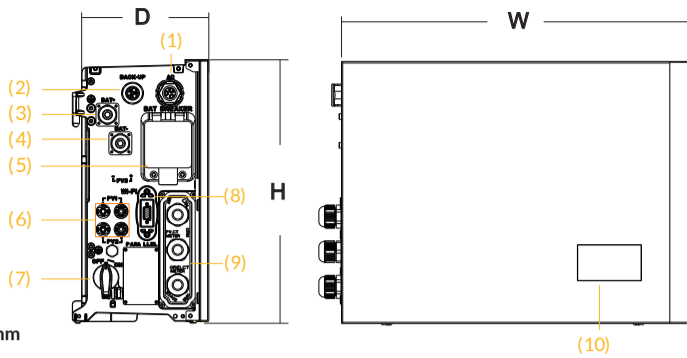




412-10000-02

## 1. Product Overview

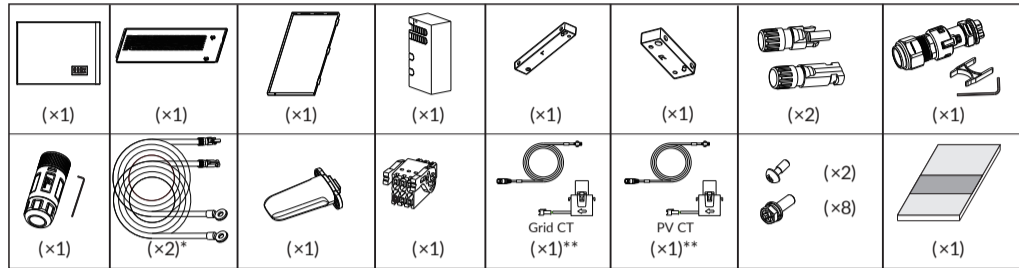
- (1) Grid Connector
- (2) Backup Connector
- (3) BAT +
- (4) BAT -
- (5) Battery Circuit Breaker
- (6) PV Connectors
- (7) PV Switch
- (8) Wi-Fi Port
- (9) Communication Ports
- (10) LED/LCD Display



Dimension: W×H×D=483×366×190.4mm

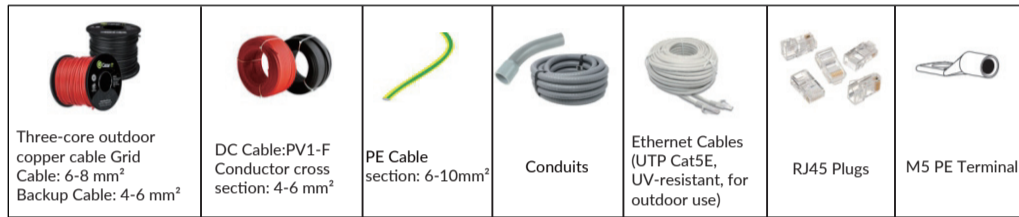
## 2. Accessories, Additional Material and Tools

### 2.1 Scope of Delivery

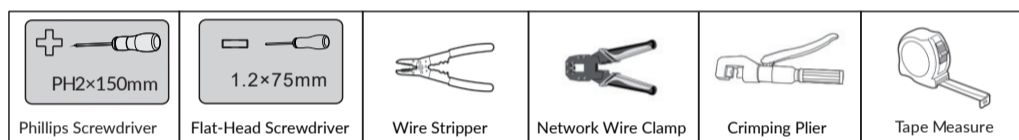


\* Optional (for connection to SMILE-G3-BAT-3.8S)  
 \*\* Optional

### 2.2 Additional Installation Materials Required



### 2.3 Installation Tools

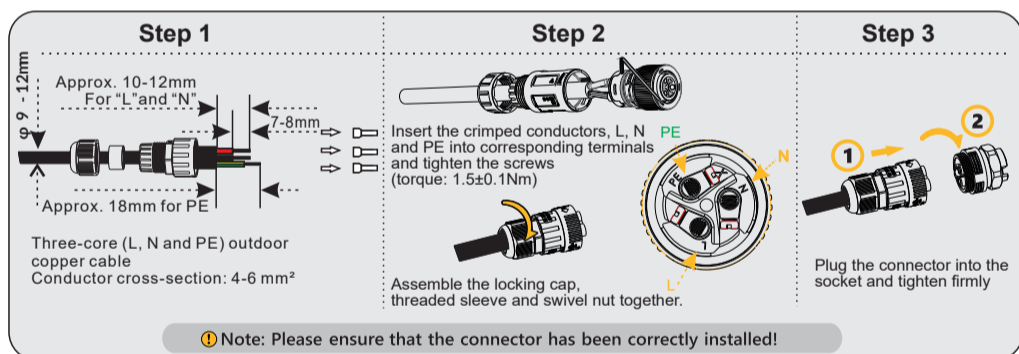


## 3. Installing the Inverter

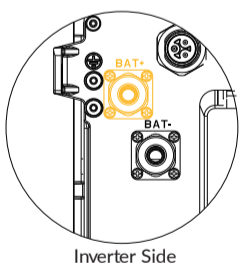
3.1 Before installing the inverter, please ensure that the battery is properly installed

01

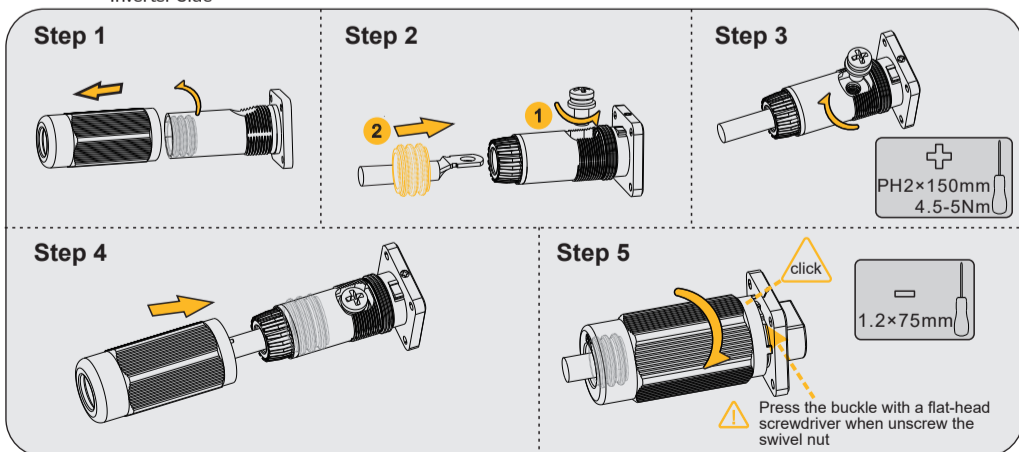
### 4.3 Connecting the Backup Power Cable



### 4.4 Connecting the BAT Power Cable



1. Switch off the battery breaker off the inverter and the battery
2. Connect the BAT- cable (black) first, then connect the BAT+ cable (red)



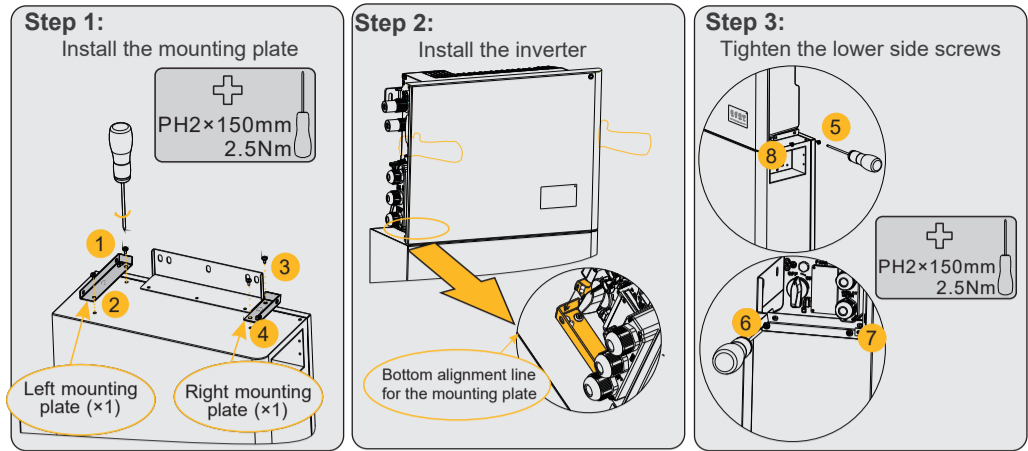
**⚠ DANGER**  
 Danger to life due to short-circuiting of the battery

Touching the short-circuit connection of the battery could result in death or lethal injuries caused by electric shock and massive energy release.

- Switch off the battery breaker which is located on the lower left of the inverter.
- Please finish connecting both ends of one battery power cable before connecting the next one to avoid short-circuiting of the positive and negative battery power cables.

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## 3.2 Installing the Inverter



**⚠ Electric Shock Hazard**  
 Before doing electrical connection, please ensure that the PV switch & AC and BAT circuit breaker are switched off and cannot be reactivated.

## 4. Electrical Connections

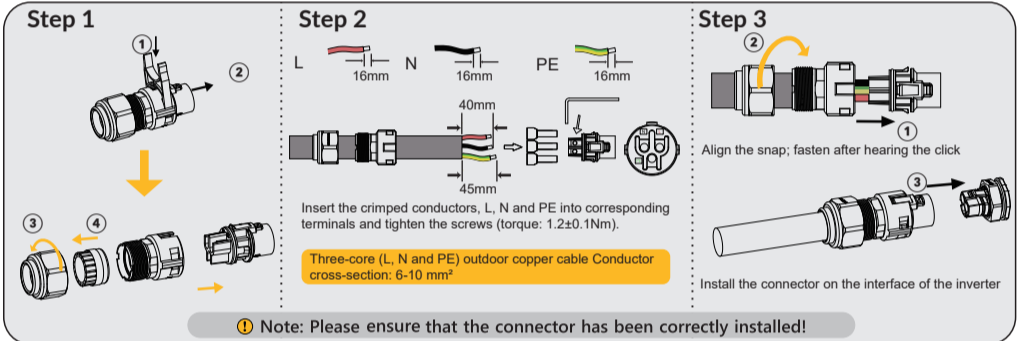
### 4.1 Installing the PE cable

**⚠ DANGER**  
 You must protect each inverter with an individual AC circuit breaker in order to ensure that the inverter can be disconnected safely

Description	Breaker Specification
Grid Side	Max. 50A
Backup Side	32A

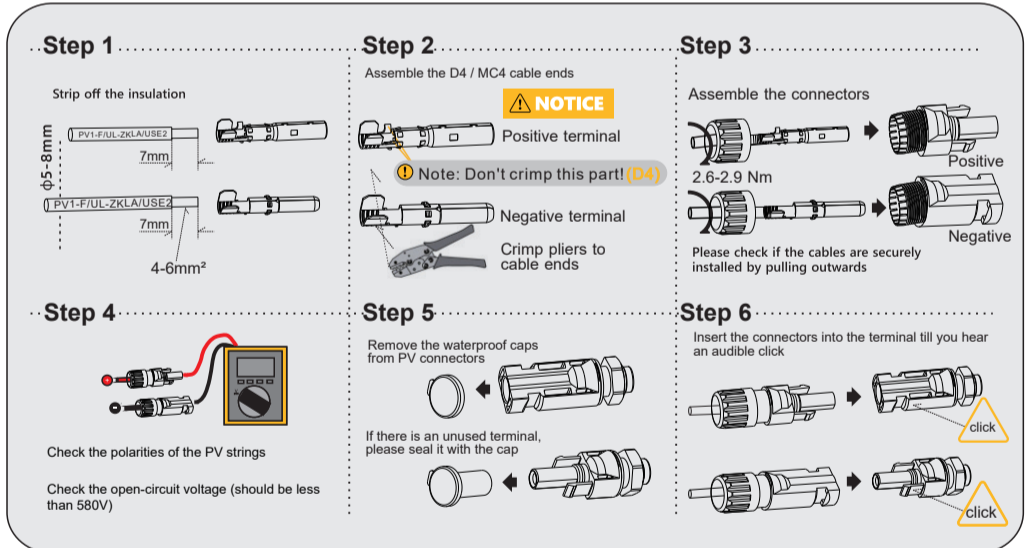
**⚠ Warning:**  
 The maximum allowable grid circuit breaker specification is 50A. At the same time, the cross section of the copper conductor for grid connection must be 10mm<sup>2</sup>. You should use AlphaAPP or AlphaCloud to do the right setting if the grid circuit breaker specification is 32A-50A, otherwise it would increase the danger of the circuit breaker tripping under normal operating conditions.

