

# LCUN LEAD-CALCIUM

## FOR SWITCHGEAR AND CONTROL APPLICATIONS

Capacities from 1304 to 2318 Ampere-hours

C&D Technologies' flooded batteries are engineered to provide superior performance and reliability over the life of the product. These batteries are designed using proprietary techniques and quality components and materials for reduced maintenance and extended battery service life.



### APPLICATIONS

- Electric Power Generation Facilities
- Nuclear Power Plants
- Emergency Systems
- Manufacturing Facilities
  - Assembly Lines
  - Process Controls
- Petrochemical processing plants
- Pipelines

### FEATURES & BENEFITS

- Electrical testing to 100% capacity of every battery string prior to shipping assures performance of every battery string upon delivery.
- Proprietary vacuum-assisted, bottom-pour, positive-grid casting assures void-free grid quality resulting in long service life.
- Waterbath charging results in consistently formed plates for reliable performance out of the box (no cycling required in the field)-100% capacity at the time of shipment.
- Suspended positive plates permit free growth without pressure on jar and cover.
- 20 year environmental and seismic qualification.
- Cross drilled terminal posts for flexible installation and ease of maintenance.
- Rubber separators for lower float current.
- Non-copper inserted posts reduce short circuit current.

### SPECIFICATIONS

Plate Dimensions	
Height & Width	15.00 in (381 mm) H x 12.00 in (305 mm) W
Positive Thickness	0.312 in (7.9 mm)
Negative Thickness	0.210 in (5.3 mm)
Outside Negative Thickness	0.130 in (3.3 mm)
Electrolyte height above plates	2.88 in (73 mm)
Sediment space	0.63 in (16 mm)
Electrolyte @ 77°F (25°C)	Sulfuric acid, 1.215 specific gravity nominal
Electrolyte withdrawal tubes	Two per cell optional
Recommended Float voltages	2.21 - 2.22 volts per cell (Average string voltage)
Container	Thermoplastic, transparent (SAN) – Standard (Optional transparent, flame retardant Polycarbonate)
Cover	High-impact, flame-retardant thermoplastic, with tongue-and-groove seal. Flammability ratings: UL 94-V0; ASTM D-635 self-extinguishing.
Separator	Microporous with fiberglass retaining mat
Vent Systems	Flame-arrester with dust cover
Terminals	Four, 1-in square posts with cross-drilled holes

### CELL DIMENSIONS & WEIGHTS

LCUN-Models	Unit dimensions in. (mm)			Unit wt. lbs (kgs)		Electrolyte per cell lbs (kgs)
	L	W	H	Net filled	Dom. packed	
LCUN-19	8.88 (226)	14.12 (359)	22.62 (575)	254 (115.2)	274 (124.3)	70 (31.8)
LCUN-21				270 (122.5)	290 (131.5)	67 (30.4)
LCUN-23	10.62 (270)	14.12 (359)	22.62 (575)	310 (140.6)	330 (149.7)	84 (38.1)
LCUN-25				325 (147.4)	345 (156.5)	82 (37.2)
LCUN-27	13.14 (334)	14.12 (359)	22.62 (575)	350 (158.8)	373 (169.2)	98 (44.5)
LCUN-29				367 (166.5)	390 (176.9)	96 (43.5)
LCUN-31				384 (174.2)	407 (184.6)	94 (42.6)
LCUN-33				416 (188.7)	440 (199.6)	92 (41.7)

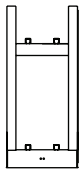
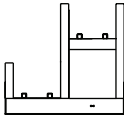
For information on battery racks, please refer to brochure 12-560.

## RATINGS TABLE: AMPERES

FV/Cell	Models	Ampere* hours	Rates @77° F and 1.215 specific gravity (includes connector voltage drop)									
			Amperes									
			1 min	15 min	30 min	1 hr	2 hr	3 hr	4 hr	5 hr	8 hr	12 hr
1.75	LCUN-19	1304	1101	974	830	622	432	333	274	233	163	117
	LCUN-21	1449	1224	1082	922	691	480	370	304	259	181	130
	LCUN-23	1594	1346	1191	1014	760	527	407	334	285	199	143
	LCUN-25	1739	1468	1299	1107	829	575	444	365	311	217	156
	LCUN-27	1884	1591	1407	1199	898	623	481	395	337	236	169
	LCUN-29	2029	1713	1515	1291	967	671	518	426	363	254	182
	LCUN-31	2174	1835	1624	1383	1036	719	555	456	389	272	195
1.78	LCUN-19	1271	959	859	759	598	416	323	266	227	159	114
	LCUN-21	1412	1065	955	843	664	462	359	295	252	177	127
	LCUN-23	1554	1172	1050	928	731	508	394	325	277	194	140
	LCUN-25	1694	1278	1146	1012	797	554	430	354	302	212	153
	LCUN-27	1836	1385	1241	1096	864	601	466	384	327	230	165
	LCUN-29	1977	1491	1337	1181	930	647	502	413	353	247	178
	LCUN-31	2118	1598	1432	1265	997	693	538	443	378	265	191
1.81	LCUN-19	1230	815	750	681	559	398	310	256	218	154	111
	LCUN-21	1367	906	833	757	621	442	344	284	243	171	124
	LCUN-23	1504	996	917	833	683	486	379	312	267	188	136
	LCUN-25	1641	1087	1000	908	745	530	413	341	291	205	148
	LCUN-27	1778	1177	1083	984	807	574	447	369	316	222	161
	LCUN-29	1914	1268	1166	1060	869	619	482	398	340	239	173
	LCUN-31	2050	1358	1250	1135	931	663	516	426	364	256	185
	LCUN-33	2187	1449	1333	1211	993	707	551	454	388	273	198

\* Data based on discharge directly from a 72 hour float condition per IEEE-450 procedures

Additional ratings and application information is available in the Battery Selection Application Program at [www.cdstandbypower.net](http://www.cdstandbypower.net).

		<p>Two Tier RDB0901-(L)P Width: 24.06 in (611 mm) Height: 65.81 in (1691 mm)</p> 					<p>Two Step RDB0903-(L)P Width: 44.75 in (1137 mm) Height: 52.31 in (1329 mm)</p> 				
Battery	Number of Cells	L		W		Qty Racks Required	L		W		Qty Racks Required
		ft	mm	lbs	kgs		ft	mm	lbs	kgs	
LCUN-19	60	12	3658	450	205	2	12	3658	475	216	2
LCUN-21											
LCUN-23	60	14	4267	470	214	2	14	4267	495	225	2
LCUN-25											
LCUN-27	60	18	5486	580	264	2	18	5486	600	273	2
LCUN-29											
LCUN-31											
LCUN-33											

### Notes:

1. Rack Lengths for other batteries can be calculated by the formula: Number of units per tier or step x (L+0.5 inches)- 0.5 inches = total rack length, where 'L' is the length of battery jar or cell in inches.
2. See Section 12-560 for information about seismic-rated racks.
3. Height is the height to the top of the battery installed on this rack. See Section 12-560 and rack drawings for further information.
4. Additional rack application information is available in the Battery Selection Application Program at [www.cdstandbypower.net](http://www.cdstandbypower.net).
5. Racks qualified to IEEE-693 and IBC are available. Contact your C&D representative for details.
6. 3-tier racks available.