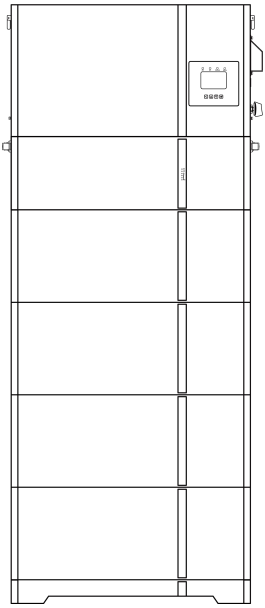
Quick Guide

Spring series LFP Battery

AI-W5.1-B (PDU3)

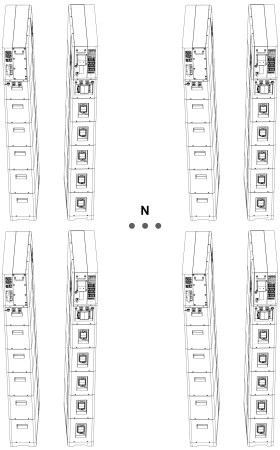


Issue: 01

Date: 20250930

1. Layout

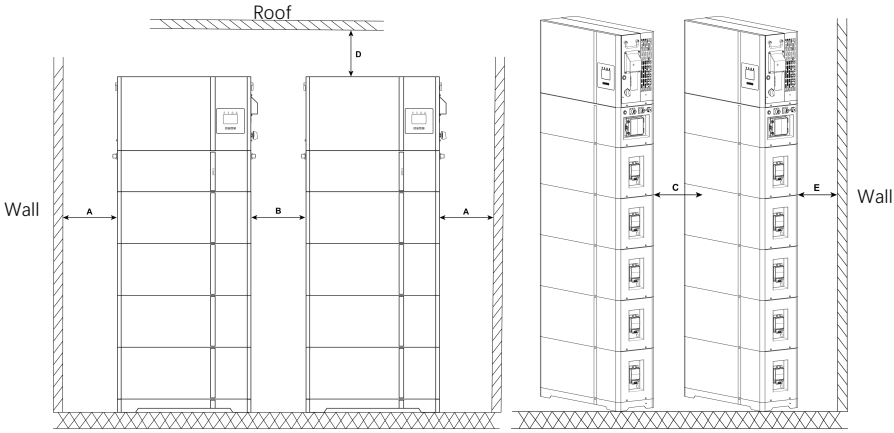
If your installation site is limited and the space is relatively narrow, you can refer to the following layout for installation.



2. Installation clearance

Caution!

Batteries should be installed in a clean flat place away from water and fire sources, and at a suitable temperature. The installation location is recommended to meet the size requirements of the figure below:



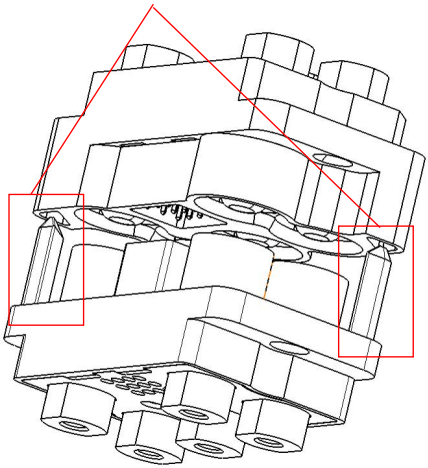
Item	Distance (mm)
A	⩾600
B	⩾300
C	⩾20
D	⩾600
E	10-35

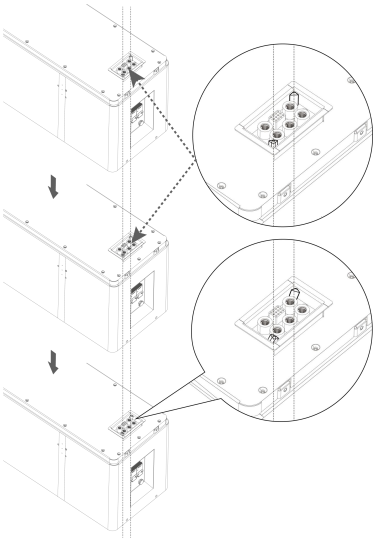
3. Assembly

Note!

Because the assembly tolerances present in the overall vertical stacking of the product and the lower quick-connector is locked and fixed to the enclosure, the upper quick-connector is designed to be guided and floating to ensure reliable connection between the upper and lower quick-connectors.

Upper and lower quick-connectors





There are two installation methods for you to make a decision. Precede as follows:

Note!

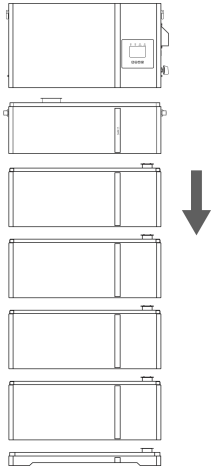
1) When drilling holes, pay attention to prevent dust from entering the battery, which may affect the battery performance and function.

2) Ensure that the floor is level enough so as to avoid to influence hole drilling, such as height or location.

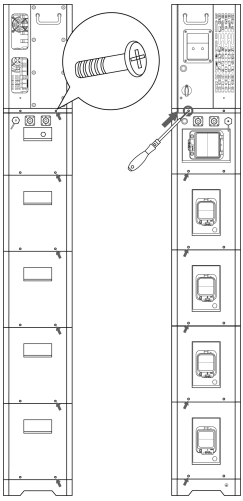
3) After drilling, never forget to clean up the floor.

Method 1

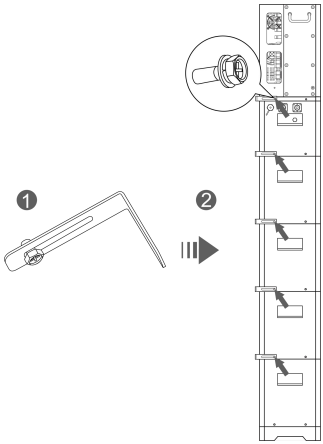
1. Take out the base and then put it onto the designated foundation. Stack batteries onto the base in turn. Place the PDU over the battery and the inverter over the PDU finally. Importantly, the quantity of stacked batteries that are regarded as one cluster, is no more than 5.



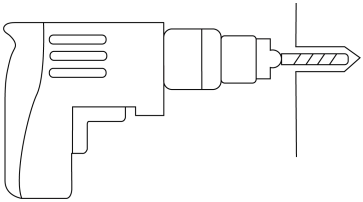
2. Secure with screws by a screwdriver.



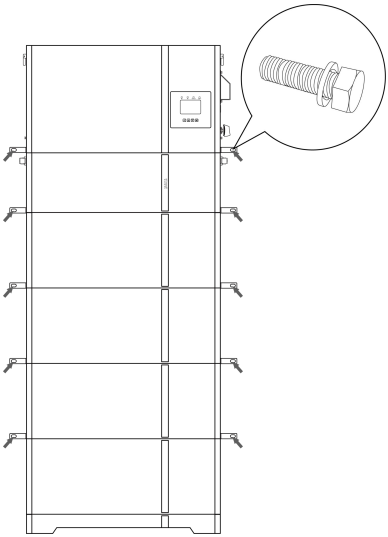
3. Use 10 screws to secure 10 fixed supports to the left and right side of batteries and the PDU. It is noted that two fixed supports on the PDU are used to secure the PDU and your inverter.



