

12-1037

DYNASTY®

TRUE FRONT ACCESS

HIGH RATE MAX
UPS 12-615MRXF
UPS 12-700MRXF
UPS 12-830MRXF
UPS 12-1000MRXF



Valve Regulated Lead Acid (VRLA) Battery Series Designed for UPS Standby Power Applications

FEATURES & BENEFITS

APPLICATIONS

- Data Centers
- Network Operations Centers
- Industrial Process Control Facilities
- Internet Hosting Sites
- Semiconductor Manufacturing
- Banks & Financial Markets
- Power Generation Plants
- Hospitals & Testing Laboratories
- Emergency 911 Response Centers

- Higher watts/cell allows reduction in parallel strings for common UPS configurations, providing reduced footprint and/or lower Total Cost of Ownership
- 10 Year Design Life @ 25°C
- True Front Access threaded copper alloy inserts for reduced maintenance and increased safety
- Patented Long Life Alloy having the lowest calcium levels in the industry - minimizing grid growth, reducing gassing, and extending battery life
- Terminal versatility - ease of diagnostic readings with C&D Ohmic Ring®
- Innovative front terminal design maximizing energy density with direct connect extrusion fusion weld technology
- Reduced headspace requirements resulting in higher energy density for cabinet or rack applications
- UL-recognized component
- Flame-retardant polypropylene case and cover compliant with UL94 V-0 with an Oxygen Limiting Index of greater than 28
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of over 99%
- Flame-arresting, one-way pressure-relief vent for safety and long life
- Complies with UL1778, 924, 1989 and 94 V-0, BS6290-4, IEC-896-2
- Not restricted for air transport - Complies with IATA/ICAO Special Provision 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 Amendment 27
- Thermally welded case-to-cover bond to ensure a leak-proof seal

SPECIFICATIONS

Model	Voltage	AH 20 hr*	Constant Power Discharge Ratings - Watts per Cell @ 77°F (25°C)								
			Operating Time (in minutes) to 1.67 Volts per Cell								
			5	10	15	20	30	40	50	60	90
UPS12-615MRXF	12	172	1028	772	615	514	393	319	272	238	172
UPS12-700MRXF	12	201	1118	866	700	583	453	369	314	275	200
UPS12-830MRXF	12	251	1328	1029	830	713	568	460	391	342	243
UPS12-1000MRXF	12	254	1520	1210	1000	824	616	491	412	357	257

*Nominal 20 hr rate to 1.75 VPC in Ampere-Hours @ 25°C

INTRODUCING A UPS FRONT ACCESS BATTERY WITH TRUE FRONT ACCESS TERMINALS

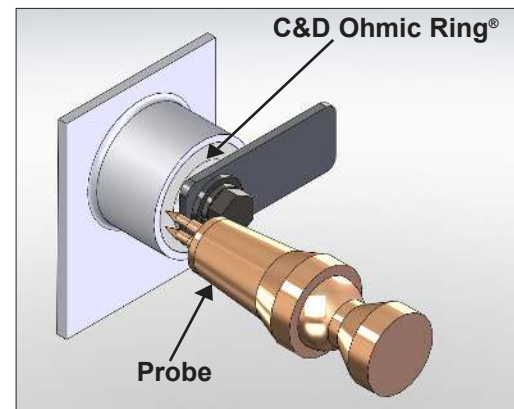
The Dynasty™ True Front Access UPS Battery - The Better UPS Battery

- **Designed as a UPS battery from the ground up to efficiently handle high rate discharges**
 - Not a converted telecom front access battery
- **Direct welded front facing terminals**
 - Uses proven Dynasty Extrusion Fusion welding process for high reliability
 - Larger welds decrease internal temperatures which slows grid growth and extends battery life
 - Provides most efficient current path for excellent high rate performance
 - No bolted on "L" brackets which try to make a top terminals battery into a front terminal battery
 - One less bolted connection that requires maintenance, minimizes resistance, that can lead to poor string performance
- **Eliminate hard to service top terminal batteries with a full front access solution**
 - Raised terminals for ease of maintenance and access to C&D Ohmic Ring®
- **Maintenance is significantly easier and safer with all required service points front accessible**
 - Reduces both time and cost of periodic servicing
- **As a 12V battery design, the UPS12-615MRXF, UPS12-700MRXF, UPS12-830MRXF & UPS12-1000MRXF models easily integrate with existing battery monitoring equipment.**



C&D Ohmic Ring®

- **Large surface area for direct access to terminals for accurate ohmic measurements**
 - No more taking readings from bus bars or hardware which can lead to substantial errors
- **Provides consistent and accurate measuring location**
 - No guessing of the location used for the base line reading
- **Ideally sized for use with standard monitor probes on fully installed systems**
- **The Ohmic Ring design is the only terminal configuration in which micro-ohm connection resistances can be taken as required by standard maintenance programs.**

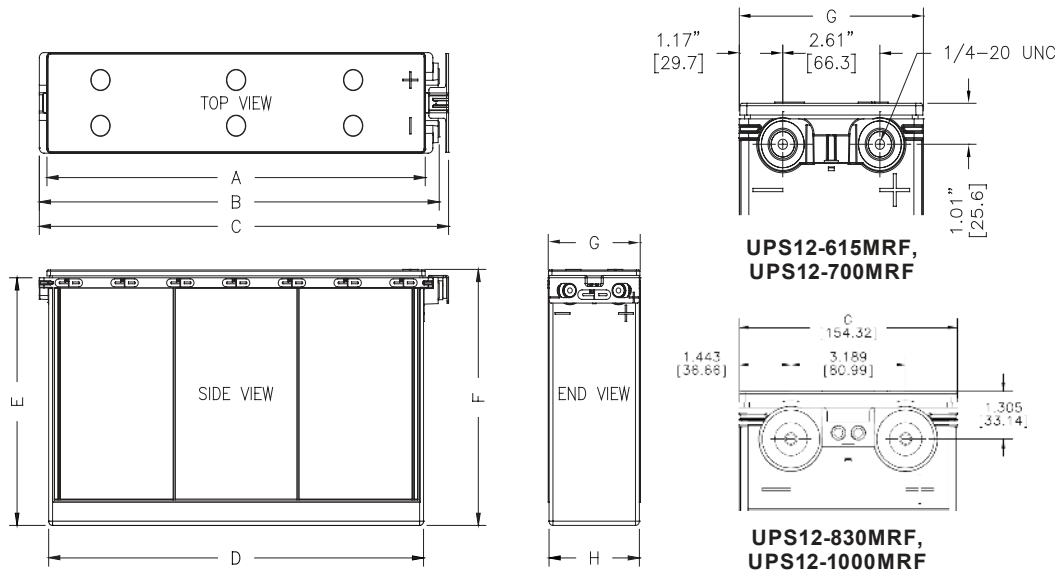


SPECIFICATIONS

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 ₂₀ /5 amperes (UPS12-615MRXF: 35.2A, UPS12-700MRXF: 41.2, UPS12-830MRXF: 50.2, UPS12-1000MRXF: 50.8)
Float Charging Voltage	13.5 to 13.8 VDC average per 12V unit @ 77°F (25°C)
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 /20
Self Discharge	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.
Equalize Charge and Cycle Service Voltage	14.40 to 14.80 VDC average per 12V unit @ 77°F (25°C)
Terminal: Inserted - Inter-unit connector provided	Threaded copper alloy insert terminal to accept M8 bolt
Terminal Hardware Torque	160 in.-lbs. (18 N-m)

Model	Cells per Unit	IEC Short Circuit Current (A)	IEC Resistance (mOhms)	Battery Weight	
				lbs	kg
UPS12-615MRXF	6	3700	3.4	121.7	55.2
UPS12-700MRXF	6	4400	2.8	143.1	64.9
UPS12-830MRXF	6	5376	2.31	170.4	77.3
UPS12-1000MRXF	6	5540	2.3	187.9	85.2

DIMENSIONS



Model	A		B		C		D		E		F		G		H	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
UPS12-615MRXF	20.4	517	21.5	546	22.0	559	20.2	512	10.6	270	11.0	278.7	4.9	125	4.9	125
UPS12-700MRXF	20.4	517	21.5	546	22.0	559	20.2	512	12.2	310.8	12.6	322.1	4.9	125	4.9	125
UPS12-830MRXF	20.4	517	21.5	546	22.0	559	20.2	512	12.2	310	12.7	322	6.1	154	6.0	152
UPS12-1000MRXF	20.4	517	21.5	546	22.0	559	20.2	512	12.2	310	12.7	322	6.1	154	6.0	152

Note: All dimensions in inches and [millimeters]. All dimensions are for reference only. Contact a C&D representative for complete dimensional information. Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum and free air ventilation.

