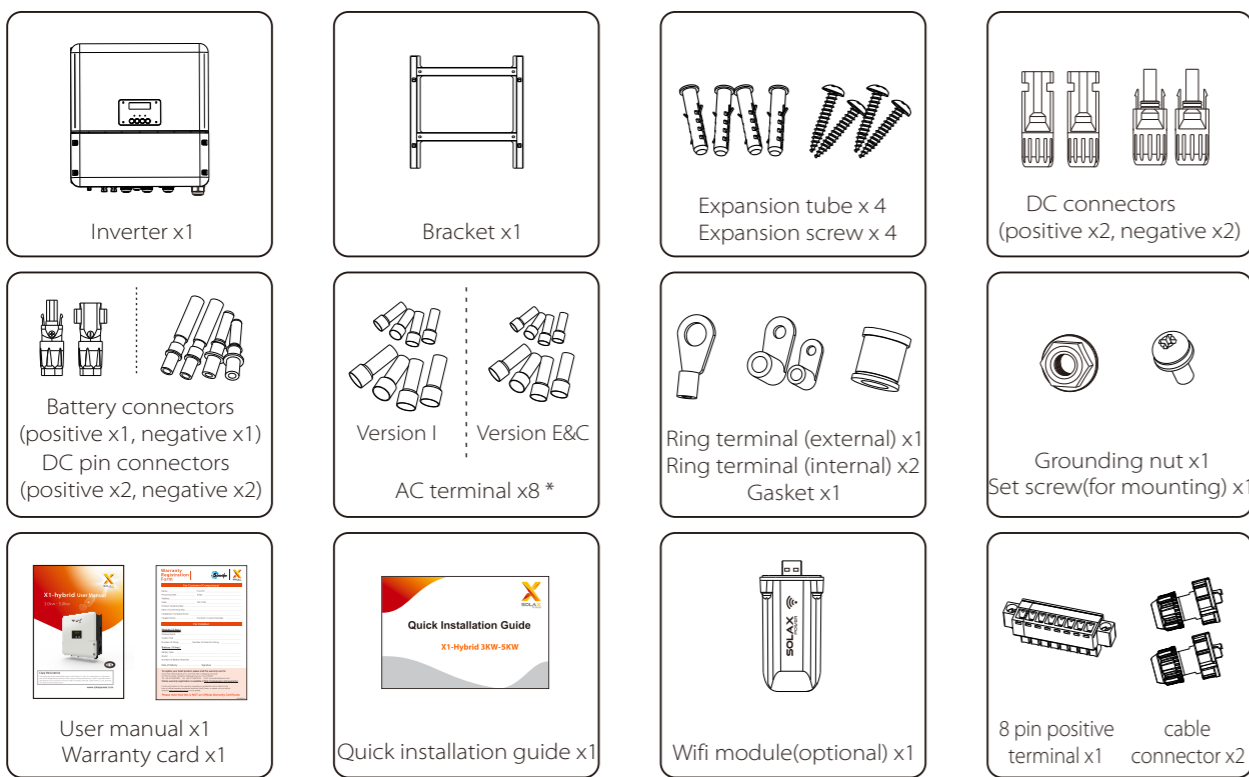




# Quick Installation Guide

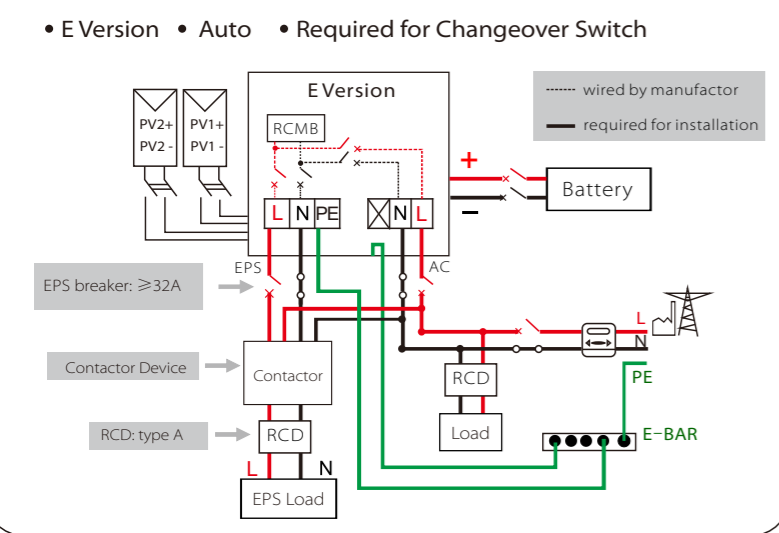
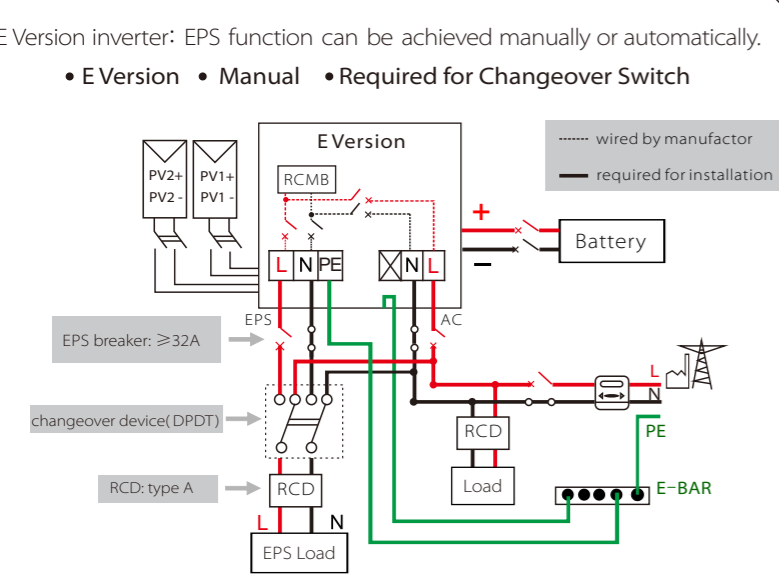
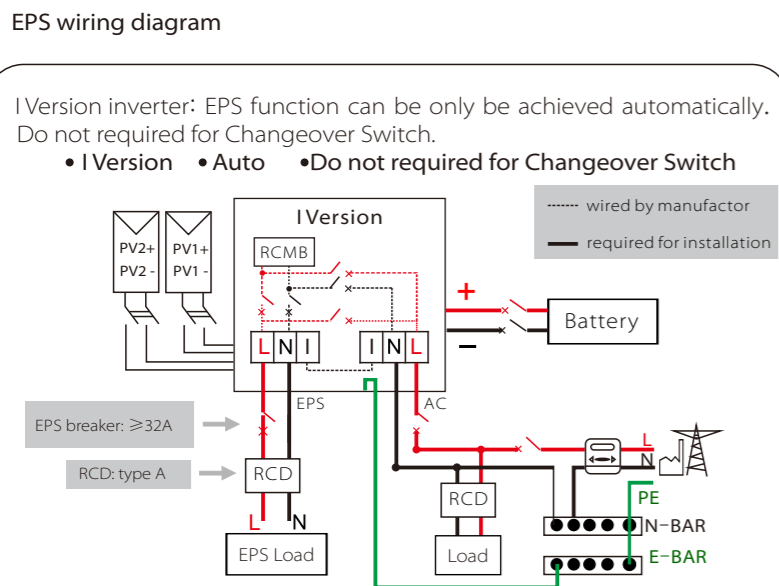
## X1 - Hybrid 3KW-5KW

