

Interface protection guidance for SolShare installations

📌 IMPORTANT

This document is intended to provide guidance on how to design a safe and effective shared solar system requiring interface protection with SolShare. This document does not override any relevant electrical safety standards and wiring rules. It is the responsibility of the installer to ensure the shared solar installation meets the relevant electrical safety and wiring standards in the installation locality.

As with other solar installations more generally, interface protection may be required in installations involving a SolShare, based on rules set out by the relevant DNSP, Australian Standards or other regulations. Below is some guidance surrounding the design of a system with SolShares and interface protection when it is required, to complement what is provided in standards and other official guidance.

I/ Australia (not including SAPN)

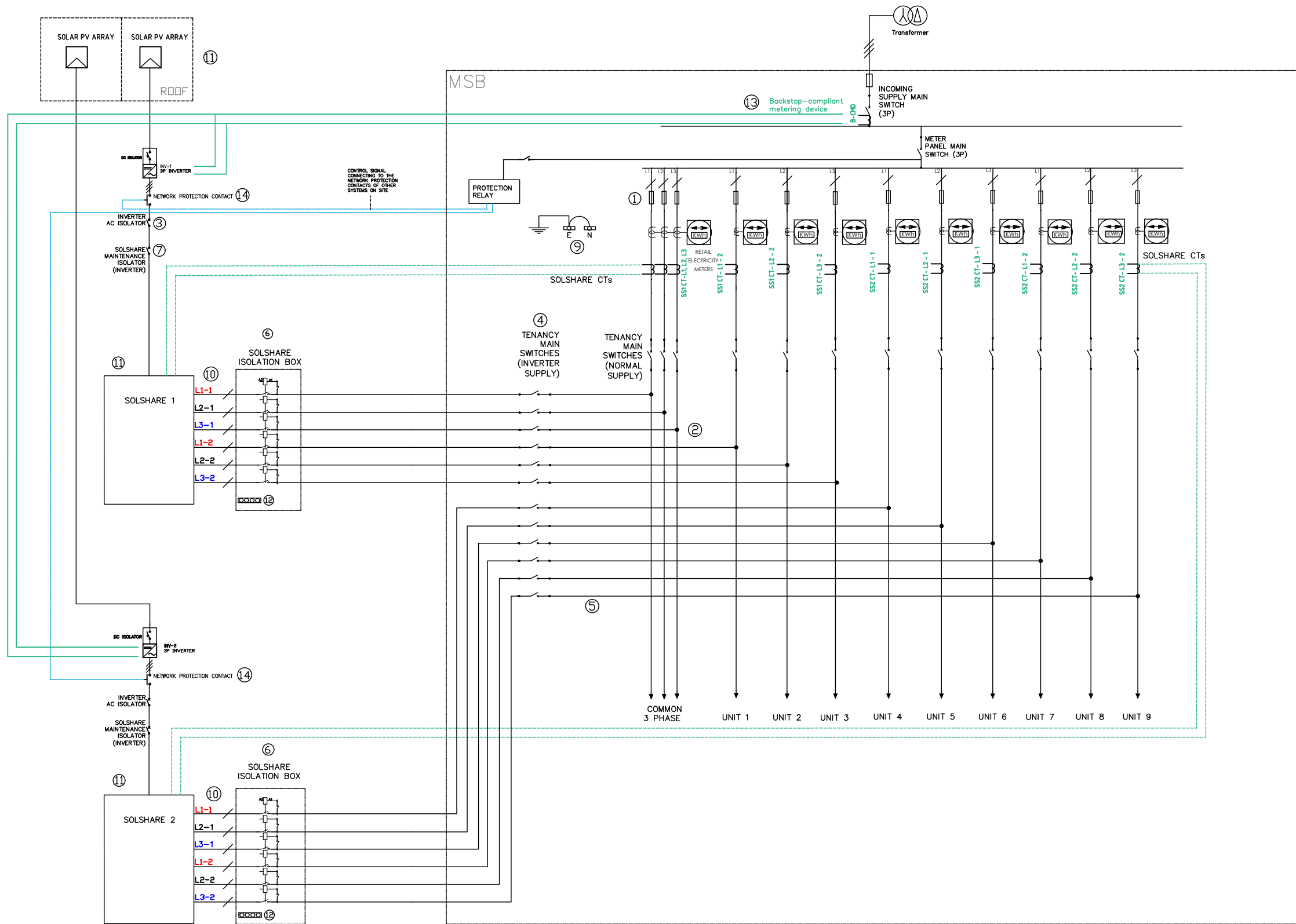
When installing interface protection with one or more SolShares, a network protection contactor should be placed between the inverter and the SolShare for each SolShare. An interface/network protection relay is included to monitor the incoming supply and control the network protection contactor(s). To save cost, a single interface/network protection relay can be used to control multiple contactors, forming a multichannel interface protection system. Multichannel interface protection can be used in installations with more than one SolShare. The contactor and network protection relay do not need to be co-located.

