5/10KWH Series

WALL MOUNTED LIFEPO4 BATTERY

IBattery-EA-51.2V-100AH
IBattery-EA-51.2V-200AH
User Manual

This manual introduces the 5/10Kwh Series, please read this manual before installing the battery, and follow the instructions carefully during the installation process. If you havean y questions, please contact manufacturer for assistance immediately.

catalogue

Product introduction

Household energy storage battery box mainly includes battery module, BMS module, output interface, etc. . It can store and release power according to the requirements of AC/DC inverter system, and support the expansion of multi-module capacity. With photovoltaic, inverter composed of household optical storage system, under the control of the inverter, the photovoltaic excess energy stored in the battery, and when the photovoltaic energy is insufficient, the stored electricity will be released to supply power to the load.

Product characteristics

1. Flexible configuration, easy installation

   Modular design, free to deploy as needed

2. Ultra-high protection, safety

   IP65 The level of protection, calmly deal with the outdoor environment

3. Seamless multi-mode switching

   All kinds of application mode intelligent switching, seamless switching to off-grid grid blackout mode

   4.Humanized design of management platform, computers can freely login to view real-time working status

Shape of the product

The overall dimensions of the product are shown in figure 1-3

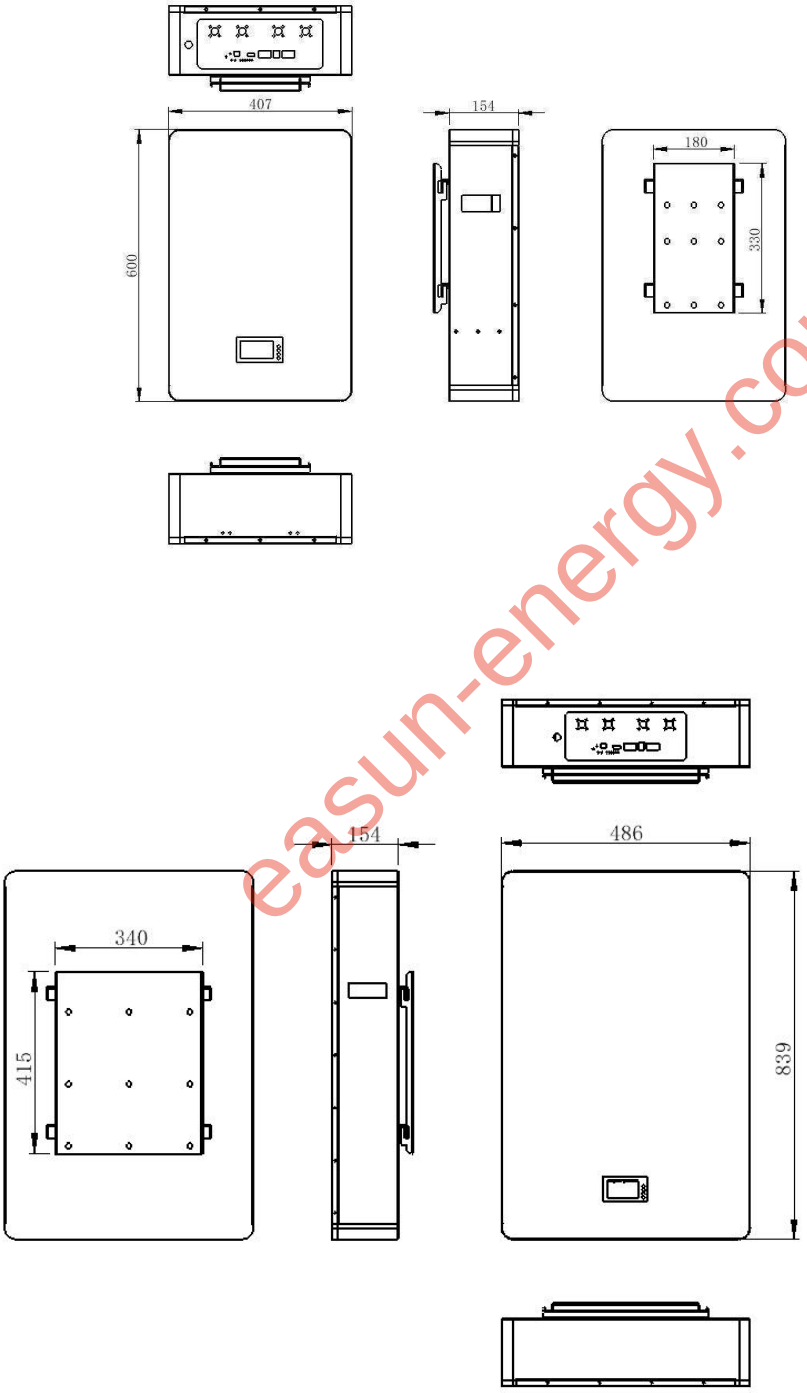


Figure 1-3 overall product dimensions

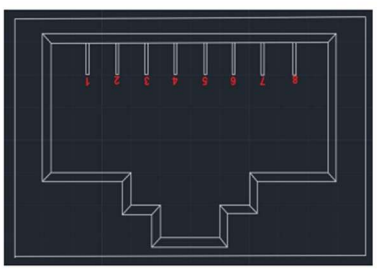
Interface Definition

Figure 1-4 power and communication interface

Serial	name	description
1	positive	battery box positive interface
2	negative	battery box negative interface
3	switch	Control the battery output, turn on the switch, and the battery will work
4	Operation	Indicator display battery currentstatus

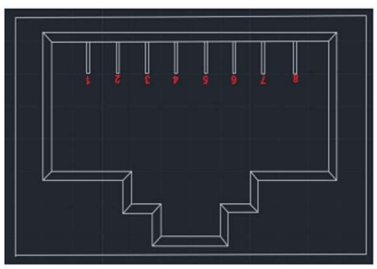
5	Warning indicaton	display battery current status
6	power indicator	display battery current
7	INV communication	independent RS485communication for communication with external inverter,inverter protocol to upload thecorresponding summary batteryinformation,the default baud rate of 9600bps.
8	CAN communication	independent CAN communication for communication with external inverter, inverter protocol to upload the corresponding summary batteryinformation, CAN communication default baud rate of 500 kbps
9	HC communication	with RS485 communication function for BMS interna testing and debugging, the default baud rate is 9600bps
10	RS485-1 communication	The battery pack has a parallel dual RS485 function for parallel machines. The address is set automatically. The default baud rate is 9600bps.
	RS485-2 communication	The battery pack has a parallel dual RS485 function for parallel machines. The address is set automatically. The default baud rate is 9600bps.

INV



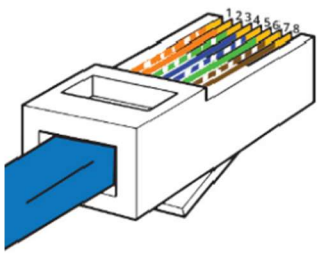
pinout	Description of definitions
1、8	RS485-B
2、7	RS485-A
3、6	GND
4、5	NC

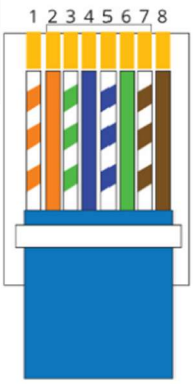
CAN



pinout	Description of definitions
1、2	NC
4	CAN-H
5	CAN-L
7、8	NC

RJ45 PINOUT





Main product parameters

Figure 1-5 main product parameters

Serial	name	specification parameter
1	cell	LFP 3.2V/100Ah
2	cell series-parallel mode	16S1P/16S2P
3	nominal capacity	100Ah/200AH
4	nominal voltage	51.2V
5	working voltage	43.2-58.4V
6	capacity	5.12kwh/10.24kwh
7	Rated charge-discharge current	50A/100A
8	Maximum charge-discharge current	100A/200A
9	cycle life	6000 cycles
10	operating temperature	Discharge：0℃～55℃; Charging：-10℃～55℃;
11	weight	45±5Kg/84±5Kg

Installation

Check out the box

1. Check the product name, model and specifications, case number, case number and packaging;

2. Check whether the random accessories are complete and correct against the list of shipped accessories (as shown in figure 2-1);

3. Check product packaging to see if there is any collision damage in transit;

4. Open the outer packing of each module and check the appearance of each module to see if there is any transportation damage;

