| DESCRIPTION | SHEET |
|---|---|
| TABLE OF CONTENTS | 1 |
| NETWORK DRAWING | 2 |
| NETWORK DETAIL | 3 |
| DMC MAIN 24VDC SCHEMATIC | 4 |
| DMC GEN 1 & 2 MAIN CONTROL | 5 |
| DMC GEN 3 & 4 MAIN CONTROL | 6 |
| BUS PT CONNECTION & PLC POWER | 7 |
| GENERATOR 1-4 PLC INPUTS | 8 |
| GENERATOR 1-4 PLC OUTPUTS | 9 |
| DMC FEEDER 1-8 STATUS | 10 |
| DMC FEEDER 1-8 LALS | 11 |
| SYSTEM AC METERING INPUT | 12 |
| SG 52-G3 AC SCHEMATICS | 13 |
| SG 52-G3 DC SCHEMATICS | 14 |
| SG 52-G4 AC SCHEMATIC | 15 |
| SG 52-G4 DC SCHEMATIC | 16 |
| SG 52-G1 AC SCHEMATIC | 17 |
| SG 52-G1 DC SCHEMATIC | 18 |
| SG 52-G2 AC SCHEMATIC | 19 |
| SG 52-G2 DC SCHEMATICS | 20 |
| SG 52-F1 AC SCHEMATIC | 21 |
| SG 52-F1 DC SCHEMATICS | 22 |
| SG 52-F2 AC SCHEMATIC | 23 |
| SG 52-F2 DC SCHEMATICS | 24 |
| SG 52-F1 & F2 IO SCHEMATICS | 25 |
| DMC DOOR PANEL LAYOUT | 26 |
| DMC DOOR PANEL LAYOUT BOM | 27 |
| DMC UPR REAR PANEL LAYOUT | 28 |
| DMC UPR REAR PANEL LAYOUT BOM | 29 |
| DMC LOWER REAR PANEL LAYOUT | 30 |
| DMC LOWER REAR PANEL LAYOUT BOM | 31 |
| DMC UPR LH PANEL LAYOUT | 32 |
| DMC UPR LH PANEL LAYOUT BOM | 33 |
| DMC FLOOR PANEL LAYOUT | 34 |
| DMC FLOOR PANEL LAYOUT BOM | 35 |
| SG S1A CELL PANEL LAYOUT | 36 |
| SG S1A CELL PANEL LAYOUT BOM | 37 |
| SG S1A DOOR PANEL LAYOUT | 38 |
| SG S1A DOOR PANEL LAYOUT BOM | 39 |
| SG S1B CELL PANEL LAYOUT | 40 |

| DESCRIPTION | SHEET |
|---|---|
| SG S1B CELL PANEL LAYOUT BOM | 41 |
| SG S1B DOOR PANEL LAYOUT | 42 |
| SG S1B DOOR PANEL LAYOUT BOM | 43 |
| SG S2A CELL PANEL LAYOUT | 44 |
| SG S2A CELL PANEL LAYOUT BOM | 45 |
| SG S2A DOOR PANLE LAYOUT | 46 |
| SG S2A DOOR PANEL LAYOUT BOM | 47 |
| SG S2B CELL PANEL LAYOUT | 48 |
| SG S2B CELL PANEL LAYOUT BOM | 49 |
| SG S2B DOOR PANEL LAYOUT | 50 |
| SG S2B DOOR PANEL LAYOUT BOM | 51 |
| SG S3A CELL PANEL LAYOUT | 52 |
| SG S3A PANEL LAYOUT BOM | 53 |
| SG S3A DOOR PANEL LAYOUT | 54 |
| SG S3A DOOR PANEL LAYOUT BOM | 55 |
| SG S3B CELL PANEL LAYOUT | 56 |
| SG S3B CELL PANEL LAYOUT BOM | 57 |
| SG S3B DOOR PANEL LAYOUT | 58 |
| SG S3B DOOR PANEL LAYOUT BOM | 59 |
| SG S4A CELL PANEL LAYOUT | 60 |
| SG S4A CELL PANEL LAYOUT BOM | 61 |


| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
TABLE OF CONTENTS
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

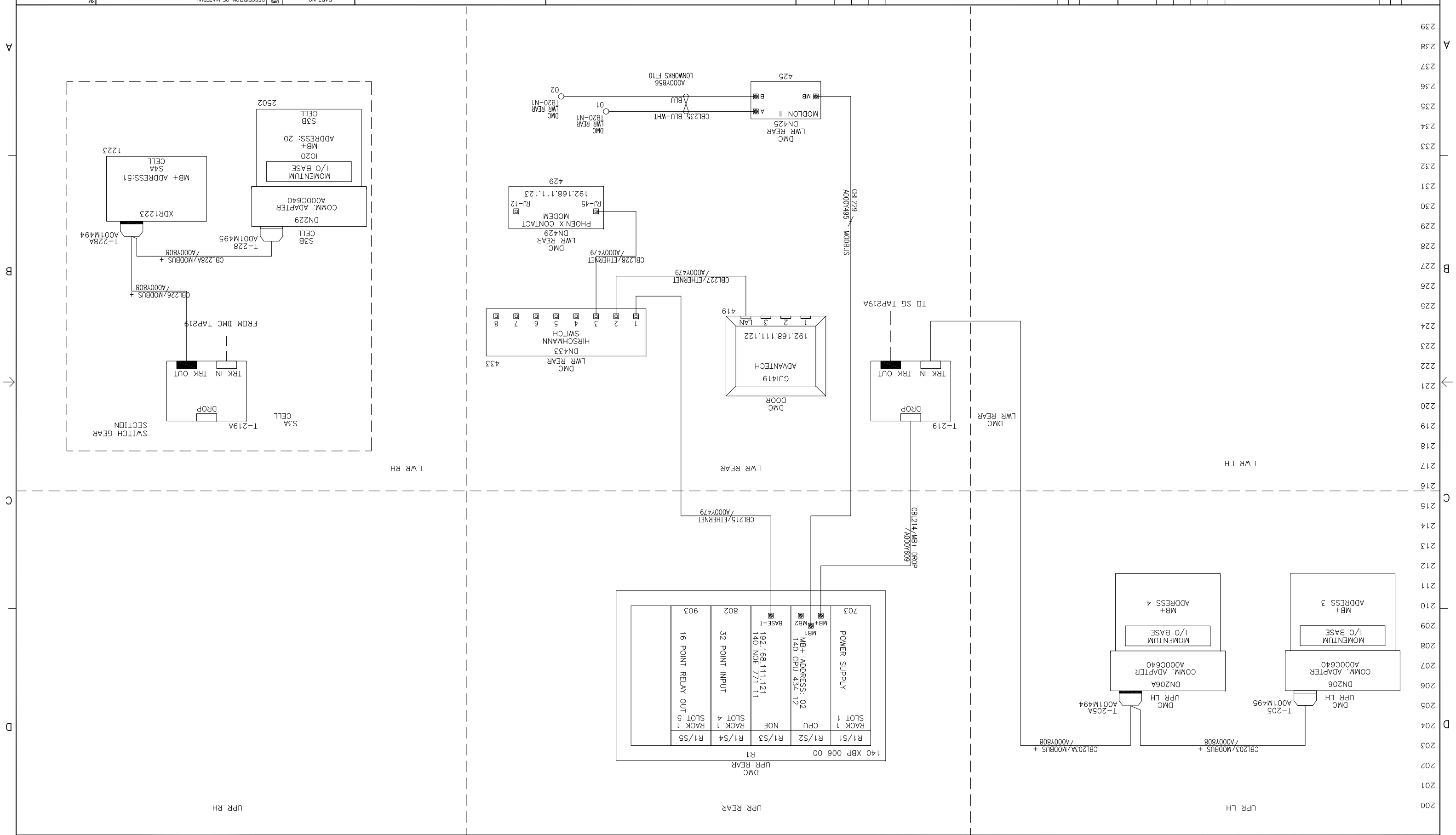
PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 1 OF 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE | PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
NETWORK DRAWING
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

AUTOCAD DWG

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DRAWN | V.SAKLANI | 06/17/10 |
| CHKD | V. SIVAN | 06/17/10 |
| APPROVED | K.TMUMASI | 06/17/10 |

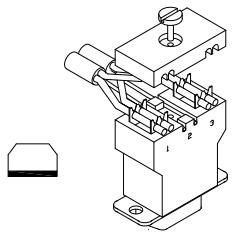
CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE
WD-SCHEMATISC

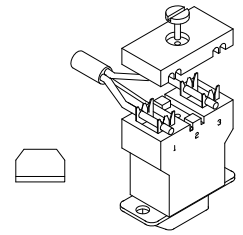
SITE CODE
PGA

DWG NO. A030S865
SHEET 2 OF 61
DWG SIZE D

# MODBUS PLUS CABLE CONNECTORS



NOTE:
REMOVE 3" OF THE CABLE OUTER JACKET AND SHIELDS (THIS WILL EXPOSE THE 2 SIGNAL WIRES AND DRAIN WIRE). INSERT THE CONNECTOR INTO THE CONNECTOR TOOL (#AS-MBPL-001) WITH THE CAP REMOVED. INSERT THE WIRES AS SHOWN (BLU OR BLK INTO POSITION #3; DRAIN WIRE, POSITION #2, WHT WIRE, POSITION #1). REPLACE THE CAP (WITHOUT THE SCREW) AND CLOSE THE TOOL FIRMLY. INSERT THE CAP SCREW AND TIGHTEN.

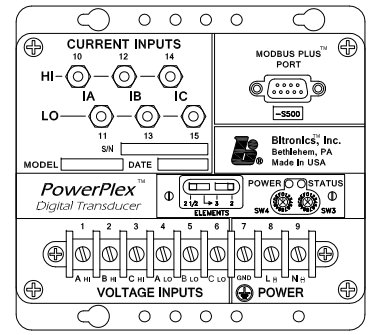


| INLINE CONNECTOR | |
|---|---|
| PIN | WIRE COLOR |
| PIN 1 | WHITE/BLUE |
| PIN 2 | SHIELD |
| PIN 3 | BLUE/WHITE |

NOTE:
MODBUS PLUS CABLE SHOULD BE A MINIMUM OF 10 FEET BETWEEN TERMINATIONS. THE NETWORK SHOULD BE A MAXIMUM OF 1500 FEET.

| TERM. CONNECTOR | |
|---|---|
| PIN | WIRE COLOR |
| PIN 1 | WHITE/BLUE |
| PIN 2 | SHIELD |
| PIN 3 | BLUE/WHITE |

# BITRONICS TRANSDUCER

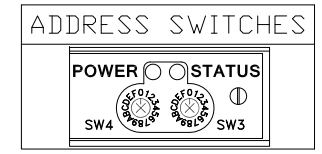



BITRONICS
TRANSDUCER

MB+ ADDRESS:XX

NOTE:
MODBUS PLUS CABLE SHOULD BE A MINIMUM OF 10 FEET BETWEEN TERMINATIONS. THE NETWORK SHOULD BE A MAXIMUM OF 1500 FEET.

ADDRESS SWITCHES

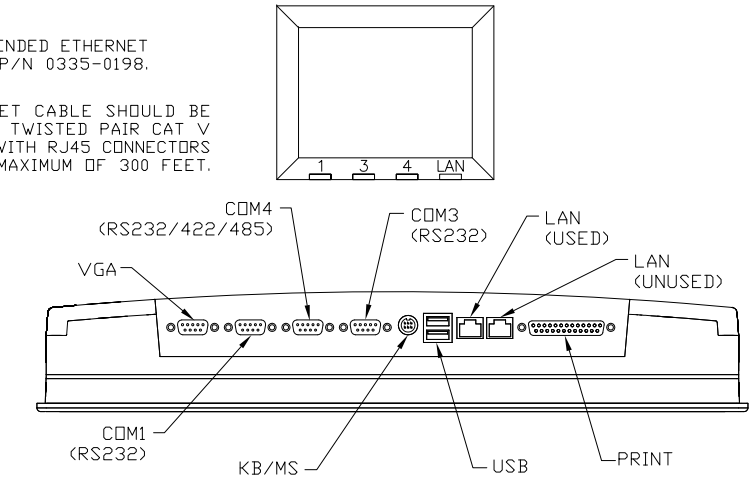



| ADDRESS SETTINGS | | |
|---|---|---|
| ADDRESS | SW4 | SW3 |
| 01 | 0 | 0 |
| 02 | 0 | 1 |
| 03 | 0 | 2 |
| 04 | 0 | 3 |
| 05 | 0 | 4 |
| 06 | 0 | 5 |
| 07 | 0 | 6 |
| 08 | 0 | 7 |
| 09 | 0 | 8 |
| 10 | 0 | 9 |
| 11 | 0 | A |
| 12 | 0 | B |
| 13 | 0 | C |
| 14 | 0 | D |
| 15 | 0 | E |
| 16 | 0 | F |

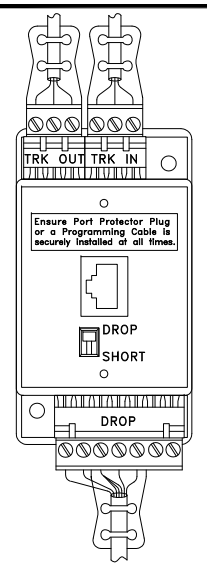
# ADVANTECH TOUCHSCREEN

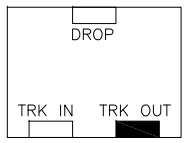
NOTE:
RECOMMENDED ETHERNET CABLE P/N 0335-0198.

NOTE:
ETHERNET CABLE SHOULD BE MINIMUM TWISTED PAIR CAT V CABLE WITH RJ45 CONNECTORS AND A MAXIMUM OF 300 FEET.




# MODBUS PLUS SUPER TAP




NOTE:
CONNECT ALL 3 DROP GROUND WIRES TOGETHER TO PIN 3.

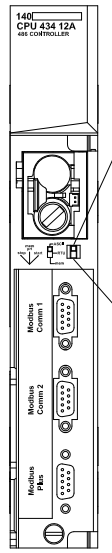
NOTE:
MODBUS PLUS CABLE SHOULD BE A MINIMUM OF 10 FEET BETWEEN TERMINATIONS. THE NETWORK SHOULD BE A MAXIMUM OF 1500 FEET.

| TRK IN | |
|---|---|
| PIN | WIRE COLOR |
| WH | WHITE |
| BL | BLUE |
| GND | GROUND |

| TRK OUT | |
|---|---|
| PIN | WIRE COLOR |
| WH | WHITE |
| BL | BLUE |
| GND | GROUND |

| DROP CABLE | |
|---|---|
| PIN | WIRE COLOR |
| 1: BL | ORANGE |
| 2: WH | WHITE |
| 3: GND | GROUND (3) |
| 4: BL | BLUE |
| 5: WH | WHITE |
| 6: GND | N/C |
| 7: GND | N/C |

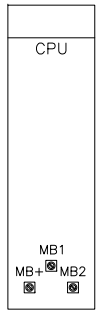
# QUANTUM PLATFORM CPU




3-POS DIPSWITCH

| POSITION | MODE |
|---|---|
| | ASCII |
| | RTU |
| | MEM |

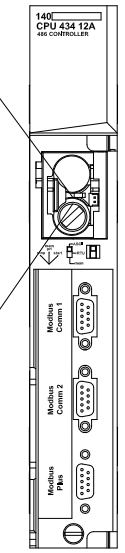
NORMAL POSITION: RTU



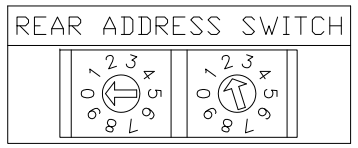

3-POS KEYSWITCH

| POSITION | MODE |
|---|---|
| | START |
| | MEM PRT |
| | STOP |

NORMAL POSITION: START

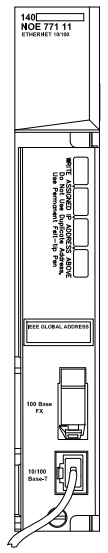



REAR ADDRESS SWITCH



DEFAULT ADDRESS: 02

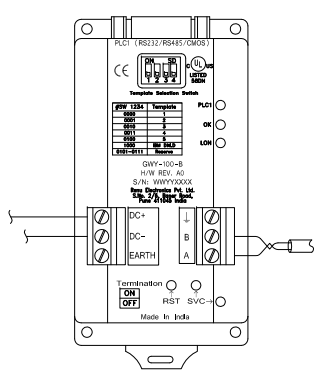
# QUANTUM NOE MODULE

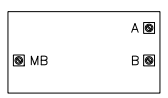


NOTE:
RECOMMENDED ETHERNET CABLE P/N 0335-0198.

NOTE:
ETHERNET CABLE SHOULD BE MINIMUM TWISTED PAIR CAT V CABLE WITH RJ45 CONNECTORS AND A MAXIMUM OF 300 FEET.

# MODLON GATEWAY



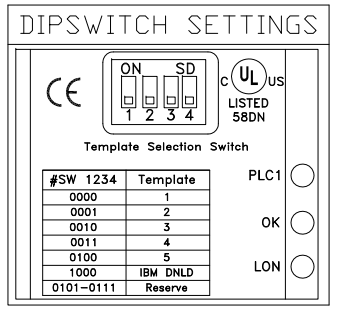




NOTE:
DO NOT GROUND MODLON.

NOTE:
RECOMMENDED FT10 LONWORKS CABLE IS P/N 0334-1350.

| LONWORKS CABLE | |
|---|---|
| PIN | WIRE COLOR |
| A | BLUE/WHITE |
| B | BLUE |

DIPSWITCH SETTINGS

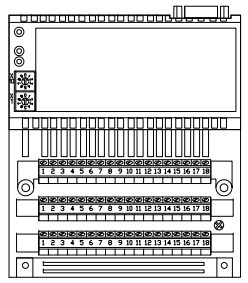



| #SW 1234 | Template |
|---|---|
| 0000 | 1 |
| 0001 | 2 |
| 0010 | 3 |
| 0011 | 4 |
| 0100 | 5 |
| 1000 | IBM DNLD |
| 0101-0111 | Reserve |

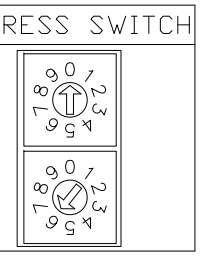
# MOMENTUM ADAPTERS

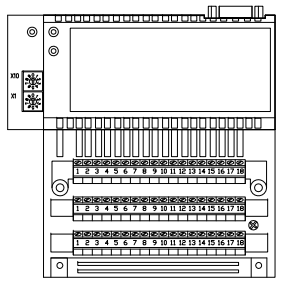
COMM. ADAPTER

CPU
MB
RJ 45



ADDRESS SWITCH





DEFAULT ADDRESS: SEE NETWORK DRAWING

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR NETWORK DETAIL
DISTRIBUTOR:
CUMMINS CARIBBEAN
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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

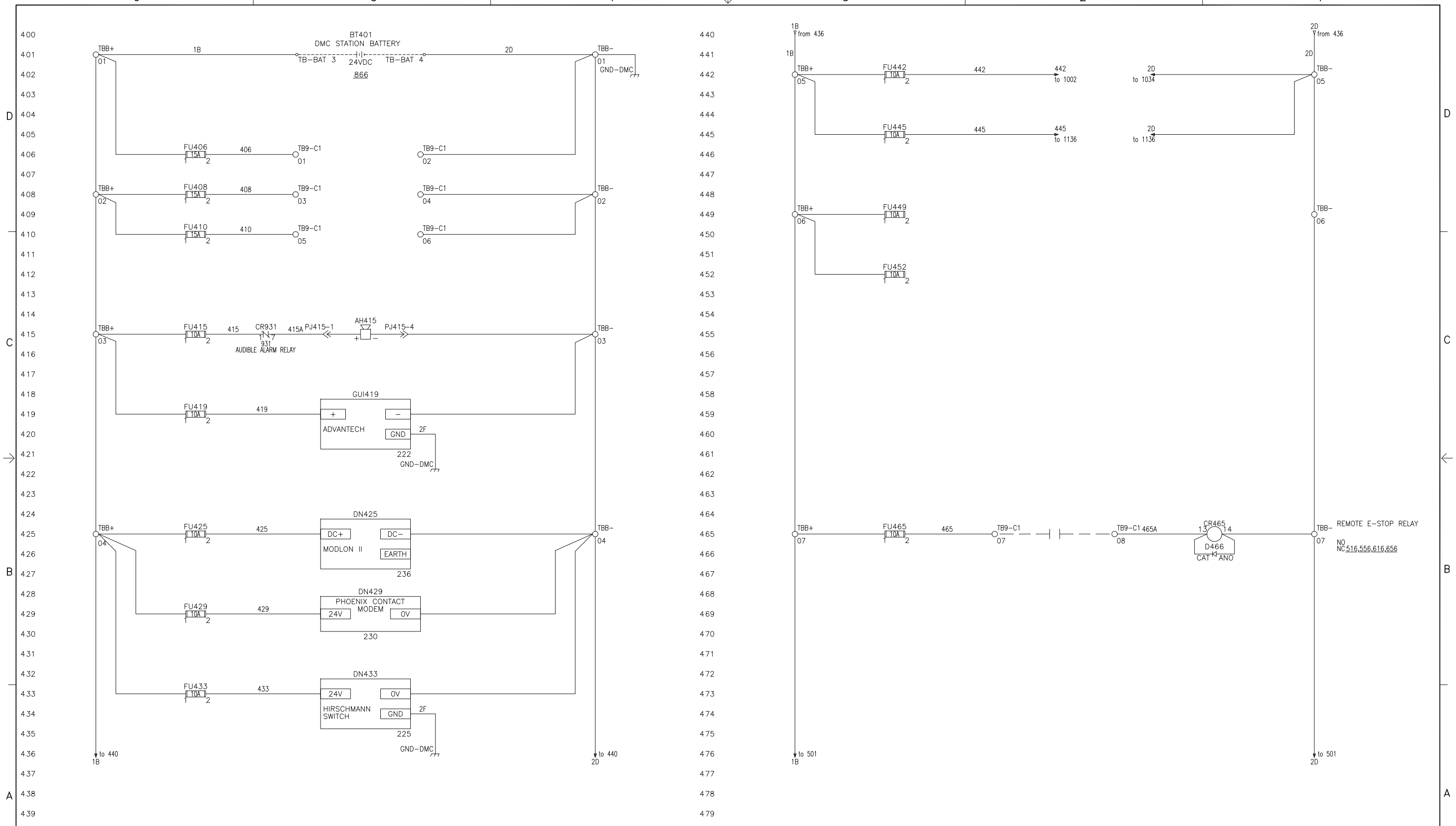
MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 3 OF 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC MAIN 24VDC SCHEMATIC
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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AUTOCAD DWG

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 SHEET 4 OF 61 SIZE D

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE | REVISION | PC NO. | LTR | NO. | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC GEN 1 & 2 MAIN CONTROL
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

DO NOT SCALE PRINT

| | | | |
|---|---|---|---|
| SW 10 | NAME | DATE | |
| CHKD PROJ | OR V.SAKLANI | 06/17/10 | |
| CHKD MFG | V. SIVAN | 06/17/10 | |
| | APPROVED K.TMUMASI | 06/17/10 | |

SITE CODE

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE
WD-SCHEMATISC

AUTOCAD DWG

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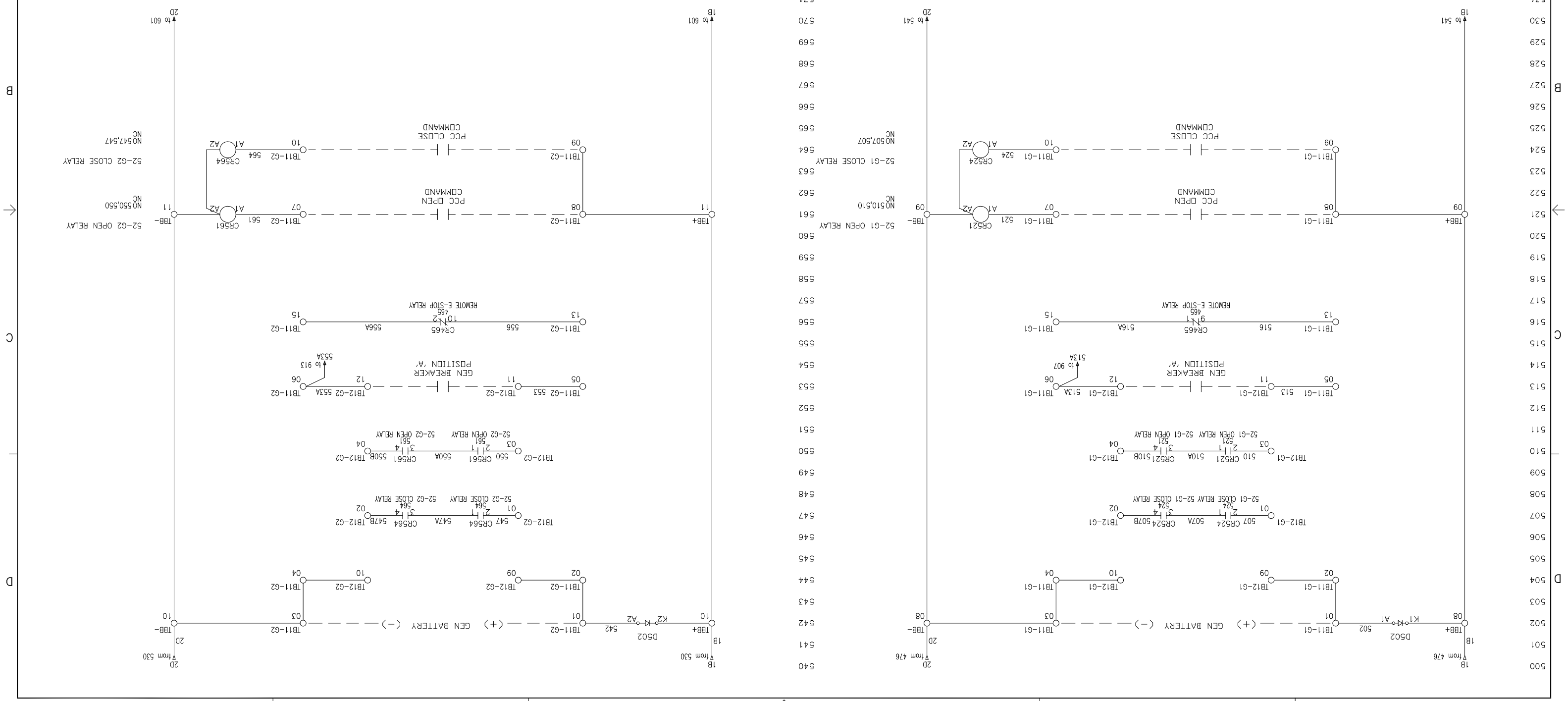
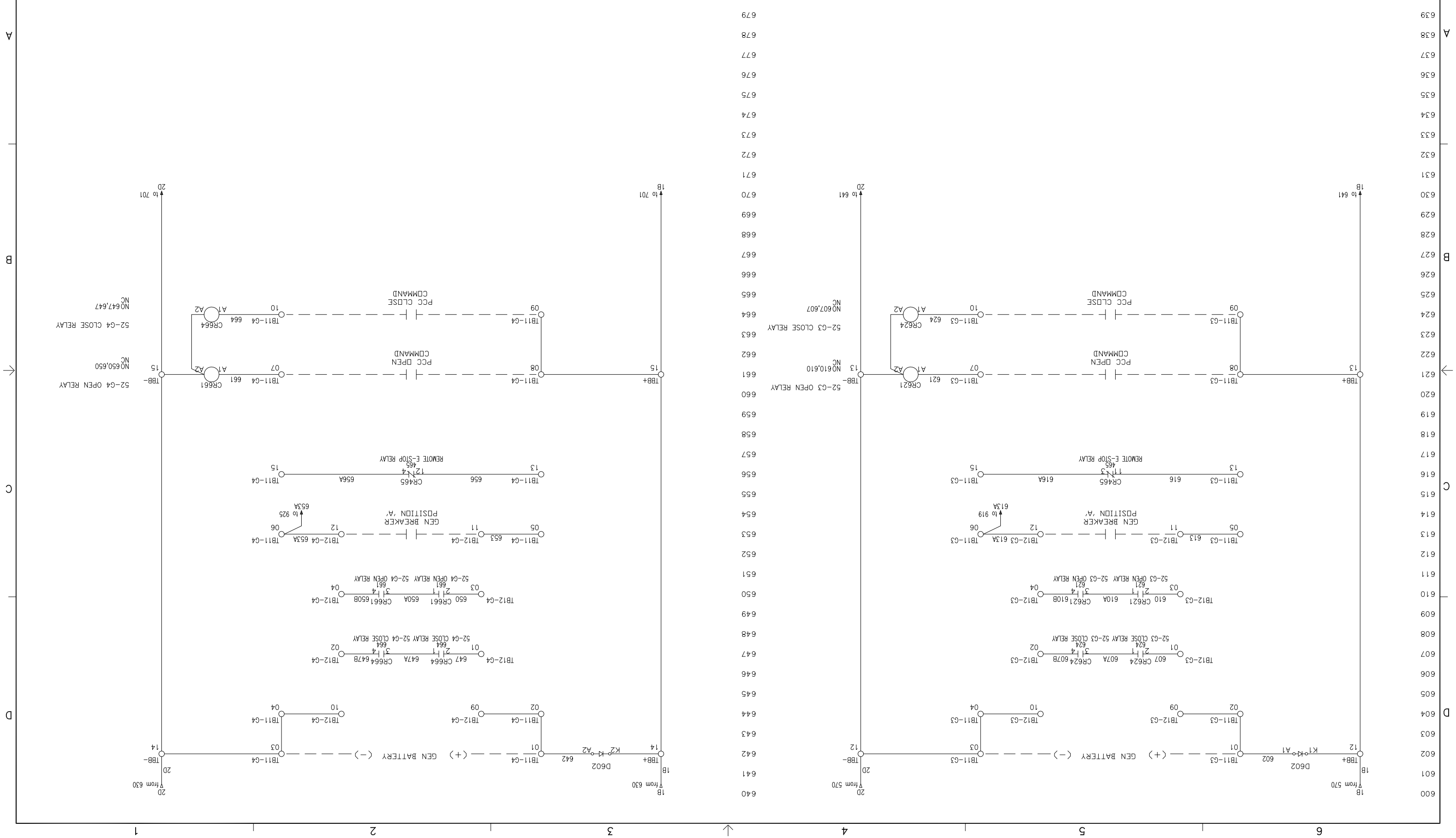
FROM INTERPRETATION OF DIMENSIONS AND TOLERANCES SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCLL2004R-772F

SIZE PGA

DWG NO. A030S865 SHEET 5 OF 61 DWG SIZE D






| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC GEN 3 & 4 MAIN CONTROL
CUMMINS CARIBBEAN
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

AUTOCAD DWG

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CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

WD-SCHEMATISC

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

NAME | DATE
V. SAKLANI | 06/17/10
V. SIVAN | 06/17/10
APPROVED K.TWUMASI | 06/17/10

SITE CODE

PGA

PCLL2004R-77ZF

DWG NO. A030S865 | SHEET 6 of 61 | DWG SIZE D

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
BUS PT CONNECTION & PLC POWER
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

AUTOCAD DWG

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CUMMINS POWER GENERATION
1400 2nd AVE NE
MINNEAPOLIS, MN 55422

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKD MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TMUMASI | 06/17/10 |

SITE CODE

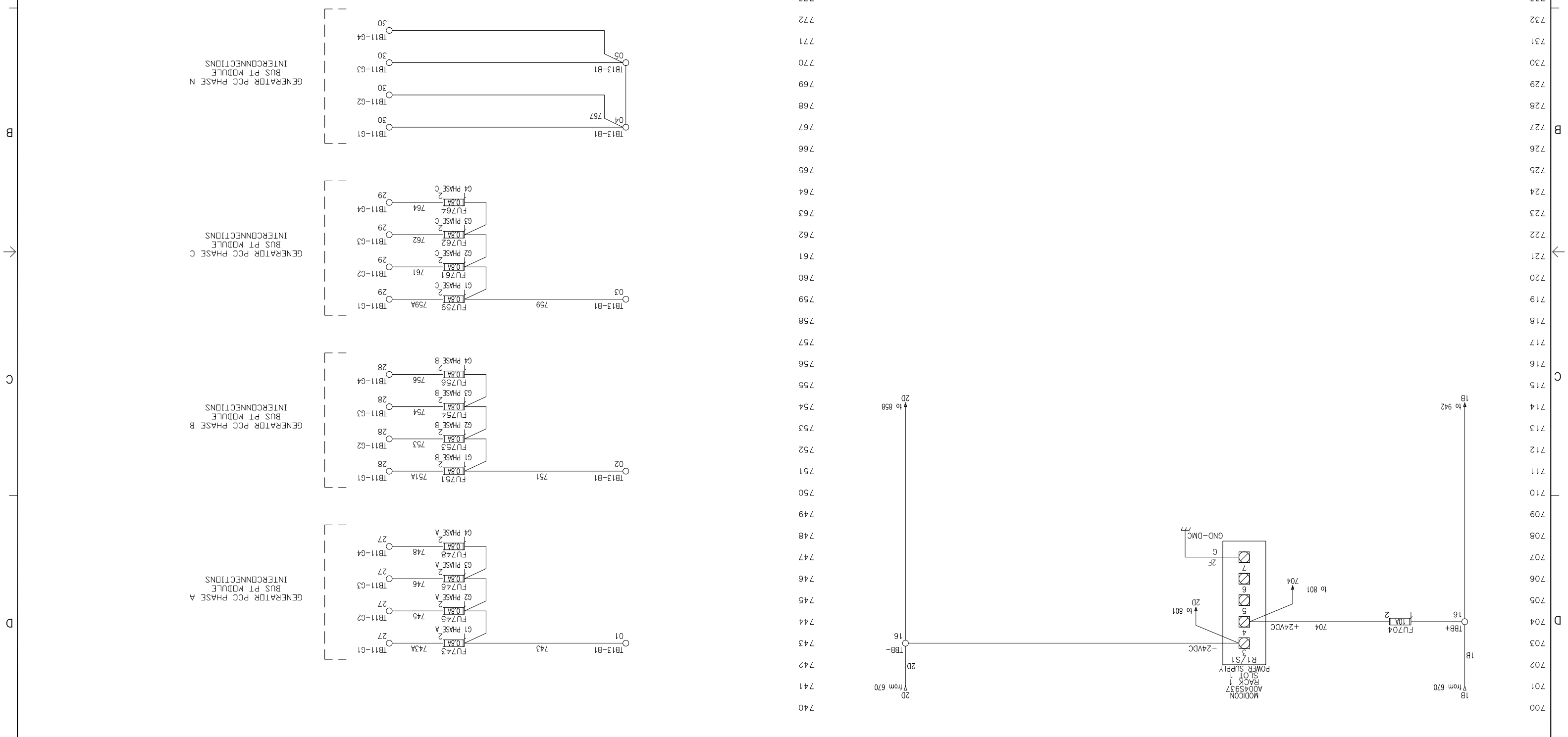
TITLE
WD-SCHEMATISC

DWG NO. A030S865 SHEET 7 OF 61 DWG SIZE D

PGA

PCLL2004R-772F

MODEL FIRST USED ON



| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
GENERATOR 1-4 PLC INPUTS
CUMMINS CARIBBEAN
DISTRIBUTOR:
707168I

AUTOCAD DWG

DO NOT SCALE PRINT

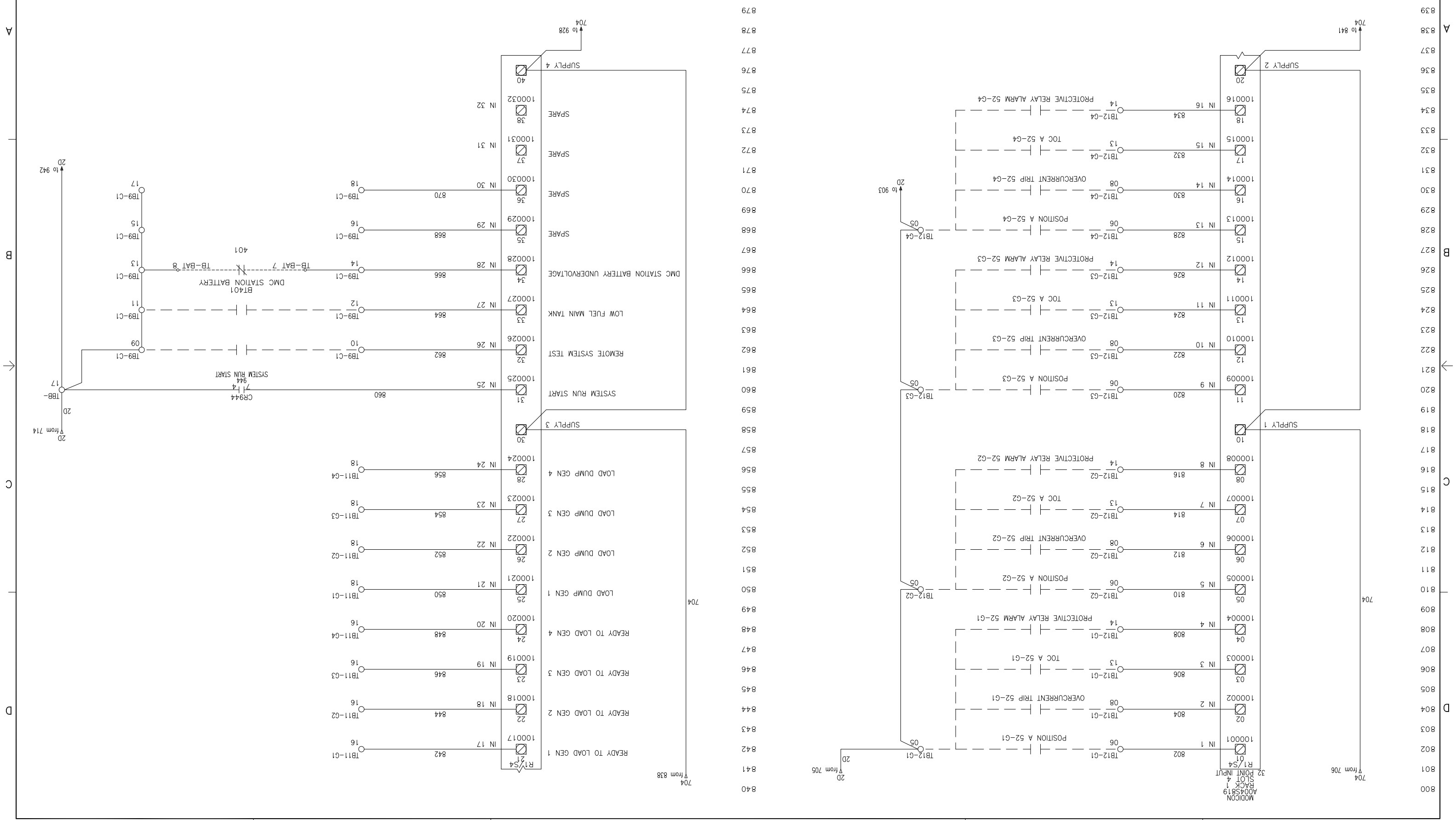
CUMMINS POWER GENERATION
1400 Zrh-4 AAE AE
MANNERVILLE, AN 37242

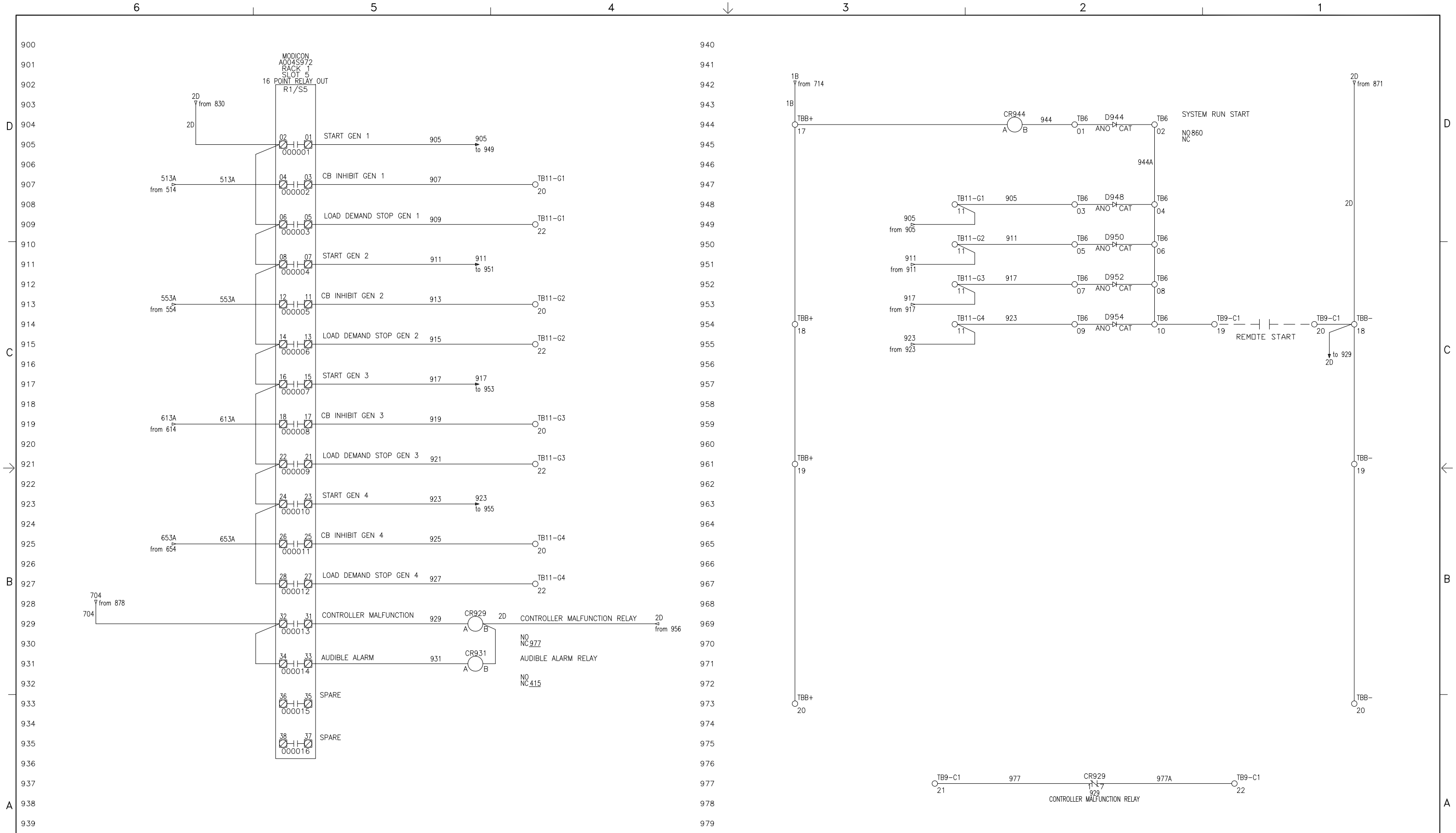
WD-SCHEMATISC

PGA

PCLL2004R-772F

A0730S865






| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
GENERATOR 1-4 PLC OUTPUTS
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

ANG TOL | DRAWN TO SCALE OF

AUTOCAD DWG

SIM TO | COPIED FROM | THREE ANGLE PROJECTION

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 9 of 61 | DWG SIZE D

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC FEEDER 1-8 STATUS
CUMMINS CARIBBEAN
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

| ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|
| | | | | |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

ANS TOL | DRAWN TO SCALE OF

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THESE MODE PRODUCTION

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AUTOCAD DWG

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| Chkd MFG | V. SIVAN | 06/17/10 |
| | APPROVED K.TMUMASI | 06/17/10 |

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE
WD-SCHEMATISC

SITE CODE

PGA

PCLL2004R-772F

MODEL FIRST USED ON

FOR INTERPRETATION OF DIMENSIONS AND TOLERANCES SEE ANSI Y14.5M-1982

DWG NO. A030S865 | SHEET 10 of 61 | DWG SIZE D

MODICON
A0043732
MB+
ADDRESS 4
32 POINT INPUT

(R1) 01 IO4

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | IN | 1002 | TB27-S1 11 | 1004 | TB27-S1 12 | (R1) 02 10019 4 |
| 2 | IN | 1004 | TB27-S1 12 | 1006 | TB27-S1 13 | (R1) 03 10019 5 |
| 3 | IN | 1006 | TB27-S1 13 | 1008 | TB27-S1 14 | (R1) 04 10019 6 |
| 4 | IN | 1008 | TB27-S1 14 | 1010 | TB27-S1 15 | (R1) 05 10019 7 |
| 5 | IN | 1010 | TB27-S1 15 | 1012 | TB27-S1 16 | (R1) 06 10019 8 |
| 6 | IN | 1012 | TB27-S1 16 | 1014 | TB27-S1 17 | (R1) 07 10019 9 |
| 7 | IN | 1014 | TB27-S1 17 | 1016 | TB27-S1 18 | (R1) 08 10020 0 |
| 8 | IN | 1016 | TB27-S1 18 | 1018 | TB27-S1 19 | (R1) 09 10020 1 |
| 9 | IN | 1018 | TB27-S1 19 | 1020 | TB27-S1 20 | (R1) 10 10020 2 |
| 10 | IN | 1020 | TB27-S1 20 | 1022 | TB27-S1 21 | (R1) 11 10020 3 |
| 11 | IN | 1022 | TB27-S1 21 | 1024 | TB27-S1 22 | (R1) 12 10020 4 |
| 12 | IN | 1024 | TB27-S1 22 | 1026 | TB27-S1 23 | (R1) 13 10020 5 |
| 13 | IN | 1026 | TB27-S1 23 | 1028 | TB27-S1 24 | (R1) 14 10020 6 |
| 14 | IN | 1028 | TB27-S1 24 | 1030 | TB27-S1 25 | (R1) 15 10020 7 |
| 15 | IN | 1030 | TB27-S1 25 | 1032 | TB27-S1 26 | (R1) 16 10020 8 |
| 16 | IN | 1032 | TB27-S1 26 | 442 | to 1041 | |
| 17 | 2D | 442 | TB27-S1 2 | 44 | TB27-S1 2D | from 442 M– |
| 18 | L+ | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | IN | 1042 | TB27-S1 27 | 1044 | TB27-S1 28 | (R2) 01 10020 9 |
| 2 | IN | 1044 | TB27-S1 28 | 1046 | TB27-S1 29 | (R2) 02 10021 0 |
| 3 | IN | 1046 | TB27-S1 29 | 1048 | TB27-S1 30 | (R2) 03 10021 1 |
| 4 | IN | 1048 | TB27-S1 30 | 1050 | TB27-S1 31 | (R2) 04 10021 2 |
| 5 | IN | 1050 | TB27-S1 31 | 1052 | TB27-S1 32 | (R2) 05 10021 3 |
| 6 | IN | 1052 | TB27-S1 32 | 1054 | TB27-S1 33 | (R2) 06 10021 4 |
| 7 | IN | 1054 | TB27-S1 33 | 1056 | TB27-S1 34 | (R2) 07 10021 5 |
| 8 | IN | 1056 | TB27-S1 34 | 1058 | TB27-S1 35 | (R2) 08 10021 6 |
| 9 | IN | 1058 | TB27-S1 35 | 1060 | TB27-S1 36 | (R2) 09 10021 7 |
| 10 | IN | 1060 | TB27-S1 36 | 1062 | TB27-S1 37 | (R2) 10 10021 8 |
| 11 | IN | 1062 | TB27-S1 37 | 1064 | TB27-S1 38 | (R2) 11 10021 9 |
| 12 | IN | 1064 | TB27-S1 38 | 1066 | TB27-S1 39 | (R2) 12 10022 0 |
| 13 | IN | 1066 | TB27-S1 39 | 1068 | TB27-S1 40 | (R2) 13 10022 1 |
| 14 | IN | 1068 | TB27-S1 40 | 1070 | TB27-S1 41 | (R2) 14 10022 2 |
| 15 | IN | 1070 | TB27-S1 41 | 1072 | TB27-S1 42 | (R2) 15 10022 3 |
| 16 | IN | 1072 | TB27-S1 42 | 442 | from 1033 | |
| 17 | 1L+ | | | | | |
| 18 | 2L+ | | | | | |

IO4

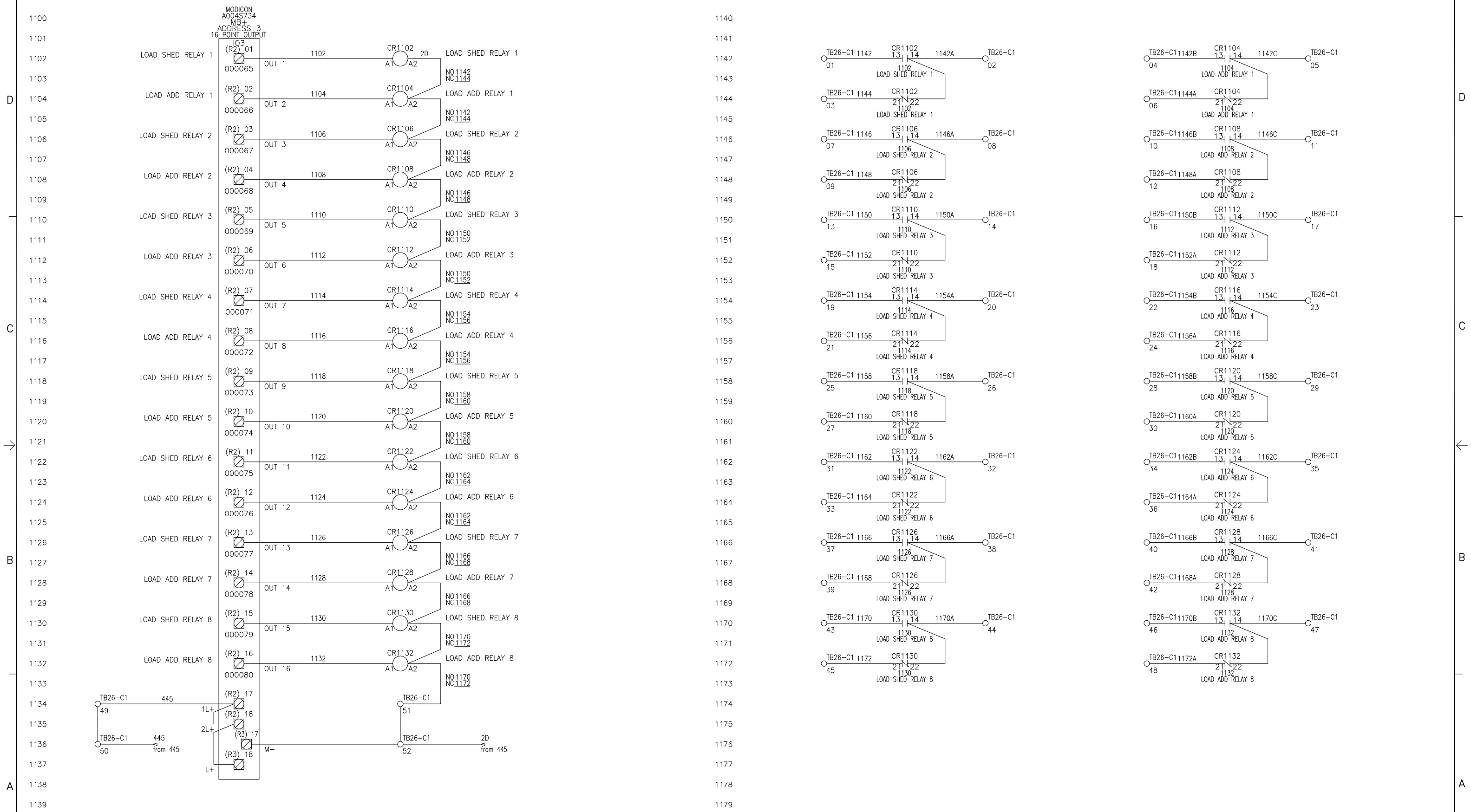
| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | IN | 1002 | TB27-S1 11 | 1004 | TB27-S1 12 | (R1) 02 10019 4 |
| 2 | IN | 1004 | TB27-S1 12 | 1006 | TB27-S1 13 | (R1) 03 10019 5 |
| 3 | IN | 1006 | TB27-S1 13 | 1008 | TB27-S1 14 | (R1) 04 10019 6 |
| 4 | IN | 1008 | TB27-S1 14 | 1010 | TB27-S1 15 | (R1) 05 10019 7 |
| 5 | IN | 1010 | TB27-S1 15 | 1012 | TB27-S1 16 | (R1) 06 10019 8 |
| 6 | IN | 1012 | TB27-S1 16 | 1014 | TB27-S1 17 | (R1) 07 10019 9 |
| 7 | IN | 1014 | TB27-S1 17 | 1016 | TB27-S1 18 | (R1) 08 10020 0 |
| 8 | IN | 1016 | TB27-S1 18 | 1018 | TB27-S1 19 | (R1) 09 10020 1 |
| 9 | IN | 1018 | TB27-S1 19 | 1020 | TB27-S1 20 | (R1) 10 10020 2 |
| 10 | IN | 1020 | TB27-S1 20 | 1022 | TB27-S1 21 | (R1) 11 10020 3 |
| 11 | IN | 1022 | TB27-S1 21 | 1024 | TB27-S1 22 | (R1) 12 10020 4 |
| 12 | IN | 1024 | TB27-S1 22 | 1026 | TB27-S1 23 | (R1) 13 10020 5 |
| 13 | IN | 1026 | TB27-S1 23 | 1028 | TB27-S1 24 | (R1) 14 10020 6 |
| 14 | IN | 1028 | TB27-S1 24 | 1030 | TB27-S1 25 | (R1) 15 10020 7 |
| 15 | IN | 1030 | TB27-S1 25 | 1032 | TB27-S1 26 | (R1) 16 10020 8 |
| 16 | IN | 1032 | TB27-S1 26 | 442 | to 1041 | |
| 17 | 2D | 442 | TB27-S1 2 | 44 | TB27-S1 2D | from 442 M– |
| 18 | L+ | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | IN | 1042 | TB27-S1 27 | 1044 | TB27-S1 28 | (R2) 01 10020 9 |
| 2 | IN | 1044 | TB27-S1 28 | 1046 | TB27-S1 29 | (R2) 02 10021 0 |
| 3 | IN | 1046 | TB27-S1 29 | 1048 | TB27-S1 30 | (R2) 03 10021 1 |
| 4 | IN | 1048 | TB27-S1 30 | 1050 | TB27-S1 31 | (R2) 04 10021 2 |
| 5 | IN | 1050 | TB27-S1 31 | 1052 | TB27-S1 32 | (R2) 05 10021 3 |
| 6 | IN | 1052 | TB27-S1 32 | 1054 | TB27-S1 33 | (R2) 06 10021 4 |
| 7 | IN | 1054 | TB27-S1 33 | 1056 | TB27-S1 34 | (R2) 07 10021 5 |
| 8 | IN | 1056 | TB27-S1 34 | 1058 | TB27-S1 35 | (R2) 08 10021 6 |
| 9 | IN | 1058 | TB27-S1 35 | 1060 | TB27-S1 36 | (R2) 09 10021 7 |
| 10 | IN | 1060 | TB27-S1 36 | 1062 | TB27-S1 37 | (R2) 10 10021 8 |
| 11 | IN | 1062 | TB27-S1 37 | 1064 | TB27-S1 38 | (R2) 11 10021 9 |
| 12 | IN | 1064 | TB27-S1 38 | 1066 | TB27-S1 39 | (R2) 12 10022 0 |
| 13 | IN | 1066 | TB27-S1 39 | 1068 | TB27-S1 40 | (R2) 13 10022 1 |
| 14 | IN | 1068 | TB27-S1 40 | 1070 | TB27-S1 41 | (R2) 14 10022 2 |
| 15 | IN | 1070 | TB27-S1 41 | 1072 | TB27-S1 42 | (R2) 15 10022 3 |
| 16 | IN | 1072 | TB27-S1 42 | 442 | from 1033 | |
| 17 | 1L+ | | | | | |
| 18 | 2L+ | | | | | |

