C&D TECHNOLOGIES

TROJAN BATTERY COMPANY

C&D Trojan (Shanghai) Energy Technologies Co., Ltd.

Power You Can Depend On

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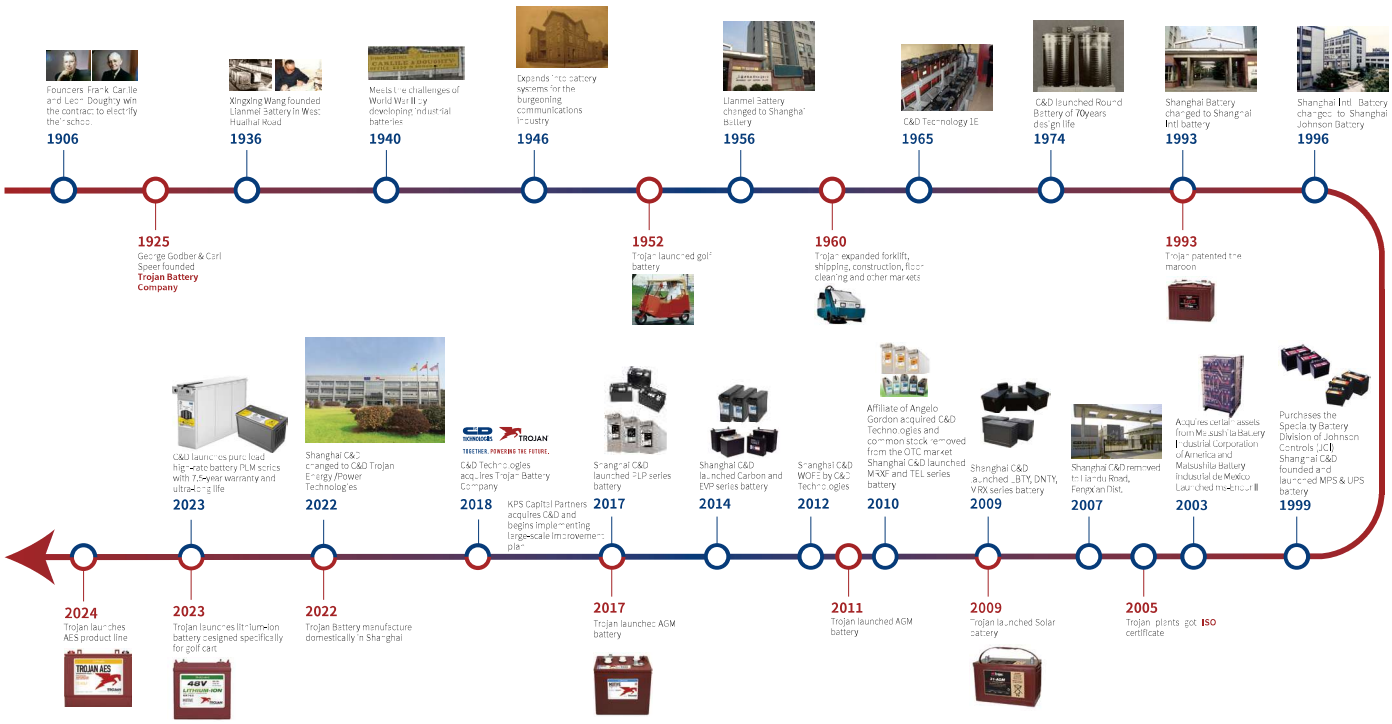
About C&D Trojan

Our History



Our Numbers

- **119 Years** in business
- **$1.1 Billion** in global sales revenue
- **>6.2 Million** batteries per year
- More than **2,800 employees** globally
- **99%** Recyclable*
- Distributed in **120+ countries**
- **One of the word's** leading suppliers of deep-cycle & stand-by batteries

