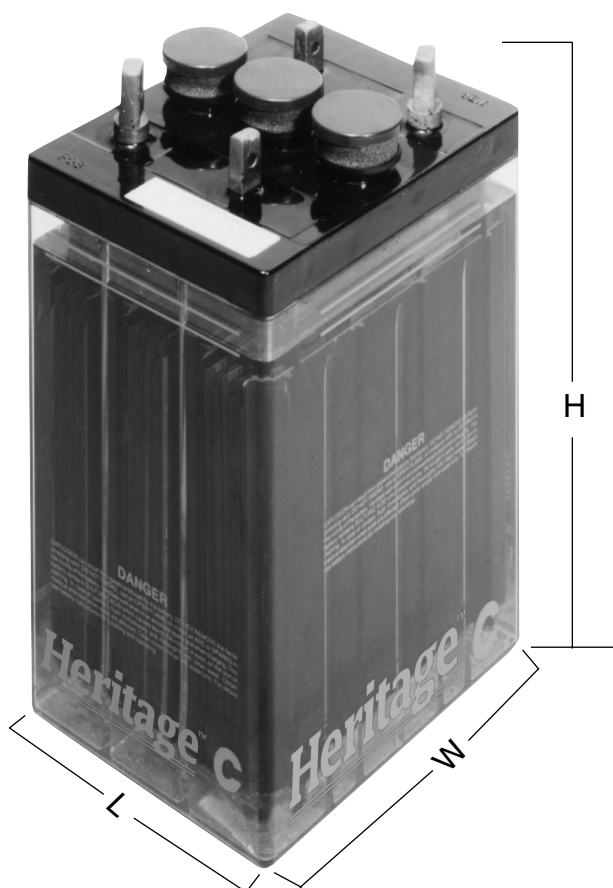


CALCIUM FLAT PLATE

B A T T E R I E S



Description

The EnerSys CX is an economical multicell flat plate battery. The CX Unit is optimized for high performance and provides excellent short duration discharge rates. Ideal applications include UPS and Utility Switchgear.

Features

- Calcium alloy grids for lowest water loss, resulting in lowest maintenance costs.
- Lead plated copper posts provide high 1-minute rates.

Durable

- 20 years life expectancy in floating applications where high ambient temperature is not a factor.

Performance

- The number of plates and the plate thickness have been optimized with respect to the available free electrolyte to ensure maximum performance during short duration discharges without sacrificing component integrity.

Installation services and preventative maintenance packages available.

CX

65-250Ah

0.204-0.797 kW/Cell

A P P L I C A T I O N S :

**UPS
SWITCHGEAR**

Specifications

PLATE THICKNESS:

POSITIVE: 0.20 in/5.1 mm

NEGATIVE: 0.14 in/3.6 mm

PLATE DIMENSIONS:

Height Width

POS: 7.75 in/197 mm 8.00 in/203 mm

NEG: 7.75 in/197 mm 8.00 in/203 mm

SEDIMENT SPACE: 1.00 in/25.4 mm

ELECTROLYTE OVER PLATES:

1.5 in/38.1 mm

CONTAINER:

Styrene Acrylonitrile Copolymer

COVER: Made from Flame Retardant ABS
(UL94-VO/L.O.I. 28%)

SEPARATORS: Microporous plastic

POST TYPE: Canted lead plated copper post
with intercell voltage taps &
double interunit connectors

POST SEAL TYPE: Compression rubber
bushing, epoxy sealed

PLATE SUSPENSION TYPE:

POSITIVE: Bottom supported

NEGATIVE: Bottom supported

VENT TYPE:

Flame Arrestor, Fused Alumina

FLOAT VOLTAGE SETTING:

ACCEPTABLE MIN/MAX: 2.17/2.26 VPC

RECOMMENDED: 2.25 VPC

SPECIFIC GRAVITY: 1.215

(1.250 available on request)

CONNECTOR BOLTS: Stainless Steel,
Standard English Measure, Hex-Head

INTERCELL CONNECTORS:

