

LCM-HP Lead-Calcium Battery



FOR TELECOMMUNICATIONS, SWITCHGEAR AND CONTROL APPLICATIONS

Capacities from 842 to 2404 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 life.

FLOODED

FEATURES & BENEFITS

RELIABILITY

- Long life positive grids cast with proprietary techniques and quality materials
- Waterbath charging results in consistently formed plates for reliable performance out of the box (no cycling required in the field)
- Proprietary expander enables stable and uniform float voltages, reducing the need to equalize and resulting in proven 20-year service life
- Suspended positive plate permits free growth without pressure on jar and cover
- Electrical testing to 100% capacity of every battery cell prior to shipping assures performance of every battery string upon delivery

EASY MAINTENANCE

- All posts and connectors reside above the jar cover
- Minimized number of posts per jar for reduced maintenance
- Optional terminal and connector cover available (P/N RD00907-"L")

SAFE OPERATION

- Flame-retardant covers enhance battery plant safety with self-extinguishing properties LOI >32%, UL 94V-0
- Low-evaporation, flame-arrestor vent to extend watering intervals and prevent external sparks from reacting with the hydrogen inside the cell
- NEBS approved battery systems (cells and racks) that meet telecom companies' specifications
- Non-copper inserted posts reduce short circuit current

COST SAVINGS

- Transparent container allows visual inspection of plates
- Soft rubber post seal minimizes stress on post reducing maintenance requirements
- Computer controlled heli-arc welded post seal results in consistent and reliable seal for less maintenance and longer product life
- No requirement for periodic specific gravity readings



Every battery
100%
capacity tested

MADE IN THE
USA

APPLICATIONS

TELECOMMUNICATIONS

- Telephone Central Offices
- Mobile Telephone Switching Office
- Cable Head End Sites
- Fiber Optic Regenerator Sites
- Microwave Repeater Sites
- Telephone & Internet Network Nodes

SWITCHGEAR & CONTROL

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

SPECIFICATIONS

CELL PER UNIT	2V single cell units
PLATES	HEIGHT
	15.6 in (397 mm)
	WIDTH
	12.6 in (321 mm)
FLOAT VOLTAGE	2.20–2.25 volts per cell
ELECTROLYTE AT 77°F (25°C)	Sulfuric acid, 1.215 specific gravity nominal
SEDIMENT SPACE	>1.00 in
CONTAINER	PVC, Polycarbonate, or Styrene acrylonitrile (SAN)
COVER	PVC (UL94 V-0, LOI>32) - Standard
TERMINALS	1-inch Square, Two-hole Posts, LCM-13HP -> LCM-19HP have two posts per cell. LCM-21HP -> LCM-37HP have four posts per cell
VENT SYSTEM	Flame-arrestor with dust cover
WITHDRAWAL TUBE (OPTIONAL)	Two per cell
OPERATING TEMPERATURE	Recommended operating temperature range for standby battery operation is: 60°F (15°C) minimum to 90°F (32°C) maximum; 77°F (25°C) yearly average
STORAGE TEMPERATURE	Recommended storage temperature range is: 60°F (15°C) minimum to 85°F (29°C) maximum; 77°F (25°C) yearly average

Please refer to Installation and Operating Guide for complete charging and environmental requirements.

