

DEEP CYCLE LONG LIFE BATTERY

Battery Specification

Normal Voltage	12V
Number of cell	6
Design life	5 years

Nominal Capacity 77°F (25°C)

20 hour rate (1.00A, 10.5V)	20.00Ah
10 hour rate (1.85A, 10.5V)	18.50Ah
5 hour rate (3.45A, 10.5V)	17.25Ah
1 hour rate (13.4A, 9.6V)	13.40Ah

Internal Resistance

Fully Charged battery 77°F(25°C) ≤16.5mOhms

Self-Discharge

3% of capacity declined per month at 20°C (average)

Operating Temperature Range

Discharge	-20 ~ 60°C
Charge	-10 ~ 60°C
Storage	-20 ~ 60°C

Max. Discharge Current 77°F(25°C) 3000(5s)

Short Circuit Current 1000A

Charge Methods: Constant Voltage Charge
77°F (25°C)

Cycle use 2.40-2.45VPC

Maximum charging current 8.0A

Temperature compensation -30mV/°C

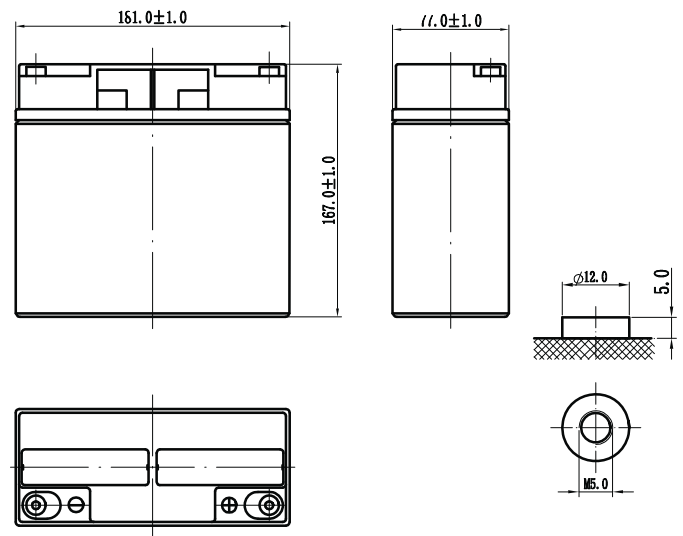
Standby use 13.6-13.8V

Temperature compensation -20mV/°C

Dimensions and Weight

Length (mm / inch)	181 / 7.13
Width (mm / inch)	77 / 3.03
Height (mm / inch)	167 / 6.57
Total Height (mm / inch)	167 / 6.57
Approx. Weight(Kg / lbs)	5.3 / 11.66

*Weight deviation: ± 3%



Battery Construction

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper / Plug	Fiberglass	Sulfuric acid

Discharge Constant Current (Amperes at 77°F25°C)

End Point	Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	72.8	49.7	38.4	21.7	13.0	5.20	3.50	1.79	0.92	
1.65V	71.1	48.4	37.5	21.4	12.8	5.12	3.44	1.76	0.91	
1.70V	69.3	47.2	36.7	21.0	12.6	5.04	3.37	1.73	0.90	
1.75V	67.6	46.0	35.8	20.7	12.4	4.96	3.31	1.69	0.85	
1.80V	65.9	44.7	34.9	20.4	12.2	4.88	3.24	1.65	0.84	

Discharge Constant Power (Watts at 77°F25°C)

End Point	Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	147	102	81.5	44.6	34.2	26.6	14.9	7.06	7.05	
1.65V	143	100	80.1	43.9	33.8	26.3	14.7	6.96	6.96	
1.70V	138	98.2	78.7	43.3	33.4	26.0	14.5	6.88	6.88	
1.75V	133	96.3	77.3	42.7	33.0	25.8	14.4	6.79	6.79	
1.80V	128	94.9	76.0	42.0	32.6	25.5	14.2	6.78	6.78	

(Note) The above characteristics data are average values obtained within threecharge / discharge cycles. All data shall be changed without notice, Starx Security reserves the right to explain and update the information.

General Features

Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.

UL-recognized component.

Can be mounted in any orientation.

Computer designed lead, calcium tin alloy grid for high power density.

Long service life, float or cyclic applications.

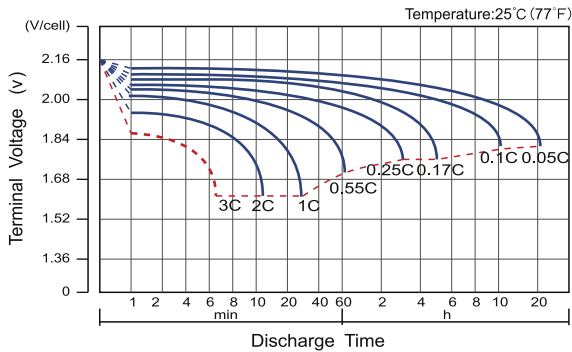
Maintenance-free operation.

