

AC DISTRIBUTION;  
INSIDE POWERSHELF MAGAZINE

POWERSHELF MAGAZINE  
SMR MODULES  
SMR TYPE : RT9-24VDC-1.4kW  
WIRED SLOT QTY : 4  
SMR QTY : 3  
SPARE SLOT QTY : 1

BATTERY/LOAD DISTRIBUTION  
BATTERY LOCATION: INSIDE CABINET  
ON BATTERY SHELVES  
BATTERY MONOBLOC : VISION CT12-125X  
NO. OF MONOBLOCS IN A BATT. BANK : 2  
NO. OF BANKS IN "BATT. BANK SHELF GROUP" : 2  
NO. OF "BATT. BANK SHELF GROUPS" : 3  
TOTAL NO. OF BATT. BANKS : 6

NOTE1: (BATTERY DISTRIBUTION)  
1. MCB 10KA 2P 80A x 6 (SCHNEIDER)  
2. THE MCBs OF "BATTERY BANKS SHELF GROUP" TO BE OPERATED AS A GROUP. THE OBJECTIVE IS TO CHARGE OR DISCHARGE TOGETHER ALL THE BATTERIES OF SAME "BATTERY BANK SHELF GROUP". THERE IS ONE CURRENT TRANSDUCER PER "BATTERY BANK SHELF GROUP".

NOTE2: (LOAD DISTRIBUTION)  
1. MCB 6KA 2P 10A x 2 (SCHNEIDER)

NOTE3: (SMR AC DISTRIBUTION)  
1. MCB 6KA 1P 16A x 4 (SCHNEIDER)

NOTE4: (BATTERY)  
1. RTP TO SUPPLY BATTERIES.  
2. BATTERIES WILL BE SUPPLIED SEPARATE NOT INSTALLED IN THE CABINET.  
3. BATTERY INSTALLATION AND BATTERY CABLE CONNECTION TO BE DONE BY OTHERS.

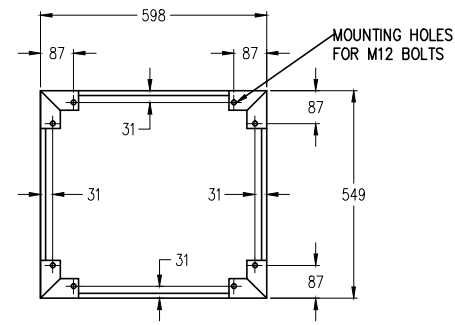
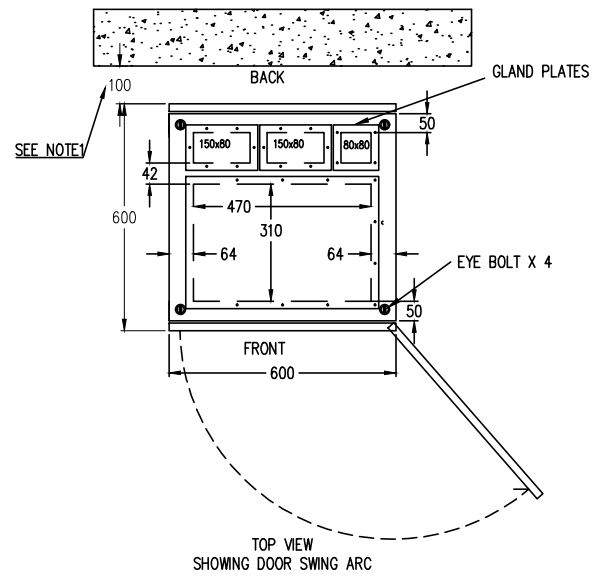
WITHIN SCOPE  
OF RTP SUPPLY  
OUTSIDE SCOPE  
OF RTP SUPPLY

GENERAL NOTE:  
1. WIRES IN DASHED LINES ARE TO BE SUPPLIED AND INSTALLED BY OTHERS.

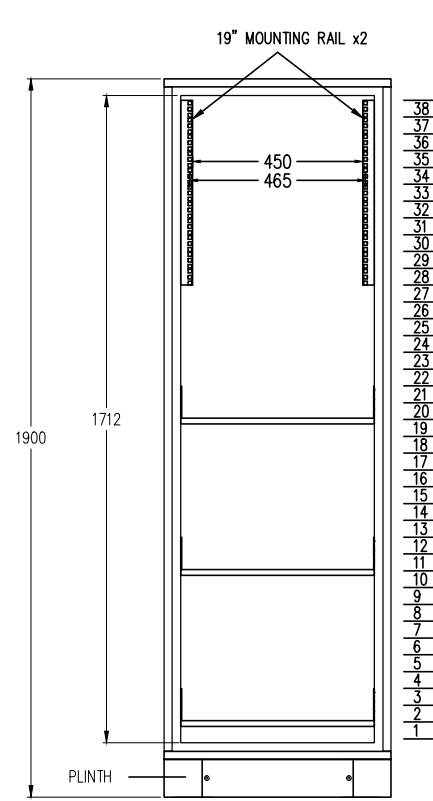
SIZE: A3 STATUS: AS BUILT CLIENT: PROJECT TITLE: BATTERY CHARGER 24VDC  
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 24 Harker Street, Burwood, VIC, Australia, 3125  
 Phone: +61 3 9896 7588 Fax: +61 3 9896 7566

CLIENT PO NUMBER: SHEET TITLE: SINGLE LINE DIAGRAM (SLD)  
 DWG NO.: 940-3351 SHEET: S01 ISSUE: 02

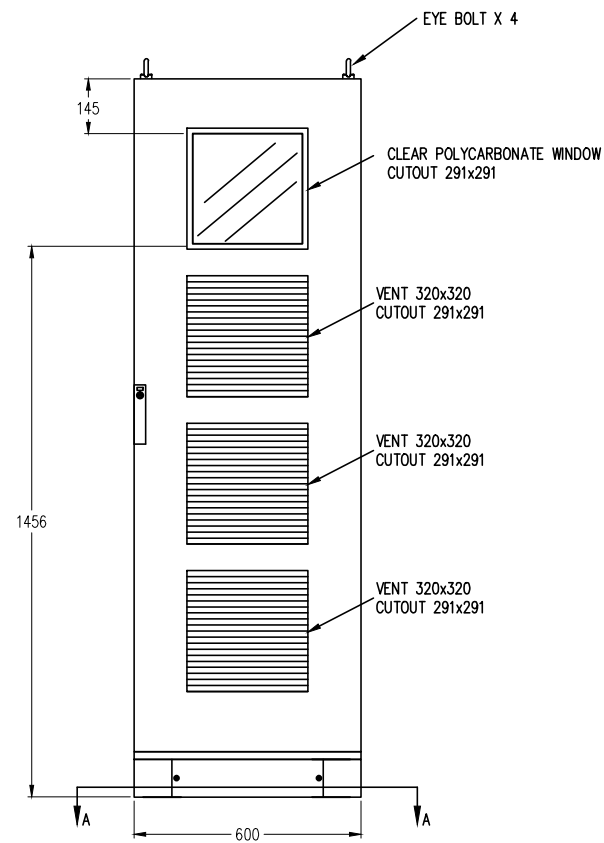
NOTE1:  
1. BACK OF CUBICLE TO BE SPACED FROM WALL 100MM MINIMUM FOR AIR FLOW.



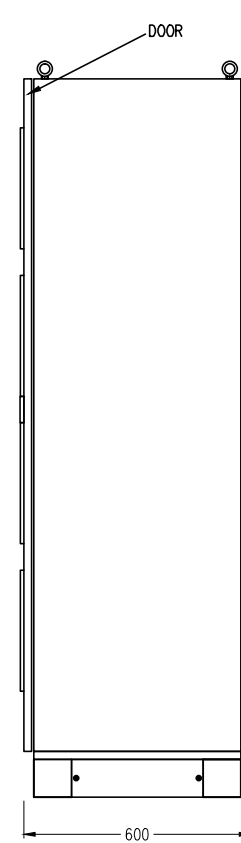
SECTION AA VIEW  
FLOOR MOUNTING DETAILS  
(Dimensions are indicative only. Confirm all dimensions with actual unit when preparing for installation.)



