Quick Installation Guide

SMT-5K-TL-LV

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1   Packing List
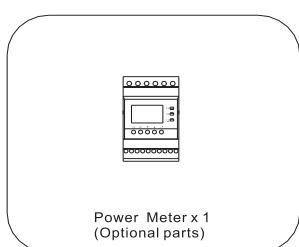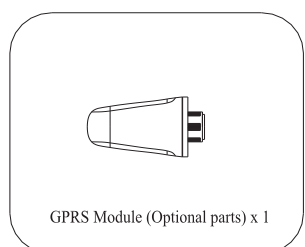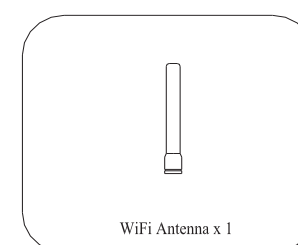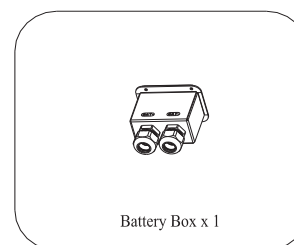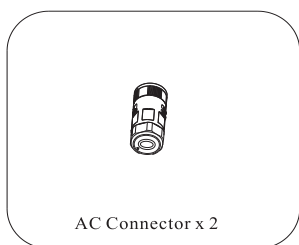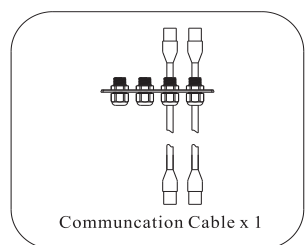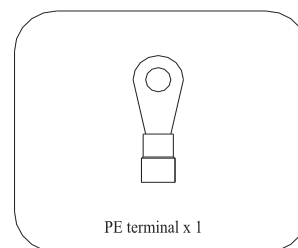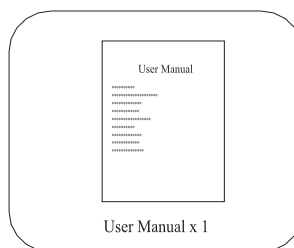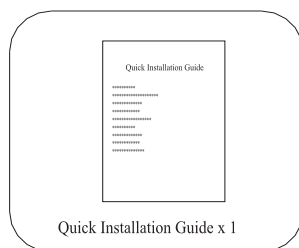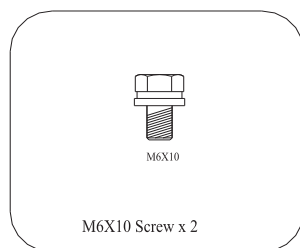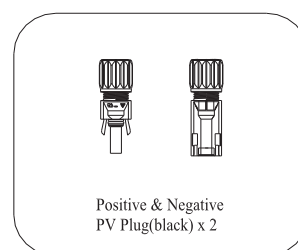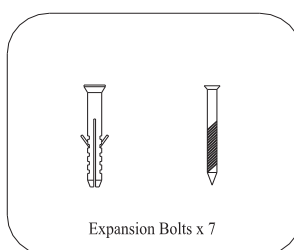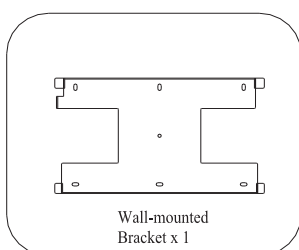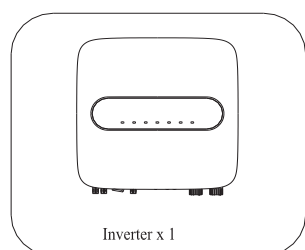
Inverter x 1	Wall-mounted Bracket x 1	Expansion Bolts x 7	Positive & Negative PV Plug(black) x 2
M6X10 Screw x 2	Quick Installation Guide x 1	User Manual x 1	PE terminal x 1
Communcation Cable x 1	AC Connector x 2	Battery Box x 1	WiFi Antenna x 1
GPRS Module (Optional parts) x 1	Power Meter x 1 (Optional parts)		

Mounting distance:

1.Mark mounting hole on the wall Drill hole with 8mm diameter of bit. Ensure a depth of 80mm.

2.Hammer expansion tube into the wall Mount bracket on the wall , keep aligned with the holes.

3.Mount the Sermatec hybrid inverter on the bracket.

4.Secure the inverters with M6 screw on the right side.

5.Install anti-theft lock if necessary(Option, equipped by user).

5   (Option)

Sermatec   3   Hybrid Inverter System connection Diagram

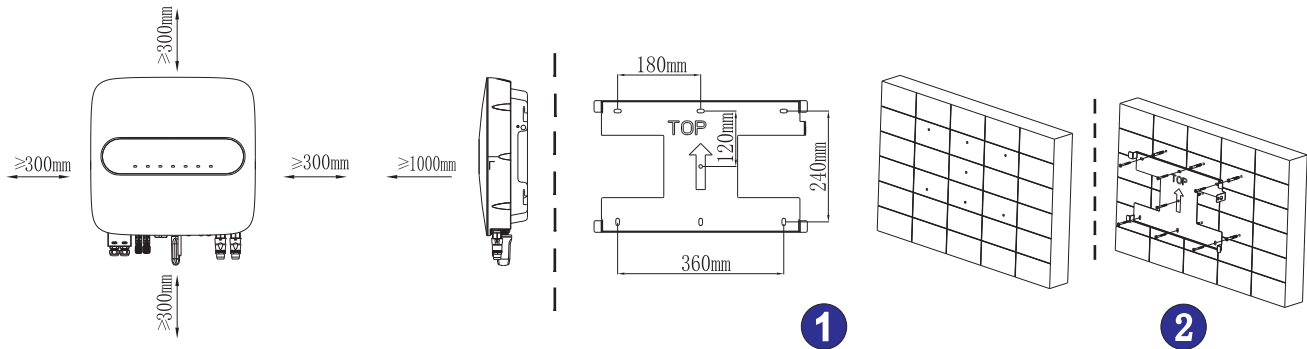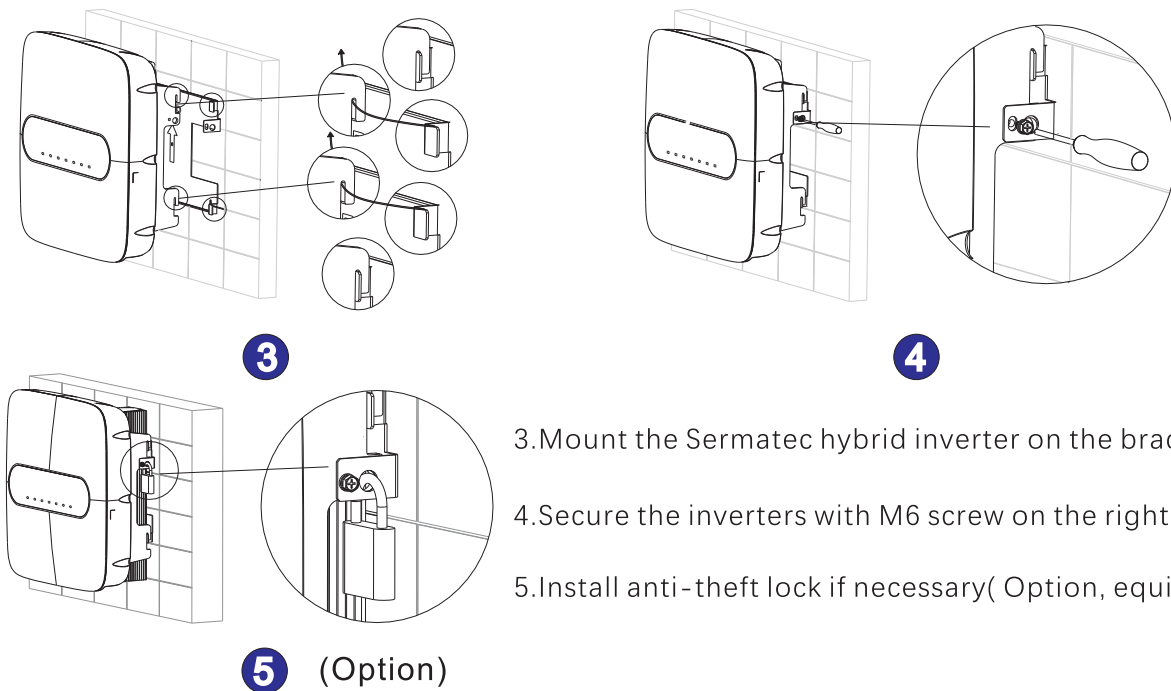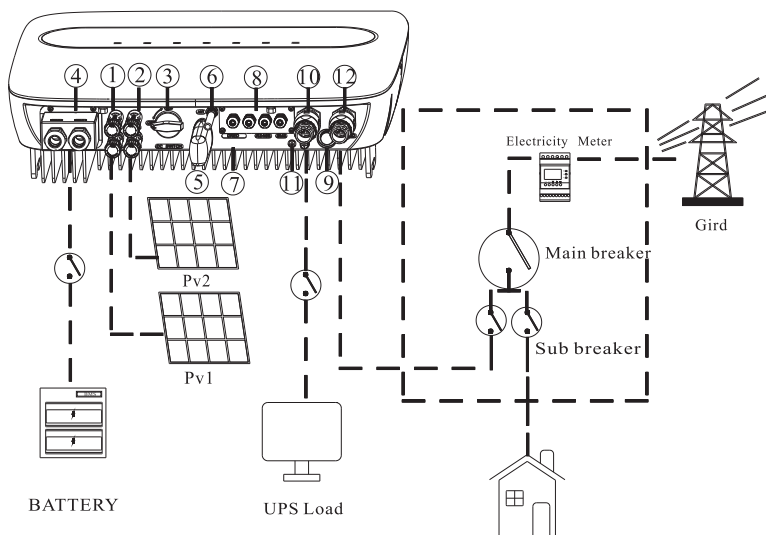|	
1.PV1 Connector	7.DRED Interface
2.PV2 Connector	8.Communication Interface
3.PV Switch	9.Waterpoof vent valve
4.Battery Connector	10.AC Load Connector
5.GPRS Module	11.PE Connection Point
6.Wi-Fi Antenna	12.AC Grid Connector

