

### GEL Series Battery

GEL series batteries are designed with AGM separator and GEL deep cycle technology to give Extra-durable cyclic performance at extreme temperature.  
 GEL series Batteries are designed for 12 years life time floating design life at 25°C .  
 Meet with IEC, BS, JIS and Eurobat standard .

### Application

- \* Emergency Power System
- \* Communication equipment
- \* Telecommunication systems
- \* Uninterruptible power supplies
- \* Electric toy car and wheelchairs, etc.
- \* Power tools
- \* Golf cars and buggies
- \* Marine equipment
- \* Medical equipment
- \* Solar and wind power system



### General Features

- \* Safety Sealing
- \* Non-spillable construction
- \* High Reliability and Stability
- \* Sealed and Maintenance-free
- \* Safety and Quality certification
- \* Long Life and low self-discharge design

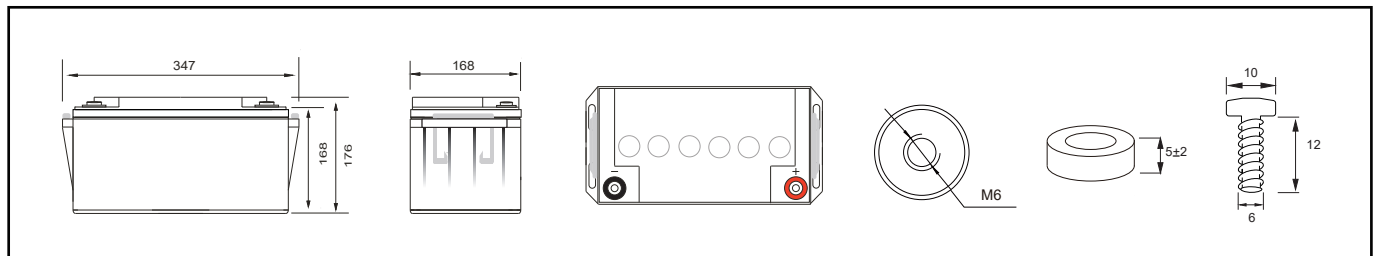
### Construction

- \* Positive ..... Lead dioxide
- \* Electrolyte ..... Silicon dioxide
- \* Separator ..... AGM
- \* Container ..... ABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- \* Negative ..... Lead
- \* Safety Valve ..... EPDR
- \* Terminal ..... Copper

### Specification

Battery Model	Nominal Voltage			12V
	Rated capacity (10 Hour rate)			65Ah
	Cells Per battery			6
Dimension	Length	Width	Height	Total Height
	347mm (13.66 inches)	168mm (6.61 inches)	168mm (6.61 inches)	176mm (6.92 inches)
Approx Weight	19.10kg(42.10lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(6.5A,10.5V)	5 hour rate(11.7A,10.5V)	3 hour rate(17.0A,10.8V)	1 hour rate(37.6A,9.6V)
	65Ah	58.5Ah	51Ah	37.6Ah
Max.discharge current	650A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 5.8mΩ			
Capacity affected by Temp.(10 HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Self Discharge @25°C (77°F)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method @25°C (77°F)	Cycle Use		Float Use	
	14.40-15.00V (Initial charging current less than 19.5A)		13.60-13.80V	

### Outer dimension (mm)

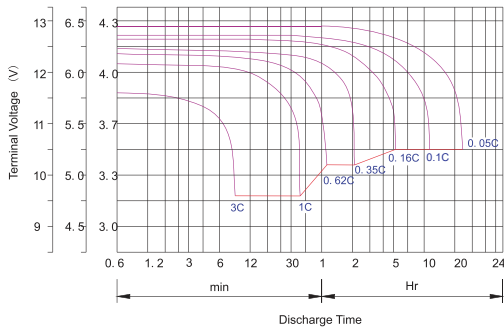


### Terminal Type (mm)

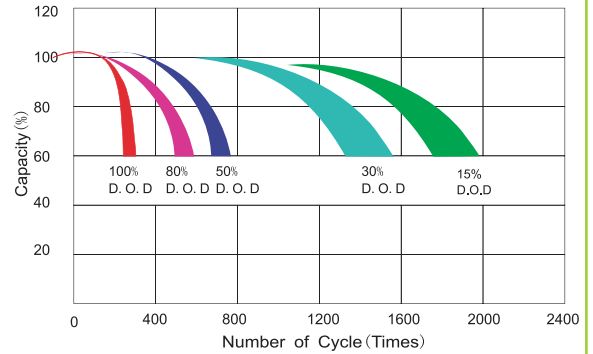
### Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

