

## 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

## BATTERY MODEL: YS-24-100-B (24V 100Ah)



## **Application**

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

## **Specification**

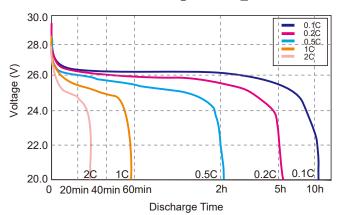
	Nominal Voltage	24V
Electrical Characteristics	Nominal Capacity	100Ah
	Energy	2560Wh
	Internal Resistance	≤20mΩ
	Cycle Life	>4000 cycles @1C 90%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.5C
	Efficiency of Discharge	96~99% @1C
Standard Charge	Charge Voltage	28.8±0.1V
	Charge Mode	0.2C to 28.8V, then 28.8V, charge current to 0. 02C (CC/CV)
	Charger Current	50A
	Max. Charge Current	80A
	Charge Cut-off Voltage	29.2V±0.1V
Standard Discharge	Continuous Current	100A
	Max. Pulse Current	300A(<2s)
	Discharge Cut-off Voltage	20V
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	IP56
Mechanical	Cell & Method	IFR32700 6000mAh 8S17P
	Plastic Case	ABS
	Dimensions (mm./in.)	521x238x222mm
	Weight (kg./lbs.)	24.0kg
	Terminal	M8





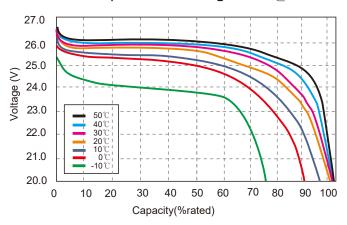
#### **Different Rate Discharge Curve**

Different Rate Discharge Curve @25°C



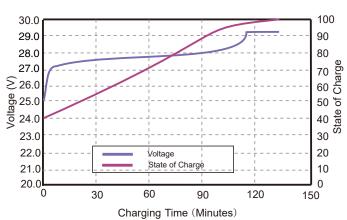
# Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



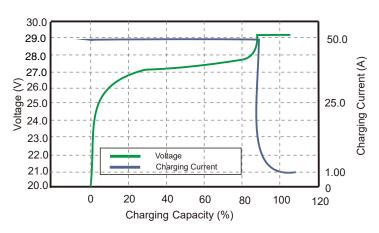
#### State of Charge Curve

State of Charge Curve @0.5C 25°C



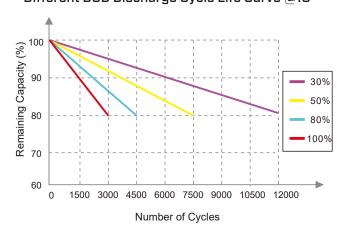
## **Charging Characteristics**

Charging Characteristics @0.5C 25°C



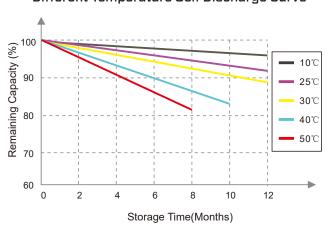
## **Cycle Life Curve**

Different DOD Discharge Cycle Life Curve @1C



#### **Self Discharge Characteristics Curve**

Different Temperature Self Discharge Curve



Safety certification | € RoHS

