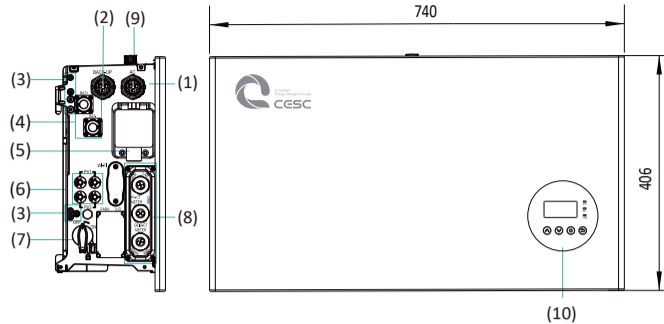




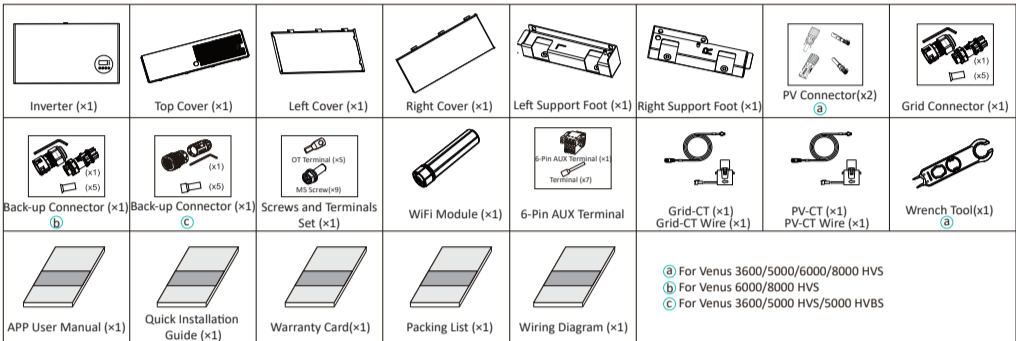
01 Product Overview

- (1) Grid Connector
- (2) Backup Connector
- (3) Grounding Point
- (4) BAT + Connector/ BAT - Connector
- (5) Battery Circuit Breaker
- (6) PV Connector
- (7) PV Switch
- (8) Communication Port
- (9) Wi-Fi Port
- (10) LCD Display



02 Accessories, Material And Tools

2.1. Scope of Delivery



2.2. Necessary Materials for Installation



2.3. Installation Tools

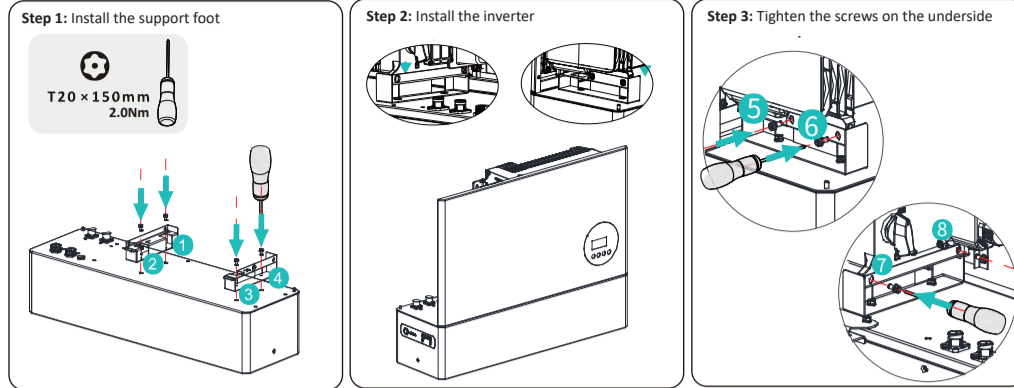


03 Mount the Inverter

WARNING

Before installing the inverter, please ensure the battery is properly installed.

Mount the Inverter on the Battery



04 Electrical Connections

WARNING

Before doing electrical connection, please ensure the PV switch & AC and BAT circuit breakers are switched OFF and cannot be reactivated.

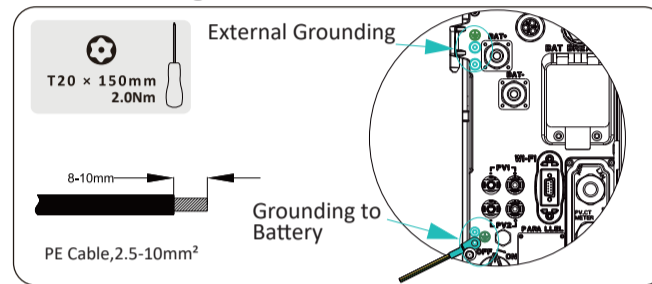
DANGER

You must protect each inverter with an individual grid&backup circuit breaker in order to ensure that the inverter can be disconnected safely.

NOTE

Please refer to system wiring diagram for detailed system wiring.

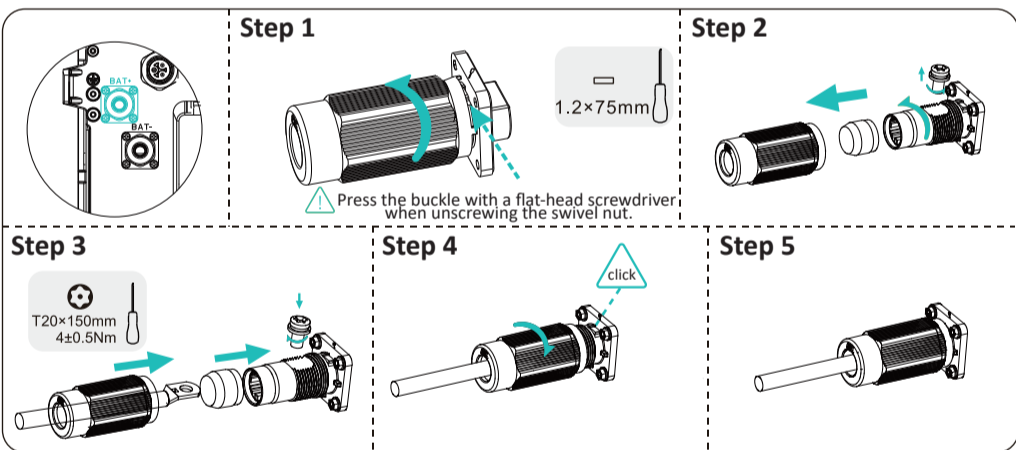
4.1. Grounding Connection



4.2. Connect the Battery to the Inverter

DANGER

- Danger to life due to short-circuit of the battery power cables
- Touching the short-circuit connection of the battery results in significant injuries or even death caused by electric shock and massive energy release.
- Switch off the battery breaker located at the left of the inverter.
- Switch off the battery switch of the battery.
- Connect both ends of one battery power cable completely before connecting the next power cable to avoid short-circuit between the positive and negative battery power cables.



4.3. Prepare to Grid&Backup Connection

WARNING

For Venus 5000 HVS, the maximum allowable grid circuit breaker specification is 50A at the same time the copper conductor cross section for grid connection must be 10mm². You should use APP or CESC cloud to do the right setting when selecting grid circuit breaker specification 32A or 40A and suitable copper conductor cross section, otherwise it increases the danger of the circuit breaker tripping under normal operating conditions.

AC connection recommendation for Venus 3600 HVS

Description	Max. Current	Breaker Type	Recommended Cable Cross Section
Grid Side	32 A	63 A	6 ~ 10 mm²
Backup Side	16 A	32 A	4 ~ 6 mm²

AC connection recommendation for Venus 5000 HVS/Venus 5000 HVBS

Description	Max. Current	Breaker Type	Recommended Cable Cross Section
Grid Side	43.5 A	63 A	10 mm²
Backup Side	21.7 A	32 A	4 ~ 6 mm²

AC connection recommendation for Venus 6000 HVS

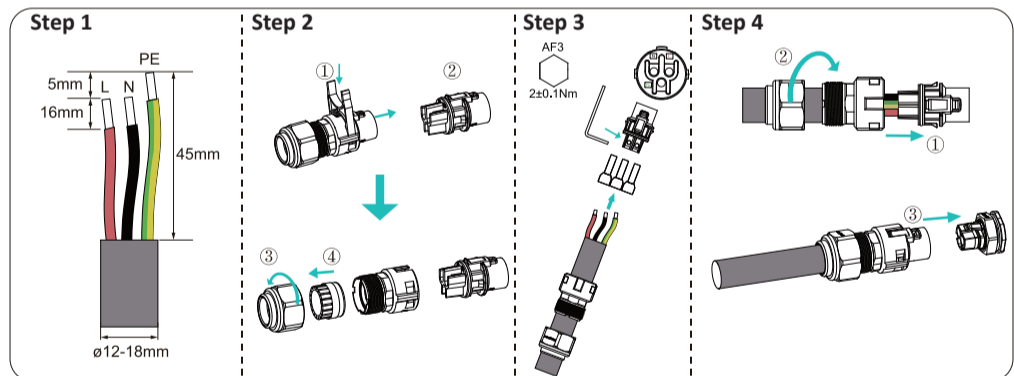
Description	Max. Current	Breaker Type	Recommended Cable Cross Section
Grid Side	50 A	63 A	10 mm²
Backup Side	50 A	63 A	10 mm²

