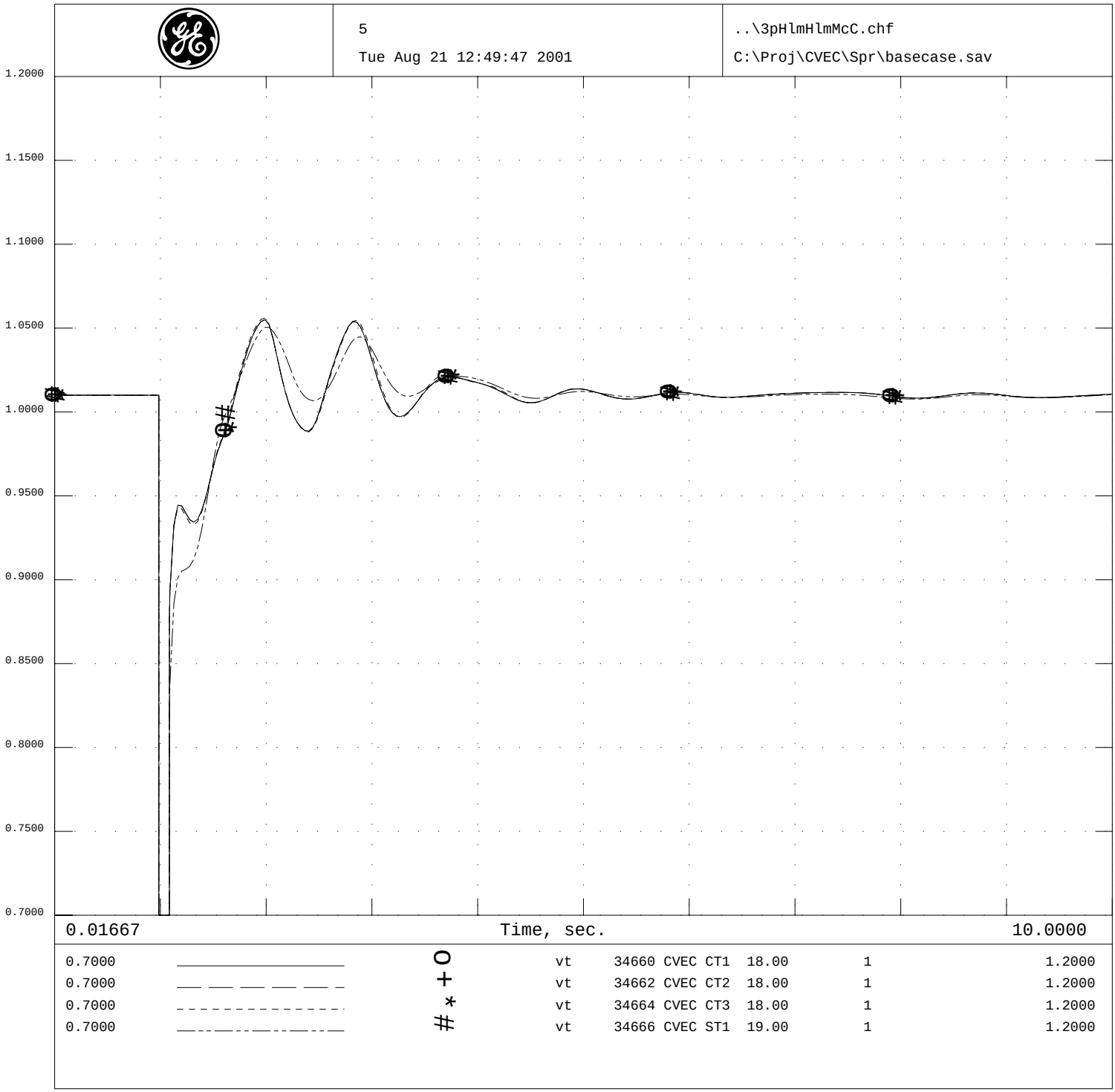

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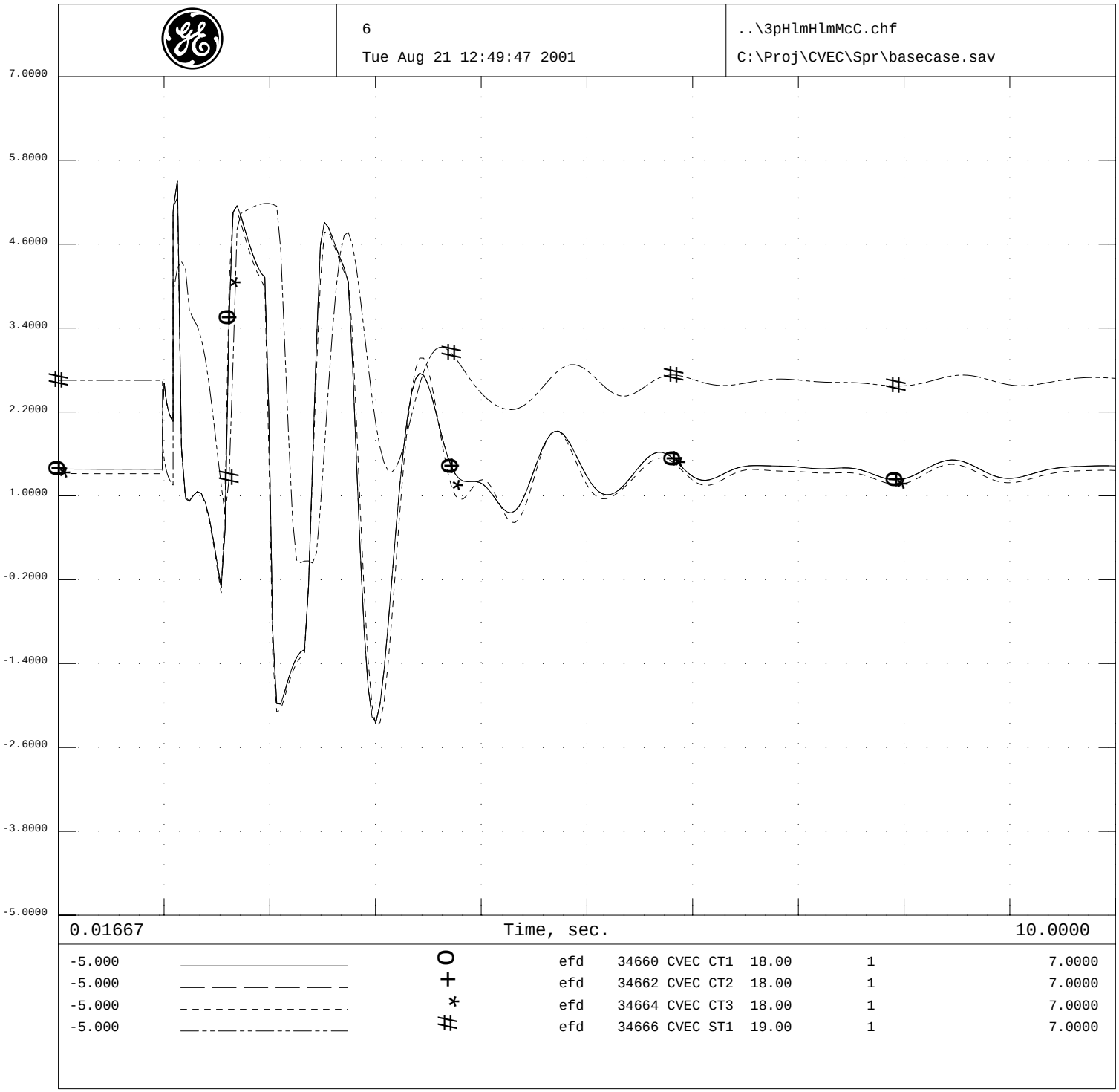
Calpine Corporation
Project Generator Terminal Voltages



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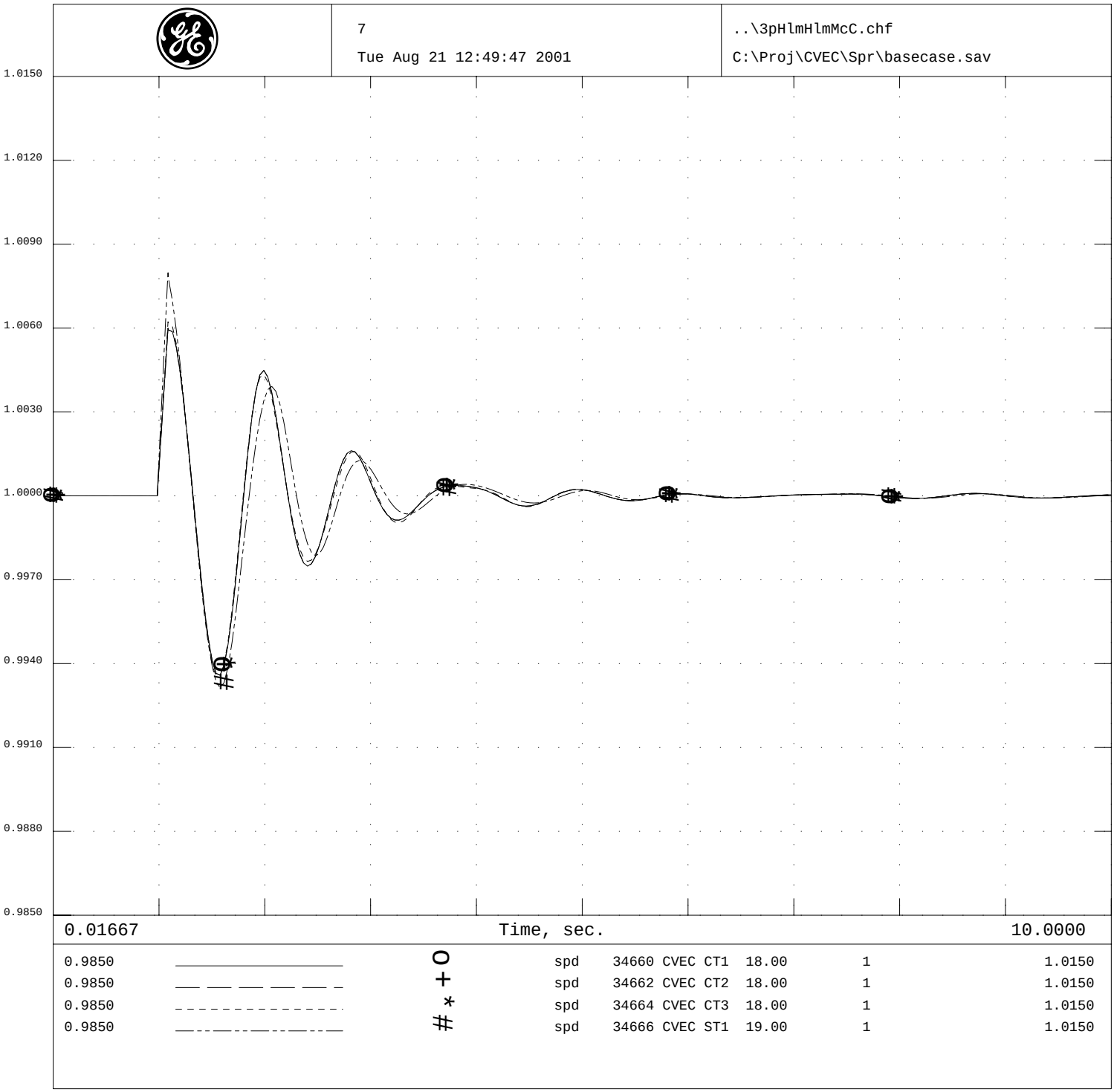
Project Generator Field Voltages



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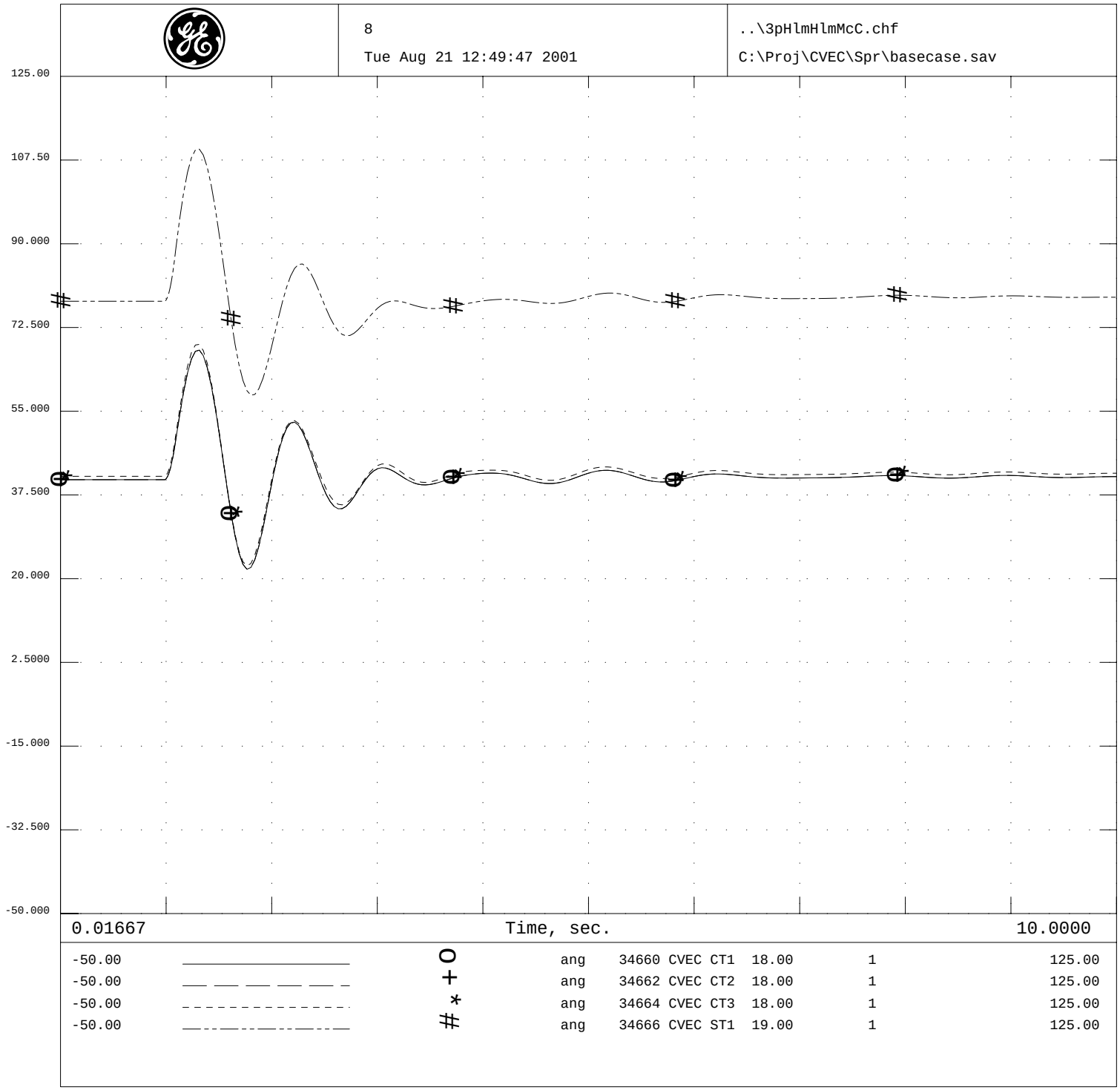
Calpine Corporation
Project Generator Rotor Speed



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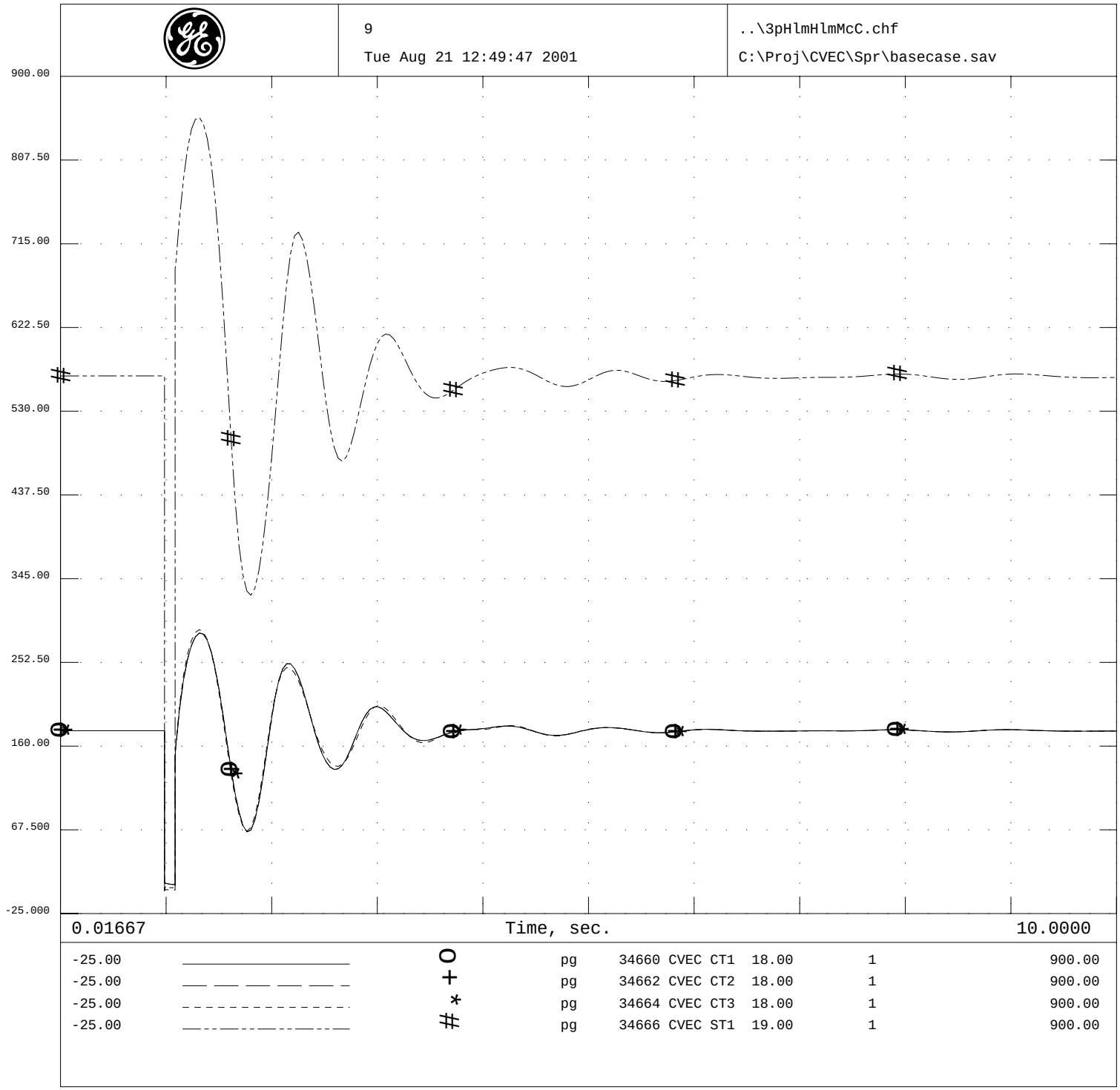
Project Generator Rotor Angle



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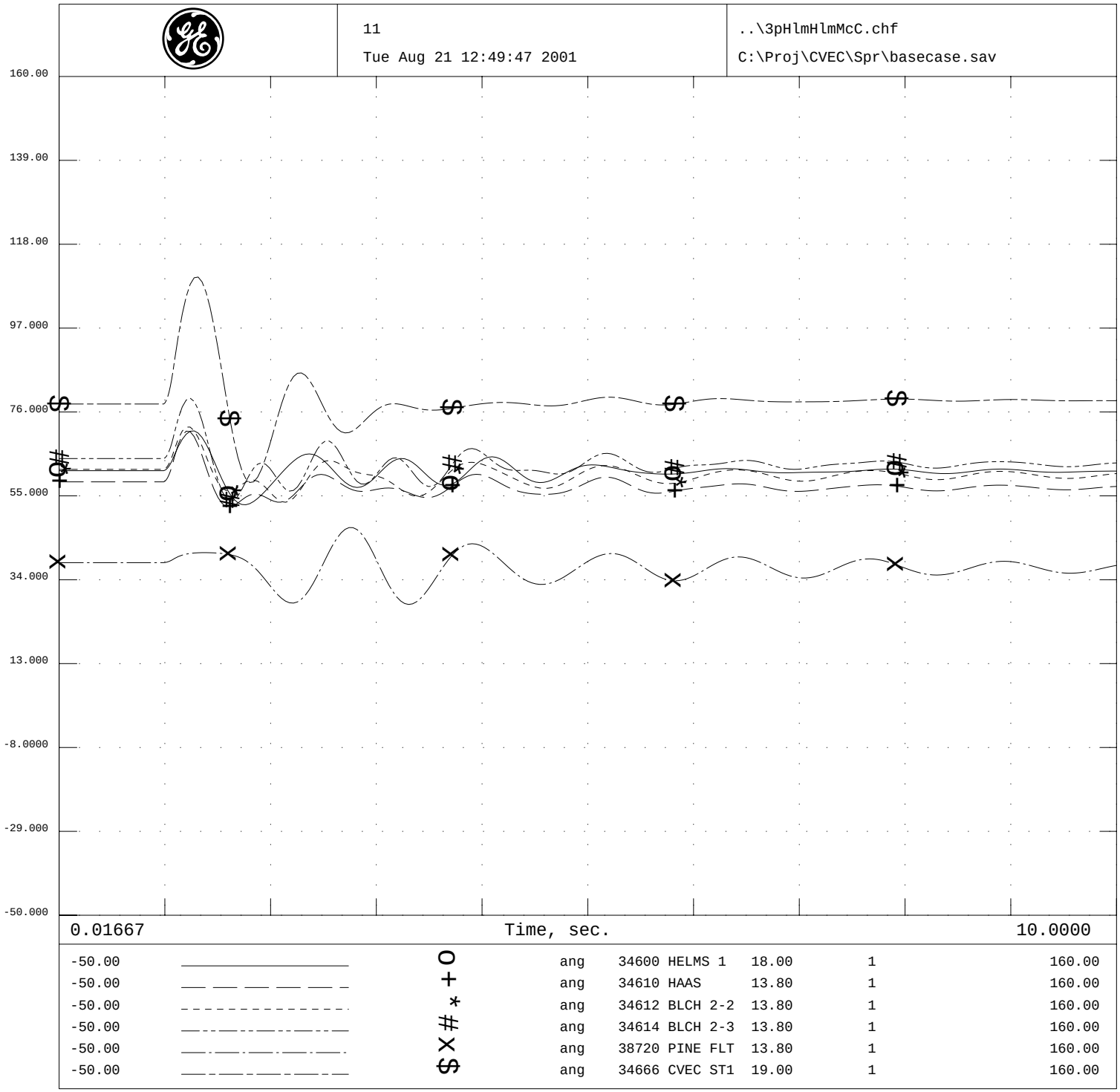

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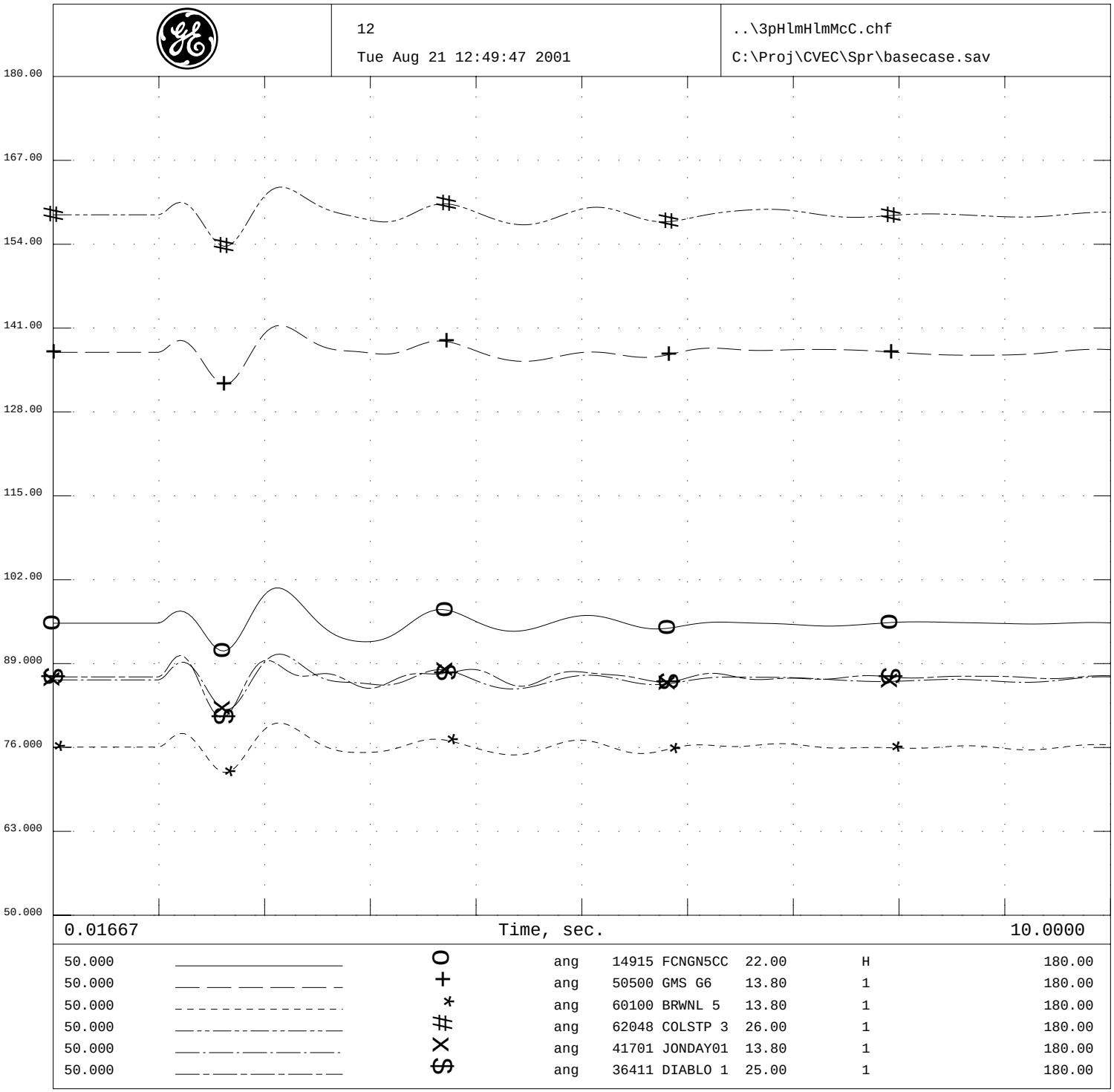

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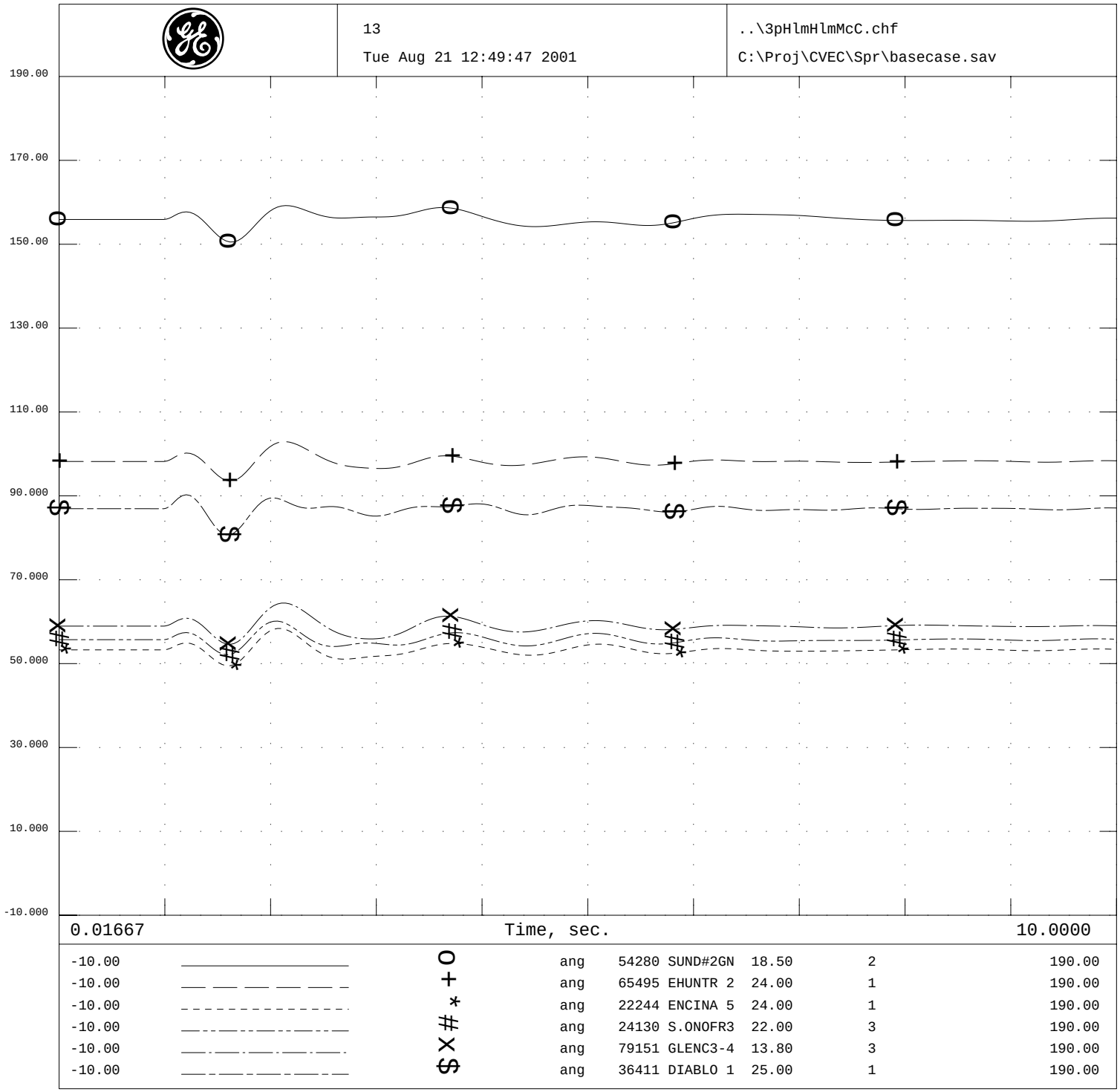

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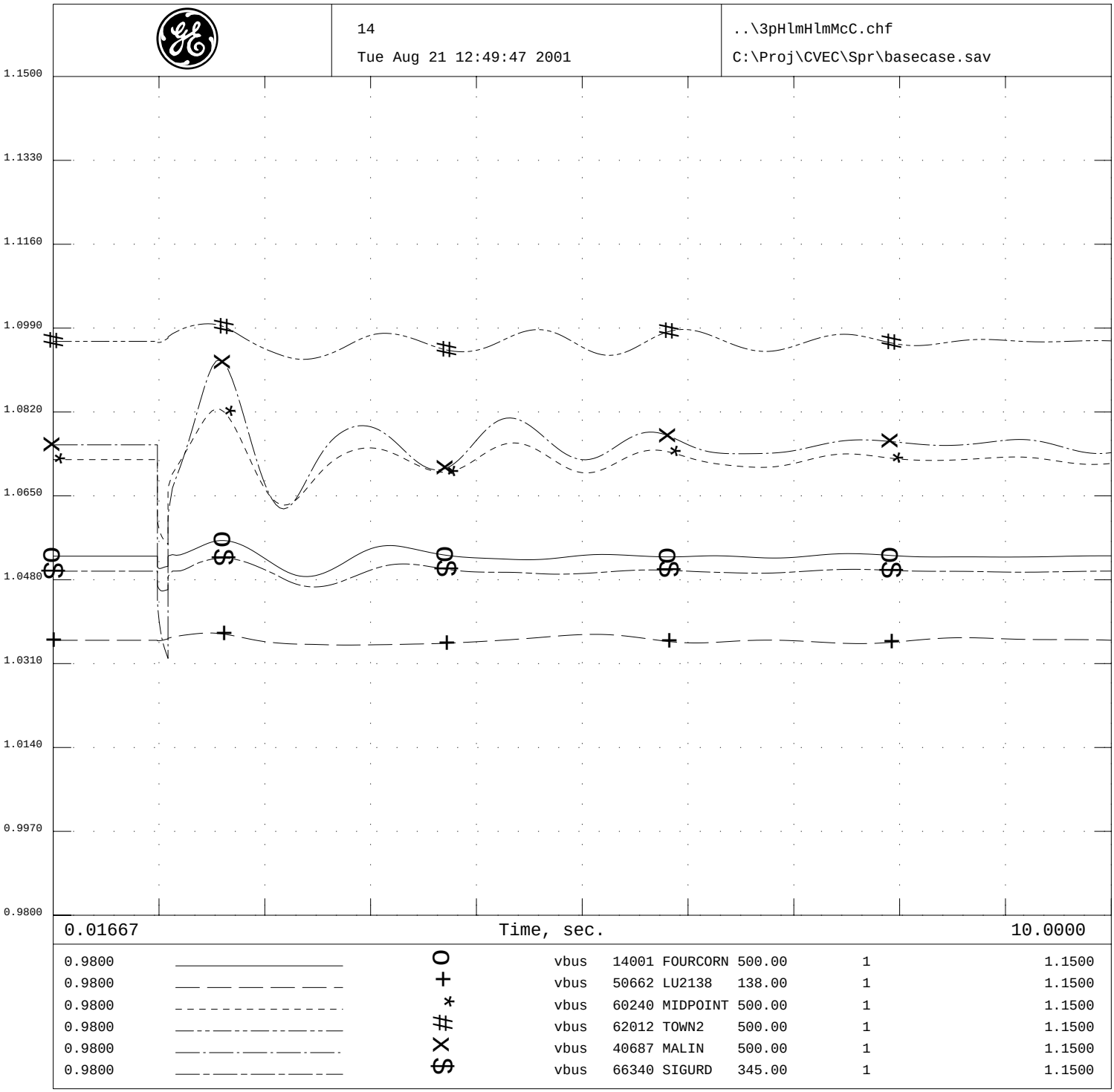

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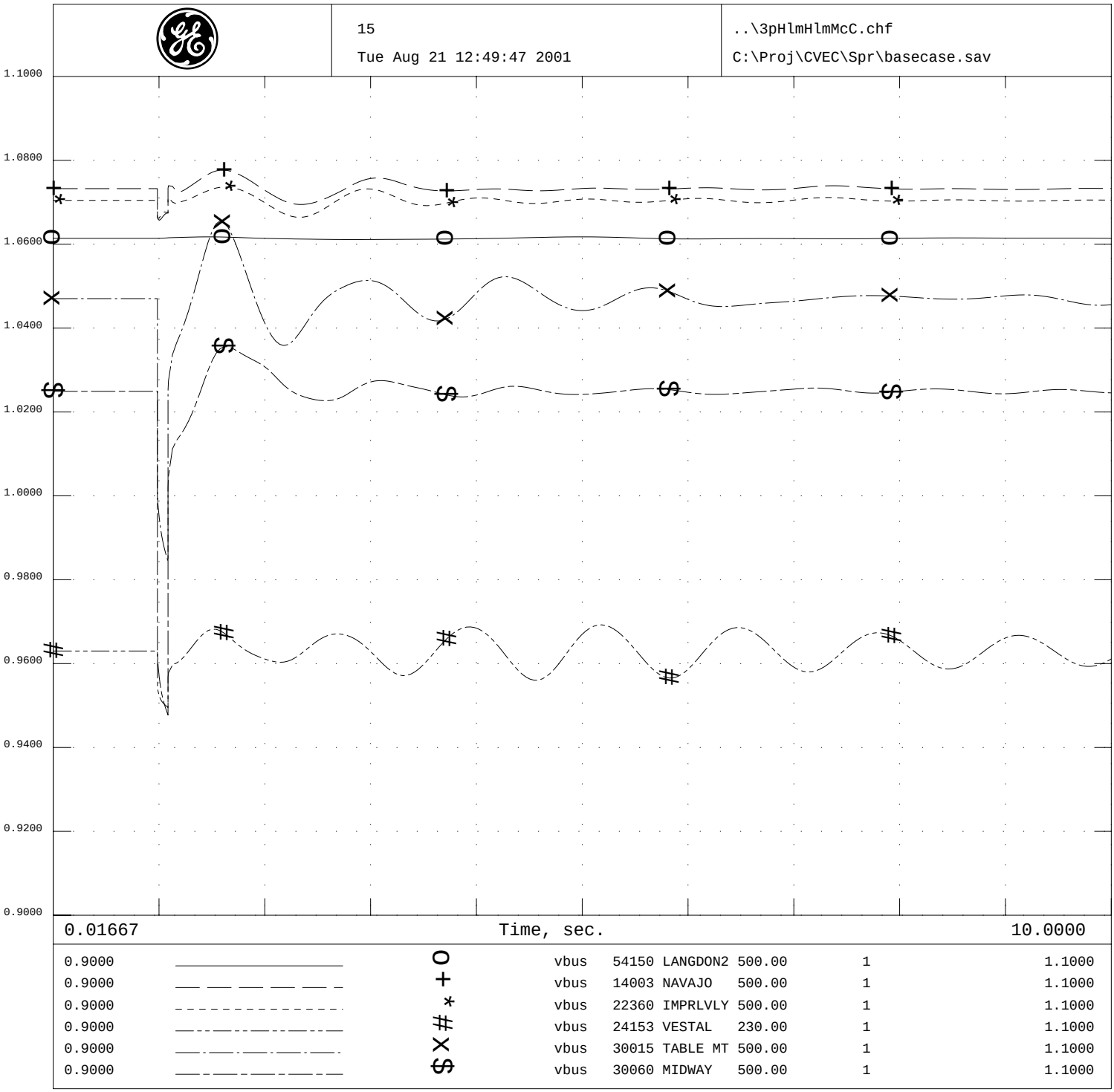

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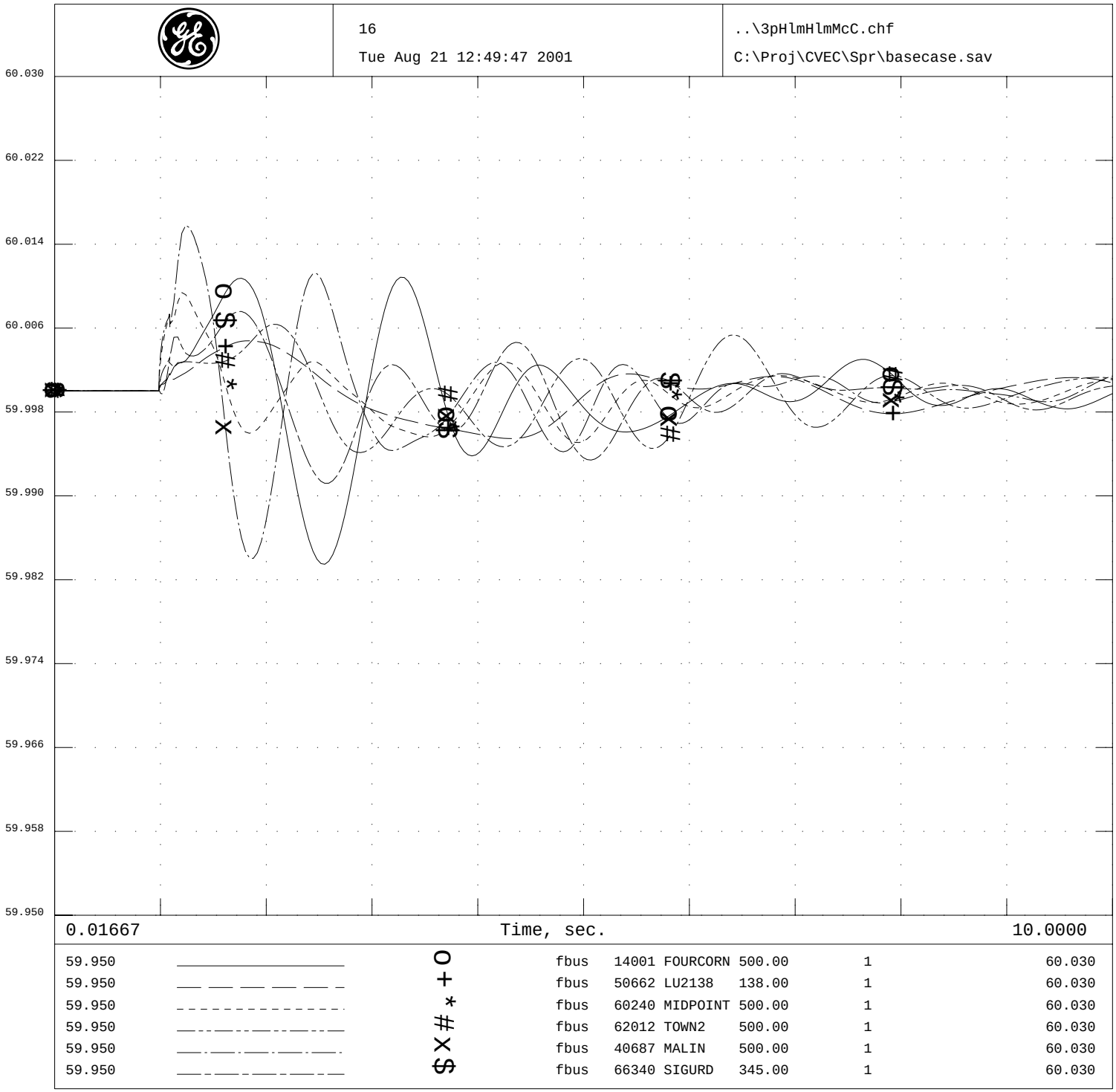

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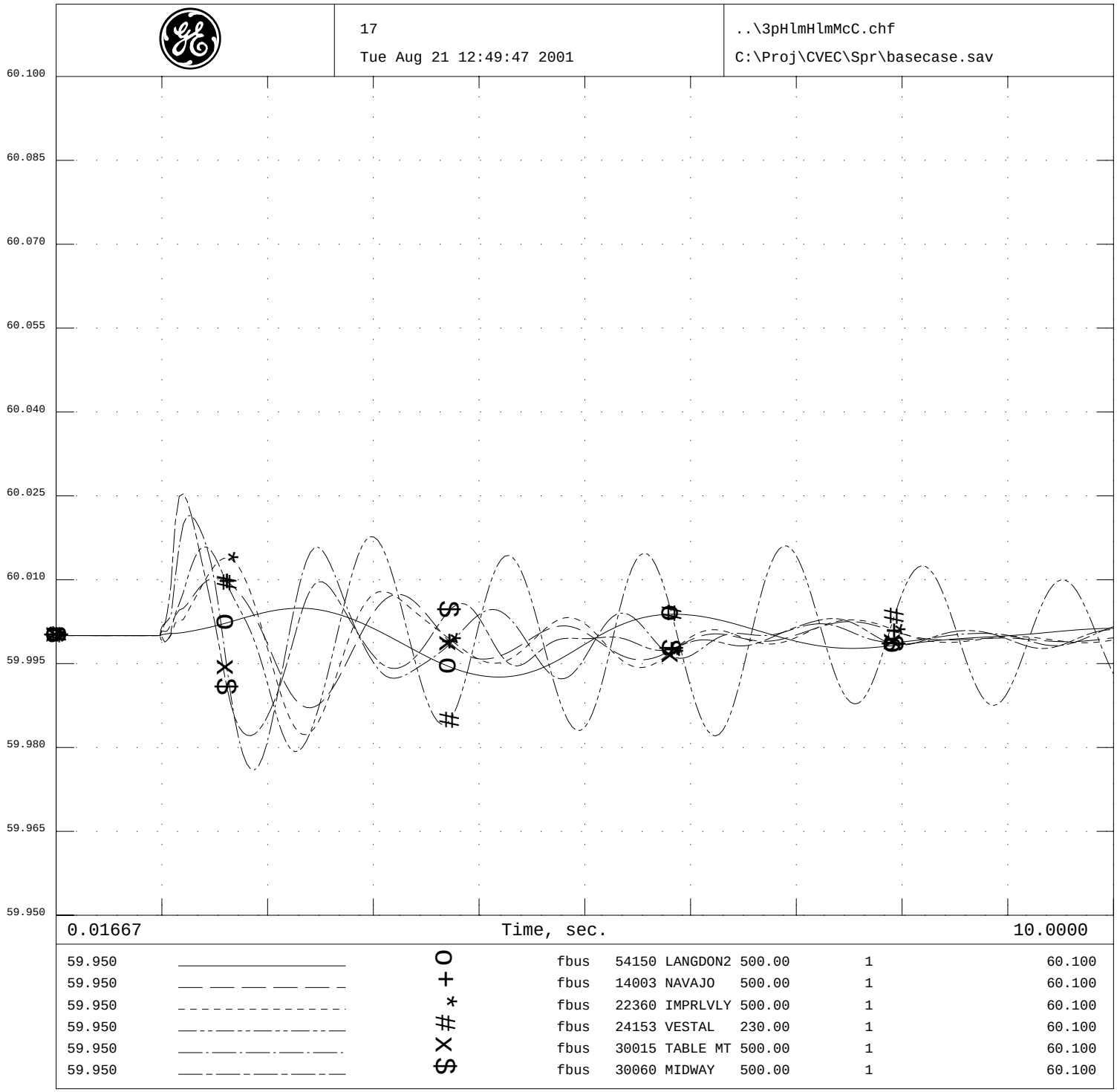

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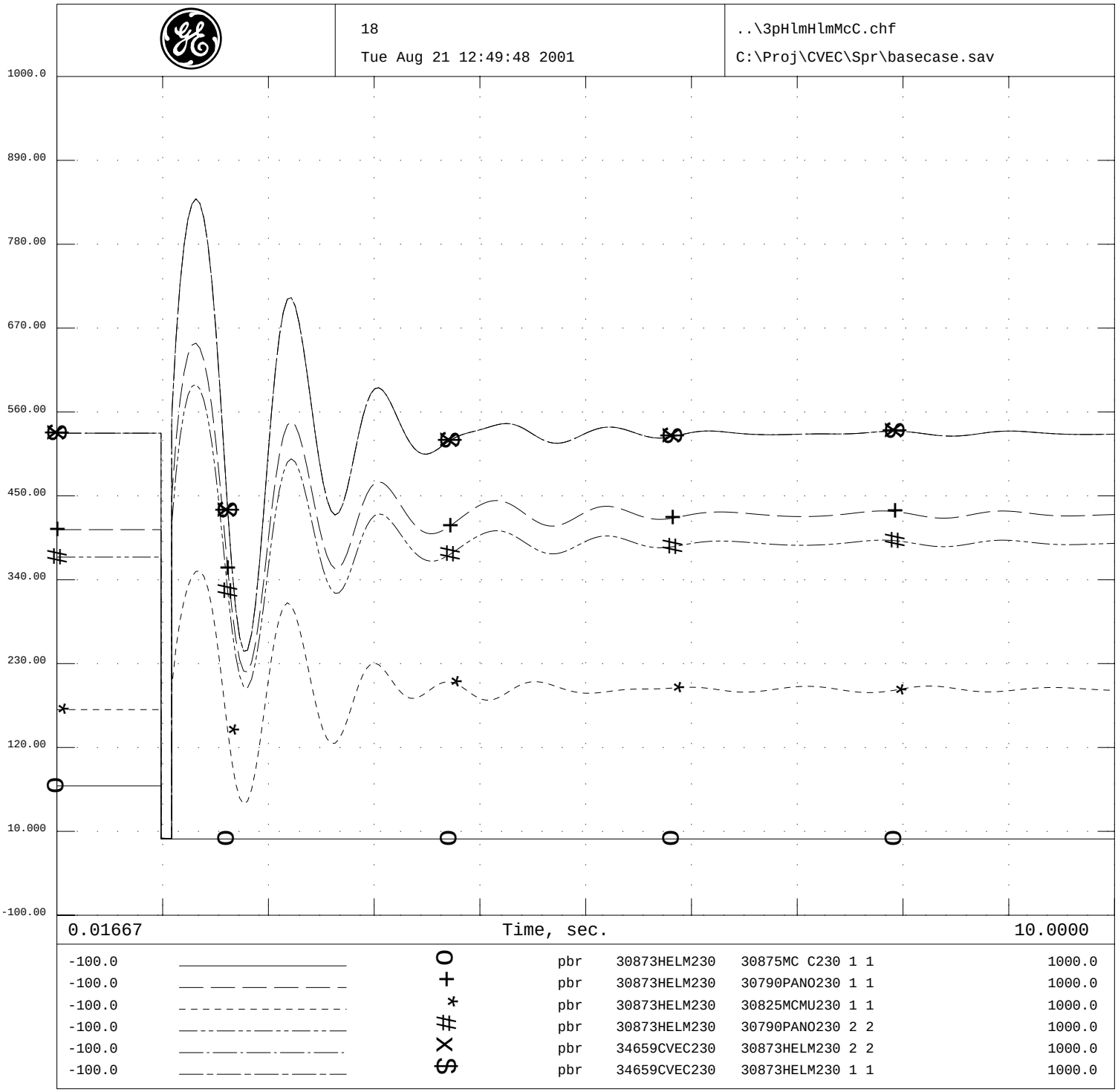

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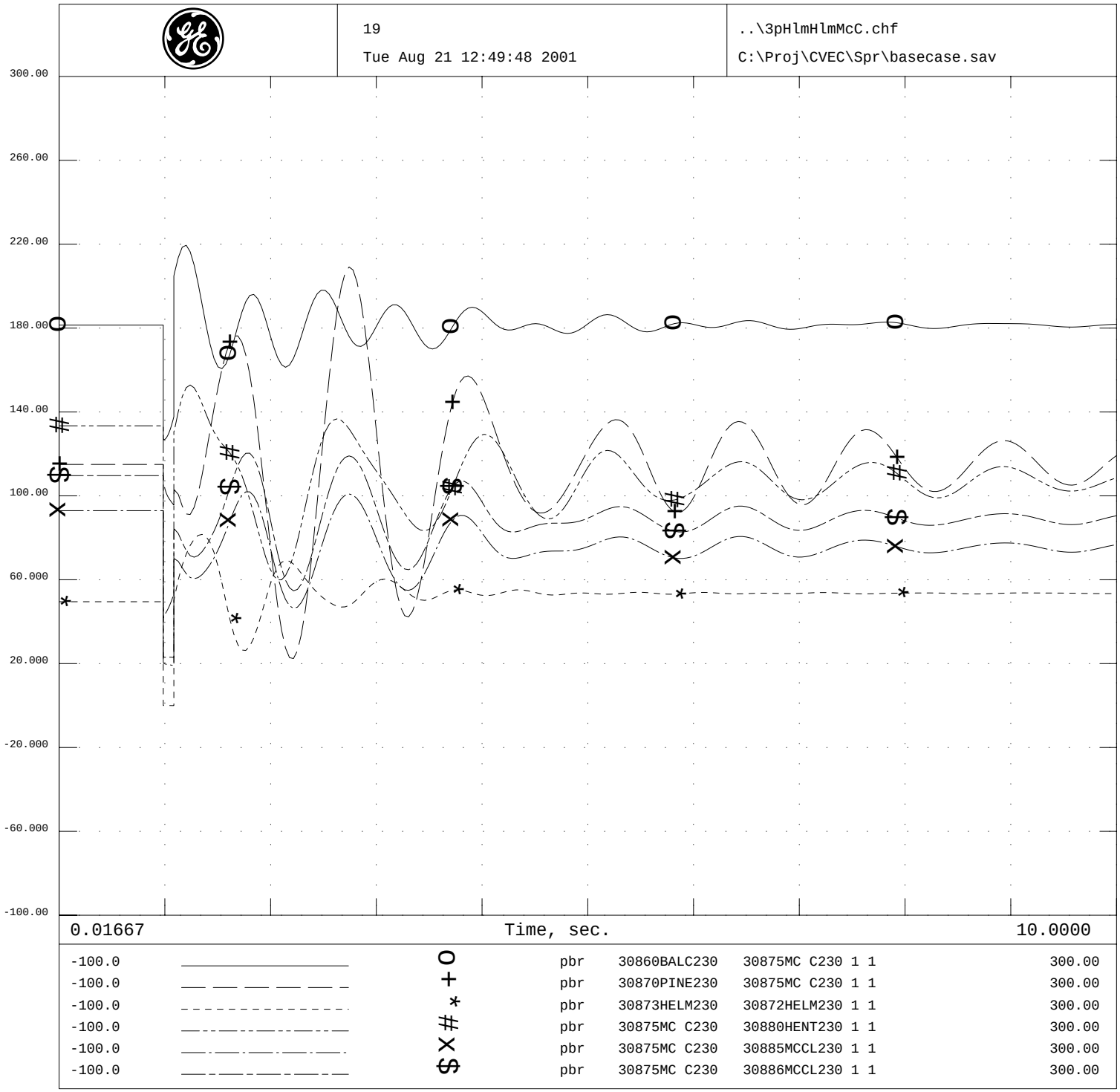

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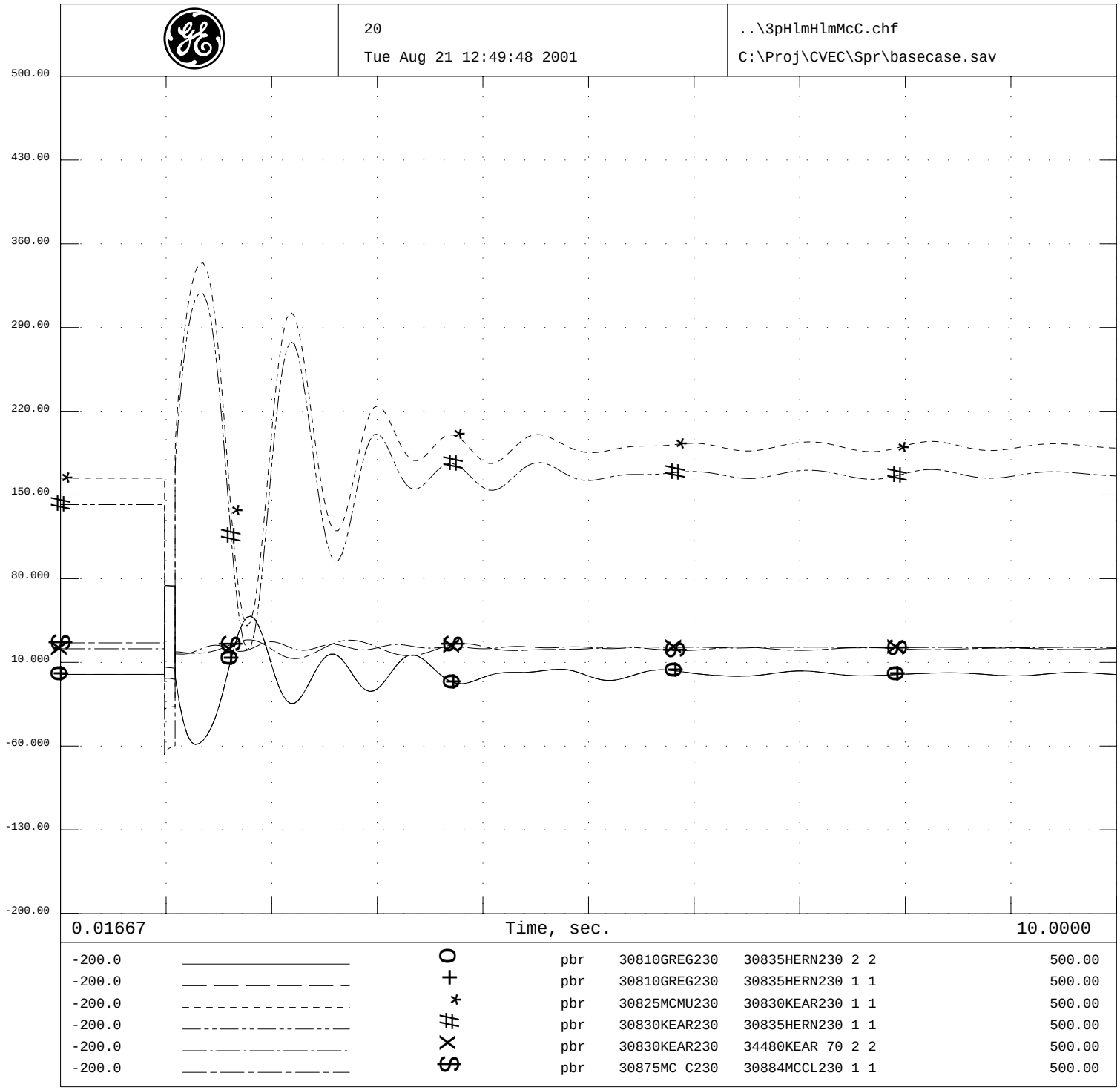

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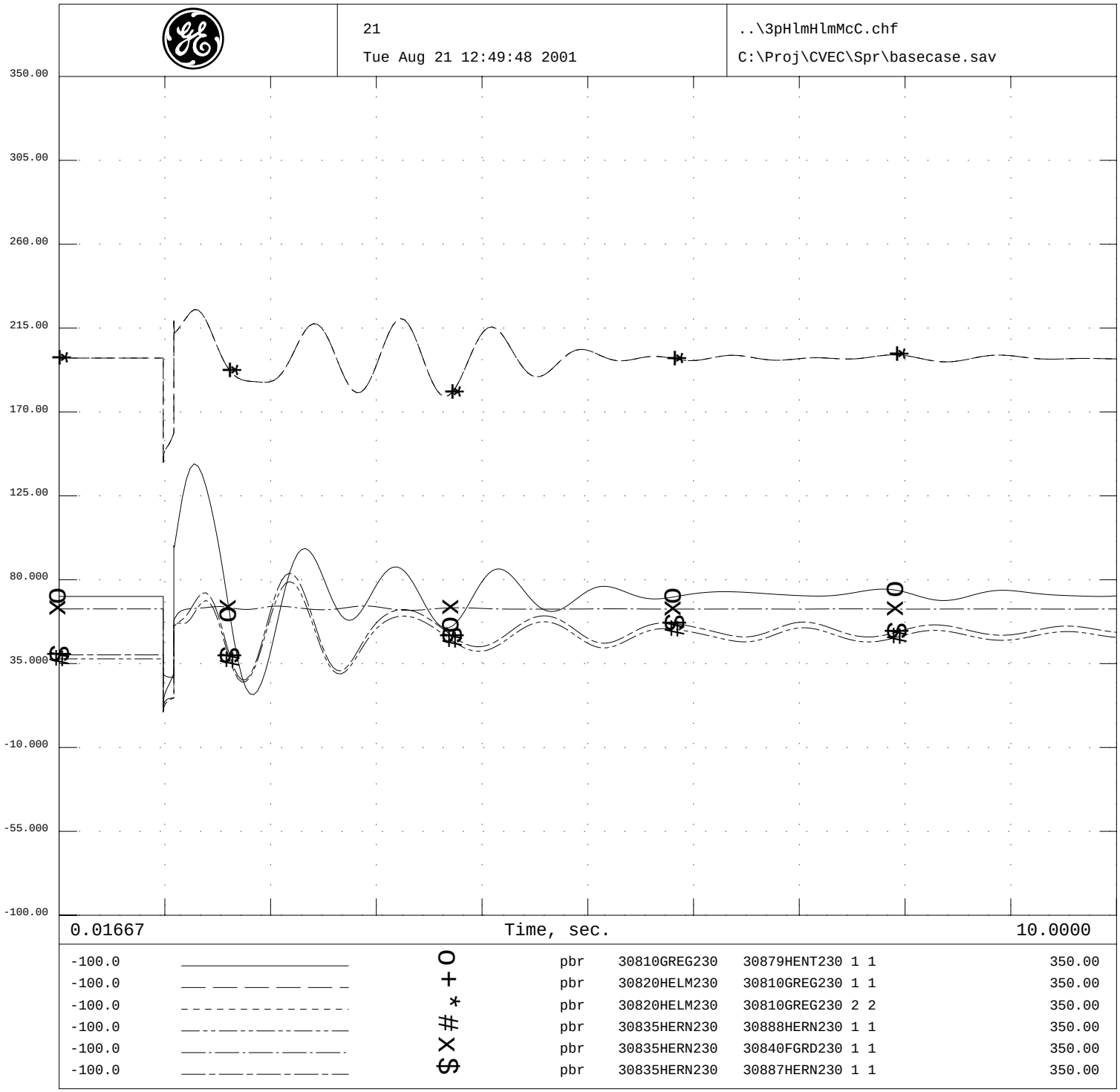

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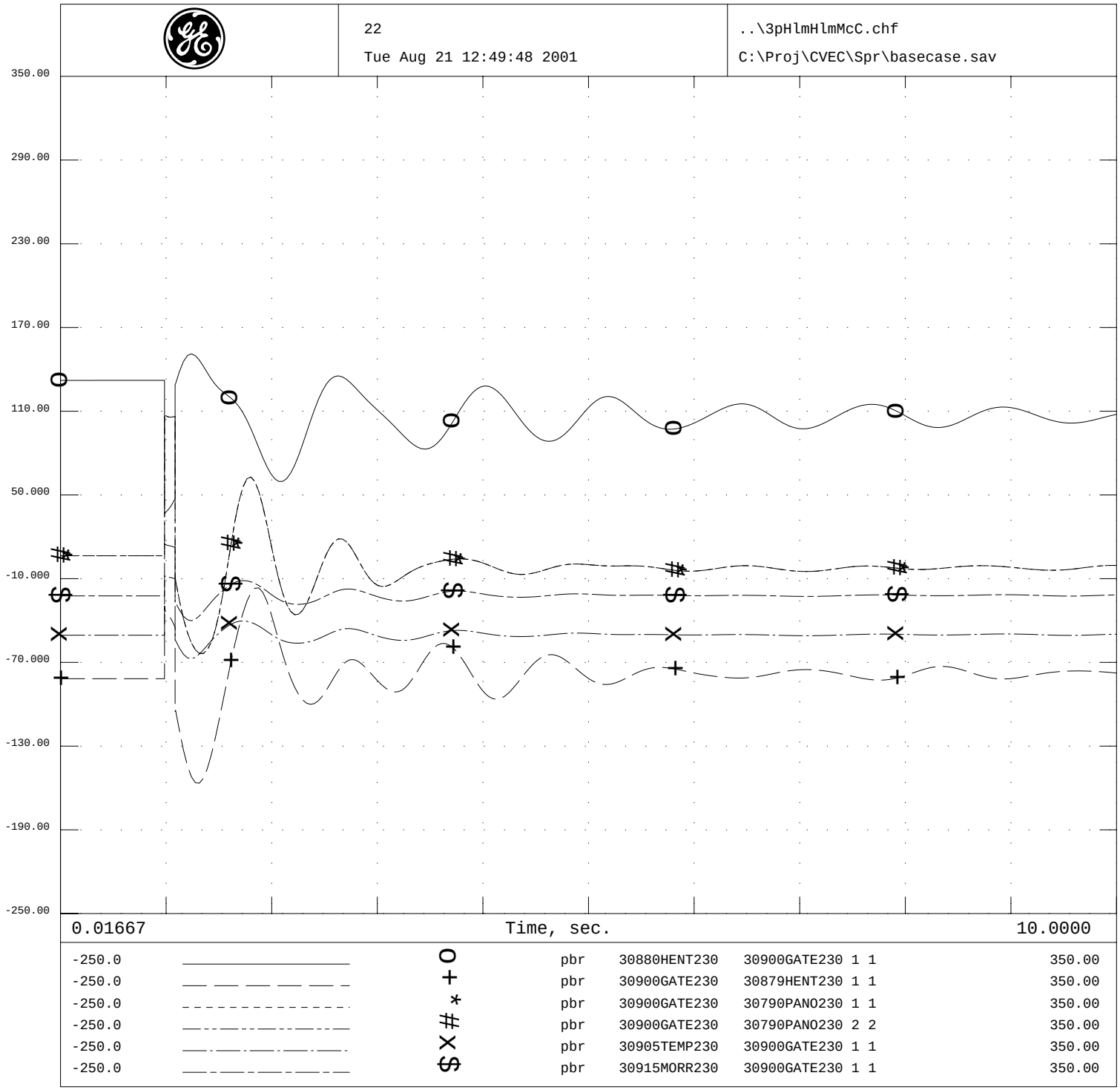

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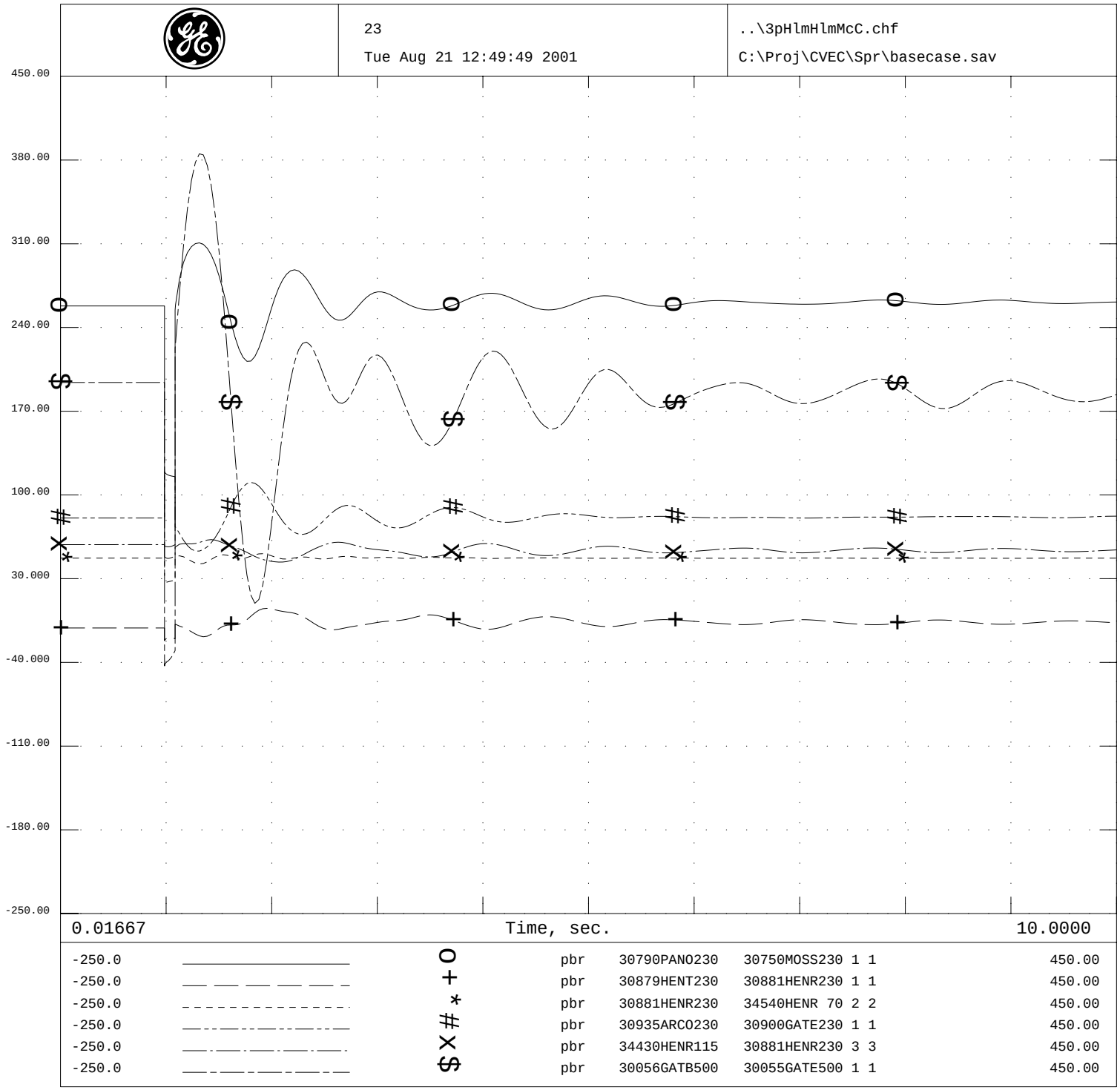

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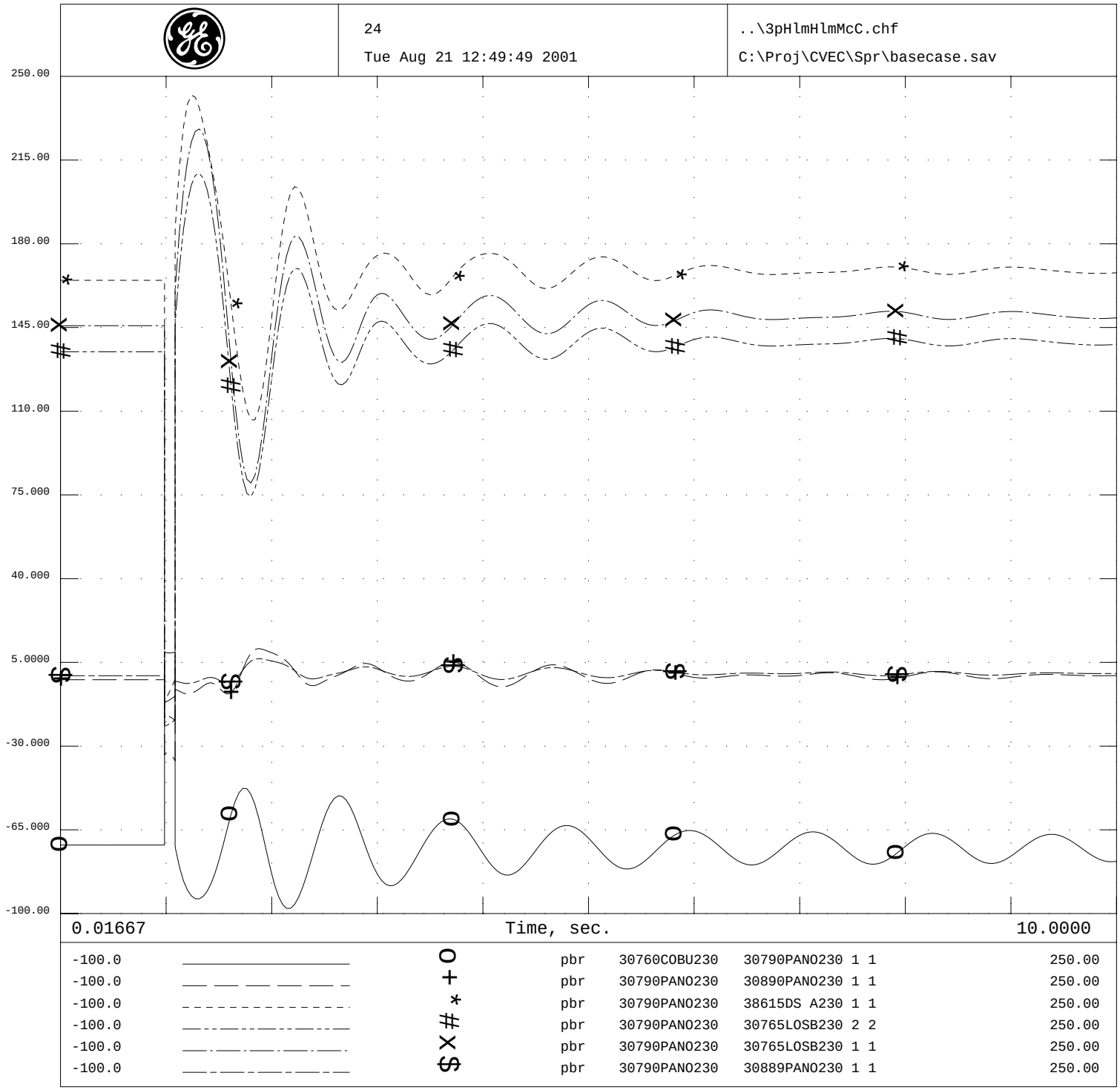

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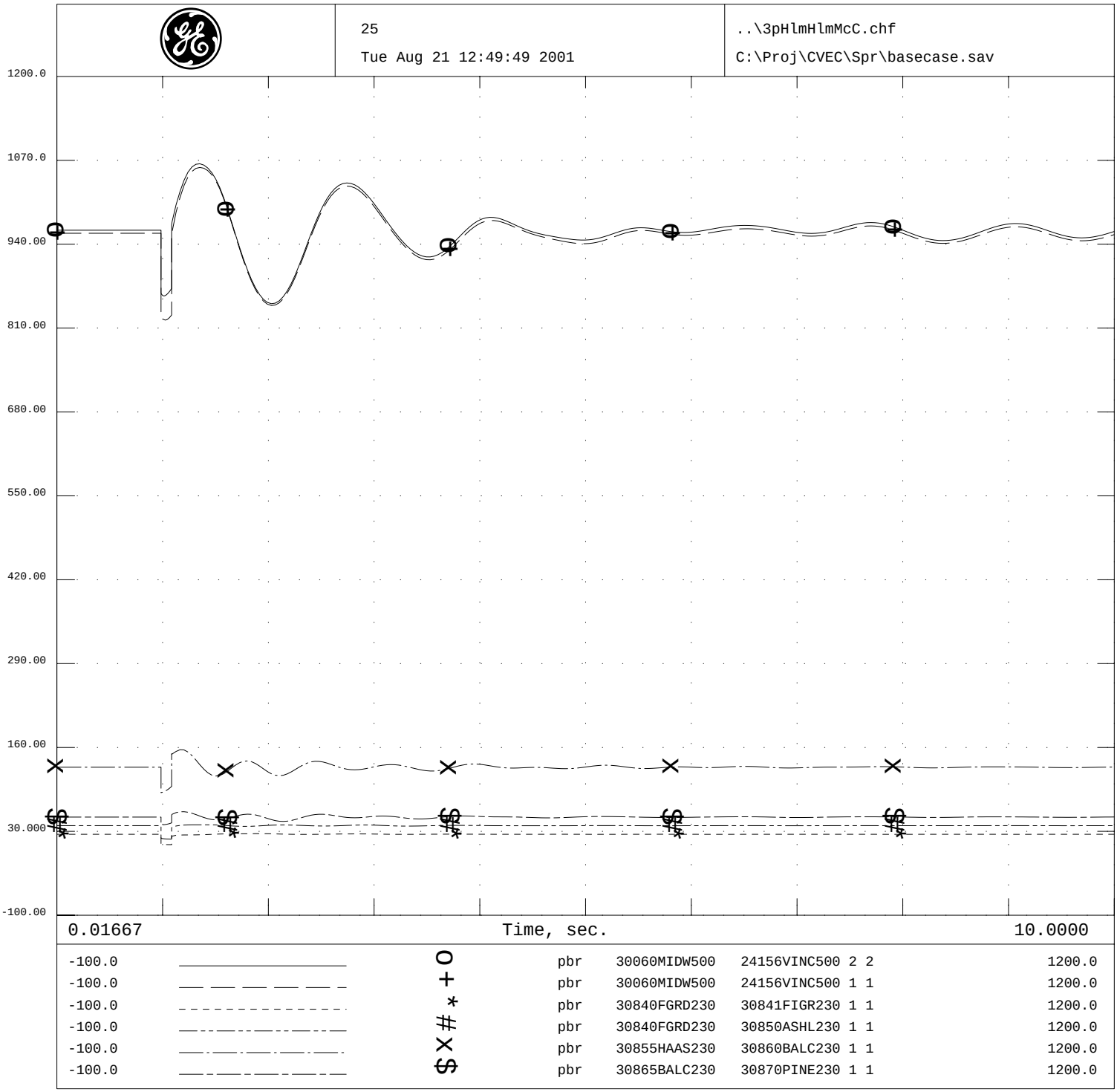

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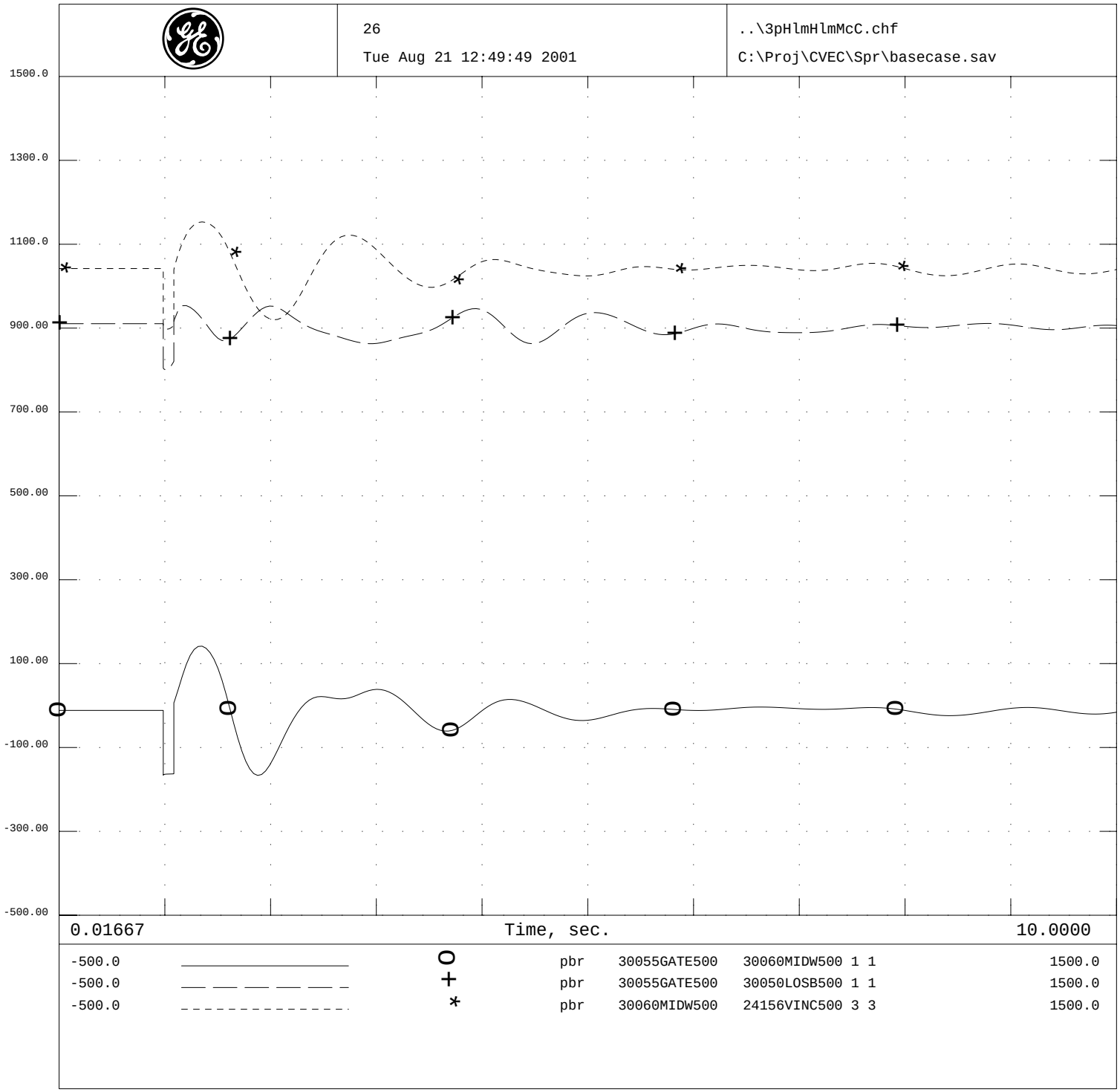
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall-Helm 230kV Line Outage
3 phase 6 cycle fault at Helm 230kV bus and trip McCall-Helm line

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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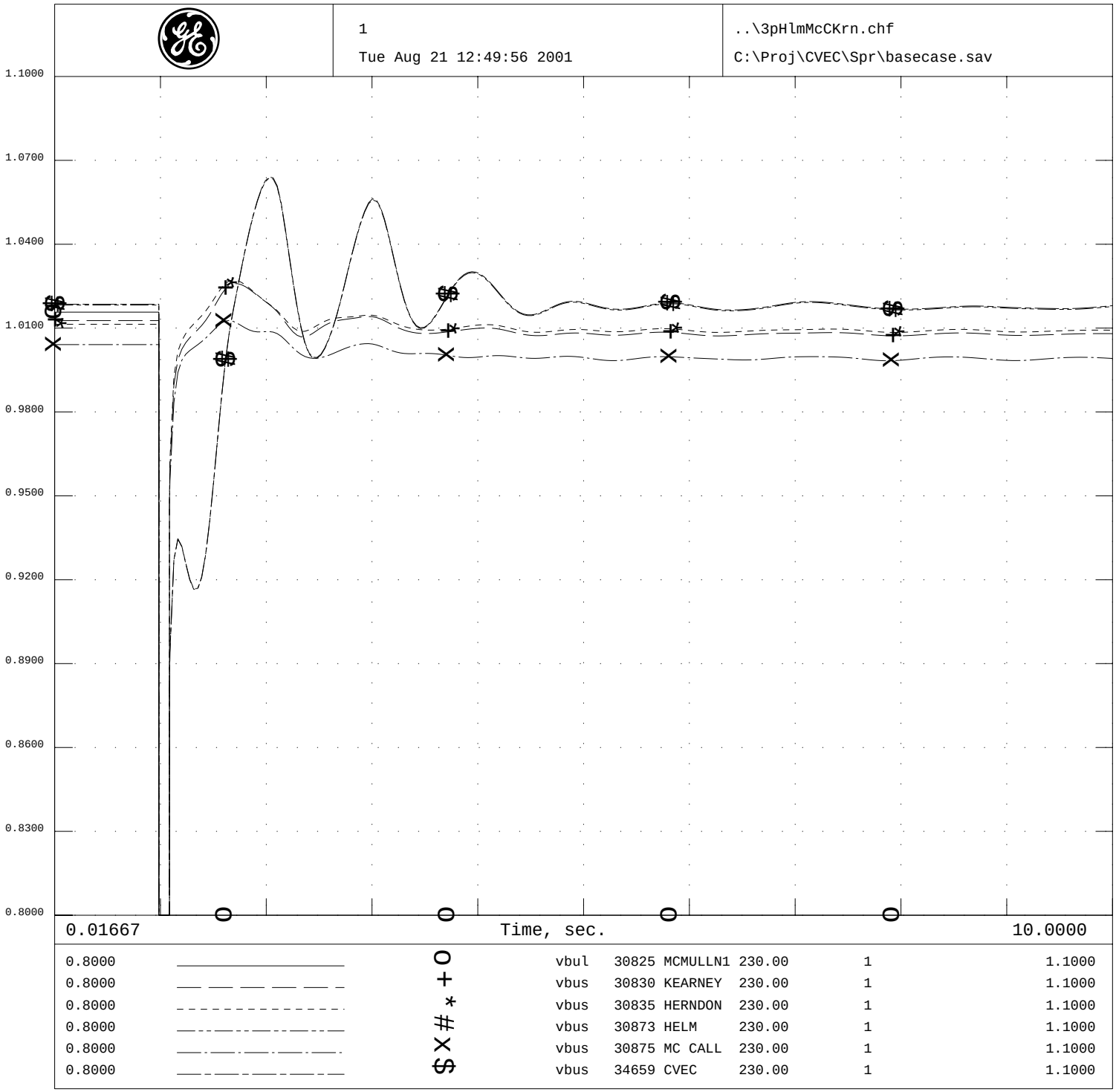

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Central Valley Energy Center
Calpine Corporation
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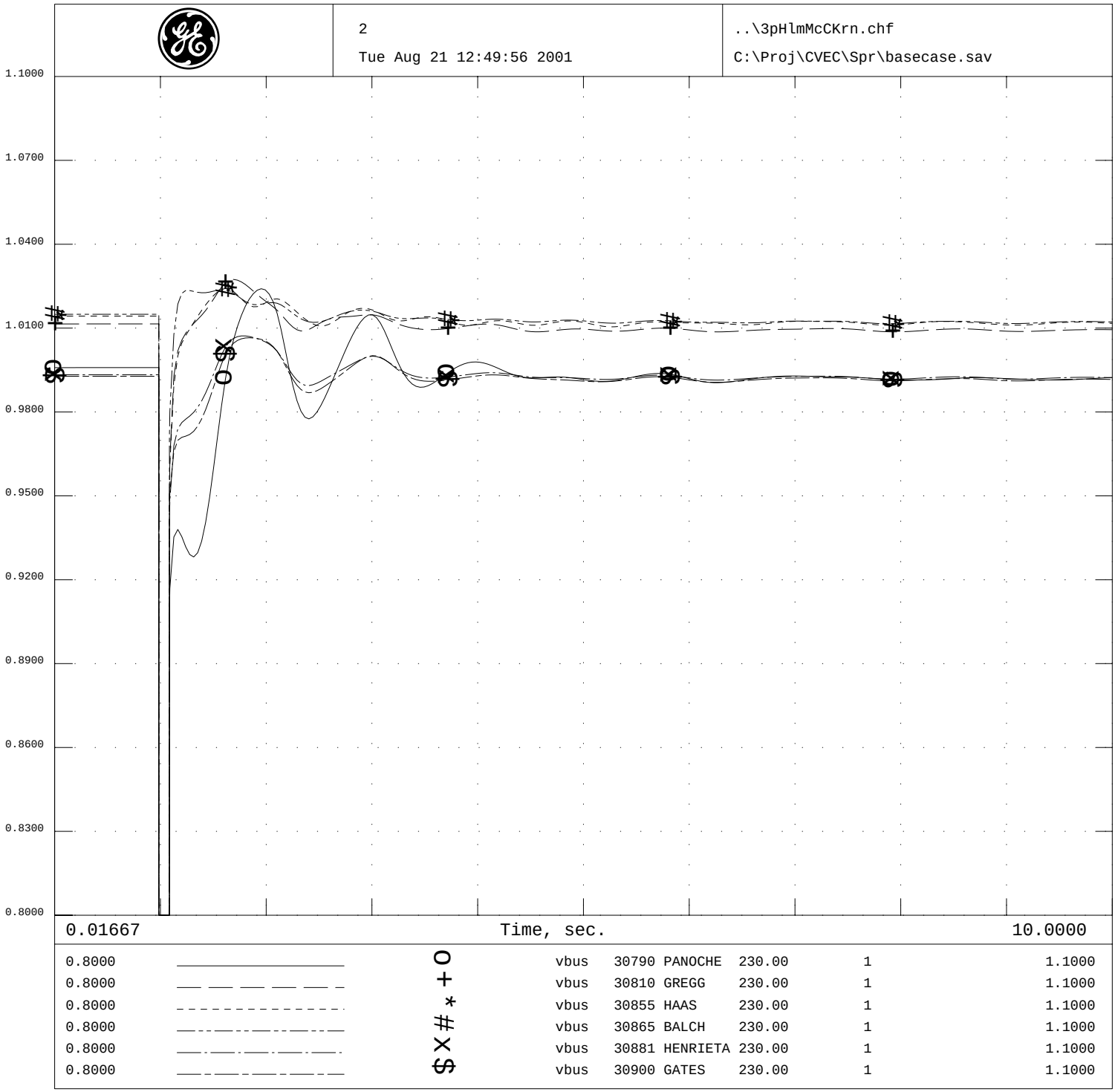

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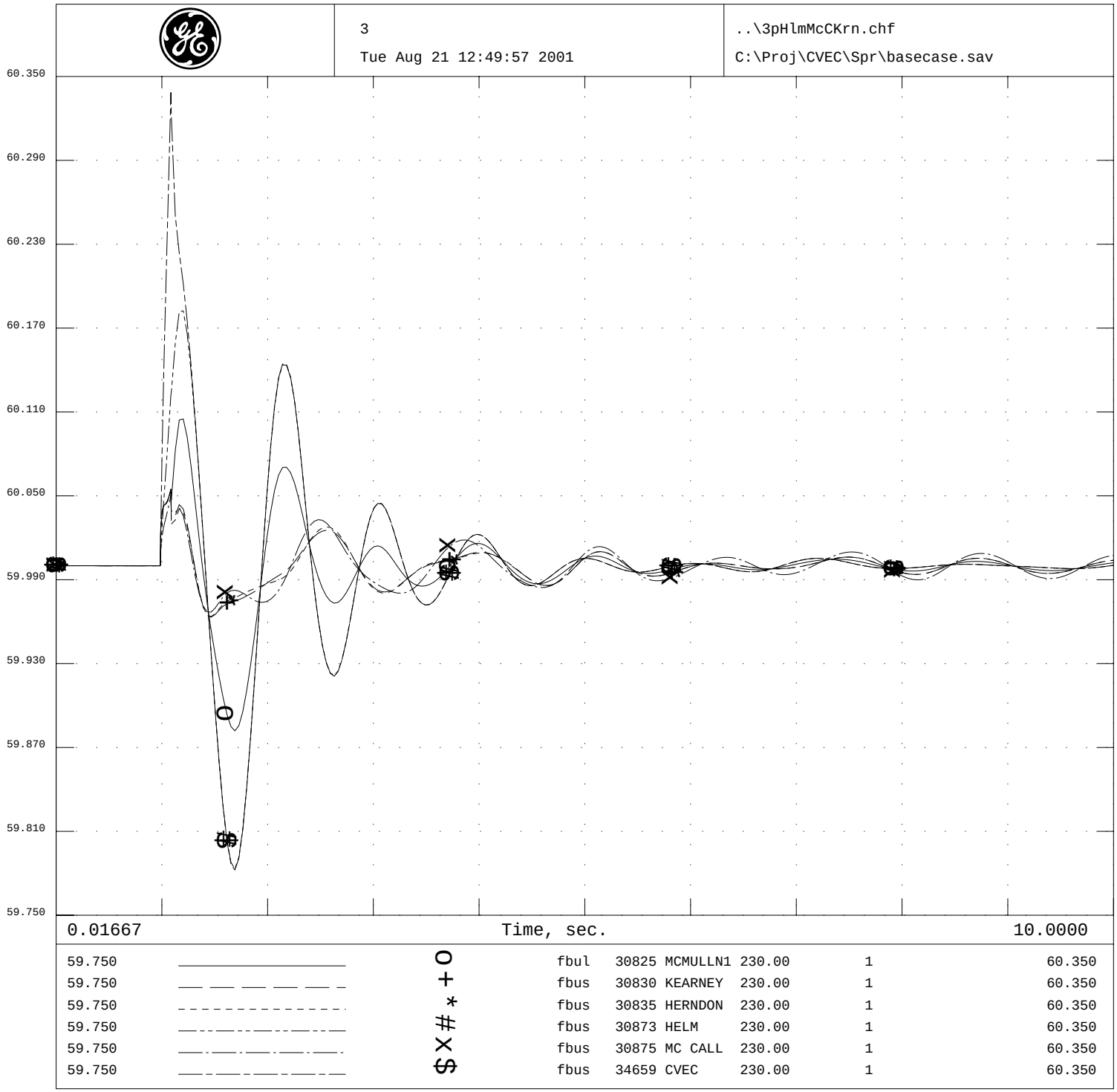

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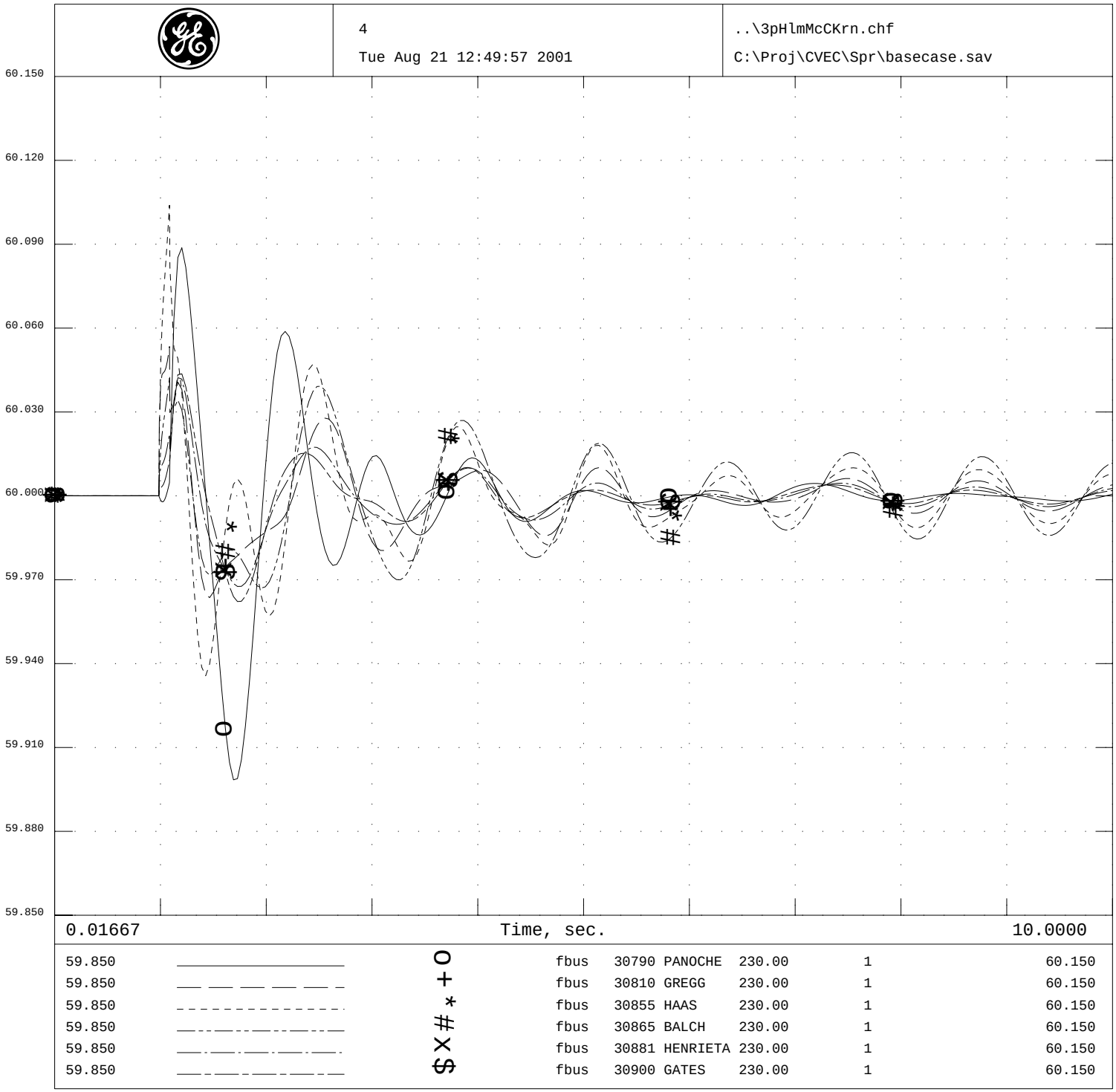
Selected Bus Frequency Plots Adjacent to Fault



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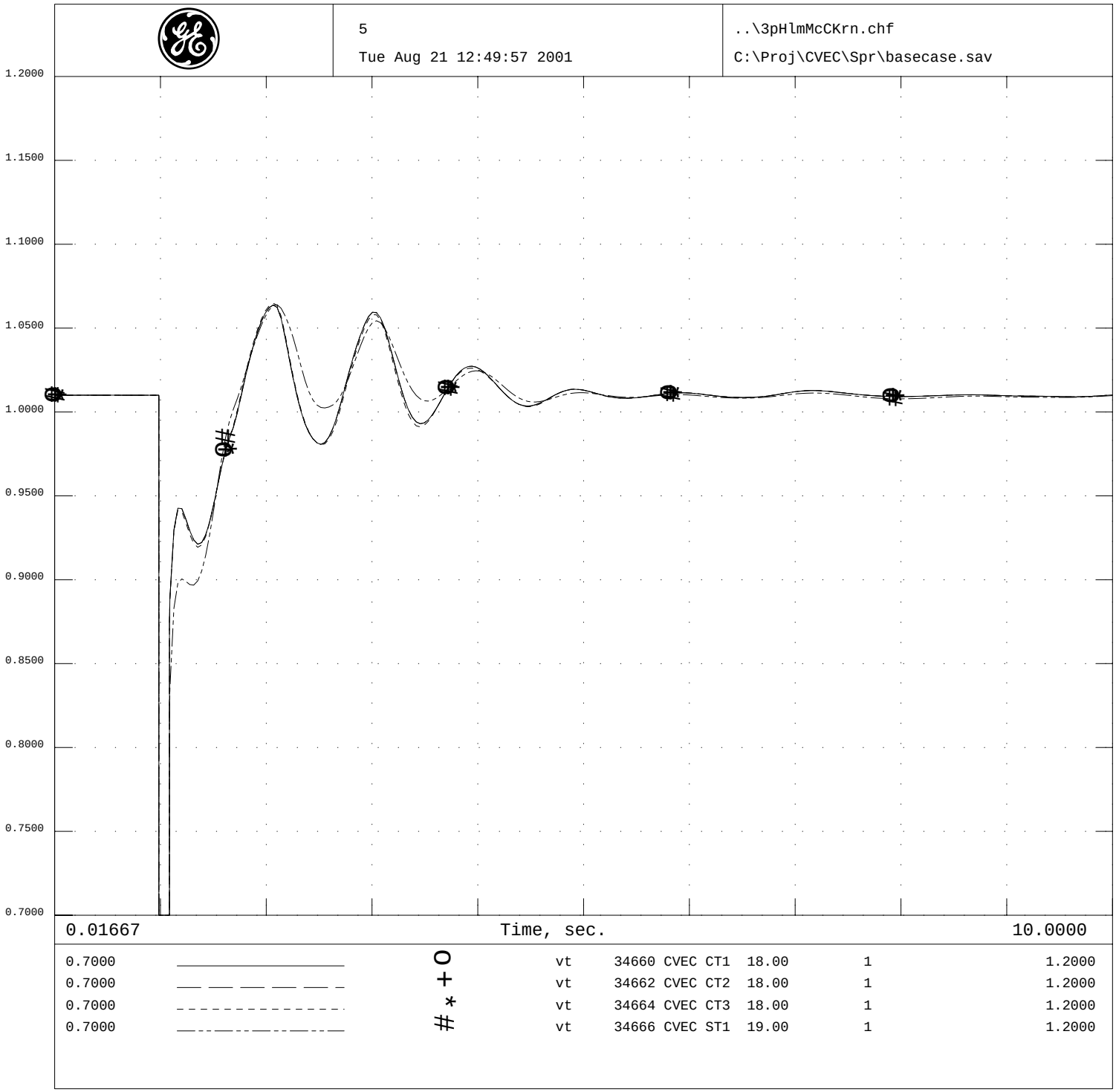

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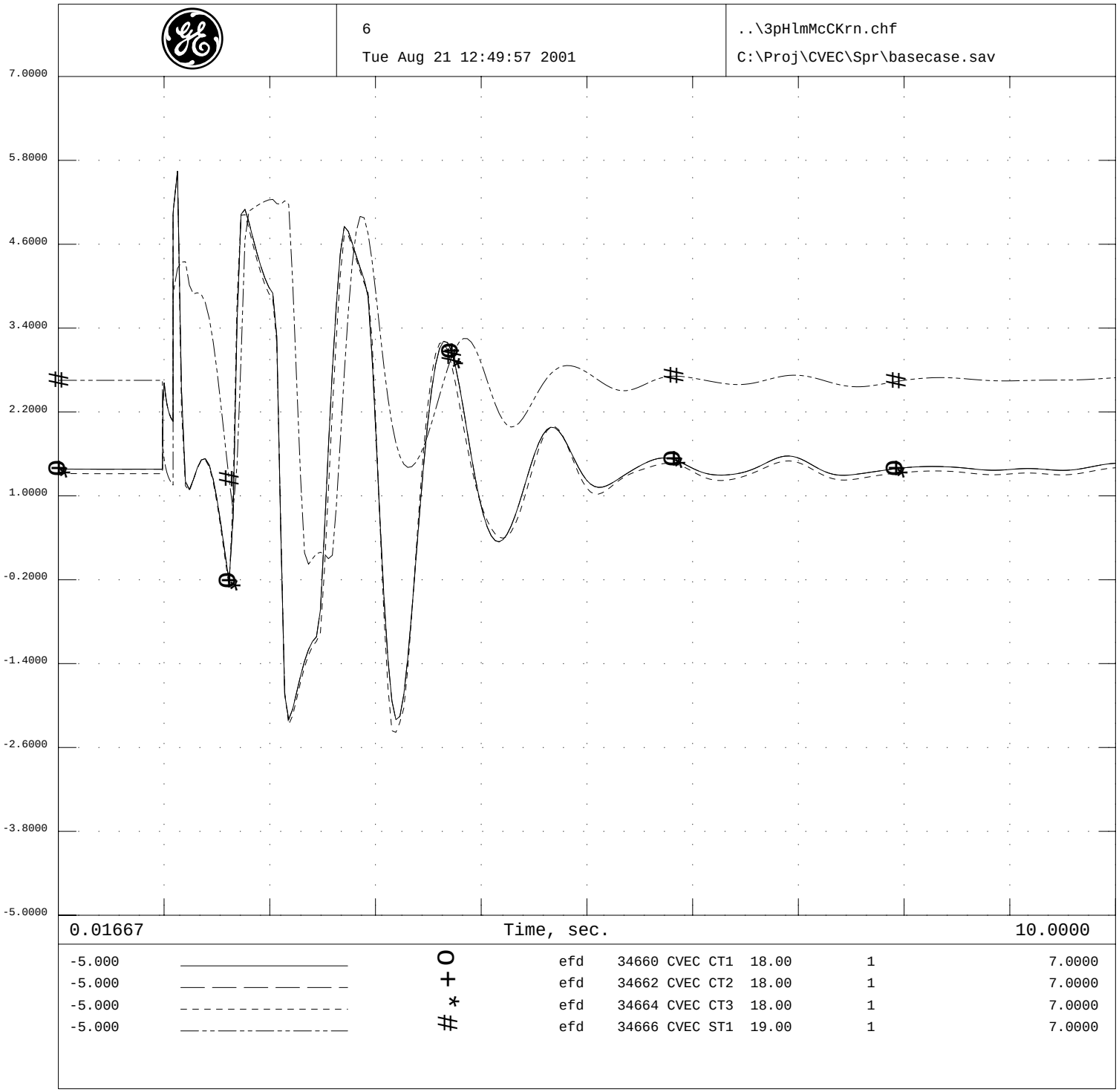
Calpine Corporation
Project Generator Terminal Voltages



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Calpine Corporation
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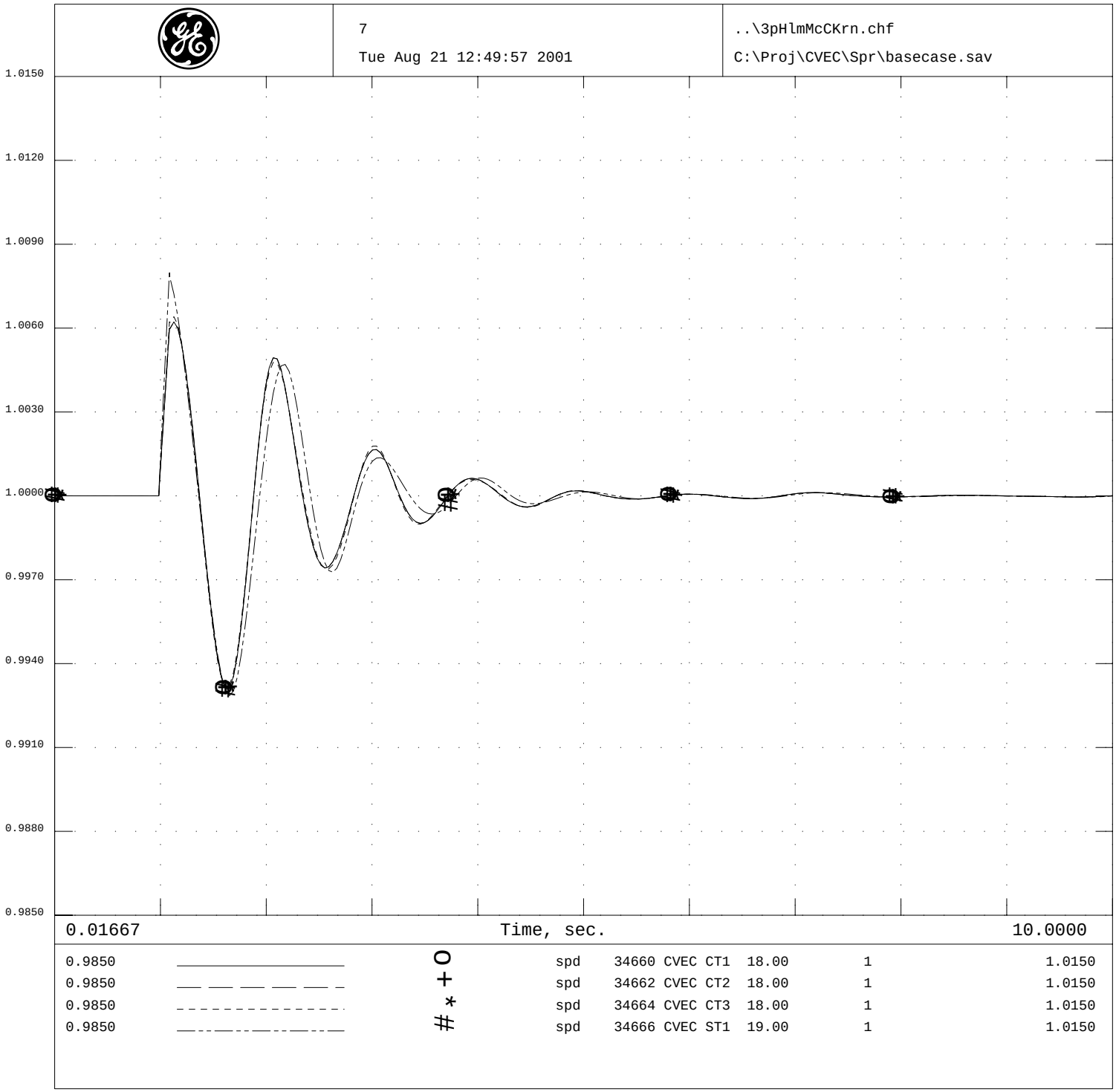

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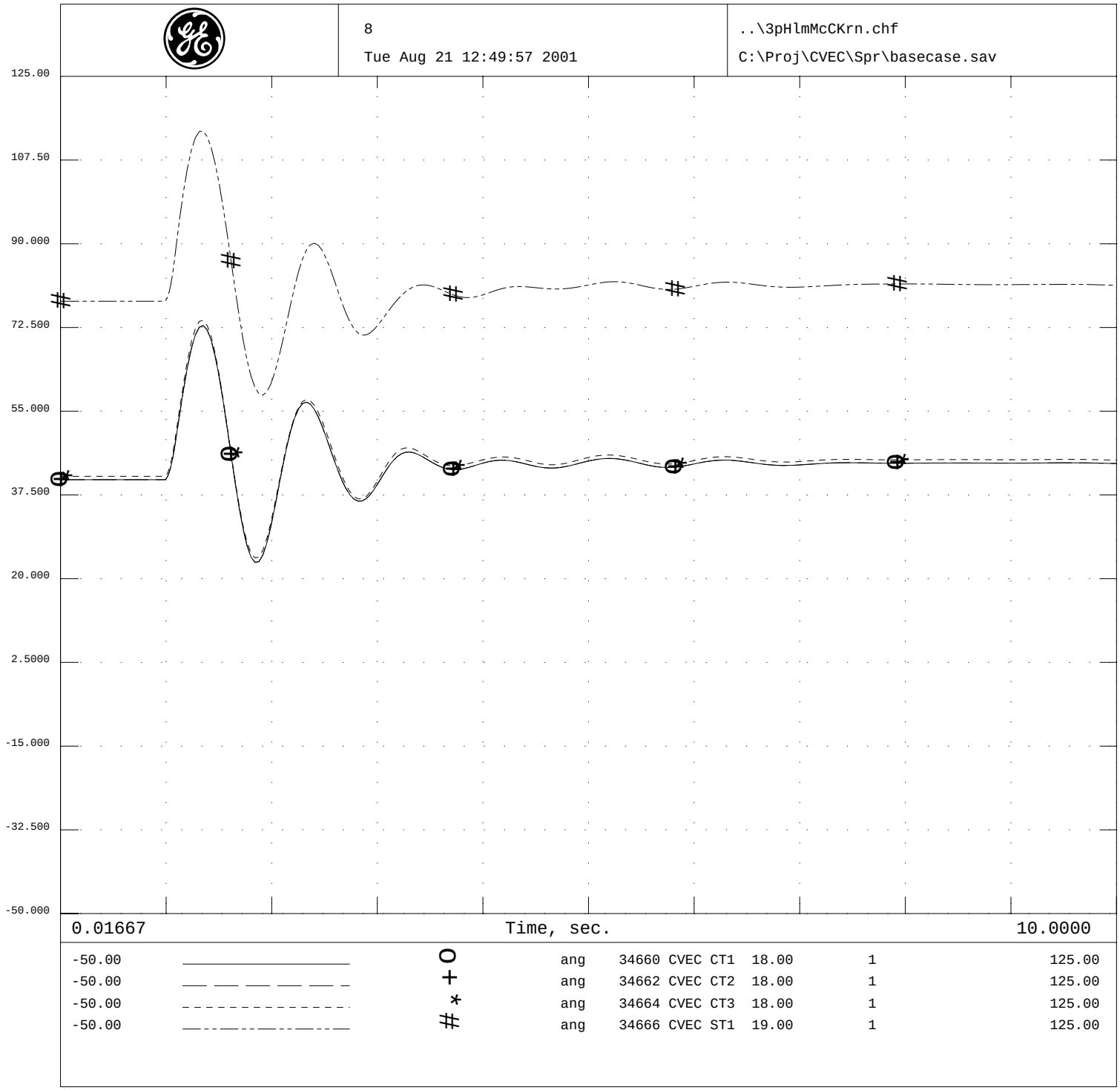
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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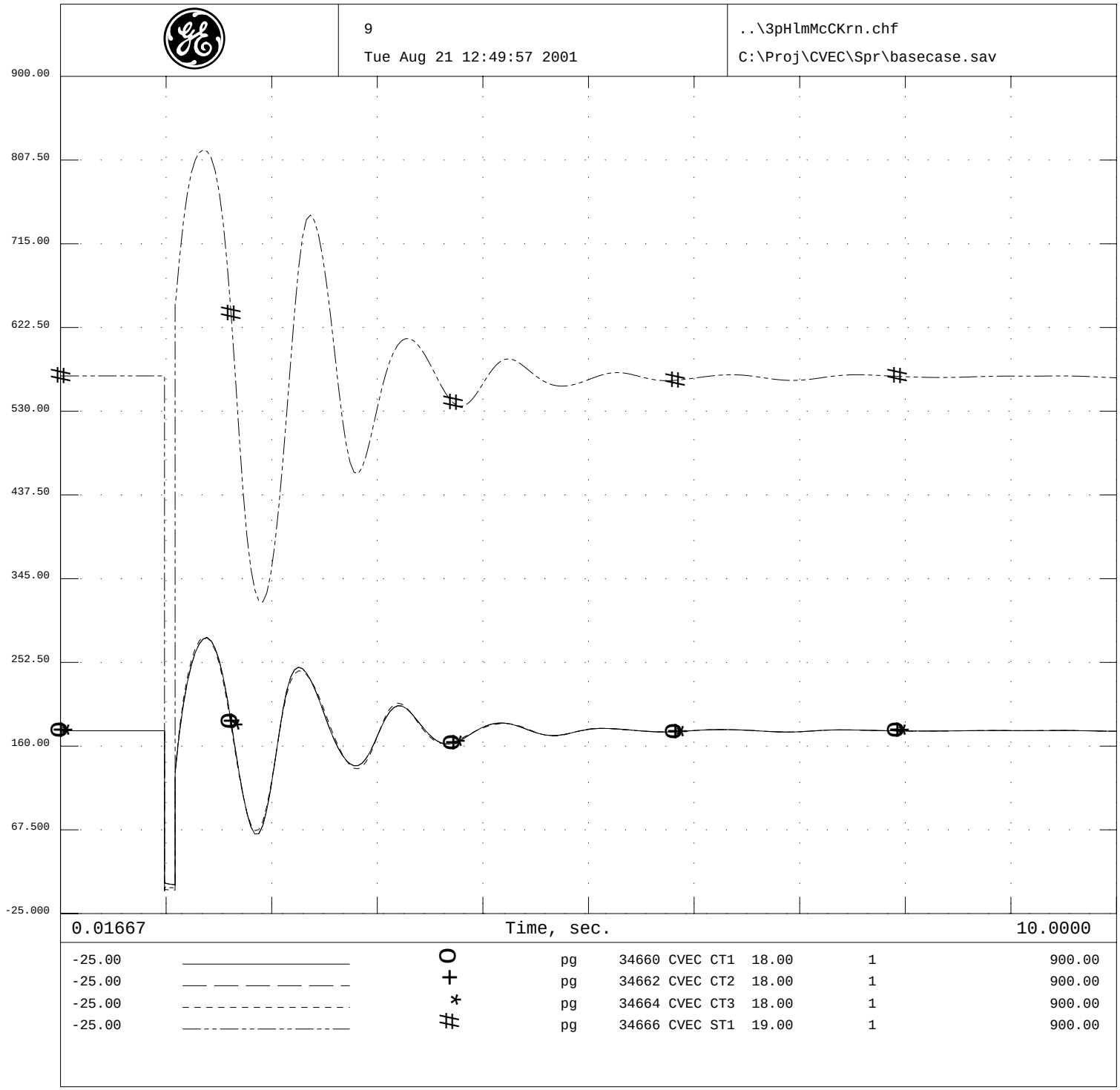
Project Generator Rotor Angle



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Calpine Corporation
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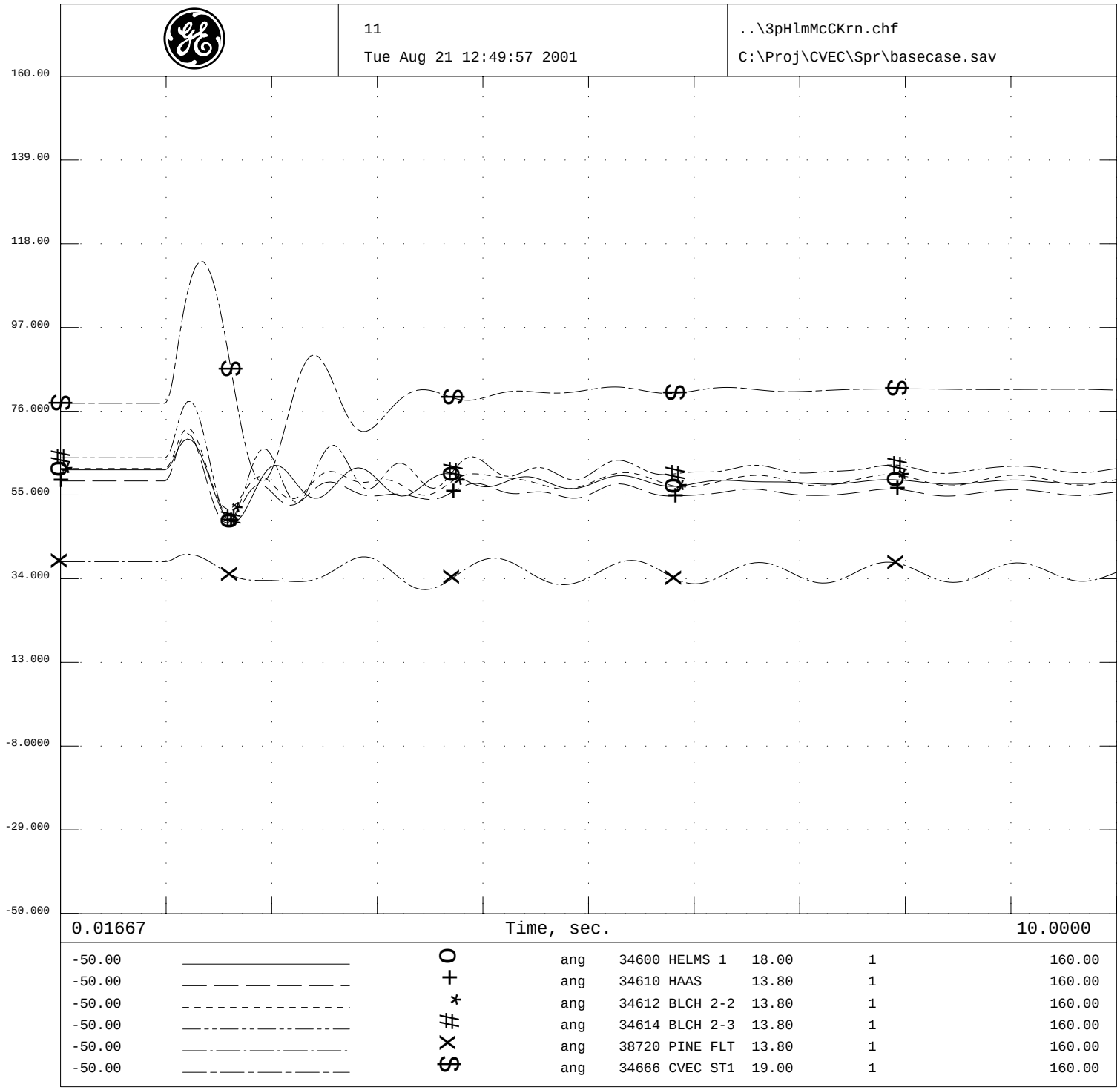

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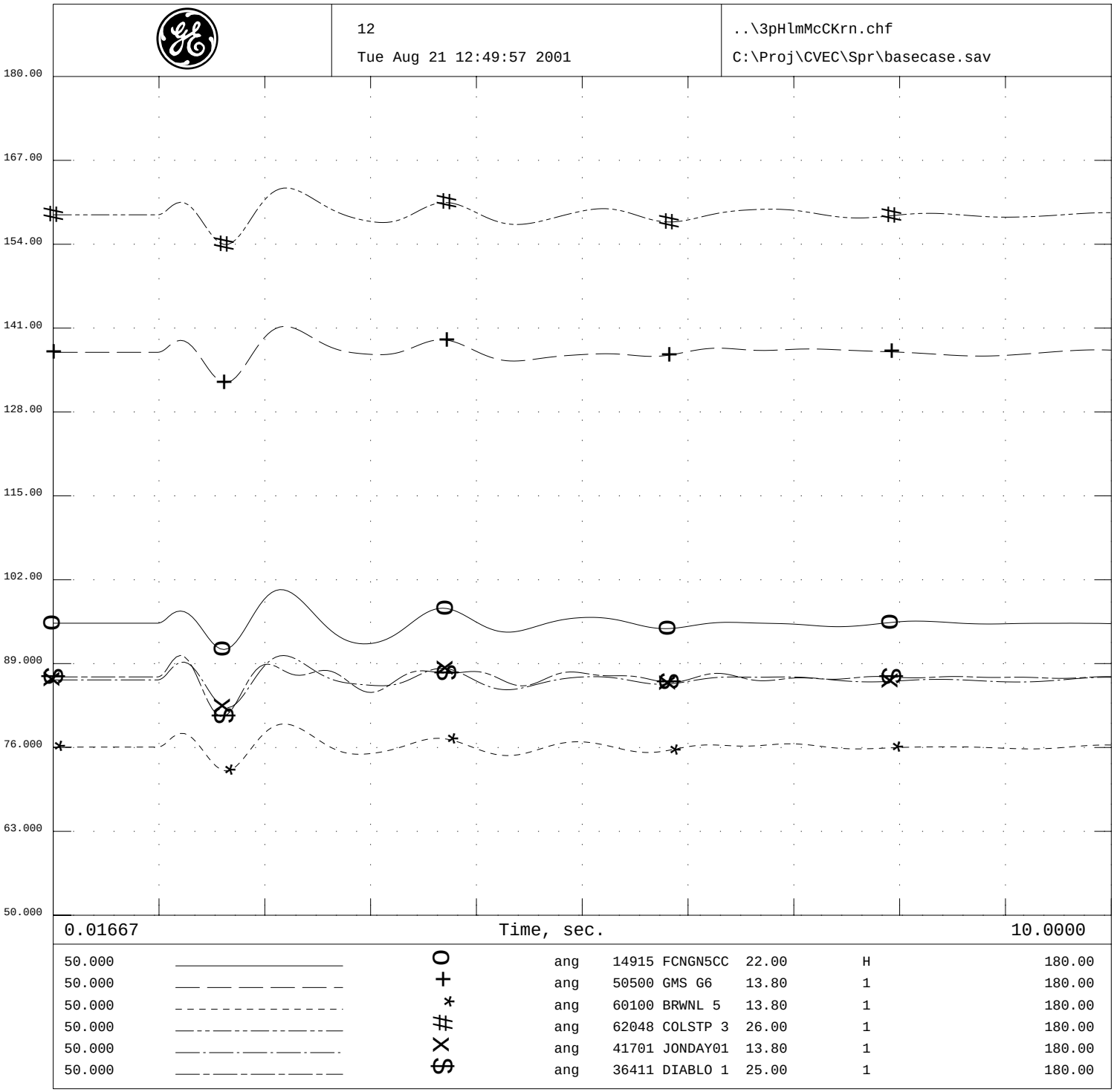
Calpine Corporation
Selected Local Rotor Angle Plots



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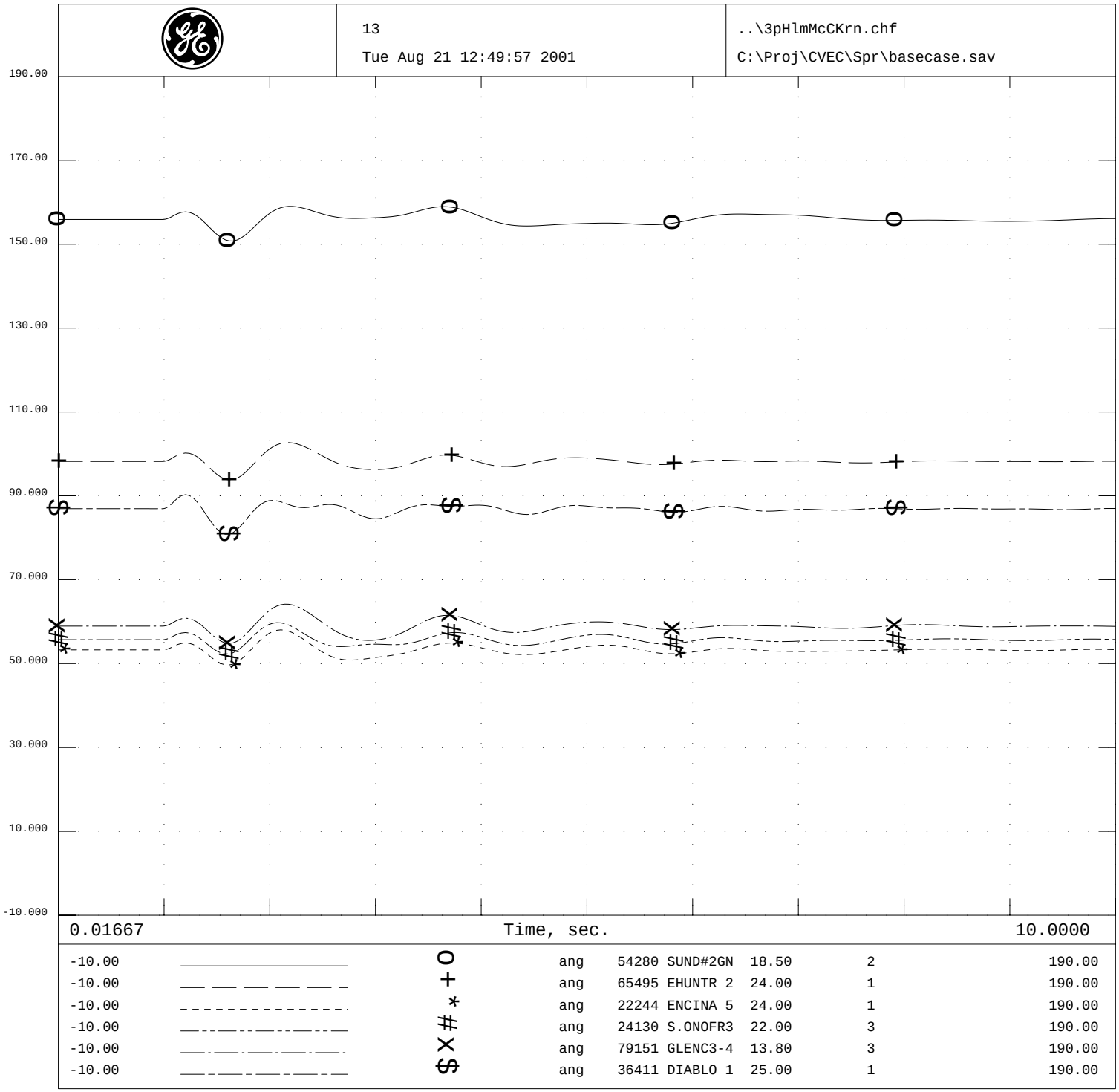
Selected WSCC Transmission Bus Angle Plots



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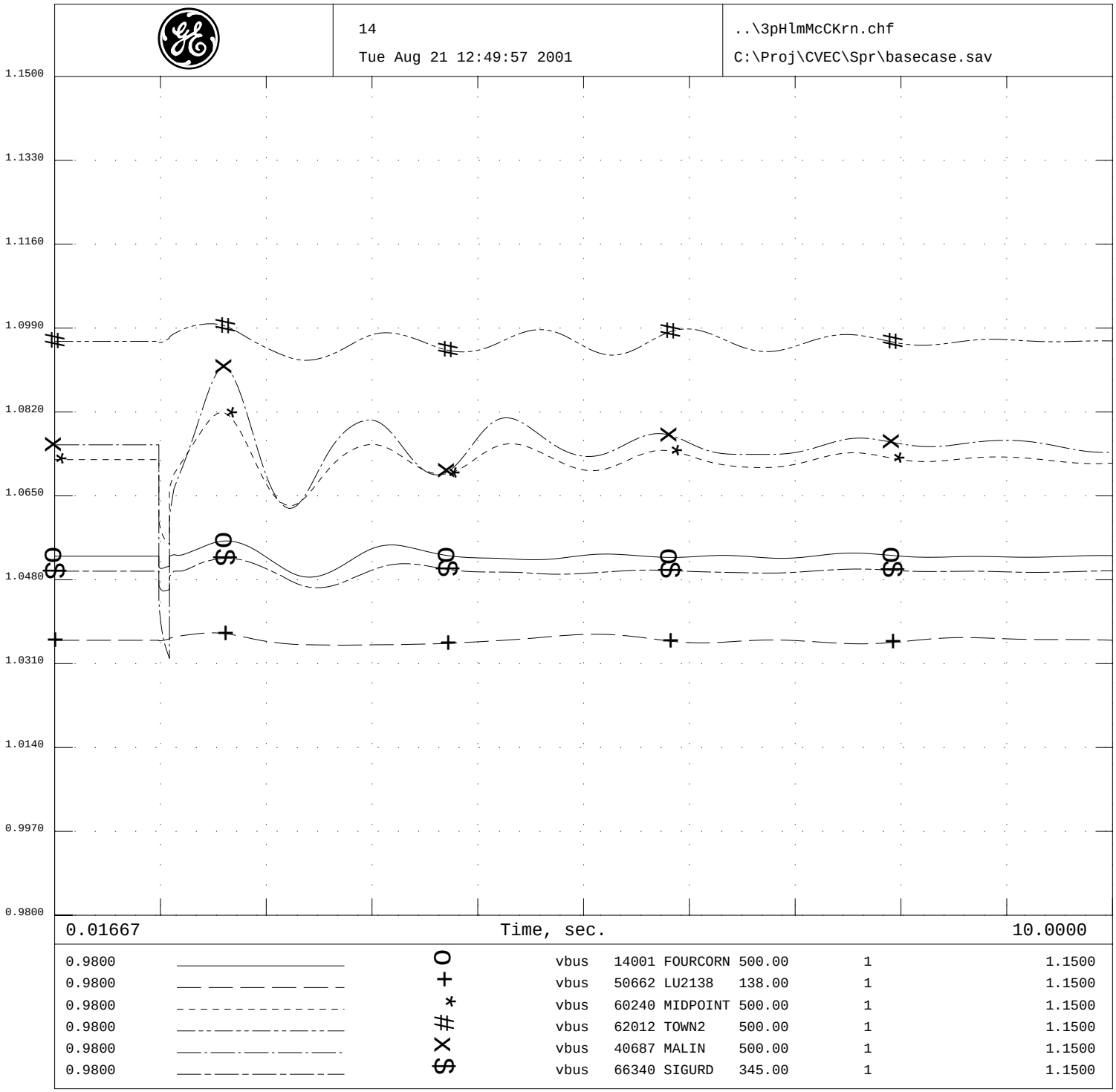

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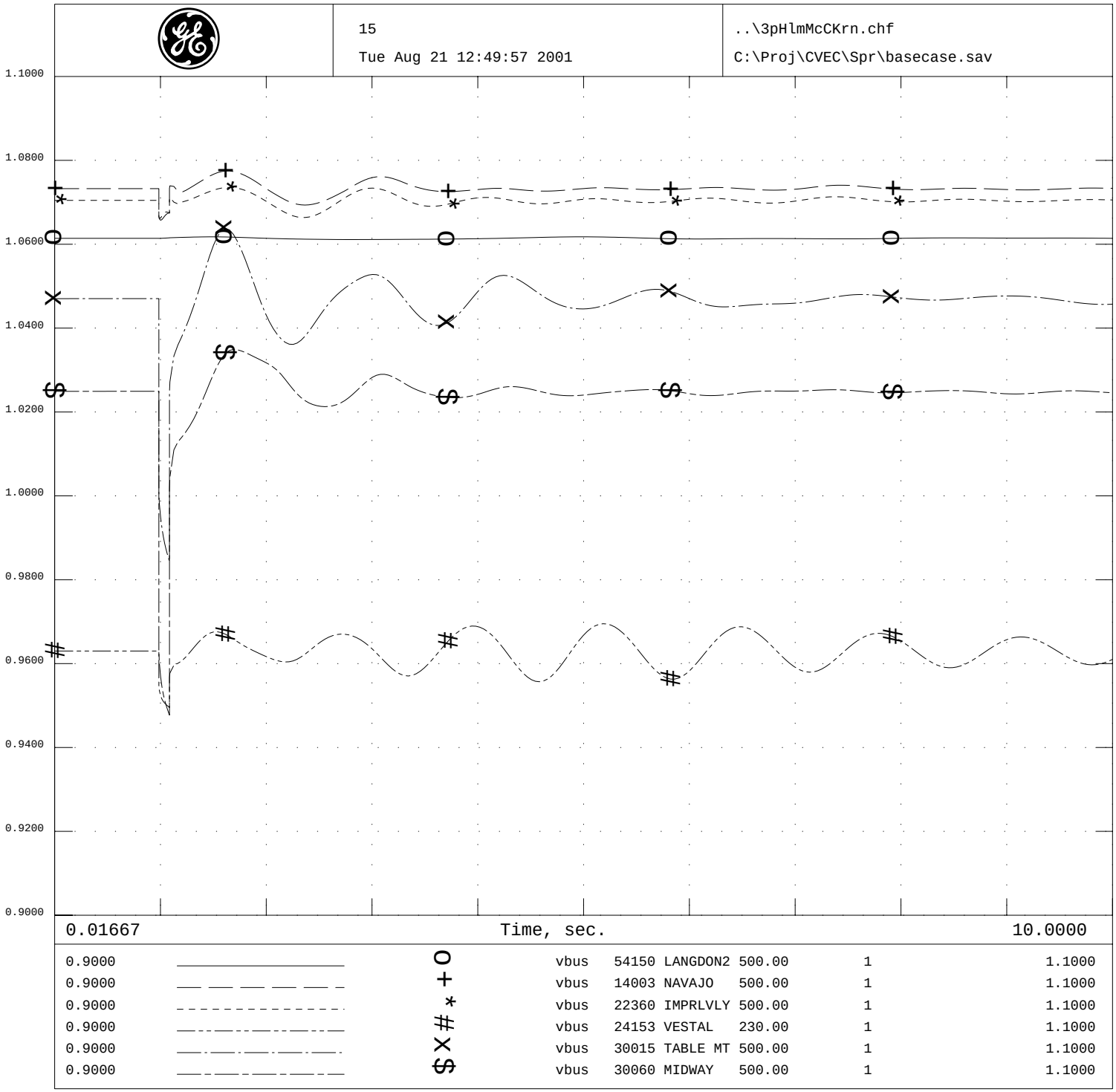

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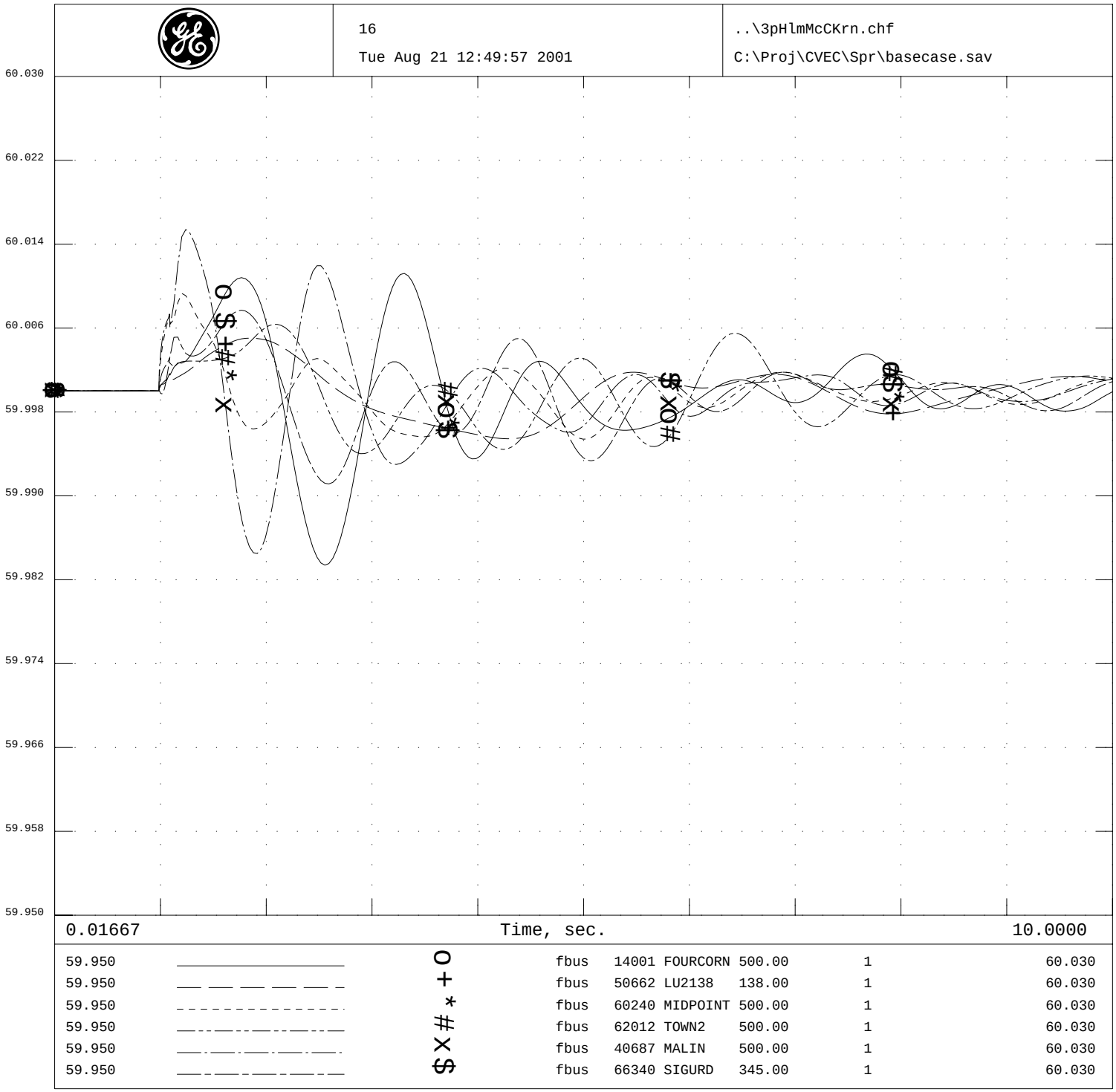

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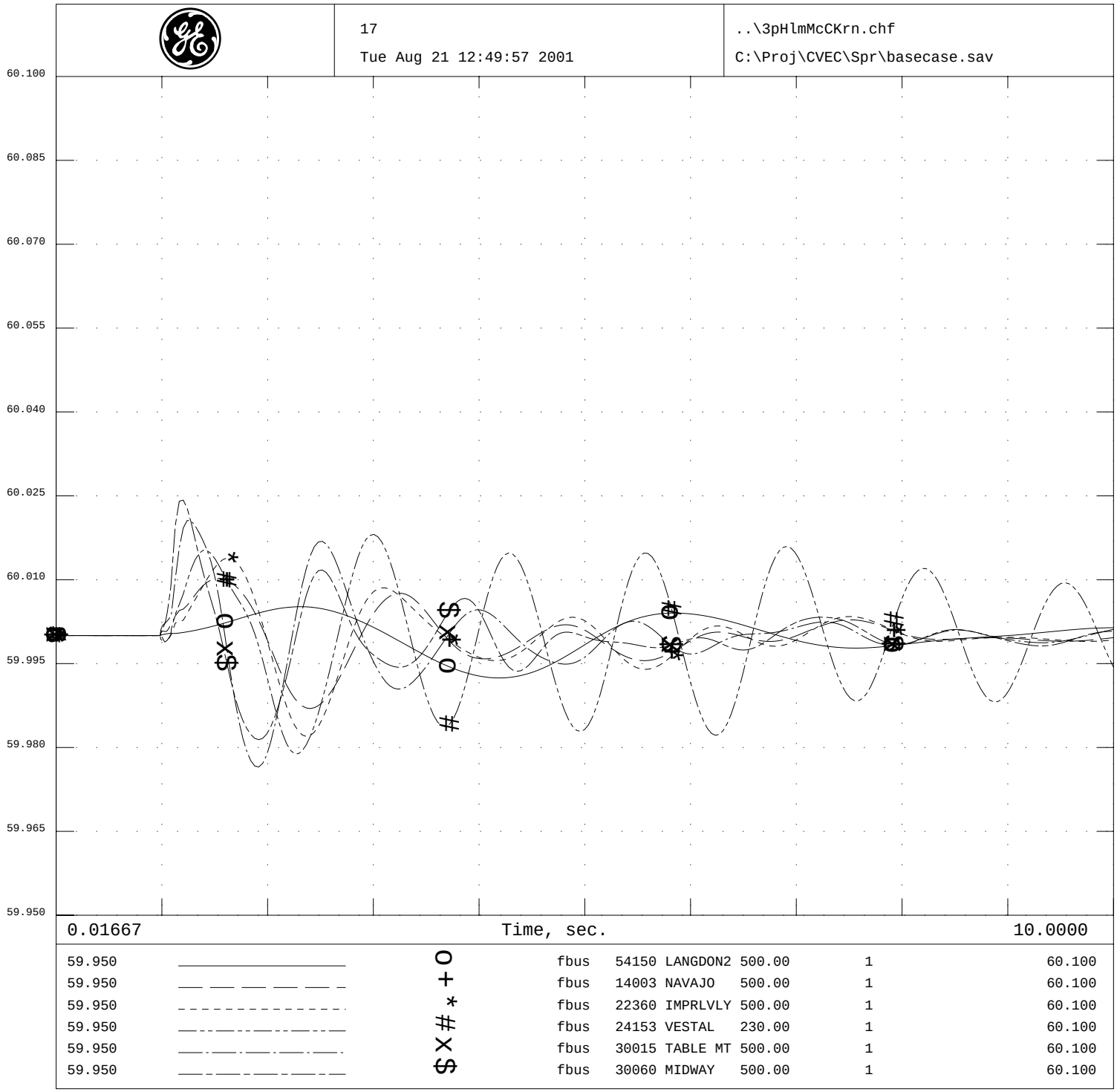

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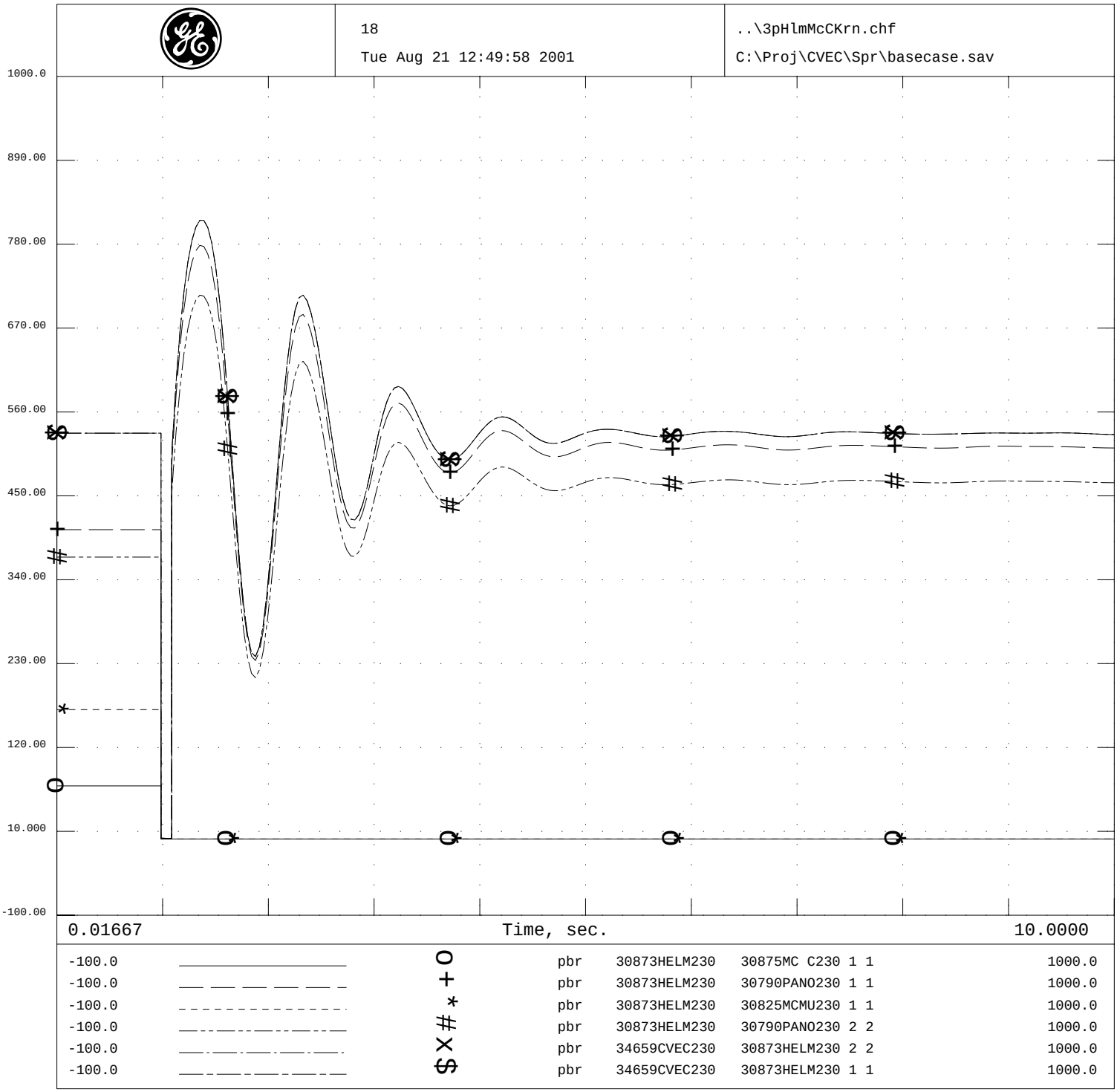

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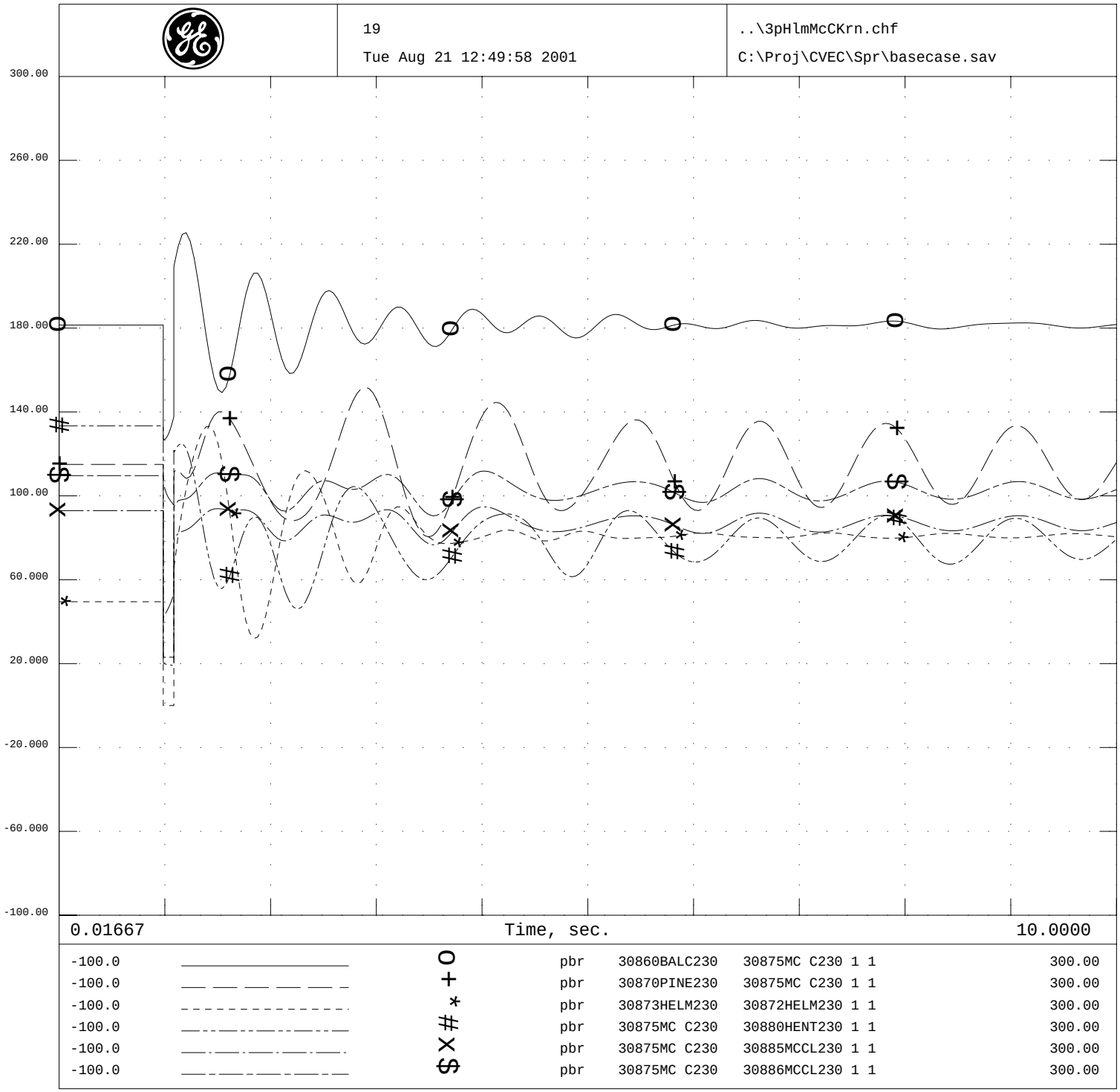
Selected Transmission Line Flows (MW)



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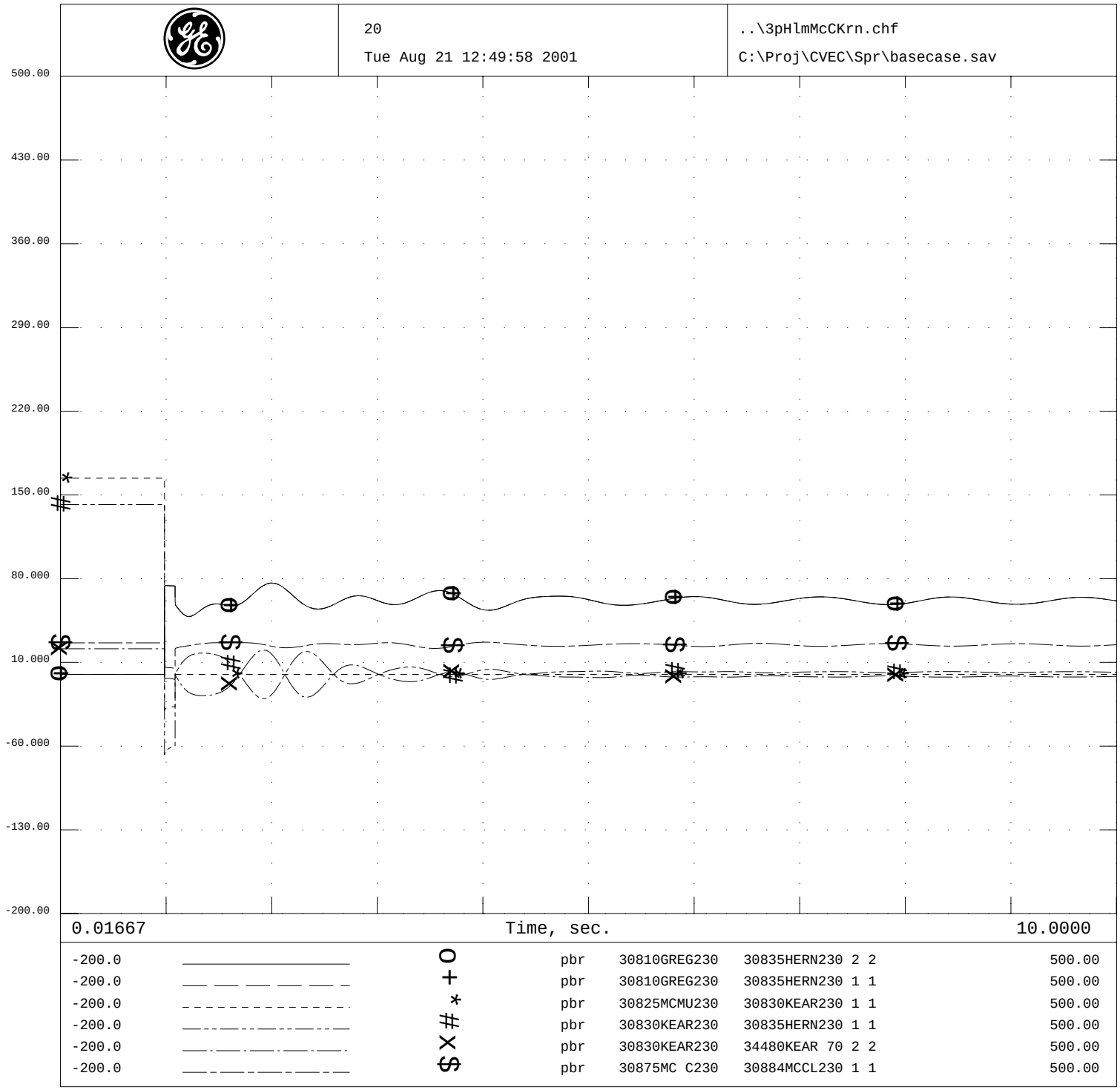

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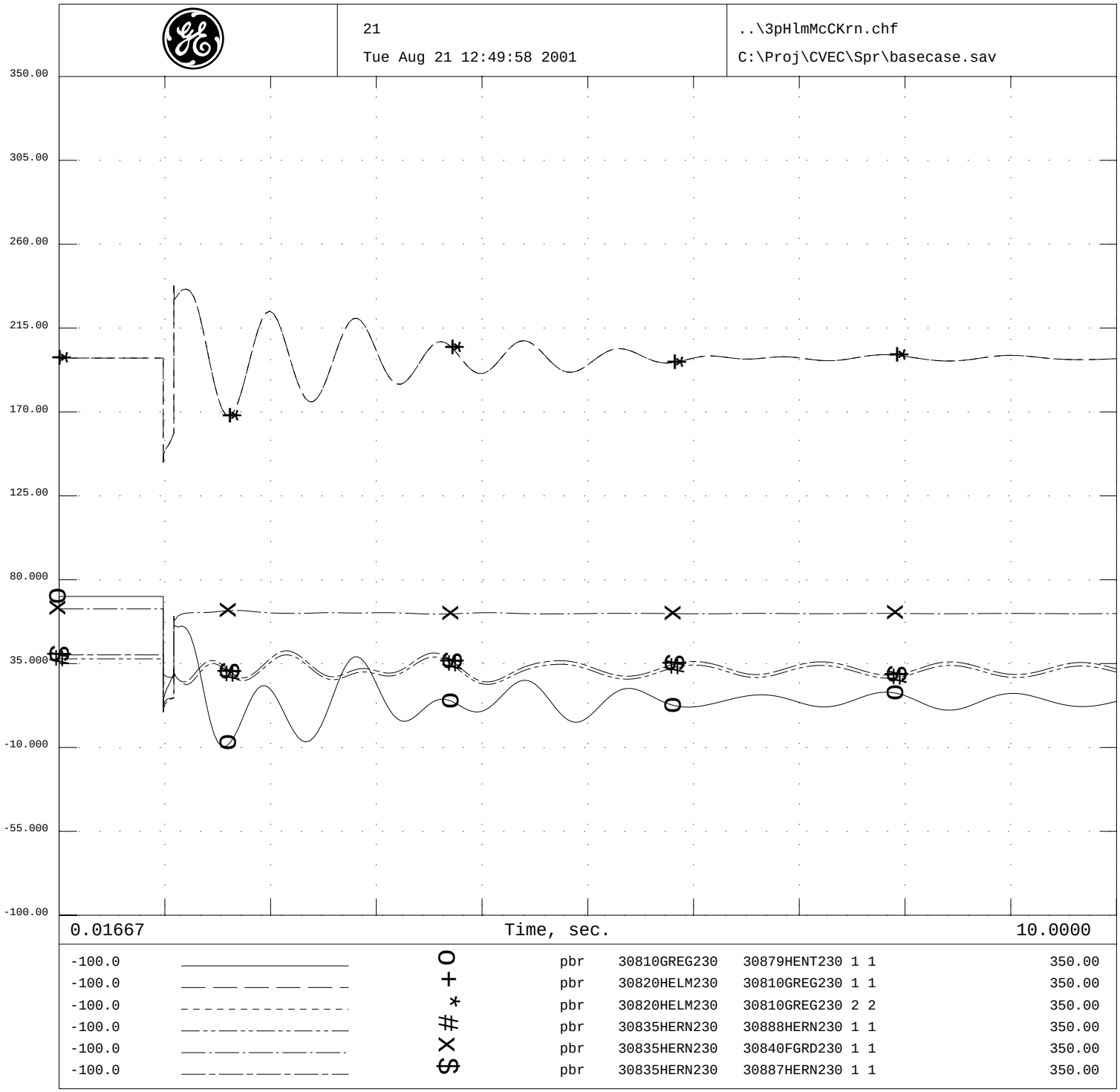

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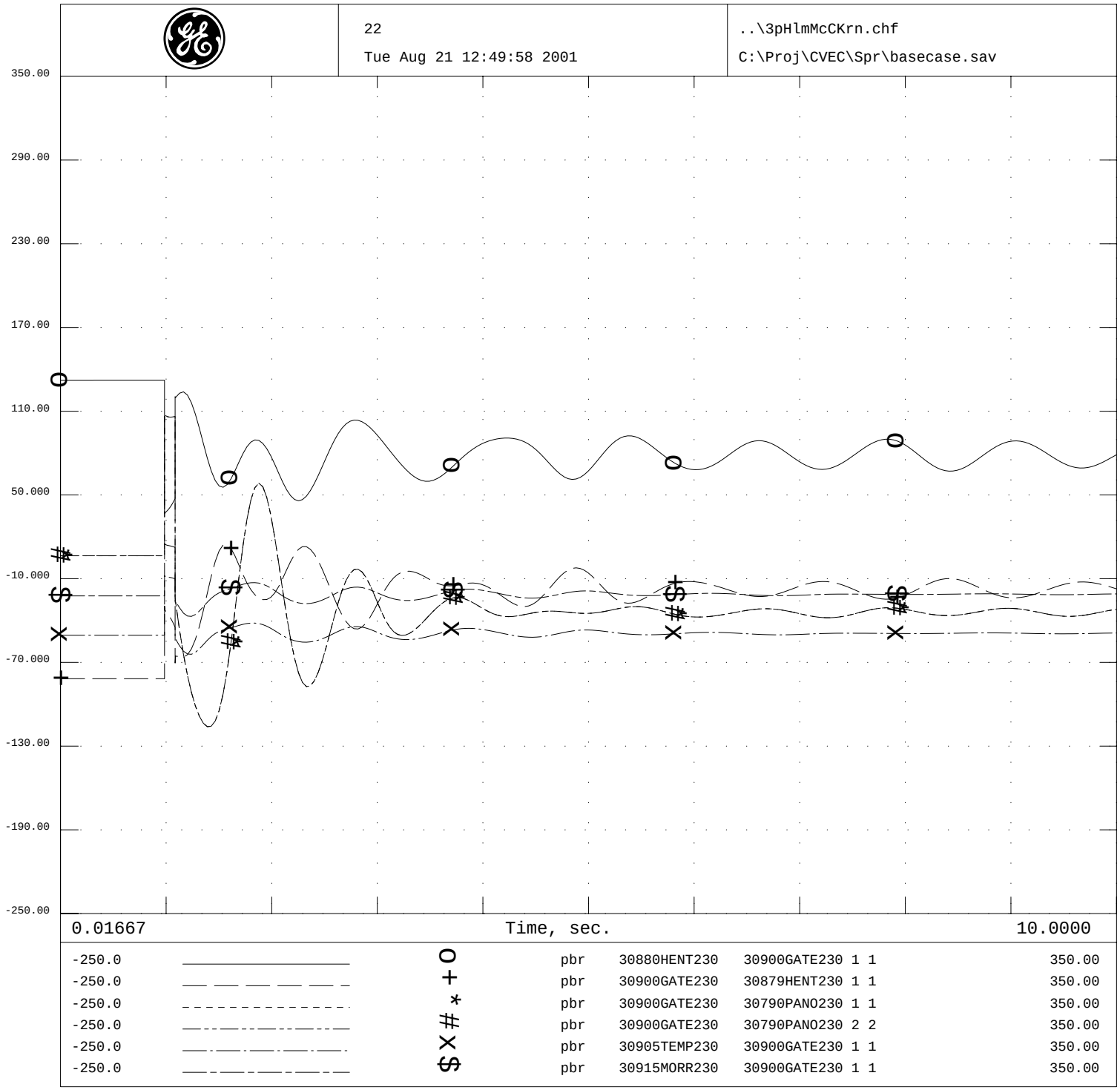

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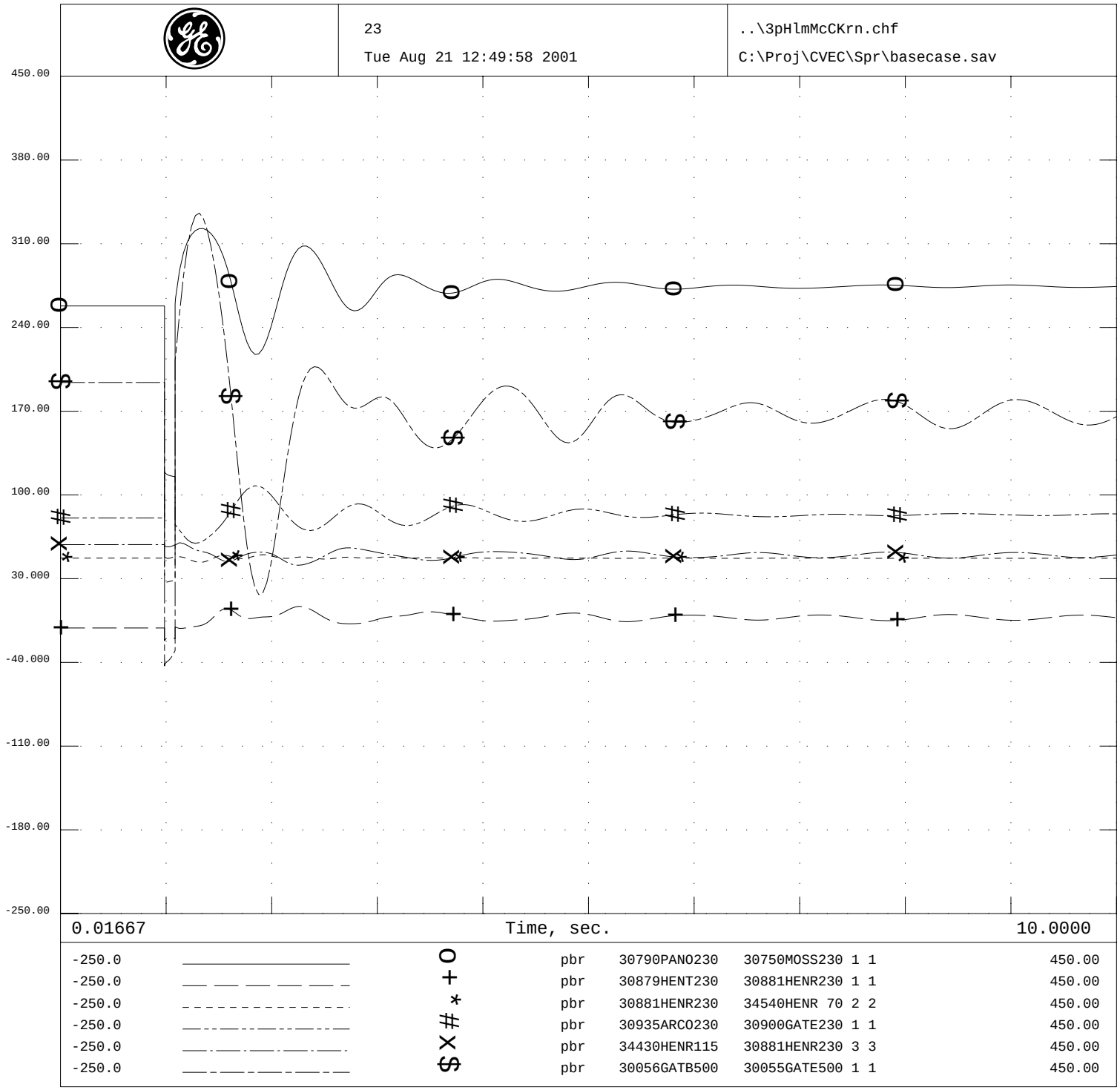

