



# 12.8V 100Ah Lithium Iron Phosphate Battery



## USER MANUAL

Model: LIPB-12V100AH



# 12.8V 100Ah Lithium Iron Phosphate Battery

Thank you for purchasing the Callsun 12.8V 100Ah Lithium Iron Phosphate Battery (hereinafter referred to as the "battery"). Before using the battery, please carefully read this manual. Once you use this product, it will be deemed that you fully acknowledge and accept all the contents of this manual. Please strictly follow the instructions in this manual when using this product and pay close attention to the precautions.

We are not responsible for any direct or indirect losses or injuries caused by improper use of the battery, including but not limited to short-circuiting the product, overheating, inserting foreign objects, disassembly, throwing, heavy pressure, crush, puncture, over charge and using low-quality/ incompatible chargers, etc.



*Please confirm in advance whether the parameters of this battery match the specifications of your equipment. Failure to meet these specifications may result in damage to the products.*

## ⚠ Electrical Safety Precautions

1. Before charging, please ensure the charger is compatible with LiFePO<sub>4</sub> batteries. Please don't use low-quality/ incompatible chargers, that may result in overheating, burning, or explosion.
2. Do not short-circuit. Short-circuits can lead to overheating, fire and other hazards.
3. Do not reverse polarity. Reversing the polarity of the battery during charging or discharging can be dangerous.
4. Do not overcharge or over discharge the battery.
5. When connecting batteries in parallel or series, ensure they are of the same brand, capacity, voltage, charge level, chemistry, and cycle life. Do not charge or discharge batteries with differing brand, capacity, voltage, charge level, chemistry, and cycle life in the same circuit. Variations in their electrochemical properties can lead to imbalances in voltage and current distribution during use, leading to uneven charging, significant energy loss, or potential safety hazards.
6. Please don't use the battery outside the specified conditions, such as charging, discharging, and ambient temperature, this can accelerate its deterioration. Therefore, please use the battery within the designated range.
7. When storage, please disconnect all cables to prevent potential power consumption and hazard.

## ⚠ Use and Storage Environment Safety Precautions

1. Please avoid placing the battery in an environment exceeding 140°F (60°C) or with humidity exceeding 80%RH. Please place it at temperatures between 23°F and 95°F, humidity below 75%RH. Maintain the battery in a dry and well-ventilated environment.
2. Place the battery on a stable surface during use.
3. If the battery is installed in a location prone to vibration, implement anti-vibration measures to prevent damage to the battery components from prolonged vibrations.
4. Do not allow minors to access this product.

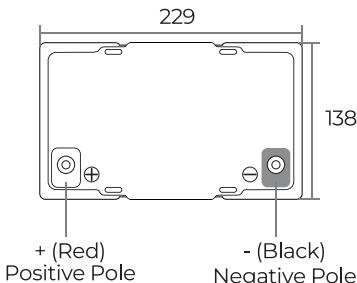
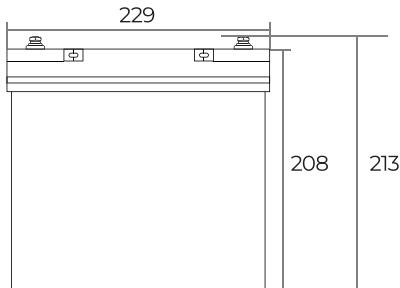
## ⚠ Physical and Fire Safety Precautions

1. Never attempt to disassemble, insert foreign objects, damage, puncture, crush or modify the unit, as this may lead to unforeseen risk.
2. Avoid dropping, placing heavy objects on, or subjecting this unit to strong impacts.
3. Keep the battery away from heat sources, liquid, oil, flammable gases, corrosive substances, combustible materials and other hazardous materials.
4. Please don't cover the device with towels, clothing and other items when charging and discharging to avoid overheating.
5. Stop using it immediately if it begins to smoke, emits a strange smell, battery leaks or distorts in any way.
6. In the event of a fire, use a dry powder fire extinguisher for proper firefighting.

## Product Maintenance

Due to the chemical reaction principle of the battery, its performance will still degrade over time, even when stored without use for an extended period. So please store the battery at 75% capacity and recharge it every 6 months to prevent the battery from entering a dormant state, ensuring optimal battery performance and longevity.