AC connection recommendation for Venus 8000 HVS

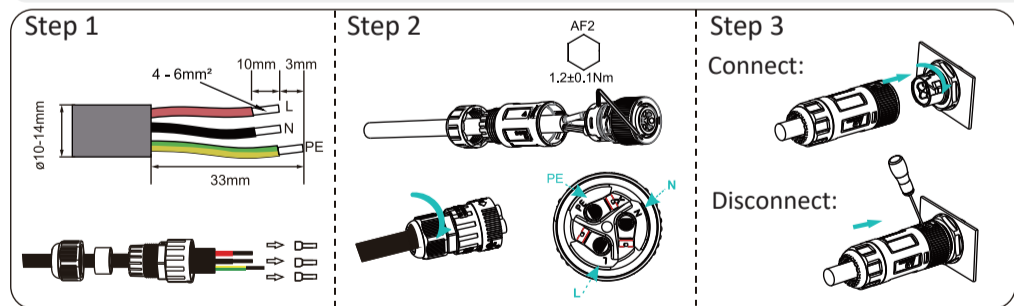
Description	Max. Current	Breaker Type	Recommended Cable Cross Section
Grid Side	50 A	63 A	10 mm²
Backup Side	50 A	63 A	10 mm²

4.4. Connect Grid&Backup Power Cables

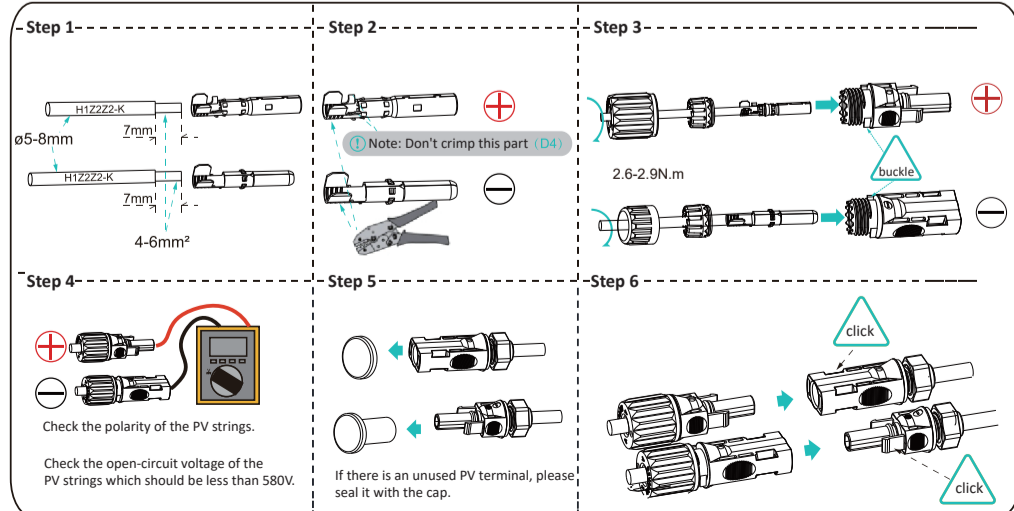
The wiring steps are also suitable for backup connection of Venus 6000 HVS&Venus 8000 HVS. Bush insert of backup connector of the Venus 6000 HVS&Venus 8000 HVS is blue. Bush insert of AC connector of the Venus 6000 HVS&Venus 8000 HVS is black.



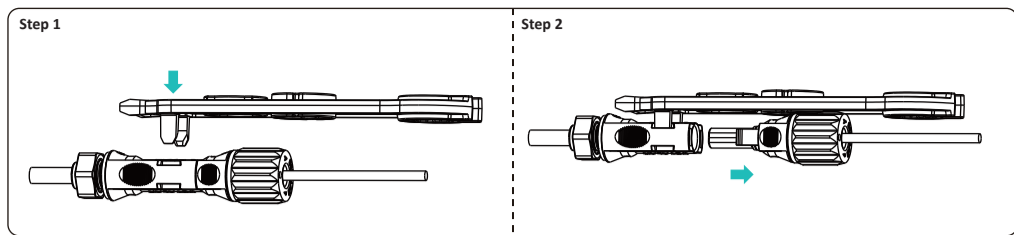
The wiring steps are only suitable for backup connection of Venus 3600 HVS&Venus 5000 HVS&Venus 5000 HVBS.



