



TABLE OF DEVICES						
DEVICE NO.	DESCRIPTION	RATING	MFR	TYPE	CAT. NO. OR REF. DWG.	REMARKS
A	AMMETER, CELL HD7	0-200A	GECCO AB40		50-1031158F	AT SWGE.
A	CELL HD8, HE10	0-200A			50-1031158F	
A	CELL HD6, 9, HE9, 11, 12	0-200A			50-1031158F	
A	CELL HD10, 11, 12; HE5, 7, 8	0-200A			50-1031158F	
A	CELL HD3, HE4	0-400A			50-1031155F2	
A	CELL HE6	0-300A			50-1031155F2	
A	CELL HD9, HE9, 11	0-600A			50-1031155F2	
A	CELL HD14, 15	0-2000A			50-1031157M2	
A	CELL HE2, 3	0-3000A			50-1031156F2	
A	CELL HD8, HE10	0-200A			50-1031155F2	
A	CELL HD6, HE6	0-200A			50-1031155F2	STATION EL. CONT. B.D.
A	CELL HD10, 11, 12; HE5, 7, 8	0-200A			50-1031155F2	
A	CELL HD3, HE4	0-400A			50-1031157M2	
SYN	SYNCHROSCOPE SYNCH PANEL	15V, 60Hz	GECCO AB16		50-104322MMAT SWGR	
SYN	VOLTMETER STDBY ST-UP TRANSF. NO. 12 (E)	0-150V				
V	STDBY ST-UP TRANSF. NO. 12 (E)	0-150V				
V	SYNCH. PANEL	0-150V	GECCO AB16		50-1043221PUB2AT SWGR SCALE 0-500V	
V	SYNCH. PANEL	0-150V				
W	WATTMETER STANDBY ST-UP TRANSF. #12 (E)	0-20MW				2-ELEMENT, 3-PHASE
W	STANDBY ST-UP TRANSF. #12 (E)	0-25MW				
W	L.C. TRANSF. 14, 15D, 14, 15E	0-15 MW				
W	11D, 11E	0-2 MW				
W	13D, 13E	0-3 MW				
PHS	PHASE SHIFTING TRANSFORMER	120V	WE		HP-802 2322048G99	3-PHASE, 3-WIRE
WH	WATT-HOUR METER STDBY ST-UP TRANSF. #12 (E)	120V, 2.5A	WE		2285F	2-ELEMENT, 3-PHASE
WH	STDBY ST-UP TRANSF. #12 (E)	120V, 2.5A				
VAR	VARMETER STDBY ST-UP TRANSF. #12 (E)	0-15MVAR				2-ELEMENT, 3-PHASE
VAR	STDBY ST-UP TRANSF. #12 (E)	0-20MVAR				
VAR	L.C. TRANSF. 14, 15D, 14, 15E	0-15MVAR				
VAR	11D, 11E, 12E, 12D	0-15MVAR				
VAR	13D, 13E	0-2MVAR				
25 HD, HE	SYNCH CHECK RELAY 4KV BUS D & E	120V	GECCO	NJS	12A1519A	20-60°
27HD2, HE2	UNDERVOLTAGE TRIP REL. 4KV BUS D & E	60-140V	WE	SSVT	132179AD1	
27HD3	RELAY 4KV BUS D	25-50V	GECCO	RAV	12RAV12A	AUTO TRANSFER
27HD1	TRIP RELAY 4KV BUS D	55-140V	GECCO	IAY	12RAY5F1A	
27HE1	UNDERVOLTAGE TRIP RELAY 4KV BUS E	55-240V	GECCO	IAY	2088215	SEE NOTE 1 (TYP.)
59 HD1, HE1	OVERVOLTAGE RELAY START-UP 4KV BUS E	60-140V	WE	SSVT	132179A15	
27HD3, HE3, 11	UNDERVOLTAGE RELAY COND. FE. STDBY START	55-140V	WE	CV-7	1875524	UNDER-OVERVOLTAGE RELAY
27HEB	UNDERVOLTAGE RELAY 4KV BUS E	18-50V	GECCO	HGA	12HGA18H1A	AUTO TRANSFER
50NHD2-13	GROUND CURRENT SENSOR RELAY	0-117-02A S-DUINN			12XAX1G10	ALARM ONLY
50NHE4-12	OVERCURRENT RELAY - STARTUP TRANSF. GRD.	1-4A	WE	SC	1876-047	
50NHD12, 13, 14	GROUND CURRENT SENSOR RELAY	1V, 10Hz S-DUINN			12XAX1G10	
50NHD12, 13, 14	OVERCURRENT RELAY AUX TRANSF. NO. 12	4-12A, 10V WE			12XAX1G10	40-100A I.T. 2 IT CONTACTS
51HD7	VACUUM PUMP	25-5A	GECCO	1AC668	11AC668B3A	20-80A I.T.
51HD6, 8, HE12	L.C. TRANSF. 14 D, 15D, 15E	4-16A, 11V GECCO			1AC638	
51HD10, 12, 13	11D, 12D, 13D				1AC638	
51HE9, 5, 8, 10	11E, 12E, 13E, HE	2-6A I.T. WE			CON'S	2898456A15 20-80A I.T. 10-30A 5-DELAY
51HD4, 5, 8, 10	COND. BOOSTER PUMP	1 WE			CON'S	2898456A15
51HD3, 8, 10, 11	230 KV COND. BOOSTER TRANSF. 4-10KV	GECCO			1AC638	12AC638B30A 20-80A I.T.
51HD11	500KV				1AC638	
51HE7	STDBY START-UP TRANSF. MAIN BKR.	4-14A I.T.			1AC638	12AC638B30A NO I.T. UNIT
51HD14, HE3	AUX. TRANSF. MAIN BKR.	4-14A I.T.			1AC638	12AC638B30A NO I.T. UNIT
51HD15, HE2	HEATER DRIP PUMP	2-4A I.T. WE			CON'S	2898456A15 20-80A I.T. 10-30A 5-DELAY
51HE6	HEATER DRIP PUMP	2-4A I.T. WE			CON'S	2898456A15 20-80A I.T. 10-30A 5-DELAY
52HD6 to 13	SF6 CKT. BKR. 4160V SWGR.	1200A	NIS/POS INC	SF6	IC	350 MVA
52HE4 to 12	1200A	NIS/POS INC	SF6			350 MVA
52HD14 to 15	2000A	NIS/POS INC	SF6			350 MVA
52HE2 to 3	3000A	NIS/POS INC	SF6			350 MVA
63UT12	SUDDEN PRESS SW. ST-UP TRANSF. #12	15-6A	GECCO	1AC638	12AC638A	NO I.T.
87AT12	DIFFERENTIAL O/E RELAY 4KV BUS D & E	0.5-2.5A	WE	CO-9	1875376	10-40A I.T. (2 I.T. CONT.)
87UT12	STDBY ST-UP TRANSF. NO. 12	0.5-2.5A	WE	CO-9	1875286	10-40A I.T.
49UT12-X	X-WINDING TEMP. ST-UP TRANSF. NO. 12					
49UT12-Y	Y-WINDING TEMP. ST-UP TRANSF. NO. 12					
RES	STDBY ST-UP TRANSF. 12 GRD. RES. BANK	4160V 340-Ω	WE			
A	AMMETER, CELL HD7	0-100A	WE	GA-332	644B37A15	AT CONTROL BOARD
A	CELL HD9, HE9, HE11	0-200A			644B37A15	
A	CELL HE6	0-500A			644B37A15	
A	CELL HD9, HE9, HE11	0-600A			644B37A15	

