

### General Series Battery

EXCITON EX1 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

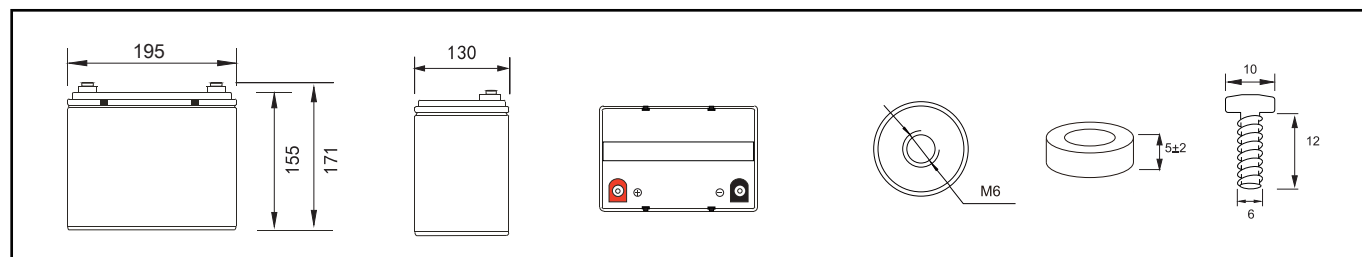
### Construction

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

### Specification

Battery Model	Nominal Voltage			12V
	Rated capacity (10 Hour rate)			28Ah
	Cells Per battery			6
Dimension	Length	Width	Height	Total Height
	195mm (7.67 inches)	130mm (5.11 inches)	155mm (6.10 inches)	168mm (6.61 inches)
Approx Weight	8.50kg(18.73lbs) ± 3%			
Capacity @ 25°C (77°F)	10 hour rate(2.7A,10.5V)	5 hour rate(4.80A,10.5V)	3 hour rate(6.98A,10.8V)	1 hour rate(16.2A,9.6V)
	27Ah	24.0Ah	21.0 Ah	16.2Ah
Max. discharge current	330A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 14m Ω			
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 8.4A)		13.50-13.80V	

### Outer dimension (mm)

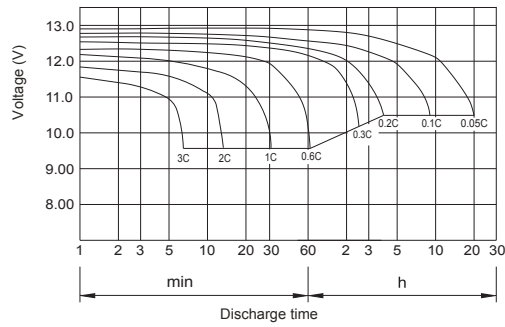


### Terminal Type (mm)

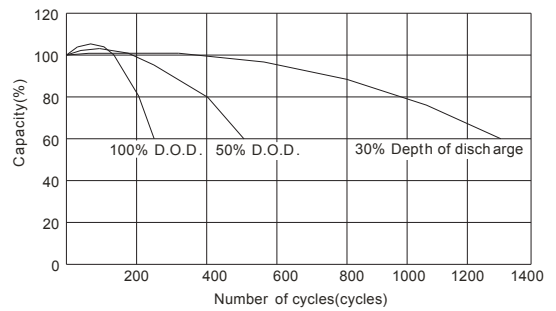
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)												
F.V/time	5MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	92.350	62.270	47.100	27.900	16.200	11.857	9.995	7.120	4.859	3.428	2.791	1.538
	170.805	118.871	90.903	55.577	32.319	23.674	19.998	14.245	9.721	6.858	5.585	3.078
1.67V	81.987	58.110	44.653	27.304	16.083	11.739	9.945	7.082	4.832	3.399	2.748	1.462
	151.614	110.919	86.248	54.417	32.087	23.445	19.915	14.196	9.685	6.814	5.509	2.930
1.70V	77.611	56.031	43.552	27.065	15.965	11.727	9.920	7.064	4.831	3.365	2.713	1.423
	143.553	107.019	84.186	53.943	31.891	23.431	19.873	14.164	9.686	6.749	5.443	2.854
1.75V	70.241	52.728	41.717	26.588	15.730	11.575	9.858	7.020	4.805	3.355	2.690	1.400
	129.927	100.732	80.723	53.031	31.500	23.150	19.745	14.082	9.639	6.736	5.400	2.811
1.80V	62.757	49.180	40.004	25.992	15.613	11.493	9.796	6.983	4.792	3.326	2.647	1.354
	116.109	93.989	77.529	51.865	31.304	23.043	19.624	14.014	9.617	6.683	5.317	2.720
1.85V	55.272	45.632	37.925	25.277	15.378	11.363	9.709	6.920	4.765	3.283	2.603	1.308
	102.291	87.246	73.574	50.474	30.880	22.841	19.459	13.903	9.573	6.602	5.235	2.630