Manufacturing Base

Shanghai, China

Jiangsu, China

Attica, USA

Reynosa, Mexico

Ann Streetn, USA

Clark Street, USA

Sandersville, USA

Stonecrest (Lithonia), USA

Pure Lead Max

Valve Regulated Lead Acid Battery

- 16ydesign life
- Designed for UPS Standby Power Applications

Features

- 16y design life
- 7.5y warranty @25°C, 5y@ 30°C
- C&D's super long-life MSE pure lead plate processing technology for high active materials utilization- result in high energy density and low flow currents
- Design of less water-loss extends service life
- Patented Long-Life Alloy in the grids to minimize grid growth, reduce gassing, and extend battery life
- Available in both Top terminal and TFA (True Front Access) formats
- Our TFA design maximizes energy density and minimizes internal resistance by providing a direct connection from the plates to the terminals
- Patented UL Recognized Flame-arresting vents in each cell for safety
- 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 UL94 V-0
- Thermally welded and leak tested case-to-cover bond ensures a robust leak proof seal
- 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.
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	5min Constant Power Watt/cell @ 1.67EPV	Dimensions(mm)				Weight(Kg)	Terminal Type(Bolt)
			L	W	H	TH		
UPS 12-1100 PLM	12	177.9	197	132	166	173	10.7	Insert ((#10-32 UNF)
UPS 12-1500 PLM	12	249.0	197	132	166	173	12.4	Insert ((#10-32 UNF)
UPS 12-2200 PLM	12	371.4	242	142	200	205	19.0	Insert ((#10-32 UNF)
UPS 12-3300 PLM	12	552.4	273	173	201	204	27.0	Insert (1/4-20 UNC)
UPS 12-3800 PLM	12	643.0	319	173	203	206	31.5	Insert (1/4-20 UNC)
UPS 12-4000 PLM	12	667.4	341	173	213	216	35.3	Insert (1/4-20 UNC)
UPS 12-4700 PLM	12	779.6	341	173	215	218	38.0	Insert (1/4-20 UNC)
UPS 12-4800 PLM	12	782.0	345	173	275	278	46.6	Insert (1/4-20 UNC)
UPS 12-5400 PLM	12	883.1	345	173	275	278	48.6	Insert (1/4-20 UNC)
UPS 12-6300 PLM	12	1032.7	345	173	275	278	52.9	Insert (1/4-20 UNC)
UPS 12-6900FD PLM	12	1149.8	525	239	227	227	66.0	Insert (M8)
UPS 12-7000FD PLM	12	1182.6	525	239	227	227	67.3	Insert (M8)
UPS 12-7900FD PLM	12	1324.4	525	239	227	227	71.0	Insert (M8)
UPS 12-8200FD PLM	12	1374.0	525	239	227	227	72.0	Insert (M8)
UPS 12-4200F PLM	12	711.6	511	109	231	231	37.1	Insert (M6)
UPS 12-6200F PLM	12	1042.5	567	125	278	278	55.2	Insert (M8)
UPS 12-6800F PLM	12	1165.9	567	125	322	322	64.9	Insert (M8)
UPS 12-8000F PLM	12	1347.9	567	154	322	322	77.3	Insert (M8)
UPS 12-9200F PLM	12	1600.0	567	154	322	322	85.2	Insert (M8)

PLP Series-Pure Lead Plus

Valve Regulated Lead Acid Battery

PURE Pb+ PURE LEAD PLUS

- 15 years design life
- Designed for UPS Standby Power Applications

Features

- Pure Lead Paste for long life and stable performance
- 5 Years Warranty
- Extended life at elevated ambient temperatures
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyt emaintenance
- C&D Long Life Alloy having very low calcium levels in the industry - minimizing grid growth, reducing gassing, and extending battery life
- UL Recognized Flamearresting 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 UL94 V-0
- Advanced proprietary plate processing technology for high active material utilization - results in high energy density and low float currents
- Thermally welded and helium leak tested case-to-cover bond to ensure a robust leak proof seal
- 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
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	5min Constant Power Watt/cell @ 1.67EPV	Dimensions(mm)				Weight(Kg)	Terminal Type(Bolt)
			L	W	H	TH		
UPS 12-1100 PLP	12	177.9	197	132	166	173	10.7	Insert (#10-32 UNF)
UPS 12-1500 PLP	12	249.2	197	132	166	173	12.4	Insert (#10-32 UNF)
UPS 12-2200 PLP	12	371.4	242	142	200	205	19	Insert (#10-32 UNF)
UPS 12-3300 PLP	12	552.4	273	174	200	204	27	Insert (1/4-20 UNC)
UPS 12-3800 PLP	12	643	319	174	202	205	31.5	Insert (1/4-20 UNC)
UPS 12-4000 PLP	12	667.4	341	173	213	216	35.3	Insert (1/4-20 UNC)
UPS 12-4700 PLP	12	779.6	341	173	213	216	38	Insert (1/4-20 UNC)
UPS 12-4800 PLP	12	782	345	173	275	278	46.6	Insert (1/4-20 UNC)
UPS 12-5400 PLP	12	883.1	345	173	275	278	48.6	Insert (1/4-20 UNC)
UPS 12-6300 PLP	12	1032.7	345	173	275	278	52.9	Insert (1/4-20 UNC)
UPS 12-4200F PLP	12	711.6	511	109	231	231	37.1	Insert (M6)
UPS 12-6200F PLP	12	1042.5	559	125	278	278	55.2	Insert (M8)
UPS 12-6800F PLP	12	1134.6	559	125	322	322	64.9	Insert (M8)
UPS 12-8000F PLP	12	1347.9	559	154	322	322	77.3	Insert (M8)
UPS 12-9200F PLP	12	1542.8	559	154	322	322	85.2	Insert (M8)

