



# C&D 12-220 DNT

## Valve Regulated Lead Acid Battery For UPS Standby Power Applications

**12V 220 Watts/Cell @ 15 Min Rate**

**12V 56 AH @ 20 HR Rate**



### APPLICATIONS

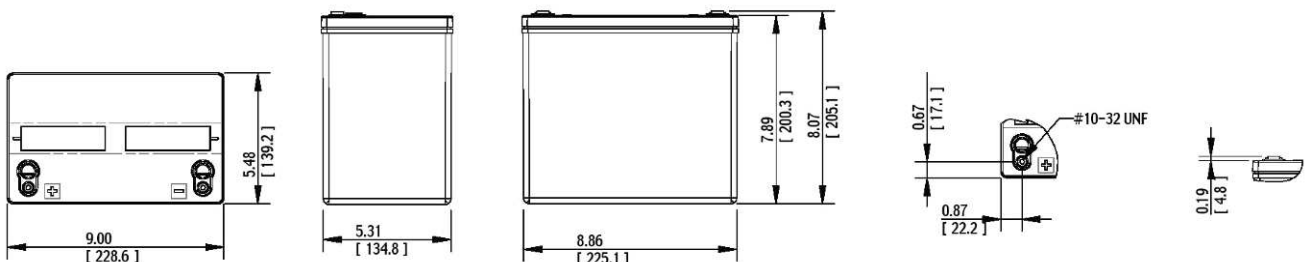
- Data Centers
- Network Operation Centers
- Industrial Process Control Facilities
- Internet Housing Sites
- Semiconductor Manufacturing
- Banks and Financial Markets
- Power Generation Plants
- Hospital and Testing Laboratories
- Emergency Response Center

### FEATURES

- Design life:12 year
- 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
- 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.
- 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

Cell Per Unit	Voltage	Weight	Capacity		1 Min Current to 1.75VPC	Short Circuit Current	Resistance
6	12.98V	19 Kg	51 Ah (C10,1.80V)	56 Ah (C20,1.75V)	383 Amps	1985 Amps	6.37 (mΩ)



\*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 #10-32UNF bolt
<b>Container and Cover Materials</b>	PP (UL-94 V2)

### 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	304.4	229.1	184.2	118.3	74.3	42.6	29.4	22.5	18.3	15.5	13.4	11.8	10.6	9.6	8.1	5.0	4.2
1.80	336.2	254.9	201.5	125.6	77.5	44.2	30.4	23.3	19.0	16.0	13.9	12.2	11.0	9.9	8.4	5.1	4.3
1.78	343.3	260.4	205.8	127.0	77.7	44.6	30.7	23.5	19.1	16.1	14.0	12.3	11.1	10.0	8.4	5.2	4.3
1.75	354.4	266.8	210.3	129.2	78.0	45.2	31.1	23.8	19.4	16.3	14.2	12.5	11.2	10.1	8.5	5.2	4.4
1.73	361.0	269.3	213.3	129.8	78.3	45.3	31.1	23.9	19.4	16.4	14.2	12.5	11.2	10.1	8.5	5.2	4.4
1.70	366.0	273.1	216.3	130.8	78.7	45.4	31.2	23.9	19.4	16.4	14.2	12.5	11.2	10.2	8.6	5.2	4.4
1.67	371.0	276.9	219.3	131.7	79.1	45.5	31.3	24.0	19.5	16.4	14.2	12.6	11.2	10.2	8.6	5.3	4.4
1.65	374.3	279.5	221.3	132.4	79.3	45.7	31.4	24.0	19.5	16.5	14.3	12.6	11.3	10.2	8.6	5.3	4.4

### 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	109.4	103.7	82.1	52.2	29.8	16.5	11.4	8.8	7.2	6.2	5.4	4.8	4.3	3.9	3.40	2.17	1.83
1.90	151.3	117.2	93.6	58.8	34.0	18.8	13.1	10.1	8.2	7.0	6.1	5.4	4.9	4.4	3.81	2.42	2.04
1.85	174.4	128.9	104.9	64.9	37.6	20.6	14.3	11.0	8.9	7.6	6.6	5.9	5.3	4.8	4.13	2.61	2.21
1.83	179.6	132.4	108.0	66.8	38.0	20.8	14.5	11.1	9.1	7.8	6.7	6.0	5.4	4.9	4.21	2.67	2.26
1.80	187.7	137.7	113.0	69.0	38.8	21.2	14.7	11.3	9.3	7.9	6.9	6.1	5.5	5.0	4.32	2.75	2.33
1.78	190.7	139.8	114.8	69.8	39.1	21.4	14.8	11.4	9.3	8.0	7.0	6.2	5.5	5.0	4.35	2.76	2.34
1.75	195.4	143.0	117.6	70.4	39.7	21.7	15.0	11.6	9.4	8.1	7.0	6.2	5.6	5.1	4.39	2.79	2.36
1.70	199.9	146.9	119.2	71.1	40.1	21.9	15.2	11.7	9.5	8.1	7.1	6.3	5.6	5.1	4.42	2.80	2.37

\* All data shall be changed without prior notice, C&D reserves the right to explain and update the information contained hereinto.