## Product Interface Introduction



\* Unit: mm, Tolerance: ±2mm.

## Electrical Parameters

Nominal Voltage	12.8V
Cell Type	Lithium Iron Phosphate Battery (LiFePO <sub>4</sub> )
Cell Grade	Grade A
Nominal Capacity	100Ah
Nominal Energy	1280Wh
BMS Functions (Main)	Over-voltage protection, over-current protection, over-temperature protection, balancing function.
Parallel Use	<ul style="list-style-type: none"><li>• A maximum of four groups can be connected in parallel.</li><li>• When used in parallel, the voltage difference between batteries should be less than 0.1V.</li><li>• Parallel usage rate: Max. 0.5C charge / Max. 1C discharge.</li></ul>
Series Use	<ul style="list-style-type: none"><li>• A maximum of four groups can be connected in series.</li><li>• When used in series, the voltage difference between batteries should be less than 0.1V.</li><li>• Series usage rate: Max. 0.5C charge / Max. 1C discharge.</li></ul>
<b>Notice:</b> <ul style="list-style-type: none"><li>• When connecting batteries in parallel or series, ensure they are of the same brand, capacity, voltage, charge level, chemistry, and cycle life.</li><li>• Before connecting batteries in series or parallel, ensure that different batteries are fully charged and that their voltage and capacity are consistent.</li><li>• If the batteries are not used for more than a month after being connected in series or parallel, disconnect the circuit and charge each battery individually until fully charged, then reconnect them. This helps prevent voltage and current imbalances caused by self-discharge.</li></ul>	

## Charge Parameters

Max Charge Voltage	14.2V
Float Charge Voltage	13.6V
Max. Charge Current	100A
Standard Charge Current	20A
Charge Temperature	32°F ~ 131°F (0°C, ~ 55°C)
Charging must not exceed the maximum voltage and current specified in this manual, and the charging temperature must adhere to the temperature range outlined in this manual.	

## Discharge Parameters

Max. Continuous Discharge Current	100A
Standard Continuous Discharge Current	20A
Peak Discharge Current	300A (<5s)

End-of-discharge Voltage	10.0V (Recommended shutdown voltage for the device: 10.8V-11.2V)
Discharge Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Discharging must not exceed the maximum voltage and current specified in this manual, and the charging temperature must adhere to the temperature range outlined in this manual.	

## Mechanical Parameters

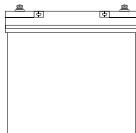
Dimission	L: 229mm±2mm W: 138mm±2mm H : 208mm±2mm (H Including Terminals: 213mm±2mm)
Net Weight	21.38lb ± 5% (9.7kg ± 5%)
Shell Material	ABS
Terminal Diameter	M6
IP Rating	IP65

## Environmental Protection Tips

Do not dispose of used batteries as household waste. Follow local environmental regulations for proper battery disposal.

## Packing List

❶ 12.8V 100Ah Lithium Iron Phosphate Battery × 1



❷ User Manual × 1



## Warranty Policy

We provide a 5-year warranty service for this product. Within 5 year from the date of purchase, if the product experiences faults under normal usage, please apply for warranty with the purchase receipt.

The following situations are not covered by the warranty:

1. Cosmetic flaws caused during use.
2. Product malfunctions resulting from self-disassembly, repairs, or human-induced causes.

3. Damages caused by uncontrollable factors such as natural disasters, thunderstorms, accidents, and the like.

#### **Warranty Application Process:**

1. Please contact our customer service team, providing the purchase receipt and a detailed description of the issue.
2. Our customer service team will assist you in submitting the necessary information and documents.
3. After confirmation, we will provide you with an appropriate warranty solution.

If you have any questions or need assistance, please feel free to reach out to us via the following email: ***callsun-service@outlook.com***

---

#### **Shenzhen Guangchuxinneng Technology Co., Ltd.**

Address: Unit 223, Building 1, Mingliang Technology Park, No. 88 Zhuguang North Road, Taoyuan Street, Nanshan District, Shenzhen, Guangdong Province, China