

## 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

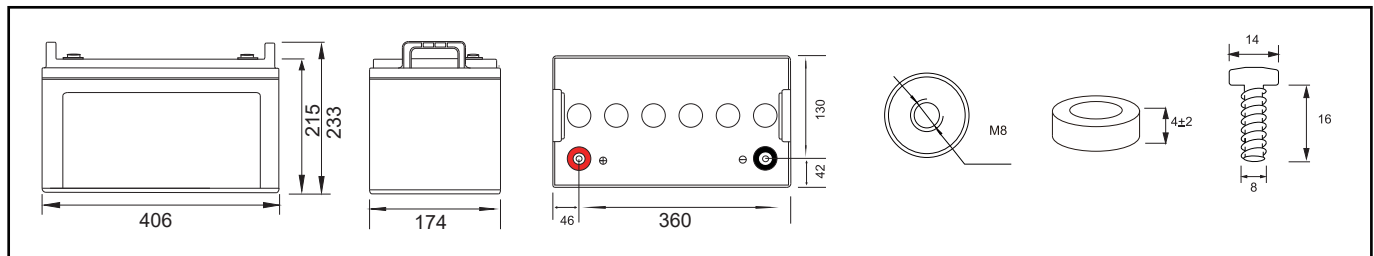
## Construction

- \* 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)		120Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	406mm (15.98 inches)	174mm (6.85 inches)	215mm (8.46 inches)	233mm (9.17 inches)
Approx Weight	33.2kg(65.69lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(12A,10.5V)	5 hour rate(22.79A,10.5V)	3 hour rate(33.12A,10.8V)	1 hour rate(73.4A,9.6V)
	120Ah	113.95Ah	99.36Ah	73.4Ah
Max.discharge current	1170A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F): Approx 4.0mΩ			
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 36A)		13.60-13.80V	

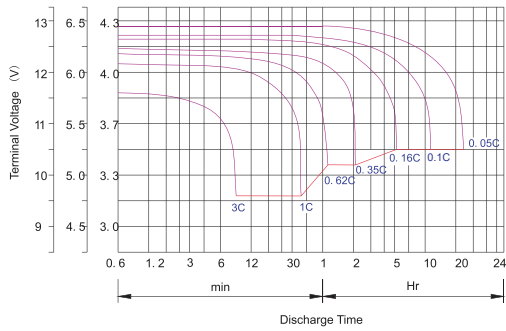
## Outer dimension (mm)



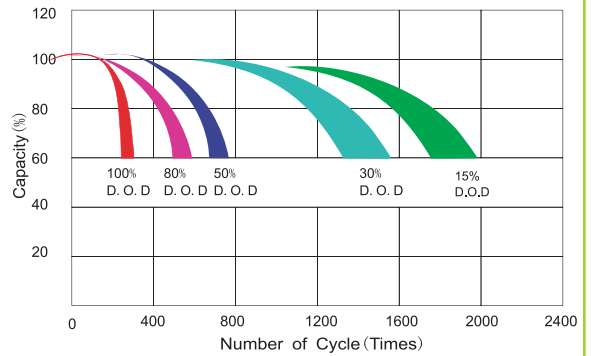
## Terminal Type (mm)

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	204.000	125.000	73.400	53.720	47.411	33.772	23.048	15.290	12.452	6.923
	393.720	249.000	146.433	107.263	94.862	67.573	46.115	30.593	24.914	13.852
1.67V	193.403	122.329	72.868	53.188	47.175	33.595	22.921	15.161	12.258	6.577
	373.558	243.802	145.382	106.228	94.468	67.340	45.944	30.398	24.577	13.187
1.70V	188.634	121.261	72.336	53.135	47.057	33.510	22.915	15.009	12.103	6.402
	364.629	241.680	144.495	106.164	94.271	67.188	45.945	30.109	24.280	12.842
1.75V	180.686	119.124	71.272	52.444	46.762	33.300	22.794	14.968	12.000	6.300
	349.627	237.595	142.722	104.888	93.664	66.800	45.724	30.048	24.090	12.647
1.80V	173.268	116.453	70.741	52.071	46.466	33.123	22.730	14.839	11.806	6.092
	335.792	232.372	141.836	104.403	93.090	66.478	45.620	29.811	23.719	12.239
1.85V	164.260	113.248	69.677	51.486	46.053	32.828	22.603	14.645	11.613	5.885
	318.664	226.140	139.911	103.488	92.303	65.951	45.410	29.451	23.354	11.834

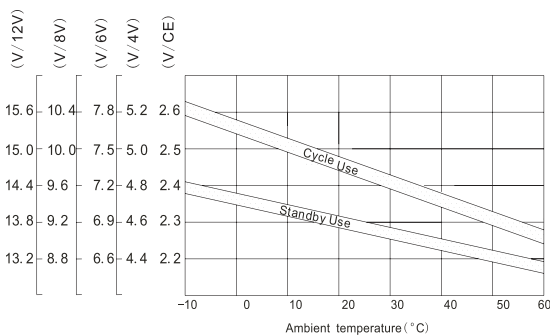
Discharge characteristic Curve



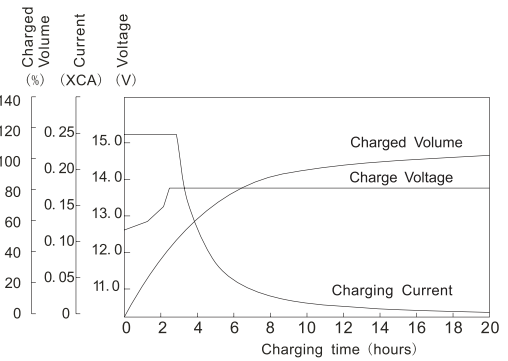
Cycle service life in relation to depth of discharge



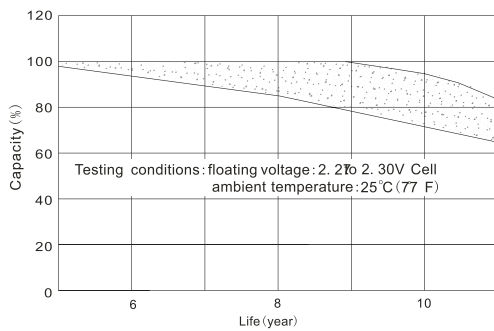
Relationship between charging voltage and temperature



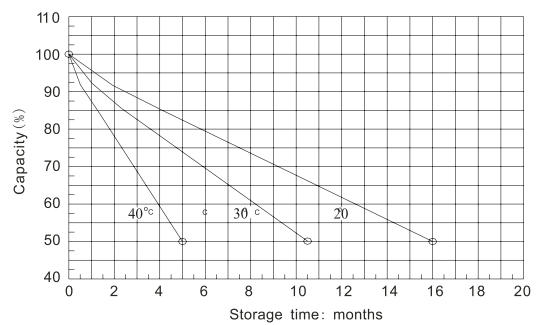
Constant voltage charging characteristic (0.25CA, at 25°C)



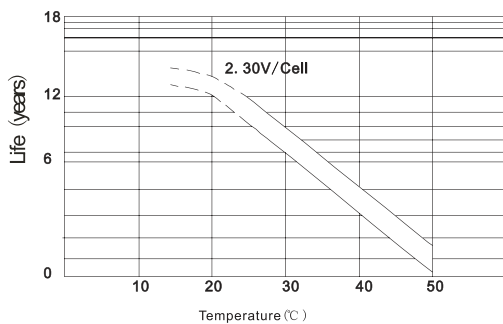
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

