BEXIE ENERGY

WALL MOUNTE DLITHIUM BATTERY

User Manual

Instructions

1.Instructions description

	Warning: you will be hurt if you don't follow the instruction
	Danger for high voltage and electrical shock.
	High temperature
	The parts can be recycled.
	This side up! Packaging must always be transported and stored in such a way that the arrow is always upward.
	The package stacked together should be no more than six (6) in same size.
	The product should not be handled as household waste
	Packaging/products should be handled carefully, it should not be tipped or tilted.
	Please use it with manual.
	Keep it dry! The packaging/product must be protected from moisture and must be stored under a cover.

2.Before connection

1.Check the product and package after unpacking. If the product is damaged or some parts are missing, contact your local supplier
2.make sure the battery is off before installation
3.The battery must be well grounded and the resistance must be less than 100mΩ
4.Make sure the electrical parameters of the battery are compatible with related devices
5.Keep the battery away from water and fire

3.During usage

1.If the battery needs to be moved or repaired, the power must be cut and the battery must be completely turned off.

2.Non-isolated inverters: PV modules shall have Class A rated value as per IEC61730

3.Only dry powder fire extinguisher can be used in case of fire. Liquid fire extinguisher are strictly prohibited.

4.The neutral wire of off-grid side is not connected with the neutral wire of on-grid side of the inverter. Please follow the regulation by the local grid.

Apart from our company or authorized personnel, no one is allowed to open, repair or disassemble the all-in-one battery. We do not take any responsibility for any consequences or liability arising out of any breach in the contract.

Introduce of energy storage battery pack

1.introduction

This Energy storage lithium battery pack is environmentally friendly lithium ion battery configured with high-performance BMS, has a wide range of performance and application advantages compared with conventional battery. And the leader chemical technology, BMS technology and battery pack design capabilities will bring excellent performance and reliability, and also provide the best solutions for industrial applications.used in energy storage battery pack with inverters,and hybrid / solar inverters.Widely used in household and industrial fields

2.Features

①The whole battery pack is non-toxic, pollution-free and environmentally friendly

②The anode material is LiFePO4, which has good safety performance and long cycle life

③Battery management battery pack (BMS) has over discharge protection, over charge protection, over current protection, high/low temperature protections

④The battery pack can automatically manage charging and discharging states and balance the current and voltage of each battery

⑤The battery pack is pre-wired and has gone through factory test, so quick installation is available.

⑥The operating temperature range is from -10℃ to 50℃, discharge performance is excellent with long life span.

3. Maintenance

①The battery pack requires very little maintenance . The standard model only needs to be kept on charge frequently for life expectancy.

②If it is not used for a long time, it is recommended to charge it every three months.

③Under normal circumstances, the lithium battery pack is designed to have a service life of 5 to 10 years. If it is found to be in poor condition, it must be replaced in advance. When replacing the battery, it must be performed by a professional.

④ Lithium battery packs should not be replaced individually. When replacing them as a whole, follow the instructions of our company's user manual .

⑤ Under normal conditions, the lithium battery pack should be charged and discharged once every three months, and then recharged after being discharged to shutdown, and the charging time of the standard model should not be less than 12 hours.

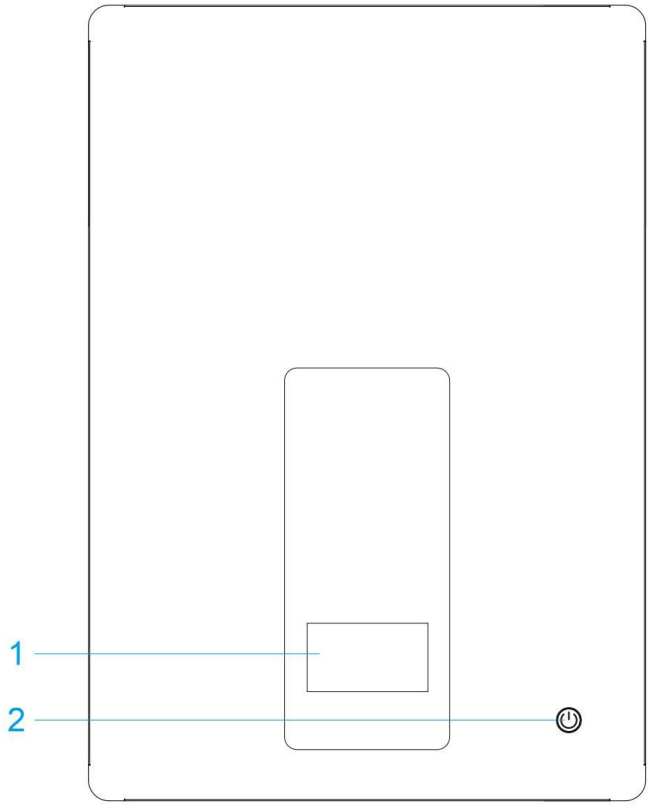
⑥In high-temperature areas, the battery should be charged and discharged every two months, and the standard model should be charged for no less than 12 hours each time.

