

TreStar® & TreStar Sx®

Battery Matrix

Three-Phase On-Line Uninterruptible Power Supplies

Battery Hold-Up Times (in minutes)

Model 24	Batt. AH		12 KVA (% Load)				18 KVA (% Load)				24 KVA (% Load)			
	Strings		25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%
BAT35-24I-24 KVA	35	1	213	87	54	38	127	54	33	23	80	33	19	13
BAT35-24S-24KVA	35	1	213	87	54	38	127	54	33	23	80	33	19	13
BAT50-24S-24KVA	50	1	350	150	92	65	216	95	55	38	125	55	32	22
BAT90-24S-24KVA	90	1	551	247	153	104	351	153	94	65	216	94	56	38
BAT120-24S-24KVA	120	1	808	370	228	162	513	228	140	93	323	140	82	59
CALL FACTORY	150	1	999	522	290	206	638	290	176	121	404	176	105	74
BAT35-48S-24KVA*	35	2	477	213	127	92	298	127	80	54	181	80	37	33
BAT50-48S-24KVA*	50	2	750	350	215	150	480	216	126	88	300	125	80	55
BAT90-24S-24KVA	90	2	1131	551	351	247	763	351	216	153	491	216	129	94
BAT120-24S-24KVA	120	2	1391	808	513	370	1115	513	323	228	704	323	198	140
CALL FACTORY	150	2	2167	999	638	522	1374	638	404	290	638	404	251	176
BAT50-24S-24KVA	50	3	1200	540	350	240	730	354	216	150	480	210	125	89
BAT90-24S-24KVA	90	3	2238	868	551	401	1189	551	351	247	763	351	216	153
BAT120-24S-24KVA	120	3	2685	971	808	583	1391	808	513	370	1115	513	323	228
DC Rail			288 Vdc				288 Vdc				288 Vdc			
Model 36	Batt. AH		24 KVA (% Load)				30 KVA (% Load)				36 KVA (% Load)			
	Strings		25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%
BAT35-40S-36KVA	35	1	170	116	43	29	127	54	33	23	121	43	26	18
BAT50-40S-36KVA	50	1	280	120	74	50	210	95	55	38	168	73	44	30
BAT90-40S-36KVA	90	1	450	199	117	83	351	153	94	65	282	117	72	51
BAT120-40T-36KVA	120	1	629	297	180	126	513	228	140	93	417	180	109	79
CALL FACTORY	150	1	822	376	232	165	638	290	176	121	521	232	143	96
BAT35-40S-36KVA	35	2	390	170	121	73	298	127	80	54	239	100	63	43
BAT50-40S-36KVA	50	2	600	282	175	120	480	210	126	88	390	168	102	73
BAT90-40S-36KVA	90	2	983	450	232	199	763	351	216	153	622	282	177	117
BAT120-40T-36KVA	120	2	1408	629	417	297	1115	531	323	228	897	417	260	180
CALL FACTORY	150	2	1752	822	521	376	1374	638	404	290	1132	521	329	232
BAT35-40S-36KVA	35	3	735	218	170	116	477	213	127	92	390	170	100	73
BAT50-40S-36KVA	50	3	960	432	282	200	730	354	216	150	600	275	168	119
BAT90-40S-36KVA	90	3	1253	707	450	325	1189	551	351	247	983	590	282	199
CALL FACTORY	120	3	2222	1042	629	450	1391	808	513	370	1408	629	417	297
CALL FACTORY	150	3	2730	1281	822	591	2167	999	638	522	1725	822	521	376
DC Rail			480 Vdc				480 Vdc				480 Vdc			
Model 50	Batt. AH		30 KVA (% Load)				40 KVA (% Load)				50 KVA (% Load)			
	Strings		25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%
BAT35-40M-50KVA	35	1	73	29	18	12	55	23	13	8	33	13	7	4
BAT50-40M-50KVA	50	1	168	73	43	30	115	50	30	20	94	38	22	15
BAT90-40M-50KVA	90	1	282	118	72	51	199	83	51	36	138	65	38	26
BAT90-40T-50KVA	90	1	282	118	72	51	199	83	51	36	138	65	38	26
BAT120-40T-50KVA	120	1	417	180	109	79	297	126	79	55	228	93	59	41
CALL FACTORY	150	1	521	232	143	96	376	165	96	67	290	121	74	53
BAT35-40M-50KVA	35	2	239	121	63	43	170	73	43	29	129	55	33	23
BAT50-40M-50KVA	50	2	420	168	96	73	275	115	73	50	210	94	55	38
BAT90-40M-50KVA	90	2	621	282	172	118	450	199	118	83	351	138	88	65
BAT90-40T-50KVA	90	2	621	282	172	118	450	199	118	83	351	138	88	65
BAT120-40T-50KVA	120	2	897	417	260	180	629	297	180	126	513	228	140	93
CALL FACTORY	150	2	1132	521	329	232	822	376	232	165	638	290	176	121
BAT35-40M-50KVA	35	3	390	170	121	76	278	116	76	50	213	93	54	38
BAT50-40M-50KVA	50	3	617	300	180	120	438	192	115	84	350	150	94	65
BAT90-40M-50KVA	90	3	983	450	282	199	707	325	199	140	551	226	138	94
BAT90-40T-50KVA	90	3	983	450	282	199	707	325	199	140	551	226	138	94
BAT120-40T-50KVA	120	3	1408	629	417	297	1042	615	297	212	808	370	228	162
CALL FACTORY	150	3	1725	822	521	376	1281	591	376	269	999	522	290	206
DC Rail			480 Vdc				480 Vdc				480 Vdc			

Physical Data

24 KVA				
Battery	Ht.	Depth	Width	Wt.
35-24I	Internal to UPS Cabinet			660
35-24S	55.9	28.8	17.84	900
35-48S	55.9	28.8	33.5	1650
50-24S	55.9	28.8	17.84	1050
50-48S	55.9	28.8	33.5	2100
90-24S	55.9	28.8	33.5	1920
120-24S	55.9	28.8	33.5	2430
36 KVA				
Battery	Ht.	Depth	Width	Wt.
35-40S	55.9	28.8	18	1300
50-40S	55.9	28.8	33.5	1800
90-40S	55.9	28.8	51.2	3000
90-40T	70	30	33	2950
120-40T	70	30	33	3900
50 KVA				
Battery	Ht.	Depth	Width	Wt.
35-40M	63	28.7	17.8	1300
50-40M	63	28.7	33.5	1860
90-40M	63	28.7	51.2	3090
90-40T	70	30	33	2950
120-40T	70	30	40	3900
80 KVA				
Battery	Ht.	Depth	Width	Wt.
35-40M	63	28.7	17.8	1330
50-40M	63	28.7	33.5	1860
90-40M	63	28.7	51.3	3090
90-40T	70	30	33	2950
120-40T	70	30	40	3900

* Two strings are in one battery cabinet. All other configurations are one string per cabinet.



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Three-Phase On-Line Uninterruptible Power Supplies

Battery Matrix

Battery Hold-Up Times (in minutes)

