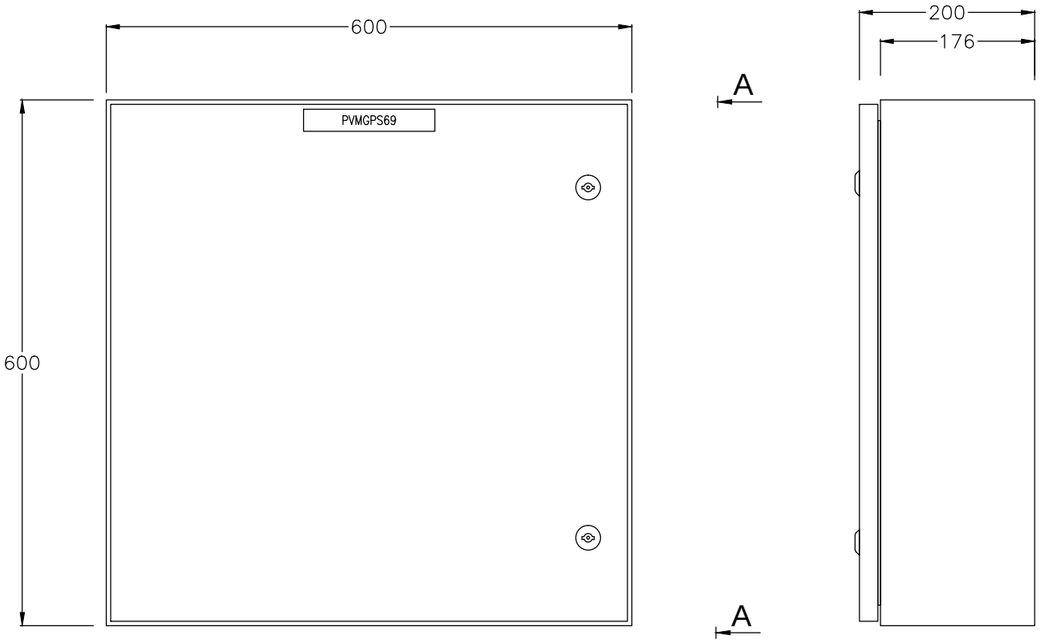
[redacted]

1. Technology: Solar PV
2. Maximum Power: 56 kW
3. Contribution to fault levels: N/A
4. Size & rating of the relevant Transformer: N/A
5. Single line diagram: refer to following page
6. Protection Systems & Communication Systems: refer to following page
7. Voltage Control and reactive power capability: N/A
8. Details specific to the location of facility: N/A

CONSTRUCTION NOTES:–

PAINT COLOUR	– GREY RAL7032
ESCUTCHEON	– HINGED ON LHS, COLOUR WHITE RAL9010
CHASSIS	– N/A
ENCLOSURE	– POWDER COATED MILD STEEL, IP65
CABLE ENTRY	– REMOVABLE PLATES AT TOP & BOTTOM
LEGEND CARD	– N/A
CIRCUIT NUMBERS	– N/A
SCHEDULE	– N/A



A-A

LABEL SCHEDULE

LOCATION	REF	ENGRAVED LABEL TEXT	HEIGHT	COLOR	FIXING	LABEL SIZE WxH	QTY
EXTERIOR OF DOOR	A	PVMGPS69	15mm	W/B/W	SCREW/ADHESIVE	150mm x 25mm	1
INTERIOR	B	PUSH TO TRIP	6mm	W/B/W	SCREW/ADHESIVE	50mm x 25mm	1

REV:	DRAWN	CHECKED	APPROVED	DATE	REMARKS:
0	[redacted]			23/08/13	INITIAL SUBMISSION
	FOR CUSTOMER APPROVAL				
A	[redacted]			16/09/13	
	FOR CONSTRUCTION				
B	[redacted]			23/09/13	DISCONNECTED TYPE TERMINALS ARE ADDED & PANEL ID CHANGED
	FOR CONSTRUCTION				
C	[redacted]			16/12/2014	ADDED TWO TERMINALS
	FOR CONSTRUCTION				
C	[redacted]			23/02/2015	CHANGED THE DRAWING NUMBER
	FOR CONSTRUCTION				

