

ABSOLYTE® IIP

Batteries

Section 26.10

SPECIFICATIONS

- 20 Year life expectancy
- 105 to 4800 AH
- Highest energy density
- Simple modular installation
- Recyclable to world standards
- UL recognized component



ABSOLYTE® IIP

THE WORLD LEADER IN SEALED BATTERY POWER

Proven field experience since 1983. The Absolyte IIP represents the third generation of the Absolyte product line. Without an increase in size, it offers 15% more capacity than its predecessor, the Absolyte II.

Patented MFX positive grid alloy* provides long-life. This proprietary alloy gives Absolyte IIP superior cycling performance and excellent float characteristics: 1200 cycles to 80% D.O.D. and a twenty year life in float service @ 25°C (77°F). This alloy also has low gassing characteristics and is designed to allow for deep discharge recovery.

Absorbed glass mat separators for efficient operation. The positive and negative plates are separated by a highly porous fiberglass mat which functions as the electrolyte retainer and provides the highest oxygen recombination efficiency. In addition, the low resistance of the glass mat improves high rate discharge performance.

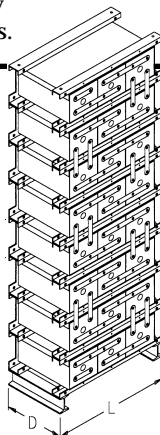
Reduced installation and maintenance time. The Absolyte IIP cells are housed in protective, modular steel trays designed for easy installation and balanced thermal management. Modules may be stacked horizontally (preferred) or installed vertically (50A, 90A only). When stacked horizontally, the standard Absolyte IIP is qualified for use in U.B.C. Seismic Zone IV installations. With the sealed design, maintenance is also kept to a minimum. No water additions or scheduled equalization charges are required. Periodic visual inspections, voltage readings and connection retorquing is all that is required.

Highest reliability is assured by GNB's quality program. Cell covers are hermetically sealed using a special GNB double-sealing process. Post seals are formed by fusing the lead bushing to the post with a robotic welder. Cells are checked by an automated, ultra-sensitive helium leak detection unit prior to the controlled electrolyte "fill by weight" process. These steps virtually eliminate any potential for leaking cells.

ASSEMBLY CONFIGURATIONS

Horizontal Stack Assembly (Preferred)

Depth is overall, including module cover assembly. Add 102mm (4") for bottom I-beam supports to determine total height (width) of assembled horizontal stack.



Finally, all cells are capacity tested prior to shipment to verify attainment of specified ratings.

APPLICATIONS

The Absolyte IIP batteries are ideal for numerous applications including:

- Telecommunications
- Uninterruptible Power Systems
- Switchgear and Control
- Railroad Signal and Communication
- Photovoltaics
- Marine
- Alternative Energy Systems

ADDED FEATURES & BENEFITS

- Does not require a separate battery room
- Transparent, flame retardant module cover
- Recombination efficiency greater than 99%
- Freezing tolerant
- Deep discharge recovery
- Accepts high rate charge
- Meets U.B.C. Seismic Zone IV requirements
- Simple cell replacement capability

CELL SPECIFICATIONS

Container and Cover—Polypropylene is standard. Flame retardant, UL94 V-0/28% L.O.I. is optional.

Separators—Spun glass, microporous matrix.

Safety Vent—400mb (6 psi) nominal, self-resealing (patented).

Terminals—Integral solid copper core.

Positive Plate—Patented MFX grid alloy.*

Negative Plate—Lead calcium grid alloy.

Life—20 years float @25°C (77°F).

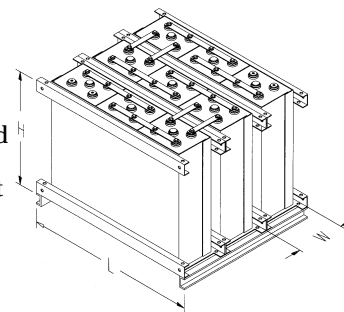
Self Discharge—0.5 to 1% per week maximum @25°C (77°F).

Float Voltage—2.23 to 2.27 VPC (2.25 recommended) @25°C (77°F).

*U.S. Patent 4, 401,730

Vertical Assembly, Side-by-side

Height is overall, including module cover assembly. Add 51mm (2") for bottom channel support to determine final height.



ABSOLYTE® IIP

Absolyte IIP Module Weights and Dimensions

MODULE TYPE	VOLTS	NOM AH CAP (8 HR)	STACKING DIMENSIONS						UNPACKED WEIGHT		DOMESTIC PACKED WEIGHT		EXPORT PACKED WEIGHT	
			LENGTH		WIDTH		DEPTH OR HEIGHT*		LBS	KGS	LBS	KGS	LBS	KGS
			IN	MM	IN	MM	IN	MM						
50A														
6-50A05	12	105	17.19	437	8.53	217	16.22	412	157	71	176	80	228	104
6-50A07	12	160	21.69	551	8.53	217	16.22	412	209	95	228	104	280	127
6-50A09	12	210	26.19	665	8.53	217	16.22	412	252	114	271	123	323	147
6-50A11	12	265	30.69	780	8.53	217	16.22	412	313	142	332	151	384	174
6-50A13	12	320	35.19	894	8.53	217	16.22	412	356	162	381	173	433	197
6-50A15	12	370	39.69	1008	8.59	218	16.22	412	417	189	442	201	494	224
90A														
6-90A05	12	175	17.19	437	8.53	217	23.56	599	235	107	254	115	322	146
6-90A07	12	265	21.69	551	8.53	217	23.56	599	316	143	335	152	413	187
6-90A09	12	350	26.19	665	8.53	217	23.56	599	396	180	415	188	493	224
6-90A11	12	440	30.69	780	8.53	217	23.56	599	477	216	502	228	581	264
6-90A13	12	530	35.19	894	8.53	217	23.56	599	557	253	582	264	661	300
6-90A15	12	615	39.69	1008	8.59	218	23.56	599	637	289	668	303	747	339
3-90A17	6	700	24.50	622	8.59	218	23.56	599	376	171	395	179	474	215
3-90A19	6	790	26.75	679	8.59	218	23.56	599	416	189	435	197	514	233
3-90A21	6	880	29.00	737	8.59	218	23.56	599	456	207	478	217	557	253
3-90A23	6	965	31.25	794	8.59	218	23.56	599	497	226	522	237	601	273
3-90A25	6	1055	33.50	851	8.59	218	23.56	599	538	244	564	256	642	291
3-90A27	6	1140	35.75	908	8.59	218	23.56	599	578	262	606	275	685	311
100A														
3-100A13	6	600	19.93	506	8.53	217	26.38	670	328	149	356	162	436	198
3-100A15	6	700	22.18	563	8.59	218	26.38	670	374	170	408	185	489	222
3-100A17	6	800	24.50	622	8.59	218	26.38	670	424	192	446	202	528	240
3-100A19	6	900	26.75	679	8.59	218	26.38	670	470	213	491	223	574	260
3-100A21	6	1000	29.00	737	8.59	218	26.38	670	515	234	539	245	623	283
3-100A23	6	1100	31.25	794	8.59	218	26.38	670	561	255	589	267	674	306
3-100A25	6	1200	33.50	851	8.59	218	26.38	670	608	276	637	289	723	328
3-100A27	6	1300	35.75	908	8.59	218	26.38	670	653	296	684	310	772	350
3-100A29	6	1400	38.00	965	8.59	218	26.38	670	704	319	736	334	824	374
3-100A31	6	1500	40.25	1022	8.59	218	26.38	670	750	340	783	355	873	396
3-100A33	6	1600	42.50	1080	8.59	218	26.38	670	795	361	829	376	920	417
1-100A39	2	1800	19.93	506	8.53	217	26.38	670	328	149	356	162	436	198
1-100A45	2	2100	22.18	563	8.59	218	26.38	670	374	170	408	185	489	222
1-100A51	2	2400	24.50	622	8.59	218	26.38	670	424	192	446	202	528	240
1-100A57	2	2700	26.75	679	8.59	218	26.38	670	470	213	491	223	574	260
1-100A63	2	3000	29.00	737	8.59	218	26.38	670	515	234	539	245	623	283
1-100A69	2	3300	31.25	794	8.59	218	26.38	670	561	255	589	267	674	306
1-100A75	2	3600	33.50	851	8.59	218	26.38	670	608	276	637	289	723	328
1-100A81	2	3900	35.75	908	8.59	218	26.38	670	653	296	684	310	772	350
1-100A87	2	4200	38.00	965	8.59	218	26.38	670	704	319	736	334	824	374
1-100A93	2	4500	40.25	1022	8.59	218	26.38	670	750	340	783	355	873	396
1-100A99	2	4800	42.50	1080	8.59	218	26.38	670	795	361	829	376	920	417

*Includes 77 mm (3") additional for Module Cover Assembly

NOTE: Design and/or specifications subject to change without notice. If questions arise, contact your local GNB sales representative for clarification.

