

LFP50-48 (48V 50Ah)

Lithium Iron Phosphate (LiFePO4) Battery



Features of LiFePO4 Battery

- Longer Cycle Life: Offers up to 20 times 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°C~60°C.
- 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 sixteen batteries in series and up to ten batteries 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

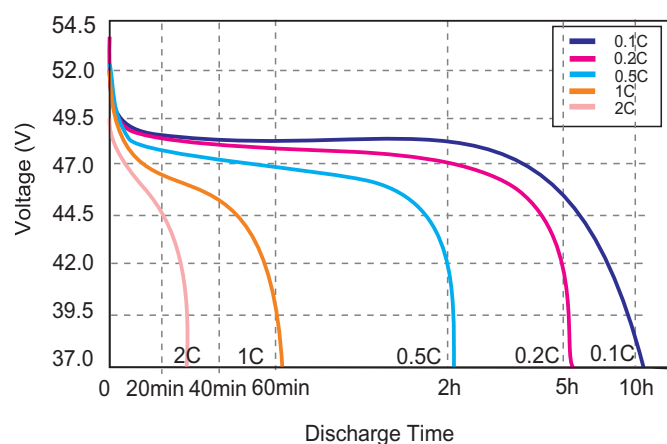
Electrical Characteristics	Nominal Voltage	48V
	Nominal Capacity	50Ah
	Energy	2400Wh
	Internal Resistance	≤110mΩ
	Cycle Life	>2000 cycles @1.0C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.2C
	Efficiency of Discharge	96~99% @0.5C
Standard Charge	Charge Voltage	54.0±0.2V
	Charge Mode	0.2C to 54.0V, then 54.0V,charge current to 0.02C (CC/CV)
	Charger Current	10A
	Max. Charge Current	50A
	Charge Cut-off Voltage	57.6V±0.2V
Standard Discharge	Continuous Current	10A
	Max continuous discharge current	50A
	Discharge Cut-off Voltage	37.5V
Environmental	Charge Temperature	0 °C to 45 °C (32°F to 113°F) @60±25% Relative Humidity
	Discharge Temperature	-20 °C to 60 °C (-4°F to 140°F) @60±25% Relative Humidity
	Storage Temperature	0 °C to 40 °C (32°F to 104°F) @60±25% Relative Humidity
	Water Dust Resistance	IP30
Mechanical	Cell & Method	3.2V50AH 15S1P
	Plastic Case	iron(SPCC)
	Dimensions (in./mm.)	442*385*132mm(17.4"*15.16"*5.20")
	Weight (lbs./kg.)	Approx: 30kg (66.14 lbs)
	Gravimetric specific energy	80WH/KG
	Protocol (optional)	ModBus/RS485/RS232
	SOC (optional)	LED

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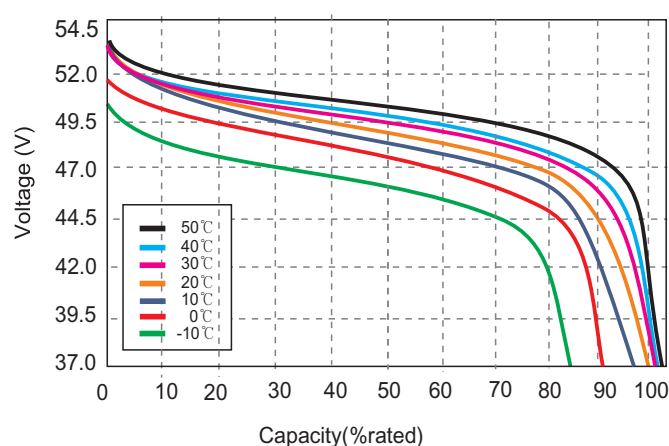
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



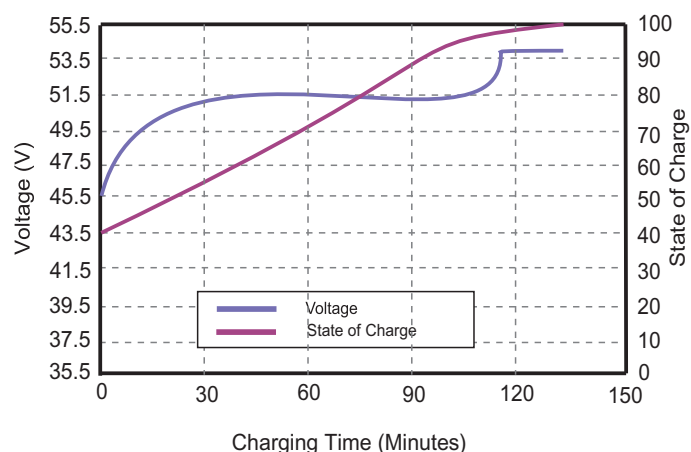
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



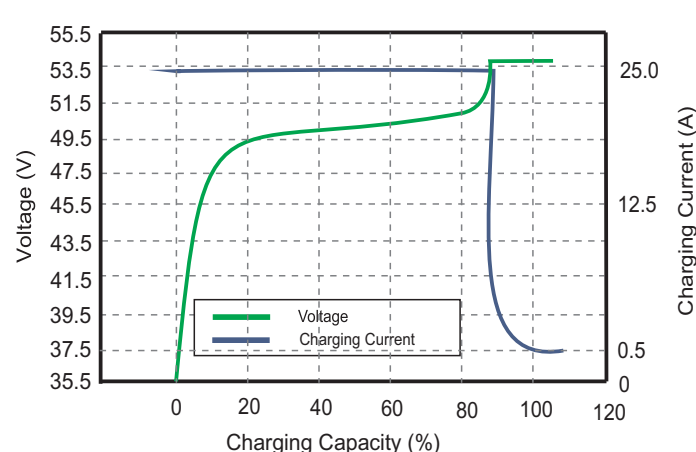
State of Charge Curve

State of Charge Curve @0.5C 25°C



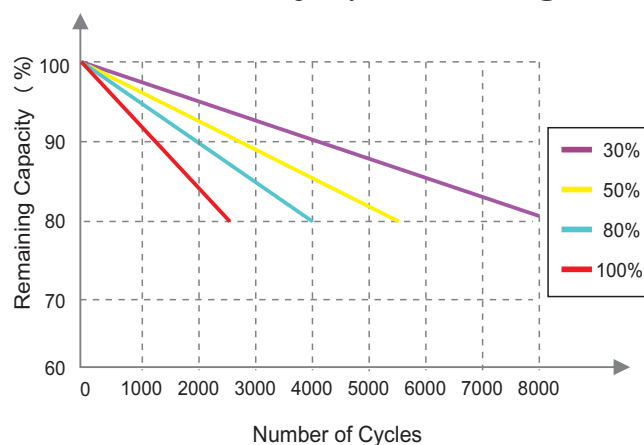
Charging Characteristics

Charging Characteristics @0.5C 25°C



Cycle Life Curve

Different DOD Discharge Cycle Life Curve @0.2C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve

