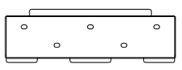
Quick Installation Guide

X3-Retro Fit 8kW-10kW

I Packing List

A



Bracket X1

Battery connectors
(positive X1, negative X1)

AC terminal X12

8 pin terminal X1

Ring terminal X2
Grounding nut X1

Expansion bolt (5) X1

NTC (optional) X1
Scope tape(optional) X1

Wifi module(optional) X1

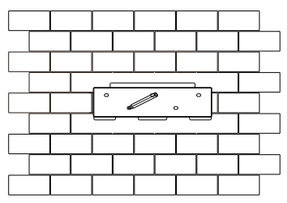
Waterproof connector
with RJ45 (2*RJ45) X1

User manual X1
Warranty card X1

Quick installation guide X1

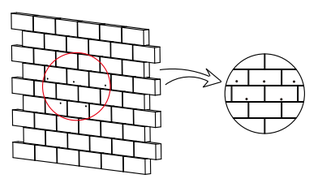
II Mounting Steps

- Mark the position of the five holes.



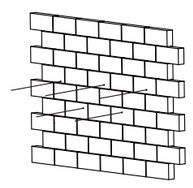
❶

- Drill the five holes with a φ10 drill bit.
- Depth: at least 60mm.



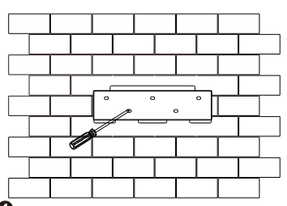
❷

- Hammer the expansion tubes into the five holes.



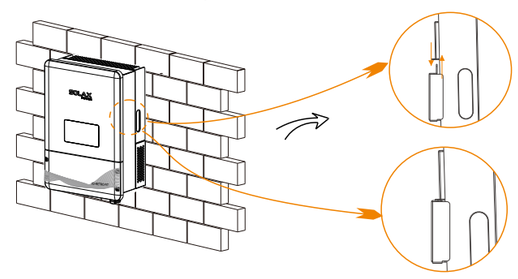
❸

- Screw the expansion bolts firmly.



❹

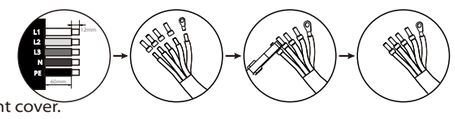
- Lift the inverter and fix it onto the bracket.
- Make sure the inverter is firmly attached.



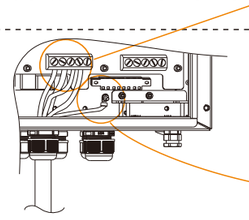
❺

III AC Connection

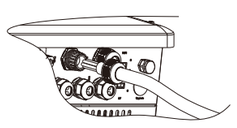
1. Remove the wiring compartment front cover.
(φ4 hexagon wrench, torque: 3±0.1Nm)



Prepare AC wire.
(Please refer to Table 1 below for AC cable size)

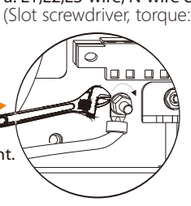


a. L1,L2,L3-wire, N-wire connection
(Slot screwdriver, torque:1.2±0.1Nm)



3. Run the AC wiring through the strain-relief connector and then into the Grid port.

4. Connect the AC wire to the Grid terminal in the wiring compartment.



b. PE wire connection
(Screw wrench, torque:1.2±0.1Nm)

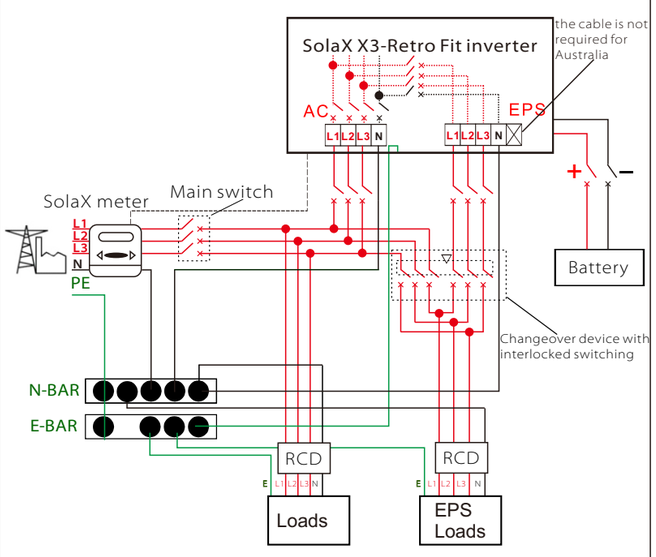
Model	X3-Fit-8.0-E	X3-Fit-8.0-C	X3-Fit-10.0-E	X3-Fit-10.0-C
Cable	4-5mm²	4-5mm²	5-6mm²	5-6mm²
Micro-breaker	32A	32A	32A	32A

table1

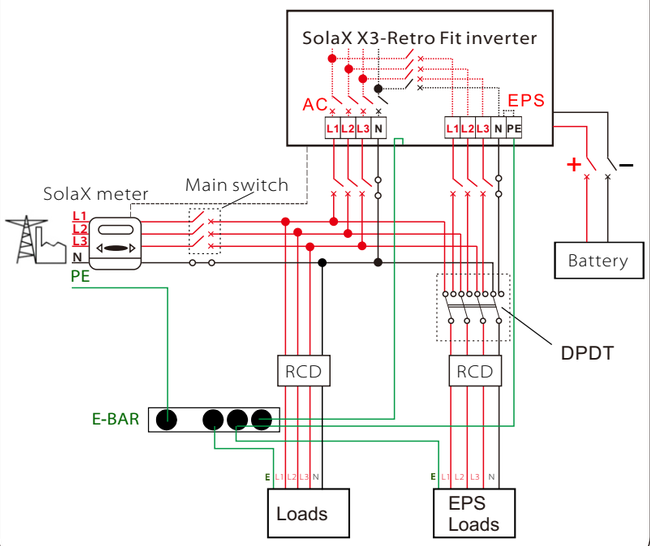
IV EPS Connection(for E Version)

EPS wiring diagram

• E Version • For AU/NZ



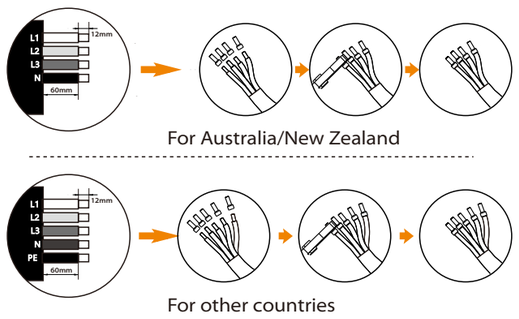
• E Version • For Other Countries



This function can be achieved manually or automatically according to user's preference.
For manual solution, please install an external switch.
For automatical solution, please contact our sales.

EPS connection steps:

1. Prepare EPS wire.
(Please refer to Table 2 below for EPS cable size)



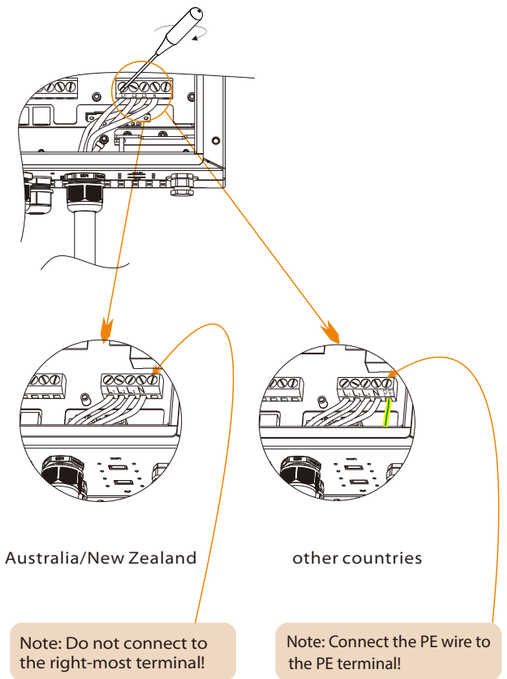
For Australia/New Zealand

For other countries

table2: Cable and Micro-breaker recommended

Model	X3-Fit-8.0-E	X3-Fit-8.0-C	X3-Fit-10.0-E	X3-Fit-10.0-C
EPS Cable	⩾5mm²	⩾5mm²	⩾5mm²	⩾5mm²
EPS breaker	32A	32A	32A	32A

