Specifications

Rated Voltage
12V

Nominal Capacity
180.0Ah (C₁₀, 1.80V/cell)

Dimension

<table>
<thead>
<tr>
<th></th>
<th>Length</th>
<th>Width</th>
<th>Container Height</th>
<th>Total Height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>522mm (20.55 in.)</td>
<td>240mm (9.45 in.)</td>
<td>218mm (8.58 in.)</td>
<td>224mm (8.81 in.)</td>
</tr>
</tbody>
</table>

Approx Weight
67.4kg (148.59 lbs)

Terminal
M8

Container Material
ABS

Rated Capacity (25°C)

<table>
<thead>
<tr>
<th></th>
<th>180.0Ah</th>
<th>158.0Ah</th>
<th>136.2Ah</th>
<th>106.7Ah</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(10hr, 18.0A, 1.80V/cell)</td>
<td>(5hr, 31.6A, 1.75V/cell)</td>
<td>(3hr, 45.4A, 1.79V/cell)</td>
<td>(1hr, 106.7A, 1.67V/cell)</td>
</tr>
</tbody>
</table>

Max. Discharge Current (5s)
1440A

Internal Resistance (25°C)
Approx. 5.2mΩ

Operating Temp. Range

<table>
<thead>
<tr>
<th></th>
<th>Discharge</th>
<th>Charge</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-20°C<del>55°C (-4°F</del>131°F)</td>
<td>0°C<del>40°C (32°F</del>104°F)</td>
<td>-20°C<del>50°C (-4°F</del>122°F)</td>
</tr>
</tbody>
</table>

Nominal Operating Temp. Range
25x3°C (77x5°F)

Max. Charging Current (25°C)
45.0A

Charge voltage (25°C)

<table>
<thead>
<tr>
<th></th>
<th>Float</th>
<th>Temp. Coefficient</th>
<th>Cycle (Equalization)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13.5V</td>
<td>-3mV/cell/°C</td>
<td>14.1~14.4V</td>
</tr>
</tbody>
</table>

Effect of temp. to Capacity

<table>
<thead>
<tr>
<th></th>
<th>40°C (104°F)</th>
<th>25°C (77°F)</th>
<th>0°C (32°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>106%</td>
<td>100%</td>
<td>86%</td>
</tr>
</tbody>
</table>

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>10 min</th>
<th>15 min</th>
<th>30 min</th>
<th>1 h</th>
<th>2 h</th>
<th>3 h</th>
<th>5 h</th>
<th>8 h</th>
<th>10 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>173.8</td>
<td>153.2</td>
<td>114.5</td>
<td>83.7</td>
<td>53.1</td>
<td>40.5</td>
<td>29.0</td>
<td>20.3</td>
<td>17.2</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>208.9</td>
<td>177.0</td>
<td>128.5</td>
<td>91.8</td>
<td>57.4</td>
<td>43.4</td>
<td>30.4</td>
<td>21.2</td>
<td>18.0</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>236.9</td>
<td>197.8</td>
<td>138.2</td>
<td>97.7</td>
<td>60.3</td>
<td>45.4</td>
<td>31.6</td>
<td>21.8</td>
<td>18.4</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>261.6</td>
<td>214.7</td>
<td>148.0</td>
<td>103.3</td>
<td>62.5</td>
<td>47.2</td>
<td>32.4</td>
<td>22.1</td>
<td>18.5</td>
</tr>
<tr>
<td>1.67V/cell</td>
<td>286.1</td>
<td>230.4</td>
<td>154.8</td>
<td>106.7</td>
<td>64.6</td>
<td>48.8</td>
<td>33.1</td>
<td>22.5</td>
<td>18.9</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>305.4</td>
<td>243.7</td>
<td>160.6</td>
<td>109.7</td>
<td>66.8</td>
<td>49.9</td>
<td>33.8</td>
<td>22.9</td>
<td>19.3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>F.V/Time</th>
<th>10 min</th>
<th>15 min</th>
<th>30 min</th>
<th>1 h</th>
<th>2 h</th>
<th>3 h</th>
<th>5 h</th>
<th>8 h</th>
<th>10 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>285.8</td>
<td>262.8</td>
<td>218.5</td>
<td>162.9</td>
<td>103.7</td>
<td>79.2</td>
<td>57.1</td>
<td>40.3</td>
<td>34.4</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>345.6</td>
<td>313.2</td>
<td>245.3</td>
<td>177.8</td>
<td>111.8</td>
<td>84.6</td>
<td>59.8</td>
<td>42.1</td>
<td>35.8</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>401.8</td>
<td>345.6</td>
<td>261.5</td>
<td>188.3</td>
<td>117.0</td>
<td>88.6</td>
<td>61.9</td>
<td>43.2</td>
<td>36.5</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>442.8</td>
<td>372.2</td>
<td>277.4</td>
<td>198.0</td>
<td>120.6</td>
<td>91.4</td>
<td>63.4</td>
<td>43.9</td>
<td>36.9</td>
</tr>
<tr>
<td>1.67V/cell</td>
<td>466.6</td>
<td>387.4</td>
<td>287.3</td>
<td>203.4</td>
<td>124.0</td>
<td>94.3</td>
<td>64.6</td>
<td>44.5</td>
<td>37.4</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>478.8</td>
<td>395.3</td>
<td>295.0</td>
<td>208.4</td>
<td>127.6</td>
<td>95.9</td>
<td>65.9</td>
<td>45.2</td>
<td>38.0</td>
</tr>
</tbody>
</table>
OPzV Series-Tubular Gel
12V 9OPzV180(12V180Ah)

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-SiO, 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

Charge voltage vs ambient temperature curve

Temperature effects in relation to battery capacity

Cycle Life in Relation to DOD

General Relation of Capacity VS. Storage Time

Sales Offices Worldwide

China Sales Office
5th Floor, Xinshaohui Bldg., Nanhai Blvd., Nanshan, Shenzhen, China 518052
Tel: +86-755-86030065 (100 lines)
Fax: +86-755-26067269
E-mail:export@leoch.com

North America Sales Office
19751 Descartes
Foothill Ranch, CA 92610, USA
Tel: 949-588-5853
Fax: 949-588-5856
E-mail:sales@leoch.us

HongKong Sales Office
Workshop C., 13/F, TML Tower, No. 3 Ho Shing Road, Tuen Wan, New Territories, Hong Kong
Tel: +852 35786666
Fax: +86 1452 690125
E-mail:sales.hk@leoch.com

UK Sales Office
98 Wheatsheaf Court, Waterwells Business Park, Gloucester, GL2-2AQ, UK United Kingdom
Tel: +44(0) 1452 729428 / 1452 729496
Fax: +44 1452 690125
E-mail:Sales.Europe@leoch.com

Singapore Sales Office
No. 1 Tech Park Crescent, Singapore 638131
Tel: +65 68636078
Fax: +65 6863 6079
E-mail:sales.sg@leoch.com

EMEA Sales Office
1 Deligiorgi St., 121 31 Athens, Greece
Tel: +30 210 5760318 (2 lines)
E-mail:support_EMEA@leoch.com

Australia Sales Office
2/20 Tarrington Place, Smithfield, NSW 2164
Australia
Tel: 02 9756 0950
E-mail:sales.au@leoch.com

India Sales Office
Shed no.A-53(b), 2nd Stage of Peenya Industrial Area, Bangalore North Taluk, Bangalore-560055, India
Tel: +91-80-23440018 / 23440019
Fax: +91-80-23440017
E-mail:indiasales@leoch.com

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