GL12800M8 GEL

GEL Series Battery

The GE series batteries use AGM separators technology with Gel electrolyte, Electrolytes don't undergo stratification, Reduce plate grid corrosion rate, effectively extending the battery's service life.
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.
* Generator,Power tools
* Golf cars and buggies
* Marine equipment
* Medical equipment
* Solar and wind power system



General Features

* Safety Sealing
* Non-spillable construction
* High power density
* Excellent recovery from Deep discharge
* Thick plates and high active materials
* Longer Life and low self-discharge design

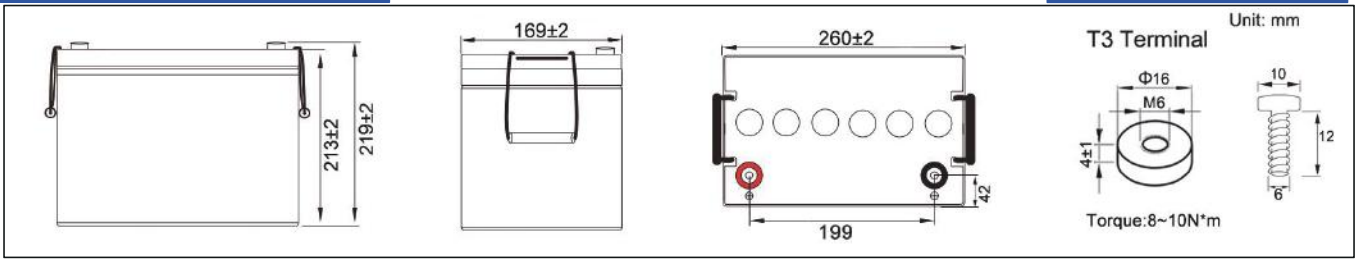
Construction

* Positive ····· Lead dioxide
* Electrolyte ···· Sulfuric acid
* Separator ····· Fiber glass
* Container ····· ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
* Negative ····· Lead
* Safety Valve ····· EPDR
* Terminal ····· Copper

Specification

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated capacity (10 Hour rate)		80Ah（20hr）	
Dimension	Length	Width	Height	Total Height
	260mm (10.24 inches)	169mm (6.65 inches)	213mm (8.38 inches)	219mm (8.62 inches)
Approx Weight	20.70kg(45.64lbs) ± 3%			
Internal Resistance	Full charged at 25℃(77℉):Approx 6.0mΩ			
Maximum Charge Current	22.5A			
Max.discharge current	750A (5Sec.)			
Short-circuit current	1150A			
Operating Temperature Range	Nominal Operating Temperature	Discharge	Charge	Storage
	25℃(77℉)	-15℃~ 50℃ (5℉~122℉)	-15℃~ 40℃ (5℉~104℉)	-15℃~ 40℃ (5℉~104℉)
Capacity @ 25℃ (77℉)	20hour rate(4.0A,10.5V)	5 hour rate(12.89A,10.5V)	3 hour rate(19.26A,10.2V)	1 hour rate(46A,9.6V)
	80.0Ah	64.45Ah	57.78Ah	46.0Ah
Capacity affected by Temp.(10HR)	40℃ (104℉)	25℃ (77℉)	0℃ (32℉)	-15℃ (5℉)
	102%	100%	85%	65%
Charge method at 25℃(77℉)	Float Charging Voltage	Equalization Charging Voltage	Cycle Use Voltage	
	13.5~13.8 VDC (-3mV/cell/℃)	14.1~14.4 VDC (-4mV/cell/℃)	14.4~15.0 VDC (-5mV/cell/℃)	

Outer dimension (mm)