Lead-Plated Copper

Capacities-Dimensions-Weights

TYPE*	NOM. Ah CAP. ¹	OVERALL DIMENSIONS						WEIGHTS - VOLUMES						OUTLINE DRAWING SEE CATALOG SECTION		
		LENGTH (L) **		WIDTH (W)		HEIGHT (H)		UNPACKED		DOMESTIC PACKED		ELECTROLYTE ONLY 1.215 S.G.				
		in.	mm	in.	mm	in.	mm	lbs	kg	lbs	kg	lbs	kg		gal	ℓ
2CX-5	65	7.0	178	9.0	229	13.8	350	45	20.4	50	22.7	11	5.0	1.1	4.2	57.20
3CX-5	65	7.0	178	9.0	229	13.8	350	61	27.7	67	30.4	19	8.6	1.9	7.2	
2CX-7	98	7.0	178	9.0	229	13.8	350	53	24.0	58	26.3	10	4.5	1.0	3.8	
3CX-7	98	7.0	178	9.0	229	13.8	350	70	31.8	75	34.0	18	8.2	1.8	6.8	
2CX-9	130	12.2	310	9.0	229	13.8	350	75	34.0	84	38.1	23	10.4	2.3	8.7	
3CX-9	130	12.2	310	9.0	229	13.8	350	104	47.2	112	50.8	32	14.5	3.2	12.1	
2CX-11	162	12.2	310	9.0	229	13.8	350	80	36.3	88	39.9	22	10.0	2.2	8.3	
3CX-11	162	12.2	310	9.0	229	13.8	350	114	51.7	122	55.3	31	14.1	3.1	11.7	
2CX-13	195	12.2	310	9.0	229	13.8	350	87	39.5	95	43.1	22	10.0	2.2	8.3	
3CX-13	195	12.2	310	9.0	229	13.8	350	124	56.2	132	59.9	30	13.6	3.0	11.4	
2CX-15	227	12.2	310	9.0	229	13.8	350	95	43.1	102	46.3	21	9.5	2.1	7.9	
3CX-15	227	12.2	310	9.0	229	13.8	350	135	61.2	144	65.3	29	13.2	2.9	11.0	

* Suffix number indicates total plates per cell. Prefix number indicates total cells per jar.

** 0.50" must be added between cells for spacing purposes when calculating total battery length.

¹ Nominal Amp hour capacity at the 8 hour rate - 1.215 S.G.

AVERAGE CELL PERFORMANCE DATA* (Discharge Rates in Amperes**)

TYPE	NOM. Ah CAP. ¹	8 HR	7 HR	6 HR	5 HR	4 HR	3 HR	2 HR	1.5 HR	1 HR	30 MIN	15 MIN	5 MIN	1 MIN	TO 1.50 VPC ² 1 MIN	
		TO 1.75 END VOLTS PER CELL						SPECIFIC GRAVITY 1.215								
CX-5	65	8.1	9	11	13	15	19	27	33	44	68	96	128	146	263	
CX-7	98	12.2	14	16	19	23	29	40	49	66	102	143	192	219	394	
CX-9	130	16.3	18	21	25	30	39	53	66	87	136	191	256	292	525	
CX-11	162	20.3	23	27	31	38	48	66	82	109	170	239	320	365	657	
CX-13	195	24.4	28	32	38	46	58	80	99	131	203	287	384	437	787	
CX-15	227	28.4	32	37	44	53	68	93	115	153	237	335	448	510	918	
		TO 1.75 END VOLTS PER CELL						SPECIFIC GRAVITY 1.250								
CX-5B	71	8.9	10	12	14	17	21	29	36	48	75	105	141	160	288	
CX-7B	107	13.4	15	18	21	25	32	44	54	72	112	158	211	241	434	
CX-9B	143	17.9	20	23	28	33	43	59	72	96	149	210	282	321	578	
CX-11B	179	22.4	25	29	34	42	53	73	90	120	187	263	352	401	722	
CX-13B	214	26.8	30	35	41	50	64	88	109	144	224	316	423	481	866	
CX-15B	250	31.3	35	41	48	59	74	102	127	168	261	368	493	561	1010	
		TO 1.67 END VOLTS PER CELL						SPECIFIC GRAVITY 1.215								
CX-5	65	8.1	9	11	13	15	19	27	33	45	74	110	156	175		
CX-7	98	12.2	14	16	19	23	29	40	50	68	111	165	233	262		
CX-9	130	16.3	18	21	25	30	39	54	67	91	148	220	311	350		
CX-11	162	20.3	23	27	31	38	48	67	84	113	185	275	389	437		
CX-13	195	24.4	28	32	38	46	58	80	100	136	222	330	467	525		
CX-15	227	28.4	32	37	44	53	68	94	117	158	258	385	545	612		
		TO 1.67 END VOLTS PER CELL						SPECIFIC GRAVITY 1.250								
CX-5B	71	8.9	10	12	14	17	21	29	37	50	81	121	171	192		
CX-7B	107	13.4	15	18	21	25	32	44	55	75	122	182	257	289		
CX-9B	143	17.9	20	23	28	33	43	59	74	100	162	242	342	385		
CX-11B	179	22.4	25	29	34	42	53	74	92	124	203	303	428	481		
CX-13B	214	26.8	30	35	41	50	64	88	110	149	244	363	513	577		
CX-15B	250	31.3	35	41	48	59	75	103	129	174	284	424	599	673		

