

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

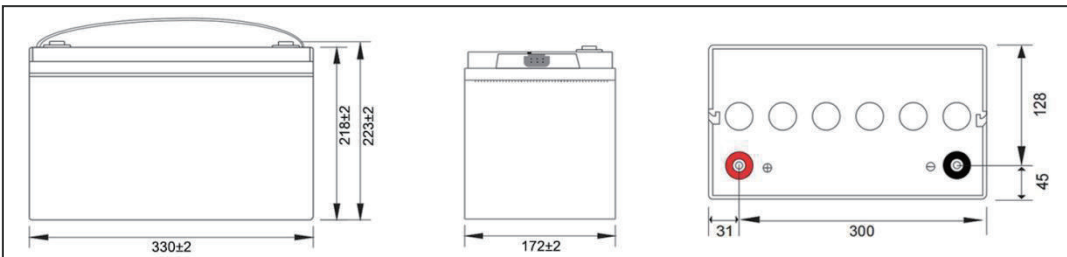
Construction

- 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

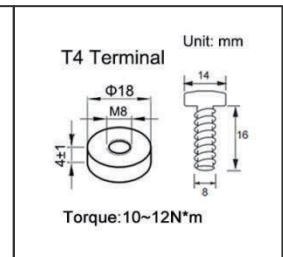
Specification

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated Capacity (10 Hours Rate)		100Ah	
Dimension	Length	Width	Height	Total Height
	330mm (12.99 inches)	172mm (6.77 inches)	218mm (8.58 inches)	223mm (8.78 inches)
Approx. Weight	27.8kg			
Internal Resistance	Full charge at 25°C (77°F): Approx. 3.60mΩ			
Max. Charge Current	30A			
Max. Discharge Current	1000A (5Sec.)			
Short-Circuit Current	1850A			
Operating Temperature Range	Normal Operating Temperature	Discharge	Charge	Storage
	25°C (77°F)	-15°C~50°C (5°F~122°F)	-15°C~40°C (5°F~104°F)	-15°C~40°C (5°F~104°F)
Capacity @ 25°C (77°F)	10 hour rate(10.09A,10.5V)	5 hour rate(17.55A,10.5V)	3 hour rate(25.8A,10.2V)	1 hour rate(61A,9.6V)
	87.75Ah	87.75Ah	77.4Ah	61.0Ah
Capacity affected by Temp. (10HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Charge Method	Float Charging Voltage		Equalization Charging Voltage	
	13.5 ~ 13.8 VDC/Unit at 25°C (77°F)		14.4~ 15.0 VDC/Unit at 25°C (77°F)	

Outer Dimension (mm)



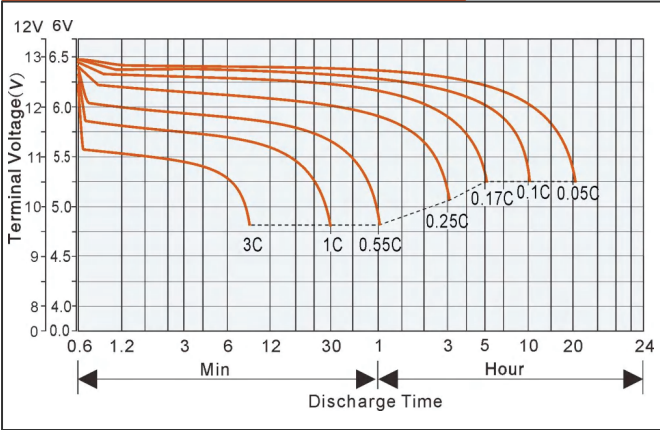
Terminal Type



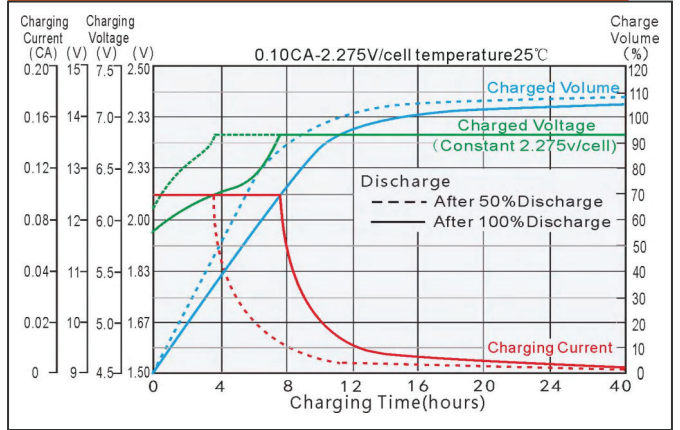
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	250	178	149.0	128.0	92.5	56.0	34.50	24.50	17.00	11.50	9.84	5.26
	W	475	339	285.0	246.0	179.0	109.0	67.63	48.21	33.67	22.92	19.72	10.77
1.80V/cell	A	266	196	158.0	133.5	95.3	57.1	35.20	25.00	17.27	11.68	10.00	5.35
	W	500	371	299.0	255.0	184.0	110.4	68.64	48.97	34.13	23.14	19.98	10.81
1.75V/cell	A	292	212	168.0	139.0	98.0	58.3	35.80	25.40	17.55	11.86	10.15	5.43
	W	543	398	315.0	264.0	187.0	111.9	69.61	49.46	34.61	23.40	20.18	10.87
1.70V/cell	A	319	228	177.5	144.5	100.8	59.4	36.60	25.80	17.82	12.03	10.29	5.50
	W	581	425	333.0	272.0	191.0	112.9	70.96	50.10	35.07	23.67	20.43	10.94
1.67V/cell	A	332	236	182.0	147.0	102.2	59.9	36.90	26.00	17.95	12.11	10.33	5.53
	W	602	434	339.0	276.0	193.0	113.8	71.03	50.35	35.17	23.82	20.53	10.96
1.60V/cell	A	360	253	193.0	153.0	105.0	61.0	37.40	26.40	18.20	12.25	10.40	5.56
	W	649	460	357.0	286.0	197.0	115.8	71.51	50.85	35.44	24.02	20.69	11.02

