

AccuForce 12V - 40Ah | 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

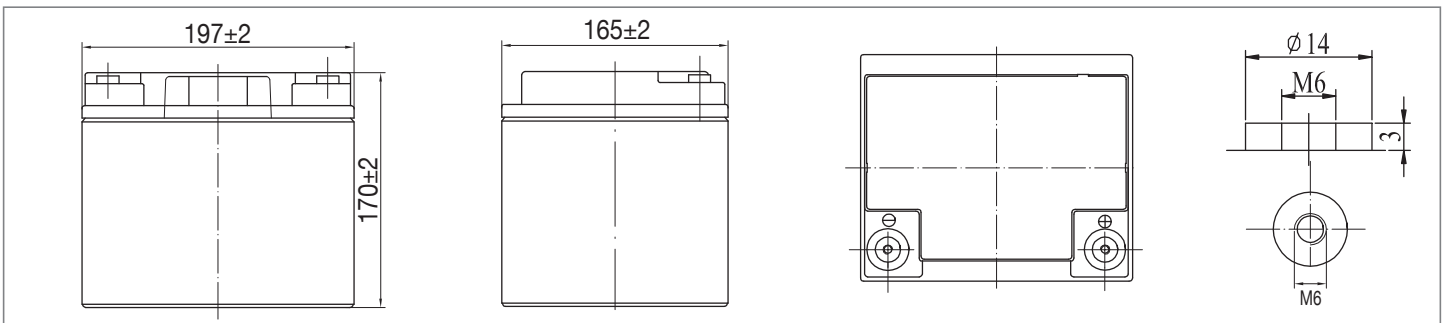
Specifications

Nominal Voltage	12 V	
Number of cells	6	
Design Life	10 years	
Dimensions	Length	197 mm
	Width	165 mm
	Height	170 mm
	Total Height	170 mm
Approx. Weight	12.5 kg	
Nominal Capacity (25°C)	20 hours rate (2.10 A, 10.8 V)	42.0 Ah
	10 hours rate (4.00 A, 10.8 V)	40.0 Ah
	5 hours rate (7.00 A, 10.5 V)	35.0 Ah
	1 hour rate (24.80 A, 9.6 V)	24.8 Ah
Max. Discharge Current (25°C)	400 A (5s)	
Internal Resistance	8.5 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	1105 A	
	Cycle use	2.40-2.45 Vpc
Charge Methods:	Maximum charging current	12 A
	Temperature compensation	-30 mV/°C
	Standby use	2.23-2.27 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	84.0	66.0	40.0	24.8	14.6	10.2	8.36	7.14	4.90	4.07	2.14
1.65 V	81.5	64.4	39.2	24.4	14.5	10.1	8.31	7.10	4.87	4.06	2.13
1.70 V	78.1	62.0	38.0	23.8	14.4	10.1	8.26	7.05	4.83	4.05	2.13
1.75 V	74.8	59.9	37.1	23.3	14.2	10.0	8.20	7.00	4.80	4.03	2.11
1.80 V	70.6	56.8	35.7	22.6	13.8	9.70	7.95	6.79	4.66	4.00	2.10

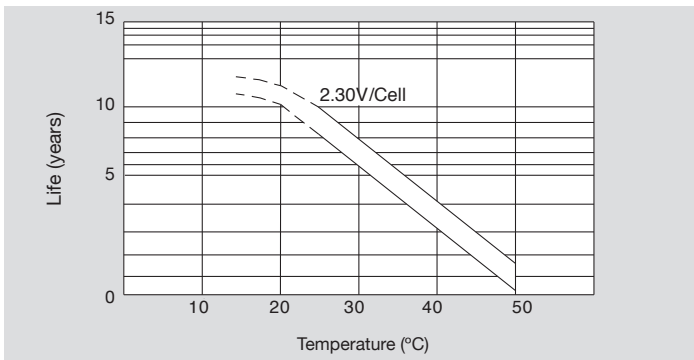
Constant Power Discharge (Watts) at 25°C

End Voltage (Volts/Cell)	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60 V	907	725	449	283	169	120	98.4	84.4	58.2	48.6	25.7
1.65 V	880	707	440	278	168	119	97.8	83.9	57.8	48.5	25.6
1.70 V	844	681	426	271	167	118	97.1	83.3	57.4	48.4	25.5
1.75 V	807	658	416	266	164	118	96.4	82.7	57.0	48.1	25.4
1.80 V	762	623	401	258	160	114	93.5	80.3	55.3	47.8	25.2

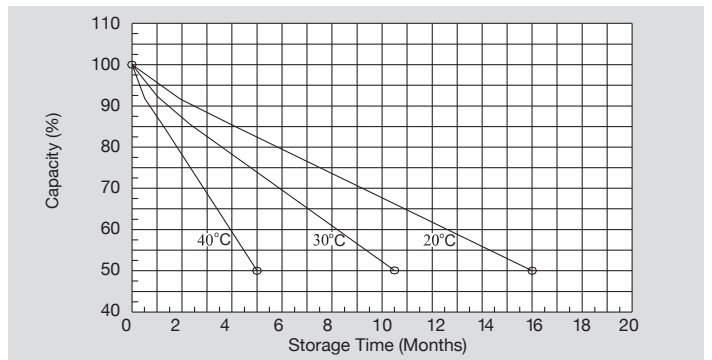
(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.

