allume

SolShare

Installation Manual

UK VERSION

0979-InstallationManual-UK

This SolShare model SOLSHARE-3P-35A-04 manual is specific to installations in the United Kingdom. Please check our website at https://info.allumeenergy.com/document-library for the most up-to-date manual version.

Version	Date released	Updates
A04	16 JUN 25	Initial release.

This manual accompanies our equipment for use by the end users.

The technical instructions and illustrations contained in this manual are to be treated as confidential and no part may be reproduced without the prior written permission of Allume Energy and end users may not divulge the information contained herein or use this manual for purposes other than those strictly connected with correct use of the equipment.

All information and specifications are subject to change without notice.

Hello

Thank you for purchasing a SolShare system. You are supporting the growth of Australian made solar technology.

This installation will likely be different from any other piece of solar technology you have installed in the past. As a result, please follow the guidelines in this manual carefully. Installations that contravene these guidelines are not covered under warranty unless a written exemption from Allume is provided.

SolShare is designed to meet UK conditions, regulations and codes.

If you have questions or feedback on the product or this manual, please contact us and ask for a technical representative.

United Kingdom

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uk.support@allumeenergy.com

List of supplementary documents available online

- SolShare 35 Datasheet UK
- SolShare Design and Installation Guide UK
- SolShare Labelling Advice UK
- SolShare Checking Phasing Before Energisation

Document library

For the most up to date version of all documents (including this installation manual), scan this QR code or go to info.allumeenergy.com/document-library

Contents

Commissioning Document

Important:
To be completed during installation and entered to commissioning app.
Please leave a copy of this page somewhere on site for servicing purposes.

Installer Name: .....

SolShare Serial Number: 3P_35A_ [ ][ ][ ][ ]

Installer Company: .....

Installation Address: .....

..... Postcode: .....

Unit Connection Identifier

SolShare connection	**Unit connected** (e.g.: Apt, Unit B, Common light & power, No connection)		
	Single-Phase		Three-Phase
L1-1	.....		
L2-1	.....	OR	.....
L3-1	.....		
L1-2	.....		
L2-2	.....	OR	.....
L3-2	.....		
L1-3	.....		
L2-3	.....	OR	.....
L3-3	.....		
L1-4	.....		
L2-4	.....	OR	.....
L3-4	.....		
L1-5	.....		
L2-5	.....	OR	.....
L3-5	.....		

Handling and Safety Instructions

This guide is provided to help the installer understand a typical SolShare installation procedure.

Installations may vary depending on the existing electrical infrastructure and local electrical safety standard. It is the responsibility of the electrician to ensure their installation meets the local electrical safety standard.

During installation, testing and inspection, adherence to all handling and safety instructions is mandatory.

Failure to do so may result in injury, loss of life and/or damage to the equipment.

Safety symbols information

The following safety symbols are used in this document. Familiarise yourself with the symbols and their meaning before installing or operating the system:

Warning:

This symbol denotes a critical safety instruction that must be followed to ensure safety of installer and safe operation of SolShare once commissioned. This box is denoted in green to provide further emphasis.

Caution:

This symbol indicates a potentially critical step, which if not completed correctly, could result in equipment damage or minor to moderate injury.

Important:

This symbol indicates an instruction which will ensure proper operation of SolShare once commissioned or will help with the installation efficiency.

Important safety instructions

Save these instructions:
This manual contains important instructions for SolShare 3P-35A that shall be followed during installation and maintenance of the power division control system.

Warning:
Opening of SolShare must only be performed by a certified electrician.

Warning:
This equipment is connected to multiple sources of supply. Isolate all supplies before working on this equipment. Each input circuit and each output circuit represent a source of supply.

Warning:
The specified shutdown procedure must be followed prior to working on this equipment.

Warning:
This equipment must be permanently earthed. The Earth cable must never be removed from SolShare.

Caution:
HEAVY OBJECT – This product has a weight of approximately 38kg. Unboxing and mounting the product requires 2 people.

Caution:
Residual Current Devices and Earth Leakage Breakers must not be used as Overcurrent Protection devices in SolShare Output circuits.

Caution:
The unit must be operated according to the technical specification datasheet provided with the unit.

Important:
Use only copper conductors rated for a minimum of 90 degrees Celsius.

Warning:
This product relies on passive cooling, install in a well-ventilated location in accordance with the mounting instructions.

Warning:
Do not remove SolShare's cover. SolShare's cover does not need to be fully removed during installation. Failure to adhere to these instructions will void your SolShare warranty.

Warning:
SolShare is not compatible with off-grid solar setup and will not enable backup power through a multiple-mode inverter if the grid goes down.

Caution:
SolShare will impose a current dependent voltage drop/rise which should be taken into account during design of the installation. Specifications are given in the Technical Data sheet.

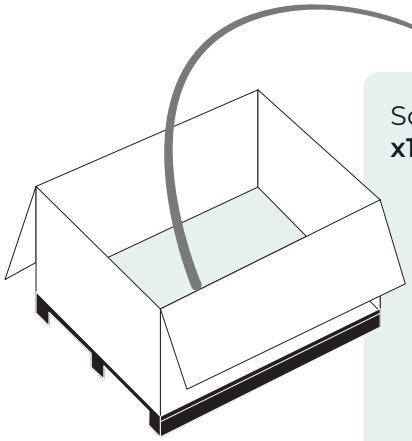
Caution:
Installations may vary depending on the existing electrical infrastructure and local electrical safety standard. It is the responsibility of the electrician to ensure their installation meets the local electrical safety standard.

Important:
The symbol ⏚ appears at Earthing points within SolShare equipment. This symbol is also used in the manual.

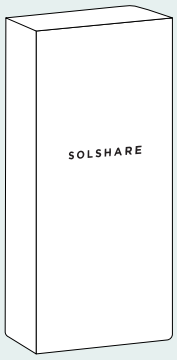
1. What's in the box

SolShare box

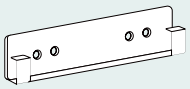
Make sure SolShare is intact following transportation. If there are any signs of visible damage, please contact your dealer immediately. Carefully check that all of the components have been supplied. If anything is missing, contact your dealer.



