# Flooded Type (Vented)

- Design Life: 20 years
- For Standby Applications
- Nuclear Power Plant(Class 1E)

#### **Features**

- 20-year environmental and seismic qualification (calcium)
- Flame-retardant covers enhance battery plant safety
- Terminals accessible for measurement of individual cell voltages
- Transparent container allows visual inspection of plates • Low-evaporation, flame-arrester vent
- Electrical testing to 100 percent capacity assures performance of every
- Two-point, top-suspended positive plates permit free growth without
- Vacuum-assisted, bottom-pour, positive-grid casting assures plate quality and long life



- Soft rubber post seal minimizes stress on post
- Multi-cell design offers reduced length for optimum space utilization (200Ah or below)
- Fewer bolted connectors per battery string reduce installation and maintenance costs
- Low-maintenance, lead-calcium alloy extends watering intervals
- Snap-on, inter-cell connector covers
- Full capacity range from 25Ah to 4000Ah per single unit
- Wide range of applications; Telecom; UPS; Switchgear & control; Nuclear power plant (Class 1E) and General power plant; Railway; Oil & Gas
- EP Zone 4 racks available

# **Specifications**

| Product Series | V     | Container Material    | Capacity Range(Ah)   | Main Applications         | Terminal Type |
|----------------|-------|-----------------------|----------------------|---------------------------|---------------|
| 4LCY-C         | 8     | Polycarbonate or San  | 248 ~ 669            | UPS, Switchgear & Control | TOP           |
| 4LCY           | 8     | Polycarbonate or San  | 290 ~ 660            | Telecom                   | TOP           |
| CPV            | 2     | Polypropylene         | 550 ~ 2600           | Renewable Energy Storage  | TOP           |
| DCU/DU*        | 2/6   | San                   | 50 ~ 200             | Telecom; UPS, Switchgear  | TOP           |
| DJ             | 6     | PVC                   | 110 ~ 200            | Telecom; UPS, Switchgear  | TOP           |
| JC             | 4/8   | Polycarbonate or San  | 50 ~ 300             | Telecom; UPS, Switchgear  | TOP           |
| KCR/KAR*       | 2     | Polycarbonate or San  | 200 ~ 825            | UPS, Switchgear & Control | TOP           |
| KCT/KT         | 2     | Polycarbonate or San  | 270 ~ 720            | Telecom                   | TOP           |
| LCR/LAR*       | 2     | Polycarbonate or San  | 900 ~ 2320           | UPS, Switchgear & Control | TOP           |
| LCT/LT         | 2     | Polycarbonate or San  | 840 ~ 2320           | Telecom                   | TOP           |
| LCY            | 2     | Polycarbonate or San  | 2147 ~ 2400          | UPS, Switchgear & Control | TOP           |
| LCUN           | 2     | Thermoplastic         | 1304 ~ 2318          | Switchgear & Control      | TOP           |
| XDJ            | 6     | Thermoplastic         | 355 ~ 650 Watts/Cell | UPS                       | TOP           |
| MCT            | 2     | San / PVC / Polycarb. | 3000 ~ 4000          | Telecom, Switchgear       | TOP           |
| XT             | 2/4/8 | Polycarbonate or San  | 108 ~ 2600           | UPS, Switchgear & Control | TOP           |
| XTHP           | 2/4/8 | Polycarbonate or San  | 290 ~ 2499           | UPS, Switchgear & Control | TOP           |



C&D invests resourcers to environmental protection, starting from the initial plant design through to daily operation.

- C&D' s factory has World Class Air & Water Treatment, which realizes zero waste discharge, and be friendly to
- Suppliers' environmental and safety performance are always taken into consideration during all purchasing activities, and contractors operating on sites are required to adopt sound environmental policies.
- C&D continues to direct sound product life-cycle management by providing information and collection systems to its customers and sales representatives, in order to promote the environmentally beneficial recycling and re-use of its spent products.
- Domestic and international developments in environmental technology are continuously monitored, and new standards and technologies are incorporated as appropriate.

