



RSPB series

LifePo4 Battery User Manual

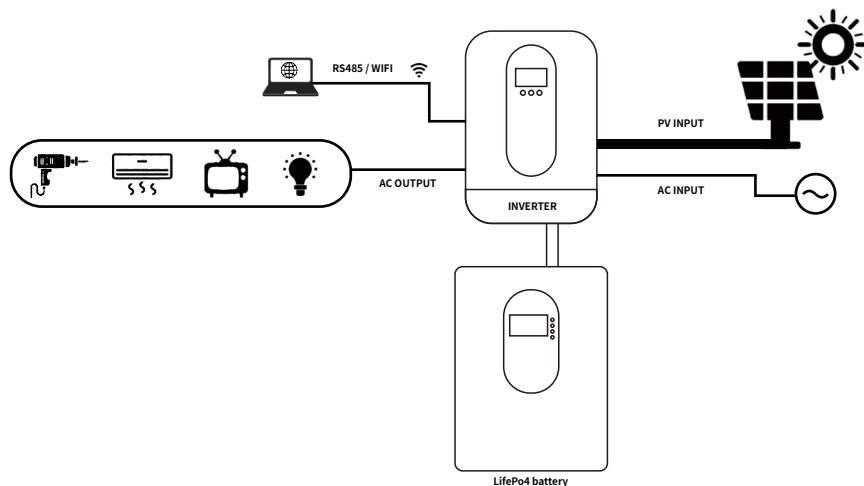


This manual introduces the RSPB series lithium iron phosphate batteries (all information applies to the RSPB series lithium iron phosphate batteries unless otherwise specified). Please read this manual before use and follow the instructions carefully during installation. If you have any confusion, please contact us for advice and clarification.

1. Introduction	1
1.1 Features	1
1.2 Product parameters	2
1.3 Dimensions description	3
1.4 Interface description	4
1.5 Start the battery module	4
1.6 Indicator Lights Instructions	5
1.7 Capacity indication	5
1.8 Status indication	5
1.9 Display Settings description	6
1.10 Multi-machine parallel operation	7
1.11 Parallel DIP switch definition	8
1.12 Connect the inverter signal communication	9
1.13 Connect the inverter communication settings	10
1.14 Communication protocol configuration table	10
1.15 Packing list	11
2. Installation instructions	11
3. Troubleshooting	12
4. Symbol identification	14
4.1 Safety precautions	15
5. Safe use guide	16
Terms & Conditions of Warranty	19

1.Product introduction

RSPB lithium iron phosphate battery has excellent charge and discharge efficiency and stable voltage output, making it an ideal choice in many fields. Including electric vehicles, energy storage systems, solar panels, etc. Its high temperature stability and excellent cycle life make it suitable for use in a variety of environmental conditions. Excellent performance under all conditions. In order to ensure the safety of users, we strictly follow international safety standards during the design and manufacturing process and adopt a variety of protective measures protection, such as overcharge protection, over-discharge protection, short circuit protection, reverse connection protection, etc.



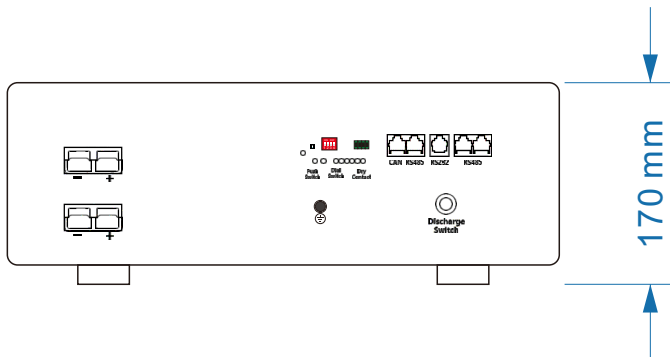
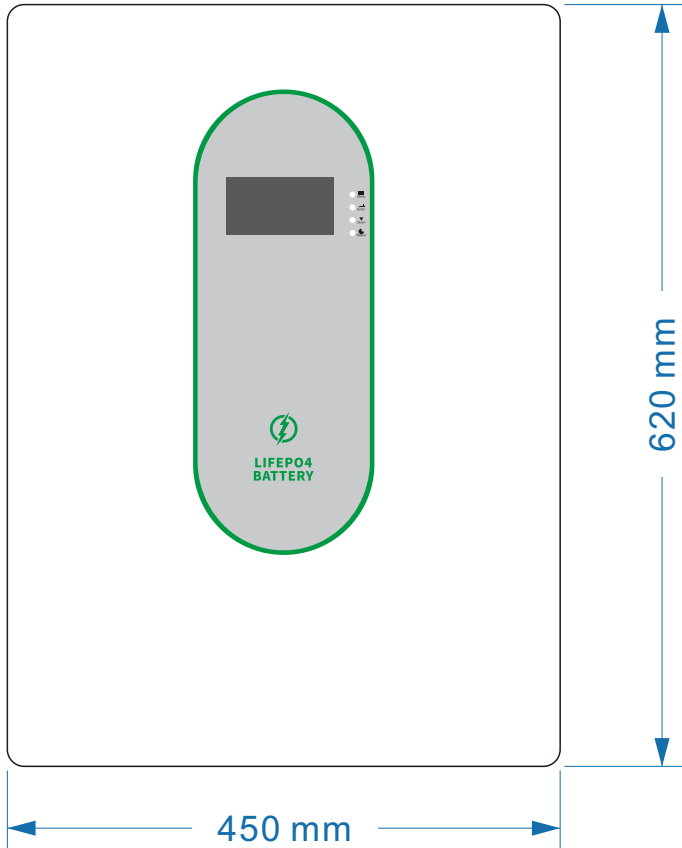
1.1 Features

- 1) Built-in soft start function can reduce current surge when the inverter needs it.
- 2) Dual active protection at the BMS level.
- 3) Automatically set addresses when connecting in multiple groups.
- 4) Supports upgrading battery module communication from the upper controller through CAN or Rs485.
- 5) Enable 95% depth of discharge and operate following the latest protocols for inverters that can be used for full discharge.
- 6) This module is non-toxic, pollution-free and environmentally friendly.
- 7) The cathode material is made of LiFePO₄, which has safe performance and long cycle life.
- 8) The battery management system (BMS) has protection functions, including over-discharge, over-charge, over-current, high/low temperature, and reverse connection protection.
- 9) The system can automatically manage the balancing voltage of each battery in the charging and discharging states.
- 10) Flexible configuration, multiple battery modules can be connected in parallel to continuously increase capacity and power.

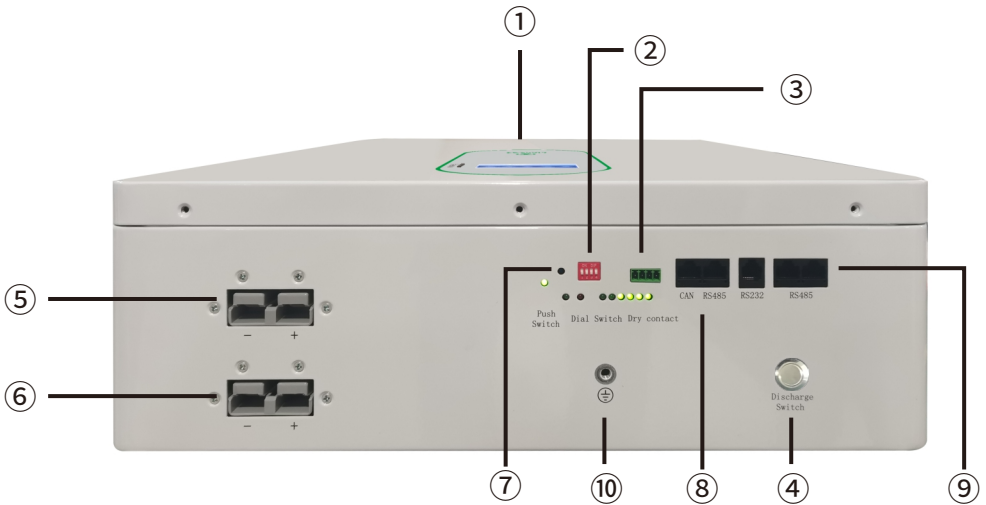
1. 2 Product parameters

Model	RSPB100
Rated Capacity	100Ah
Minimal Rated Capacity	100Ah
Nominal Voltage	51.2V
Life Exception	Higher than 80% of the Initial Capacity of the Cells
Discharge cut-off voltage	40V
Charging cut-off voltage	58.4V
Cell and assembly method	16S1P
Housing material	Metal housing
Standard charge	0.5C constant current(CC) charge to 58.4V, then constant voltage(CV)58.4V charge till charge current decline to $\leq 0.05C$
Standard discharge	Constant current 0.5C Cut-off voltage 40.0V
Standard charge current	50A
Standard discharge current	50A
Max charging/discharging current	100A
Operation Temperature Range	Charge: 0~55°C Discharge: -20~60°C Cell surface temperature $\leq 80^{\circ}C$
Storage Temperature Range	Less than 1 year : 0~25°C Less than 3 months:-10~35°C
Weight	49KG
Max. Dimension	620*170*450mm
Communication	RS485/RS232/Dry contact/can
Parallel machine	Supporting parallel connection

1.3 Dimensions description



1.4 Interface description



① Display screen

② Dip switch

③ Dry contact port

④ Discharge switch

⑤ Battery interface1

⑥ Battery interface2

⑦ Battery switch

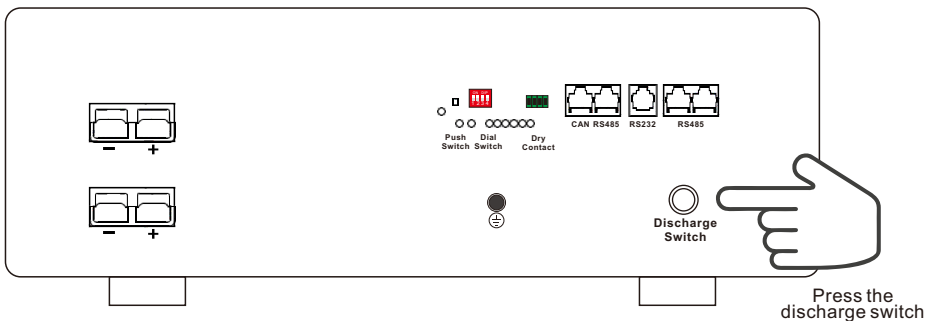
⑧ CAN port

⑨ Rs485 port

⑩ Grounding terminal

1.5 Start the battery module

Press the discharge switch, and the indicator light will flash. Pressing the button will turn it on, and releasing the button will turn it off.




