Iron-V Lithium
Iron Phosphate Battery

Features

Cost Effectiveness
Longer Service Life

Guaranteed Safety
Fast Charge
Drop-in Replacement

Technical Characteristics

NOMINAL CHARACTERISTICS
Nominal Voltage 12.8 V
Nominal Capacity 50Ah
Energy 640Wh
IR ≤23mΩ@100%SOC
Efficiency ≥99.5%
Maximum Modules in Series 2 (Single Use)

CHARGE & DISCHARGE CHARACTERISTICS
Voltage Window 10.8-14.6V
Max. Continuous Charge Current 50A
Max. Continuous Discharge Current 50A
Peak Discharge Current 100A (10s)
Recommended charge current/A 25A
Recommended discharge current/A 25A
Charge current cut-off/A 1.5A

OPERATING CONDITIONS
Cycle Life ≥2000
Operating Temperature Charge: 10°C~45°C
Discharge: -20°C~55°C
Storage Temperature 20°C ~ 30°C
Storage Duration 12 months at 25°C

MECHANICAL CHARACTERISTICS
Case Material ABS
Dimension (L"H") 229*138*213
Weight 8.0Kg
Terminal Type F11 (M6)
IP Grade / BCI Group NO. 22
Cell Type-Chemistry Prismatic LiFePO₄

BMS CHARACTERISTICS
Primary Charging Protection Current: 60~70A
Delay time: 15±2s
Secondary Charging Protection Current: ≥70A
Delay time: 3±2s
Primary Discharging Protection Current: 78~105A
Delay time: 15±2s
Secondary Discharging Protection Current: 105~170A
Delay time: 5±2s
Over-charge Voltage Protection Voltage: ≥14.8V
Delay time: ≤3s
Over-discharge voltage protection Voltage: ≤0.6V
Delay time: ≤3s
High Temperature Protection Charging: 65±3°C, Recover: 60±3°C
Discharging: 65±3°C, Recover: 60±3°C
Low Temperature Protection Charging: 0±3°C, Recover: 3±3°C
Discharging: -20±3°C, Recover: -15±3°C
### Constant Current Discharge Data (Amperes@25°C)

<table>
<thead>
<tr>
<th>Cut-off voltage (10.8V)</th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>5h</th>
<th>10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>50A</td>
<td>25A</td>
<td>16.6A</td>
<td>10A</td>
<td>5A</td>
<td></td>
</tr>
</tbody>
</table>

### Constant Power Discharge Data (Watt@25°C)

<table>
<thead>
<tr>
<th>Cut-off voltage (10.8V)</th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>5h</th>
<th>10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>575W</td>
<td>290W</td>
<td>194W</td>
<td>117W</td>
<td>59W</td>
<td></td>
</tr>
</tbody>
</table>

### Cycle No. Vs DOD%

- **Number of Cycles Vs. DOD**
- **Discharge Performance at R.T.**
- **Cycle Life in Relation to Temperature**

- **Battery Capacity (C) Vs. Open Circuit Voltage (OCV)**
- **Battery Capacity Vs. Charging Time**
- **Temperature Effects on Capacity**