

 <div>亞源科技股份有限公司 ASIAN POWER DEVICES INC.</div>	<div>規 格 書</div> <div>SPECIFICATION</div>		文件類別 File Type	機密等級 Confidential Level
				<input type="checkbox"/> 高 <input type="checkbox"/> 中 <input checked="" type="checkbox"/> 低

料號 Part No.	614-00211		
版本 Rev.	0	角碼 Footnote	A
規格描述 Description	INST MANU 1P 10KW EN EDISON		
GP 等級 GP Level	GP1D		
應用類別 Application Type	<input checked="" type="checkbox"/> PV INVERTER <input type="checkbox"/> UPS <input type="checkbox"/> 其他 Others		
備註 Remarks			

會簽單位 Signature		
核準 Approved	審核 Checked	制作 Prepared By
尤嘉勳	林家昇	汪大杰

SPECIFICATION

RECORD OF REVISION					
DATE	REV.	DESCRIPTION OF CHANGED	CHANGE NO.	APPLICANT	APPROVAL
2023-09-06	0		新发行	汪大杰	尤嘉勳

NOTE:

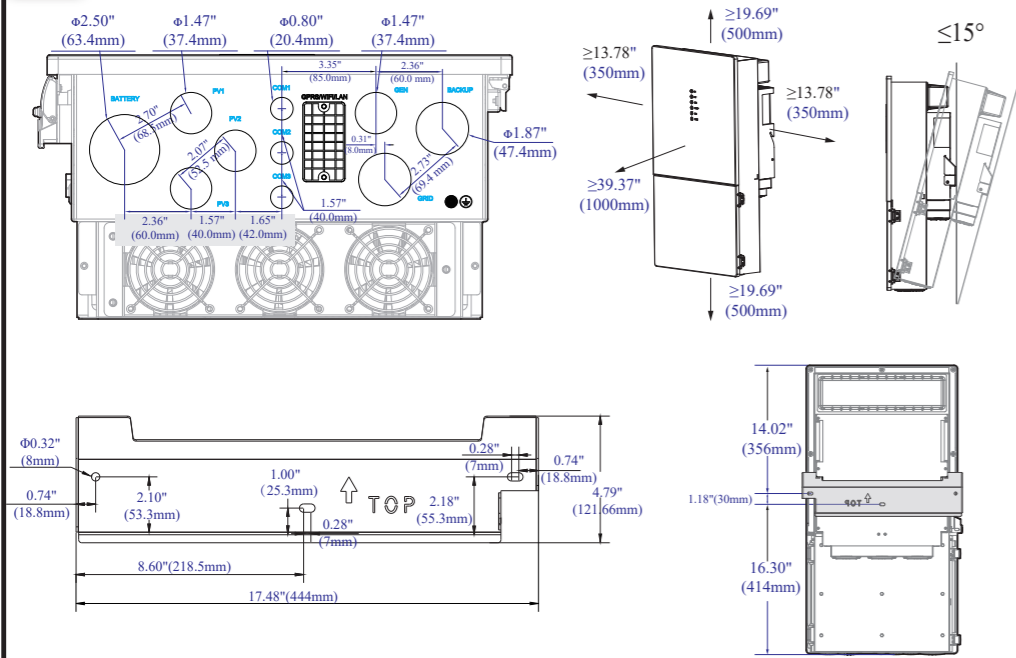
- 1.说明书的打印纸张规格为：A3，材质：80G 双胶纸，打印方式为：双面彩色打印；
- 2.交收时按 A4 版本大小折叠；需保持纸面整洁，不可污秽，纸张不可破损；
- 3.图面的内容和文字必须清晰可辨，不可随意涂改；