1.6 Indicator Lights Instructions









1 ON/OFF switch indicator light, 1 running light, 1 warning light, 6 electricity indicator lights.

								
ON/OFF	RUN	ALARM	SOC					

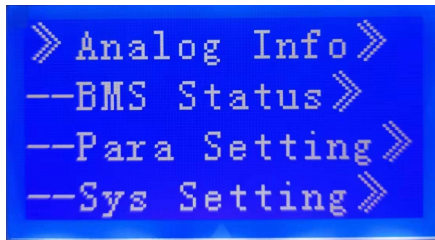
1.7 Capacity indication





Status		Charge						Discharge					
Capacity indicator		L6	L5	L4	L3	L2	L1	L6	L5	L4	L3	L2	L1
Electricity	0-17%	OFF	OFF	OFF	OFF	OFF	Flash	OFF	OFF	OFF	OFF	OFF	Always on
	18-33%	OFF	OFF	OFF	OFF	Flash	Always on	OFF	OFF	OFF	OFF	Always on	Always on
	34-50%	OFF	OFF	OFF	Flash	Always on	Always on	OFF	OFF	OFF	Always on	Always on	Always on
	51-66%	OFF	OFF	Flash	Always on	Always on	Always on	OFF	OFF	Always on	Always on	Always on	Always on
	67-83%	OFF	Flash	Always on	Always on	Always on	Always on	OFF	Always on	Always on	Always on	Always on	Always on
	84-100%	Flash	Always on	Always on	Always on	Always on	Always on	Always on	Always on	Always on	Always on	Always on	Always on
Running indicator		Always on						Flash					

1.8 Status indication

System status	Running status	RUN	ALM	Electricity indication						Mark	
											
Shutdown	Hibernate	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Standby	Normal	Flash	OFF	Based on the electricity indication						Standby status	
	Alarm	Flash	OFF	Based on the electricity indication						Module low voltage	
Charge	Normal	Always on	OFF	Based on the electricity indicator (the highest electricity indicator LED flashes2)						Highest electricity LED flashes (flash 2), ALM won't flash when overcharge	
	Alarm	Always on	OFF	Based on the electricity indicator (the highest electricity indicator LED flashes2)						Highest electricity LED flashes (flash 2), ALM won't flash when overcharge	
	Overcharge protection	Always on	OFF	Always on	Always on	Always on	Always on	Always on	Always on	If not utility connected, indicator turn to standby status	
	Temperature, overcurrent protection, fail-safe.	OFF		OFF	OFF	OFF	OFF	OFF	OFF	OFF	Stop charging
Discharge	Normal	Flash	OFF	Based on the electricity indication							
	Alarm	Flash	OFF	Based on the electricity indication							
	Under voltage protection	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Stop charging
	Temperature, overcurrent, short circuit, reverse polarity protection fail-safe.	OFF	Always on	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Stop charging
Failure		OFF	Always on	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Stop charging, discharging

1.9 Display Settings description

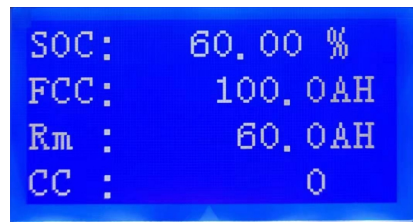


-  Menu
-  Enter
-  Down
-  Return

Home Screen

1. Analog Info

This option allows you to view the total battery voltage, total current, current capacity, and State of Charge (SOC).



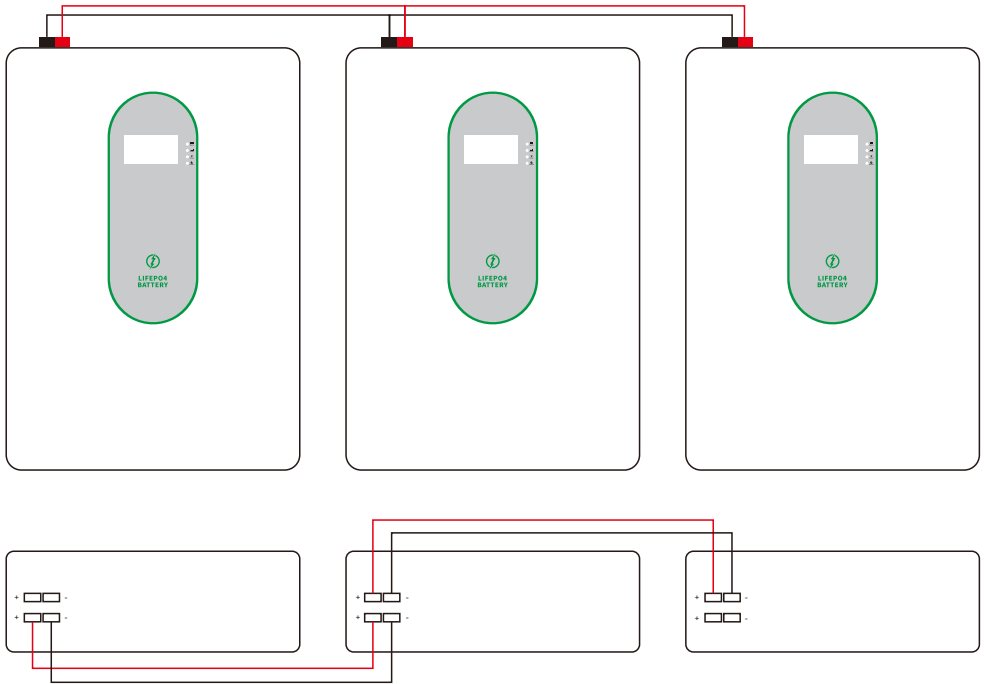
2. BMS Status

To view the BMS status.