IO4

| | |
|---|---|
| POSITION A 52-F1A | (R1) 01 10019 3 |
| OVERCURRENT TRIP 52-F1A | (R1) 02 10019 4 |
| TOC A 52-F1A | (R1) 03 10019 5 |
| GROUND FAULT 52-F1A | (R1) 04 10019 6 |
| POSITION A 52-F2 | (R1) 05 10019 7 |
| OVERCURRENT TRIP 52-F2 | (R1) 06 10019 8 |
| TOC A 52-F2 | (R1) 07 10019 9 |
| GROUND FAULT 52-F2 | (R1) 08 10020 0 |
| POSITION A 52-F3 | (R1) 09 10020 1 |
| OVERCURRENT TRIP 52-F3 | (R1) 10 10020 2 |
| TOC A 52-F3 | (R1) 11 10020 3 |
| GROUND FAULT 52-F3 | (R1) 12 10020 4 |
| POSITION A 52-F4 | (R1) 13 10020 5 |
| OVERCURRENT TRIP 52-F4 | (R1) 14 10020 6 |
| TOC A 52-F4 | (R1) 15 10020 7 |
| GROUND FAULT 52-F4 | (R1) 16 10020 8 |

| | |
|---|---|
| POSITION A 52-F5 | (R2) 01 10020 9 |
| OVERCURRENT TRIP 52-F5 | (R2) 02 10021 0 |
| TOC A 52-F5 | (R2) 03 10021 1 |
| GROUND FAULT 52-F5 | (R2) 04 10021 2 |
| POSITION A 52-F6 | (R2) 05 10021 3 |
| OVERCURRENT TRIP 52-F6 | (R2) 06 10021 4 |
| TOC A 52-F6 | (R2) 07 10021 5 |
| GROUND FAULT 52-F6 | (R2) 08 10021 6 |
| POSITION A 52-F7 | (R2) 09 10021 7 |
| OVERCURRENT TRIP 52-F7 | (R2) 10 10021 8 |
| TOC A 52-F7 | (R2) 11 10021 9 |
| GROUND FAULT 52-F7 | (R2) 12 10022 0 |
| POSITION A 52-F8 | (R2) 13 10022 1 |
| OVERCURRENT TRIP 52-F8 | (R2) 14 10022 2 |
| TOC A 52-F8 | (R2) 15 10022 3 |
| GROUND FAULT 52-F8 | (R2) 16 10022 4 |




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC FEEDER 1-8 LALS
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

AUTOCAD DWG

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 11 OF 61

DWG SIZE D

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARCGBO OBSERVATORY SWITCHGEAR
SYSTEM AC METERING INPUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

| DO NOT SCALE PRINT | | |
|---|---|---|
| SW 10 | NAME | DATE |
| CHKD | V.SAKLANI | 06/17/10 |
| PROJ | V. SIVAN | 06/17/10 |
| MFG | APPROVED TM.TMJVMASI | 06/17/10 |

AUTOCAD DWG

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

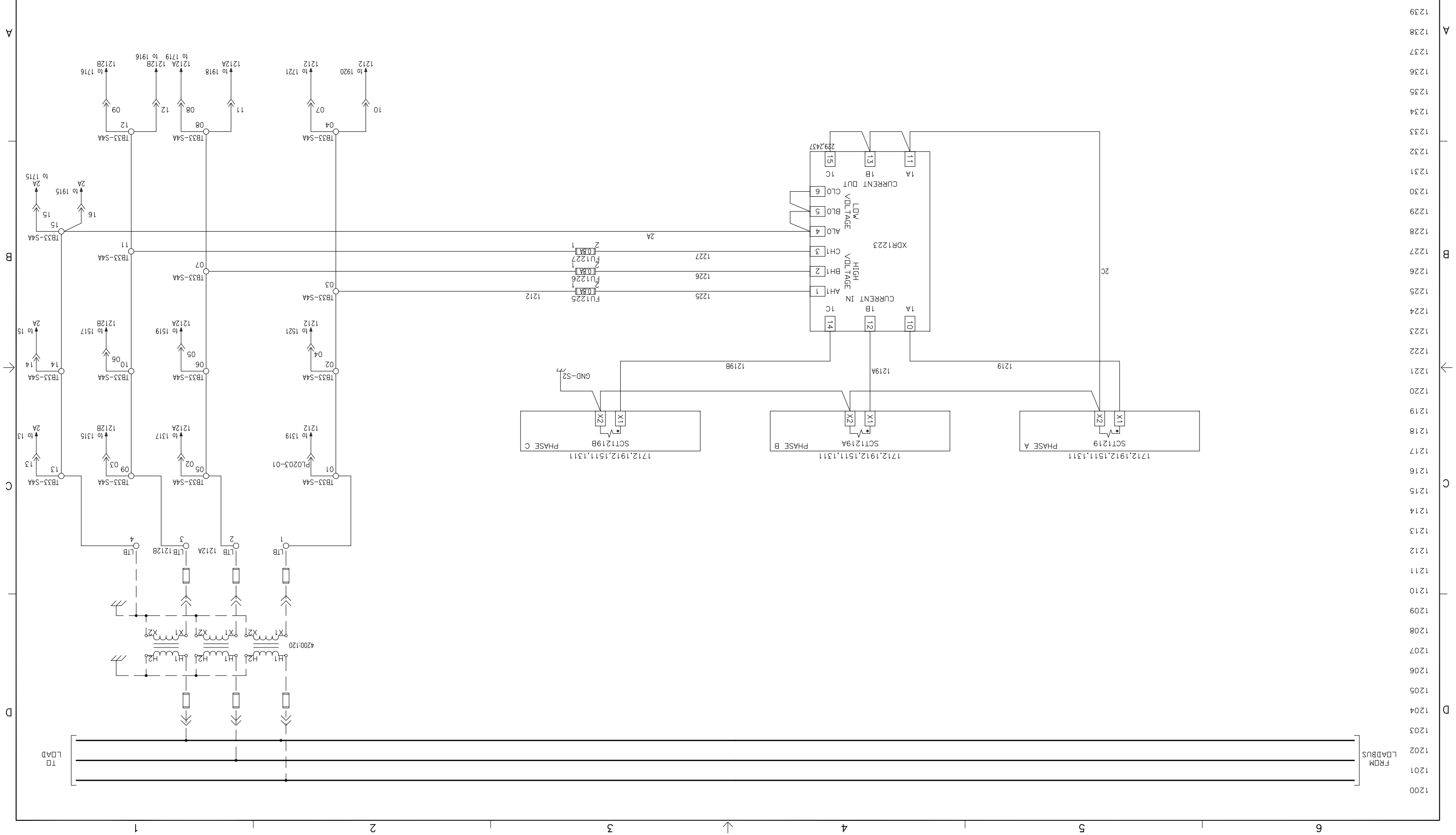
TITLE
WD-SCHEMATISC

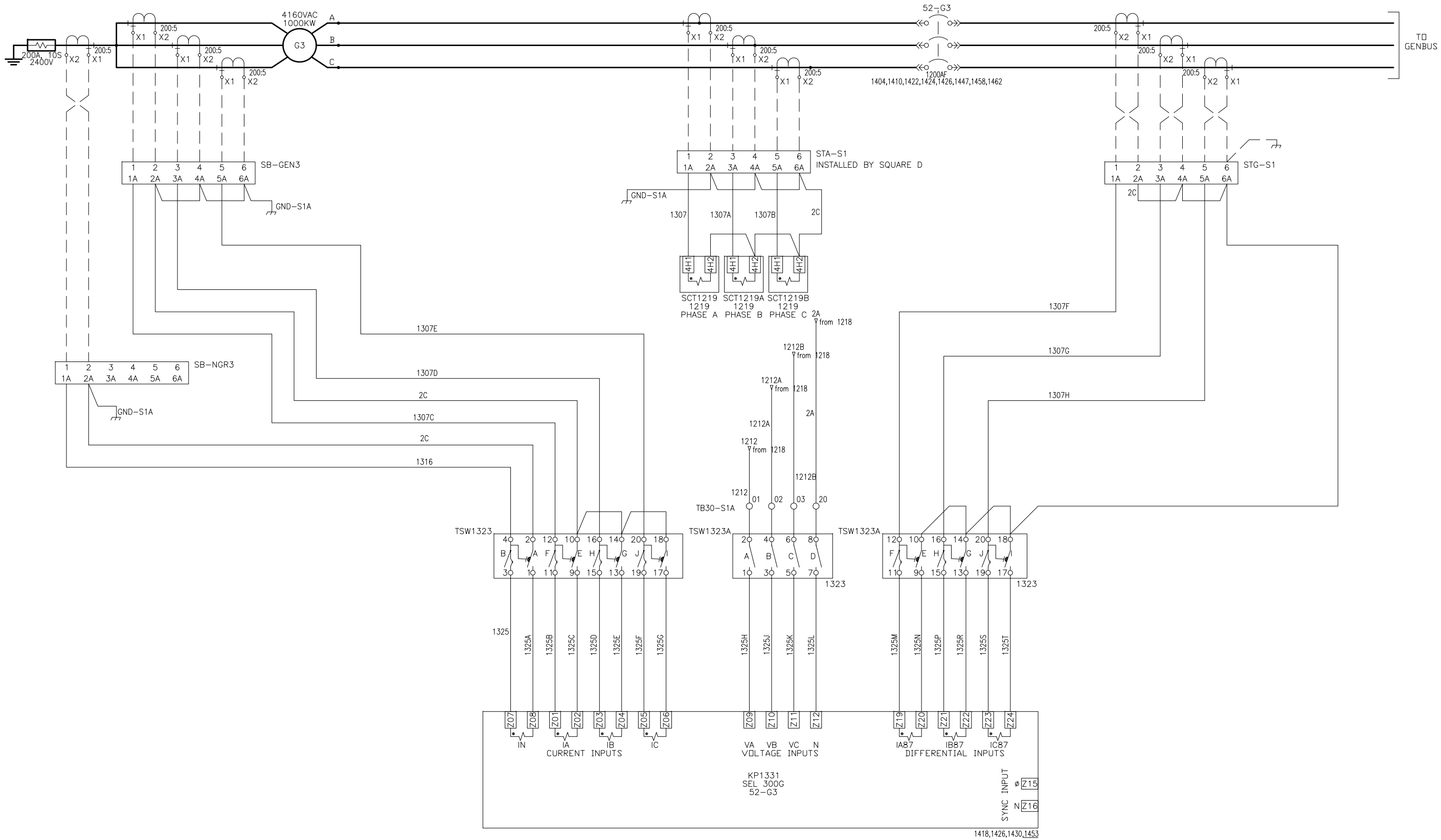
SITE CODE

PGA

PCL200AR-772F

DWG NO. A030S865 | SHEET 12 OF 61 | DWG SIZE D






| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G3 AC SCHEMATICS
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

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AUTOCAD DWG

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 13 OF 61 | DWG SIZE D

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G3 DC SCHEMATICS
CUMMINS CARIBBEAN
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

DO NOT SCALE PRINT

| | | | |
|---|---|---|---|
| | | NAME | DATE |
| DRAWN | | V.SAKLANI | 06/17/10 |
| CHKD | | V. SIVAN | 06/17/10 |
| APPROVED | | K.TMUMASI | 06/17/10 |

AUTOCAD DWG

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

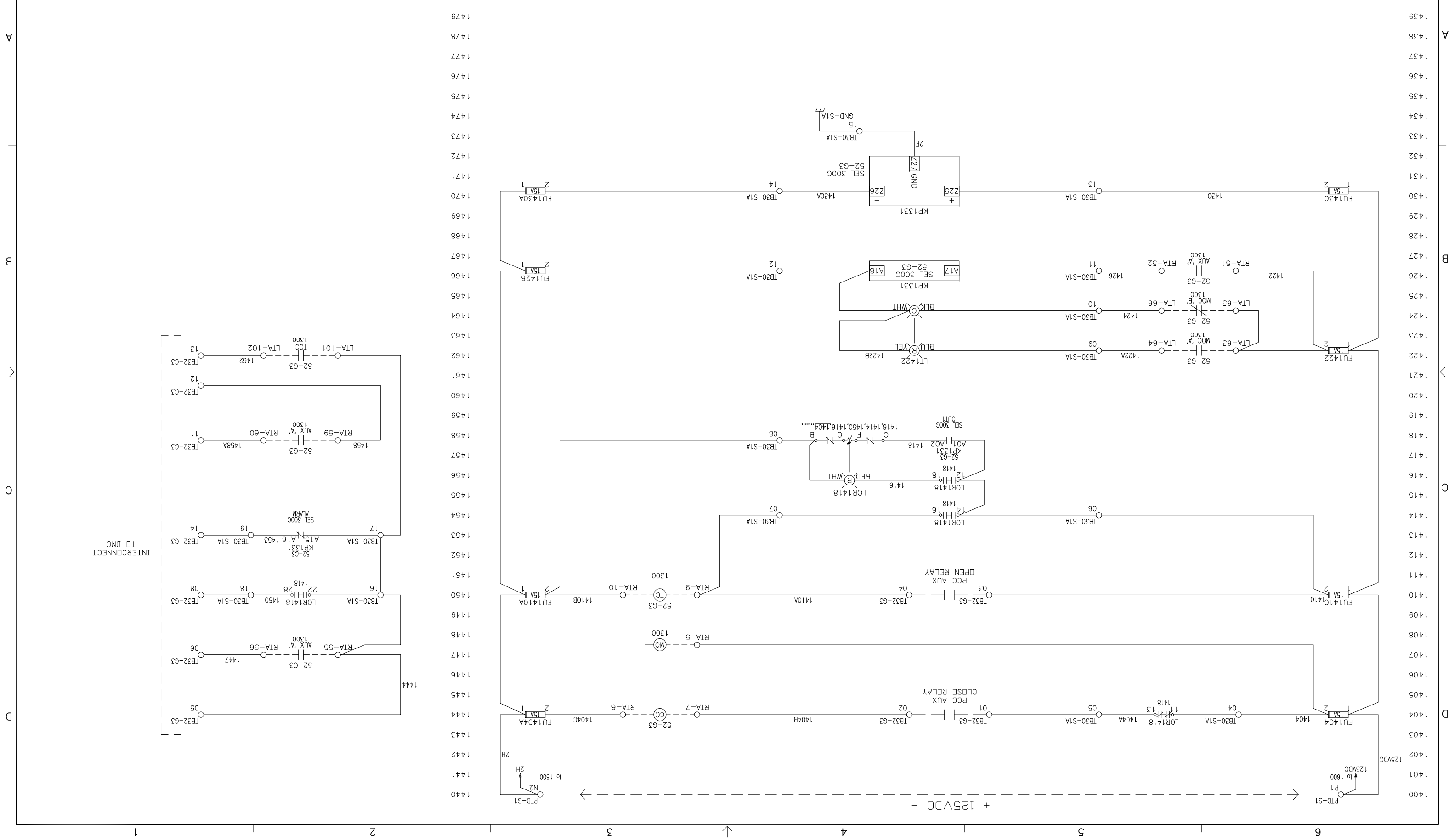
SITE CODE

TITLE
WD-SCHEMATISC

DWG NO. A030S865 | SHEET 14 of 61 | DWG SIZE D

PGA

PCLL200AR-772F



| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G4 AC SCHEMATIC
CUMMINS CARIBBEAN
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

DO NOT SCALE PRINT

AUTOCAD DWG

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKD MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TMUMASI | 06/17/10 |

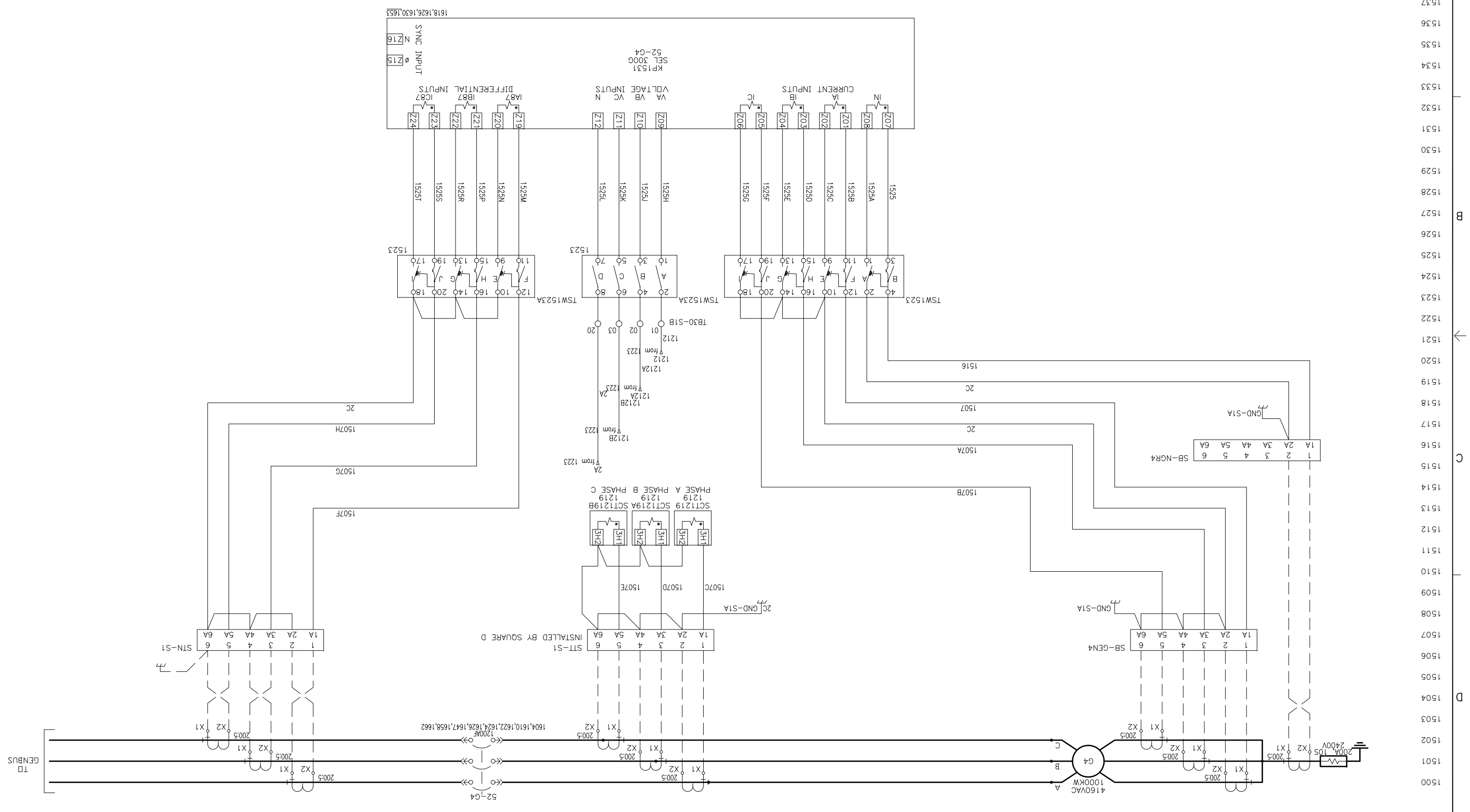
SITE CODE

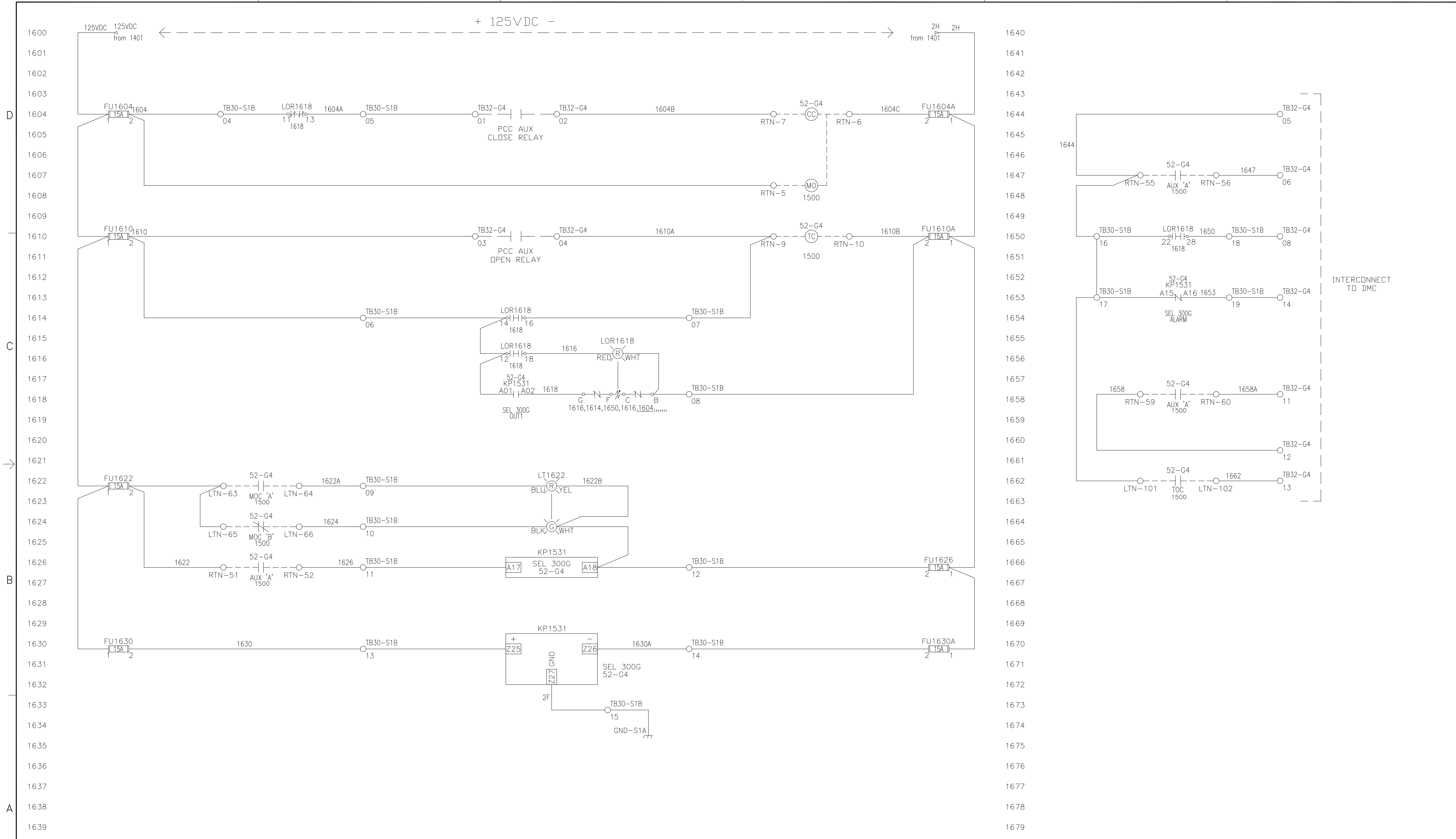
TITLE
WD-SCHEMATISC

PGA

PCLL2004R-772F

DWG NO. A030S865 | SHEET 15 of 61 | DWG SIZE D






| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G4 DC SCHEMATIC
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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AUTOCAD DWG

