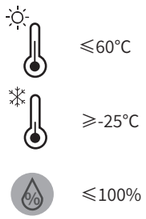
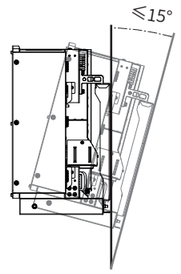
QUICK INSTALLATION GUIDE

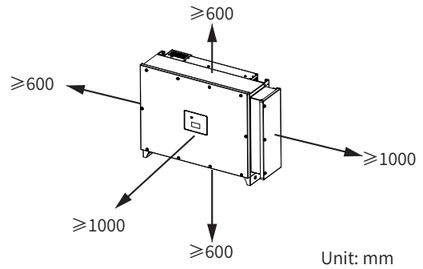
Three-phase Grid-tied PV String Inverter

75K/100K/110K/125K/125K-H

1 LOCATION

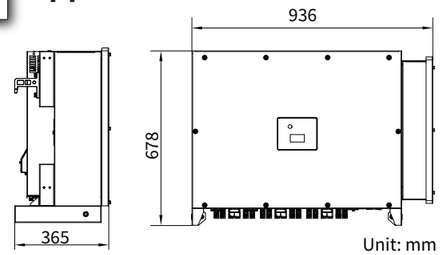




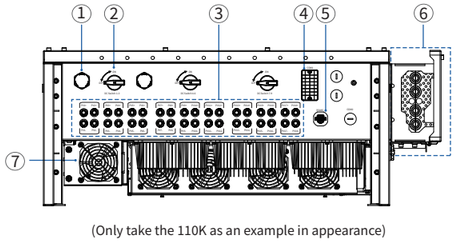


Unit: mm

2 Appearance



Unit: mm



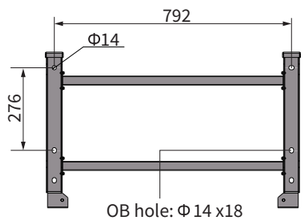
(Only take the 110K as an example in appearance)

① Vent valves
② DC isolation breakers
③ PV Strings connectors
④ Communication interface
⑤ RS485
⑥ AC output connection box
⑦ Fans

3 INSTALLATION

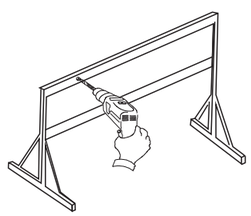
1. The walls must be fireproof and non-flammable materials, otherwise there is a fire risk.
2. Before drilling holes, check whether there are electric power pipes or other pipes buried in the walls to avoid risks.

Inverter is installed on the wall or bracket by means of mounting bracket. The following steps are illustrated with only bracket-mounted installation. The load-bearing capacity of the wall must be greater than 10 KN/m². M12 x 60mm stainless steel pressure-burst expansion bolts are recommended in wall-mounted installation.

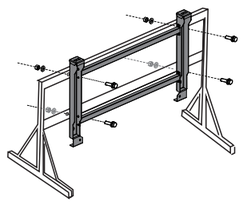


Unit: mm

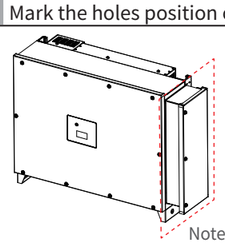
1 Mark the holes position on the wall.



2 Drill the holes. (4 x Φ14mm).

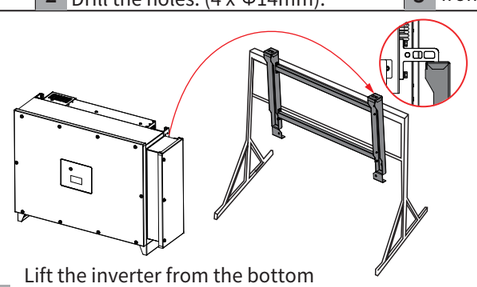


3 Secure the mounting bracket with bolts from delivery accessories. (4 x M12; 42N·m)

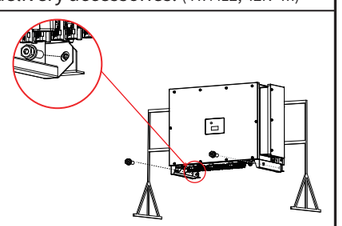


Note: AC output connection box can't be stressed in the process of lifting.

