



**HIGH
RATE
MAX^{XT}**



UPS12-280MRX

Valve Regulated Lead Acid Battery

Designed for UPS Standby Power Applications.

FEATURES & BENEFITS

APPLICATIONS

- Data Centers
- Network Operations Centers
- Industrial Process Control Facilities
- Internet Housing Sites
- Semiconductor Manufacturing
- Banks & Financial Markets
- Power Generation Plants
- Hospitals & Testing Laboratories
- Emergency 911 Response Centers

- 10 year design life @ 25°C
- 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, 41-9027)
- 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 Bell-core 4228 compliant Dynasty Telecom products.
- Flame retardant polypropylene case and cover compliant with UL94V-2
- 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.

TECHNICAL DATA

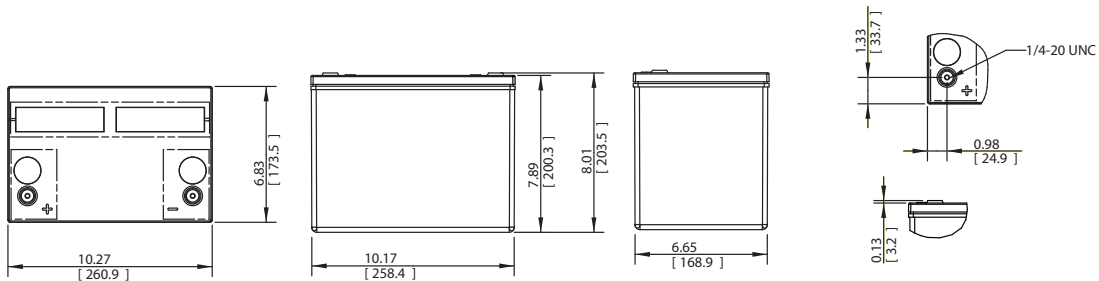
| Model | Constant Power Discharge Ratings - Watts per Cell @ 25°C (77°F) | | | | | | | | | | 20 hour rate to 1.75 VPC @ 25°C | IEC Rating: 10 hour rate to 1.80 VPC @ 20°C |
|--------------|---|-----|-----|-----|-----|-----|-----|-----|-----|------|---------------------------------|--|
| | Operating Time (in minutes) to 1.67 Volts per Cell | | | | | | | | | | | |
| | 5 | 10 | 15 | 20 | 30 | 40 | 45 | 50 | 60 | 90 | | |
| UPS12-280MRX | 482 | 351 | 284 | 234 | 178 | 149 | 134 | 126 | 109 | 79.7 | 83 AH | 73 AH |

| Cells Per Unit | Voltage Per Unit | Weight (Kg) | 1 Min Current to 1.75VPC (Amps) | Short Circuit Current (Amps) | Internal Resistance (mOhms) |
|----------------|------------------|-------------|---------------------------------|------------------------------|-----------------------------|
| 6 | 12.98 | 25.7 | 475 | 2099 | 5.99 |

SPECIFICATIONS

| | |
|--|---|
| Operating Temperature Range with temperature compensation | Discharge: -40°F (-40°C) to +160°F (71°C) Charge: -10°F (-23°C) to +140°F (60°C) |
| Nominal Operating Temperature Range | +74°F (23°C) to +80°F (27°C) |
| Recommended Maximum Charging Current Limit | C/5 amperes @ 20hr rate |
| Float Charging Voltage | 13.65 ± 0.15 VDC average per 12V unit |
| Maximum AC Ripple (Charger) | 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 |
| Self Discharge | 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. |
| Equalize charge and cycle service voltage | 14.40 to 14.80 VDC average per 12V unit @ 77°F (25°C) |
| Terminal | Threaded copper alloy insert terminal to accept 1/4-20 UNC bolt. |
| Terminal Hardware Initial Torque | 110 in.-lbs. (12.4 N-m) |

DIMENSIONS



CONSTANT POWER DISCHARGE RATINGS

| Constant Power Discharge Ratings - Watts Per Cell @ 20°C (68°F) | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Operating Time To End Voltage (in minutes) | | | | | | | | | | |
| End Point Volts/Cell | 5 | 10 | 15 | 20 | 30 | 40 | 45 | 50 | 60 | 90 |
| 1.75 | 426 | 314 | 256 | 212 | 163 | 137 | 124 | 117 | 103 | 75.5 |
| 1.70 | 445 | 324 | 262 | 217 | 166 | 140 | 126 | 119 | 104 | 76.2 |
| 1.67 | 453 | 330 | 267 | 220 | 169 | 141 | 128 | 120 | 105 | 76.6 |
| 1.65 | 465 | 337 | 271 | 223 | 170 | 143 | 129 | 121 | 106 | 77.2 |

| Constant Power Discharge Ratings - Watts Per Cell @ 77°F (25°C) | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Operating Time To End Voltage (in minutes) | | | | | | | | | | |
| End Point Volts/Cell | 5 | 10 | 15 | 20 | 30 | 40 | 45 | 50 | 60 | 90 |
| 1.75 | 453 | 334 | 272 | 225 | 172 | 144 | 130 | 123 | 107 | 78.5 |
| 1.70 | 473 | 345 | 279 | 230 | 175 | 147 | 132 | 124 | 109 | 79.3 |
| 1.67 | 482 | 351 | 284 | 234 | 178 | 149 | 134 | 126 | 109 | 79.7 |
| 1.65 | 495 | 358 | 288 | 237 | 180 | 150 | 135 | 127 | 110 | 80.3 |

CONSTANT CURRENT DISCHARGE RATINGS

| Constant Current Discharge Ratings - Amperes @ 20°C (68°F) | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|
| Operating Time To End Point Voltage (in hours) | | | | | | | | | |
| End Point Volts/Cell | 1 | 2 | 3 | 5 | 8 | 10 | 12 | 20 | 24 |
| 1.85 | 52.2 | 28.5 | 20.0 | 12.8 | 8.49 | 7.01 | 5.98 | 3.82 | 3.25 |
| 1.80 | 54.7 | 29.9 | 21.0 | 13.4 | 8.89 | 7.34 | 6.25 | 3.98 | 3.39 |
| 1.75 | 55.5 | 30.5 | 21.4 | 13.7 | 9.04 | 7.46 | 6.35 | 4.05 | 3.44 |

| Constant Current Discharge Ratings - Amperes @ 77°F (25°C) | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|
| Operating Time To End Point Voltage (in hours) | | | | | | | | | |
| End Point Volts/Cell | 1 | 2 | 3 | 5 | 8 | 10 | 12 | 20 | 24 |
| 1.85 | 54.3 | 29.6 | 20.7 | 13.2 | 8.75 | 7.19 | 6.13 | 3.91 | 3.33 |
| 1.80 | 57.0 | 31.1 | 21.8 | 13.9 | 9.16 | 7.53 | 6.41 | 4.09 | 3.48 |
| 1.75 | 57.8 | 31.7 | 22.2 | 14.1 | 9.32 | 7.65 | 6.51 | 4.15 | 3.53 |

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