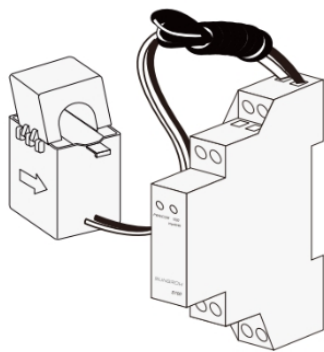


Single Phase Energy Meter (Export Limit)

1 Overview of Single Phase Energy Meter

The next generation Sungrow Crystal inverters provide a facility to control the export of the inverter with the addition of an energy meter. This is an optional accessory.



S100
Single-phase Smart Energy Meter

Electrical Parameter

Nominal voltage	240 Vac
Input voltage range	180 Vac–286 Vac
Power consumption	< 2 W (10 VA)
Max. operating current	100 A
Grid frequency	50 Hz
Measurement accuracy	Class I
Interface and communication	RS485

Environmental Condition

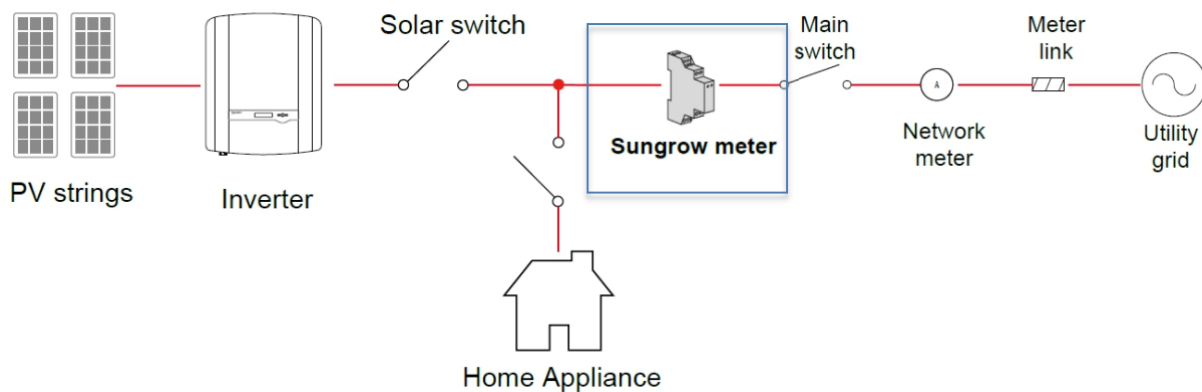
Ingress protection rating	IP20
Operating ambient temperature	-25°C to 75°C
Relative humidity	0–95 %

Mechanical Data

Dimensions (W x H x D)	18 mm x 117 mm x 65 mm
Weight	0.2 kg
Installation	35 mm DIN-rail

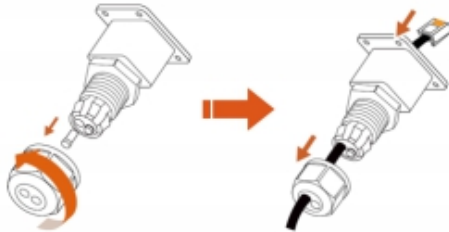
2 Installing the Energy Meter

The Energy Meter must be installed at the main switch, the CT clamp must encapsulate all live conductors feeding the house, and the arrow on the CT must point towards the house.

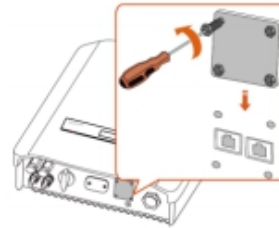


2.1 Connection on the inverter side

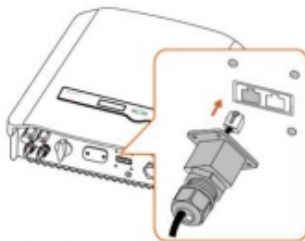
Run the RS485 cable through the supplied weather proof shroud.



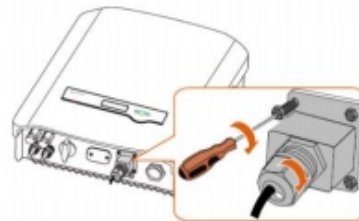
Remove the weatherproof plate from the bottom of the inverter.



Plug the RJ45 connector into the "Meter" terminal and screw the shroud to the inverter.

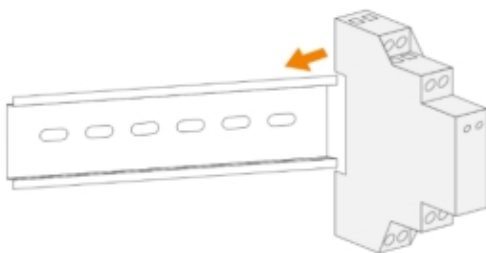


Tighten up the cable gland last.



2.2 Connection in the switchboard side

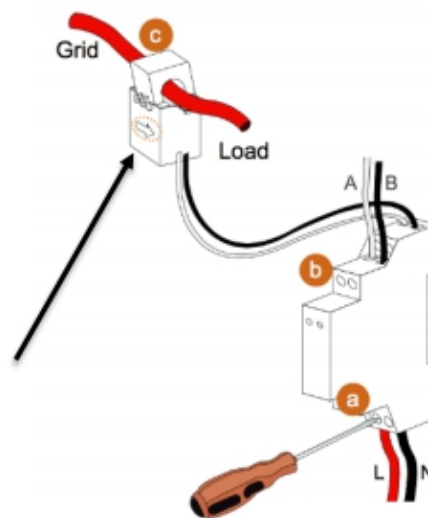
Clip the meter onto the Din rail (Never work on a live switchboard).



Pay attention to the arrow point towards the house.

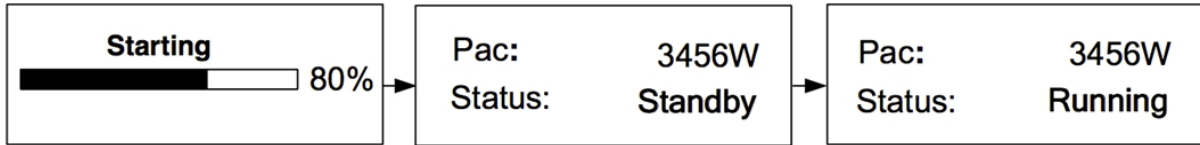
- Connect the reference voltage from the main busbar - A
- Connect the RS485 cable (ensure correct polarity) - B
- Clip the CT over the supply conductor(s) - C

Note: if you use your own cable, please make sure A - Brown (Pin 8) to terminal 2 and B - Green (Pin 6) to terminal 5 on the energy meter.



3 Commissioning

Switch the inverter on and allow to go through the initialization sequence.

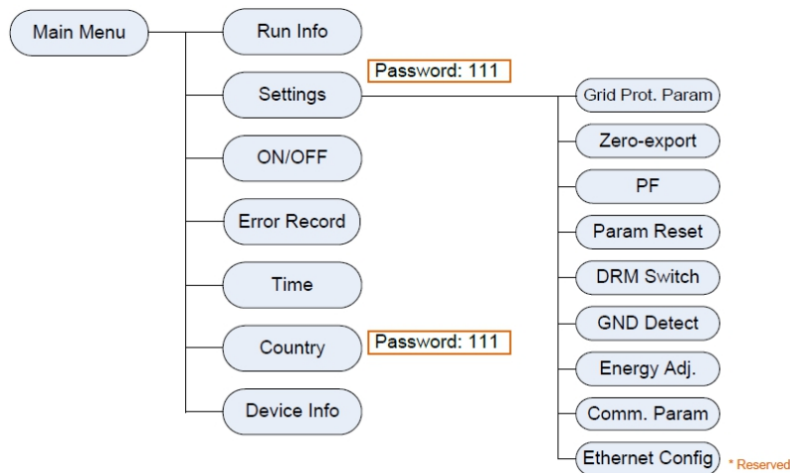


3.1 Setting the export:

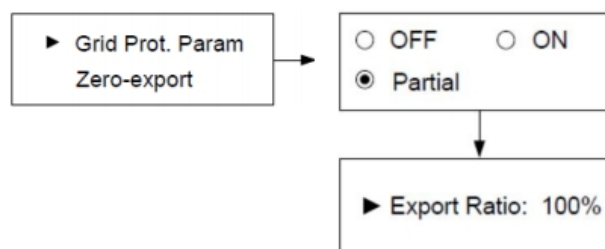
Once an Energy Meter has been installed, the export control can be set to:

- OFF – All of the power exported to grid
- ON – No power exported to the grid
- PARTIAL – Part as a percentage of the inverter rating will be exported.

The setting can be accessed in the 'Main menu'



Enter into "Settings", enter the password (111) and scroll to "Zero Export" and enter.



Select the option and set percentage if required.

Technical note:

When setting the percentage, the export control will allow export to the ratio that you have set for the inverter.

For example, if the inverter is a 5 kW inverter. 100% = 5 kW, 50% = 2.5 kW

The NextGen Crystal Series inverter that the energy meter is connected cannot be installed with other inverters in the same phase and the meter error may occur.

Please note that this can only be done at the first set-up. If a further change needs to be made, please contact Sungrow service team at <https://www.sungrowpowerservice.com/Page/Contact/contact-us-global>

NOTICE

With the password 111, the zero-export setting can only be done at the first time. The later modification can be performed by professionals only, please contact SUNGROW.