
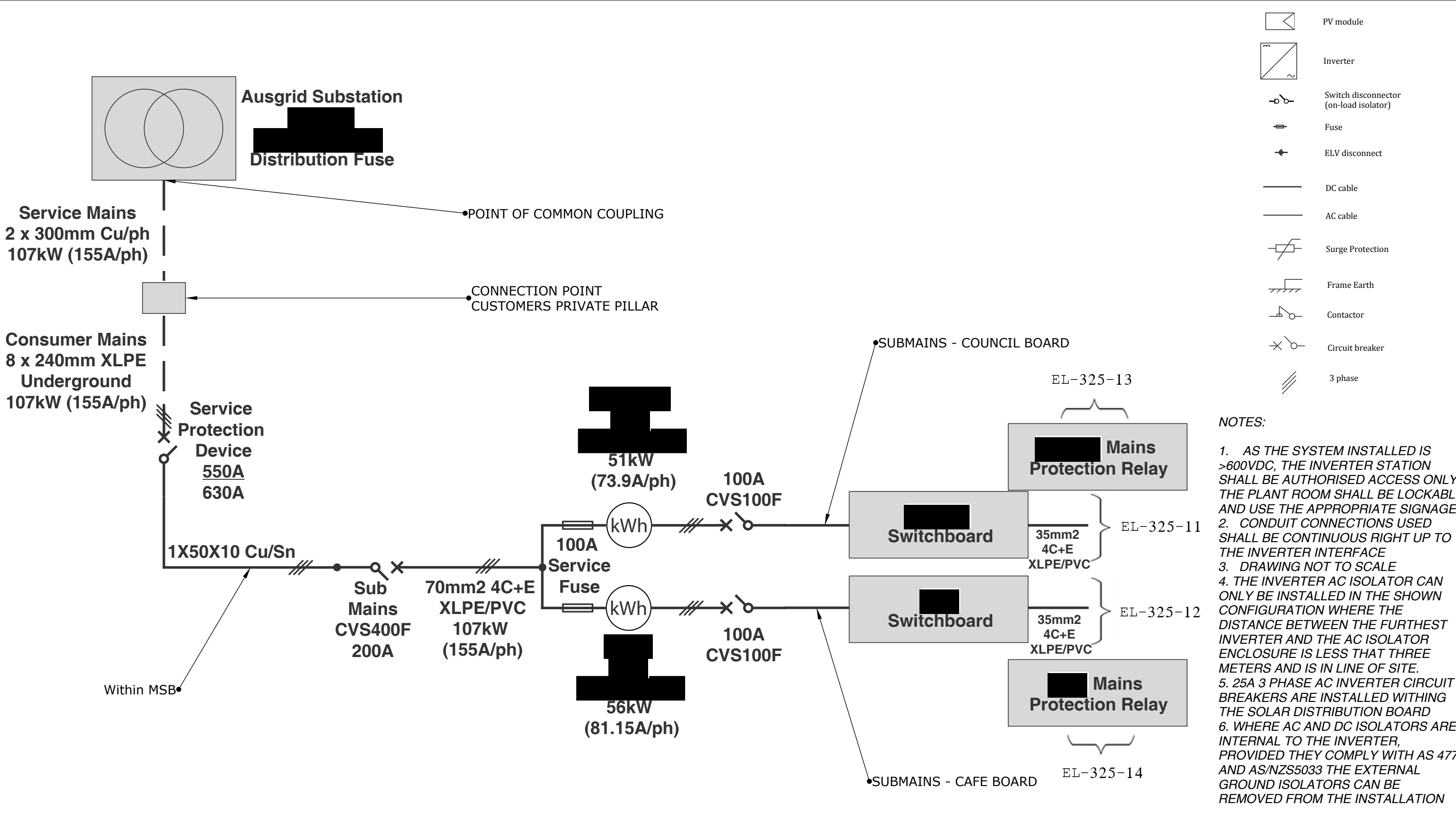


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1. Technology: Solar PV
 2. Maximum Power: 107 kW
 3. Contribution to fault levels: N/A
 4. Size & rating of the relevant Transformer: N/A
 5. Single line diagram: refer to following page
 6. Protection Systems & Communication Systems: refer to following page
 7. Voltage Control and reactive power capability: N/A
 8. Details specific to the location of facility: N/A