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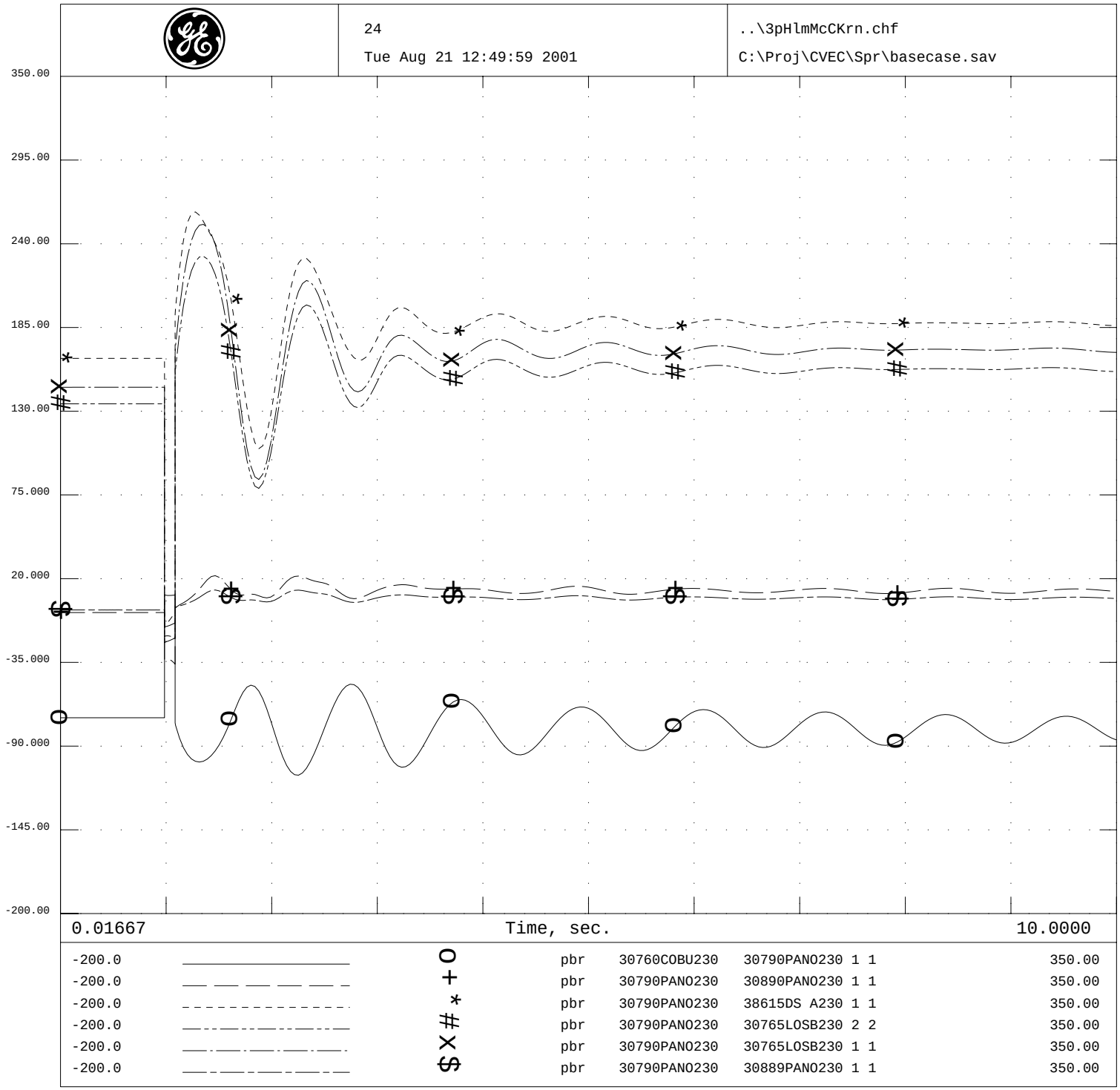

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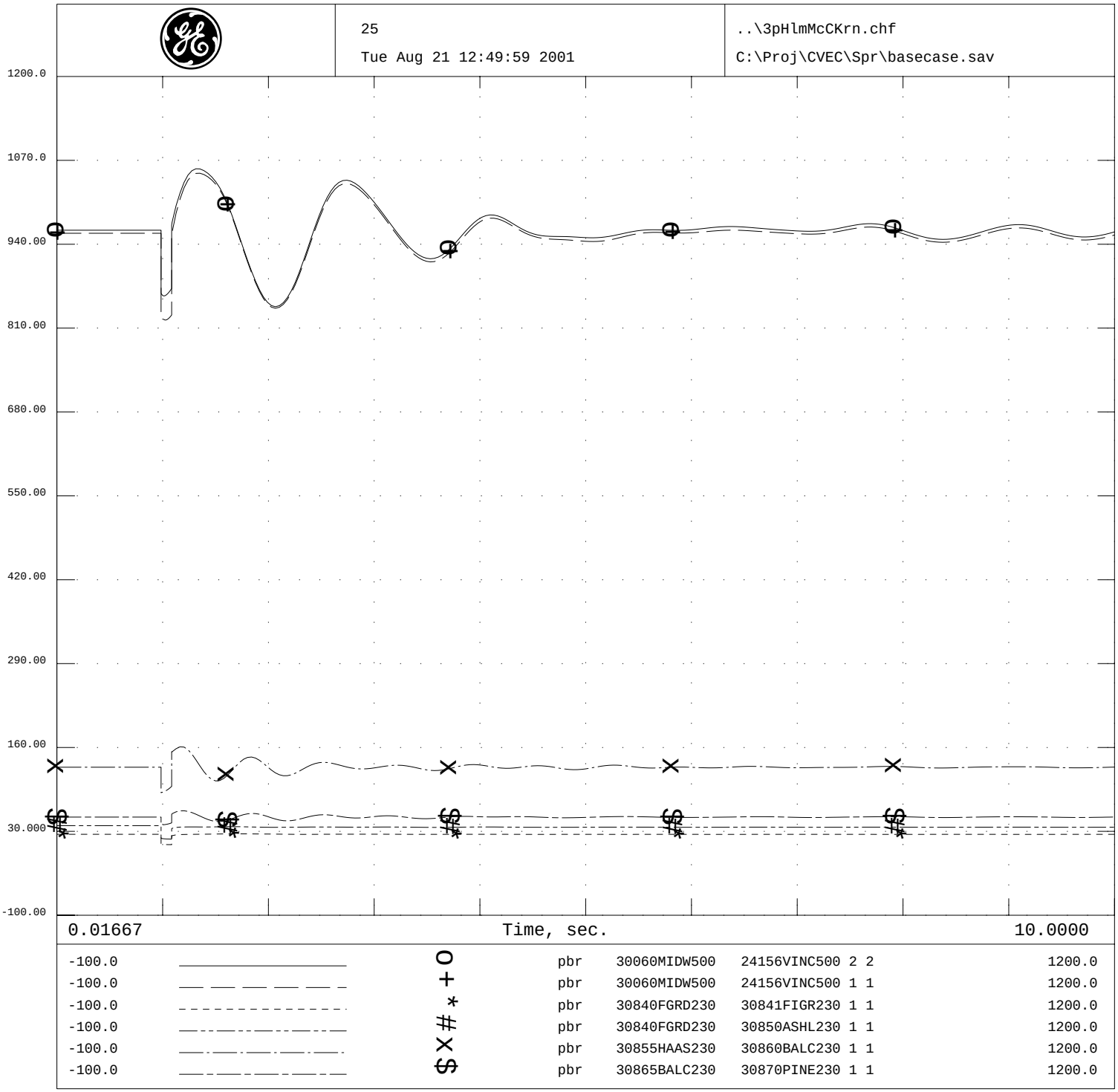

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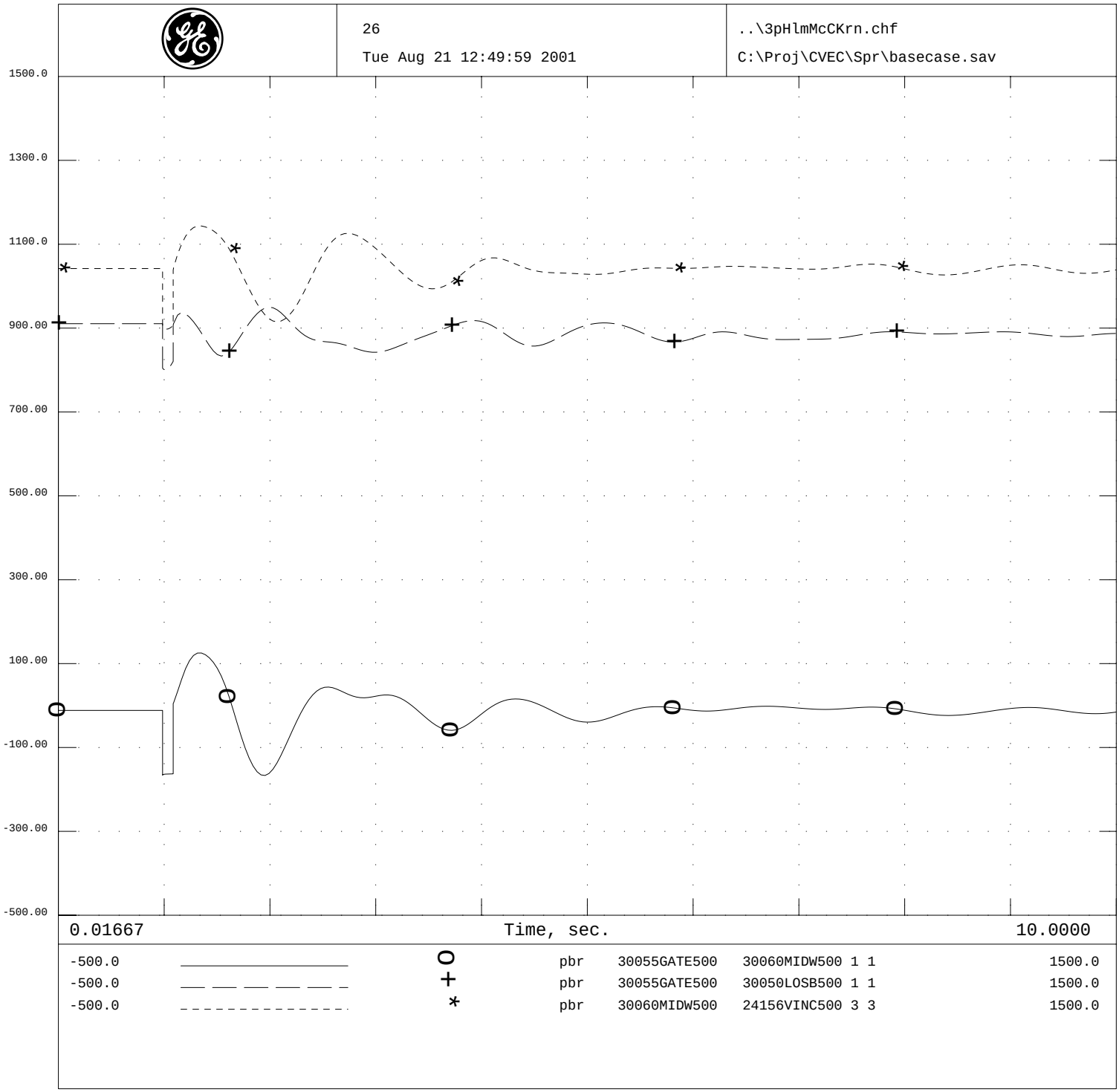

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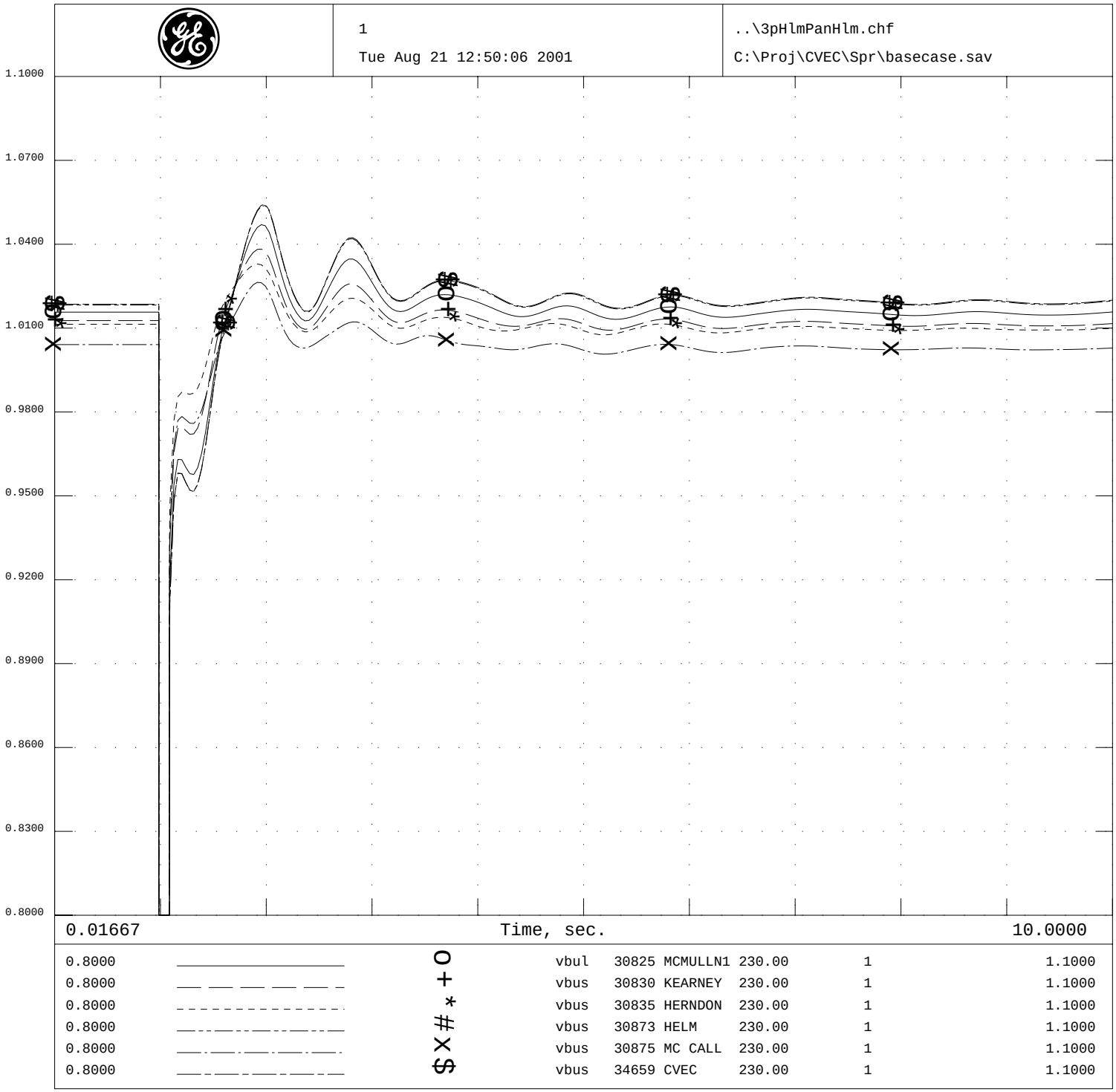

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Calpine Corporation
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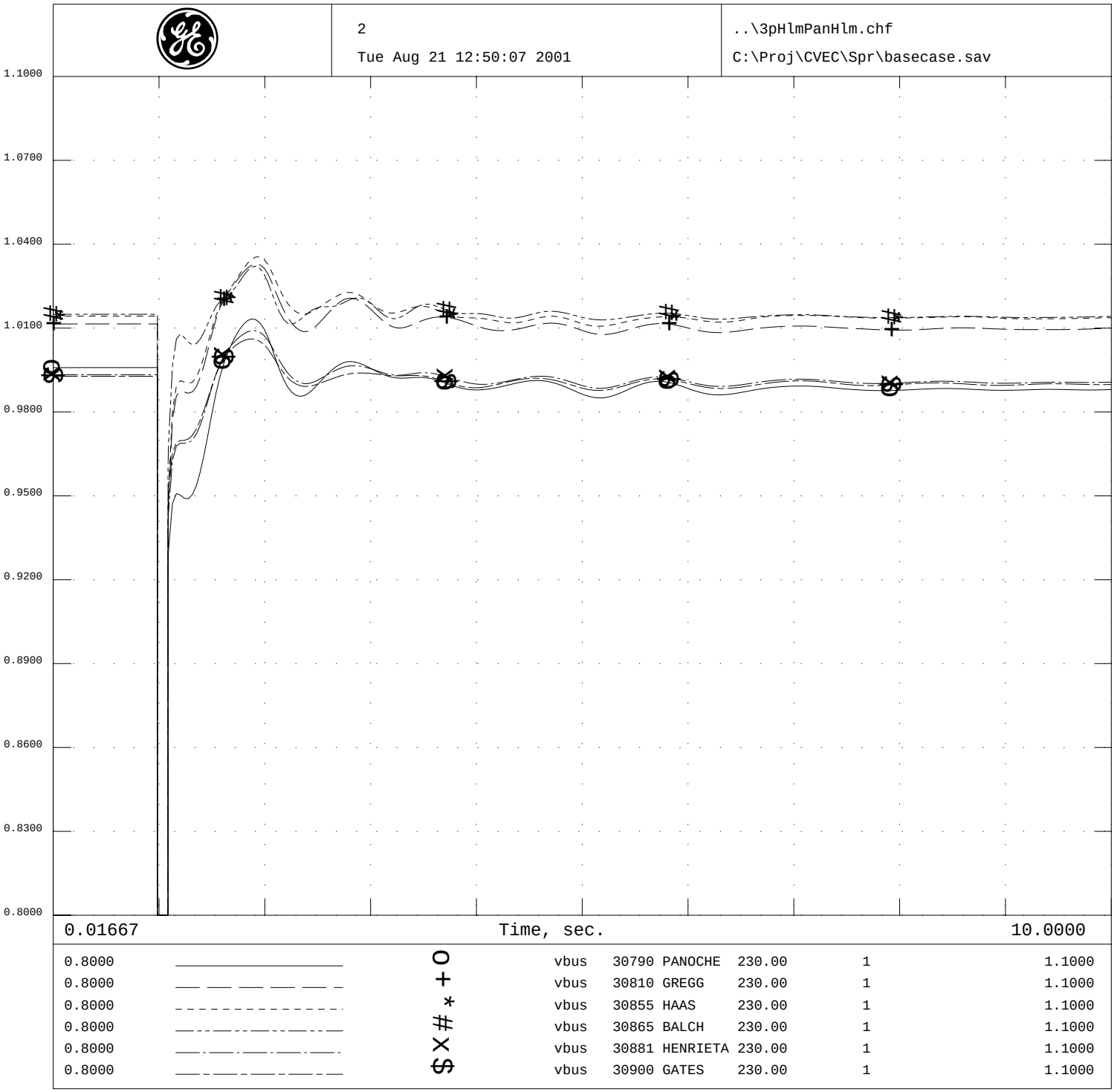

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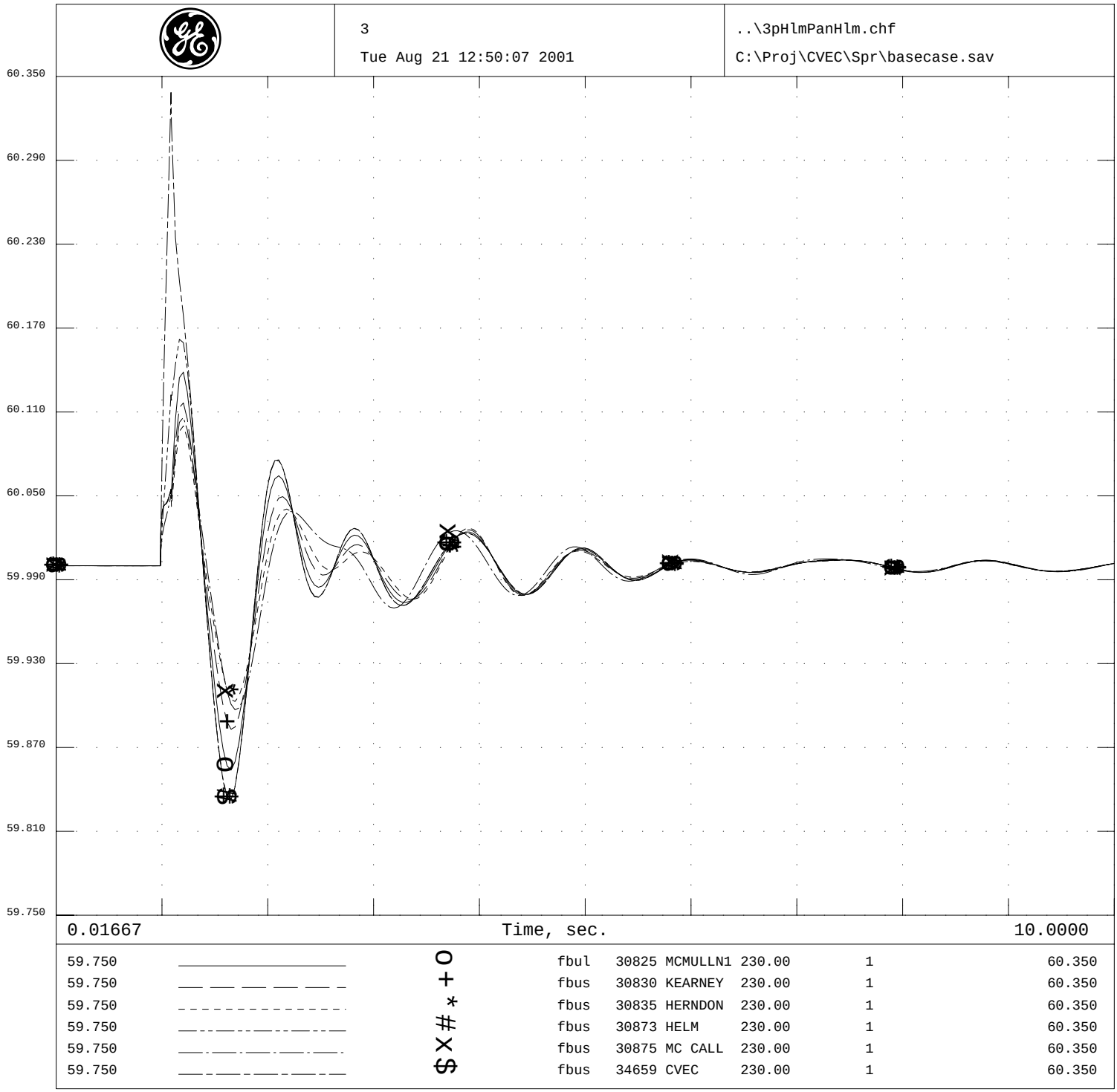

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Calpine Corporation
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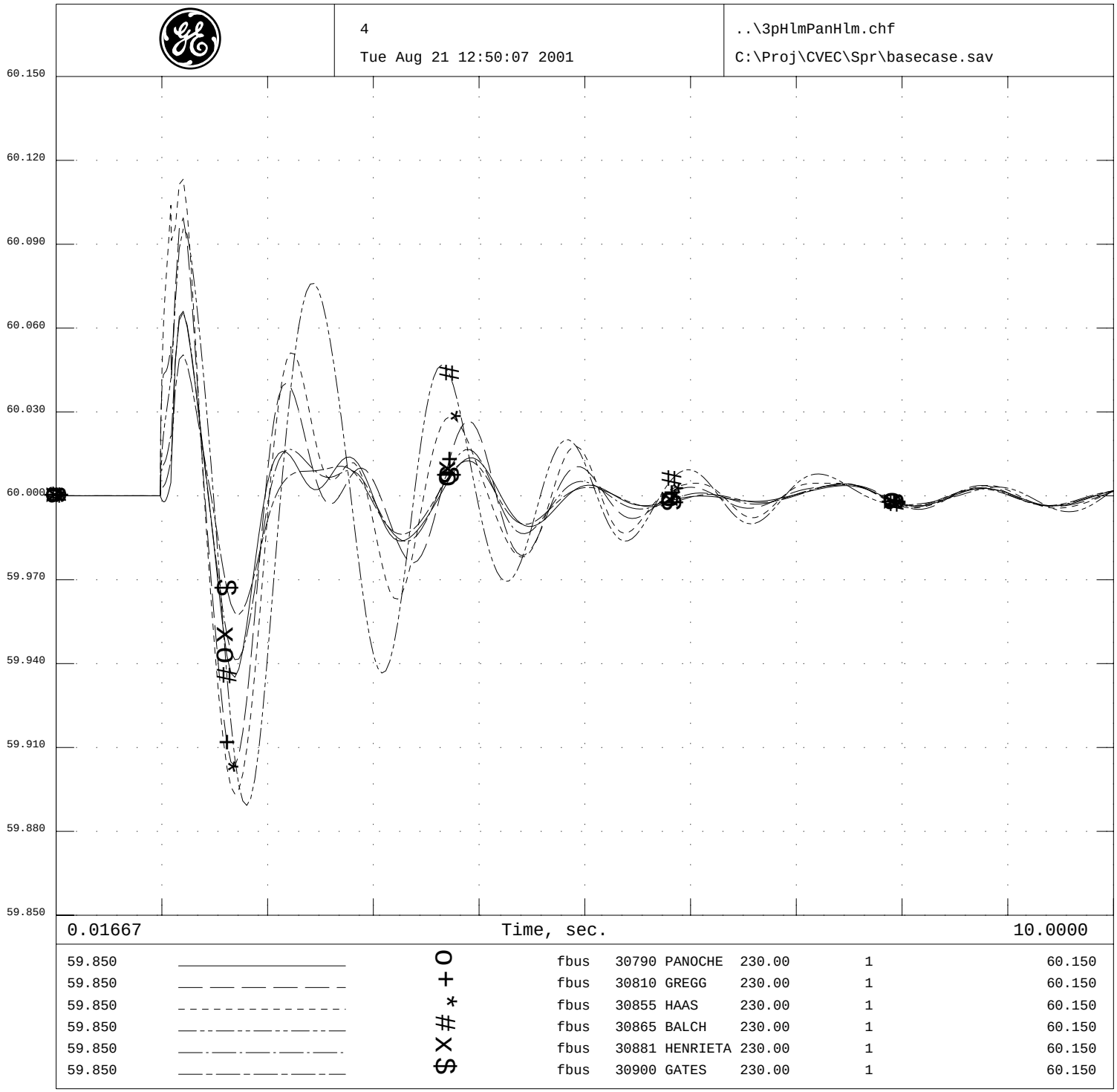

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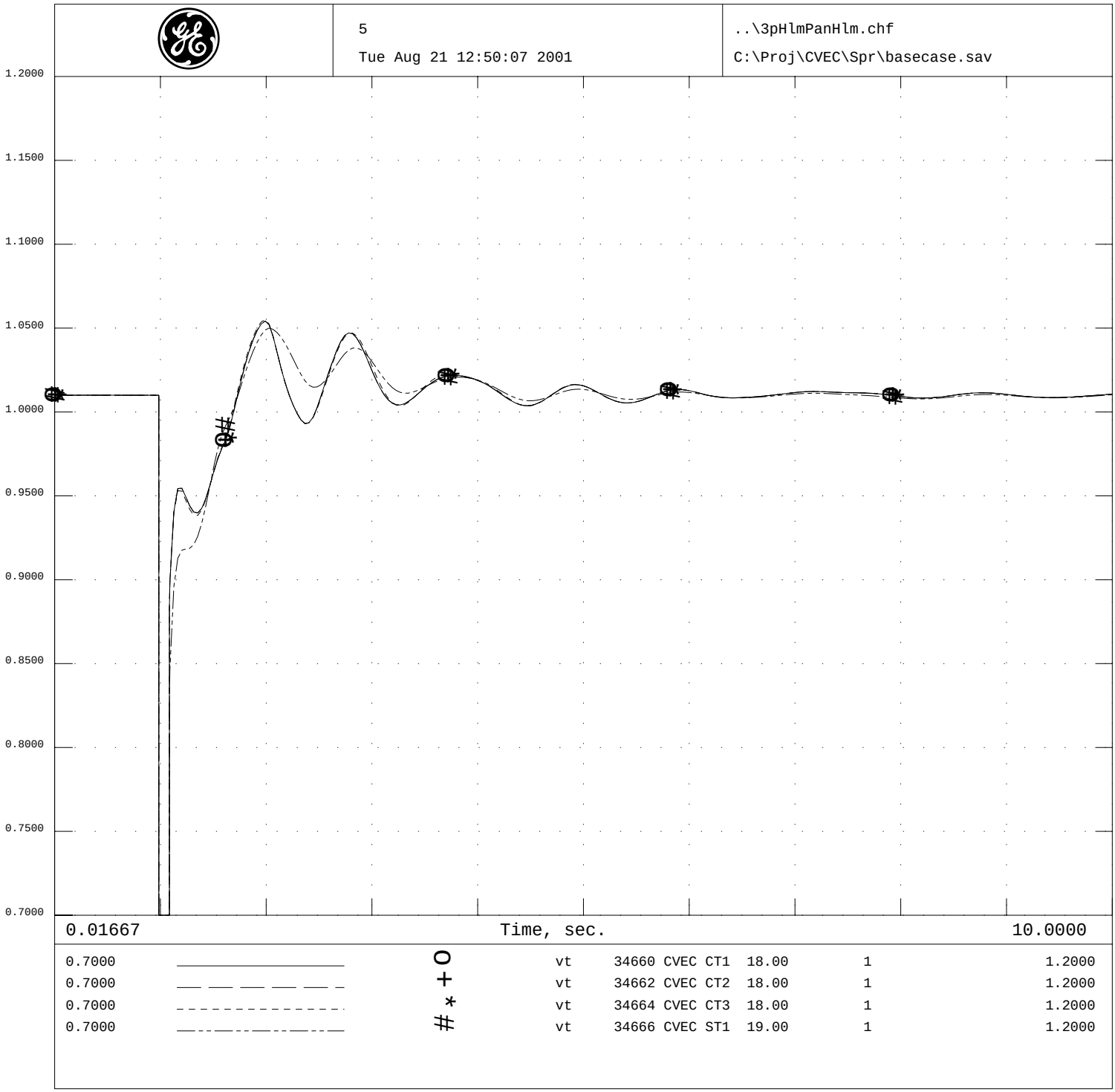

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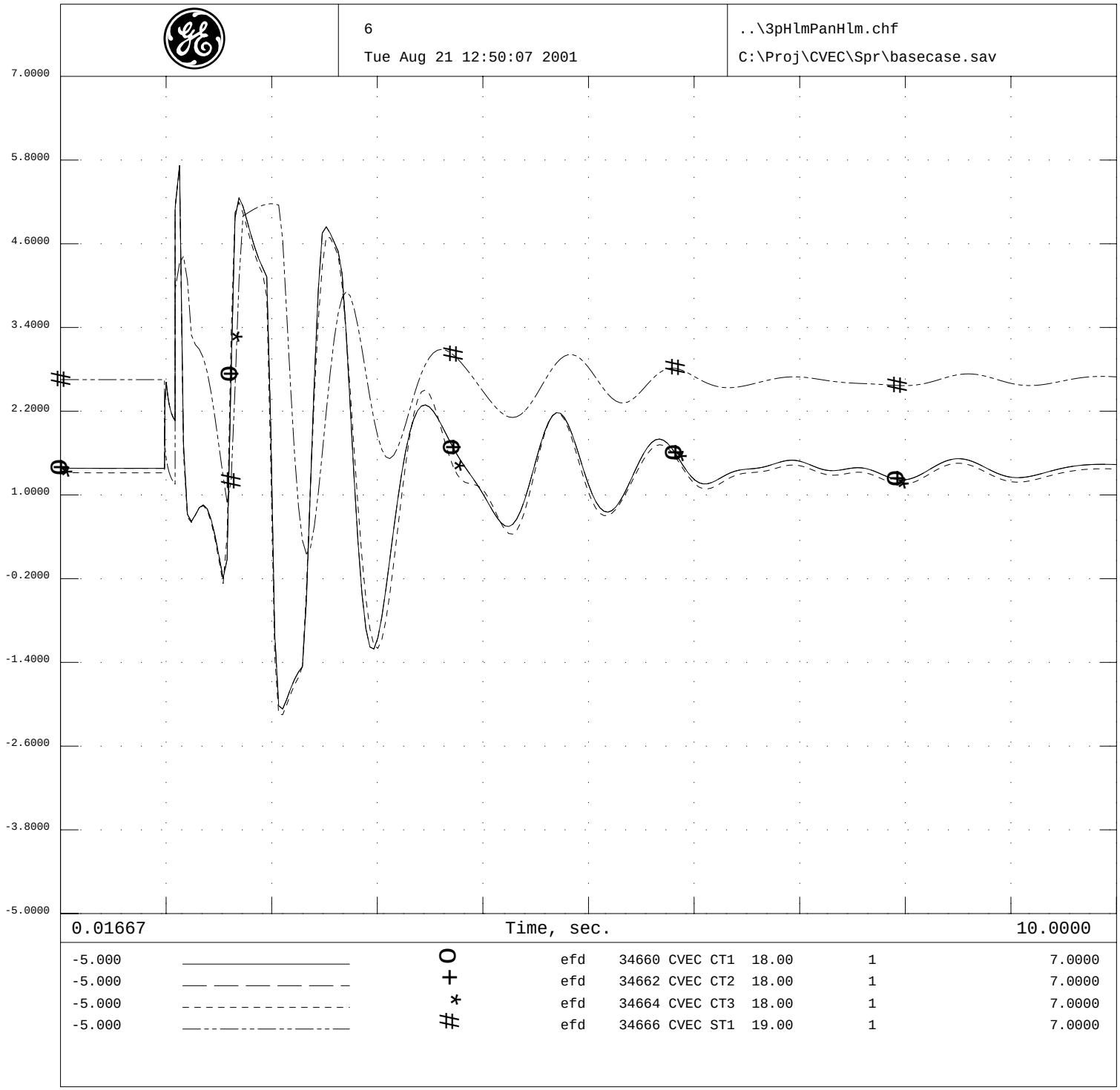

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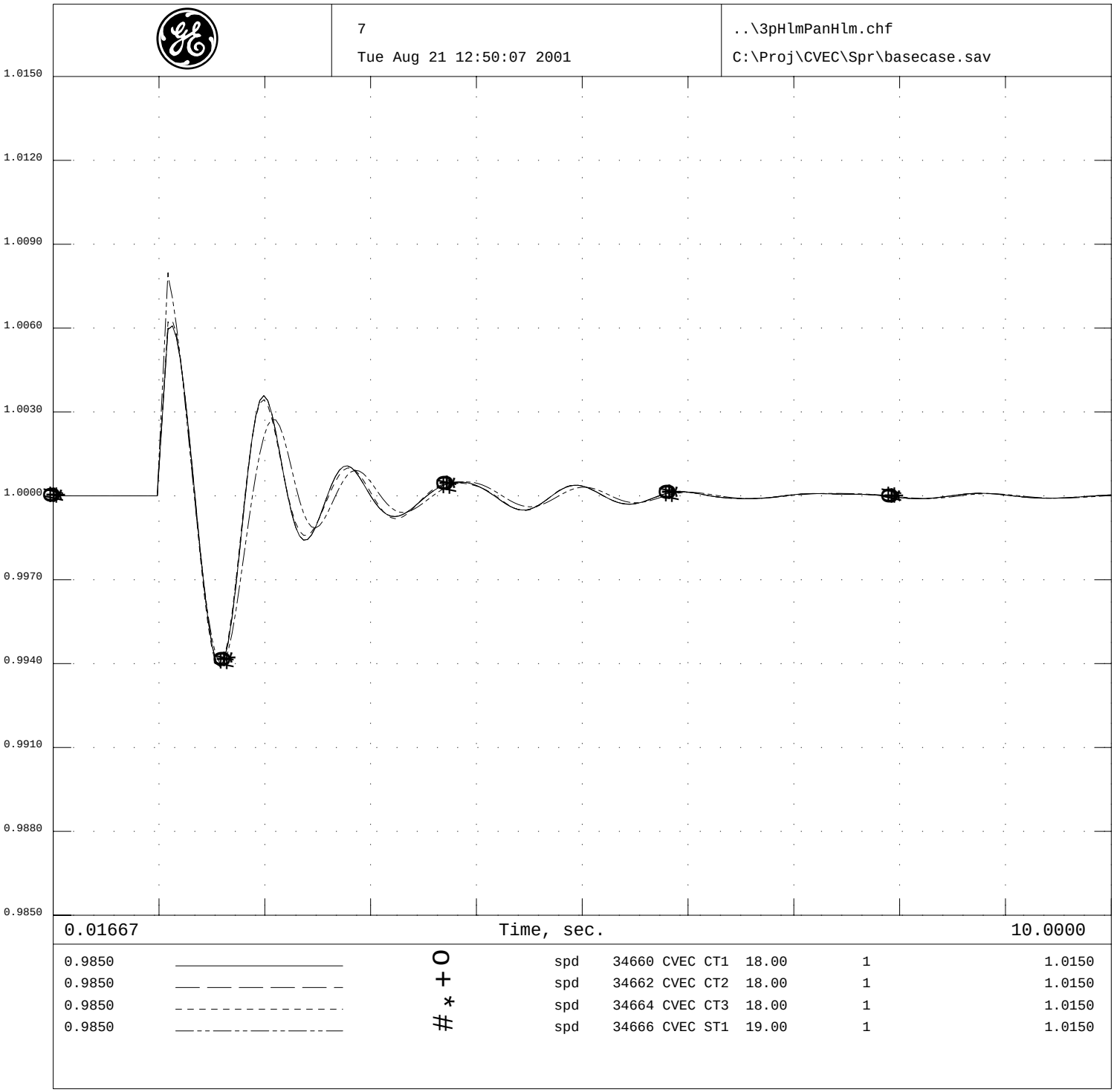

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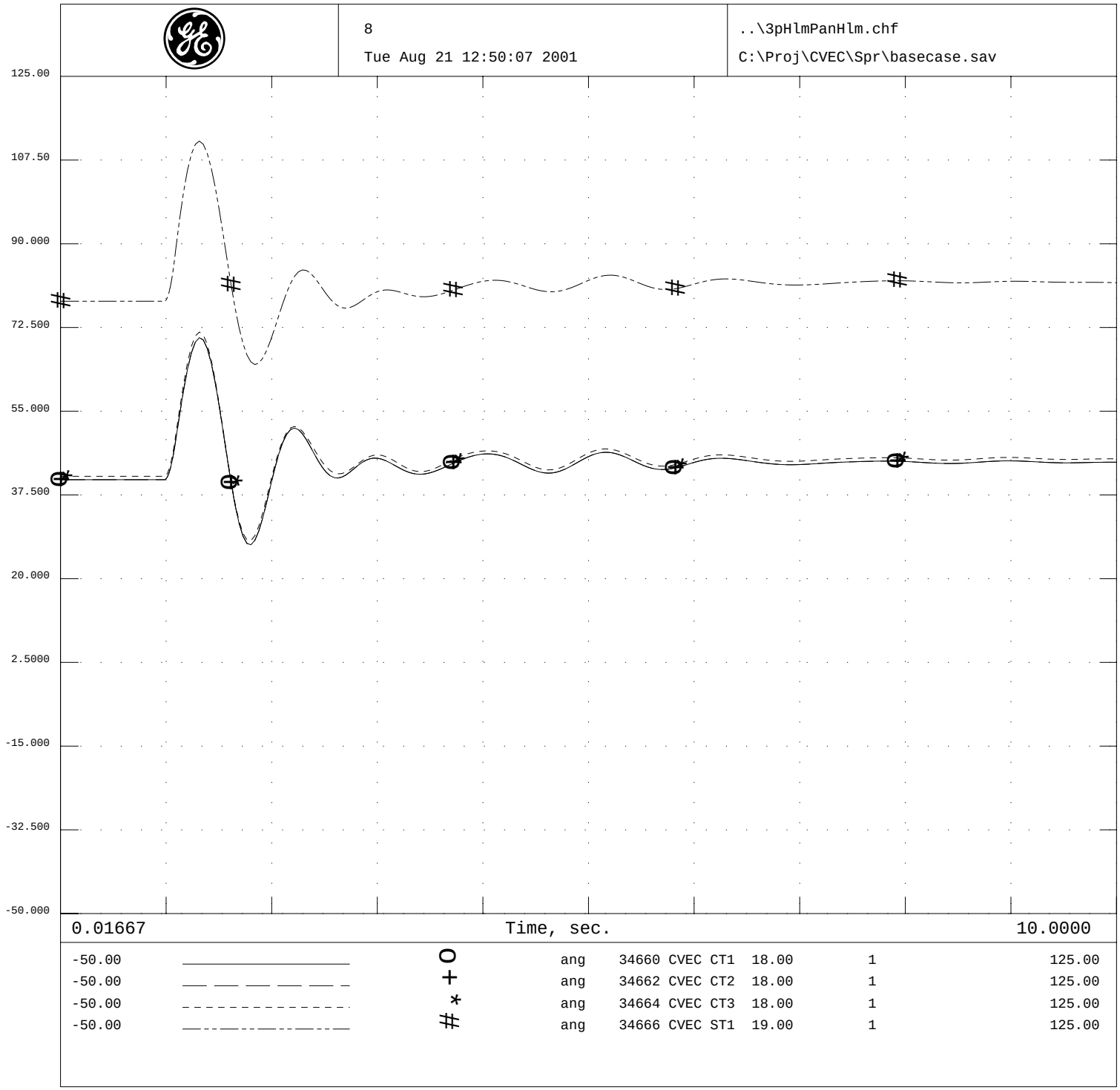
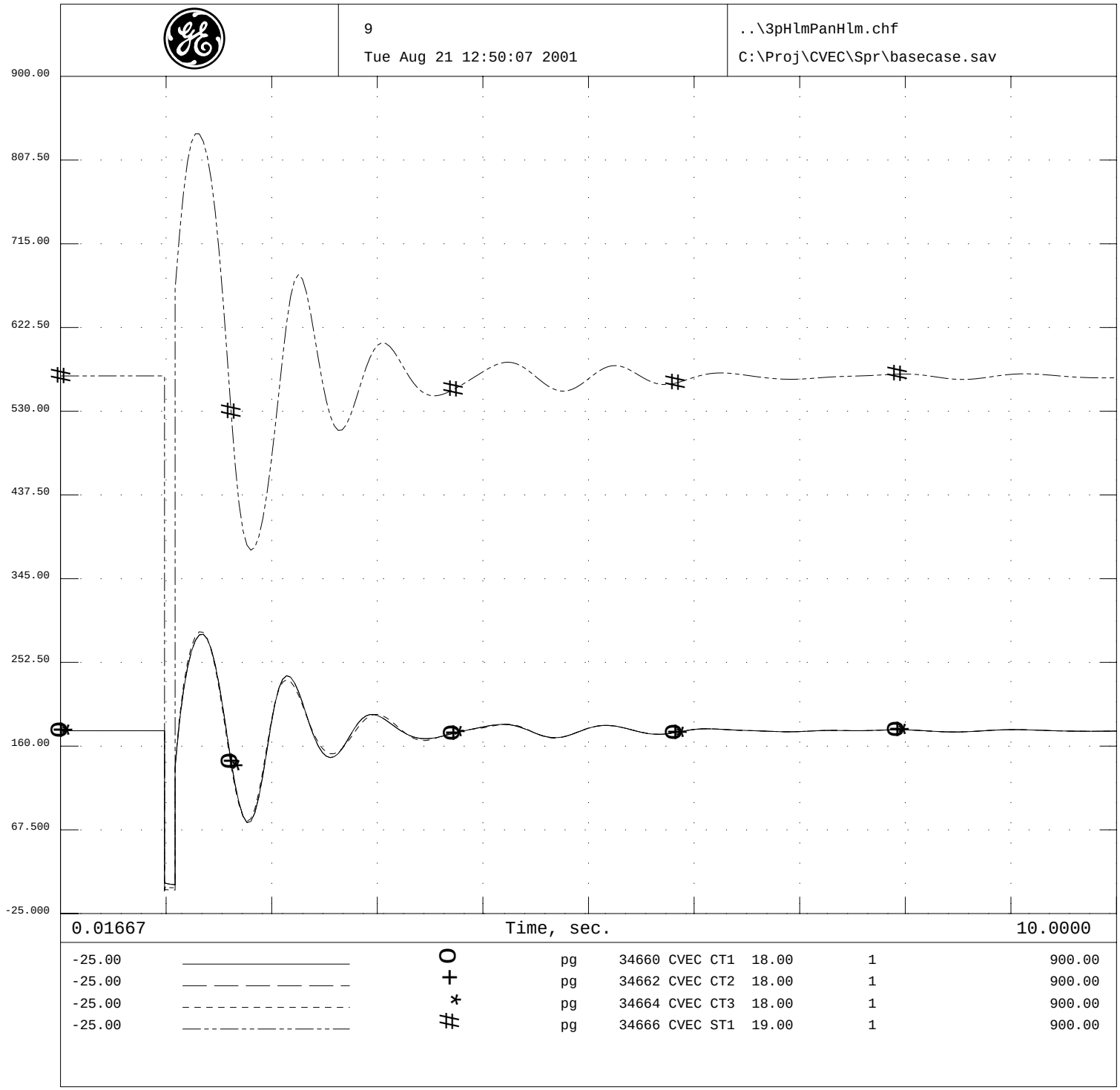
Calpine Corporation
Project Generator Rotor Speed



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Panoche-Helm 230kV #2 Outage
3 phase 6 cycle fault at Helm 230kV bus and trip Panoche-Helm #2 line

Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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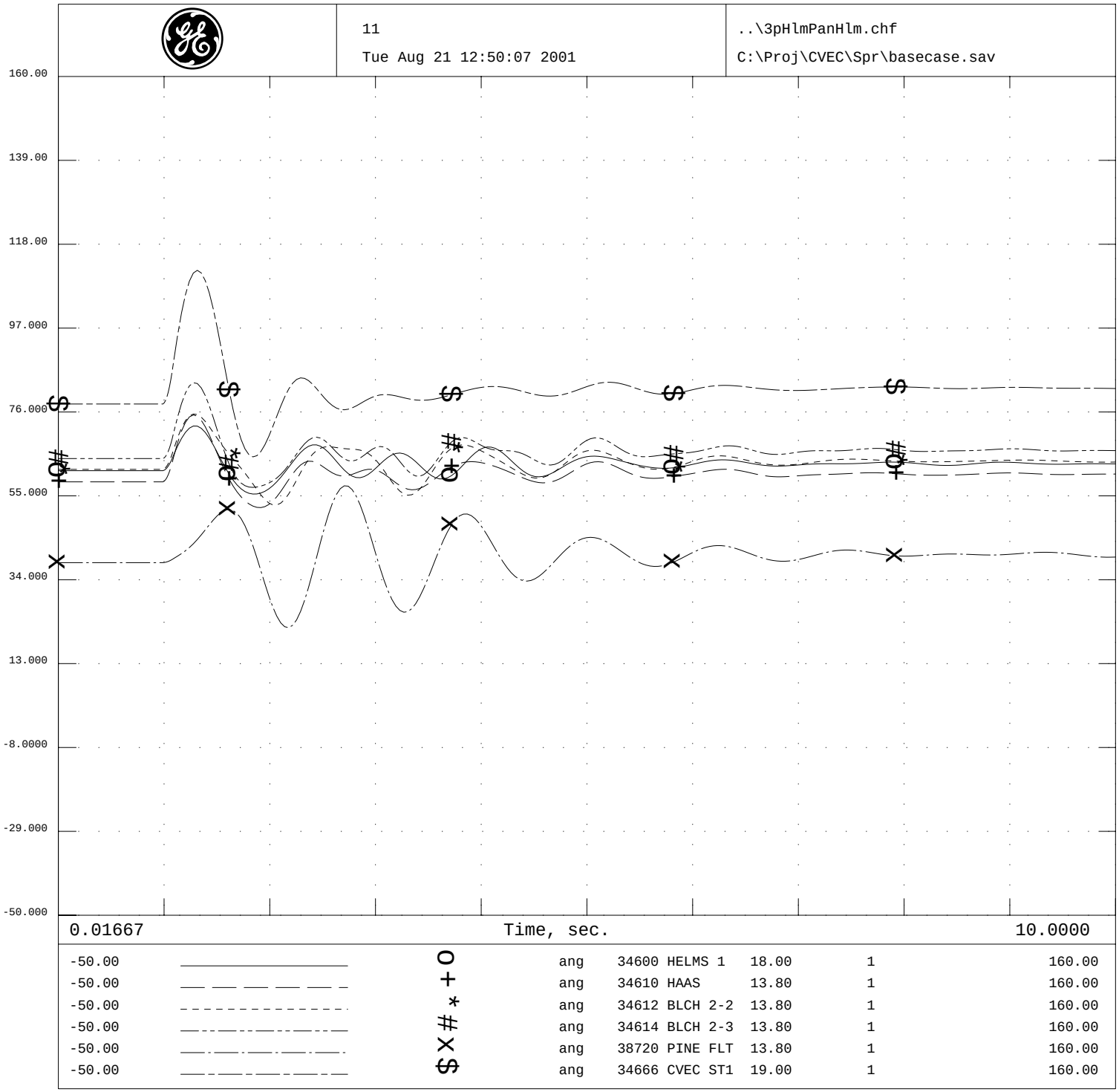
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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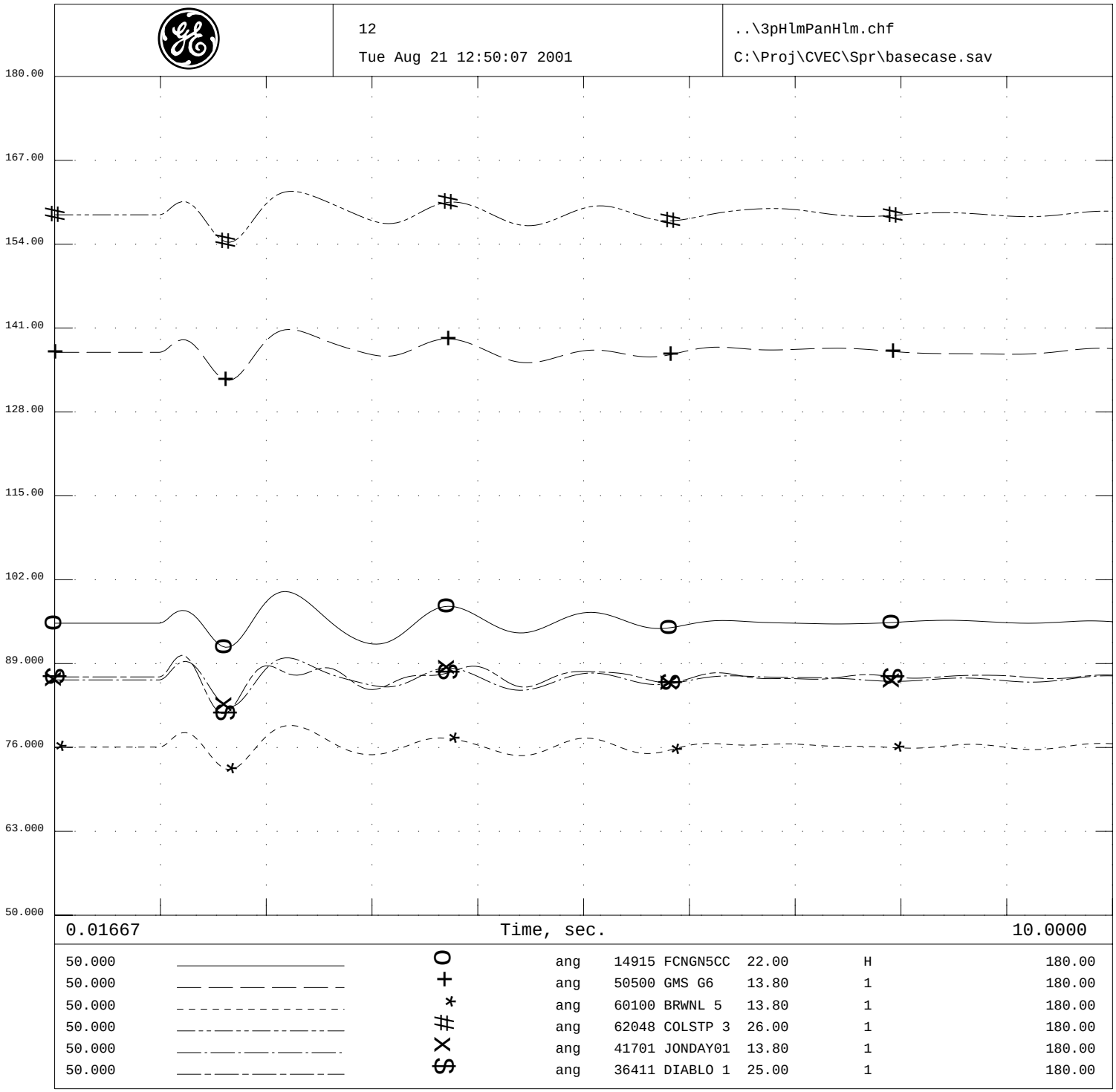
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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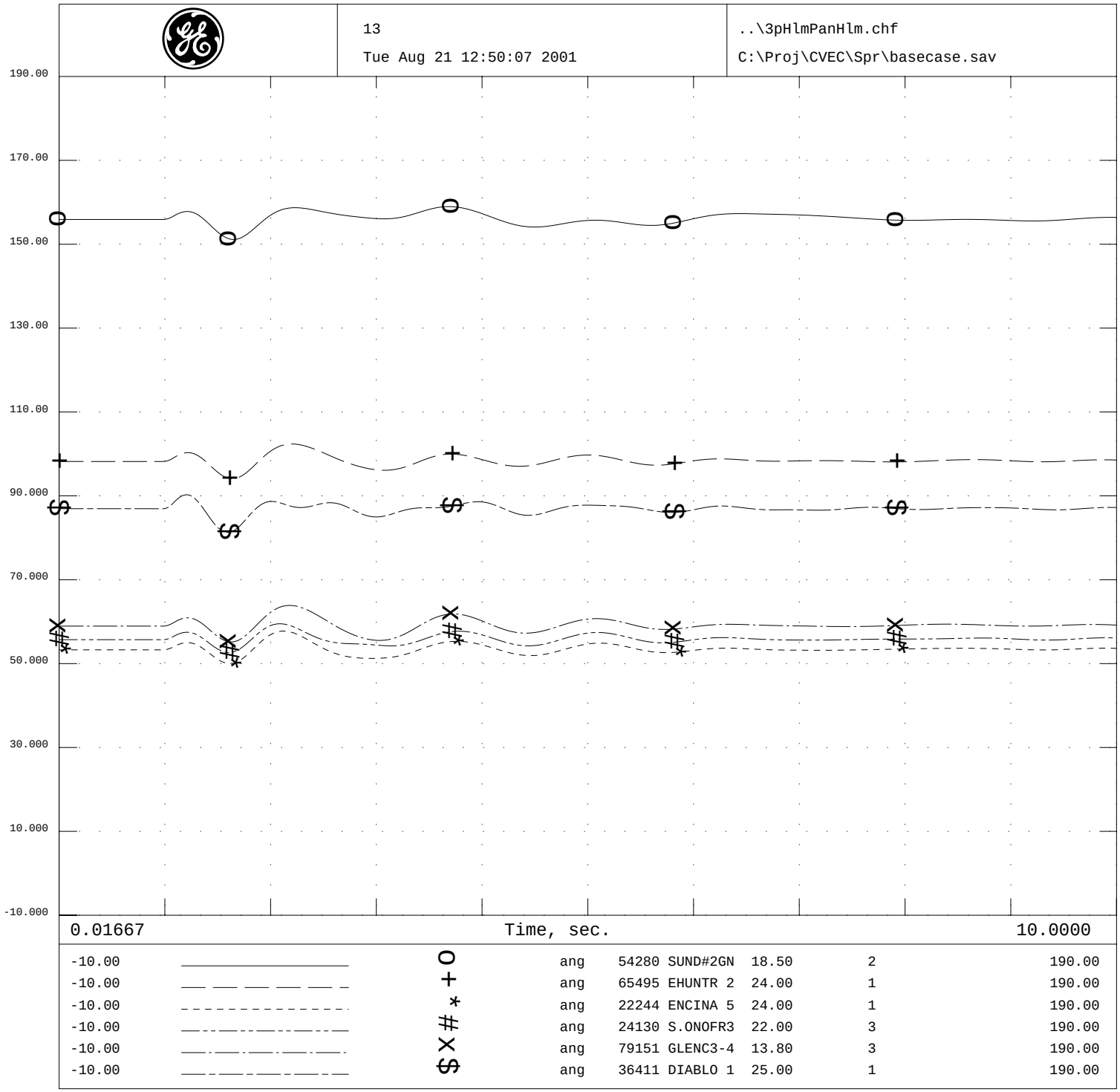
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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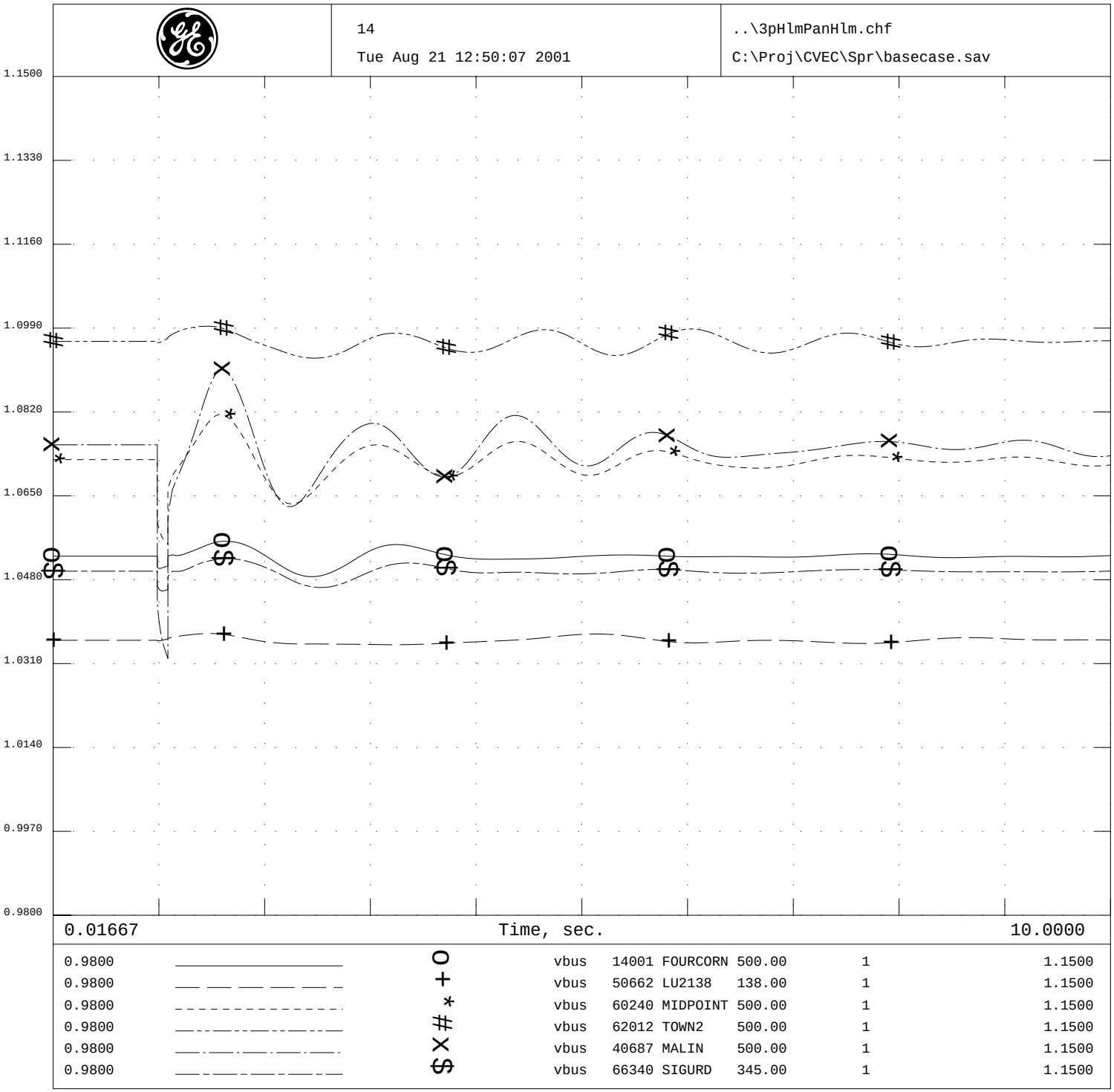

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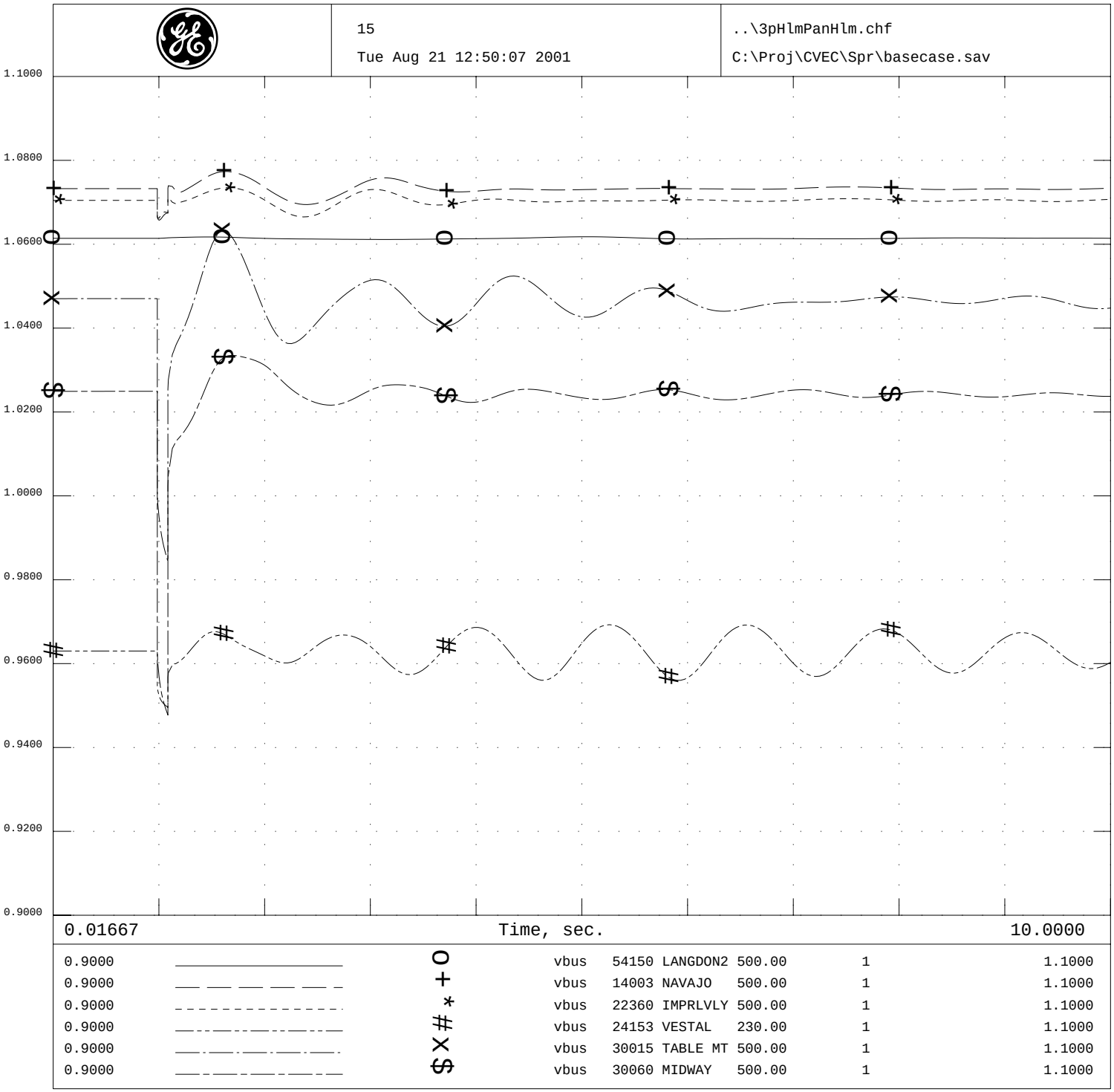
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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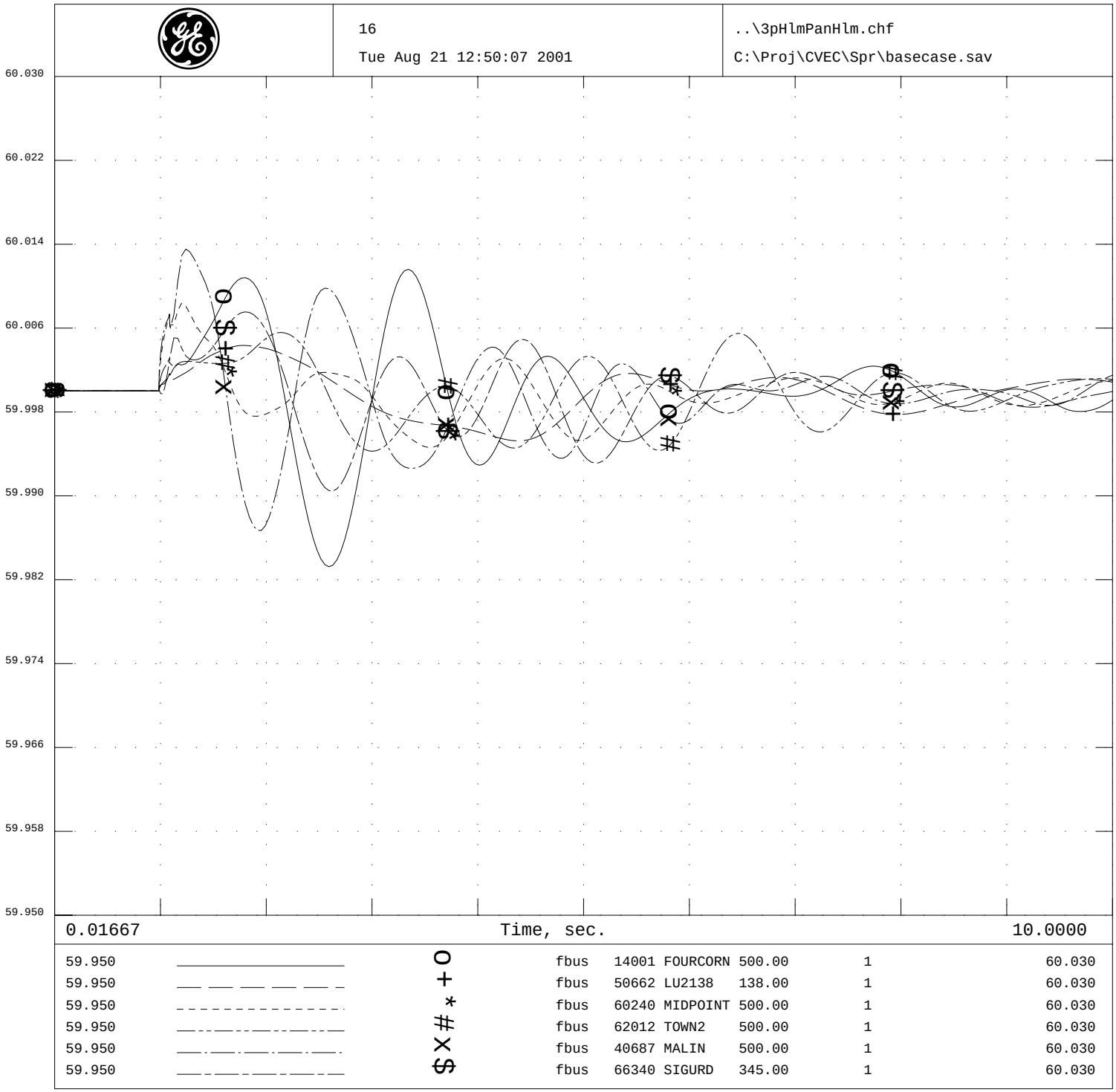

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Calpine Corporation
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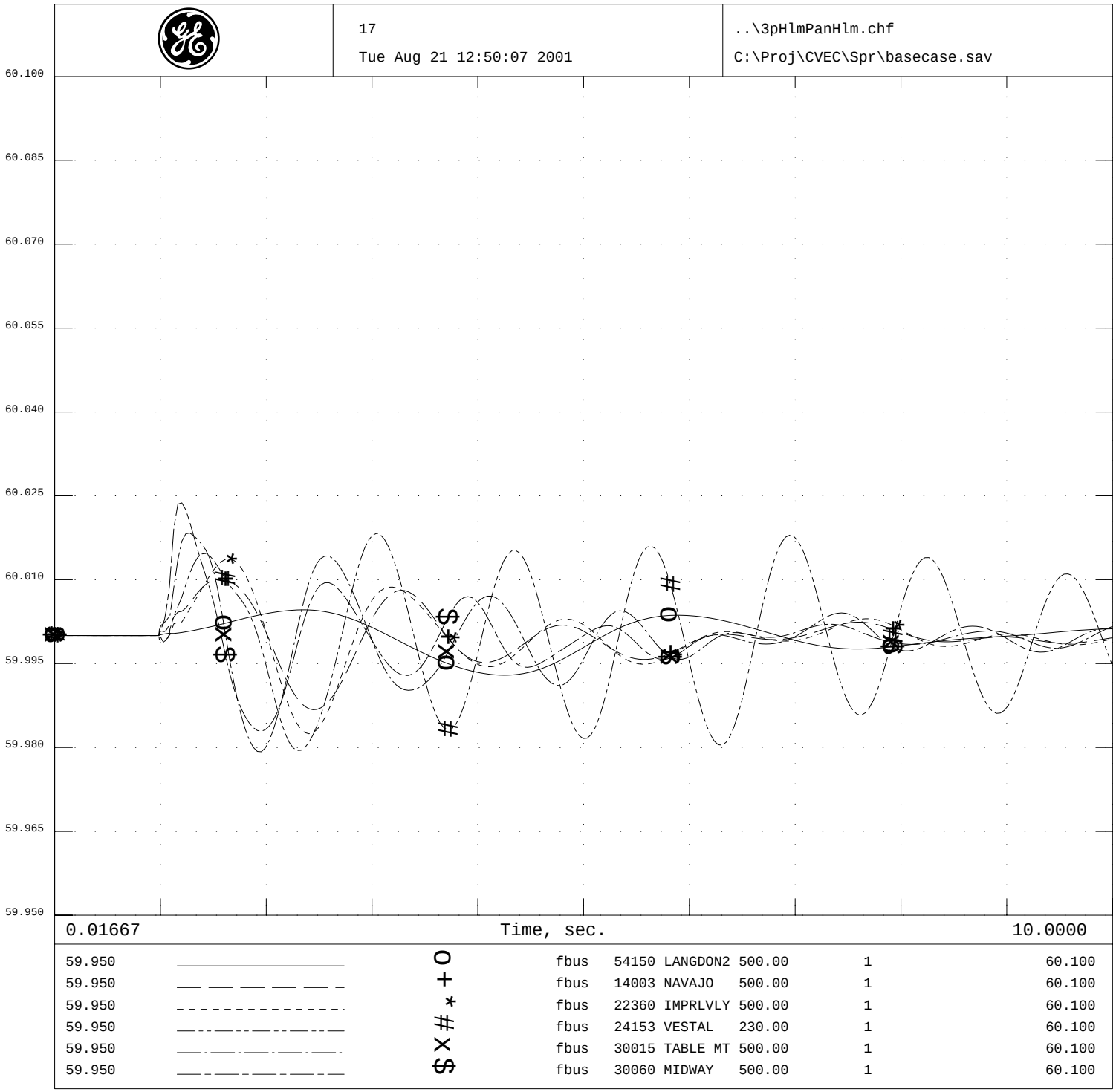

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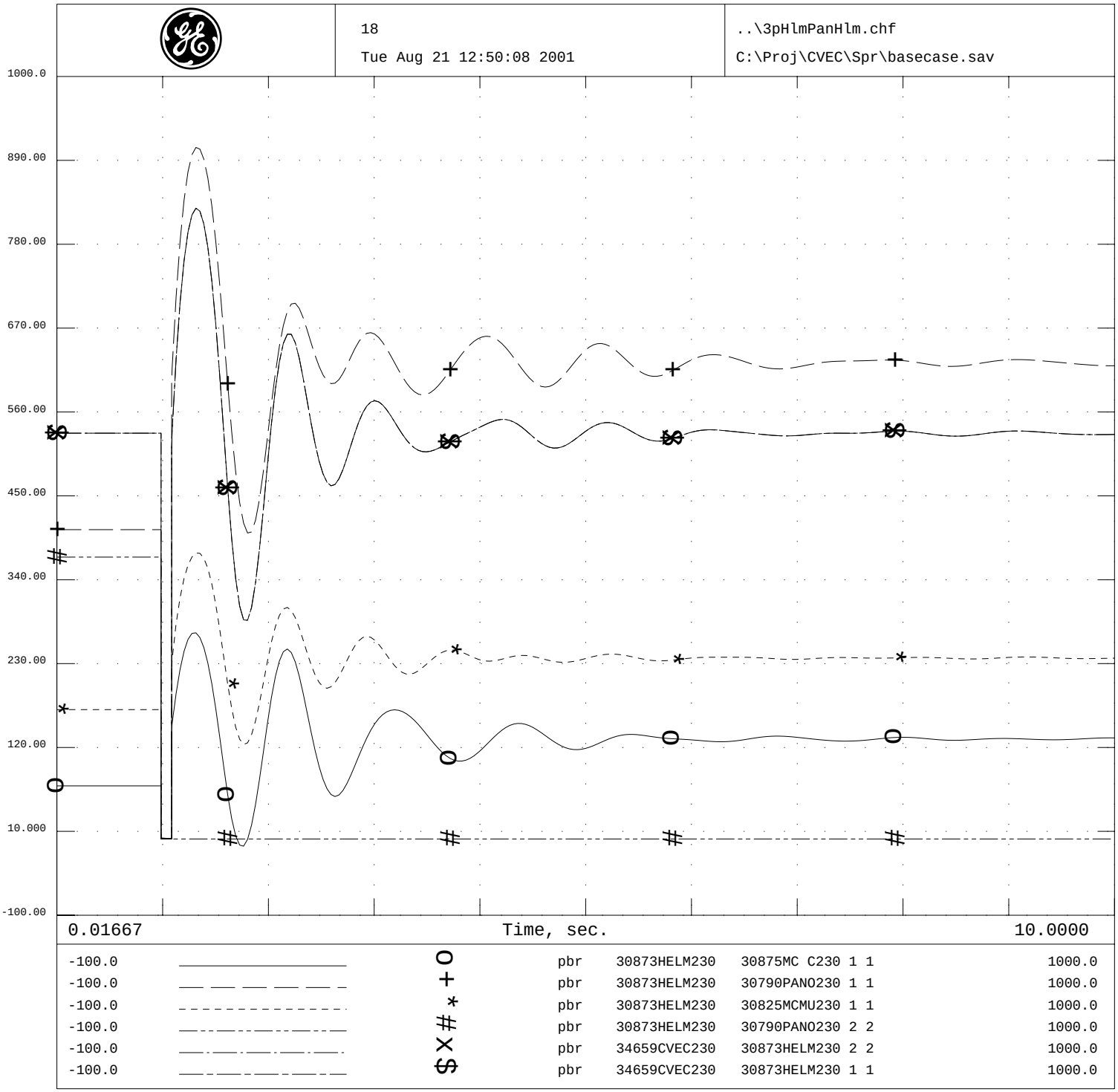

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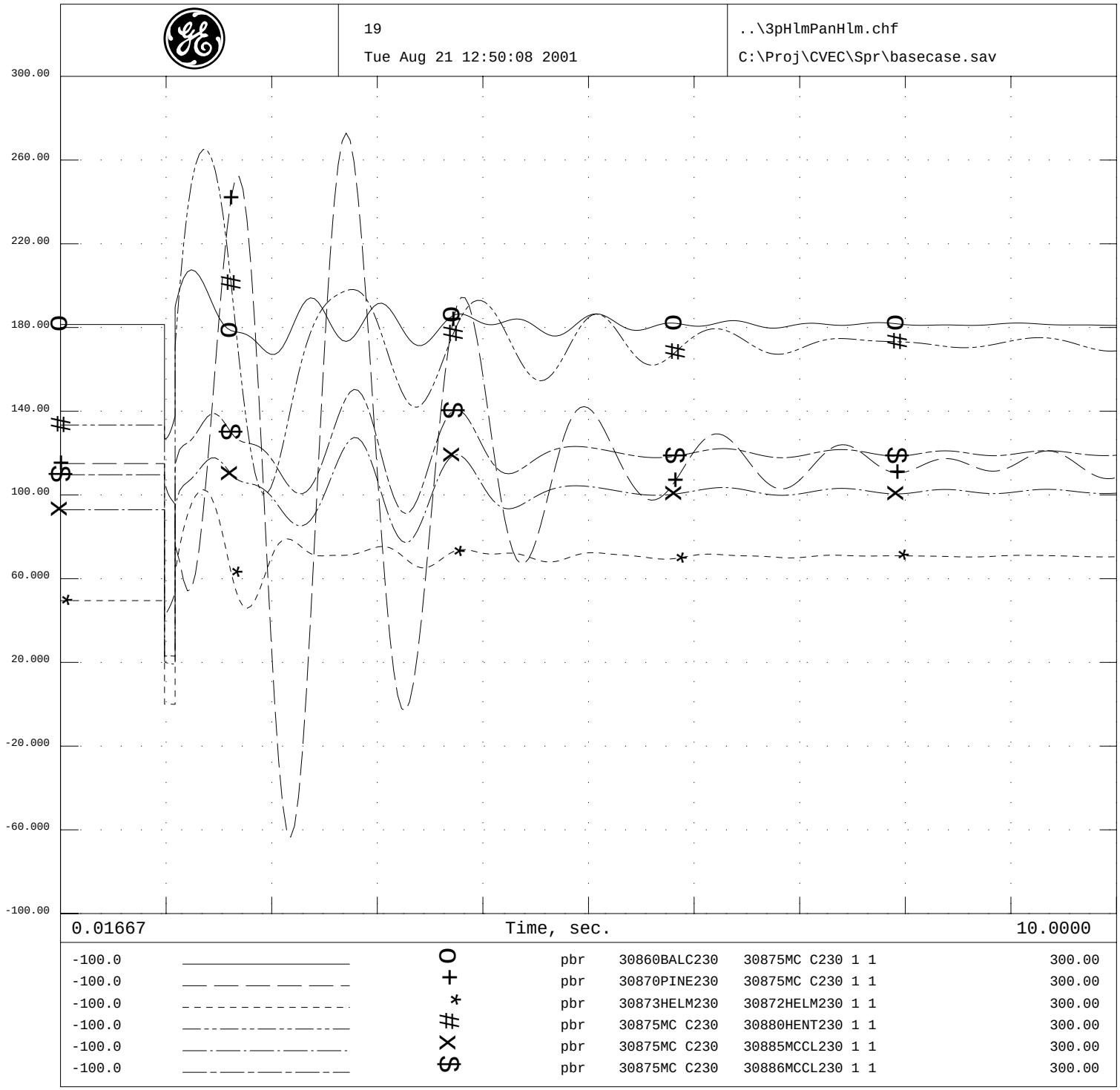
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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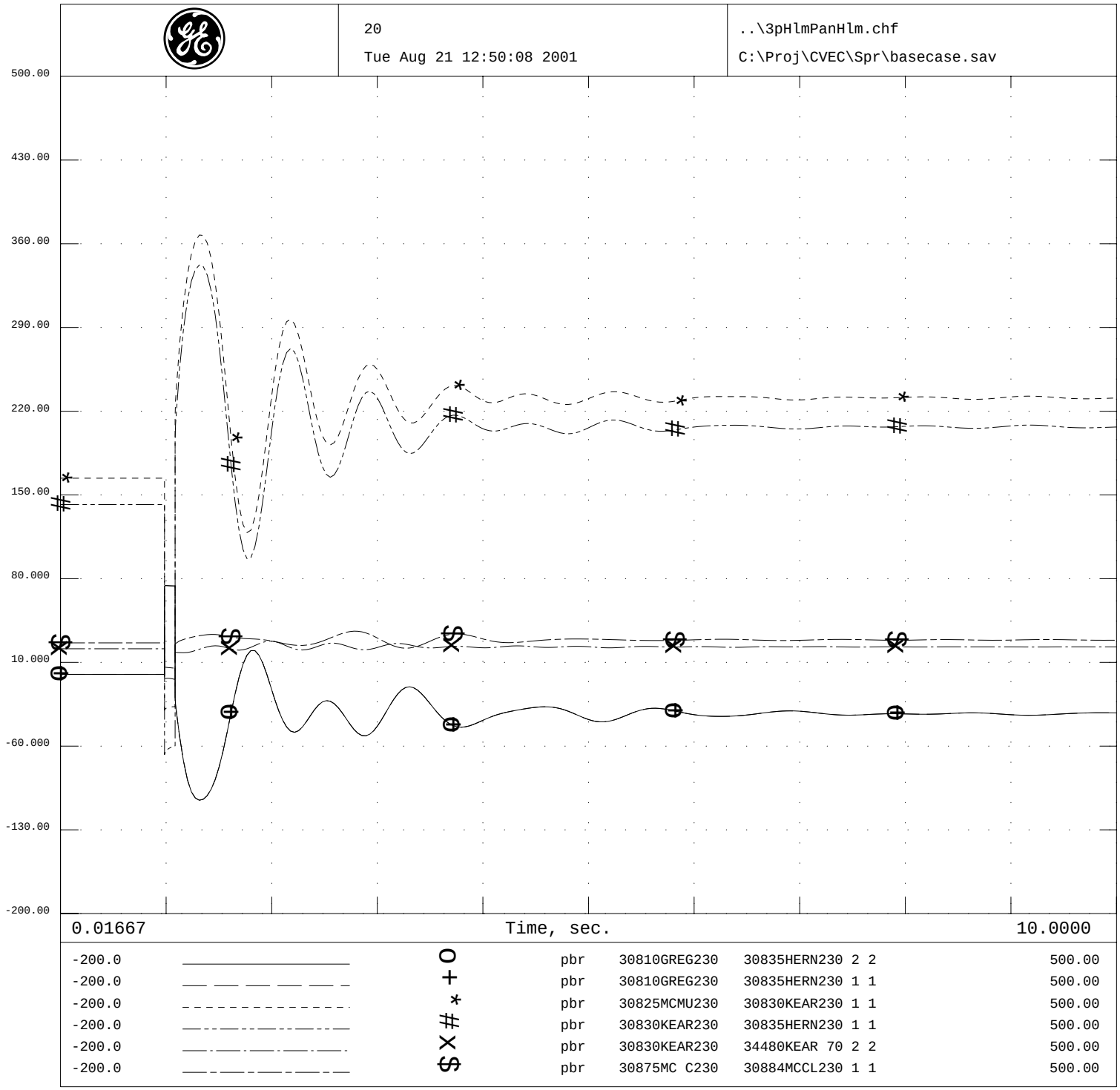

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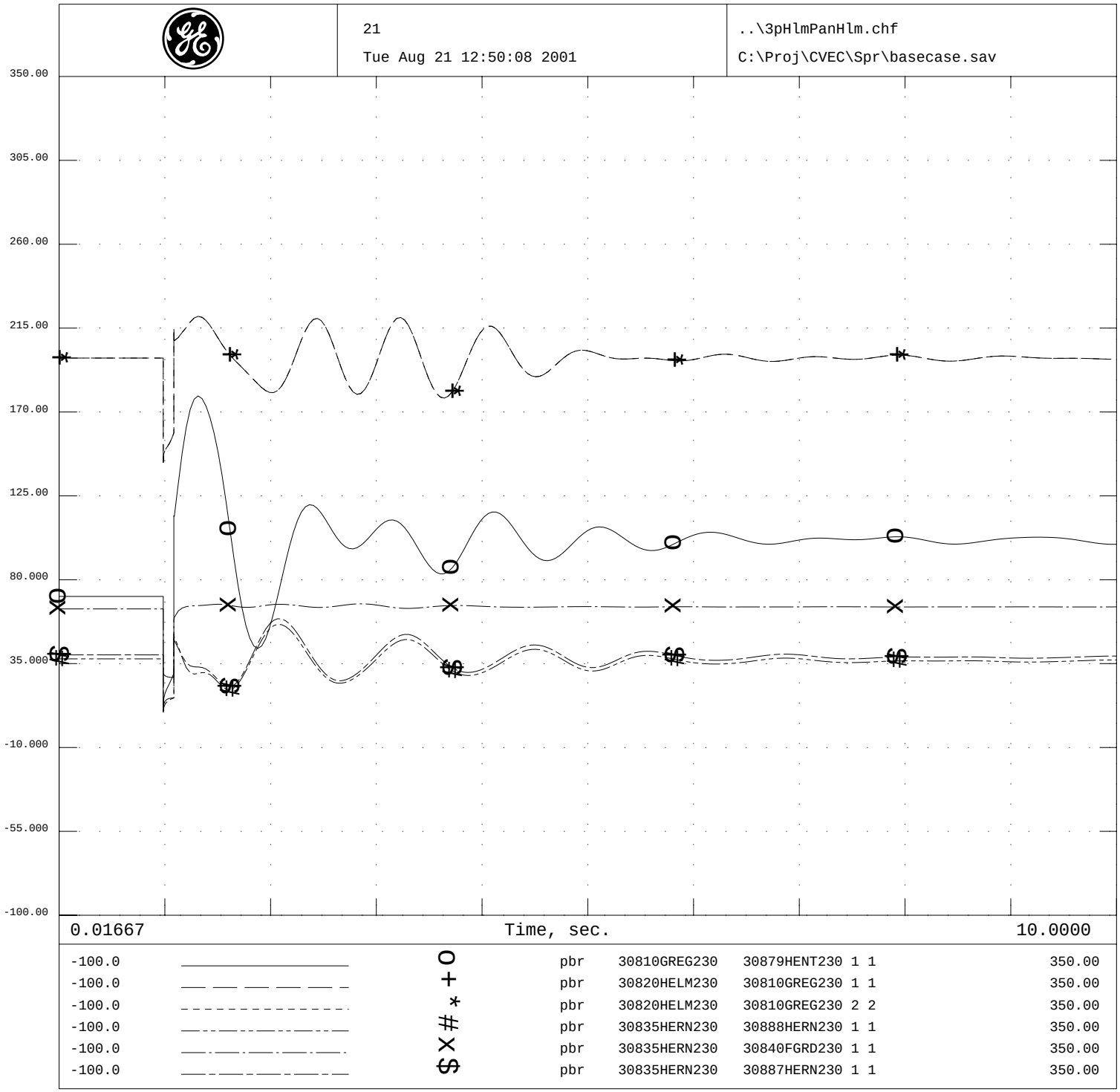

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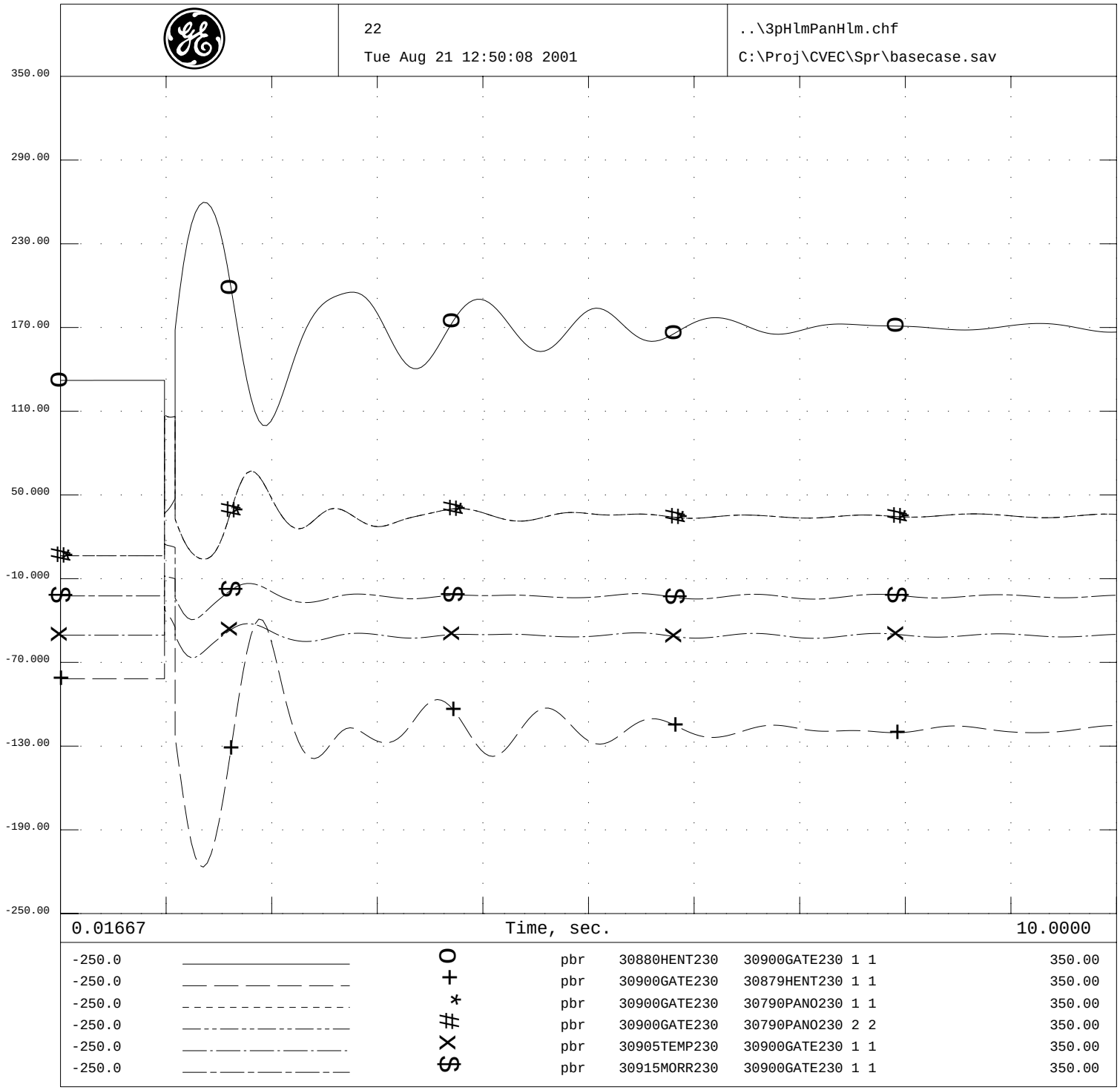

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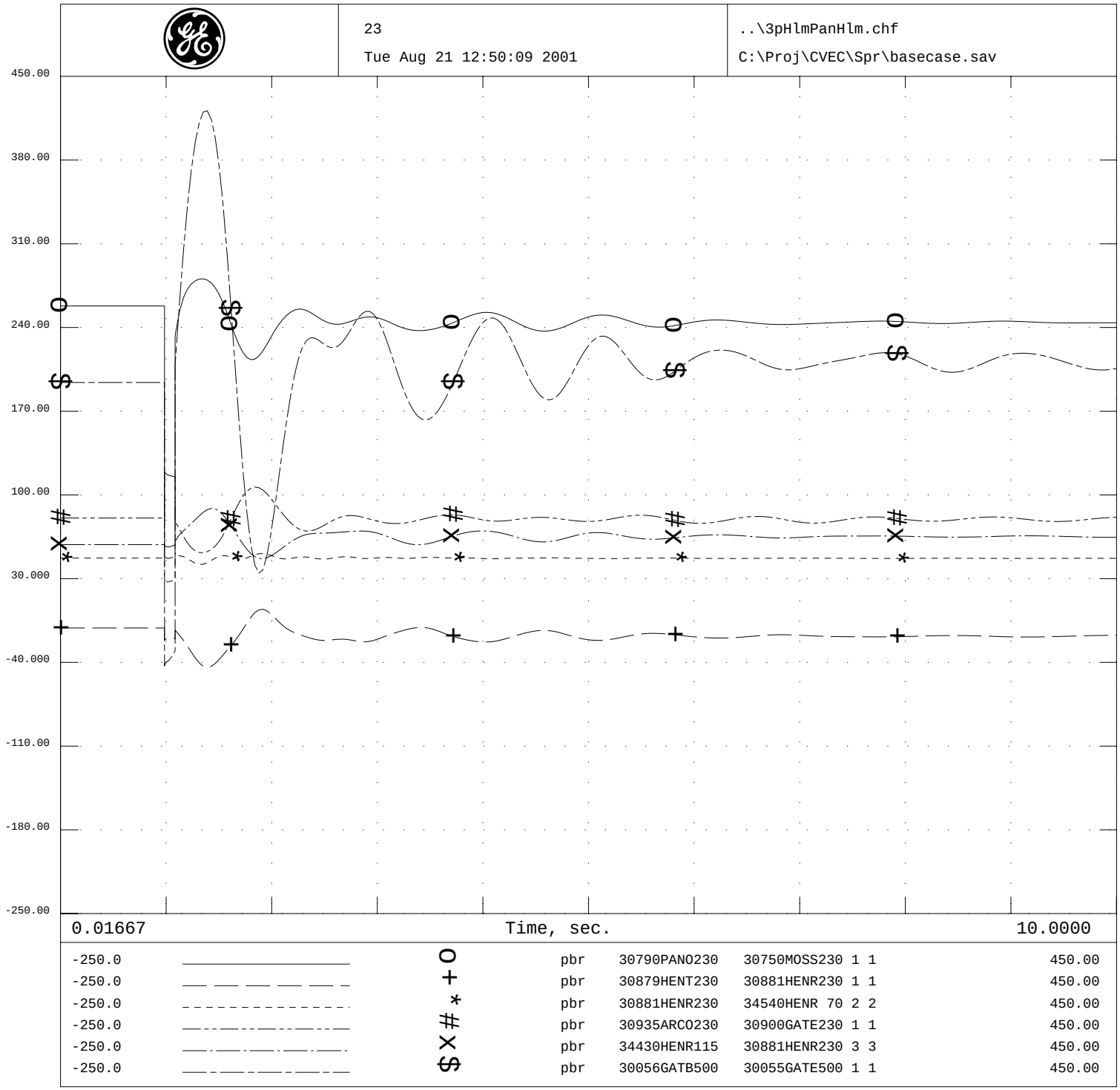

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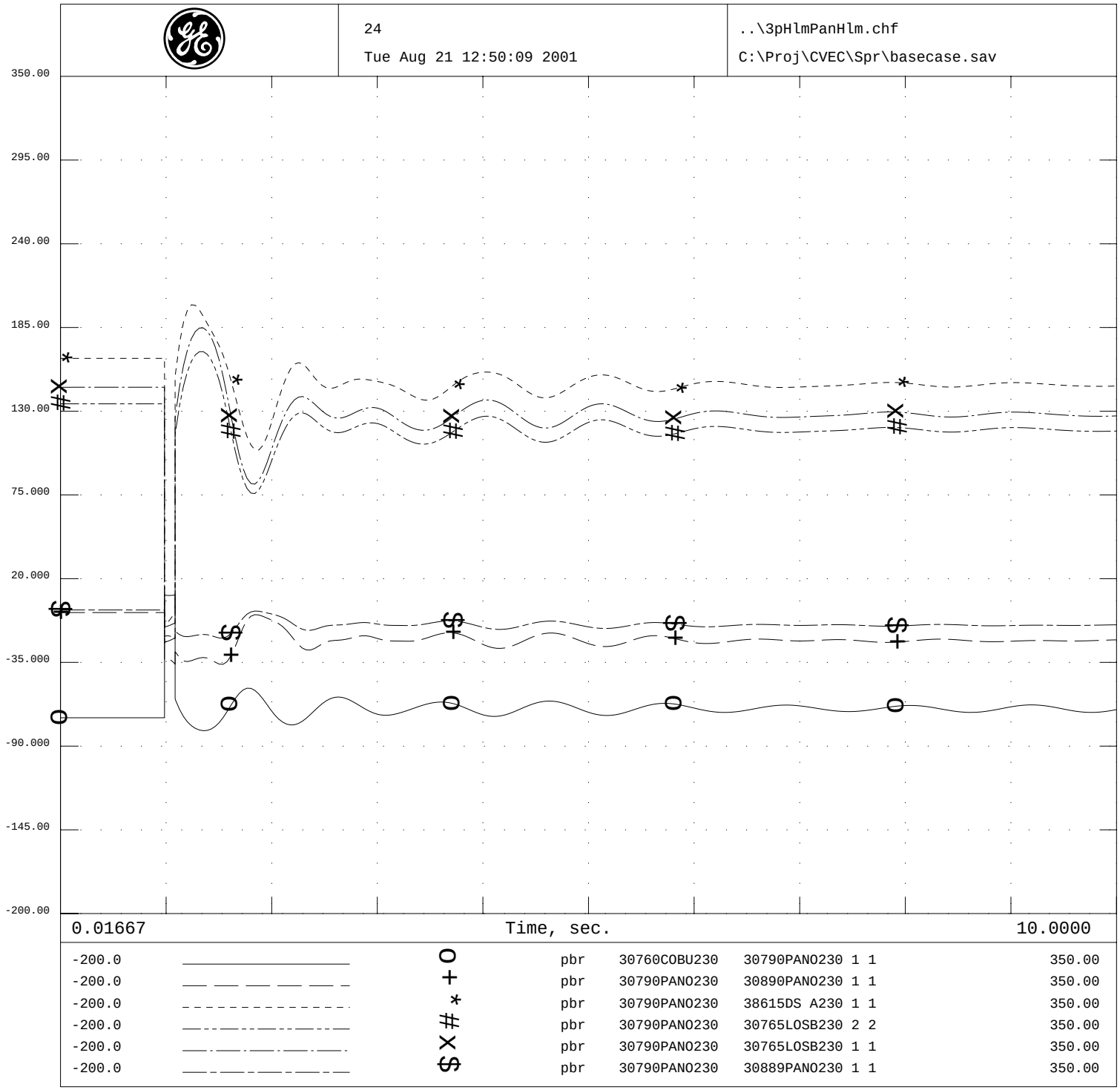

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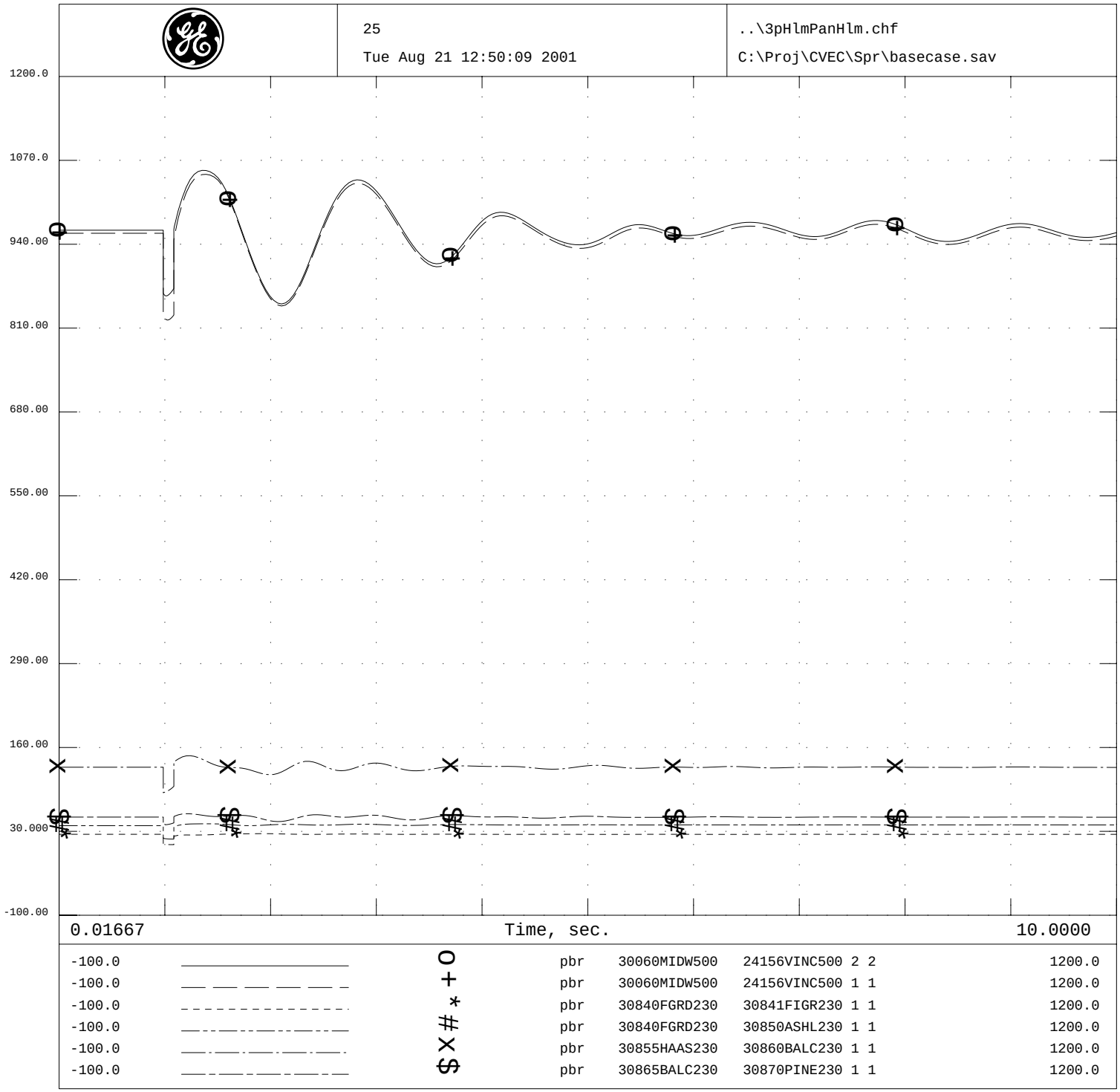

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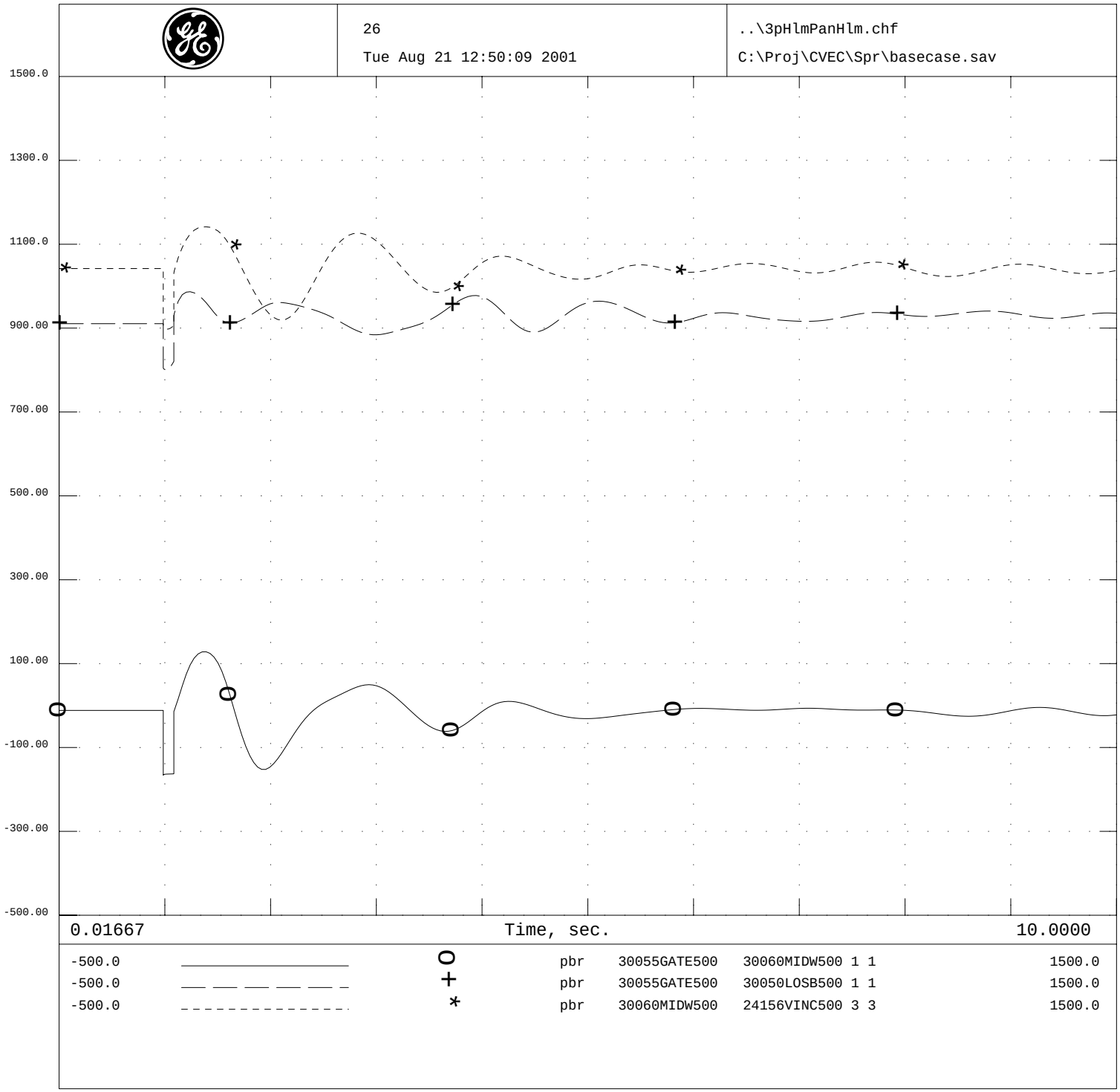

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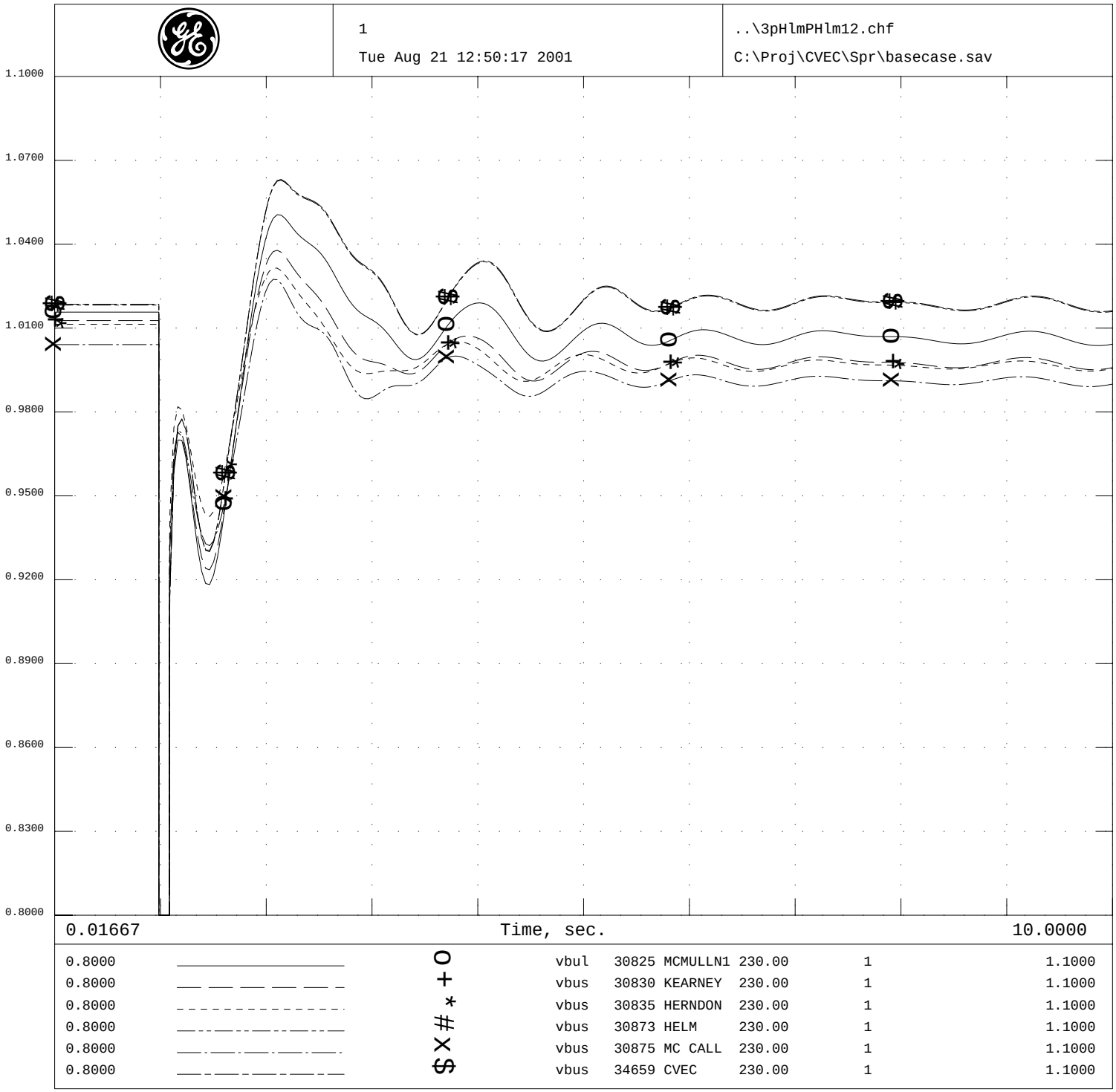

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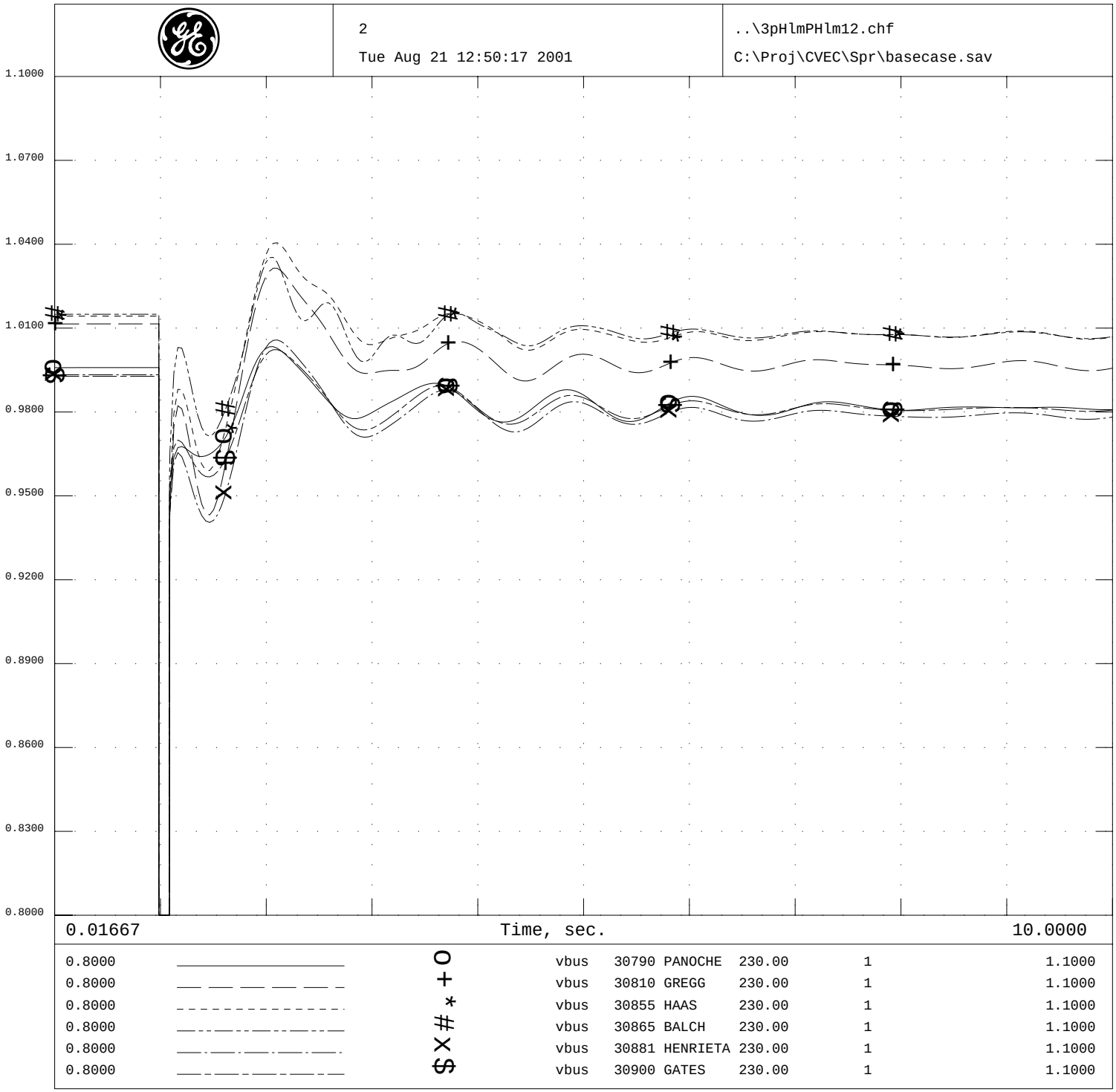
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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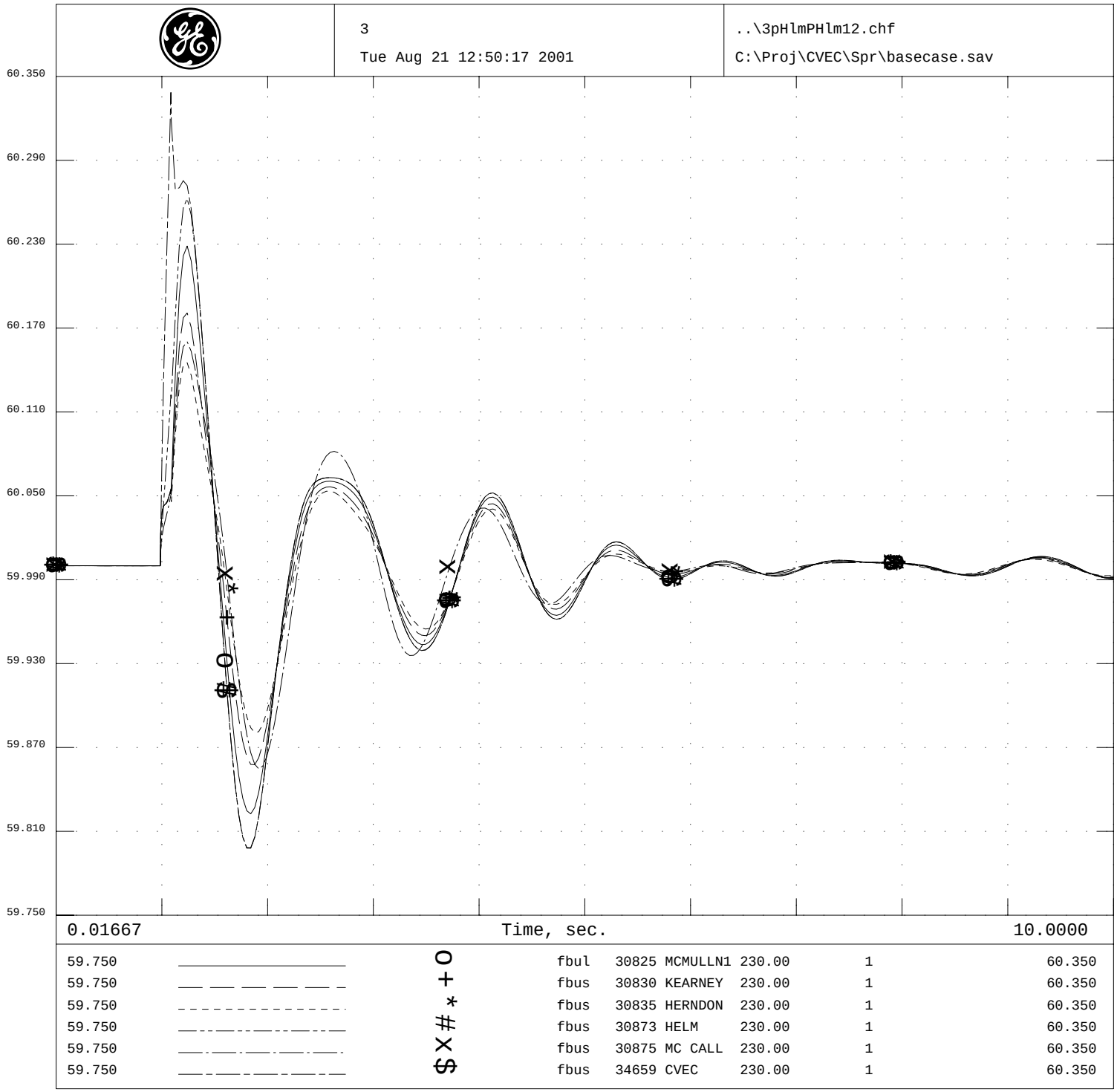

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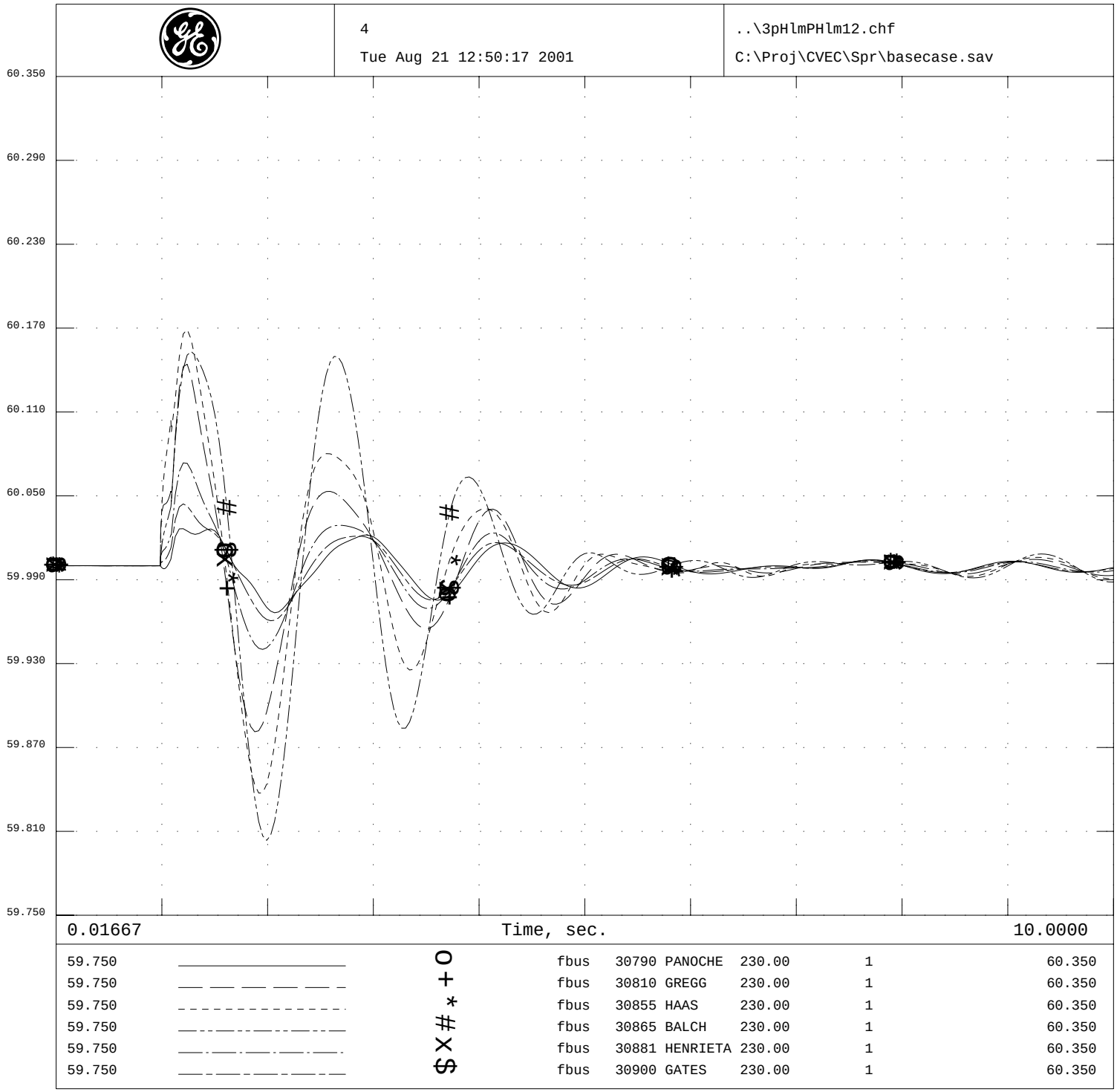
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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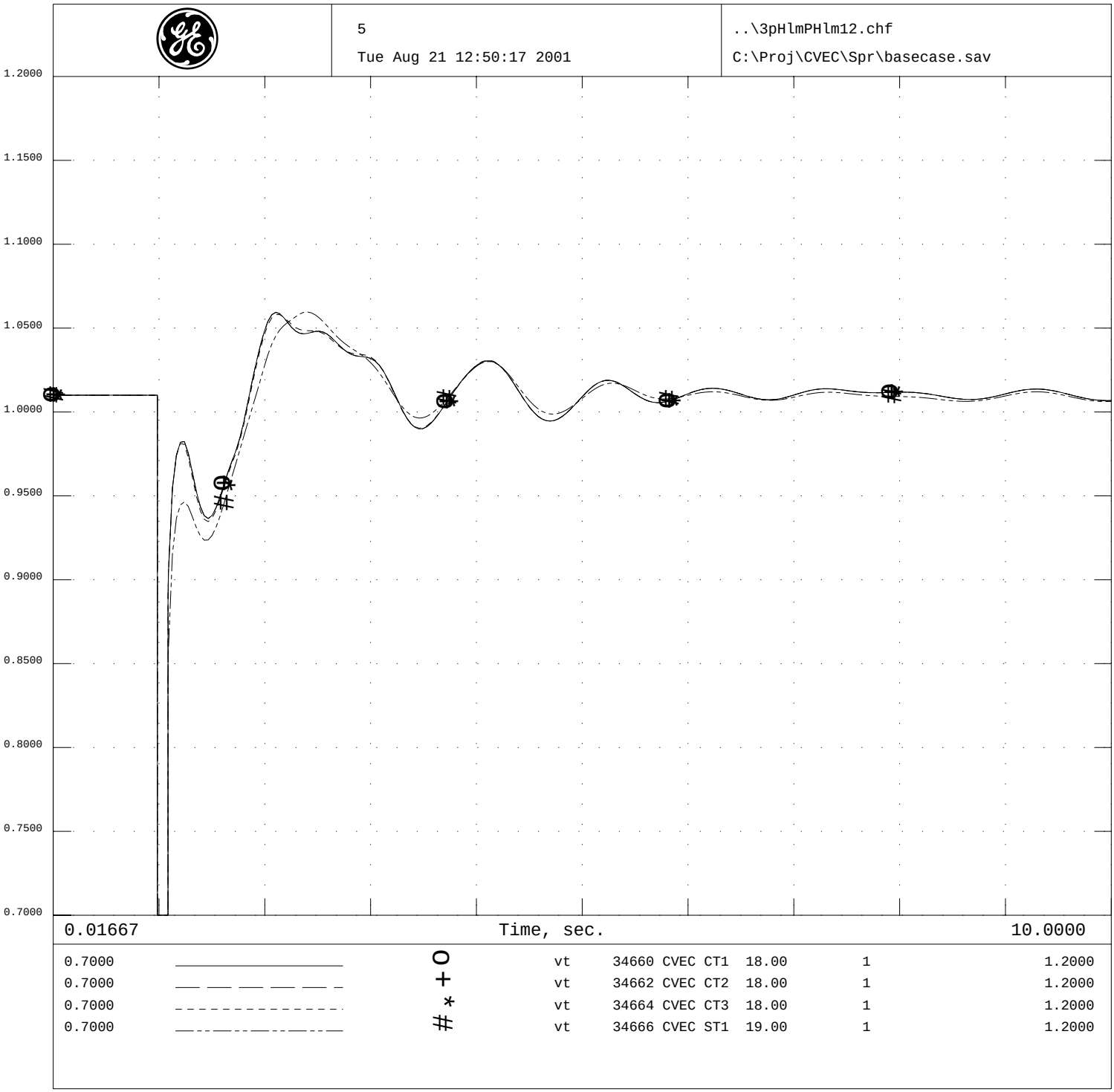

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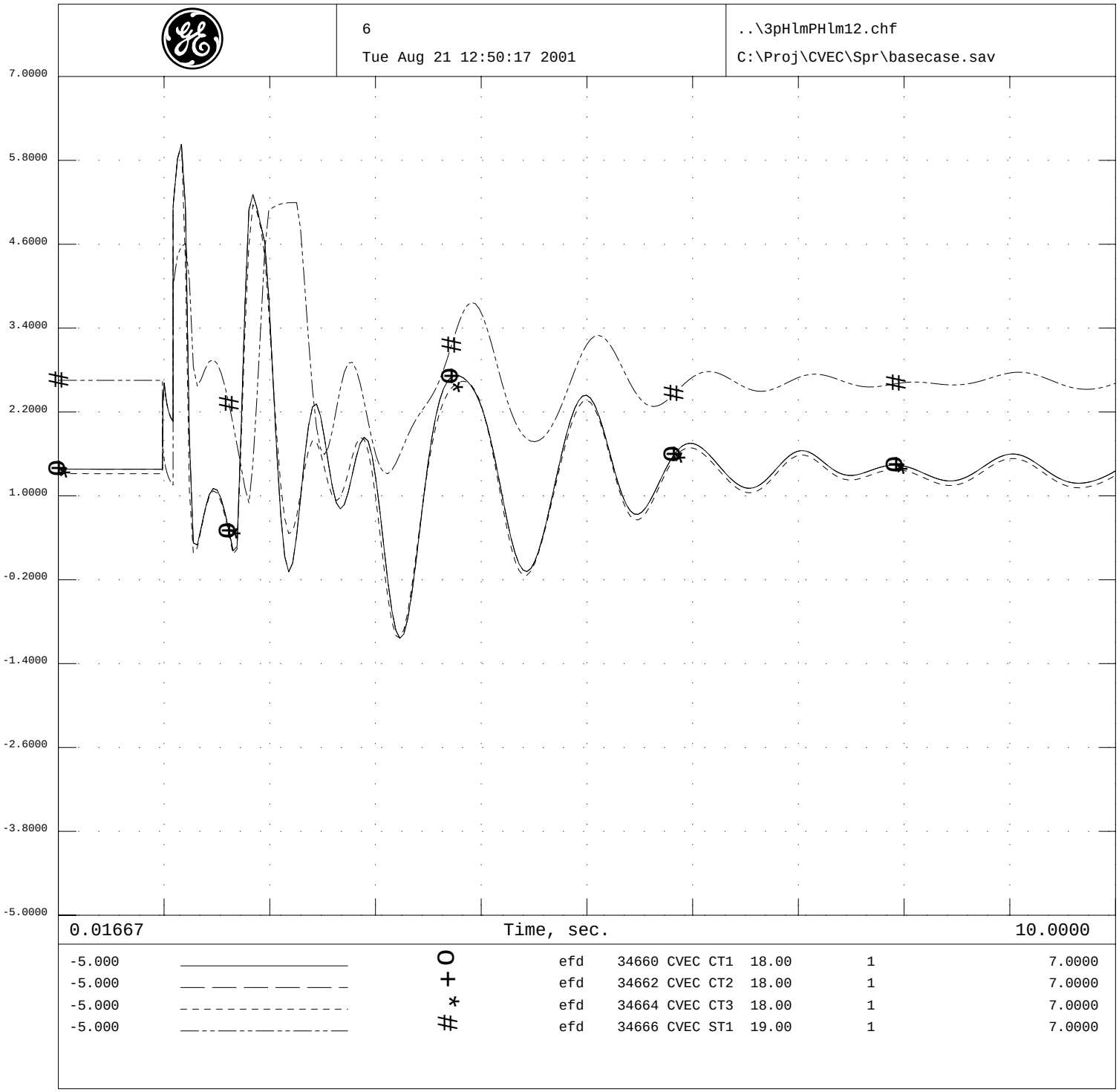
Calpine Corporation
Project Generator Terminal Voltages



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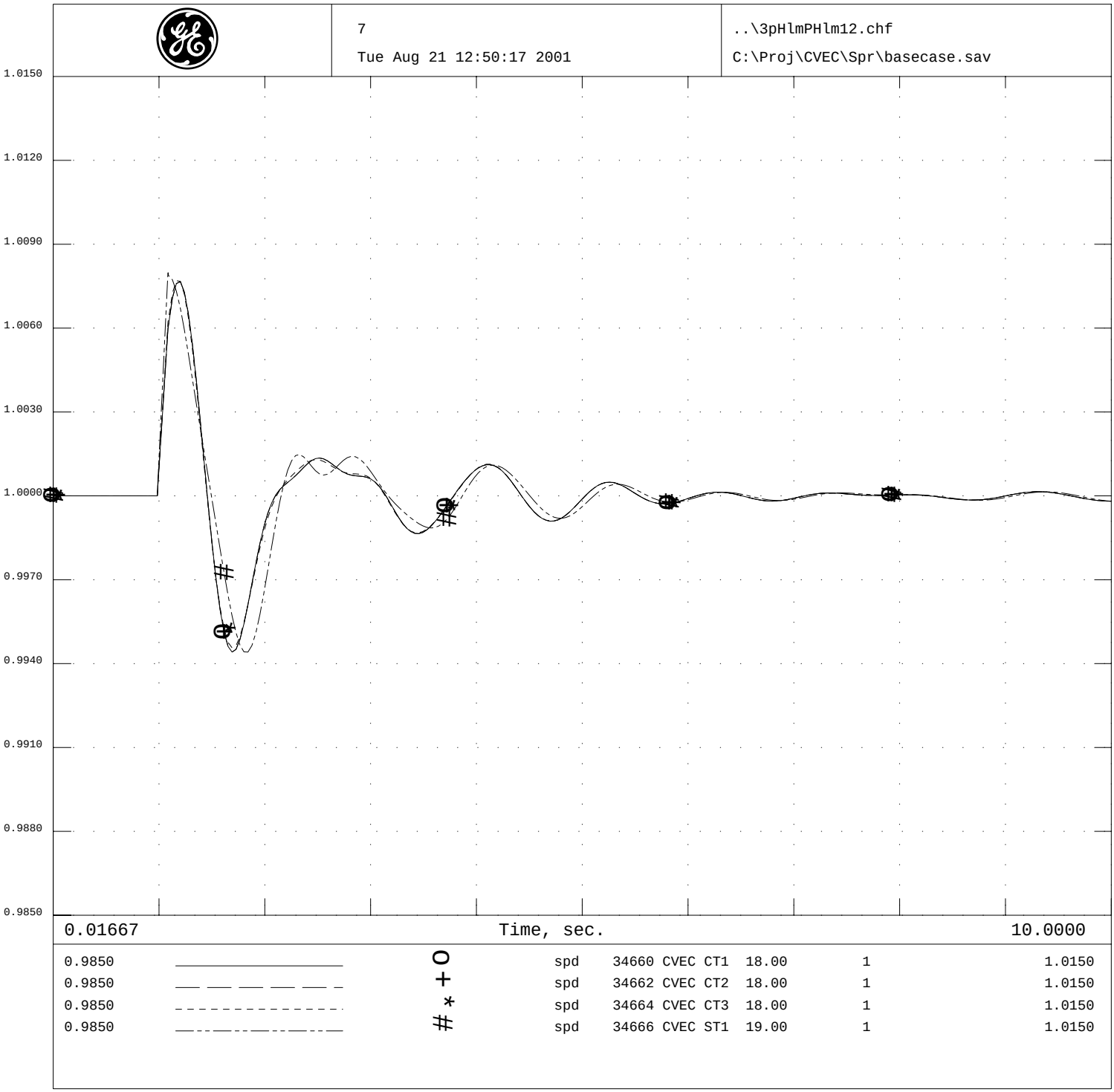
Project Generator Field Voltages



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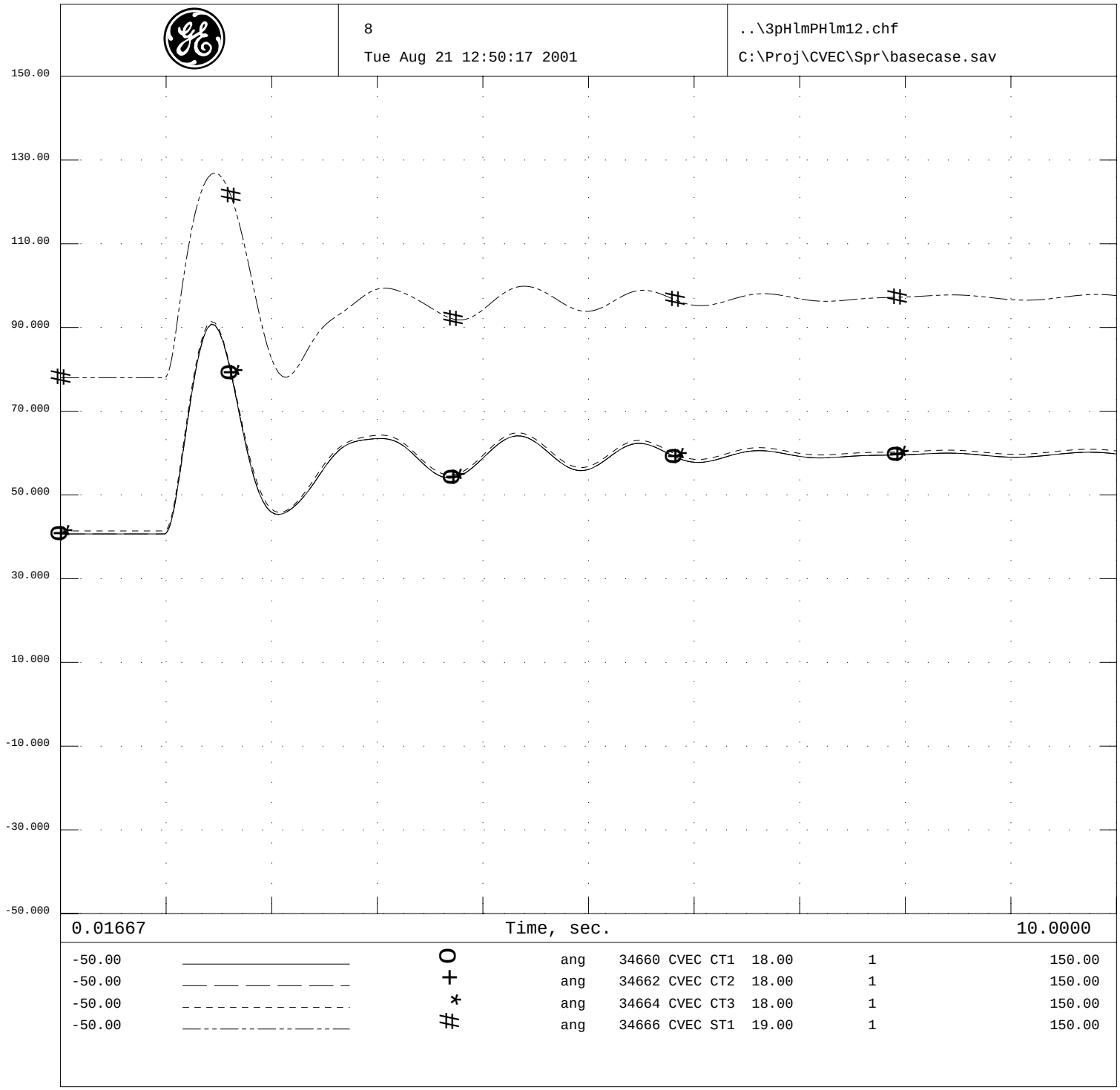
Project Generator Rotor Speed



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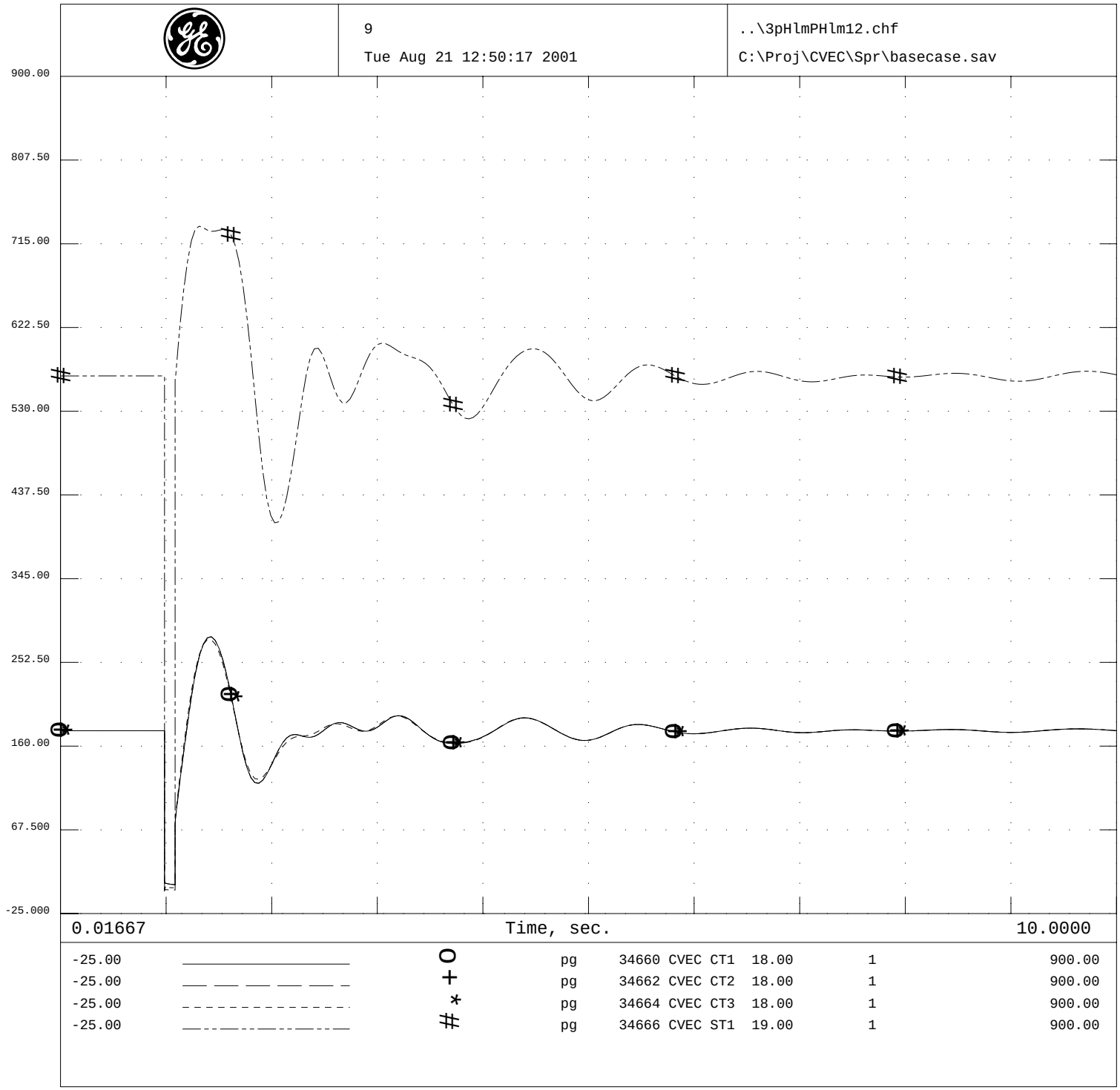

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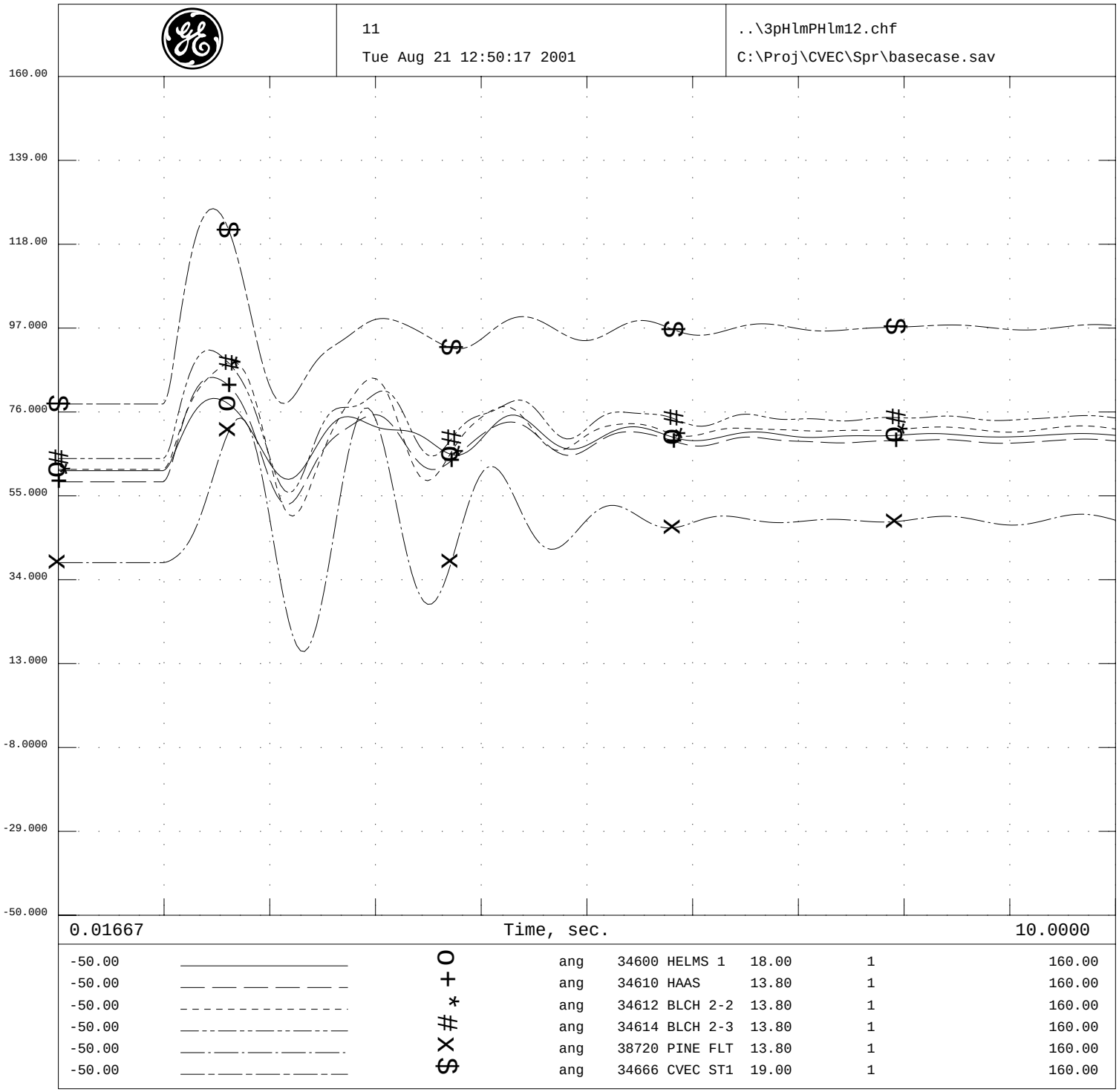

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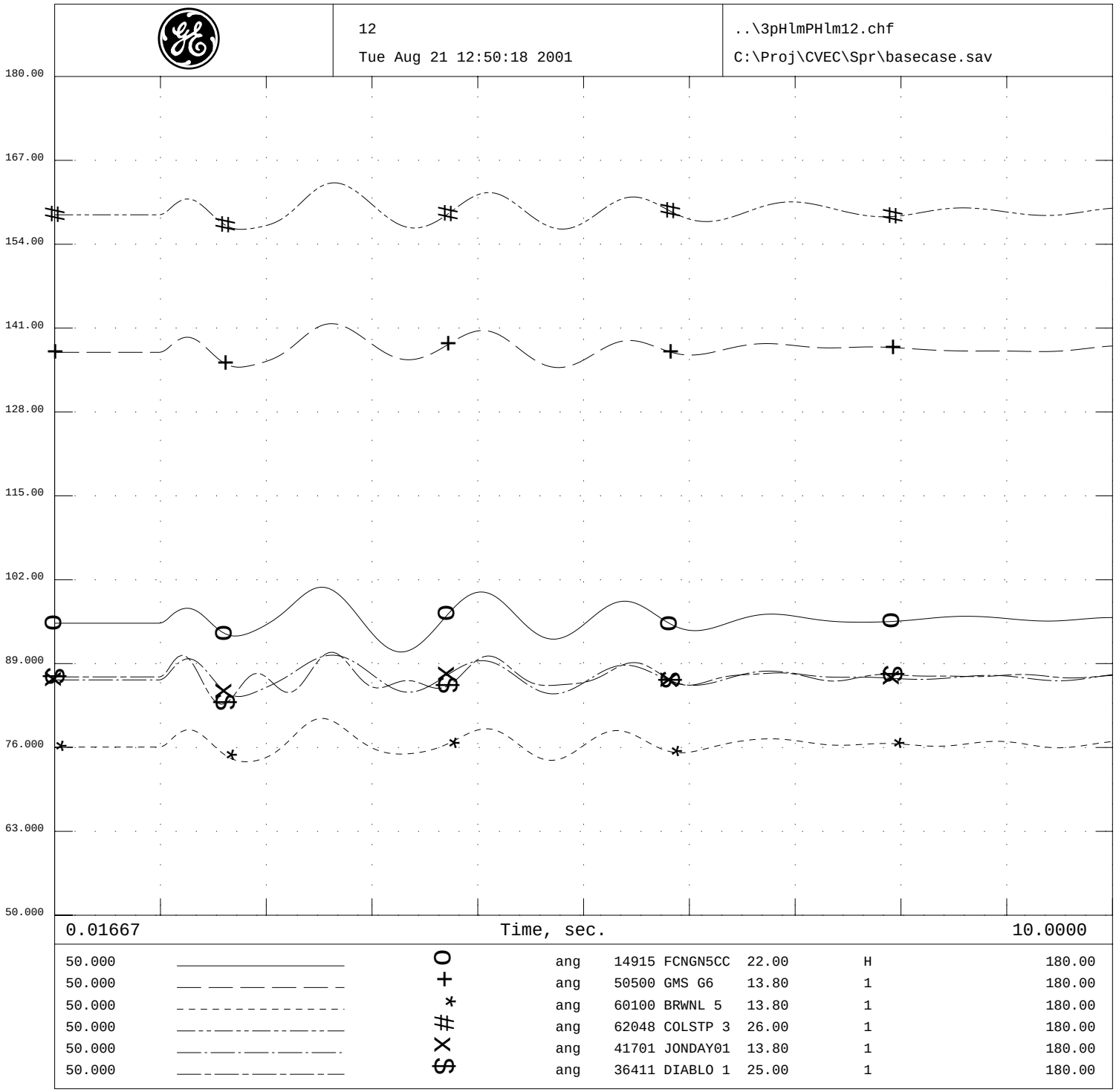

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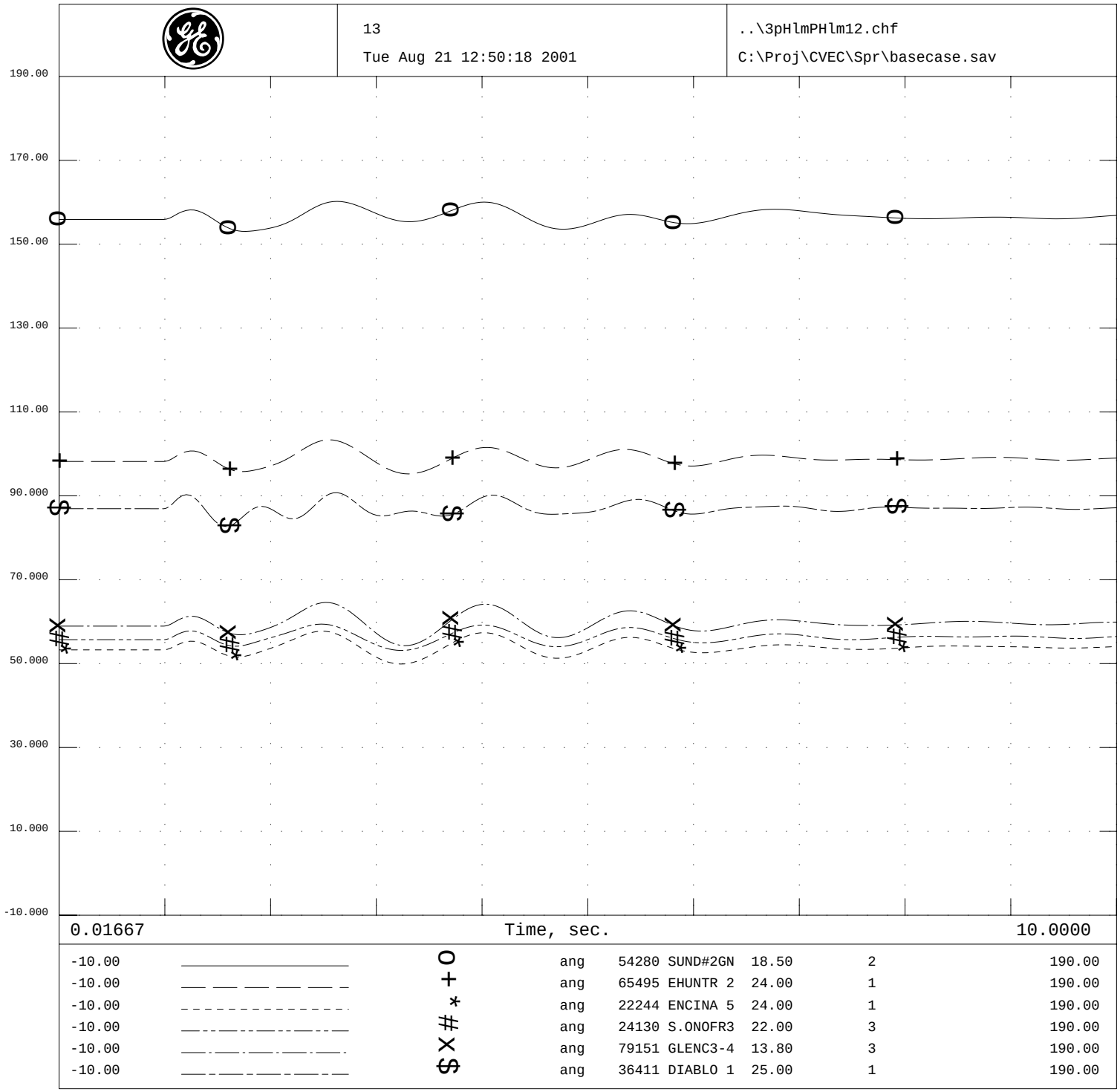

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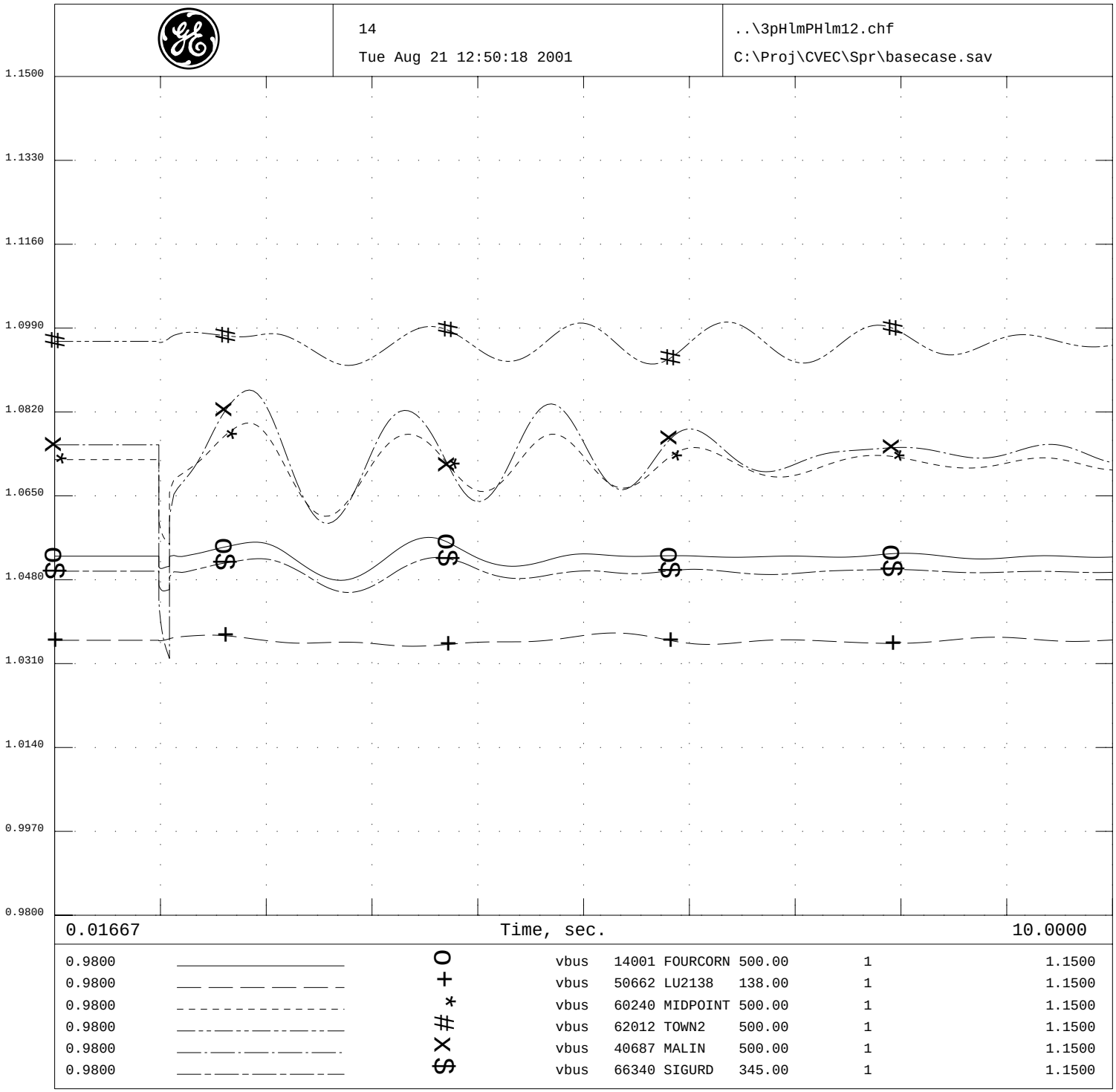

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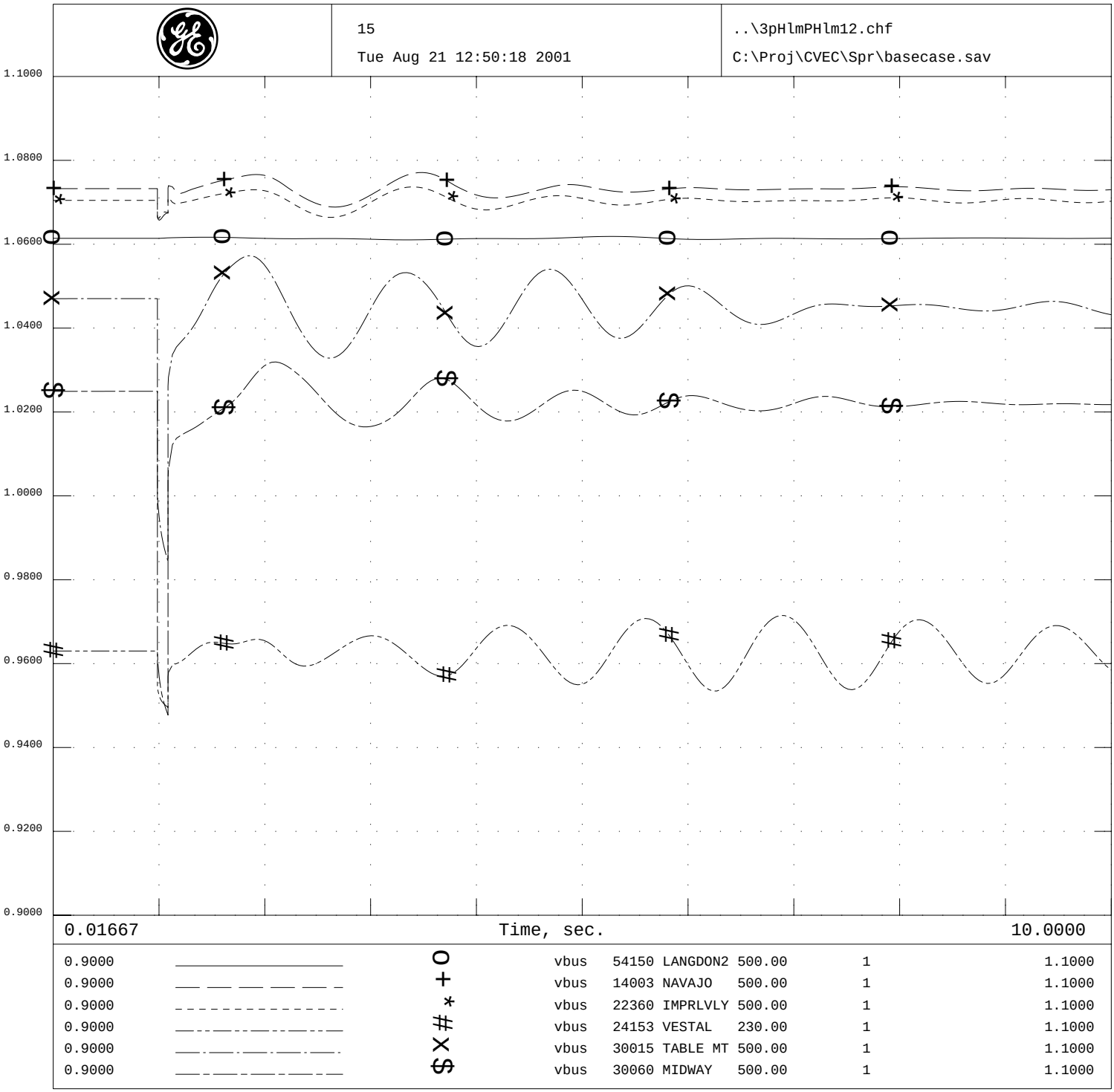

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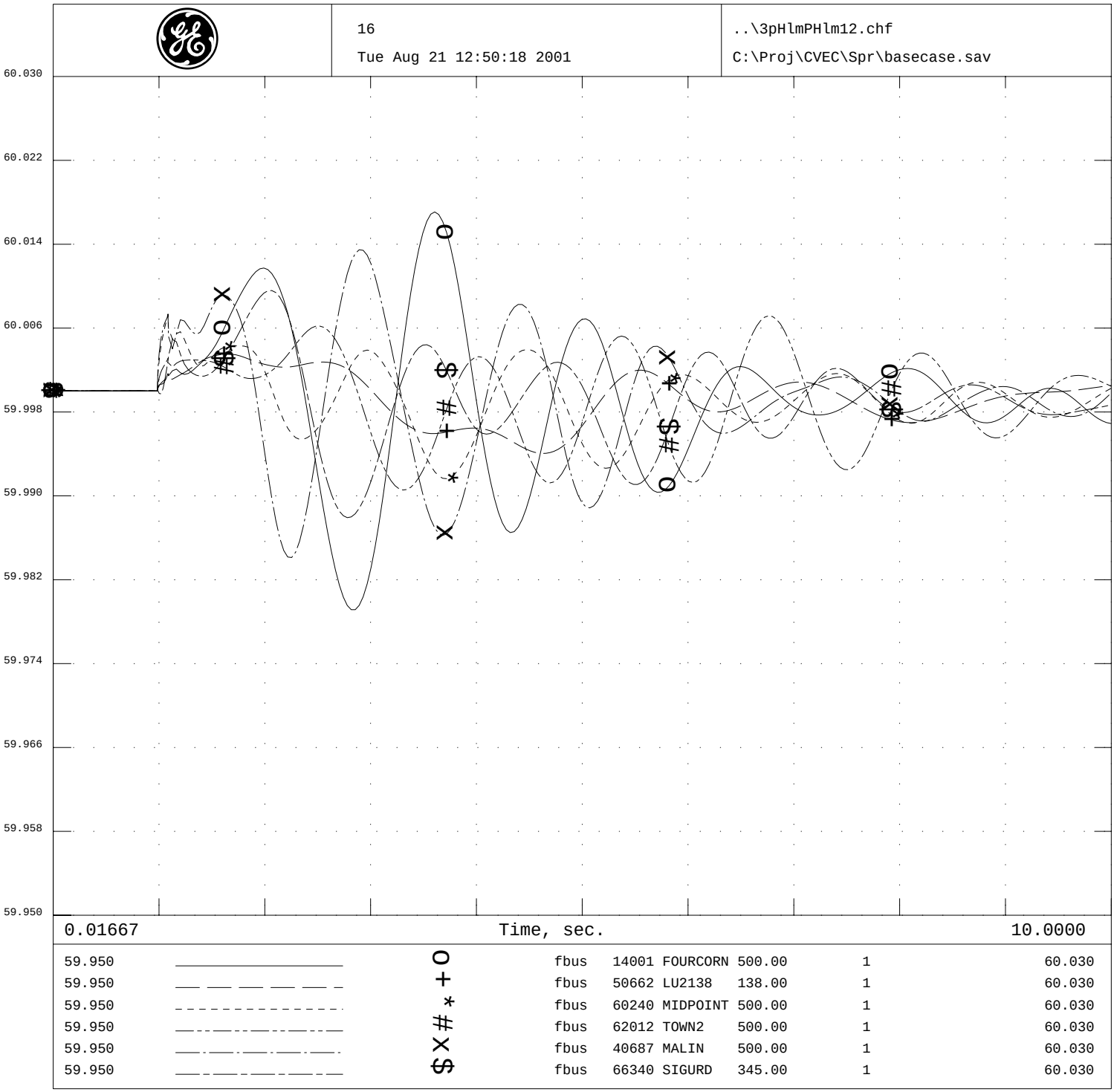

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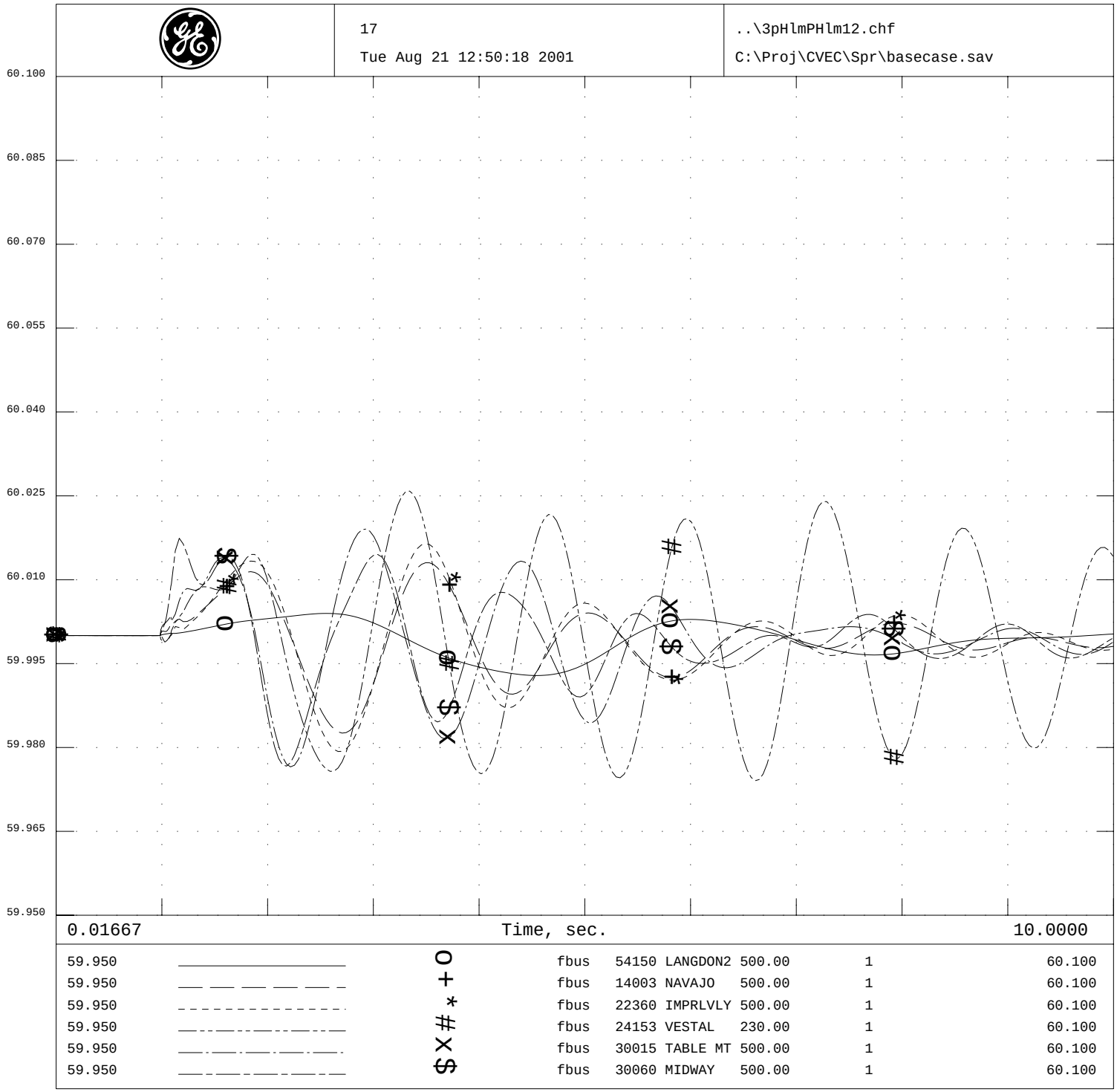

