

# 12.8V-20Ah Lithium Iron Phosphate (LiFePO4) Battery

### **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.



#### **Physical Dimension-mm**



Dimension: (mm) L181\*W76\*H165 Colour: Black

M6 Terminal



# **Typical Applications**

- Solar/Wind Energy Storage
- Back-up Power for UPS/ EPS
- Telecommunication
- Low Speed Electric Vehicles
- Marine Boats
- DC Power Supply
- Auto Control System
- Power Tools
- Electric Toys

## **Specification**

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	20Ah
	Minimum Capacity	19.5Ah
	Energy	256Wh
	Cycle Life	>2000 cycles @0.2C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.2C
	Efficiency of Discharge	96~99% @0.2C
	BMS Functions	Over charge, over discharge, over current, short circuit and temperature
		protection
Standard Charge	Charge Voltage	14.4V
	Charge Mode	0.2C to 14.4V, then 14.4V,charge current to 0.02C (CC/CV)
	Charge Current	4A
	Max. Charge Current	10A
Standard Discharge	Standard Discharge Current	4A
	Max Continuous Discharge	20A
	Current	
	Discharge Cut-off Voltage	10V±0.5V
Environmental	Charge Temperature	0 °C to 55 °C (32F to 131F) @60±25% Relative Humidity
	Discharge Temperature	-20 °C to 60 °C (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	-20 °C to 45 °C (-4F to 113F) @60±25% Relative Humidity
	IP Class	IP65
Mechanical	Plastic Case	ABS
	Approx. Dimensions	L181*W76*H165mm
	Approx. Weight	2.4kG

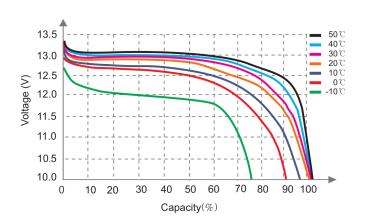


# 12.8V-20Ah Lithium Iron Phosphate (LiFePO4) Battery

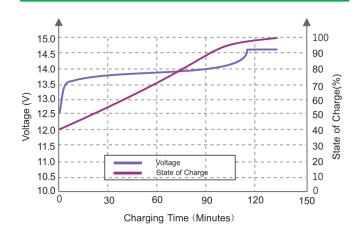
# Different Rate Discharge Curve (25°C)

#### 

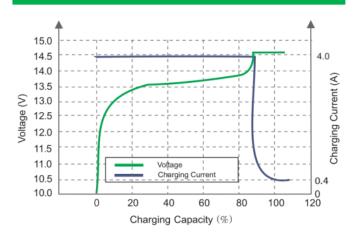
## **Different Temperature Discharge Curve (0.2C)**



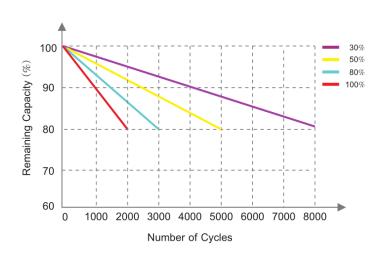
### State of Charge Curve (0.2C, 25°C)



### Charging Characteristics (0.2C, 25°C)



## **Different DOD Discharge Cycle Life Curve (0.2C)**



#### **Different Temperature Self Discharge Curve**

