

SPG 12V - 100Ah | 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.

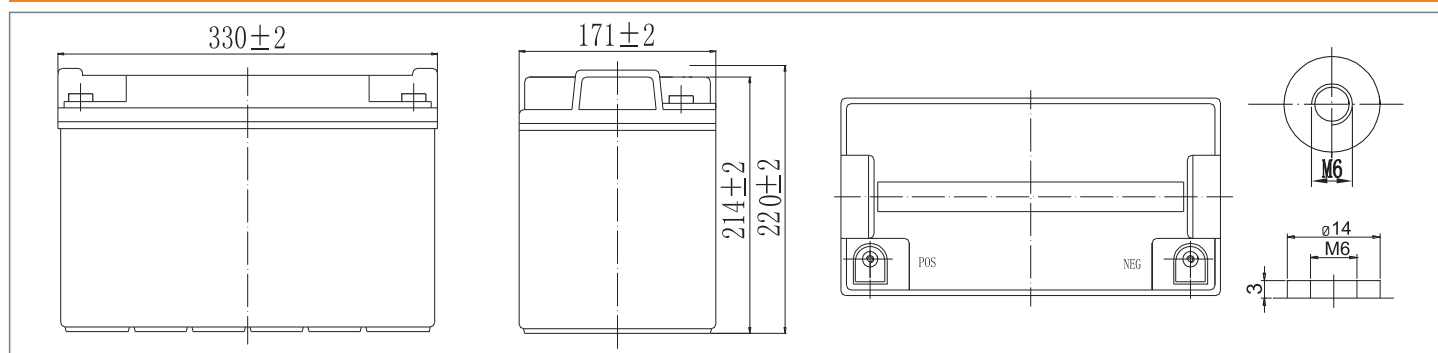
Specifications

Nominal Voltage	12 V		
Number of cells	6		
Design Life	12 years		
Dimensions	Length	330 mm	
	Width	171 mm	
	Height	214 mm	
	Total Height	220 mm	
Approx. Weight	30 kg		
Nominal Capacity (25°C)	20 hours rate (5.15 A, 10.8 V)	103 Ah	
	10 hours rate (10.00 A, 10.8 V)	100 Ah	
	5 hours rate (16.60 A, 10.5 V)	83 Ah	
	1 hour rate (60.00 A, 9.6 V)	60 Ah	
Max. Discharge Current (25°C)	800 A (5s)		
Short Circuit Current	2700 A		
Internal Resistance	5 mOhms		
Fully Charged battery (25°C)	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	20.0 A		
Charging Characteristics (25°C)	Float Charging Voltage	13.50 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)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	165	152	96.0	60.0	36.0	24.5	19.4	16.9	12.0	10.2	5.24
1.65 V	160	148	94.1	59.1	35.8	24.3	19.3	16.8	12.0	10.2	5.23
1.70 V	153	143	91.2	57.6	35.5	24.2	19.1	16.7	11.9	10.1	5.22
1.75 V	147	138	89.0	56.5	35.0	24.0	19.0	16.6	11.8	10.1	5.19
1.80 V	139	131	85.7	54.7	34.1	23.3	18.4	16.1	11.4	10.0	5.15

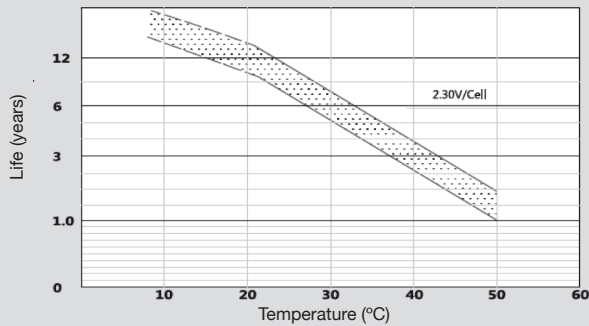
Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	1782	1669	1077	684	417	288	228	200	143	122	62.9
1.65 V	1729	1629	1056	674	415	286	227	199	142	121	62.8
1.70 V	1657	1569	1023	657	411	284	225	198	141	121	62.6
1.75 V	1586	1515	998	644	405	282	223	196	140	120	62.2
1.80 V	1497	1435	962	624	395	274	217	190	136	119	61.8

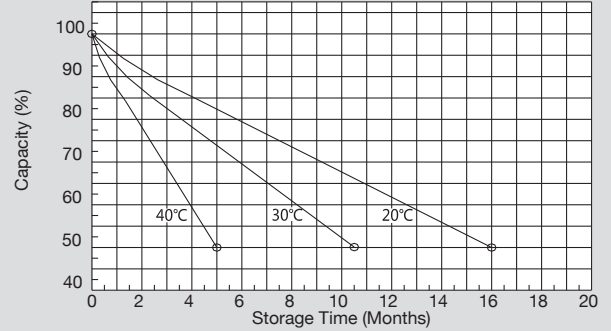
Note: The above characteristics data can be obtained within three charge/discharge cycles.

