

**General Series Battery**

APOLLO General (GP) 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 5 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**

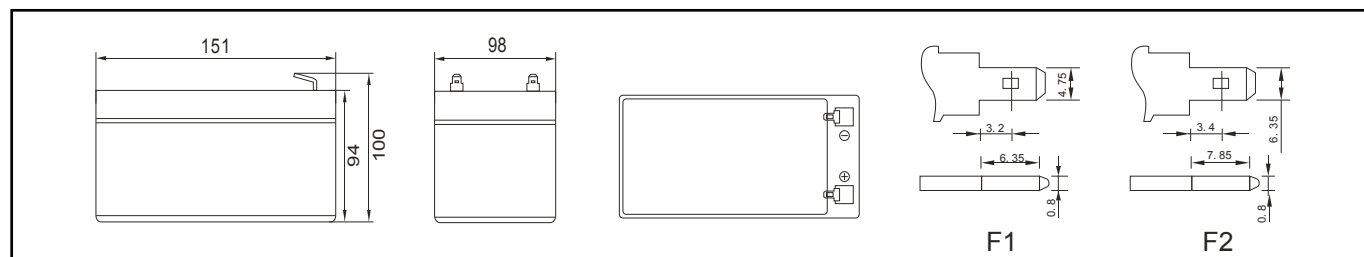
- \* Heavy Duty Grid
- \* Mechanized assembly
- \* Non-spillable construction
- \* High Reliability and Stability
- \* Sealed and Maintenance-free
- \* Long Life and low self-discharge design

**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

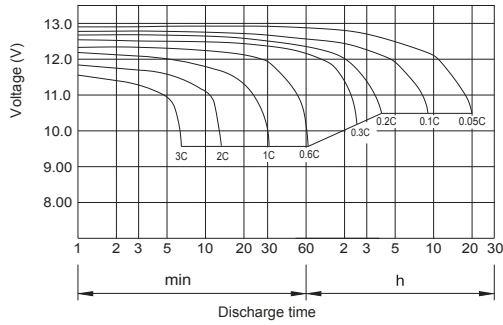
**Specification**

Battery Model	Nominal Voltage			12V
	Rated capacity (20 Hour rate)			12Ah
	Cells Per battery			6
Dimension	Length	Width	Height	Total Height
	152mm (5.98 inches)	99mm (3.89 inches)	95mm (3.74 inches)	100mm (3.94 inches)
Approx Weight	3.30kg (7.28lbs) ± 3%			
Capacity @ 25°C (77°F)	20 hour rate(0.62A,10.5V)	10 hour rate(1.18A,10.8V)	5 hour rate(2.20A,10.5V)	1 hour rate(7.45A,9.6V)
	12.4Ah	11.8Ah	11.0Ah	7.45Ah
Max. discharge current	180A (5 Sec.)			
Internal Resistance	Full charged at 25°C: Approx 18mΩ			
Capacity affected by Temp.(20 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	
	14.4-14.7V (Initial charging current less than 3.6A)		13.50-13.80V	

