**Specifications**

<table>
<thead>
<tr>
<th><strong>Rated Voltage</strong></th>
<th>12V</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominal Capacity</strong></td>
<td>90Ah, 1.80V/cell</td>
</tr>
<tr>
<td><strong>Dimension</strong></td>
<td>Length: 405.4x3mm (15.96 inches)</td>
</tr>
<tr>
<td><strong>Approx. Weight</strong></td>
<td>28.7 Kg (63.3 lbs)</td>
</tr>
<tr>
<td><strong>Terminal</strong></td>
<td>M6</td>
</tr>
<tr>
<td><strong>Container Material</strong></td>
<td>PC-ABS flame retardant jar and cover to UL94 V-0</td>
</tr>
<tr>
<td><strong>Rated Capacity (25°C)</strong></td>
<td>94.4 Ah (20hr, 4.72A, 1.80V/cell)</td>
</tr>
<tr>
<td><strong>Max. Discharge Current</strong></td>
<td>1080A</td>
</tr>
<tr>
<td><strong>Internal Resistance (25°C)</strong></td>
<td>Approx. 4.6mΩ (Fully charged)</td>
</tr>
<tr>
<td><strong>Operating Temp. Range</strong></td>
<td>Discharge: -40 ~ 65°C (-40 ~ 149°F)</td>
</tr>
<tr>
<td><strong>Nominal Operating Temp. Range</strong></td>
<td>25x3°C (77x5°F)</td>
</tr>
<tr>
<td><strong>Max. Charging Current (25°C)</strong></td>
<td>27.0A</td>
</tr>
<tr>
<td><strong>Charge voltage (25°C)</strong></td>
<td>13.62V</td>
</tr>
<tr>
<td><strong>Charge Temp. Coefficient</strong></td>
<td>-3mV/cell/°C</td>
</tr>
<tr>
<td><strong>Equalization Temp. Coefficient</strong></td>
<td>14.1 ~ 14.4V</td>
</tr>
<tr>
<td><strong>Effect of temp. to Capacity</strong></td>
<td>40°C (104°F)</td>
</tr>
</tbody>
</table>

**Self Discharge**

PLH series batteries can be stored up to 24 months at 25°C (77°F). For higher temperatures the time interval will be shorter. Battery needs to be given a freshening charge when the OCV approach 2.10V/cell or when the maximum storage time is reached, whichever occurs first.

### 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>20 min</th>
<th>30 min</th>
<th>45 min</th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>4h</th>
<th>5h</th>
<th>8h</th>
<th>10h</th>
<th>20h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>174.2</td>
<td>145.4</td>
<td>124.6</td>
<td>99.2</td>
<td>74.3</td>
<td>54.7</td>
<td>35.3</td>
<td>25.1</td>
<td>20.1</td>
<td>16.2</td>
<td>10.7</td>
<td>8.92</td>
<td>4.61</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>195.8</td>
<td>162.6</td>
<td>134.8</td>
<td>104.0</td>
<td>78.6</td>
<td>57.0</td>
<td>36.6</td>
<td>26.1</td>
<td>20.3</td>
<td>16.4</td>
<td>11.0</td>
<td>9.00</td>
<td>4.72</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>213.0</td>
<td>171.4</td>
<td>144.2</td>
<td>110.6</td>
<td>82.2</td>
<td>59.1</td>
<td>37.7</td>
<td>26.8</td>
<td>20.6</td>
<td>16.6</td>
<td>11.3</td>
<td>9.18</td>
<td>4.77</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>227.4</td>
<td>181.3</td>
<td>151.8</td>
<td>115.2</td>
<td>85.1</td>
<td>60.6</td>
<td>38.4</td>
<td>27.0</td>
<td>20.8</td>
<td>16.7</td>
<td>11.3</td>
<td>9.36</td>
<td>4.84</td>
</tr>
<tr>
<td>1.67V/cell</td>
<td>242.4</td>
<td>186.6</td>
<td>155.6</td>
<td>119.3</td>
<td>86.4</td>
<td>62.3</td>
<td>38.9</td>
<td>27.8</td>
<td>21.0</td>
<td>17.2</td>
<td>11.5</td>
<td>9.72</td>
<td>4.88</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>256.0</td>
<td>197.4</td>
<td>161.6</td>
<td>120.4</td>
<td>88.1</td>
<td>63.4</td>
<td>39.2</td>
<td>28.1</td>
<td>21.1</td>
<td>17.5</td>
<td>11.7</td>
<td>9.90</td>
<td>4.96</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>20 min</th>
<th>30 min</th>
<th>45 min</th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>4h</th>
<th>5h</th>
<th>8h</th>
<th>10h</th>
<th>20h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>332.3</td>
<td>278.1</td>
<td>239.8</td>
<td>193.1</td>
<td>146.8</td>
<td>108.4</td>
<td>70.4</td>
<td>50.3</td>
<td>40.4</td>
<td>32.7</td>
<td>21.7</td>
<td>18.2</td>
<td>9.42</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>367.5</td>
<td>306.9</td>
<td>256.8</td>
<td>201.1</td>
<td>154.5</td>
<td>112.3</td>
<td>72.5</td>
<td>52.1</td>
<td>40.7</td>
<td>33.0</td>
<td>22.2</td>
<td>18.3</td>
<td>9.62</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>395.8</td>
<td>320.5</td>
<td>272.5</td>
<td>212.6</td>
<td>160.3</td>
<td>115.9</td>
<td>74.3</td>
<td>53.1</td>
<td>41.2</td>
<td>33.3</td>
<td>22.8</td>
<td>18.6</td>
<td>9.69</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>416.1</td>
<td>343.9</td>
<td>284.1</td>
<td>219.2</td>
<td>165.0</td>
<td>118.1</td>
<td>75.2</td>
<td>53.2</td>
<td>41.4</td>
<td>33.4</td>
<td>22.7</td>
<td>18.9</td>
<td>9.82</td>
</tr>
<tr>
<td>1.67V/cell</td>
<td>439.2</td>
<td>344.9</td>
<td>288.7</td>
<td>226.0</td>
<td>166.9</td>
<td>121.0</td>
<td>76.0</td>
<td>54.5</td>
<td>41.7</td>
<td>34.3</td>
<td>23.1</td>
<td>19.5</td>
<td>9.88</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>451.5</td>
<td>353.4</td>
<td>295.0</td>
<td>225.2</td>
<td>168.3</td>
<td>122.0</td>
<td>75.8</td>
<td>54.6</td>
<td>41.5</td>
<td>34.6</td>
<td>23.3</td>
<td>19.8</td>
<td>10.0</td>
</tr>
</tbody>
</table>

**Layout**

![Battery Layout Diagram](image-url)
PLH-Pure Lead Long Standby Life

PLH90FT(A) (12V90Ah)

Applications

- Telecommunication
- Railway signal
- Alarm and security system
- Power station systems
- Emergency power supply

General Features

- 20 years design life (25°C)
- Premium ABS+PC jar & covers, Flame Retardant to UL94 V-0
- High-rate performance, high energy density
- High quality AGM separators minimize electrical resistance to allow high current discharging properties

Discharge Characteristics

- Terminal Voltage (V)
- Effects of Temperature on Discharging Time

Floating Charging Characteristics

- Charge Current (0.1C-2.25V/cell)
- Charge Voltage (Temperature 25°C)
- Float Life

Standards

- Compliance with IEC 60896 standards
- Classified as “Very Long Life” according to Eurobat
- CE, UL Certified
- Manufactured in Leoch®IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

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