4 Lift the inverter from the bottom.

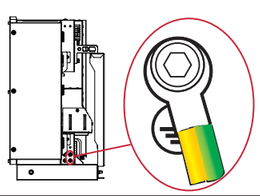


5 Lift the inverter from the bottom and place it on the bracket.



6 Fix the inverter.

4 GROUNDING



1. According to regulations, the secondary protection grounding can't replace the PE terminal connection of the AC cable. Ensure that both are grounded reliably.
2. Ensure that inverter and all cables to be installed are completely powered off during whole installation and connection. Otherwise, fatal injury can occur due to the high voltage.

Items	Remark
Screw	M8; 7N·m
Yellow green lines	$S_p \geqslant S/2$

NOTE

S: cross-sectional area of AC cable
S_p: cross-sectional area of PE cable
The S_p value is valid only when the PE cable and the AC cable are of the same material.

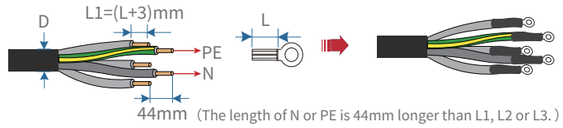
5 AC CONNECTION

Before connecting the AC terminal, ensure that both the AC terminal and the DC terminal are powered off and the PV switch is OFF. Otherwise there is a risk of high voltage shock.

Connect the inverter with the power grid through installing one AC circuit breaker whose rated current is no less than 250A. Residual current protection function of square matrixes is internally installed in the inverter. And if local utility department requires leakage current protection function for AC circuit breaker, you can set leakage current protection value no less than the corresponding value in below table. The set can prevent the inverter from its performance failure.

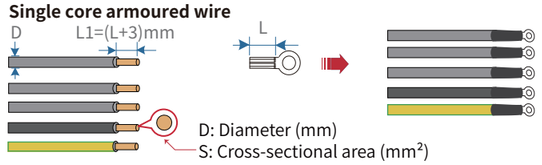
Inverter model	Residual current value
100K	⩾1110mA
75K/110K	⩾1230mA
125K/125K-H	⩾1390mA

Multi-core armoured wire



(The length of N or PE is 44mm longer than L1, L2 or L3.)

Single core armoured wire

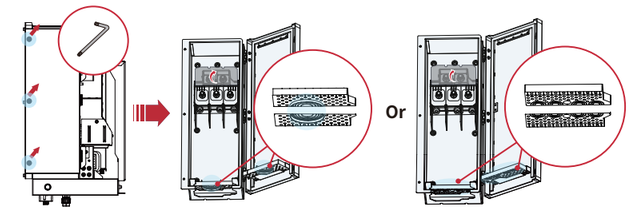


D: Diameter (mm)
S: Cross-sectional area (mm²)

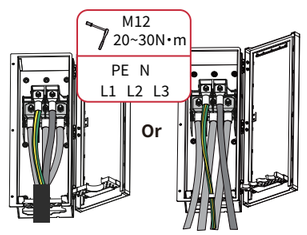
AC Cable Requirements:

Cable	Type	S (mm²)	D(mm)
AC cable (Multi-Core)	Outdoor triple-core cable (L1, L2, L3) Outdoor four-core cable (L1, L2, L3, PE) Outdoor five-core cable (L1, L2, L3, PE, N)	• Copper wire cable -S: 70mm²~240mm² -Sp⩾S/2 • Aluminum wire cable -S: 95mm²~240mm² -Sp⩾S/2	24mm~69mm
AC cable (Single-Core)	Five single-core outdoor cables	• Copper wire cable -S: 70mm²~240mm² -Sp⩾S/2 • Aluminum wire cable -S: 95mm²~240mm² -Sp⩾S/2	14mm~32mm

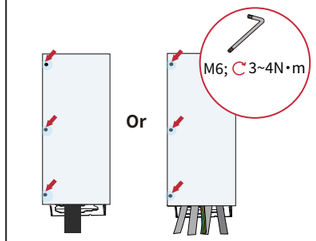
1 Wires making and crimping.