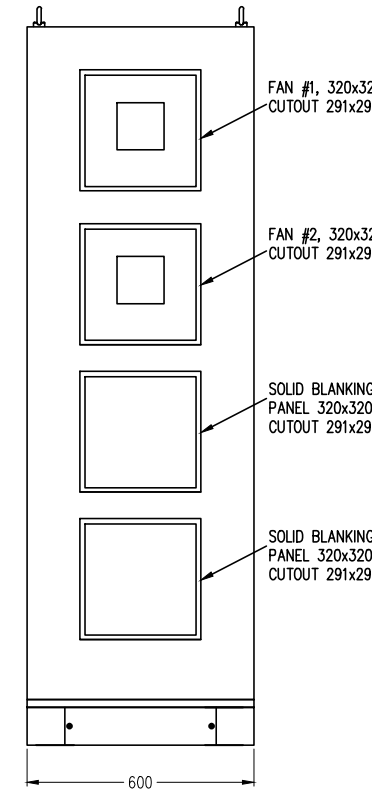
FRONT VIEW  
(WITHOUT DOOR)



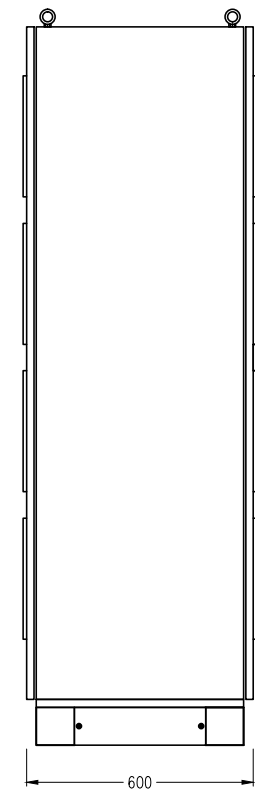
FRONT VIEW  
(DOOR CLOSED)



SIDE, RIGHT VIEW  
(DOOR CLOSED)



REAR VIEW  
(DOOR CLOSED)



SIDE, LEFT VIEW  
(DOOR CLOSED)

GENERAL NOTE:  
1. SCALE 1:20 APPROX. DO NOT SCALE FROM HARDCOPY.  
2. DIMENSIONS ON DRAWING ARE INDICATIVE ONLY. CONFIRM ALL DIMENSIONS WITH ACTUAL UNIT WHEN PREPARING FOR INSTALLATION.

SIZE:  
A3

STATUS: AS BUILT

CLIENT:

PROJECT TITLE: BATTERY CHARGER 24VDC

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CLIENT PO NUMBER:

SHEET TITLE: LAYOUT - CABINET VIEWS WITHOUT EQUIPMENT

 **Rectifier Technologies Pacific Pty. Ltd.**  
24 Harker Street, Burwood, VIC, Australia, 3125  
Phone: +61 3 9896 7588 Fax: +61 3 9896 7566

DWG NO.:

940-3351

SHEET:

L01

ISSUE:

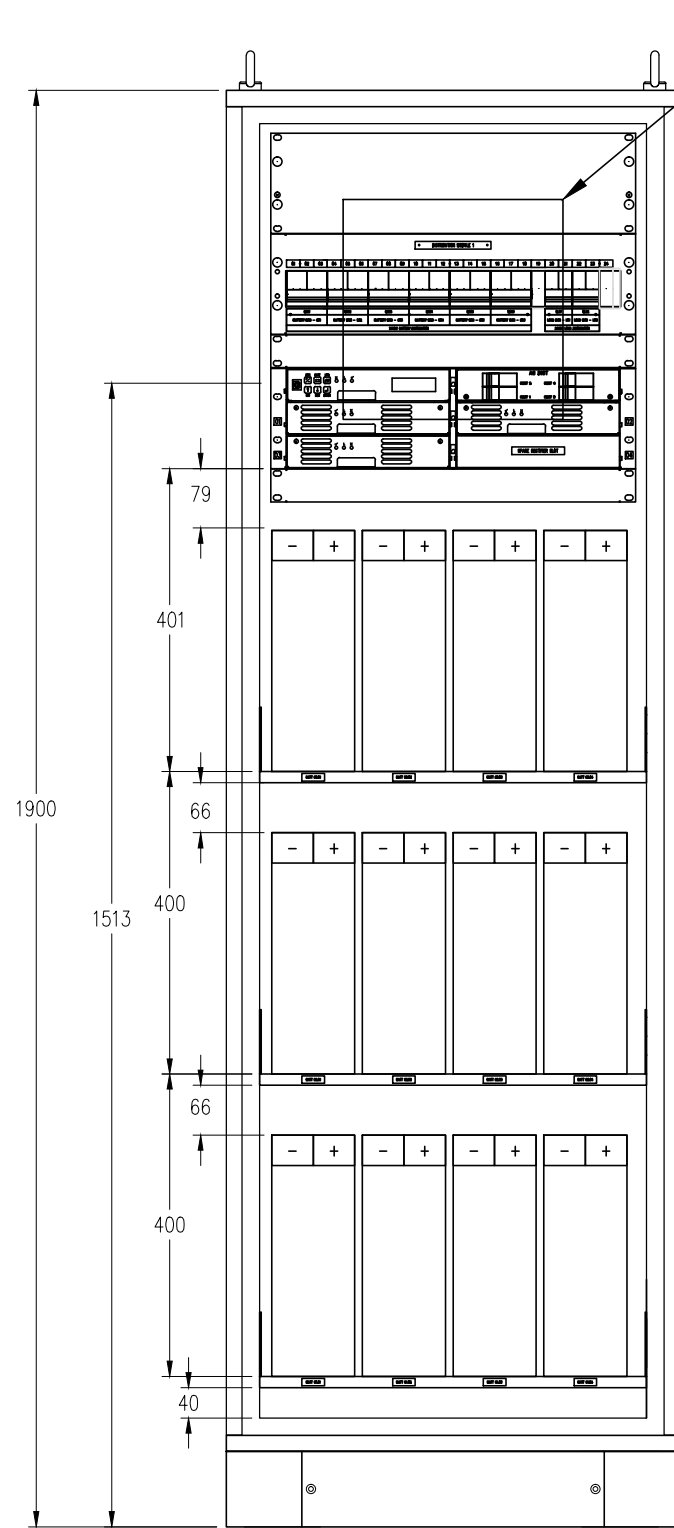
02

**CABLE ENTRY LOCATIONS**

CABLE	LOCATION
AC SUPPLY	TOP
BATTERY	TOP
DC LOADS	TOP
AC LOADS	NA
ALARMS	TOP
COMMS	TOP

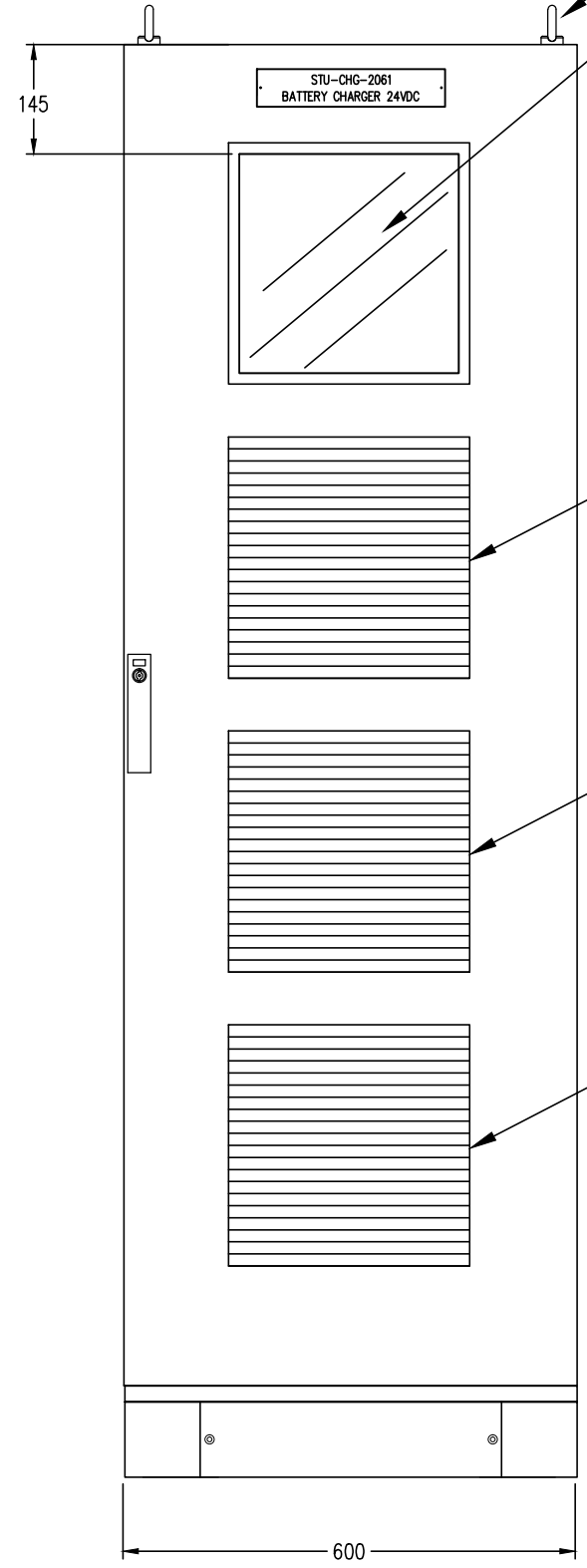
**CABINET DETAILS:**  
 1. 600W x 600D x 1800H (PLUS PLINTH)  
 2. PLINTH 100MM  
 3. FLOOR STANDING  
 4. IP31  
 5. COLOUR: GREY (RAL7035)

**NOTE1:**  
 1. DURING BATTERY INSTALLATION IN THE BATTERY SHELF, ALIGN LEFT BATTERY BANK TOWARDS THE FRONT OF THE SHELF AND THE RIGHT BATTERY BANK SLIGHTLY DEEPER. THIS WILL HELP IN BATTERY CABLE ASSEMBLY WORKS.




