



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



# UPS12-320MRX

**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

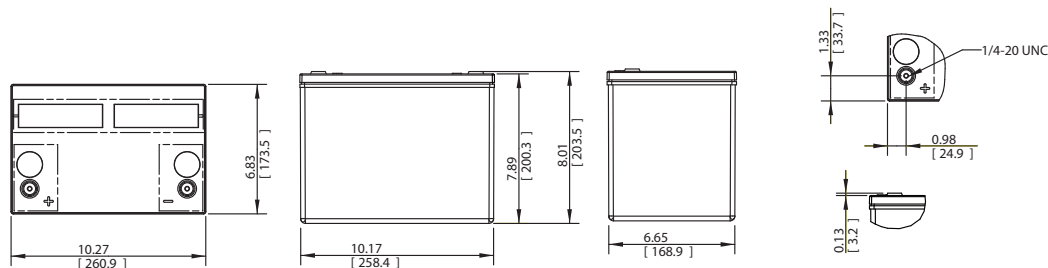
Model	Constant Power Discharge Ratings - Watts per Cell @ 25°C (77°F)										20 hour rate to 1.75 VPC @ 25°C	IEC Rating: 10 hour rate to 1.80 VPC @ 20°C
	Operating Time (in minutes) to 1.67 Volts per Cell											
	5	10	15	20	30	40	45	50	60	90		
UPS12-320MRX	544	413	326	267	200	165	148	138	119	86.2	84 AH	77 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	27.1	500	2381	5.29

## 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	495	371	295	242	184	154	139	130	114	82.2
1.70	503	382	302	248	188	156	140	131	114	82.6
1.67	512	388	307	251	190	157	141	132	114	82.9
1.65	515	393	310	254	192	159	142	133	115	83.1

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	526	395	314	257	194	162	145	136	118	85.5
1.70	535	406	321	263	199	164	147	138	119	85.9
1.67	544	413	326	267	200	165	148	138	119	86.2
1.65	547	418	329	269	203	167	149	139	119	86.5

## 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	55.7	30.6	21.6	14.0	9.12	7.45	6.29	3.91	3.30	
1.80	58.2	31.9	22.4	14.6	9.46	7.72	6.51	4.04	3.41	
1.75	59.5	32.5	22.8	14.9	9.61	7.83	6.60	4.09	3.45	

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	58.00	31.80	22.37	14.48	9.40	7.64	6.45	4.01	3.39	
1.80	60.67	33.14	23.26	15.06	9.76	7.92	6.68	4.14	3.49	
1.75	62.01	33.76	23.66	15.39	9.90	8.03	6.77	4.20	3.54	