

RELIABLE ENERGY

Using the latest advanced Oxygen Recombination Technology Yusuba are presenting a reliable battery with the optimum design of Sealed Lead Acid Battery. The SG Series adopts international leading technologies to ensure the batteries with long service life high reliability, safety and environmental friendly.

GENERAL FEATURES

- Very good recovery from deep discharge.
- Silicon GEL Electrolyte
- Gas Recombination
- Multipurpose: Float or Cyclic use
- Usable in any orientation
- Computer designed lead, calcium tin alloy grid for high power density.
- Absorbent Glass Mat (AGM) technology for efficient 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.

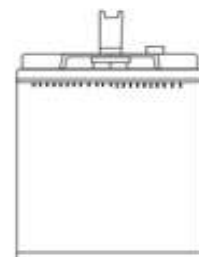
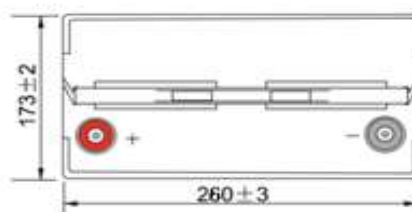
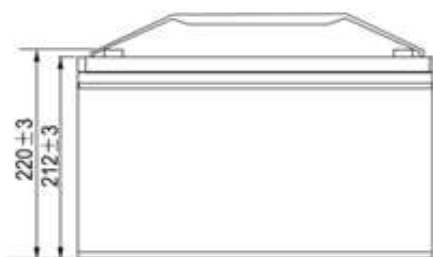
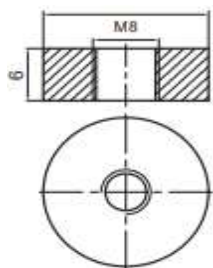
DIMENSIONS

LENGTH	260mm (10.24 inch)
WIDTH	173mm (6.81 inch)
Container Height	212mm (8.35 inch)
Total Height : (with terminals)	220mm (8.66 inch)
Weight (Aprox.)	Approx 26.00Kg (57.32 lbs)

BATTERY CONSTRUCTION

Component	Positive Plate	Negative Plate	Safety Valve	Container	Cover
Raw material	Lead Dioxide	Lead	Rubber	ABS	ABS

Terminal	Separator	Electrolyte	Terminal Type	Layout	
Copper	Fiberglass	Sulfuric Acid	Threaded M8/ Flag M8	Positive Right	



GENERAL FEATURES

- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency lighting
- Emergency backup power supply
- Generators starting
- Railway signal
- DC power supply
- Communication power supply
- Alarm and security system

STANDARDS

- IEC 60896-21/22:2004
- JIS C8702-1/2:2009
- Eurobat guide
- installation compliant with EN50272-2



Electrical Specifications

	Nominal Voltage	12V
	Capacity 100 (HR)	110 AH
Rated Capacity	110.00 AH/1.10A	(100hr, 1.85V/cell, 25°C / 77°F)
	100.00 AH/5.00A	(20hr, 1.80V/cell, 25°C / 77°F)
	90.00 AH/9.00A	(10hr, 1.80V/cell, 25°C / 77°F)
	85.00 AH/17.00A	(5hr, 1.75V/cell, 25°C / 77°F)
	80.00 AH/26.65A	(3hr, 1.75V/cell, 25°C / 77°F)
Internal Resistance	Approx 4.8mΩ	Fully charged battery at 25°C (77°F)
Discharge Characteristics	Maximum Discharge Current	1000 (5s)
	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (5 ~ 104°F)
		Storage: -15 ~ 40°C (5 ~ 104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 30A . Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient - 30mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F) Temp. Coefficient - 20mV/°C
	Capacity affected by Temperature	40°C (104°F) 103%
		25°C (77°F) 100%
		0°C (32°F) 86%
Design Floating Life at 20°C	12+ Years	
Self Discharge	Batteries may be stored for up to 6 months at higher temperatures the time interval will be shorter.	

Constant Current Discharge (Amperes) at 25°C (77°F)

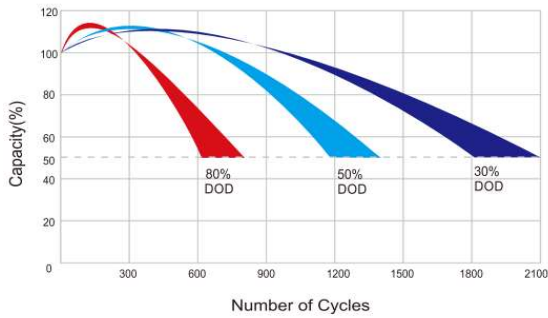
F.V/Time	5 min	15 min	30 min	1h	2h	3h	5h	10h	20h	100 h
1.85V/cell	173,90	130,50	87,80	55,00	31,50	26,20	16,75	8,90	4,95	1,10
1.80V/cell	210,50	143,90	92,50	58,50	33,30	26,50	16,90	9,00	5,00	1,12
1.75V/cell	237,40	154,50	96,80	61,00	34,70	26,65	17,00	9,05	5,10	1,13
1.70V/cell	262,00	165,50	101,90	63,00	35,50	26,80	17,10	9,08	5,12	1,15
1.65V/cell	292,00	178,80	112,50	67,00	36,60	26,95	17,15	9,10	5,14	1,15

