SPG 12V - 150Ah | VRLA GEL Battery

SPG are sealed valve-regulated lead acid recombinant batteries that are non-spillable and maintenance-free. Although initially more expensive to purchase than AGM they offer a lower total cost to own over the life of the battery. When it comes to performance and life span the SPG batteries outperform other technologies and provide the greatest value for your stand-by application or cycling needs.

Technical Features

- Micro millimeter SiO_2 and H_2SO_4 gelled electrolyte 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.
- UL-recognized component.
- 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 retardant ABS.

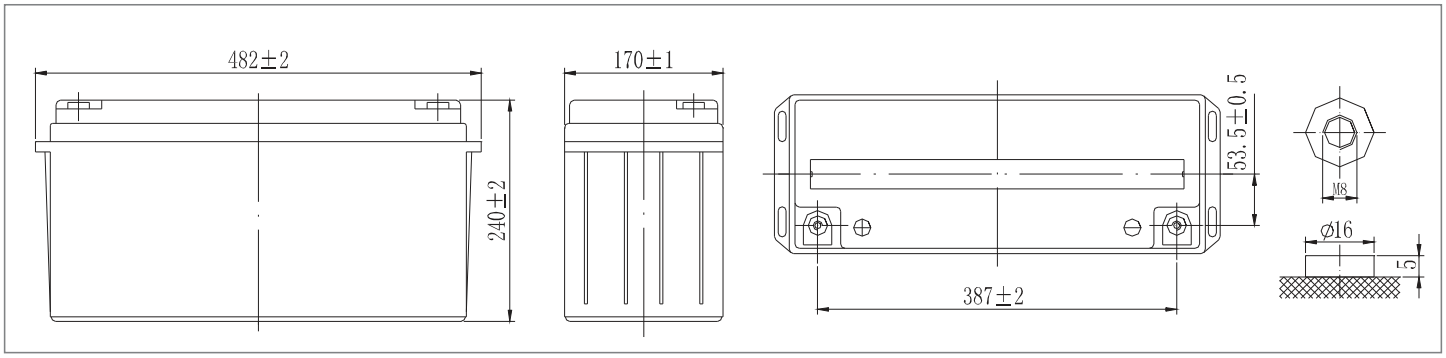
Specifications

Nominal Voltage	12 V	
Number of cells	6	
Design Life	12 years	
Dimensions	Length	482 mm
	Width	170 mm
	Height	240 mm
	Total Height	240 mm
Approx. Weight	47 kg	
Nominal Capacity (25°C)	20 hours rate (8.0 A, 10.5 V)	160 Ah
	10 hours rate (15.4 A, 10.5 V)	154 Ah
	5 hours rate (24.0 A, 10.5 V)	120 Ah
	1 hour rate (104.0 A, 9.6 V)	104 Ah
Max. Discharge Current (25°C)	1000 A (5s)	
Short Circuit Current	2700 A	
Internal Resistance Fully Charged battery (25°C)	3.8 mOhms	
Self-Discharge	3% of capacity declined per month at 20°C (average)	
Operating Temperature Range	Discharge : -20~60°C	
	Charge : -10~60°C	
	Storage : -20~60°C	
Charge Methods: Constant Voltage Charge (25°C)	Standby use: No charging current limit is required Charging voltage: 13.38-13.68 Volts Cyclic use: Maximum charging current: 30% of rated capacity Charging voltage: 14.28-14.52 Volts Temperature compensation: stand by -20 mV/°C; cyclic use -30 mV/°C	

Battery Construction

Component	Positive Plate	Negative Plate	Container	Cover	Safety Valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Gelled acid

Dimensions



Constant Current Discharge (Amperes) at 25°C

End Voltage (Volts/Cell)	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60 V	410	332	278	153	104.0	39.0	26.0	16.4	8.60
1.65 V	389	316	265	147	100.0	37.6	25.6	16.1	8.40
1.70 V	367	300	252	141	96.7	36.4	24.7	15.8	8.20
1.75 V	345	283	240	134	92.1	35.2	24.0	15.4	8.00
1.80 V	323	266	226	127	87.6	33.4	23.2	15.0	7.80

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

End Voltage (Volts/Cell)	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60 V	697	563	473	292	233	194	104.0	74.2	50.1
1.65 V	671	544	458	285	228	190	102.0	72.8	49.7
1.70 V	643	523	443	277	222	186	99.8	71.4	49.3
1.75 V	615	503	427	268	215	180	97.8	70.2	48.6
1.80 V	585	480	409	258	207	174	94.3	67.7	47.8