ABSOLYTE® IIP

Absolyte IIP Performance Specifications
Amperes to 1.75 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS											MINUTES			1 MIN TO 1.50
	24	12	10	8	7	6	5	4	3	2	1	30	15	1	
50A															
50A05	5.1	9.3	11	13	14	16	18	22	27	37	58	94	133	189	312
50A07	7.7	14	16	19	22	24	28	33	41	56	87	142	199	283	464
50A09	10	18	22	26	29	33	37	44	55	75	116	189	266	378	621
50A11	13	23	27	33	36	41	47	56	69	94	146	237	333	459	754
50A13	15	28	33	39	44	49	56	67	83	112	175	284	399	543	891
50A15	18	32	38	46	51	57	66	78	97	131	204	332	466	616	1011
90A															
90A05	8.6	15	18	21	24	27	31	37	46	62	100	142	176	239	427
90A07	12	23	27	32	36	41	47	55	69	93	151	214	264	352	629
90A09	17	31	36	43	48	54	63	74	92	124	201	285	353	460	823
90A11	21	39	46	54	60	68	78	93	115	155	251	357	441	559	999
90A13	25	47	55	65	73	82	94	111	138	186	302	428	529	658	1176
90A15	30	55	64	76	85	96	110	130	162	217	352	499	618	737	1316
90A17	34	63	73	87	97	109	126	149	185	248	402	571	706	921	1646
90A19	38	71	82	98	109	123	142	167	208	279	453	642	794	1017	1816
90A21	43	79	92	109	121	137	157	186	231	310	503	714	883	1119	1999
90A23	47	87	101	120	134	151	173	205	254	341	553	785	971	1219	2177
90A25	51	95	110	131	146	164	189	223	277	372	604	856	1059	1316	2352
90A27	56	103	119	142	158	178	205	242	300	403	654	928	1147	1397	2496
100A															
100A13	29	54	62	75	83	93	107	128	158	212	312	446	559	680	1193
100A15	33	63	73	87	96	109	125	149	184	248	364	520	652	757	1327
100A17	38	72	83	100	110	125	143	170	211	283	416	595	745	991	1738
100A19	43	81	94	112	124	140	161	192	237	319	468	669	838	1087	1906
100A21	48	90	104	125	138	156	179	213	264	354	520	744	932	1187	2081
100A23	53	99	115	137	152	172	197	234	290	390	572	818	1025	1271	2228
100A25	58	108	125	150	166	187	215	256	316	425	624	892	1118	1361	2386
100A27	62	117	135	162	180	203	233	277	343	461	676	967	1211	1434	2513
100A29	67	127	146	175	193	219	251	298	369	496	728	1041	1304	1677	2939
100A31	72	136	156	187	207	234	269	320	396	532	780	1116	1398	1781	3121
100A33	77	145	167	200	221	250	287	341	422	567	832	1190	1491	1866	3270
100A39	87	162	186	225	249	279	321	384	474	636	936	1338	1677	2040	3579
100A45	99	189	219	261	288	327	375	447	552	744	1092	1560	1956	2271	3981
100A51	114	216	249	300	330	375	429	510	633	849	1248	1785	2235	2973	5214
100A57	129	243	282	336	372	420	483	576	711	957	1404	2007	2514	3261	5718
100A63	144	270	312	375	414	468	537	639	792	1062	1560	2232	2796	3561	6243
100A69	159	297	345	411	456	516	591	702	870	1170	1716	2454	3075	3813	6684
100A75	174	324	375	450	498	561	645	768	948	1275	1872	2676	3354	4083	7158
100A81	186	351	405	486	540	609	699	831	1029	1383	2028	2901	3633	4302	7539
100A87	201	381	438	525	579	657	753	894	1107	1488	2184	3123	3912	5031	8817
100A93	216	408	468	561	621	702	807	960	1188	1596	2340	3348	4194	5343	9363
100A99	231	435	501	600	663	750	861	1023	1266	1701	2496	3570	4473	5598	9810

ABSOLYTE® IIP

Absolyte IIP Performance Specifications
Amperes to 1.78 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS											MINUTES		
	24	12	10	8	7	6	5	4	3	2	1	30	15	1
50A														
50A05	5.1	9.2	10	12	14	16	18	22	27	36	57	91	126	180
50A07	7.7	13	16	19	21	24	27	33	41	55	85	136	189	267
50A09	10	18	21	25	28	32	37	44	54	73	114	182	252	357
50A11	12	23	27	32	36	40	46	55	68	91	142	227	315	433
50A13	15	27	32	38	43	48	55	66	82	110	171	273	378	513
50A15	18	32	37	45	50	56	64	77	96	128	199	318	442	582
90A														
90A05	8.5	15	18	21	24	27	31	36	45	60	96	133	163	218
90A07	12	23	27	32	36	40	46	54	67	90	145	200	244	322
90A09	17	31	36	43	48	54	62	72	90	121	193	267	326	421
90A11	21	39	45	54	60	68	77	91	112	151	242	334	408	512
90A13	25	47	55	65	72	81	93	109	135	181	290	401	489	602
90A15	30	55	64	76	84	95	109	127	157	212	338	468	571	674
90A17	34	62	73	87	96	109	124	145	180	242	387	535	652	843
90A19	38	70	82	97	108	122	140	164	202	272	435	602	734	931
90A21	42	78	91	108	120	136	155	182	225	303	484	669	816	1024
90A23	47	86	101	119	132	149	171	200	247	333	532	735	897	1115
90A25	51	94	110	130	144	163	187	218	270	363	581	802	979	1205
90A27	55	102	119	141	156	177	202	237	292	394	629	869	1060	1279
100A														
100A13	28	54	62	73	82	92	106	126	157	207	306	421	522	631
100A15	33	63	72	86	96	108	123	147	183	241	357	492	609	703
100A17	38	72	83	98	109	123	141	168	209	276	408	562	696	920
100A19	43	81	93	110	123	138	159	189	236	310	459	632	783	1009
100A21	48	90	103	122	137	154	176	210	262	345	511	703	871	1102
100A23	52	99	114	135	151	169	194	231	288	379	562	773	958	1180
100A25	57	108	124	147	164	185	212	252	314	414	613	843	1045	1263
100A27	62	117	134	159	178	200	229	273	341	449	664	913	1132	1331
100A29	67	126	145	172	192	216	247	294	367	483	715	984	1219	1556
100A31	72	135	155	184	206	231	265	315	393	518	766	1054	1306	1653
100A33	76	144	166	196	219	246	282	336	419	552	817	1124	1393	1731
100A39	84	162	186	219	246	276	318	378	471	621	918	1263	1566	1893
100A45	99	189	216	258	288	324	369	441	549	723	1071	1476	1827	2109
100A51	114	216	249	294	327	369	423	504	627	828	1224	1686	2088	2760
100A57	129	243	279	330	369	414	477	567	708	930	1377	1896	2349	3027
100A63	144	270	309	366	411	462	528	630	786	1035	1533	2109	2613	3306
100A69	156	297	342	405	453	507	582	693	864	1137	1686	2319	2874	3540
100A75	171	324	372	441	492	555	636	756	942	1242	1839	2529	3135	3789
100A81	186	351	402	477	534	600	687	819	1023	1347	1992	2739	3396	3993
100A87	201	378	435	516	576	648	741	882	1101	1449	2145	2952	3657	4668
100A93	216	405	465	552	618	693	795	945	1179	1554	2298	3162	3918	4959
100A99	228	432	498	588	657	738	846	1008	1257	1656	2451	3372	4179	5193