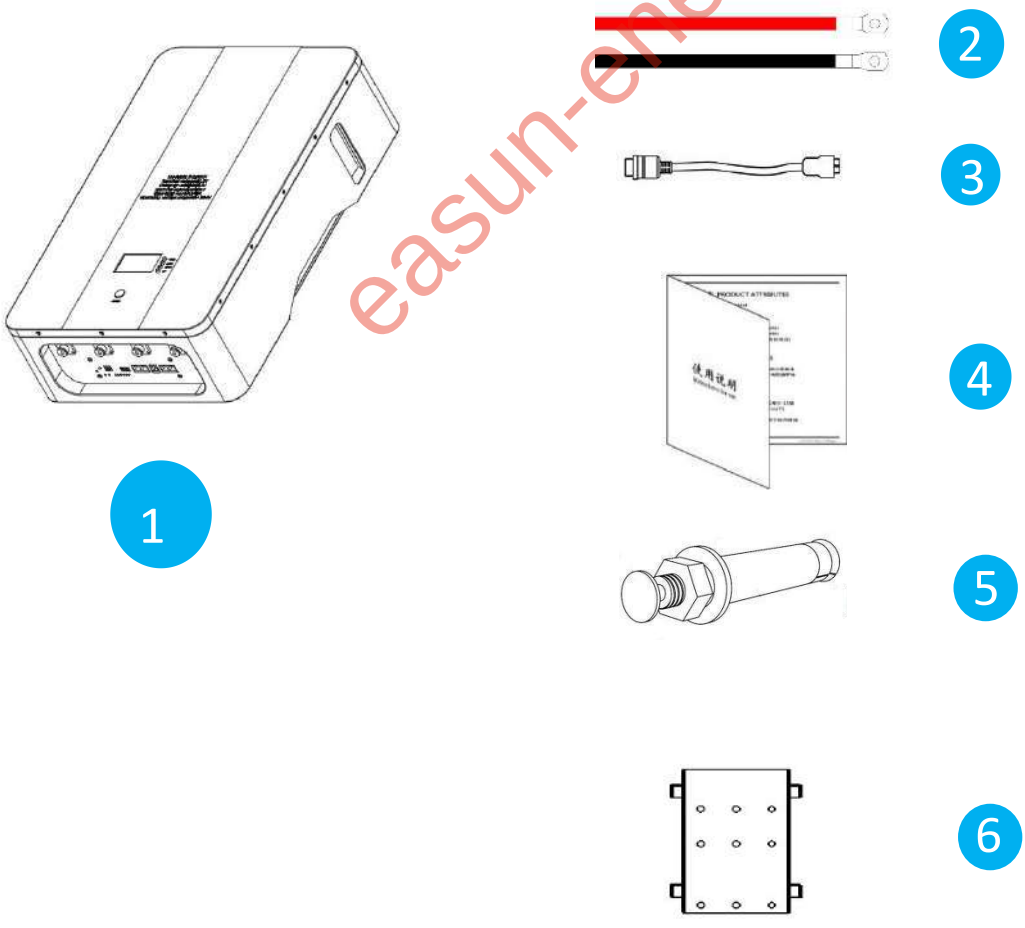


Fig. 2-1 Schematic diagram of each part shipped

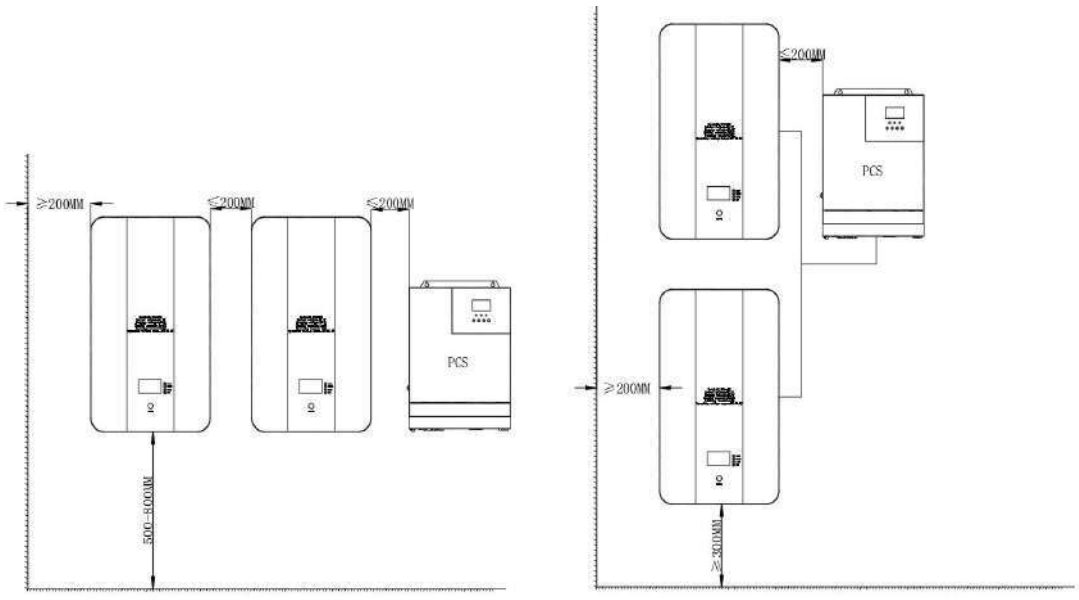
Serial	name	quantity	remark
1	Battery Box	1 PC	/
2	Power line	2PCS	1 positive/ 1 negative
3	Communication cable	3PC	/
4	Accessory bag	1 PC	Contains user manual
5	Expansion screw	5 PCS	/
6	Wall hanging bracket	1 PC	/

Table 2-1 quantity of parts shipped

Ready for installation

Installation space

Indoor installation: the rear side of the battery case is fixed by hanging close to the wall. The side spacing is as shown in the diagram below；



schematic diagram of indoor installation space

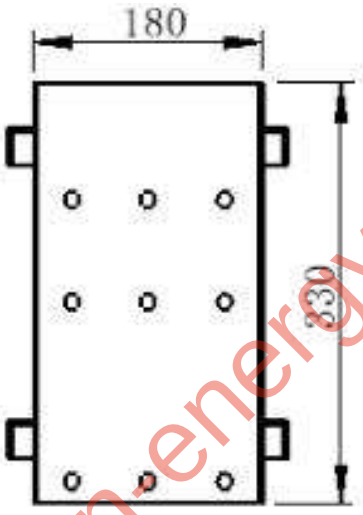
LED lights working status instruction

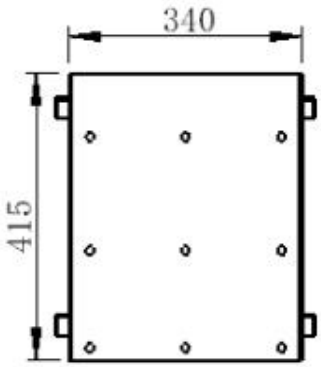
Status	Normal/ Alarm/ Protect	RUN	ALM	LED Lights Show Battery Electricity Status				Explanation
		●	●	●	●	●	●	
Power off	Dormant	OFF	OFF	OFF	OFF	OFF	OFF	All Off
Stand by	Normal	Flash one time	OFF	Show battery electricity status				Stand by
	Alarm	Flash one time	Flash three times					Under voltage
Charge	Normal	OFF	OFF	Show battery electricity status The LED which one indicate highest electricity that flash two times it means full charged				The LED light which one indicate highest electricity that flash two times it means full charged, alarm LED light is off
	Alarm	OFF	Flash three times					
	Over charging protect	ON	OFF	ON	ON	ON	ON	All LED lights are stand by if did not connect on grid
	Temperature, Large current and Error protect	OFF	ON	OFF	OFF	OFF	OFF	Stop charging
Discharge	Normal	Flash three times	OFF	Show battery electricity status				
	Alarm	Flash three times	Flash three times					Stop discharging
	Under voltage protect	OFF	ON	OFF	OFF	OFF	OFF	Stop discharging
	Temperature, Large current, Reverse connection and Error protect	OFF	ON	OFF	OFF	OFF	OFF	Stop discharging
Error		OFF	ON	OFF	OFF	OFF	OFF	Stop charge or discharging