* Ampere values listed represent 100% of the initial capacity.

** 1.215 S.G. electrolyte at 77°F (25°C), includes intercell connector drop.

¹ Nominal Amp hour capacity at the 8 hour rate.

² One minute rates to 1.50 VP and 1.75 VPC should only be used for short circuit calculations and not as performance data.

All data subject to change without notice.

AVERAGE CELL PERFORMANCE DATA* (Discharge Rates in KW**)

Specific Gravity 1.250

TYPE	3 HR	2 HR	1.5 HR	1 HR	45 MIN	30 MIN	25 MIN	20 MIN	19 MIN	18 MIN	17 MIN	16 MIN	15 MIN	14 MIN	13 MIN	12 MIN	11 MIN	10 MIN	5 MIN
TO 1.75 END VOLTS PER CELL																			
CX-5B	0.045	0.058	0.069	0.095	0.112	0.144	0.160	0.177	0.181	0.185	0.190	0.194	0.200	0.205	0.212	0.219	0.227	0.236	0.272
CX-7B	0.068	0.087	0.104	0.144	0.168	0.216	0.240	0.266	0.272	0.278	0.285	0.292	0.300	0.308	0.318	0.329	0.341	0.353	0.408
CX-9B	0.091	0.116	0.139	0.191	0.224	0.288	0.320	0.355	0.363	0.371	0.380	0.389	0.400	0.411	0.425	0.439	0.455	0.472	0.544
CX-11B	0.114	0.145	0.174	0.240	0.280	0.360	0.400	0.444	0.453	0.464	0.475	0.486	0.500	0.514	0.531	0.549	0.569	0.590	0.680
CX-13B	0.136	0.174	0.209	0.288	0.336	0.432	0.480	0.533	0.544	0.557	0.570	0.584	0.600	0.617	0.637	0.659	0.683	0.707	0.816
CX-15B	0.159	0.204	0.244	0.336	0.392	0.503	0.560	0.622	0.635	0.649	0.665	0.681	0.700	0.720	0.743	0.769	0.797	0.826	0.952
TO 1.70 END VOLTS PER CELL																			
CX-5B	0.045	0.058	0.069	0.100	0.118	0.154	0.170	0.190	0.195	0.199	0.204	0.210	0.216	0.222	0.230	0.238	0.246	0.256	0.292
CX-7B	0.068	0.087	0.104	0.150	0.177	0.231	0.255	0.286	0.292	0.299	0.307	0.315	0.323	0.333	0.345	0.357	0.370	0.383	0.438
CX-9B	0.091	0.116	0.139	0.200	0.236	0.308	0.340	0.381	0.390	0.399	0.409	0.420	0.432	0.445	0.460	0.476	0.493	0.512	0.584
CX-11B	0.114	0.145	0.174	0.250	0.296	0.385	0.425	0.476	0.488	0.499	0.512	0.525	0.540	0.556	0.575	0.595	0.617	0.640	0.730
CX-13B	0.136	0.174	0.209	0.300	0.355	0.462	0.510	0.572	0.585	0.599	0.614	0.630	0.647	0.667	0.690	0.714	0.740	0.767	0.876
CX-15B	0.159	0.204	0.244	0.350	0.414	0.539	0.595	0.667	0.683	0.699	0.716	0.735	0.756	0.779	0.805	0.833	0.864	0.896	1.022
TO 1.67 END VOLTS PER CELL																			
CX-5B	0.045	0.058	0.069	0.104	0.124	0.158	0.178	0.200	0.205	0.210	0.216	0.221	0.228	0.234	0.242	0.250	0.259	0.268	0.304
CX-7B	0.068	0.087	0.104	0.156	0.186	0.236	0.267	0.301	0.308	0.316	0.324	0.332	0.342	0.352	0.363	0.375	0.388	0.402	0.456
CX-9B	0.091	0.116	0.139	0.208	0.248	0.316	0.356	0.401	0.411	0.421	0.432	0.443	0.456	0.469	0.484	0.501	0.518	0.536	0.608
CX-11B	0.114	0.145	0.174	0.260	0.310	0.395	0.445	0.502	0.514	0.526	0.540	0.554	0.570	0.587	0.605	0.626	0.647	0.670	0.760
CX-13B	0.136	0.174	0.209	0.312	0.372	0.473	0.534	0.602	0.617	0.632	0.648	0.665	0.684	0.704	0.727	0.751	0.777	0.804	0.912
CX-15B	0.159	0.204	0.244	0.363	0.433	0.553	0.623	0.702	0.719	0.737	0.756	0.776	0.797	0.821	0.848	0.876	0.906	0.937	1.064
TO 1.65 END VOLTS PER CELL																			
CX-5B	0.045	0.058	0.069	0.107	0.128	0.163	0.184	0.207	0.212	0.217	0.223	0.229	0.236	0.243	0.251	0.259	0.268	0.278	0.322
CX-7B	0.068	0.087	0.104	0.160	0.191	0.246	0.276	0.310	0.318	0.326	0.335	0.344	0.353	0.364	0.376	0.389	0.402	0.417	0.483
CX-9B	0.091	0.116	0.139	0.214	0.256	0.327	0.368	0.414	0.424	0.435	0.446	0.458	0.472	0.486	0.502	0.519	0.537	0.556	0.644
CX-11B	0.114	0.145	0.174	0.267	0.320	0.410	0.460	0.518	0.531	0.544	0.558	0.573	0.590	0.607	0.627	0.648	0.671	0.695	0.805
CX-13B	0.136	0.174	0.209	0.321	0.383	0.492	0.552	0.621	0.637	0.653	0.670	0.688	0.707	0.729	0.752	0.778	0.805	0.834	0.966
CX-15B	0.159	0.204	0.244	0.375	0.488	0.574	0.644	0.725	0.743	0.762	0.782	0.803	0.826	0.851	0.878	0.908	0.939	0.972	1.127
TO 1.60 END VOLTS PER CELL																			
CX-5B	0.045	0.058	0.069	0.112	0.136	0.176	0.196	0.221	0.227	0.234	0.241	0.248	0.256	0.264	0.272	0.281	0.291	0.302	0.363
CX-7B	0.068	0.087	0.104	0.168	0.204	0.264	0.294	0.332	0.341	0.351	0.361	0.372	0.383	0.396	0.409	0.422	0.437	0.453	0.546
CX-9B	0.091	0.116	0.139	0.224	0.272	0.352	0.392	0.443	0.455	0.468	0.482	0.496	0.512	0.528	0.545	0.563	0.583	0.604	0.727
CX-11B	0.114	0.145	0.174	0.280	0.340	0.440	0.490	0.554	0.569	0.585	0.602	0.620	0.640	0.660	0.681	0.704	0.729	0.755	0.910
CX-13B	0.136	0.174	0.209	0.336	0.408	0.528	0.588	0.665	0.683	0.702	0.723	0.744	0.767	0.792	0.818	0.845	0.874	0.906	1.092
CX-15B	0.159	0.204	0.244	0.392	0.476	0.616	0.686	0.776	0.797	0.819	0.843	0.869	0.896	0.924	0.954	0.986	1.020	1.057	1.274

KW values listed represent 100% of the initial capacity.

**At 77°F (25°C) includes intercell connector drop.

All data subject to change without notice.

Accessories

†CELL NUMBER SET:

1-12
1-24
1-60
1-120
1-240
1-300

†PORTABLE HYDROMETER

†HYDROMETER HOLDER-WALL MOUNT

†THERMOMETER

(Portable or Flame Arrestor Mounting)

§CELL LIFTING DEVICE:

FLAME ARRESTOR

(Supplied with Each Cell)

† Included with 12 or more cells

§ Extra Cost

CATALOG NUMBER

802360
802361
802362
802363
802364
802365
81332
27717
88330

62260
81099

For complete information about these and all other accessories, see Pro Series Catalog.

NOTE: All inter-cell, inter-tier, inter-step, end-to-end inter-rack and back-to-back inter-rack connectors are included with every battery. Across-aisle inter-rack connectors, terminal lugs and terminal plates are not included.

All data subject to change without notice.

AVERAGE CELL PERFORMANCE DATA* (Discharge Rates in KW**)

Specific Gravity 1.215

TYPE	3 HR	2 HR	1.5 HR	1 HR	45 MIN	30 MIN	25 MIN	20 MIN	19 MIN	18 MIN	17 MIN	16 MIN	15 MIN	14 MIN	13 MIN	12 MIN	11 MIN	10 MIN	5 MIN
TO 1.75 END VOLTS PER CELL																			
CX-5	0.041	0.052	0.062	0.086	0.100	0.129	0.144	0.159	0.163	0.167	0.171	0.175	0.180	0.185	0.191	0.197	0.204	0.212	0.244
CX-7	0.061	0.078	0.094	0.129	0.151	0.194	0.216	0.239	0.245	0.250	0.256	0.262	0.270	0.278	0.286	0.296	0.307	0.318	0.367
CX-9	0.082	0.105	0.125	0.172	0.201	0.259	0.288	0.319	0.326	0.334	0.342	0.350	0.360	0.370	0.382	0.395	0.409	0.424	0.489
CX-11	0.102	0.131	0.157	0.215	0.252	0.324	0.360	0.399	0.408	0.417	0.427	0.438	0.450	0.463	0.478	0.494	0.512	0.530	0.612
CX-13	0.123	0.157	0.188	0.258	0.302	0.389	0.432	0.479	0.490	0.501	0.513	0.525	0.540	0.555	0.573	0.593	0.614	0.636	0.734
CX-15	0.143	0.184	0.220	0.302	0.353	0.453	0.503	0.559	0.571	0.584	0.598	0.613	0.630	0.648	0.669	0.692	0.717	0.742	0.857
TO 1.70 END VOLTS PER CELL																			
CX-5	0.041	0.052	0.062	0.090	0.107	0.138	0.153	0.172	0.175	0.179	0.184	0.190	0.195	0.201	0.206	0.214	0.222	0.230	0.262
CX-7	0.061	0.078	0.094	0.135	0.161	0.207	0.229	0.259	0.263	0.269	0.276	0.285	0.292	0.302	0.310	0.321	0.333	0.345	0.394
CX-9	0.082	0.105	0.125	0.180	0.215	0.277	0.306	0.345	0.351	0.359	0.368	0.380	0.391	0.402	0.413	0.428	0.444	0.460	0.525
CX-11	0.102	0.131	0.157	0.225	0.269	0.346	0.382	0.432	0.439	0.449	0.460	0.475	0.488	0.503	0.517	0.535	0.555	0.575	0.656
CX-13	0.123	0.157	0.188	0.270	0.322	0.415	0.459	0.518	0.527	0.539	0.553	0.570	0.586	0.604	0.620	0.642	0.666	0.690	0.788
CX-15	0.143	0.184	0.220	0.315	0.376	0.485	0.536	0.601	0.615	0.629	0.645	0.666	0.684	0.704	0.724	0.749	0.777	0.805	0.919
