EnerPower 48100
5U rack-mount lithium-ion battery system

EnerPower 48100, a powerful 48V LiFePO4 battery product, has been designed to provide reliable power for energy storage system like off-grid, on-grid, household usage, by its excellent long life and high security. According to customer needs, products can be expanded in parallel to meet the needs of high capacity.

Benefits
- Increased energy in given space
- Easy installation and upscaling
- High operational reliability
- Optimized supervision strategy through remote control/diagnostic
- Super long life time
- Built-in intelligent BMS to protect the battery pack at any time and prolong its service life

Standards

a. Product
- IEC 60950
- IEC 62321
- UL 1642
- IEC 62133
- UL 1973

b. MS certification
- ISO 9001
- ISO 14001
- OHSAS 18001

Specifications

<table>
<thead>
<tr>
<th>Nominal Characteristics</th>
<th>SSIFP15S48100A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Voltage</td>
<td>48V</td>
</tr>
<tr>
<td>Typical Capacity</td>
<td>100Ah(25°C)</td>
</tr>
<tr>
<td>Typical Energy</td>
<td>4800Wh</td>
</tr>
<tr>
<td>Volumetric Energy Density</td>
<td>140.4Wh/dm³</td>
</tr>
<tr>
<td>Gravimetric Energy Density</td>
<td>104.3Wh/kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>440mm</td>
</tr>
<tr>
<td>Height</td>
<td>222mm(5U)</td>
</tr>
<tr>
<td>Depth</td>
<td>350mm</td>
</tr>
<tr>
<td>Typical Weight</td>
<td>46Kg</td>
</tr>
</tbody>
</table>

Electrical Characteristics

- Voltage Window: 40.5−54.0V
- Charge Voltage Range: 52.5−54.0V
- Max. Permanent Discharge Current: 100A
- Max. Permanent Charge Current: 100A
- Faradic Charge Efficiency: 99% (+20°C)
- Energy Charge Efficiency: 94% (+20°C)
- Communication Interface (optional feature): Modbus/SNMP/TACP
- Additional Features (optional feature): LCD Display

Operation Environment

- Charge Temperature: 0°C to +55°C
- Discharge Temperature: -20°C to +60°C
- Storage Temperature: -20°C to +60°C
- Protection Class: IP20
**Discharge Data**

### Constant Current Discharge Data (25°C)

<table>
<thead>
<tr>
<th>Voltage/V</th>
<th>0.1C</th>
<th>0.2C</th>
<th>0.3C</th>
<th>0.4C</th>
<th>0.5C</th>
<th>0.6C</th>
<th>0.7C</th>
<th>0.8C</th>
<th>0.9C</th>
<th>1.0C</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.0</td>
<td>8.333</td>
<td>4.033</td>
<td>2.600</td>
<td>1.908</td>
<td>1.417</td>
<td>1.033</td>
<td>0.733</td>
<td>0.423</td>
<td>0.225</td>
<td>0.058</td>
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<tr>
<td>43.5</td>
<td>9.450</td>
<td>4.658</td>
<td>3.083</td>
<td>2.333</td>
<td>1.842</td>
<td>1.452</td>
<td>1.258</td>
<td>0.967</td>
<td>0.843</td>
<td>0.750</td>
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<tr>
<td>42.0</td>
<td>10.137</td>
<td>5.078</td>
<td>3.377</td>
<td>2.605</td>
<td>2.092</td>
<td>1.700</td>
<td>1.492</td>
<td>1.292</td>
<td>1.150</td>
<td>1.033</td>
</tr>
<tr>
<td>40.5</td>
<td>10.183</td>
<td>5.092</td>
<td>3.400</td>
<td>2.625</td>
<td>2.100</td>
<td>1.717</td>
<td>1.500</td>
<td>1.300</td>
<td>1.175</td>
<td>1.042</td>
</tr>
</tbody>
</table>

### Performance Curve

- **Cycle Life vs. Depth of Discharge (DOD)**
- **Calendar Life at Different Temperature**
- **Discharge Curve at Different Rate (25°C)**
- **Charge Curve at Different Temperature**
- **Charge Curve at Different Rate (25°C)**