MAINS ELECTRICAL CONNECTION		
PROJECT & DRAWING NAME/NUMBER: EL-325-16		
Drawn	Review	Approv
[Redacted]	[Redacted]	[Redacted]
20/05/16	20/05/16	20/05/16

GSES

REMARKS	...			
Scale:	NTS			
Print:	A4			
REVISION HISTORY				
DATE	DESCRIPTION	DRAWN	REVIEWED	APPROVED
1 DD/MM/YY				
2 DD/MM/YY	...	...	...	...
3 DD/MM/YY	...	...	...	...
4 DD/MM/YY	...	...	...	...
5 DD/MM/YY	...	...	...	...

O/U VOLTAGE SETTINGS

Setting	Setpoint		Pass Criteria	
	Value	Unit	Lowest	Highest
OV Pickup	265	Hz	260	270
OV Timing	1.2	S		1.2
UV Pickup	200	Hz	195	205
UV Timing	1.2	S		1.2

O/U FREQUENCY SETTINGS

Setting	Setpoint		Pass Criteria	
	Value	Unit	Lowest	Highest
OF Pickup	51.5	Hz	51	52
OF Timing	1.2	S		1.2
UF Pickup	48.5	Hz	48	49
UF Timing	1.2	S		1.2

VECTOR SHIFT SETTINGS

Setting	Setpoint		Pass Criteria	
	Value	Unit	Lowest	Highest
+ve Vector Shift Pickup	8	Degrees	7	9
-ve Vector Shift Pickup	8	Degrees	7	9

ROCOF SETTINGS

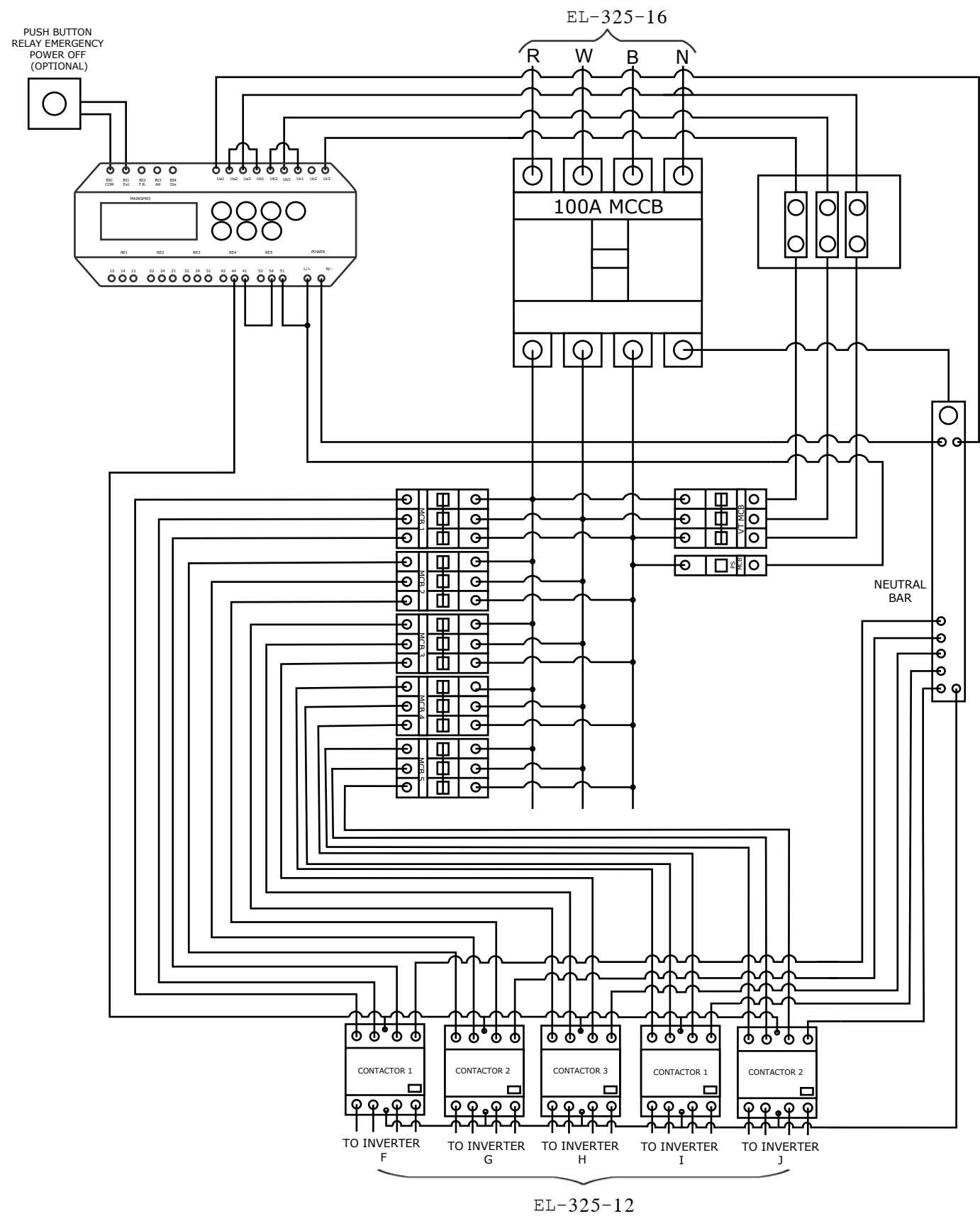
Setting	Setpoint		Pass Criteria	
	Value	Unit	Lowest	Highest
+ve ROCOF Pickup	1	Hz/s	1	1
-ve ROCOF Timing	1	Hz/s	1	1

