

DEEP CYCLE LONG LIFE BATTERY

### Battery Specification

<b>Normal Voltage</b>	12V
<b>Number of cell</b>	6
<b>Design life</b>	10 years

#### Nominal Capacity 77°F (25°C)

20 hour rate (3.75A, 10.5V)	75.0Ah
10 hour rate (7.50A, 10.5V)	74.1Ah
5 hour rate (13.4A, 10.5V)	67.0Ah
1 hour rate (51.2A, 9.6V)	51.2Ah

#### Internal Resistance

Fully Charged battery 77°F(25°C) ≤6.5mOhms

#### 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)** 700(5s)

**Short Circuit Current** 1800A

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

**Cycle use** 2.40-2.45VPC

**Maximum charging current** 22.5A

**Temperature compensation** -30mV/°C

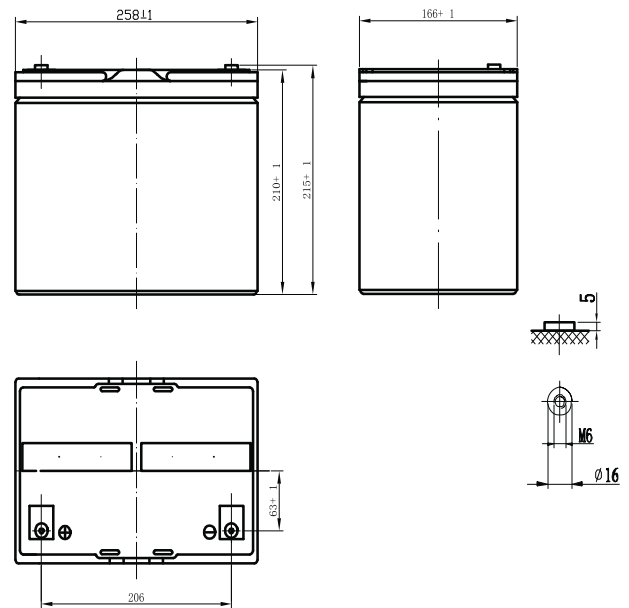
**Standby use** 13.6-13.8V

**Temperature compensation** -20mV/°C

### Dimensions and Weight

Length (mm / inch)	258 / 10.1
Width (mm / inch)	166 / 6.53
Height (mm / inch)	210 / 8.26
Total Height (mm / inch)	215 / 8.46
Approx. Weight(Kg / lbs)	24 / 52.9

\*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	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	171	133	79.8	49.5	21.6	14.2	7.54	3.94	
1.65V	162	127	76.3	46.8	21.2	14.0	7.51	3.90	
1.70V	152	118	75.1	46.2	20.8	13.8	7.48	3.85	
1.75V	145	114	71.8	44.6	20.4	13.4	7.45	3.80	
1.80V	133	109	71.3	42.8	19.6	13.2	7.41	3.75	

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

End Point	Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	301	239	154	118	94.3	53.4	39.8	26.7	
1.65V	288	234	149	116	92.2	52.1	38.8	26.5	
1.70V	278	230	141	109	88.5	50.9	38.5	25.9	
1.75V	263	216	139	109	85.2	49.7	37.9	25.9	
1.80V	251	206	138	104	82.9	49.0	37.6	25.7	

(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

Deep-cycle batteries typically feature thick plates and high-density active material.

The thick battery plates allows more energy storing within the battery plates and releasing during slow discharge.

The high-density active material remains within the batteries' plate/grid structure longer, resisting the normal degradation found in cycling conditions.

Battery are typically used where the battery is discharged to great extent and then recharged.

Deep Cycle refers to applications that typically discharge 60 to 70% or more of the battery capacity.

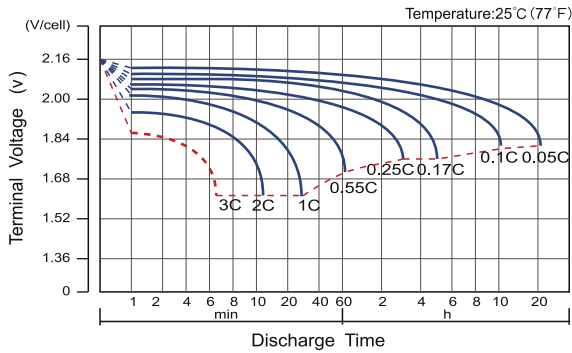
Superior Deep Cycle Design.

Thick plates and high-density active material.

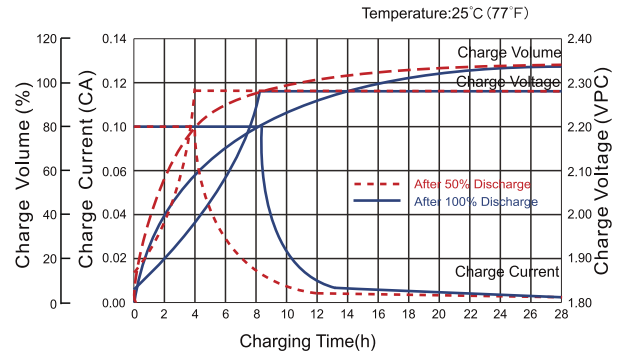
Longer life in deep cycle applications.

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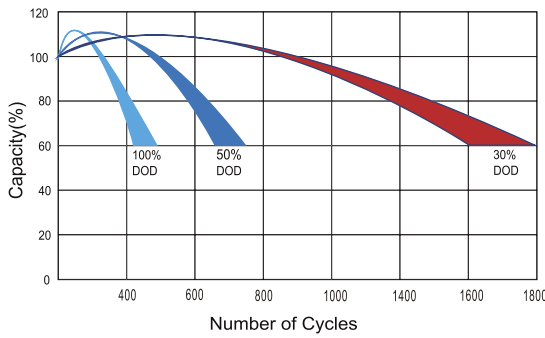
Discharge Characteristics Curve



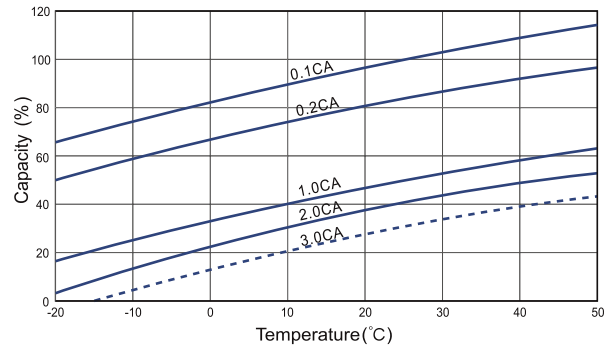
Charge Characteristic Curve For Standby Use



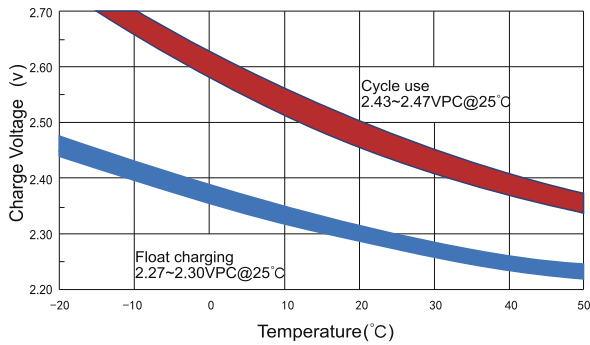
Cycle Life In Relation To Depth Of Discharge



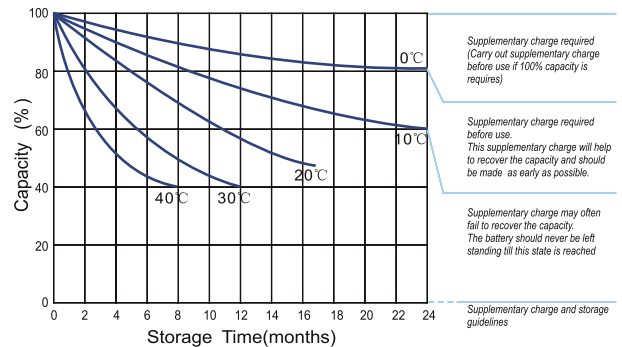
Temperature Effects On Capacity



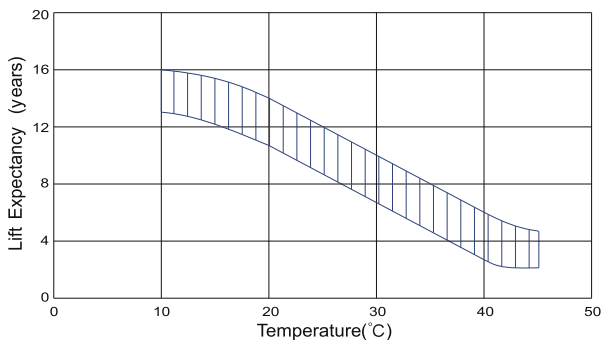
Relationship Between Charging Voltage And Temperature



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use