SolShare unit
x1

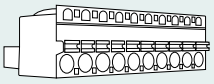


Mounting bracket
x2

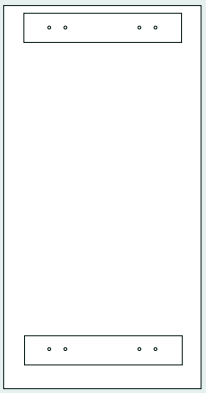


Locking plate
x1

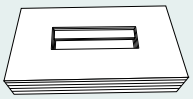
CT connector block
x3



Mounting template
x1

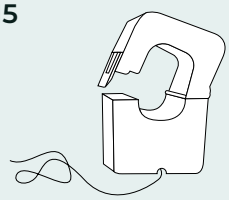


CT connection aid
x1



Fastener
x4

Split-core current transformer with 10m tails
x15



Reference Guide
x1

Earth screws
x10

Regional pack

There will also be a regional pack delivered alongside the SolShare box. The contents of this pack includes components and information specific to your install region.

Label pack

Installation manual

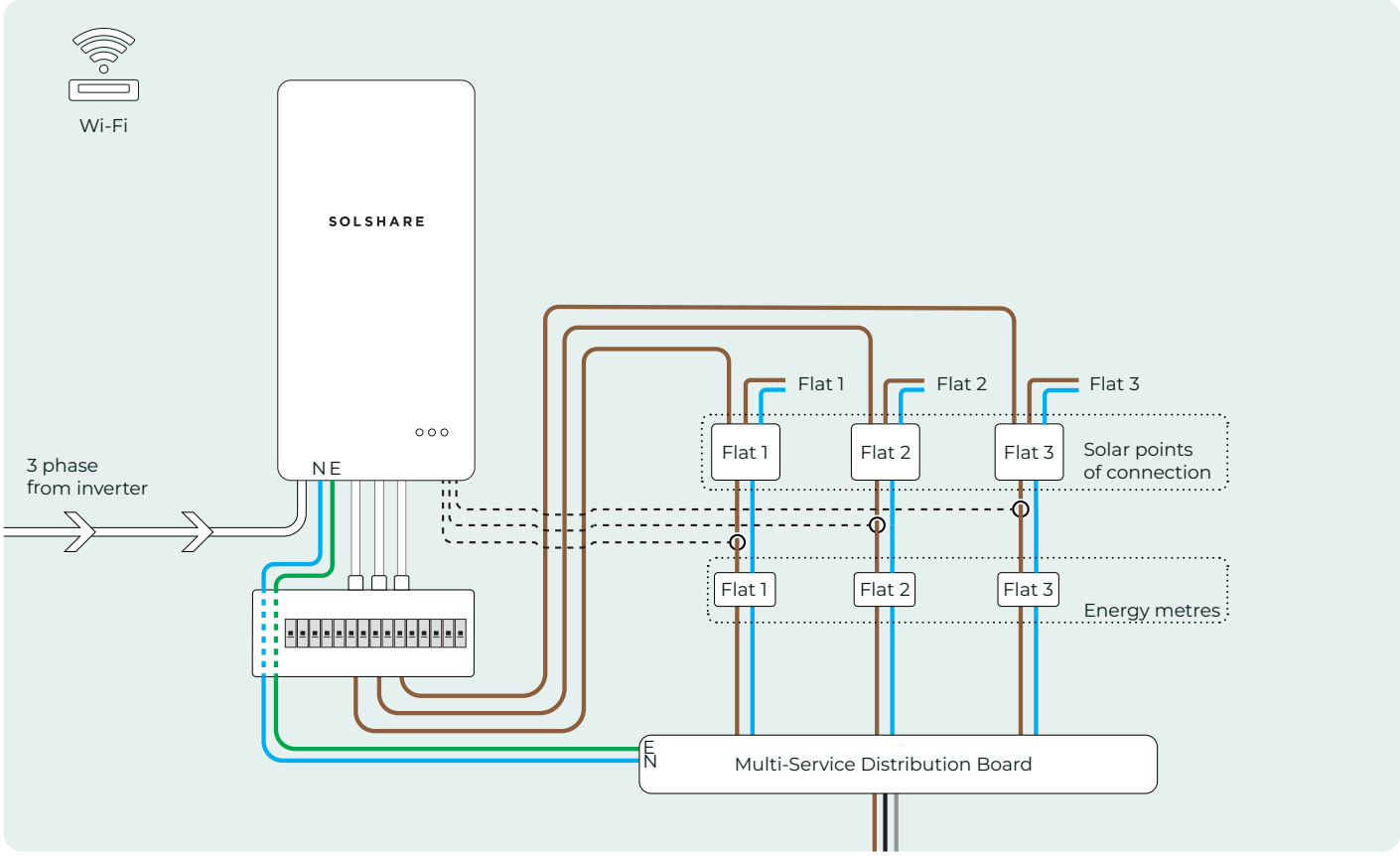
Datasheet

Installation overview

A single SolShare unit can distribute the power generated from a single solar system to up to 15 single-phase or 5 three-phase units (or a combination of the two).

SolShare takes a single three-phase input from a grid-connected solar inverter(s) and connects to each participating unit on the load side of their electricity meter.

For safe and easy maintenance, SolShare needs dedicated isolation from each flat. A lockable consumer unit with an MCB for each flat should be installed between SolShare and the solar point of connection (ideally below or in close proximity to SolShare).



Warning:
The SolShare neutral must come from the source (i.e. the Multi-Service Distribution Board or DNO cutout) that is supplying the flats that the SolShare is connected to. It **MUST NOT** be connected to a flat's neutral nor the Landlord neutral.

2. Mounting SolShare

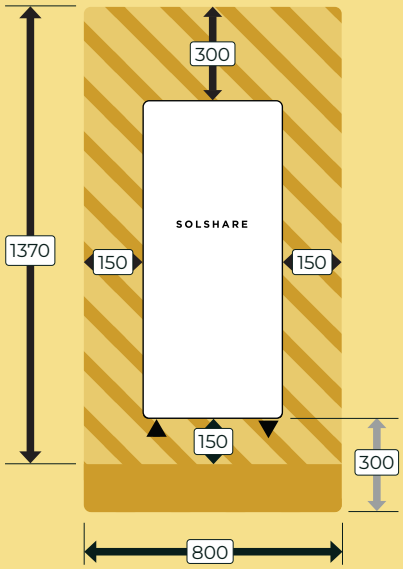
2.1. Installation site selection

To minimise cabling required, SolShare should be mounted as close to the solar point of connection as possible.

The following mounting requirements must be met when selecting the install location. Failure to do so will void warranty.

Minimum clearances, shown below, are required for installation and maintenance of SolShare. **Failure to adhere to minimum clearances will void warranty.**

NOTE: The highlighted minimum clearance is mandatory and **include** any obstacles as cover must move up 300mm for servicing.



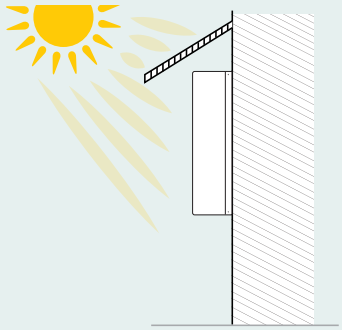
The mounting template provided with SolShare can be used to assist installation.

Recommended minimum clearance for cable entry/exit from SolShare base.

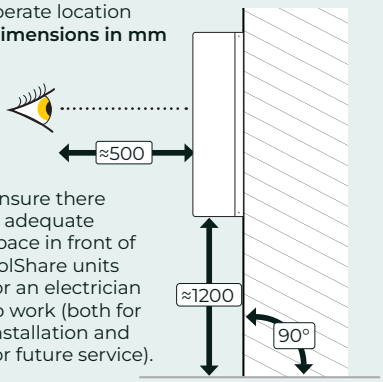
All dimensions in mm.
NOT TO SCALE

SolShare dimensions (H x W x D):
920 x 485 x 270

- Install in a well ventilated area.
- Install a shade cover over SolShare units when installed outdoors in direct sunlight or when in the path of debris (e.g. under a tree with falling leaves).



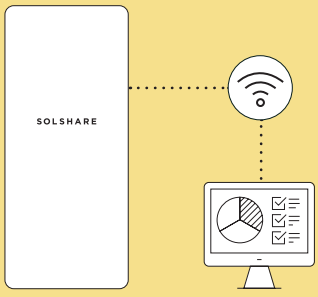
Install in an easy to observe and operate location
***dimensions in mm**



Ensure there is adequate space in front of SolShare units for an electrician to work (both for installation and for future service).

Mount vertically

Internet communications
A 2.4GHz Wi-Fi network must be available at the site to enable commissioning and ongoing monitoring.



NOTE: Where possible, do not install SolShare below a cable tray - this may affect SolShare's ability to connect reliably with the Wi-Fi at site.

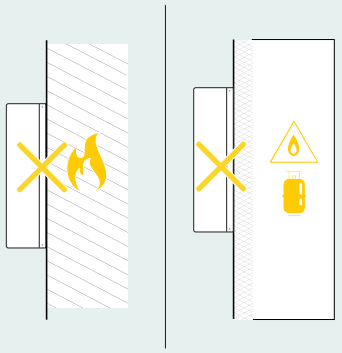
Environmental boundaries

Max ambient temperature:
50°C (+122°F)

Min ambient temperature:
-10°C (-14°F)

Relative humidity:
0-90%

Do not mount SolShare units on or near flammable material or gases



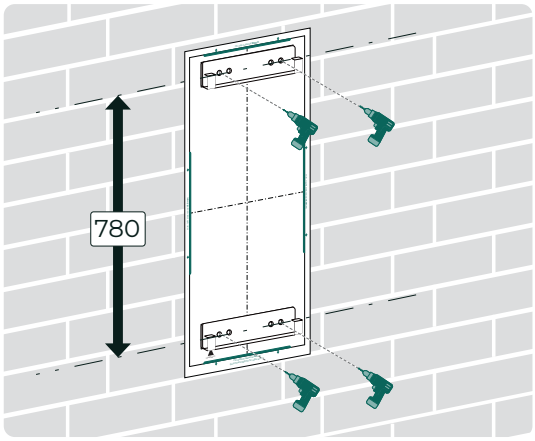
2.2. Installation

Follow the steps below to mount the brackets and enclosure:

Important:
The mounting wall and fastener selection is at the discretion of the installer. Weight rating fasteners should be rated to at least 30kg of shear force per fastener.

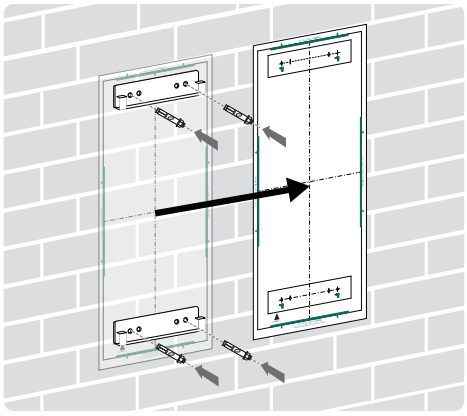
It is the installer's responsibility for appropriate site selection and bracket fastener choice.

1 Using the mounting template supplied with the SolShare, firmly secure the mounting brackets to the wall for installation. It is recommended to use the provided fasteners to attach the brackets into a suitable stone or masonry wall. If another wall material has been chosen for installation, please use suitable fasteners with at least 30kg shear force per fastener.

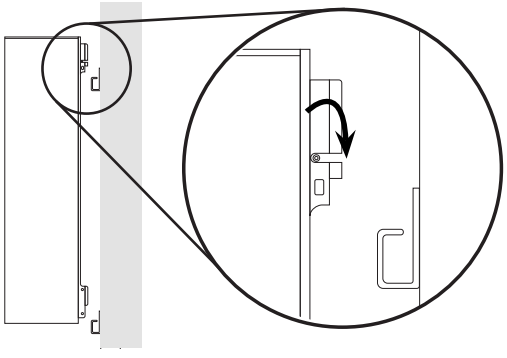


Important:
Ensure minimum clearances (marked on the template) are achievable.

2 Remove paper before mounting SolShare.

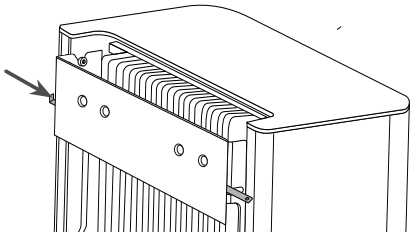


3 Lift SolShare onto the mounting brackets as directed in the diagram. Check both top and bottom brackets are aligned and secured.

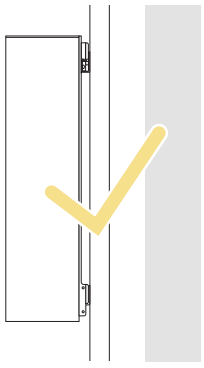


4 Insert the locking bar through the mounting bracket as shown.

If required, a customer supplied padlock can be fitted to the locking bar to secure the SolShare to the wall.



