



TUBULAR BATTERIES



**TALL TUBULAR
DEEP CYCLE BATTERY
(150Ah to 240Ah)**

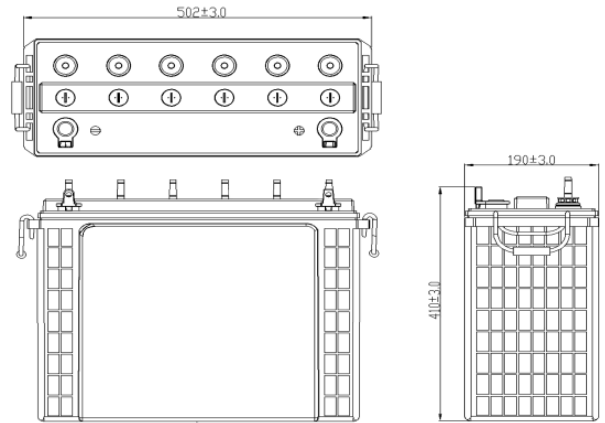
**OUR COMPLETE RANGE
OF BATTERIES**

SILVER CALCIUM INSIDE





Technical Specification - Tall Tubular Conventional Battery



Product Features :-

1. Robust Tubular with High Pressure diecasted spine- resulting low rate of spine corrosion.
2. Spill Proof Vent plug – resulting in no spillage on top and low controlled acid fumes.
3. Optimized Negative paste receipt for fast charge acceptance.
4. Consistent backup throughout life.
5. Excellent behavior in PSOC condition as compare.
6. Low Self Discharge.
7. Excellent performance on deep cyclic application as compare to AGM VRLA.
8. Very High Design & Service Life.
9. Low water loss.

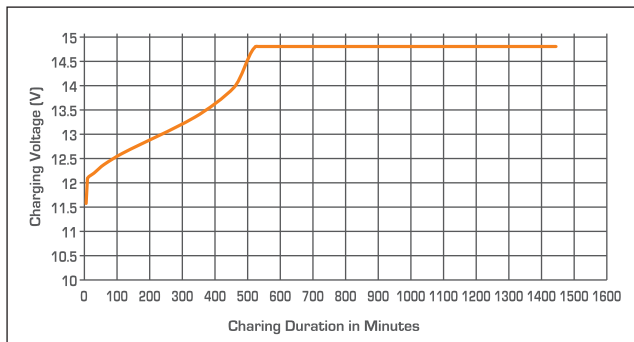
Technical Specifications of Tubular Batteries

Battery Model	Nominal Voltage	Rated Capacity 10 Hr @ 27°C (AH)	Dimension (±3mm)			Gross Weight in Kg (±2%)
			Length	Width	Height	
EIL 1500	12V	150 AH	505	190	402	59
EIL 1800	12V	180 AH	505	190	402	64
EIL 2000	12V	200 AH	505	190	402	66
EIL 2200	12V	220 AH	505	190	402	69
EIL 2400	12V	240 AH	505	190	402	72

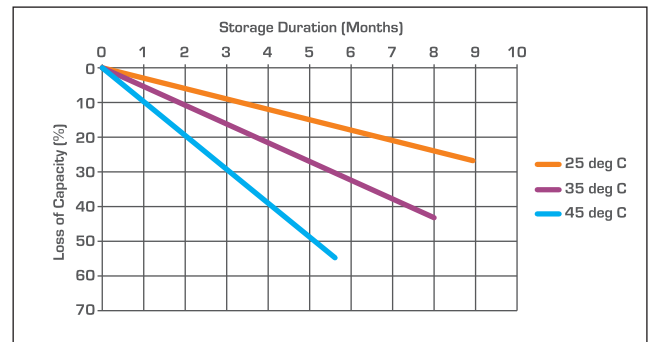


- Poly Components Material :- Polypropylene Co polymer
- Watering system :- Individual to every cell in Monobloc
- Color :- Red and White
- Testing Parameters :- IS 13369:2005 & IEC 60896-11

Charging Profile



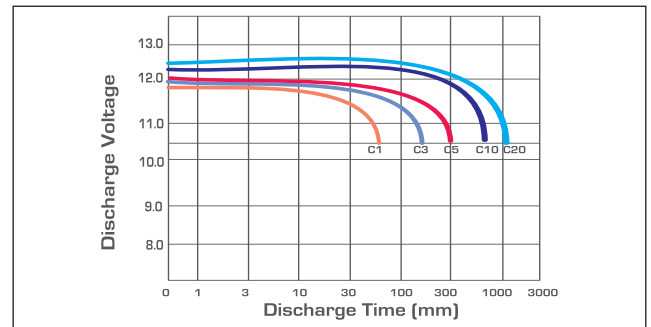
Self Discharge Characteristics @ Different Temperature



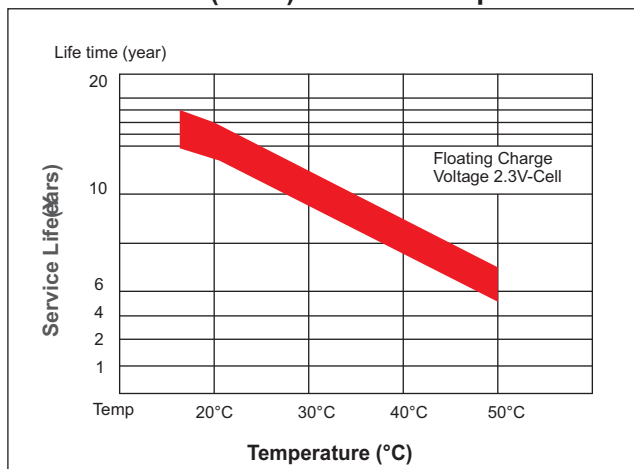
State of Charge Measure of Open-circuit Voltage @ 27°C

State of Charge	Specific Gravity	Voltage
100%	1.260	12.7V
75%	1.225	12.4V
50%	1.190	12.1V
25%	1.155	12.0V
0%	1.120	11.8V

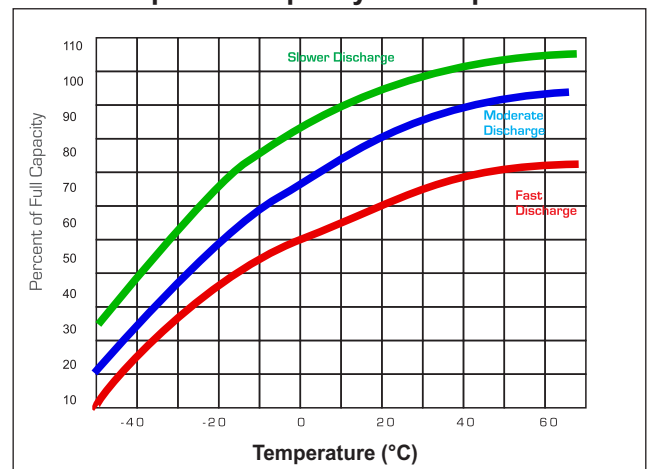
Discharging Characteristics at various rates @ 27°C

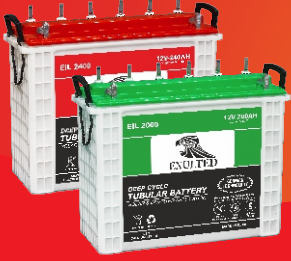


Service (Float) Life and Temperature



Expected Capacity vs Temperature

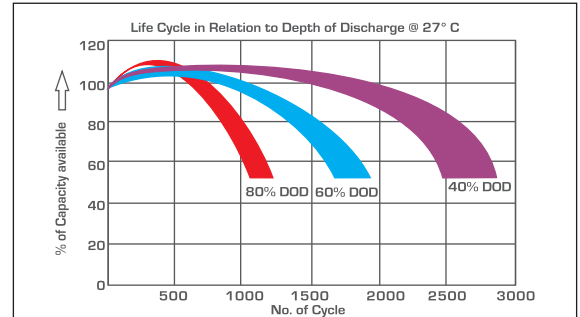




Specific Gravity & Self Discharge w.r.t. Temperature

	Add	Subtract
CHARGING TEMPERATURE COMPENSATION	0.005 volt per cell for every 1°C below 25°C	0.005 volt per cell for every 1°C above 25°C or
	0.0028 volt per cell for every 1°F below 77°F	0.0028 volt per cell for every 1°F above 77°F
OPERATIONAL DATA	Self Discharge	Self Discharge
	-4°F to 131°F (-20°C to +55°C). At temperature below 32°F (0°C) maintain a state of charge greater than 60%.	As per discharge Graph

Expected Life



Charging Instructions

Charger Voltage Settings (at 77°/25°C)			
System Voltage	12V	24V	48V
Maximum Charge Current	0.2C10		
Maximum Absorption Phase Time (hours)	4		
Absorption Voltage	14.4	28.8	57.6
Float Voltage	13.6	27.2	54.4
Equalization Voltage	16	32	64
Do not install or charge batteries in a sealer or non-ventilated compartment. Constant under or overcharging will damage the battery and shorten its life as with any battery			
Periodic Charge	Provide a periodic freshening charge to maintain a SOC greater than the threshold of 70%		

Comparison in between Exulted TT & AGM VRLA

S.No	Parameter	Exulted Tall Tubular Conventional	AGM VRLA
1	Plate Technology	Tall Tubular Plate	Flat Pasted Plate
2	Electrolyte	Free Flow Electrolyte	Electrolyte in-between A&M
3	Water Loss	Low	Negligible
4	Self Discharge	Low <2.0%	Low <2.0%
5	Life Cycle w.r.t DOD	1300 Cycle @ 80% DOD	450 Cycle @ 80%DOD
6	Water Top up	Low water top up	Water top up not required throughout life
7	Plastic Material	PPCP Material	PPCP material & ABS material
8	Battery Technology	Conventional Technology	Valve Regulated Technology
9	Separator	Polythylene (PE)	AGM Separator (Very low Electrical resistance)
10	Life w.r.t Application	Excellent performance on cyclic application	Not good for cyclic application
11	Acid Stratification	Low	No
12	Discharge Current	Low Range	Wide Range
13	Charging setting	Generic set point for chargers	Required special set point for charges
14	Operating Temperature	Wide Temperature Operating range	Temperature Operating range is limited
15	Spillage	Low Spill-proof	Spill-proof
16	Application	Suitable for Float application above 1H: discharge rate	Good for float & stand by application
17	Recovery in PSOC	Excellent	Low

Terminal Configuration :-
Terminal Type :- L
Terminal Height :- 24 mm
Torque Value :- 8-10 N.m
Bolt Type :- M8



Vent Plug Type :-
M22 coin type



Vent Plug Type :-
M30 Dummy Plug