A3 纸张大小可接受的范围：长：420+/-5 mm
宽：297+/-5 mm

QUICK INSTALLATION GUIDE


ESS INVERTER 5/6/7.6/10K UL

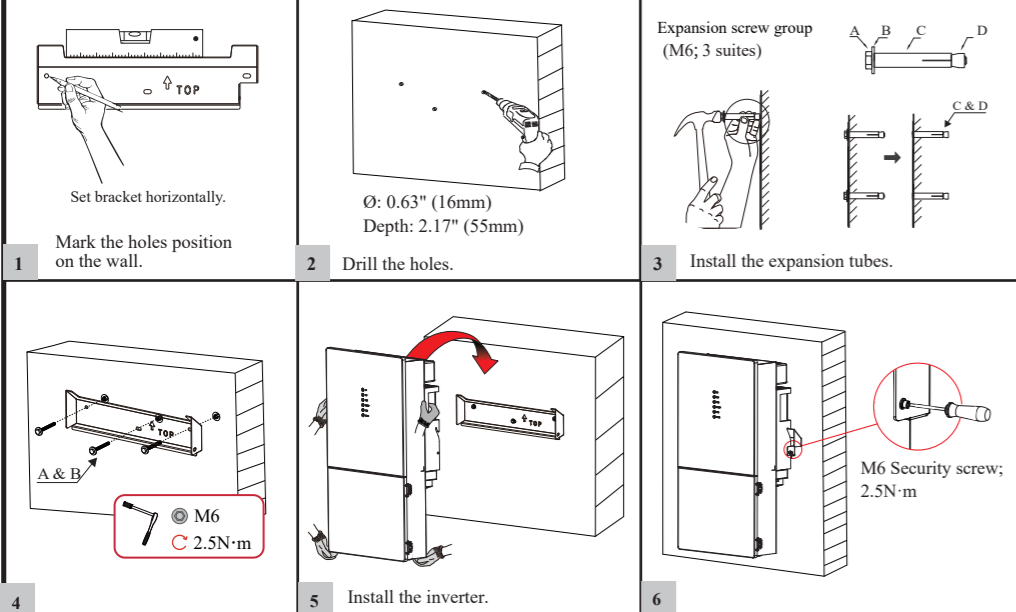
1 Dimensions and Location



2 Installation

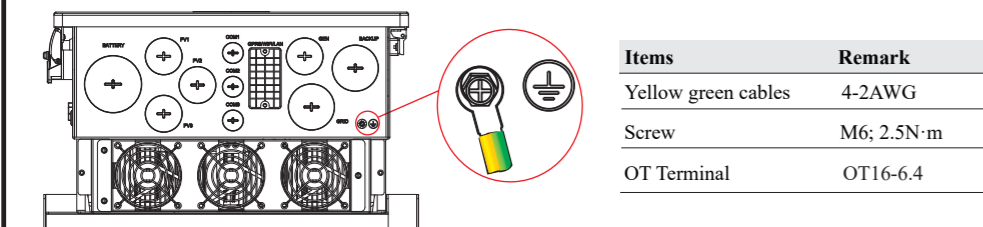
- 1. The walls must be fireproof and non-flammable materials, otherwise there is a fire risk.
2. Before drilling holes, check whether there are electric power pipes or other pipes buried in the walls to avoid risks.

 **Note:** Inverter can be installed on the wall or supported by means of mounting bracket. The following steps only illustrate wall-mounted installation. Two or three persons are recommended to install the inverter.

