GONEO

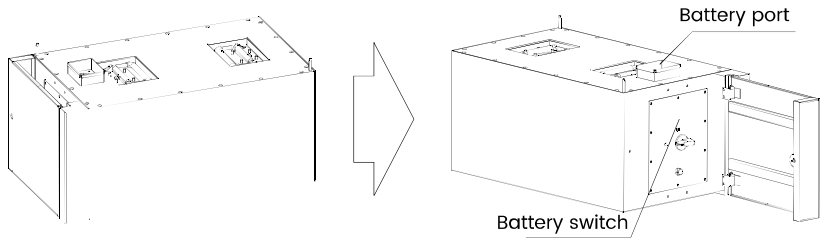
Quick Installation Manual

Flexi 2.0 3-phase

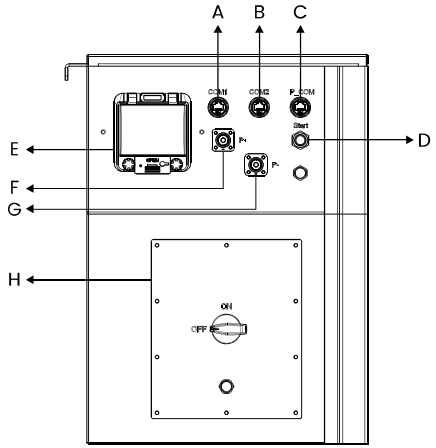
STACKABLE HIGH-VOLTAGE ENERGY STORAGE SYSTEM

Shaping sustainability

Battery pack



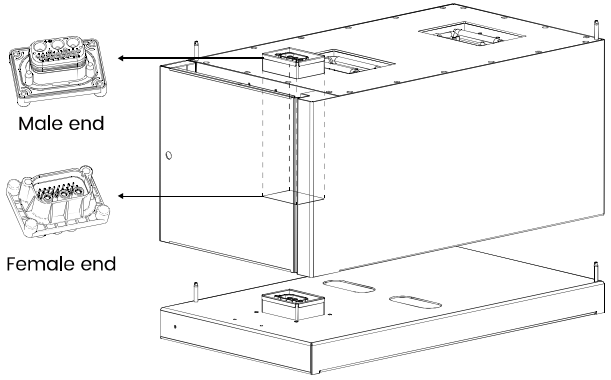
System ports of high-voltage box



Object	Function description	Tool requirements and torque
A	Commissioning communication port	Plug and play, reserved, no need to install
B	Repair communication port	Plug and play, reserved, no need to install
C	Inverter communication interface	Plug and play, with no tools required
D	Battery activation switch	On/Off button
E	Battery circuit breaker	Rated operating voltage (UL1077): DC600V (3P) Rated operating current: 63A Rated insulation voltage: 1000V Rated ultimate short-circuit breaking capacity: 80A: 4.5kA, 63A and below: 6kA Rated operating short-circuit breaking capacity: 80A: 4.5kA, 63A and below: 6kA Rated impulse withstand voltage: 6kV Mechanical lifespan: 8500 cycles Electrical endurance: 1500 cycles

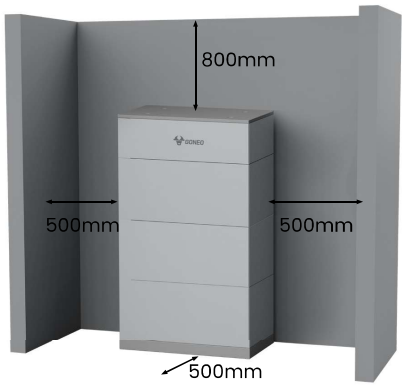
Object	Function description	Tool requirements and torque
F	Battery output anode	Plug and play, with no tools required
G	Battery output cathode	Plug and play, with no tools required
H	Disconnecting switch	Rotary switch

Battery box connection port



Installation and Commissioning

It requires to be installed on flat ground or platform with a minimum load-bearing capacity of 300kg. The back of the battery box shall have a wall or bracket with fixable expansion bolts, with a load-bearing capacity of not less than 300kg; the installation site must be free from flammable and explosive materials, with ventilation ensured.

