

## LFP48100(51.2V100AH)

Document: [Lithium Battery datasheet](#)

Doc. Version: V4.0

Issue Date: 1-1-2024

## Overview

**POWER LINK** 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



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## Battery specification

| ELECTRICAL SPECIFICATIONS     |               | BMS SPECIFICATIONS                    |                       |
|-------------------------------|---------------|---------------------------------------|-----------------------|
| Cell Type - Chemistry         | LiFePo4       | Version                               | Softversion           |
| Nominal Voltage               | 51.2V         | Code                                  | PBMS16S100A           |
| Amp Hour Capacity             | 100AH         | Primary Charge Current Alarm          | 115±5A 1S±0.2S        |
| Dimensions                    | 442*480*133mm | Second Charge Current Protection      | 120±5A 0.5S±0.2S      |
| Weight                        | 42±0.2kgs     | Third Charge Current Protection       | Turn to 20A automatic |
| Terminal Type                 | OT-M8         | High Voltage Alarm                    | 56±0.2V 1S±0.2S       |
| Case Material                 | SPCC          | High Voltage Protection               | 59±0.2V 1S±0.2S       |
| Case IP Rating                | IP35          | Reconnect Voltage                     | 54.1±0.2V             |
| Series connections            | Not Allowed   | Primary Discharging Current Alarm     | 115±5A 1S±0.2S        |
| Parallel connections          | Max 16pcs     | Second Discharging Current Protection | 120±5A                |
| Storage Temperature           | (-10 to 40°C) | Third Discharging Current Protection  | 150±5A 0.5S±0.2S      |
| Resistance - Milliohms        | <20           | Low Voltage Alarm                     | 44.8±0.2V             |
| Self Discharge per Month      | < 2%          | Low Voltage Protection                | 43.2±0.2V             |
| CHARGE SPECIFICATIONS         |               | Reconnect Voltage                     | 47.2±0.4V             |
| Floating Charge Voltage       | ≤55.2V        | High Temp Protection                  | 70±3°C                |
| Boost Charge Voltage          | ≤56.8V        | Reconnect Temp                        | 60°C                  |
| Recommend Charge Current      | ≤20A          | Balancing voltage                     | 56±0.2V@30mV          |
| Max Charge current            | ≤100A         | Balancing current                     | 90±20mA               |
| Charge current (0 to -10°C)   | <0.1C         | Shortage current                      | 355±5A                |
| Charge current (-20 to -10°C) | <0.05C        | Communcation port                     | RS485/CAN/RS232       |
| Charge Temperature            | (0 to 45°C)   | Default protocols                     | Pylon-V1.2 CAN/RS485  |
| DISCHARGE SPECIFICATIONS      |               | Additional Functions                  |                       |
| Recommend Discharge current   | ≤100A         | LCD screen(Optional)                  | Touchable/Button      |
| Max Cont Discharge current    | ≤120A         | Heater(Optional)                      | By charger            |
| Max Discharge Voltage         | ≥44.8V        | GPS/ Anti-theft(Optional)             | by BMS system         |
| Discharge Temperature         | (-20 to 60°C) | SNMP(Optional)                        | Build-in protocols    |

