

LiFePO4 Technology Brief Introduce

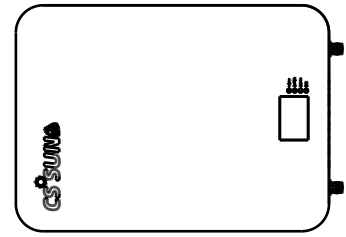
LPW series battery system is 48V/51.2V system for communications back-up type LiFePO4(lithium iron phosphate) battery products, the system uses the advanced LiFePO4 battery technology with the benefit of long cycle life, small size, light weight, safety and environmental protection, and has a strong 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	51.2V
	Nominal Capacity	120Ah
	Energy	6144Wh
	BMS with internal cell balancing	Yes
	Cycle Life	≥6000cycles @80%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100%@0.2C
	Efficiency of Discharge	96~99%@0.5C
Standard Charge	Charge Voltage	57.6±0.1V
	Charge Mode	0.2C to 54.0V,then 54.0V,charge current to0.02C(CC/CV)
	Charge Current	20A
	Max. Charge Current	50A
	Charge Cut-off Voltage	57.6V±0.2
Standard Discharge	Continuous Current	20A
	Max continuous discharge current	100A
	Discharge Cut-off Voltage	43.2.0V
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	Square cell 3.2V120ah 16S1P
	Plastic Case	Iron
	Dimensions (in./mm.)	415*575*248mm
	Weight (lbs./kg.)	Approx: 50Kg
	Gravimetric specific energy	122.9WH/KG
	Protocol (optional)	ModBus/RS485/RS232
	SOC (optional)	LCD

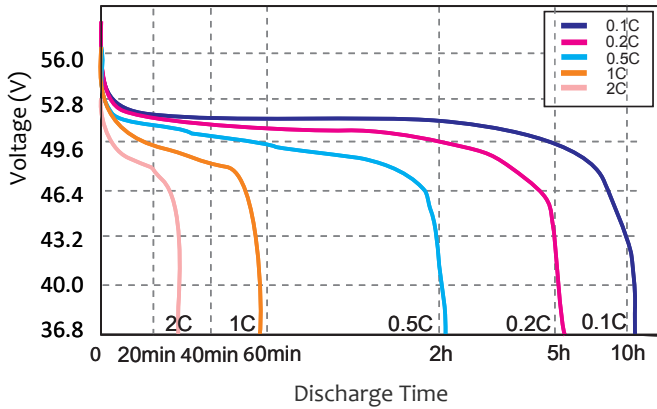


BMS Specifications

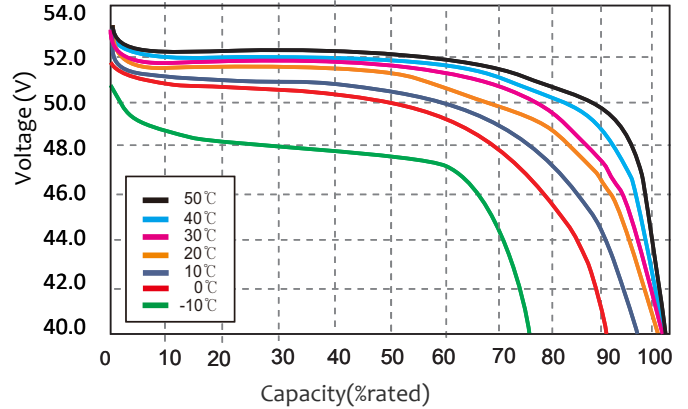
- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection
- Cell Voltage balance function
- Short detection function

Performance Characteristics (Data test from 16 Series Cell)

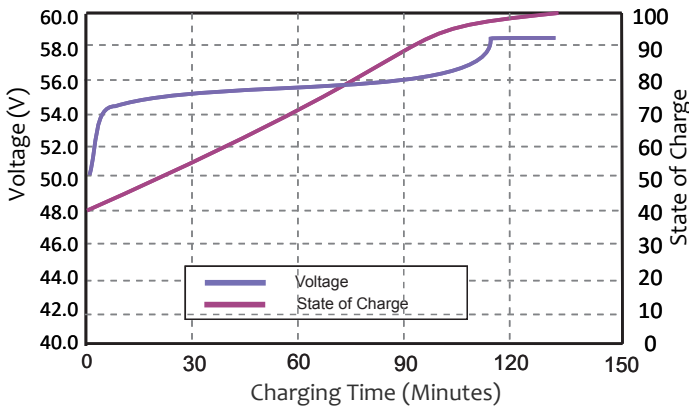
Different Rate Discharge Curve (25°C)



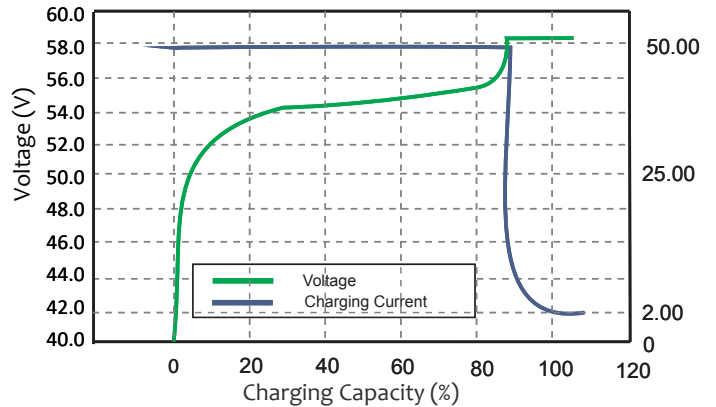
Different Temperature Discharge Curve At 0.5c



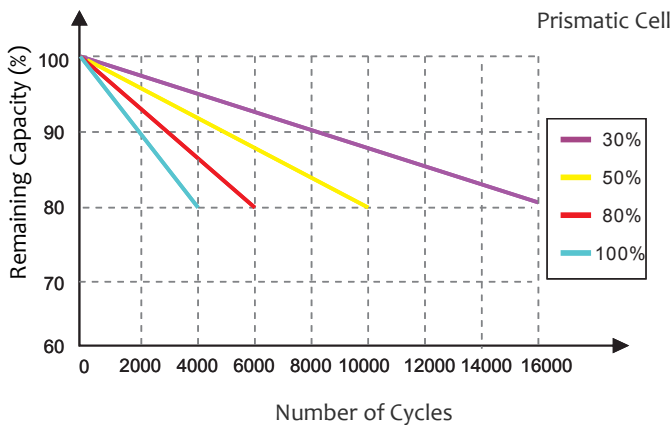
State Of Charge Curve At 0.5c (25°C)



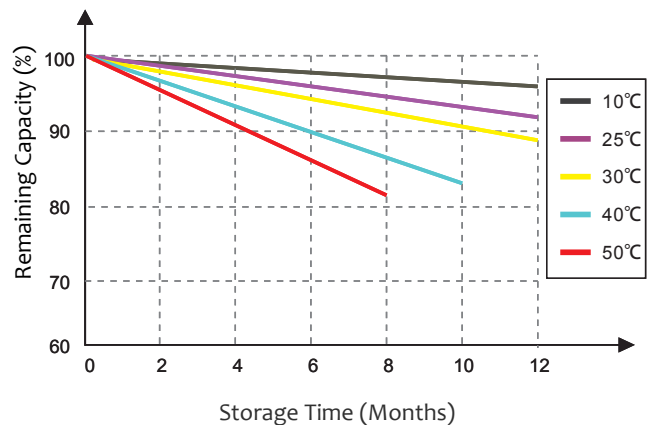
Charging Characteristics At 0.5c (25°C)



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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