

### GEL Series Battery

GE series batteries are designed with AGM separator and GEL deep cycle technology to give Extra-durable cyclic performance at extreme temperature.  
 GE 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

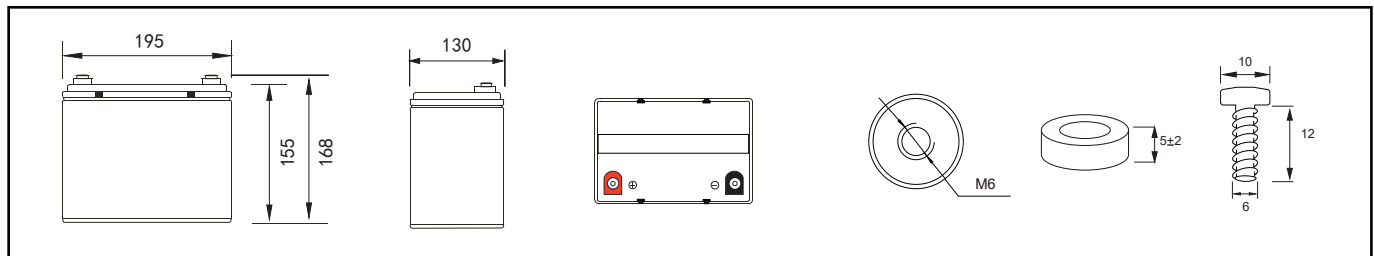
- \* Positive ..... Lead dioxide
- \* Electrolyte ..... Silicon dioxide
- \* Separator ..... AGM
- \* Container ..... ABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- \* Negative ..... Lead
- \* Safety Valve ..... EPDR
- \* Terminal ..... Copper

### Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (10 Hour rate)		33Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	195mm (7.67 inches)	130mm (5.11 inches)	155mm (6.10 inches)	168mm (6.73 inches)
Approx Weight	9.50kg(20.90lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(3.3A,10.5V)	5 hour rate(6.22A,10.5V)	3 hour rate(9.05A,10.8V)	1 hour rate(21.0A,9.6V)
	33Ah	31.1Ah	27.15Ah	21.0Ah
Max.discharge current	330A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 7.4mΩ			
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	
	14.40-14.70V (Initial charging current less than 9.9A)		13.50-13.80V	

### Outer dimension (mm)

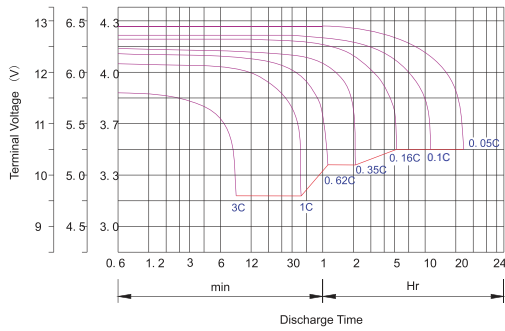
### Terminal Type (mm)



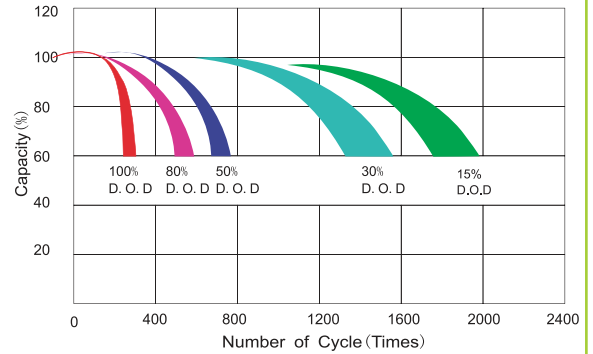
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