Constant Power Discharge (Watts/Cell) at 25°C (77°F)

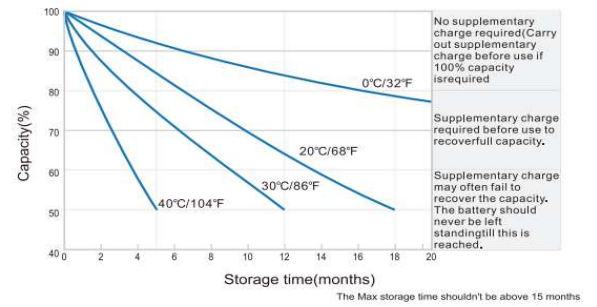
F.V/Time	5 min	15 min	30 min	1h	2h	3h	5h	10h	20h	100 h
1.85V/cell	321,72	241,43	162,43	101,75	58,28	48,47	30,99	16,47	9,16	2,04
1.80V/cell	378,90	259,02	166,50	105,30	59,94	47,70	30,42	16,20	9,00	2,02
1.75V/cell	415,45	270,38	169,40	106,75	60,73	46,64	29,75	15,84	8,93	1,98
1.70V/cell	445,40	281,35	173,23	107,10	60,35	45,56	29,07	15,44	8,70	1,96
1.65V/cell	481,80	295,02	185,63	110,55	60,39	44,47	28,30	15,02	8,48	1,90



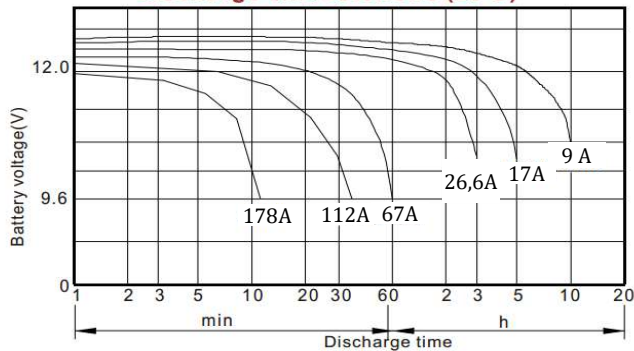
Cycle Life in Relation to Depth Of Discharges



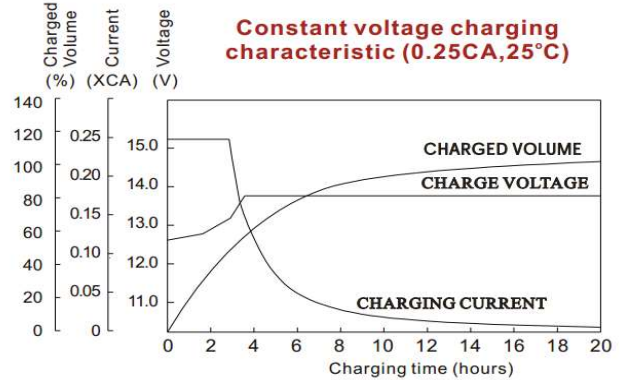
Self-discharge Characteristics



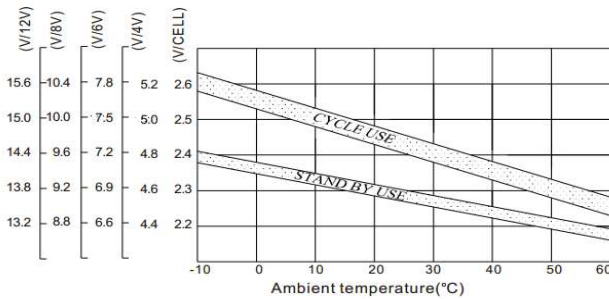
Discharge characteristic (25°C)



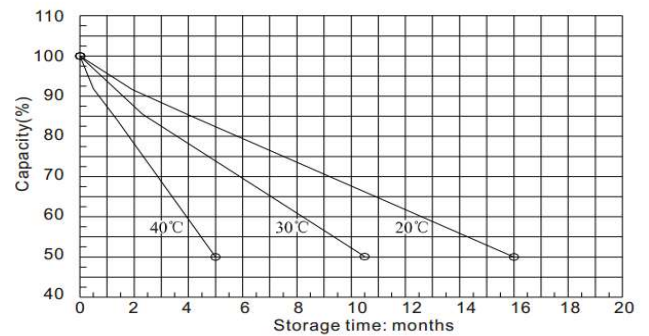
Constant voltage charging characteristic (0.25CA, 25°C)



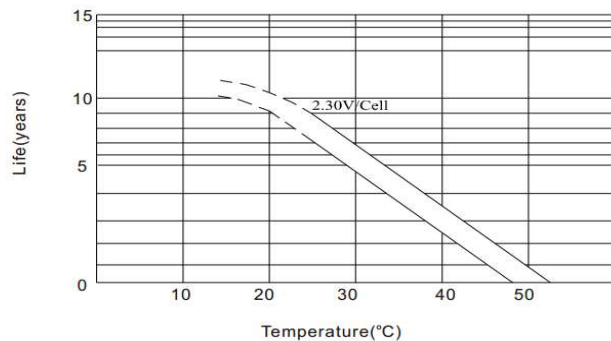
Relationship between charging voltage and temperature



Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity

