

International Technology Limited



Integrated Lithium-ion Battery Pack for Wall-Mounted User Manual

Version: V3.0

Released Date: 2024-08-16

Document Number: LB-LW-51.2-EN-V3.0-20240816

FOREWORD

Overview

This manual describes the installation, history recording and parameter settings etc. Please keep the manual in safety for more information.

Readers

This document provides technical details regarding the tools and infrastructure used by the following users:

- Sales engineer
- Technical support engineer
- Installation engineer
- Application engineer
- Maintenance engineer

Symbol convention

The following symbols may appear in this article, and they are represented as follows:

Symbol	Indication
 Dangerous	Used as warning in an emergency, if not avoided, it will result in death or serious personal injury.
 Warning	Used as a warning of a middle or low potential hazards, if not avoided, it may cause minor or normal injury.

 Caution	Used as a warning of potential dangers, if ignore this information, it may result in equipment broken, data lost, equipment performance decrease and other unpredictable result.
 INTRO	represents the supplement information of main text to emphasize or replenish.



DIRECTORY

FOREWORD	1
DIRECTORY	3
1 OVERVIEW 4	
1.1 Product specification	4
1.2 Product profiles	4
1.3 Product structure	5
2 ILLUSTRATION	6
2.1 Explanation of the structure	6
2.2 Panel description	7
2.3 LCD operation instructions	11
2.4 The working principle	12
2.5 The product features	13
3 INSTALLATION GUIDE	15
3.1 Installation precaution notes	15
3.2 Installation preparation	17
3.3 Mounting the battery	20
4 MAINTENANCE	23
4.1 Electrical maintenance	23
4.2 Battery maintenance	24
4.3 Trouble shooting steps	24
5 TRANSPORTATION AND STORAGE	28
5.1 transportation requirement	28
5.2 Storage and Power Supply	28
6 SPECIFICATIONS	30
6.1 Technical specifications	30
7 ENVIRONMENT PROTECTION	32
7.1 Environmental Label	32
7.2 Recycle	32

1 OVERVIEW

1.1 Product specification

The model of integrated lithium ion battery (hereafter referred to as lithium battery or PACK) for Wall-Mounted is shown in figure 1-1.

Figure1-1 The explanation of the product specification (For example)

L W -51.2 -100
① ② ③ ④

- ① The main ingredient of Lithium Ion battery is Lithium iron phosphate
- ② W stands for Wall-Mounted
- ③ The pressure is 51.2V
- ④ The capacity is 100Ah

1.2 Product profiles

51.2 lithium iron phosphate battery is one of new energy storage products developed and produced . It can be used to support reliable power for various types of equipment and systems. 51.2 is especially suitable for application scene of high power, limited installation space, restricted load-bearing and long cycle life.

51.2 has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life. Multiple batteries can connected in parallel to expand capacity and power in parallel for larger capacity and longer power supporting duration requirements.

Certification: CE, UN38.3

1.3 Product structure

The appearance of the lithium battery pack is shown in figure 1-3, for interface description; please refer to the 2.2 panel description".

Figure1-3 Product picture

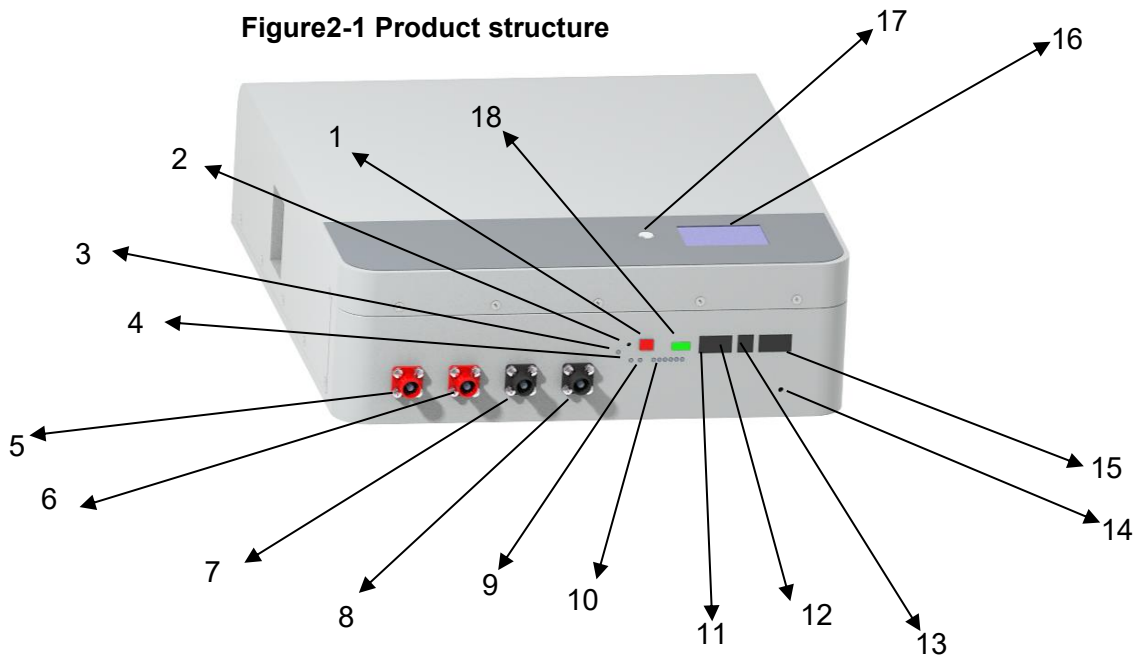


2 ILLUSTRATION

2.1 Explanation of the structure

The structure of Lithium Ion battery pack as shown in figure 2-1

Figure2-1 Product structure



1. ADD	2. RESET	3. ON LED	4. RUN	5. P+	6.P+
7. P-	8. P-	9. ALM	10. SOC	11. RS485	12. CAN
13. RS232	14. Grounding	15.PARALLEL	16. Display	17. ON/OFF	18.Dry Contact

2.2 Panel description

The panel of the module of the lithium battery pack, as shown in figure

Figure2-2-1 Module panel description



Battery
Output

Using 4 pin terminal pins, the front of the terminal from left to right is defined as battery+, Battery+, Battery-, battery-, which is connected with the power transmission line for charging and discharging.

