



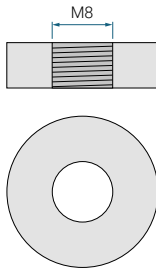
PSL-BTP  
SERIES



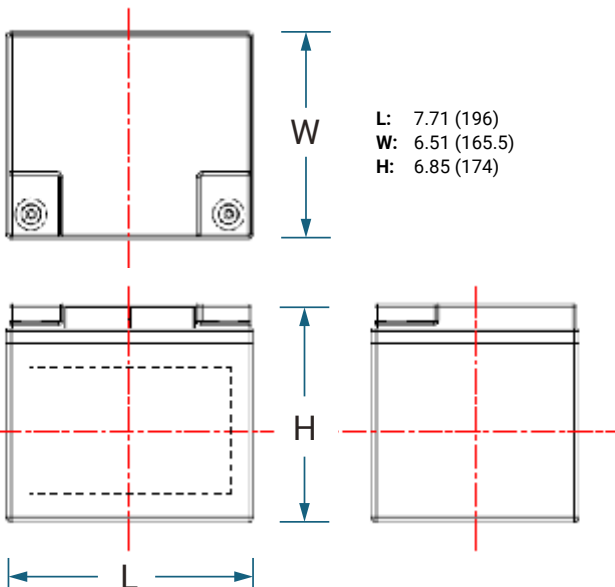
## PSL-BTP-12500 12.8V 50.0 AH

Rechargeable Lithium Iron Phosphate Battery  
PSL BTP – LiFePO4 Bluetooth® Series

### TERMINALS: (mm)



### DIMENSIONS: inch (mm)



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
- Battery Management System (BMS) controls the parameters of the battery to provide optimum safety and performance
- BMS enhanced design balances the battery cells and protects against overcharging and discharging
- Bluetooth® communication capability for battery status through Power Sonic app

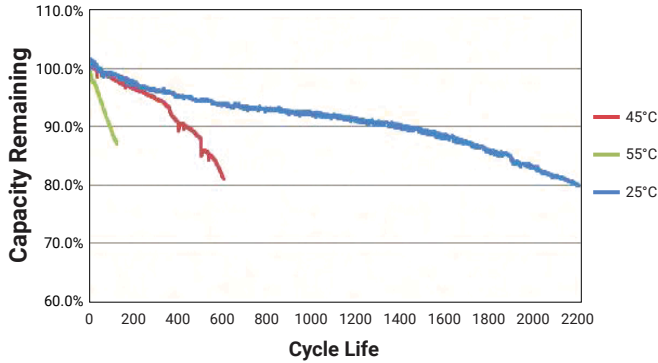
## APPROVALS

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

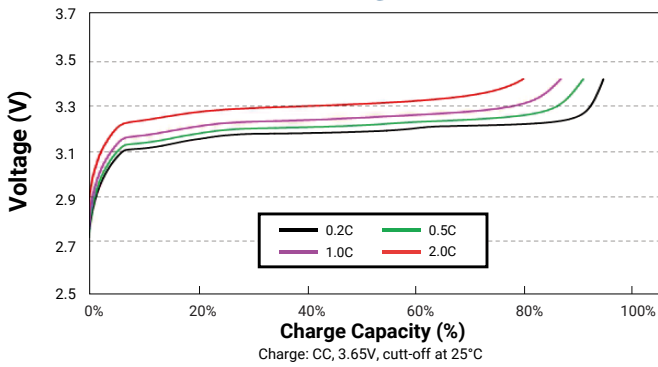
## PERFORMANCE SPECIFICATIONS

Nominal Voltage	12.8 volts
Rated Capacity	50.0 AH
Cycle Life (@DOD100%)	≤2000 cycles
Approximate Weight	14.33 lbs. (6.5kg)
Internal Resistance at 50% SOC	≤20.0 milliohms
Max Charge Current	50A
Max Discharge Current	50A
Pulse Discharge Current	150A withstand 3s
Discharge Cut-Off Voltage	10.0V
Protection/Communication	BMS and Bluetooth®
Series & Parallel Connection	Up to 4 packs can be connected in parallel. CANNOT be connected in series
Operating Temperature Range	
Charge	32°F (0°C) to 113°F (45°C)
Discharge	-4°F (-20°C) to 140°F (60°C)
Recommended	59°F (15°C) to 95°F (35°C)
Case	Flame Retardant ABS Plastic UL94:V-0
Self-Discharge Rate	
Residual Capacity	≤3%/month; ≤15%/year
Reversible Capacity	≤1.5%/month; ≤8%/year
Power Sonic Chargers	Contact us for information on a suitable charger