Power You Can Depend On



# **Datacenter Application**

The best power solution of C&D battery

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# Power Solutions

# MRX/MRXF Series

# Valve Regulated Lead Acid (VRLA)

- Design life:12 years(20°C)
- For UPS Standby Power Applications

#### Features

- Eurobat Classification: Long Life
- 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 polypropylene case and cover compliant with UL 94 V-2



- 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
- Not restricted for air transport Complies with IATA/ICAO Special
- 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

# **Specifications**

| Model           | \/ | Watts/Cell<br>@ 15min |     | Dimensi | Weight/ Kg | Terminal Type (Bolt) |           |                      |
|-----------------|----|-----------------------|-----|---------|------------|----------------------|-----------|----------------------|
| Wodel           | V  |                       | L   | W       | Н          | TH*                  | weight kg | Terminal Type (Boil) |
| UPS 12-100 MRX  | 12 | 100                   | 197 | 132     | 166        | 173                  | 10.7      | Insert (#10-32 UNF)  |
| UPS 12-130 MRX  | 12 | 130                   | 197 | 132     | 166        | 173                  | 11.5      | Insert (#10-32 UNF)  |
| UPS 12-150 MRX  | 12 | 150                   | 197 | 132     | 166        | 173                  | 12.4      | Insert (#10-32 UNF)  |
| UPS 12-200 MRX  | 12 | 200                   | 229 | 139     | 200        | 205                  | 17.7      | Insert (#10-32 UNF)  |
| UPS 12-220 MRX  | 12 | 220                   | 229 | 139     | 200        | 205                  | 19.0      | Insert (#10-32 UNF)  |
| UPS 12-280R MRX | 12 | 280                   | 273 | 174     | 201        | 204                  | 25.7      | Insert (1/4-20 UNC)  |
| UPS 12-320R MRX | 12 | 320                   | 273 | 174     | 201        | 204                  | 27.0      | Insert (1/4-20 UNC)  |
| UPS 12-370R MRX | 12 | 370                   | 319 | 173     | 203        | 205                  | 31.5      | Insert (1/4-20 UNC)  |
| UPS 12-400 MRX  | 12 | 400                   | 341 | 173     | 213        | 216                  | 35.3      | Insert (1/4-20 UNC)  |
| UPS 12-440 MRX  | 12 | 440                   | 341 | 173     | 213        | 216                  | 36.0      | Insert (1/4-20 UNC)  |
| UPS 12-475 MRX  | 12 | 475                   | 341 | 173     | 213        | 216                  | 38.0      | Insert (1/4-20 UNC)  |
| UPS 12-490 MRX  | 12 | 490                   | 345 | 173     | 275        | 278                  | 46.6      | Insert (1/4-20 UNC)  |
| UPS 12-520 MRX  | 12 | 520                   | 345 | 173     | 275        | 278                  | 47.2      | Insert (1/4-20 UNC)  |
| UPS 12-550 MRX  | 12 | 550                   | 345 | 173     | 275        | 278                  | 48.6      | Insert (1/4-20 UNC)  |
| UPS 12-600 MRX  | 12 | 600                   | 345 | 173     | 275        | 278                  | 49.4      | Insert (1/4-20 UNC)  |

(\*TH:Total height including terminals)

### True Front Access battery (high power rate)

- True Front Access threaded copper alloy inserts, for reduced maintenance and increased safety
- Terminal versatility ease of diagnostic readings with C&D
- Innovative front terminal design maximizing energy density with
- direct connect extrusion fusionweld 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
- Flame-arresting, one-way pressure-relief vent for safety and long life • Complies with UL 1778,924,1989 and 94 V-0. BS6290-4, IEC896-2
- Multicell design for ease of installation and maintenance



# **Specifications**

|       | •                |                       |      |         |            |                       |           |                     |             |
|-------|------------------|-----------------------|------|---------|------------|-----------------------|-----------|---------------------|-------------|
| Model | V                | Watts/Cell<br>@ 15min |      | Dimensi | Weight/ Kg | Tarrasinal Tuna (Dala |           |                     |             |
|       |                  |                       | L    | W       | Н          | TH                    | Weight Rg | Terminal Type (Bolt |             |
|       | UPS 12-410 MRXF  | 12                    | 410  | 498     | 108        | 215                   | 231       | 37.1                | Insert (M6) |
|       | UPS 12-615 MRXF  | 12                    | 615  | 547     | 123        | 269                   | 278       | 55.2                | Insert (M8) |
|       | UPS 12-700 MRXF  | 12                    | 700  | 547     | 123        | 310                   | 322       | 64.9                | Insert (M8) |
|       | UPS 12-1000 MRXF | 12                    | 1000 | 547     | 153        | 311                   | 322       | 85.2                | Insert (M8) |

# **LBTY-2V Series**

# Valve Regulated Lead Acid (VRLA)

- Design life: 15 years (25°C)
- 3 years Warranty
- For Telecom, UPS, Utility Applications

#### **Features**

- · High quality design insurance
- Ph-Ca Alloy for positive plate grid
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance
- Lower self-discharge rate (about 3% per month @20°C)
- UL-recognized component
- · Flame retardant container materials, complied with materials UL 94 HB,

0 " (4)

# Specifications



- 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 49 Title 49 parts 171-189
- Not restricted for water transport Classified as non-hazardous material per IMDG Amendment 27

| Model         | V | Capacity/Ah      |     | Dimensi | Weight/ Kg | Terminal Type (Bolt) |           |                        |  |
|---------------|---|------------------|-----|---------|------------|----------------------|-----------|------------------------|--|
| Iviouei       | v | (C10,1.80V@25°C) | L   | L W     |            | TH                   | Weight Ng | Terrilliai Type (Bolt) |  |
| C&D 2-200LBT  | 2 | 200              | 170 | 106     | 330        | 345                  | 12.4      | Insert (M10)           |  |
| C&D 2-300LBT  | 2 | 300              | 170 | 150     | 330        | 345                  | 17.8      | Insert (M10)           |  |
| C&D 2-400LBT  | 2 | 400              | 196 | 171     | 330        | 345                  | 23.6      | Insert (M10)           |  |
| C&D 2-500LBT  | 2 | 500              | 241 | 171     | 330        | 345                  | 29.3      | Insert (M10)           |  |
| C&D 2-600LBT  | 2 | 600              | 285 | 171     | 330        | 345                  | 35.2      | Insert (M10)           |  |
| C&D 2-800LBT  | 2 | 800              | 383 | 171     | 330        | 345                  | 47.1      | Insert (M10)           |  |
| C&D 2-1000LBT | 2 | 1000             | 471 | 171     | 330        | 345                  | 58.8      | Insert (M10)           |  |
| C&D 2-1200LBT | 2 | 1200             | 346 | 310     | 323        | 336                  | 72.0      | Insert (M10)           |  |
| C&D 2-1500LBT | 2 | 1500             | 476 | 337     | 330        | 345                  | 92.0      | Insert (M10)           |  |
| C&D 2-2000LBT | 2 | 2000             | 476 | 337     | 330        | 345                  | 117.0     | Insert (M10)           |  |
| C&D 2-2500LBT | 2 | 2500             | 696 | 340     | 330        | 345                  | 161.0     | Insert (M10)           |  |
| C&D 2-3000LBT | 2 | 3000             | 696 | 340     | 330        | 345                  | 185.0     | Insert (M10)           |  |

(\* TH: Total Height including cover)

# ms Endur II Series

# Valve Regulated Lead Acid (VRLA)

- 20 Years Design Life
- For Wireless Base Stations and Switches, Wire Line Distributed Power Applications
- 7 Years Warranty for Telecom Applications
  3 Years Full, 12 Years Pro-rate Warranty for Switchgear and UPS Float Applications