SPECIFICATIONS

MODEL NAME	PLATES PER CELL	NOMINAL AH CAPACITY	DIMENSIONS INCHES (mm)			ELECTROLYTE PER CELL GAL (L) ¹	WEIGHT LBS. (kg)	
			LENGTH	WIDTH	HEIGHT ²		NET FILLED	DOM. PACKED
LCM-13HP	13	842	7.62 (194)	14.12 (359)	22.7 (577)	6.2 (23.5)	175 (79)	190 (86)
LCM-15HP	15	973	7.62 (194)	14.12 (359)	22.7 (577)	6.0 (22.7)	188 (85)	203 (92)
LCM-17HP	17	1101	7.62 (194)	14.12 (359)	22.7 (577)	5.8 (22.0)	201 (91)	216 (98)
LCM-19HP	19	1226	7.62 (194)	14.12 (359)	22.7 (577)	5.6 (21.2)	211 (96)	226 (103)
LCM-21HP	21	1336	8.88 (226)	14.12 (359)	22.7 (577)	6.6 (25.0)	242 (110)	262 (119)
LCM-23HP	23	1470	8.88 (226)	14.12 (359)	22.7 (577)	6.4 (24.2)	255 (116)	275 (125)
LCM-25HP	25	1683	10.62 (270)	14.12 (359)	22.7 (577)	7.7 (29.1)	289 (131)	309 (140)
LCM-27HP	27	1789	10.62 (270)	14.12 (359)	22.7 (577)	7.5 (28.4)	302 (137)	322 (146)
LCM-29HP	29	1907	10.62 (270)	14.12 (359)	22.7 (577)	7.3 (27.6)	311 (141)	331 (150)
LCM-31HP	31	2004	13.14 (334)	14.09 (358)	22.7 (577)	9.6 (36.3)	357 (162)	380 (172)
LCM-33HP	33	2138	13.14 (334)	14.09 (358)	22.7 (577)	9.4 (35.6)	368 (167)	391 (177)
LCM-35HP	35	2271	13.14 (334)	14.09 (358)	22.7 (577)	9.2 (34.8)	381 (173)	404 (183)
LCM-37HP	37	2404	13.14 (334)	14.09 (358)	22.7 (577)	9.0 (34.1)	391 (177)	414 (188)

NOTE: 1. Electrolyte weights approximately 10 lbs per gallon (1.210 kg per liter). 2. Height is to top of the post.

RATINGS TABLE: AMPERES 1.215 SPECIFIC GRAVITY*

MODEL NAME	FV/CELL	1 MIN	5 MIN	10 MIN	15 MIN	20 MIN	30 MIN	45 MIN	1 HRS	2 HRS	3 HRS	4 HRS	5 HRS	6 HRS	8 HRS	10 HRS	12 HRS	16 HRS	20 HRS	24 HRS
NOMINAL RATES @ 77°F (25°C) 1.215 SPECIFIC GRAVITY																				
LCM-13HP	1.88	298.6	295.2	291.0	286.8	282.5	274.1	261.5	249.1	203.7	168.1	142.0	122.7	108.2	87.7	73.9	64.1	50.7	42.0	35.9
	1.86	358.7	353.9	347.9	341.8	335.8	323.6	305.5	287.6	224.8	180.4	150.3	129.2	113.6	92.0	77.6	67.2	53.3	44.2	37.8
	1.84	414.6	406.5	396.6	386.7	377.1	358.4	332.0	308.0	234.8	188.6	157.8	135.9	119.5	96.6	81.2	70.1	55.2	45.5	38.8
	1.81	509.1	496.9	481.8	467.0	452.4	424.5	386.1	352.2	256.8	202.1	167.3	143.1	125.2	100.5	84.1	72.4	56.7	46.7	39.7
	1.78	599.1	583.0	563.0	543.1	523.6	485.8	434.0	389.4	272.8	211.5	173.8	148.1	129.4	103.6	86.6	74.5	58.3	47.9	40.7
	1.75	687.4	667.4	642.2	616.8	591.5	541.9	474.1	417.3	281.5	216.0	176.9	150.6	131.4	105.2	87.9	75.6	59.2	48.7	41.4
LCM-15HP	1.88	345.1	341.2	336.3	331.4	326.5	316.7	302.1	287.8	235.4	194.3	164.1	141.8	125.0	101.3	85.4	74.0	58.6	48.6	41.5
	1.86	414.5	408.9	402.0	395.0	388.0	374.0	353.0	332.4	259.8	208.4	173.7	149.3	131.3	106.3	89.7	77.7	61.6	51.1	43.7
	1.84	479.1	469.8	458.3	446.9	435.7	414.1	383.7	355.9	271.3	217.9	182.3	157.0	138.1	111.6	93.8	81.0	63.7	52.6	44.8
	1.81	588.3	574.2	556.7	539.6	522.8	490.6	446.1	406.9	296.8	233.5	193.3	165.3	144.7	116.1	97.2	83.7	65.5	53.9	45.8
	1.78	692.3	673.7	650.6	627.6	605.0	561.3	501.5	450.0	315.3	244.3	200.8	171.2	149.5	119.7	100.0	86.0	67.3	55.4	47.0
	1.75	794.3	771.2	742.1	712.7	683.5	626.2	547.8	482.2	325.3	249.6	204.4	174.0	151.9	121.6	101.6	87.4	68.4	56.3	47.8
LCM-17HP	1.88	390.6	386.2	380.6	375.1	369.5	358.5	342.0	325.8	266.4	219.9	185.7	160.5	141.5	114.7	96.7	83.8	66.3	55.0	47.0
	1.86	469.1	462.9	455.0	447.1	439.2	423.3	399.5	376.2	294.1	235.9	196.6	169.0	148.6	120.3	101.5	88.0	69.7	57.8	49.5
	1.84	542.3	531.7	518.7	505.8	493.2	468.7	434.3	402.8	307.1	246.7	206.4	177.7	156.3	126.3	106.2	91.7	72.1	59.5	50.7
	1.81	665.8	649.9	630.2	610.8	591.8	555.3	505.0	460.6	335.9	264.3	218.8	187.1	163.8	131.4	110.0	94.7	74.2	61.0	51.9
	1.78	783.6	762.6	736.4	710.4	684.8	635.4	567.6	509.3	356.8	276.6	227.3	193.7	169.2	135.5	113.2	97.4	76.2	62.7	53.3
	1.75	899.0	872.9	839.9	806.7	773.6	708.8	620.1	545.8	368.2	282.5	231.4	196.9	171.9	137.6	115.0	98.9	77.5	63.7	54.2
LCM-19HP	1.88	435.1	430.2	424.0	417.9	411.7	399.4	381.0	362.9	296.8	245.0	206.9	178.8	157.6	127.8	107.8	93.3	73.9	61.2	52.4
	1.86	522.6	515.7	506.9	498.1	489.3	471.6	445.1	419.1	327.6	262.8	219.1	188.3	165.5	134.0	113.1	98.0	77.6	64.4	55.1
