



Lithium Iron Phosphate (LiFePO4) Battery

Model: LP-12.8V50Ah

Advantages 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°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 four batteries in series and 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

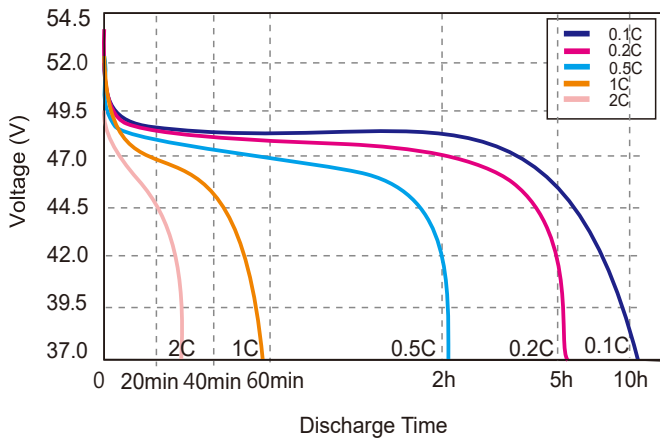
- Electric Vehicles, electric mobility
- Solar/wind energy storage system
- UPS, backup power
- Telecommunication
- Medical equipment
- Lighting
- And so on

Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	50Ah
	Energy	640Wh
	Terminal	M6
	Cycle Life	>2000cycles @1C
	Months Self Discharge	< 3%
	Efficiency of Charge	100% @0.2C
	Efficiency of Discharge	96~99% @0.5C
Standard Charge	Charge Voltage	14.6-15.2V
	Charge Mode	0.2C to 13.6V, then 13.6V, charge current to 0.02C(CC/CV)
	Charge Current	15A
	Max. Charge Current	50A
	Charge Cut-off Voltage	14.6V±0.2
Standard Discharge	Continuous Current	25A
	Max continuous discharge current	50A
	Discharge Cut-off Voltage	10V
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	32650, 4S8P
	Plastic Case	ABS
	Dimensions (in./mm.)	229*138*208mm (Customized)
	Weight (lbs./kg.)	Approx: 5.75Kg (12.67bs)
	Gravimetric specific energy	111WH/KG
	Bluetooth (optional)	/
	LCD display (optional)	/

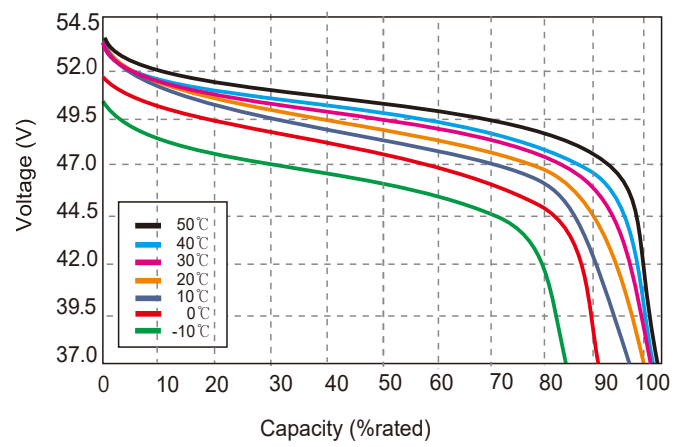
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



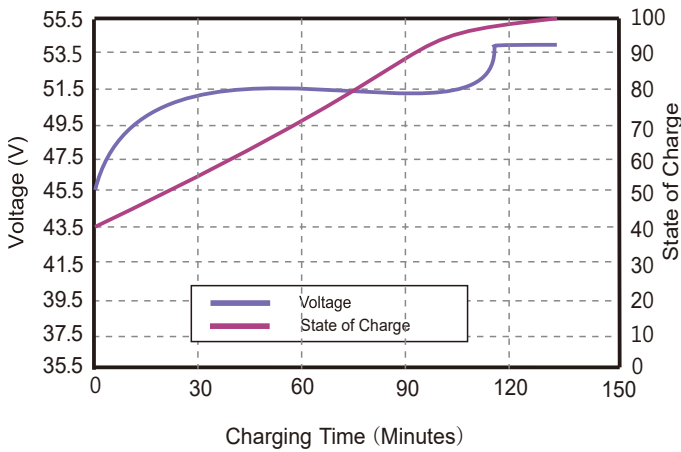
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



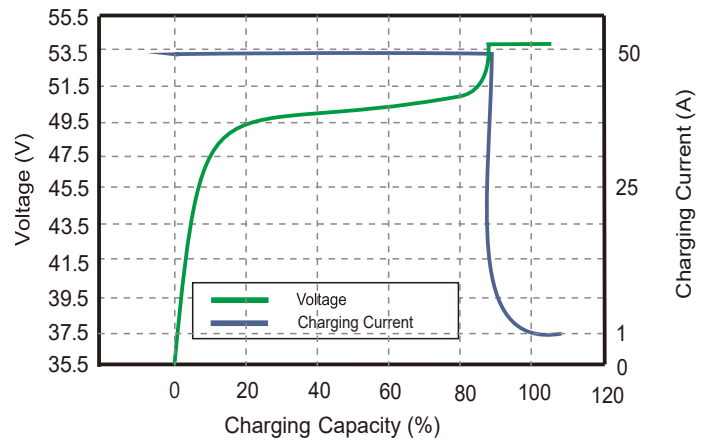
State of Charge Curve

State of Charge Curve @0.5C 25°C



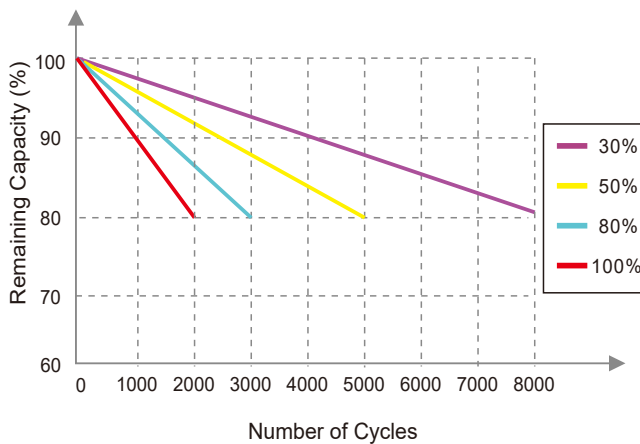
Charging Characteristics

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