SHEET CONTENT: FRONT VIEW DOOR CLOSED

QUO.No : QNM64–R6	DIMENSIONS IN MILLIMETRES
W/O :	3RD ANGLE PROJECTION
S/O :	NOT TO SCALE
LAB : 7	DWG.REF. 9PV0012–010

IPD GROUP LIMITED [redacted]

PROJECT:

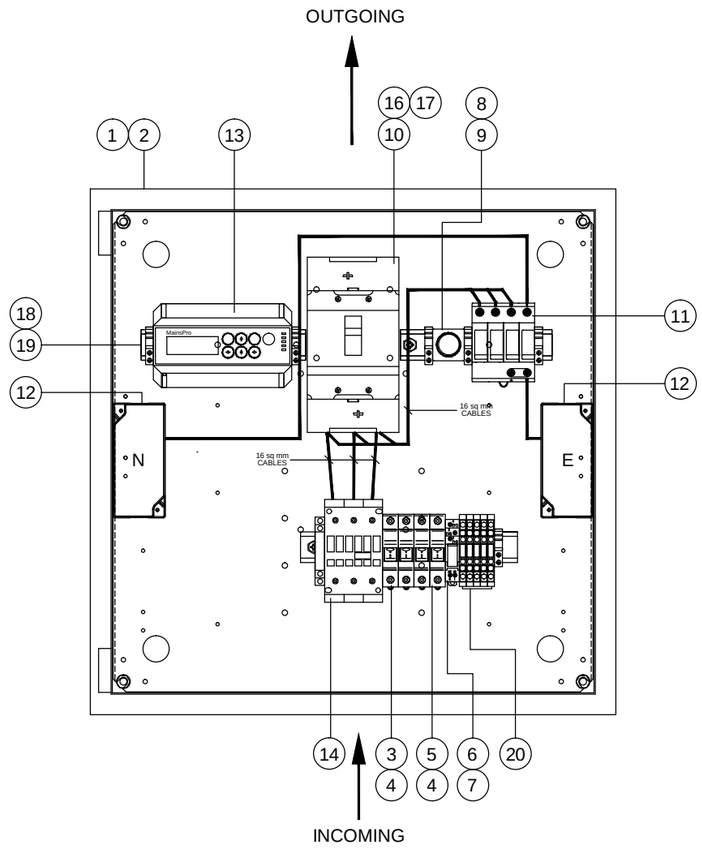
CLIENT:

PANEL ID: PVMGPS69

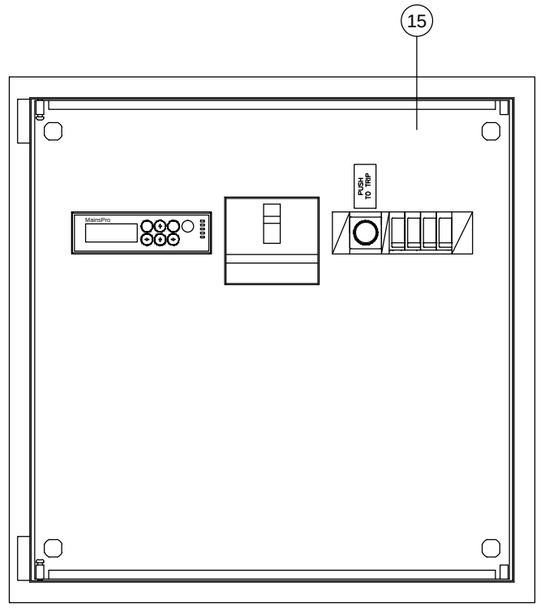
SHEET 1 OF 3

A3

D



DOOR & ESCUTCHEON OMITTED



DOOR OMITTED

PERFORMANCE DATA

PART NUMBER	–	PVMGPS69
VOLTAGE	–	230/400VAC
FREQUENCY	–	50Hz
MAX CURRENT	–	100A
MAX. POWER	–	69kVA
PHASES	–	3
SHORT CIRCUIT	–	50kA
MECHANICAL OPS AC1	–	1000000
POWER DISSIPATION (PER POLE)	–	14.96W

PROTECTION RELAY PERFORMANCE

OPERATING TEMPERATURE	–	−20°C to+70°C
INGRESS PROTECTION	–	IP20
POWER SUPPLY	–	85−265, 110−370VAC, 8−40VDC, 45−65Hz
MEASUREMENT RANGE	–	120/230/400VAC, 8−40VDC, 50, 60Hz
MAX. MEASURED VOLTAGE	–	130%Un
MAX. MEASURED CURRENT	–	N/A
MAX. ALLOWED CURRENT	–	90mA (AC Supply), 600mA (DC Supply)
MEASUREMENT ACCURACY	–	VOLTAGE: 1% OF THE NOMINAL VALUE AT 50Hz±10% AND 25°C, FREQUENCY: 0,1Hz WITHIN THE RANGE 40 TO 70Hz TIMING:±1%
MAX. REACTION TIMES	–	VOLTAGE FAILURES: 55ms (IF TIME DELAY SET TO 0s) FREQUENCY FAILURES: 75ms (IF TIME DELAY SET TO 0s) LOSS OF MAINS: 45ms (IF TIME DELAY SET TO 0s)
POWER CONSUMPTION	–	600mA/8VDC, 90mA/85VAC
CT INPUT BURDEN	–	N/A

EQUIPMENT SCHEDULE

PART ID	PART NO.	EQUIPMENT DE SCRIPTION	QTY
1	E65SHELL6G	DB SHELL 600H IP65 GREY EXCLUDING ESCUTCHEON	1
2	E−06U−MP	MOUNTING PAN FOR 600H SHELL FOR ALL EVOLUTION BOARDS	1
3	CMS103	FUSE HOLDER 32A 3 POLE MODULAR 690V DIN MOUNT	1
4	10G02	FUSE LINK 2A 500V FERRULE 10*38MM 120kA GENERAL PURPOSE	4
5	CMS101	FUSE HOLDER 32A 1POLE MODULAR 690V DIN MOUNT FUSE = 10*38MM	1
6	SJ1S−07LW	RJ1S RELAY BASE. FINGER−SAFE DIN RAIL MOUNT	1
7	RJ1S−CL−A240	RELAY SLIM LINE, SPDT, 240VAC 12A, WITH INDICATOR	1
8	P9DINRA	DIN RAIL ADAPTOR FOR 22MM PILOT DEVICES, 2 MODULES WIDE	1
9	P9XPN52002	PUSHBUTTON,FLUSH,GREEN, C/W 1NO CONTACT BLOCK,PLASTIC	1
10	FEN36TD100JF	MCCB,FEN160,3P,50kA,100A LTMD TRIP UNIT.	1
11	DGMTTCI275	SPD 4P Class 2 25kA 8/20us 5 WIRE 275VAC NON−MEN C/W FUSE	1
12	LT350/7	350A 7 HOLE LINE TAP STYLE NEUTRAL LINK, MAX 120MM CABLES	2
13	MAINSPRO	MAINS DECOUPLING RELAY ANSI CODES:27,59,81H,81L,78,81R	1
14	CL06A311M7	CONTACTOR CL 3P,90A AC1,50A 25kW AC3,1NO 1NC AUX,240VAC	1
15	E−M06PVFE−ID	600x600 ESCUTCHEON TO SUIT GPS ENCLOSURE	1
16	FEJS3	TERMINAL SHIELDS,FE FRAME,2PCE SET,3POLE ,SHORT.	1
17	E−FETH	FE & FD TOP HAT MOUNTING BRACKET	1
18	E−DRSP	DIN RAIL SUPPORT PILLAR 87MM X 14MM A/F M6X6MM	4
19	E−DINRAIL−L	LONG DIN RAIL CUT AND PUNCHED 428MM WITH 130 & 310MM CENTRES	1
20	CDS6U	DISCONNECT AND TEST TERMINAL BLOCKS	5