ABSOLYTE® IIP

Absolyte IIP Performance Specifications Amperes to 1.80 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS											MINUTES		
	24	12	10	8	7	6	5	4	3	2	1	30	15	1
50A														
50A05	5.1	9.2	10	12	14	16	18	21	27	36	55	88	120	170
50A07	7.7	13	16	19	21	24	27	32	40	54	83	132	181	253
50A09	10	18	21	25	28	32	36	43	53	72	111	176	241	338
50A11	12	23	26	31	35	40	45	54	67	90	139	220	302	410
50A13	15	27	32	38	42	48	54	65	80	108	167	264	362	486
50A15	18	32	37	44	49	56	64	76	94	126	195	308	422	551
90A														
90A05	8.5	15	18	21	23	26	30	35	44	59	94	128	153	199
90A07	12	23	27	32	35	40	45	53	66	88	141	192	230	293
90A09	17	31	36	43	47	53	61	71	88	118	189	256	307	383
90A11	21	39	45	53	59	67	76	88	110	147	236	321	384	466
90A13	25	46	54	64	71	80	91	106	132	177	283	385	461	548
90A15	29	54	63	75	83	93	107	124	154	206	331	449	538	613
90A17	34	62	72	86	95	107	122	142	176	236	378	513	615	767
90A19	38	70	81	97	107	120	137	159	198	265	425	577	692	847
90A21	42	78	90	107	119	134	153	177	220	295	473	642	769	932
90A23	46	85	99	118	130	147	168	195	242	325	520	706	845	1015
90A25	51	93	108	129	142	160	183	213	264	354	567	770	922	1096
90A27	55	101	117	140	154	174	199	231	286	384	615	834	999	1163
100A														
100A13	28	53	62	73	82	91	105	124	155	201	301	406	492	575
100A15	33	62	72	85	95	107	123	145	181	235	351	474	574	640
100A17	38	71	82	97	109	122	140	165	207	269	401	542	656	838
100A19	42	80	93	110	123	137	158	186	233	302	451	610	738	919
100A21	47	89	103	122	136	153	175	207	259	336	502	678	820	1004
100A23	52	98	113	134	150	168	193	228	285	369	552	745	902	1075
100A25	57	107	124	146	164	183	211	248	311	403	602	813	984	1151
100A27	61	116	134	159	177	199	228	269	337	437	652	881	1066	1212
100A29	66	125	144	171	191	214	246	290	363	470	702	949	1148	1418
100A31	71	134	155	183	205	229	263	311	389	504	753	1017	1230	1506
100A33	76	143	165	195	218	245	281	331	415	538	803	1084	1312	1577
100A39	84	159	186	219	246	273	315	372	465	603	903	1218	1476	1725
100A45	99	186	216	255	285	321	369	435	543	705	1053	1422	1722	1920
100A51	114	213	246	291	327	366	420	495	621	807	1203	1626	1968	2514
100A57	126	240	279	330	369	411	474	558	699	906	1353	1830	2214	2757
100A63	141	267	309	366	408	459	525	621	777	1008	1506	2034	2460	3012
100A69	156	294	339	402	450	504	579	684	855	1107	1656	2235	2706	3225
100A75	171	321	372	438	492	549	633	744	933	1209	1806	2439	2952	3453
100A81	183	348	402	477	531	597	684	807	1011	1311	1956	2643	3198	3636
100A87	198	375	432	513	573	642	738	870	1089	1410	2106	2847	3444	4254
100A93	213	402	465	549	615	687	789	933	1167	1512	2259	3051	3690	4518
100A99	228	429	495	585	654	735	843	993	1245	1614	2409	3252	3936	4731

ABSOLYTE® IIP

Absolyte IIP Performance Specifications Amperes to 1.81 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS											MINUTES		
	24	12	10	8	7	6	5	4	3	2	1	30	15	1
50A														
50A05	5.1	9.1	10	12	14	15	18	21	26	35	54	86	118	164
50A07	7.6	13	15	19	21	23	27	32	40	53	82	129	177	244
50A09	10	18	21	25	28	31	36	43	53	71	109	172	236	326
50A11	12	23	26	31	35	39	45	53	66	89	137	216	295	396
50A13	15	27	31	38	42	47	54	64	80	106	164	259	354	468
50A15	17	32	37	44	49	55	63	75	93	124	192	302	413	531
90A														
90A05	8.4	15	18	21	23	26	30	35	43	58	92	125	149	193
90A07	12	23	27	32	35	39	45	53	65	87	138	187	224	284
90A09	16	31	36	42	47	53	60	71	87	116	184	250	298	372
90A11	21	38	45	53	59	66	76	89	109	145	230	312	373	451
90A13	25	46	54	64	70	79	91	107	131	175	276	375	448	531
90A15	29	54	63	74	82	93	106	125	153	204	322	437	522	595
90A17	33	62	72	85	94	106	121	143	175	233	368	500	597	744
90A19	38	69	81	96	106	119	136	161	197	262	414	562	672	821
90A21	42	77	90	106	118	133	152	179	219	291	460	625	747	903
90A23	46	85	99	117	130	146	167	197	241	320	506	687	821	984
90A25	50	93	108	128	141	159	182	215	263	350	552	750	896	1062
90A27	55	100	117	138	153	173	197	233	285	379	598	812	971	1128
100A														
100A13	28	53	61	73	81	91	104	123	156	201	298	397	478	550
100A15	33	62	72	85	95	106	122	144	182	235	348	463	557	612
100A17	37	71	82	97	108	122	139	164	208	268	398	529	637	802
100A19	42	80	92	109	122	137	157	185	234	302	447	595	717	879
100A21	47	89	103	121	135	152	174	205	260	335	497	662	797	960
100A23	52	97	113	134	149	167	191	226	286	369	547	728	876	1028
100A25	56	106	123	146	162	183	209	246	312	402	597	794	956	1101
100A27	61	115	134	158	176	198	226	267	338	436	646	860	1036	1160
100A29	66	124	144	170	190	213	244	288	364	470	696	926	1115	1356
100A31	71	133	154	182	203	228	261	308	390	503	746	993	1195	1440
100A33	75	142	164	195	217	244	279	329	416	537	796	1059	1275	1509
100A39	84	159	183	219	243	273	312	369	468	603	894	1191	1434	1650
100A45	99	186	216	255	285	318	366	432	546	705	1044	1389	1671	1836
100A51	111	213	246	291	324	366	417	492	624	804	1194	1587	1911	2406
100A57	126	240	276	327	366	411	471	555	702	906	1341	1785	2151	2637
100A63	141	267	309	363	405	456	522	615	780	1005	1491	1986	2391	2880
100A69	156	291	339	402	447	501	573	678	858	1107	1641	2184	2628	3084
100A75	168	318	369	438	486	549	627	738	936	1206	1791	2382	2868	3303
100A81	183	345	402	474	528	594	678	801	1014	1308	1938	2580	3108	3480
100A87	198	372	432	510	570	639	732	864	1092	1410	2088	2778	3345	4068
100A93	213	399	462	546	609	684	783	924	1170	1509	2238	2979	3585	4320
100A99	225	426	492	585	651	732	837	987	1248	1611	2388	3177	3825	4527

