



**HIGH
RATE
MAX^{XT}**

UPS12-320R MRX

Valve Regulated Lead Acid Battery

Designed for UPS Standby Power Applications



FEATURES AND BENEFITS

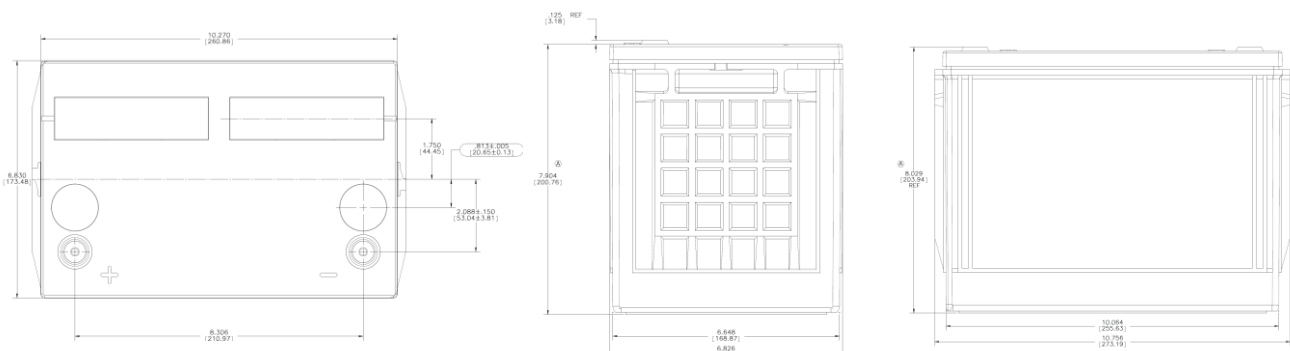
APPLICATIONS

- 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
- C&D's Long-Life Alloy having very low calcium levels in the industry -minimizing grid growth, reducing gassing, and extending battery life
- 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 polypropylene case and cover compliant with UL94 V-0
- 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 upright, side or end mounting orientation
- 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	IEC Short Circuit Current	IEC Resistance
6	12V	27 Kg	320	500 Amps	2381 Amps	5.29 (mOhms)



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

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 A RMS
Self Discharge	Battery can be stored up to 4 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)

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

Operating Time to End Point Voltage

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	458.4	346.7	277.8	230.4	199.2	176.9	134.5	110.7	80.5	64.18	44.54	34.37	28.11	18.41	15.06	12.78	8.06
1.80	502.6	378.1	304.6	249.7	213.9	188.6	141.9	115.9	83.9	66.68	46.20	35.61	29.09	19.01	15.54	13.17	8.30
1.75	526.2	395.1	314.2	257.2	220.2	194.0	145.4	118.5	85.5	67.86	46.97	36.18	29.55	19.29	15.75	13.35	8.40
1.70	535.3	406.2	321.4	263.2	225.4	198.6	147.0	118.8	85.9	68.29	47.26	36.40	29.73	19.40	15.84	13.43	8.45
1.67	544.3	413.0	326.3	266.6	227.8	200.4	147.7	119.0	86.2	68.55	47.44	36.53	29.83	19.47	15.90	13.47	8.47
1.65	547.5	417.7	329.3	269.3	230.3	202.7	148.7	119.4	86.5	68.80	47.56	36.62	29.91	19.52	15.94	13.50	8.49

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

Operating Time to End Point Voltage

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	200.2	170.7	135.2	87.3	53.4	37.6	29.39	20.73	16.18	13.38	11.36	9.85	8.70	7.08	5.98	3.73	3.15
1.85	248.3	185.0	150.5	95.9	58.0	40.8	31.80	22.37	17.52	14.48	12.28	10.64	9.40	7.64	6.45	4.01	3.39
1.80	267.8	196.8	162.3	101.8	60.7	42.6	33.14	23.26	18.19	15.06	12.77	11.05	9.76	7.92	6.68	4.14	3.49
1.75	277.5	203.2	168.2	105.4	62.0	43.5	33.76	23.66	18.47	15.39	12.97	11.22	9.90	8.03	6.77	4.20	3.54

* UPS12-320R MRX is the same product as UPS12-320 MRX but changes the side structure design of container with adding strengthen rib to improve appearance and strength.

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