

## 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

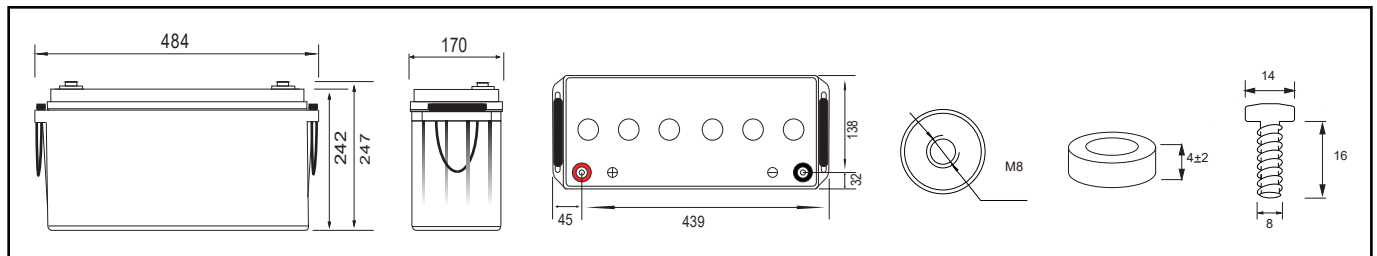
## Construction

- \* 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)		150Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	484mm (19.05 inches)	170mm (6.69 inches)	242mm (9.52 inches)	247mm (9.72 inches)
Approx Weight	41.4kg(91.27lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(15A,10.5V)	5 hour rate(26.69A,10.5V)	3 hour (38.793A,10.8V)	1 hour (90A,9.6V)
	150Ah	134.8Ah	116.37Ah	90Ah
Max.discharge current	1500A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 3.3mΩ			
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 45A)		13.60-13.80V	

## Outer dimension (mm)

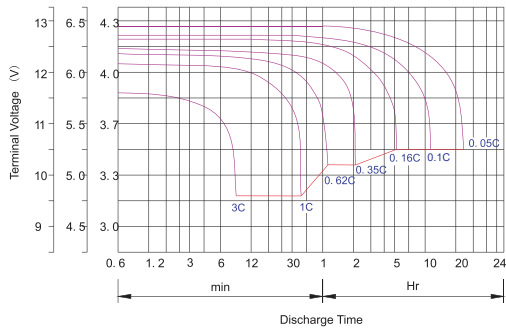


## Terminal Type (mm)

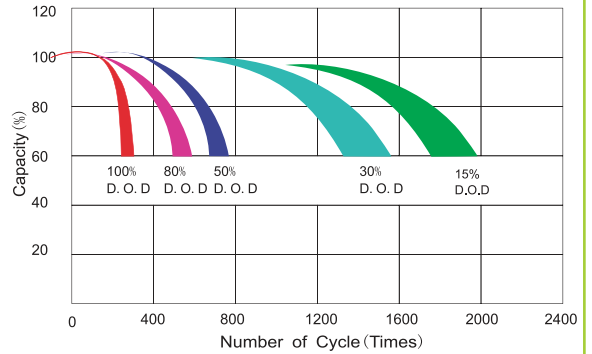
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

F.V/time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	225.000	172.500	90.000	65.870	55.527	39.553	26.993	19.113	15.565	8.582
	434.250	343.620	179.550	131.522	111.099	79.139	54.008	38.242	31.142	17.172
1.67V	213.312	168.814	89.348	65.217	55.250	39.346	26.844	18.952	15.323	8.153
	412.013	336.447	178.261	130.252	110.638	78.866	53.808	37.998	30.722	16.347
1.70V	208.052	167.340	88.696	65.152	55.112	39.246	26.837	18.762	15.129	7.936
	402.164	333.519	177.174	130.174	110.408	78.689	53.809	37.636	30.349	15.920
1.75V	199.286	164.391	87.391	64.304	54.766	39.000	26.696	18.710	15.000	7.810
	385.618	327.880	175.000	128.609	109.696	78.234	53.551	37.560	30.113	15.679
1.80V	191.104	160.705	86.739	63.848	54.420	38.793	26.621	18.548	14.758	7.553
	370.359	320.673	173.913	128.015	109.025	77.857	53.429	37.264	29.649	15.173
1.85V	181.169	156.282	85.435	63.130	53.936	38.447	26.472	18.306	14.516	7.295
	351.468	312.073	171.553	126.892	108.103	77.240	53.183	36.814	29.192	14.670

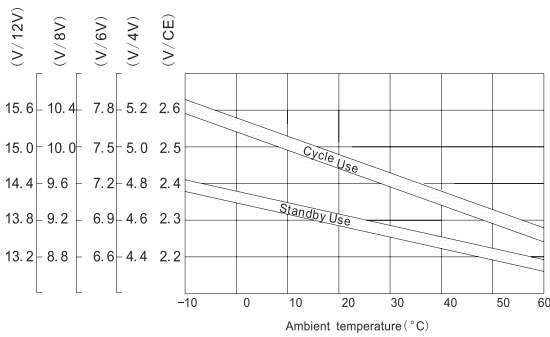
Discharge characteristic Curve



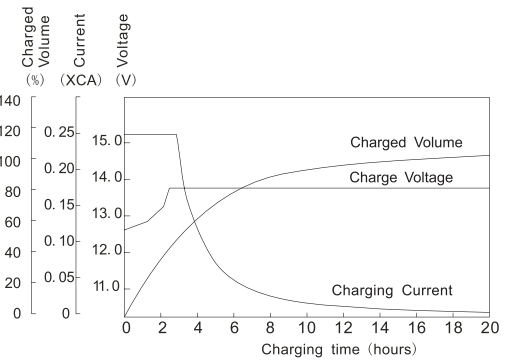
Cycle service life in relation to depth of discharge



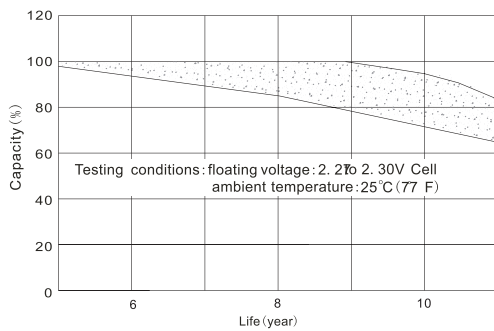
Relationship between charging voltage and temperature



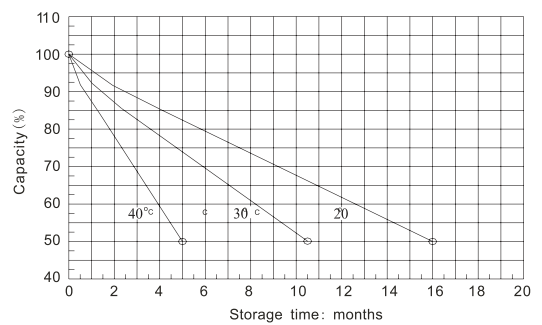
Constant voltage charging characteristic (0.25CA, at 25°C)



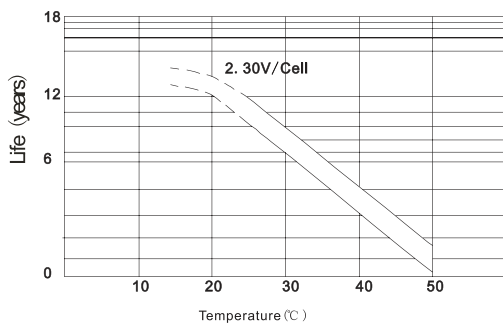
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

