



```

00.01: Language:      English
00.02: Password: *****
00.03: Sys Fn Links:    0
00.04: Description:    GEN.PROTECTION
00.05: Plant Reference: OMNI CANE SUGAR
00.06: Model Number:   P343911E2M0380M
00.08: Serial Number:  512419V
00.09: Frequency:      50 Hz
00.0A: Comms Level:    2
00.0B: Relay Address:  1
00.0C: Plant Status:   000000000000000000
00.0D: Control Status: 000000000000000000
00.0E: Active Group:   1
00.10: CB Trip/Close:  No Operation
00.11: Software Ref. 1: P343____2A_380_C
00.20: Opto I/P Status: 0000000010000001
00.21: Relay O/P Status: 0000000000010000000000
00.22: Alarm Status 1:  0000000000000000000000001000000
00.30: Opto I/P Status: 0000000010000001
00.40: Relay O/P Status: 0000000000010000000000
00.50: Alarm Status 1:  0000000000000000000000001000000
00.51: Alarm Status 2:  00000000000000000000000000000000
00.52: Alarm Status 3:  00000000000000000000000000000000
00.D0: Access Level:    3
00.D2: Password Level 1: *****
00.D3: Password Level 2: *****
00.D4: Password Level 3: *****
00.DF: Security Feature: 1

```

```

07.01: CB Control by:      Disabled
07.03: Trip Pulse Time:    500.0 ms
07.06: CB Healthy Time:    5.000 s
07.07: Sys Check Time:     5.000 s
07.08: Lockout Reset:      No
07.09: Reset Lockout by:    CB Close
07.0A: Man Close RstDly:    1.000 s
07.11: CB Status Input:     None

```

```
08.01: Date/Time:      2020-09-09 09:44:57.191
08.06: Battery Status: Healthy
08.07: Battery Alarm:  Enabled
08.20: LocalTime Enable: Disabled
```

09.01:	Restore Defaults:	No Operation
09.02:	Setting Group:	Select via Menu
09.03:	Active Settings:	Group 1
09.04:	Save Changes:	No Operation
09.05:	Copy From:	Group 1
09.06:	Copy To:	No Operation
09.07:	Setting Group 1:	Enabled
09.08:	Setting Group 2:	Disabled
09.09:	Setting Group 3:	Disabled
09.0A:	Setting Group 4:	Disabled
09.0B:	System Config:	Visible
09.0C:	Power:	Enabled
09.0D:	Field Failure:	Enabled
09.0E:	NPS Thermal:	Enabled
09.0F:	System Backup:	Enabled
09.10:	Overcurrent:	Enabled
09.11:	Thermal Overload:	Disabled



Settings File Report
Substation:
File: 000.set

Model Number:

09.12: Differential:	Disabled
09.13: Earth Fault:	Enabled
09.15: SEF/REF/SPower:	SEF/REF
09.16: Residual O/V NVD:	Disabled
09.17: 100% Stator EF:	Disabled
09.18: V/Hz:	Enabled
09.19: df/dt:	Enabled
09.1B: Dead Machine:	Enabled
09.1D: Volt Protection:	Enabled
09.1E: Freq Protection:	Enabled
09.20: CB Fail:	Enabled
09.21: Supervision:	Enabled
09.24: Pole Slipping:	Disabled
09.25: Input Labels:	Visible
09.26: Output Labels:	Visible
09.28: CT & VT Ratios:	Visible
09.29: Record Control:	Visible
09.2A: Disturb Recorder:	Visible
09.2B: Measure't Setup:	Visible
09.2C: Comms Settings:	Visible
09.2D: Commission Tests:	Visible
09.2E: Setting Values:	Primary
09.2F: Control Inputs:	Visible
09.33: System Checks:	Disabled
09.35: Ctrl I/P Config:	Visible
09.36: Ctrl I/P Labels:	Visible
09.39: Direct Access:	Enabled
09.50: Function Key:	Visible
09.FB: RP1 Read Only:	Disabled
09.FC: RP2 Read Only:	Disabled
09.FD: NIC Read Only:	Disabled
09.FF: LCD Contrast:	11
CT AND VT RATIOS	
0A.12: Main VT Primary:	400.0 V
0A.13: Main VT Sec'y:	115.0 V
0A.22: VN VT Primary:	400.0 V
0A.23: VN VT Secondary:	115.0 V
0A.31: Ph CT1 Polarity:	Standard
0A.32: Phase CT1 Prim'y:	2200 A
0A.33: Phase CT1 Sec'y:	5.000 A
0A.36: Ph CT2 Polarity:	Standard
0A.37: Phase CT2 Prim'y:	2200 A
0A.38: Phase CT2 Sec'y:	5.000 A
0A.51: E/F CT Polarity:	Standard
0A.52: E/F CT Primary:	2200 A
0A.53: E/F CT Secondary:	5.000 A
0A.61: Isen CT Polarity:	Standard
0A.62: Isen CT Primary:	2200 A
0A.63: Isen CT Sec'y:	5.000 A
RECORD CONTROL	
0B.04: Alarm Event:	Enabled
0B.05: Relay O/P Event:	Enabled
0B.06: Opto Input Event:	Enabled
0B.07: General Event:	Enabled
0B.08: Fault Rec Event:	Enabled
0B.09: Maint Rec Event:	Enabled
0B.0A: Protection Event:	Enabled
0B.40: DDB 31 - 0:	11111111111111111111111111111111
0B.41: DDB 63 - 32:	11111111111111111111111111111111
0B.42: DDB 95 - 64:	11111111111111111111111111111111
0B.43: DDB 127 - 96:	11111111111111111111111111111111



Model Number:

OB.44: DDB 159 - 128: 11111111111111111111111111111111
OB.45: DDB 191 - 160: 11111111111111111111111111111111
OB.46: DDB 223 - 192: 11111111111111111111111111111111
OB.47: DDB 255 - 224: 11111111111111111111111111111111
OB.48: DDB 287 - 256: 11111111111111111111111111111111
OB.49: DDB 319 - 288: 11111111111111111111111111111111
OB.4A: DDB 351 - 320: 11111111111111111111111111111111
OB.4B: DDB 383 - 352: 11111111111111111111111111111111
OB.4C: DDB 415 - 384: 11111111111111111111111111111111
OB.4D: DDB 447 - 416: 11111111111111111111111111111111
OB.4E: DDB 479 - 448: 11111111111111111111111111111111
OB.4F: DDB 511 - 480: 11111111111111111111111111111111
OB.50: DDB 543 - 512: 11111111111111111111111111111111
OB.51: DDB 575 - 544: 11111111111111111111111111111111
OB.52: DDB 607 - 576: 11111111111111111111111111111111
OB.53: DDB 639 - 608: 11111111111111111111111111111111
OB.54: DDB 671 - 640: 11111111111111111111111111111111
OB.55: DDB 703 - 672: 11111111111111111111111111111111
OB.56: DDB 735 - 704: 11111111111111111111111111111111
OB.57: DDB 767 - 736: 11111111111111111111111111111111
OB.58: DDB 799 - 768: 11111111111111111111111111111111
OB.59: DDB 831 - 800: 11111111111111111111111111111111
OB.5A: DDB 863 - 832: 11111111111111111111111111111111
OB.5B: DDB 895 - 864: 11111111111111111111111111111111
OB.5C: DDB 927 - 896: 11111111111111111111111111111111
OB.5D: DDB 959 - 928: 11111111111111111111111111111111
OB.5E: DDB 991 - 960: 11111111111111111111111111111111
OB.5F: DDB 1023 - 992: 11111111111111111111111111111111
OB.60: DDB 1055 - 1024: 11111111111111111111111111111111
OB.61: DDB 1087 - 1056: 11111111111111111111111111111111
OB.62: DDB 1119 - 1088: 01111111111111111111111111111111
OB.63: DDB 1151 - 1120: 11111111111111111111111111111111
OB.64: DDB 1183 - 1152: 11111111111111111111111111111111
OB.65: DDB 1215 - 1184: 11111111111111111111111111111111
OB.66: DDB 1247 - 1216: 11111111111111111111111111111111
OB.67: DDB 1279 - 1248: 11111111111111111111111111111111
OB.68: DDB 1311 - 1280: 11111111111111111111111111111111
OB.69: DDB 1343 - 1312: 11111111111111111111111111111111
OB.6A: DDB 1375 - 1344: 11111111111111111111111111111111
OB.6B: DDB 1407 - 1376: 11111111111111111111111111111111
OB.6C: DDB 1439 - 1408: 11111111111111111111111111111111
OB.6D: DDB 1471 - 1440: 11111111111111111111111111111111
OB.6E: DDB 1503 - 1472: 11111111111111111111111111111111
OB.6F: DDB 1535 - 1504: 11111111111111111111111111111111
OB.70: DDB 1567 - 1536: 11111111111111111111111111111111
OB.71: DDB 1599 - 1568: 11111111111111111111111111111111
OB.72: DDB 1631 - 1600: 11111111111111111111111111111111
OB.73: DDB 1663 - 1632: 11111111111111111111111111111111
OB.74: DDB 1695 - 1664: 11111111111111111111111111111111
OB.75: DDB 1727 - 1696: 11111111111111111111111111111111
OB.76: DDB 1759 - 1728: 11111111111111111111111111111111
OB.77: DDB 1791 - 1760: 11111111111111111111111111111111
OB.78: DDB 1823 - 1792: 11111111111111111111111111111111
OB.79: DDB 1855 - 1824: 11111111111111111111111111111111
OB.7A: DDB 1887 - 1856: 11111111111111111111111111111111
OB.7B: DDB 1919 - 1888: 11111111111111111111111111111111
OB.7C: DDB 1951 - 1920: 11111111111111111111111111111111
OB.7D: DDB 1983 - 1952: 11111111111111111111111111111111
OB.7E: DDB 2015 - 1984: 11111111111111111111111111111111
OB.7F: DDB 2047 - 2016: 11111111111111111111111111111111

DISTURB RECORDER



Settings File Report

Substation:

File: 000.set

Model Number:

0C.52: Duration: 1.500 s
0C.54: Trigger Position: 33.30 %
0C.56: Trigger Mode: Single
0C.58: Analog Channel 1: VAN
0C.59: Analog Channel 2: VBN
0C.5A: Analog Channel 3: VCN
0C.5B: Analog Channel 4: VN
0C.5C: Analog Channel 5: IA-1
0C.5D: Analog Channel 6: IB-1
0C.5E: Analog Channel 7: IC-1
0C.5F: Analog Channel 8: I Sensitive
0C.60: Analog Channel 9: IN
0C.61: AnalogChannel 10: IA-2
0C.62: AnalogChannel 11: IB-2
0C.63: AnalogChannel 12: IC-2
0C.64: AnalogChannel 13: Unused
0C.65: AnalogChannel 14: Unused
0C.66: AnalogChannel 15: Unused
0C.67: AnalogChannel 16: Unused
0C.68: AnalogChannel 17: Unused
0C.69: AnalogChannel 18: Unused
0C.6A: AnalogChannel 19: Unused
0C.6B: AnalogChannel 20: Unused
0C.80: Digital Input 1: Output R1
0C.81: Input 1 Trigger: No Trigger
0C.82: Digital Input 2: Output R2
0C.83: Input 2 Trigger: No Trigger
0C.84: Digital Input 3: Output R3
0C.85: Input 3 Trigger: Trigger L/H
0C.86: Digital Input 4: Output R4
0C.87: Input 4 Trigger: No Trigger
0C.88: Digital Input 5: Output R5
0C.89: Input 5 Trigger: No Trigger
0C.8A: Digital Input 6: Output R6
0C.8B: Input 6 Trigger: No Trigger
0C.8C: Digital Input 7: Output R7
0C.8D: Input 7 Trigger: No Trigger
0C.8E: Digital Input 8: Output R8
0C.8F: Input 8 Trigger: No Trigger
0C.90: Digital Input 9: Output R9
0C.91: Input 9 Trigger: No Trigger
0C.92: Digital Input 10: Output R10
0C.93: Input 10 Trigger: No Trigger
0C.94: Digital Input 11: Output R11
0C.95: Input 11 Trigger: No Trigger
0C.96: Digital Input 12: Output R12
0C.97: Input 12 Trigger: No Trigger
0C.98: Digital Input 13: Output R13
0C.99: Input 13 Trigger: No Trigger
0C.9A: Digital Input 14: Output R14
0C.9B: Input 14 Trigger: No Trigger
0C.9C: Digital Input 15: Input L1
0C.9D: Input 15 Trigger: No Trigger
0C.9E: Digital Input 16: Input L2
0C.9F: Input 16 Trigger: No Trigger
0C.A0: Digital Input 17: Input L3
0C.A1: Input 17 Trigger: No Trigger
0C.A2: Digital Input 18: Input L4
0C.A3: Input 18 Trigger: No Trigger
0C.A4: Digital Input 19: Input L5
0C.A5: Input 19 Trigger: No Trigger



Settings File Report

Substation:

File: 000.set

Model Number:

OC.A6: Digital Input 20: Input L6
OC.A7: Input 20 Trigger: No Trigger
OC.A8: Digital Input 21: Input L7
OC.A9: Input 21 Trigger: No Trigger
OC.AA: Digital Input 22: Input L8
OC.AB: Input 22 Trigger: No Trigger
OC.AC: Digital Input 23: Input L9
OC.AD: Input 23 Trigger: No Trigger
OC.AE: Digital Input 24: Input L10
OC.AF: Input 24 Trigger: No Trigger
OC.B0: Digital Input 25: Input L11
OC.B1: Input 25 Trigger: No Trigger
OC.B2: Digital Input 26: Input L12
OC.B3: Input 26 Trigger: No Trigger
OC.B4: Digital Input 27: Input L13
OC.B5: Input 27 Trigger: No Trigger
OC.B6: Digital Input 28: Input L14
OC.B7: Input 28 Trigger: No Trigger
OC.B8: Digital Input 29: Input L15
OC.B9: Input 29 Trigger: No Trigger
OC.BA: Digital Input 30: Input L16
OC.BB: Input 30 Trigger: No Trigger
OC.BC: Digital Input 31: Function Key 10
OC.BD: Input 31 Trigger: Trigger L/H
OC.BE: Digital Input 32: Unused

MEASURE'T SETUP

0D.02: Local Values: Primary
0D.03: Remote Values: Primary
0D.04: Measurement Ref: VA
0D.05: Measurement Mode: 0
0D.06: Fix Dem Period: 15.00 min
0D.07: Roll Sub Period: 1.000 min
0D.08: Num Sub Periods: 15

COMMISSION TESTS

0F.01: Opto I/P Status: 0000000010000001
0F.02: Relay O/P Status: 0000000000010000000000
0F.03: Test Port Status: 00000000
0F.05: Monitor Bit 1: 64
0F.06: Monitor Bit 2: 65
0F.07: Monitor Bit 3: 66
0F.08: Monitor Bit 4: 67
0F.09: Monitor Bit 5: 68
0F.0A: Monitor Bit 6: 69
0F.0B: Monitor Bit 7: 70
0F.0C: Monitor Bit 8: 71
0F.0D: Test Mode: Disabled
0F.0E: Test Pattern: 000000000000000000000000
0F.0F: Contact Test: No Operation
0F.10: Test LEDs: No Operation
0F.15: Red LED Status: 000000100000000001
0F.16: Green LED Status: 00000000000000000000
0F.20: DDB 31 - 0: 000000000000000000000000010000000000
0F.21: DDB 63 - 32: 0000000000000000000000000100000001
0F.22: DDB 95 - 64: 000000000000000000000000000000000000
0F.23: DDB 127 - 96: 0000000001000000000000000000000001
0F.24: DDB 159 - 128: 0000000000000000000000000000000000
0F.25: DDB 191 - 160: 0000000001000000000000000000000001
0F.26: DDB 223 - 192: 0000000000000000000000000000000000
0F.27: DDB 255 - 224: 0000000000000000000000000000000000
0F.28: DDB 287 - 256: 0000000000000000000000000000010001
0F.29: DDB 319 - 288: 0000000000000000000000000000000000



Settings File Report
Substation:
File: 000.set

Model Number:

0F.2A: DDB 351 - 320:	00000000000000000000000000000000
0F.2B: DDB 383 - 352:	00000000000000000000000000000000
0F.2C: DDB 415 - 384:	00000000000000000000000000000000
0F.2D: DDB 447 - 416:	00000000000000000000000000000000
0F.2E: DDB 479 - 448:	00000000000000000000000000000000
0F.2F: DDB 511 - 480:	00000000000000000000000000000000
0F.30: DDB 543 - 512:	00000000000000000000000000000000
0F.31: DDB 575 - 544:	00000000000000000000000000000000
0F.32: DDB 607 - 576:	00000000000000000000000000000000
0F.33: DDB 639 - 608:	00000000000000000000000000000000
0F.34: DDB 671 - 640:	00000000000000000000000000000000
0F.35: DDB 703 - 672:	00000000000000000000000000000000
0F.36: DDB 735 - 704:	00000000000000000000000000000000
0F.37: DDB 767 - 736:	00000000000000000000000000000000
0F.38: DDB 799 - 768:	00000000000000000000000000000000
0F.39: DDB 831 - 800:	00000000000000000000000000000000
0F.3A: DDB 863 - 832:	00000000000000000000000000000000
0F.3B: DDB 895 - 864:	00000000000000000000000000000000
0F.3C: DDB 927 - 896:	00000000000000000000000000000000
0F.3D: DDB 959 - 928:	00000000000000000000000000000000
0F.3E: DDB 991 - 960:	00000000000000000000000000000000
0F.3F: DDB 1023 - 992:	00000000000000000000000000000000
0F.40: DDB 1055 - 1024:	00000000000000000000000000000000
0F.41: DDB 1087 - 1056:	00000000000000000000000000000000
0F.42: DDB 1119 - 1088:	00000000000000000000000000000000
0F.43: DDB 1151 - 1120:	00000000000000000000000000000000
0F.44: DDB 1183 - 1152:	00000000000000000000000000000000
0F.45: DDB 1215 - 1184:	00000000000000000000000000000000
0F.46: DDB 1247 - 1216:	00000000000000000000000000000000
0F.47: DDB 1279 - 1248:	00000000000000000000000000000000
0F.48: DDB 1311 - 1280:	00000000000000000000000000000000
0F.49: DDB 1343 - 1312:	00000000000000000000000000000000
0F.4A: DDB 1375 - 1344:	00000000000000000000000000000000
0F.4B: DDB 1407 - 1376:	00000000000000000000000000000000
0F.4C: DDB 1439 - 1408:	00000000000000000000000000000000
0F.4D: DDB 1471 - 1440:	00000000000000000000000000000000
0F.4E: DDB 1503 - 1472:	00000000000000000000000000000000
0F.4F: DDB 1535 - 1504:	00000000000000000000000000000000
0F.50: DDB 1567 - 1536:	00000000000000000000000000000000
0F.51: DDB 1599 - 1568:	00000000000000000000000000000000
0F.52: DDB 1631 - 1600:	00000000000000000000000000000000
0F.53: DDB 1663 - 1632:	00000000000000000000000000000000
0F.54: DDB 1695 - 1664:	00000000000000000000000000000000
0F.55: DDB 1727 - 1696:	00000000000000000000000000000000
0F.56: DDB 1759 - 1728:	00000000000000000000000000000000
0F.57: DDB 1791 - 1760:	00000000000000000000000000000000
0F.58: DDB 1823 - 1792:	00000000000000000000000000000000
0F.59: DDB 1855 - 1824:	00000000000000000000000000000000
0F.5A: DDB 1887 - 1856:	00000000000000000000000000000000
0F.5B: DDB 1919 - 1888:	00000000000000000000000000000000
0F.5C: DDB 1951 - 1920:	00000000000000000000000000000000
0F.5D: DDB 1983 - 1952:	00000000000000000000000000000000
0F.5E: DDB 2015 - 1984:	00000000000000000000000000000000
0F.5F: DDB 2047 - 2016:	00000000000000000000000000000000
CB MONITOR SETUP	
10.01: Broken I^:	2.000
10.02: I^ Maintenance:	Alarm Disabled
10.04: I^ Lockout:	Alarm Disabled
10.06: No. CB Ops Maint:	Alarm Disabled
10.08: No. CB Ops Lock:	Alarm Disabled
10.0A: CB Time Maint:	Alarm Disabled



Settings File Report

Substation:

File: 000.set

Model Number:

10.0C: CB Time Lockout:	Alarm Disabled
10.0E: Fault Freq Lock:	Alarm Disabled
OPTO CONFIG	
11.01: Global Nominal V:	110/125V
11.50: Opto Filter Ctrl:	1111111111111111
11.80: Characteristic:	Standard 60%-80%
CTRL I/P CONFIG	
13.01: Hotkey Enabled:	11111111111111111111111111111111
13.10: Control Input 1:	Latched
13.11: Ctrl Command 1:	SET/RESET
13.14: Control Input 2:	Latched
13.15: Ctrl Command 2:	SET/RESET
13.18: Control Input 3:	Latched
13.19: Ctrl Command 3:	SET/RESET
13.1C: Control Input 4:	Latched
13.1D: Ctrl Command 4:	SET/RESET
13.20: Control Input 5:	Latched
13.21: Ctrl Command 5:	SET/RESET
13.24: Control Input 6:	Latched
13.25: Ctrl Command 6:	SET/RESET
13.28: Control Input 7:	Latched
13.29: Ctrl Command 7:	SET/RESET
13.2C: Control Input 8:	Latched
13.2D: Ctrl Command 8:	SET/RESET
13.30: Control Input 9:	Latched
13.31: Ctrl Command 9:	SET/RESET
13.34: Control Input 10:	Latched
13.35: Ctrl Command 10:	SET/RESET
13.38: Control Input 11:	Latched
13.39: Ctrl Command 11:	SET/RESET
13.3C: Control Input 12:	Latched
13.3D: Ctrl Command 12:	SET/RESET
13.40: Control Input 13:	Latched
13.41: Ctrl Command 13:	SET/RESET
13.44: Control Input 14:	Latched
13.45: Ctrl Command 14:	SET/RESET
13.48: Control Input 15:	Latched
13.49: Ctrl Command 15:	SET/RESET
13.4C: Control Input 16:	Latched
13.4D: Ctrl Command 16:	SET/RESET
13.50: Control Input 17:	Latched
13.51: Ctrl Command 17:	SET/RESET
13.54: Control Input 18:	Latched
13.55: Ctrl Command 18:	SET/RESET
13.58: Control Input 19:	Latched
13.59: Ctrl Command 19:	SET/RESET
13.5C: Control Input 20:	Latched
13.5D: Ctrl Command 20:	SET/RESET
13.60: Control Input 21:	Latched
13.61: Ctrl Command 21:	SET/RESET
13.64: Control Input 22:	Latched
13.65: Ctrl Command 22:	SET/RESET
13.68: Control Input 23:	Latched
13.69: Ctrl Command 23:	SET/RESET
13.6C: Control Input 24:	Latched
13.6D: Ctrl Command 24:	SET/RESET
13.70: Control Input 25:	Latched
13.71: Ctrl Command 25:	SET/RESET
13.74: Control Input 26:	Latched
13.75: Ctrl Command 26:	SET/RESET
13.78: Control Input 27:	Latched



Settings File Report

Substation:

File: 000.set

Model Number:

13.79: Ctrl Command 27: SET/RESET
13.7C: Control Input 28: Latched
13.7D: Ctrl Command 28: SET/RESET
13.80: Control Input 29: Latched
13.81: Ctrl Command 29: SET/RESET
13.84: Control Input 30: Latched
13.85: Ctrl Command 30: SET/RESET
13.88: Control Input 31: Latched
13.89: Ctrl Command 31: SET/RESET
13.8C: Control Input 32: Latched
13.8D: Ctrl Command 32: SET/RESET

FUNCTION KEYS

17.01: Fn Key Status: 0000010001
17.02: Fn Key 1: Unlocked
17.03: Fn Key 1 Mode: Toggled
17.04: Fn Key 1 Label: Function Key 1
17.05: Fn Key 2: Unlocked
17.06: Fn Key 2 Mode: Normal
17.07: Fn Key 2 Label: Function Key 2
17.08: Fn Key 3: Unlocked
17.09: Fn Key 3 Mode: Normal
17.0A: Fn Key 3 Label: Function Key 3
17.0B: Fn Key 4: Unlocked
17.0C: Fn Key 4 Mode: Toggled
17.0D: Fn Key 4 Label: Function Key 4
17.0E: Fn Key 5: Unlocked
17.0F: Fn Key 5 Mode: Toggled
17.10: Fn Key 5 Label: Function Key 5
17.11: Fn Key 6: Unlocked
17.12: Fn Key 6 Mode: Toggled
17.13: Fn Key 6 Label: Function Key 6
17.14: Fn Key 7: Unlocked
17.15: Fn Key 7 Mode: Normal
17.16: Fn Key 7 Label: Function Key 7
17.17: Fn Key 8: Unlocked
17.18: Fn Key 8 Mode: Normal
17.19: Fn Key 8 Label: Function Key 8
17.1A: Fn Key 9: Unlocked
17.1B: Fn Key 9 Mode: Normal
17.1C: Fn Key 9 Label: Function Key 9
17.1D: Fn Key 10: Unlocked
17.1E: Fn Key 10 Mode: Normal
17.1F: Fn Key 10 Label: Function Key 10

SECURITY CONFIG

25.01: User Banner: ACCESS ONLY FOR AUTHORISED USERS
25.02: Attempts Limit: 3
25.03: Attempts Timer: 2
25.04: Blocking Timer: 5
25.11: Attempts Remain: 3
25.12: Blk Time Remain: 0
25.20: Fallbck PW level: 1

CTRL I/P LABELS

29.01: Control Input 1: Control Input 1
29.02: Control Input 2: Control Input 2
29.03: Control Input 3: Control Input 3
29.04: Control Input 4: Control Input 4
29.05: Control Input 5: Control Input 5
29.06: Control Input 6: Control Input 6
29.07: Control Input 7: Control Input 7
29.08: Control Input 8: Control Input 8
29.09: Control Input 9: Control Input 9



Settings File Report

Substation:

File: 000.set

Model Number:

29.0A: Control Input 10: Control Input 10
29.0B: Control Input 11: Control Input 11
29.0C: Control Input 12: Control Input 12
29.0D: Control Input 13: Control Input 13
29.0E: Control Input 14: Control Input 14
29.0F: Control Input 15: Control Input 15
29.10: Control Input 16: Control Input 16
29.11: Control Input 17: Control Input 17
29.12: Control Input 18: Control Input 18
29.13: Control Input 19: Control Input 19
29.14: Control Input 20: Control Input 20
29.15: Control Input 21: Control Input 21
29.16: Control Input 22: Control Input 22
29.17: Control Input 23: Control Input 23
29.18: Control Input 24: Control Input 24
29.19: Control Input 25: Control Input 25
29.1A: Control Input 26: Control Input 26
29.1B: Control Input 27: Control Input 27
29.1C: Control Input 28: Control Input 28
29.1D: Control Input 29: Control Input 29
29.1E: Control Input 30: Control Input 30
29.1F: Control Input 31: Control Input 31
29.20: Control Input 32: Control Input 32

