

SPB 12V - 100Ah | 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

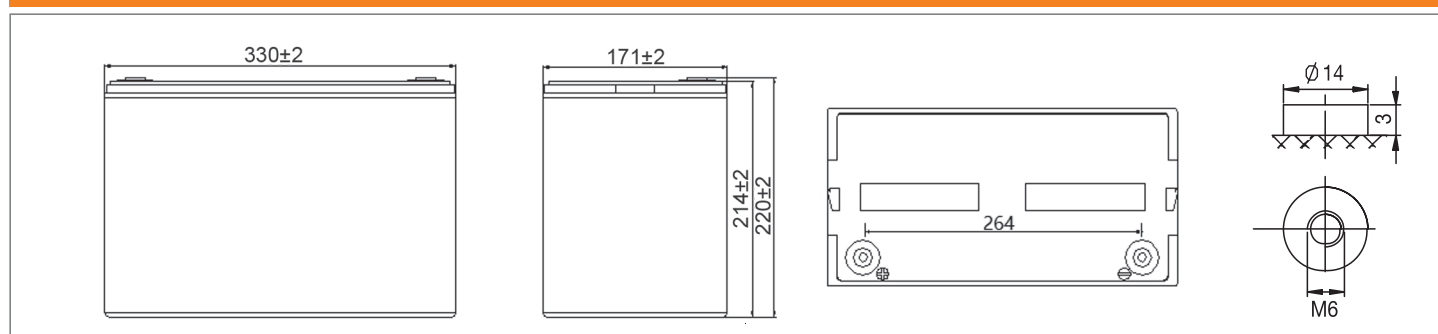
Specifications

Nominal Voltage	12 V	
Number of cells	6	
Design Life	12 years	
Dimensions	Length	330 mm
	Width	171 mm
	Height	214 mm
	Total Height	220 mm
Approx. Weight	31.5 kg	
Nominal Capacity (25°C)	20 hours rate (5.25 A, 10.8 V)	105.0 Ah
	10 hours rate (10.00 A, 10.8 V)	100.0 Ah
	5 hours rate (17.50 A, 10.5 V)	87.5 Ah
	1 hour rate (59.50 A, 10.2 V)	59.5 Ah
Max. Discharge Current (25°C)	800 A (5s)	
Internal Resistance	4.5 mOhms	
Fully Charged battery (25°C)	3% of capacity declined per month at 25°C (average)	
Self-Discharge	Discharge	: -15°C~50°C
	Charge	: -10°C~50°C
	Storage	: -20°C~50°C
Operating Temperature Range	2700 A	
Short Circuit Current	2700 A	
Charging Characteristics (25°C)	Boost charging voltage	2.40-2.45 Vpc
	Maximum charging current	30 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)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	204	162	98.0	62.0	36.5	25.5	20.9	17.9	12.2	10.2	5.34
1.65 V	198	158	96.0	61.1	36.3	25.4	20.8	17.7	12.2	10.2	5.33
1.70 V	189	152	93.1	59.5	36.0	25.2	20.6	17.6	12.1	10.1	5.32
1.75 V	181	147	90.8	58.3	35.5	25.0	20.5	17.5	12.0	10.1	5.29
1.80 V	171	139	87.5	56.5	34.6	24.3	19.9	17.0	11.6	10.0	5.25

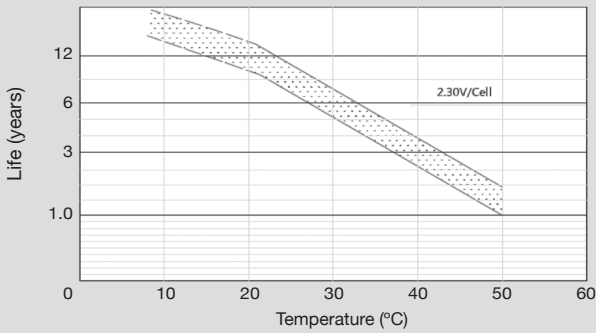
Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	2200	1775	1100	707	423	300	246	211	145	122	64.1
1.65 V	2134	1733	1078	696	421	298	244	210	145	121	64.0
1.70 V	2046	1669	1045	679	417	296	243	208	144	121	63.8
1.75 V	1958	1612	1019	665	411	294	241	207	143	120	63.4
1.80 V	1848	1527	982	645	400	285	234	201	138	119	63.0