### Features

- Modular design for ease of installation and stacking flexibility
- Space saving design for the greatest amount of power in a small footprint
   Exceeds 1997 UBC Zone 4 seismic requirements
- Certified as NEBS Level 3 and compliant to Earthquake Risk Zone 4 in
- various system configurations • Exceeds 2000/2003 IBC requirements for 125% g level
- Tin-plated copper alloy connectors minimize maintenance
- New Ohmic Ring for ease of maintenance readings
- Advanced microporous absorbed glass mat separators for ultra-low float current - reduces grid corrosion for a long, usable service life
- Proprietary calcium alloys to minimize positive grid corrosion and growth - maximizes battery life

# THE M'S endur 20+ Years





#### • Robust polypropylene container and cover enhances product quality and improves strength of materials for safe operation with flammability rating UL94V-0, LOI>28%

- · Highly efficient, proprietary plate processing for high utilization of
- active material results in high energy density

   Advanced formation process results in a narrow float voltage window
- making on-site float matching unnecessary
- Highly controlled manufacturing processes for exceptional and consistent plate quality
- Proprietary cell design and manufacturing process provides for
- documented long-lasting service life
- Comply to SR4228

# Specifications

| Model          | Volt / Unit  | C8, 1.75V, | C10,1.80V, | Dir | Terminal |     |        |
|----------------|--------------|------------|------------|-----|----------|-----|--------|
|                | VOIL / OTIIL | 25°C (Ah)  | 20°C(Ah)   | L/D | W        | Н   | Туре   |
| AT-07P/ATL-07P | 2            | 345/295    | 330/275    | 589 | 79       | 230 | Insert |
| AT-09P/ATL-09P | 2            | 480/390    | 460/365    | 589 | 98       | 230 | Insert |
| AT-11P/ATL-11P | 2            | 600/490    | 575/460    | 589 | 116      | 230 | Insert |
| AT-13P/ATL-13P | 2            | 640/515    | 610/485    | 589 | 116      | 230 | Insert |
| AT-15P/ATL-15P | 2            | 840/685    | 800/645    | 589 | 155      | 230 | Insert |
| AT-17P/ATL-17P | 2            | 920/780    | 875/735    | 589 | 155      | 230 | Insert |
| AT-19P/ATL-19P | 2            | 1080/880   | 1030/825   | 589 | 190      | 230 | Insert |
| AT-21P/ATL-21P | 2            | 1150/980   | 1095/920   | 589 | 190      | 230 | Insert |
| AT-23P/ATL-23P | 2            | 1320/1075  | 1260/1010  | 589 | 224      | 230 | Insert |
| AT-25P/ATL-25P | 2            | 1380/1175  | 1315/1100  | 589 | 224      | 230 | Insert |
| AT-27P/ATL-27P | 2            | 1560/1270  | 1490/1195  | 589 | 258      | 230 | Insert |
| AT-29P/ATL-29P | 2            | 1605/1370  | 1535/1285  | 589 | 258      | 230 | Insert |
| AT-35P/ATL-35P | 2            | 2040/1660  | 1945/1560  | 589 | 339      | 230 | Insert |
| AT-39P/ATL-39P | 2            | 2180/1855  | 2085/1745  | 589 | 339      | 230 | Insert |



## Valve Regulated Lead Acid (VRLA)

- Design life:20 years (25°C)
- For UPS, Telecom, and Utility Applications

# Features

- Modular design for ease of installation and stacking flexibility
- High energy density, space saving design for greatest amount of power in small footprint
- New terminal design for ease of maintenance readings
- Advanced micro-porous Absorbed Glass Mat separators for ultra-low float current reduce grid corrosion for long, usable service life
- Proprietary positive grid alloy to minimize positive grid corrosion and growth in float application and to increase cycling capability - Maximize
- Robust polypropylene container and cover enhances product quality and improves strength of materials for safe operation with flammability



- rating UL 94 V-0, LOI>28%
- Thermally welded case-to-cover bond to eliminate leakage
- High efficient, proprietary plate processing for high utilization of active material - results in high energy density and low float current
- Advanced formation process results in a narrow float voltage window
- making on-site float matching unnecessary Highly controlled manufacturing processes for exceptional and
- consistent plate quality Proprietary cell design and manufacturing process provides for 20 years
- design life in float application and documented long-lasting service life Industry leading warranty