SOC

The meaning of SOC indication light is shown in table 2-2-2

Table2-2-2 The relationship between the capacity of the battery and the light

●	●	●	●	●	●	Capacity
●	●	●	●	●	●	83.0%-100%
○	●	●	●	●	●	66.4%-83.0%
○	○	●	●	●	●	49.8%-66.4%
○	○	○	●	●	●	33.2%-49.8%
○	○	○	○	●	●	16.6%-33.2%
○	○	○	○	○	●	0%-16.6%



● indicates LED is ON, ○ indicates LED is OFF.

INTRO

ALM

When the battery is at alarm or fault, "ALM" light is red.

RUN

During charging, the "RUN" light will be flashing.

"RUN" and "ALM" can display the battery status, as shown in table 2-2-3

Table2-2-3 The explanation of “RUN” and “ALM”

PACK Status	Normal/Alarm/ Protection	RUN	ALM	Remark
		●	●	
Power Off	Sleep	OFF	OFF	All off
Standby	Normal	Flash 1	OFF	Standby state
	Alarm	Flash 1	Flash 3	Cell low voltage
Charge	Normal	ON	OFF	
	Alarm	ON	Flash 3	
	Over Charge Protection	ON	OFF	Stop charge
	Temperature. Over-current Fault Protection	OFF	ON	Stop charge
Discharge	Normal	Flash3	OFF	
	Alarm	Flash3	Flash 3	
	Under Discharge Protection	OFF	OFF	Stop discharge
	Temperature. Over-current. Short Circuit Fault Protection	OFF	ON	Stop discharge
Fault		OFF	ON	Stop charge Stop discharge

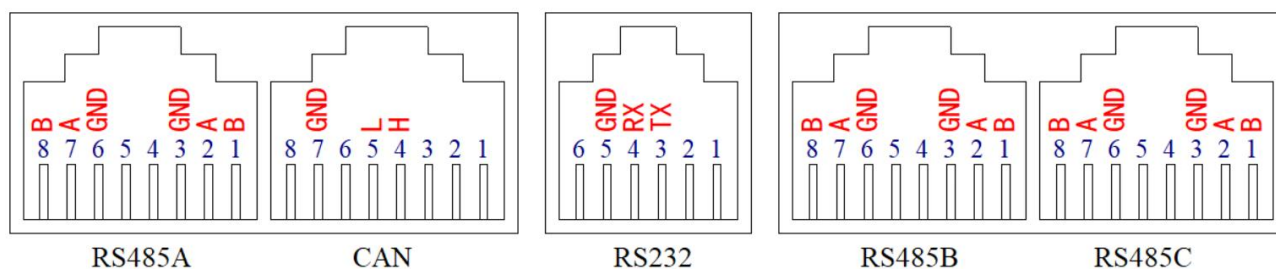
Note: The flashing instructions, flash1-light 0.25s/off 3.75 seconds; flash2-0.5 slight /0.5s off; flash3-0.5 slight /1.5s off.

ADD

In parallel, band switch using four dip switch to address set cell system.
The explanation of its dial switch as shown in table 2-2-4.

Table2-2-4 Band switch address code

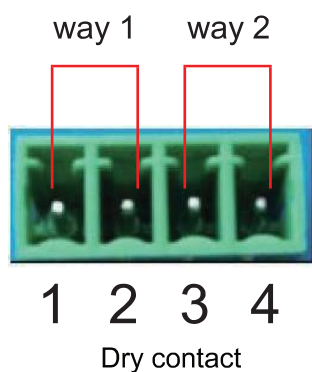
Address Code				ADD	PACK Definition	Explanation
1	2	3	4			
ON	OFF	OFF	OFF	1	PACK1	Use As Master Pack
OFF	ON	OFF	OFF	2	PACK2	Use as SlavePack2
ON	ON	OFF	OFF	3	PACK3	Use as SlavePack3
OFF	OFF	ON	OFF	4	PACK4	Use as SlavePack4
ON	OFF	ON	OFF	5	PACK5	Use as SlavePack5
OFF	ON	ON	OFF	6	PACK6	Use as SlavePack6
ON	ON	ON	OFF	7	PACK7	Use as SlavePack7
OFF	OFF	OFF	ON	8	PACK8	Use as SlavePack8
ON	OFF	OFF	ON	9	PACK9	Use as SlavePack9
OFF	ON	OFF	ON	10	PACK10	Use as SlavePack10
ON	ON	OFF	ON	11	PACK11	Use as SlavePack11
OFF	OFF	ON	ON	12	PACK12	Use as SlavePack12
ON	OFF	ON	ON	13	PACK13	Use as SlavePack13
OFF	ON	ON	ON	14	PACK14	Use as SlavePack14
ON	ON	ON	ON	15	PACK15	Use as SlavePack15
 NO OFF						



Inverter to Battery				PC to Battery		Battery to battery Or PC to Battery	
RS485A		CAN		RS232		RS485B,RS485C	
PIN	Definition	PIN	Definition	PIN	Definition	PIN	Definition
1	RS485-B	1	NC	1	NC	1	RS485-B
2	RS485-A	2	NC	2	NC	2	RS485-A
3	GND	3	NC	3	TX	3	GND
4	NC	4	CAN-H	4	RX	4	NC
5	NC	5	CAN-L	5	GND	5	NC
6	GND	6	NC	6	NC	6	NC
7	RS485-A	7	GND			7	RS485-A
8	RS485-B	8	NC			8	RS485-B
NC=No connect							

Dry Contact Terminal

Dry Contact Terminal: provided 2 ways input and 2 ways output dry contact signal.



RESET

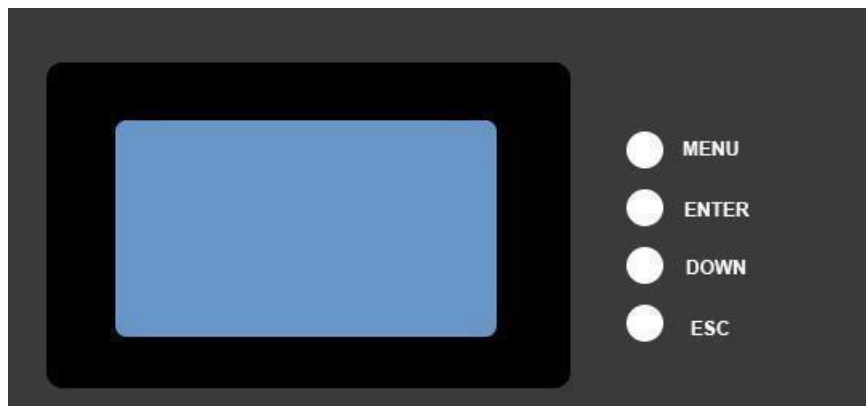
Press RESET key for 5 seconds, then start the device, press the RESET key for 5 seconds again, then shut down the device. When the system is running, should there be an exception, use this button to reset the system (press / release) to ensure the stability of the system.

2.3 LCD operation instructions

The LCD display interface is user-friendly, as shown in figure 2-3-1. It provides 320 * 240 dot matrix graphic display. The LCD is able to display the alarm information in real time, and provides the historical warning records for the user to query, and provide a reliable basis for fault diagnosis.

Users can easily browse the battery parameters through the LCD interface, and obtain timely access to information on the current state of the battery. The interface displays a total of 5 menu keys, the functions described as follows.

Figure2-3-1 LCD Display



The commonly used button function

The display function of the button as shown in table 2-3-2

Table2-3-2 Button function description

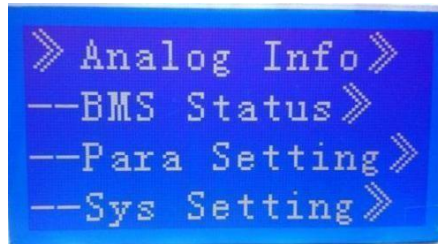
MENU	Main menu
ENTER	Confirm, enter
DOWN	Page down
ESC	Return, launch

Operation procedures

- 1) Press  once, the LCD display screen light up, then the welcome interface will be shown.



- 2) Followed by the prompt and then click once to enter the main menu bar.



- 3) Scroll page up  , Enter the Menu screen, when the  points to the corresponding bar, press Enter  to confirm.
- 4) Go back on the menu bar, click .

2.4 The working principle

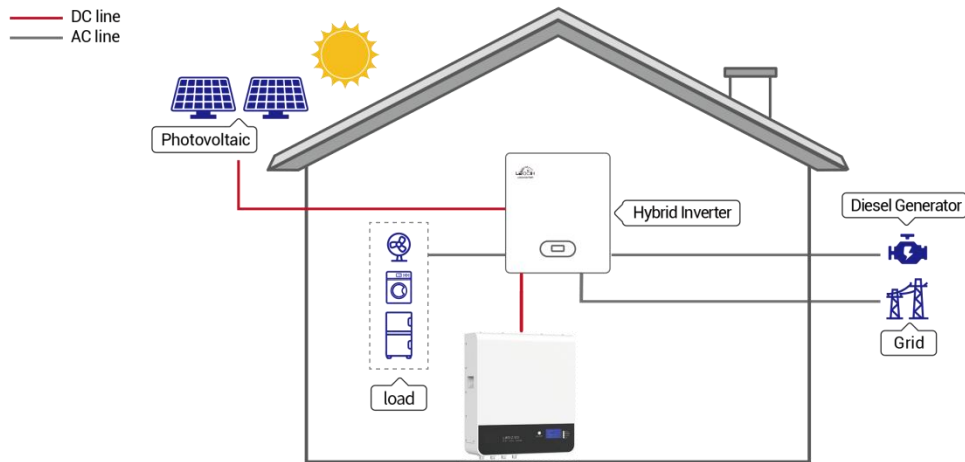
Lithium battery pack is equipped with charging and discharging management module and monitoring module.

Charge and discharge management module protects battery charge and discharge functioning, prevents overcharging, discharge over-current, the charging process by the adapter charger to the DC input form, the discharge process is completed by connecting the load discharge.

The monitoring module has the balance function and power, temperature and SOC. The monitoring module transmits the real-time information collected in the operation of the product through the Telecom protocol network to the monitoring platform, and the user can observe the operation status of the battery in each group through the display screen.

