

*Power You Can  
Depend On*

**C&D TECHNOLOGIES**  
Power Solutions

# MRX Series

Valve Regulated Lead Acid

—— Optimized UPS Configuration



**High Rate Max<sup>XT</sup>**

# MRX Series

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



## Valve Regulated Lead Acid Battery

Designed for UPS Standby Power Applications

### 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 and benefits

- 12 years design life @ 20°C
- Eurobat Classification: Long Life
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance.
- 3 Year Warranty (refer Dynasty warranty card, 41-9027)
- 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 polypropylene case and cover compliant with UL94V-2, optional UL94V-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
- 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.

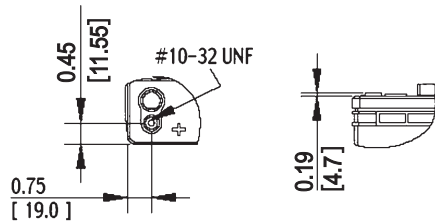
### Specifications

Model	V	Watts/Cell @ 15min	Dimensions mm(inch)				Weight / Kg	Terminal(Bolt)
			L	W	H	TH		
UPS 12-100 MRX	12	100	197(7.76)	132(5.19)	166(6.52)	173(6.80)	10.7	Insert (#10-32 UNF)
UPS 12-130 MRX	12	130	197(7.76)	132(5.19)	166(6.52)	173(6.80)	11.5	Insert (#10-32 UNF)
UPS 12-150 MRX	12	150	197(7.76)	132(5.19)	166(6.52)	173(6.80)	12.4	Insert (#10-32 UNF)
UPS 12-200 MRX	12	200	229(9.00)	139(5.48)	200(7.89)	205(8.07)	17.7	Insert (#10-32 UNF)
UPS 12-220 MRX	12	220	229(9.00)	139(5.48)	200(7.89)	205(8.07)	19.0	Insert (#10-32 UNF)
UPS 12-280R MRX	12	280	273(10.75)	174(6.85)	201(7.91)	204(8.01)	25.7	Insert (1/4-20 UNC)
UPS 12-320R MRX	12	320	273(10.75)	174(6.85)	201(7.91)	204(8.01)	27.0	Insert (1/4-20 UNC)
UPS 12-370R MRX	12	370	319(12.56)	173(6.80)	203(7.99)	205(8.05)	31.5	Insert (1/4-20 UNC)
UPS 12-400 MRX	12	400	341(13.42)	173(6.80)	213(8.40)	216(8.52)	35.3	Insert (1/4-20 UNC)
UPS 12-440 MRX	12	440	341(13.42)	173(6.80)	213(8.40)	216(8.52)	36.0	Insert (1/4-20 UNC)
UPS 12-475 MRX	12	475	341(13.42)	173(6.80)	213(8.40)	216(8.52)	38.0	Insert (1/4-20 UNC)
UPS 12-490 MRX	12	490	345(13.57)	173(6.80)	275(10.81)	278(10.93)	46.6	Insert (1/4-20 UNC)
UPS 12-520 MRX	12	520	345(13.57)	173(6.80)	275(10.81)	278(10.93)	47.2	Insert (1/4-20 UNC)
UPS 12-550 MRX	12	550	345(13.57)	173(6.80)	275(10.81)	278(10.93)	48.6	Insert (1/4-20 UNC)
UPS 12-600 MRX	12	600	345(13.57)	173(6.80)	275(10.81)	278(10.93)	49.4	Insert (1/4-20 UNC)

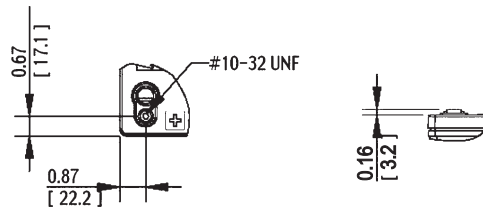
## Specifications

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±0.15VDC per cell at 25°C (Recommendation:13.65V per 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
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: Inserted	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 UPS12-280R MRX
Terminal Hardware Initial Torque: Inserted Terminal	30 in.-lbs. (3.4 N-m) for all models below UPS12-220MRX. 110 in.-lbs. (12.4 N-m) for all models above UPS12-280R MRX.