5 Ensure SolShare is securely fastened to the wall and locked into place.

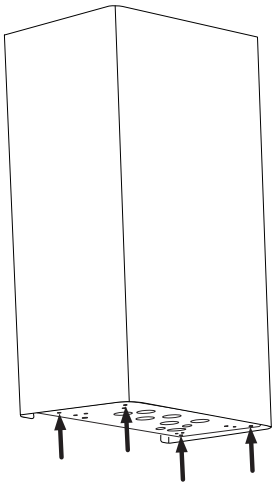


3. Electrical connection

Lift up cover into the Connection Position to reveal the lower section of SolShare, where the electrical connections are made.

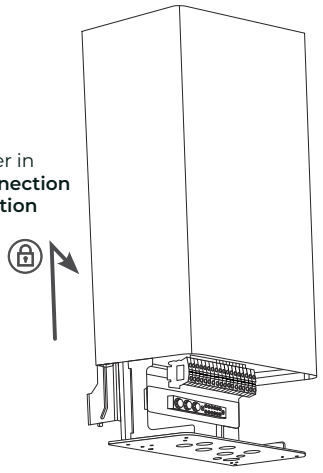
1 SolShare as you find it, with cover in the Closed Position. Unscrew the 4 screws on the underside of SolShare to allow access to connection terminals. Retain screws to replace later.

Cover in **Closed Position**



2 To reveal the lower section, slide cover up about 15cm. Whilst sliding cover upwards, pull cover gently towards you. This will ensure it finds the locking slot. This cover position is called the Connection Position.

Cover in **Connection Position**



Important:
The cover should lock into place when it's pulled up properly. Before beginning wiring, ensure cover is locked open in the Connection Position by pulling down firmly.

To bring cover back to the Closed Position, lift cover upwards and away from you, then allow to slide down back into place.

Caution:
Risk of crush hazard if cover dislodged while in the Connection Position.

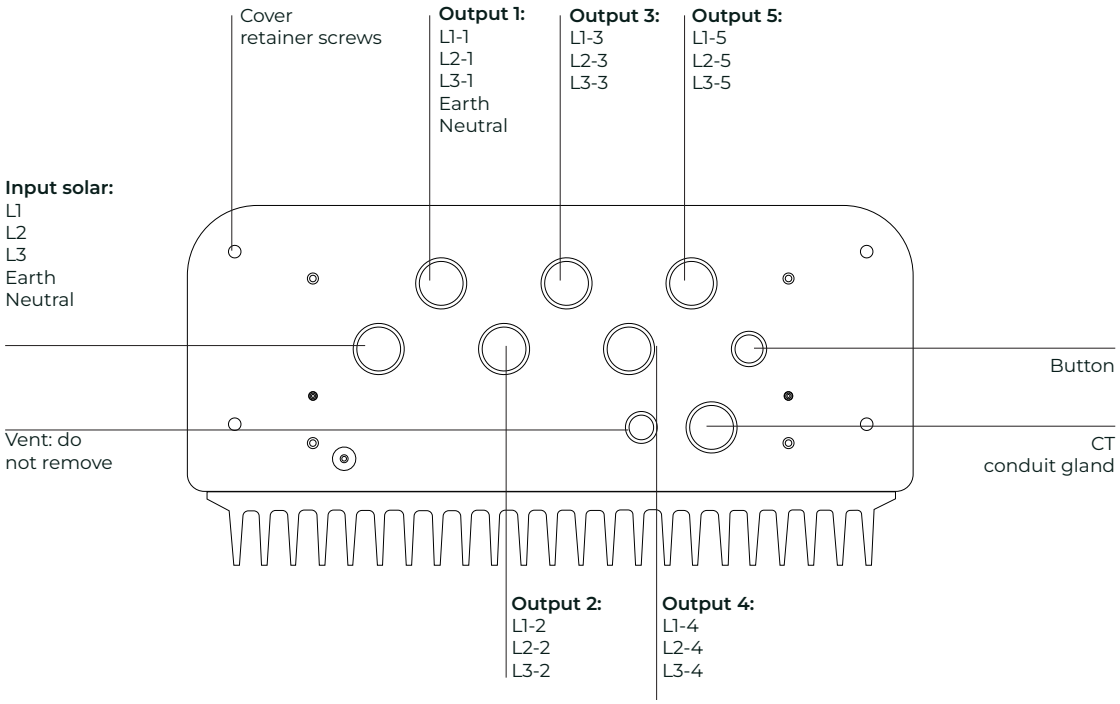
The AC cables

All input and output AC cables should be rated to carry **at least** the full capacity of one-phase of the inverter. SolShare can provide total phase generation from the inverter to a single output.

Warning:
SolShare's IP56 rating must be maintained for the installation environment. Suitable weatherproofing to enable this should be installed for all cable entries into SolShare.

Panel thickness: 4mm | Hole diameter: 32mm

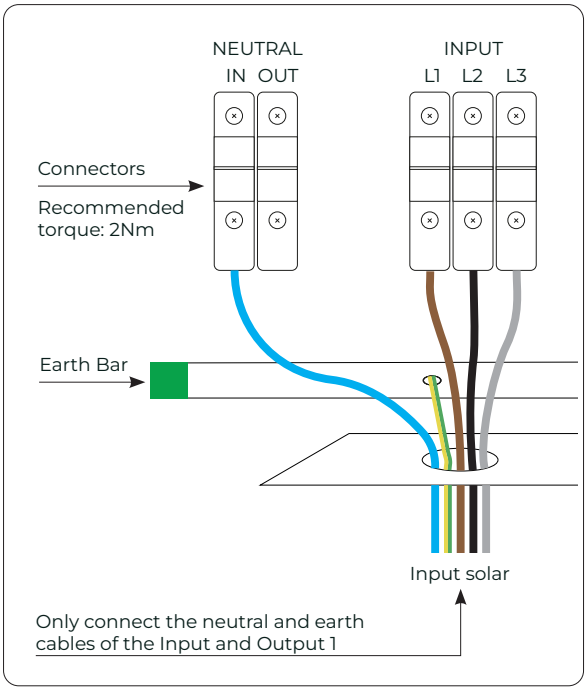
The primary SolShare install interfaces are as follows:



SolShare underside view
Each output cable entry corresponds to an output of 3 single-phase tenancies or 1 three-phase tenancy. The leftmost cable entry corresponds to the solar input.

