



SOLAR RELAY

**INVERTER CONTROL
with ESY SUNHM**



Models:
HM6

CATCH Power
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Installation Overview

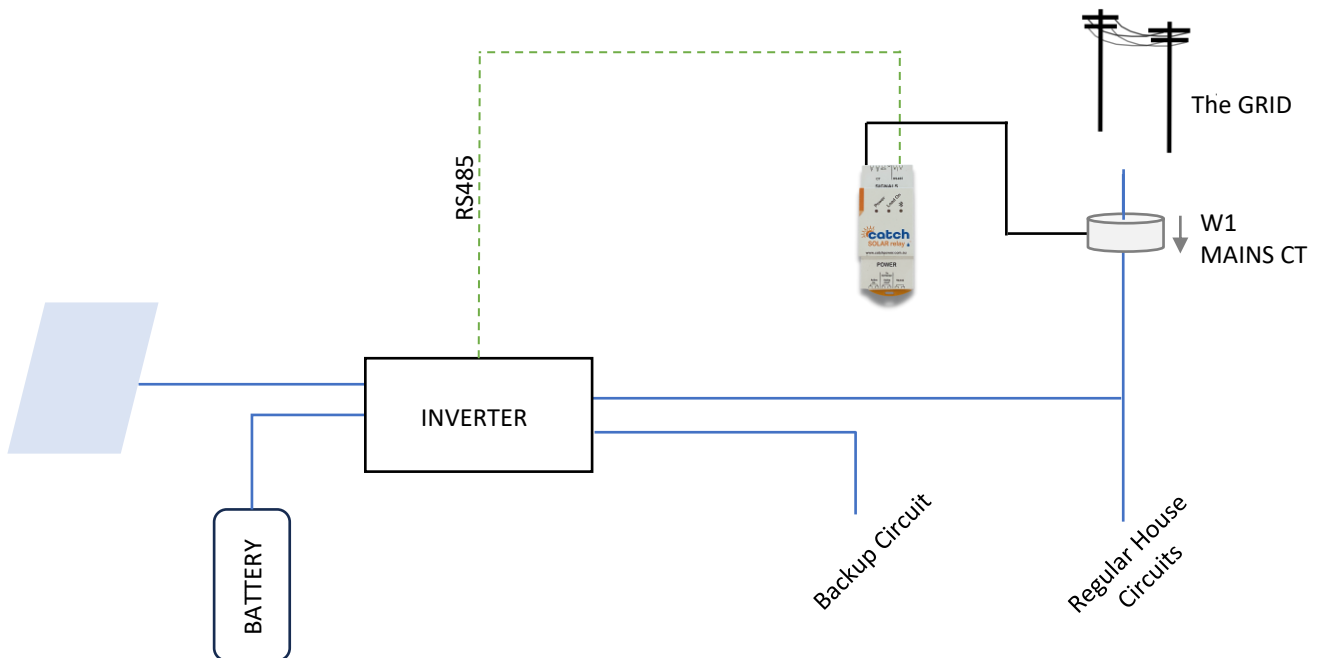
1. Install the Inverter as per the Inverter Installation Guide.
2. Install the CATCH Control as per the CATCH Electricians Guide.
3. Adjust the CATCH CT wiring as show in this document.
4. Connect the RS485 bus between the CATCH Control and the inverter as shown in this document.
5. Run the CATCH Commissioner wizard up to Step 6.
6. Complete the inverter Commissioning as per the manufacturers install guide.
7. Setup modify the inverter setup as outlined in this document.
8. Finish the CATCH Commissioner wizard.

CT Configuration

For ESYSUN HM installations it is not necessary to install the second CT (W2). We will extract the solar production data from the RS485 connection we make with the inverter.

You can use this CT to monitor another circuit if necessary.

If you do decide to use W2 to monitor another consumption circuit make sure you specify the channel purpose as OTHER during the commissioning process.

