

# Lithium Iron Phosphate (LiFePO4) Battery

## Features of LiFePO4 battery

- **Longer Cycle Life:** Offers up to 20times longer cycle life and five times longer float /calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement for lead acid batteries.
- **Higher Power:** Delivers twice power of lead acid battery ,even high discharge rate, while maintaining high energy capacity.
- **Wider Temperature Range:** -20℃~60℃.
- **Superior Safety:** Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation.
- **Increased Flexibility:** Modular Design enables deployment of up to up to ten battery in parallel.



## BMS Specification

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

## Application

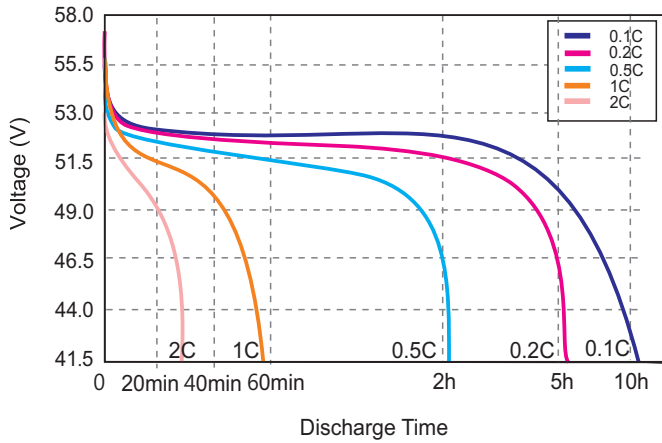
- Electric Vehicles,electric mobility
- Solar/wind energy storage system
- UPS,backup power
- Telecommunication
- Medical equipment
- Lighting
- And so on

## Specification

Electrical Characteristics	Nominal Voltage	51.2V
	Nominal Capacity	100Ah
	Energy	5120Wh
	Internal Resistance	≤ 50mΩ
	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	57.6±0.1V
	Charge Mode	0.2C to 57.6V,then 57.6V,charge current to0.02C(CC/CV)
	Charge Current	50A
	Max. Charge Current	80A
	Charge Cut-off Voltage	61.5V±0.2
Standard Discharge	Continuous Current	50A
	Max continuous discharge current	100A
	Discharge Cut-off Voltage	40.0V
Environmental	Charge Temperature	0℃ to 45℃ (32F to 113F) @60±25% Relative Humidity
	Discharge Temperature	-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	0℃ to 40℃ (32F to 104F) @60±25% Relative Humidity
	Water Dust Resistance	IP56
Mechanical	Cell & Method	HP02770180-25Ah 16S4P
	Shell material	Iron(SPCC)
	Dimensions (in./mm.)	482*470*222mm(21.4"*15.75"*6.93Ins)
	Weight (lbs./kg.)	Approx:65Kg
	Gravimetric specific energy	85WH/KG
	Protocol (optional)	RS485/RS232
	SOC (optional)	LED

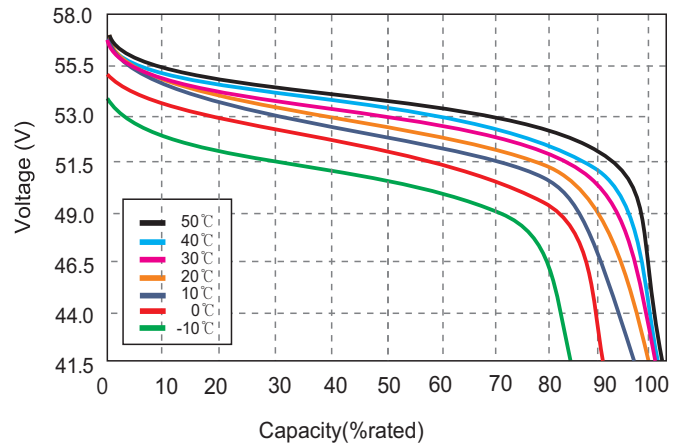
### Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



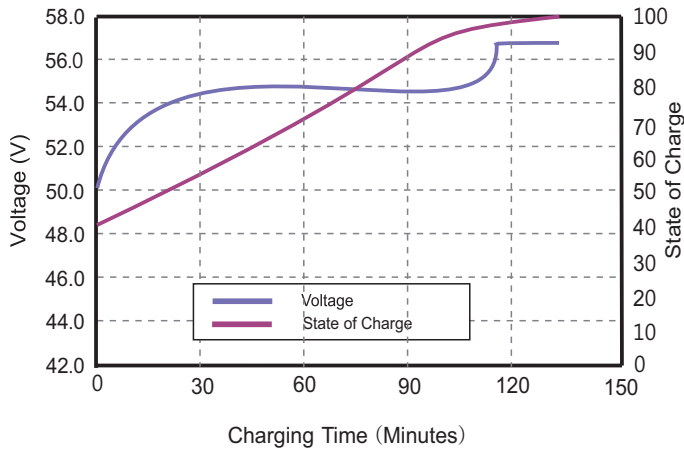
### Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



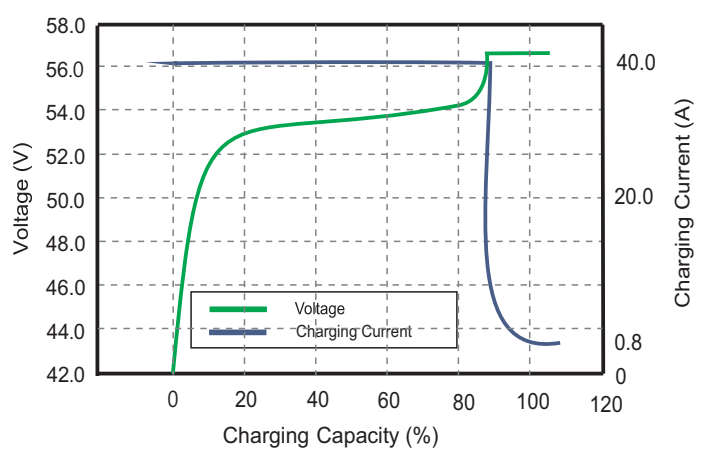
### State of Charge Curve

State of Charge Curve @0.5C 25°C



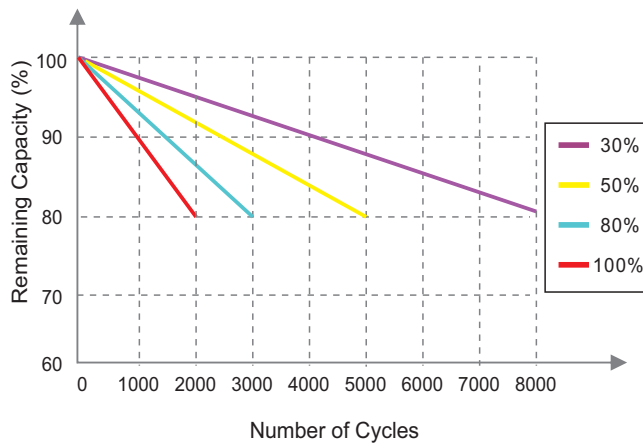
### Charging Characteristics

Charging Characteristics @0.5C 25°C



### Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



### Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve

