

SPG 12V - 230Ah | 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.

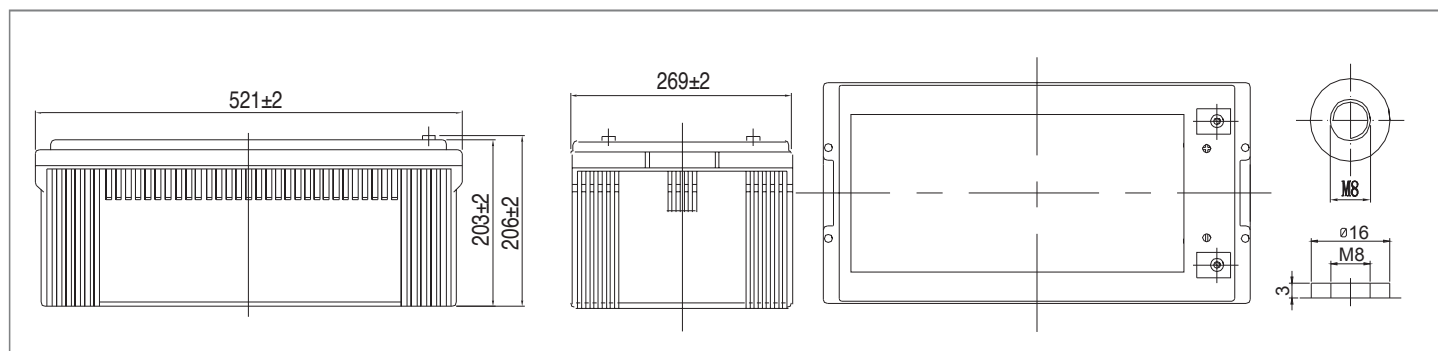
Specifications

Nominal Voltage	12 V		
Number of cells	6		
Design Life	12 years		
Dimensions	Length	521 mm	
	Width	269 mm	
	Height	203 mm	
	Total Height	206 mm	
Approx. Weight	67 kg		
Nominal Capacity (25°C)	20 hours rate (12.3 A, 10.8 V)	246 Ah	
	10 hours rate (23.0 A, 10.8 V)	230 Ah	
	5 hours rate (38.2 A, 10.5 V)	191 Ah	
	1 hour rate (138.0 A, 9.6 V)	138 Ah	
Max. Discharge Current (25°C)	1700 A (5s)		
Short Circuit Current	4360 A		
Internal Resistance	3.1 mOhms		
Fully Charged battery (25°C)	3.1 mOhms		
Self-Discharge	3% of capacity declined per month at 25°C (average)		
Operating Temperature Range	Discharge	:-15~50°C	
	Charge	:-10~50°C	
Max. Charging Current	Storage	:-20~50°C	
	46.0 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)	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	350	221	138	82.9	56.3	44.6	38.9	27.7	23.4	13.4
1.65 V	341	216	136	82.4	56.0	44.3	38.7	27.5	23.4	13.1
1.70 V	329	210	132	81.7	55.6	44.0	38.4	27.3	23.3	12.7
1.75 V	317	205	130	80.4	55.2	43.7	38.2	27.1	23.2	12.5
1.80 V	301	197	126	78.4	53.5	42.4	37.0	26.3	23.0	12.3

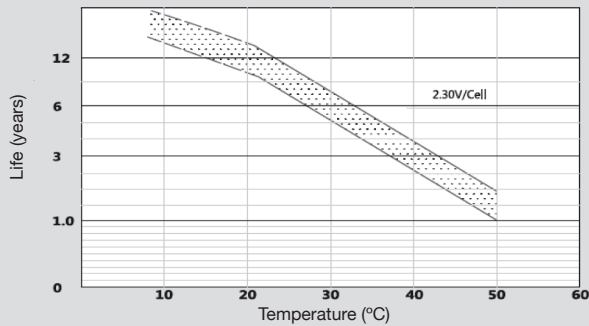
Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	3839	2477	1573	960	662	524	460	329	280	145
1.65 V	3746	2428	1550	954	658	521	458	327	279	144
1.70 V	3608	2354	1510	946	654	518	454	325	278	144
1.75 V	3485	2297	1480	931	649	514	451	322	277	143
1.80 V	3301	2212	1435	908	630	498	438	313	275	142

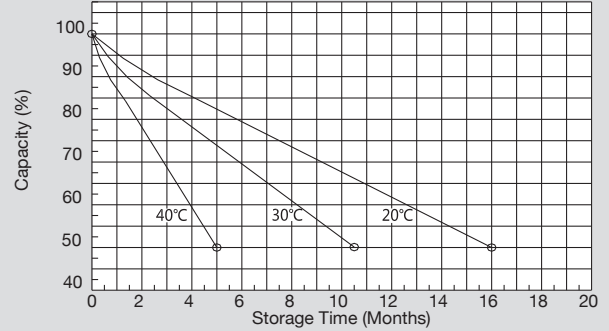
Note: The above characteristics data can be obtained within three charge/discharge cycles.