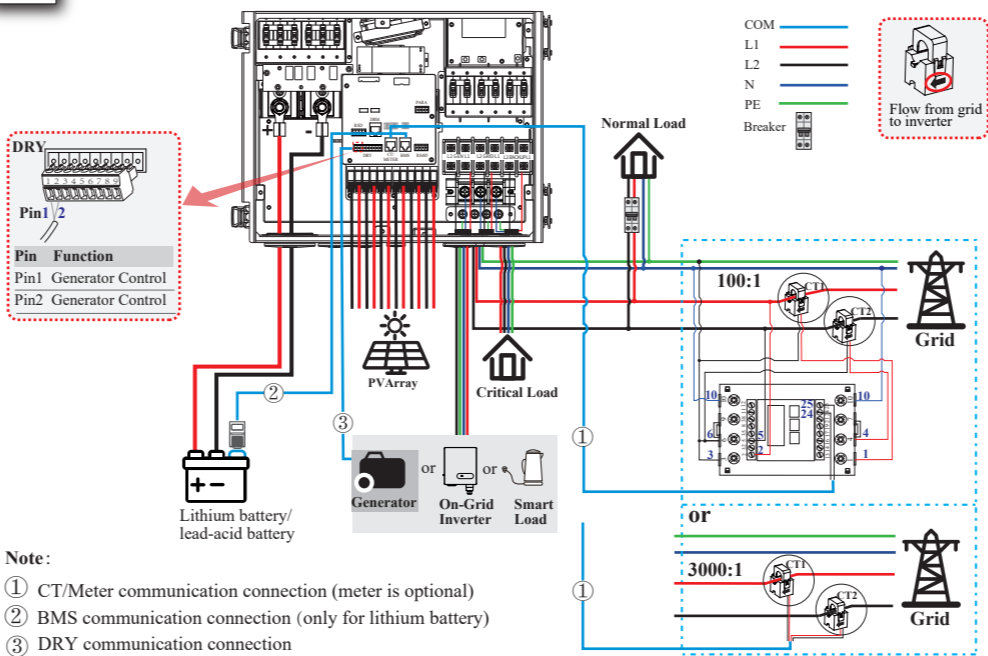


3 Grounding

-  Ensure that the inverter and all cables to be installed have been completely powered off during the whole process of installation and connection. Otherwise, fatal injury could be caused by the high voltage.

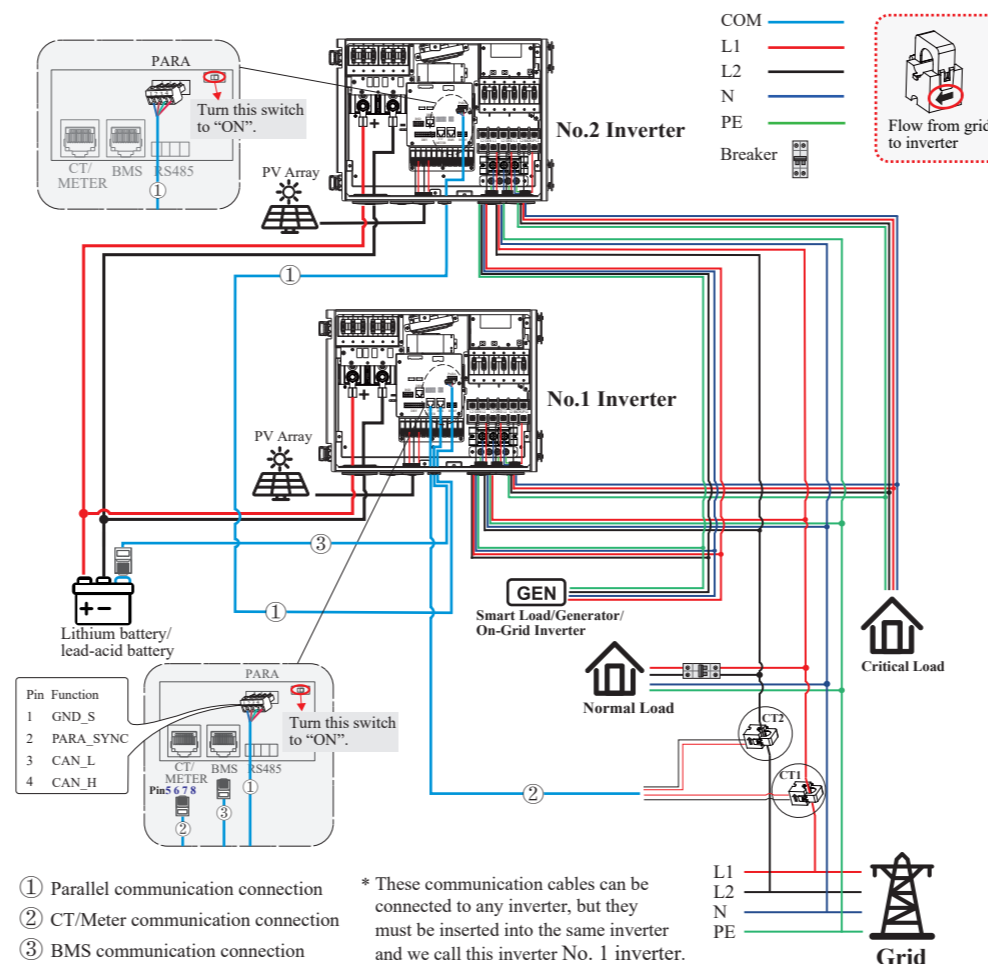


4 Wiring System Split phase (120/240Vac) connection diagram (US)



5 Wiring System

Split phase parallel connection mode-Scheme A (N=2)