This configuration is shown in the example single line diagram (SLD) below – please note that some of the aspects of this drawing will be different to your project.

II/ SAPN

For installations where network protection is required in South Australia, SAPN may require the use of certified interface protection (as opposed to the certification being required on the network protection relay only). This typically makes it more challenging to install distributed multi-channel interface protection like the one described in the section above. Allume recommends reaching out to an interface protection manufacturer (such as CleanTech Controls or Greenwood) for information on certified multi-channel interface protection suitable for use in South Australia.

The Office of the Technical Regulator (OTR) has also provided an [exemption to protection requirements](#) in certain conditions, namely, for multi-tenant buildings with multiple NMIs where the total inverter nameplate does not exceed 200kVA and each NMI is associated with at most 30kVA of inverter capacity.



NOTES

- In South Australia Service Side fuses will be replaced by meter isolators. If this is the case the system shall be configured for SYSTEM LEVEL ANTI-ISLANDING.
- The solar point of connection is on the load side of the Main Switch (Normal Supply) for each tenancy. Tenancy Main Switch (Normal Supply) will isolate both grid and solar supply to tenancy. Clear labelling must be included on the meter panel to indicate this wiring configuration (label provided with SolShare).
- The Inverter AC Isolator shall be labelled clearly and be able to provide overcurrent protection rated to the inverter's maximum output current.
- Tenancy Main Switches (Inverter Supply) shall be grouped with the Tenancy Main Switches (Normal Supply) for that connection/unit.
- The cables shall be sized correctly to meet all relevant standards, including AS/NZS 4777.1:2024, AS/NZS 3000:2018 and AS/NZS 3008.1.2:2017 requirements.
- SolShare Isolation Box shall be installed as per requirements in the SolShare isolation box - installation guide (accessed at <https://info.allumeenergy.com/hubfs/ANZ/0880-SolShareIsolationBox-InstallationGuidance.pdf>).
- SolShare Maintenance Isolator (Inverter) is required if Inverter AC Isolator is not readily accessible from SolShare.
- Inverter phase connections shall match the grid phases for each tenancy connection on the SolShare.
- Each SolShare requires a single connection to neutral and a single connection to earth.
- All output cables of a SolShare shall be sized to carry the maximum output current per phase of the inverter, as at points in time the SolShare may direct all current to one tenancy on each phase.
- Each SolShare requires its own dedicated inverter/inverters.
- The Neutral connection of the coil (A2) shall be terminated at the neutral bar in the isolation box and linked back to the main neutral.
- Site consumption monitoring for emergency backstop is required for all Victorian installations. For further information see <https://www.energy.vic.gov.au/households/victorias-emergency-backstop-mechanism-for-solar>
- Each SolShare shall be isolated by an individual contactor as part of interface protection. More information can be found in the Interface protection guidance for SolShare installations (accessed at https://info.allumeenergy.com/hubfs/ANZ/0370_NPU_Guidance_for_SolShare_Installations.pdf).

LEGEND

	Circuit Breaker
	Meter
	Backstop-compliant metering device
	Solshare CT
	CT Cable
	MEN Link
	Fuse
	Contactor Coil
	Neutral Bar

For installation design



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ADDRESS		TITLE: SAMPLE SLD-MULTIPLE SOLSHARES WITH INTERFACE PROTECTION	
123 Main Street, Melbourne, VIC 3000.			
DATE: 01/07/2025	SHEET SIZE	DRAWING NUMBER	REV
	A3	ALL-SOL35-005	B2
	SCALE NTS		