

Valve Regulated Lead Acid Battery

HYBRID GEL DEEP CYCLE BATTERY

SOLAR Series

RANGE SUMMARY

The Solar series is designed for frequent cyclic charge and discharge applications under extreme environments. By combining the newly developed Nano Gel electrolyte with high density paste, the Solar range offers high recharge efficiency at very low charge current. The acid stratification is highly reduced by adding Nano Gel.

This series is suited for energy storage for renewable energies such as PV, wind turbine power systems and CATV.

FEATURES AND BENEFITS

- 12 years in floating condition
- Up to 5 years design life at renewable energy applications according to IEC61427
- Wide operating temperature range from -25°C to 65°C
- Nano gel electrolyte eliminate the acid stratification and prolong cycle life
- Round trip efficiency as high as 85%.
- Thick positive flat plate design with high Tin low Calcium alloy and high density paste
- Low self-discharge rate and long shelf life (9 months at 20°C)
- Excellent deep discharge recovery capability

CONSTRUCTION

- Positive plate : Thick high Sn low Ca grid with high density paste
- Negative plate : Over designed capacity to overcome sulphation in low SOC
- Separator : Advanced AGM separator
- Electrolyte : Dilute high purity sulphuric acid with nano gel
- Battery container and cover : ABS
- Pillar seal : 100% factory tested, proven two layers epoxy resin seal
- Relief valve : Complete with integrated flame arrestor

CHARGING VOLTAGE AND SETTINGS

- Constant voltage charging is recommended
- Recommended float charge voltage: 2.25Vpc @ 25°C
- Float voltage temperature compensation: -3mV/°C/cell
- Equalize charge voltage: 2.35 Vpc @25°C
- Cyclic application charge voltage : 2.40~2.45 Vpc @25°C
- Max. charge current allowable : 0.25C₁₀A



Capacity Range: 7Ah-250Ah

General Specifications



Code No.	Voltage (V)	Capacity (AH)	Length		Dimension			Total Height		Weight		Terminal Type	
			mm	in	mm	in	mm	in	mm	in	Kg		Lb
SOLAR12-7	12	7	151	5.94	65.0	2.56	94.0	3.70	101	3.98	2.30	5.07	F2
SOLAR12-9	12	9	151	5.94	65.0	2.56	94.0	3.70	101	3.98	2.60	5.73	F2
SOLAR12-14X	12	14	151	5.94	100	3.94	96.0	3.78	100	3.94	4.20	9.26	T2
SOLAR12-18A	12	18	181	7.13	76.0	2.99	167	6.57	167	6.57	5.26	11.6	T5
SOLAR12-18	12	18	181	7.13	76.0	2.99	167	6.57	167	6.57	5.20	11.5	T5
SOLAR12-20	12	20	181	7.13	76.0	2.99	167	6.57	167	6.57	5.85	12.9	T5
SOLAR12-22X	12	22	180	7.09	76.0	2.99	170	6.99	170	6.99	6.70	14.8	T23
SOLAR12-24	12	24	175	6.89	166	6.54	125	4.92	125	4.92	8.10	17.9	T23
SOLAR12-26X	12	26	185	7.28	105	4.13	130	5.12	130	5.12	7.30	16.1	T23
SOLAR12-30X	12	30	175	6.89	166	6.54	125	4.92	125	4.92	9.80	21.6	T23
SOLAR12-35X	12	35	175	6.89	166	6.54	125	4.92	125	4.92	10.3	22.7	T23
SOLAR12-35B	12	35	223	8.78	93.0	3.66	175	6.89	175	6.89	9.80	21.6	T23
SOLAR12-38	12	38	197	7.76	165	6.50	170	6.69	170	6.69	13.3	29.3	T18
SOLAR12-40X	12	40	223	8.78	108	4.25	175	6.89	175	6.89	11.8	26.0	T23
SOLAR12-45X	12	45	223	8.78	120	4.72	175	6.89	175	6.89	12.0	27.1	T23
SOLAR12-50X	12	50	223	8.78	120	4.72	175	6.89	175	6.89	13.4	29.5	T23
SOLAR12-55X	12	55	223	8.78	135	5.71	177	6.97	177	6.97	15.0	33.1	T23
SOLAR12-55	12	55	230	9.06	138	5.43	208	8.19	211	8.31	17.4	38.4	T18
SOLAR12-65D	12	65	230	9.06	135	5.31	177	6.97	177	6.97	16.5	36.4	T18
SOLAR12-65	12	65	350	13.7	166	6.54	179	7.05	179	7.05	21.5	47.4	T18
SOLAR12-70	12	70	260	10.2	168	6.61	211	8.31	214	8.43	23.0	50.7	T18
SOLAR12-80	12	80	260	10.2	168	6.61	211	8.31	214	8.43	24.0	52.9	T18
SOLAR12-90	12	90	306	12.0	169	6.65	211	8.31	214	8.43	28.5	62.8	T18
SOLAR12-100	12	100	330	12.9	171	6.73	214	8.43	220	8.66	31.5	69.5	T22
SOLAR12-120	12	120	406	15.9	174	6.85	207	8.15	237	9.33	37.5	82.7	T22
SOLAR12-135	12	135	342	13.4	172	6.77	280	11.0	285	11.2	41.5	91.5	T22
SOLAR12-150	12	150	484	19.1	170	6.69	225	8.86	241	9.49	46.5	103	T22
SOLAR12-200	12	200	522	20.5	238	9.37	218	8.58	221	8.70	64.0	141	T22
SOLAR12-200S	12	200	532	20.9	207	8.15	210	8.27	215	8.46	58.0	128	T22
SOLAR12-230	12	230	522	20.5	238	9.37	218	8.58	221	8.70	66.5	147	T22
SOLAR12-250	12	250	521	20.5	269	10.6	220	8.66	223	8.78	72.5	160	T22

Applications

- Photovoltaic system
- Hybrid power system
- Renewable energy system
- Power stor

Complied Standards

- IEC 60896-21/22
- IEC 61427
- Eurobat guide, long life
- BS6290 part 4
- GB/T 22473
- UL1989
- IATA and IMDG

