GONEO

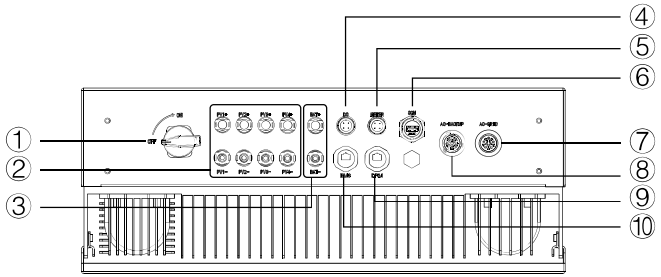
Quick Installation Manual

Flexi 2.0 3-phase

High-quality Inverter

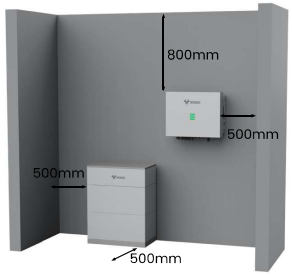
Shaping sustainability

Inverter port



Port	1.DC Switch	2.PV input	3.Battery input	4.DO Port	5.Meter Port
Function	Control the on-off of PV input	PV positive and negative power line input	Battery positive and negative power line input	Dry contact input of diesel generator	Electric meter communication
Port	6.COM Port	7.Grid	8.Back-up	9.DRM Port	10.BMS Port
Function	WIFI communication stick port input	Grid side AC input	Off-grid side AC output	External control	Battery communication

(1) 500mm beside the BESS;
(2) 800mm above the BESS;
(3) 500mm before the BESS.

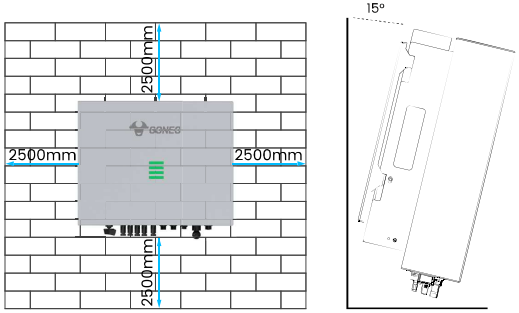


Foundation installation requirements

In order to facilitate the protection and maintenance of HYBRID INVERTER, the installation location of HYBRID INVERTER shall follow the following rules:

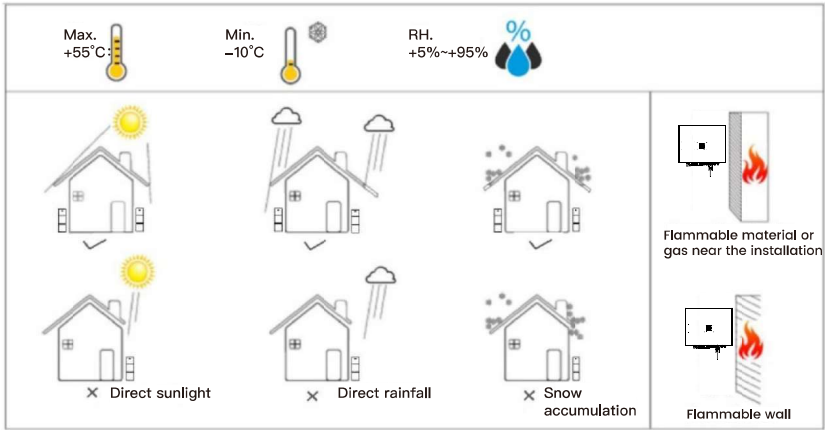
Rule 1: HYBRID INVERTER shall be installed on the solid surface, and the suitable place can meet the size and weight of the inverter;

Rule 2: HYBRID INVERTER shall be placed vertically and horizontally, with a maximum inclination angle of 2°;



Rule 3: The ambient temperature shall be lower than 45℃ ;

Rule 4: When HYBRID INVERTER is installed, it is necessary to avoid light and bad weather, such as snow, rain and lightning;