# **Specifications**

| Model   | V | Capacity/Ah<br>(C10,1.80V@25°C) |     | Weight/ Kg |     |             |
|---------|---|---------------------------------|-----|------------|-----|-------------|
|         |   | (C10,1.80V@25°C)                | L   | L W        |     | vvoigitu Ng |
| MSE-200 | 2 | 200                             | 378 | 166        | 114 | 13.0        |
| MSE-300 | 2 | 300                             | 378 | 166        | 114 | 18.0        |
| MSE-400 | 2 | 400                             | 378 | 166        | 146 | 23.0        |
| MSE-500 | 2 | 500                             | 378 | 166        | 210 | 30.0        |
| MSE-600 | 2 | 600                             | 378 | 166        | 210 | 33.5        |
| 100LF17 | 2 | 82                              | 624 | 159        | 165 | 46.3        |
| 100LF19 | 2 | 92                              | 624 | 159        | 184 | 51.7        |
| 100LF21 | 2 | 102                             | 624 | 159        | 203 | 57.6        |
| 100LF23 | 2 | 112                             | 624 | 159 222    |     | 63.0        |
| 100LF25 | 2 | 122                             | 624 | 159        | 241 | 68.9        |
| 100LF27 | 2 | 132                             | 624 | 159        | 260 | 74.4        |
| 100LF29 | 2 | 143                             | 624 | 159        | 279 | 79.8        |
| 100LF31 | 2 | 153                             | 624 | 159        | 299 | 85.7        |
| 100LF33 | 2 | 163                             | 624 | 159        | 318 | 91.2        |

# LIBERTY® 1000 Series

## Valve Regulated Lead Acid (VRLA)

- 10 years life battery
- 1+9 years pro-rate warranty For Telecom, Switchgear Utility, UPS Applications

# **Features**

- Patented C&D post seal design with secondary epoxy seal to increase
- Two-fold vent system, Minimizes bulging, and Prevents flashback explosion from external ignition source
- Thick radial grid design, Improves current carrying capacity and performance, insure Long float life
- Immobilized electrolyte technology, Absorbent glass mat design (AGM),
- for Safe handling and storage Advanced, computer-controlled thermal cover-to-jar weld, ensure
- Greater reliability and consistency • Automated, state-of-the-art, cast-on strap process, Ensures consistent,
- high-quality, low electrical-resistance welds

- PVC container and cover, Provides excellent water vapor retention,
- preventing dry out, Prevents oxygen infiltration, High-impact resistance • Through-the-partition inter-cell connection, Shortens current paths,
- Increases performance Copper-to-copper connections, Minimize resistance drop, especially at high rates, Reduce need for retorquing connections
   Measurable quality and outstanding performance, 100 percent of cells
- tested for conductance voltage and capacity, Tested in accordance with Bellcore TR-NWT-000766 specifications, 100 percent of cells tested to 95
- percent capacity at the 8-hour rate to 1.75 Vpc • Comply to SR4228

# **Specifications**

| -         |             |            |                              |     |               |        |          |        |
|-----------|-------------|------------|------------------------------|-----|---------------|--------|----------|--------|
| Model     | Volt / Unit | C8, 1.75V, | 15min to<br>1.67V(Watt/Cell) | D   | imensions (mr | Weight | Terminal |        |
|           |             | 25°C (Ah)  |                              | L/D | W             | Н      | (Kg)     | Туре   |
| LS 12-100 | 12          | 100        | 344                          | 421 | 174           | 227    | 43       | Insert |
| LS 6-200  | 6           | 200        | 688                          | 421 | 174           | 227    | 43       | Insert |
| LS 4-300  | 4           | 300        | 1030                         | 421 | 174           | 227    | 43       | Insert |
| LS 2-600* | 2           | 600        | 2060                         | 421 | 174           | 227    | 43       | Insert |

\* 2 cells connected in parallel for 2-volt units.