### I Packing List

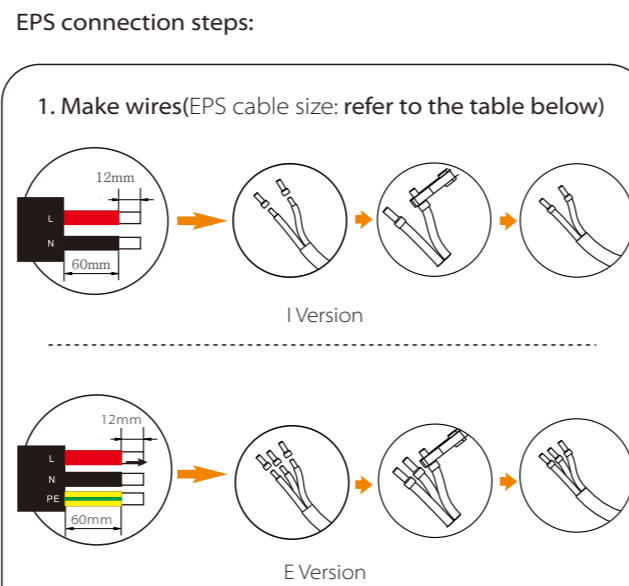


AC terminal x8\*: 4 6AWG AC terminals and 4 10AWG AC terminals for Version I  
4 10AWG AC terminals and 4 8AWG AC terminals for Version E and Version C

### IV EPS Connection (for I version and E version)

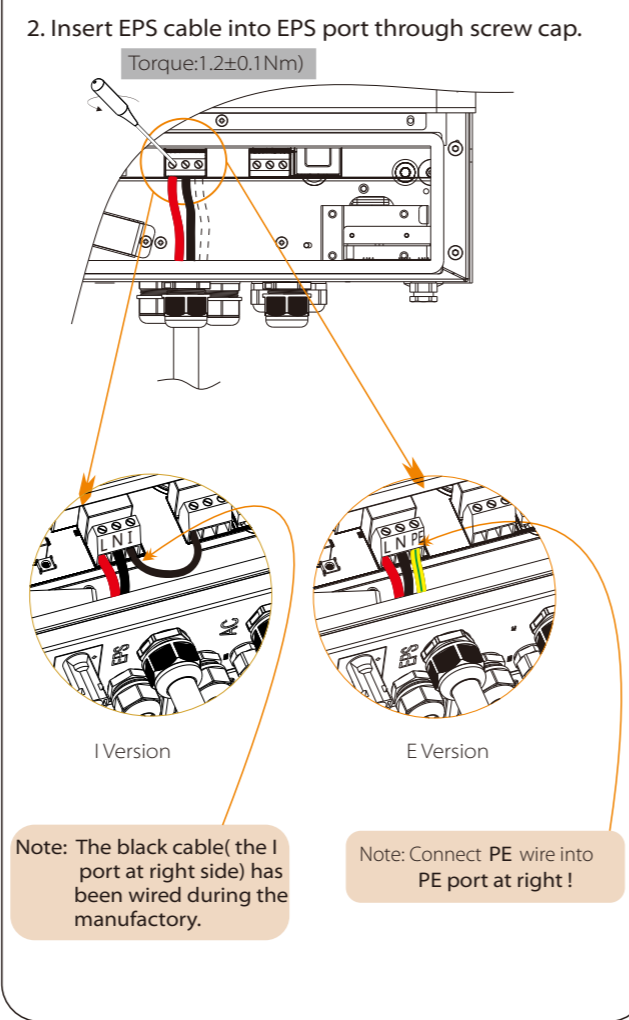


Please contact our sales for any compatible contactor purchase requirement.