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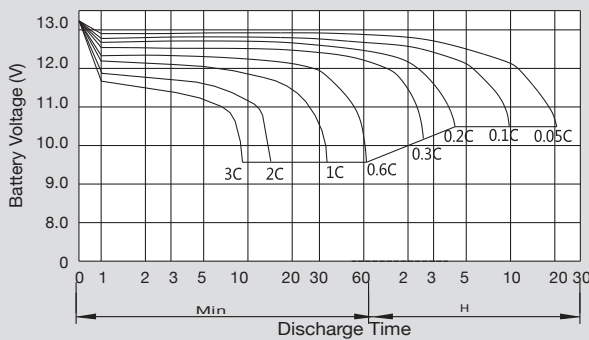
Temperature Effects on Float Life



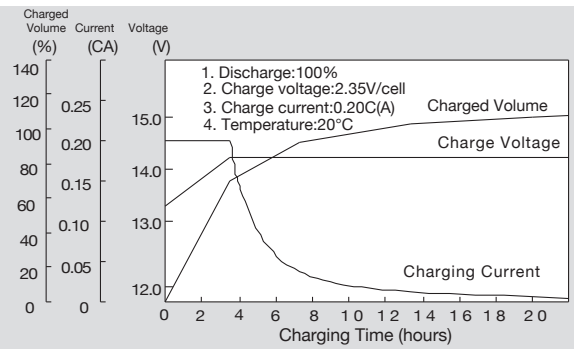
Self Discharge Characteristics



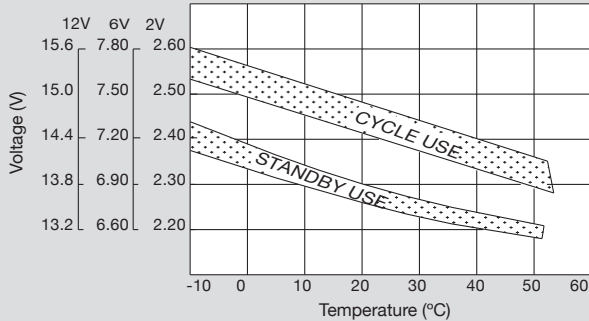
Discharge Characteristics (25°C)



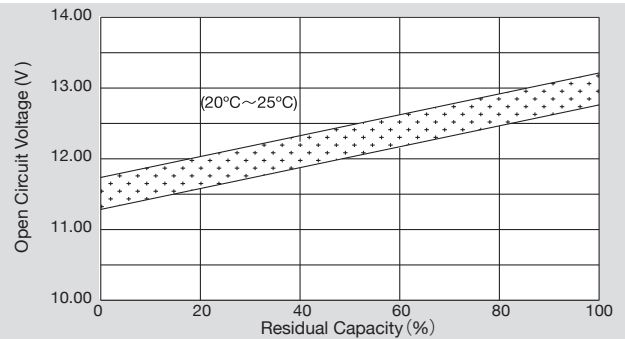
Charging Characteristics (25°C)



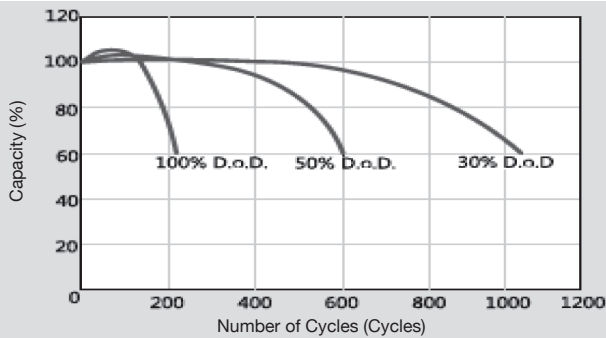
Relationship Between Charging Voltage and Temperature



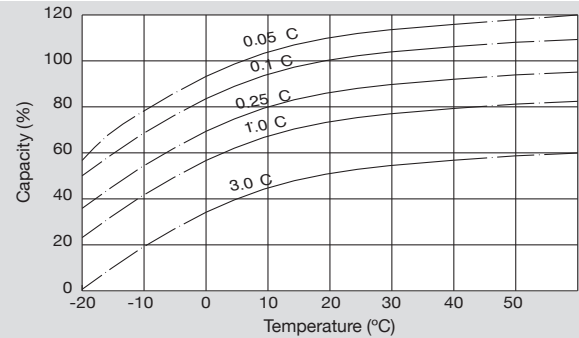
Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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