

SGT12-100X 12V 100Ah(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

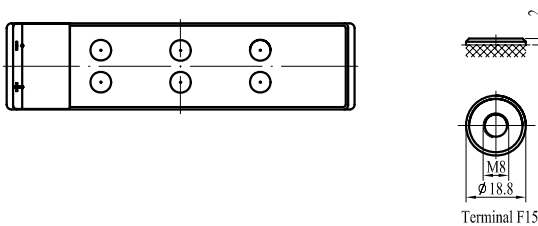
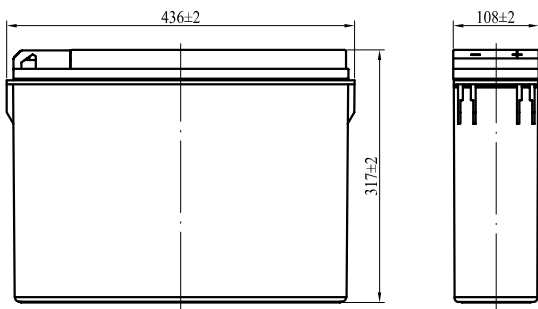
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	PVC	Gelled acid

General Features

- Nanometer SiO₂ and H₂SO₄ 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) 436 / 17.2
 Width(mm / inch) 108 / 4.25
 Height(mm / inch) 317 / 12.5
 Total Height(mm / inch) 317 / 12.5
 Approx. Weight(Kg / lbs) 39.4 / 86.9



Performance Characteristics

Nominal Voltage	12V
Number of cell	6
Design Life	12 years
Nominal Capacity 77°F(25°C)	
10 hour rate (16.0A, 10.8V)	100Ah
5 hour rate (17.8A, 10.5V)	89Ah
1 hour rate (73.3A, 9.6V)	73.3Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	5.5mOhms
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)	800A(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	203	166	112	73.3	30.2	18.9	10.5
1.65V	189	156	108	71.3	29.6	18.5	10.4
1.70V	177	147	103	69.2	28.9	18.2	10.3
1.75V	163	138	99.2	67.4	28.2	17.8	10.2
1.80V	150	129	94.7	64.8	27.5	17.5	10.0

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

End point volts/cell	10min	15min	30min	1h	3h	5h	10h
1.60V	356	300	206	138	57.3	36.4	20.5
1.65V	334	284	198	134	56.2	35.8	20.3
1.70V	312	268	191	130	55.1	35.3	20.0
1.75V	290	253	183	127	53.8	34.7	19.8
1.80V	268	237	175	123	52.7	34.2	19.5

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

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