

EXTRACELL Lithium Iron Phosphate (LiFePO₄) Battery

ELBLIFP (12.8V40Ah)

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.

Application

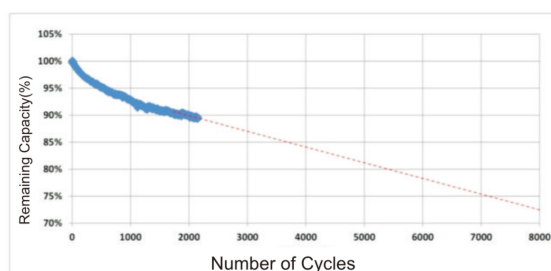
- Electric vehicles, electric mobility
- Solar/wind energy storage system
- UPS, backup power
- Telecommunication
- Medical equipment
- Lighting

Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	40Ah(C ₅ ,25°C)
	Energy	512Wh
	Internal Resistance	≤150mΩ
	Cycle Life	>2000cycles@1C100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100%@0.2 C
	Efficiency of Discharge	96~99%@1 C
Standard Charge	Charge Voltage	14.6±0.2V
	Charge Mode	0.2Cto14.6V,then14.6,charge current0.02C(CC/CV)
	Charger Current	20A
	Max. Charge Current	40A
	Charge Cut-off Voltage	14.8V±0.2V
Standard Discharge	Continuous Current	40A
	Max. Pulse Current	150A(<3s)
	Discharge Cut-off Voltage	10.8V
Environmental	Charge Temperature	0°Cto45°C(32°Fto113°F)@60±25%Relative Humidity
	Discharge Temperature	-20°Cto60°C(-4°Fto140°F)@60±25%Relative Humidity
	Storage Temperature	0°Cto40°C(32°Fto104°F)@60±25%Relative Humidity
	Water Dust Resistance	
Mechanical	Cell & Method	3.2V40AH-4S1P
	Plastic Case	ABS
	Dimensions (in./mm.)	198*166*170mm
	Weight (lbs./kg.)	5Kg
	Terminal	M6
	Protocol (optional)	NO
	BMS	4S40A



Cycle Life Curve

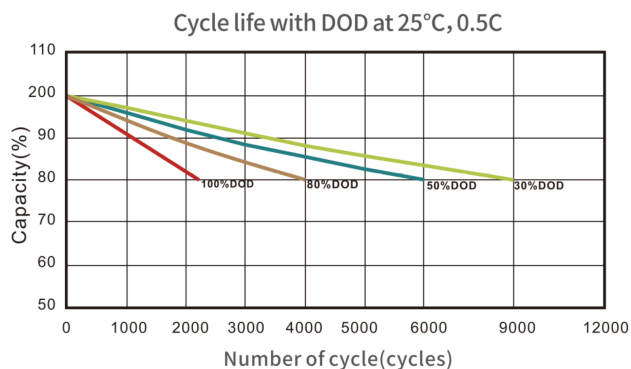


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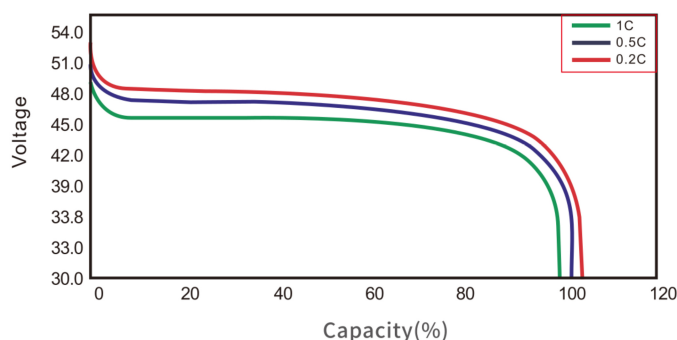
ELBLIFP (12.8V40Ah)

Model Performance Diagrams

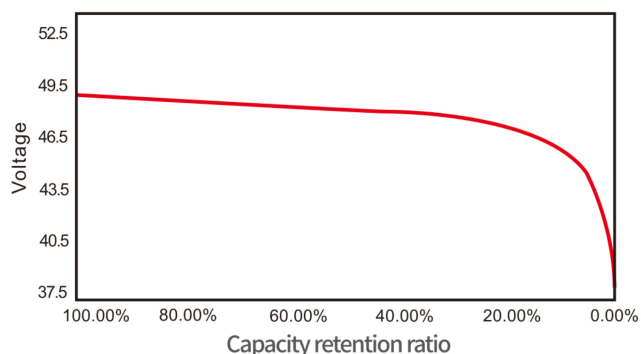
Number of Cycles Vs. DOD



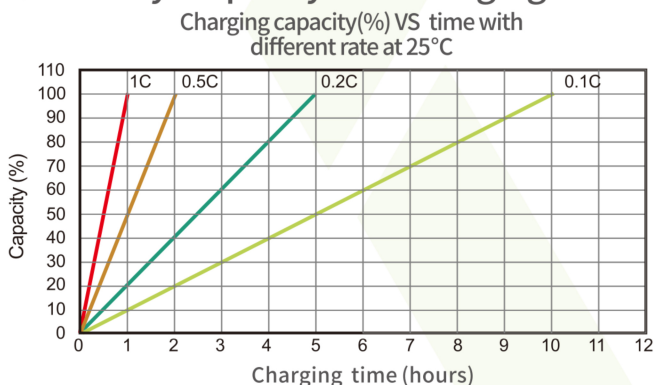
Discharge Performance at R.T.



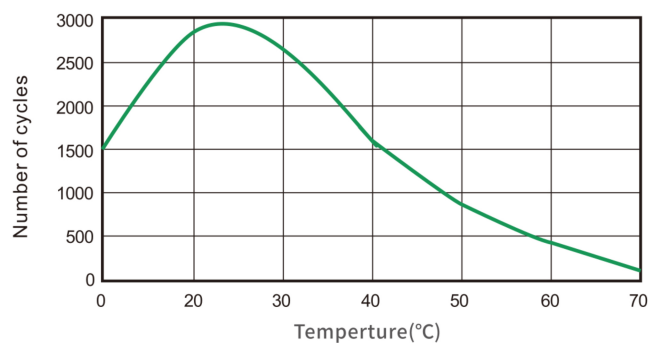
Battery Capacity (C) VS. Open Circuit Voltage (OCV) SOC Vs OCV



Battery Capacity Vs. Charging Time



Cycle Life in Relation to Temperature



Temperature Effects on Capacity