Pure Lead Plus

Valve Regulated Lead Acid Battery

PURE Pb+

- Designed for UPS Standby Power Applications
- 100-1000 Watts per Cell

Specifications

Model	V	5min Constant Power Watt/cell @ 1.67EPV	Dimensions(mm)				Weight(Kg)	Terminal Type(Bolt)
			L	W	H	TH		
UPS12-105PLP	12	172	166	131	162	174	10.0	10-32 UNF
UPS12-155PLP	12	290	197	132	166	173	12.4	10-32 UNF
UPS12-215PLP	12	373	229	139	200	205	19.1	10-32 UNF
UPS12-305PLP	12	571	261	173	200	204	26.5	1/4-20 UNC
UPS12-355PLP	12	685	306	173	202	205	30.5	1/4-20 UNC
UPS12-405PLP	12	710	341	173	213	216	34.4	1/4-20 UNC
UPS12-495PLP	12	813	345	173	275	278	45.4	1/4-20 UNC
UPS12-545PLP	12	920	345	173	275	278	45.4	1/4-20 UNC
UPS12-605PLP	12	969	345	173	275	278	49.4	1/4-20 UNC
UPS6-625PLP	12	938	321	177	224	278	33.0	1/4-20 UNC
UPS12-675PLPF	12	1100	559	125	279	279	56.5	1/4-20 UNC
UPS12-705PLPF	12	1166	559	125	320	320	67.5	1/4-20 UNC
UPS12-1005PLPF	12	1600	559	154	320	320	85.3	Insert (M8)

Carbon Battery

VRLA Powered By Carbon & DCS Technology

For Unstable Grid, Renewable Energy, Hybrid Systems, Energy Storage, Deep Cycle Mobility Applications

Features

Long life cycle service design
- Proven C&D DCS technology
- Excellent PSoC and cyclic performance
  12V: • 60% DOD 3600
  • 80% DOD 1200

Leading Charging Acceptance
- Maximum charge current 0.6C, 300% than normal VRLA
- 0.2C to full charging lower than 7 Hrs

Compliant to major global specifications
- BS 6290: Part 4:1997
- IEC 60896-21/22
- Telcordia SR-4228
- Bellcore GR-63-CORE & GR-1089-CORE
- UL 94 V-0 Flame Retardant Polypropylene

Extreme Temperature Tolerance
- -20˚C: 16% increase capacity
- +35˚C: 60% increase cyclic life

Specifications

Model	V	Capacity/Ah (C10,1.80V@25°C)	Capacity/Ah (C20,1.75V@25°C)	Dimensions(mm)				Weight(Kg)	Terminal Type(Bolt)
				L	W	H	TH		
SHC 12-40	12	36	43	229	139	200	205	16	Inserted(#10-32 UNF)
SHC 12-65	12	59	67	273	174	201	204	24	Inserted(1/4-20UNC)
SHC 12-100	12	91	100	341	173	213	218	34	Inserted(1/4-20UNC)
SHC 12-110	12	103	114	345	173	275	278	43	Inserted(1/4-20UNC)
SHC 12-100FT	12	91	100	511	110	237	237	34	Inserted (M6)
SHC 12-150FT	12	150	154	559	126	285	285	50	Inserted (M8)
SHC 12-200FT	12	172	192	559	126	328	328	60	Inserted (M8)
SHC 12-250FT	12	200	224	559	154	322	322	73	Inserted (M8)

EVP Series Electrical Vehicle Power Battery

Valve Regulated Lead Acid Battery
With DCS and Nano Lead-Carbon Technology

- Deep Cycle Applications
- For Electrical Vehicle Applications

Features and Benefits

- C&D Nano-Carbon Enhanced technology allows for PSoC and eliminates concerns of undercharging and sulfation
- Very good lower temperature performance and lower temperature pulse power
- Pulse power capability down to -40℃
- Long cyclic life performance (Up to 5000 times at 30% DOD)
- Very robust design – Thicker AGM for increasing safety and reliability
- Same footprint and terminals for universality and simplicity for replacements
- High charging acceptance ability, up to 0.6C maximum charging current
- 2X service warranty
- Complied to GB/T 5008.1/2-2013
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001

