

NOTE:
1.

CABINET (NEW CHARGER)

AC INPUT TERMINALS
 1. 3-PHASE ACTIVES (L1, L2, L3)
 TERMINALS ARE :35SQMM SCREW-TYPE, DIN-RAIL,
 1 TERMINALS PER PHASE.
 2. NEUTRAL :SAME AS ACTIVE.
 3. EARTH :35SQMM SCREW-TYPE, DIN-RAIL
 4. SURGE PROTECTION: NOT INSTALLED.

AC DISTRIBUTION;
 1. SMR AC INPUT MCBs
 RATING :18MM 1P 6KA 16A x 4
 MODEL NO.:SCHNEIDER ic60N

1. CONTROLLER :CSU4-110V x 1

2. SMR MODULES
 SMR TYPE :RT4B-110VDC/1.44KW
 WIRED SLOT QTY :4
 SMR QTY :4
 SPARE SLOT QTY :0

3. PERIPHERALS
 USER INTERFACE BOARD: MUIB3 x 1
 ALARM RELAY TERMINALS CAN HAVE CABLES FROM 0.5 TO
 1.5MMSQ.

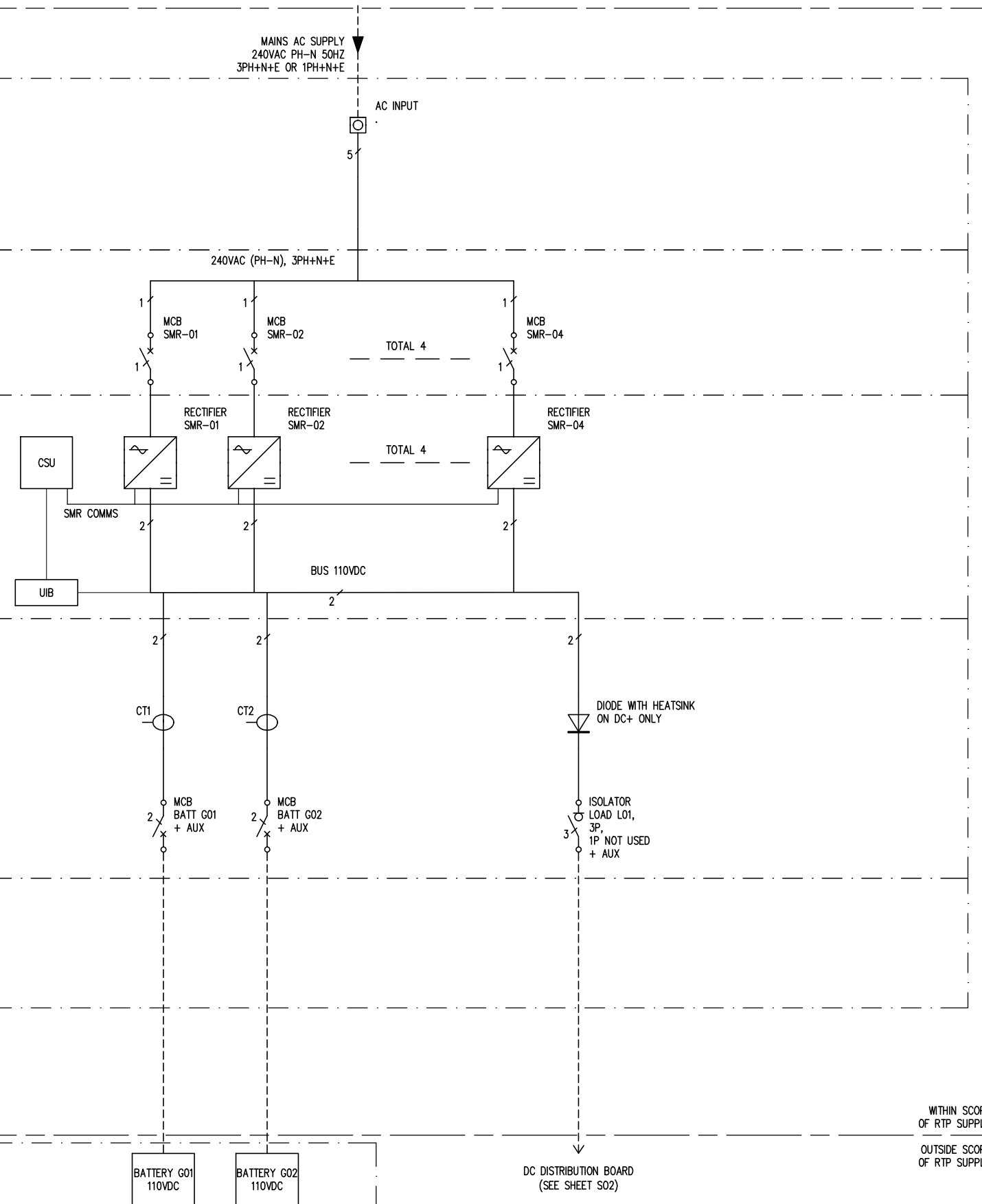
4. COMMUNICATION DEVICES
 REMOTE COMMS :NA

BATTERY AND LOAD DISTRIBUTION

- BATTERY CURRENT TRANSDUCERS : 100A x 2
- BATTERY CIRCUIT BREAKER
 RATING :(54MM 2P 10KA 80A + AUX)x2
 MODEL NO.:SCHNEIDER ic120H
- LOAD ISOLATOR
 RATING :(135MM 3P 160A + AUX)x1, 1P NOT USED
 MODEL NO.:SCHNEIDER INTERPACT INS160 3P
- DIODE WITH HEATSINK (ON LOAD) x 1
 250A

- BATTERY TERMINALS
 SCREW-TYPE, 50SQMM RIGID TUNNEL TERMINALS, OF
 MCB.
- LOAD TERMINALS
 M6 BOLT, CRIMPED LUGS, OF TERMINALS OF ISOLATOR.

BATTERY DETAILS
 MAKE :HAZE
 MODEL :HZB12-80
 VOLTS PER MONOBLOC :12
 QUANTITY PER STRING :9
 NUMBER OF STRINGS :2
 NOTE: RTP NOT SUPPLYING BATTERIES

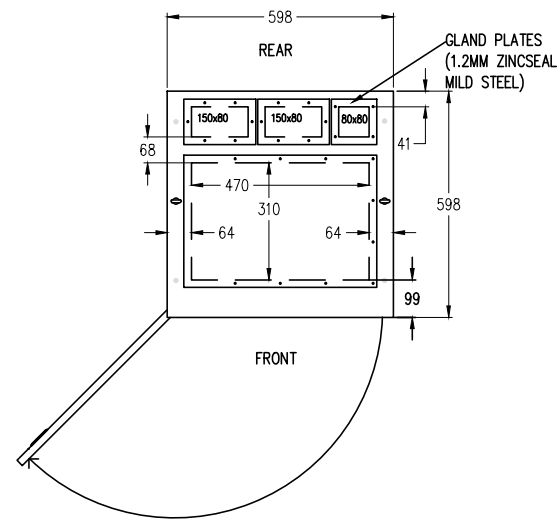


WITHIN SCOPE
OF RTP SUPPLY

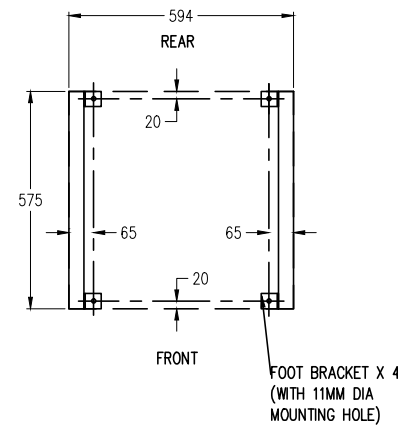
OUTSIDE SCOPE
OF RTP SUPPLY

GENERAL NOTE:
 1. WIRES IN DASHED LINES ARE TO BE SUPPLIED AND INSTALLED BY OTHERS.
 2. SCOPE OF RTP SUPPLY LIMITED TO AS INDICATED IN THE DRAWING.

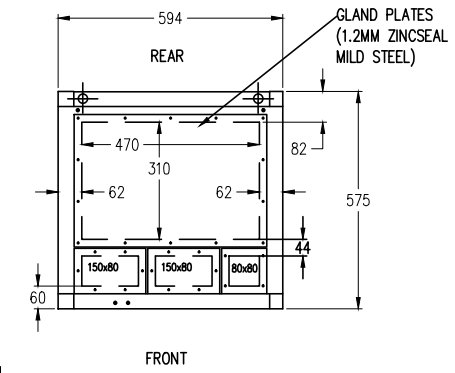
SIZE: A3	STATUS: AS BUILT	CLIENT:	PROJECT TITLE RT4B 110VDC 48A BATTERY CHARGER
PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies. Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.		SHEET TITLE: SINGLE LINE DIAGRAM (SLD) CHARGER CABINETS	
Rectifier Technologies Pacific Pty. Ltd. 24 Harker Street, Burwood, VIC, Australia, 3125 Phone: +61 3 9896 7588 Fax: +61 3 9896 7566		DWG NO: 940-3610	SHEET: S01
		ISSUE: 02	



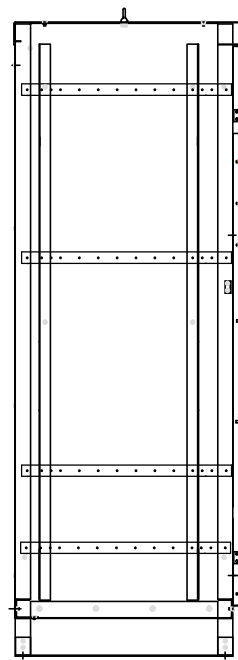
TOP VIEW
(SHOWING ARC OF DOOR SWING)



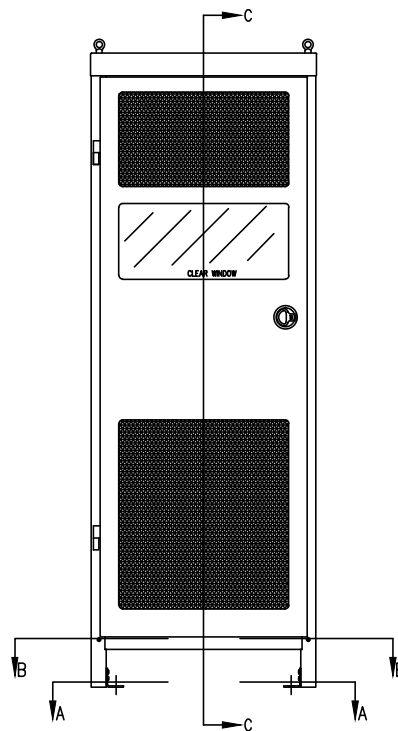
SECTION AA VIEW
FLOOR MOUNTING DETAILS
(Dimensions are indicative only. Confirm all dimensions with actual unit when preparing for installation.)



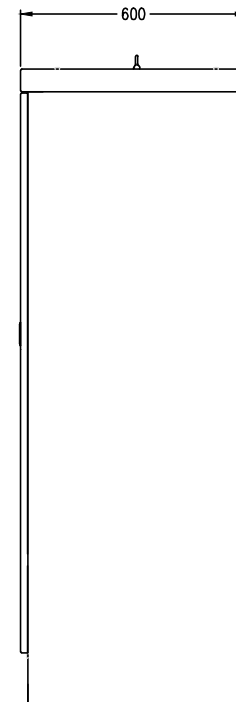
SECTION BB VIEW
(CABINET BASE WITH GLAND PLATES VIEWED FROM ABOVE)



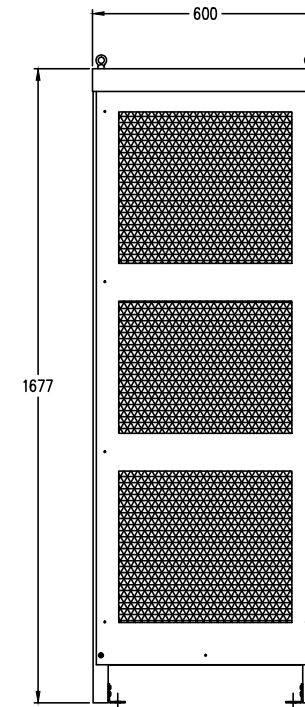
SECTION CC VIEW



FRONT VIEW
(DOOR CLOSED)



RIGHT SIDE VIEW



REAR VIEW

GENERAL NOTE:
1. SCALE 1:20 (APPROX ONLY). 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:

RT4B 110VDC 48A BATTERY CHARGER

SHEET TITLE: LAYOUT-
CABINET VIEWS WITHOUT EQUIPMENT

PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies.
Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.

