

hinen



SINGLE-PHASE OFF-GRID INVERTER

H3600-OG/H4000-OG/H5000-OG/H6000-OG

Quick Installation Guide

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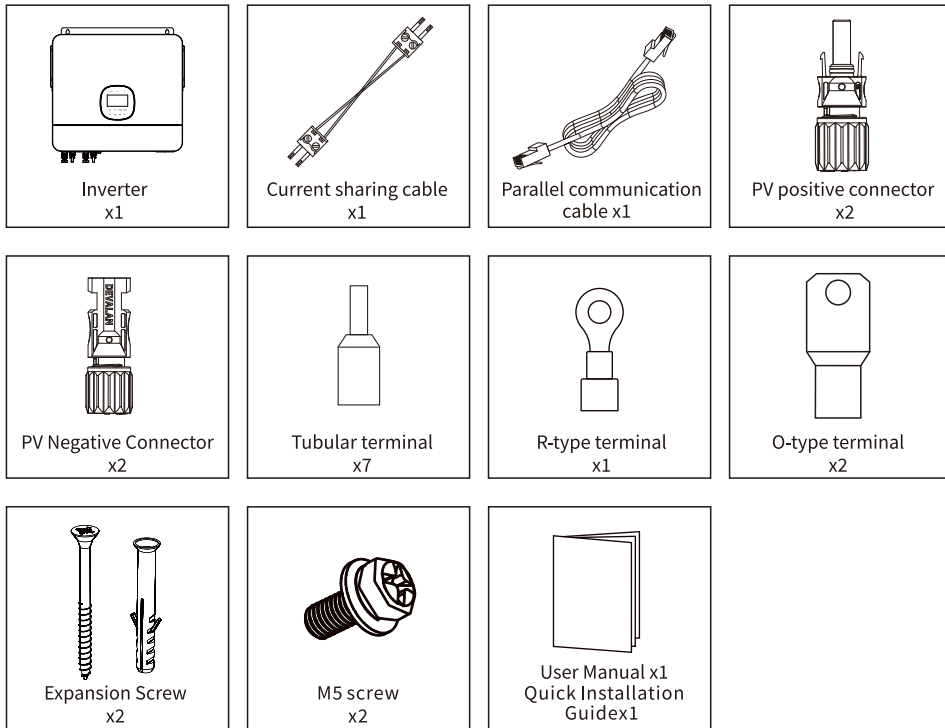
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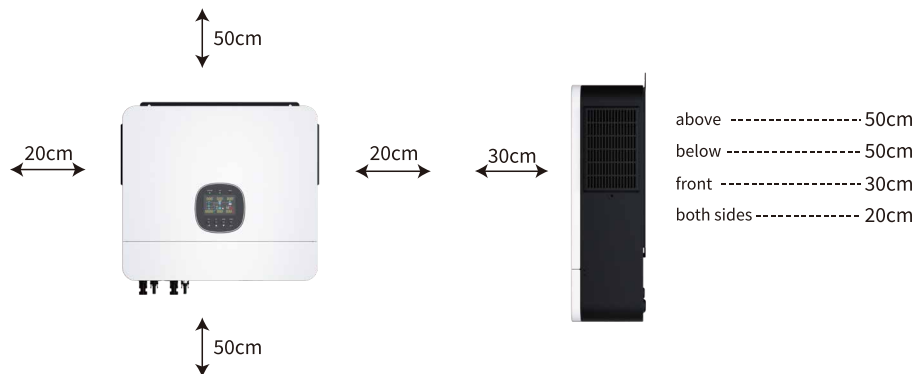
Website: <https://www.hinen.com>

1. Packing List

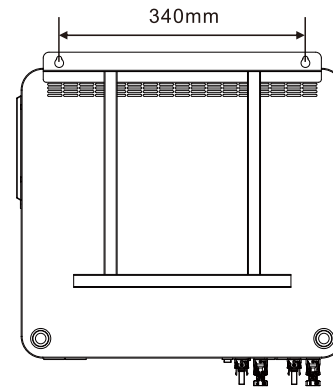
Upon receiving the 6K off-grid inverter, please check if any of the components as shown below are missing or broken.