TO 1.67 END VOLTS PER CELL																			
CX-5	0.041	0.052	0.062	0.093	0.111	0.142	0.160	0.180	0.185	0.189	0.194	0.199	0.204	0.211	0.218	0.225	0.233	0.241	0.273
CX-7	0.061	0.078	0.094	0.140	0.167	0.213	0.240	0.271	0.277	0.284	0.291	0.299	0.307	0.316	0.327	0.337	0.349	0.361	0.410
CX-9	0.082	0.105	0.125	0.186	0.223	0.284	0.320	0.361	0.370	0.379	0.388	0.398	0.401	0.422	0.436	0.450	0.466	0.482	0.546
CX-11	0.102	0.131	0.157	0.233	0.279	0.355	0.400	0.451	0.462	0.474	0.486	0.498	0.512	0.528	0.545	0.563	0.582	0.602	0.683
CX-13	0.123	0.157	0.188	0.280	0.335	0.426	0.480	0.541	0.555	0.569	0.583	0.598	0.614	0.633	0.654	0.676	0.699	0.723	0.820
CX-15	0.143	0.184	0.220	0.327	0.391	0.498	0.561	0.632	0.647	0.663	0.680	0.698	0.717	0.739	0.763	0.788	0.816	0.844	0.957
TO 1.65 END VOLTS PER CELL																			
CX-5	0.041	0.052	0.062	0.096	0.115	0.147	0.165	0.186	0.191	0.195	0.201	0.206	0.212	0.218	0.225	0.233	0.241	0.250	0.289
CX-7	0.061	0.078	0.094	0.144	0.172	0.221	0.248	0.279	0.286	0.293	0.301	0.309	0.318	0.327	0.338	0.350	0.362	0.375	0.434
CX-9	0.082	0.150	0.125	0.192	0.230	0.295	0.331	0.372	0.382	0.391	0.402	0.412	0.424	0.436	0.451	0.467	0.483	0.500	0.579
CX-11	0.102	0.131	0.157	0.240	0.287	0.369	0.414	0.466	0.477	0.489	0.502	0.515	0.530	0.546	0.564	0.583	0.604	0.625	0.724
CX-13	0.123	0.157	0.188	0.288	0.345	0.443	0.497	0.559	0.573	0.587	0.603	0.618	0.636	0.655	0.677	0.700	0.725	0.750	0.869
CX-15	0.143	0.184	0.220	0.337	0.403	0.517	0.580	0.652	0.669	0.685	0.703	0.722	0.742	0.765	0.790	0.817	0.846	0.876	1.014
TO 1.60 END VOLTS PER CELL																			
CX-5	0.041	0.052	0.062	0.100	0.122	0.158	0.176	0.199	0.204	0.210	0.216	0.223	0.230	0.237	0.245	0.253	0.262	0.271	0.327
CX-7	0.061	0.078	0.094	0.151	0.183	0.237	0.264	0.299	0.307	0.316	0.325	0.335	0.345	0.356	0.368	0.380	0.393	0.407	0.491
CX-9	0.082	0.105	0.125	0.201	0.244	0.316	0.352	0.398	0.409	0.421	0.433	0.446	0.460	0.475	0.490	0.507	0.524	0.543	0.655
CX-11	0.102	0.131	0.157	0.252	0.305	0.395	0.440	0.498	0.512	0.526	0.542	0.558	0.575	0.594	0.613	0.634	0.655	0.679	0.819
CX-13	0.123	0.157	0.188	0.302	0.366	0.474	0.528	0.598	0.614	0.632	0.650	0.670	0.690	0.712	0.736	0.760	0.787	0.815	0.983
CX-15	0.143	0.184	0.220	0.353	0.428	0.554	0.617	0.698	0.717	0.737	0.758	0.781	0.806	0.831	0.858	0.887	0.918	0.951	1.147

*KW values listed represent 100% of the initial capacity.

**At 77°F (25°C) includes intercell connector drop.

All data subject to change without notice.



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