



PowerSafe[®]
GC-M
 100% Initial Capacity

**BATTERY
 PERFORMANCE
 SPECIFICATIONS**



PowerSafe® GC-M

The PowerSafe® GC-M battery is a calcium flat plate battery specifically designed for power plant applications. Its copper inserted posts are designed to efficiently handle high load currents while the thick positive plates sustain long power demands. The time proven Slide-Lock™ post seal provides flexibility between the battery post and cover which compensates for natural plate growth as the battery ages. This virtually eliminates post seal leaks assuring optimum performance over the battery's useful service life.

Features

- Nominal Capacity - 875 Ah to 3550 Ah at the 8 hour rate
- High Rate Performance - Copper inserted posts assure efficient high rate performance with minimum connector re-torquing requirements
- Life - The battery has an expected design life of 20 years at 77°F under float service
- Loads - The battery is designed to handle complex load profiles requiring high load currents as well as long duration discharges
- Construction - Cover made from Flame Retardant PVC (UL94-V0/L.O.I.32%) as standard
- Application - The battery is ideally suited for power plant, power switching and standby power applications
- 100% initial capacity

Specifications

- Plate thickness:
Positive: 0.30 in/7.6 mm
Negative: 0.20 in/5.1 mm
- Plate suspension type:
Positive: Bridge hung
Negative: Bottom supported
- Sediment space: 0.87 in/22 mm
- Electrolyte over plates: 3.9 in/100 mm
- Specific Gravity: 1.215 (1.250 available upon request)
- Container:
Styrene acrylonitrile copolymer
GC-25M to 45M available in optional Flame Retardant PVC (UL94-VO/L.O.I. 32%)
- Cover: Made from flame retardant PVC (UL94-VO/L.O.I. 32%)
- Separators: Microporous rubber
- Bolt connectors: Stainless steel, standard English measure, hex-head
- Intercell connectors: Tin-plated copper, optional lead-plated copper
- Retainers: "Vitrex"- glass fiber
- Float voltage setting:
Acceptable min/max: 2.17/2.26Vpc
Recommended: 2.21Vpc
- Vent type: Flame arrestor, fused alumina
- Electrolyte withdrawal tube: One per cell
- Post type:
Lead-plated copper insert
GC-9M to GC-15M - one positive post and one negative post per cell
GC-17M to GC-45M - two positive posts and two negative posts per cell
- Post seal type: Slide-Lock™

General Specifications

PowerSafe® GC-M battery TYPE*	NOM. Ah CAP	Nominal Dimensions***						Weights - Volumes							
		Length**		Width		Height		Unpacked		Domestic Packed		Electrolyte Only / 1.215 S.G.			
		mm	in	mm	in	mm	in	kgs	lbs	kgs	lbs	kg	lbs	L	gal
2GC-9M	875	315	12.4	384	15.1	671	26.4	170	375	179	395	62	136	51	13.6
2GC-11M	1020	315	12.4	384	15.1	671	26.4	185	410	195	430	57	127	48	12.7
2GC-13M	1140	315	12.4	384	15.1	671	26.4	202	445	211	465	54	119	45	11.9
2GC-15M	1225	315	12.4	384	15.1	671	26.4	220	485	229	505	50	111	42	11.1
2GC-17M	1540	422	16.6	384	15.1	671	26.4	265	585	275	607	74	163	62	16.3
2GC-19M	1630	422	16.6	384	15.1	671	26.4	281	620	291	642	70	155	59	15.5
2GC-21M	1695	422	16.6	384	15.1	671	26.4	297	655	307	677	67	147	56	14.7
2GC-23M	1745	422	16.6	384	15.1	671	26.4	315	695	325	717	63	139	53	13.9
GC-25M	2260	315	12.4	384	15.1	671	26.4	199	440	209	460	56	123	46	12.3
GC-27M	2360	315	12.4	384	15.1	671	26.4	209	460	218	480	54	119	45	11.9
GC-29M	2450	315	12.4	384	15.1	671	26.4	217	480	227	500	52	115	43	11.5
GC-31M	2515	315	12.4	384	15.1	671	26.4	224	495	233	515	50	111	42	11.1
GC-33M	2560	315	12.4	384	15.1	671	26.4	233	515	243	535	48	107	40	10.7
GC-35M	3085	422	16.6	384*	15.1*	671	26.4	277	610	287	632	72	160	60	16.0
GC-37M	3200	422	16.6	384*	15.1*	671	26.4	285	630	296	652	71	156	59	15.6
GC-39M	3300	422	16.6	384*	15.1*	671	26.4	295	650	305	672	69	152	57	15.2
GC-41M	3385	422	16.6	384*	15.1*	671	26.4	302	665	311	687	67	148	56	14.8
GC-43M	3470	422	16.6	384*	15.1*	671	26.4	311	685	321	707	65	144	54	14.4
GC-45M	3550	422	16.6	384*	15.1*	671	26.4	320	705	330	727	63	140	53	14.0

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

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

***Length dimensions represent the GC-9M thru GC-45M with plates oriented perpendicular to rack rails.

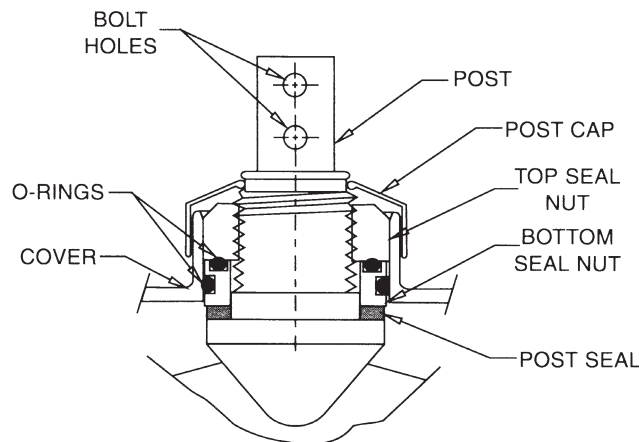
For optional GC-35M thru GC-45M with plates parallel to rack rails, length and width dimensions must be switched.

Catalog Rint and Isc Catalog Values*

PowerSafe® GC-M battery SIZE	Resistance (milliohms)	Isc (Amps)
GC-9M	0.275	7270
GC-11M	0.240	8330
GC-13M	0.213	9380
GC-15M	0.193	10370
GC-17M	0.148	13560
GC-19M	0.138	14520
GC-21M	0.128	15630
GC-23M	0.118	16920
GC-25M	0.107	18750
GC-27M	0.101	19850
GC-29M	0.095	21050
GC-31M	0.089	22390
GC-33M	0.085	23530
GC-35M	0.076	26150
GC-37M	0.074	27070
GC-39M	0.072	27740
GC-41M	0.071	28370
GC-43M	0.069	28970
GC-45M	0.067	29930

* Resistance values are for reference only and not intended to represent an ohmic value or base line measurement

Slide-Lock™ Post Seal



Discharge Rates in Amperes** to 1.75Vpc at 25°C (77°F)*

PowerSafe® GC-M battery TYPE*	NOM Ah CAP.†	Minutes			Hours									
		1	15	30	1	1.5	2	3	4	5	8	12	24	72
GC-09M	875	717	670	549	410	331	279	216	178	153	109	79	47	20
GC-11M	1020	877	809	666	496	398	335	258	211	180	128	92	53	22
GC-13M	1140	1029	938	775	576	461	386	294	240	204	142	101	58	23
GC-15M	1225	1173	1056	875	650	517	431	326	264	223	153	108	60	23
GC-17M	1540	1404	1306	1072	788	627	524	398	324	275	192	137	78	31
GC-19M	1630	1564	1431	1172	859	681	566	428	347	293	204	144	81	31
GC-21M	1695	1721	1548	1266	924	729	604	454	366	308	212	149	82	31
GC-23M	1745	1878	1658	1354	984	773	638	476	382	321	218	153	82	30
GC-25M	2260	2104	1870	1535	1137	908	760	580	473	403	282	201	116	46
GC-27M	2360	2231	1987	1633	1207	962	804	612	497	422	295	210	119	47
GC-29M	2450	2351	2099	1726	1275	1014	846	641	520	440	306	217	121	46
GC-31M	2515	2466	2205	1814	1338	1062	884	667	539	455	314	222	122	46
GC-33M	2560	2576	2306	1897	1398	1107	919	691	556	468	320	226	122	44
GC-35M	3085	2772	2487	2052	1523	1217	1020	781	640	545	386	277	160	65
GC-37M	3200	2874	2595	2146	1597	1277	1069	817	667	568	400	286	163	65
GC-39M	3300	2970	2696	2235	1667	1333	1116	851	693	589	413	294	166	65
GC-41M	3385	3065	2794	2323	1737	1389	1162	883	717	608	423	301	167	64
GC-43M	3470	3149	2890	2409	1805	1444	1207	916	742	627	434	307	169	63
GC-45M	3550	3245	2994	2503	1879	1503	1255	948	766	646	444	313	169	61

Discharge Rates in Amperes** to 1.81Vpc at 25°C (77°F)*

PowerSafe® GC-M battery TYPE*	NOM Ah CAP.†	Minutes			Hours									
		1	15	30	1	1.5	2	3	4	5	8	12	24	72
GC-9M	507	507	453	353	293	252	199	167	144	104	77	46	20	
GC-11M	632	631	552	429	354	303	237	197	170	121	88	52	22	
GC-13M	748	747	645	500	410	349	271	224	191	135	98	56	22	
GC-15M	859	857	731	565	461	390	300	246	209	146	104	58	22	
GC-17M	1025	1024	891	683	557	472	366	301	257	181	131	76	30	
GC-19M	1142	1140	976	745	605	511	394	323	274	192	138	79	31	
GC-21M	1255	1250	1054	801	648	545	417	340	288	200	143	80	30	
GC-23M	1362	1341	1128	853	688	576	438	355	300	206	147	80	29	
GC-25M	1543	1523	1289	994	813	691	538	443	380	269	195	113	46	
GC-27M	1628	1614	1366	1052	859	729	565	465	397	280	202	116	46	
GC-29M	1711	1699	1439	1106	902	763	590	484	413	290	208	118	46	
GC-31M	1784	1780	1506	1156	942	795	612	500	426	297	212	118	45	
GC-33M	1853	1850	1570	1203	978	824	631	514	436	301	215	118	43	
GC-35M	1920	1918	1684	1299	1061	906	708	588	506	362	265	156	64	
GC-37M	2021	2018	1762	1363	1114	950	741	614	527	375	273	159	64	
GC-39M	2114	2111	1836	1423	1164	992	772	638	546	386	280	161	63	
GC-41M	2201	2198	1909	1482	1214	1033	802	660	564	396	285	161	62	
GC-43M	2282	2279	1981	1541	1264	1075	832	683	581	405	291	162	61	
GC-45M	2369	2366	2058	1603	1316	1117	862	705	599	414	295	161	59	

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

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

†Nominal Amp-hour capacity at the 8 hour rate.

All data subject to change without notice.



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