



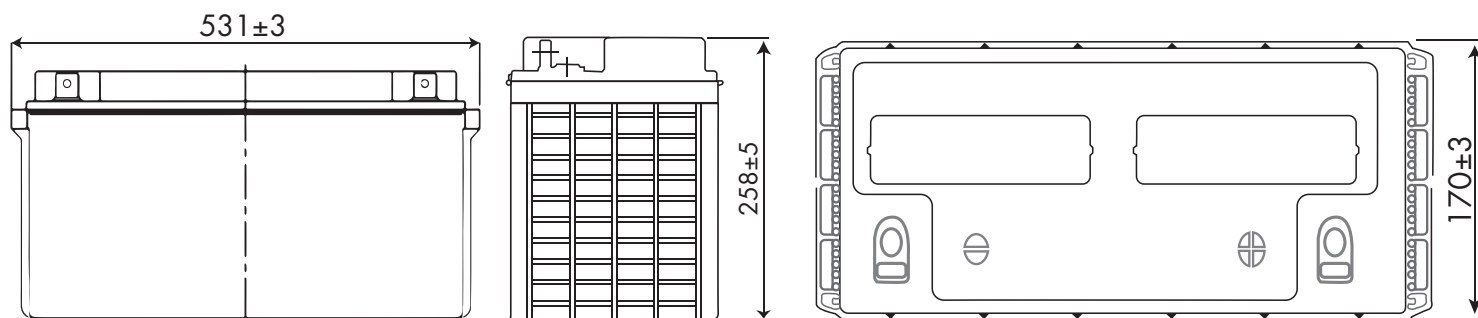
# CHADHA POWER



## SOLATRON

**TECHNICAL DATA SHEET FOR 6SGL 100 (12V 100AH)  
TUBULAR GEL VRLA SEALED MAINTENANCE FREE BATTERY**

## BATTERY OUTLINE & DIMENSIONS



## TECHNICAL SPECIFICATIONS

DESCRIPTION	PARTICULARS
<b>MODEL</b>	<b>6SGL 100</b>
<b>TYPE OF BATTERY</b>	<b>TUBULAR GEL VRLA SEALED MAINTENANCE FREE BATTERY</b>
Nominal Voltage	12V
Declared C10 Capacity at 27°C up to 1.75 ECV	100 Ah
Standards to which battery is manufactured	12V Gel range meets IS15549, IEC 60896 - 21 & 22, BS 6290 - PART IV, IEEE 1188/1189
Expected life of battery under normal operation & maintenance conditions	Design life in ideal float condition is 10 years
Loss in capacity in 28 days due to self discharge	<5 % per month
Ampere Hour Efficiency	> 95%
Watt Hour Efficiency	> 85%
<b>Recommended Re-Charging rate during operation at 27°C - 30°C:</b>	a) Bulk Voltage 14.7 ± 0.1 V b) Float Voltage 13.7 ± 0.1 V c) Low Voltage disconnect 11.4 ± 0.1 V
<b>Type of plate</b>	
Positive Plates	Robust tubular plates consisting of a lead calcium alloy, optimized for high corrosion resistance. Purity of lead - 99.99% <b>Alloy: Lead-Tin-Calcium (PbSnCa)</b>
Negative Plates	Grid plate construction consisting of lead calcium alloy. <b>Alloy: Lead-Calcium (PbCa)</b>
<b>Type of Electrolyte</b>	<b>Gelled H<sub>2</sub>SO<sub>4</sub></b>
<b>Separators</b>	Microporous and robust PVC Silica, for electrical separation of the positive and negative plates and optimized for low internal resistance
Type of Vent and Filling Plugs	Self sealing vent valves
Material of Container & Cover	Polypropelene co polymer
Sealing Method	Heat Sealed
Recommended Storage life of Battery (Dry shelf life)	6 Months
Operating temperature range	-20 deg C to +55 deg C
OCV at 100% SOC	>12.9 Volt/Battery
Allowable charging current	0.2C Charging
No. of charge-discharge cycles that the battery can give during its entire life:	at 20% DOD 6000 cycles at 50% DOD 2200 cycles at 80% DOD 1200 cycles

