

# SPG 12V - 75Ah | 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.

- Micro millimeter SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> 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.

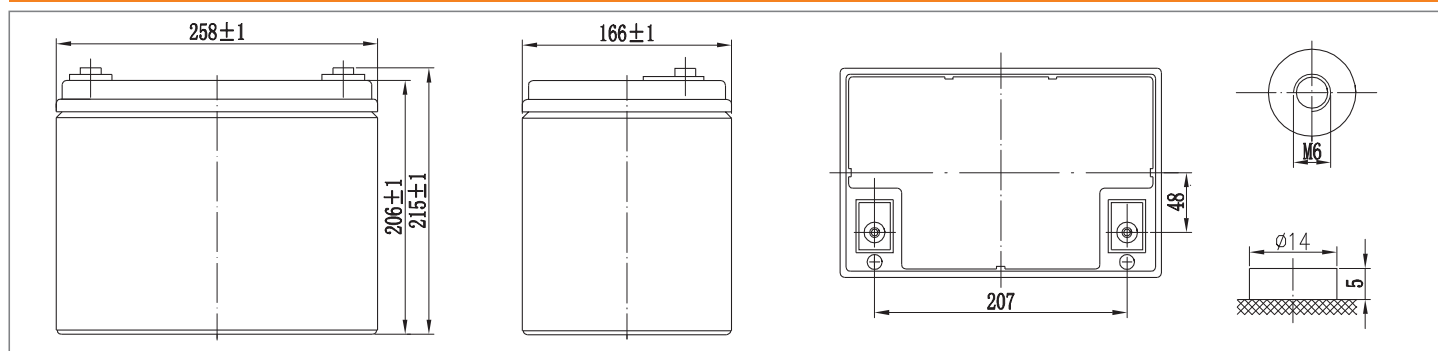
## Specifications

Nominal Voltage	12 V	
Number of cells	6	
Design Life	12 years	
Dimensions	Length	258 mm
	Width	166 mm
	Height	206 mm
	Total Height	215 mm
Approx. Weight	23.5 kg	
Nominal Capacity (25°C)	20 hours rate (3.75 A, 10.5 V)	75.0 Ah
	10 hours rate (7.38 A, 10.5 V)	73.8 Ah
	5 hours rate (13.2 A, 10.5 V)	66.0 Ah
	1 hour rate (50.7 A, 9.6 V)	50.7 Ah
Max. Discharge Current (25°C)	700 A (5s)	
Short Circuit Current	1800 A	
Internal Resistance	5.7 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:	
	Constant Voltage Charge (25°C)	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	Pb	Fiberglass	Gelled acid

## Dimensions



## Constant Current Discharge (Amperes) at 25°C

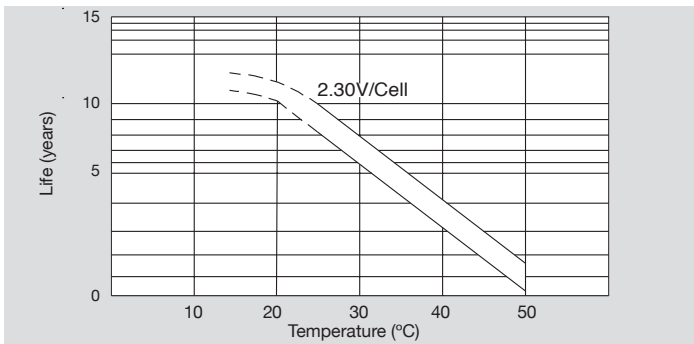
End Voltage (Volts/Cell)	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60 V	230	174	135	81.5	50.7	20.5	13.8	7.52	3.89
1.65 V	217	165	130	79.0	48.9	19.8	13.6	7.47	3.85
1.70 V	203	156	124	76.4	47.1	19.1	13.4	7.43	3.80
1.75 V	190	147	120	73.8	44.9	18.5	13.2	7.38	3.75
1.80 V	177	137	112	71.3	42.6	17.5	13.0	7.19	3.69

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

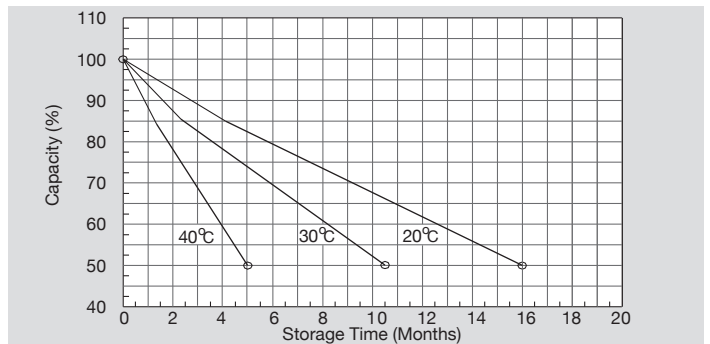
End Voltage (Volts/Cell)	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60 V	411	310	256	148	118	97.5	53.8	39.2	27.0
1.65 V	390	297	248	145	114	94.7	52.2	38.1	26.8
1.70 V	369	281	238	141	111	91.7	50.8	37.0	26.5
1.75 V	346	267	231	137	107	87.9	49.0	36.0	26.3
1.80 V	323	251	216	133	103	83.9	46.7	34.3	26.0

