



# Lithium Iron Phosphate (LiFePO4) Battery

## SP12.8-55 (12.8V55AH/5HR)



### Features of LiFePO4 Battery

**Longer cycle life:** Up to 2000 times longer cycle life and five times longer float/calendar life than lead acid battery, minimize replacement cost and reduce total cost.

**Lighter Weight:** About 40% of the weight of a comparable lead acid battery.

**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

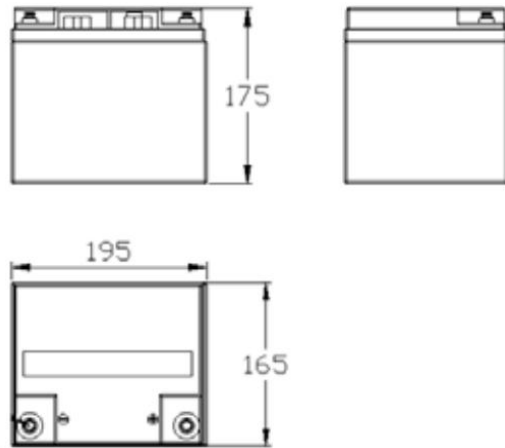
**Super Safety:** Lithium Iron Phosphate Chemistry eliminates the risk of explosion or combustion due to high impact, over charging or short circuit situation.

**Increased Flexibility:** Modular design enables deployment of up to four batteries in series and up to four batteries in parallel.

### Application:

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

### Physical Dimension



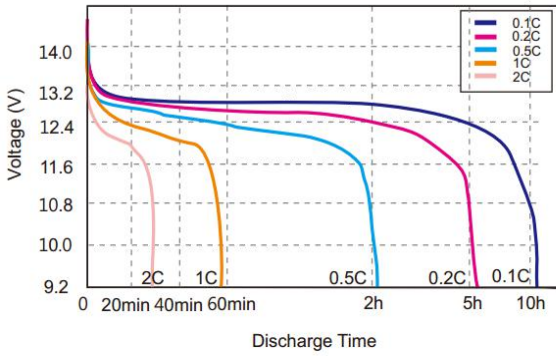
### Specification:

<b>Electrical Characteristics</b>	Nominal Voltage	12.8V
	Nominal Capacity	55AH
	Energy	704Wh
	Internal Resistance	≤25mΩ
	Cycle life	>2000 cycles at 0.2C 100% DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% at 0.5C
	Efficiency of discharge	96~99% at 1C
<b>Charge</b>	Charge volt	14.6±0.2V
	Charge Mode	CC at 0.2C to 14.6V, then at CV14.6V to charge current less than 0.02C
	Charge Current	12A
	Max. Charge current	30A
	Charge cut off voltage	15.6V±0.2V
<b>Discharge</b>	Max. Continuous Current	55A
	Max. Pulse Current	180A (<30 ms)
	Discharge Cut-off Voltage	10V
<b>Environment</b>	Charge Temperature	0°C to 45°C (32F to 113F) at 60±25% Relative Humidity
	Discharge Temperature	- 20°C to 60°C (-4F to 140F) at 60±25% Relative Humidity
	Storage Temperature	0°C to 40°C (32F to 104F) 60±25% Relative Humidity
	Water Dust Resistance	IP56
<b>Mechanical</b>	Cell material	LiFePO4
	Plastic Case	ABS
	Dimensions (in./mm)	197*165*175mm (7.76**6.50**6.89")
	Weight (lbs./kg.)	6.40KG (14.11lbs)
	Terminal	M6

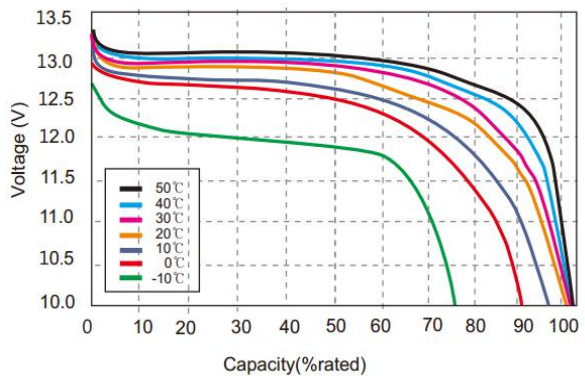
**Discharge Curve at different rate at 25°C**

**Discharge Curve at different temperature at 0.5C rate**

Different Rate Discharge Curve @25°C



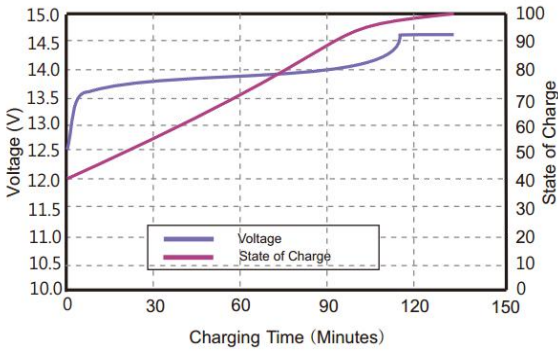
Different Temperature Discharge Curve @0.5C



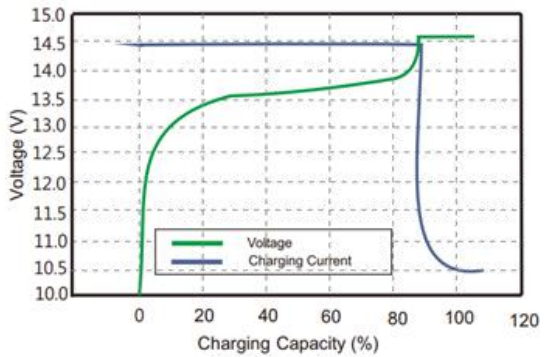
**Discharge Curve at different rate at 25°C**

**Discharge Curve at different rate at 25°C**

State of Charge Curve @0.5C 25°C



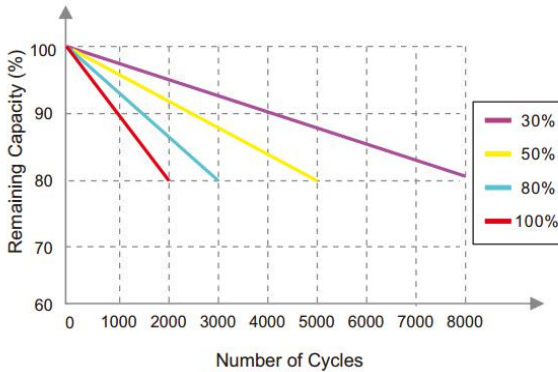
Charging Characteristics @0.5C 25°C



**Cycle Life @ Different DOD Discharge at 1C**

**Different Temperature Self Discharge Curve**

Different DOD Discharge Cycle Life Curve @1C



Different Temperature Self Discharge Curve