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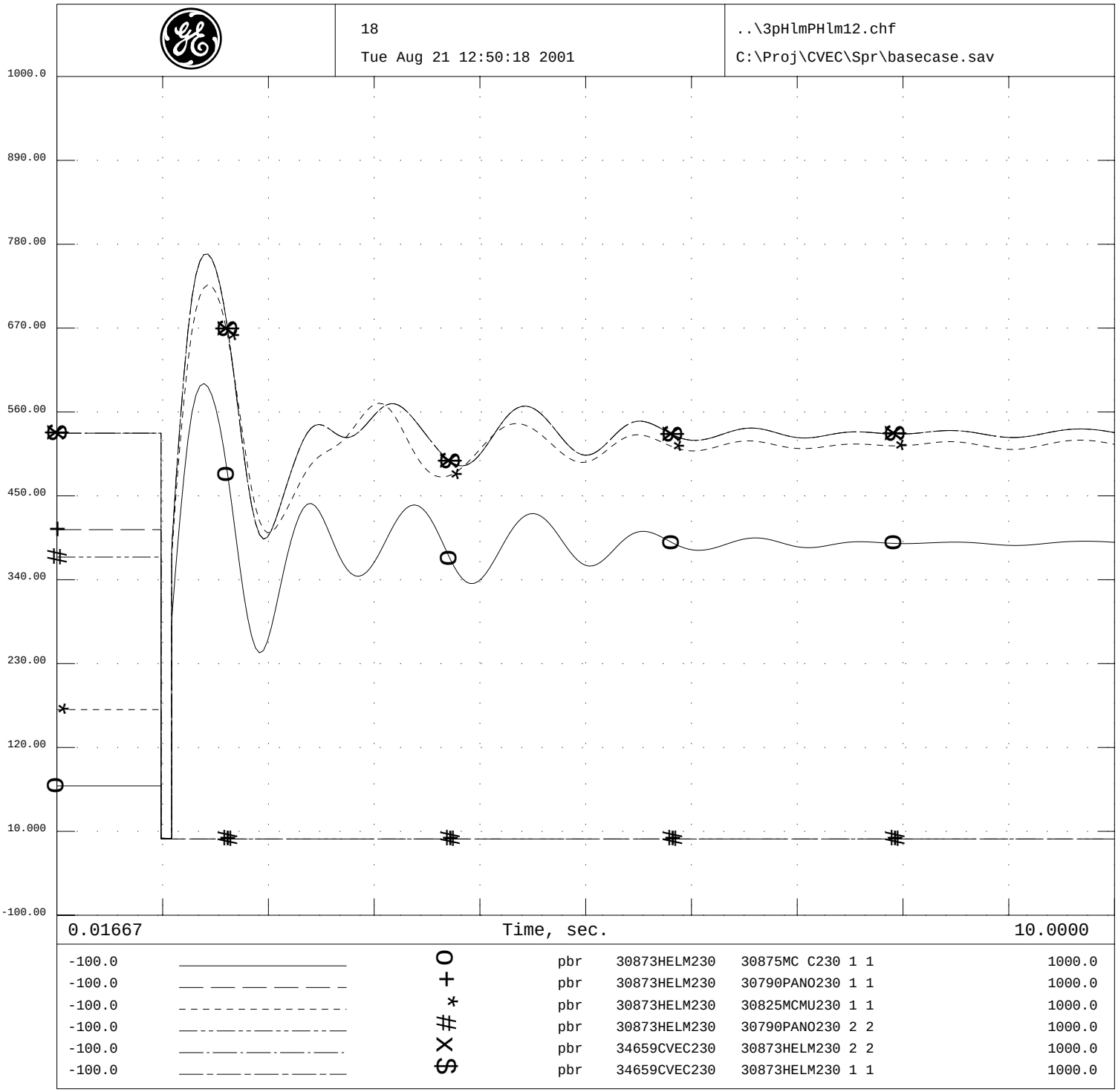

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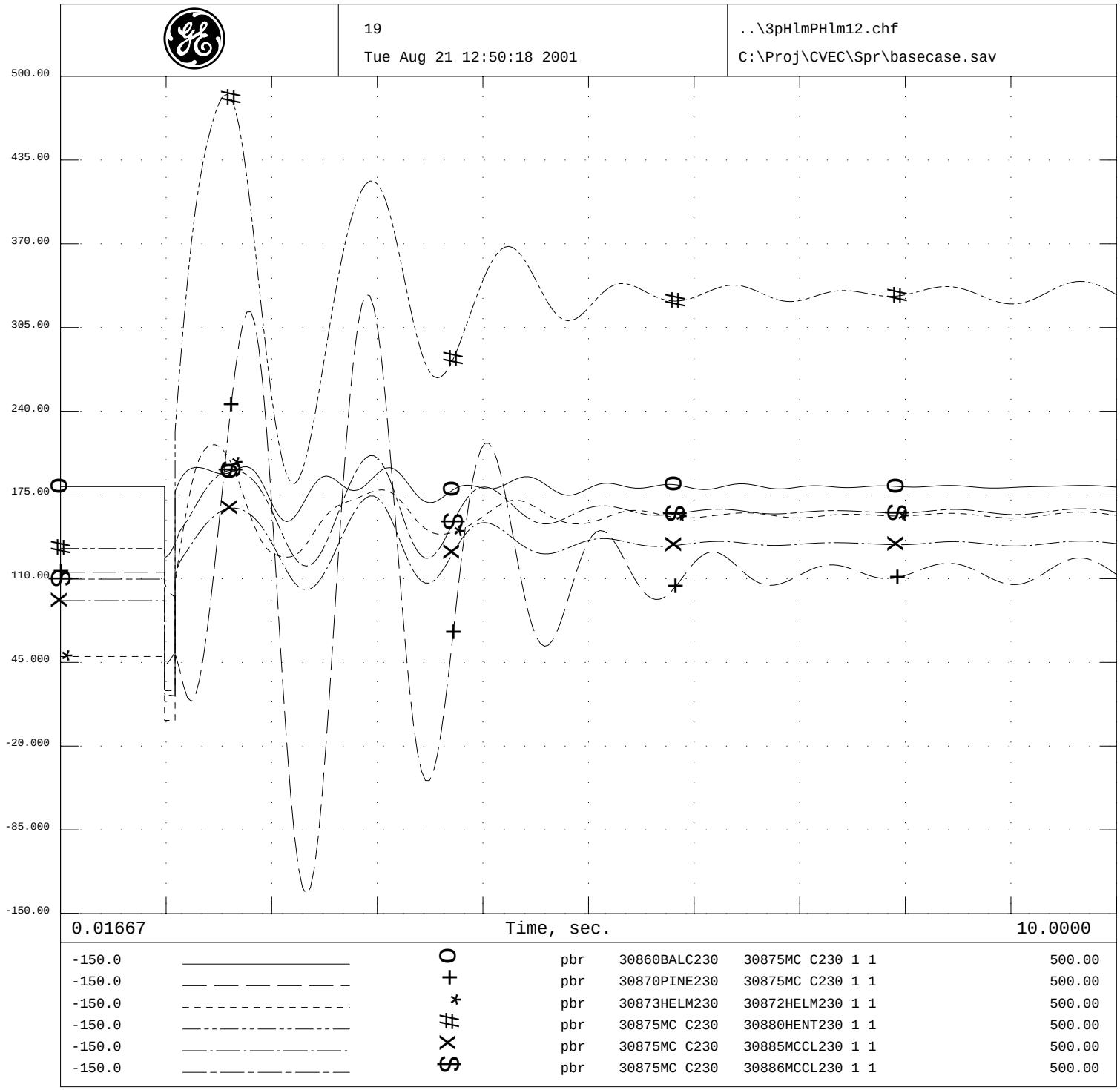
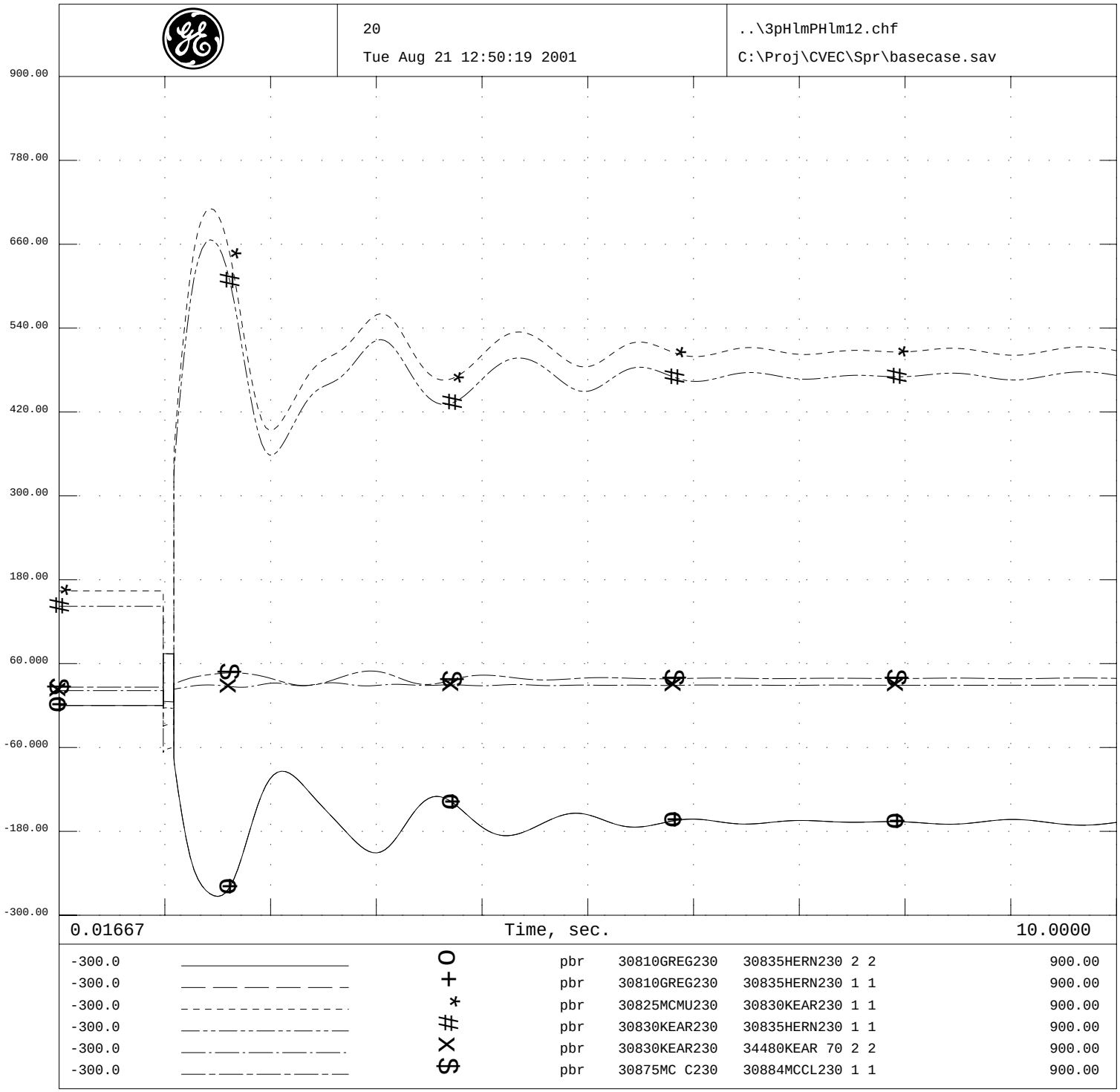
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Helm-Panoche #1,2 230kV Double Outage
3 phase 6 cycle fault at Helm 230kV bus and trip both Panoche-Helm lines

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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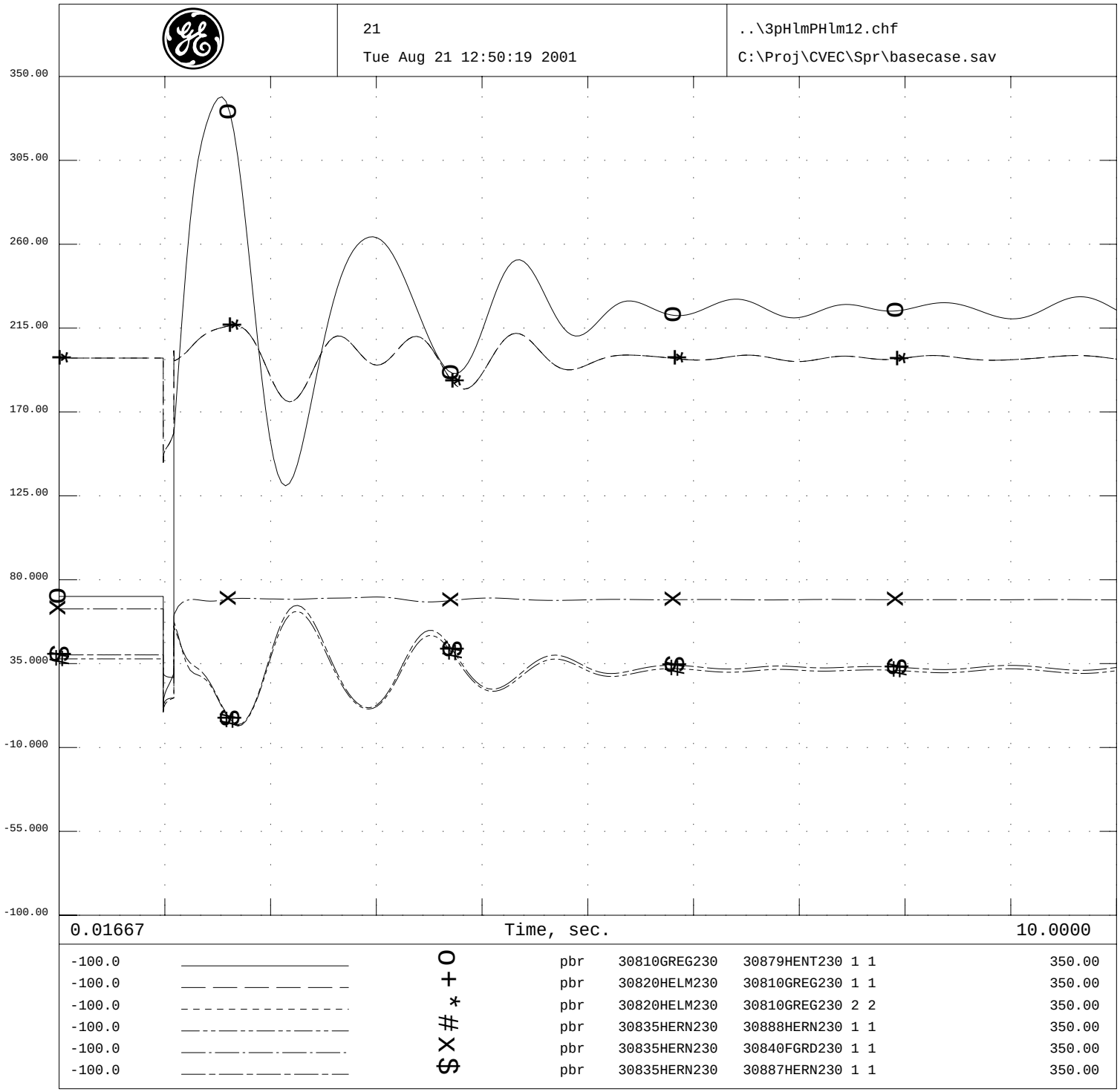

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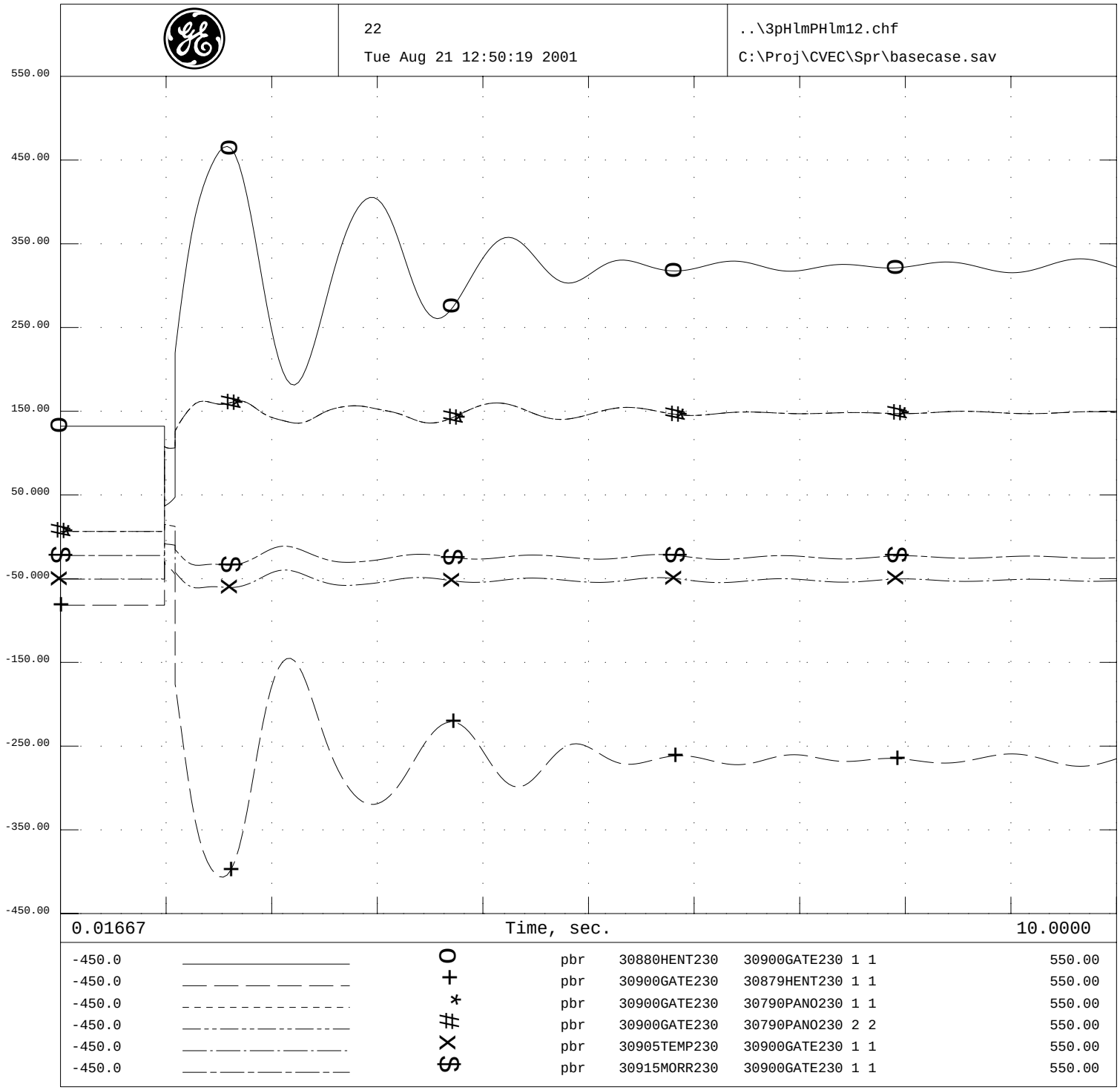

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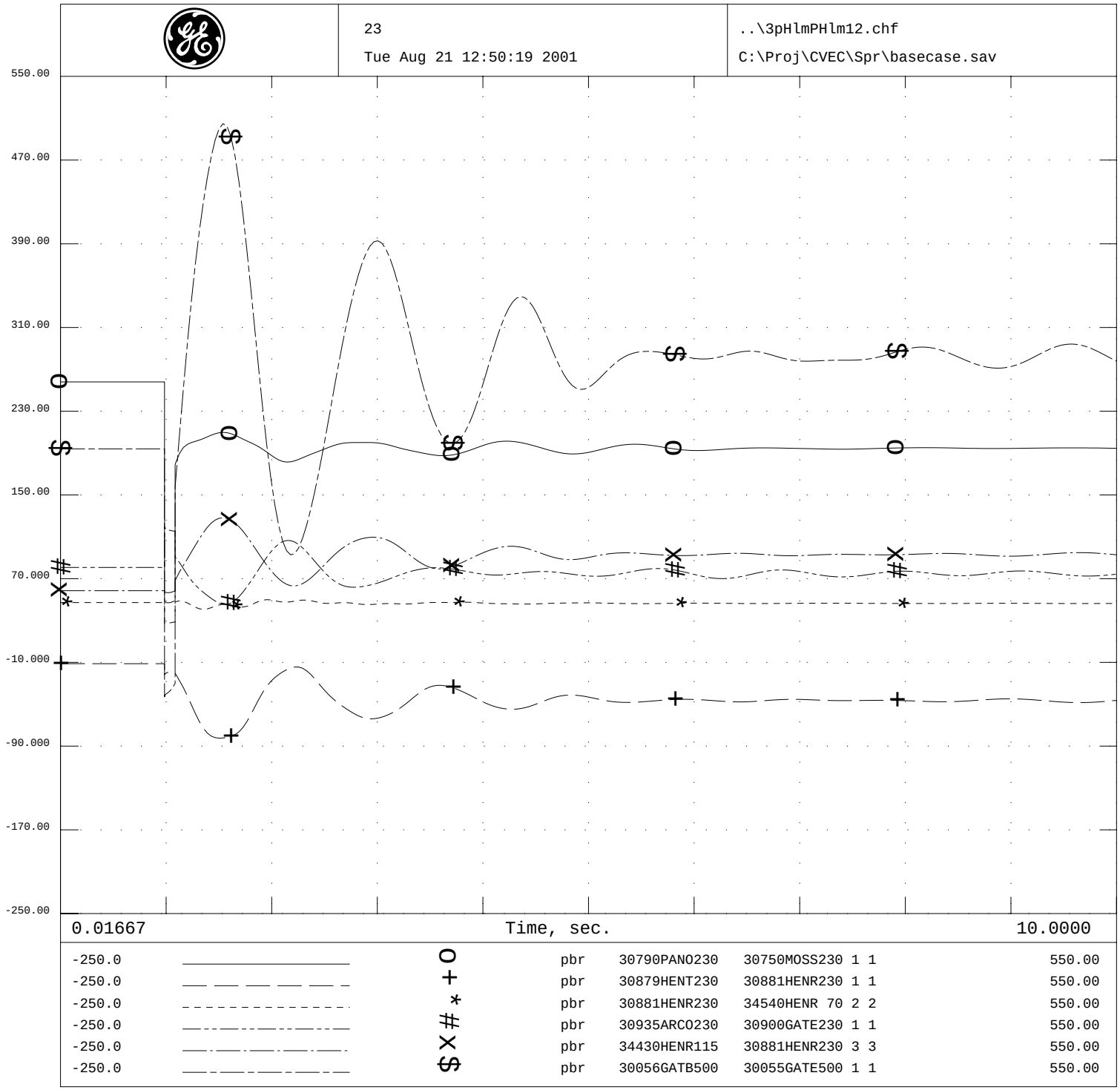

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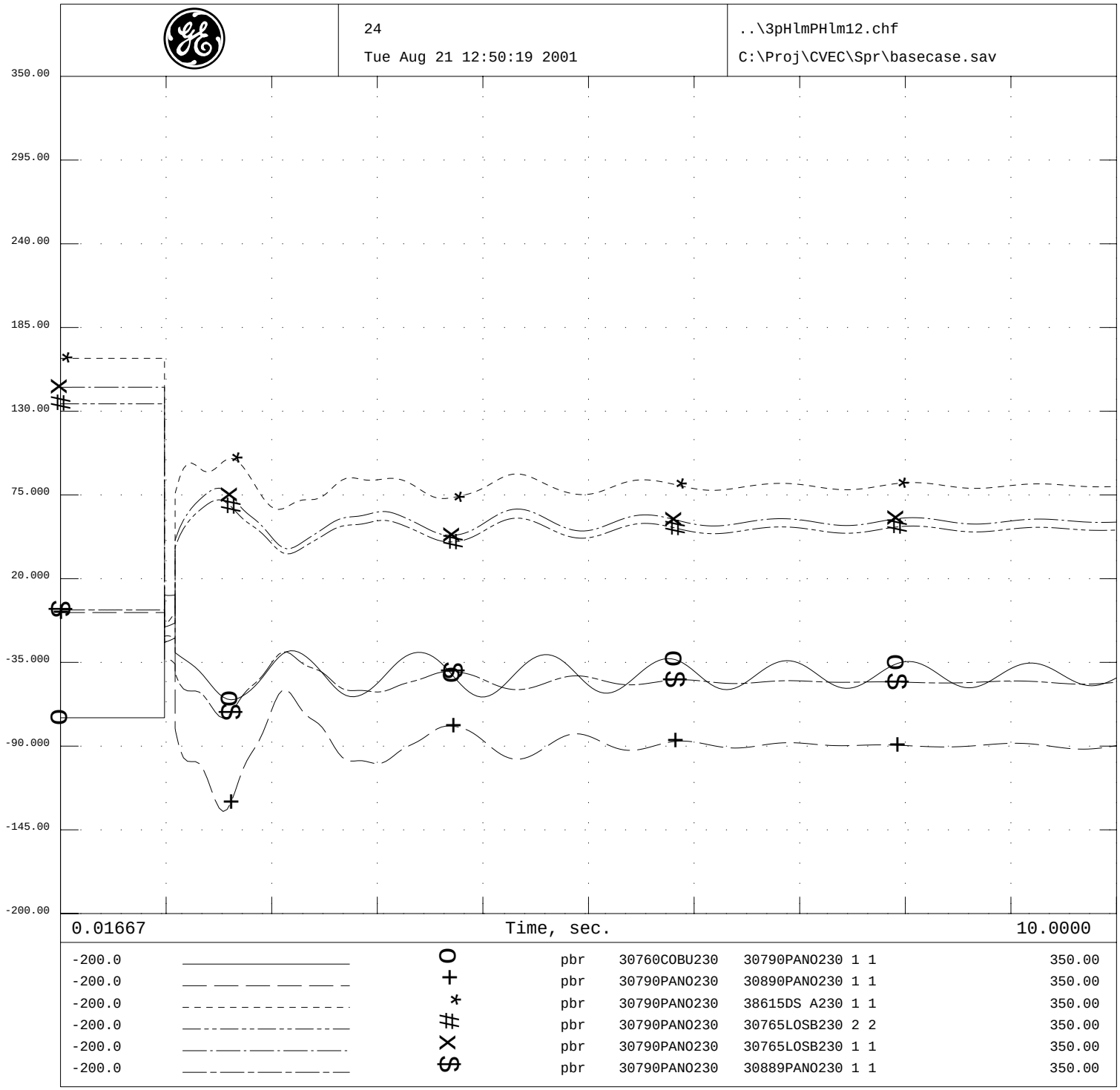

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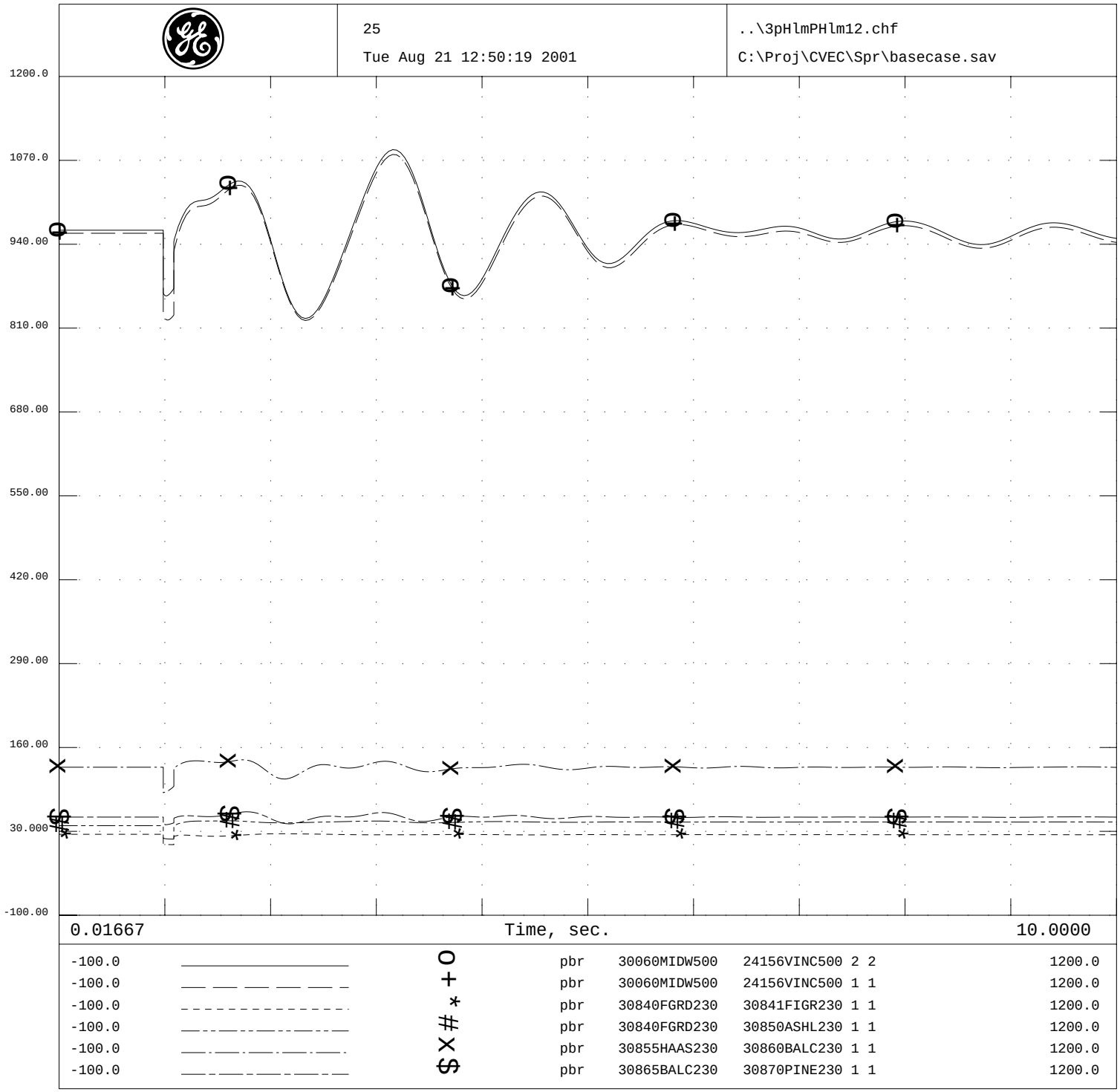

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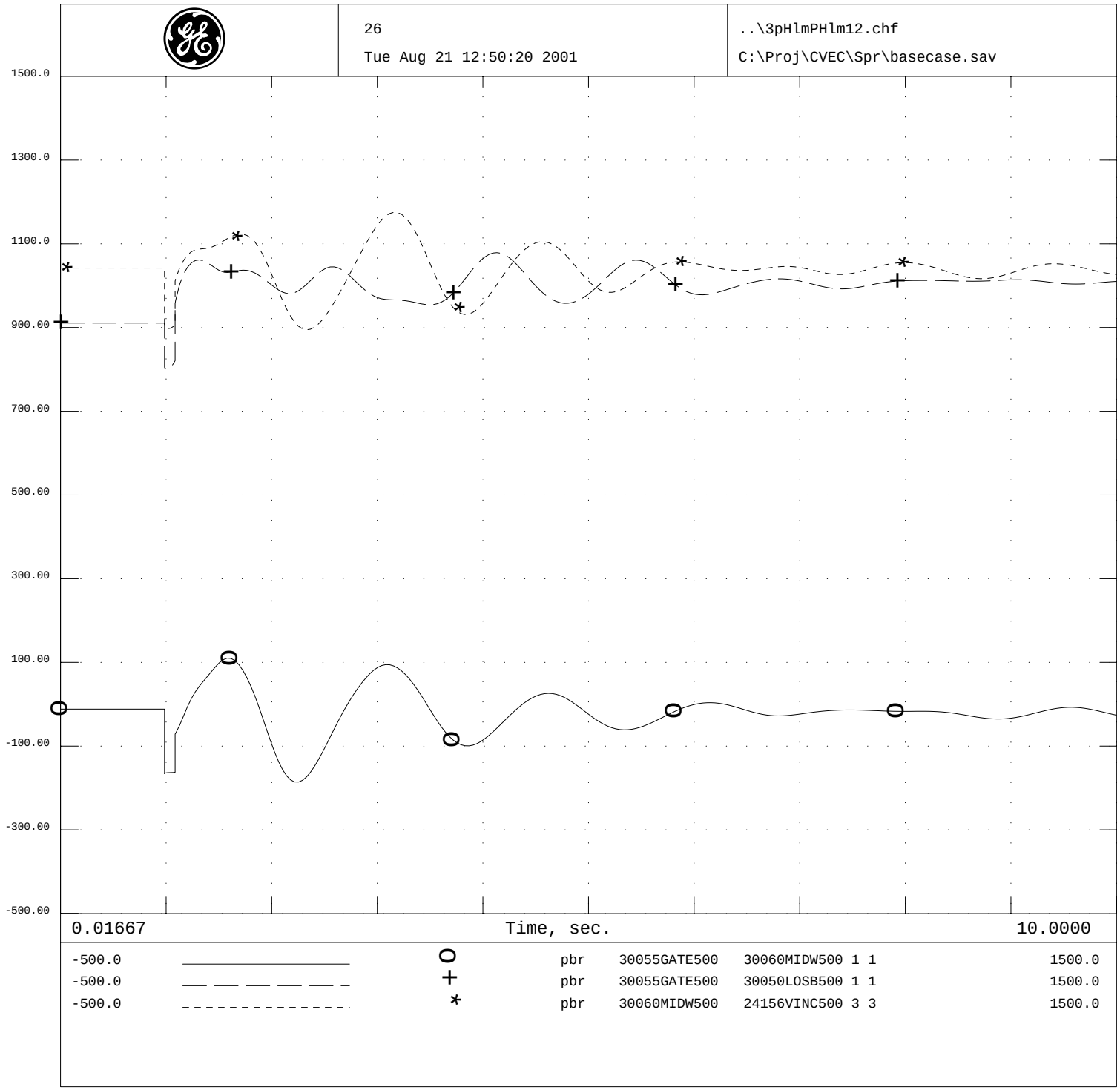

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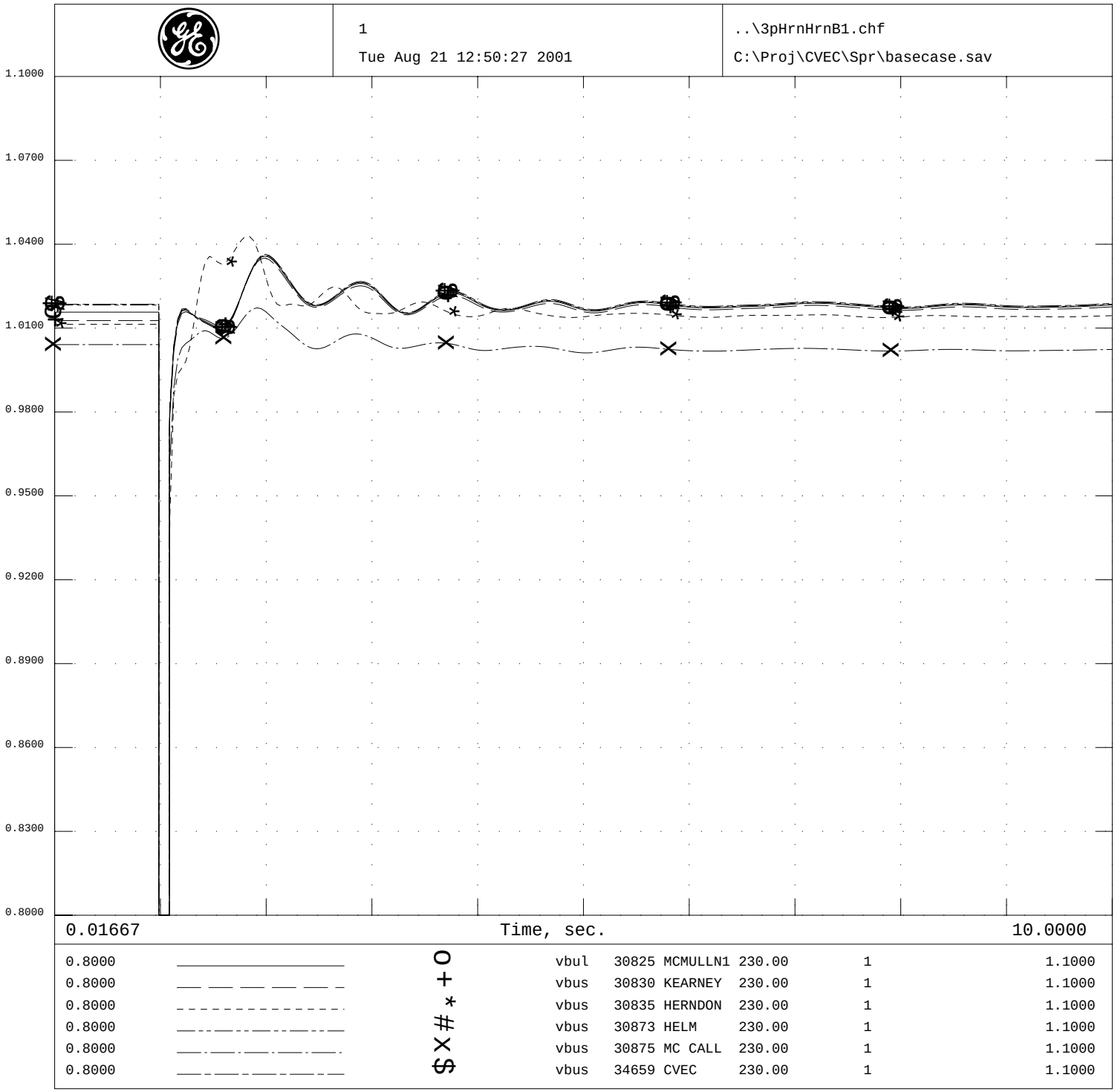
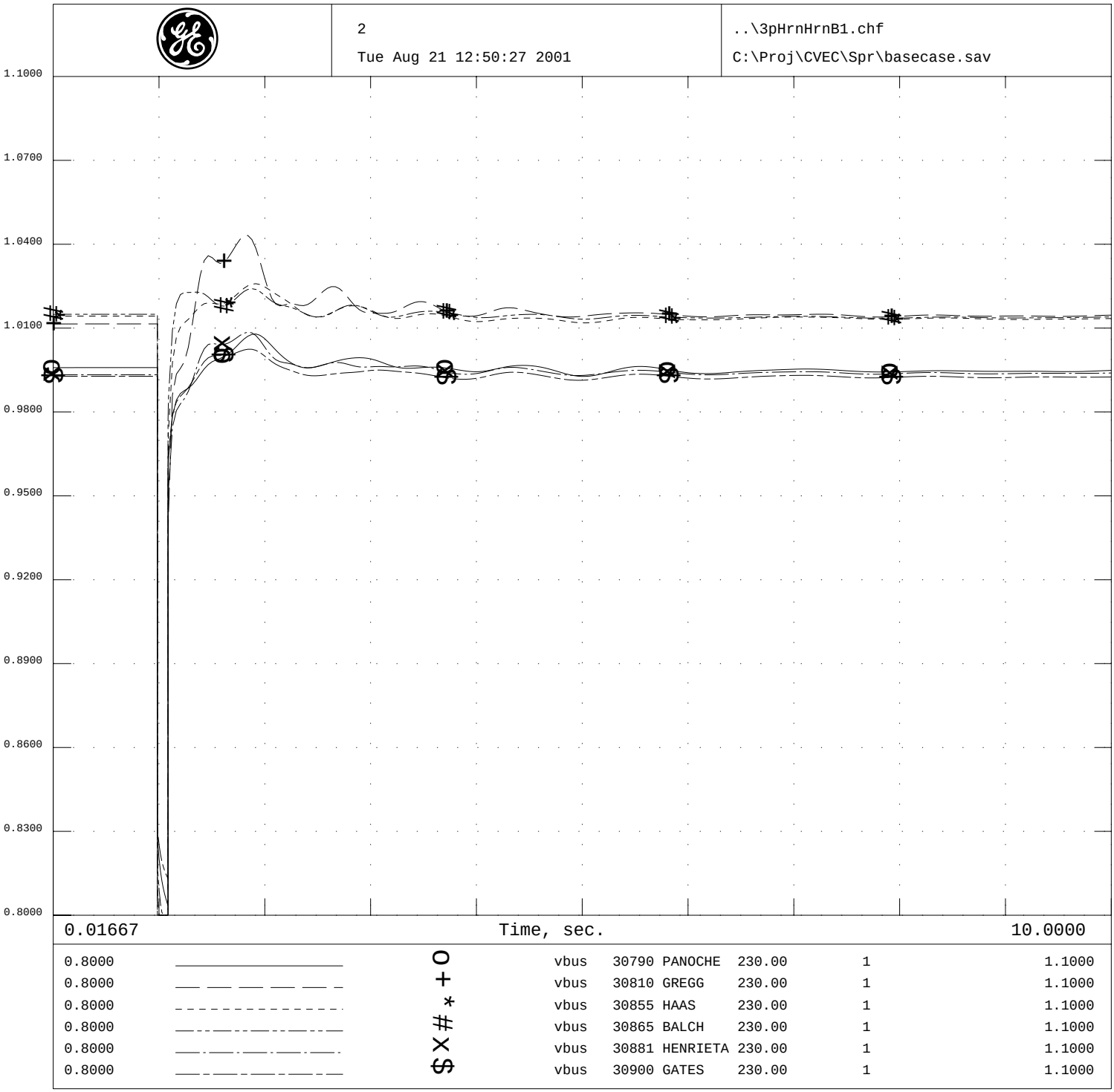


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Herndon 230kV Bus #1 Outage
3 phase 6 cycle fault at Herndon 230kV bus and clear bus #1

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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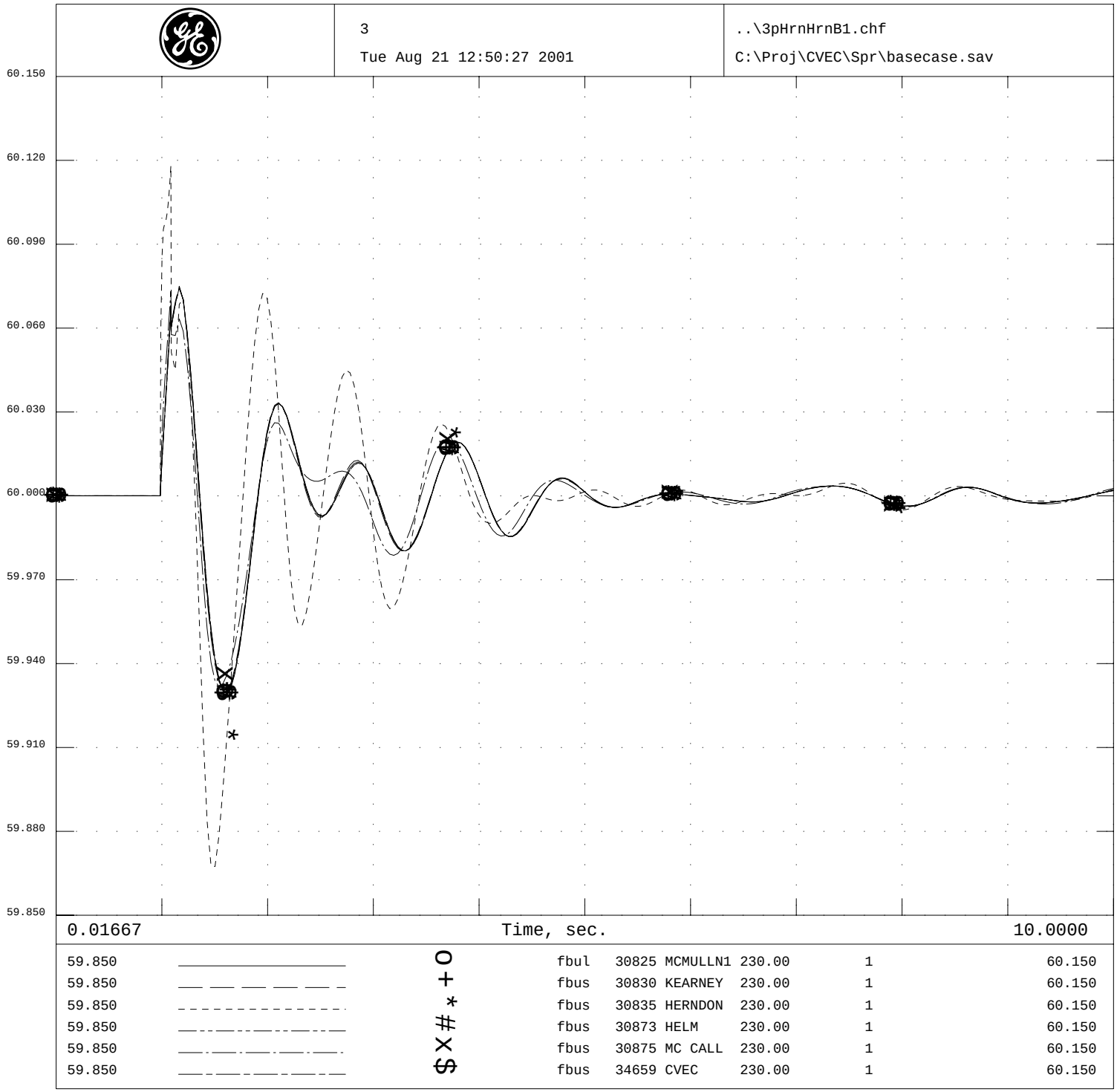

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2004 Heavy Spring Base Case
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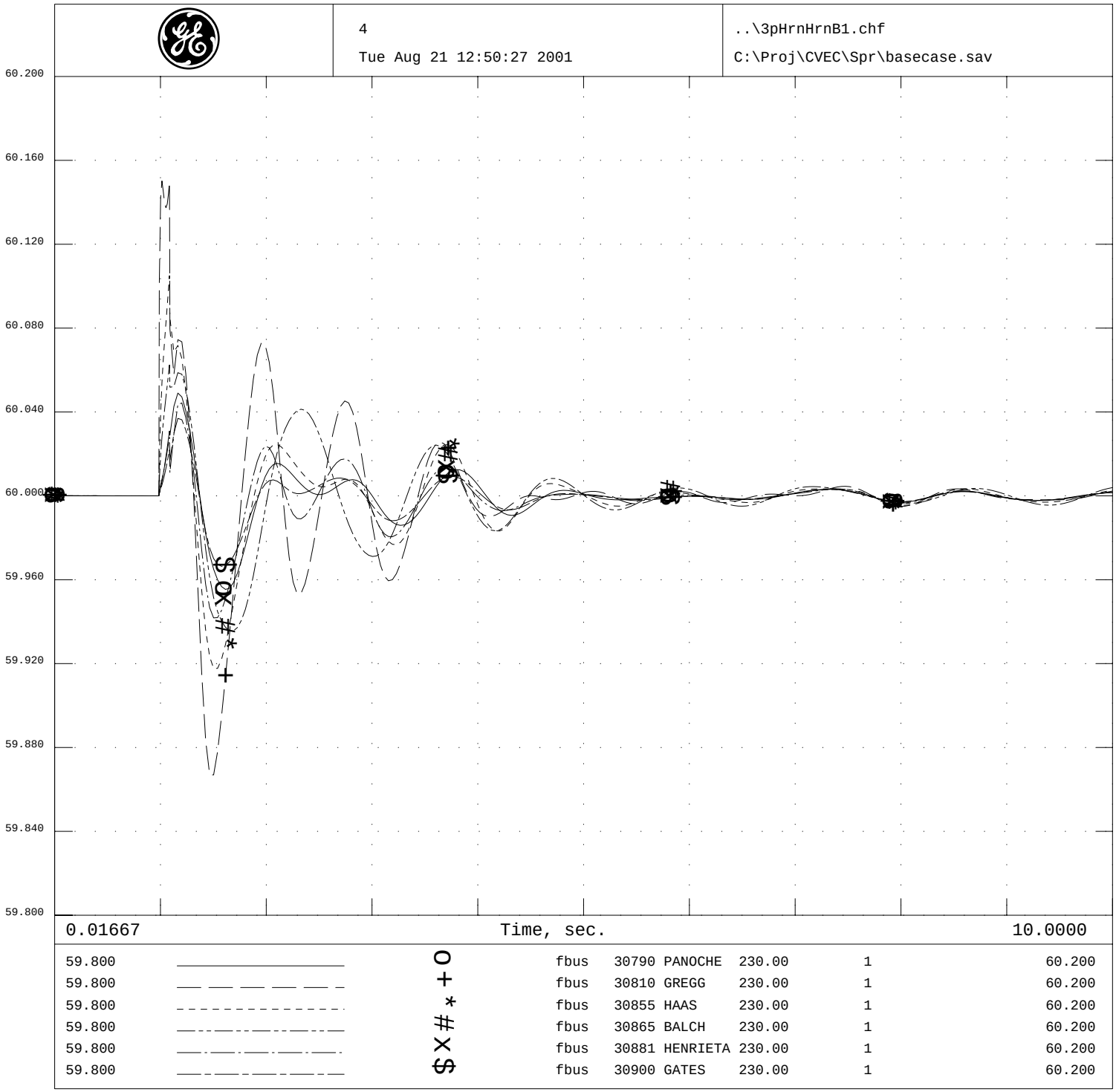
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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Calpine Corporation
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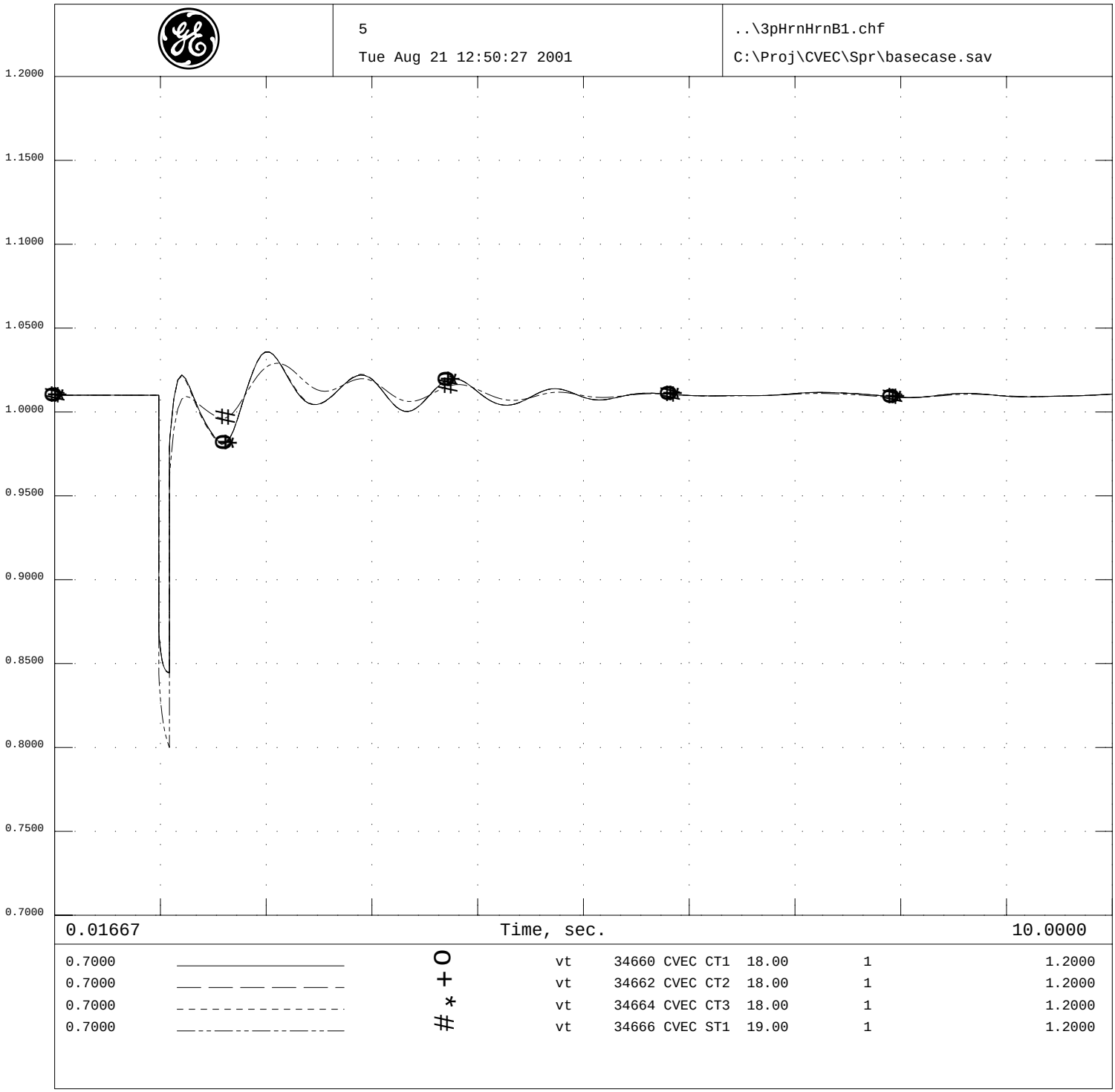

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2004 Heavy Spring Base Case
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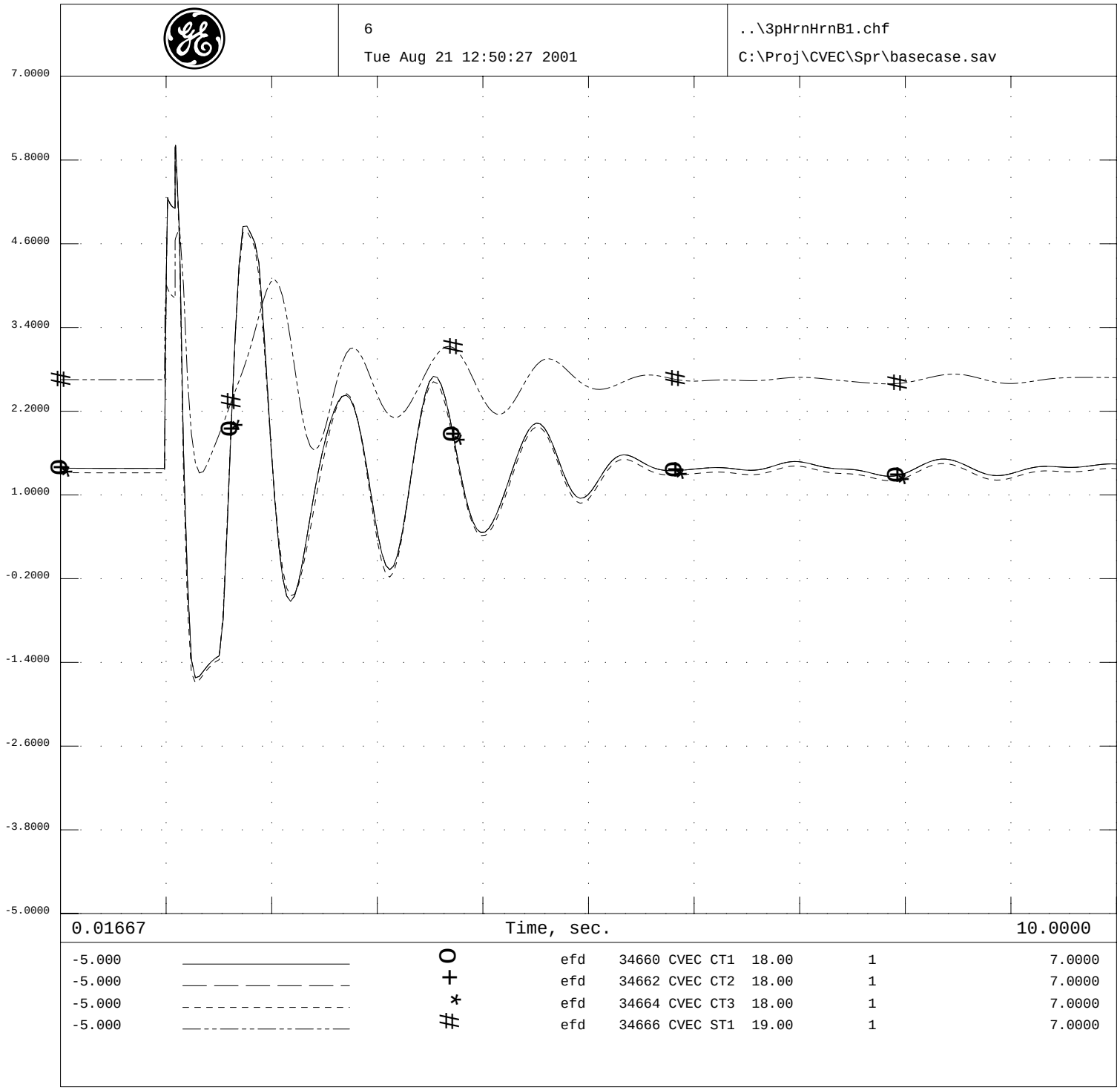
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Heavy Spring Base Case
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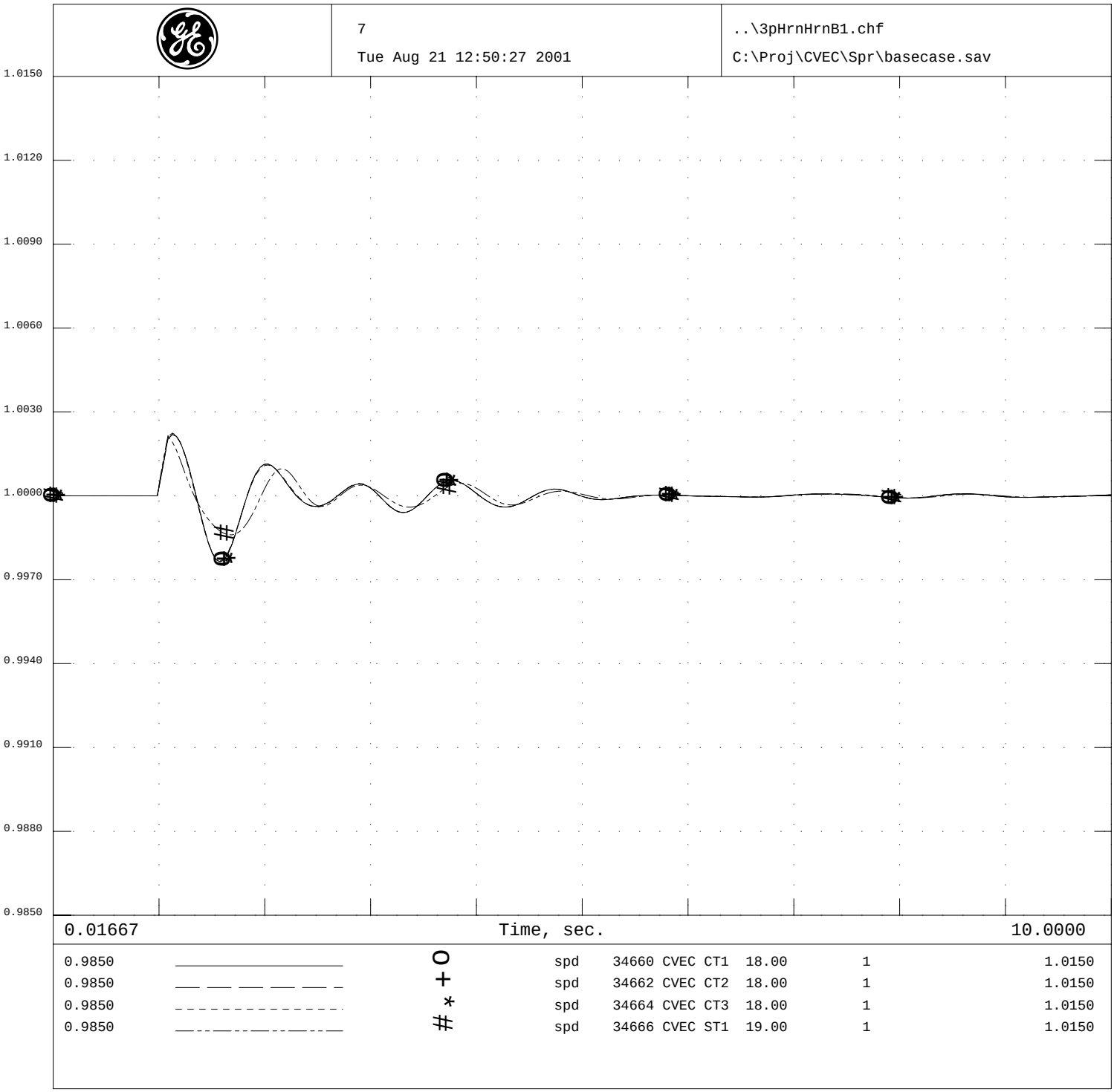
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
CVEC @ 1100MW
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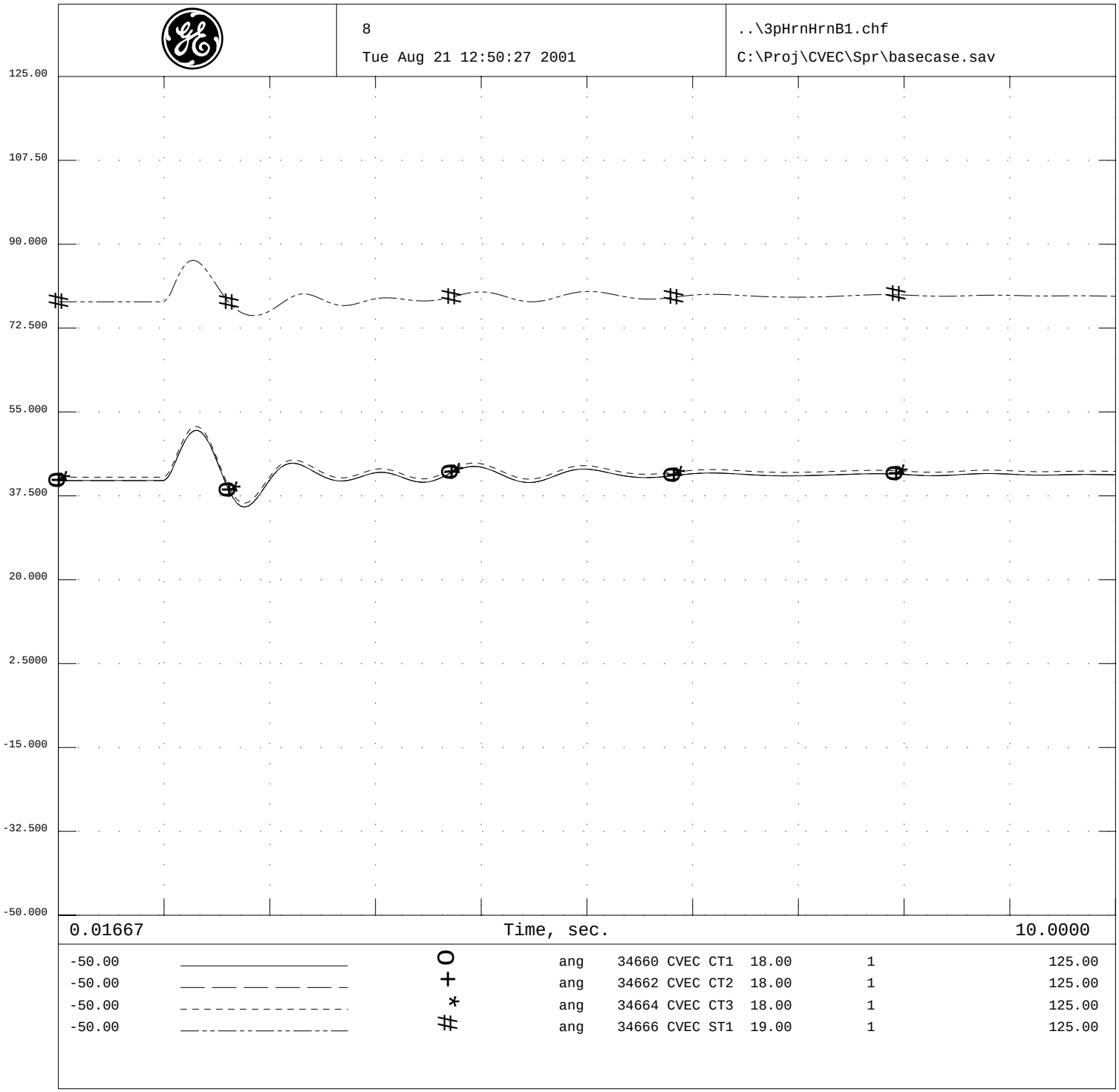
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Heavy Spring Base Case
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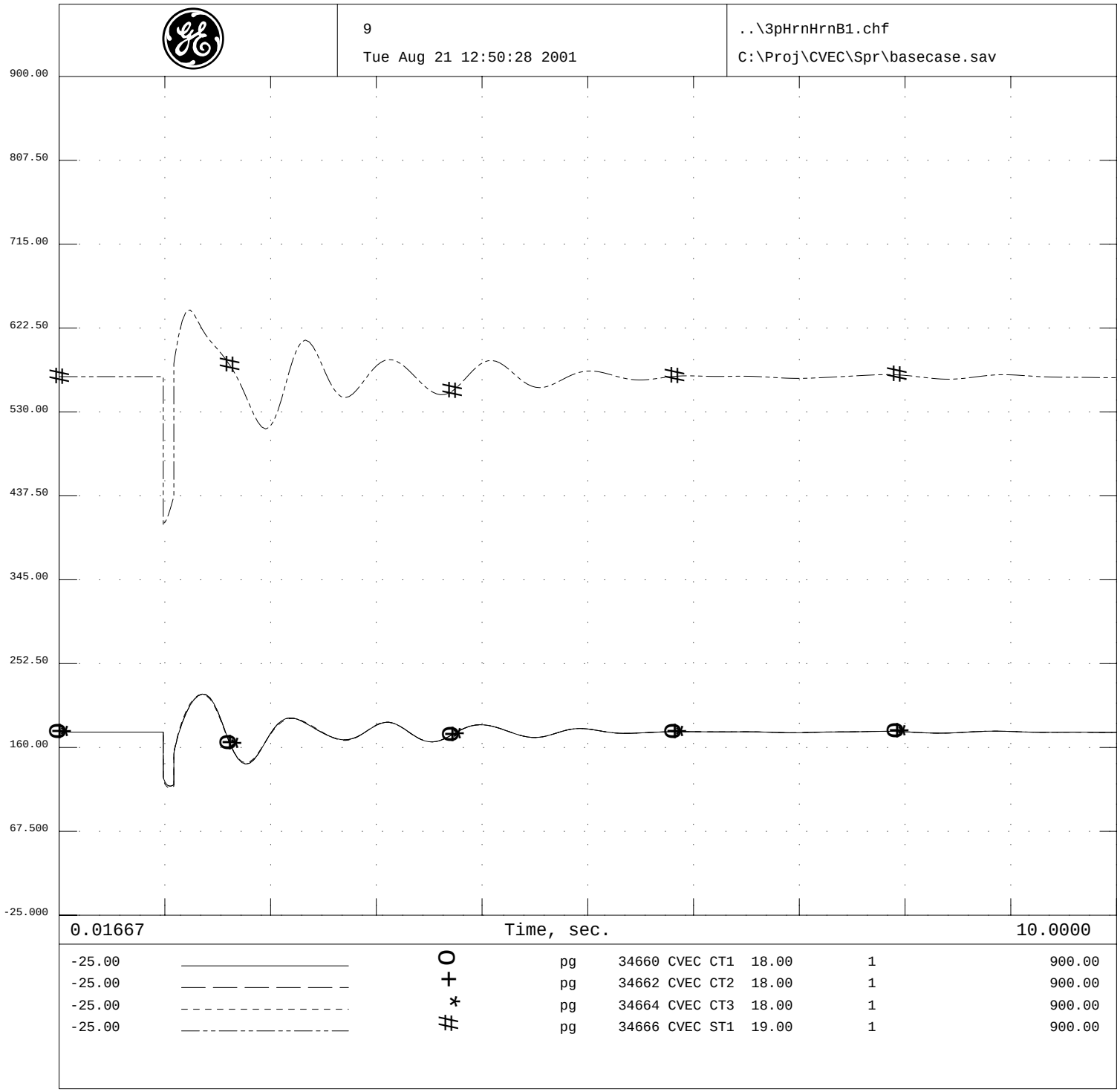
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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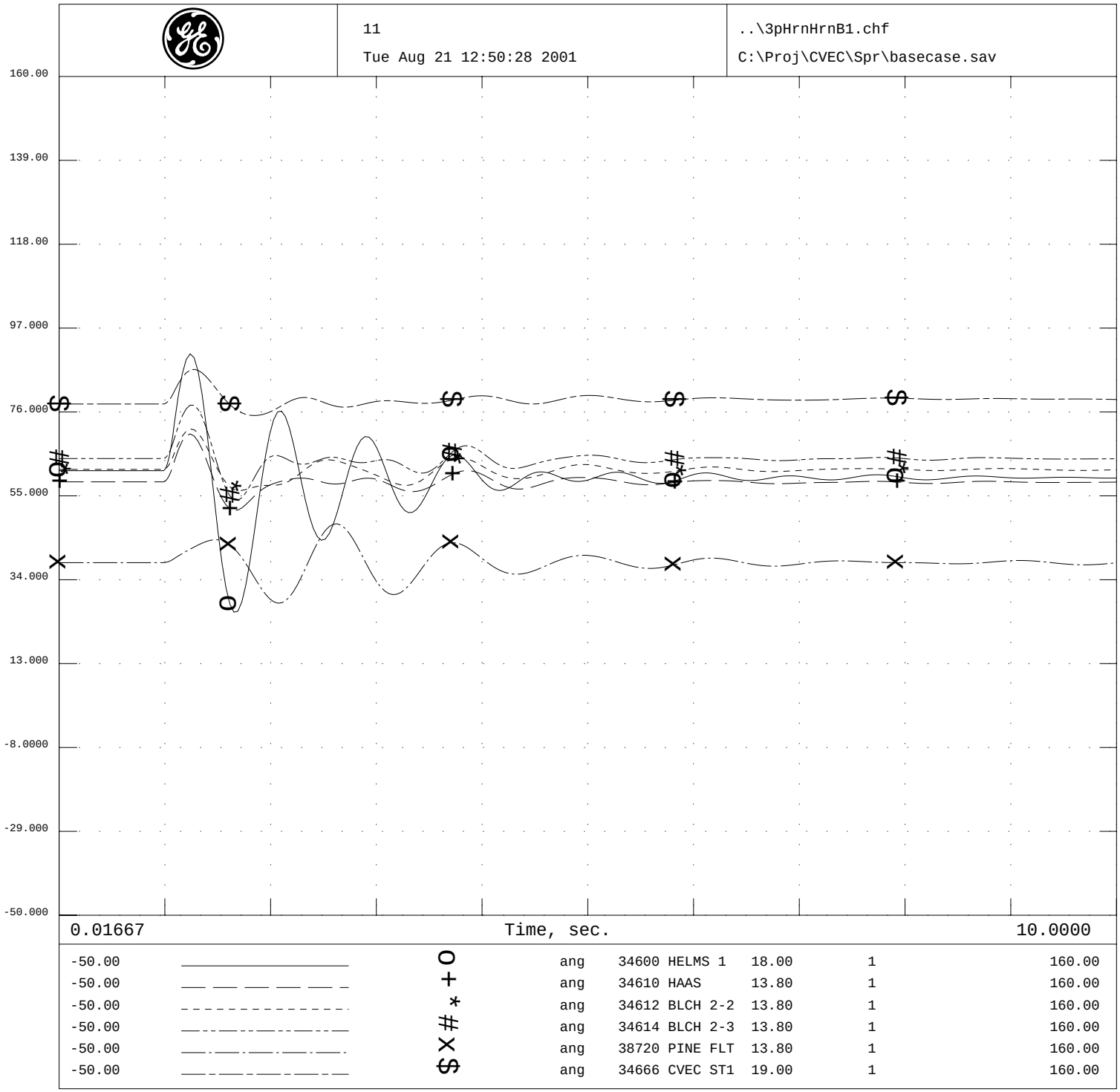
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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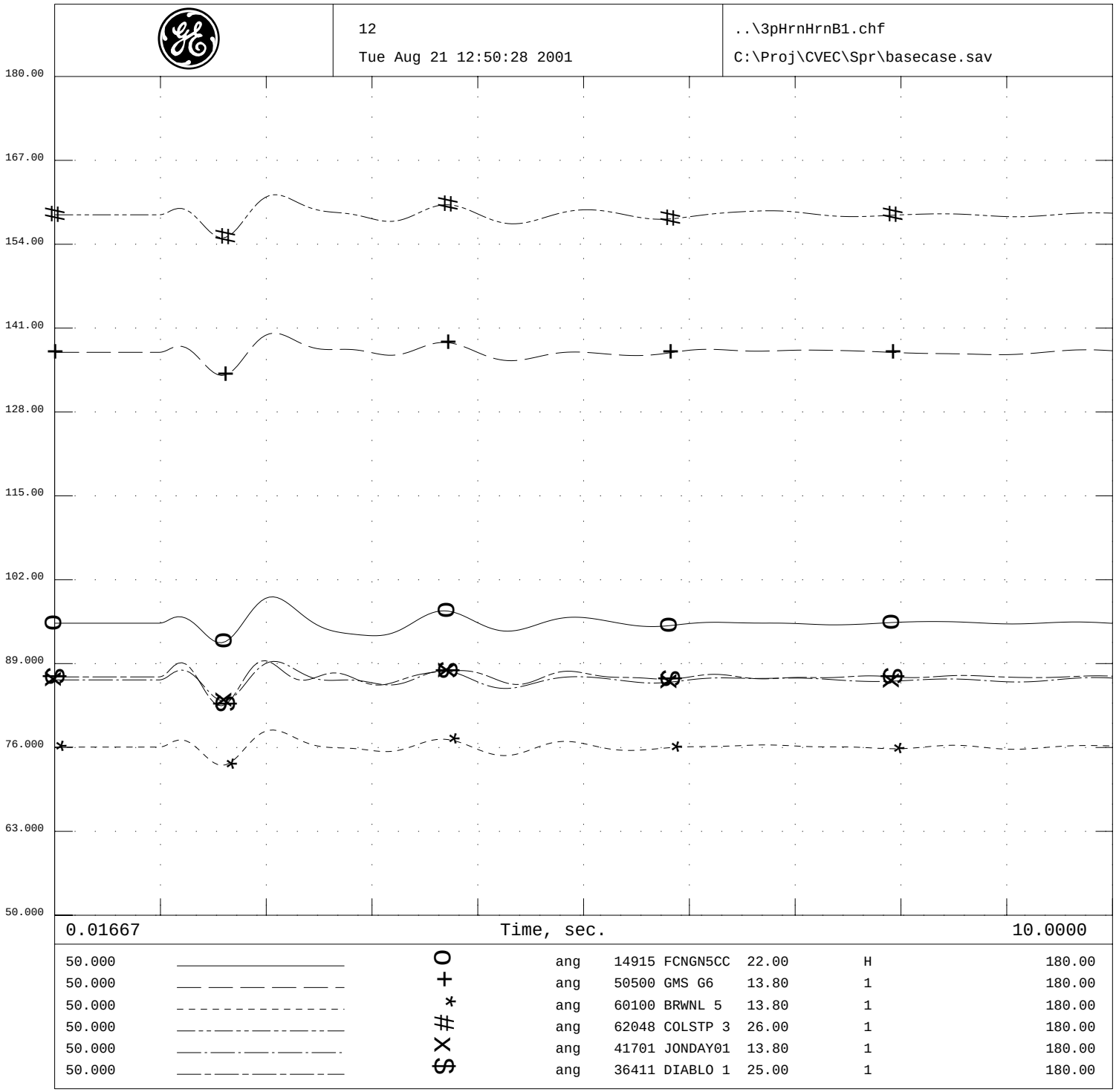
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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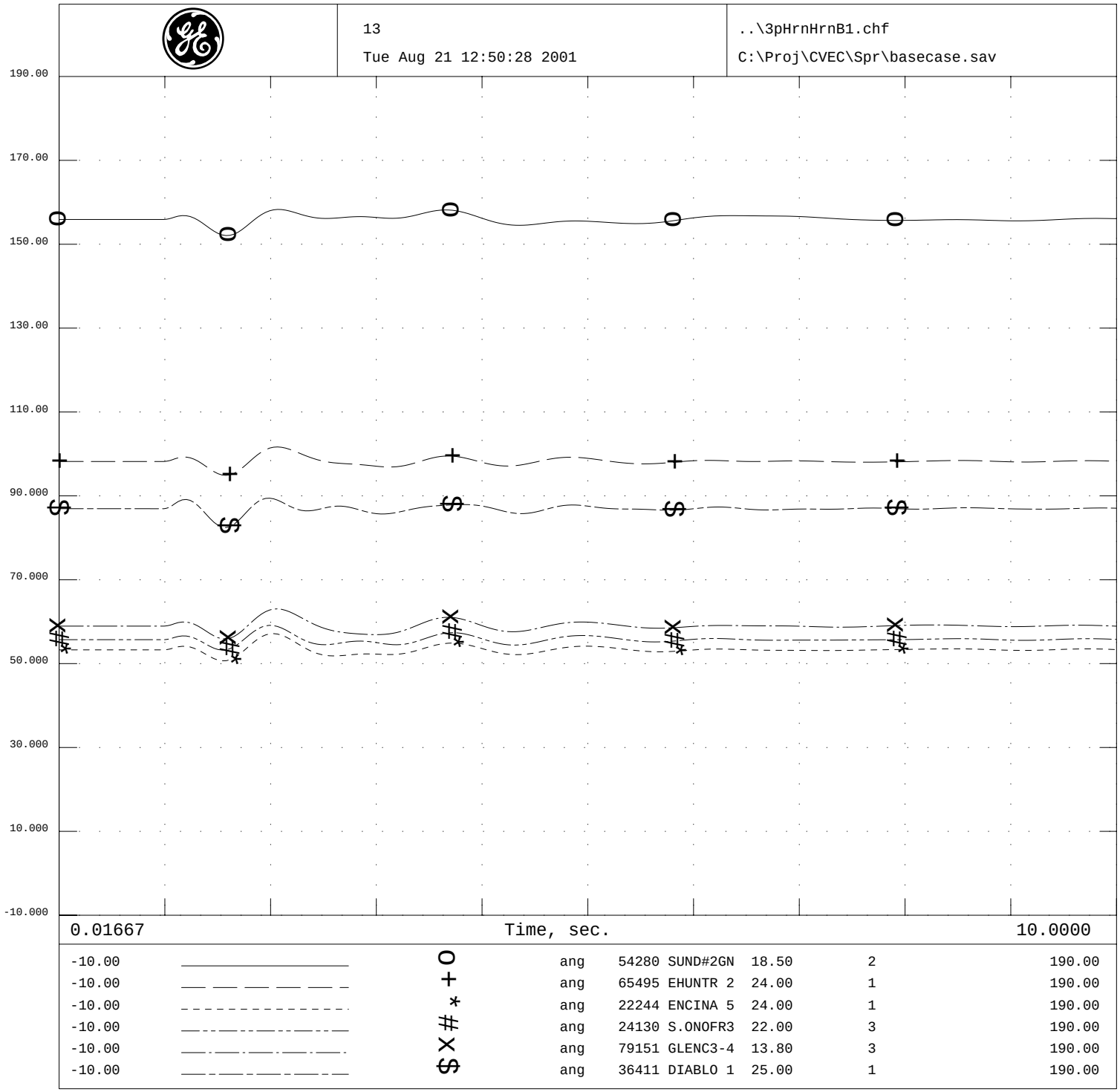
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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Calpine Corporation
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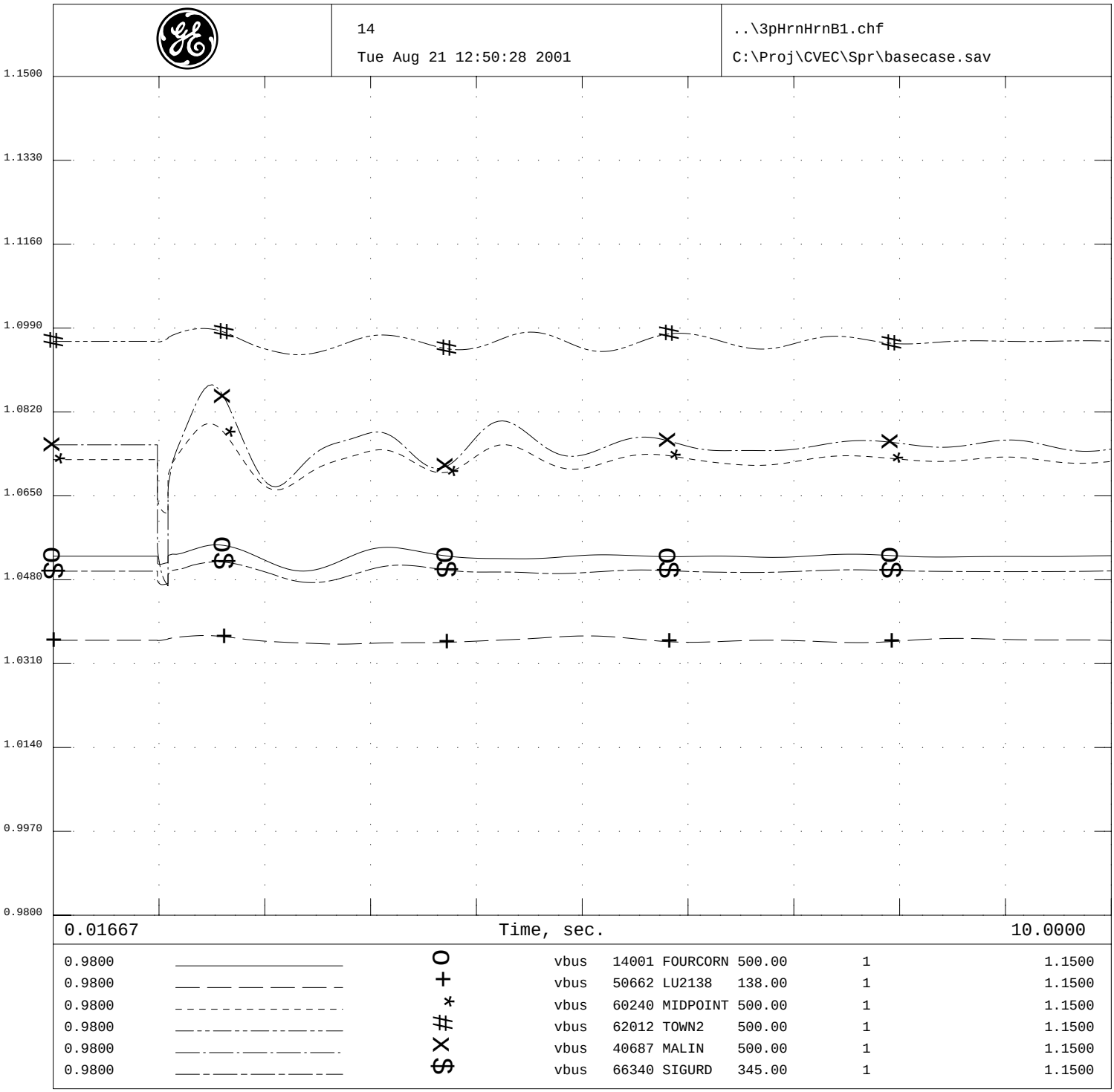

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Central Valley Energy Center
Calpine Corporation
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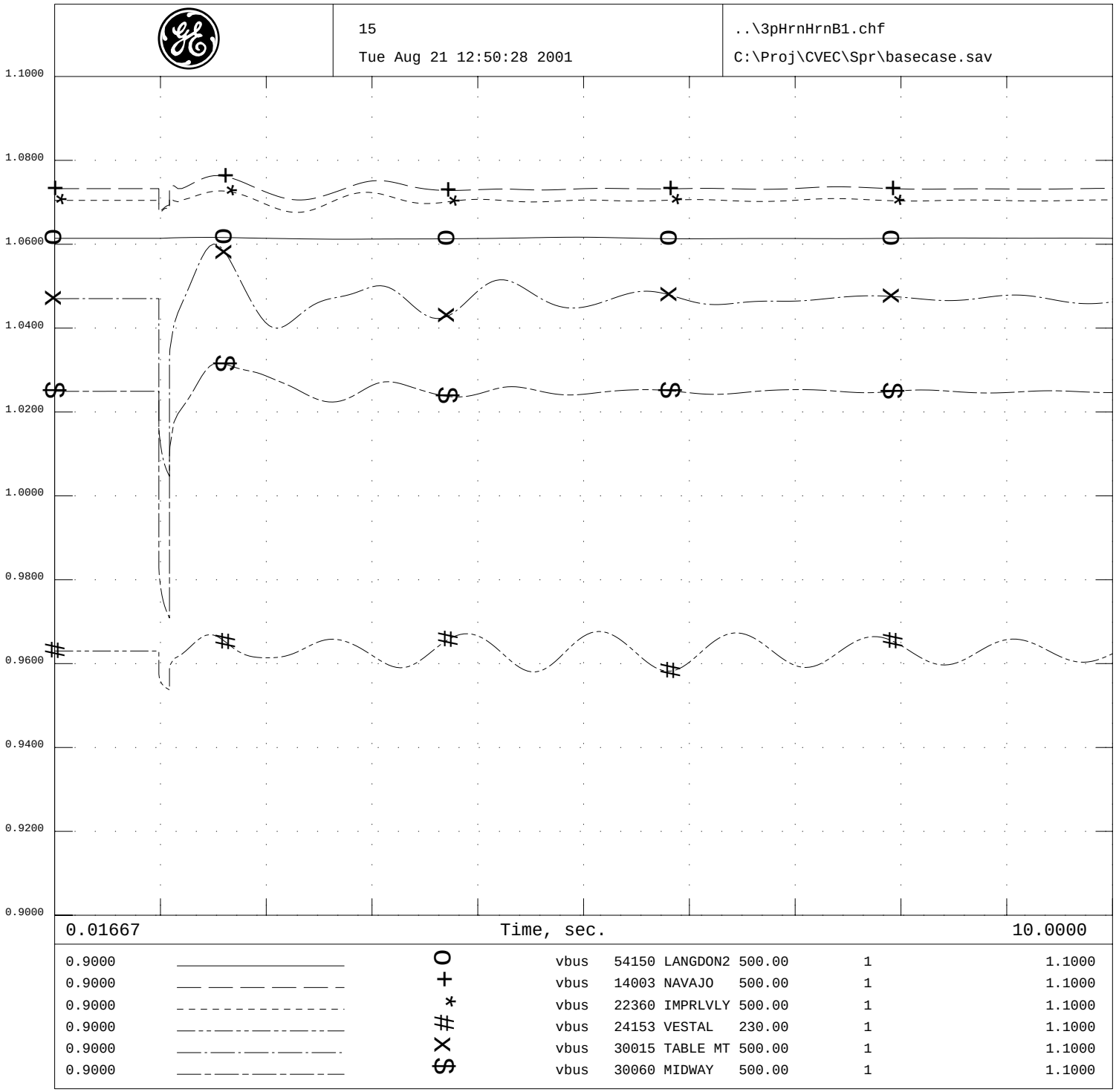

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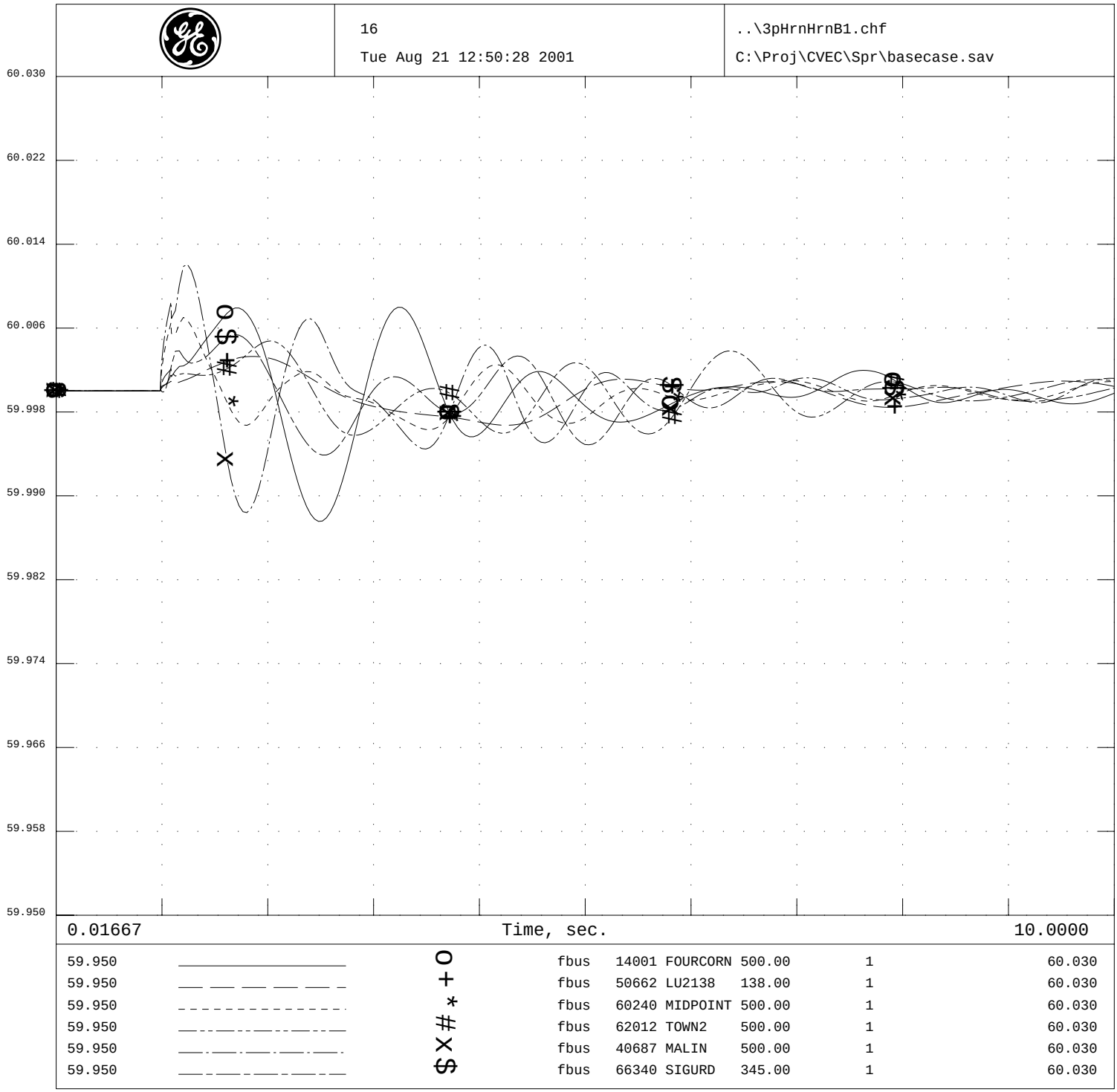

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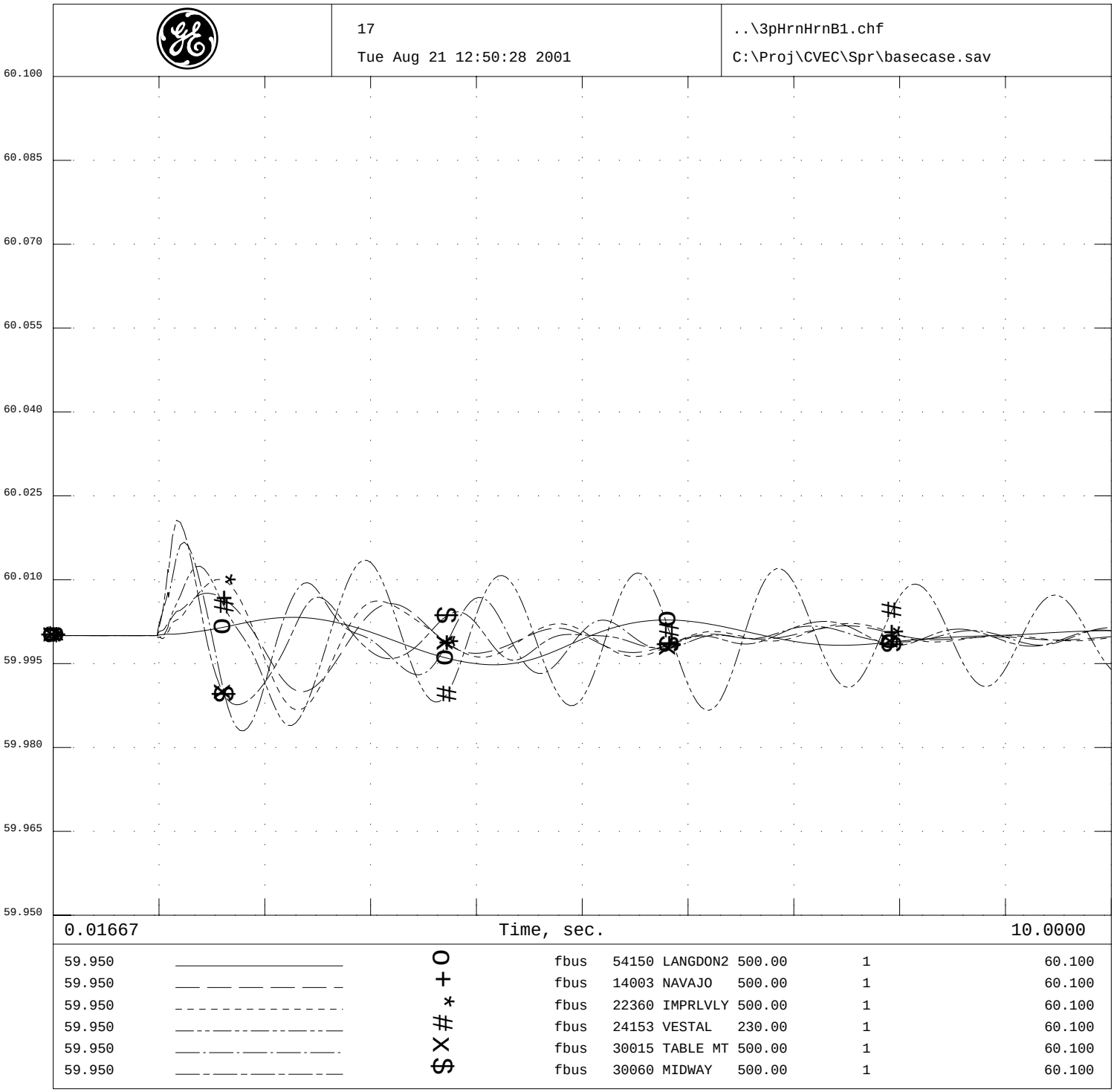

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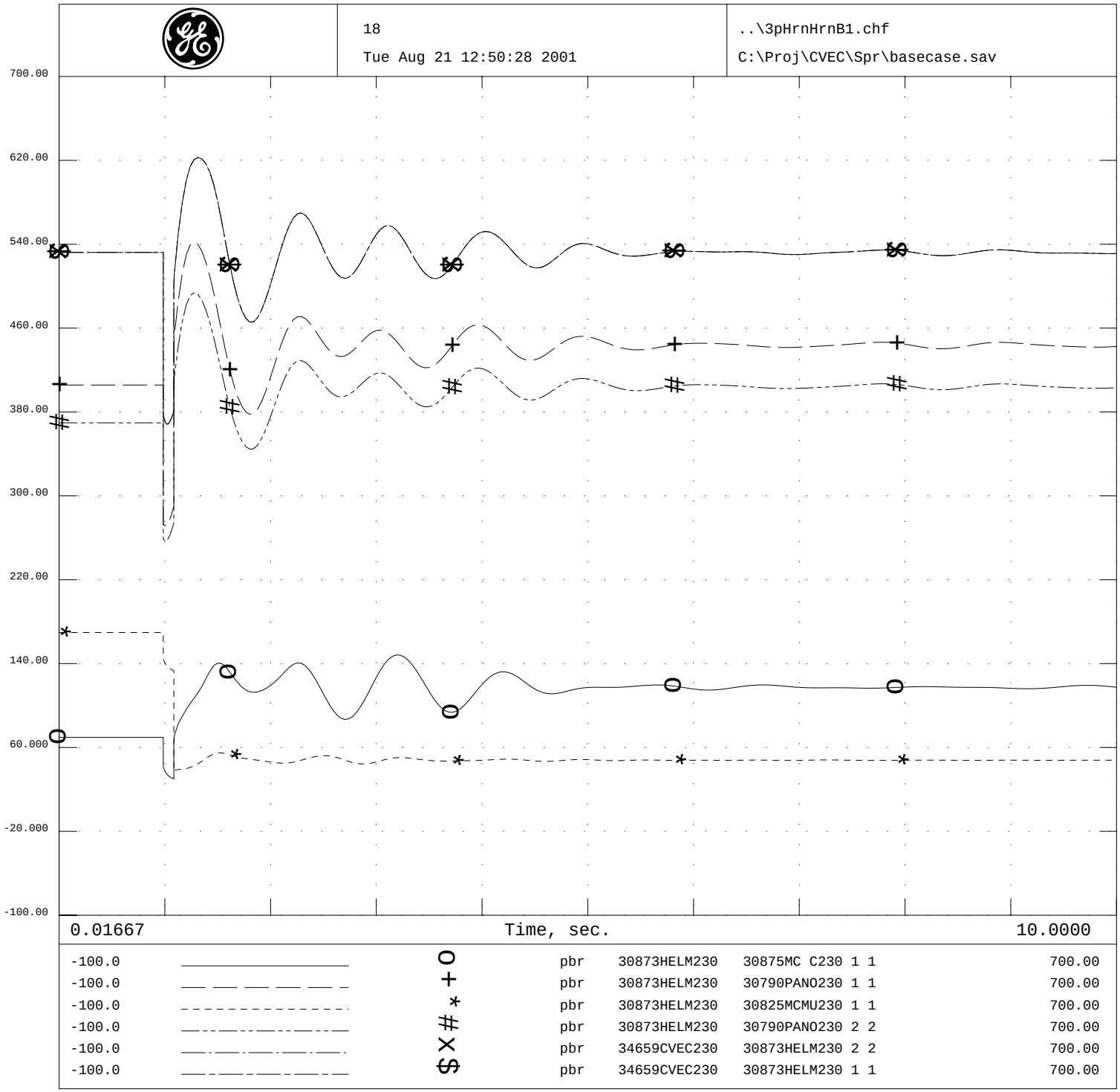

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Calpine Corporation
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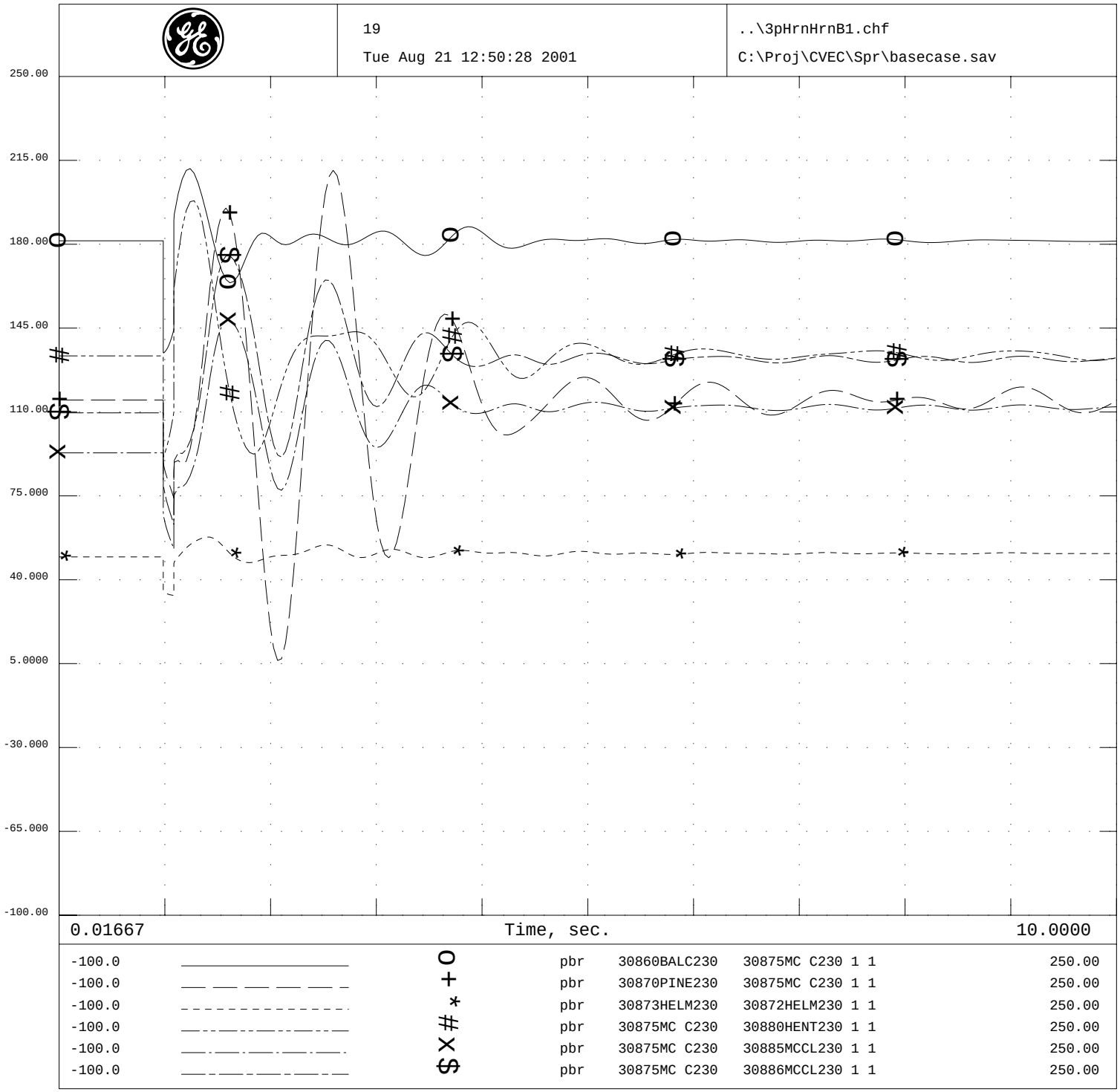

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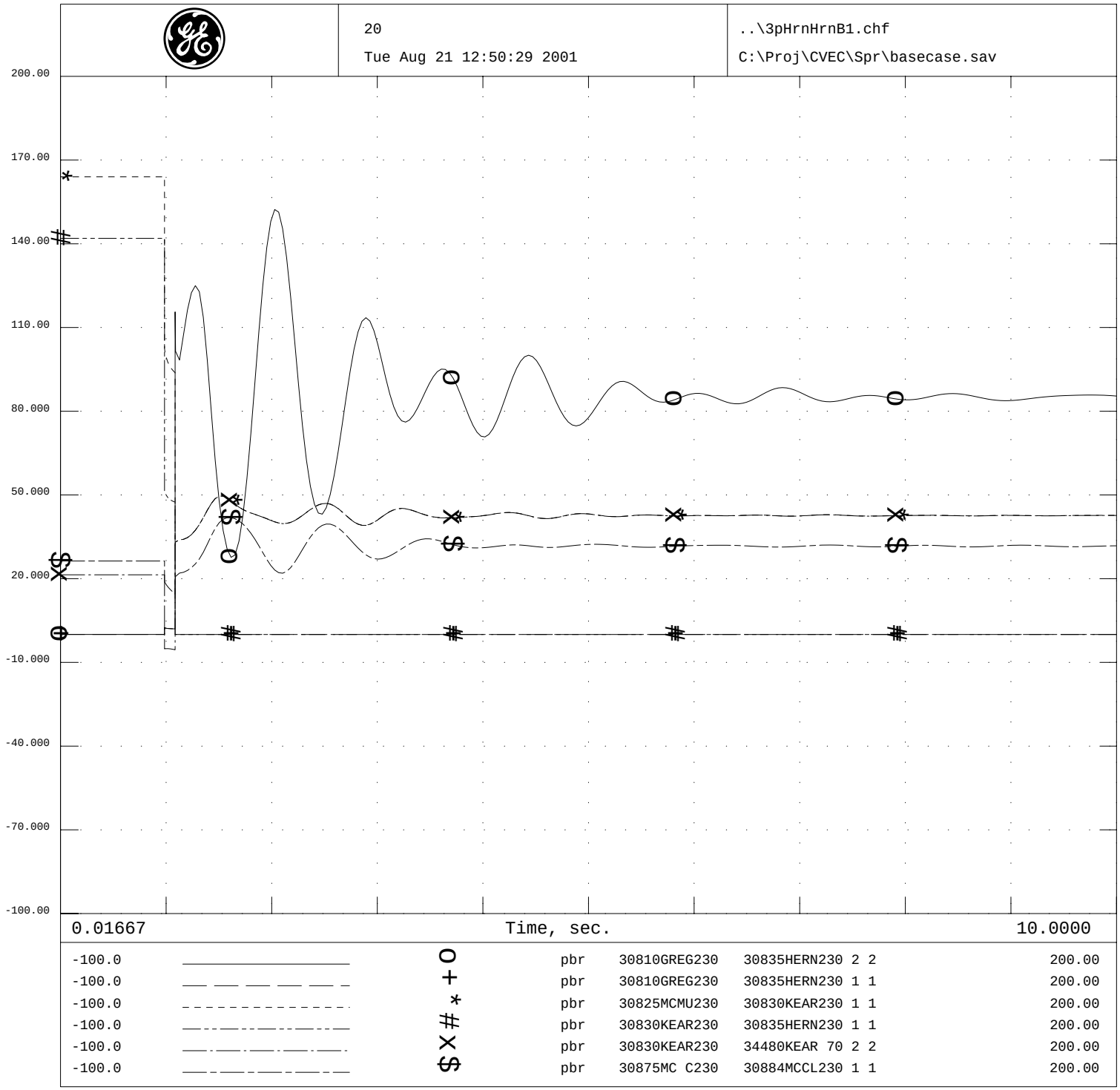

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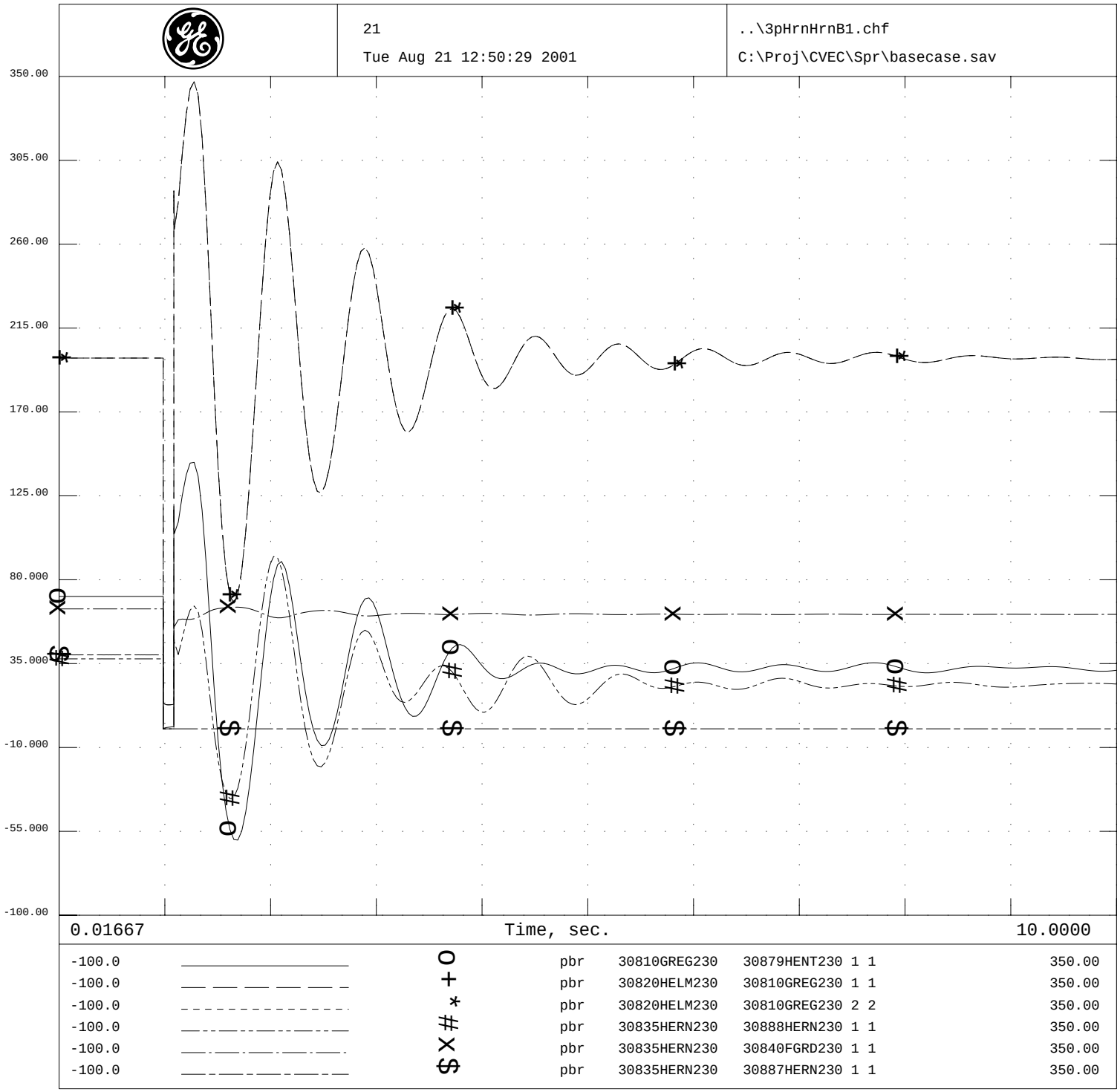

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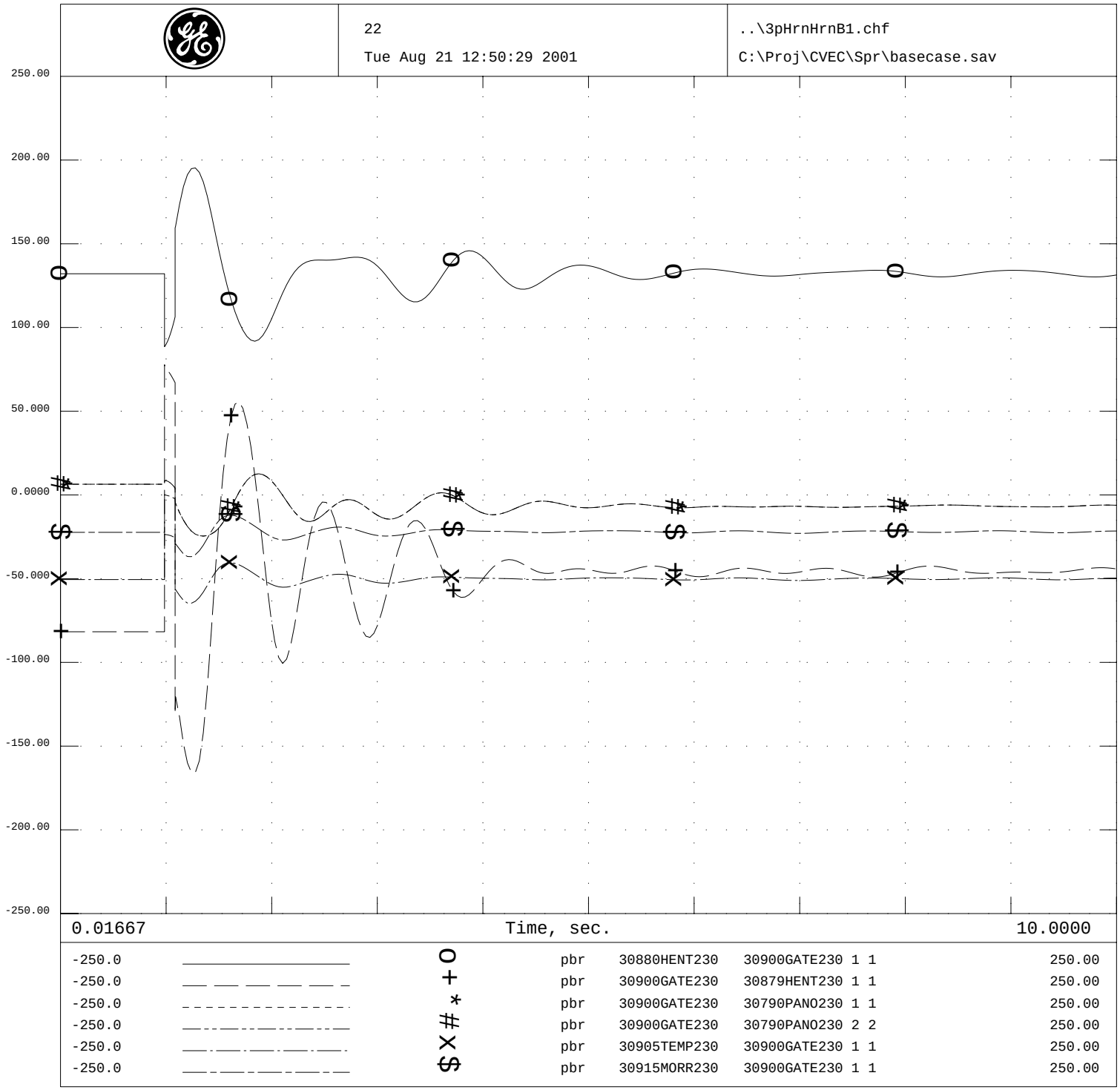

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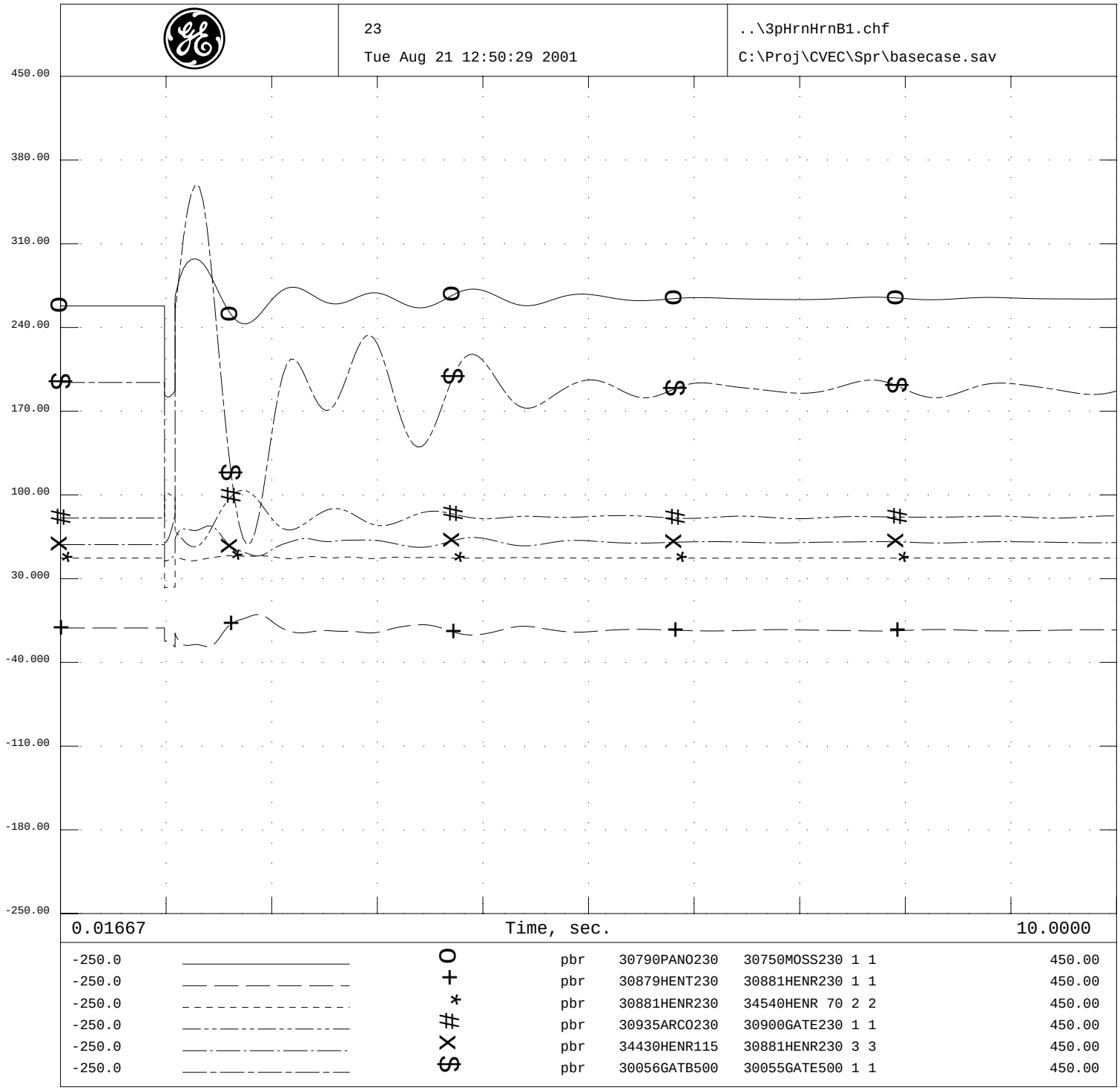

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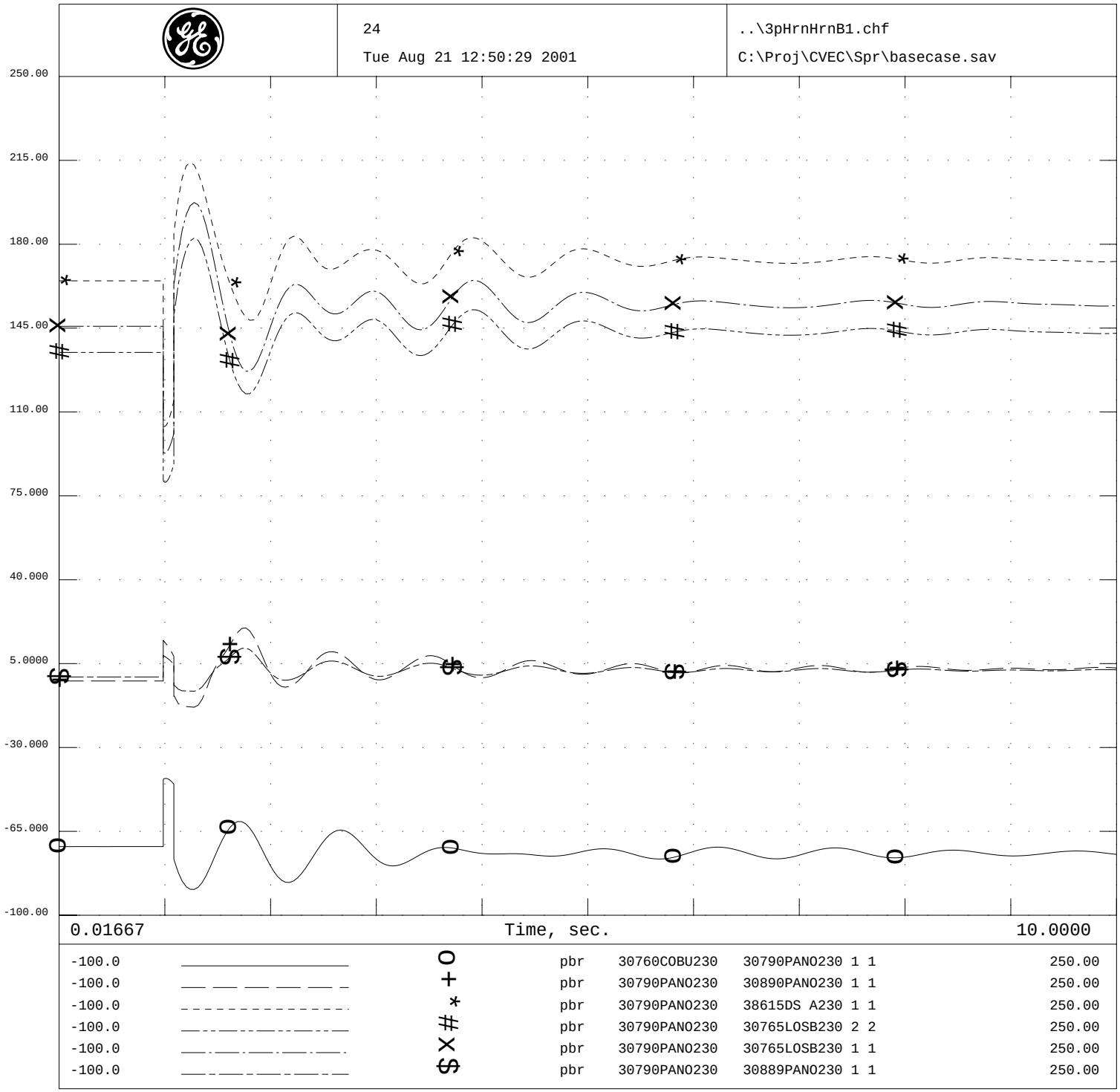

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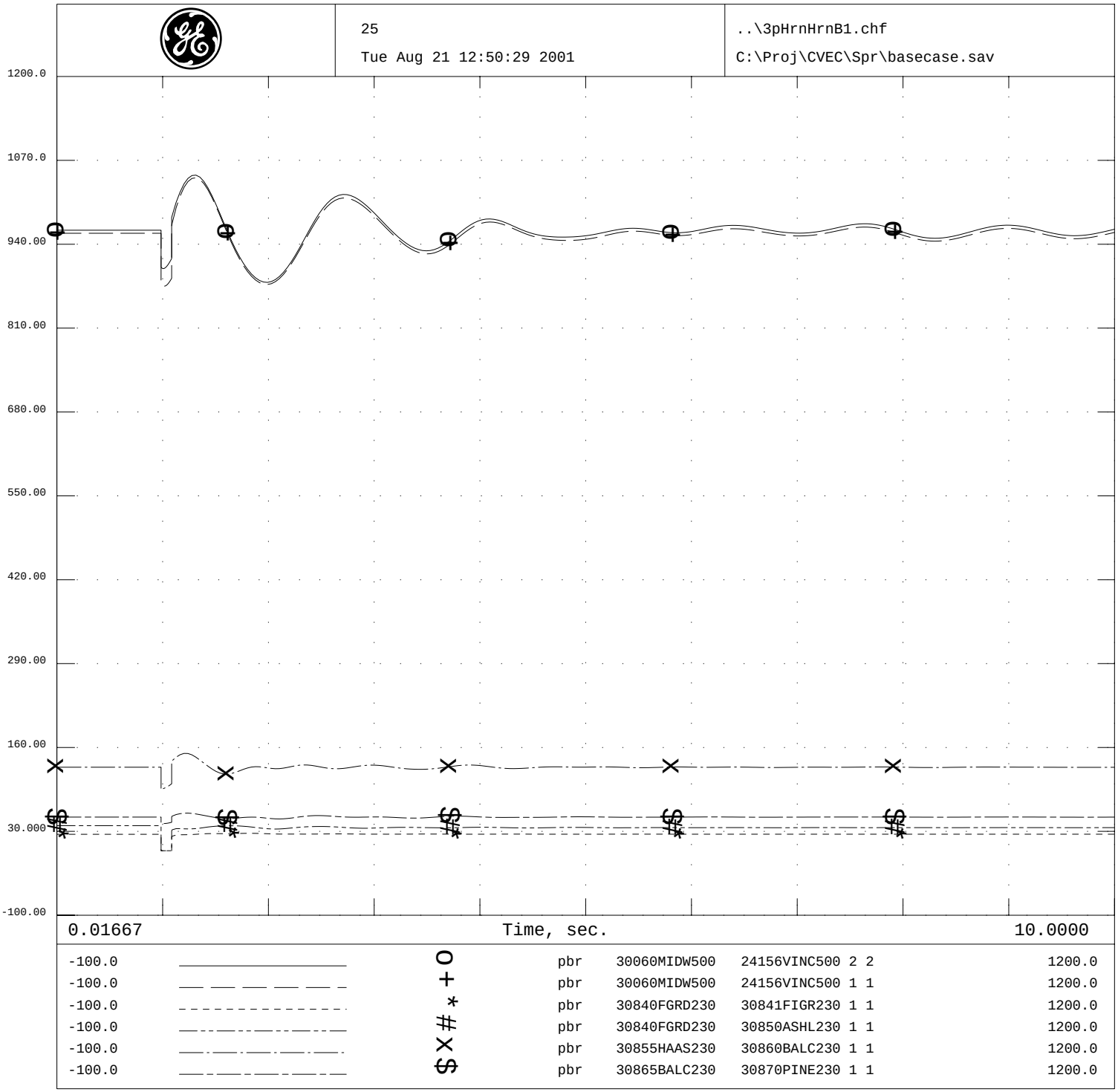

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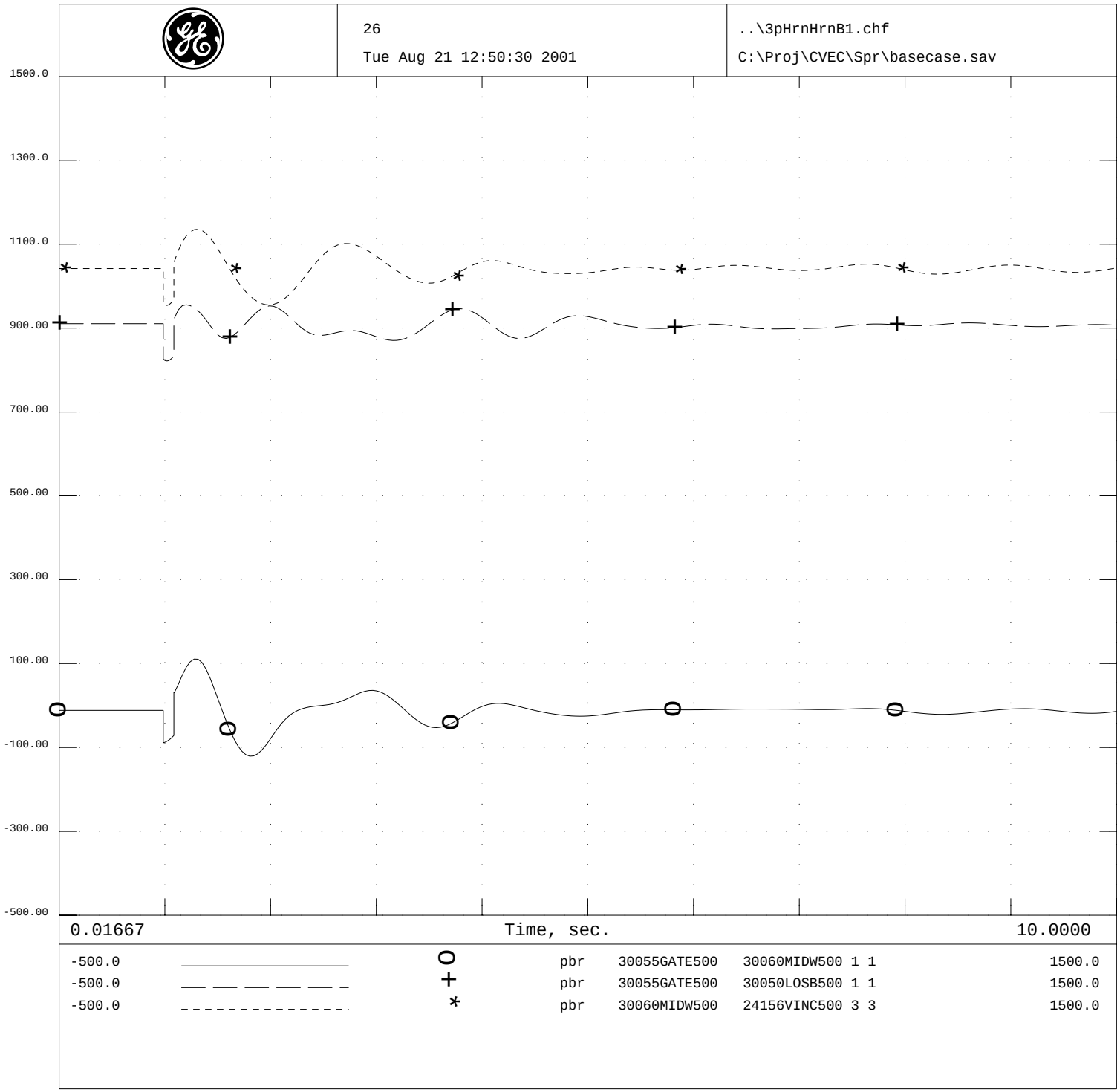

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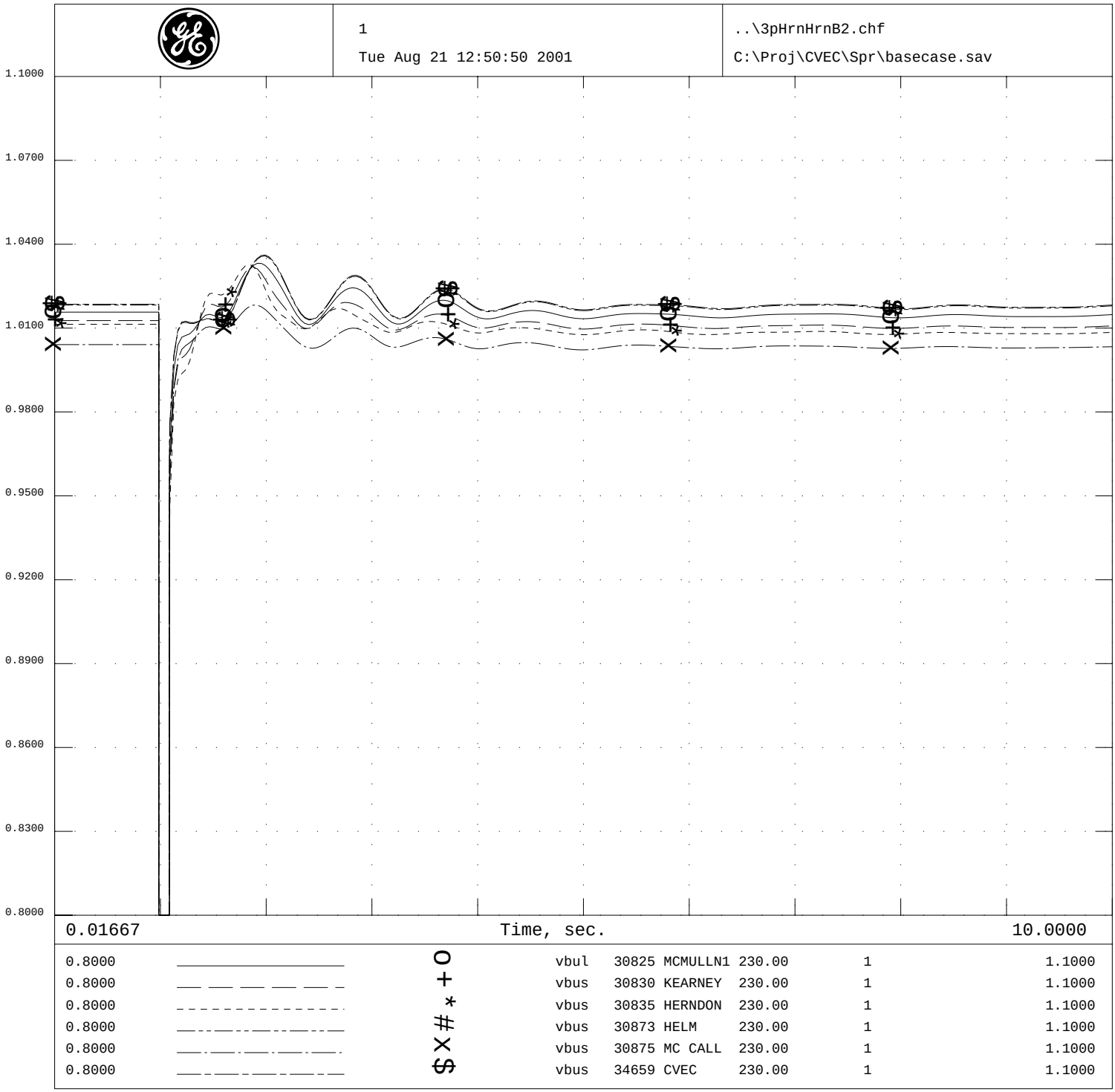

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2004 Heavy Spring Base Case
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Herndon 230kV Bus #2 Outage
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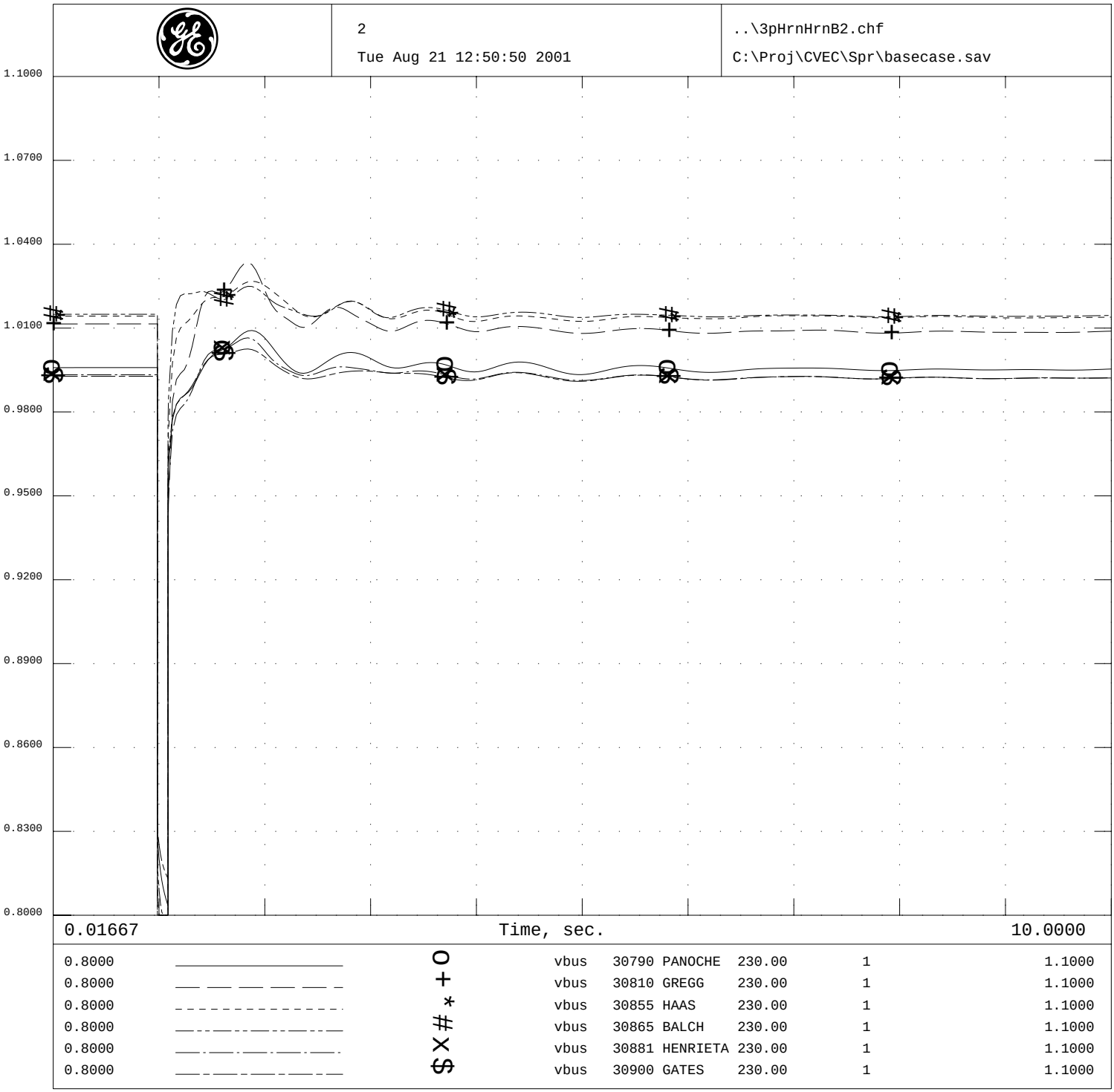
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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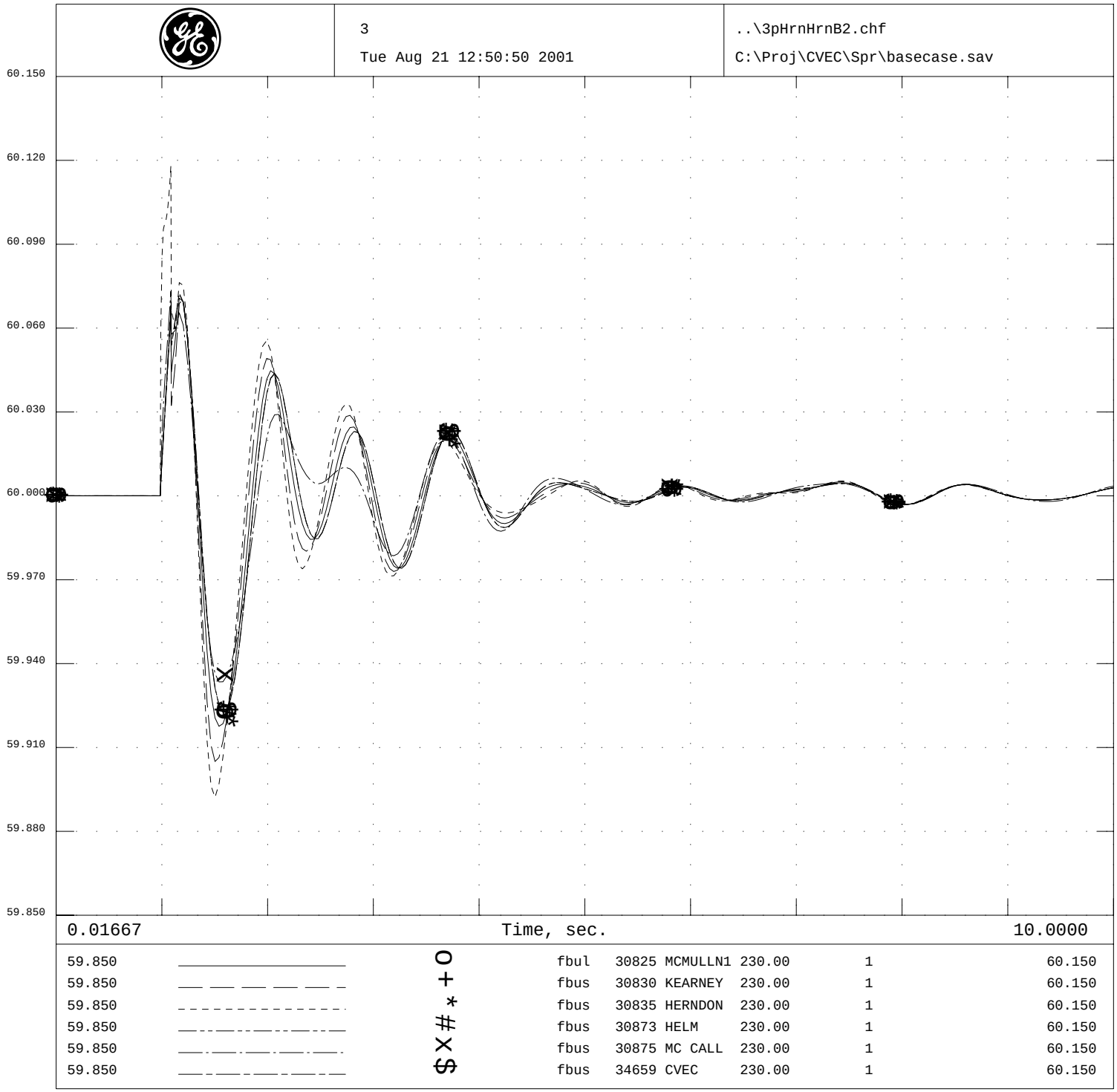

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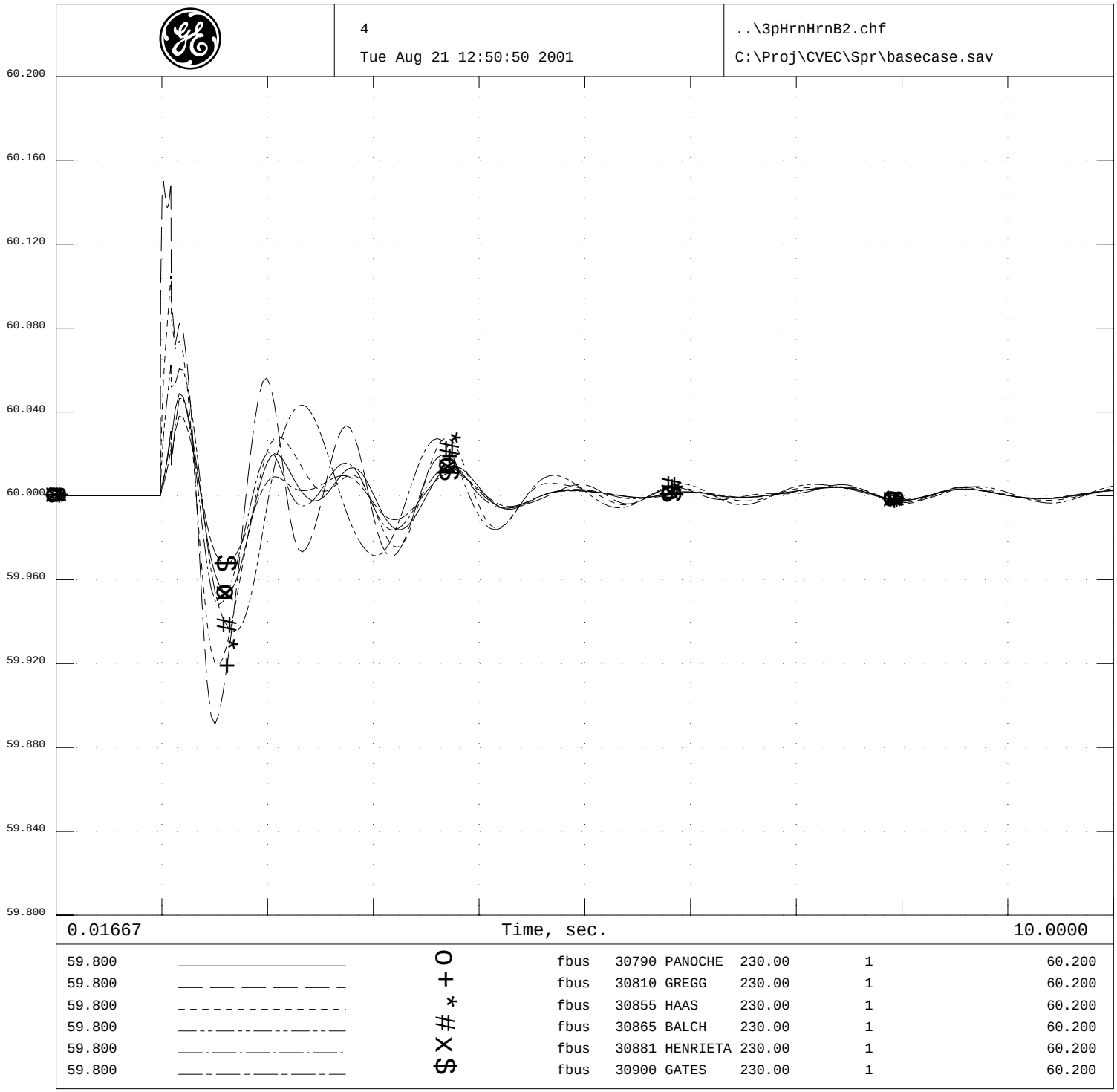
Herndon 230kV Bus #2 Outage
3 phase 6 cycle fault at Herndon 230kV bus and clear bus #2

Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
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Central Valley Energy Center
Calpine Corporation
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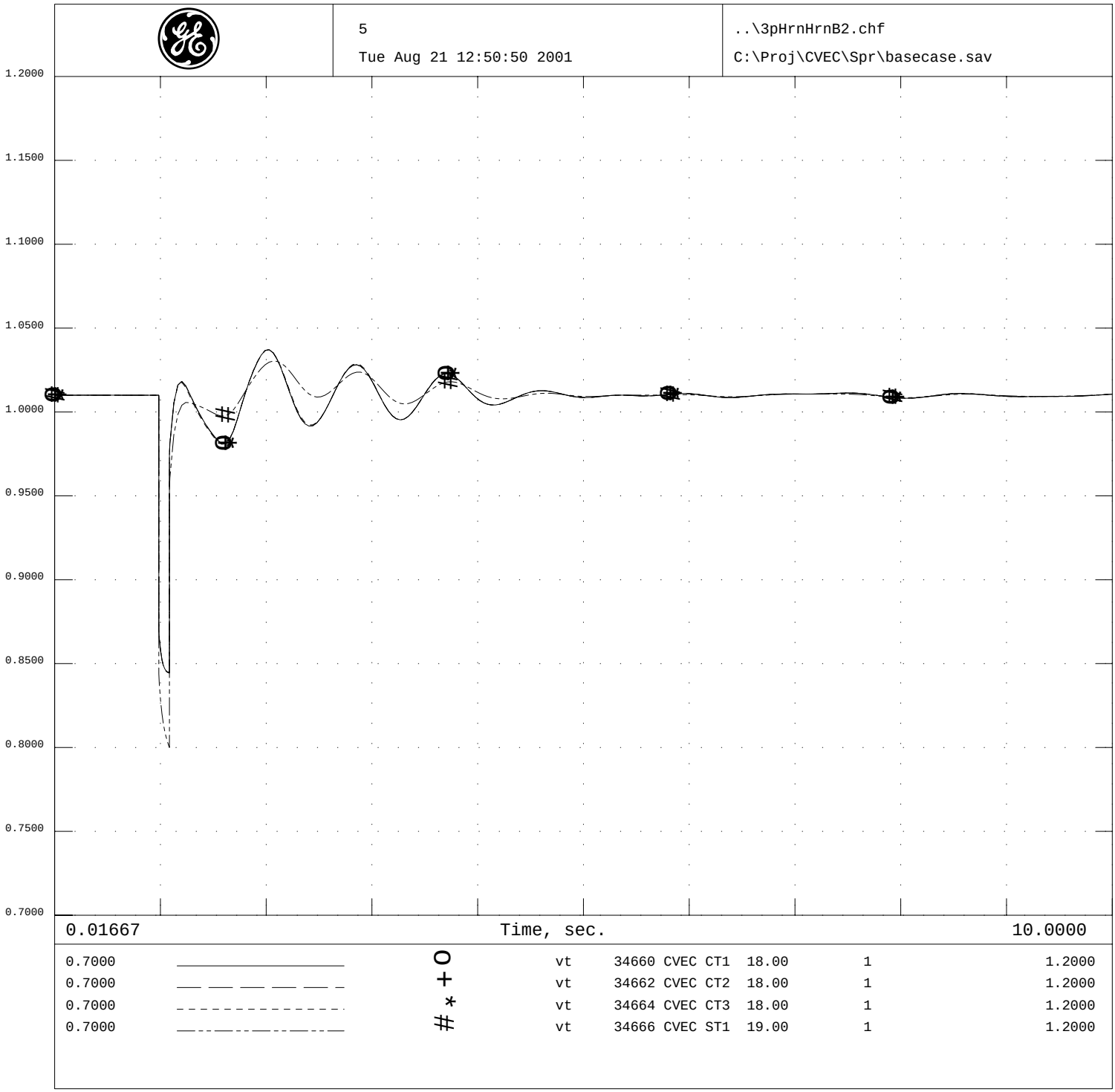

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
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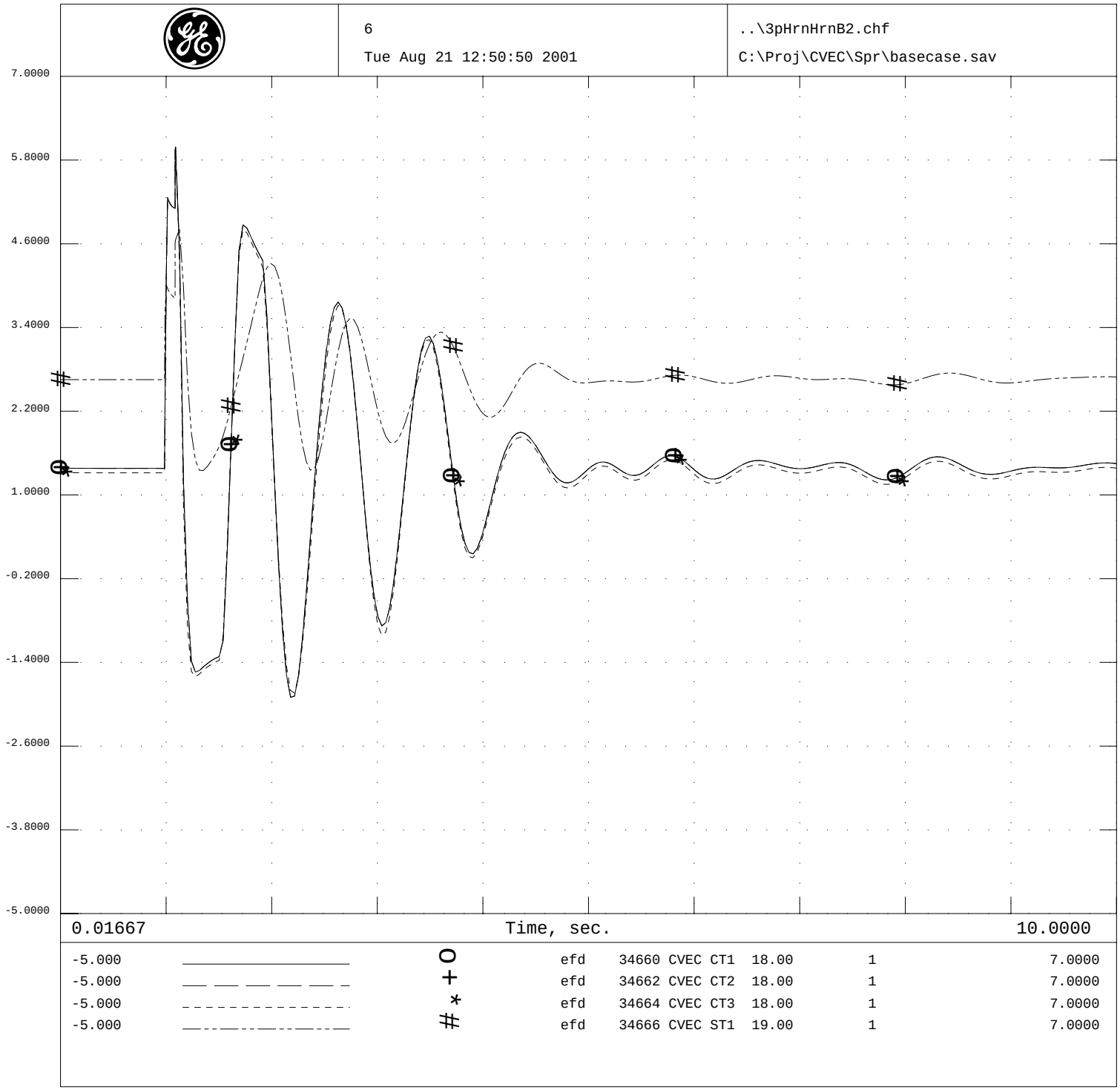
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Heavy Spring Base Case
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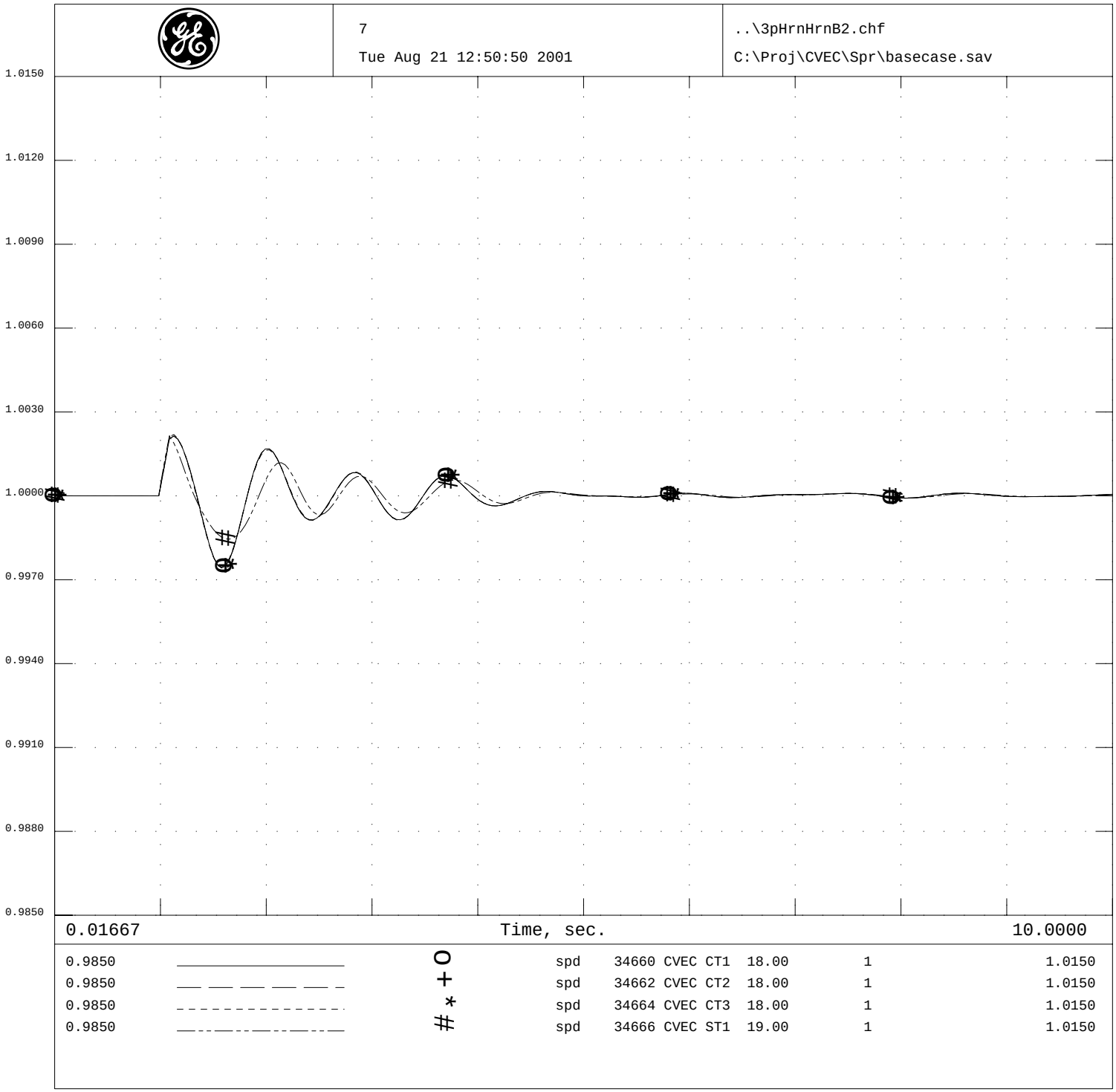
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
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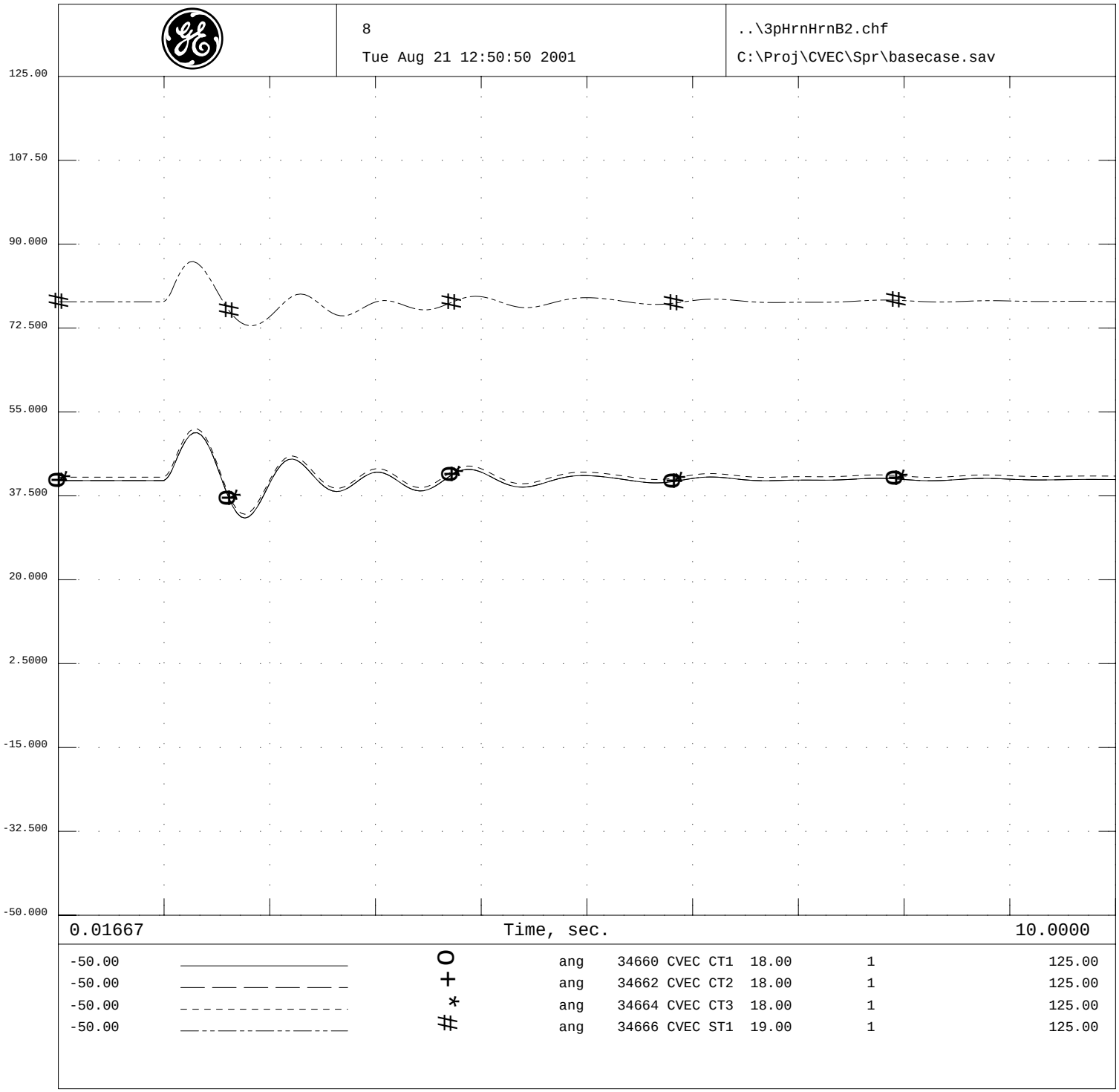
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Heavy Spring Base Case
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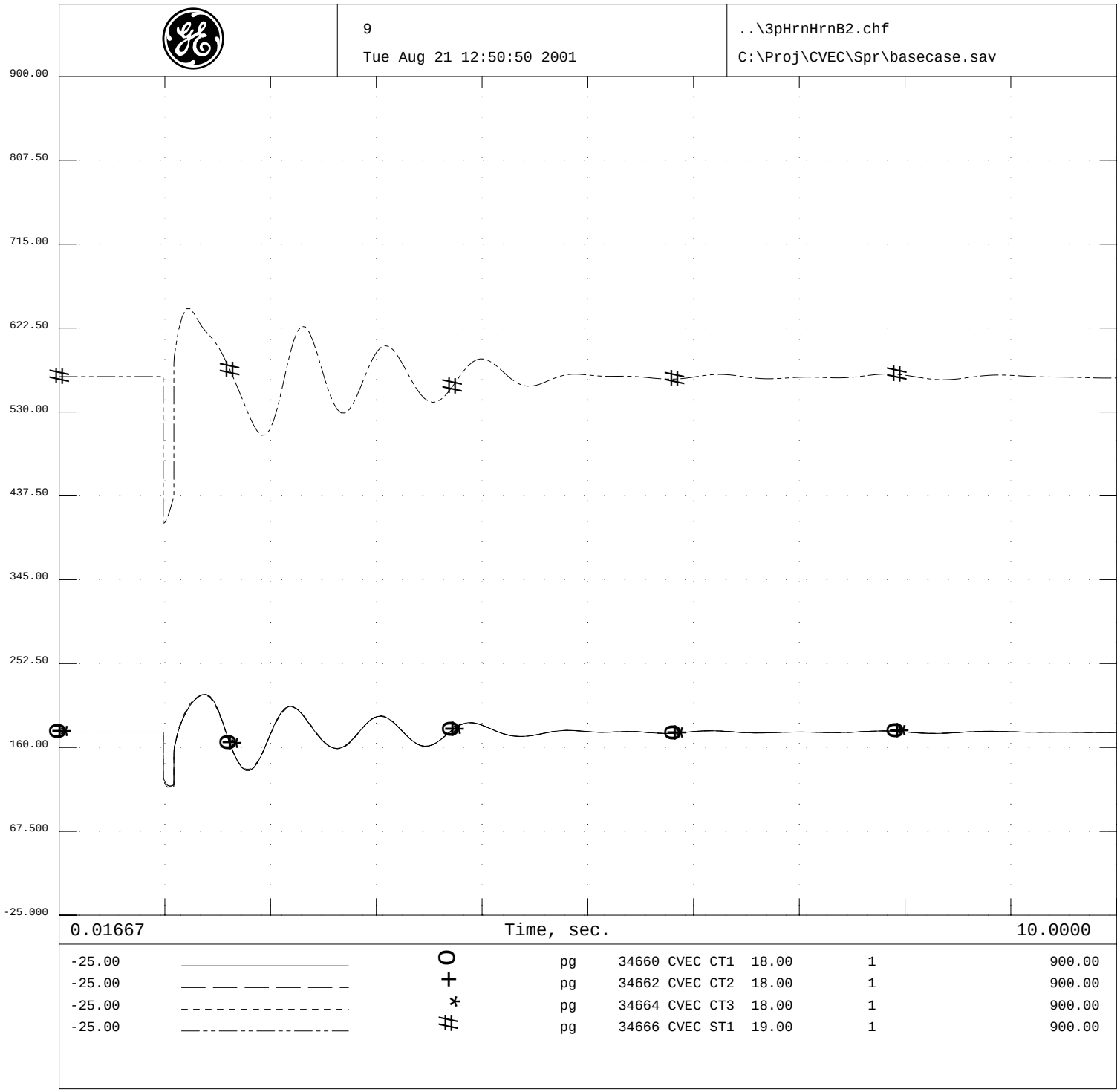
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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2004 Heavy Spring Base Case
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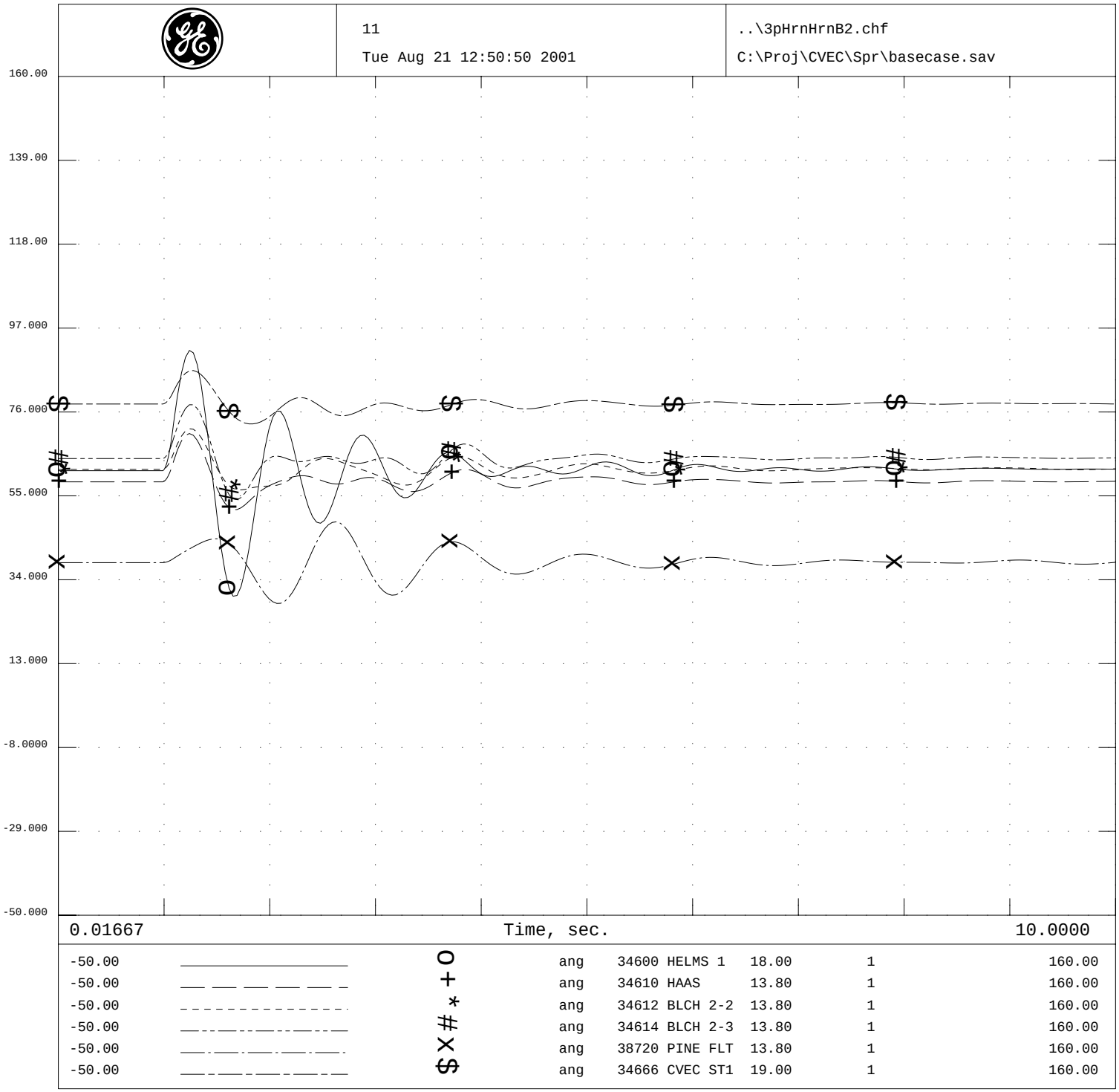
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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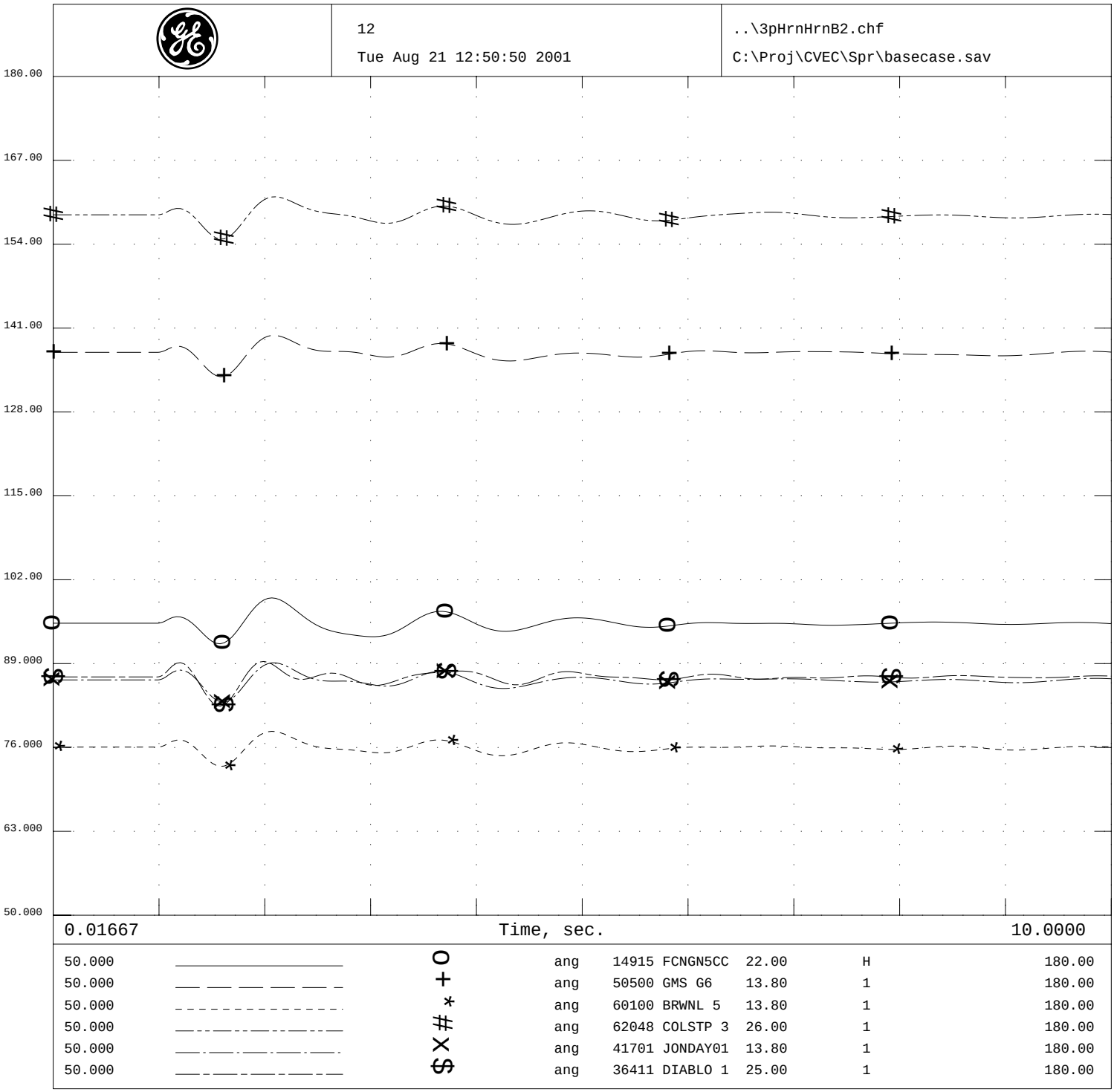
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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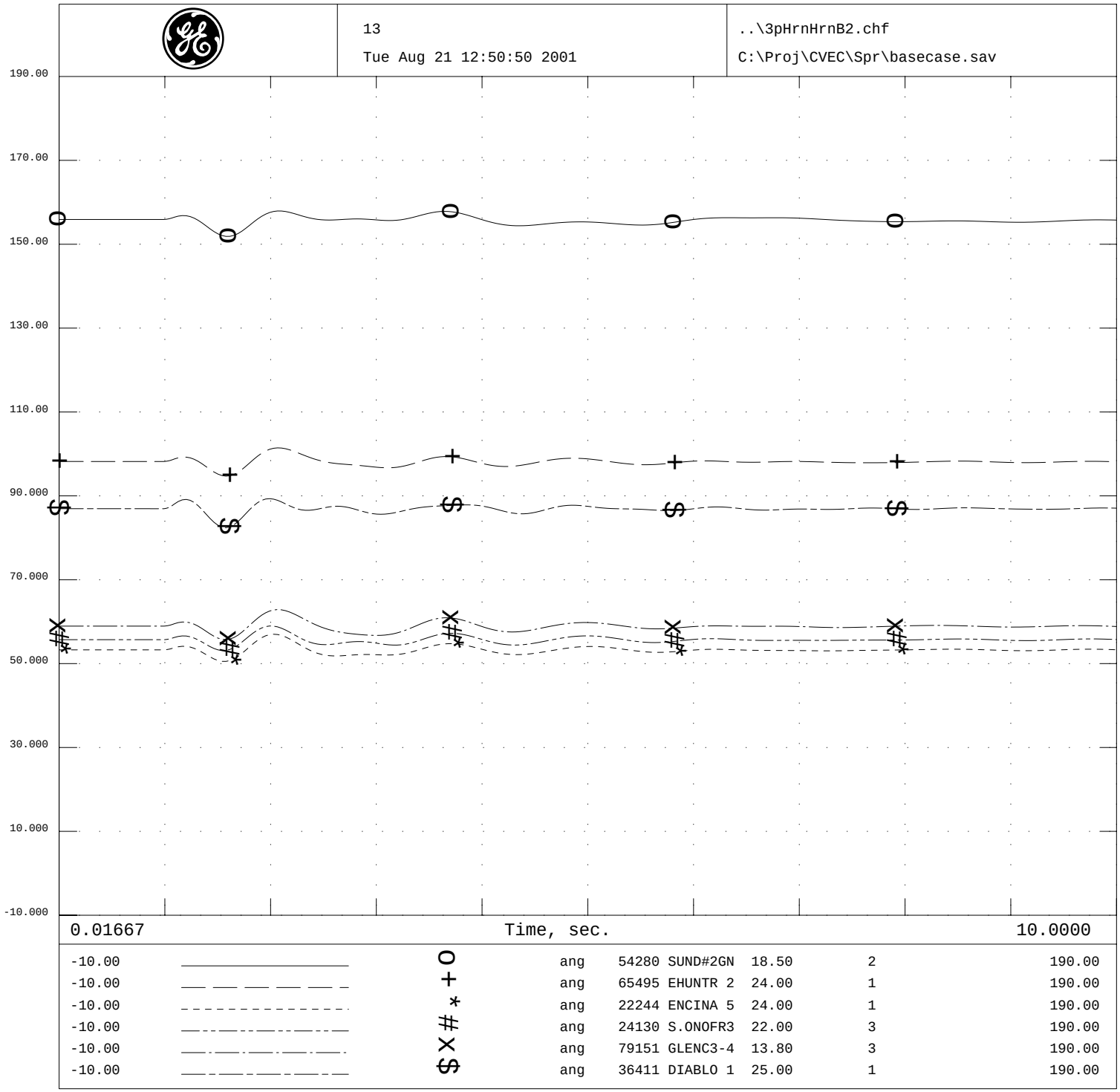
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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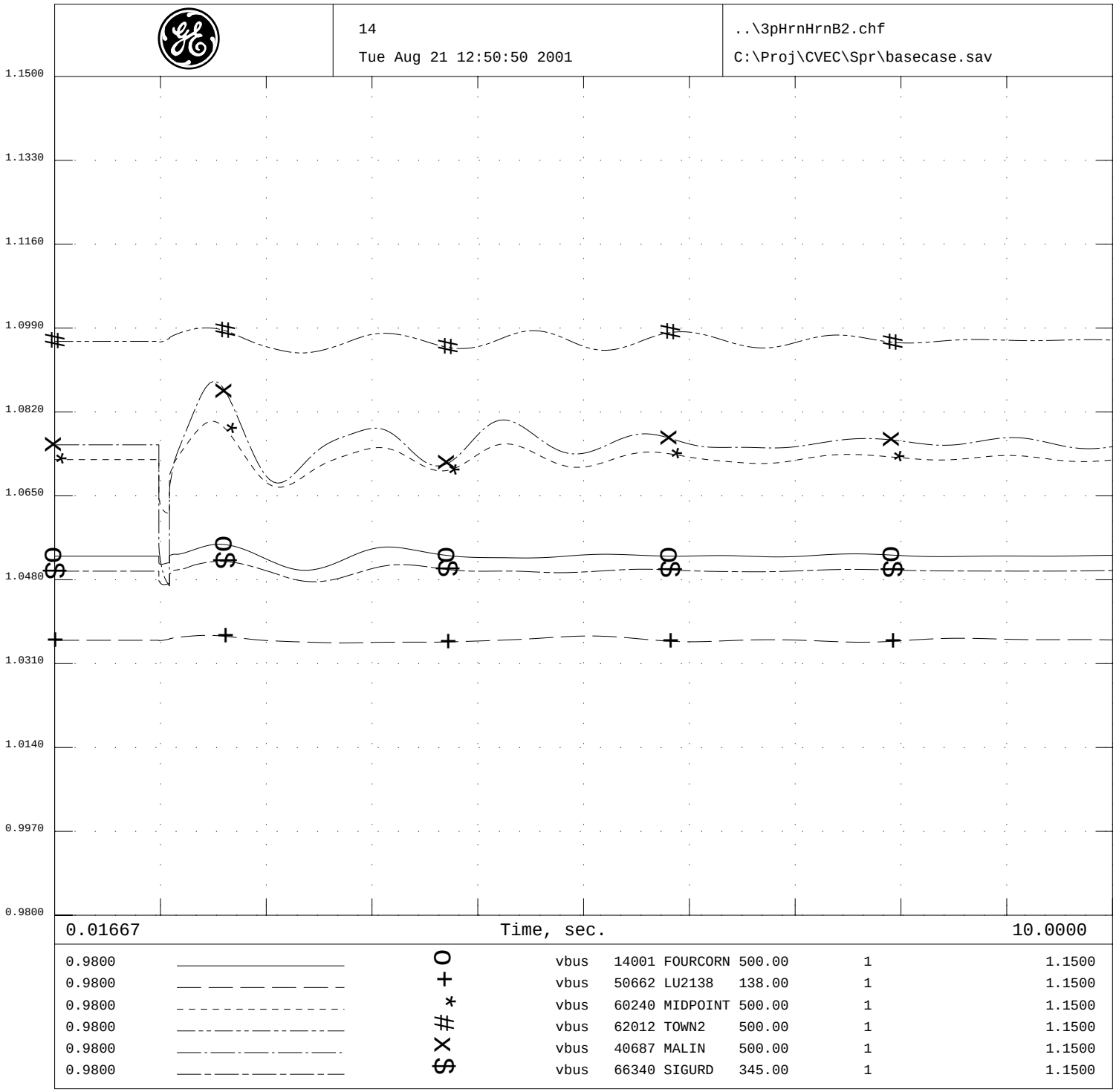