REV:	DRAWN	CHECKED	APPROVED	DATE	REMARKS:
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	FOR CONSTRUCTION				
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	FOR CONSTRUCTION				
C	[redacted]			16/12/2014	ADDED TWO TERMINALS
	FOR CONSTRUCTION				
C	[redacted]			23/02/2015	CHANGED THE DRAWING NUMBER
	FOR CONSTRUCTION				

SHEET CONTENT: FRONT VIEW −LAYOUT DRAWING & EQUIPMENT SCHEDULE

QUO.No : QNM64−R6	DIMENSIONS IN MILLIMETRES
W/O :	3RD ANGLE PROJECTION
S/O :	NOT TO SCALE
LAB : 7	DWG.REF. 9PV0012−010

IPD GROUP LIMITED [redacted]

PROJECT:

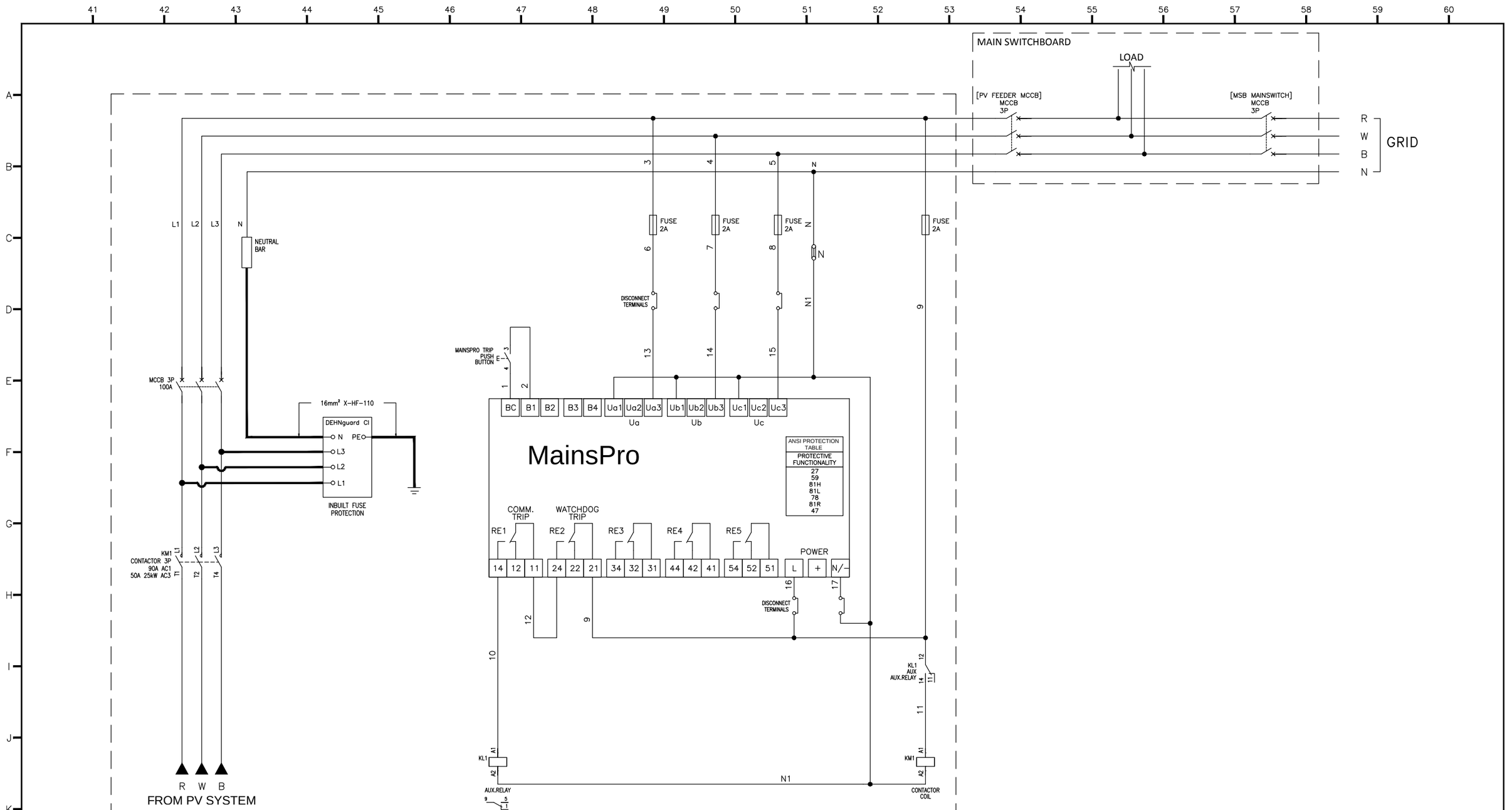
CLIENT:

PANEL ID: PVMGPS69

SHEET 2 OF 3

A3

D



REV:	DRAWN	CHECKED	APPROVED	DATE	REMARKS:
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C	[redacted]			23/02/2015	CHANGED THE DRAWING NUMBER
	FOR CONSTRUCTION				

SHEET CONTENT: CONTROL CIRCUIT DIAGRAM

QUO.No : QNM64-R6	DIMENSIONS IN MILLIMETRES
W/O :	3RD ANGLE PROJECTION
S/O :	NOT TO SCALE
LAB : 7	DWG.REF. 9PV0012-010

IPD GROUP LIMITED [redacted]

PROJECT:

CLIENT:

PANEL ID: PVMGPS69

SHEET 3 OF 3

A3

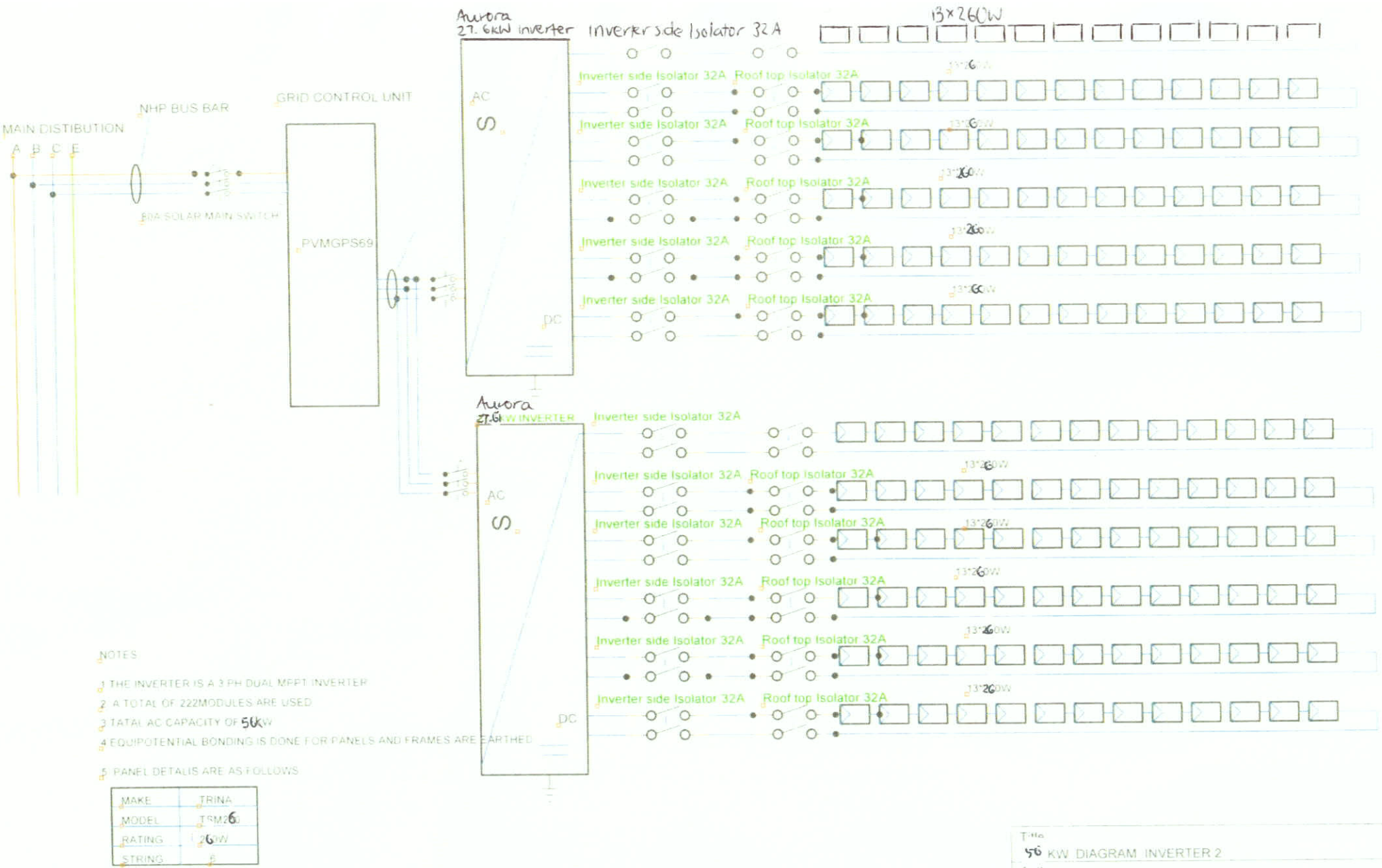
D

Library of Setpoints

For Mainspro

Uin	230/400
System	3PH
DispT [min]	2 mins
Auto FR	Disabled
Auto FR Del [s]	0
Start Trip	~~Disabled~~ Enable
Imp Len [s]	I
Bak Trp Del [s]	0
Ext	Enable
F.R	Enable
Alt	Disable
Disable	Disabled
V> V> Del V>> V>> Del V< V< Del V<< V<< Del	270V 1 sec 0 0 sec 203V 1.5 sec 0 0 sec
Avg V> [V]	0
RstV>, V>> [%V>]	0
RstV<, V<< [%V<]	0
V unb, A.V unb [V]	0
V< pos, A.V < pos [V]	0
