

# SGT12-120X 12V 120Ah(10hr)

Gel battery shows some distinctive advantages over flooded battery or AGM battery, such as super thermal stability, high deep discharge capability, good recovery from deep discharge, even if the battery is left discharged for three days, it will recover to 100% of capacity. With the above-mentioned advantages, the gel battery has long service life, specially suitable for motive power applications, such as golf trailer, sruubber, folklift, etc. The deep discharge cycles increased 50% as compared with the AGM battery.

## Battery Construction

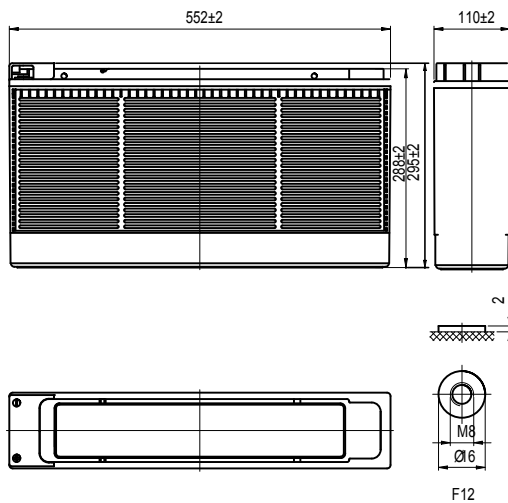
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	PVC	Gelled acid

## General Features

- Nanometer SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> gelled electrolyte technology for efficiency gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.
- Case and cover available in both standard and flame restardant ABS.

## Dimensions and Weight

Length(mm / inch) ..... 552 / 21.7  
 Width(mm / inch) ..... 110 / 4.33  
 Height(mm / inch) ..... 288 / 11.3  
 Total Height(mm / inch) ..... 295 / 11.6  
 Approx. Weight(Kg / lbs) ..... 44.5 / 98.2



## Performance Characteristics

Nominal Voltage	12V
Number of cell	6
Design Life	12 years
Nominal Capacity 77°F(25°C)	
10 hour rate (12.0A, 10.8V)	120Ah
5 hour rate (21.4A, 10.5V)	107Ah
1 hour rate (87.9A, 9.6V)	87.9Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	5.0mOhms
Self-Discharge	
2% of capacity declined per month at 20°C(average)	
Operating Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max. Discharge Current 77°F(25°C)	850A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use Charge Voltage:	14.28V-14.52V
Maximum charging current	20% of the rated capacity
Temperature compensation	-30mV/°C
Standby use	13.38V-13.68V
No charge current limit is required	
Temperature compensation	-20mV/°C

## Discharge Constant Current (Amperes at 77°F25°C)

End point volts/cell	10min	15min	30min	1h	3h	5h	10h
1.60V	243	198	135	87.9	36.2	22.7	12.3
1.65V	227	187	129	85.5	35.6	22.3	12.3
1.70V	212	177	124	83.1	34.7	21.8	12.2
1.75V	196	166	119	80.7	33.8	21.4	12.1
1.80V	180	155	113	78.3	32.9	20.9	12.0

## Discharge Constant Power (Watts per cell at 77°F25°C)

End point volts/cell	10min	15min	30min	1h	3h	5h	10h
1.60V	427	360	247	165	68.7	43.6	24.7
1.65V	401	341	238	161	67.4	43.0	24.4
1.70V	374	322	230	157	66.1	42.3	24.0
1.75V	349	303	220	152	64.6	41.7	23.8
1.80V	321	284	210	148	63.3	41.0	23.3

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

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