A single module has a 51.2V (50-200) Ah, with a large capacity,
As shown in figure 2-4

Figure2-4 the working principle diagram



2.5 The product features

Integrated lithium battery pack for Wall-Mounted has the following remarkable characteristics:

- The whole module is non-toxic, non-polluting and environmentally friendly;
- The system can automatically manage charge and discharge state and balance current and voltage of each cell;
- Flexible configuration, multiple battery modules can be in parallel for expanding capacity and power
- Adopted self-cooling mode rapidly reduced system entire noise;
- The module has less self-discharge, up to 6 months without charging on shelf ; no memory effect, excellent performance of shallow charge and discharge;
- Working temperature range is from -20℃ to 60℃, (Charging 0~45℃; discharging -10~55℃) with excellent discharge performance and cycle life;
- Small size and light weight,



-
- 1) Telemetry: voltage, current, temperature, SOC, SOH (optional), etc.
 - 2) Tel-signalling state of charge and discharge, overcharge / over-current, under voltage over-current alarm / alarm, environment / battery /PCBA/ battery temperature alarm, low environmental temperature alarm, battery capacity is too low, the battery temperature /voltage / current sensor failure alarm, battery failure alarm (just not cut off the monomer pressure high limit alarm) (optional), battery failure alarm (optional).
 - 3) Remote control: charge / discharge (optional), alarm sound off, intelligent intermittent charging mode, current limiting charging mode.
 - 4) Optional: Battery charge / discharge management parameters .

3

INSTALLATION GUIDE

3.1 Installation precaution notes

Comply with local laws and regulations

When operating the equipment, make certain to comply with local laws and regulations.

Personnel requirements

Technicians who are responsible for installation and maintenance are required to undertake strict training at first. Master the correct methods for operation and safety, only then the installation, operation and maintenance can be carried out.

In order to maximize the efficiency of the equipment, to obtain best possible operating results, and ensure maximum lifespan, please pay careful attention to the correct installation and usage requirements.

Personal safety

- Insulated tools and gloves should be used and worn at all times – During the installation process, watches, bracelets, rings and other metal products should be removed.
Avoid any fall or collision during the installation process.
Do not remove the battery components. The maintenance of the battery should be carried out by a professional engineer.
Should be operated and supervised by engineer who have experience and can take preventive measures for potential hazards of battery.

Field and environment

Site requirements

1) Cleanliness

Lithium battery packs cannot be placed in or near garbage disposals, or accidentally dropped or placed in smaller disposal units, as their interaction with metals is likely to cause short circuits and endanger the system and personal safety.

2) Fire protection

The room is prohibited to store flammable, explosive and other dangerous goods, and it should be equipped with effective fire equipment (such as CO2 fire extinguishers).

3) Ventilation and heat dissipation

In order to facilitate the operation and maintenance of equipment for the heat, the equipment should be left around (50~30) cm around at least, left about 50cm for the upper space. The space should be equipped with exhaust fan, to maintain good indoor ventilation.

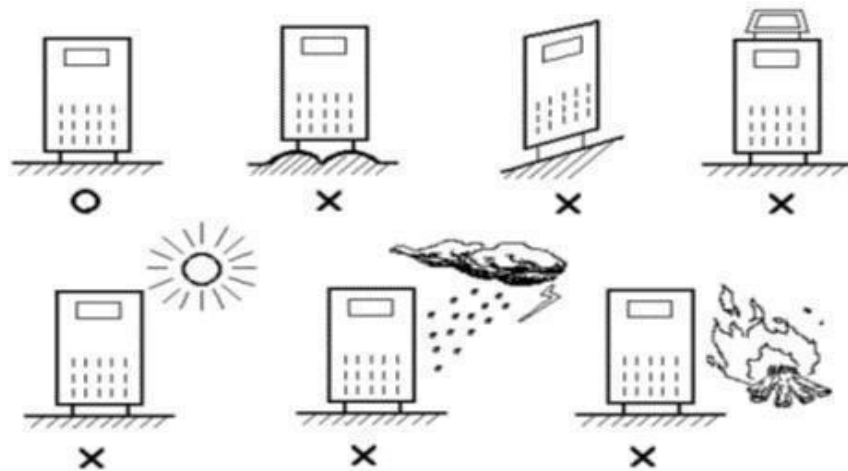
4) Installation requirements

Installation should be carried out as shown in figure 3-1 in order to avoid possible risks.

Put the lithium battery on the ground (to avoid tilt, uneven ground).

Avoid placing in the sunlight, rain or wet surfaces.

Figure3-1 Requirements for installation scenarios



- Environmental requirements

Ambient temperature: (-10~+40) °C .

Relative humidity level: 0%RH~95%RH, no condensation.

Cooling method: air cooler.

Height above sea level: match to the standard requirement of GB3859.2-93.

Verticality: no vibration and the vertical inclination does not exceed 5°.

Pollution level: Level ii .

Recommended operating temperature (20~25) °C , humidity level control within 50%.



Caution

Do not install in the working environment with metal conduction type dust. Do not put anything containing corrosive gases.

Do not put anything in the dust concentrated areas.

Do not place any items on the top of lithium-ion battery pack. People could not sit on the battery.

Power check

Before installation, please confirm that the load capability of inlet wire meets the requirements of the new equipment. Check to see if the power supply corresponds to the equipment nameplate of the voltage and frequency and if the current capacity has decreased due to the aging of the wire.

If in doubt, please check with your local power supply consultation department.

Ground wire

Earthing terminal is ready; zero voltage required in the room cannot exceed 5V.

DC output voltage and load capacity

Lithium-ion battery pack of rated DC output 51.2V. DC output power



Caution

When installing the lithium-ion battery pack, the user should check the lithium-ion battery pack in advance to make sure that the contacts and connectors are safely in place to avoid an open circuit or short circuit fault.

During installation, do not connect the lithium batteries polarity in reverse or in any way incorrectly, to avoid causing a short circuit.

Please do not connect the terminals with no security or insulation protection, so as to avoid the risk of electric shock.

