

AccuForce 12V - 95Ah S

Solar VRLA Battery



Specifications

Nominal Voltage	12 V	
Number of cells	6	
Cycle Life	Approx. 800 cycles at 50% DOD	
Dimensions	Length	260 mm
	Width	168 mm
	Height	211 mm
	Total Height	214 mm
Approx. Weight	23 kg	
Nominal Capacity (25°C)	120 hours rate (0.79 A, 11.1 V)	94.8 Ah
	100 hours rate (0.94 A, 11.1 V)	94.0 Ah
	48 hours rate (1.84 A, 10.8 V)	88.3 Ah
	10 hours rate (8.00 A, 10.8 V)	80.0 Ah
	5 hours rate (14.0 A, 10.5 V)	70.0 Ah
Max. Discharge Current (25°C)	800 A (5s)	
Internal Resistance	5.5 mOhms	
Fully Charged battery (25°C)	3% of capacity declined per month at 25°C (average)	
Operating Temperature Range	Discharge	-15°C~50°C
	Charge	-10°C~50°C
	Storage	-20°C~50°C
Short Circuit Current	2500 A	
Charging Characteristics (25°C)	Cycle use	2.40-2.48 Vpc
	Maximum charging current	24 A
	Temperature compensation	-30 mV/°C
	Standby use	2.27-2.35 Vpc
Temperature compensation	-18 mV/°C	
Design Floating Life (20°C)	10 years	

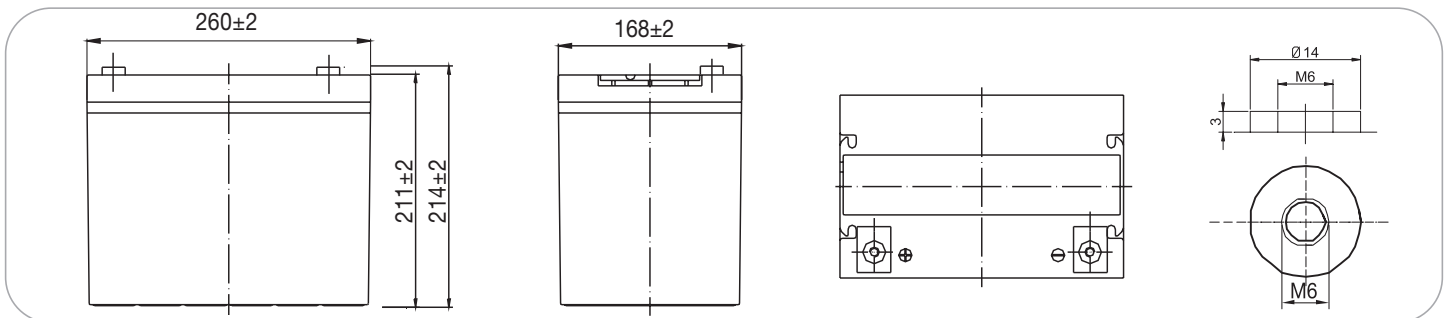
Applications

- Solar / Wind power systems
- Residential installations
- Golf carts and electric powered vehicles
- Marine equipment
- Electric wheelchairs
- Traffic systems (signaling and lighting)
- Remote monitoring and controlling
- Power tools and cleaning machines
- Uninterruptible power supply (UPS)

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	48h	72h	100h	120h
1.60 V	134	80.8	50.0	29.2	20.4	16.7	14.3	12.4	9.76	8.16	4.27	---	---	---	---
1.65 V	130	79.2	49.4	29.0	20.3	16.6	14.2	12.2	9.76	8.16	4.26	---	---	---	---
1.70 V	126	76.8	48.1	28.8	20.2	16.5	14.1	12.2	9.68	8.08	4.26	1.87	---	---	---
1.75 V	121	74.9	47.1	28.4	20.0	16.4	14.0	12.2	9.60	8.08	4.23	1.75	1.25	---	---
1.80 V	114	72.2	45.7	27.7	19.4	15.9	13.6	11.8	9.28	8.00	4.20	1.84	1.24	---	---
1.85 V	107	68.0	42.9	26.0	18.2	14.9	12.8	11.1	8.72	7.52	3.95	1.73	1.17	0.94	0.79