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

DWG NO.: 940-3610

SHEET: L01
ISSUE: 02

CABLE ENTRY LOCATIONS

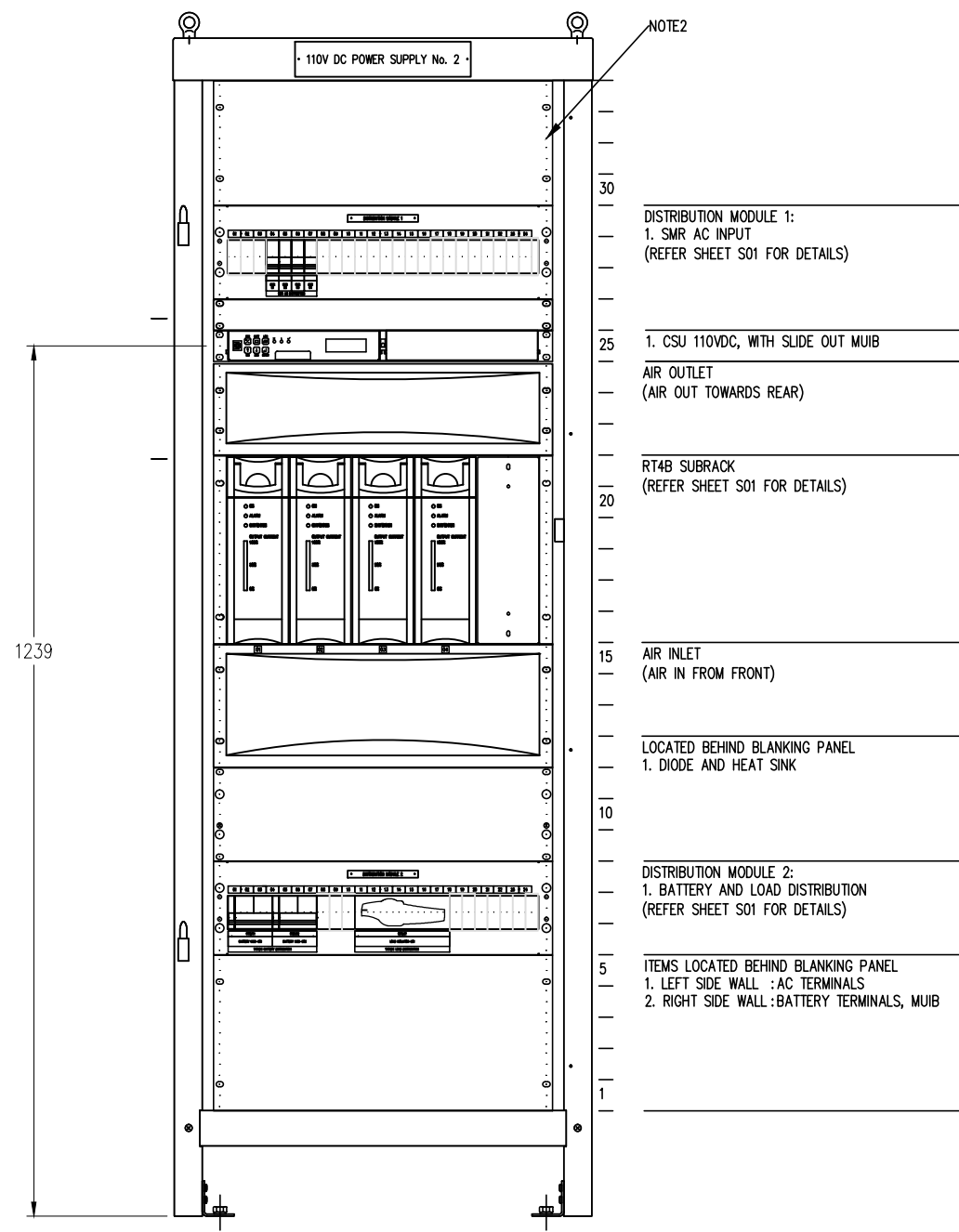
CABLE	LOCATION
AC SUPPLY	NOTE1
BATTERY	NOTE1
DC LOADS	NOTE1
AC LOADS	NIL
ALARMS	NOTE1
COMMS	NOTE1

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

NOTE1:
 1. ALL CABLES ENTER VIA BOTTOM OF CABINET.

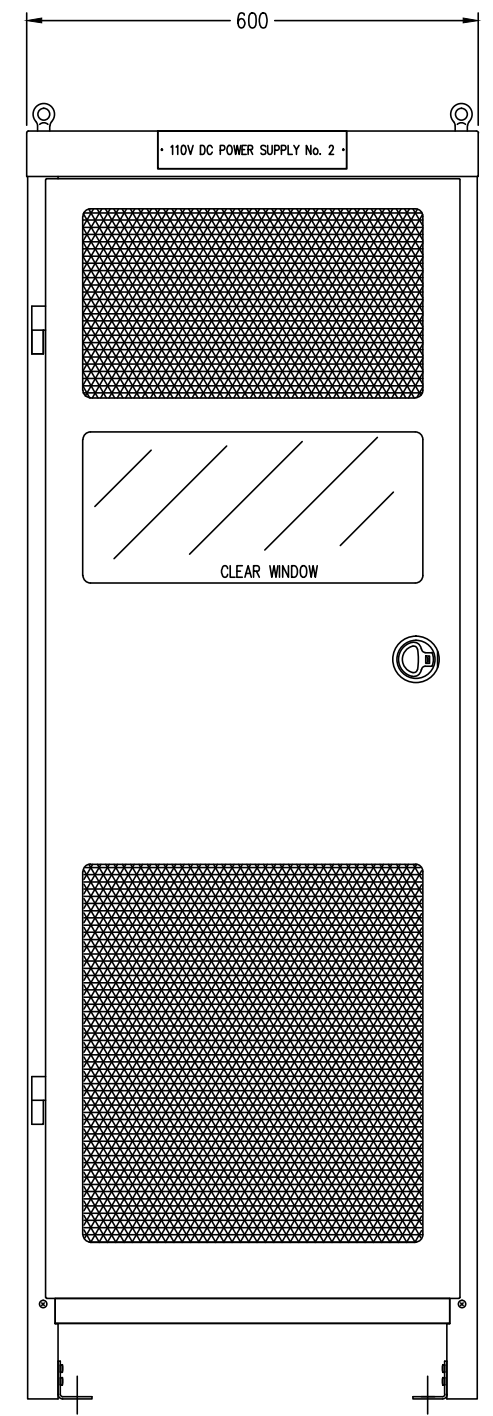
NOTE2:
 1. THE FRONT FACE OF THE EQUIPMENT GEARS ARE 100MM INSIDE FROM THE CABINET DOOR OPENING

NOTE3:
 1.



CHARGER CABINET
 FRONT VIEW
 (DOOR REMOVED)

