

**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

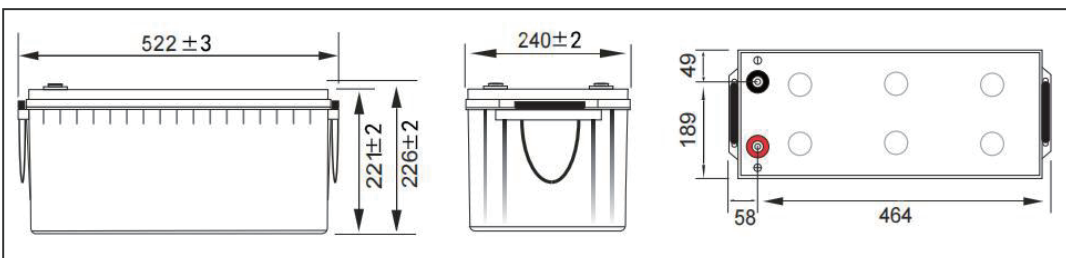
**Construction**

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

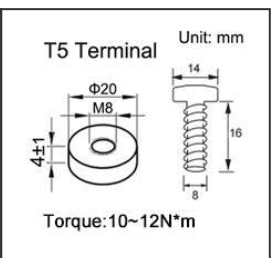
**Specification**

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated Capacity (10 Hours Rate)		200Ah	
Dimension	Length	Width	Height	Total Height
	522mm (20.55 inches)	240mm (9.45 inches)	221mm (8.70 inches)	226mm (8.89 inches)
Approx. Weight	55,2kg			
Internal Resistance	Full charge at 25°C (77°F): Approx. 2.45mΩ			
Max. Charge Current	60A			
Max. Discharge Current	1600A (5sec.)			
Short-Circuit Current	2700A			
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 (20A, 10.8V)	5 hour rate (35.9A, 10.8V)	3 hour rate (54.6A, 10.5V)	1 hour rate (130.5A, 9.6V)
	200Ah	179.5Ah	163.8Ah	130.5Ah
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)**



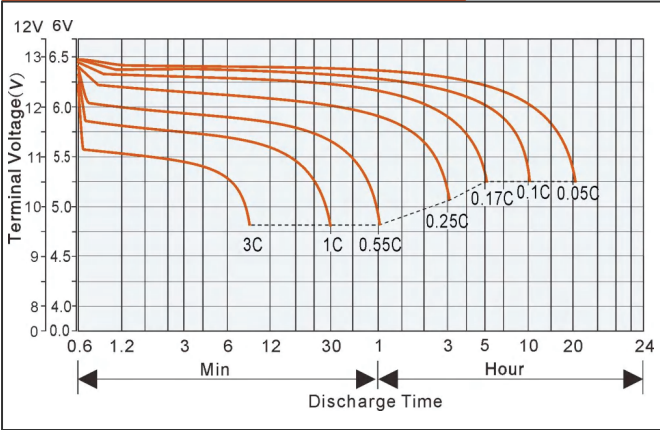
**Terminal Type**



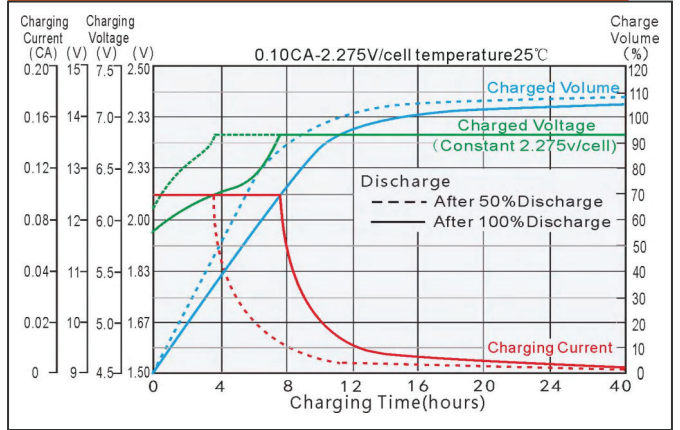
**Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)**

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	408	313	265	233	187	112.5	68.5	51.9	35.0	23.80	19.65	10.48
	W	761	588	505	448	361	219.0	134.0	101.7	69.1	47.33	39.15	21.05
1.80V/cell	A	463	348	287	249	197	117.0	71.1	53.3	35.9	24.30	20.00	10.65
	W	863	649	542	472	375	226.0	138.0	103.6	70.2	47.83	39.49	21.23
1.75V/cell	A	516	382	308	264	206	121.2	73.5	54.6	36.7	24.72	20.27	10.79
	W	959	707	576	295	388	232.0	141.5	105.3	71.2	48.28	39.80	21.39
1.70V/cell	A	568	415	328	278	213	125.2	75.7	55.8	37.3	25.07	20.49	10.91
	W	1051	762	608	517	400	237.0	144.6	106/9	72.1	48.68	40.08	21.53
1.67V/cell	A	610	433	339	285	217	127.0	76.7	56.3	37.6	25.20	20.58	10.96
	W	1101	790	624	528	406	240.0	146.0	107.6	72.5	48.87	40.21	21.60
1.60V/cell	A	670	470	362	298	224	130.5	78.5	57.1	38.0	25.40	20.71	11.03
	W	1187	841	655	549	417	245.0	148.0	108.8	73.1	49.12	40.39	21.68