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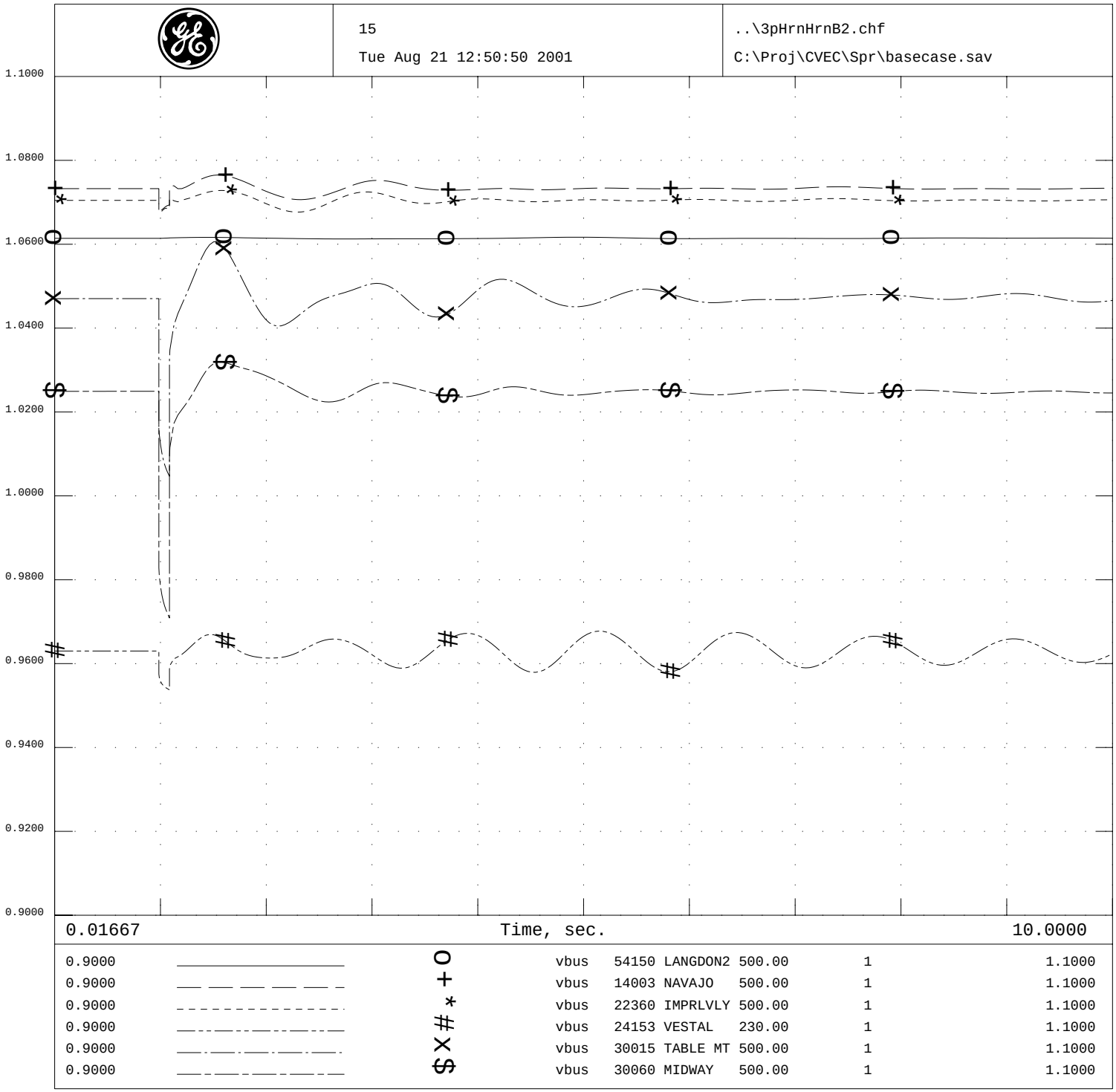
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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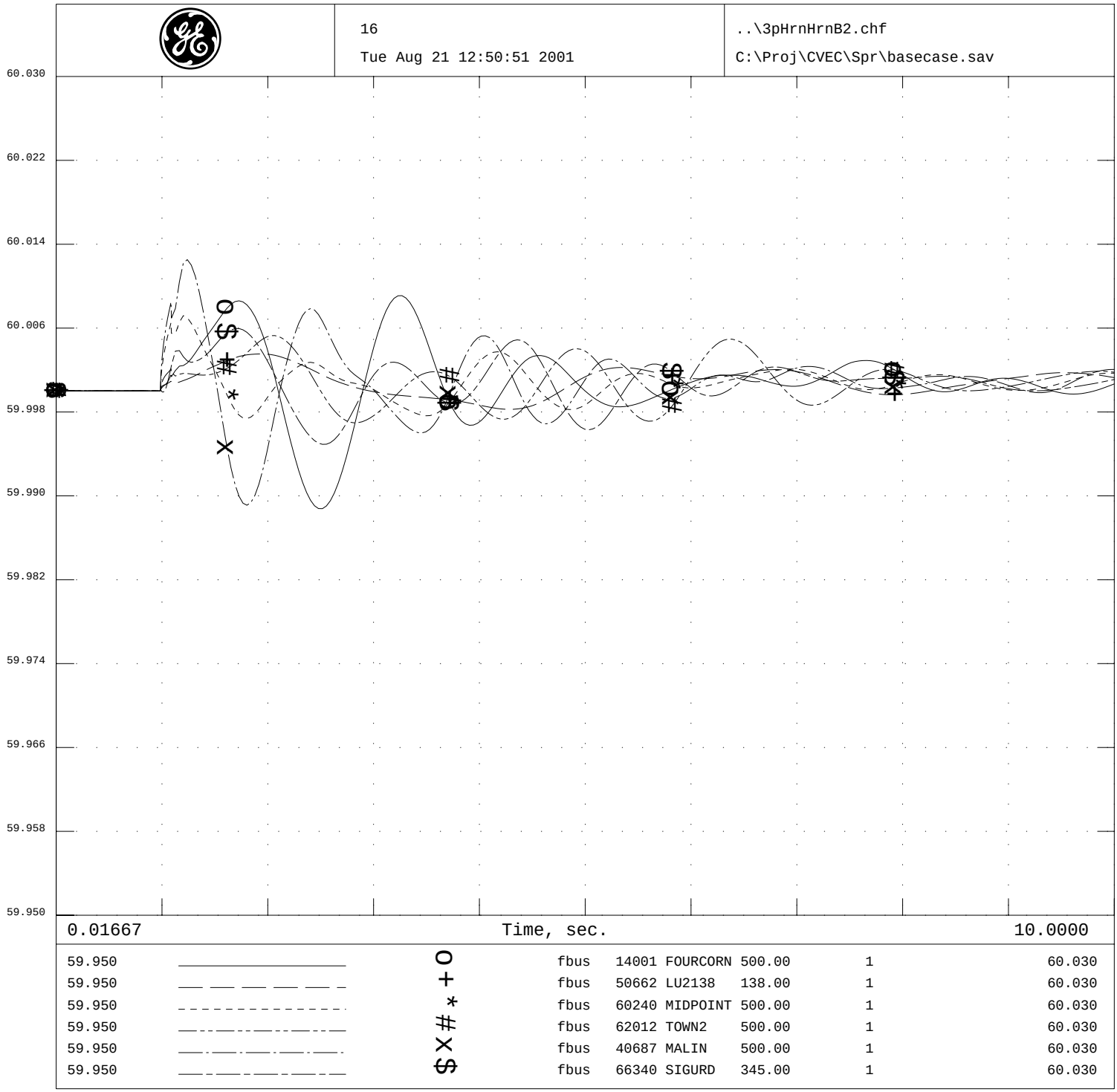

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Calpine Corporation
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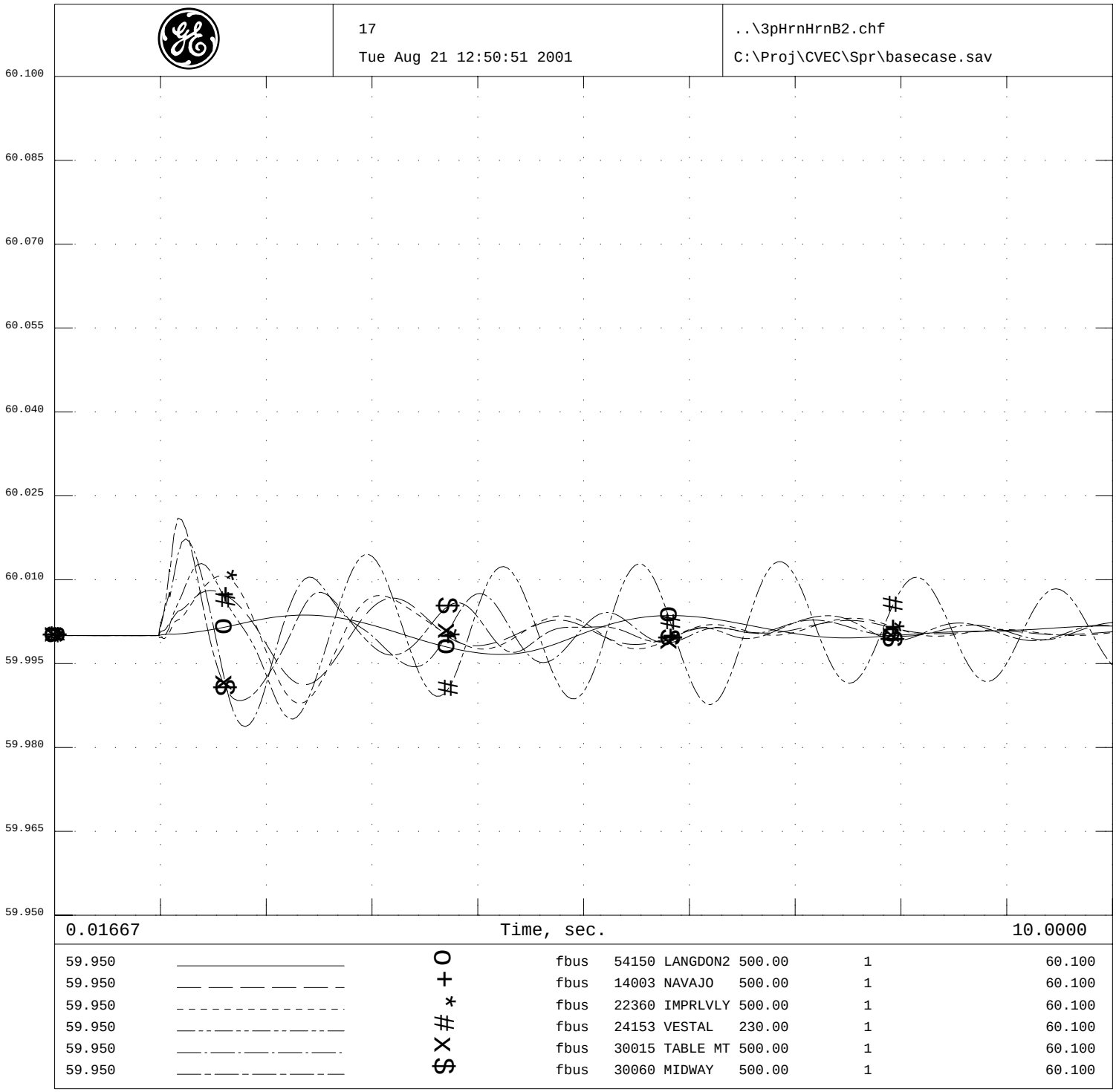

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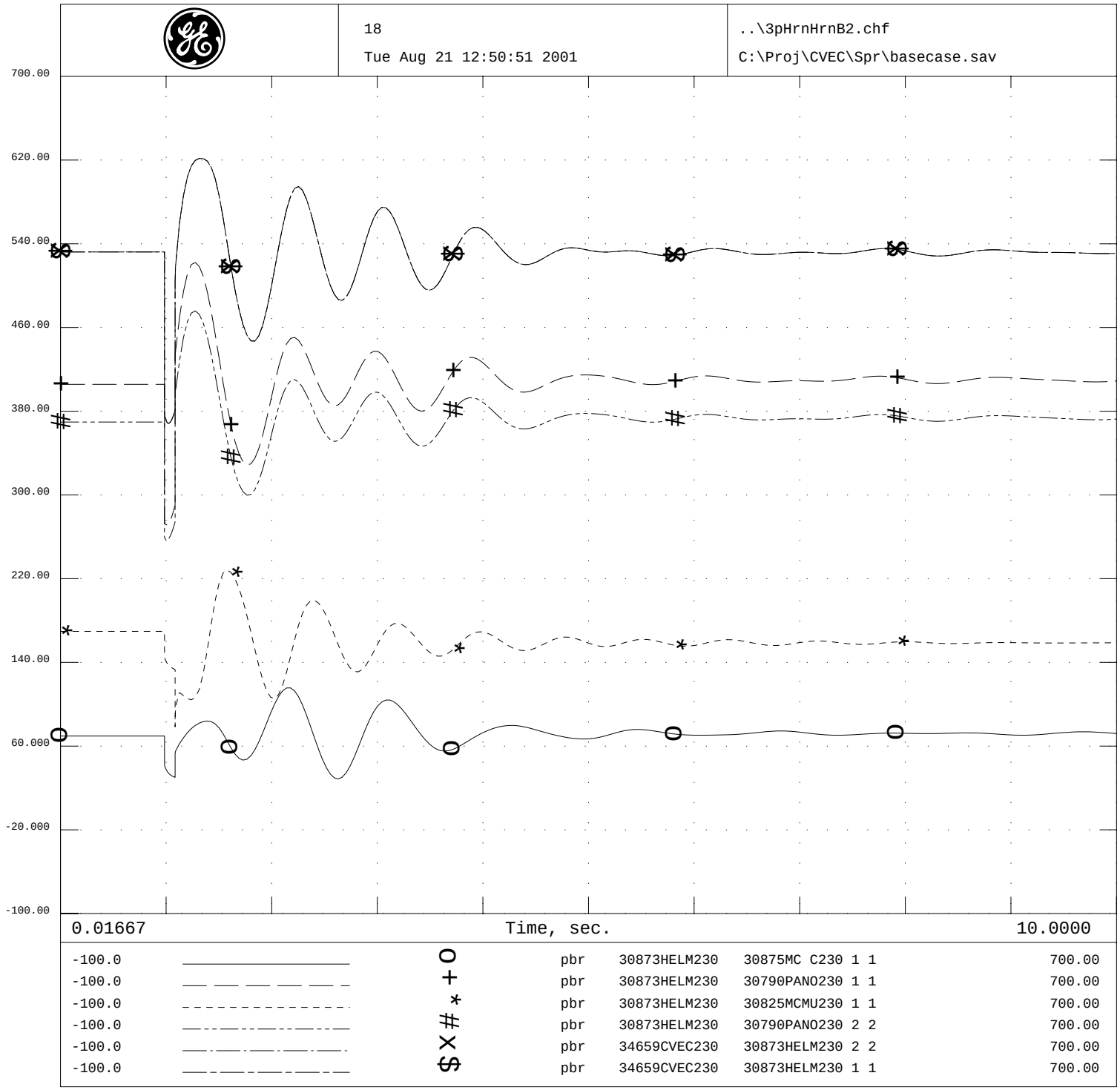

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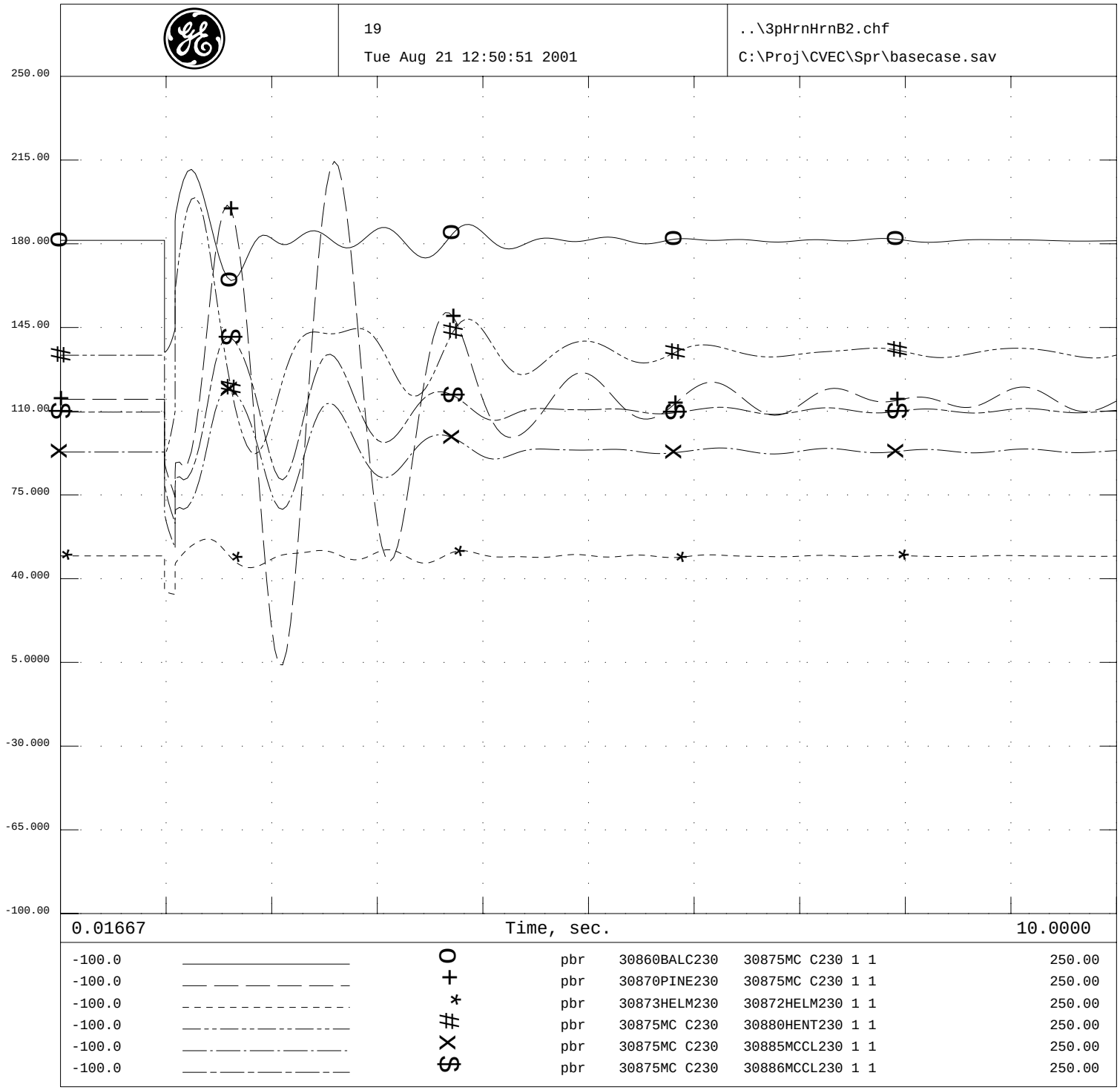
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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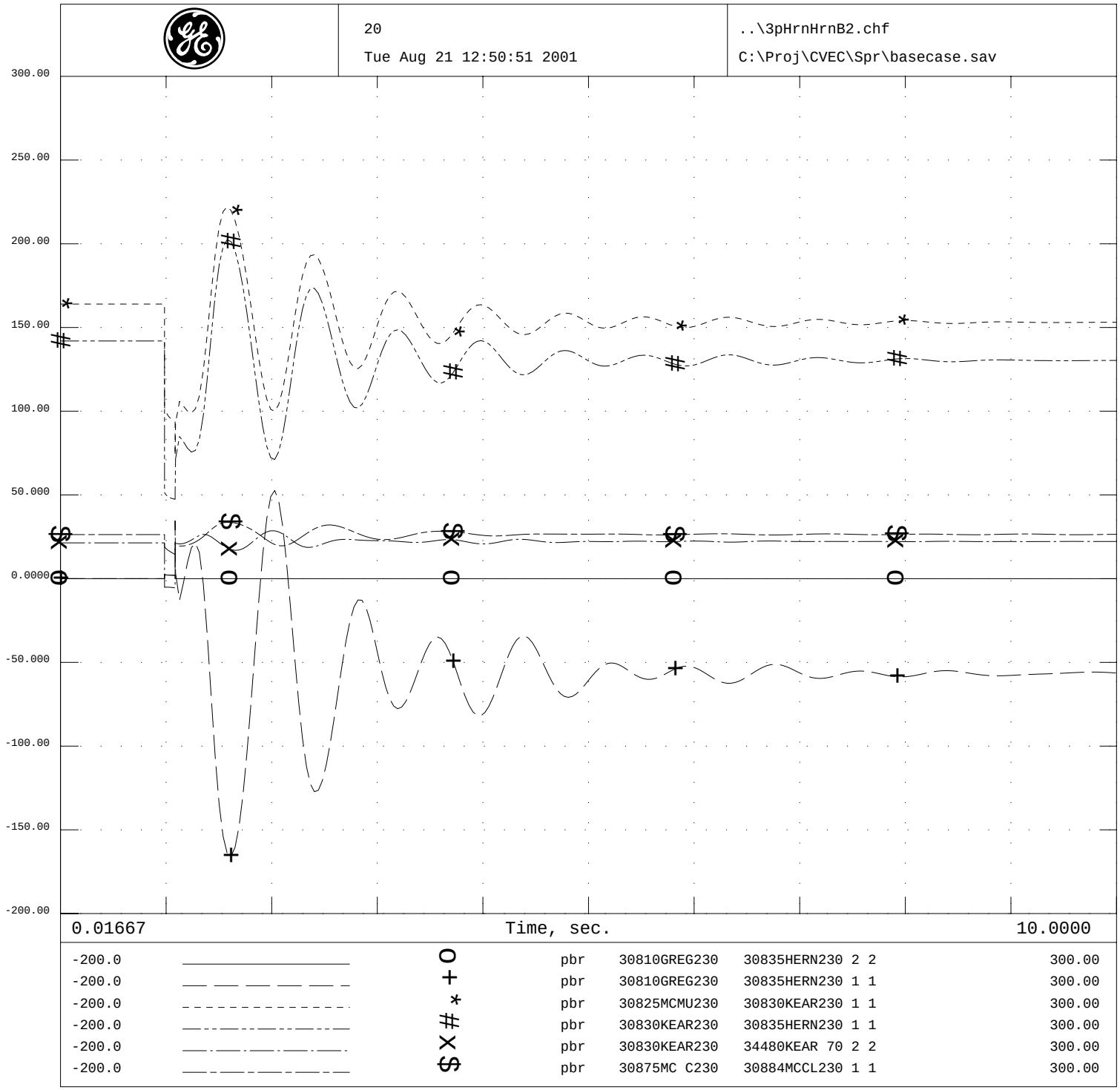

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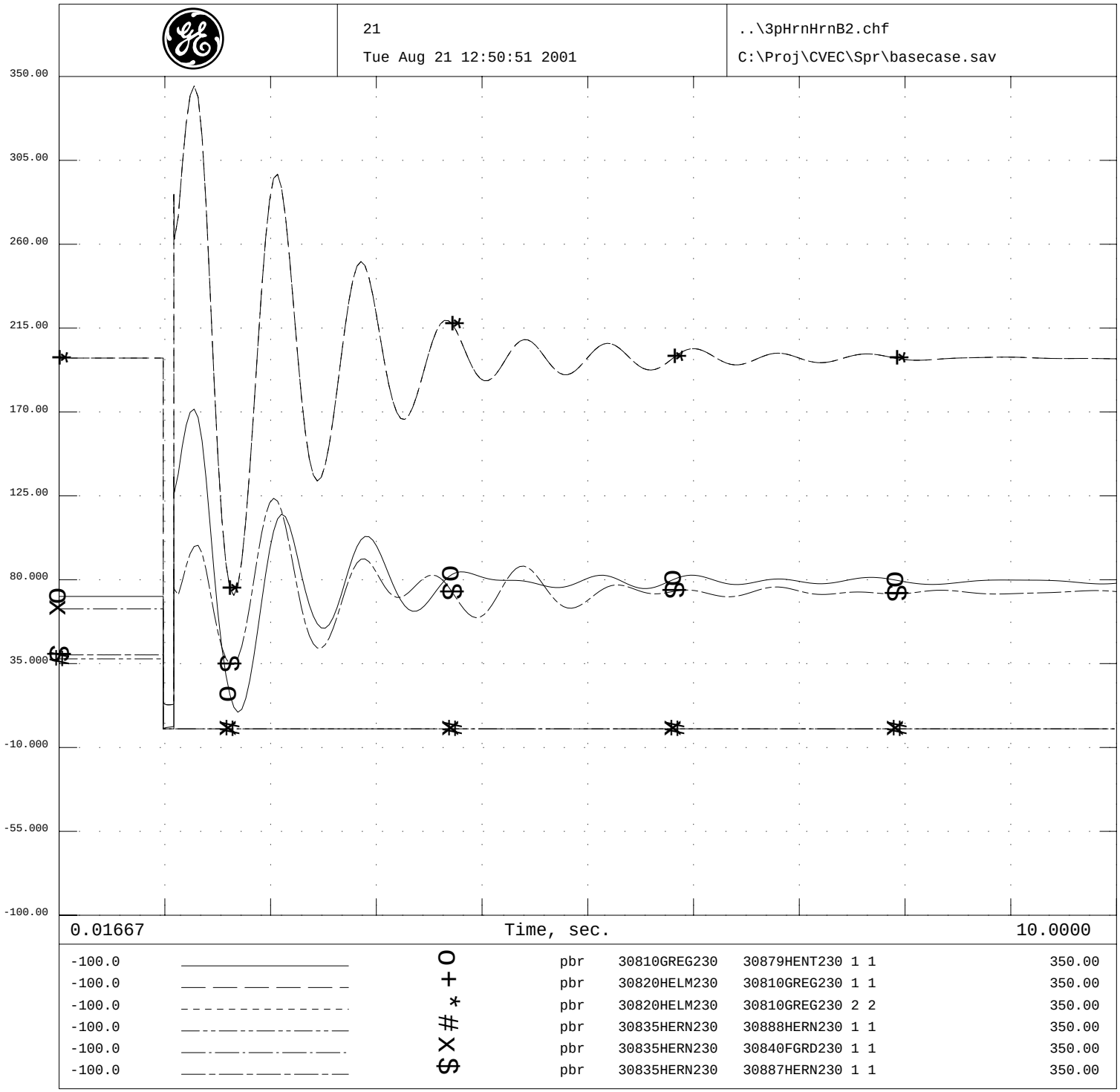

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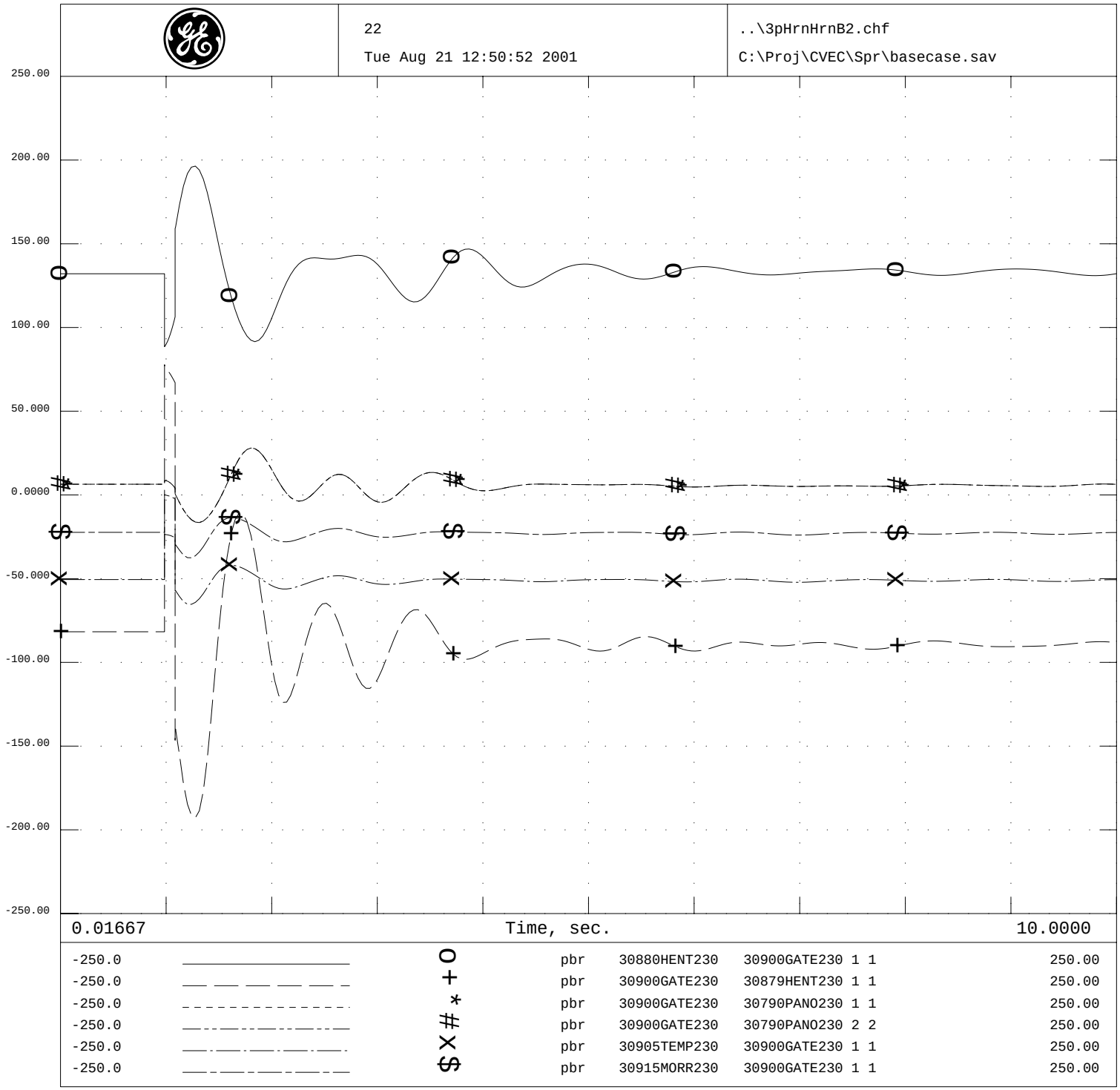

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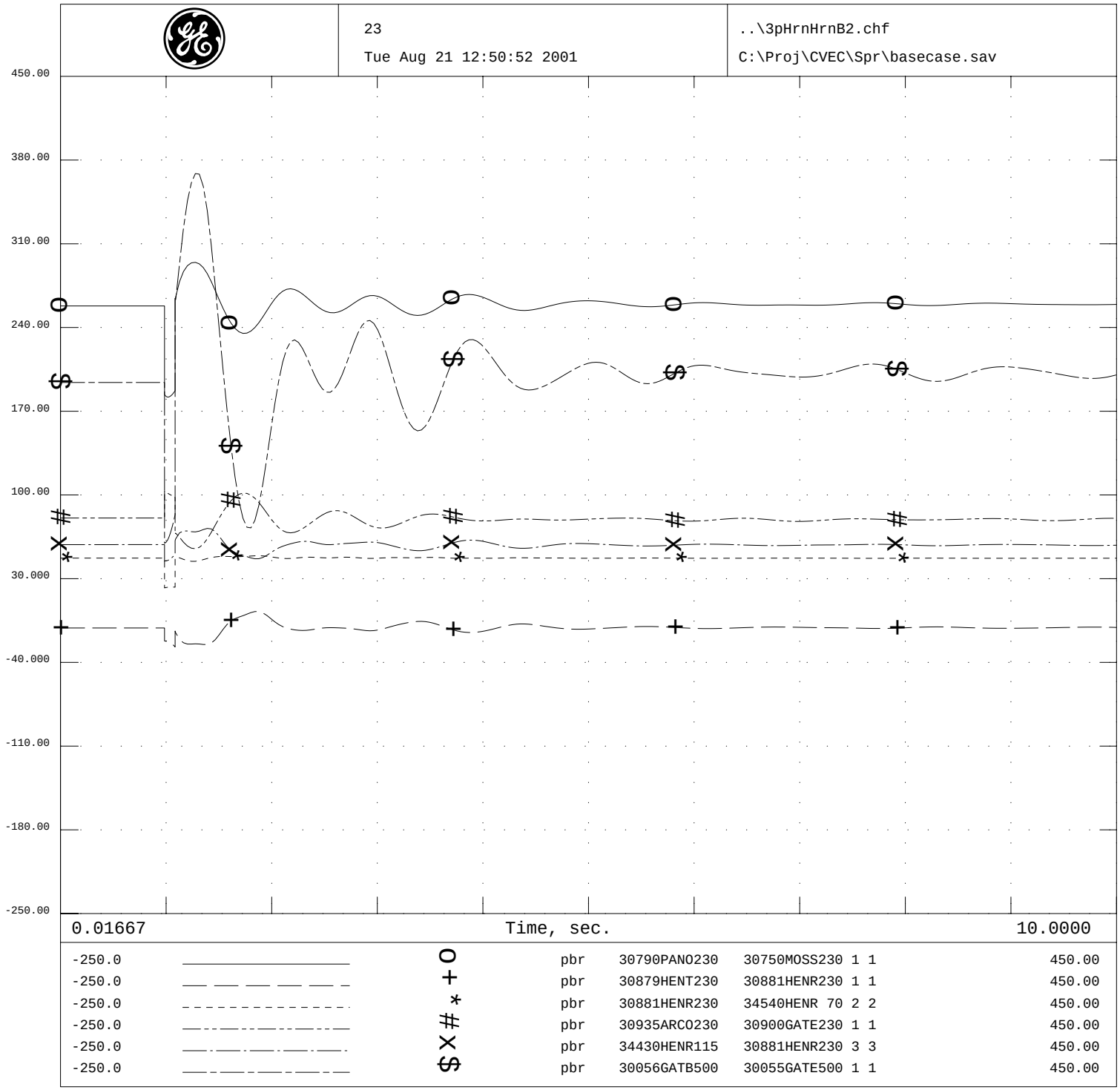

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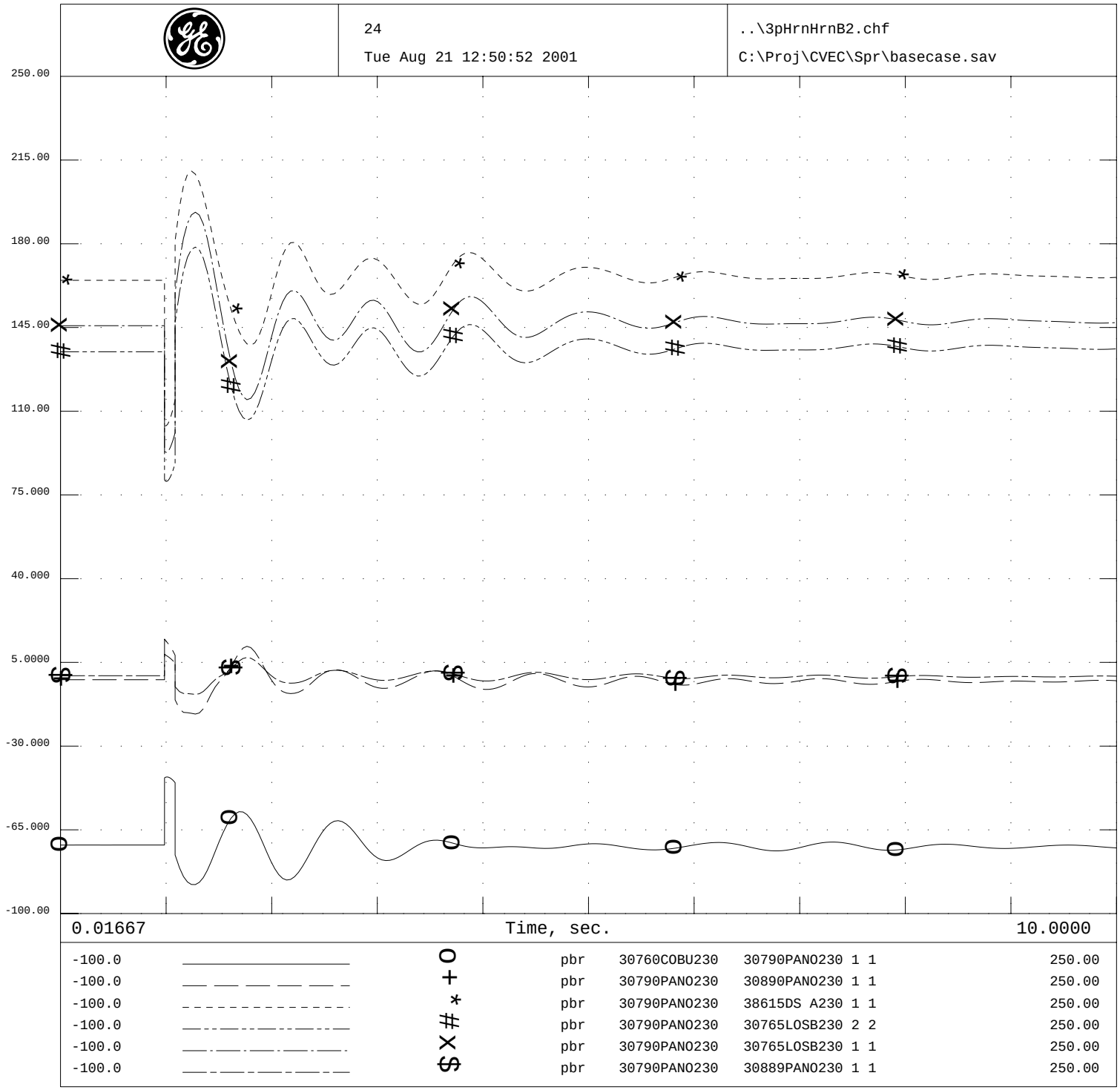

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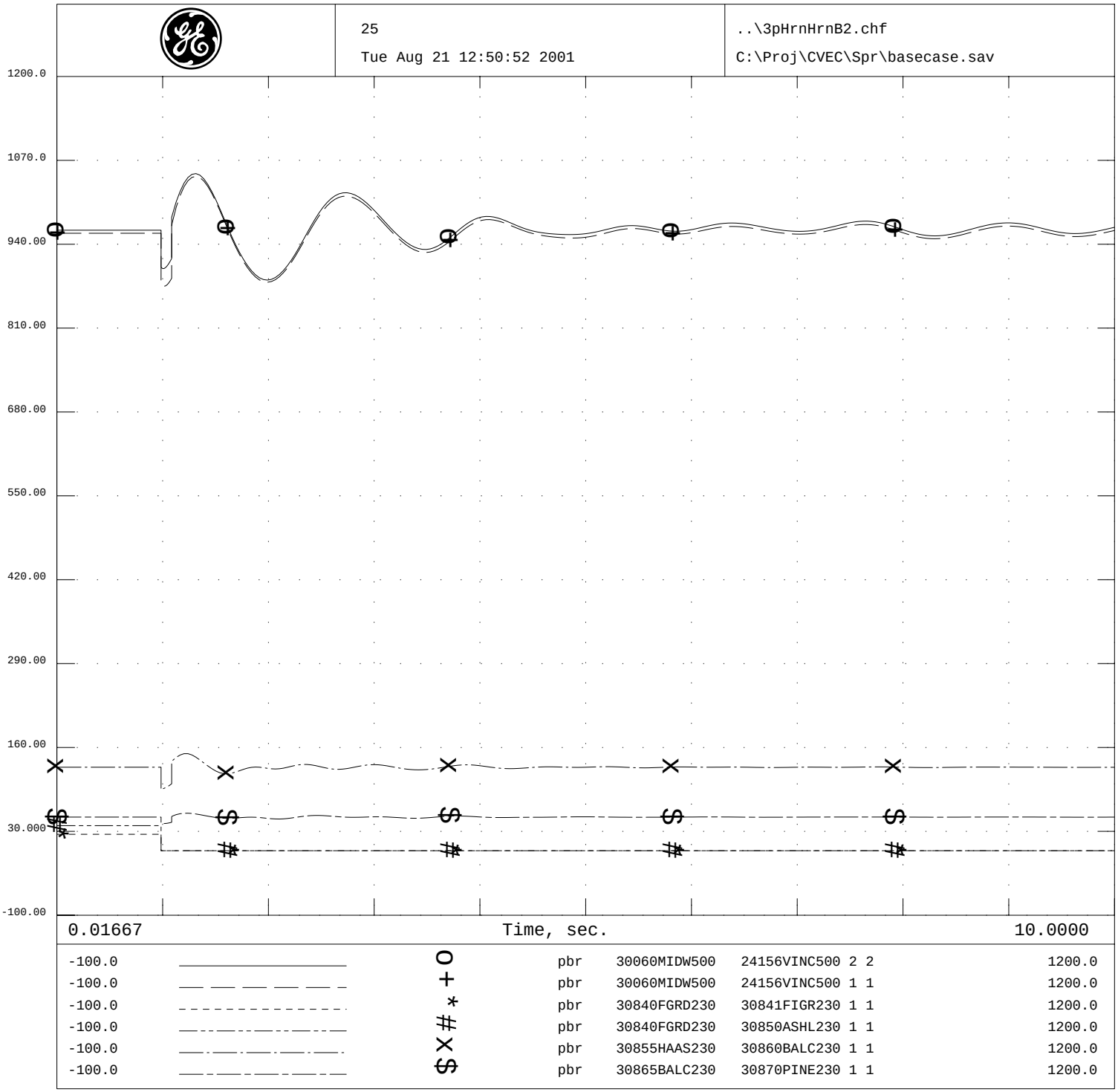

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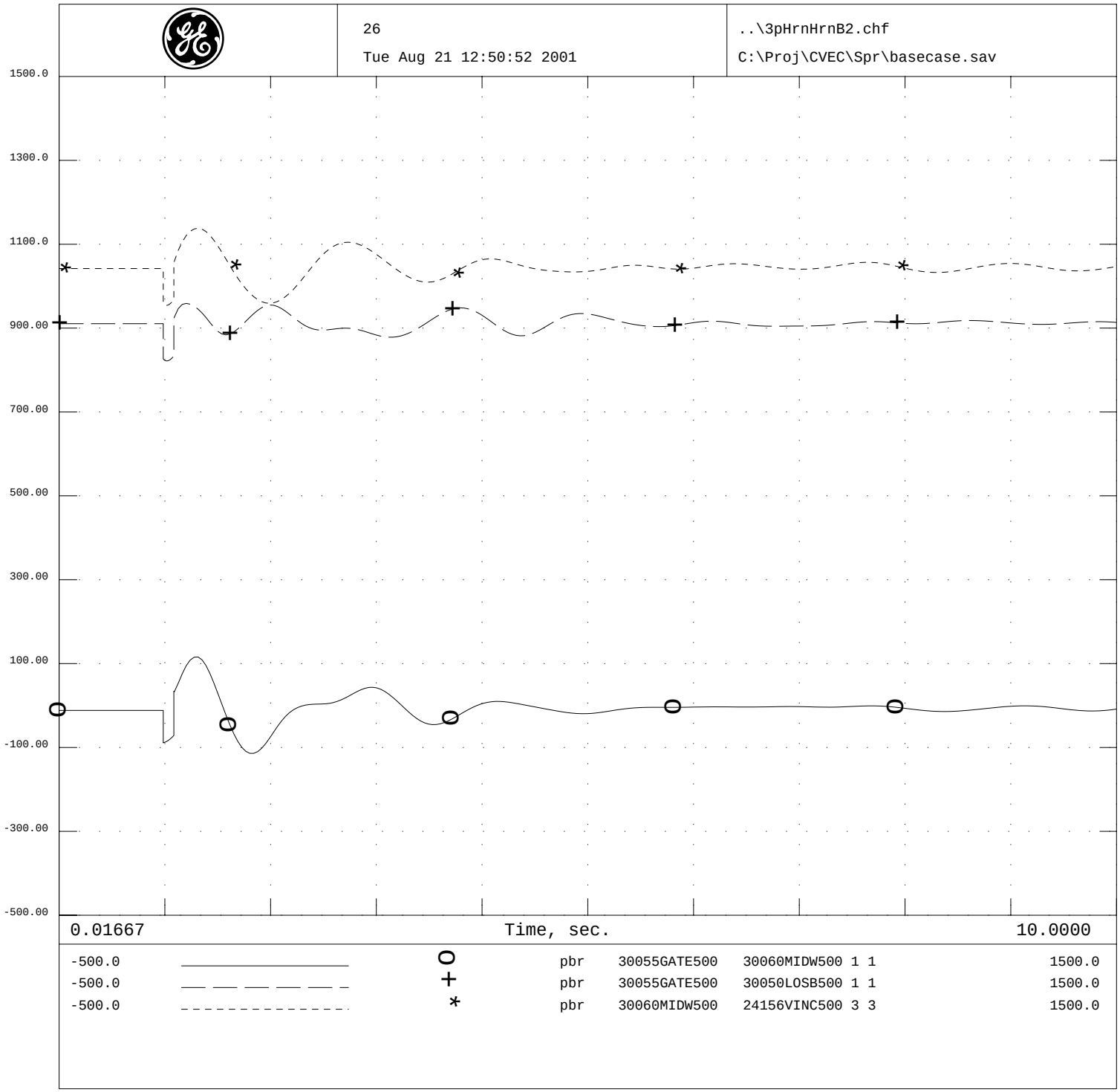

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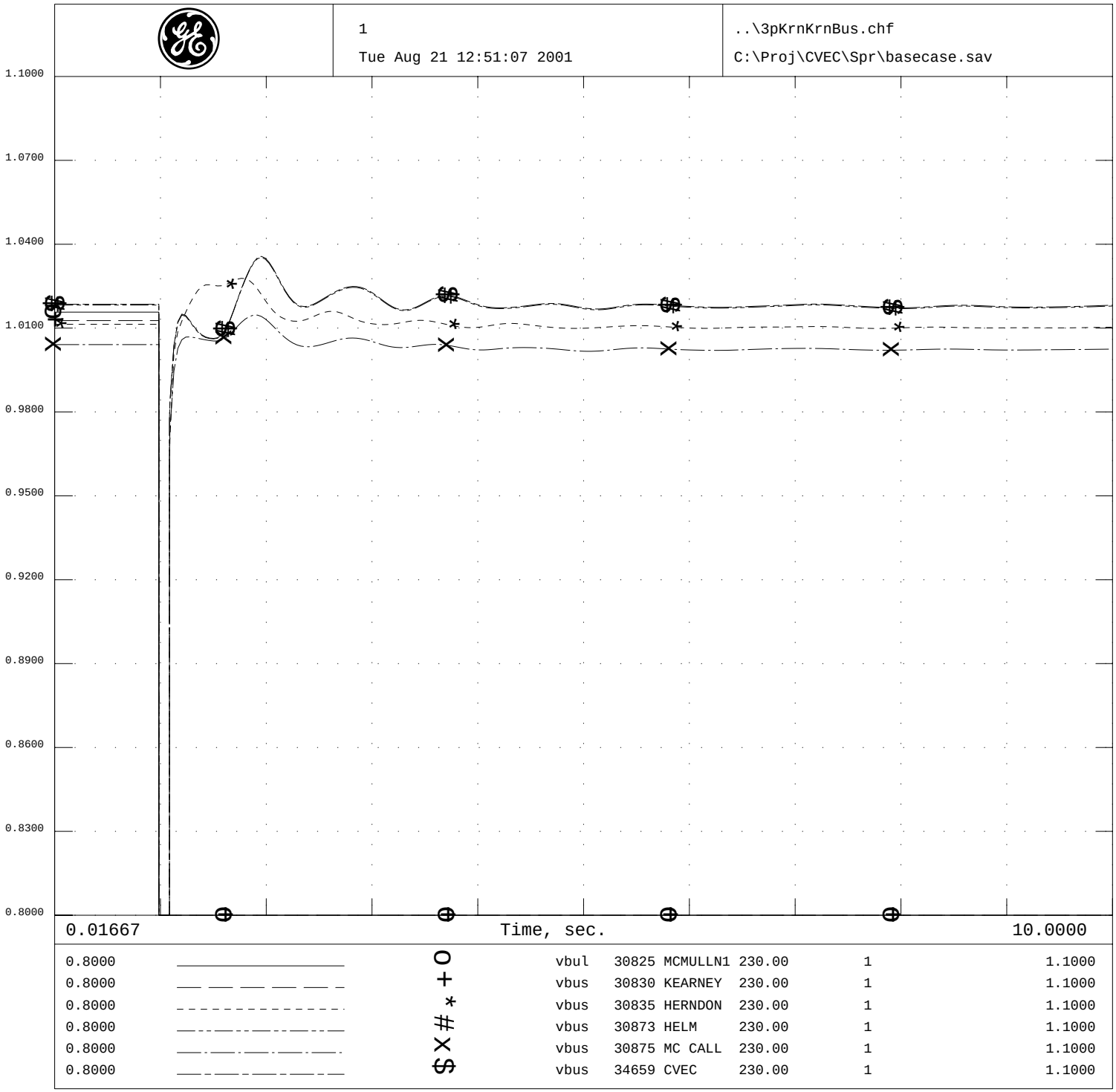

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
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Kearny 230kV Bus Outage
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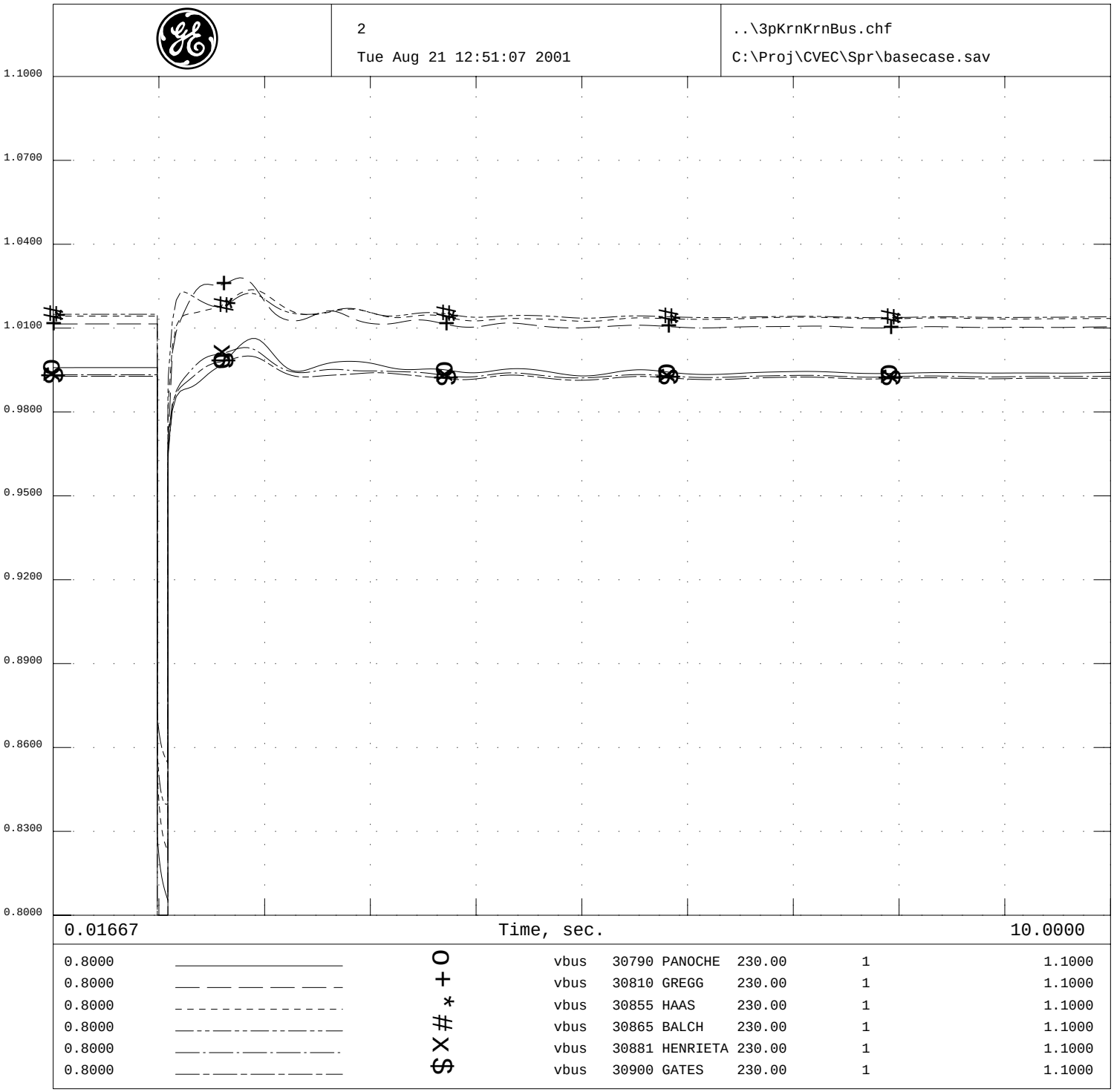
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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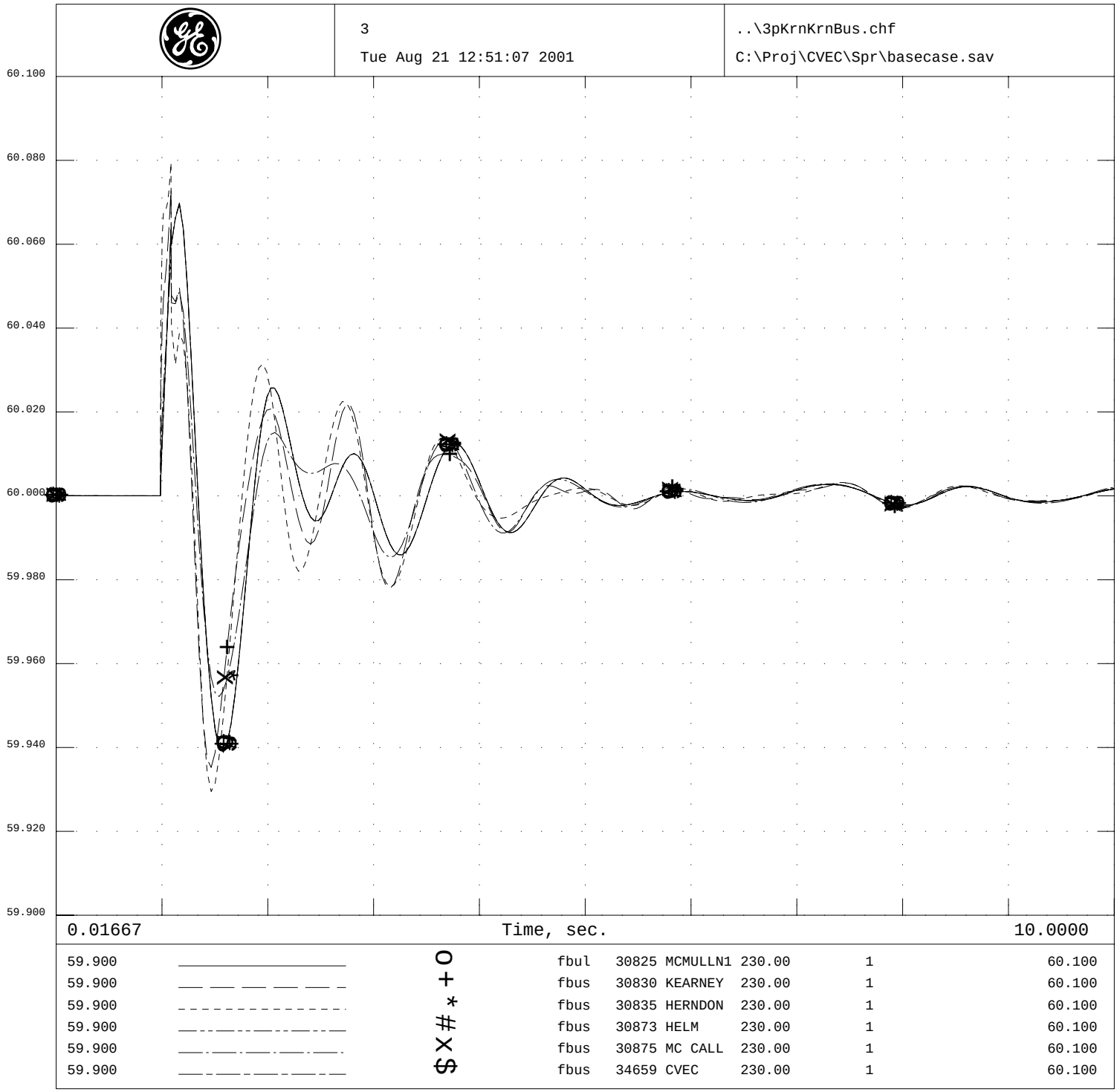

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Calpine Corporation
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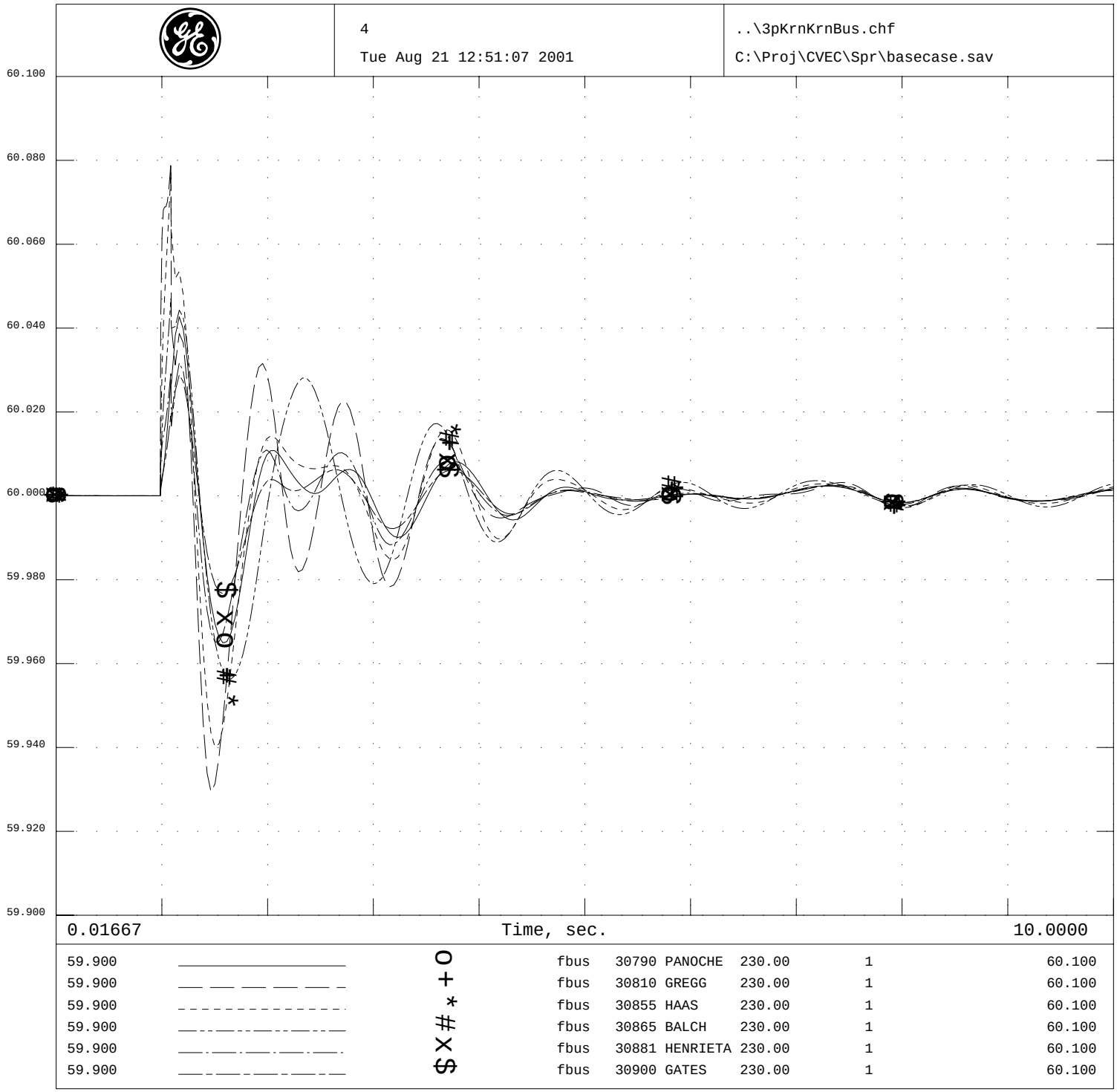

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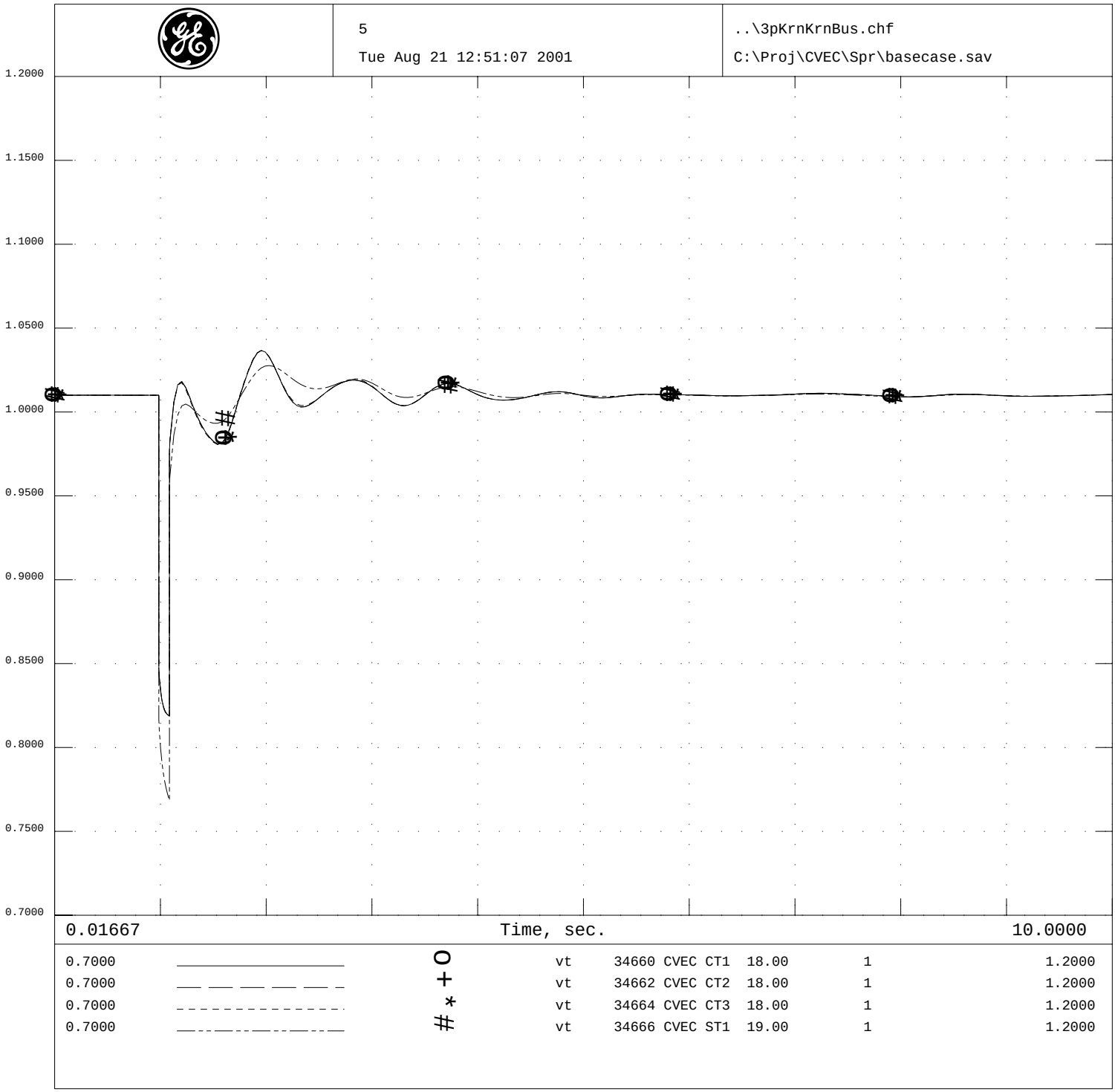

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2004 Heavy Spring Base Case
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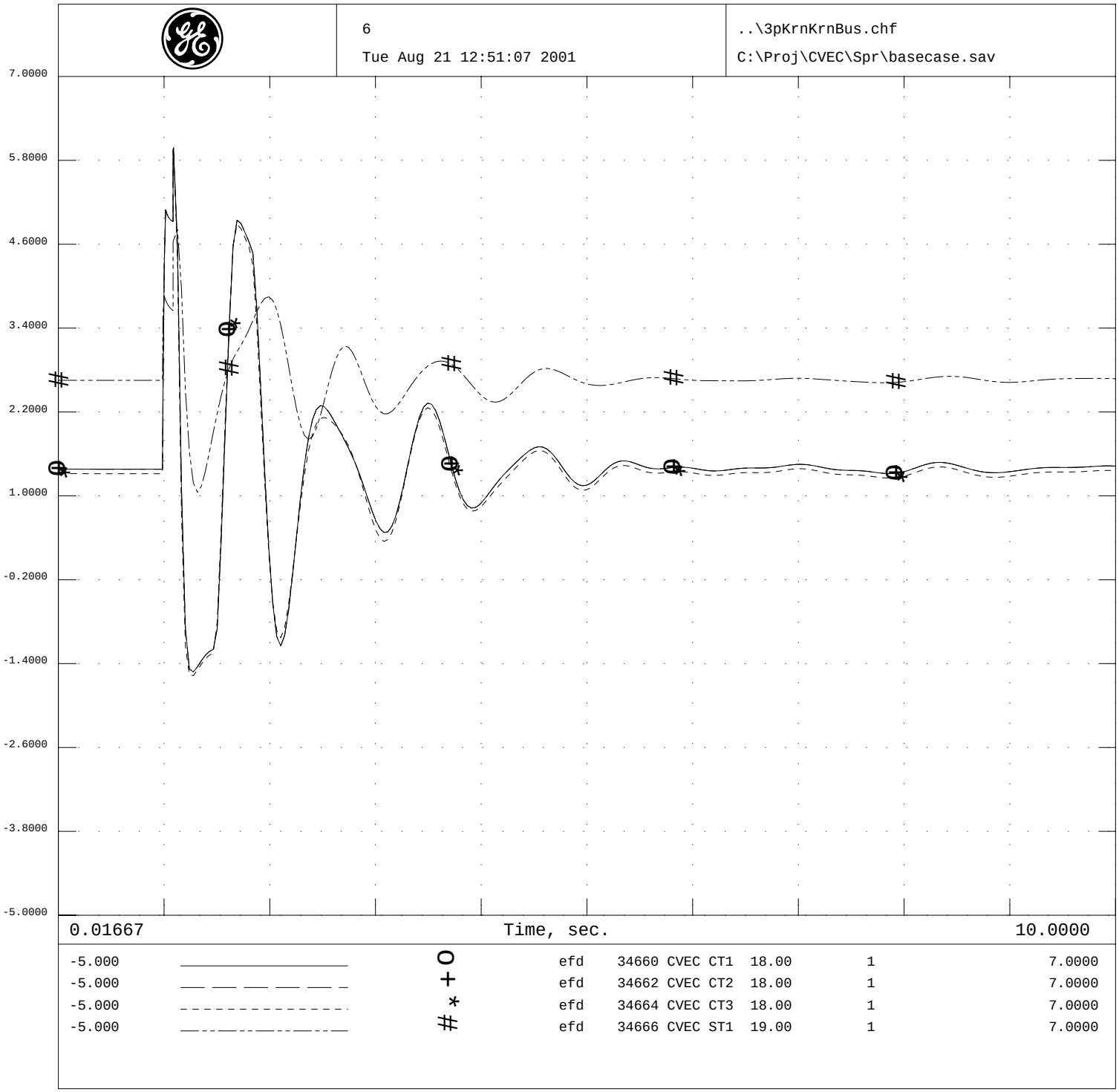
Calpine Corporation
Project Generator Terminal Voltages



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Calpine Corporation
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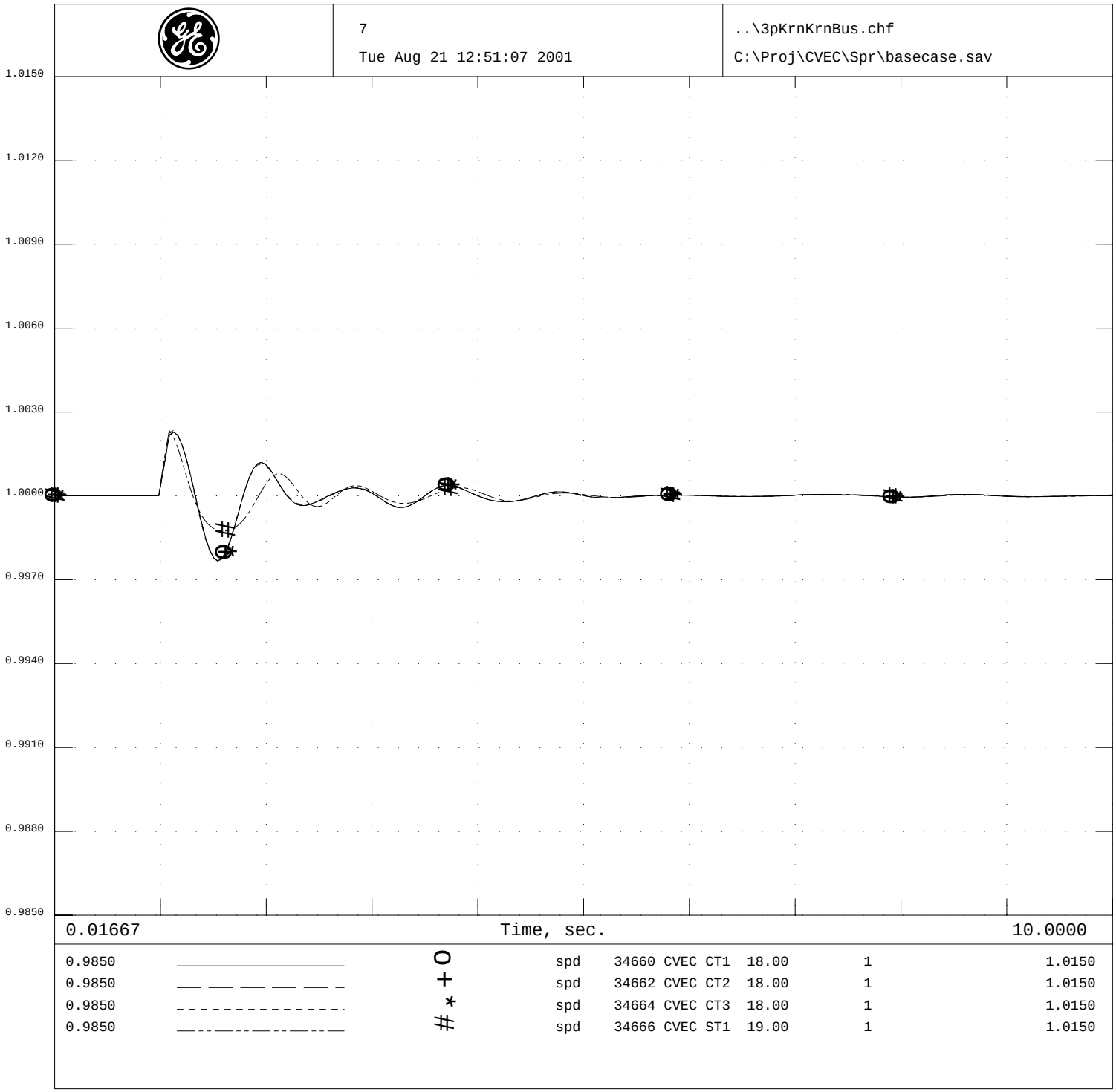

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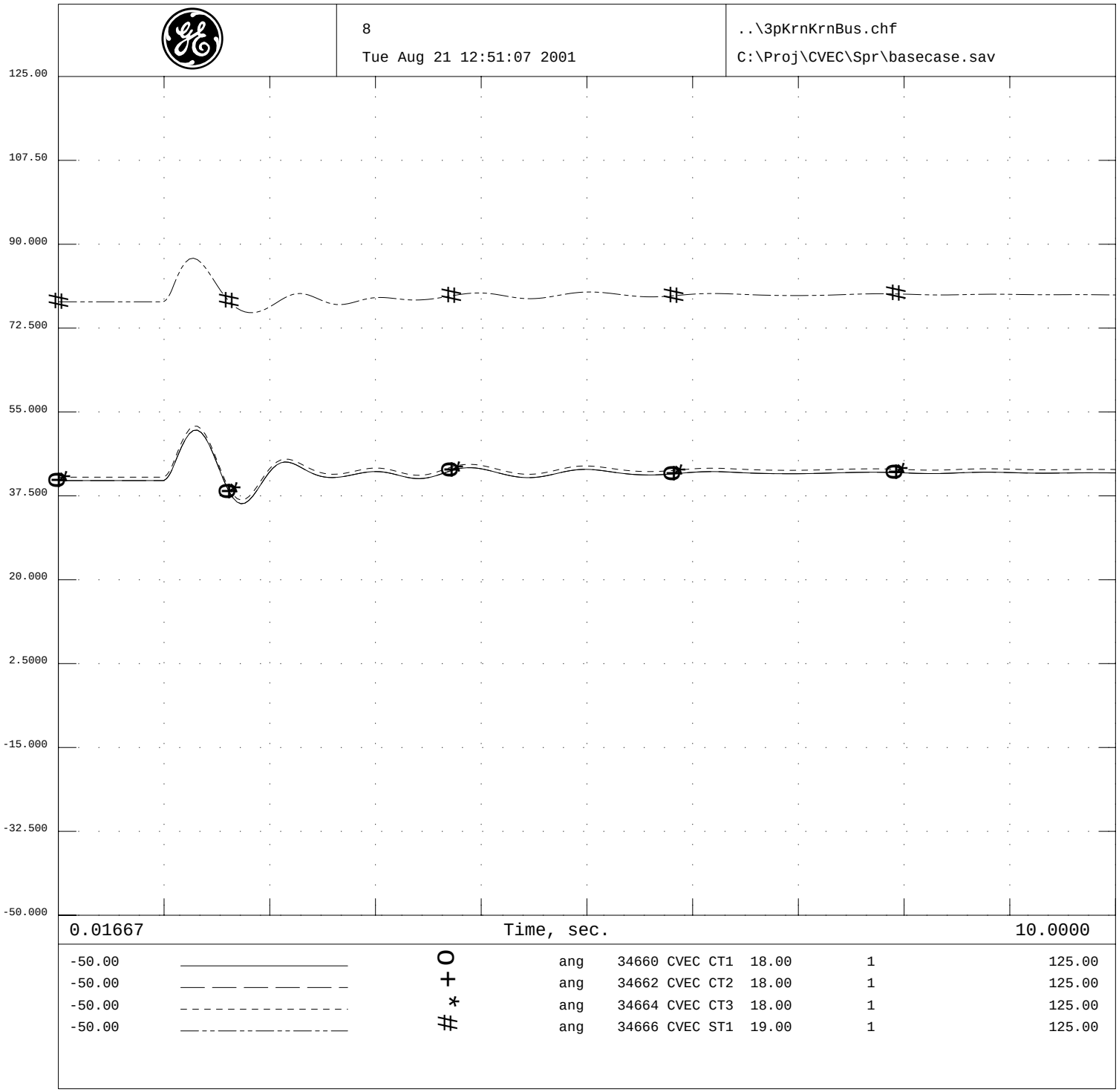
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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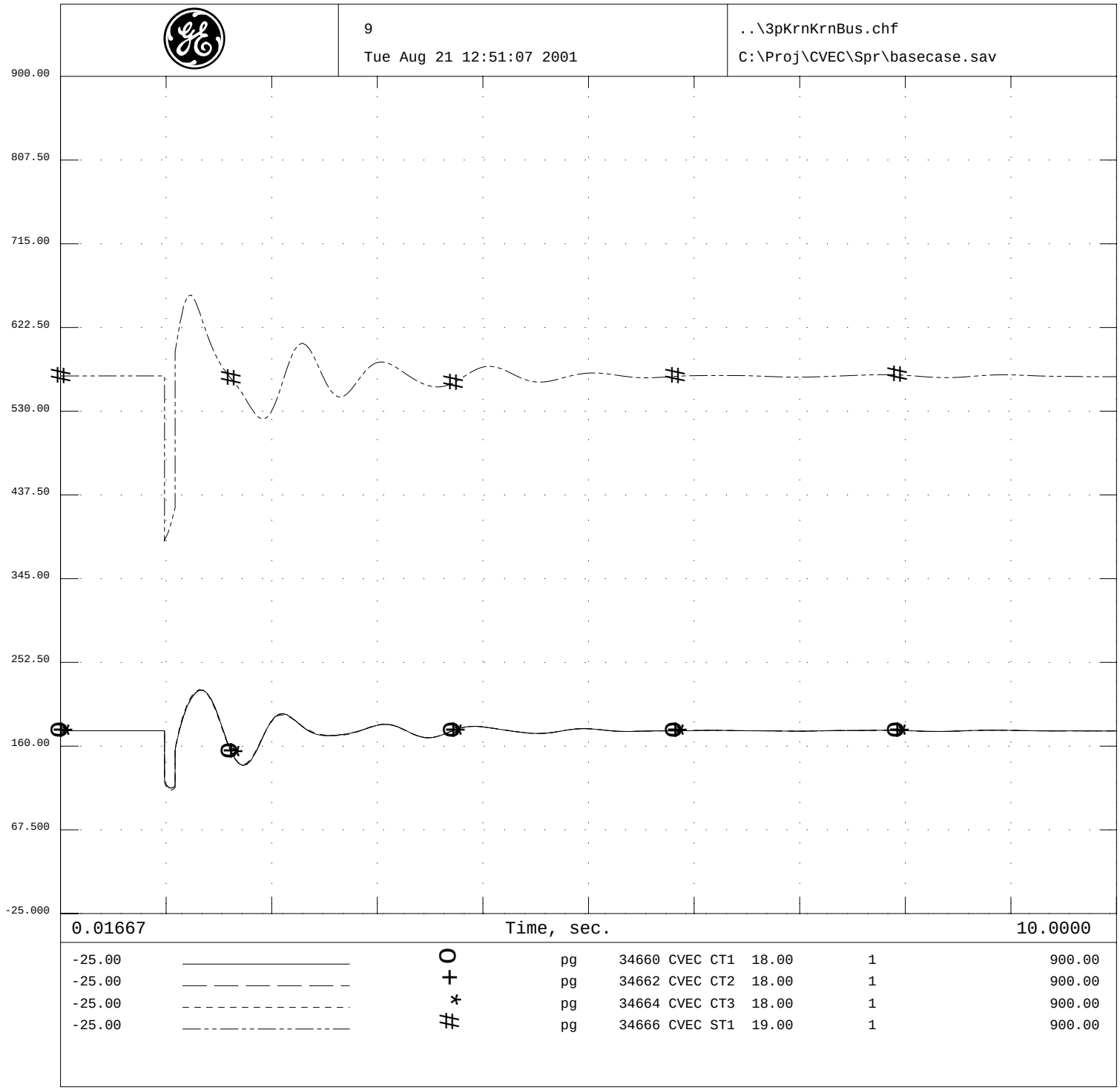
Calpine Corporation
Project Generator Rotor Angle



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Calpine Corporation
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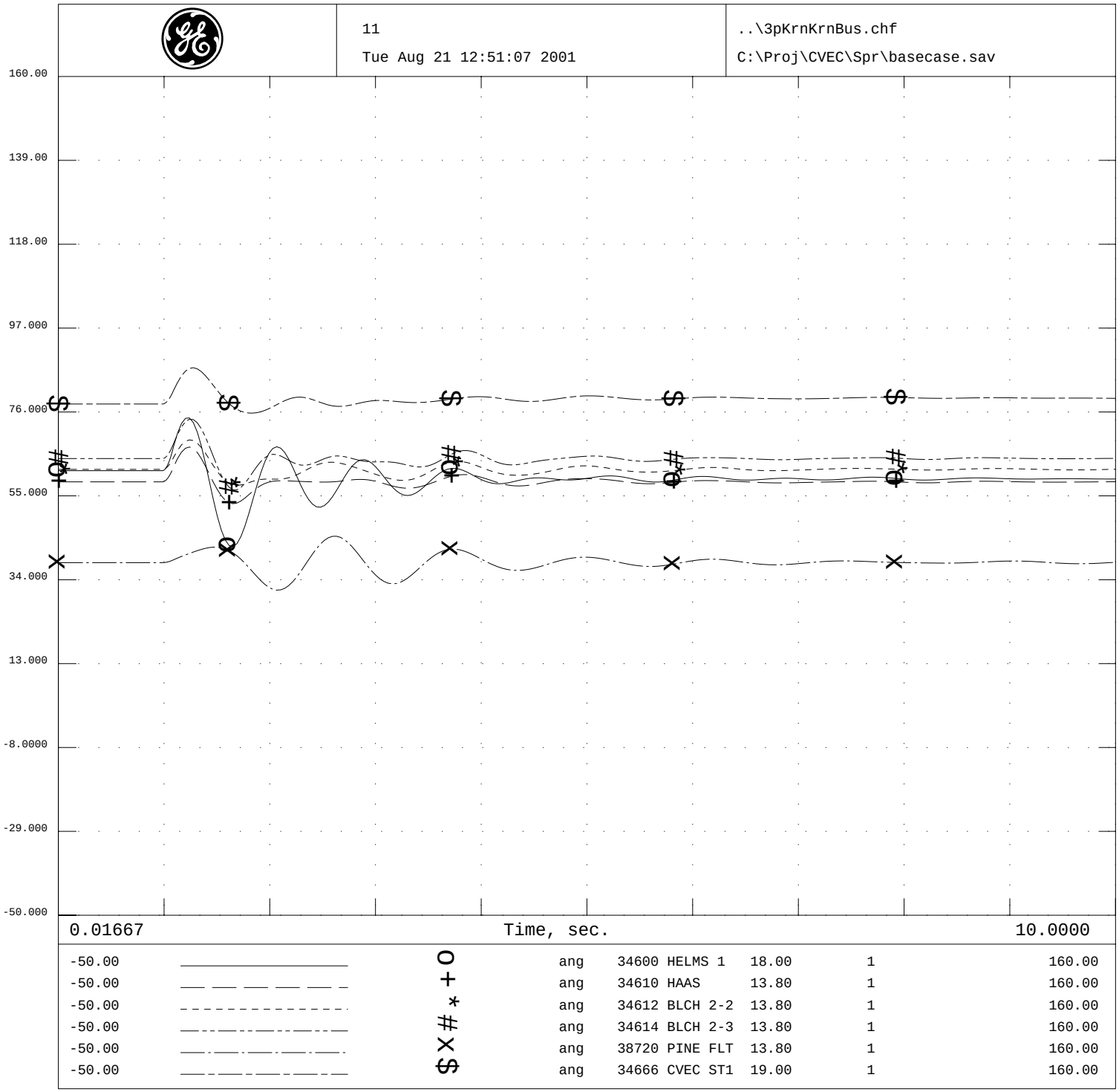

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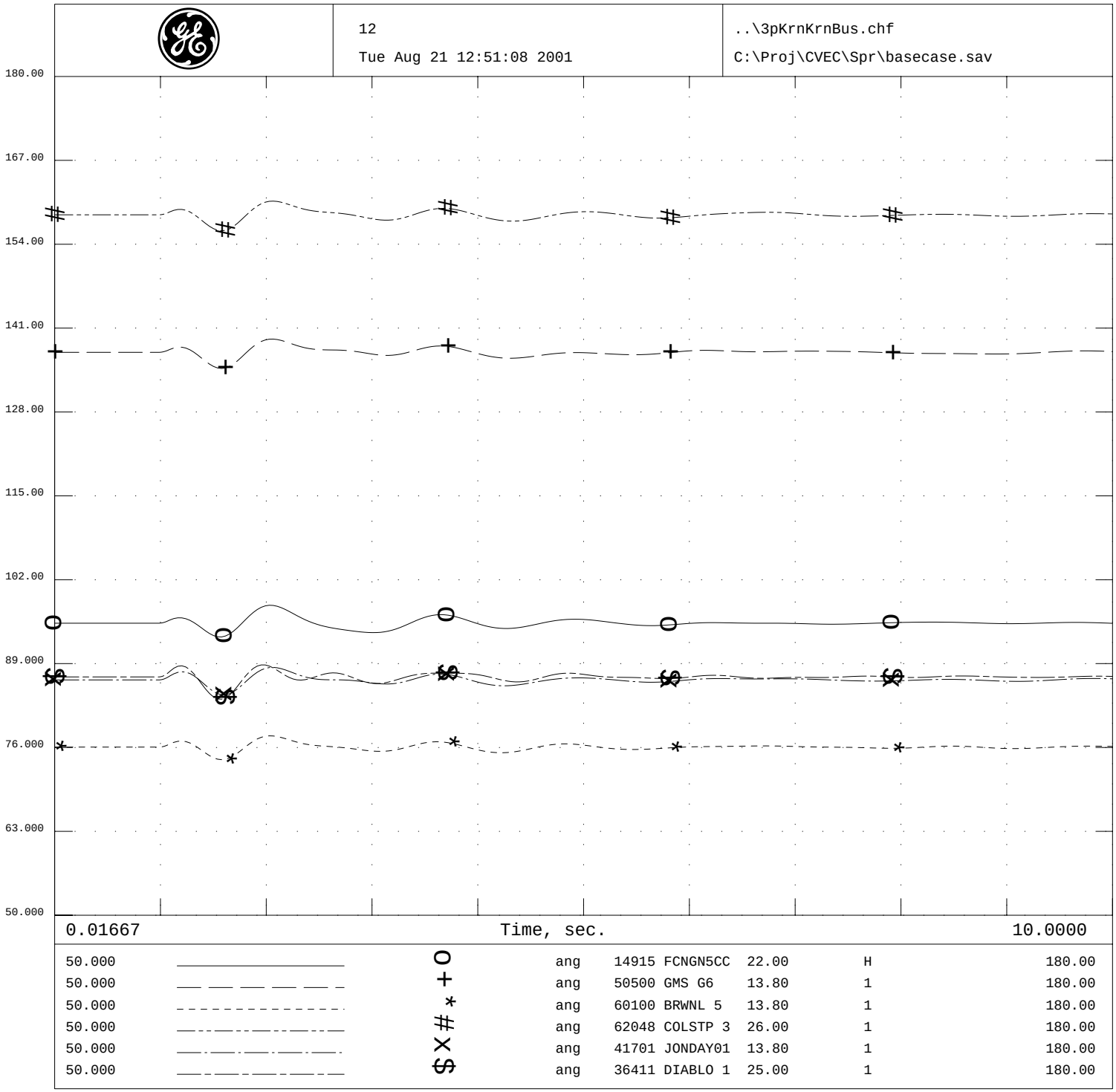

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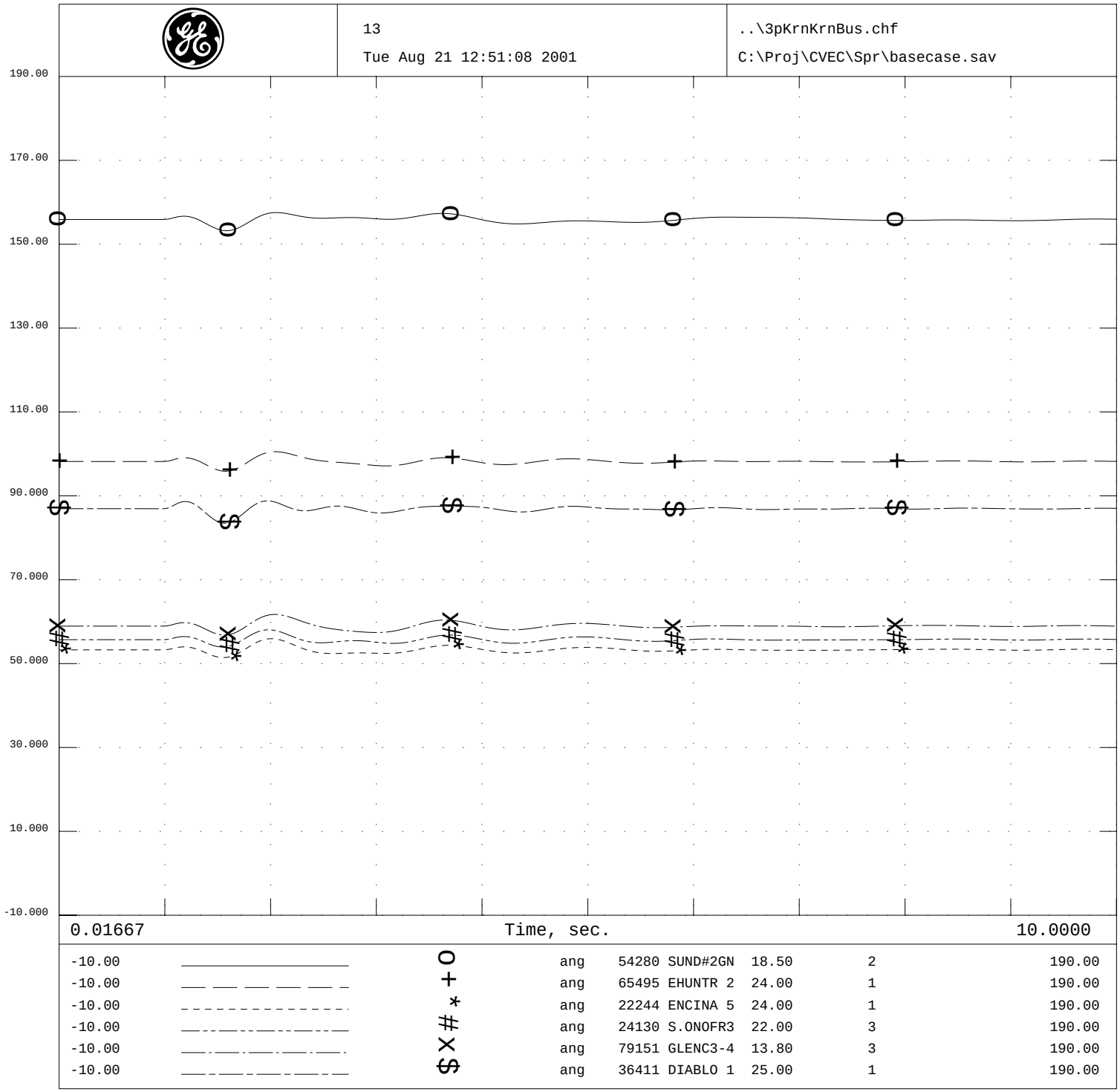

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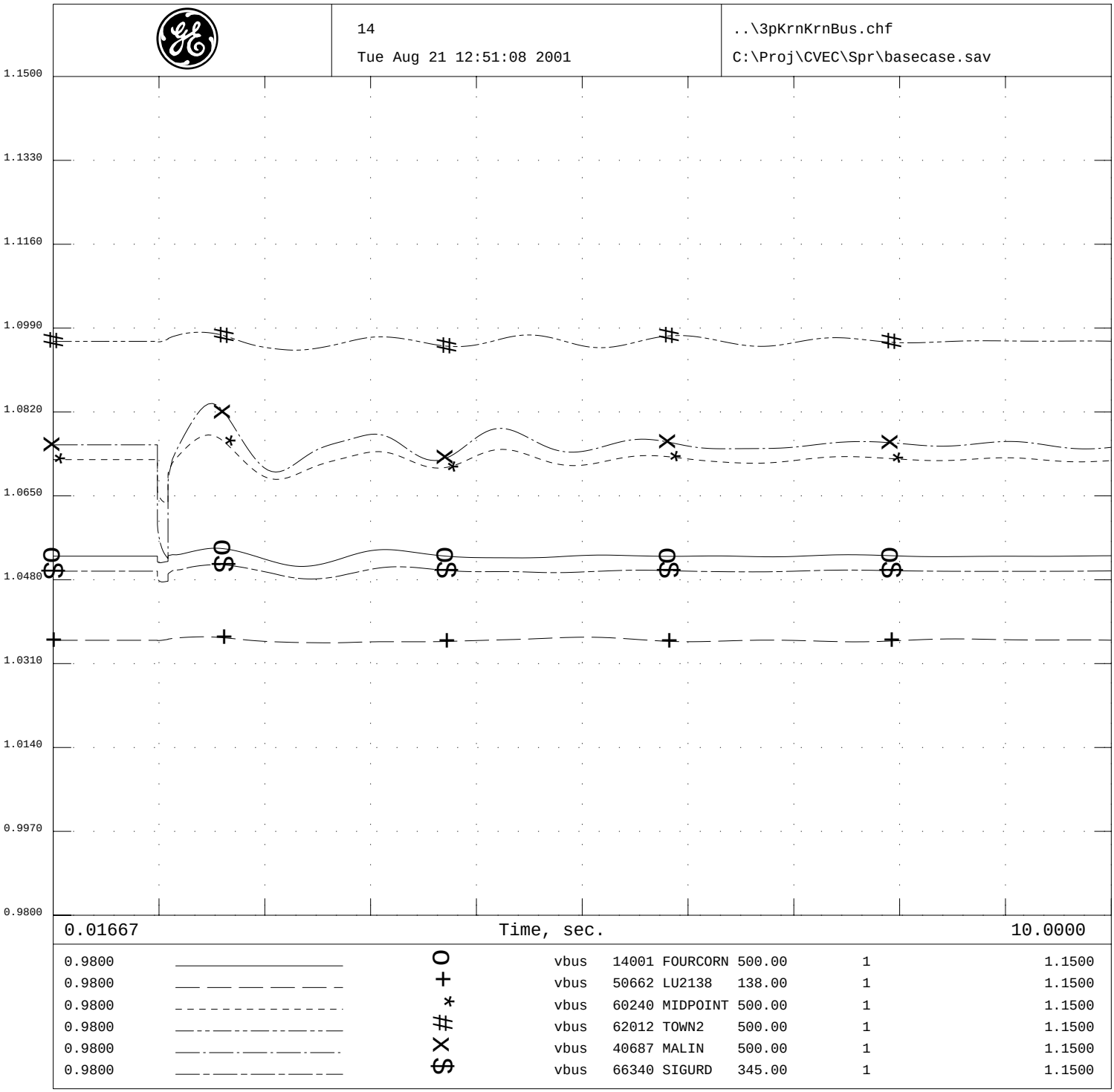

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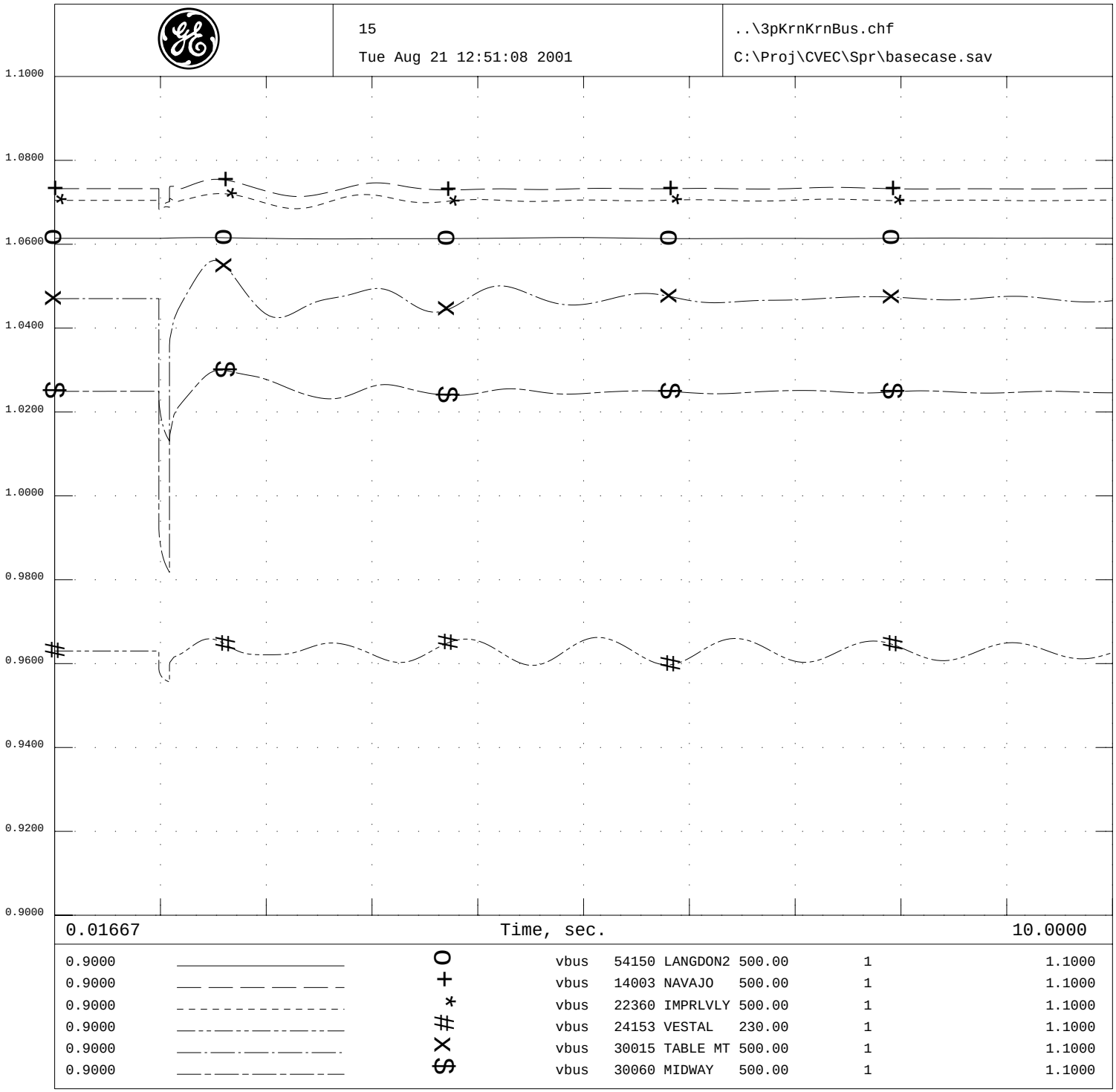

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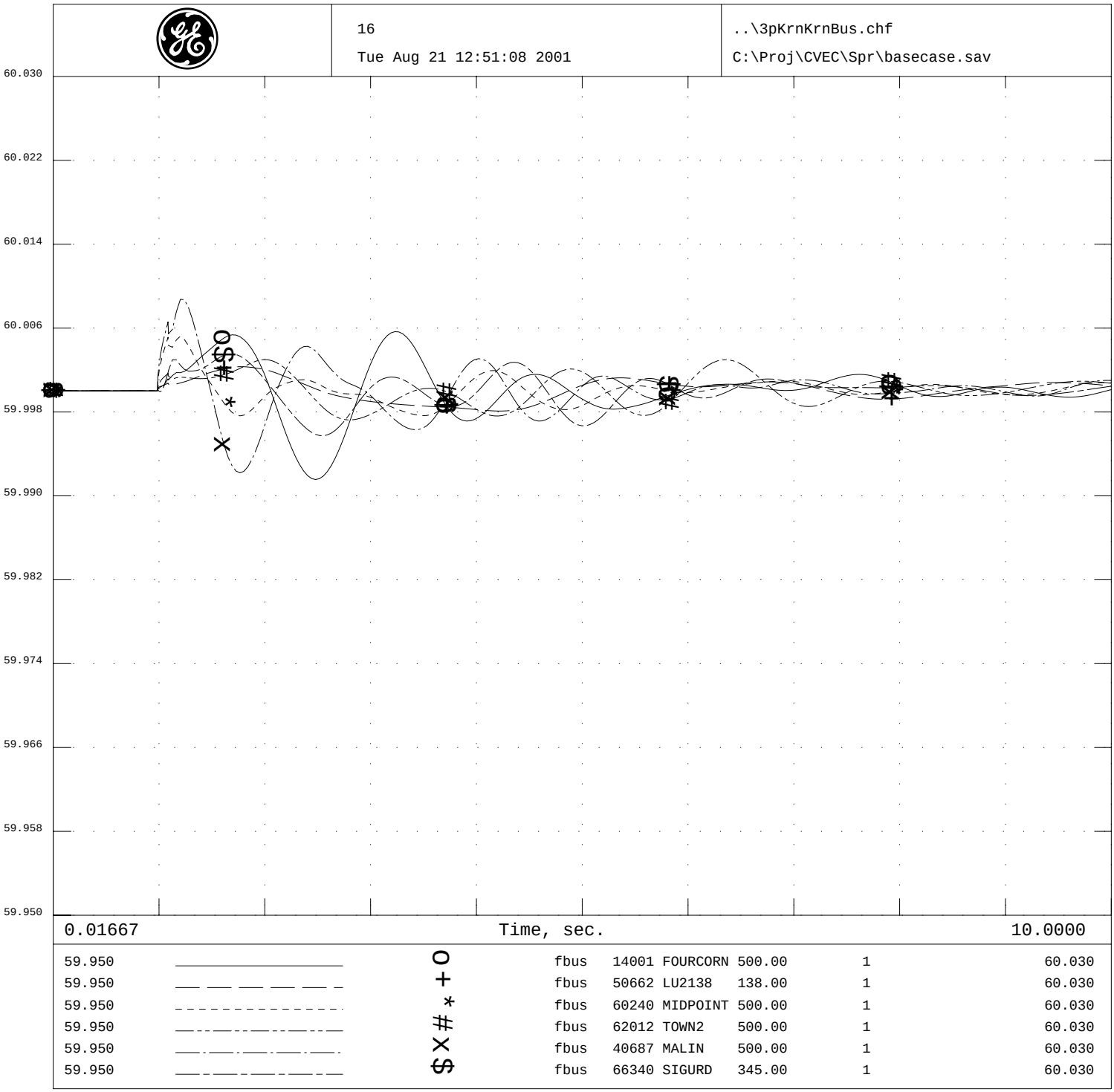
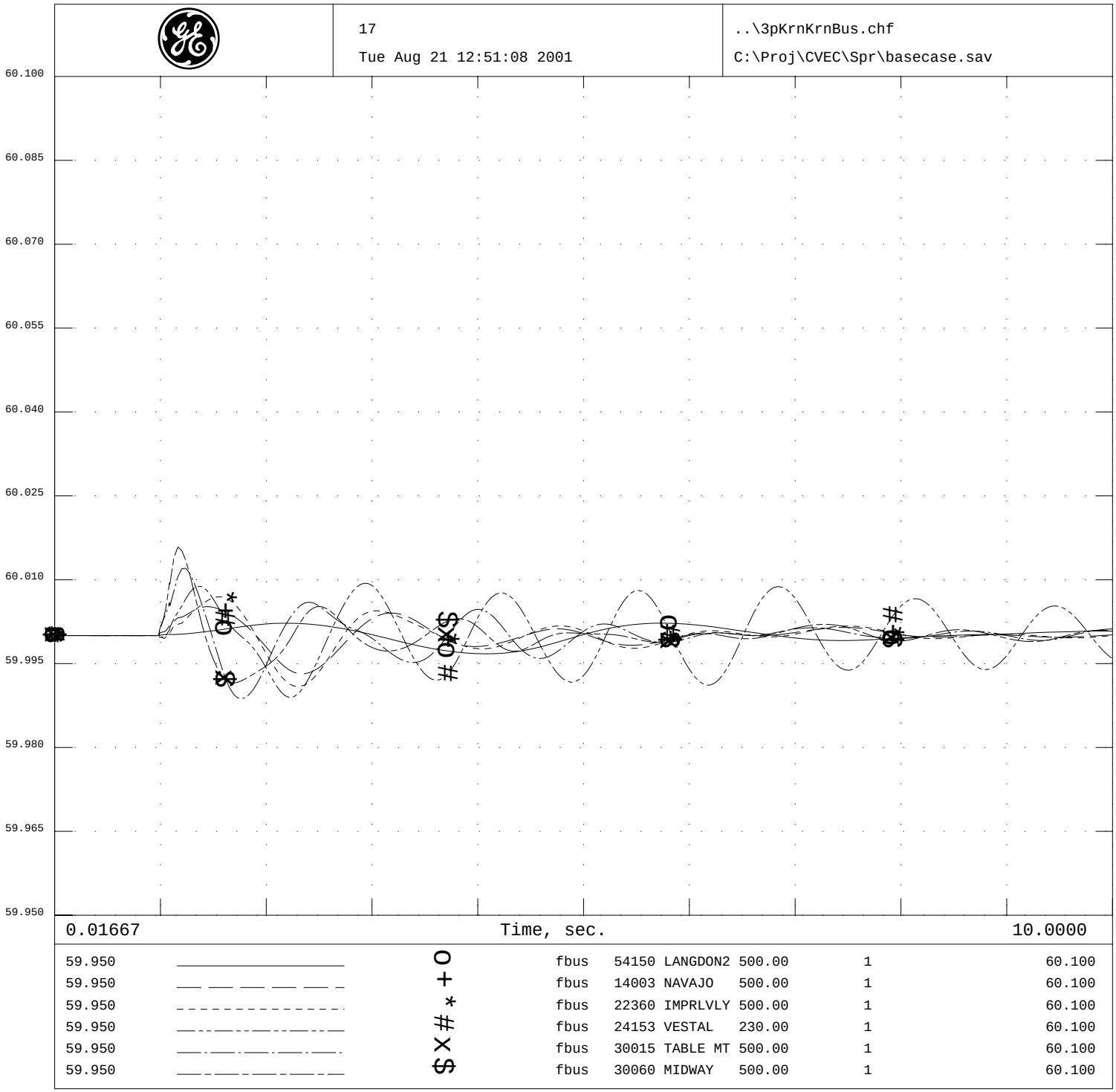


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Kearny 230kV Bus Outage
3 phase 6 cycle fault at Kearny 230kV bus and clear bus

Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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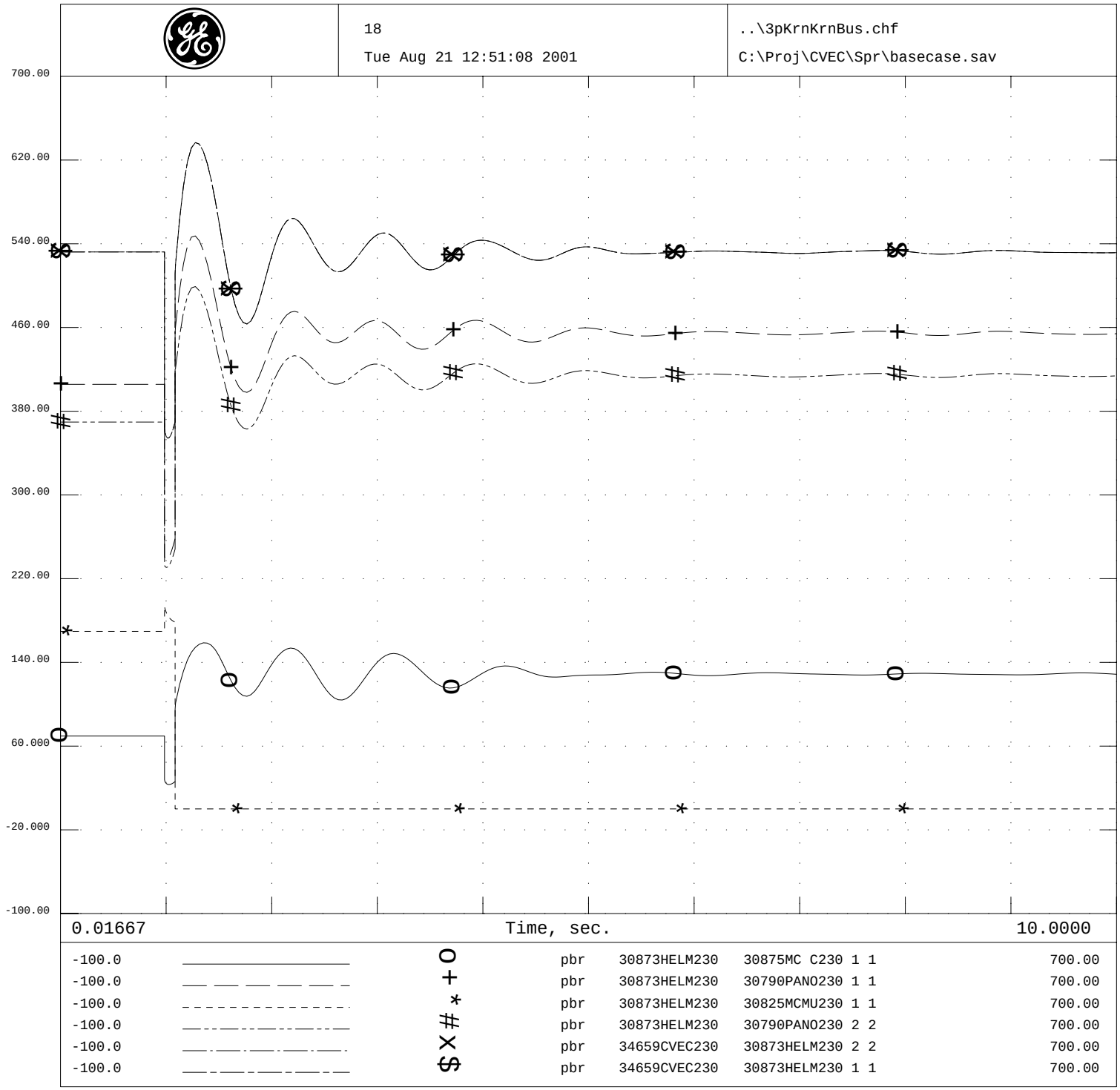

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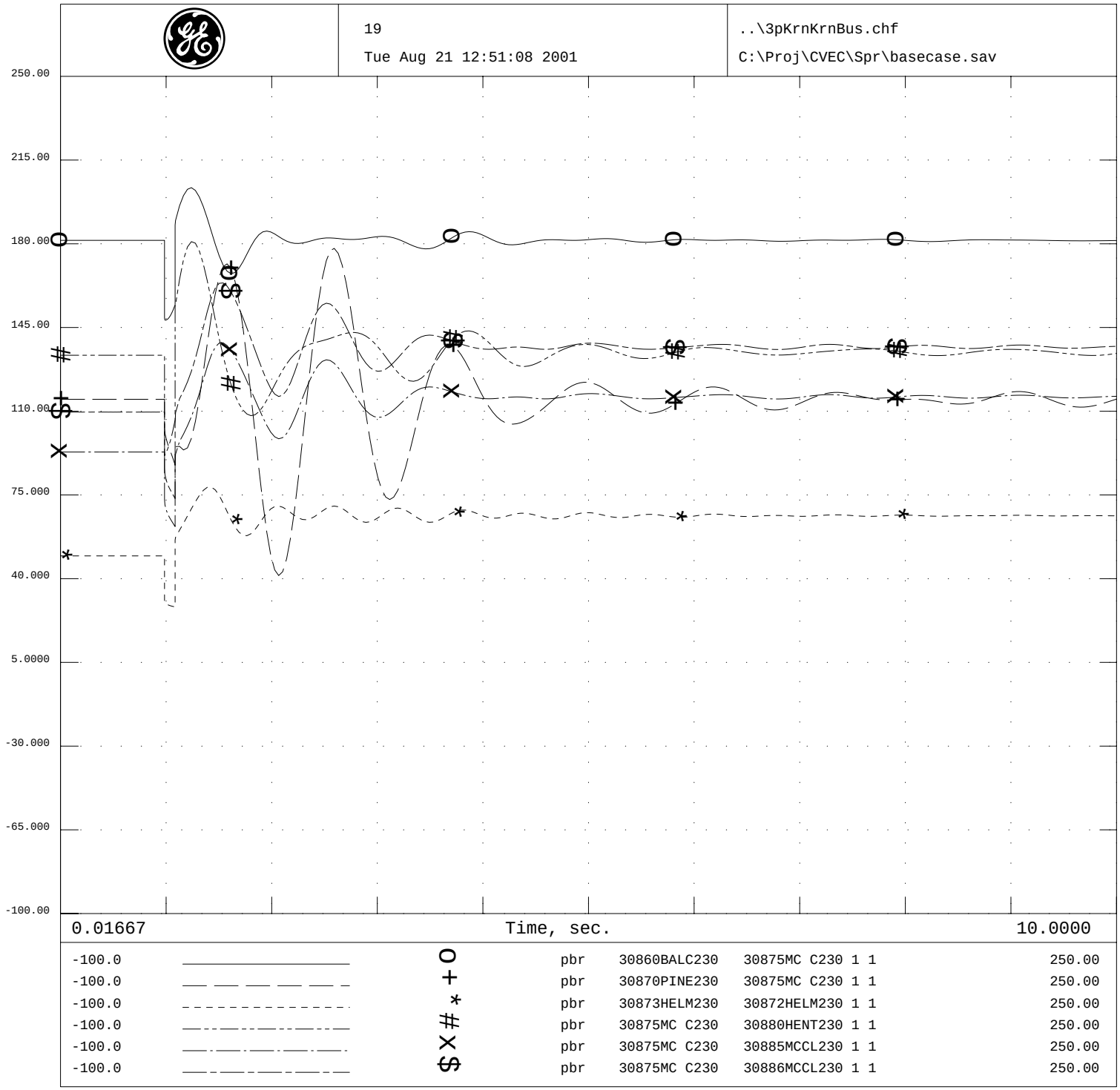

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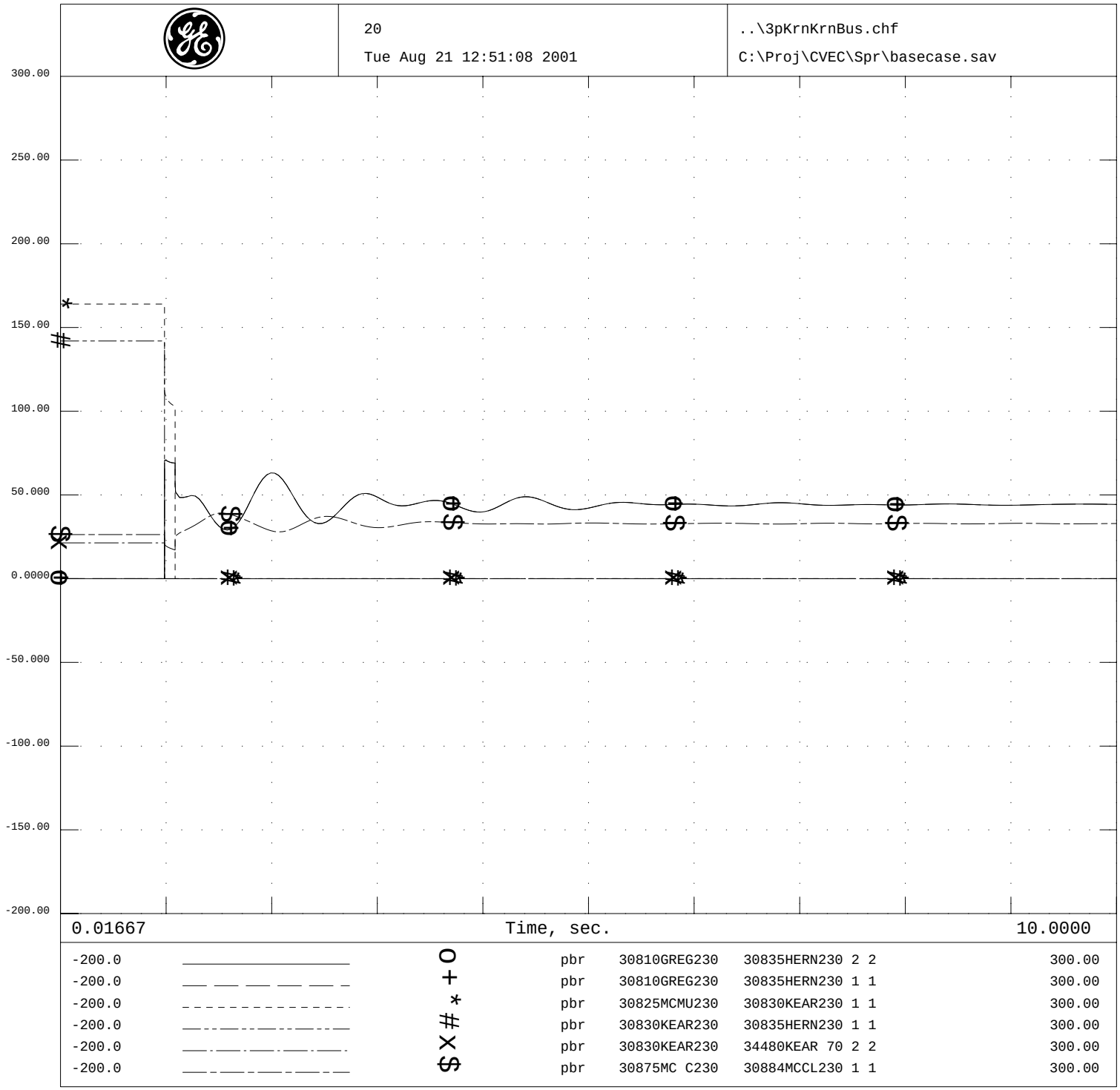

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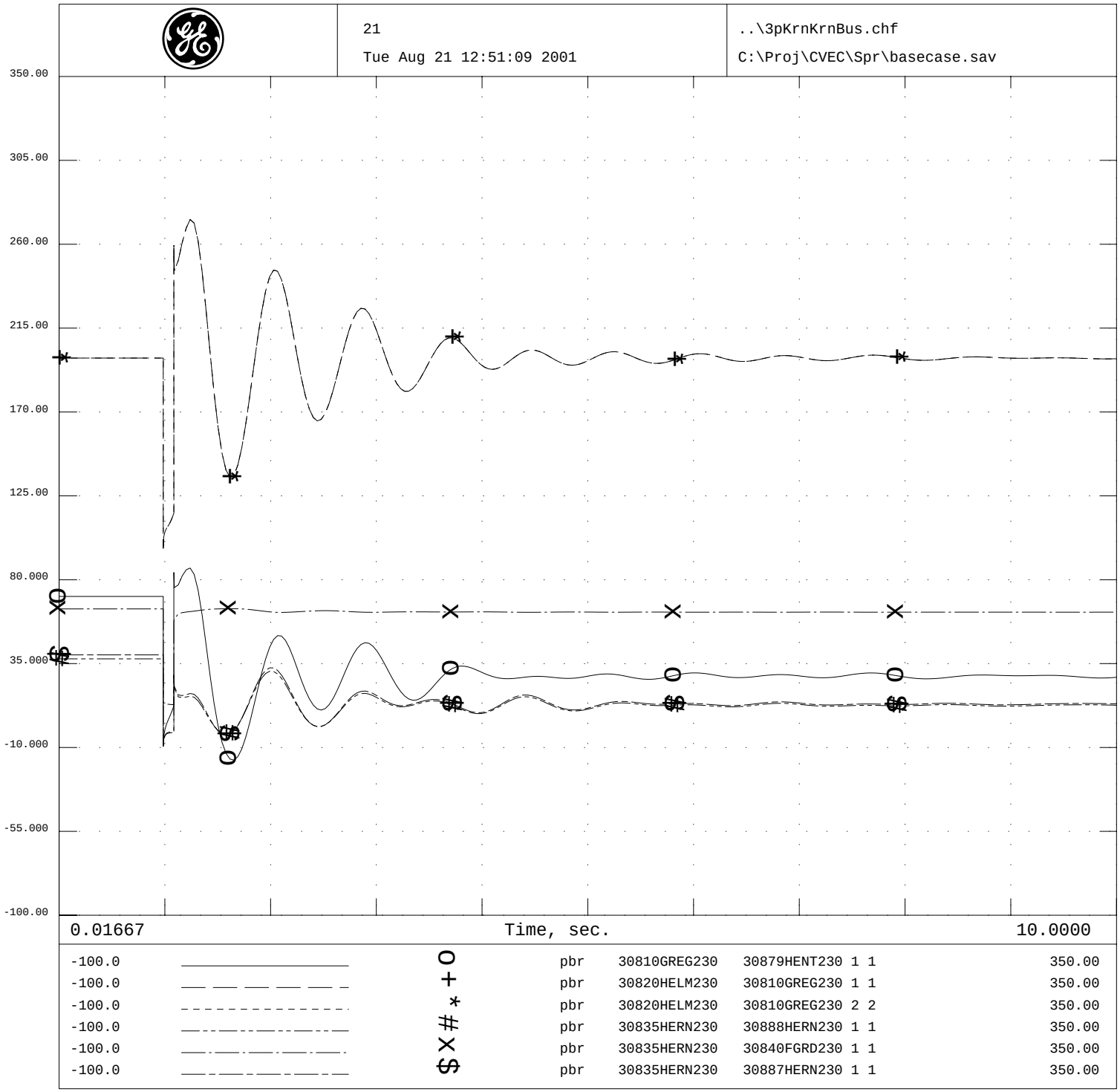

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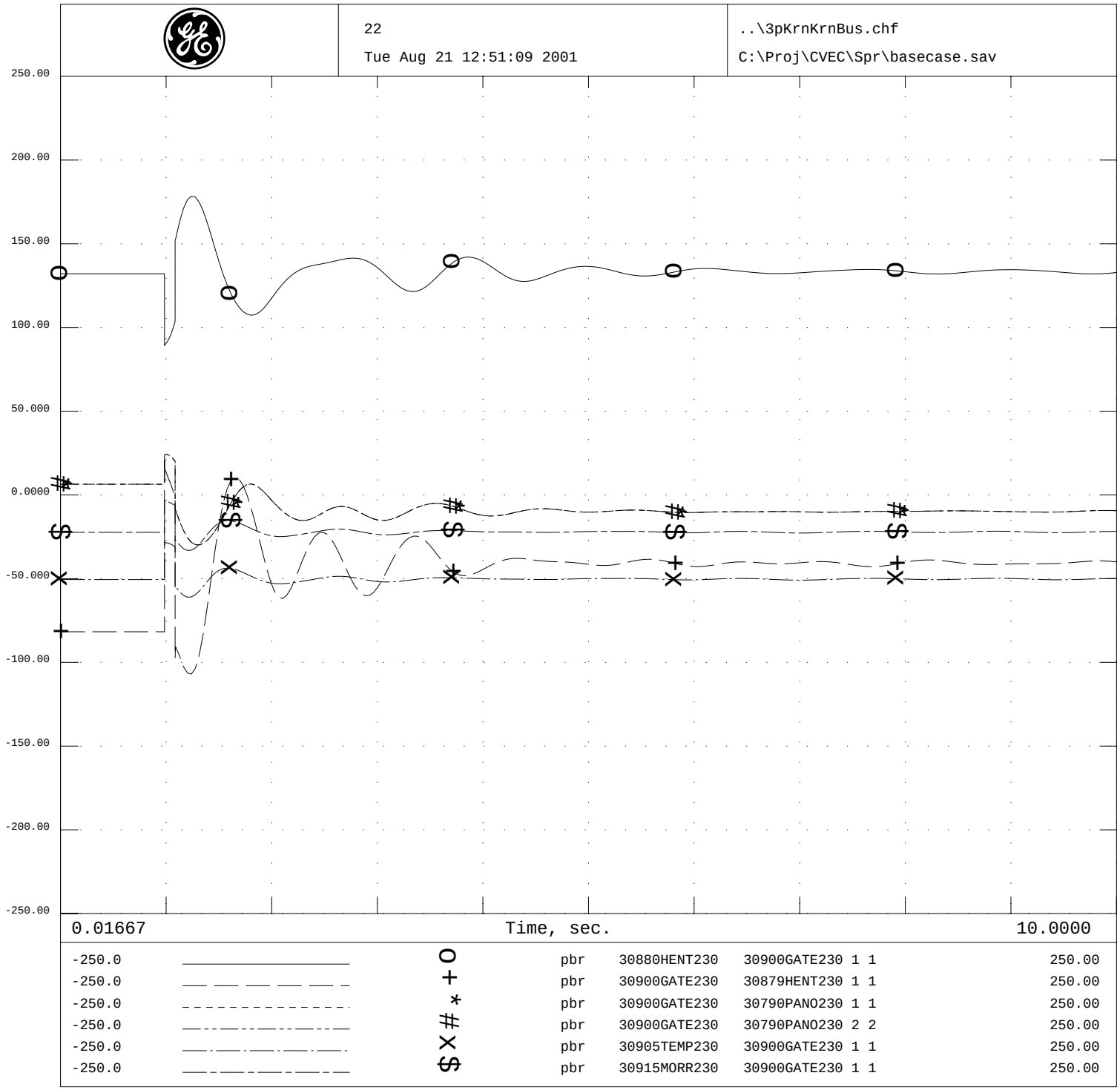

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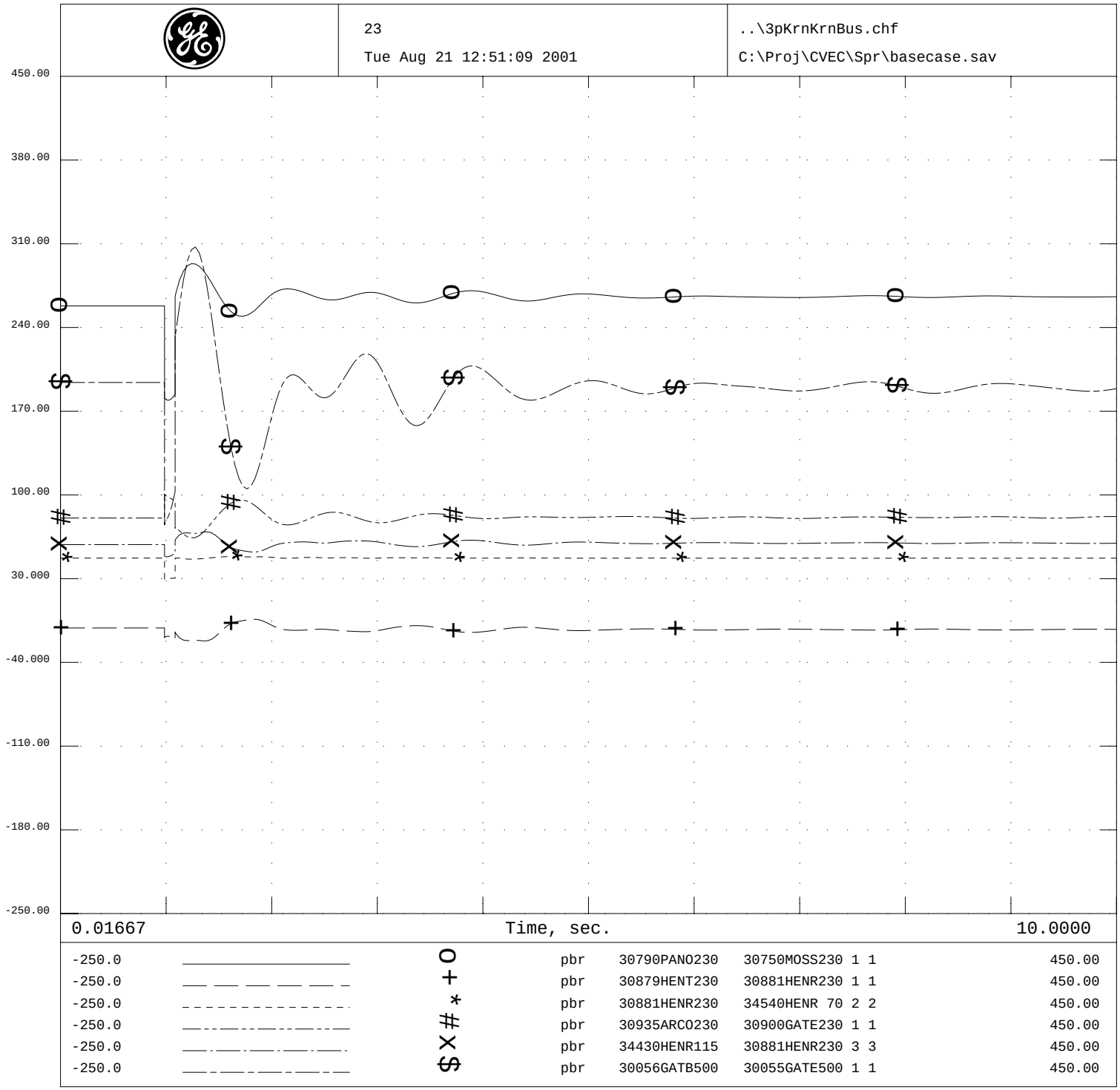

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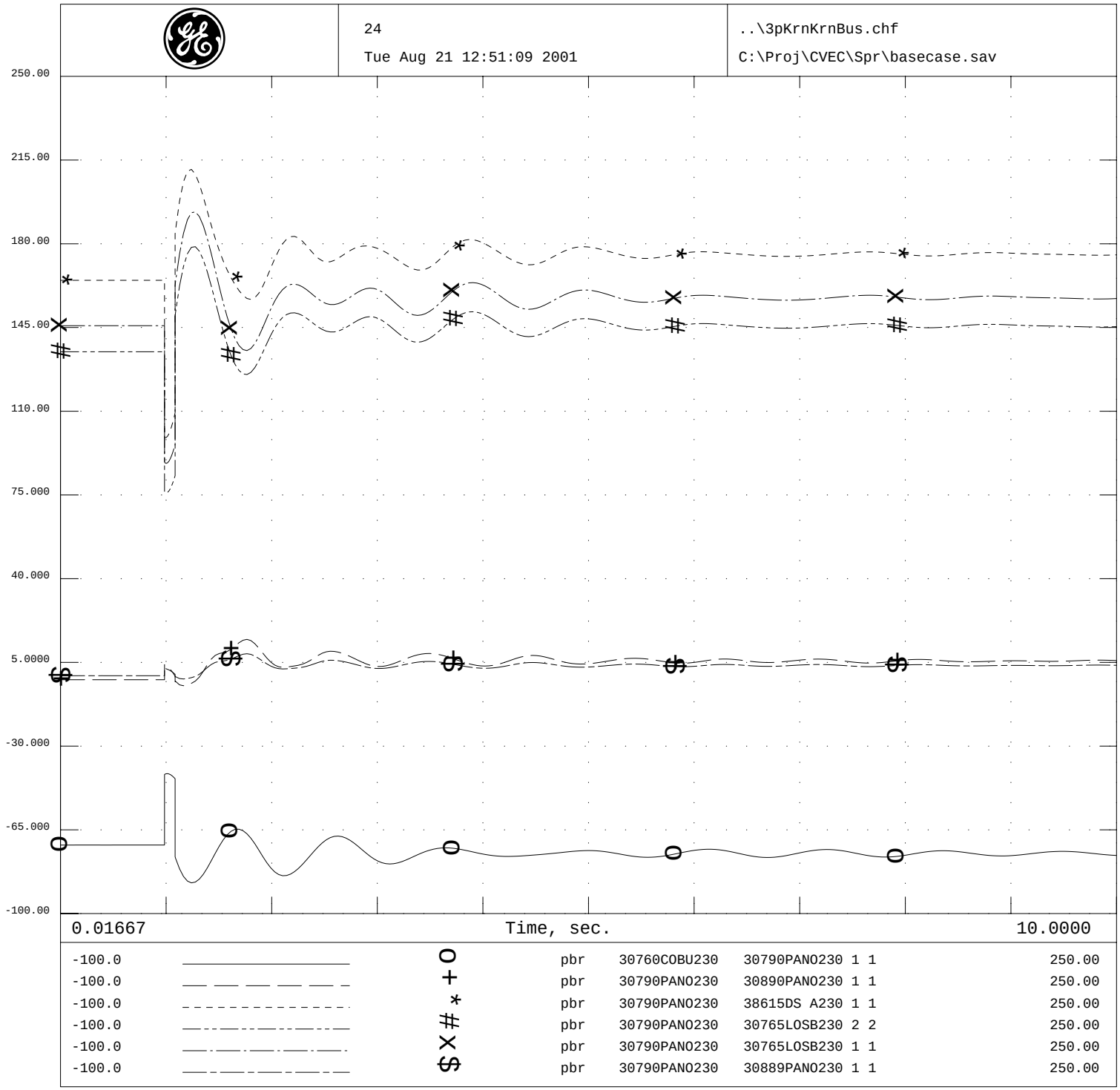

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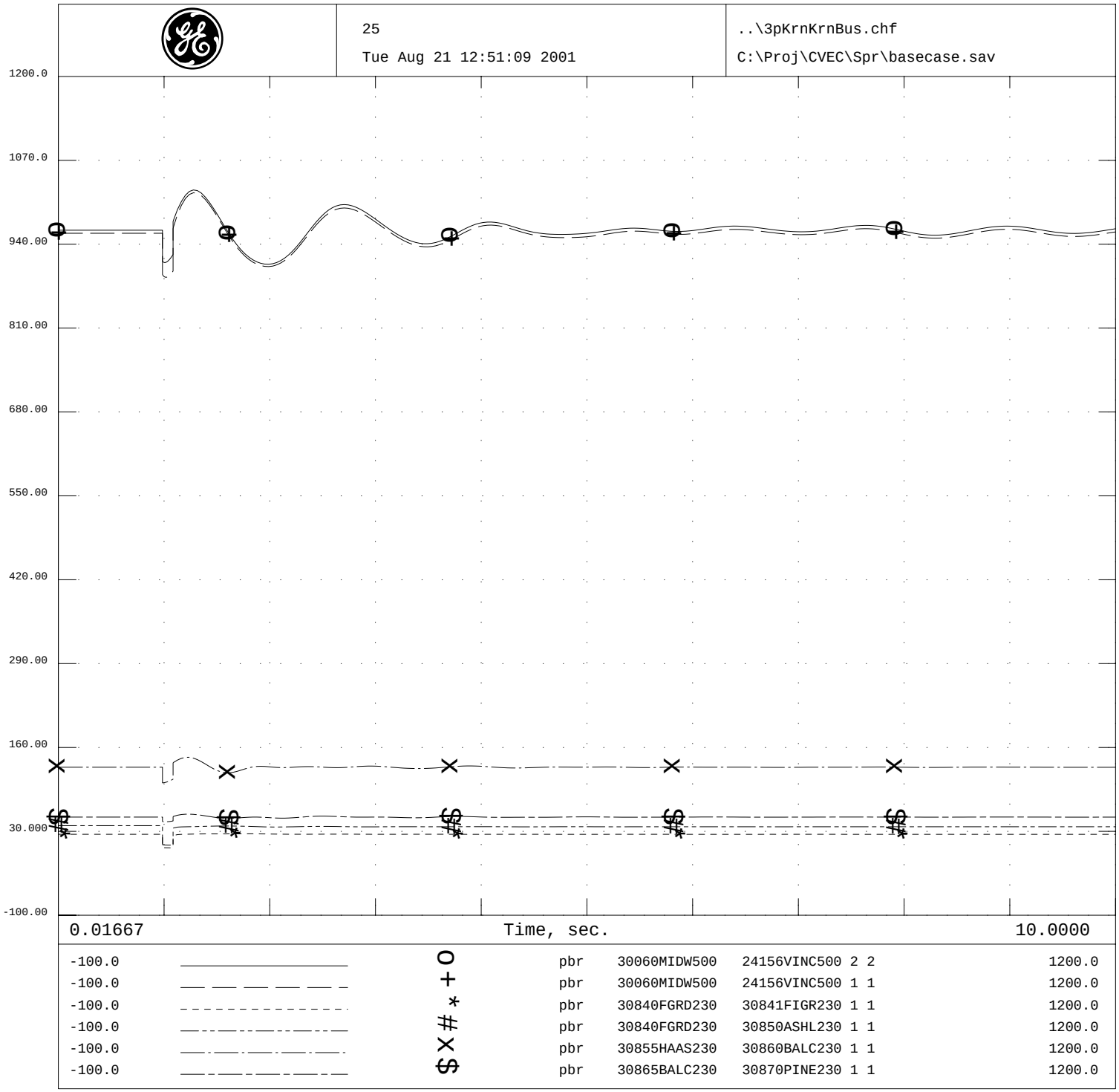

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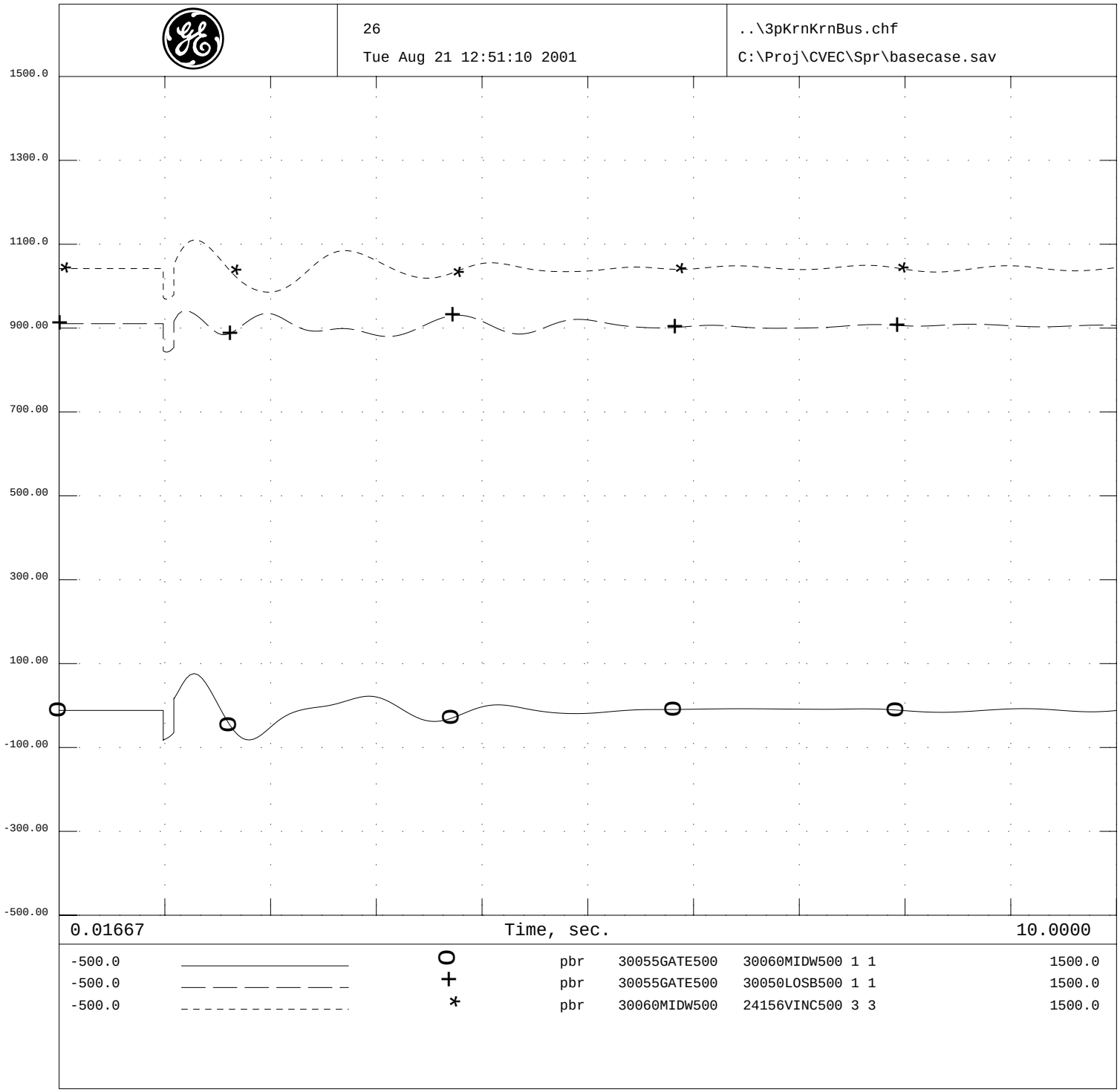

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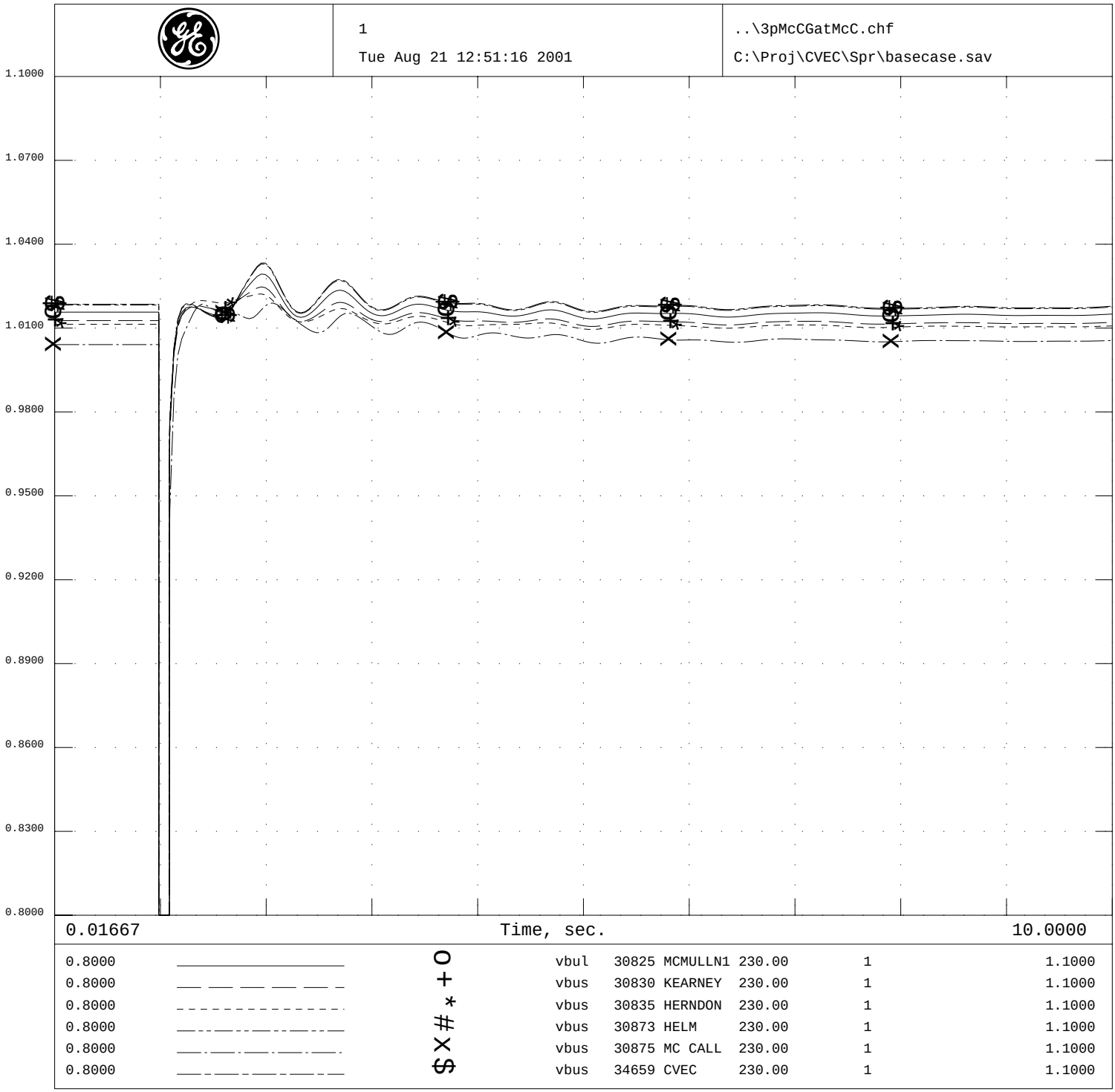

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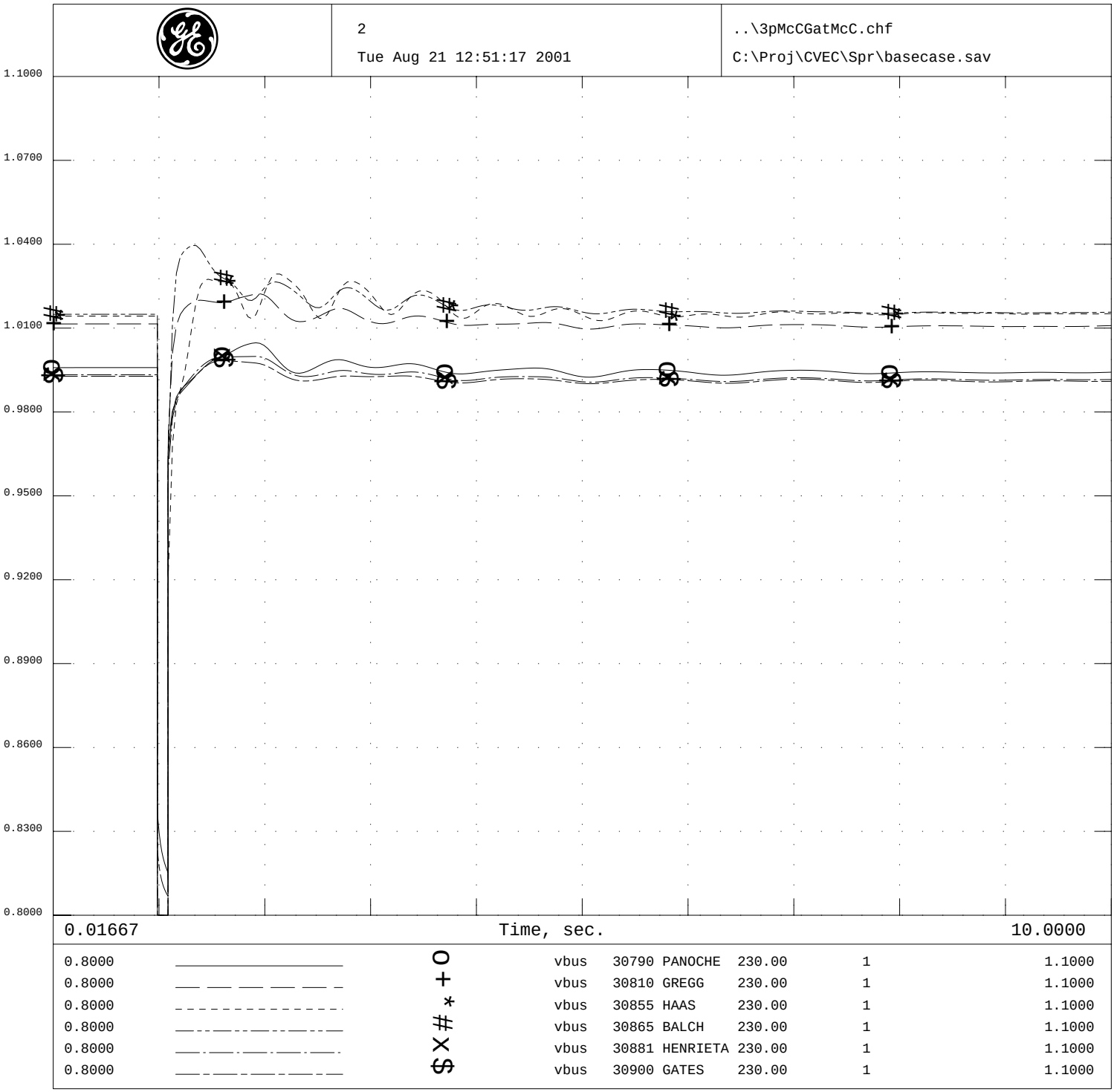
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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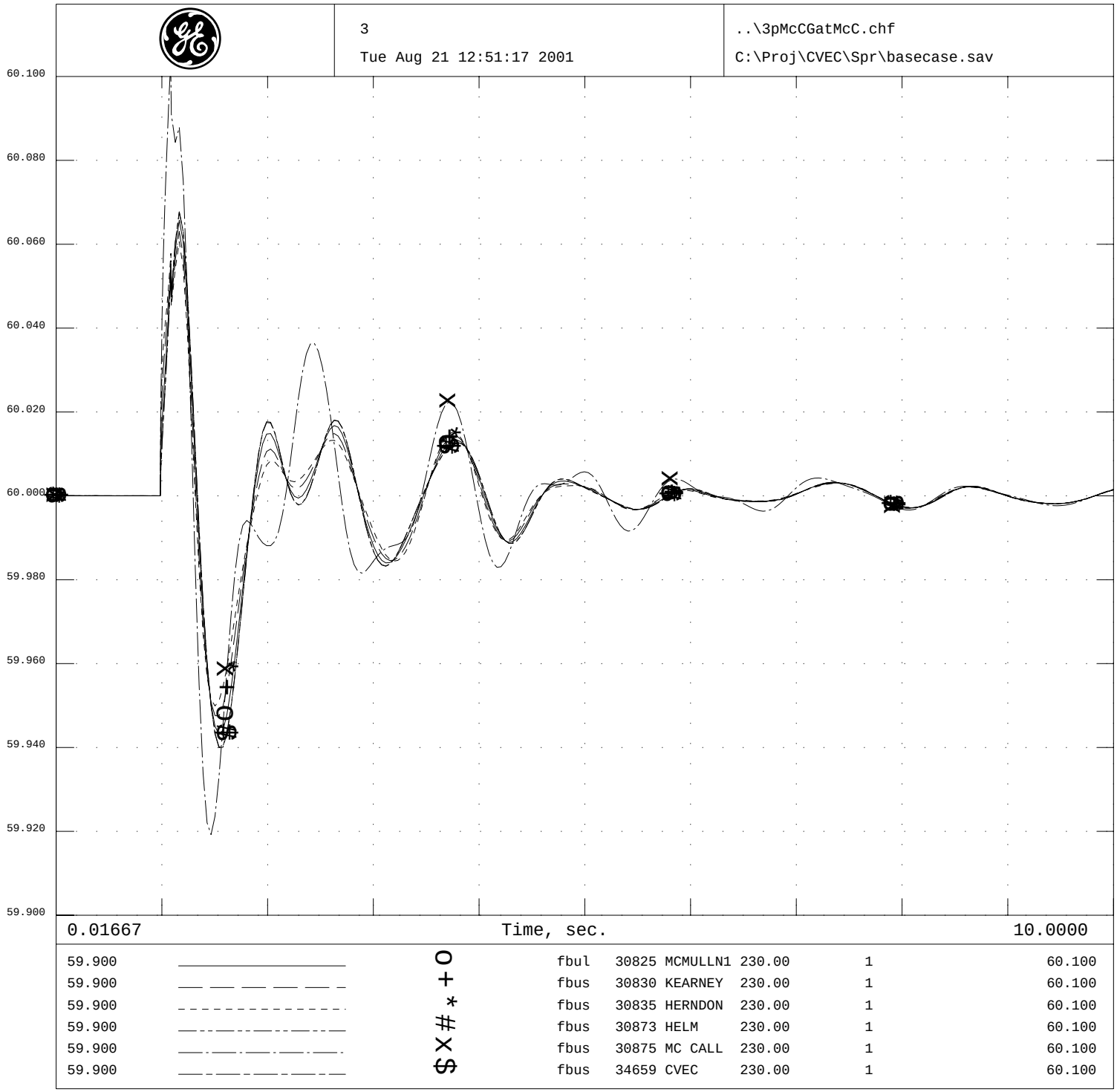