### 4.2 Connecting the Grid Power Cable



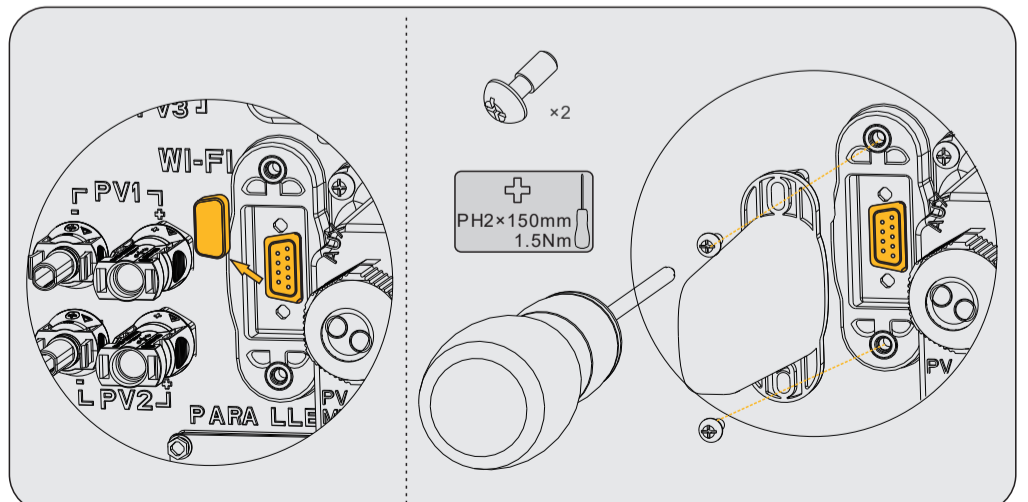
02

### 4.5 Connecting the PV Power Cable



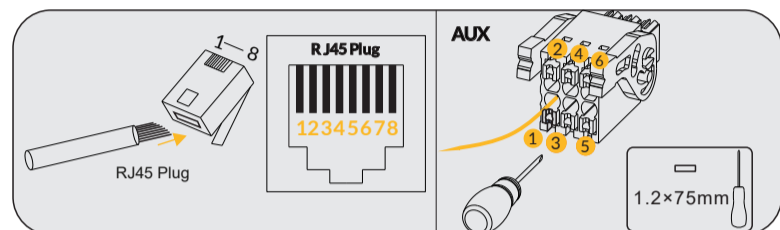
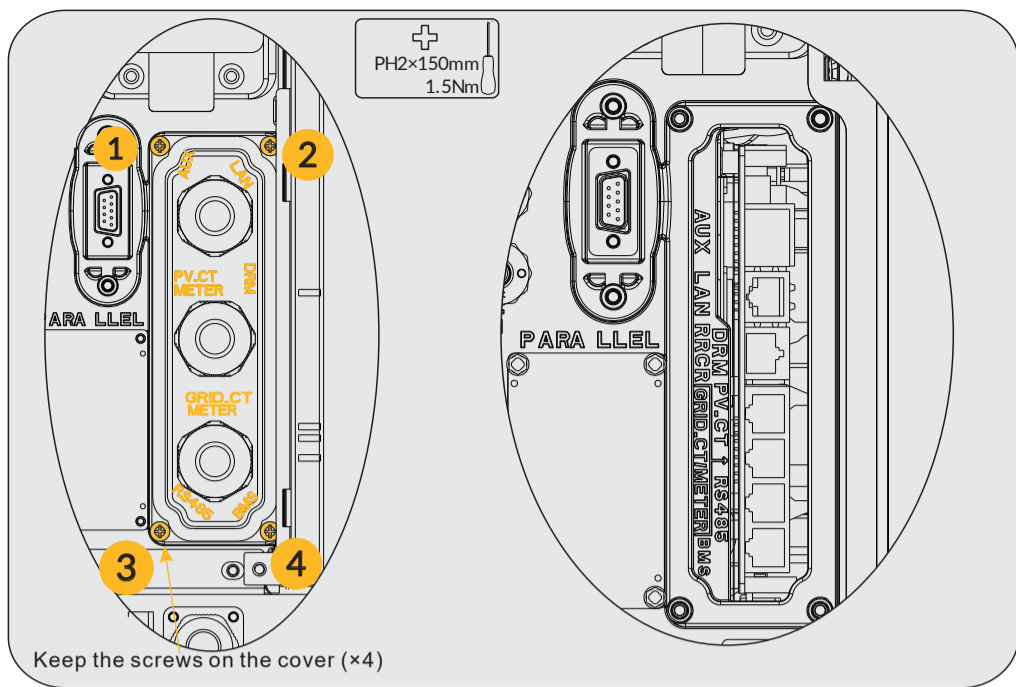
## 5. Communication Connection