FRONT VIEW (WITHOUT DOOR)

- 38 1. AC TERMINALS ON REAR LEFT SIDE.
  - 37 2. MUIB ON RIGHT SIDE.
  - 36 3. FAN MCBs AND COMMS ON REAR SIDE.
  - 35 DISTRIBUTION 1; (BATTERY & LOAD) SEE SHEET S01 FOR DETAILS
  - 34
  - 33
  - 32
  - 31 POWERSHELL MAGAZINE;  
 1. CSU 24VDC x 1  
 2. RT9-24VDC 1.4KW x 3  
 3. SPARE SMR SLOT = 1  
 4. SMR AC DISTRIBUTION SEE SHEET S01 FOR DETAILS
  - 28
  - 27 BATTERY BANK 5 & 6  
 BATTERY BANKS SHELF GROUP: 3  
 BATTERY CURRENT MEASURED BY "BATTERY CT3"  
 NOTE1
  - 26
  - 25
  - 24
  - 23
  - 22
  - 21
  - 20
  - 19
  - 18 BATTERY BANK 3 & 4  
 BATTERY BANKS SHELF GROUP: 2  
 BATTERY CURRENT MEASURED BY "BATTERY CT2"  
 NOTE1
  - 17
  - 16
  - 15
  - 14
  - 13
  - 12
  - 11
  - 10
  - 9 BATTERY BANK 1 & 2  
 BATTERY BANKS SHELF GROUP: 1  
 BATTERY CURRENT MEASURED BY "BATTERY CT1"  
 NOTE1
  - 8
  - 7
  - 6
  - 5
  - 4
  - 3
  - 2
  - 1
- PLINTH 100MM



FRONT VIEW (DOOR CLOSED)

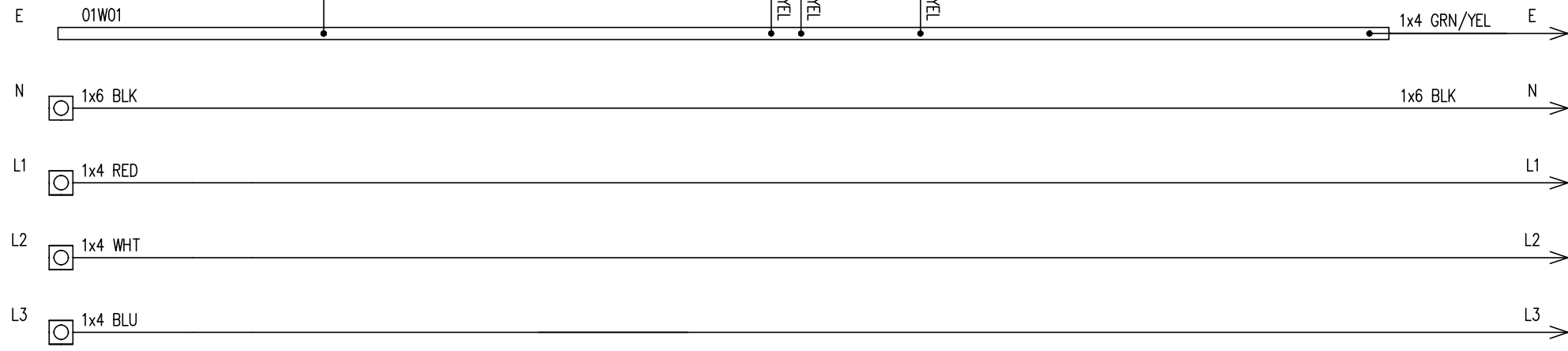
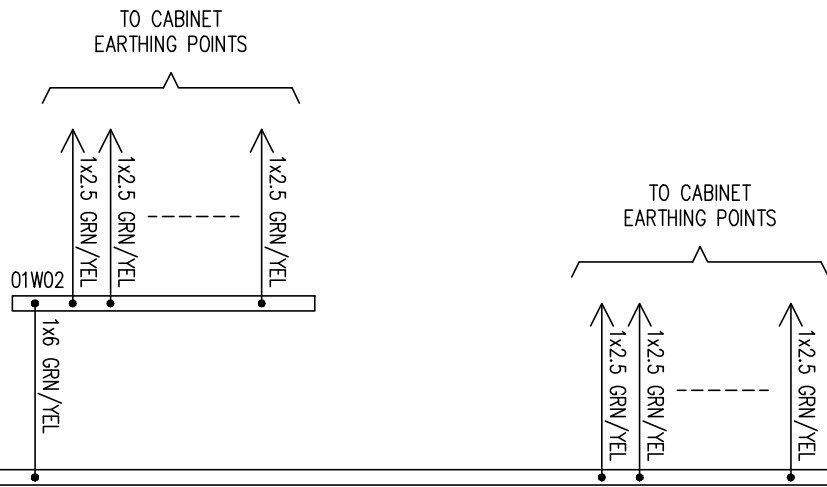
**GENERAL NOTE:**  
 1. SCALE 1:10 APPROX. DO NOT SCALE FROM HARDCOPY.  
 2. DIMENSIONS ON DRAWING ARE INDICATIVE ONLY. CONFIRM ALL DIMENSIONS WITH ACTUAL UNIT WHEN PREPARING FOR INSTALLATION.  
 3. BACK OF CUBICLE TO BE SPACED FROM WALL 100MM MINIMUM FOR AIR FLOW.

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**AC SUPPLY TERMINALS**  
 AC supply terminal block allows connection of either single-phase or three-phase incoming supply.  
 For single phase supply, a terminal shorting link is provided to link together the AC supply terminals L1, L2, L3.  
 By default, the system is shipped with terminal shorting link REMOVED.


AC SUPPLY ELECTRICAL SPECIFICATIONS	
Number of phases:	1 or 3
Neutral required:	Yes
Volts phase to neutral:	230
Freq (Hz):	50
AC SUPPLY CONNECTION DETAILS	
EARTH	M10 Bolt
NEUTRAL	Terminal 16SQMM
PHASES L1, L2, L3	Terminal 16SQMM