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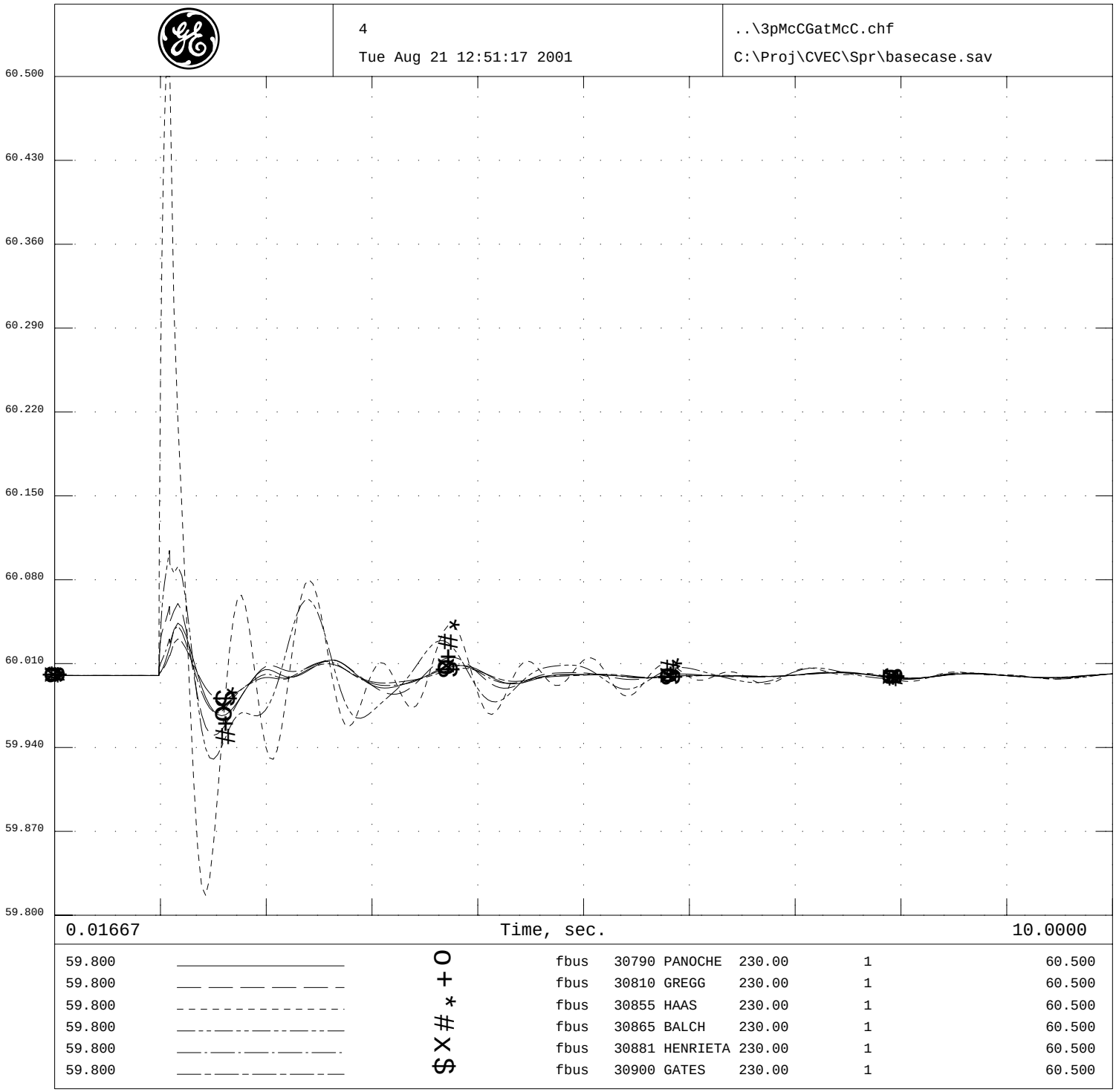

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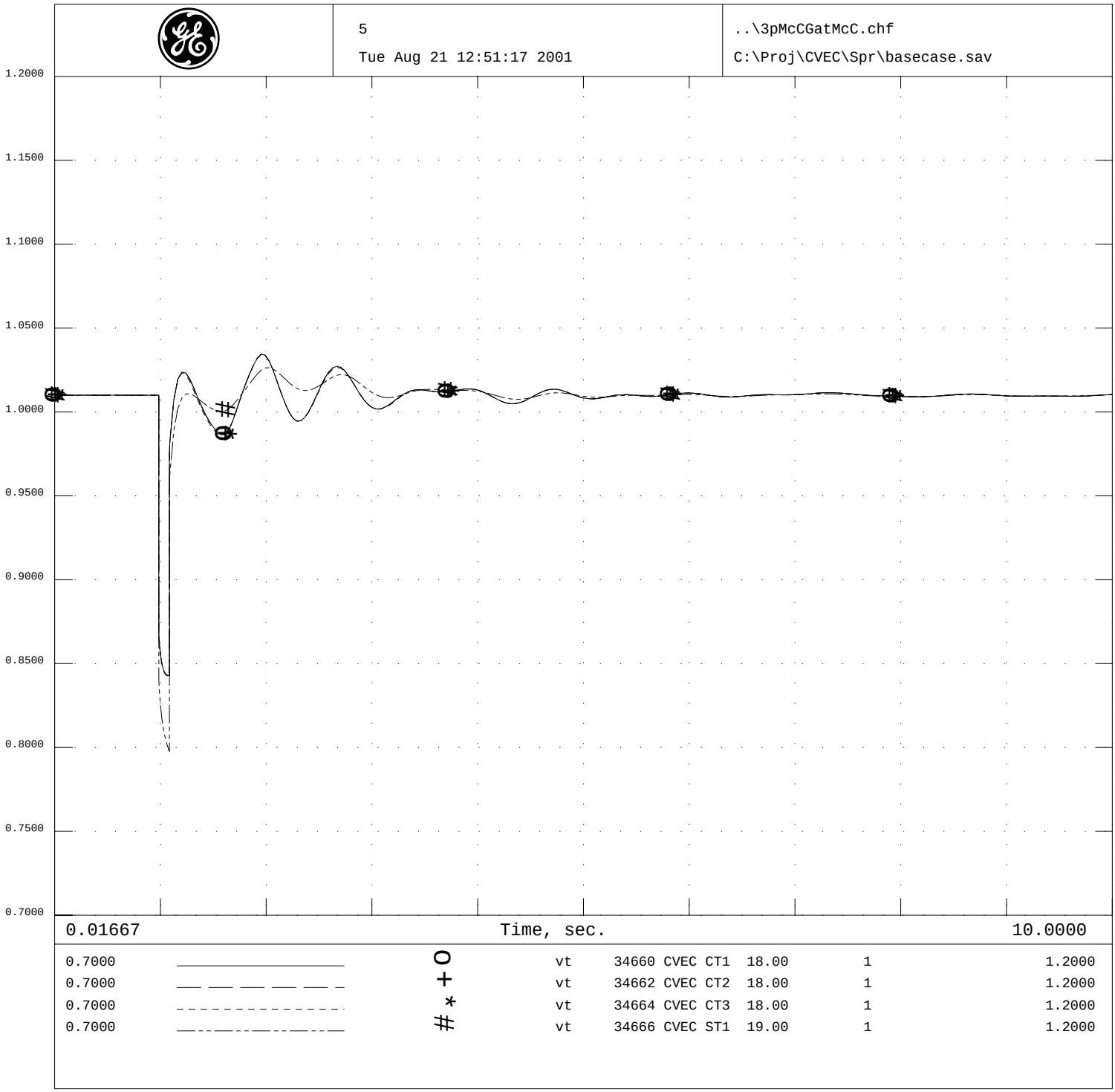

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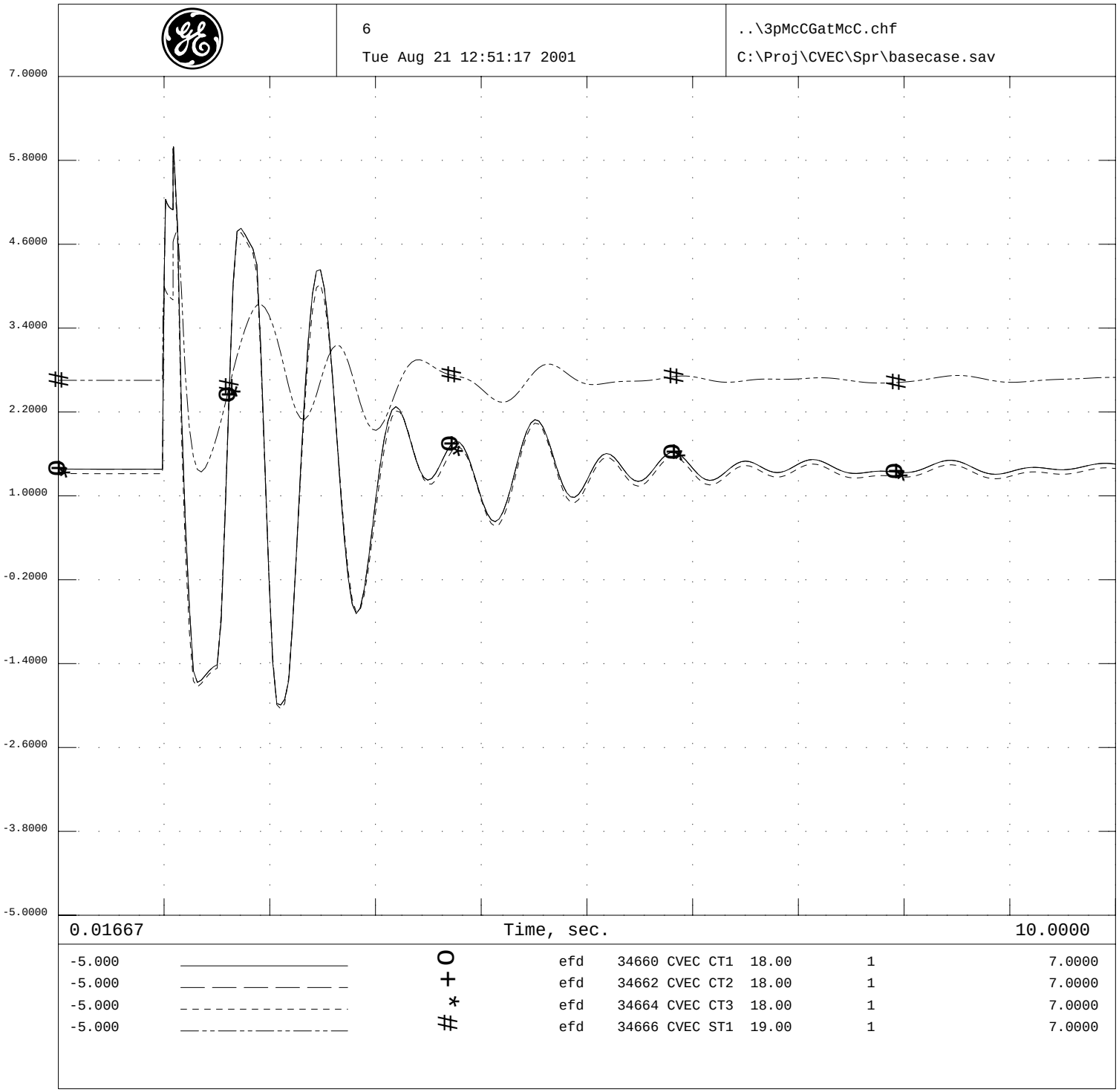
Calpine Corporation
Project Generator Terminal Voltages



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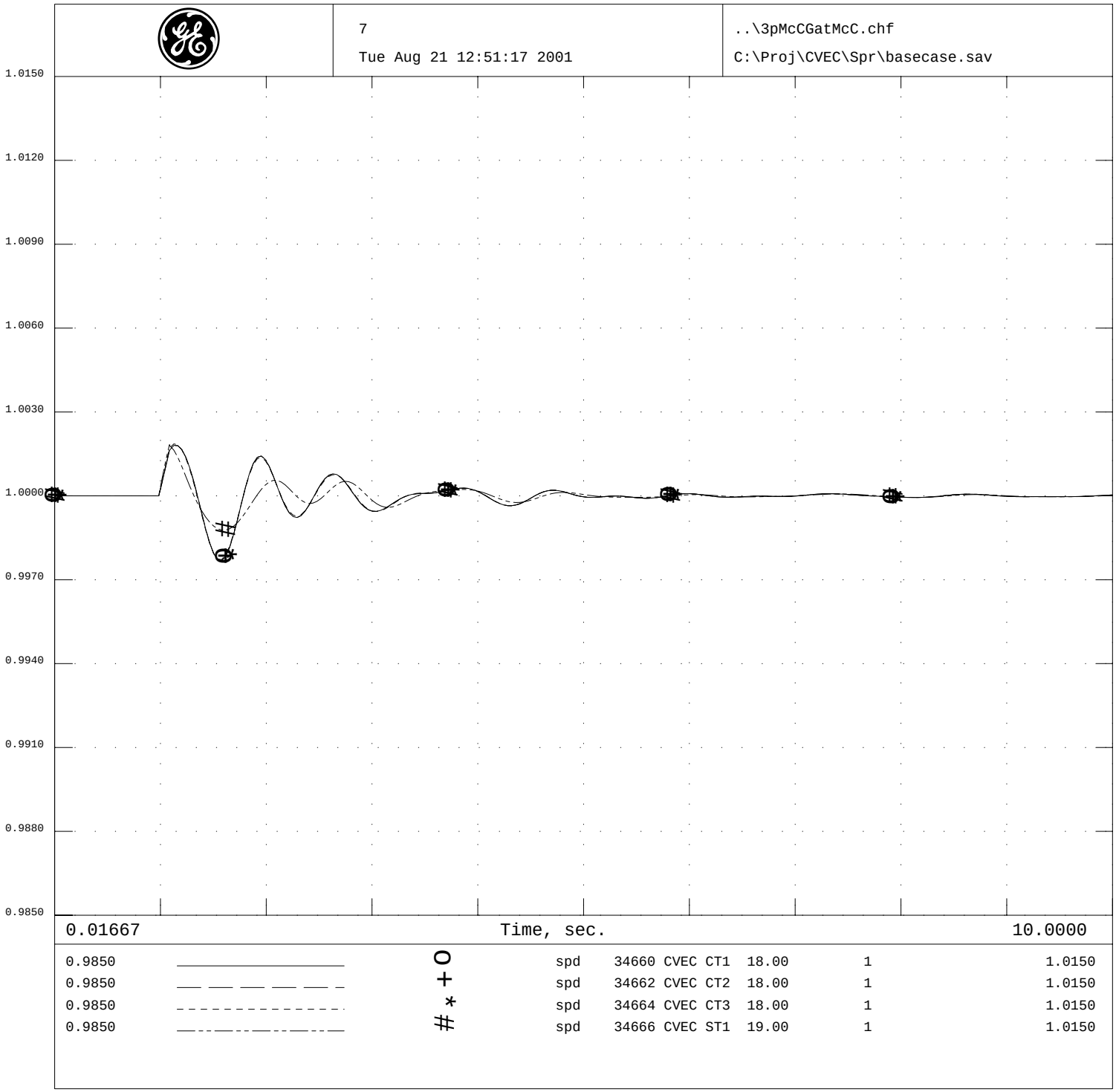
Project Generator Field Voltages



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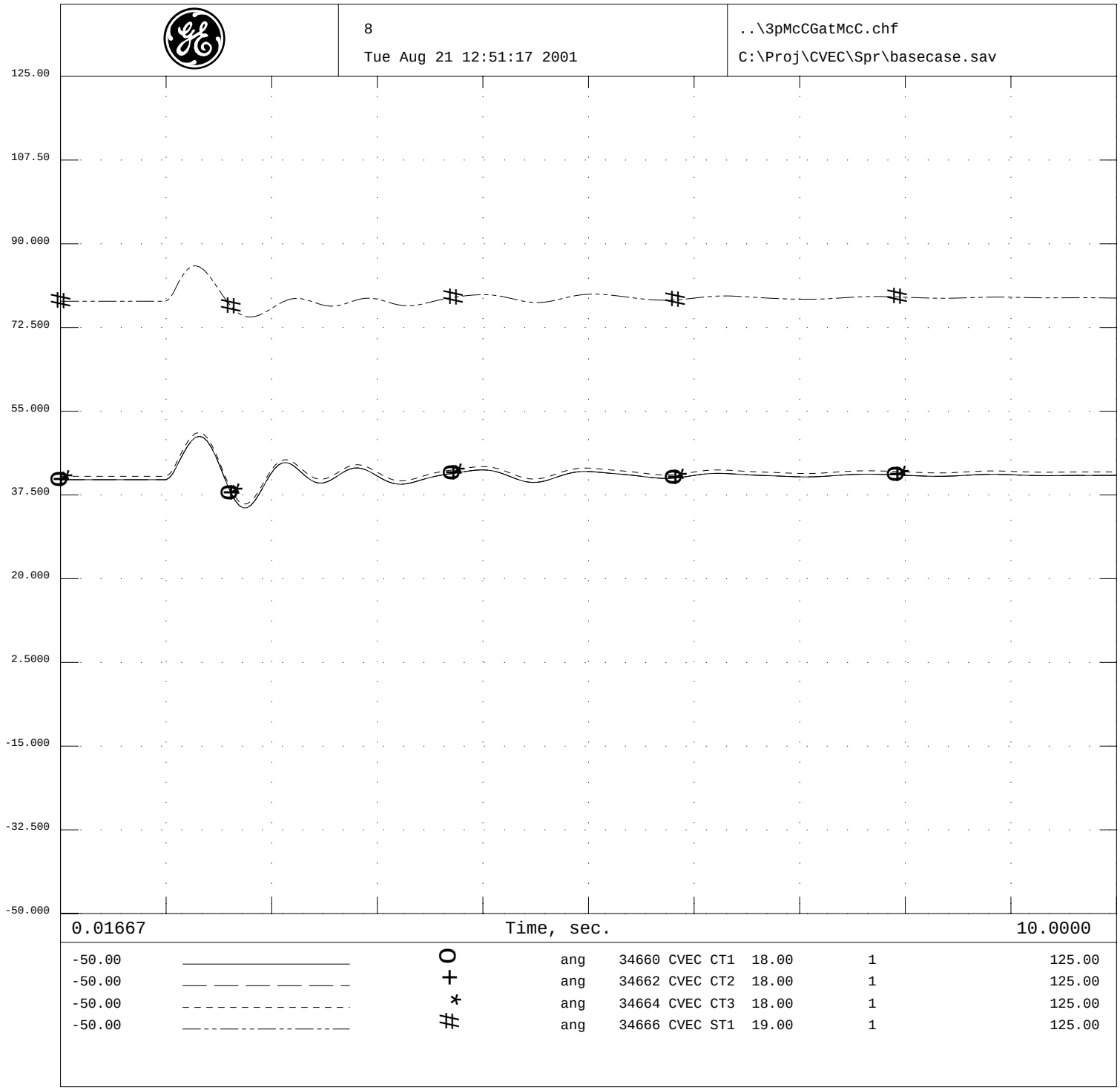
Calpine Corporation
Project Generator Rotor Speed



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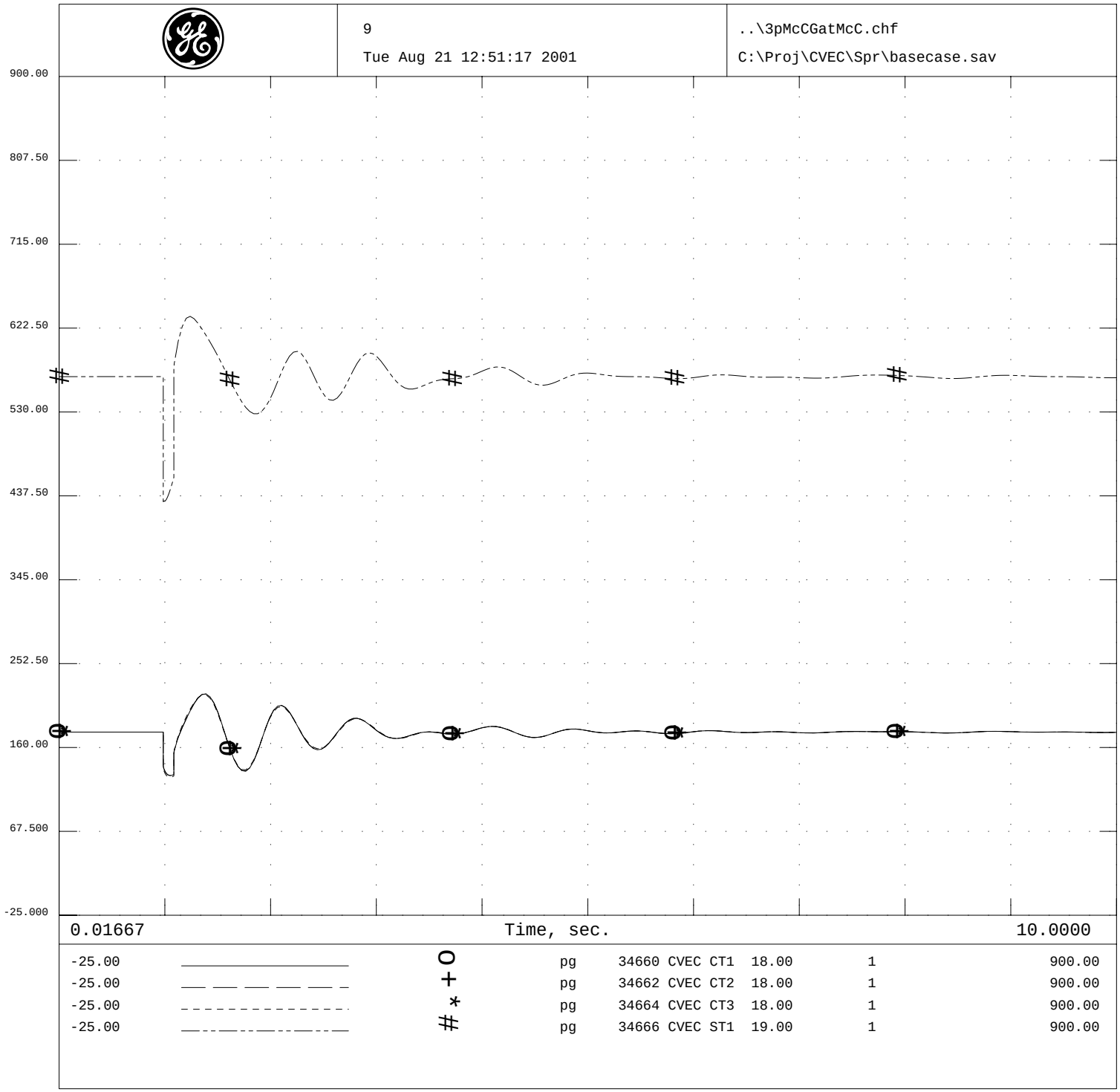
Project Generator Rotor Angle



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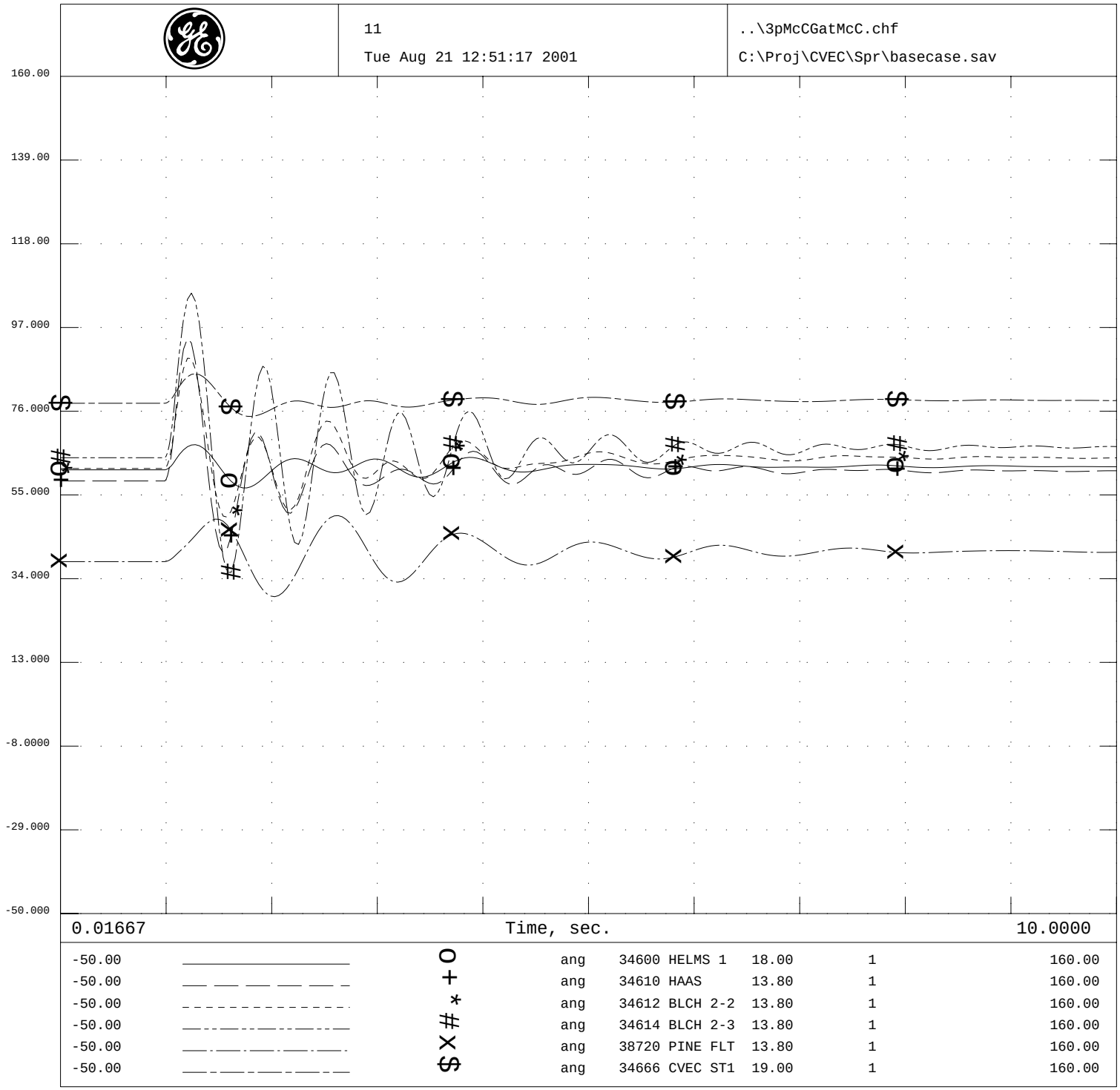

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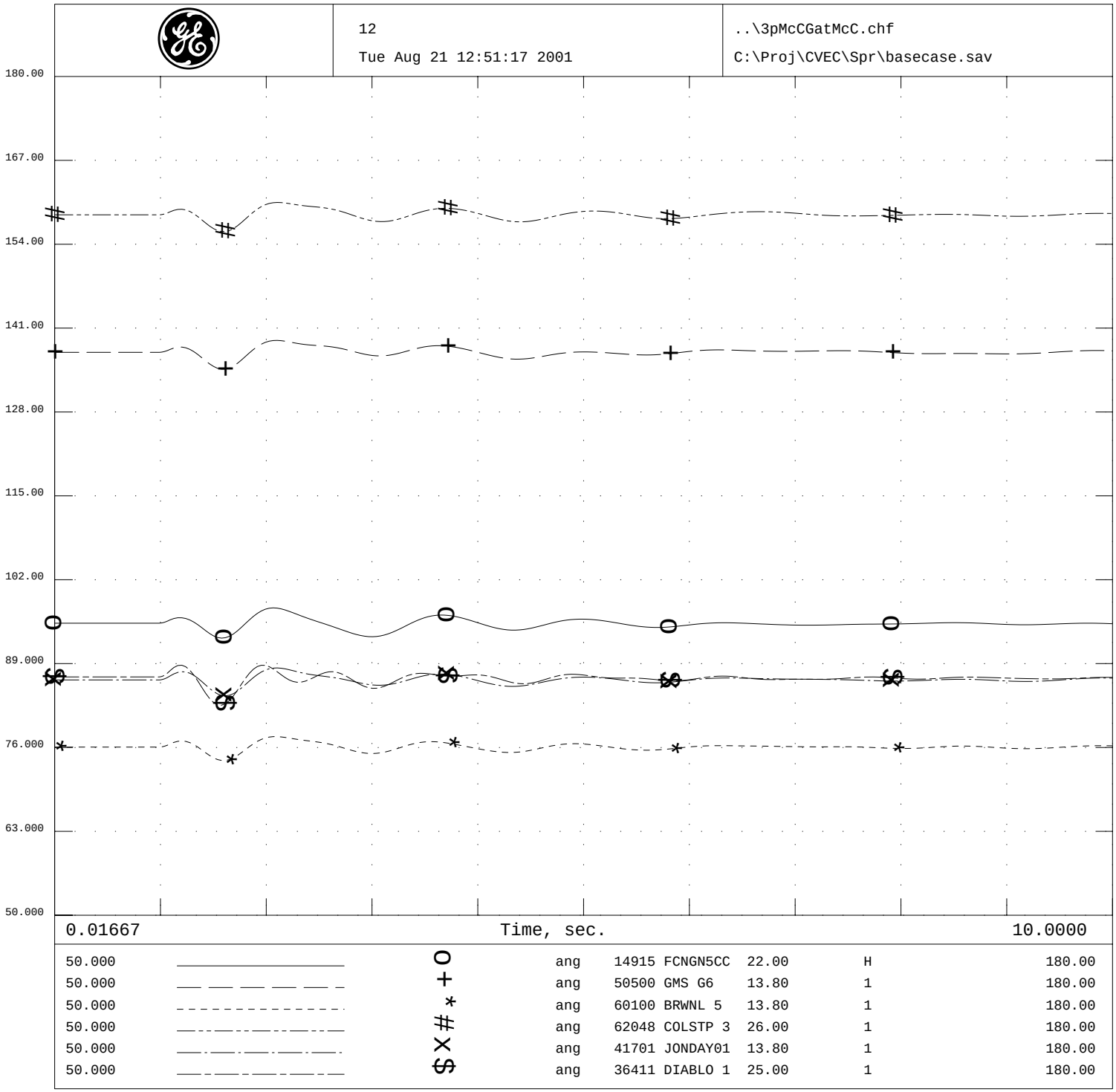
Calpine Corporation
Selected Local Rotor Angle Plots



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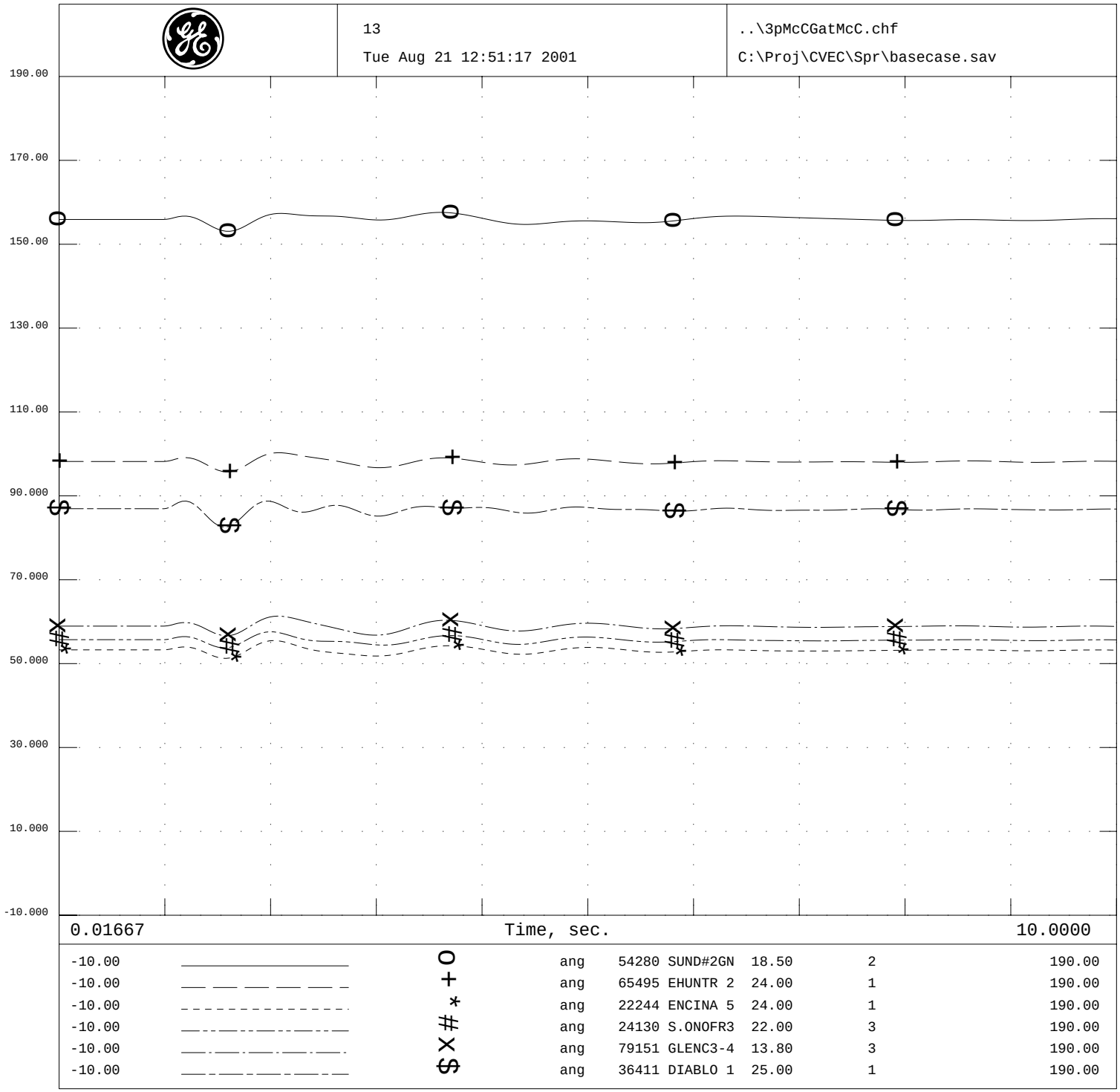

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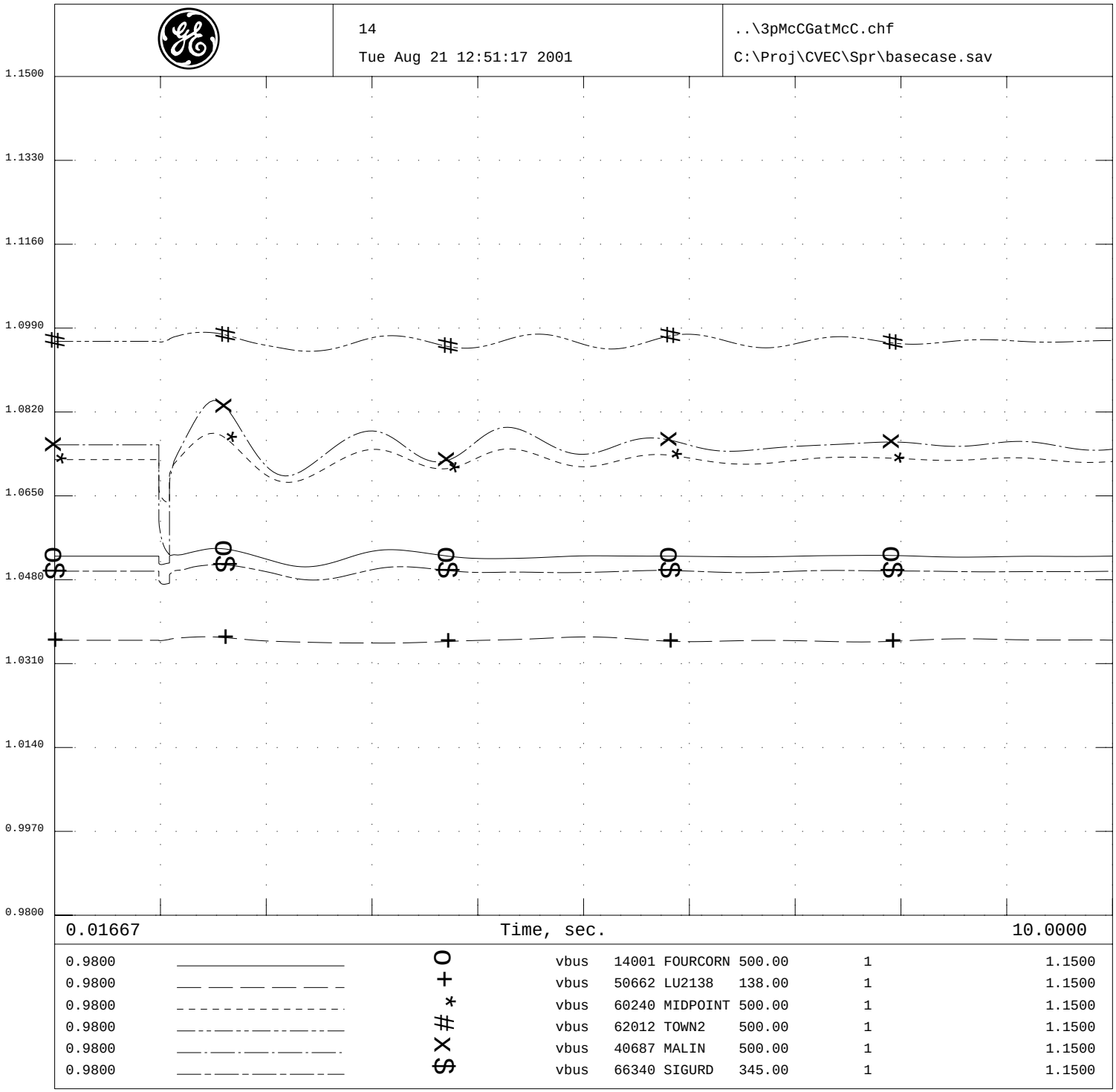

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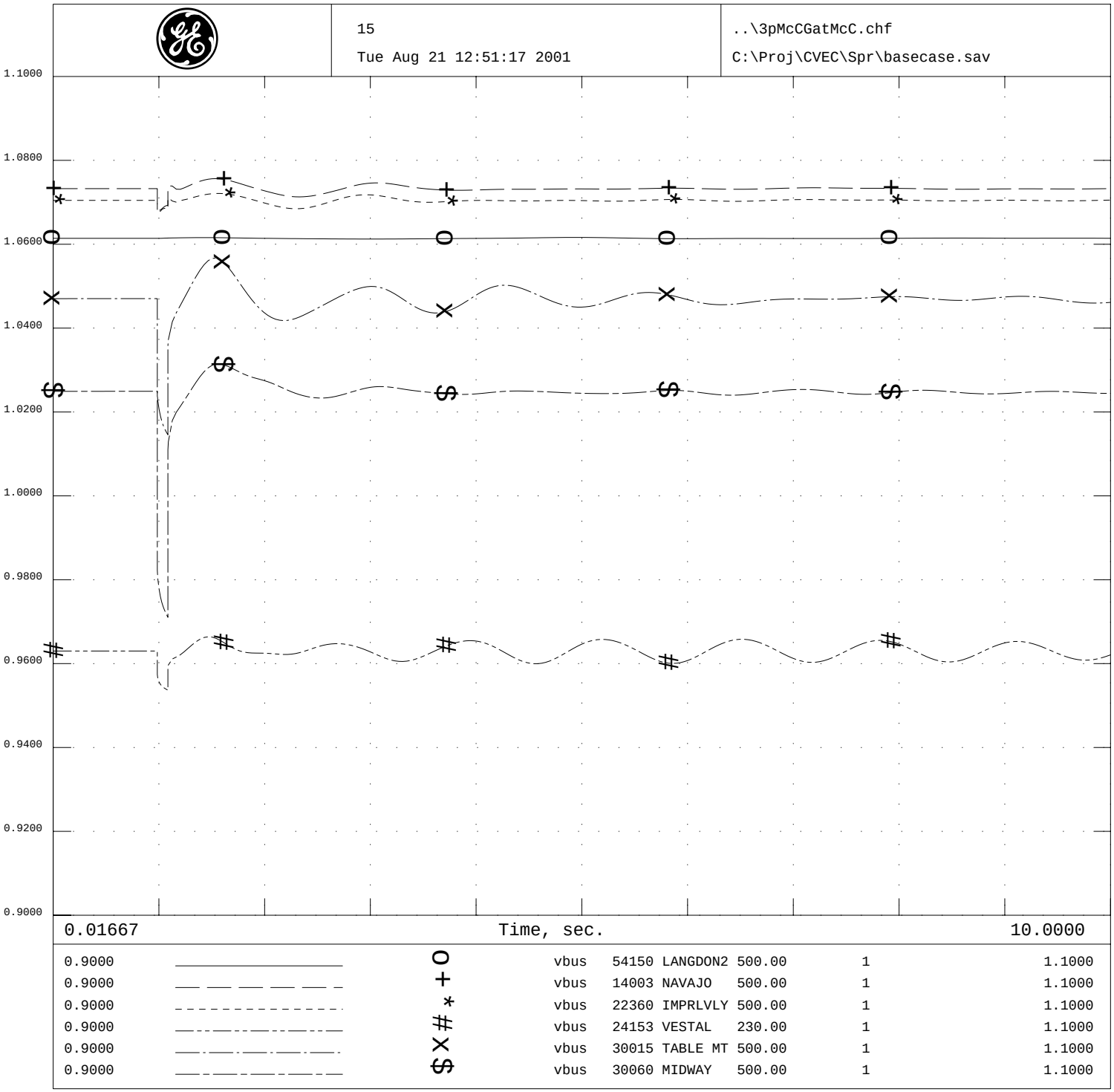

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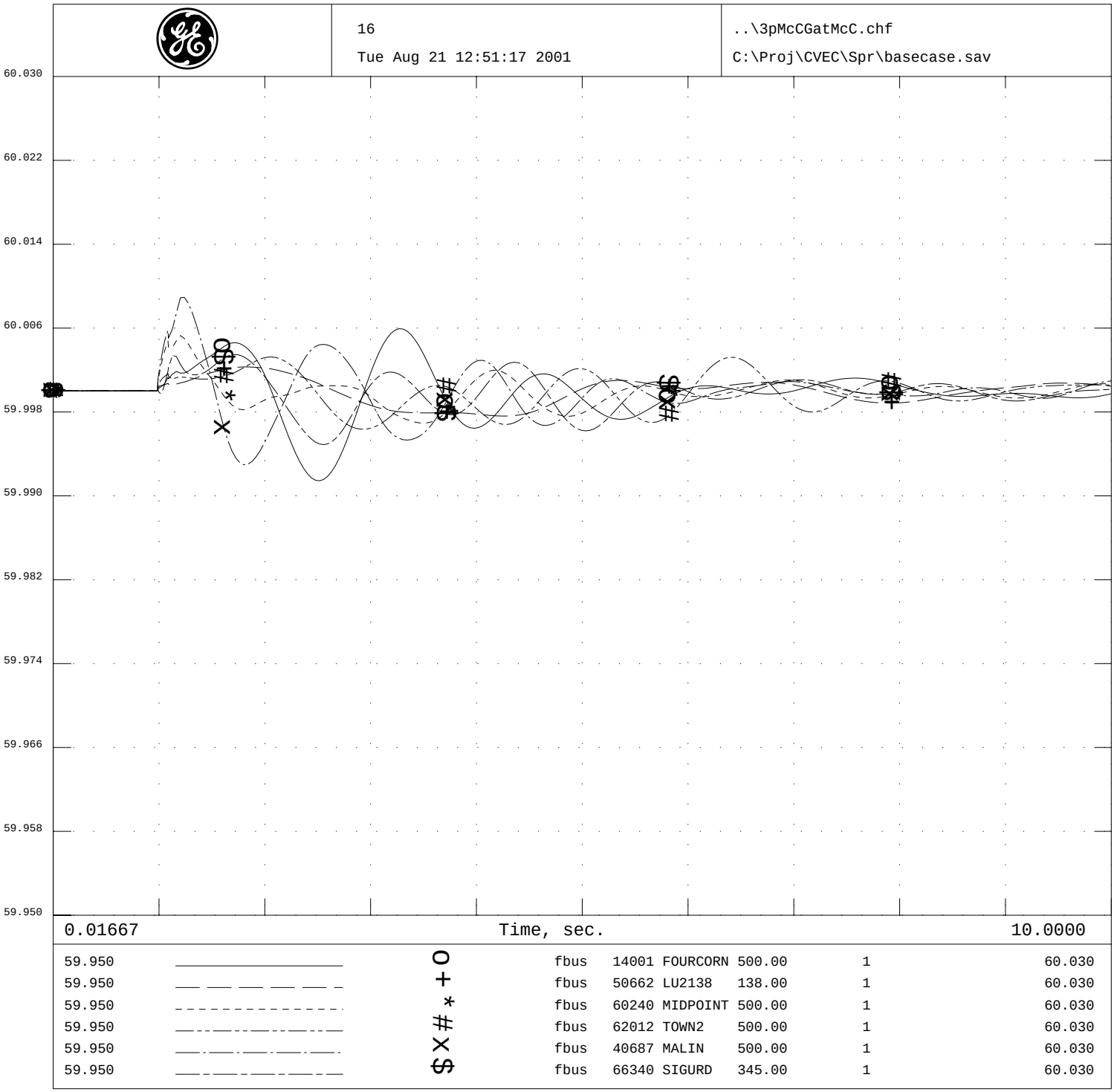

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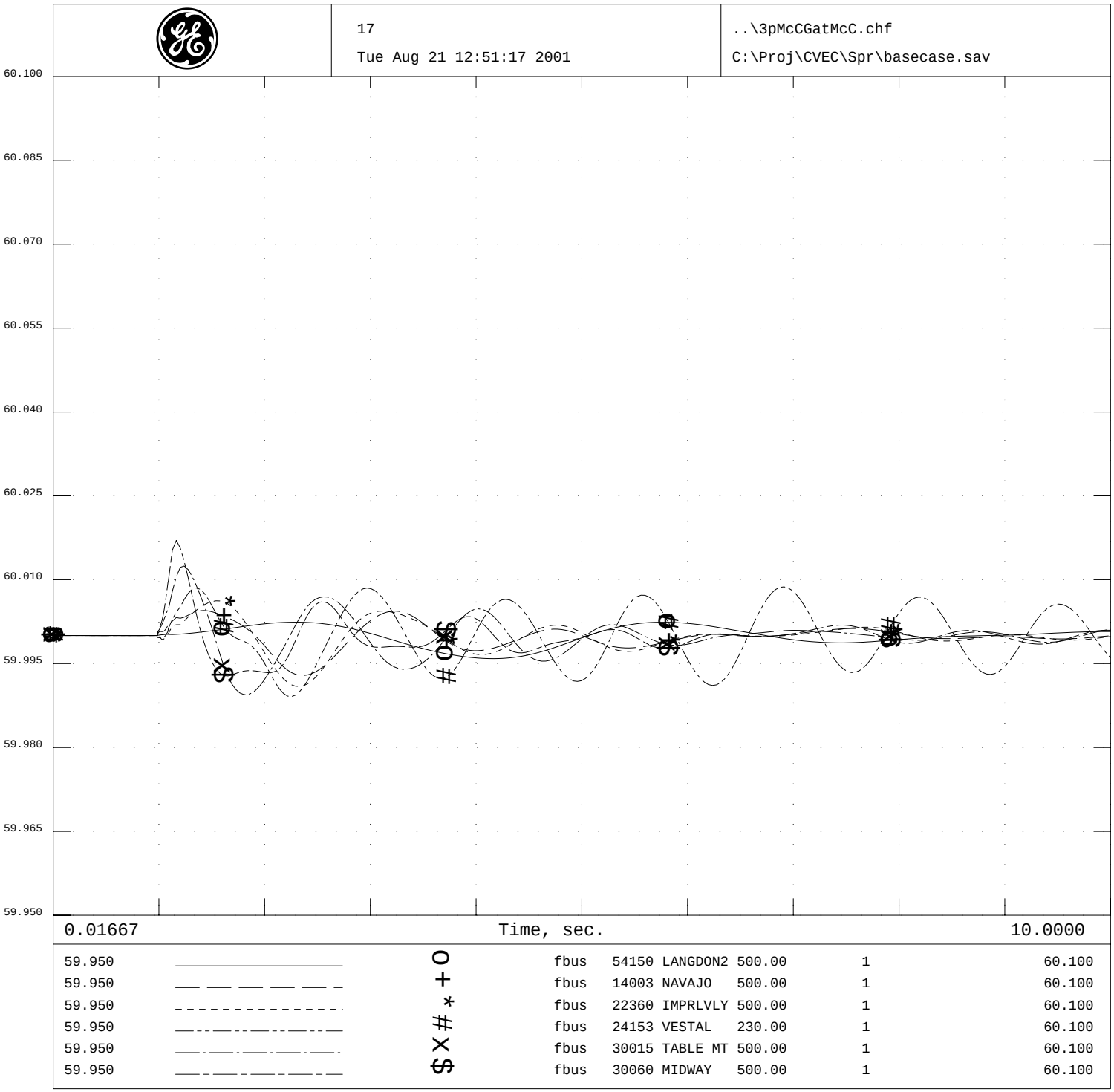

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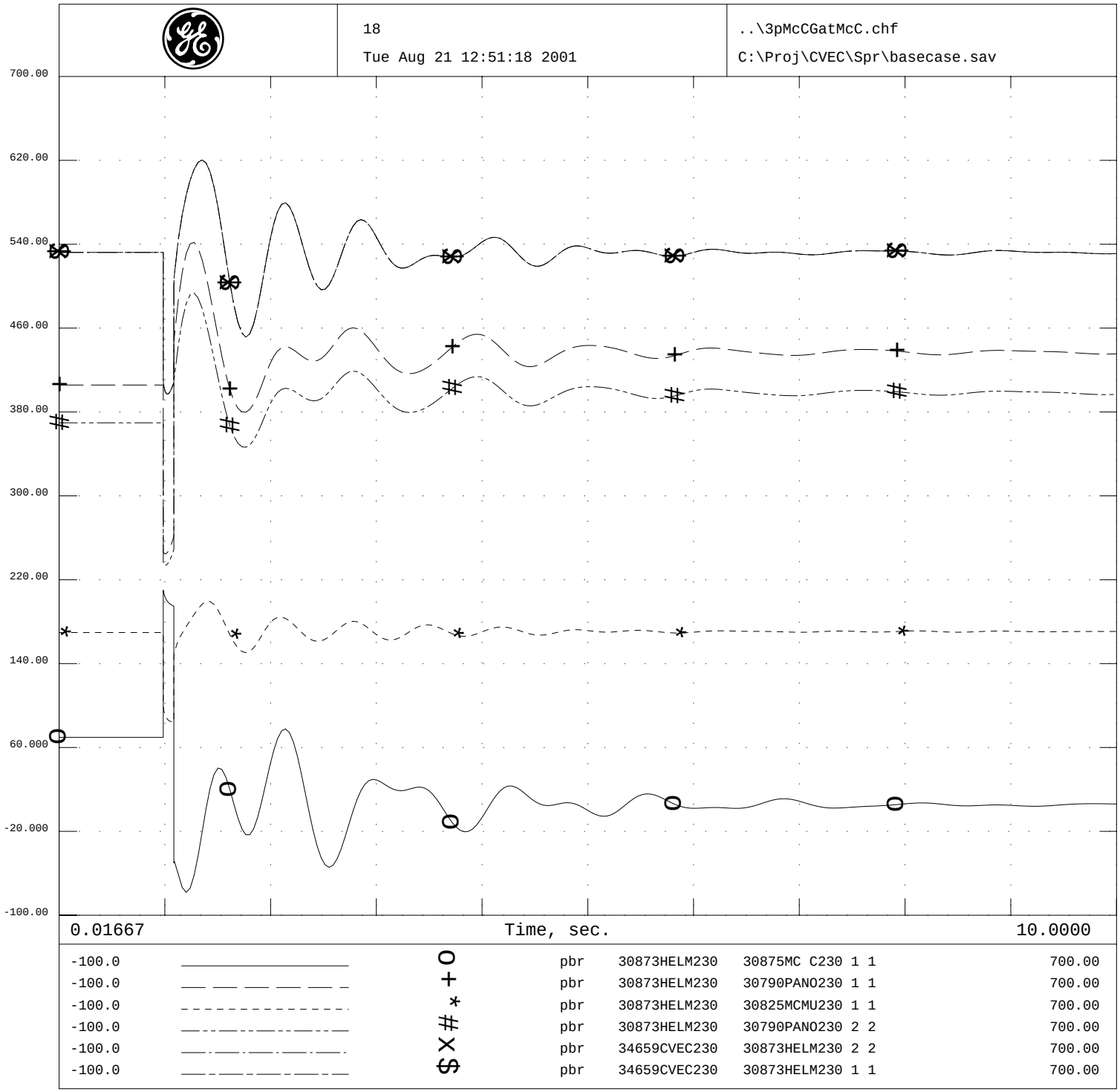

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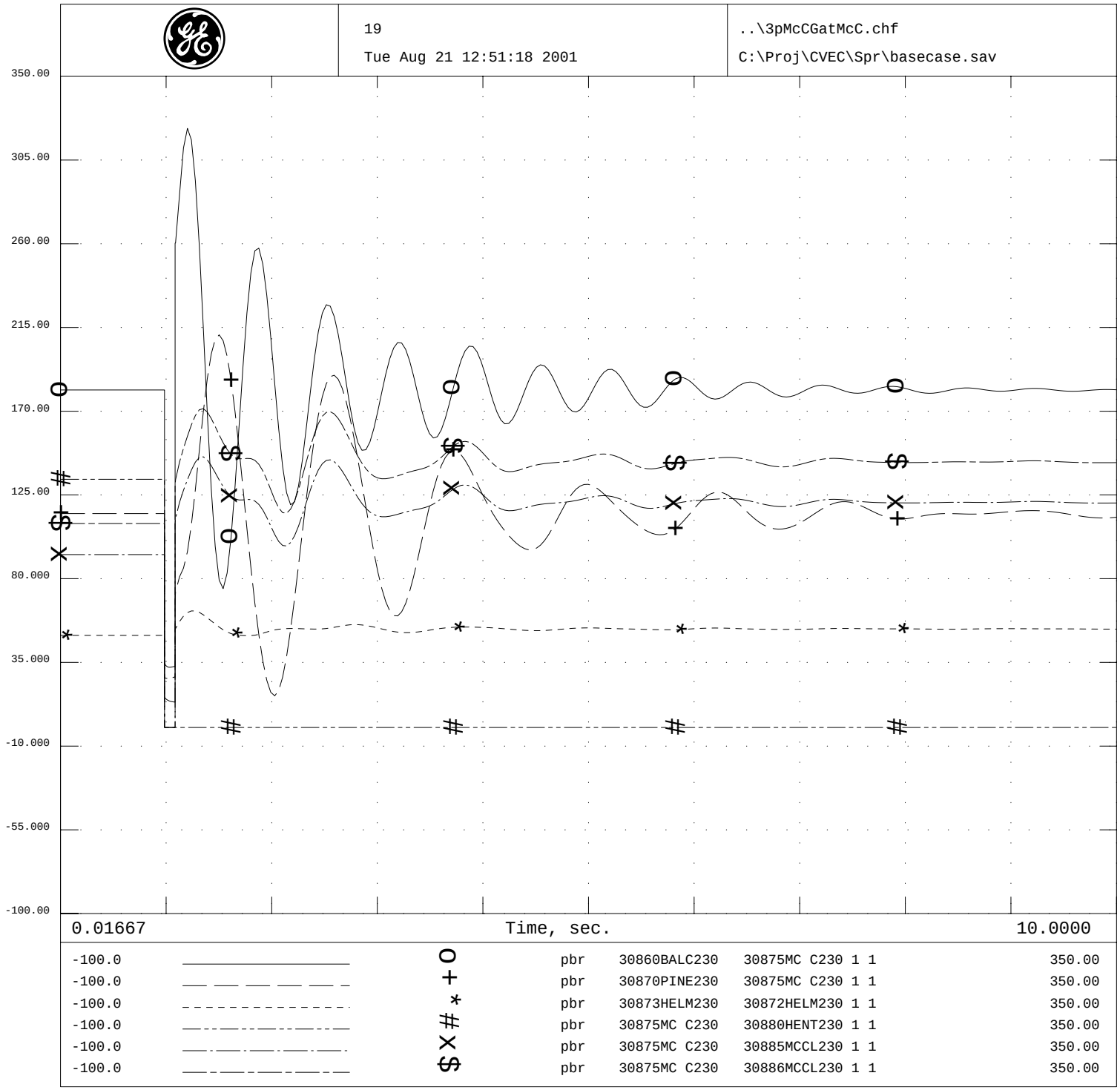

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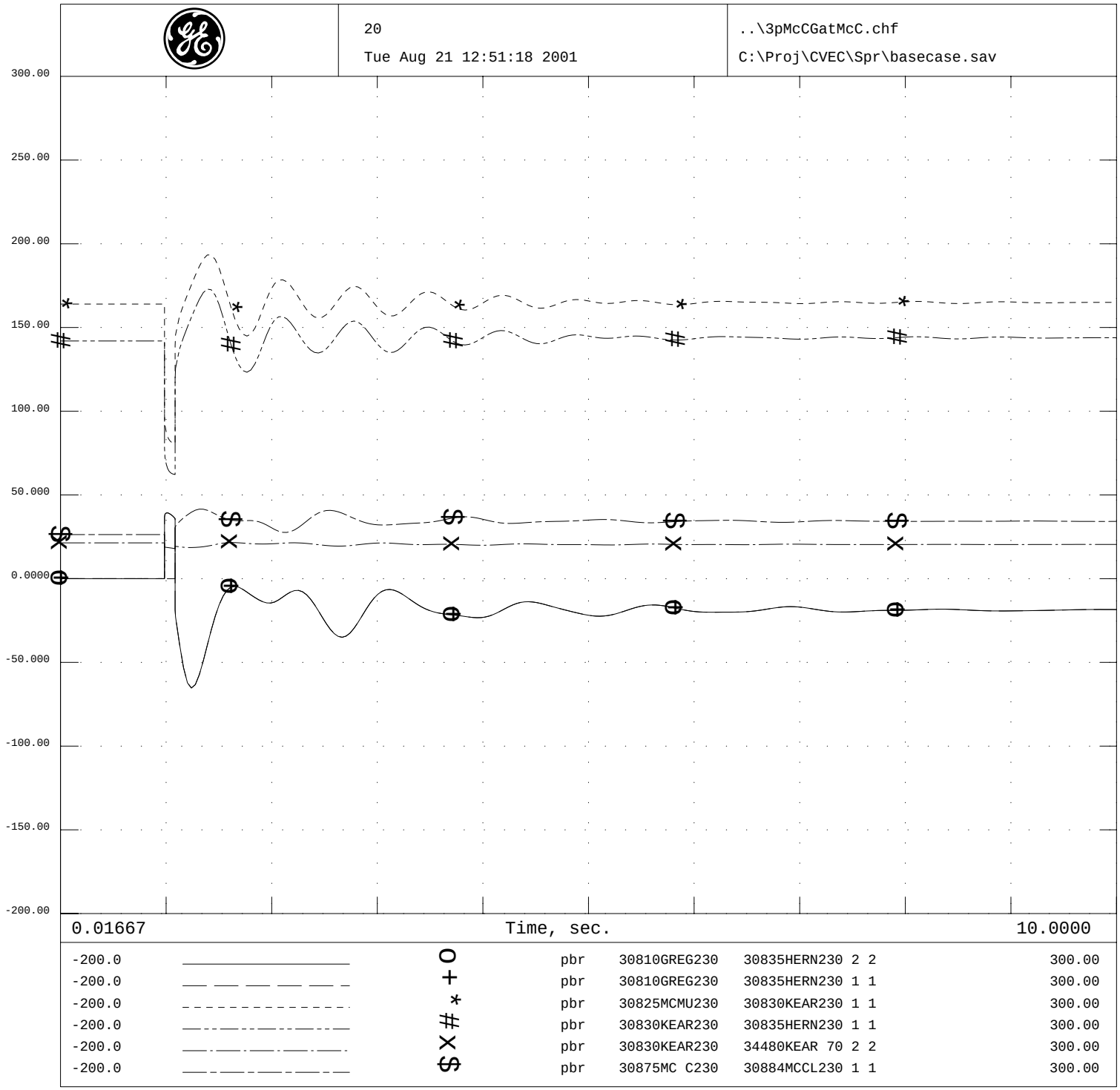

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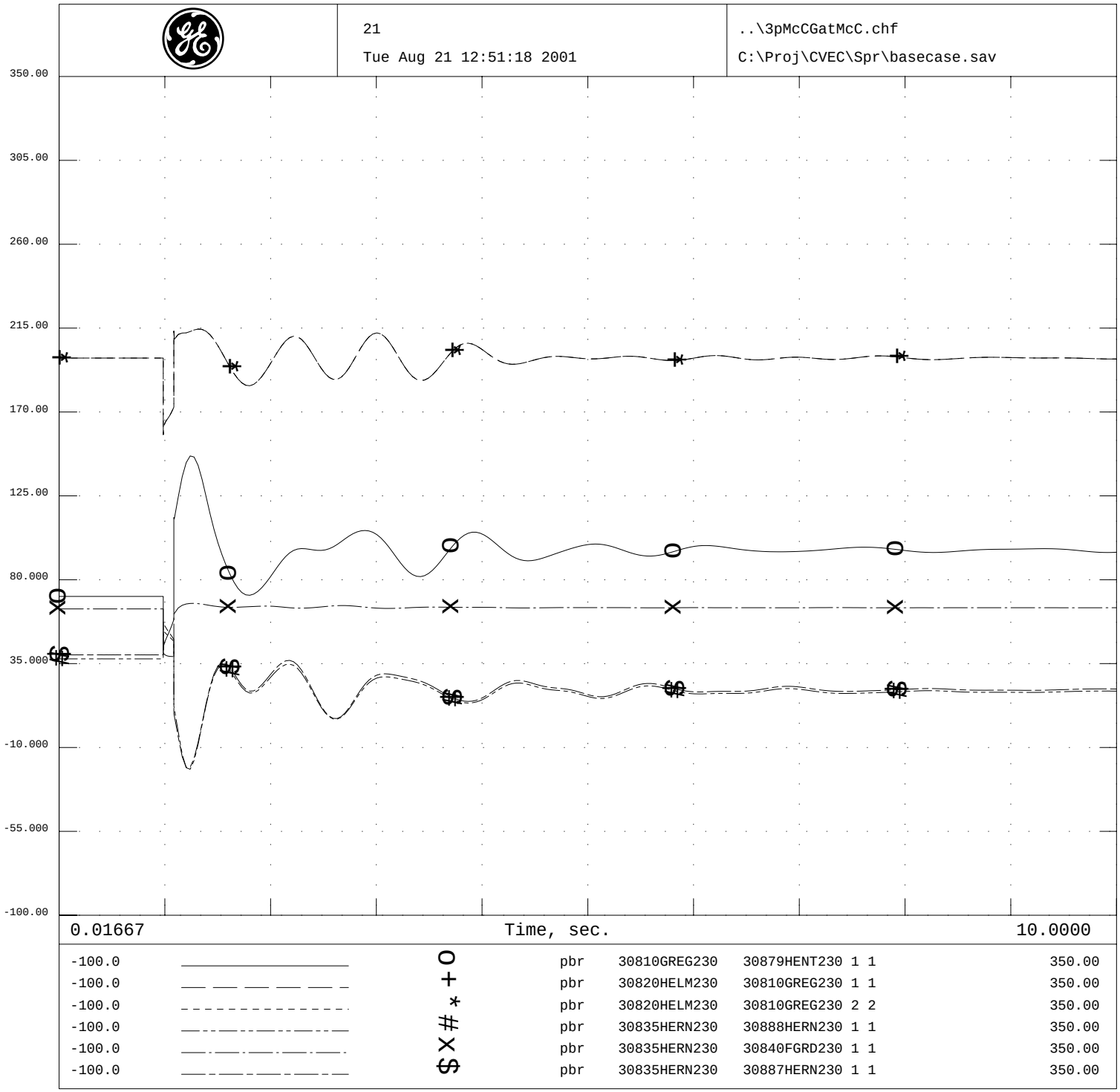

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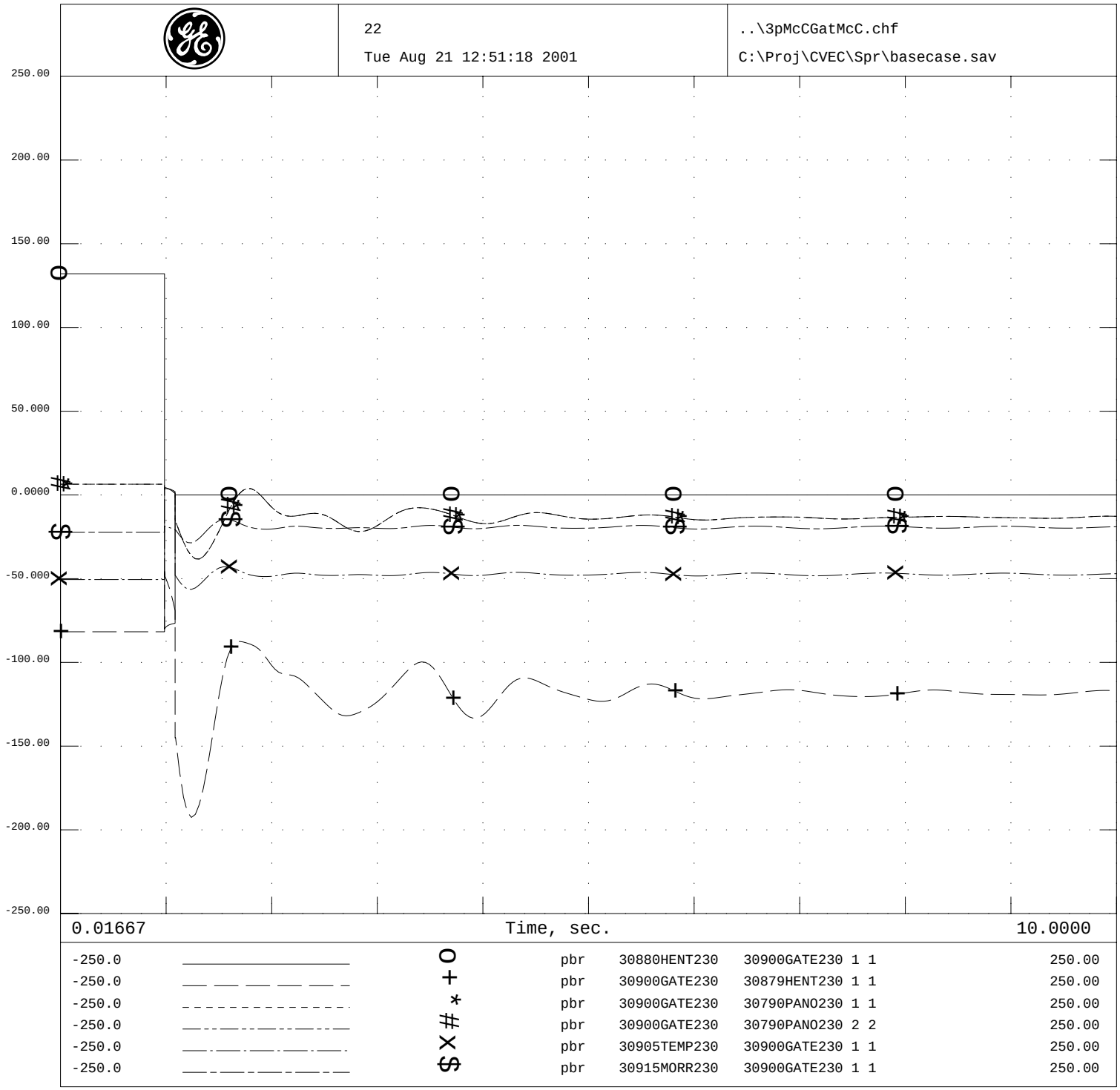

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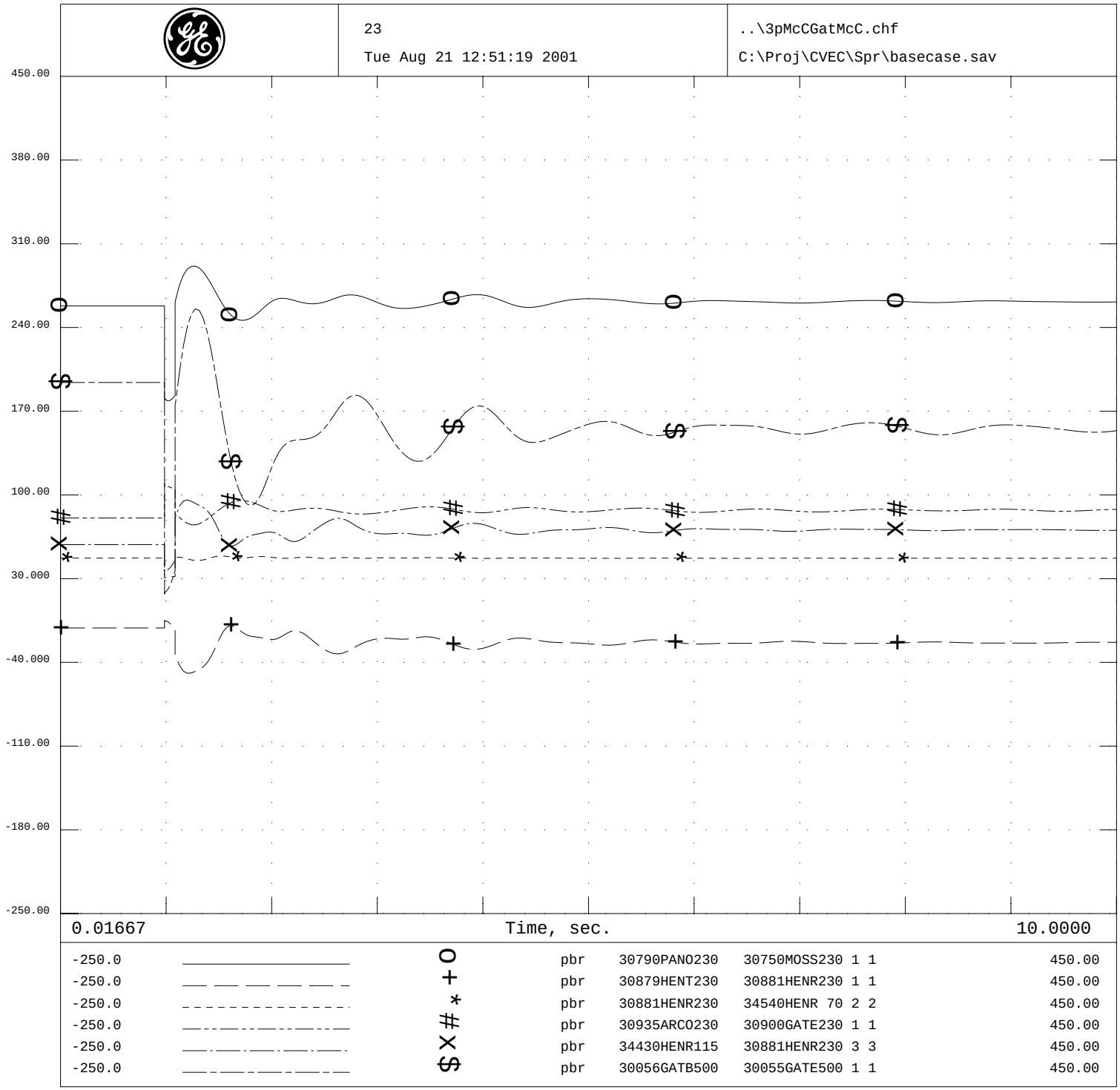

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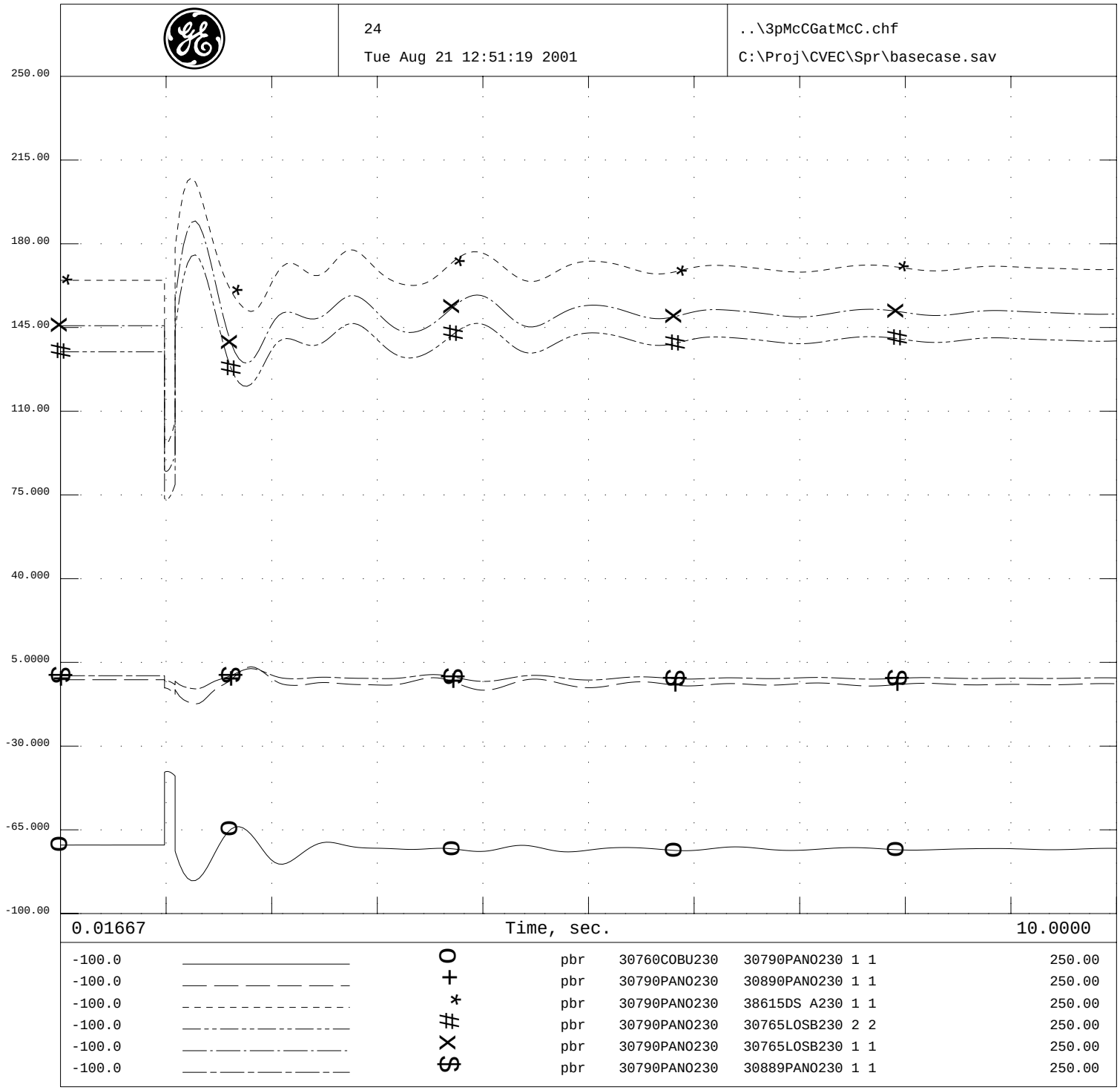

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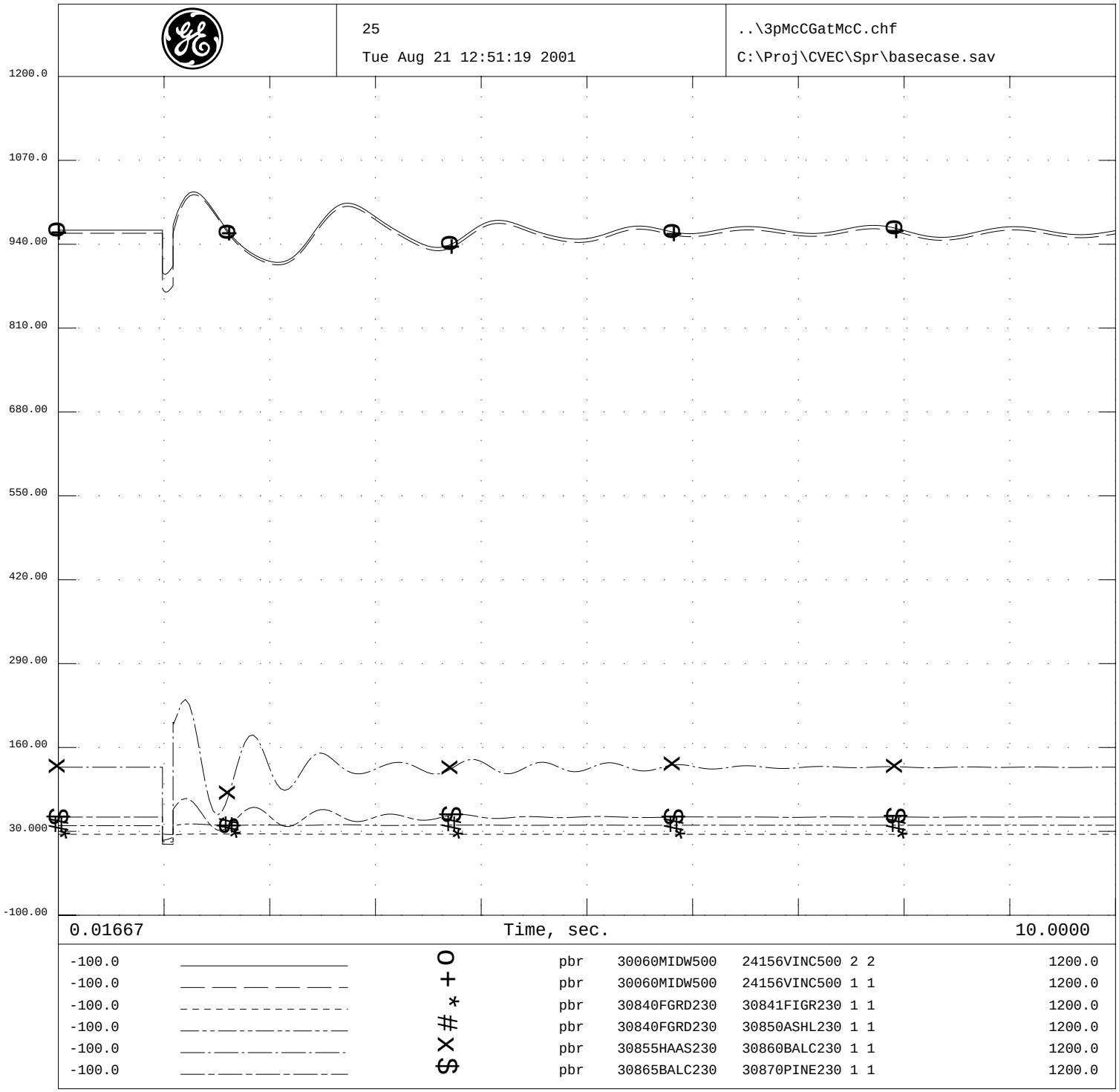

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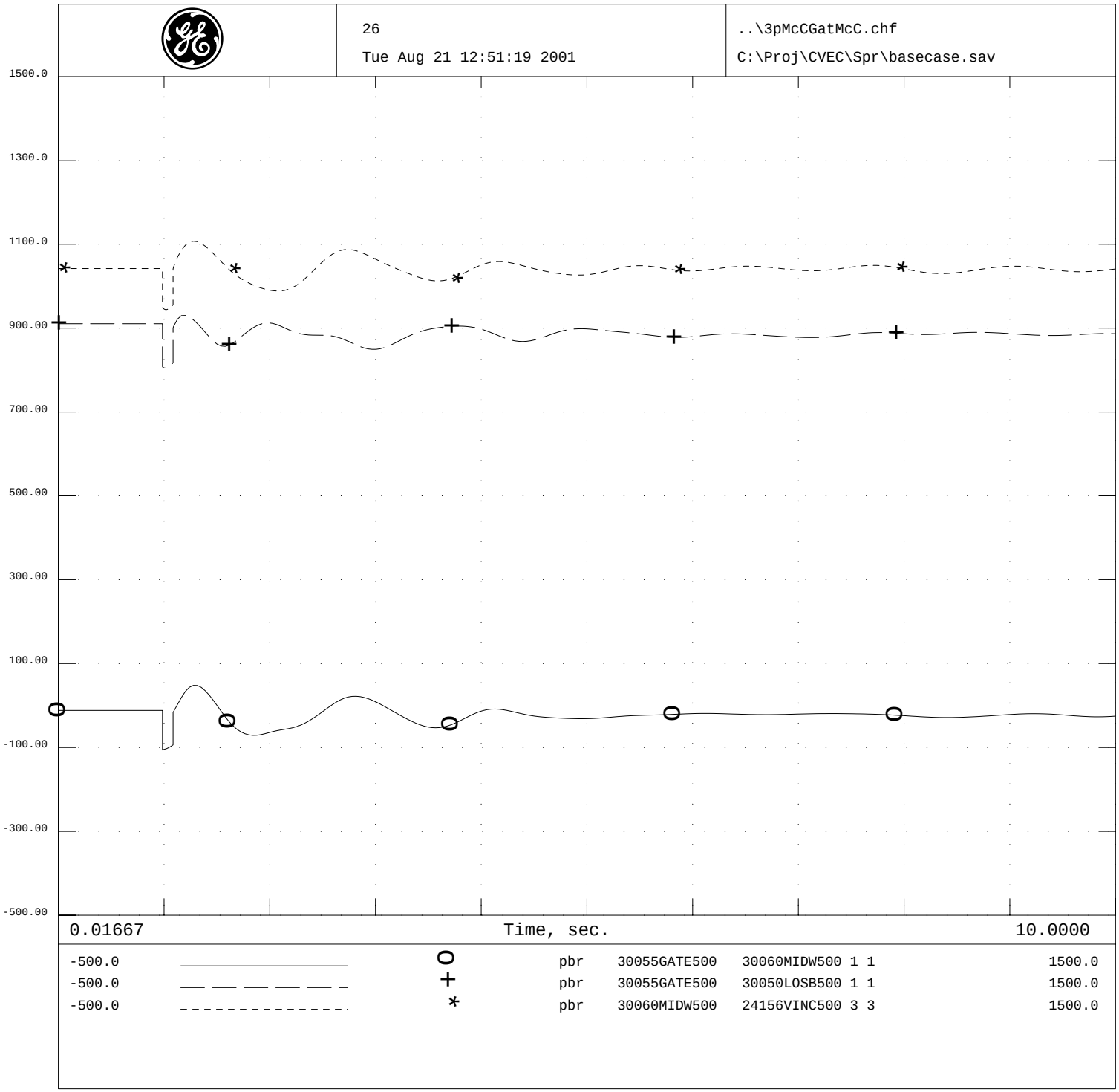

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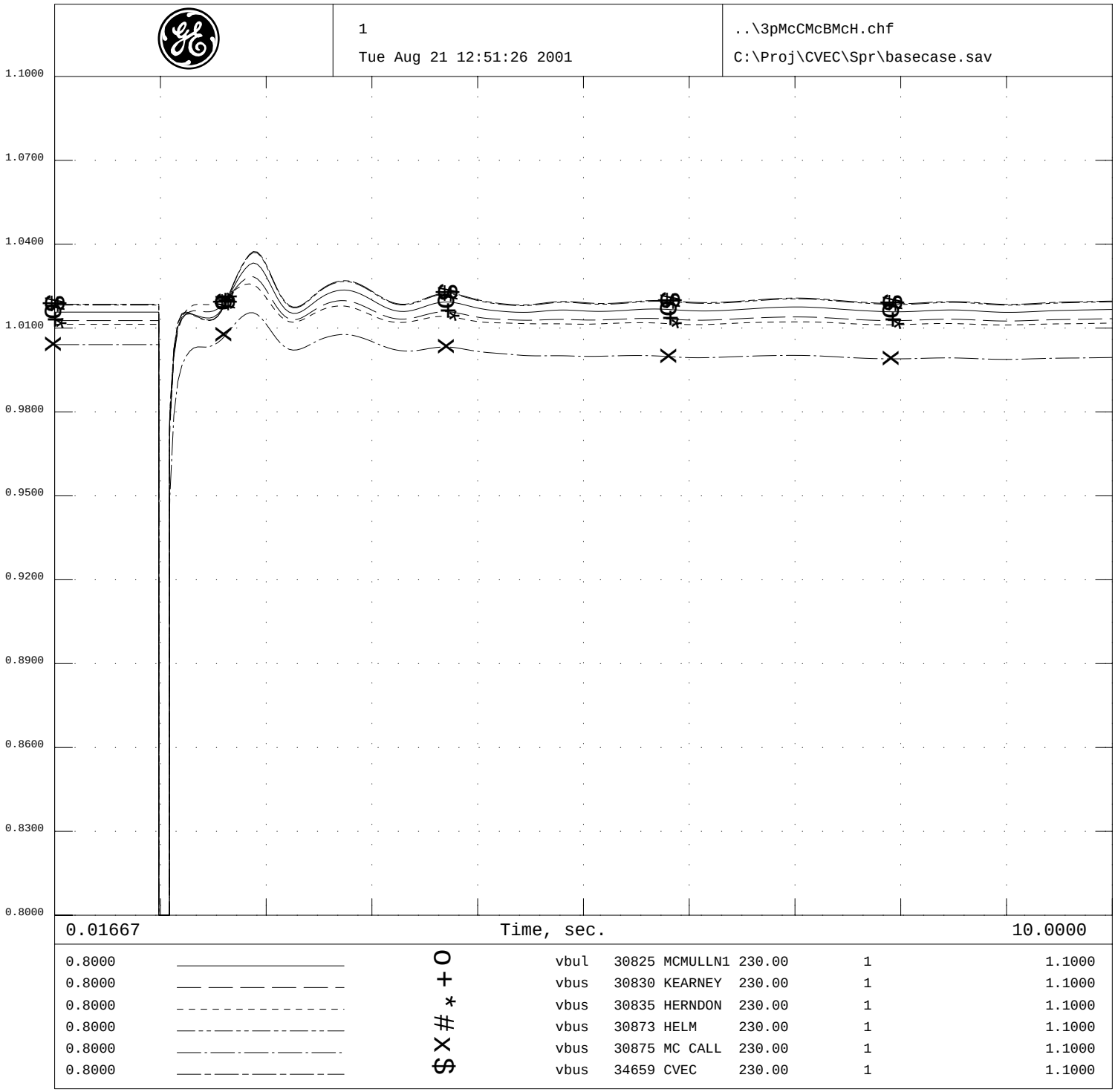
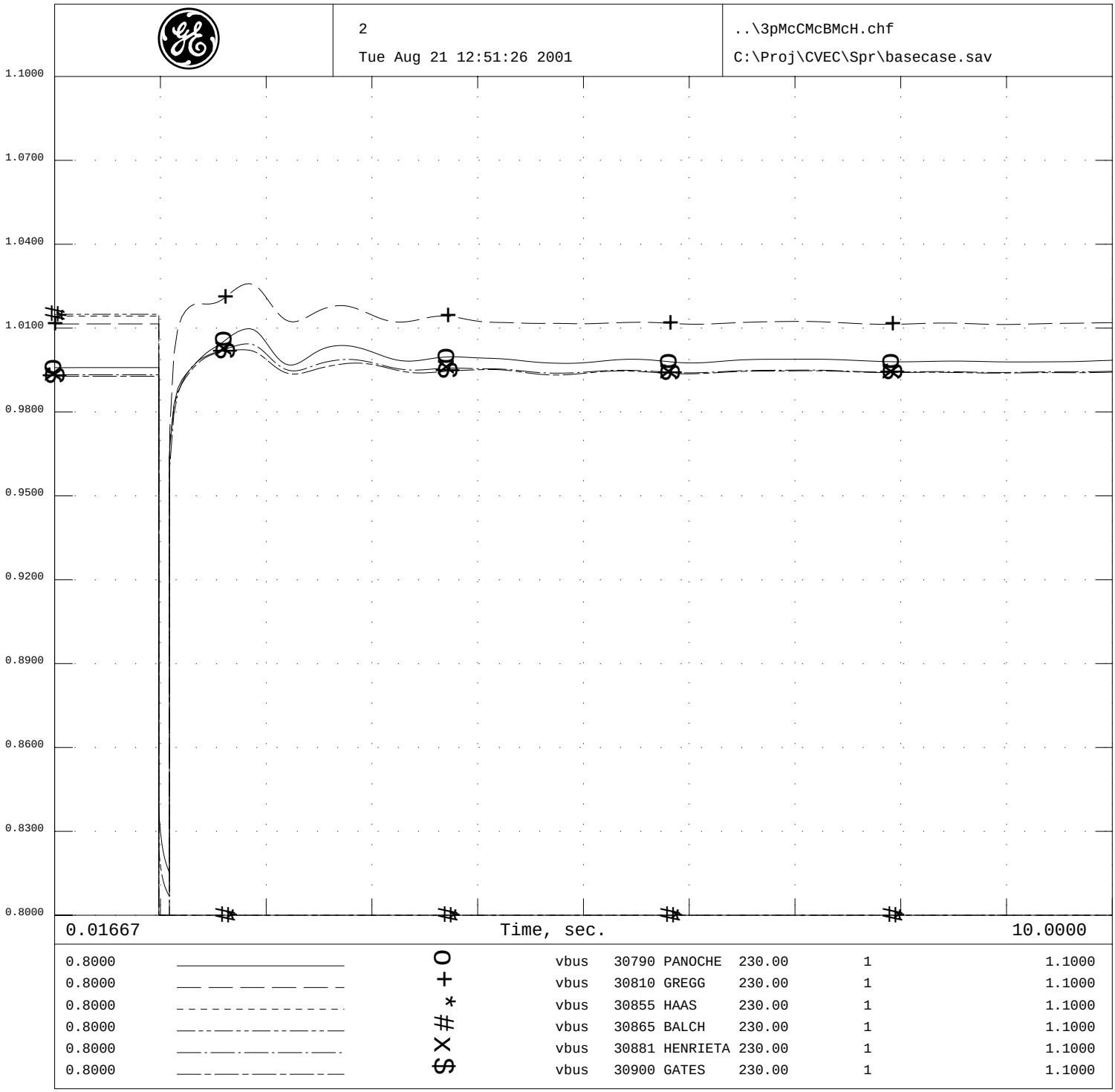
3 phase 6 cycle fault at McCall 230kV bus and trip Gates-McCall 230kV line

Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall-Balch, McCall-Haas 230kV Double Line Outage
3 phase 6 cycle fault at McCall 230kV bus and McCall-Balch, McCall-Haas lines

Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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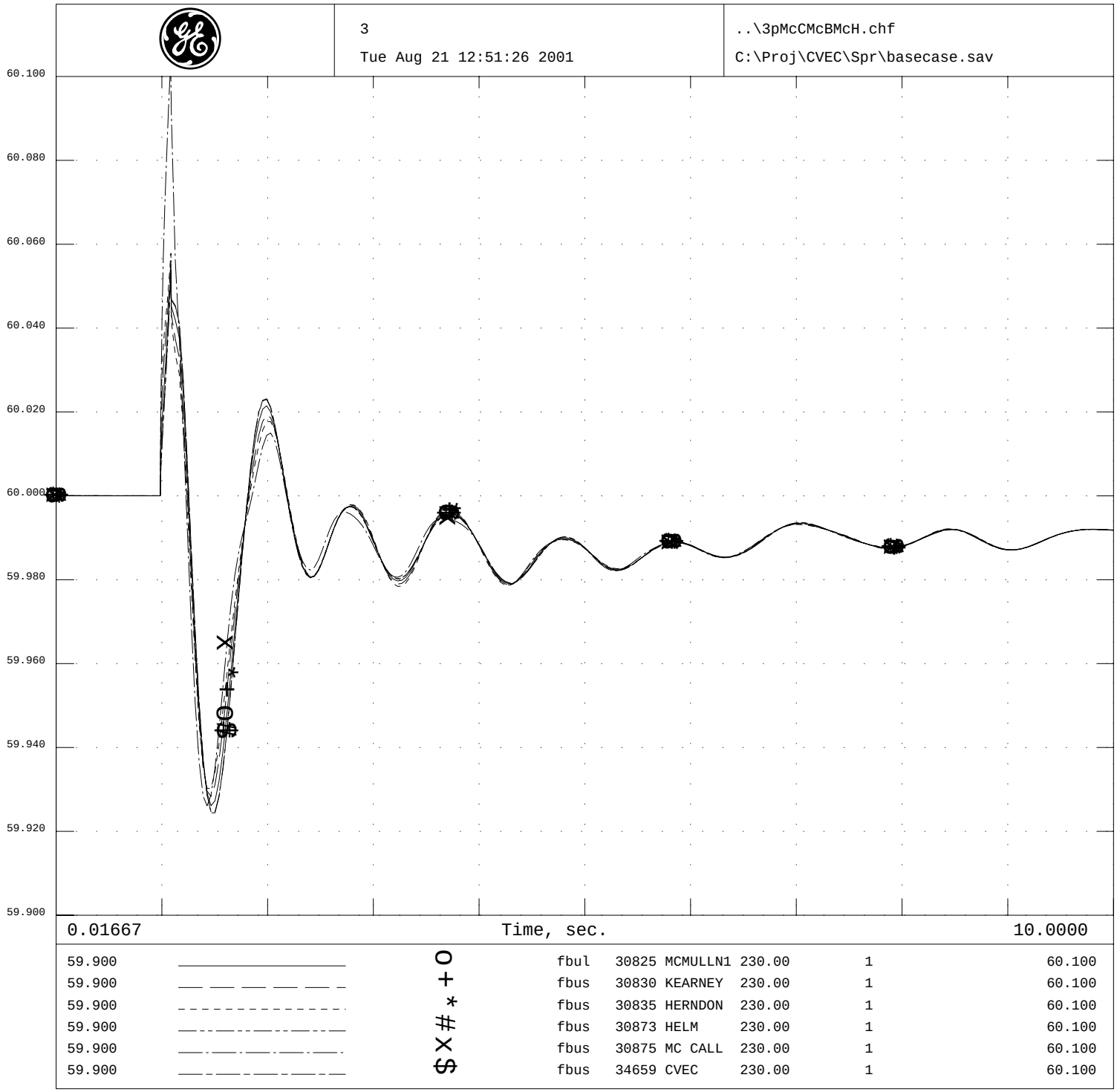

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall-Balch, McCall-Haas 230kV Double Line Outage
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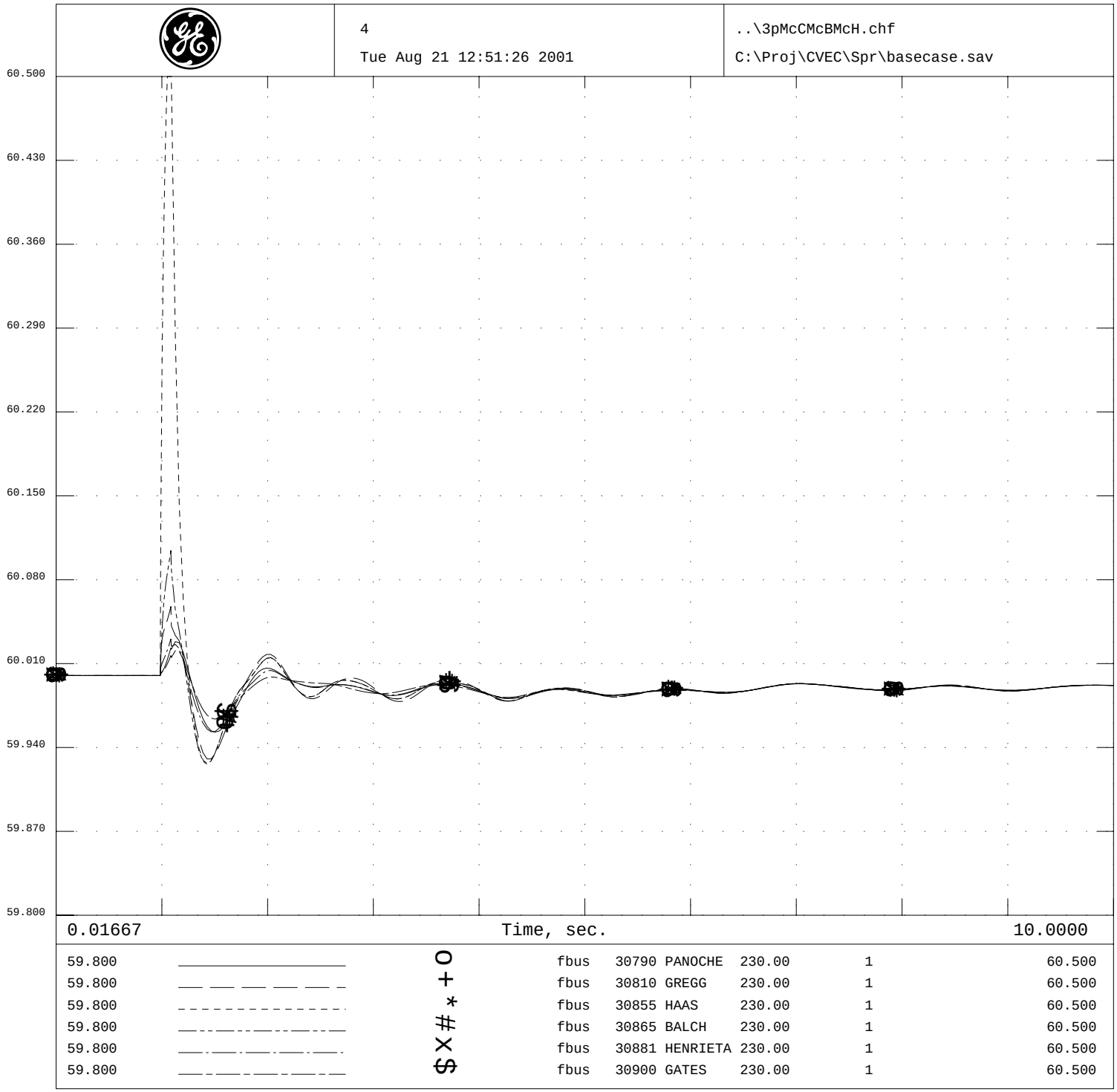
Central Valley Energy Center
Calpine Corporation
Selected Bus Frequency Plots Adjacent to Fault



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Calpine Corporation
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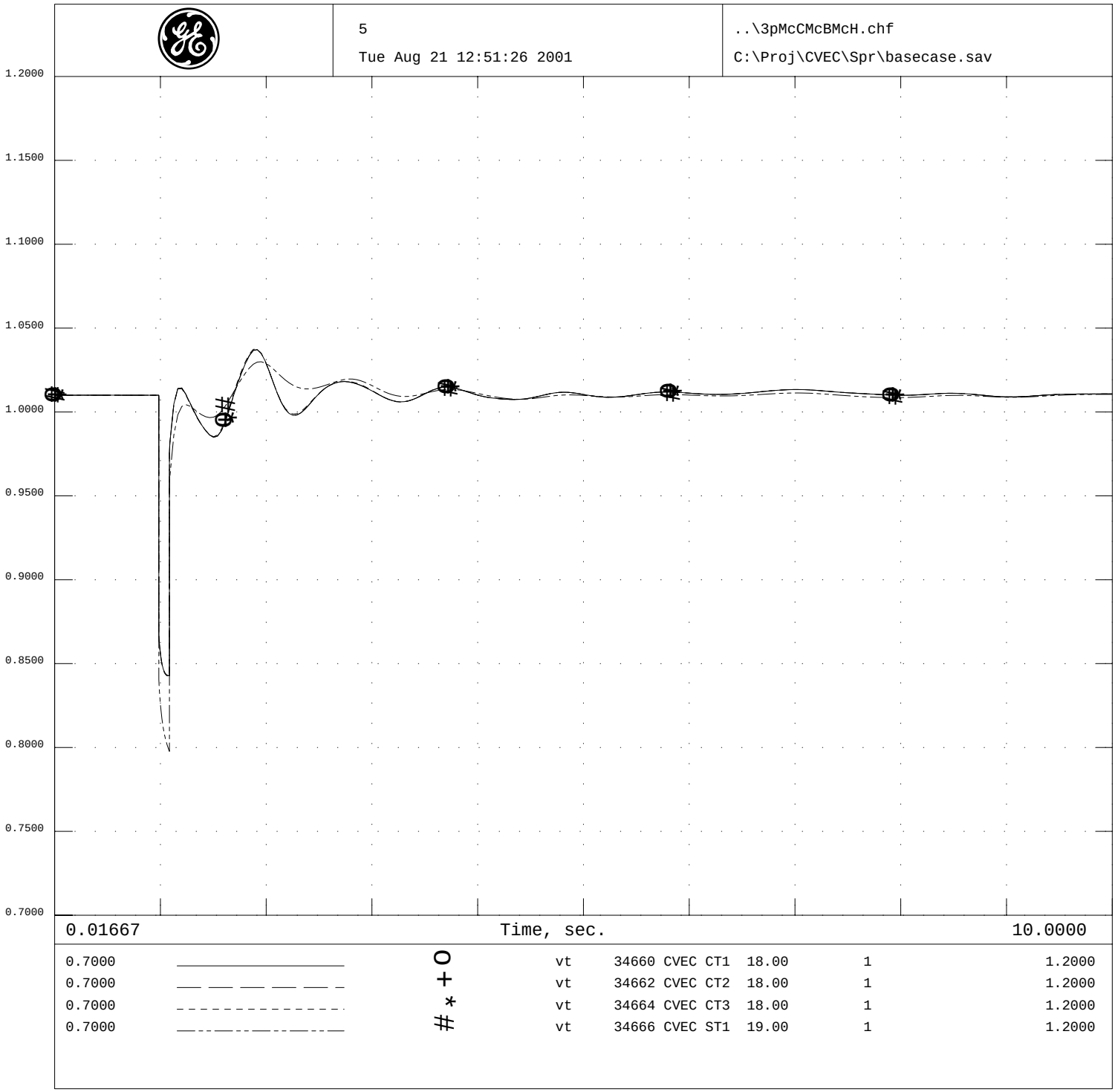

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall-Balch, McCall-Haas 230kV Double Line Outage
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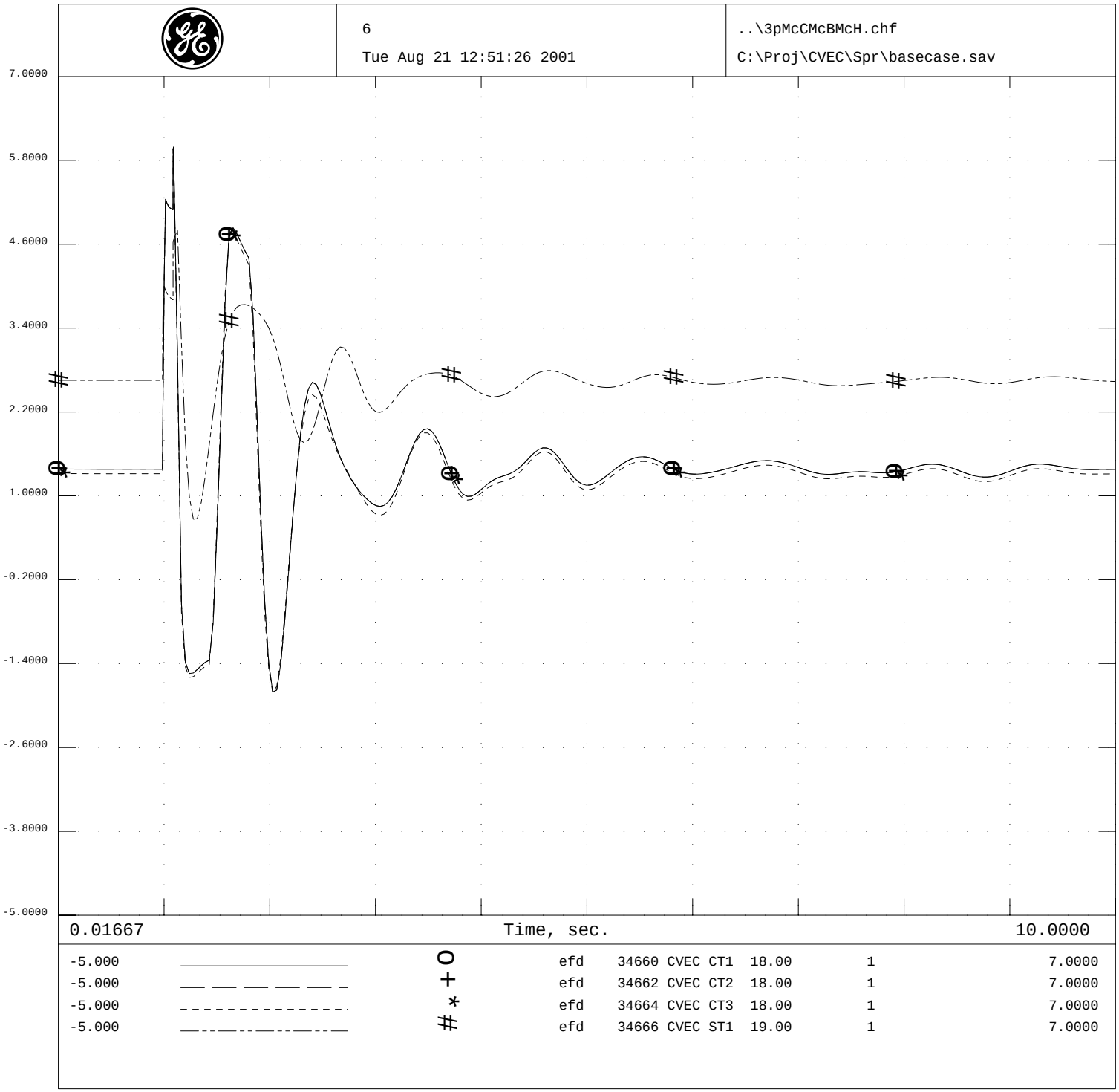
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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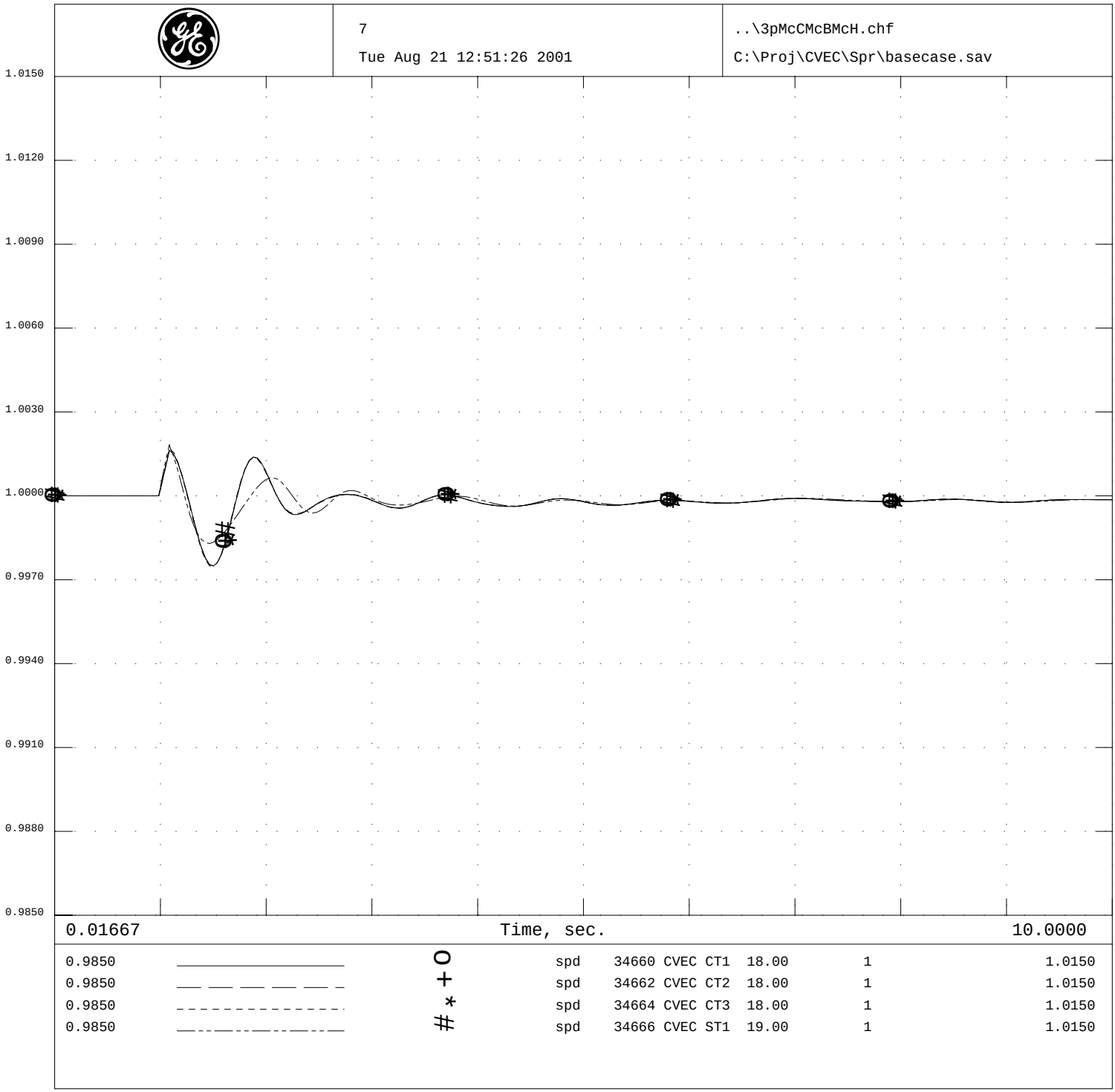
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
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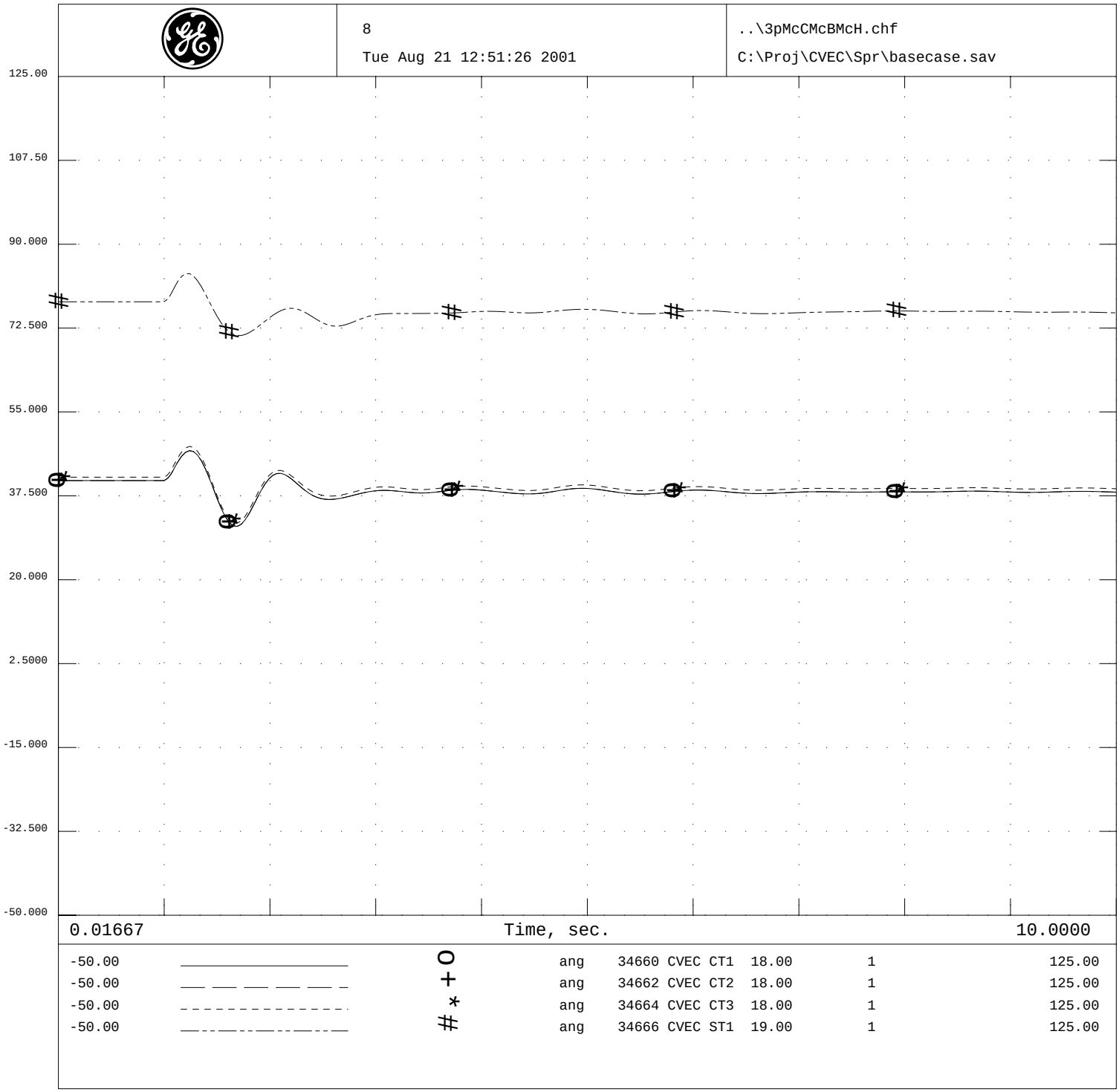
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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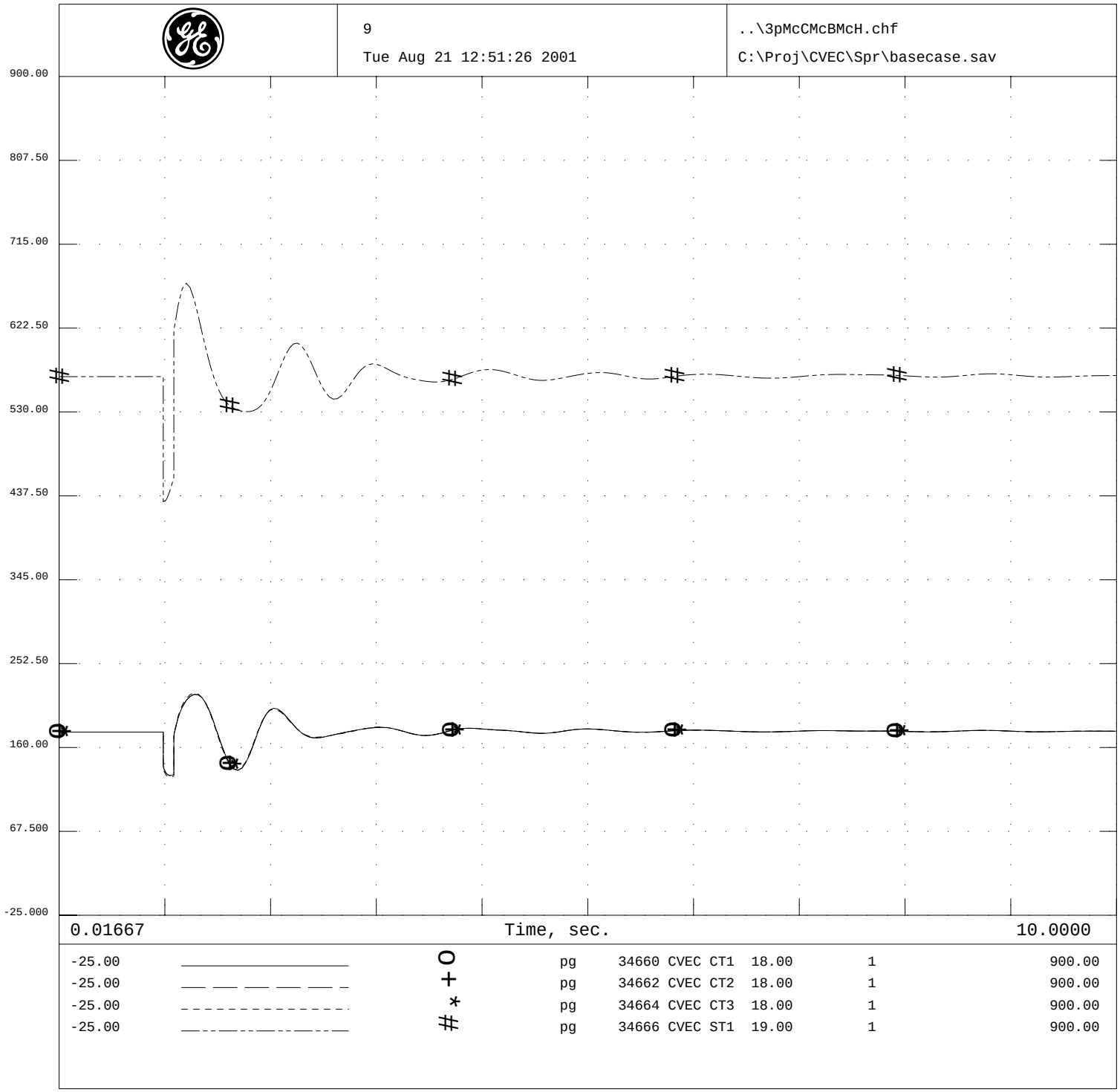
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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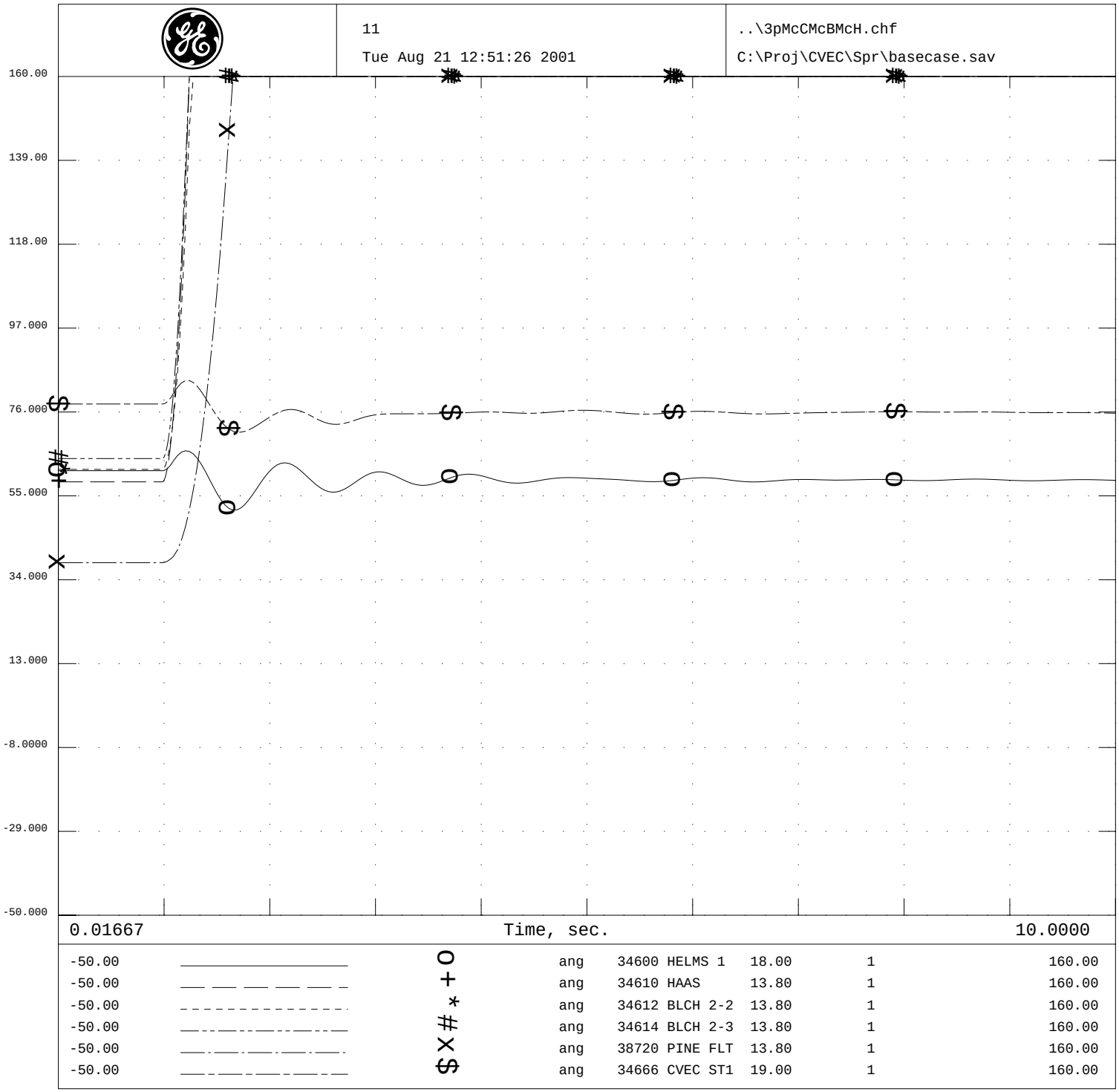
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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2004 Heavy Spring Base Case
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McCall-Balch, McCall-Haas 230kV Double Line Outage
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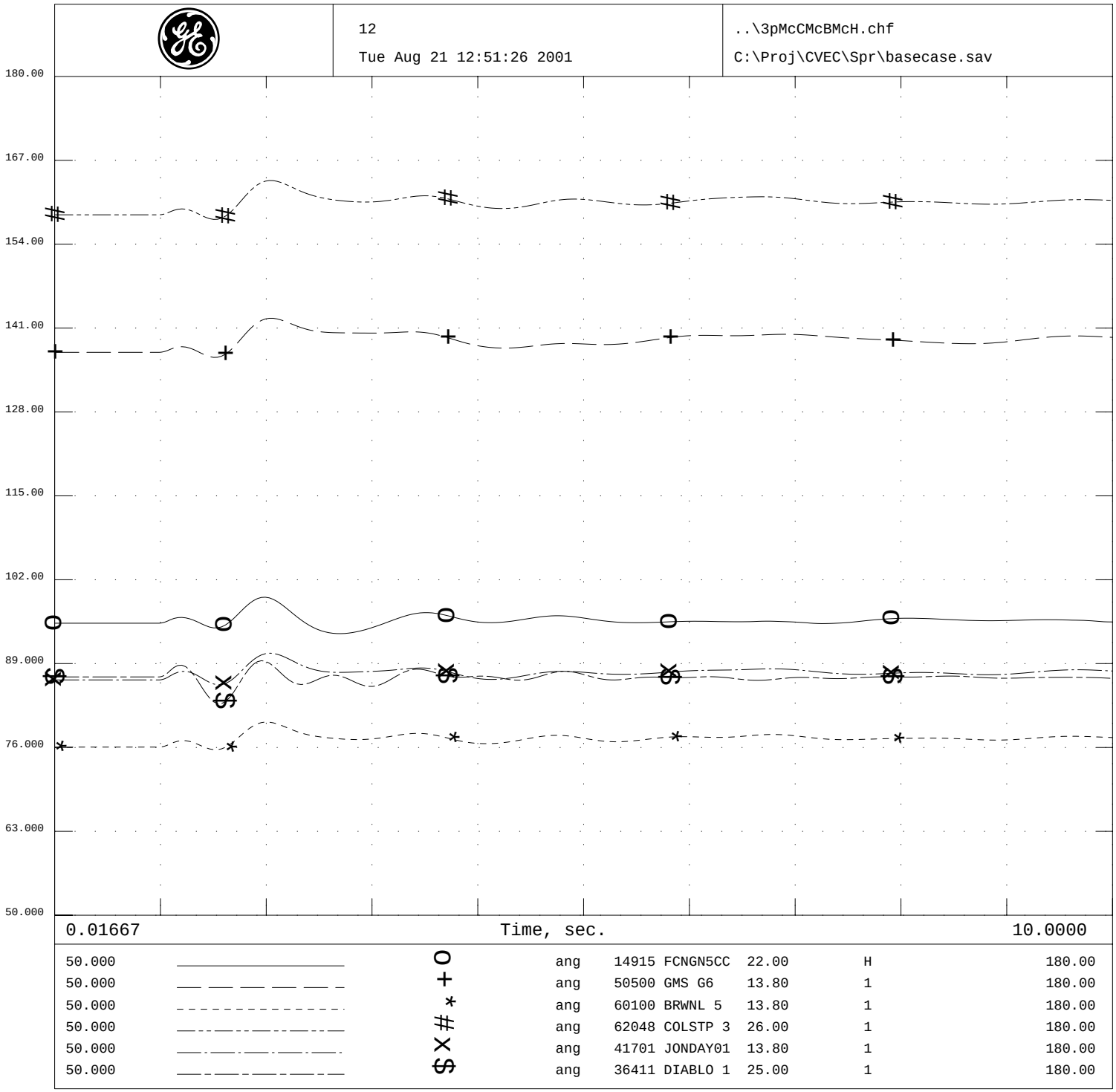
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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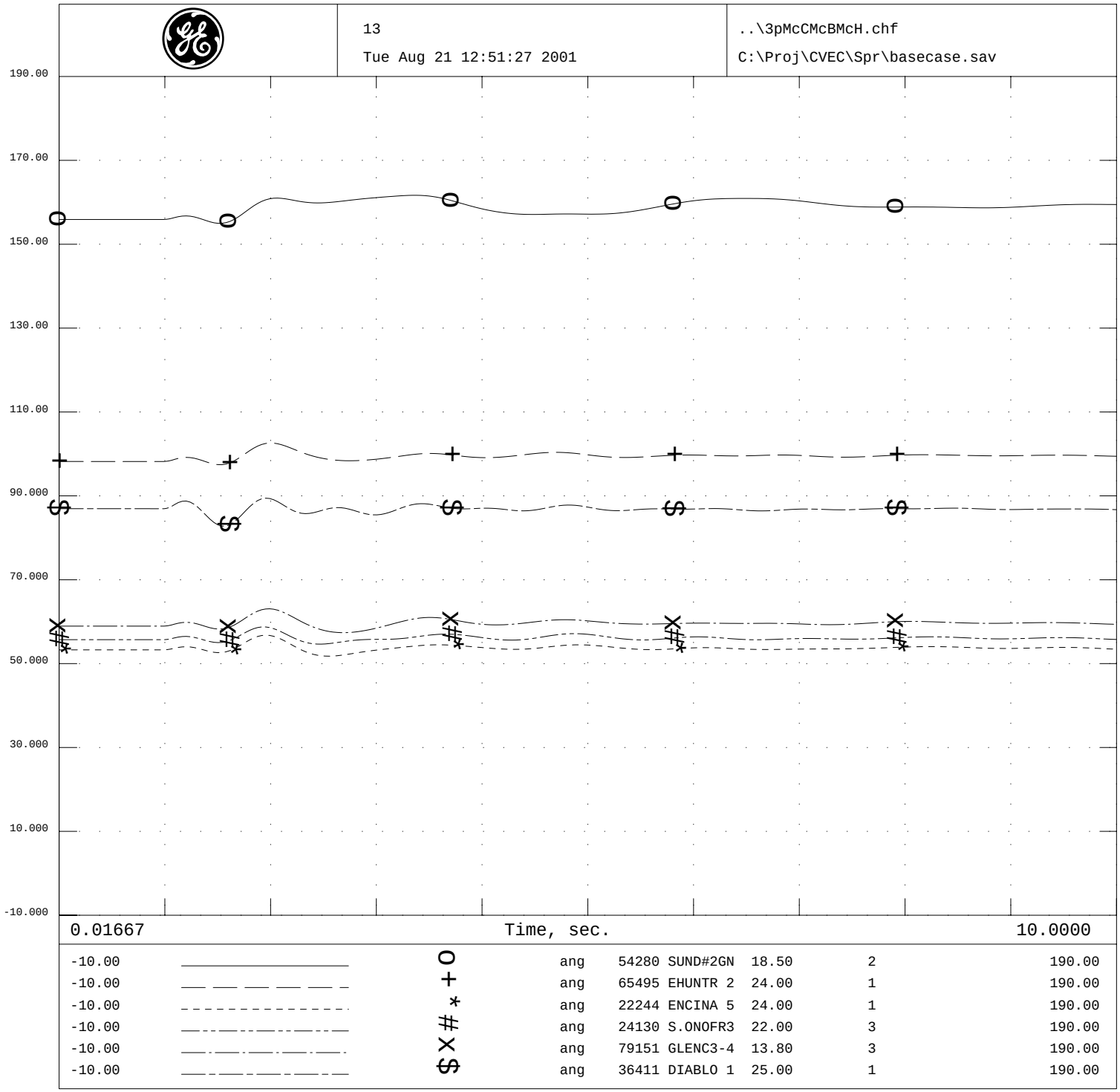
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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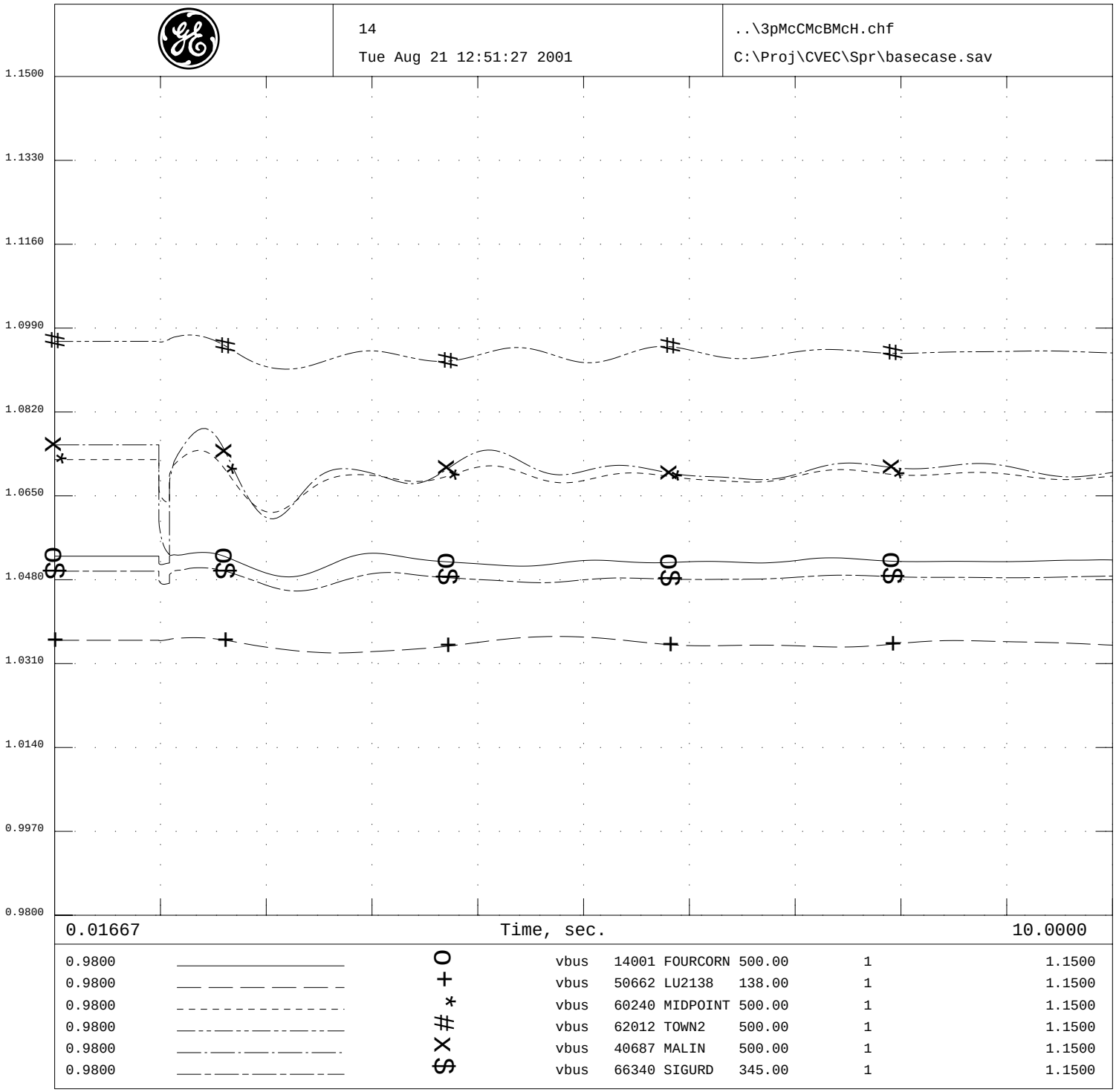

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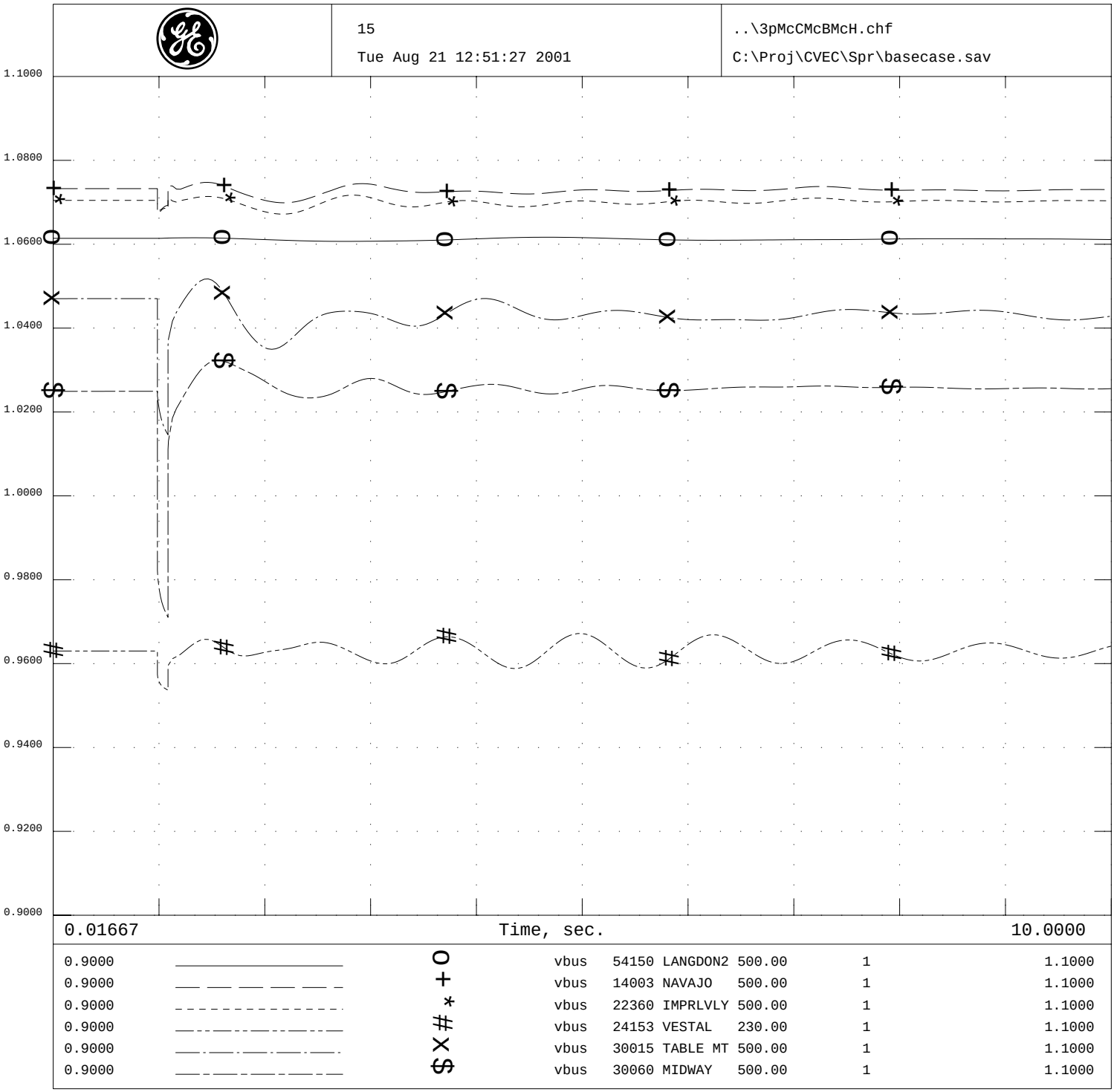
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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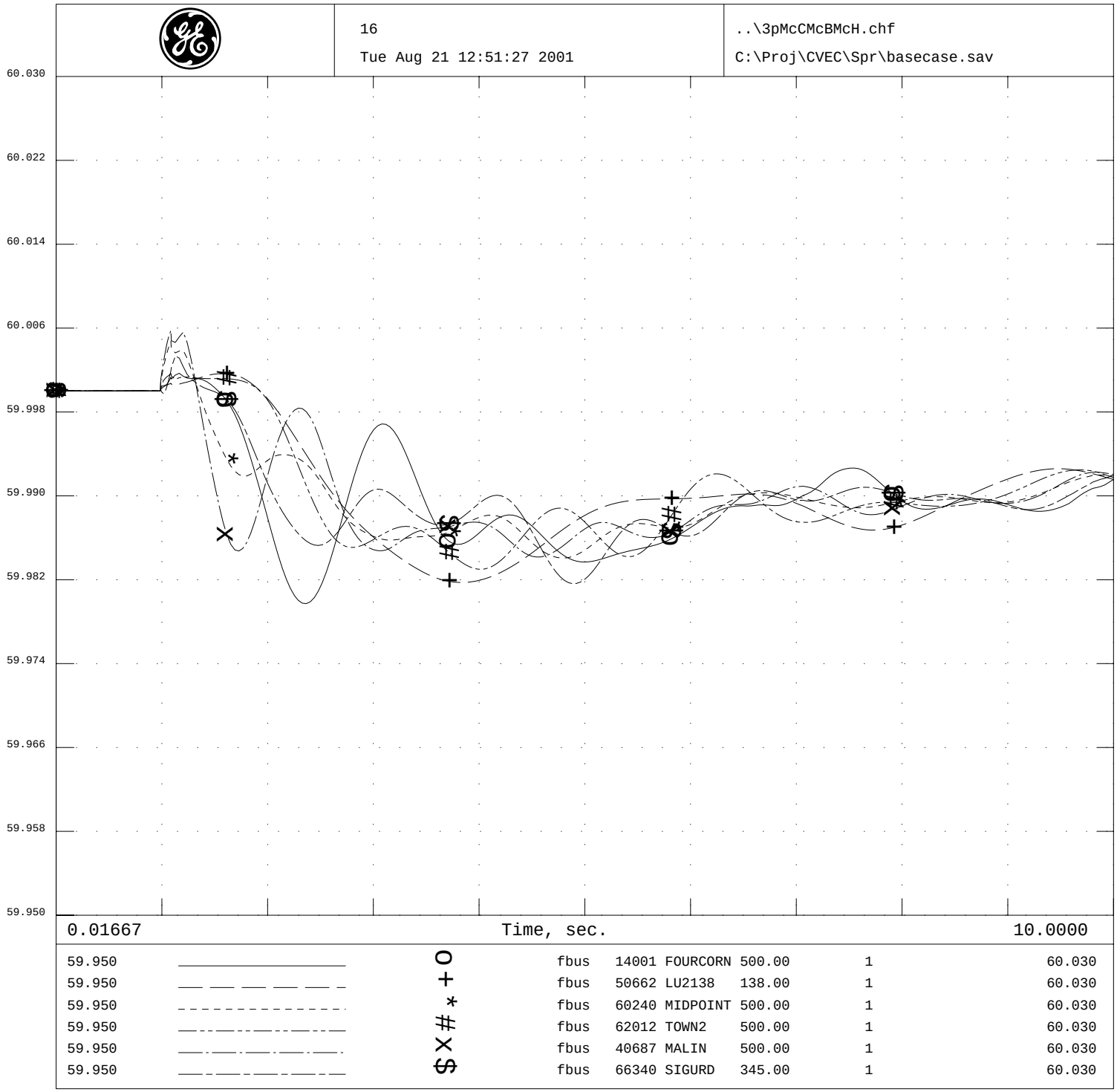

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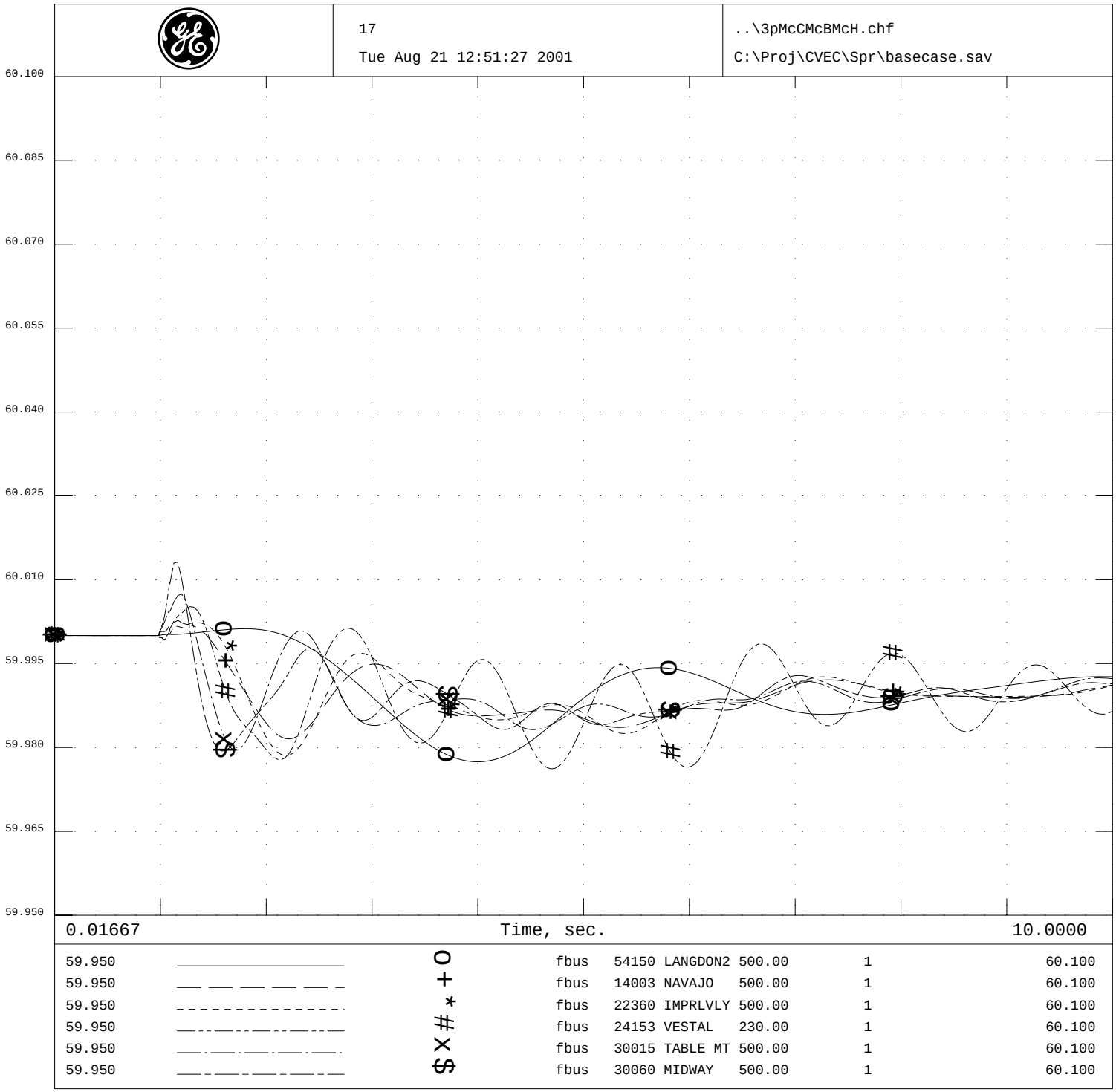

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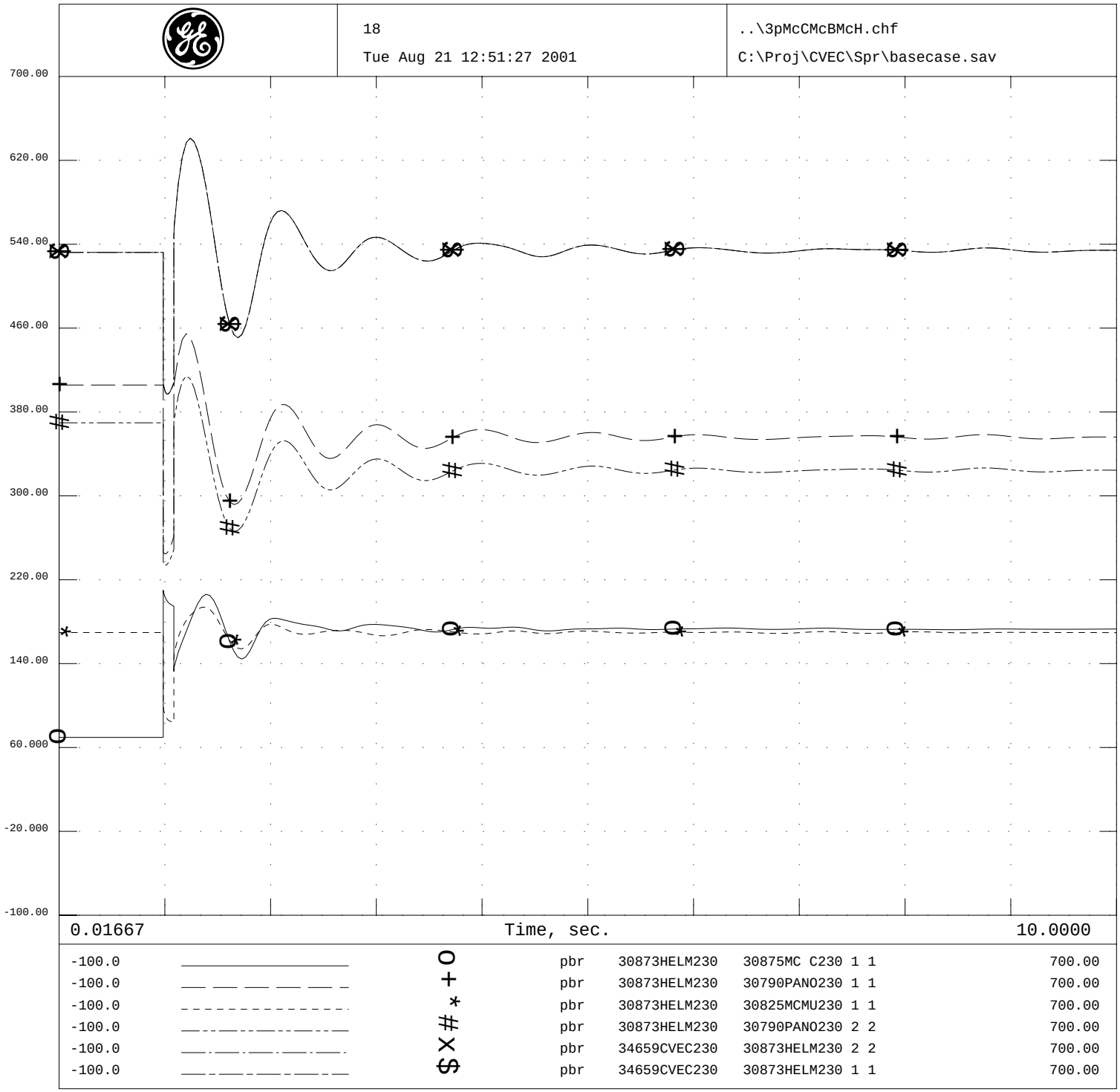

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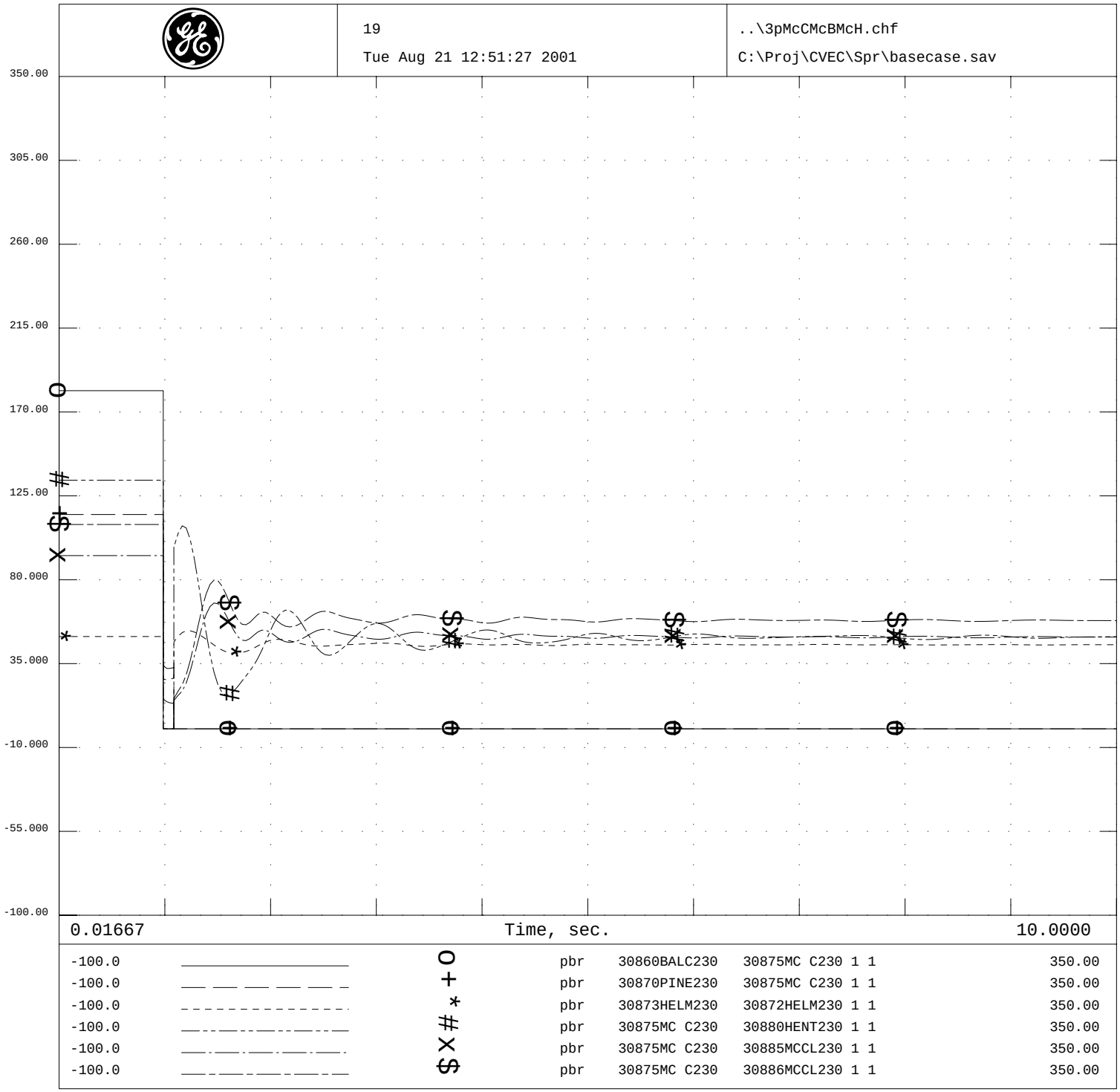
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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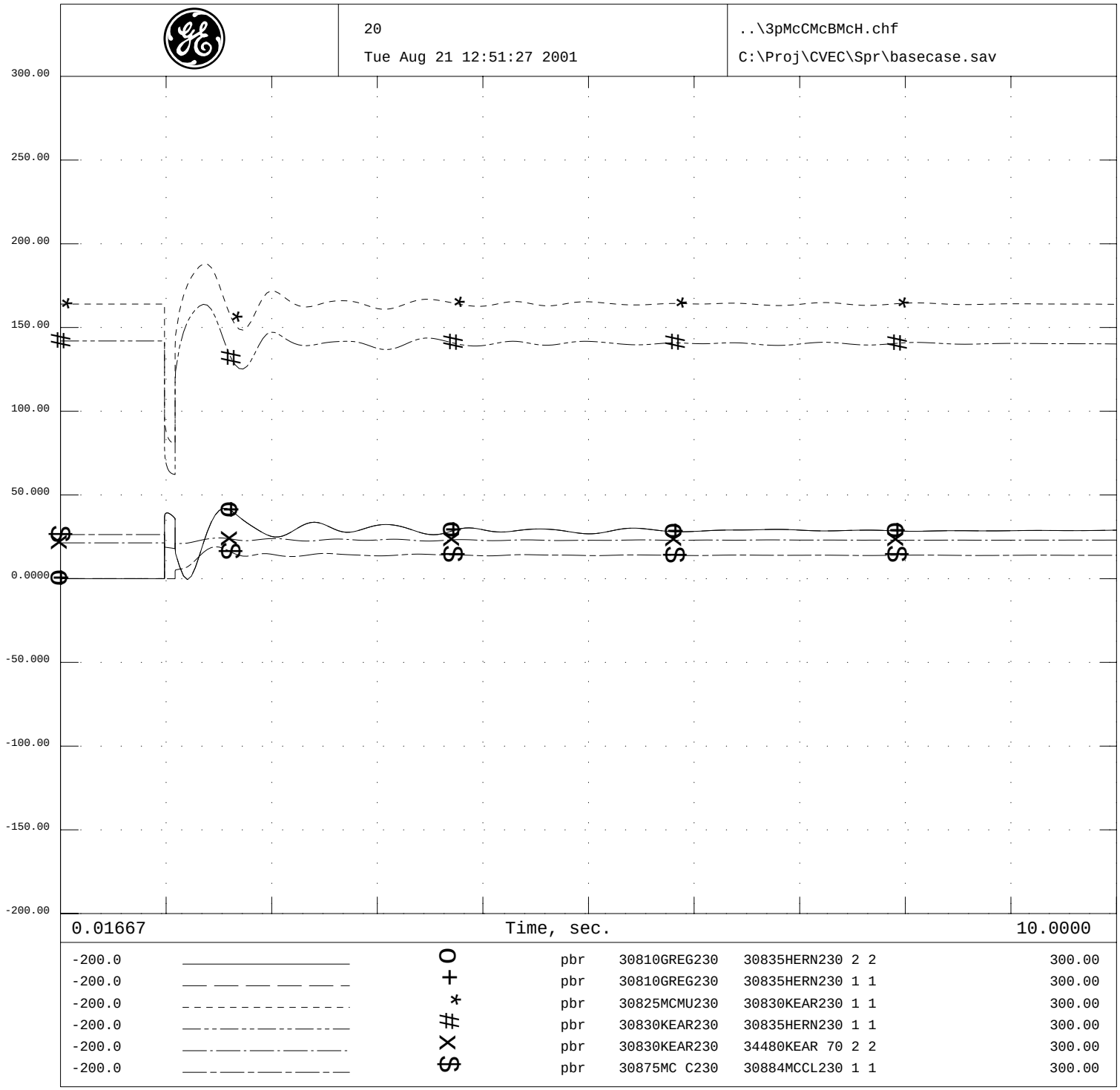

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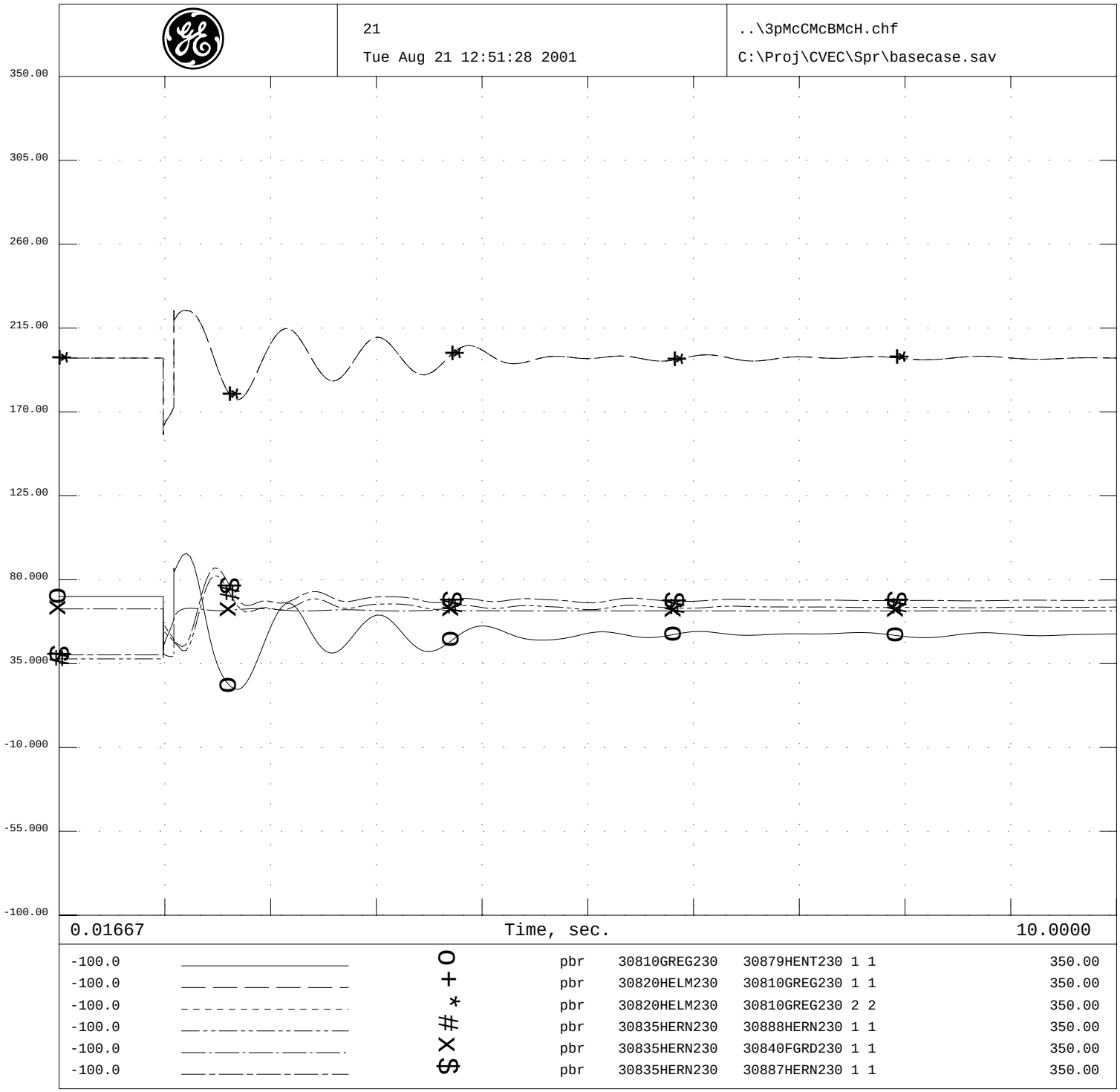

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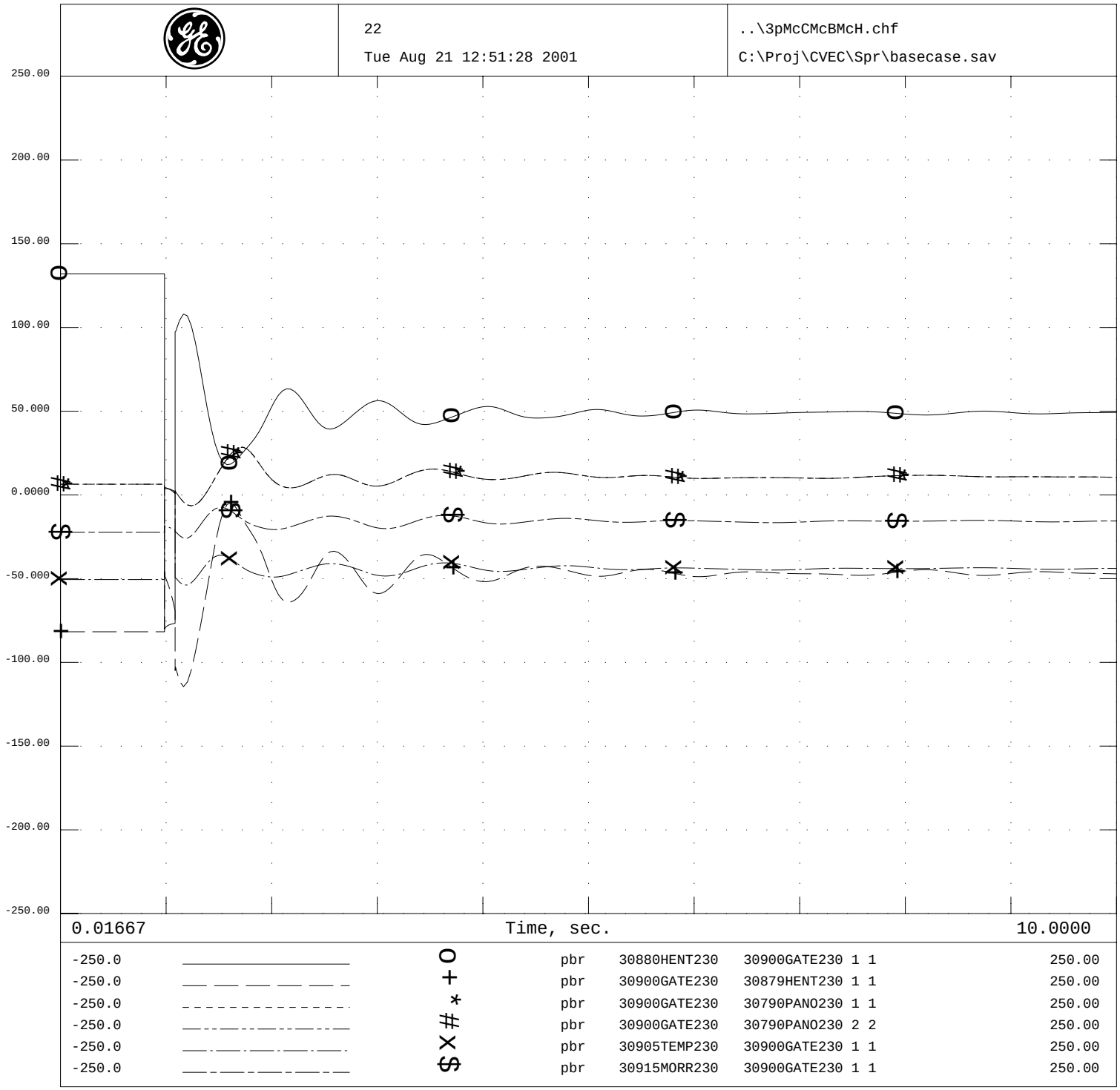

