PHR HIGH RATE SERIES

TERMINALS: (mm)

T6: Threaded insert with 3mm stud fastener

Torque: 3.9~5.5 N•m

Tolerances are ±0.04 in. (+/- 1mm) and ±0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

DIMENSIONS: inch (mm)


FEATURES

• Superb high-rate discharge characteristics that ensure reliable performance in UPS applications for up to 10 years
• Specifically designed for UPS and critical power backup applications
• Valve regulated, maintenance free spill proof construction
• Precision plate pasting for higher consistency with 100% load testing to ensure uniform capacity
• Patented dual-paste process for enhanced active material bonding and computer guided volumetric electrolyte control for precision filling
• Rugged vibration and impact resistant ABS case and cover flame retardant to UL94-V0

APPROVALS

• U.L recognized
• ISO9001:2015 – Quality management systems

PERFORMANCE SPECIFICATIONS

Nominal Voltage 12 volts (6 cells)
Nominal Power (15 min.) 150 W/Cell
Rated Capacity
20-hr. (1.8A to 10.80 volts) 36.0 AH
10-hr. (3.5A to 10.50 volts) 35.0 AH
8-hr. (4.1A to 10.50 volts) 33.0 AH
Approximate Weight 22.5 lbs. (10.2 kg)
Internal Resistance (approx.) 7.0 milliohms
Max Discharge Current (5 Sec.) 630 amperes
Shelf Life (% of nominal capacity at 68°F (20°C)
1 Month 97%
3 Month 91%
6 Month 83%
Operating Temperature Range
Charge 5°F (-15°C) to 122°F (50°C)
Discharge -4°F (-20°C) to 140°F (60°C)
Case and Cover Flame Retardant ABS Plastic UL94-V-0
Power Sonic Chargers
PSC-124000-PC
PSC-243500-PC

PHR-12150
12V 36.0 AH @ 20-hr.
150 W/Cell @ 15-min.

Rechargeable Sealed Lead Acid Battery
PHR – High-Rate Series

CORPORATE HEADQUARTERS
(USA AND INTERNATIONAL EXCLUDING EMEA)
Power-Sonic Corporation
7550 Panasonic Way, San Diego,
California 92154
T: +1 (619) 661 2020
F: +1 (619) 661 3650
E: customer-service@power-sonic.com

POWER-SONIC EUROPE LIMITED
(EMEA – EUROPE, MIDDLE EAST AND AFRICA)
3 Buckingham Square,
Hurricane Way, Wickford,
Essex SS11 BYQ
T: +44 (0)1268 560686
F: +44 (0)1268 560902
E: salesEMEA@power-sonic.com

To ensure safe and efficient operation always refer to the latest edition of our Technical Manual, as published on our website.
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PHR HIGH RATE SERIES

PHR-12150 12V 36.0 AH @ 20-hr.
150 W/Cell @ 15-min.
Rechargeable Sealed Lead Acid Battery
PHR – High-Rate Series

CONSTANT CURRENT DISCHARGE (AMPERES) AT 25°C (77°F)

<table>
<thead>
<tr>
<th>F.V./Time</th>
<th>5min</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>102.3</td>
<td>73.7</td>
<td>59.1</td>
<td>49.4</td>
<td>37.9</td>
<td>28.3</td>
<td>22.6</td>
<td>12.7</td>
<td>9.04</td>
<td>7.06</td>
<td>5.85</td>
<td>5.01</td>
<td>3.93</td>
<td>3.26</td>
<td>1.72</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>118.2</td>
<td>82.7</td>
<td>65.2</td>
<td>53.7</td>
<td>40.7</td>
<td>30.8</td>
<td>24.7</td>
<td>14.0</td>
<td>10.0</td>
<td>7.78</td>
<td>6.41</td>
<td>5.48</td>
<td>4.31</td>
<td>3.49</td>
<td>1.85</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>132.8</td>
<td>89.9</td>
<td>70.3</td>
<td>57.2</td>
<td>42.7</td>
<td>31.2</td>
<td>24.7</td>
<td>13.5</td>
<td>9.54</td>
<td>7.46</td>
<td>6.15</td>
<td>5.25</td>
<td>4.11</td>
<td>3.41</td>
<td>1.79</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>144.0</td>
<td>96.6</td>
<td>74.9</td>
<td>60.5</td>
<td>44.6</td>
<td>32.3</td>
<td>25.5</td>
<td>13.9</td>
<td>9.70</td>
<td>7.60</td>
<td>6.27</td>
<td>5.37</td>
<td>4.20</td>
<td>3.48</td>
<td>1.82</td>
</tr>
<tr>
<td>1.65V/cell</td>
<td>156.0</td>
<td>103.3</td>
<td>79.1</td>
<td>63.6</td>
<td>46.4</td>
<td>33.3</td>
<td>26.2</td>
<td>14.2</td>
<td>10.0</td>
<td>7.78</td>
<td>6.41</td>
<td>5.48</td>
<td>4.31</td>
<td>3.49</td>
<td>1.85</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>166.8</td>
<td>109.2</td>
<td>82.7</td>
<td>66.6</td>
<td>48.4</td>
<td>34.4</td>
<td>26.8</td>
<td>14.6</td>
<td>10.2</td>
<td>7.98</td>
<td>6.58</td>
<td>5.63</td>
<td>4.40</td>
<td>3.62</td>
<td>1.90</td>
</tr>
</tbody>
</table>