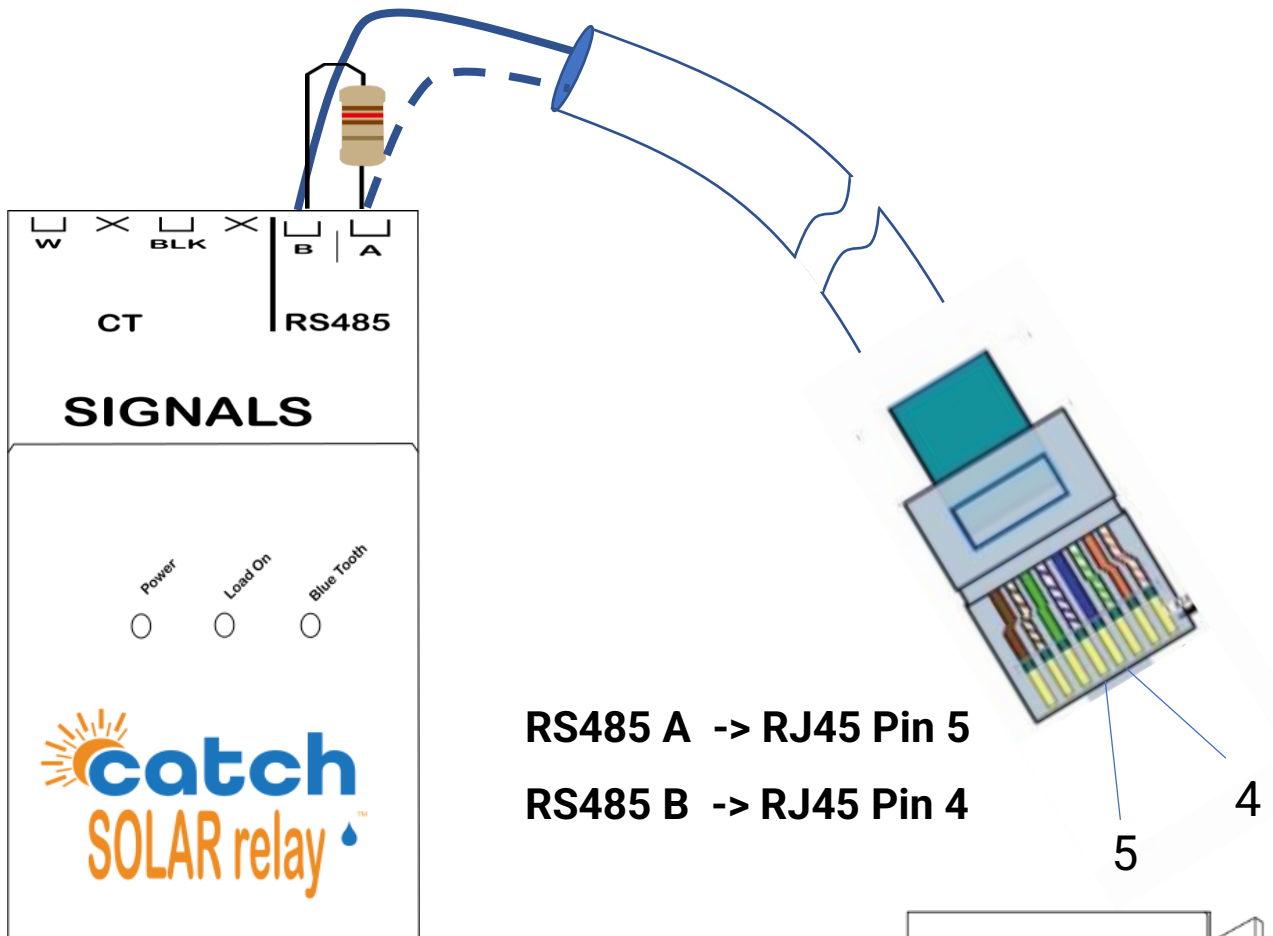


IMPORTANT



This guide discusses the specific wiring and configuration need to implement inverter control. Ensure the installation guide for both products is also followed.

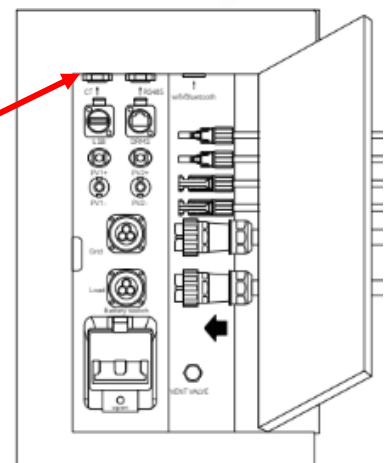
Wiring Instructions



Plug the RJ45 Connector into here

Ensure the data cable is rated for the voltages it will be in close proximity to.

A 120 Ohm terminating resistor may be required at the CATCH Relay terminals as shown in the diagram below if the cable run is longer than 10m.



