PSL-BTC-1290 12.8V 9.0 AH
Rechargeable Lithium Battery
PSL BTC – Bluetooth® Enabled Series

BATTERY FEATURES
• Super safe lithium iron phosphate (LiFePO4) chemistry reducing the risk of explosion or combustion due to high impact, over-charging or short circuit situation
• Bluetooth® communication capability for battery status through Power Sonic app
• Battery Management System (BMS) controls the parameters of the battery to provide optimum safety by protecting against over-charging and over-discharging
• BMS enhanced design balances the battery cells, optimizing battery performance
• Delivers twice the power of lead acid batteries, even at high discharge rates, while maintaining high energy capacity
• Faster charging and lower self-discharge
• Up to 10 times more cycles than lead acid batteries
• Compact and only 40% of the weight of comparable lead acid batteries
• Rugged impact resistant ABS case and cover flame retardant to UL94:V0

APPLICATIONS
• Medical
• Solar
• Wind
• Utility
• Sports & Recreation
• Mobility
• Data Center
• Transport
• Recreation

PERFORMANCE SPECIFICATIONS
Nominal Voltage 12.8 V
Rated Capacity 9.0 AH at a Constant Current of 0.33C to 9.2V
Stored Energy (Wh) 115 Wh
Cycle Life (at 100% DOD) 2000 Cycles
Approximate Weight ≤80.0 mΩ
Internal Resistance ≤80.0 mΩ
Max Charge Current 10 A
Max Discharge Current 10 A
Charge Cut-off Voltage 15.2 V
Recommended Discharge Cut-Off Voltage 10 V
Series & Parallel Connection Up to 4 batteries can be connected in parallel, CANNOT be connected in series

Operating Temperature Range
Charge 32°F (0°C) to 113°F (45°C)
Discharge 14°F (-10°C) to 140°F (60°C)
Recommended 59°F (15°C) to 95°F (35°C)
Self-Discharge Rate ≤3%/month

Long Term Storage Charge every 6 months or as soon as OCV is 12.8V (approximately 20% SOC)
Power Sonic Chargers Contact us for information on a suitable charger
Life Expectancy (years) 5 years at one cycle per day
Short Circuit Protection Automatically recover after removal of short
Dimensional Tolerances +/- 0.04 in. (+/- 1mm) for length and width
+/-.08 in. (+/- 2mm) for height dimensions
Terminal Type F2

POWER-SONIC EMEA
(EMEA – EUROPE, MIDDLE EAST AND AFRICA)
Smitspol 4, 3861 RS Nijkerk, The Netherlands
T NL: + 31 33 7410 700
T UK: + 44 1268 560 686
T FR: + 33 344 32 18 17
E: salesEMEA@power-sonic.com

GLOBAL HEADQUARTERS
(USA AND INTERNATIONAL EXCLUDING EMEA)
Power-Sonic Corporation
365 Cabela Dr Suite 300, Reno, Nevada 89523
USA
T: +1 619 661 2020
E: customer-service@power-sonic.com

To ensure safe and efficient operation always refer to the latest edition of our Technical Manual, as published on our website.
© 2019 Power-Sonic Corporation. All rights reserved. All trademarks are the property of their respective owners.
All data subject to change without notice. E&O.E
**PSL-BTC-1290** 12.8V 9.0 AH
Rechargeable Lithium Battery
PSL BTC – Bluetooth® Enabled Series

**BENEFITS OF LITHIUM**
Lithium offers several performance benefits versus its sealed lead acid (SLA) equivalent. A lithium battery’s capacity is independent from the discharge rate and provides constant power throughout its discharge. The degradation of a lithium battery at a high temperature is significantly reduced in comparison to SLA.

Lithium has ten times the cycle life as SLA at room temperature. Even at an elevated temperature, lithium still has increased cycle life over SLA at room temperature.

Lastly, Lithium charging follows a similar charging profile as SLA, Constant Current Constant Voltage (CC/CV). However, lithium can be charged faster, without the need for a maintenance float charge.

**BMS TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-charge protection</td>
<td>3.8 V</td>
</tr>
<tr>
<td>Over-charge release voltage for each cell</td>
<td>3.6 V</td>
</tr>
<tr>
<td>Over-charge release method</td>
<td>Protection releases when all cell voltages drop below the over-charge release voltage</td>
</tr>
<tr>
<td>Over-discharge protection</td>
<td>2.0 V</td>
</tr>
<tr>
<td>Over-discharge release voltage for each cell</td>
<td>2.5 V</td>
</tr>
<tr>
<td>Over-discharge release method</td>
<td>Protection releases upon charging</td>
</tr>
<tr>
<td>Over-current protection</td>
<td>40-60 A</td>
</tr>
<tr>
<td>Over-current delay time</td>
<td>5-20 mS</td>
</tr>
<tr>
<td>Over-current release method</td>
<td>Protection releases upon removing load and charging</td>
</tr>
<tr>
<td>Battery temperature protection</td>
<td>65±5°C</td>
</tr>
<tr>
<td>Over-temperature protection</td>
<td>65±5°C</td>
</tr>
<tr>
<td>Release temperature</td>
<td>50±5°C</td>
</tr>
<tr>
<td>Release method</td>
<td>Protection releases upon temperature dropping below release</td>
</tr>
<tr>
<td>Short circuit protection</td>
<td>External short circuit</td>
</tr>
<tr>
<td>Function condition</td>
<td>200 ms</td>
</tr>
<tr>
<td>Short circuit delay time</td>
<td>Protection releases upon removing short circuit and charging</td>
</tr>
</tbody>
</table>

**FURTHER INFORMATION**
Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) or email us at technical-support@power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.