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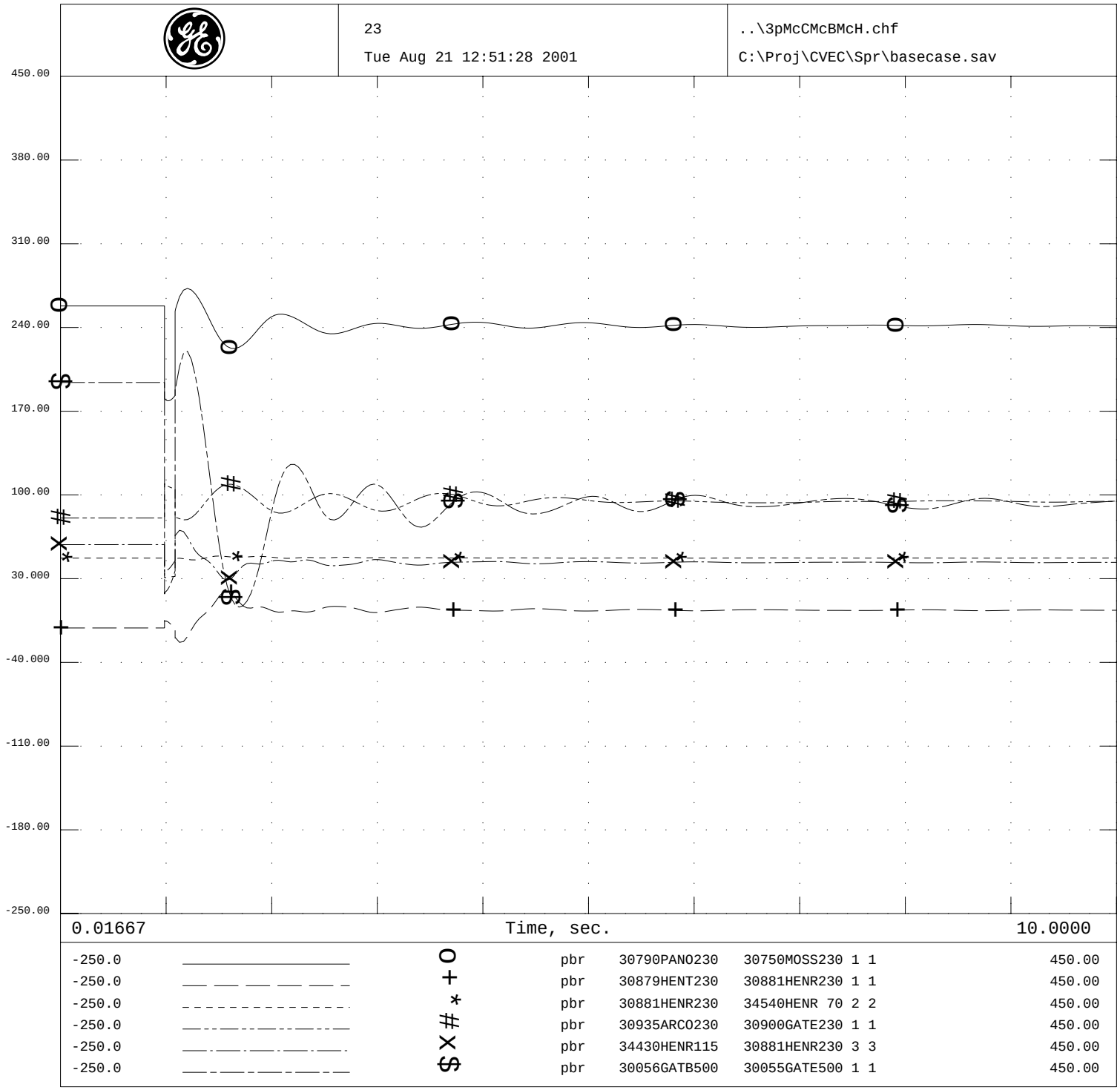

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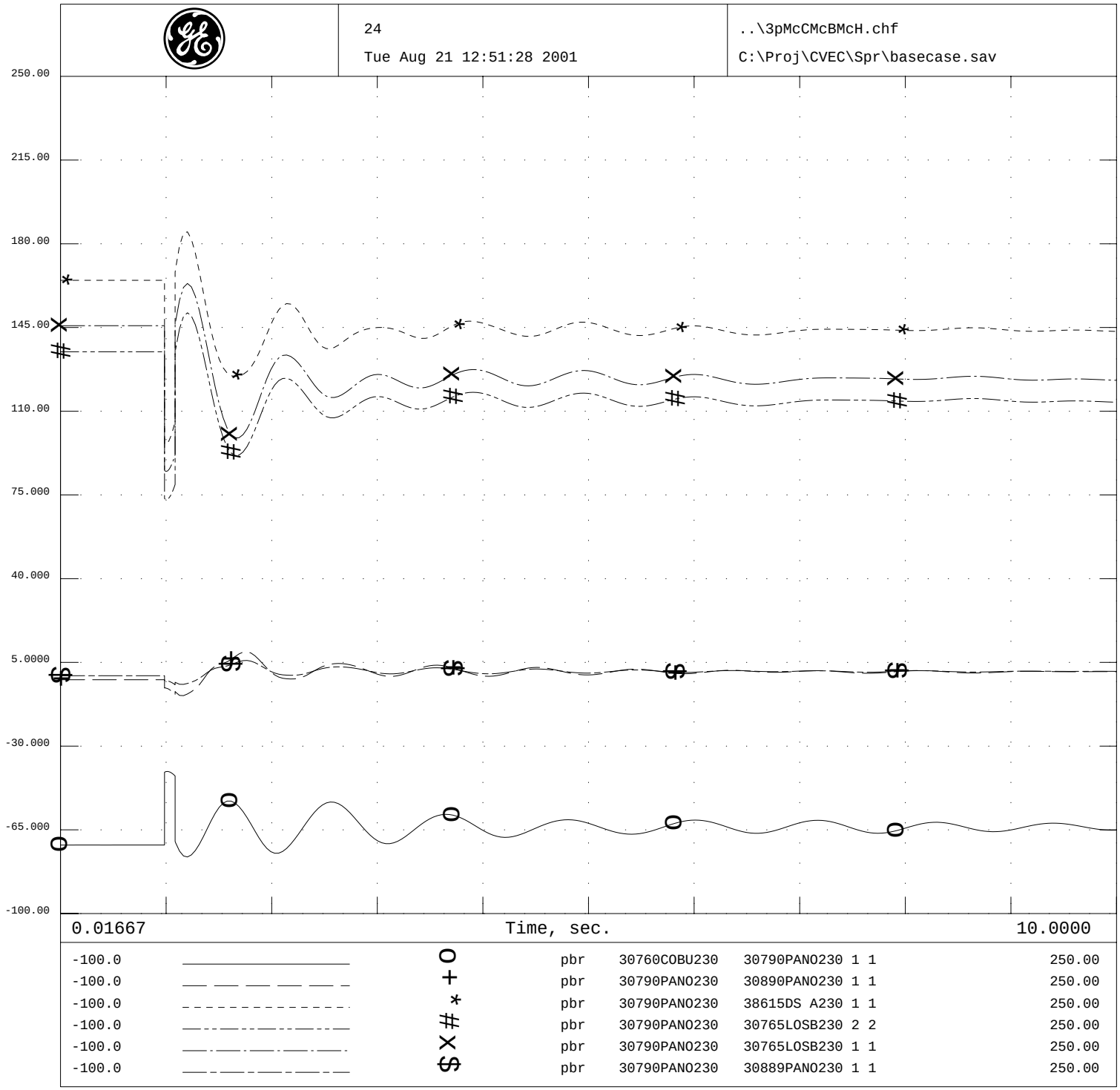

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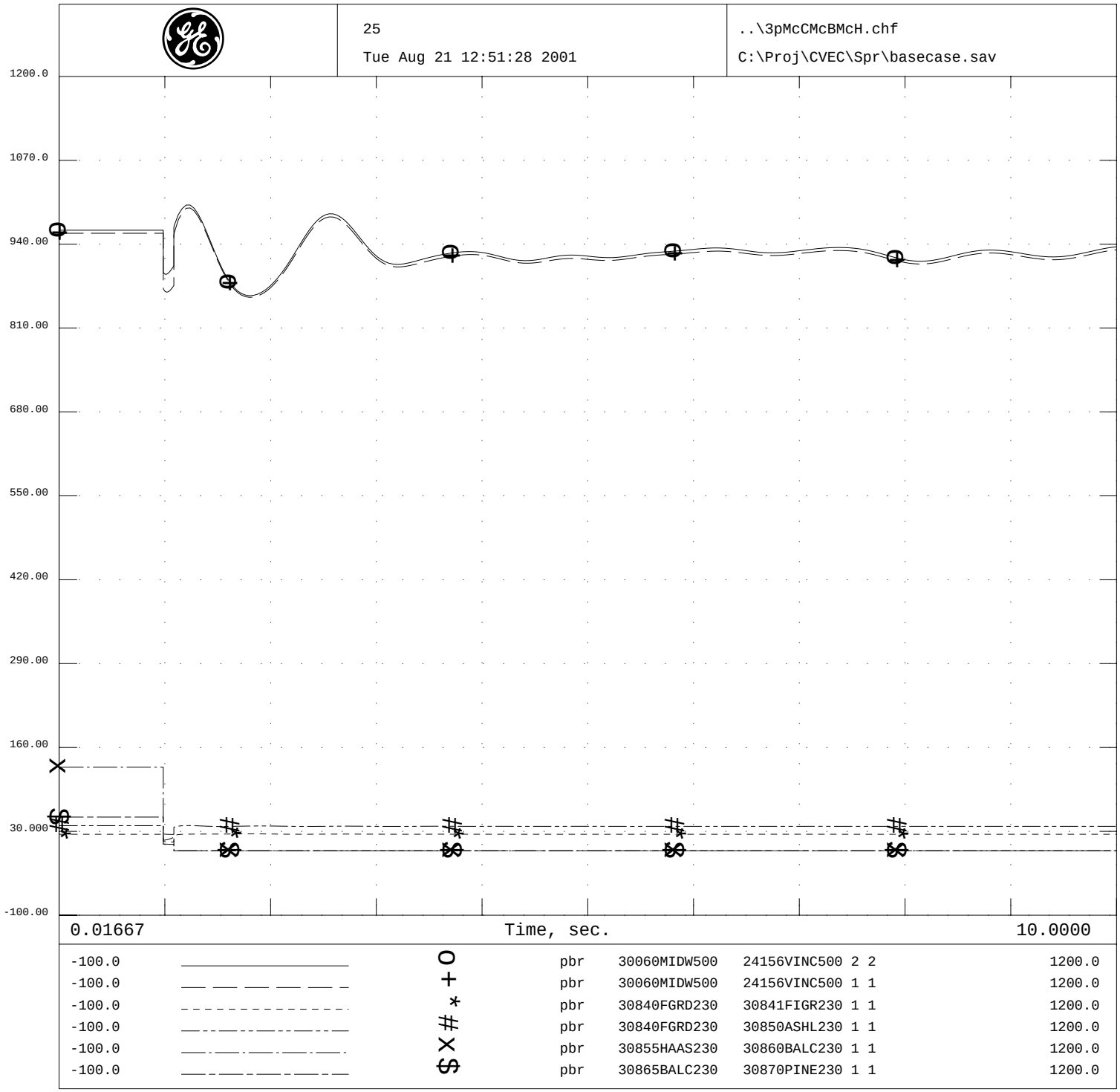

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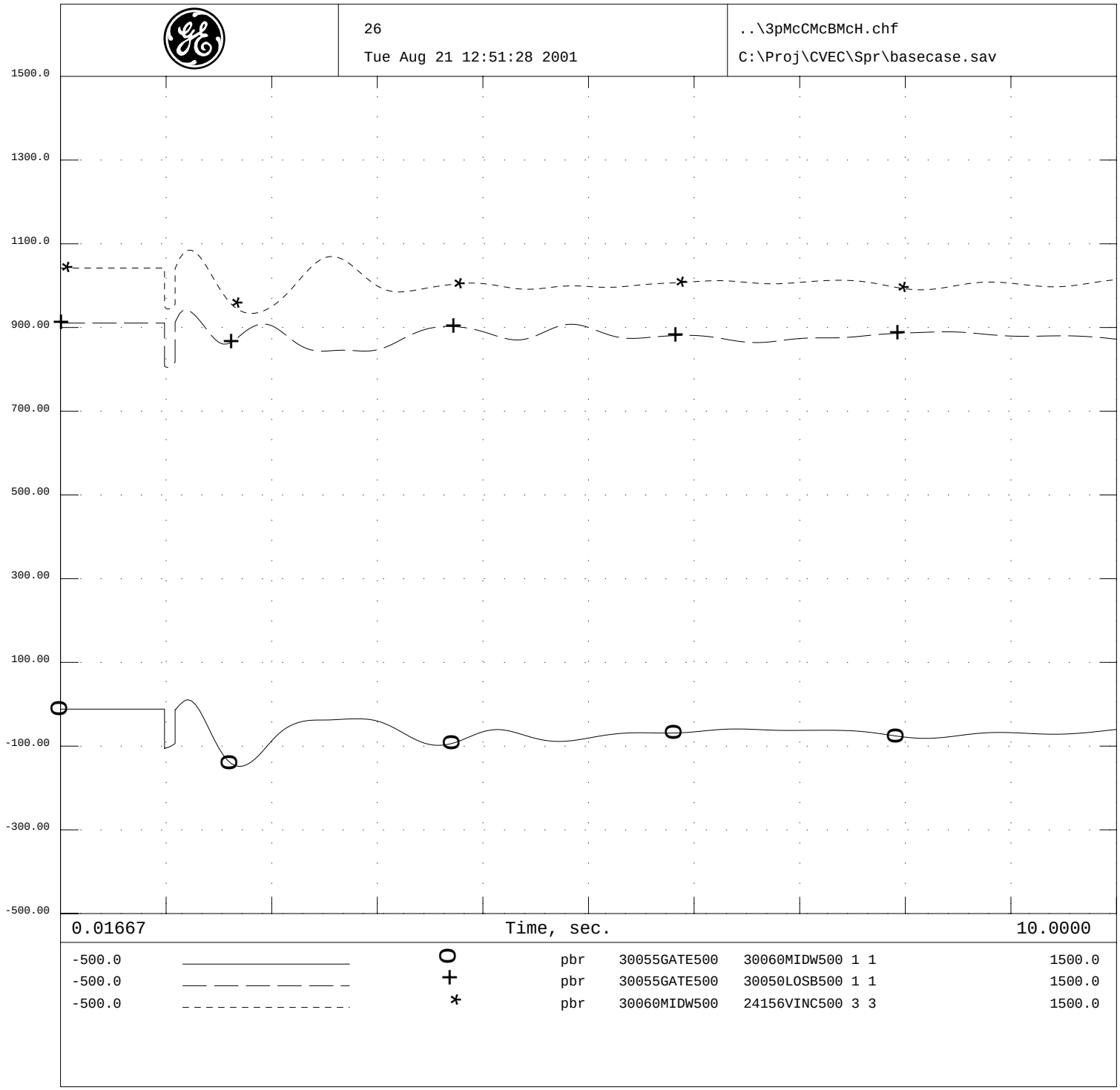

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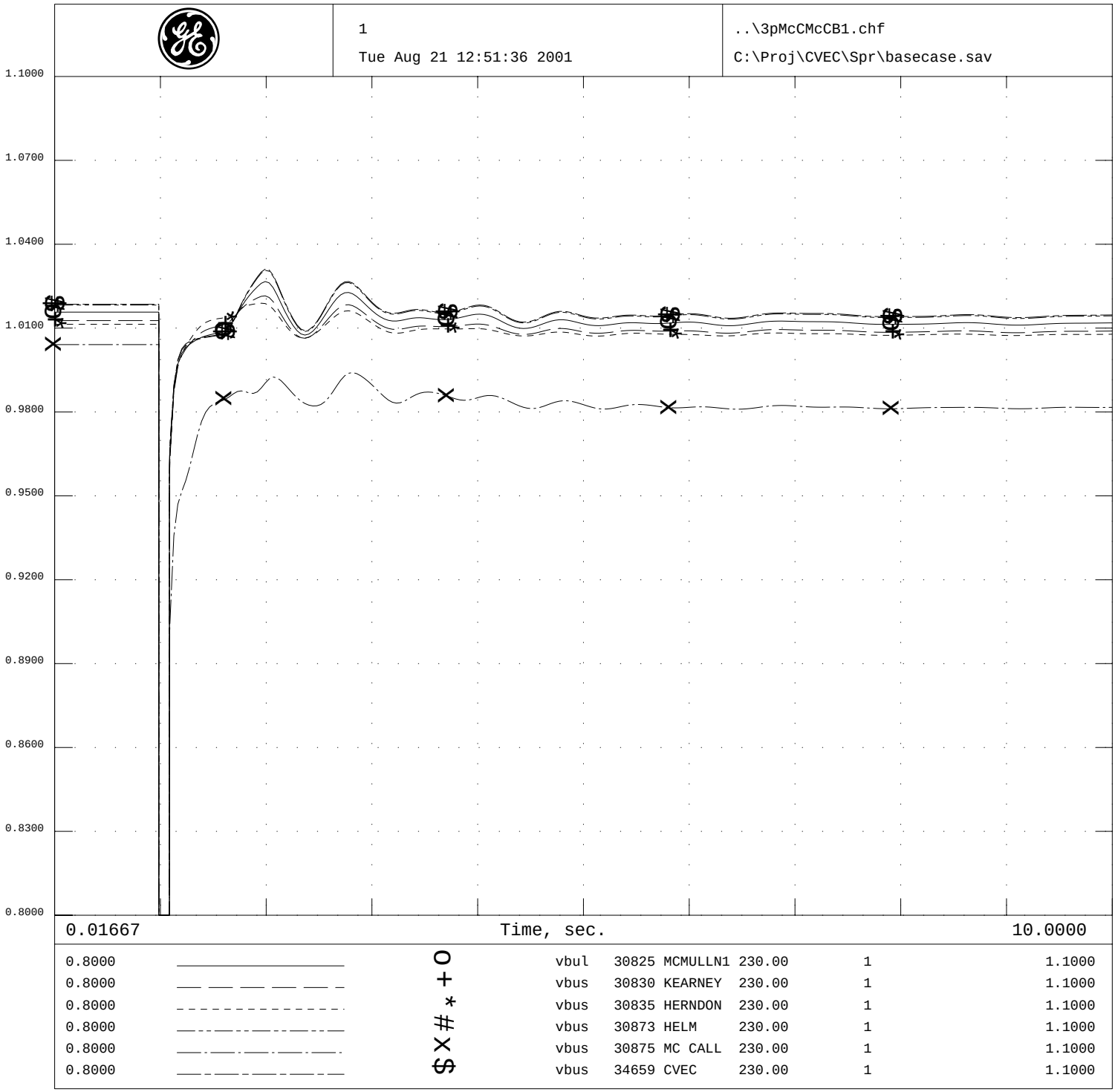

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McCall 230kV Bus #1 Outage
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Central Valley Energy Center
Calpine Corporation
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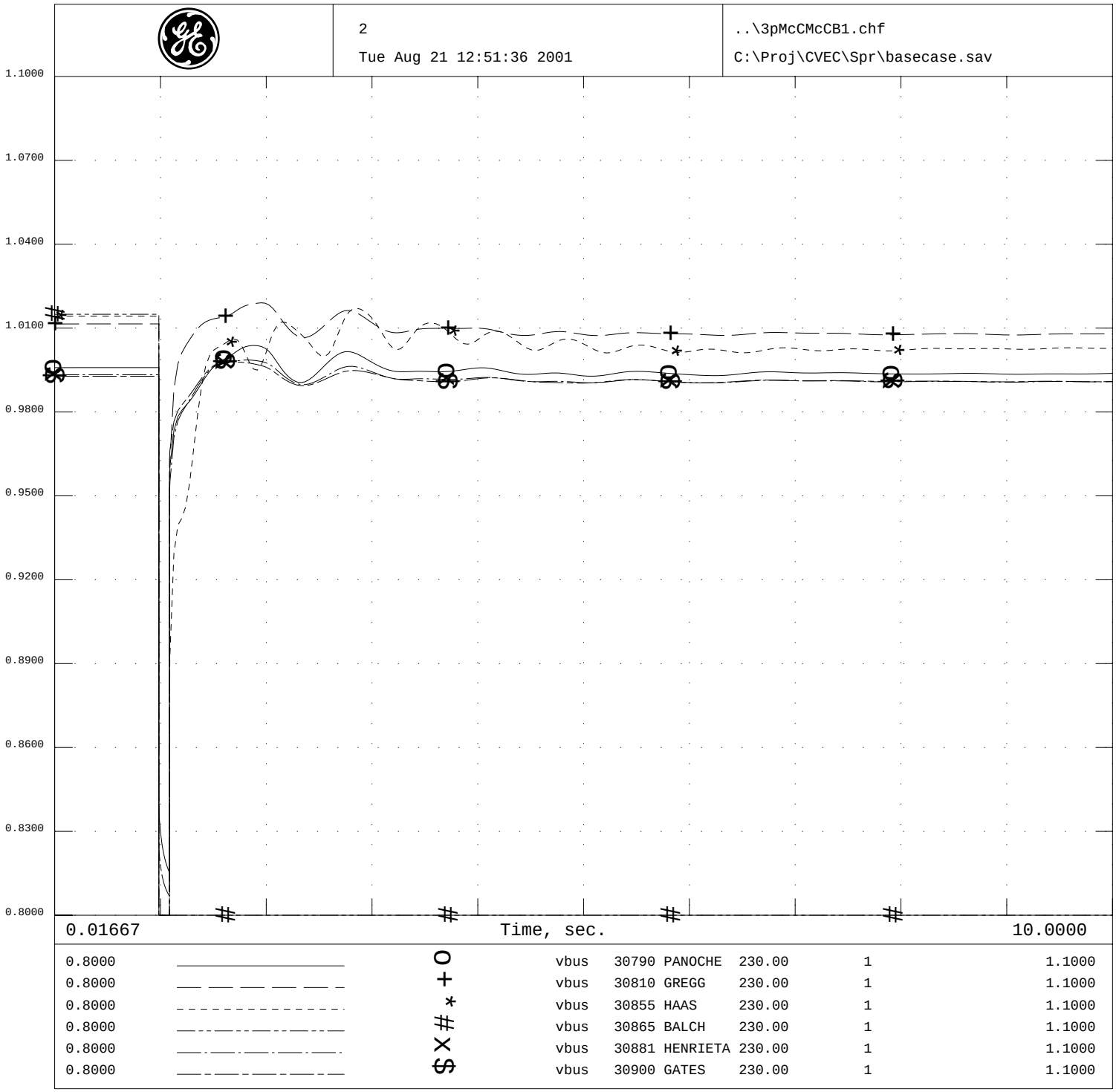

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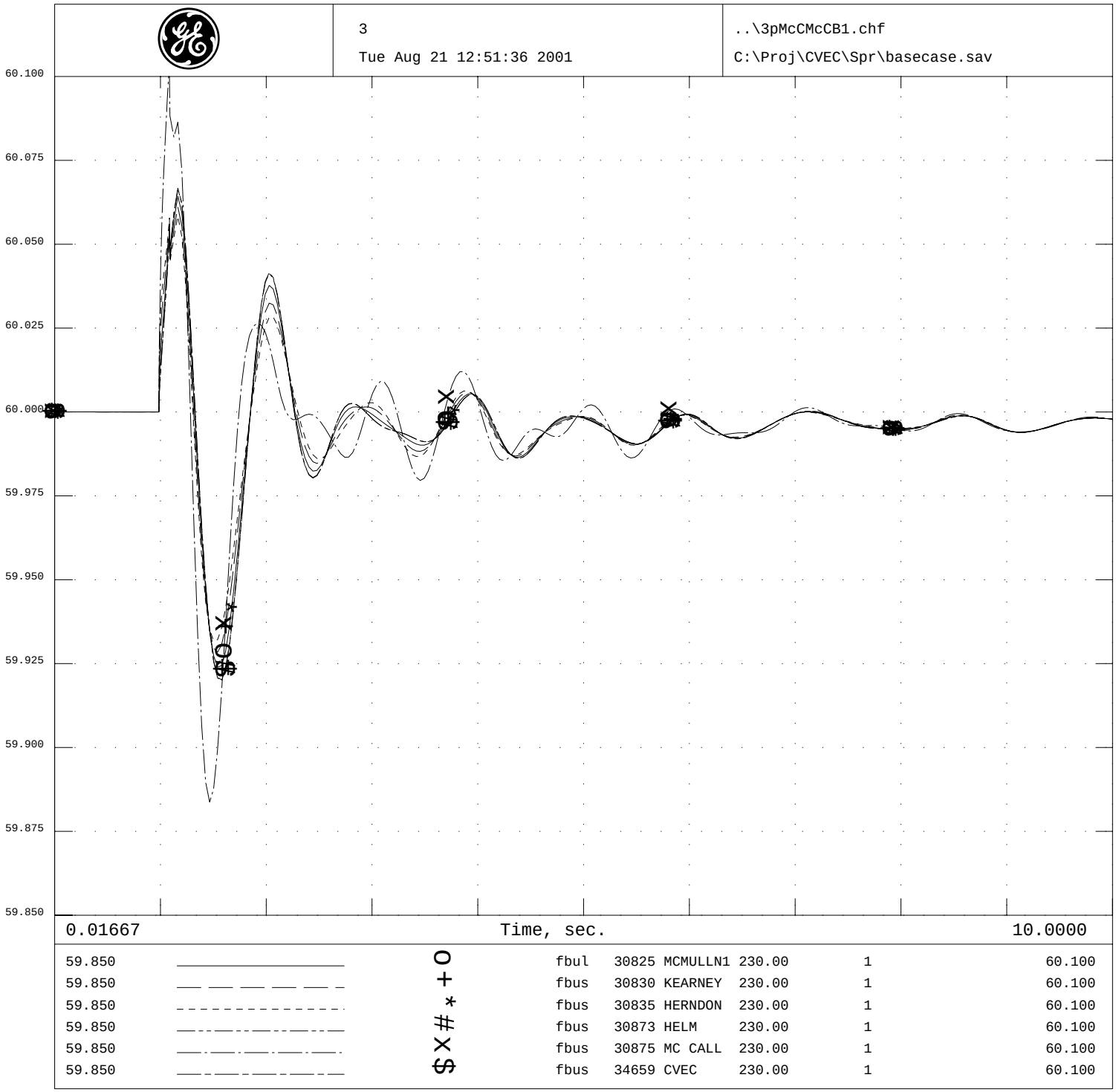

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Calpine Corporation
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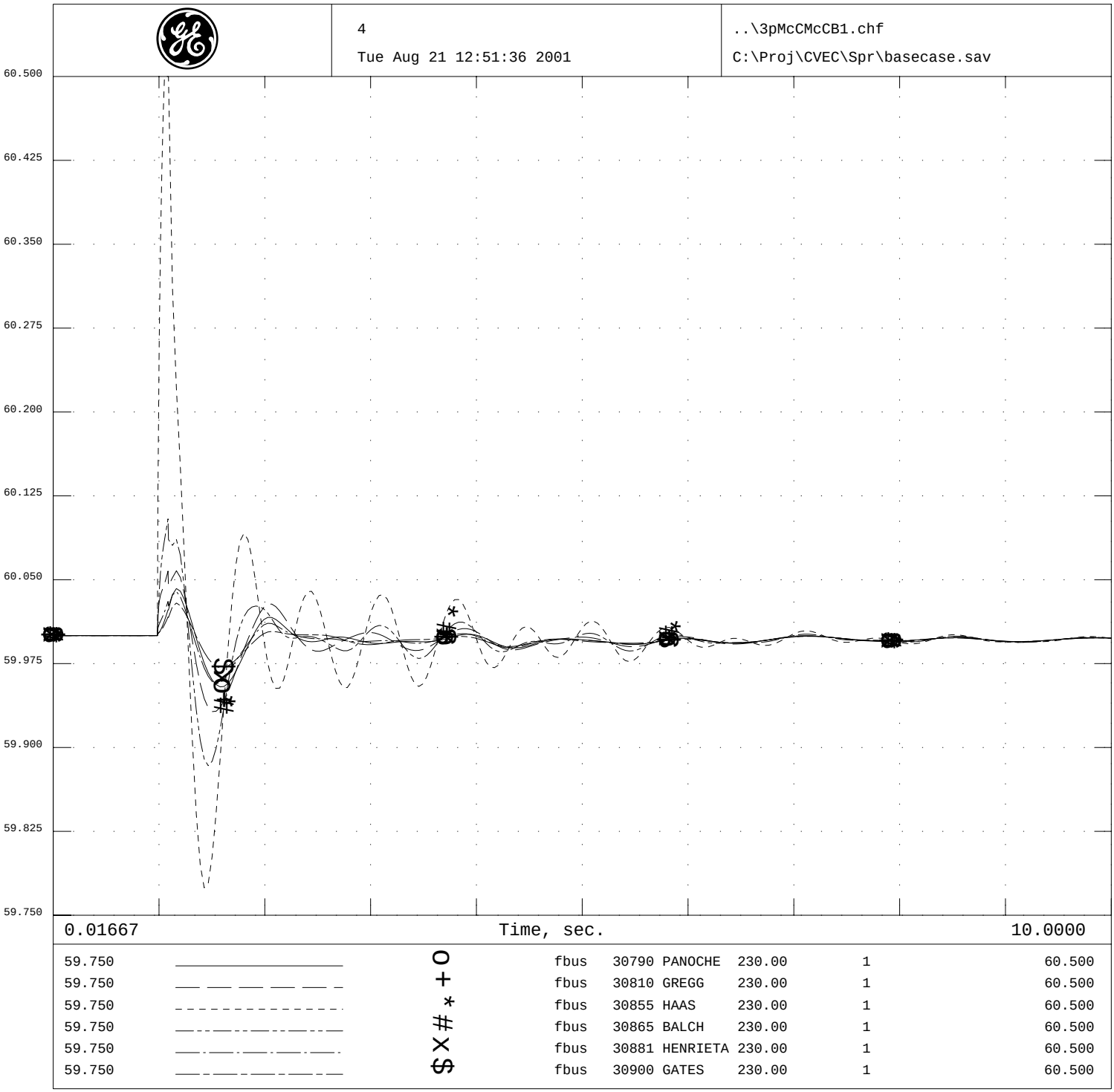

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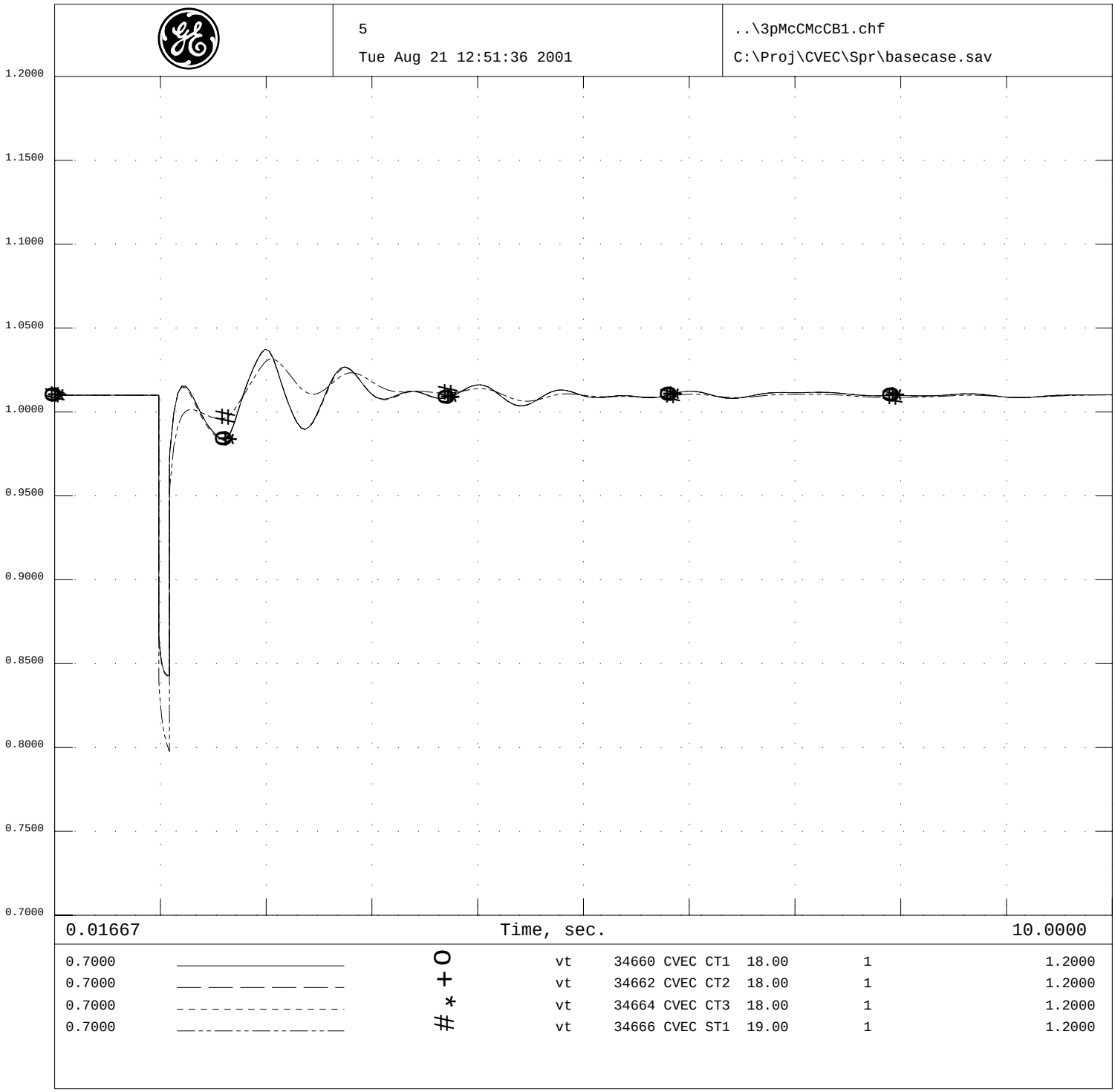

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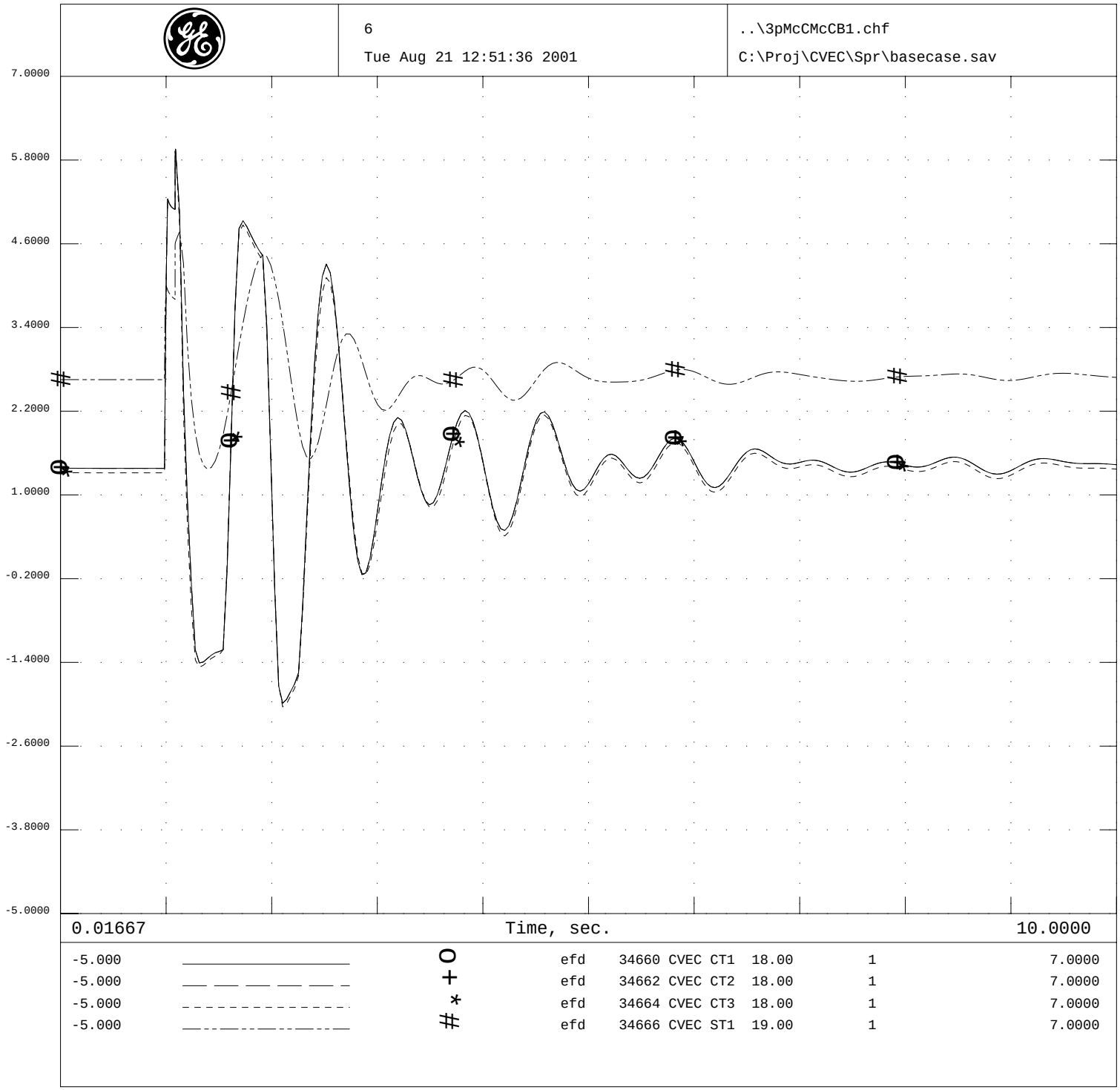
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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Calpine Corporation
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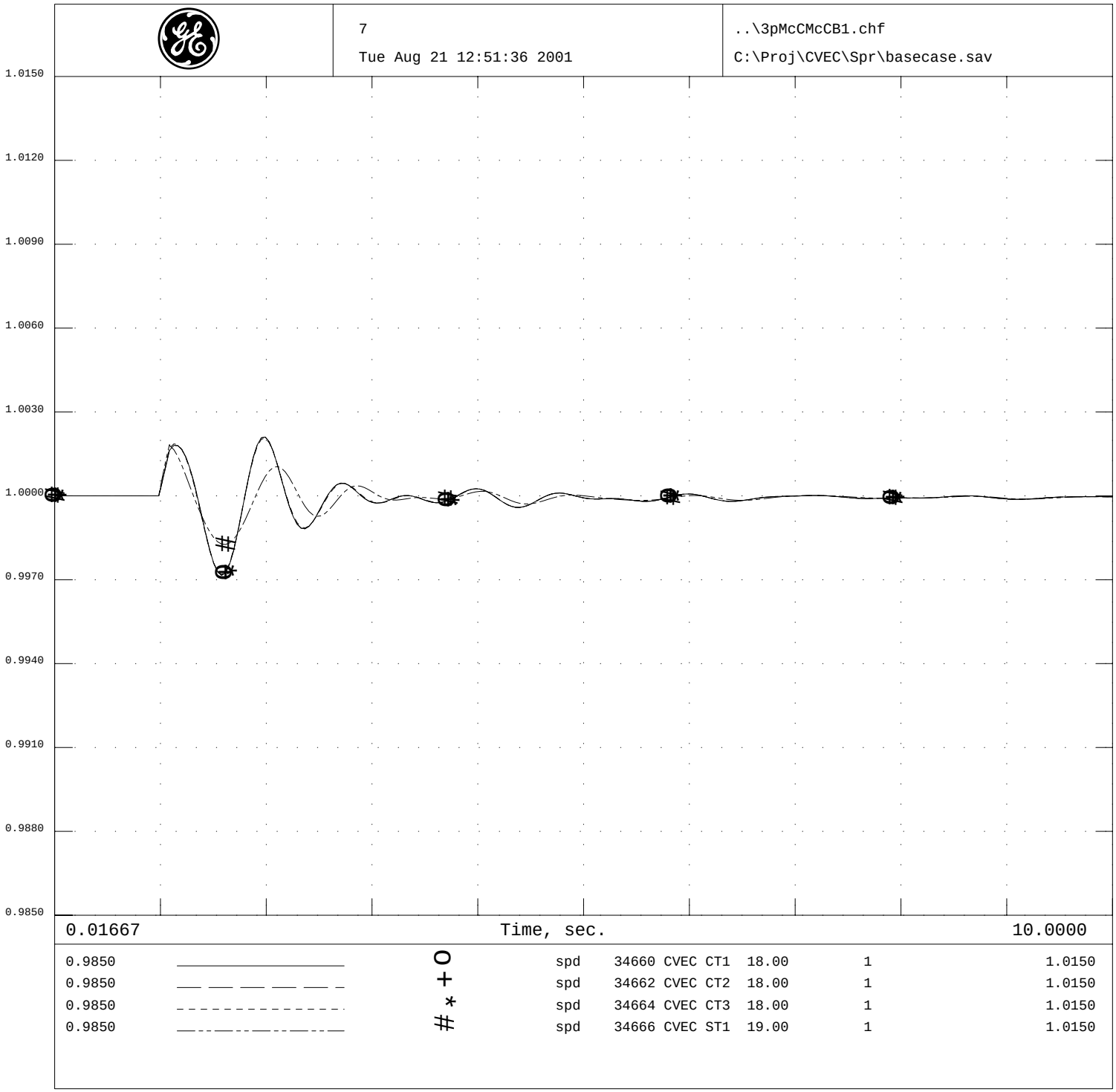

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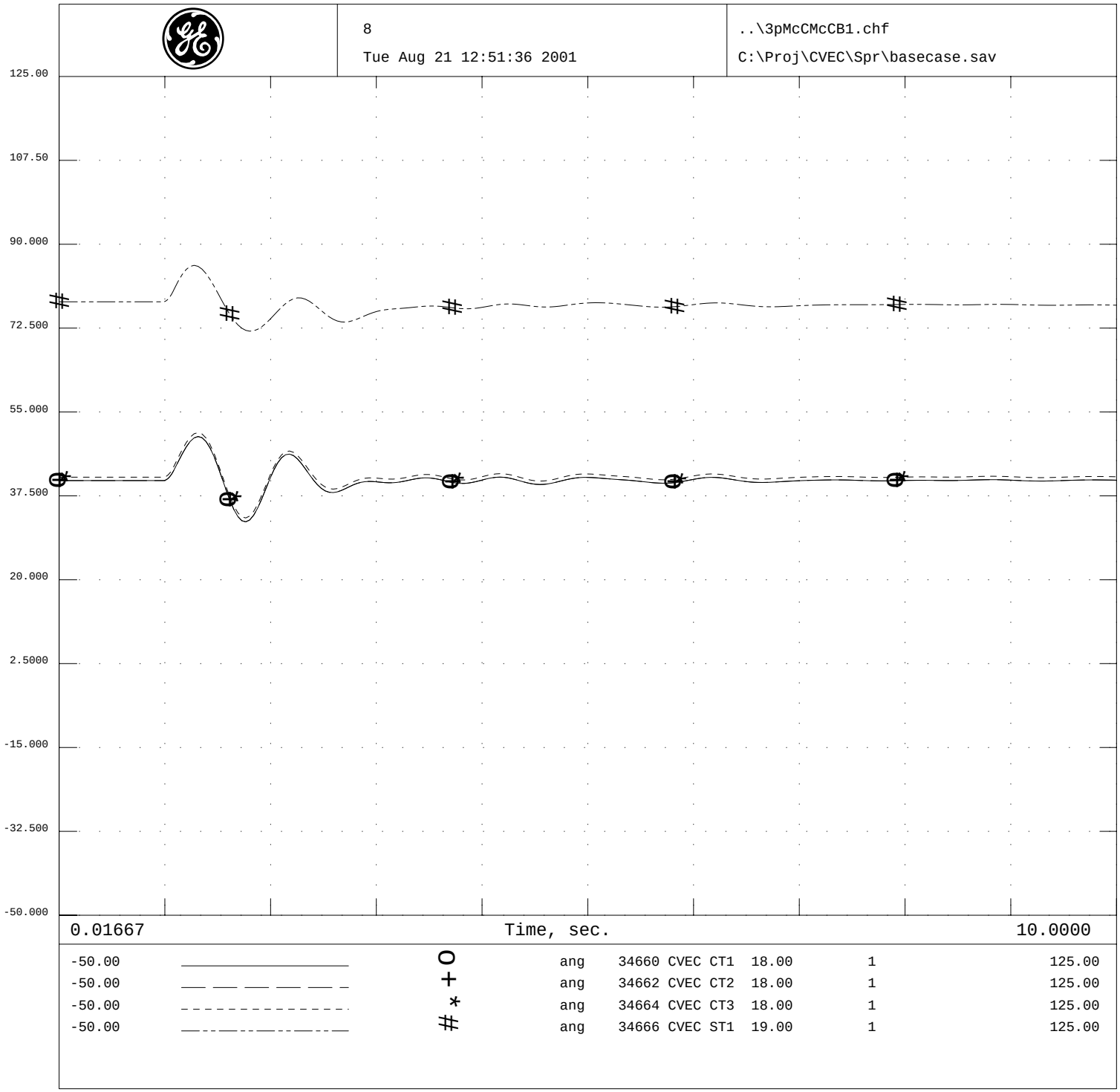
Project Generator Rotor Speed



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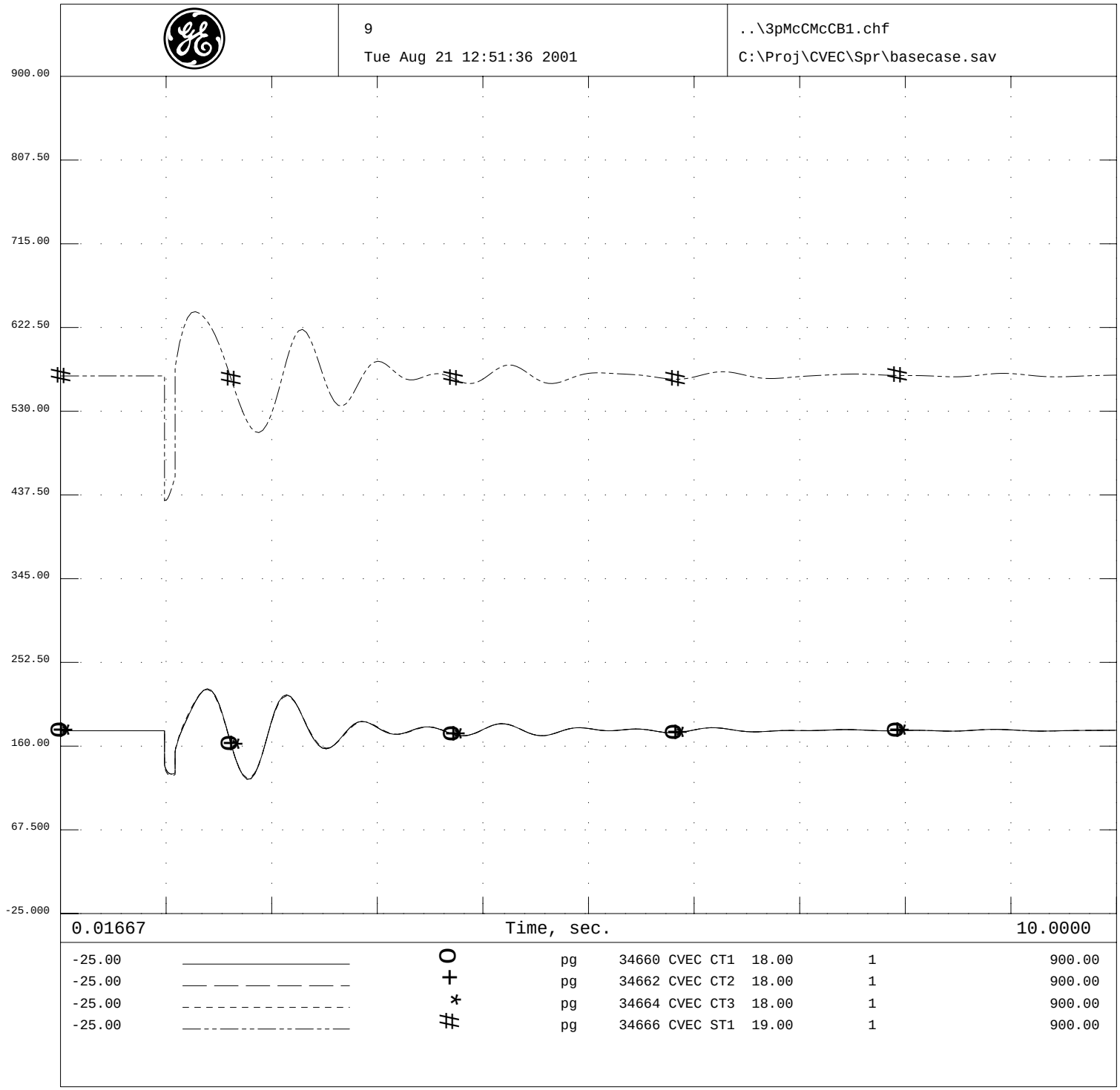
Project Generator Rotor Angle



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Calpine Corporation
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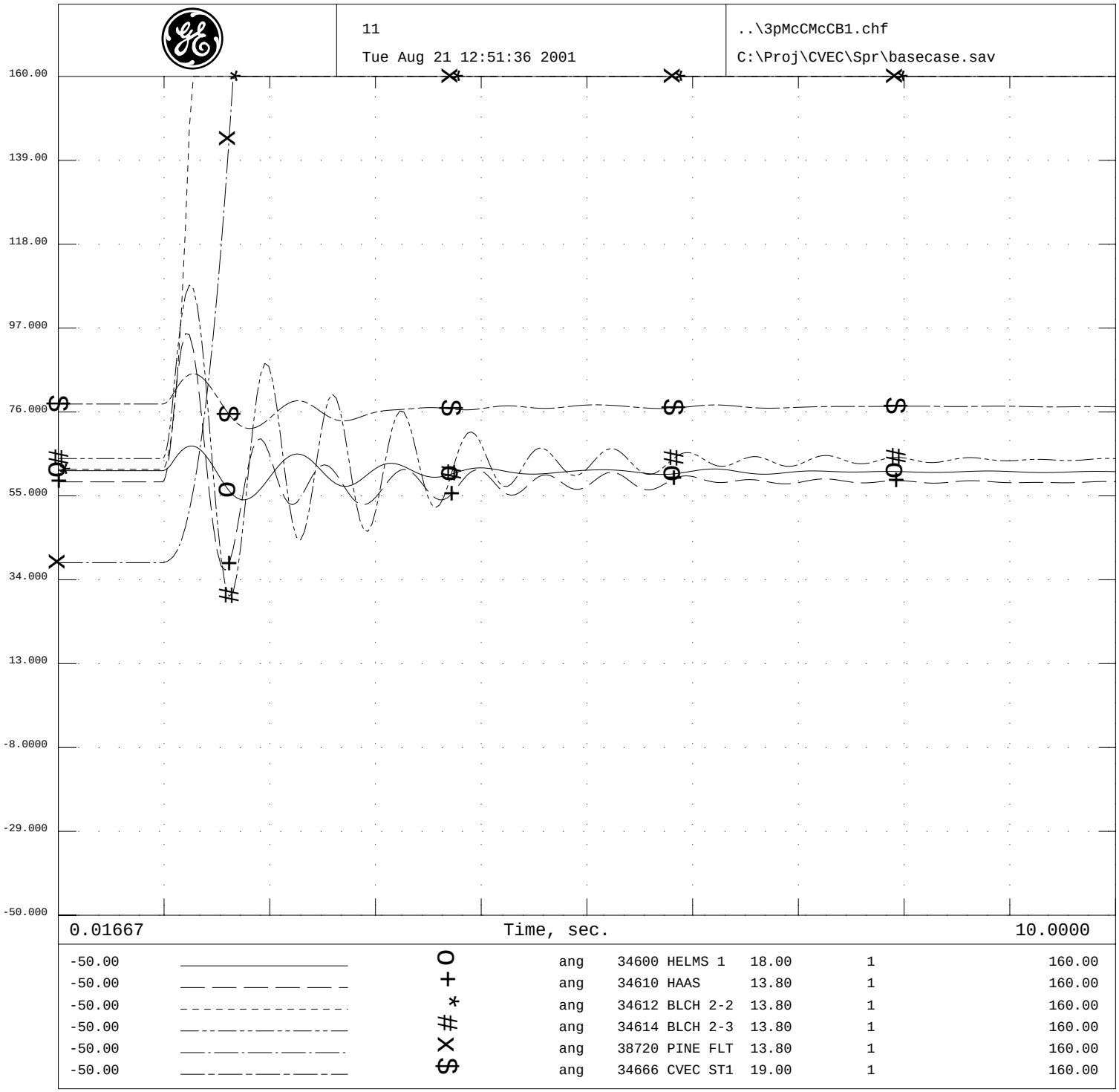
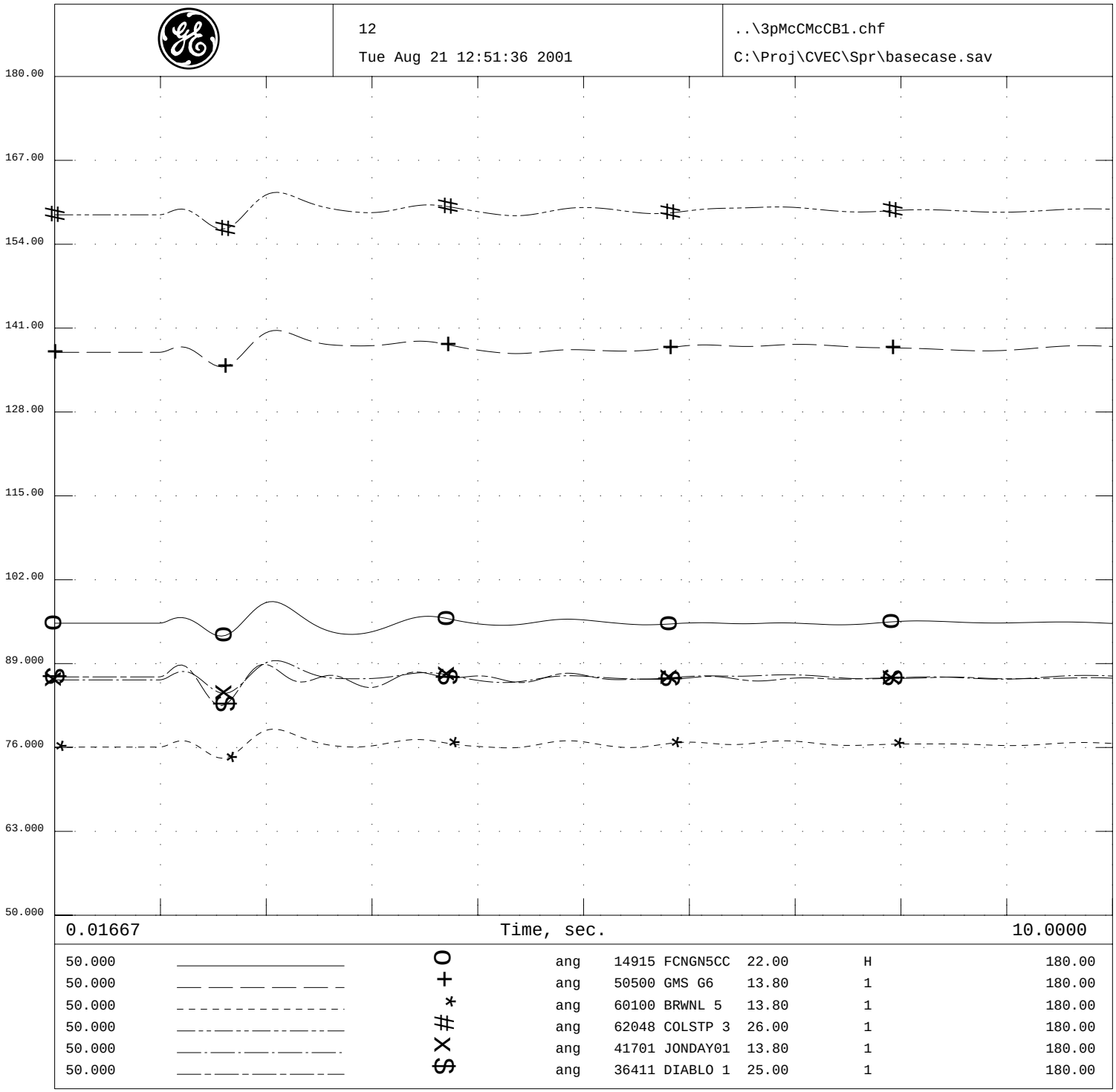


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall 230kV Bus #1 Outage
3 phase 6 cycle fault at McCall 230kV bus and clear bus #1

Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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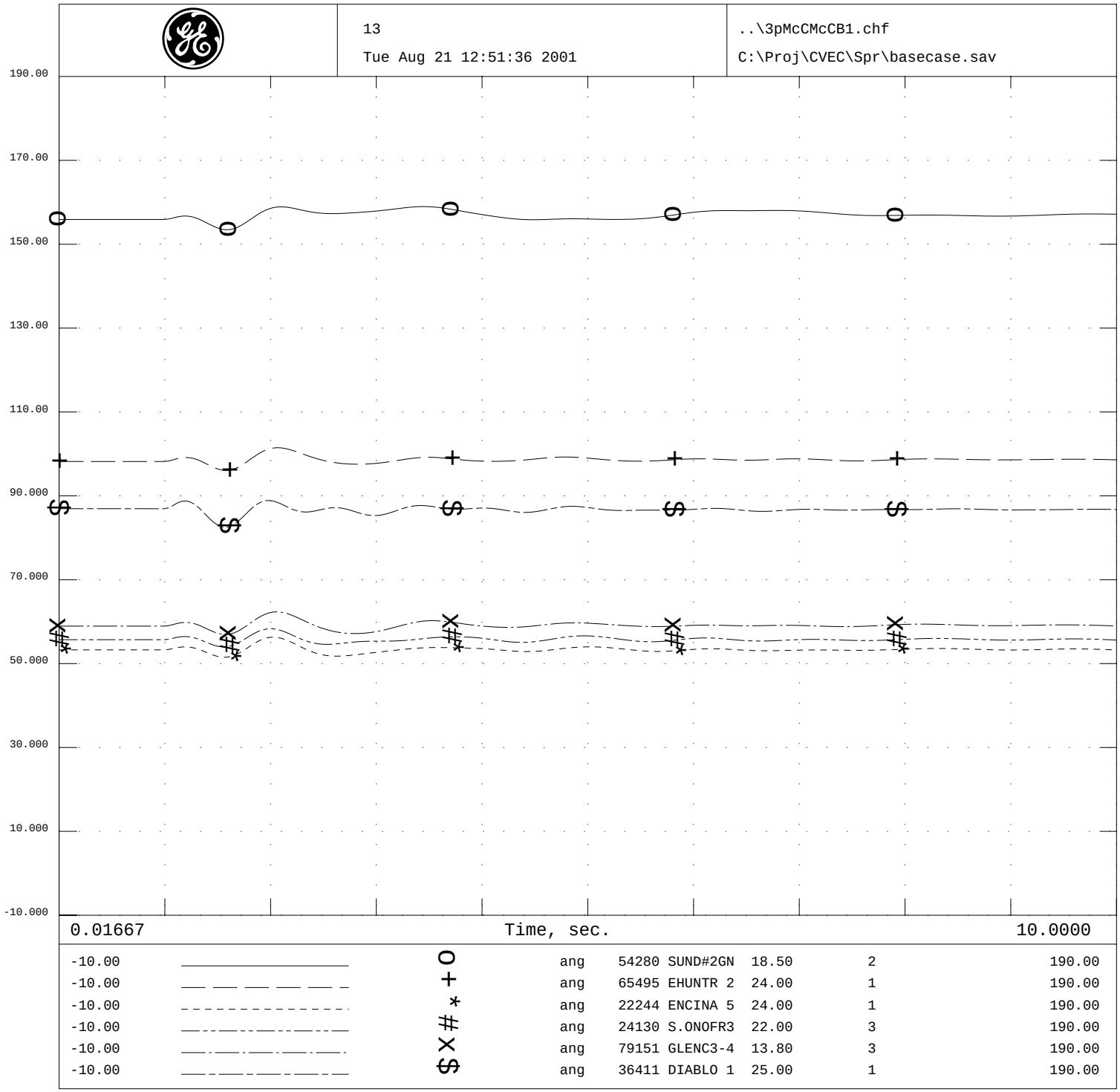

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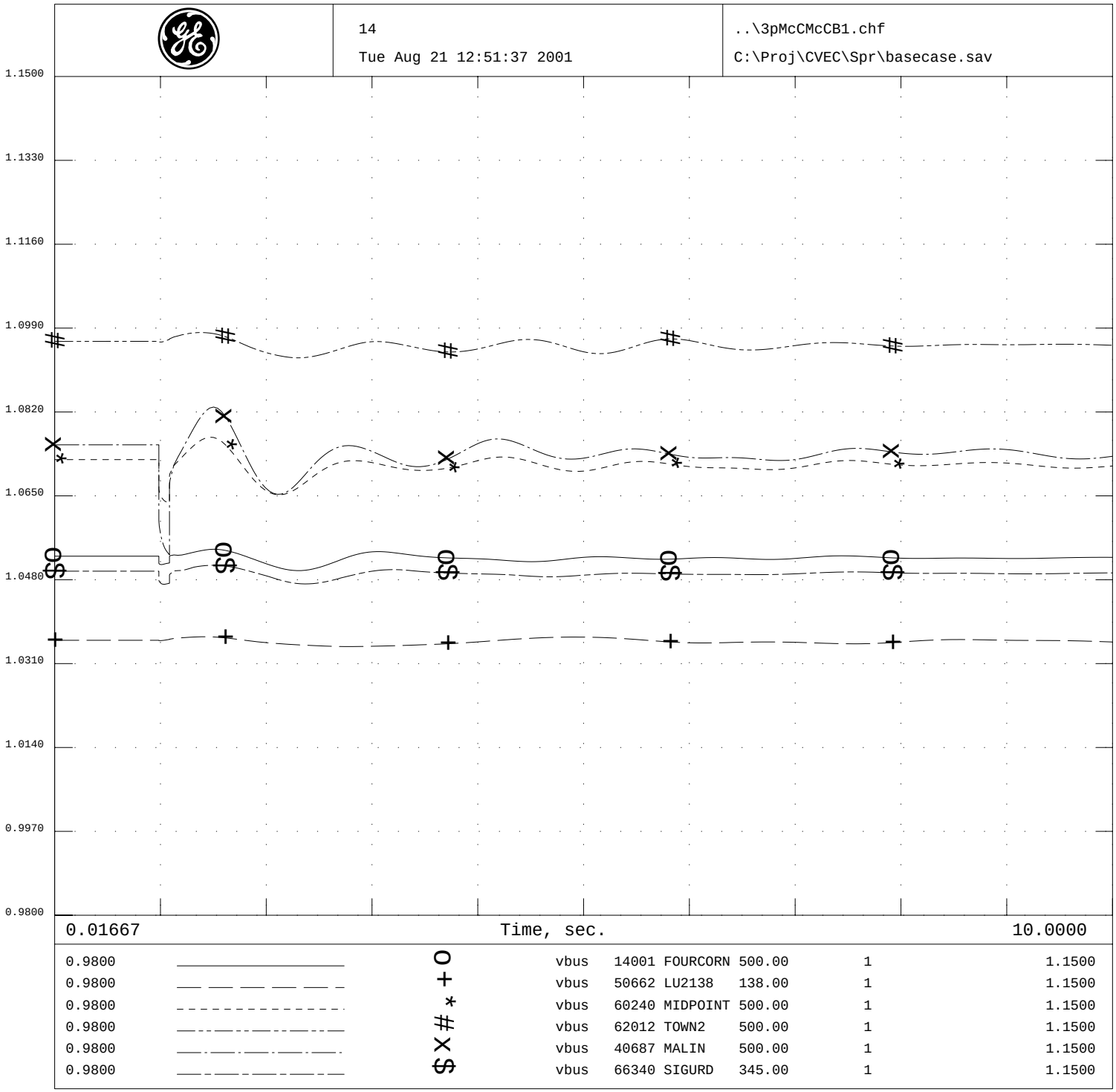

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Calpine Corporation
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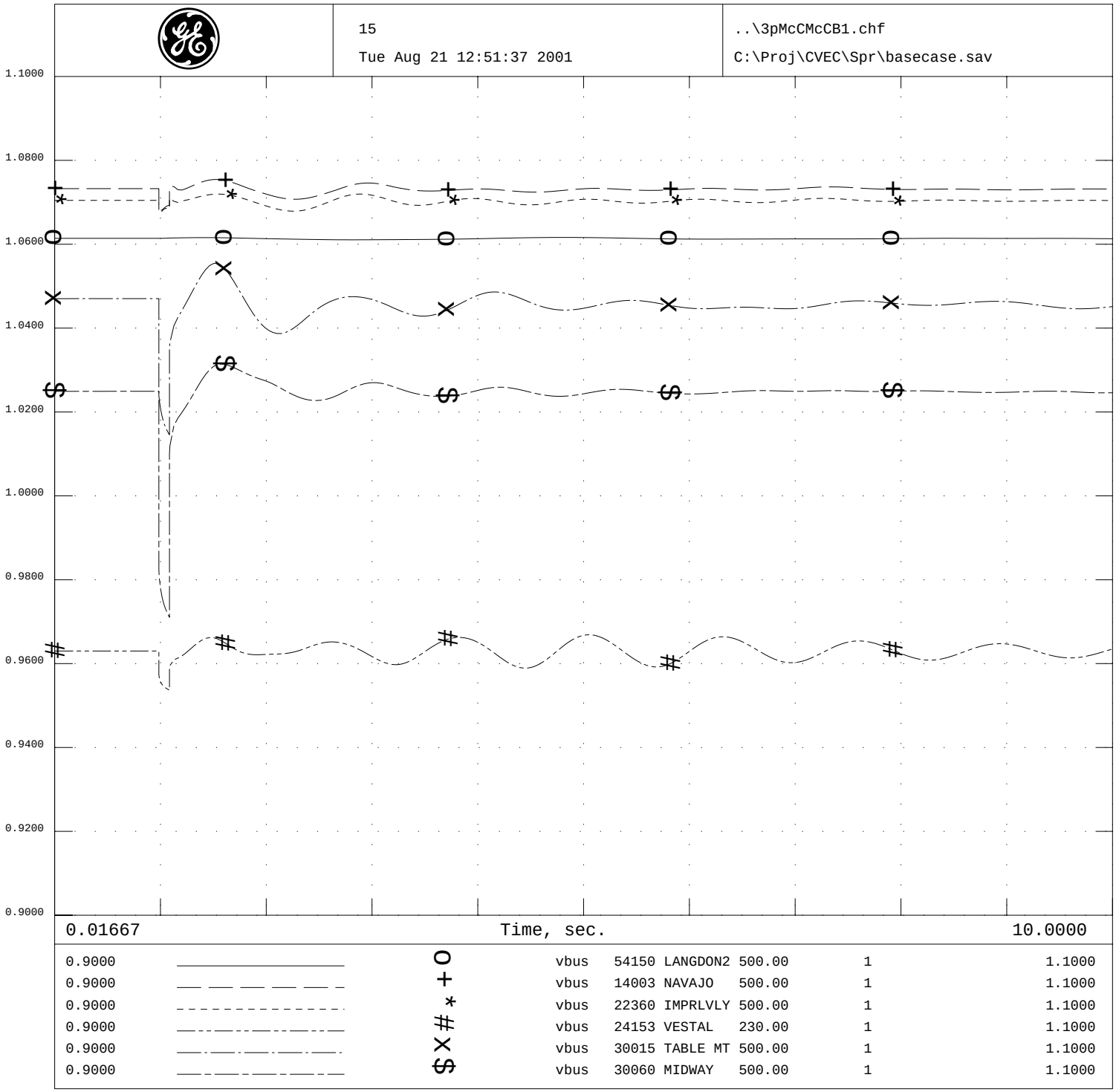

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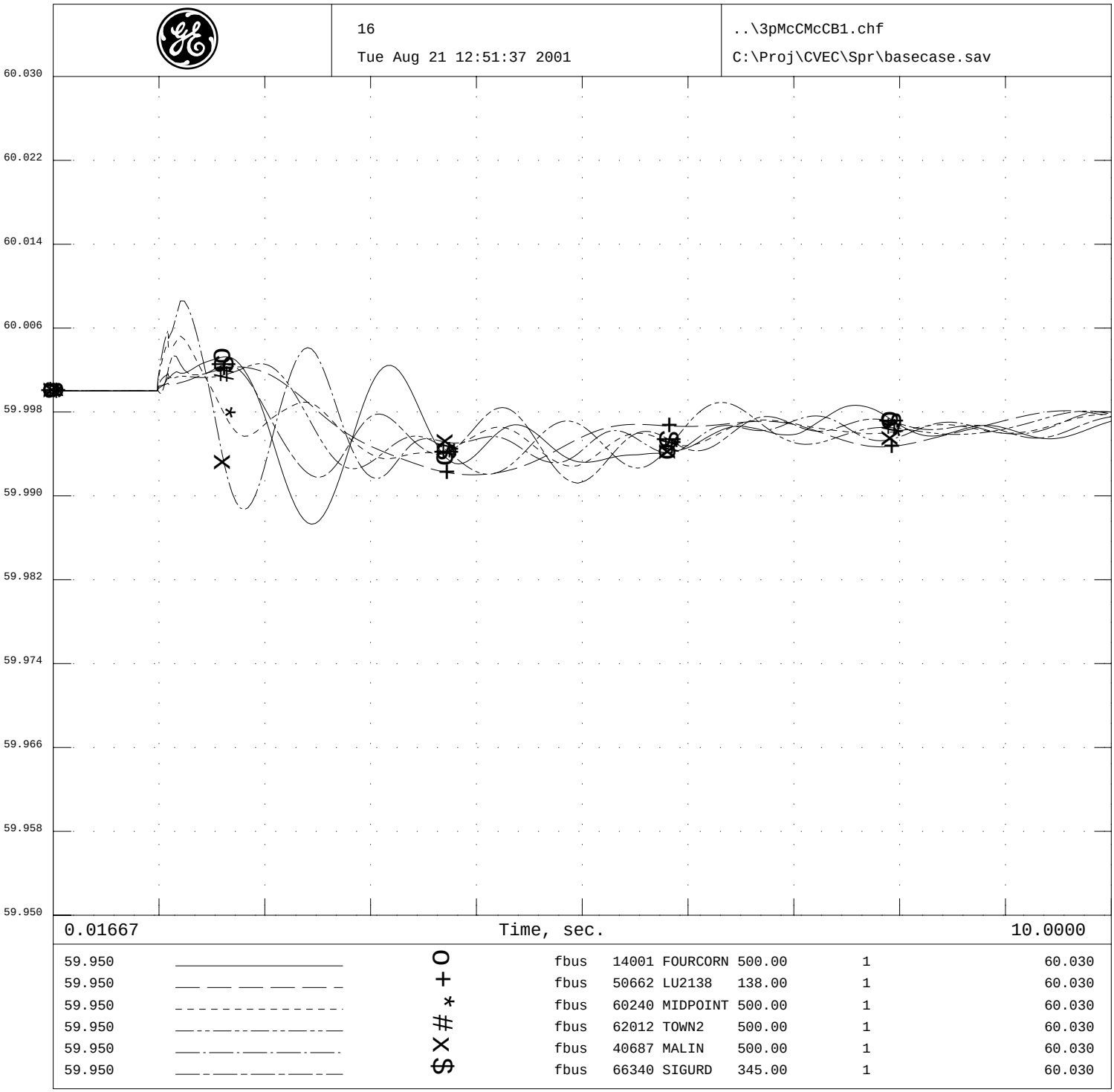

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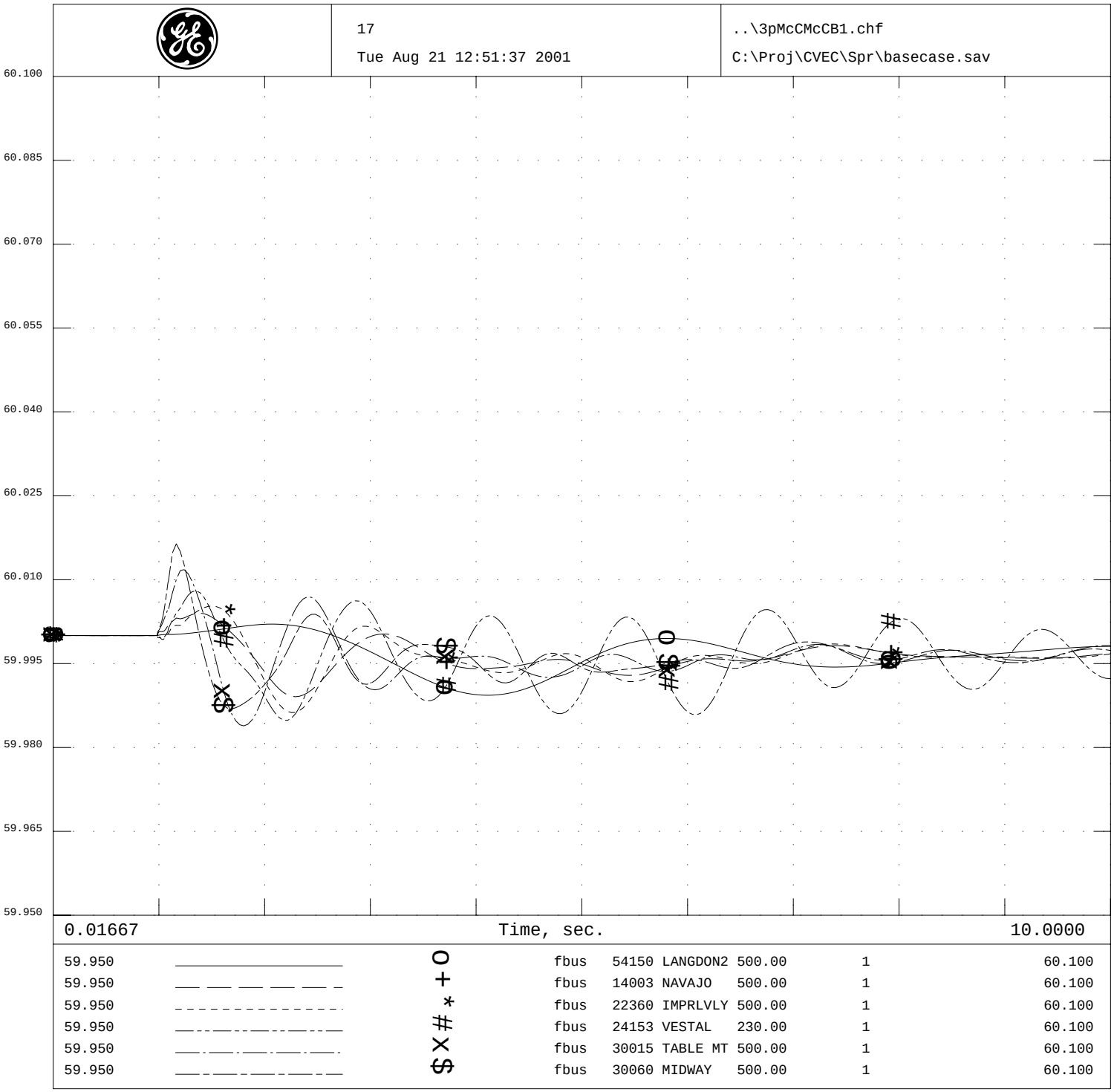

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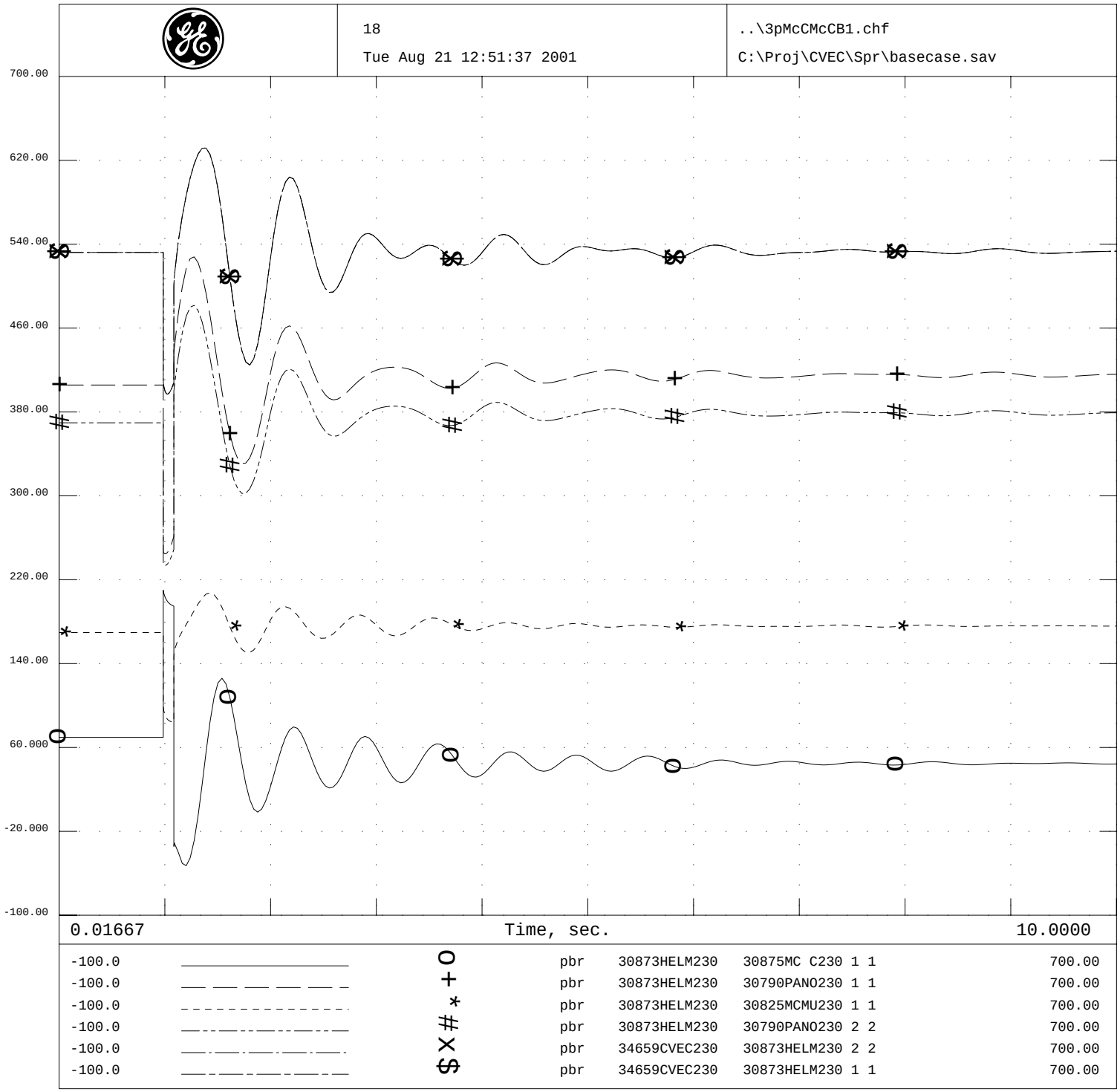

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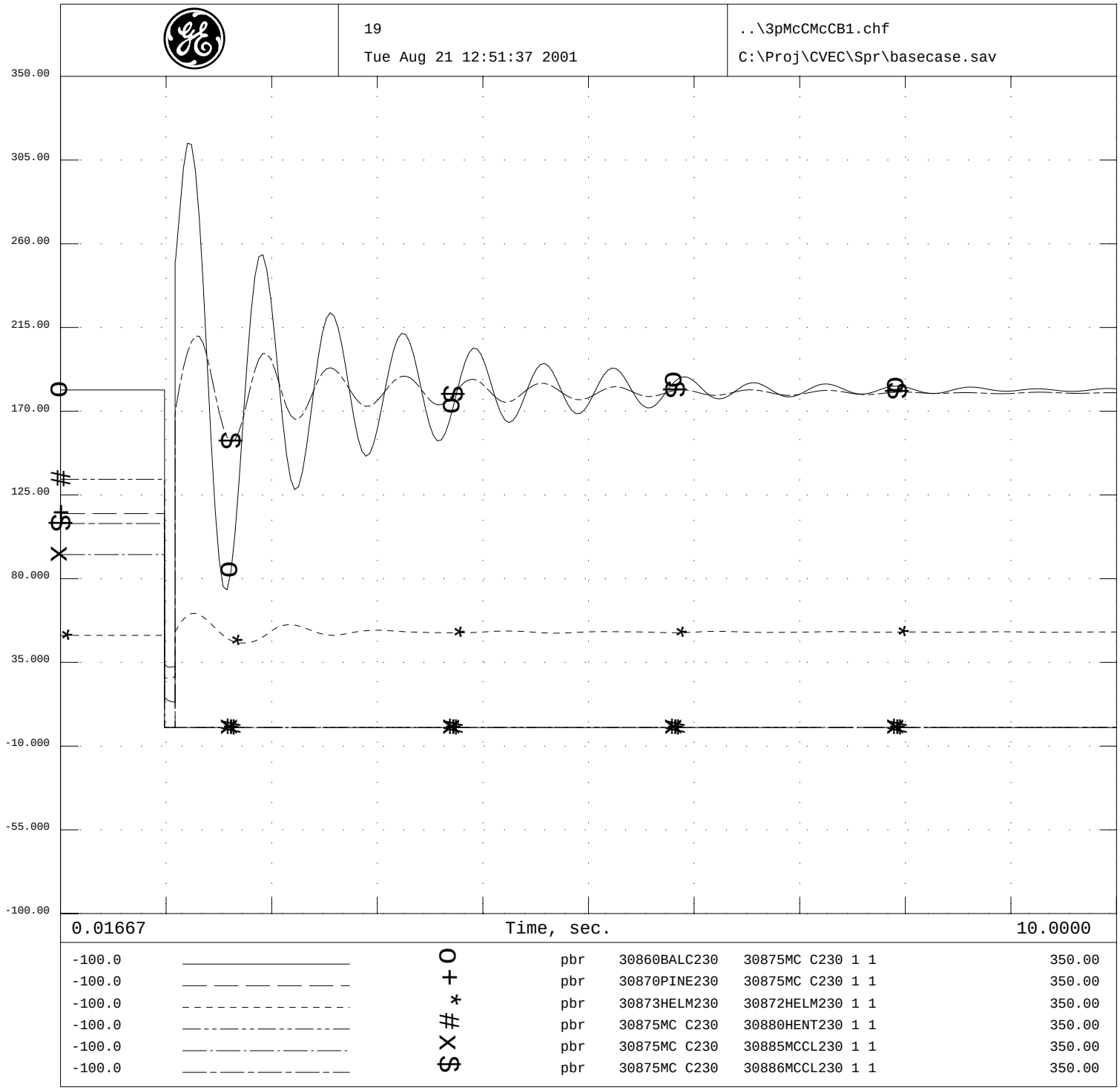
Calpine Corporation
Selected Transmission Line Flows (MW)



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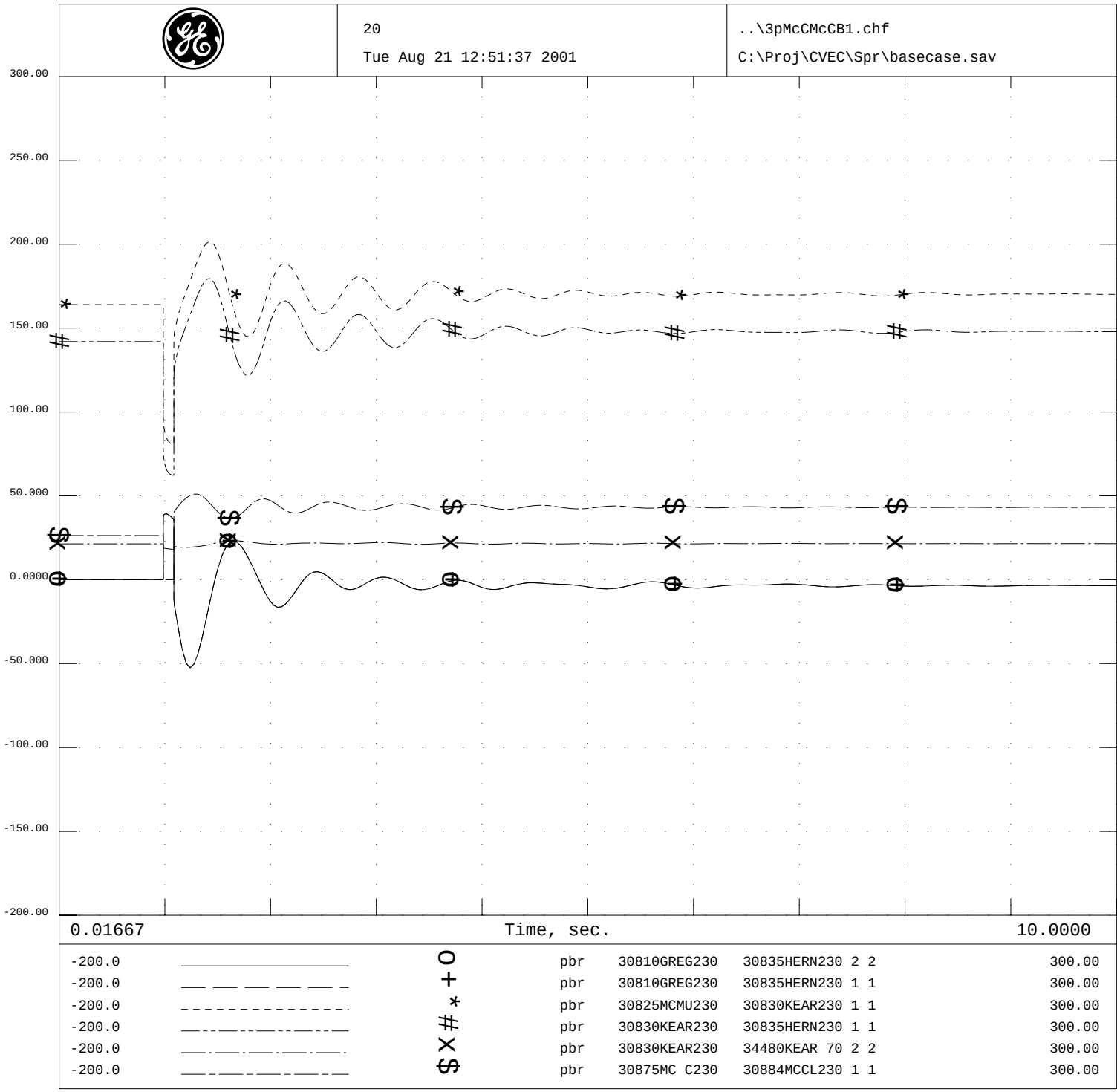

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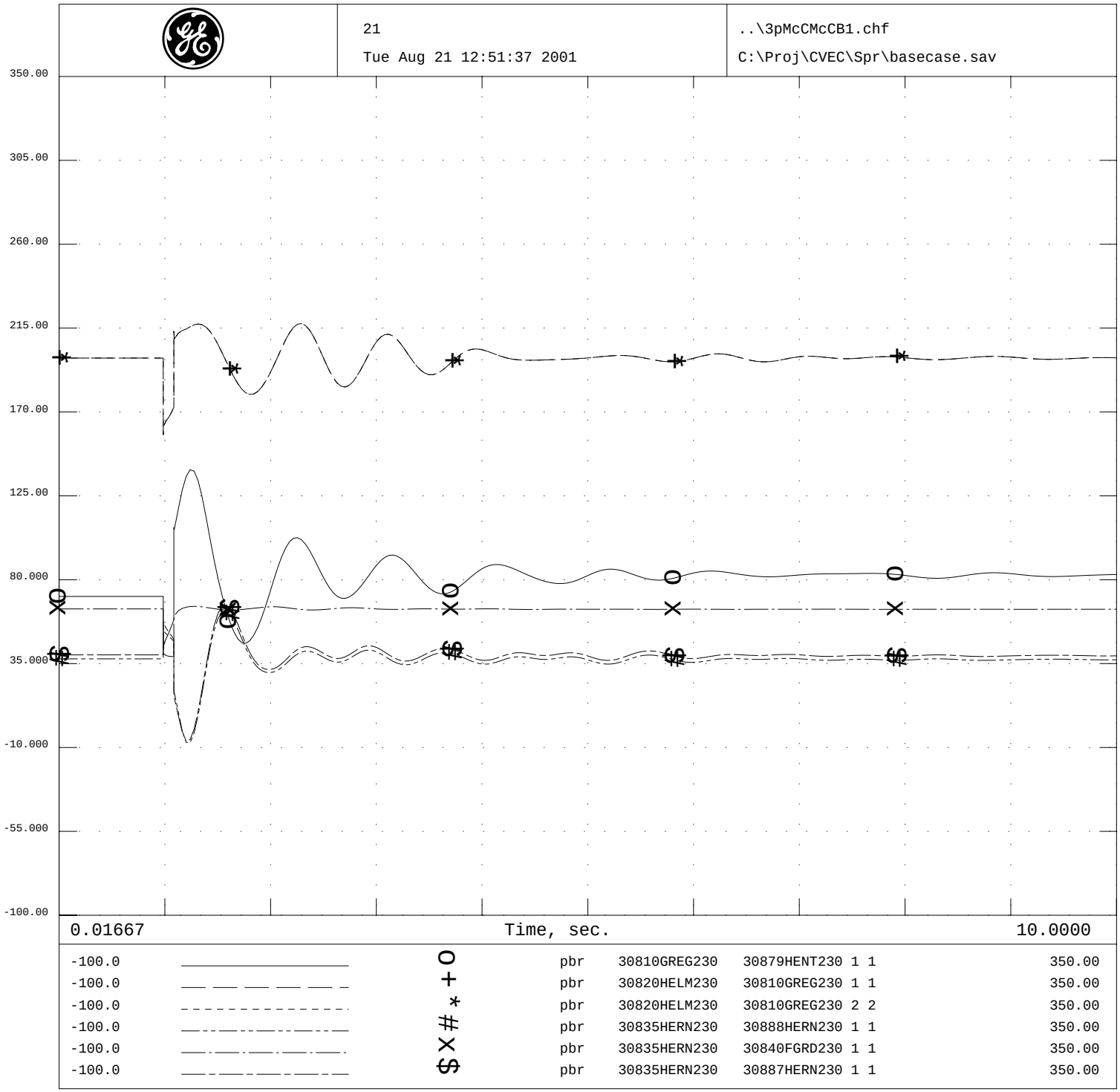

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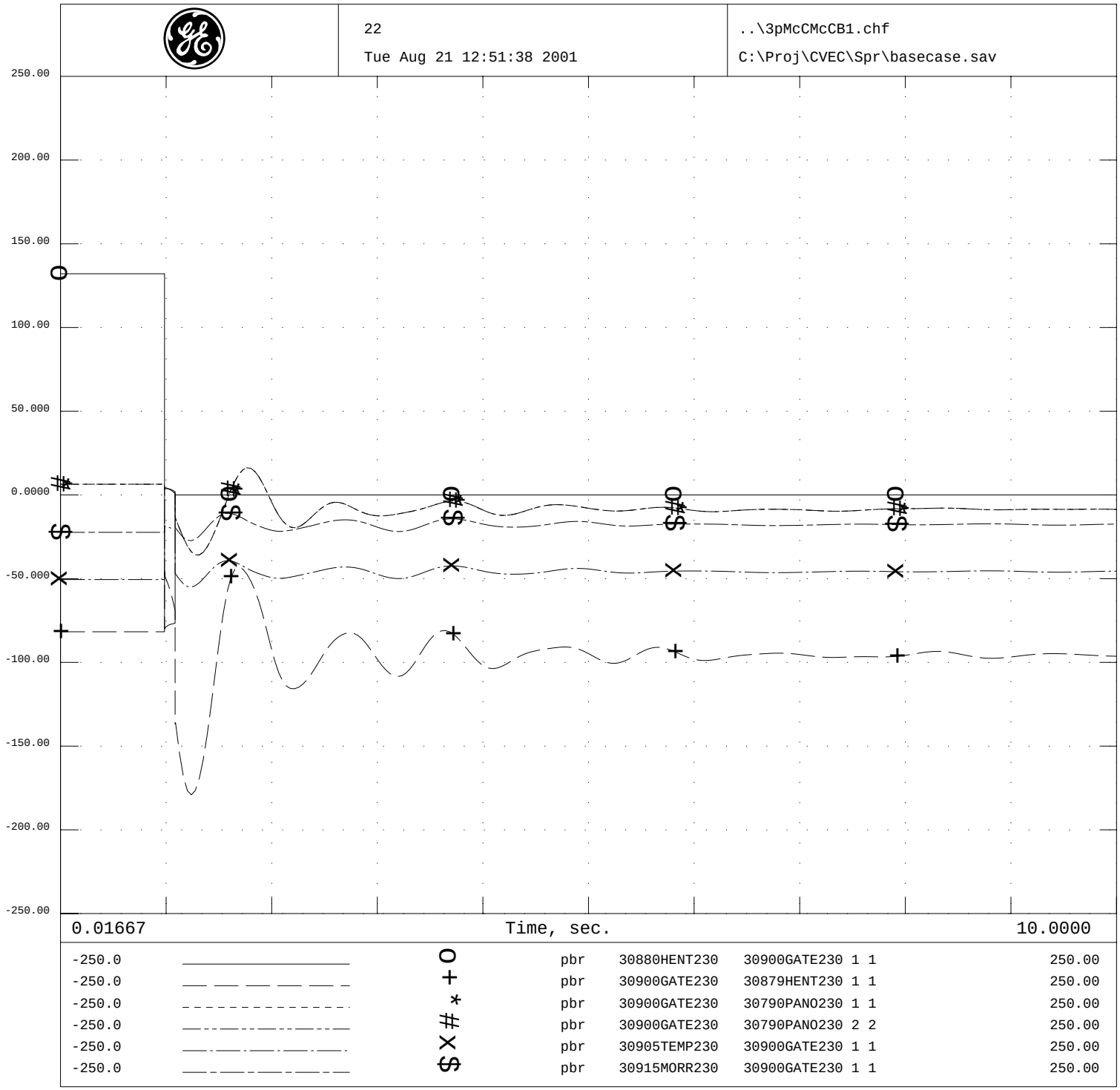

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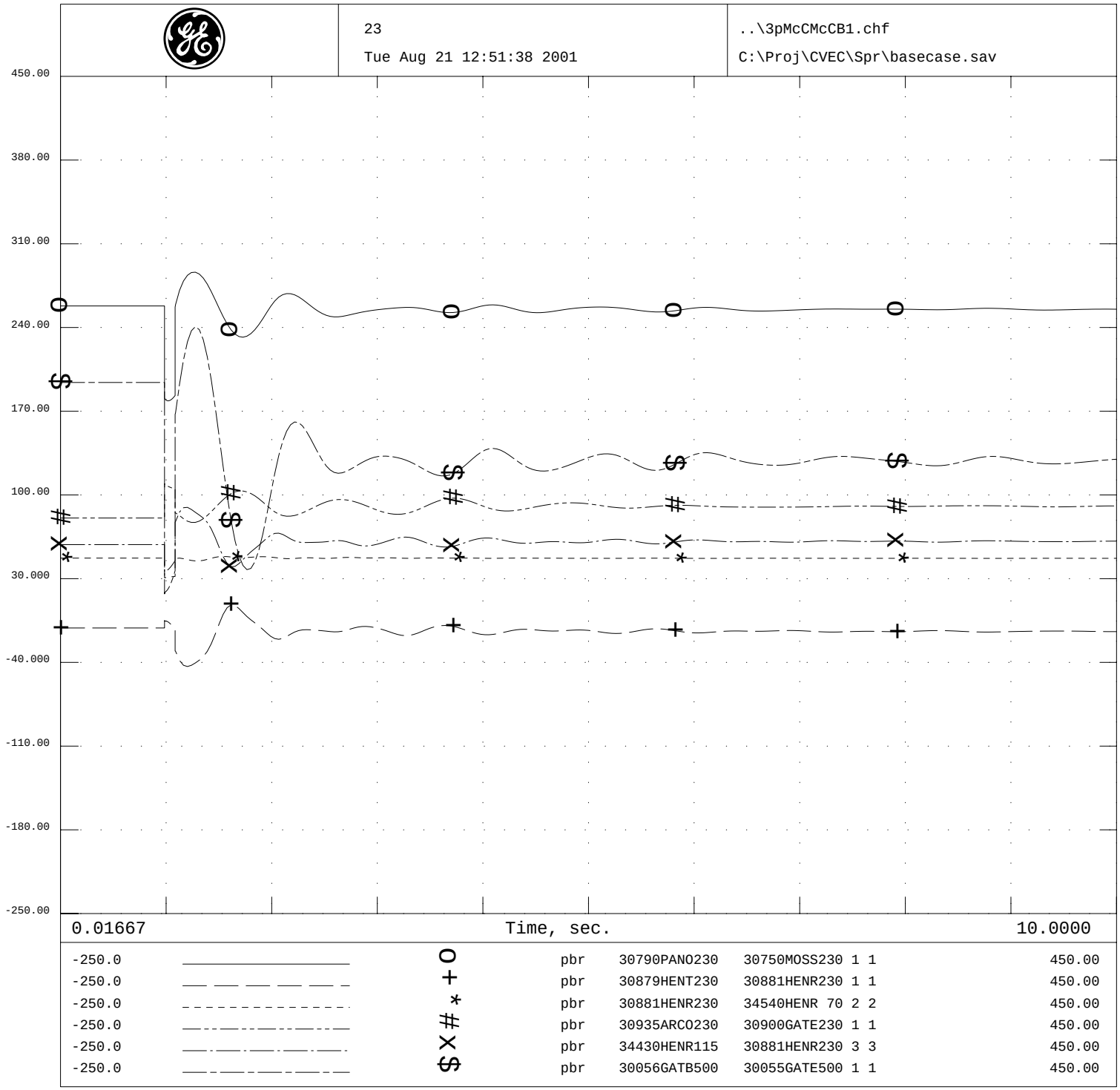

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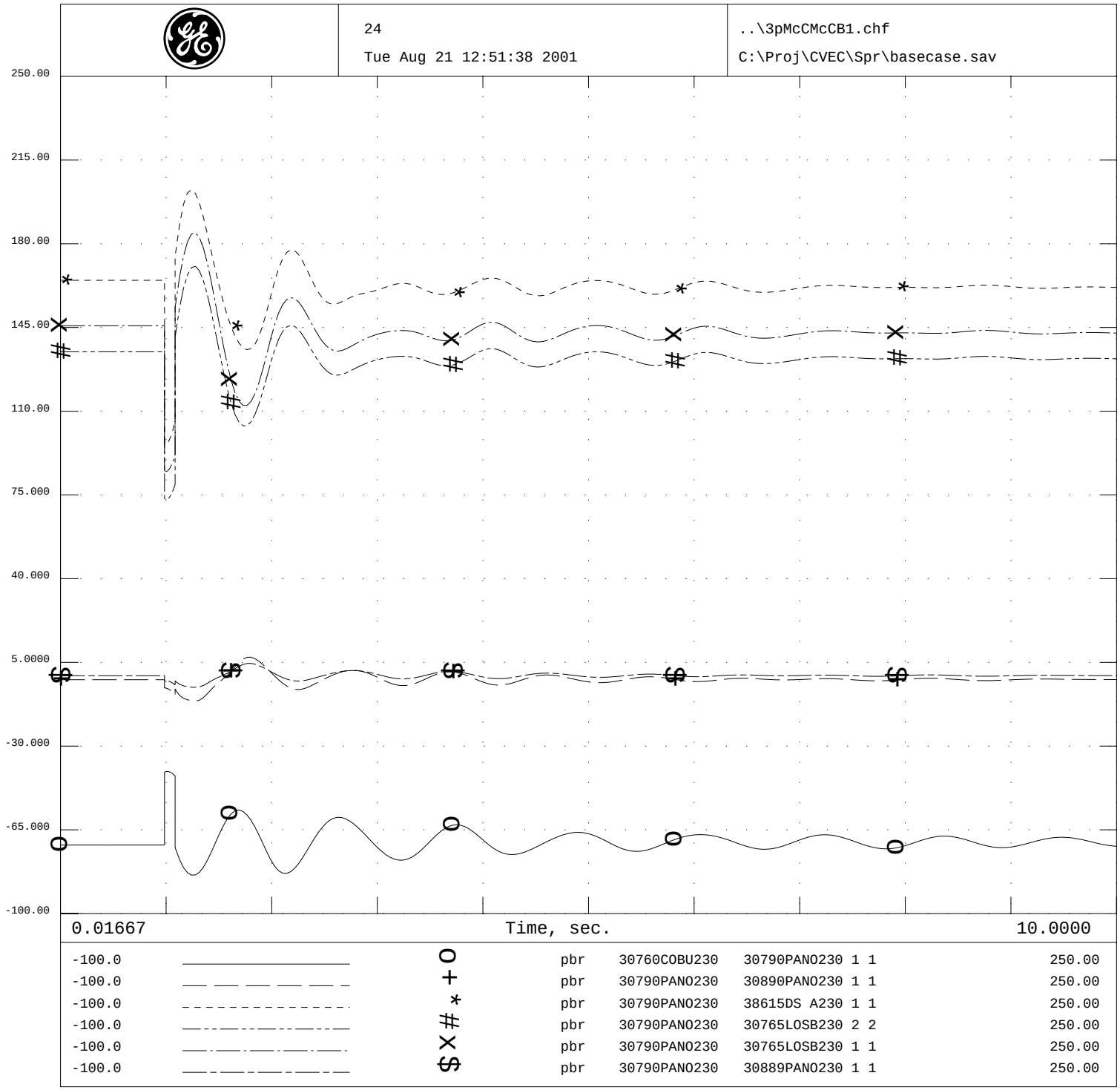

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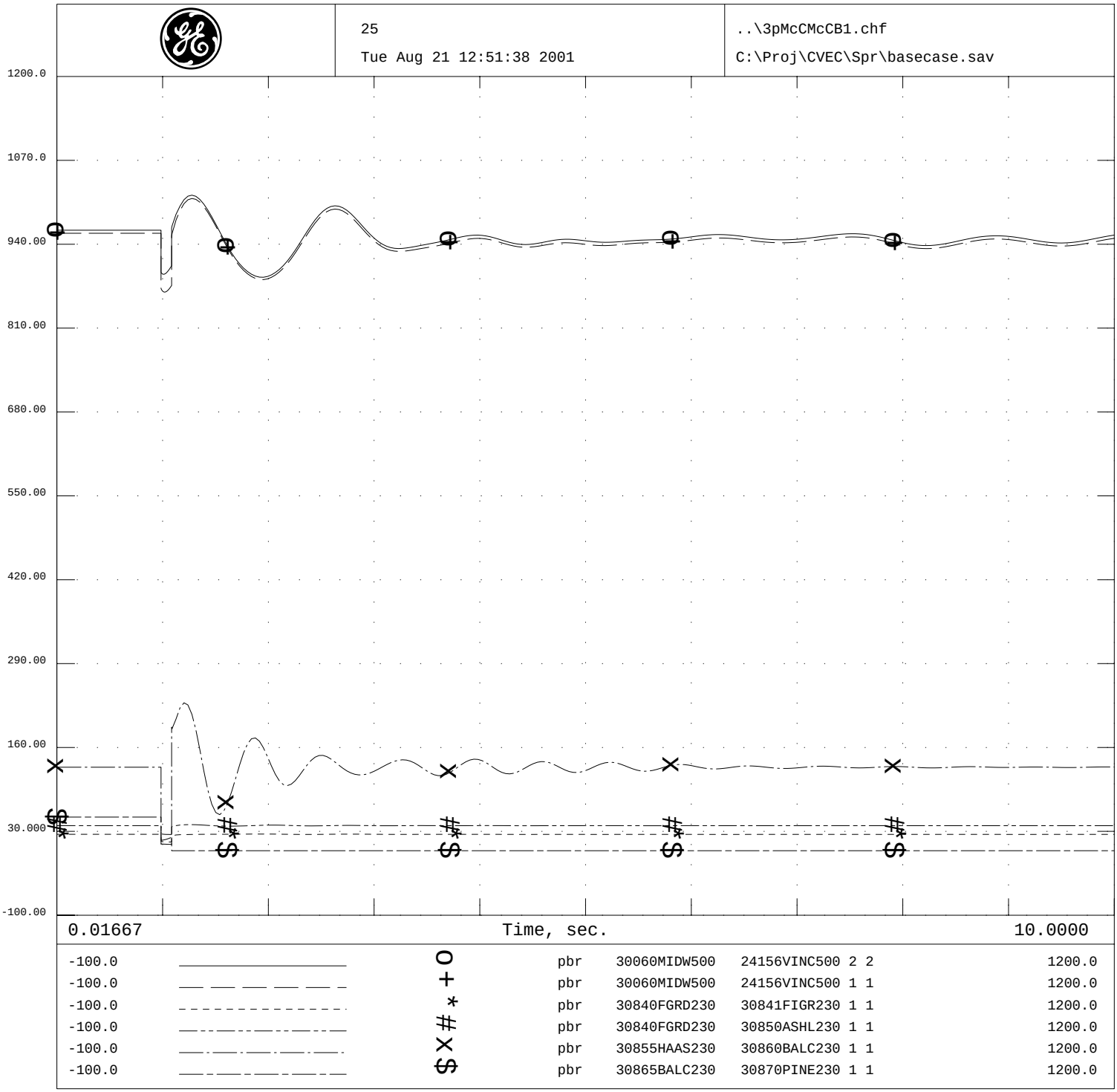

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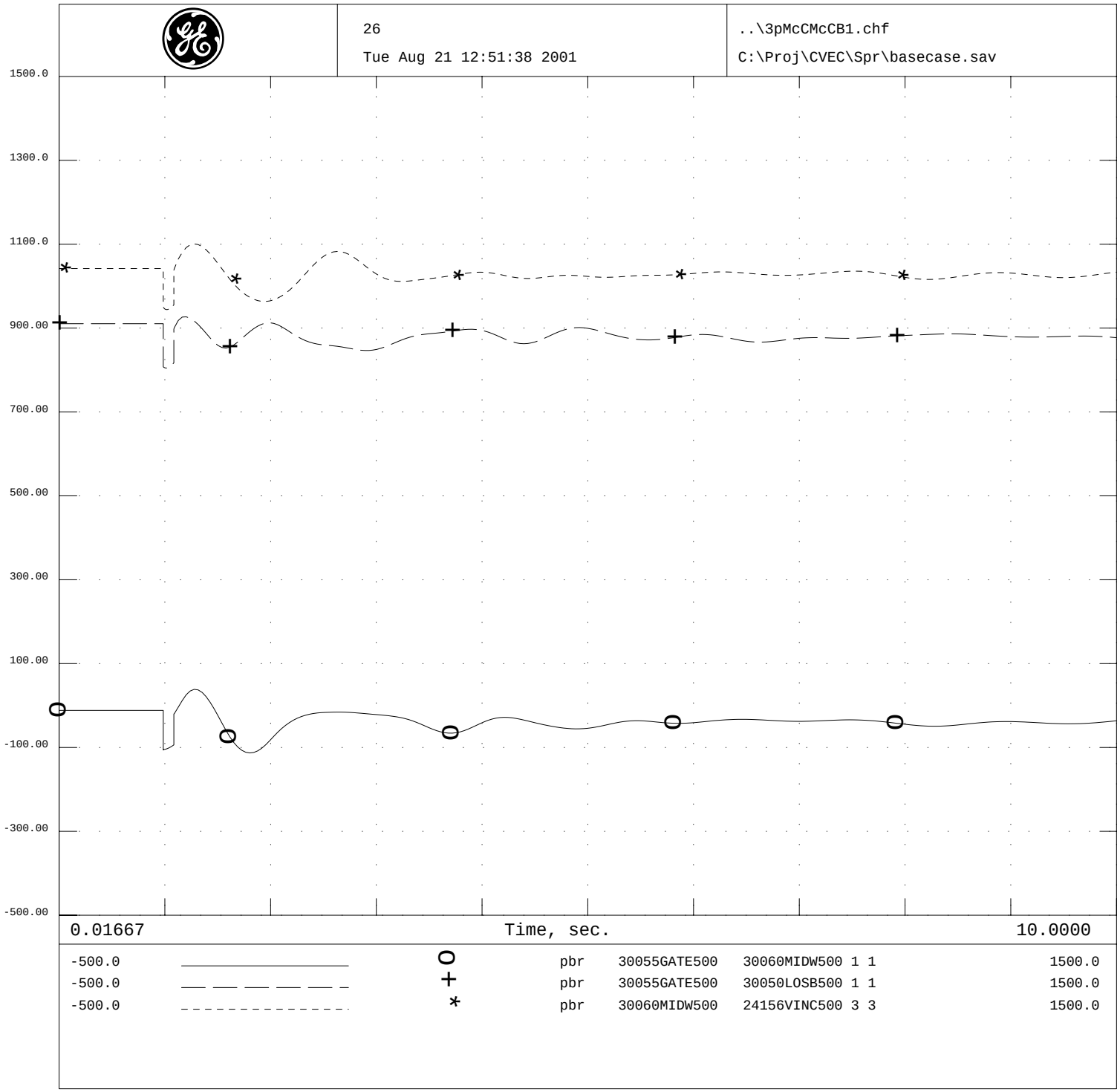

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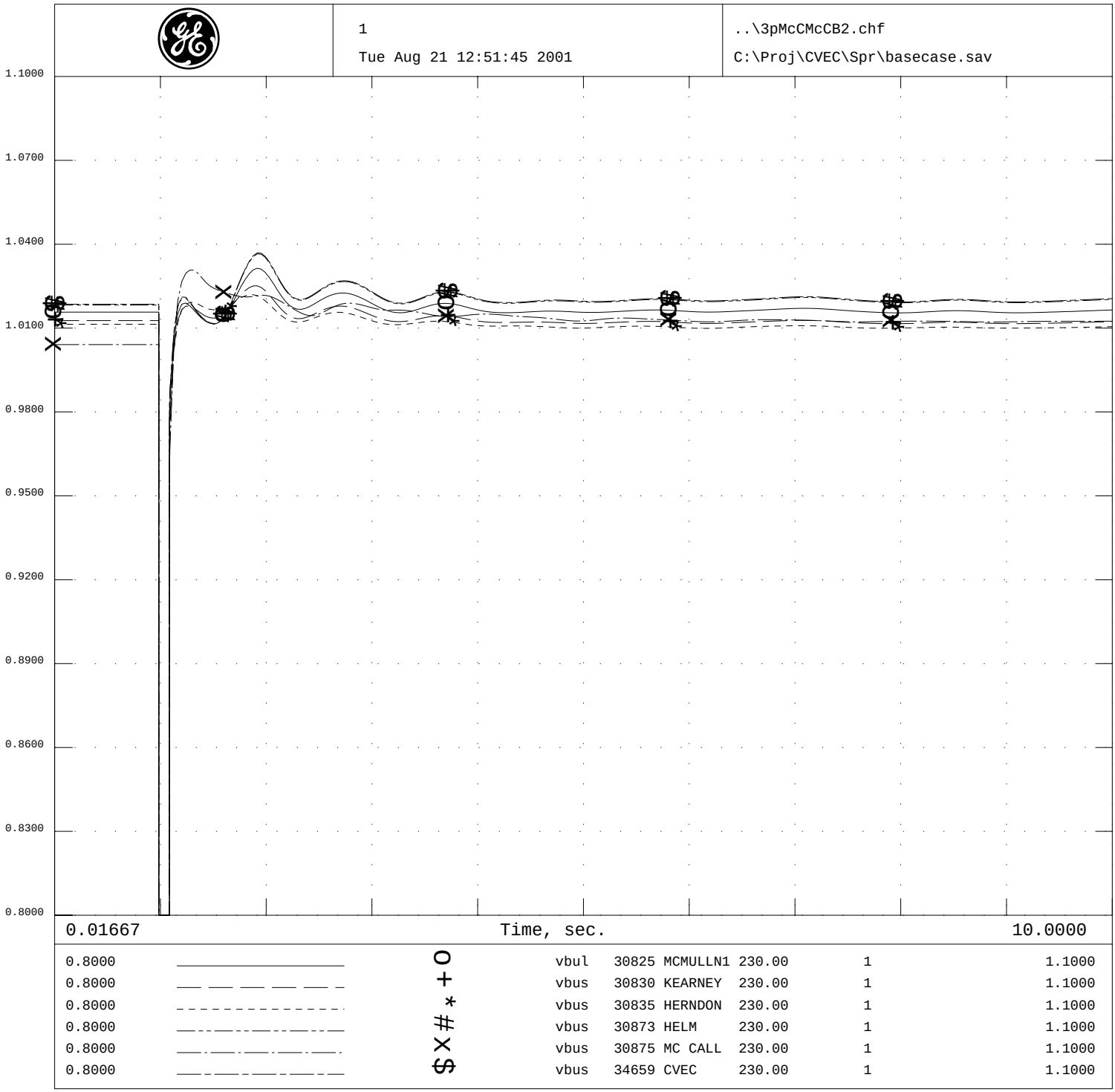

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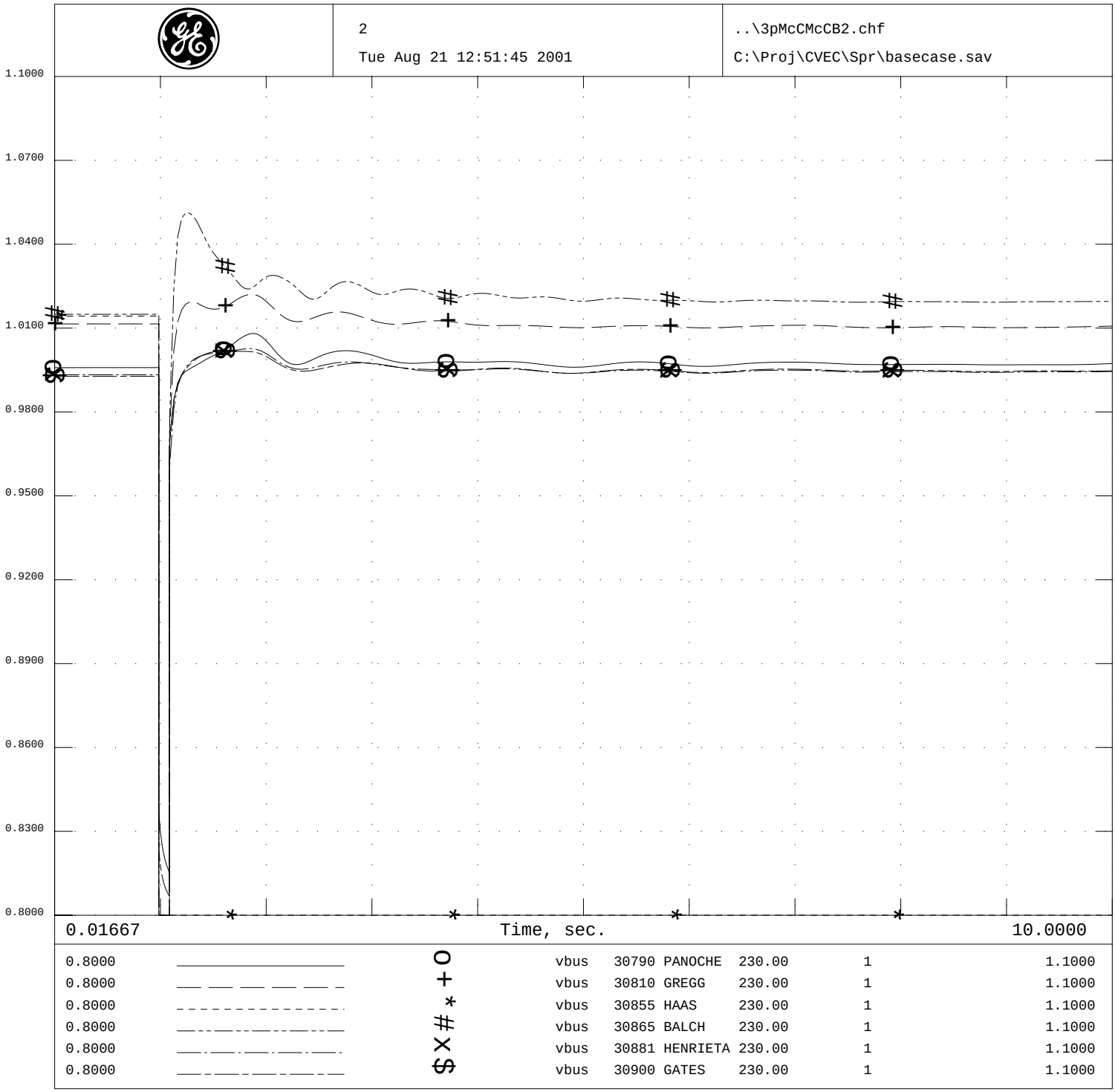
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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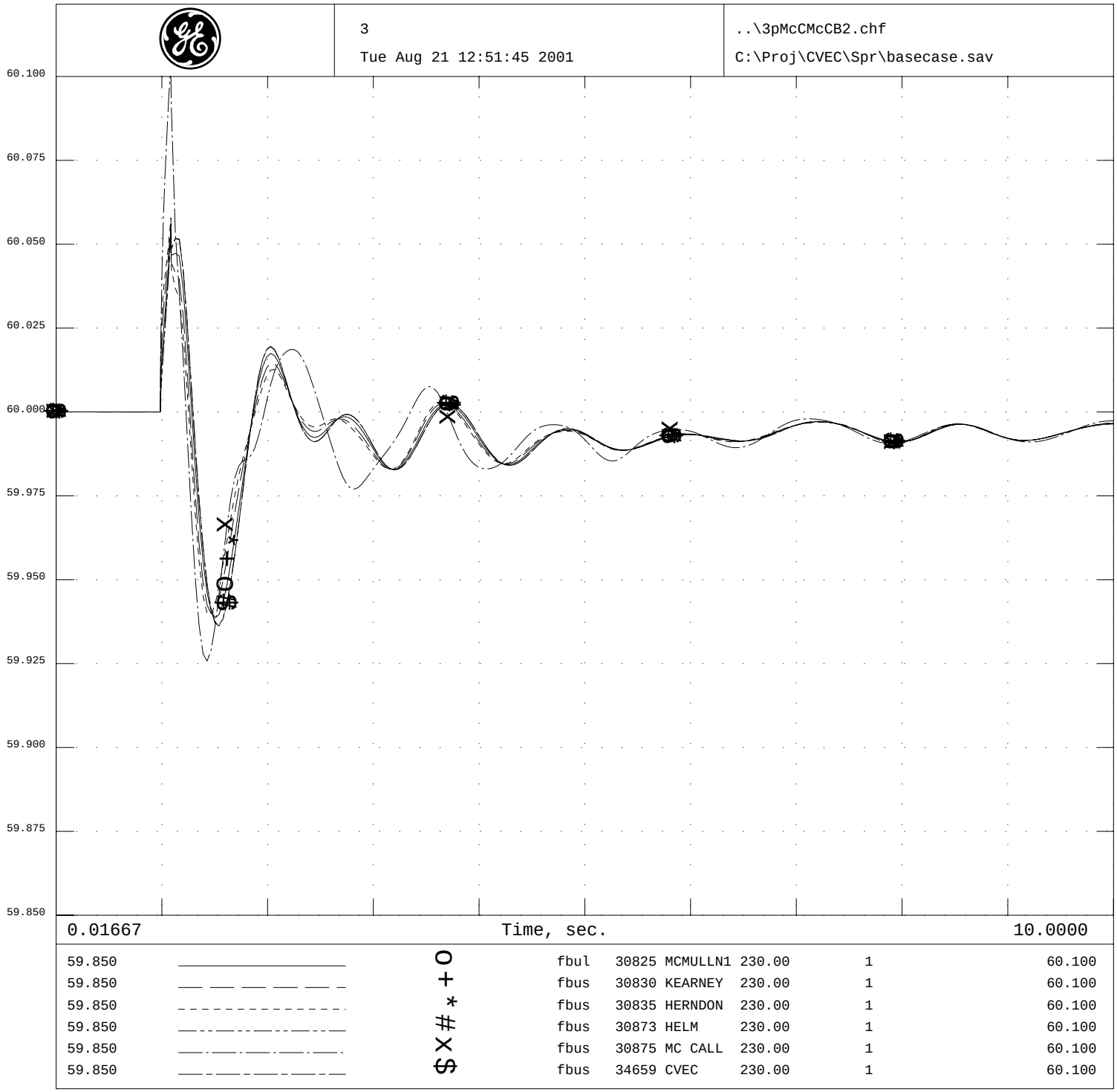

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Calpine Corporation
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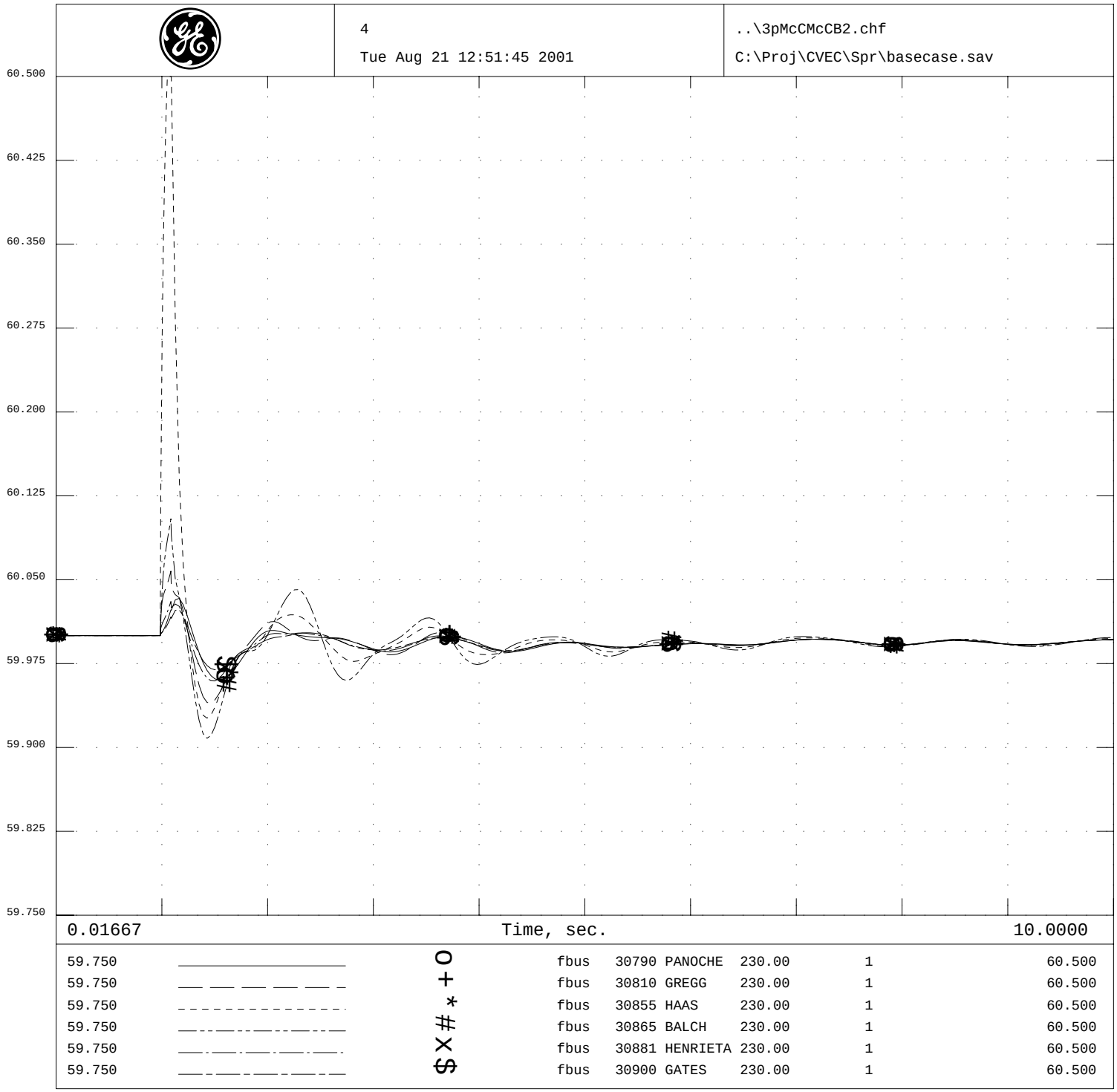

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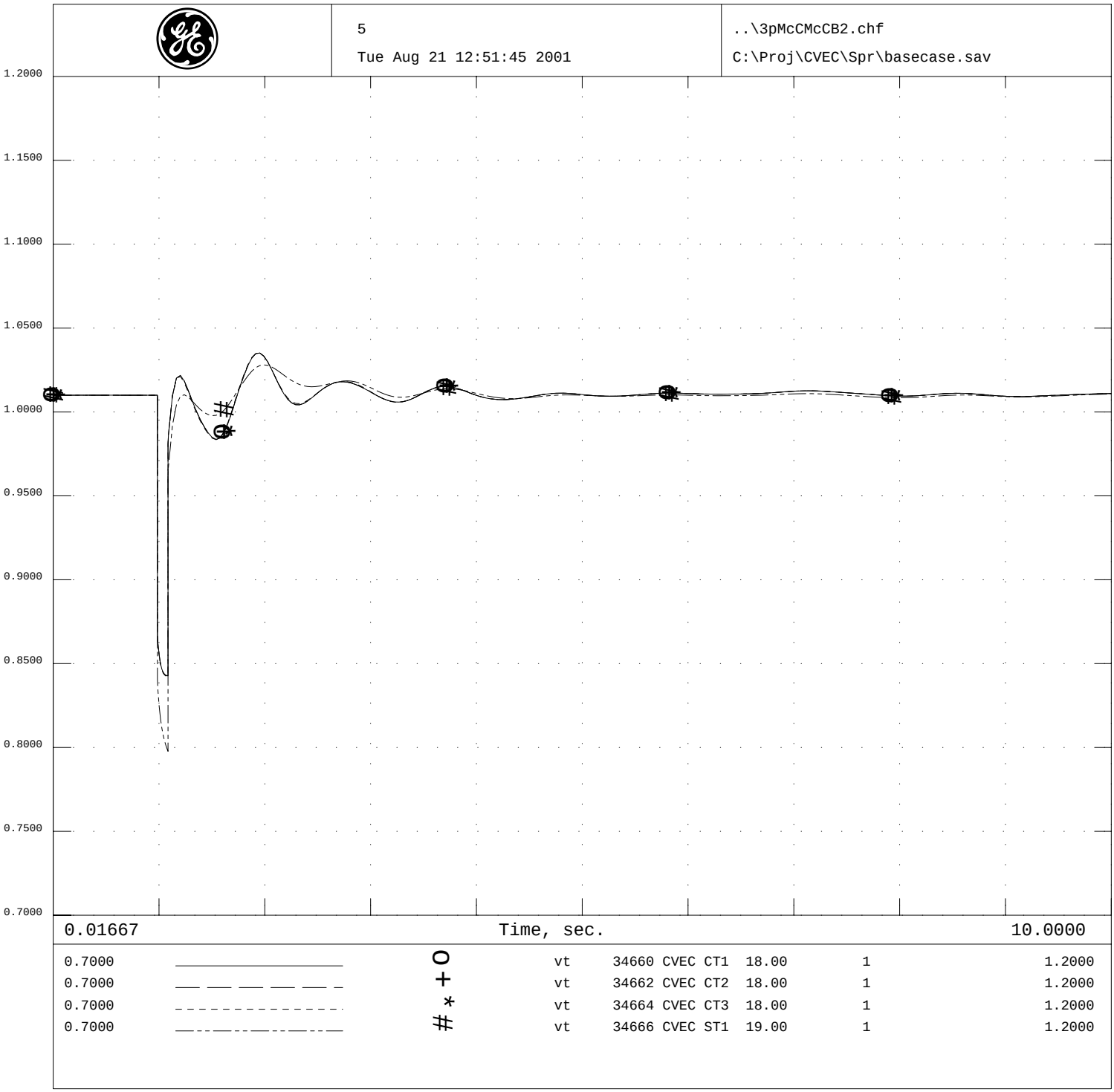

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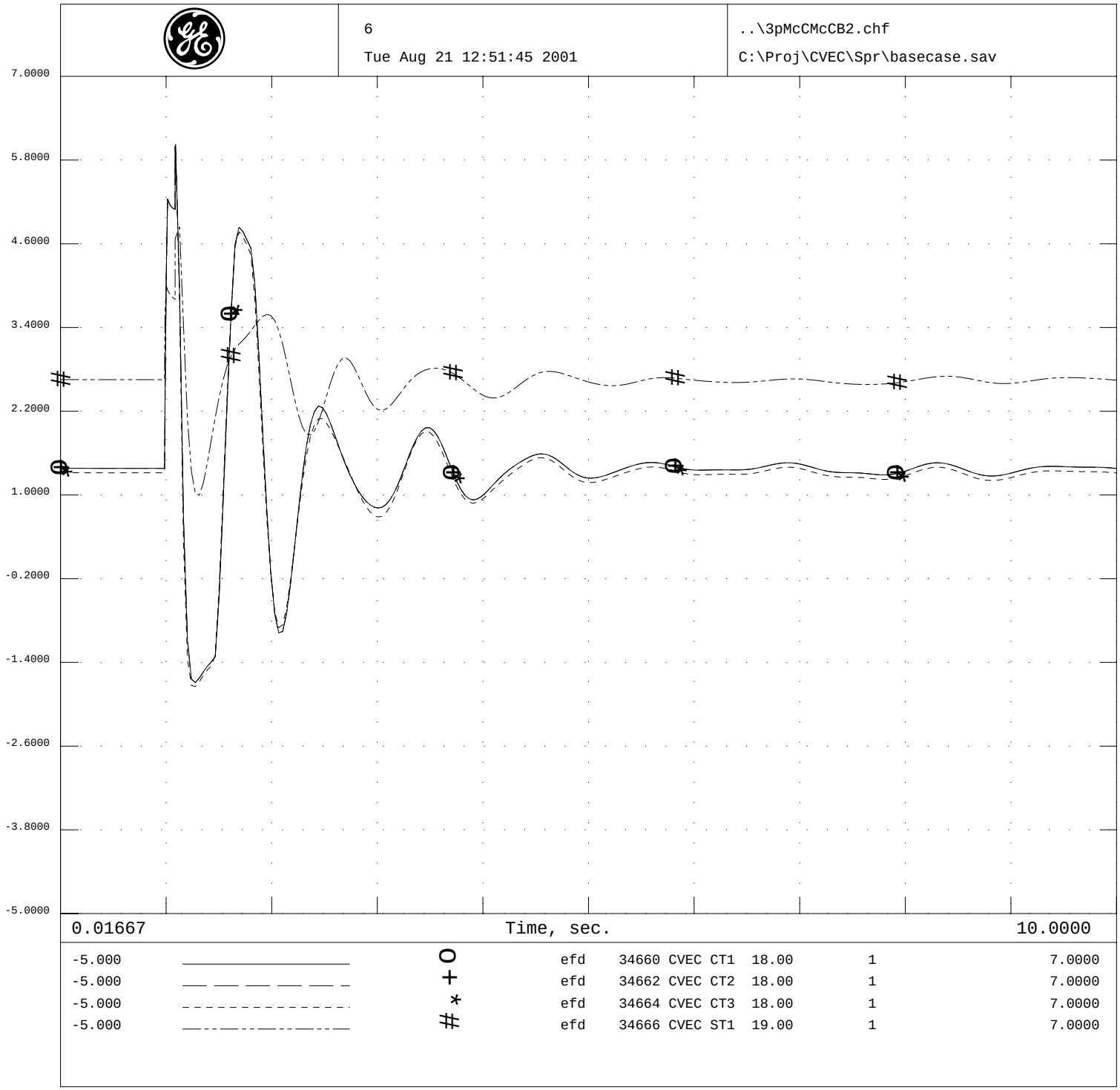
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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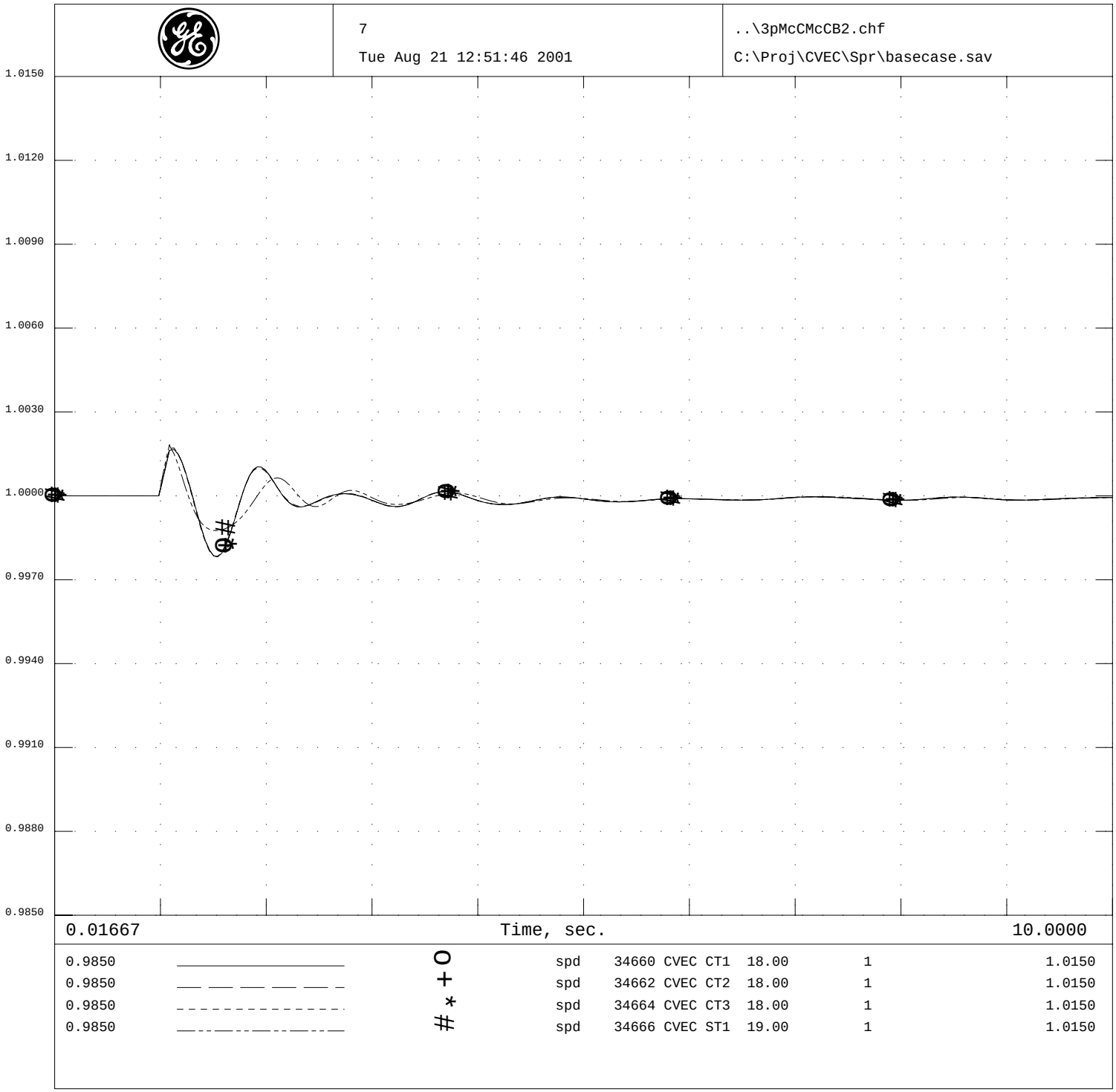
Calpine Corporation
Project Generator Field Voltages



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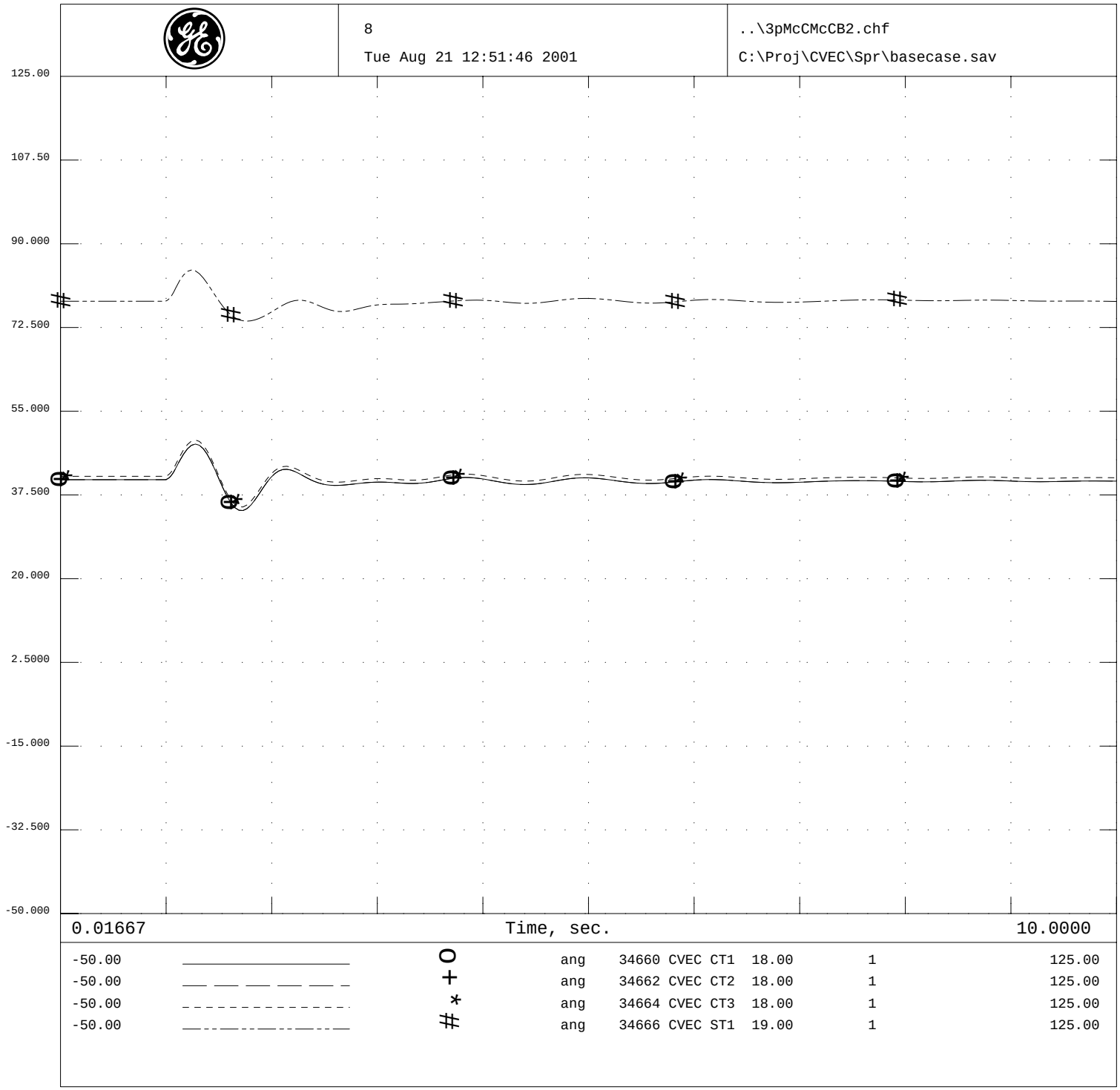
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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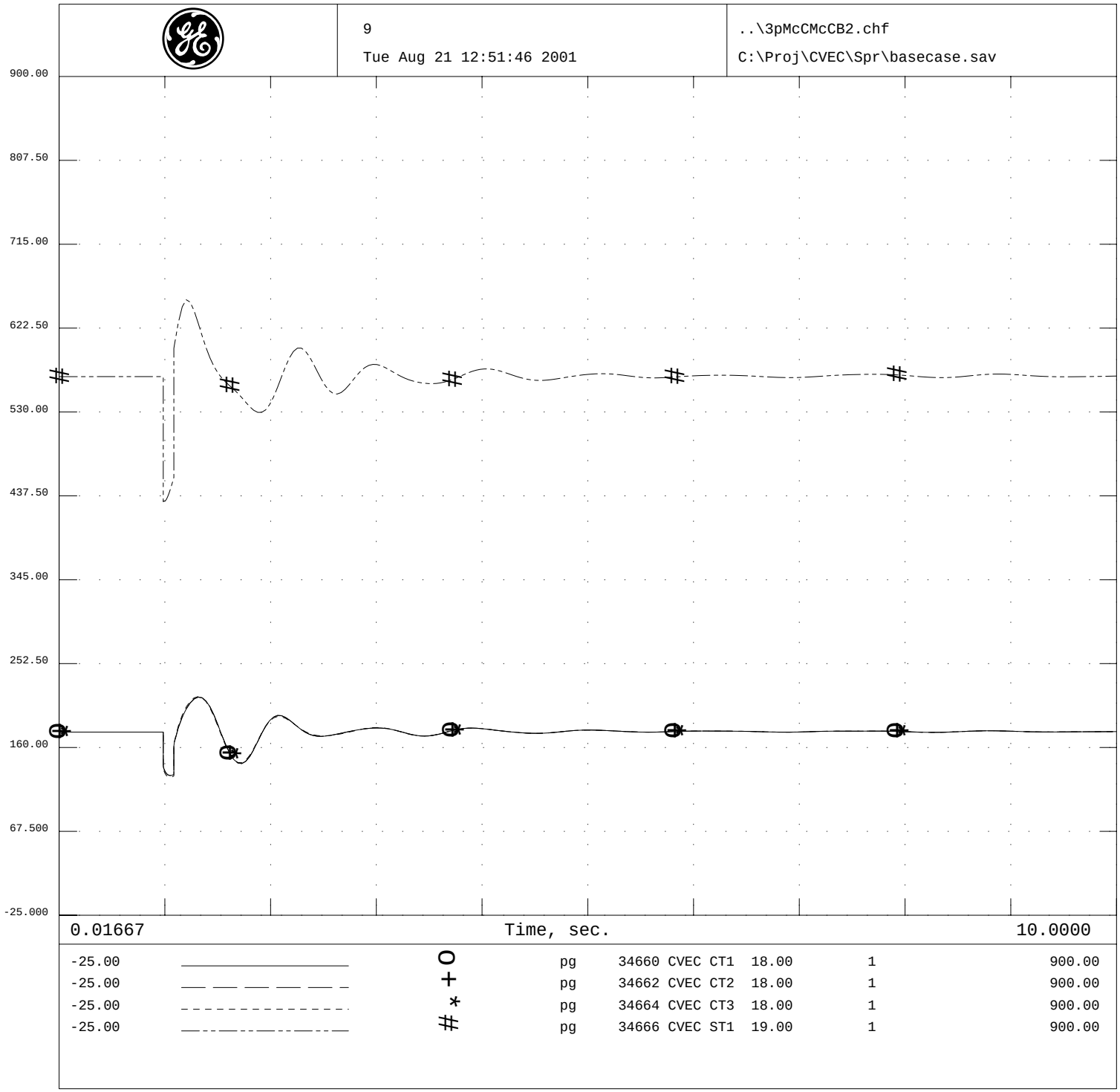
Project Generator Rotor Angle



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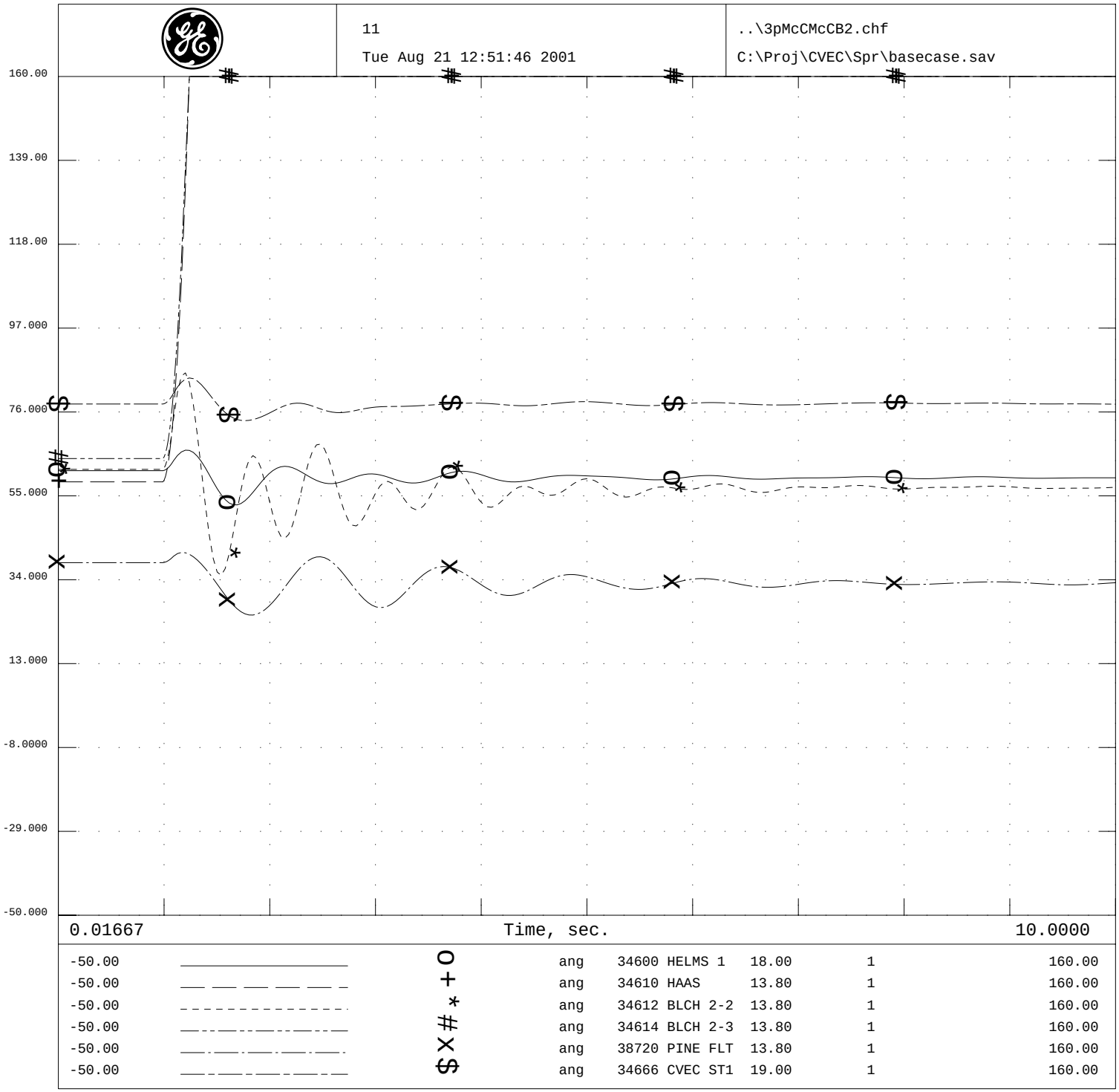

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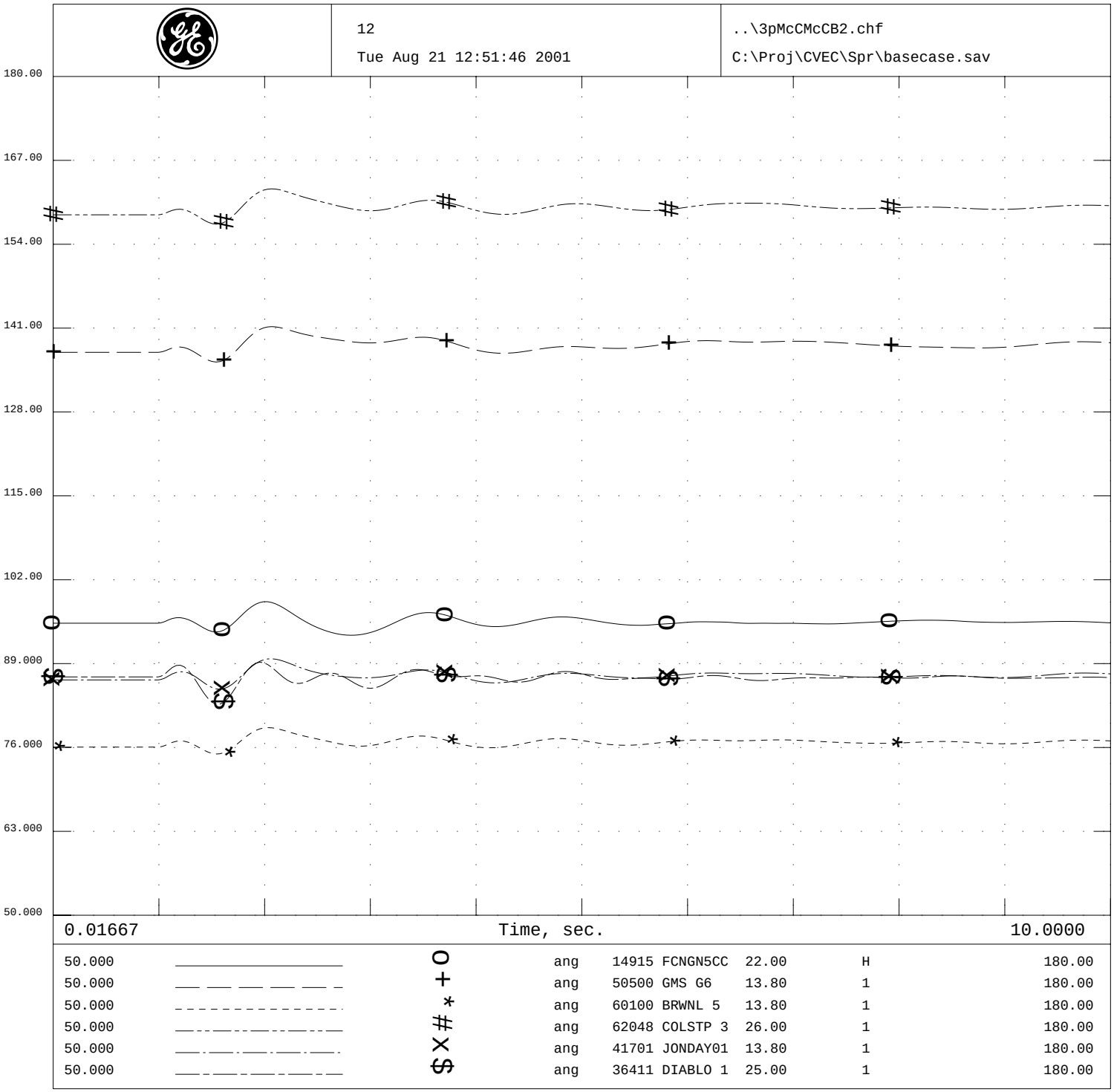

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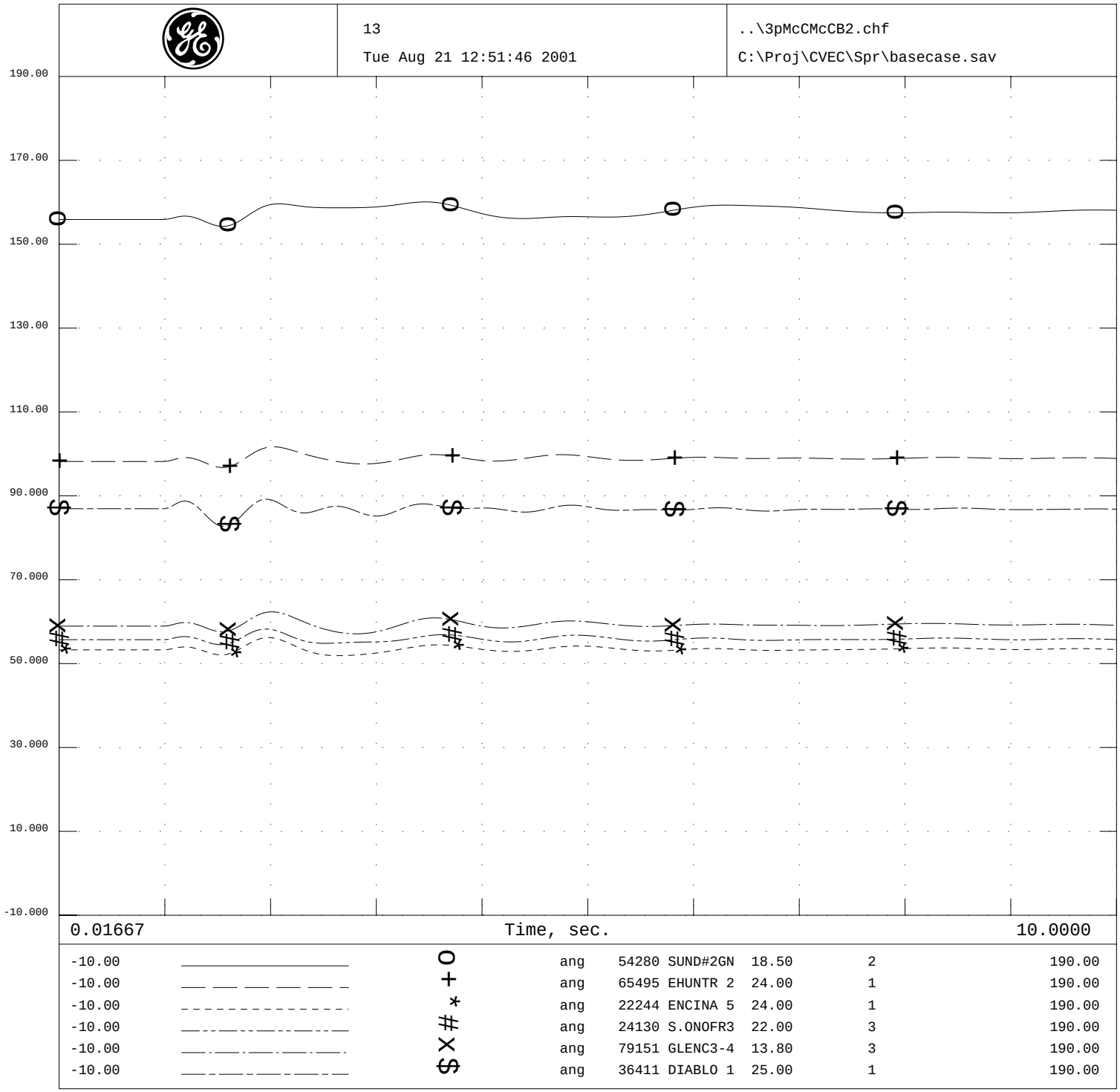

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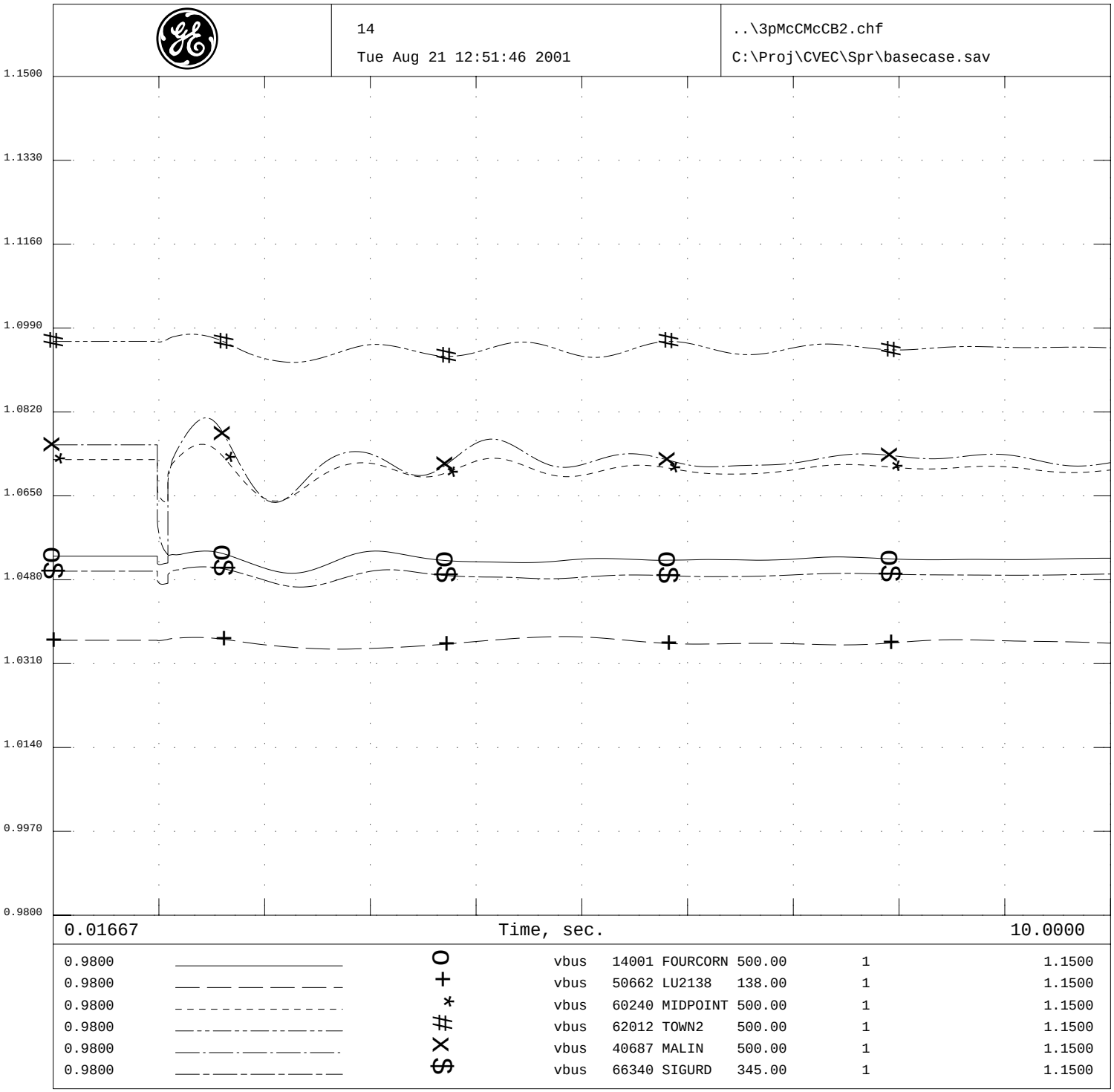

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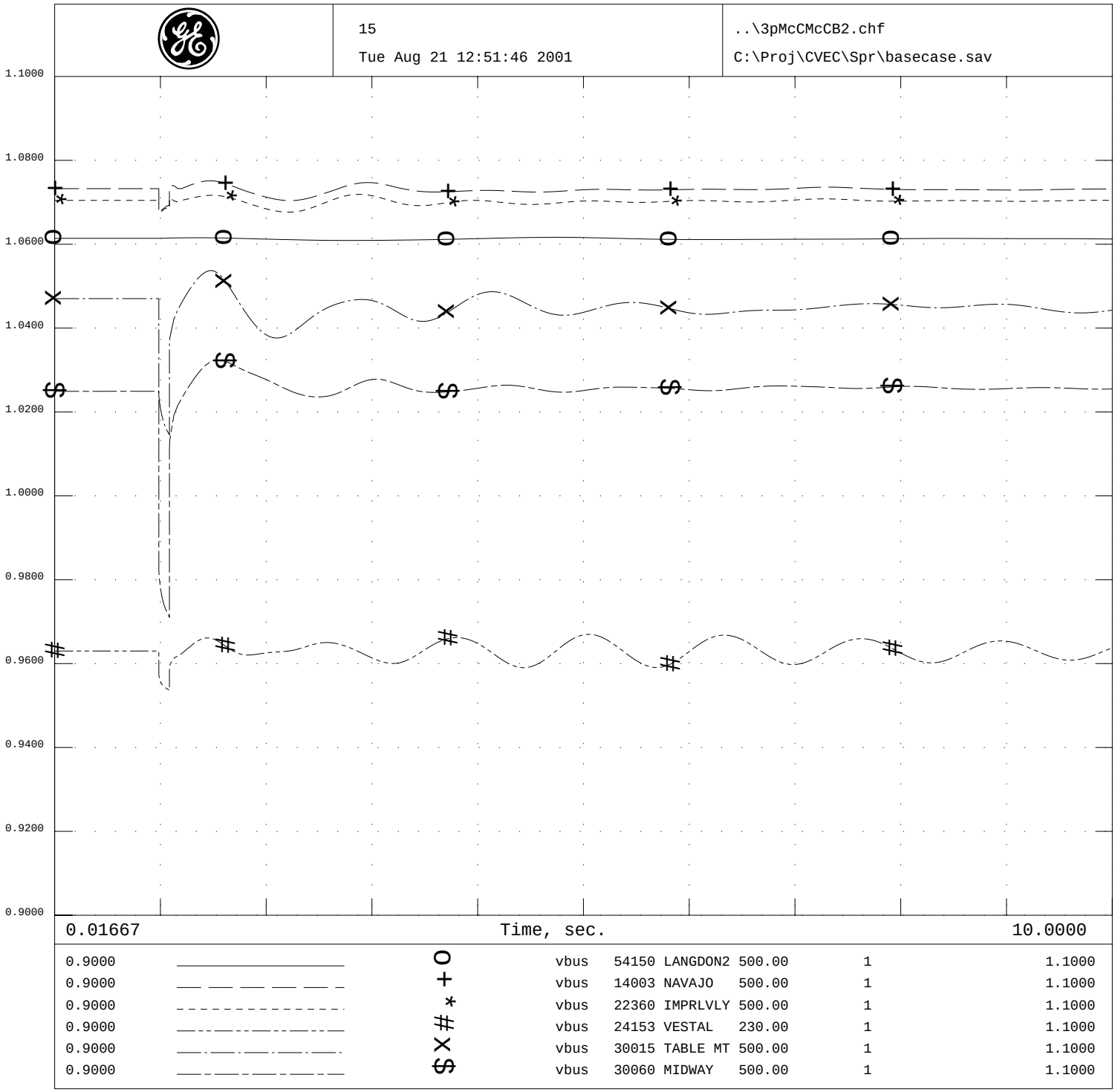

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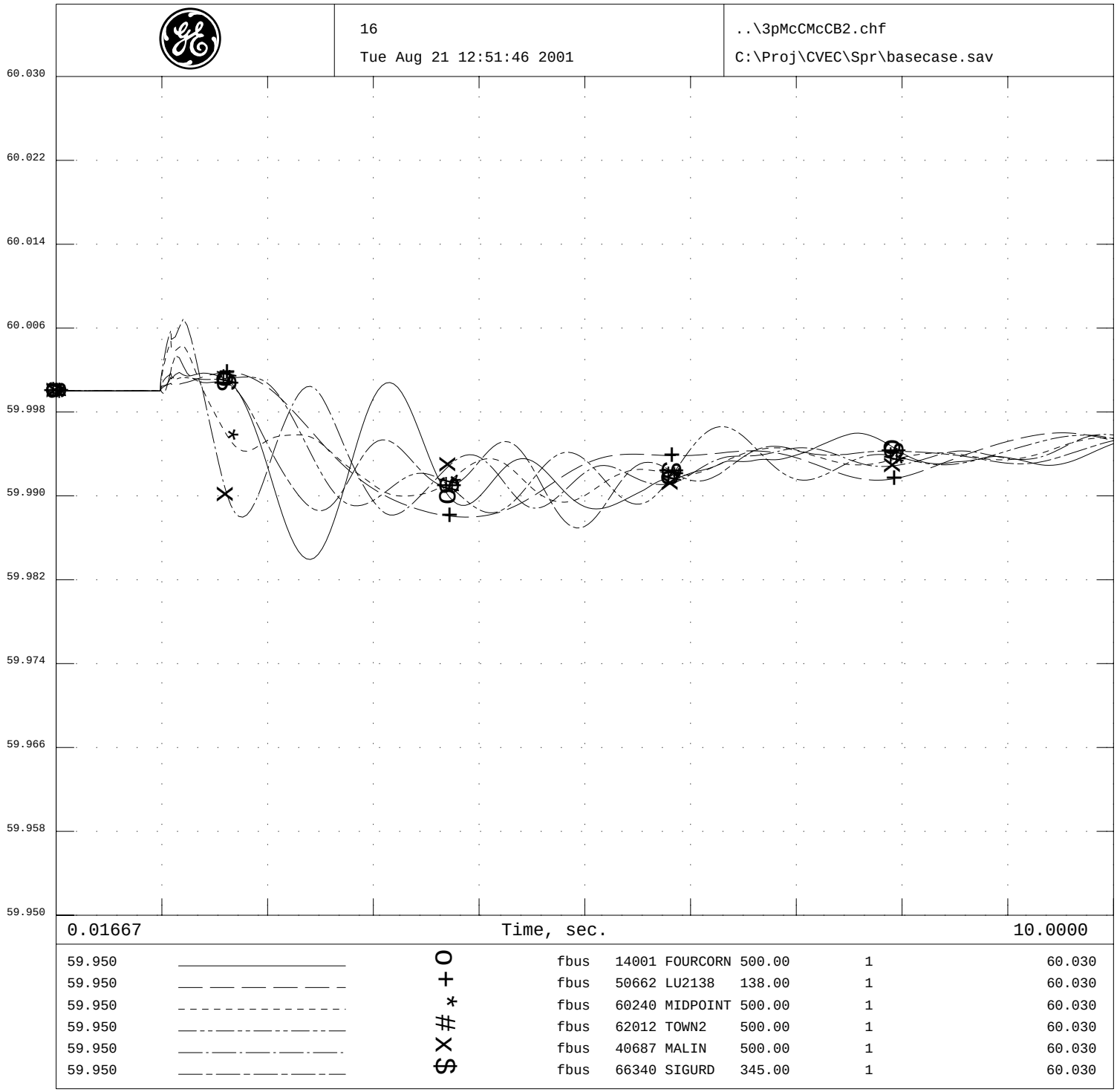