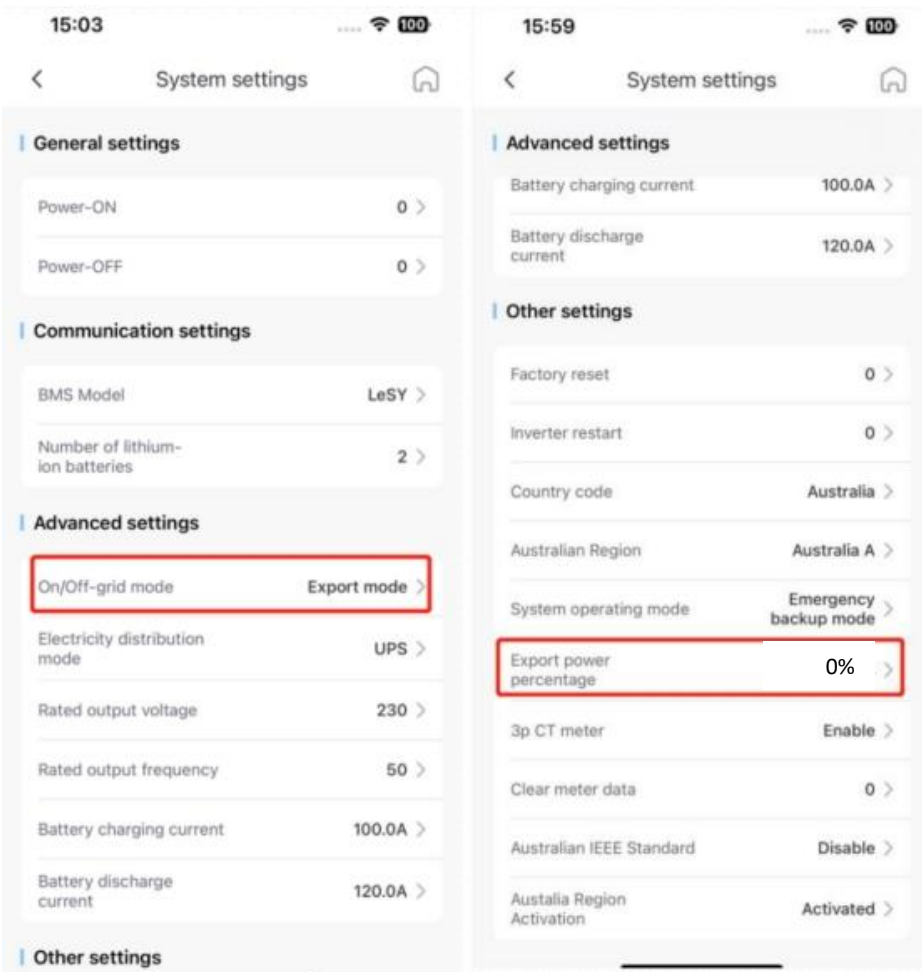
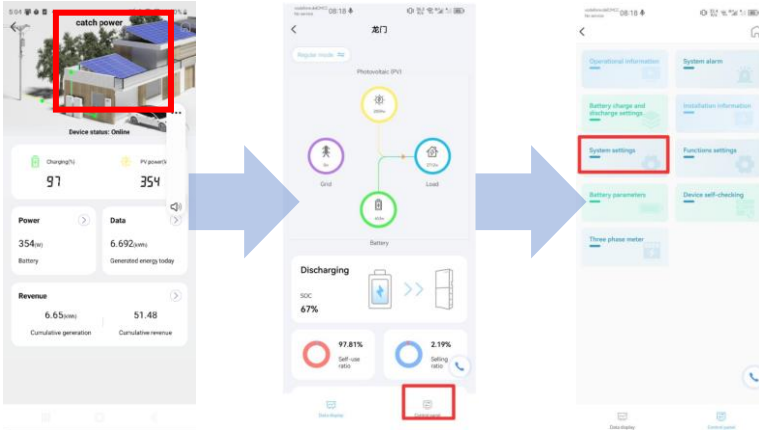
Inverter Setup

There are 2 apps. Make sure you are using the + app.

To set the desired site export limit following the screen flow below.



ESYSunHome+

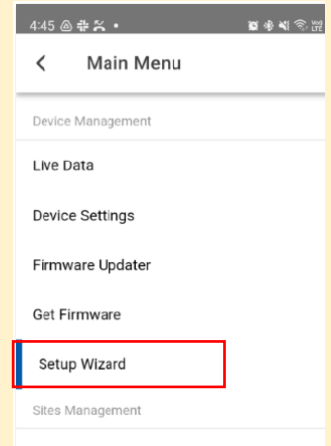


CATCH Commissioning Wizard

1. Log into the CATCH Configurator and run the Commissioner.



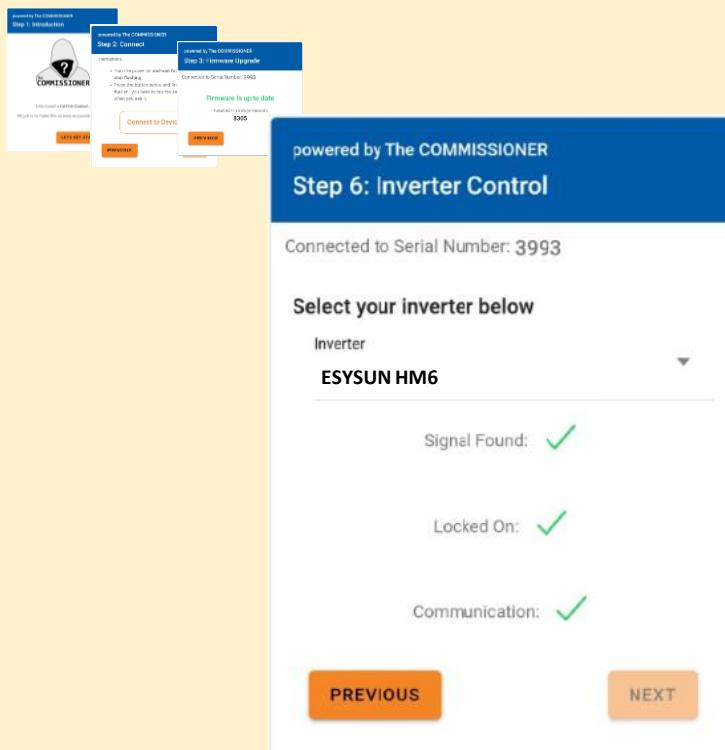
CATCH Power
Configurator



2. Follow the Commissioner step by Step.

Step 6: Inverter Control

choose **ESYSUN HM6** as the meter.



Choose: **ESYSUN HM6**



You will need to get All **GREEN** ticks before you can continue,



CATCH Commissioning Wizard

Step 7: Channel Setup

In the CT configuration is setup as shown with CH1 set as MAINS and CH2 is OTHER.

☰ Setup Wizard  

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Step 7: Channel Setup

Connected to Serial Number: 3602

INSTRUCTIONS

Channel Purpose:

We automatically set the devices channels when attaching to site. This is the default setup for a Solar Relay, however these can be changed below.

Channel Name:

Channel names are optional, by default MAINS and SOLAR channels will show on The Monocle Apps chart.

More Information:

Channel names can be changed later in The Monocle App.

Channel 1 Setup

Channel 1 Purpose ▼

MAINS

Channel 1 Name

Enter a Channel Name (optional)

Channel 2 Setup

Channel 2 Purpose ▼


OTHER

Channel 2 Name

Channel Readings

Channel 1	Channel 2
MAINS	OTHER
Power: 750 W	Power: -20 W
Power Factor: 0.45	Power Factor: -0.08

CT Status



PREVIOUS **NEXT**

CATCH Commissioning Wizard

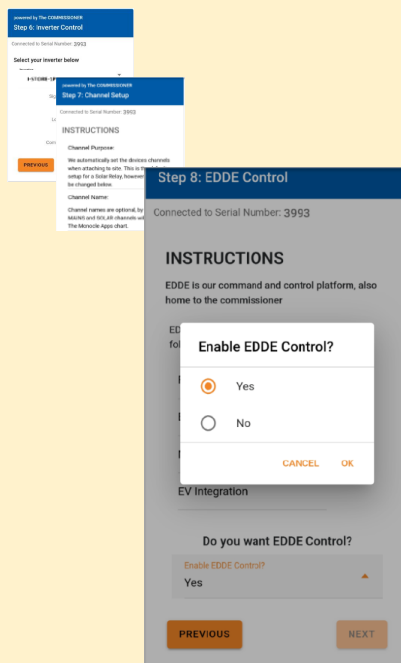
Now go back to the CATCH Configurator and restart the wizard.

Step 8: EDDE Control

choose if you want EDDE Control enabled.

You will need EDDE Control to be YES if you want any of the following features.

- Flexible Exports
- Inverter Control
- Market based pricing control such as AMBER curtailment
- EV Integration



SOLAR RELAY Setup

2. Follow the Commissioner step by Step.

Step 8: EDDE Control

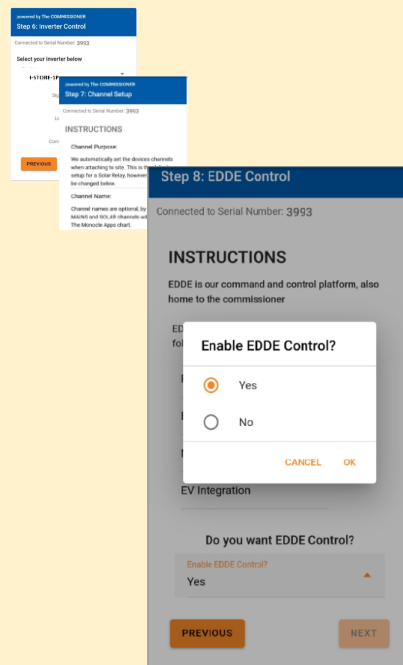
choose if you want EDDE Control enabled. If you choose Yes you should have set the inverter export limit to zero in the inverter configuration earlier.

NOTE:

If you choose NO to Edde Control you need to go back and set the site export in the inverter to something other than zero.

You will need EDDE Control to be YES if you want any of the following features.

- Flexible Exports
- Inverter Control
- Market based pricing control such as AMBER curtailment
- EV Integration

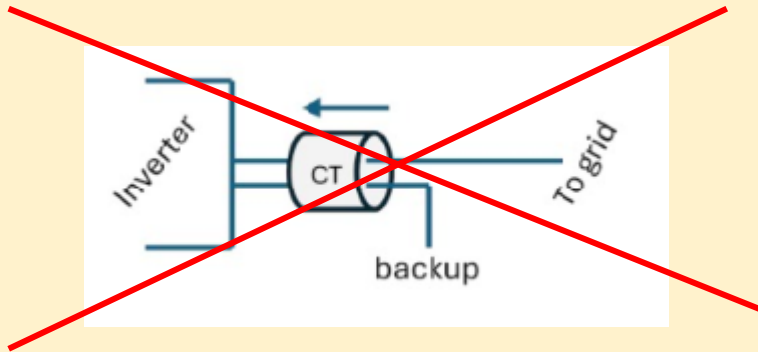


SOLAR RELAY Setup

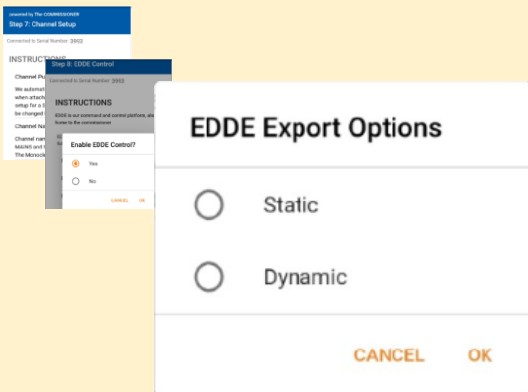
Step 9: EDDE Export Control

If you choose YES for EDDE Control we will take care of the site export limit, not the inverter.

IGNORE THE INSTRUCTIONS ABOUT THE SOLAR CT...YOU DO NOT NEED TO DO THIS.



Tell us how the export limit is to be managed.



Static: Is when the DNSP tells you there is a fixed export limit. Example the connection application might say the site is limited to 5kW. This is a static export limit.

Dynamic: When you put the connection application in you would have nominated for the dynamic connection. The DNSP will adjust the export limit based on daily requirements.

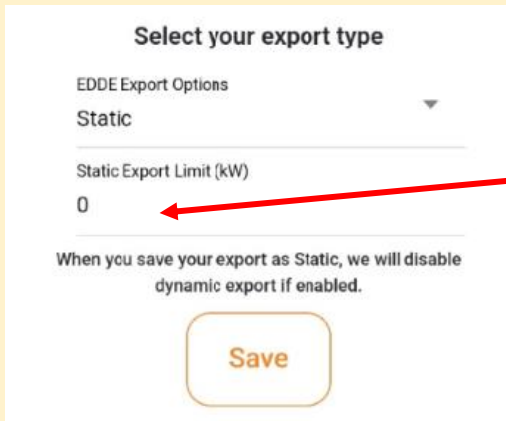
You will need the NMI to complete the dynamic connection setup.

SOLAR RELAY Setup

2. Follow the Commissioner step by Step.

Step 9: EDDE Export Control..Continued

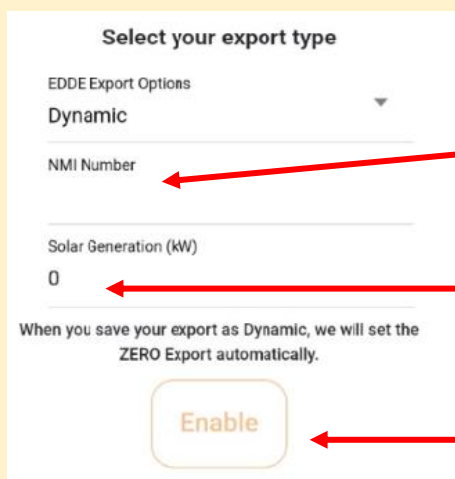
Static Export Configuration:



The screenshot shows a form titled "Select your export type". Under "EDDE Export Options", the "Static" option is selected. Below this, the "Static Export Limit (kW)" is set to "0". A note states: "When you save your export as Static, we will disable dynamic export if enabled." A "Save" button is at the bottom.

Fill out the export limit. For example if the site has a 5kw export limit type in 5 for the export limit and press **SAVE**

Dynamic Export Configuration:



The screenshot shows a form titled "Select your export type". Under "EDDE Export Options", the "Dynamic" option is selected. Below this, the "NMI Number" field is empty. The "Solar Generation (kW)" is set to "0". A note states: "When you save your export as Dynamic, we will set the ZERO Export automatically." An "Enable" button is at the bottom.

Enter the customers NMI. This can be a 10 or 11 digit NMI.

Tells us the total amount of solar on site. Including any old systems.

Press Enable.

SOLAR RELAY Setup

2. Follow the Commissioner step by Step.

Step 9: EDDE Export Control..Continued

Dynamic Export Configuration - Continued:

Once you have filled out the required information and pressed save the follow appears and shows you how the registration for dynamic exports is progressing... You want to see all green ticks for everything to be working.

The indicators below are updated every 30sec. You need to get green ticks on all items below in order for Dynamic exporting to be operational.

Inverter Control Scheme: MIXED

✗ Registered with CATCH CSIP-AUS

This indicates all the criteria have been met for us to register this site, as a Dynamic Export site. We require Dynamic Exports to be enable and a valid NMI to be supplied.

✗ Registered with SA Power Networks

LFDI: N/A



This indicates the NMI has been accepted by the DNSP system. The LFDI is the unique identifier used by CATCH and the DNSP to identify this site. You can copy the LFDI by pressing the copy icon to the right.

✗ Measurement Data has been sent.

Last Measurement sent: 1/1/70 10:00 AM

Measurement data has been successfully sent from this site to the DNSP.

✗ Received Active Controls

Default Export(W): N/A

Active Export(W): N/A

Last Control Received: 1/1/70 10:00 AM

Indicates we have successfully received some active export controls from the DNSP.

Errors

no errors

SOLAR RELAY Setup

2. Follow the Commissioner step by Step.

Step 10: Save Configuration

The final step is to review the configuration, and Press **SAVE**.

powered by The COMMISSIONER
Step 10: Save Configuration

Connected to Serial Number: 3993

Summary

Device Information

Device Name: 3993-SRWe/CATCH
Serial Number: 3993
Firmware Version: 8305
Wifi State: Connected
Server State: Connected

Inverter Control

Inverter: Growatt MIN 2500-6000 TL-X

Signal: ✓

Locked: ✓

Communication: ✓

Export Control

Export Type: None

Live Data

Channel 1

Live Data

Channel 1
Name:
Purpose: MAINS
Power: 3.76 kW
Power Factor: -0.94
Volts: 248.9 V
Amps: 16 A
Freq: 49.94 Hz
VA: 4 kVA
VAR: 1357 var
Imported: 55.2 kWh
Exported: -114.0 kWh

Channel 2
Name: Growatt AC
Purpose: OTHER
Power: 590 W
Power Factor: 0.73
Amps: 3.2 A
VA: 0.8 kVA
VAR: 1357 var
Imported: 49.0 kWh
Exported: -0.3 kWh

PREVIOUS

SAVE

SOLAR RELAY Setup

Navigate to the Configuration page, and under the Modbus configuration set the parameters as shown.

Modbus Configuration

Emulated Meter
ESYSUN HM6

Cluster Export Limit
0

Modbus Device ID
1

Modbus Baud Rate
9600

Modbus Stopbits
1

Modbus Parity
None