ABSOLYTE® IIP

Absolyte IIP Performance Specifications
Amperes to 1.83 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS										
	24	12	10	8	7	6	5	4	3	2	1
50A											
50A05	5.0	9.0	10	12	13	15	17	20	26	34	53
50A07	7.5	13	15	18	20	23	26	31	39	52	80
50A09	10	18	20	24	27	31	35	41	52	69	106
50A11	12	22	26	31	34	39	44	52	65	86	133
50A13	15	27	31	37	41	46	53	62	78	104	160
50A15	17	32	36	43	48	54	61	73	91	121	186
90A											
90A05	8.3	15	17	20	23	26	29	35	43	56	87
90A07	12	23	26	31	35	39	44	52	64	85	131
90A09	16	30	35	41	46	52	59	70	86	113	175
90A11	20	38	44	52	58	65	74	88	108	142	219
90A13	25	46	53	62	70	78	89	105	129	170	263
90A15	29	53	62	72	82	92	104	123	151	199	307
90A17	33	61	71	83	93	105	119	140	173	227	351
90A19	37	69	80	93	105	118	134	158	194	256	395
90A21	41	76	89	104	117	131	148	176	216	284	439
90A23	46	84	98	114	128	144	163	193	238	313	483
90A25	50	92	107	124	140	157	178	211	259	341	527
90A27	54	99	116	135	152	170	193	228	281	370	571
100A											
100A13	28	53	61	72	80	89	102	121	151	195	286
100A15	32	61	71	84	94	104	119	141	176	227	334
100A17	37	70	81	96	107	119	136	161	201	260	382
100A19	42	79	91	108	120	134	153	181	227	293	430
100A21	47	88	102	120	134	149	170	202	252	325	478
100A23	51	97	112	132	147	164	187	222	277	358	525
100A25	56	106	122	144	161	179	204	242	302	390	573
100A27	61	115	132	156	174	194	221	262	328	423	621
100A29	65	123	143	168	188	209	238	282	353	455	669
100A31	70	132	153	180	201	224	255	303	378	488	717
100A33	75	141	163	192	214	239	272	323	403	520	764
100A39	84	159	183	216	240	267	306	363	453	585	858
100A45	96	183	213	252	282	312	357	423	528	681	1002
100A51	111	210	243	288	321	357	408	483	603	780	1146
100A57	126	237	273	324	360	402	459	543	681	879	1290
100A63	141	264	306	360	402	447	510	606	756	975	1434
100A69	153	291	336	396	441	492	561	666	831	1074	1575
100A75	168	318	366	432	483	537	612	726	906	1170	1719
100A81	183	345	396	468	522	582	663	786	984	1269	1863
100A87	195	369	429	504	564	627	714	846	1059	1365	2007
100A93	210	396	459	540	603	672	765	909	1134	1464	2151
100A99	225	423	489	576	642	717	816	969	1209	1560	2292

ABSOLYTE® IIP

Absolyte IIP Performance Specifications Amperes to 1.84 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS										
	24	12	10	8	7	6	5	4	3	2	1
50A											
50A05	5.0	9.0	10	12	13	15	17	20	25	34	52
50A07	7.5	13	15	18	20	23	26	31	38	51	78
50A09	10	18	20	24	27	30	35	41	51	68	104
50A11	12	22	25	30	34	38	43	52	64	85	130
50A13	15	27	30	36	41	46	52	62	77	102	156
50A15	17	31	36	42	48	53	61	72	90	120	182
90A											
90A05	8.3	15	17	20	23	25	29	34	42	56	86
90A07	12	22	26	31	34	38	43	51	63	84	129
90A09	16	30	35	41	46	51	58	68	84	112	172
90A11	20	38	44	51	57	64	73	86	106	140	215
90A13	25	45	53	62	69	77	87	103	127	168	258
90A15	29	53	62	72	80	90	102	120	148	196	301
90A17	33	61	71	82	92	103	116	137	169	224	344
90A19	37	68	80	93	103	115	131	155	190	252	387
90A21	41	76	89	103	115	128	146	172	212	280	430
90A23	45	83	98	114	126	141	160	189	233	308	473
90A25	50	91	107	124	138	154	175	206	254	337	517
90A27	54	99	116	134	149	167	189	224	275	365	560
100A											
100A13	28	52	60	72	80	89	100	119	148	191	279
100A15	32	61	70	84	93	103	117	139	173	223	325
100A17	37	70	81	96	106	118	134	159	198	255	372
100A19	42	79	91	108	120	133	151	179	222	287	418
100A21	46	87	101	120	133	148	167	199	247	319	465
100A23	51	96	111	132	146	163	184	219	272	350	511
100A25	56	105	121	144	160	178	201	239	297	382	558
100A27	60	114	131	156	173	193	218	259	322	414	604
100A29	65	122	141	168	187	207	235	279	346	446	651
100A31	70	131	152	180	200	222	251	299	371	478	697
100A33	74	140	162	192	213	237	268	319	396	510	744
100A39	84	156	180	216	240	267	300	357	444	573	837
100A45	96	183	210	252	279	309	351	417	519	669	975
100A51	111	210	243	288	318	354	402	477	594	765	1116
100A57	126	237	273	324	360	399	453	537	666	861	1254
100A63	138	261	303	360	399	444	501	597	741	957	1395
100A69	153	288	333	396	438	489	552	657	816	1050	1533
100A75	168	315	363	432	480	534	603	717	891	1146	1674
100A81	180	342	393	468	519	579	654	777	966	1242	1812
100A87	195	366	423	504	561	621	705	837	1038	1338	1953
100A93	210	393	456	540	600	666	753	897	1113	1434	2091
100A99	222	420	486	576	639	711	804	957	1188	1530	2232

ABSOLYTE® IIP

Absolyte IIP Performance Specifications Amperes to 1.86 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS										
	24	12	10	8	7	6	5	4	3	2	1
50A											
50A05	4.9	8.9	10	12	13	15	17	20	24	33	50
50A07	7.3	13	15	18	20	22	25	30	37	49	75
50A09	9.8	17	20	24	26	30	34	40	49	66	100
50A11	12	22	25	30	33	37	43	50	62	82	125
50A13	14	26	30	36	40	45	51	61	74	99	150
50A15	17	31	35	42	46	52	60	71	87	115	175
90A											
90A05	8.1	15	17	20	22	25	29	34	41	53	82
90A07	12	22	26	30	34	38	43	51	62	80	123
90A09	16	30	35	41	45	50	58	68	82	107	164
90A11	20	37	43	51	56	63	72	86	103	134	205
90A13	24	45	52	61	68	76	87	103	124	161	246
90A15	28	52	61	71	79	89	101	120	144	188	287
90A17	32	60	70	82	91	101	116	137	165	215	328
90A19	36	67	78	92	102	114	130	154	186	242	369
90A21	40	75	87	102	113	127	145	172	206	269	411
90A23	45	82	96	112	125	140	160	189	227	296	452
90A25	49	90	105	123	136	152	174	206	248	323	493
90A27	53	97	113	133	148	165	189	223	268	349	534
100A											
100A13	27	51	59	70	77	86	98	115	141	181	265
100A15	31	60	69	81	90	100	115	135	164	212	309
100A17	36	68	79	93	103	115	131	154	188	242	353
100A19	41	77	89	105	116	129	148	173	212	272	397
100A21	45	85	99	117	129	144	164	193	235	303	442
100A23	50	94	108	128	141	158	181	212	259	333	486
100A25	54	103	118	140	154	173	197	231	282	363	530
100A27	59	111	128	152	167	187	213	251	306	394	574
100A29	63	120	138	163	180	201	230	270	329	424	618
100A31	68	128	148	175	193	216	246	289	353	454	663
100A33	73	137	158	187	206	230	263	309	377	484	707
100A39	81	153	177	210	231	258	294	345	423	543	795
100A45	93	180	207	243	270	300	345	405	492	636	927
100A51	108	204	237	279	309	345	393	462	564	726	1059
100A57	123	231	267	315	348	387	444	519	636	816	1191
100A63	135	255	297	351	387	432	492	579	705	909	1326
100A69	150	282	324	384	423	474	543	636	777	999	1458
100A75	162	309	354	420	462	519	591	693	846	1089	1590
100A81	177	333	384	456	501	561	639	753	918	1182	1722
100A87	189	360	414	489	540	603	690	810	987	1272	1854
100A93	204	384	444	525	579	648	738	867	1059	1362	1989
100A99	219	411	474	561	618	690	789	927	1131	1452	2121

ABSOLYTE® IIP

Absolyte IIP Performance Specifications Amperes to 1.88 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS										
	24	12	10	8	7	6	5	4	3	2	1
50A											
50A05	4.7	8.6	9	11	12	14	16	19	23	31	47
50A07	7.1	13	14	17	19	21	24	29	35	47	70
50A09	9.5	17	19	23	25	28	32	38	47	62	94
50A11	11	21	24	28	32	35	41	48	59	78	117
50A13	14	26	29	34	38	42	49	58	71	94	141
50A15	16	30	34	40	45	50	57	67	83	109	164
90A											
90A05	8.0	14	16	20	22	24	27	32	39	51	76
90A07	12	22	25	30	33	36	41	48	59	76	115
90A09	16	29	33	40	44	48	55	64	79	102	153
90A11	20	36	42	50	55	60	68	81	99	127	192
90A13	24	44	50	60	66	73	82	97	119	153	230
90A15	28	51	58	70	77	85	96	113	138	178	269
90A17	32	59	67	80	88	97	110	129	158	204	307
90A19	36	66	75	90	99	109	123	146	178	229	346
90A21	40	73	84	100	110	121	137	162	198	255	384
90A23	44	81	92	110	121	133	151	178	218	281	422
90A25	48	88	101	120	132	146	165	194	238	306	461
90A27	52	95	109	130	143	158	178	211	257	332	499
100A											
100A13	26	49	56	67	74	81	92	109	133	172	246
100A15	30	58	66	78	86	95	107	127	156	200	287
100A17	35	66	75	89	99	109	123	145	178	229	328
100A19	39	74	85	100	111	122	138	163	200	258	369
100A21	44	82	94	112	124	136	154	182	223	287	410
100A23	48	91	104	123	136	150	169	200	245	315	451
100A25	53	99	113	134	148	163	184	218	267	344	492
100A27	57	107	123	145	161	177	200	236	290	373	533
100A29	61	116	132	157	173	191	215	254	312	401	574
100A31	66	124	142	168	186	204	231	273	334	430	615
100A33	70	132	151	179	198	218	246	291	357	459	656
100A39	78	147	168	201	222	243	276	327	399	516	738
100A45	90	174	198	234	258	285	321	381	468	600	861
100A51	105	198	225	267	297	327	369	435	534	687	984
100A57	117	222	255	300	333	366	414	489	600	774	1107
100A63	132	246	282	336	372	408	462	546	669	861	1230
100A69	144	273	312	369	408	450	507	600	735	945	1353
100A75	159	297	339	402	444	489	552	654	801	1032	1476
100A81	171	321	369	435	483	531	600	708	870	1119	1599
100A87	183	348	396	471	519	573	645	762	936	1203	1722
100A93	198	372	426	504	558	612	693	819	1002	1290	1845
100A99	210	396	453	537	594	654	738	873	1071	1377	1968

ABSOLYTE® IIP

Absolyte IIP Performance Specifications Amperes to 1.90 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS										
	24	12	10	8	7	6	5	4	3	2	1
50A											
50A05	4.5	8.3	9	11	12	13	16	18	23	29	44
50A07	6.8	12	14	16	18	20	24	28	34	44	67
50A09	9.1	16	18	22	25	27	32	37	46	59	89
50A11	11	21	23	28	31	34	40	46	57	74	112
50A13	13	25	28	33	37	41	48	56	69	89	134
50A15	16	29	33	39	43	48	56	65	80	104	157
90A											
90A05	7.7	14	16	19	21	23	26	31	37	49	70
90A07	11	21	24	28	31	35	39	46	56	73	105
90A09	15	28	32	38	42	46	53	62	75	98	140
90A11	19	35	40	47	53	58	66	78	94	123	175
90A13	23	42	48	57	63	70	79	93	113	147	210
90A15	27	49	56	67	74	82	93	109	132	172	245
90A17	30	56	64	76	84	93	106	125	151	197	281
90A19	34	63	72	86	95	105	119	140	170	221	316
90A21	38	71	80	95	106	117	132	156	189	246	351
90A23	42	78	88	105	116	129	146	172	208	270	386
90A25	46	85	96	115	127	140	159	187	227	295	421
90A27	50	92	104	124	137	152	172	203	246	320	456
100A											
100A13	25	47	54	63	70	78	87	103	126	161	228
100A15	29	55	63	74	82	91	102	120	147	188	266
100A17	33	63	72	85	94	104	116	138	168	215	304
100A19	38	71	81	95	106	117	131	155	189	242	342
100A21	42	79	90	106	118	130	146	172	211	269	380
100A23	46	87	99	117	129	143	160	190	232	295	418
100A25	50	95	108	127	141	156	175	207	253	322	456
100A27	55	103	117	138	153	169	189	224	274	349	494
100A29	59	110	126	149	165	182	204	241	295	376	532
100A31	63	118	135	159	177	195	219	259	316	403	570
100A33	67	126	144	170	188	208	233	276	337	430	608
100A39	75	141	162	189	210	234	261	309	378	483	684
100A45	87	165	189	222	246	273	306	360	441	564	798
100A51	99	189	216	255	282	312	348	414	504	645	912
100A57	114	213	243	285	318	351	393	465	567	726	1026
100A63	126	237	270	318	354	390	438	516	633	807	1140
100A69	138	261	297	351	387	429	480	570	696	885	1254
100A75	150	285	324	381	423	468	525	621	759	966	1368
100A81	165	309	351	414	459	507	567	672	822	1047	1482
100A87	177	330	378	447	495	546	612	723	885	1128	1596
100A93	189	354	405	477	531	585	657	777	948	1209	1710
100A99	201	378	432	510	564	624	699	828	1011	1290	1824

ABSOLYTE® IIP

Absolyte IIP Performance Specifications
Amperes to 1.92 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS										
	24	12	10	8	7	6	5	4	3	2	1
50A											
50A05	4.3	7.9	8	10	11	13	15	17	21	28	41
50A07	6.5	11	13	15	17	19	22	26	32	42	62
50A09	8.6	15	17	21	23	26	30	35	43	56	83
50A11	10	19	22	26	29	32	37	44	53	70	104
50A13	13	23	26	31	35	39	45	53	64	84	125
50A15	15	27	30	37	41	45	52	62	75	98	146
90A											
90A05	7.3	13	15	18	20	22	25	29	35	45	66
90A07	11	20	23	27	30	33	37	44	53	68	99
90A09	14	27	31	36	40	44	50	59	71	91	132
90A11	18	34	38	45	51	55	63	74	88	114	165
90A13	22	40	46	55	61	66	75	89	106	137	198
90A15	25	47	54	64	71	77	88	103	124	160	231
90A17	29	54	62	73	81	88	100	118	142	183	264
90A19	33	61	69	82	91	100	113	133	159	206	297
90A21	37	68	77	91	102	111	126	148	177	229	330
90A23	40	75	85	101	112	122	138	163	195	252	363
90A25	44	81	93	110	122	133	151	178	213	275	397
90A27	48	88	100	119	132	144	163	193	230	298	430
100A											
100A13	24	45	50	59	66	72	81	96	116	148	206
100A15	28	52	59	69	77	84	95	112	136	172	240
100A17	32	60	67	79	88	96	108	128	155	197	275
100A19	36	67	76	89	99	109	122	144	174	222	309
100A21	40	75	84	99	110	121	136	160	194	247	344
100A23	44	82	93	109	121	133	149	176	213	271	378
100A25	48	90	101	119	132	145	163	192	233	296	412
100A27	52	97	110	129	143	157	177	208	252	321	447
100A29	56	105	118	139	155	169	190	224	272	345	481
100A31	60	113	127	149	166	181	204	240	291	370	516
100A33	64	120	135	159	177	193	217	256	311	395	550
100A39	72	135	150	177	198	216	243	288	348	444	618
100A45	84	156	177	207	231	252	285	336	408	516	720
100A51	96	180	201	237	264	288	324	384	465	591	825
100A57	108	201	228	267	297	327	366	432	522	666	927
100A63	120	225	252	297	330	363	408	480	582	741	1032
100A69	132	246	279	327	363	399	447	528	639	813	1134
100A75	144	270	303	357	396	435	489	576	699	888	1236
100A81	156	291	330	387	429	471	531	624	756	963	1341
100A87	168	315	354	417	465	507	570	672	816	1035	1443
100A93	180	339	381	447	498	543	612	720	873	1110	1548
100A99	192	360	405	477	531	579	651	768	933	1185	1650