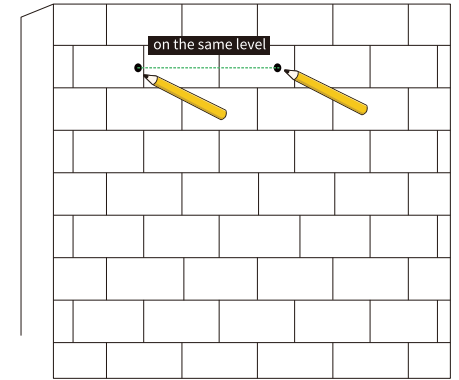
2. Mounting



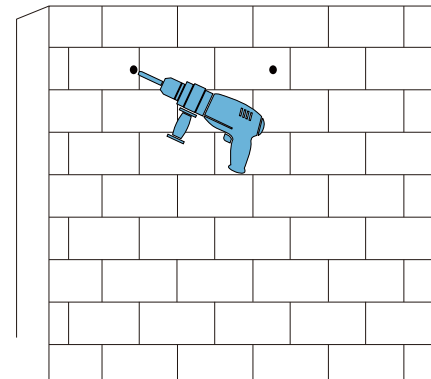
- 1 First of all, first use a straightedge to measure out the distance between the mounting holes of the 6K off-grid inverter is 340mm.



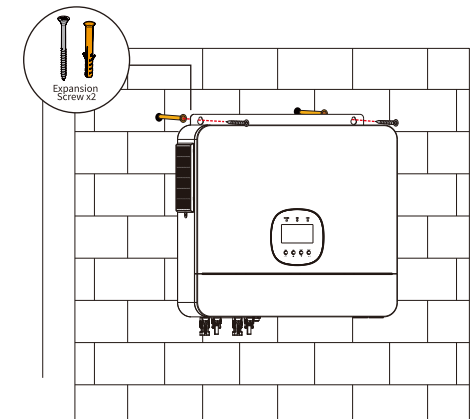
- 2 Place the 6K off-grid inverter horizontally on the mounting wall and mark the location of the two holes for the mounting holes with a marker.



- 3 Remove the 6K off-grid inverter first and then use an impact drill to drill holes at the two points marked.



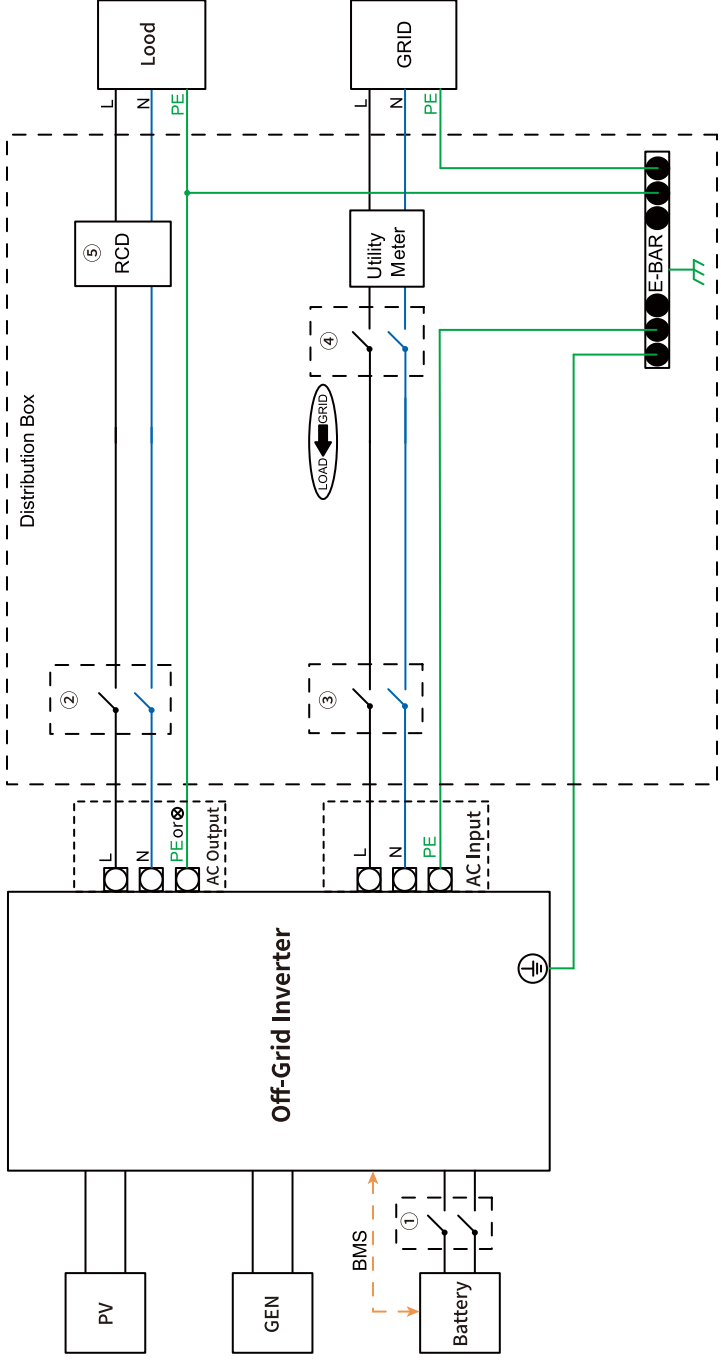
- 4 Place the 6K off-grid inverter horizontally on the mounting wall and align the mounting holes with the drilled holes. Then insert the expansion tube into the wall hole and lock the 6K off-grid inverter with standard self-tapping screws.



