

BATTLINK

Low Voltage Rack Mounted ESS

User Manual

Shenzhen Huaxing New Energy Technology Co., Ltd.

Shenzhen Huaxing New Energy Technology Co., Ltd. provides its users with comprehensive technical support, and the users may contact a nearby authorized service center or contact the Headquarters directly.

Shenzhen Huaxing New Energy Technology Co., Ltd.

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Special Statement

Other

Personal safety

1. High pressure in the product. It can only be opened by the Company's or its authorized technicians to prevent the danger of electric shock.
2. The product must be installed and commissioned by authorized technicians of the Company; otherwise it may cause product failure or endanger personal safety.
3. Before installation and use of the product, please read the manual and safety precautions carefully; otherwise it may cause product failure or endanger personal safety.
4. The product cannot be used as power supply for any life support equipment.
5. Never put the battery of the product into fire; otherwise it may cause explosion or endanger personal safety.

Battery safety

1. If the product is stored or not in use for a prolonged period of time, it must be placed in a dry, clean environment with specified ambient temperature. Power must be replenished if the battery is stored for over three months. The recommended storage voltage is 51.2V~54.4V.
2. If several groups of products are connected in parallel, measure the voltage of each group of battery with a multimeter and select those with voltage difference not larger than 2V for connection in parallel.
3. The product shall be used in an appropriate working environment. It is forbidden to use it in the following environment:
 - Places with high temperature, low temperature or humidity that does not comply with the requirements of the technical indicators of the product;
 - Places with conductive fine dust, corrosive gas, salt fog or flammable gas;
 - Places with vibration and probable collision;
 - Places close to heat sources or with strong electromagnetic interference.

Disclaimer

Huaxing New Energy is not responsible for defects or faults caused by the following reasons:

- The product is used not in its specified scope of application and working environment;
- Modification or repair without permission, improper installation and operation;
- Force majeure;
- Other situations in violation of the requirements of the manual of the product.

Safety precautions

The manual provides installation and application information of Shenzhen Huaxing New Energy Technology Co., Ltd. concerning its cabinet type intelligent home energy storage system A series products BATT-LS-5-A.

All the diagrams in the manual are based on the example of BATT-LS-5-A and the manual must be read carefully before installation, use and maintenance of the product.

The product contains lithium battery. Please carefully read the following precautions to ensure proper installation, use and maintenance. The company is not responsible for any problems due to violation of the following requirements.



- **Do not put the product into fire or heat it;**
- **Do not put the product into water or make it wet;**
- **Do not soak it in liquid such as sea water, beverage and beer, etc.;**
- **Do not use or store the product near heat sources (such as fire or heaters);**
- **Do not connect the product directly to wall socket or vehicle mounted cigarette lighter socket;**
- **Do not pierce through the product shell with nails or other sharp objects, nor hammer or tread on the product;**
- **Do not directly weld the product terminals;**
- **Do not decompose the product in any way;**
- **Do not charge the product under the condition of heat source or extreme heat;**
- **Do not hit, throw or mechanically impact the product;**
- **Do not connect the positive pole and negative pole of the product in a wrong manner;**
- **Do not short circuit the output positive pole and negative pole of the product. Do not transport or store the product together with necklaces, hair clips or other metal objects;**
- **The rated output voltage of the product is 51.2VDC which exceeds the safety voltage that can be borne by the human body. Electric shock may occur in case of contact.**



Warning

- The discharge temperature range of the built-in battery of the product is $-10^{\circ}\text{C}\sim 55^{\circ}\text{C}$ and the charge temperature range is $0^{\circ}\text{C}\sim 55^{\circ}\text{C}$. Do not exceed the battery temperature range during use of the product;
- Never charge the product in an environment below 0°C ;
- Never use the product in an environment with temperature higher than 60°C ;
- Do not use the product in an extremely hot environment such as direct sunlight or in a vehicle in a hot day. Otherwise, excessive heat can affect the battery performance and shorten its service life and, cause spontaneous combustion in serious cases;
- The product can only be used on designated equipment;
- The charger parameters shall meet technical requirements of the product;
- If the product output wire terminals become dirty, clean them with eraser or dry cloth. For electrical connection of the product and equipment, make sure the electrical connection points are in contact in a reliable and secure manner with the bolts properly tightened; otherwise, it may cause energy loss due to improper contact and may cause safety problems in serious cases.



Caution

- Do not use the product if it is damaged;
- The product may be damaged due to impact, etc. during transportation. Do not use the product in case of any abnormality of the built-in battery such as edge sealing damage, enclosure damage, electrolyte gas odor and electrolyte leakage;
- Do not use the product in case of objectionable odor or heat, deformation, color change or other abnormal phenomena of the built-in battery; If the product is being used or charged, turn off the power immediately and stop using it; In case of leakage or objectionable odor of the built-in battery, immediately take the product away from the fire source to prevent fire or explosion;
- If the built-in battery leaks and its electrolyte accidentally comes into contact with eyes, do not wipe; instead, rinse eyes with clean water or seek medical help immediately. The eyes may be injured if they are not treated timely;
- If the built-in battery leaks and its electrolyte comes into contact with skin or clothes, rinse affected areas with running water immediately; otherwise it may lead to inflamed skin.



This warning sign represents all personal safety instructions.

Thank you for buying the cabinet type intelligent home energy storage system of the Company. Before use of the product, please carefully read relevant information and strictly observe all the instructions.

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I. Overview

The single-phase, low-voltage rack-mounted home energy storage (3U) (hereinafter referred to as energy storage systems/products) is modular in design, and the individual module model of this series is BATT-LS-5-A, which can support up to 31 units in parallel. The model with minimum energy module is 51.2V100AH. The energy storage system is characterized by small volume, light weight, long service life, flexible installation method, substantial environmental adaptation, maintenance-free, green and environmental protection, and low comprehensive cost. The users may select relevant product models according to their actual load size.

The energy storage system is designed with new high-performance cells and advanced BMS battery management systems. With the over-voltage, under-voltage, over-current, high temperature, low temperature and short circuit protection and restoration function, the safety of the system is guaranteed. In addition, the system is fitted with functions such as accurate measuring of SOC (state of charge), SOH assessment and passive balancing. The users may check history data via upper computer software and configure warning and protection parameters such as battery voltage, current and temperature.

II. Appearance



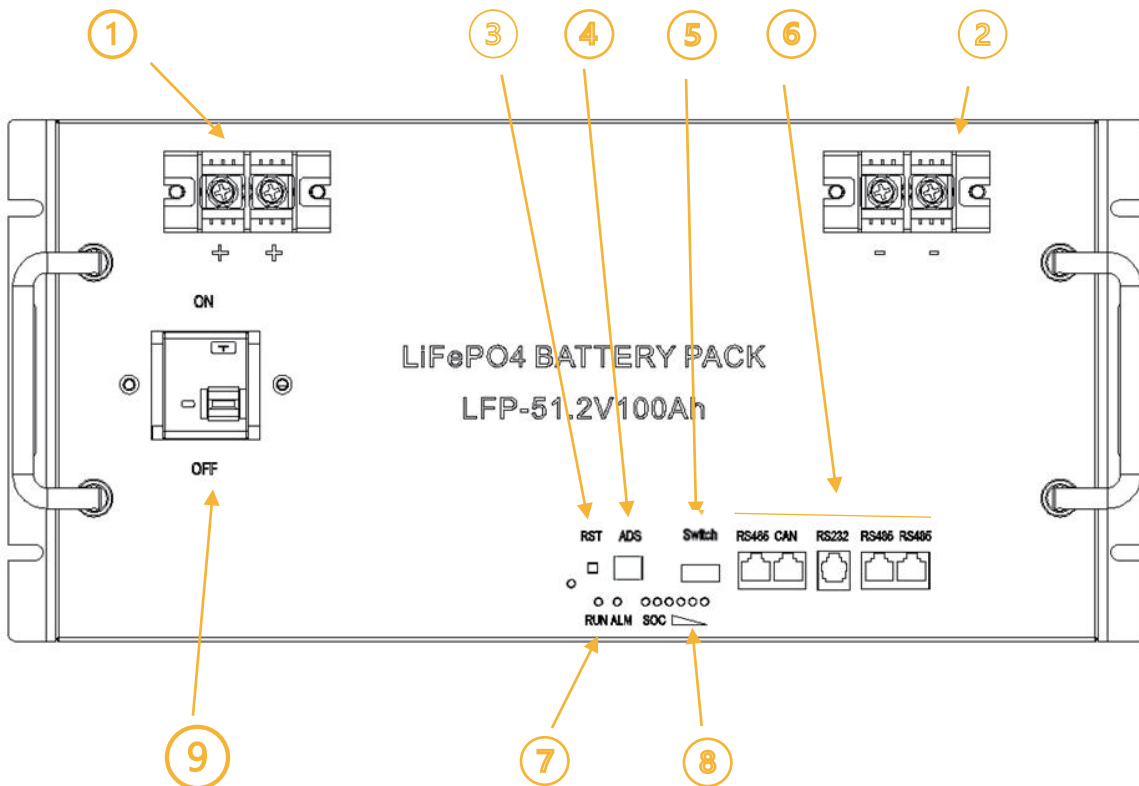
Schematic diagram of the appearance of the energy storage system (see the actual object for its actual effect)

No.	Item	CSF-A1-5KWh	CSF-A2-10KWh	CSF-A3-15KWh	CSF-A4-20KWh
1	Battery model	51.2V100Ah*1	51.2V100Ah*2	51.2V100Ah*3	51.2V100Ah*4
2	Enclosure material	Sheet metal			

3	Enclosure color	black			
4	L*W*H	550*440*135 mm	550*440*301.5 mm	550*440*468 mm	550*440*634.5 mm

Remarks: The diagram is for reference only. See the physical object for actual effect. Product BATT-LS-5-A does not include the cabinet. It is suggested that the users use the product with the cabinet of BATT-LS-10-A.

III. Electrical layout



Electrical layout (The diagram is for reference only. See the physical object for actual effect)

The above diagram is the electrical layout and the components are described below:

① Output positive pole+

The battery positive pole output connector. The two wiring terminals of the connector has completely the same purpose and performance.

② Output negative pole-

The battery negative pole output connector. The two wiring terminals of the connector has completely the same purpose and performance.

③ RST

Reset key for the battery on/off key. See 5.3/5.4 for specific operation.

④ ADS

ADS code switch is used to set ID address of the energy storage system in the parallel operation network. See 5.6 for the specific operation instructions.

⑤ Dry contact

Two groups of dry contacts in NO state. See 5.10 for the specific operation instructions.

⑥ Communication interface

The leftmost RS485/CAN communication interface can be connected with equipment (such as inverter) for transmission of battery information data.

RS232 interface in the middle can be connected with the upper computer for reading battery information.

The rightmost two RS485 communication interfaces have the same function and purpose and they are used for communication when the battery packs are connected in parallel.

⑦ RUN/ALM indicator light

RUN is the run indicator light. When it is on, it means the battery is in operation;

ALARM is the fault indicator light. When it is on, it means that there is battery warning or that the battery is in the protection state.

⑧ CAPACITY

Battery SOC indicator light. The LED lights from left to right represent high SOC to low SOC.

⑨ DC circuit breaker

It is the battery master output circuit breaker and it provides the battery with secondary overload protection.