### 5.1 Wi-Fi module Connection



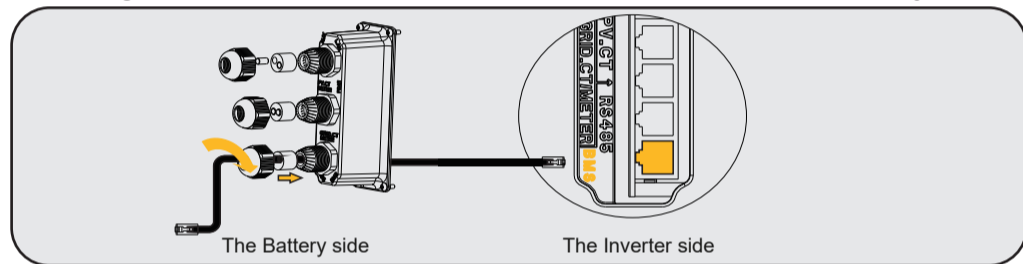
04

## 5.2 AUX / LAN / PV\_CT Meter / DRM / GRID\_CT Meter / RS485 / BMS Connection Communication Connection ports are as follows:



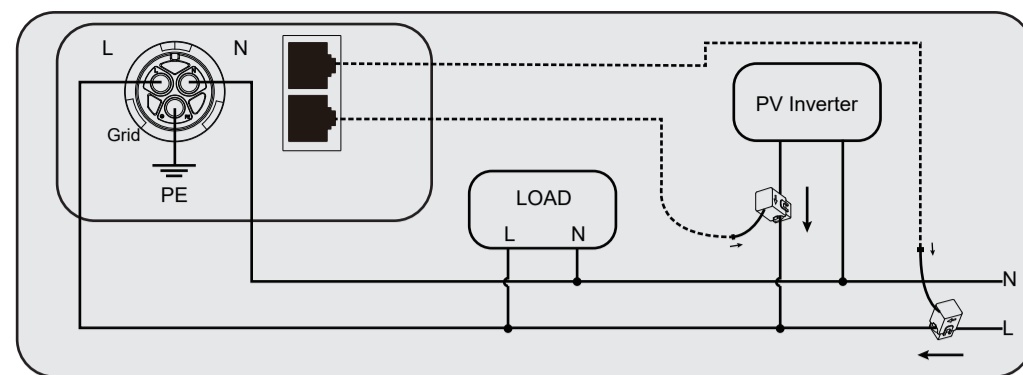
ITEM	NO	1	2	3	4	5	6	7	8
BMS	NC	RS485_A4	NC	CAN1_H	CAN1_L	NC	RS485_B4	NC	
RS485	12V	NC	GND	RS485_B5	RS485_A5	NC	NC	NC	
GRID_CT/METER	GRID_CT-	GRID_CT+	RS485_A7	NC	NC	RS485_B7	NC	NC	
PV_CT	PV_CT-	PV_CT+	RS485_A7	NC	NC	RS485_B7	NC	NC	
DRM/RRCR	DRED1/5	DRED2/6	DRED3/7	DRED4/8	REFGEN/0	COMLOAD/0			
AUX	DO1_NO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