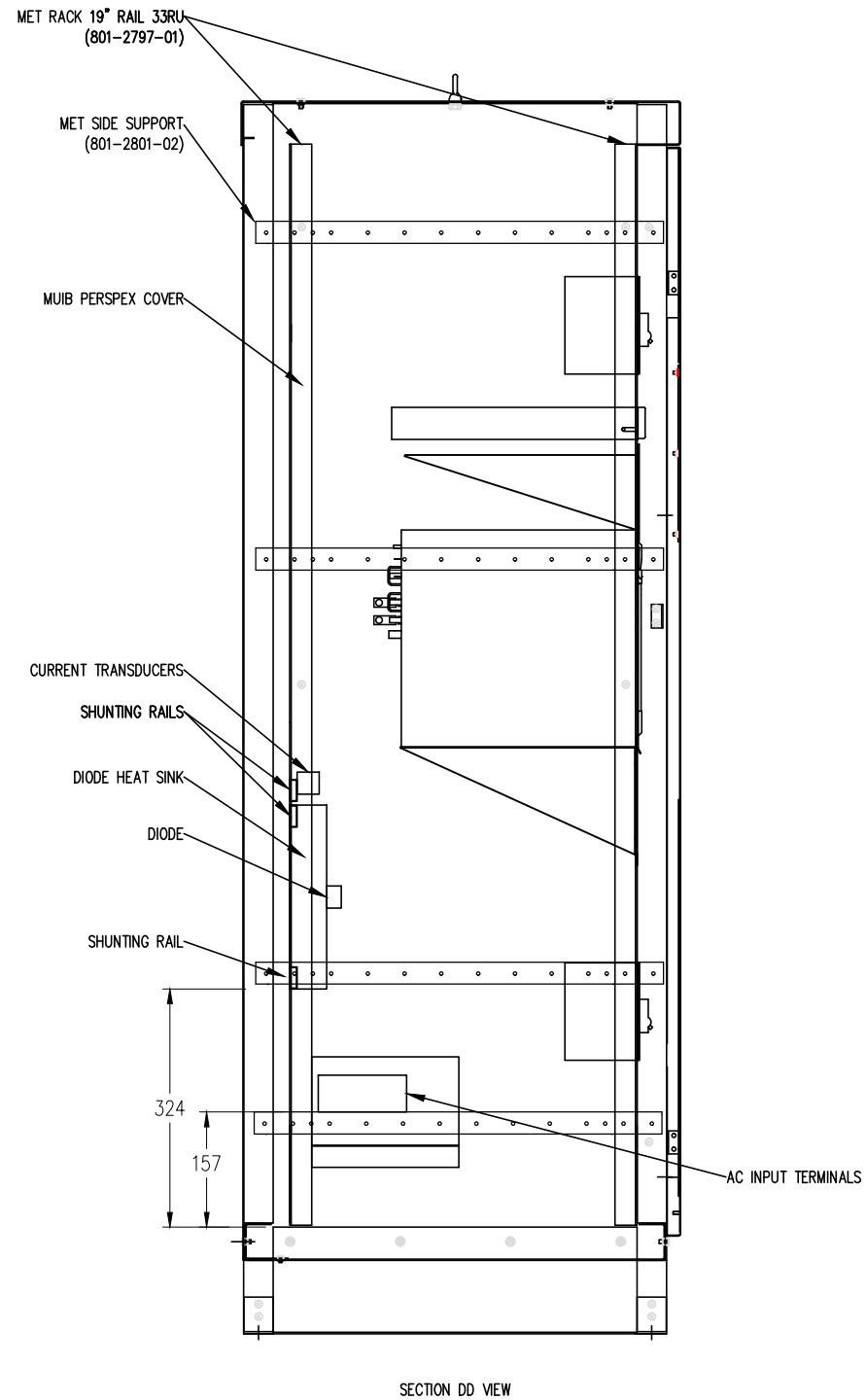
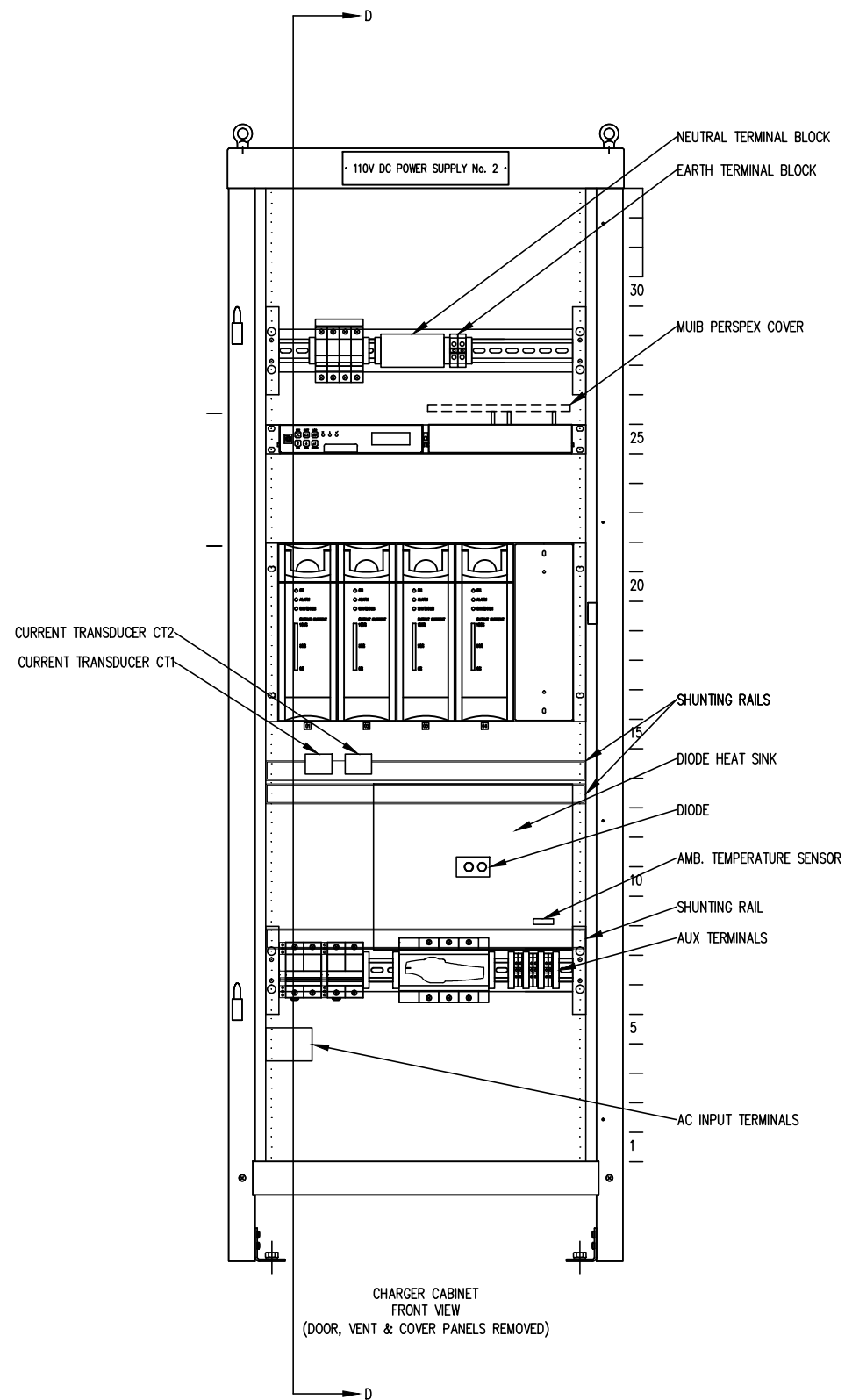
- NOTE2
- DISTRIBUTION MODULE 1:
 1. SMR AC INPUT
 (REFER SHEET S01 FOR DETAILS)
1. CSU 110VDC, WITH SLIDE OUT MUIB
 AIR OUTLET
 (AIR OUT TOWARDS REAR)
- RT4B SUBRACK
 (REFER SHEET S01 FOR DETAILS)
- AIR INLET
 (AIR IN FROM FRONT)
- LOCATED BEHIND BLANKING PANEL
 1. DIODE AND HEAT SINK
- DISTRIBUTION MODULE 2:
 1. BATTERY AND LOAD DISTRIBUTION
 (REFER SHEET S01 FOR DETAILS)
- ITEMS LOCATED BEHIND BLANKING PANEL
 1. LEFT SIDE WALL :AC TERMINALS
 2. RIGHT SIDE WALL :BATTERY TERMINALS, MUIB



CHARGER CABINET
 FRONT VIEW
 (DOOR CLOSED)