2 Loosen the screw to open the locking-cap and the cover-plate.



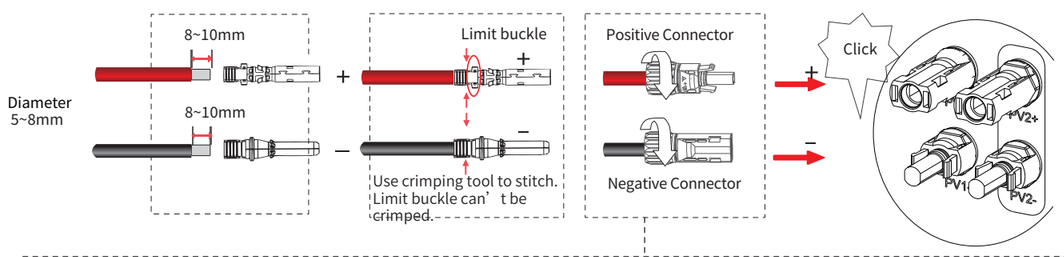
3 Lock the AC cable to the corresponding AC terminals.

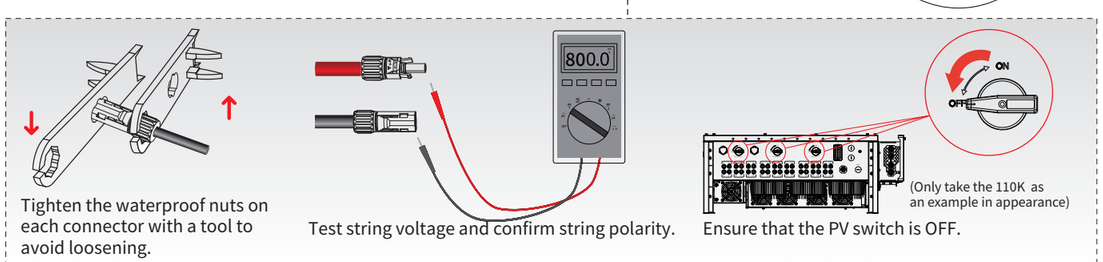


4 Close and lock the AC junction box with 3 x M6 screws.

6 PV CONNECTION

1.PV arrays exposed to sunlight will generate dangerous voltages!
2.Before connecting the terminal, ensure that both the AC terminal and the DC terminal are powered off and the DC switch is OFF. Otherwise there is a risk of high voltage shock.





Tighten the waterproof nuts on each connector with a tool to avoid loosening.

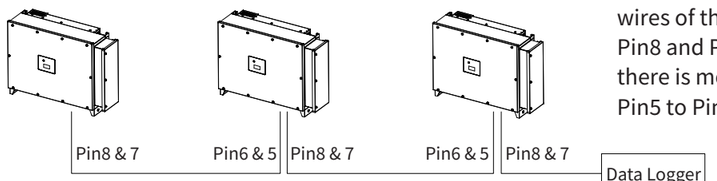
Test string voltage and confirm string polarity.

Ensure that the PV switch is OFF.

(Only take the 110K as an example in appearance)

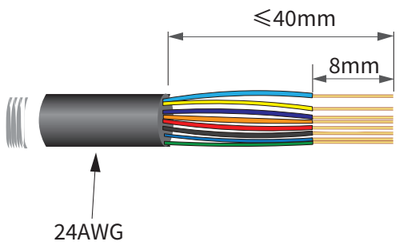
Note: PV cable should be dedicated PV cable (suggest using 4~6mm² PV1-F cable).

7 RS485 CONNECTION

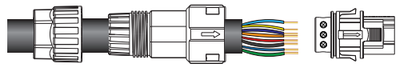


RS485 communication mode with multiple inverters

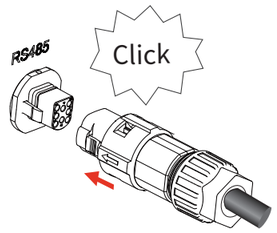
Connect the differential positive and negative signal wires of the first RS485 cable from the data logger to Pin8 and Pin7 of the 8-Pin terminal respectively. If there is more than one inverter, connect Pin6 and Pin5 to Pin8 and Pin7 of another inverter.