3.1. Inverter to SolShare

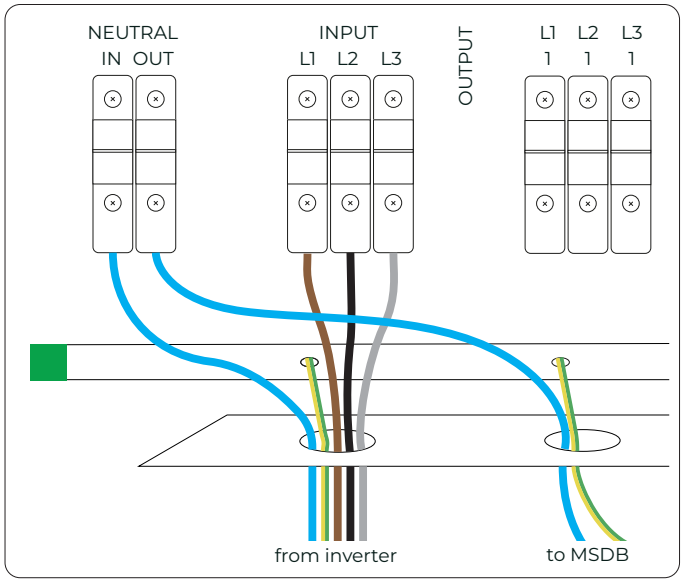
An AC isolator must be between inverter and SolShare.



1. Select appropriate cable/conduit/gland and use these to replace membrane glands. Insert the input cables into SolShare via this conduit/gland(s).
2. Strip cable back to expose approx. 100mm of conductor.
3. Connect inverter neutral to SolShare neutral connector (labelled NEUTRAL IN).
4. Connect inverter earth to SolShare earth bar. Use two of the earth screws provided with SolShare to secure the input earth connection to the earth bar.
5. Connect inverter 3 phase to SolShare 3 phase terminal blocks (labelled INPUT L1, L2, L3).

Important:
The Inverter gets its voltage reference through SolShare. Therefore, it does not require a separate grid connection that bypasses SolShare. Connections L1-1, L2-1, L3-1 are closed to the grid prior to commissioning.

3.2. SolShare Neutral and Earth



1 Connect a single neutral from SolShare neutral terminal connector to building main neutral. Do not connect to any individual flat's neutral.

2 Connect earth from SolShare earth bar to the buildings main earth terminal.

3.3. SolShare to maintenance isolation

For safe and easy maintenance, SolShare requires dedicated isolation from each flat. A lockable enclosure should be installed below that houses an MCB for each flat rated to the max output of one-phase generation from the inverter.

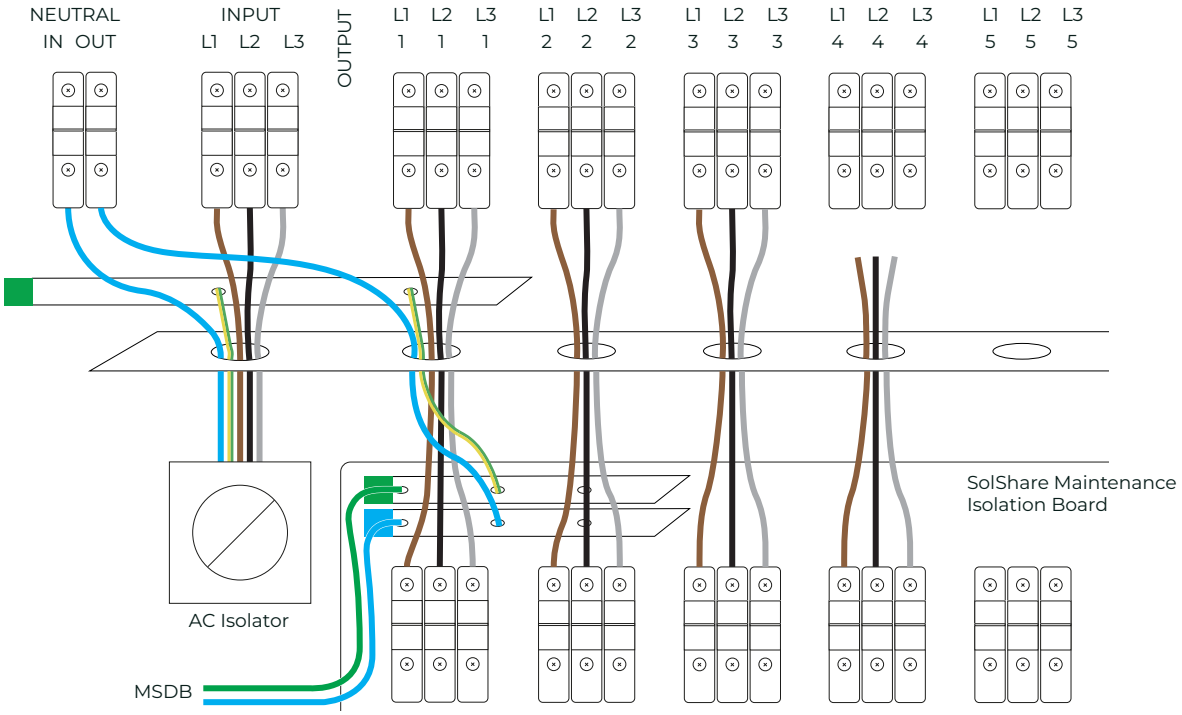
1 Insert the input cables into SolShare via designated cable insert. **If installing outdoors, select appropriate IP rated glands.**

2 Connect cable to SolShare output labelled **L1-1** to top of MCB inside maintenance isolation board. **The cable must be rated to the max output of one-phase generation from the inverter.**

3 Label MCB in maintenance isolation board with corresponding phase and SolShare output (e.g. L1-1) and flat number.

4 Repeat steps 2-4 for each connection.

Important:
For maintenance and troubleshooting purposes, it is recommended to write the flat names corresponding to each output on the bottom plate of each SolShare unit (with permanent marker).



3.4. SolShare maintenance isolation to solar point of connection

The method used to connect from SolShare maintenance isolation to solar point of connection will be site-specific. Please consult your site SLD for details.

Caution:
Only the live cable from maintenance isolation to each flat should be connected – no neutral.

1. Run cables between SolShare maintenance isolation and solar point of connection. Ensure to label cables at both ends.
2. Terminate cables inside SolShare maintenance isolation board. Ensure cable matches label on maintenance isolation from previous section.
3. Terminate cables utilising the solar point of connection method outlined in your site-specific SLD.
4. Double-check all connections and perform a continuity test.

Warning:
Ensure the phase of the solar supply correctly matches the phase of the unit's supply from the grid.

Additional circuit breakers must be sized to perform overload protection for SolShare output cables.

The solar system max output must be less than the main circuit breaker rating of every connected unit.

Warning:
There must be one input neutral and ground connection from inverter to SolShare.

Only one output neutral and ground must be wired out of SolShare to the neutral bar and earth bar inside the Isolation Board. This, in turn, must be wired to the main neutral bar and main earth bar (i.e. Main Earth Neutral link) located at the building's multi-service distribution board.

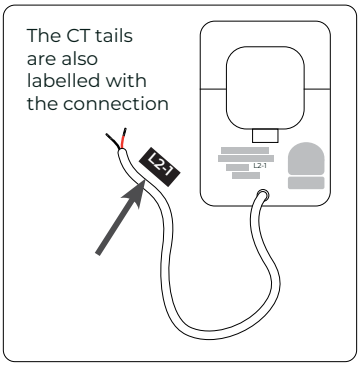
3.5. Current transformers

Running current transformer tails

1 Run CT conduit from SolShare to main switchboard (the CT conduit gland is the pre-installed CT conduit gland on the underside of SolShare - see the underside view diagram on p. 13 to ascertain where the CT conduit gland is).

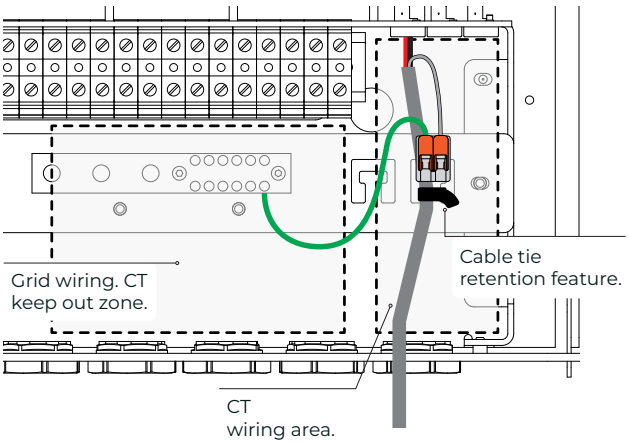
2 Look for labels on current transformers and current transformer tails. Ensure these match the corresponding tenancy.

3 Run tails of CTs from main switchboard to SolShare through conduit.



Important:
If you are extending CT tails, this can be done for each CT separately up to the limits described in the advisory on the CT box.

When extending CT tails using shielded cable, shielding must be grounded. This can be done at SolShare using the SolShare grounding bar.



Recommended parts:
- Splice connector (appropriate size for cable).
- Shielded, twisted pair cable, minimum 0.25mm² (24 AWG) size, rated for at least 400V or separately sheathed, and compliant with BS 7671, and any other relevant standards and regulations.

CT shield grounding guidance within SolShare:
- Use splicing connectors to group CT shield grounding conductors.
- Minimise length of exposed grounding wire.
- Use cable-ties to provide mechanical strain relief and maintain isolation to power conductors.
- Use insulated cable to extend earthing connection

Additional tips:
- Ensure there is good electrical contact between tail/extension(s).
- Ensure shielding is not compromised along the extension(s) and tails (e.g., avoid the use of sharp objects like metal cable ties on these tails/wires.
- Label the extended tail with the same SolShare output name (e.g., L2-1) as is written on the original part of the tail and the CT. This will help to ensure the correct CT tail is inserted into the correct terminal on SolShare during installation.

Current transformers to SolShare connections

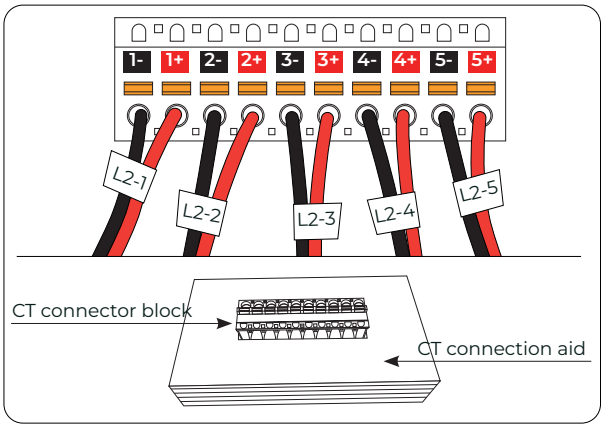
1 Connect the CT cabling to the CT connector block, as per the diagram to the right. To do this:

a. Push the orange tab in and hold.

b. Feed the CT cable into the hole.

c. Once inserted, release the orange tab.

d. Confirm cable is secure by giving it a gentle tug.



2 Repeat for all CT cables of the L1 phase.

3 Repeat steps 1 & 2 for L2 and L3 phase connector blocks.

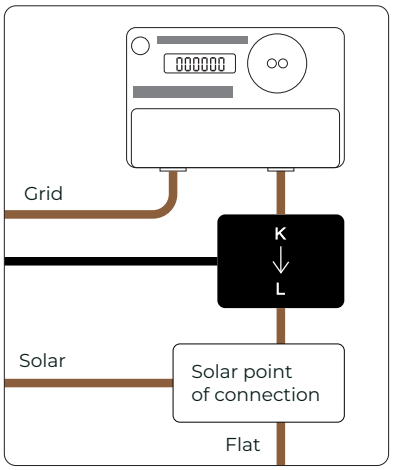
4 Plug each CT connector block into the corresponding socket of SolShare.

Important:
SolShare has come with a CT connection aid. Place the CT connector into the connection aid to help with the termination of the CT tails.

Important:
Make sure colours and orientation of connectors are identical to the image above. To ensure you are positioning them correctly, check that the orange tabs are above your plugged in cables, and labels read as above.

Important:
Ensure appropriate weatherproofing is used for CT tail entry into SolShare.

Installing Current Transformer



1 Utilise existing CT labelling, each CT and its cable is labelled with an output connection, e.g. L1-2.

2 Connect SolShare CT on the grid-side of the solar point of connection. E.g. Live meter tail.

3 Locate the arrow on the bottom of the CT. This arrow must point towards the flat.

4 Ensure CT is fully closed and secured.

Important:
Make sure that each CT is clipped to the corresponding unit.

