

## 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: L180.5xW76xH165mm Color: Black/ Orange

Terminal Specifications: M6 Terminal



# **Specification**



# **Typical Applications**

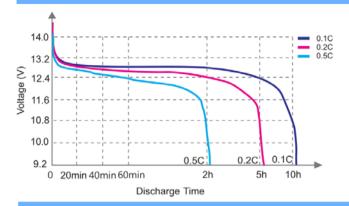
- Solar/Wind Energy Storage
- Back-up Power for UPS/ EPS
- Telecommunication
- Low Speed Electric Vehicles
- Marine Boats
- DC Power Supply
- Auto Control System
- Power Tools
- Electric Toys

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	16Ah
	Minimum Capacity	16Ah
	Energy	204.8Wh
	Cycle Life	>2000 cycles @0.5C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.5C
	Efficiency of Discharge	96~99% @0.5C
	BMS Functions	Over charge, over discharge, over current, short circuit and temperature protection
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)
	Charge Current	3A (can be customized)
	Max. Charge Current	15A
	Charge Cut-off Voltage	14.6V±0.2V
Standard Discharge	Max Continuous Discharge Current	20A (can be customized)
	Peak Discharge Current	60A 1-3S
	Discharge Cut-off Voltage	10V±0.5V
Environmental	Charge Temperature	0 ℃ to 55 ℃ (32F to 131F) @60±25% Relative Humidity
	Discharge Temperature	-20 ℃ to 60 ℃ (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	-20 ℃ to 45 ℃ (-4F to 113F) @60±25% Relative Humidity
	IP Class	IP65
	Plastic Case	ABS
Mechanical	Approx. Dimensions	L180.5xW76xH165mm
	Approx. Weight	2.0kgs

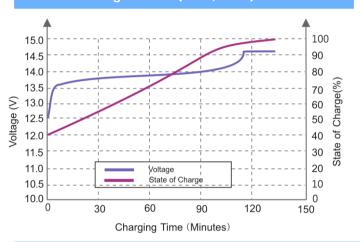


# GRELF1216 (LFP 12.8V 16Ah)

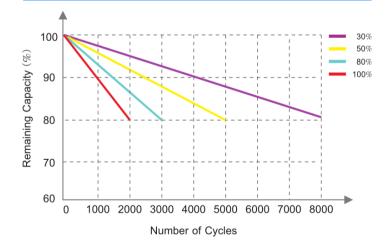
## Different Rate Discharge Curve (25°C)



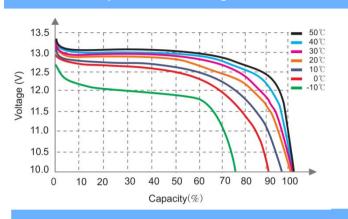
#### State of Charge Curve (0.5C, 25°C)



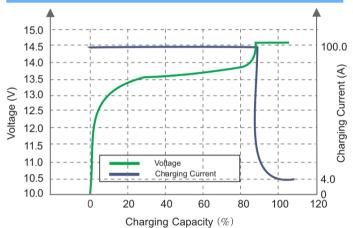
Different DOD Discharge Cycle Life Curve (0.5C)



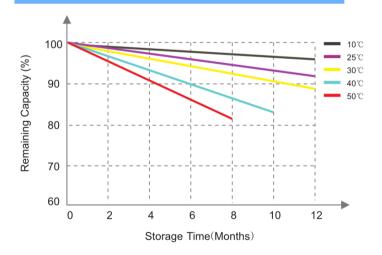
## Different Temperature Discharge Curve (0.5C)



Charging Characteristics (0.5C, 25°C)



Different Temperature Self Discharge Curve



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