

GEL Series Battery

EXCITON EX GEL Series batteries are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. EX GEL 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

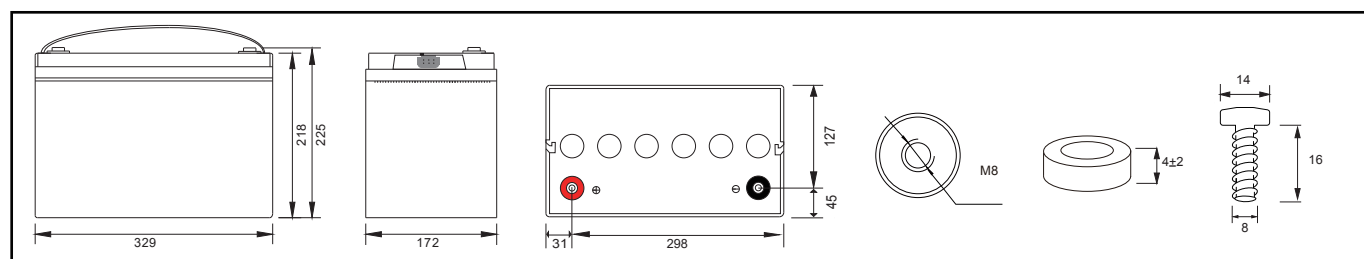
Construction

- * 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 (10 Hour rate)		90Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	329mm(12.79inch)	172mm(6.77inch)	218mm(8.58inch)	225mm(8.85inch)
Approx Weight	25.0kg(55.1lbs)±3%			
Capacity @ 25°C (77°F)	10 hour rate(9.00A,10.5V)	5 hour rate(16.08A,10.5V)	3 hour rate(23.37A,10.8V)	1 hour rate(52.7A,9.6V)
	90Ah	90.4Ah	70.11Ah	52.7Ah
Max. discharge current	800A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 5.4mΩ			
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 27A)		13.50-13.80V	

Outer dimension (mm)

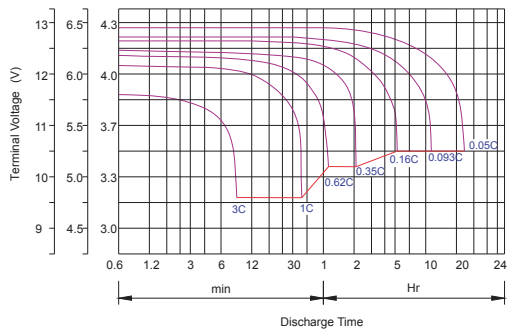


Terminal Type (mm)

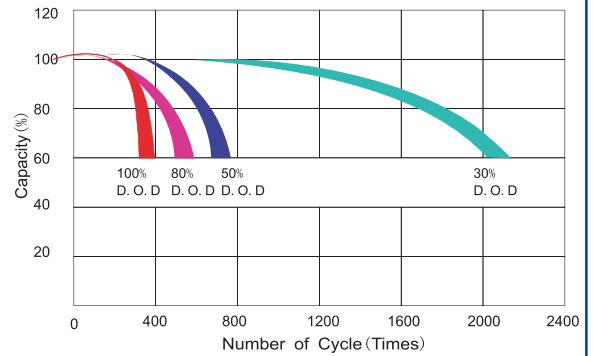
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)										
F.V/time	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	153.000	91.000	52.700	38.570	33.458	23.833	16.265	11.468	9.339	5.198
	295.290	181.272	105.137	77.013	66.944	47.686	32.543	22.945	18.685	10.400
1.67V	145.052	89.056	52.318	38.188	33.292	23.708	16.175	11.371	9.194	4.938
	280.169	177.488	104.382	76.270	66.667	47.522	32.423	22.799	18.433	9.901
1.70V	141.475	88.278	51.936	38.150	33.208	23.648	16.171	11.257	9.078	4.806
	273.472	175.943	103.745	76.224	66.528	47.415	32.423	22.582	18.210	9.641
1.75V	135.514	86.722	51.172	37.654	33.000	23.500	16.086	11.226	9.000	4.730
	262.220	172.969	102.472	75.308	66.099	47.141	32.268	22.536	18.068	9.495
1.80V	129.951	84.778	50.791	37.386	32.792	23.375	16.041	11.129	8.855	4.574
	251.844	169.167	101.836	74.960	65.694	46.914	32.194	22.358	17.789	9.189
1.85V	123.195	82.444	50.027	36.966	32.500	23.167	15.951	10.984	8.710	4.418
	238.998	164.630	100.454	74.302	65.139	46.542	32.046	22.089	17.515	8.885

