MERLION

GL012V100Ah

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℃.
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
* Alarm system
* Marine equipment
* Medical equipment
* Fire and Security 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

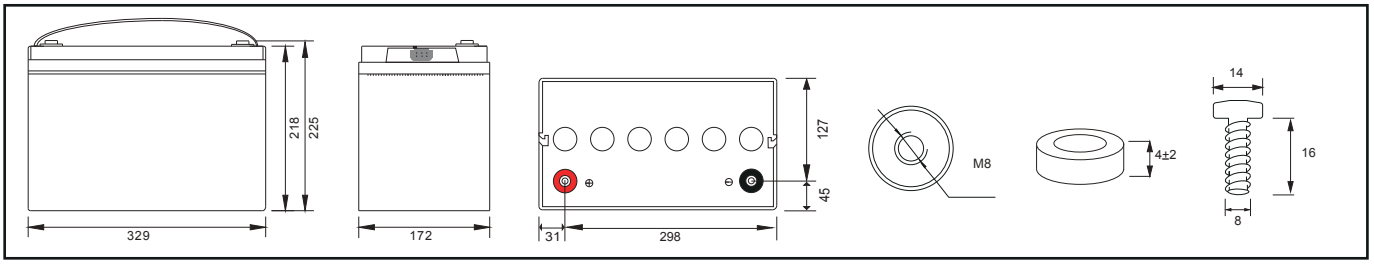
Construction

* Positive ..... Lead dioxide
* Electrolyte ..... Sulfuric acid thixotropic Gel
* Separator ..... Macromolecule polymer
* 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)		100Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	329mm (12.79 inches)	172mm (6.77 inches)	218mm (8.58 inches)	225mm (8.85 inches)
Approx Weight	28kg(65.47lbs) ± 3%			
Capacity @ 25℃ (77 ℉)	10 hour rate(10A,10.5V)	5 hour rate(17.79A,10.5V)	3 hour rate(25.8A,10.8V)	1 hour rate(55.5A,9.6V)
	100Ah	88.95Ah	77.4Ah	55.5Ah
Max.discharge current	1000 A (5 Sec.)			
Internal Resistance	Full charged at 25℃ (77℉) : Approx 3.5mΩ			
Capacity affected by Temp.(10 HR)	40℃ (104℉)	25℃ (77℉)	0℃ (32℉)	-15℃ (5℉)
	102%	100%	85%	65%
Self Discharge @25℃ (77℉)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method @25℃ (77℉)	Cycle Use		Float Use	
	14.40-15.00V (Initial charging current less than 30A)		13.60-13.80V	

Outer dimension (mm)



Terminal Type (mm)

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25℃ (77℉)

F.V/time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	170.000	102.600	55.500	40.620	37.018	26.369	17.995	12.742	10.376	5.725
	328.100	204.379	110.723	81.105	74.066	52.759	36.006	25.494	20.761	11.455
1.67V	161.169	100.408	55.098	40.217	36.833	26.230	17.896	12.634	10.215	5.439
	311.299	200.113	109.928	80.322	73.759	52.578	35.872	25.332	20.481	10.905
1.70V	157.195	99.531	54.696	40.177	36.741	26.164	17.892	12.508	10.086	5.294
	303.858	198.371	109.257	80.274	73.605	52.459	35.873	25.091	20.233	10.620
1.75V	150.571	97.777	53.891	39.654	36.511	26.000	17.797	12.473	10.000	5.210
	291.356	195.018	107.917	79.309	73.131	52.156	35.701	25.040	20.075	10.459
1.80V	144.390	95.585	53.489	39.373	36.280	25.862	17.747	12.366	9.839	5.038
	279.827	190.731	107.246	78.943	72.683	51.904	35.619	24.842	19.766	10.122
1.85V	136.883	92.954	52.685	38.930	35.957	25.631	17.648	12.204	9.677	4.866
	265.553	185.615	105.791	78.250	72.069	51.493	35.455	24.543	19.461	9.786

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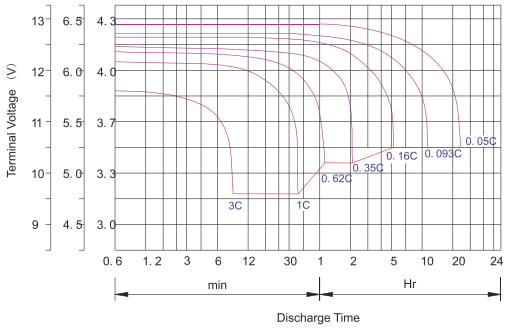
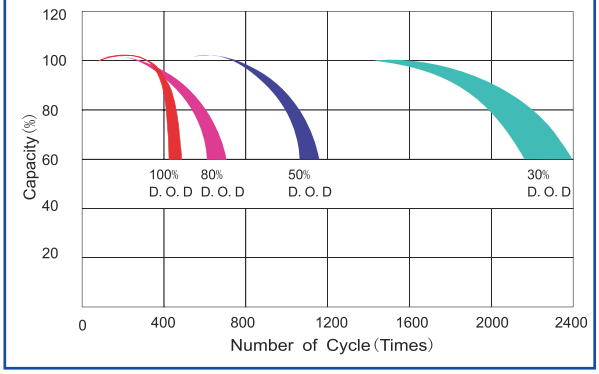
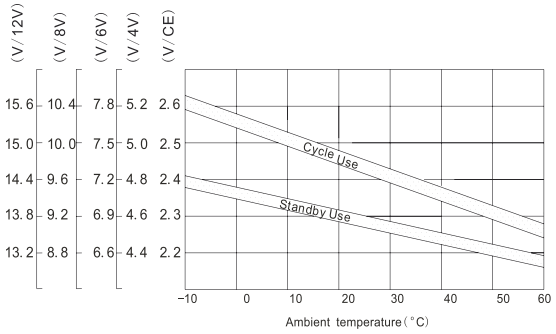
Discharge characteristic Curve



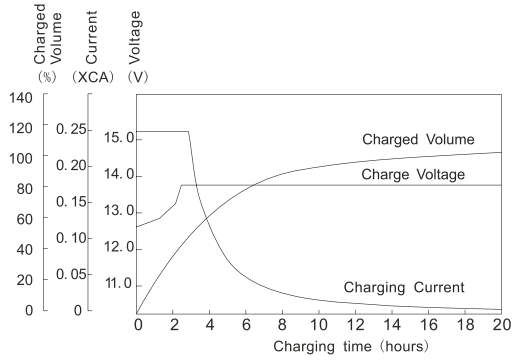
Cycle service life in relation to depth of discharge



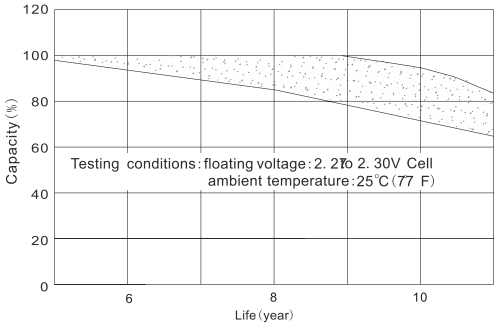
Relationship between charging voltage and temperature



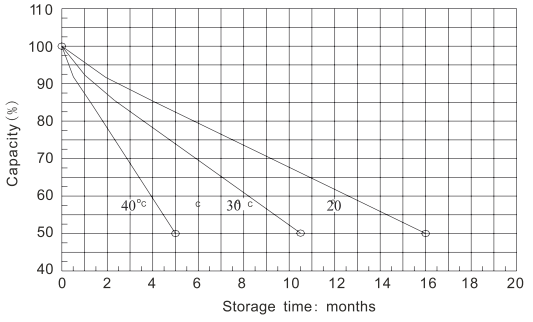
Constant voltage charging characteristic (0.25CA, at 25℃)



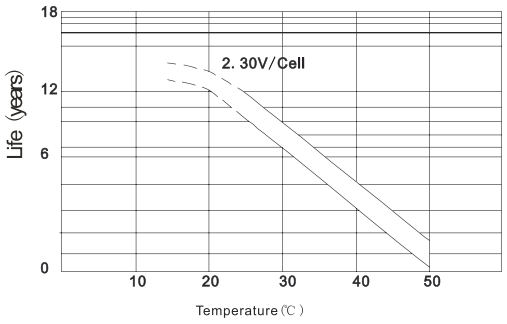
Life characteristics of standby use



Self-discharge characteristic



Temperature effects on float life



Charge characteristic Curve for standby use

