

Lithium Iron Phosphate (LiFePO4) Battery

PB.LI.12-280

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 four 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

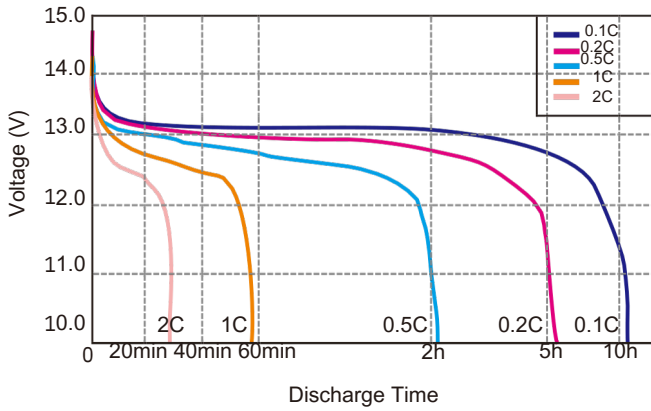
- Electric vehicles, electric mobility
- Solar/wind energy storage system
- UPS, backup power
- Telecommunication
- Medical equipment
- Lighting

Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	280Ah
	Energy	3584Wh
	Internal Resistance	≤ 50mΩ
	Cycle Life	>3000cycles @100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100%@0.2C
	Efficiency of Discharge	96~99%@0.5C
Standard Charge	Charge Voltage	14.4±0.1V
	Charge Mode	0.2C to 14.4V, then 14.4V, charge current to 0.02C(CC/CV)
	Charge Current	150A
	Max. Charge Current	250A
	Charge Cut-off Voltage	14.6V±0.2
Standard Discharge	Recommend Continuous Current	250A
	Max Discharge current	275A
	Peak current	450A (last for 3s)
	Discharge Cut-off Voltage	10V
Environmental	Charge Temperature	-20 °C to 60 °C (-4F to 140F) @60±25% Relative Humidity
	Discharge Temperature	-20 °C to 60 °C (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	0 °C to 60 °C (-4F to 140F) @60±25% Relative Humidity
	Water Dust Resistance	IP56
Mechanical	Cell & Method	3.2V 100Ah Prismatic 4S3P
	Shell material	Iron(SPCC)
	Dimensions (in./mm.)	L367 X W353 X H190mm
	Weight (lbs./kg.)	Approx: 36Kg
	Gravimetric specific energy	106.7WH/KG
	Protocol (optional)	Bluetooth
	Terminal	M8

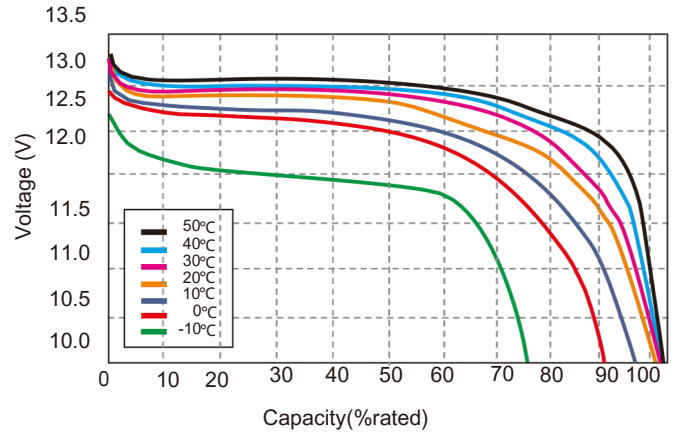
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



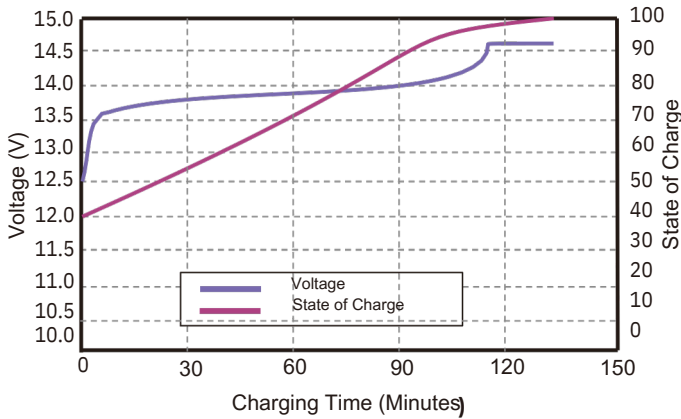
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



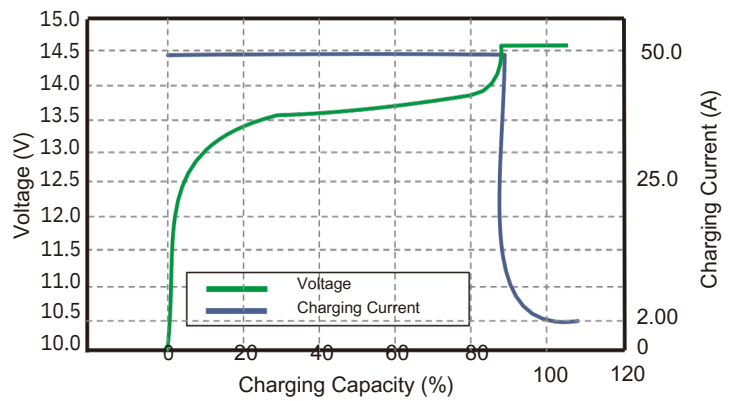
State of Charge Curve

State of Charge Curve @0.5C 25°C



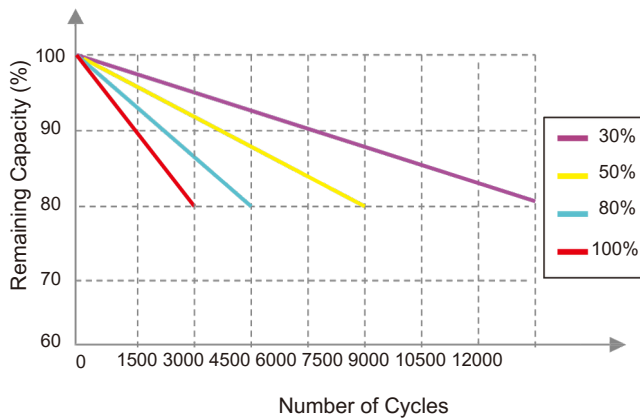
Charging Characteristics

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