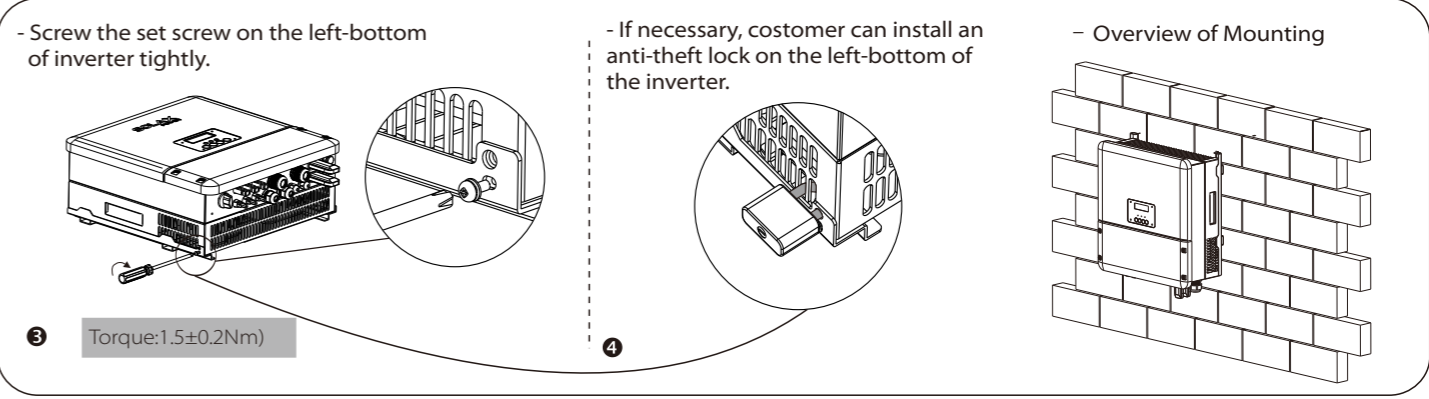
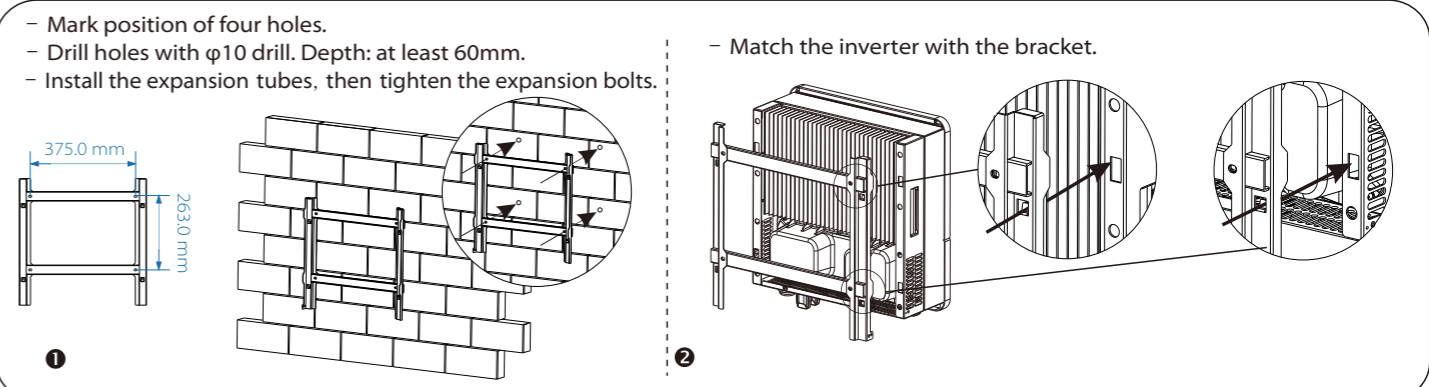


| Model       | X1-Hybrid-3.0-D   | X1-Hybrid-3.7-D   | X1-Hybrid-4.6-D   | X1-Hybrid-5.0-D   |
|-------------|-------------------|-------------------|-------------------|-------------------|
| EPS Cable   | ≥5mm <sup>2</sup> | ≥5mm <sup>2</sup> | ≥5mm <sup>2</sup> | ≥5mm <sup>2</sup> |
| EPS breaker | 25A               | 25A               | 32A               | 32A               |

