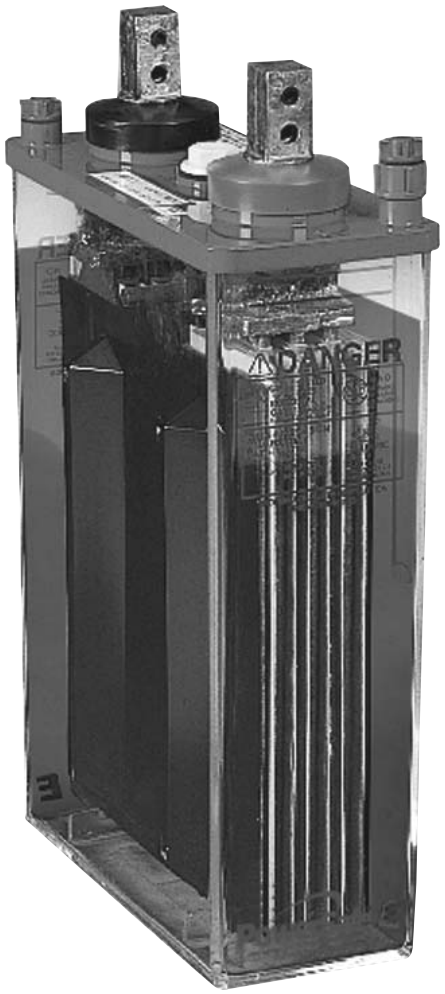

PowerSafe™ EA

PERFORMANCE SPECIFICATIONS

EnerSys™

Power/Full Solutions

ISO 9000™

Publication No. US-EA-PS-001 October 2006

Introducing the PowerSafe EA

PowerSafe™ EA

The PowerSafe™ EA cell type incorporates a carefully-engineered combination of plate surface area, plate thickness, and volume of electrolyte which optimizes performance for discharges from 1 minute to 8 hours in duration. It adapts well to those more-demanding, complex load profiles with exceptionally high initial and ending current requirements, separated by a long period of more moderate constant-current demand.

Features

- Lowest initial cost.
- For floating applications, tolerant of high ambient temperatures on a limited basis.
- Flat-plate construction - antimony alloy grids.
- 20 year life expectancy.
- Slide-Lock™ Post Seal

Specifications

- Plate thickness:
  Positive: 0.34 in/8.6 mm
  Negative: 0.24 in/6.1 mm
- Plate dimensions:

	Height	Width
Pos:	11.4 in/290 mm	9.4 in/239 mm
Neg:	11.4 in/290 mm	9.4 in/239 mm

- Sediment space: 0.75 in/19.1 mm
- Electrolyte over plates: 2.1 in/53.3 mm
- Container:
  Styrene Acrylonitrile Copolymer
- Cover: Made from Flame Retardant PVC (UL94-VO/L.O.I. 28%)
- Separators: Microporous rubber
- Retainers: "Vitrex"- glass fiber
- Post type:
  EA-5 through 13 - single post with copper insert
  EA-15 through 21 - double posts with copper insert
- Post seal type: Slide-Lock™
- Plate suspension type:
  Positive: Bridge hung
  Negative: Bottom supported
- Vent type: Flame Arrestor, Fused Alumina
- Float voltage setting:
  Acceptable min/max: 2.15/2.22Vpc
  Recommended: 2.20Vpc
- Specific gravity: 1.215
- Bolt connectors: Stainless steel, standard English measure, hex-head
- Intercell connectors: Lead-plated copper
- All inter-cell, inter-tier, inter-step, end-to-end inter-rack, back-to-back inter-rack connectors, and terminal plates are included with every battery. Across-aisle inter-rack connectors are not included.

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General Specifications

TYPE*	NOM. Ah CAP.[1]	Nominal Dimensions						Typical Weights							
		Length**		Width		Height		Unpacked		Domestic Packed		Electrolyte Only / 1.215 S.G.			
		mm	in	mm	in	mm	in	kg	lbs	kg	lbs	kg	lbs	l	gal
EA-5	200	130	5.11	279	11.0	475	18.7	27.2	60.0	29.0	63.9	9.5	21	7.8	2.1
EA-7	270	130	5.11	279	11.0	475	18.7	31.8	70.1	34.0	75.0	8.6	19	7.1	1.9
EA-9	350	130	5.11	279	11.0	475	18.7	36.7	80.9	39.0	86.0	7.7	17	6.4	1.7
EA-11	440	168	6.61	279	11.0	475	18.7	45.8	101	49.4	109	10.9	24	9.0	2.4
EA-13	535	168	6.61	279	11.0	475	18.7	50.3	111	54.0	119	9.1	20	7.5	2.0
EA-15	620	206	8.1	279	11.0	475	18.7	61.7	136	66.2	146	13.2	29	10.8	2.9
EA-17	710	206	8.1	279	11.0	475	18.7	66.7	147	70.8	156	12.2	27	10.1	2.7
EA-19	800	257	10.1	279	11.0	475	18.7	78.5	173	82.6	182	17.7	39	14.6	3.9
EA-21	890	257	10.1	279	11.0	475	18.7	82.6	182	87.5	193	16.3	36	13.5	3.6

* Suffix number indicates total plates per cell.
** 0.25" must be added between cells for spacing purposes when calculating total battery rack length.

