

# **BAZOOKA++**

## **SOLAR TUBULAR BATTERY**



**POWERFUL AND LONG LASTING BATTERIES  
FROM THE HOUSE OF Su-Kam**

# Cross Section view of Acid Filled Tubular Battery

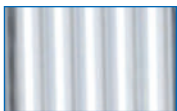
## Stronger & more reliable

**Advanced spines** – for enhanced current flow through the grid for exceptional performance on heavy loads like an AC.  
**Thicker spines** – maintain structural design and decrease failure rate due to corrosion.  
**Thicker tubular plates** – for better performance, giving 1200 cycles @ 80% depth of discharge.



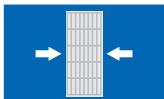
## Longer Life & Reliable backup

**Thicker tubular plates** – give a better performance, giving 1200 cycles @ 80% depth of discharge (one cycle is one full charge state followed by full discharge).



## Less space

**Low footprint** – of the specially designed battery container, with a lesser base, occupying less space, thus saving on costly floor space.

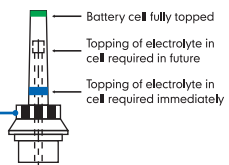


## Saves maintenance cost & time

**Additional fluidic head space** – above battery plates serves longer between watering intervals and avoids frequent topping-up, saving on maintenance.

## Easy maintenance

**Electrolyte level indicator** – shows the level of electrolyte in each cell, making the maintenance much easier.



## Risk-free & keeps environment clean

**Effective fume arrestor** – ensures complete safety, preventing any flame or spark from entering the battery. It saves it from the risk of explosions. It also prevents the release of gasses into the atmosphere.

## Faster electrochemical reaction

**Higher number of ribs** – on the separator keeps the acid channel open for faster and better electrochemical reaction.

## Prevents deep discharge

**High cycle count** – from strong plates, formed by HADI machine at 150 bar pressure, prevent the battery from going in deep discharge.



## Salient Features

Robust 3D plate design with pressure die-casted spine and grid for higher design and service life

Double sided –ve grid with optimized pasting for fast charge acceptance

Lower internal resistance for power saving and for lower water loss

Low self-discharge and high backup charge retainer technology

Woven gauntlets to ensure longer battery life

Spill proof vent plug resulting in no spillage and for controlled acid fumes

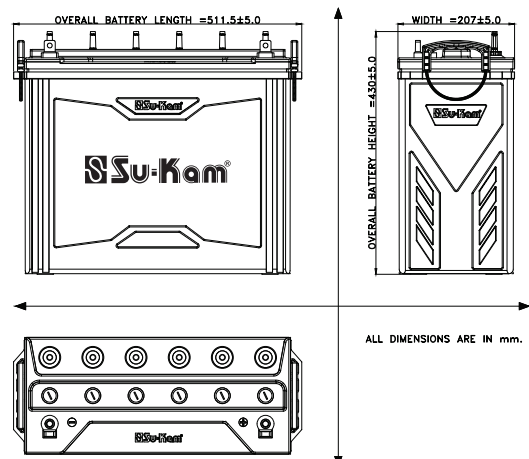
# Technical Specification

BAZOOKA++ JUMBO SERIES					
Battery rating	200Ah	220Ah	240Ah	260Ah	300Ah
Type of Battery	Lead Acid Tall Tubular Battery				
Model Offered	To be decided by Marketing				
	Nominal Capacity (27 °C)				
Cell Capacity @ C20	200Ah	220Ah	240Ah	260Ah	300Ah
Cell Capacity @ C10	176Ah	194Ah	211Ah	229Ah	264Ah
Cell Capacity @ C 3	126Ah	139Ah	151Ah	164Ah	189Ah
Nominal Voltage	12V				
Number of cell	6				
Ah Efficiency	>90%				
Wh Efficiency	>80%				
Grid Alloy	Lead Antimony alloy				
Container & Lid Material	PPCP				
Sealing Method	Heat Sealing				
Plate type	Tubular Positive, Flat Negative				
Separator	Polyethylene				
Terminal type	Bolted type terminals with lead coated fastners (M8)				
Electrolyte Level Indicator	Provided				
Supply condition	Factory charged				
Self Discharge at 27°C (average)	<3%				
Operating Temp. range	-20~55°C				
Recommended max. period of storage	3 months at 27°C@SOC>50%				
Design life	8-10 Years				
Dimensions (L x W x H ) in mm	511x207x430				
Gross Weight (kg) ± 3%	67	68.5	70	73.5	81.5

