OPzV Series-Tubular Gel
10 OPzV1000(2V1000Ah)

Specifications

Rated Voltage: 2V
Nominal Capacity: 1000Ah (C1000, 1.80V/cell)

Dimension:
- Length: 233mm (9.17 in.)
- Width: 210mm (8.27 in.)
- Container Height: 646mm (25.43 in.)
- Total Height: 681mm (26.81 in.)

Approx Weight: 78.5Kg (173.06 lbs)
Terminal: M8
Container Material: ABS

Rated Capacity (25°C):
- 1000.0 Ah (10hr, 100.0A, 1.80V/cell)
- 875.0 Ah (5hr, 175.0A, 1.75V/cell)
- 771.0 Ah (3hr, 257.0A, 1.75V/cell)
- 558.0 Ah (1hr, 558.0A, 1.65V/cell)

Max. Discharge Current (5s): 8000A
Internal Resistance (25°C): Approx. 0.45mΩ

Operating Temp. Range:
- Discharge: -20°C~55°C (-4°F~131°F)
- Charge: 0°C~40°C (32°F~104°F)
- Storage: -20°C~50°C (-4°F~122°F)

Nominal Operating Temp. Range: 25±3°C (77±5°F)
Max. Charging Current (25°C): 250.0A

Charge voltage (25°C):
- Float: 2.25V
- Temp. Coefficient: -3mV/cell°C
- Cycle (Equalization): 2.35~2.40V

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>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>682.0</td>
<td>648.0</td>
<td>558.0</td>
<td>445.0</td>
<td>295.0</td>
<td>231.0</td>
<td>159.0</td>
<td>111.0</td>
<td>93.7</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>839.0</td>
<td>784.0</td>
<td>650.0</td>
<td>502.0</td>
<td>324.0</td>
<td>252.0</td>
<td>171.0</td>
<td>119.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>992.0</td>
<td>877.0</td>
<td>693.0</td>
<td>522.0</td>
<td>333.0</td>
<td>257.0</td>
<td>175.0</td>
<td>120.0</td>
<td>102.0</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>1113.0</td>
<td>957.0</td>
<td>733.0</td>
<td>542.0</td>
<td>342.0</td>
<td>262.0</td>
<td>177.0</td>
<td>122.0</td>
<td>103.0</td>
</tr>
<tr>
<td>1.65V/cell</td>
<td>1196.0</td>
<td>1011.0</td>
<td>763.0</td>
<td>558.0</td>
<td>349.0</td>
<td>267.0</td>
<td>180.0</td>
<td>123.0</td>
<td>104.0</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>1251.0</td>
<td>1047.0</td>
<td>782.0</td>
<td>568.0</td>
<td>354.0</td>
<td>270.0</td>
<td>182.0</td>
<td>124.0</td>
<td>105.0</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>1268.0</td>
<td>1217.0</td>
<td>1066.0</td>
<td>862.0</td>
<td>574.0</td>
<td>451.9</td>
<td>312.9</td>
<td>219.0</td>
<td>186.0</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>1532.0</td>
<td>1452.0</td>
<td>1230.0</td>
<td>964.0</td>
<td>627.0</td>
<td>488.8</td>
<td>335.9</td>
<td>234.0</td>
<td>199.0</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>1782.0</td>
<td>1603.0</td>
<td>1298.0</td>
<td>997.0</td>
<td>641.0</td>
<td>497.8</td>
<td>340.9</td>
<td>238.0</td>
<td>201.0</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>1964.0</td>
<td>1724.0</td>
<td>1360.0</td>
<td>1029.0</td>
<td>654.0</td>
<td>505.8</td>
<td>344.9</td>
<td>240.0</td>
<td>203.0</td>
</tr>
<tr>
<td>1.65V/cell</td>
<td>2071.0</td>
<td>1793.0</td>
<td>1400.0</td>
<td>1051.0</td>
<td>665.0</td>
<td>512.8</td>
<td>348.9</td>
<td>243.0</td>
<td>205.0</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>2126.0</td>
<td>1830.0</td>
<td>1421.0</td>
<td>1062.0</td>
<td>670.0</td>
<td>516.7</td>
<td>350.9</td>
<td>244.0</td>
<td>206.0</td>
</tr>
</tbody>
</table>
**Applications**
- Telecommunications
- Radio and cellular telephone relay stations
- Emergency lighting systems
- Power plants, 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**
- 20 years design life (20°C)
- Better recovery performance
- Wide working temperature range (-20~55°C)
- No electrolyte stratification provides longer service life
- High recombination efficiency
- Build in copper core based on 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
- Tubuler 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**

**Temperature effects in relation to battery capacity**

**Cycle Life in Relation to DOD**

**General Relation of Capacity VS. Storage Time**

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