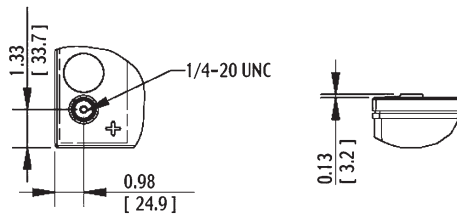
## Battery Termination



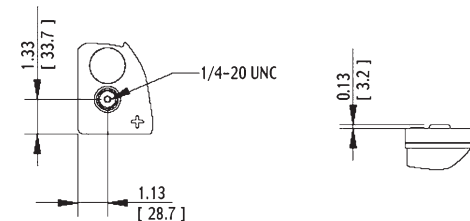
UPS12-100MRX, UPS12-130MRX, UPS12-150MRX



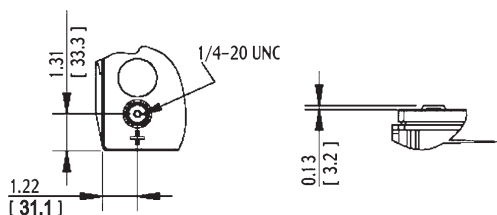
UPS12-200MRX, UPS12-220MRX



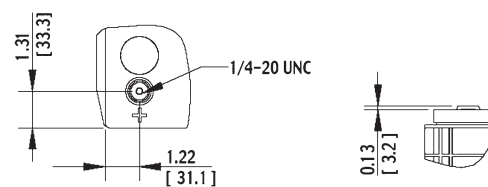
UPS12-280R MRX, UPS12-320R MRX



UPS12-370R MRX



UPS12-400MRX, UPS12-440MRX, UPS12-475MRX



UPS12-490MRX, UPS12-520MRX, UPS12-550MRX,  
UPS12-600MRX

# MRX Series

## UPS 12-100 MRX

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

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	142.5	105.3	86.4	72.7	63.6	57.0	44.2	36.9	27.4	22.2	15.9	12.6	10.5	7.2	5.9	5.0	3.2
1.80	157.1	117.1	95.2	79.3	68.8	61.3	47.0	39.0	28.6	22.9	16.5	13.0	10.9	7.4	6.1	5.2	3.3
1.75	165.8	126.4	99.5	82.8	71.8	63.9	48.6	40.0	29.0	23.1	16.6	13.2	11.0	7.5	6.2	5.3	3.4
1.70	172.2	131.0	103.3	85.5	73.7	65.4	49.4	40.5	29.3	23.3	16.7	13.3	11.1	7.5	6.2	5.3	3.4
1.67	176.1	133.3	105.7	87.1	74.9	66.3	49.9	40.8	29.4	23.4	16.8	13.3	11.1	7.5	6.2	5.3	3.4
1.65	178.8	135.8	107.3	88.2	75.7	66.9	50.2	41.0	29.6	23.4	16.8	13.3	11.1	7.6	6.2	5.3	3.4

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

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	68.2	52.4	42.2	28.4	18.2	13.2	10.5	7.5	5.9	4.9	4.2	3.7	3.3	2.7	2.3	1.5	1.3
1.85	80.0	61.1	48.5	31.4	20.1	14.4	11.4	8.2	6.4	5.4	4.6	4.0	3.6	2.9	2.5	1.6	1.4
1.80	88.6	68.0	53.7	33.6	21.0	15.1	11.9	8.5	6.7	5.6	4.8	4.2	3.7	3.1	2.6	1.7	1.4
1.75	93.3	71.3	56.3	34.9	21.5	15.4	12.1	8.6	6.8	5.7	4.9	4.3	3.8	3.1	2.6	1.7	1.4