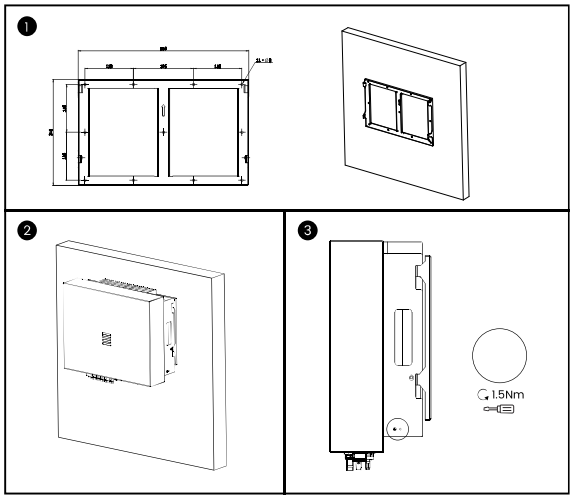


⚠ Warning	The equipment weighs about 23kg, with the size of 550*550*240mm. The unpacking process must be operated safely by professionals using special tools, knives and screwdrivers under the condition of wearing protective gloves and safety shoes. If needed, hoisting equipment or multiple people working at the same time must meet the above safety requirements;

Inverter port

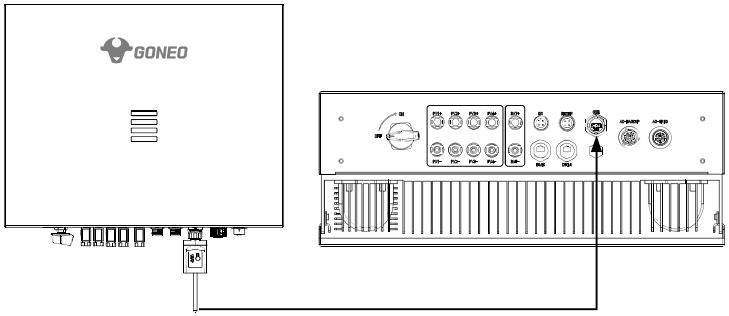
Align the inverter vertically at the hole position, stack it on the battery box, and lock the left and right fastening screws M4*10 round head hexagon combination screws.

⚠Note: Stabilize the box body during the process to prevent dumping.

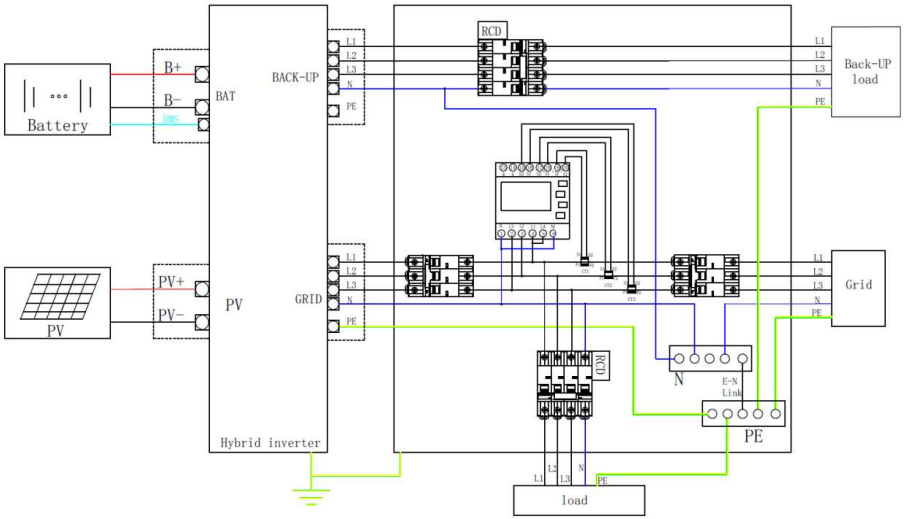


Installation of WIFI module

Take out the Wifi module in the accessory package, insert it into the Wifi installation base, and then tighten the plastic nut;



The N line and the PE line are connected together on the main panel for wiring. The following figure is applicable to Australia, New Zealand, South Africa and other regions.

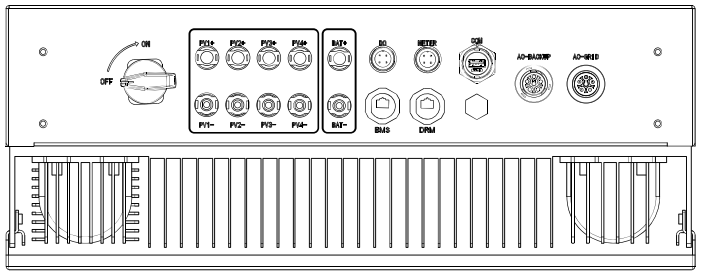


Note: In case that the N line is connected with the PE line, the PE line at the BACK-UP end of the inverter is suspended instead of connection.

The N line and PE line are separately wired on the main panel. The following figure is applicable to regions other than Australia, New Zealand and South Africa.