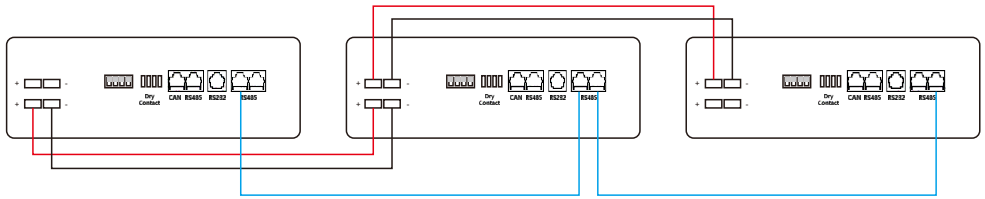


1.10 Multi-machine parallel operation

Use an Anderson twin plug power cable to connect to any power interface on the battery, and set the DIP switch as shown in the figure below.



After the batteries are connected in parallel, set the online communication, use the RS485 network cable, connect to the communication port of the battery and set the DIP switch.



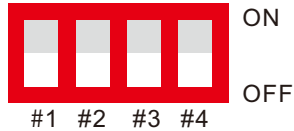
— Battery wire (positive)

— Battery wire (negative)

— Communication line

1.11 Parallel DIP switch definition

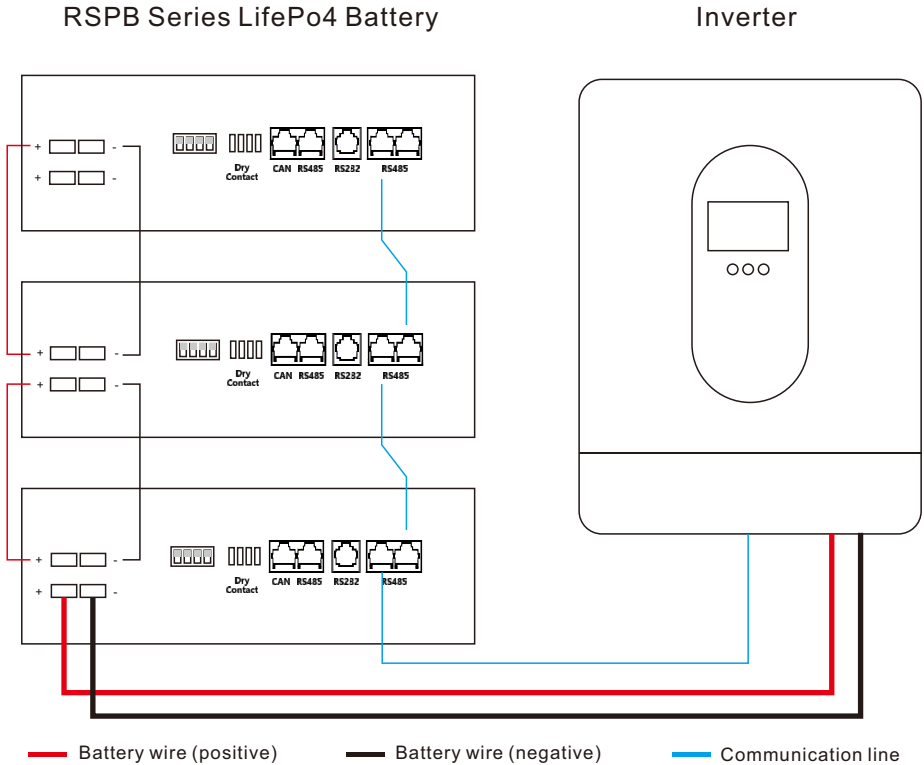
For multi-machine communication when the battery Pack is in parallel, the DIP switch can be used to distinguish different pack addresses. (A maximum of 15 groups of parallel devices are supported.) Parallel address Settings: For the definition of DIP switches, see the following table.



Address	Position of DIP switch				Instruction
	#1	#2	#3	#4	
0	OFF	OFF	OFF	OFF	stand alone use
1	ON	OFF	OFF	OFF	Pack1
2	OFF	ON	OFF	OFF	Pack2
3	ON	ON	OFF	OFF	Pack3
4	OFF	OFF	ON	OFF	Pack4
5	ON	OFF	ON	OFF	Pack5
6	OFF	ON	ON	OFF	Pack6
7	ON	ON	ON	OFF	Pack7
8	OFF	OFF	OFF	ON	Pack8
9	ON	OFF	OFF	ON	Pack9
10	OFF	ON	OFF	ON	Pack10
11	ON	ON	OFF	ON	Pack11
12	OFF	OFF	ON	ON	Pack12
13	ON	OFF	ON	ON	Pack13
14	OFF	ON	ON	ON	Pack14
15	ON	ON	ON	ON	Pack15

1.12 Connect the inverter signal communication

RSPB series lithium iron phosphate batteries can support up to 16 units in parallel and support communication with the inverter. Through the protection function of the protection board, the voltage difference can be automatically adjusted to balance the battery output, support multiple protection functions such as overvoltage and low voltage, overcurrent and overcharge, and support upper computer software control.



