Step 5: Scan the following QR code, download the Sunpura APP and set the network parameters.

⚠ Note: Before setting the parameters, please ensure that:
1.Confirm that the energy storage system and SMeter-RC01 are powered on.
2.The communication between Sunpura and SMeter-RC01 is normal.
3.To ensure the security of your account, it is recommended to change your password regularly.

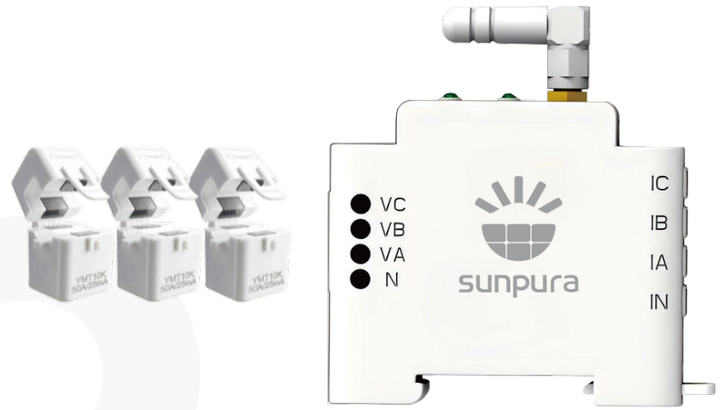
Technical datasheet

Product Model	SMeter-RC01
Appearance (Length/Width/Height)	(62*19*81mm)
Weight	220g
Power supply	AC 100~240V/frequency 50/60Hz
Operating current	CT 50A
Operating Temperature	-20℃ ~ +55℃
Temperature for Storage	-30℃ ~ +65℃
Operating Humidity	5%~95%，No condensation
Protection Leve	IP 20
Certificate	RoHS、CE、UKCA

sunpura

Smart Meter User Manual

SMeter-RC01



“Plug & Play”ESS EXPERT

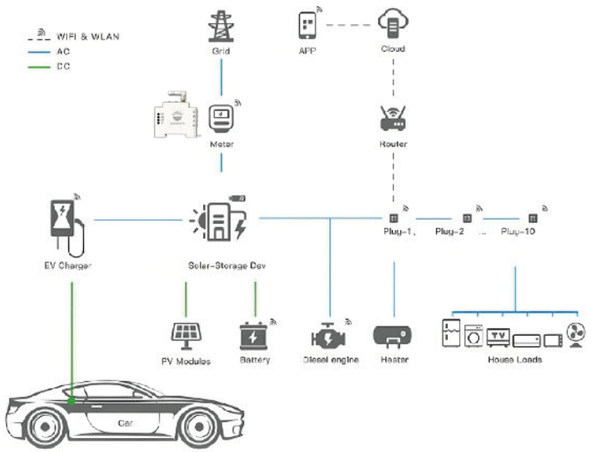
Context

To utilize energy more effectively and save the cost of solar energy storage systems, Sunpura has developed a household power monitor. It is specifically designed for homeowners, easy to install and simple to use. You can check the electricity consumption in real time. When used in combination with energy storage devices, it will maximize the utilization of solar energy, achieve zero power supply from solar power generation, and enable you to control the way energy is used in your home.

Working mode

The power monitor can monitor the total current, power and kilowatt-hours (KWh) in real time. Meanwhile, it displays the voltage, current, power and KWh consumption of each phase (Phase A, Phase B and Phase C). Then, it transmits these detected data to the energy storage devices in real time via the local wireless network, and the energy storage devices will adjust their power output. In this way, the solar power generation can be utilized to the greatest extent, and ultimately your electricity bills will be reduced. It can easily help you save money while saving energy.

Automatically control the output of the energy storage device according to the real-time electricity consumption.



The measurement voltage range is AC 80V - 260V; the current range is 0 - 50A; the power range is 0 - 11kW; the energy range is 0 -50000 kWh; the frequency range is 45-65Hz; the power factor range is 0-1PF. It is more convenient to install with split-type current transformers.