Note: The above data are average values. (Edition 2020-05)

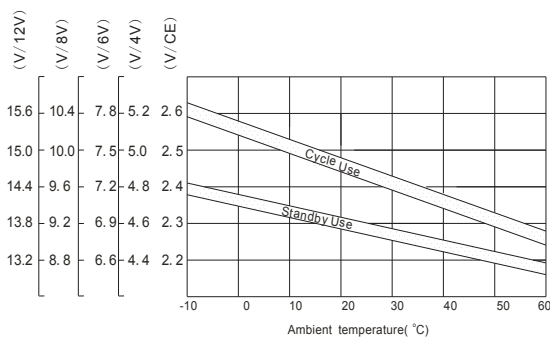
Discharge characteristic Curve



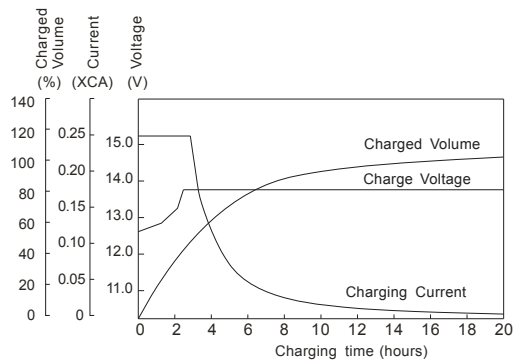
Cycle service life in relation to depth of discharge



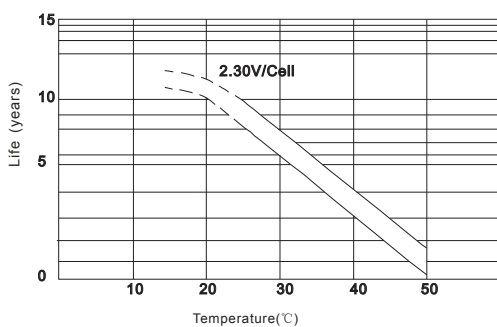
Relationship between charging voltage and temperature



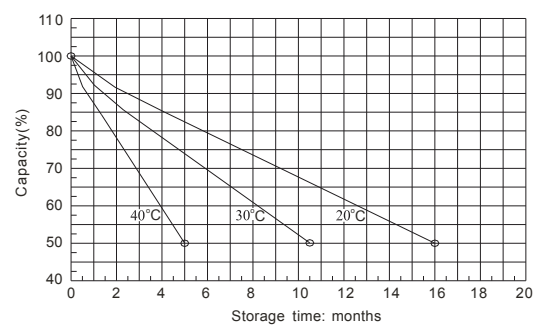
Constant voltage charging characteristic (0.25CA, at 25°C)



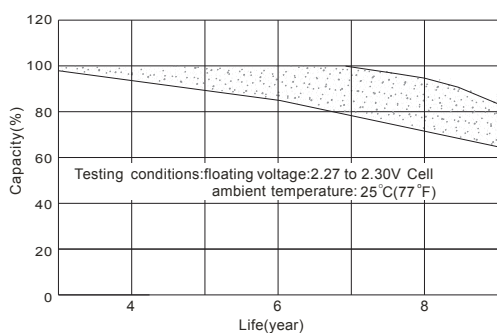
Temperature effects on float life



Self-discharge characteristic



Life characteristics of standby use



Charge characteristic Curve for standby use