- ① Parallel communication connection
② CT/Meter communication connection
③ BMS communication connection
- * These communication cables can be connected to any inverter, but they must be inserted into the same inverter and we call this inverter No. 1 inverter.

Note:

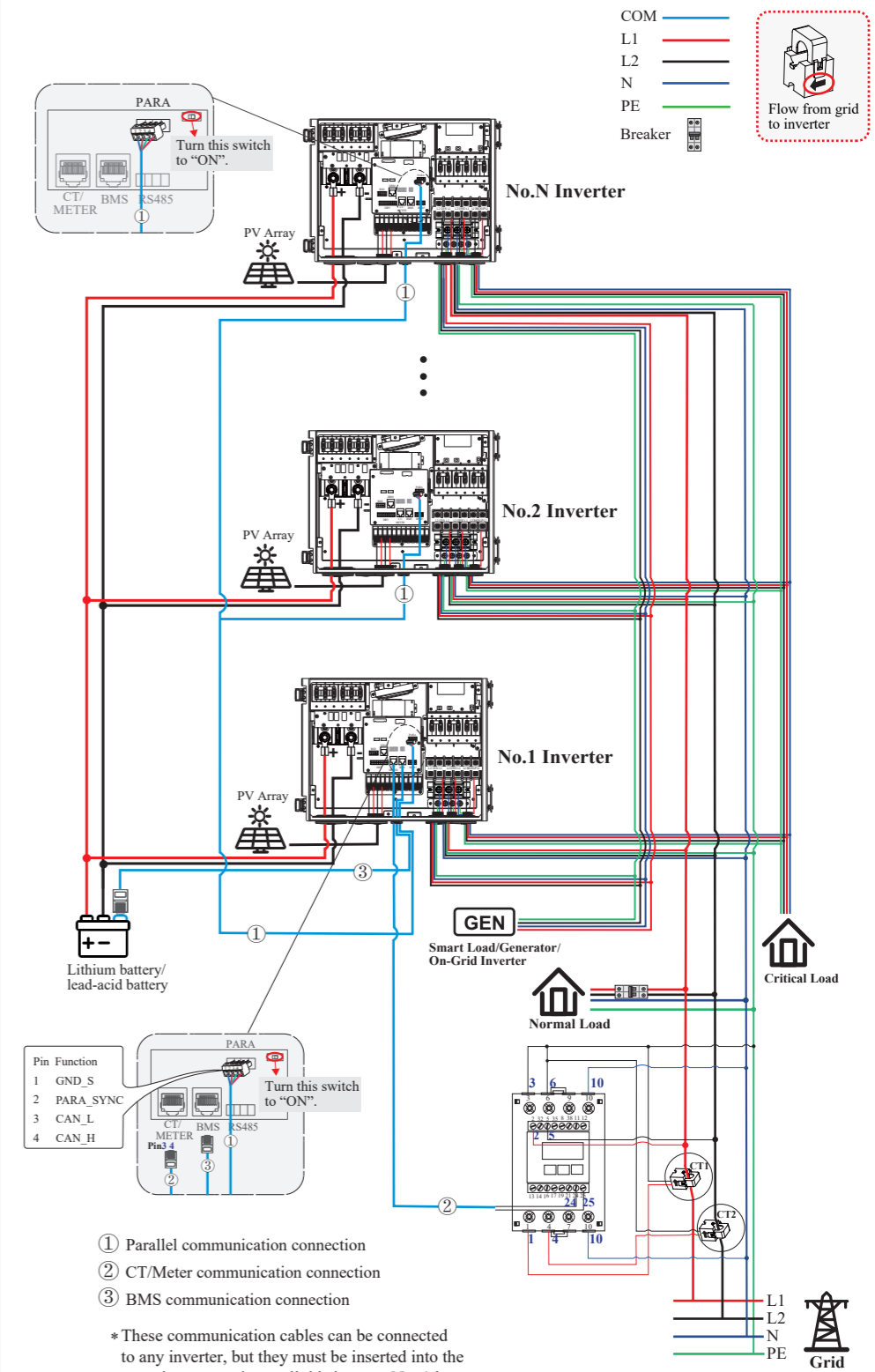
1. BMS communication connection is only for lithium battery.
2. It is necessary to turn the matched resistance switch of No. 1 inverter and No. 2 inverter to “ON” in parallel connection mode.
3. With parallel connection mode, it is necessary to connect APP to one of the inverters and then go to [Console > Hybrid Setting > Other > Parallel mode](#) to enable parallel mode on APP.