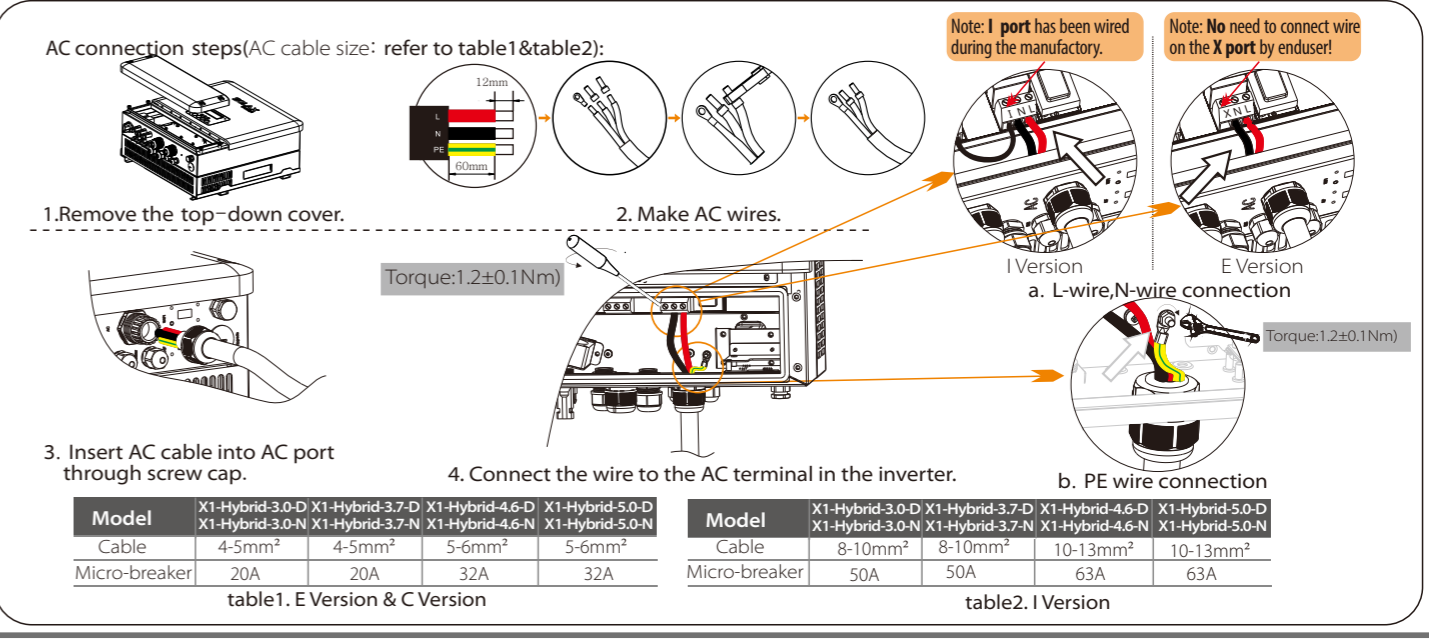
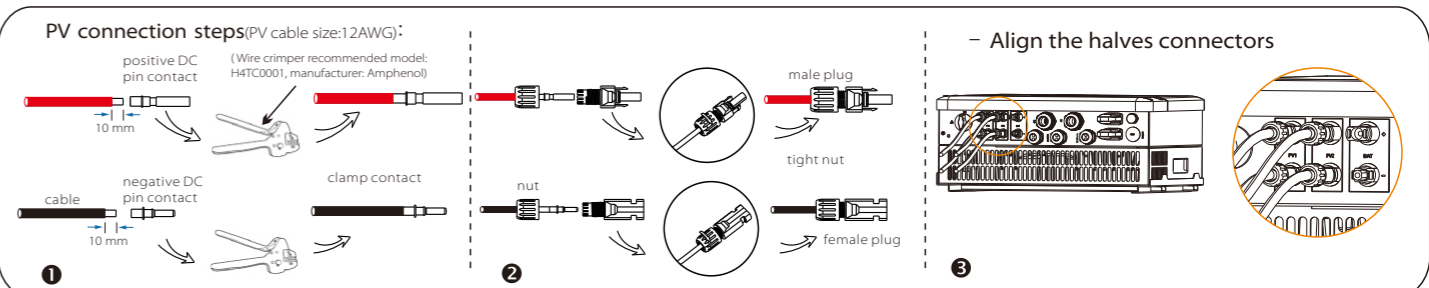
table. Cable and Micro-breaker recommended