Terminal Type

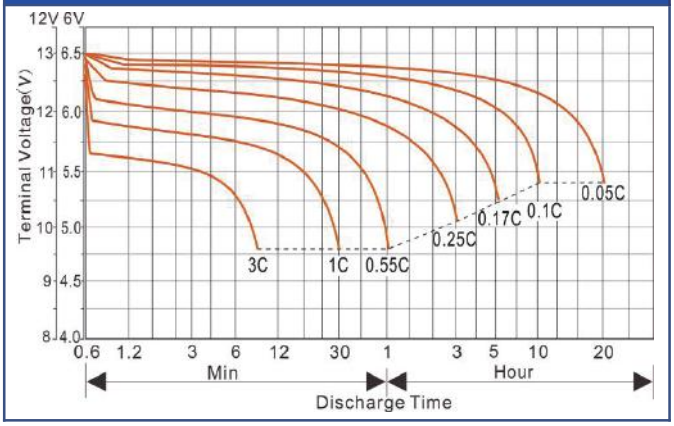
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25℃(77℉)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	152	122	102	84.5	65.5	39.5	24.20	17.90	12.30	8.33	7.30	3.93
	W	284	230	194	162.0	126.0	76.5	47.1	35.05	24.18	16.47	14.50	7.93
1.80V/cell	A	173	135	111	90.0	68.9	41.3	25.16	18.37	12.62	8.51	7.40	3.97
	W	316	249	207	171.0	131.0	79.2	48.6	36.00	24.64	16.72	14.67	7.98
1.75V/cell	A	191	146	119	94.9	71.9	42.9	26.00	18.84	12.89	8.66	7.50	4.01
	W	345	266	218	179.0	136.0	81.6	49.9	36.82	25.03	16.94	14.80	8.02
1.70V/cell	A	208	156	125	99.4	74.7	44.3	26.75	19.26	13.12	8.79	7.57	4.05
	W	372	282	228	185.0	140.0	83.7	51.0	37.53	25.36	17.13	14.91	8.05
1.67V/cell	A	216	161	128	101.6	76.1	45.0	27.10	19.52	13.20	8.84	7.62	4.08
	W	385	290	233	188.0	142.0	84.5	51.4	37.77	25.47	17.19	14.95	8.07
1.60V/cell	A	230	170	133	105.0	78.2	46.0	27.60	20.00	13.35	8.92	7.70	4.12
	W	406	304	241	193.0	145.0	86.1	52.2	38.24	25.69	17.31	15.02	8.09

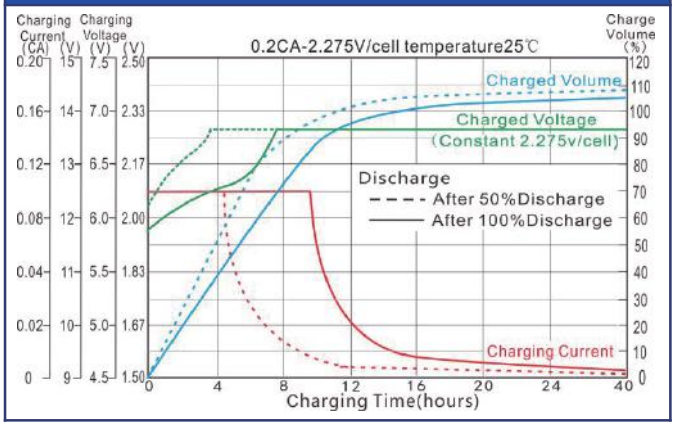
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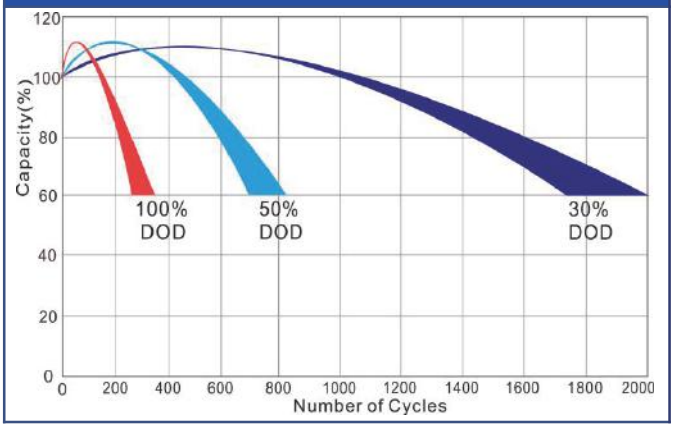
Discharge characteristic curve (25℃/77℉)