LOGIC TABLE

Relay	Relay Setting	Operation
RE4	CommSigImp	N/O, Opens on "Out of Tolerance" Conditions
RE5	Other Sig	N/O, Opens on internal Fault "Watch Dog" Relay
RE1	CommSigImp	N/O, Same as RE4, For test event outputs

NOTES:

- TWO MAINS PROTECTION RELAYS WILL BE INSTALLED. ONE AT THE COUNCIL SWITCHBOARD AND ONE AT THE CAFE SWITCHBOARD.



PROJECT & DRAWING NAME/NUMBER: EL-325-14		
Drawn	Reviewed b	Approv
29/06/16	29/06/16	29/06/16



GSES		
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REMARKS	...			
Scale:	NTS			
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REVISION HISTORY				
DATE	DESCRIPTION	DRAWN	REVIEWED	APPROVED
1 DD/MM/YY				
2 DD/MM/YY	
3 DD/MM/YY		...	...	...
4 DD/MM/YY		...	...	...
5 DD/MM/YY	...	...	...	...

O/U VOLTAGE SETTINGS

Setting	Setpoint	
	Value	Unit
OV Pickup	260	V
OV Timing	1.2	S
UV Pickup	202	V
UV Timing	1.2	S

O/U FREQUENCY SETTINGS

Setting	Setpoint	
	Value	Unit
OF Pickup	51	Hz
OF Timing	1.2	S
UF Pickup	49	Hz
UF Timing	1.2	S

VECTOR SHIFT SETTINGS

Setting	Setpoint	
	Value	Unit
+ve Vector Shift Pickup	7	Degrees
-ve Vector Shift Pickup	7	Degrees

ROCOF SETTINGS

Setting	Setpoint	
	Value	Unit
+ve ROCOF Pickup	0.9	Hz/s
-ve ROCOF Timing	0.9	Hz/s

NOTES:

- Where necessary Inverter settings are to be updated by a licensed electrician using the SMA Grid Guard Code
- Inverters cannot withstand current injection therefore cannot be tested to pass criteria



SMA INVERTER AUSGRID PROTECTION REQUIREMENTS

PROJECT & DRAWING NAME/NUMBER: EL-325-15



REMARKS	...				Scale: NTS
					Print: A4
REVISION HISTORY					
DATE	DESCRIPTION	DRAWN	REVIEWED	APPROVED	
1 DD/MM/YY					
2 DD/MM/YY		...	...	...
3 DD/MM/YY		...	...	...
4 DD/MM/YY	...	...	...	...
5 DD/MM/YY	...	...	...	...

Drawn	Reviewed by	Approved
29/06/16	29/06/16	29/06/16

GSES