3.2 Installation preparation

3.2.1 Unpacking and inspection

Lithium batteries and accessories use packaging of cardboard boxes or wooden boxes. When unpacking, be careful when dismantling. Inspect the device and accessories according to the package list, to ensure it's complete and make certain nothing was damaged during shipping.

Before clearing the packaging, make sure that all parts are included. If equipment or accessories are damaged in transit, or incomplete or incompatible,

the equipment, accessories and order contracts should be recorded and local branches or offices should be contacted immediately.

The site needs to be tidied and inspected once again to make sure the audit documents are in order for the audit. Before inspection, the site should be clean.

3.2.2 Installation tools

Potential commonly used tools as shown in table 3-1~3-4 the field technician will increase or decrease the amount according to the construction.

Table3-2-2 -1General purpose tools

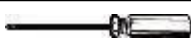
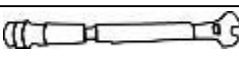
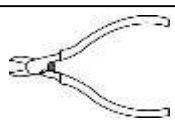
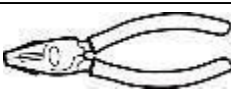
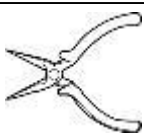
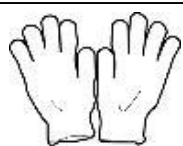
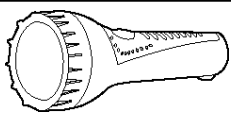
The appearance of the tools, parameters, and names			
Adjustable wrenches	Phillips screwdriver	Slotted screwdriver	Socket wrench
			
Torque wrench	Open-end wrenches	Double offset ring spanner	Diagonal cutting pliers
			
Wire cutters	Needlenosed pliers	Marking pen	Working gloves
			
Ladder (2m)	Flashlight	Tape measure	Impact drill
			

Table3-2-2-2 Tools for delivery and unpacking

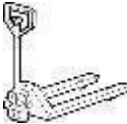
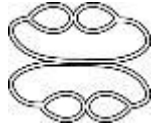
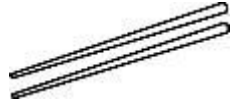
The appearance of the tools, parameters, and names			
Manual forklifts	Electric forklift	Sling (weight≥ 400kg)	Leverage (weight≥400kg)
			

Table3-2-2-3 Electrical installation tools

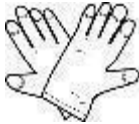
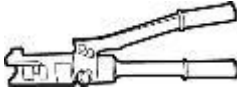
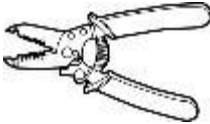
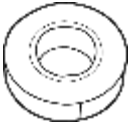
The appearance of the tools, parameters, and names			
Insulated gloves	Power cable crimping plier	Wire stripping pliers	Electrical tape
			

Table3-2-2-4 Measuring Tools

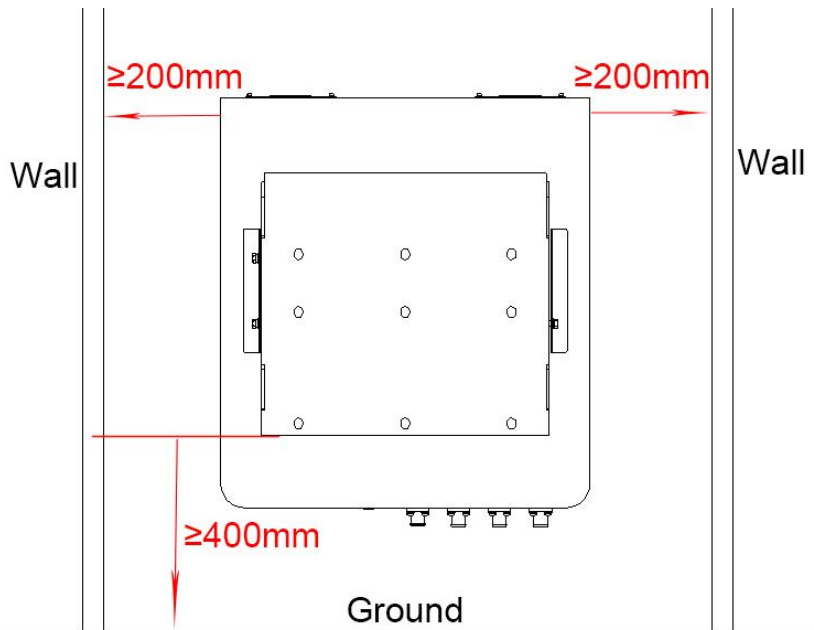
The appearance of the tools, parameters, and names			
Clamp the flow table			-
			-

3.3 Mounting the battery

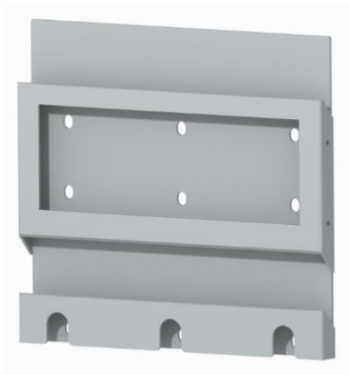
Note the allowable installation modes:



The installation location description should meet the size requirements of the figure below:



1、 Use expansion screws to fix the accessory bracket shown below on the wall.



