

12-1115

DYNASTY®

**TRUE
FRONT
ACCESS
HIGH RATE MAX
UPS12-410MRXF
UPS12-1000MRXF**



**Valve Regulated Lead Acid (VRLA) Battery Series
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
- True Front Access threaded copper alloy inserts for reduced maintenance and increased safety.
- 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 driving higher energy density, in cabinet or rack applications
- Removable handles for ease of installation
- Thermally welded case-to-cover bond to ensure a leak-proof seal.
- 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.
- UL-recognized component.
- Multicell design for ease of installation and maintenance.
- 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.

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
UPS12-410MRXF	12	109	701.1	514.6	410.0	339.5	256.0	203.1	169.8	146.6	105.1
UPS12-1000MRXF	12	254	1520.0	1210.0	1000.0	823.7	616.2	491.2	412.0	356.9	256.7

*True 20 hr rate to 1.75 VPC in Ampere-Hours

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
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 Hr rate
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: M6 bolt (UPS12-410MRXF) M8 bolt (UPS12-1000MRXF)
Terminal Hardware Initial Torque	110 in.-lbs (12.4 N-m) for UPS12-410MRXF 160 in.-lbs. (18 N-m) for UPS12-1000MRXF

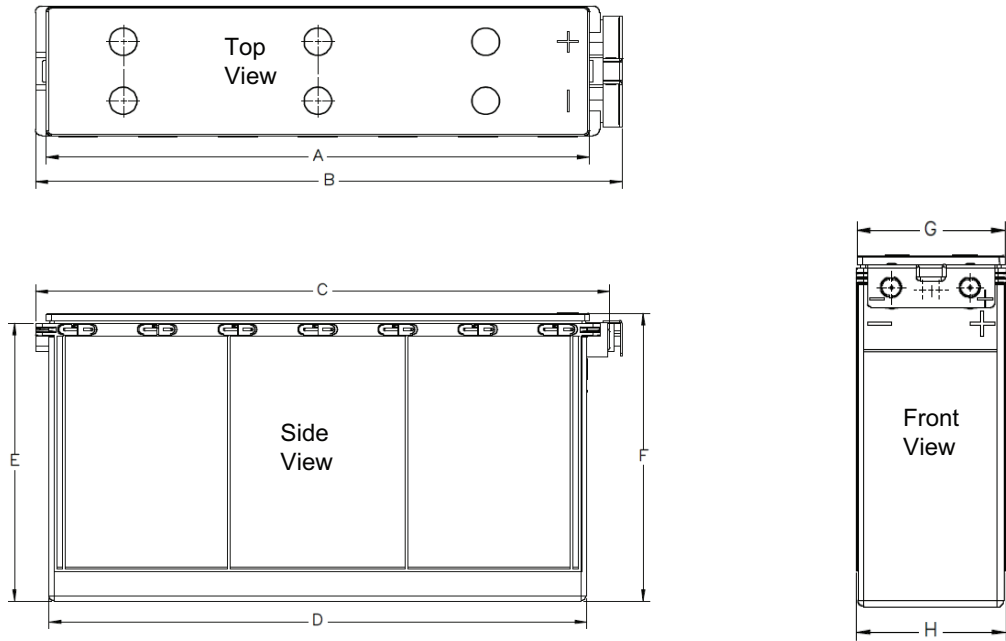
SPECIFICATIONS

Battery Model	Voltage Per Unit	Ampere Hours Capacity 20 Hour Rate @ 77°F (25°C) to 1.75 Volts/Cell	Ampere Hours Capacity 10 Hour Rate @ 68°F (20°C) to 1.80 Volts/Cell	IEC Short Circuit Current (A)	IEC Resistance (mOhms)	Weight Lbs. (kg)
UPS12-410MRXF	12V	109	100	2860	4.4	81.8 (37.1)
UPS12-1000MRXF	12V	254	234	5540	2.3	188 (85.2)

IMPEDANCE

Battery Model	Impedance (mOhms)	Midtronics Cond. (Mhos)	Short Circuit Current (AMPS @0.1 sec)	Maximum Terminal Discharge Current Rating (AMPS)
UPS12-410MRXF	2.37	2000	4900	800
UPS12-1000MRXF	1.47	3700	10100	1000

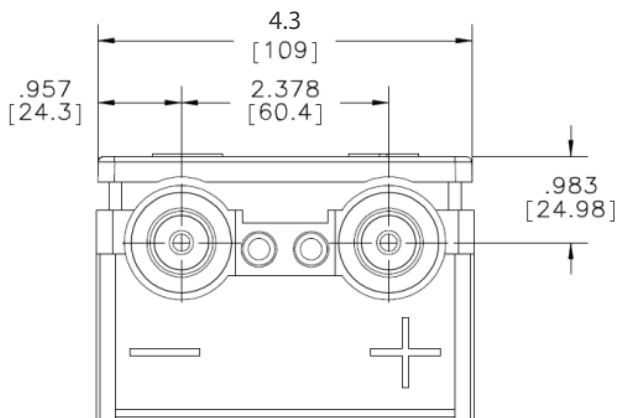
* Per IEEE 1188-2005, Internal ohmic values are useful as a trending tool. To use these readings effectively, accurate baseline readings should be taken after about six months of battery operation. Internal ohmic readings taken without the benefit of baseline data may be difficult to interpret and of limited value. Values are provided for reference only.



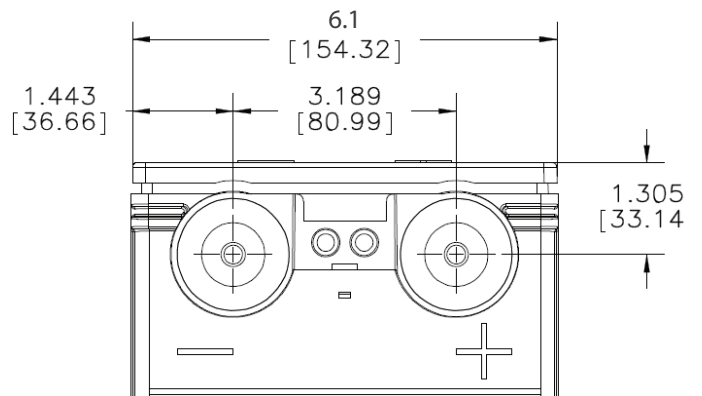
Model	A		B		C		D		E		F		G		H	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
UPS12-410MRXF	18.6	473.1	20.1	510.5	19.6	498.3	18.5	469.5	8.5	215.2	9.1	231.4	4.3	109.0	4.3	108.0
UPS12-1000MRXF	20.3	516.9	22.0	558.5	21.5	546.5	20.2	512.2	12.2	310.8	12.7	322.1	6.1	154.3	6.0	152.7

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

DETAIL OF TERMINAL



UPS12-410MRXF



UPS12-1000MRXF

UPS12-410MRXF

Constant Power Discharge Ratings - Watts Per Cell @ 77°F (25°C)										
Operating Time to End Point Voltage (in minutes)										
End Point Volts/Cell	5	10	15	20	30	40	45	50	60	90
1.75	660.1	484.4	386.0	321.2	244.0	195.3	178.3	164.3	142.7	102.4
1.70	690.8	507.0	404.0	334.4	252.0	200.5	182.6	167.9	145.3	104.2
1.67	701.1	514.6	410.0	339.5	256.0	203.1	184.8	169.8	146.6	105.1
1.65	709.7	520.8	415.0	344.1	260.0	205.7	186.9	171.6	147.9	106.0

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	72
1.85	67	38.4	27.7	18.5	12.0	9.7	8.2	5.07	4.28	1.50
1.80	71	40.5	29.2	19.4	12.6	10.2	8.6	5.34	4.50	1.58
1.75	73	41.5	29.8	19.8	12.8	10.4	8.8	5.46	4.61	1.61

UPS12-1000MRXF

Constant Power Discharge Ratings - Watts Per Cell @ 77°F (25°C)										
Operating Time to End Point Voltage (in minutes)										
End Point Volts/Cell	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

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	72
1.85	168	96.1	67.9	43.2	28.1	22.9	19.4	12.05	10.18	3.56
1.80	181	102.0	71.3	45.0	29.3	23.9	20.2	12.50	10.60	3.71
1.75	188	104.1	72.1	45.4	29.7	24.3	20.6	12.70	10.70	3.75

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 interunit connector voltage drops.