## UPS 12-130 MRX

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

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	185.5	140.7	112.4	92.3	79.1	69.8	52.5	42.8	31.3	25.1	17.8	14.0	11.6	7.7	6.3	5.3	3.3
1.80	204.3	155.4	123.8	100.4	85.4	74.8	55.7	45.2	33.0	26.3	18.6	14.5	12.1	8.0	6.5	5.5	3.4
1.75	214.0	165.7	129.7	105.1	89.3	78.2	57.7	46.5	33.5	26.6	18.9	14.8	12.3	8.1	6.6	5.6	3.5
1.70	220.8	172.1	133.8	108.0	91.4	79.8	58.8	47.3	33.9	26.8	19.1	14.9	12.3	8.1	6.6	5.6	3.5
1.67	225.0	176.1	135.0	109.1	92.4	80.7	59.3	47.6	34.1	26.9	19.1	14.9	12.4	8.1	6.6	5.6	3.5
1.65	227.8	178.7	137.0	110.4	93.3	81.4	59.7	47.9	34.3	27.0	19.2	15.0	12.4	8.1	6.6	5.6	3.5

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

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	78.4	68.3	54.0	34.5	21.4	15.0	11.6	8.1	6.3	5.2	4.4	3.9	3.4	2.8	2.4	1.5	1.3
1.85	101.7	77.8	61.7	38.2	23.8	16.6	12.9	9.0	7.0	5.7	4.9	4.2	3.8	3.1	2.6	1.7	1.4
1.80	111.5	85.0	67.6	40.8	25.1	17.5	13.5	9.4	7.3	6.0	5.1	4.4	3.9	3.2	2.7	1.7	1.5
1.75	117.5	89.0	70.5	42.4	25.5	17.7	13.7	9.6	7.4	6.1	5.2	4.5	4.0	3.3	2.8	1.8	1.5

## UPS 12-150 MRX

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

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	204.6	156.5	124.0	101.6	87.1	76.7	57.0	46.2	32.6	25.5	18.0	14.1	11.6	7.8	6.4	5.3	3.2
1.80	226.1	172.7	137.0	110.7	93.8	82.0	59.7	47.7	33.7	26.3	18.6	14.6	12.0	8.0	6.6	5.5	3.3
1.75	236.0	179.8	143.0	114.7	96.6	84.0	60.6	48.1	33.9	26.5	18.7	14.7	12.2	8.2	6.7	5.6	3.4
1.70	245.9	185.4	147.0	117.7	99.0	86.0	61.5	48.5	34.2	26.7	18.9	14.9	12.2	8.2	6.8	5.6	3.4
1.67	249.2	189.2	150.0	119.4	100.0	86.5	61.8	48.7	34.3	26.8	18.9	14.9	12.3	8.2	6.8	5.7	3.4
1.65	250.8	192.2	152.0	120.6	100.7	87.0	62.1	48.9	34.5	26.9	19.0	15.0	12.3	8.3	6.8	5.7	3.4

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

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	103.4	79.3	62.7	38.4	23.0	16.0	12.4	8.7	6.7	5.5	4.7	4.1	3.6	3.0	2.5	1.6	1.4
1.85	118.6	90.9	71.8	42.6	25.2	17.5	13.5	9.4	7.3	5.9	5.0	4.4	3.9	3.2	2.7	1.7	1.5
1.80	128.4	98.5	77.8	45.3	26.4	18.3	14.2	9.8	7.6	6.2	5.2	4.6	4.0	3.3	2.8	1.8	1.5
1.75	134.1	102.7	80.0	46.7	26.8	18.6	14.3	9.9	7.6	6.2	5.3	4.6	4.1	3.4	2.8	1.8	1.5

## UPS 12-200 MRX

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

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	279.3	209.2	169.2	140.0	120.8	107.1	81.2	66.8	47.8	37.7	27.0	21.3	17.7	11.8	9.7	8.2	5.2
1.80	306.3	230.1	185.6	151.8	129.8	114.2	85.8	70.0	49.9	39.3	28.1	22.1	18.3	12.3	10.0	8.5	5.3
1.75	323.5	242.1	194.0	158.1	134.8	118.4	87.6	70.8	50.7	40.0	28.5	22.4	18.6	12.5	10.2	8.6	5.4
1.70	332.9	249.2	198.0	161.0	137.1	120.2	88.6	71.3	50.7	39.8	28.5	22.6	18.8	12.5	10.2	8.7	5.4
1.67	338.7	253.6	200.0	162.4	138.2	121.1	89.0	71.5	50.9	40.1	28.7	22.7	18.9	12.6	10.2	8.7	5.5
1.65	342.1	256.5	202.0	163.9	139.3	122.0	89.4	71.7	51.1	40.2	28.8	22.7	19.0	12.6	10.3	8.7	5.5

