

LiFePO4 Battery Pack 12.8V Series : LV12V130

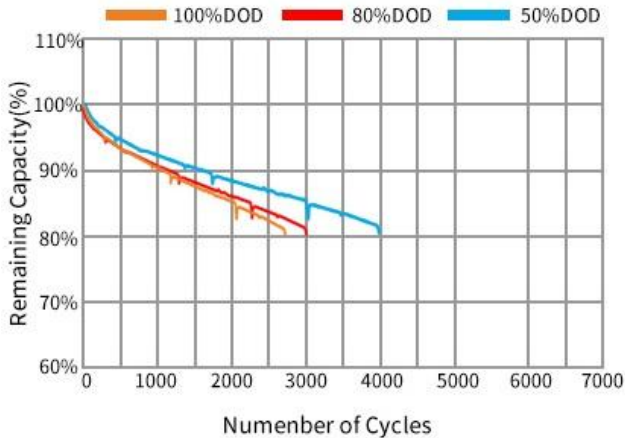
LV12V130 is designed to be the highest quality, safest and serviceability Lithium Iron Phosphate (LiFePO4) battery packs.

- High Performance True A+ Cell*4 Fastening Connection in Series.
- Cells remain 80% SOC Capacity after 3000 Cycles(80% DOD@0.2C Rate @25°C); Typical Lifespan of Cells: 4000~7000 Cycles; (SOC: State of Charge; DOD: Deep of Discharge; 0.2C Rate: charge/discharge @26A)
- 12.8V 130Ah 1.664 kWh, +30% capacity than 12.8V100Ah battery.
- 15+ Year Typical Lifespan & 5 Years Warranty.
- 2 Temperature sensors against extreme high temperatures(extreme low temperature protection is invalid for Emergency and Necessity Consideration in this version but it is optional in customized versions).
- Intelligent Battery Management System(BMS) inside to provide automated and maintenance free operation.
- 4 units of full Cell Holders made by flame retardant plastic to supply the more stable space structure for better heat dissipation and better working condition for cells.
- Detachable & Replaceable Design for all parts including Cover, BMS, Cells and Cells Holders, User Serviceable.
- Compact and Electrode Terminals in Concave Design for easy multi-directional wiring and installation in limited space.

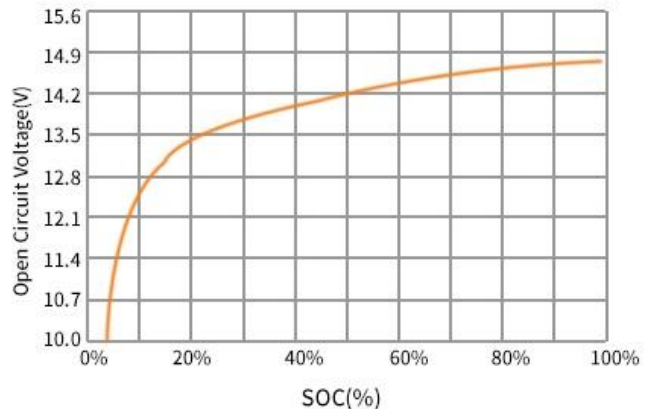


ELECTRICAL PROPERTIES		MECHANICAL PROPERTIES	
Nominal Voltage / Capacity	12.8 V / 130 Ah	Dimension (L x W x H)	13 x 7.87 x 9 inch 330 x 200 x 230mm
Energy	1664 Wh	Approx. Net Weight	41.9 lbs (19kg)
Resistance	≤ 25mΩ @50% SOC	Terminal Type	M8(Max Safe Current: 200A)
Self Discharge	<3% per Month	Terminal Torque	100~130 in-lbs (12~15 N-m)
Cells	3.2V130Ah	Case Material	Power Coated Steel Case
Max Quantity of units in Series	4 units to 51.2V	Ingress Protection	IP50(Indoor Recommended)
CHARGE		TEMPERATURE	
Recommended Charge Current	26A(0.2C)	Discharge Temperature	-4°F~149°F (-20°C~65°C)
Recommended Max Charge Current	65A(0.5C)	Charge Temperature	32°F~113°F (0°C~45°C)
Recommended Charge Voltage	14.6V	Storage Temperature	23°F~113°F (-5°C~45°C)
Over Voltage Protection(OVP)	3.75±0.05V per Cell	Over Temperature Protection For Charge&Discharge (OTP)	167±9°F(75±5°C)
OVP Releasing by Voltages	3.55±0.05V per Cell	OTP Releasing	122±27°F(50±15°C)
OVP Releasing by	Discharge then Charge	Over Temperature Protection of MOS(MOS OTP)	194±14.4°F(90±8°C)
Over Current Protection(OCP)	120A	MOS OTP Releasing	149±27°F(65±15°C)
Charge OCP Releasing	Disconnect Charger	Under Temperature Protection For Charge&Discharge (OTP)	Invalid for Emergency and Necessity Consideration. Optional in customized versions
Voltages to Trigger Equalization	3.5±0.05V per Cell	Short Circuit Protection(SCP)	900~1500A
Equalization Currents(pulse)	225±255mA per Cell	SCP Releasing	Disconnect Load or/and Charge Battery
DISCHARGE		COMPLIANCE	
Max Continuous Discharge Current	120A	Certifications	UN3480, Class9, MSDS, RoHs
Over Current Protection(OCP)	150A	FUNCTIONS OPTIONAL(Extra Custom)	
Discharge OCP Releasing	Disconnect Load or/and Charge Battery	Internal Self-Heating to 41°F(5°C) before Charge	
Recommended Low Voltage Cut-off	11.2V	Bluetooth connecting to Monitoring APP on mobile phones.	
Under Voltage Protection (UVP)	2.2±0.1V/Single Cell	Standard LV12V130 does not have the optional functions as above. They are Optional in customized versions	
Releasing of Discharge UVP (Under Voltage Protection)	Disconnect Load or/and Charge Battery to 2.7±0.1V for all cells		