DANGER

Ensure that the inverter and all cables to be installed have been completely powered off during the whole process of installation and connection. Otherwise, fatal injury could be caused by the high voltage.

6 Wiring System

Split phase parallel connection mode-Scheme B (N>2)



- ① Parallel communication connection
- ② CT/Meter communication connection
- ③ BMS communication connection

* These communication cables can be connected to any inverter, but they must be inserted into the same inverter and we call this inverter No. 1 inverter.

Note:

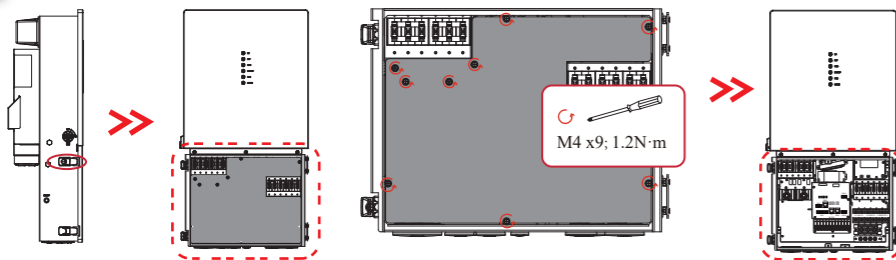
1. BMS communication connection is only for lithium battery.
2. It is necessary to additionally purchase suitable CT and meter according to the specific requirements in parallel connection mode-Scheme B. Meter+CT Ratio is 100:1(optional).
3. It is necessary to turn the matched resistance switch of No. 1 inverter and No. N inverter to “ON” in parallel connection mode.
4. With parallel connection mode, it is necessary to connect APP to one of the inverters and then go to [Console > Hybrid Setting> Other >Parallel mode](#) to enable parallel mode on APP.

DANGER

Ensure that the inverter and all cables to be installed have been completely powered off during the whole process of installation and connection. Otherwise, fatal injury could be caused by the high voltage.

7

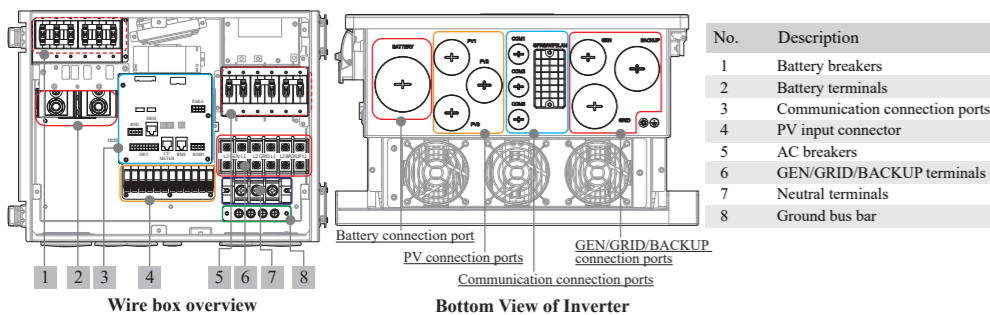
Insulation Piece Removing



8

Connection Ports Overview

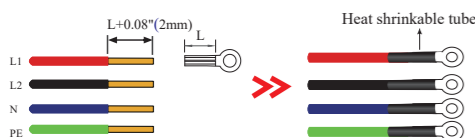
Note:
The connection instructions in 9-13 sections will be based on views here, please read them carefully.



9

GRID/BACKUP/GEN Connection

Before connecting the GRID/BACKUP/GEN 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.

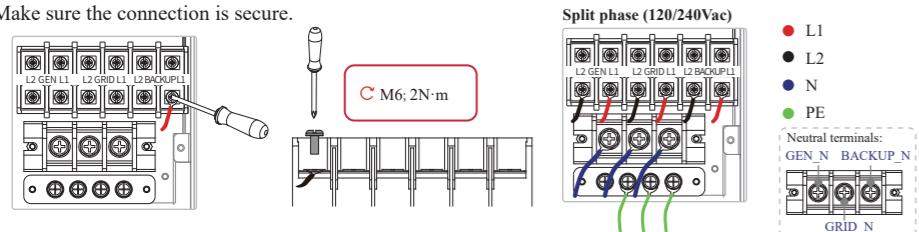


It is recommended to use outdoor dedicated cables.

AC	Wire Size	OT Terminal
GEN	6-4AWG	
GRID	4-2AWG	OT16-6.4
BACKUP	4-2AWG	

1 Wires making.

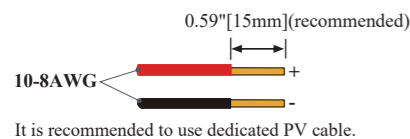
- Thread the wires into wire box through corresponding GEN/GRID/BACKUP ports.
- According to the label on terminal blocks, fit wires' connectors in and tighten terminal screws.
- Make sure the connection is secure.



2

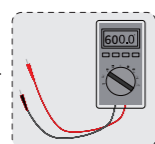
10 PV Connection

- Photovoltaic arrays exposed to sunlight will generate dangerous voltages!
- Before connecting the PV 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.



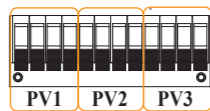
1 Wires making.

- Check correct polarity of wire connection from PV modules and PV input connectors.
- The test voltage cannot exceed 600V.

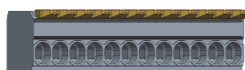


2

- Thread the wires into wire box through PV connection ports.



Side view of PV input connector:



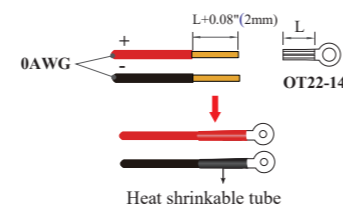
- Open PV input connector switch.
- Insert positive pole (+) of connection wire into positive pole (+) of PV input connector.
- Insert negative pole (-) of connection wire into negative pole (-) of PV input connector.
- Close the switch and ensure the wires are tightly fixed.

3

11

Battery Connection

Before connecting the battery 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.



It is recommended that the battery cable be less than or equal to 3 m.

1 Wires making.



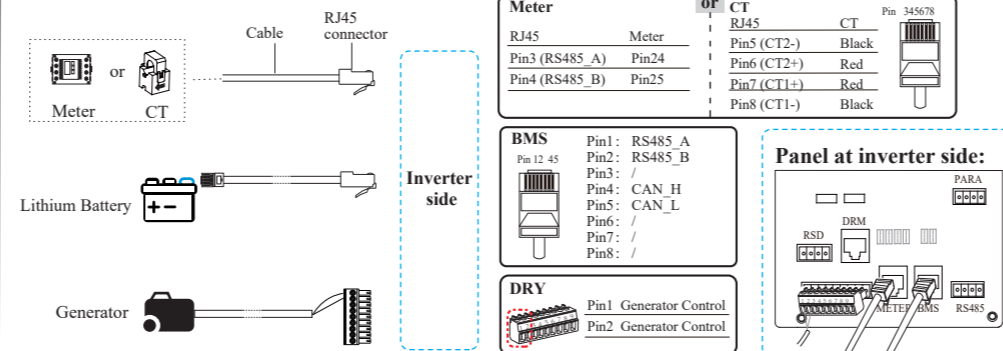
Warning!
Polarity reverse will damage the inverter!