Note

- Suitable for installation on concrete or other non-combustible surfaces only.

Wiring diagram for other countries, please follow local wiring regulations.



Model	①	②	③	④	⑤
H3600-OG	100A/60V DC Breaker	20A/230V AC Breaker	40A/230V AC Breaker	Main Breaker	30mA RCD
H4000-OG	100A/60V DC Breaker	25A/230V AC Breaker	40A/230V AC Breaker		
H5000-OG	125A/60V DC Breaker	40A/230V AC Breaker	63A/230V AC Breaker		
H6000-OG	125A/60V DC Breaker	40A/230V AC Breaker	63A/230V AC Breaker		

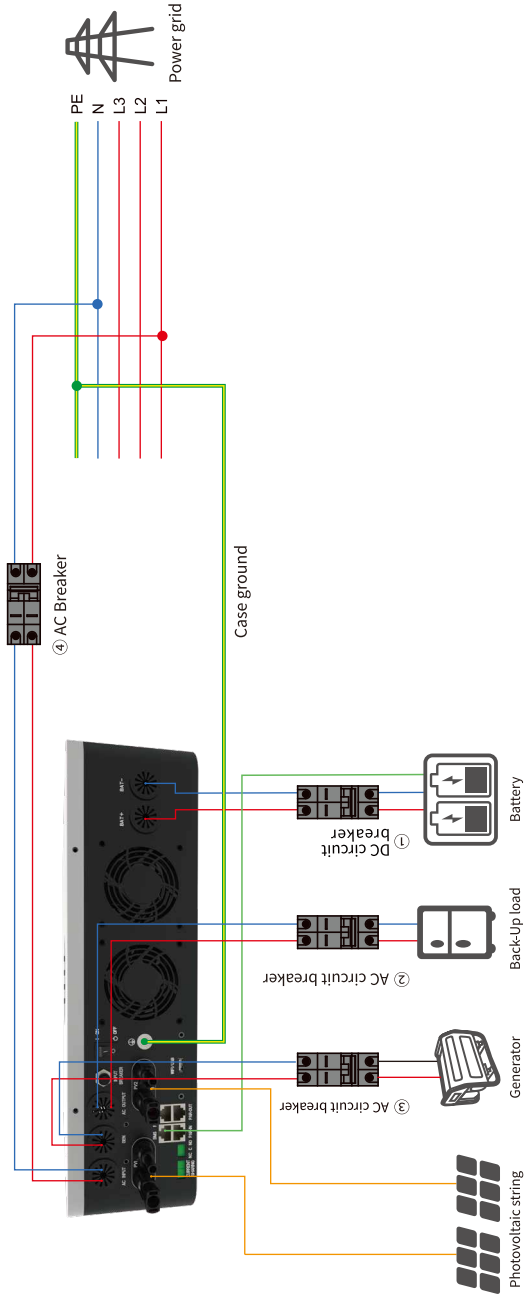
Note

- If the battery has integrated a readily accessible internal DC breaker, then no additional ① DC breaker is required.
- The use of ⑤ 30mA RCD is recommended but not mandatory, please comply with local regulations for the system installation.

