

Lithium Iron Phosphate (LiFePO4) Battery

LFP51.2-50(51.2V50AH)

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.



CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)

Application

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

0 1000 2500 3000 3500 5000 6000 7000 8000 Number of Cycles

Specification

	Nominal Voltage	51.2V
	Nominal Capacity	50Ah (C₅,25°C)
	Energy	2560Wh
Electrical	Internal Resistance	≤ 200m Ω
Characteristics	Cycle Life	>2500 cycles @100% DOD; >3500 cycles @80% DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.2C
	Efficiency of Discharge	96~99% @1C
Standard Charge	Charge Voltage	58.4±0.2V
	Charge Mode	0.2C to 58.4V, then 58.4,charge current 0.02C(CC/CV)
	Charger Current	50A(Suggested)
	Max. Charge Current	100A
	Charge Cut-off Voltage	59.2V±0.2V
Standard Discharge	Continuous Current	100A
	Max. Pulse Current	300A(<15s)
	Discharge Cut-off Voltage	40V
Environmental	Charge Temperature	0 $^{\circ}$ C to 45 $^{\circ}$ C (32F to 113F) @60 \pm 25% Relative Humidity
	Discharge Temperature	-20 $^{\circ}\mathrm{C}$ to 60 $^{\circ}\mathrm{C}$ (-4F to 140F) @60 \pm 25% Relative Humidity
	Storage Temperature	0 $^{\circ}$ C to 40 $^{\circ}$ C (32F to 104F) @60 \pm 25% Relative Humidity
	Water Dust Resistance	
Mechanical	Cell & Method	
	Plastic Case	3U standard case
	Dimensions (in./mm.)	482*350*132 mm
	Weight (lbs./kg.)	38Kg
	Terminal	50A through terminal
	Protocol (optional)	RS485
	BMS	16S50A