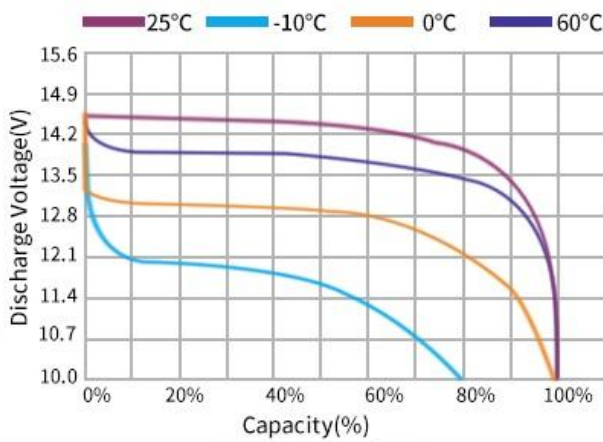
Battery Module Performance Curve of LV12V130



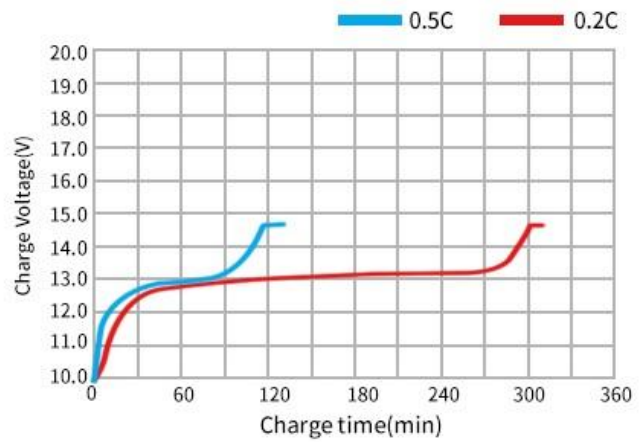
Cycle Life Curve: 0.2C @ Different DOD



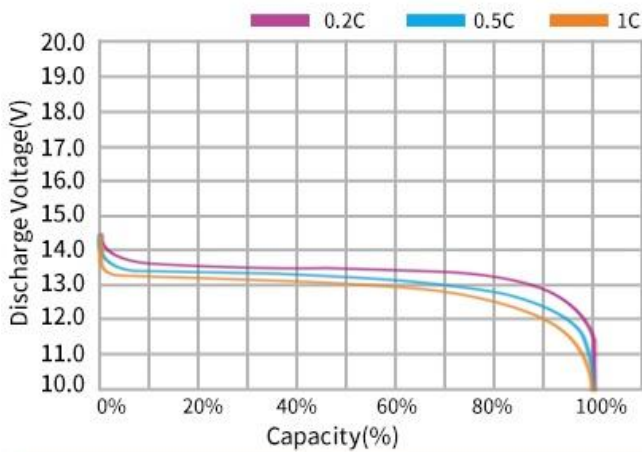
Open Circuit Voltage Curve @ Different SOC



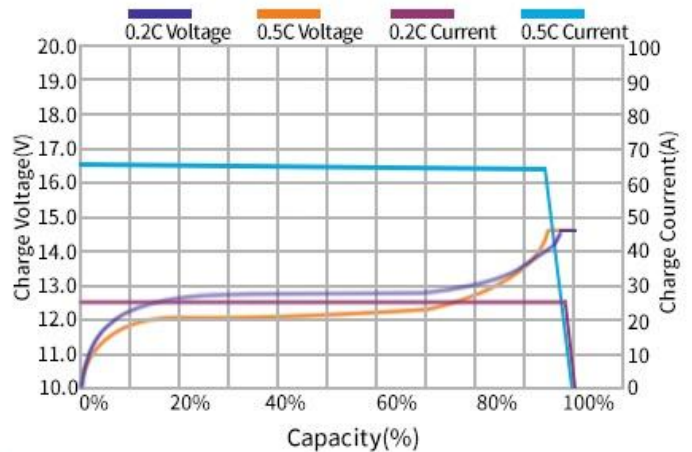
Discharge Voltage Curve @ Different Temperatures



Charge Characteristics of Duration-Voltage @ 0.2C/0.5C Rate



Discharge Voltage Curve @ Different Rates



Charge Characteristics of Capacity-Voltage @ 0.2C/0.5C

Note: Data and Curves above are from simple test in lab environment where temperature is constant 25°C and may vary depending on practical environment and application. They are for reference and evaluation purposes ONLY. No guarantee is intended or implied by these data and curves. For confirmation and updated information, please contact us.

Applications:

The LV12V130*4 can easily be connected in series to be a pack group of 1.664kWh*4=6.656kWh capacity. It is ideal for replacement of lead-acid battery in many applications like RVs, Golf Carts, Small Energy Storage Systems(ESS) and Backup.

