



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



# UPS12-220MRX

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

## FEATURES AND BENEFITS

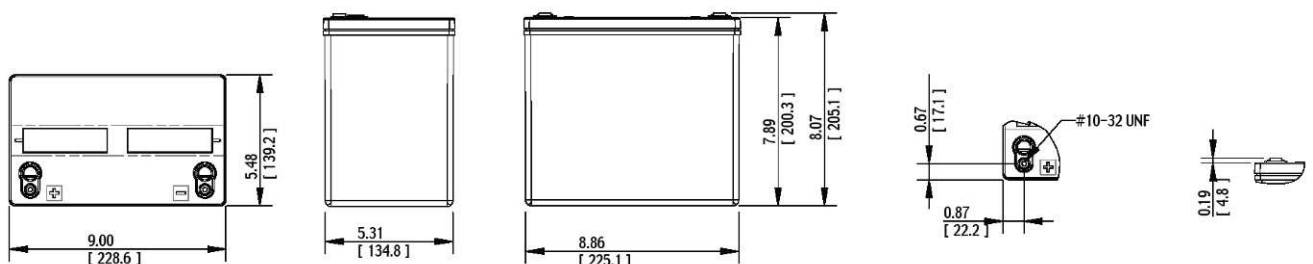
### APPLICATIONS

- 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
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance.
- 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 Bellcore 4228 compliant Dynasty Telecom products.
- Flame retardant durable polypropylene case and cover compliant with UL 1778 and UL94-V2
- 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 parts171-189
- 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	Short Circuit Current	Resistance
6	12.98V	19 Kg	220	383 Amps	1985 Amps	6.37 (mOhms)



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

## 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. (6.75 to 6.90 per 6V 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) (7.20 to 7.40 VDC per 6V unit.)
<b>Terminal: Inserted</b>	Threaded copper alloy insert terminal to accept 10-32 UNF bolt for all models below UPS12-220MRX. 1/4-20 UNC bolt for all models above UPS12-280MRX
<b>Terminal Hardware Initial Torque: Inserted Terminal</b>	30 in.-lbs. (3.4 N-m) for all models below UPS12-220MRX. 110 in.-lbs. (12.4 N-m) for all models above UPS120-280MRX.

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

#### Operating Time to End Point Voltage

End Voltage Per Cell	Min					Hour											
	5	10	15	30	60	2	3	4	5	6	7	8	9	10	12	20	24
1.85	305.1	229.7	184.9	119.0	75.0	42.9	29.7	22.8	18.6	15.8	13.7	12.1	10.9	9.9	8.4	5.3	4.5
1.80	336.9	255.6	202.2	126.3	78.2	44.5	30.7	23.6	19.3	16.3	14.2	12.5	11.3	10.2	8.7	5.4	4.6
1.78	344.0	261.1	206.4	127.7	78.4	44.9	31.0	23.8	19.4	16.4	14.3	12.6	11.4	10.3	8.7	5.5	4.6
1.75	355.0	267.5	211.0	129.9	78.7	45.5	31.4	24.1	19.7	16.6	14.5	12.8	11.5	10.4	8.8	5.5	4.7
1.73	361.6	270.0	214.0	130.5	79.0	45.6	31.4	24.2	19.7	16.7	14.5	12.8	11.5	10.4	8.8	5.5	4.7
1.70	366.6	273.8	217.0	131.5	79.4	45.7	31.5	24.2	19.7	16.7	14.5	12.8	11.5	10.5	8.9	5.5	4.7
1.67	371.6	277.6	220.0	132.4	79.8	45.8	31.6	24.3	19.8	16.7	14.5	12.9	11.5	10.5	8.9	5.6	4.7
1.65	375.0	280.2	222.0	133.0	80.0	46.0	31.7	24.3	19.8	16.8	14.6	12.9	11.6	10.5	8.9	5.6	4.7

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

#### Operating Time to End Point Voltage

End Voltage Per Cell	Min					Hour											
	5	10	15	30	60	2	3	4	5	6	7	8	9	10	12	20	24
1.94	111.4	105.7	84.1	54.2	30.8	16.7	11.6	9.0	7.4	6.3	5.5	4.9	4.4	4.0	3.4	2.2	1.8
1.90	153.3	119.2	95.6	60.8	35.0	19.0	13.3	10.3	8.4	7.1	6.2	5.5	5.0	4.5	3.8	2.4	2.1
1.85	176.4	130.9	106.9	66.9	38.6	20.8	14.5	11.2	9.1	7.7	6.7	6.0	5.4	4.9	4.1	2.6	2.2
1.83	181.6	134.4	110.0	68.8	39.0	21.0	14.7	11.3	9.3	7.9	6.8	6.1	5.5	5.0	4.2	2.7	2.3
1.80	189.7	139.7	115.0	71.0	39.8	21.4	14.9	11.5	9.5	8.0	7.0	6.2	5.6	5.1	4.3	2.7	2.3
1.78	192.7	141.8	116.8	71.8	40.1	21.6	15.0	11.6	9.5	8.1	7.1	6.3	5.6	5.1	4.4	2.8	2.3
1.75	197.4	145.0	119.6	72.4	40.7	21.9	15.2	11.8	9.6	8.2	7.1	6.3	5.7	5.2	4.4	2.8	2.4
1.70	201.9	148.9	121.2	73.1	41.1	22.1	15.4	11.9	9.7	8.2	7.2	6.4	5.7	5.2	4.4	2.8	2.4

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