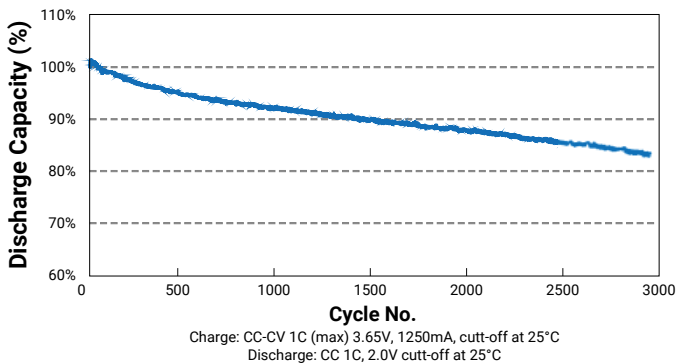
## 0.5C DISCHARGE CYCLE LIFE CURVE @ DIFFERENT TEMPERATURE



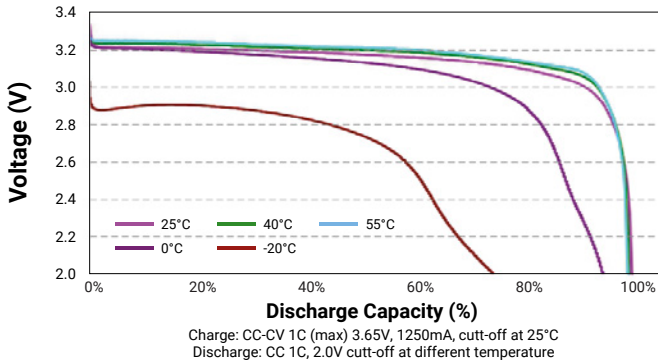
## CELL CHARGE CHARACTERISTICS @ RT



## CELL CYCLE LIFE CHARACTERISTICS



## CELL DISCHARGE CHARACTERISTICS (@ TEMPERATURE)



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# PSL-BTP-12500 12.8V 50.0 AH

Rechargeable Lithium Iron Phosphate Battery  
PSL BTP – LiFePO4 Bluetooth® Series

## INTELLIGENT BATTERY MANAGEMENT SYSTEM

The PSL-BTP Series come with an intelligent battery management system which can monitor and optimize each cell during charge and discharge. This protects the battery from over-charge and over-discharge.

The BMS embeds smart balancing algorithms that control all the cells in the battery, making sure they are constantly at the same voltage level. The State of Charge (SoC) and State of Health (SoH) of each individual cell.

## BUILT IN BLUETOOTH®

Monitor the State of Charge (SoC) and State of Health (SoH) of your battery from your phone or tablet.

## APPLICATIONS

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

## BMS TECHNICAL SPECIFICATIONS

### Over-charge

Over-charge protection for each cell	3.80±0.03V
Over-charge release for each cell	3.60±0.05V
Over-charge release method	Under the release voltage

### Over-discharge

Over-discharge protection for each cell	2.50±0.05V
Over-discharge release for each cell	3.00±0.05V
Over-discharge release method	Over the release voltage

### Over current

Discharge over current protection	150A - 200A
Protection delay time	50ms-200ms
Over current release method	Release after 30s

### Battery temperature

Charge over temperature	Protection @65±5°C Release @50±5°C
Discharge over temperature	Protection @65±5°C Release @50±5°C
Charge low temperature protection	Protection @-10±5°C Release @0±5°C

## FURTHER INFORMATION

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