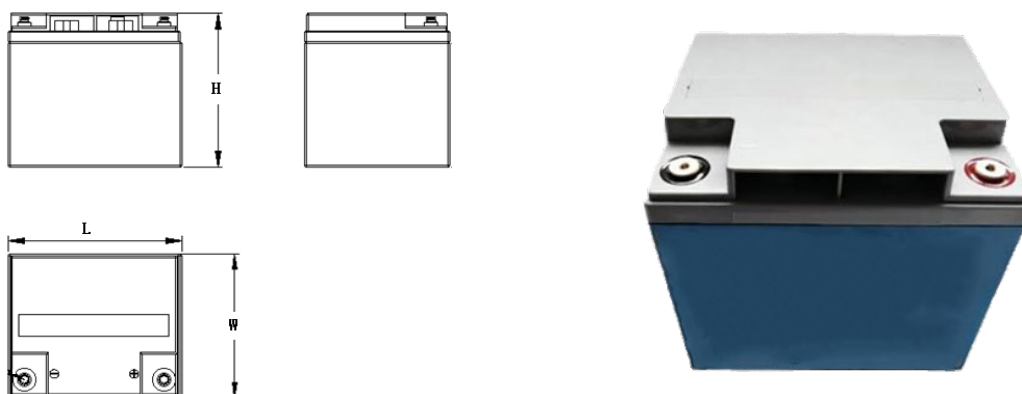


Lithium Iron Phosphate (LiFePO₄) Battery 12.8 V - 59.4 Ah LX12-59HE1

1. Features of LiFePO₄ Battery

- ✓ **Reliable quality:** We focus on the various parts of production, from suppliers' selection to the production of phosphate material, lithium battery cell production and assembly of battery packs, to make sure the traceability of the products.
- ✓ **Long cycle time:** Provide 10 times longer cycle life than lead acid battery. Help to minimize replacement cost and reduce total cost of ownership.
- ✓ **Higher power:** Deliver twice power with higher discharge rate compared with lead acid battery. It also can sustain higher charge current and limit the charge time.
- ✓ **Lighter weight:** It's only 50% of the lead-acid batter weight. A drop in replacement for lead acid battery. Wider temperature range: **-20 °C-60 °C**.
- ✓ **Super safety:** Lithium Iron phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharged or short circuit situation.
- ✓ **Environment friendly:** Lithium battery materials do not have any poisonous and harmful substances whether in production or in use. Now it has been widely accepted by more and more countries

2. Physical Dimension-mm



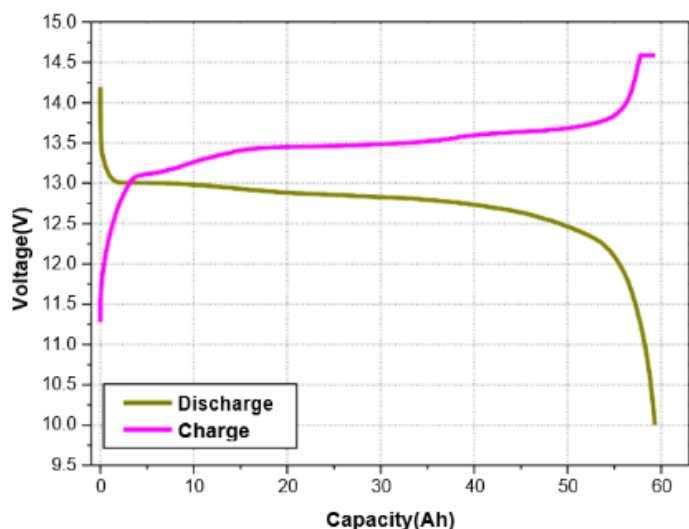
3. Specification

Product Reference	LX12-59HE1	
Electrical Characteristics	Normal Voltage	12.8 V
	Rated Capacity	59.4±2 Ah (0.2C)
	Energy	About 760.32 Wh
	Internal Resistance	≤40 mΩ
	Cycle Life	≥1, 600@0.2C (100%DOD)
		≥3, 200@0.2C (80%DOD)
≥5, 600@0.2C (50%DOD)		
Passive Protection Function	Over charge protection, Over discharge protection, Temperature protection, Balanced function	
Standard Charge	Charge Voltage	14.4±0.15 V
	Charge Mode	0.2C to 14.4 V, then 14.4 V, charge current to 0.01C (CC/CV)
	Charge Current	12 A
	Max. Charge Current	30 A
Standard Discharge	Continuous Current	30 A
	Max Continuous Current	≤60 A
	Max. Pulse Current	60-180 A (≤20 ms)
	Discharge Cut-off Voltage	About 10.0 V
Environmental	Charge Temperature	0°C to 45 °C
	Discharge Temperature	-20 °C to 60 °C
	Storage Temperature	0 °C to 40 °C
Mechanical	Material System	LiFePO4
	Material of Case	Plastic
	L (mm) ×W (mm) × H (mm)	(195±2) ×(165±2)×(175±2)
	Weight	6.4±0.5 kg
	Terminal	M6

