

PSL-12450E 12.8 Volt 45.0 AH

Lithium Iron Phosphate (LiFePO₄)
Rechargeable Battery

We've Got The Power.™

Power-Sonic Batteries Engineered With Vision. Built With Care.



Power-Sonic Corporation is a leading force in the supply of high quality cost effective batteries.

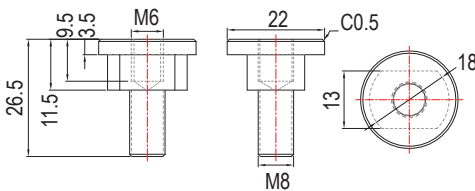
We market an extensive range of rechargeable batteries worldwide. These batteries envelop a broad spectrum of electronic and industrial applications, either as the prime or standby power source.

Power-Sonic is dedicated to continual product development to improve the performance and reliability of our product range. New batteries are constantly being introduced to meet the ever evolving needs of industry.

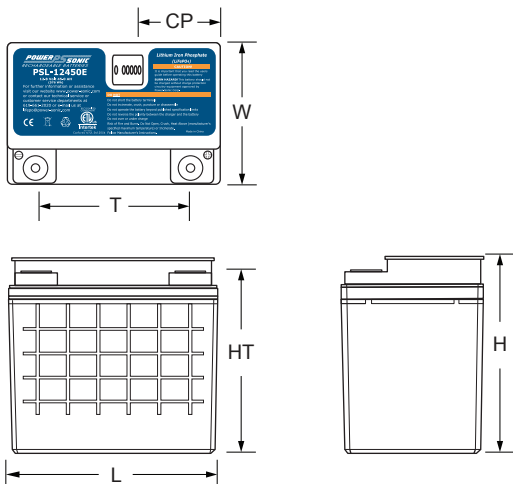
We are a 100% US owned private company. The corporation has an enviable record of growth and financial stability.

Providing our customers with reliable, yet economical, products is the corner stone of the Power-Sonic mission.

Terminals: (mm)



Physical Dimensions: in (mm)



L: 7.70 (195) W: 5.20 (130) H: 7.20 (183) HT: 7.20 (183)
T: 5.35 (136) CP: 2.91 (73.96)

About Lithium Iron Phosphate (LiFePO₄) Batteries

- Compact and only 40% of the weight of comparable capacity SLA batteries. Making it much easier to handle and transport.
- Extraordinary cycle life ~ 2,500 cycles.
- 2 hours recharge time with 25A current charge.
- Integrated battery management system (BMS) controls the parameters of the battery to provide optimum safety and performance. Enhanced design balances the battery cells and protects against overcharging or overdischarging.
- Safe and stable chemistry. The use of lithium iron phosphate greatly reduces the risk of combustion or explosion due to high impact, overcharging or short circuit situations.
- The battery will communicate with most smart charging (power module) systems.
- The SMBus provides access to a battery history log.
- Rugged plastic case and cover, flame retardant (FR) to UL94 V-0.
- The battery cells are manufactured with internationally patented lithium iron phosphate powder from Phostech, Canada.
- UN 38.3, UL1642, ETL conforms to UL Std.2054, IEC62133, FCC and CE approved. Certified compliant with EU Battery Directive 2006/66/EC.
- Smart electrical design for enhanced temperature control.

Performance Specifications	General Parameters	Comments
Nominal Voltage	12.8 volts	
Rated Capacity (77°F/25°C)	45 AH	Standard discharge 9A after standard charge 9A
Minimum Capacity (77°F/25°C)	42 AH	
Dimensions (in./mm)		
Length	7.70 / 195 (max)	
Width	5.20 / 130 (max)	
Height	7.20 / 183 (max)	
Life Expectation	Residual capacity is about 60% of rated capacity	CC charge at 9A to 14.6V then CV until current taper to 1A, rest 30 minutes, discharge at 9A to 10V. Temperature 60±9°F (20±5°C). Carry out 2500 cycles.
Approximate Weight lbs./kg.	12.8/5.8	
Internal Resistance at 50% SOC	<35 mΩ	(77°F/25°C)
Discharge Cut-Off Voltage	9.6V = 2.4 volts per cell	10.0V Recommended
Charging Cut-Off Voltage	14.6V = 3.65 volts per cell	
Terminals	M6 button (female-threaded)	
Standard Charge	9A @ 14.6 volts	9A constant current (CC) charge to 14.6V, then constant voltage (CV) 14.6V charge until charge current declines to 1A
Standard Discharge	Constant Current 9A, Cut-off Voltage 10.0V	
Cell Assembly	IFR 18650EC-1.5AH	4S30P
Maximum Continuous Charge Current	25A @ 68°F (20°C)	
Maximum Continuous Discharge Current	25A @ 68°F (20°C)	Over current protection 50A
Charge Temperature Range	32°F - 122°F (-0°C - 50°C)	60±25% Relative Humidity at Shipment Date
Discharge Temperature Range	14°F - 122°F (-10°C - 50°C)	
Storage Temperature Range	40°F - 122°F (4°C - 50°C) Humidity 0% - 75% RH	Current consumption 360mA normal mode Current consumption 200mA sleep mode
Specific Energy	50.0 Wh/lb (99Wh/kg)	
Specific Density	124 Wh/L	
Protocol	SMBus	With RJ45
Over Temperature Protection	60±5°C Charge 65±5°C Discharge	
Short Circuit Protection	2 nd level protection 3 legs 36A fuse	
LED Indicator	Fuel Gauge	5 LED Indicator

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