Remarks: The diagram is for reference only. See the physical object for actual effect.

IV. Technical specification

4.1. Specification and parameters

No.	Item	BATT-LS-5-A	BATT-LS-10-A	BATT-LS-15-A	BATT-LS-20-A
1	Battery model	51.2V/100Ah*1	51.2V/100Ah*2	51.2V/100Ah*3	51.2V/100Ah*4
2	Rated capacity	100Ah	200 Ah	300 Ah	400 Ah
3	Rated voltage	51.2V			
4	Battery type	LiFeP04 (lithium iron phosphate)			
5	Total capacity (Wh)	5.12KWh	10.24KWh	15.36KWh	20.48KWh
6	Charging voltage (V)	58.4V			
7	Maximum charging current (A)	100A	200A	300A	400A
8	Maximum discharging current (A)	100A	200A	300A	400A

9	End-of-discharge voltage (V)	44V			
10	Operating temperature	Charge: 0°C ~ 55°C			
		Discharge: -10°C ~ 55°C			
11	Storage temperature	-20°C ~ 50°C			
12	Size (L*W*H)	550*440*135 mm	550*440*301.5 mm	550*440*468 mm	550*440*634.5 mm
13	Weight (kg)	44kg	88kg	132kg	176kg
14	Color	Black			
15	Communication interface	RS485/CAN2.0B/RS232			

Remarks:

The specification and parameters are for reference only. The battery specification shall prevail.

Product BATT-LS-5-A does not include the cabinet. It is suggested that the users use the product with the cabinet of BATT-LS-10-A.

4.2. Product label

	<p>Product label</p> <p>A product label is attached to the product. The label is at the lower right on the front of the product. You will find the following information on the label:</p> <p>Product model; Rated voltage; Rated capacity; Rated energy; Maximum charging and discharging current/load power; Date of production.</p> <p>You will need the information on the label for safe use of the product. If you need user support of Huaxing New Energy, inform the label information and you can get service support quickly.</p> <p>The product label must be permanently attached to the product.</p>
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V. Description of operation

Safety warning:

1. Make sure to shut down the product before wiring to prevent sparks.
2. After installation, check to ensure the wiring is correct before start-up.
3. If several groups of products are connected in parallel, measure the voltage of each group of battery with a multimeter and select those with voltage difference not larger than 2V for connection in parallel.
4. Power must be replenished if the product is stored for over three months and the recommended voltage for power replenishment is 51.2V~54.4V so as to prevent over discharge of the built-in battery.
5. The product contains high voltage battery and operation can only be conducted by professionals.
6. Please wear insulating gloves and the installation tools must be properly insulated for protection.

5.1. Preparation for installation

The following tools may be used for the installation:

 <p>Electro-hydraulic plier</p>	 <p>Wire cutter</p>	 <p>Cable clamp</p>
 <p>Multimeter</p>	 <p>Socket tool kit</p>	 <p>Electric hand drill</p>

5.2. Unpacking and inspection

Before installation, please check if the components in the package are complete. The package contains the following components:

S/N	Component name	Schematic diagram	Qty.
1.	Energy storage system		CSF-A1-5KWh: 1pcs CSF-A2-10KWh: 2pcs CSF-A3-15KWh: 3pcs CSF-A4-20KWh: 4pcs
2.	Cabinet (optional)		1 pcs
3.	Manual		1 pcs
4.	Certificate of Quality		1 pcs
5.	Screw	 M6*12	CSF-A1-5KWh: 4pcs CSF-A2-10KWh: 8pcs CSF-A3-15KWh: 12pcs CSF-A4-20KWh: 16pcs
6.	Communication cable		CSF-A2-10KWh: 1pcs CSF-A3-15KWh: 2pcs CSF-A4-20KWh: 3pcs
7.	Power cable		CSF-A2-10KWh: 2+2pcs CSF-A3-15KWh: 3+3pcs CSF-A4-20KWh: 4+4pcs
8.	Insulated terminal		2 pcs

9.	Copper bar		2 pcs
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5.3. Assembly

The weight of a single battery pack in the product is about 45kg. Make sure to handle it by at least two people with proper protection in place.

