

LiFePO4 Battery 51.2V 100Ah Smart

LiFePO4 Technology Brief Introduction

- **Technology:** LiFePO4 outperforms lead-acid in reliability, performance, safety and cleanliness.
- **Gravimetric Energy Density:** Three times higher than the traditional lead-acid battery.
- **Battery Life:** Lasts 4-5 times longer than conventional lead-acid batteries.
- **Self-discharge:** Less than 3% self-discharge rate.
- **Operating Temperature Range:** -20°C~60°C/-4°F~140°F
- **Charging Feature:** Incomplete charges have no impact on battery life, unlike lead-acid batteries.
- **Safety:** Acid-free and leak-proof. It can be installed in any position without risk of leakage, explosion and combustion.
- **BMS (Battery Management System):** 100A BMS for strong protection against short circuits, overloads, and over-discharge, and better cell balance capability to ensure longer battery life.

Environment
Friendly

Long Life

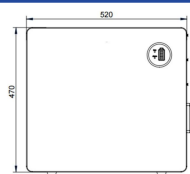
High
Safety



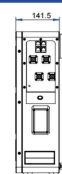
Applications

- Household Energy Storage
- Off Grid Energy Storage System

Dimensions & Weight



Length : 520mm/20.47inch
Width : 470mm/18.5inch



Height : 141.5mm/5.57inch
Weight : 47.2kg/104.05lb



Technical Specifications

Electrical Characteristics	Nominal Voltage	51.2V
	Nominal Capacity	100Ah
	Energy	5120Wh
	Terminal	M8
	Cycle Life	6000@80%DOD
	Months Self Discharge	<3%/Month
	Efficiency Of Charge	100%@0.2C
	Efficiency Of Discharge	96~99%@0.5C
Standard Charge	Charge Voltage	57.6V±0.2V
	Charge Mode	CC/CV
	Charge Recommended Current	20A
	Max. Continuous Charge Current	100A
	Charge Cut-off Voltage	57.6V
Standard Discharge	Discharge Recommended Current	50A
	Max. Continuous Discharge Current	100A
	Discharge Cut-off Voltage	44.8V
Environmental	Charge Temperature	32°F~131°F/0°C~55°C
	Discharge Temperature	-4°F~140°F/-20°C~60°C
	Storage Temperature	50°F~86°F/10°C~30°C
	Water Dust Resistance	IP65
Mechanical	Case Material	Sheet Metal
	Dimensions	520 x 470 x 141.5mm/20.47 x 18.5 x 5.57inch
	Weight	47.2kg/104.05lb

Note: The above data are average values and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact WattCycle® for the latest information.

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BMS Specifications

Over-charge Protection
Over-discharge Protection
Over-current Protection

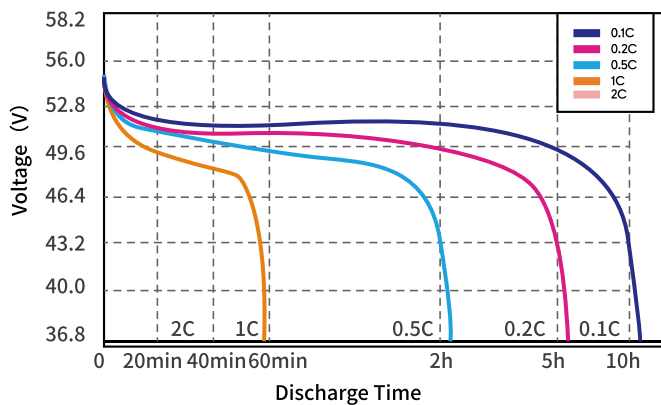
High-temperature Protection
Low-temperature Protection
Short-circuit Protection