Low self discharge.

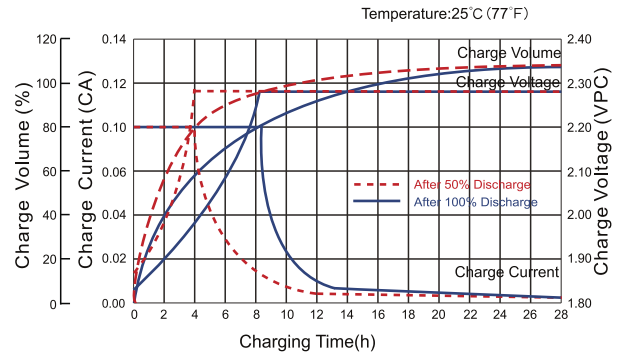
Case and cover available in both standard and flame retardant ABS.

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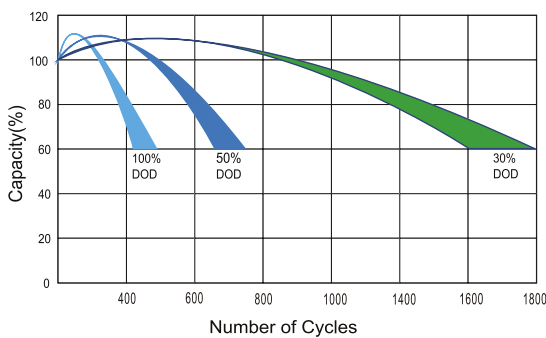
Discharge Characteristics Curve



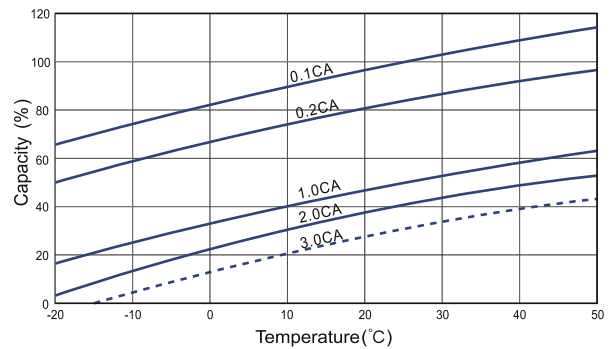
Charge Characteristic Curve For Standby Use



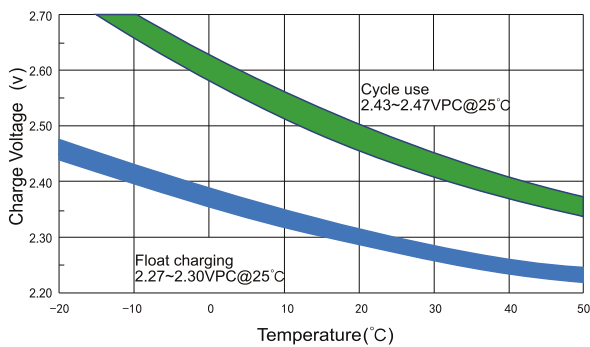
Cycle Life In Relation To Depth Of Discharge



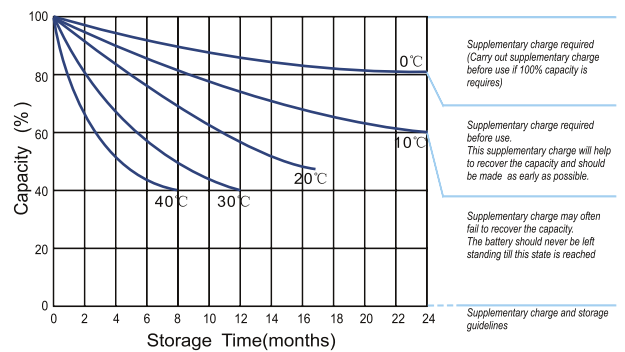
Temperature Effects On Capacity



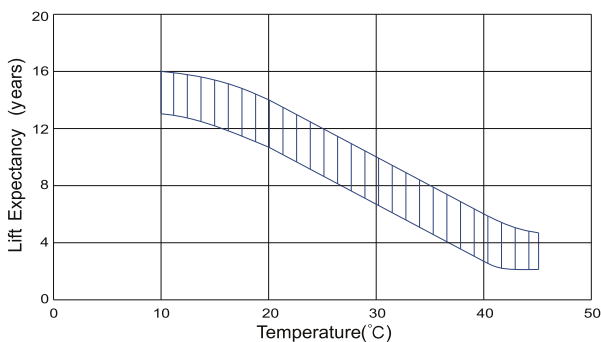
Relationship Between Charging Voltage And Temperature



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use