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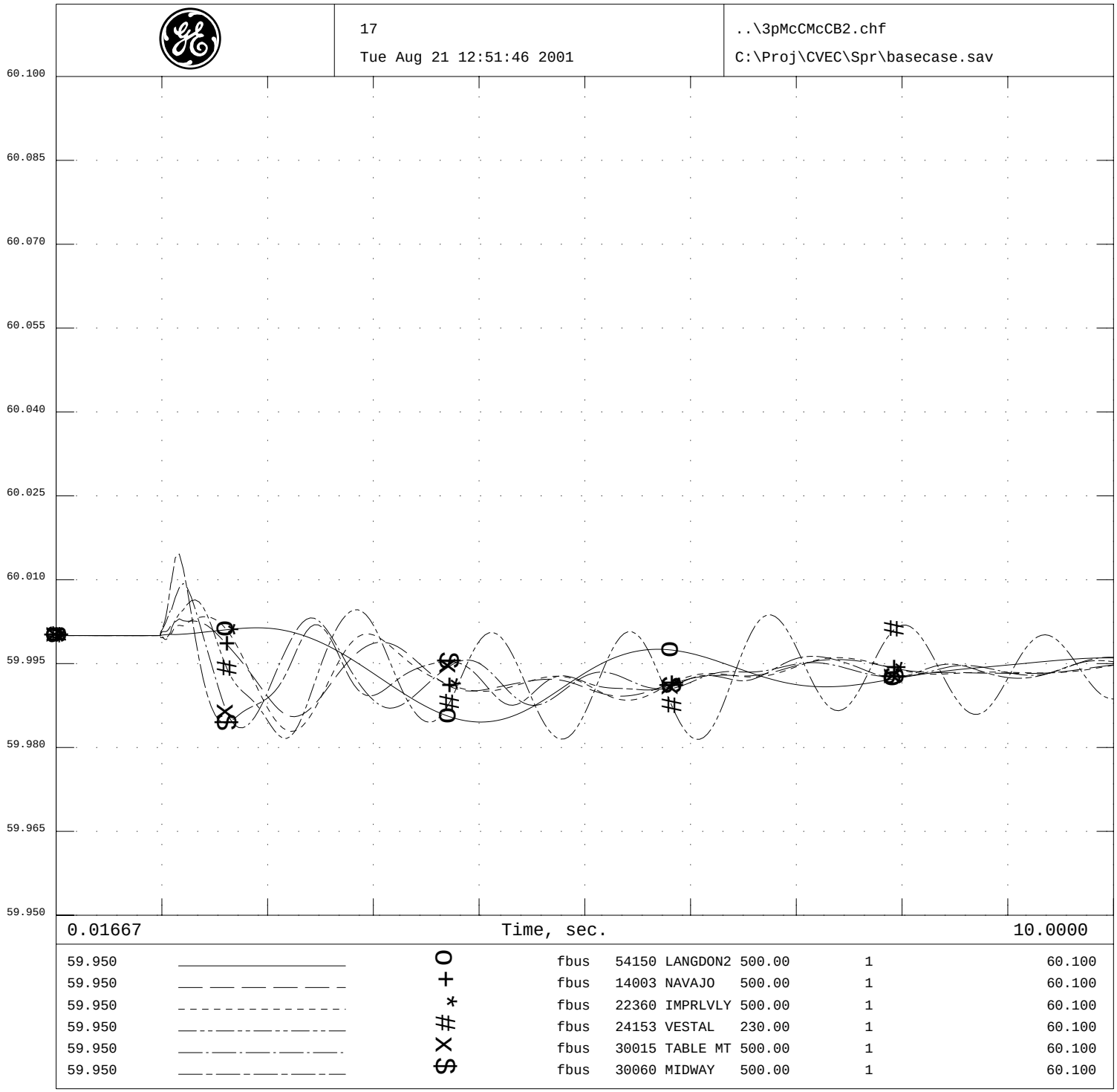

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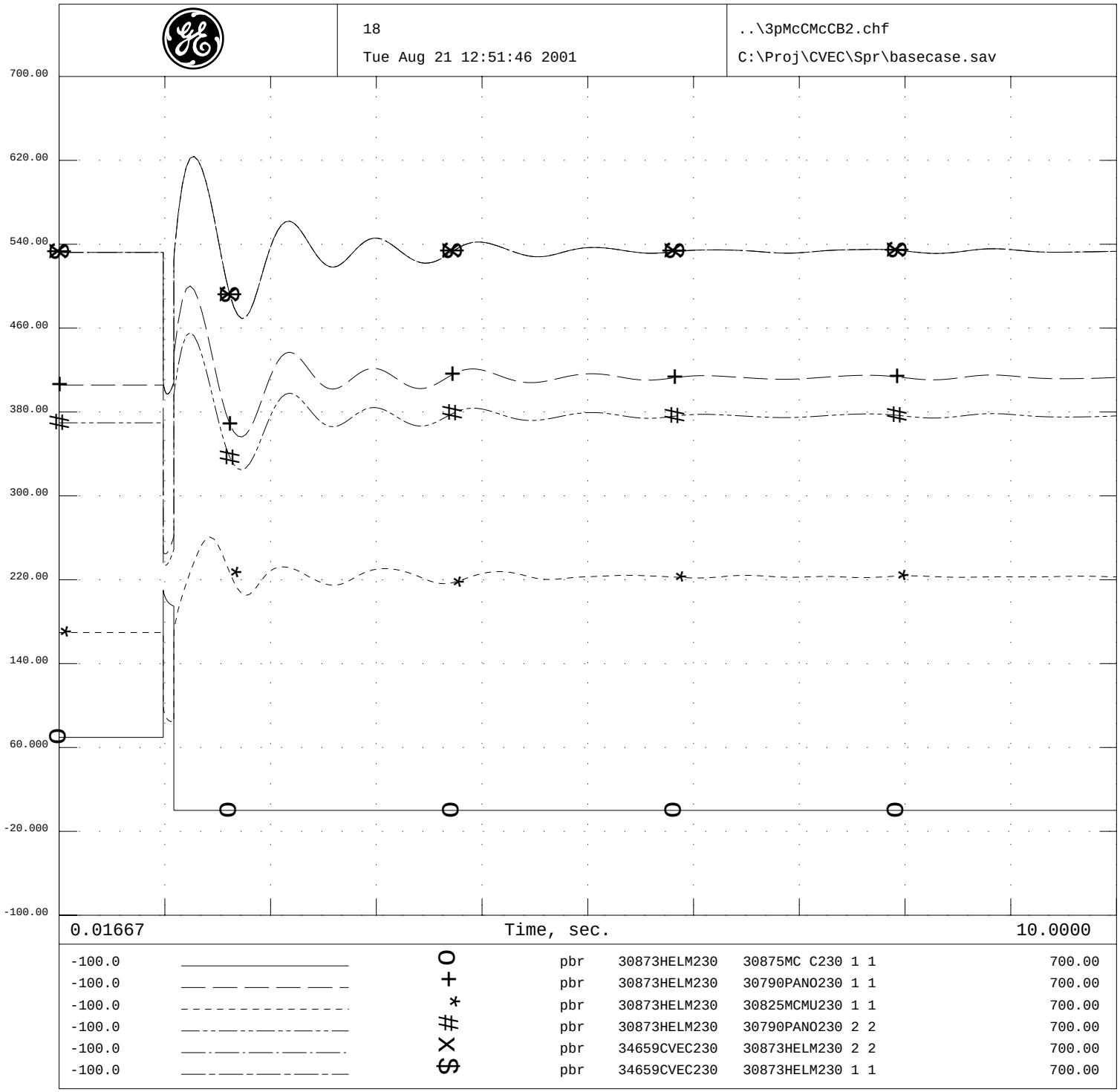

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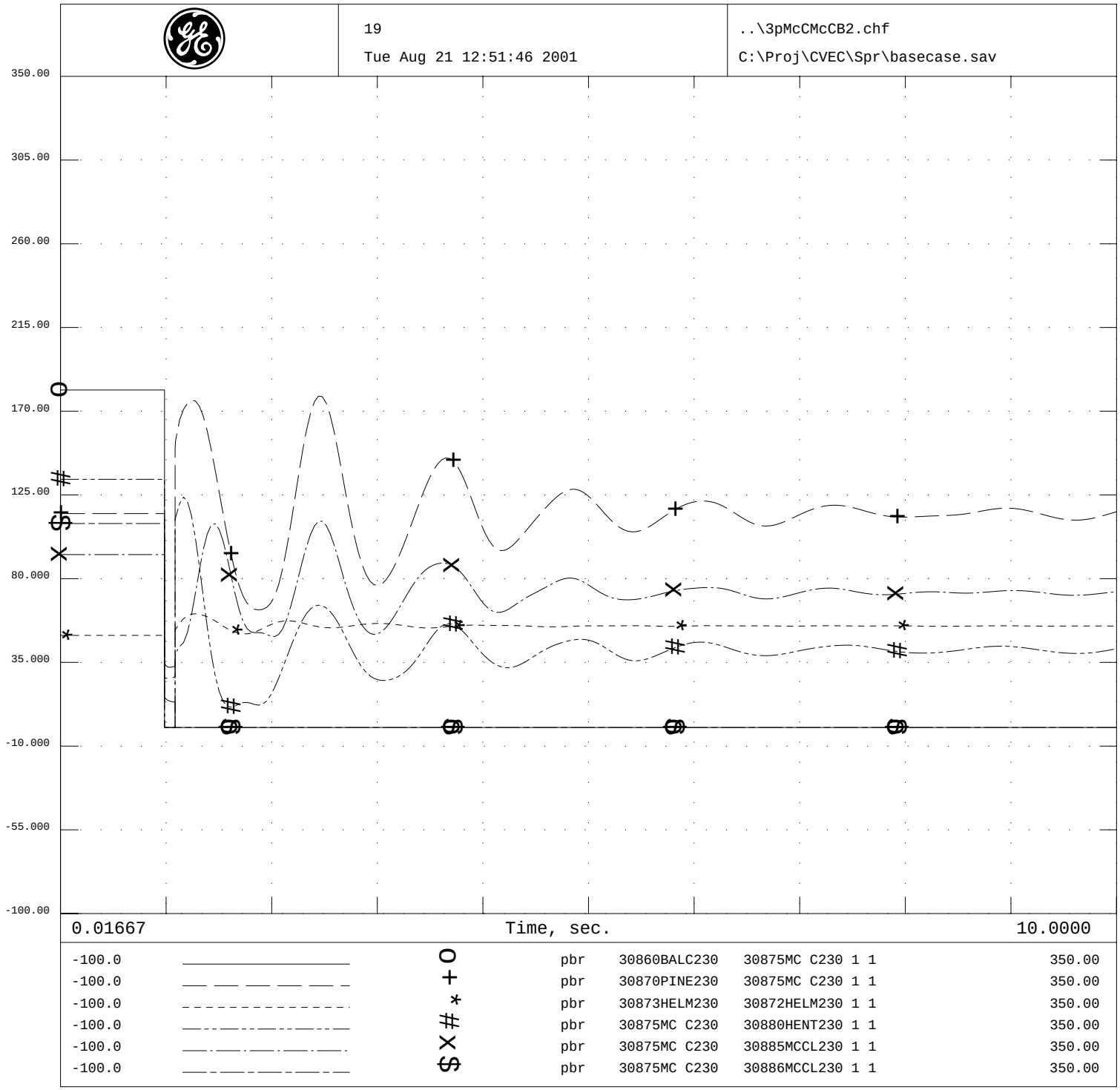

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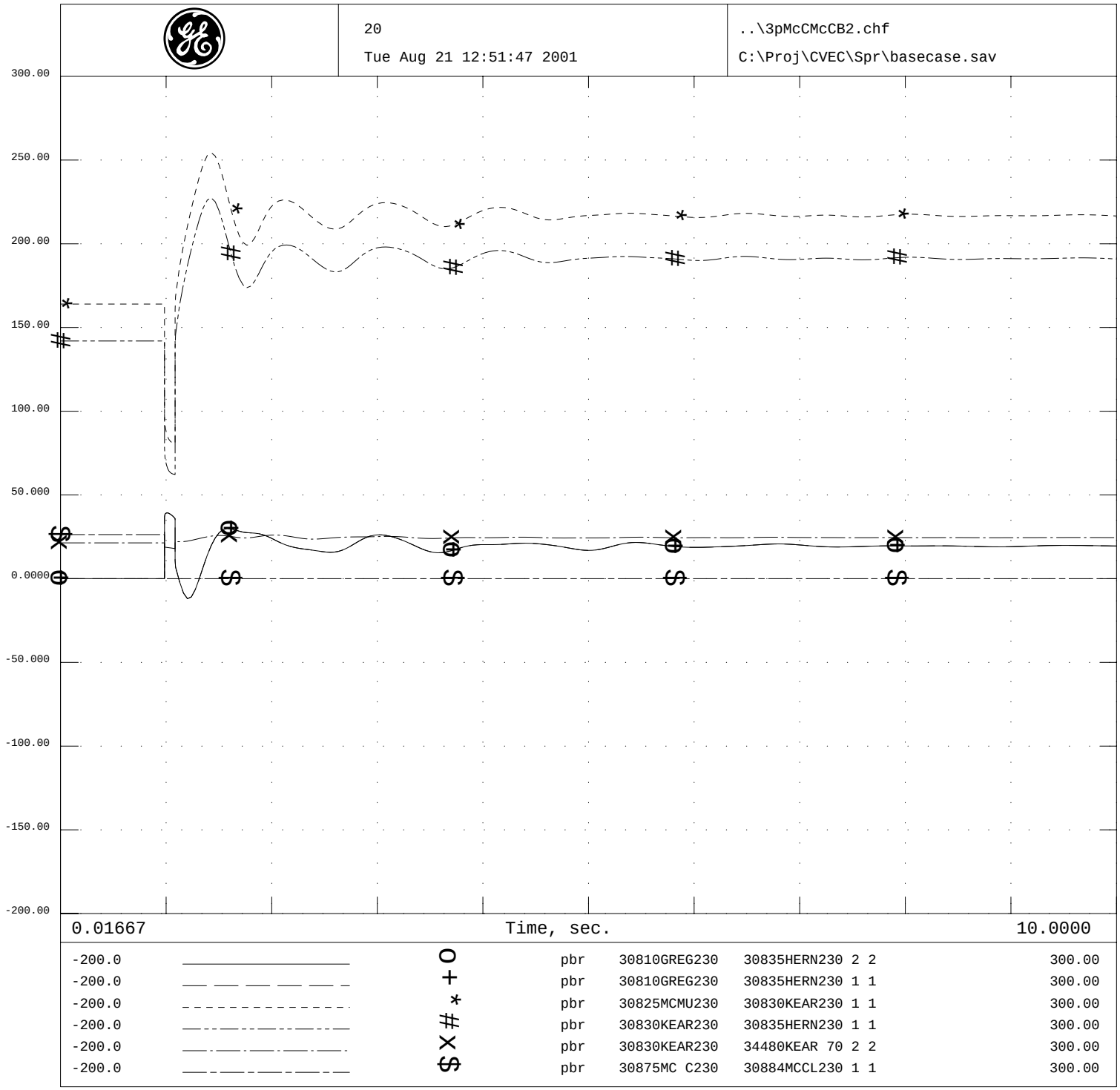

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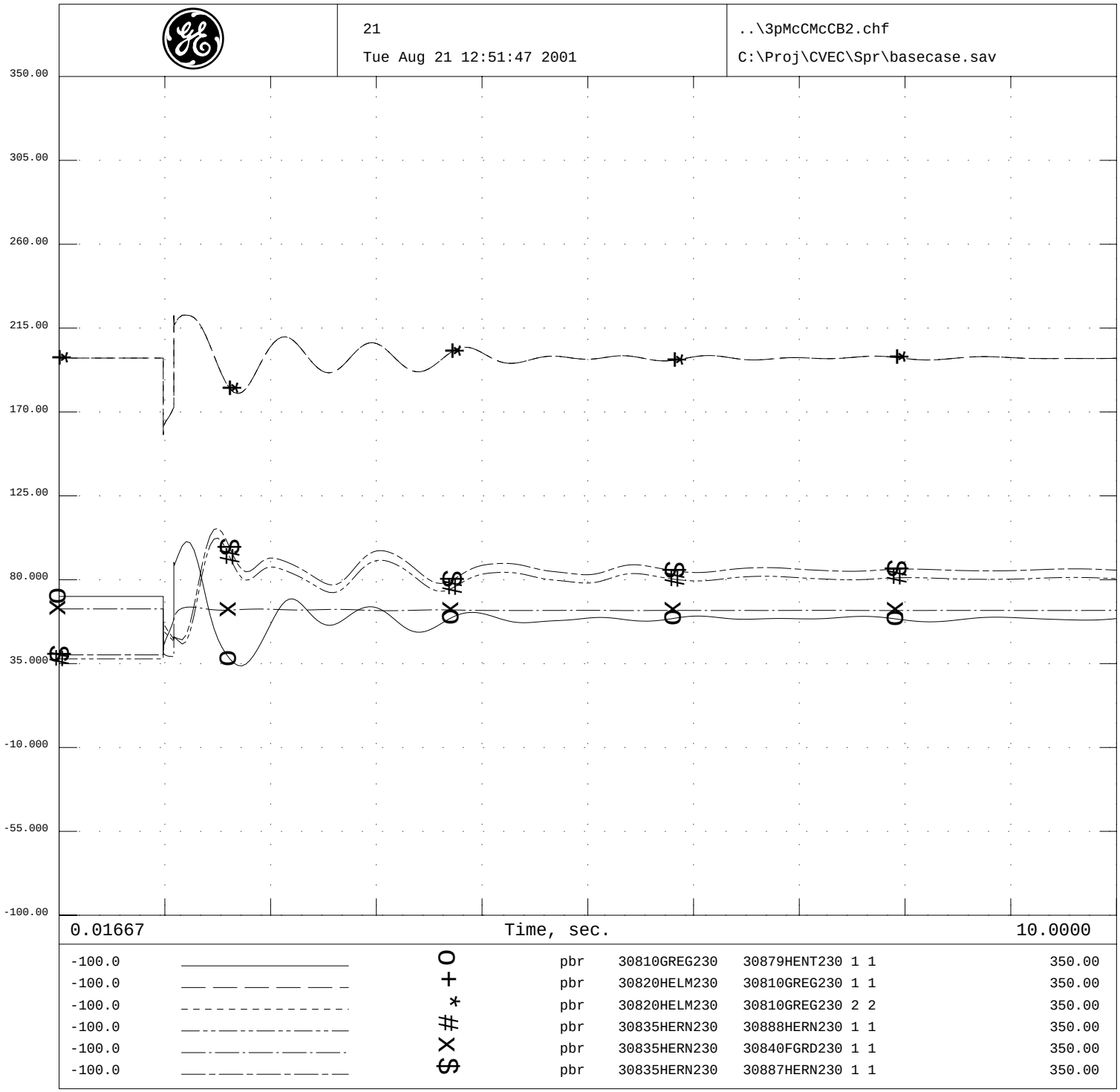

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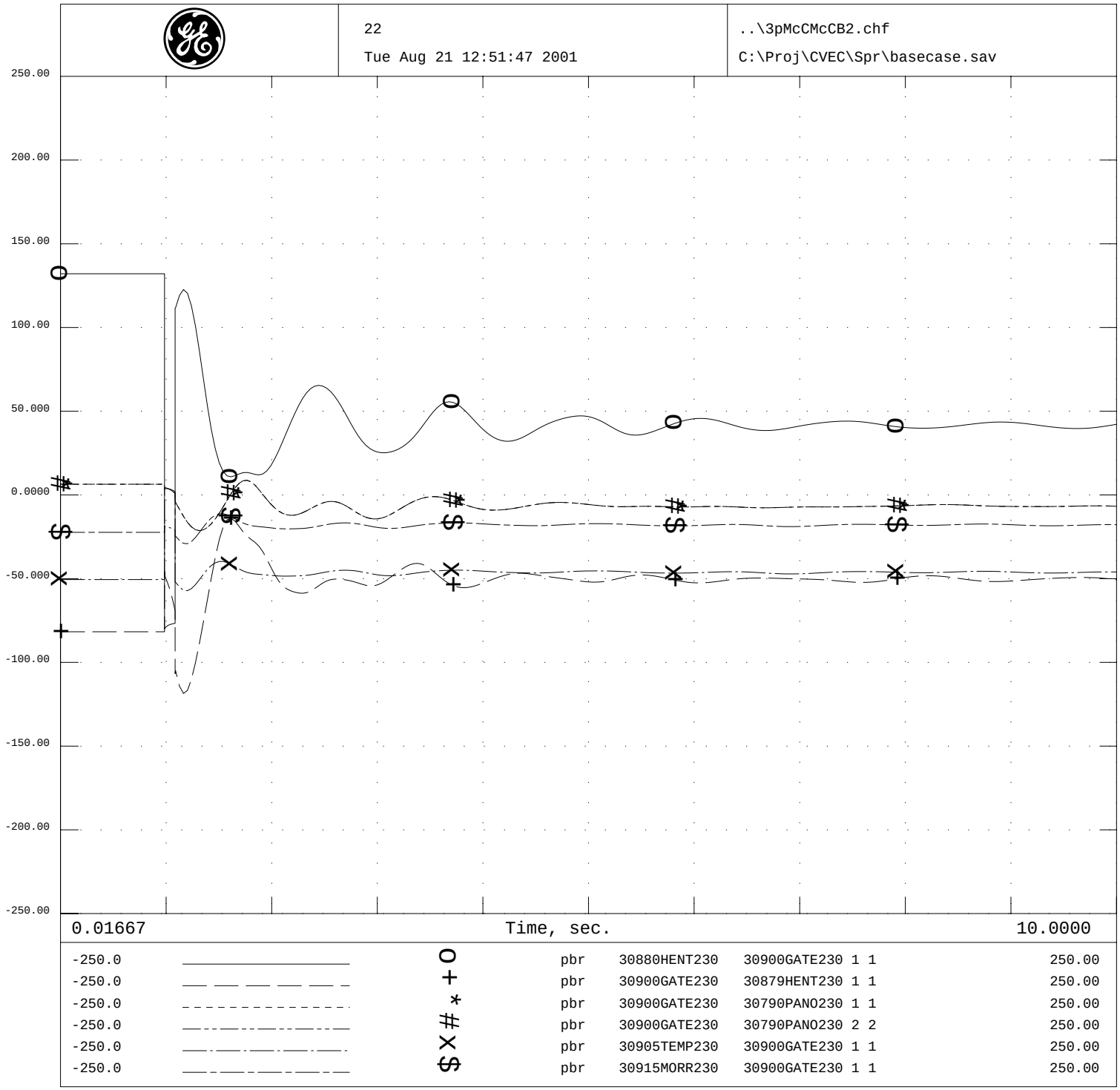

Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
McCall 230kV Bus #2 Outage
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Central Valley Energy Center
Calpine Corporation
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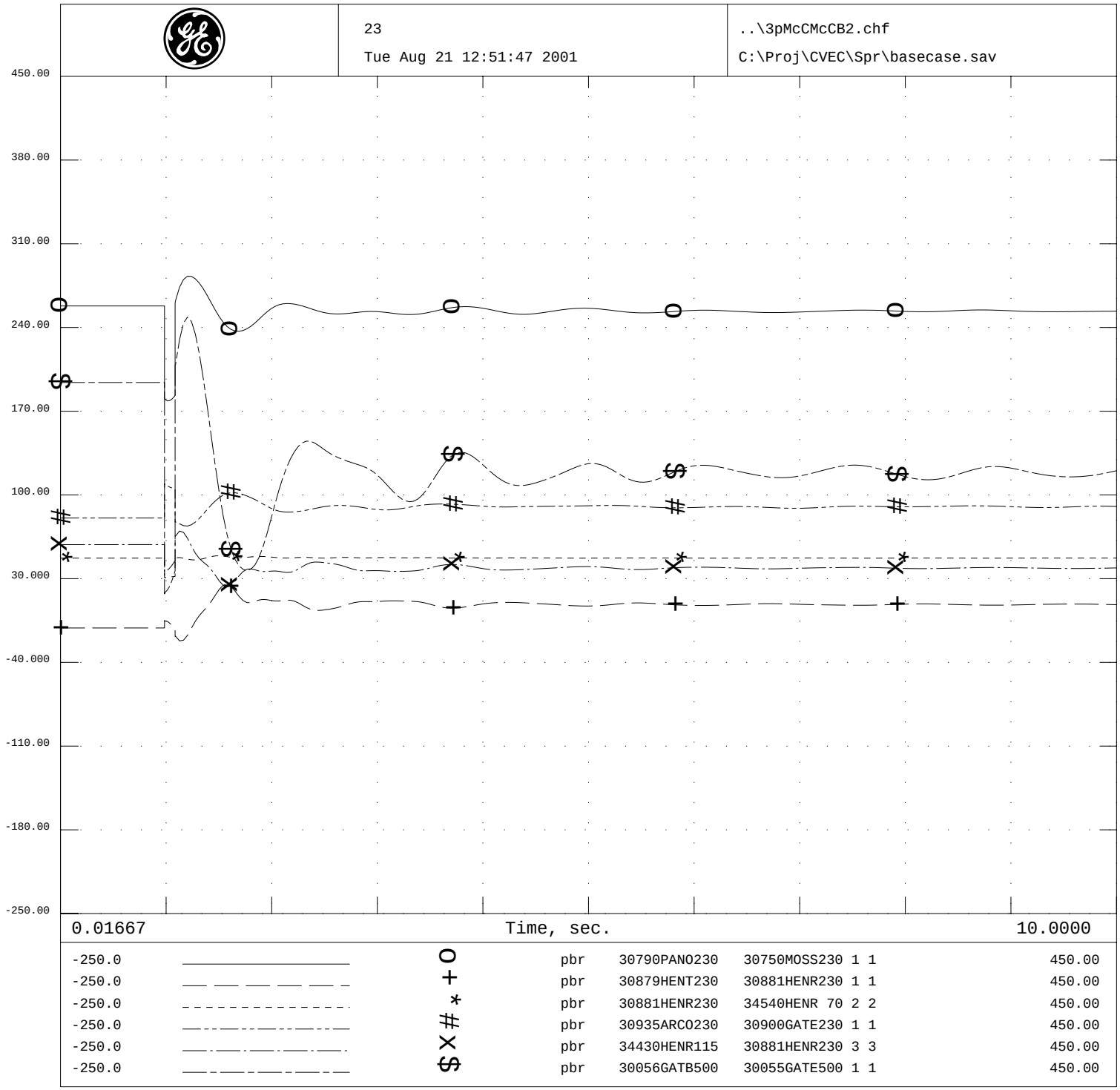

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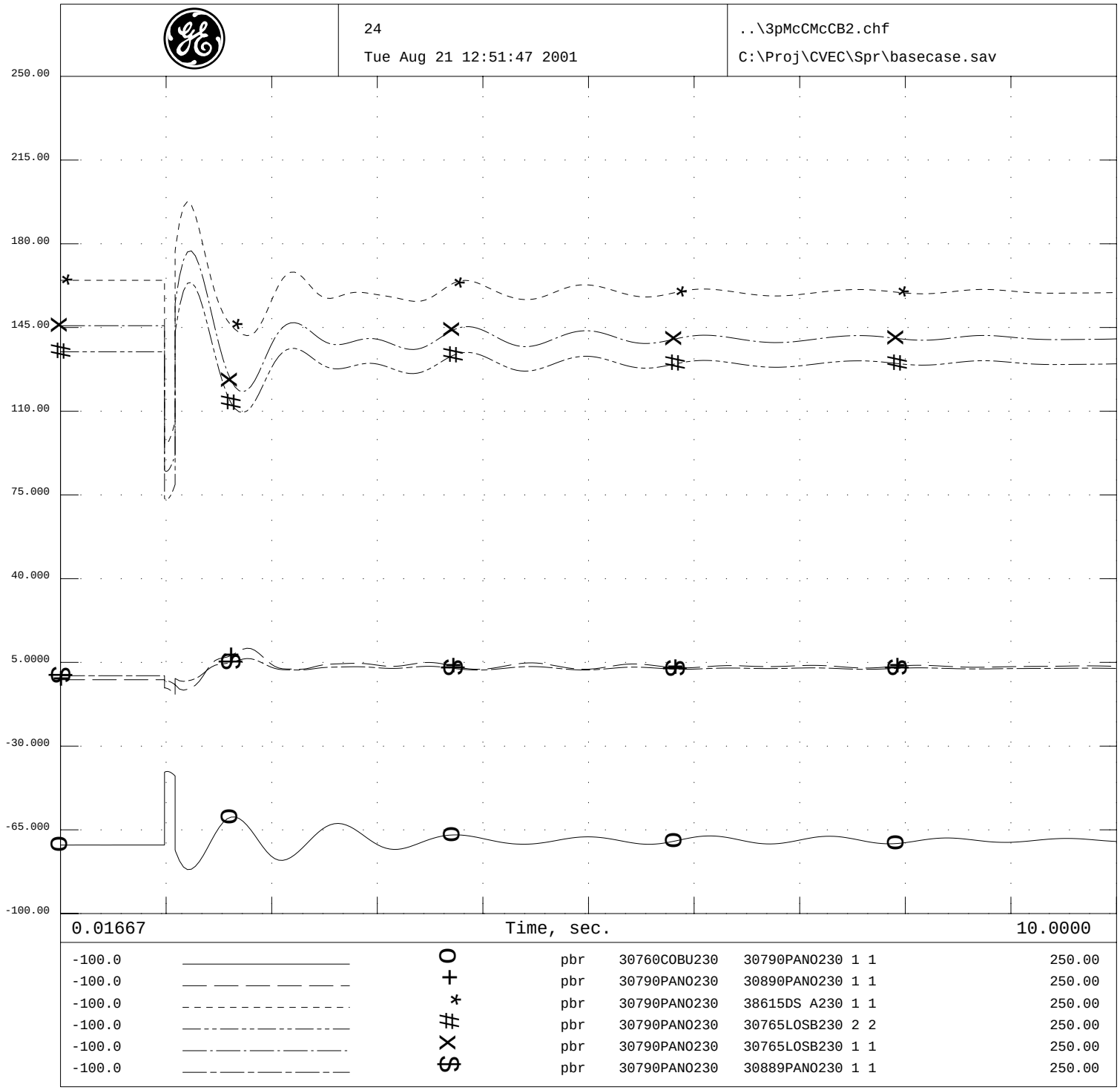

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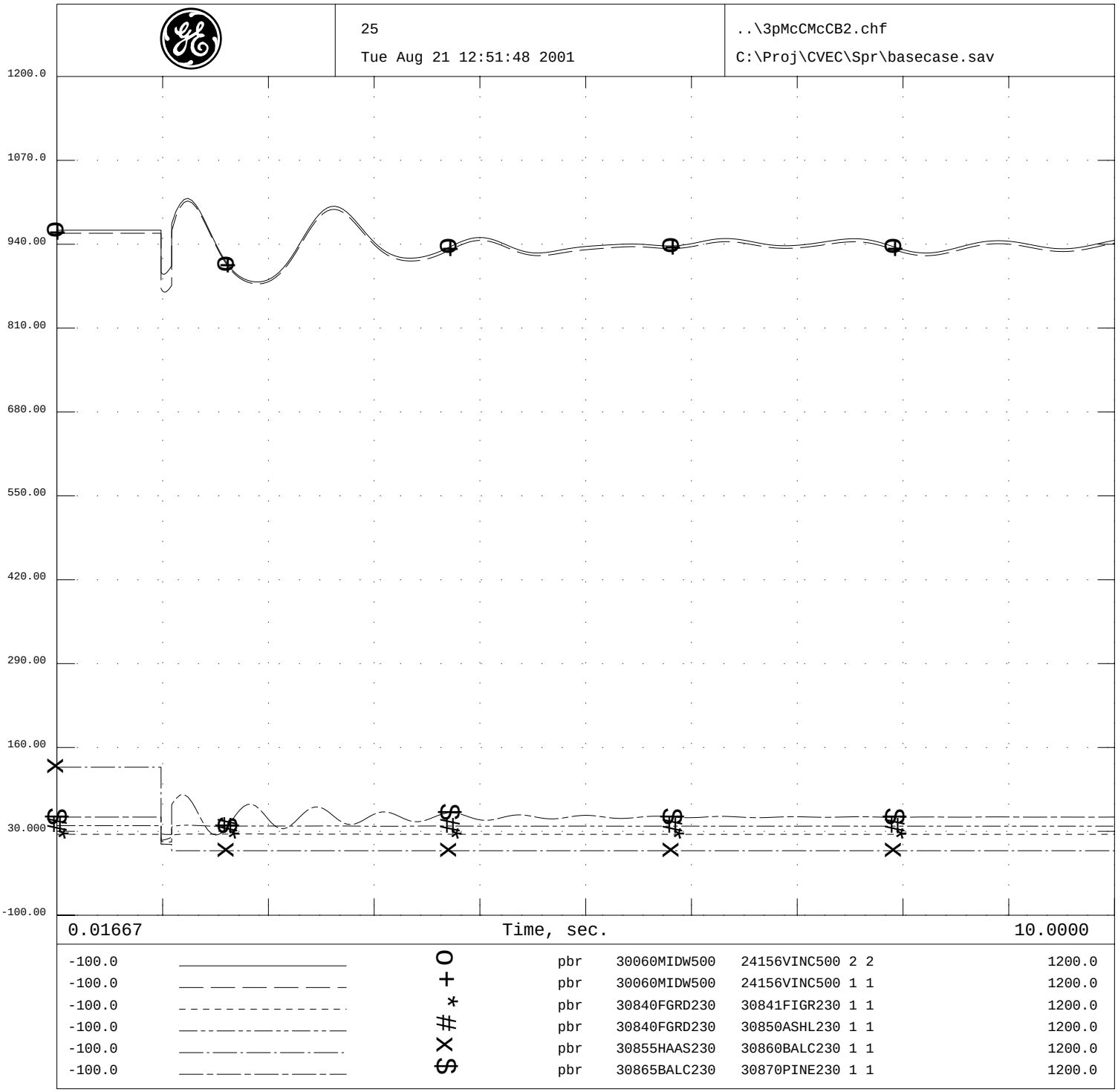

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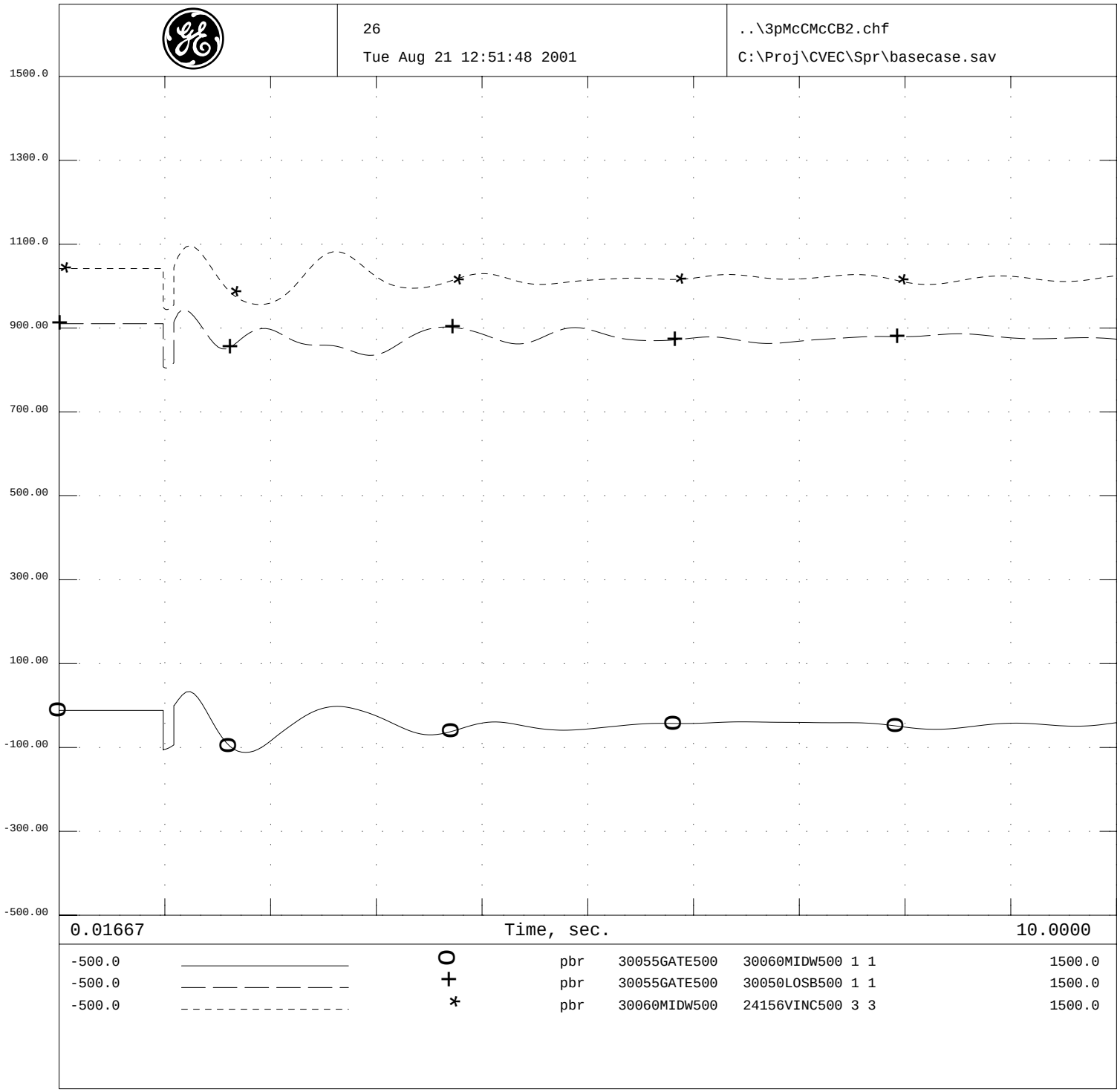

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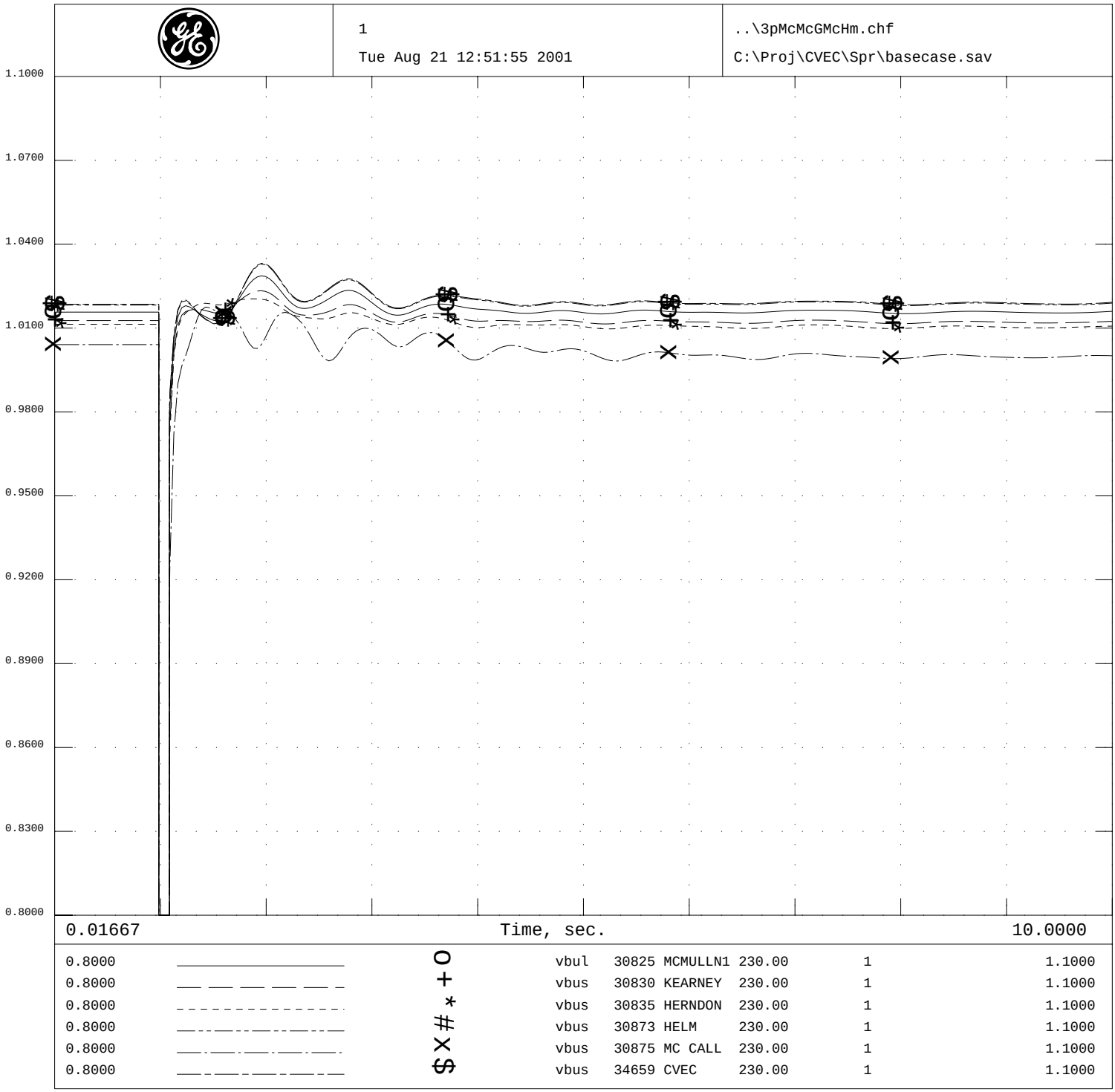

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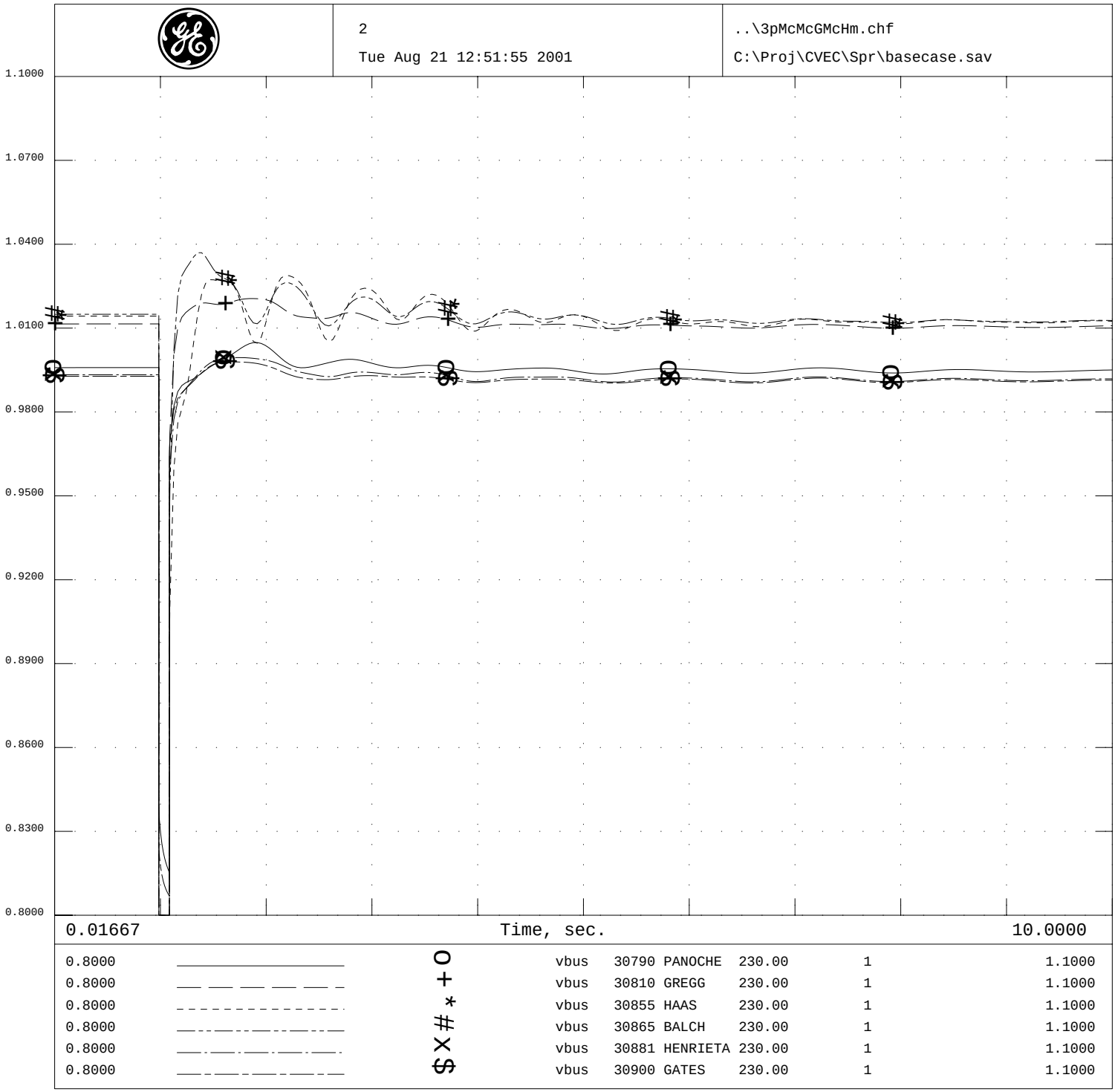

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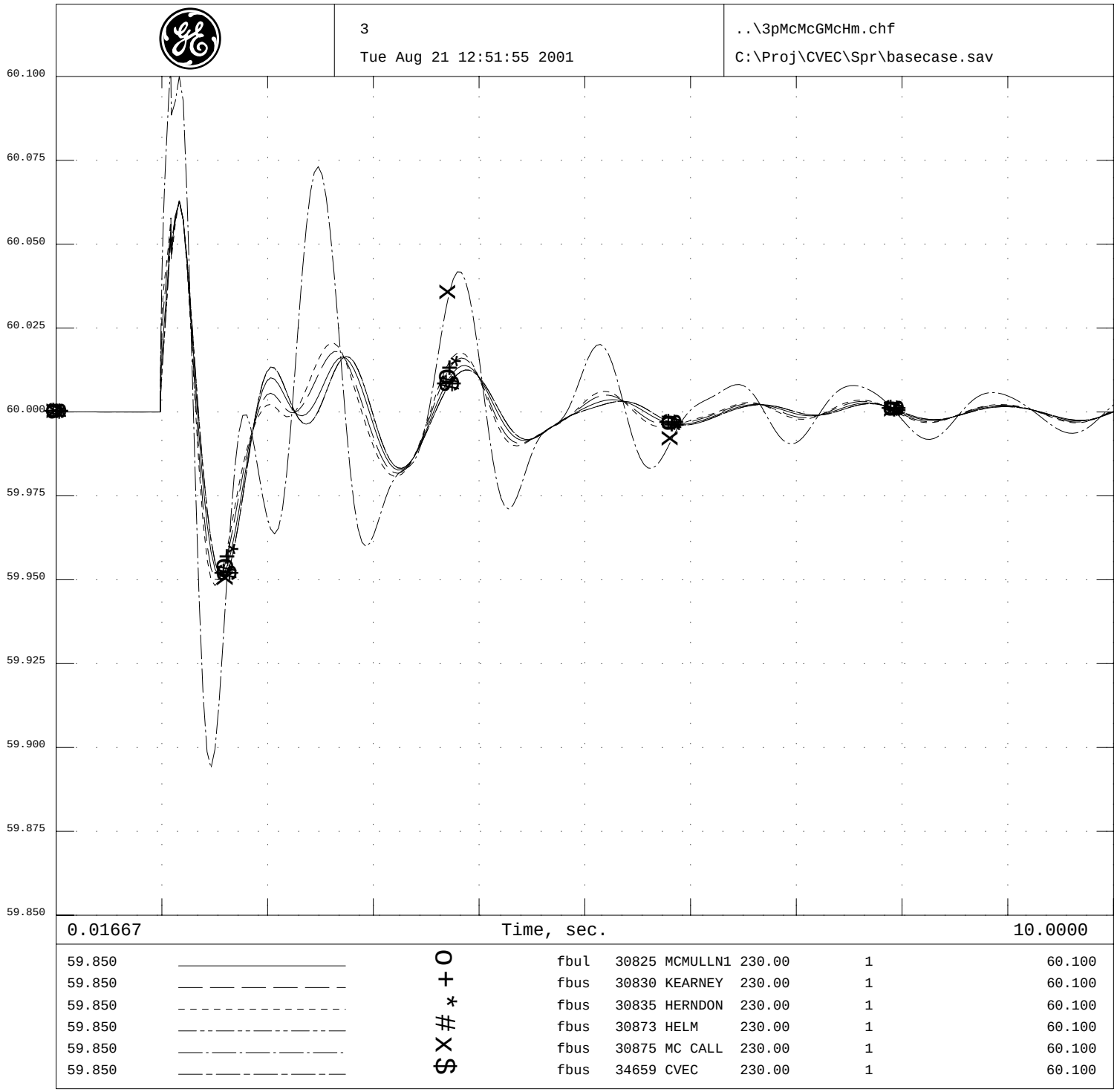

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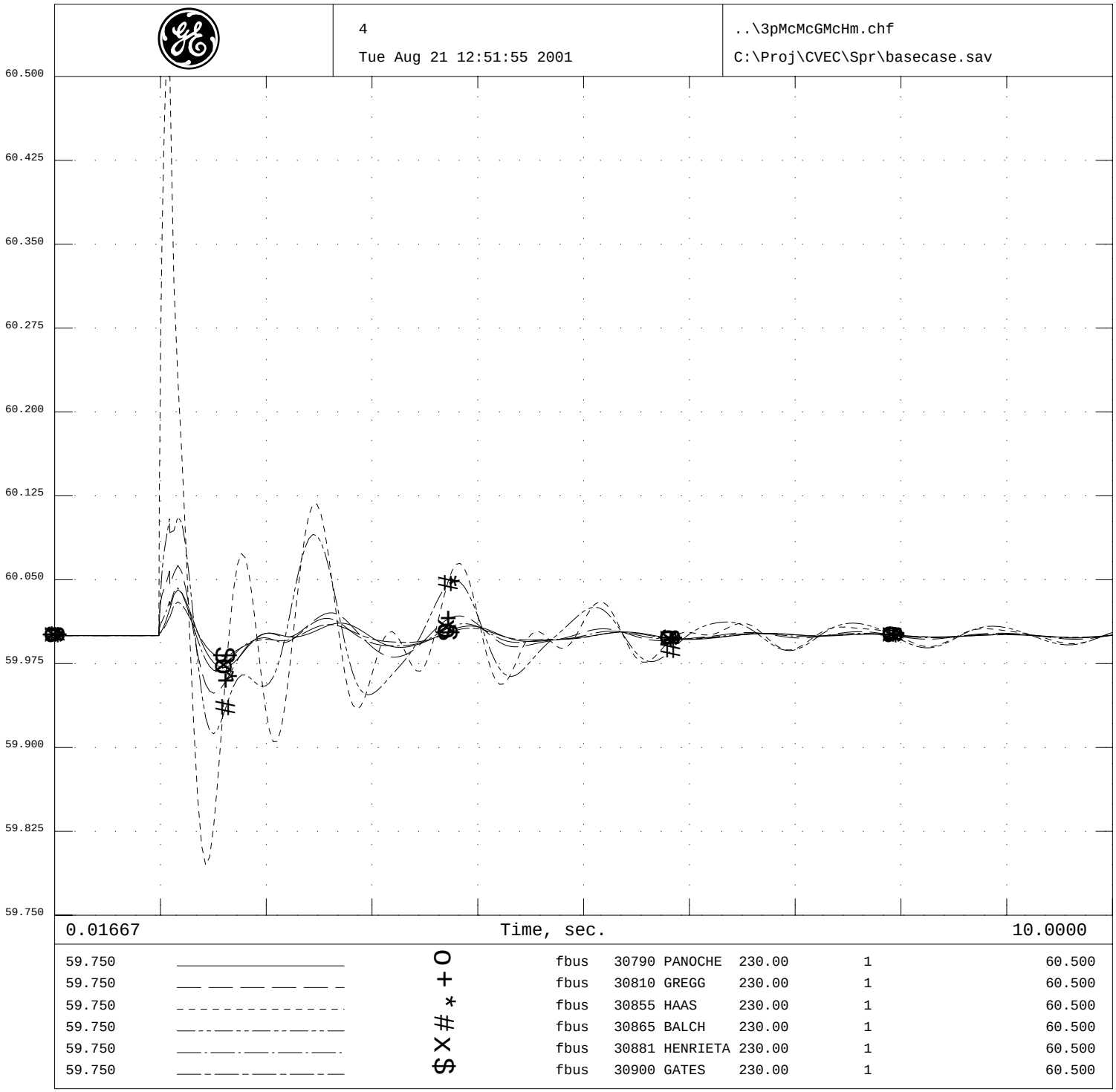

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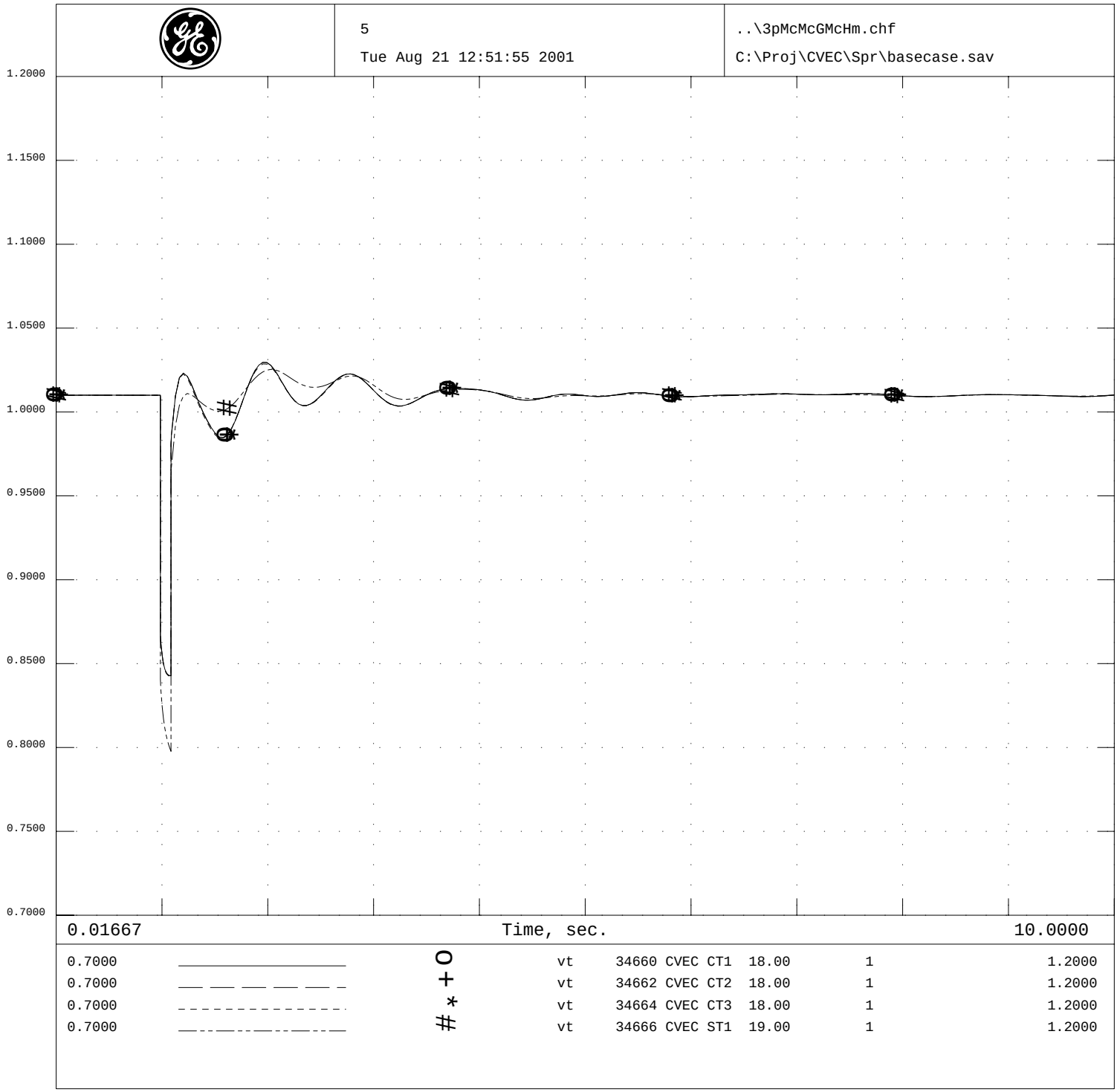

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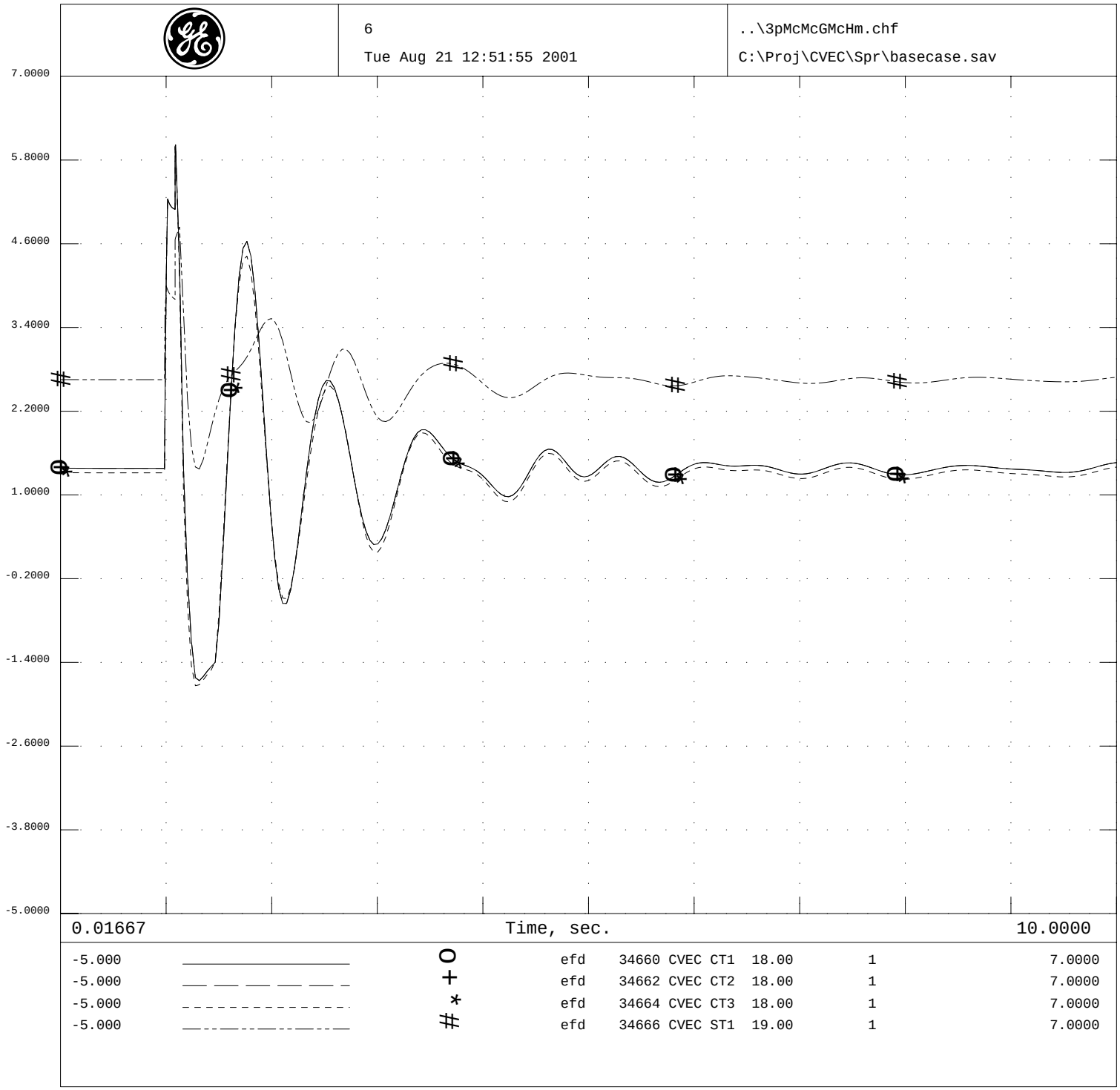
Project Generator Terminal Voltages



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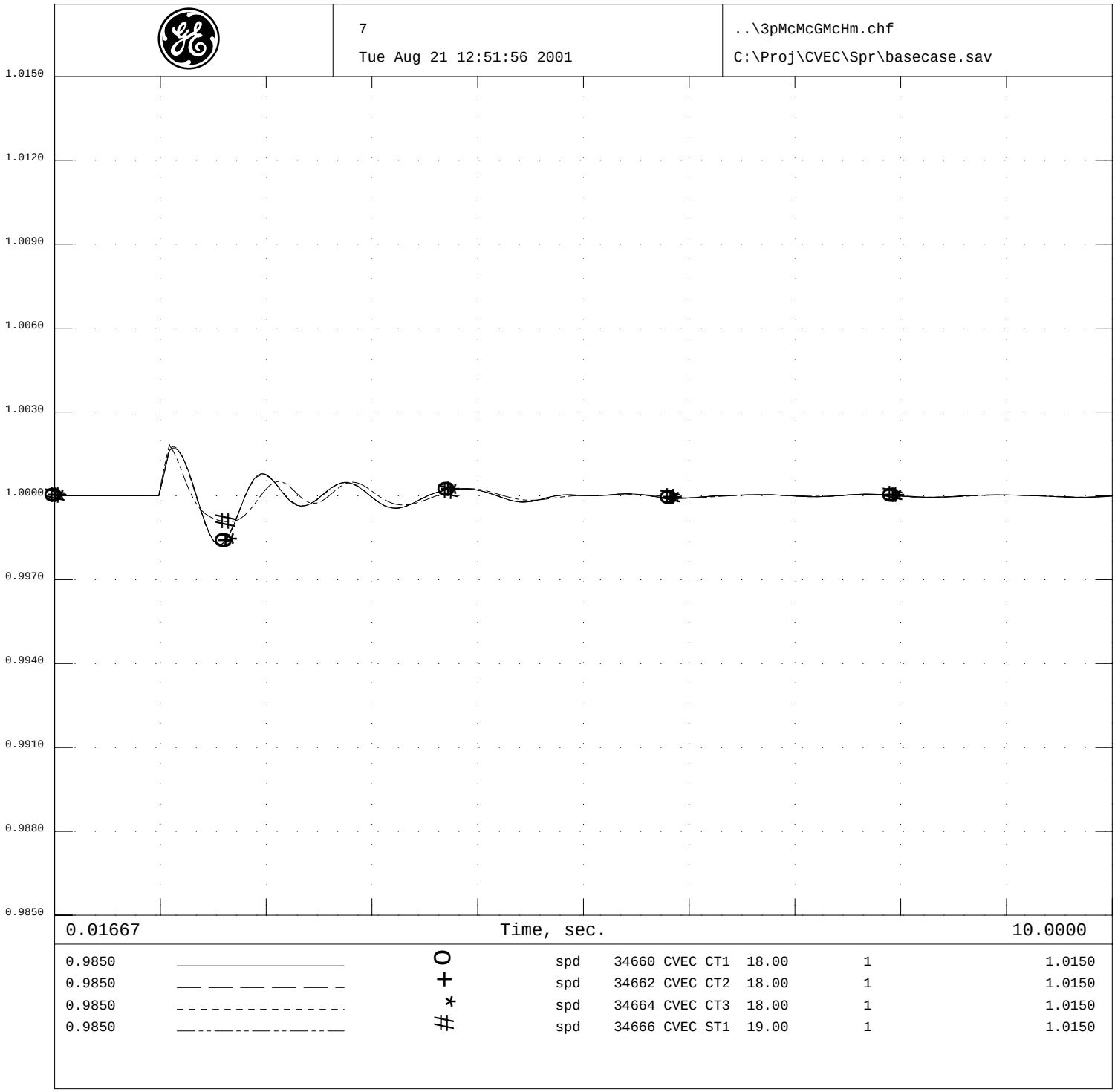

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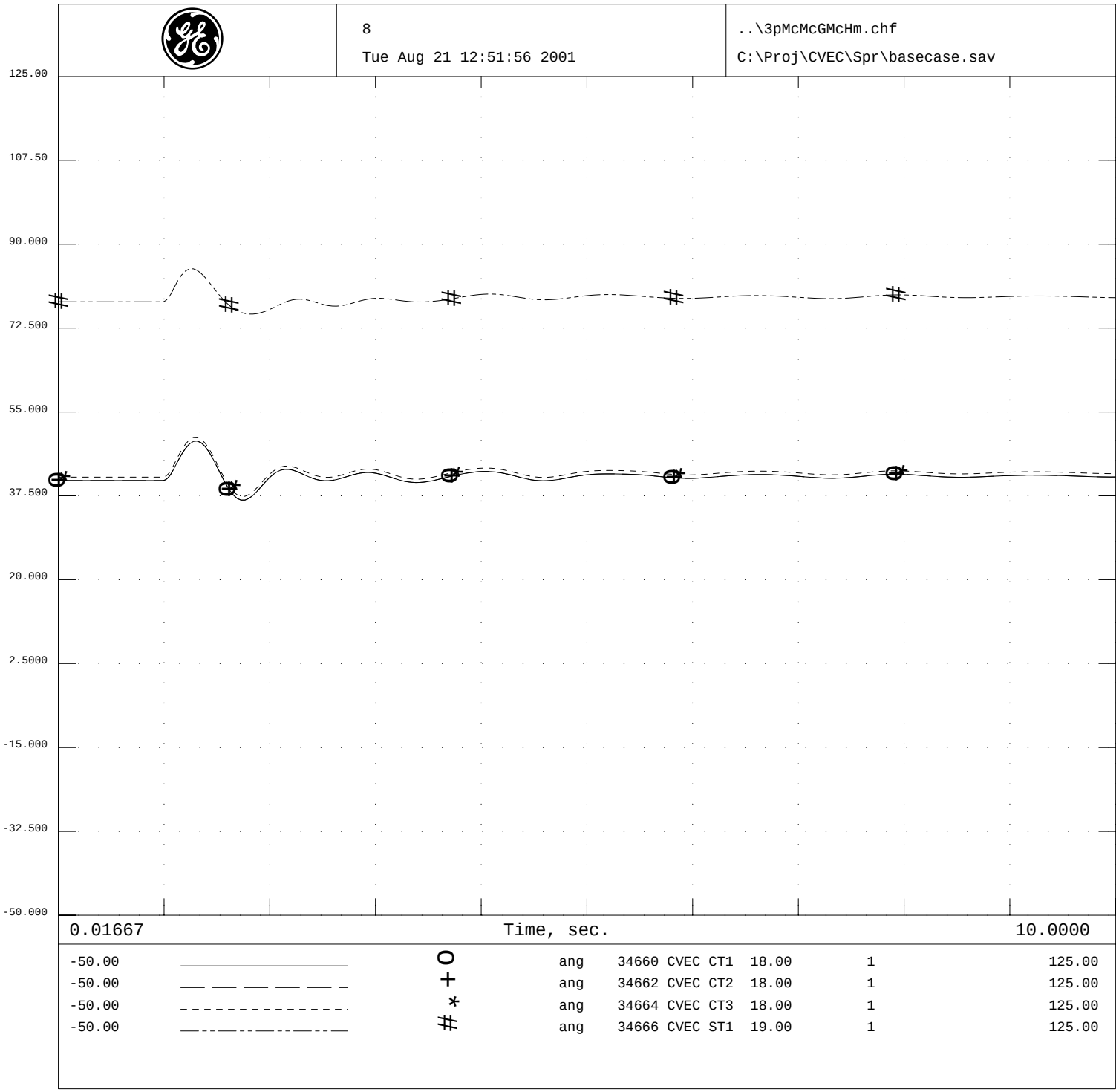

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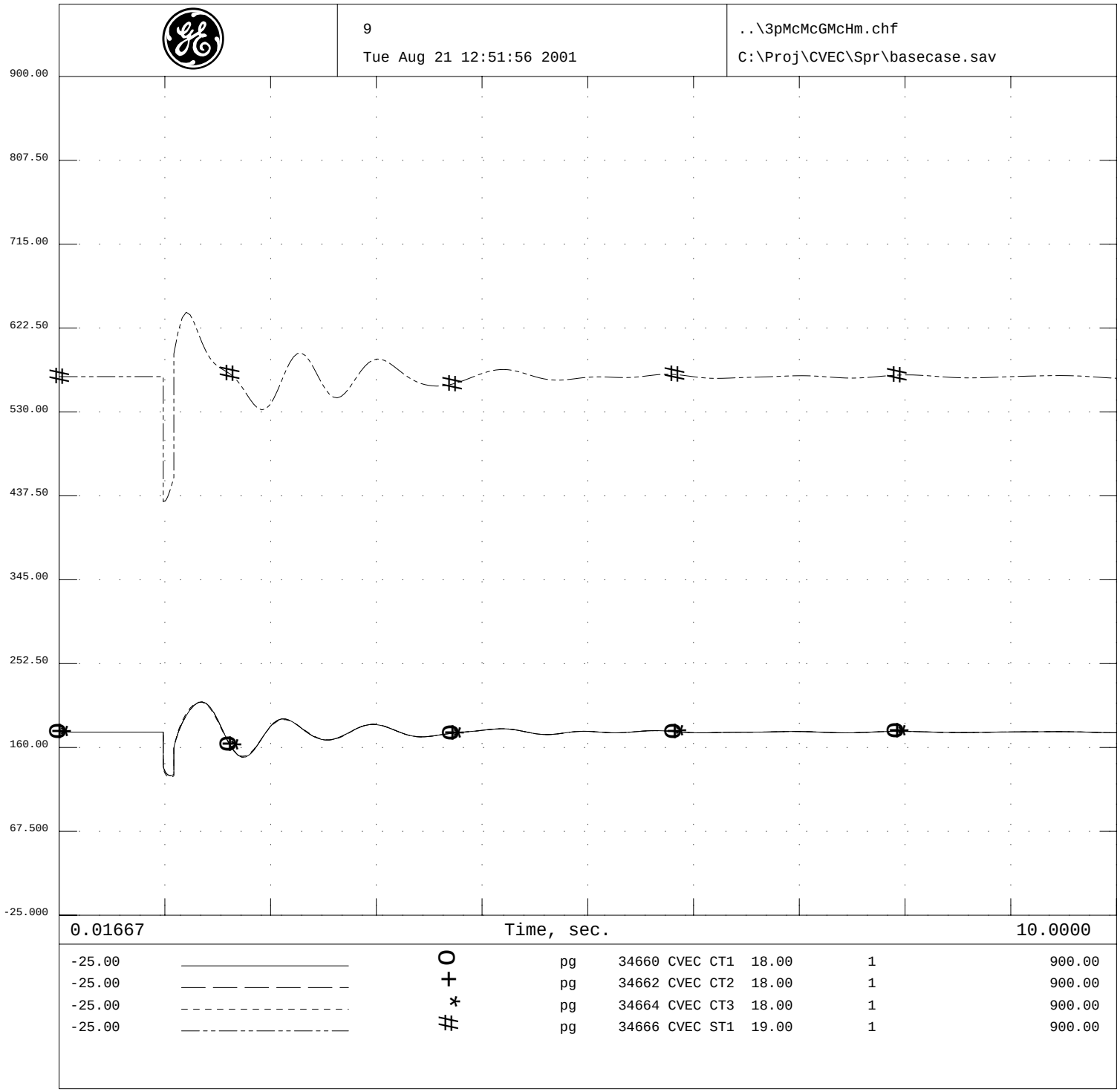

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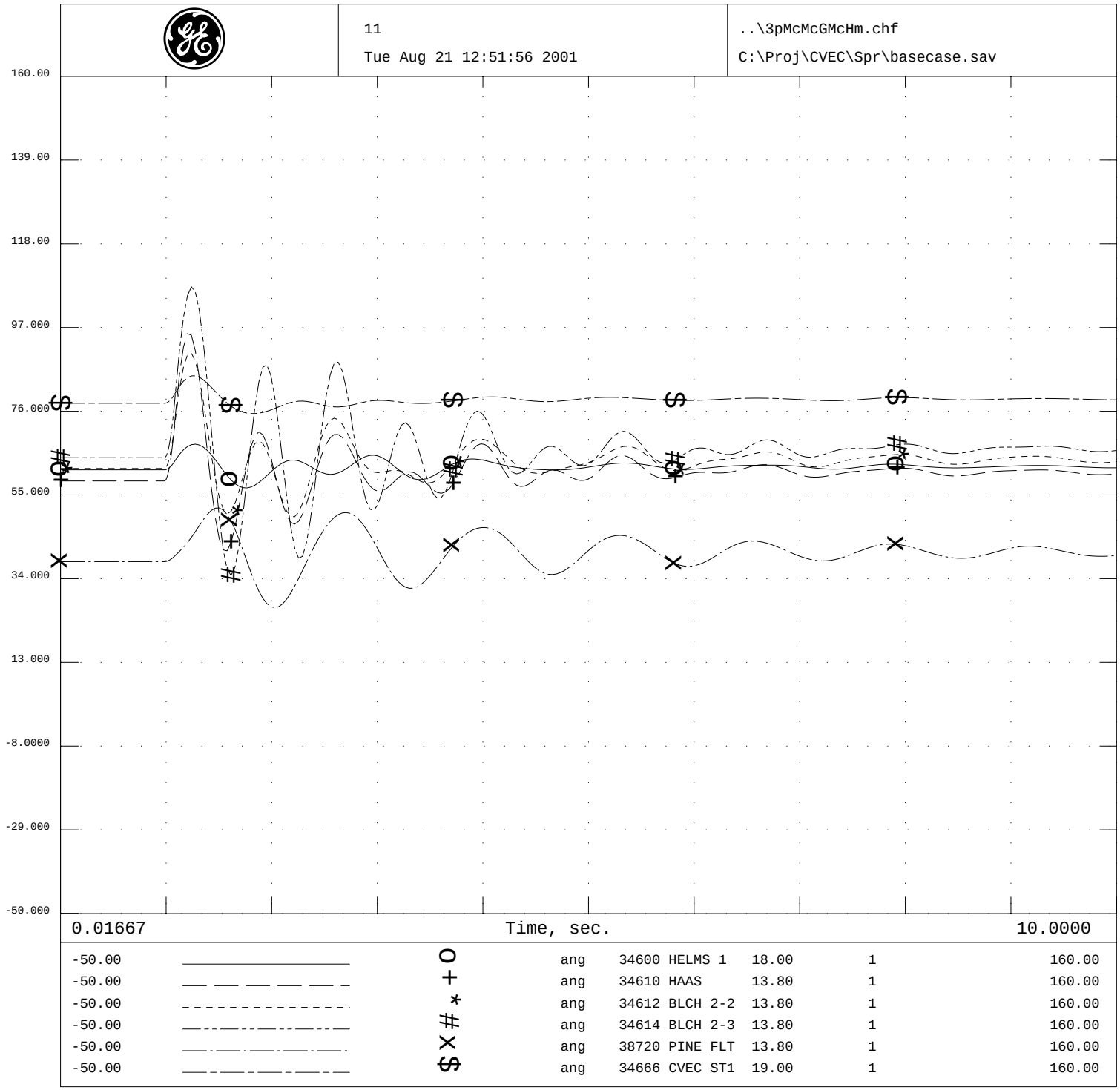

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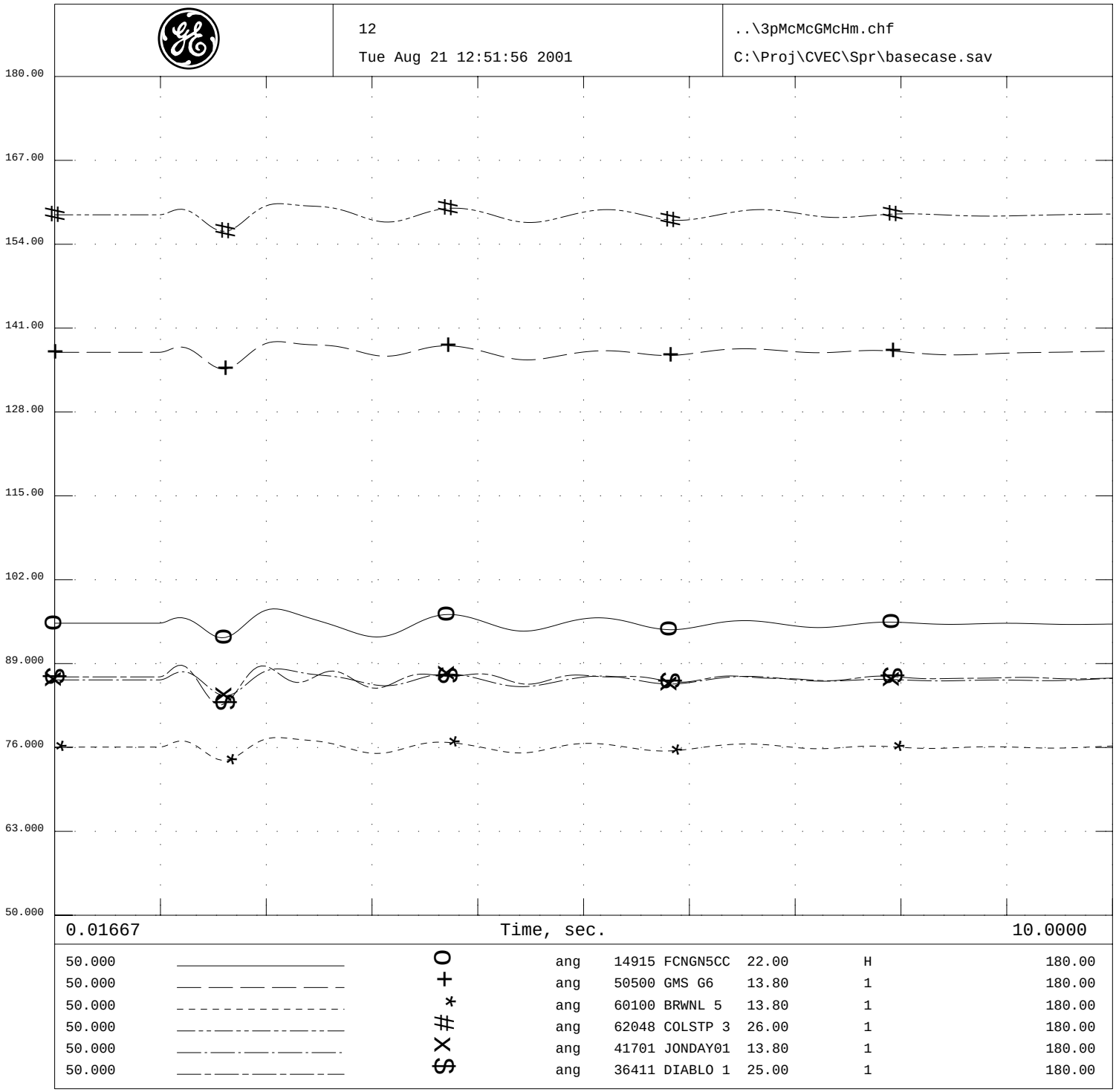

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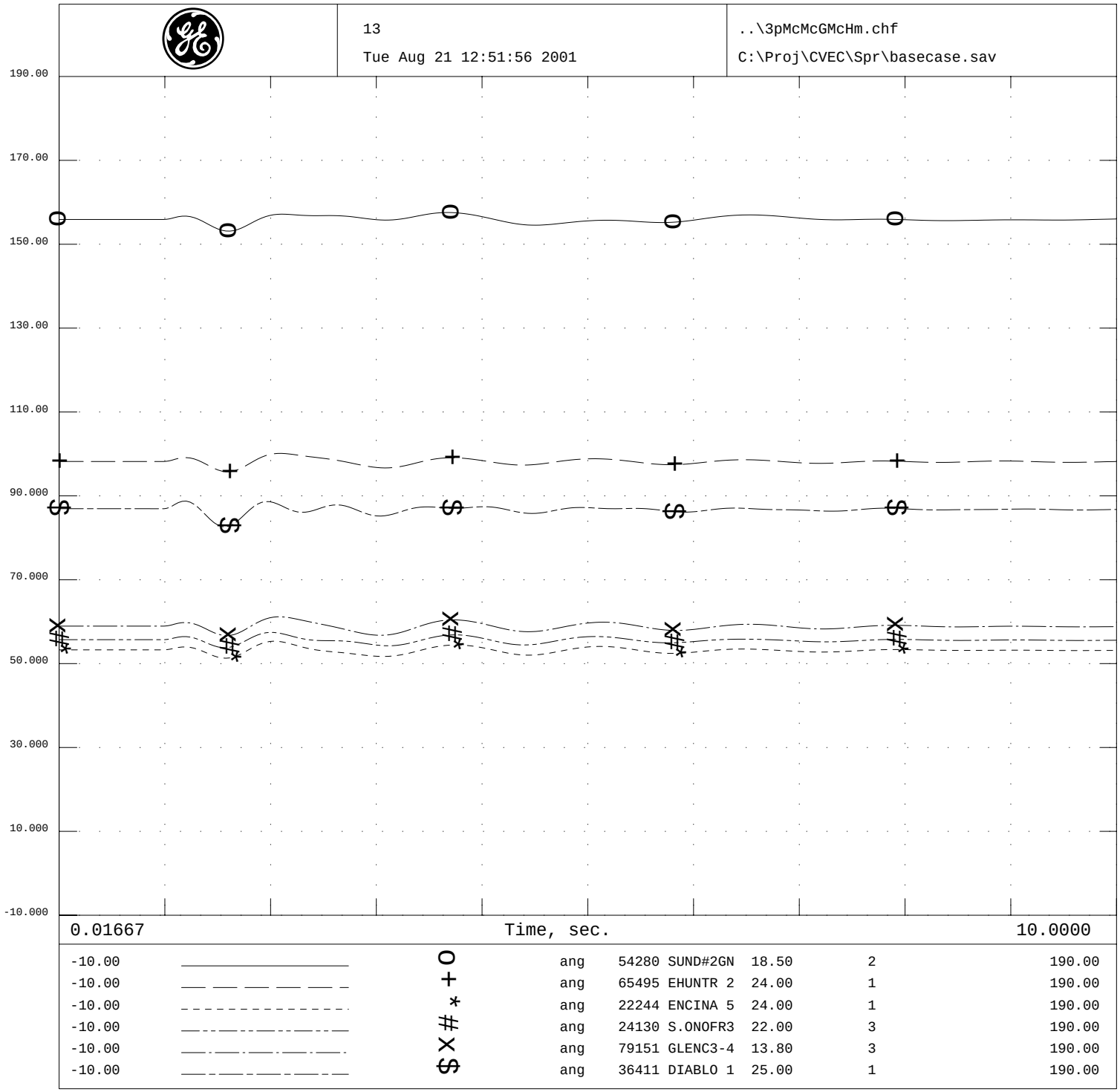

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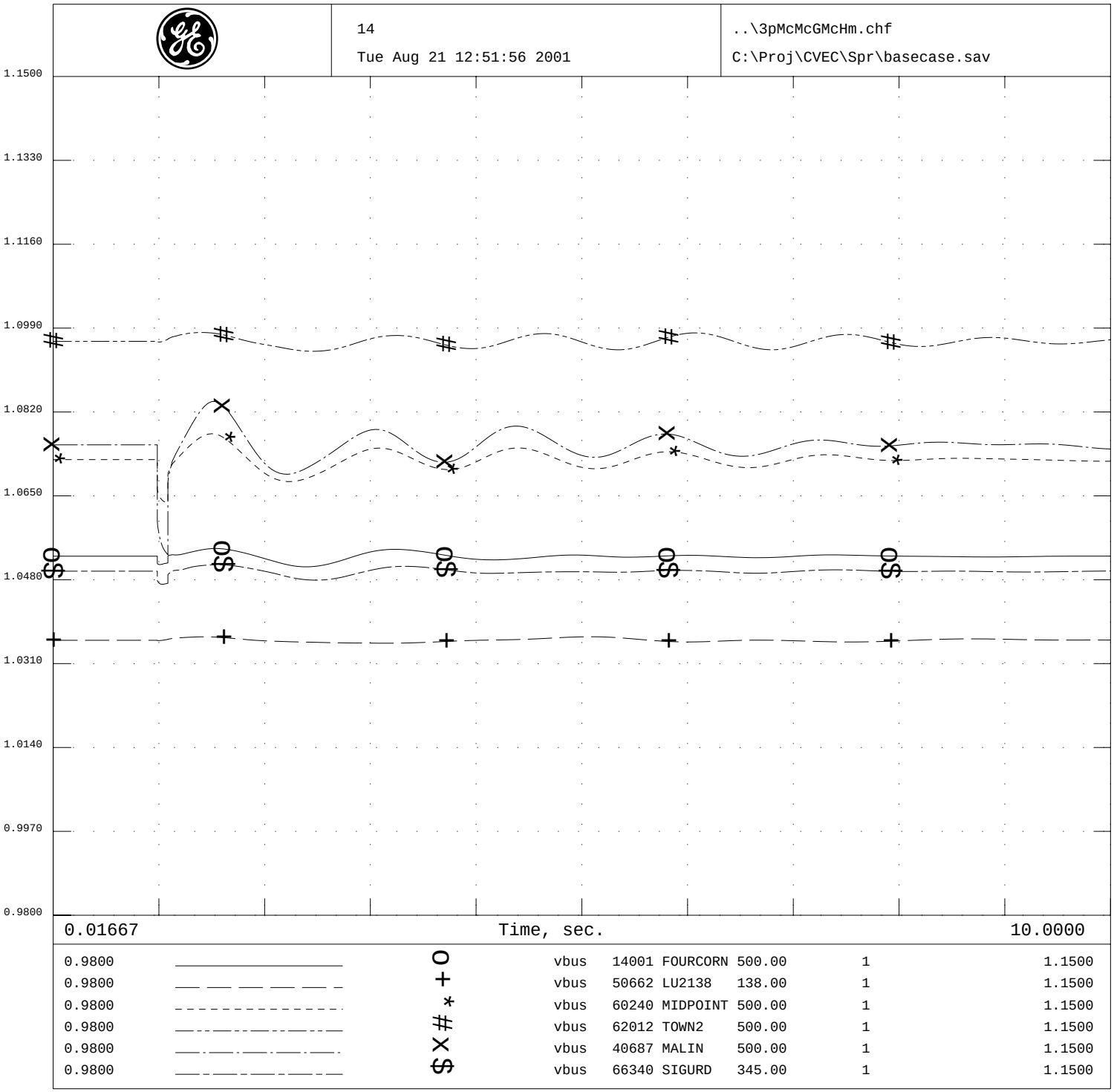

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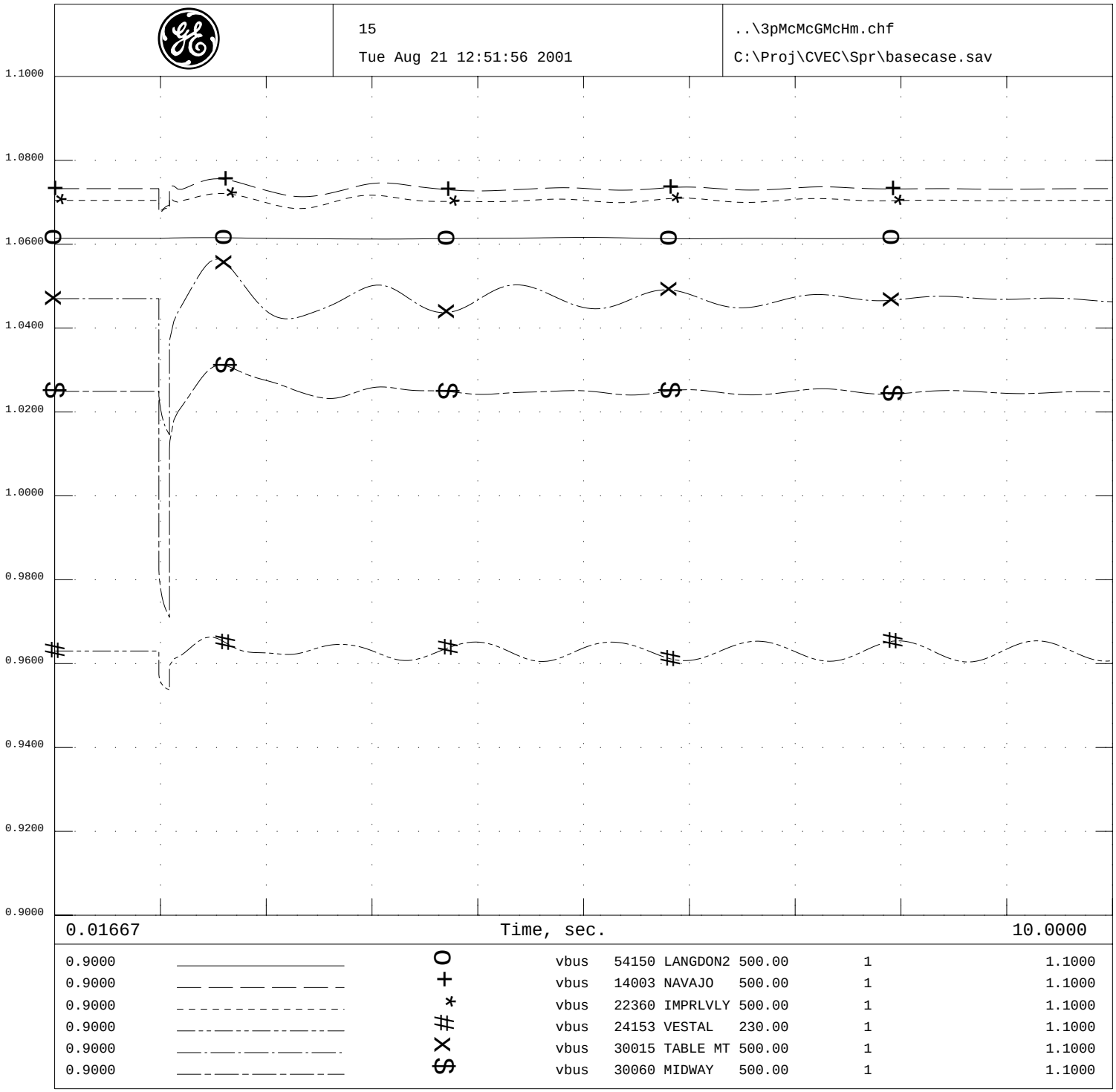

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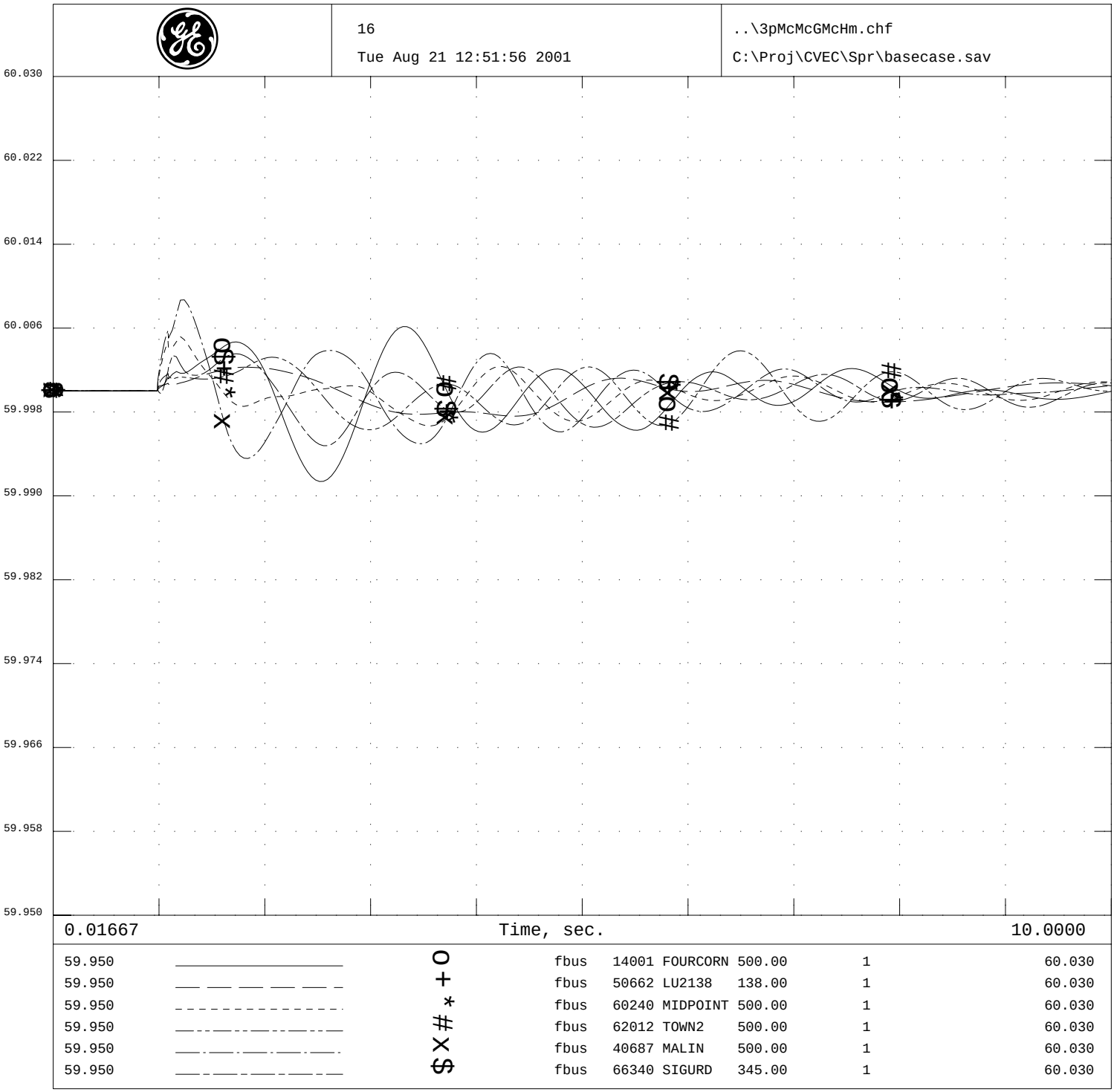

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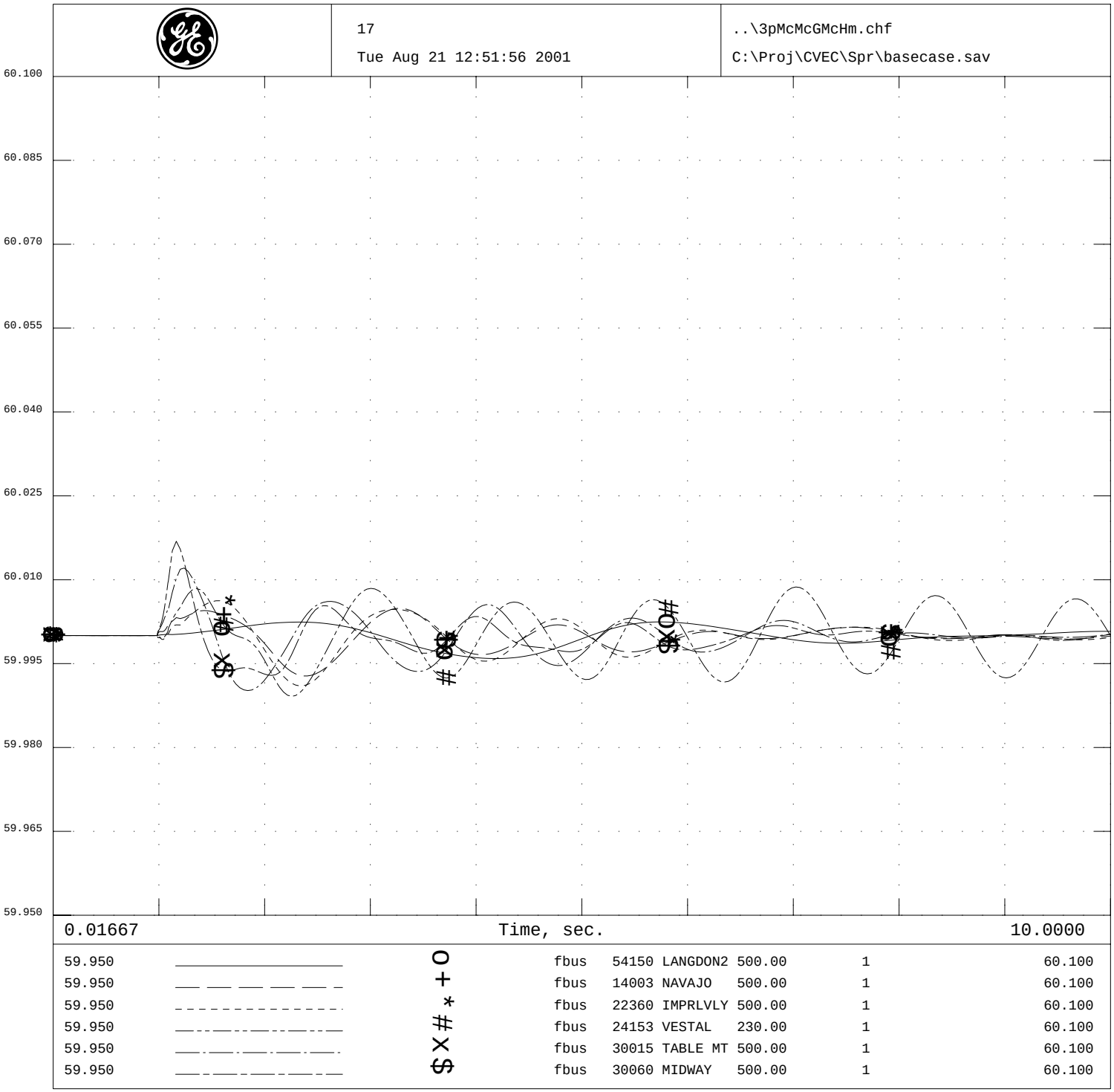

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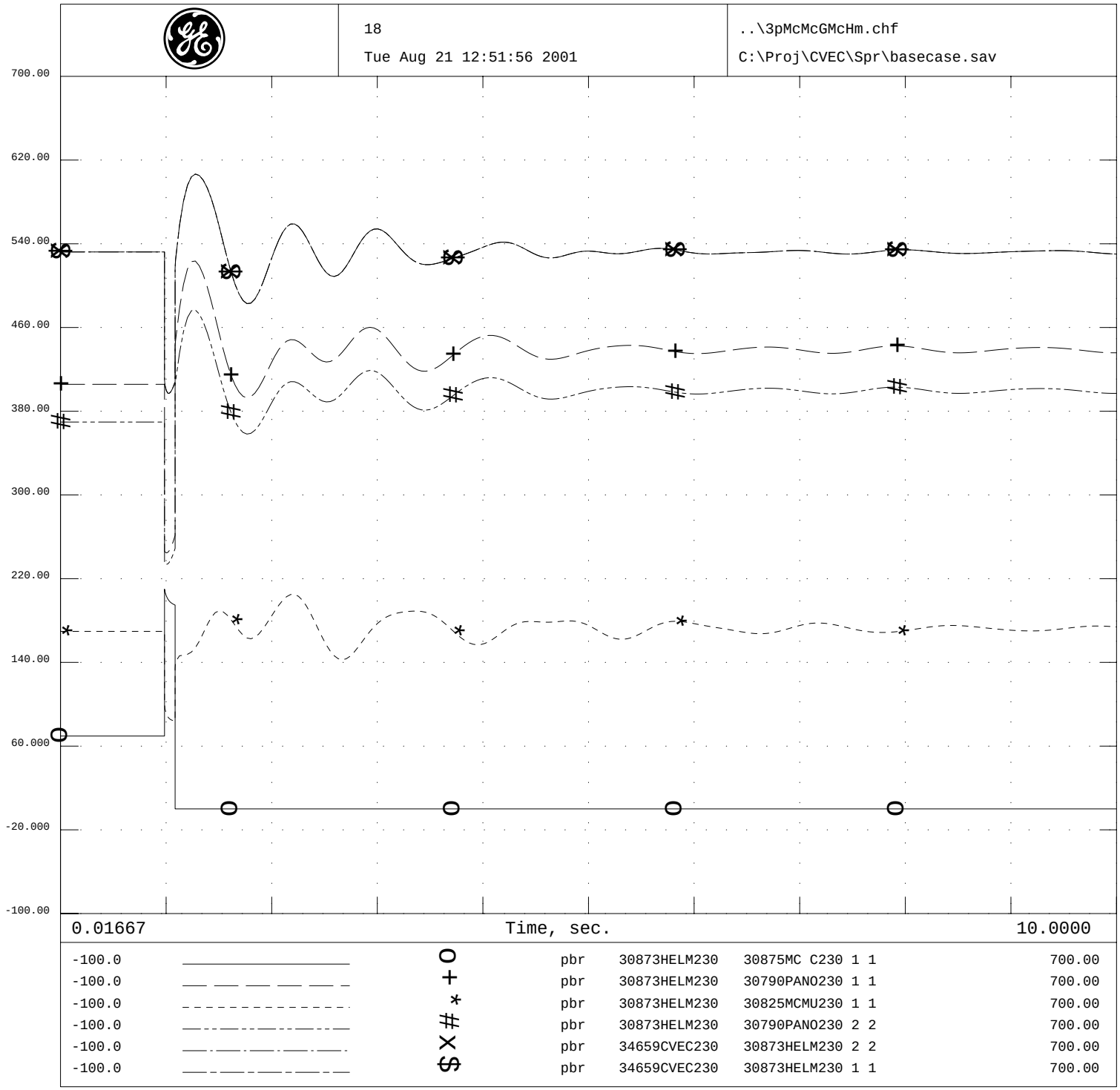

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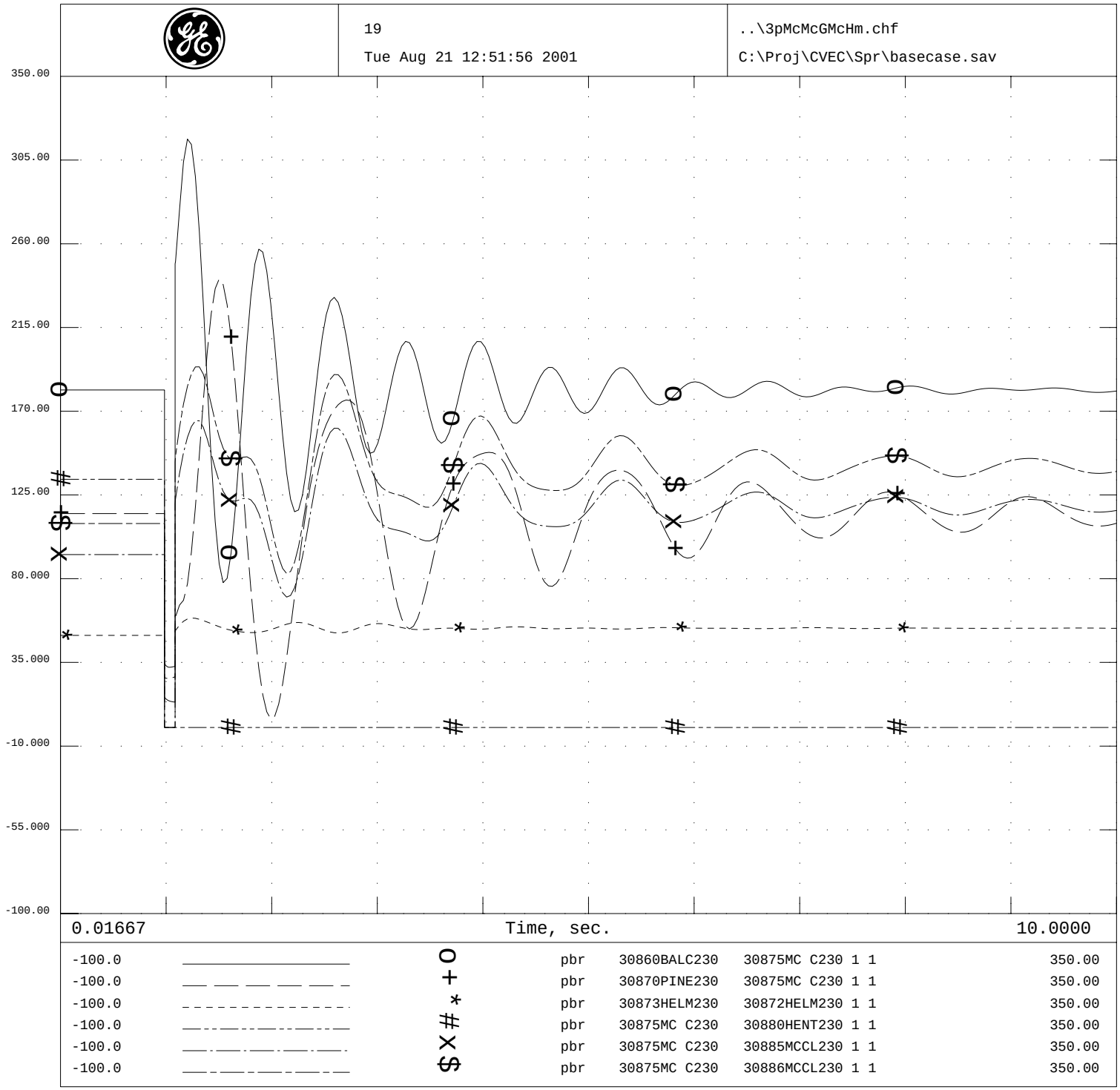

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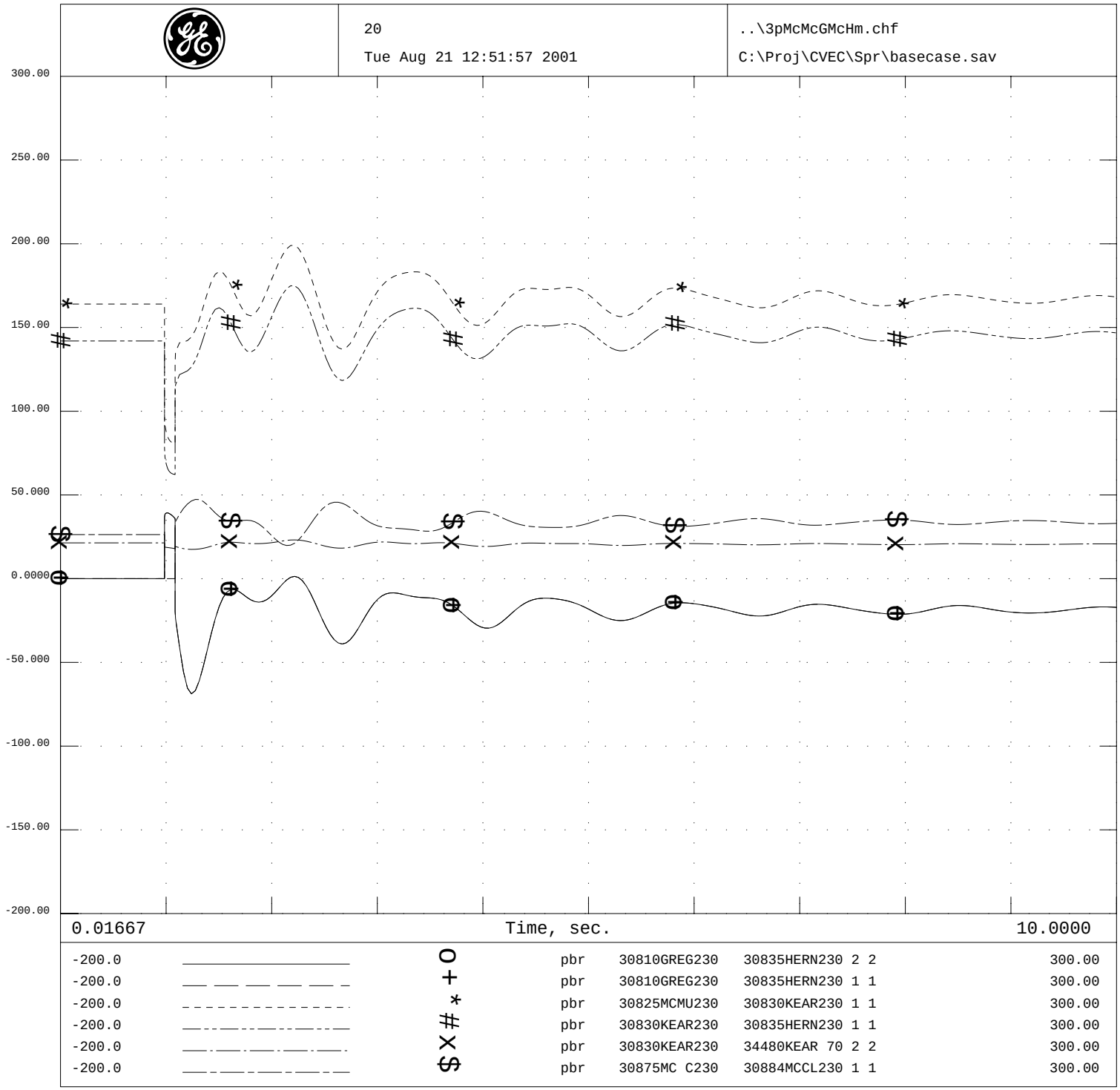

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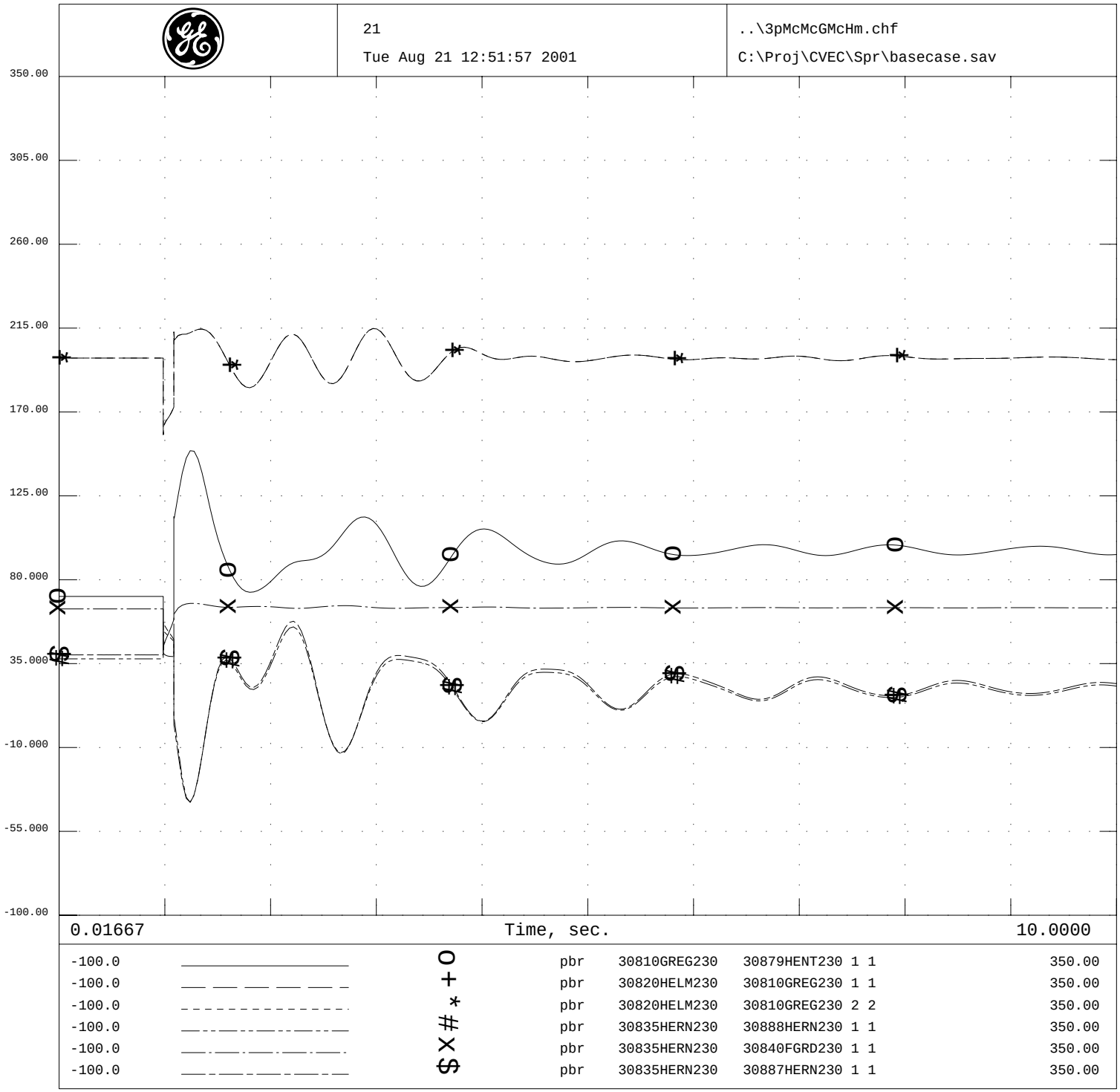

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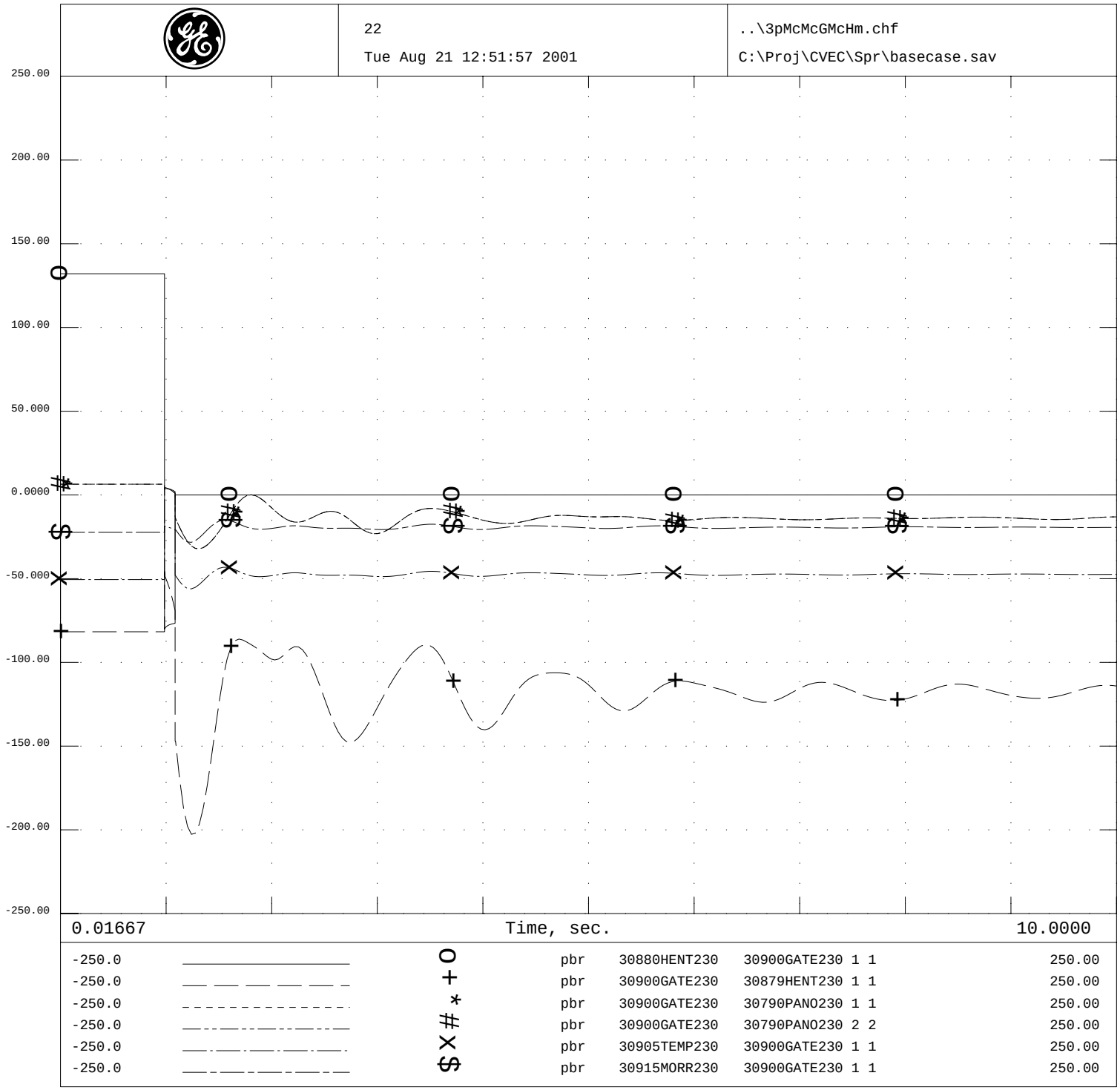

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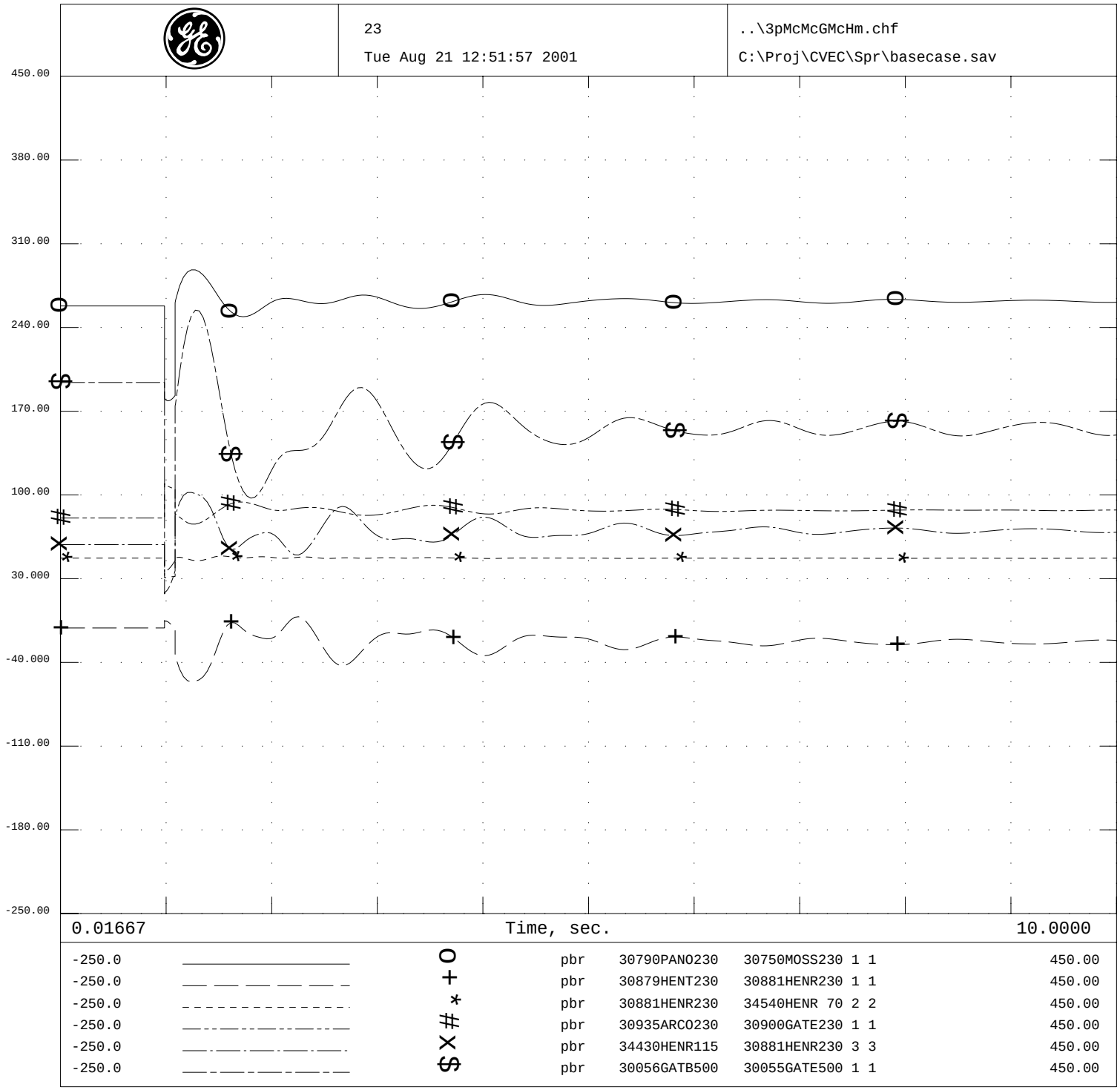

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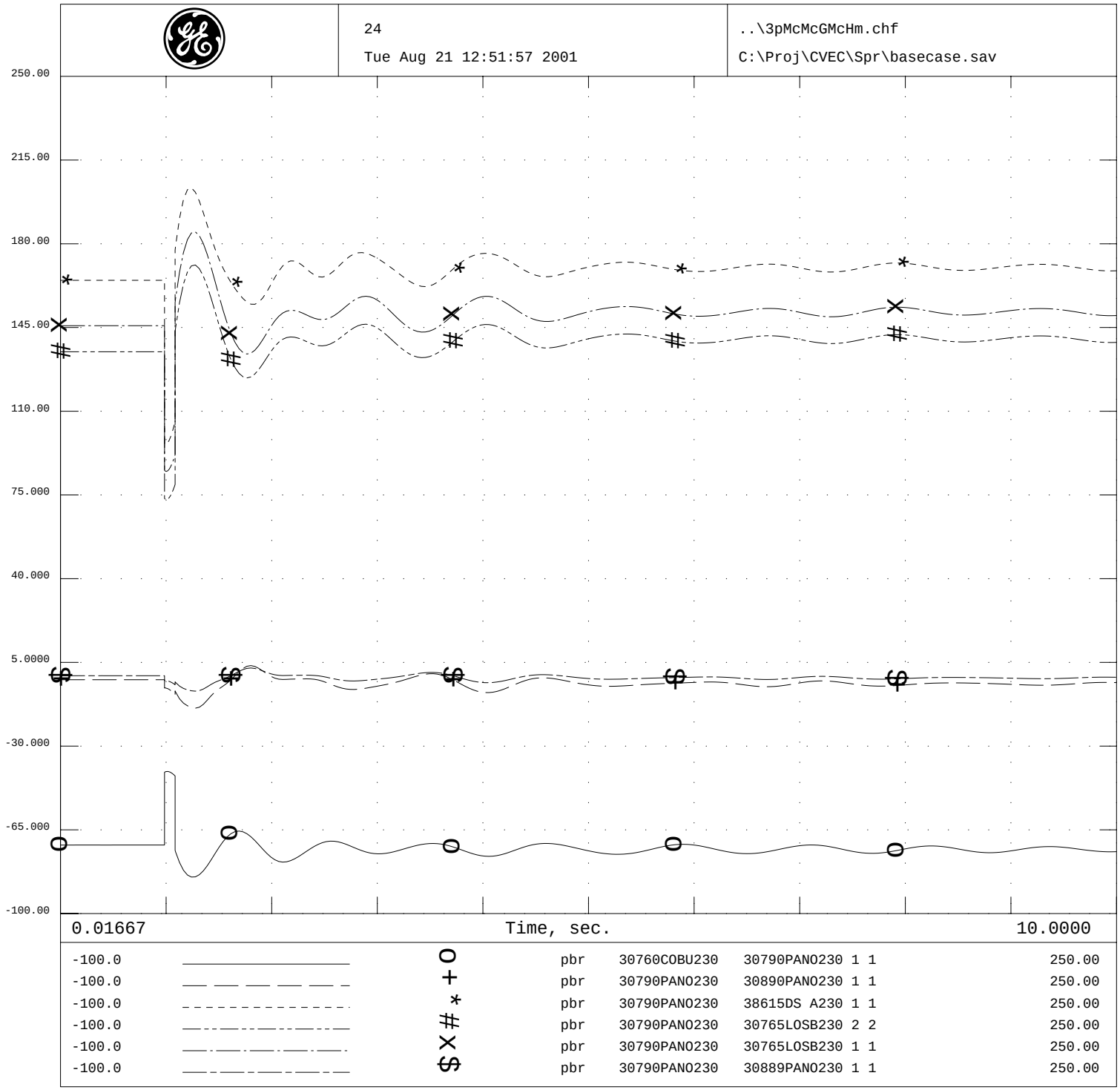

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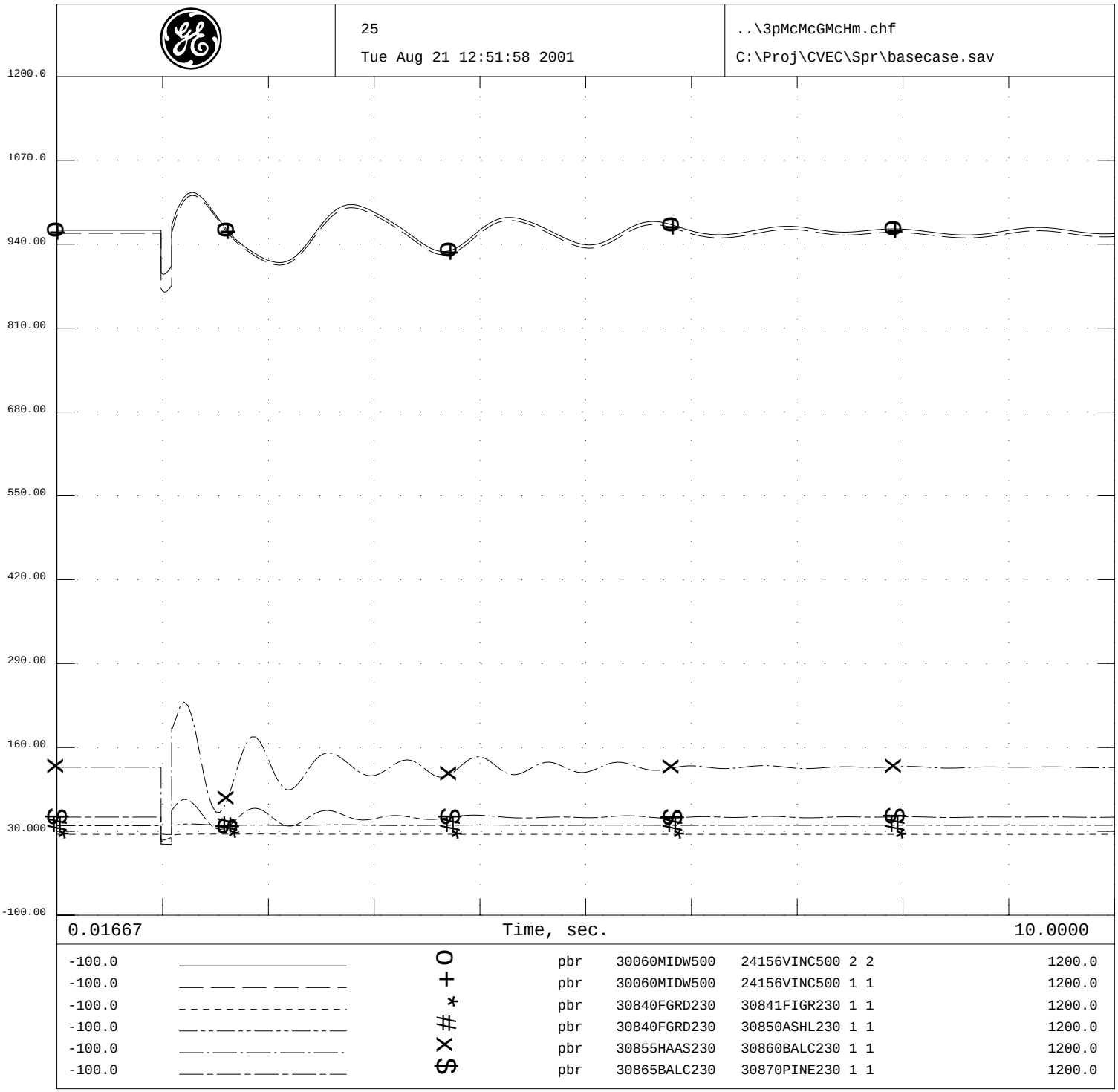

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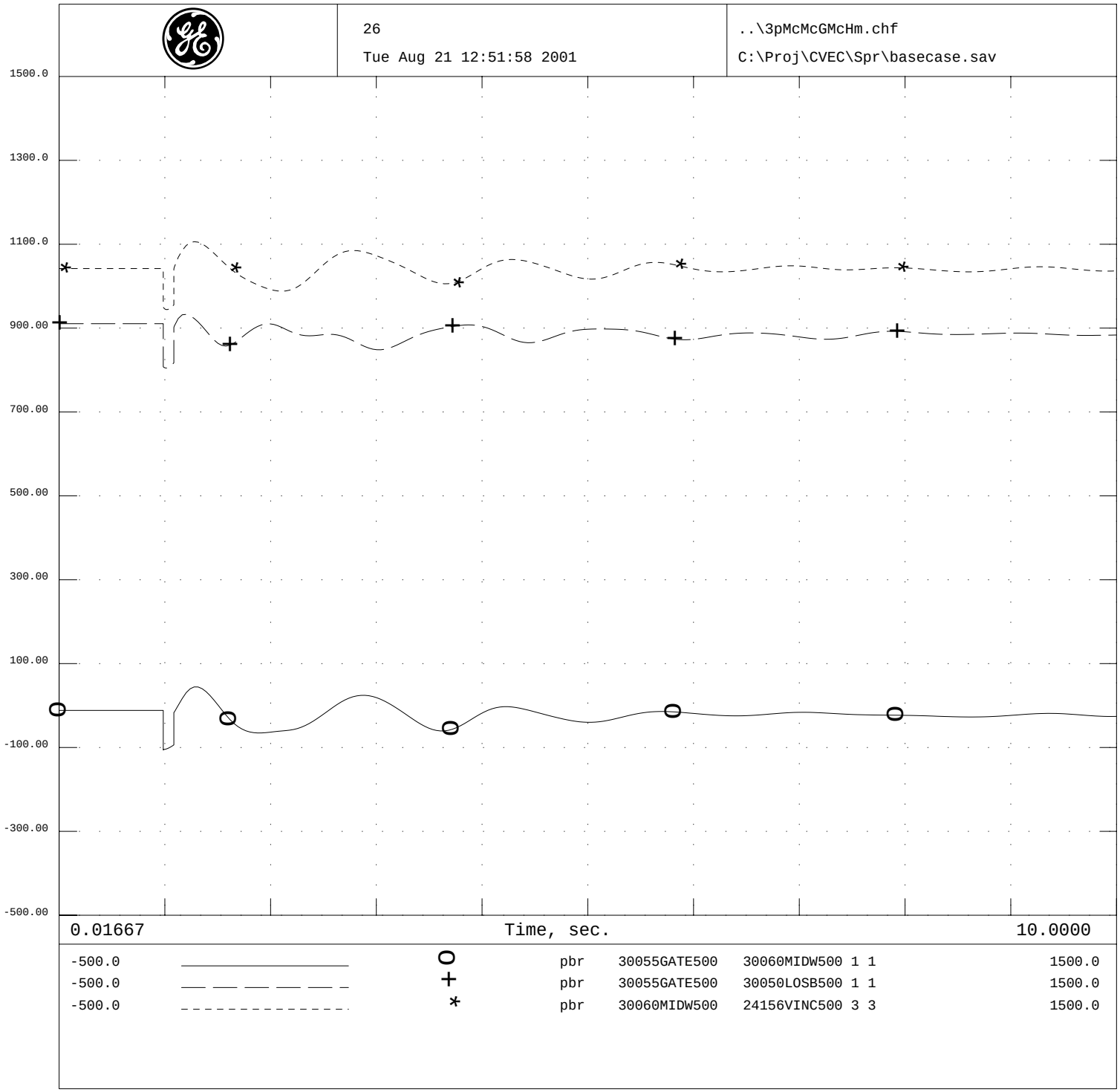

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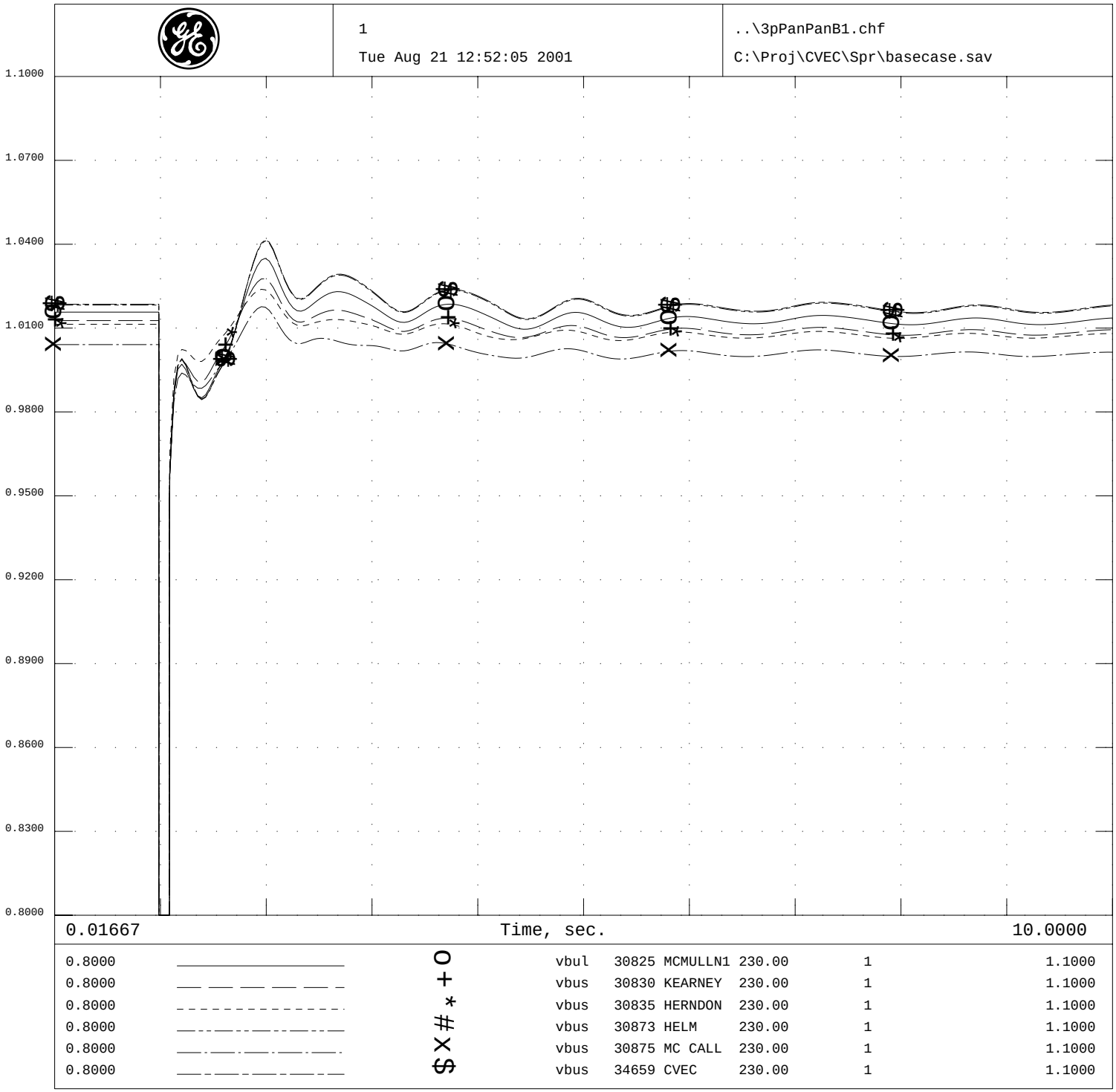

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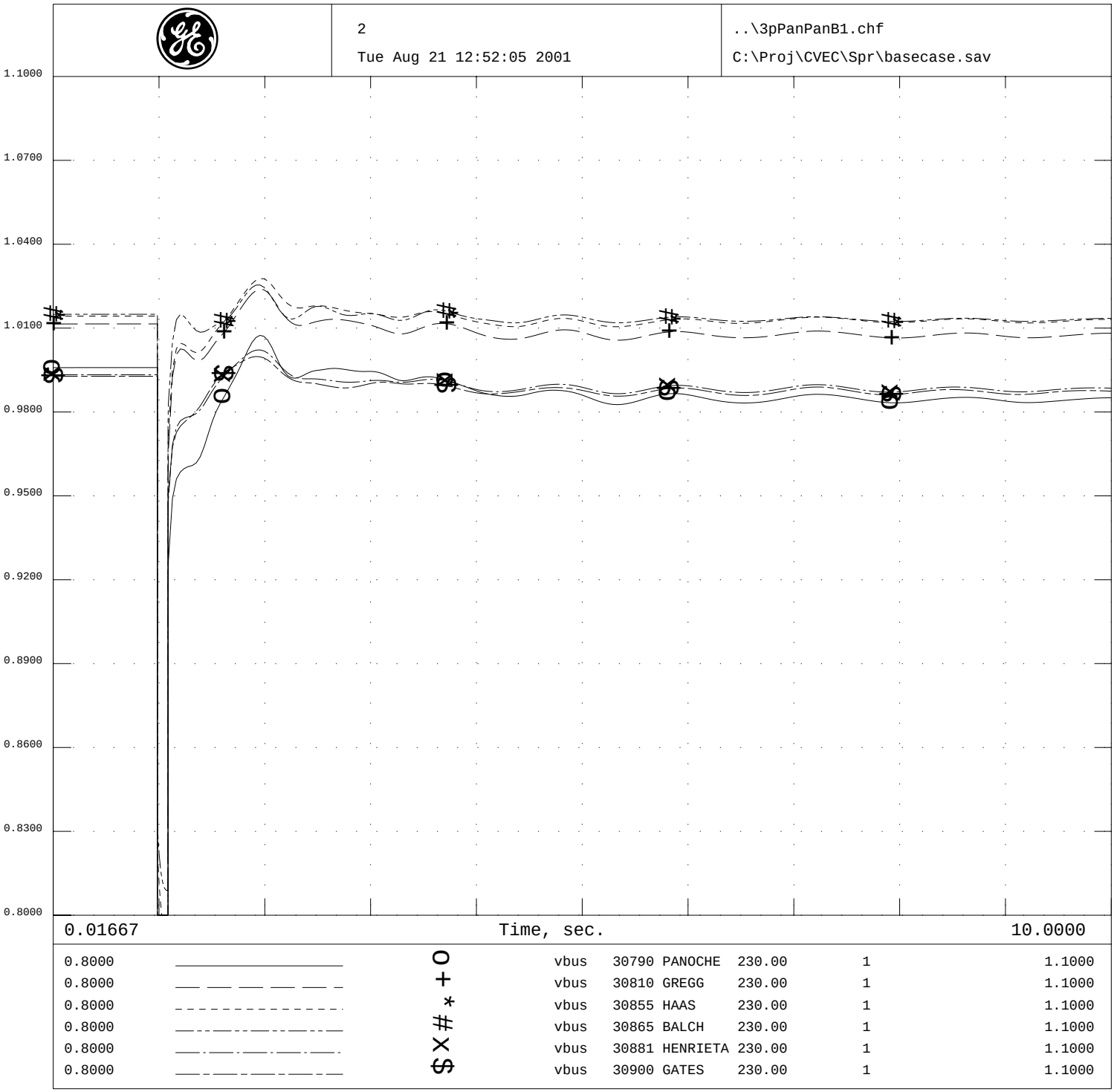

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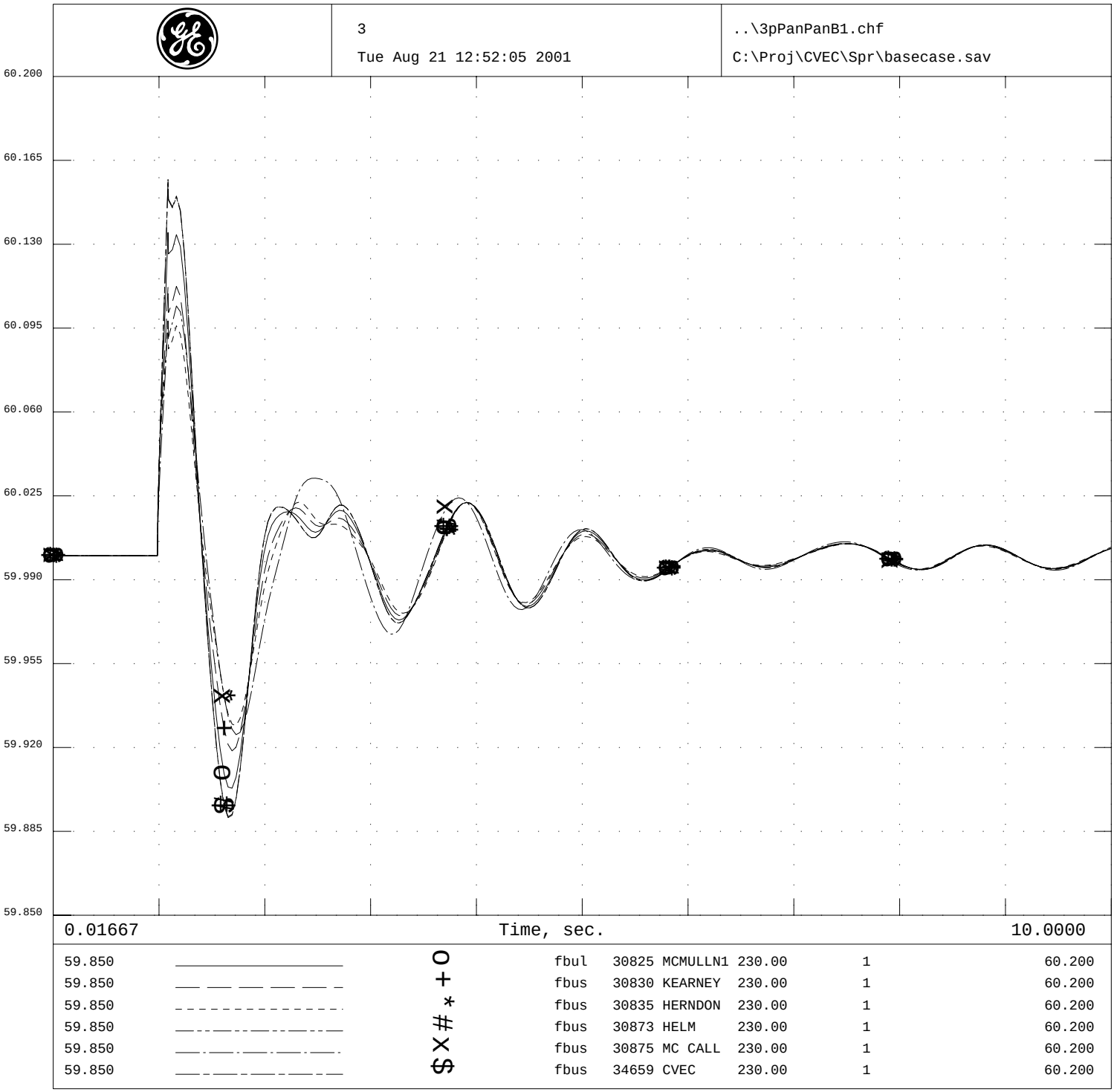

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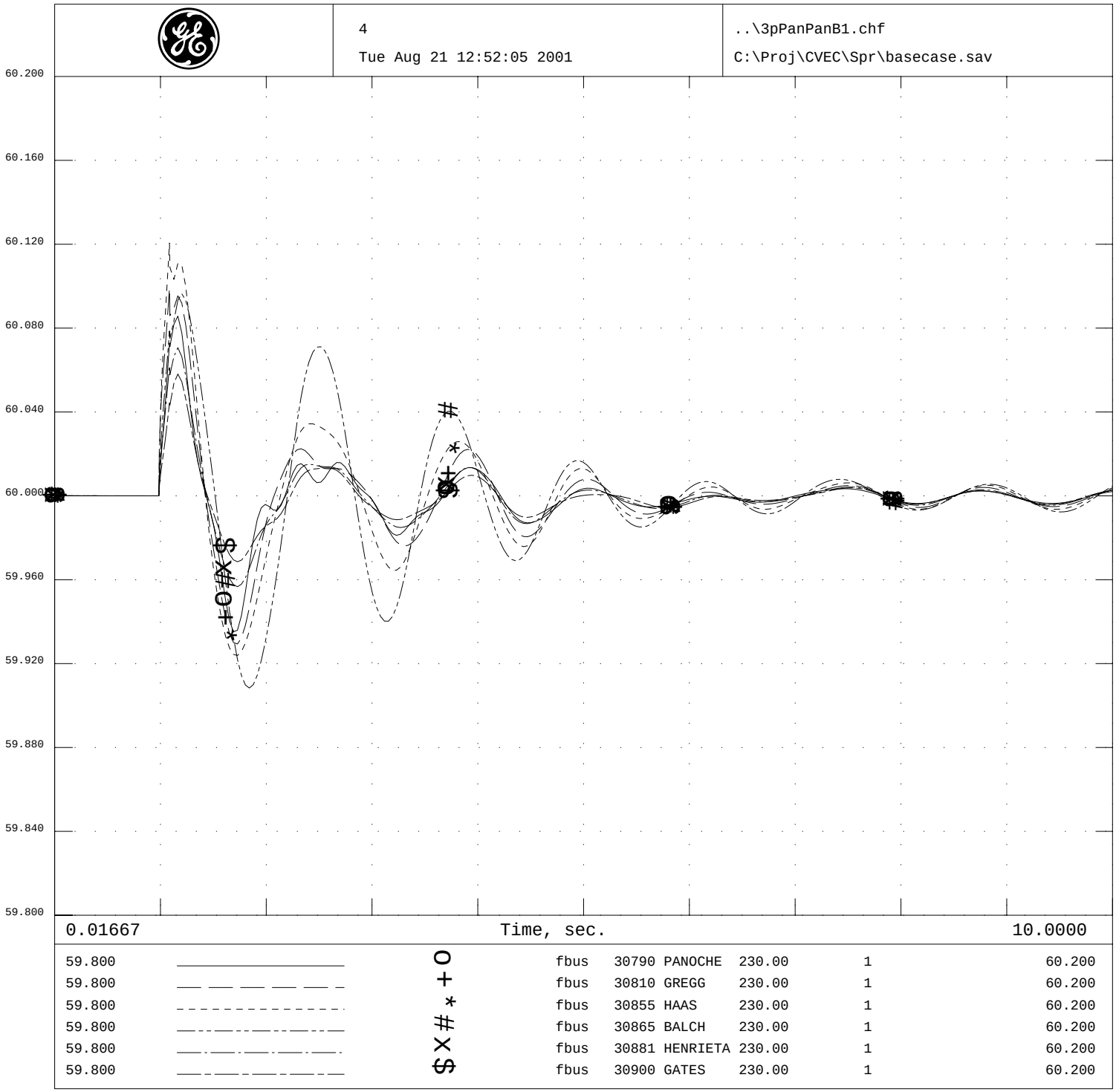

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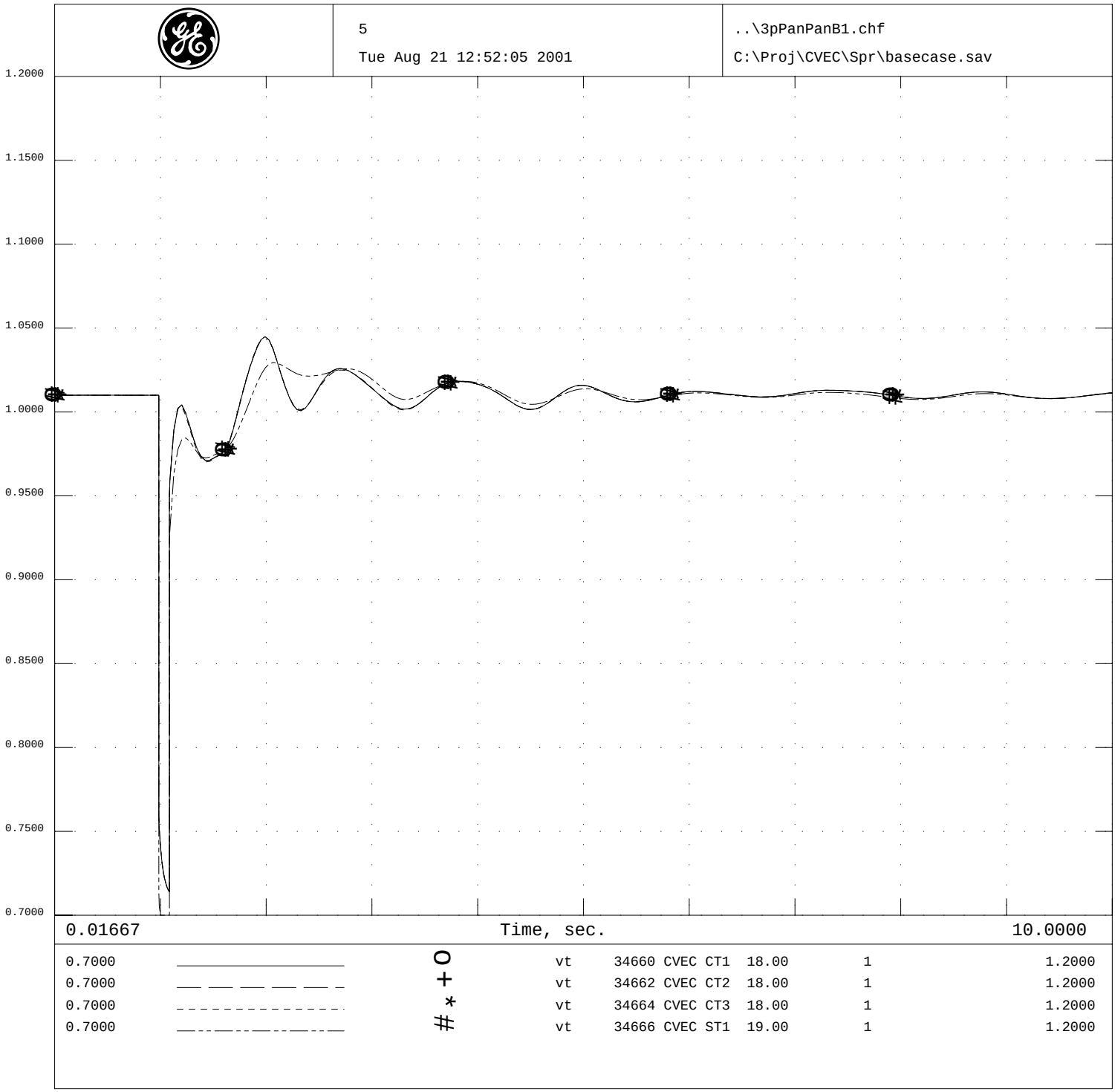
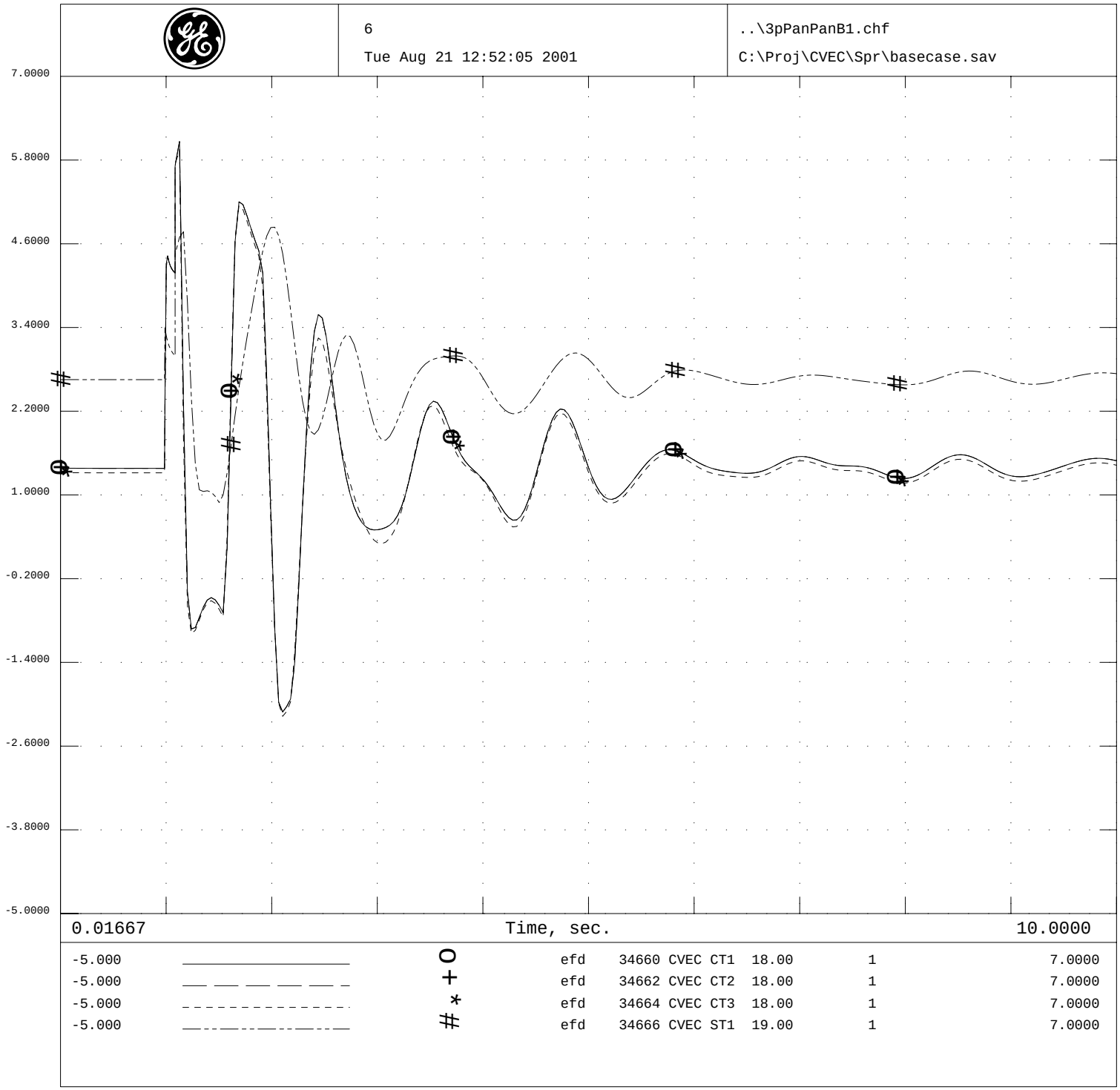


Calpine Corporation - Central Valley Energy Center System Impact Study
2004 Heavy Spring Base Case
CVEC @ 1100MW
Panoche 230kV Bus #1 Outage
3 phase 6 cycle fault at Panoche 230kV bus and clear bus #1

Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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2004 Heavy Spring Base Case
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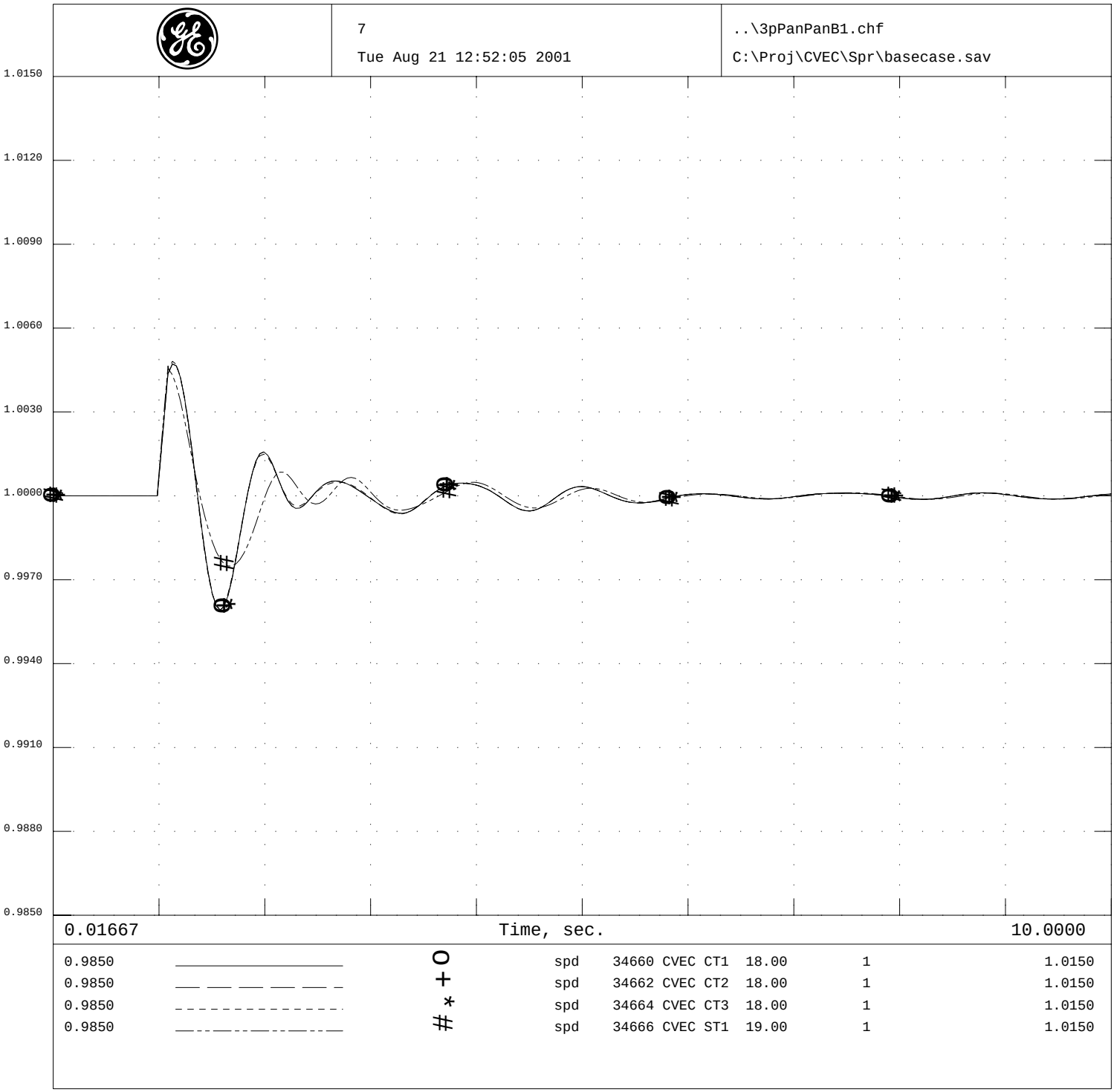
Central Valley Energy Center
Calpine Corporation
Project Generator Field Voltages



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2004 Heavy Spring Base Case
CVEC @ 1100MW
Panoche 230kV Bus #1 Outage
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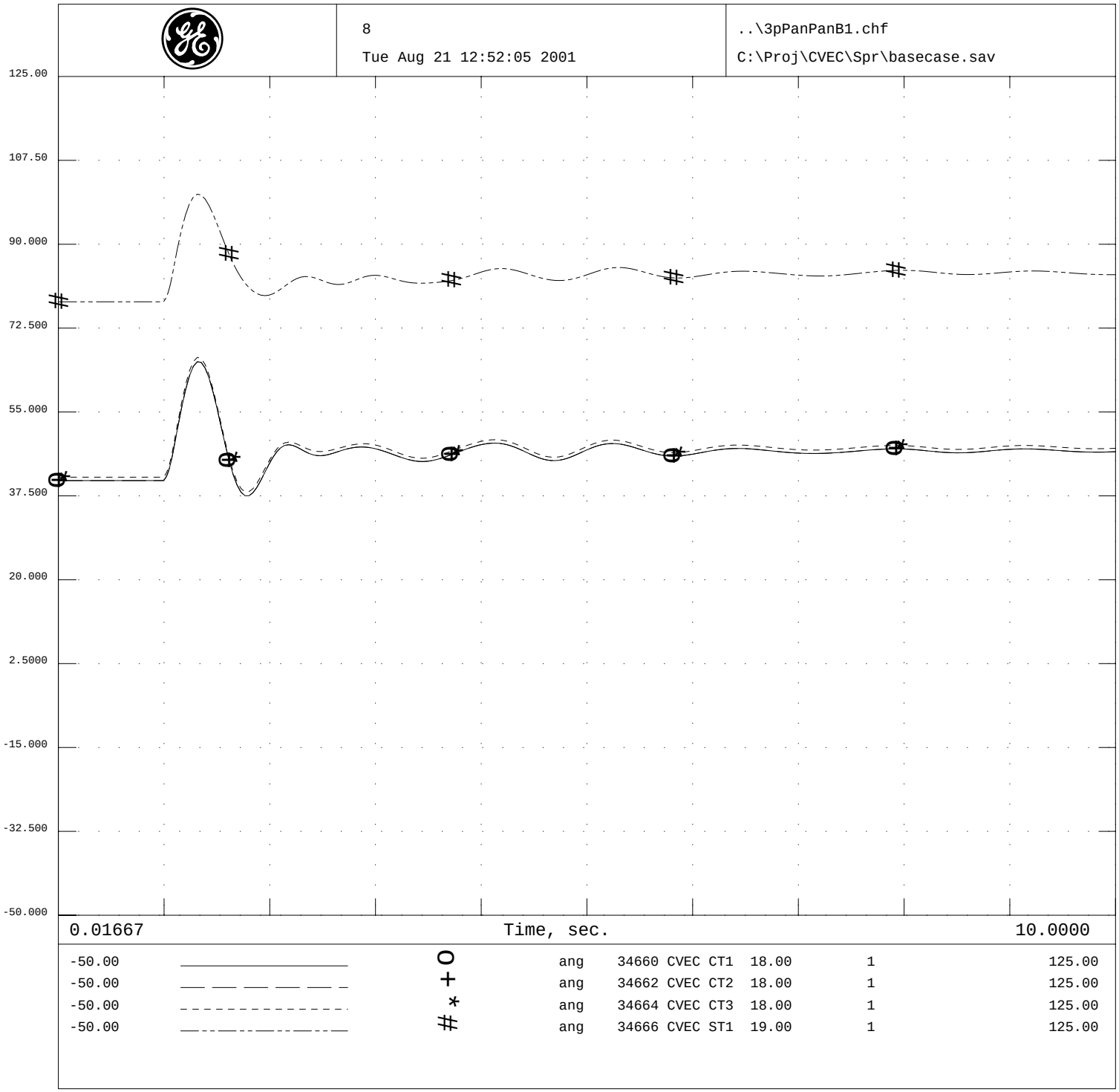
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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2004 Heavy Spring Base Case
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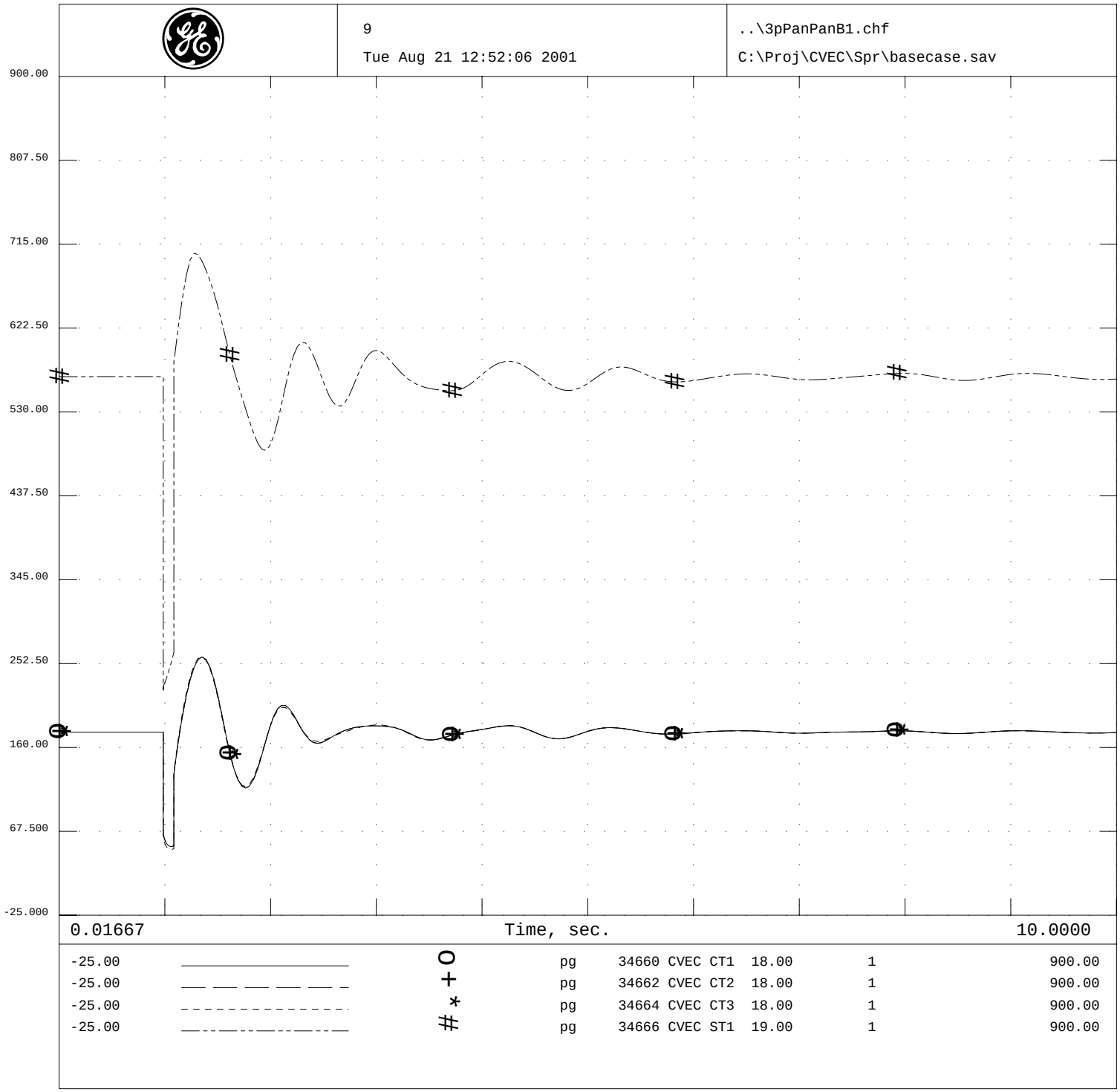
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Angle



