

# 12.8V-120Ah Lithium Iron Phosphate (LiFePO4) Battery

## Features of LiFePO4 Battery

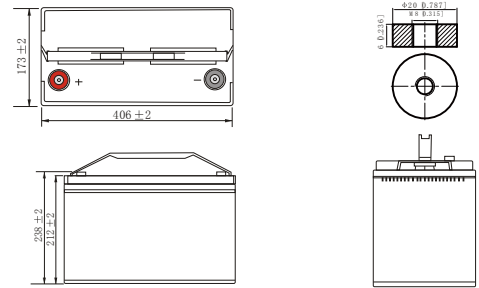
- **Longer Cycle Life:** Offers up to 20 times longer cycle life and five times longer float/calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement 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.
- **Increased Flexibility:** Modular design enables deployment of up to four batteries in series and up to ten batteries in parallel.



## Application

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

## Physical Dimension



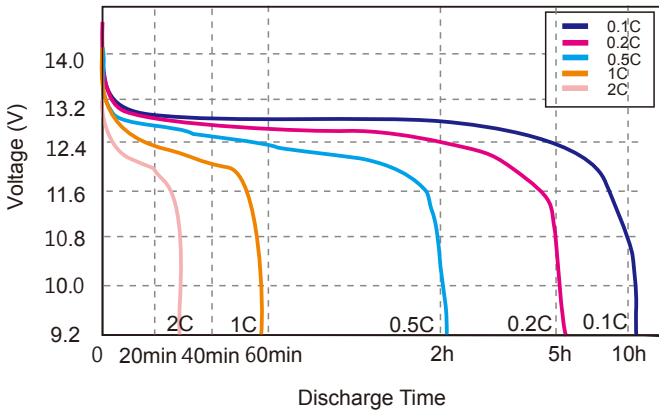
## Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	120Ah
	Energy	1536Wh
	Internal Resistance	≤45mΩ
	Cycle Life	>2000 cycles @0.2C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.2C
	Efficiency of Discharge	96~99% @100A
Standard Charge	Charge Voltage	14.6 ± 0.2V
	Charge Mode	0.2C to 14.6V, then 14.6V, charge current to 0.02C (CC/CV)
	Charger Current	24A
	Max. Charge Current	60A
	Charge Cut-off Voltage	15.6V ± 0.2V
Standard Discharge	Continuous Current	24A
	Max. Pulse Current	100A
	Discharge Cut-off Voltage	8V
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	IP65
Mechanical	Cell & Method	32700 4S20P
	Plastic Case	ABS
	Dimensions (in./mm.)	406*173*238mm (15.98"*6.81"*9.37")
	Weight (lbs./kg.)	15.6Kg
	Terminal	M8

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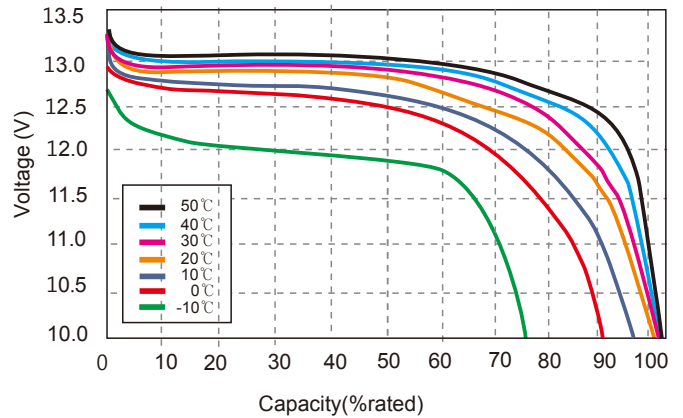
## Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