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

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	116.4	100.6	80.2	51.7	32.3	22.8	17.7	12.5	9.7	8.0	6.9	6.0	5.3	4.4	3.8	2.4	2.1
1.85	151.6	115.6	91.9	57.2	35.7	25.1	19.5	13.7	10.7	8.8	7.5	6.5	5.8	4.8	4.1	2.6	2.2
1.80	165.4	126.6	100.3	60.8	37.5	26.3	20.5	14.3	11.1	9.2	7.8	6.8	6.1	5.0	4.3	2.7	2.3
1.75	171.1	130.3	103.7	62.6	37.9	26.7	20.9	14.6	11.4	9.3	8.0	7.0	6.2	5.1	4.3	2.8	2.4

## UPS 12-220 MRX

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

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	305.1	229.7	184.9	154.0	133.6	119.0	90.8	75.0	54.1	42.9	29.7	22.8	18.6	12.1	9.9	8.4	5.3
1.80	336.9	255.6	202.2	166.3	142.9	126.3	95.4	78.2	56.2	44.5	30.7	23.6	19.3	12.5	10.2	8.7	5.4
1.75	355.0	267.5	211.0	172.5	147.6	129.9	96.9	78.7	57.1	45.5	31.4	24.1	19.7	12.8	10.4	8.8	5.5
1.70	366.6	273.8	217.0	176.3	150.0	131.5	97.9	79.4	57.5	45.7	31.5	24.2	19.7	12.8	10.5	8.9	5.5
1.67	371.6	277.6	220.0	178.2	151.3	132.4	98.5	79.8	57.7	45.8	31.6	24.3	19.8	12.9	10.5	8.9	5.6
1.65	375.0	280.2	222.0	179.5	152.2	133.0	98.8	80.0	57.9	46.0	31.7	24.3	19.8	12.9	10.5	8.9	5.6

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

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	153.3	119.2	95.6	60.8	35.0	24.5	19.0	13.3	10.3	8.4	7.1	6.2	5.5	4.5	3.8	2.4	2.1
1.85	176.4	130.9	106.9	66.9	38.6	26.9	20.8	14.5	11.2	9.1	7.7	6.7	6.0	4.9	4.1	2.6	2.2
1.80	189.7	139.7	115.0	71.0	39.8	27.7	21.4	14.9	11.5	9.5	8.0	7.0	6.2	5.1	4.3	2.7	2.3
1.75	197.4	145.0	119.6	72.4	40.7	28.3	21.9	15.2	11.8	9.6	8.2	7.1	6.3	5.2	4.4	2.8	2.4

## UPS 12-280R MRX

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

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	364.2	280.3	229.9	193.8	169.7	152.2	118.3	98.9	73.6	59.7	42.2	33.0	27.3	18.2	14.9	12.6	7.9
1.80	413.6	312.0	255.8	212.6	184.2	163.9	125.7	104.1	76.8	61.9	43.7	34.1	28.2	18.9	15.4	13.0	8.1
1.75	452.8	333.8	272.0	224.8	193.8	171.7	130.3	107.1	78.5	63.0	44.4	34.7	28.6	19.2	15.6	13.2	8.2
1.70	473.0	345.1	279.0	230.1	198.1	175.3	132.4	108.5	79.3	63.4	44.7	34.9	28.8	19.3	15.7	13.3	8.3
1.67	481.6	351.4	284.0	234.0	201.3	178.0	133.9	109.4	79.7	63.7	44.9	35.0	28.9	19.4	15.7	13.3	8.3
1.65	494.6	358.2	288.0	236.9	203.5	179.8	135.2	110.4	80.3	64.0	45.1	35.3	29.1	19.4	15.8	13.3	8.3

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

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	179.6	146.8	121.5	80.6	49.5	34.8	27.1	19.0	14.8	12.2	10.4	9.1	8.1	6.7	5.7	3.6	3.1
1.85	226.6	171.2	137.3	88.8	54.3	38.1	29.6	20.7	16.1	13.2	11.3	9.8	8.8	7.2	6.1	3.9	3.3
1.80	247.9	186.0	150.3	93.9	57.0	40.0	31.1	21.8	16.9	13.9	11.8	10.3	9.2	7.5	6.4	4.1	3.5
1.75	258.9	194.4	156.9	96.4	57.8	40.6	31.7	22.2	17.2	14.1	12.0	10.5	9.3	7.7	6.5	4.2	3.5

## UPS 12-320R MRX

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

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	64.2	44.5	34.4	28.1	18.4	15.1	12.8	8.1
1.80	502.6	378.1	304.6	249.7	213.9	188.6	141.9	115.9	83.9	66.7	46.2	35.6	29.1	19.0	15.5	13.2	8.3
1.75	526.2	395.1	314.2	257.2	220.2	194.0	145.4	118.5	85.5	67.9	47.0	36.2	29.5	19.3	15.8	13.4	8.4
1.70	535.3	406.2	321.4	263.2	225.4	198.6	147.0	118.8	85.9	68.3	47.3	36.4	29.7	19.4	15.8	13.4	8.4
1.67	544.3	413.0	326.3	266.6	227.8	200.4	147.7	119.0	86.2	68.6	47.4	36.5	29.8	19.5	15.9	13.5	8.5
1.65	547.5	417.7	329.3	269.3	230.3	202.7	148.7	119.4	86.5	68.8	47.6	36.6	29.9	19.5	15.9	13.5	8.5

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

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	29.4	20.7	16.2	13.4	11.4	9.8	8.7	7.1	6.0	3.7	3.1
1.85	248.3	185.0	150.5	95.9	58.0	40.8	31.8	22.4	17.5	14.5	12.3	10.6	9.4	7.6	6.5	4.0	3.4
1.80	267.8	196.8	162.3	101.8	60.7	42.6	33.1	23.3	18.2	15.1	12.8	11.1	9.8	7.9	6.7	4.1	3.5
1.75	277.5	203.2	168.2	105.4	62.0	43.5	33.8	23.7	18.5	15.4	13.0	11.2	9.9	8.0	6.8	4.2	3.5

## UPS 12-370R MRX

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

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	523.1	391.5	310.7	262.1	229.7	206.2	158.6	131.6	93.4	73.2	52.0	40.8	33.8	22.5	18.4	15.5	9.8
1.80	572.1	435.3	339.8	283.3	245.9	219.2	167.0	137.7	97.4	76.1	53.8	42.8	34.6	23.0	18.8	16.0	10.1
1.75	605.2	461.0	359.5	297.3	256.5	227.4	171.3	140.1	98.8	77.1	54.4	42.6	34.9	23.2	19.0	16.2	10.4
1.70	622.7	474.8	369.9	304.5	261.8	231.5	174.3	142.5	100.2	78.0	54.9	42.8	35.2	23.4	19.1	16.3	10.4
1.67	633.5	484.7	376.3	309.0	265.1	234.0	175.9	143.7	100.8	78.4	55.2	43.0	35.4	23.5	19.2	16.4	10.4
1.65	640.8	491.5	380.6	312.0	267.3	235.7	177.3	144.9	101.5	78.8	55.3	43.1	35.5	23.5	19.2	16.4	10.5

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

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	217.8	191.5	159.6	103.3	61.7	43.3	33.7	23.6	18.4	15.1	12.9	11.3	10.0	8.3	7.0	4.5	3.8
1.85	291.3	223.0	178.0	114.5	67.4	47.2	36.7	25.7	20.0	16.4	14.0	12.2	10.9	8.9	7.6	4.9	4.1
1.80	316.8	241.4	192.0	122.5	69.3	48.6	37.8	26.5	20.6	17.0	14.5	12.6	11.3	9.3	7.9	5.1	4.3
1.75	330.3	251.3	200.2	125.5	71.0	49.7	38.6	27.1	21.0	17.3	14.7	12.9	11.4	9.4	8.0	5.1	4.4



# MRX Series

## UPS 12- 400 MRX

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

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	547.6	411.9	338.7	286.4	251.4	226.0	175.4	146.5	104.3	81.9	58.3	45.8	38.0	25.2	20.5	17.3	10.8
1.80	614.9	461.7	372.7	311.0	270.2	241.0	185.4	153.9	109.2	85.6	60.7	47.6	39.4	26.2	21.3	17.9	11.2
1.75	640.3	483.1	386.1	323.7	282.2	252.4	191.3	157.2	111.4	87.2	61.8	48.4	40.0	26.6	21.6	18.2	11.3
1.70	664.0	502.9	399.8	333.3	289.4	257.9	194.0	158.5	112.3	87.9	62.2	48.7	40.3	27.0	21.8	18.4	11.3
1.67	674.0	516.7	407.7	339.0	293.8	261.4	195.6	159.3	112.8	88.3	62.5	48.9	40.5	27.1	21.9	18.4	11.4
1.65	679.3	522.4	411.6	342.2	296.4	263.7	196.7	159.8	113.1	88.6	62.7	49.1	40.6	27.1	22.0	18.5	11.4

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

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	214.4	201.5	162.3	109.9	68.2	47.6	36.9	25.8	20.0	16.4	14.0	12.2	10.8	8.9	7.6	4.8	4.1
1.85	295.7	236.8	189.0	122.2	74.8	52.2	40.4	28.2	21.8	17.9	15.2	13.3	11.8	9.7	8.2	5.2	4.4
1.80	346.5	262.6	210.0	131.0	78.7	54.7	42.3	29.4	22.7	18.6	15.8	13.8	12.2	10.0	8.5	5.4	4.6
1.75	363.0	277.5	220.0	134.8	79.7	55.5	42.9	29.8	23.2	19.0	16.1	14.0	12.5	10.2	8.6	5.5	4.6

## UPS 12- 440 MRX

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

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	570.9	437.8	346.0	292.1	256.2	230.1	179.1	149.9	109.2	87.2	61.4	47.8	39.4	26.4	21.5	18.1	11.3
1.80	635.6	485.2	385.2	320.0	277.2	246.5	189.5	157.2	113.6	90.2	63.6	49.6	40.8	27.1	22.1	18.7	11.7
1.75	680.3	521.3	412.3	339.2	291.5	257.5	195.1	160.2	114.7	90.5	64.1	50.2	41.5	27.6	22.4	19.0	11.8
1.70	704.4	538.4	426.9	349.2	298.7	263.0	199.0	163.2	116.1	91.2	64.5	50.5	41.7	27.7	22.6	19.1	11.9
1.67	719.2	552.3	435.9	355.4	303.2	266.4	201.1	164.7	116.9	91.6	64.8	50.7	41.9	27.8	22.6	19.1	11.9
1.65	729.3	561.8	442.0	359.5	306.3	268.7	202.7	166.0	117.5	91.9	65.0	50.8	42.0	27.9	22.7	19.2	11.9

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

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	237.6	228.1	179.9	118.4	71.7	51.6	40.8	28.6	22.1	18.1	15.4	13.4	11.9	9.8	8.3	5.3	4.5
1.85	296.4	251.3	203.7	131.2	78.0	56.1	44.4	31.0	24.0	19.6	16.7	14.5	12.9	10.5	8.9	5.7	4.8
1.80	364.3	277.4	222.3	140.2	81.0	58.0	45.8	31.9	24.8	20.3	17.3	15.1	13.4	11.0	9.3	5.9	5.1
1.75	407.4	297.0	233.0	145.0	83.0	59.2	46.6	32.7	25.3	20.7	17.6	15.4	13.6	11.2	9.5	6.0	5.1

## UPS 12- 475 MRX

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

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	552.4	472.4	378.0	315.7	274.6	245.0	189.1	157.3	109.9	85.1	59.5	46.1	37.8	25.0	20.5	17.4	11.1
1.80	664.2	527.6	415.0	343.4	296.4	262.9	200.6	165.6	115.3	89.2	62.1	48.0	39.3	25.9	21.2	18.0	11.4
1.75	727.7	575.5	441.0	362.4	311.1	274.7	207.0	169.3	117.7	90.9	63.2	48.9	40.0	26.2	21.5	18.2	11.5
1.70	759.0	604.1	460.0	375.2	320.3	281.5	210.4	171.2	118.9	91.8	63.8	49.2	40.3	26.4	21.6	18.3	11.6
1.67	783.8	621.9	475.0	384.7	326.6	285.8	212.6	172.3	119.6	92.3	64.1	49.5	40.5	26.5	21.7	18.4	11.6
1.65	790.4	634.0	479.0	388.2	329.8	288.7	214.1	173.2	120.1	92.7	64.3	49.6	40.6	26.6	21.7	18.4	11.6

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

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	267.5	238.1	187.5	119.2	73.8	51.4	39.7	27.6	21.4	17.5	14.9	13.0	11.5	9.4	8.0	5.1	4.3
1.85	358.9	276.7	217.5	132.9	81.5	56.5	43.6	30.3	23.3	19.1	16.2	14.1	12.5	10.2	8.7	5.5	4.6
1.80	397.7	305.2	241.0	142.7	85.7	59.4	45.8	31.7	24.4	19.9	16.9	14.7	13.0	10.6	9.0	5.7	4.8
1.75	424.5	325.8	257.3	148.8	86.6	60.5	46.9	32.4	24.9	20.3	17.2	15.0	13.2	10.8	9.1	5.7	4.9

## UPS 12- 490 MRX

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

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	545.6	447.3	372.8	323.0	288.9	263.8	208.2	176.0	129.4	104.0	73.8	57.9	48.1	32.1	26.5	22.7	14.6
1.80	641.0	520.5	421.8	359.0	316.8	286.1	222.4	186.0	136.8	110.0	77.8	60.7	50.0	33.3	27.5	23.5	15.1
1.75	695.0	560.6	449.5	379.0	332.0	298.0	229.0	190.0	138.5	110.7	78.2	61.7	50.9	33.8	27.9	23.8	15.3
1.70	752.8	602.9	478.9	400.3	348.2	310.8	235.9	194.0	140.1	111.2	78.6	61.4	50.8	34.0	28.1	24.0	15.5
1.67	794.3	624.0	494.9	411.4	356.4	317.0	238.6	195.0	140.7	111.6	78.9	61.7	50.9	34.1	28.1	24.1	15.5
1.65	825.2	643.2	505.8	419.0	362.0	321.3	240.6	196.0	141.2	111.9	79.1	61.8	51.1	34.1	28.2	24.1	15.6

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

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	214.2	212.4	188.8	131.0	80.0	58.2	46.4	33.4	26.4	22.0	19.1	16.7	14.8	12.0	10.2	6.4	5.4
1.85	295.0	269.1	220.2	147.6	91.5	65.5	51.6	36.9	29.1	24.2	21.0	18.4	16.3	13.3	11.3	7.1	6.0
1.80	383.7	312.2	249.6	160.0	97.2	69.2	54.4	38.7	30.4	25.2	21.8	19.1	16.9	13.8	11.7	7.3	6.2
1.75	422.3	334.0	266.5	166.3	98.5	70.0	55.0	39.4	31.2	25.8	22.3	19.6	17.3	14.1	11.9	7.5	6.3

## UPS 12- 520 MRX

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

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	577.3	483.2	397.4	344.7	308.6	282.0	219.0	183.0	132.0	104.7	74.4	58.3	48.2	32.0	26.3	22.3	14.2
1.80	700.1	566.0	456.3	388.4	342.8	309.5	239.2	199.2	141.1	110.5	78.3	61.5	51.4	33.5	27.3	23.1	14.5
1.75	783.7	611.0	487.4	411.5	360.7	324.0	247.8	204.8	144.7	113.1	79.9	62.5	52.0	34.0	27.8	23.6	14.9
1.70	843.3	647.7	510.5	427.5	372.4	332.8	252.2	207.1	146.2	114.2	80.6	63.3	52.4	34.2	28.0	23.7	15.0
1.67	884.2	665.5	525.0	437.4	379.7	338.2	254.8	208.5	147.1	114.8	81.0	63.6	52.6	34.4	28.1	23.8	15.0
1.65	913.6	677.7	534.8	444.3	384.7	342.0	257.1	209.9	147.8	115.2	81.3	63.9	52.8	34.5	28.2	23.9	15.0