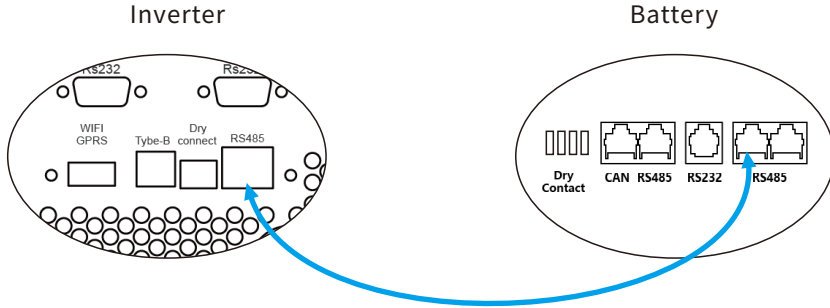
Power wire diameter

Due to the large passing current, it is necessary to make reasonable calculations and use power cords with appropriate wire diameters to connect the battery and the inverter. If smaller wires are used, the battery discharge will not meet the demand and may potential safety hazards.

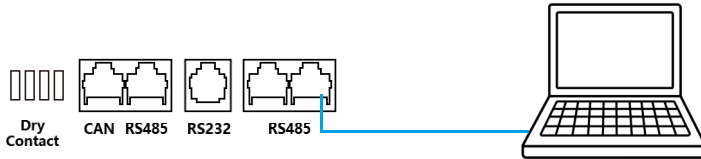
Battery maximum output current	suitable cable
Peak current 100A	20mm ² copper cable

1.13 Connect the inverter communication settings

1. Connect the communication interface of the inverter to the communication interface of the battery.



2. Select the number in the upper computer software to set the communication protocol corresponding to the brand. For details, please refer to (Communication Protocol Configuration Table).



1.14 Communication protocol configuration table

	Inverter Brand
CAN	001-PYLON CAN Inverter EMS
	002-Growatt CAN LV V1.05-2019.08.28
	010-Victron CAN 2021.01.07
	015-Schneider CAN V2.0
	012-Luxpowertek CAN V1.0-2020.02.11
	013-Sorotec CAN Inverter V1.0
	017-SMA CAN V2.0(SMA)
	007-GoodWe CAN Inverter LV V1.7-2020.02.28
	035-STUDER CAN V1.02-2018.06.14
	030-MUST CAN PV1800F
	014-GINLONG CAN LV V1.0-2019.12.28
	028-Senergy CAN V1.1-2022.05.10
	033-TBB CAN V1.05-2021.04.20
031-MEGAREVO CAN Inverter LV V1.1	

	Inverter Brand
RS485	036-WOW RS485 Modbus V1.3-2017.06.27 (Reach Power) (default)
	000-PACE RS485 Modbus V1.3-2017.06.27
	001-PYLON RS485 LV V3.5-2019.12.23--9600
	002-Growatt RS485 V2.02-2019.07.24
	003-Voltronic RS485 Inverter V1.5-2022.01.18
	012-Luxpowertek RS485 Inverter V0.3-2020.07.06
	015-Schneider V2.0.pdf

1.15 Packing list

Item	Number	Unit	Remark
Specification	1	Copies	
Cable	1	Item	1.5 meter Ethernet cable with crystal heads on both ends
Power cord	1	Harness	Single ended Anderson plug with a wire length of 0.9 meter
Holder	1	Harness	Metal support
Delivery report	1	Copies	

2. Installation instructions

Ensure that the installation position meets the following conditions:

When installing the battery by wall mounting, you need to pay attention to the choice of the wall, must choose the concrete wall is required, and the wall is at least 10 cm thick.

- 1) This area is completely waterproof.
- 2) The floor is flat.
- 3) There are no flammable or explosive materials
- 4) The ambient temperature ranges from 0°C to 50°C.
- 5) Temperature and humidity are kept at a constant state.
- 6) Avoid dust and dirt in this area.
- 7) The distance from the heat source is more than 2 meters.
- 8) The distance between the inverter air outlet is greater than 0.5 m.
- 9) Keep the installation area away from direct sunlight.
- 10) There is no mandatory ventilation requirement for battery installation, but please avoid installing them in confined areas. Aeration should avoid high salinity, high humidity or high temperature.

If the environment temperature exceeds the operating range, the battery stops working to protect itself. The optimum operating temperature range for the battery pack is operating from 10°C to 40°C. Regular exposure to harsh temperatures can worsen battery performance and lifespan.

3. Troubleshooting

1. Communication-related issues, unable to communicate with the inverter in the compatibility list (make sure the inverter is not faulty first).

possible reason:

- 1) The corresponding communication protocol number is not selected.
- 2) If the cable is damaged, please contact your local dealer.
- 3) If the BMS fails, please contact your local dealer.

2. Function-related issues

- 1) The battery cannot be turned on.
- 2) If the battery is turned on, check whether the red light is flashing or red light stayed on.
- 3) If the red light does not light up, please check whether the battery can be charged/discharged.

possible reason:

1) The battery cannot be turned on, and the power button light does not light up or flashes.

a) The capacity is too low, or the module is over-discharged.