3.6. Labelling

SolShare comes with a Label Pack for you to use where appropriate. Other labelling will also be required based on your installation and local requirements. For more information, refer to the SolShare Labelling Advice document.

Additionally, please leave a copy of the Project SLD on site to provide guidance to any other electrician working in the building.

Please scan this QR code to access Allume's detailed labelling guidance document.

4. Commissioning

Caution:
SolShare is a nominal 400V 3-phase device, phase rotation must be confirmed before power on.

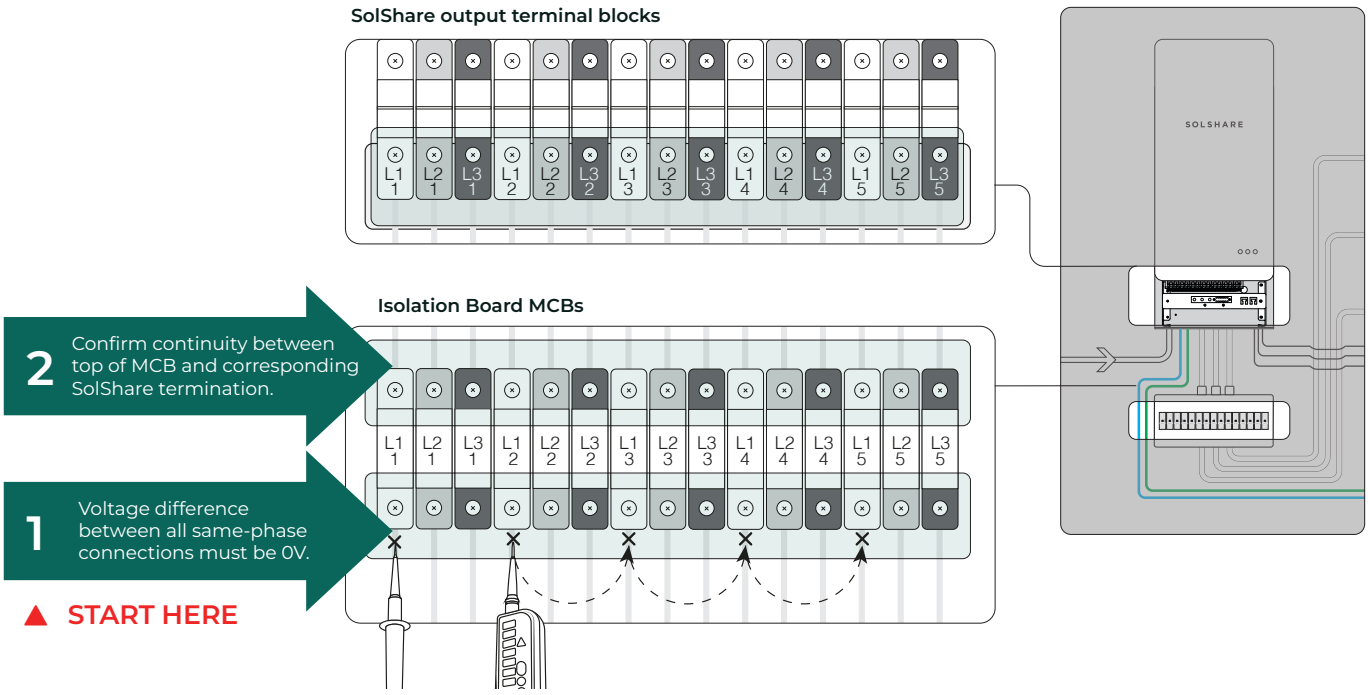
4.1. Check phase wiring

- ☐ Ensure **all** maintenance isolation is switched OFF.
- ☐ Ensure flats are connected to grid **(Ensure pre-paid meters have credit).**
- ☐ Ensure solar point of connection is switched ON.

Prior to turning on SolShare isolators: Ensure the output wiring is correct and the voltage phase is connected per the SLD and terminal labelling.

Confirm there are no phase-to-phase wiring errors:

1. Test phase wiring at SolShare maintenance isolation board. **Voltage between connections on same phase must be 0V.**
2. Keep maintenance isolation off.
3. Test continuity between maintenance isolation and SolShare.



4.2. Preparing SolShare

- ☐ There is no phase-to-phase miswiring, confirmed via testing on previous page.
- ☐ Clearance requirements are met.
- ☐ SolShare's neutral and earth is connected to multi-service distribution board or DNO cutout (not to landlord or flat).
- ☐ Inverter is connected to grid via SolShare (not directly tied to grid – inverter does not need independent supply)
- ☐ All electrical terminations are secure and confirmed via tug test.
- ☐ There is a 2.4GHz Wi-Fi internet connection present with a strong signal near SolShare.
- ☐ CTs are connected securely with correct polarity & location. If extended, the shielding is earthed as instructed in CT section.

Close and secure the SolShare cover

1 Pull down cover of SolShare into the Closed Position.

2 Fasten the cover shut by replacing the four screws on the underside of SolShare that were removed in Section 3.

Maximum torque for cover fasteners is 1.5Nm.

Initial power on of SolShare

Important:
Following this procedure confirms SolShare neutral is connected and will prevent damage.

1 Turn on inverter AC and DC isolation as per inverter instructions.

2 Turn on **only** L1-1 maintenance isolation MCB.

3 Wait 30 seconds and observe LEDs on SolShare. If LEDs do not come on, ensure:

a. L1-1 flat is connected to the grid (230V).

b. Isolation from L1-1 SolShare output to flat is on.

c. Neutral is securely connected.

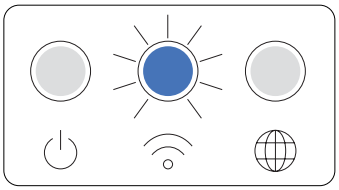
4 Leave **only L1-1** maintenance isolation MCB on at this stage.

5. Connecting SolShare to Wi-Fi

Important:
Ensure that the Wi-Fi network meets the key requirements:

- Wi-Fi network frequency = 2.4GHz.
- Strong, permanent and stable signal strength and internet connection.
- Data Usage = 200MB/month.
- IPv4.

1 Press the button and hold for 5 seconds until the Wi-Fi flashes blue. SolShare is now in Wi-Fi access point mode and has created its own Wi-Fi network.



2 Using phone, laptop or other device connect to SolShare Wi-Fi network.

SolShare's Wi-Fi network will be named **SolShare:3P_35A_XXXX**.

NOTE: You have 5 minutes from pressing the button to connect to SolShare's network.

