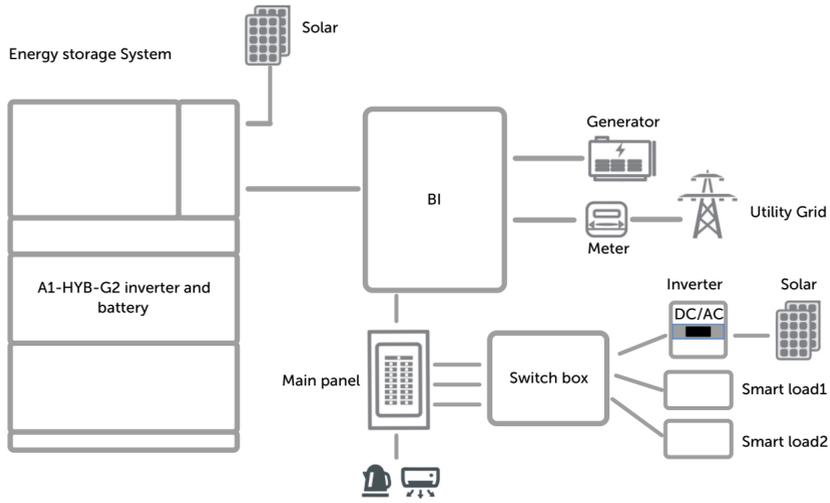


Quick Installation Guide BI Switch box

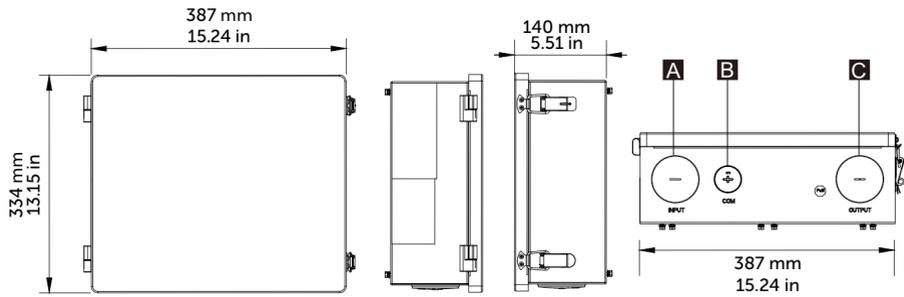


1. Introduction



BI, as the core component of the whole house load solution, is responsible for the access of an energy storage system to the home to realize intelligent switching and management of the home load. Through the expansion of Switch box and BI, intelligent home load switching management will be achieved.

2. Overview

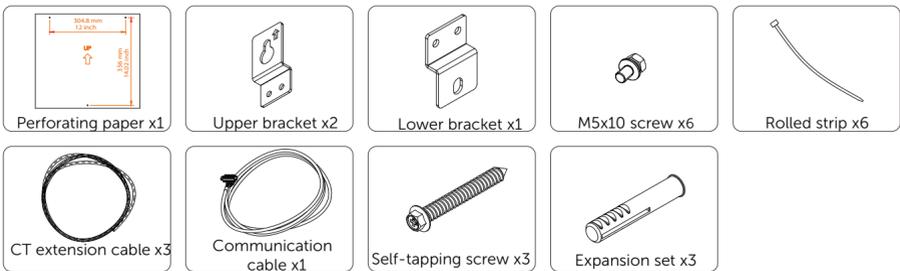


Object	Name	Description
A	INPUT	Connect the load output of BI and the break of the inverter
B	COM	Connect sampling and control lines
C	OUTPUT	Connect load and grid-connected inverter

3. Preparation

3.1 Check Packing List

Open the package and check the materials and accessories according to the following list.



3.2 Tools

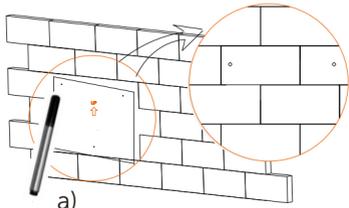


4. Mounting

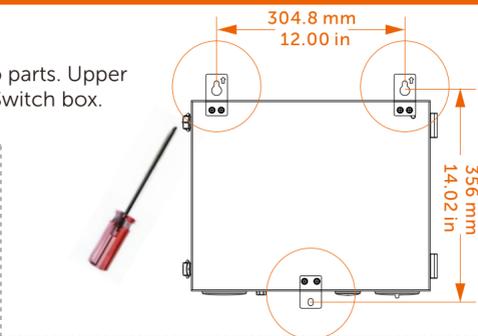
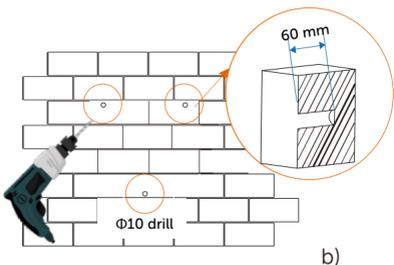
Step 1: Install the bracket

The bracket of the Switch box is composed of two parts. Upper bracket and Lower bracket are used to install the Switch box. Use the screwdriver to fix the brackets on the box.