GENERAL NOTE:
 1. SCALE 1:10 (APPROX ONLY). 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: RT4B 110VDC 48A BATTERY CHARGER
PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies. Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.		SHEET TITLE: LAYOUT- CABINET VIEWS WITH 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: 940-3610	SHEET: L02
		ISSUE: 02	



GENERAL NOTE:
 1. SCALE 1:10 (APPROX ONLY). 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
 PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies.
 Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.
Rectifier Technologies Pacific Pty. Ltd.
 24 Harker Street, Burwood, VIC, Australia, 3125
 Phone: +61 3 9896 7588 Fax: +61 3 9896 7566

CLIENT:
 PROJECT TITLE:
 SHEET TITLE:
 DWG NO.:
 SHEET: ISSUE:

RT4B 110VDC 48A BATTERY CHARGER
 LAYOUT- CABINET VIEWS WITH EQUIPMENT #2
 DOORS & COVER PANELS REMOVED
 940-3610
 L03 02

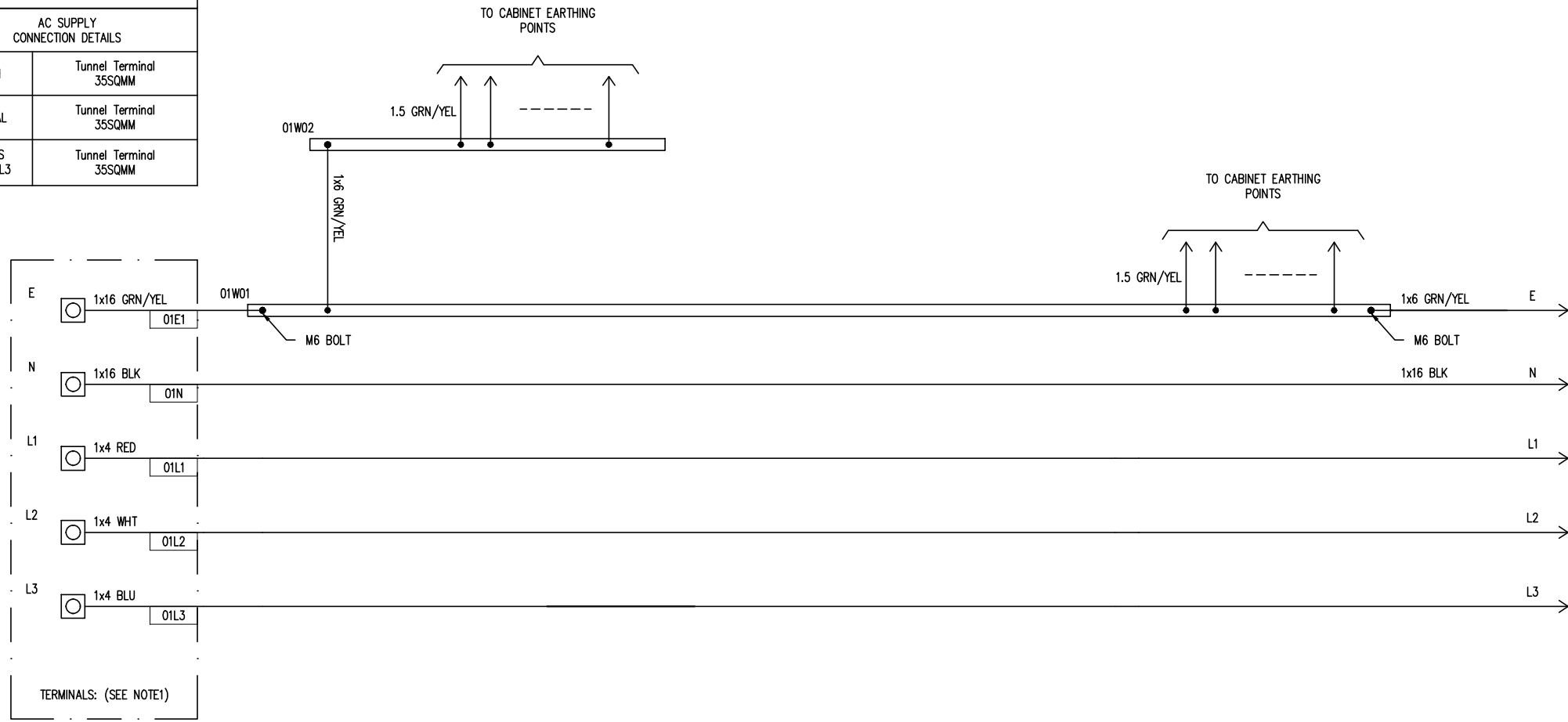
NOTE1:
1. TERMINALS ARE LOCATED INSIDE CABINET AT BOTTOM FRONT ON LEFT SIDE WALL.

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: 3
Neutral required: Yes
Volts phase to neutral: 230
Freq (Hz): 50

AC SUPPLY CONNECTION DETAILS	
EARTH	Tunnel Terminal 35SQMM
NEUTRAL	Tunnel Terminal 35SQMM
PHASES L1, L2, L3	Tunnel Terminal 35SQMM

