
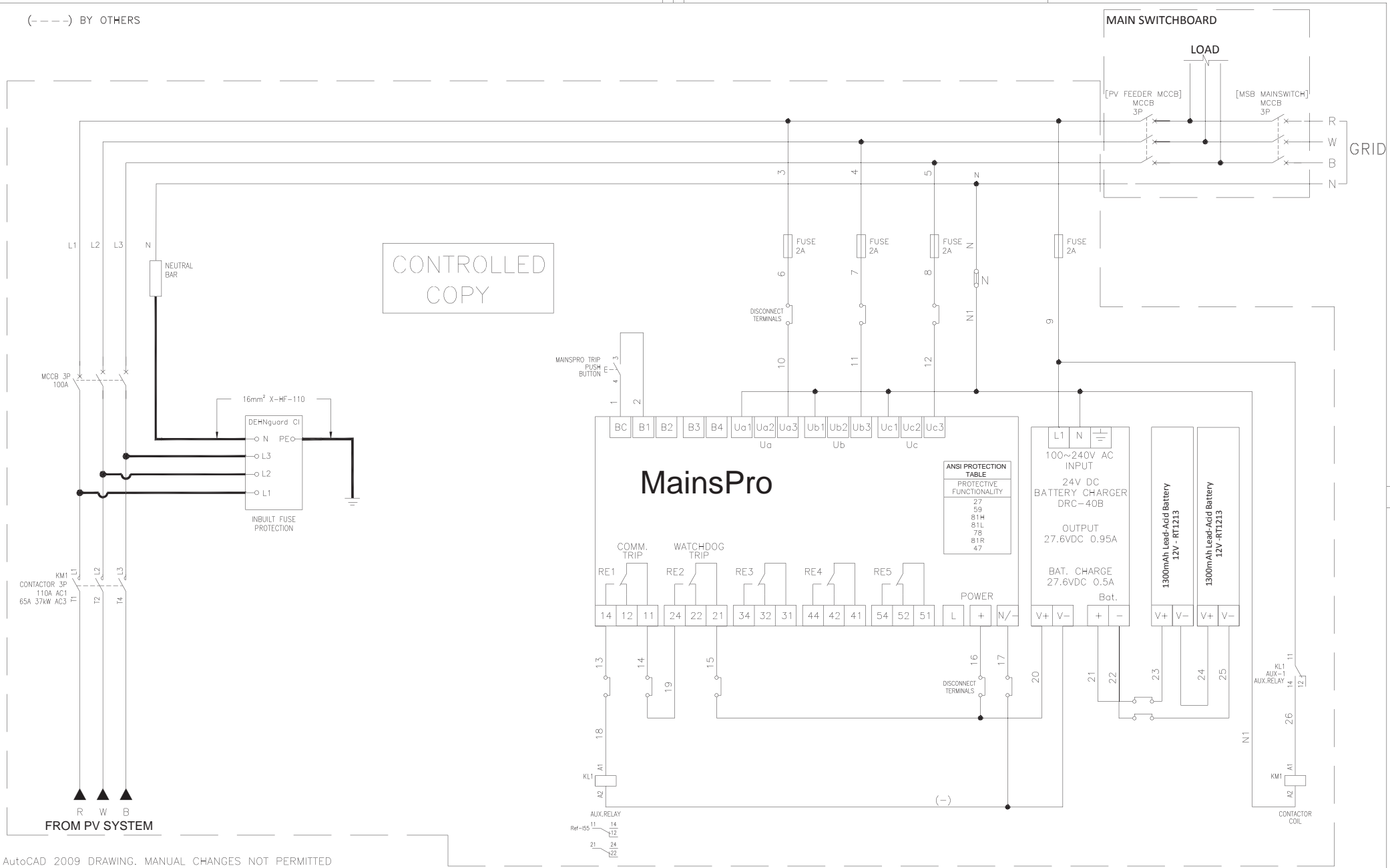


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1. Technology: Solar PV
 2. Maximum Power: 60 kW
 3. Contribution to fault levels: N/A
 4. Size & rating of the relevant Transformer: N/A
 5. Single line diagram: refer to following page
 6. Protection Systems & Communication Systems: refer to following page
 7. Voltage Control and reactive power capability: N/A
 8. Details specific to the location of facility: N/A

(---) BY OTHERS



AutoCAD 2009 DRAWING. MANUAL CHANGES NOT PERMITTED

Tolerances on dimensions (unless otherwise stated)

Up to 6	±0.1
Over 6 up to 30	±0.2
Over 30 up to 120	±0.3
Over 120 up to 315	±0.5
Over 315 up to 1000	±0.8
Over 1000	±1.2
All angles	±1°

DIMENSIONS IN MILLIMETRES

3RD ANGLE PROJECTION
DO NOT SCALE SCALE 1:6

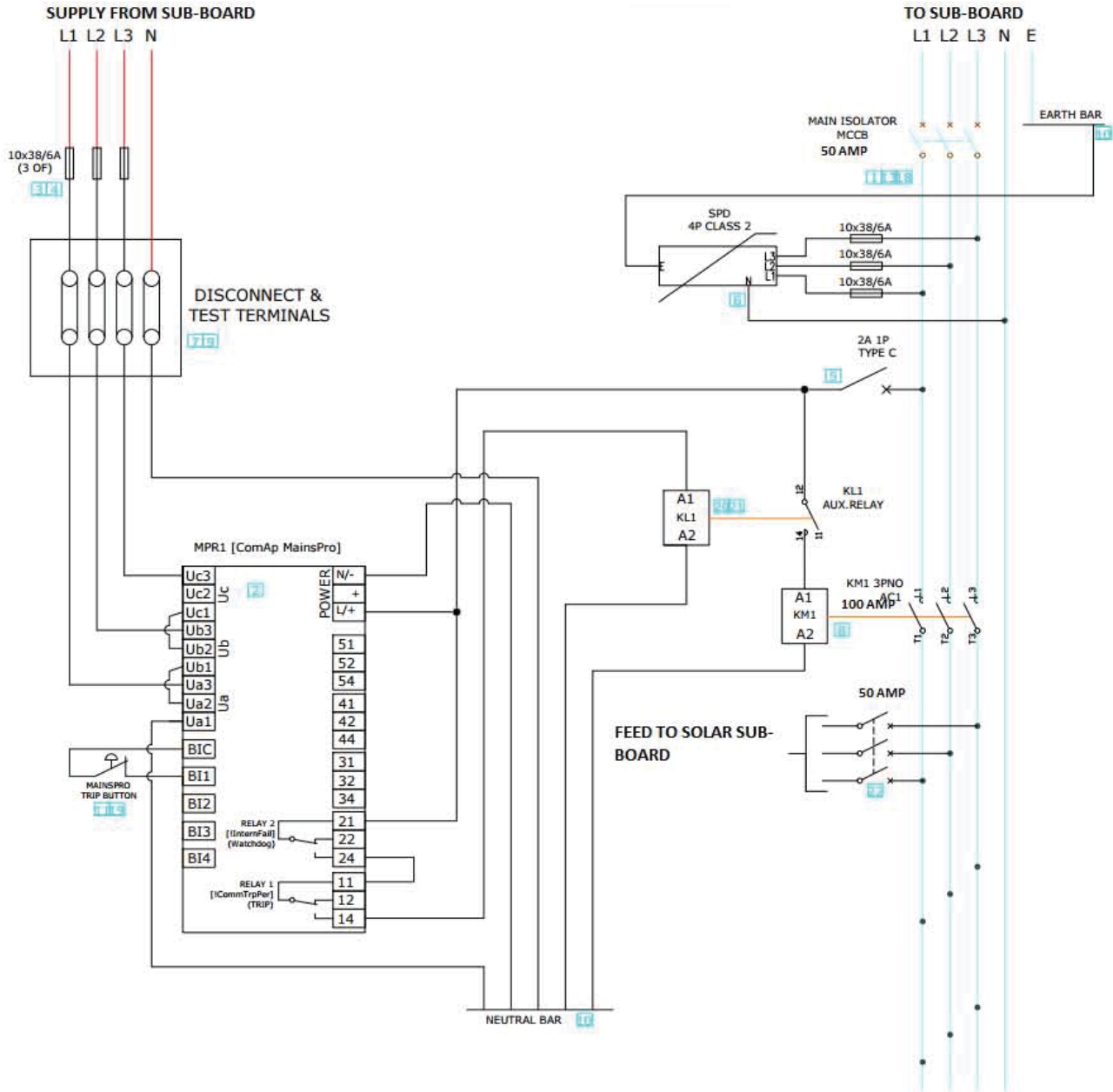
IPD GROUP LIMITED

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ASSEMBLY DRAWING
PVMGPS69

PVMGPS69 A3
SHEET 3 OF 3 C



ANSI DEVICE SCHEDULE - ALL TBC BY DNSP

No.	DESCRIPTION	VALUE
27	UNDER VOLTAGE	208V-2.0 SEC
59	OVER VOLTAGE	257V-2.0 SEC
81O	OVER FREQUENCY	52Hz-2.0SEC
81U	UNDER FREQUENCY	48Hz-2.0 SEC
81RF	ROCOF	1Hz/s
78	VECTOR SHIFT	8°-2.0 SEC
	DISCONNECT TIME	2 SEC
	AUTO RE-CONNECT TIME	60 SEC

TRIPPING / RECONNECT ARRANGEMENTS:

THE RELAY MUST ISOLATE THE PV SYSTEM FROM THE REST OF THE ELECTRICAL INSTALLATION IN CASE OF GRID FAILURE AND SUB-STANDARD GRID PARAMETERS (UN-HEALTHY GRID).

