

# LiFePO4 Power Battery LPR12V50 12V 50Ah

## LiFePO4 Technology Brief Introduce

LPR series battery system is 12V/24V/48V 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	12.8V
	Nominal Capacity	50Ah
	Energy	640Wh
	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	14.4V±0. 1
	Charge Mode	0.2C to 54.0V,then 54.0V,charge current to0.02C(CC/CV)
	Charge Current	10A
	Max. Charge Current	25A
	Charge Cut-off Voltage	14.4V±0. 2
Standard Discharge	Continuous Current	10A
	Max continuous discharge current	50A
	Discharge Cut-off Voltage	10.8V±0. 2
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 4S9P
	Case	Iron
	Dimensions (in./mm.)	390*442*45mm(15.35"*17.4"*1.77Ins)
	Weight (lbs./kg.)	Approx:11Kg(24.25lbs)
	Gravimetric specific energy	58.18WH/KG
	Protocol (optional)	ModBus/RS485/RS232
	SOC (optional)	LCD

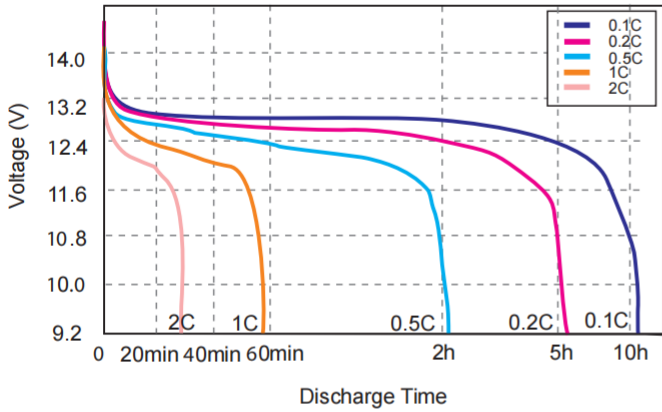
**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSBattery** for the latest information.

## BMS Specifications

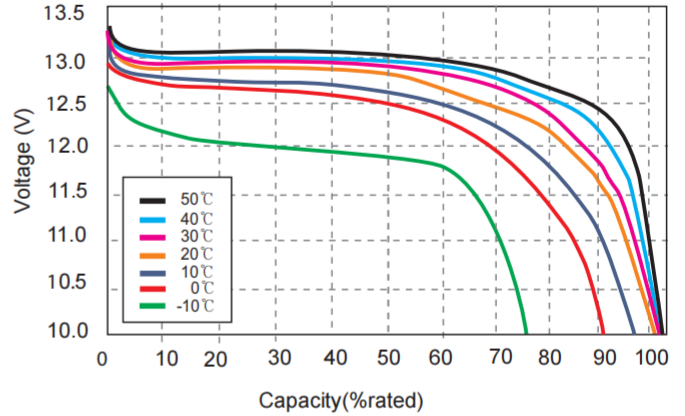
- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection
- Short detection function
- Balance function

## Performance Characteristics

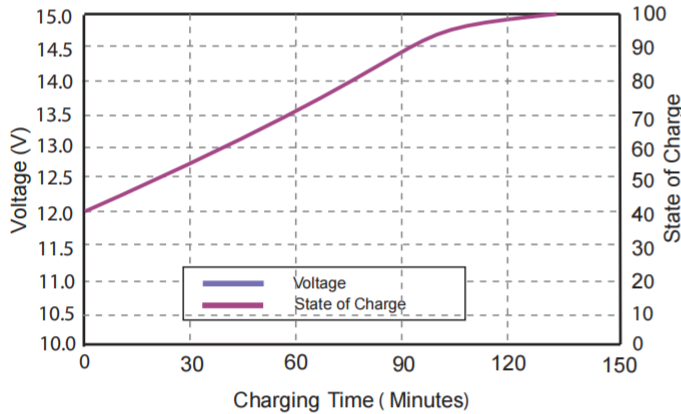
### Different Rate Discharge Curve (25°C)



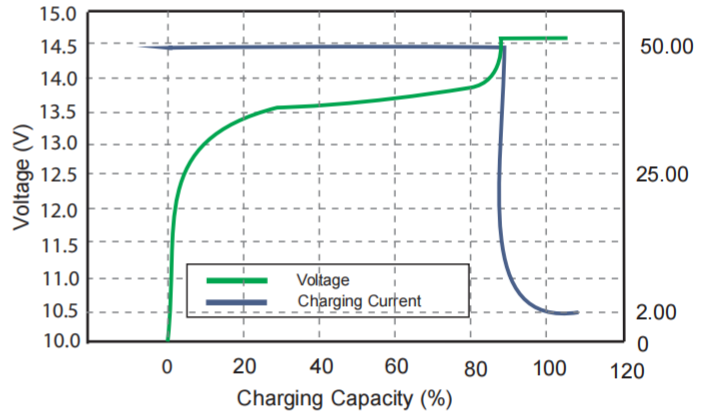
### Different Temperature Discharge Curve At 0.5c



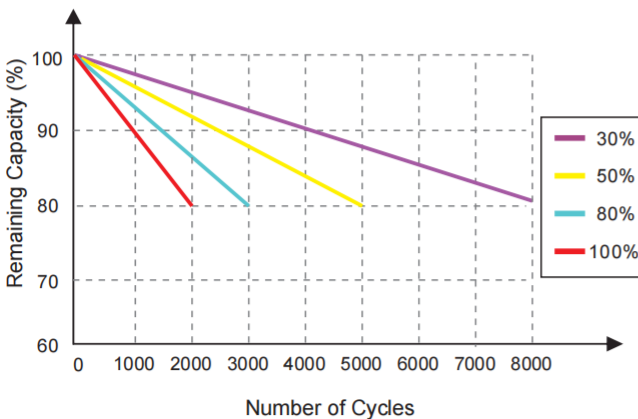
### State Of Charge Curve At 0.5c (25°C)



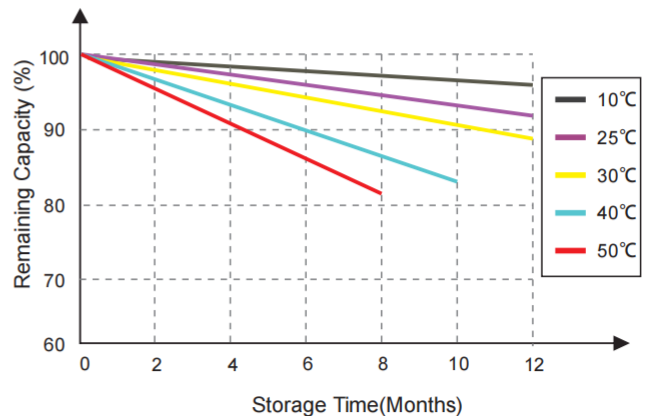
### Charging Characteristics At 0.5c (25°C)



### 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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