



**HIGH
RATE
MAX^{XT}**



UPS12-400MRX

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

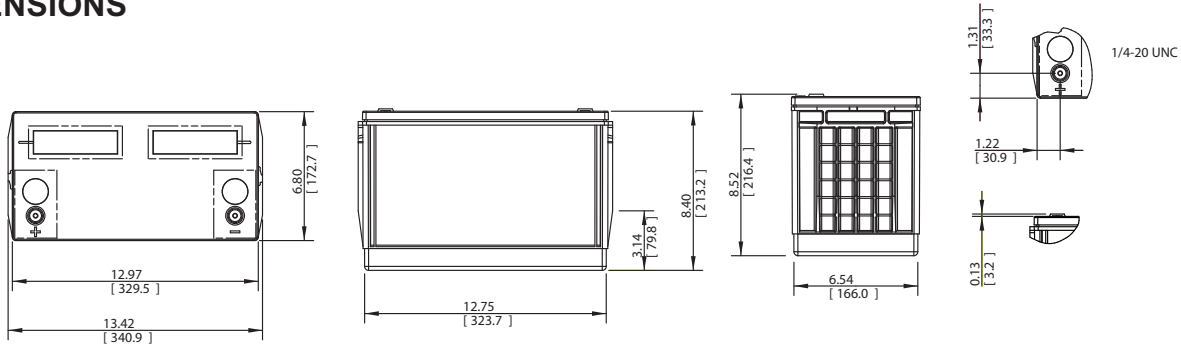
| Model | Constant Power Discharge Ratings - Watts per Cell @ 25°C (77°F) | | | | | | | | | | 20 hour rate to 1.75 VPC @ 25°C | IEC Rating: 10 hour rate to 1.80 VPC @ 20°C |
|--------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------|--|
| | Operating Time (in minutes) to 1.67 Volts per Cell | | | | | | | | | | | |
| | 5 | 10 | 15 | 20 | 30 | 40 | 45 | 50 | 60 | 90 | | |
| UPS12-400MRX | 716 | 517 | 408 | 339 | 261 | 218 | 196 | 183 | 159 | 113 | 109 AH | 97 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 | 35.3 | 572 | 3059 | 4.06 |

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 | 575 | 454 | 363 | 305 | 239 | 201 | 182 | 172 | 151 | 107 |
| 1.70 | 637 | 473 | 376 | 314 | 244 | 205 | 185 | 174 | 152 | 108 |
| 1.67 | 673 | 486 | 383 | 319 | 247 | 207 | 186 | 175 | 153 | 108 |
| 1.65 | 696 | 491 | 387 | 322 | 250 | 208 | 188 | 176 | 153 | 109 |

| 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 | 612 | 483 | 386 | 324 | 252 | 212 | 191 | 180 | 157 | 111 |
| 1.70 | 678 | 503 | 400 | 333 | 258 | 215 | 194 | 182 | 158 | 112 |
| 1.67 | 716 | 517 | 408 | 339 | 261 | 218 | 196 | 183 | 159 | 113 |
| 1.65 | 740 | 522 | 412 | 342 | 264 | 219 | 197 | 184 | 160 | 113 |

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 | 71.9 | 38.9 | 27.2 | 17.3 | 11.4 | 9.41 | 8.00 | 5.08 | 4.32 |
| 1.80 | 75.5 | 40.7 | 28.4 | 18.0 | 11.9 | 9.76 | 8.29 | 5.25 | 4.46 |
| 1.75 | 76.5 | 41.3 | 28.8 | 18.4 | 12.1 | 9.93 | 8.43 | 5.33 | 4.52 |

| 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 | 74.8 | 40.4 | 28.2 | 17.9 | 11.8 | 9.7 | 8.21 | 5.21 | 4.43 |
| 1.80 | 78.7 | 42.3 | 29.4 | 18.6 | 12.2 | 10.0 | 8.51 | 5.39 | 4.57 |
| 1.75 | 79.7 | 42.9 | 29.8 | 19.0 | 12.5 | 10.2 | 8.65 | 5.46 | 4.64 |

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