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PART NO. — DWG SIZE — DESCRIPTION OF MATERIAL — REF DES

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865

SHEET 16 OF 61

DWG SIZE D

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G1 AC SCHEMATIC
CUMMINS CARIBBEAN
DISTRIBUTOR:
7071681

DO NOT SCALE PRINT

AUTOCAD DWG

| NAME | DATE |
|---|---|
| V.SAKLANI | 06/17/10 |
| V. SIVAN | 06/17/10 |
| APPROVED K.TMUMASI | 06/17/10 |

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

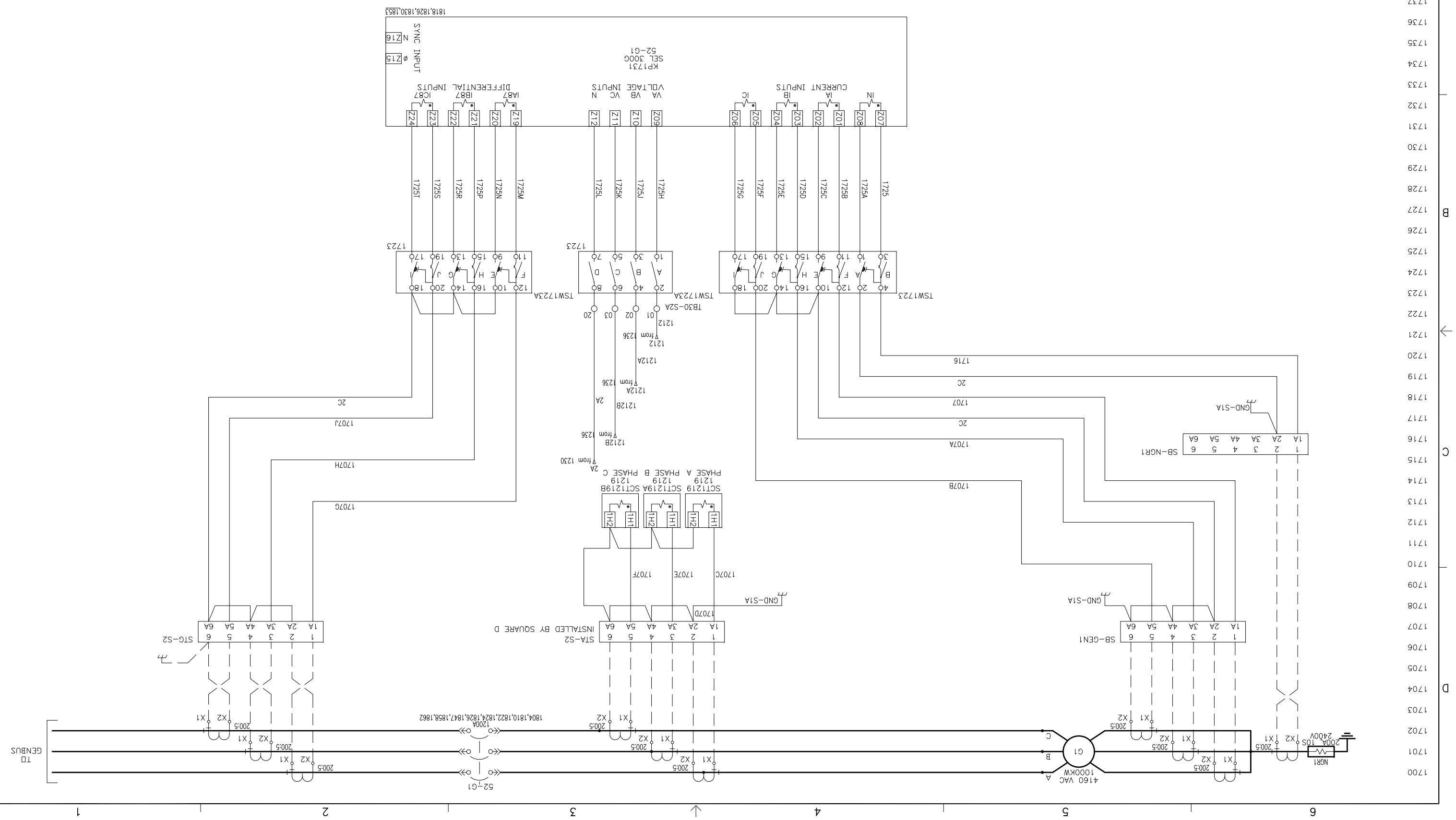
TITLE
WD-SCHEMATISC

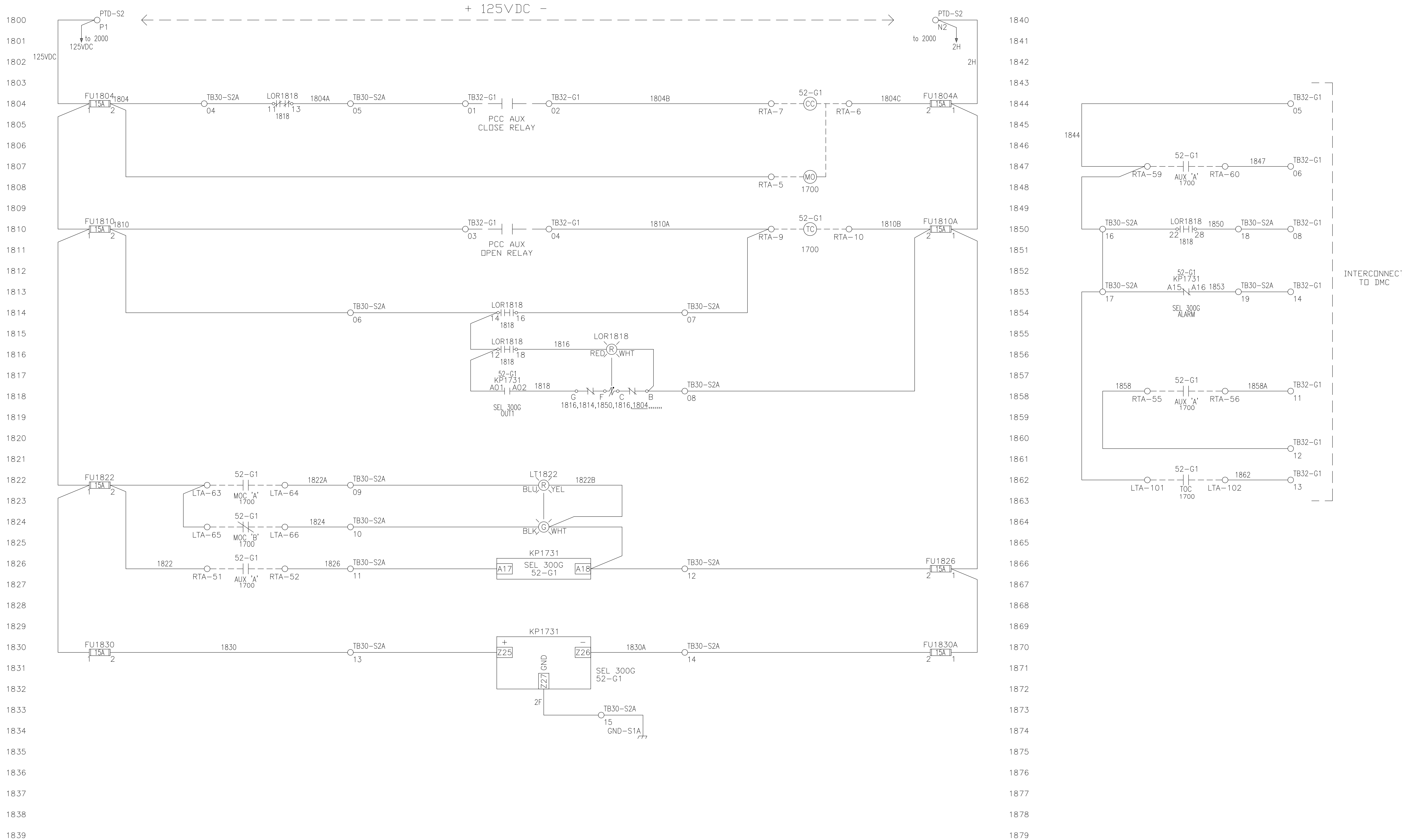
SITE CODE

PGA

PCLL2004R-772F

DWG NO. A030S865 | SHEET 17 of 61 | DWG SIZE D






| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G1 DC SCHEMATIC
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

AUTOCAD DWG

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PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

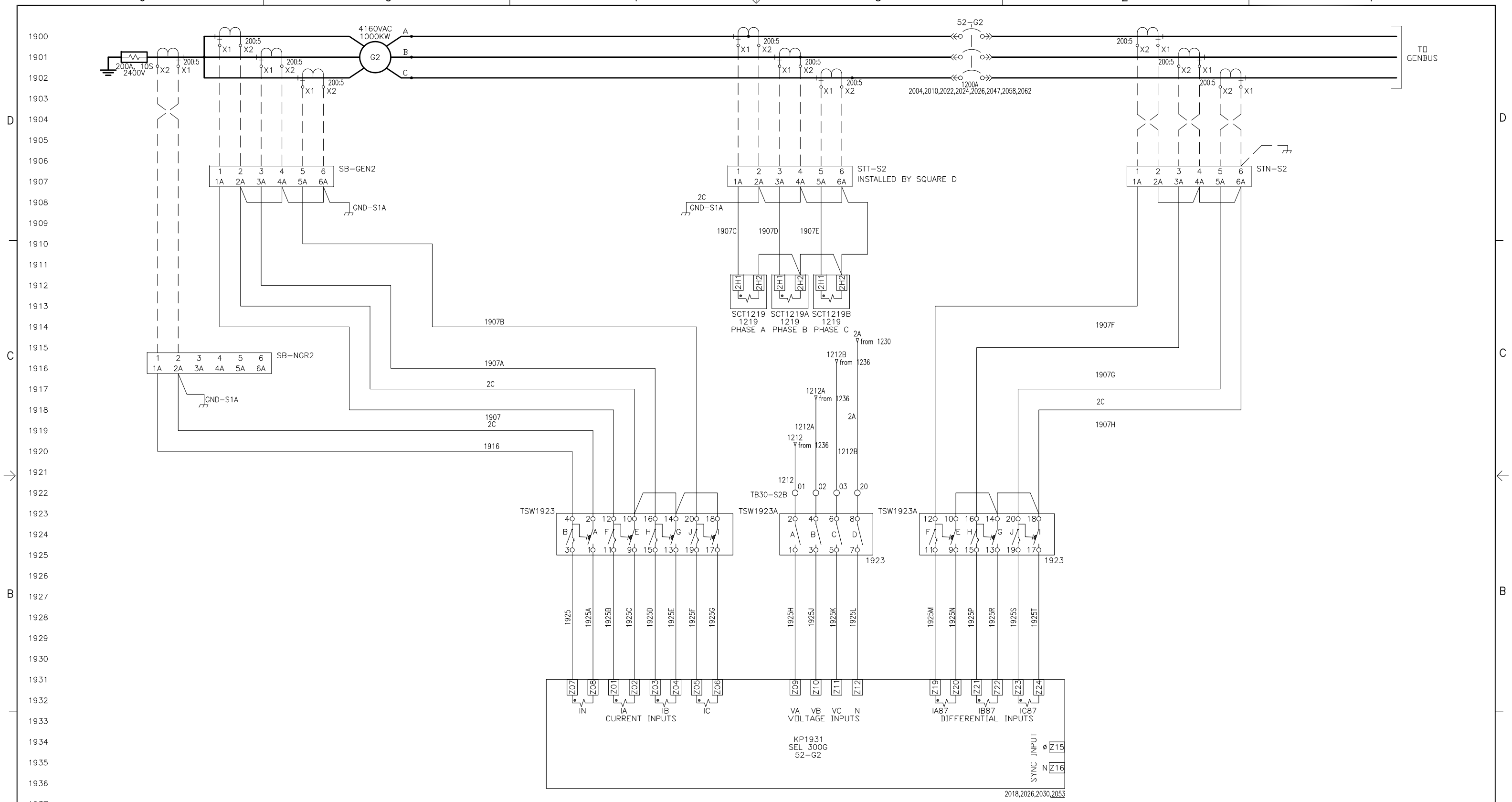
CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865

SHEET 18 OF 61

DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G2 AC SCHEMATIC
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

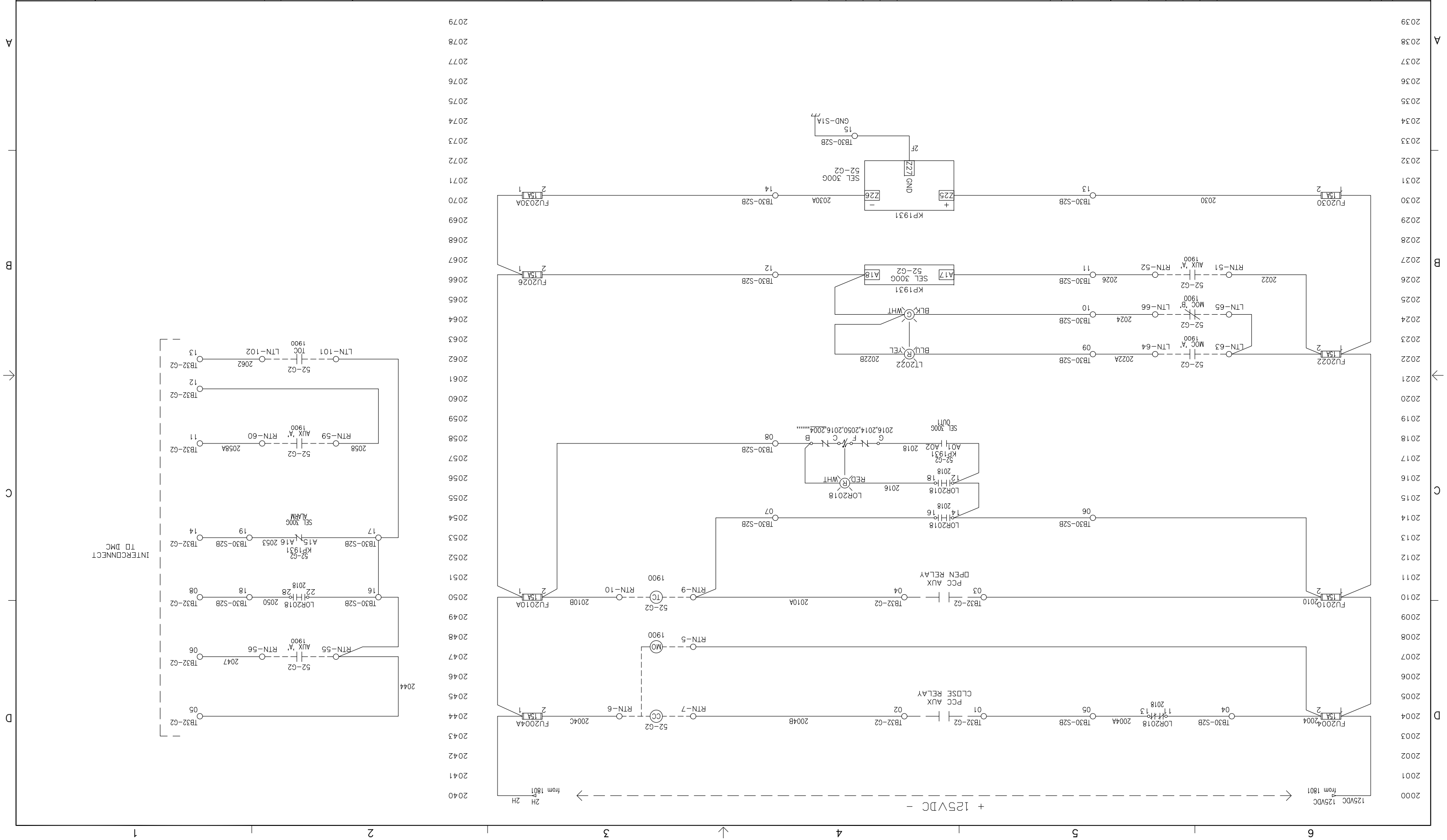
CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO.: A030S865

SHEET: 19 of 61

DWG SIZE: D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-G2 DC SCHEMATICS
CUMMINS CARIBBEAN
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

AUTOCAD DWG

DO NOT SCALE PRINT

| | | | |
|---|---|---|---|
| | | NAME | DATE |
| DRAWN | V.SAKLANI | | 06/17/10 |
| CHKD | V. SIVAN | | 06/17/10 |
| APPROVED | K.TMUMASI | | 06/17/10 |

MODEL FIRST USED ON PCLL200AR-772F

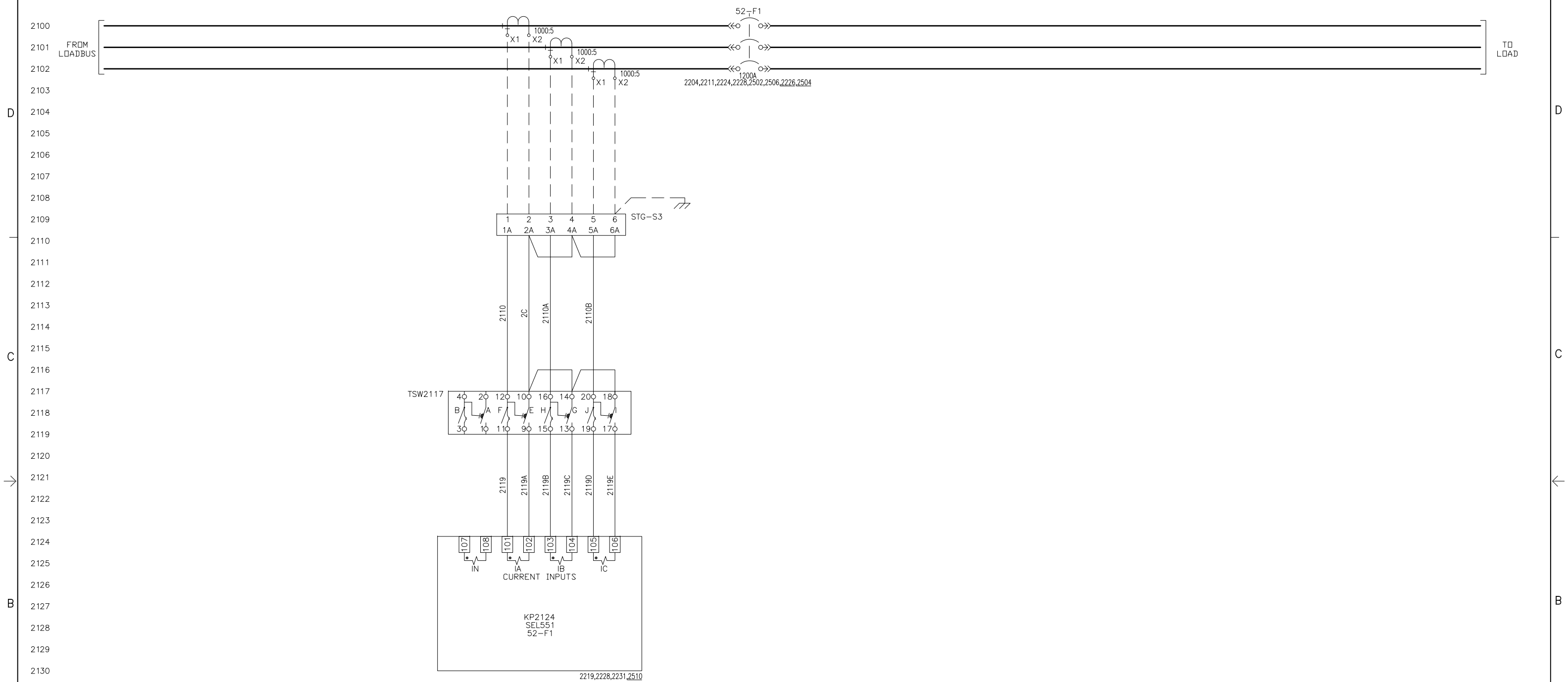
PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

SITE CODE PGA

DWG NO. A030S865 | SHEET 20 OF 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-F1 AC SCHEMATIC
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

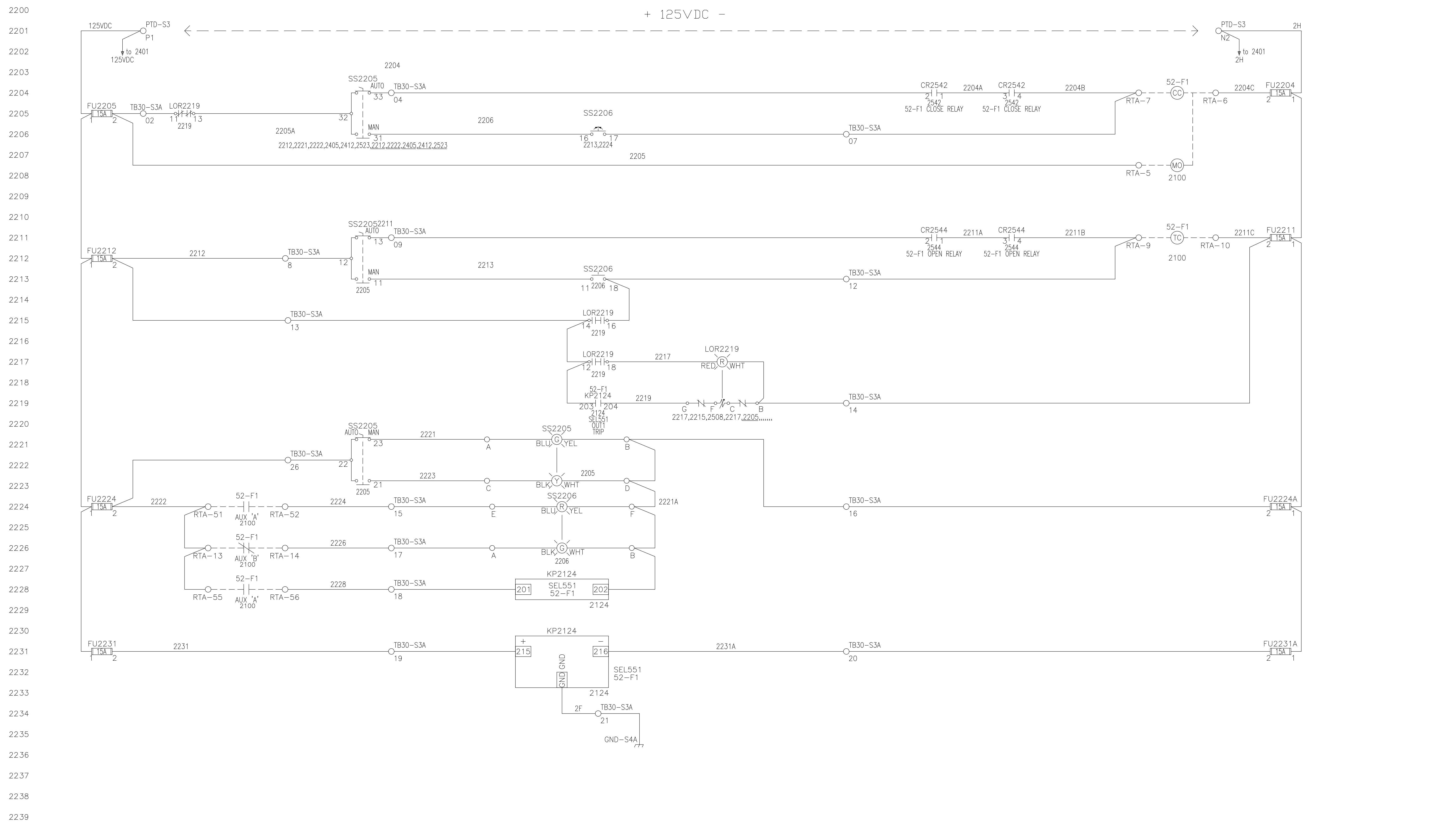
| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 21 of 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-F1 DC SCHEMATICS
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

PART NO. — DWG SIZE — DESCRIPTION OF MATERIAL — REF DES

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865

SHEET 22 OF 61

DWG SIZE D

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-F2 AC SCHEMATIC
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

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AUTOCAD DWG

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKD MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TMUMASI | 06/17/10 |

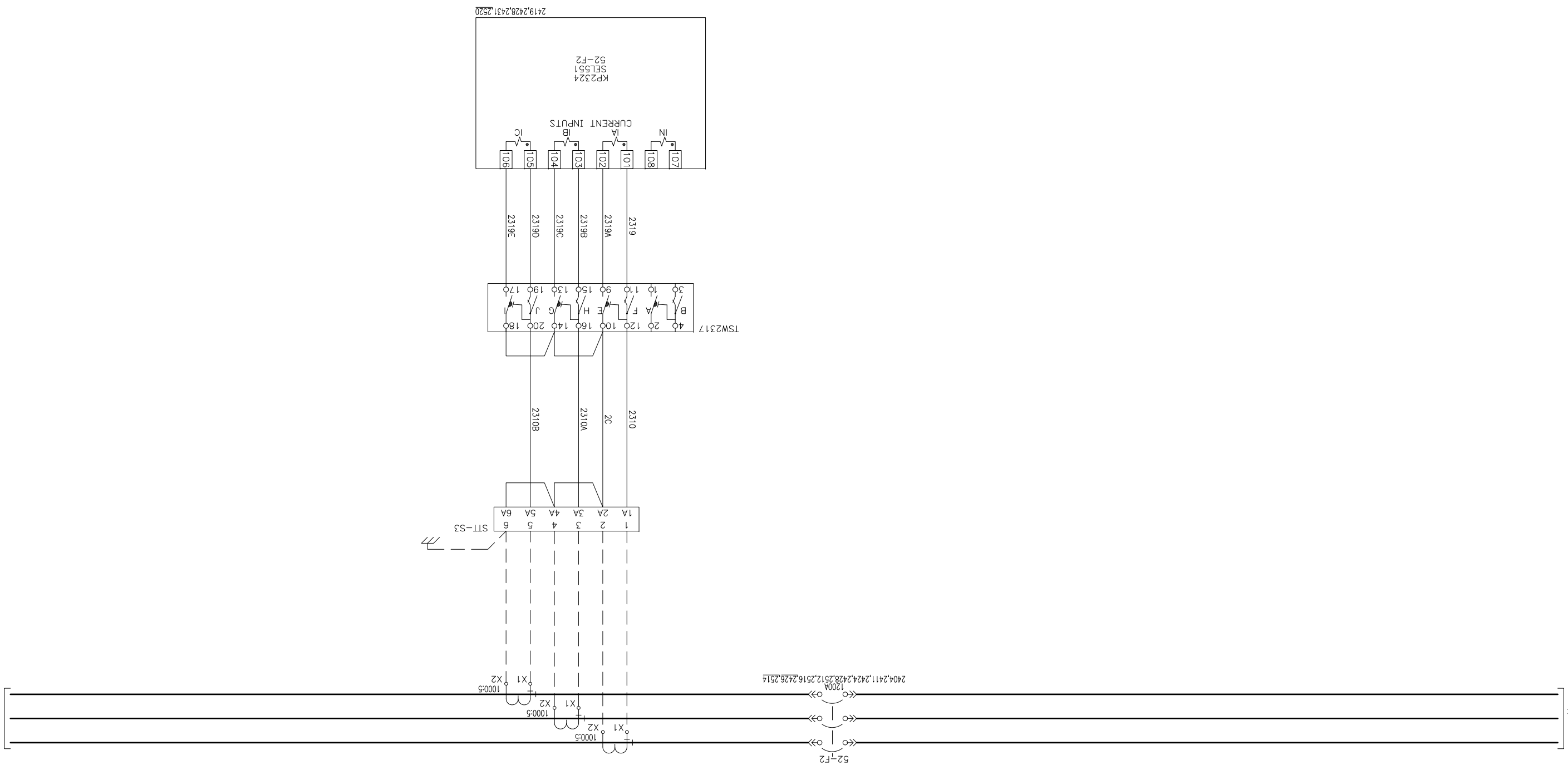
SITE CODE

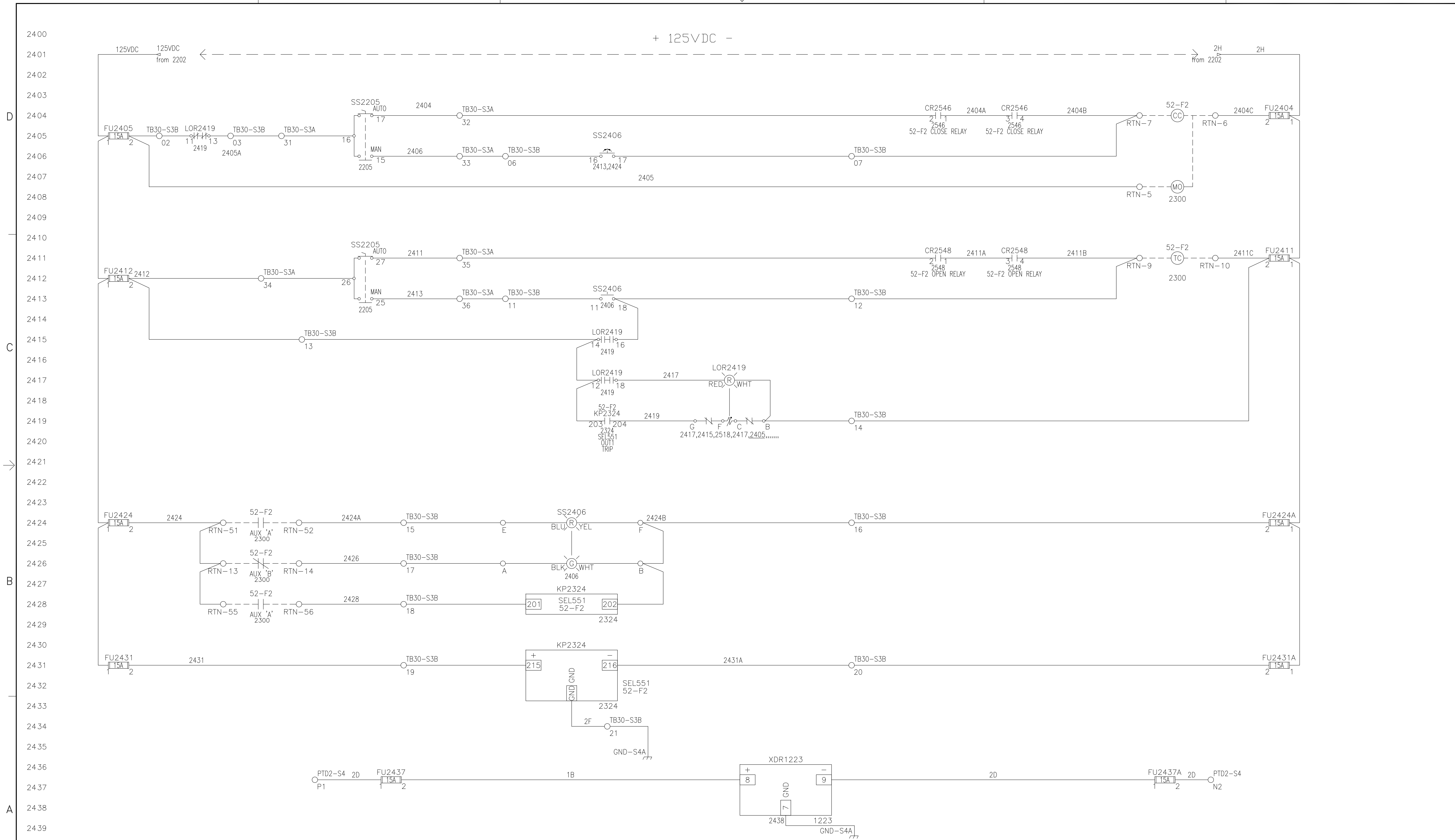
TITLE
WD-SCHEMATISC

DWG NO. A030S865 SHEET 23 OF 61 DWG SIZE D

PGA

PCLL200AR-772F






| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-F2 DC SCHEMATICS
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