Step 2: Fix the position, drill holes and install the whole structure on the wall

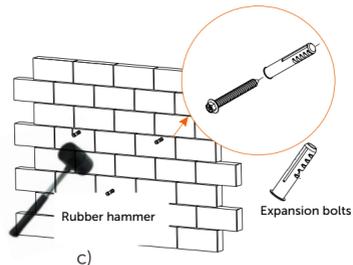


b) Drill holes at certain spots with diameter of 10 mm. (4 mm for wooden walls).

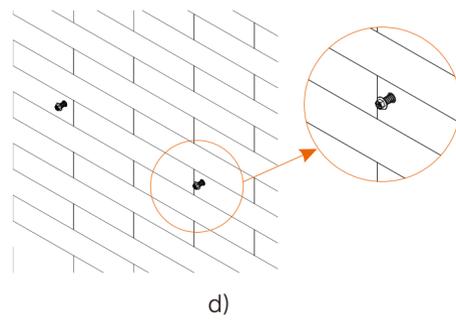


a) With the perforating paper, use a spirit level to mark the holes needed on the wall with a marker pen.

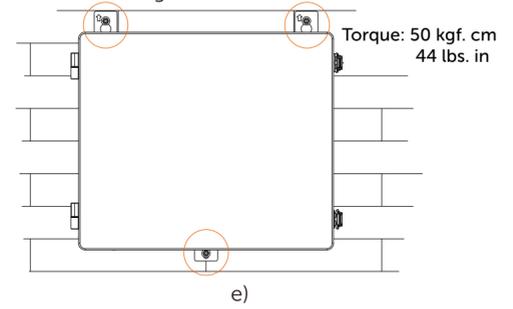
c) Insert expansion bolts into the holes, use rubber hammer to knock the expansion bolts into the wall.



d) Screw the upper two screws, until the distance between screws and the wall is 5 ~ 10mm.

