

Compliance testing guide

AS/NZS4777.1:2024

NOTICE

This document provides guidance about best practice for compliance testing required of SolShare 2, inverter power sharing devices (IPSDs) and installations involving IPSDs in AS/NZS4777.1:2024. Other non-IPSD-specific tests may also be required for compliance. This document does not override any local electrical safety standards, regulations and wiring rules. It is the responsibility of the installer to ensure the shared solar installation, including any testing, meets the relevant regulations and standards in the installation location.

A typical installation with SolShare 2 is shown below:

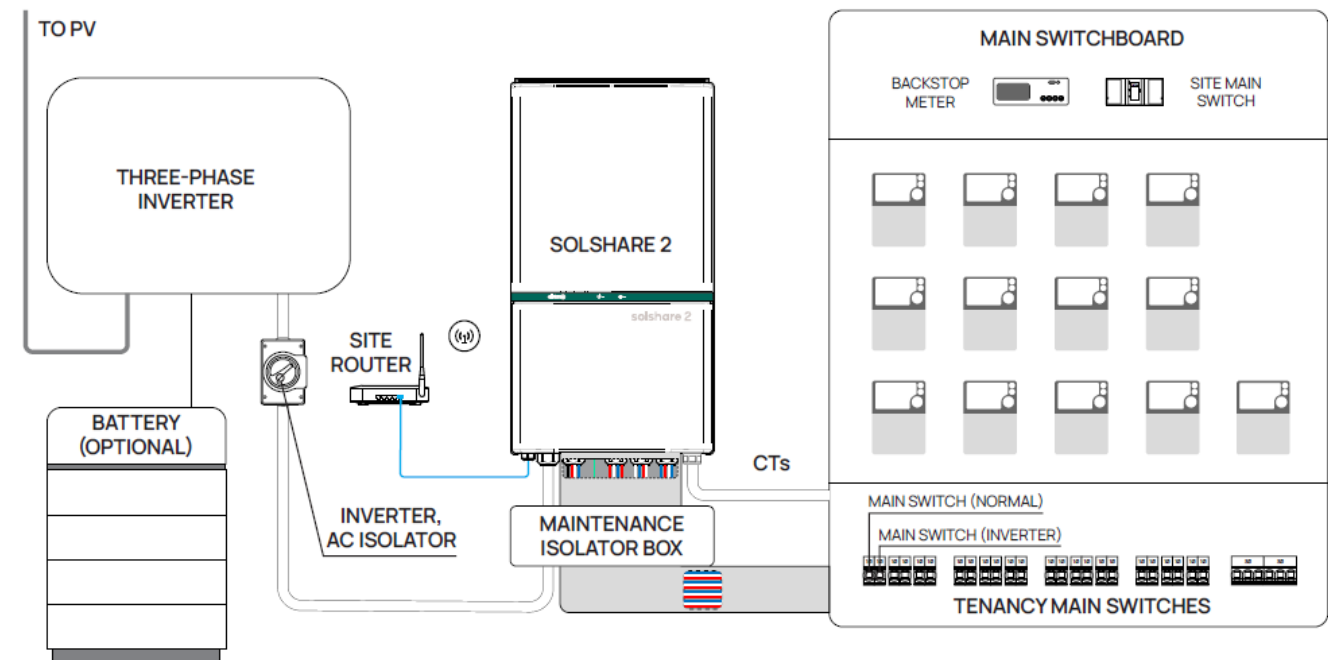


Figure 1: Overview of a typical SolShare 2 installation

! WARNING: Risk of electric shock

The guidance provided in this document is suitable only for certified SolShare 2 installers, who are licensed electricians with all relevant certifications and qualifications required in the installation location. Observe all necessary safety measures around live installations.

1. Preparation

Ensure SolShare 2 and any connected inverters are commissioned and operational prior to commencing these tests.

Some parts of the guidance below require taking measurements with SolShare's cover open and SolShare energised. For instructions on how to open SolShare's cover, see Section 6 of the [SolShare 2 Installation Manual](#).

2. Anti-islanding disconnection

This section provides additional example guidance for compliance with AS/NZS4771:2024 Clause 8.4.2 (c) and Clause 8.4.1 (b).

SolShare 2 does not rely on external CTs for system safety functions. The following tests can be done with the SolShare CTs in place.

