### Specifications

**Rated Voltage**
12V

**Nominal Capacity**
38.0Ah ($C_{10}$, 1.80V/cell)

**Dimension**
- **Length**: 197±2mm (7.76 inches)
- **Width**: 165±2mm (6.50 inches)
- **Container Height**: 170±2mm (6.69 inches)
- **Total Height**: 170±2mm (6.69 inches)

**Approx Weight**
12.7 Kg (28.0 lbs)

**Terminal**
M6

**Container Material**
ABS

**Rated Capacity (25°C)**
- 40.0Ah (20hr, 2.00A, 1.80V/cell)
- 38.0Ah (10hr, 3.80A, 1.80V/cell)
- 34.6Ah (5hr, 6.92A, 1.75V/cell)
- 31.5Ah (3hr, 10.5A, 1.75V/cell)
- 24.2Ah (1hr, 24.2A, 1.60V/cell)

**Max. Discharge Current**
456A (5s)

**Internal Resistance (25°C)**
Approx 10.0mΩ

**Operating Temp. Range**
- **Discharge**: -15 ~ 50°C (5 ~ 122°F)
- **Charge**: 0 ~ 40°C (32 ~ 104°F)
- **Storage**: -15 ~ 40°C (5 ~ 104°F)

**Nominal Operating Temp. Range**
25±3°C (77±5°F)

**Cycle Use**
Initial Charging Current less than 4A.
Voltage: 14.4V ~ 15.0V at 25°C (77°F)
Temp. Coefficient: -30mV/C

**Standby Use**
Initial Charging Current less than 11.4A.
Voltage: 13.5V ~ 13.8V at 25°C (77°F)
Temp. Coefficient: -20mV/C

**Effect of temp. to Capacity**
- 40°C (104°F): 103%
- 25°C (77°F): 100%
- 0°C (32°F): 86%

**Self Discharge**
LPL series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.

### Layout

![Layout Diagram](image)

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

<table>
<thead>
<tr>
<th>F.V/Time</th>
<th>10min</th>
<th>20min</th>
<th>30min</th>
<th>45min</th>
<th>1H</th>
<th>1.5H</th>
<th>2H</th>
<th>3H</th>
<th>4H</th>
<th>5H</th>
<th>6H</th>
<th>8H</th>
<th>10H</th>
<th>20H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>56.2</td>
<td>38.3</td>
<td>34.3</td>
<td>25.1</td>
<td>21.2</td>
<td>15.4</td>
<td>12.9</td>
<td>9.49</td>
<td>7.44</td>
<td>6.46</td>
<td>5.69</td>
<td>4.38</td>
<td>3.63</td>
<td>1.93</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>63.8</td>
<td>43.3</td>
<td>37.3</td>
<td>26.6</td>
<td>22.0</td>
<td>15.9</td>
<td>13.4</td>
<td>10.3</td>
<td>7.95</td>
<td>6.79</td>
<td>6.12</td>
<td>4.61</td>
<td>3.80</td>
<td>2.00</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>69.2</td>
<td>46.8</td>
<td>38.1</td>
<td>27.5</td>
<td>23.1</td>
<td>16.7</td>
<td>14.1</td>
<td>10.5</td>
<td>8.09</td>
<td>6.92</td>
<td>6.17</td>
<td>4.63</td>
<td>3.84</td>
<td>2.01</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>73.8</td>
<td>49.6</td>
<td>38.8</td>
<td>28.1</td>
<td>23.5</td>
<td>17.1</td>
<td>14.3</td>
<td>10.7</td>
<td>8.24</td>
<td>7.03</td>
<td>6.20</td>
<td>4.70</td>
<td>3.88</td>
<td>2.03</td>
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<tr>
<td>1.65V/cell</td>
<td>76.1</td>
<td>51.0</td>
<td>39.4</td>
<td>28.5</td>
<td>23.9</td>
<td>17.3</td>
<td>14.6</td>
<td>10.8</td>
<td>8.36</td>
<td>7.17</td>
<td>6.23</td>
<td>4.77</td>
<td>3.93</td>
<td>2.06</td>
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<tr>
<td>1.60V/cell</td>
<td>78.7</td>
<td>52.3</td>
<td>40.0</td>
<td>28.9</td>
<td>24.2</td>
<td>17.6</td>
<td>14.8</td>
<td>10.9</td>
<td>8.46</td>
<td>7.27</td>
<td>6.27</td>
<td>4.83</td>
<td>3.97</td>
<td>2.08</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>20min</th>
<th>30min</th>
<th>45min</th>
<th>1H</th>
<th>1.5H</th>
<th>2H</th>
<th>3H</th>
<th>4H</th>
<th>5H</th>
<th>6H</th>
<th>8H</th>
<th>10H</th>
<th>20H</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>107.9</td>
<td>74.4</td>
<td>63.5</td>
<td>49.2</td>
<td>39.8</td>
<td>28.9</td>
<td>24.4</td>
<td>18.0</td>
<td>14.2</td>
<td>12.3</td>
<td>10.9</td>
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<tr>
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<td>51.7</td>
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<td>19.4</td>
<td>15.1</td>
<td>12.9</td>
<td>11.7</td>
<td>8.84</td>
<td>7.32</td>
<td>3.85</td>
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<tr>
<td>1.75V/cell</td>
<td>128.8</td>
<td>88.8</td>
<td>69.5</td>
<td>53.3</td>
<td>42.9</td>
<td>31.2</td>
<td>26.3</td>
<td>19.8</td>
<td>15.3</td>
<td>13.1</td>
<td>11.7</td>
<td>8.87</td>
<td>7.38</td>
<td>3.88</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>135.4</td>
<td>93.3</td>
<td>70.3</td>
<td>54.0</td>
<td>43.5</td>
<td>31.6</td>
<td>26.7</td>
<td>20.1</td>
<td>15.5</td>
<td>13.3</td>
<td>11.8</td>
<td>9.00</td>
<td>7.45</td>
<td>3.92</td>
</tr>
<tr>
<td>1.65V/cell</td>
<td>137.6</td>
<td>94.9</td>
<td>70.8</td>
<td>54.5</td>
<td>43.9</td>
<td>32.0</td>
<td>27.0</td>
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<td>9.10</td>
<td>7.54</td>
<td>3.96</td>
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<tr>
<td>1.60V/cell</td>
<td>139.5</td>
<td>96.2</td>
<td>71.1</td>
<td>54.7</td>
<td>44.2</td>
<td>32.2</td>
<td>27.2</td>
<td>20.2</td>
<td>15.8</td>
<td>13.8</td>
<td>11.8</td>
<td>9.20</td>
<td>7.61</td>
<td>4.00</td>
</tr>
</tbody>
</table>
LPL Series-Long Life Standby
LPL12-38(12V38Ah)

Applications
- UPS and EPS
- Emergency light
- Railway signal and aircraft signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply, DC power supply

General Features
- 10 years design life (25°C)
- Grid refining technology and the thicker plates are used to extend the battery standby life and reduce the plate grid corrosion speed
- Using oxygen recombination technology: maintenance-free
- Unique vent valve design: control water losing, prevent air and spark going inside

Discharge Characteristics

Float Charging Characteristics

Temperature Effects in Relation to Battery Capacity

Effect of Temperature on Long Term Float Life

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Standards
- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch® IATF 16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities