SP48 SERIES

Standard Battery Pack

SP48 SERIES standard battery Pack is based on lithium-ion battery of SAMSUNG SDI. It has excellent safety, high energy density, longtime life.

Features
- Excellent safety & cycle life
- Auto protection & cell balancing
- Various of cell line-up (LCO, NCM, NCA, LFP, LMO)
- Scalability of voltage 48V-700V
- Easy scalability of capacity
- Communication & monitoring
- 19” 2U Rack-mount design
- ROHS compliance

Application
- Backup System for BTS, UPS, ATM, Communication.
- Battery Operated Machinery & Equipment.

<table>
<thead>
<tr>
<th>Item</th>
<th>SP48-20</th>
<th>SP48-22</th>
<th>SP48-26</th>
<th>SP48-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Voltage/Capacity</td>
<td>51.8V/40Ah</td>
<td>51.8V/44Ah</td>
<td>51.8V/52Ah</td>
<td>51.2V/22Ah</td>
</tr>
<tr>
<td>Energy</td>
<td>2072 Wh</td>
<td>2279 Wh</td>
<td>2693 Wh</td>
<td>1126 Wh</td>
</tr>
<tr>
<td>SOC 80% Operation ( @25℃ )</td>
<td>Operating Voltage</td>
<td>42~56V</td>
<td>48~56V</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charging Voltage</td>
<td>56V</td>
<td>56V</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cycle Life</td>
<td>&gt;3000Cycle</td>
<td>&gt;3000Cycle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calendar Life</td>
<td>&gt;15Years</td>
<td>&gt;15Years</td>
<td></td>
</tr>
<tr>
<td>Char/Discharging Current(Max)</td>
<td>Continuous</td>
<td>2C</td>
<td>1C</td>
<td>0.5C</td>
</tr>
<tr>
<td></td>
<td>Instant(3sec)</td>
<td>4C</td>
<td>2C</td>
<td>1C</td>
</tr>
<tr>
<td>Communication &amp; Protection</td>
<td>BM-300(*)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size(WHD)</td>
<td>430x88x445(2U)</td>
<td>430x88x445(2U)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>About 21.8kg</td>
<td>About 26kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation Temperature</td>
<td>-20~60℃</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell Type</td>
<td>Li-ion(18650)</td>
<td>Li-ion(18650)</td>
<td>Li-ion(18650)</td>
<td>LFP(18650)</td>
</tr>
<tr>
<td></td>
<td>3.7V/2000mAh</td>
<td>3.7V/2200mAh</td>
<td>3.7V/2600mAh</td>
<td>3.2V/1100mAh</td>
</tr>
</tbody>
</table>

* BM-300(*) : It is required when configuring a system using the SP48 Series. Max. Continuous Current(30~200A), Size(430x132x445), Weight (About 15kg), Communication(RS-232, TCP/IP, Option : CAN)

* Product specifications and appearance are subject to change without notice.

**SP Series Charge Curve**
CC-CV 58.8V, 0.1C-rate cut-off(@25℃)

**SP Series Discharge Curve**
2.75V/Cell cut-off(@25℃)
**Batter Pack System**

**Lithium Battery Pack System**

Battery Pack System is composed of SP48 Series. It is very useful to expand capacity from KWh to MWh.

- High safety & energy density
- High efficiency (98%)
- Maintenance free
- Enhanced SOC algorithm
- Longtime life
- Easy scalability of voltage & capacity
- Communication & monitoring
- 19” 2U Rack-mount design

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**From KWh to MWh**

- **Warehouse or Container**
  - 19” Rack Mount
  - SP48 Series

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**Renewable Energy Smoothing**

- **Graph**
  - midnight
  - midday
  - midnight