For AU/NZ:

PV1

PV2

Battery

Sermatec
SMT-5K-TL-LV

PV1

PV2

BAT

CAN/Rs485

L L
N N
PE
L N PE PE

AC-Load

Rs485

AC-Grid

Main Switch

L

N
PE

Power meter

Grid

N-bar

E-bar

RCD

RCD

Important Loads

Loads

PE

PE

For Other Countries:

PV1

PV2

Battery

Sermatec
SMT-5K-TL-LV

PV1

PV2

BAT

CAN/Rs485

L L
N N
PE
L N PE PE

AC-Load

Rs485

Power meter

AC-Grid

Main Switch

L

N
PE

Grid

E-bar

RCD

RCD

Important Loads

Loads

PE

PE
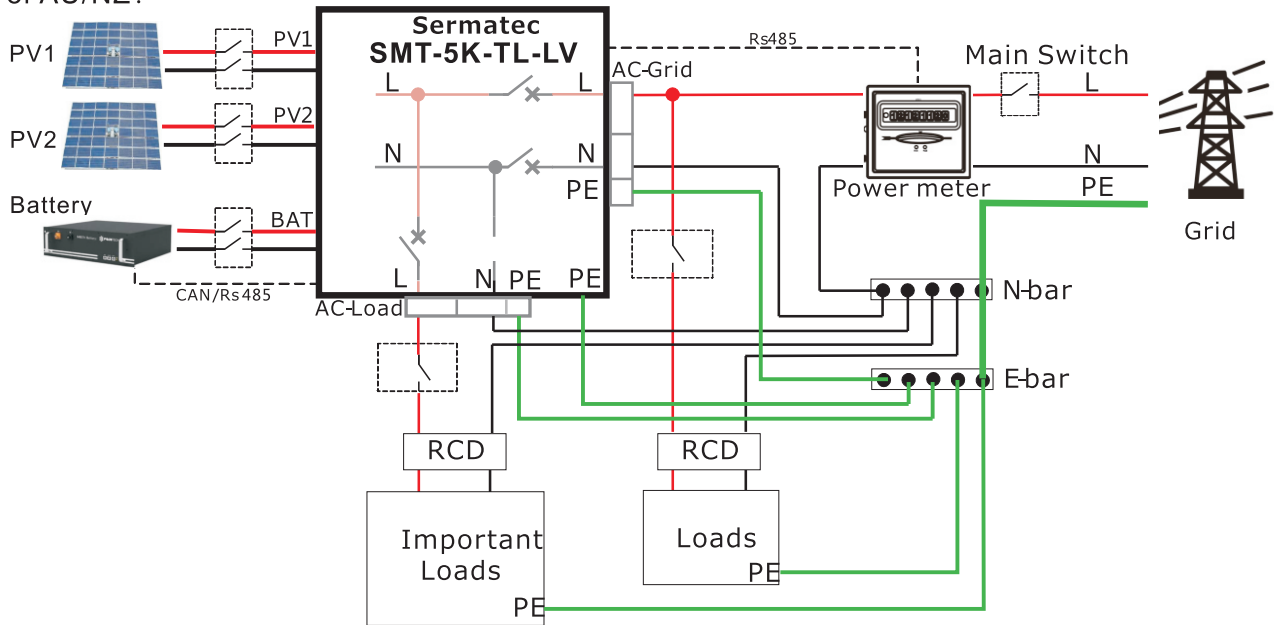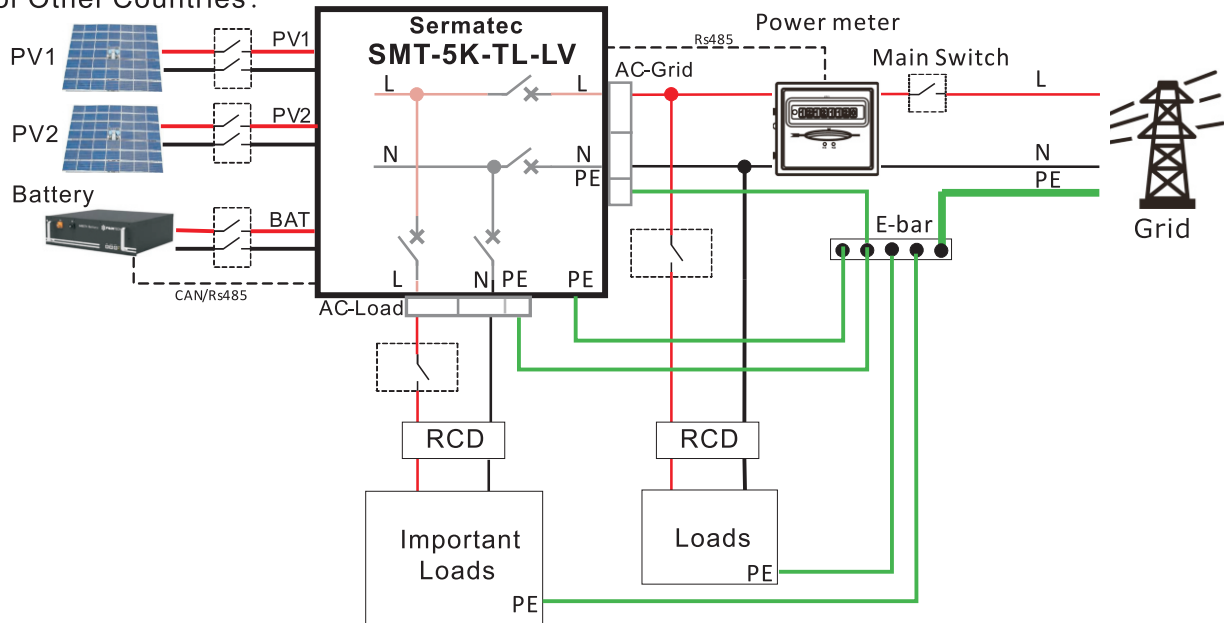
Recommended DC Switch		
	PV (option)	Battery (option)
Rated Voltage	≥580VDC	≥58VDC
Rated Current	11A	125A
Recommended AC Switch		
	AC Load	AC Grid
Rated Voltage	≥250VAC	≥250VAC
Rated Current	25A	25A