Specifications

Battery Model	V	Capacity Ah (C20, 1.75V, 25°C)	Capacity Ah (C10, 1.80V, 25°C)	Dimensions(mm)				Weight(Kg)	Terminal Type
				L	W	H	TH (Including adapter)		
C&D DCS-18UNC RIT	12	18	17.5	181	76	164	189	6.63	Inserted, optional T2 adaptor
C&D DCS-33UNC RIT	12	30	27.6	197	132	163	190	11.9	Inserted, optional T2 adaptor
C&D DCS-40UNC RIT	12	40	36.8	233	128	201	225	15.4	Standard T2 SAE terminal
C&D DCS-45UNC RIT	12	45	41.4	233	128	201	225	17.0	Standard T2 SAE terminal

TEL High Temperature Series

Valve Regulated Lead Acid Battery

- 15 years Design life
- Valve Regulated Lead Acid Battery
- Designed for Typical Wireline & Wireless Float Applications

Features

- Long life alloy and Pure Lead Technology with 15-years design life
- Tested and qualified by Telecordia to meet SR-4228 requirements
- True Front Access threaded copper alloy inserts for reduced maintenance and increased safety
- Terminal versatility - ease of diagnostic readings with C&D Ohmic Ring®
- Reduced headspace driving higher energy density in cabinet or rack applications
- Removable handles for ease of installation
- Innovative front terminal design increasing energy density with direct connect extrusion fusion weld technology
- Thermally welded case to cover bond to ensure a leak-proof sea
- Flame-retardant polypropylene case and cover compliant with UL94 V-0
- 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 UL 1778, 924, 1989 and 94 V-0, BS6290-4, IEC60896
- UL recognized components
- Multicell design for ease of installation and maintenance
- 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
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	Capacity/Ah (C8,1.75V@25°C)	Capacity/Ah (C10,1.80V@25°C)	Dimensions(mm)				Weight/ Kg
				L	W	H	TH	
TEL12-105FHTG*	12	101	98	498	109	231.4	231.4	32.8
TEL12-115FHT	12	104	101	511	109	231.4	231.4	33.0
TEL12-155FHT	12	147	148	559	126	277	277	47.0
TEL12-170FGHT*	12	162	163	547	126	285	285	49.5
TEL12-180FHT	12	181	174	559	126	320.04	320.04	53.0
TEL12-200FHT	12	195	192	559	126	320.04	320.04	60.2

*With double cover gas collection system

AES Series Electrical Vehicle Power Battery

Valve Regulated Lead Acid Battery
C&D Nano-Carbon™ technology

- Remote/Hybrid Sites
- Grid Scale Energy Storage
- Off -Grid/Renewable
- Cycling Applications
- Communications

Features and Benefits

- C&D Nano-Carbon™ technology enhanced active material to increase cycle performance and PSoC operation
- Terminal versatility – ease of ohmic readings with C&D Ohmic Ring® (Available on front terminal batteries: AES12-2170F and AES 12-2870F)
- Threaded copper alloy inserts for reduced maintenance and increased safety
- High-strength, leak-free polymer container allows for non-restricted shipping:

  Water: non-hazardous per IMDG Amendment 27
  Surface: non-hazardous per DOT-CFR title 49, 171-189
  Air: IATA/ICAO, provision A67
- 100% helium leak tested and dielectric tested to ensure seal integrity
- Design uses UL certified vents
- Non-Hazardous for Transportation
- Extended service life in elevated temperature applications
- UL94-V0 Compliant Case and Cover
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001

Specifications

Battery Model	V	Capacity/Ah (C20,1.75V@25°C)	Capacity/Ah (C100,1.80V@25°C)	Dimensions(mm)				Weight/ Kg	Terminal Type (Bolt)
				L	W	H	TH		
AES 7.5-1600	7.5	168	182	263	180	283	286	37	Insert (1/4-20 UNC)
AES 8.0-1600	8.0	168	182	263	180	283	286	37	Insert (1/4-20 UNC)
AES 12-2170F	12	192	209	559	126	311	322	61	Insert (M8)
AES 12-2870F	12	224	242	559	155	311	322	73	Insert (M8)

High Rate Max XT Series

Valve Regulated Lead Acid (VRLA)

- Design life: 8 years(<100 WPC)
  12 years(≥100 WPC)
- 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
- Long Life Alloy having very low calcium levels in the industry-decreasing grid growth, reducing gassing, and extending battery life
- 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-0 (≥100 MRX)
- 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
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	Watts/Cell @ 15min	Dimension(mm)				Weight/Kg	Terminal Type (Bolt)
			L	W	H	TH		
UPS 12-28 MRX	12	28	151	65	94	100	2.3	Faston Tab 250
UPS 12-34 MRX	12	34	151	65	94	100	2.5	Faston Tab 250
UPS 12-43 MRX	12	43	151	98	94	100	3.6	Faston Tab 250
UPS 12-72 MRX	12	72	181	76	163	166	6.0	Insert (M5)
UPS 12-100S MRX	12	100	166	175	122	125	8.9	Insert (M5)
UPS 12-100 MRX	12	100	197	132	166	173	10.7	Insert (#10-32 UNF)
UPS 12-150 MRX	12	150	197	132	166	173	12.4	Insert (#10-32 UNF)
UPS 12-220 MRX	12	220	242	142	200	205	19.0	Insert (#10-32 UNF)
UPS 12-320R MRX	12	320	273	173	201	204	27.0	Insert (1/4-20 UNC)
UPS 12-370R MRX	12	370	319	173	203	206	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 12-475 MRX	12	475	341	173	215	218	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 12-550 MRX	12	550	345	173	275	278	48.6	Insert (1/4-20 UNC)
UPS 12-630 MRX	12	630	345	173	275	278	52.9	Insert (1/4-20 UNC)
UPS 12-700 MRX	12	700	525	239	227	227	66.0	Insert (M8)
UPS 12-720 MRX	12	720	525	239	227	227	67.3	Insert (M8)
UPS 12-800 MRX	12	800	525	239	227	227	71.0	Insert (M8)
UPS 12-830 MRX	12	830	525	239	227	227	72.0	Insert (M8)

MRXF Series

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 Ohmic Ring®
- Innovative front terminal design increasing 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 of over 99%
- Flame-arresting, one-way pressure-relief vent for safety and long life
- Complies with UL 1778,924,1989 and 94 V-0. BS6290-4, IEC60896
- Multicell design for ease of installation and maintenance
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	Watts/Cell @ 15min	Dimension(mm)				Weight/Kg	Terminal Type (Bolt)
			L	W	H	TH*		
UPS 12-410 MRXF	12	410	511	109	231	231	37.1	Insert (M6)
UPS 12-615 MRXF	12	615	559	125	278	279	55.2	Insert (M8)
UPS 12-700 MRXF	12	700	559	125	322	322	64.9	Insert (M8)
UPS 12-830 MRXF	12	830	559	154	322	322	77.3	Insert (M8)
UPS 12-1000 MRXF	12	1000	559	154	322	322	85.2	Insert (M8)

MPS Series

Valve Regulated Lead Acid (VRLA)

- Design life: 5 years(≤26Ah)
  10 years(>26Ah)
- For UPS, Telecom, Utility Applications

Features

- Robust plate for extended life
- Flame-arresting one-way pressure-relief vent for safety and long life
- Absorbent Glass Mat(AGM)technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance
- Multicell design for cost effective installation and maintenance
- Not restricted for air transport and complies with IATA/ICAO Special Provision A67
- UL-recognIzed component
- Not restricted for surface transport and classified as non-hazardous material as related to DOT-CFR title 49 parts 171-189
- Not restricted for watertransport and classified as non-hazardous material per IMDG amendment 27
- Computer designed lead, low calcium alloy grid for minimal gassing and ease of recycling
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	Capacity/Ah (C20,1.75V@25℃)	Dimensions mm(inch)				Weight/Kg	Terminal Type (Bolt)
			L	W	H	TH		
MPS 12-7	12	7	151	65	94	100	2.15	Faston Tab 250
MPS 12-9	12	9	151	65	94	100	2.4	Faston Tab 250
MPS 12-12	12	12	151	98	95	101	3.3	Faston Tab 250
MPS 12-18	12	18	181	76	163	166	5.5	Insert (M5)
MPS 12-26	12	26	166	175	123	125	7.9	Insert (M5)
MPS 12-40N	12	43	197	165	176	176	13.55	Insert (#10-32 UNF)
MPS 12-54	12	54	242	142	201	225	17.0	L (M6)
MPS 12-65N	12	67	331	166	171	174	21.3	Insert (1/4-20 UNC)
MPS 12-76R	12	76	273	174	201	224	23.3	L (M6)
MPS 12-100R	12	100	319	173	203	230	30.1	L (M6)
MPS 12-114	12	114	341	173	213	241	32.5	L (M6)
MPS 12-120	12	120	341	173	215	218	33.7	Insert (1/4-20 UNC)
MPS 12-150	12	150	345	173	275	278	44.7	Insert (1/4-20 UNC)
MPS 12-200	12	200	525	239	227	227	65.8	Insert (M8)
MPS 12-240	12	240	525	239	227	227	67.0	Insert (M8)

LBTY- 2V Series

Valve Regulated Lead Acid (VRLA)

- Design life:15 years
- For Telecom, UPS, Utility Applications

Features

- High quality design insurance
- Pb-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)
- Flame retardant container materials, complied with materials UL 94 V-0
- UL-recognized component
- 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
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	Capacity/Ah (C10,1.80V@25 ℃)	Dimensions(mm)				Weight/ Kg	Terminal Type (Bolt)
			L	W	H	TH		
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	286	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 2-1200N LBT	2	1200	471	171	330	345	73.5	Insert (M10)
C&D 2-1500N LBT	2	1500	336	288	330	345	90.0	Insert (M10)
C&D 2-2000LBT	2	2000	476	337	330	345	117.0	Insert (M10)
C&D 2-2500N LBT	2	2500	476	337	330	345	148.0	Insert (M10)
C&D 2-3000LBT	2	3000	696	340	330	345	185.0	Insert (M10)

(* TH: Total Height including cover)

GEL Series

Valve Regulated Lead Acid (VRLA)- GEL Type

- Design life: 18 years (2V) for floating application
  15 years (12V) for floating application
- For UPS, Telecom, Utility, Renewable Energy Applications

Features

- Gel electrolyte technology for better wide temperature range performance, prevention from thermal runaway, insure reliability and safety
- Proprietary Pb-Ca Alloy – decreasing grid growth, reducing gassing, and extending battery life
- Flame arresting one-way pressure vents for safety and improved life
- Gas recombination efficiency of up to 99% for freedom from electrolyte maintenance
- Good deep cycle performance
- Lower self-discharge rate (Less than 3% per month)
- 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 IMDG Amendment 27
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	Capacity/Ah (C20, 1.75EPV, 25°C)	Capacity/Ah (C10, 1.80EPV, 20°C)	Dimensions(mm)				Weight/Kg	Terminal Type (Bolt)
				L	W	H	TH		
C&D 12-40G	12	40	35	198	166	169	169	12.4	M6
C&D 12-50G	12	50	48	229	138	211	216	16.5	M6
C&D 12-65G	12	65	57	350	167	182	182	19.5	M6
C&D 12-75G	12	75	66	260	169	211	216	22.5	M6
C&D 12-90G	12	90	83	306	169	211	216	28.5	M8
C&D 12-100G	12	100	88	328	172	215	220	29.0	M8
C&D 12-120G	12	120	106	407	177	225	225	33.5	M8
C&D 12-150G	12	150	132	483	170	241	241	44.0	M8
C&D 12-180G	12	180	158	532	207	214	219	51.0	M8
C&D 12-200G	12	200	176	522	240	219	224	58.0	M8
C&D 12-230G	12	230	202	521	269	204	209	67.0	M8
C&D 2-200G	2	216	200	170	150	330	342	16.0	M8
C&D 2-300G	2	324	300	170	150	330	342	19.0	M8
C&D 2-400G	2	432	400	196	171	330	342	25.5	M8
C&D 2-500G	2	540	500	241	171	330	342	29.5	M8
C&D 2-600G	2	648	600	285	171	330	342	38.5	M8
C&D 2-800G	2	864	800	383	171	330	342	51.0	M8
C&D 2-1000G	2	1080	1000	471	171	330	342	59.5	M8
C&D 2-1200G	2	1296	1200	355	337	330	342	80	M8
C&D 2-1500G	2	1620	1500	476	337	330	342	106	M8
C&D 2-2000G	2	2160	2000	696	340	330	342	118	M8
C&D 2-2500G	2	2700	2500	696	340	330	342	159	M8
C&D 2-3000G	2	3240	3000	696	340	330	342	177	M8

HG Series

Valve Regulated Lead Acid (VRLA)- GEL Type

- Design life: 18 years (2V) for floating application
  15 years (12V) for floating application
- For UPS, Telecom, Utility, Renewable Energy Applications

Features

- Gel electrolyte technology for better wide temperature range performance, prevention from thermal runaway, insure reliability and safety
- Proprietary Pb-Ca Alloy – decreasing grid growth, reducing gassing, and extending battery life
- Flame arresting one-way pressure vents for safety and improved life
- Gas recombination efficiency of up to 99% for freedom from electrolyte maintenance
- Good deep cycle performance
- Lower self-discharge rate (Less than 3% per month)
- 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 IMDG Amendment 27
- Manufactured in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Designed to be compliant with international standard IEC 60896-21/22