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

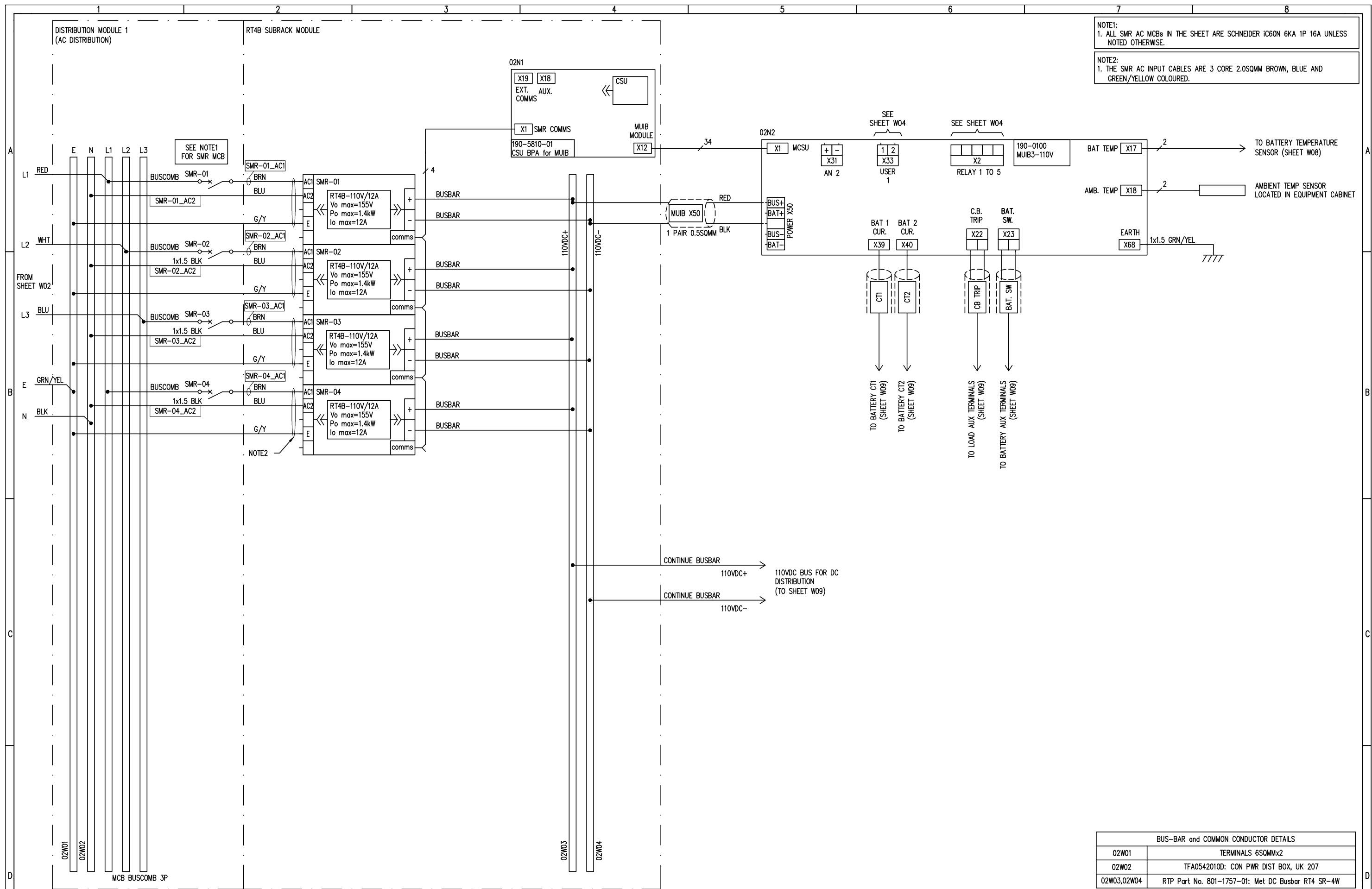


AC SUPPLY TO SHEET W02

BUS-BAR and COMMON CONDUCTOR DETAILS	
01W01	605-4055-06: CON LINK BRASS, 165A, STUDS=2xM6, 16SQMMx12
-	TBA
-	TBA

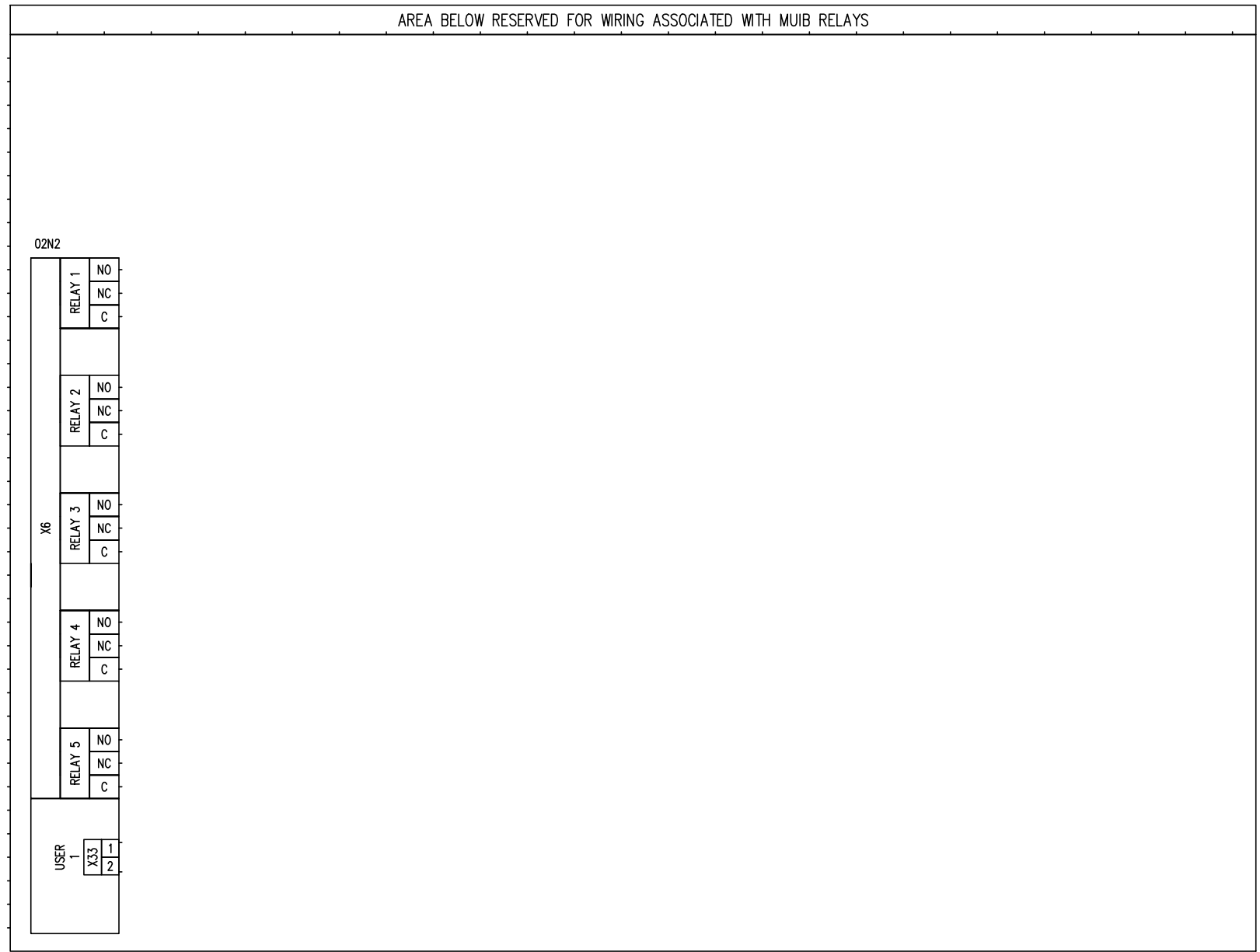
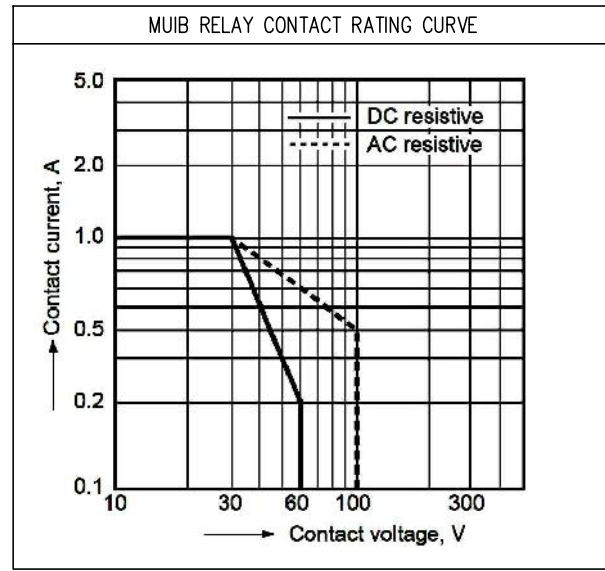
GENERAL NOTE:
1. WIRES IN DASHED LINES ARE TO BE SUPPLIED AND INSTALLED BY OTHERS.
2. RTP SCOPE OF SUPPLY LIMITED TO AS INDICATED IN THE DRAWING.