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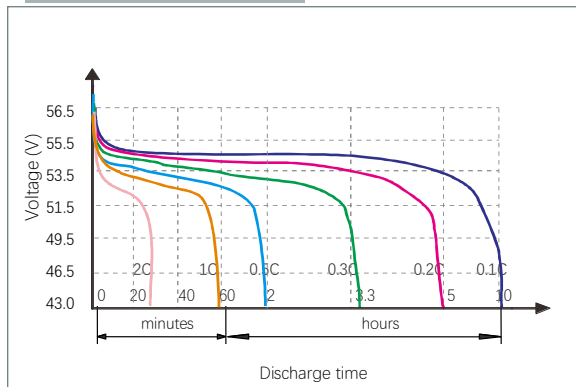
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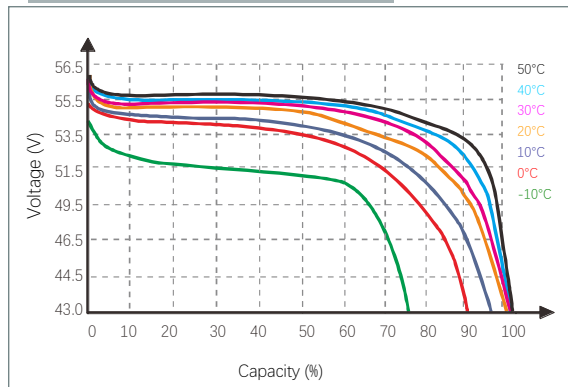
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## Performance curve

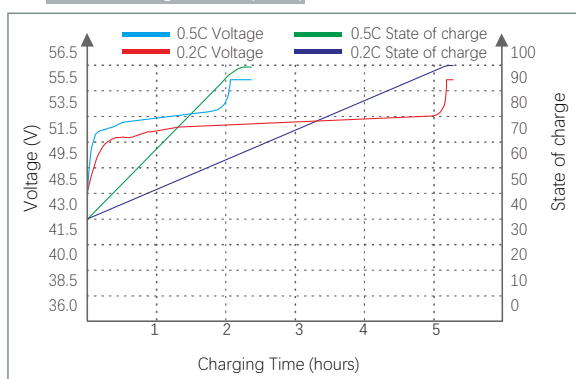
Discharge characteristics (25°C)



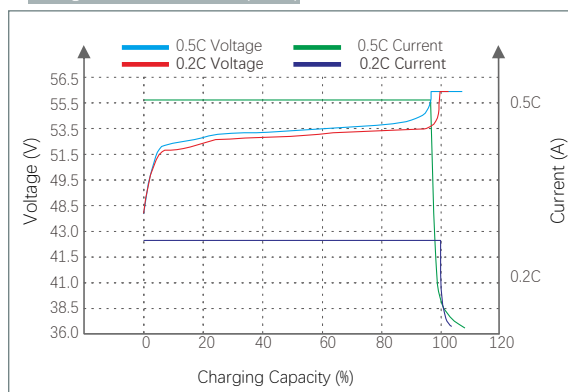
Temperature effect on discharging (0.5C)



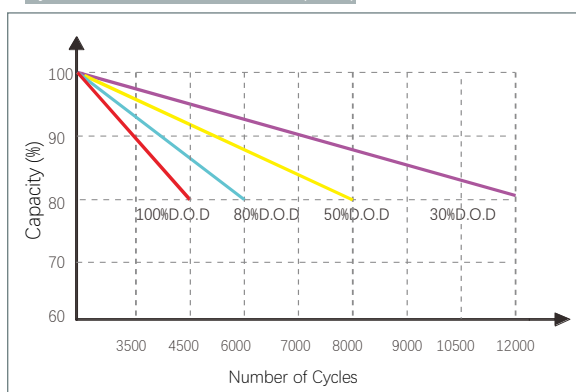
State of Charge Curve (25°C)



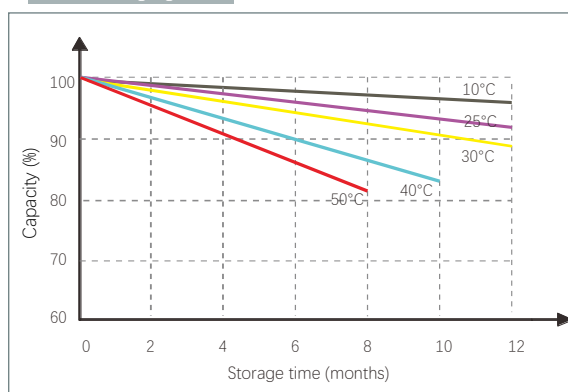
Charge characteristics (25°C)



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