

EXTRACELL Lithium Iron Phosphate (LiFePO4) Battery

ELFP12.8-6

Features of LiFePO4 Battery

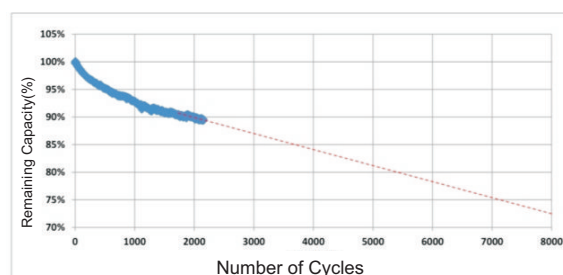
- **Longer Cycle Life:** Offers up to 20 times longer cycle life and five times longer float/calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement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

Cycle Life Curve



Specification

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	6Ah(C ₅ ,25°C)
	Energy	76.8Wh
	Internal Resistance	≤100mΩ
	Cycle Life	>6000cycles@0.2C
	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	1.2A
	Max. Charge Current	6A
	Charge Cut-off Voltage	14.8V±0.2V
Standard Discharge	Continuous Current	1.2A
	Max. Pulse Current	30A(<3s)
	Discharge Cut-off Voltage	10V
Environmental	Charge Temperature	0°C~45°C(32°Fto113°F)@60±25% Relative Humidity
	Discharge Temperature	-20°C~60°C(-4°Fto140°F)@60±25% Relative Humidity
	Storage Temperature	0°C~40°C(32°Fto104°F)@60±25% Relative Humidity
	Water Dust Resistance	
Mechanical	Cell & Method	3.2V6AH-4S1P
	Plastic Case	ABS
	Dimensions (in./mm.)	151*65*95mm
	Weight (lbs./kg.)	0.8Kg
	Terminal	T2
	Protocol (optional)	NO
	BMS	4S10A

ELCART DISTRIBUTION SPA via Michelangelo Buonarroti, 46 - 20093 Cologno Monzese (Milano) ITALY
 Tel. +39 02.25117310 Fax +39 02.25117610 sito internet: www.elcart.com e-mail: tecnico@elcart.it

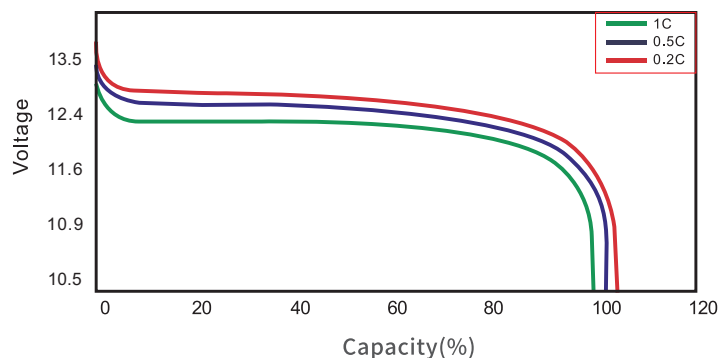
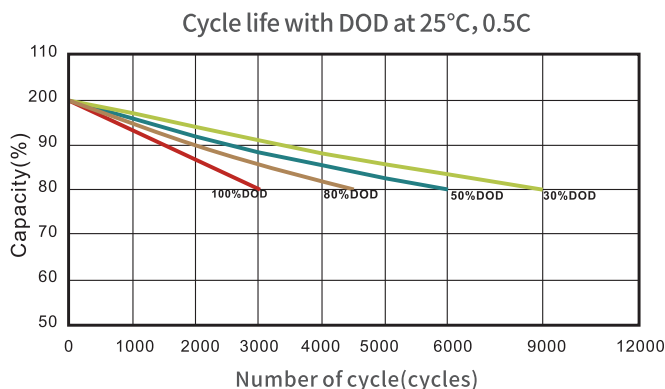
La divulgazione dei dati contenuti in questa scheda è da ritenersi un servizio puramente informativo e non costituisce alcun vincolo da parte della Elcart in merito a prestazioni ed utilizzo del prodotto.
 The divulgation of data contained on this technical sheet are exclusively for informational reasons and establish no link on behalf of Elcart regard to the performances and the use of the product.
 La divulgación de los datos contenidos en esta ficha son un servicio unicamente informativo y no constituyen ningun vínculo de parte de Elcart respecto a las prestaciones y uso del producto.

EXTRACELL Lithium Iron Phosphate (LiFePO₄) Battery

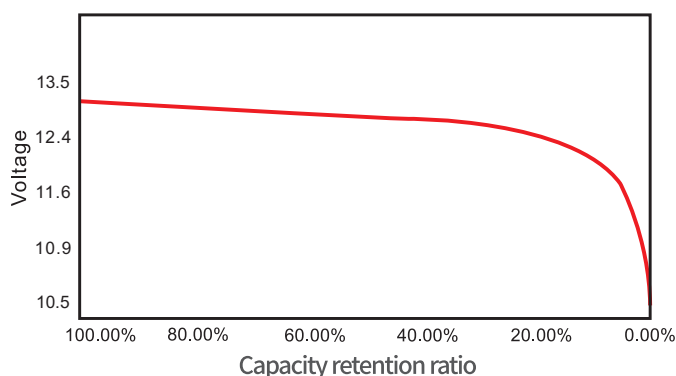
ELFP12.8-6

Model Performance Diagrams

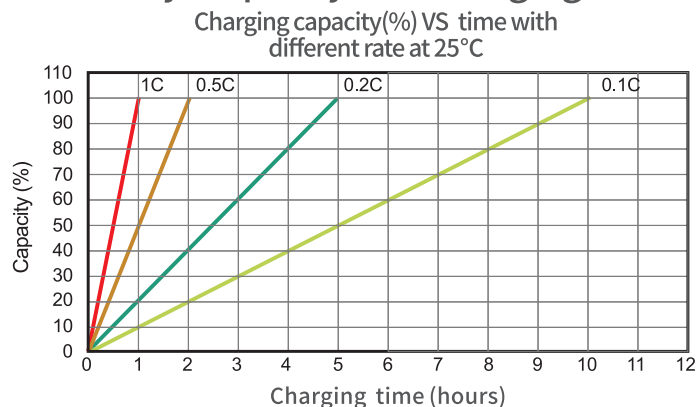
Number of Cycles Vs. DOD



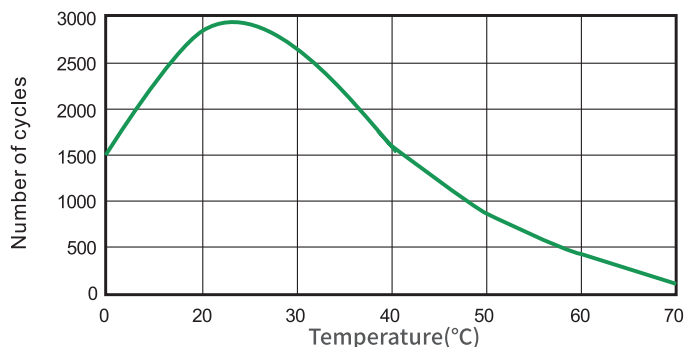
Battery Capacity (C) VS. Open Circuit Voltage (OCV)



Battery Capacity Vs. Charging Time



Cycle Life in Relation to Temperature



Temperature Effects on Capacity

