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Depend On*

C&D TECHNOLOGIES
Power Solutions

Renewable Energy Application

The best power solution of C&D battery



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Liberty HC Series

Valve Regulated Lead Acid Battery

- Designed for Cycling Applications



Features

- 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, to increase cycling capability, maximize battery life.
- Proprietary positive and negative active material formulations to enhance cycle life of the battery in operating temperature above 25 °C.
- Thermally welded case-to-cover bond to eliminate leakage.
- Robust polypropylene container and cover, enhances product quality and improves strength of materials for safe operation with flammability rating UL94 V-0, LOI>28%
- 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 documented long-lasting service life.

Specifications

Model	V	Capacity/Ah (C8, 1.75V@25°C)	Dimensions(mm)			Weight/Kg	Number of Terminals
			L	W	H		
HC-300	2	300	114	166	378	18.0	2
HC-400	2	400	146	166	378	23.0	2
HC-600	2	600	210	166	378	33.5	4

GEL Series

Valve Regulated Lead Acid (VRLA)- GEL Type

- For 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 – minimizing 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

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 12-20 GEL	12	25	23	166	175	125	125	8.2	Insert (M5)
C&D 12-40 GEL	12	53	49	229	138	211	216	18	Insert (M6)
C&D 12-50 GEL	12	58	54	260	169	211	216	20.5	Insert (M6)
C&D 12-65 GEL	12	73	67	260	169	211	216	23.5	Insert (M6)
C&D 12-90 GEL	12	97	90	328	172	215	222	30	Insert (M8)
C&D 12-100 GEL	12	119	106	407	177	225	225	35	Insert (M8)
C&D 12-120 GEL	12	133	119	341	173	281	288	41.5	Insert (M8)
C&D 12-150 GEL	12	178	160	530	209	214	219	53	Insert (M8)
C&D 12-180 GEL	12	198	177	522	239	218	223	60	Insert (M8)
C&D 12-200 GEL	12	227	204	521	269	203	208	67	Insert (M8)
C&D 12-230 GEL	12	257	231	520	268	220	225	74	Insert (M8)
C&D 2-100 GEL	2	147	133	172	102	181	206	8	Insert (M8)
C&D 2-150 GEL	2	196	178	173	110	330	366	14	Insert (M8)
C&D 2-200 GEL	2	245	222	171	150	330	366	17.5	Insert (M8)
C&D 2-300 GEL	2	343	311	211	176	330	366	24.5	Insert (M8)
C&D 2-400 GEL	2	441	400	242	172	330	366	29	Insert (M8)
C&D 2-500 GEL	2	589	533	302	175	330	366	37	Insert (M8)
C&D 2-600 GEL	2	736	666	410	175	330	367	46	Insert (M8)
C&D 2-800 GEL	2	981	888	475	174	330	366	62	Insert (M8)
C&D 2-1000 GEL	2	1177	1066	475	174	330	366	76	Insert (M8)
C&D 2-1200 GEL	2	1471	1332	401	350	341	383	96	Insert (M8)
C&D 2-1500 GEL	2	1962	1776	490	350	343	383	126.5	Insert (M8)
C&D 2-2000 GEL	2	2452	2221	710	352	340	383	171	Insert (M8)
C&D 2-2500 GEL	2	2943	2665	710	352	340	383	193	Insert (M8)

OPzV Series



Tubular GEL

- For Standby & Cyclic Applications

Features

- Tubular Positive Plate – special grid construction, pressure cast from antimony free alloy, with highly porous gauntlets that retain the active material
- Pasted negative plate – service lives consistent with the positive plates
- Separators – extremely high porosity and low internal resistance
- Electrolyte – Gel structure
- Containers and lids – made of plastic (ABS) material. Also available in ABS flame retardant material as an option (according to IEC 707 FV0)
- Cells are normally installed in an upright position on steel stands
- One way relief valve – opens at low pressure and is fitted with a flame arrestor device

Specifications

Model	V	Capacity/Ah (C10, 1.80V@20°C)	Dimensions(mm)				Weight/ Kg	Terminal Type (Bolt)
			L	W	H	TH		
C&D 2-200T GEL	2	200	103	206	354	380	19	Insert(M10)
C&D 2-250T GEL	2	250	124	206	354	380	23	Insert(M10)
C&D 2-300T GEL	2	300	145	206	354	380	28	Insert(M10)
C&D 2-350T GEL	2	350	124	206	471	496	31	Insert(M10)
C&D 2-420T GEL	2	420	145	206	471	496	36	Insert(M10)
C&D 2-490T GEL	2	490	166	206	471	496	41	Insert(M10)
C&D 2-600T GEL	2	600	145	206	643	668	49	Insert(M10)
C&D 2-800T GEL	2	800	210	191	664	669	65	Insert(M10)
C&D 2-1000T GEL	2	1000	210	233	646	671	80	Insert(M10)
C&D 2-1200T GEL	2	1200	210	275	665	670	93	Insert(M10)
C&D 2-1500T GEL	2	1500	210	275	796	821	115	Insert(M10)
C&D 2-2000T GEL	2	2000	214	399	771	796	155	Insert(M10)
C&D 2-2500T GEL	2	2500	214	487	769	794	200	Insert(M10)
C&D 2-3000T GEL	2	3000	214	576	771	796	235	Insert(M10)

Lithium Ion

Featherweight Lithium Ion Battery

- Designed for Telecom back-up power high cycling applications



Features

- Optimized for Unstable Networks, float & cycling
- 23" Relay Rack Tray Mountable (10 per 7 ft rack)
- Reverse polarity and short circuit protected
- Battery Management System with Battery String Monitoring
- LED Alarm Indication
- Storage 'Sleep State' to maximize shelf life
- Designed for parallel and series operation
- Maintenance free

Long Life Cycle Service

- Proven Lithium Ion chemistry
- Maximum cycle life for deep cycle and hybrid applications
- High charge acceptance for rapid recharge

High Level of Safety

- Multiple layers of safety features including a Battery Management System designed to operate and protect the battery autonomously

Specifications

Model	V	Nominal Capacity (Ah / kWh)	Dimensions(mm)			Weight/Kg	Terminal Type
			L	W	H		
LITEL 48-112C	48	112	538	541	174	68	1/4"-20 or M6
LITEL 48-160C	48	160Ah/7.63KWh	541	538	174	68	1/4"-20 or M6

DCS Series

True Front Access

Valve Regulated Lead Acid Battery

- Designed for Cycling Applications



Features

- High density pasted plates for high cycle life
- Low Calcium Lead/Tin alloy plates for efficient gas recombination for long life in both cycling and float applications
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance
- Multicell design for economy of installation and maintenance
- 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.
- Can be used in any orientation. Upright, side, or end mounting recommended.
- Thermally welded case-to-cover bond to eliminate leakage.
- 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
- UL-recognized component
- Battery hardware and removable carrying handles included
- Excellent choice for both stand alone PV systems and hybrid systems.

Specifications

Model	V	Capacity/Ah (C10, 1.80EPV, 25°C)	Capacity/Ah (C20, 1.85EPV, 25°C)	Dimensions(mm)				Weight/Kg	Terminal Type (Bolt)
				L	W	H	TH		
C&D 12-100 DCS	12	91	94	341	173	213	216	33.5	Insert(1/4-20UNC)
DCS12-105FGC	12	89	98	410	104	267	289	33.0	Insert(M8)
DCS12-115FGC	12	91	103	511	108	215	236	34.4	Insert(M6)
DCS12-170FGC	12	140	160	559	123	269	285	50.9	Insert(M8)
DCS12-210FGC	12	172	200	559	123	310	328	60.6	Insert(M8)

VR Solar® Series



Valve Regulated Lead Acid Battery

• Applications include all renewable energy areas: solar, wind, tides, etc.

Features

- Key Design Features
 - Inserted copper alloy terminals
- Improves energy output
 - Carrying handles on most models
- Unique Design for Space Efficiency(TFA)
 - Multi-tier racks or cabinets
- Maximum Performance
 - Excellent out of box capacity
 - Long life in float service
 - Industry leading cycle count
- Key Design Features(TFA)
 - True front access terminals
- Reduces maintenance
- Improves energy output
- Easy voltage or ohmic measurements
 - Carrying handles
- Ease of handling
- Allows for portability
 - Non-spillable design
- Ease of transport by land, water, or air

Specifications

Model	V	Capacity/Ah (C20, 1.75V@25°C)	Dimensions(mm)				Weight/Kg
			L	W	H	TH	
VRS12-33IT/HIT	12	33	197/207	132	166	173	12
VRS12-50IT	12	50	229	139	200	205	19
VRS12-75HIT	12	75	273	169	200	204	25
VRS12-88HIT	12	88	318	173	202	205	30
VRS12-100HIT	12	100	341	173	213	216	31
VRS 12-155F	12	153.8	559	123	273	283	53
VRS 12-175F	12	178	559	123	310	320	60

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
 - 50% DOD 2250
 - 80% DOD 1000
 - 100% DOD 650

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-2/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		
SHC12-40	12	36	43	229	139	200	205	16	Inserted(#10-32 UNF)
SHC12-65	12	59	67	273	174	201	204	24	Inserted(1/4-20UNC)
SHC12-100	12	91	100	341	173	213	216	34	Inserted(1/4-20UNC)
SHC12-110	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)
SHC12-150FT	12	150	154	559	126	285	285	50	Inserted (M8)
SHC 12-200FT	12	172	192	559	126	328	328	60	Inserted (M8)
SHC 2-300	2	300	334	166	114	360	378	18	Inserted (M6)
SHC 2-400	2	400	446	166	146	360	378	23	Inserted (M6)
SHC 2-600	2	600	668	166	210	360	378	33	Inserted (M6)

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