The Acrel connection diagram

| 1 | 2 | 3 | 4 | | 5 | 6 |

FUSE
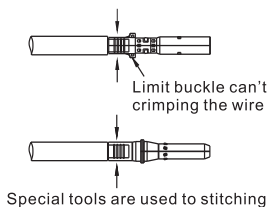
L

+ −

N
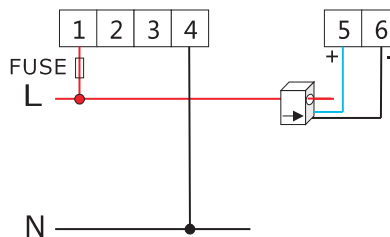
4   PV and Battery Connection

PV Connectionsteps:
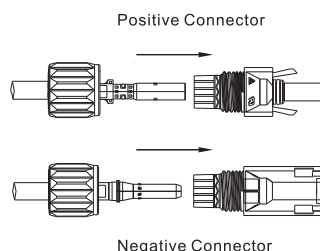
PV cable size: 4~6mm²

7mm

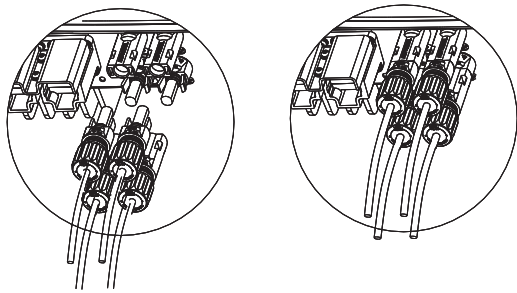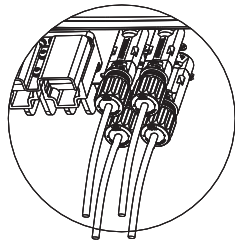Limit buckle can't crimping the wire

Special tools are used to stitching

Positive Connector

Negative Connector
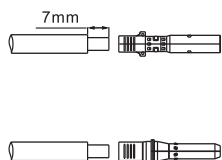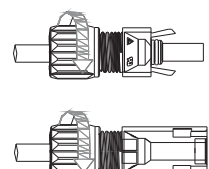
1　　**2**　　**3**　　**4**

⑤　　　　　　**⑥**

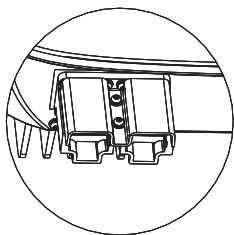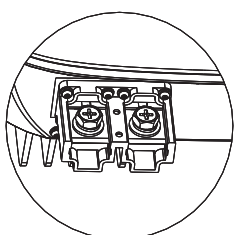## Battery Connectionsteps：
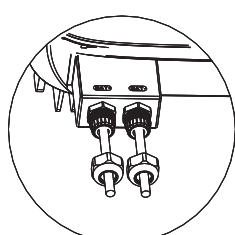
Battery cable size:16-25mm²
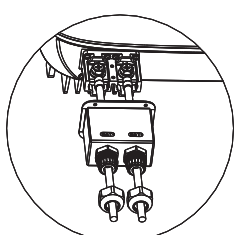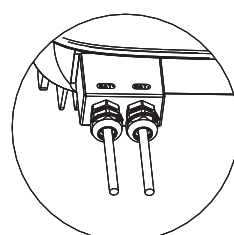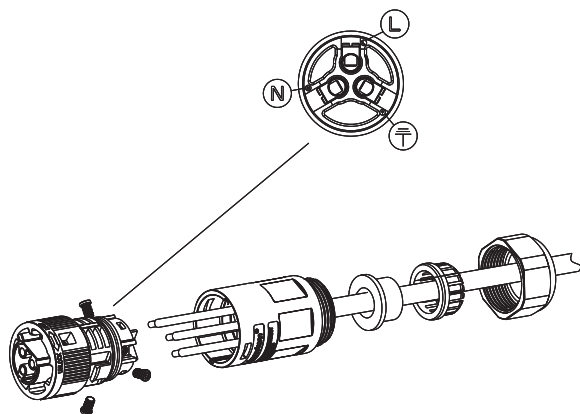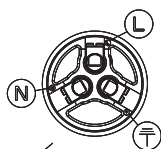

①　　　**②**　　　**③**　　　**④**　　　**⑤**

5　AC and Earth Connection
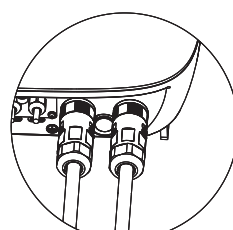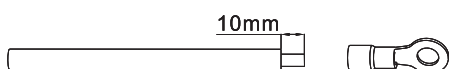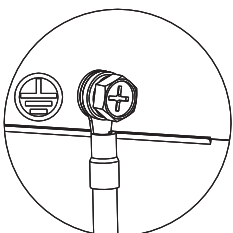
AC Connection steps:

AC cable size：6mm²
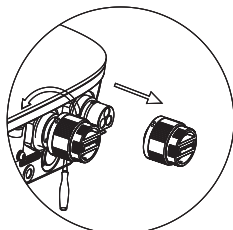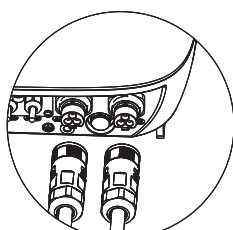
①　　　**②**　　　**③**　　　**④**　　　**⑤**

Earth connection steps：

PE cable size:4~6mm2

10mm
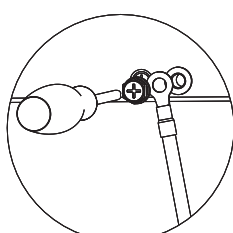
①　　　**②**　　　**③**　　　**④**

Communication connection steps :
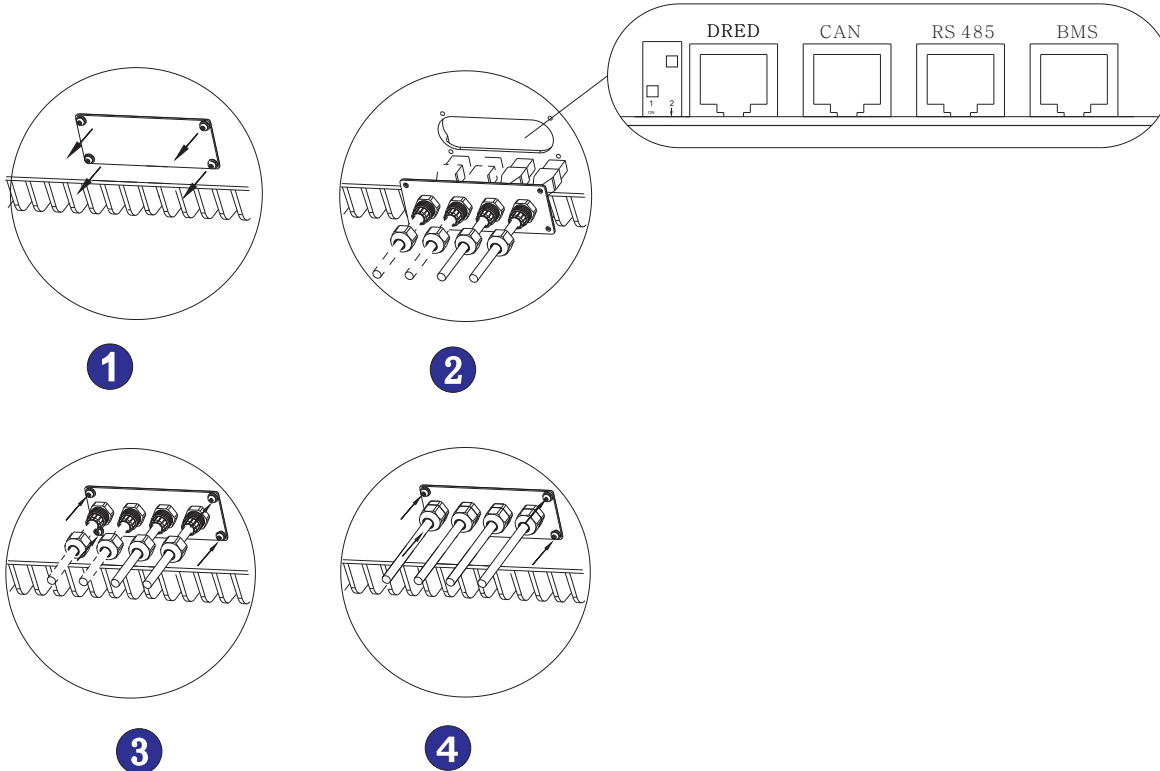
Communication cable connection diagram