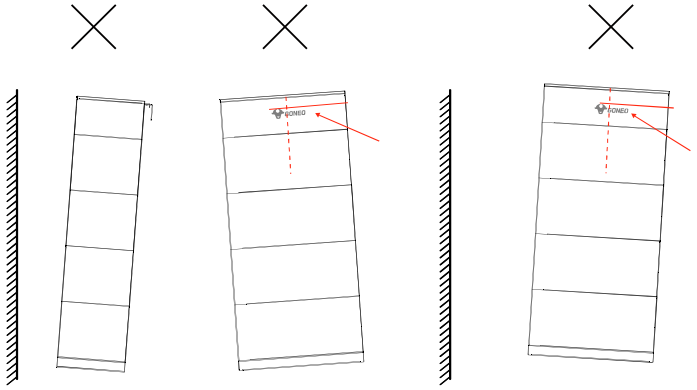


Foundation installation requirements

In order to facilitate the protection and maintenance of the energy storage system, the installation location of the energy storage system shall follow the following rules:

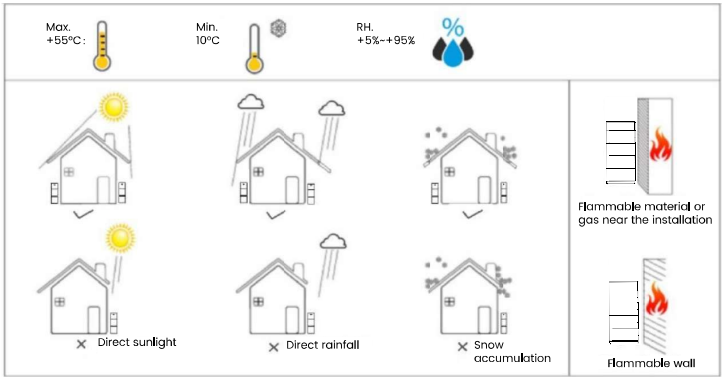
Rule 1: The energy storage system shall be installed on the solid surface, and the suitable place can meet the size and weight of the inverter;

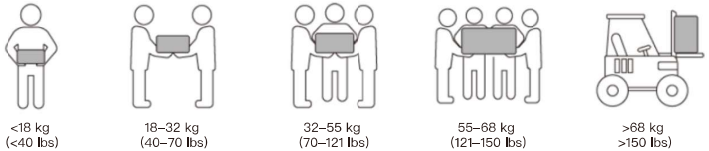
Rule 2: The energy storage system shall be placed vertically and horizontally, with a maximum inclination angle of 2°;



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

Rule 4: When the energy storage system is installed, it is necessary to avoid light and bad weather, such as snow, rain and lightning;

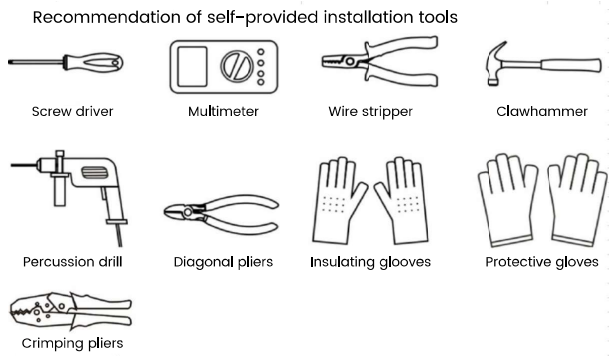




Battery box installation

It is recommended to bring self-provided tools before installation:

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

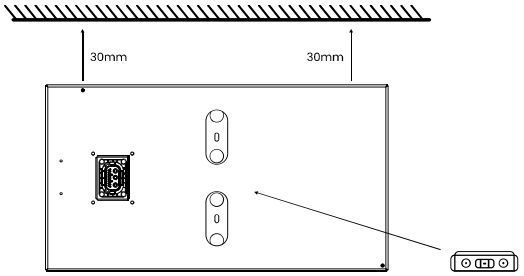


The installation steps for the standard EUE2-ED51U battery system are as follows:

Step 1:

Put the base against the wall.

⚠ Note: Ensure that the distance between the base and the wall is 30 to 45mm.



Step 2

If it is allowed to install expansion screws at the bottom, please follow the instructions in Figure 3-5 (1) to proceed.

Then install the dowel pins at the positions shown in Figure 3-5 (2). Then, use the dowel pins to place the battery pack on the base.

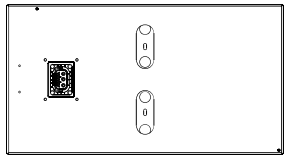


Figure 3-5 (1) Expansion screws fixing the bottom cover

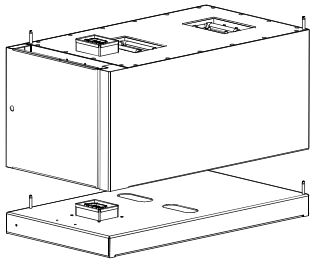


Figure 3-5 (2) Connection of the battery box and the bottom cover assembly

Step 3

Open the side panel of the battery box with a Phillips screwdriver, and secure the four M4 × 10 hexagon socket bolts on the connection plate.

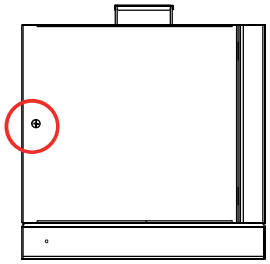


Figure 3-6 (1) Side panel of the battery box

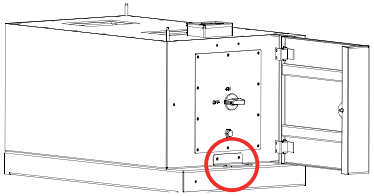
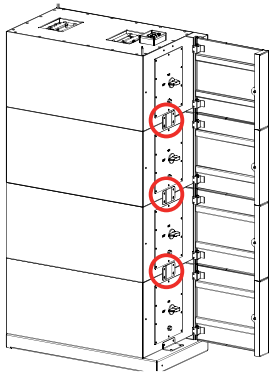


Figure 3-6 (2) Fixation of the battery box and the bottom cover

Step 4

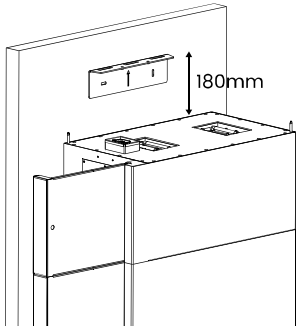
As shown in the figure below, install and secure the battery packs, tighten the connection plates between the battery boxes, and finally assemble the high-voltage box in place.

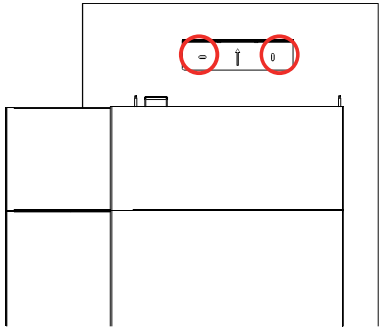
Four M4*10 hexagon assembly bolts are used for each fixing connection plate.



Step 5

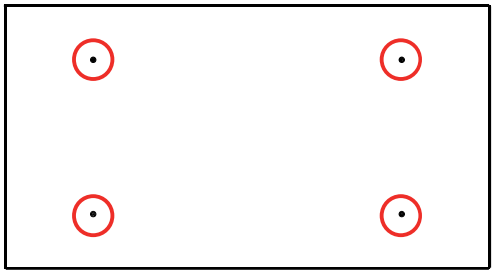
Fix the wall-mounting bracket to the appropriate height on the wall, with a distance of 180mm between the surface of the wall-mounting bracket and the surface of the top battery pack, as shown in the figure. Install the dowel pins on the last battery pack.