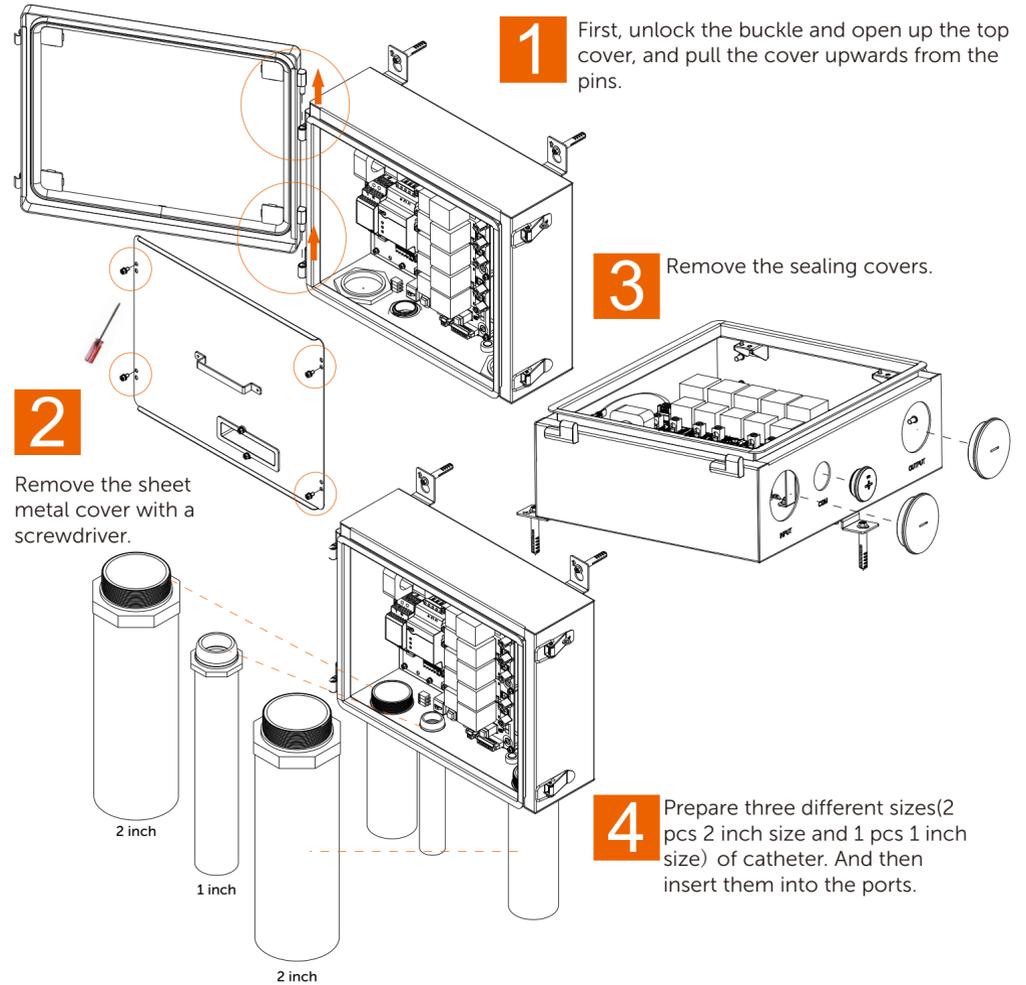


e) Put on the machine, the brackets are aligned with the screws, use the inner hexagonal wrench to screw the upper and lower tapping screws until the buckle "bang" is heard.



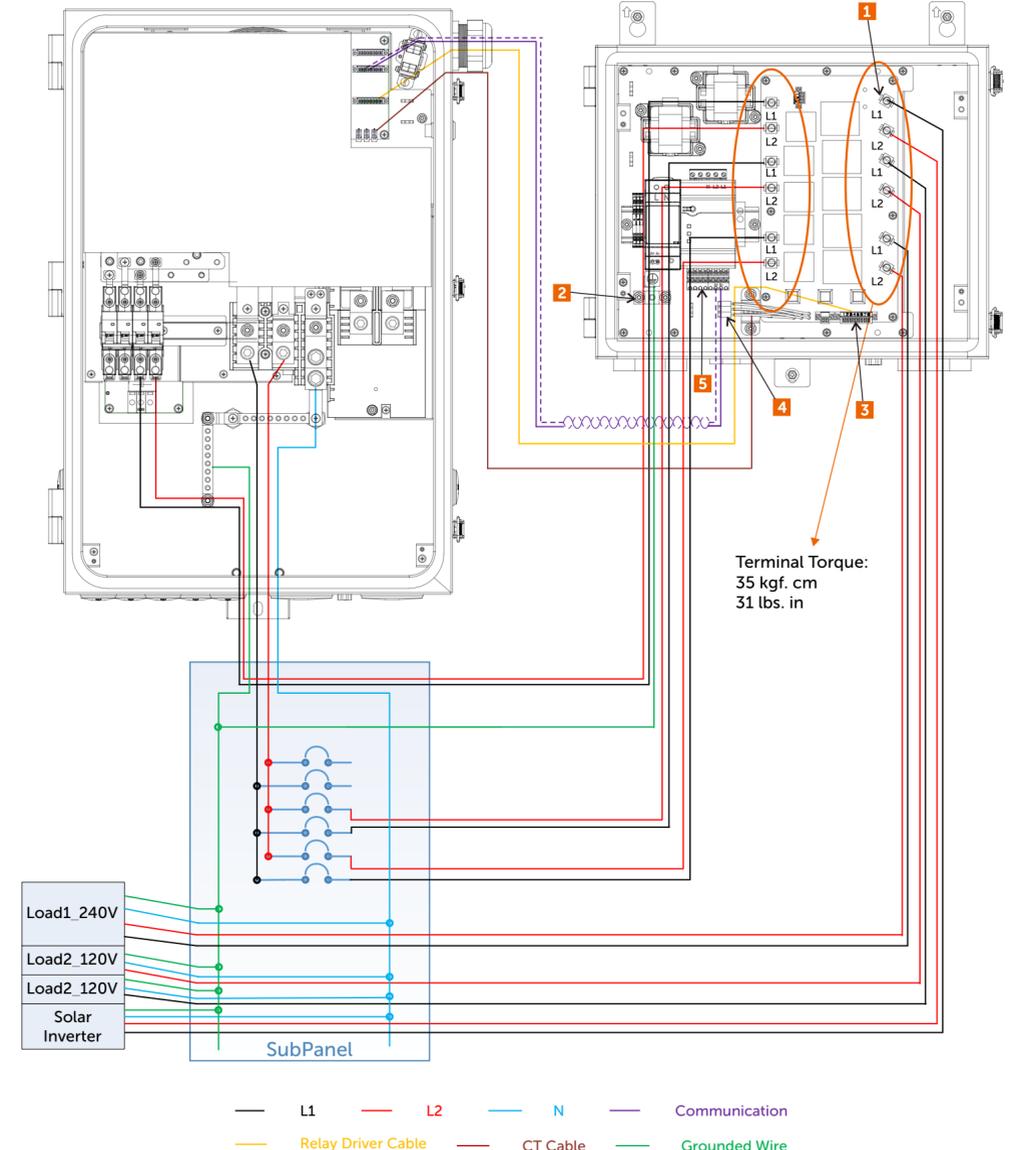
Step 3: Switch box internal wiring connection

