

# AccuForce 12V - 80Ah | VRLA Battery



## Specifications

Nominal Voltage	12 V	
Number of cells	6	
Design Life	10 years	
Dimensions	Length	350 mm
	Width	167 mm
	Height	179 mm
	Total Height	179 mm
Approx. Weight	23 kg	
Nominal Capacity (25°C)	20 hours rate (4.2 A, 10.8 V)	84.0 Ah
	10 hours rate (8.0 A, 10.8 V)	80.0 Ah
	5 hours rate (14.0 A, 10.5 V)	70.0 Ah
	1 hour rate (49.6 A, 9.6 V)	49.6 Ah
Max. Discharge Current (25°C)	800 A (5s)	
Internal Resistance	4.0 mOhms	
Fully Charged battery (25°C)		
Self-Discharge	3% of capacity declined per month at 20°C (average)	
Operating Temperature Range	Discharge	-15°C~50°C
	Charge	-10°C~50°C
	Storage	-20°C~50°C
Short Circuit Current	2215 A	
Charge Methods:	Cycle use	2.40-2.45 Vpc
	Maximum charging current	24 A
	Temperature compensation	-30 mV/°C
	Standby use	2.23-2.27 Vpc
Constant Voltage Charge (25°C)	Temperature compensation -18 mV/°C	

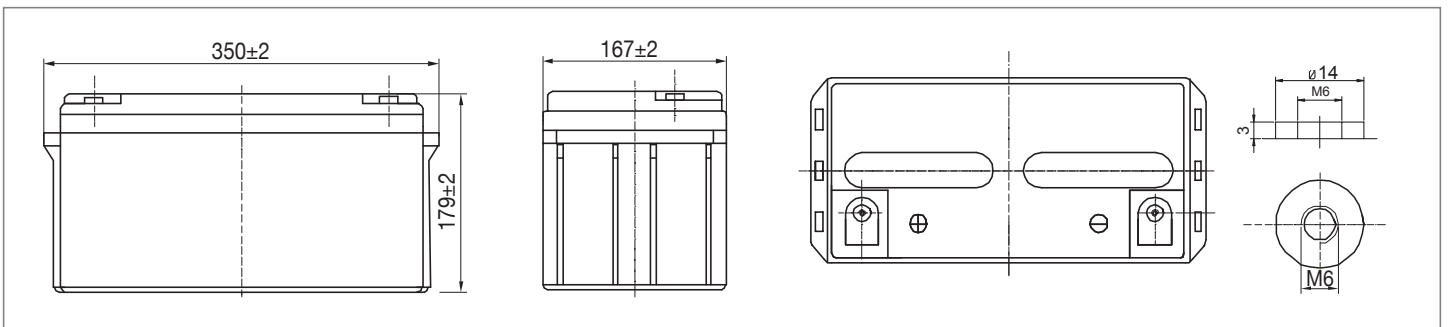
## Applications

- 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)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	168	132	80.0	49.6	29.2	20.4	16.7	14.3	9.79	8.14	4.28
1.65 V	163	129	78.4	48.9	29.1	20.3	16.6	14.2	9.73	8.13	4.27
1.70 V	156	124	76.0	47.6	28.8	20.1	16.5	14.1	9.67	8.10	4.25
1.75 V	150	120	74.2	46.7	28.4	20.0	16.4	14.0	9.60	8.06	4.23
1.80 V	141	114	71.4	45.2	27.6	19.4	15.9	13.6	9.31	8.00	4.20

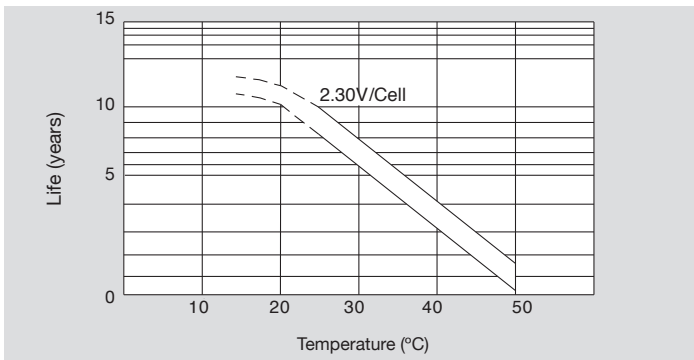
## Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	1814	1449	898	565	339	240	197	169	116	97.2	51.3
1.65 V	1760	1415	880	557	337	238	196	168	116	97.0	51.2
1.70 V	1687	1362	853	543	334	237	194	167	115	96.8	51.1
1.75 V	1615	1316	832	532	329	235	193	165	114	96.2	50.8
1.80 V	1524	1246	802	516	320	228	187	161	111	95.5	50.4