Cable preparation

Before wiring, it is necessary to ensure that all switches on the inverter are turned off;



Ground connection

Warning	1)Besides, the user must ground the inverter for the second time or connect the enclosure equipotentially. This can prevent electric shock when the original protective conductor fails 2)When multiple inverters are used, the protective grounding point of all inverter enclosures must be connected equipotentially 3)Grounding wire is outdoor copper core conductor; cross-sectional area is S ≥ 4 mm2 or ≥ 10 AWG

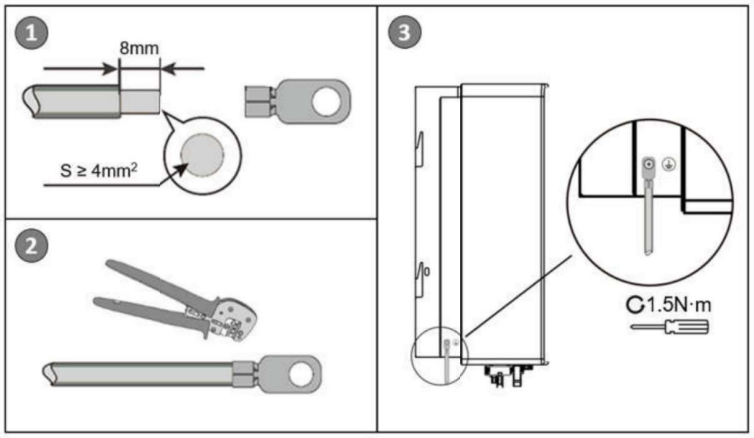
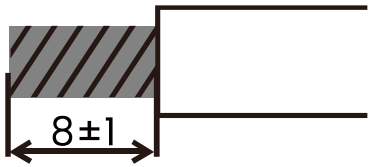
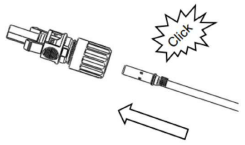
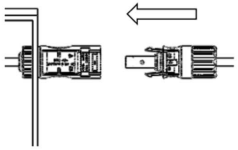
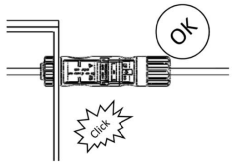


Figure 3-17 Equipment grounding

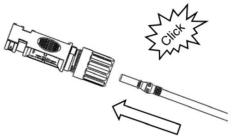
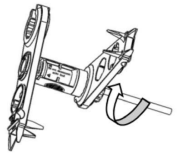
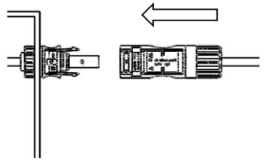
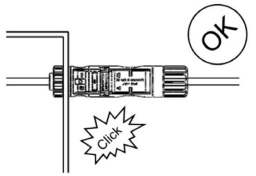
1) Wire stripping dimension



2) Installation process of battery BAT+

 Crimp the terminal and insert it into the terminal hole. And hear a "click"	 Tighten nut with open-end wrench (torque 7±0.2N·m)
 Insert the male connector as indicated by the arrow	 Complete installation

3) Installation process of battery BAT-

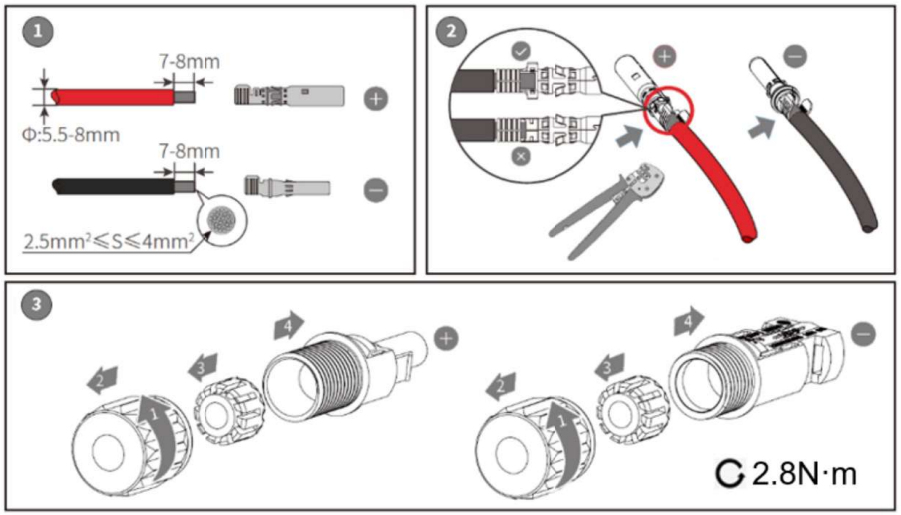
 Crimp the terminal and insert it into the terminal hole. And hear a "click"	 Tighten nut with open-end wrench (torque 7±0.2N·m)
 Insert the male connector as indicated by the arrow	 Complete installation