ABSOLYTE® IIP

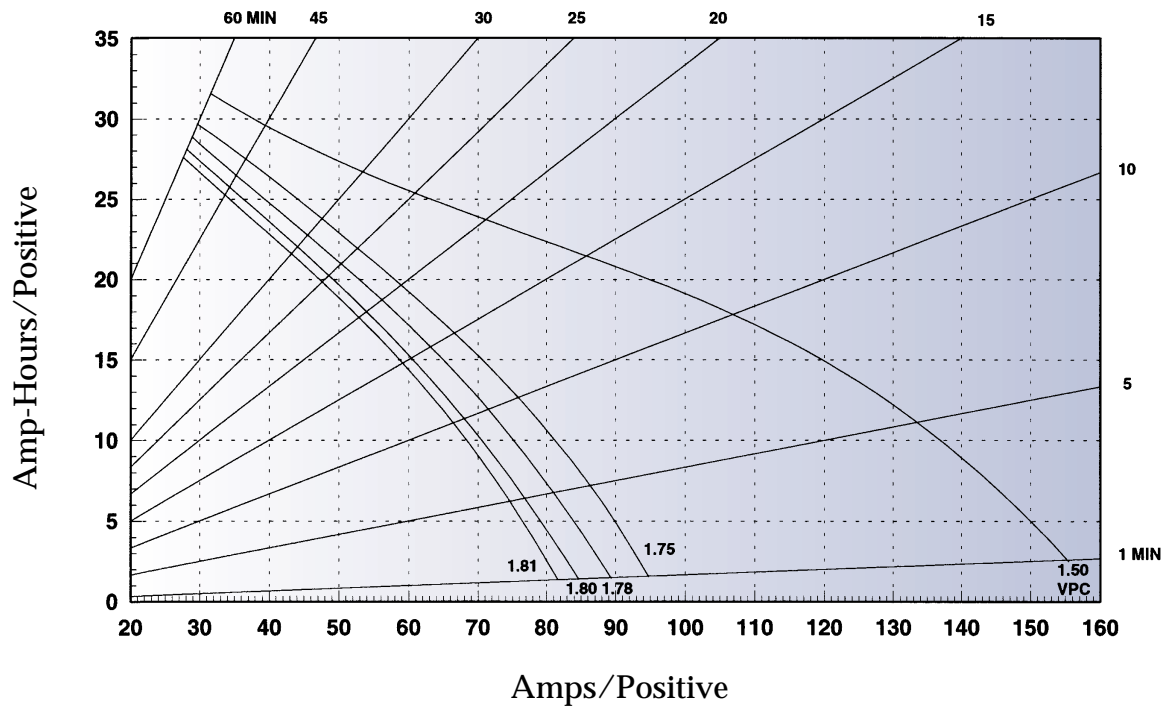
Absolyte IIP Performance Specifications Amperes to 1.94 Final Volts Per Cell @25°C (77°F)

CELL TYPE	HOURS										
	24	12	10	8	7	6	5	4	3	2	1
50A											
50A05	4.0	7.4	8	9	11	12	14	16	20	24	37
50A07	6.1	11	12	14	16	18	21	24	30	36	56
50A09	8.1	14	16	19	22	24	28	33	40	48	75
50A11	10	18	20	24	27	30	35	41	50	61	94
50A13	12	22	25	29	33	36	42	49	60	73	112
50A15	14	26	29	34	38	43	49	58	70	85	131
90A											
90A05	7.0	12	14	17	19	20	23	27	32	42	60
90A07	10	19	21	26	28	31	35	41	49	63	91
90A09	14	25	29	34	38	41	46	55	65	84	121
90A11	17	32	36	43	47	52	58	69	82	105	151
90A13	21	38	43	52	57	62	70	82	98	126	182
90A15	24	45	50	60	66	73	81	96	115	147	212
90A17	28	51	58	69	76	83	93	110	131	169	243
90A19	31	58	65	78	85	93	105	124	148	190	273
90A21	35	64	72	86	95	104	116	138	164	211	303
90A23	38	71	79	95	104	114	128	151	181	232	334
90A25	42	77	87	104	114	125	140	165	197	253	364
90A27	45	84	94	112	124	135	152	179	214	274	394
100A											
100A13	22	42	47	55	62	67	75	88	107	135	182
100A15	26	49	55	65	72	79	88	103	125	158	213
100A17	30	56	63	74	82	90	100	118	143	181	243
100A19	33	63	71	83	93	101	113	133	161	203	274
100A21	37	70	79	92	103	113	126	148	179	226	304
100A23	41	77	87	102	113	124	138	163	197	248	334
100A25	45	84	95	111	124	135	151	177	215	271	365
100A27	48	91	103	120	134	146	164	192	233	294	395
100A29	52	98	110	130	145	158	176	207	251	316	426
100A31	56	105	118	139	155	169	189	222	269	339	456
100A33	60	112	126	148	165	180	201	237	287	362	487
100A39	66	126	141	165	186	201	225	264	321	405	546
100A45	78	147	165	195	216	237	264	309	375	474	639
100A51	90	168	189	222	246	270	300	354	429	543	729
100A57	99	189	213	249	279	303	339	399	483	609	822
100A63	111	210	237	276	309	339	378	444	537	678	912
100A69	123	231	261	306	339	372	414	489	591	744	1002
100A75	135	252	285	333	372	405	453	531	645	813	1095
100A81	144	273	309	360	402	438	492	576	699	882	1185
100A87	156	294	330	390	435	474	528	621	753	948	1278
100A93	168	315	354	417	465	507	567	666	807	1017	1368
100A99	180	336	378	444	495	540	603	711	861	1086	1461

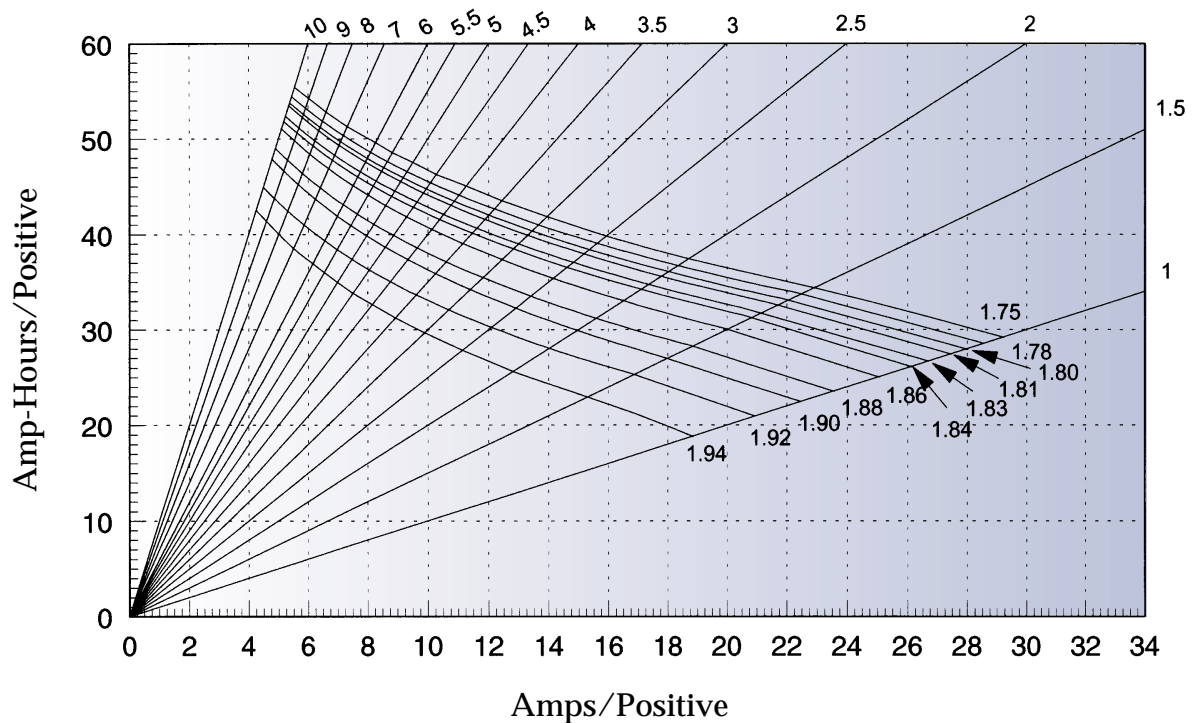
ABSOLYTE® IIP

Absolyte IIP Performance Curves @25°C (77°F)

