

LiFePO4 Battery

SPECIFICATION

| | |
|----------|-------------|
| Type | 12V25AH LFP |
| Prepared | |
| Checked | |
| Approved | |

| Customer Confirmation | |
|-----------------------|---------------|
| Checked/Date | Approved/Date |
| | |

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1 Scope

This product specification describes LiFePO₄ battery. Please use the test methods that recommended in this specification. If you have any query, please contact us. Please read the cautions mentioned in the specifications carefully at first.

If the cells should be used at the environment that not preferred in this document, please contact our local supplier for help and get permission.

It is claimed that we are free of any responsibility with the contingency and loss due to the cells' wrong usage (not preferred in the product specification)

2 Specification

2-1 General

| No | Item | Specifications | Remark |
|----|---------------------------|--|--|
| 1 | Nominal Capacity | 25Ah±5% | 25°C 0.05C _{20A} discharge, 25°C |
| 2 | Nominal Voltage | 12.8V | OCV |
| 3 | Charge Current | Standard: 0.2 C _{20A} ; Max: 0.5C _{20A} | Working temperature: 0~45°C |
| 4 | Charge cut-off Voltage | 15.2±0.05V | |
| 5 | Discharge Current | Standard: 0.05 C _{5A} ; Max: 2 C _{5A} | Working temperature:25°C |
| 6 | Discharge cut-off Voltage | 9.6V | |
| 7 | Voltage | 12.8~13.6V | Shipment status |
| 8 | Impedance | ≤22mΩ | 50% SOC at 25°C |
| 9 | Weight | Approx:3.05kg | |
| 10 | Dimension (mm) | <u>181×77×170</u> | Approx |

2-2 General Performance

Standard charge:

Charge battery pack with specific charger, 0.2 C₂₀A constant Current/constant voltage to 15.0V at 23±2°C

| 项目 Item | 测试方法 Test Methods | 指标 Performance |
|---------------------------------|--|----------------|
| 1 容量 Capacity | 标准充电后，静置 0.5 小时，然后以 20h 率电流放电到 9.6V 的放电时间。 After standard charging, laying the battery 0.5h, then discharging at 0.05C ₂₀ A to voltage 9.6V, recording the discharging time. | ≥20h |
| 2 1C 容量 1C Capacity | 标准充电后，静置 0.5 小时，然后以 1 C ₂₀ A 放电到 9.6V 的放电时间。 After standard charging, laying the battery 0.5h, then discharging at 1C ₂₀ A to voltage 9.6V, recording the discharging time. | ≥51min |
| 3 -10°C 容量 -10°C Capacity | 标准充电后，在 -10°C 环境中静置 4 小时以上，然后以 0.05C 放电到 8.0V 的放电时间。 After standard charging, laying the battery in -10°C more than 4h, then discharging at 0.05C ₂₀ A to voltage 8.0V recording the discharging time. | ≥12h |

2-3 PCB Parameter

| Item | 值 Specifications | Model |
|---|----------------------|-------|
| Over charged Protect Voltage | <u>3.65± 0.025V</u> | |
| Over charged Protect Delay time | <u>0.5S-1.5S</u> | |
| Over charged Protect Relieve Voltage | <u>3.50 ± 0.05 V</u> | |
| Over Discharged Protect Voltage | <u>2.20± 0.08 V</u> | |
| Over Discharged Protect Delay time | <u>50mS-150mS</u> | |
| Continuous discharge current | <u>≤50A</u> | |
| Over Current Protect | <u>80 ± 10A</u> | |
| Over Current Protect Delay | <u>20ms</u> | |
| Over discharge release conditions | <u>≥2.3V</u> | |
| Protection plate static power consumption | <u><50μA</u> | |

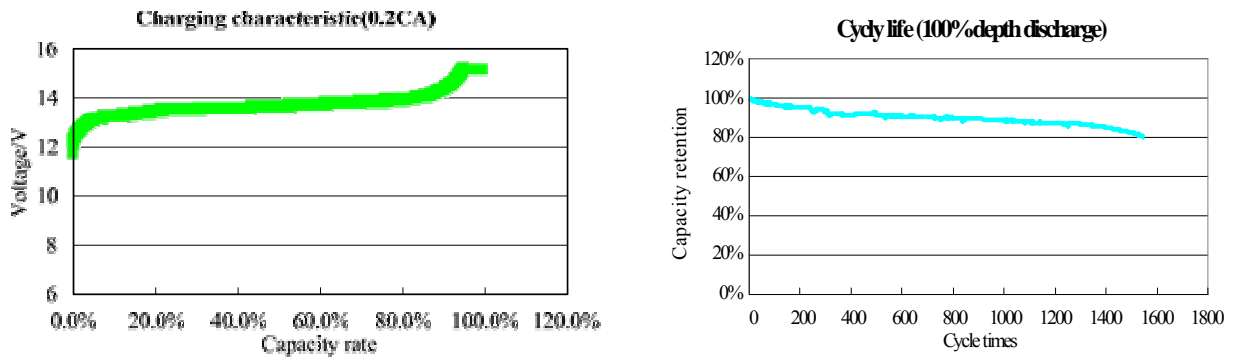


Fig.1 Performance curves

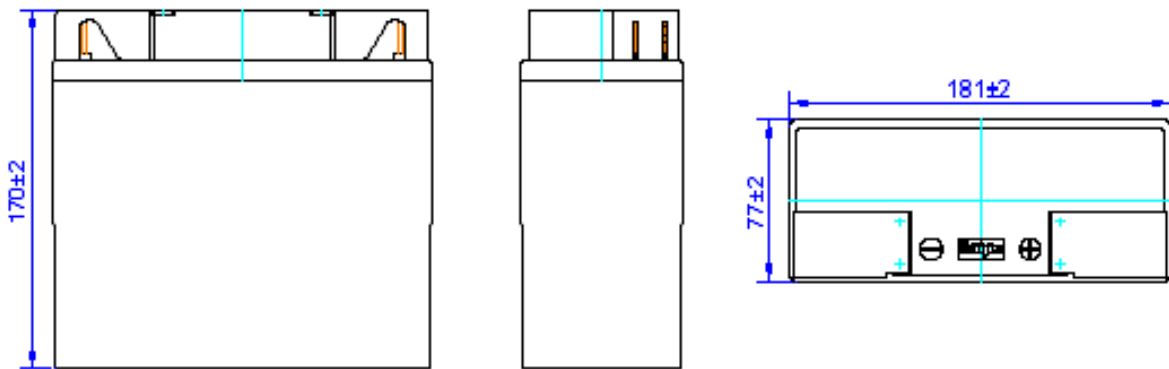


Fig.2 Outline drawing

3 Caution

- Do not immerse the battery in water or allow it to get wet.
- Do not use any chargers other than those recommended
- Do not reverse the positive(+) and negative(-) terminals.
- Do not connect the battery directly to wall outlets or car cigarette-lighter sockets.
- Do not put the battery into a fire or apply direct heat to it.

- Do not short-circuit the battery by connecting wires or other metal objects to the positive(+) and negative(-) terminals.
- Do not pierce the battery casing with a nail or other sharp object, break it open with a hammer, or step on
- Do not strike, throw or subject the battery to sever physical shock.
- Do not directly solder the battery terminals.
- Do not place the battery in a microwave oven or pressurized container.
- Do not use the battery in combination with primary batteries(such as dry-cell batteries) or batteries of different capacity, type or brand.
- Do not use the battery if it gives off an odor, generates heat, becomes discolored or deformed, or appears abnormal in any way. If the battery is in use or being recharged, remove it from the device or charger immediately and discontinue use.