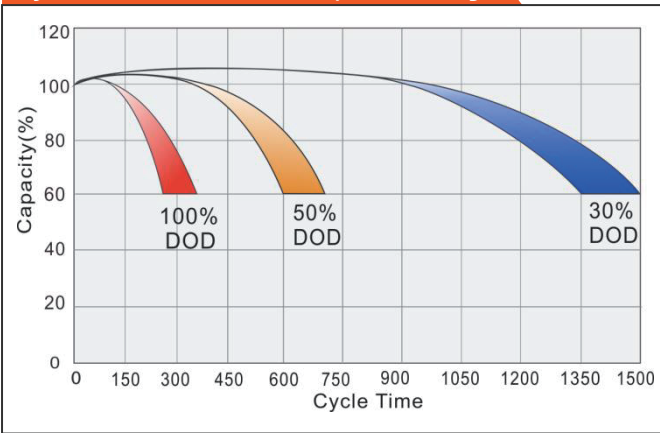
Discharge characteristic curve (25°C/77°F)



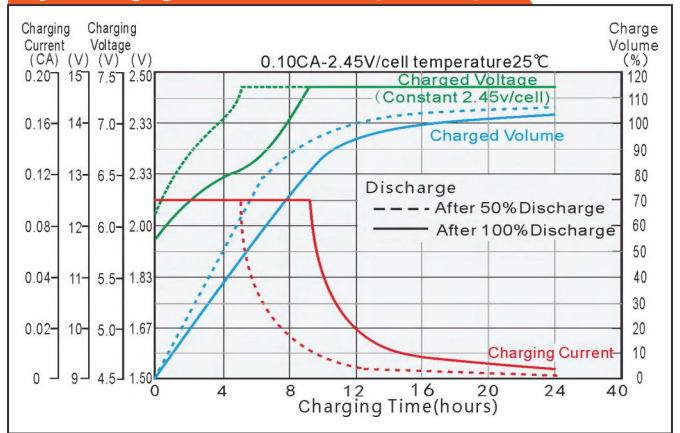
Charging characteristic curve of floating charge (25°C/77°F)



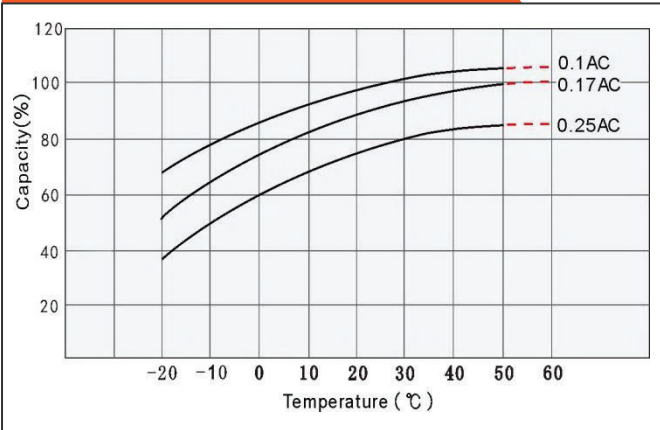
Cycle service life in relation to depth of discharge



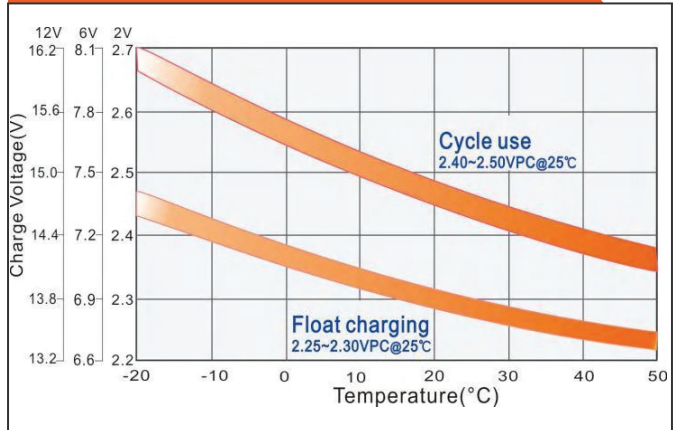
Cyclic charging characteristic curve (25°C/77°F)



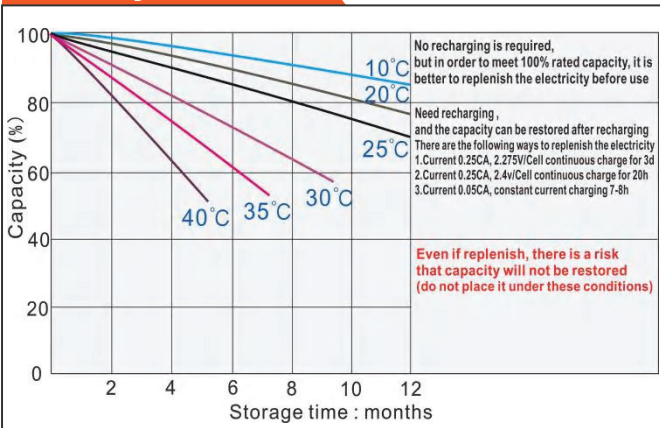
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self Discharge Characteristics



Temperature vs Float Life