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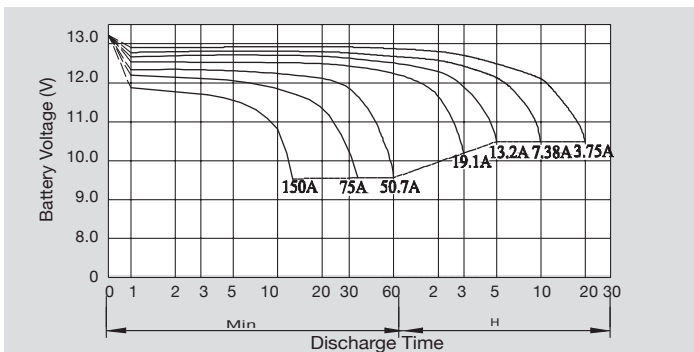
## Temperature Effects on Float Life



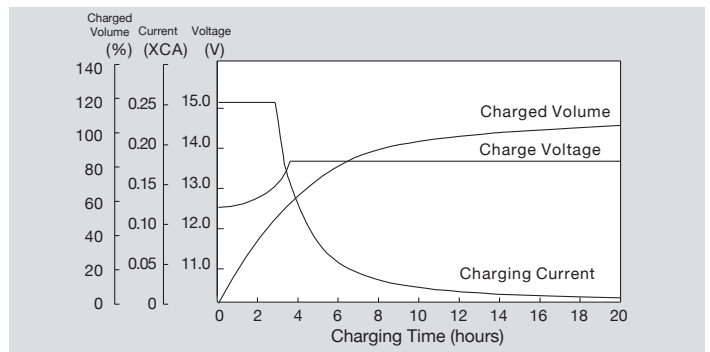
## Self Discharge Characteristics



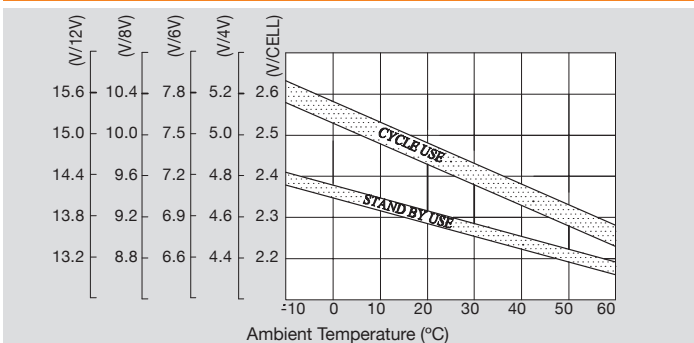
## Discharge Characteristics (25°C)



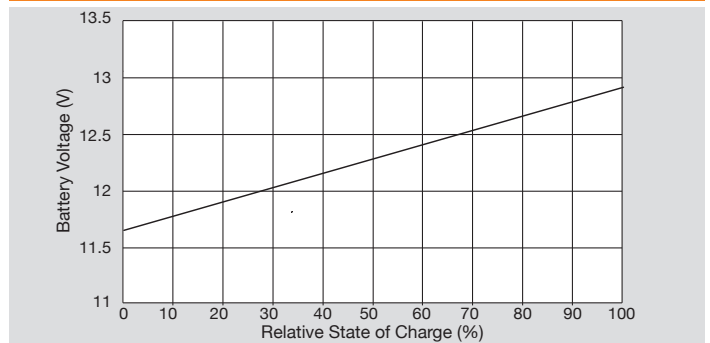
## Constant Voltage Charging Characteristic (0.25 CA, 25°C)



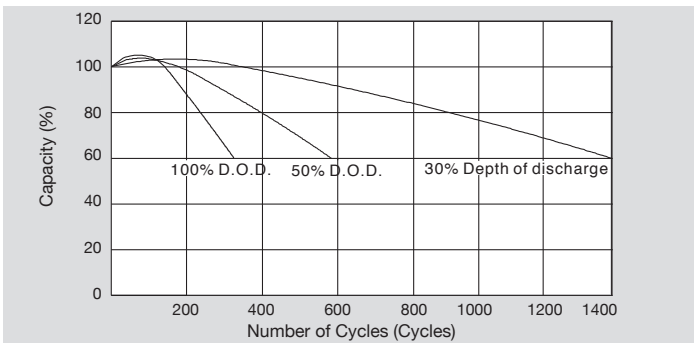
## Relationship Between Charging Voltage and Temperature



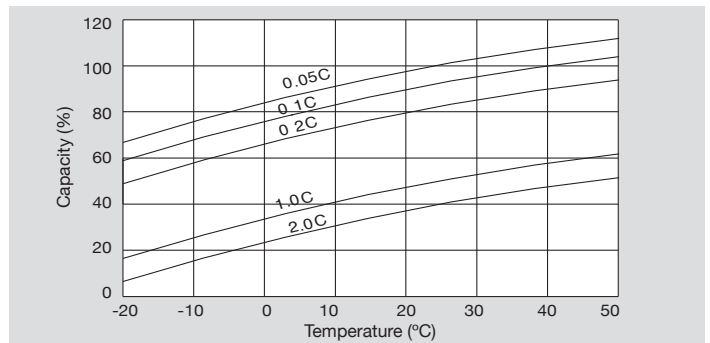
## Relationship of OCV and State of Charge (25°C)



## Cycle Service Life in Relation to Depth of Discharge



## Temperature Effects on Capacity



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