Group 1

GROUP 1 SYSTEM CONFIG

30.01: Winding Config: Generator
30.42: Phase Sequence: Standard ABC
30.43: VT Reversal: No Swap
30.44: CT1 Reversal: No Swap
30.45: CT2 Reversal: No Swap
30.50: C/S Input:A-N
30.51: C/S V Ratio Corr: 1.000
30.52: C/S VT Vect Grp: 0
30.53: Main VT Location: Gen
30.9F: CounterSourcePSL:1111111111111111
30.A0: Counter 1: 65535
30.A1: Counter 2: 65535
30.A2: Counter 3: 65535
30.A3: Counter 4: 65535
30.A4: Counter 5: 65535
30.A5: Counter 6: 65535
30.A6: Counter 7: 65535
30.A7: Counter 8: 65535
30.A8: Counter 9: 65535
30.A9: Counter 10: 65535
30.AA: Counter 11: 65535
30.AB: Counter 12: 65535
30.AC: Counter 13: 65535
30.AD: Counter 14: 65535
30.AE: Counter 15: 65535
30.AF: Counter 16: 65535
30.C0: Counter 1 Label: Counter 1
30.C1: Counter 2 Label: Counter 2
30.C2: Counter 3 Label: Counter 3
30.C3: Counter 4 Label: Counter 4
30.C4: Counter 5 Label: Counter 5
30.C5: Counter 6 Label: Counter 6
30.C6: Counter 7 Label: Counter 7
30.C7: Counter 8 Label: Counter 8
30.C8: Counter 9 Label: Counter 9
30.C9: Counter 10 Label: Counter 10



Settings File Report

Substation:

File: 000.set

Model Number:

30.CA: Counter 11 Label: Counter 11
30.CB: Counter 12 Label: Counter 12
30.CC: Counter 13 Label: Counter 13
30.CD: Counter 14 Label: Counter 14
30.CE: Counter 15 Label: Counter 15
30.CF: Counter 16 Label: Counter 16
30.E0: Timer 1(ms): 0
30.E1: Timer 2(ms): 0
30.E2: Timer 3(ms): 0
30.E3: Timer 4(ms): 0
30.E4: Timer 5(ms): 0
30.E5: Timer 6(ms): 0
30.E6: Timer 7(ms): 0
30.E7: Timer 8(ms): 0
30.E8: Timer 9(ms): 0
30.E9: Timer 10(ms): 0
30.EA: Timer 11(ms): 0
30.EB: Timer 12(ms): 0
30.EC: Timer 13(ms): 0
30.ED: Timer 14(ms): 0
30.EE: Timer 15(ms): 0
30.EF: Timer 16(ms): 0

 GROUP 1 POWER

31.01: Comp Angle: 0 deg
31.04: Power1 Function: Under
31.05: Power1 Dirn: Forward
31.06: Power1 Mode: Active
31.08: Power1 3Ph Watts: 76.52 kW
31.0B: Power1 TimeDelay: 0 s
31.0C: Power1 DO Timer: 0 s
31.0D: P1 Poledead Inh: Enabled
31.14: Power2 Function: Over
31.15: Power2 Dirn: Reverse
31.16: Power2 Mode: Active
31.18: Power2 3Ph Watts: 28.31 kW
31.1B: Power2 TimeDelay: 1.000 s
31.1C: Power2 DO Timer: 0 s
31.1D: P2 Poledead Inh: Disabled
31.24: Power3 Function: Over
31.25: Power3 Dirn: Reverse
31.26: Power3 Mode: Reactive
31.2A: Power3 3Ph VAr: 35.20 kVAr
31.2B: Power3 TimeDelay: 2.000 s
31.2C: Power3 DO Timer: 0 s
31.2D: P3 Poledead Inh: Enabled
31.34: Power4 Function: Over
31.35: Power4 Dirn: Forward
31.36: Power4 Mode: Active
31.38: Power4 3Ph Watts: 1.041 MW
31.3B: Power4 TimeDelay: 2.000 s
31.3C: Power4 DO Timer: 0 s
31.3D: P4 Poledead Inh: Enabled
31.60: NPS OVERPOWER:
31.61: S2> CT Source: IA-1 IB-1 IC-1
31.62: S2>1 Status: Disabled

 GROUP 1 FIELD FAILURE

32.01: FFail Alm Status: Enabled
32.02: FFail Alm Angle: 15.00 deg
32.03: FFail Alm Delay: 2.000 s
32.04: FFail1 Status: Enabled
32.05: FFail1 Xa1: 8.696 mOhm



Settings File Report

Substation:

File: 000.set

Model Number:

32.06: FFail1 Xb1: 316.2 mOhm
32.07: FFail1 TimeDelay: 2.000 s
32.08: FFail1 DO Timer: 0 s
32.09: FFail2 Status: Enabled
32.0A: FFail2 Xa2: 11.86 mOhm
32.0B: FFail2 Xb2: 253.0 mOhm
32.0C: FFail2 TimeDelay: 2.000 s
32.0D: FFail2 DO Timer: 0 s
32.20: FFail Dirn Line: Disabled

GROUP 1 NPS THERMAL

33.01: I2therm>1 Alarm: Enabled
33.02: I2therm>1 Set: 176.0 A
33.03: I2therm>1 Delay: 5.000 s
33.04: I2therm>2 Trip: Enabled
33.05: I2therm>2 Set: 220.0 A
33.06: I2therm>2 kSet: 15.00 s
33.07: I2therm>2 kRESET: 15.00 s
33.08: I2therm>2 tMAX: 1000 s
33.09: I2therm>2 tMIN: 250.0 ms

GROUP 1 SYSTEM BACKUP

34.01: V Dep OC Func: Volt controlled
34.02: Vector Rotation: None
34.20: V Dep OC Char: IEC S Inverse
34.23: V Dep OC I> Set: 2024 A
34.28: V Dep OC TMS: 1.000
34.2B: V Dep OC tRESET: 0 s
34.2D: V Dep OC V<1 Set: 299.1 V
34.2F: V Dep OC k Set: 250.0e-3
34.30: Z< Function: Disabled
34.36: Z<1 Setting: 110.7 mOhm
34.38: Z<1 Time Delay: 5.000 s
34.3A: Z<1 tRESET: 0 s

GROUP 1 OVERCURRENT

35.20: PHASE O/C:
35.21: I> CT Source: IA-1 IB-1 IC-1
35.23: I>1 Function: IEC S Inverse
35.24: I>1 Direction: Non-Directional
35.27: I>1 Current Set: 1804 A
35.2A: I>1 TMS: 1.000
35.30: I>1 tRESET: 0 s
35.32: I>2 Function: DT
35.33: I>2 Direction: Non-Directional
35.36: I>2 Current Set: 2420 A
35.38: I>2 Time Delay: 1.000 s
35.3E: I>2 tRESET: 0 s
35.40: I>3 Status: Enabled
35.41: I>3 Direction: Non-Directional
35.43: I>3 Current Set: 3520 A
35.44: I>3 Time Delay: 0 s
35.47: I>4 Status: Disabled
35.4E: I> Char Angle: 30.00 deg
35.4F: I> Function Link: 1111
35.50: NPS OVERCURRENT:
35.51: I2> CT Source: IA-1 IB-1 IC-1
35.52: I2>1 Status: Disabled
35.62: I2>2 Status: Disabled
35.72: I2>3 Status: Disabled
35.82: I2>4 Status: Disabled
35.90: I2> VTS Blocking: 1111
35.94: I2> Char Angle: -60.00 deg
35.98: I2> V2pol Set: 17.39 V



GROUP 1 EARTH FAULT	
38.01: IN> Input:	Measured
38.25: IN>1 Function:	IEC S Inverse
38.29: IN>1 Current:	88.00 A
38.2D: IN>1 TMS:	1.000
38.34: IN>1 tRESET:	0 s
38.36: IN>2 Function:	DT
38.3A: IN>2 Current:	220.0 A
38.3D: IN>2 Time Delay:	0 s
GROUP 1 SEF/REF PROT'N	
3A.01: SEF/REF Options:	Lo Z REF
3A.60: RESTRICTED E/F:	
3A.61: IREF> CT Source:	IA-1 IB-1 IC-1
3A.62: IREF> k1:0 %	
3A.63: IREF> k2:150.0 %	
3A.64: IREF> Is1:	220.0 A
3A.65: IREF> Is2:	2200 A
GROUP 1 VOLTS/HZ	
3D.01: V/Hz Alm Status:	Enabled
3D.02: V/Hz Alarm Set:	8.348 V/Hz
3D.03: V/Hz Alarm Delay:	5.000 s
3D.10: V/Hz>1 Status:	Enabled
3D.13: V/Hz>1 Trip Func:	DT
3D.16: V/Hz>1 Trip Set:	8.904 V/Hz
3D.1A: V/Hz>1 Delay:	5.000 s
3D.1C: V/Hz>1 tRESET:	0 s
3D.20: V/Hz>2 Status:	Enabled
3D.25: V/Hz>2 Trip Set:	9.391 V/Hz
3D.2A: V/Hz>2 Delay:	3.000 s
3D.30: V/Hz>3 Status:	Disabled
3D.40: V/Hz>4 Status:	Disabled
GROUP 1 DF/DT	
3E.10: Operating Mode:	Rolling Window
3E.11: df/dt Avg Cycles:	3
3E.12: df/dt Iterations:	2
3E.20: df/dt>1 Status:	Disabled
3E.30: df/dt>2 Status:	Disabled
3E.40: df/dt>3 Status:	Disabled
3E.50: df/dt>4 Status:	Disabled
GROUP 1 DEAD MACHINE	
40.01: Dead Mach Status:	Enabled
40.02: DM CT Source:	IA-1 IB-1 IC-1
40.03: Dead Mach I>:	220.0 A
40.04: Dead Mach V<:	278.3 V
40.05: Dead Mach tPU:	1.000 s
40.06: Dead Mach tDO:	500.0 ms
GROUP 1 VOLT PROTECTION	
42.01: UNDER VOLTAGE:	
42.02: V< Measur't Mode:	Phase-Phase
42.03: V< Operate Mode:	Any Phase
42.04: V<1 Function:	DT
42.05: V<1 Voltage Set:	361.7 V
42.06: V<1 Time Delay:	1.000 s
42.08: V<1 Poledead Inh:	Enabled
42.09: V<2 Status:	Enabled
42.0A: V<2 Voltage Set:	302.6 V
42.0B: V<2 Time Delay:	3.000 s
42.0C: V<2 Poledead Inh:	Enabled
42.10: V<3 Status:	Disabled
42.20: OVERVOLTAGE:	
42.21: V> Measur't Mode:	Phase-Phase



Settings File Report

Substation:

File: 000.set

Model Number:

42.22: V> Operate Mode: Any Phase

42.24: V>1 Function: DT

42.25: V>1 Voltage Set: 427.8 V

42.26: V>1 Time Delay: 2.000 s

42.30: V>2 Status: Enabled

42.31: V>2 Voltage Set: 434.8 V

42.32: V>2 Time Delay: 2.000 s

42.60: NPS OVERVOLTAGE:

42.61: V2>1 Status: Disabled

GROUP 1 FREQ PROTECTION

43.01: UNDER FREQUENCY:

43.02: F<1 Status: Enabled

43.03: F<1 Setting: 48.00 Hz

43.04: F<1 Time Delay: 2.000 s

43.05: F<2 Status: Enabled

43.06: F<2 Setting: 47.50 Hz

43.07: F<2 Time Delay: 2.500 s

43.08: F<3 Status: Disabled

43.0B: F<4 Status: Disabled

43.0E: F< Function Link: 0000

43.0F: OVER FREQUENCY:

43.10: F>1 Status: Enabled

43.11: F>1 Setting: 51.50 Hz

43.12: F>1 Time Delay: 2.000 s

43.13: F>2 Status: Enabled

43.14: F>2 Setting: 52.50 Hz

43.15: F>2 Time Delay: 3.000 s

43.20: TURBINE F PROT:

43.22: Turbine F Status: Disabled

GROUP 1 CB FAIL & I<

45.01: BREAKER FAIL:

45.02: CB Fail 1 Status: Enabled

45.03: CB Fail 1 Timer: 200.0 ms

45.04: CB Fail 2 Status: Disabled

45.06: CBF Non I Reset: CB Open & I<

45.07: CBF Ext Reset: CB Open & I<

45.08: UNDER CURRENT:

45.09: I< Current Set: 220.0 A

45.0A: IN< Current Set: 220.0 A

45.0B: ISEF< Current: 44.00 A

45.15: I< CT Source: IA-1 IB-1 IC-1

GROUP 1 SUPERVISION

46.01: VT SUPERVISION:

46.02: VTS Status: Blocking

46.03: VTS Reset Mode: Manual

46.04: VTS Time Delay: 2.000 s

46.05: VTS I> Inhibit: 22.00 kA

46.06: VTS I2> Inhibit: 110.0 A

46.07: CT SUPERVISION:

46.08: CTS1 Status: Disabled

46.20: CTS2 Status: Disabled

46.31: Diff CTS Status: Enabled

46.32: Diff CTS Mode: Restrained

46.33: CTS Time Delay: 2.000 s

46.34: CTS I1: 10.00 %

46.35: CTS I2/I1>1: 5.000 %

46.36: CTS I2/I1>2: 30.00 %

46.50: THROUGH FAULT:

46.51: Through Fault: Enabled

46.52: Monitored Input: HV

46.53: TF I> Trigger: 2200 A



Settings File Report

Substation:

File: 000.set

Model Number:

46.54: TF I2t> Alarm:	3.872 GA2s
GROUP 1 INPUT LABELS	
4A.01: Opto Input 1:	TURBINE TRIP
4A.02: Opto Input 2:	EMPB OPTD
4A.03: Opto Input 3:	AVR TRIP
4A.04: Opto Input 4:	GEN BRK CLOSE
4A.05: Opto Input 5:	TG SYNC W GRID
4A.06: Opto Input 6:	WND TEMP HI OPTD
4A.07: Opto Input 7:	BRG TEMP HI OPTD
4A.08: Opto Input 8:	86G RELAY OPTD
4A.09: Opto Input 9:	86T RELAY OPTD
4A.0A: Opto Input 10:	86L RELAY OPTD
4A.0B: Opto Input 11:	SPARE1
4A.0C: Opto Input 12:	SPARE2
4A.0D: Opto Input 13:	SPARE3
4A.0E: Opto Input 14:	SPARE4
4A.0F: Opto Input 15:	SPARE5
4A.10: Opto Input 16:	SPARE6
GROUP 1 OUTPUT LABELS	
4B.01: Relay 1:	86T RELAY TRIP
4B.02: Relay 2:	86G RELAY TRIP
4B.03: Relay 3:	ANY TRIP
4B.04: Relay 4:	86L RELAY TRIP
4B.05: Relay 5:	REV REACT PWR
4B.06: Relay 6:	50LBB OPTD
4B.07: Relay 7:	E/F REF OPTD
4B.08: Relay 8:	U/O VOL 2ND STG
4B.09: Relay 9:	U/O FRQ 2ND STG
4B.0A: Relay 10:	NPS 2ND STG
4B.0B: Relay 11:	LOW FWD PWR
4B.0C: Relay 12:	RE ACT PWR
4B.0D: Relay 13:	IDMT/INST O/C
4B.0E: Relay 14:	OVR FLUXING 2ND
4B.0F: Relay 15:	DEAD MACHINE TRI
4B.10: Relay 16:	V/C O/C TRIP
4B.11: Relay 17:	LOSS OF EXCITATI
4B.12: Relay 18:	U/O VOL1ST STG
4B.13: Relay 19:	U/O FRQ 1ST STG
4B.14: Relay 20:	NPS 1ST STG
4B.15: Relay 21:	OVR FLUXING 1ST
4B.16: Relay 22:	PT FUSE FAIL