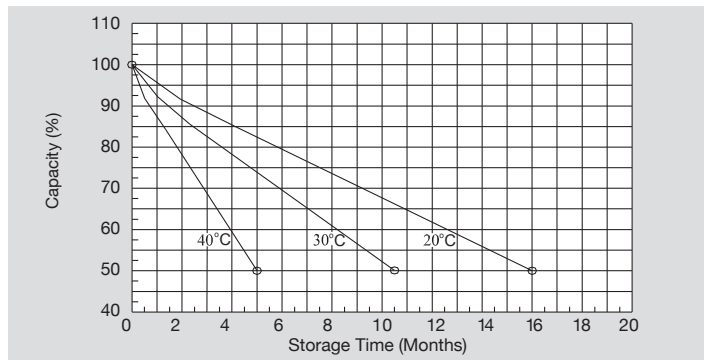
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

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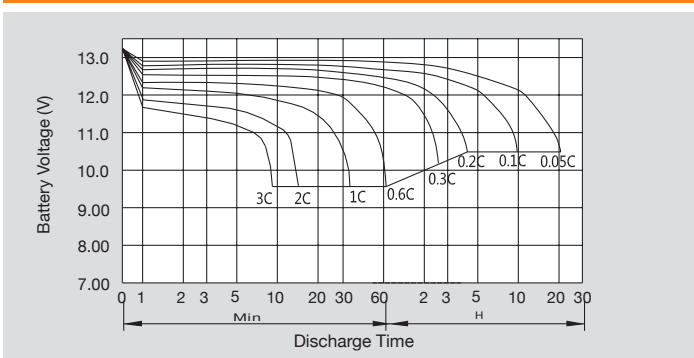
## Temperature Effects on Float Life



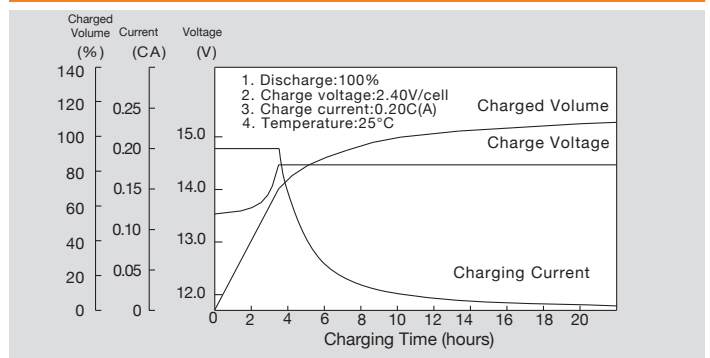
## Self Discharge Characteristics



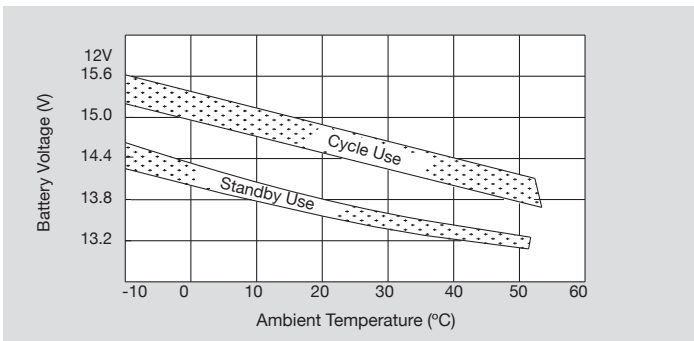
## Discharge Characteristics (25°C)



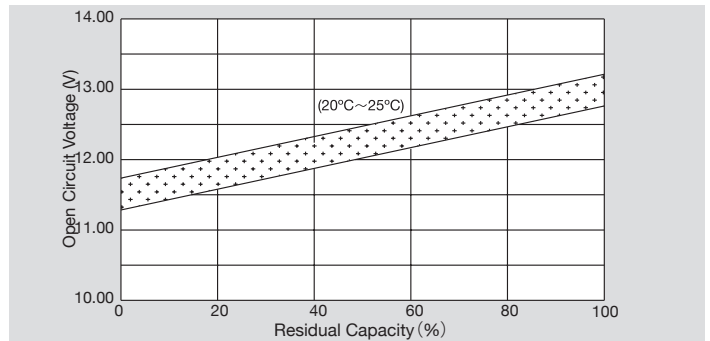
## Constant Voltage Charging Characteristic (0.25 CA, 25°C)



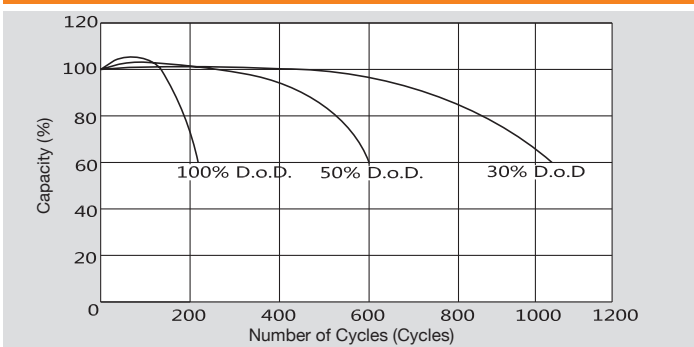
## Relationship Between Charging Voltage and Temperature



## Relationship Between OCV and Residual Capacity (25°C)



## Cycle Service Life in Relation to Depth of Discharge



## Temperature Effects on Capacity

