



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



# UPS12-440MRX

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

## 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

## FEATURES & BENEFITS

- 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

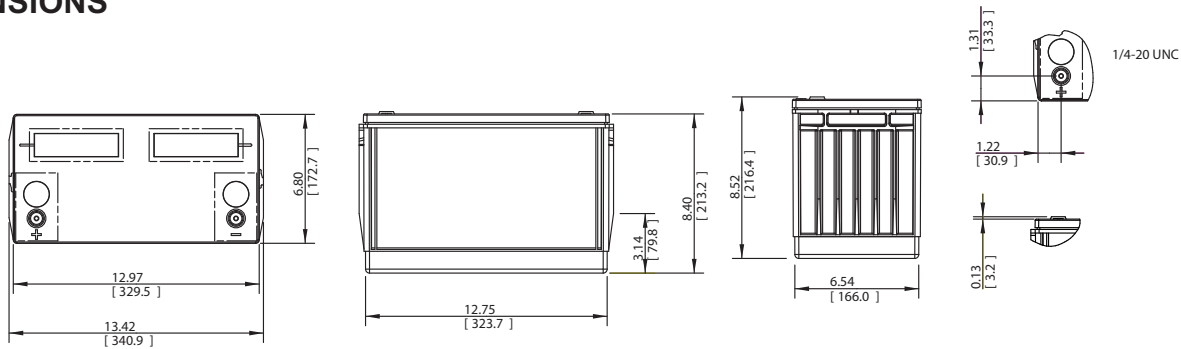
Model	Constant Power Discharge Ratings - Watts per Cell @ 25°C (77°F)										20 hour rate to 1.75 VPC @ 25°C	IEC Rating: 10 hour rate to 1.80 VPC @ 20°C
	Operating Time (in minutes) to 1.67 Volts per Cell											
	5	10	15	20	30	40	45	50	60	90		
UPS12-440MRX	719	552	436	355	266	223	201	189	165	117	121 AH	107 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	36	588	3183	3.96

**SPECIFICATIONS**

<b>Operating Temperature Range with temperature compensation</b>	Discharge: -40°F (-40°C) to +160°F (71°C) 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
<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)
<b>Terminal</b>	Threaded copper alloy insert terminal to accept 1/4-20 UNC bolt.
<b>Terminal Hardware Initial Torque</b>	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	640	490	388	320	244	205	186	175	154	110
1.70	662	506	401	329	249	210	190	179	157	112
1.67	676	519	410	335	252	212	192	181	158	112
1.65	686	528	415	339	254	214	193	182	159	113

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	680	521	412	339	258	216	195	183	160	115
1.70	704	538	427	349	263	220	199	187	163	116
1.67	719	552	436	355	266	223	201	189	165	117
1.65	729	562	442	360	269	225	203	190	166	118

**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	74.8	42.7	29.9	19.0	12.5	10.3	8.72	5.52	4.68
1.80	77.8	44.0	30.8	19.6	13.0	10.7	9.12	5.80	4.93
1.75	79.7	44.9	31.5	20.0	13.2	10.9	9.27	5.88	5.00

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	78.0	44.4	31.0	19.6	12.9	10.5	8.95	5.66	4.80
1.80	81.0	45.8	31.9	20.3	13.4	11.0	9.35	5.94	5.06
1.75	83.0	46.6	32.7	20.7	13.6	11.2	9.51	6.03	5.13

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