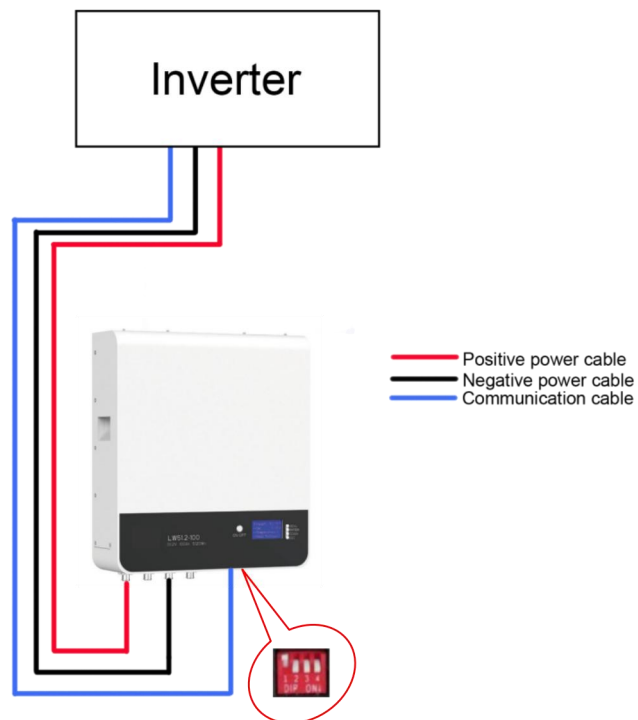
2、 Hang the battery box on the stand



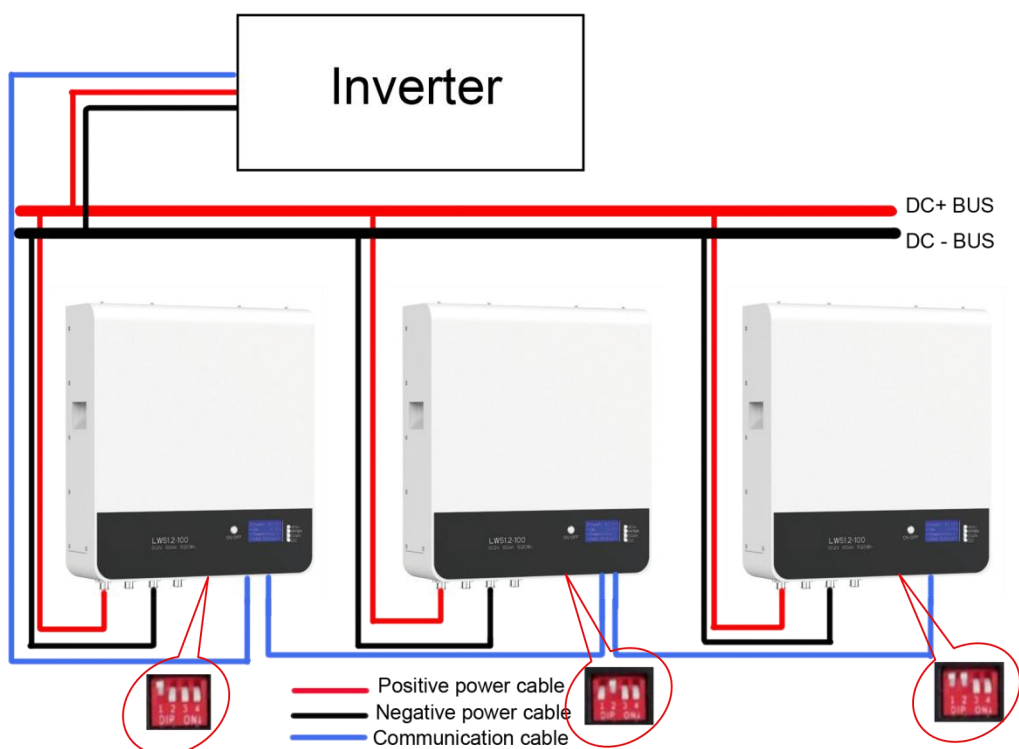
3、 Use M6 screws to secure the case from both sides



4、Single battery connection



5、Multiple batteries connection



4 MAINTENANCE

In order to ensure the lithium-ion battery pack achieves the longest life cycle, the maintenance technician should carry out regular inspections and maintenance care.

The maintenance records should be complete and routine, so that subsequent verification of management parameters of the battery pack can be tracked.

4.1 Electrical maintenance

Maintenance of the electrical parts may refer to table

Table4-1 Table of contents for maintenance

Items	The checking Points	Methods	Repair conditions	Repair solution
Electrical	Check if the Output of the voltage is normal	Multimeter	Battery voltage out of range set	See the following troubleshooting section
Fault inspection	Check if lights are normal	Visual inspection	Alarm	
Cable	Insulation, Terminal	Visual inspection	• Insulation cracks, aging • Exfoliated, corrosion of the terminals	• Replace the cable • Replace the terminal block

4.2 Battery maintenance

Table4-2 Contents of battery maintenance

Frequency	Items	Solutions
Quarterly	Operating environment	Stay away from heat source and avoid direct sunlight.
	Visual inspection	If there is any breakage, leakage or deformation, Isolate the problematic battery pack, take a photograph and replace the battery.
Annual	Visual inspection	Use cotton cloth to clean the appearance. Be careful during cleaning because the voltage is high.
	Connection status	• Check each terminal, check the bolt, if it's loose, and tighten it again. • Check the reason if the cable temperature exceeds 40℃.



INTRO

- 1) Charge and discharge status at the final stage can through capacity light to display. Please refer to 2.2 for the definition of capacity lights.

4.3 Trouble shooting steps

① Problem determination based on:

- 1) Whether the battery can turn on or not;
- 2) If battery is turned on, check the red light is off, flashing or lighting;
- 3) If the red light is off, check whether the battery can charge/discharge or not.

② **Preliminary determination steps:**

1) Battery cannot turn on, switch on the lights are all no lighting or flashing.

If the battery external switch is ON, the RUN light is flashing, and the external power supply voltage is 51.2V or more, the battery still unable to turn on, please contact .

2) The battery can be turned on, but red light is lighting, and cannot charge or discharge. If the red light is lighting, that means system is abnormal, please check values as following:

a) Temperature: Above 50°C or under -10°C, the battery could not work.

Solution: to move battery to the normal operating temperature range between -10°C and 50°C

b) Current: If current is greater than 100A, battery protection will turn on. Solution: Check whether current is too large or not, if it is, to change the settings on power supply side.

c) High Voltage: If charging voltage above 58.4V, battery protection will turn on. Solution: Check whether voltage is too high or not, if it is, to change the settings on power supply side.

d) Low Voltage: When the battery discharges to 43.2V or less, battery protection will turn on. Solution: Charge the battery for some time, the red light turn off

Excluding the four points above, if the faulty is still cannot be located, turn off battery and repair.

c. The battery cannot be charged or discharged

3) Cannot be charged:

Disconnect the power cables, measure voltage on power side, if the voltage is 56~57.6V, restart the battery, connect the power cable and try again, if still not work, turn off battery and contact.

4) Unable to discharge:

Disconnect the power cables and measure voltage on battery side, if it is under 43.2V, please charge the battery; if voltage is above 51.2V and still cannot discharge, turn off battery and contact

fault phenomenon	possible cause	handling method
Overvoltage alarm	● Overcharge voltage ● There is a problem with cell consistency	● Check whether the charging voltage setting is reasonable. If not, adjust it according to the actual situation.。 ● If the battery consistency is faulty, contact after-sales engineers.
Undervoltage alarm	● The AC power failure time is too long ● Cell consistency problems, resulting in poor capacity.	● Charge the battery again. If the charge still fails, contact after-sales engineers. ● If the battery consistency is faulty, contact after-sales engineers
The buzzer kept ringing	● The battery triggered an anti-theft lock	● Use anti-theft PC software to remove the lock
power failure	● After the overdischarge of the battery cell, the battery voltage is lower than 2V without replenishment for a long time. ● The voltage collection line of the battery cell is loose	● Contact after-sales engineers.。
High temperature protection for charging or discharging	● The ambient temperature is too high. ● Heat sources exist around the battery.	● Check the ambient temperature alarm value (default: 0 ° C).
Low temperature protection for charging or discharging	● The ambient temperature is too low. Procedure	● Check whether the upper battery temperature alarm value (53 ° C by default) is reasonable. If the alarm value is incorrect, adjust it according to the actual situation. ● Check whether the battery cabin temperature control system is faulty. If yes, rectify the fault. This alarm is automatically cleared when the battery

		temperature returns to normal. ● Check whether the BMS temperature sensor is faulty. If yes, replace the BMS temperature sensor.
--	--	---

5 TRANSPORTATION AND STORAGE

5.1 transportation requirement

Battery via UN38.3 (UN38.3: Section 38.3 of the sixth Revised Edition of the Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria) and SN/T 0370.2-2009 "Inspection Procedures for Packaging of Dangerous Goods for Export Part 2 Performance Inspection" certification (This product belongs to Class 9 dangerous goods)

The battery meets the transportation requirements of cars and ships. The transport box must be firm, and the outside of the box should comply with the provisions of the national standard and should be marked "handle with care" and "moisture-proof". Direct rain and snow and mechanical impact should be avoided during transportation.

5.2 Storage and Power Supply

5.2.1 Storage Requirements

1. When storing batteries, place them according to the labels on the packing case. Do not place them upside down or on the side.
 2. When packing cases are stacked, they shall comply with the packing requirements.
 3. The storage environment requirements are as follows:
 - Ambient temperature 0 ° C to 40 ° C. The recommended storage temperature is 20 ° C to 30 ° C.
 - Relative humidity $\leq 95\%$.
 - A dry, ventilated, and clean place.
 - Avoid contact with corrosive substances or organic solvents (including gas).
 - Avoid direct sunlight.
 - The distance from the heat source (such as the heating device) must be at least 2m.
- The warehouse manager should count the battery storage every month, and the batteries that are stored beyond the expiration date must be replenished in time.
- A dry, ventilated, and clean place.
 - Avoid contact with corrosive substances or organic solvents (including gas).
 - Avoid direct sunlight.

5.2.2 Expired Storage Criteria

storage temperature	storage cycle
$0^{\circ}\text{C} \leq T \leq 30^{\circ}\text{C}$	6 months
$30^{\circ}\text{C} < T \leq 40^{\circ}\text{C}$	3 months

1. If the battery storage expires, recharge it in time.
2. After the battery is powered on, note the time when the battery was last powered on.
3. If the battery is swollen and leaking, it should be scrapped.

5.2.3 Supplementary Power Processing

Check storage battery appearance, such as expansion, leakage, shell damage, scrap treatment. The positive and negative extremes of the battery are corroded. Sand them clean.

Use the charger to charge the battery with the following parameters.

photoelectric parameter	photoelectric parameter Settings
charging voltage	56.4V
charge current	It is recommended to use 0.2C with a maximum of 0.5C
suspensive condition	The charging current is less than 0.05C

After the battery is replenished, mark the last charge time and the next recharge time on the battery packing box.