NOTES:
1. FOR ELECTRICAL DEVICES TECH DATA AND SETPOINTS, SEE PIMS COMPONENT DATABASE.

- LEGEND**
- AMMETER SWITCH
 - VOLTMETER SWITCH
 - TEST
 - WHITE LAMP INDICATION
- SPECIAL SYMBOL**
- CONTROL STATION AT LOC. CB WITH AUTO START DEVICE
 - CONTROL STATION AT LOC. CB COMP. COMPUTER
 - ISOLATION SW. AT SWGR (DISC. BKR. CONTROL FROM CONTROL ROOM)
 - MR MULTI-RATIO OT
- REFERENCES**
- 1 DESCRIPTION OF ELECTRICAL SCHEMATIC DIAGRAM SYMBOLS & EQUIP. LOCATION DWG. NO. 050003
 - 2 SINGLE LINE METER & RELAY DIAGRAM 4160 V SWITCHGEAR BUS SECT F, G & H 437533
 - 3 12 KV SWITCHGEAR 437531
 - 4 DIAGRAM 480V SYSTEM (SHEET 1) 437537
 - 5 SCHEMATIC DIAGRAM CONDENSATE & CONDENSATE BOOSTER PUMPS 437568
 - 6 BUS DIFFERENTIAL (SHEET 1) 437570
 - 7 AUTOMATIC TRANSFER 437574
 - 8 4160V BUS POT. & SYNCH. BUS SECTION D & E 437613
 - 9 AUXILIARY TRANSFORMER NO. 12 437623
 - 10 START-UP TRANSFORMER NO. 12 437620
 - 11 M.C.C. TRANSFORMERS NO. 12 437628
 - 13 SINGLE LINE METER & RELAY DIAGRAM GEN. MAIN TRANSF. & EXCITATION 437529
 - 14 SINGLE LINE METER & REL. DIAG. 230/500KV SWGRS AC STR. POWER 449564
 - 15 12KV START-UP SYSTEM 457830
 - 16 SCHEMATIC DIAG. VACUUM PUMP 457874
 - 17. DELETED
 - 18. FUSE LIST
- LOCATION**
- CB CONTROL BOARD, CONDENSATE & FEEDWATER
 - CH STATION ELECTRICAL CONTROL BOARD
 - RVHD STATION ELECTRICAL RELAY BOARD, SECTION D
 - SHD6 4160V SWITCHGEAR CUBICLE NO. 6, BUS SECT D
 - SHE2 HEATER NO. 2 DRIP PUMP NO. 11
 - TSU12 STANDBY ST-UP TRANSF. NO. 12
 - TRU12A, TRU12B LAB. GRD. RES. ST-UP TRANSF. 12 X WINDING
 - TRU12C, TRU12D
 - TRU12E GRD. CT 11, 21, 12X, 12Y CABINET

KEY DWG. SECTION 1C

DATE 11-30-2015	REVISION DESCRIPTION REVISED PER DFT-7-3407	UNIT 1 ELECTRICAL SINGLE LINE METER & RELAY DIAGRAM 4160 VOLT SYSTEM	DWG. SCALE: BILL OF MATL: SUPS DS: SUPS DS: SUPS DS:
D. D. CRGM		DIABLO CANYON POWER PLANT PACIFIC GAS AND ELECTRIC COMPANY SAN FRANCISCO, CALIFORNIA	DRAWING 437532
R. E. RKG2			SHEET 1
J. V. N/A			PAGE 0
P. E. N/A			REV 29