F.V/time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	110.500	69.000	37.600	27.519	24.346	17.343	11.835	8.282	6.745	3.714
	213.265	137.448	75.012	54.947	48.713	34.700	23.681	16.571	13.495	7.432
1.67V	104.760	67.526	37.328	27.246	24.225	17.252	11.770	8.212	6.640	3.529
	202.344	134.579	74.473	54.416	48.511	34.580	23.593	16.466	13.313	7.075
1.70V	102.177	66.936	37.055	27.219	24.164	17.208	11.767	8.130	6.556	3.435
	197.507	133.407	74.019	54.384	48.410	34.502	23.593	16.309	13.151	6.890
1.75V	97.871	65.756	36.510	26.865	24.013	17.100	11.705	8.108	6.500	3.380
	189.381	131.152	73.111	53.730	48.098	34.303	23.480	16.276	13.049	6.785
1.80V	93.853	64.282	36.238	26.674	23.861	17.009	11.672	8.038	6.395	3.269
	181.888	128.269	72.657	53.482	47.803	34.137	23.426	16.148	12.848	6.567
1.85V	88.974	62.513	35.693	26.374	23.649	16.857	11.607	7.933	6.290	3.157
	172.610	124.829	71.671	53.013	47.399	33.867	23.319	15.953	12.650	6.349

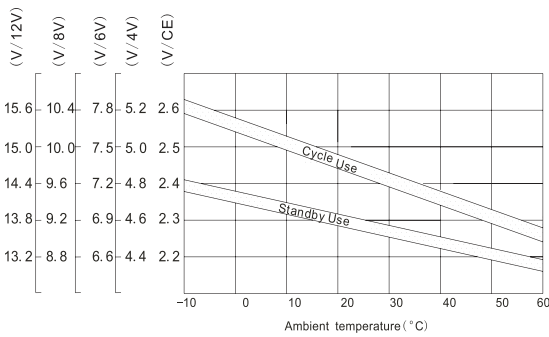
Discharge characteristic Curve



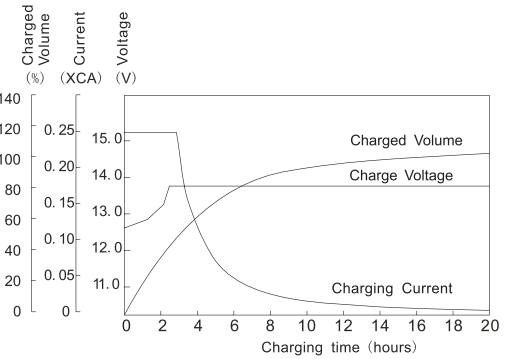
Cycle service life in relation to depth of discharge



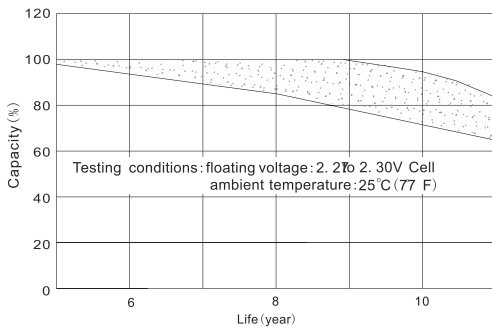
Relationship between charging voltage and temperature



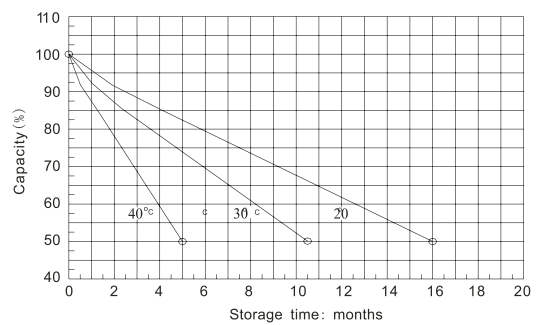
Constant voltage charging characteristic (0.25CA, at 25°C)



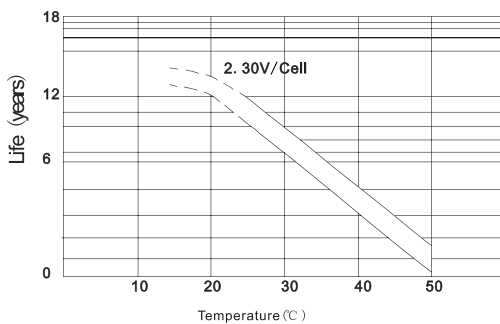
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