- 1 Turn **off** the MAIN SWITCH (NORMAL) located in the main switchboard for a tenancy connected to SolShare. An example switchboard is shown below.
- 2 Verify that the time period to disconnect the solar supply to that tenancy is **less than 2 seconds** by using a voltage meter to test for safe voltage at the Tenancy Connections terminal block inside SolShare or the load side of that tenancy's MAIN SWITCH(NORMAL).
- 3 Repeat this test for at least one tenancy on each phase on each SolShare.

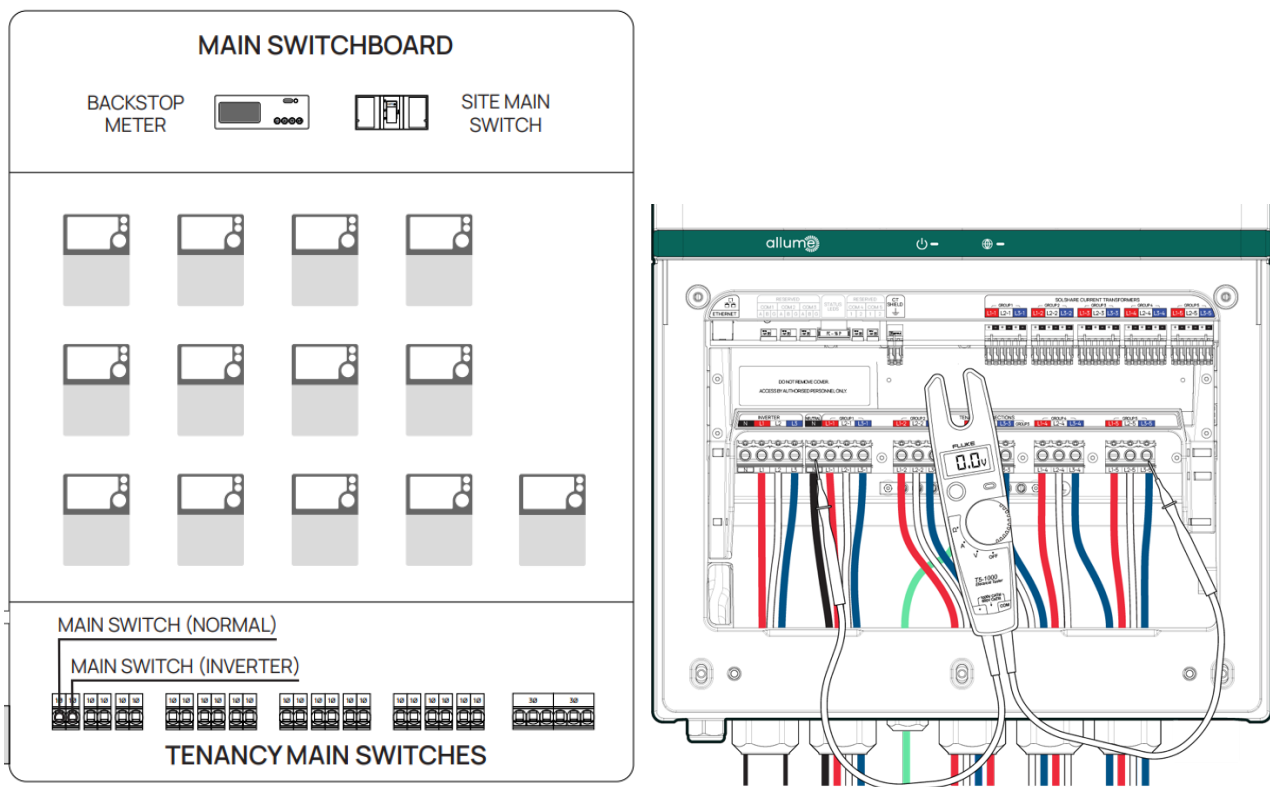


Figure 2: Example anti-islanding disconnection testing

3. Anti-islanding reconnection

This section provides additional example guidance for compliance with AS/NZS4777.1:2024 Clause 8.4.2 (b) and Clause 8.4.1 (a).

- 1 Turn **on** the MAIN SWITCH (NORMAL) (located in switchboard) for a tenancy connected to SolShare.
- 2 Verify that the time period to re-connect the solar supply to that tenancy is **more than 60 seconds** by using a clamp meter to measure the current flow on the conductor supplying solar power to that tenancy from SolShare. Reconnection of solar can be indicated by the noise of a relay inside SolShare closing.

NOTE: SolShare may not send solar to the tested tenancy connection, especially if there is no or low load being consumed by that tenancy at the time of testing.

NOTE: For some tenancy connections, a small amount of parasitic power (<12W) will flow towards SolShare during the 60 second window.

- 3 Repeat this test for at least one tenancy on each phase on each SolShare.

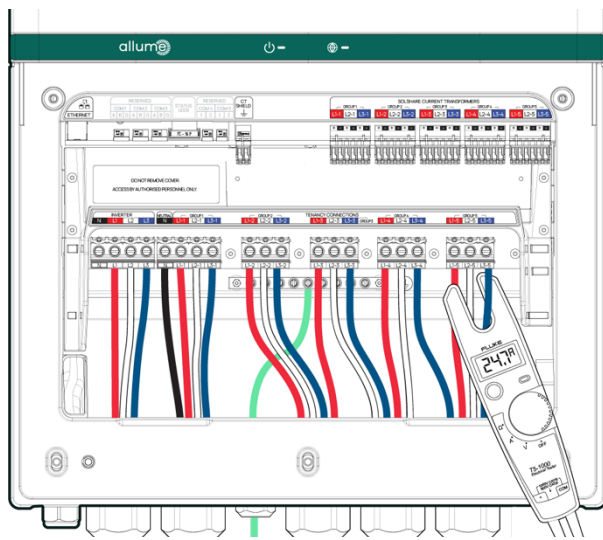
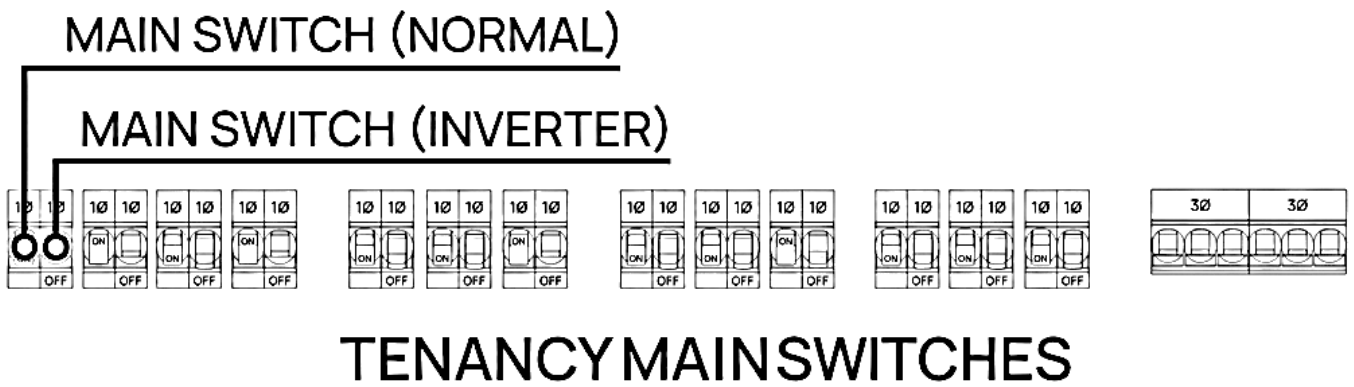


Figure 3: Example anti-islanding reconnection testing

4. Inverter Anti-islanding

SolShare does not provide the primary active anti-islanding functionality in a solar installation (it is provided by the inverter). This section provides additional example guidance for compliance with Clause s8.4.1 (a) and 8.4.1 (b) in AS4777.1:2024. For 8.4.1(b) the SITE MAIN SWITCH should be used. If no SITE MAIN SWITCH is available, then connect the inverter to the grid via a single connection on each phase on SolShare by:

- 1 Select a single three-phase connection on SolShare if available. If not available, select a single-phase tenancy on each phase.
- 2 Turn off the MAIN SWITCH (INVERTER) for all other connections on that SolShare.



TENANCY MAIN SWITCHES

Figure 4: Example configuration of MAIN SWITCHES (NORMAL) and MAIN SWITCHES (INVERTER) where a SITE MAIN SWITCH is not available and a three-phase connection (right-most set of switches) has been chosen in Step 1.

3 Complete the tests as per Clause 8.4.1 (a) and 8.4.1 (b) using the MAIN SWITCH (NORMAL) for the selected tenancy connection/s in Step 1.

5. Post-tests

Following completion of testing, SolShare's installation cover must be closed and the solar system left in a safe state. For instructions on how to close SolShare's cover, see Section 10 of the [SolShare 2 Installation Manual](#).