

SPG 12V - 120Ah | 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.

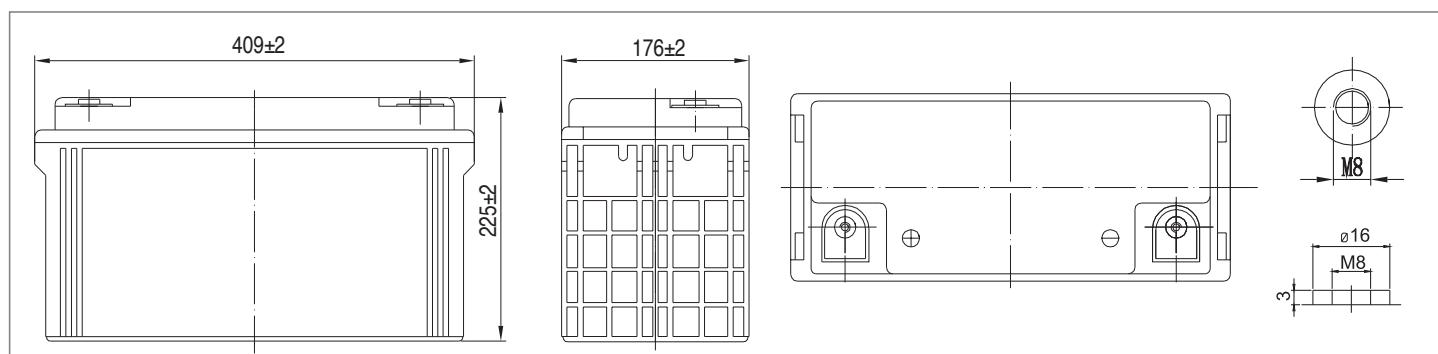
Specifications

Nominal Voltage	12 V		
Number of cells	6		
Design Life	12 years		
Dimensions	Length	409 mm	
	Width	176 mm	
	Height	225 mm	
	Total Height	225 mm	
Approx. Weight	34.5 kg		
Nominal Capacity (25°C)	20 hours rate (6.58 A, 10.8 V)	131.6 Ah	
	10 hours rate (12.00 A, 10.8 V)	120.0 Ah	
	5 hours rate (19.90 A, 10.5 V)	99.5 Ah	
	1 hour rate (72.00 A, 9.6 V)	72.0 Ah	
Max. Discharge Current (25°C)	960 A (5s)		
Short Circuit Current	3050 A		
Internal Resistance	4.4 mOhms		
Fully Charged battery (25°C)	3%		
Self-Discharge	3% of capacity declined per month at 25°C (average)		
Operating Temperature Range	Discharge	:-15~50°C	
	Charge	:-10~50°C	
	Storage	:-20~50°C	
Max. Charging Current	24.0 A		
Charging Characteristics (25°C)	Float Charging Voltage	13.60 V to 13.80 V	
	Temperature Compensation	-18 mV/°C	
	Cyclic Charging Voltage	14.40 V to 14.70 V	
	Temperature Compensation	-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)	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	182	115	72.0	43.2	29.4	23.3	20.3	14.4	12.2	6.32
1.65 V	178	113	70.9	43.0	29.2	23.1	20.2	14.4	12.2	6.38
1.70 V	171	109	69.1	42.6	29.0	23.0	20.1	14.3	12.2	6.42
1.75 V	166	107	67.8	42.0	28.8	22.8	19.9	14.2	12.1	6.50
1.80 V	157	103	65.7	40.9	27.9	22.1	19.3	13.7	12.0	6.58

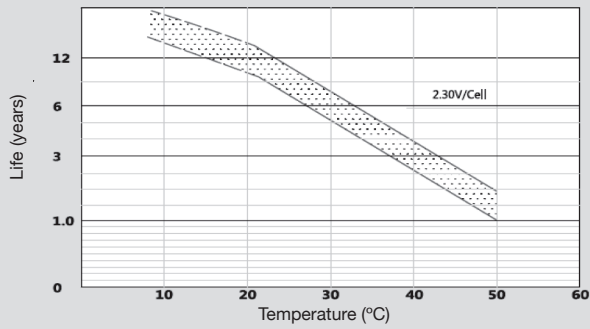
Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	2003	1293	821	501	345	273	240	172	146	75.5
1.65 V	1955	1267	808	498	343	272	239	171	146	75.3
1.70 V	1883	1228	788	493	341	270	237	169	145	75.1
1.75 V	1818	1198	772	486	339	268	235	168	144	74.7
1.80 V	1722	1154	749	474	329	260	228	163	143	74.2

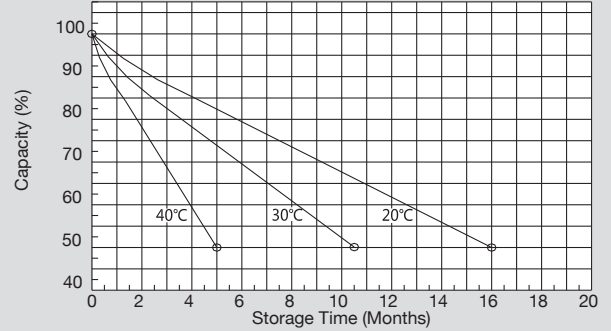
Note: The above characteristics data can be obtained within three charge/discharge cycles.

