MPS12-33 VALVE REGULATED
LEAD ACID BATTERY

FOR STANDBY POWER APPLICATIONS
12V 33 AH @ 20 HR Rate,
12V 125 Watts/Cell @ 15 Min Rate

FEATURES

• Robust plate for extended life.
• Flame-arresting one-way pressure-relief vent for safety and long life.
• Durable polypropylene container and cover.
• Thermally welded case-to-cover bond to eliminate leakage.
• Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance.
• UL-recognized component.
• Multicell design for economy of installation and maintenance.
• Can be used in any orientation. Upright, side, or end mounting recommended.
• Not restricted for air transport – Complies with IATA/ICAO Special Provision A67.
• Not restricted for surface transport – classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189.
• Not restricted for water transport – classified as non-hazardous material per IMDG Amendment 27.
• Computer designed lead, low calcium alloy grid for minimal gassing and ease of recycling.

SPECIFICATIONS

12 Volts – 33 Ampere Hour Capacity @ 20 Hour Rate

<table>
<thead>
<tr>
<th>Discharge in Hours</th>
<th>1.00</th>
<th>2.00</th>
<th>3.00</th>
<th>4.00</th>
<th>5.00</th>
<th>6.00</th>
<th>7.00</th>
<th>8.00</th>
<th>10.00</th>
<th>12.00</th>
<th>20.00</th>
<th>24.00</th>
<th>72.00</th>
<th>100.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amp-Hr Capacity</td>
<td>23.5</td>
<td>25.9</td>
<td>27.2</td>
<td>28.1</td>
<td>29.0</td>
<td>29.7</td>
<td>30.2</td>
<td>30.5</td>
<td>31.0</td>
<td>31.5</td>
<td>33.0</td>
<td>33.1</td>
<td>33.8</td>
<td>34.4</td>
</tr>
</tbody>
</table>
### Specifications

<table>
<thead>
<tr>
<th>Cells Per Unit</th>
<th>Voltage Per Unit</th>
<th>Weight</th>
<th>Electrolyte</th>
<th>Maximum Discharge Current</th>
<th>Short Circuit Current</th>
<th>Ohms Imped. 60 Hz (Ω)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>12.84</td>
<td>27 lbs.</td>
<td>Absorbed H₂SO₄</td>
<td>600 Amps</td>
<td>2150 Amps @ 0.1 sec.</td>
<td>0.0070 Ohms</td>
</tr>
</tbody>
</table>

**Capacity**

125 watts per cell at the 15 minute rate to 1.67 volts per cell at 77°F (25°C), 33.0 Ah @ 20 hr. rate to 1.75 volts per cell @ 77°F (25°C), 29.6 Ah @ 10 hr. rate to 1.80 volts per cell @ 68°F (20°C).

**Operating Temperature Range**

Discharge: -40°F (-40°C) to +160°F (71°C), Charge: -10°F (-23°C) to +140°F (60°C), (with temperature compensation)

**Recommended Operating Temperature Range**

+74°F (23°C) to +80°F (27°C).

**Recommended Maximum Charging Current Limit**

6.6 amperes @ 100% depth of discharge @ 20 hour rate

**Electrolyte**

Absorbed H₂SO₄, SG = 1.300

**Maximum AC Ripple (Charger)**

0.5% RMS or 1.5% P-P of float charge voltage recommended for best results. Maximum AC ripple voltage allowed = (45% P-P). Maximum AC ripple current allowed = 5.0 amperes rms (C20).

**Self Discharge**

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

**Accessories**

Inter unit connectors, racks and cabinet systems are available.

**Terminal Hardware Initial Torque**

1/2" terminal with 0.28" clearance hole to accept 0.25" (6mm) bolt.

**Terminal Hardware Annual Retorque**

40 in.-lbs. (4.5 N-m).

**Terminal Hardware Initial Torque**

32 in.-lbs. (3.48 N-m).

### Constant Power Discharge Ratings – Watts Per Cell @ 77°F (25°C)

<table>
<thead>
<tr>
<th>End Point Volts/Cell</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>45</th>
<th>50</th>
<th>60</th>
<th>90</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.75</td>
<td>225</td>
<td>153</td>
<td>120</td>
<td>98.0</td>
<td>71.0</td>
<td>57.0</td>
<td>53.2</td>
<td>49.4</td>
<td>44.4</td>
<td>32.9</td>
</tr>
<tr>
<td>1.70</td>
<td>230</td>
<td>157</td>
<td>124</td>
<td>100</td>
<td>72.0</td>
<td>57.9</td>
<td>54.2</td>
<td>20.4</td>
<td>45.2</td>
<td>33.5</td>
</tr>
<tr>
<td>1.67</td>
<td>235</td>
<td>159</td>
<td>125</td>
<td>102</td>
<td>74.0</td>
<td>59.1</td>
<td>55.2</td>
<td>51.2</td>
<td>46.0</td>
<td>34.0</td>
</tr>
<tr>
<td>1.65</td>
<td>238</td>
<td>160</td>
<td>127</td>
<td>103</td>
<td>74.9</td>
<td>60.0</td>
<td>56.1</td>
<td>52.2</td>
<td>46.4</td>
<td>34.4</td>
</tr>
<tr>
<td>1.60</td>
<td>240</td>
<td>161</td>
<td>128</td>
<td>104</td>
<td>75.0</td>
<td>60.5</td>
<td>56.5</td>
<td>52.4</td>
<td>47.1</td>
<td>34.7</td>
</tr>
</tbody>
</table>

### Constant Current Discharge Ratings – Amperes @ 77°F (25°C)

<table>
<thead>
<tr>
<th>End Point Volts/Cell</th>
<th>.083</th>
<th>.25</th>
<th>.50</th>
<th>.75</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>5</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>20</th>
<th>24</th>
<th>72</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.90</td>
<td>87.0</td>
<td>46.0</td>
<td>30.0</td>
<td>24.0</td>
<td>18.1</td>
<td>11.0</td>
<td>8.03</td>
<td>5.20</td>
<td>3.39</td>
<td>2.73</td>
<td>2.38</td>
<td>1.42</td>
<td>1.19</td>
<td>0.42</td>
<td>0.30</td>
</tr>
<tr>
<td>1.85</td>
<td>101</td>
<td>55.2</td>
<td>34.0</td>
<td>27.2</td>
<td>20.5</td>
<td>11.8</td>
<td>8.40</td>
<td>5.48</td>
<td>3.58</td>
<td>2.90</td>
<td>2.51</td>
<td>1.54</td>
<td>1.29</td>
<td>0.45</td>
<td>0.33</td>
</tr>
<tr>
<td>1.80</td>
<td>113</td>
<td>61.2</td>
<td>37.2</td>
<td>29.7</td>
<td>22.3</td>
<td>12.4</td>
<td>8.80</td>
<td>5.64</td>
<td>3.71</td>
<td>3.02</td>
<td>2.59</td>
<td>1.61</td>
<td>1.35</td>
<td>0.46</td>
<td>0.34</td>
</tr>
<tr>
<td>1.75</td>
<td>121</td>
<td>67.2</td>
<td>40.0</td>
<td>31.7</td>
<td>23.5</td>
<td>13.0</td>
<td>9.07</td>
<td>5.80</td>
<td>3.81</td>
<td>3.10</td>
<td>2.62</td>
<td>1.65</td>
<td>1.38</td>
<td>0.47</td>
<td>0.34</td>
</tr>
</tbody>
</table>

**Note:** Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum and free air ventilation. Specifications subject to change without notification.