## 5.3 Wiring the Communication Cables between the Inverter and the Battery (BMS)



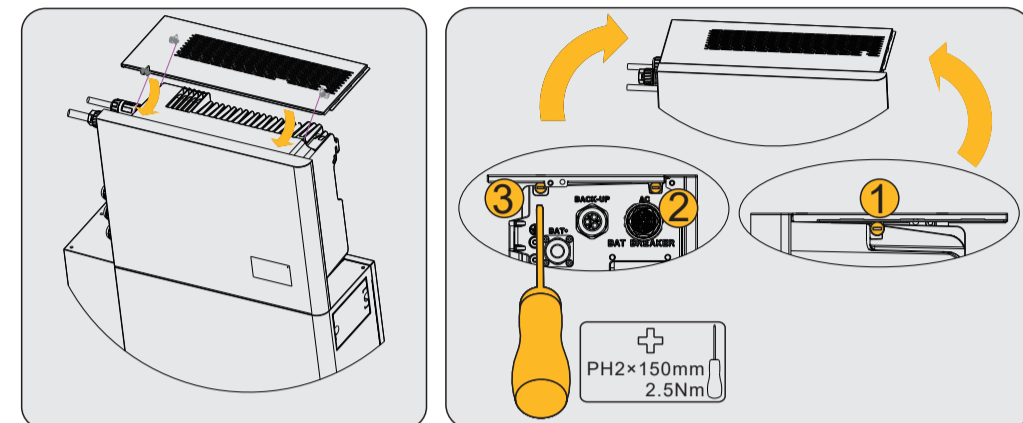
05

## 5.4 CT Wiring (Optional)

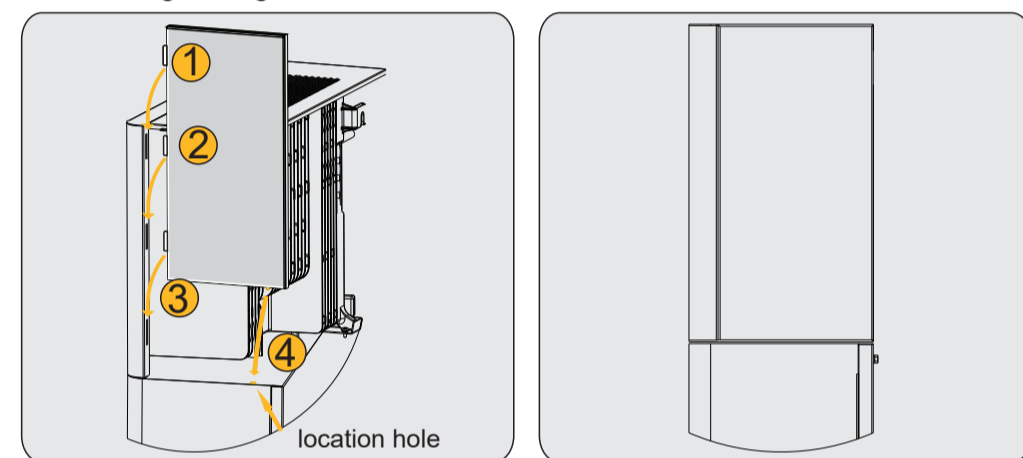


## 6. Installing the Decorative Parts

### 6.1 Installing the Top Cover



### 6.2 Installing the Right-side Plate



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## 7. Commissioning

### ⚠ WARNING

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

Follow the steps in the COMMISSIONING GUIDE AND REPORT to download AlphaESS APP, register your account, power on the product, configure WiFi module, set system parameter and operate the system.

After completing the commissioning, please submit the commissioning report.