50A Series 1 to 60 Minutes



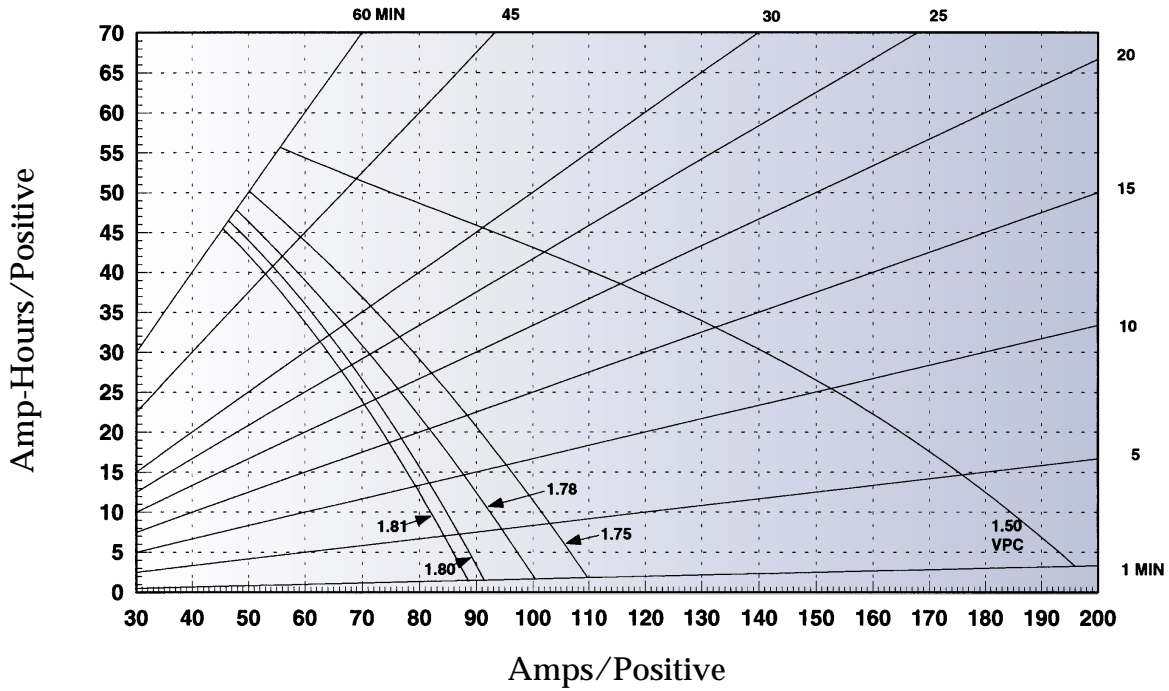
50A Series 1 to 10 Hours



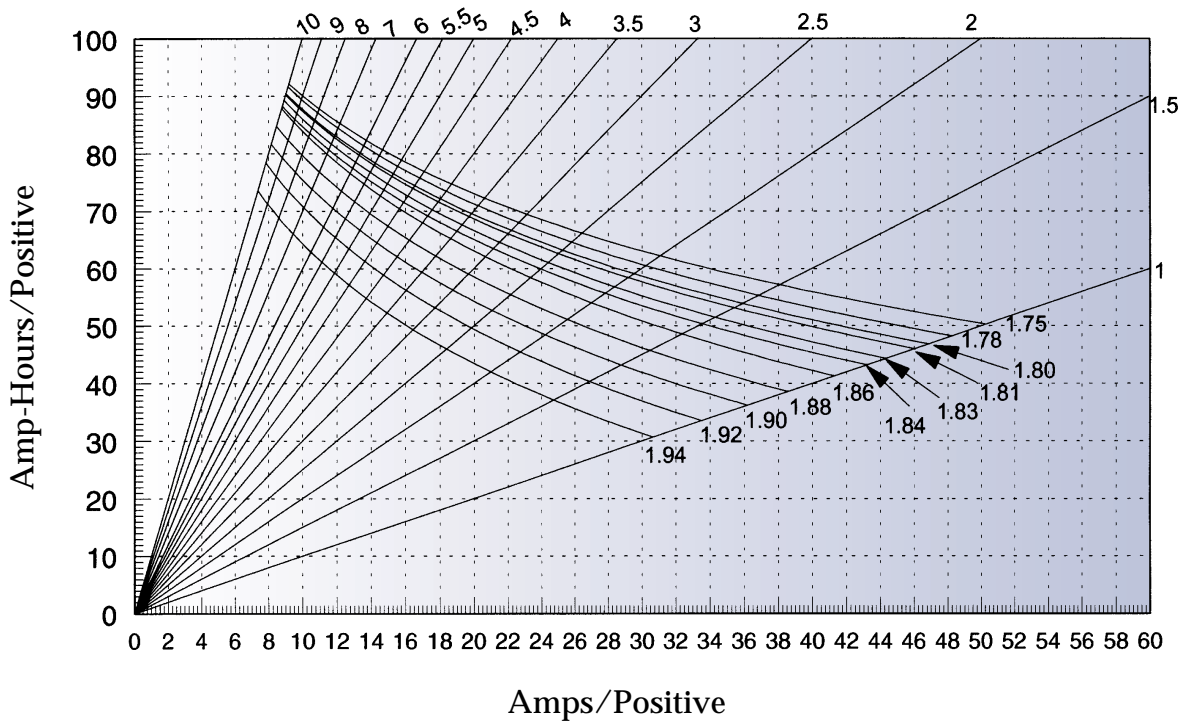
ABSOLYTE® IIP

Absolyte IIP Performance Curves @25°C (77°F)