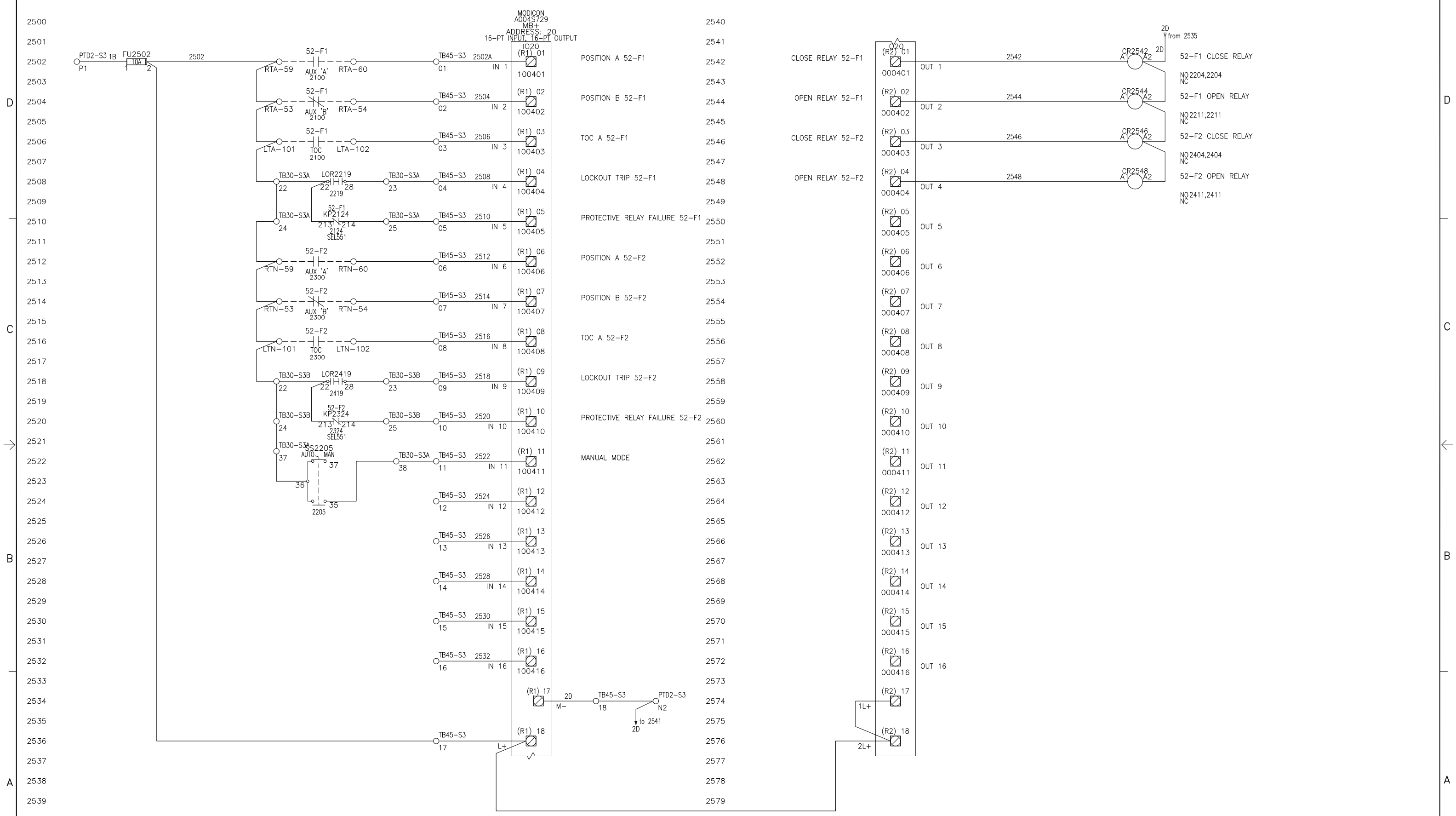
CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 24 OF 61

DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52-F1 & F2 IO SCHEMATICS
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

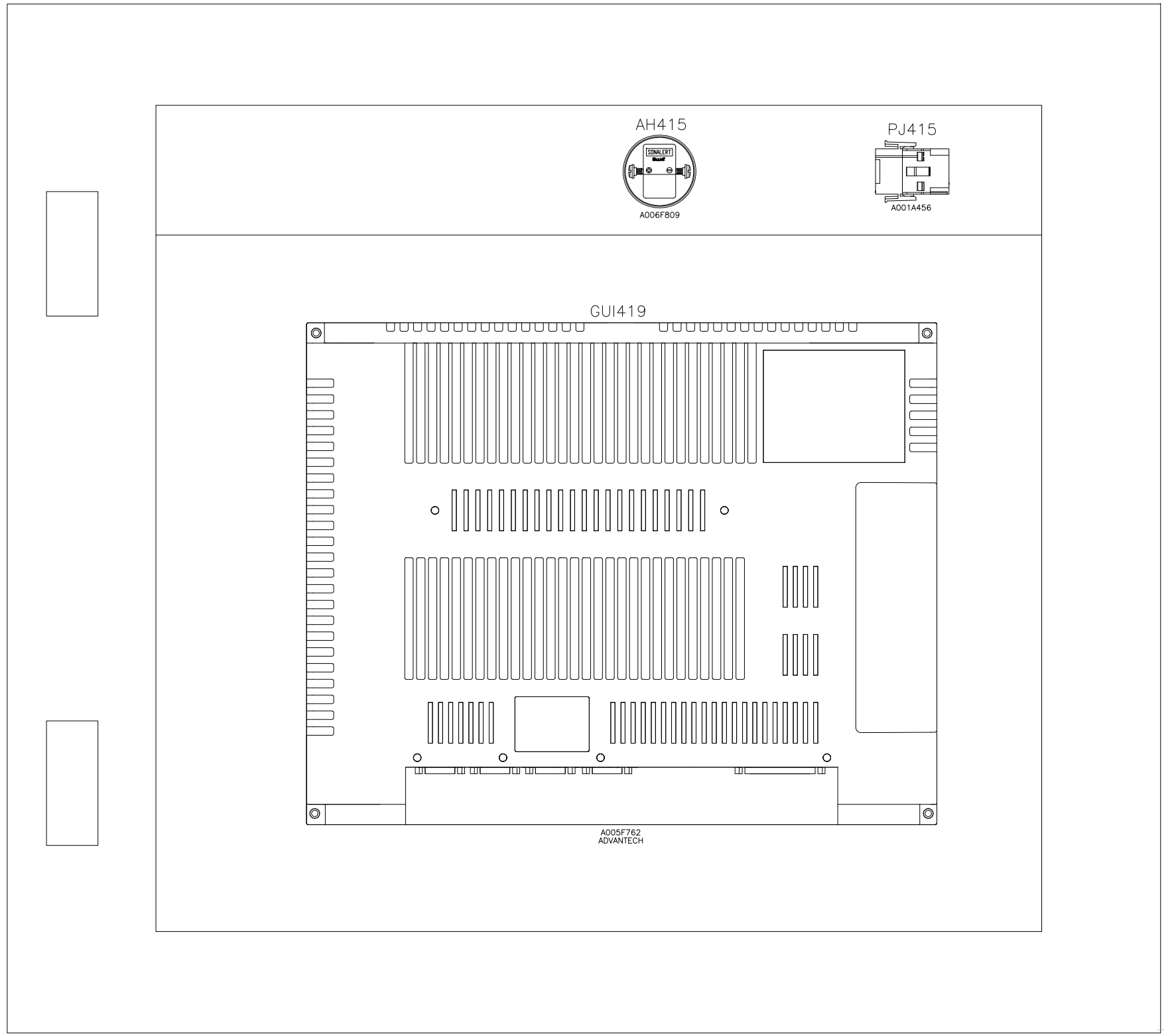
SITE CODE: PGA

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 25 of 61 | DWG SIZE D




REAR DOOR VIEW

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC DOOR PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| DR | V.SAKLANI | 06/17/10 |
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FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M–1982

MODEL FIRST USED ON PCIL2004R–772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD–SCHEMATISC

DWG NO. A030S865 | SHEET 26 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| AH415 | 1 | | A006F809 | 0333-0133 | MALLORY | SOUND UNIT - 2800 CPS SOUND FREQUENCY<br>SOUND UNIT<br>6-28 VDC<br>3-14 mA<br>SC628 |
| PJ415 | 1 | *1 | A001A456 | 0323-1333 | AMP | CONNECTOR HOUSING - 4 SOCKET, FEMALE<br>HOUSING<br>4<br>MATING PLUG: 0323-1292<br>1-480703-0 |
| | | *1 | A005K700 | 0323-1292 | AMP | CONNECTOR HOUSING - 4 SOCKET, MALE<br>HOUSING<br>4<br>MATING PLUG: 0323-1333<br>1-480702-0 |
| | | *2 | A005H219 | 0323-1199 | AMP | CONNECTOR CONTACT - PIN, 20 - 14 AWG<br>CONTACT<br>1<br>MATING SOCKET: 0323-1200<br>350700-1 |
| | | *2 | A006J256 | 0323-1200 | AMP | CONNECTOR CONTACT - SOCKET, 20 - 14 AWG<br>CONTACT<br>1<br>MATING PIN: 0323-1199<br>350551-1 |
| GUI419 | 1 | | A005F762 | 0300-6361 | ADVANTECH | OPERATOR INTERFACE<br>TOUCHSCREEN<br>24VDC<br>CE, 2 SERIAL PORTS<br>15" LCD DISPLAY<br>WEBOIT-1570-CE |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC DOOR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

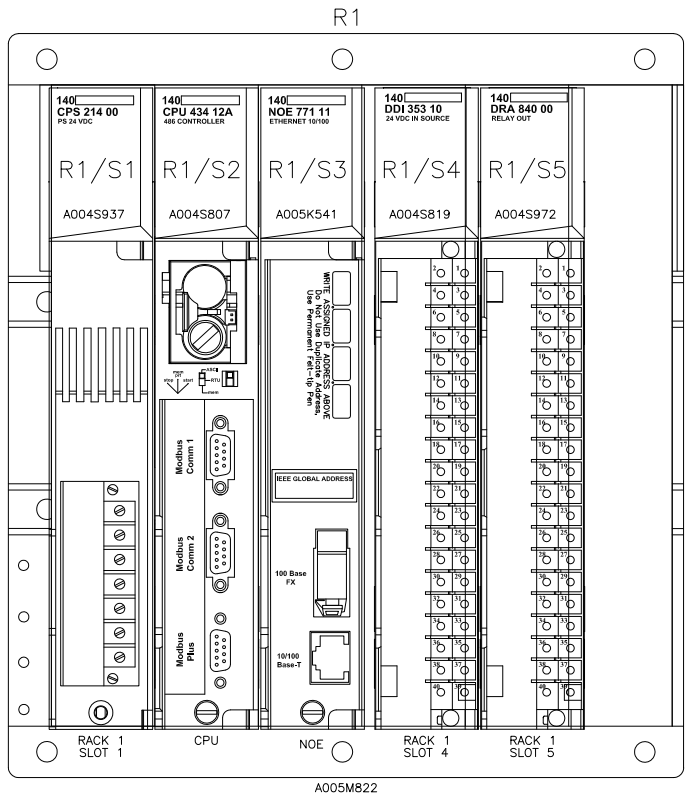
MODEL FIRST USED ON PCIL2004R-772F

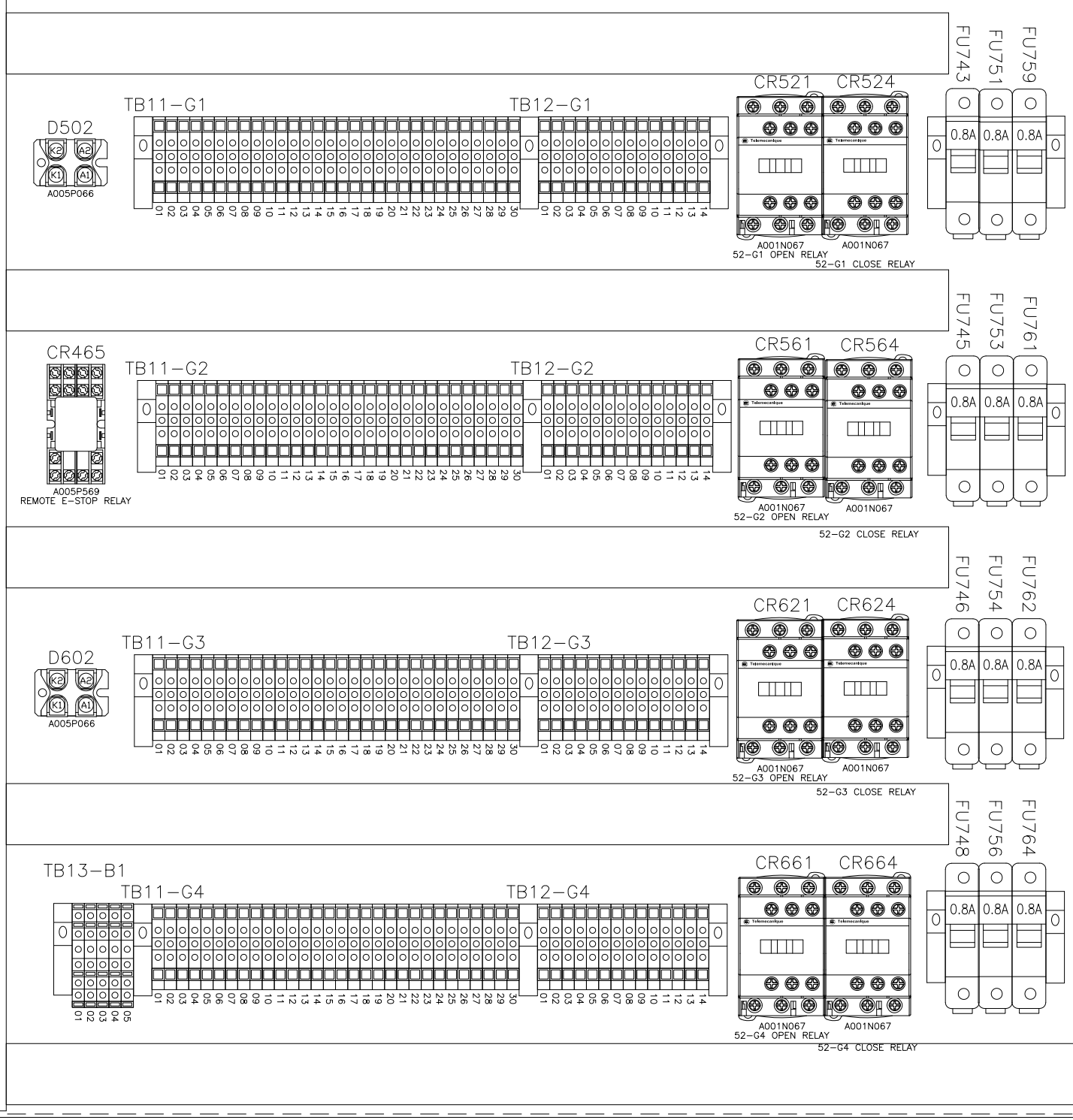
SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 27 OF 61 | DWG SIZE D




| REV. NO. | LTR | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC UPR REAR PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR MFG. | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONS AND TOLERANCES SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

PART NO.
DWG SIZE
DESCRIPTION OF MATERIAL
REF DES

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73RD AVE. N.E.
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 28 OF 61

DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| CR465 | 1 | *1 | A005P569 | 0307-1821 | P&B | RELAY-CONTROL, 24VDC<br>CONTROL RELAY<br>24 VDC<br>4 C FORM, 1A, 30VDC / 120 VAC<br>GOLD OVERLAY SILVER CONTACTS<br>KHAU-17D16-24 |
| | | *1 | A006J313 | 0323-1410-02 | IDEC | SOCKET-RELAY<br>SOCKET<br>14 PIN<br>SY45-05 & SY4S-51F1 |
| | | *1 | A006L639 | 0307-1673 | P&B | RELAY HOLD DOWN SPRING<br>ACCESSORY<br>USE WITH 307-1821 RELAY AND BASE<br>20C217 |
| CR521<br>CR524<br>CR561<br>CR564<br>CR621<br>CR624<br>CR661<br>CR664 | 8 | | A001N067 | 0307-2900-05 | TELEMECHANIQUE | CONTACTOR-LOW PWR COIL, 24VDC<br>CONTACTOR<br>24 VDC<br>4 NO,1 NC, 18A/32A<br>LC1D18BL |
| D502<br>D602 | 2 | | A005P066 | 0357-0150 | MICROELECTRONIC | RECTIFIER- 30A, ULTRA FAST<br>DIODE, POWER<br>50A, 200V<br>2 X 50A, 0.72V<br>STTH10002TV1 |
| | 7 | | GENERIC | | PANDUIT | |
| FU743<br>FU745<br>FU746<br>FU748<br>FU751<br>FU753<br>FU754<br>FU756<br>FU759<br>FU761<br>FU762<br>FU764 | 12 | *1 | A002K940 | 0321-0363-03 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>8/10AMPS<br>600VAC<br>LP-CC-8/10<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| R1/S2 | 1 | | A004S807 | 0326-0160-03 | MODICON | QUANTUM CPU<br>QUANTUM<br>PROCESSOR<br>2M, 486 DX2, 2 MODBUS, 1 MB+, 64K USER LOGIC<br>CO-PROCESSOR INTEGRATED<br>140CPU43412A |
| R1/S4 | 1 | *1 | A004S819 | 0326-0185 | MODICON | DISCRETE DC INPUT<br>QUANTUM<br>DISCRETE INPUT<br>24 VDC<br>DISCRETE, 32 POINT, 4 GROUPS, SOURCE<br>140DDI35310 |
| | | *1 | A006Z406 | 0332-3523 | MODICON | QUANTUM TERMINAL STRIP<br>QUANTUM<br>TERMINAL STRIP<br>40 TERMINALS<br>20 AWG MINIMUM WIRE SIZE<br>140XTS00200 |
| R1/S1 | 1 | | A004S937 | 0326-0161-02 | MODICON | POWER SUPPLY<br>QUANTUM<br>POWER SUPPLY<br>24 VDC, 8A<br>SUMMABLE<br>140CPS21400 |
| R1/S5 | 1 | *1 | A004S972 | 0326-0166 | MODICON | DISCRETE RELAY OUTPUT<br>QUANTUM<br>DISCRETE OUTPUT<br>2A<br>DISCRETE RELAY 16 POINT OUTPUT, NO<br>140DRA84000 |
| | | *1 | A006Z406 | 0332-3523 | MODICON | QUANTUM TERMINAL STRIP<br>QUANTUM<br>TERMINAL STRIP<br>40 TERMINALS<br>20 AWG MINIMUM WIRE SIZE<br>140XTS00200 |
| R1/S3 | 1 | | A005K541 | 0300-5769 | MODICON | ETHERNET TCP/IP AND MODBUS<br>QUANTUM<br>COMMUNICATION<br>10/100BASE-T ETHERNET (RJ-45) & 10BASE-FX ETHERNET (MT-RJ)<br>FACTORY CAST, TWISTED PAIR & FIBER LINK, 1 CHANNEL<br>140NOE77111 |
| R1 | 1 | | A005M822 | 0326-0172-04 | MODICON | BACKPLANE<br>QUANTUM<br>BACKPLANE<br>BACKPLANE, 6 SLOT, 265 MM, 10.4 IN<br>140XBP00600 |
| TB13-B1 | 5 | | A006Z109 | 0332-3125-04 | WEIDMULLER | TERMINAL BLOCK<br>DOUBLE LEVEL<br>300V, 27A<br>DOUBLE LEVEL, FEED THROUGH, WITH INTERNAL LINK<br>22-12 AWG<br>3636.6 |
| TB11-G1<br>TB11-G2<br>TB11-G3<br>TB11-G4<br>TB12-G1<br>TB12-G2<br>TB12-G3<br>TB12-G4 | 176 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC UPR REAR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

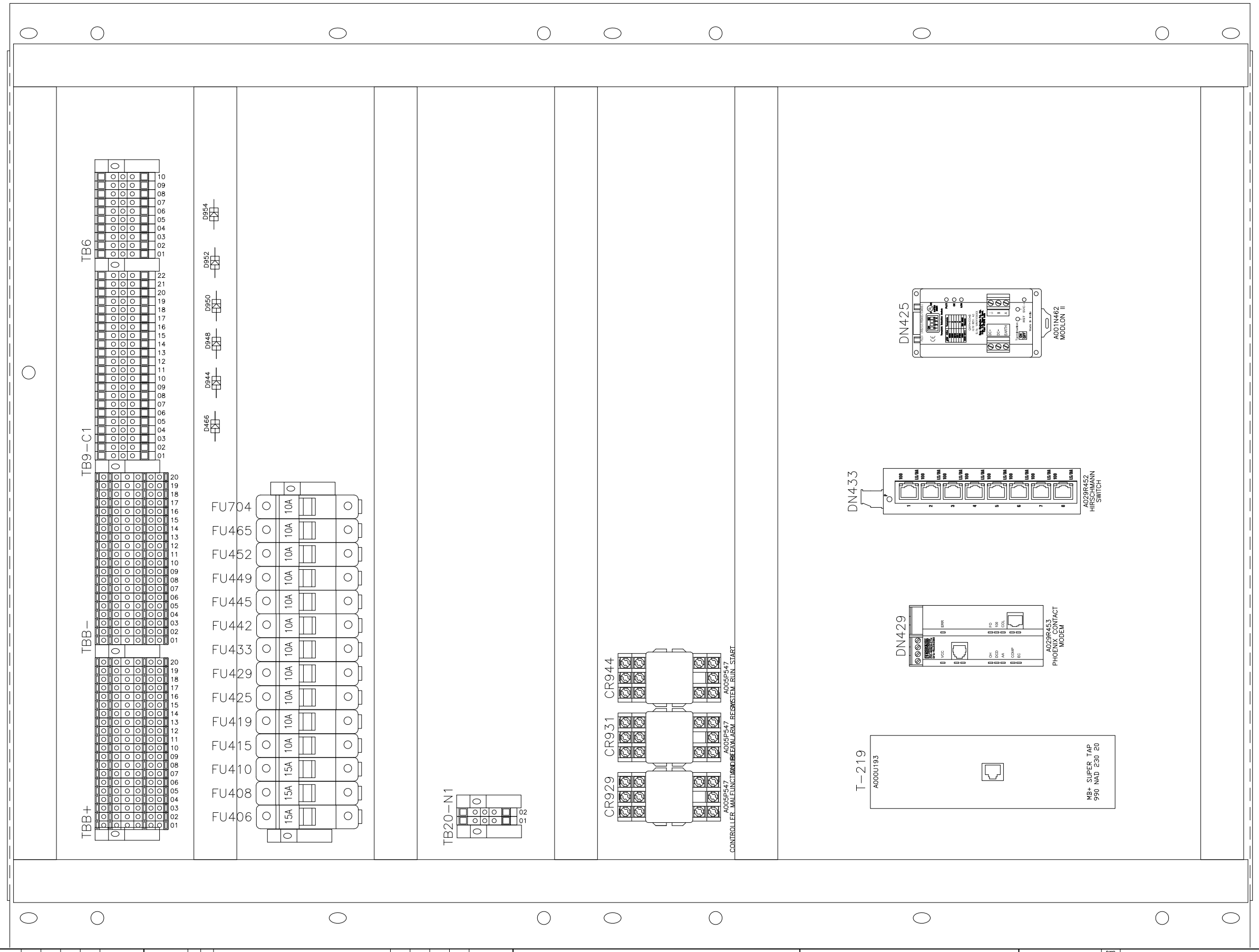
MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE.
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 29 OF 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
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PROJECT:
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| CHKR | V. SIVAN | 06/17/10 |
| MFG | | |
| APPROVED | K.TWUMASI | 06/17/10 |

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MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 30 OF 61

DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| T-219 | 1 | | A000U193 | 0324-0027-01 | MODICON | MODBUS PLUS SUPER TAP<br>CABLE TAP<br>W/ RJ45 PORT<br>990 NAD 230 20 |
| CR929<br>CR931<br>CR944 | 3 | *1 | A005P547 | 0307-2721 | DELTROL | RELAY-CONTROL, 24VDC<br>CONTROL RELAY<br>24 VDC<br>3 C FORM<br>23153-71 |
| | | *1 | A006J318 | 0323-1410-01 | IDEC | SOCKET-RELAY<br>SOCKET<br>11 PIN<br>SR3B-05 & SR3B-02F1 |
| | 8 | | GENERIC | | PANDUIT | |
| D466<br>D944<br>D948<br>D950<br>D952<br>D954 | 6 | | A005P063 | 0357-0114 | VENDOR SOURCE CONTROLLED | RECTIFIER - 3A<br>DIODE, POWER<br>3A, 400V<br>CONTROLLED |
| DN433 | 1 | | A029R452 | A029R452 | HIRSCHMANN | ETHERNET SWITCH SPIDER II 8TX<br>SWITCH<br>24VDC<br>RJ45, 10/100 MBITS<br>DIN RAIL MOUNT<br>943 957-001 |
| DN429 | 1 | | A029R453 | A029R453 | PHOENIX CONTACT | NETWORK MODEM (PSI-MODEM/ETH)<br>MODEM<br>24VDC<br>DIN RAIL MOUNT<br>2313300 |
| DN425 | 1 | | A001N462 | 0300-5926 | RENU | MODLON GATEWAY - MODLON II<br>GATEWAY<br>9-32VDC<br>GWY-100 |
| FU406<br>FU408<br>FU410 | 3 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| FU415<br>FU419<br>FU425<br>FU429<br>FU433<br>FU442<br>FU445<br>FU449<br>FU452<br>FU465<br>FU704 | 11 | *1 | A002K944 | 0321-0363-28 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>10AMPS<br>600VAC<br>LP-CC-10<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| TBB+<br>TBB- | 40 | | A006Z109 | 0332-3125-04 | WEIDMULLER | TERMINAL BLOCK<br>DOUBLE LEVEL<br>300V, 27A<br>DOUBLE LEVEL, FEED THROUGH, WITH INTERNAL LINK<br>22-12 AWG<br>3636.6 |
| TB20-N1<br>TB6<br>TB9-C1 | 34 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |
| CBL215<br>CBL227<br>CBL228 | 3 | | A000Y479 | 0335-0198-02 | BORDER STATES | CABLE ASSY(ETHERNET)<br>COMMUNICATION<br>ETHERNET<br>PATCH CABLE,10FT, RJ45<br>24AWG, 4 TWISTED PAIR |
| CBL229 | 1 | | A000Y495 | 0335-0250-02 | CUMMINS | CABLE ASSY(MODLON)<br>COMMUNICATION<br>MODBUS<br>FOR QUANTUM TO MODLON II |
| CBL214 | 1 | | A000Y609 | 0326-0173 | MODICON | CABLE - DROP, MODBUS+<br>COMMUNICATION<br>MODBUS PLUS<br>8 FT LONG, 9 PIN 'D' SHELL<br>990 NAD 211 10 |
| CBL203<br>CBL203A | 2 | | A000Y808 | 0326-0149-04 | MODICON | CABLE-MODBUS+ TRUNK<br>COMMUNICATION<br>MODBUS PLUS<br>SPECIFY FEET NEEDED, TP-PVC VACCETED REEL |
| CBL235 | 1 | | A000Y856 | 0334-1350 | VENDOR SOURCE CONTROLLED | CABLE - CAT IV<br>COMMUNICATION<br>22AWG<br>PVC JACKET |

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PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC LOWER REAR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

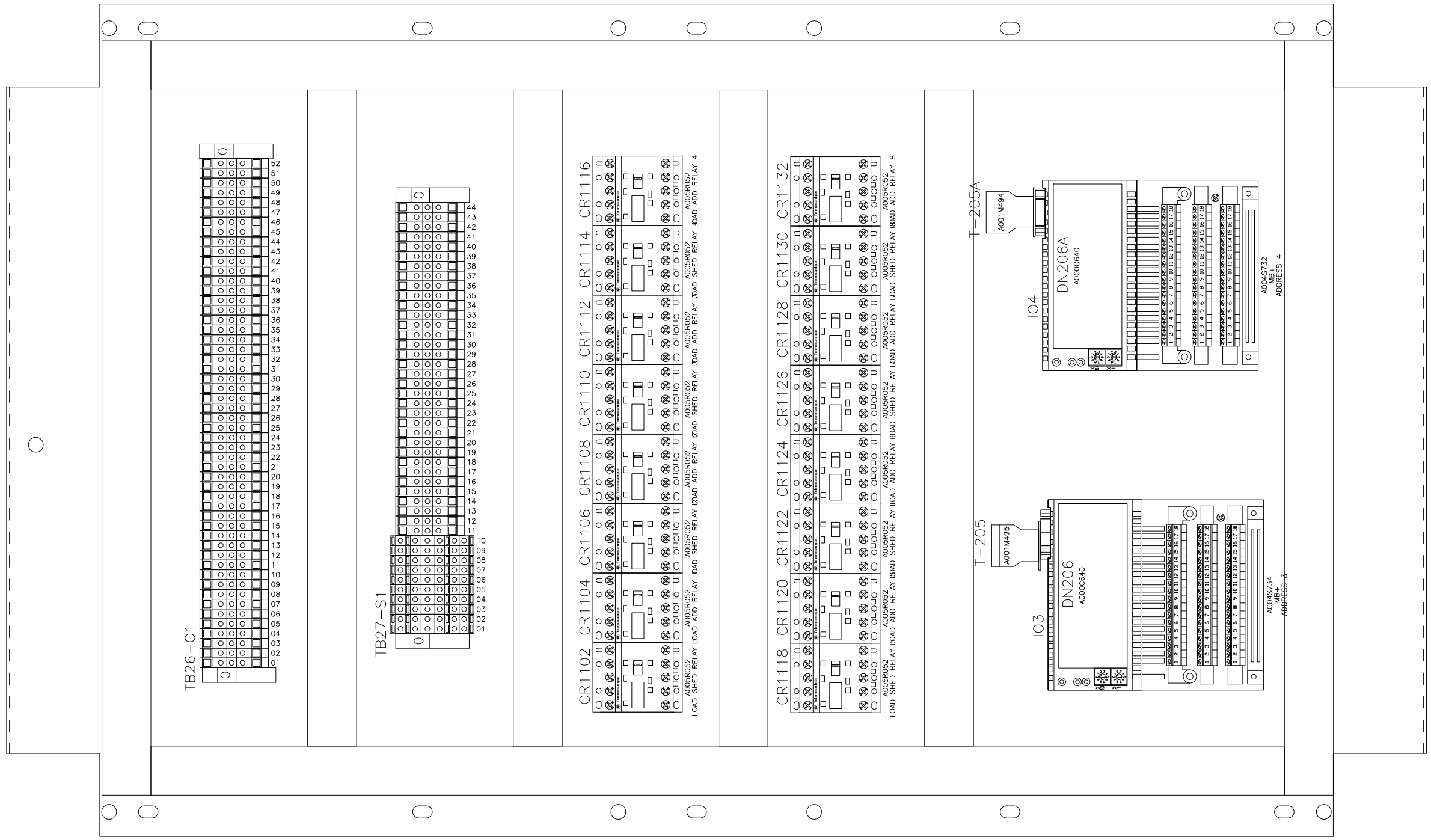
SITE CODE: PGA

PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 31 OF 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC UPR LH PANEL LAYOUT
DISTRIBUTOR:
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| CHKR / MFG | V. SIVAN | 06/17/10 |
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MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 32 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| T-205A | 1 | | A001M494 | 0323-1735-01 | MODICON | CONNECTOR - MODBUS INLINE KIT<br>CONNECTOR<br>ONE PER KIT<br>AS-MBKT-085 |
| T-205 | 1 | | A001M495 | 0323-1735-02 | MODICON | CONNECTOR - MODBUS TERMINATING KIT<br>CONNECTOR<br>TWO PER KIT<br>ASMBKT-185 |
| CR1102<br>CR1104<br>CR1106<br>CR1108<br>CR1110<br>CR1112<br>CR1114<br>CR1116<br>CR1118<br>CR1120<br>CR1122<br>CR1124<br>CR1126<br>CR1128<br>CR1130<br>CR1132 | 16 | | A005R052 | 0307-2861-06 | TELEMECHANIQUE | RELAY-CONTROL, 24VDC<br>CONTROL RELAY<br>24 VDC<br>2 NO, 2 NC<br>18 - 12 AWG<br>CA4-KN22BW3 |
| | 8 | | GENERIC | | PANDUIT | |
| DN206<br>DN206A | 2 | | A000C640 | 0326-0205 | MODICON | ADAPTER-COMMUNICATION<br>MOMENTUM<br>COMMUNICATION<br>COMMUNICATION ADAPTER<br>MB+ SINGLE PORT, 984 DATA FORMAT<br>170NEF11021 |
| IO4 | 1 | *1 | A004S732 | 0326-0201-02 | MODICON | DISCRETE INPUT MODULE<br>MOMENTUM<br>DISCRETE INPUT<br>24VDC<br>32 POINT INPUT<br>170ADI35000 |
| | | *1 | A005L063 | 0332-3524 | MODICON | TERMINAL STRIP<br>MOMENTUM<br>TERMINAL<br>TERMINAL PLUG, 18 PLACE<br>170XTS00100 |
| IO3 | 1 | *1 | A004S734 | 0326-0202-01 | MODICON | DISCRETE OUTPUT MODULE<br>MOMENTUM<br>DISCRETE OUTPUT<br>24VDC<br>16 POINT OUTPUT<br>170ADO34000 |
| | | *1 | A005L063 | 0332-3524 | MODICON | TERMINAL STRIP<br>MOMENTUM<br>TERMINAL<br>TERMINAL PLUG, 18 PLACE<br>170XTS00100 |
| TB27-S1 | 10 | | A006Z109 | 0332-3125-04 | WEIDMULLER | TERMINAL BLOCK<br>DOUBLE LEVEL<br>300V, 27A<br>DOUBLE LEVEL, FEED THROUGH, WITH INTERNAL LINK<br>22-12 AWG<br>3636.6 |
| TB26-C1<br>TB27-S1 | 86 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC UPR LH PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

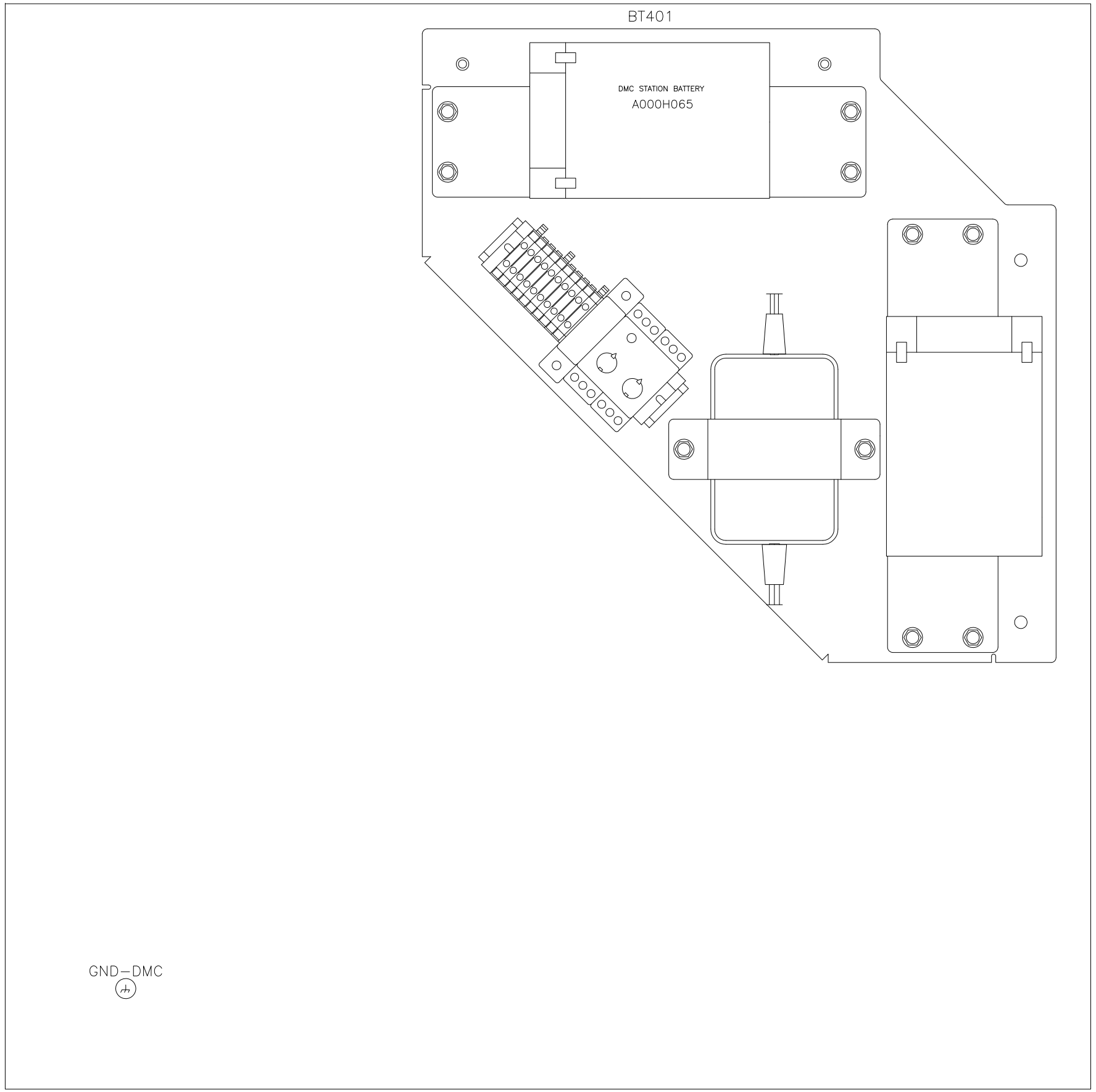
MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 33 OF 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
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| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC FLOOR PANEL LAYOUT
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CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 34 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| BT401 | 1 | *1 | A000H065 | 0416-1147-01 | CUMMINS | BATTERY ASSEMBLY - STATION BATTERY SYSTEM ASSEMBLY<br>24 VDC<br>30" FRAME DEPTH |
| | | *2 | A000H022 | 0416-1143 | VENDOR | BATTERY - LEAD ACID, 6 CELL, 12VDC BATTERY<br>12 VDC<br>12 AMP-HOURS |
| GND-DMC | 1 | | FRAME GROUND | | VENDOR SOURCE CONTROLLED | GROUNDING TERMINAL LUG |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
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PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
DMC FLOOR PANEL LAYOUT BOM
DISTRIBUTOR:
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| MFG | | |
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MODEL FIRST USED ON PCIL2004R-772F

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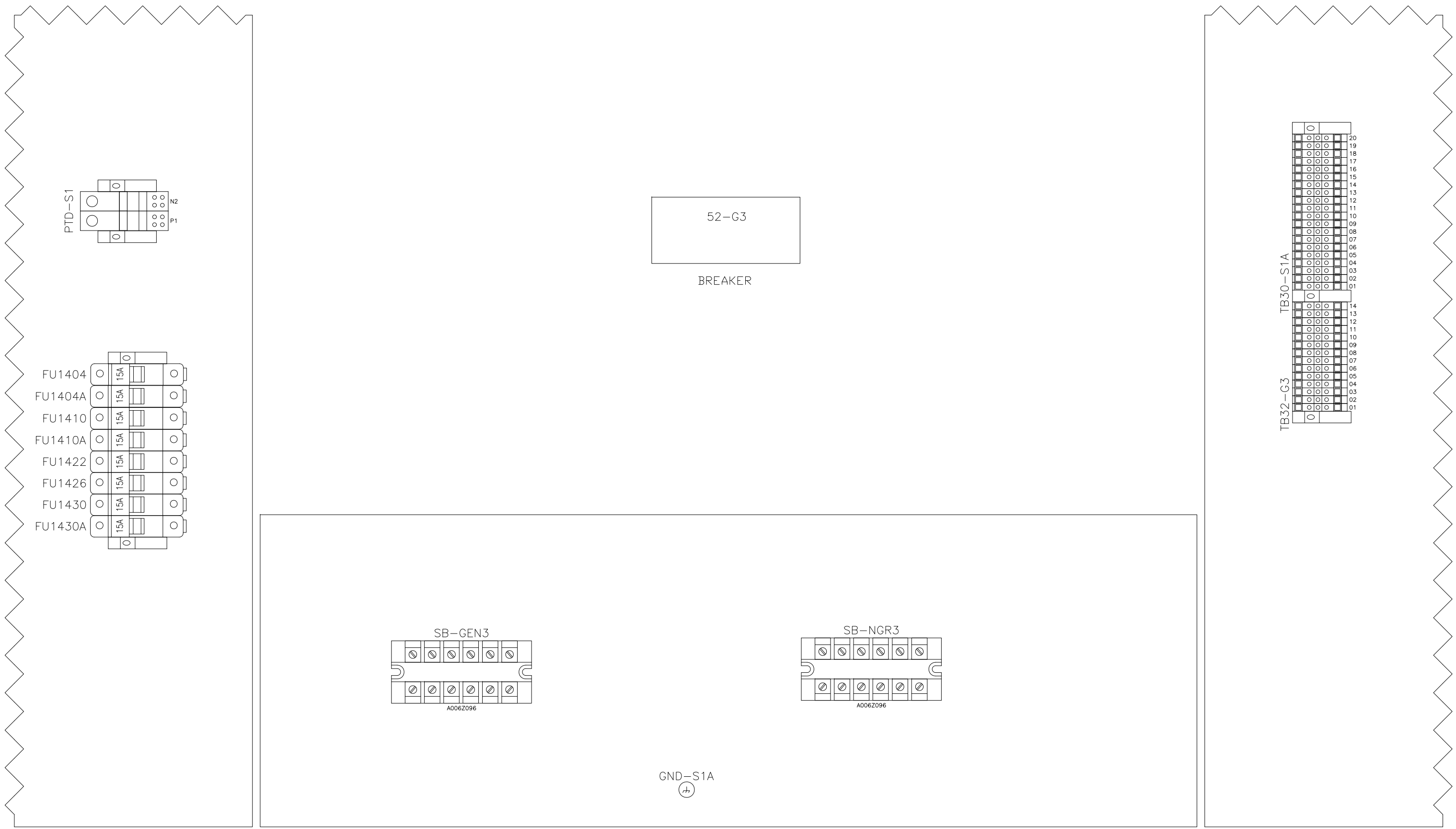
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 35 OF 61

DWG SIZE D

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|---|---|---|---|---|---|---|---|---|
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PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1A CELL PANEL LAYOUT
DISTRIBUTOR:
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1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 36 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| 52-G3 | 1 | | MV UPPER CELL | | SQUARE D | CIRCUIT BREAKER<br>VENDOR |
| FU1404<br>FU1404A<br>FU1410<br>FU1410A<br>FU1422<br>FU1426<br>FU1430<br>FU1430A | 8 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| GND-S1A | 1 | | FRAME GROUND | | VENDOR SOURCE CONTROLLED | GROUNDING TERMINAL<br>LUG |
| SB-GEN3<br>SB-NGR3 | 2 | | A006Z096 | 0332-3178-01 | CUMMINS | TERMINAL BLOCK<br>SHORTING BLOCK<br>600V, 30A<br>6 TERMINAL |
| PTD-S1 | 2 | | SQD PTD | | SQUARE D | SUPPLIED BY SQUARE D<br>TERMINAL<br>DC BUS TERMINAL<br>VENDOR SUPPLIED |
| STA-S1<br>STG-S1 | 2 | | SQD SHORTING BLOCK | | SQUARE D | SUPPLIED BY SQUARE D<br>SHORTING BLOCK<br>6 TERMINAL<br>BY SQUARE D |
| TB30-S1A<br>TB32-G3 | 34 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1A CELL PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

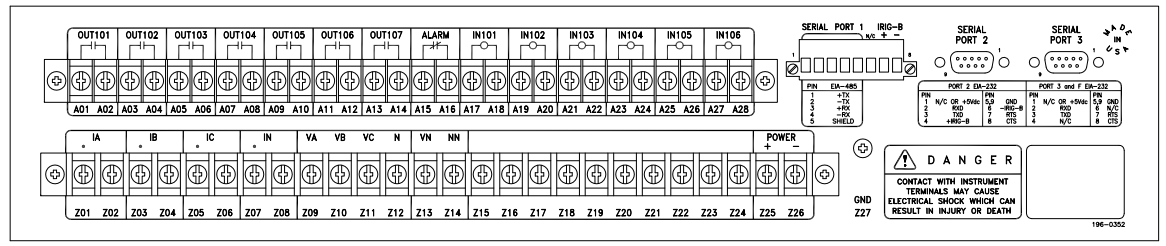
SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

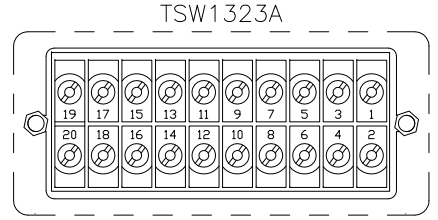
DWG NO. A030S865 | SHEET 37 OF 61 | DWG SIZE D

KP1331



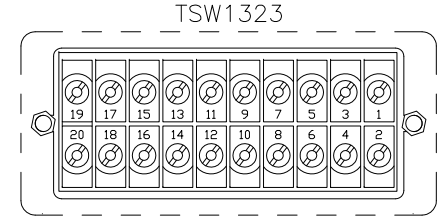

A005P688
SEL 300G
52-G3

TSW1323A



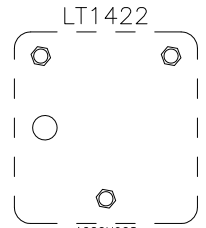

A006X609

TSW1323



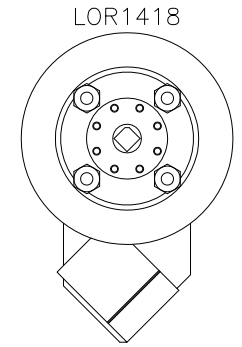

A014T691

LT1422



A000H908

LOR1418



A005R200

REAR DOOR VIEW

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1A DOOR PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 38 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| KP1331 | 1 | | A005P688 | 0307-3033-08 | SCHWEITZER | PROTECTIVE RELAY (SEL 300G MULTIFUNCT)<br>SEL-300G<br>48-125 VDC PS/ 125 VDC CV<br>W/ DIFFERENTIAL<br>PROJECTION MOUNT<br>0300G105325XX4X |
| LOR1418 | 1 | | A005R200 | 0307-2981-09 | ELECTROSWITCH | LOCKOUT RELAY /W INDICATOR<br>4 DECK<br>125VDC<br>RED LED INDICATOR, MAINTAINED CONTACTS<br>20A, 600V<br>78PA04D-011 |
| LT1422 | 1 | | A000H908 | 0308-1117-02 | ELECTROSWITCH | BEZEL - BREAKER STATUS LIGHTS<br>BREAKER STATUS<br>48-125 VDC<br>RED & GRN LED INDICATED<br>658PB201LA |
| TSW1323A | 1 | | A006X609 | 0308-1156-01 | ABB | RELAY TEST SWITCH - 6 CURRENT, 4 POTENTIAL<br>4 POLE<br>6 POLE<br>498A010G01 |
| TSW1323 | 1 | | A014T691 | 0308-1156-05 | ABB | RELAY TEST SWITCH - 8 CURRENT<br>8 POLE<br>9672A10G01 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1A DOOR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

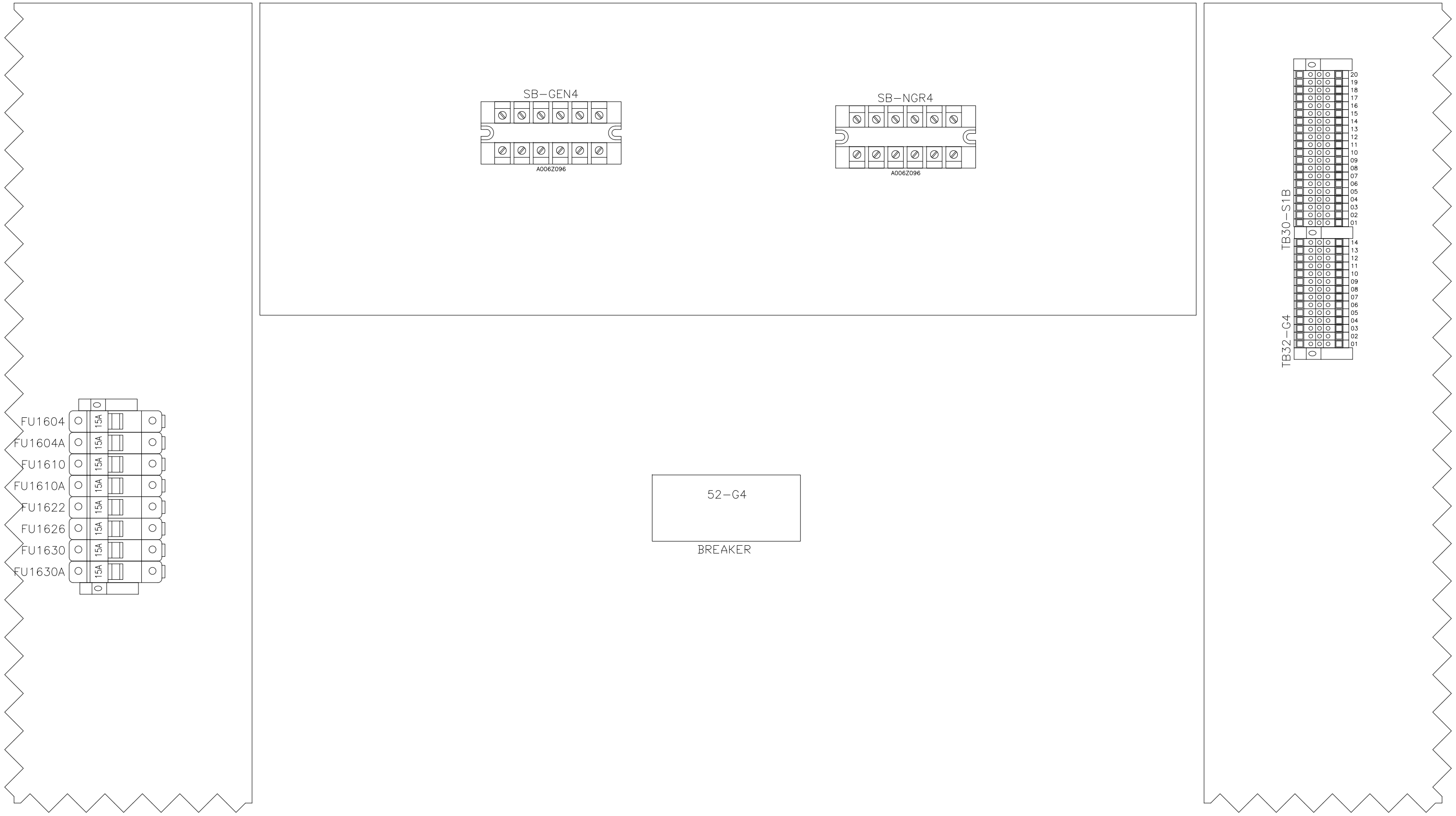
CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 39 OF 61

DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1B CELL PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865

SHEET 40 OF 61

DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| 52-G4 | 1 | | MV LOWER CELL | | SQUARE D | CIRCUIT BREAKER<br>VENDOR |
| FU1604<br>FU1604A<br>FU1610<br>FU1610A<br>FU1622<br>FU1626<br>FU1630<br>FU1630A | 8 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| SB-GEN4<br>SB-NGR4 | 2 | | A006Z096 | 0332-3178-01 | CUMMINS | TERMINAL BLOCK<br>SHORTING BLOCK<br>600V, 30A<br>6 TERMINAL |
| STN-S1<br>STT-S1 | 2 | | SQD SHORTING BLOCK | | SQUARE D | SUPPLIED BY SQUARE D<br>SHORTING BLOCK<br>6 TERMINAL<br>BY SQUARE D |
| TB30-S1B<br>TB32-G4 | 34 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1B CELL PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

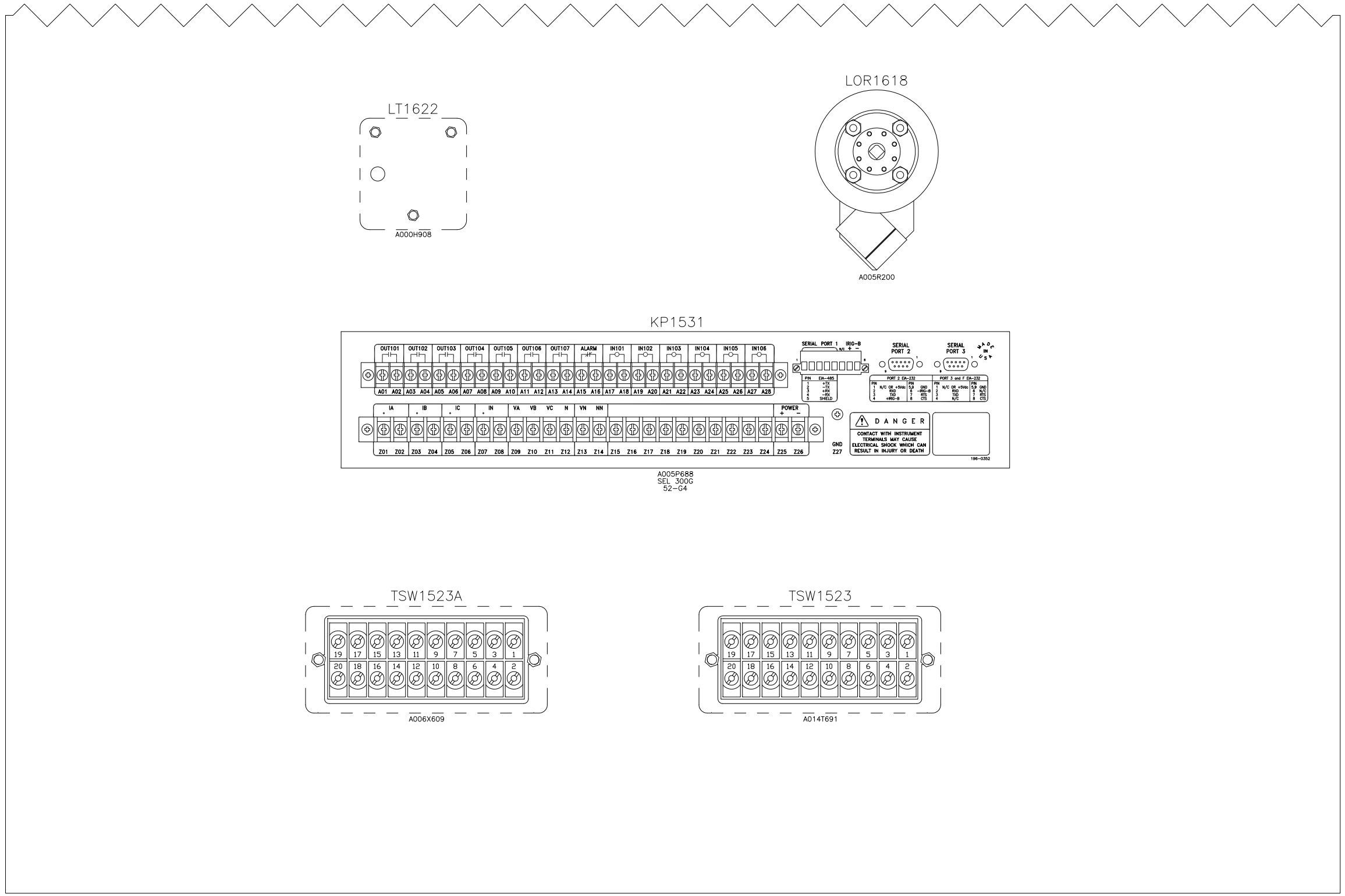
MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 41 OF 61 | DWG SIZE D




REAR DOOR VIEW

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1B DOOR PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 42 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| KP1531 | 1 | | A005P688 | 0307-3033-08 | SCHWEITZER | PROTECTIVE RELAY (SEL 300G MULTIFUNCT)<br>SEL-300G<br>48-125 VDC PS/ 125 VDC CV<br>W/ DIFFERENTIAL<br>PROJECTION MOUNT<br>0300G105325XX4X |
| LOR1618 | 1 | | A005R200 | 0307-2981-09 | ELECTROSWITCH | LOCKOUT RELAY /W INDICATOR<br>4 DECK<br>125VDC<br>RED LED INDICATOR, MAINTAINED CONTACTS<br>20A, 600V<br>78PA04D-011 |
| LT1622 | 1 | | A000H908 | 0308-1117-02 | ELECTROSWITCH | BEZEL - BREAKER STATUS LIGHTS<br>BREAKER STATUS<br>48-125 VDC<br>RED & GRN LED INDICATED<br>658PB201LA |
| TSW1523A | 1 | | A006X609 | 0308-1156-01 | ABB | RELAY TEST SWITCH - 6 CURRENT, 4 POTENTIAL<br>4 POLE<br>6 POLE<br>498A010G01 |
| TSW1523 | 1 | | A014T691 | 0308-1156-05 | ABB | RELAY TEST SWITCH - 8 CURRENT<br>8 POLE<br>9672A10G01 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S1B DOOR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
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| DR | V.SAKLANI | 06/17/10 |
| CHKR | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

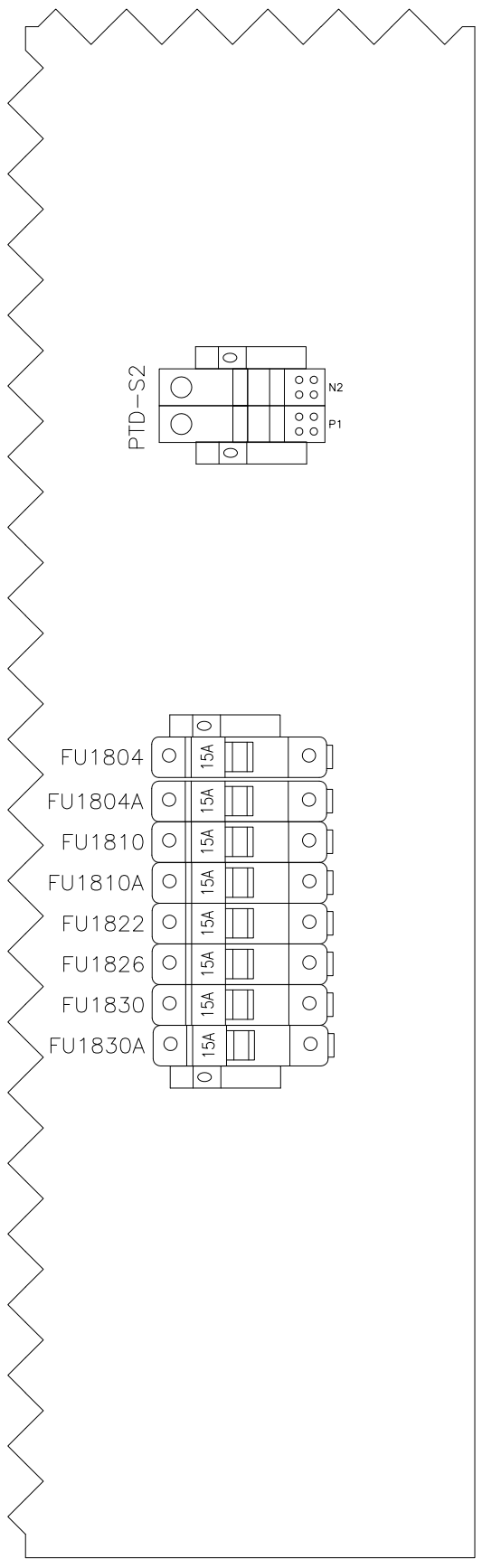
CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

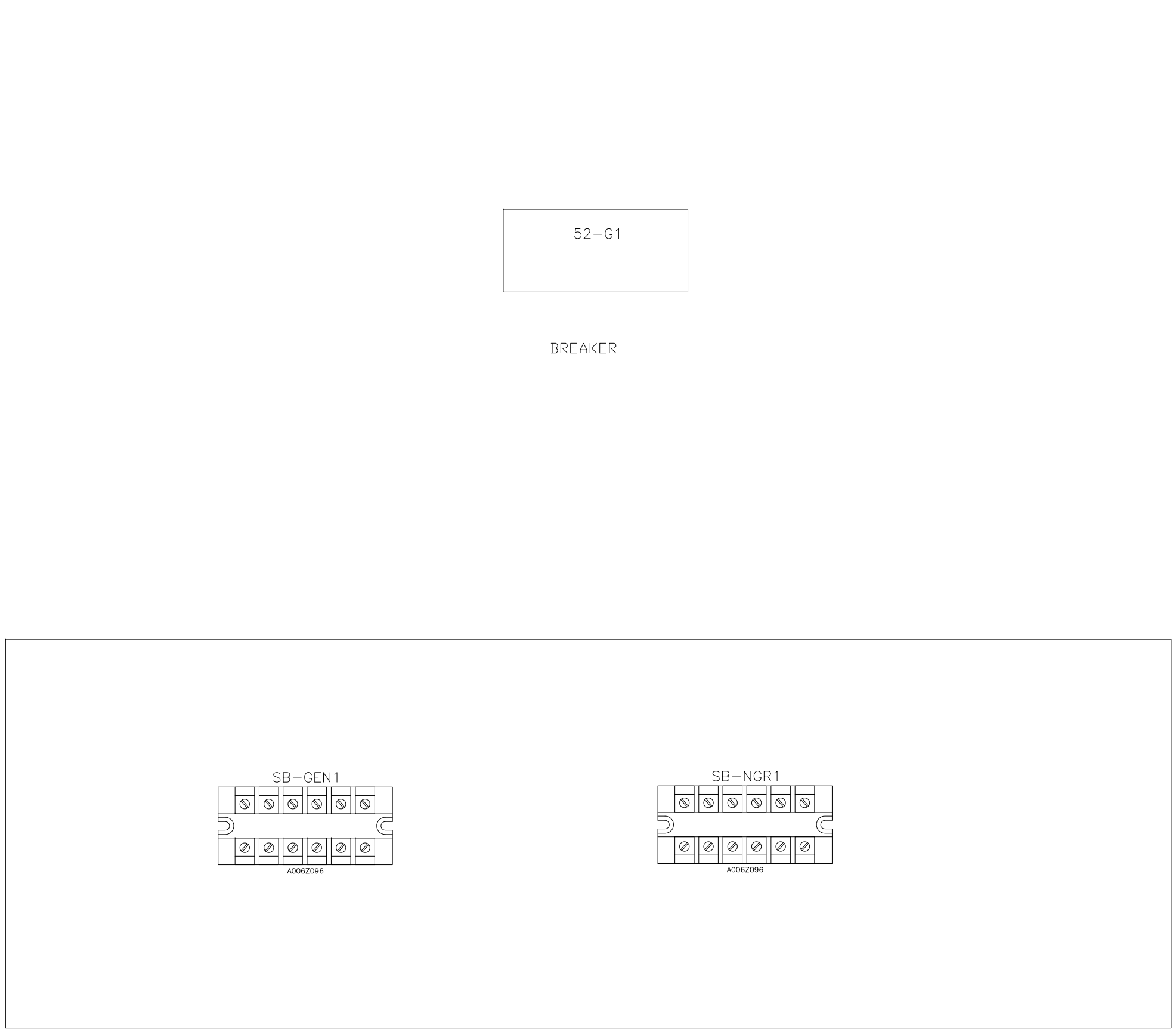
TITLE WD-SCHEMATISC

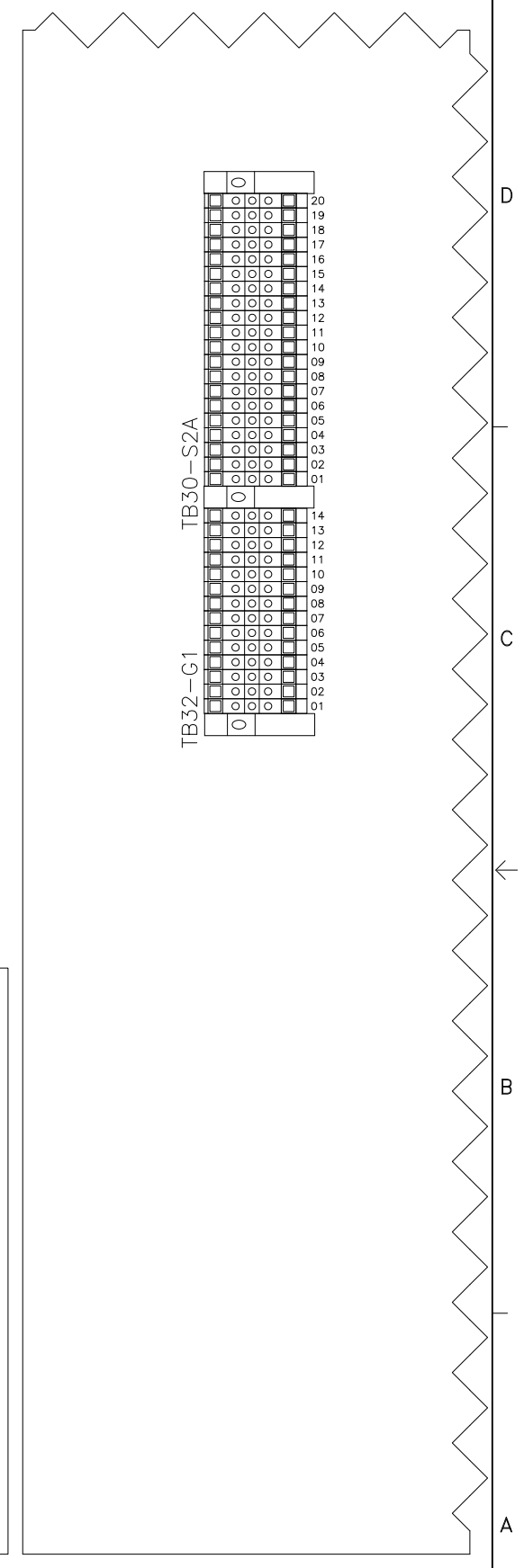
DWG NO. A030S865

SHEET 43 OF 61

DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S2A CELL PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 44 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| 52-G1 | 1 | | MV UPPER CELL | | SQUARE D | CIRCUIT BREAKER<br>VENDOR |
| FU1804<br>FU1804A<br>FU1810<br>FU1810A<br>FU1822<br>FU1826<br>FU1830<br>FU1830A | 8 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| SB-GEN1<br>SB-NGR1 | 2 | | A006Z096 | 0332-3178-01 | CUMMINS | TERMINAL BLOCK<br>SHORTING BLOCK<br>600V, 30A<br>6 TERMINAL |
| PTD-S2 | 2 | | SQD PTD | | SQUARE D | SUPPLIED BY SQUARE D<br>TERMINAL<br>DC BUS TERMINAL<br>VENDOR SUPPLIED |
| STA-S2<br>STG-S2 | 2 | | SQD SHORTING BLOCK | | SQUARE D | SUPPLIED BY SQUARE D<br>SHORTING BLOCK<br>6 TERMINAL<br>BY SQUARE D |
| TB30-S2A<br>TB32-G1 | 34 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S2A CELL PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| | NAME | DATE |
|---|---|---|
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| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

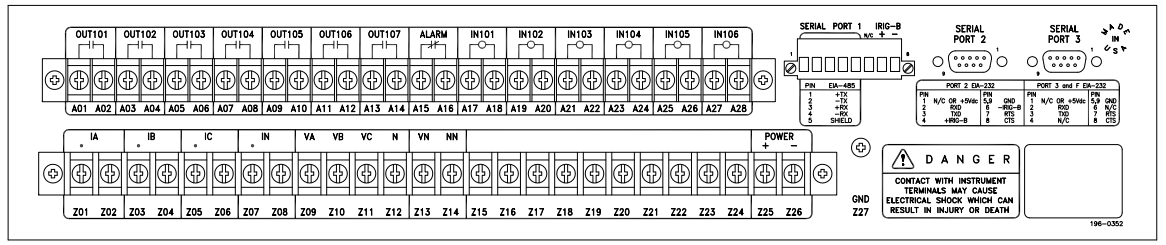
SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

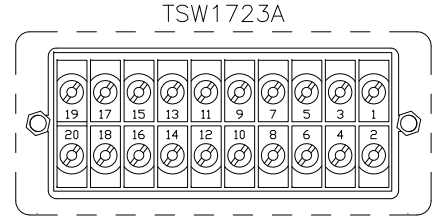
DWG NO. A030S865 | SHEET 45 OF 61 | DWG SIZE D

KP1731




A005P688
SEL 300G
52-G1

TSW1723A

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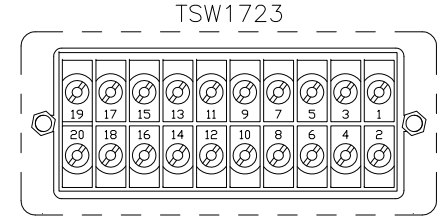
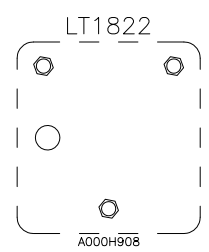
TSW1723



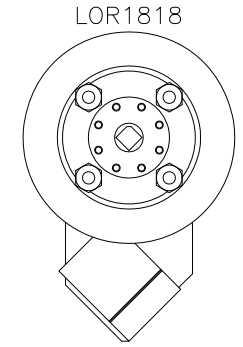

A014T691

LT1822



A000H908

LOR1818



A005R200

REAR DOOR VIEW

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S2A DOOR PANLE LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 46 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| KP1731 | 1 | | A005P688 | 0307-3033-08 | SCHWEITZER | PROTECTIVE RELAY (SEL 300G MULTIFUNCT)<br>SEL-300G<br>48-125 VDC PS/ 125 VDC CV<br>W/ DIFFERENTIAL<br>PROJECTION MOUNT<br>0300G105325XX4X |
| LOR1818 | 1 | | A005R200 | 0307-2981-09 | ELECTROSWITCH | LOCKOUT RELAY /W INDICATOR<br>4 DECK<br>125VDC<br>RED LED INDICATOR, MAINTAINED CONTACTS<br>20A, 600V<br>78PAD4D-011 |
| LT1822 | 1 | | A000H908 | 0308-1117-02 | ELECTROSWITCH | BEZEL - BREAKER STATUS LIGHTS<br>BREAKER STATUS<br>48-125 VDC<br>RED & GRN LED INDICATED<br>658PB201LA |
| TSW1723A | 1 | | A006X609 | 0308-1156-01 | ABB | RELAY TEST SWITCH - 6 CURRENT, 4 POTENTIAL<br>4 POLE<br>6 POLE<br>498A010G01 |
| TSW1723 | 1 | | A014T691 | 0308-1156-05 | ABB | RELAY TEST SWITCH - 8 CURRENT<br>8 POLE<br>9672A10G01 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S2A DOOR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR | V. SIVAN | 06/17/10 |
| MFG | | |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

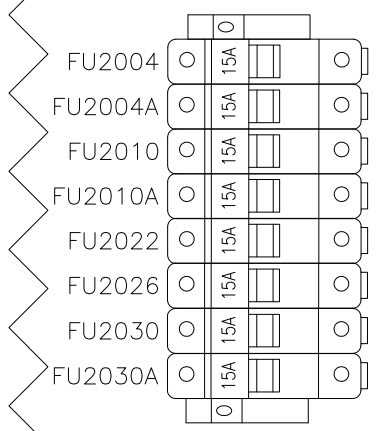
MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

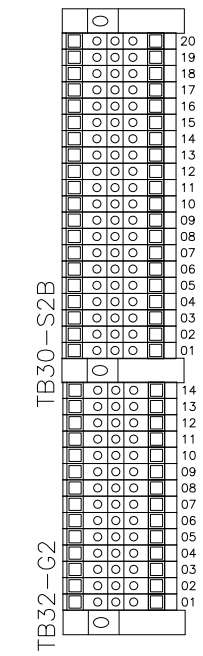
TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 47 OF 61 | DWG SIZE D



BREAKER

52-G2




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S2B CELL PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR | V. SIVAN | 06/17/10 |
| MFG | | |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 48 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| 52-G2 | 1 | | MV LOWER CELL | | SQUARE D | CIRCUIT BREAKER<br>VENDOR |
| FU2004<br>FU2004A<br>FU2010<br>FU2010A<br>FU2022<br>FU2026<br>FU2030<br>FU2030A | 8 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| SB-GEN2<br>SB-NGR2 | 2 | | A006Z096 | 0332-3178-01 | CUMMINS | TERMINAL BLOCK<br>SHORTING BLOCK<br>600V, 30A<br>6 TERMINAL |
| STN-S2<br>STT-S2 | 2 | | SQD SHORTING BLOCK | | SQUARE D | SUPPLIED BY SQUARE D<br>SHORTING BLOCK<br>6 TERMINAL<br>BY SQUARE D |
| TB30-S2B<br>TB32-G2 | 34 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S2B CELL PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

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AUTOCAD DWG

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

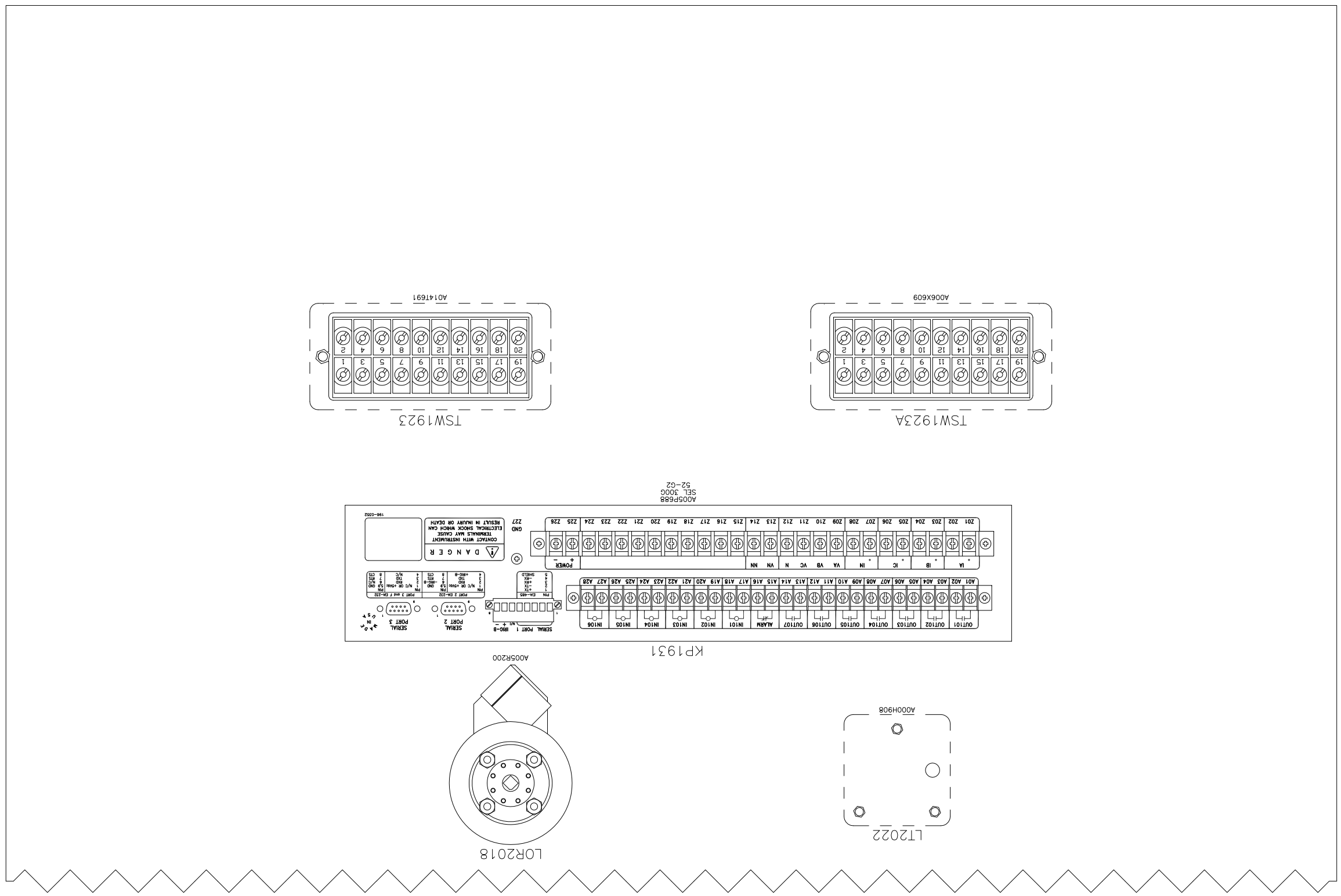
MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 49 OF 61 | DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG 52B DOOR PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
707168I

| | |
|---|---|
| ANG TOL | DRAWN TO SCALE OF |
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| THIRD ANGLE PROJECTION | SW 10 |
| COMPD TRGW | DO NOT SCALE PRINT |
| Chkd MFG | OR V.SAKLANI 06/17/10 |
| | V. SIVAN 06/17/10 |
| | APPROVED K.TMUMASI 06/17/10 |
| | SITE CODE |
| FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982 | MODEL FIRST USED ON PCLL2004R-772F PGA |
| | TITLE WD-SCHEMATISC |
| | CUMMINS POWER GENERATION 1400 73rd AVE NE MINNEAPOLIS, MN 55432 |
| | DWG NO. A030S865 SHEET 50 of 61 DWG SIZE D |

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|
| | | | |

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| KP1931 | 1 | | A005P688 | 0307-3033-08 | SCHWEITZER | PROTECTIVE RELAY (SEL 300G MULTIFUNCT)<br>SEL-300G<br>48-125 VDC PS/ 125 VDC CV<br>W/ DIFFERENTIAL<br>PROJECTION MOUNT<br>0300G105325XX4X |
| LOR2018 | 1 | | A005R200 | 0307-2981-09 | ELECTROSWITCH | LOCKOUT RELAY /W INDICATOR<br>4 DECK<br>125VDC<br>RED LED INDICATOR, MAINTAINED CONTACTS<br>20A, 600V<br>78PA04D-011 |
| LT2022 | 1 | | A000H908 | 0308-1117-02 | ELECTROSWITCH | BEZEL - BREAKER STATUS LIGHTS<br>BREAKER STATUS<br>48-125 VDC<br>RED & GRN LED INDICATED<br>65BPB201LA |
| TSW1923A | 1 | | A006X609 | 0308-1156-01 | ABB | RELAY TEST SWITCH - 6 CURRENT, 4 POTENTIAL<br>4 POLE<br>6 POLE<br>49BA010G01 |
| TSW1923 | 1 | | A014T691 | 0308-1156-05 | ABB | RELAY TEST SWITCH - 8 CURRENT<br>8 POLE<br>9672A10G01 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S2B DOOR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