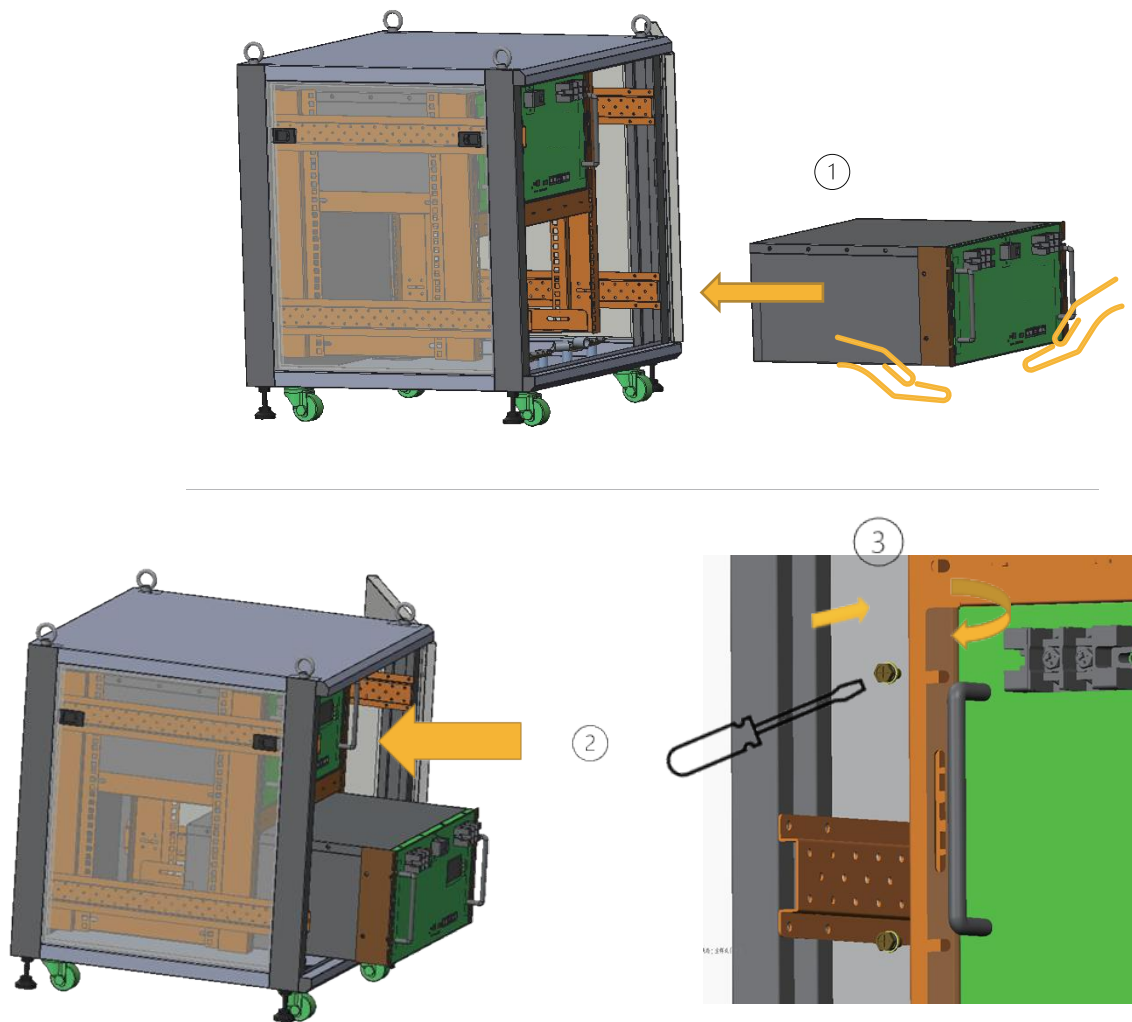
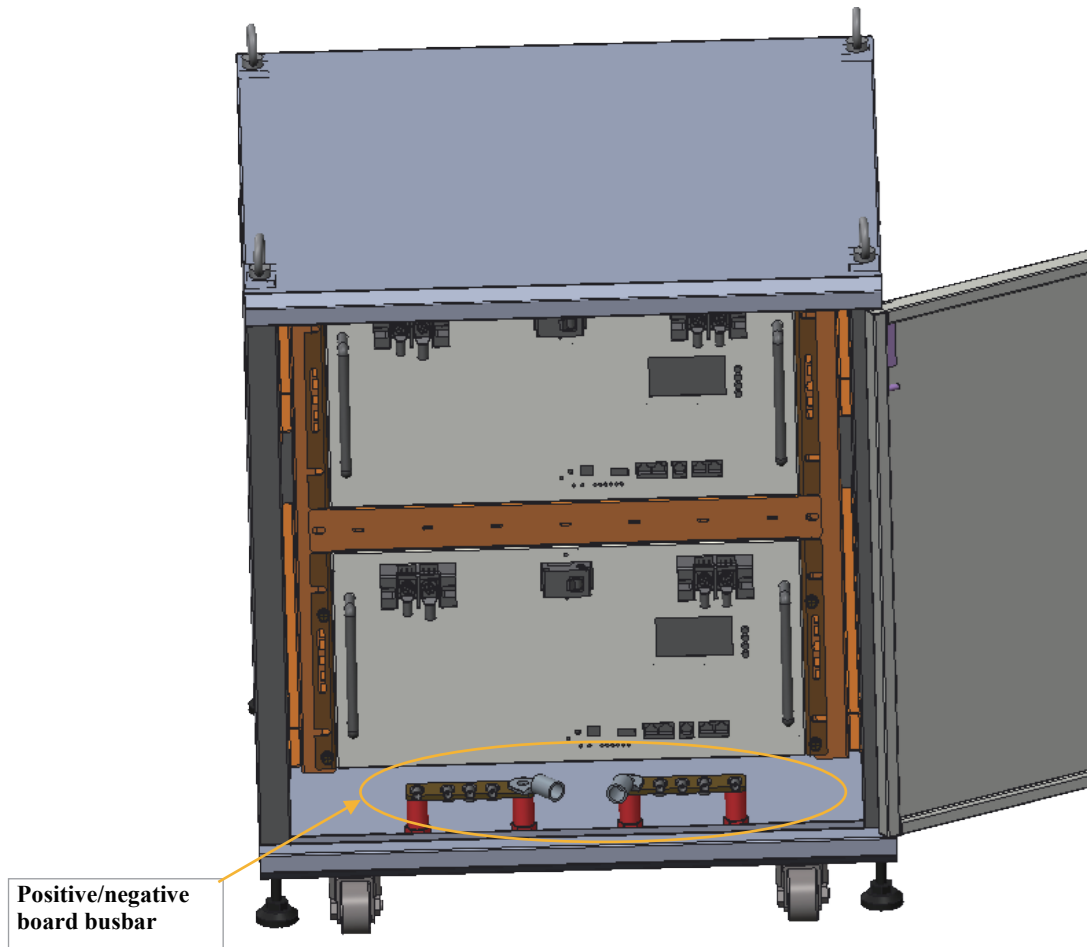


Fig. 5.3.1 Schematic diagram of assembly

Raise the product and align it with the installation guide rail in the cabinet, push the product completely into the guide rail and then install four set screws and tighten them with a screwdriver.