Select a circuit breaker according to the following specifications:

Inverter	①	②	③	④
The 6K off-grid inverter	1.25A / 60V DC Breaker	40A / 230V AC Breaker	63A / 230V AC Breaker	63A / 230V AC Breaker

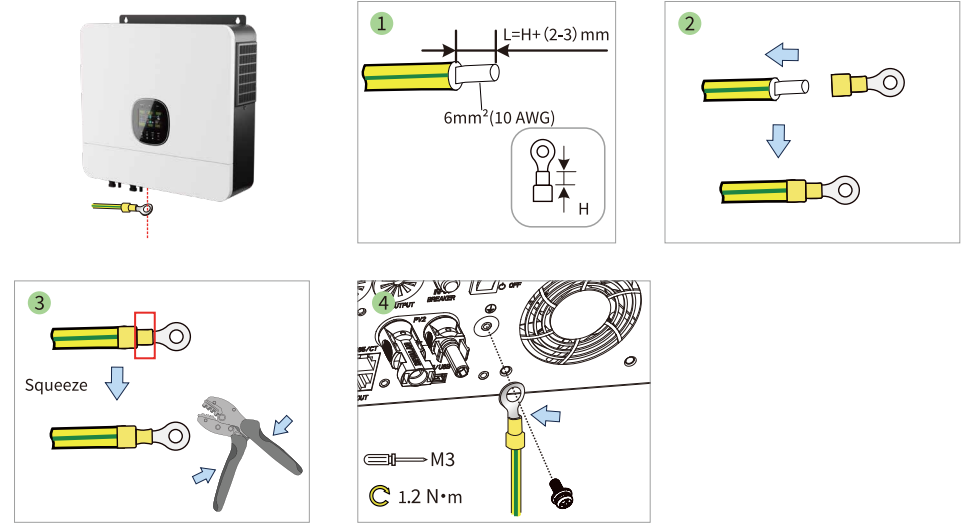
1. For batteries with circuit breaker, the external DC circuit breaker can be omitted.
2. Only for lithium batteries with BMS communication.



Note This picture is the wiring structure diagram of the 6K off-grid series, not the electrical wiring standard.

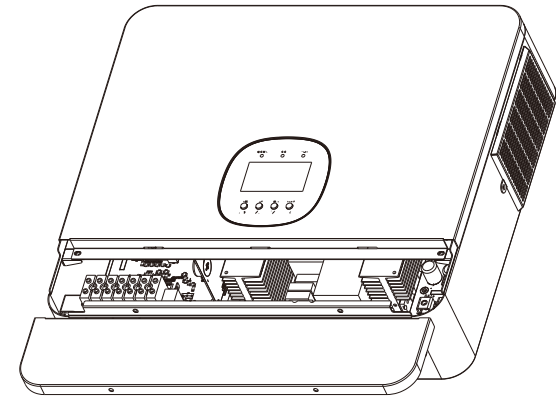
3. Electrical Connection

Step 1 Grounding Protection Wire



Step 2 Remove bottom cover

Before connecting all wiring, please take off bottom cover by removing four screws as shown below.



Step 3 AC Input / GEN / AC Output Connection


Please follow below steps to implement AC input/GEN/AC output connection:

- 1 Before making AC input/GEN/AC output connection, be sure to open DC protector or disconnector first.
- 2 Remove insulation sleeve 10mm for seven conductors. And shorten phase L and neutral conductor N 3 mm. Then press in the tubular terminal
- 3 Insert AC input wires according to polarities indicated on terminal block and tighten the terminal screws. Be sure to connect PE protective conductor.

Suggested cable requirement for AC wires

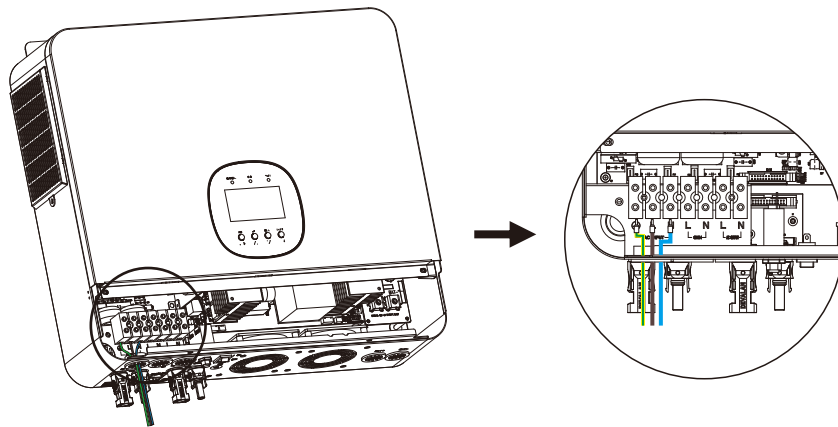
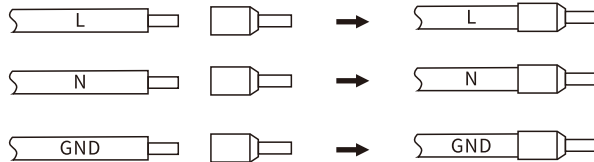
Model	Gauge	Torque Value
The 6K off-grid inverter	1*8 AWG	1.2-1.6 Nm

AC Input

 → Ground(yellow-green)

L → LINE (brown or black)

N → Neutral (blue)



WARNING

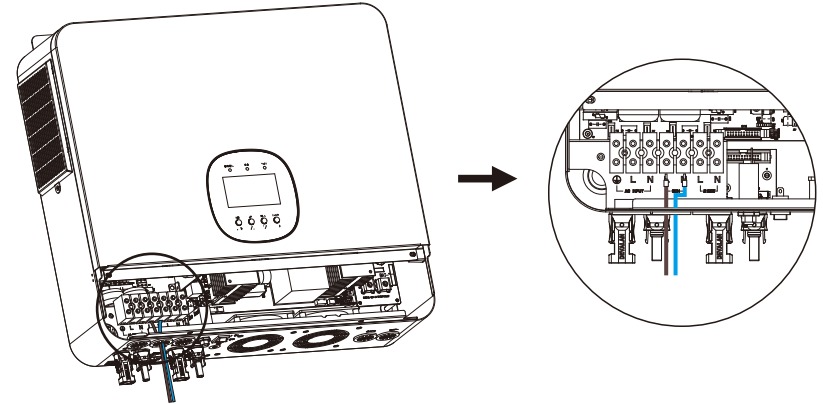
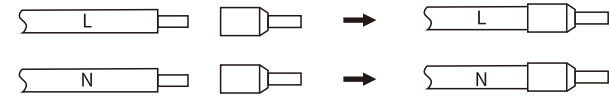
• Be sure that AC power source is disconnected before attempting to hardwire it to the unit.

GEN

- 4 Then, insert GEN wires according to polarities indicated on terminal block and tighten the terminal screws.

L → LINE (brown or black)

N → Neutral (blue)

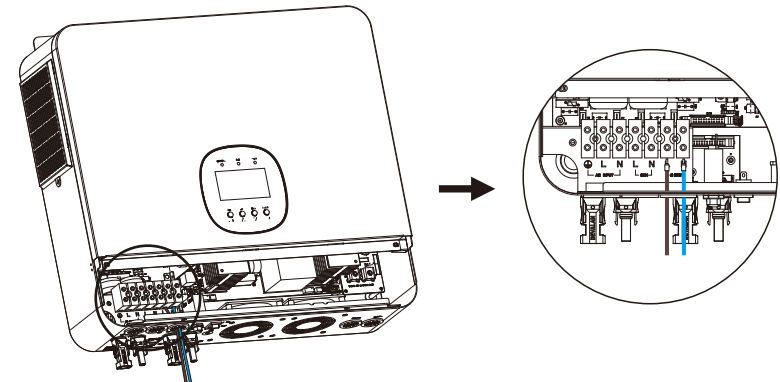
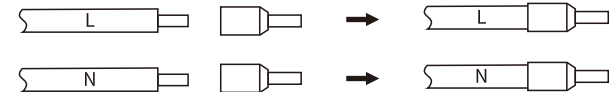


AC Output

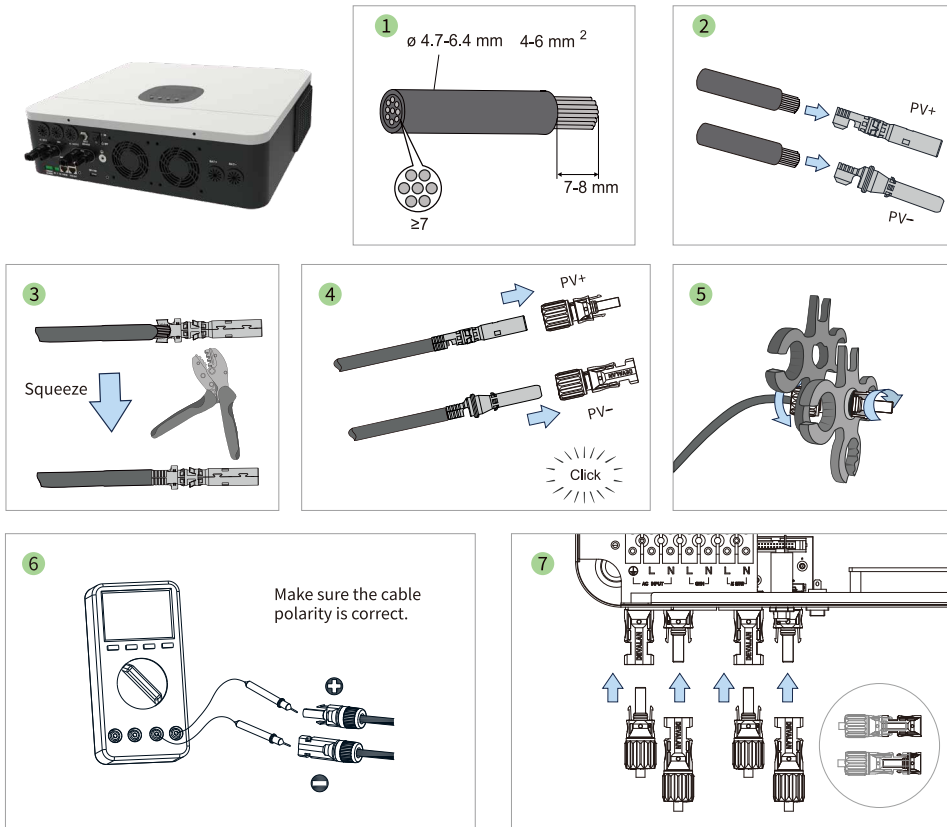
- 5 Last, insert AC output wires according to polarities indicated on terminal block and tighten terminal screws.

L → LINE (brown or black)