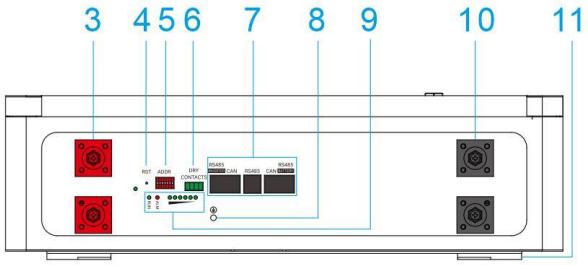
Note: Before replacing the lithium battery pack , turn off the inverter and unplug the mains input line and PV input line ; do not wear metal objects such as rings and watches ; use screwdrivers with insulated handles, and do not use tools or other metal The item is placed on the battery .

	**Warning: It is forbidden to short-circuit or reverse the positive and negative poles of the battery !**

Interface introduction of energy storage ESS system

1.System Interface Introduction





Lithium battery			
1	Display Power on indicator light	7	RS485/232 CAN Communication Port
2	ON/OFF Power Switch	8	PE port
3	Positive terminal	9	Work indicator light
4	Reset hole	10	Negative terminal
5	ADDR DIP switch	11	Wall mounted installation bracket
6	Dry contact		

*Note: The interface of customized series products may be different from the actual product , please refer to the actual product!

Starting screen

Page parameters

After entering the slave page, the upper part displays the slave selection, the middle part visually displays the battery power and SOH data, the center displays the battery voltage and current, charge and discharge status and fault display status, and the lower part displays the slave battery cell and temperature data. and ambient temperature and MOS temperature data. Slave address background color description: blue is the currently selected slave, green is the currently detected online slave, and white is the slave that is not online.

The individual over and under voltage parameters, total voltage over and under voltage parameters, ambient high and low temperature parameters, excessive pressure difference parameters, charging over current parameters, discharge over current parameters, MOS high temperature parameters, and charging high and low temperature parameters can be read through the parameter setting page. , discharge high and low temperature parameters, SOC alarm parameters, etc.

Communication protocol settings

This energy storage system can select the communication protocol directly from the battery display. First, make sure the lithium battery is connected to the inverter with BMS communication, and enter the communication protocol selection interface.

CAN protocol selection

Support PYLON、GROWATT、GOODWE、SOFAR、Victron、Voltronic、Lux Power、Deye、Solis

RS485 protocol selection

Support PYLON、GROWATT、Voltronic、Lux Power、Deye、invt、SRNE

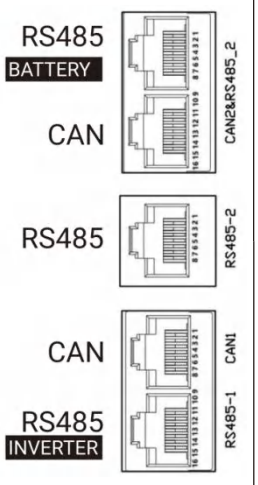
System setting

Definition of lithium battery communication interface

Interface diagram:

Functional use	RS485-1 interface Communicate with the computer or inverter		CAN1 interface Communicate with the inverter		RS485-2 interface Parallel reserved interface	
Outlet type	8P8C vertical RJ45 socket					
Pin definition	**RJ45**	**Definition**	**RJ45**	**Definition**	**RJ45**	**Definition**
	9、16	RS485-B1	1、8	NC	1、8	RS485-B2
	10、15	RS485-A1	2、7	NC	2、7	RS485-A2
	12	NC	4	CANH1	4	NC
	13	NC	5	CANL1	5	NC
	14	GND	3、6	GND	3、6	GND

Functional use	CAN2&RS485-2 Parallel communication interface			
Outlet type	8P8C vertical RJ45 socket			
Pin definition	**RJ45**	**Definition**	**RJ45**	**Definition**
	9、16	RS485-B2	1、8	NC
	10、15	RS485-A2	2、7	NC
	12	CANH2	4	CANH2
	13	CANL2	5	CANL2
	14	GND	6	GND
	11	IN	3	OUT



2.Lithium battery pack technical specification

25.6V Series

Model	25.6V50Ah	25.6V100Ah	25.6V150Ah	25.6V200Ah
Storage capacity	1.28kWh	2.56kWh	3.84kWh	5.12kWh
Cell type	Lithium iron phosphate			
Standard discharge current	25A	50A	75A	100A
Maximum discharge current	50A	100A	105A	105A
Working voltage range	20-28.8VDC			
Standard Voltage	25.6VDC			
Maximum charging current	50A	100A	105A	105A
Maximum charging voltage	28.8V			
Suggested DOD model	DOD 80%			
IP Rating	IP20			
Max in parallel	15PCS			
Communication	Default: RS485/RS232/CAN optional WiFi/4G/ Bluetooth			
Cooling method	Natural cooling			
Fire-fighting measures	Aerosol 25g			
Working temperature	0~40℃			
Storage environment temperature	-10~60℃			
Working humidity	65±20%RH			
Warranty	5 Years @DOD 80%/25℃/0.5C			

48V Series

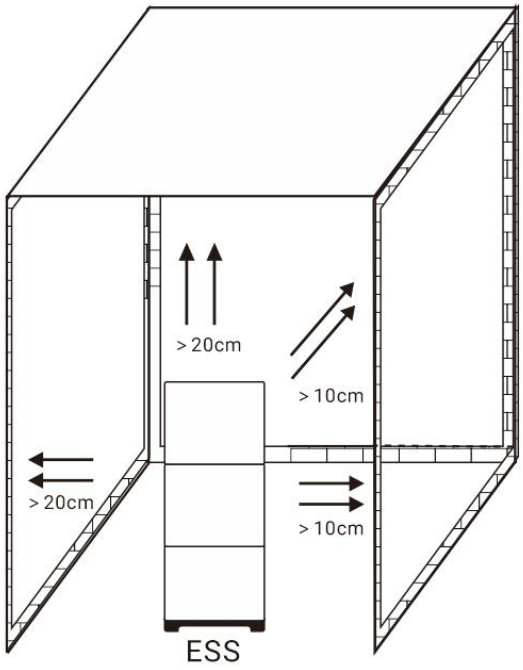
Model	48V50Ah	48V100Ah	48V150Ah	48V200Ah
Storage capacity	2.4kWh	4.8kWh	7.2kWh	9.6kWh
Cell type	Lithium iron phosphate			
Standard discharge current	25A	50A	75A	100A
Maximum discharge current	50A	100A	105A	105A
Working voltage range	37.5-54VDC			
Standard Voltage	48VDC			
Maximum charging current	50A	100A	105A	105A
Maximum charging voltage	54V			
Suggested DOD model	DOD 80%			
IP Rating	IP20			
Max in parallel	15PCS			
Communication	Default: RS485/RS232/CAN optional WiFi/4G/ Bluetooth			
Cooling method	Natural cooling			
Fire-fighting measures	Aerosol 25g			
Working temperature	0~40℃			
Storage environment temperature	-10~60℃			
Working humidity	65±20%RH			

