

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.

Battery model: YS-48-50



BMS Specification

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

Application

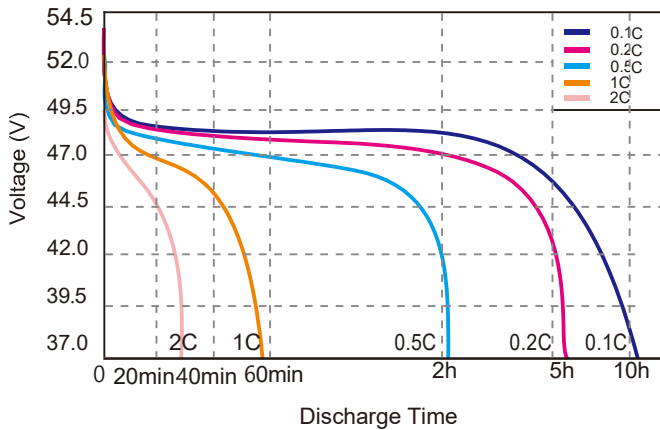
- Electric Vehicles,electric mobility
- Solar/wind energy storage system
- UPS,backup power
- Telecommunication
- Medical equipment
- Lighting
- And so on

Specification

Electrical Characteristics	Nominal Voltage	48V
	Nominal Capacity	50Ah
	Energy	2400Wh
	Internal Resistance	≤ 50mΩ
	Cycle Life	>3000cycles @1.0C rate
	Months Self Discharge	<3%
	Efficiency of Charge	100%@0.2C
	Efficiency of Discharge	96~99%@0.5C
Standard Charge	Charge Voltage	54.8±0.1V
	Charge Mode	0.2C to 57.6V,then 57.6V,charge current to0.02C(CC/CV)
	Charge Current	25A
	Max. Charge Current	50A
	Charge Cut-off Voltage	58.5V±0.1V
Standard Discharge	Continuous Current	40A
	Max continuous discharge current	50A
	Discharge Cut-off Voltage	37.5V
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	32700 6Ah 15S 9 P
	Shell material	Iron(SGCC)
	Dimensions (in./mm.)	410 x 438 x 134
	Weight (lbs./kg.)	Approx:31Kg
	Gravimetric specific energy	85WH/KG
	Protocol (optional)	RS485/RS232
	SOC (optional)	LED

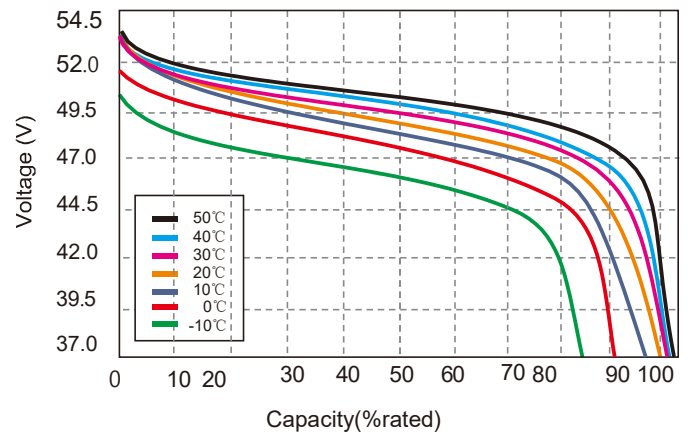
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



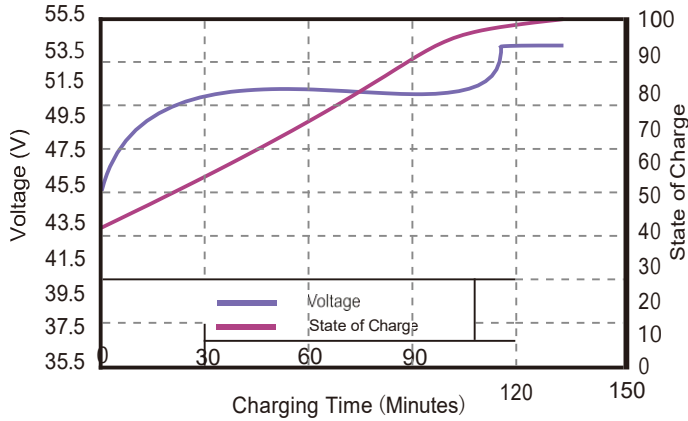
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



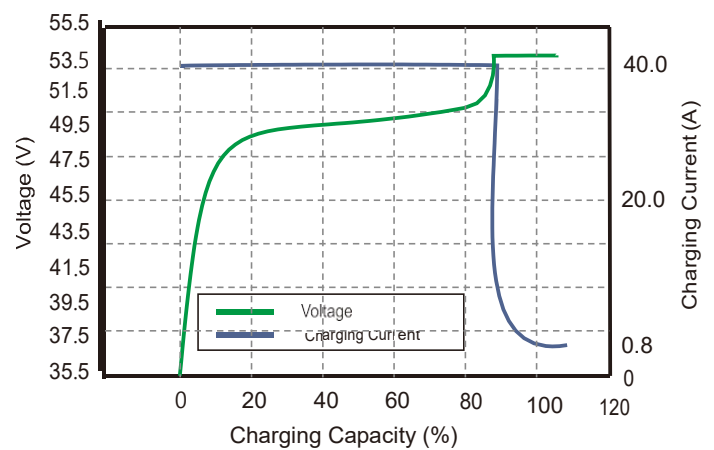
State of Charge Curve

State of Charge Curve @0.5C 25°C



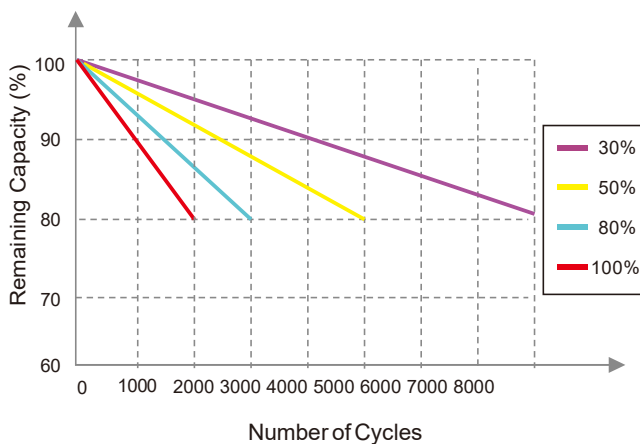
Charging Characteristics

Charging Characteristics @0.5C 25°C



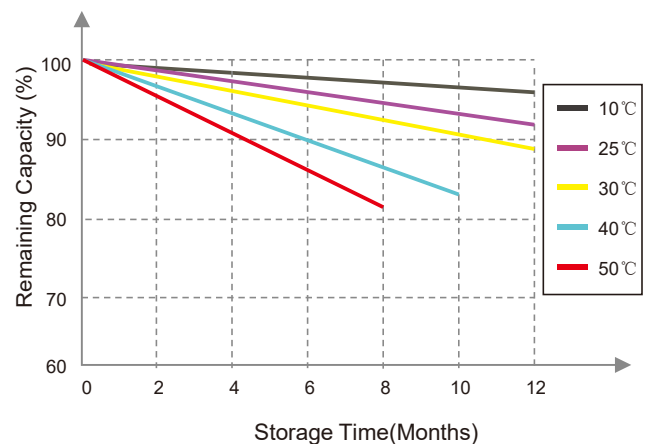
Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve



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