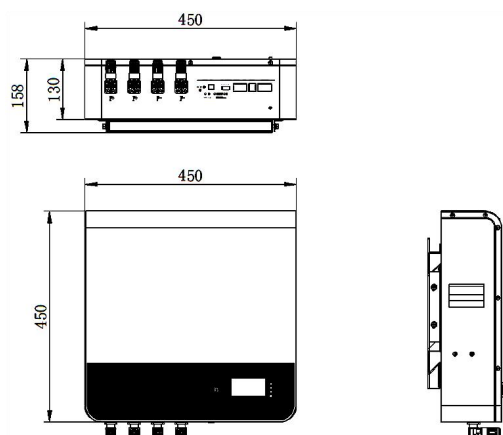
6 SPECIFICATIONS

6.1 Technical specifications

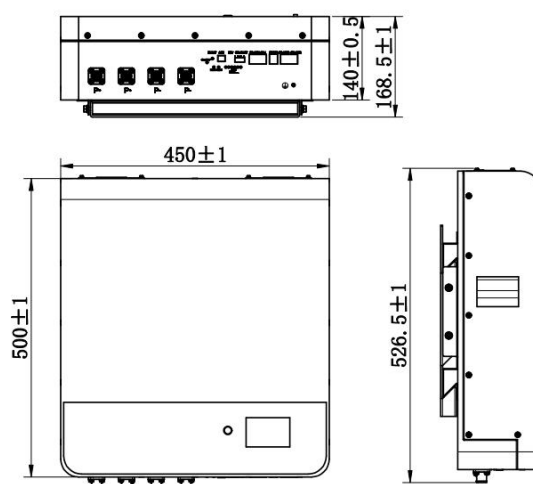
Lithium batteries with 51.2 series of modules, the main physical dimensions for a single module is shown in table 6-1-1, technical indicators for a single module is shown in table 6-1-2.

Table 6-1-1 The main physical dimensions for a single module

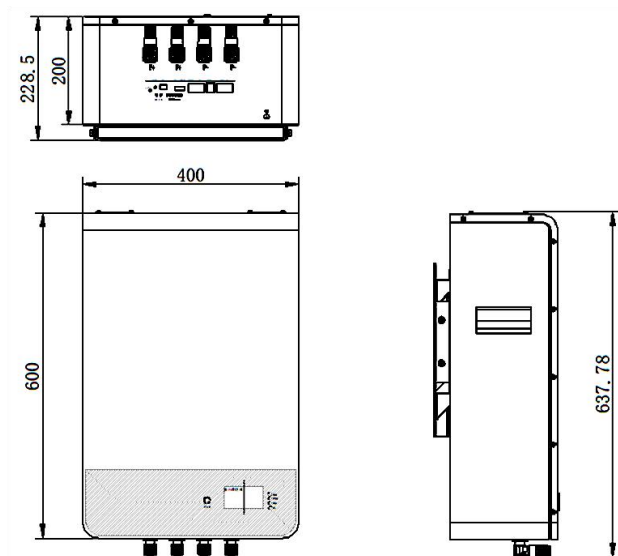
Dimensions(mm) of LW51.2-50



Dimensions(mm) of LW51.2-100



Dimensions(mm) of LW51.2-150



Dimensions(mm) of LW51.2-200

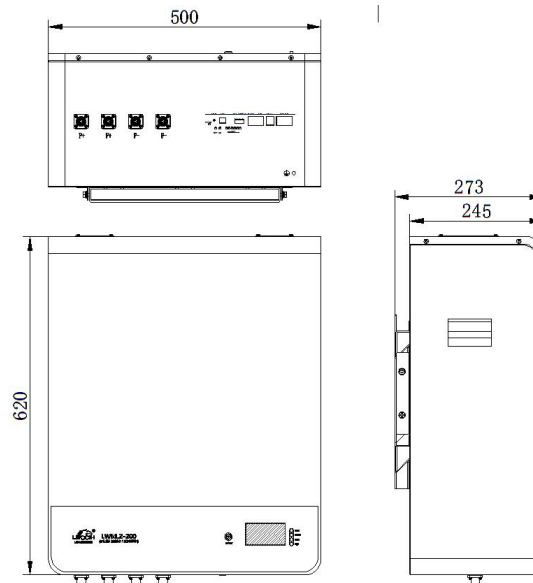


Table 6-1-2 technical indicators for a single module

Item	Specification			
Model	LW51.2-50	LW51.2-100	LW51.2-150	LW51.2-200
Rated Capacity (5HR)	50Ah	100 Ah	150 Ah	200 Ah
Nominal Voltage	51.2 V	51.2 V	51.2 V	51.2 V
Discharge Ending Voltage	43.2V	43.2V	43.2V	43.2V
Charging Limited Voltage	58.4V	58.4V	58.4V	58.4V
Max. Charging Current	50A	100A	100A	100A
Weight	Approx. 31Kg	Approx. 50Kg	Approx. 67Kg	Approx.94Kg
Dimensions (W*D*H) mm	450mm×450mm×130mm	450mm×500mm×140mm	400mm×600mm×200mm	500mm×620mm×245mm
Display	With display screen			
Protocol	CANBUS/RS485			
Parallel Connection	Parallel connection is optional (up to 63P).			
Design life	15 years			
Cycle Life	6000 cycles@80%DOD			
IP Class	IP54			
Outer Package Material	White bake lacquer steel case (optional)			
Operating Temperature	Charging: 0 to +45℃ Discharging: -10 to +55℃ Storage: -20 to +60℃			

7

ENVIRONMENT PROTECTION

7.1 Environmental Label

The product described in this manual does not contain toxic and hazardous substances or elements. It is a green product. It can be recycled after being discarded and should not be discarded at will. The environmental label shown in Table 7-1.

Table7-1 Environmental label

Specification	Mark
51.2V	

7.2 Recycle



This mark indicates that the product can not be classified with other waste. In order to prevent potentially hazardous substances from hazardous waste disposal hazards to the environment and human health, please refer to the classification of waste recycling in order to promote the sustainable use of material resources.



Li-ion In order to recycle the used equipment, please use the recycling system or contact the manufacturer or seller of the product or the local authority to manage the product