Electricity Meter
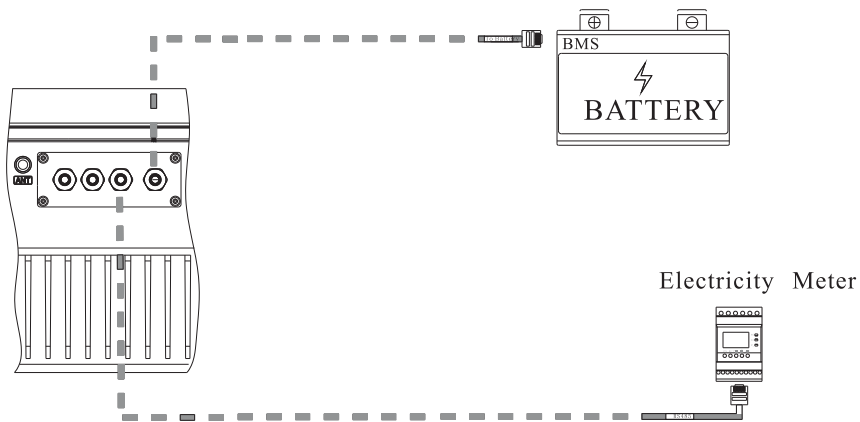
The RJ45 socket pin assignments for BMS and RS485 as follows:
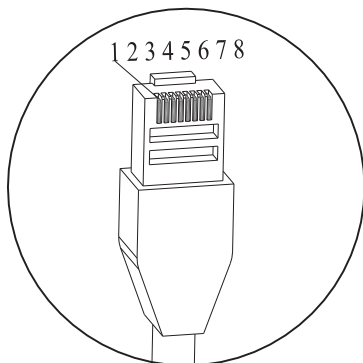
RS485		
PIN	**Signal Name**	**Cable Color**
1	NC	Orange-white
2	NC	Orange
3	COM	Green-white
4	CAN_H	Blue
5	CAN_L	Blue-white
6	COM	Green
7	485A_B	Brown-white
8	485A_A	Brown

BMS		
PIN	**Signal Name**	**Cable Color**
1	485A_B	Orange-white
2	485A_A	Orange
3	COM	Green-white
4	CAN_H	Blue
5	CAN_L	Blue-white
6	COM	Green
7	485A_A	Brown-white
8	485A_B	Brown

DRED cable connection diagram:
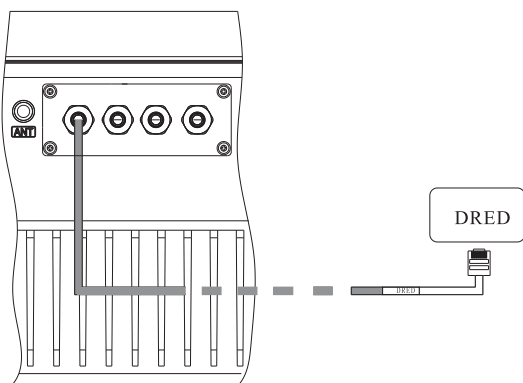
The RJ45 socket pin assignments for demand response modes as follows:

DRED		
PIN	Signal Name	Cable Color
1	DRM 1/5	Orange-white
2	DRM 2/6	Orange
3	DRM 3/7	Green-white
4	DRM 4/8	Blue
5	RefGen	Blue-white
6	Com/DRM0	Green
7	N/A	Brown-white
8	N/A	Brown
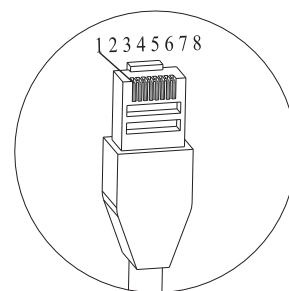
7 GPRS Module(Optional) and Wi-Fi Antenna Connection

GPRS Module Connection steps(Optional):

①   **②**   **③**

The GPRS socket pin assignments as follows:

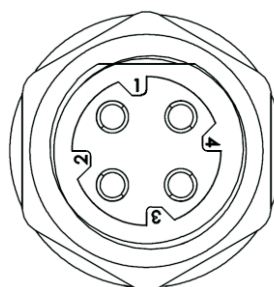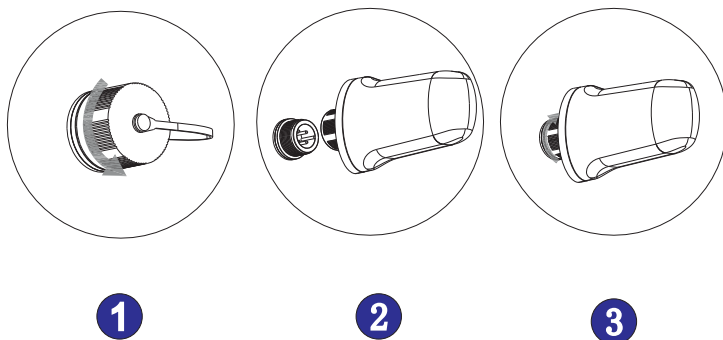| GPRS	
PIN	Signal Name
1	VCC
2	GND
3	485A
4	485B

Wi-Fi Antenna Connection steps:

①   **②**
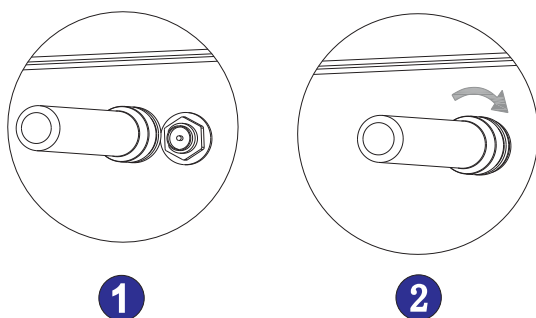
8 APP starting up guide

Connect to internal Wi-Fi:

WiFi name:
xxxxxxxxxxxx
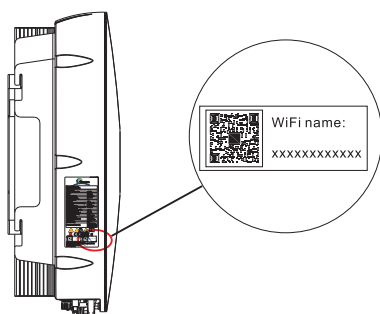
1. Find Wi-Fi name from the label on the inverters, and connect to Wi-Fi by initial password "gsstes123456".

2. Enter APP main page
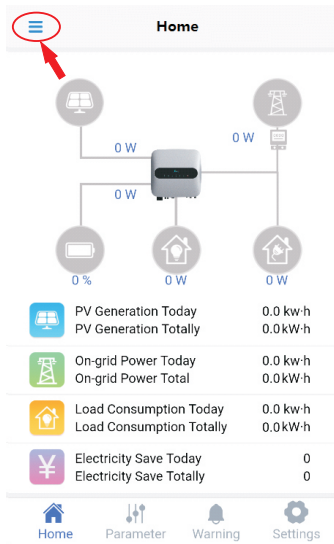
3. Language Setting

4. Connect to Device
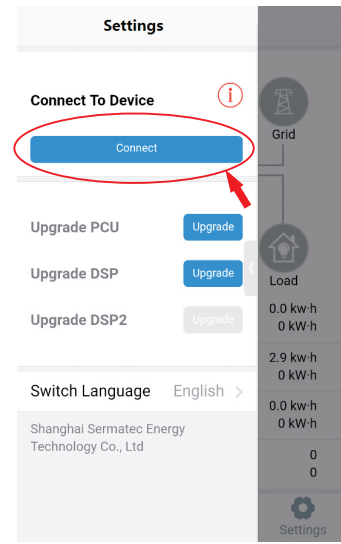
Setup systemrunning parameters:
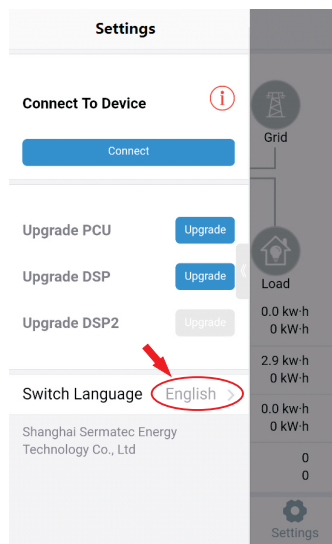
1. Enter the setting page

2. Working Parameter Settings

a. Setting "**Grid Standard**"
b. Setting "**Battery protocol**"
c. Setting "**Meter protocol**"

3. Working Mode Settings

a. Select "**Working Mode**"
b. Select "**On-grid power**"
c. "**Battery Lower Limit SOC**" setting
d. Select "**Anti-backflow**"

