

# Lithium Iron Phosphate (LiFePO<sub>4</sub>) Battery

## YS12.8-100 (12.8V, 100AH)

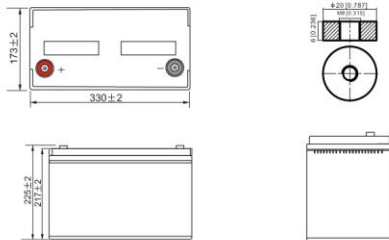
### Features of LiFePO<sub>4</sub> Battery

- **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.



### Standard Version Without Bluetooth

### Physical Dimension



### Application

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

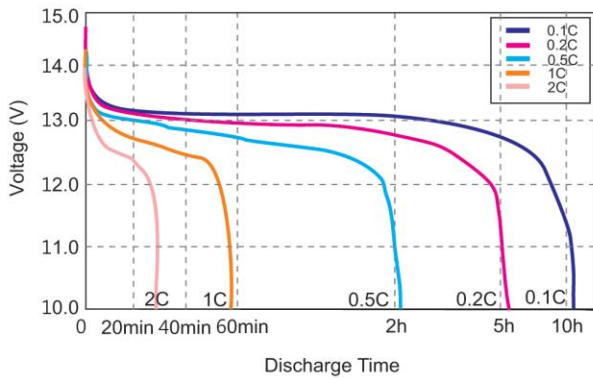
### Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	100Ah
	Energy	1280Wh
	Internal Resistance	≤20mΩ
	Cycle Life	>2000 cycles @1C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.5C
	Efficiency of Discharge	96~99% @1C
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)
	Charger Current	50A
	Max. Charge Current	80A
	Charge Cut-off Voltage	14.6V ± 0.1V
Standard Discharge	Continuous Current	100A
	Max. Pulse Current	120A (<3s)
	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	IP56
Mechanical	Cell & Method	2770180 4S4P
	Plastic Case	ABS
	Dimensions (mm./in.)	330*173*217mm (13.0"*6.81"*8.54")
	Weight (kg./lbs.)	13.6kg (29.98lbs)
	Terminal	M8
	In parallel	Not allowed

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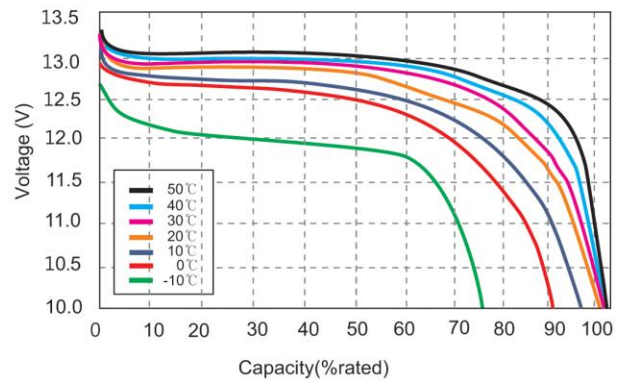
## Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



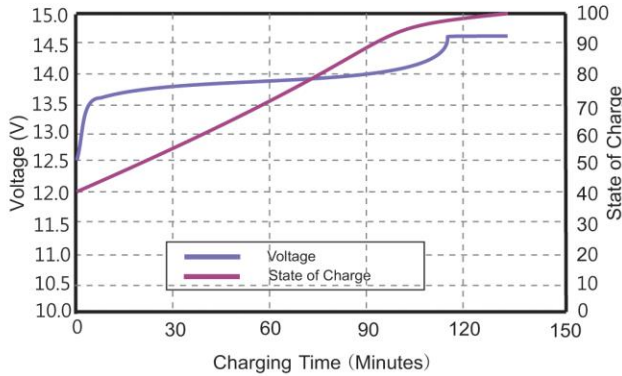
## Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



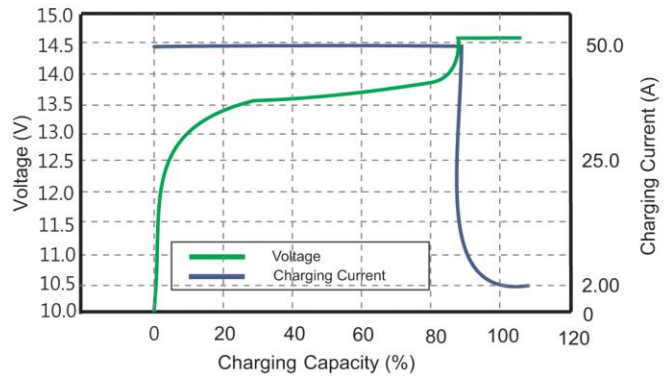
## State of Charge Curve

State of Charge Curve @0.5C 25°C



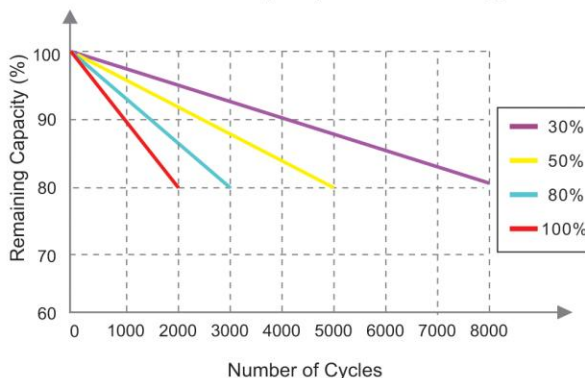
## Charging Characteristics

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