Constant Power Discharge (Watts) at 25°C

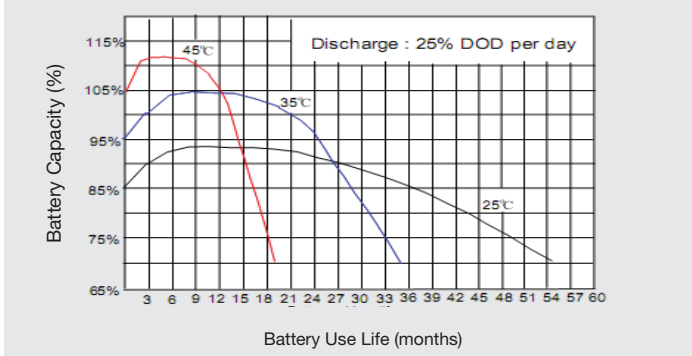
End Voltage (Volts/Cell)	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h	48h	72h	100h	120h
1.60 V	1464	898	569	336	238	194	168	146	116	96.8	51.2	---	---	---	---
1.65 V	1429	883	562	334	237	194	166	144	116	96.8	51.1	---	---	---	---
1.70 V	1376	858	549	332	235	192	166	144	115	96.0	51.0	22.4	---	---	---
1.75 V	1329	838	538	328	234	191	164	142	114	96.0	50.8	22.3	15.0	---	---
1.80 V	1259	810	522	320	227	187	161	139	110	95.2	50.4	22.1	14.9	---	---
1.85 V	1182	760	490	300	213	175	151	130	103	89.5	47.4	20.8	14.0	11.3	9.48

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

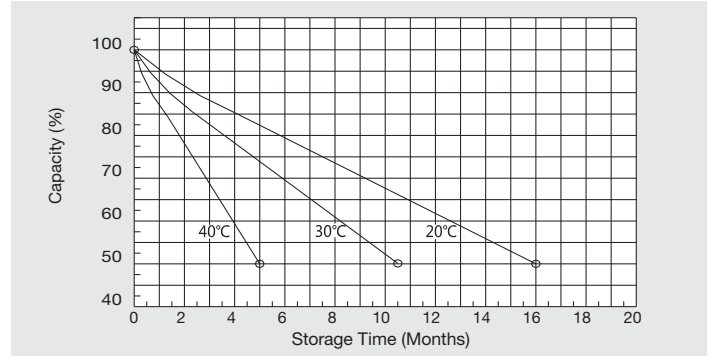
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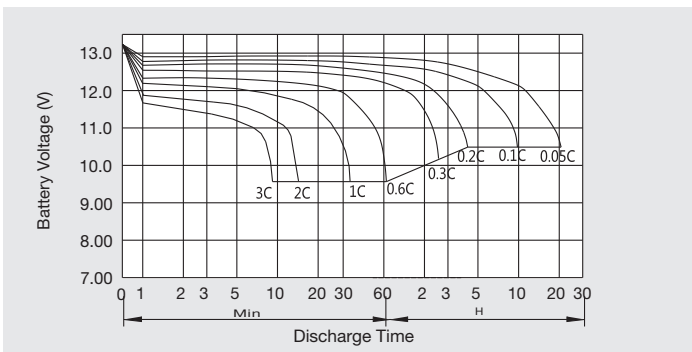
Typical Use Life and Operating Temperature



