

TECHNICAL DATA SHEET 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°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 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

Specification		
Electrical Characteristics	Nominal Voltage	48.0V
	Nominal Capacity	70Ah
	Energy	3360Wh
	Internal Resistance	\leq 50m Ω
	Cycle Life	>8000cycles @0.3C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100%@0. 2C
	Efficiency of Discharge	96~99%@0.5 C
Standard Charge	Charge Voltage	54.8±0. 1V
	Charge Mode	0.2C to 54.8V,then 54.8V,charge current to 0.02C(CC/CV)
	Charge Current	50A
	Max. Charge Current	70A
	Charge Cut-off Voltage	58.5V±0.2
Standard Discharge	Continuous Current	60A
	Max continuous discharge current	70A
	Discharge Cut-off Voltage	40.0V
Environmental	Charge Temperature	0 ${}^\circ\!\!\!{}^\circ$ to 45 ${}^\circ\!\!\!{}^\circ\!\!{}^\circ$ (32F to 113F) $@60{\pm}25\%$ Relative Humidity
	Discharge Temperature	-20 $^\circ\!\!\mathbb{C}$ to 60 $^\circ\!\!\mathbb{C}$ (-4F to 140F) @60 \pm 25% Relative Humidity
	Storage Temperature	0 ${}^\circ\!\!\!{\rm C}$ to 40 ${}^\circ\!\!\!{\rm C}$ (32F to 104F) $@60{\pm}25\%$ Relative Humidity
	Water Dust Resistance	IP56
Mechanical	Cell & Method	32700 6 Ah 15S12P
	Shell material	Iron(SGCC)
	Dimensions (in./mm.)	560 x 372 x 208
	Weight (lbs./kg.)	Approx:42Kg
	Gravimetric specific energy	85WH/KG
	Protocol (optional)	RS485/RS232/CAN Bus
	SOC (optional)	LED



Probenergy

BATTERY MODEL: YS-48-70-W

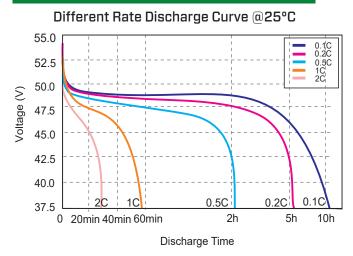
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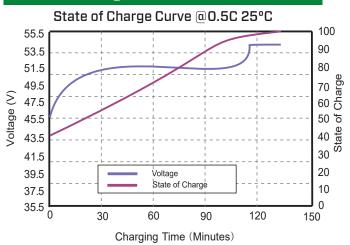
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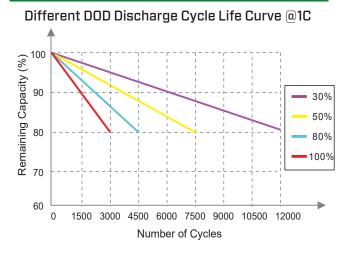
Different Rate Discharge Curve



State of Charge Curve

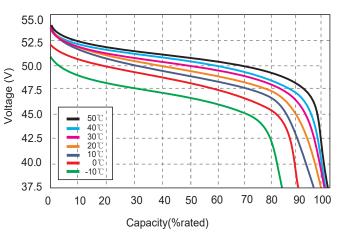


Cycle Life Curve

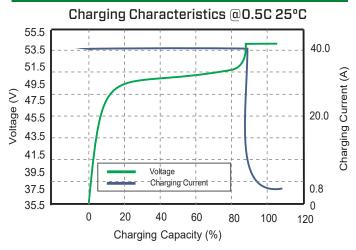


Different Temperature Discharge Curve

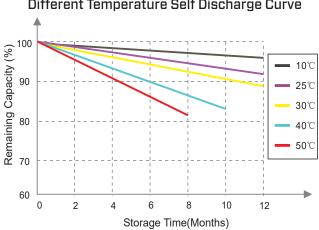
Different Temperature Discharge Curve @0.5C



Charging Characteristics



Self Discharge Characteristics Curve



Different Temperature Self Discharge Curve

Safety certification C RoHS