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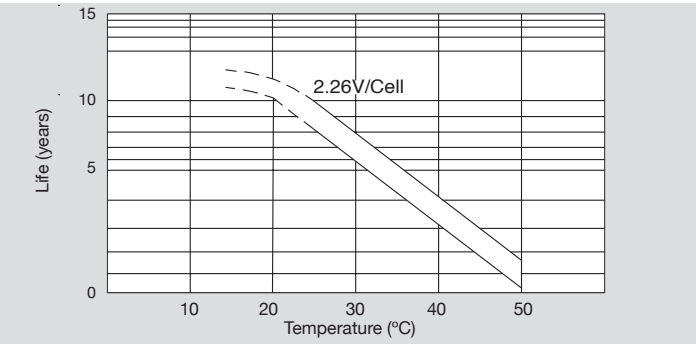
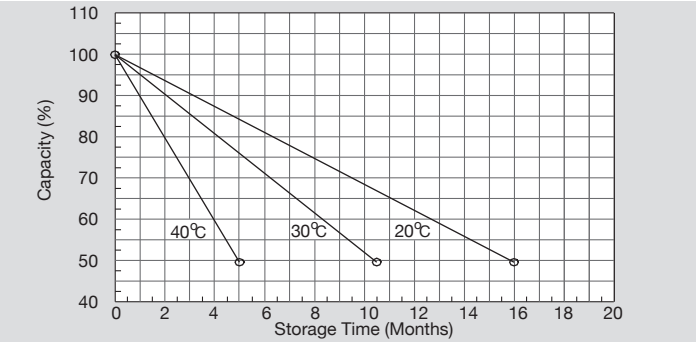
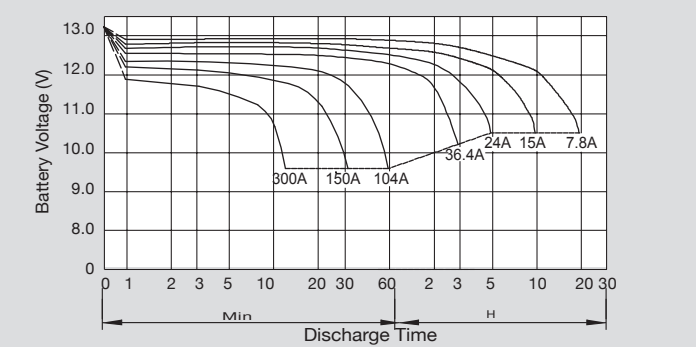
Temperature Effects on Float Life



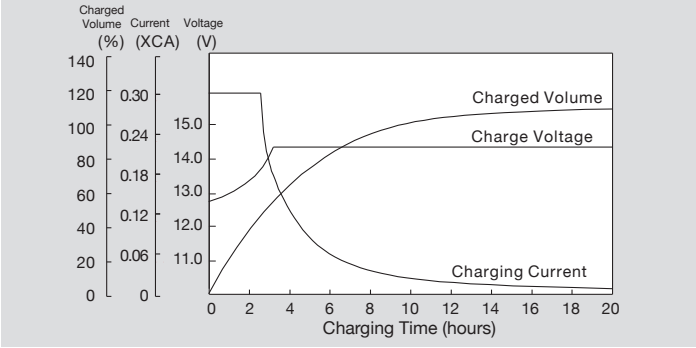
Self Discharge Characteristics



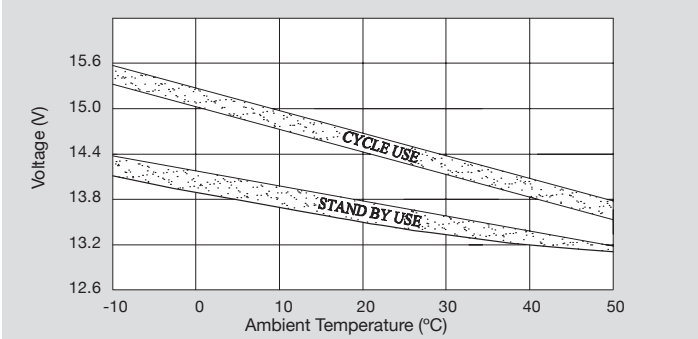
Discharge Characteristics (25ºC)



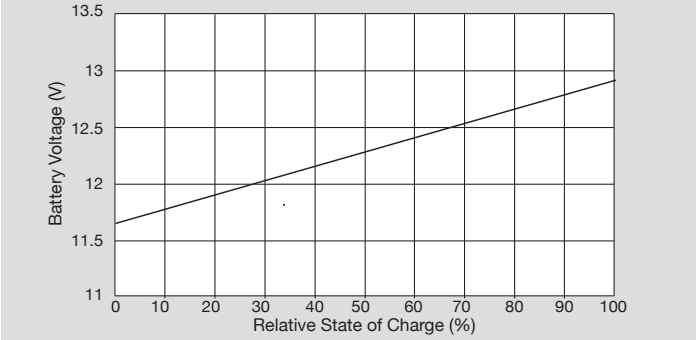
Constant Voltage Charging Characteristic (0.3 CA, 25ºC)



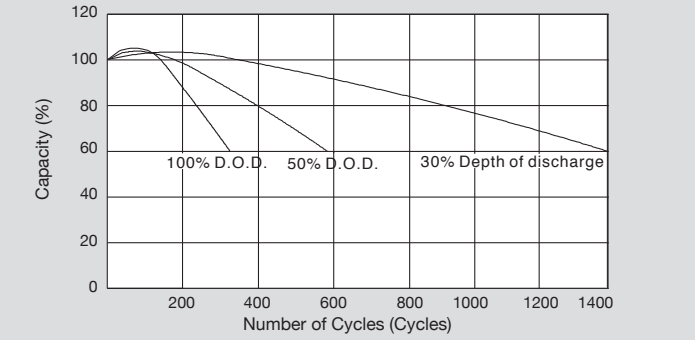
Relationship Between Charging Voltage and Temperature



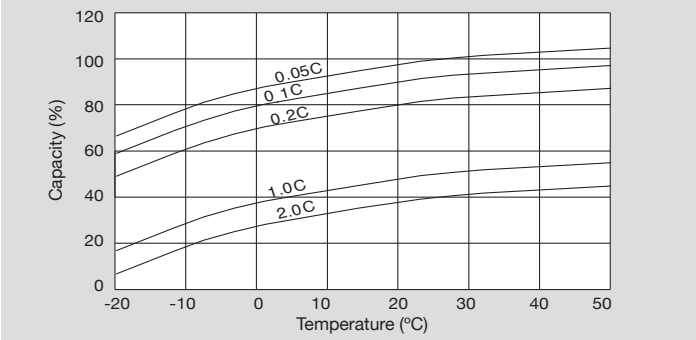
Relationship of OCV and State of Charge (25ºC)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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