

Lithium Iron Phosphate (LiFePO4) Battery

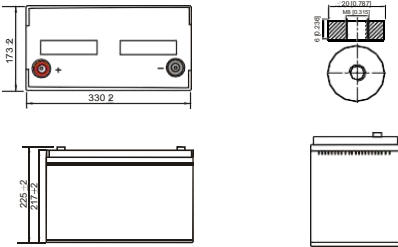
12LGCM-100DC (12.8V)

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.



Physical Dimension



Application

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

Specification

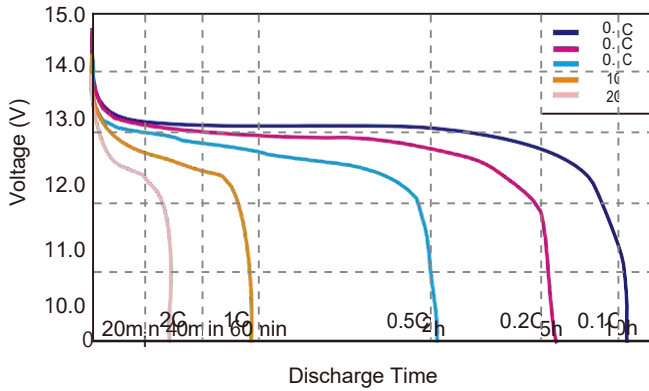
Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	100Ah
	Energy	1280Wh
	Internal Resistance	≤20mΩ
	Cycle Life	>2000 cycles @1C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.5C
	Efficiency of Discharge	96~99% @1C
Standard Charge	Charge Voltage	14.4±0.1V
	Charge mode	0.2C to 14.4V, then 14.4V,charge current to 0.02C (CC/CV)
	Charge Current	50A
	Max charge current	100A
	Charge Cut-off Voltage	14.6V±0.1V
Standard Discharge	Continuous Current	100A
	Max. Pulse Current	300A(<2s)
	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	IP56
Mechanical	Cell & Method	32700 6000mAh 4S17P
	Plastic Case	ABS
	Dimensions (mm./in.)	L260*W167*H212mm
	Weight (kg./lbs.)	12.5kg (28.85lbs)
	Terminal	M8



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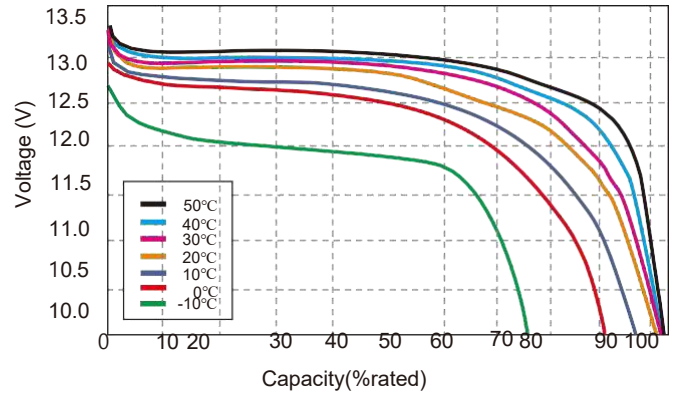
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



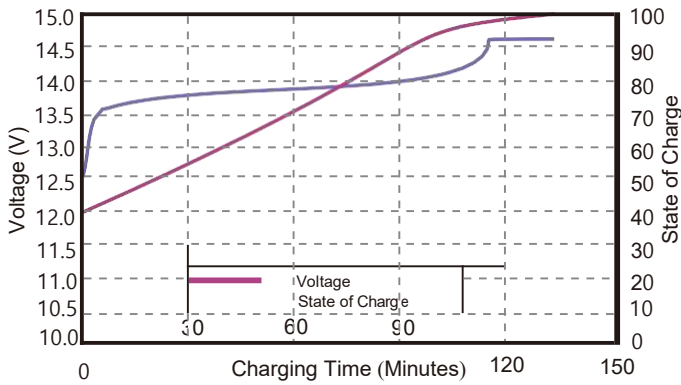
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



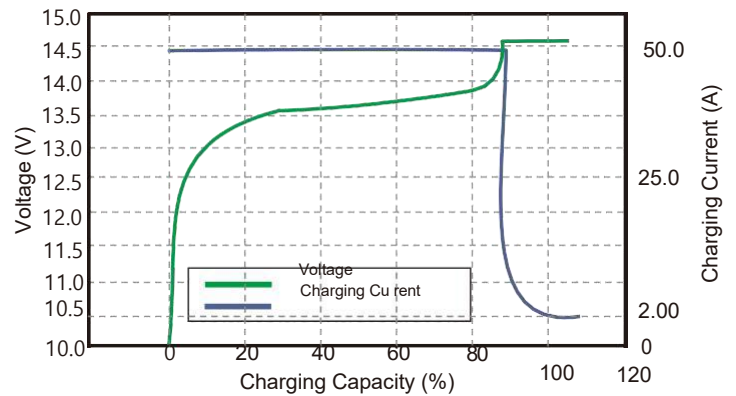
State of Charge Curve

State of Charge Curve @0.5C 25°C



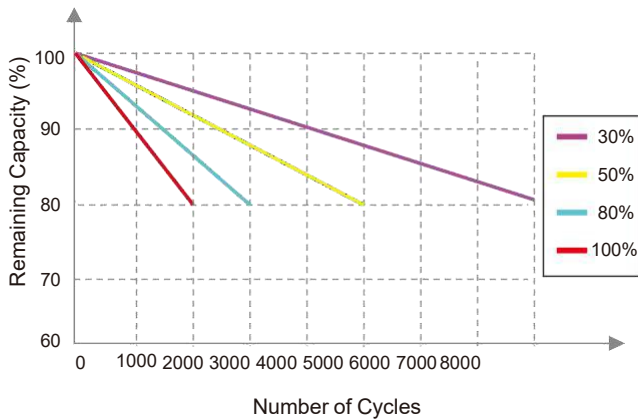
Charging Characteristics

Charging Characteristics @0.5C 25°C



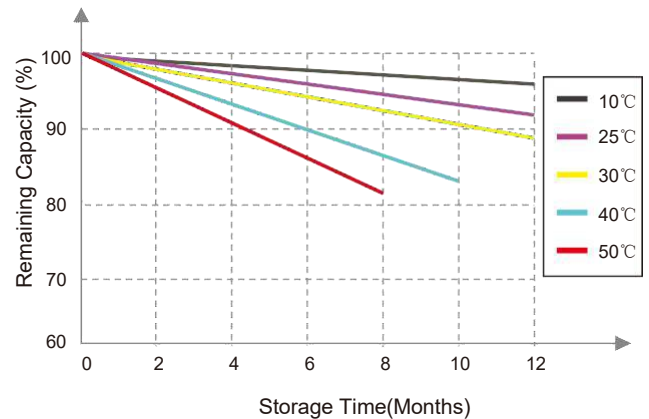
Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve



12LGCM-100DC LiFePO₄ DEEP CYCLE BATTERY