Table 1-5 LED lights working status instruction

Size of mounting hole

When the product is mounted on the wall, the size of the mounting hole is as shown in the following diagram。

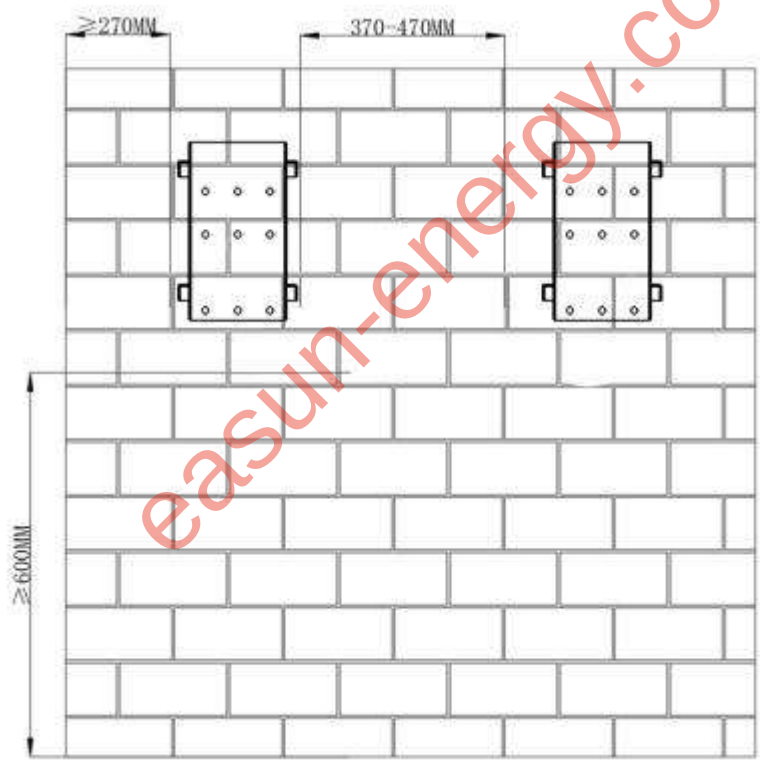




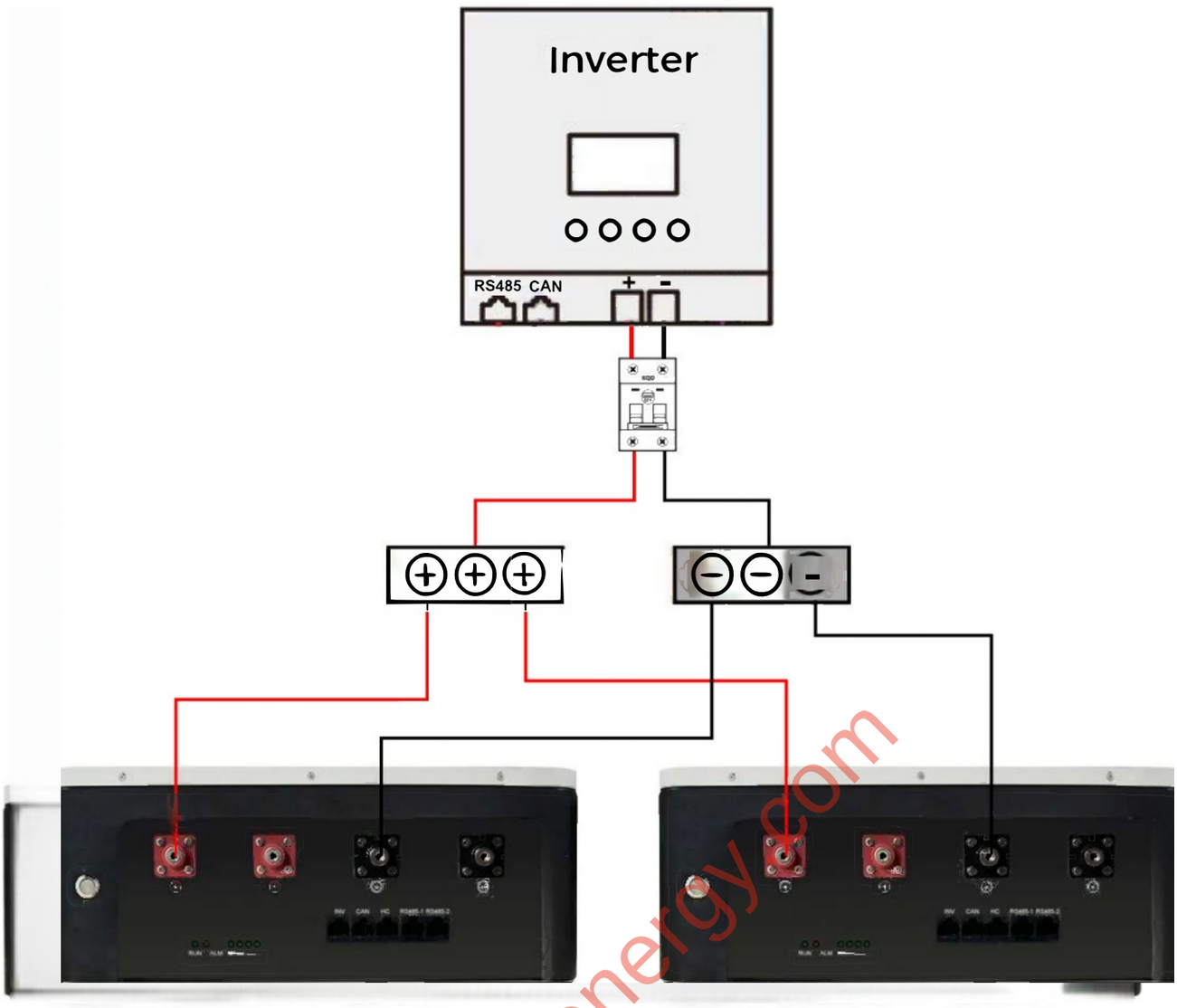
Wall mount installation

Installation steps

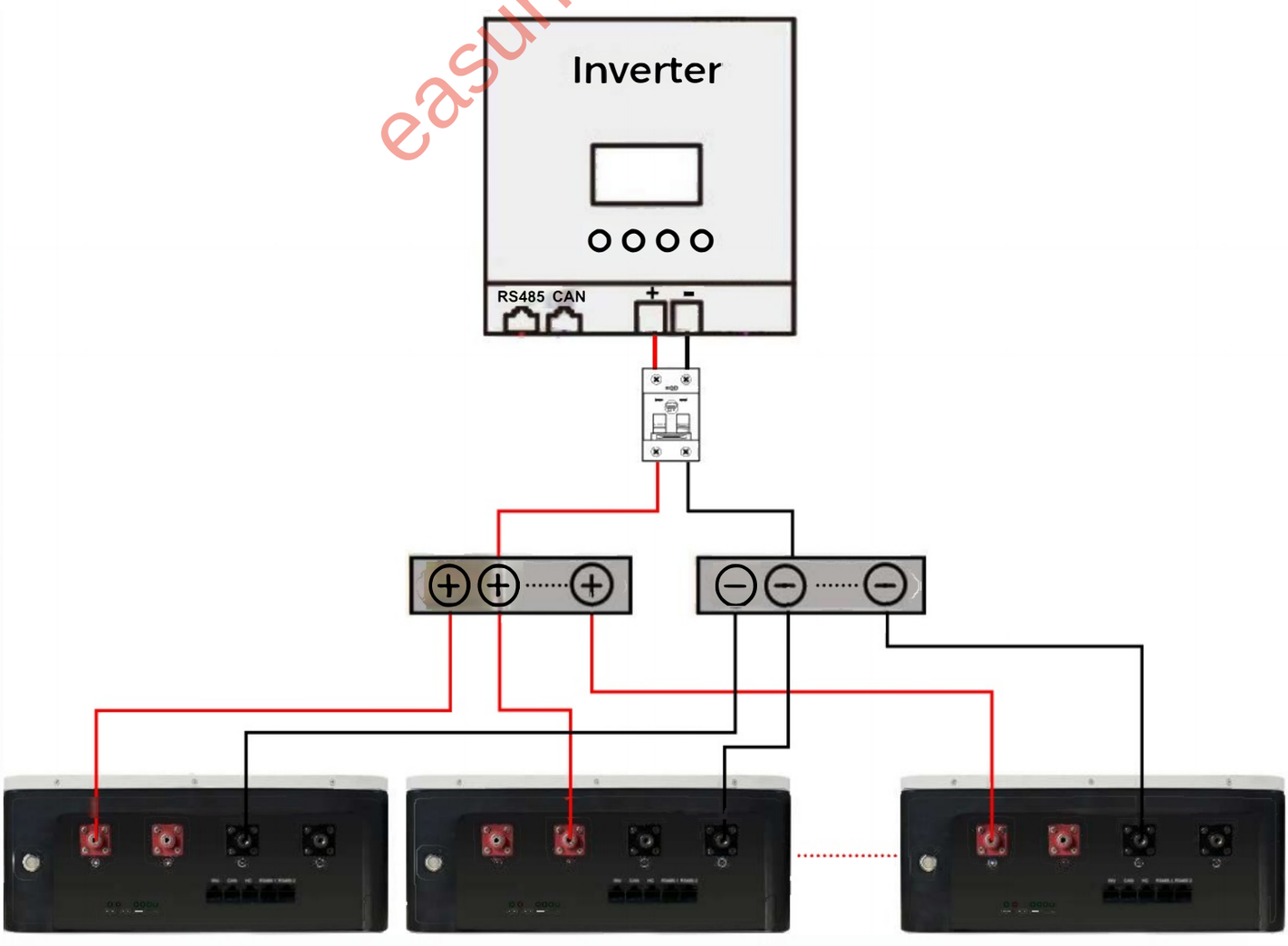
Step 1: Using tape measure to determine the installation height, through the wall bracket to determine the drilling position, level the hole with a level ruler, and mark with a marker；



Parallel function operation instructions



The positive and negative poles of two batteries are connected.



Multiple battery parallel wiring diagram

Up to 15 parallel batteries

Battery communication parallel

Multiple Battery Groups RS485 Communication Cable Connection

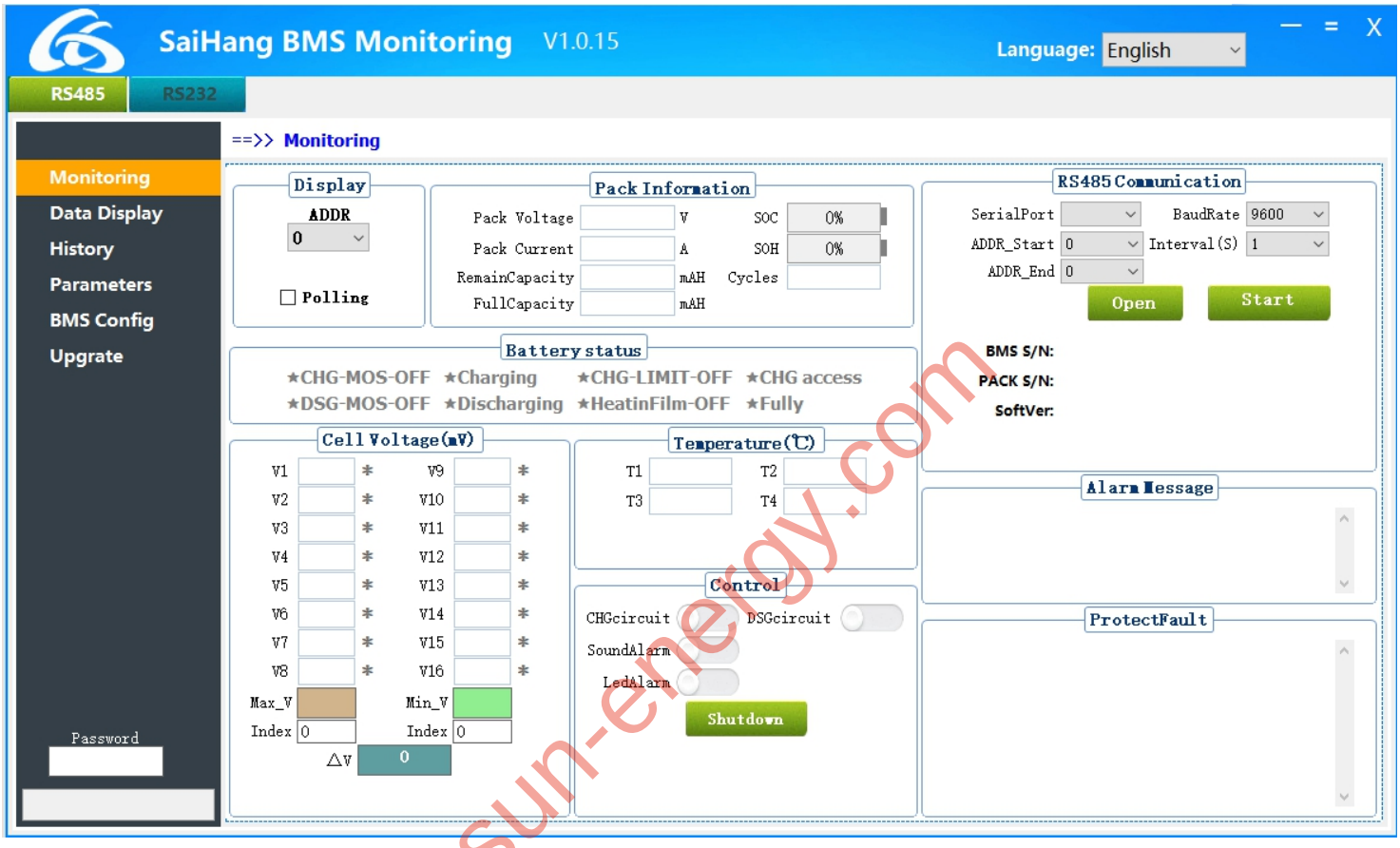
通信之间的连接不用设置IDP，电池系统会自动设置IDP

Connect to the upper computer

Communication between battery and upper computer.