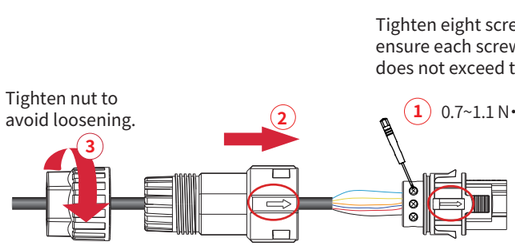
1 Wires making.



2 Wires threading and crimping.



4 Open the dust cap and insert the RS485 terminal into RS485 port.



Pin	Functions
1	NA
2	GND_S
3	RS485_B2 (reserved)
4	RS485_A2 (reserved)
5	RS485_B
6	RS485_A
7	RS485_B
8	RS485_A

3 Install the terminal.

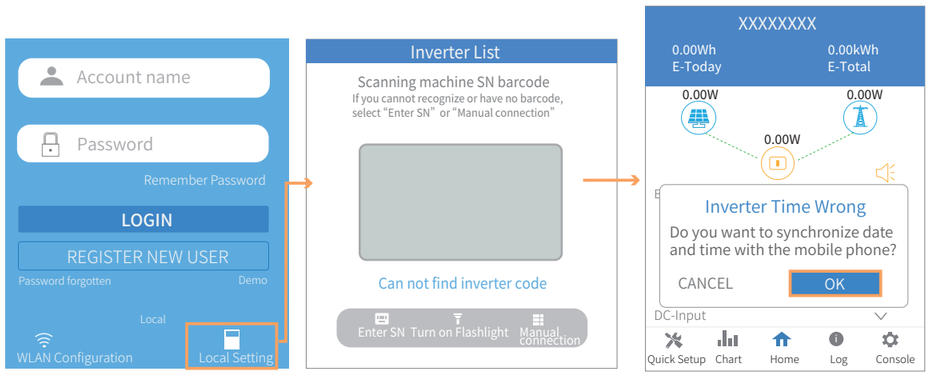
① Download the APP in either of the following ways

- Scan the QR code on the inverter to download the APP
- Download the APP from the App Store or Google Play.

Note: You need to grant all access rights in all pop-up windows when installing the APP or setting your phone.

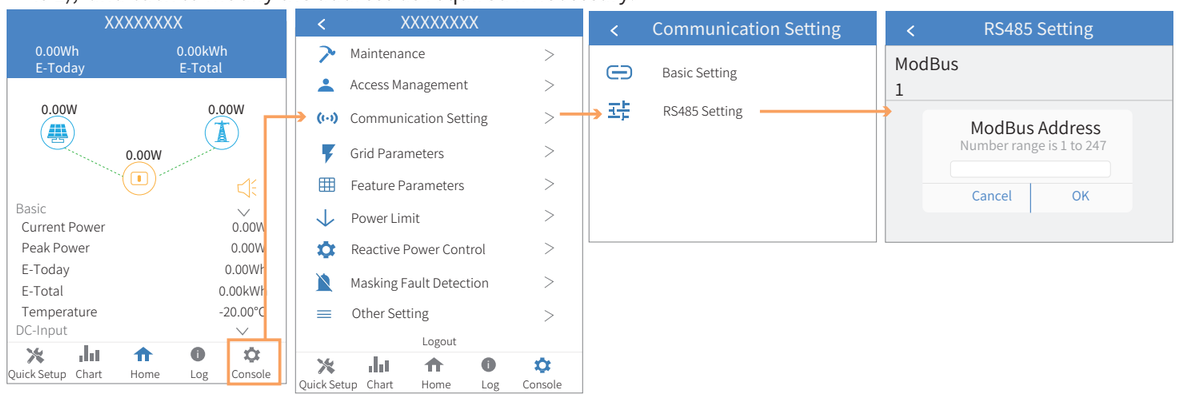
② Power on the inverter.