4.5. PV Connection



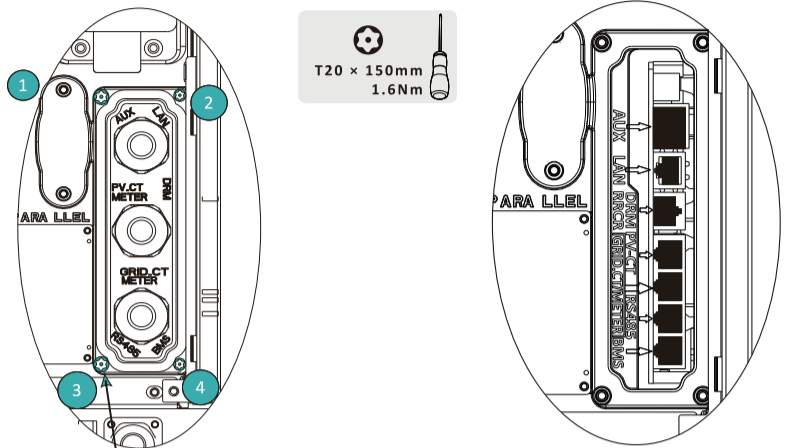
4.6. How to disconnect the PV connectors



05 Communication Connection

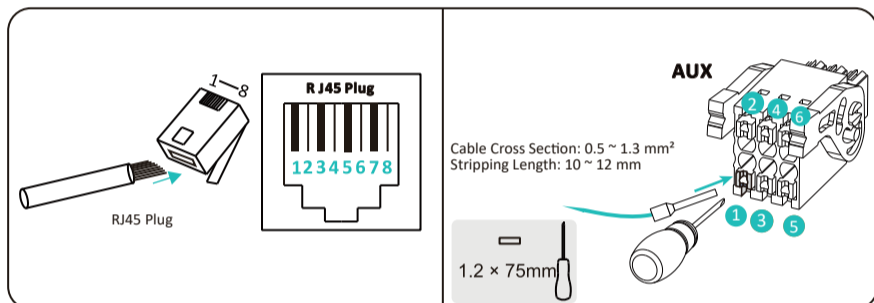
5.1. AUX&LAN&PV-CT&DRM&Grid-CT Meter&RS485&BMS Connection

The communication connection ports are as follows:



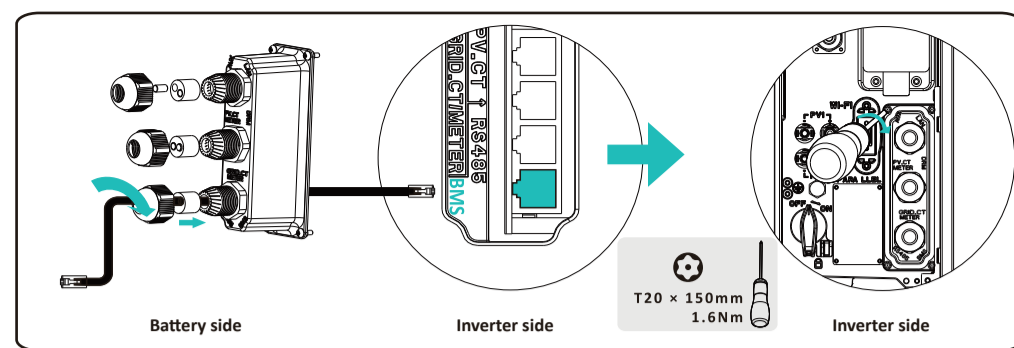
Keep the four screws on the COM cover during disassembling them.

ITEM	NO	1	2	3	4	5	6	7	8
BMS		NC	RS485_A4	NC	CAN1_H	CAN1_L	NC	RS485_B4	NC
RS485		12V	NC	GND	RS485_B5	RS485_A5	NC	NC	NC
GRID_CT/METER		GRID_CT-	GRID_CT+	RS485_A7	NC	NC	RS485_B7	NC	NC
PV_CT		PV_CT-	PV_CT+	RS485_A7	NC	NC	RS485_B7	NC	NC
DRM/RRCR		DRED1/5	DRED2/6	DRED3/7	DRED4/8	REFGEN/0	COMLOAD/0		
AUX		DO1_NO	DO1_COM	DO1_NC	DI_NEGATIVE	DI_POSITIVE	GND		

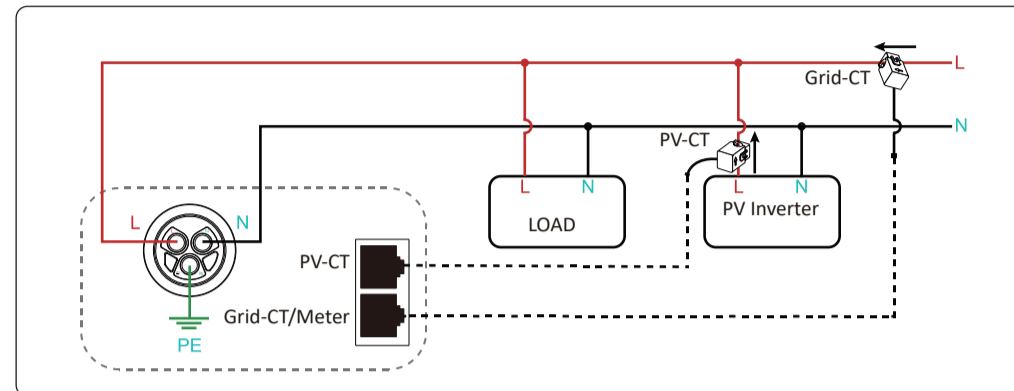


05

5.2. Connect the Communication Cables Between Inverter and Battery(BMS)

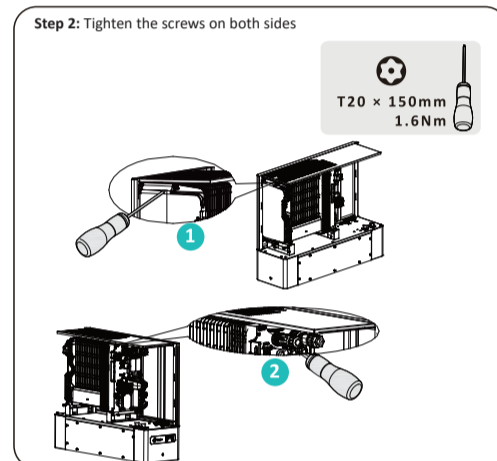
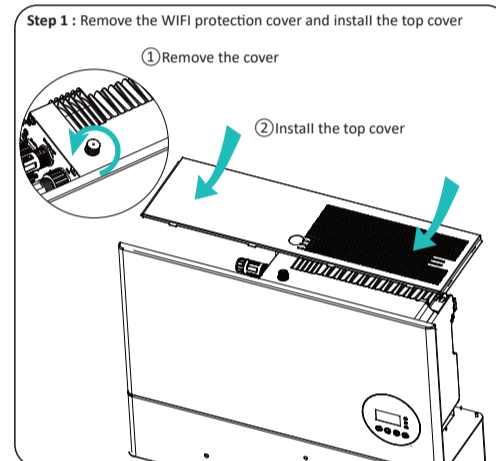


5.3. CT Wiring



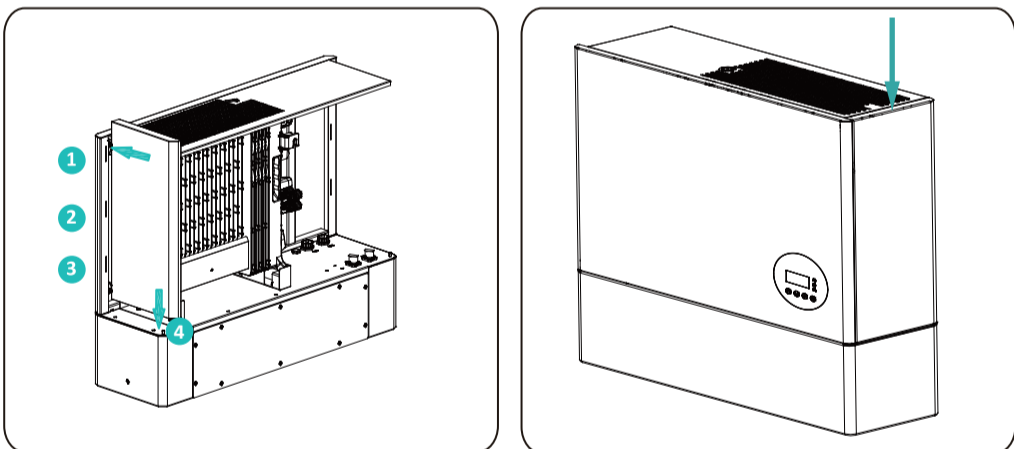
06 Mount the Covers and Wi-Fi Module of the Inverter

