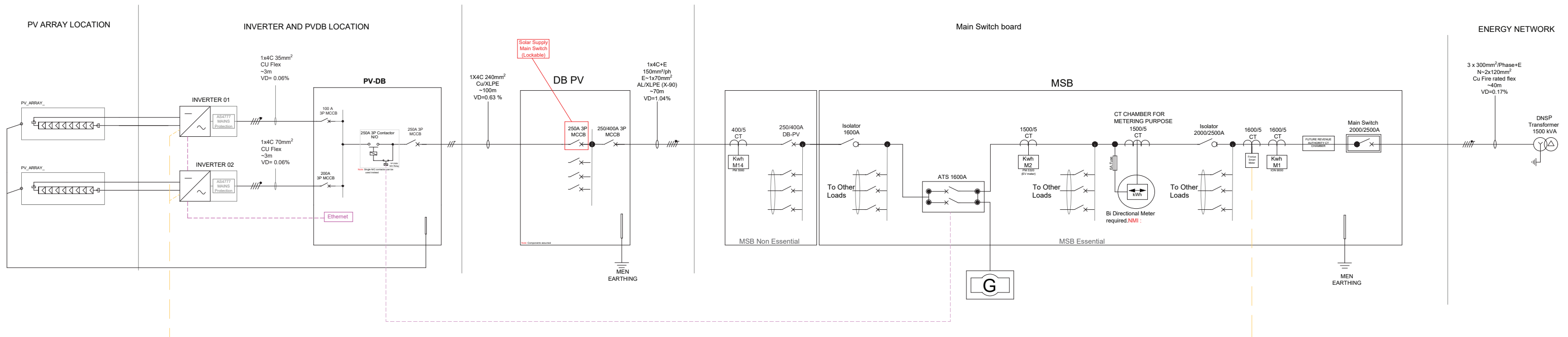
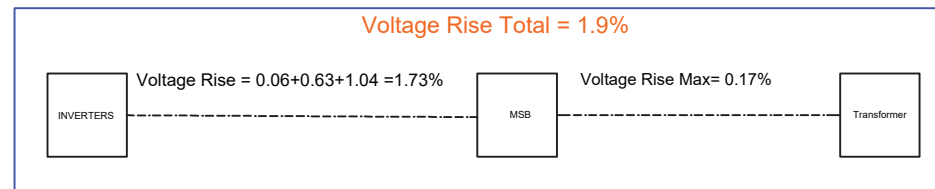


AC Schematics



VRC			
Item	Description -Cable Routes	Max Continues Current (A)	VRC in %
1	MSB - Transformer	227.3	0.17%
2	DBPV - MSB	227.3	1.04%
4	PVDB - DBPV	227.3	0.63%
5	INV01-PVDB	75.8	0.06%
6	INV02-PVDB	151.5	0.06%

New PV System Details	
DC Details	
PV Type	
Module Size	2382x1134x30mm
NO. Modules	230
Total KWp	142.6 KWp
Array Pitch	-
Orientation	-
AC Details	
Inverter Type	
No. Inverter	2
Total kVA	150KVA

Primary Protection Settings (Inverter)- (Region :Australia A)				
Item	Functional Description	Settings	Trip Delay Time	Maximum disconnection time
1	Under Voltage (27)	180V	10 sec	11 sec
2	Under Voltage 2	70 V	1 sec	2 sec
3	Over Voltage 1 (59p)	265V	1 sec	2 sec
4	Over Voltage 2 (59P)	275 V	-	0.2 sec
5	Sustained Over voltage (10min)	258 V		3 sec
6	Under Frequency (81U)	47 Hz	1 sec	2 sec
7	Over Frequency (81 O)	52 Hz	-	0.2 sec
8	Active Anti-Islanding	As per AS 4777 2-2020	-	2 sec
9	Voltage Phase angle shift withstand	60 (1), 20 (2) degrees	-	2 sec
10	ROCOF	4 Hz/ s	-	0.25 sec
11	Re Connection Delay		60 sec	

Volt-Watt & Volt-Var Settings (Australia A)			
Function	Reference Point	Inv. Voltage Setting	Inv. Power/ Var Settings
Volt-Watt Settings	V1	253 V	100%
	V2	260 V	20%
Volt-Var Settings	V1	207 V	44% Leading (Export)
	V2	220 V	0
	V3	240 V	0
	V4	258 V	60% Lagging (Import)

Secondary Protection Settings (Mainpro)			
Item	Functional Description	Settings	Delay Time
1	UNDER VOLTAGE 1 (27P)	180 V	12 sec
2	UNDER VOLTAGE 2	70 V	3 sec
3	AV OVER VOLTAGE (10 Min)	258 V	3 sec
4	OVERVOLTAGE 1 (59p)	275 V	0.2 sec
5	ROCOF	4Hz/s	0.5 sec
6	UNDER FREQUENCY (81U)	47 Hz	3 sec
7	OVER FREQUENCY (81O)	52 Hz	2 sec
8	RE CONNECTION DELAY	60 Sec	
9	VECTOR SHIFT	20 Deg	2 sec

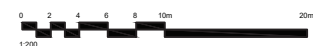
Notes:-

1. As per AS/NZS 4777.1:2024 clause 3.4.5.1, Interface protection should be installed for an IES or multiple IES with aggregated rated apparent power greater than 200kVA at any single electrical location.
2. Inverters are enabled for CSIP-AUS, if external device is required for emergency backstop mechanism, please refer to Queensland Electricity connection manual V4, Appendix A

Engineered by:	Project Name:	Drawing Name:	Revision:	Notes:
		Site Layout		All installation works shall comply with; AS3000, AS3008, AS5033, AS4777 standards.
				All AC isolators (IP65) shall be load break type. Not required if Inverter is in line of sight of the PVDB.
				Ensure system is labeled to AS5033, AS4777.1
				For detailed DC side design use
				Installers has to verify the cable run and type of cable on site, any change contact for cable sizing guidance.
				Inverter mains and PVDB Mains are assumed to be enclosed touching.
				All DC equipments should be installed in restricted access (HD conduits , fences and other accessories recommended).
				Existing MSB details and DB-PV details and connections need to be confirmed prior to installation
Client:	Address:	Designer: AC No.: Scale:		
	NMI:	Drawing No.: Revision:		



FOR APPROVAL



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