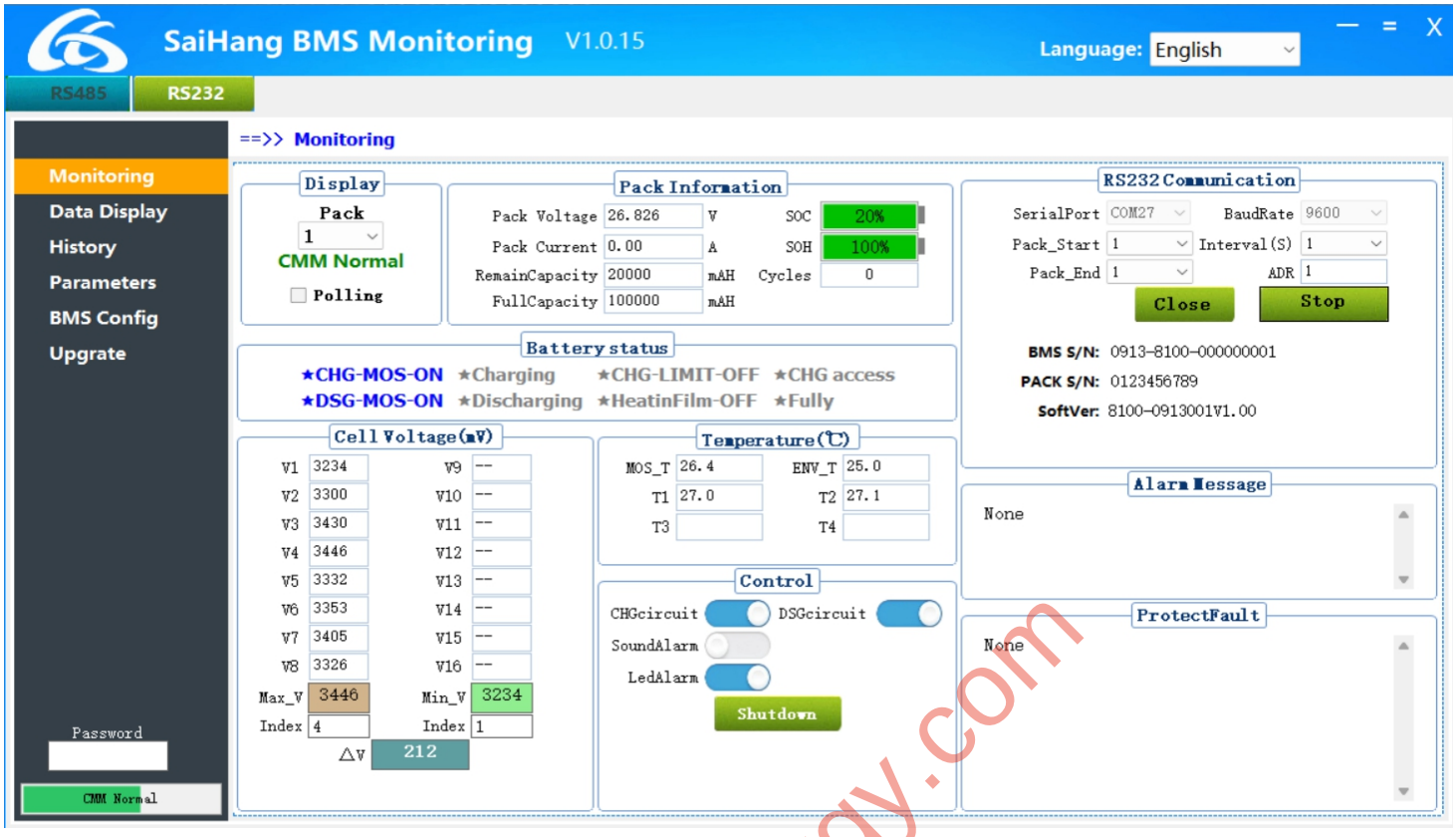
Connecting to the upper computer
A USB-to-RS485 communications cable and a PC are available. ?
You have obtained the monitoring software. ?
Installation of the Driver. After the connect the communication line between the battery and the monitor device, a new Com Port can be seen in the Device Manager, indicating the successful installation of the drive