Make sure all brackets (upper brackets and lower brackets) are well and firmly installed.



5. Wiring Connection

5.1 Wire Connection Reference Diagram



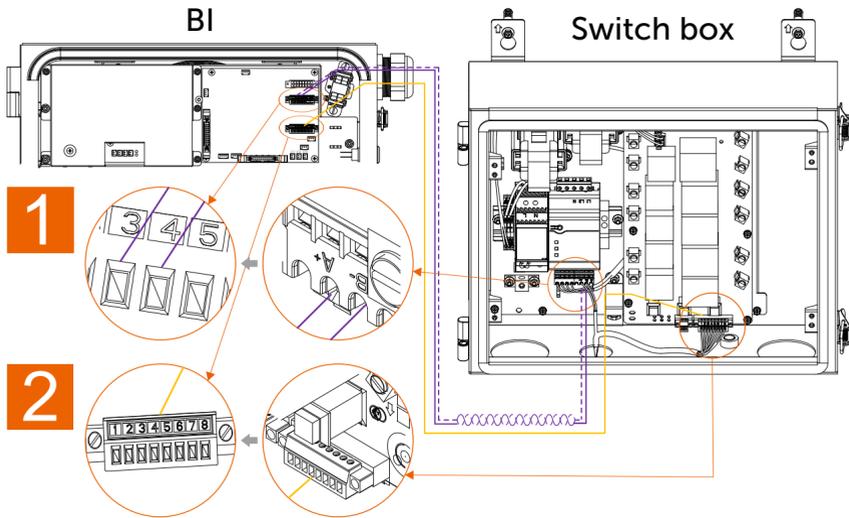
For details on the connections, please refer to the wiring connections diagram label on the chassis. The next are the detailed wiring steps.

5.2 Required Wire Sizes and Torques

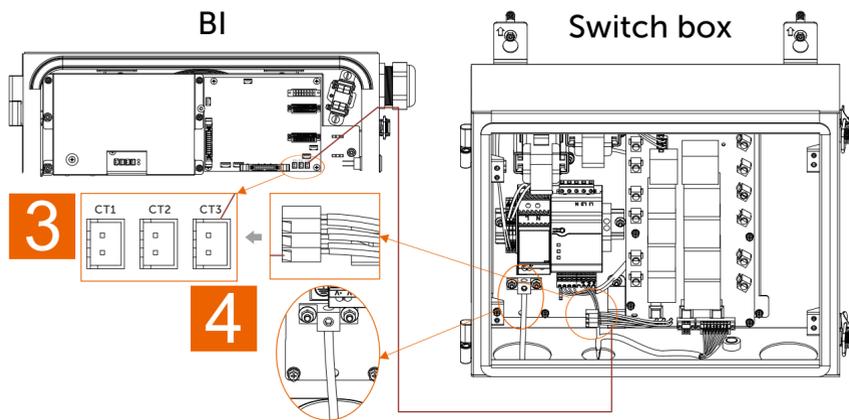
No.	Terminal	Type	Range	Strip Length	Torque(lbs. in)
1	AC terminals	90 °C(194 °F) 600 V, copper	8-4 AWG	0.5 in./12 mm	31
2	Ground terminals	90 °C(194 °F) 600 V, copper	8 AWG	0.5 in./12 mm	31
3	Relay driver terminals	CAT5 or better	24-18 AWG	0.2 in./6 mm	1.8
4	CT	90 °C(194 °F) 600 V, copper	24-18 AWG	-	-
5	RS485-meter	CAT5 or better	24-18 AWG	0.2 in./6 mm	1.8

5.3 Connection Steps

- 1) Connect RS485 in the Meter.
Connect the A+ to the No.3 pin of AUX 1 of BI Control, and B- to the 4 of AUX 1.
- 2) Connect 8 pins of COM terminal to the corresponding 8 pins of AUX 2 in the BI Control of BI.