SPG 12V - 230Ah | VRLA GEL Battery

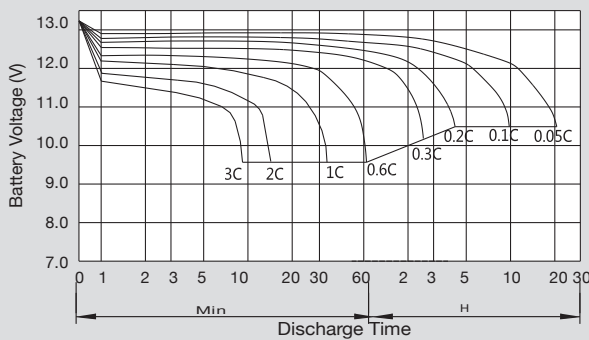
Temperature Effects on Float Life



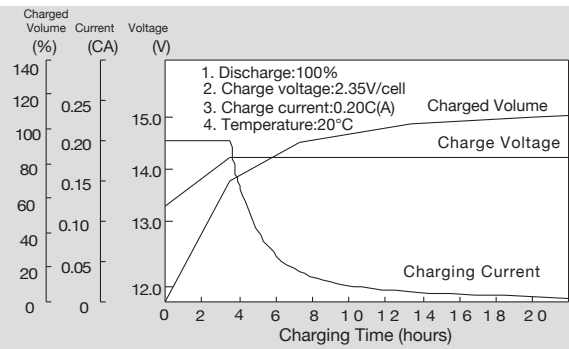
Self Discharge Characteristics



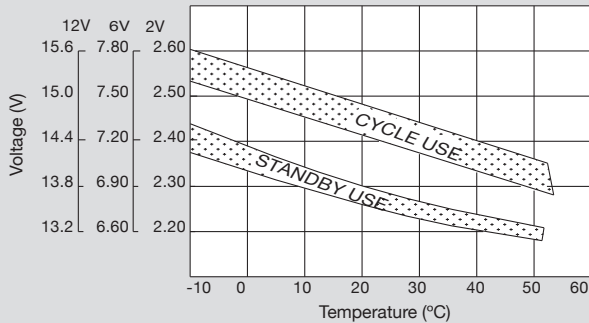
Discharge Characteristics (25°C)



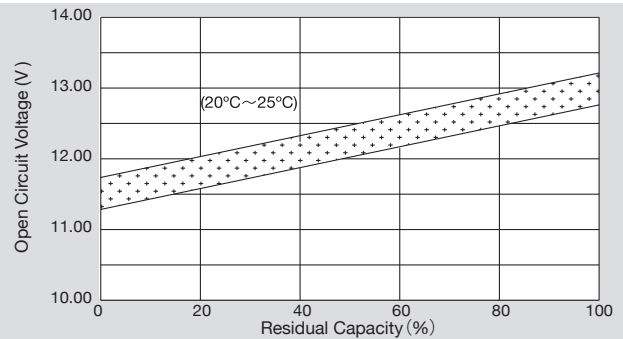
Charging Characteristics (25°C)



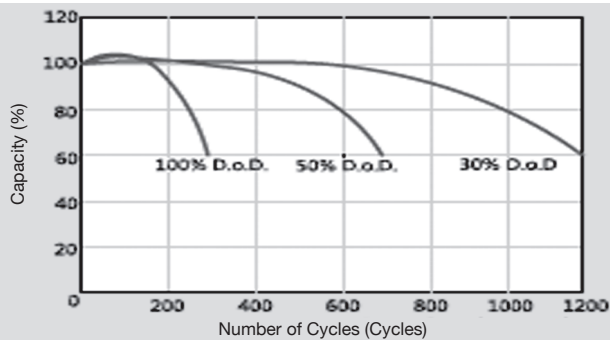
Relationship Between Charging Voltage and Temperature



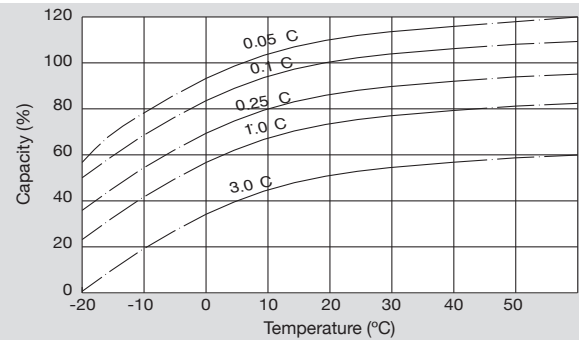
Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



SYSTEMS SUNLIGHT S.A.

Headquarters

2 Ermou & Nikis Str., Syntagma Sq.
105 63 Athens, Attica, Greece

T +30 210 6245400 F +30 210 6245409

European Manufacturing Plant

672 00 Neo Olvio, Xanthi, Greece

T +30 25410 48100 F +30 25410 95446

Global Service Department

366 Tatoiou Str.

136 73 Acharnes, Attica, Greece

T +30 210 6245600 F +30 210 6245619

