

LC Range Lead Carbon Battery

NEXT GENERATION ENERGY STORAGE BATTERY



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Pb-C



EverExceed LC series lead-carbon batteries use the world's latest and most advanced lead-carbon technology by adding unique high capacitance and highly conductive carbon materials into the negative electrode. This combines the advantages of a lead acid batteries and super capacitors to provide not only high energy density, but also, fast charge, rapid discharge and superior deep cycle life performance. The best choice for solar and wind renewable energy storage systems and hybrid energy systems.

APPLICATION

- Solar energy storage system
- Wind energy storage system
- Smart power grids and micro-grids system
- Peak shifting of electrical power system
- Frequency regulation and load following service
- Distributed energy storage system
- Generator and battery hybrid energy system
- Telecommunications
- Power plant and substation
- Emergency lighting system
- UPS
- Data Center
- Navigation

SPECIFICATIONS

- Positive Plate: Lead-Calcium-Tin flat plate grid
- Negative Plate: Lead carbon flat plate
- Electrolyte: Diluted Sulfuric Acid
- Container & Cover:
Standard: Reinforced ABS (UL 94HB) container and cover.
Optional: Flame-retardant reinforced ABS container and cover compliant with U.L.94 V-0 with an Oxygen limiting Index of greater than 28%.
- Separators: Absorptive Glass Mat Separator
- Float Voltage: 2.25 VPC +/- 1% at 20°C /25°C
- Cycle service: 2.35 VPC +/- 1% at 20°C /25°C
- Safety One-Way Valve: 2-3PSI self-resealing
- Terminals: Silver plated Copper Insert M8 terminal

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EverExceed[®]
power your applications

FEATURES

- 20+ years design life;
- Unique super lead carbon technology, deep cycle battery design;
- Negative electrode with highly conductive carbon material, reduced sulfation of negative plate;
- Outstanding PSOC (partial state of charge) cycle performance;
- 5~8 times cycle life between 30 and 70 percent state-of-charge compared with normal VRLA, without fear of becoming sulfated;
- Superior deep cycle life by using EverExceed unique long-life technology and design, more than 2500 cycles @ 80% DOD @ 25°C ;
- Excellent recharge acceptance performance, recharge fast after deep discharge;
- Excellent quick charge performance, reduce charging time by 30%~50%;
- Optimized high-compression Absorbed Glass Mat materials significantly enhance performance and reliability, greater than 99% recombination efficiency;
- Wide operating temperature range: -40°C to +80°C;
- Horizontal installation position for less space, easy installation & maintenance;
- Low self-discharge rate <3%/month;
- Manufactured with 95% recycled materials and are fully recyclable at the end of service;
- Complies with IEC60896, IEC61427 standards;

No transport restrictions

- Surface transport. Classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189.
- Marine transport. Classified as non-hazardous material as per IMDG amendment 27.
- Air transport. Complies with IATA/ICAO, Special provision A67.



Standard and Compliance

- IEC 60896-21/22: 2004
- IEC 61427-1: 2013
- IEC 61427-2: 2015
- DIN 43539-T5
- GB/T 22473



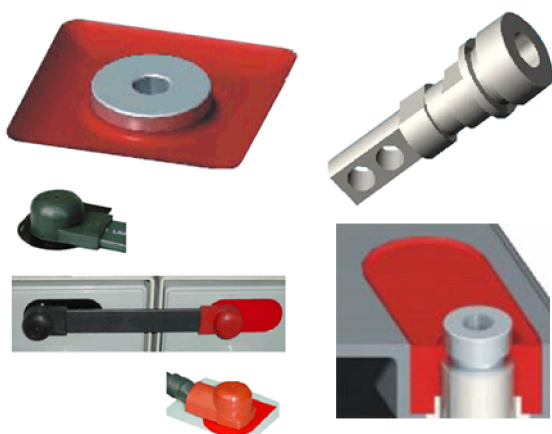
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Lead Carbon Series Electrical Specifications & Dimensions