## Charging Instructions

Charger Voltage Settings (at 25°C/77°F)			
System Voltage	12V	24V	48V
Maximum Charge Current	0.2C10		
Maximum Absorbion Phase Time (Hours)	4		
Cyclic / Absorption Voltage	14.4	28.8	57.6
Float Voltage	13.6	27.2	54.4
Standby / Equalization Voltage	16	32	64
Do not install or charge batteries in a sealed or non-ventilated area. Regular under or overcharging can damage the battery or shorten its life.			
Periodic Charge	Provide a periodic freshening charge to maintain a SOC greater than the threshold of 70%		

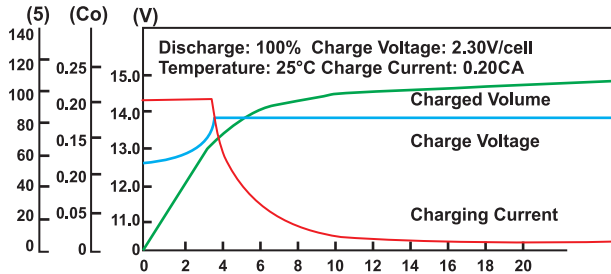
## Battery Container & Terminal Sizes



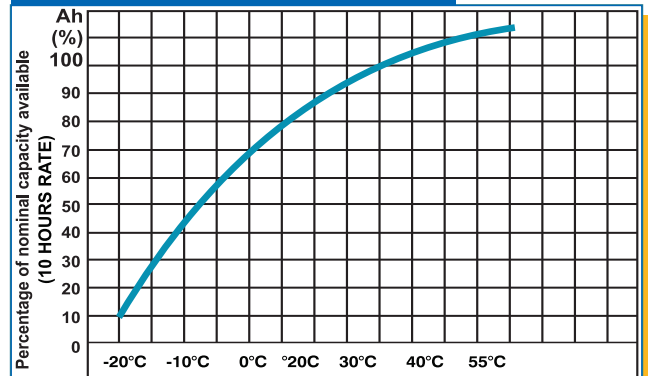
# Electrical Specification

**Charging Characteristics Graph**

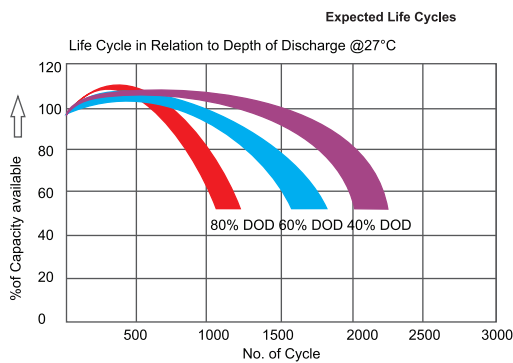
**Volume CHARGING CHARACTERISTICS (25°C)**  
**Charged Control Voltage**



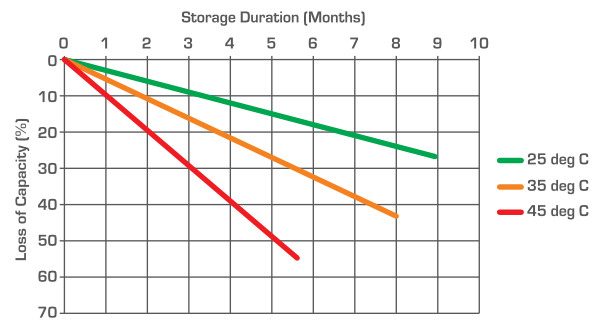
**Capacity To Temperature Graph**



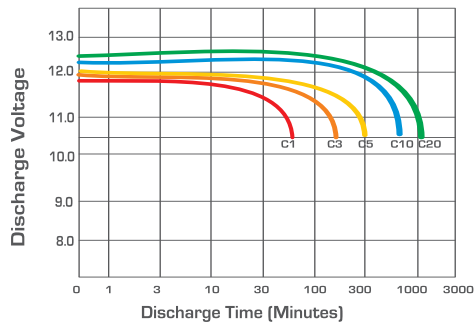
**Life Cycle Graph At STC**



**Self Discharge Characteristics@Different Temperature**



**Discharging Characteristics at various rates @ 24°C**



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

	Specific Gravity	Voltage
<b>100%</b>	1.245-1.275	12.55V - 12.70V
<b>75%</b>	≤ 1.225	≤ 12.4V
<b>50%</b>	≤ 1.190	≤ 12.1V
<b>25%</b>	≤ 1.155	≤ 12.0V
<b>0%</b>	≤ 1.120	≤ 11.8V



## SU-KAM POWER SYSTEMS LTD.

Corporate Office : Plot No 7, Apperal Park-cum-Industrial Area, Katha, Baddi, HP-173205 (INDIA)

Head Office : Plot No. 54, Sector-37, Udyog Vihar, Gurugram, Haryana-122001 (INDIA)

Email ID: [export@su-kam.com](mailto:export@su-kam.com)

Website: [www.su-kam.com](http://www.su-kam.com)

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