2. Run the EPS wire through the strain-relief connector to the EPS terminal.
(Slot screwdriver, torque:1.2±0.1Nm)



Australia/New Zealand

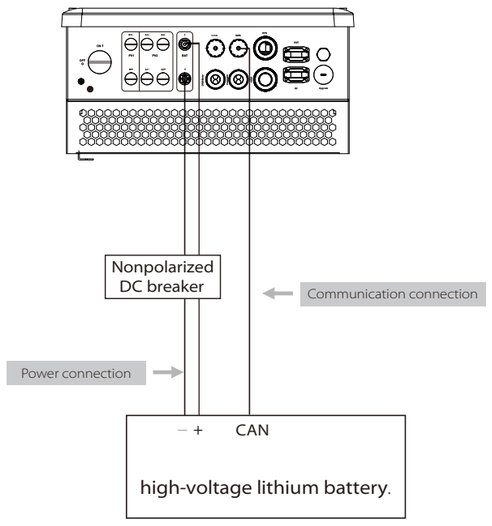
other countries

Note: Do not connect to the right-most terminal!

Note: Connect the PE wire to the PE terminal!

V Battery Connection(optional)

Battery Connection Diagram



Battery breaker

Before connecting to the battery, please install a nonpolarized DC breaker to make sure the inverter can be securely disconnected from the battery during maintanance.

Model	X3-Fit-8.0-E	X3-Fit-8.0-C	X3-Fit-10.0-E	X3-Fit-10.0-C
Voltage	Nominal voltage of the DC breaker should be higher than the maximum voltage of the battery.			
Current[A]	50A			

BMS PIN Definition

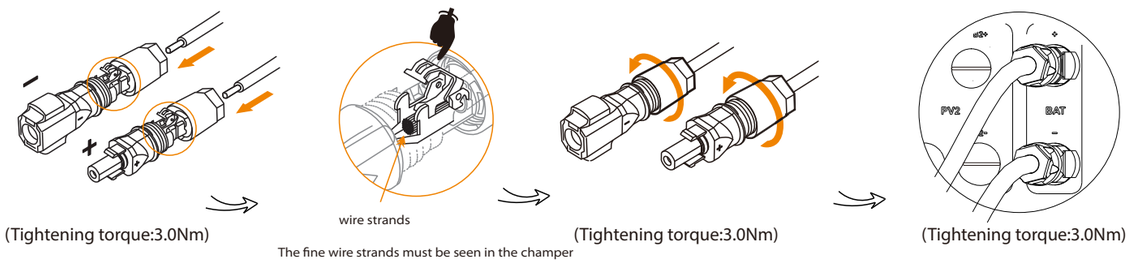
Communication interface bewteen inverter and battery is CAN with a RJ45 connector.

PIN	1	2	3	4	5	6	7	8
Definition	NTC	GND	GND	BMS_CANH	BMS_CANL	GND	BMS_485A	BMS_485B

Note: The battery can only work when its BMS protocol is compatible with the inverter.

A: Power Connection Steps:

Press down the spring clamp until it clicks into its place.



(Tightening torque:3.0Nm)

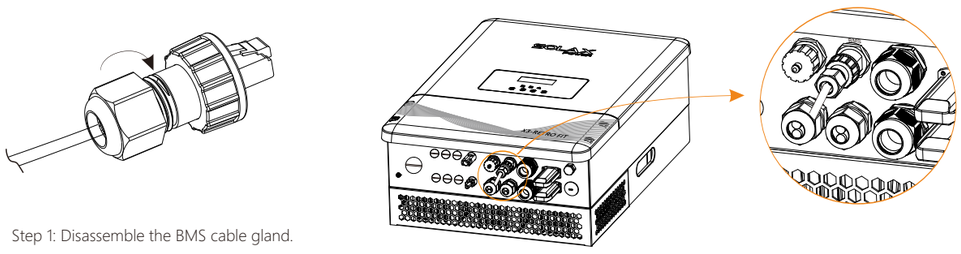
wire strands

The fine wire strands must be seen in the champer

(Tightening torque:3.0Nm)

(Tightening torque:3.0Nm)

B: Communication Connection Steps:



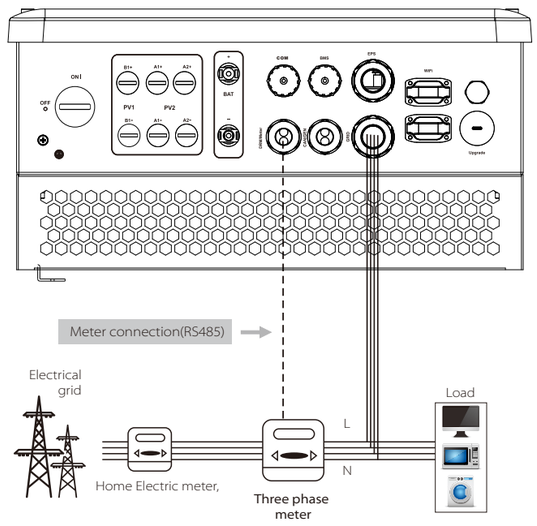
Step 1: Disassemble the BMS cable gland.

Step 2: Prepare a communication cable (without sheath) and insert it through the cable nut into the BMS port inside the inverter.

Step 3: Assemble the cable gland and screw the cable nut.

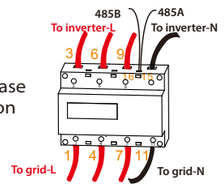
VI Meter Connection

Meter Connection Diagram



Meter communication interface is RS485 on a green terminal inside the inverter.

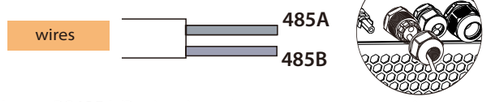
Meter Connection Steps:



1) Insert L1/L2/L3/N wires and RS485A/B cable into the meter. Please refer to the meter wiring diagram on side of the meter itself.

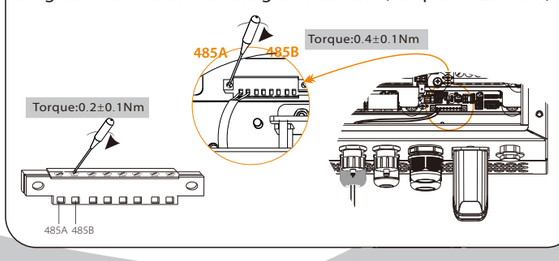
2) Insert the other end of the meter cable into the green terminal via meter port on the inverter.

a. Unscrew the meter cable gland and insert the meter communication wire through the nut.



b. Insert RS485A/B wires into the correct meter terminal. (Torque: 0.2±0.1Nm)

c. Tighten both screws on the green terminal(Torque: 0.4±0.1Nm)



Firmware Upgrading

Preparation

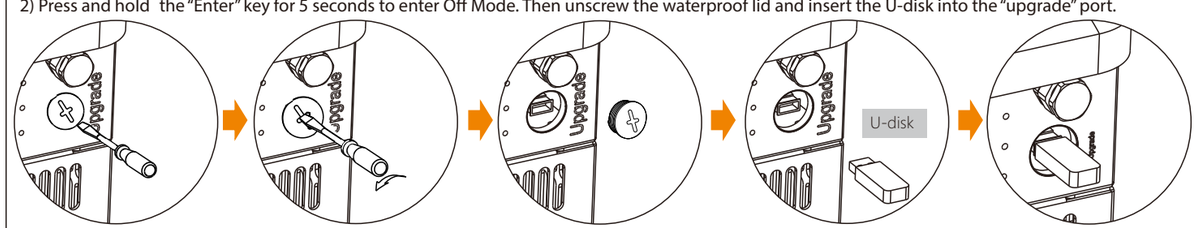
Please ensure the inverter is powered on with steady DC and AC power. Battery must be kept ON throughout the whole upgrade procedure.

Please prepare a PC and an U-Disk. Please also note that the U-Disk shall be less than 16GB and its format is not NTFS.

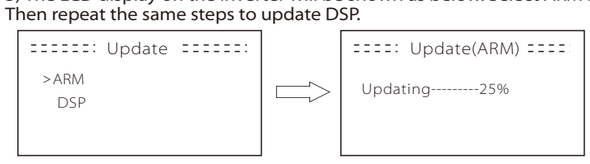
Warning!
Make sure the battery voltage is higher than 180V, otherwise it may cause serious failure or damage to the inverter during the upgrade.

