

100% Maintenance Free

# ENERTEC

## SILVER CALCIUM TECHNOLOGY



## ENERTEC MODEL 636

### General Specifications

ENERTEC N°	10BAT636-VAL
SAP N°	556345

### Electrical Specifications

Voltage (V)	12
Capacity (Ah) 20 Hour Rate	45
Cold Cranking Amps @ (- 18° C) En	330
Reserve Capacity (Minutes)	
Load Test	135 Amps for 15 seconds (above 9.3 Volts)
Operating Temperature:	- 18°C to 52°C

### Dimensions

Max. Length (mm): (L)	238
Max. Width (mm): (W)	129
Max. Height (mm): (L)	227

### Container

Mass (Weight Kg)	11,35
Case Material	Poly Propylene
Flame Arrestor (FA):	Yes
Bottom hold down:	B00
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 45 Amp Hour battery in UPS applications

OUTPUT VOLTS	12,2	12	11,5	11	10,5	10	9
<b>Discharge at 2.5 Amps</b>							
Run time Minutes	400	580	940	1100	1130	1150	1200
Amp / Hours	16,6	24,2	39,2	45,8	47	47,9	50
Watts / Batt	30,5	30	28,8	27,5	26,3	25	22,5
Watt / Hours	203	290	451	504	495	479	450
<b>Discharge at 5 Amps</b>							
Run time Minutes	160	300	470	525	560	570	600
Amp / Hours	13,3	25	39	44	47	47,5	50
Watts / Batt	61	60	57	55	52	50	45
Watt / Hours	163	300	446	481	485	475	450
<b>Discharge at 10 Amps</b>							
Run time Minutes	35	75	160	235	250	260	280
Amp / Hours	5,8	12,5	26,6	39	41	43	46
Watts / Batt	122	120	115	110	105	100	90
Watt / Hours	71	150	306	430	437	433	419
<b>Discharge at 15 Amps</b>							
Run time Minutes		60	110	140	150	155	162
Amp / Hours		15	27	35	37	39	40
Watts / Batt		180	172	165	157	150	135
Watt / Hours		180	315	385	393	387	364
<b>Discharge at 25 Amps</b>							
Run time Minutes		7	40	60	70	75	80
Amp / Hours		2,9	17	25	29	31	33
Watts / Batt		300	287	275	262	250	225
Watt / Hours		35	191	275	305	312	299
<b>Discharge at 35 Amps</b>							
Run time Minutes			28	43	50	52	55
Amp / Hours			16,3	25	29	30	32
Watts / Batt			402	385	365	350	315
Watt / Hours			187	295	304	303	288
<b>Discharge at 50 Amps</b>							
Run time Minutes			11	22	30	31	33
Amp / Hours			9,1	18,3	25	26	28
Watts / Batt			575	550	525	500	450
Watt / Hours			105	201	262	259	247
<b>Discharge at 75 Amps</b>							
Run time Minutes			10	14	16	17	20
Amp / Hours			12,5	17,5	20	21	25
Watts / Batt			862	825	787	750	675
Watt / Hours			143	192	209	212	225
<b>Discharge at 100 Amps</b>							
Run time Minutes				6	9	10	13
Amp / Hours				10	15	17	21
Watts / Batt				1100	1050	1000	900
Watt / Hours				110	157	166	194