

2E-LFP48100-LCD(51.2V100AH)

Document: [Lithium Battery datasheet](#)

Doc. Version: [V5.0](#)

Issue Date: [1-1-2025](#)

Overview

Lithium iron phosphate battery module which designed for storage and power supply system application.

This battery module integrated with intelligent BMS with big advantages on safety, cycle life, energy density, temperature range and environmental protection.

This product specification describes the type, size, structure, electrochemistry performance, service life, and BMS characteristics.

The specification will be updated based on different customer requirement.

Advantages

The battery module consists of LFP cells, wire, BMS and ABS container.

- Packed with high performance LFP single cell, long life, safety and wide temperature range
- High energy density, small size, light weight, no pollution;
- Packing with single cell container, fire retardant wire and copper connecting bar, stable and safe.
- Built-in BMS, with battery voltage, current, temperature and health management.
- LCD(optional) indicate the battery SOC and operating status.
- Support Max 16pcs in parallel.
- Flexible customization of dimensions
- More than 15 years design life, Stable performance, maintenance-free

Battery Images



Safety



Multipurpose



Simple Maintenance



Fast Charge/Discharge

Customization Functions



Note 1: Please always refer to the latest edition of our technical datasheet that published on our website to ensure safe and efficient operation.

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Battery specification

ELECTRICAL SPECIFICATIONS

| | |
|--------------------------|---------------|
| Cell Type - Chemistry | LiFePo4 |
| Nominal Voltage | 51.2V |
| Amp Hour Capacity | 100AH |
| Dimensions | 442*480*133mm |
| Weight | 42±0.2kgs |
| Terminal Type | OT-M8 |
| Case Material | SPCC |
| Case IP Rating | IP35 |
| Series connections | Not Allowed |
| Parallel connections | Max 16pcs |
| Storage Temperature | (-10 to 40°C) |
| Resistance - Milliohms | <20 |
| Self Discharge per Month | < 2% |

CHARGE SPECIFICATIONS

| | |
|-------------------------------|-------------|
| Floating Charge Voltage | ≤55.2V |
| Boost Charge Voltage | ≤56.8V |
| Recommend Charge Current | ≤20A |
| Max Charge current | ≤100A |
| Charge current (0 to -10°C) | <0.1C |
| Charge current (-20 to -10°C) | <0.05C |
| Charge Temperature | (0 to 45°C) |

DISCHARGE SPECIFICATIONS

| | |
|-----------------------------|---------------|
| Recommend Discharge current | ≤100A |
| Max Cont Discharge current | ≤120A |
| Max Discharge Voltage | ≥44.8V |
| Discharge Temperature | (-20 to 60°C) |

BMS SPECIFICATIONS

| | | |
|---------------------------------------|-----------------------|-----------|
| Version | Softversion | |
| Code | PBMS16S100A | |
| Primary Charge Current Alarm | 115±5A | 1S±0.2S |
| Second Charge Current Protection | 120±5A | 0.5S±0.2S |
| Third Charge Current Protection | Turn to 20A automatic | |
| High Voltage Alarm | 56±0.2V | 1S±0.2S |
| High Voltage Protection | 59±0.2V | 1S±0.2S |
| Reconnect Voltage | 54.1±0.2V | |
| Primary Discharging Current Alarm | 115±5A | 1S±0.2S |
| Second Discharging Current Protection | 120±5A | |
| Third Discharging Current Protection | 150±5A | 0.5S±0.2S |
| Low Voltage Alarm | 44.8±0.2V | |
| Low Voltage Protection | 43.2±0.2V | |
| Reconnect Voltage | 47.2±0.4V | |
| High Temp Protection | 70±3°C | |
| Reconnect Temp | 60°C | |
| Balancing voltage | 56±0.2V@30mV | |
| Balancing current | 90±20mA | |
| Shortage current | 355±5A | |
| Communcation port | RS485/CAN/RS232 | |
| Default protocols | Pylon-V1.2 CAN/RS485 | |

Additional Functions

| | |
|---------------------------|--------------------|
| LCD screen(Optional) | Touchable/Button |
| Heater(Optional) | By charger |
| GPS/ Anti-theft(Optional) | by BMS system |
| SNMP(Optional) | Build-in protocols |