③ Connect the Inverter. Open the Bluetooth on your own phone, then open the APP. Then follow the instructions below.



5 RS485 communication address setting.

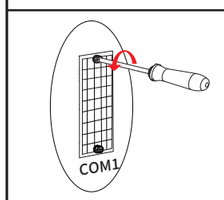
④ Go to Console > Communication Setting > RS485 Setting > Modbus Page, check the Modbus address (the default value is 1), and click to modify the address as required if necessary.



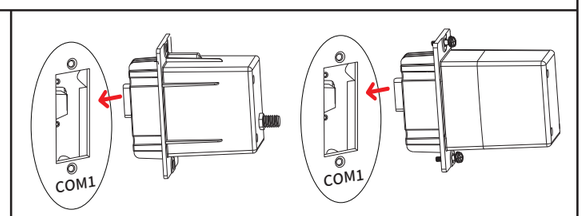
5 RS485 communication address setting.

8 WIFI/GPRS/LAN MODULE INSTALLATION (OPTIONAL)

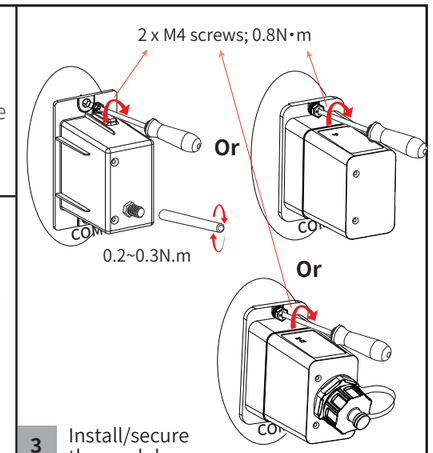
For details, please refer to the corresponding Module Installation Guide in the packing.The appearance of modules may be slightly different. The figure shown here is only for illustration.



1 Loosen two screws and move the cover.



2 Insert GPRS/WiFi/LAN module into COM1 port, and ensure that it does not fall off.



3 Install/secure the module.

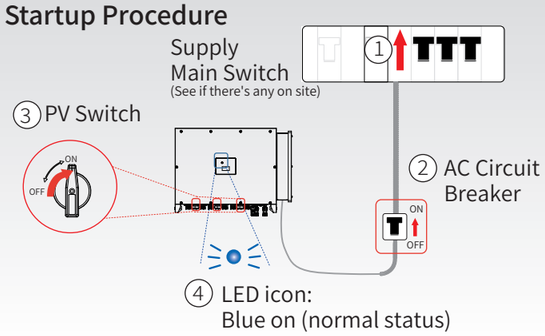
9 STARTUP / SHUTDOWN PROCEDURE

Inspection

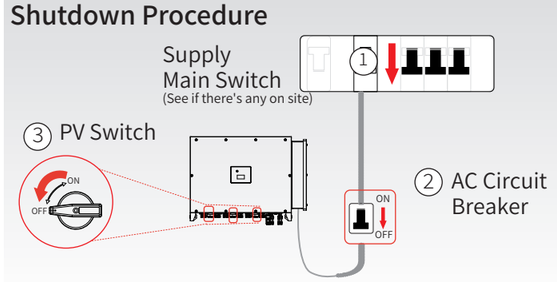
No.	Items
1	The inverter is firmly installed.
2	There is enough heat dissipation space, no external objects or parts left on the inverter.
3	It is convenient for operation and maintenance.
4	The wiring of the system is correct and firm.
5	Check whether the DC and AC connections are correct with a multimeter, and whether there is a short circuit, break, or wrong connection.
6	Check whether the waterproof nuts of each part are tightened.
7	The vacant port has been sealed.
8	All safety labels and warning labels on the inverter are complete and without occlusion or alteration.

After the inverter is powered off, the remaining electricity and heat may still cause electrical shock and body burns. If need to disconnect the inverter cables, please wait at least 10 minutes before touching these parts of inverter.

Startup Procedure



Shutdown Procedure



As the technology is constantly updated and improved, the illustrations in this document are for reference only. Contents including illustrations in this document are subject to change without notice. The APP interface is used for illustration only and the interface color is subject to the actual situation.

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