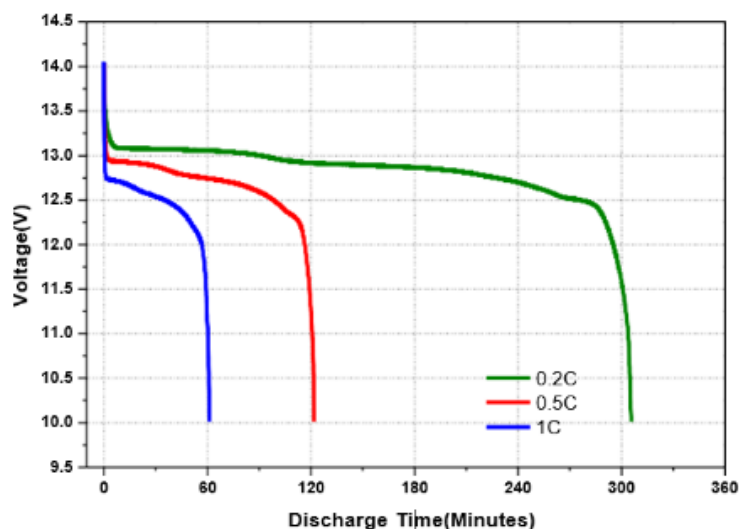
Please note that: the above are our regular parameters, which can be customized according to actual requirements. Please consult our technical engineers for details.

Please note that: in the following curves, if the testing current is bigger than this current, please remove the PCB and match suitable wires.

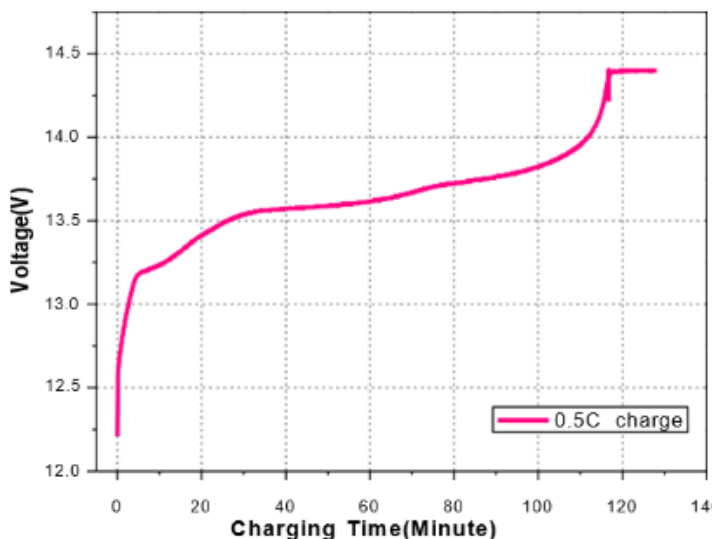
**12.8 V – 59.4 Ah
Charge-Discharge Curve 0.2 C, 25 °C**



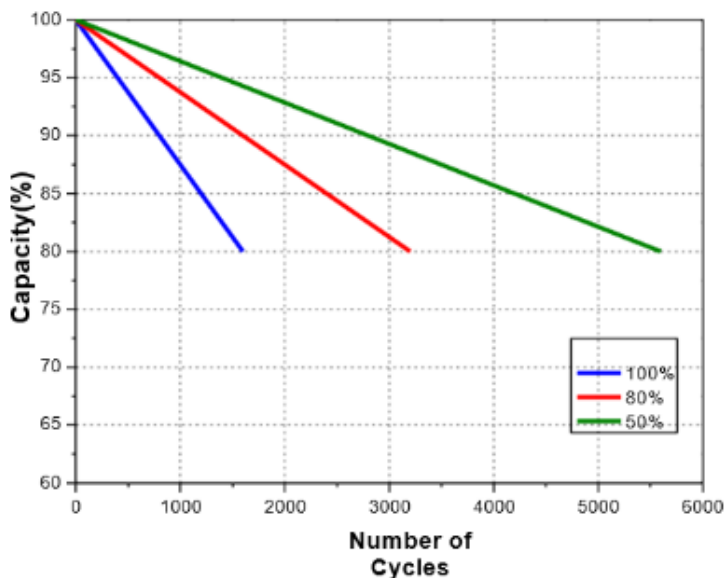
Different Rate Discharge Time & Voltage Curve, 25 °C



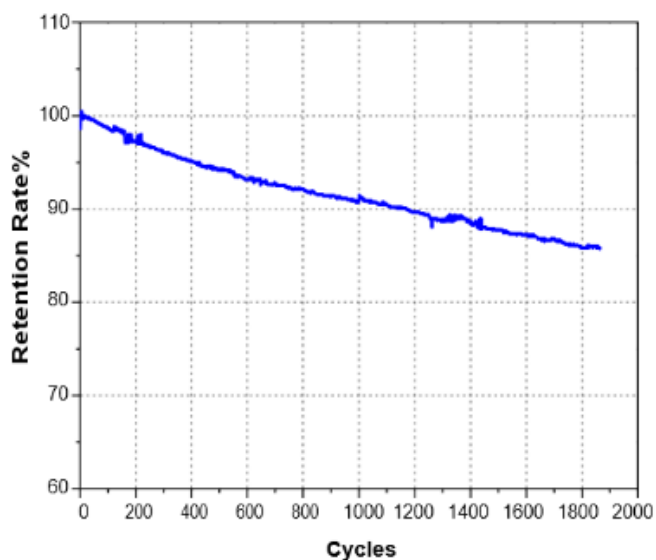
**Voltage & Charging Time Curve,
0.5 C, 25 °C**



Different DOD Discharge Cycle Life Curve



**Cycles & Capacity Retention Rate,
0.2 °C**



**Discharge Curves at Different
Temperature**