6.1. Mount the Top Cover

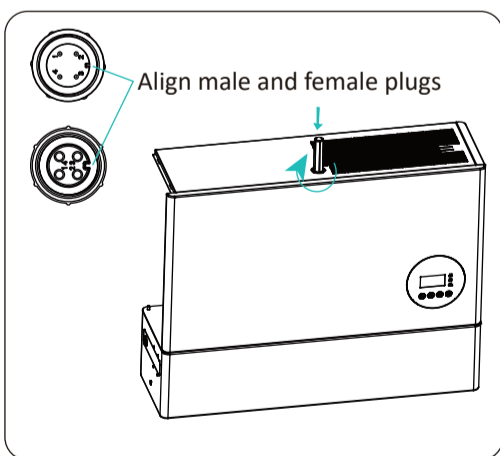


06

6.2. Mount the Right Cover



6.3. Mount the Wi-Fi Module



07 Commissioning



WARNING

Never power on without the correct and reliable installation and electrical connection.

Follow the commissioning steps in CESC POWER APP User Manual and it also include steps to download APP and register account, power on the product, configure Wi-Fi module, set system parameter and operate the system. After completing the commissioning, please submit the commissioning report.

07

08 Power ON / OFF the Energy Storage System Procedure

8.1. Procedure for Powering On the System

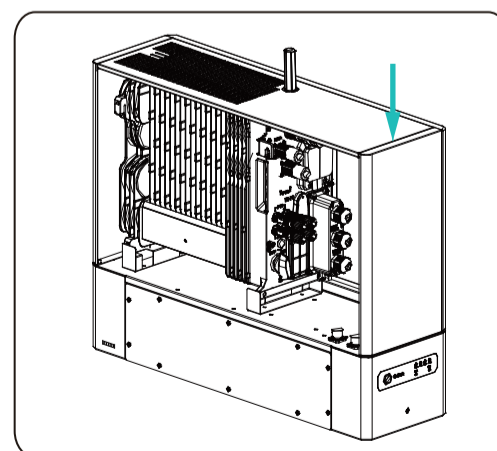
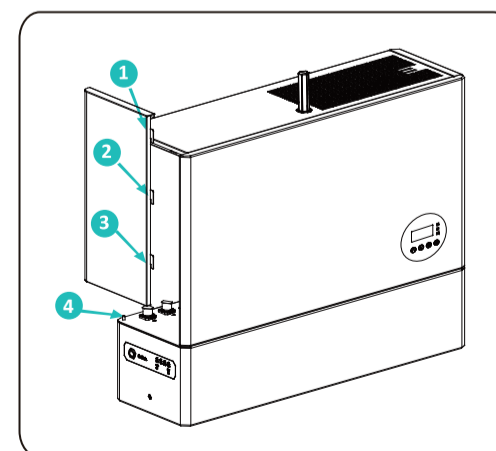
- 1) Switch on the battery breaker which is on the left side of the inverter.
- 2) Switch on the battery switch of battery system.
- 3) Switch on the AC breaker between the grid port of the inverter and the grid.
- 4) Switch on the AC breaker between the backup port of the inverter and the loads.
- 5) Switch on the PV switch (if there is any) at the lower left of the inverter.
- 6) Switch on the AC breaker (if there is any) between the PV-inverter and the grid.

8.2. Procedure for Powering Off the System

- 1) Switch off the AC breaker between the inverter and the loads.
- 2) Switch off the PV switch (if there is any) at the lower left of the inverter.
- 3) Switch off the PV switch between the PV string and the inverter if there is any.
- 4) Switch off the battery switch of the battery system.
- 5) Switch off the battery breaker which is on the left side of the inverter.
- 6) Switch off the AC breaker between the inverter and the grid.

09 Mount the Left Cover

Make sure all the wiring are finished and the energy storage system is working normally and then install the cable cover on the left side of the inverter.



Please refer to the CESC POWER APP User Manual to commission this energy storage system!

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