Model 80	Batt. AH	Batt. Strings	50 KVA (% Load)				65 KVA (% Load)				80 KVA (% Load)			
			25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%
BAT35-40M-80KVA	35	1	55	23	13	8	39	16	8	6	33	13	7	4
BAT50-40M-80KVA	50	1	94	38	22	14	67	27	15	9	55	22	12	7
BAT90-40M-80KVA	90	1	138	65	38	26	107	44	26	18	88	38	22	14
BAT120-40M-80KVA	120	1	138	65	38	26	107	44	26	18	88	38	22	14
BAT120-40T-80KVA	120	1	228	93	59	41	166	71	42	29	140	59	45	23
CALL FACTORY	150	1	290	121	74	53	212	92	55	38	176	74	46	31
BAT35-40M-80KVA	35	2	127	55	33	23	96	39	24	16	80	33	19	13
BAT50-40M-80KVA	50	2	222	94	55	38	150	67	39	22	130	55	34	22
BAT90-40M-80KVA	90	2	351	138	88	65	256	107	67	44	216	88	56	38
BAT120-40M-80KVA	120	2	351	138	88	65	256	107	67	44	216	88	56	38
BAT120-40T-80KVA	120	2	513	228	140	93	382	166	101	71	323	140	82	59
CALL FACTORY	150	2	638	290	176	121	475	212	126	92	404	126	105	74
BAT35-40M-80KVA	35	3	213	93	54	38	156	66	39	28	127	54	33	23
BAT50-40M-80KVA	50	3	354	150	94	65	252	108	68	47	210	89	55	38
BAT90-40M-80KVA	90	3	551	226	138	94	411	178	107	78	351	138	88	65
BAT120-40M-80KVA	120	3	551	226	138	94	411	178	107	78	351	138	88	65
BAT120-40S	120	3	808	370	228	162	598	272	166	114	513	228	140	93
CALL FACTORY	150	3	999	522	290	207	749	344	212	150	638	290	176	121
DC Rail			480 Vdc				480 Vdc				480 Vdc			
Model 150	100 KVA (% Load)				125 KVA (% Load)				150 KVA (% Load)					
BAT50-40T	40	1	40	15	6	n/a	28	10	3	n/a	22	7	n/a	n/a
BAT90-40T	90	1	67	26	15	9	49	19	10	5	38	15	7	n/a
BAT120-40T	120	1	100	40	24	16	78	32	18	11	60	24	13	8
CALL FACTORY	150	1	150	55	35	21	95	40	23	15	78	30	18	11
BAT50-40T	50	2	90	36	22	14	70	28	16	10	55	22	12	6
BAT90-40T	90	2	170	67	39	26	125	49	28	19	95	38	23	15
BAT120-40T	120	2	250	100	60	40	190	78	45	32	150	60	46	24
CALL FACTORY	150	2	330	150	75	55	240	95	55	40	180	78	45	30
BAT50-40T	50	3	180	60	40	26	120	45	28	19	95	35	22	14
BAT90-40T	90	3	260	110	67	45	220	82	50	35	160	57	39	26
BAT120-40T	120	3	410	175	100	70	320	135	80	52	250	100	60	41
CALL FACTORY	150	3	540	210	150	90	420	180	100	65	330	150	75	55
DC Rail			480 Vdc				480 Vdc				480 Vdc			
Model 250	200 KVA (% Load)				225 KVA (% Load)				250 KVA (% Load)					
BAT90-40T	90	1	26	9	n/a	n/a	22	7	n/a	n/a	19	5	n/a	n/a
BAT120-40T	120	1	40	16	8	n/a	37	14	6	n/a	30	11	n/a	n/a
CALL FACTORY	150	1	55	21	11	6	47	18	9	5	40	15	7	n/a
BAT90-40T	90	2	67	26	15	9	58	22	13	7	50	19	10	5
BAT120-40T	120	2	100	40	24	16	88	37	20	14	78	30	17	11
CALL FACTORY	150	2	150	55	35	21	120	47	27	18	95	40	23	15
BAT90-40T	90	3	110	45	26	18	97	39	22	15	82	34	20	13
BAT120-40T	120	3	180	70	40	28	140	60	35	24	130	52	30	21
CALL FACTORY	150	3	210	90	55	35	180	80	50	30	150	67	40	27
DC Rail			480 Vdc				480 Vdc				480 Vdc			

Battery Application Specifications

UPS	Efficiency	Watts/12V Batt.	Batt. Qty.
12.5 KVA	90.0%	463	24
15 KVA	91.0%	549	24
20 KVA	91.0%	733	24
30 KVA	91.0%	659	40
40 KVA	92.0%	870	40
50 KVA	92.0%	1087	40
65 KVA	94.0%	1382	40
75 KVA	94.0%	1596	40
80 KVA	93.3%	1715	40
100 KVA	93.5%	2140	40
125 KVA	93.5%	2674	40
150 KVA	93.8%	3200	40
200 KVA	93.6%	4275	40
225 KVA	93.8%	4797	40
250 KVA	93.5%	5350	40



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Staco Energy Products Co. is committed to providing the highest quality products in the industry.

For 65 years, customers worldwide have relied on Staco Energy Products Co. as their dependable source for standard & custom solutions to their electrical power problems.