

GP 12-33



General Series Battery

Series VRLA batteries are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. GP Series Batteries are the general purpose batteries with 10 years 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

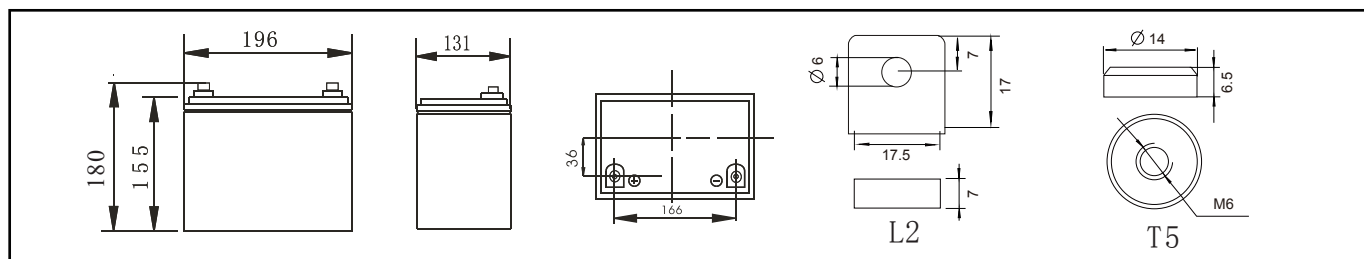
Construction

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

Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (10 Hour rate)		33Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	196mm (7.72 inches)	131mm (5.16 inches)	155mm (6.10 inches)	180mm (7.09 inches)
Approx Weight	9.10kg(20.06lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(3.3A,10.8V)	5 hour rate(5.3A,10.5V)	3 hour rate(7.9A,10.8V)	1 hour rate(19.8A,9.6V)
	33Ah	26.5Ah	23.7Ah	19.8Ah
Max.discharge current	330A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 9.2mΩ			
Capacity affected by Temp.(10 HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Self Discharge @25°C (77°F)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method @25°C (77°F)	Cycle Use		Float Use	
	14.40-14.70V (Initial charging current less than 0.9A)		13.50-13.80V	

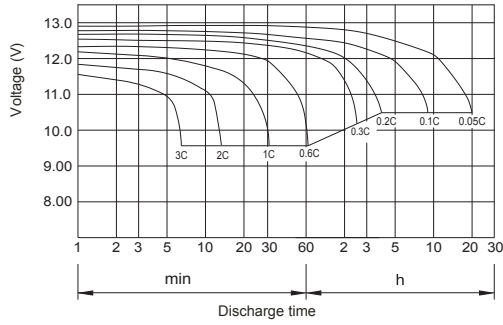
Outer dimension (mm)



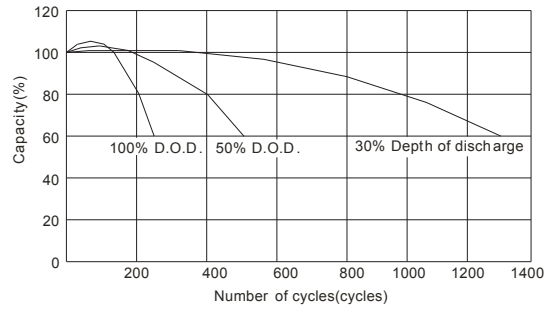
Terminal Type (mm)

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)													
F.V.TIME		5min	10min	15min	30min	1 hr	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	20 hr
9.60V	A	105.7	69.6	56.1	37.6	19.8	11.6	8.5	6.6	5.4	3.9	3.5	1.9
	W	1090.8	743.6	601.9	404.5	213.8	126.8	94.4	74.3	61.9	44.2	40.0	21.8
10.20V	A	102.4	62.8	52.9	36.0	18.6	11.0	8.3	6.4	5.3	3.8	3.4	1.8
	W	1093.3	701.6	591.6	403.8	210.5	127.0	95.5	74.8	62.3	44.0	39.9	21.3
10.50V	A	99.0	56.2	46.2	33.7	18.0	10.8	8.1	6.3	5.3	3.7	3.3	1.8
	W	1081.4	639.3	527.6	387.4	208.6	124.8	93.8	74.1	61.9	43.9	39.4	21.5
10.80V	A	95.4	53.0	43.0	31.0	17.4	10.5	7.9	6.2	5.1	3.6	3.3	1.8
	W	1070.8	610.8	495.0	359.4	202.8	122.9	92.6	73.6	60.8	43.0	39.2	21.2
11.10V	A	92.2	49.6	39.7	27.7	16.8	10.2	7.6	6.1	5.0	3.5	3.1	1.7
	W	1045.9	574.7	461.7	324.3	197.9	120.9	90.2	72.3	59.9	42.3	37.8	20.4

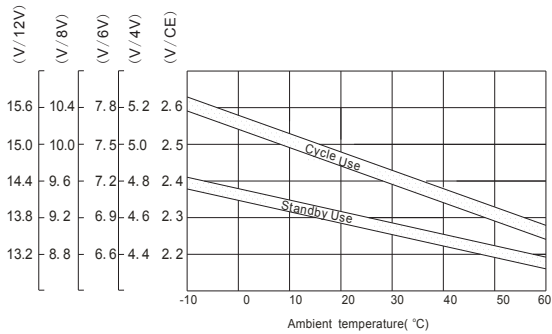
Discharge characteristic Curve



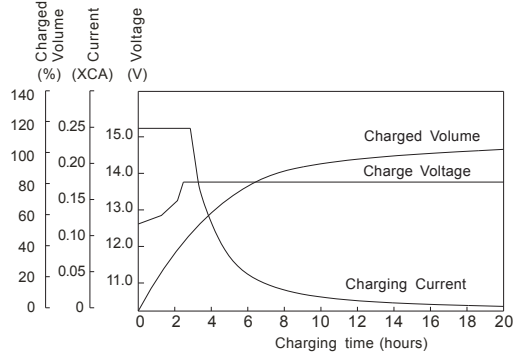
Cycle service life in relation to depth of discharge



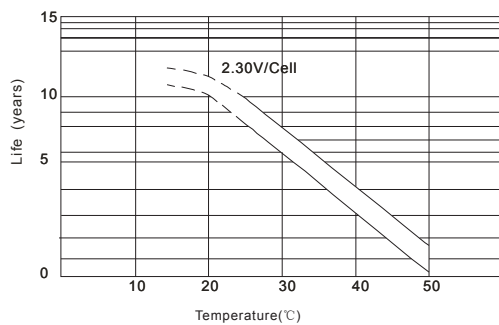
Relationship between charging voltage and temperature



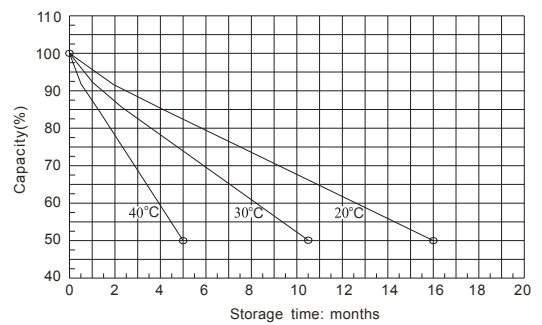
Constant voltage charging characteristic (0.25CA, at 25°C)



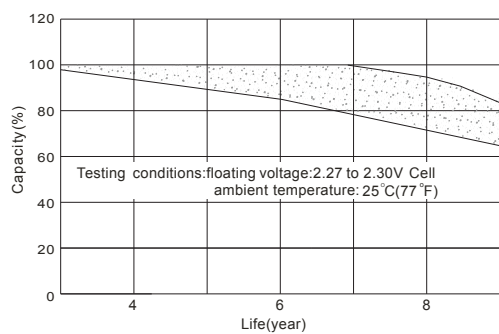
Temperature effects on float life



Self-discharge characteristic



Life characteristics of standby use



Charge characteristic Curve for standby use

