**ELECTRICAL SPECIFICATIONS**

- **Nominal Capacity**: 20Ah
- **Nominal Voltage**: 12.8V
- **Discharge Energy**: 256Wh
- **Max. Charge Current**: 20A
- **Standard Cont. Discharge Current @25°C**: 10A
- **Max. Cont. Discharge Current @25°C**: 20A
- **Max. Pulse Discharge Current @55°C**: 40A
- **DC Resistance**: ≤30mΩ

**MECHANICAL SPECIFICATIONS**

- **Dimensions (L x W x H)**: 181 x 77 x 170mm
  
  7.1 x 3 x 6.7in
- **Weight**: 2.6kg / 5.7lbs
- **Terminal Type**: M5
- **Chemistry**: LiFePO4

**PERFORMANCE SPECIFICATIONS**

- **100% DoD Cycles @ 25°C, 1C/1C**: ≥2000
- **Voltage Limit**: 8.0V ~ 14.6V
- **Charge Temperature Range**: 0°C ~ 45°C
- **Discharge Temperature Range**: -20°C ~ 55°C

**BATTERY MGMT. SYSTEM SPECIFICATIONS**

- **Short Circuit Protection**: YES
- **Over Charge Protection**: 15.2V ± 100mV (≤1.5s)
- **Reconnect Voltage**: 14.4V ± 200mV
- **Over Discharge Protection**: 8V ± 320mV (≤150ms)
- **Reconnect Voltage**: 10V ± 400mV
- **Balancing Voltage**: 14.4V ± 100mV (53mA ± 10mA)
- **Over Temperature Protection**: 65°C ± 5°C (48°C ± 10°C release)
- **Over Current Protection**: 50A - 70A (≤32ms)

Note: maximum of 4 (packs) in series = 51.2v Nominal Charge
Also, maximum of 2 batteries in parallel.

**Why Lithium Ion Technology?**

- **Small Footprint / More Portable**
  - Up to 50% smaller and lighter than traditional SLA
- **Extended Battery Life**
  - 5-10 years vs. 18-24 mos. for SLA
- **12x Shelf Life Between Mandatory Charges**
- **High Efficiency Charging**
  - 25% faster re-charge time vs. SLA
- **Increased Cycles**
  - 5-10 times more than SLA
- **No Maintenance Required**
- **Lower Cost of Ownership**
  - Li-ion is 50% less expensive over the lifetime of the battery vs. SLA

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**BATTERY PERFORMANCE vs. SLA**

**CYCLE LIFE @ 1C - LI-ION VS. SLA**

<table>
<thead>
<tr>
<th>30% DOD</th>
<th>50% DOD</th>
<th>80% DOD</th>
<th>100% DOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1000</td>
<td>2000</td>
<td>3000</td>
</tr>
<tr>
<td>SLA Battery (300) Cycles</td>
<td>Li-ion Battery (8k) Cycles</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DISCHARGE CURVE - LI-ION VS. SLA**

Li-ion provides 50% more usable power

**LI-ION VS. SLA INVESTMENT COMPARISON**

**LITHIUM ION**

Li-ion provides consistent power 1-2 times longer than SLA and at a fraction of the cost (over the life of the battery)

$ = 5-10 yr.

**SEALED LEAD ACID**

The average SLA battery requires replacement every 18-24 months (increasing overall costs)

$$+ = 5-10 yr.

**MECHANICAL DRAWINGS (mm)**

![Mechanical Drawings](image)

**COMPLIANCE SPECIFICATIONS**

- **Certifications**: UN38.3, CE
- **Shipping Classifications**: UN3480, Class 9
- **Product Number**: 551113

Note: maximum of 4 (packs) in series = 51.2v Nominal Charge
Also, maximum of 2 batteries in parallel.

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ElectroVolt is a Vertical Partners West company. VPW has nearly 20 years experience providing power solutions and is an ideal partner for your OEM, Commercial, and Industrial projects. As a U.S. based supplier VPW offers well-vetted, high-quality manufacturing and testing facilities in Asia and at our U.S. headquarters in Idaho.