### 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
- Protection Circuit Module (PCM) monitors the current and voltage of the battery to provide optimum safety by protecting against over-charging and over-discharging
- PCM enhanced design balances the battery cells, optimizing battery performance
- Higher capacity or voltage capability through parallel or serial connections
- Delivers twice the power of lead acid batteries, even at high discharge rates, while maintaining constant power
- 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

### APPROVALS
- UL 1642 cell certificate
- IEC 62133 cell certificate
- UN 38.3 certified
- ISO9001:2015 - Quality management systems

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

### PERFORMANCE SPECIFICATIONS
- Nominal Voltage: 12.8 V
- Rated Capacity: 150 AH at a Constant Current of 0.2C to 10V
- Stored Energy: 1920 Wh
- Cycle Life (DOD100%): 2000 Cycles
- Approximate Weight: 48.6 lbs (22.1 kg)
- Internal Resistance: ≤25.0 mΩ
- Max Charge Current: 100 A
- Max Discharge Current: 150 A
- Charging Voltage: 14.6 V
- Recommended Discharge Cut-Off Voltage: 11 V
- Series & Parallel Connection: 4 in series or 4 in parallel
- 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)
- Self-Discharge Rate: ≤3%/month
- Long Term Storage: Charge every 6 months or as soon as OCV is 12.8V
- Power Sonic Chargers: Contact us for information on a suitable charger.
- Life Expectancy: 5 years at one cycle per day
- Short Circuit Protection: Automatically recover after removal of short
- Dimensional Tolerances:
  - Length and width: +/- 0.04 in. (+/- 1mm)
  - Height: +/- 0.08 in. (+/- 2mm)
- Terminal Type: T11

### DIMENSIONS: inch (mm)

<table>
<thead>
<tr>
<th>L</th>
<th>W</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5</td>
<td>10.6</td>
<td>9.0</td>
</tr>
</tbody>
</table>

### PROTECTION CIRCUIT MODULE
The PSL-SC-121500-G8D comes with a protection circuit module which monitors current and voltages during charge and discharge. This protects the battery from over-charge and over-discharge.

The PCM includes a balancing circuit that controls all cell voltages in the battery, making sure they are constantly at the same voltage level, optimizing battery capacity.

### SERIAL CONNECTION CAPABLE
The SC series allows for up to 4 batteries connected in series or 4 in parallel, but not concurrently. The batteries must all be matched at voltage levels, capacity, state of charge, date of manufacturing, and chemistry.

### GLOBAL HEADQUARTERS
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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-SC-121500-G8D 12.8V 150 AH
Rechargeable Lithium Iron Phosphate Battery
PSL-SC – LiFePO4 Series Connection Range

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>Over Charge</th>
<th>Over-discharge protection for each cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection for each cell</td>
<td>3.90 V</td>
</tr>
<tr>
<td>Protection for each cell</td>
<td>3.60 V</td>
</tr>
<tr>
<td>Protection releases when all cell voltages drop below the over-charge release voltage</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over Discharge</th>
<th>Over-discharge protection for each cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection for each cell</td>
<td>2.00 V</td>
</tr>
<tr>
<td>Protection for each cell</td>
<td>2.50 V</td>
</tr>
<tr>
<td>Protection releases when all cell voltages rise above the over-discharge release voltage</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over current</th>
<th>Discharge over-current protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection delay time</td>
<td>430-470 A</td>
</tr>
<tr>
<td>Protection delay time</td>
<td>31 ms</td>
</tr>
<tr>
<td>Protection delay time</td>
<td>Remove load for the over-current protection to release</td>
</tr>
</tbody>
</table>

Battery Temperature

<table>
<thead>
<tr>
<th>Over-temperature protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 °C</td>
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</table>

Release temperature

<table>
<thead>
<tr>
<th>Release temperature</th>
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</thead>
<tbody>
<tr>
<td>65 °C</td>
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Short circuit protection

<table>
<thead>
<tr>
<th>Function condition</th>
<th>Short circuit delay time</th>
</tr>
</thead>
<tbody>
<tr>
<td>External short circuit</td>
<td>250-500 ms</td>
</tr>
<tr>
<td>Release condition</td>
<td>Remove load for the short circuit protection to release</td>
</tr>
</tbody>
</table>

FURTHER INFORMATION
Please refer to our website 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.