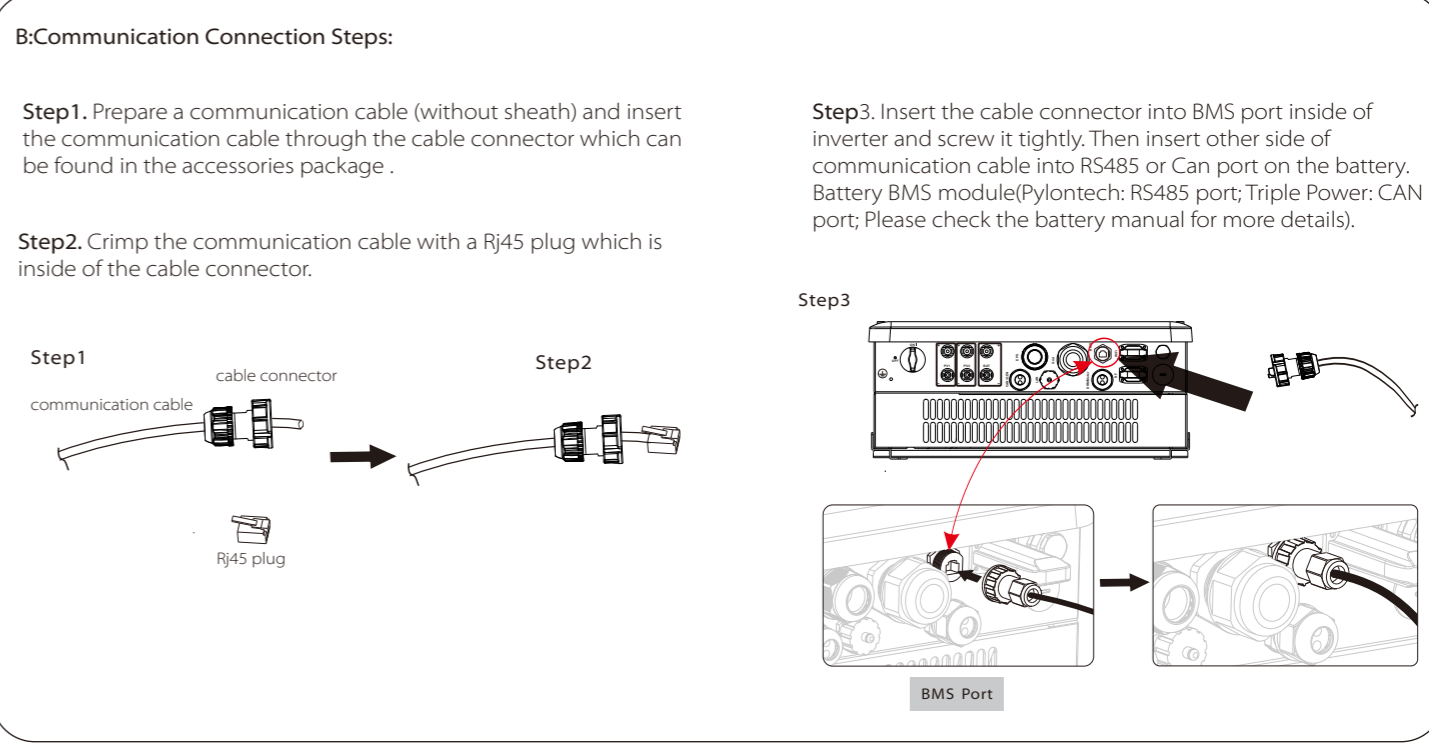
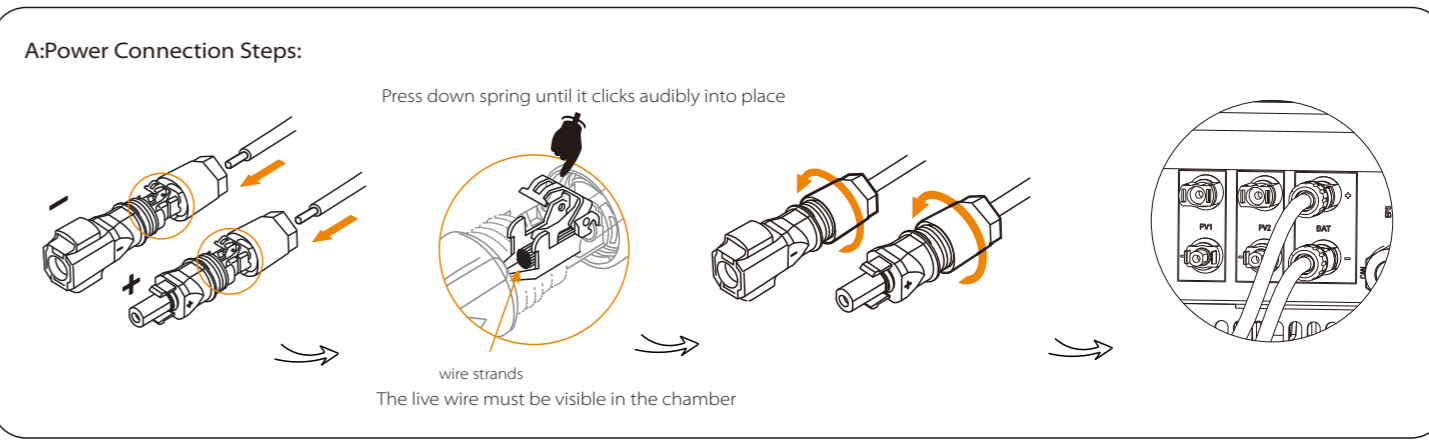
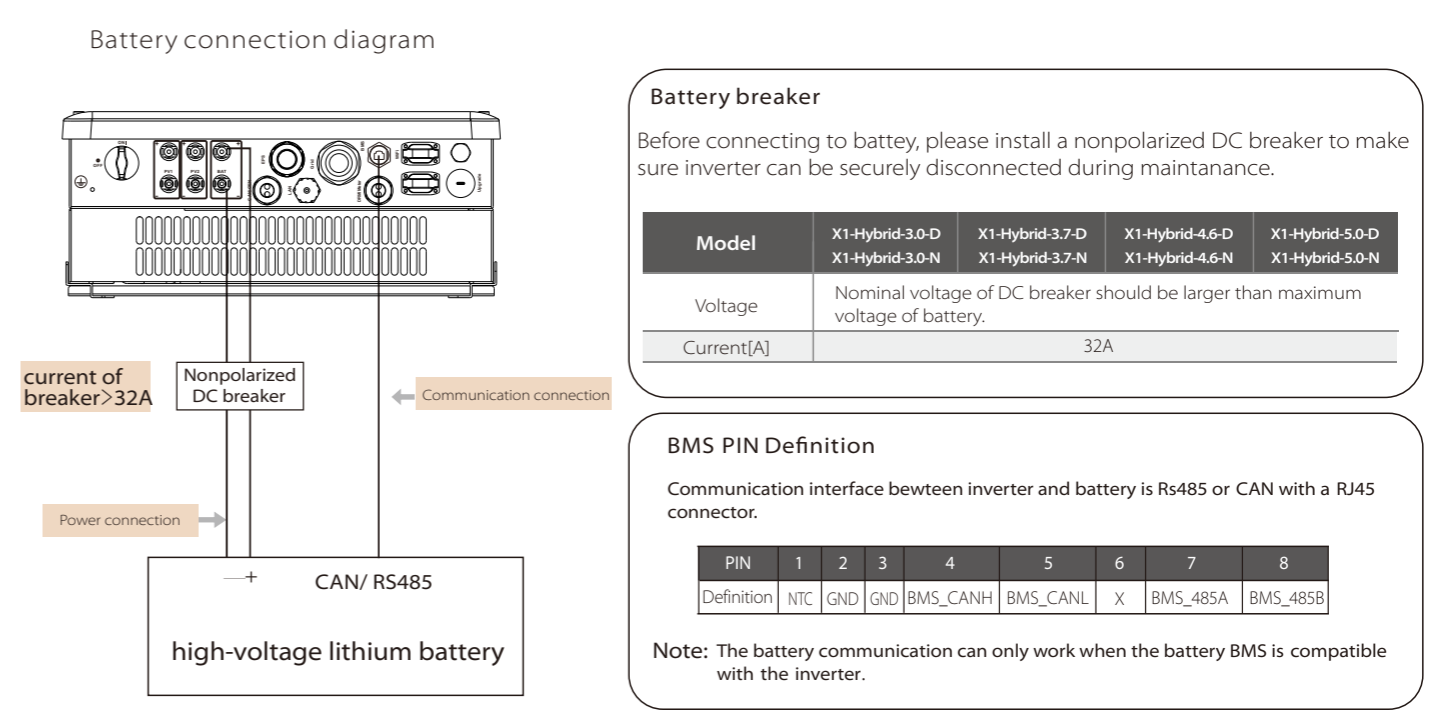
### II Mounting Steps



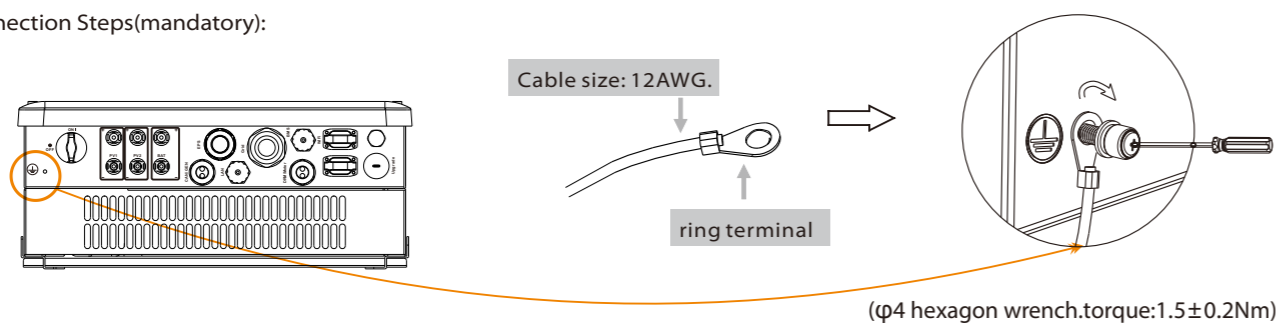
### III PV and AC Connection



### V Battery Connection

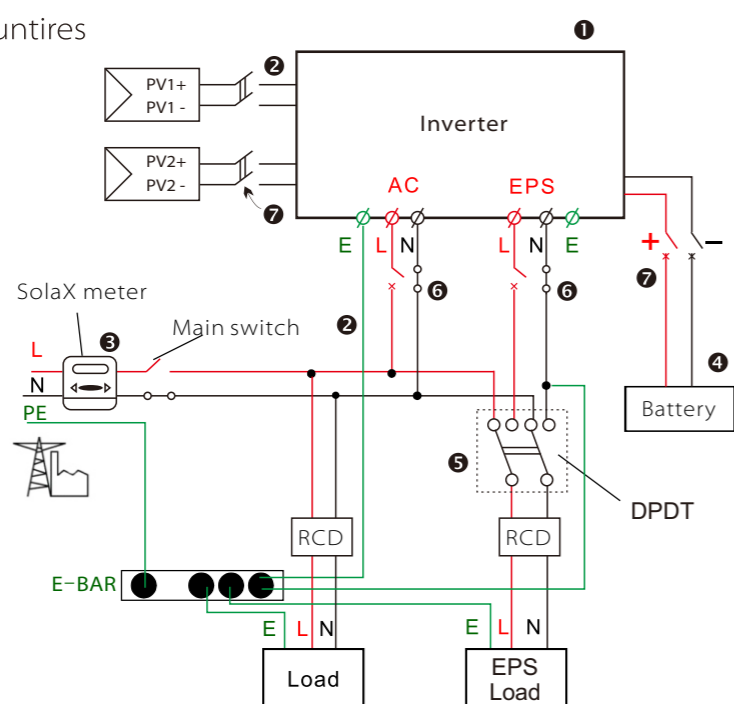


## Earth Connection Steps(mandatory):



## Start inverter

Applies to most countries



- 1 Check the inverter is fixed well on the wall.
- 2 Make sure all the DC wirings and AC wirings are completed.
- 3 Make sure the meter is connected well.
- 4 Make sure the battery is connected well.
- 5 Make sure the external EPS contactor is connected well. (if needed)
- 6 Turn on the AC switch and EPS switch.
- 7 Turn on the PV/DC switch and battery switch.
- 8 Long-press the "Enter" key for five seconds to exit Off Mode.(The mode is Off Mode when you use it for the first time; factory default: Off Mode )

Inverter will start up automatically when the PV panels generate enough energy or the battery is discharging.

Check the status of indicators and LCD screen. The left indicator should be blue and the indicator screen should display the main interface.

## 1.Set language

Language  
English  
Deutsch  
Italian

## 2.Set date time

Date time  
2017 ->06 <-06  
10:19

## 3.Set the safety standard

Safety  
Country  
>VDE0126

## 4.Set export control

Export Control  
Use Value:  
10000W

This function allows the inverter able to control energy exported to the grid. There are user value and factory value. The factory value is default which can not be charged by user. The user value set by installer must be less than the factory value.

## 5.Set work mode

Work Mode  
>Mode Select  
self use

There are 4 work modes for choice. Self use/ Back Up Mode/ Feed in Priority/ Force Time Use  
All these work modes is available for on-grid condition only:

| Parameter          | Comment   |
|--------------------|---|
| Self Use (default) | The PV generated power will be used to supply the local loads first, then to charge the battery. The redundant power will export to the public grid.<br>When there is no PV supplied, battery will discharge for local loads first, and grid will supply power when the battery capacity is not enough.<br>The priority of inverter output power is:<br>supplying the load→ charging the battery→ feeding to the grid |
| Back Up Mode       | Battery will stop discharging to keep higher capacity when the grid is on, when the power generated by PV is not enough, the battery will discharge to supply the local loads too. And if still not enough, the grid will power the local loads together.<br>This work mode applies to the area where suffering from blackout regularly.  |
| Feed in Priority   | The priority of inverter output power is:<br>feeding to the grid→ supplying the load → charging the battery.<br>This work mode applies to the area with high feed-in tariff.  |
| Force Time Use     | In this work mode the charging and discharging time can be set flexibly, and it also allows to choose whether charge from the grid or not. Other time it follows the priority of Self Use mode.   |

## Preparation

Please ensure the inverter is steadily powered on.  
Inverter must connect PV panels and keep the battery on through whole procedure of upgrading.  
Please prepare a PC and an U-disk.