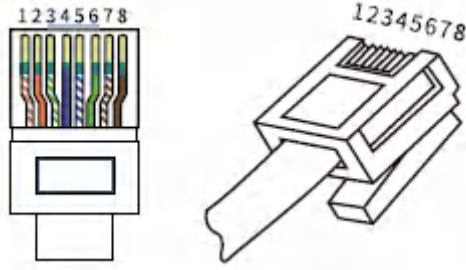
5.4. Wiring

- First turn off the battery. Then connect the battery output pole to the busbar in the cabinet and connect RS485 /CAN port with electrical equipment (such as inverter);



Schematic diagram of busbar

- For making of the positive and negative pole power cable, please make sure the cable cross section area is $S=25\text{mm}^2$ and then crimp SC25-8 wiring terminal;
- For making of the communication cable at the battery side, please refer to the following definition of communication interface:



RJ45 registered jack

PIN	Definition of RS485	Definition of CAN	Remarks
1.	RS485-B1	NC	
2.	RS485-A1	NC	
3.	GND	NC	
4.	NC	CANL	
5.	NC	CANH	
6.	GND	NC	
7.	RS485-A1	CANG	
8.	RS485-B1	NC	

5.5. Battery ON

In the battery OFF state, press RST button for one second and then release it, the LED indicator lights are on successively for 0.5 second starting from "L6" and the energy storage system enters the ON status.

5.6. Battery OFF

In the battery ON state, press RST button for three seconds and then release it, the LED indicator lights are on successively for 0.5 second starting from "RUN" and then all of them are off, the energy storage system enters the OFF status.

5.7. Description of indicator light

➤ Power level indication

Status	Charge						Discharge					
	L6●	L5●	L4●	L3●	L2●	L1●	L6●	L5●	L4●	L3●	L2●	L1●
0 ~16.6%	Off	Off	Off	Off	Off	Flash 2	Off	Off	Off	Off	Off	Normally on
16.6-32.2%	Off	Off	Off	Off	Flash 2	Normally on	Off	Off	Off	Off	Normally on	Normally on
32.2-49.8%	Off	Off	Off	Flash 2	Normally on	Normally on	Off	Off	Off	Normally on	Normally on	Normally on

49.8-66.4%	Off	Off	Flash 2	Normally on	Normally on	Normally on	Off	Off	Normally on	Normally on	Normally on	Normally on
66.4 ~83%	Off	Flash 2	Normally on	Normally on	Normally on	Normally on	Off	Normally on	Normally on	Normally on	Normally on	Normally on
83 ~100%	Flash 2	Normally on	Normally on	Normally on	Normally on	Normally on	Normally on	Normally on	Normally on	Normally on	Normally on	Normally on
Operation indicator light	Normally on						Flash 3					

➤ **Indication of status**

System Status	Abnormal event	RUN	ALM	Power level LED						Description
		●	●	●	●	●	●			
Off	Sleeping	Off	Off	All off						All off
Standby	Normal	Flash 1	Off	Based on power level displayed						Standby status
	Warning	Flash 1	Flash 3							
Charge	Normal	Normally on	Off	Based on power level displayed (Power level maximum indication LED flash 2)						Warning ALM other than overcharge warning flashes 3
	Warning	Normally on	Flash 3							
	Overcurrent protection	Normally on	Flash 3	Off						Enter current limiting charge
Discharge	Normal	Flash 3	Off	Based on power level displayed						
	Warning	Flash 3	Flash 3							
	Under-voltage protection	Off	Flash 3	Off						Stop discharge
	Overcurrent protection	Off	Normally on							
Temperature	Protected	Off	Normally on	Off						Stop charge and discharge
Failure	Cell failure, NTC failure	Off	Normally on	Off						Stop charge and discharge
	Voltage sensor failure									
	Current sensor failure									
	Charge and discharge MOS failure									

➤ **Description of flash**

Flash mode	On	Off
Flash 1	0.25 S	3.75 S
Flash 2	0.5 S	0.5 S
Flash 3	0.5 S	1.5 S

5.8. Description of dial

In the battery stand-alone working mode, the dial address should be set as 1 as shown in the diagram below.

Dial for a single pack of battery



In the multi-machine working mode of the battery, you need to configure the dial address for each energy storage system, starting from 1 and so on. BCD format is adopted for dial. As shown in the table below.

Position of ADS code switch				Dial address	Description
ADS1	ADS2	ADS3	ADS4		
OFF	OFF	OFF	OFF	0	Not used
ON	OFF	OFF	OFF	1	Slave 1 battery
OFF	ON	OFF	OFF	2	Slave 2 battery
ON	ON	OFF	OFF	3	Slave 3 battery
OFF	OFF	ON	OFF	4	Slave 4 battery
ON	OFF	ON	OFF	5	Slave 5 battery
OFF	ON	ON	OFF	6	Slave 6 battery
ON	ON	ON	OFF	7	Slave 7 battery
OFF	OFF	OFF	ON	8	Slave 8 battery
ON	OFF	OFF	ON	9	Slave 9 battery
OFF	ON	OFF	ON	10	Slave 10 battery
ON	ON	OFF	ON	11	Slave 11 battery
OFF	OFF	ON	ON	12	Slave 12 battery
ON	OFF	ON	ON	13	Slave 13 battery
OFF	ON	ON	ON	14	Slave 14 battery
ON	ON	ON	ON	15	Slave 15 battery

5.9. RS485 interface

RS485 interface of the battery can communicate with the upper computer or equipment and realize parallel communication between products in case of parallel connection of multiple machines. For the communication specification, see the communication protocol manual. For the connecting method of single machine communication cable, see the diagram below.