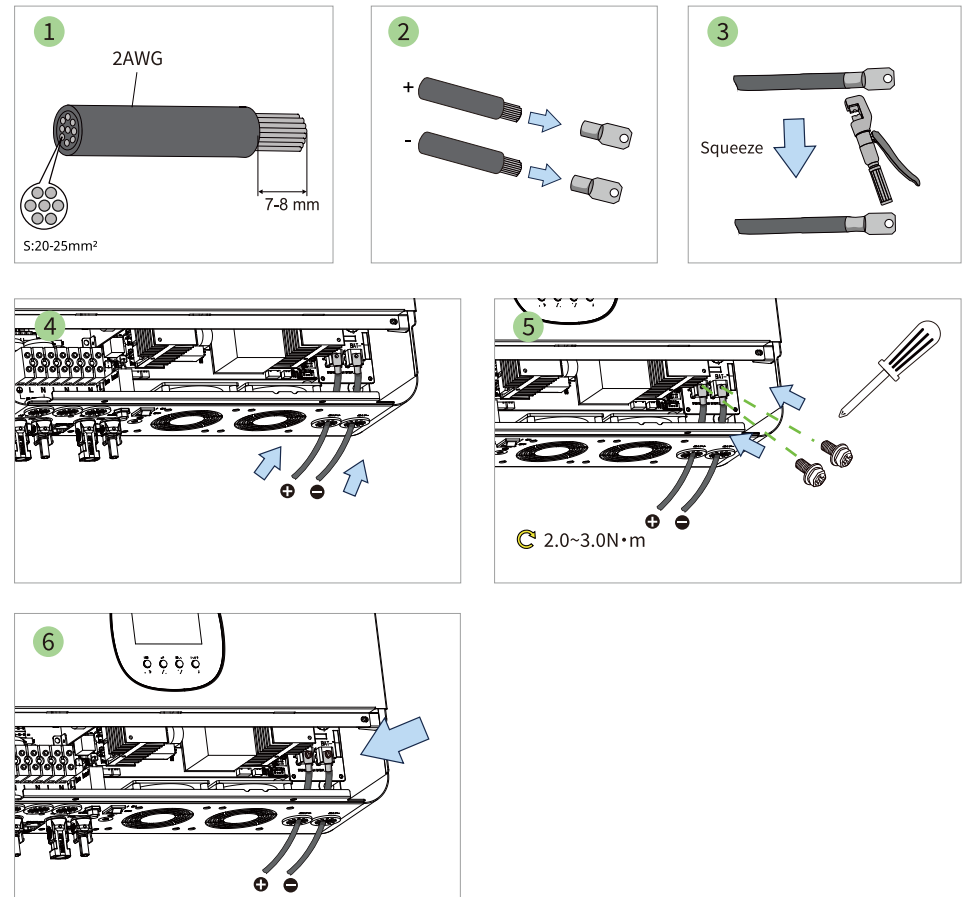
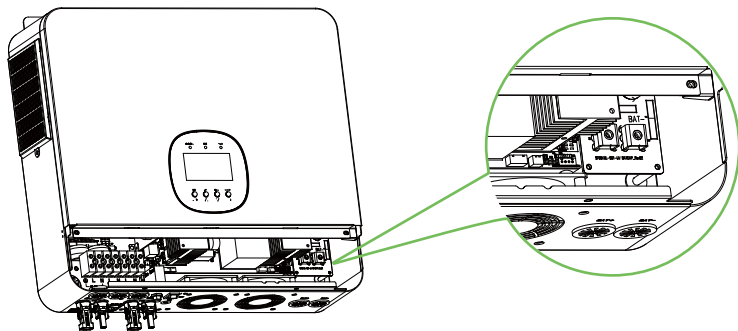
N → Neutral (blue)



Step 4 PV Connection

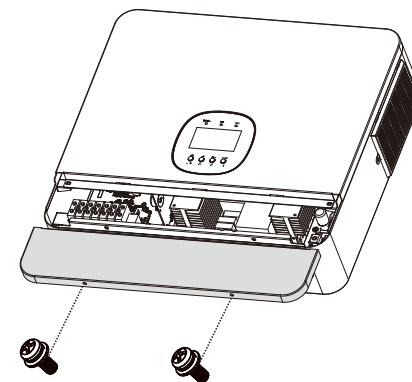


Step 5 Battery Connection



Step 6 Final Assembly

After connecting all wiring, please put bottom cover back by screwing two screws as shown below.



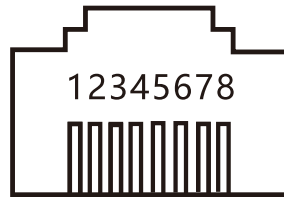
Step 7 RS485/CT(Current Transformer) Communication and BMS Communication

In order to communicate with battery BMS, you should set the battery type to “LI” in Program 05. Then the LCD will switch to Program 06, which is to set the protocol type. There are several protocols in the inverter. Please get instruction from customer service to choose which protocol to match the BMS.

Connect the end of RJ45 of battery to BMS communication port of inverter. Make sure the lithium battery BMS port connects to the inverter is Pin to Pin, the inverter BMS port pin and RS485 port pin assignment shown as below:

The 6K off-grid inverter BMS Port/RS485/CT Detailed pin function

Pin number	BMS port	RS485 port (for expansion)
1	WAKE.UP	GND-S
2	GND-S	EXT-CT_N
3	GND-S	RS485+
4	BAT.CANH+	GND-S
5	BAT.CANL-	RS485-
6	GND-S	CT_ON+
7	BAT-485A	EXT-CT_P
8	BAT-485B	EXT-CT_P



- ① The BMS Port connects to the Battery CAN Port.
- ② The RS485/CT Port connects to the Battery RS485 Port or current transformer or smart meter.

Step 8 WiFi Module Connection

The Wi-Fi communication function is only applied to WiFi Module.

First install a fixing bracket at the USB port of the WIFI Module, then align the USB port of the WIFI Module with the WIFI/USB port of the inverter, and then plug in the WIFI Module, and finally lock the two ends of the fixing bracket with screws to complete the installation!



4. Electrical Connection

【SOLARMAN Smart APP】 is an on-line monitoring system for users to use and 【SOLARMAN Business APP】 is for installers to use. After completing the communication connection, please visit www.solarman.cn or download the APP by scanning the QR code to monitor your photovoltaic power station and equipment. For detailed usage of the APP, please refer to the SOLARMAN Smart User Version APP Instruction Manual and SOLARMAN Business APP Instruction Manual.

Note

- This function is only available for inverters with the WiFi module installed.

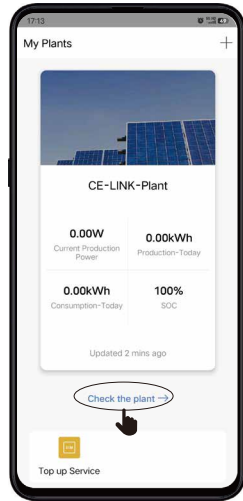


SOLARMAN Smart

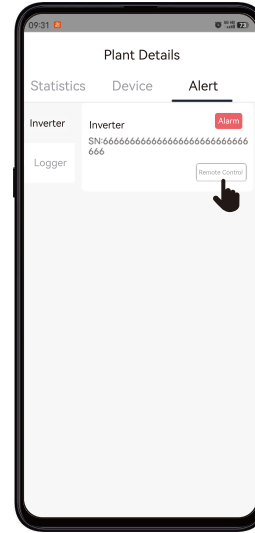


SOLARMAN Business

1 The user downloads the SOLARMAN Smart APP through the above QR code or the website, and after registering as a user, connect to the product via Bluetooth and enter the main page.

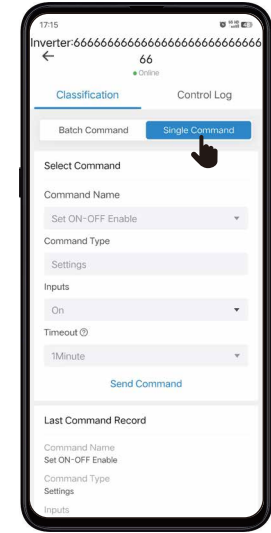


3 The user enters the device page and clicks "Remote Control".



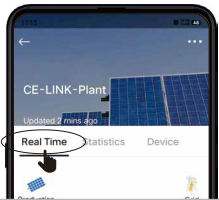
Control inverter
Please click
"Remote Control".

4 Enter the single command page to set the function of the inverter.

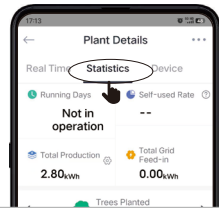


2 Click to view the power station, enter each page of this product, and check the corresponding situation and status of this product.

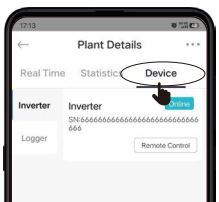
(1) Click to enter the "real-time" page of this product in use, and you can check the energy transmission status of this product.



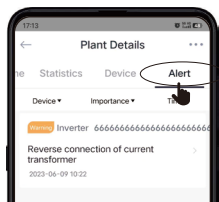
(2) Click to enter the "Statistics" page to view the historical usage of this product.



(3) Click to enter the "Device" page to view the devices connected to the app.



(4) Click to enter the "Alert" page to view the error alerts of the app.

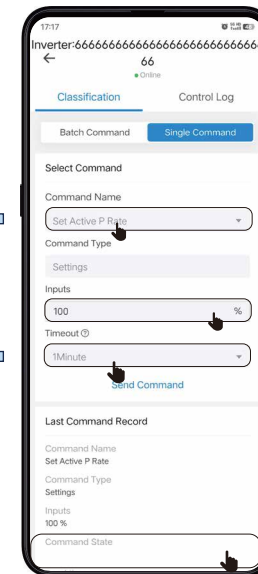


Single command settings

Command Name:
Optional feature set.



Timeout:
You can set the time for the product to receive instructions.



Inputs:
The switch can be controlled remotely.

Command State:
When the command status is blank, the sending is successful.