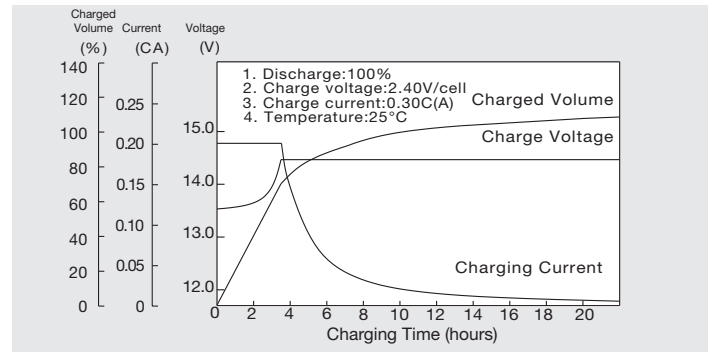
Self Discharge Characteristics



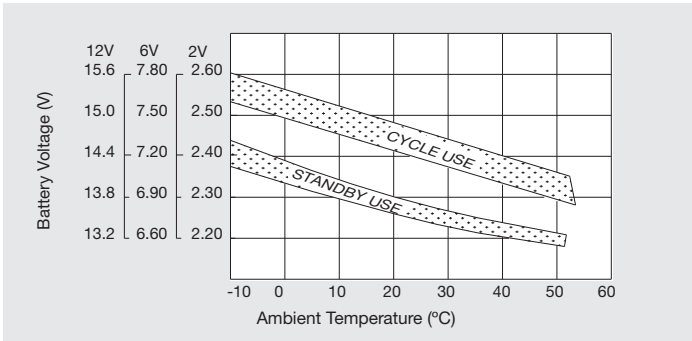
Discharge Characteristics (25°C)



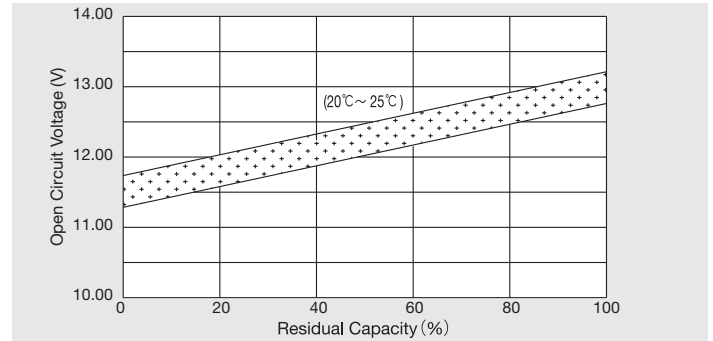
Charging Characteristics (25°C)



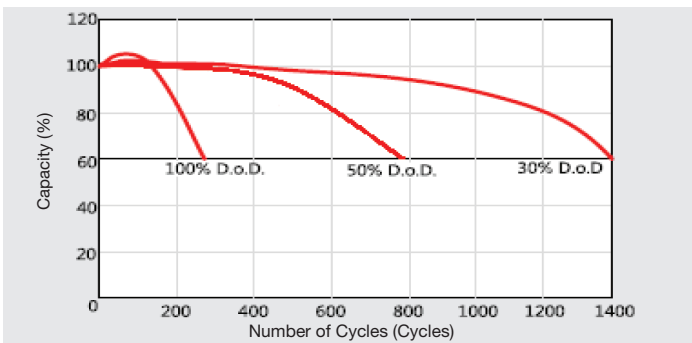
Relationship Between Charging Voltage and Temperature



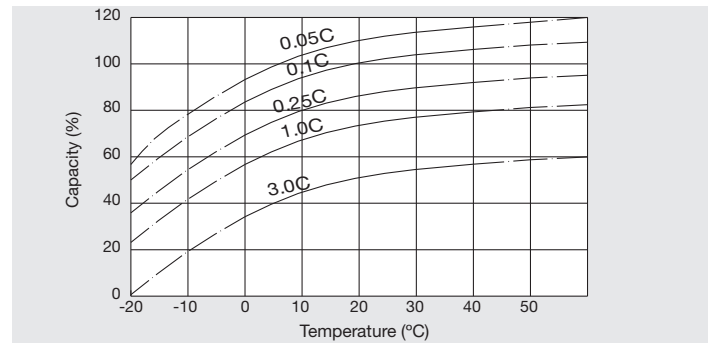
Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity



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