UPS12-615MRXF

End Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ 77°F (25°C)									
	Operating Time to End Voltage (in minutes)									
	5	10	15	20	30	40	45	50	60	90
1.75	973.6	731.7	583.0	494.2	386.0	313.6	288.0	266.9	234.0	169.0
1.70	1010.4	759.3	605.0	508.0	391.0	317.4	291.4	269.9	236.5	170.7
1.67	1027.1	771.8	615.0	513.8	392.5	318.8	292.8	271.3	237.8	171.5
1.65	1035.4	778.1	620.0	513.8	393.5	319.5	293.4	271.8	238.2	172.0

End Volts/Cell	Constant Current Discharge Ratings - Amperes @ 77°F (25°C)									
	Operating Time to End Voltage (in hours)									
	1	2	3	5	8	10	12	20	24	72
1.85	109.0	61.8	44.0	28.7	19.0	15.5	13.1	8.1	6.81	2.38
1.80	118.0	65.8	46.7	30.4	20.1	16.3	13.8	8.47	7.12	2.49
1.75	120.0	67.0	47.5	30.9	20.3	16.5	13.9	8.61	7.26	2.54

UPS12-700MRXF

End Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ 77°F (25°C)									
	Operating Time to End Voltage (in minutes)									
	5	10	15	20	30	40	45	50	60	90
1.75	1020.6	780.0	630.0	544.1	437.0	358.7	330.8	307.7	271.5	196.5
1.70	1083.8	839.6	669.0	570.2	449.0	365.5	336.0	311.6	273.5	198.6
1.67	1117.8	866.0	700.0	583.0	453.0	368.1	338.1	313.3	274.7	199.3
1.65	1134.0	878.5	703.0	590.0	457.0	370.3	339.7	314.5	275.2	199.7

End Volts/Cell	Constant Current Discharge Ratings - Amperes @ 77°F (25°C)									
	Operating Time to End Voltage (in hours)									
	1	2	3	5	8	10	12	20	24	72
1.85	121.0	71.4	51.1	33.5	22.1	18.0	15.2	9.48	8.01	2.8
1.80	130.0	75.1	53.9	35.2	23.2	18.8	15.9	9.88	8.34	2.92
1.75	134.0	76.6	54.6	35.7	23.6	19.2	16.2	10.07	8.51	2.98

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum and free air ventilation. Specifications subject to change without notification. Above ratings do not include inter-unit connector voltage drops. Additional ratings and application information are available in the Battery Selection Program found at www.cdstandbypower.net

UPS12-830MRXF

End Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ 77°F (25°C)									
	Operating Time to End Voltage (in minutes)									
	5	10	15	20	30	40	45	50	60	90
1.75	1206.3	934.9	753.9	661.3	543.5	444.9	409.9	381.0	335.6	238.8
1.70	1268.2	982.9	792.6	688.9	558.5	454.2	417.3	386.9	339.4	241.3
1.67	1328.0	1029.2	830.0	713.0	567.9	460.1	422.0	390.7	341.9	242.8
1.65	1334.2	1034.0	833.9	717.5	573.0	463.3	424.7	392.9	343.4	244.0

End Volts/Cell	Constant Current Discharge Ratings - Amperes @ 77°F (25°C)									
	Operating Time to End Voltage (in hours)									
	1	2	3	5	8	10	12	20	24	72
1.85	156.0	90.1	65.2	42.3	27.8	22.7	19.2	11.9	10.0	3.5
1.80	164.0	94.0	67.5	43.8	29.1	23.8	20.1	12.4	10.4	3.6
1.75	169.5	96.2	68.4	44.4	29.7	24.2	20.5	12.6	10.6	3.7

UPS12-1000MRXF

End Volts/Cell	Constant Power Discharge Ratings - Watts Per Cell @ 77°F (25°C)									
	Operating Time to End Voltage (in minutes)									
	5	10	15	20	30	40	45	50	60	90
1.75	1379.8	1098.4	907.8	763.7	589.7	472.2	431.2	397.5	345.3	250.1
1.70	1469.0	1169.4	966.4	801.7	606.1	484.4	442.0	407.1	353.2	254.7
1.67	1520.0	1210.0	1000.0	823.7	616.2	491.2	447.7	412.0	356.9	256.7
1.65	1541.9	1227.5	1014.4	834.1	622.3	495.5	451.4	415.2	359.4	257.9

End Volts/Cell	Constant Current Discharge Ratings - Amperes @ 77°F (25°C)									
	Operating Time to End Voltage (in hours)									
	1	2	3	5	8	10	12	20	24	72
1.85	168.0	96.1	67.9	43.2	28.1	22.9	19.4	12.1	10.2	3.6
1.80	181.1	102.0	71.3	45.0	29.3	23.9	20.2	12.5	10.6	3.7
1.75	187.5	104.1	72.1	45.4	29.7	24.3	20.6	12.7	10.7	3.8

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum and free air ventilation. Specifications subject to change without notification. Above ratings do not include inter-unit connector voltage drops. Additional ratings and application information are available in the Battery Selection Program found at www.cdstandbypower.net

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