2 Wires connection.

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Communication Cable(s) Connection (CT/Meter, BMS, DRY)

*The inverter is not equipped with RJ45 connectors.

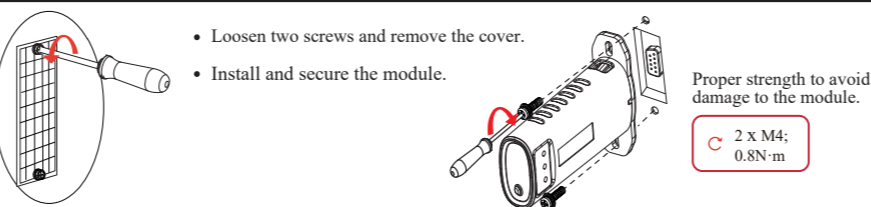


- Make the communication cables with an RJ45 connector/9-Pin terminal according to each Pin definition.
- Insert these cables into corresponding communication ports according to panel at inverter side.

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GPRS/WIFI/LAN Module Installation (Optional)

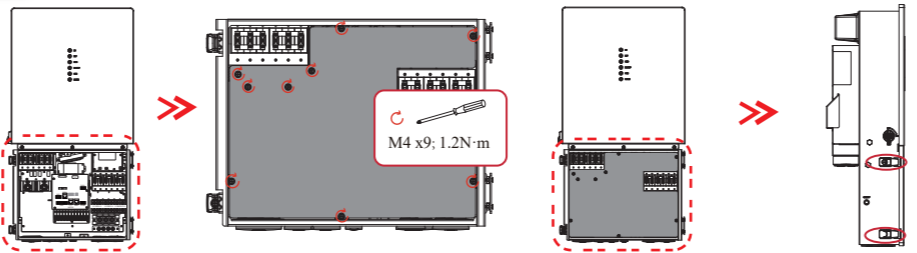
Note: the appearance of actual modules may be slightly different. The figures shown here are only for illustration. For details, please refer to the corresponding Module Installation Guide in the packing.



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Insulation Piece Installation

Before installing insulation piece, please turn on all circuit breakers in wire box.



15

Startup/Shutdown Procedure

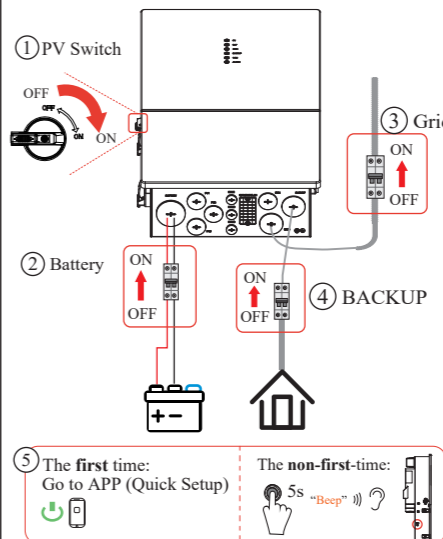
After the inverter is powered off, the remaining electricity and heat may still cause electric shock and body burns. If need to disconnect the inverter cables, please wait at least 10 minutes before touching these parts of inverter.

Inspection

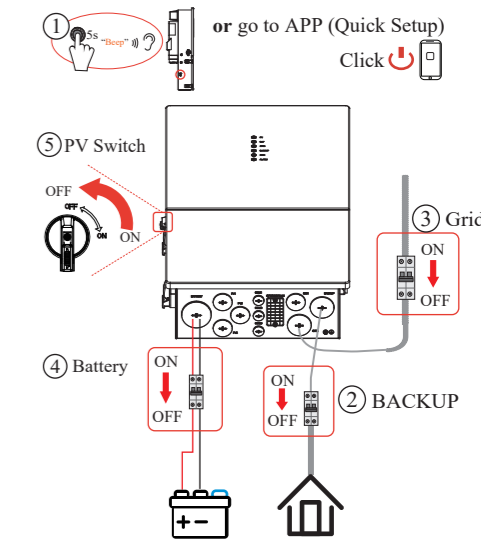
- | No. | Items |
|-----|--|
| 1 | The inverter is firmly installed. |
| 2 | There is enough heat dissipation space, no external objects or parts left on the inverter. |
| 3 | It is convenient for operation and maintenance. |
| 4 | The wiring of the system is correct and firm. |