FV/time	5MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	118.800	78.664	59.500	36.960	21.000	15.370	12.956	9.229	6.298	4.205	3.424	1.923
	219.726	150.167	114.835	73.624	41.895	30.688	25.923	18.466	12.602	8.413	6.851	3.848
1.67V	105.468	73.409	56.409	36.170	20.848	15.217	12.892	9.181	6.264	4.169	3.371	1.827
	195.037	140.121	108.955	72.087	41.594	30.392	25.816	18.402	12.555	8.360	6.759	3.663
1.70V	99.839	70.782	55.018	35.854	20.696	15.202	12.859	9.157	6.262	4.128	3.328	1.778
	184.668	135.193	106.350	71.460	41.341	30.374	25.762	18.361	12.555	8.280	6.677	3.567
1.75V	90.359	66.609	52.700	35.223	20.391	15.004	12.779	9.100	6.229	4.116	3.300	1.750
	167.140	127.251	101.975	70.252	40.833	30.009	25.596	18.255	12.495	8.263	6.625	3.513
1.80V	80.731	62.127	50.536	34.433	20.239	14.898	12.698	9.052	6.212	4.081	3.247	1.692
	149.364	118.733	97.939	68.708	40.580	29.870	25.439	18.167	12.467	8.198	6.523	3.400
1.85V	71.102	57.645	47.909	33.485	19.935	14.730	12.585	8.971	6.177	4.027	3.194	1.635
	131.589	110.215	92.944	66.865	40.029	29.608	25.224	18.023	12.409	8.099	6.422	3.287

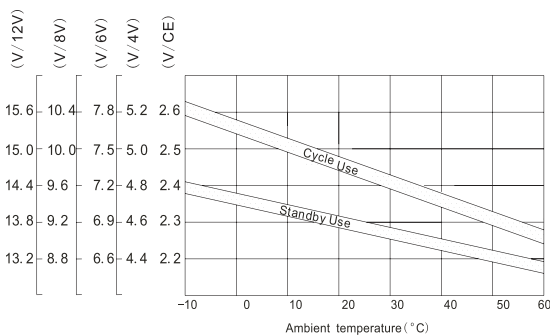
Discharge characteristic Curve



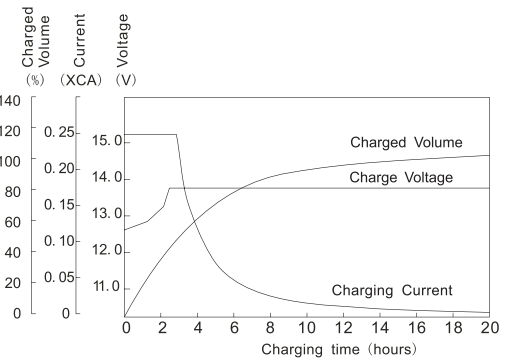
Cycle service life in relation to depth of discharge



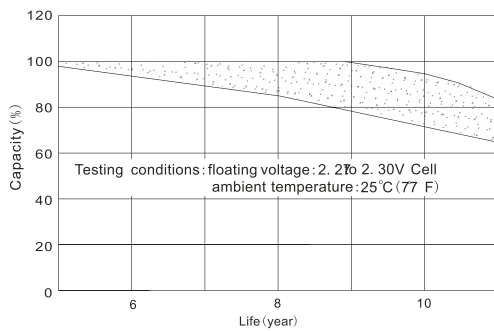
Relationship between charging voltage and temperature



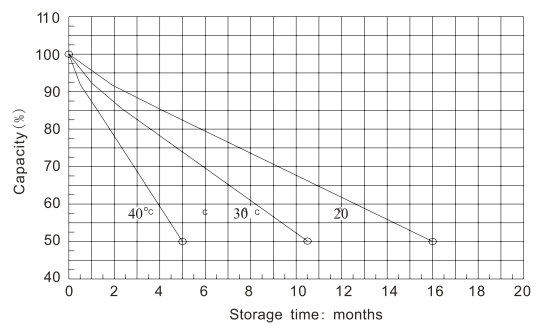
Constant voltage charging characteristic (0.25CA, at 25°C)



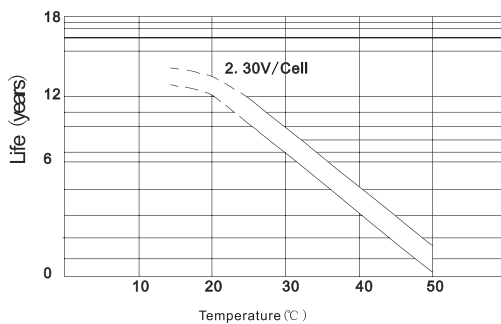
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

