

LiFePO4 Power Battery LPR48V20 48V 20Ah

LiFePO4 Technology Brief Introduce

LPR series battery system is 48V/24V/12V system for communications back-up type LiFePO4n(lithium iron phosphate) battery products, the system uses the advanced LiFePO4 battery technology with the benefit of long cycle life, small size, light weight, safety and environmental protection, and has a strong environmental adaptability, it is idea for harsh outdoor environments.

The system also integrates a smart battery management and monitoring module, support for remote centralized monitoring and remote battery management and maintenance, to meet the requirements of unattended. Therefore, the LPR system can fully meet the backup power supply requirements of the access network equipment, mobile communications equipment, transmission equipment, micro base stations and microwave communication equipment.

Long Life

Lithium Iron Phosphate

Deep Cycle



Applications

- BTS Stations, Telecom System
- Access net work system
- UPS System, EPS System
- Solar Energy/Off-Grid System
- Indoor distribution system
- Internet data center(IDC)
- Terminal of FTTX



Technical Specifications

| | | |
|----------------------------|----------------------------------|---|
| Electrical Characteristics | Nominal Voltage | 48V |
| | Nominal Capacity | 20Ah |
| | Energy | 960Wh |
| | BMS with internal cell balancing | YES |
| | Cycle Life | > 2000cycles @1.0C 100%DOD |
| | Months Self Discharge | < 3% |
| | Efficiency of Charge | 100%@0. 2C |
| | Efficiency of Discharge | 96~99%@0.5C |
| Standard Charge | Charge Voltage | 54.0 ± 0. 1V |
| | Charge Mode | 0.2C to 54.0V, then 54.0V, charge current to 0.02C(CC/CV) |
| | Charge Current | 4A |
| | Max. Charge Current | 10A |
| | Charge Cut-off Voltage | 54.0V ± 0. 2 |
| Standard Discharge | Continuous Current | 4A |
| | Max continuous discharge current | 20A |
| | Discharge Cut-off Voltage | 40.5V ± 0. 1 |
| Environmental | Charge Temperature | 0 °C to 45 °C (32F to 113F) @60 ± 25% Relative Humidity |
| | Discharge Temperature | -20 °C to 60 °C (-4F to 140F) @60 ± 25% Relative Humidity |
| | Storage Temperature | 0 °C to 40 °C (32F to 104F) @60 ± 25% Relative Humidity |
| | Water Dust Resistance | IP21 |
| Mechanical | Cell & Method | Cylinder 32650-6100 15S4P |
| | Case | Iron |
| | Dimensions (in./mm.) | 300*442*88mm(11.81"*17.40"*3.46Ins) |
| | Weight (lbs./kg.) | Approx:14Kg(30.87lbs) |
| | Gravimetric specific energy | 68.57WH/KG |
| | Protocol (optional) | ModBus/RS485/RS232 |
| | SOC (optional) | LCD |

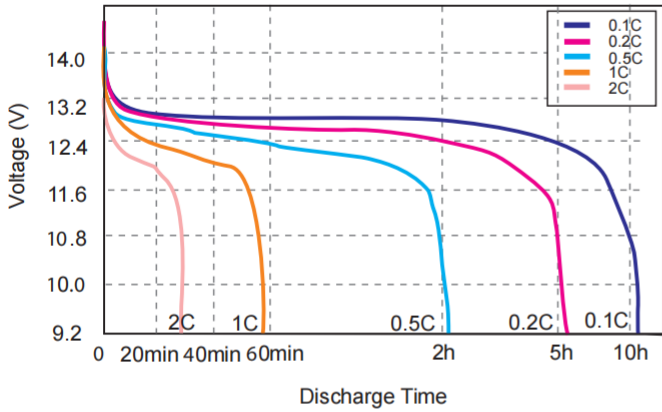
Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSBattery** for the latest information.

BMS Specifications

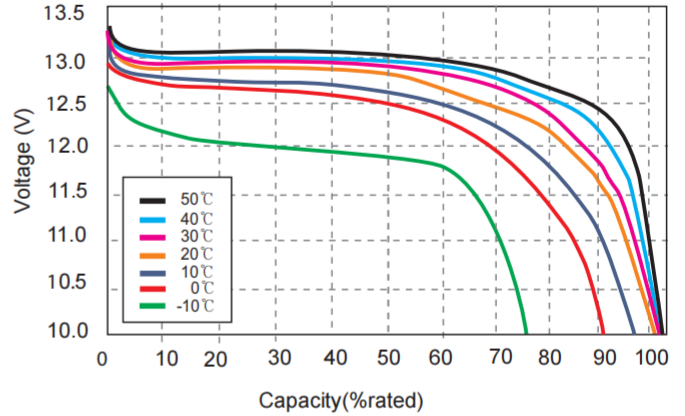
- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection
- Short detection function
- Balance function