The Main Page of the Software

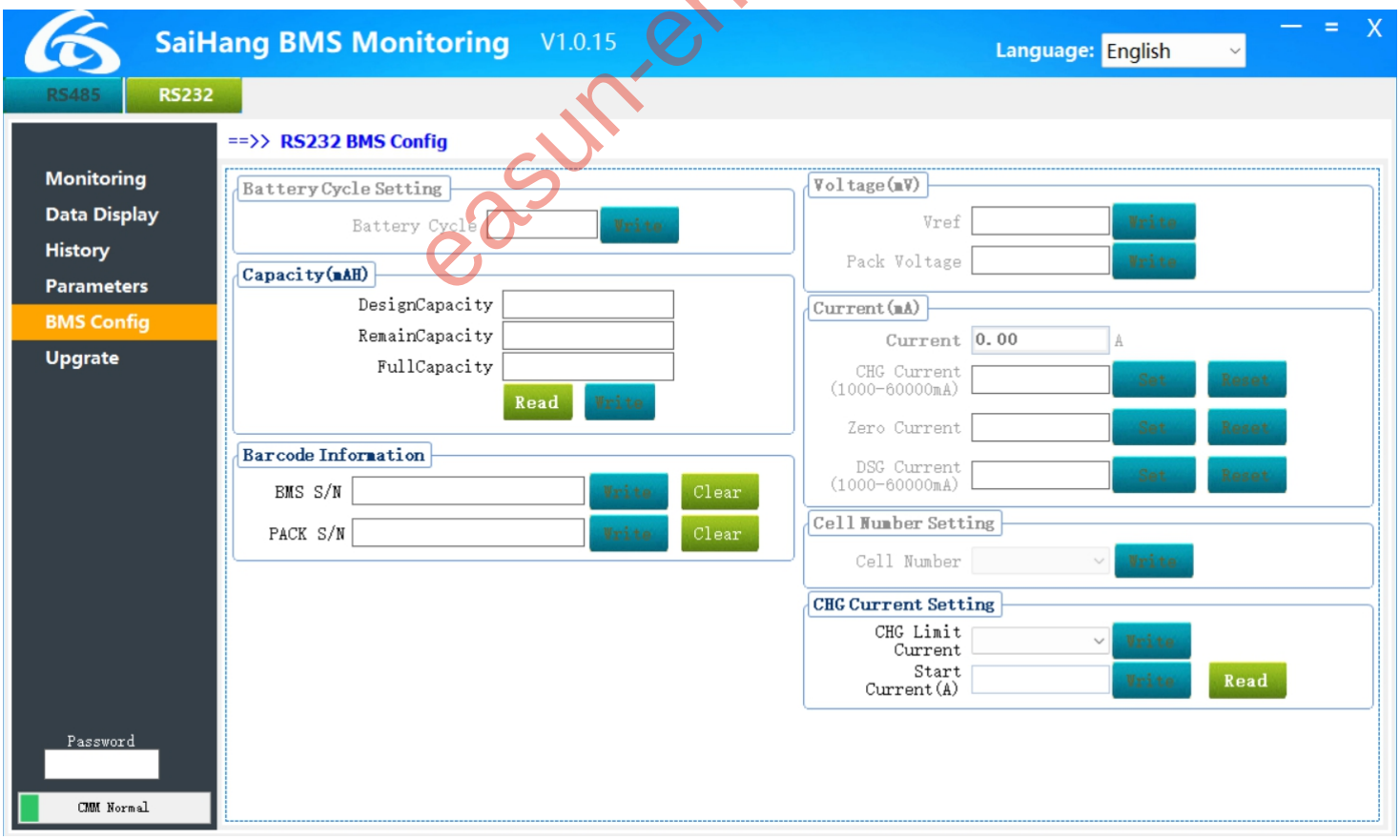


Step 1: Ensure that the protection board is powered on normally and not in sleep mode. Insert the crystal head communication line or HY2.0 communication line into the communication port of the protection board. Insert the USB end into the computer USB interface.
Step 2: Double click to open the upper computer and select the correct communication method:
Select the communication method as 485 communication: Click on 【RS485】 in the upper left corner of the upper computer;
Select the communication method as 232 or UART communication: Click on 【RS232】 in the upper left corner of the upper computer.
Step 3: Choose the correct communication serial port and communication baud rate (our company's regular product baud rate is 9600, and special customized products need to choose the corresponding baud rate). If there are multiple COM ports, you can drop down and select the corresponding COM port.
Step 4: Click to open the serial port.
Step 5: Click to start monitoring. The permission password in the bottom left corner is 【shbms】. Enter the password to perform parameter modification and upgrade operations.

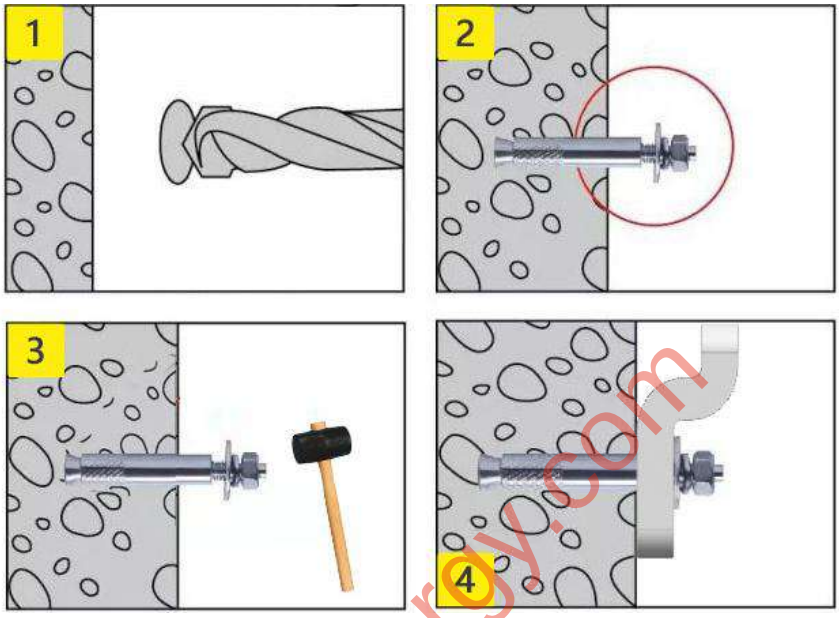
Battery and upper computer connection interface.



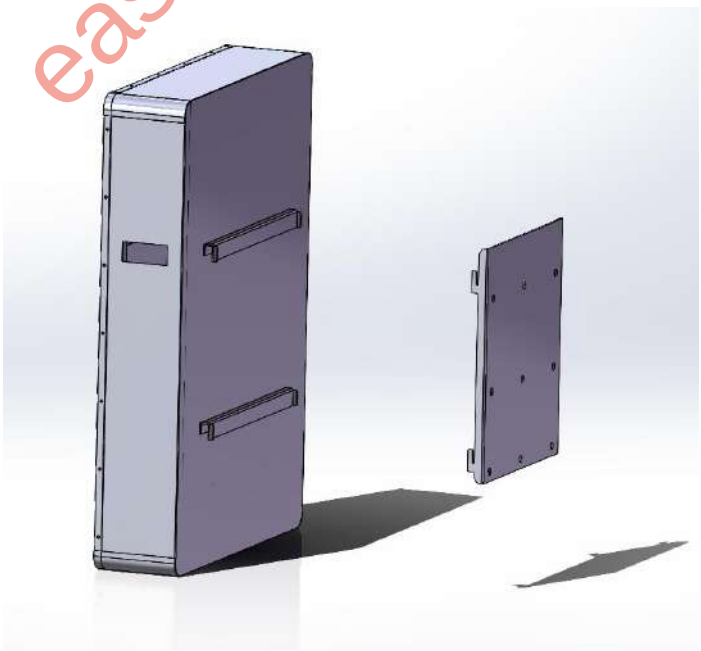
Click on the main interface tab 【BMS Config】 to enter the interface



Step 2: use impact drill to drill holes in the wall marked by marker, after cleaning holes, use rubber hammer to hammer stainless steel expansion bolts into the wall, and install wall support;



Step 3：Hang the battery on the back



Schematic diagram after installation

Maintenance guarantee

If the equipment breaks down, please call the customer service hotline and contact the distributor or directly with us. Thank you for your support of our products.