MERLION

LFP12.8-18 (12,8V 18Ah)

Lithium Iron Phosphate (LiFePO4) Battery

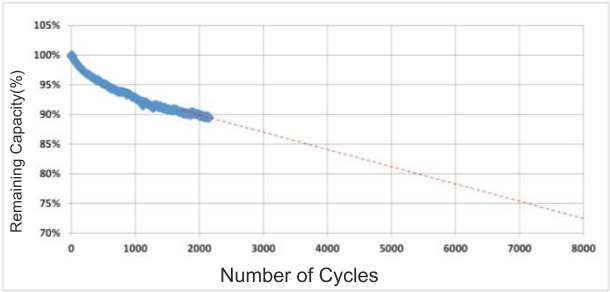
Features of LiFePO4 Battery

- **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℃~60℃.
- **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

Cycle Life Curve



Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	18Ah (C5,25℃)
	Energy	230.4Wh
	Internal Resistance	≤100mΩ
	Cycle Life	>2000 cycles @1C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.2C
	Efficiency of Discharge	96~99% @1C
Standard Charge	Charge Voltage	14.6±0. 2V
	Charge Mode	0.2C to 14.6V, then 14.6,charge current 0.02C(CC/CV)
	Charger Current	20A
	Max. Charge Current	20A
	Charge Cut-off Voltage	14.8V±0.2V
Standard Discharge	Continuous Current	20A
	Max. Pulse Current	60A(<3s)
	Discharge Cut-off Voltage	10V
Environmental	Charge Temperature	0 ℃ to 45 ℃ (32F to 113F) @60?25% Relative Humidity
	Discharge Temperature	-20 ℃ to 60 ℃ (-4F to 140F) @60?25% Relative Humidity
	Storage Temperature	0 ℃ to 40 ℃ (32F to 104F) @60?25% Relative Humidity
	Water Dust Resistance	
Mechanical	Cell & Method	3.2V6AH-4S3P
	Plastic Case	ABS
	Dimensions (in./mm.)	181*77*168 mm
	Weight (lbs./kg.)	2.8Kg
	Terminal	M5
	Protocol (optional)	NO
	BMS	4S20A