MR12-210
(Premium Replacement for UPS12-200FR)

VALVE REGULATED
LEAD ACID BATTERY
FOR UPS STANDBY
POWER APPLICATIONS
12V 53 AH @ 20 HR RATE,
12V 206 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
calium levels in the industry - minimizing
gird 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 – 206 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>257</td>
<td>206</td>
<td>170</td>
<td>125</td>
<td>101</td>
<td>92</td>
<td>85</td>
<td>73</td>
<td>52</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 41-9005 (Rev. 07/03) Printed in the U.S.A.
MR12-210 – 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>40 lbs. 18 kg</td>
<td>Absorbed H2SO4, SG = 1.300</td>
<td>600 Amps</td>
<td>3000 Amps @ 0.1 sec.</td>
<td>0.0045 Ohms</td>
</tr>
</tbody>
</table>

Capacity
206 watts per cell at the 15 minute rate to 1.67 volts per cell at 77°F (25°C).
53.4 Ah @ 20 hr. rate to 1.75 volts per cell @ 77°F (25°C).
49.2 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 (10.68 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 = 2.67 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 #10-32 UNF bolt.

Terminal Hardware Initial Torque: Inserted Terminal
25 in.-lbs. (2.8 N-m).

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>1.75</td>
<td>240</td>
<td>195</td>
<td>164</td>
<td>121</td>
<td>98</td>
<td>90</td>
<td>83.0</td>
<td>71.8</td>
<td>51.0</td>
</tr>
<tr>
<td>1.70</td>
<td>252</td>
<td>201</td>
<td>168</td>
<td>123</td>
<td>99</td>
<td>91</td>
<td>84.2</td>
<td>72.8</td>
<td>52.0</td>
</tr>
<tr>
<td>1.67</td>
<td>256</td>
<td>206</td>
<td>170</td>
<td>125</td>
<td>101</td>
<td>92</td>
<td>85.0</td>
<td>73.3</td>
<td>52.4</td>
</tr>
<tr>
<td>1.65</td>
<td>259</td>
<td>207</td>
<td>171</td>
<td>126</td>
<td>101</td>
<td>93</td>
<td>85.0</td>
<td>73.8</td>
<td>52.6</td>
</tr>
<tr>
<td>1.60</td>
<td>261</td>
<td>209</td>
<td>172</td>
<td>127</td>
<td>102</td>
<td>93</td>
<td>86.0</td>
<td>74.2</td>
<td>52.8</td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>1.85</td>
<td>33.0</td>
<td>18.7</td>
<td>13.3</td>
<td>8.60</td>
<td>5.78</td>
<td>4.74</td>
<td>4.02</td>
<td>2.50</td>
<td>2.10</td>
<td>0.73</td>
</tr>
<tr>
<td>1.80</td>
<td>35.0</td>
<td>19.5</td>
<td>13.9</td>
<td>9.20</td>
<td>6.10</td>
<td>5.02</td>
<td>4.25</td>
<td>2.63</td>
<td>2.21</td>
<td>0.76</td>
</tr>
<tr>
<td>1.75</td>
<td>36.5</td>
<td>20.6</td>
<td>14.5</td>
<td>9.40</td>
<td>6.23</td>
<td>5.09</td>
<td>4.30</td>
<td>2.67</td>
<td>2.24</td>
<td>0.77</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.