51.2V Series

Model	51.2V50Ah	51.2V100Ah	51.2V150Ah	51.2V200Ah	51.2V280Ah
Storage capacity	2.56kWh	5.12kWh	7.68kWh	10.24kWh	10.24kWh
Cell type	Lithium iron phosphate				
Standard discharge current	25A	50A	75A	100A	140A
Maximum discharge current	50A	100A	105A	105A	140A
Working voltage range	40-57.6VDC				
Standard Voltage	51.2VDC				
Maximum charging current	50A	100A	105A	105A	140A
Maximum charging voltage	57.6V				
Suggested DOD model	DOD 80%				
IP Rating	IP20				
Max in parallel	15PCS				
Communication	Default: RS485/RS232/CAN optional WiFi/4G/ Bluetooth				
Cooling method	Natural cooling				
Fire-fighting measures	Aerosol 25g				
Working temperature	0~40℃				
Storage environment temperature	-10~60℃				
Working humidity	65±20%RH				

Installation

1.Before the load is connected to the ESS system, please turn off all loads;
2.In order to ensure safety, please make sure that the product is properly grounded before using it.
3.When the gear load is an inductive load such as a motor/compressor/laser printer/special lighting negative, because the starting power of the operation is too large, when selecting the power of the inverter, the starting power of the load should be calculated. The starting power of the load is generally 2-3 times the rated power
4.The location of the ESS system (Refer to the figure)



- Avoid direct sunlight
- Avoid moisture and contact with liquids
- Avoid dust
- Avoid overheating
- Ground level installation

AC input and output connections

NOTE: Please install a separate AC circuit breaker between the inverter and the AC input power before connecting to the AC input power. This will ensure that the inverter can be disconnected during maintenance and prevent excessive AC input current. The recommended circuit breaker specifications are 32A for 3KW and 50A for 5KW.

NOTE: There are two terminal strips marked "IN" and "OUT". Please do not connect the input and output connectors incorrectly.

WARNING! All wiring must be performed by qualified personnel.

WARNING! Using appropriate cables to connect the AC input is very important for safe and efficient operation of the system. To reduce the risk of injury, use the appropriate cable sizes recommended below.

Recommended Cable Requirements for AC Wires

Model	Wire gauge	Torque value
5kW/5kWh	8AWG	1.4~ 1.6Nm
5kW/20kWh	6AWG	1.6~ 1.8Nm

After-sales warranty regulations

1. Product Warranty

The system is integrated with a photovoltaic inverter and an energy storage lithium battery, and the performance guarantee of the dedicated battery module is five years from the date of product manufacture.

This warranty does not cover any accessories and tool kits provided with the product.This warranty only covers the repair or replacement of defective products. We will repair or replace the product (if the product is defective and returned within the warranty period). Repaired or replaced products will continue for the remainder of the original warranty period. In either case, it should not be used as a reason to renew the warranty period.

2. Warranty conditions

Warranties relating to products apply only in the following cases:

1. Purchased from our company or our authorized dealer.
2. Have an official serial number;
3. Install, operate and maintain according to the "User Manual";
4. For daily use, use photovoltaic (Solar) energy storage at 80% depth of discharge.

3. Warranty coverage

To the extent permitted by law, the company disclaims liability for any damage to or defect in the product caused by or contributed to by:

1. The product is installed with an inverter that has not been certified by our company;
2. Failure to install or operate the system/battery correctly according to the product manual;
3. Negligence or any other inappropriate treatment of the product, including using the product beyond the recommended environmental, temperature and humidity conditions;
4. Transportation, including but not limited to dropping, trampling, deforming, impacting or puncturing sharp objects;
5. The storage, installation, commissioning, modification or repair of the product performed by other personnel: other people than the company certified installer;
6. Abuse, misuse, negligence, accident or force majeure event, including but not limited to lightning, flood, fire, extreme cold weather or other events beyond the reasonable control of the Company;
7. Any attempt to extend or shorten the life of the product, whether by physical means, programming or otherwise, without the company's written confirmation;
8. Water, conductive dust or corrosive gas; normal wear and tear or deterioration, or surface defects, dents or marks will affect product performance
9. The product has been connected with different types of battery modules;
10. Failure to install, operate or maintain the product in accordance with the product manual; theft or vandalism of the product or any component thereof.