- 3) Only connect DO1 in the Switch box to the CT3 in the BI Control of BI.
- 4) Connect ground line from panel.



- 5) Connections of power cable.

The input ports are on the left side, connected to the BI and panel. The output ports are on the right side, connected to the corresponding load.
Please refer to 5.1 Wire connection reference diagram for detailed wiring system wiring scheme.
For 240V load or inverter, users place maximum 60A breaker in the panel, while for 120V load, place maximum 50A breaker.

6. APP Setting

The BI controls the ON/OFF of the Switch box load/PV inverter through 3 controllable DO outputs. Users can select smart control mode and manual mode to fine-tune the load power management according to their needs.
ARM version: V2.24; DSP version: V1.31; BI version: V1.28.

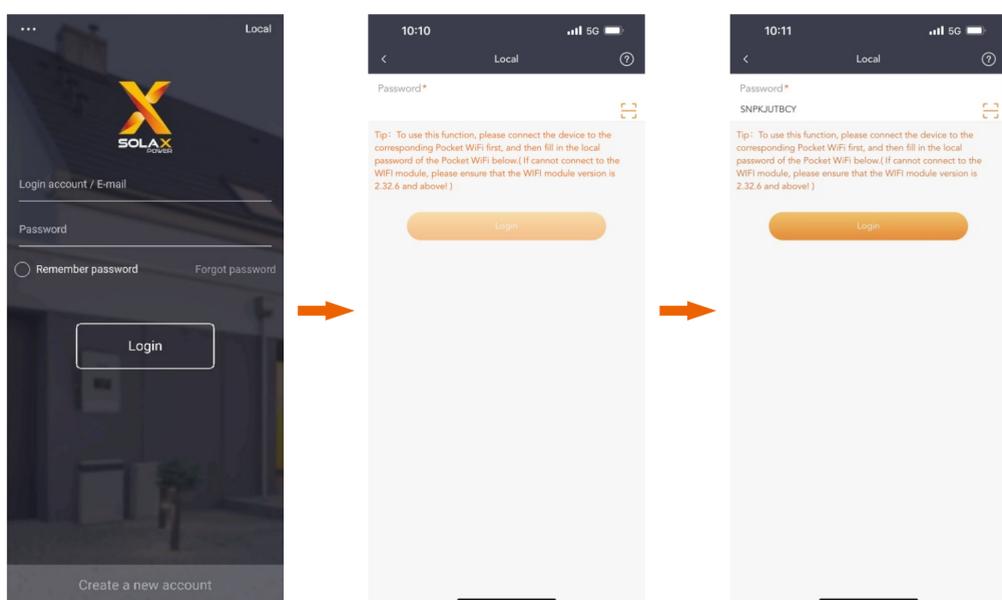
Step 1: Download SolaX Cloud APP

Scan the QR code below or visit www.solaxcloud.com to download APP.