## Warning!

Make sure the PV input power is more than 150V (operate the upgrade on a sunny day), otherwise it may result in serious failing during upgrading.If the upgrading is broken off during operation,Please make sure the size of U-disk is under 32G,and the format is fat 16 or fat 32.

## Upgrading Steps:

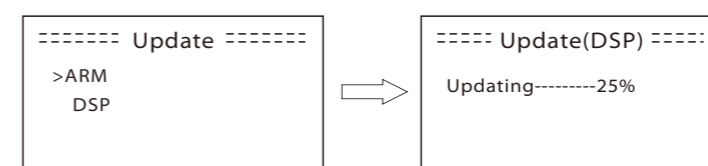
**Step1.** Please contact our service support to get the update files, and extract it into your U-disk as follow:

"update\ARM\618.00050.00\_Hybrid\_X1G3\_Manager\_VX.XX.XX.XX.usb";  
"update\DSP\618.00084.00\_Hybrid\_X1G3\_Master\_VX.XX.XX.XX.XX.XX.XX";

(Note: V:xxx is version number, xxxxxxxx is file compilation date. Don't modify the program file name, or it may cause that the inverter can't work anymore)

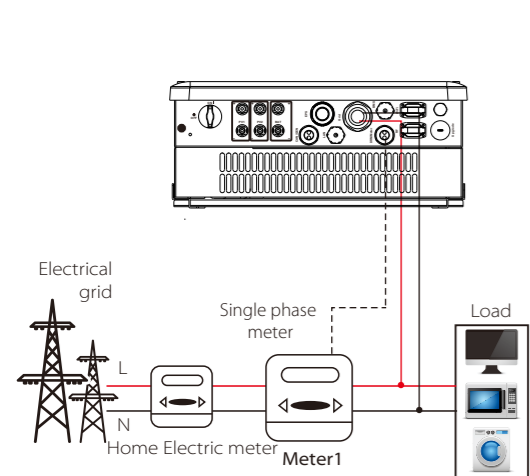
**Step2.** Press the "Enter" key for 5 seconds to enter Off Mode. Then unscrew the waterproof lid and insert U-disk into the "upgrade" port at the bottom of the inverter.

**Step3.** The LCD will be shown as the picture below. Then press up and down to select the one that you want to upgrade and press "OK" to confirm to upgrade.



**Step4.** After the upgrade is finished, the LCD will display "succeed"(only for DSP upgrades), please remember to pull off the U-disk, screw the waterproof lid and press the "Esc" to return to the Main interface. Then press the "Enter" key to exit Off Mode.

## Meter connection diagram

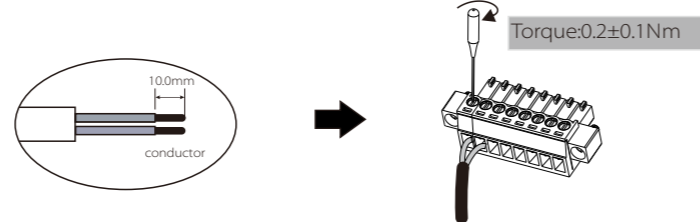


## Meter Connection Steps:

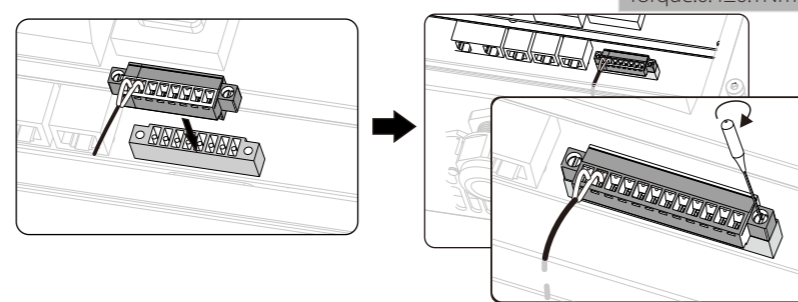
- Step1. Prepare a connector and two communication wires.
- Step2. Unscrew the nut of Meter connector and insert two communication wires through it.



- Step3. Trip the insulation from the communication wires, then insert one side of wires into pin1 and pin 2 holes of the 8 pin positive terminal which can be found in accessories package. And then screw them tightly.

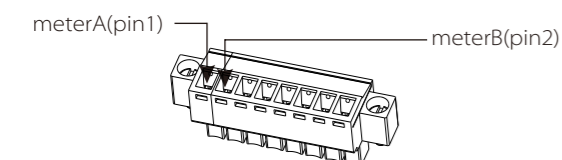


- Step4. Insert the positive terminal into the corresponding negative terminal block inside of the inverter. And then screw it tightly.(Please refer to the meter instructions for the wiring of the meter.)