SIZE: A3	STATUS: AS BUILT	CLIENT:	PROJECT TITLE: RT4B 110VDC 48A BATTERY CHARGER
PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies. Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.		SHEET TITLE: WIRING DIAGRAM - CHARGER AC MAINS	
Rectifier Technologies Pacific Pty. Ltd. 24 Harker Street, Burwood, VIC, Australia, 3125 Phone: +61 3 9896 7588 Fax: +61 3 9896 7566		DWG NO.: 940-3610	SHEET: W01 ISSUE: 03



GENERAL NOTE: 1. WIRES IN DASHED LINES ARE TO BE SUPPLIED AND INSTALLED BY OTHERS. 2. RTP SCOPE OF SUPPLY LIMITED TO AS INDICATED IN THE DRAWING.	SIZE: A3	STATUS: AS BUILT	CLIENT:	PROJECT TITLE: RT4B 110VDC 48A BATTERY CHARGER
	PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies. Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.		SHEET TITLE: WIRING DIAGRAM - CHARGER DC CHARGER	
Rectifier Technologies Pacific Pty. Ltd. 24 Harker Street, Burwood, VIC, Australia, 3125 Phone: +61 3 9896 7588 Fax: +61 3 9896 7566		DWG NO.: 940-3610	SHEET: W02	ISSUE: 03

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				X	
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					X
27	Rectifier Warning					
28	Rectifier High Voltage Shutdown			X		
29	Uncalibrated SMR					
30	Rectifier Parameter Range					
31	Rectifier Failure					
32	Rectifier Switched Off					
33	Rectifier Minor Alarm					
34	Rectifier Major Alarm					
35	Fan Control		X			
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 Firmware File Error					
43	Rectifier Config File Error					
44	Rectifier Upload Failure					
45	Sys Vdc Trip 1					
46	Sys Vdc Trip 2					
	TOTAL TRIGGERS					



BATTERY STRING NO. G01;
110VDC

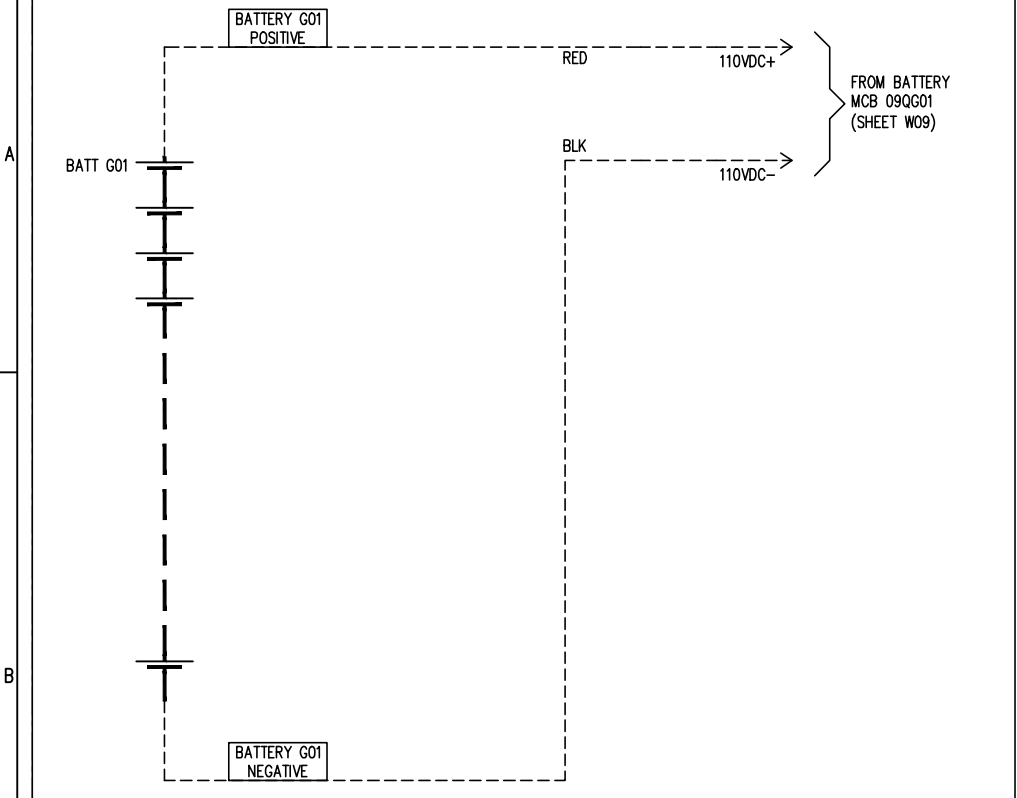
Battery Temperature
sensor (NOTE2)
BATT. TEMP

FROM MUIB 02N2
(SHEET W02)

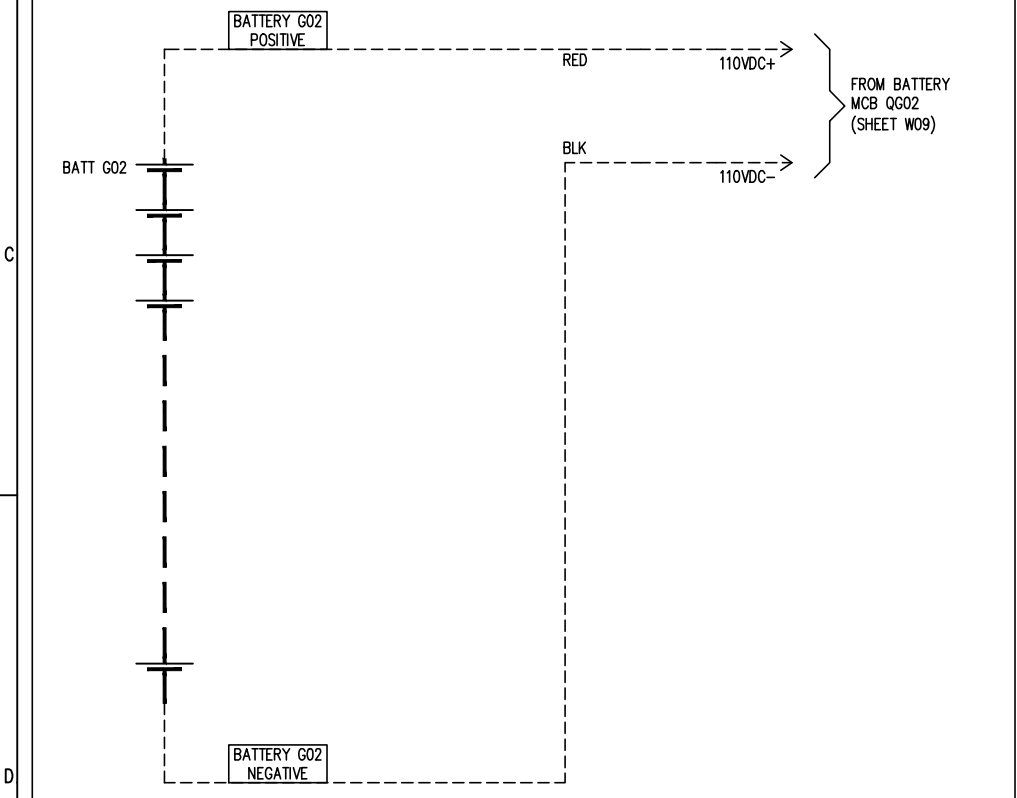
NOTE 1: (RESERVED, NOT APPLICABLE TO THIS BUILD)
1. INSTALLATION OF BATTERY CELL MONITORING SYSTEM, IN PARTICULAR THE CELL VOLTAGE SENSE CABLES, MUST BE DONE BY TRAINED PERSONNEL AND IN ACCORDANCE WITH ALL INSTALLATION INSTRUCTIONS AND PRECAUTIONS.

NOTE2:
1. BATTERY TEMPERATURE SENSOR TO BE PLACED ON A BATTERY TERMINAL OF THE BATTERY MOST LIKELY TO EXPERIENCE HIGHEST TEMPERATURE.


NOTE3: (RESERVED, NOT APPLICABLE TO THIS BUILD)
1. BATTERY TERMINALS ACCEPT LUGGED CABLES.
2. LUG BOLTS HOLES DIAMETER: TBA.

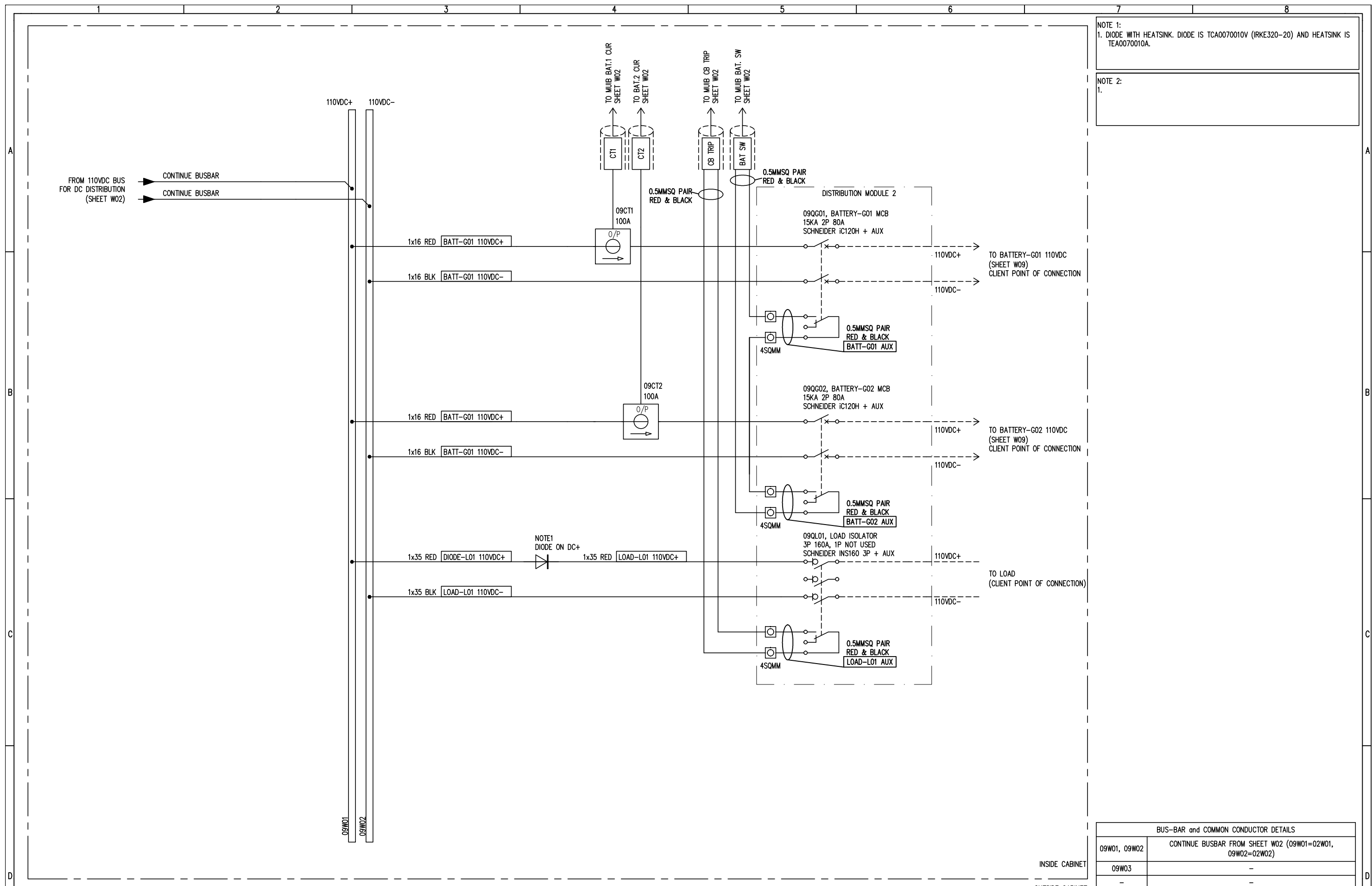


BATTERY STRING NO. G02;
110VDC



GENERAL NOTE:
1. WIRES IN DASHED LINES ARE TO BE SUPPLIED AND INSTALLED BY OTHERS.
2. RTP SCOPE OF SUPPLY LIMITED TO AS INDICATED IN THE DRAWING.

SIZE: A3	STATUS: AS BUILT	CLIENT:	PROJECT TITLE RT4B 110VDC 48A BATTERY CHARGER
PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies. Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.		SHEET TITLE: WIRING DIAGRAM – BATTERY DISTRIBUTION	
 Rectifier Technologies Pacific Pty. Ltd. 24 Harker Street, Burwood, VIC, Australia, 3125 Phone: +61 3 9896 7588 Fax: +61 3 9896 7566		DWG NO: 940-3610	SHEET: W08
			ISSUE: 03



NOTE 1:
1. DIODE WITH HEATSINK. DIODE IS TCA0070010V (IRKE320-20) AND HEATSINK IS TEA0070010A.

NOTE 2:
1.

BUS-BAR and COMMON CONDUCTOR DETAILS	
09W01, 09W02	CONTINUE BUSBAR FROM SHEET W02 (09W01=02W01, 09W02=02W02)
09W03	-
-	-

INSIDE CABINET
OUTSIDE CABINET

GENERAL NOTE:
1. WIRES IN DASHED LINES ARE TO BE SUPPLIED AND INSTALLED BY OTHERS.
2. RTP SCOPE OF SUPPLY LIMITED TO AS INDICATED IN THE DRAWING.

SIZE: A3
STATUS: AS BUILT

PROPRIETARY INFORMATION. Not to be disclosed, copied, or used without prior written permission from Rectifier Technologies.
Copyright 2010 Rectifier Technologies. All rights reserved. Subject to change without notice.

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

CLIENT:

PROJECT TITLE:
RT4B 110VDC 48A BATTERY CHARGER

SHEET TITLE:
WIRING DIAGRAM - DC DISTRIBUTION

DWG NO.: 940-3610
SHEET: W09
ISSUE: 03