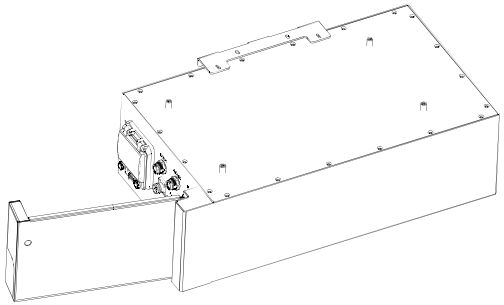


Step 6

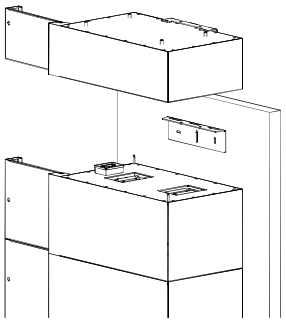
Remove four screws from the top cover of the high-voltage box, as shown in Figure 3-9.

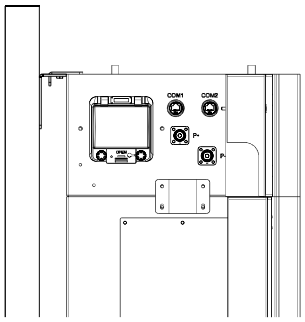


Use M4*10 hexagon bolts to secure the mounting bracket in the position shown on the high-voltage box, as shown in Figure 3-10.



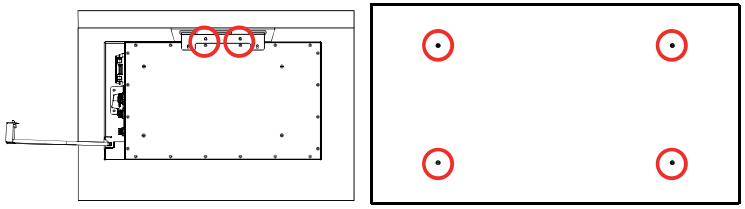
Assemble the high-voltage boxes into position and secure the connecting piece between the boxes, as shown in Figure 3-11.





Step 7

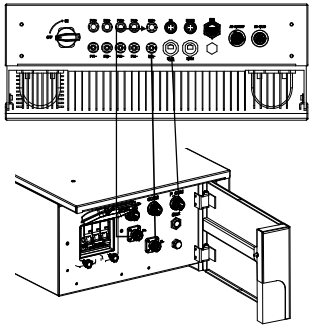
Secure the mounting bracket and fix the top cover of the high-voltage box, as shown in Figure 3-12.

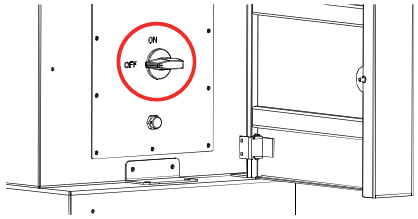


Step 8

Preparation before connection

Ensure that all switches (inverter, high-voltage box, battery) on the energy storage system are in the OFF state before powering up the energy storage system.



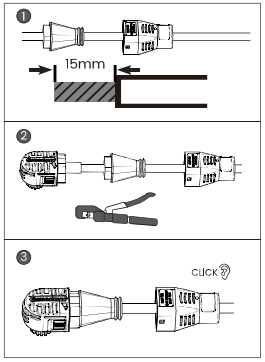


⚠ Warning	When the inverter is powered up and works, the backup port is powered on. Please turn off the inverter in case that the standby load needs to be maintained, otherwise it may cause electric shock.
⚠ Note	Please contact us before operation in case of any discrepancy between wiring method in local policy and the following instructions, especially neutral wiring, grounding and RCD wiring!

