



**HIGH  
RATE  
MAX<sup>XT</sup>**



# UPS12-200MRX

**Valve Regulated Lead Acid Battery  
Designed for UPS Standby Power Applications**

## FEATURES AND BENEFITS

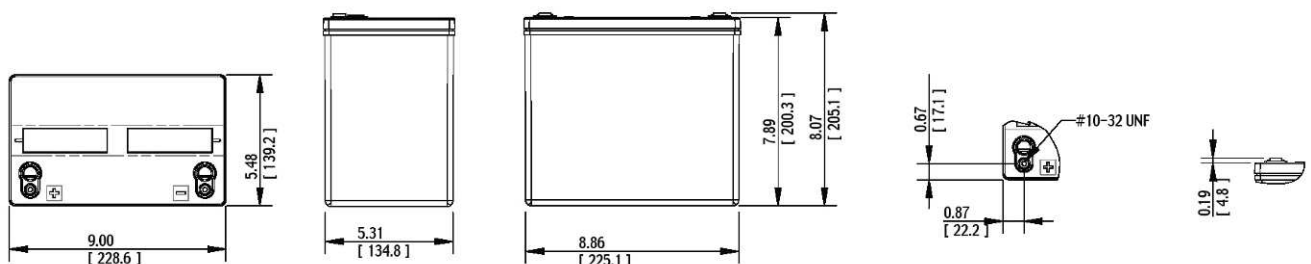
### APPLICATIONS

- Data Centers
- Network Operation Centers
- Industrial Process Control Facilities
- Internet Housing Sites
- Semiconductor Manufacturing
- Banks and Financial Markets
- Power Generation Plants
- Hospital and Testing Laboratories
- Emergency Response Center

- 12 year design life @ 25°C
- Eurobat Classification: Long Life
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance.
- 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.
- Flame retardant durable polypropylene case and cover compliant with UL 1778 and UL94-V2
- Proprietary Fixed Orifice Plate Pasting technology applying active materials on both sides of the grid for consistent cell-to-cell performance, higher capacity and uniform grid protection.
- 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 Provisions 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.

## Specifications

| Cells Per Unit | Voltage Per Unit | Weight  | Watts/Cell @ 15min | 1 Min Current to 1.75VPC | Short Circuit Current | Resistance   |
|----------------|------------------|---------|--------------------|--------------------------|-----------------------|--------------|
| 6              | 12.98V           | 17.7 Kg | 200                | 320 Amps                 | 1472 Amps             | 8.58 (mOhms) |



\*All dimensions in inches and (millimeters). All dimensions are for reference only. Contact a C&D Representative for complete dimensional information.

## Specifications

|  |   |
|--|---|
| <b>Operating Temperature Range with temperature compensation</b> | Discharge: -40° F (-40° C) to +160° F (71° C)<br>Charge: -10° F (-23° C) to +140° F (60° C)   |
| <b>Nominal Operating Temperature Range</b>                       | +74° F (23° C) to +80° F (27° C)  |
| <b>Recommended Maximum Charging Current Limit</b>                | C/5 amperes @ 20hr rate   |
| <b>Float Charging Voltage</b>                                    | 13.65 ± 0.15 VDC average per 12V unit. (6.75 to 6.90 per 6V unit)   |
| <b>Maximum AC Ripple (Charger)</b>                               | 0.5% RMS or 1.5% P-P of float charge voltage recommended for best results. Max voltage allowed = 1.4% RMS (4% P-P) Max current allowed = C/20   |
| <b>Self Discharge</b>  | Battery can be stored up to 6 months at 77° F (25° C) before a freshening charge is required. Batteries stored at temperatures greater than 77° F (25° C) will require recharge sooner than batteries stored at lower temperatures. See C&D brochure 41-7272, Self-Discharge and Inventory Control for details. |
| <b>Equalize charge and cycle service voltage</b>                 | 14.40 to 14.80 VDC average per 12V unit @ 77° F (25° C)<br>(7.20 to 7.40 VDC per 6V unit.)  |
| <b>Terminal: Inserted</b>  | Threaded copper alloy insert terminal to accept 10-32 UNF bolt for all models below UPS12-220MRX.<br>1/4-20 UNC bolt for all models above UPS12-280MRX  |
| <b>Terminal Hardware Initial Torque: Inserted Terminal</b>       | 30 in.-lbs. (3.4 N-m) for all models below UPS12-220MRX.<br>110 in.-lbs. (12.4 N-m) for all models above UPS12-280MRX.  |

**Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)**

### Operating Time to End Point Voltage

| End Voltage Per Cell | Min   |       |       |       |      | Hour |      |      |      |      |      |      |      |      |     |     |     |
|----------------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|
|                      | 5     | 10    | 15    | 30    | 60   | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 12  | 20  | 24  |
| 1.85                 | 279.3 | 209.2 | 169.2 | 107.1 | 66.8 | 37.7 | 27.0 | 21.3 | 17.7 | 15.3 | 13.3 | 11.8 | 10.7 | 9.7  | 8.2 | 5.2 | 4.5 |
| 1.80                 | 306.3 | 230.1 | 185.6 | 114.2 | 70.0 | 39.3 | 28.1 | 22.1 | 18.3 | 16.0 | 13.9 | 12.3 | 11.0 | 10.0 | 8.5 | 5.3 | 4.5 |
| 1.78                 | 313.0 | 235.7 | 189.7 | 115.9 | 70.5 | 39.6 | 28.2 | 22.2 | 18.4 | 16.1 | 14.0 | 12.4 | 11.1 | 10.1 | 8.5 | 5.4 | 4.5 |
| 1.75                 | 323.5 | 242.1 | 194.0 | 118.4 | 70.8 | 40.0 | 28.5 | 22.4 | 18.6 | 16.2 | 14.1 | 12.5 | 11.2 | 10.2 | 8.6 | 5.4 | 4.6 |
| 1.73                 | 327.3 | 244.9 | 196.0 | 119.3 | 71.1 | 40.1 | 28.6 | 22.4 | 18.6 | 16.2 | 14.1 | 12.5 | 11.2 | 10.2 | 8.6 | 5.4 | 4.6 |
| 1.70                 | 332.9 | 249.2 | 198.0 | 120.2 | 71.3 | 39.8 | 28.5 | 22.6 | 18.8 | 16.3 | 14.1 | 12.5 | 11.2 | 10.2 | 8.7 | 5.4 | 4.6 |
| 1.67                 | 338.7 | 253.6 | 200.0 | 121.1 | 71.5 | 40.1 | 28.7 | 22.7 | 18.9 | 16.3 | 14.2 | 12.6 | 11.3 | 10.2 | 8.7 | 5.5 | 4.6 |
| 1.65                 | 342.1 | 256.5 | 202.0 | 122.0 | 71.7 | 40.2 | 28.8 | 22.7 | 19.0 | 16.3 | 14.2 | 12.6 | 11.3 | 10.3 | 8.7 | 5.5 | 4.7 |

**Constant Current Discharge Table - Amps @ 25°C (77°F)**

### Operating Time to End Point Voltage

| End Voltage Per Cell | Min   |       |       |      |      | Hour |      |      |     |     |     |     |     |     |     |     |     |
|----------------------|-------|-------|-------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                      | 5     | 10    | 15    | 30   | 60   | 2    | 3    | 4    | 5   | 6   | 7   | 8   | 9   | 10  | 12  | 20  | 24  |
| 1.94                 | 79.3  | 79.3  | 69.7  | 46.1 | 28.4 | 15.7 | 11.1 | 8.6  | 7.1 | 6.1 | 5.3 | 4.8 | 4.3 | 3.9 | 3.4 | 2.2 | 1.9 |
| 1.90                 | 116.4 | 100.6 | 80.2  | 51.7 | 32.3 | 17.7 | 12.5 | 9.7  | 8.0 | 6.9 | 6.0 | 5.3 | 4.8 | 4.4 | 3.8 | 2.4 | 2.1 |
| 1.85                 | 151.6 | 115.6 | 91.9  | 57.2 | 35.7 | 19.5 | 13.7 | 10.7 | 8.8 | 7.5 | 6.5 | 5.8 | 5.3 | 4.8 | 4.1 | 2.6 | 2.2 |
| 1.83                 | 157.0 | 120.1 | 95.2  | 58.6 | 36.4 | 19.9 | 14.0 | 10.9 | 8.9 | 7.6 | 6.7 | 5.9 | 5.3 | 4.9 | 4.2 | 2.7 | 2.3 |
| 1.80                 | 165.4 | 126.6 | 100.3 | 60.8 | 37.5 | 20.5 | 14.3 | 11.1 | 9.2 | 7.8 | 6.8 | 6.1 | 5.5 | 5.0 | 4.3 | 2.7 | 2.3 |
| 1.78                 | 168.3 | 128.6 | 102.0 | 61.6 | 37.7 | 20.6 | 14.5 | 11.2 | 9.2 | 7.9 | 6.9 | 6.1 | 5.5 | 5.0 | 4.3 | 2.7 | 2.3 |
| 1.75                 | 171.1 | 130.3 | 103.7 | 62.6 | 37.9 | 20.9 | 14.6 | 11.4 | 9.3 | 8.0 | 7.0 | 6.2 | 5.6 | 5.1 | 4.3 | 2.8 | 2.4 |
| 1.70                 | 175.1 | 133.3 | 106.1 | 63.4 | 38.3 | 21.1 | 14.8 | 11.5 | 9.4 | 8.0 | 7.0 | 6.2 | 5.6 | 5.1 | 4.4 | 2.8 | 2.4 |

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