CONSTANT POWER DISCHARGE (WATTS/CELL) AT 25°C (77°F)

<table>
<thead>
<tr>
<th>F.V./Time</th>
<th>5min</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>199.0</td>
<td>144.2</td>
<td>116.2</td>
<td>97.6</td>
<td>75.4</td>
<td>56.4</td>
<td>45.2</td>
<td>35.6</td>
<td>25.6</td>
<td>18.3</td>
<td>14.3</td>
<td>11.9</td>
<td>10.2</td>
<td>8.05</td>
<td>3.55</td>
</tr>
<tr>
<td>1.80V/cell</td>
<td>227.6</td>
<td>160.2</td>
<td>127.1</td>
<td>105.1</td>
<td>80.1</td>
<td>60.3</td>
<td>47.4</td>
<td>37.3</td>
<td>26.3</td>
<td>18.7</td>
<td>14.7</td>
<td>12.2</td>
<td>10.4</td>
<td>8.22</td>
<td>3.59</td>
</tr>
<tr>
<td>1.75V/cell</td>
<td>253.0</td>
<td>172.4</td>
<td>135.7</td>
<td>111.1</td>
<td>83.4</td>
<td>61.2</td>
<td>48.9</td>
<td>38.9</td>
<td>26.9</td>
<td>19.0</td>
<td>14.9</td>
<td>12.4</td>
<td>10.6</td>
<td>8.33</td>
<td>3.66</td>
</tr>
<tr>
<td>1.70V/cell</td>
<td>271.2</td>
<td>183.3</td>
<td>142.9</td>
<td>116.2</td>
<td>86.3</td>
<td>62.9</td>
<td>49.9</td>
<td>39.7</td>
<td>27.4</td>
<td>19.3</td>
<td>15.1</td>
<td>12.5</td>
<td>10.8</td>
<td>8.45</td>
<td>3.70</td>
</tr>
<tr>
<td>1.65V/cell</td>
<td>291.5</td>
<td>194.5</td>
<td>150.0</td>
<td>121.4</td>
<td>89.3</td>
<td>64.5</td>
<td>51.2</td>
<td>41.0</td>
<td>28.0</td>
<td>19.7</td>
<td>15.4</td>
<td>12.7</td>
<td>10.9</td>
<td>8.62</td>
<td>3.75</td>
</tr>
<tr>
<td>1.60V/cell</td>
<td>308.1</td>
<td>203.4</td>
<td>155.2</td>
<td>125.9</td>
<td>92.2</td>
<td>65.9</td>
<td>51.7</td>
<td>41.3</td>
<td>28.3</td>
<td>20.0</td>
<td>15.7</td>
<td>13.0</td>
<td>11.1</td>
<td>8.73</td>
<td>3.81</td>
</tr>
</tbody>
</table>

CHARGING

Cycle Applications: Apply constant voltage charge at 2.35v/c - 2.45v/c (14.1 – 14.7v for 12v Monobloc) at 20°C. Initial charging current should be set at less than 0.25C Amps. Switch to float charge to avoid overcharging.

“Float” or “Stand-By” Service: Apply constant voltage charge of 2.25v/c – 2.30v/c (13.5 to 13.8 volts for 12v Monobloc at 20°C. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

Temperature Compensation: Charging Voltage for both Cyclic and Standby applications should be regulated in relation to ambient temperature. As temperature rises charging voltage should be reduced to prevent overcharge and increased as temperature falls to avoid undercharge.

For further charging information including temperature compensation factors, see Power Sonic Technical Manual/Power Sonic Charger specifications.

APPLICATIONS

- High Rate UPS
- Data Centers

CHARGERS

Power Sonic offers a wide range of chargers suitable for batteries with a variety of capacities.

Please refer to our website for more information on our switch mode and transformer type chargers.

Please contact our technical department for advice if you have difficulty in locating a suitable charger.

FURTHER INFORMATION

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.