NOTE: Your device may provide a pop up saying "no internet connection", that is normal, click accept and continue.

3 Open an internet browser on the device connected to SolShare Wi-Fi and navigate to:

192.168.4.1

4 Enter the SSID (Wi-Fi network name) and password, then select "Connect".

5 After SolShare has connected to the new Wi-Fi network, the Wi-Fi LED on the front of SolShare will turn a solid blue (usually within 30 seconds). The internet LED will also turn blue if there is a strong internet connection.

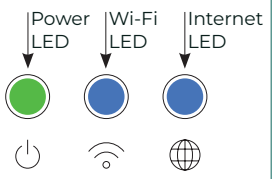
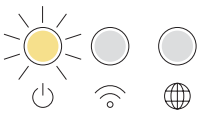
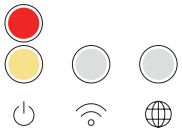
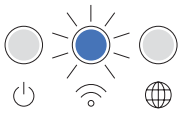
If any issues, please check Wi-Fi requirements, ensure details entered correctly and retry.

5.1. Commissioning SolShare

Great stuff! You're now ready to commission the SolShare. Everything from here is on the commissioning app. Which can be found here: commissioning.allumeenergy.com or by scanning the QR code on the side of the SolShare.

So, get your training certificate number ready (if you haven't already signed up) and follow the instructions in the commissioning app. The commissioning app will tell you when you have successfully commissioned the unit, and you will receive a confirmation email to your registered account. If you're reading this manual ahead of time, and want to understand the commissioning app, please refer to the commissioning section in the online training. If you need enrolment for SolShare training, email uk.support@allumeenergy.com.

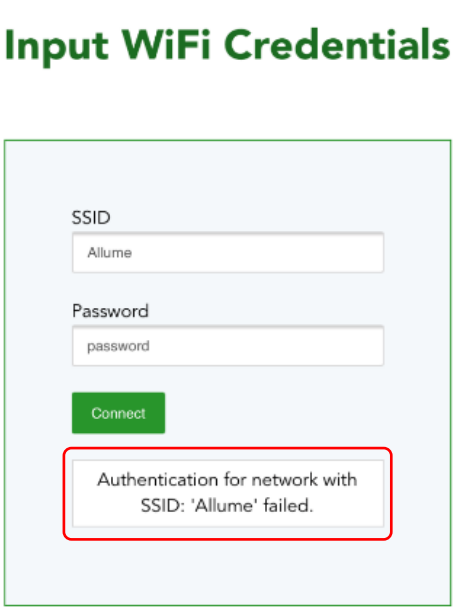
Appendix A: SolShare LED States

LED Status		Meaning	Notes / Actions
		Normal operation	
Power LED			
Green		SolShare is powered on, has been commissioned successfully, and the SolShare is distributing solar normally.	
Blue		SolShare is powered on and Is performing a firmware update.	**Do not power off SolShare while it is performing a firmware update.**
Yellow flashing		SolShare is powered on and has not yet completed the commissioning process.	
Yellow or Red		SolShare is powered on and is experiencing a fault and/or the SolShare is not distributing solar.	Consult the SolShare Commissioning App. It is normal to see the yellow light during non-sunlight hours.
No lights on		SolShare is not powered on.	Confirm SolShare is powered.
Wi-Fi LED			
Blue		SolShare is connected to a Wi-Fi network.	
Blue flashing		SolShare is in **Wi-Fi access point mode.**	Follow the steps in Section 4 Commissioning / Part A to connect SolShare to a Wi-Fi network.
Yellow		SolShare is not connected to a Wi-Fi network and is not in Wi-Fi access point mode.	Ensure the Wi-Fi router is powered on and within range of SolShare. Check the Wi-Fi SSID and password and re-enter the credentials if they were incorrect by following the steps in Section 4 Commissioning / Part A to connect SolShare to a Wi-Fi network.
Internet LED			
Blue		SolShare has a strong internet connection.	
Yellow		SolShare does not have a strong internet connection, or cannot be communicate with Allume's servers.	Ensure the router has an internet connection. Ensure all required ports are open (consult the Troubleshooting section of Allume's How to set-up/ change Wi-Fi credentials document).

Appendix B: Troubleshooting SolShare Wi-Fi Connection

B.1. Wi-Fi LED is still flashing BLUE

If “Authentication for network with SSID: “<SSID>” failed” is displayed as shown, or you see a flashing blue Wi-Fi LED on the front of the SolShare after following the process above, this could mean:



- Details entered incorrectly (SSID or password)
- Wi-Fi network is not available

Ensure that the Wi-Fi network meets the key requirements:

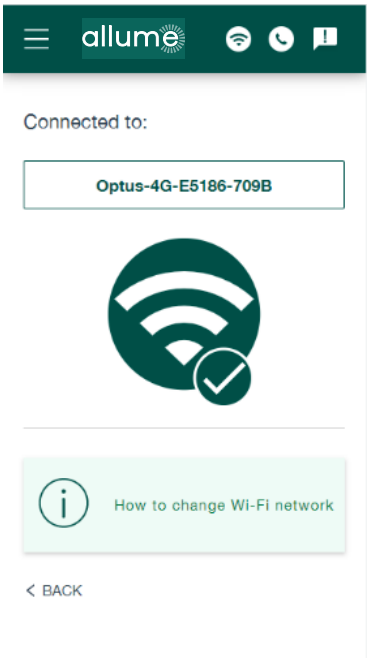
- Wi-Fi network frequency = 2.4GHz
- Data Usage = 200MB/month
- IPv4
- Permanent and stable internet connection

Repeat the instructions above with the correct Wi-Fi credentials.

B.2. B. Wi-Fi LED is BLUE, Internet LED is YELLOW

You have connected with the correct credentials to an available Wi-Fi network. However, this network either has no internet connection, or a very poor internet connection.

Fix the Wi-Fi network’s internet connection issues (e.g., by restarting the router) – if they are resolved, the Internet LED on the front of the SolShare will turn blue.



SolShare should be allowed to initiate connections to forwarder.allumeenergy.com.au on the following ports:

- Port 1883 TCP
- Port 8883 TCP
- Port 8888 TCP
- Port 80 TCP
- Port 443 TCP

In addition, SolShare should be allowed to make DNS requests to 8.8.8.8 (port 53 UDP).

This manual is intended for installations in **United Kingdom**.
Specifications are subject to changes without advanced notification.

For the most up to date documentation, visit www.allumeenergy.com

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