## 8. Power ON / OFF the Product Procedure

### Procedure for Powering ON the Product

- 1) Switch on the battery breaker of the batteries.
- 2) Switch on the battery breaker which is on the left side of the inverter.
- 3) Press the battery button. If there are more than one battery, press the button on each battery (press the button on the next battery within 5 seconds).
- 4) Switch on the AC breaker between the grid port of the inverter and the grid.
- 5) Switch on the AC breaker between the backup port of the inverter and the loads.
- 6) Switch on the PV switch on the left side of the inverter.
- 7) Switch on the PV switch between the external PV-inverter and the grid if there is any.

### Procedure for Powering OFF the Product

- 1) Switch off the AC breaker between the backup port of the inverter and the loads.
- 2) Switch off the PV switch which is on the left side of the inverter.
- 3) Switch off the PV switch between the external PV-inverter and the grid if there is any.
- 4) Long press the power button of the battery pack for 6 seconds, then switch off the battery breaker of the battery pack.
- 5) Switch off the battery breaker which is on the left side of the inverter.
- 6) Switch off the AC breaker between the grid port of the inverter and the grid.

For more information, please download the user manual and other technical documents



System User Manual



System Installation Manual



APP Manual (Installer)



AlphaCloud Manual (Installer)



APP Manual (End user)



AlphaCloud Manual (End user)

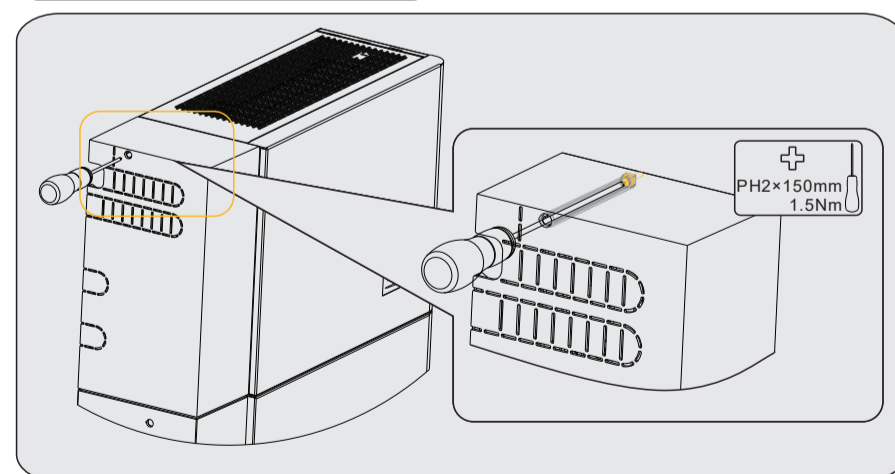
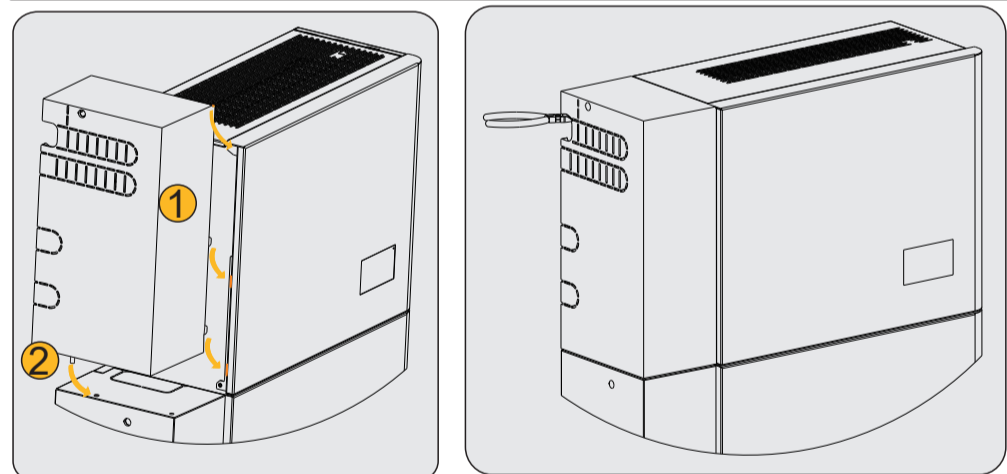


System Datasheet

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## 9. Installing the cable 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 commissioning guide to commission this energy storage system!

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