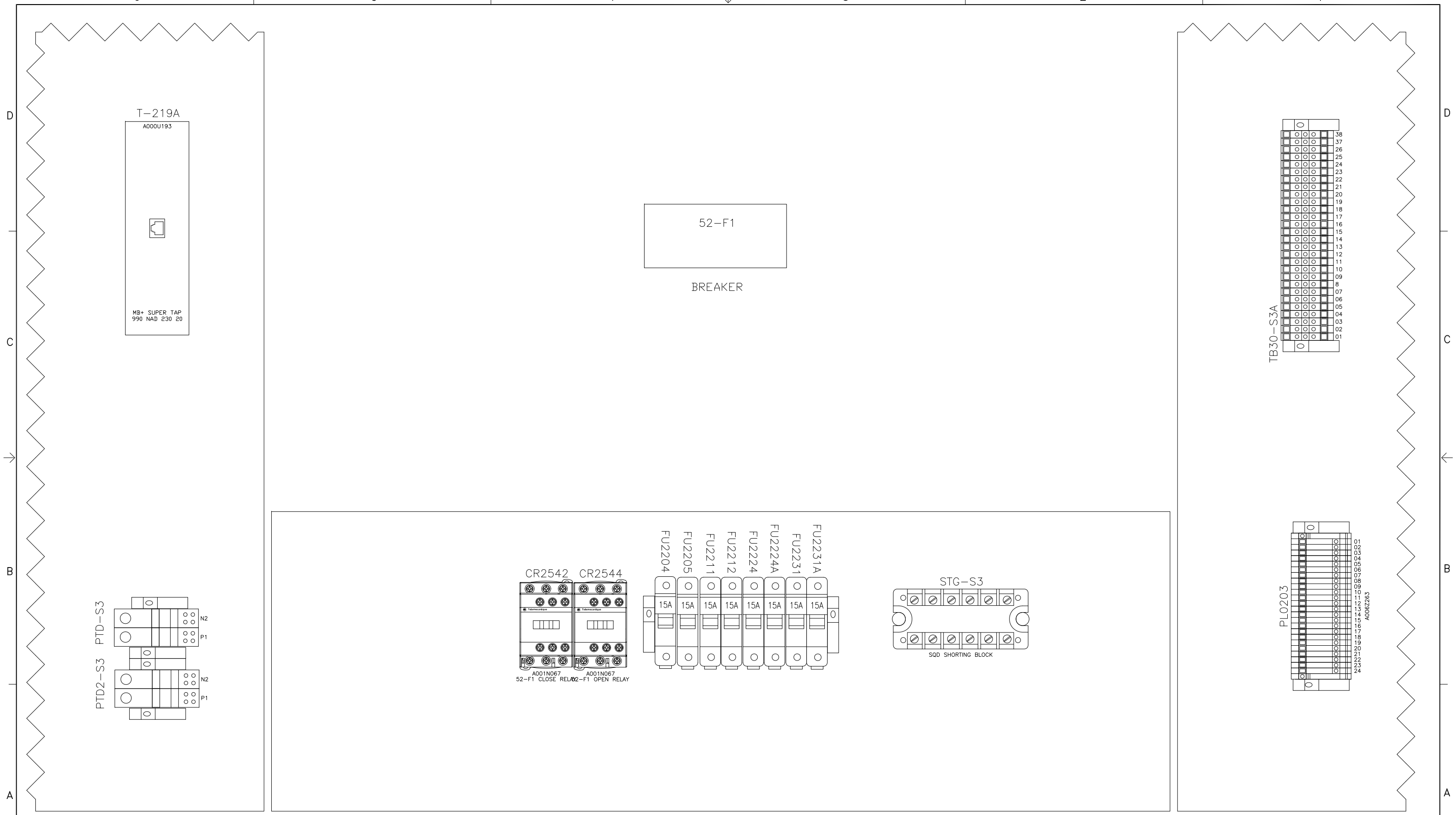
CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 51 OF 61

DWG SIZE D




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3A CELL PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

AUTOCAD DWG

| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

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FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865

SHEET 52 OF 61

DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| T-219A | 1 | | A000U193 | 0324-0027-01 | MODICON | MODBUS PLUS SUPER TAP<br>CABLE TAP<br>W/ RJ45 PORT<br>990 NAD 230 20 |
| PL0203 | 1 | | A006Z263 | 0332-3482-04 | WEIDMULLER | TERMINAL - PLUGABLE, SIDE MOUNT, 24 POLE<br>ASSEMBLY<br>24<br>22 - 12 AWG |
| 52-F1 | 1 | | MV UPPER CELL | | SQUARE D | CIRCUIT BREAKER<br>VENDOR |
| CR2542<br>CR2544 | 2 | | A001N067 | 0307-2900-05 | TELEMECHANIQUE | CONTACTOR-LOW PWR COIL, 24VDC<br>CONTACTOR<br>24 VDC<br>4 NO,1 NC, 18A/32A<br>LC1D18BL |
| FU2204<br>FU2205<br>FU2211<br>FU2212<br>FU2224<br>FU2224A<br>FU2231<br>FU2231A | 8 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| PTD-S3<br>PTD2-S3 | 4 | | SQD PTD | | SQUARE D | SUPPLIED BY SQUARE D<br>TERMINAL<br>DC BUS TERMINAL<br>VENDOR SUPPLIED |
| STG-S3 | 1 | | SQD SHORTING BLOCK | | SQUARE D | SUPPLIED BY SQUARE D<br>SHORTING BLOCK<br>6 TERMINAL<br>BY SQUARE D |
| TB30-S3A | 26 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3A PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

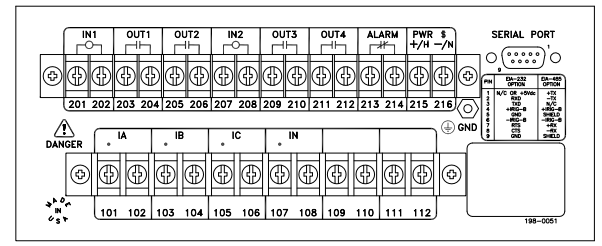
SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

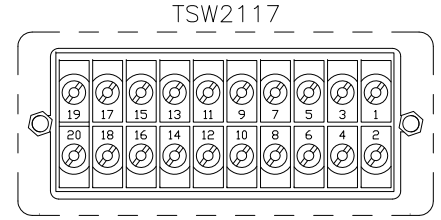
DWG NO. A030S865 SHEET 53 OF 61 DWG SIZE D

KP2124



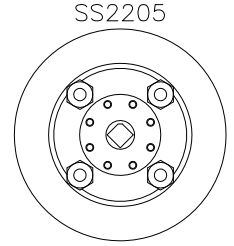

A005P719
SEL551
52-F1

TSW2117




A014T691

SS2205



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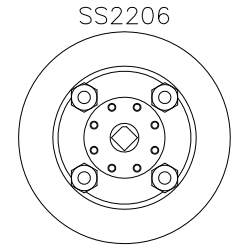
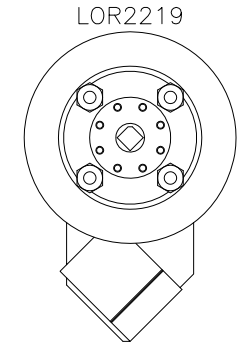


A006X492

LOR2219



A005R200

REAR DOOR VIEW

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3A DOOR PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
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| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR | V. SIVAN | 06/17/10 |
| MFG | | |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 54 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| KP2124 | 1 | | A005P719 | 0307-3032-06 | SCHWEITZER | PROTECTIVE RELAY (SEL 551 MULTIFUNCT)<br>SEL-551<br>48-125 VDC PS/ 125 VDC CV<br>RS232 COMMUNICATION PORT<br>PROJECTION MOUNT<br>0551003X551X |
| LOR2219 | 1 | | A005R200 | 0307-2981-09 | ELECTROSWITCH | LOCKOUT RELAY /W INDICATOR<br>4 DECK<br>125VDC<br>RED LED INDICATOR, MAINTAINED CONTACTS<br>20A, 600V<br>78PA04D-011 |
| SS2206 | 1 | | A006X492 | 0308-1112-02 | ELECTROSWITCH | SWITCH-ROTARY - 3 POS, SPRG RTRN FRM BOTH<br>BREAKER CONTROL SWITCH<br>48-125VDC<br>20A, 1 DECK, TRIP/CLOSE<br>LED INDICATED, PISTOL HANDLE<br>24PB38D |
| SS2205 | 1 | | A006X504 | 0308-1111-05 | ELECTROSWITCH | SWITCH ROTARY - 2 POS MAINT -ILLUM<br>MODE<br>24VDC<br>20A, 4 DECK, 8 C FORM<br>AUTO/MANUAL, LED INDICATED, PISTOL HANDLE<br>24PK204LA |
| TSW2117 | 1 | | A014T691 | 0308-1156-05 | ABB | RELAY TEST SWITCH - 8 CURRENT<br>8 POLE<br>9672A10G01 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3A DOOR PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

ANG TOL | DRAWN TO SCALE OF

AUTOCAD DWG

SIM TO | COPIED FROM | THREE ANGLE PROJECTION

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR | V. SIVAN | 06/17/10 |
| MFG | | |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

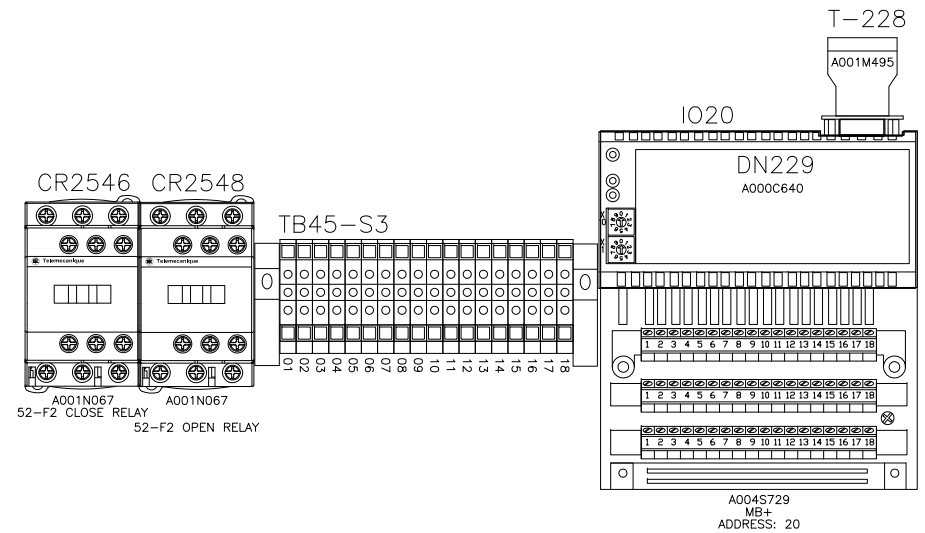
MODEL FIRST USED ON PCIL2004R-772F

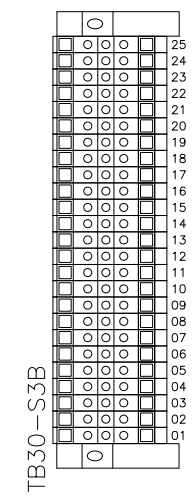
SITE CODE PGA

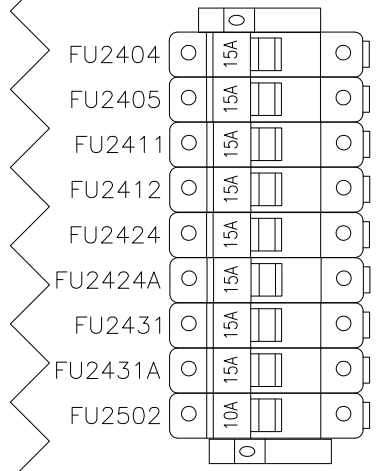
CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 55 OF 61 | DWG SIZE D




BREAKER

52-F2

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3B CELL PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

DO NOT SCALE PRINT

AUTOCAD DWG

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 SHEET 56 OF 61 DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| T-228 | 1 | | A001M495 | 0323-1735-02 | MODICON | CONNECTOR - MODBUS TERMINATING KIT<br>CONNECTOR<br>TWO PER KIT<br>ASMBKT-185 |
| 52-F2 | 1 | | MV LOWER CELL | | SQUARE D | CIRCUIT BREAKER<br>VENDOR |
| CR2546<br>CR2548 | 2 | | A001N067 | 0307-2900-05 | TELEMECHANIQUE | CONTACTOR-LOW PWR COIL, 24VDC<br>CONTACTOR<br>24 VDC<br>4 NO,1 NC, 18A/32A<br>LC1D18BL |
| FU2404<br>FU2405<br>FU2411<br>FU2412<br>FU2424<br>FU2424A<br>FU2431<br>FU2431A | 8 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| FU2502 | 1 | *1 | A002K944 | 0321-0363-28 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>10AMPS<br>600VAC<br>LP-CC-10<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| DN229 | 1 | | A000C640 | 0326-0205 | MODICON | ADAPTER-COMMUNICATION<br>MOMENTUM<br>COMMUNICATION<br>COMMUNICATION ADAPTER<br>MB+ SINGLE PORT, 984 DATA FORMAT<br>170NEF11021 |
| IO20 | 1 | *1 | A004S729 | 0326-0203-02 | MODICON | DISCRETE INPUT/OUTPUT MODULE<br>MOMENTUM<br>DISCRETE COMBINATION<br>24VDC<br>16 POINT INPUT, 16 POINT OUTPUT<br>170ADM35011 |
| | | *1 | A005L063 | 0332-3524 | MODICON | TERMINAL STRIP<br>MOMENTUM<br>TERMINAL<br>TERMINAL PLUG, 18 PLACE<br>170XTS00100 |
| STT-S3 | 1 | | SQD SHORTING BLOCK | | SQUARE D | SUPPLIED BY SQUARE D<br>SHORTING BLOCK<br>6 TERMINAL<br>BY SQUARE D |
| TB30-S3B<br>TB45-S3 | 43 | | A006Z117 | 0332-3125-01 | WEIDMULLER | TERMINAL BLOCK<br>SINGLE LEVEL<br>600V, 20A<br>SINGLE LEVEL, FEED THROUGH<br>22-12 AWG<br>3804.6 |
| CBL226<br>CBL228A | 2 | | A000Y808 | 0326-0149-04 | MODICON | CABLE-MODBUS+ TRUNK<br>COMMUNICATION<br>MODBUS PLUS<br>SPECIFY FEET NEEDED, TP-PVC VACCETED REEL |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3B CELL PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
|---|---|---|---|

| | NAME | DATE |
|---|---|---|
| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON PCIL2004R-772F

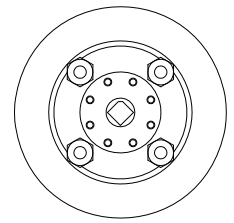
SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

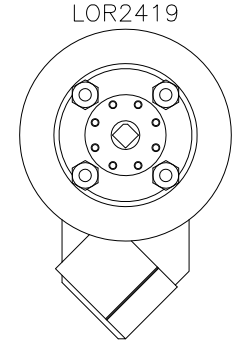
DWG NO. A030S865 | SHEET 57 OF 61 | DWG SIZE D

SS2406



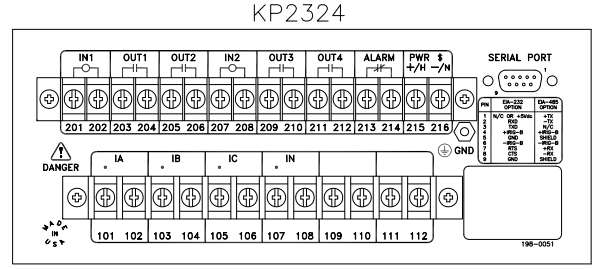
A006X492

LOR2419



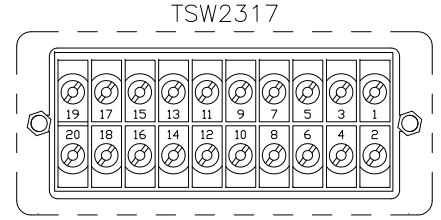
A005R200

KP2324




A005P719
SEL551
52-F2

TSW2317




A014T691

REAR DOOR VIEW

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3B DOOR PANEL LAYOUT
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| PART NO. | DWG SIZE | DESCRIPTION OF MATERIAL | REF DES |
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| | NAME | DATE |
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| DR | V.SAKLANI | 06/17/10 |
| CHKR / MFG | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ANSI Y14.5M-1982

MODEL FIRST USED ON: PCIL2004R-772F

SITE CODE: PGA

CUMMINS POWER GENERATION
1400 73rd AVE NE
MINNEAPOLIS, MN 55432

TITLE: WD-SCHEMATISC

DWG NO. A030S865 | SHEET 58 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| KP2324 | 1 | | A005P719 | 0307-3032-06 | SCHWEITZER | PROTECTIVE RELAY (SEL 551 MULTIFUNCT)<br>SEL-551<br>48-125 VDC PS/ 125 VDC CV<br>RS232 COMMUNICATION PORT<br>PROJECTION MOUNT<br>0551003X551X |
| LOR2419 | 1 | | A005R200 | 0307-2981-09 | ELECTROSWITCH | LOCKOUT RELAY /W INDICATOR<br>4 DECK<br>125VDC<br>RED LED INDICATOR, MAINTAINED CONTACTS<br>20A, 600V<br>78PAD4D-011 |
| SS2406 | 1 | | A006X492 | 0308-1112-02 | ELECTROSWITCH | SWITCH-ROTARY - 3 POS, SPRG RTRN FRM BOTH<br>BREAKER CONTROL SWITCH<br>48-125VDC<br>20A, 1 DECK, TRIP/CLOSE<br>LED INDICATED, PISTOL HANDLE<br>24PB38D |
| TSW2317 | 1 | | A014T691 | 0308-1156-05 | ABB | RELAY TEST SWITCH - 8 CURRENT<br>8 POLE<br>9672A10G01 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S3B DOOR PANEL LAYOUT BOM
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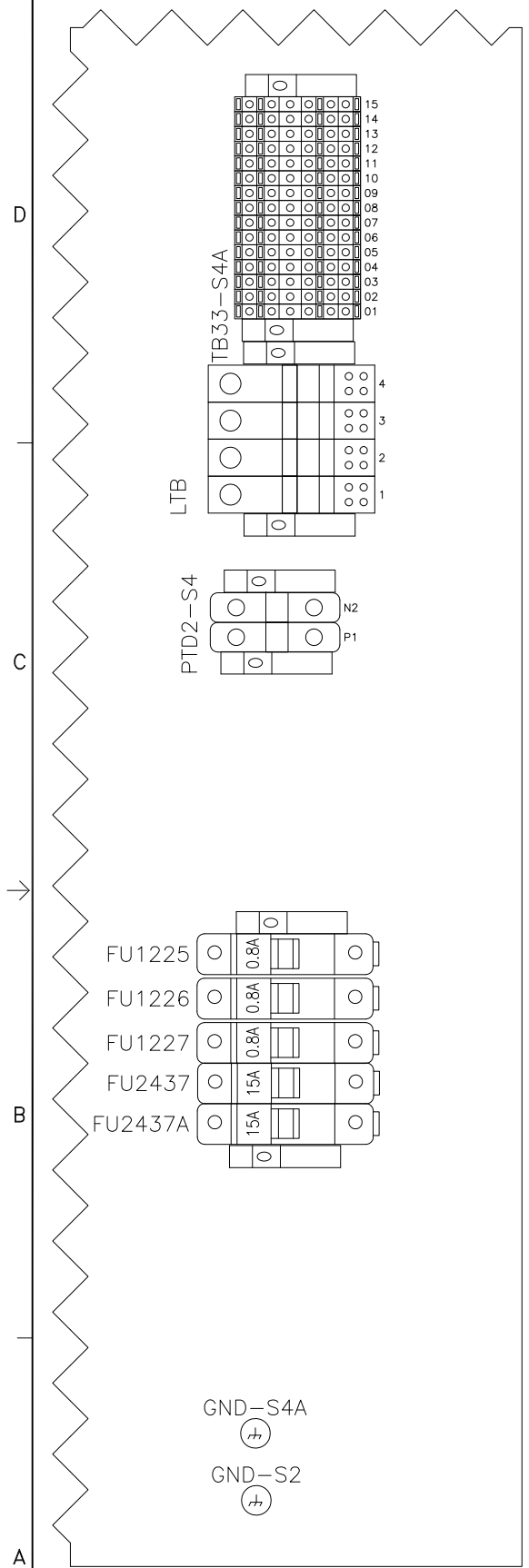
MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

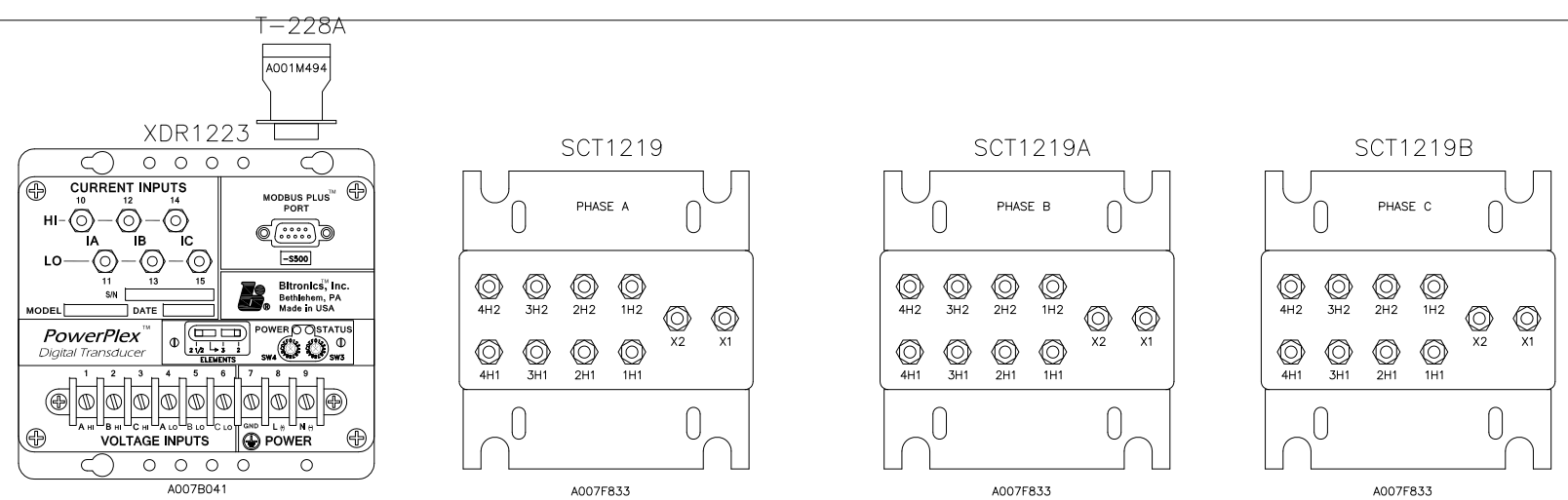
CUMMINS POWER GENERATION
1400 73rd AVE.NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 59 OF 61 | DWG SIZE D




BREAKER




| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | – | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S4A CELL PANEL LAYOUT
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MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

CUMMINS POWER GENERATION
1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 60 OF 61 | DWG SIZE D

| TAGS | QTY | SUB | CATALOG | CPG LEGACY | MFG | DESCRIPTION |
|---|---|---|---|---|---|---|
| T-228A | 1 | | A001M494 | 0323-1735-01 | MODICON | CONNECTOR - MODBUS INLINE KIT<br>CONNECTOR<br>ONE PER KIT<br>AS-MBKT-085 |
| FU1225<br>FU1226<br>FU1227 | 3 | *1 | A002K940 | 0321-0363-03 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>8/10AMPS<br>600VAC<br>LP-CC-8/10<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| FU2437<br>FU2437A | 2 | *1 | A002K943 | 0321-0363-30 | BUSSMANN | FUSE - CLASS CC<br>TIME DELAY, CURRENT LIMITING<br>15AMPS<br>600VAC<br>LP-CC-15<br>USE WITH FUSE BLOCK 0321-0344 |
| | | *1 | A002L124 | 0321-0344 | GOULD | 1 POLE FUSE BLOCK - CLASS CC<br>FUSE HOLDER<br>1/10-30AMPS<br>600VAC<br>PRESSURE PLATE TERM<br>USCC1<br>USE WITH FUSES LP-CC* |
| GND-S2<br>GND-S4A | 2 | | FRAME GROUND | | VENDOR SOURCE CONTROLLED | GROUNDING TERMINAL<br>LUG |
| LTB | 4 | | SQD PTD | | SQUARE D | SUPPLIED BY SQUARE D<br>TERMINAL<br>DC BUS TERMINAL<br>VENDOR SUPPLIED |
| PTD2-S4 | 2 | | SQD TERMINAL | | SQUARE D | SUPPLIED BY SQUARE D<br>TERMINAL<br>TERMINAL BLOCK<br>VENDOR SUPPLIED |
| TB33-S4A | 15 | | A006Z109 | 0332-3125-04 | WEIDMULLER | TERMINAL BLOCK<br>DOUBLE LEVEL<br>300V, 27A<br>DOUBLE LEVEL, FEED THROUGH, WITH INTERNAL LINK<br>22-12 AWG<br>3636.6 |
| XDR1223 | 1 | | A007B041 | 0326-0156-01 | BITRONICS | 3 PHASE MULTIFUCNTION DIGITAL TRANSDUCER, 120V INPUT<br>DIGITAL<br>24VDC<br>MODBUS PLUS PORT<br>MTWIN3B-S500-VD10 |
| SCT1219<br>SCT1219A<br>SCT1219B | 3 | | A007F833 | 0302-1974-01 | INSTRUMENT TRANSFORMERS | TRANSFORMER-CURRENT<br>SUMMING CT<br>4 INPUT<br>METERING CLASS, 25-400HZ<br>190XSUM4 |

| PC NO. | LTR | NO. | REVISION | ZONE | DRA | CHKR | APRV | DATE |
|---|---|---|---|---|---|---|---|---|
| PC104235 | 01 | A | PRODUCTION RELEASE AS-BUILT | - | VS | VS | KT | 06/17/10 |

PROJECT:
ARECIBO OBSERVATORY SWITCHGEAR
SG S4A CELL PANEL LAYOUT BOM
DISTRIBUTOR:
CUMMINS CARIBBEAN
7071681

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| | NAME | DATE |
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| DR | V.SAKLANI | 06/17/10 |
| CHKR ☐ MFG ☐ | V. SIVAN | 06/17/10 |
| APPROVED | K.TWUMASI | 06/17/10 |

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MODEL FIRST USED ON PCIL2004R-772F

SITE CODE PGA

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1400 73rd AVE. NE
MINNEAPOLIS, MN 55432

TITLE WD-SCHEMATISC

DWG NO. A030S865 | SHEET 61 OF 61 | DWG SIZE D