SPA 12 - 2.3 | VRLA Battery



Specifications

Nominal Voltage	12 V	
Number of cells	6	
Design Life	10 years	
Dimensions	Length	178 mm
	Width	35 mm
	Height	61 mm
	Total Height	67 mm
Approx. Weight	0.88 kg	
Nominal Capacity (25°C)	20 hours rate (0.115 A, 10.5 V)	2.30 Ah
	10 hours rate (0.210 A, 10.5 V)	2.10 Ah
	5 hours rate (0.390 A, 10.5 V)	1.95 Ah
	1 hour rate (1.500 A, 9.6 V)	1.50 Ah
Max. Discharge Current (25°C)	34.5 A (5s)	
Max. Charging Current (25°C)	0.69 A	
Internal Resistance Fully Charged battery (25°C)	60 mOhms	
Self-Discharge (25°C)	3% of capacity declined per month (average)	
Operating Temperature Range	Discharge : -15~50°C	
	Charge : -10~50°C	
	Storage : -20~50°C	
Short Circuit Current	200 A	
Charging Characteristics (25°C)	Boost charging voltage	2.40-2.45 Vpc
	Temperature compensation	-30 mV/°C
	Float charging voltage	2.25-2.30 Vpc
	Temperature compensation	-18 mV/°C

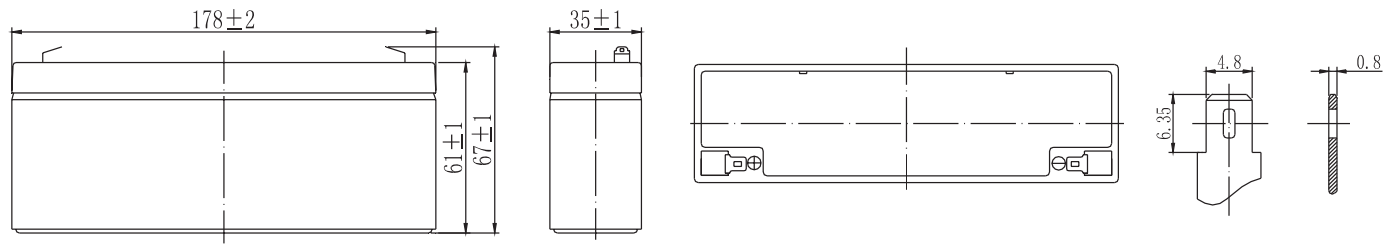
Applications

- 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

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)	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	10 h	20 h
1.60 V	8.74	5.52	4.37	2.44	1.50	0.82	0.59	0.47	0.40	0.22	0.117
1.65 V	8.48	5.35	4.27	2.39	1.47	0.81	0.58	0.47	0.40	0.22	0.116
1.70 V	8.13	5.13	4.11	2.32	1.44	0.81	0.58	0.46	0.39	0.22	0.116
1.75 V	7.78	4.91	3.97	2.26	1.41	0.79	0.58	0.46	0.39	0.21	0.115
1.80 V	7.34	4.64	3.76	2.18	1.36	0.77	0.56	0.45	0.38	0.21	0.113

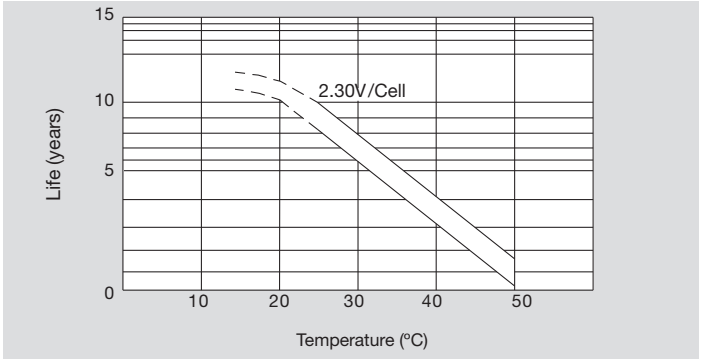
Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	10 h	20 h
1.60 V	97.5	62.3	49.8	27.9	17.3	9.56	6.97	5.59	4.76	2.61	1.40
1.65 V	94.6	60.4	48.6	27.4	17.1	9.50	6.93	5.56	4.73	2.60	1.40
1.70 V	90.7	57.9	46.8	26.5	16.6	9.42	6.88	5.52	4.70	2.58	1.39
1.75 V	86.8	55.4	45.2	25.9	16.3	9.28	6.83	5.48	4.67	2.57	1.38
1.80 V	81.9	52.3	42.8	24.9	15.8	9.04	6.63	5.31	4.53	2.52	1.35

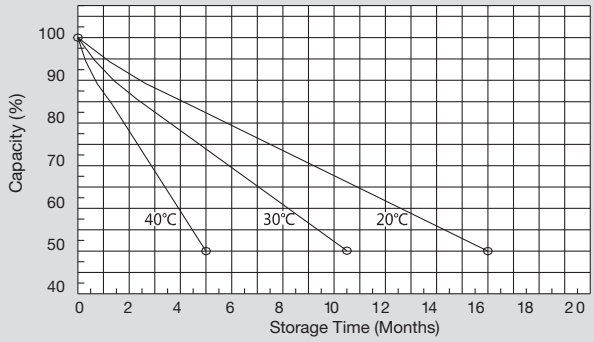
(Note) The above characteristics data are average values obtained within three charge/discharge cycles.

SPA 12 - 2.3 | VRLA Battery

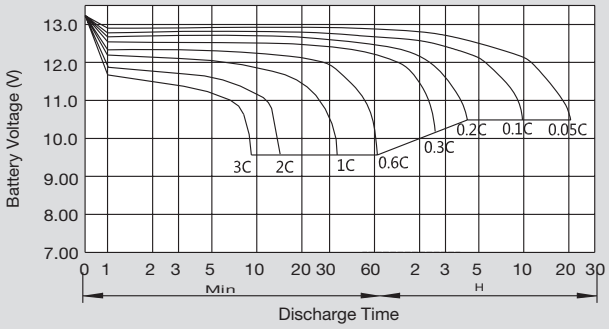
Temperature Effects on Float Life



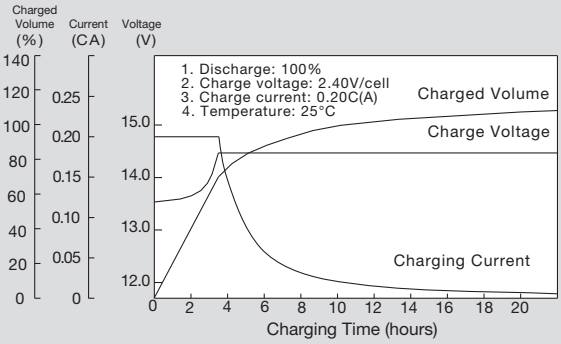
Self Discharge Characteristics



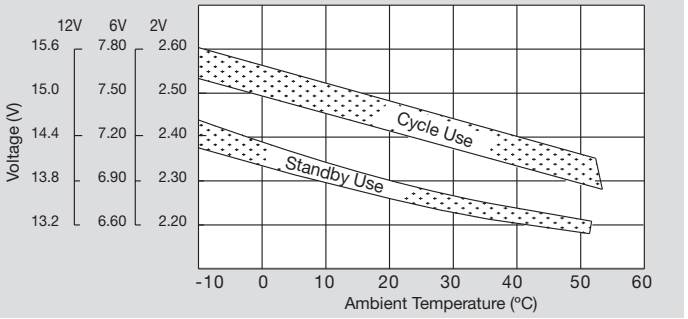
Discharge Characteristics (25ºC)



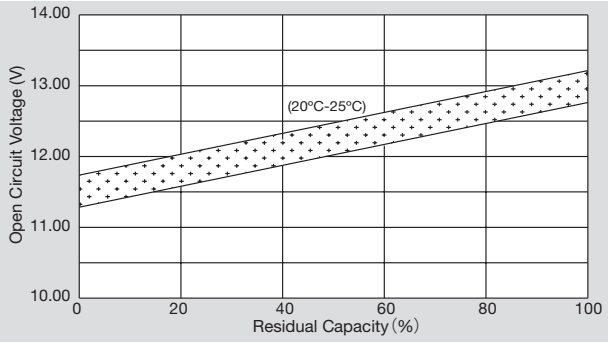
Charging Characteristics (25ºC)



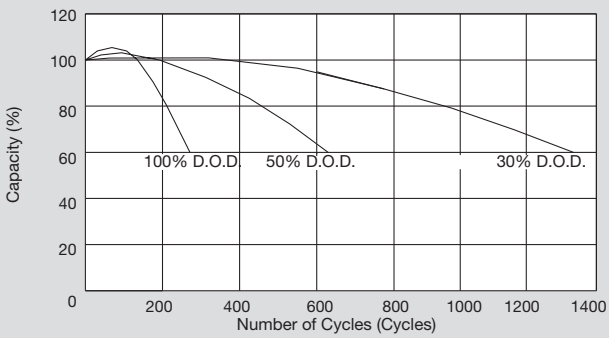
Relationship Between Charging Voltage and Temperature



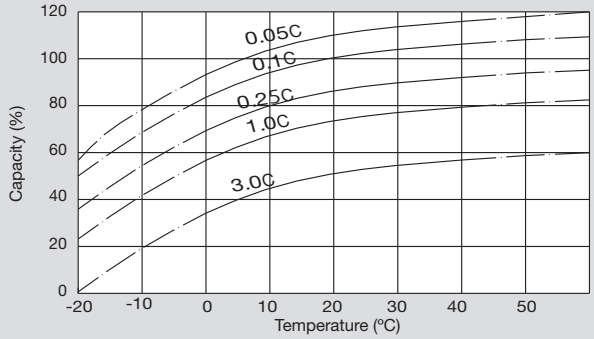
Relationship Between Open Circuit Voltage and Residual Capacity (25ºC)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



Headquarters 2 Ermou & Nikis Street | Syntagma Square | 105 63 | Athens | Greece | EU — **T** +30 210 6245400 | **F** +30 210 6245409
Manufacturing Plant Neo Olvio | 672 00 Xanthi | Greece | EU — **T** +30 25410 48100 | **F** +30 25410 95446
Recycling Plant Industrial Area of Komotini | 691 00 Komotini | Greece | EU — **T** +30 25310 82460 | **F** +30 25310 82489
Southeast Europe Industrial Sales 14B Menexedon Street | 145 64 Kato Kifissia | Greece | EU — **T** +30 210 6245600 | **F** +30 210 6245619
European Battery Assembly (SEBA) 175, Via Stra | 37030 Colognola Ai Colli Verona | Italy | EU — **T** +39 045 7651771 | **F** +39 045 7651771
Industrial SRL 11, Soseaua Centurii | 077025 Bragadiru, Judet Ilfov | Romania | EU — **T** +40 021 3517777 | **F** +40 021 3516667

SUNLIGHT
Reliable Battery Solutions