

General Series battery

GP series VRLA batteries are designed with a continuous rolling and stamping grid structure extremely low corrosion rate. The internal use of mechanical through wall welding reduces internal resistance, which is conducive to high current discharge. GP Series Batteries are the general purpose batteries with 12years floating design life at 25°C, Meet with IEC,BS,JIS and Eurobat standard,UL(MH62092),CE approved.

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

- * Heavy Duty Grid
- * Mechanized assembly
- * Non-spillable construction
- * High Reliability and Stability
- * Sealed and Maintenance-free
- * Long Life and low self-discharge design

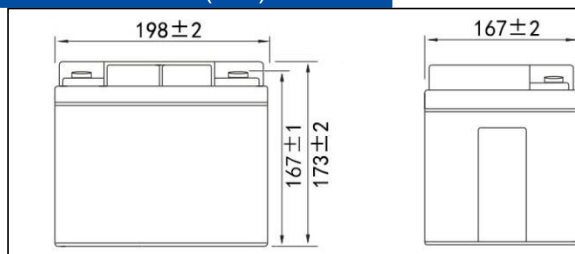
Construction

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

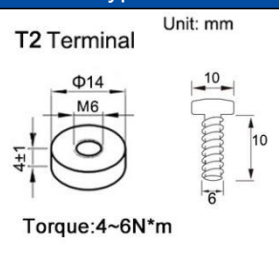
Specification

Battery Model	Nominal Voltage		12V (6 cells per unit)	
	Rated capacity (10 Hour rate)		40Ah	
Dimension	Length	Width	Height	Total Height
	198mm (7.79 inches)	167mm (6.57 inches)	173mm (6.81 inches)	173mm (6.81 inches)
Approx Weight	11.80kg(26.01 lbs) ± 3%			
Internal Resistance	Full charged at 25°C(77°F):Approx 8.58mΩ			
Maximum Charge Current	12A			
Max.discharge current	480A (5Sec.)			
Short-circuit current	840A			
Operating Temperature Range	Nominal 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(4.0A,10.8V)	5 hour rate(7.09A,10.5V)	3 hour rate(10.84A,10.2V)	1 hour rate(27.3A,9.6V)
	40.00Ah	35.45Ah	32.52Ah	27.3Ah
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 at 25°C(77°F)	Float Charging Voltage	Equalization Charging Voltage	Cycle Use Voltage	
	13.5~13.8 VDC (-3mV/cell/°C)	14.1~14.4 VDC (-4mV/cell/°C)	14.4~15.0 VDC (-5mV/cell/°C)	

Outer dimension (mm)



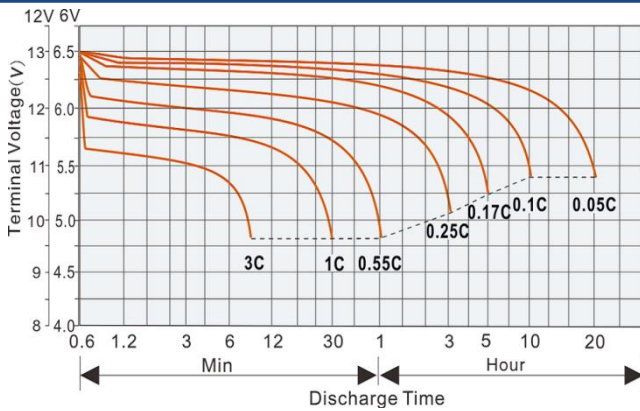
Terminal Type



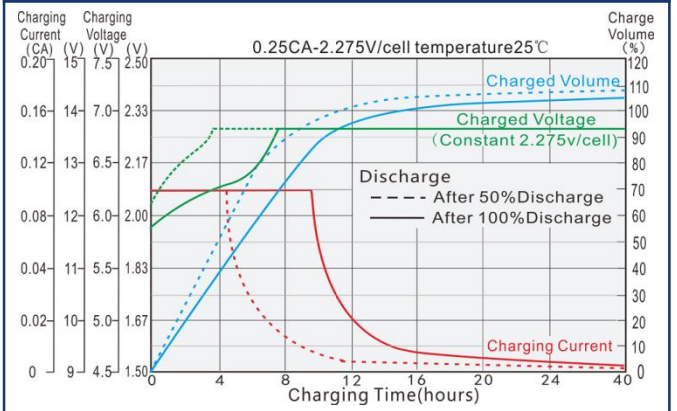
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

F.V/Time		5min	10min	15min	20min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	A	94.2	74.0	61.0	51.2	39.3	24.40	14.00	10.20	6.84	4.74	3.93	2.102
	W	178	141	117	99.1	76.7	48.30	27.92	20.40	13.72	9.53	7.92	4.240
1.80V/cell	A	106.2	79.3	64.4	53.7	41.0	25.17	14.33	10.43	6.97	4.82	4.00	2.140
	W	197	149	123	103.2	79.6	49.60	28.48	20.79	13.94	9.67	8.04	4.310
1.75V/cell	A	117.6	84.2	67.6	56.0	42.5	25.86	14.64	10.64	7.09	4.89	4.04	2.161
	W	215	157	128	106.8	82.1	50.70	29.00	21.16	14.15	9.79	8.10	4.350
1.70V/cell	A	128.5	88.8	70.6	58.2	43.8	26.50	14.93	10.84	7.20	4.94	4.07	2.177
	W	231	163	132	110.3	84.2	51.80	29.49	21.50	14.34	9.87	8.15	4.370
1.67V/cell	A	134	91.1	72.1	59.3	44.5	26.82	15.07	10.94	7.25	4.96	4.08	2.183
	W	239	166	134	112.0	85.3	52.30	29.73	21.67	14.43	9.90	8.16	4.380
1.60V/cell	A	143	95.0	74.5	61.0	45.5	27.30	15.30	11.10	7.33	5.00	4.10	2.194
	W	251	172	138	114.5	86.8	53.10	30.12	21.96	14.57	9.97	8.20	4.400