4. Choose appropriate locations on the wall for drilling assembly holes (aperture: 6mm, depth: 50mm).

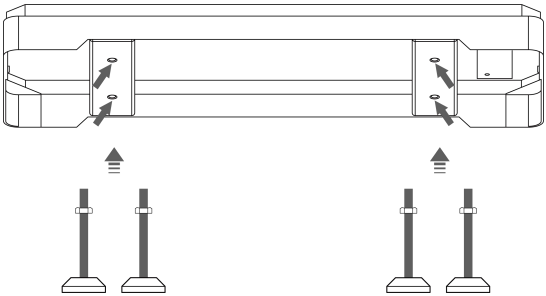


5. Secure the whole system to the wall using 10 washers and hex bolts.

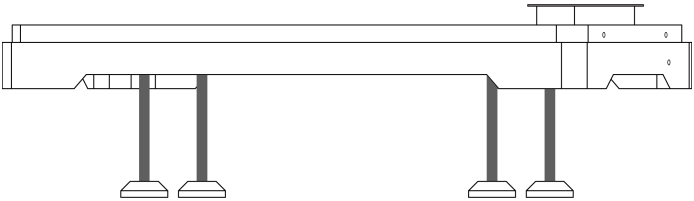


Method 2

1. By rotating clockwise, the adjusting block is combined with the base, and the length can be adjusted to 40mm.

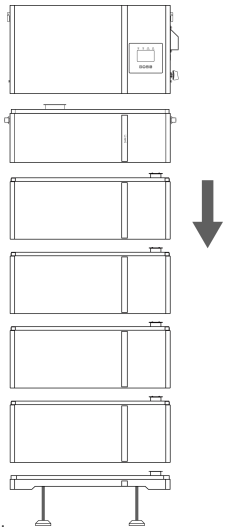


2. Adjust the height of the adjusting block by turning it.

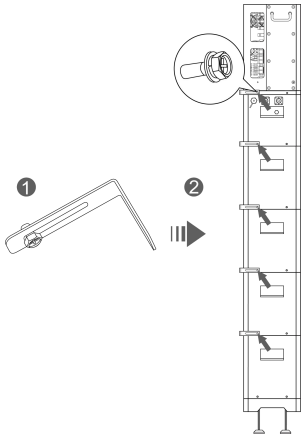


3. Stack the base, batteries, the PDU and the inverter, and then secure with screws as mentioned in the method 1.

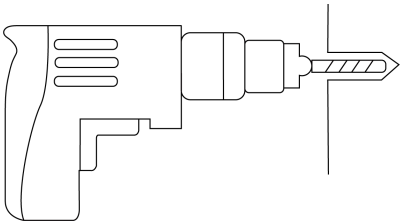
Importantly, the quantity of stacked batteries that are regarded as one cluster, is no more than 5.



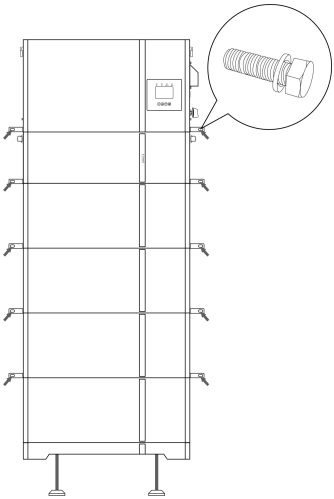
4. Use 10 screws to secure 10 fixed supports to the left and right side of the battery and the PDU. It is noted that two fixed supports on the PDU are used to secure the PDU and your inverter.



5. Choose appropriate locations on the wall for drilling assembly holes (aperture: 6mm, depth: 50mm).



6. Secure the whole system to the wall using 10 washers and hex bolts.

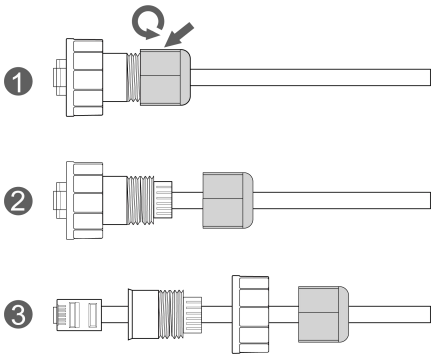


4. Wire connection

Caution !