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

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	262.7	243.8	199.9	139.7	87.2	63.4	50.6	35.4	27.5	22.6	19.2	16.8	14.9	12.3	10.5	6.7	5.7
1.85	336.4	290.7	233.8	157.5	96.3	68.8	54.2	38.1	29.6	24.4	20.8	18.2	16.2	13.3	11.4	7.3	6.2
1.80	412.0	326.0	264.2	171.6	101.8	72.6	57.1	40.0	31.0	25.5	21.7	19.0	16.9	13.9	11.8	7.5	6.4
1.75	463.0	351.2	282.3	178.1	104.7	74.5	58.5	40.9	31.7	26.1	22.2	19.4	17.2	14.1	12.0	7.7	6.5

## UPS 12- 550 MRX

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

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	583.7	493.2	408.3	350.6	311.5	282.8	224.4	190.4	135.6	106.6	76.0	59.7	49.5	33.4	27.2	23.1	14.5
1.80	709.7	579.3	467.7	393.2	343.7	307.9	239.8	200.8	142.3	111.4	79.0	61.9	51.2	34.6	28.4	24.0	15.0
1.75	795.0	635.6	508.7	422.0	365.0	324.2	248.9	206.3	145.9	114.0	80.6	63.0	52.1	35.2	28.7	24.2	15.2
1.70	854.9	675.4	534.1	439.4	377.5	333.6	253.4	208.5	147.2	115.0	81.2	63.5	52.4	35.3	28.8	24.4	15.3
1.67	896.9	704.1	550.1	453.9	391.0	346.2	258.2	209.7	148.0	115.6	81.6	63.7	52.6	35.4	28.8	24.4	15.3
1.65	927.7	715.2	561.1	461.5	396.5	350.3	259.8	210.2	148.5	116.0	81.8	63.9	52.7	35.5	28.9	24.4	15.3

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

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	284.9	246.3	206.9	145.3	88.4	64.5	51.7	36.4	28.5	23.6	20.0	17.3	15.4	12.5	10.6	6.7	5.6
1.85	350.2	294.6	246.6	162.4	97.3	71.2	57.0	39.7	30.8	25.2	21.4	18.7	16.6	13.6	11.6	7.3	6.2
1.80	423.8	342.0	279.0	176.5	103.2	75.1	59.9	41.6	32.2	26.3	22.4	19.5	17.3	14.1	12.0	7.6	6.4
1.75	467.3	363.2	299.0	182.9	106.3	77.1	61.4	42.6	32.8	26.8	22.8	19.8	17.6	14.4	12.2	7.7	6.5

## UPS 12- 600 MRX

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

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	698.8	568.5	463.7	389.9	340.7	305.3	235.2	195.5	141.4	112.4	78.0	60.2	49.2	32.2	26.3	22.3	14.1
1.80	790.5	637.7	518.8	430.0	371.6	329.9	252.6	209.0	147.8	115.6	80.5	62.2	51.0	33.5	27.4	23.3	14.7
1.75	867.7	681.6	550.8	453.4	389.9	344.6	259.4	212.0	150.6	118.2	82.1	63.4	51.9	34.0	27.8	23.6	14.9
1.70	927.7	724.9	583.2	474.7	404.5	355.1	264.8	215.0	152.3	119.2	82.8	63.9	52.3	34.3	28.0	23.8	15.0
1.67	968.8	745.1	600.8	486.2	412.6	360.8	267.6	216.5	153.2	119.8	83.2	64.2	52.5	34.4	28.1	23.9	15.1
1.65	998.6	755.6	608.2	491.9	417.2	364.7	269.9	218.0	153.9	120.2	83.4	64.4	52.7	34.5	28.2	23.9	15.1

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

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	293.6	250.2	214.0	148.8	89.3	64.3	51.0	36.0	28.1	23.1	19.9	17.2	15.1	12.3	10.3	6.4	5.4
1.85	360.6	304.3	253.0	166.0	98.0	70.0	55.1	38.8	30.3	25.1	21.6	18.7	16.5	13.3	11.2	6.9	5.8
1.80	435.7	351.4	290.0	179.0	103.8	73.8	58.0	40.7	31.9	26.3	22.4	19.4	17.1	13.9	11.7	7.2	6.1
1.75	484.8	370.6	302.0	185.0	106.4	75.4	59.0	41.7	32.5	26.7	22.8	19.7	17.4	14.1	11.9	7.4	6.2

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

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