Specifications

Model	V	Capacity/Ah (C20, 1.75EPV, 25°C)	Capacity/Ah (C10, 1.80EPV, 20°C)	Dimensions(mm)				Weight/Kg	Terminal Type (Bolt)
				L	W	H	TH		
C&D 12-55HG	12	57.8	55	350	167	179	179	19.5	M6
C&D 12-75HG	12	75.6	72	306	169	210	215	26.5	M6
C&D 12-90HG	12	94.6	90	330	171	215	220	29.5	M6
C&D 12-100HG	12	110	105	410	176	224	224	35.5	M8
C&D 12-120HG	12	126	120	482	170	240	240	44.5	M8
C&D 12-135HG	12	138	135	482	170	240	240	46.0	M8
C&D 12-160HG	12	171	160	530	207	215	220	59.0	M8
C&D 12-180HG	12	188	180	522	238	218	223	63.0	M8
C&D 12-200HG	12	210	200	520	269	203	208	70.0	M8
C&D 12-220HG	12	226	220	520	269	220	225	72.5	M8
C&D 2-200HG	2	214	200	173	111	330	342	14.8	M8
C&D 2-300HG	2	322	300	171	151	330	342	19.5	M8
C&D 2-400HG	2	428	400	210	176	330	342	27.0	M8
C&D 2-500HG	2	536	500	242	175	330	342	31.0	M8
C&D 2-600HG	2	642	600	302	175	330	342	40.0	M8
C&D 2-800HG	2	856	800	410	175	330	342	53.5	M8
C&D 2-1000HG	2	1070	1000	475	175	330	342	63.5	M8
C&D 2-1500HG	2	1606	1500	400	350	345	367	105.0	M8
C&D 2-2000HG	2	2140	2000	476	337	330	342	120.0	M8

BBG/DCS Series

Valve Regulated Lead Acid (VRLA)

- For Broadband Standby Power Applications (BBG)
- For Deep Cycle Mobility Applications (DCS)
- For Renewable Energy, Unstable Network Applications

Specifications

Model	Volt/Unit	C20, 1.75V @25°C	Dimensions(mm)				Weight/ Kg	Terminal Type
			L / D	W	H	TH		
BBG-180RT	12	86	318	173	203	206	29	Insert(1/4-20UNC)
BBG-195RT	12	100	341	173	213	216	30	Insert(1/4-20UNC)
BBG-220RT	12	110	341	173	215	218	33	Insert(1/4-20UNC)
DCS-33IT/HIT	12	33	197/207	132	166	173	12	Insert(1/4-20UNC)
DCS-50IT	12	50	229	139	200	205	18	Insert(#10-32UNF)
DCS-75IT/HIT	12	75	261/273	169	200	204	25	Insert(#10-32UNF)
DCS-88HIT	12	88	318	173	202	205	30	Insert(1/4-20UNC)
DCS-100HIT	12	100	341	173	213	216	31	Insert(1/4-20UNC)

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

- C&D post seal design with secondary epoxy seal to increase integrity
- Two-fold vent system, Reduces 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, Reduces 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, 1 00 percent of cells tested to 95 percent capacity at the 8-hour rate to 1.75 Vpc
- Comply to SR4228
- UL94 V-0 FR

Specifications

Model	Volt / Unit	C8, 1.75V, 25°C (Ah)	15min to 1.67V(Watt/Cell)	Dimensions (mm)			Weight (Kg)	Terminal Type
				L / D	W	H		
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.

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

THE m-s-endur II
20+ Years
The True Long-Life Battery

Features

- Modular design for ease of installation and stacking flexibility
- Space saving design for greater amount of power in a small footprint
- Exceeds 1997 UBC Zone 4 seismic requirements
- Certified as NEBS Level 3 and compliant to Earthquake Risk Zone4 in various system configurations
- Exceeds 2000/2003 IBC requirements for 125% g level
- Tin-plated copper alloy connectors reduce 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 reduce positive grid corrosion and growth - increases battery life
- 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, 25°C (Ah)	C10,1.80V, 20°C(Ah)	Dimensions (mm)			Terminal Type
				L / D	W	H	
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

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 battery
- Two-point, top-suspended positive plates permit free growth without pressure on jar and cover
- 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

* The design life listed in the table indicates the service life of each of our product series under ideal service conditions. Changes in service conditions do not affect the design life, but the actual service life will be shorter than the design life.