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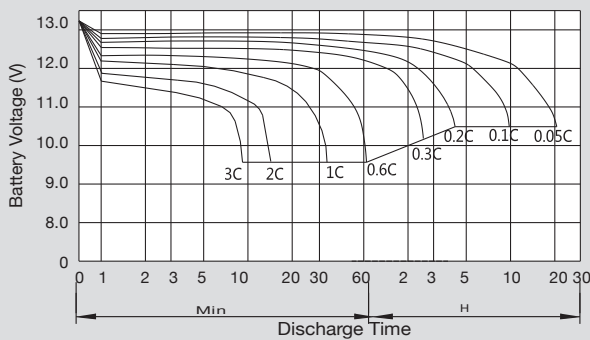
Temperature Effects on Float Life



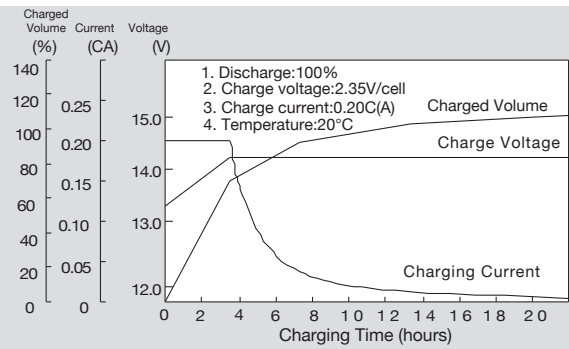
Self Discharge Characteristics



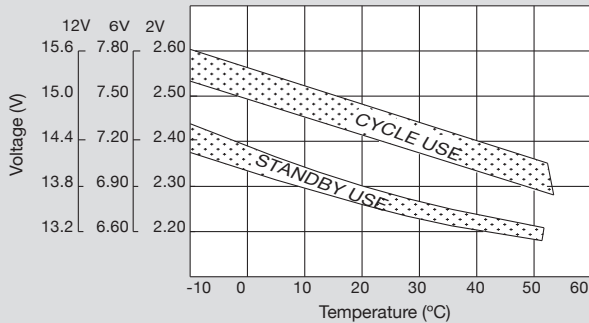
Discharge Characteristics (25°C)



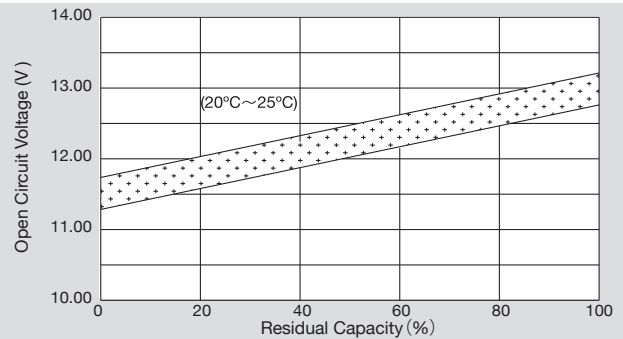
Charging Characteristics (25°C)



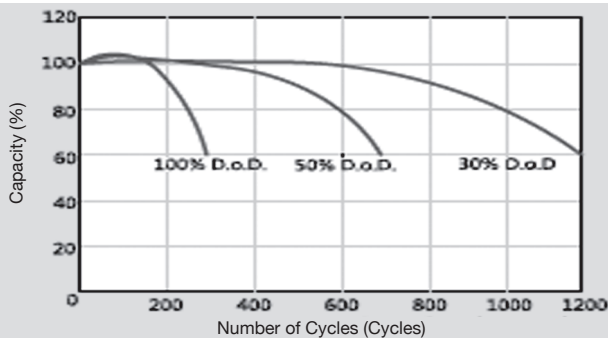
Relationship Between Charging Voltage and Temperature



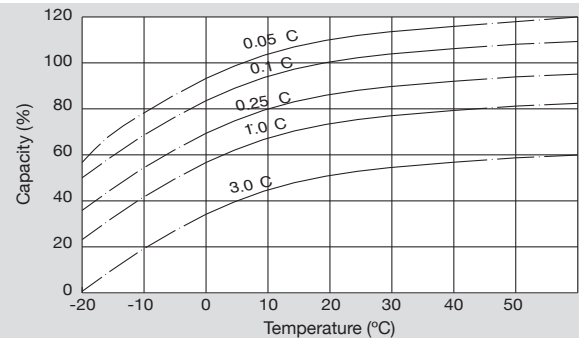
Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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