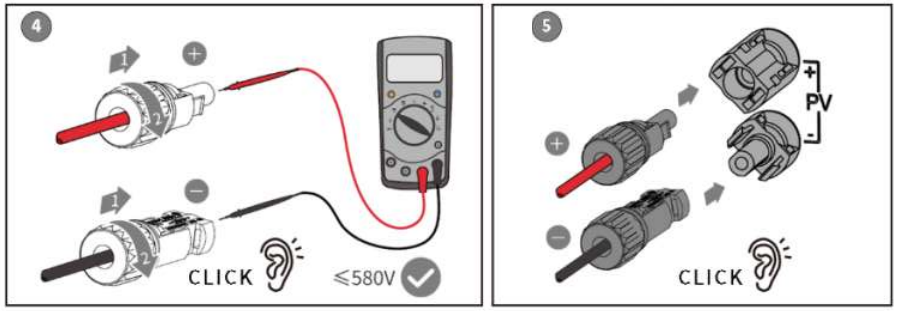
PV electrical connection

Step 3: Cable connection of PV

The hybrid inverter can be connected in series with 2 strings of PV assemblies. The PV modules connected to the inverter shall be subject to Class A certification as per IEC 61730.

⚠ Danger	1) Please connect the PV port of inverter using the attached PV connector. Using other models of PV connectors may cause serious consequences. 2) The PV string will output a high DC voltage when it is exposed to sunlight. Please cover the PV assembly with opaque material and disconnect the hybrid inverter at the time of wiring.
⚠ Warning	3) Please do not ground PV positively or negatively! 4) • The open circuit voltage of series module array shall be < MAX DC input voltage. 5) Configuration current shall be less than the maximum DC input current. 6) Please verify whether the PV input polarity is correct. 7) It is not allowed to connect the same PV string to multiple inverters.



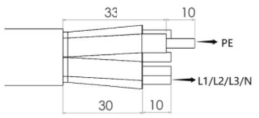
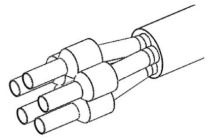
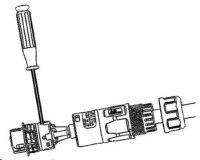
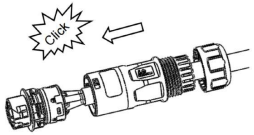
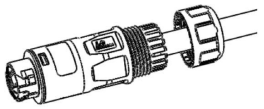


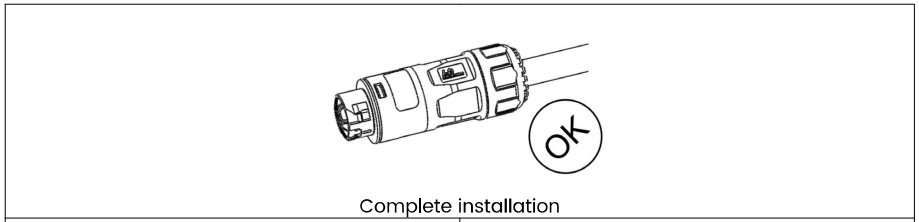
DC cable connection

Connection of DC power

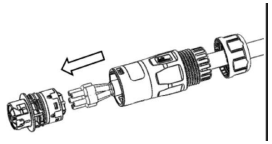
A hybrid inverter has been designed specifically for single-phase power grids, with a voltage of 220/230V and a frequency of 50/60Hz. Other technical requirements shall comply with the requirements of local public grid.

The hybrid inverter can realize both grid connection and off-grid functions. It outputs power through the AC port and the backup port respectively during grid connection and off-grid.