Model No.	Nominal Voltage	Nominal Cap. @10hr to 1.80VPC									Weight		Terminal Type	No. of Terminal	Internal Resist mOhms	Max. Charge Current	Short Circuit Current
			Length		Width		Height		Total Height		kg	lbs					
			mm	inch	mm	inch	mm	inch	mm	inch							
LC 12-65	12	65	235	9.25	174	6.85	218	8.58	225	8.85	21.0	46.2	F-M6	2	6.0	13	936
LC 12-85	12	85	285	11.2	174	6.85	218	8.58	225	8.85	27.0	59.4	F-M6	2	4.6	17	1224
LC 12-100	12	100	331	13.0	174	6.85	218	8.58	225	8.85	31.0	68.2	F-M6	2	4.3	20	1440
LC 12-120	12	120	427	16.8	174	6.85	218	8.58	225	8.85	37.0	81.4	F-M6	2	4.2	24	1728
LC 12-150	12	150	481	18.9	174	6.85	225	8.85	232	9.13	45.0	99.0	F-M6	2	3.3	30	2160
LC 12-200	12	200	511	20.1	212	8.34	225	8.85	232	9.13	59.0	130	F-M8	2	2.9	40	2880
LC 12-250	12	250	517	20.3	276	10.9	225	8.85	332	9.13	77.0	169	F-M8	2	2.2	50	3600
LC 12-300	12	300	517	20.3	276	10.9	225	8.85	332	9.13	95.0	209	F-M8	2	2.0	60	4320

Terminal Type



Cell Dimensions for Rack Layout

Battery Float Voltage	
Ambient Temperature	Recommended Applied Float Voltage VPC
0~9°C	13.98-14.1
10~14°C	13.8-13.98
15~19°C	13.62-13.8
20~24°C	13.62-13.8
25~29°C	13.5-13.62
30~34°C	13.38-13.5
35~40°C	13.26-13.38

Constant Power Discharge Characteristics

Battery Model	End VPC	Discharge Amps Data @ 25°C															
		Discharge Time In Minutes						Discharge Time In Hours									
		5	10	15	20	30	45	1	2	3	4	5	6	8	10	20	100
LC-1265	1.67	176	129	108	92.2	68.8	49.6	39.9	23.8	17.5	13.8	11.6	10.1	8.14	6.84	3.60	0.80
	1.75	158	119	102	86.1	63.8	46.5	37.8	22.7	16.8	13.4	11.2	9.84	7.93	6.70	3.51	0.78
	1.80	145	112	97.2	82.0	60.8	44.5	36.5	22.0	16.5	13.1	11.0	9.66	7.79	6.62	3.47	0.77
LC-1285	1.67	230	169	141	121	89.9	64.8	52.2	31.2	22.8	18.1	15.2	13.2	10.6	8.94	4.70	1.04
	1.75	206	156	133	113	83.5	60.8	49.4	29.7	21.9	17.6	14.7	12.9	10.4	8.76	4.60	1.02
	1.80	190	147	127	107	79.5	58.2	47.7	28.8	21.5	17.2	14.4	12.6	10.2	8.65	4.54	1.01
LC-12100	1.67	270	199	166	142	106	76.3	61.4	36.7	26.9	21.3	17.9	15.5	12.5	10.5	5.53	1.23
	1.75	242	183	157	132	98.2	71.5	58.1	35.0	25.8	20.7	17.2	15.1	12.2	10.3	5.41	1.20
	1.80	224	172	149	126	93.5	68.5	56.1	33.9	25.3	20.2	16.9	14.9	12.0	10.2	5.34	1.19
LC-12120	1.67	324	239	199	170	127	91.5	73.6	44.0	32.3	25.5	21.4	18.6	15.0	12.6	6.60	1.47
	1.75	291	220	188	159	118	85.8	69.7	42.0	31.0	24.8	20.7	18.2	14.6	12.4	6.50	1.44
	1.80	268	207	179	151	112	82.2	67.3	40.6	30.4	24.2	20.3	17.8	14.4	12.2	6.40	1.42
LC-12150	1.67	404	297	249	212	158	114	91.8	54.8	40.2	31.8	26.7	23.2	18.7	15.7	8.30	1.84
	1.75	362	274	235	198	147	107	86.9	52.3	38.6	30.9	25.8	22.6	18.2	15.4	8.10	1.80
	1.80	335	258	223	189	140	102	83.9	50.6	37.9	30.2	25.3	22.2	17.9	15.2	8.00	1.78
LC-12200	1.67	541	398	332	284	212	153	123	73.3	53.7	42.6	35.7	31.1	25.0	21.0	11.1	2.47
	1.75	485	367	314	265	196	143	116	69.9	51.6	41.3	34.5	30.3	24.4	20.6	10.8	2.40
	1.80	447	345	299	252	187	137	112	67.7	50.6	40.4	33.9	29.7	24.0	20.3	10.7	2.38
LC-12250	1.67	676	497	416	355	265	191	153	91.7	67.2	53.2	44.7	38.8	31.3	26.3	13.8	3.07
	1.75	606	458	392	331	245	179	145	87.4	64.5	51.7	43.1	37.8	30.5	25.8	13.5	3.00
	1.80	559	431	374	315	234	171	140	84.7	63.3	50.5	42.3	37.1	29.9	25.4	13.4	2.98
LC-12300	1.67	810	596	498	425	317	229	184	110	80.6	63.8	53.5	46.6	37.5	31.5	16.6	3.69
	1.75	726	549	470	397	294	214	174	105	77.3	61.9	51.7	45.4	36.6	30.9	16.2	3.60
	1.80	670	517	448	378	280	205	168	102	75.9	60.5	50.8	44.5	35.9	30.5	16.0	3.56

Actual Battery Discharge Data may be +/-5% of figures shown above.

Constant Power Discharge Characteristics

Battery Model	End VPC	Discharge Watts Data @ 25°C															
		Discharge Time In Minutes						Discharge Time In Hours									
		5	10	15	20	30	45	1	2	3	4	5	6	8	10	20	100
LC-1265	1.67	309	232	201	172	129	93	75.4	45.9	33.8	27.0	22.5	19.8	15.9	13.4	7.04	1.56
	1.75	286	220	191	162	121	87.8	71.8	44.1	32.7	26.2	21.9	19.3	15.6	13.2	6.93	1.54
	1.80	267	209	182	155	116	84.5	69.5	42.9	32.1	25.7	21.6	19.0	15.4	13.1	6.88	1.53
LC-1285	1.67	404	304	263	225	169	122	98.6	60.0	44.2	35.3	29.4	25.9	20.8	17.5	9.19	2.04
	1.75	374	288	250	211	158	115	93.9	57.7	42.8	34.3	28.6	25.2	20.4	17.3	9.08	2.02
	1.80	349	273	238	202	152	110	90.9	56.1	42.0	33.6	28.2	24.8	20.1	17.1	8.98	2.00
LC-12100	1.67	475	357	309	264	199	143	116	70.6	52.0	41.5	34.6	30.5	24.5	20.6	10.8	2.40
	1.75	440	339	294	249	186	135	110	67.8	50.3	40.3	33.7	29.7	24.0	20.3	10.7	2.38
	1.80	410	322	280	238	179	130	107	66.0	49.4	39.5	33.2	29.2	23.7	20.2	10.6	2.36
LC-12120	1.67	571	429	371	317	239	172	139	84.7	62.4	49.8	41.5	36.6	29.4	24.7	13.0	2.89
	1.75	528	406	352	298	224	162	133	81.4	60.4	48.4	40.4	35.6	28.8	24.4	12.8	2.84
	1.80	492	386	336	285	214	156	128	79.2	59.3	47.4	39.9	35.1	28.4	24.2	12.7	2.82
LC-12150	1.67	713	536	464	396	298	215	174	106	78.0	62.3	51.9	45.7	36.7	30.9	16.2	3.60
	1.75	660	508	441	373	280	203	166	102	75.5	60.5	50.5	44.5	36.0	30.5	16.0	3.56
	1.80	615	482	420	357	268	195	160	99.0	74.1	59.3	49.8	43.8	35.5	30.2	15.9	3.53
LC-12200	1.67	1165	876	758	647	487	351	284	173	127	102	84.8	74.6	59.9	50.5	26.5	5.89
	1.75	1077	830	719	609	457	331	271	166	123	98.7	82.5	72.7	58.8	49.8	26.1	5.80
	1.80	1005	788	685	582	438	318	262	162	121	96.9	81.4	71.6	58.0	49.4	25.9	5.76
LC-12250	1.67	1189	893	773	660	497	358	290	177	130	104	86.5	76.2	61.2	51.5	27.0	6.00
	1.75	1099	847	734	622	466	338	276	170	126	101	84.2	74.2	60.0	50.8	26.7	5.93
	1.80	1025	804	699	594	447	325	267	165	123	98.8	83.1	73.1	59.2	50.4	26.5	5.89
LC-12300	1.67	1426	1072	928	792	597	429	348	212	156	125	104	91.4	73.4	61.8	32.4	7.20
	1.75	1319	1016	881	746	559	405	331	204	151	121	101	89.1	72.0	60.9	32.0	7.11
	1.80	1231	965	839	713	536	390	321	198	148	119	100	87.7	71.1	60.5	31.8	7.07

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