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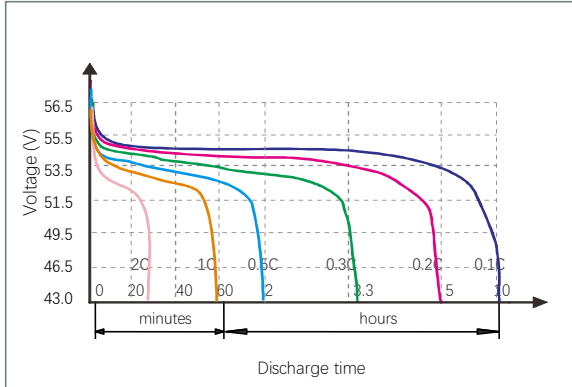
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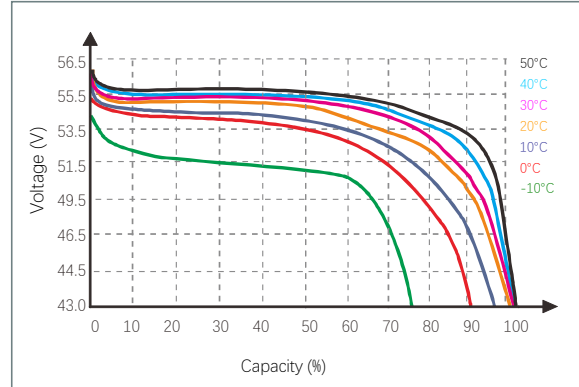
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Performance curve

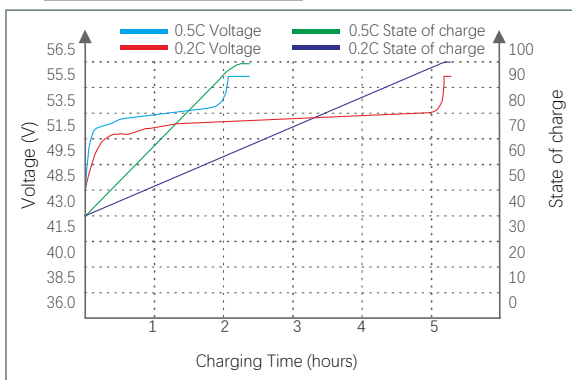
Discharge characteristics (25°C)



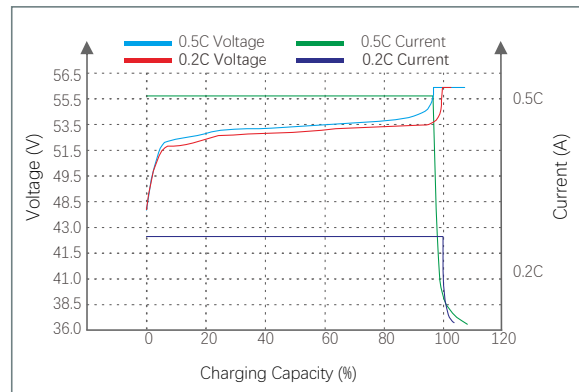
Temperature effect on discharging (0.5C)



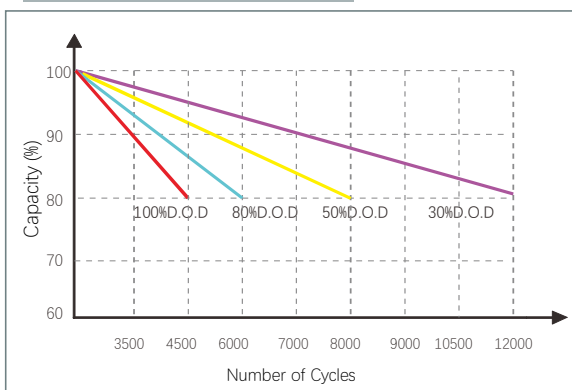
State of Charge Curve (25°C)



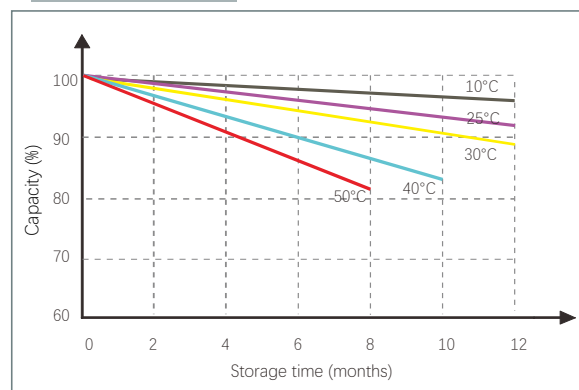
Charge characteristics (25°C)



Cycle Life On D.O.D 0.2C Rate (25°C)



Self-Discharging Curve



Note 2: The above curves are based on laboratory testing data @ 25°C 40%RH

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