	1.84	604.2	592.4	577.9	563.5	549.5	522.2	483.8	448.8	342.1	274.8	229.9	198.0	174.1	140.7	118.3	102.1	80.4	66.3	56.5
	1.81	741.8	724.0	702.0	680.4	659.3	618.6	562.6	513.2	374.2	294.5	243.7	208.5	182.4	146.4	122.6	105.5	82.6	68.0	57.8
	1.78	873.0	849.6	820.4	791.4	762.9	707.8	632.4	567.4	397.5	308.1	253.3	215.8	188.5	150.9	126.1	108.5	84.9	69.8	59.3
	1.75	1001.6	972.5	935.8	898.8	861.8	789.7	690.8	608.1	410.2	314.7	257.8	219.4	191.5	153.3	128.1	110.2	86.3	71.0	60.3
LCM-21HP	1.88	474.0	468.6	461.9	455.2	448.5	435.0	415.0	395.3	323.3	266.8	225.4	194.8	171.7	139.2	117.4	101.7	80.5	66.7	57.0
	1.86	569.3	561.7	552.2	542.6	533.0	513.7	484.8	456.5	356.9	286.3	238.6	205.1	180.3	146.0	123.2	106.7	84.6	70.2	60.0
	1.84	658.1	645.3	629.5	613.9	598.5	568.8	527.0	488.9	372.7	299.3	250.5	215.7	189.7	153.3	128.8	111.3	87.5	72.3	61.5
	1.81	808.1	788.7	764.8	741.2	718.2	673.9	612.8	559.0	407.7	320.8	265.5	227.1	198.7	159.5	133.5	114.9	90.0	74.1	63.0
	1.78	951.0	925.4	893.6	862.1	831.0	771.1	688.9	618.1	433.0	335.6	275.9	235.1	205.3	164.4	137.4	118.2	92.5	76.1	64.6
	1.75	1091.1	1059.4	1019.3	979.0	938.8	860.2	752.5	662.4	446.8	342.8	280.8	239.0	208.6	167.0	139.6	120.1	94.0	77.3	65.7
LCM-23HP	1.88	521.4	515.5	508.1	500.7	493.3	478.5	456.5	434.9	355.6	293.5	247.9	214.3	188.9	153.1	129.1	111.8	88.5	73.4	62.7
	1.86	626.3	617.9	607.4	596.8	586.3	565.0	533.3	502.2	392.6	314.9	262.5	225.6	198.4	160.6	135.5	117.4	93.0	77.2	66.0
	1.84	723.9	709.8	692.4	675.3	658.4	625.7	579.7	537.8	409.9	329.3	275.5	237.3	208.7	168.6	141.7	122.4	96.3	79.5	67.7
	1.81	888.9	867.6	841.2	815.3	790.0	741.3	674.1	614.9	448.4	352.9	292.0	249.8	218.6	175.5	146.8	126.4	99.0	81.5	69.2
	1.78	1046.1	1018.0	983.0	948.3	914.1	848.2	757.8	679.9	476.3	369.2	303.5	258.6	225.9	180.8	151.2	130.0	101.7	83.7	71.1
	1.75	1200.2	1165.3	1121.3	1076.9	1032.7	946.3	827.8	728.6	491.5	377.1	308.9	262.9	229.5	183.7	153.5	132.1	103.4	85.1	72.3
LCM-25HP	1.88	597.2	590.5	582.0	573.6	565.1	548.2	522.9	498.1	407.4	336.2	284.0	245.5	216.3	175.4	147.9	128.1	101.4	84.1	71.9
	1.86	717.3	707.8	695.7	683.7	671.5	647.2	610.9	575.2	449.7	360.7	300.7	258.4	227.2	184.0	155.2	134.5	106.5	88.4	75.7
	1.84	829.2	813.1	793.1	773.5	754.2	716.7	664.0	616.0	469.6	377.2	315.6	271.8	239.0	193.1	162.3	140.2	110.3	91.0	77.5
	1.81	1018.2	993.7	963.6	933.9	904.9	849.1	772.2	704.3	513.7	404.2	334.5	286.1	250.4	201.0	168.2	144.8	113.4	93.3	79.3
	1.78	1198.2	1166.1	1126.0	1086.3	1047.1	971.5	868.0	778.8	545.6	422.9	347.6	296.2	258.7	207.1	173.1	148.9	116.5	95.8	81.4
	1.75	1374.7	1334.8	1284.4	1233.6	1182.9	1083.9	948.2	834.6	563.0	432.0	353.9	301.2	262.8	210.4	175.9	151.3	118.5	97.4	82.8