4. price setting

5.period setting

Tap"**Send Parameters**" to finish setting
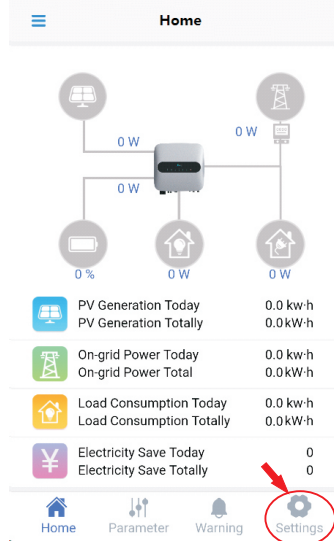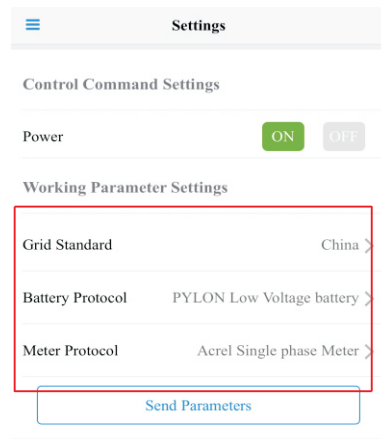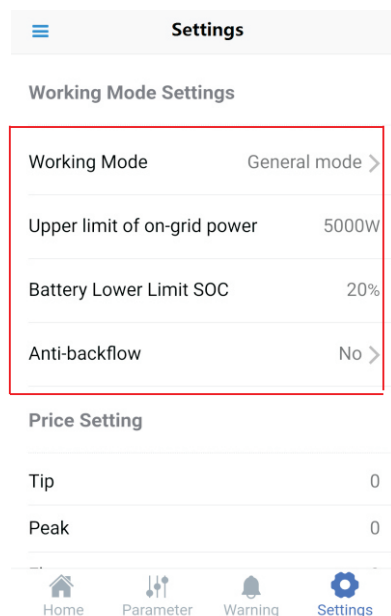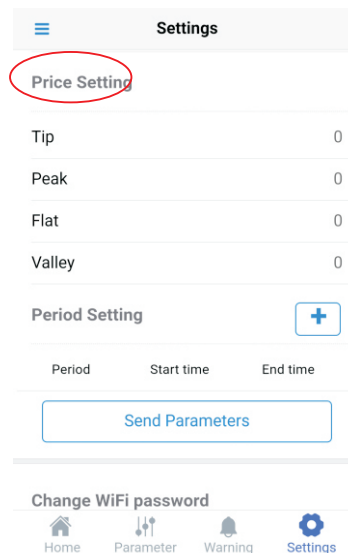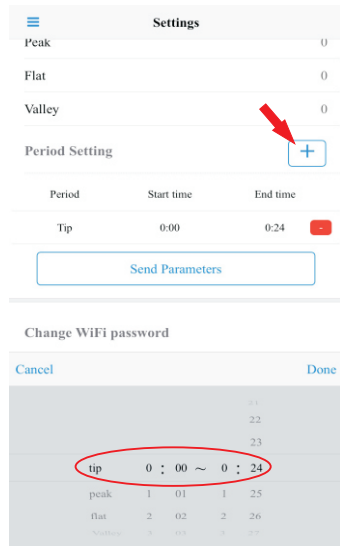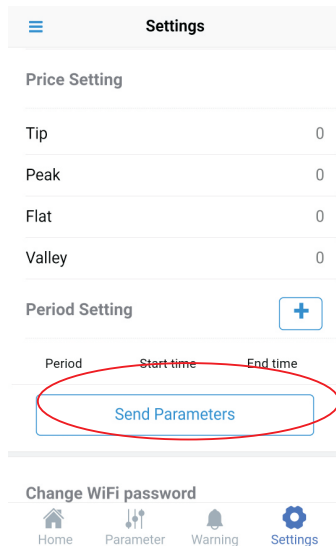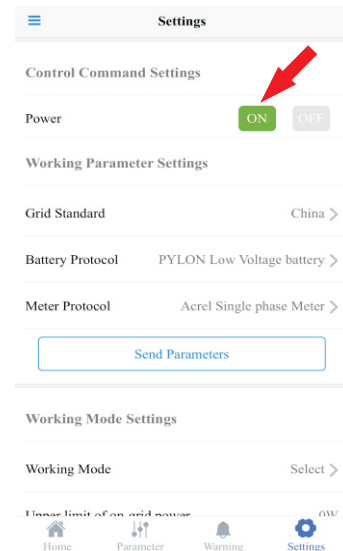

Send command of starting up: Tap "**ON**" to send command

Working Mode:

Parameter		Comment
WorkingMode	GeneralMode	Self-Consumption If PV is sufficient,PV supply power to the load priority, then charge battery,feeding into grid with surplus power. When PV is insufficient,grid and batteries supply power to the load together. Anti-backflow default disable.
	BatteryMode	Battery backup PV and grid supply power to load and charge batteries together. When the grid is normal,the battery SOC is always in full state, batteries discharge only when the grid is abnormal. Anti-backflow default enable.
	Micro-grid Mode	Non-grid scenarios PV and battery constitute a off-grid system. If PV is sufficient,PV supply power to the load priority, then charge battery. when PV is insufficient, batteries supply power to the load.
	Custom Mode	In the valley level, the grid and PV charge the batteries. In the Flat level, when the PV is sufficient, the battery can be charged. In the tip and peak level, the battery discharges supply the load.

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