Note: The above data are average values.

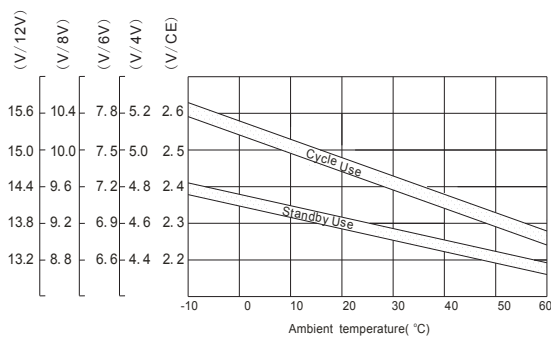
### Discharge characteristic Curve



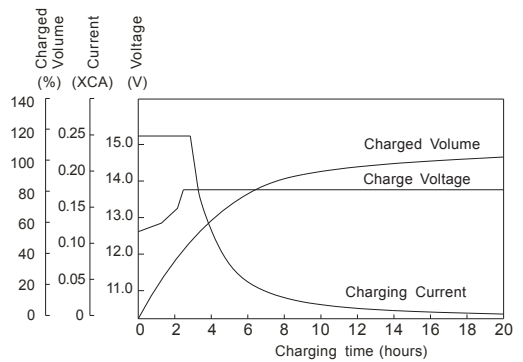
### Cycle service life in relation to depth of discharge



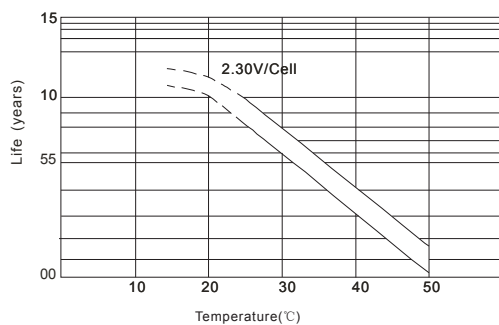
### Relationship between charging voltage and temperature



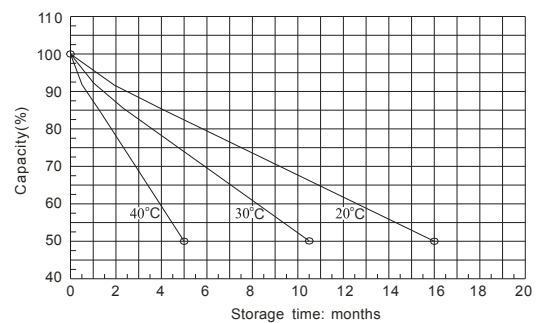
### Constant voltage charging characteristic (0.25CA, at 25°C)



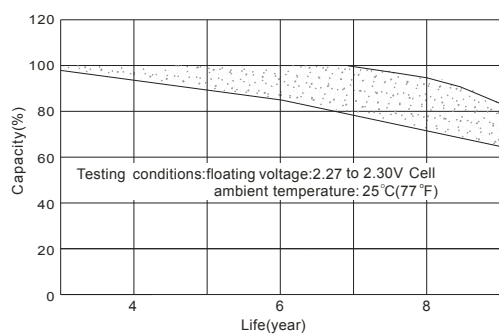
### Temperature effects on float life



### Self-discharge characteristic



### Life characteristics of standby use



### Charge characteristic Curve for standby use