THE RELAY MUST ALSO ISOLATE THE PV INSTALLATION IN CASE THE RELAY LOSES POWER SUPPLY OR WHEN THERE IS A PROBLEM WITH THE RELAY. INCLUDE 9VDC UNDERVOLTAGE COIL.

WHEN A TRIP IS INITIATED OR THE RELAY IS NOT HEALTHY (LOST POWER OR MALFUNCTION) THE RELAY(S) MUST OPEN, DISCONNECTING THE SOLAR SUPPLY

Rev	Date	Comments	Dwn	Chkd
MAINS PRO				
SOLAR PROTECTION BOARD SCHEMATIC				
AHE GROUP PTY LTD				
Project Address				
Drawn	Date	Checked	Date	

Library of Setpoints

For Mainspro

		Min	Max
Uin	230/400	NA	300/520
System	3PH	1ph	3Ph
DispT [min]	2 mins	1min	60min
Auto FR	Disabled	Enabled	Disabled
Auto FR Del [s]	0	0s	6000s
Start Trip	Disabled	Enabled	Disabled
Imp Len [s]	1	0s	60s
Bak Trp Del [s]	0	0.0s	10.0s
Ext	Enable	Enabled	Disabled
F.R	Enable	Enabled	Disabled
Alt	Disable	Enabled	Disabled
Disable	Disabled	Enabled	Disabled
V>	270V	1v	999v
V> Del	1 sec	0.00s	600.00s
V>>	0	1v	999v
V>> Del	0 sec	0.00s	600.00s
V<	203V	1v	999v
V< Del	1.5 sec	0.00s	600.00s
V<<	0	1v	999v
V<< Del	0 sec	0.00s	600.00s
Avg V> [V]	0	0v	34000v
RstV>, V>> [%V>]	0	90%v	100%v
RstV<, V<< [%V<]	0	100%v	110%v
V unb, A.V unb [V]	0	1v	999v
V< pos, A.V < pos [V]	0	1v	999v
V> neg, A.V> neg [V]	0	1v	999v
Du del, A.dU del [s]	0	0.00	600.00s

		MIN	MAX
F>	50.7 Hz	45.00Hz	65.00Hz
F> Del	1 sec	0.00s	600.00s
F<	49.5 Hz	45.00Hz	65.00Hz
F< Del	1 sec	0.00s	600.00s
F>>	0	45.00Hz	65.00Hz
F>> Del	0	0.00s	600.00s
Rstf>, f>> [%f>]	0	90.0%f	100.0%f
RSTF<, f<<	0	100.0%f	110%f
VS lim, A.VS lim [⁰]	12	1°	50°
ROCOF, A.ROCOF [Hz/s]	1 Hz	1.0Hz/s	10.0Hz/s
ROCOF filt, A.ROCOF Filt [-]	50	1	100
LOM Init Del, A.LOM Init Del[s]	2 sec	0s	600s
LOM Trip Del, A.LOM Trip Del[s]	2 sec	0s	3600s
BI1:Ext BI2:F.R BI3:Alt BI4:Dis	BI1 = Ext BI2 = N/A BI3 = N/A BI4 = N/A	Ext F.R. Alt Dis CB Fdb Not used	Ext F.R. Alt Dis CB Fdb Not used
Default Settings	RE1:!CommTrpPer RE2:!InternFail RE3:!BackTrpImp RE4:!InternFail RE5:TrpEndImp	CommTrpPer !CommTrpPer CommTrpImp !CommTrpImp CommSigImp !CommSigImp CommSigDel !CommSigDel U Sig !U Sig f Sig !f Sig LOM Sig !LOM Sig dU Sig !dU Sig Other Sig !Other Sig TrpEndImp InternFail BakTrpPer BakTrpImp	CommTrpPer !CommTrpPer CommTrpImp !CommTrpImp CommSigImp !CommSigImp CommSigDel !CommSigDel U Sig !U Sig f Sig !f Sig LOM Sig !LOM Sig dU Sig !dU Sig Other Sig !Other Sig TrpEndImp InternFail BakTrpPer BakTrpImp

