Specifications

**Rated Voltage** | 12V
---|---
**Nominal Capacity** | 40.0Ah (C₁₀, 1.80V/cell)
**Dimension**
Length | 260mm (10.24 in.)
Width | 188mm (7.44 in.)
Container Height | 208mm (8.19 in.)
Total Height | 214mm (8.43 in.)
**Approx Weight** | 19.0Kg (41.9 lbs)
**Terminal** | M6
**Container Material** | ABS
**Rated Capacity (25°C)**
40.0 Ah | (10hr, 4.0A, 1.80V/cell)
35.0 Ah | (5hr, 7.0A, 1.75V/cell)
30.3 Ah | (3hr, 10.1A, 1.75V/cell)
23.7 Ah | (1hr, 23.7A, 1.67V/cell)
**Max. Discharge Current (5s)** | 320A
**Internal Resistance (25°C)** | Approx. 11.7mΩ
**Operating Temp. Range**
Discharge | -20°C to 55°C (-4°F to 131°F)
Charge | 0°C to 40°C (32°F to 104°F)
Storage | -20°C to 50°C (-4°F to 122°F)
**Nominal Operating Temp. Range** | 25±3°C (77±5°F)
**Max. Charging Current (25°C)** | 10.0A
**Charge voltage (25°C)**
- Float | 13.5V
- Temp. Coefficient | -3mV/cell/°C
- Cycle (Equalization) | 14.1 to 14.4V
**Effect of Temp. to Capacity**
- 40°C (104°F) | 106%
- 25°C (77°F) | 100%
- 0°C (32°F) | 86%
**Self Discharge**
| ≤3% per month at 25°C

### Constant Current Discharge (Amperes) at 25°C (77°F)

<table>
<thead>
<tr>
<th>F.V./Time</th>
<th>10min</th>
<th>15min</th>
<th>30min</th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>5h</th>
<th>8h</th>
<th>10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>38.6</td>
<td>34.1</td>
<td>25.5</td>
<td>18.6</td>
<td>11.8</td>
<td>9.00</td>
<td>6.44</td>
<td>4.52</td>
<td>3.82</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>46.4</td>
<td>39.3</td>
<td>28.5</td>
<td>20.4</td>
<td>12.7</td>
<td>9.67</td>
<td>6.73</td>
<td>4.72</td>
<td>4.00</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>53.3</td>
<td>43.9</td>
<td>30.7</td>
<td>21.7</td>
<td>13.4</td>
<td>10.1</td>
<td>7.00</td>
<td>4.84</td>
<td>4.08</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>58.1</td>
<td>47.7</td>
<td>32.9</td>
<td>22.9</td>
<td>13.9</td>
<td>10.5</td>
<td>7.20</td>
<td>4.92</td>
<td>4.12</td>
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<tr>
<td>1.67V/cell</td>
<td>63.6</td>
<td>51.2</td>
<td>34.4</td>
<td>23.7</td>
<td>14.3</td>
<td>10.9</td>
<td>7.33</td>
<td>5.00</td>
<td>4.20</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>67.9</td>
<td>54.1</td>
<td>35.7</td>
<td>24.4</td>
<td>14.9</td>
<td>11.1</td>
<td>7.53</td>
<td>5.08</td>
<td>4.28</td>
</tr>
</tbody>
</table>

### Constant Power Discharge (Watts/cell) at 25°C (77°F)

<table>
<thead>
<tr>
<th>F.V./Time</th>
<th>10min</th>
<th>15min</th>
<th>30min</th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>5h</th>
<th>8h</th>
<th>10h</th>
</tr>
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<tbody>
<tr>
<td>1.85V/cell</td>
<td>63.5</td>
<td>58.4</td>
<td>48.5</td>
<td>36.2</td>
<td>23.1</td>
<td>17.6</td>
<td>12.7</td>
<td>8.93</td>
<td>7.67</td>
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<tr>
<td>1.80V/cell</td>
<td>76.8</td>
<td>69.6</td>
<td>54.5</td>
<td>39.5</td>
<td>24.9</td>
<td>18.8</td>
<td>13.3</td>
<td>9.33</td>
<td>7.93</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>89.3</td>
<td>76.8</td>
<td>58.1</td>
<td>41.9</td>
<td>26.0</td>
<td>19.7</td>
<td>13.7</td>
<td>9.60</td>
<td>8.13</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>98.4</td>
<td>82.7</td>
<td>61.7</td>
<td>44.0</td>
<td>26.8</td>
<td>20.3</td>
<td>14.1</td>
<td>9.73</td>
<td>8.20</td>
</tr>
<tr>
<td>1.67V/cell</td>
<td>103.7</td>
<td>86.1</td>
<td>63.9</td>
<td>45.2</td>
<td>27.5</td>
<td>20.9</td>
<td>14.3</td>
<td>9.87</td>
<td>8.33</td>
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<tr>
<td>1.60V/cell</td>
<td>106.4</td>
<td>87.9</td>
<td>65.5</td>
<td>46.3</td>
<td>28.3</td>
<td>21.3</td>
<td>14.7</td>
<td>10.1</td>
<td>8.47</td>
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OPzV Series-Tubular Gel
12V 2OPzV40(12V40Ah)

Applications
- Telecommunications
- Radio and cellular telephone relay stations
- Emergency lighting systems
- Power stations, Conventional power stations, alternative power(solar, wind)
- Large UPS and computer back-up
- Railway signaling
- Maritime standby power on ships and ashore
- Process and control engineering
- Standby power
- Buoy lighting

General Features
- 18 years design life (20°C)
- Better recovery performance
- Wide working temperature range (-20~55°C)
- No electrolyte stratification provides longer service life
- High recombination efficient
- Build in copper core based in lead will carry large current
- Separator imported form AMER-SIL high porosity, PVC-SiO₂ and low resistance
- Pasted negative plate special grid design increase the active material availability large current discharge and charge ability
- Tubular type positive plate (polyester tube) prevent the active material from falling. Multi metal alloy pressed positive grid increase the anti corrosion ability and service life

Standards
- Compliance with IEC 60896, IEC 61427, DIN 40742 standards
- UL, CE Certified
- Manufactured in Leoch®IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

Charge voltage vs ambient temperature curve

Cycle Life in Relation to DOD

General Relation of Capacity VS. Storage Time

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