>Solution: Use a charger or inverter to provide 48-53.5V voltage. If the battery can start, continue charging the module.

And use monitoring tools to check the battery.

If the battery terminal voltage is $\leq 45\text{Vdc}$, please use $\leq 0.05\text{C}$ to charge the module slowly to avoid affecting SOH. If the battery is discharged Voltage $> 45\text{Vdc}$, can be charged with $\leq 0.5\text{C}$.

If the battery won't start, turn off the battery and have it serviced.

2) The battery can be turned on, but the red light is on and cannot be charged or discharged. If the red light is on, it means the system is abnormal, please check the following values.

b) Temperature: Above 60°C or below -10°C , the battery cannot work.

>Solution: Move the battery to its normal operating temperature range between 0°C and 50°C .

c) Current: If the current exceeds 100A, battery protection will be turned on.

Solution: Check whether the current is too high, if so, change the power settings.

d) High voltage: If the charging voltage is higher than 54V, the battery protection will be on.

>Solution: Check whether the voltage is too high. If it is too high, change the settings of the power supply. and discharge the module.

e) Low voltage: When the battery is discharged to 44.5V or lower, the battery protection will turn on.

Solution: Maintain 53-54V to charge the module or keep the system cycling. BMS can balance the battery during cycling.

3) It cannot be charged or discharged when the red light is on. The temperature is $0\sim 50^{\circ}\text{C}$. It cannot be charged with a charger and cannot be discharged with a load.

>Solution: Turn off the module and contact your local dealer for repair.

g) Permanent protection. The single cell voltage is higher than 4.2 or lower than 1.5 or the temperature is higher than 80°C .

4) If the red light is out, it cannot be charged or discharged, and the temperature is 0~50°C. It cannot be charged with a charger and cannot be discharged with a load.

h) The fuse is broken.

>Solution: Turn off the module and contact your local dealer for repair.

5) All LEDs flash

i) High voltage protection.

The cell voltage is higher than 4V or the module voltage is higher than 64V.

>Solution: The battery system needs to properly establish communication with the inverter and set up the inverter correctly to operate safely. Check the inverse.

According to the settings of the inverter or charger, the charging voltage should be 51.2~58.4 Vdc; check whether the communication between the battery system and the inverter is established; check whether the battery module is set up correctly; in this case, the BMS will still work normally without damage. Just close module.

6) Red light stayed on

j) The cable is reversely connected.

Solution: Turn off all batteries and inverters. Check cable connections and disconnect all power cords. Check whether the power interface is damaged.

Then try turning on a single module without any cables connected. If there is no alarm, the cable is connected reversely. Close the module and contact your local dealer.

k) failed.

>Solution: Turn off all batteries and inverters. Check cable connections and disconnect all power cords. Check whether the power interface is damaged.

Check the settings of the inverter or charger and check the communication between the inverter and battery system. Try opening a single module, not connecting Any cable.

If the red light is still on. Then switch off the module and contact your local dealer.

7) After starting up, the module will shut down directly.

l) BMS failure.

>Solution: Turn off the module and contact your local dealer.

In addition to the above points, if the fault still cannot be eliminated, please turn off the battery and contact your local dealer.

4. Symbol

	Caution! Warning! Reminding! Safety related information.Risk of battery system failure or life cycle reduces.
	Do not reverse connect the positive and negative port.
	Do not place near open flame.
	Do not place at the children or pet touchable area.
	Warning electric shock.
	Warning Fire.Do not place near flammable material
	Read the product and operation manual before operating the battery system!
	Grounding.
	Recycle label.

4.1 Safety Precautions

- 1) Before installing or using this product, be sure to read the product manual carefully and strictly abide by the contents of the manual, otherwise it may cause.
Cause electric shock, damage to the battery, inoperability, serious injury or death, etc.
- 2) If the battery is stored for a long time, it needs to be charged every six months, and the SOC should not be less than 90%.
- 3) The battery needs to be recharged within 12 hours after being completely discharged.
- 4) Do not install the product in an outdoor environment outside the operating temperature or humidity range listed in the manual.
- 5) Do not leave the cable exposed.
- 6) Do not connect the power terminals reversely.
- 7) Please be sure to disconnect all power terminals for maintenance.
- 8) If any abnormality occurs, please contact the supplier within 24 hours.
- 9) Do not use cleaning solvents to clean the battery.
- 10) Do not expose batteries to flammable or harsh chemicals or vapors.
- 11) Do not paint any part of the battery, including any internal or external components.
- 12) Do not connect the battery directly to the photovoltaic solar circuit.
- 13) It is prohibited to insert any foreign objects into any part of the battery.
- 14) The scope of warranty claims does not include damage caused directly or indirectly by the above content.

4.2 Before connecting

- 1) After unpacking, please check whether the product and accessories are missing or damaged.
If the product is damaged or missing parts, please contact the local retailers.
- 2) Before installation, be sure to cut off the power grid and ensure that the battery is in off mode.
- 3) The wiring must be correct, do not mix the positive and negative cables, and ensure that there is no short circuit with external equipment.
- 4) It is prohibited to directly connect the battery to the AC power supply.
- 5) The embedded BMS in the battery is designed for 48VDC, please do not connect batteries in series.
- 6) The battery must be grounded and the resistance must be less than 0.1Ω.
- 7) Please ensure that the electrical parameters of the battery system are compatible with related equipment.
- 8) Keep the battery away from water and open flames.