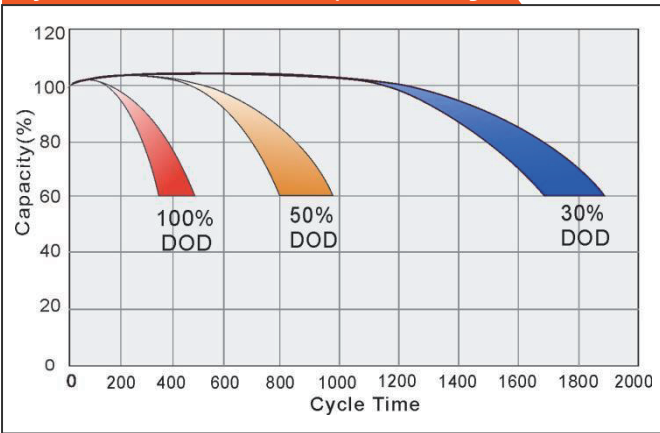
Discharge characteristic curve (25°C/77°F)



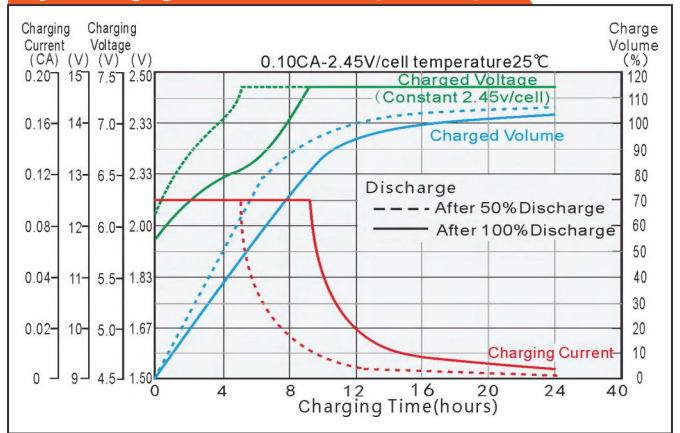
Charging characteristic curve of floating charge (25°C/77°F)



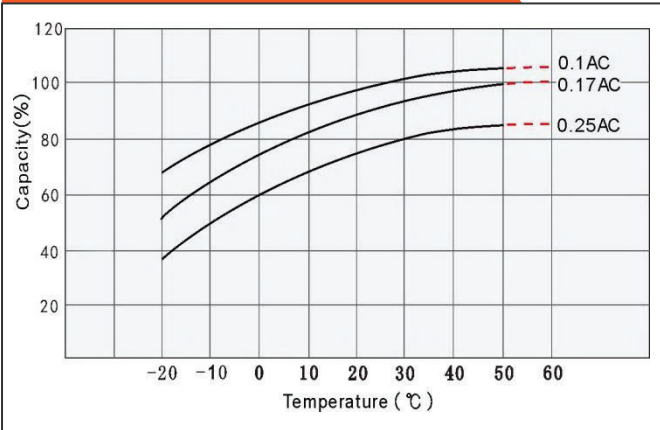
Cycle service life in relation to depth of discharge



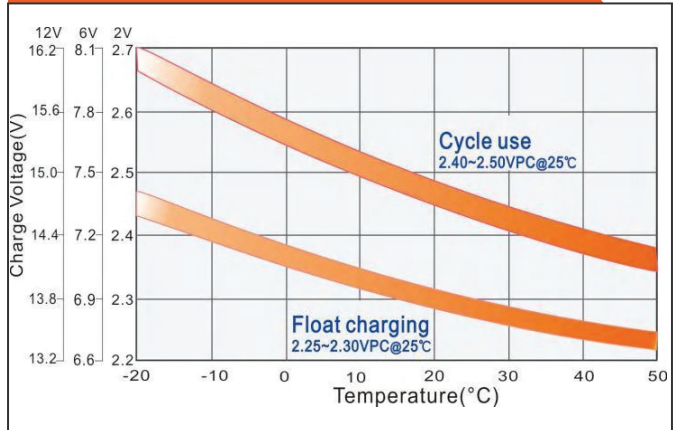
Cyclic charging characteristic curve (25°C/77°F)



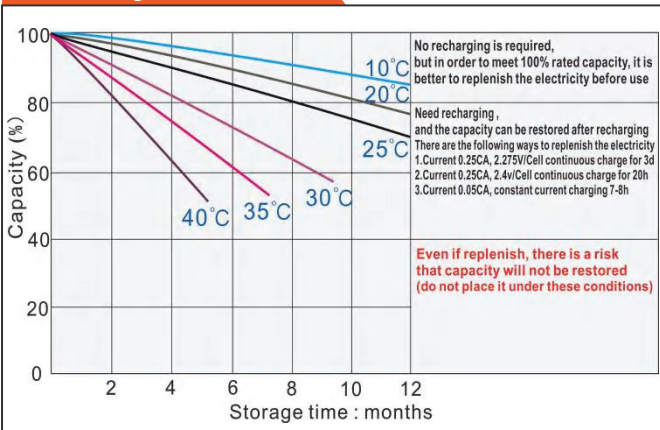
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self Discharge Characteristics



Temperature vs Float Life