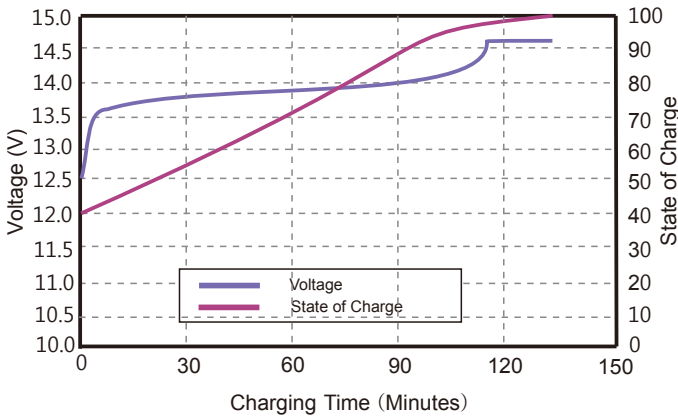
## Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



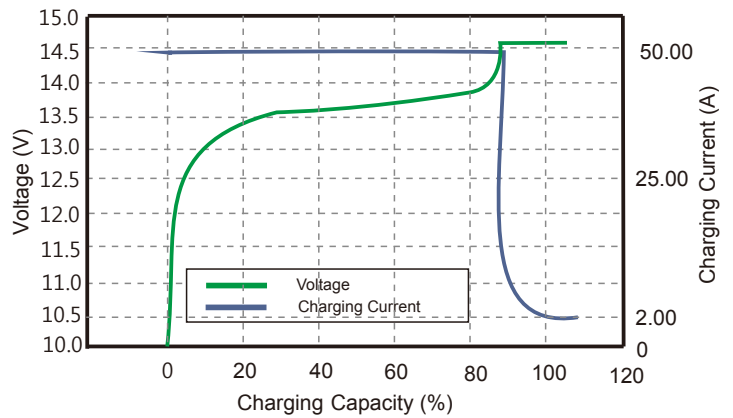
## State of Charge Curve

State of Charge Curve @0.5C 25°C



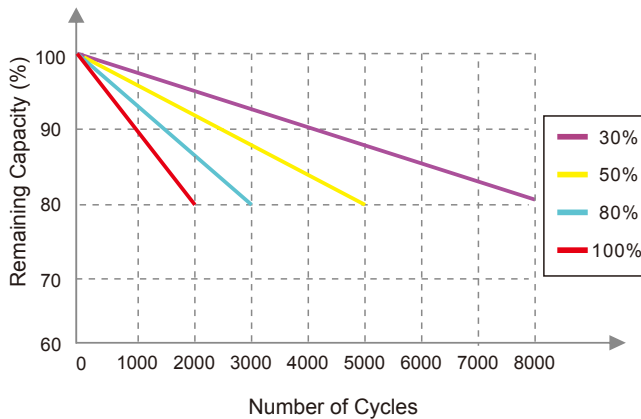
## Charging Characteristics

Charging Characteristics @0.5C 25°C



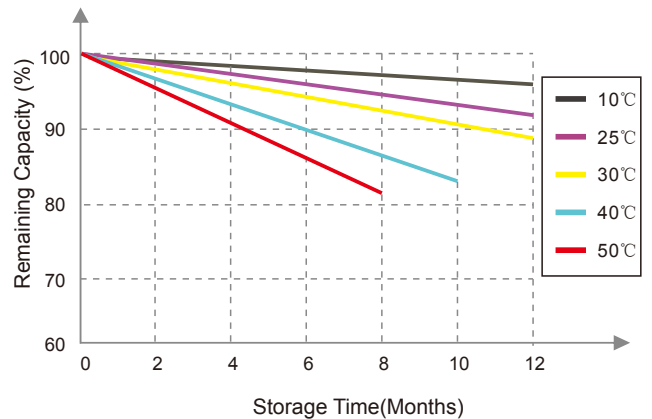
## Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



## Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve



**SHENZHEN HIMAX EL ELECTRONICS CO.,LTD.**

Building C, Huaming Industrial Park, Huaming Road, Dalang, Longhua, Shenzhen China 518000  
www.himaxelectronics.com