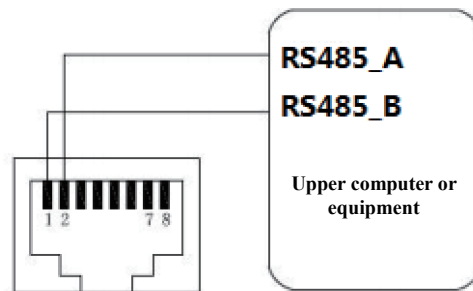
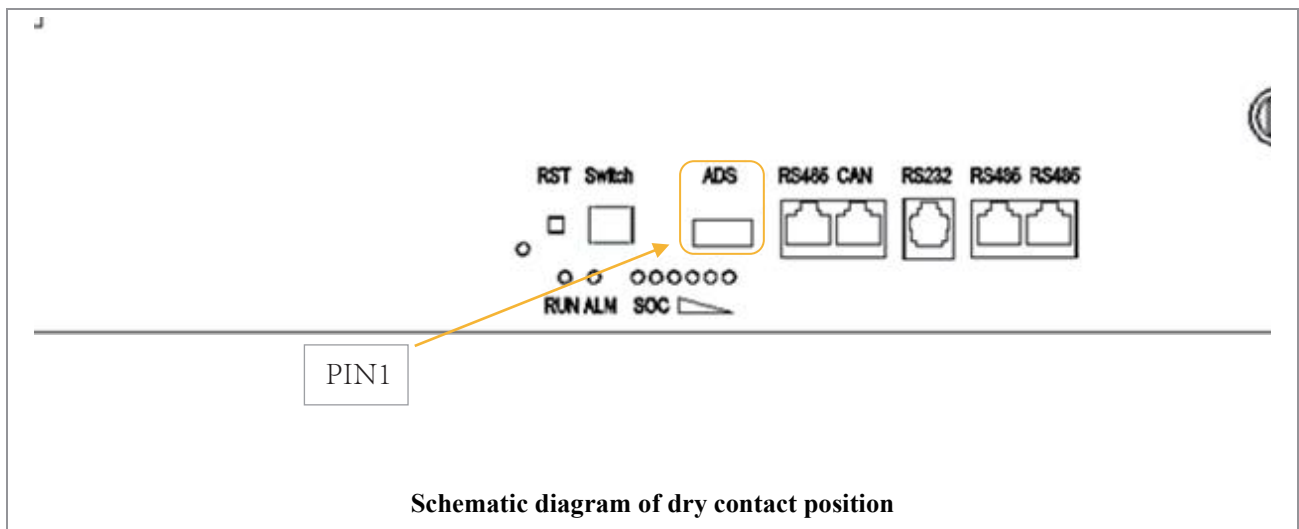


Diagram of connecting method for communication cable

5.10. Dry contact



Schematic diagram of dry contact position

Built-in BMS of the battery contains two groups of dry contacts:

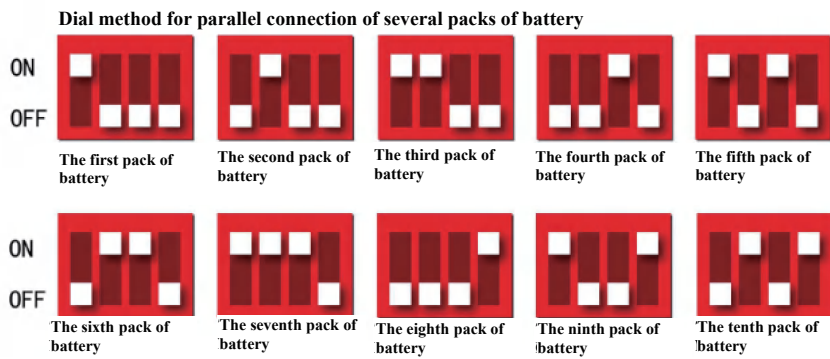
- Dry contact 1: PIN1 to PIN2, normally open, closed during fault protection.
- Dry contact 2: PIN3 to PIN4, normally open, closed in case of low power warning.

5.11. Operation of parallel connection of multiple machines

If several groups of products are connected in parallel, measure the voltage of each group of product with a multimeter and select those with voltage difference not larger than 2V for connection in parallel.

➤ **Dial setting**

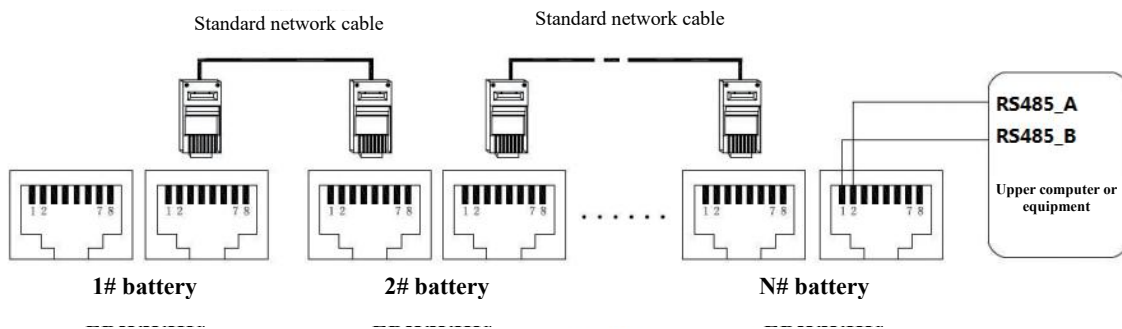
In case of need of parallel connection of several packs of battery, you need to configure the dial address for each product in the shutdown status of the product, starting from 1 and so on as shown in the diagram below. After dial setting, press the reset button for start-up, then hold down the reset button until the ticker is on; shut down and dial setting is completed.