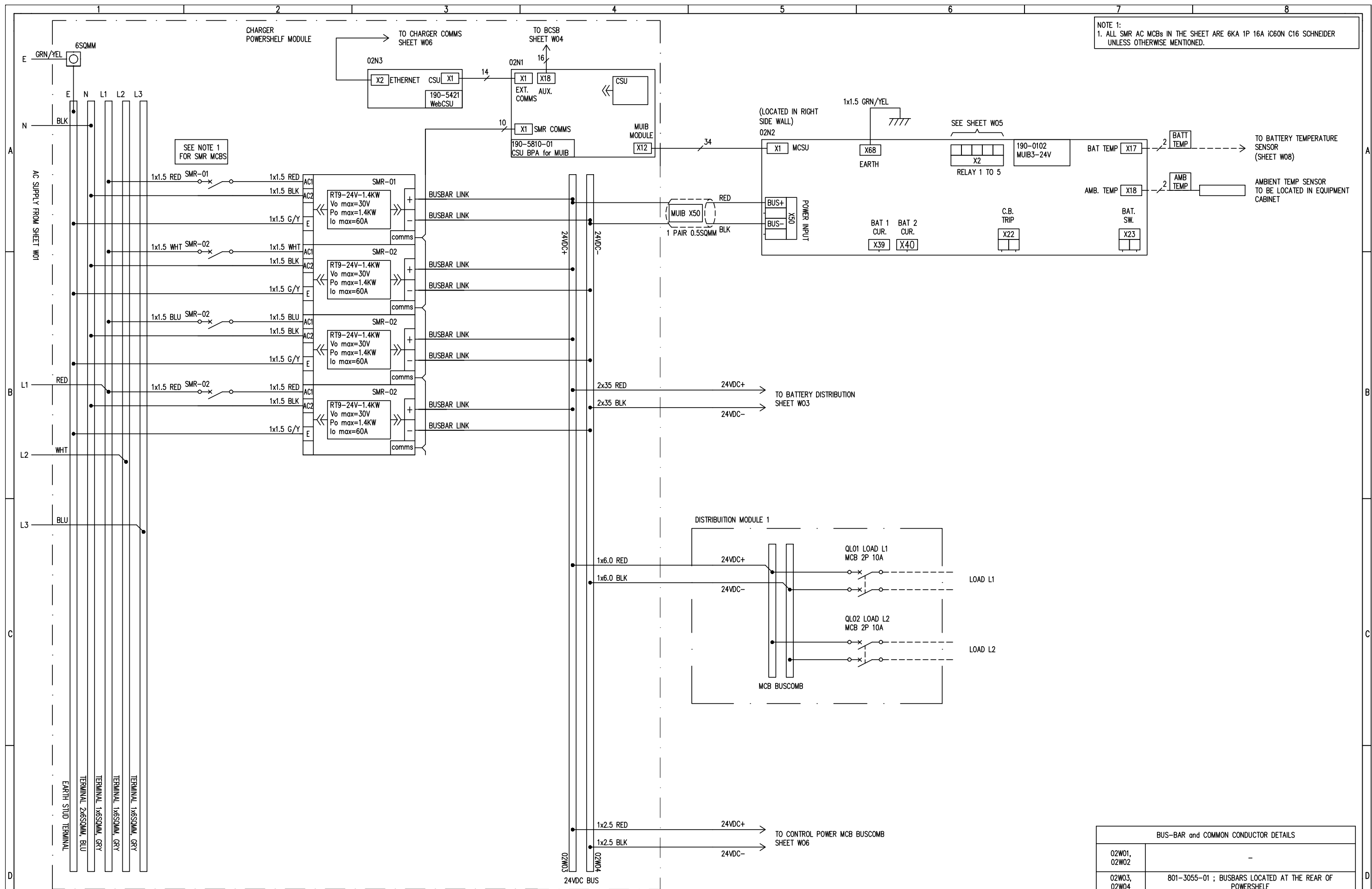
RESERVED FOR CUSTOMER TO RECORD MAIN CABLE + FEEDING DISTRIBUTION BOARD DETAILS



AC SUPPLY TO SHEET W02

BUS-BAR and COMMON CONDUCTOR DETAILS	
01W01 01W02	BRASS BAR [M10 x2, 16sqmm tunnel x12] (RTP part no: 605-4055-00).

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NOTE 1:  
1. ALL SMR AC MCBs IN THE SHEET ARE 6KA 1P 16A IC60N C16 SCHNEIDER UNLESS OTHERWISE MENTIONED.

SEE NOTE 1 FOR SMR MCBS

GENERAL NOTE:  
1.

SIZE: A3

STATUS: AS BUILT

CLIENT:

PROJECT TITLE: BATTERY CHARGER 24VDC

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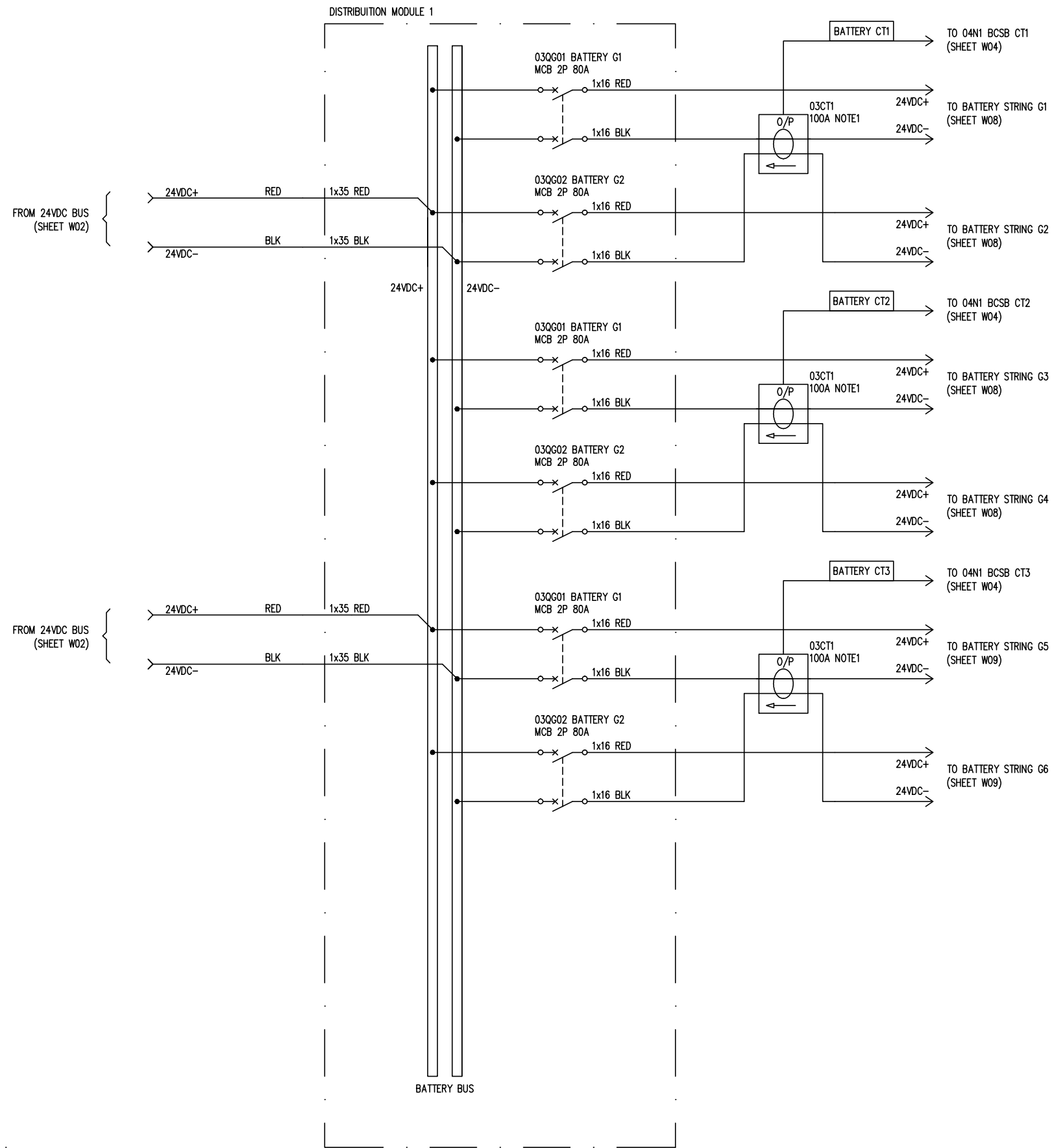
W02

ISSUE:

02

BUS-BAR and COMMON CONDUCTOR DETAILS	
02W01, 02W02	-
02W03, 02W04	801-3055-01 ; BUSBARS LOCATED AT THE REAR OF POWERSHELF

NOTE1: (BATTERY CTs)  
 1. BATTERY CT1 CURRENT = TOTAL CURRENT OF BATTERY STRINGS G1 & G2.  
 2. BATTERY CT2 CURRENT = TOTAL CURRENT OF BATTERY STRINGS G3 & G4.  
 3. BATTERY CT3 CURRENT = TOTAL CURRENT OF BATTERY STRINGS G5 & G6.  
 4. THE MCBs OF "BATTERY BANKS SHELF GROUP" TO BE OPERATED AS A GROUP. THE OBJECTIVE IS TO CHARGE OR DISCHARGE TOGETHER ALL THE BATTERIES OF SAME "BATTERY BANK SHELF GROUP", AS THERE IS ONE CURRENT TRANSDUCER PER "BATTERY BANK SHELF GROUP".



GENERAL NOTE:  
 1. WIRES IN DASHED LINES ARE TO BE SUPPLIED AND INSTALLED BY OTHERS.

SIZE:  
 A3

STATUS: AS BUILT

CLIENT:

PROJECT TITLE: BATTERY CHARGER 24VDC

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SHEET TITLE: WIRING DIAGRAM - CHARGER  
 BATTERY DISTRIBUTION

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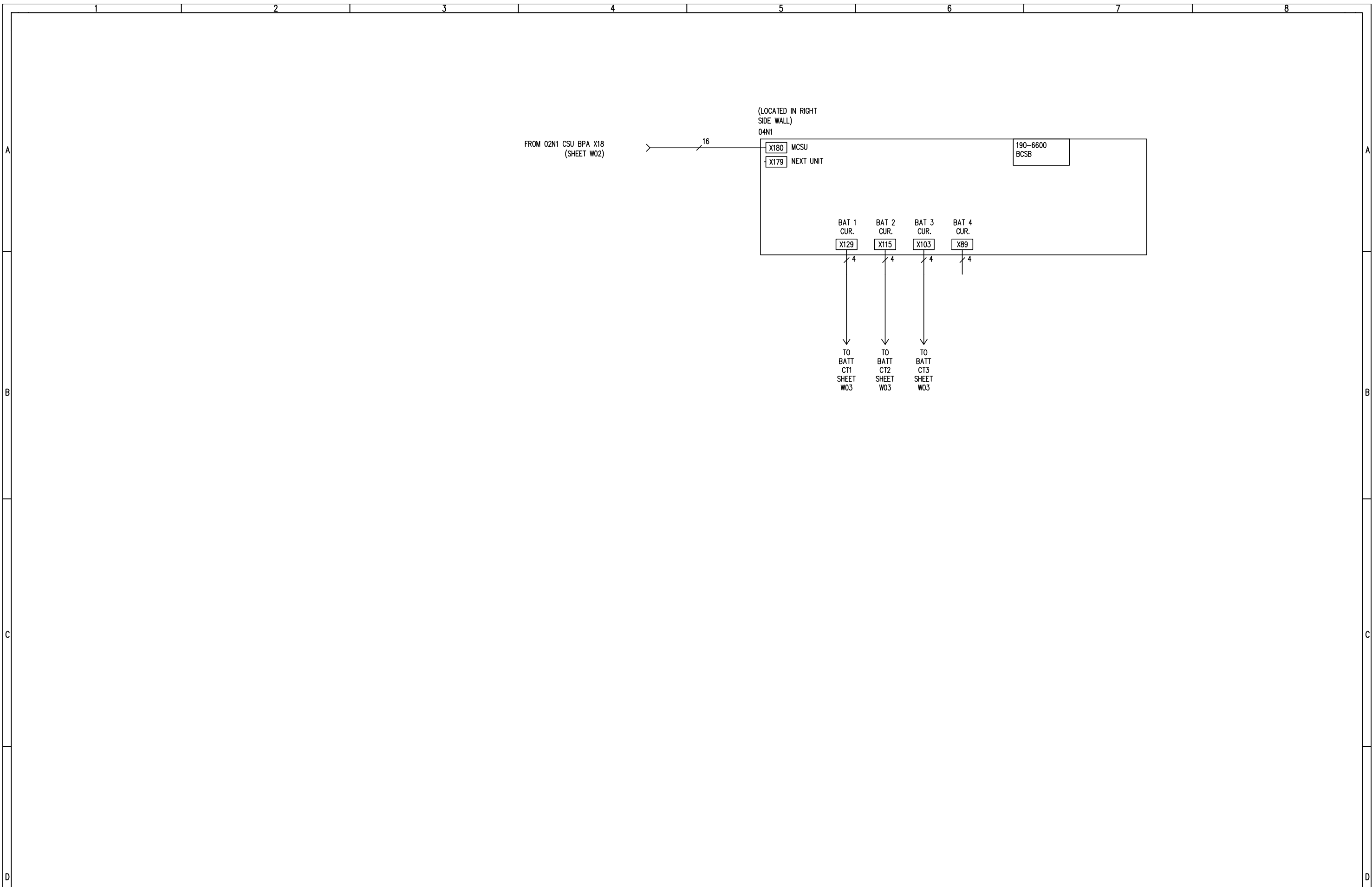
940-3351

SHEET:

W03

ISSUE:

02



GENERAL NOTE:  
1. RELAY FUNCTIONS NOT USED IN THE SYSTEM.

SIZE:  
A3

STATUS: AS BUILT

CLIENT:

PROJECT TITLE: BATTERY CHARGER 24VDC

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SHEET TITLE: WIRING DIAGRAM –  
ACCESSORIES MODULE COMMS BUS

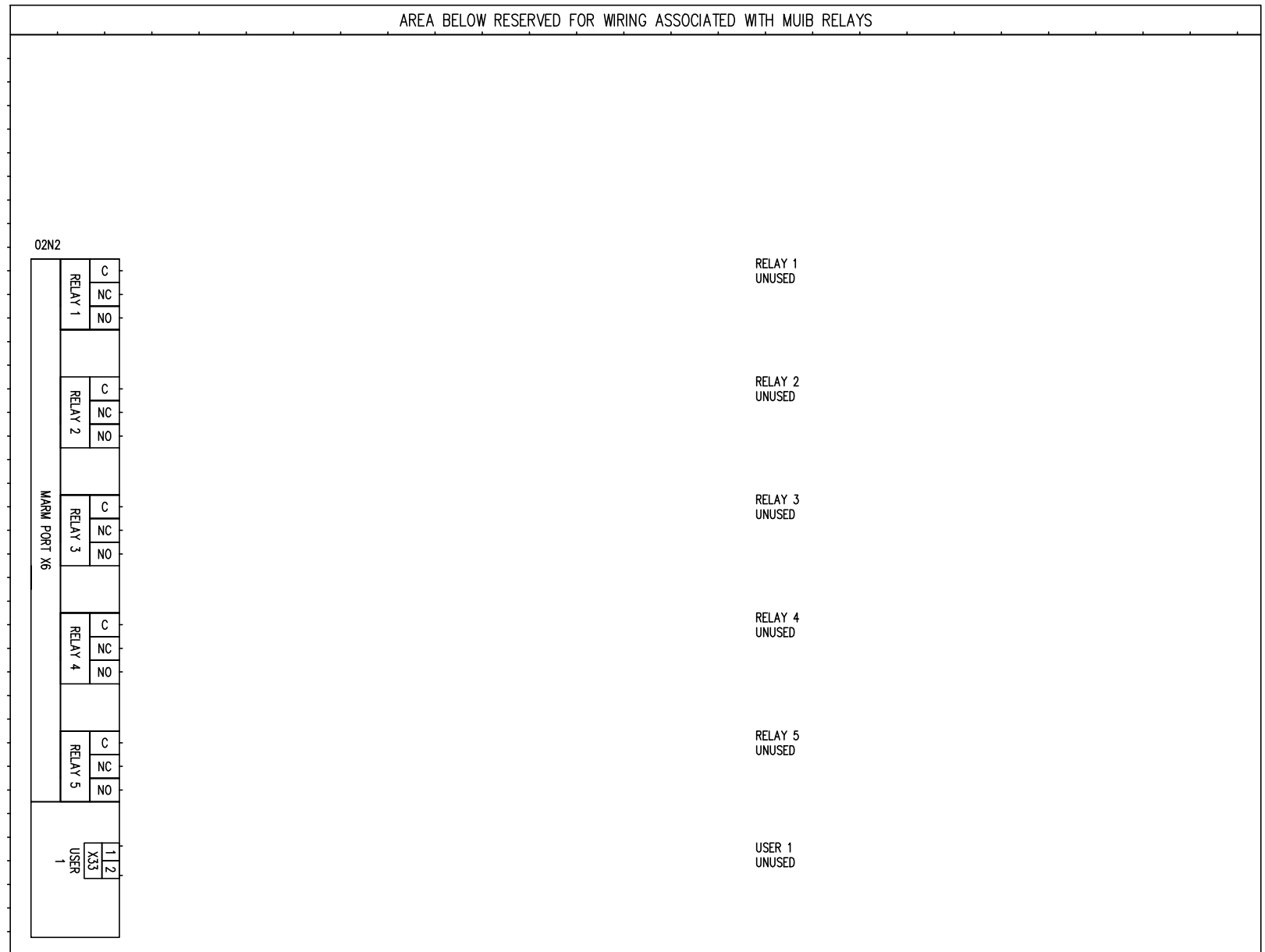
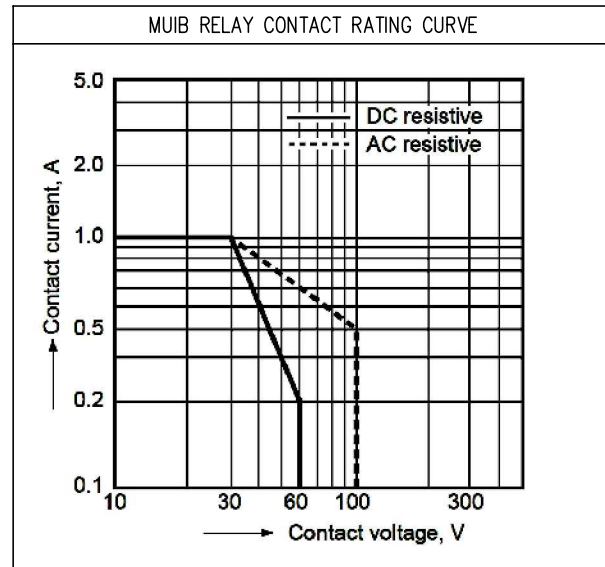


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DWG NO.:  
940-3351

SHEET: ISSUE:  
W04 02

MUIB ALARM RELAY ALLOCATION TABLE						
SN	ALARM LIST	RELAY 1	RELAY 2	RELAY 3	RELAY 4	RELAY 5
	Normally Energised					
	Comments	Available for user to configure	Available for user to configure	Available for user to configure	Available for user to configure	Available for user to configure
1	General Alarm					
2	Voltage High					
3	Voltage Low					
4	LVDS Activated					
5	Load Disconnected					
6	Battery Disconnected					
7	Battery Temperature Sensor					
8	System Voltage Clamp					
9	EEPROM Fault					
10	Safe Mode					
11	Equalisation					
12	Charge Current Limit					
13	Battery Discharge					
14	Battery Discharge Symmetry Alarm					
15	Battery Discharge Low					
16	Battery Temperature High					
17	Earth Leakage Fault					
18	Battery CT Fail					
19	Cell Voltage High					
20	Cell Voltage Low					
21	Cell Deviation High					
22	Cell Deviation Low					
23	Discharge Test Fail					
24	Battery Discharge Test					
25	Rectifier Comms					
26	Rectifier Urgent					
27	Rectifier Warning					
28	Rectifier High Voltage Shutdown n					
29	Uncalibrated SMR					
30	Rectifier Parameter Range					
31	Rectifier Failure					
32	Rectifier Sw itched Off					
33	Rectifier Minor Alarm					
34	Rectifier Major Alarm					
35	Fan Control					
36	Ambient Temperature High					
37	AC Voltage Fault					
38	AC Frequency Fault					
39	Low Volt Load Disconnect					
40	Arrestor Trip					
41	Display Failed					
42	Rectifier Firmw are File Error					
43	Rectifier Config File Error					
44	Rectifier Upload Failure					



GENERAL NOTE:  
1. RELAY FUNCTIONS NOT USED IN THE SYSTEM.

SIZE: A3 STATUS: AS BUILT

CLIENT:

PROJECT TITLE: BATTERY CHARGER 24VDC

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CLIENT PO NUMBER:

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RELAY FUNCTION ALLOCATIONS

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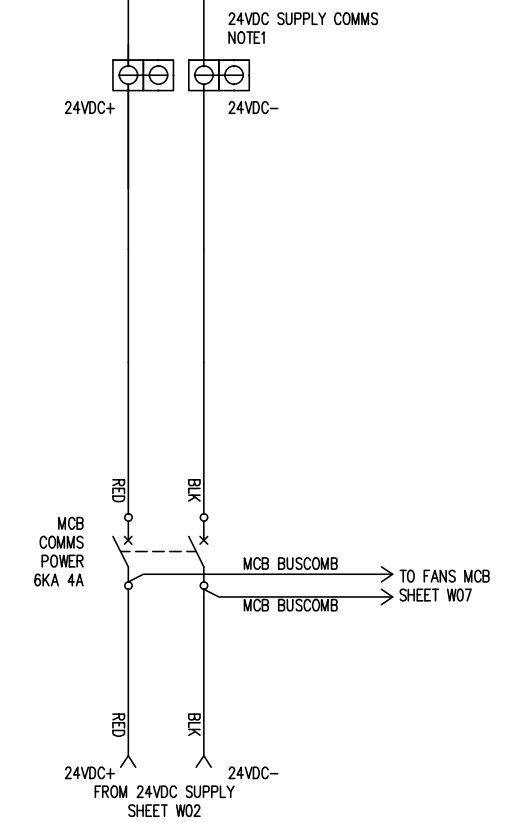
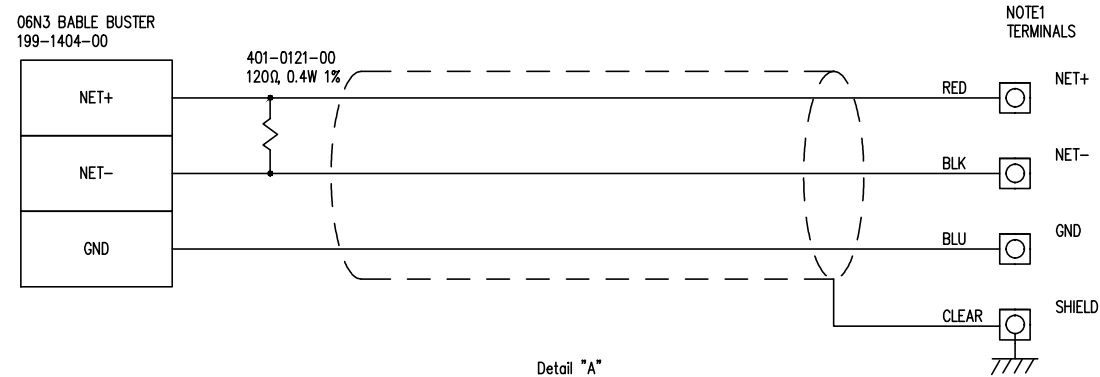
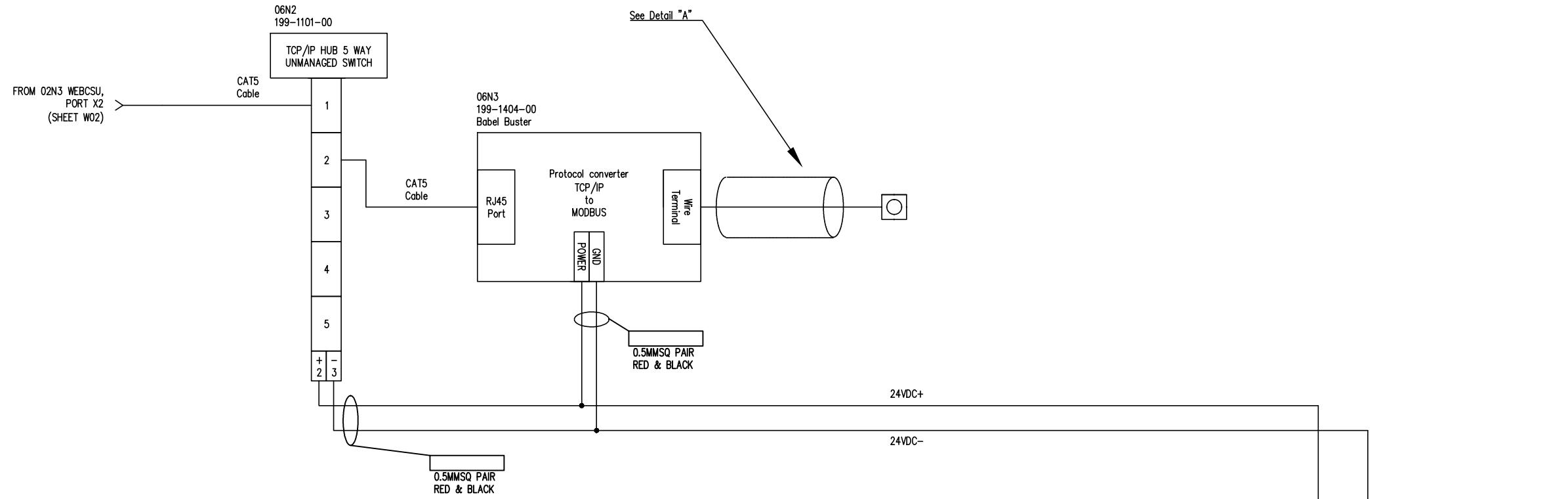
DWG NO: 940-3351

SHEET: W05 ISSUE: 02



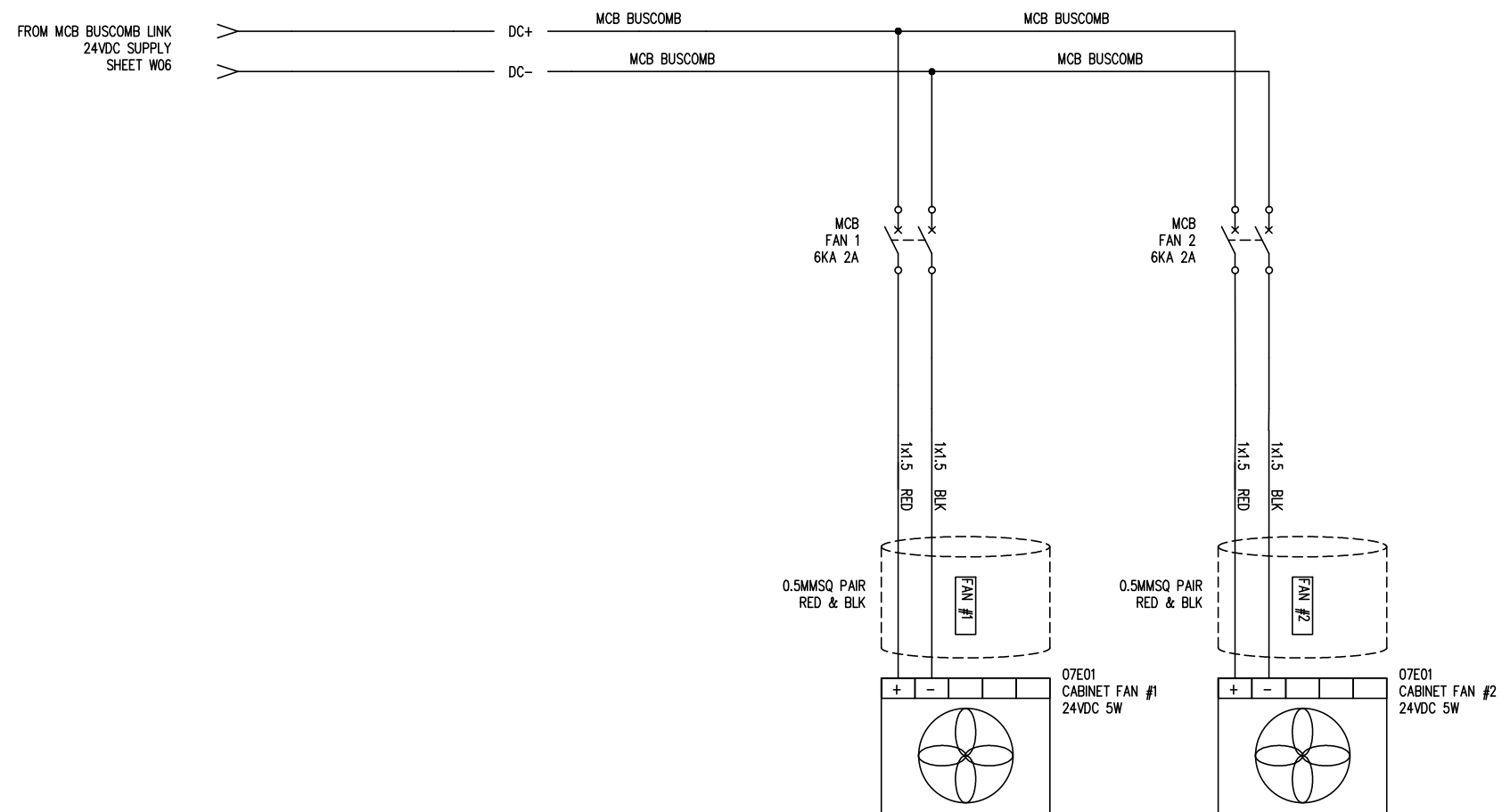
NOTE 1: (TERMINALS)  
1. TERMINALS ARE 2.5SQMM WAGA PUSH ON TERMINALS.