- Check whether the DC and AC connections are correct with a multimeter, and whether there is a short circuit, break, or wrong connection.
- Check whether the waterproof nuts of each part are tightened.
- The vacant port has been sealed. All gaps at the cable inlet and outlet holes have been plugged with fireproof/waterproof materials, such as fireproof mud.
- All safety labels and warning labels on the inverter are complete and without occlusion or alteration.

Startup Procedure



Shutdown Procedure



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Quick Setup

A Preparation

- Download the App *SolarHope* for local settings.
 - Scan the QR code on the inverter to download the App.
 - Download the App from the App Store or Google Play.

NOTE

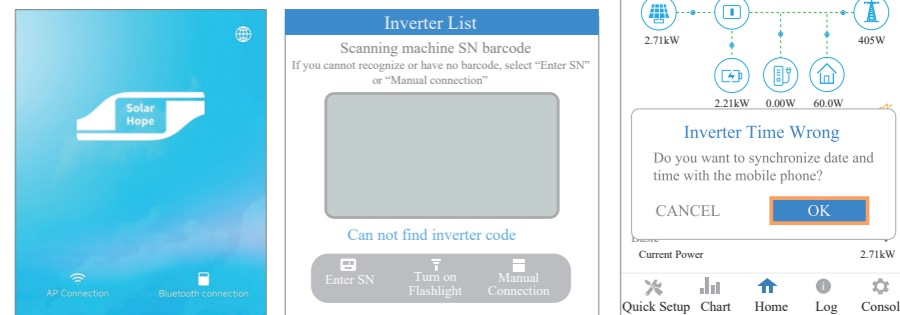
- The App *SolarHope* is only for local settings. Detailed information about remote monitoring, please refer to corresponding WIFI User Manual.
- The App should access some permissions such as the device's location. You need to grant all access rights in all pop-up windows when installing the App or setting your phone.

- Power on the inverter.

B

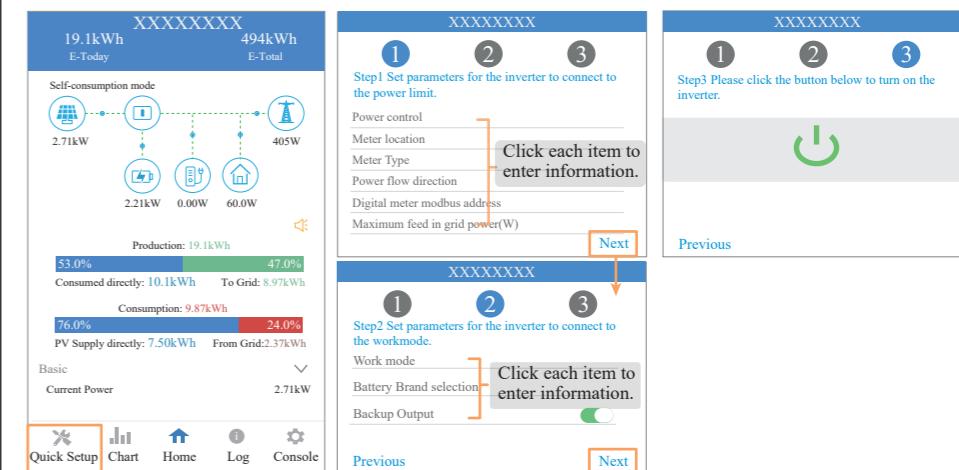
Connecting the Inverter

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



C

Quick Setup



- For details about the LED panel, please refer to the *User Manual*.

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.