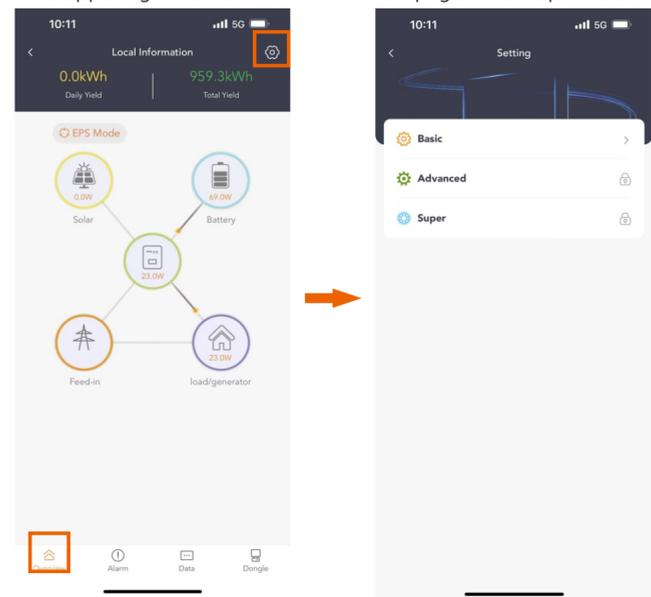


Step 2: Set the Switch box

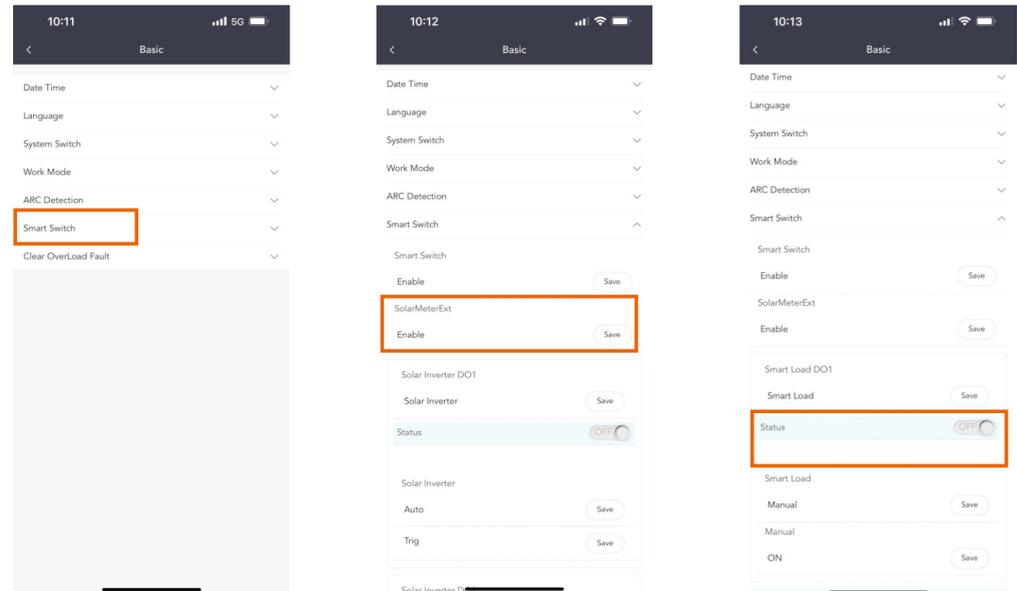
- 1) Open the SolaX cloud app on the smartphone. Click on Local to enter, click on "Scan", and scan the QR code of the inverter WiFi, the password (which can be changed) will appear automatically and you can click on "Login" to log in.



- 2) Tap the "Gear" in the upper right corner on the Overview page. Then tap "Basic".



- 3) Tap Smart Switch -> tap "Disable" and click "Enable" and "Save" to enable Smart Switch. The "SolarMeterExt" is set Disable or Enable according to the actual situation.



Note:

"SolarMeterExt" refers to the Switch box built-in meter. If The "SolarMeterExt" is set to enable, but there is no meter connected, There is a "BI_BoxMeterComFault" in Alarm List.

- 4) After Smart Switch is enabled, There are "Solar Inverter DO1", "Smart Load DO2" and "Smart Load DO3". (Only two DOs on the diagram)
For DO1, you can only choose "Solar inverter", and for DO2 and DO3, only "Smart switch" can be chosen.
The status and power can show the status and the load consumption of the current channel.

- 5) When the DOs are in the "smart switch" mode, they can choose "auto" and "manual".

In manual mode, only on or off can be chosen.

ON: Closed manually by App. Except for BI failure, manually press the mechanical button on the device to switch and off, and keep it closed.

OFF: Manual disconnection by App. Except for BI failure, manually press the mechanical button on the device to switch and off, and keep it off.

In auto mode, the priority, start time, end time and SOC can be set.

Priority definition:
Essential: Important load (highest priority)
Everyday: Daily load (medium priority)
Additional comfort: Comfort load (lowest priority)

Note:

If the inverter had an overload fault the last time, BI will try to cut off the Additional Comforts and Everyday loads according to the load priority. The Essential load is generally installed on the Backup port and will not be cut off. The inverter tries to start off-grid again. If the load priorities in multiple DOs are the same, the cutting sequence is DO3->DO2->DO1.

- 6) When the DO is in the solar inverter mode, it also can choose auto and manual.

In manual mode, there are only on and off can be chosen.

ON: Closed manually by App. Except for BI failure, manually press the mechanical button on the device to switch and off, and keep it closed.

OFF: Manual disconnection by App. Except for BI failure, manually press the mechanical button on the device to switch and off, and keep it off.

In auto mode, there is only a trig button.

The inverter will automatically turn on or off the inverter according to the working conditions.

Trig, in this state, the inverter can be turned on manually, and it can only be operated once within 30 minutes.