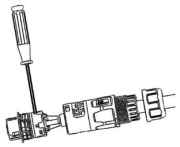
 Wire stripping dimension	 Crimping the terminal via a crimping pliers
 Install various components on cables, and then insert them into the terminal hole successively	 Crimp via an inner hexagon screwdriver, and the tightening torque is 1.2±0.1 n·m
 Insert the main body into the rubber core, until a "click" sound is heard	 Tighten the nut (torque: 2.5±0.5N·m) via an open-end wrench



Complete installation



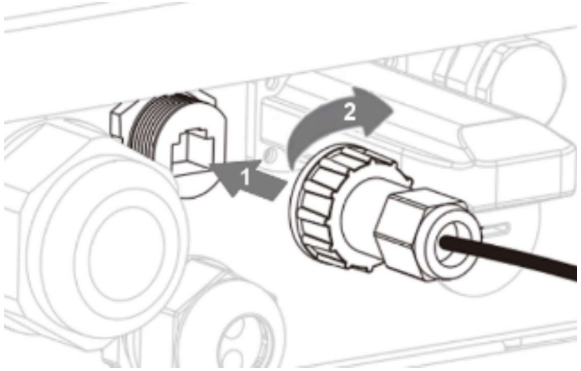
Insert the female connector as indicated by the arrow

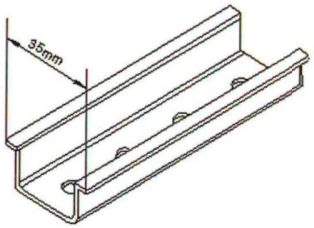


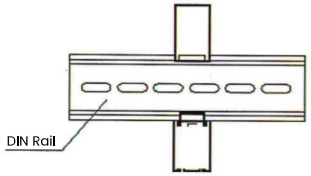
Complete installation

Electrical connection between inverter and high-voltage box

The P_COM port of the first battery box in the lower layer of the hybrid inverter is connected to the BMS port of the hybrid inverter by a matching prefabricated communication network cable.

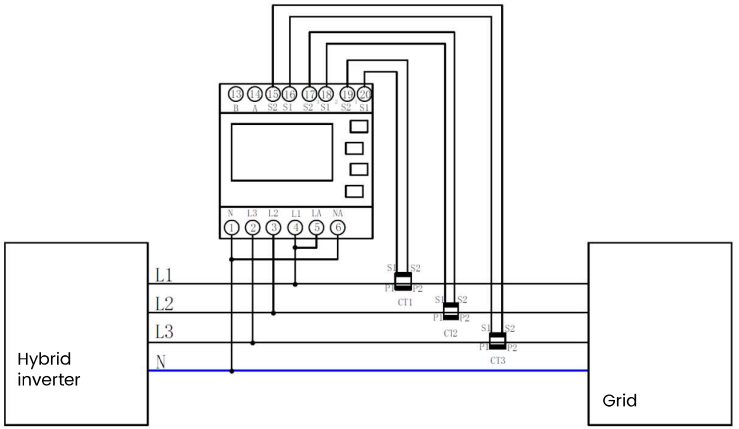




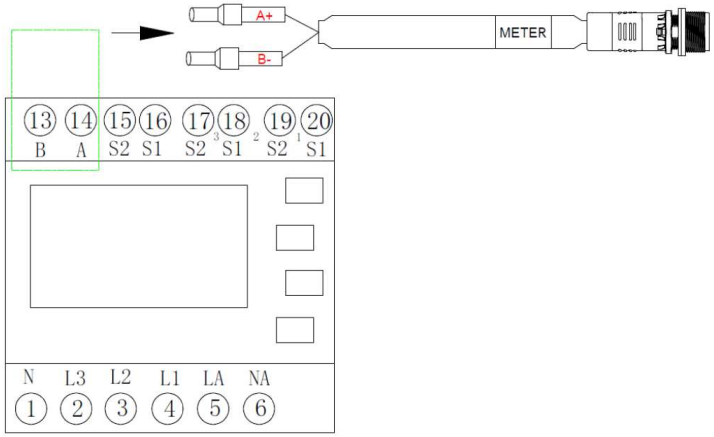


Step 1: Connect the power line of the ammeter

Step 2: Link CT to the instrument.



Step 3: Link the inverter instrument port to the instrument communication port (A+/B-) with supporting cables.



Definition of wiring: Connect A+ and B- terminals of cables to the A+ and B- ports of the instrument correspondingly

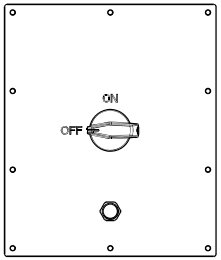
Note: Live operation is prohibited for the steps above. Secondary open circuit is not allowed for the current transformer, otherwise a high voltage may occur.

