

**BATTERY MODEL: LM1218LFP**  
**(12.8V18AH)**  
**DEEP CYCLE**



### Features of LiFePO4 battery

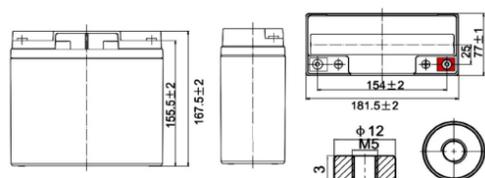
- **Longer Cycle Life:** Offers up to 20times longer cycle life and five times longer float /calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement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

### Physical Dimension

#### Dimensions

#### M5 Terminal

Unit: mm | Dimensions: 181.5 Length X 77 Width X 167.5 Height (167.5 Height incl. Terminal)



### Application

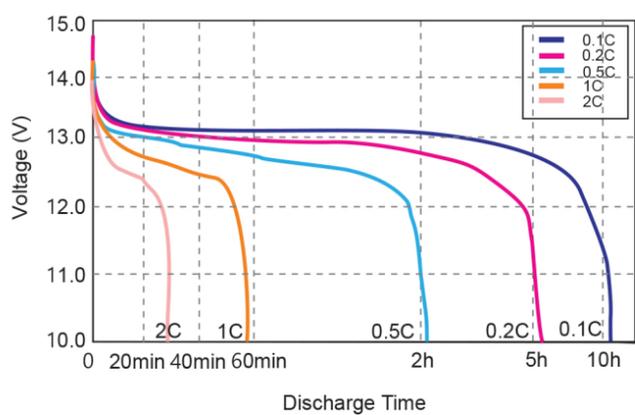
- Solar/wind energy storage system
- UPS, backup power
- Telecommunication
- Medical equipment
- Lighting
- Marine, RV

### Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	18Ah
	Energy	230.4Wh
	Internal Resistance	≤20mΩ
	Cycle Life	>3000 cycles @1C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.5C
	Efficiency of Discharge	96~99% @1C
Standard Charge	Charge Voltage	14.6±0.1V
	Charge Mode	0.2C to 14.4V, then 14.6V,charge current to 0.02C (CC/CV)
	Charger Current	10A
	Max. Charge Current	18A
	Charge Cut-off Voltage	15.0V±0.1V
Standard Discharge	Continuous Current	18 A
	Max. Pulse Current	50A(<3s )
	Discharge Cut-off Voltage	10V
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	Cylindrical 6AH 4S3P
	Plastic Case	ABS
	Dimensions (mm./in.)	L181x W77 x H167
	Weight (kg./lbs.)	3.0kg
	Terminal	M5 Screws and nuts
	In parallel or Series	Max 4 pcs in Parallel, or Max 4 pcs in Series
	Bluetooth Function	NO

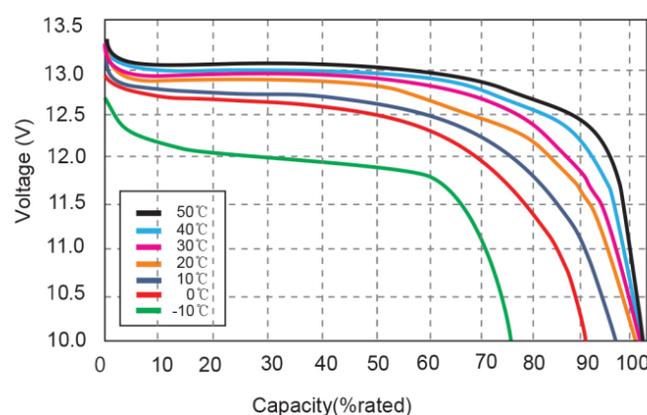
### Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



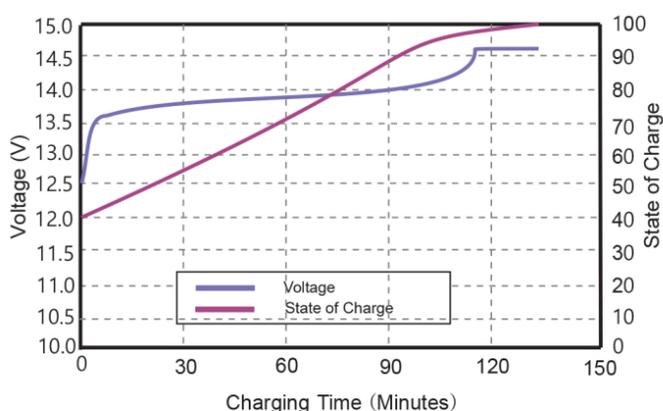
### Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



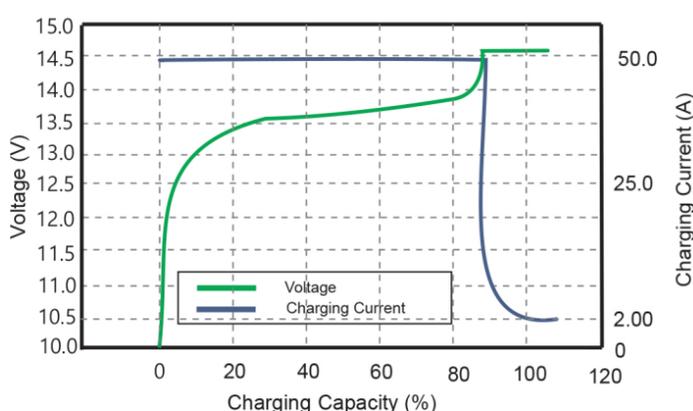
### State of Charge Curve

State of Charge Curve @0.5C 25°C



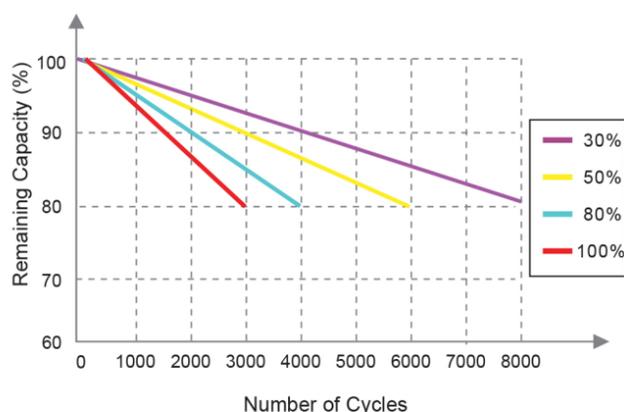
### Charging Characteristics

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