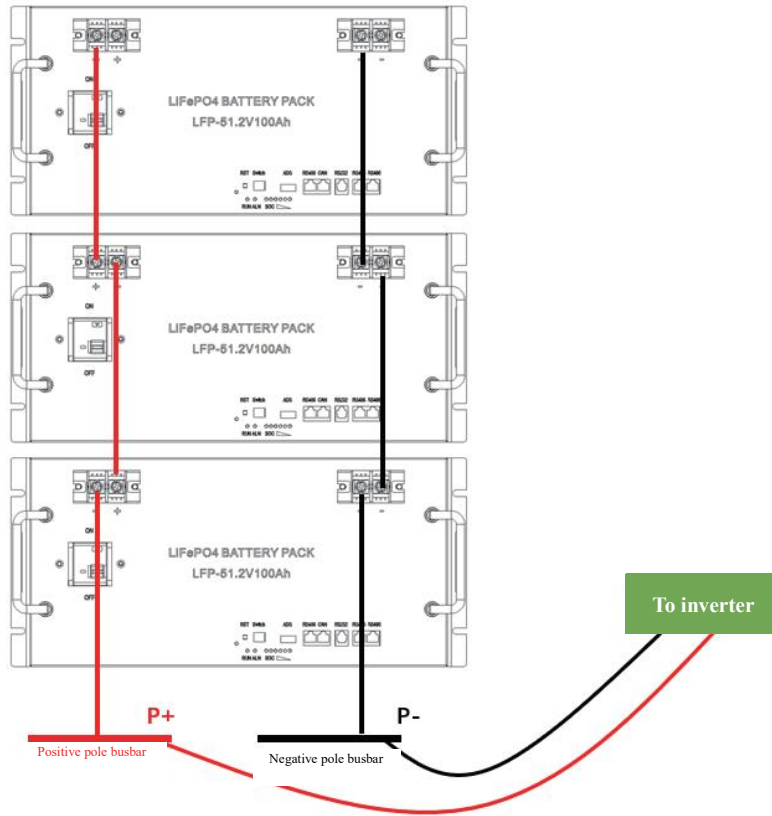
Dial method for parallel connection of several packs of battery

➤ **Connection of communication cable**

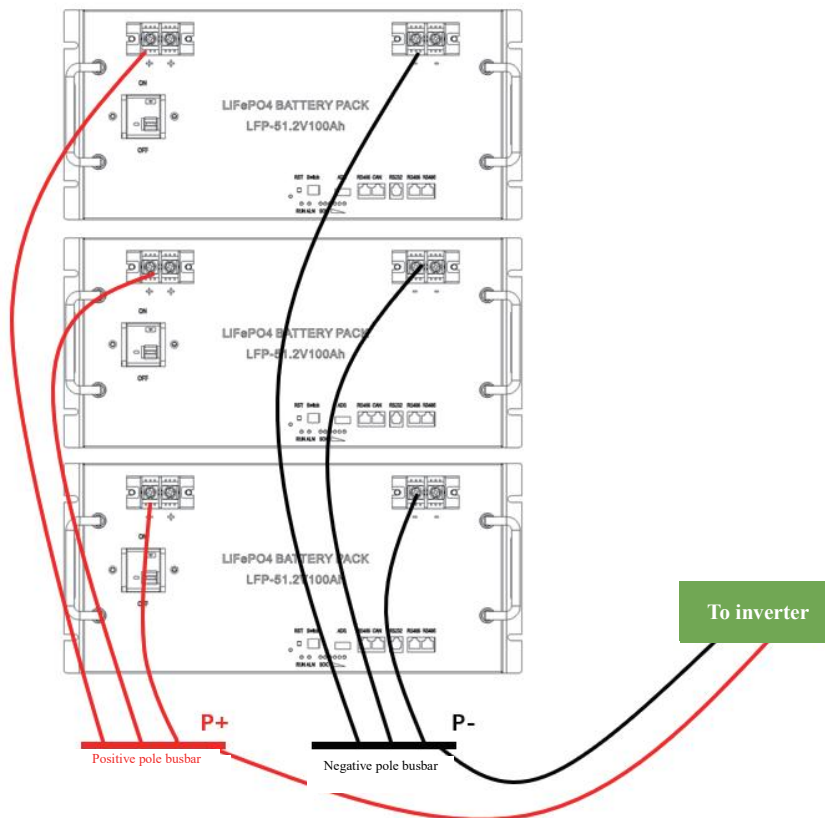
In the shutdown status, connect RS485 interfaces of each battery using standard network cable and connect any of the remaining RS485 interfaces to the equipment or upper computer for communication. For the connection method of communication cable of multiple machines in parallel, see the diagram below.



Connection method of communication cable of several packs of battery in parallel



Suitable for inverter $\leq 5KW$



Suitable for inverter $\leq 15KW$

Schematic diagram of connection of power cable

5.12. Connection to electrical equipment

If the product is used together with inverters for household energy storage, please make sure the inverter power meets the following key points:

- 1) Total capacity of energy storage system BATT-LS-5-A is 51.2V100Ah and the inverter power should be less than or equal to 5KW;
- 2) Total capacity of energy storage system BATT-LS-10-A is 51.2V200Ah and the inverter power should be less than or equal to 10KW;
- 3) Total capacity of energy storage system BATT-LS-15-A is 51.2V300Ah and the inverter power should be less than or equal to 15KW;
- 4) Total capacity of energy storage system BATT-LS-20-A is 51.2V400Ah and the inverter power should be less than or equal to 20KW;
- 5) For electrical connection between the product and the inverter, please use DC circuit breaker for switch control. Type selection of DC circuit breakers should be in accordance with relevant local laws and regulations.

VI. Description of charge

- The charge current and charge voltage of the product should not exceed the maximum value specified in the technical specification of the user manual.
- The charge temperature should not exceed the charge temperature range specified in the technical specification of the user manual.
- Do not charge the product for a long time. Do not carry out reverse charging of the product.
- Charge parameter setting of the charger should comply with the requirements of the technical specification of the product.
- Use of current, voltage and temperature range not specified in the technical specification of the product will affect the product service life or cause damage and cause safety performance problems in serious cases.

VII. Maintenance and service

The built-in battery is one of the core parts of the product and the application environment and method may affect the service life of the battery. Rational maintenance of the battery can effectively increase its service life.

- 1) If the product is stored or not in use for a prolonged period of time, it must be placed in a dry, clean

environment with specified ambient temperature. Power must be replenished if the battery is stored for over three months. The recommended storage voltage is 51.2V~54.4V.

- 2) The product should not be used in an environment with excessively high or low temperature as far as possible. The ambient temperature should not exceed the working temperature range of the product (charge: 0°C~55°C, discharge: -10°C~55°C). The battery service life can be effectively increased when the product is used at the normal temperature of about 25°C.
- 3) During each patrol inspection, check the product appearance and measure the voltage. The product voltage should be around 53-54V when the product is fully charged.
- 4) If the product is not used, turn off the power for the product to enter the sleep state so as to prevent over discharge.
- 5) To ensure the product service life, proper inspection and maintenance should be conducted. The recommended maintenance methods are as follows:

i. Seasonal maintenance

Carry out the following checks each quarter:

Check and record the temperature in the battery compartment;

Check the cleanliness, appearance and temperature of the cabinets one by one;

Measure and record the product overall voltage.

ii. Annual maintenance

Repeat all the seasonal maintenance and checks.

Check if any connecting part becomes loose every year.

Carry out discharge test for verification of the product based on the actual load. If the actual capacity of the pack of battery is lower than 80% of the rated capacity, it is deemed that the service life of the product ends.

iii. Precautions for use and maintenance

Insulated tools must be used for installation and maintenance;

Do not clean the modules with any organic solvent;

Do not smoke or use fire around the product;

After discharge of the product, it should be fully charged within 24 hours so as not to affect its electric capacity;

The battery performance will deteriorate during storage and therefore power should be replenished if the product has been stored for three months;

All maintenance must be conducted by professionals.

VIII. Handling of abnormal situation

In case of any abnormal situation of your product, please carry out checks based on the following table and then eliminate the fault. In case of any difficult problem, please contact our user service center.

Fault condition	Fault cause	Solution
ALM warning light ON	The battery is in the under-voltage, over-current and over temperature warning or protection state.	Check 5.7 status indication table to determine the reason for the warning and then solve it accordingly. For instance: Charge the battery in case of under-voltage warning; Check if the equipment status is normal in case of over-current warning; Check if the ambient temperature is too high in case of over temperature warning.
Short battery discharge time	Insufficient charge of battery	Apply the mains supply for more than eight hours to re-charge the battery.
	Output overload	Check the application of load and remove non-critical equipment.
	Reduced capacity of battery due to aging	Replace battery

Handling of other special situations

➤ Power cut

AC power cut is the most common situation during system operation. In case of short period of power cut, the lithium iron energy storage system in the system will supply DC power. If the cause of the power cut is not clear or the power cut lasts for a prolonged period of time, attention should be paid to the matching of the load current magnitude and the backup energy storage system capacity.

➤ Disastrous accidents

Disastrous accidents include lightning stroke, water soaking, earthquake and fire, etc. that cause communication equipment failure. Regarding disasters that may seriously affect the communication safety, prevention should be in the first place and, meantime, the communication bureau (station) should have emergency management regulations and major accident urgent repair procedures.

IX. Packing

The product adopts complete packaging to ensure it is free from damage due to hazardous gas, chemical pollution, static electricity and dampness and free from mechanical damage during handling, transportation and storage. The packing case bears the product name, model, quantity, gross weight, manufacturer, date of production and necessary signs such as "handle with care", "keep dry", "this side up".

X. Storage

The product should be stored in a dry warehouse. And the battery should be kept in roughly 30%-60% semi-charged state. It should be kept away from direct sunlight and rain. If the product has been stored for over six months, test should be conducted to verify its capacity. If its storage period exceeds one year, it should be inspected again to ensure it is acceptable before use.

To prevent over discharge of the product battery, power should be replenished every three months during storage so as to prevent the impact of self-discharge on the battery. Dedicated chargers should be used to replenish power for the product.

The built-in battery of the product is chemical product. If it is stored and not used for a prolonged period of time, the battery performance will deteriorate slowly. Therefore, the battery should be put into use as soon as possible after storage for some time; otherwise the battery should be charged and discharged again to activate it and restore its energy.

XI. Transportation

During handling of the product, it should be handled with care without violent impact. During transportation, the product should be placed in strict accordance with the direction marked on the packing case and efforts should be made to avoid violent vibration, impact, squeezing, exposure to sunlight and rain so as to prevent damage to the product.

XII. After-sales service

- In case of need, Huaxing New Energy will provide the users with type selection service free of charge;
- If the users have any objection regarding the quality of the product within three months after receiving it, please contact Huaxing New Energy for treatment;
- Huaxing New Energy highly values the users' feedback regarding the product and continuously improves its products and service;
- Huaxing New Energy constantly launches new products. To provide the users with satisfactory products and service continually.
- Huaxing New Energy has perfect user files and quick, efficient service teams to timely solve various problems encountered by the users in the use of the product. After receiving service request from the users, it will give a clear reply at the earliest time possible and provide after-sales service in a timely manner.
- The Company has established a perfect service network. Contact us if you have any questions and difficulties:
 - a) Service hotline: 4006010608
 - b) Website: <http://www.huaxingenergy.com/>