1) Please contact SolaX service to get the latest firmware. Then add a new folder named "Update" in the root directory on your U-disk, and two more sub-folders named "ARM" and "DSP" under "Update". Please copy the firmware files into ARM and DSP respectively. It will be like:
"update\ARM\618.00098.00_Hybrid_X3G3_Manager_VX.XX_XX-XX.usb";
"update\DSP\618.00096.00_Hybrid_G3X3_Master_VX.XX_XX-XX.hex";

2) Press and hold the "Enter" key for 5 seconds to enter Off Mode. Then unscrew the waterproof lid and insert the U-disk into the "upgrade" port.



3) The LCD display on the inverter will be shown as below. Select ARM by the "OK" key. Wait for the update process to finish. Then repeat the same steps to update DSP.

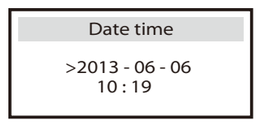


4) After the upgrade is finished, the LCD will display "succeed"(only for DSP upgrades), please remember to pull off the U-disk, screw the waterproof lid and press the "Esc" to return to the Main interface. Then press the "Enter" key to exit Off Mode.

Startup Guide

1. Select language

2. Set date and time



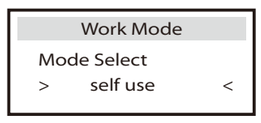
3. Select the correct safety standard

4. Set the export power limit

This function enables the inverter to control energy exported to the grid. Factory value is a default value, which can not be changed. User value is usually set by installer, it must be a value smaller than the factory value.

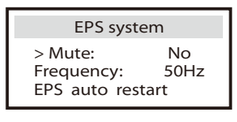
5.Set work mode

There are 4 work modes for your selection
Self use/
Back up mode/
Feed in Priority/
Force Time Use



Parameter	Comment
Self Use (default)	The power from the external generator in the home system will be used to supply the local loads first, followed by charging the battery. The redundant power will be exported to the public grid as set in Export Control. When there is no extra power generated, battery will start discharging for local loads usage, and Grid will supply power
Back Up Mode	Battery will stop discharging to keep higher capacity when the grid is on. Only when the gird is off and the external generator is not supplying enough energy to meet home loads usage, will battery start to discharge to keep the emergency loads working normally. This work mode can be applied to areas where power outages
Feed in Priority	The priority of the inverter output power is: Supply to the load ⟶ Feedin to the Grid ⟶ Charge the battery. This work mode can be applied to areas with high feed-in tariff.
Force Time Use	In this work mode the charging and discharging time can be set flexibly, and you can select whether to charge from the grid or not. And it will work in Self Use out of the two set force charging and discharging periods.

6.Set EPS system(For E Version only)

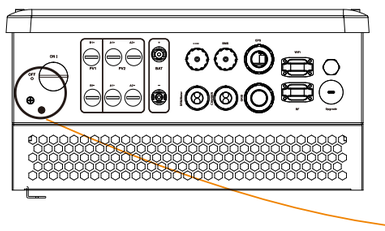


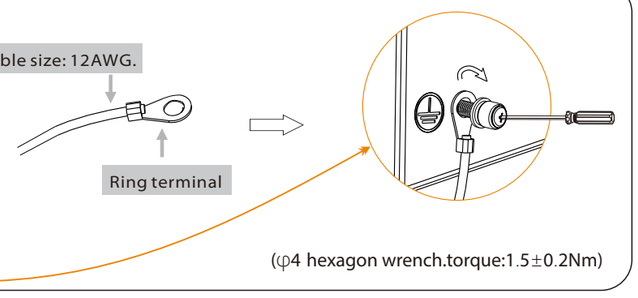
X3-Retro Fit E version requires external EPS box for EPS connection.
- Mute is to set the warning alert for EPS mode.
- "No" means EPS buzzing alert is enabled.
- "Yes" means EPS buzzing alert is disabled.

Besides, if the buzzing noise is sharp, it means EPS output is overloaded.
Frequency can be set to 50 or 60Hz based on your load loads.

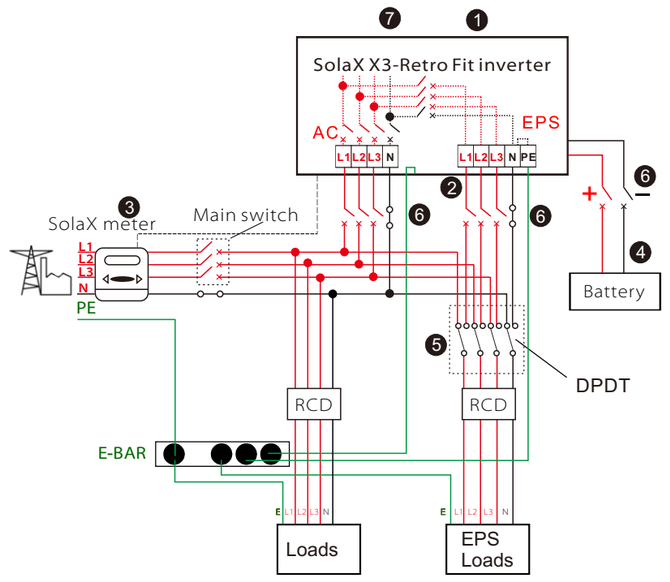
VII Earth Connection&Start Inverter

Earth Connection & Inverter Start-up





How to start the inverter



1. Double check the inverter is well fixed on the wall.
2. Double check all the AC wirings in place.
3. Double check the meter is properly connected.
4. Make sure the battery BMS and DC power cables are well connected.
5. Make sure the external EPS contactor is well connected. (If applicable)
6. Turn on the AC isolator, battery switch and EPS isolator.
7. Press and hold the "Enter" key for five seconds to exit Off Mode.
   Note: Off Mode is set by default.

Inverter will start up automatically when power from the battery is detected.Check the status of the LED indicator and the LCD screen. The first indicator with a inverter icon should be blue. On the LCD it will show "waiting" -> "checking" -> "Normal".

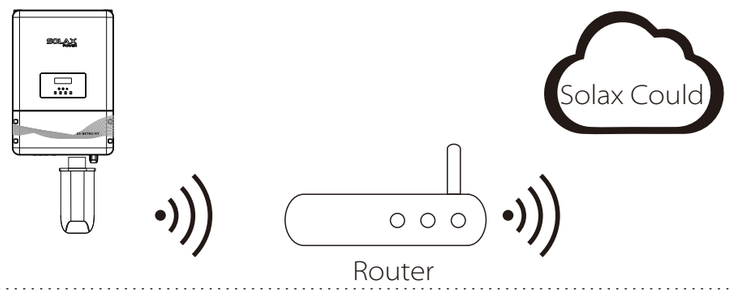
Monitoring Operation

SolaX provides two different ways of monitoring: WiFi(optional) and RS485

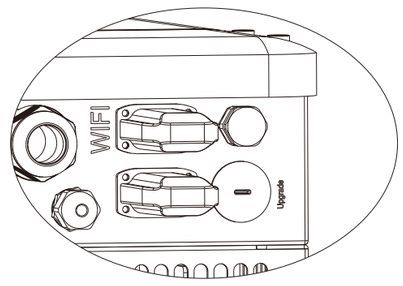
WiFi (optional)

Via a Pocket WiFi (please purchase it from supplier if needed), the inverter data can be transmitted to SolaX Monitoring website.

Diagram



WiFi Connection Steps:



Step1. Plug Pocket WiFi into "WiFi" port at the bottom of the inverter.

Step 2: Connect to SolaX WiFi on your smart phone or PC, then config the router wifi name and password on this web page: 5.8.8.8

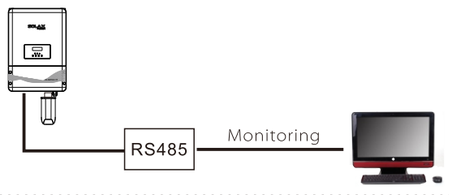
Step 3: Create an user account on https://www.solaxcloud.com

COM

COM communication interface, which can be upgraded to man-machine communication interface.Output voltage, current, frequency, fault information and other operational information can be transferred to PC or other monitoring equipment through these interfaces.

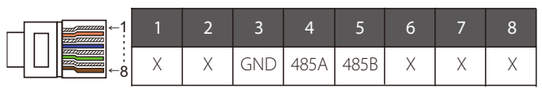
Application Occasion

COM is one standard communication interface which can transmit the real data from inverter to PC or other monitoring equipments.



COM PIN Definition

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



1	2	3	4	5	6	7	8
X	X	GND	485A	485B	X	X	X

COM Connection Steps:

Please refer to BMS connection steps (for user manual page32) for COM connection. Please kindly noted the PIN definition and port position will be slightly different.