COMMS MODULE




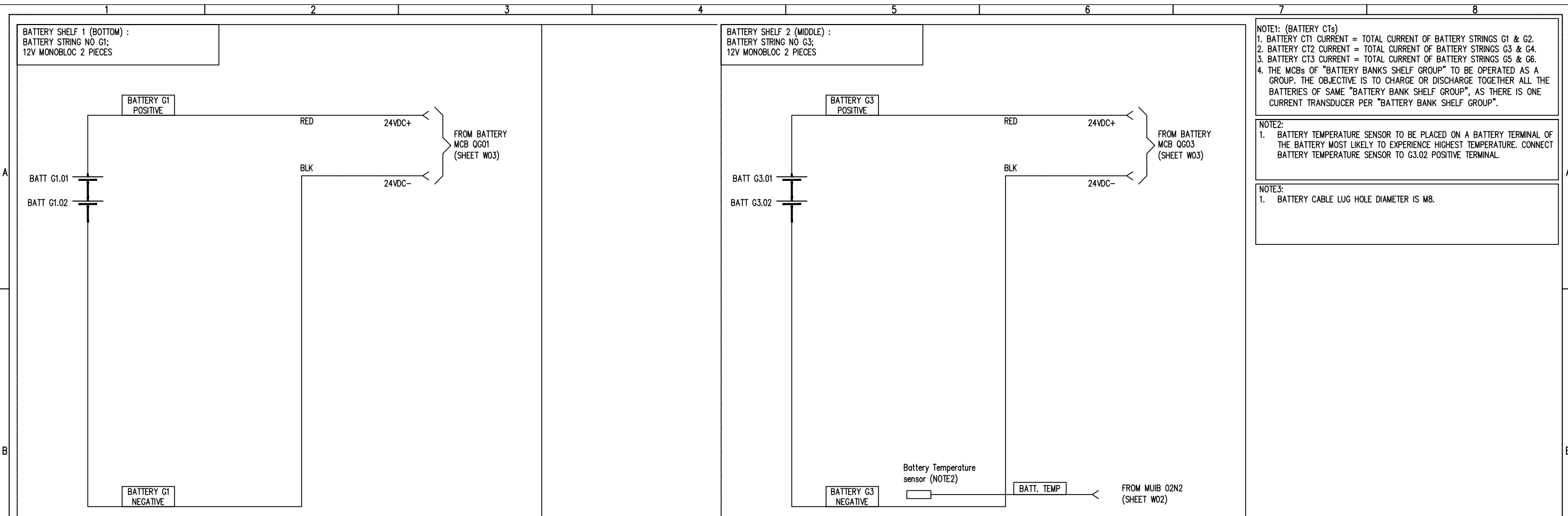
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NOTE 1:  
1. CABINET FANS ARE TO BE LEFT SWITCHED ON ALL THE TIME WHEN THE CABINET SYSTEM IS LIVE.



GENERAL NOTE:  
1.

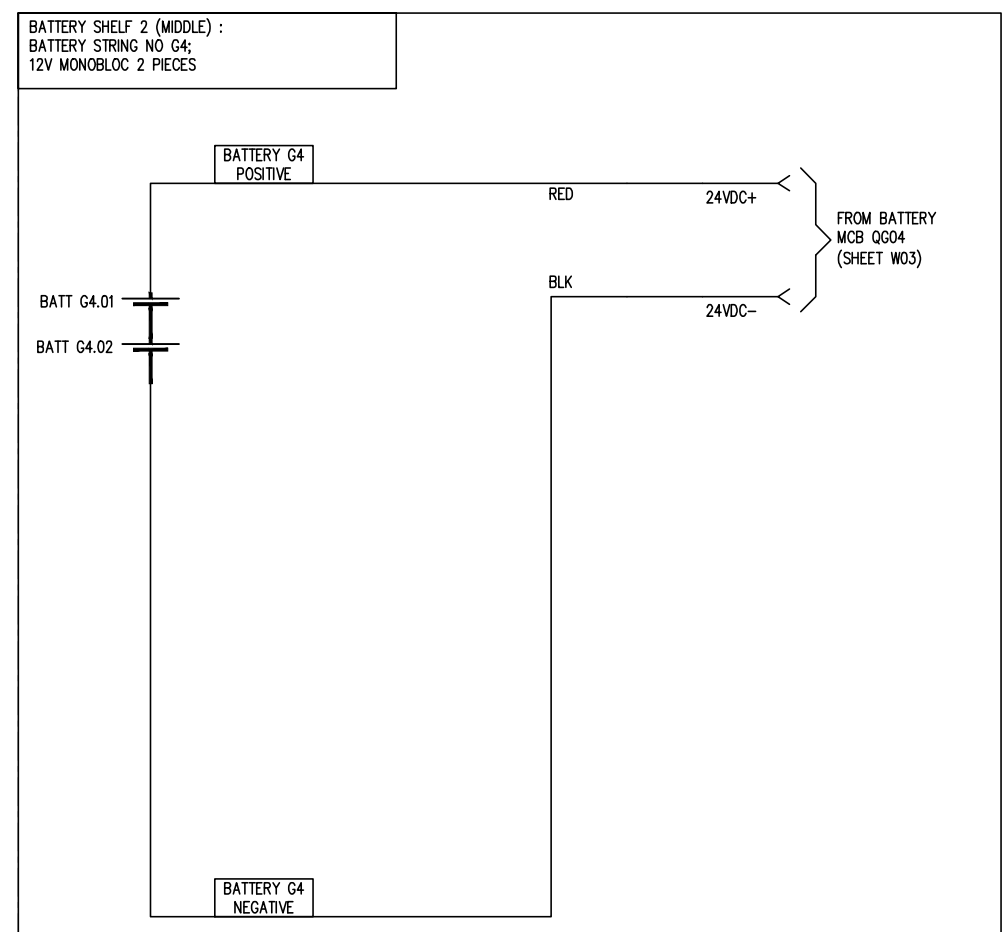
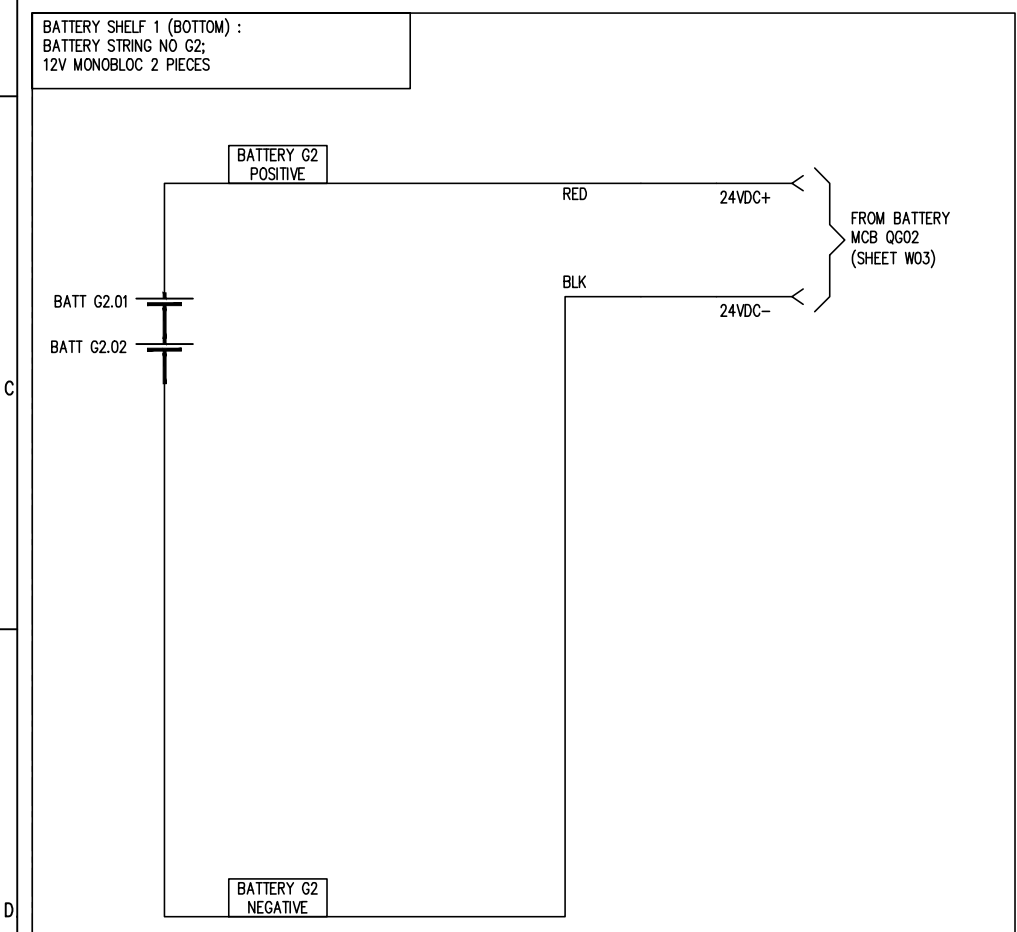
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		ISSUE: 02	




**NOTE1: (BATTERY CTs)**  
 1. BATTERY CT1 CURRENT = TOTAL CURRENT OF BATTERY STRINGS G1 & G2.  
 2. BATTERY CT2 CURRENT = TOTAL CURRENT OF BATTERY STRINGS G3 & G4.  
 3. BATTERY CT3 CURRENT = TOTAL CURRENT OF BATTERY STRINGS G5 & G6.  
 4. THE MCBs OF "BATTERY BANKS SHELF GROUP" TO BE OPERATED AS A GROUP. THE OBJECTIVE IS TO CHARGE OR DISCHARGE TOGETHER ALL THE BATTERIES OF SAME "BATTERY BANK SHELF GROUP", AS THERE IS ONE CURRENT TRANSDUCER PER "BATTERY BANK SHELF GROUP".

**NOTE2:**  
 1. BATTERY TEMPERATURE SENSOR TO BE PLACED ON A BATTERY TERMINAL OF THE BATTERY MOST LIKELY TO EXPERIENCE HIGHEST TEMPERATURE. CONNECT BATTERY TEMPERATURE SENSOR TO G3.02 POSITIVE TERMINAL.

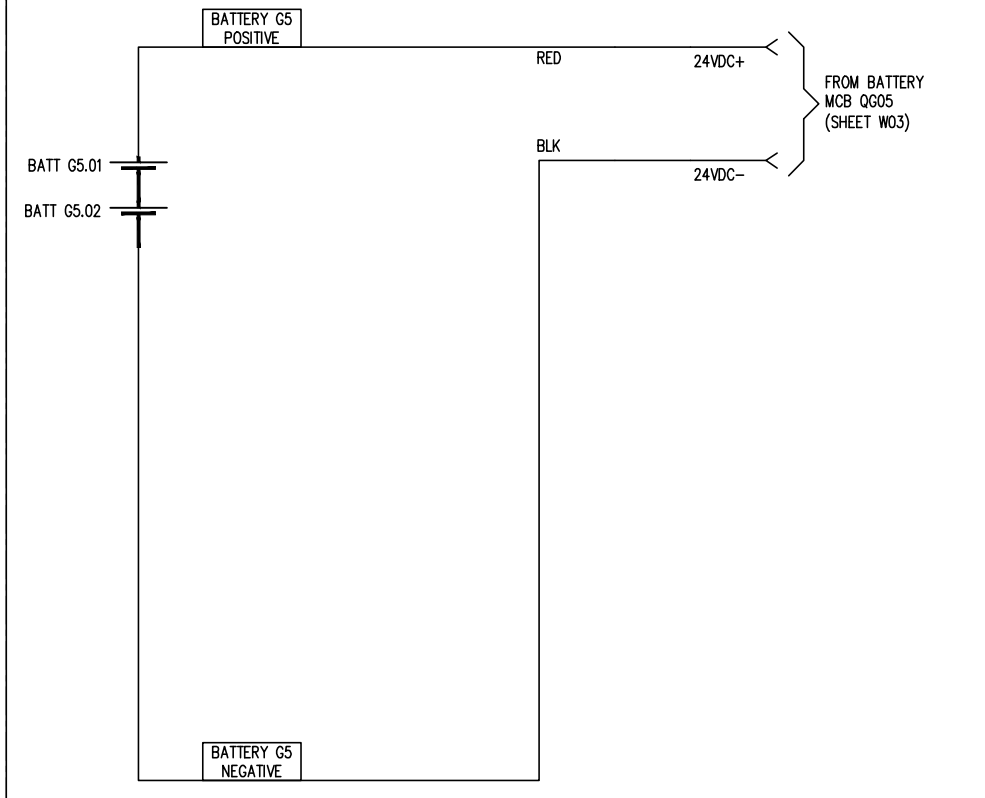
**NOTE3:**  
 1. BATTERY CABLE LUG HOLE DIAMETER IS M8.



**GENERAL NOTE:**  
 1. BATTERIES, BATTERY BREAKERS AND BATTERY POWER CABLES ARE SUPPLIED BY RTP. BUT BATTERIES TO BE INSTALLED BY OTHERS.

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BATTERY SHELF 3 (TOP) :  
BATTERY STRING NO G5;  
12V MONOBLOC 2 PIECES

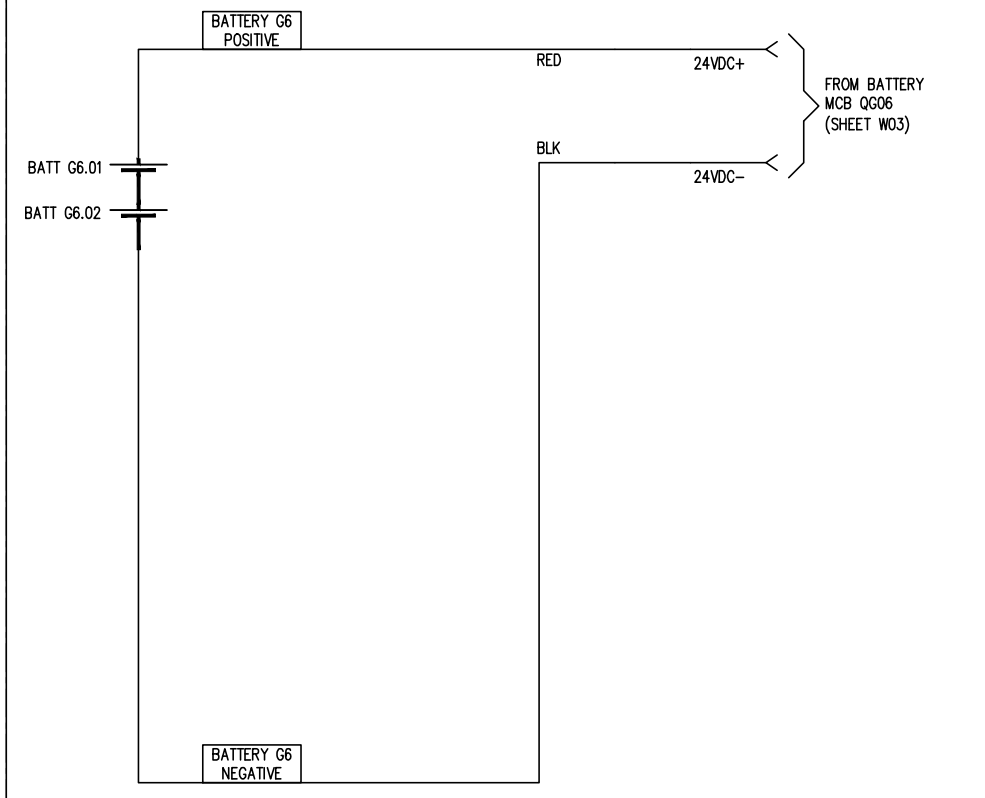


NOTE1: (BATTERY CTs)  
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2. BATTERY CT2 CURRENT = TOTAL CURRENT OF BATTERY STRINGS G3 & G4.  
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4. THE MCBs OF "BATTERY BANKS SHELF GROUP" TO BE OPERATED AS A GROUP. THE OBJECTIVE IS TO CHARGE OR DISCHARGE TOGETHER ALL THE BATTERIES OF SAME "BATTERY BANK SHELF GROUP", AS THERE IS ONE CURRENT TRANSDUCER PER "BATTERY BANK SHELF GROUP".


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1. BATTERY TEMPERATURE SENSOR TO BE PLACED ON A BATTERY TERMINAL OF THE BATTERY MOST LIKELY TO EXPERIENCE HIGHEST TEMPERATURE. CONNECT BATTERY TEMPERATURE SENSOR TO G3.02 POSITIVE TERMINAL.

NOTE3:  
1. BATTERY CABLE LUG HOLE DIAMETER IS M8.

BATTERY SHELF 3 (TOP) :  
BATTERY STRING NO G6;  
12V MONOBLOC 2 PIECES



GENERAL NOTE:  
1. BATTERIES, BATTERY BREAKERS AND BATTERY POWER CABLES ARE SUPPLIED BY RTP. BUT BATTERIES TO BE INSTALLED BY OTHERS.

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