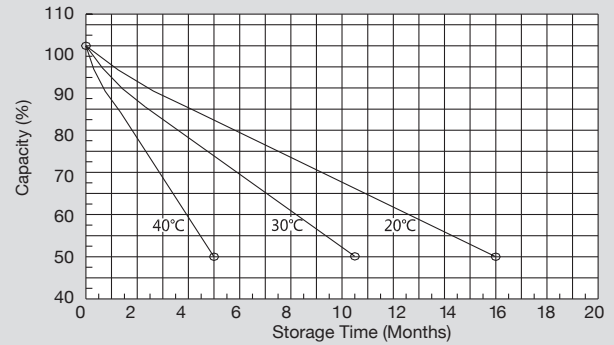
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

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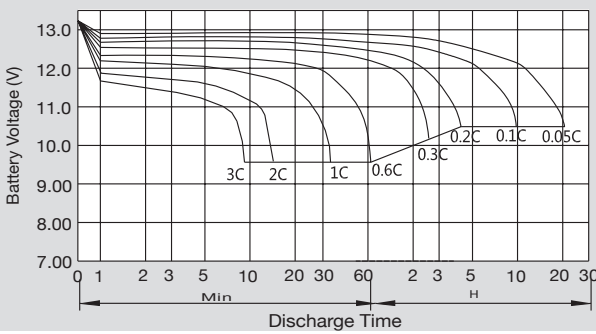
Temperature Effects on Float Life



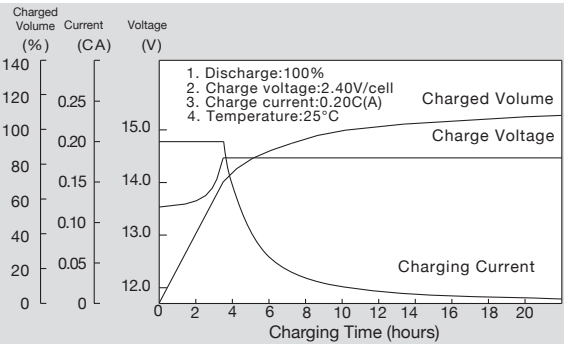
Self Discharge Characteristics



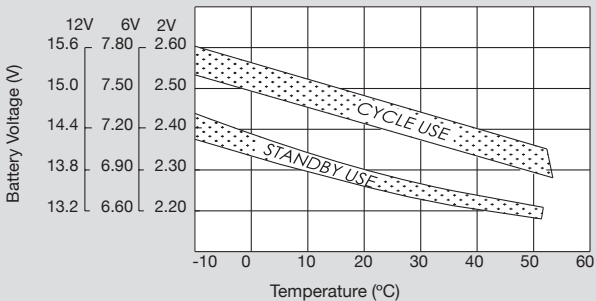
Discharge Characteristics (25°C)



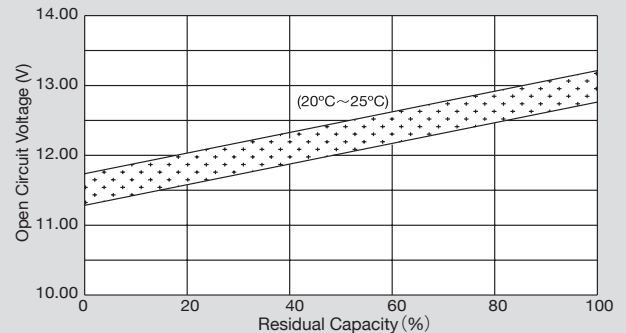
Charging Characteristic (25°C)



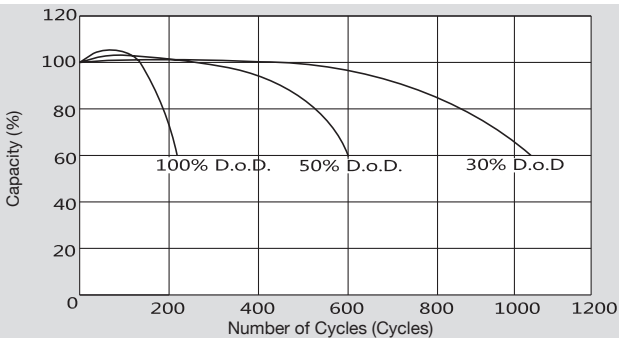
Relationship Between Charging Voltage and Temperature



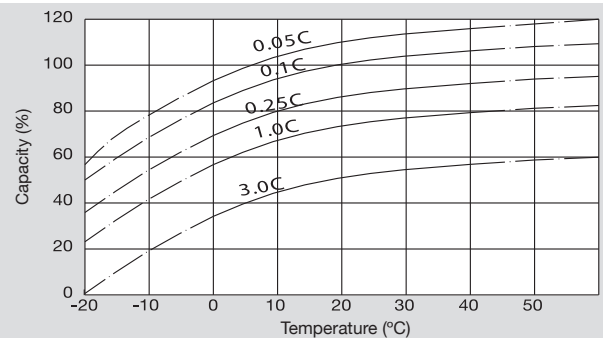
Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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