

General Series Battery

ReFortis (GP) Series VR A 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

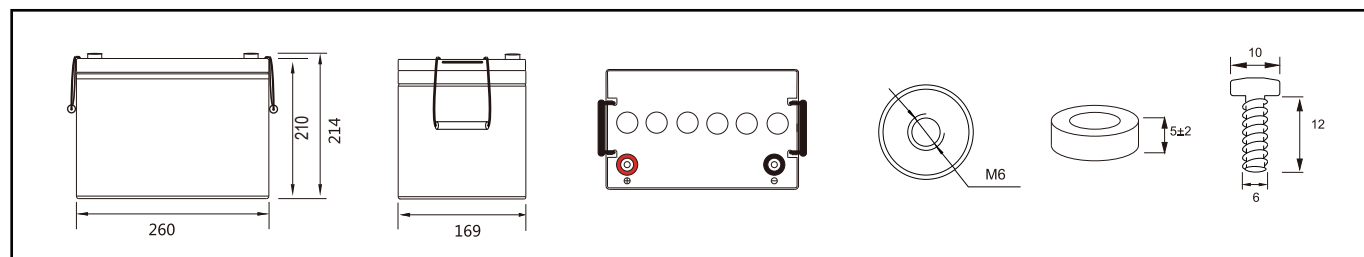
- * Positive Lead dioxide
- * Electrolyte Sulfuric acid
- * Separator Fiber glass
- * Container ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- * Negative Lead
- * Safety Valve EPDR
- * Terminal Copper

Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (10 Hour rate)		75Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	260mm (10.24 inches)	169mm (6.65 inches)	210mm (8.26 inches)	214mm (8.42 inches)
Approx Weight	20.5kg(45.19lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(7.5A,10.5V)	5 hour rate(13.34A,10.5V)	3 hour rate(19.39A,10.8V)	1 hour rate(45A,9.6V)
	75Ah	66.7Ah	58.17Ah	45Ah
Max.discharge current	750A (5 Sec.)			
Internal Resistance	Full charged at 25°C(77°F) : Approx 6.4mΩ			
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 22.5A)		13.50-13.80V	

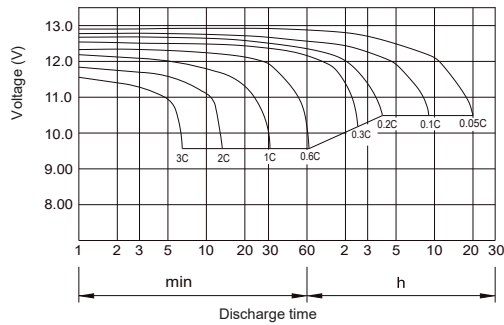
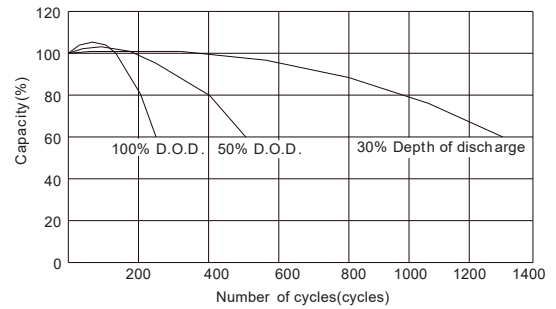
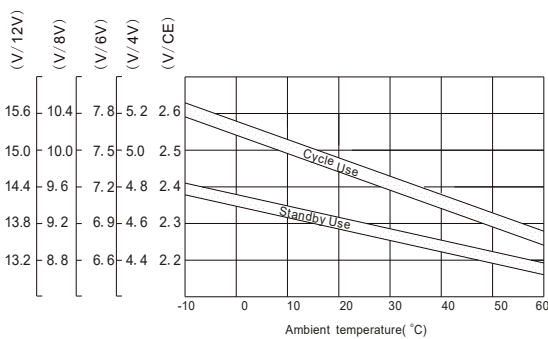
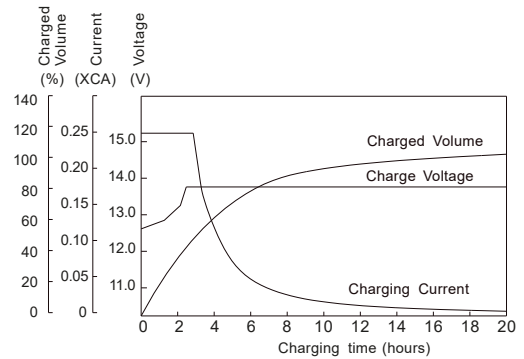
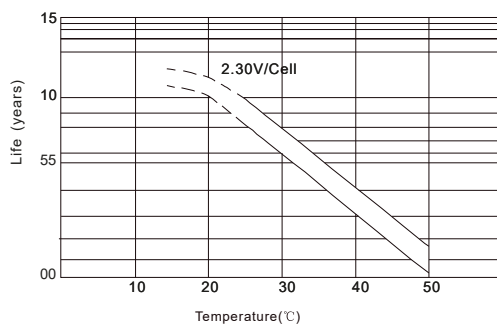
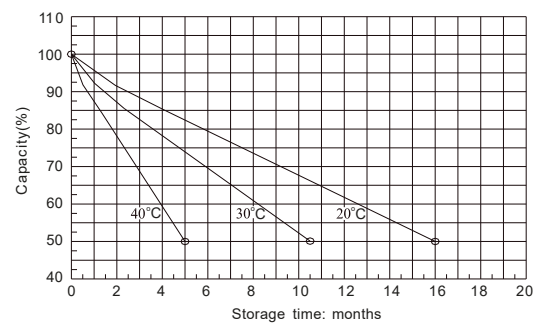
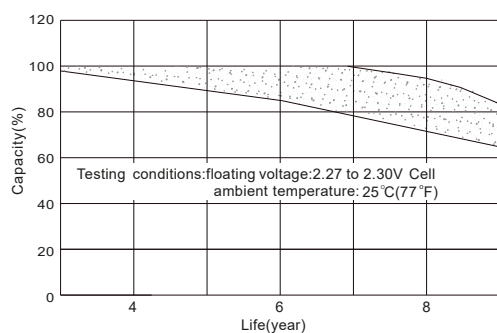
Outer dimension (mm)

Terminal Type (mm)



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

F.V/time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	127.500	78.000	45.000	32.935	27.763	19.777	13.496	9.556	7.782	4.286
	246.075	155.376	89.775	65.761	55.550	39.570	27.004	19.121	15.571	8.575
1.67V	120.877	76.333	44.674	32.609	27.625	19.673	13.422	9.476	7.661	4.071
	233.474	152.132	89.130	65.126	55.319	39.433	26.904	18.999	15.361	8.163
1.70V	117.896	75.667	44.348	32.576	27.556	19.623	13.419	9.381	7.565	3.963
	227.893	150.808	88.587	65.087	55.204	39.344	26.905	18.818	15.175	7.950
1.75V	112.929	74.333	43.696	32.152	27.383	19.500	13.348	9.355	7.500	3.900
	218.517	148.259	87.500	64.304	54.848	39.117	26.776	18.780	15.056	7.829
1.80V	108.292	72.667	43.370	31.924	27.210	19.396	13.311	9.274	7.379	3.771
	209.870	145.000	86.957	64.007	54.512	38.928	26.714	18.632	14.824	7.577
1.85V	102.662	70.667	42.717	31.565	26.968	19.223	13.236	9.153	7.258	3.643
	199.165	141.111	85.777	63.446	54.051	38.620	26.592	18.407	14.596	7.326

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