V> neg, A.V> neg [V]	0
Du del, A.dU del [s]	0

F> F> Del F< F< Del F>> F>> Del	50.7 Hz 1 sec 49.5 Hz 1 sec 0 0
Rstf>, f>> [%f>]	0
RSTF<, f<<	0
VS lim, A.VS lim [^{0}]	8
ROCOF, A.ROCOF [Hz/s]	1 Hz
ROCOF filt, A.ROCOF Filt [-]	50
LOM Init Del, A.LOM Init Del[s]	2 sec
LOM Trip Del, A.LOM Trip Del[s]	2 sec
BI1:Ext BI2:F.R BI3:Alt BI4:Dis	BI1 = Ext BI2 = N/A BI3 = N/A BI4 = N/A
Default Settings	RE1:!CommTrpPer RE2:!InternFail RE3:!BackTrpImp RE4:!InternFail RE5:TrpEndImp



NOTES

1 THE INVERTER IS A 3 PH DUAL MPPT INVERTER
2 A TOTAL OF 222MODULES ARE USED
3 TATAL AC CAPACITY OF 50KW
4 EQUIPOTENTIAL BONDING IS DONE FOR PANELS AND FRAMES ARE EARTHED
5 PANEL DETAILS ARE AS FOLLOWS

MAKE	TRINA
MODEL	TSM260
RATING	260W
STRING	8

Title: 50 KW DIAGRAM INVERTER 2		
Author: [redacted] SPACE SOLAR SERVICE P/L		
File: AMI 50 KW SOLAR SYSTEM INVERTER2.dsn		Document: 1
Revision: 1.0	Date: 20/11/2013	Sheets: 2 of 2