4.3 In use

- 1) If the battery system needs to be moved or repaired, the power supply must be cut off and the battery must be completely shut down.
- 2) It is prohibited to connect the battery with different types of batteries.
- 3) It is prohibited to connect the battery to a faulty or incompatible inverter.
- 4) It is prohibited to disassemble the battery.
- 5) In the event of a fire, use a dry powder fire extinguisher to extinguish the fire
- 6) Please do not open, repair or disassemble the battery except for Reach Power professional technicians and relevant authorized personnel.

We are not responsible for the consequences of any violation of safe operation or design, production and equipment safety standards.

5. Safe use guide

5.1 Charging and Discharging Precautions

1. Charging precautions:

- Use a charger specifically designed for lithium iron phosphate batteries to charge, ensuring that the voltage and current of the charger match the battery requirements.
- During charging, always monitor the temperature of the battery. If the temperature rises abnormally, stop charging immediately and contact a professional.
- Do not overcharge the battery. Once the battery is fully charged, unplug the charger promptly.

2. Discharge precautions:

- Avoid over-discharging the battery. When the battery power drops below the recommended minimum limit, stop using and recharge.
- Do not leave the battery in a fully discharged state for a long time, as this may cause damage to the battery.
- During the discharge process, if the battery is abnormal, stop using it immediately and consult a professional.

5.2 Temperature requirements

1. Charging temperature requirements:

- During charging, make sure the ambient temperature is within the recommended range. Generally, the charging temperature of lithium iron phosphate batteries should be between 0°C and 45°C.
- Avoid charging at extreme temperatures, such as below 0°C or above 45°C, which may affect battery performance and life.

2. Discharge temperature requirements:

- During the discharge process, ensure that the ambient temperature is within the recommended range. Generally, the discharge temperature of lithium iron phosphate batteries should be between -20°C and 60°C.
- Avoid discharging at extreme temperatures, such as below -20°C or above 60°C, which may negatively affect battery performance and safety.

5.3 Avoid physical damage

1. Avoid excessive impact or crushing:

- When using and carrying the battery, avoid exposing it to excessive impact or crushing. This may cause the battery case to crack, causing battery failure or leakage.
- Use a special protective case or case to protect the battery, especially when carrying it, to ensure that it is not subject to external pressure or impact.

2. Prevent excessive bending or bending:

- Avoid bending or bending the battery excessively as this may cause damage to the internal structure of the battery, affecting its performance and safety.
- When storing and carrying batteries, use specialized battery boxes or packaging to maintain the shape and integrity of the battery.

5.4 Avoid short circuit

1. Avoid metal contact:

- When carrying or storing the battery, avoid contact with metal objects such as keys, coins or other metal objects. These objects may cause the positive and negative terminals of the battery to short-circuit, causing danger.
- Use a special battery box or packaging to protect the battery and make sure it is isolated from other metal objects.

2. Avoid damaging the battery casing:

- Avoid damaging the casing such as scratches, cracks or deformation while using or carrying the battery. These damages can expose internal components of the battery, increasing the risk of short circuits.
- Use a special protective case or casing to protect the battery, especially when carrying it, and make sure its casing is intact.

3. Pay attention to correct installation and use:

- When installing the battery, ensure that the positive and negative poles correspond correctly, and avoid placing the battery upside down or installing it unstably.
- Use the correct charger and device, follow the instructions in the instruction manual, and ensure that the battery is firmly connected to the device.

5.5 Avoid overheating

1. Control charging temperature:

- Use a charger that meets the requirements for lithium iron phosphate batteries and make sure the voltage and current of the charger match the battery.
- During the charging process, monitor the temperature of the battery. If the temperature rises abnormally, stop charging immediately and contact a professional.

2. Avoid overcharging:

- Do not connect the battery to the charger for a long time. Once the battery is full, please unplug the charger in time to avoid overcharging and overheating.

3. Control the discharge temperature:

- During the discharge process, avoid overheating of the battery. If the battery becomes hot or abnormal, stop using it immediately and consult a professional.

4. Avoid high temperature environment:- Try to avoid exposing the battery to high temperature environments, such as direct sunlight, near fire sources, or in a closed car.

High temperatures can cause the battery to overheat, be damaged, or even cause a fire.

5.6 Waste battery disposal methods

1. Classification and collection:

- Discarded lithium iron phosphate batteries should be properly classified and collected separately from other waste. Please follow local waste management regulations and guidance.

2. Delivery to professional institutions:

- Discarded lithium iron phosphate batteries should be delivered to a professional waste disposal agency or recycling center for disposal.
- Do not throw away used batteries or throw them into ordinary trash cans to avoid potential harm to the environment and health.

3. Battery recycling:

- If the battery (in normal condition or damaged) needs to be disposed of or recycled, it should be in accordance with local recycling regulations.

Recycled batteries can be sent to battery recycling sites through special recycling channels.

4. Safe transportation:

- Before delivering discarded batteries to a professional organization, appropriate safety measures should be taken, such as packaging the battery well to avoid short battery life. Road or damage.

TERMS & CONDITIONS OF WARRANTY

We provide a nationwide warranty for the following periods, from the date of purchase:

3 years on Lead Acid Battery RBL12 Model

5 years on Plastic shell lithium battery RSPS12/24 Model

5 years on Wall-mounted lithium battery RSPS48 Model

The company is responsible for replacing the battery if it is proved that the defects of the battery are caused by the manufacturing process of our company, but not by the abuse or misuse of the customers.

At RLD Limited we are committed to total customer satisfaction and we take great pride in the batteries that we manufacture. We warrant that this product is free from defects in materials and workmanship affecting its normal use, and is in conformity with the relevant specifications the warranty period, subject to the following:

1. Warranty Period: Comprises of FREE REPLACEMENT and PRO-RATA. The label on every RLD battery specifies the total number of months covered by the free replacement period and the Pro-Rata period for batteries fitted in private cars, multi-utility vehicles, two-wheelers, inverters, gensets and solar applications.

i. In all cases the warranty is applicable from the date of sale to the original purchaser.

ii. For a battery being replaced on Free of Cost basis the warranty commences from the date of sale of the original battery as stated in the original Warranty Card/Sticker and not from the date of replacement given.

iii. For batteries purchased on pro-rata warranty settlement discount, a fresh warranty is applicable from the date of purchase.

2. In the event of any complaint, the battery must be returned untampered & complete to the Company's Authorised Dealer, Wholesaler or Depot in China along with the Warranty Claim Form.

Delivery of the replaced/rectified/discounted battery will be F.O.R. to the same point.

3. The Warranty Claim Form comprises of a four-fold page that needs to be filled up completely as indicated below:

i. Record of Purchase (pages 1/3, 2/3 & 3/3) at the time of purchase.

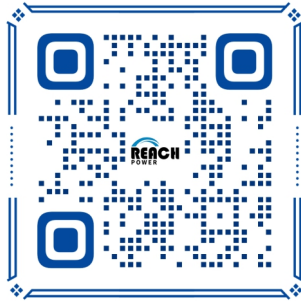
ii. Redemption Record at the time of complaint.

4. A photocopy of the Warranty Claim Form (four fold page) should accompany all claims arising within the warranty period. Tampering or overwriting on Barcode Sticker will invalidate the warranty claim.

5. The Service Record in the Warranty Booklet must be filled in regularly by an authorised dealer of the Company as proof of specified maintenance. Without the record, your claim if any, is liable to be held invalid.
6. Our batteries are warranted against all defects arising solely from the use of faulty material or poor workmanship.
Consequential liabilities will not be entertained.
7. The right to determine whether a battery needs repair, rectification, free replacement or pro-rata settlement rests with the Company.
8. The defective battery arising out of the free replacement or pro-rata settlement under this warranty will become the property of the Company and no scrap rebate will be given for it.
9. All liabilities under this Warranty shall cease if:
 - i. The battery has been operated in an application that it was not designed for and/or marketed to support/Company's Application Chart.
 - ii. Battery has been refilled with additives, dopes or any other substance besides distilled water that may have contaminated the battery.
 - iii. Damaged due to fitment of additional accessories in vehicle other than the original fitment.
 - iv. Out of Warranty Period.
10. This warranty can be denied on merely discharged batteries and for batteries damaged due to abuse or neglect but not limited to the following:
 - i. Damages to the battery caused by accidents, fire, faulty electrical systems, improper handling, service of battery by unauthorised dealers/auto electricians, wilful abuse, destruction by fire, collision, theft or recharging.
 - ii. Breakage of container and cover or breakage/deformation of terminal due to mechanical shock like hammering.
 - iii. Damage to the battery due to contamination of electrolyte. The electrolyte used must be pure dilute sulphuric acid conforming to IS specification number 266-1961. For topping up purposes pure distilled water conforming to IS specification number 1069-1964 must be used.
 - iv. Failure of battery due to deep discharge, overcharge or improper topping up.
 - v. Solar batteries are not connected through a charge controller to the Solar Panel.
 - vi. Failure of a battery due to inadequate recharging and not as per the recharging parameters mentioned in the product leaflet (solar/inverter batteries).
 - vii. Batteries are operated in discharged condition for long periods.
 - viii. Inverter/solar inverter/charge controller 'lower cut-off' voltage is not working or has been tampered with leading to deep discharged state.
11. In the event of any particular battery model being phased out, the Company reserves the right to provide another model of the same capacity suited to the vehicle, as settlement of Warranty.

12. In case a service battery is issued, it must be returned within 15 days, failing which a nominal charge per day will be levied.
 13. The charging system & electrical circuit of the vehicle/genset/inverter/charge controller shall be checked by the Company's authorised personnel or dealer before finalising settlement of any Warranty Claim. Recharging of battery shall be billed as extra.
 14. Adjudication and settlement of claim will take a couple of days as the battery has to be tested for the reported failure.
 15. Any octroi duty or local tax which becomes leviable on the battery under repair or replacement shall be borne by the customer.
 16. Customers are deemed to have read, understood and agreed to these conditions at the time of purchase.
 17. All disputes or differences arising out of use of battery shall have exclusive jurisdiction of Shenzhen Longhua District People's Court.
- For terms and conditions you can also check the warranty table given with the warranty card. Please refer to the application chart available at the respective purchase counters for recommended fitment.

The right to interpret these service terms belongs to
Dongguan Ruilida New Energy Co., Ltd.



DONGGUAN RUILIDA NEW ENERGY CO.,LTD