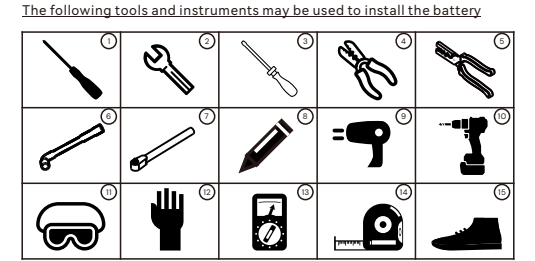


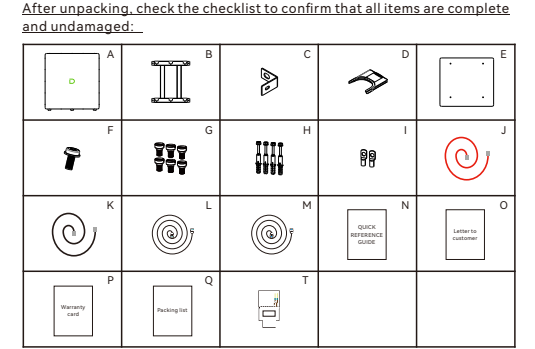
Powerbox G3

QUICK-REFERENCE-GUIDE

1 Installation tools

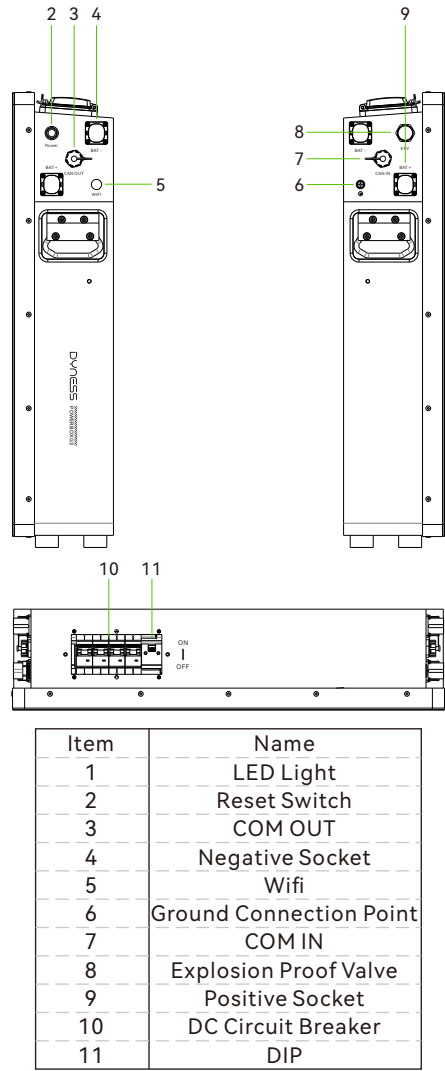
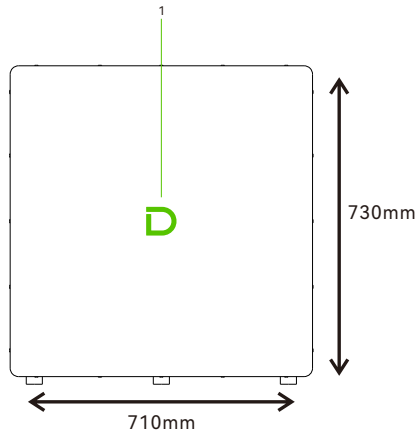


2 Packing List



3 Product Interface Definition

Dimension: 730*710*165



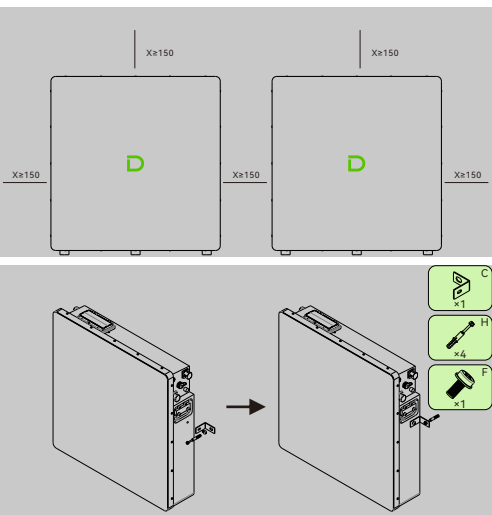
Item	Name
1	LED Light
2	Reset Switch
3	COM OUT
4	Negative Socket
5	Wifi
6	Ground Connection Point
7	COM IN
8	Explosion Proof Valve
9	Positive Socket
10	DC Circuit Breaker
11	DIP

4 Installation Steps

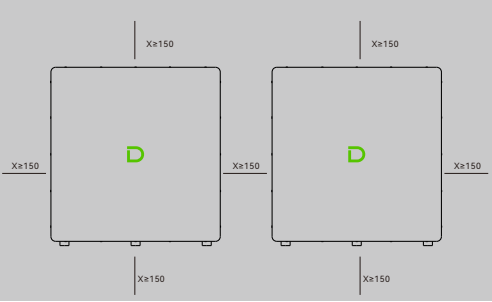
Installation Notes

1. Elevation: no more than 4000m;
2. Operating environment: Indoor or outdoor installation, sites avoid the sunlight and no wind, no conductive dust and corrosive gas;
3. Installation location should be away from the sea to avoid brine and high humidity environment;
4. The ground for product arrangement shall be flat and level;
5. There is no flammable explosive materials near to the installation site;
6. The working temperature is -20°C~55°C;
7. Keep away from dust and messy zones.

Standing mounting:
Place it directly on the ground and it's ready to use.
(If the uneven ground causes the chassis to be at risk of tipping over, you can use the mounting ears provided with the goods to secure the chassis to the wall, with serial numbers "C", "F" and "H")

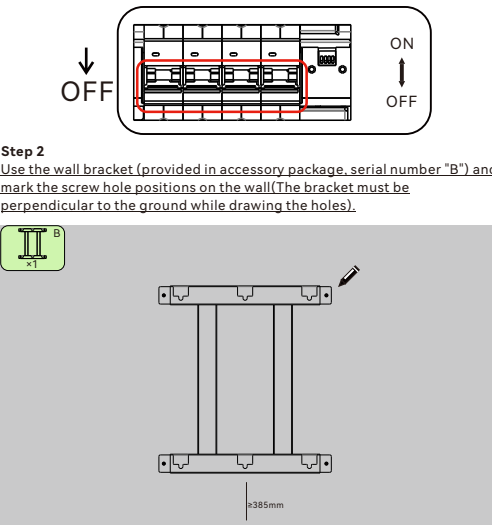


Wall mounting:
Wall mounting accessories are required.



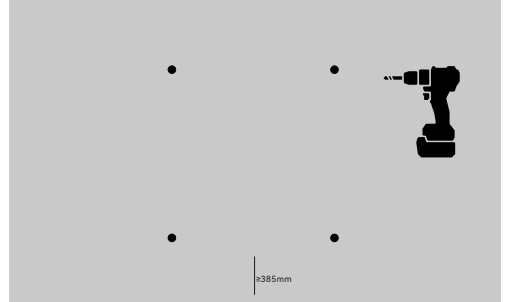
Note: When batteries are used in parallel, parallel cables need to be ordered separately.
When the distance between battery compartments exceeds 450mm, parallel cables cannot be used, and longer parallel cables need to be self-made or custom-ordered.

Step 1
Check and confirm that the air switch on the top of Powerbox G3 is in the "off" state to ensure no live operation.

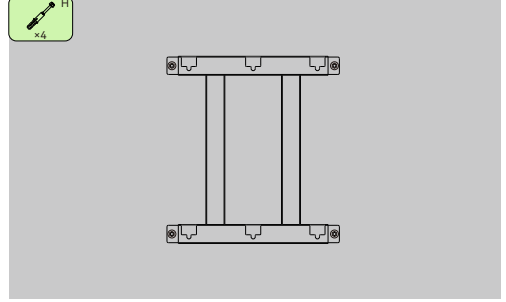


Step 2
Use the wall bracket (provided in accessory package, serial number "B") and mark the screw hole positions on the wall (The bracket must be perpendicular to the ground while drawing the holes).

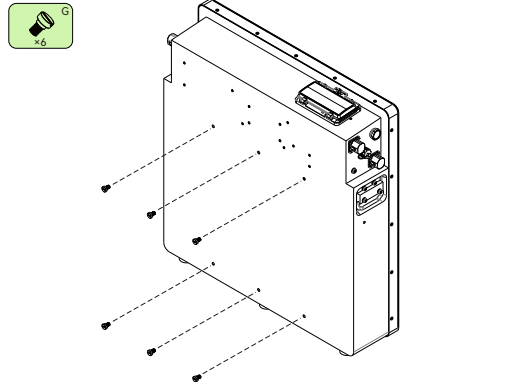
Step 3
According to the position of the mark, 4 holes in diameter 10mm and depth of more than 80mm are hit on the wall with an electric drill, which are used for fitting Hexagon Head Tapping Screw M6.
The wall for battery installation shall be solid brick or cement wall with strong bearing capacity and wall thickness no less than 100mm.



Step 4
Fix the wall bracket on the wall with M6 Hexagon Head Tapping Screw (provided in accessory package, serial number "H"), twisting force keeps 9.8N·m.



Step 5
As shown in the figure below, lock six M8 step screws (provided in accessory package, serial number "G") to the battery module. Twisting force keeps 11.8N·m.

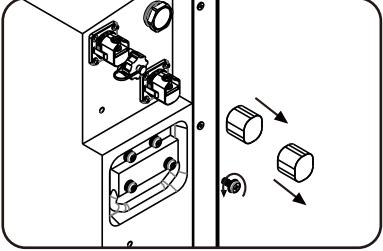


Step 6
Ensure that the six screw heads on the back of the chassis are inserted into the slots of the wall mount bracket (The Powerbox G3 weighs approximately 100 kg. When handling and installing it, it is recommended that more than two engineers operate it, or operate it with the help of the distributor's professional tools).

5 Wiring Steps

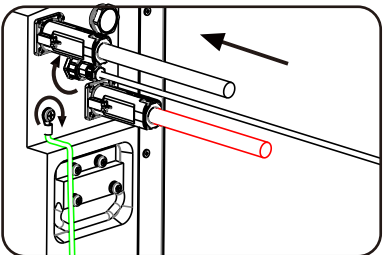
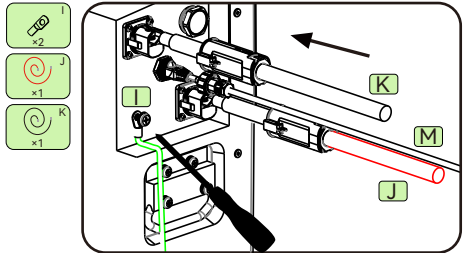
Step 1

Remove the positive and negative socket shields and grounding screws



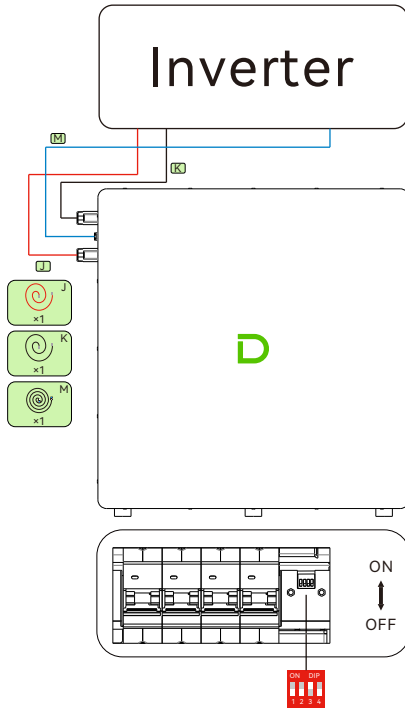
Step 2

1. Crimp the grounding cable (using the two OT terminals in the accessory kit, serial number "I");
2. Install the positive and negative cables (the cables are in the accessory kit, serial number "J" and "K");
3. Install the waterproof network cable (the network cable is in the accessory package, serial number "M");
4. Insert the waterproof covers of the positive and negative cables into the positive and negative sockets, tighten the waterproof connector of the network cable, and tighten the grounding screw.



Step 3

Connect the inverter(The operations are as follows):

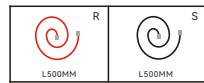


Before connecting the inverter, you can set DIP switch "#3" to the "ON" position.
When connecting different inverters, the DIP switches have different settings.

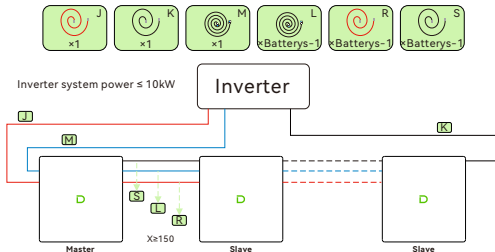
When multiple Powerbox G3 units are running simultaneously in the system, please strictly follow the following requirements for use (to avoid hazards caused by improper operation).

When the power of the inverter system $\leq 10kW$:

1. Batteries are connected using parallel cables (special parallel cables need to be ordered separately, with serial numbers "R" and "S");



2. The system's main positive cable is installed on the first Powerbox G3, and the system's main negative cable is installed on the last Powerbox G3 (the cables are in the accessory package, with serial numbers "J" and "K");
3. Batteries communicate using parallel network cables, and the main battery communicates with the inverter using external network cables (the network cables are in the accessory package, with serial numbers "L" and "M");
4. The system supports up to 50 Powerbox G3 units operating in parallel.

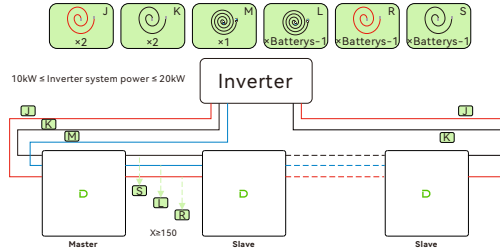


Inverter

D

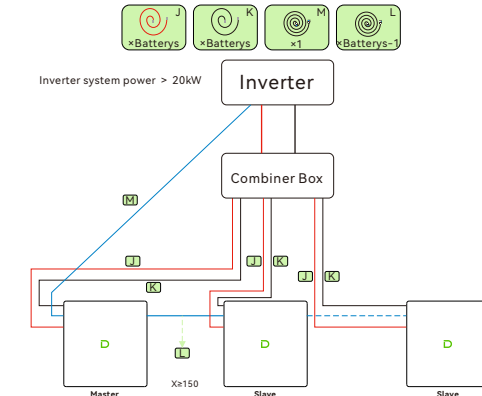
10kW < When the power of the inverter system $\leq 20kW$:

1. The inverter must support the simultaneous connection of two pairs of cables larger than 50 square meters;
2. Batteries are connected using parallel cables (special parallel cables need to be ordered separately, with serial numbers "R" and "S");
3. Both the first Powerbox G3 and the last Powerbox G3 within the system need to be externally connected to a pair of cables (the cables are in the accessory kit, with serial numbers "J" and "K");
4. Batteries communicate using parallel network cables, and the main battery communicates with the inverter using external network cables (the network cables are in the accessory package, with serial numbers "L" and "M");
5. The system supports up to 50 Powerbox G3 units operating in parallel (when two Powerbox G3 units are used in parallel, there is no need to connect a parallel cable between the batteries).



20kW < When the power of the inverter system:

1. A combiner box must be used for confluence (available for purchase from Dyness);
2. All Powerbox G3 units must be connected to the combiner box via cables (the cables are in the accessory package, with serial numbers "J" and "K");
3. Batteries communicate using parallel network cables, and the main battery communicates with the inverter using external network cables (the network cables are in the accessory package, with serial numbers "L" and "M");
4. The system supports up to 50 Powerbox G3 units operating in parallel.



Note: The parallel network cable between battery packs and the parallel network cable between batteries and inverters have different functions and must not be used interchangeably!

Note: When multiple batteries are used in parallel, simply set the DIP switch of the main battery to the corresponding DIP mode, and the slave batteries do not need to have their DIP switches set.



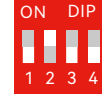
Slave setting

Instructions for the host DIP switch when connecting different inverters:

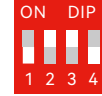
If the battery communicates with inverters such as Dyness(D3.0K~8.0K-LS), SMA, Victron, Ingeteam, Solplanet, SOFAR, Deye, Hoymiles, APsystems, LUXPOWER, MUST, SOSEN, Afore, Solis, GOODWE, TBB, SAJ, SOLAX, please turn the master DIP switch "#3" to "ON" position:



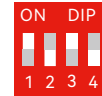
If the battery communicates with inverters such as Aexpert-king/VMIII/MAX, Infinisolar, Growatt SPH/SPA(CAN com), please turn the master DIP switch "#2" to "ON" position:



If the battery communicates with inverters such as Growatt SPF HVM-P/ES/WPV by RS485 communication, please turn the master DIP switch "#2" and "#3" to "ON":



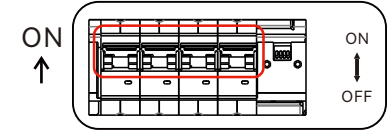
If the battery communicates with inverters such as Schneider Conext Series, please turn the master DIP switch "#1" and "#3" to "ON":



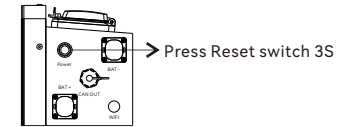
Step 4

Battery Power On:

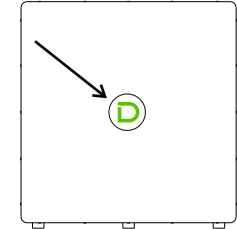
1. Push the air switch to the "ON" position.



2. Press and hold the reset switch for 3 seconds to wake up the battery.



3. Check the status of the front panel light display.



Scan the QR code with your phone → Select Download

To obtain more detailed information, please scan the QR code to download our latest user manual:



Address: Building 1&2, 7th-8th Floors, Building 3,
No. 58 Nanhu Road, Chengnan Subdistrict,
Wuzhong District, Suzhou City, Jiangsu Province
Email: service@dyness-tech.com
Tel: +86 400 666 0655
Web: www.dyness.com

Powerbox G3 User Manual