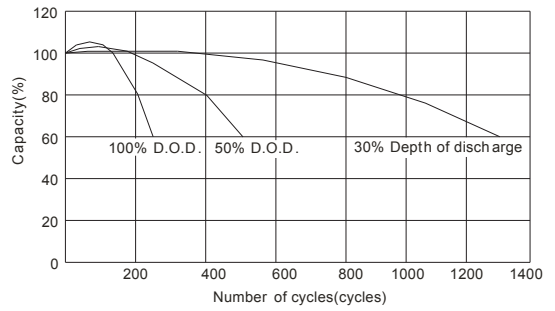
**Outer dimension (mm)**

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

F.V/time	5MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	43.700	28.425	21.500	12.800	7.450	5.453	4.585	3.266	2.229	1.529	1.245	0.681
	80.825	54.262	41.495	25.498	14.863	10.887	9.173	6.534	4.459	3.059	2.491	1.363
1.67V	38.796	26.526	20.383	12.526	7.396	5.399	4.562	3.249	2.216	1.516	1.226	0.647
	71.744	50.632	39.370	24.965	14.756	10.782	9.135	6.512	4.443	3.040	2.458	1.298
1.70V	36.725	25.577	19.881	12.417	7.342	5.393	4.550	3.240	2.216	1.501	1.210	0.630
	67.929	48.851	38.429	24.748	14.666	10.776	9.116	6.497	4.443	3.011	2.428	1.264
1.75V	33.238	24.069	19.043	12.198	7.234	5.323	4.522	3.220	2.204	1.497	1.200	0.620
	61.482	45.982	36.848	24.330	14.486	10.646	9.057	6.459	4.421	3.005	2.409	1.245
1.80V	29.696	22.449	18.261	11.925	7.180	5.285	4.493	3.203	2.198	1.484	1.181	0.600
	54.943	42.904	35.390	23.795	14.396	10.597	9.002	6.428	4.411	2.981	2.372	1.205
1.85V	26.155	20.830	17.312	11.597	7.072	5.226	4.453	3.174	2.186	1.465	1.161	0.579
	48.404	39.826	33.585	23.157	14.201	10.504	8.925	6.377	4.391	2.945	2.335	1.165

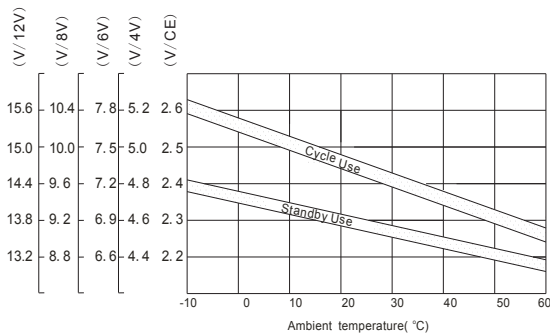
Discharge characteristic Curve



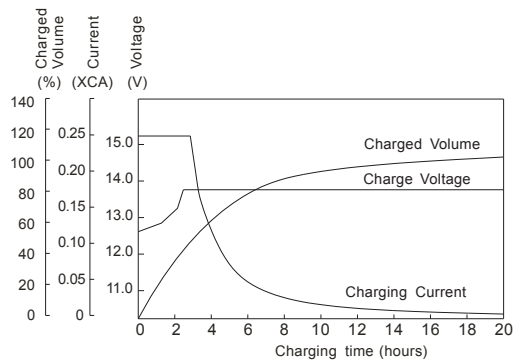
Cycle service life in relation to depth of discharge



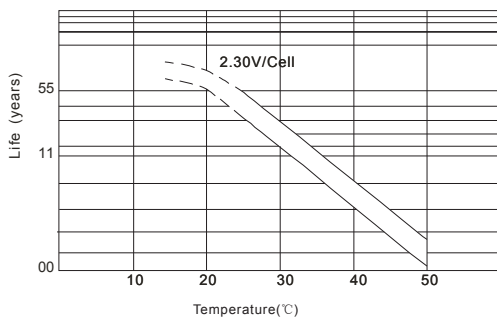
Relationship between charging voltage and temperature



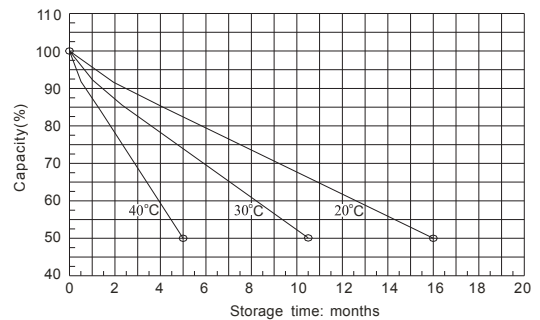
Constant voltage charging characteristic (0.25CA, at 25°C)



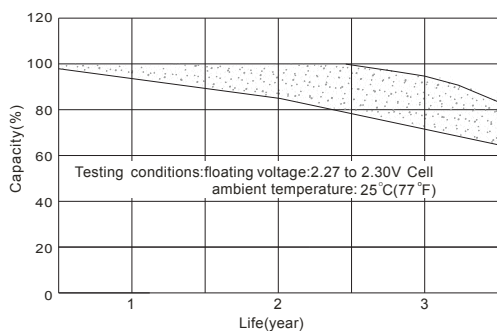
Temperature effects on float life



Self-discharge characteristic



Life characteristics of standby use



Charge characteristic Curve for standby use

