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
5Ah

Energy
64Wh

IR
≤55mΩ@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
5A

Max. Continuous Discharge Current
10A

Peak Discharge Current
25A (10s)

Recommended charge current/A
2.5A

Recommended discharge current/A
2.5A

Chage current cut-off/A
0.15A

OPERATING CONDITIONS

Cycle Life
≥2000

Operating Temperature
Charge: 10℃~45℃
Discharge: -20℃~55℃

Storage Temperature
20℃~30℃

Storage Duration
12 months at 25℃

MECHANICAL CHARACTERISTICS

Case Material
ABS

Dimension (L"W"H)
90*70*107

Weight
0.82Kg

Terminal Type
F2

IP Grade
/

BCI Group NO.
/

Cell Type-Chemistry
Cylindrical LiFePO₄

BMS CHARACTERISTICS

Primary Charging Protection
Current: 15~25A
Delay time: 15 ± 2s

Secondary Charging Protection
Current: ≥25A
Delay time: 3 ± 1s

Primary Discharging Protection
Current: 15~25A
Delay time: 15 ± 2s

Secondary Discharging Protection
Current: 25~49A
Delay time: 3 ± 1s

Over-charge Voltage Protection
Voltage: ≥14.8V
Delay time: 1~2s

Over-discharge voltage protection
Voltage: ≤9.2V
Delay time: 1~2s

High Temperature Protection
Charging: 65±3℃
Recover: 60±3℃

Discharging: 65±3℃
Recover: 60±3℃

Low Temperature Protection
Charging: 0±3℃
Recover: 3±3℃

Discharging: -20±3℃
Recover: -15±3℃
Iron-V
LFP12-5EV (12V 5Ah) Specification

Constant Current Discharge Data（Amperes@25℃）

<table>
<thead>
<tr>
<th></th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>5h</th>
<th>10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut-off voltage (10.8V)</td>
<td>5A</td>
<td>2.5A</td>
<td>1.66A</td>
<td>1A</td>
<td>0.5A</td>
</tr>
</tbody>
</table>

Constant Power Discharge Data（Watt@25℃）

<table>
<thead>
<tr>
<th></th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>5h</th>
<th>10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut-off voltage (10.8V)</td>
<td>57.5W</td>
<td>29W</td>
<td>19.4W</td>
<td>11.7W</td>
<td>5.9W</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)

Temperature Effects on Capacity

Battery Capacity Vs. Charging Time

Charging time (hours)