

SPB 12V - 120Ah | VRLA Battery



Applications

- Uninterruptible Power Supplies (UPS)
- Electric Power Systems (EPS)
- Emergency backup power supplies
- Electronic apparatus and equipment
- Communication power supplies
- DC power supplies
- Auto control system

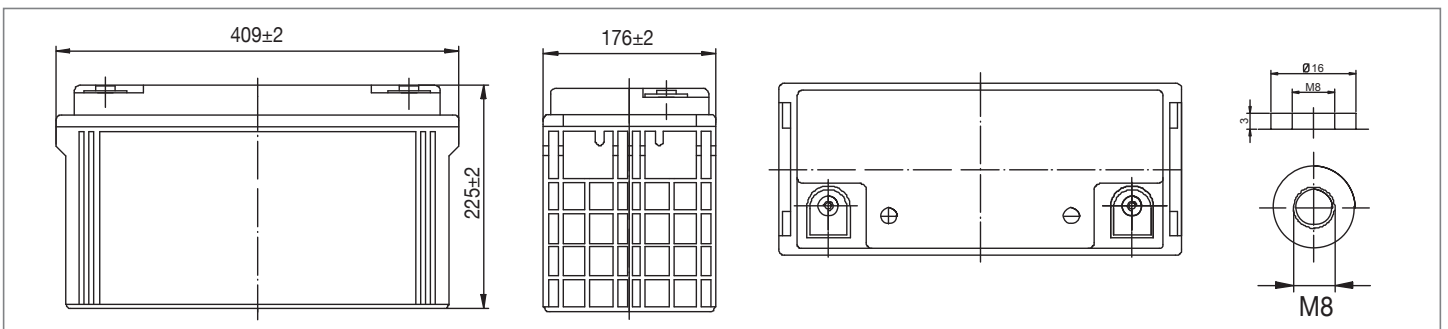
Specifications

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	36.0 kg	
	20 hours rate (6.3 A, 10.8 V) 126.0 Ah	
Nominal Capacity (25°C)	10 hours rate (12.0 A, 10.8 V) 120.0 Ah	
	5 hours rate (21.0 A, 10.5 V) 105.0 Ah	
	1 hour rate (71.4 A, 10.2 V) 71.4 Ah	
Max. Discharge Current (25°C)	960 A (5s)	
Internal Resistance	4.0 mOhms	
Fully Charged battery (25°C)		
Self-Discharge	3% of capacity declined per month at 25°C (average)	
	Discharge : -15°C~50°C	
	Charge : -10°C~50°C	
Operating Temperature Range	Storage : -20°C~50°C	
Short Circuit Current	3020 A	
	Boost charging voltage 2.40-2.45 Vpc	
Charging Characteristics (25°C)	Maximum charging current 36.0 A	
	Temperature compensation -30 mV/°C	
	Float charging voltage 2.25-2.30 Vpc	
	Temperature compensation -18 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	Sulfuric acid

Dimensions



Constant Current Discharge (Amperes) at 25°C

End Voltage (Volts/Cell)	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60 V	194	118	74.4	43.8	30.6	25.1	21.4	18.7	14.7	12.2	6.41
1.65 V	189	115	73.3	43.6	30.4	24.9	21.3	18.6	14.6	12.2	6.40
1.70 V	182	112	71.4	43.2	30.2	24.8	21.1	18.5	14.5	12.2	6.38
1.75 V	176	109	70.0	42.6	30.0	24.6	21.0	18.4	14.4	12.1	6.34
1.80 V	167	105	67.9	41.5	29.1	23.9	20.4	17.8	14.0	12.0	6.30

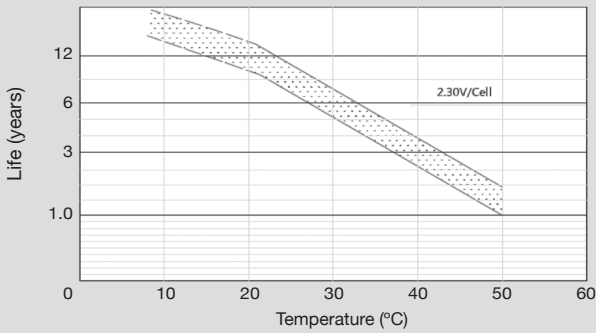
Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.60 V	2131	1319	848	508	360	295	253	221	174	146	77.0
1.65 V	2079	1293	835	505	358	293	252	220	173	146	76.8
1.70 V	2003	1253	814	500	355	291	250	219	172	145	76.6
1.75 V	1935	1223	798	493	353	289	248	217	171	144	76.1
1.80 V	1832	1178	774	480	342	281	241	211	166	143	75.6

