

SPG 12V - 200Ah | 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 SiO₂ and H₂SO₄ 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.

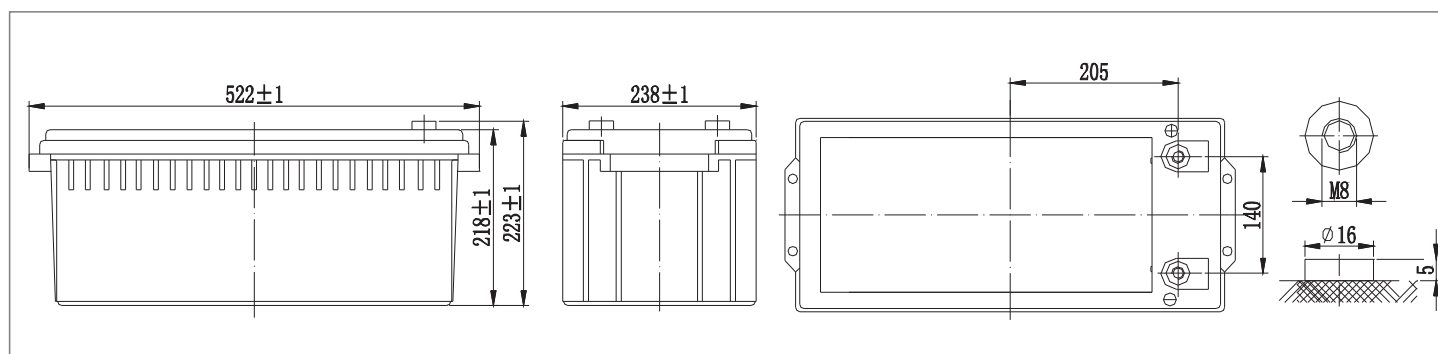
Specifications

Nominal Voltage	12 V	
Number of cells	6	
Design Life	12 years	
Dimensions	Length	522 mm
	Width	238 mm
	Height	218 mm
	Total Height	223 mm
Approx. Weight	65 kg	
Nominal Capacity (25°C)	20 hours rate (10.40 A, 10.5 V)	208 Ah
	10 hours rate (20.1 A, 10.5 V)	201 Ah
	5 hours rate (36.0 A, 10.5 V)	180 Ah
	1 hour rate (131.0 A, 9.6 V)	131 Ah
Max. Discharge Current (25°C)	1000 A (5s)	
Short Circuit Current	3300 A	
Internal Resistance	3.6 mOhms	
Fully Charged battery (25°C)		
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:	Standby use:	No charging current limit is required
	Charging voltage:	13.38-13.68 Volts
	Cyclic use: Maximum charging current:	
	Charging voltage:	14.28-14.52 Volts
	Temperature compensation:	stand by -20 mV/°C; cyclic use -30 mV/°C
Constant Voltage Charge (25°C)	30% of rated capacity	

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

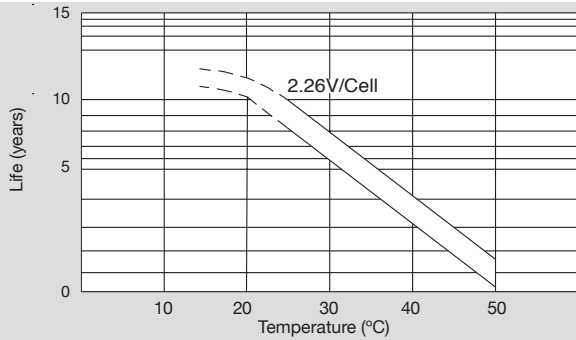
End Voltage (Volts/Cell)	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60 V	507	405	332	223	131	53.9	40.2	20.4	10.55
1.65 V	481	386	317	214	126	52.1	38.7	20.3	10.50
1.70 V	453	366	301	205	122	50.3	37.5	20.2	10.45
1.75 V	427	346	287	195	116	48.6	36.0	20.1	10.40
1.80 V	399	324	270	184	110	46.2	34.3	20.0	10.25

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

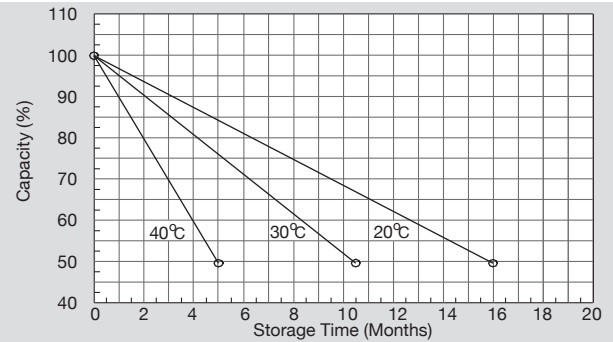
End Voltage (Volts/Cell)	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60 V	865	708	575	398	300	239	133	97.9	71.0
1.65 V	831	684	558	388	293	234	131	96.1	70.9
1.70 V	797	659	539	377	286	229	128	94.3	69.8
1.75 V	762	633	521	364	276	222	125	92.6	68.8
1.80 V	725	605	498	350	267	215	120	89.4	67.7

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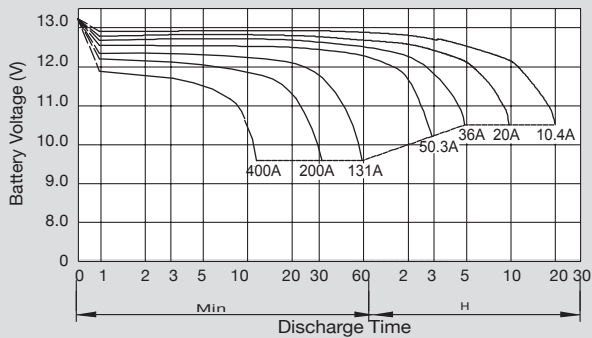
Temperature Effects on Float Life



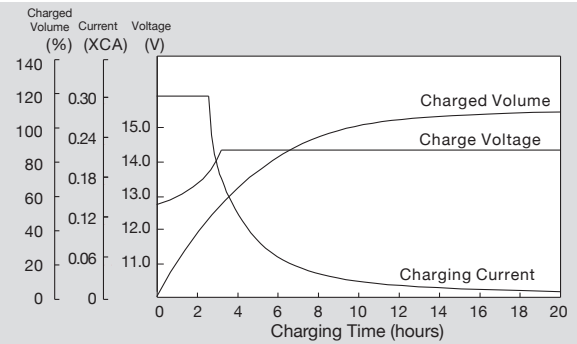
Self Discharge Characteristics



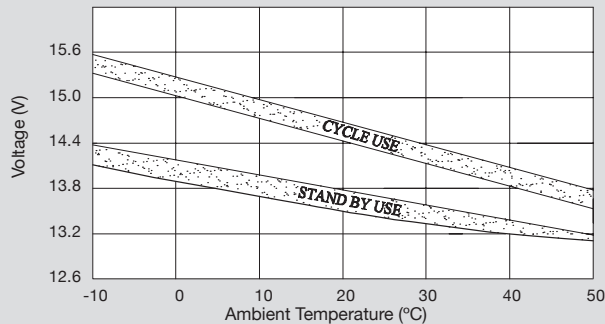
Discharge Characteristics (25°C)



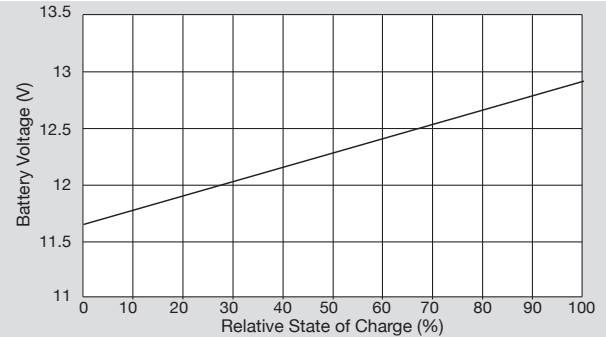
Constant Voltage Charging Characteristic (0.3 CA, 25°C)



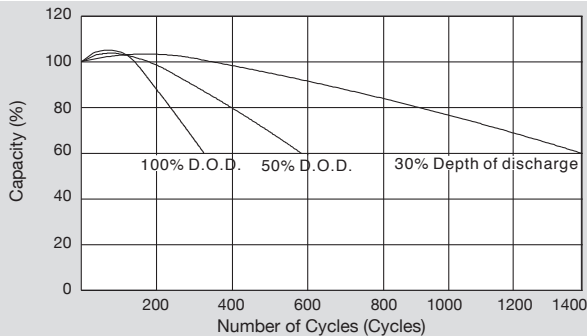
Relationship Between Charging Voltage and Temperature



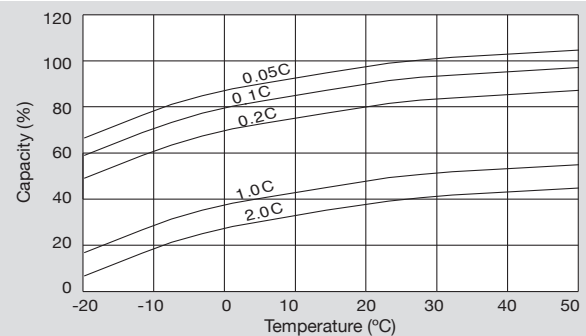
Relationship of OCV and State of Charge (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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