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2004 Heavy Spring Base Case
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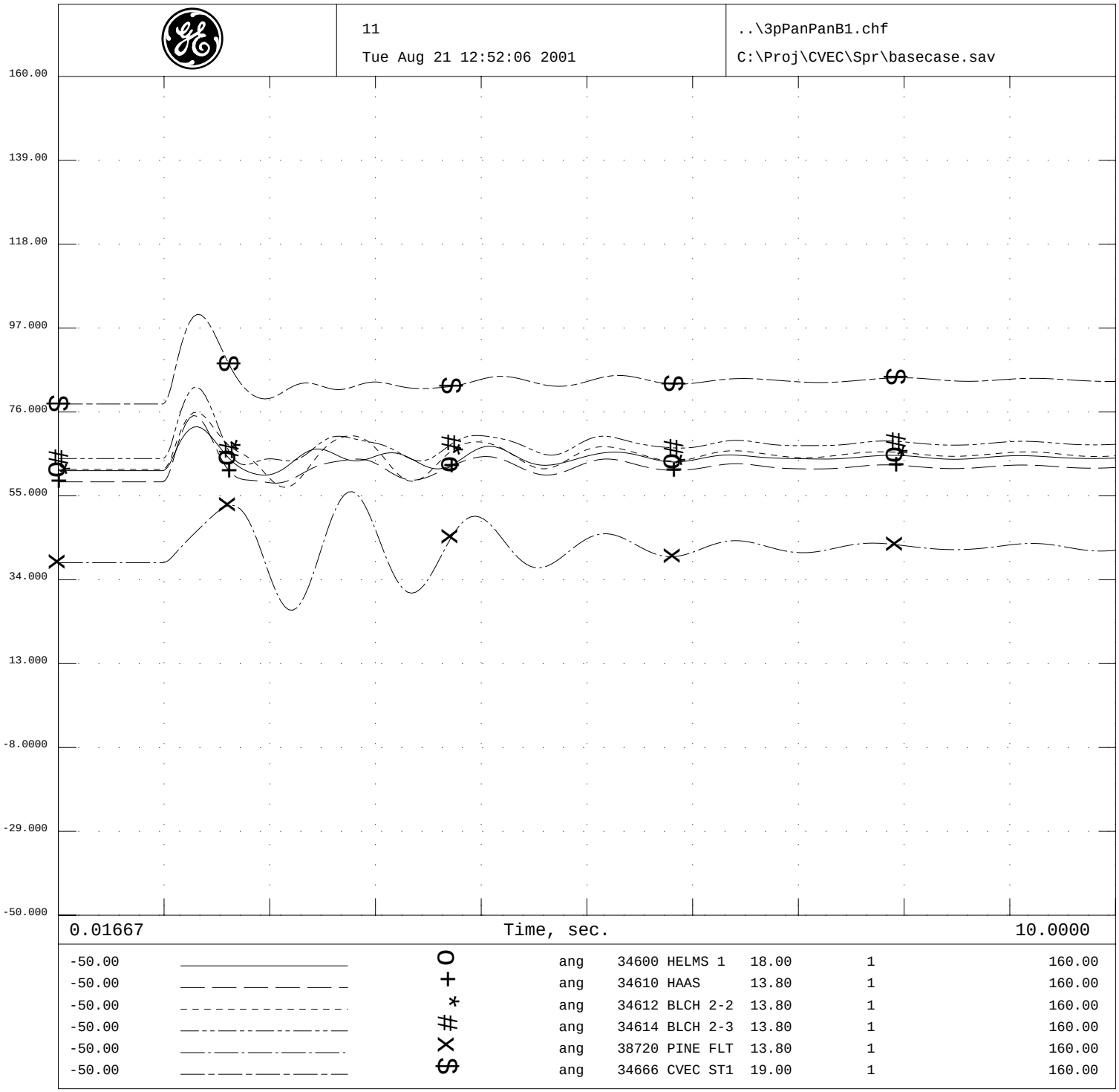
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Power



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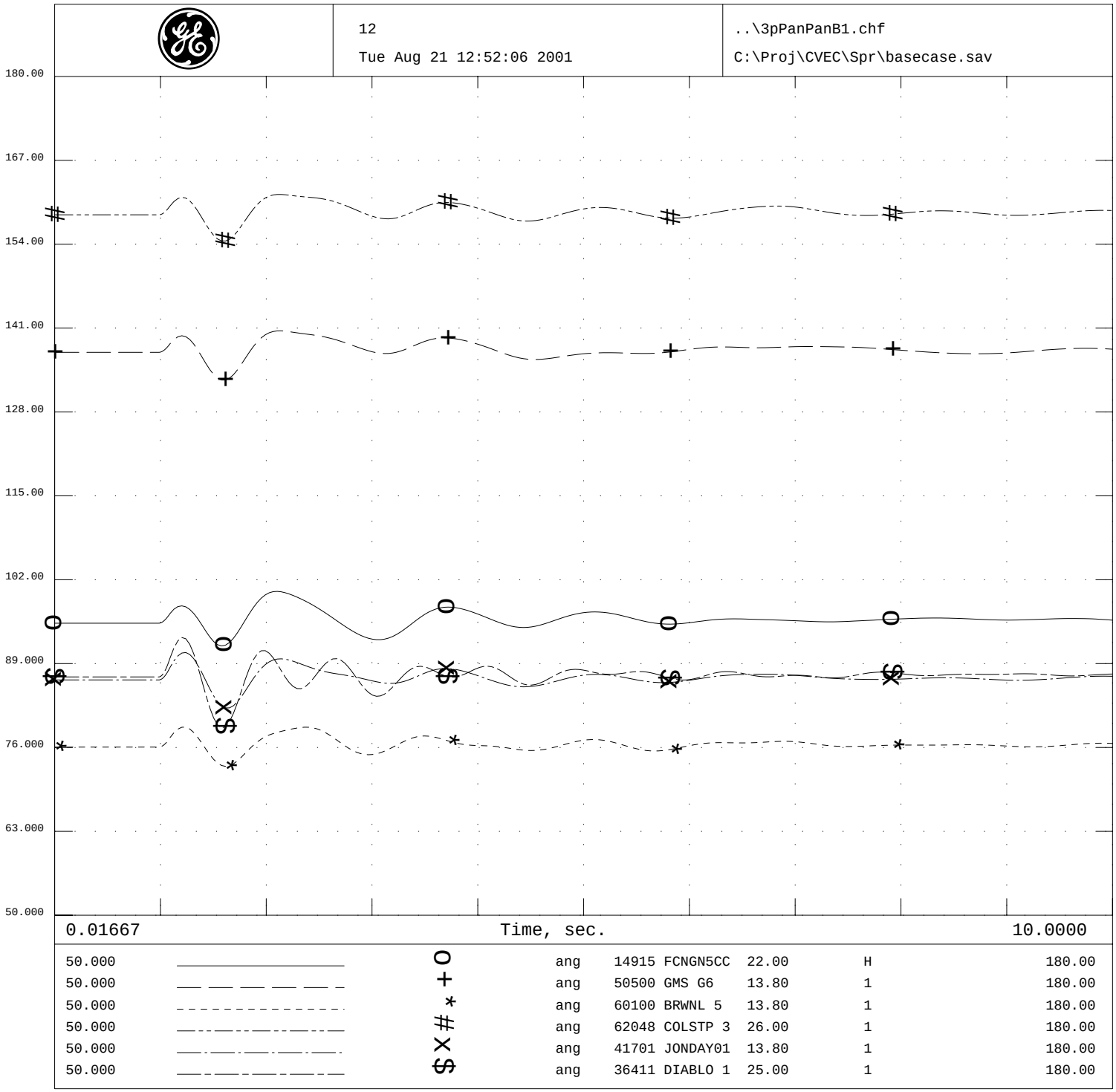
Central Valley Energy Center
Calpine Corporation
Selected Local Rotor Angle Plots



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2004 Heavy Spring Base Case
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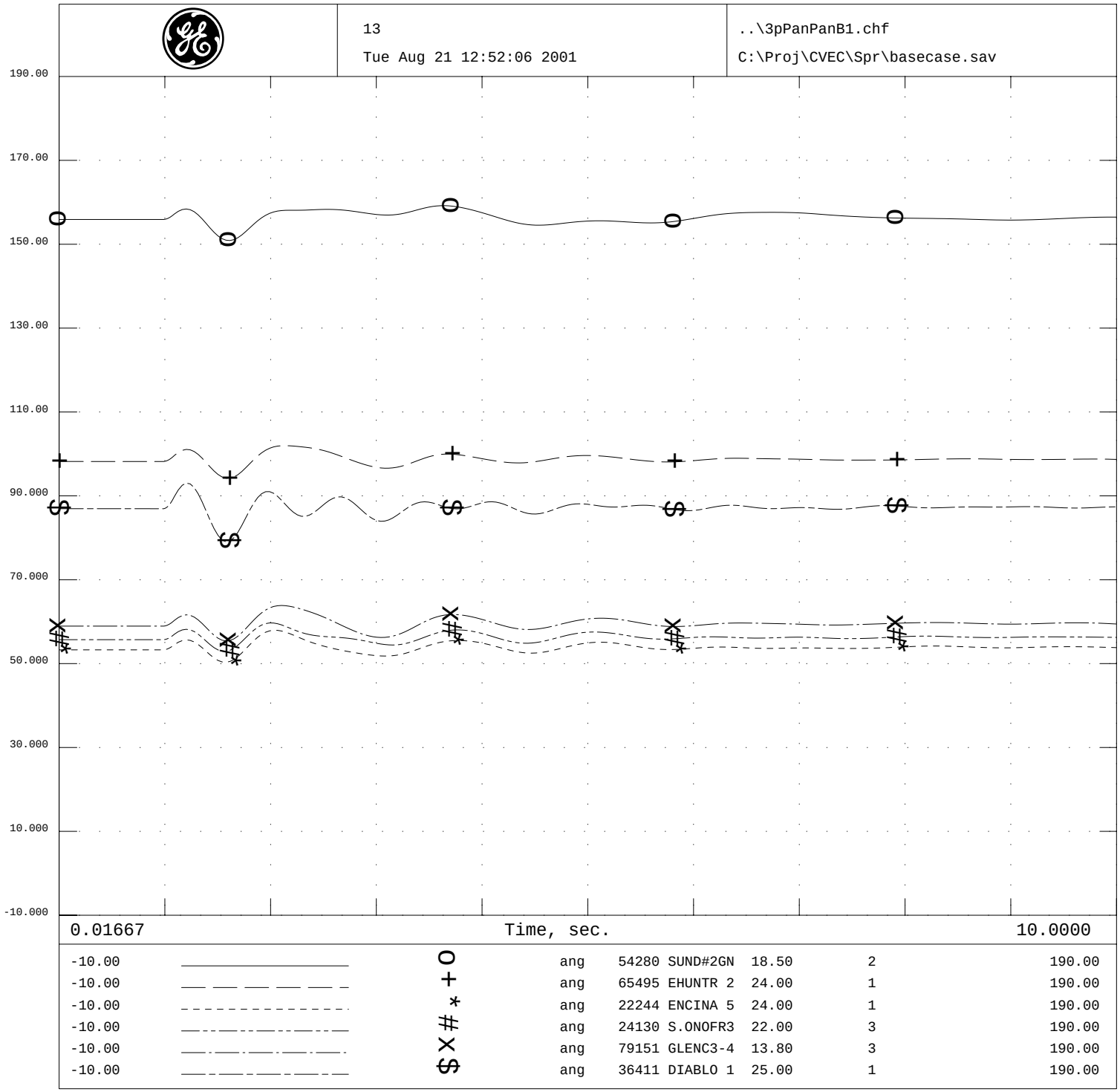
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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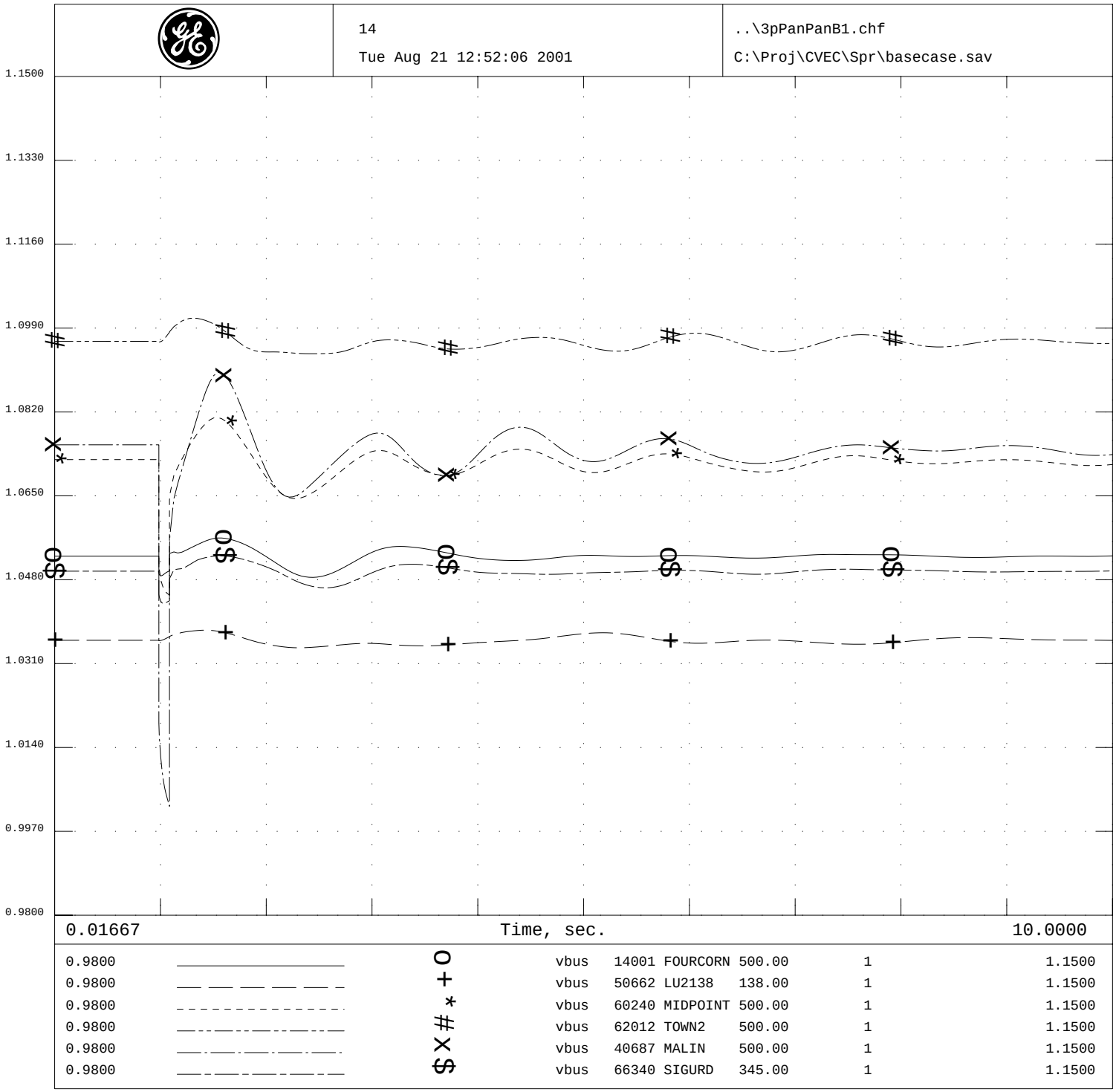
Calpine Corporation
Selected WSCC Transmission Bus Angle Plots



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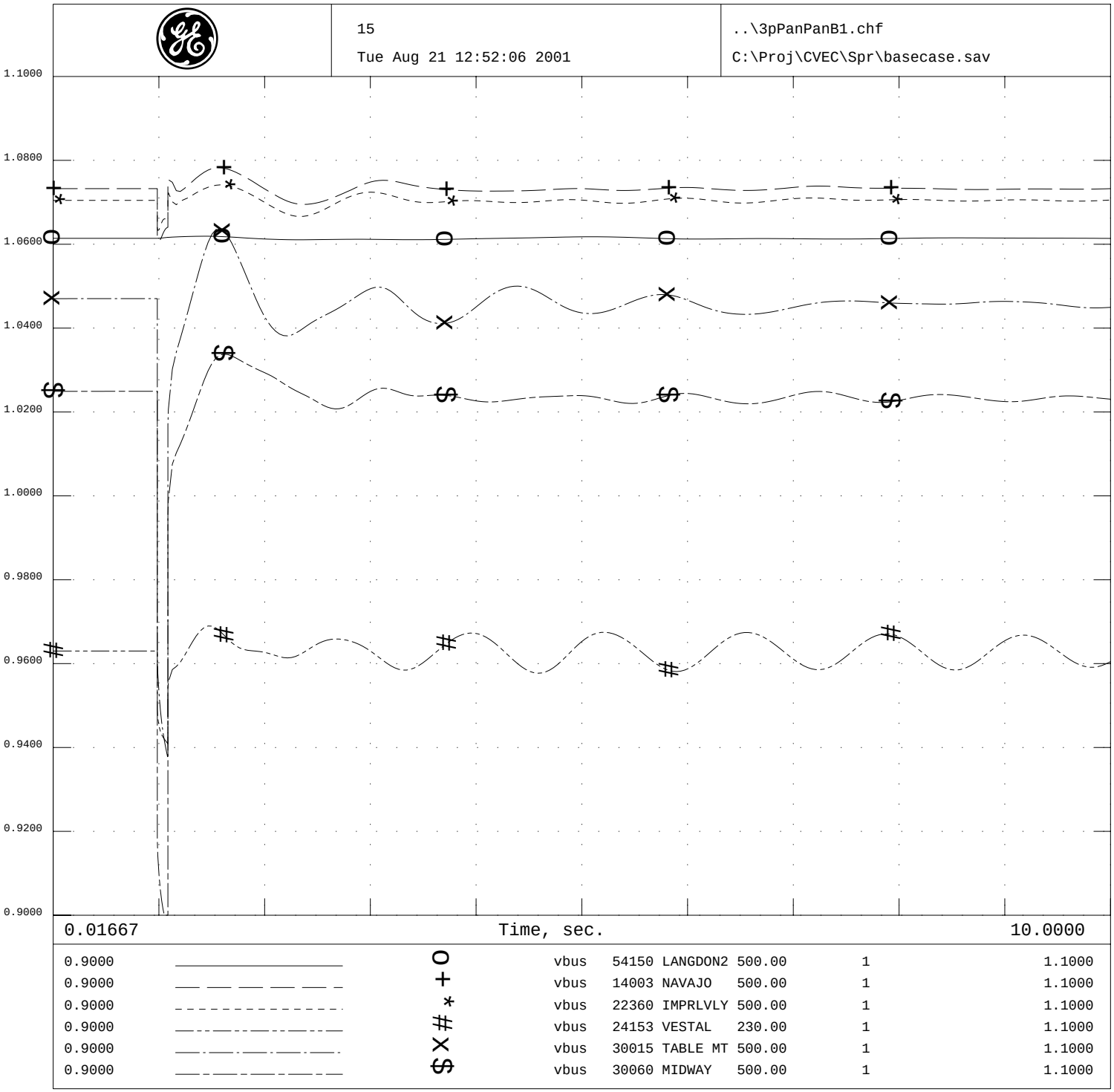
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Voltage Plots



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Calpine Corporation
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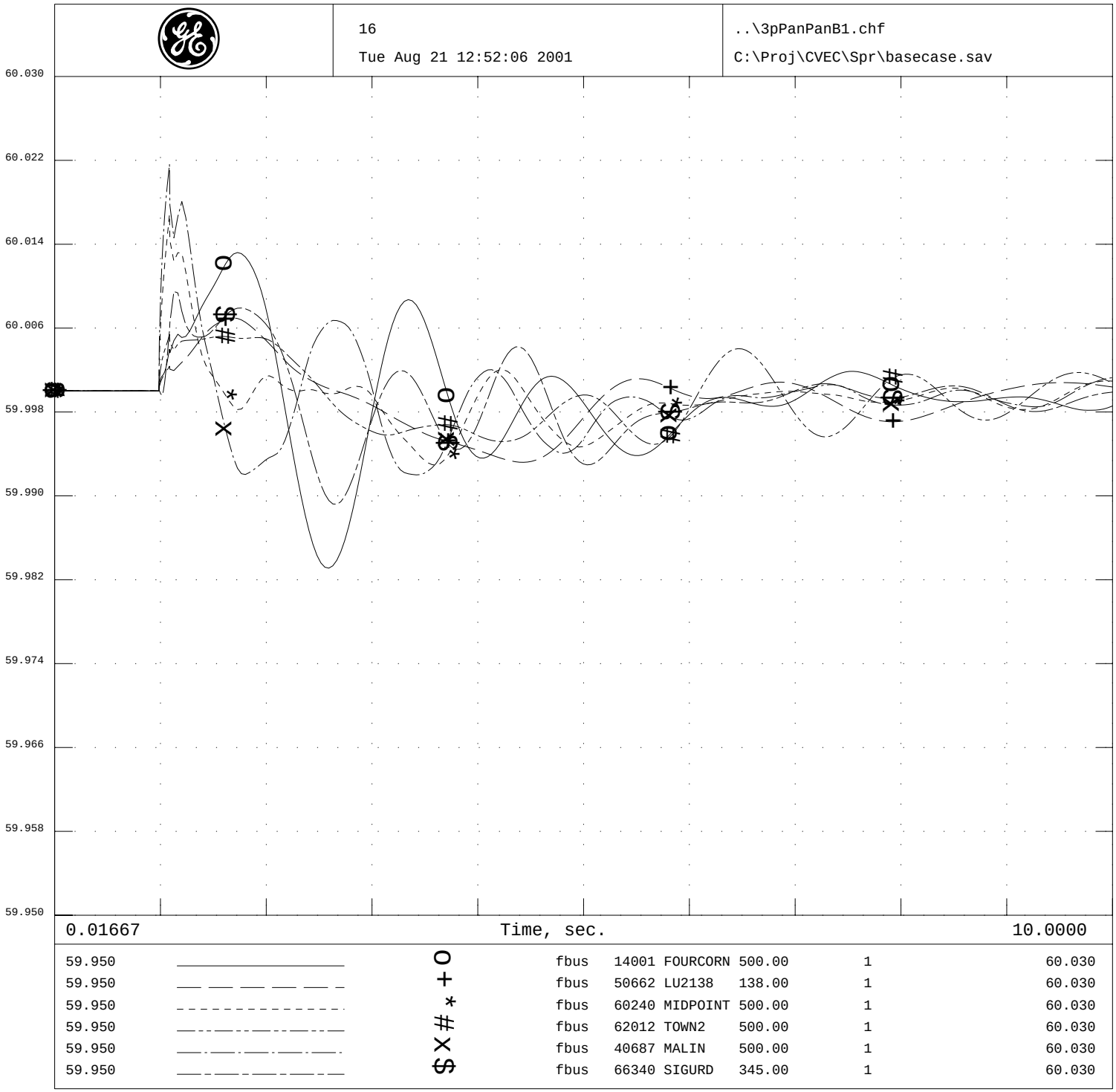

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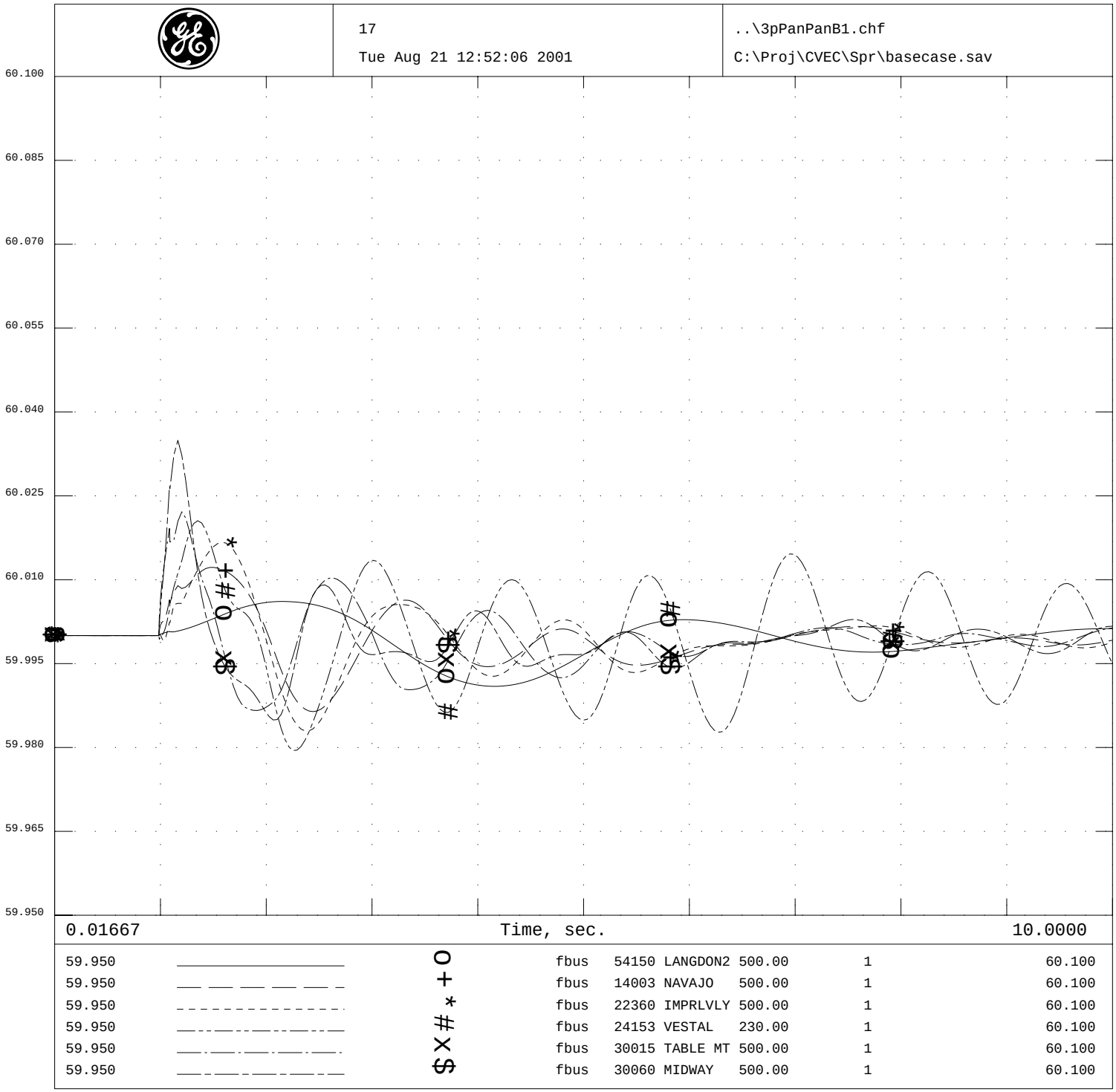
Central Valley Energy Center
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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Calpine Corporation
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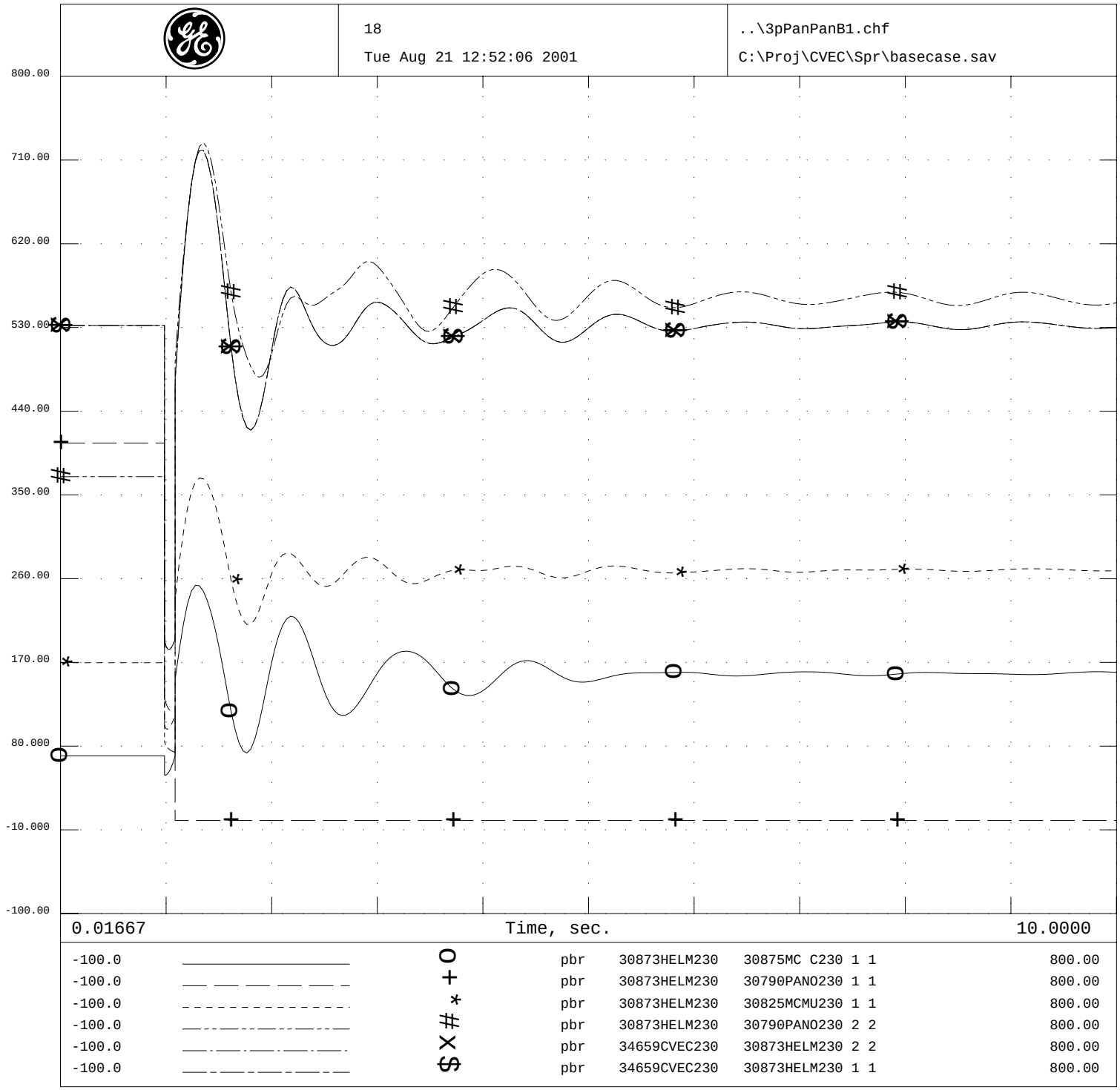

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2004 Heavy Spring Base Case
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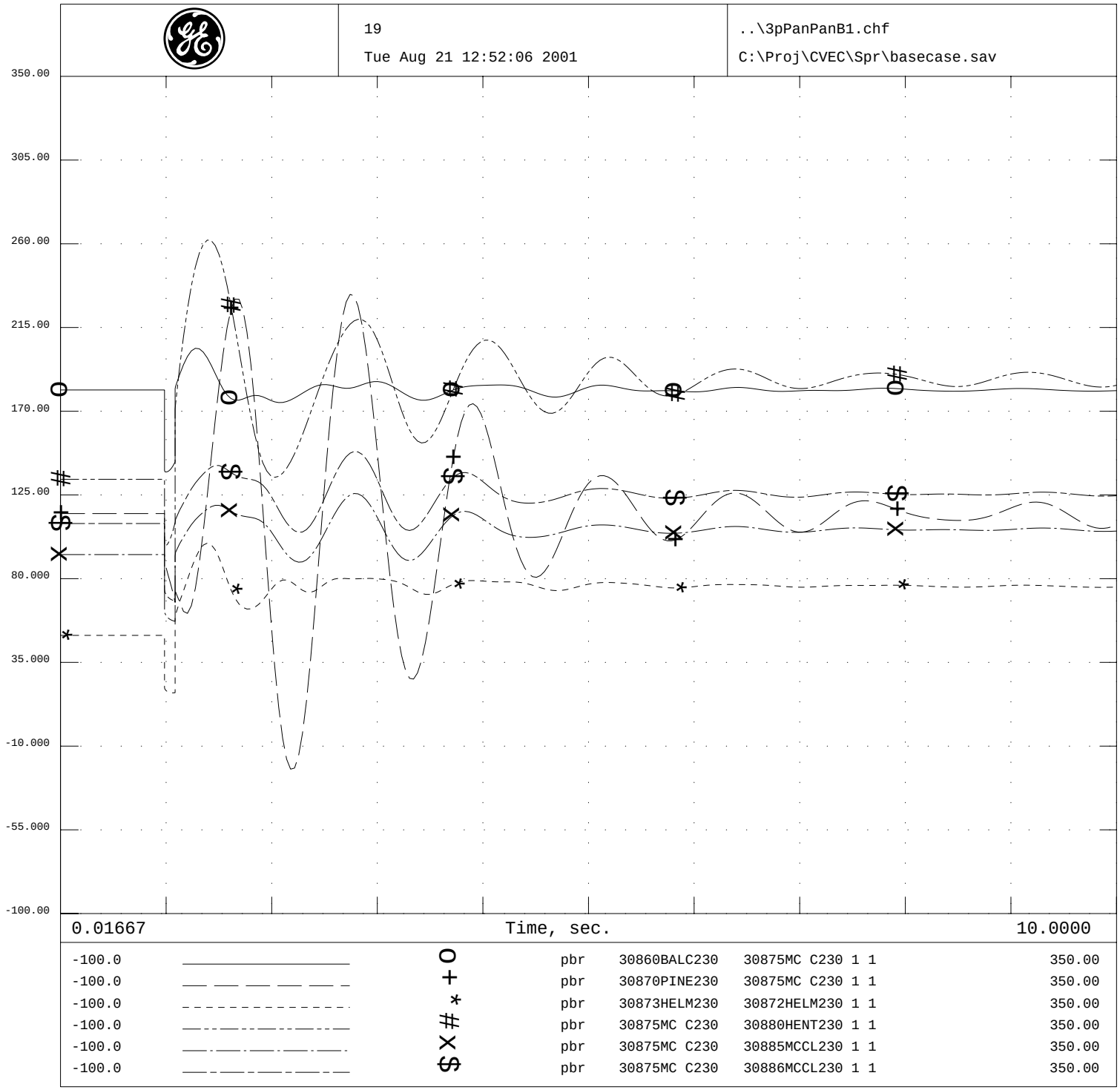
Central Valley Energy Center
Calpine Corporation
Selected Transmission Line Flows (MW)



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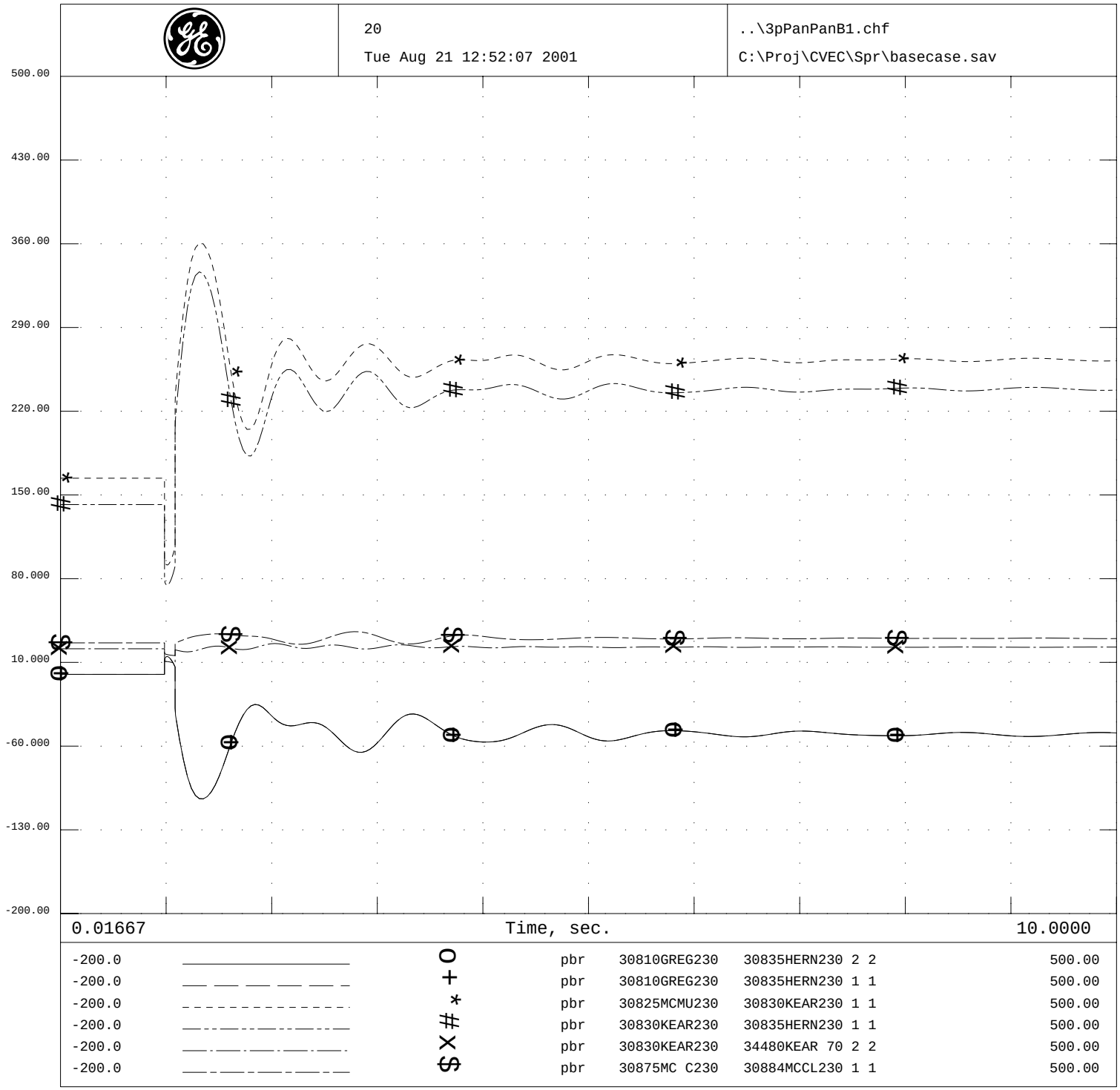

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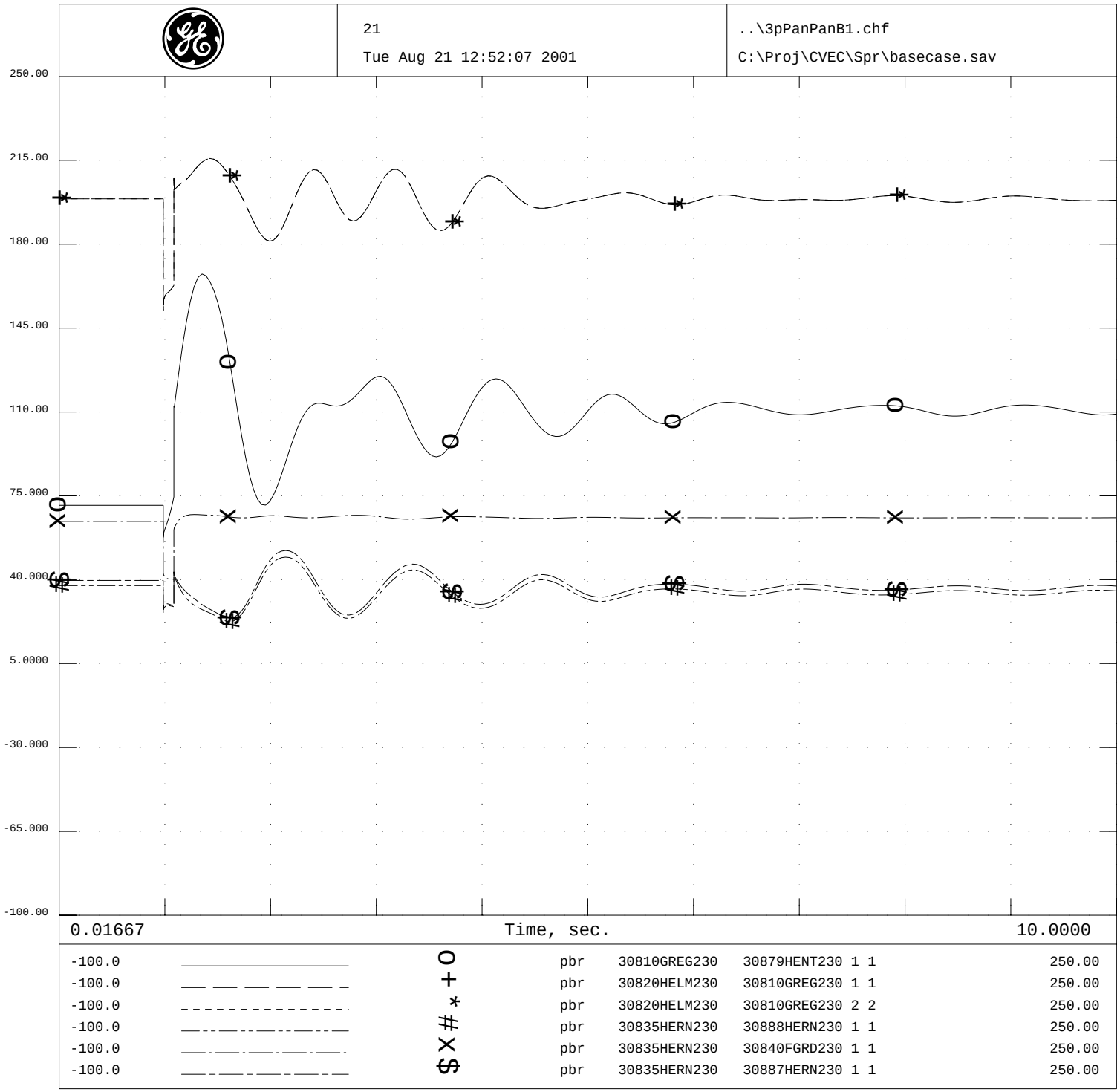

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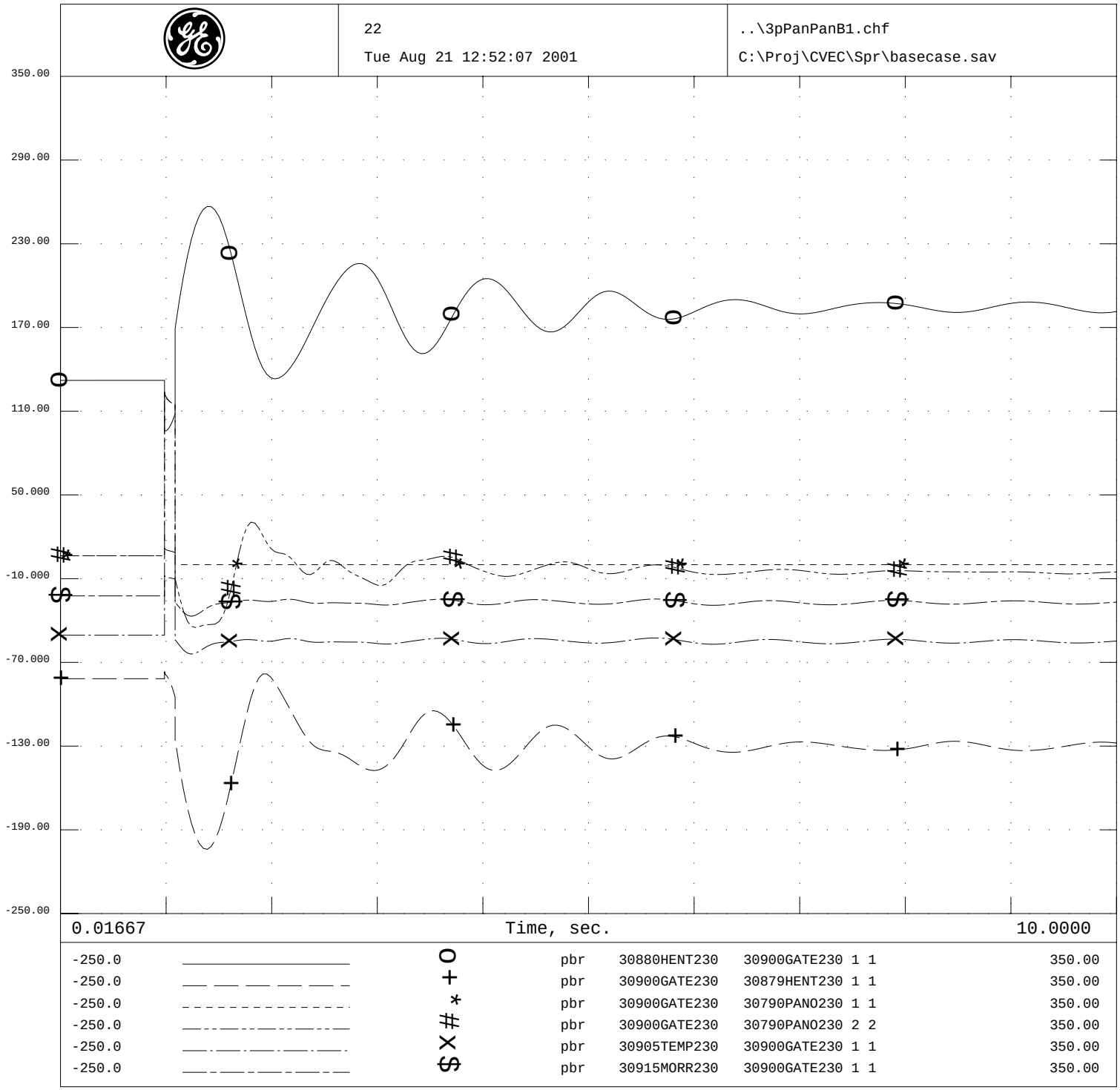

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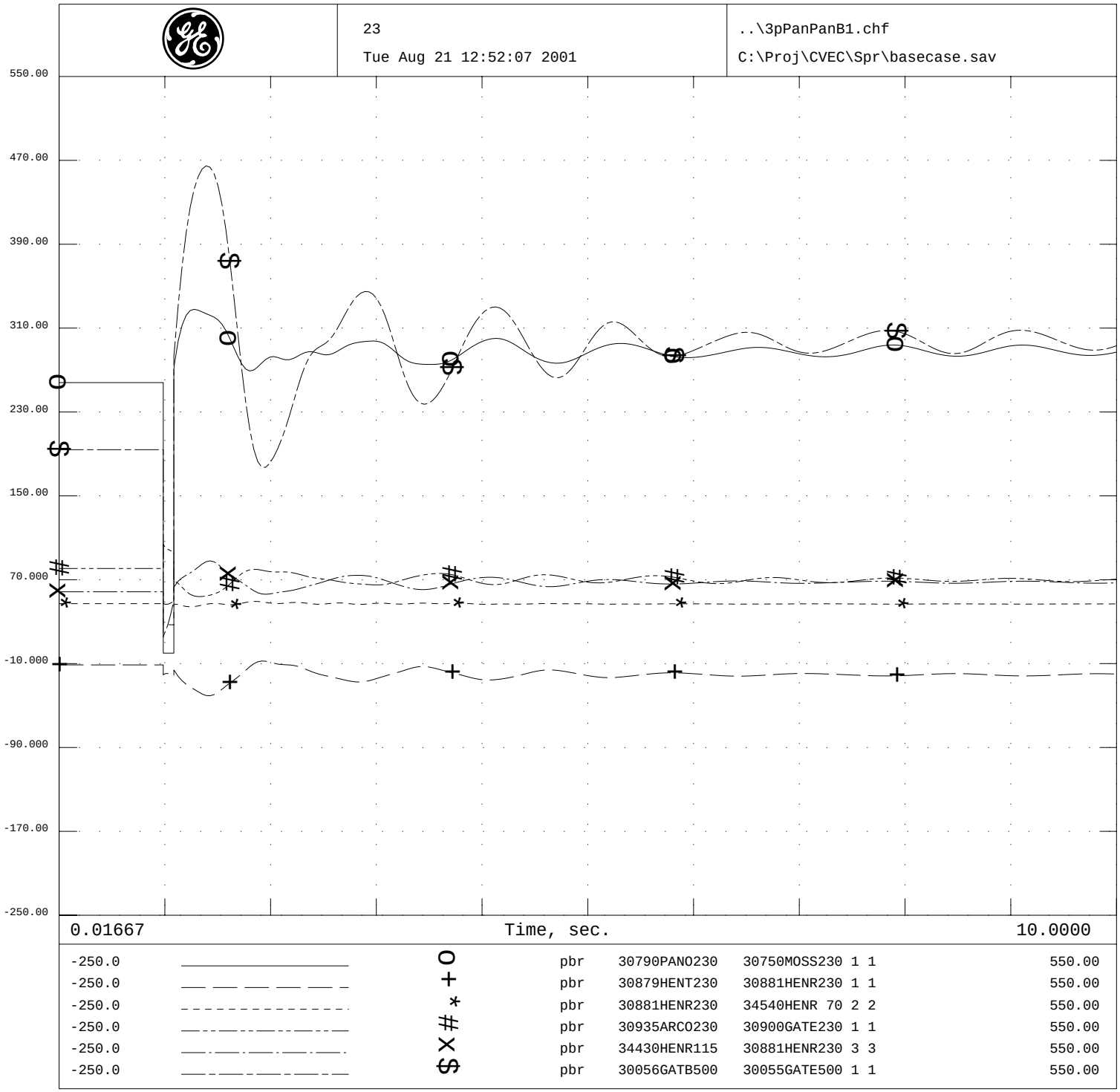

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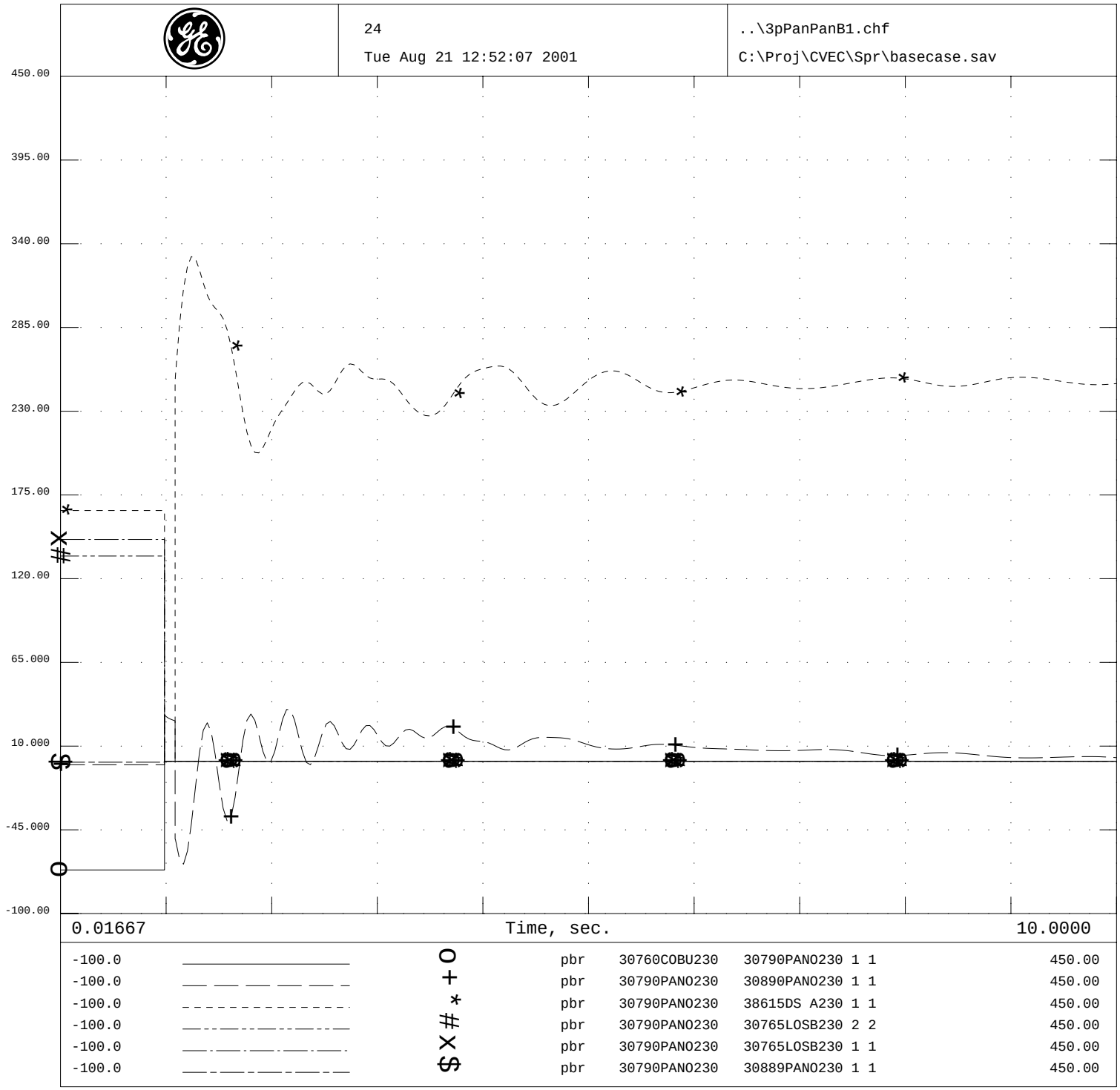

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Calpine Corporation
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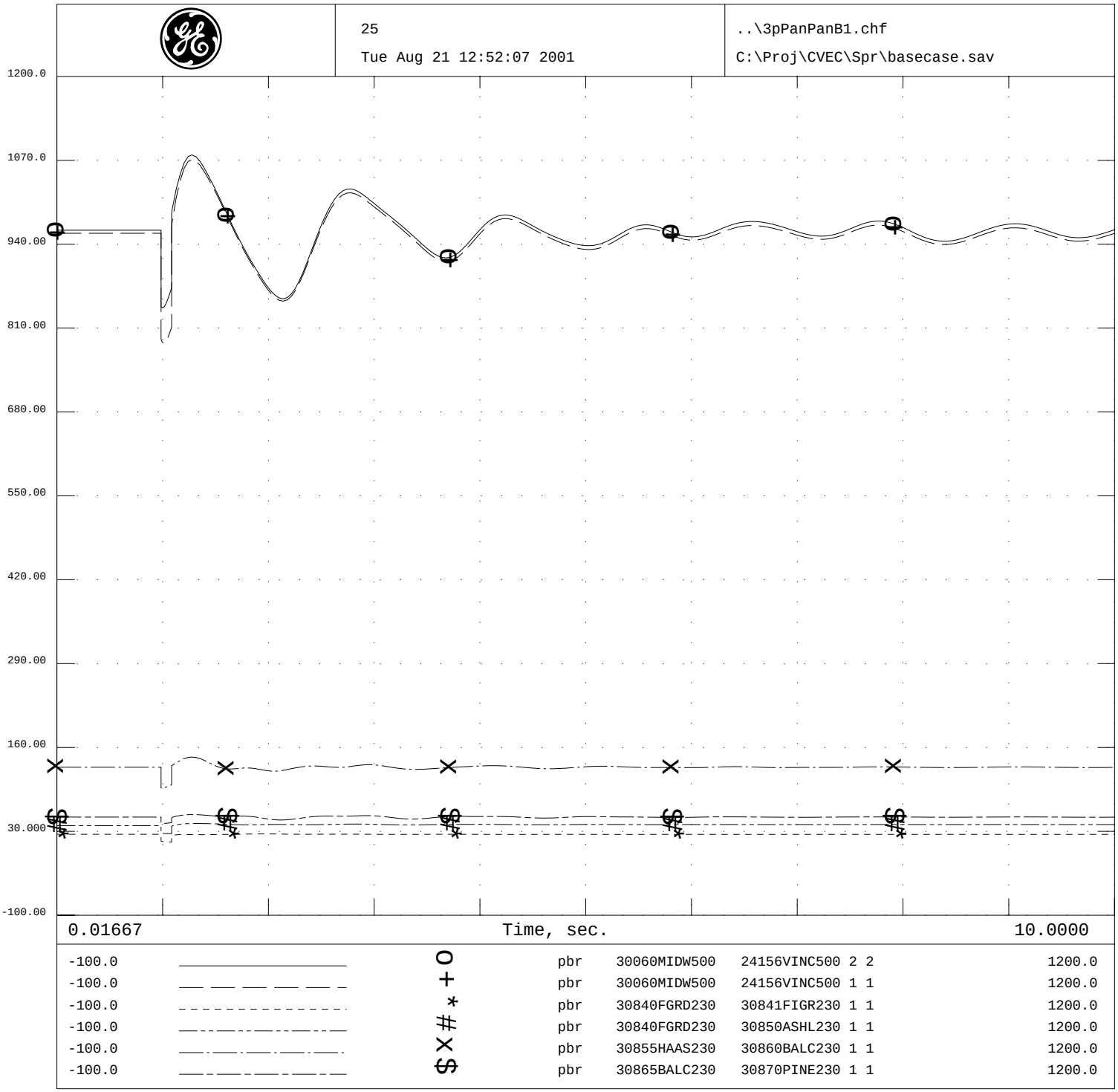

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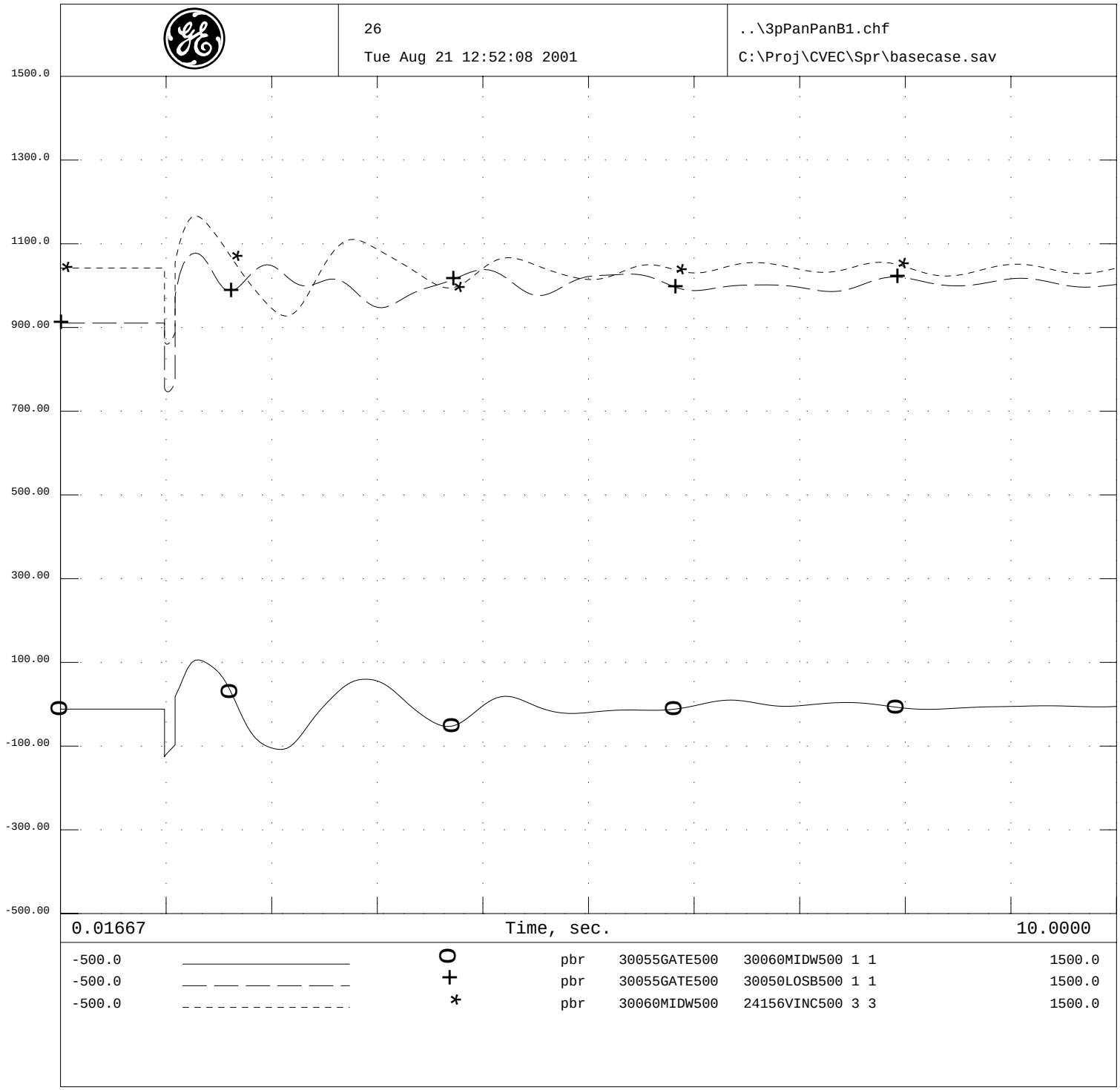

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Calpine Corporation
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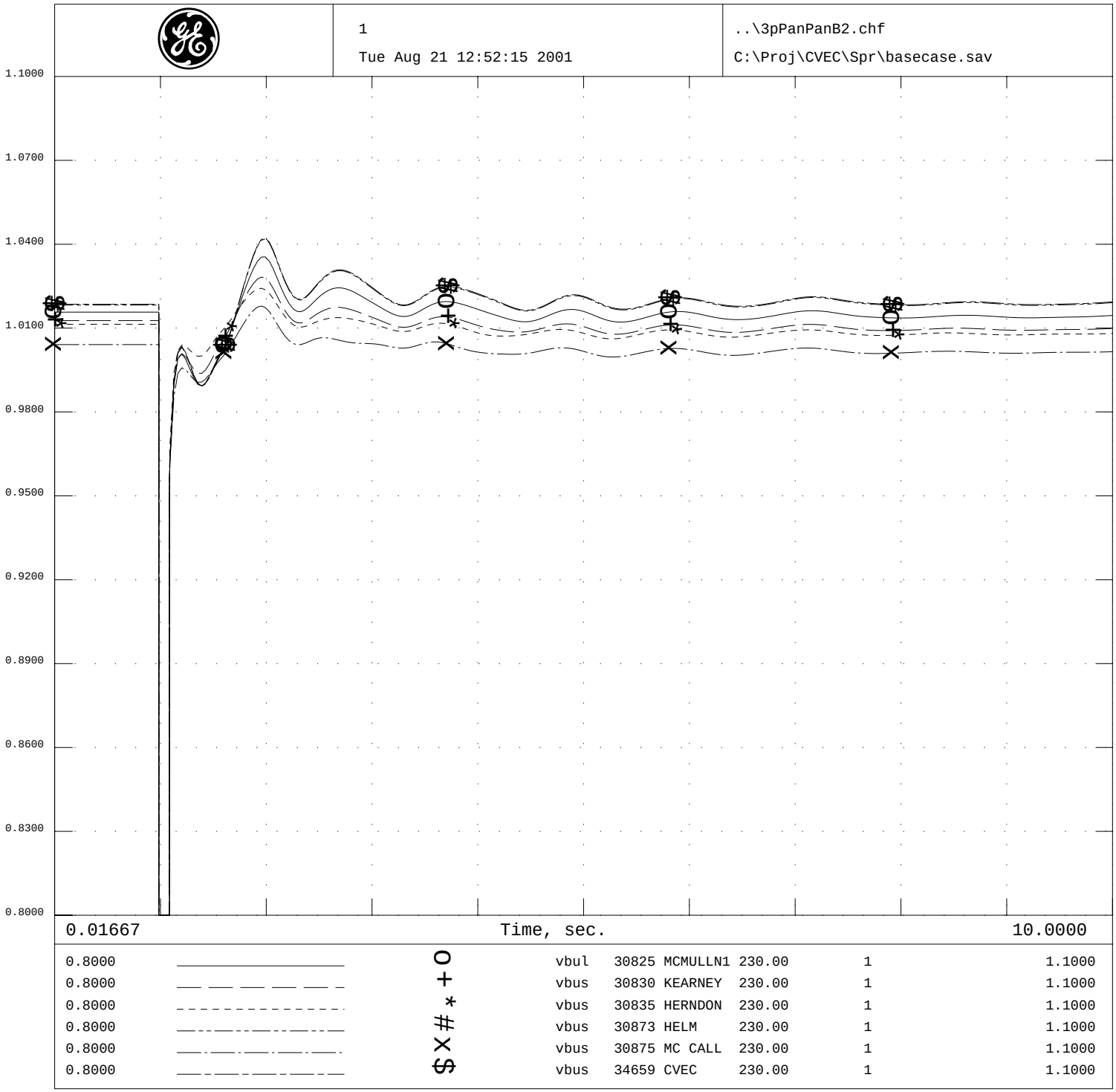

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2004 Heavy Spring Base Case
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Panoche 230kV Bus #2 Outage
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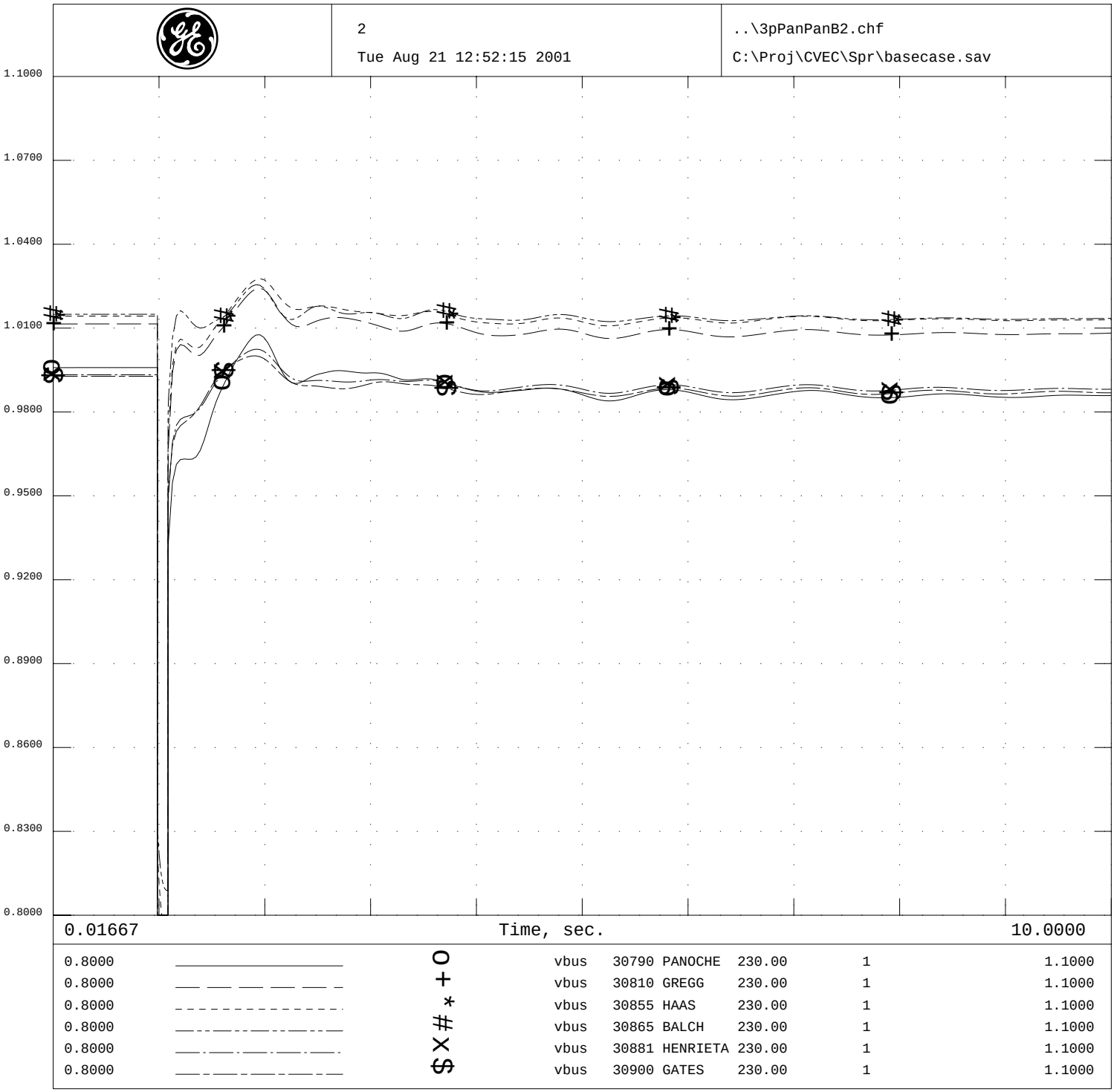
Central Valley Energy Center
Calpine Corporation
:ted PG&E Transmission Bus Voltage Plots Adjacent to



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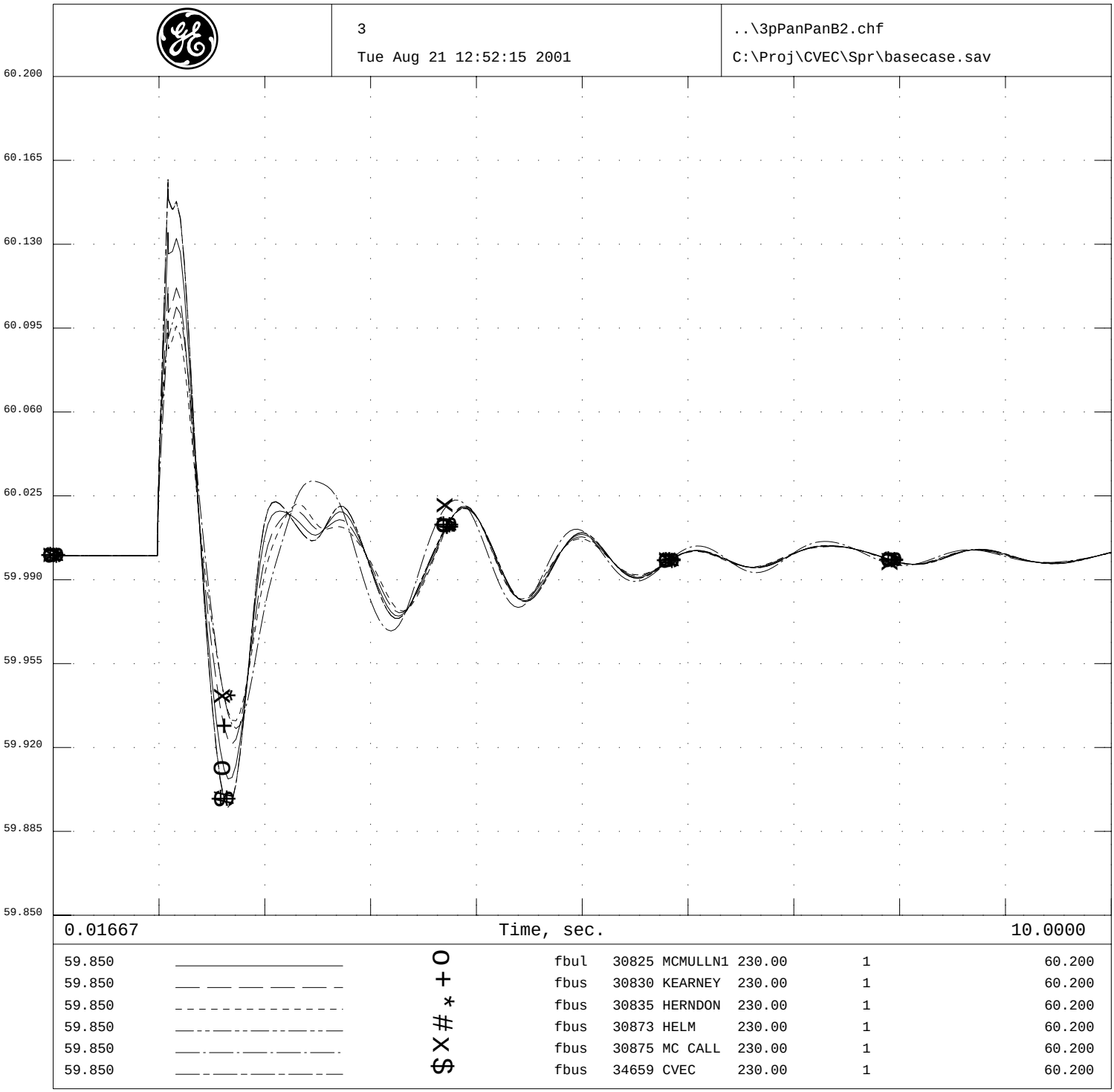

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Calpine Corporation
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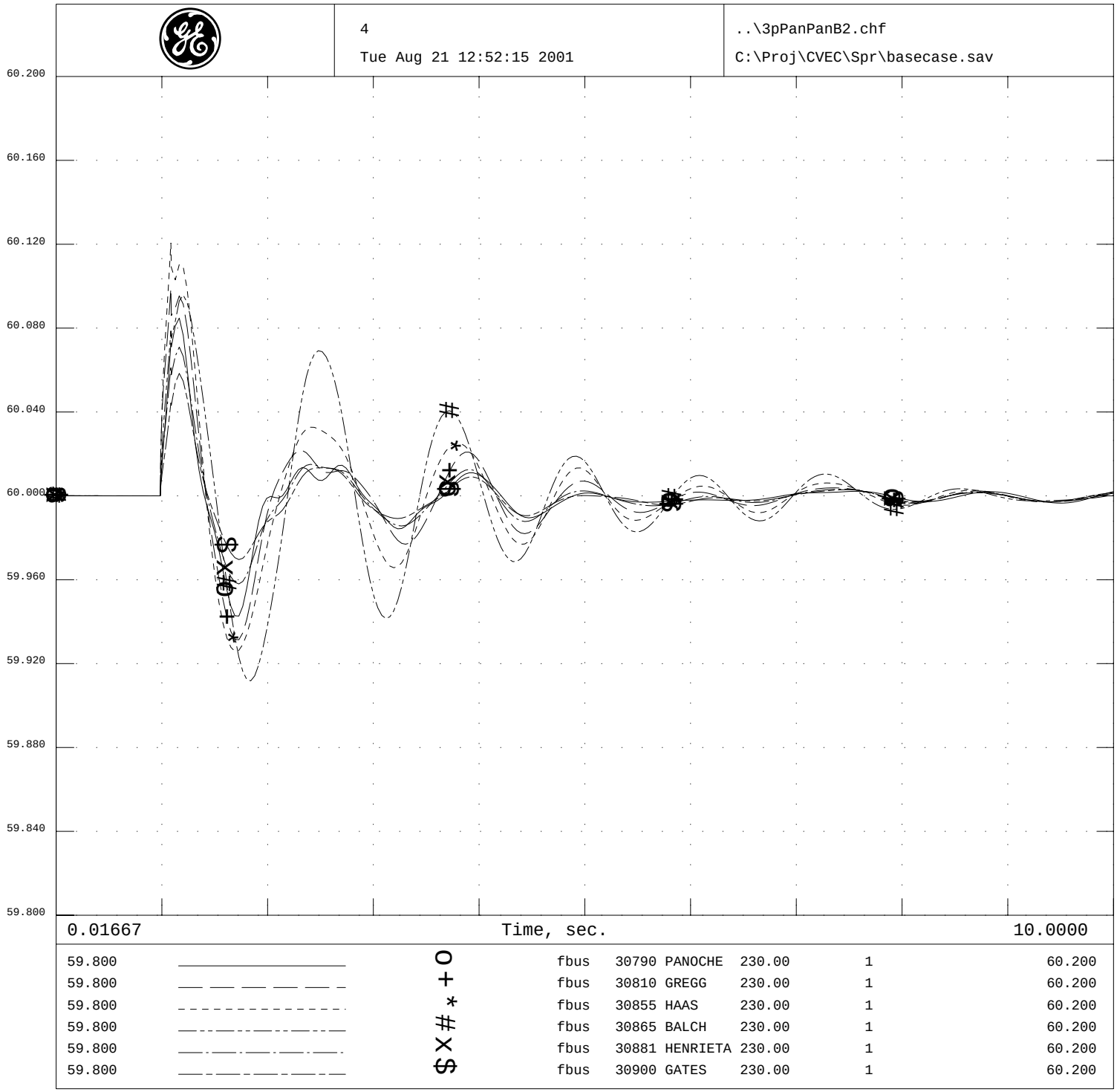

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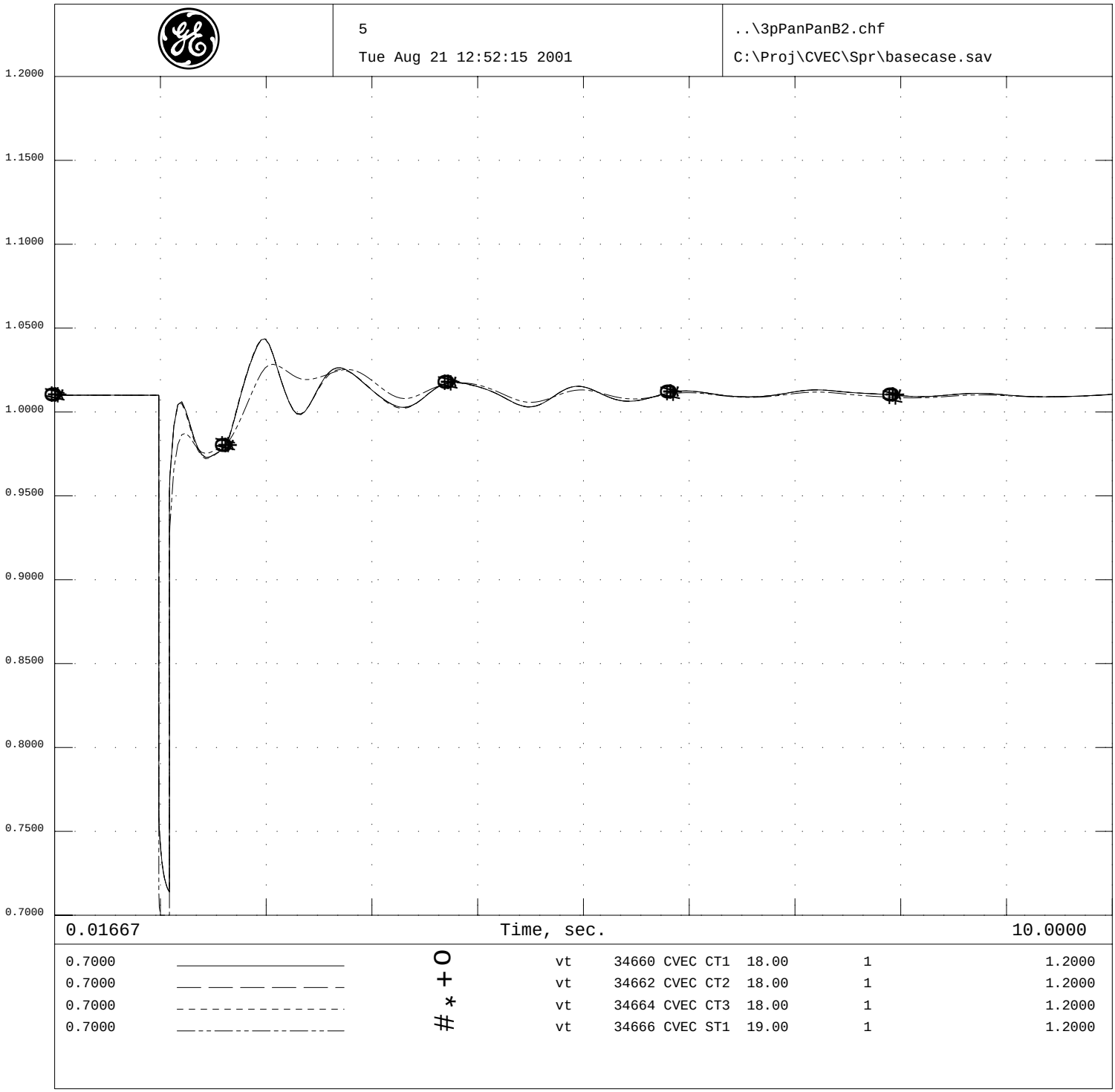

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2004 Heavy Spring Base Case
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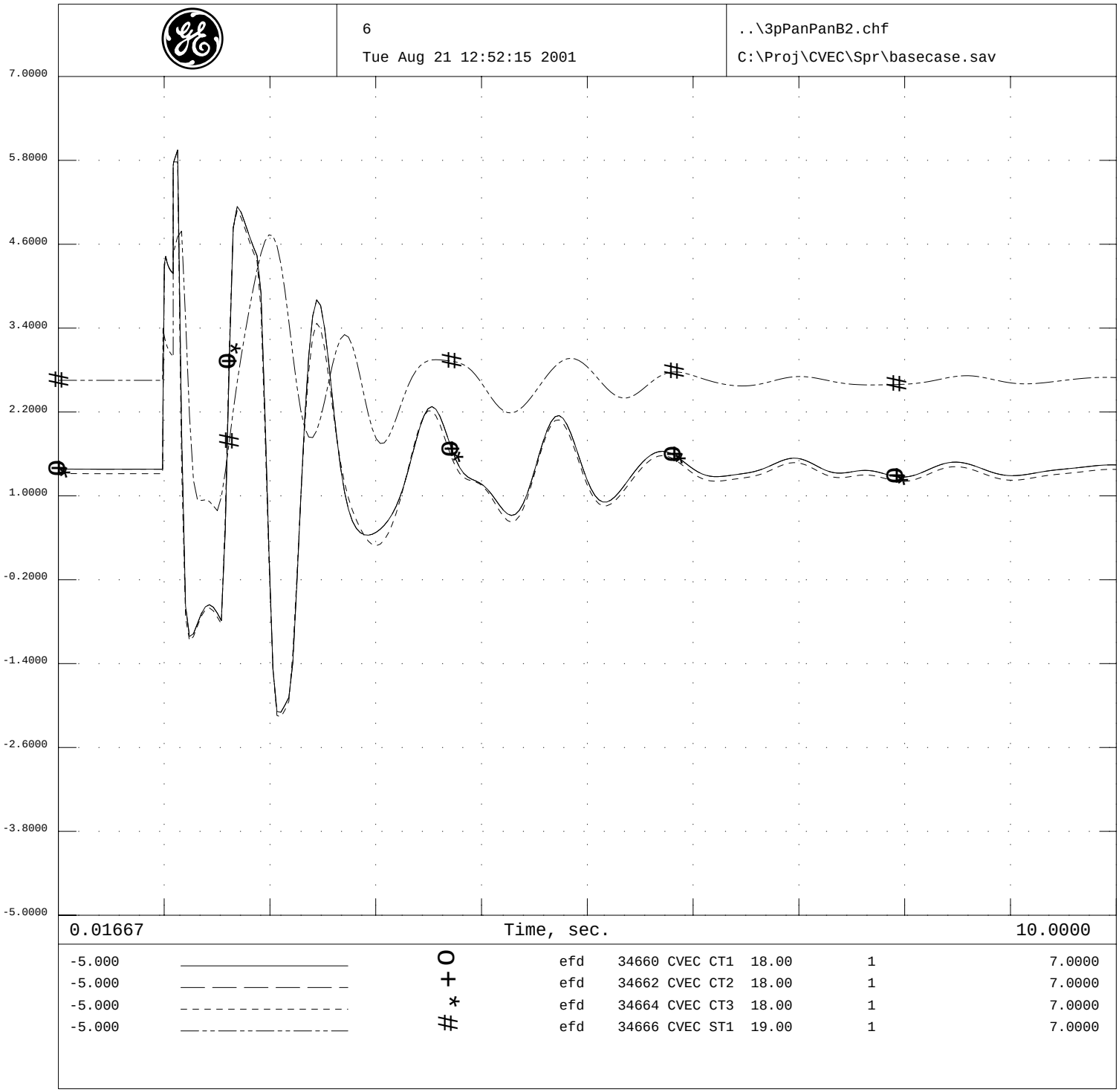
Central Valley Energy Center
Calpine Corporation
Project Generator Terminal Voltages



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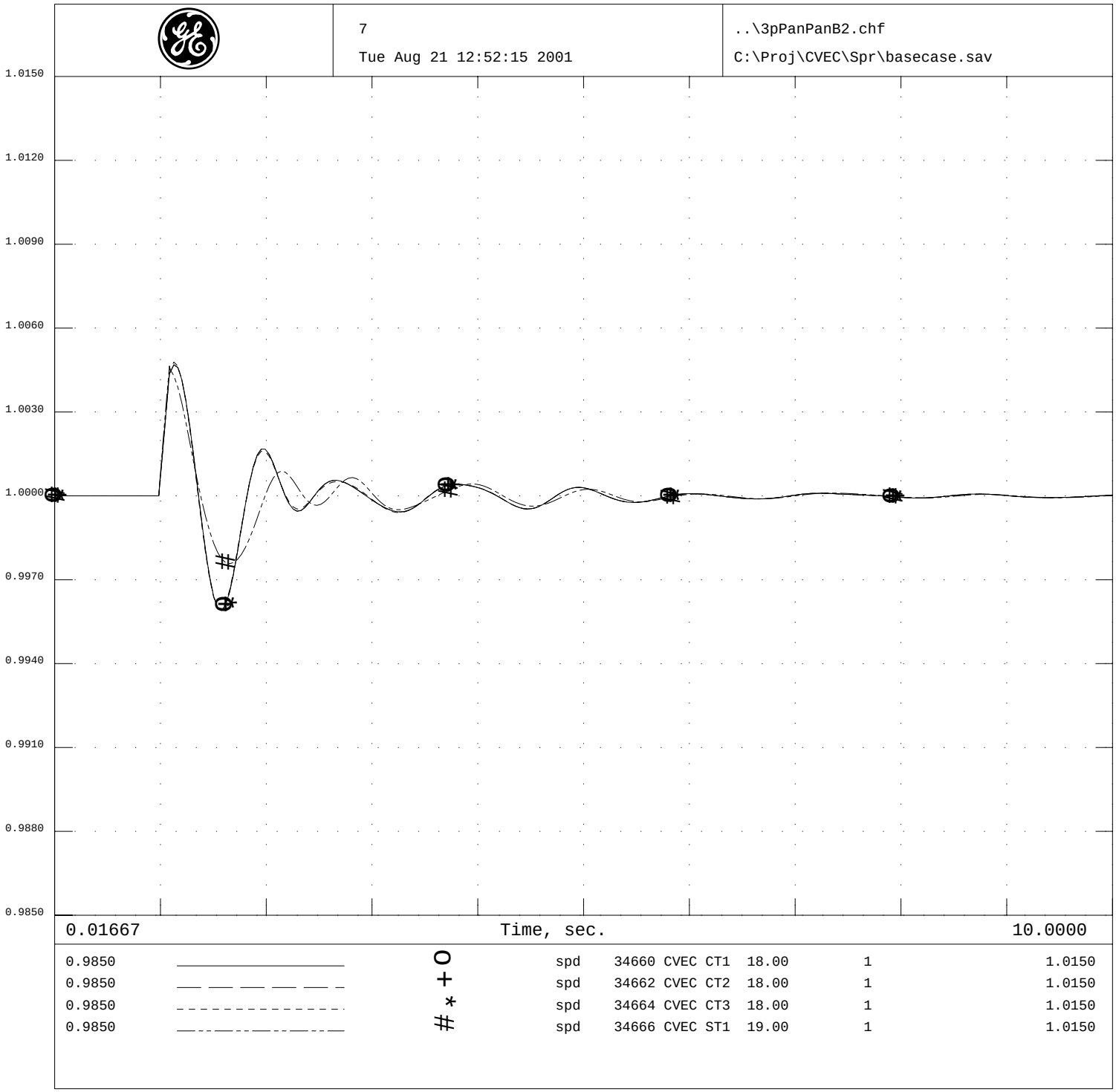
Calpine Corporation
Project Generator Field Voltages



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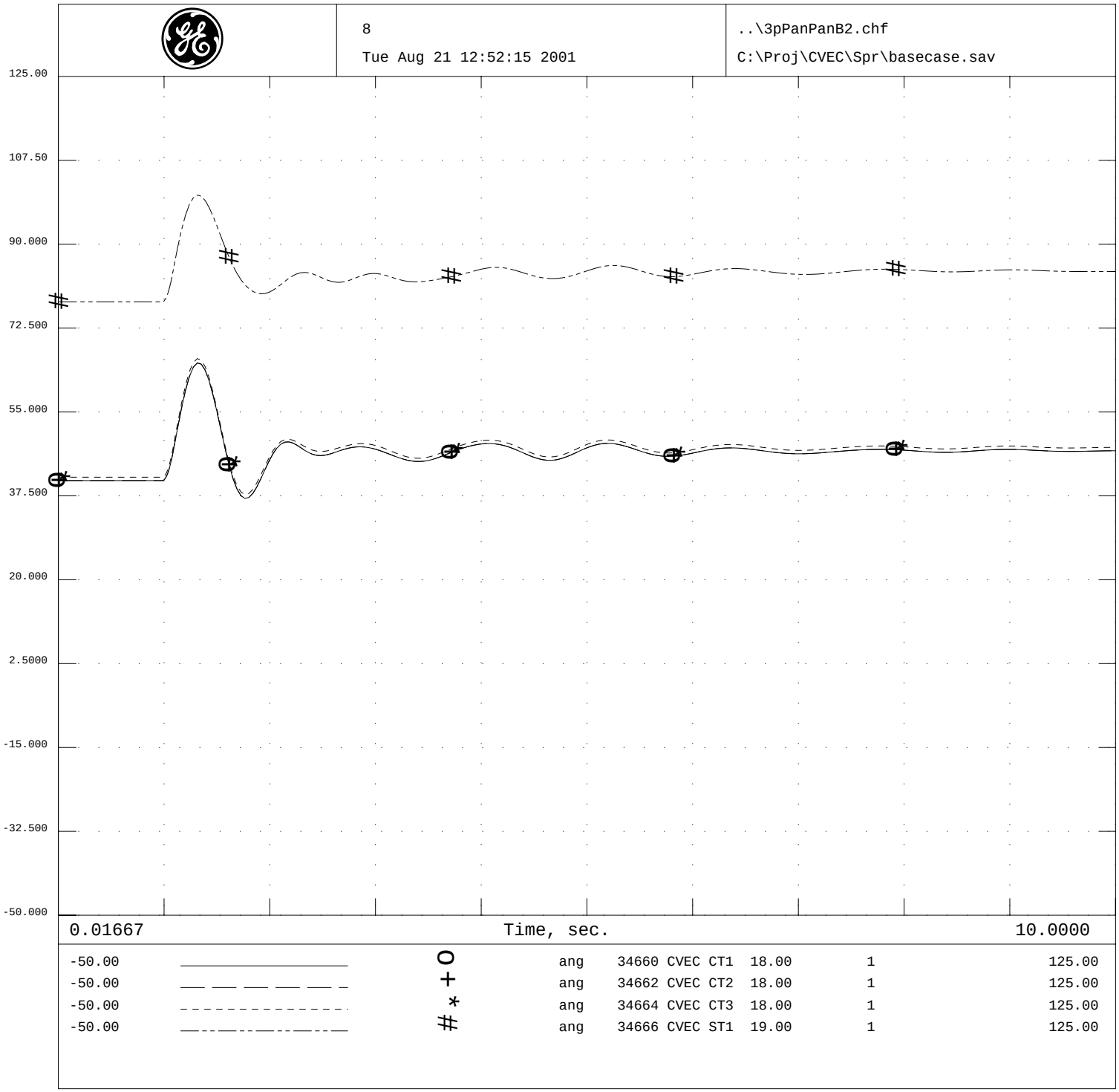
Central Valley Energy Center
Calpine Corporation
Project Generator Rotor Speed



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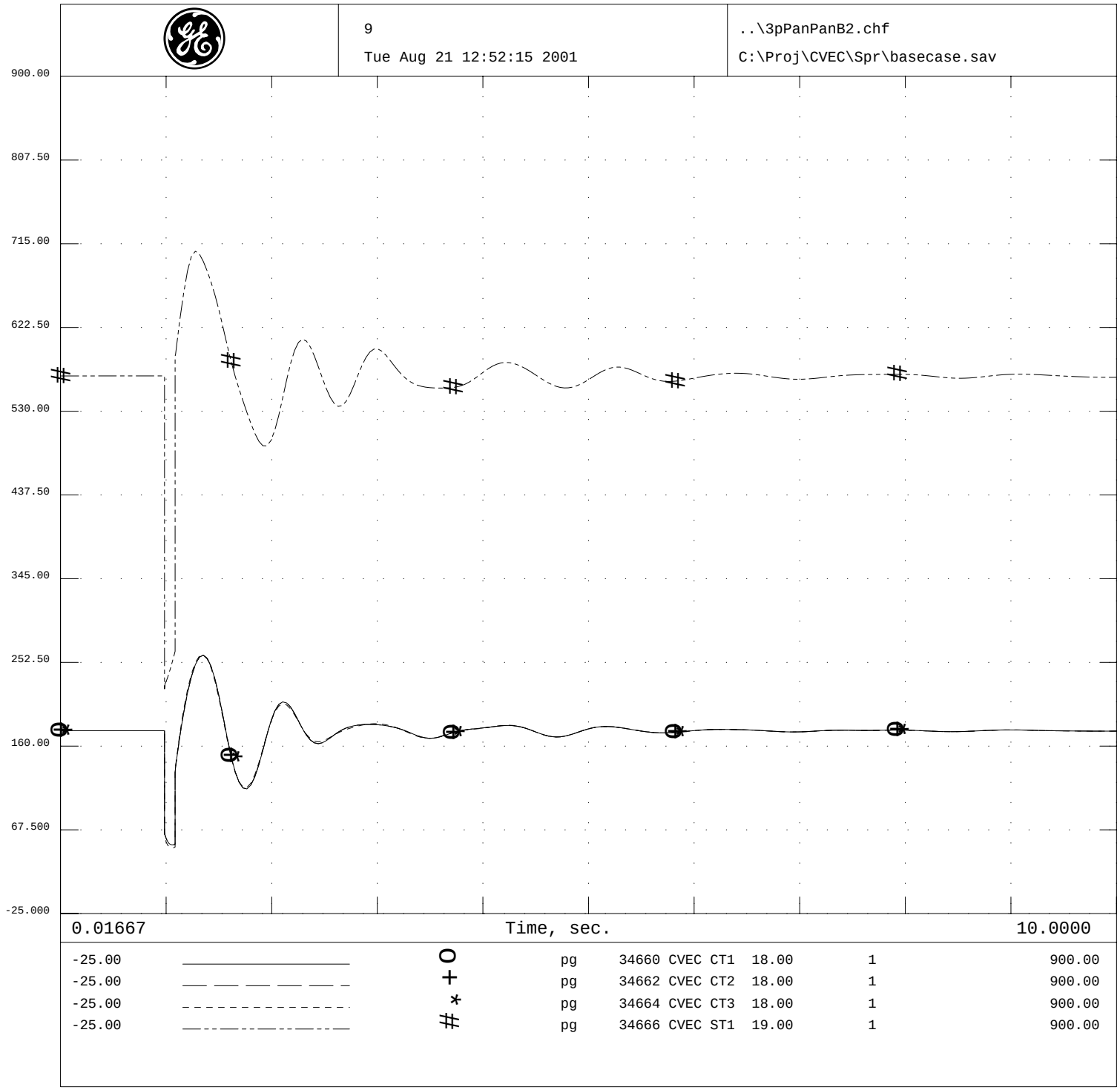
Project Generator Rotor Angle



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Calpine Corporation
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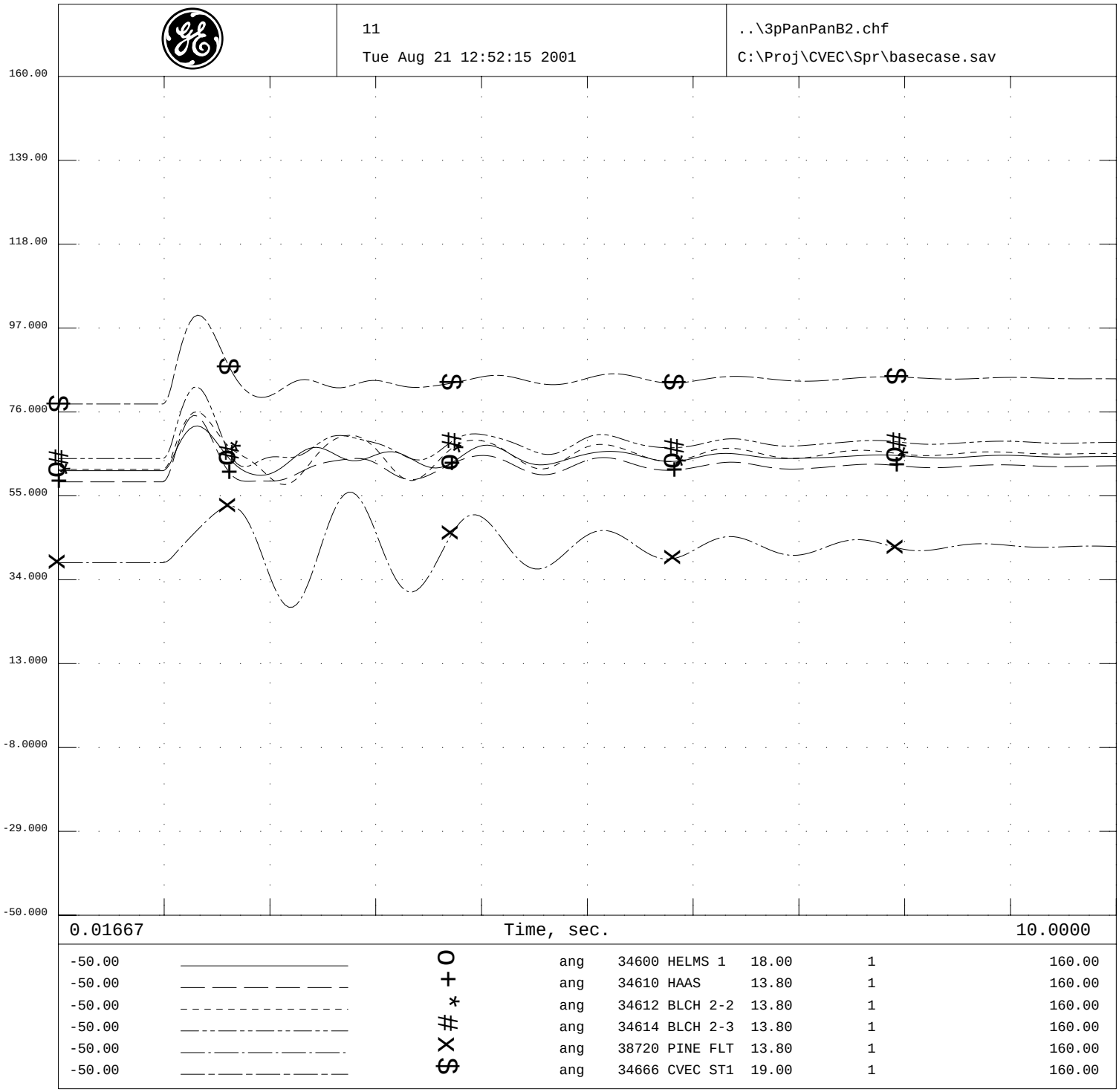

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Central Valley Energy Center
Calpine Corporation
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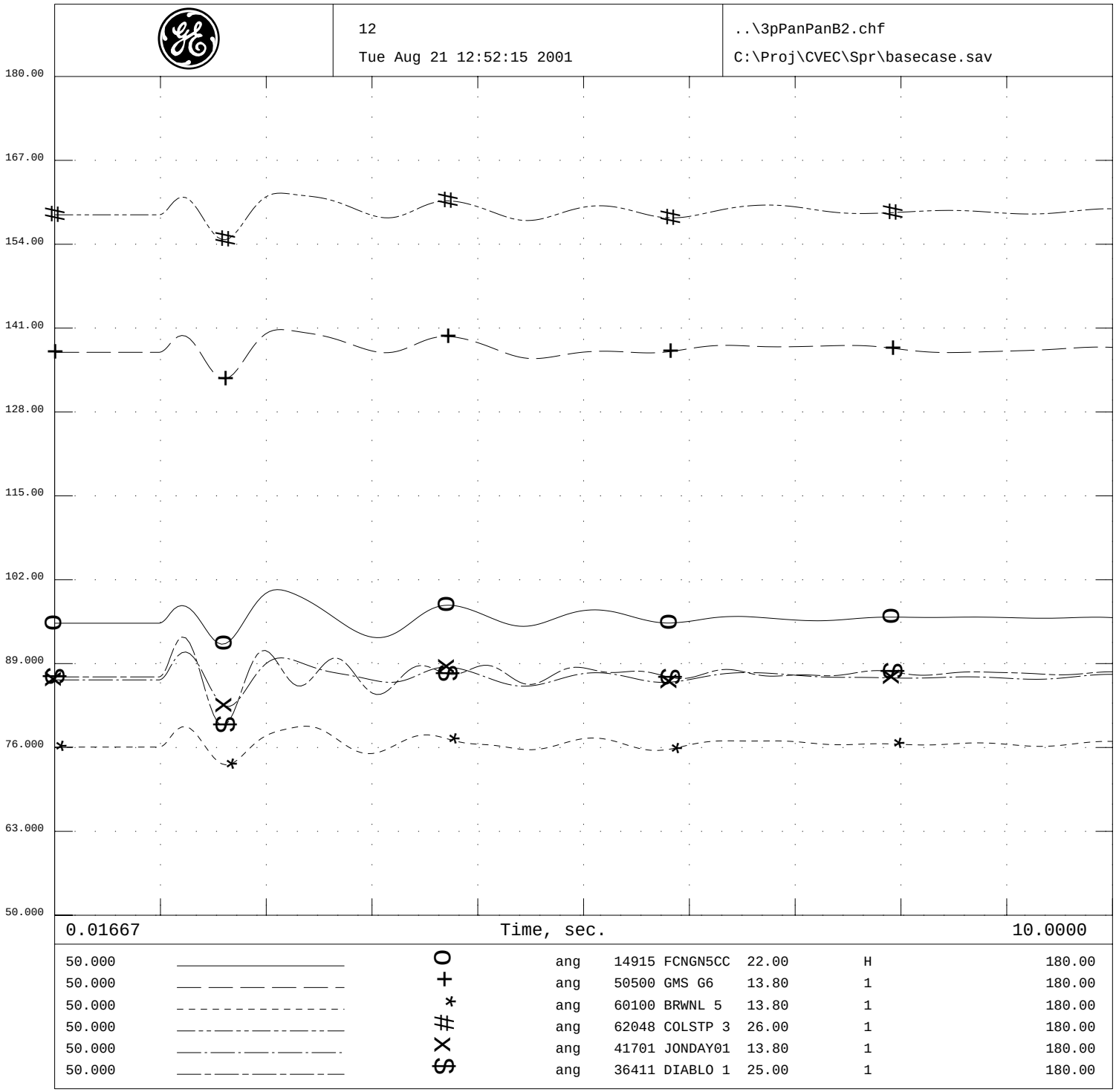

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Calpine Corporation
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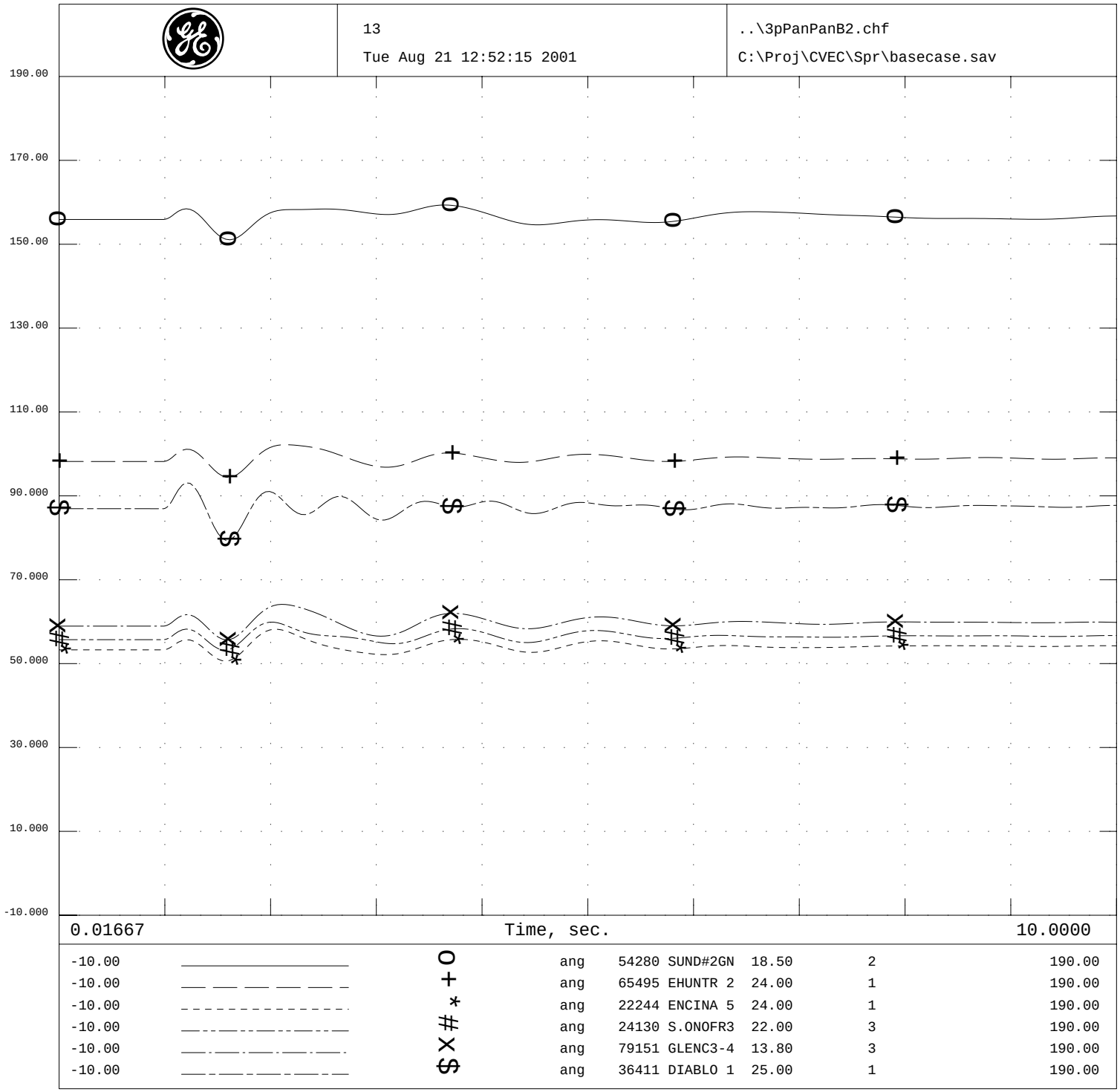

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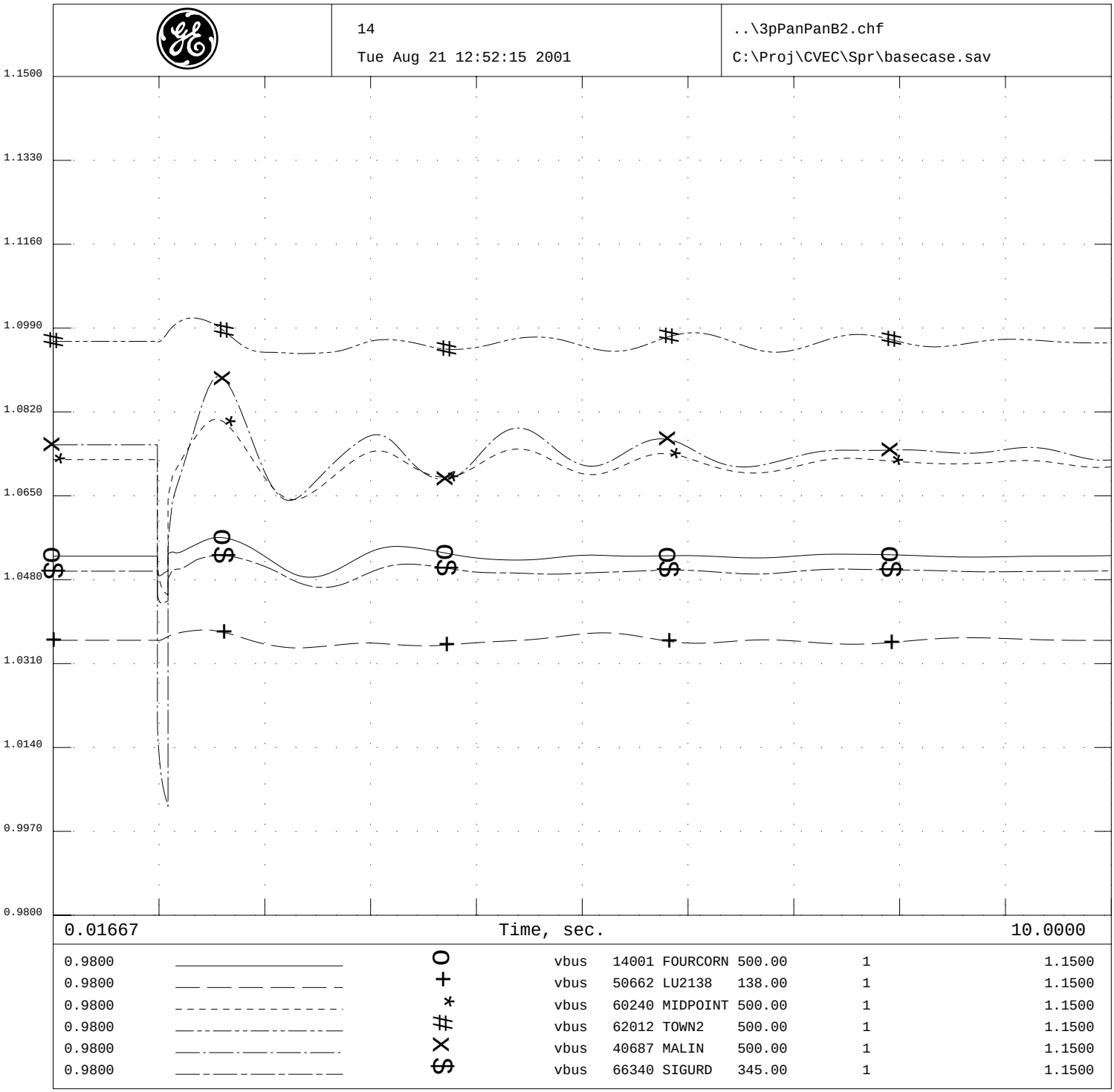

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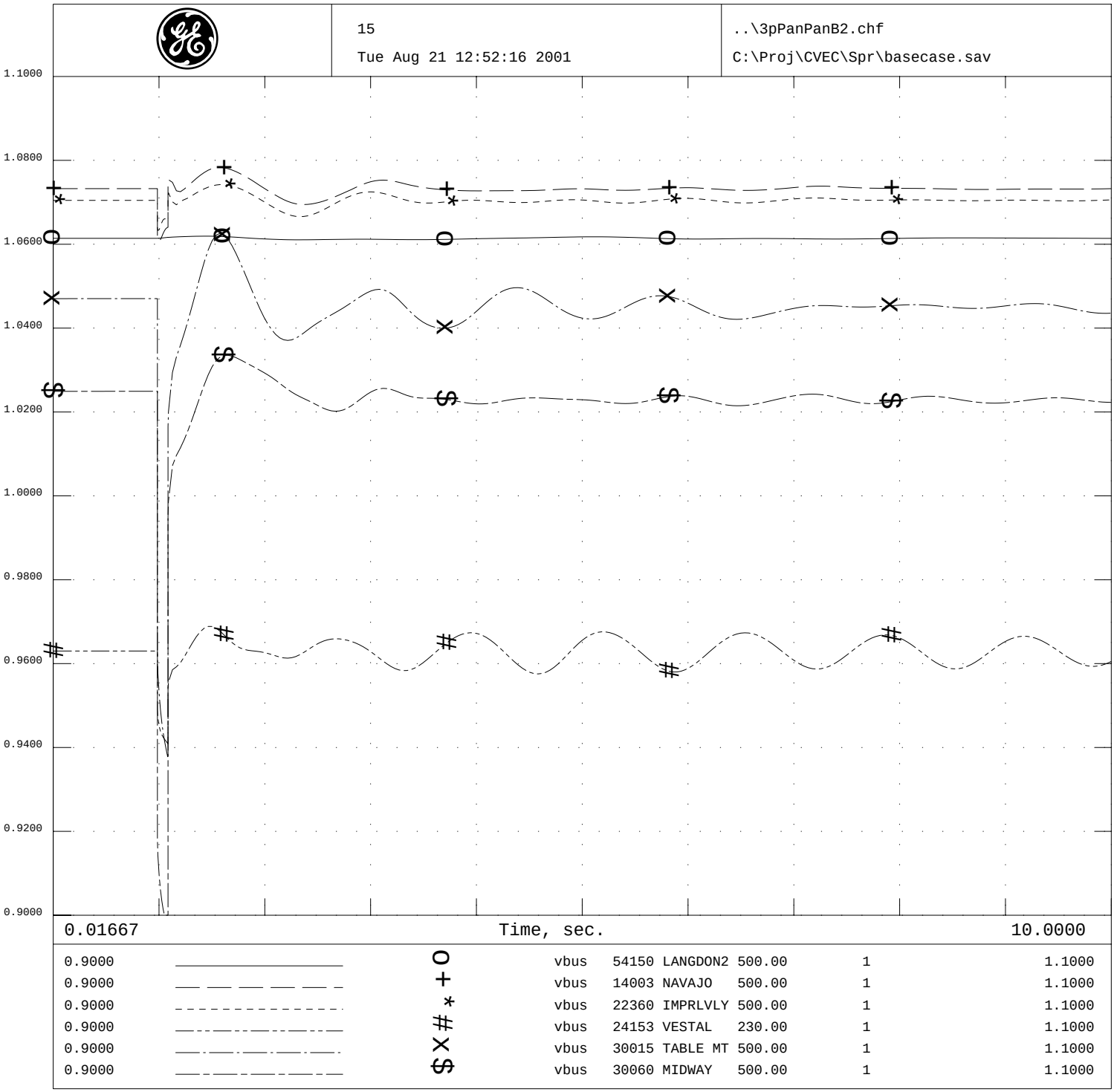

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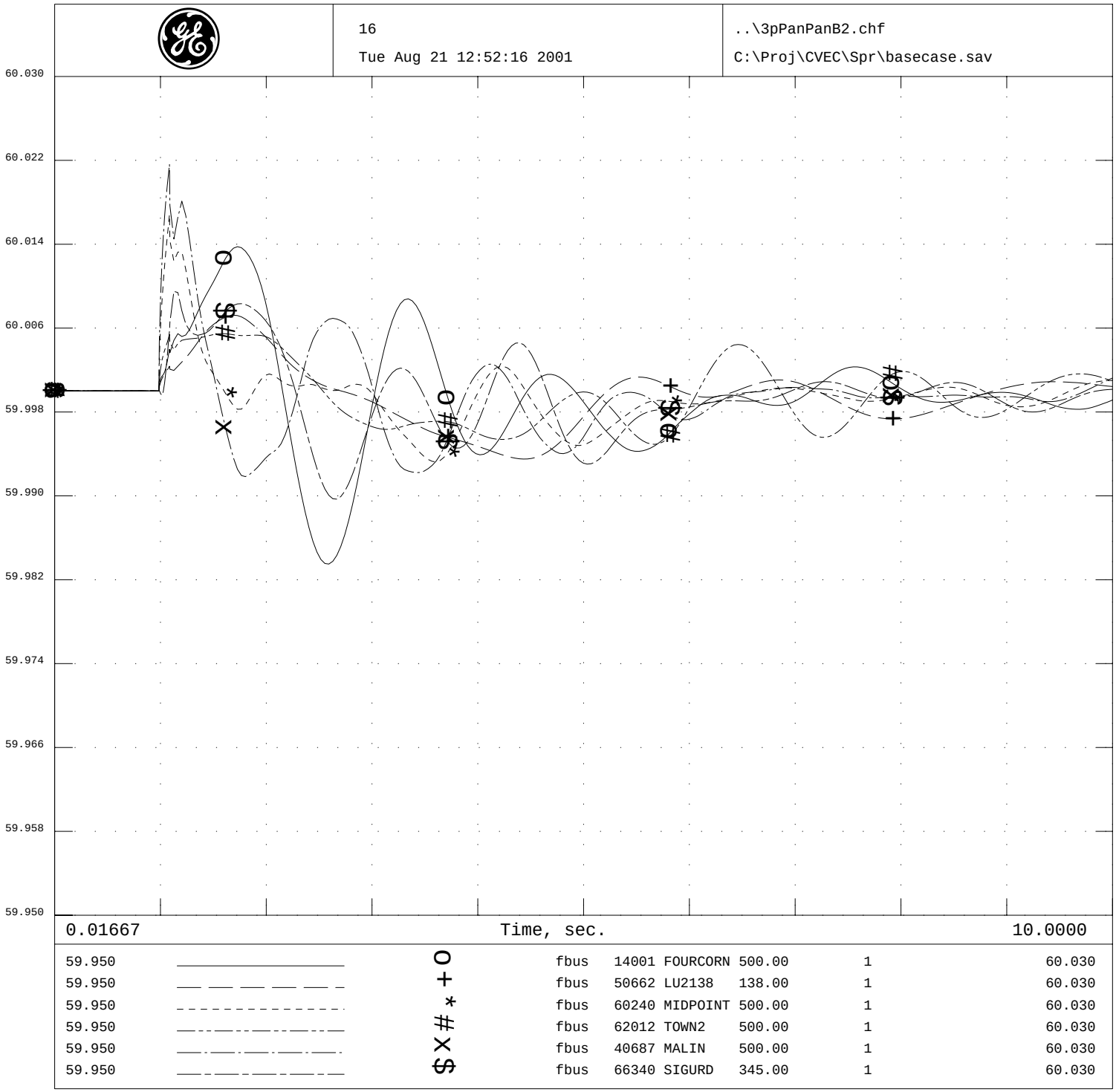

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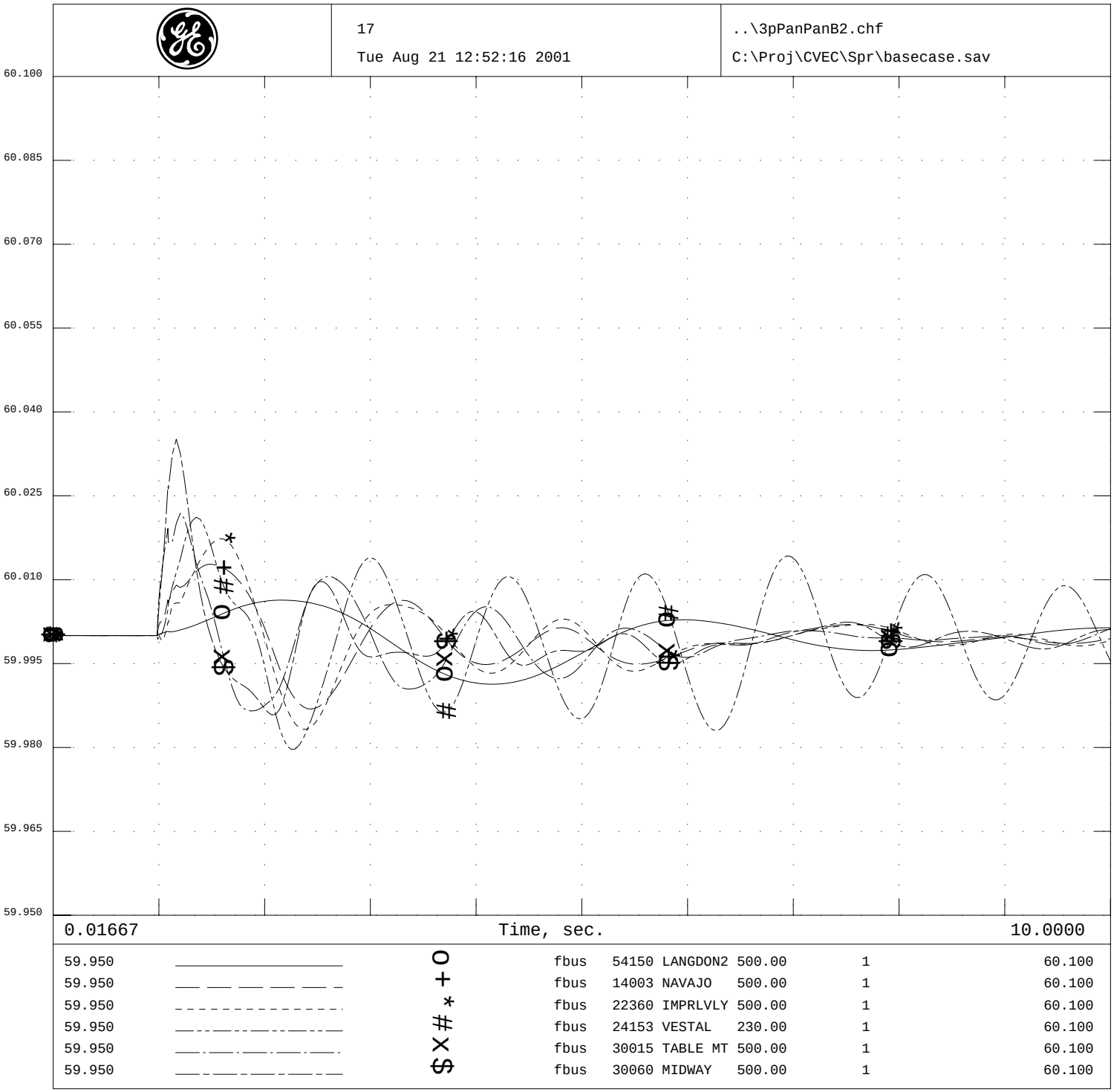
Calpine Corporation
Selected WSCC Transmission Bus Frequency Plots



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CVEC @ 1100MW
Panoche 230kV Bus #2 Outage
3 phase 6 cycle fault at Panoche 230kV bus and clear bus #2

Central Valley Energy Center
Calpine Corporation
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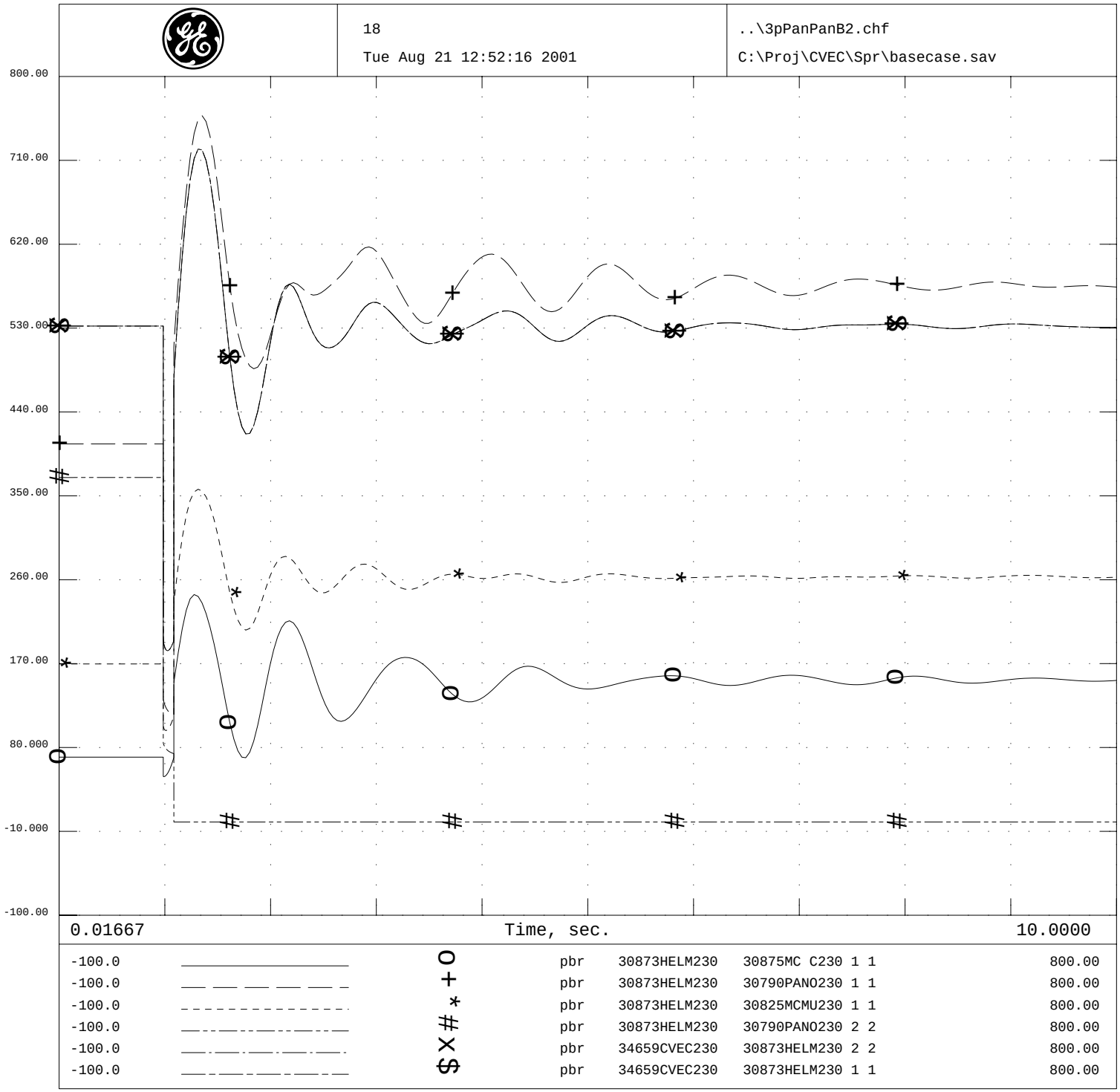

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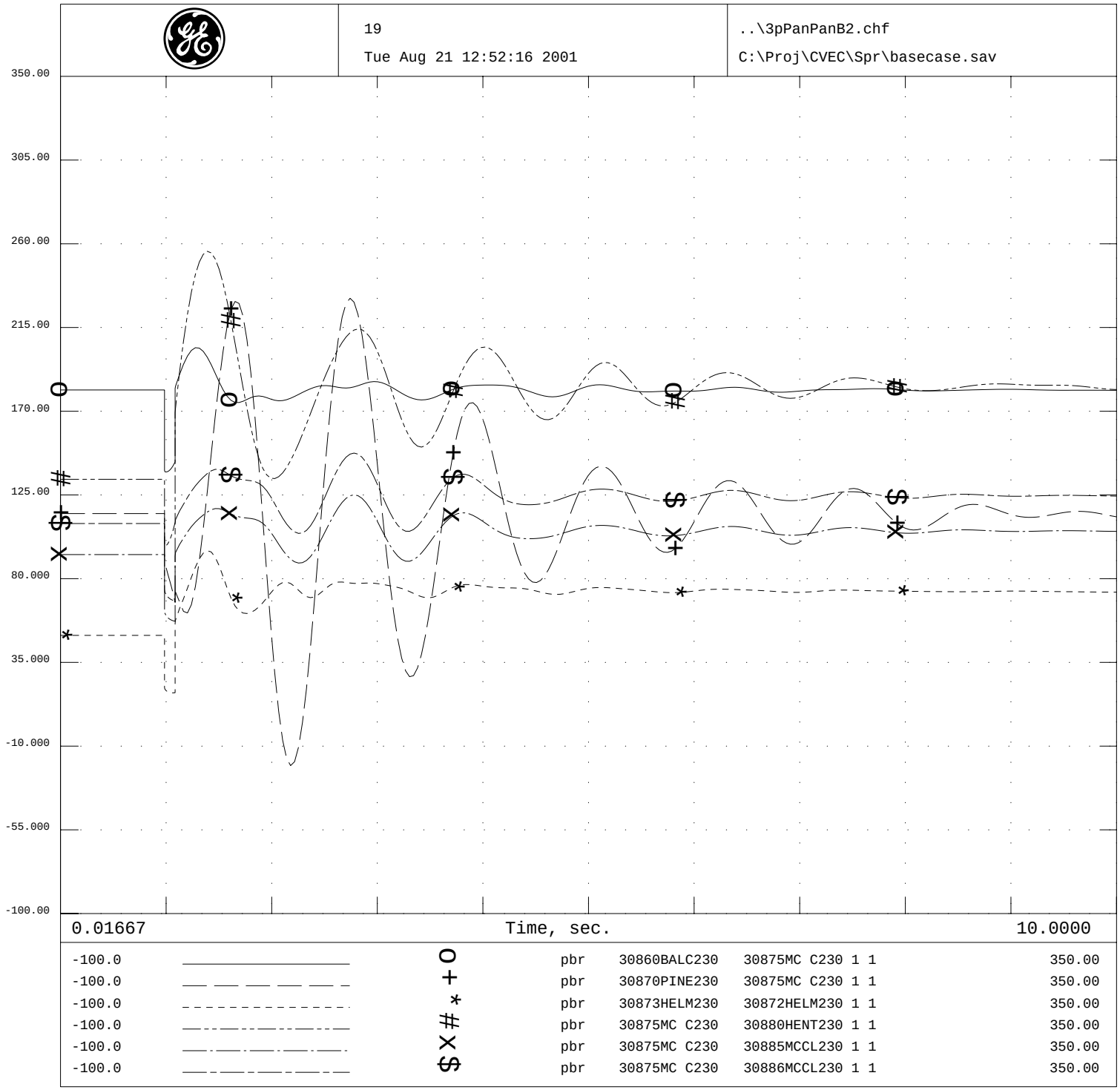
Selected Transmission Line Flows (MW)



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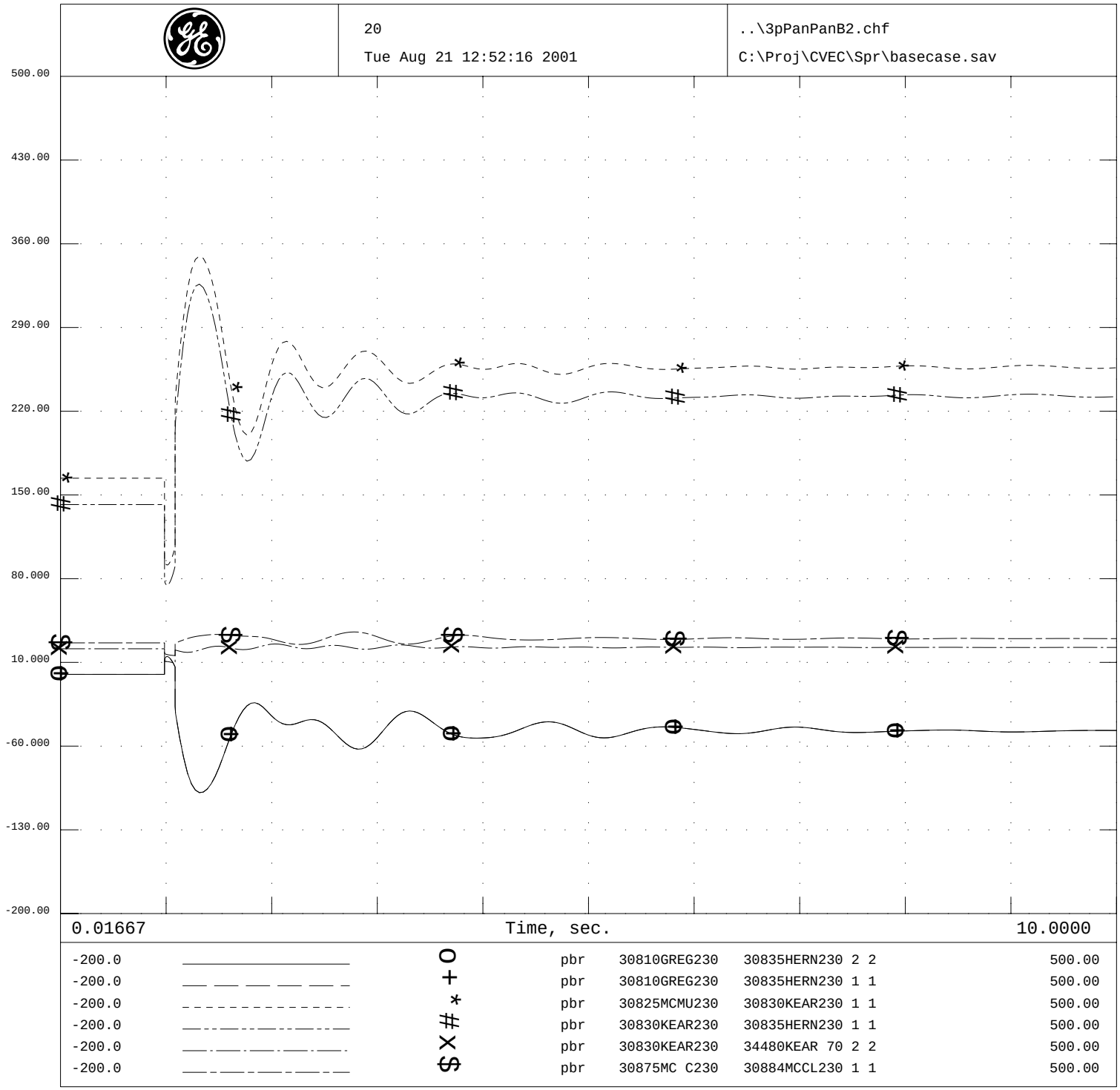

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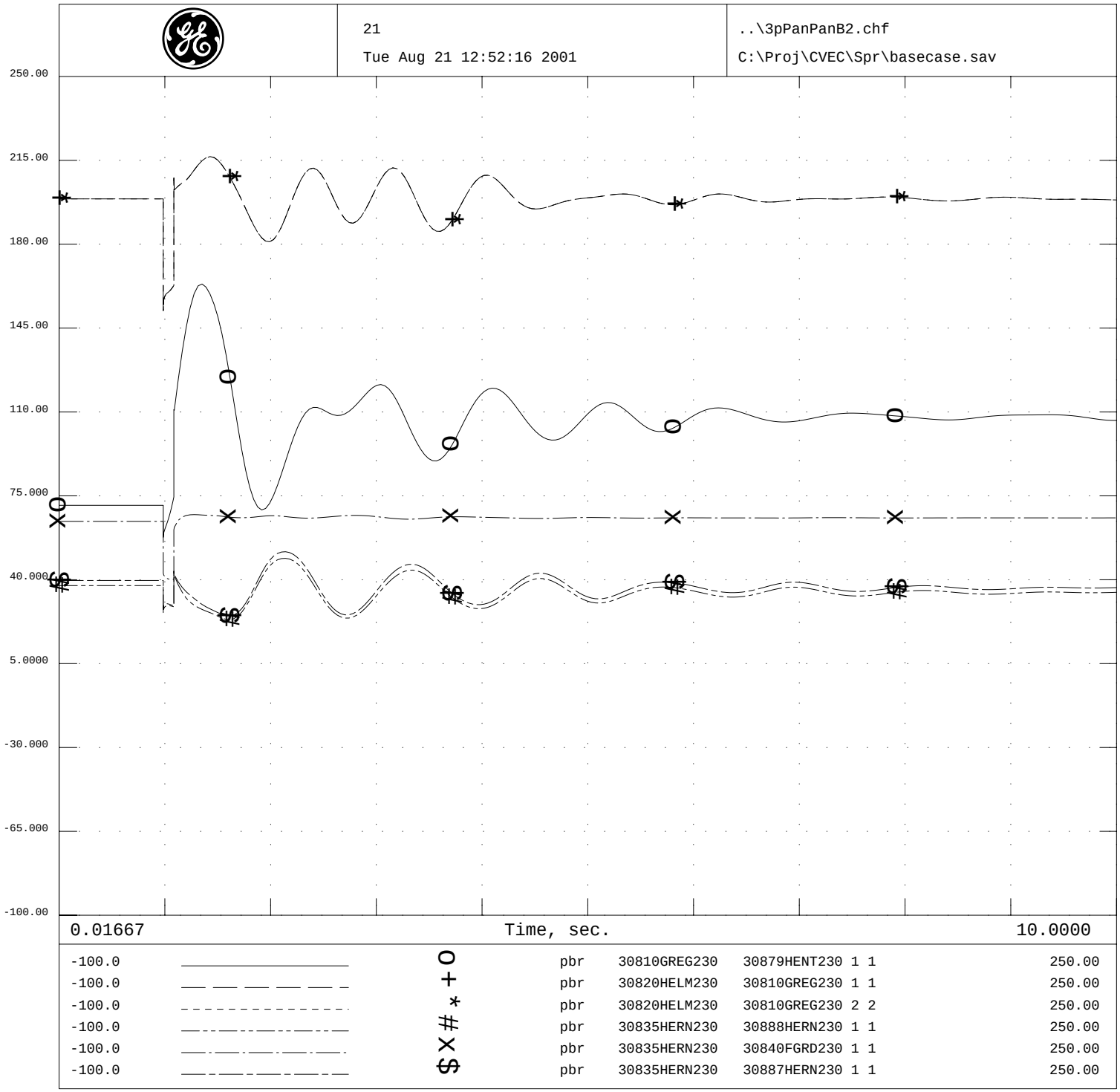

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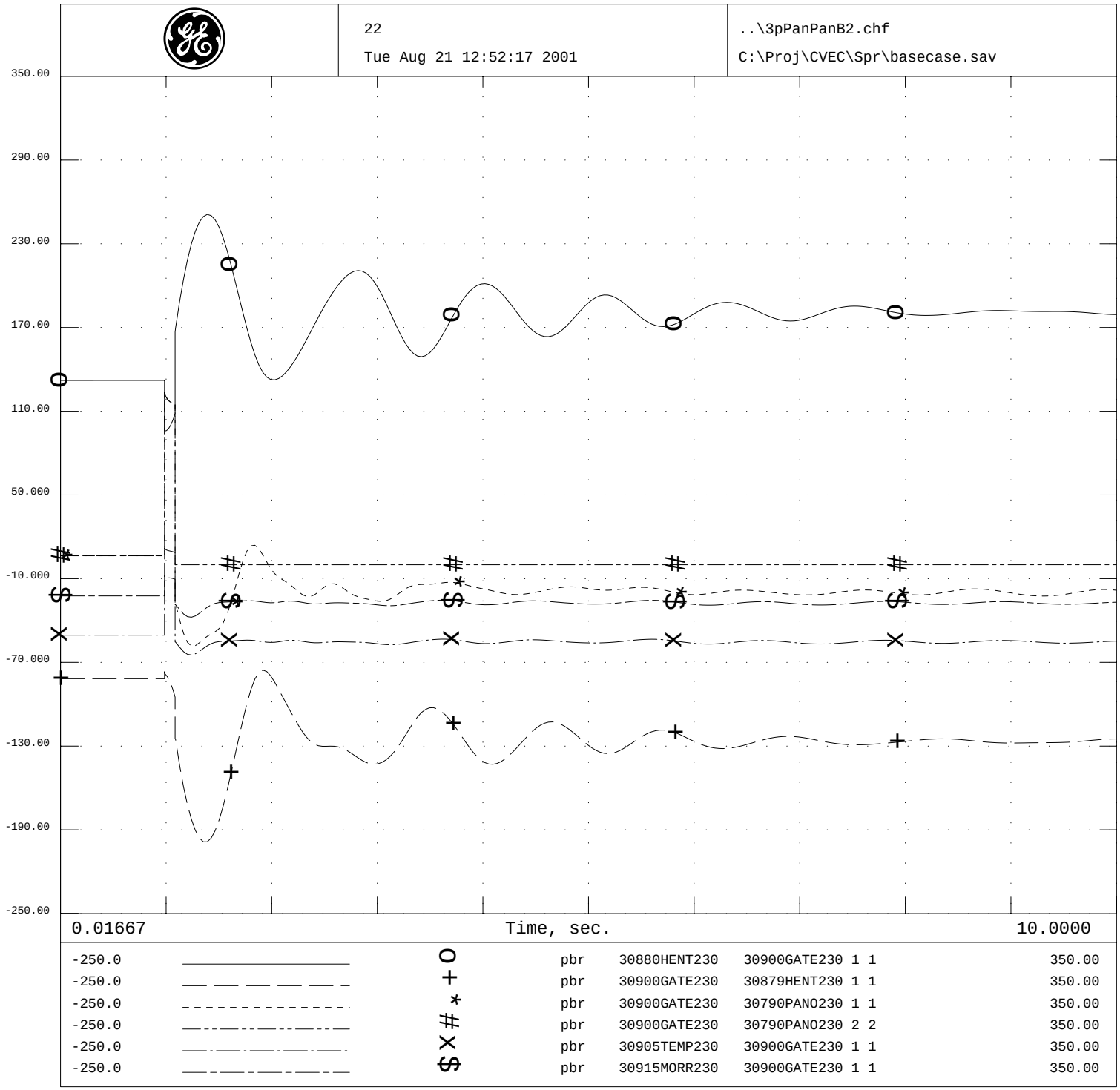

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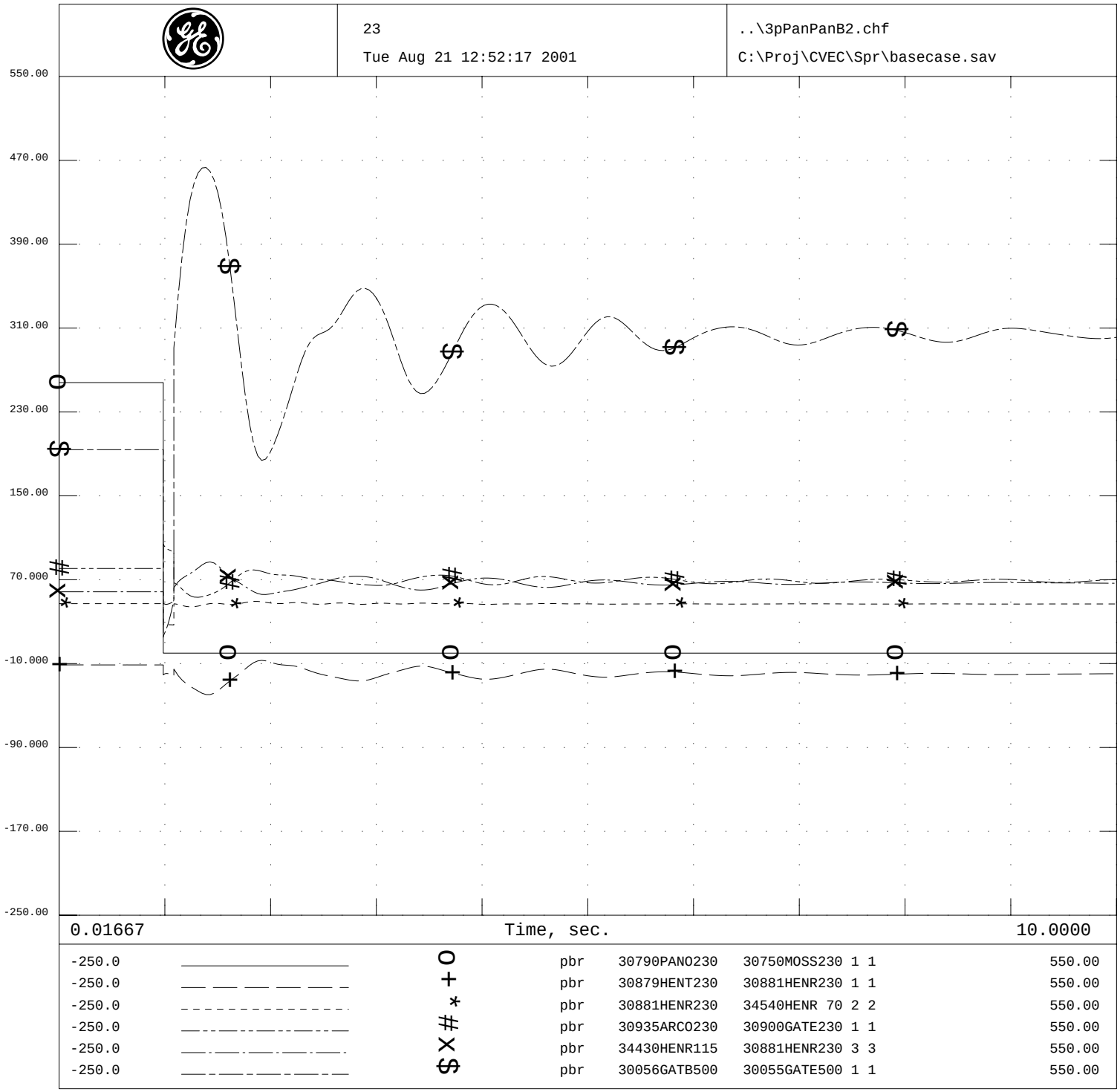

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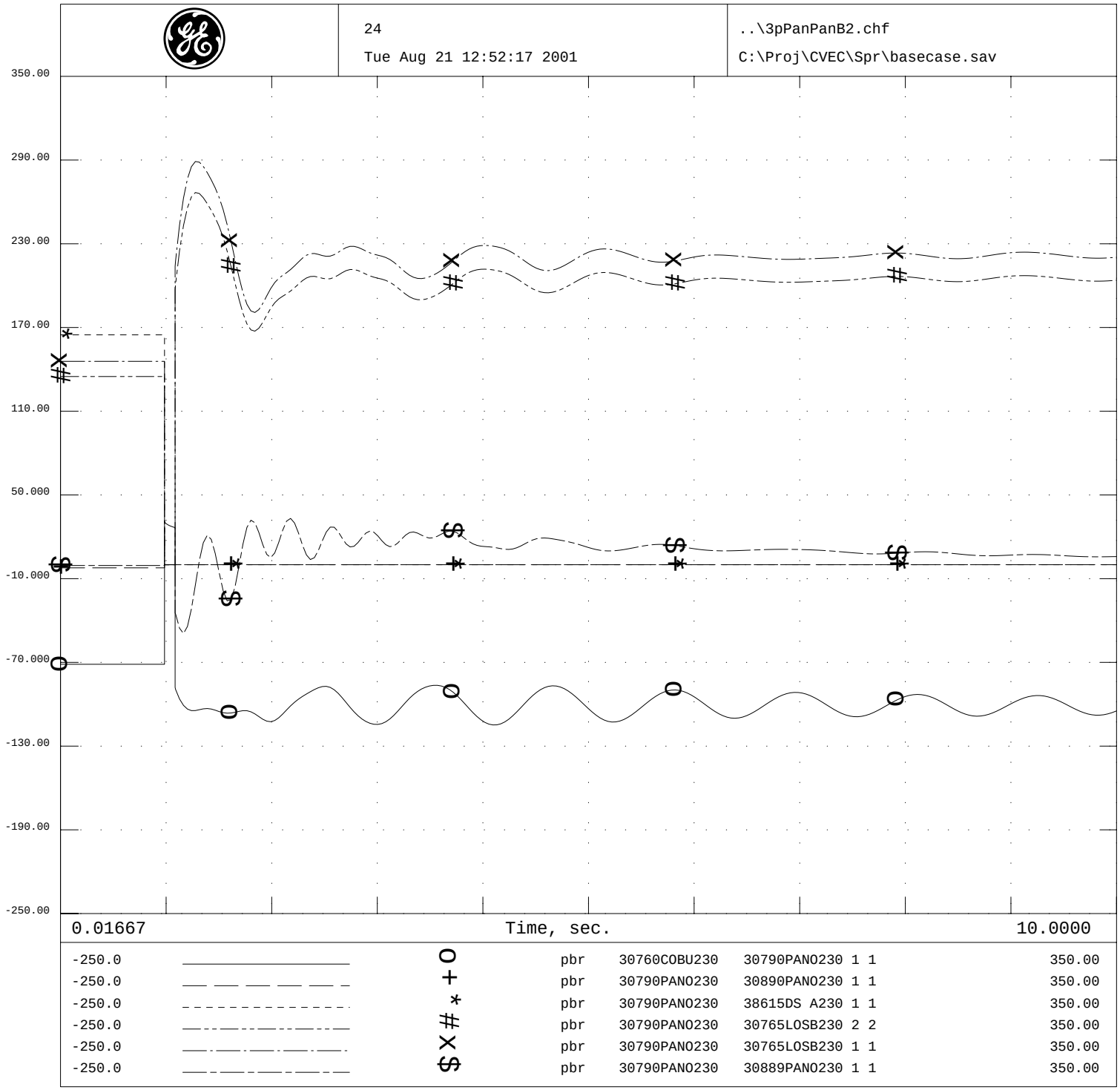

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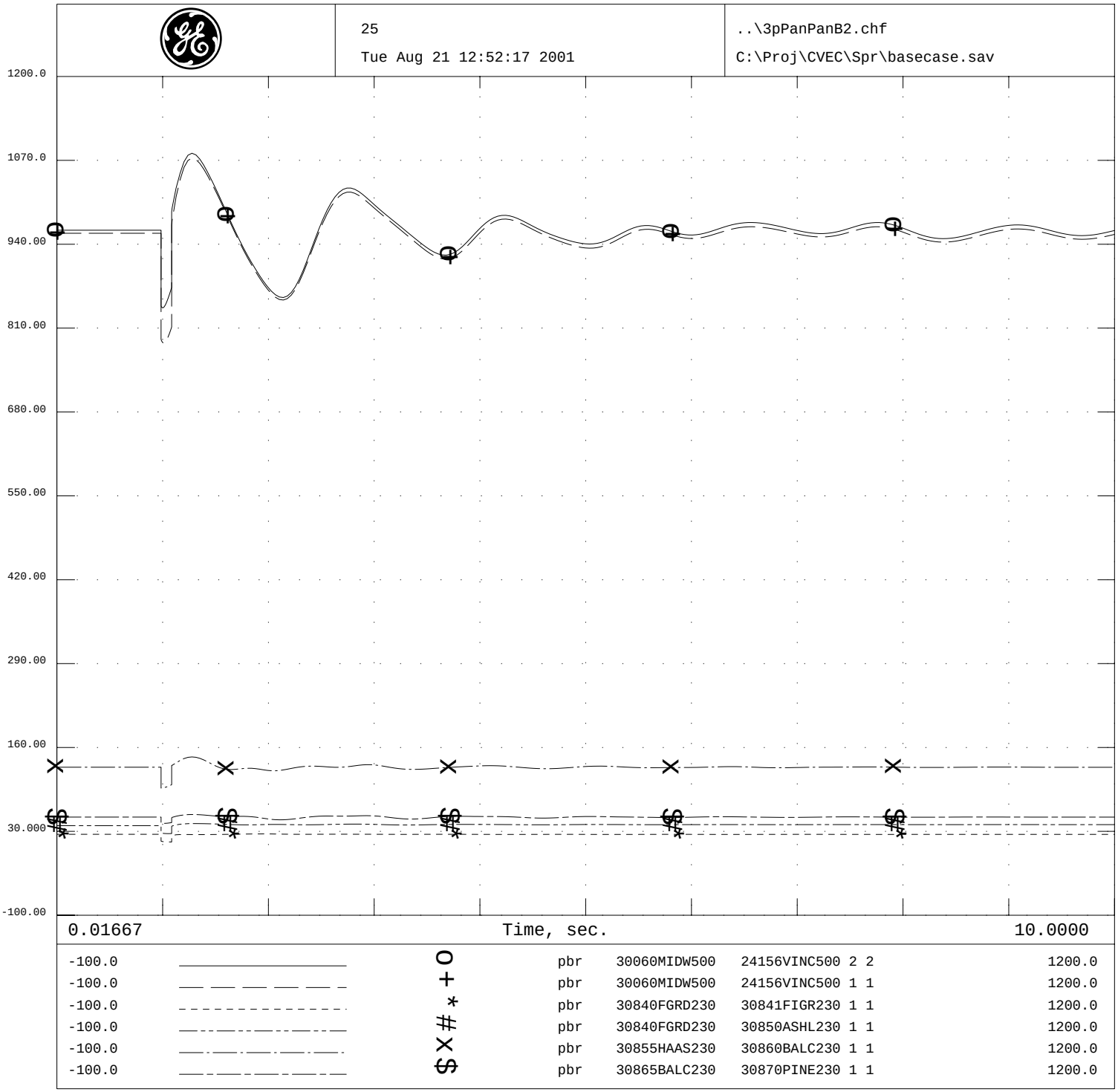

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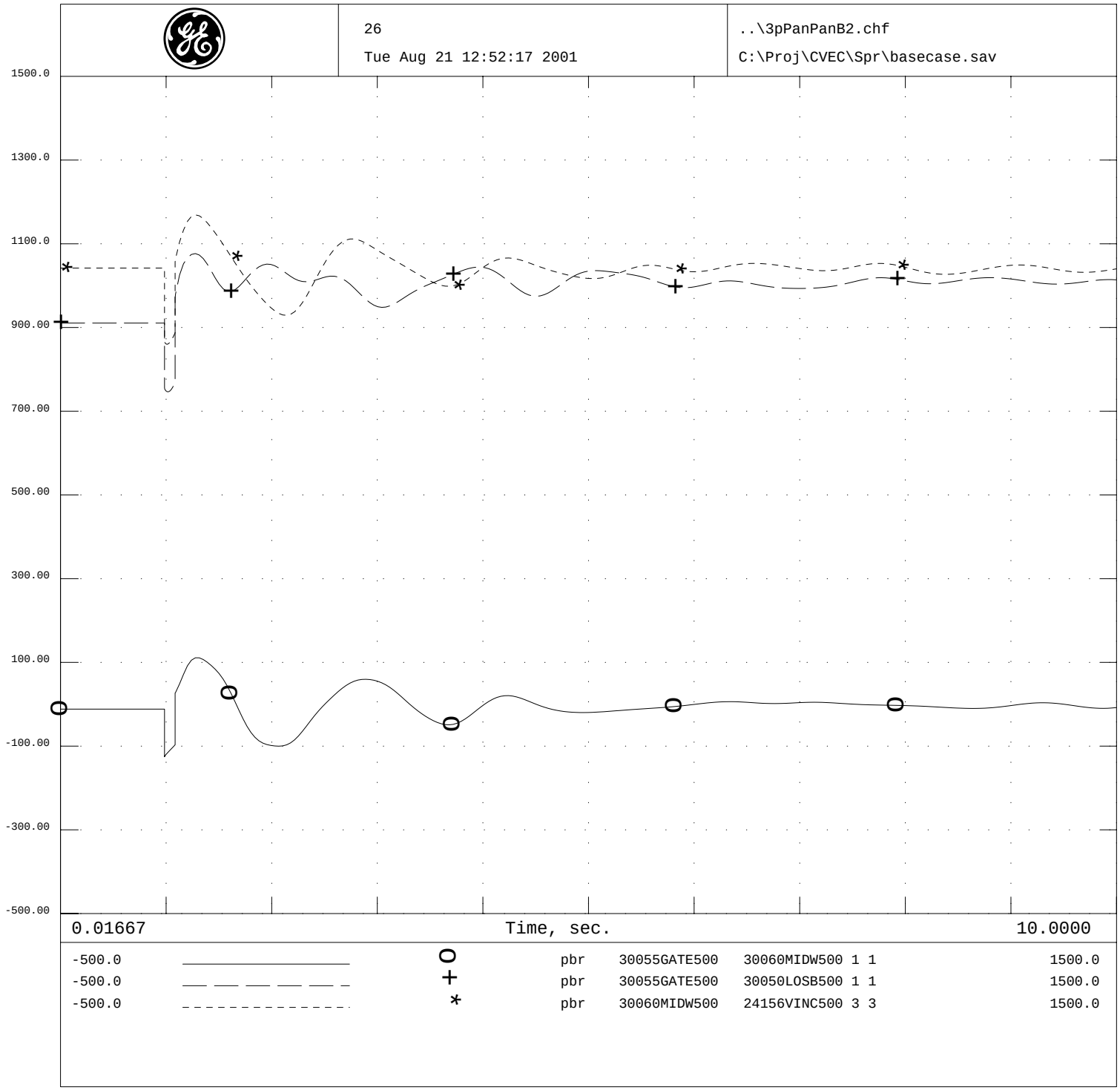

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Selected Transmission Line Flows (MW)

Appendix G

Interconnection Equivalency Evaluation

Calpine Corporation has proposed an alternate Interconnection Plan to that shown in Figure 2-1 of the report. This Interconnection Plan is shown in Figure G1. Power flow studies were performed to confirm that this alternate interconnection plan produces equivalent system impacts as those of the interconnection plan studied in the System Impact Study.

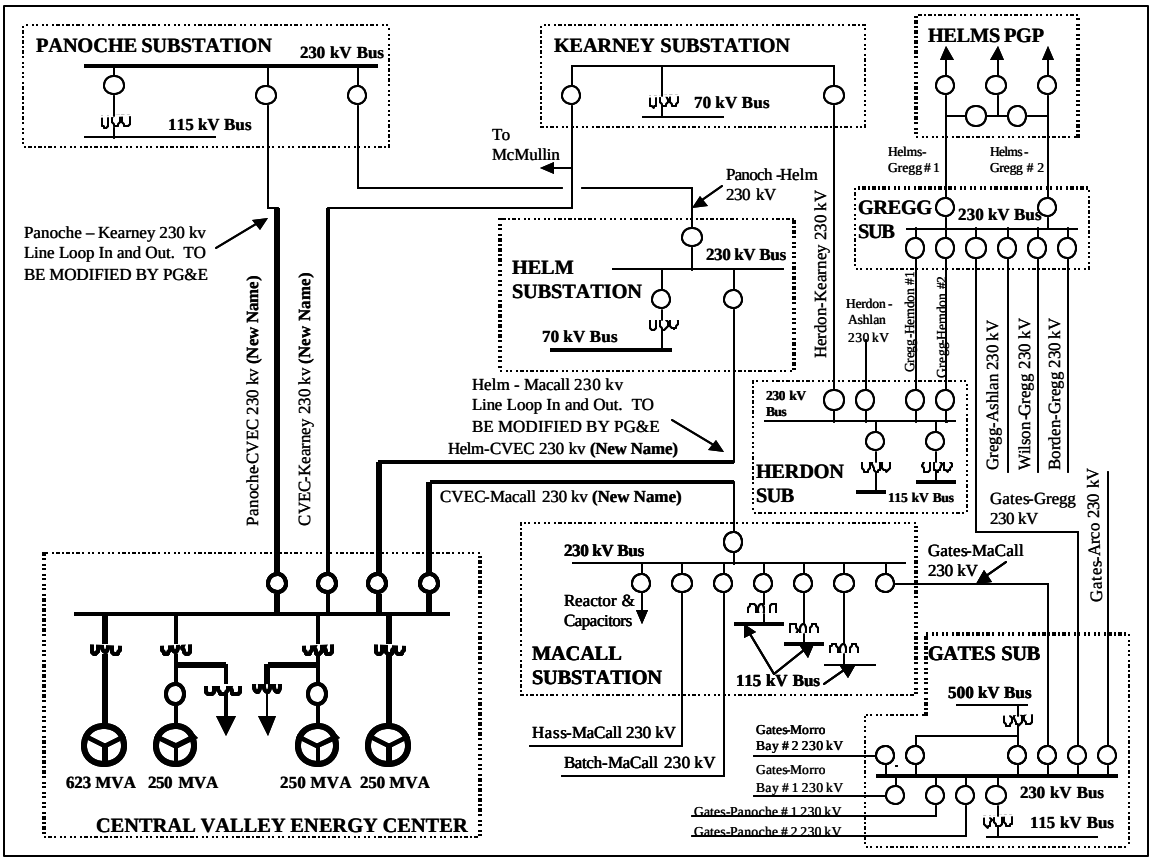

Figure G1: Alternate One-Line Diagram for CVEC Project

Equivalency was determined by comparing the power flow results of the before and after project base cases using the 2004 Summer Base Case. Table G1 shows the normal overloads.

Overloaded Component	Rating (Amps)	Pre-Project Loading		Post-Project Loading (Original)		Post-Project Loading (Alternate)	
		Amps	% Rating	Amps	% Rating	Amps	% Rating
Summer Peak Category A Normal Overloads							
Metcalf 230/115 kV Tx Bk #1	403 MVA	383 MVA	95%	411 MVA	102%	411 MVA	102%
Borden - Gregg 230 kV Circuit	675	516	76%	736	109%	736	109%
Agrico Jt – Kerman 70 kV Circuit	322	282	88%	336	105%	335	104%
Panoche – Helm #1 230 kV Circuit	742	94	13%	741	100%	737	99%

Table G1: Comparison of 2004 Summer Normal Overloads

In addition selected Category B contingencies were performed and the results

compared. Table G2 shows a comparison of the selected Category B Contingencies.

Contingency	Overloaded Component	Rating (Amps)	Pre-Project Loading		Post-Project Loading (Original)		Post Project Loading (Looped)	
			Amps	% Rating	Amps	% Rating	Amps	% Rating
Summer Peak Selected Category B Emergency Overloads								
Panoche – Helm #1 230 kV Line	Panoche – Helm #2 230 kV Line / Panoche – CVEC 230 kV Line	969	n/a	n/a	1105	114%	1105	114%
Panoche – Helm #2 230 kV Line / Panoche – CVEC 230 kV Line	Panoche – Helm #1 230 kV Line	850	n/a	n/a	1145	135%	1141	134%
Helm – Kearney 230 kV Line / CVEC – Kearney 230 kV Line	Panoche – Helm #1 230 kV Line	850	n/a	n/a	898	106%	894	105%
Helm – Kearney 230 kV Line / CVEC – Kearney 230 kV Line	Helm – Kerman 70 kV Line (Agrico Jct – Kerman)	379	n/a	n/a	473	125%	473	125%

Table G2: Comparison of 2004 Selected Category B Overloads

From these results, it was concluded that the two Interconnection Plans would have provide equivalent power flow results.