MR12-300
(Premium Replacement for UPS12-270FR)

VALVE REGULATED LEAD ACID BATTERY FOR UPS STANDBY POWER APPLICATIONS 12V 78 AH @ 20 HR RATE, 12V 300 WATTS/CELL @ 15 MIN RATE

FEATURES
- 10 year design life @ 25˚C (77˚F)
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance.
- 3 Year Warranty (refer Dynasty warranty card, 41-9011)
- Patented Long Life Alloy having the lowest calcium levels in the industry - minimizing grid growth, reducing gassing, and extending battery life.
- Patented UL Recognized Flame-arresting vents in each cell for safety and long life.
- Designed with the same recombination, thermal runaway prevention, gassing and flame retardant characteristics of the Bellcore 4228 compliant Dynasty Telecom products.
- Proprietary computer modeled radial grid matrix using multiple conductors to provide the lowest internal resistance and highest current carrying capability.
- Proprietary Fixed Orifice Plate Pasting technology applying active material on both sides of the grid for consistent cell-to-cell performance, higher capacity and uniform grid protection.
- UL-recognized component complying with UL1778, 924, 1989 and 94 V-0
- Thermally welded case-to-cover bond to eliminate leakage.
- Can be operated 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.
- Flame-retardant polypropylene case and cover compliant with UL 94 V-0 with an Oxygen Limiting Index of greater than 28.

Optional Inserted Terminal Call Factory for Details

12 Volts – 300 Watts Per Cell For 15 Minutes to 1.67 Volts per Cell Constant Power Discharge Ratings – Watts Per Cell @ 77˚F (25˚C)

<table>
<thead>
<tr>
<th>End Point Volts/Cell</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>1.67</td>
<td>382</td>
<td>300</td>
<td>244</td>
<td>179</td>
<td>144</td>
<td>131</td>
<td>121</td>
<td>105</td>
<td>76</td>
</tr>
</tbody>
</table>

C&D Technologies, Inc.
DYNASTY Division
900 East Keefe Avenue
Milwaukee, WI 53212
Phone: 800-396-2789
Fax: 414-961-6506

Form 41-9006 (Rev. 07/03) Printed in the U.S.A.
MR12-300 – Specifications

<table>
<thead>
<tr>
<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>Absorbed H₂SO₄, SG = 1.300</td>
<td>800 Amps</td>
<td>3600 Amps</td>
<td>0.0040 Ohms</td>
</tr>
</tbody>
</table>

Capacity

300 watts per cell at the 15 minute rate to 1.67 volts per cell at 77°F (25°C).
77.8 Ah @ 20 hr. rate to 1.75 volts per cell @ 77°F (25°C).
71.3 Ah @ 10 hr. rate to 1.80 volts per cell @ 20°C (68°F).

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)

Nominal Operating Temperature Range

+74°F (23°C) to +80°F (27°C).

Floating Charging Voltage

13.5 to 13.8 VDC/unit Average at 77°F (25°C).

Recommended Maximum Charging Current Limit

C/5 amperes (15.56 amperes @ 100% depth of discharge) @ 20 hr. rate.

Equalization and Cycle Service Charging Voltage

14.4 to 14.8 VDC/Unit Average at 77°F (25°C).

Maximum AC Ripple (Charger)

0.5% RMS or 1.5% P-P of float charge voltage recommended for best results.
Maximum voltage allowed = 1.4% RMS (4% P-P).
Maximum current allowed = 3.89 amperes RMS (C/20).

Self Discharge

Dynasty MaxRate 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: L

"L" terminal with 0.28" clearance hole to accept 0.25" (6mm) bolt.

Terminal Hardware Initial Torque: L Terminal

40 in.-lbs. (4.5 N-m); Annual Retorque: 32 in.-lbs. (3.48 N-m).

Terminal: Inserted

Threaded copper alloy insert terminal to accept 1/4-20 UNC bolt.

Terminal Hardware Initial Torque: Inserted Terminal

110 in.-lbs. (12.4 N-m).

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

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<th>60</th>
<th>90</th>
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<tbody>
<tr>
<td>1.75</td>
<td>360</td>
<td>282</td>
<td>234</td>
<td>174</td>
<td>140</td>
<td>128</td>
<td>118</td>
<td>103</td>
<td>74</td>
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<tr>
<td>1.70</td>
<td>373</td>
<td>294</td>
<td>240</td>
<td>177</td>
<td>142</td>
<td>130</td>
<td>120</td>
<td>104</td>
<td>75</td>
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<tr>
<td>1.67</td>
<td>382</td>
<td>300</td>
<td>244</td>
<td>179</td>
<td>144</td>
<td>131</td>
<td>121</td>
<td>105</td>
<td>76</td>
</tr>
<tr>
<td>1.65</td>
<td>387</td>
<td>303</td>
<td>246</td>
<td>181</td>
<td>146</td>
<td>133</td>
<td>122</td>
<td>106</td>
<td>77</td>
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<tr>
<td>1.60</td>
<td>391</td>
<td>306</td>
<td>248</td>
<td>183</td>
<td>147</td>
<td>134</td>
<td>123</td>
<td>107</td>
<td>78</td>
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</table>

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

<table>
<thead>
<tr>
<th>End Point Volts/Cell</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>
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<tbody>
<tr>
<td>1.85</td>
<td>48.4</td>
<td>27.1</td>
<td>19.6</td>
<td>12.6</td>
<td>8.34</td>
<td>6.85</td>
<td>5.80</td>
<td>3.60</td>
<td>3.03</td>
<td>1.05</td>
</tr>
<tr>
<td>1.80</td>
<td>50.7</td>
<td>28.3</td>
<td>20.3</td>
<td>13.1</td>
<td>8.81</td>
<td>7.27</td>
<td>6.15</td>
<td>3.80</td>
<td>3.18</td>
<td>1.08</td>
</tr>
<tr>
<td>1.75</td>
<td>52.5</td>
<td>29.0</td>
<td>20.6</td>
<td>13.4</td>
<td>9.13</td>
<td>7.50</td>
<td>6.35</td>
<td>3.89</td>
<td>3.25</td>
<td>1.10</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.