# SPECIFICATION CHART

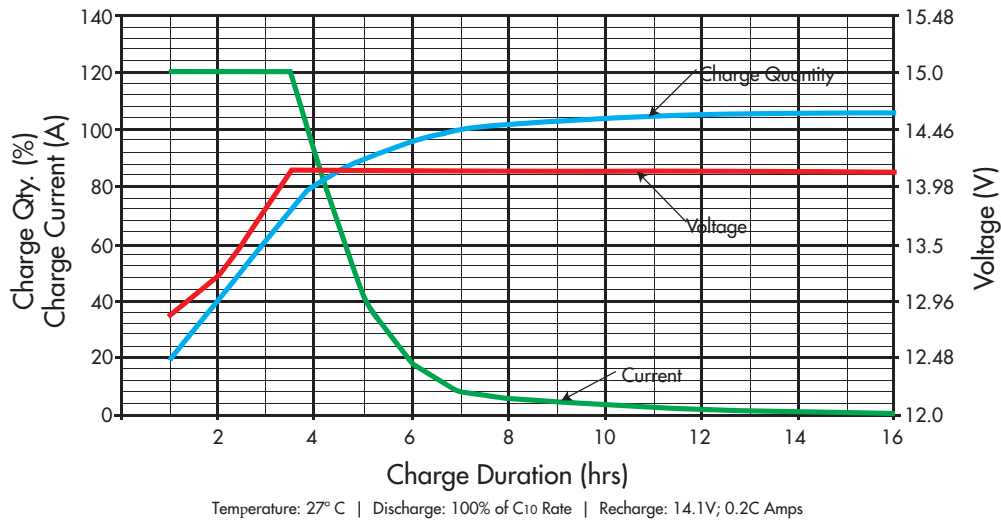
Battery Type	Nominal Voltage (V)	Rated C10 Capacity at 27°C (Ah)	Dimensions (in mm)				Weight (Kg) +/-5%	Max. Discharge Current
			10hr 1.75 Vpc	Overall Height +/-5	'H' +/-5	'L' +/-3		
6SGL 100	12	100	258	258	531	170	44	600

# CONSTANT CURRENT DISCHARGE IN AMPS

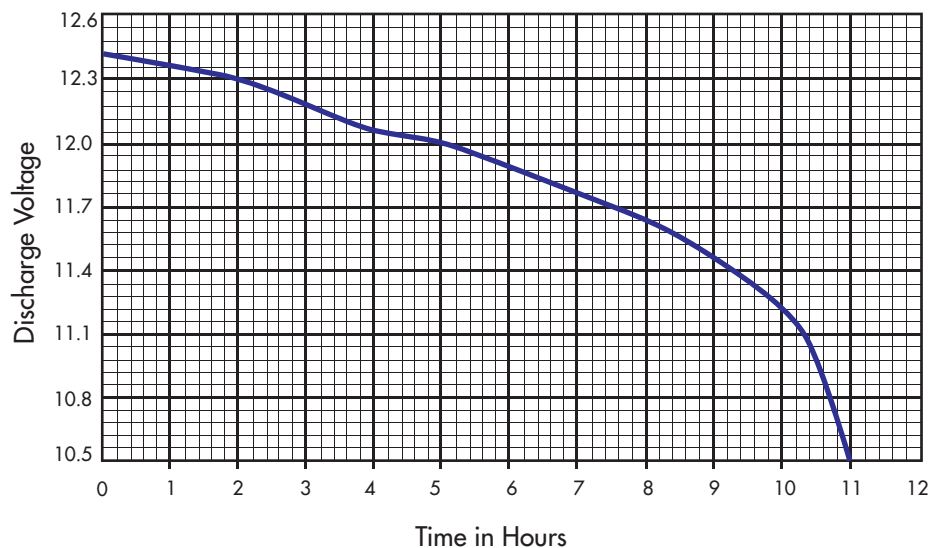
End Cell Voltage	30 Min	45 Min	1Hr	2 Hr	3 Hr	4 Hr	5 Hr	6 Hr	7 Hr	8 Hr	9 Hr	10 Hr
1.90	33.3	30.8	27.1	21.3	17.9	15.5	13.7	11.9	10.9	10.4	9.8	9.4
1.85	46.3	42.6	35.4	26	21	18	15.5	13.7	12.4	11.6	10.8	10
1.80	58.6	50	43.2	30.3	23.6	19.6	16.9	15.3	13.8	12.5	11.5	10.4
1.75	69.4	56.7	50	33.3	25.4	20.6	17.7	15.9	14.5	13	12	10.6