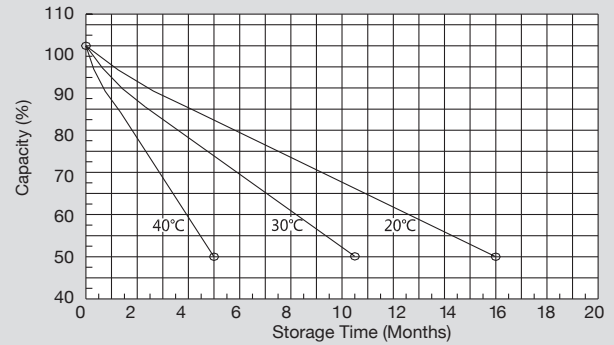
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

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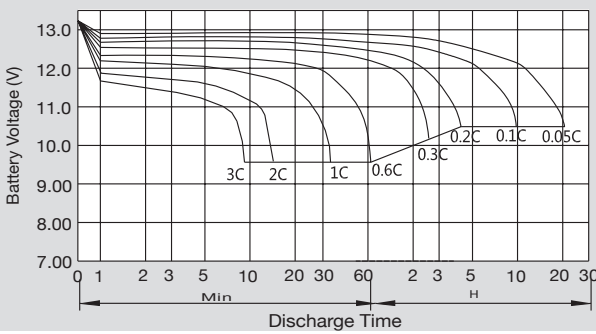
Temperature Effects on Float Life



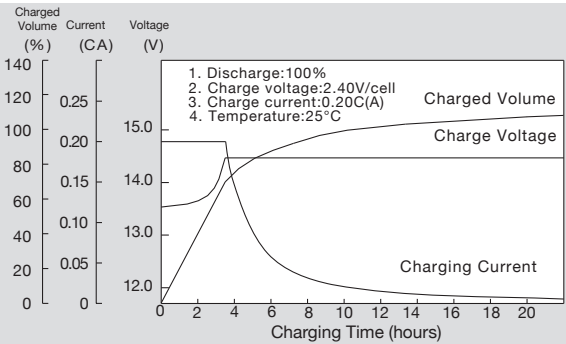
Self Discharge Characteristics



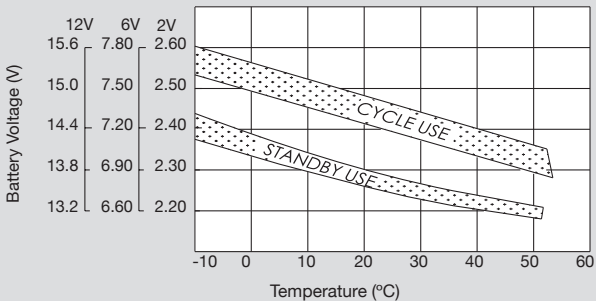
Discharge Characteristics (25°C)



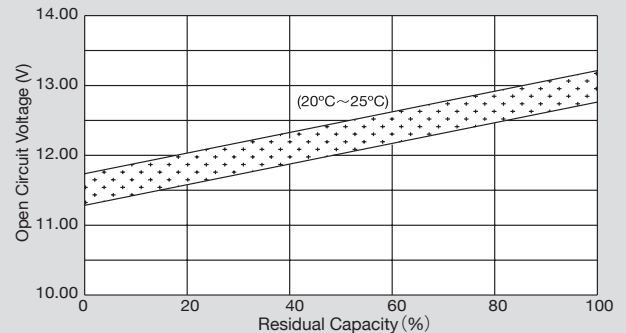
Charging Characteristic (25°C)



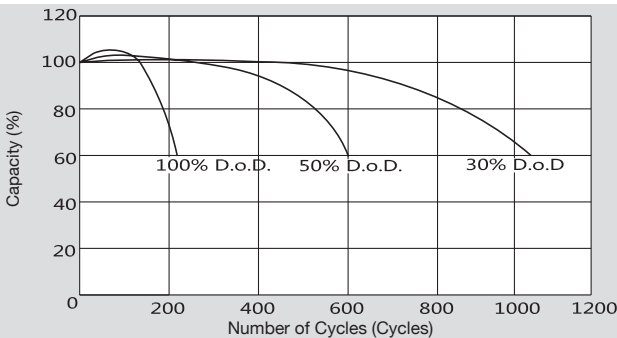
Relationship Between Charging Voltage and Temperature



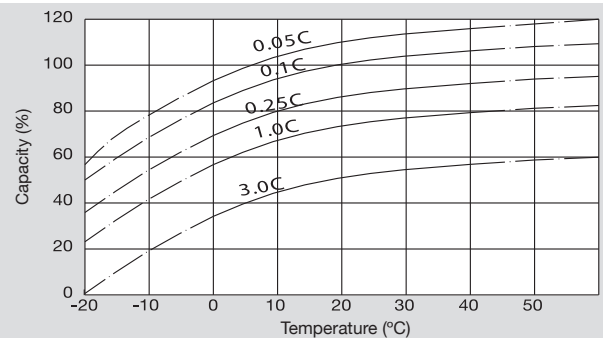
Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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