

100% Maintenance Free

ENERTEC *SILVER CALCIUM TECHNOLOGY*



ENERTEC MODEL 652LC

General Specifications

ENERTEC N°	10BAT652LC-VAL
SAP N°	546856

Electrical Specifications

Voltage (V)	12
Capacity (Ah) 20 Hour Rate	66
Cold Cranking Amps @ (- 18° C) En	600
Reserve Capacity (Minutes)	
Load Test	198 Amps for 15 seconds (above 9.3 Volts)
Operating Temperature:	- 18°C to 52°C

Dimensions

Max. Length (mm): (L)	278
Max. Width (mm): (W)	175
Max. Height (mm): (L)	190

Container

Mass (Weight Kg)	15,83
Case Material	Poly Propylene
Flame Arrestor (FA):	Yes
Bottom hold down:	B13
Type of Terminal:	RHP Tapered

Grid Design

Calcium- Silver Power frame Grid Technology delivers consistent power reserves to meet any challenge. The grid alloy, unique in Europe, is formed of a positive calcium-Silver grid and a negative Calcium grid, reducing the batteries water consumption to a minimum. Battery expected design life in a UPS application between 3-5 years under correct operating conditions.

Warranty

The Enertec battery is guaranteed for two year against manufacturing and material defects in automotive applications from the purchasing date as indicated on the invoice. The battery is guaranteed for one year when used in UPS applications. The guarantee does not cover flat or discharged batteries, bent, burnt or broken terminals or casings or fitment in applications for which it was not designed. The warranty covers the replacement of the defective battery with an equivalent new battery. This warranty does not in any way cover personal loss or damage owing to hidden defects. Before validating the warranty, Enertec Batteries (Pty) Ltd will recharge and test the battery according to JC – AS instructions. Please contact Enertec Batteries (Pty) Ltd directly for more details on Warranty Terms and Conditions.

Float charging of Enertec standby power batteries

Enertec standby power batteries, can be maintained at a full charge by float charging at 13.5 volts/80° F (27° C) for long periods of time. Battery electrolyte consists of a mixture of sulphuric acid (37 %) at full charge) and water. Acid is heavier than water and will collect at the bottom of cell, in stationary applications. To overcome this electrolyte stratification, it is recommended that the battery be given an equalization charge at six-month intervals. An equalization charge entails charging the battery (which is fully charged) at 15.5 volts/80° F (27° C) for six hours. An equalization charge promotes gassing which will effectively mix the electrolyte.

Both float and equalization voltages should be compensated for temperatures that are either above or below 80° F (27° C). For each degree below 80° F (27° C) add 0.019 (0.033) volts. Conversely for each degree risen above 80° F (27° C) subtract 0.019 (0.033) volts. Please note, however, that a battery has a large mass and does not respond quickly to changes in ambient temperature. It is also typical for standby batteries to be exposed to temperature swings and it may be necessary to select an average temperature value. The following table should be of help in applying temperature compensation to standby power applications.

Battery Temp	Float Voltage	Equalization Voltage
15° F / -9.4° C	14.70	16.70
20° F / -6.7° C	14.61	16.61
30° F / -1.1° C	14.42	16.42
40° F / 4.4° C	14.24	16.24
50° F / 10.0° C	14.06	16.06
60° F / 15.6° C	13.87	15.87
70° F / 21.1° C	13.69	15.69
80° F / 27° C	13.50	15.50
90° F / 32.2° C	13.32	15.32
100° F / 37.6° C	13.14	15.14
110° F / 43.3° C	12.96	14.96
120° F / 48.9° C	12.77	14.77

Performance characteristics for 66 Amp Hour battery in UPS applications

OUTPUT VOLTS	12,2	12	11,5	11	10,5	10	9
Discharge at 2.5 Amps							
Run time Minutes	660	900	1440	1590	1620	1650	1710
Amp / Hours	27,5	37,5	60	66,2	67,5	68,7	71,2
Watts / Batt	30,5	30	28,7	27,5	26,2	25	22,5
Watt / Hours	335	450	688	729	707	687	641
Discharge at 5 Amps							
Run time Minutes	240	360	660	732	786	795	840
Amp / Hours	20	30	55	61	65,5	66	70
Watts / Batt	61	60	57,5	55	52,5	50	45
Watt / Hours	244	360	632	671	688	662	630
Discharge at 10 Amps							
Run time Minutes	90	140	260	325	340	345	360
Amp / Hours	15	23	43	54	56	57	60
Watts / Batt	122	120	115	110	105	100	90
Watt / Hours	183	278	498	596	595	575	540
Discharge at 15 Amps							
Run time Minutes	50	100	170	215	228	232	245
Amp / Hours	12,5	25	42	54	57	58	61
Watts / Batt	183	180	172	165	157	150	135
Watt / Hours	152	300	487	591	597	580	551
Discharge at 20 Amps							
Run time Minutes	40	70	120	150	165	170	177
Amp / Hours	13,3	23,3	40	50	55	56,6	59
Watts / Batt	244	240	230	220	210	200	180
Watt / Hours	162	280	460	550	577	567	531
Discharge at 35 Amps							
Run time Minutes	10	15	45	62	68	74	80
Amp / Hours	5,8	8,7	26,2	36,2	39,7	43,2	46,7
Watts / Batt	427	420	402	385	367	350	315
Watt / Hours	71	105	301	398	416	431	420
Discharge at 50 Amps							
Run time Minutes		5	25	35	41	45	47
Amp / Hours		4,2	20,8	29,2	34,2	37,5	39,2
Watts / Batt		600	575	550	525	500	450
Watt / Hours		50	240	321	359	375	352
Discharge at 75 Amps							
Run time Minutes			15	23	27,5	28,5	30
Amp / Hours			18,7	28,7	34,4	35,6	37,5
Watts / Batt			862	825	797	750	675
Watt / Hours			215	316	360	356	337
Discharge at 100 Amps							
Run time Minutes			6	12,5	15,5	17,5	20
Amp / Hours			10	20,8	25,8	29,2	33,3
Watts / Batt			1150	1100	1050	1000	900
Watt / Hours			191	208	258	291	300
Discharge at 150 Amps							
Run time Minutes				6	9	10	11
Amp / Hours				15	20	25	27,5
Watts / Batt				1650	1575	1500	1350
Watt / Hours				165	209	249	247