# CHARACTERISTIC CURVES

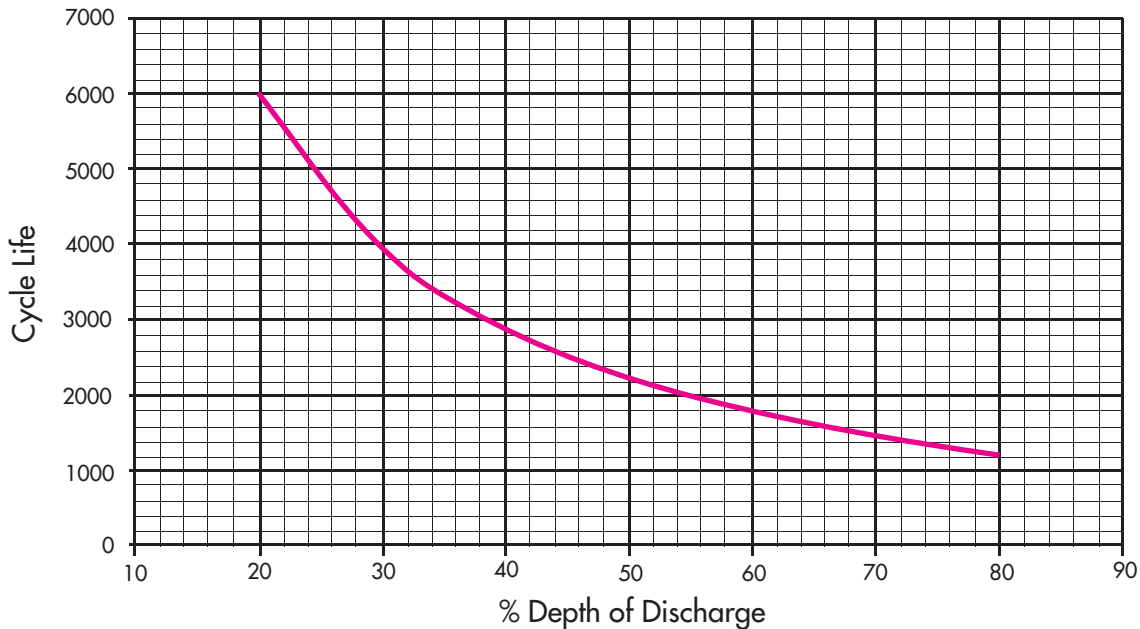
## RECHARGE CHARACTERISTICS



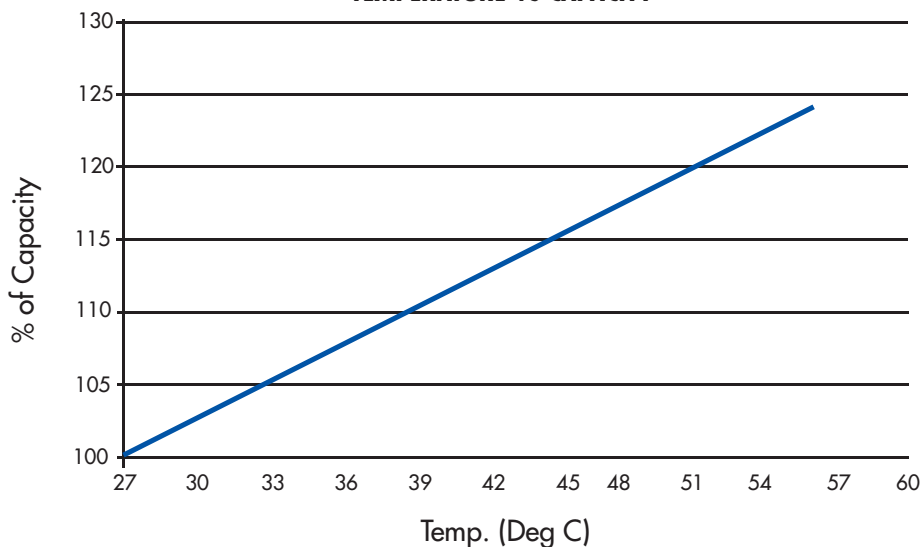
## DISCHARGE CHARACTERISTICS



### DOD Vs CYCLE LIFE OF 12V GEL AT 27° C



### TEMPERATURE Vs CAPACITY



Technical specifications are subject to change without prior notice.  
Battery image shown is indicative and may vary from the actual.



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