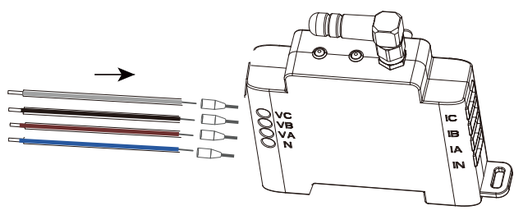
Install a household power monitor. (EM)

⚠ **Warning**:

- This electricity meter must be installed inside the household distribution cabinet to provide real-time household electricity consumption data for the energy storage device. It is not suitable for outdoor installation and should not be used alone.
- There is a risk of electric shock during the disassembly and assembly processes. It is essential that only trained professionals handle the installation and disassembly of this electricity meter to ensure its safety and normal operation.
- Please turn off the power supply before installation and keep it in a non-energized state during the operation.

1.Power cord preparation

Before installing the smart electricity meter, four power cords (12 - 16 AWG) need to be prepared. Use wire strippers to strip off about 10 mm of the outer insulation of the wires, and then use crimping pliers to tightly compress the stripped copper wires with the dedicated connectors. (As shown in the figure below). This step is very important as it can prevent short circuits from occurring between adjacent live wires.

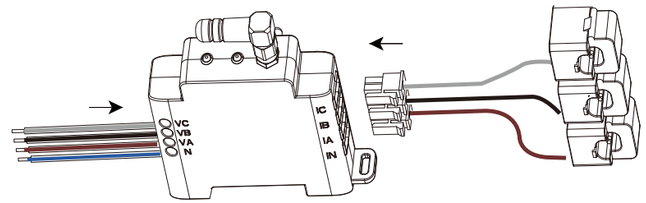


2. Current Transformer (CT) connected to the electricity meter

According to the figure below, ensure that the three power - supply wires and conductors are correctly connected to the corresponding phase terminals. Usually, a three - phase electricity meter has Phase A, Phase B and Phase C, corresponding to the three - phase power supply.

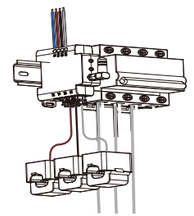
⚠ **Warning**:

The smart electricity meter is used for three-phase power supplies, which have three live wires and one neutral wire. If you want to measure a circuit with only one live wire, just clamp one CT of that live wire and connect the corresp -onding power-supply wire to both that live wire and the neutral wire at the same time.

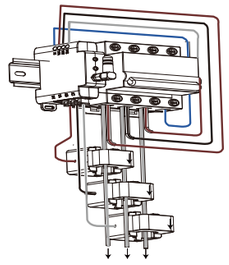


3. Install the smart electricity meter into your electrical system.

Step 1: Refer to the figure below to select an appropriate installation location. Place the electricity meter on the mounting rail and lock the bottom fixing buckle.



Step 2: Clamp each CT onto the correct main power supply cable on the side of the electricity meter. Make sure that A clamps onto the Phase A cable and CT B clamps onto the Phase B cable Meanwhile, ensure that the direction of the arrow on the CT is in line with the direction of the main power supply current.



⚠ Note: The CT direction must be accurate. The arrow (P1→P2) points from the grid to the load.

⚠ Note: The direction of the external electricity meter is from Phase 1 to Phase 3, and the corresponding direction of the alternating current power supply line is from the power grid side to the electricity meter side.

Step 3: Fix the three-phase power supply wires corresponding to the output Phase A, Phase B and Phase C of the three-phase electricity meter properly.

⚠ Note: Incorrect entry or direction of the cable from the external electricity meter to the instrument may lead to equipment damage or incorrect data acquisition.

Step 4: After all the connections and wirings are in place, it's time to check the entire system. Inspect all the components and devices, and then turn on the circuit breaker to start the system.

⚠ Notes:

1.Please ensure that the AC input is a pure sine wave. (The mains electricity is a pure sine wave). Please do not use the instrument to measure the alternating current converted by a DC-AC inverter, unless you can ensure that the output of the DC-AC inverter is a pure sine wave.
2.The applied load should not exceed the rated power.
3.The wiring sequence must not be incorrect.