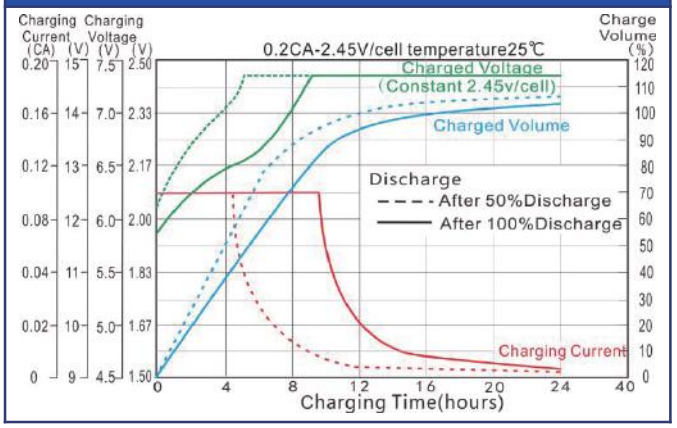
Charging characteristic curve of floating charge(25℃/77℉)



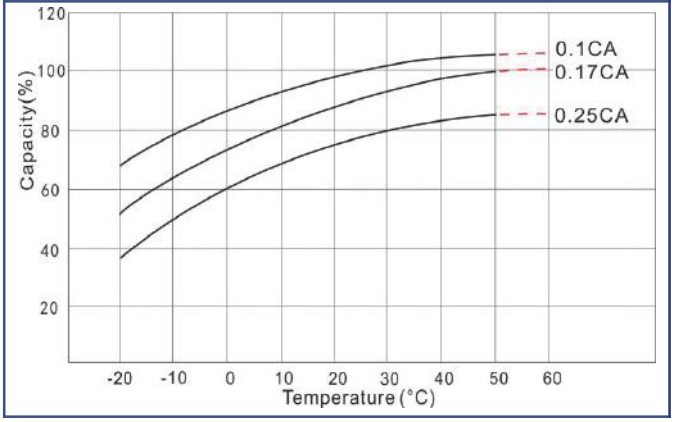
Cycle service life in relation to depth of discharge



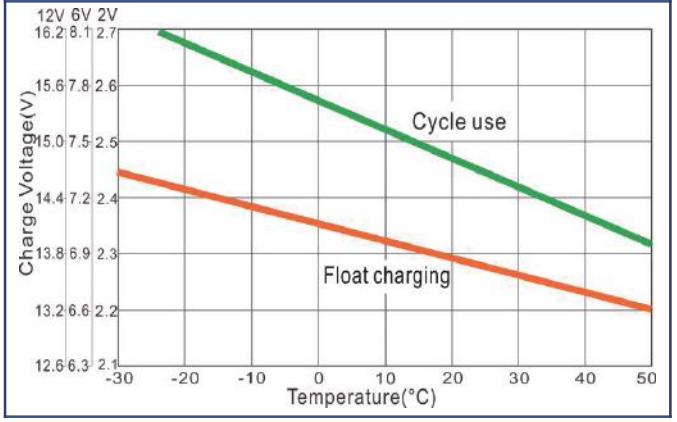
Cyclic charging characteristic curve (25℃/77℉)



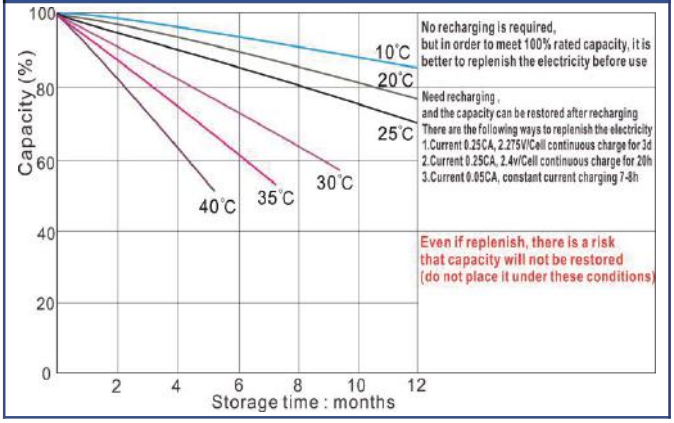
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life