Commissioning and grid matching

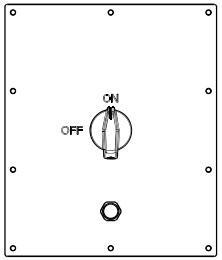
Startup

Warning: Please re-check the installations before starting the system, and perform the following steps once no errors are found in wire connection

Step 1: Rotate all the rotary buttons on the battery module, and rotate the knob from horizontal status to vertical status

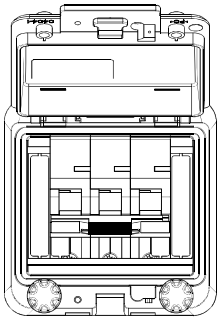


Turn-off state

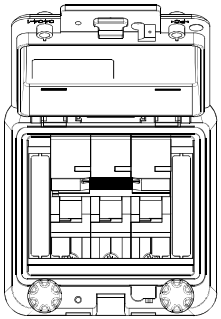


Turn-on state

Step 2: Open the circuit breaker protection cover on the battery high-voltage box and open the circuit breaker switch

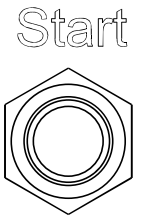


Turn-off state

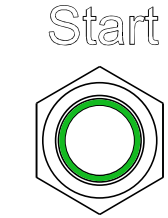


Turn-on state

Step 3: Press the startup button on the battery high-voltage box for a long time, and release it after the green light on the button is on

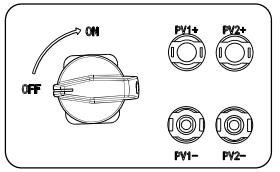


Turn-off state

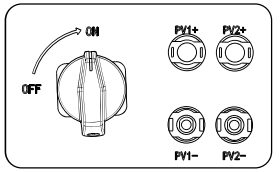


Turn-on state

Step 4: Rotate the PV switch knob on the inverter from OFF to ON



Turn-off state



Turn-on state

Step 5: Configure the WIFI stick (only when this is the first startup of system). Please perform operation as per the instructions in Section 4

Step 6: Turn on the grid circuit breaker

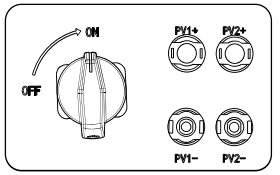
Step 7: Turn on the backup circuit breaker in case of a backup load

Shutdown

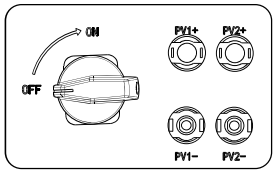
Step 1: Turn off the standby load first in case of a standby load, and then turn off the standby circuit breaker.

Step 2: Turn off the grid circuit breaker.

Step 3: Turn off the PV switch on the inverter.

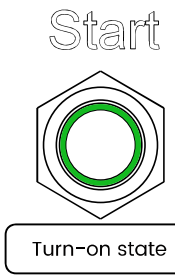


Turn-on state

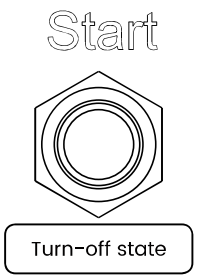


Turn-off state

Step 4: Press the startup button on the battery high-voltage box for a long time (about 3s), and release it after the button light is off

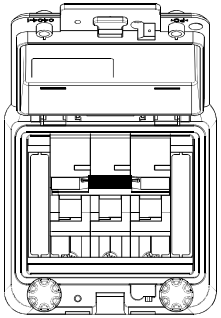


Turn-on state

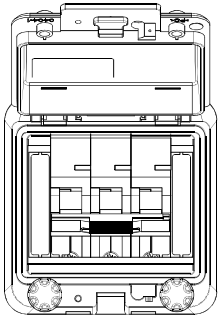


Turn-off state

Step 5: Turn off the circuit breaker switch on the battery high-voltage box and close the circuit breaker protection cover

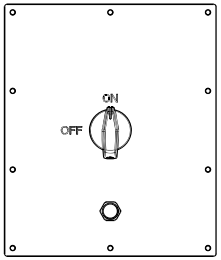


Turn-on state

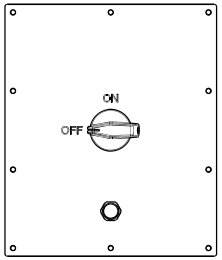


Turn-off state

Step 6: Rotate all the rotary buttons on the battery module, and rotate the knob from vertical status to horizontal status



Turn-on state



Turn-off state