LPS SERIES-Solar Power

LPS12-230 (12V230AH)

Specification

Nominal Voltage 12V
Nominal Capacity (100HR) 230.0AH

Dimension
Length 522 ± 3mm (20.55 inches)
Width 240 ± 2mm (9.45 inches)
Container Height 218 ± 2mm (8.58 inches)
Total Height (with Terminal) 224 ± 2mm (8.81 inches)

Approx Weight
Approx 64.0 Kg (141.1 lbs)

Terminal
T11

Container Material
ABS

Rated Capacity
- 230.0AH/2.30A (100hr, 1.80V/cell, 25°C/77°F)
- 210.0AH/10.5A (20hr, 1.80V/cell, 25°C/77°F)
- 200.0AH/20.0A (10hr, 1.80V/cell, 25°C/77°F)
- 174.5AH/34.9A (5hr, 1.75V/cell, 25°C/77°F)
- 1221.5AH/121.5A (1hr, 1.60V/cell, 25°C/77°F)

Max. Discharge Current
2000A (5s)

Internal Resistance
Approx 2.7mΩ

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 60.0A.
Voltage: 14.4V~15.0V at 25°C (77°F) Temp. Coefficient: -30mV/°C

Standby Use
No limit on Initial Charging Current Voltage
Temperature Coefficient: -20mV/°C

Capacity affected by Temperature
- 40°C (104°F) 103%
- 25°C (77°F) 100%
- 0°C (32°F) 86%

Self Discharge
LPS 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>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>8h</th>
<th>10h</th>
<th>20h</th>
<th>48h</th>
<th>100h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>227.5</td>
<td>189.0</td>
<td>146.8</td>
<td>116.3</td>
<td>94.1</td>
<td>61.3</td>
<td>46.3</td>
<td>37.9</td>
<td>32.0</td>
<td>22.4</td>
<td>19.2</td>
<td>10.2</td>
<td>4.58</td>
<td>2.25</td>
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<tr>
<td>1.80V/cell</td>
<td>252.2</td>
<td>207.9</td>
<td>158.4</td>
<td>123.5</td>
<td>99.2</td>
<td>65.2</td>
<td>48.8</td>
<td>39.7</td>
<td>33.6</td>
<td>23.5</td>
<td>20.0</td>
<td>10.5</td>
<td>4.65</td>
<td>2.30</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>279.8</td>
<td>227.7</td>
<td>170.4</td>
<td>132.0</td>
<td>107.0</td>
<td>68.3</td>
<td>51.5</td>
<td>41.5</td>
<td>34.9</td>
<td>24.2</td>
<td>20.4</td>
<td>10.7</td>
<td>4.73</td>
<td>2.32</td>
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<tr>
<td>1.70V/cell</td>
<td>305.7</td>
<td>248.7</td>
<td>187.2</td>
<td>137.9</td>
<td>113.0</td>
<td>72.0</td>
<td>54.0</td>
<td>43.2</td>
<td>36.3</td>
<td>25.1</td>
<td>21.1</td>
<td>10.9</td>
<td>4.78</td>
<td>2.35</td>
</tr>
<tr>
<td>1.65V/cell</td>
<td>323.7</td>
<td>262.5</td>
<td>197.2</td>
<td>146.4</td>
<td>116.9</td>
<td>74.5</td>
<td>56.0</td>
<td>44.7</td>
<td>37.6</td>
<td>25.7</td>
<td>21.5</td>
<td>11.2</td>
<td>4.87</td>
<td>2.39</td>
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<tr>
<td>1.60V/cell</td>
<td>354.8</td>
<td>285.0</td>
<td>209.6</td>
<td>151.7</td>
<td>121.5</td>
<td>77.6</td>
<td>57.9</td>
<td>46.1</td>
<td>38.9</td>
<td>26.4</td>
<td>22.0</td>
<td>11.5</td>
<td>4.95</td>
<td>2.41</td>
</tr>
</tbody>
</table>

Constant Power Discharge (Watts) at 25°C (77°F)

<table>
<thead>
<tr>
<th>F.V/Time</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>8h</th>
<th>10h</th>
<th>20h</th>
<th>48h</th>
<th>100h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.85V/cell</td>
<td>426.8</td>
<td>358.2</td>
<td>281.3</td>
<td>224.7</td>
<td>183.0</td>
<td>119.7</td>
<td>90.6</td>
<td>74.4</td>
<td>63.1</td>
<td>44.4</td>
<td>38.1</td>
<td>20.3</td>
<td>9.16</td>
<td>4.51</td>
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<tr>
<td>1.80V/cell</td>
<td>466.8</td>
<td>388.2</td>
<td>298.9</td>
<td>235.7</td>
<td>191.3</td>
<td>126.4</td>
<td>95.0</td>
<td>77.6</td>
<td>65.9</td>
<td>46.4</td>
<td>39.7</td>
<td>20.9</td>
<td>9.28</td>
<td>4.59</td>
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<tr>
<td>1.75V/cell</td>
<td>511.5</td>
<td>421.2</td>
<td>318.9</td>
<td>250.7</td>
<td>205.4</td>
<td>131.9</td>
<td>100.0</td>
<td>80.8</td>
<td>68.2</td>
<td>47.7</td>
<td>40.5</td>
<td>21.3</td>
<td>9.41</td>
<td>4.62</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>551.1</td>
<td>456.6</td>
<td>348.4</td>
<td>260.8</td>
<td>216.2</td>
<td>138.7</td>
<td>104.6</td>
<td>84.1</td>
<td>70.9</td>
<td>49.5</td>
<td>41.8</td>
<td>21.7</td>
<td>9.51</td>
<td>4.68</td>
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<td>1.65V/cell</td>
<td>581.4</td>
<td>480.1</td>
<td>365.5</td>
<td>275.7</td>
<td>222.9</td>
<td>143.1</td>
<td>108.2</td>
<td>86.8</td>
<td>73.2</td>
<td>50.7</td>
<td>42.7</td>
<td>22.2</td>
<td>9.67</td>
<td>4.74</td>
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<td>1.60V/cell</td>
<td>624.3</td>
<td>513.7</td>
<td>384.2</td>
<td>283.0</td>
<td>229.6</td>
<td>147.9</td>
<td>111.1</td>
<td>89.1</td>
<td>75.4</td>
<td>51.9</td>
<td>43.5</td>
<td>22.7</td>
<td>9.83</td>
<td>4.78</td>
</tr>
</tbody>
</table>

Applications
- Green energy systems (solar, wind, hydro, etc)
- Solar power stations
- Telecommunications installations
- Measurement stations
- Pump systems
- Signal station
- Survey and Mapping system
- Emergency lighting
- Railway crossing
- Traffic lights
- Street lightening
- Lawn lamp
- Street signs
- SOS pillars
- Alarm installations
- Weekend cottage camping
- Caravans
- Boats or buoys

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Caravans
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Dimensions

T11 Terminal
Unit: mm [inches]

Discharge Characteristics

Effect of Temperature on Long Term Float Life

Cycle Service Life

Self-Discharge at Different Temperatures

Charge Mode

With switch regulator (two-step controller) charge on curve max. charge voltage for max. 2 hrs/day then switch over to continuous charge

Standard charge without switching

Boost charge (Equalizing charge with external generator) charge on curve continuous charge for max. 5 hrs/month, then switch over to curve Standard charge