### Specifications

**Rated Voltage**
12V

**Nominal Capacity**
28.0Ah (C₁₀, 1.75V/cell)

**Dimension**
- Length: 164 ± 2mm (6.46 inches)
- Width: 125 ± 2mm (4.92 inches)
- Container Height: 175 ± 2mm (6.89 inches)
- Total Height: 175 ± 2mm (6.89 inches)

**Approx Weight**
9.1 Kg (20.1 lbs)

**Terminal**
T3-A

**Container Material**
ABS

**Rated Capacity (25°C)**
- 28.00 Ah (20hr, 1.40A, 1.75V/cell)
- 26.30 Ah (10hr, 2.63A, 1.75V/cell)
- 23.80 Ah (5hr, 4.76A, 1.75V/cell)
- 21.69 Ah (3hr, 7.23A, 1.75V/cell)
- 18.70 Ah (1hr, 18.7A, 1.60V/cell)

**Max. Discharge Current**
420A (5s)

**Internal Resistance (25°C)**
Approx. 12.0mΩ

**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.

**Standby Use**
Initial Charging Current less than 8.4A. Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°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.

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

<table>
<thead>
<tr>
<th>F.V./Time</th>
<th>10min</th>
<th>15min</th>
<th>20min</th>
<th>30min</th>
<th>45min</th>
<th>1h</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>58.4</td>
<td>46.3</td>
<td>40.1</td>
<td>28.5</td>
<td>20.9</td>
<td>17.1</td>
<td>9.68</td>
<td>7.02</td>
<td>5.58</td>
<td>4.64</td>
<td>3.97</td>
<td>3.12</td>
<td>2.57</td>
<td>1.37</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>61.4</td>
<td>48.1</td>
<td>41.3</td>
<td>29.2</td>
<td>21.3</td>
<td>17.4</td>
<td>9.83</td>
<td>7.13</td>
<td>5.66</td>
<td>4.70</td>
<td>4.02</td>
<td>3.16</td>
<td>2.60</td>
<td>1.39</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>64.4</td>
<td>49.9</td>
<td>42.5</td>
<td>29.9</td>
<td>21.8</td>
<td>17.7</td>
<td>9.98</td>
<td>7.23</td>
<td>5.73</td>
<td>4.76</td>
<td>4.07</td>
<td>3.20</td>
<td>2.63</td>
<td>1.40</td>
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<tr>
<td>1.70V/cell</td>
<td>67.4</td>
<td>51.7</td>
<td>43.8</td>
<td>30.6</td>
<td>22.2</td>
<td>18.0</td>
<td>10.1</td>
<td>7.34</td>
<td>5.81</td>
<td>4.83</td>
<td>4.13</td>
<td>3.24</td>
<td>2.66</td>
<td>1.41</td>
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<tr>
<td>1.65V/cell</td>
<td>69.2</td>
<td>52.8</td>
<td>44.6</td>
<td>31.0</td>
<td>22.4</td>
<td>18.2</td>
<td>10.2</td>
<td>7.40</td>
<td>5.86</td>
<td>4.86</td>
<td>4.16</td>
<td>3.26</td>
<td>2.68</td>
<td>1.42</td>
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<tr>
<td>1.60V/cell</td>
<td>73.4</td>
<td>55.2</td>
<td>46.3</td>
<td>32.0</td>
<td>23.0</td>
<td>18.7</td>
<td>10.4</td>
<td>7.55</td>
<td>5.97</td>
<td>4.95</td>
<td>4.23</td>
<td>3.31</td>
<td>2.72</td>
<td>1.44</td>
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</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>20min</th>
<th>30min</th>
<th>45min</th>
<th>1h</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>
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</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>111.7</td>
<td>89.0</td>
<td>77.1</td>
<td>55.1</td>
<td>40.6</td>
<td>33.3</td>
<td>18.9</td>
<td>13.8</td>
<td>11.0</td>
<td>9.16</td>
<td>7.85</td>
<td>6.19</td>
<td>5.11</td>
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<tr>
<td>1.80V/cell</td>
<td>116.7</td>
<td>92.0</td>
<td>79.2</td>
<td>56.2</td>
<td>41.3</td>
<td>33.8</td>
<td>19.2</td>
<td>14.0</td>
<td>11.1</td>
<td>9.27</td>
<td>7.95</td>
<td>6.26</td>
<td>5.16</td>
<td>2.77</td>
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<tr>
<td>1.75V/cell</td>
<td>121.8</td>
<td>94.8</td>
<td>81.1</td>
<td>57.3</td>
<td>41.9</td>
<td>34.3</td>
<td>19.4</td>
<td>14.2</td>
<td>11.3</td>
<td>9.38</td>
<td>8.03</td>
<td>6.33</td>
<td>5.22</td>
<td>2.80</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>126.7</td>
<td>97.7</td>
<td>83.2</td>
<td>58.4</td>
<td>42.6</td>
<td>34.8</td>
<td>19.7</td>
<td>14.3</td>
<td>11.4</td>
<td>9.49</td>
<td>8.13</td>
<td>6.40</td>
<td>5.28</td>
<td>2.83</td>
</tr>
<tr>
<td>1.65V/cell</td>
<td>129.7</td>
<td>99.5</td>
<td>84.4</td>
<td>59.1</td>
<td>43.0</td>
<td>35.0</td>
<td>19.8</td>
<td>14.4</td>
<td>11.5</td>
<td>9.55</td>
<td>8.18</td>
<td>6.44</td>
<td>5.32</td>
<td>2.84</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>136.4</td>
<td>103.3</td>
<td>87.1</td>
<td>60.5</td>
<td>43.9</td>
<td>35.7</td>
<td>20.2</td>
<td>14.7</td>
<td>11.7</td>
<td>9.70</td>
<td>8.31</td>
<td>6.54</td>
<td>5.40</td>
<td>2.89</td>
</tr>
</tbody>
</table>
LPL Series-Long Standby Life
LPL12-28H(12V28Ah)

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 – 12 years design life(20°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

Float Service Life

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