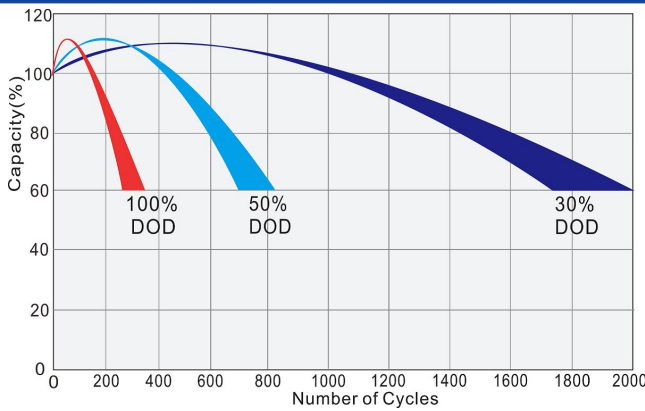
Discharge characteristic curve (25°C/77°F)



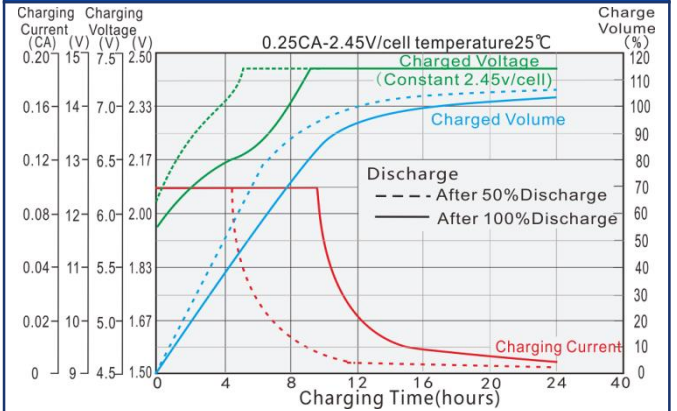
Charging characteristic curve of floating charge (25°C/77°F)



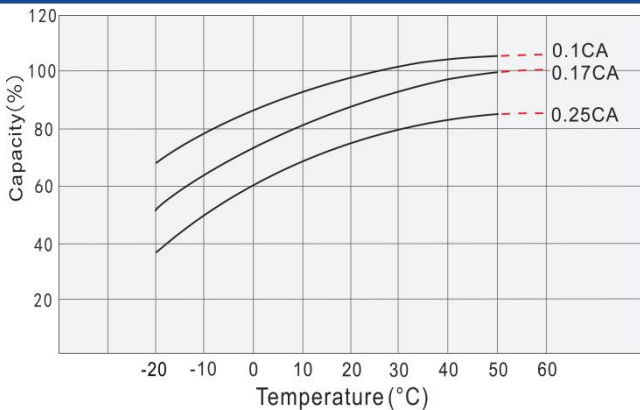
Cycle service life in relation to depth of discharge



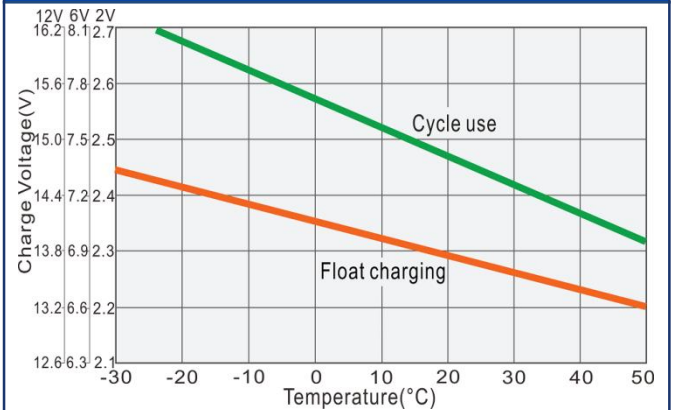
Cyclic charging characteristic curve (25°C/77°F)



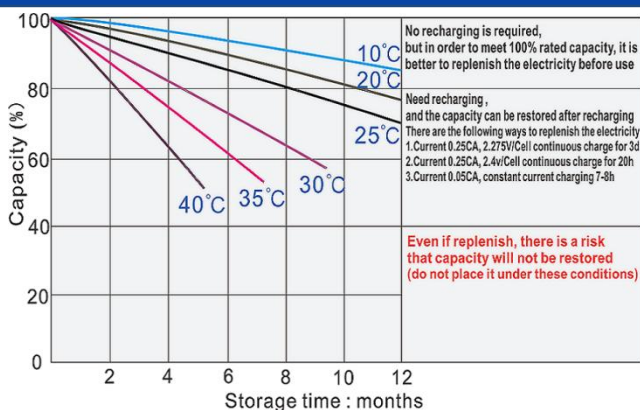
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life