Performance Characteristics (Data test from 4 Series Cell)

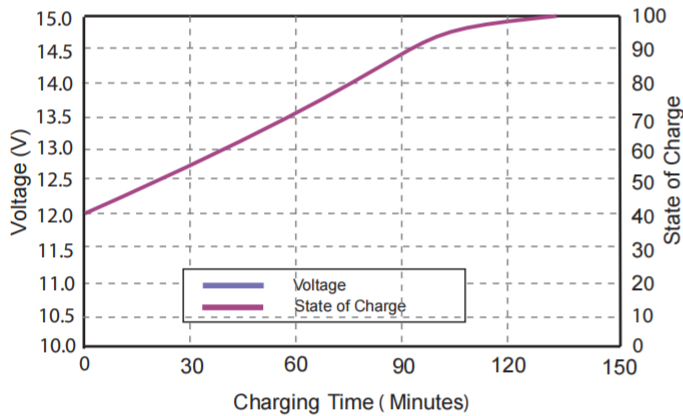
Different Rate Discharge Curve (25°C)



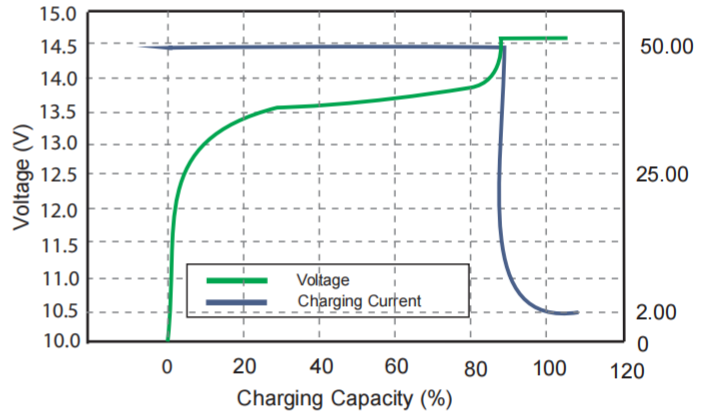
Different Temperature Discharge Curve At 0.5c



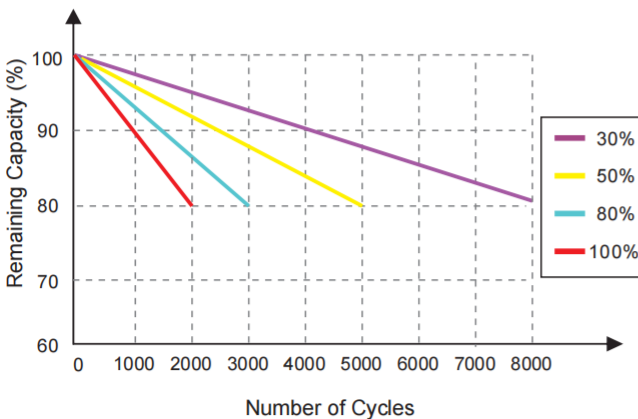
State Of Charge Curve At 0.5c (25°C)



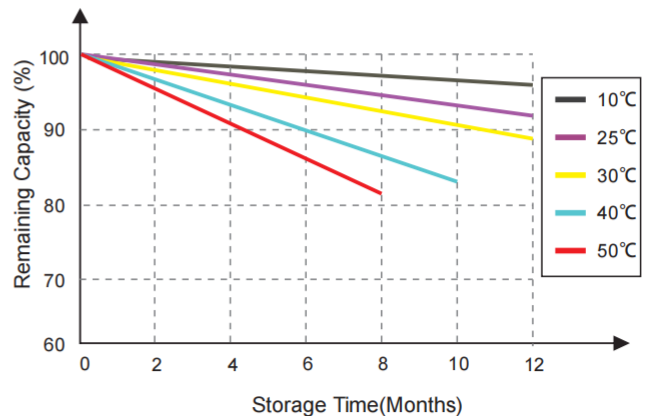
Charging Characteristics At 0.5c (25°C)



Cycle Life Curve At 1c According Dod



Self Discharge Characteristics Curve



SAFETY WARNING: USE ONLY WITHIN THE ALLOWED PARAMETERS. Do not short circuit or over-load the battery. Charge only using an approved charger designed specifically to charge this battery. Do not heat above maximum temperatures indicated. Never crush, mutilate, puncture or abuse the battery. Do not dismantle the pack or disable any of the protective devices or circuits. DO NOT USE THE BATTERY IF YOU SUSPECT IT MAY BE FAULTY OR DAMAGED.

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