1) Connecting the power cord

Take out the connecting cables from the accessory package and connect them to the terminals of the inverter according to the crimping method shown in Figure 3-13.

The P+ and P- terminals of the high-voltage box are respectively connected to the BAT+ and BAT- terminals of the inverter.

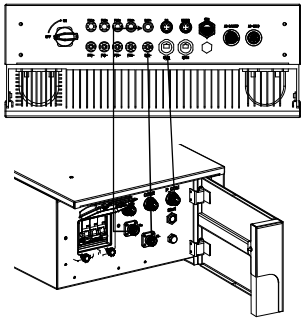


Cable specifi-cations	Crimping height	Terminal pull-out force	Adaptable wire outer diameter	Remark	
16mm²	6.0±0.2	≥1500	7.8~8.6		It is recommended to use six-sided crimping. The crimping height is for reference only.
25mm²	6.8±0.2	≥1900	9.8~10.5		
3AWG	7.0±0.2	≥1900	9.8~10.5		
4AWG	6.4±0.2	≥1900	9.8~10.5		
6AWG	5.6±0.2	≥1900	7.8~8.6		

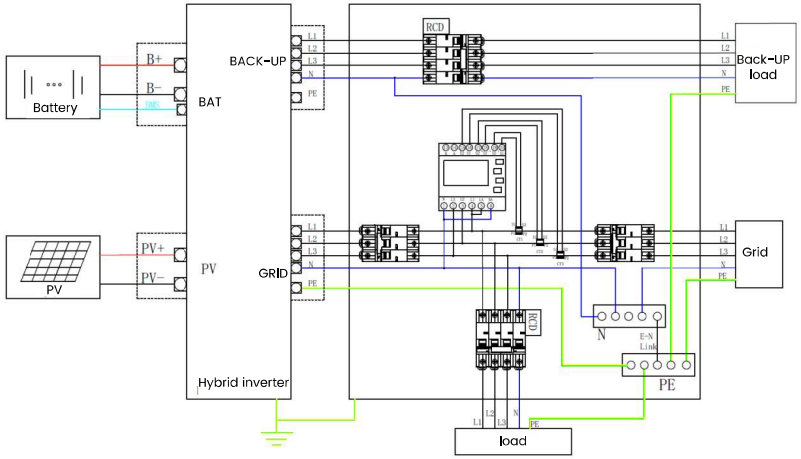
See the table for different cable specifications and reference crimping height and pull-off force requirements.

2) Connecting cables

The first P_COM port of the high-voltage box is connected to the BMS port of the inverter for communication between the inverter and the battery. The CAN protocol is used for the communication between the inverter and the battery, which are connected using a standard RJ45 connector with a Cat 5 Ethernet cable. Please follow the figure shown below for the connection.



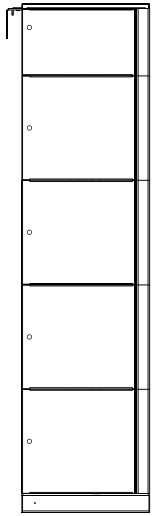
3) The following is the schematic diagram of an energy storage system composed of PV, battery pack + high-voltage box, and inverter. Please refer to this diagram for connection of the system.



Step 9

After connecting all the cables, please close the battery disconnecting switch and the battery circuit breaker on the high-voltage box as per the power-on sequence.

Upon completion of commissioning, tighten the cables and secure the side cover with a cross screwdriver, as shown in Figure 3-15.



Danger	Ensure power cables are installed with the correct polarity. A dangerous situation may arise if the polarities are reversed.
Danger	Do not create a short circuit between the positive and negative terminals of the battery. Ensure the polarity is correct during installation.
Warning	Incorrect communication cable connection will cause the battery system to operate in unexpected ways which may lead to system failure.