



PSL-12450E 12.8V 45.0 AH

Rechargeable Lithium Iron Phosphate Battery
PSL – LiFePO4 Series

PCM FEATURES

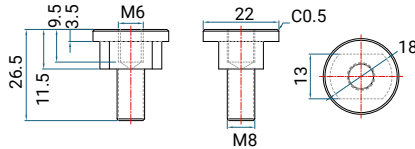
- Balancing function for cells
- Over-current protection
- Over-voltage protection
- Over-discharge protection
- Short-circuit protection

APPROVALS

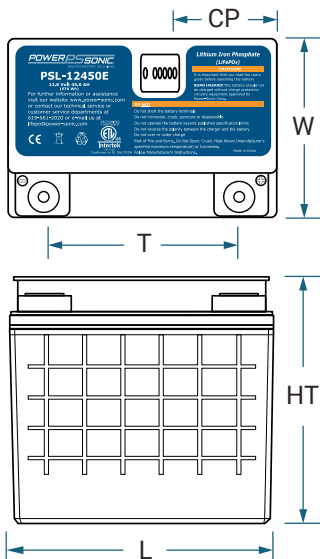
- U.L recognized
- ISO9001:2015 – Quality management systems
- ETL Approved
- FCC Approved

TERMINALS: (mm)

M6 threaded insert
(female-threaded)



DIMENSIONS: inch (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)

Tolerances are +/- 0.04 in. (+/- 1mm)
and +/- 0.08 in. (+/- 2mm) for height
dimensions. All data subject to change
without notice.

CORPORATE HEADQUARTERS (USA AND INTERNATIONAL EXCLUDING EMEA)

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BATTERY FEATURES

- Compact and only 40% of the weight of comparable lead acid batteries
- Up to 10 times more cycles than lead acid batteries
- Faster charging and lower self-discharge
- Delivers twice the power of lead acid batteries, even high discharge rate, while maintaining high energy capacity
- Super safe chemistry reducing the risk of explosion or combustion due to high impact, over-charging or short circuit situation
- Rugged impact resistant ABS case and cover flame retardant to UL94:V0
- 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 over discharging
- The battery will communicate with most smart charging (power module) systems
- Smart electrical design for enhanced temperature control

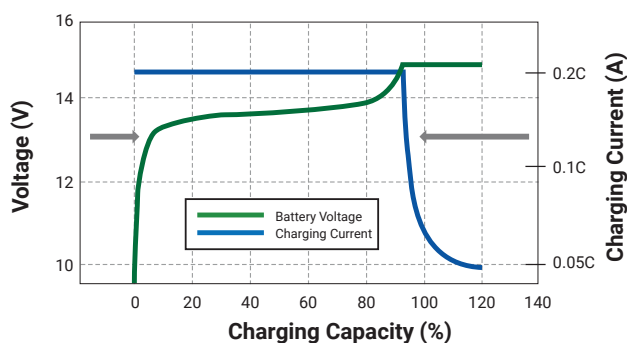
PERFORMANCE SPECIFICATIONS

Nominal Voltage	12.8 volts
Rated Capacity	45.0 AH
Watt Hour	579
Life Expectation	Residual capacity is approximately 60% of rated capacity after 2500 cycle based on standard charge/discharge
Approximate Weight	12.8 lbs. (5.8 kg)
Cell Configuration	IFR 18650EC - 1.5AH 4S30P
Internal Resistance at 50% SOC	<35.0 milliohms
Max Continuous Discharge Current at 68°F (20°C)	25A
Protection/Communication	BMS/SMBus
Shelf Life (% of nominal capacity at 68°F (20°C))	
1 Month	97%
3 Month	91%
6 Month	85%
Operating Temperature Range	
Charge	32°F (0°C) to 122°F (50°C)
Discharge	14°F (-10°C) to 122°F (50°C)
Storage	32°F (0°C) to 86°F (30°C)
Case	Flame Retardant ABS Plastic UL94:V-0
Power Sonic Chargers	Contact us for information on a suitable charger
Standard Charge/Discharge	
Constant Current Charge Voltage	Charge CC@0.2C to 14.6V then CV until current drops to 0.05C; Rest 30 min.
Maximum Charging Current	25A
Charging Time with Max Charging Current	2 Hours
Standard Discharge	Discharge @ 0.2C to 10V.
Terminal	M6 threaded insert (female-threaded)
Connector	RJ45
Fuel Gauge	5 LED Indicator

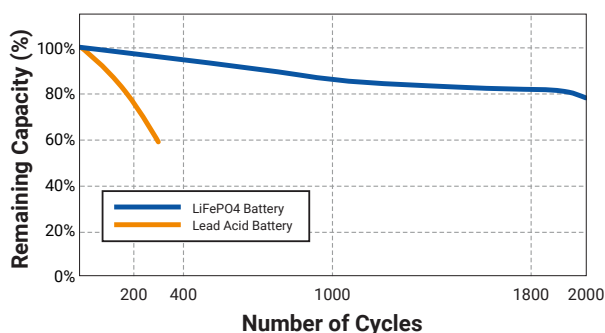
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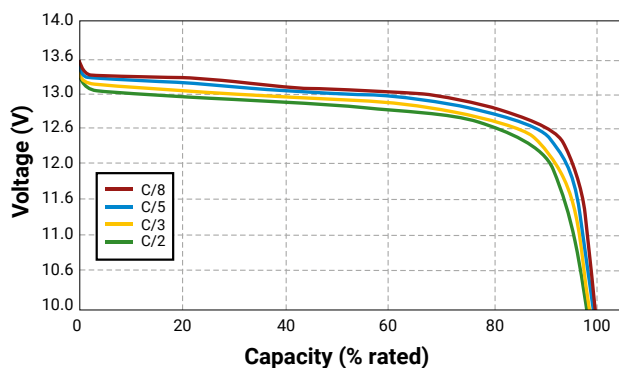
CHARGING CHARACTERISTICS (0.2C AMP @ 25°C)



CYCLE LIFE PERFORMANCE CURVE @ 25°C



DISCHARGE VOLTAGE PROFILES @ VARIOUS DISCHARGE RATES @ 25°C AMBIENT TEMPERATURES



CHARGERS

Power Sonic offers a wide range of chargers suitable for batteries with a variety of capacities.

Please refer to our website for more information on our switch mode and transformer type chargers.

Please contact our technical department for advice if you have difficulty in locating a suitable charger.

FURTHER INFORMATION

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.

APPLICATIONS

- Medical
- Solar
- Wind
- Mobility
- Data Center
- Transport
- Sports & Recreation
- Utility

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