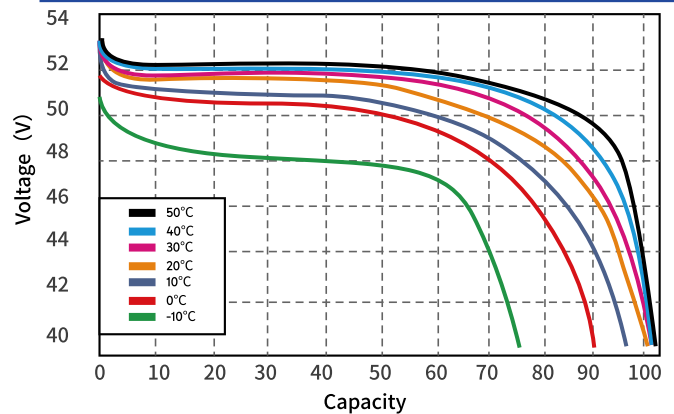
Battery Performance Curve



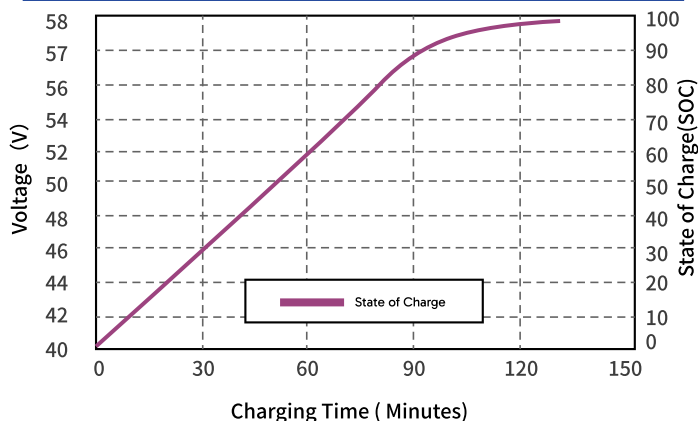
Different Rate Discharge Curve(25°C)



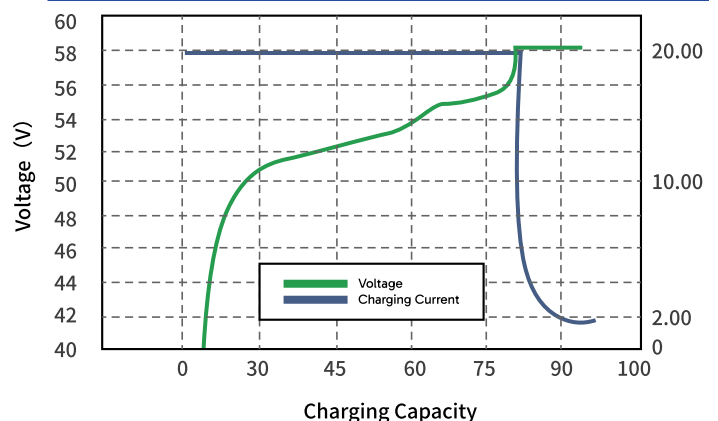
Different Temperature Discharge Curve At 0.5C



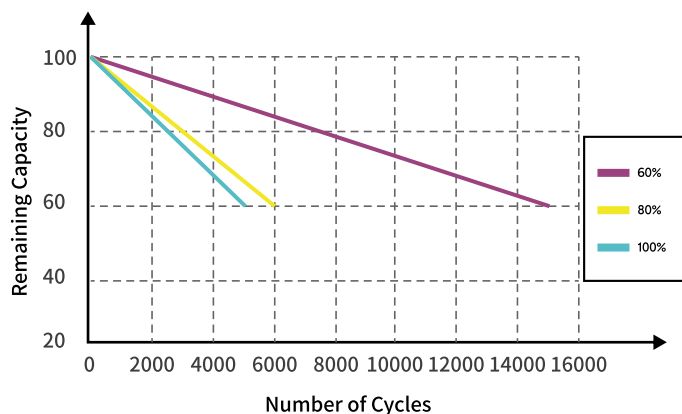
State Of Charge Curve At 0.5C(25°C)



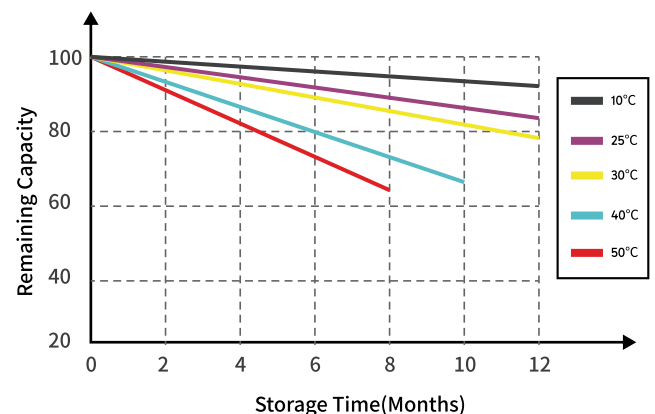
Charging Characteristics At 0.2C(25°C)



Cycle Life Curve At 1C According to DOD



Self Discharge Characteristics Curve



Safety Warning: Use only within the allowed parameters. Do not short-circuit or overload the battery. Use only the approved charger specifically designed for this battery. Do not heat above the maximum temperatures indicated. Never crush, mutilate, puncture or abuse the battery. Do not dismantle the pack or disable any protective devices or circuits. Do not use the battery if you suspect it may be faulty or damaged.