CG2-200 2V 200Ah(10hr)

Gel battery shows some distinctive advantages over flooded battery or AGM battery, such as super thermal stability, high deep discharge capability, good recovery from deep discharge, even if the battery is left discharged for three days, it will recover to 100% of capacity. With the above-mentioned advantages, the gel battery has long service life, specially suitable for motive power applications, such as golf trailer, scrubber, forklift, etc. The deep discharge cycles increased 50% as compared with the AGM battery.

Battery Construction

<table>
<thead>
<tr>
<th>Component</th>
<th>Positive plate</th>
<th>Negative plate</th>
<th>Container</th>
<th>Cover</th>
<th>Safety valve</th>
<th>Terminal</th>
<th>Separator</th>
<th>Electrolyte</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw material</td>
<td>Lead dioxide</td>
<td>Lead</td>
<td>ABS</td>
<td>ABS</td>
<td>Rubber</td>
<td>Copper</td>
<td>PVC</td>
<td>Gelled acid</td>
</tr>
</tbody>
</table>

General Features
- Nanometer SiO₂ and H₂SO₄ gelled electrolyte technology for efficiency
- Gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.
- Case and cover available in both standard and flame retardant ABS.

Performance Characteristics
- Nominal Voltage: 2V
- Number of cell: 1
- Design Life: 20 years
- Nominal Capacity: 77°F (25°C) 200Ah
  - 10 hour rate (20.0A, 1.80V): 200Ah
  - 5 hour rate (35.2A, 1.75V): 176Ah
  - 1 hour rate (124A, 1.6V): 124Ah
- Internal Resistance:
  - Fully Charged battery: 77°F (25°C) ≤ 0.8mOhms
  - Self-Discharge:
    - 2% of capacity declined per month at 20°C (average)
  - Operating Temperature Range:
    - Discharge: -20~60°C
    - Charge: -10~60°C
    - Storage: -20~60°C
  - Max. Discharge Current: 77°F (25°C) 440A (5s)
- Charge Methods: Constant Voltage Charge 77°F (25°C)
  - Cycle use Charge Voltage: 2.40-2.45VPC
  - Maximum charging current: 40A
  - Temperature compensation:
    - Charge: -5mV/°C
    - Discharge: -3mV/°C
- Standby use
  - Charge Voltage: 2.20-2.30VPC
  - Temperature compensation:
    - Charge: -5mV/°C
    - Discharge: -3mV/°C

Dimensions and Weight
- Length (mm / inch): 173 / 6.81
- Width (mm / inch): 111 / 4.37
- Height (mm / inch): 330 / 13.0
- Total Height (mm / inch): 364 / 14.3
- Approx. Weight (Kg / lbs): 15.2 / 33.6
- Weight deviation: ± 3%

Charge/Discharge Current (Amperes at 77°F 25°C)

<table>
<thead>
<tr>
<th>End point volts/cell</th>
<th>10min</th>
<th>15min</th>
<th>30min</th>
<th>1h</th>
<th>3h</th>
<th>5h</th>
<th>10h</th>
<th>20h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.60V</td>
<td>420</td>
<td>344</td>
<td>200</td>
<td>124</td>
<td>52.0</td>
<td>38.0</td>
<td>21.0</td>
<td>11.2</td>
</tr>
<tr>
<td>1.65V</td>
<td>396</td>
<td>320</td>
<td>196</td>
<td>120</td>
<td>50.7</td>
<td>36.8</td>
<td>20.4</td>
<td>11.0</td>
</tr>
<tr>
<td>1.70V</td>
<td>372</td>
<td>304</td>
<td>192</td>
<td>116</td>
<td>49.3</td>
<td>36.0</td>
<td>20.4</td>
<td>10.8</td>
</tr>
<tr>
<td>1.75V</td>
<td>348</td>
<td>280</td>
<td>188</td>
<td>112</td>
<td>48.7</td>
<td>35.2</td>
<td>20.2</td>
<td>10.7</td>
</tr>
<tr>
<td>1.80V</td>
<td>324</td>
<td>256</td>
<td>180</td>
<td>106</td>
<td>46.7</td>
<td>34.0</td>
<td>20.0</td>
<td>10.5</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>End point volts/cell</th>
<th>10min</th>
<th>15min</th>
<th>30min</th>
<th>1h</th>
<th>3h</th>
<th>5h</th>
<th>10h</th>
<th>20h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.60V</td>
<td>719</td>
<td>583</td>
<td>374</td>
<td>232</td>
<td>97.3</td>
<td>73.0</td>
<td>40.7</td>
<td>22.0</td>
</tr>
<tr>
<td>1.65V</td>
<td>684</td>
<td>579</td>
<td>358</td>
<td>221</td>
<td>92.4</td>
<td>68.9</td>
<td>36.9</td>
<td>20.8</td>
</tr>
<tr>
<td>1.70V</td>
<td>667</td>
<td>554</td>
<td>341</td>
<td>212</td>
<td>87.6</td>
<td>65.7</td>
<td>36.2</td>
<td>19.9</td>
</tr>
<tr>
<td>1.75V</td>
<td>635</td>
<td>520</td>
<td>331</td>
<td>204</td>
<td>83.3</td>
<td>64.2</td>
<td>34.9</td>
<td>19.2</td>
</tr>
<tr>
<td>1.80V</td>
<td>601</td>
<td>492</td>
<td>317</td>
<td>195</td>
<td>78.4</td>
<td>59.8</td>
<td>32.6</td>
<td>18.5</td>
</tr>
</tbody>
</table>

(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values. All data shall be changed without notice, LUXURY reserves the right to explain and update the information contained hereinto.

http://www.luxury-system.com
**Discharge characteristic (25°C)**

- Battery voltage (V) vs. discharge time (h)

**Charging characteristic for Cycle use**

- Charging time (hours) vs. voltage (V/Cell)

**Relationship between charging voltage and temperature**

- Ambient temperature (°C) vs. charging voltage (V)

**Self-discharge characteristic**

- Capacity (%) vs. storage time (months)

**Life characteristics of Standby use**

- Capacity (%) vs. life (years)

**Cycle service life in relation to depth of discharge**

- Capacity (%) vs. number of cycles (cycles)

**Temperature effects on float life**

- Life (years) vs. temperature (°C)

**Temperature effects on capacity**

- Capacity (%) vs. temperature (°C)