

LifePO4 LITHIUM ION HIGH PERFORMANCE

POWER LITHIUM



Overcharge Protection



Can Be Parallel Connected



With Integrated Cell Balancing



Over Discharge Protection



Overcurrent Protection



Balance Functionality



Short Circuit Protection



Overvoltage Protection



Extreme Temperature Protection



Environmentally Friendly



UN 38.3



IEC 62619



ISO 9001



ISO 14001

1. Safety precautions

1. Applicable Range

This product specification applies to lithium iron phosphate battery products provided by our company. The product we provide (and which is described in this manual) complies with the requirements of the IEC62133 standard.

2. Battery Maintenance

Upon purchasing the battery, User should check the basic function first, and make sure no damage occurred during transport. Please test the battery voltage, charging function, discharge function, and display function; if there are any anomalies, please stop installation and notify us immediately.

To prolong their lifecycle, charge batteries when their capacity is low. If batteries are not charged during this time and they are left in a deficient state for a prolonged period, this will adversely affect the battery life. If those batteries will not be used for a long time, keep them at half-capacity and float-charge the battery every two months, for one hour each time.

The battery should be installed in a dry, clean, and well-ventilated area, while avoiding ignition sources and proximity to flammable materials. Be sure to disconnect the load (i.e., turn off the electrical equipment) during charging.

The working temperature of the battery is 5°C –60°C. (Optimal working temperature is 5°C – 35°C.) Outside this temperature range, the performance of the battery may change. Under such circumstances, it is normal for the capacity or the equipment operating time to change.

Avoid cleaning the battery case with organic solvents.

If an accident occurs, do not use carbon dioxide to extinguish the fire; instead, use carbon tetrachloride or sand to extinguish it.

3. Precautions for Use

- Always follow operating instructions.
- Do not disassemble, crush, or puncture a battery.
- Do not short the external contacts on a battery.
- Do not expose the battery to fire or water.
- Do not expose the battery to temperatures above 60 °C
- Do not expose the battery to temperatures below -20 °C
- Keep the battery away from children.
- Always secure the battery with a mount or tie down.
- Avoid exposing the battery to excessive shock or vibration.
- Do not use a damaged battery.
- Always charge in a well ventilated area.
- Do not charge in environments above 45°
- Do not exceed maximum rated charge current.
- Do not exceed maximum charge voltage.
- Only use chargers designed to charge LiFePo4 batteries.
- Always recharge the battery after each use.
- Avoid deep discharging.
- Check connections are clean and tight periodically.
- Do not use any chemicals, solvents or abrasive cleaners.
- Charge or discharge the battery to approximately 60% of capacity before storage.
- Charge the battery to approximately 60% of capacity at least once every six months.
- Remove the battery and store it separately from the product or disconnect from application when not in use.
- Store the battery at temperatures between 5 °C and 35 °C
- Do not dispose of a battery in fire or water.
- Always check and follow your local applicable regulations before disposing of any battery.

4. Precautions for Transportation

The battery pack is suitable for transportation modes such as automobiles, trains, and airplanes. However, during the transportation process, sun, rain, and severe vibrations should be avoided.

The battery pack should be packaged with insulating and shock-proof material, and labeled as “fragile,” so as to preclude damage caused by bumps during transportation.

To avoid inflicting damage on the battery pack, do not place heavy objects on the battery pack during transportation.

During transportation, do not pack the battery pack with flammable or explosive materials, or with sharp metal objects.

5. Storage

The battery should be stored at a temperature of 5°C~35°C, and at a relative humidity $\leq 90\%$; additionally, the storage environment should be clean, dry, and well-ventilated. Avoid contact with corrosive substances and keep away from fire and heat sources. To prevent the battery from over-discharging, it is recommended that the battery be charged every two months, for one hour each time.

Safety Guideline Automatic Shutoff & Restart

LFP12.8V300AH-ESC

BMS Function	Automatic Shutoff	Recovery and Automatic Restart
Over Charge Voltage	Cell $\geq$ 3.65V or Pack $\geq$ 14.6V @ 2S	Cell $\leq$ 3.4V; Pack $\leq$ 13.6V
Over Discharge Voltage	Cell $\leq$ 2.3V or Pack $\leq$ 9.2V @2S	Cell $\geq$ 2.6V; Pack $\geq$ 10.4V
Over Charge Current	240A for 500mS; 320A for 1000mS; 400A for1500mS	Turn off the charger
Over Discharge Current	1000A for 5mS or 1350A for 10mS	Turn off load or Start charging
High Temperature on Charge	≥ 55	$\leq$ 45
High Temperature on Discharge		$\leq$ 53
Low Temperature on Charge	≤ -10	≥ -3
Low Temperature on Discharge	≤ -20	≥ -10
Short Circuit	$\leq$ 3500A, 200uS	Remove load