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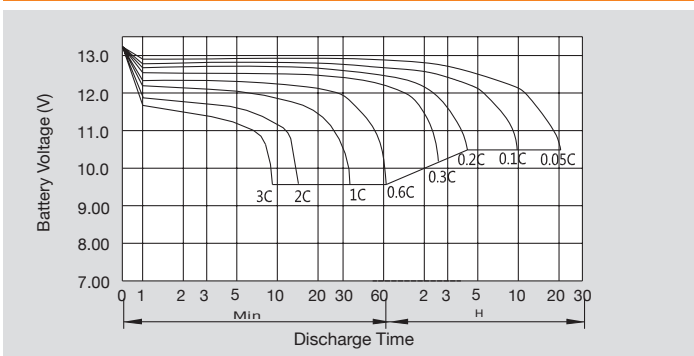
Temperature Effects on Float Life



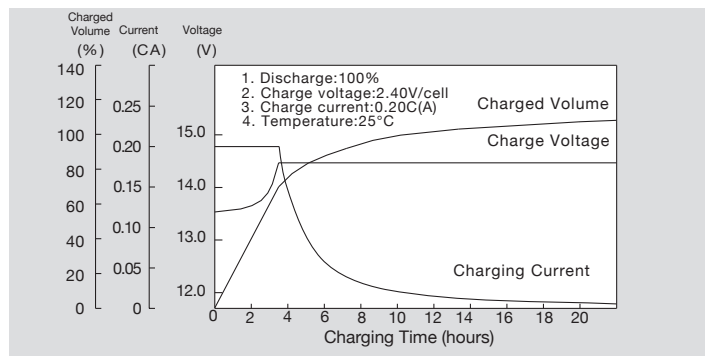
Self Discharge Characteristics



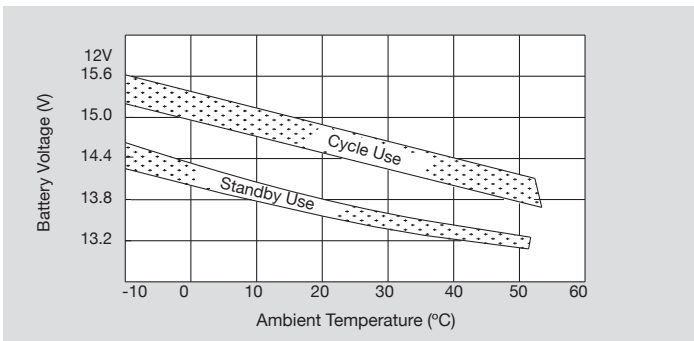
Discharge Characteristics (25°C)



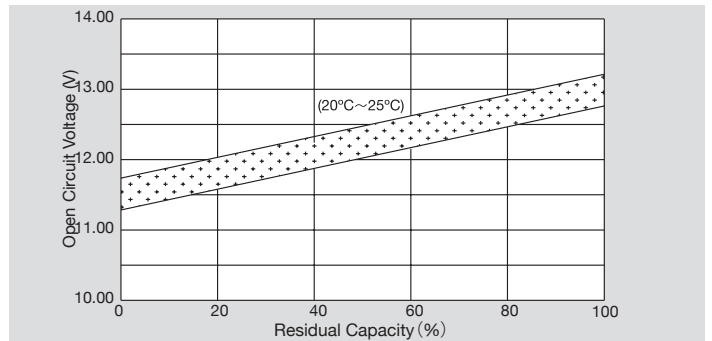
Constant Voltage Charging Characteristic (0.25 CA, 25°C)



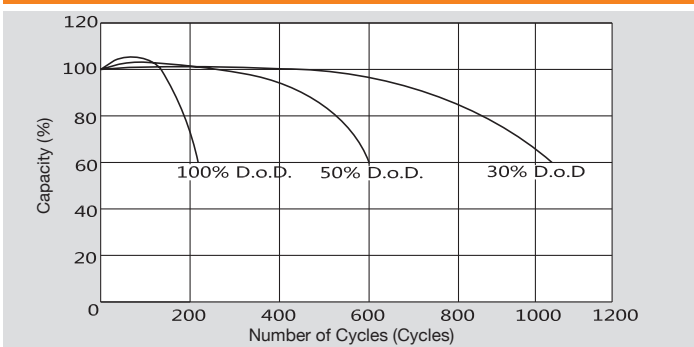
Relationship Between Charging Voltage and Temperature



Relationship Between OCV and Residual Capacity (25°C)



Cycle Service Life in Relation to Depth of Discharge



Temperature Effects on Capacity