Constant Current

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

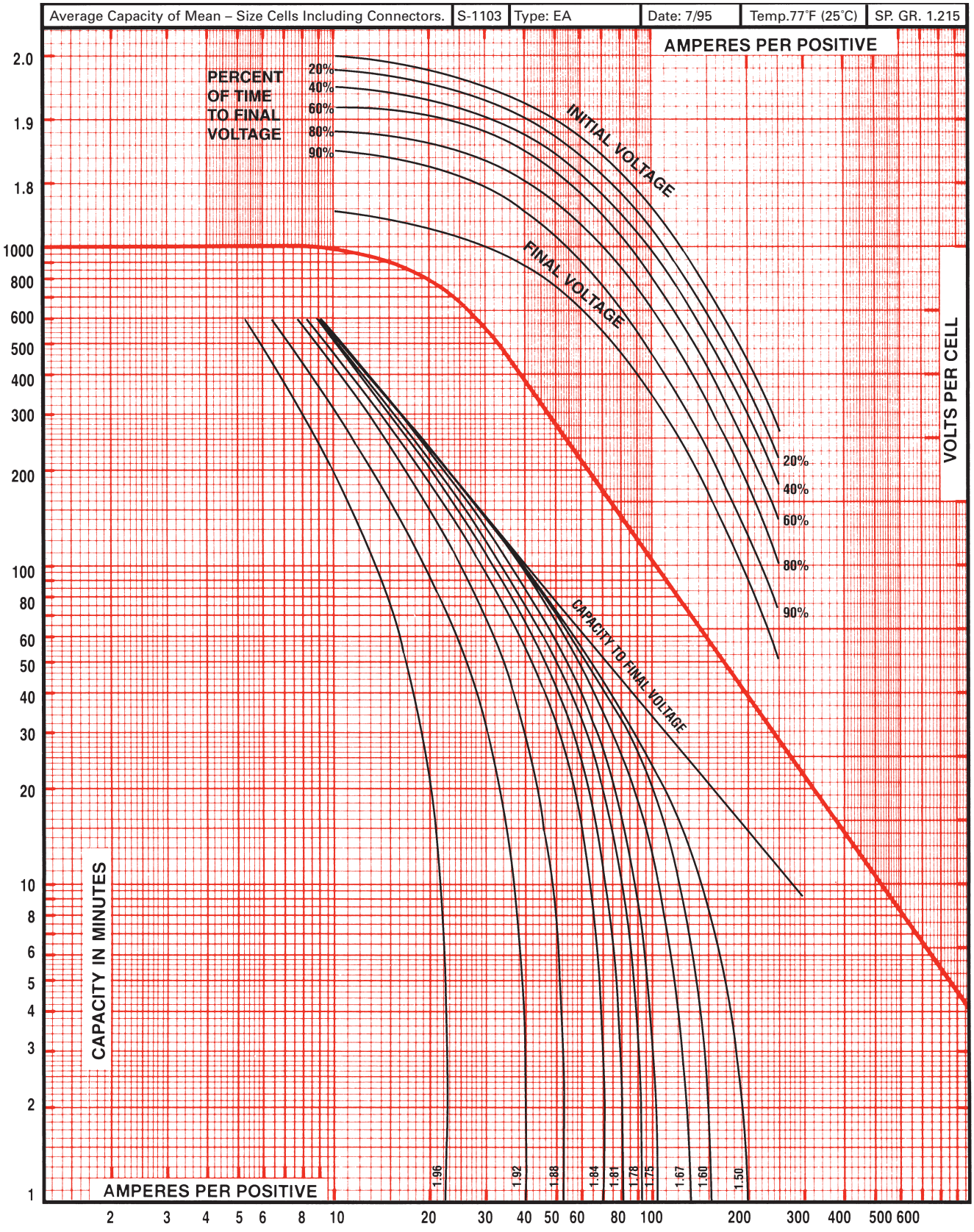
Type	NOM. Ah CAP.[1]	1 MIN to 1.50 VPC[2]	Minutes			Hours									
			1	15	30	1	1.5	2	3	4	5	8	10	12	24
EA-5	200	408	213	167	136	100	80	67	51	42	35	25	20	18	10
EA-7	270	612	320	250	204	150	118	98	73	59	49	33	28	24	13
EA-9	350	816	427	334	272	200	158	130	97	78	65	44	37	31	17
EA-11	440	1020	534	417	340	250	197	163	122	98	82	56	46	39	22
EA-13	535	1224	640	500	408	300	237	196	146	117	98	67	55	47	26
EA-15	620	1428	747	584	476	350	276	228	170	137	114	78	64	55	30
EA-17	710	1632	854	667	544	400	316	261	195	156	131	89	74	63	34
EA-19	800	1836	960	751	612	450	355	294	219	176	147	100	83	71	39
EA-21	890	2040	1067	834	680	500	395	326	243	195	163	111	92	79	43

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

EA-5	165	136	114	86	71	61	48	40	34	24	20	18	10
EA-7	248	204	170	129	104	87	66	54	46	32	27	23	13
EA-9	330	272	227	172	138	116	88	72	61	43	36	31	17
EA-11	413	340	284	215	173	145	110	90	77	54	45	38	21
EA-13	495	407	341	258	207	174	132	108	92	64	54	46	25
EA-15	578	475	397	301	242	203	155	126	107	75	63	54	29
EA-17	660	543	454	344	277	232	177	144	122	86	72	61	34
EA-19	743	611	511	387	311	261	199	162	138	96	80	69	38
EA-21	825	679	568	430	346	290	221	180	153	107	89	77	42

*Values listed represent 100% of the cell's capacity. Initial capacity shall be a minimum of 90% of these values per IEEE 450.
**1.215 S.G. electrolyte at 77ºF (25ºC) includes intercell connector.
[1]Nominal AMP hour capacity at the 8 hour rate.
[2]One minute rates to 1.50 VPC should only be used for short circuit calculations and not as performance data.
All data subject to change without notice.

PowerSafe™ EA



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