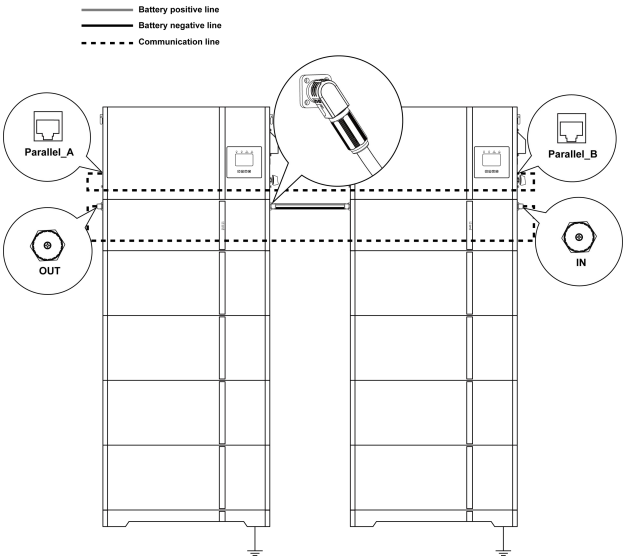
When it comes to cable connection, it should be noted that the maximum current of single battery system is 250A. Exceeding 250A will cause heating of the connectors and cable, and in severe cases, it will cause a fire accident.As for cables, the recommended cross section of them should be at least 55 mm².

Both ends of the PCS communication cable are equipped with protective sleeves. When connecting the entire battery system to the inverter, loosen the protective sleeve on one side before inserting this end into the BMS port of the inverter, as shown in the figure.

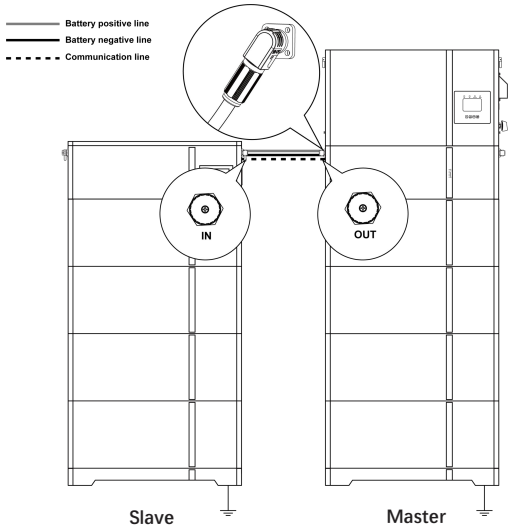
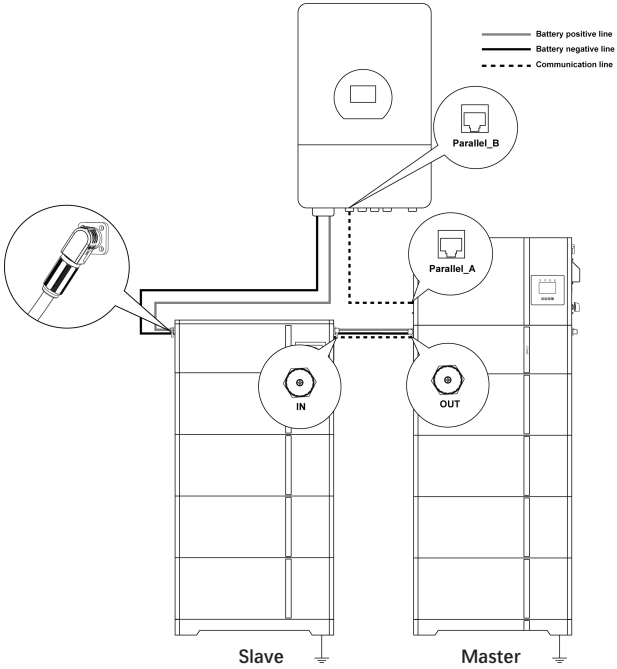


There are **3 different wiring modes** for you to meet your demands.

Mode 1 :PDU3 +PDU3



Mode 2: PDU3 (Master)+PDU1 (Slave)



Mode 3: PDU3 (Master)+external PCS+PDU1 (Slave)