90A Series 1 to 60 Minutes



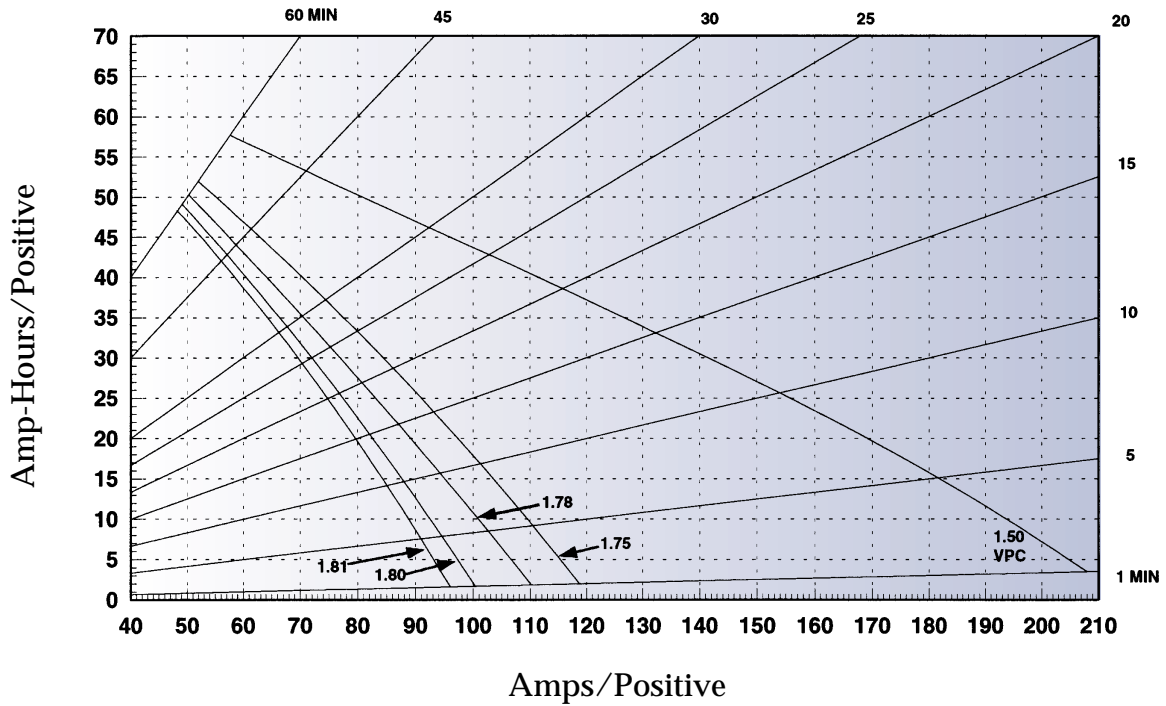
90A Series 1 to 10 Hours



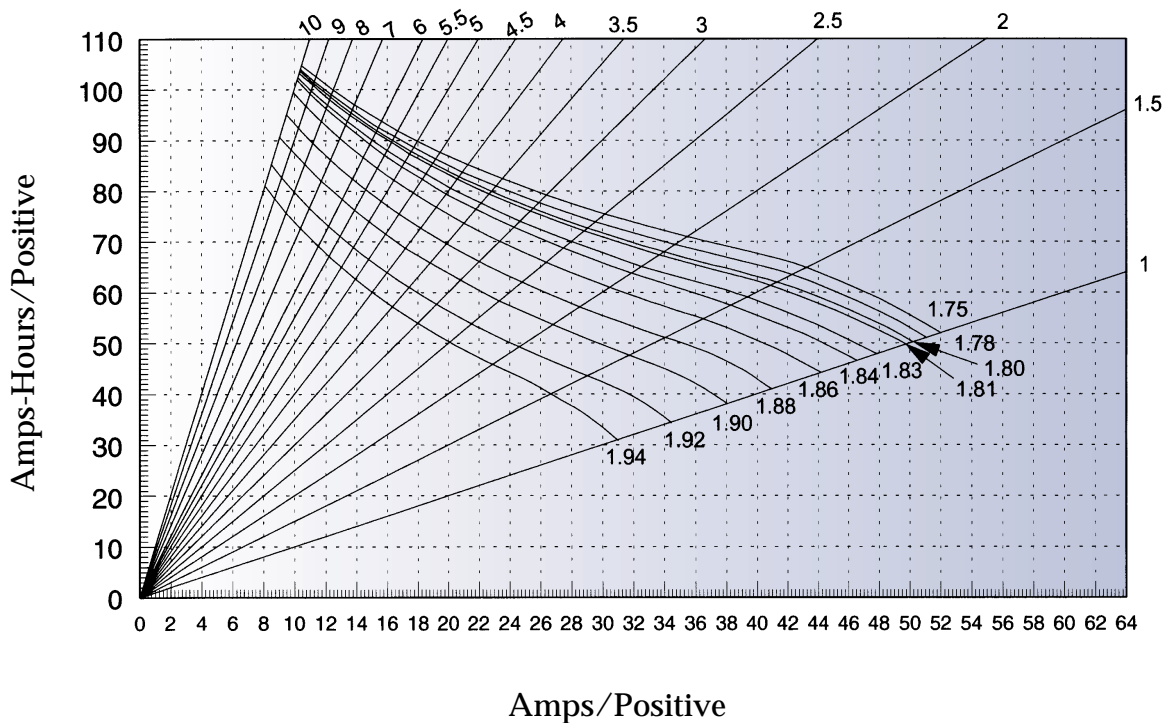
ABSOLYTE[®] IIP

Absolyte IIP Performance Curves @25°C (77°F)

100A Series 1 to 60 Minutes



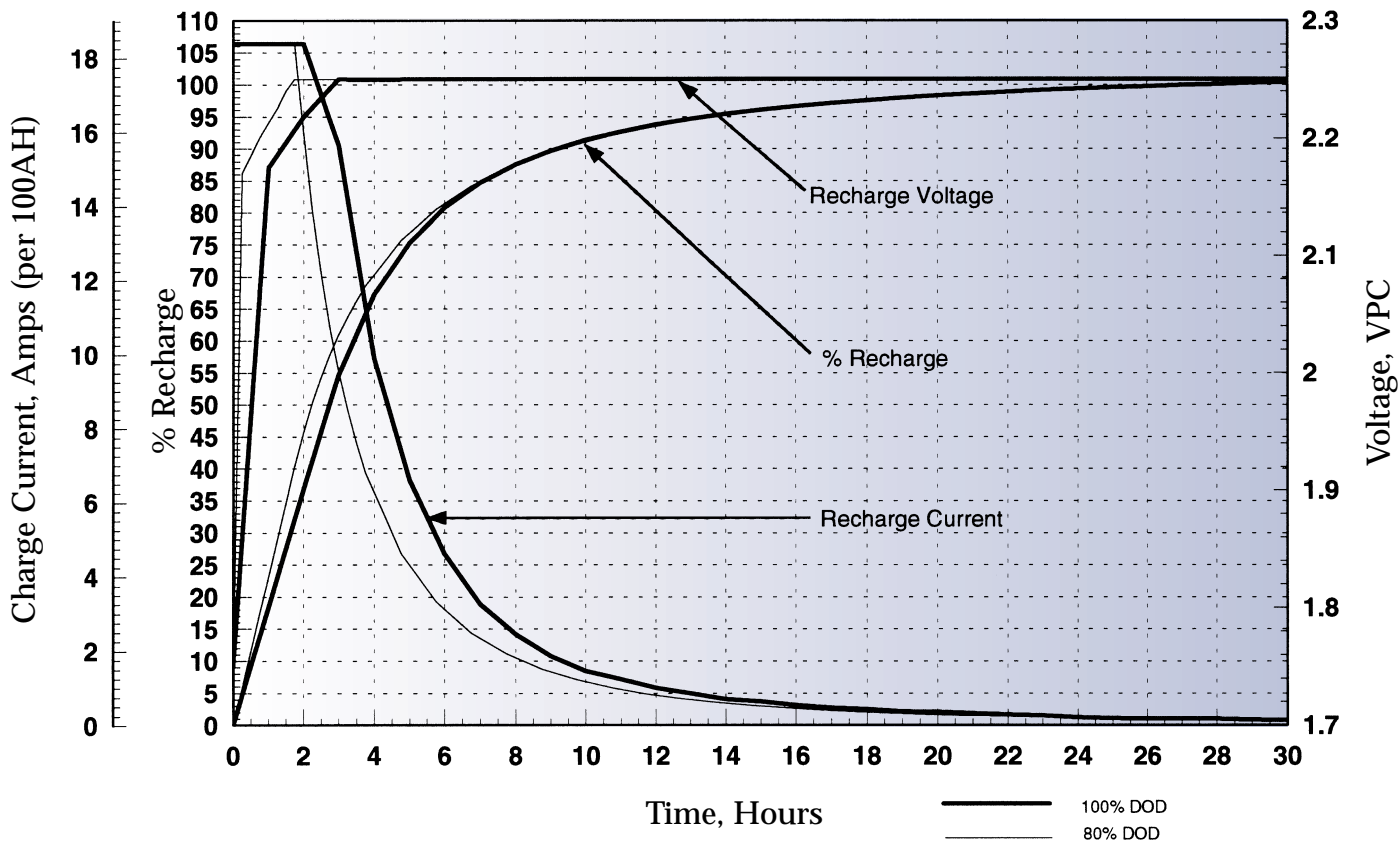
100A Series 1 to 10 Hours



ABSOLYTE® IIP

Absolyte IIP Recharge Characteristics @25°C (77°F)

50A/90A/100A Series 2.25 Volts Per Cell Float



ABSOLYTE[®] IIP

G N B

ABSOLYTE® IIP

Batteries

GLOBAL OPERATIONS

NORTH AMERICA

GNB Industrial Power
Lombard, Illinois U.S.A.
TEL: 1.630.629.5200
FAX: 1.630.629.2635

GNB Industrial Power
Mississauga, Ontario Canada
TEL: 1.905.624.1107
FAX: 1.905.624.1801

EUROPE

Exide Technologies
Im Thiergarten, Germany
TEL: 49.6042.81.177
FAX: 49.6042.81.216

Exide Technologies
Aalst, Belgium
TEL: 32.53.73.53.53
FAX: 32.53.77.75.56

MIDDLE EAST/AFRICA

Exide Technologies
Abu Dhabi, U.A.E.
TEL: 971.2.226235
FAX: 971.2.227644

JAPAN

GNB Industrial Power Japan
Tokyo, Japan
TEL: 81.3.5269.1061
FAX: 81.3.5269.1069

AUSTRALIA/NEW ZEALAND

Exide Technologies
Padstow, N.S.W. Australia
TEL: 61.2.9722.5700
FAX: 61.2.9774.2966

SOUTH EAST ASIA

Exide Technologies S.E. Asia
Singapore
TEL: 65.546.2866
FAX: 65.546.2966

CHINA/HONG KONG

Exide Technologies
Kowloon, Hong Kong
TEL: 852.2.956.6688
FAX: 852.2.956.2161

LATIN AMERICA

GNB Industrial Power
Atlanta, Georgia U.S.A.
TEL: 1.770.551.9136
FAX: 1.770.206.9650

INDIA

GNB Industrial Power
Bangalore, India
TEL: 91.80.529.7326
FAX: 91.80.529.7326

www.gnb.com

Total Battery Management

GNB's commitment to the environment constitutes a complete approach to the business of recycling, manufacturing and distribution that continues to set the standard in the battery industry.

For the past 75 years, GNB has led the industry's effort to recycle rather than discard used batteries. Last year alone, GNB safely processed more than 250,000 tons of lead.

Let GNB take the risk out of the disposal of your spent batteries. As part of a Total Battery Management program, GNB will pick up and transport any spent lead acid batteries to GNB-owned, EPA approved recycling centers globally.

Only companies with the strongest possible financial resources are able to make that kind of long-term commitment to recycling — and GNB has what it takes to help you.

G N B

INDUSTRIAL POWER