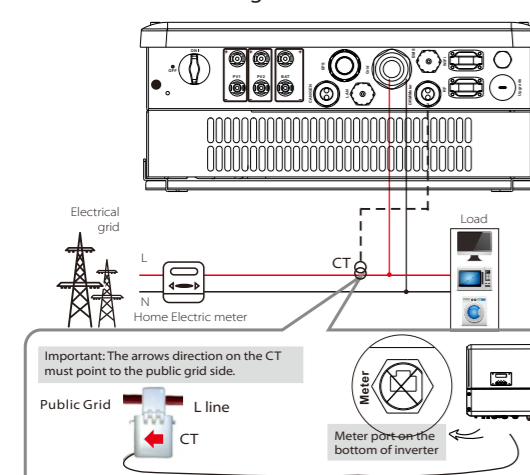


## Meter PIN Definition

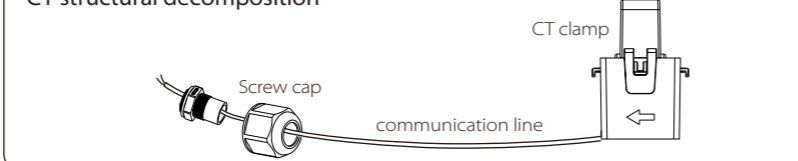
Connect the RS485 line from meter with a RJ45 connector and finish the configuration, then plug this RJ45 connector to the "Meter" port of the inverter.  
Note:Please make sure meterA and meterB is connected to port RS485A and RS485B on the meter.



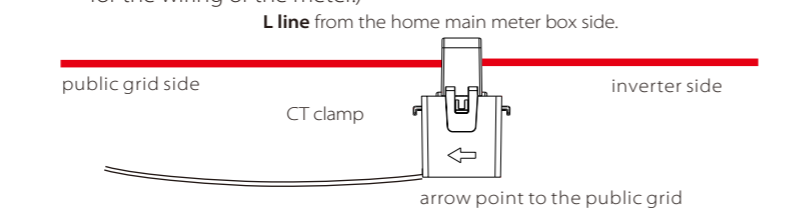
## CT connection diagram



## CT structural decomposition

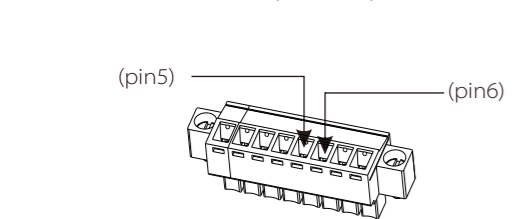


- Step1. Insert the side with two comm cables of CT into the Meter port on the inverter, and screw down the screw cap tightly (refer to meter steps).
- Step2. Trip the insulation from the communication wires, then insert one side of wires into pin5 and pin 6 holes of the 8 pin positive terminal which can be found in accessories package. And then screw them tightly. (refer to meter steps)
- Step3. Insert the positive terminal into the corresponding negative terminal block inside of the inverter. And then screw it tightly. (refer to meter steps)
- Step4. Clip the CT clamp on L line from the home main meter box side. Make sure the current sensor is installed in the right direction: The arrow on the current sensor must point to the public grid. (Please refer to the meter instructions for the wiring of the meter.)



## CT PIN Definition

The CT PIN definition is pin5 and pin6 shown as below.

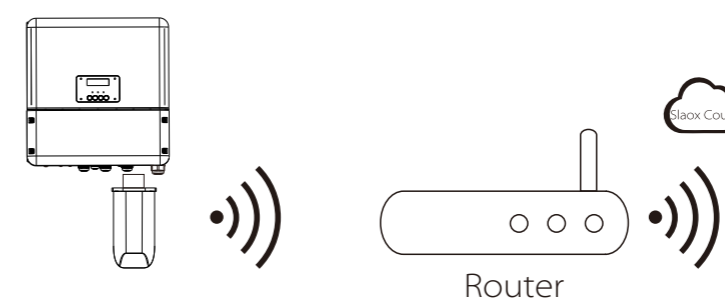


Solax provides two ways for users to choose: WiFi(optional) and Ethernet(LAN)

## WiFi(optional)

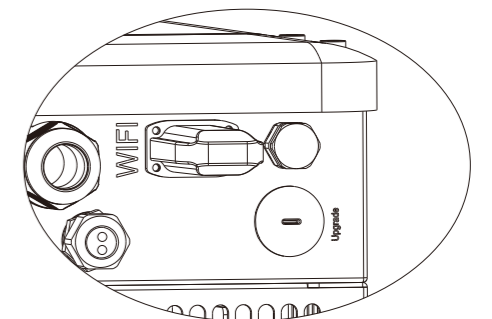
Inverter provides a WiFi port which can collect data from inverter and transmit it to monitoring-website via a Pocket WiFi. (Purchase the product from supplier if needed)

## Diagram



## WiFi Connection Steps:

- Step1. Plug Pocket Wifi into "WiFi" port at the bottom of the inverter.
- Step2. Build the connection between the inverter and router.
- Step3. Create an user account online.( Please check the Pocket WiFi user manual for more details.)



## Ethernet(LAN)

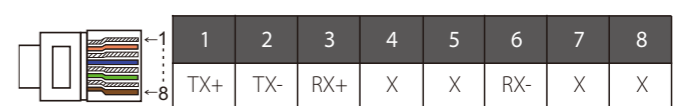
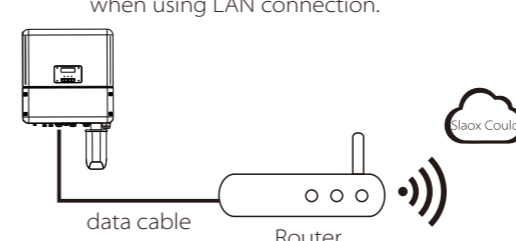
LAN communication is the standard communication interface. It can transmit the data between the router and inverter via the local network.

## Application Occasion

This function is applicable for the below situation:  
When the wifi signal is too weak to transmit data,user can use LAN port for the monitoring with a data cable.  
Note: The wifi module still needs to be connected when using LAN connection.

## LAN PIN Definition

Communication interface between inverter and router is RS485 with a RJ45 connector.



## LAN Connection Steps:

Please refer to BMS connection steps for LAN connection. Please kindly noted the PIN definition and port position will be slightly different.