*Products ship at 100% of the above published ratings. Additional ratings available on the C&D Technologies Battery Selection Application at www.cdpower.com.net.

RATINGS TABLE: AMPERES 1.215 SPECIFIC GRAVITY*

MODEL NAME	FV/CELL	1 MIN	5 MIN	10 MIN	15 MIN	20 MIN	30 MIN	45 MIN	1 HRS	2 HRS	3 HRS	4 HRS	5 HRS	6 HRS	8 HRS	10 HRS	12 HRS	16 HRS	20 HRS	24 HRS
NOMINAL RATES @ 77°F (25°C) 1.215 SPECIFIC GRAVITY																				
LCM-27HP	1.88	634.7	627.5	618.5	609.5	600.5	582.5	555.7	529.4	432.9	357.3	301.8	260.9	229.9	186.4	157.2	136.1	107.7	89.3	76.4
	1.86	762.3	752.1	739.4	726.5	713.6	687.8	649.2	611.3	477.8	383.3	319.5	274.6	241.5	195.5	164.9	142.9	113.2	94.0	80.4
	1.84	881.2	864.1	842.9	822.0	801.5	761.7	705.7	654.6	499.0	400.8	335.4	288.8	254.0	205.2	172.5	149.0	117.2	96.7	82.4
	1.81	1082.0	1056.1	1024.0	992.5	961.6	902.3	820.6	748.5	545.9	429.6	355.5	304.1	266.1	213.6	178.8	153.9	120.5	99.2	84.3
	1.78	1273.3	1239.2	1196.6	1154.4	1112.8	1032.5	922.4	827.6	579.8	449.4	369.4	314.8	274.9	220.1	184.0	158.2	123.9	101.9	86.5
	1.75	1460.9	1418.5	1364.9	1310.9	1257.1	1151.9	1007.6	886.9	598.3	459.1	376.0	320.0	279.3	223.6	186.9	160.8	125.9	103.6	88.0
LCM-29HP	1.88	676.9	669.2	659.6	650.0	640.4	621.2	592.7	564.5	461.7	381.1	321.8	278.2	245.2	198.8	167.6	145.2	114.9	95.3	81.5
	1.86	813.0	802.1	788.5	774.8	761.1	733.5	692.4	651.9	509.6	408.8	340.8	292.9	257.5	208.5	175.9	152.4	120.8	100.2	85.7
	1.84	939.8	921.5	898.9	876.6	854.7	812.3	752.6	698.1	532.2	427.5	357.7	308.0	270.9	218.9	184.0	158.9	125.0	103.2	87.9
	1.81	1153.9	1126.2	1092.1	1058.5	1025.5	962.3	875.1	798.2	582.1	458.1	379.1	324.3	283.8	227.8	190.6	164.1	128.6	105.8	89.9
	1.78	1358.0	1321.5	1276.1	1231.1	1186.7	1101.1	983.7	882.6	618.4	479.3	394.0	335.7	293.2	234.8	196.2	168.8	132.1	108.6	92.3
	1.75	1558.0	1512.8	1455.6	1398.1	1340.7	1228.4	1074.6	945.9	638.1	489.6	401.0	341.3	297.9	238.4	199.3	171.5	134.2	110.4	93.9
LCM-31HP	1.88	711.0	703.0	692.9	682.8	672.7	652.6	622.5	593.0	485.0	400.3	338.0	292.2	257.6	208.8	176.1	152.5	120.7	100.1	85.6
	1.86	854.0	842.6	828.3	813.9	799.4	770.5	727.3	684.8	535.3	429.4	357.9	307.7	270.5	219.0	184.7	160.1	126.8	105.3	90.1
	1.84	987.2	968.0	944.2	920.8	897.8	853.3	790.5	733.3	559.0	449.0	375.7	323.6	284.6	229.9	193.3	166.9	131.3	108.4	92.3
	1.81	1212.1	1183.0	1147.1	1111.8	1077.2	1010.8	919.2	838.5	611.5	481.2	398.2	340.6	298.1	239.3	200.2	172.4	135.0	111.1	94.4
	1.78	1426.4	1388.2	1340.5	1293.2	1246.6	1156.6	1033.3	927.1	649.6	503.5	413.8	352.7	308.0	246.6	206.1	177.3	138.7	114.1	96.9
	1.75	1636.6	1589.1	1529.0	1468.6	1408.2	1290.3	1128.8	993.6	670.2	514.3	421.3	358.5	312.9	250.5	209.4	180.1	141.0	116.0	98.6
LCM-33HP	1.88	758.4	749.8	739.1	728.3	717.6	696.1	664.0	632.5	517.3	427.0	360.6	311.7	274.7	222.7	187.8	162.7	128.7	106.7	91.3
	1.86	910.9	898.8	883.5	868.1	852.7	821.9	775.8	730.5	571.0	458.1	381.8	328.2	288.5	233.6	197.0	170.8	135.3	112.3	96.1
	1.84	1053.0	1032.5	1007.2	982.2	957.7	910.1	843.2	782.2	596.3	478.9	400.7	345.1	303.5	245.2	206.1	178.0	140.1	115.6	98.5
	1.81	1292.9	1261.9	1223.6	1185.9	1149.1	1078.2	980.5	894.4	652.3	513.3	424.8	363.3	318.0	255.2	213.6	183.9	144.0	118.5	100.7
	1.78	1521.5	1480.7	1429.8	1379.4	1329.7	1233.7	1102.2	988.9	692.9	537.0	441.4	376.2	328.5	263.0	219.9	189.1	148.0	121.7	103.4
	1.75	1745.7	1695.0	1630.9	1566.5	1502.1	1376.4	1204.0	1059.8	714.9	548.5	449.3	382.4	333.8	267.2	223.3	192.1	150.4	123.7	105.2
LCM-35HP	1.88	805.8	796.7	785.3	773.8	762.4	739.6	705.6	672.1	549.6	453.6	383.1	331.2	291.9	236.6	199.5	172.8	136.8	113.4	97.0
	1.86	967.9	954.9	938.7	922.4	906.0	873.3	824.2	776.1	606.7	486.7	405.7	348.7	306.6	248.2	209.4	181.5	143.8	119.3	102.1
	1.84	1118.8	1097.0	1070.1	1043.6	1017.5	967.0	895.9	831.1	633.5	508.9	425.8	366.7	322.5	260.6	219.0	189.1	148.8	122.8	104.6
	1.81	1373.7	1340.8	1300.1	1260.1	1220.9	1145.6	1041.8	950.3	693.0	545.4	451.3	386.0	337.8	271.2	226.9	195.3	153.0	125.9	107.0
	1.78	1616.6	1573.3	1519.2	1465.6	1412.8	1310.8	1171.1	1050.7	736.2	570.6	469.0	399.7	349.1	279.5	233.6	200.9	157.2	129.3	109.9
	1.75	1854.8	1801.0	1732.9	1664.4	1596.0	1462.4	1279.3	1126.1	759.6	582.8	477.4	406.3	354.6	283.9	237.3	204.1	159.8	131.5	111.7
LCM-37 HP	1.88	853.2	843.5	831.5	819.4	807.3	783.1	747.1	711.6	582.0	480.3	405.7	350.7	309.1	250.5	211.3	183.0	144.8	120.1	102.7
	1.86	1024.8	1011.1	993.9	976.7	959.3	924.6	872.7	821.8	642.4	515.3	429.5	369.2	324.6	262.8	221.7	192.1	152.2	126.3	108.1
	1.84	1184.6	1161.6	1133.1	1105.0	1077.4	1023.9	948.6	880.0	670.8	538.8	450.8	388.3	341.5	275.9	231.9	200.3	157.6	130.1	110.8
	1.81	1454.5	1419.6	1376.6	1334.2	1292.7	1213.0	1103.1	1006.2	733.8	577.4	477.9	408.7	357.7	287.1	240.3	206.8	162.0	133.3	113.3
	1.78	1711.7	1665.8	1608.6	1551.8	1495.9	1387.9	1240.0	1112.5	779.5	604.2	496.6	423.2	369.6	295.9	247.3	212.7	166.5	136.9	116.3
	1.75	1963.9	1906.9	1834.8	1762.3	1689.9	1548.4	1354.5	1192.3	804.3	617.1	505.5	430.2	375.5	300.5	251.2	216.1	169.2	139.2	118.3

*Products ship at 100% of the above published ratings. Additional ratings available on the C&D Technologies Battery Selection Application at www.cdpower.com.net.



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