Featherweight Lithium Ion Battery

LI TEL 48-170 C

- Maximum performance for float and high cycling service
- High Energy Density, limited space, lighter weight
- Safe operation, long life, maintenance free

Features

- The LI TEL48-170C is capable of cycling and float service. The battery is designed for paralleling of multiple battery packs for increased reserve time
- High cycle life and deep cycle: For infrastructure powered from high cycle life and deep cycle cost primary energy sources (e.g. diesel generators powered in off - grid or unreliable grid locations and anywhere energy storage systems are used to reduce CO2 emissions)
- Maximum performance float operation: For applications where the grid is reliable. The LI TEL series battery float performance provides the ideal long life, modular standby power solution
- Environmentally friendly: Lead - free, recyclable, very high efficiency/reduced energy consumption
- Lightweight, high energy density standby power: The LI TEL series batteries, due to their excellent properties, are the optimal energy storage solution where limited space and/or weight are important factors. The LI TEL series are approximately four to ten times lighter and less than half the volume than traditional battery technologies
- Battery management: The LI TEL series battery includes an embedded battery management system designed specifically for standby power that provides State of Health and State of Life indication. The management system operation under normal conditions is transparent; it takes action to disconnect or shut - down the battery pack to prevent potentially abusive conditions. The battery pack is designed to be used simply as a battery for easy installation and operation

Specifications

Model	V	Capacity/Ah (C10,1.80V@25°C)	Capacity/Ah (C20,1.75V@25°C)	Dimensions(mm)				Weight(Kg)	Terminal(+,-)
				W	TW	H	D		
LI TEL 48-170 C	48	173	170	538	564	172	564	22.6	two post, M8 threaded studs

C&D Battery Health Management System

• Online monitoring and capacity management of valve regulated lead acid (VRLA) battery remains to be a tricky issue for power supply system management.
• To predict failure according to discharge condition or cell voltage readings has been proven to be an energy-consuming and costly job, and may even spell hazard to reliability of the whole system.

Confidence Comes from Proven Technology

(1) With more than 110 years' experience in manufacturing of batteries, C&D Group is well familiar with every battery feature in entire life cycle.
(2) C&D battery health management system applies to all lead acid battery products.
(3) The management functions tailored for C&D batteries can make reasonable and accurate diagnosis of state of health (SOH) of batteries.

Thoughtful Service Saves on Costs

(4) Solution packages are available to allow for complete installation in one go.
(5) One-stop after-sales service makes battery monitoring an easy job.
(6) More economical initial investment, more assured use experience and optimal total cost of ownership.

Functions and Features

★ Real-time monitoring battery, including total voltage and string current of batteries, voltage, internal resistance and temperature of each cell, and ambient temperature etc. Fully covered all the monitoring scope.
★ Loop type data collection path management: The end-to-end design and independent work mode improves serviceability of the system.
★ Accurate internal resistance reading due to core battery design model-based automatic adapted internal resistance testing technology (MI-ART): Combining C&D's more than 100 years' experience in battery production and technology, the system achieves more accurate calculation and display of battery SOH.

CD MI-ART

★ Recording of entire battery charging and discharge process: Through real-time data analysis, it gives and records audible and visual warnings of overranging parameters.
★ Independent networking feature spells stable and reliable system firmware integration.
★ Communication port allows for access to dynamic environmental monitoring system. Supporting MODBUS protocol.
★ Complied with CE certification.
★ Compliant with requirements of ANSI/TIA-942 and GB50174-2008.

Module

BHM Unit
1U Size, can be installed in standard cabinet/rack
Reading detected battery voltage, internal resistance and temperature data.
Working indicator light, with automatic alarm function
Access to the UP computer, or with optional port

Data Detected Module

Current Detected Module

Monitoring Unit
5.6/8/12-Inch TFT LCD
Connected and communicated with BHM Unit by network interface

Power
YOU CAN DEPEND ON

For more than 100 years, C&D Technologies has fulfilled the vision of its founders by designing and manufacturing the finest integrated standby power products. We continue to meet the technological challenges of the future. C&D creates powerful solutions for a world in motion. We can create solutions for you!

C&D Technologies' provides power solutions and services for the telecommunications, uninterruptible power supply (UPS), energy & infrastructure as well as emerging markets. C&D Technologies engineers, manufactures, sells and services fully integrated standby backup batteries and power solutions to insure that power to the customer's critical application is uninterrupted. C&D's unique ability to offer complete systems, designed and produced to high technical standards, sets us apart from our competition.

Today C&D operates Worldwide with production facilities in USA, Mexico and China. We continue to be the leader in high quality, long lasting batteries for all applications. Our continued success is due to our Products, our People and our Sales Partners. However we could not have stayed in business for over 100 years without the support of our Loyal Customers.

LONG DURATION SERIES

MCT II

XT SERIES

HIGH RATE MAX

Liberty®

SAGEON

NITEGRITY

m·s·endur® II

Our Market

C&D Main Market

Date Center

Telecom BTS

Power Plants

Infrastructure

Emergency & Security

Transportation

Nuclear Plant

Renewable Energy

Cable TV

Oil & Gas

Trojan Main Market

Golf

EV

Floor Machine

Aerial Work Platform

Truck

Marine

TECHNOLOGIES

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