



GEL Battery

Celled Silica technology for superior performance. Valve regulated, spill proof construction performance. Valve regulated, spill proof construction allows safe operation in any position. Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified. U.L. recognized under file number MH 20567.

UPG No. 40701



Maintenance-Free

Specification

Nominal Voltage	12 volts		
Nominal Capacity	77° F (25° C)		
20-hr. (9.00A)	180.0 Ah		
10-hr. (16.74A)	167.4 Ah		
5-hr. (30.60A)	153.0 Ah		
1-hr. (108.0A)	108.0 Ah		
Approximate Weight	114.6 lbs (52 kgs)		
Internal Resistance (approx.)	5mΩ		
Shelf Life (% of normal capacity at 77° F (25° C))			
3 Months	6 Months	12 Months	
91%	82%	64%	
Temperature Dependency of Capacity	(20 hour rate)		
104° F	77° F	32° F	5° F
102%	100%	85%	65%



Charge Method (Constant Voltage)

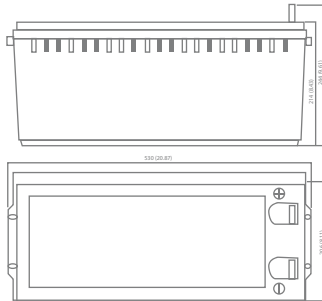
Cycle Use (Repeating Use)

Initial Current	36 A or smaller
Control Voltage	14.2 - 14.4 V

Float Use

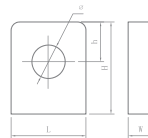
Control Voltage	13.2 - 13.4 V
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Physical Dimensions: in (mm)



L: 20.87 in (530 mm)
W: 8.11 in (206 mm)
H: 8.43 in (214 mm)
TH: 9.61 in (244 mm)
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

Terminals



L Series (L Type Terminal)

Dimension Type	L	W	H	h	∅
L4	26.5	8.0	24.5	12.0	9.0

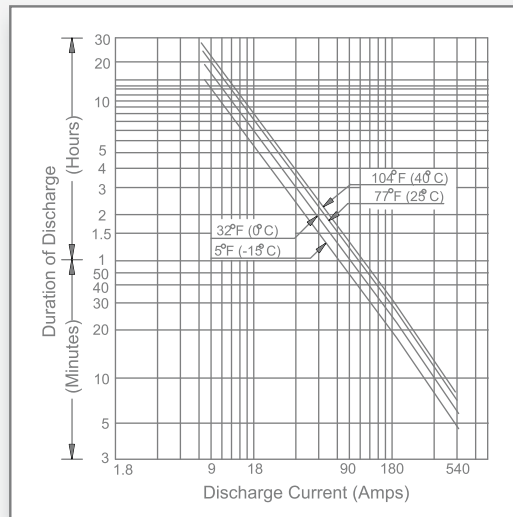
Constant Power Discharge Characteristics Unit:A (25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	20MIN	30MIN	40MIN	50MIN	60MIN	90MIN
1.75V	774	619	521	452	356	288	247	218	158
1.70V	820	656	544	469	365	299	252	219	160
1.65V	874	693	570	481	373	302	259	222	164
1.60V	918	719	589	497	378	306	261	224	166

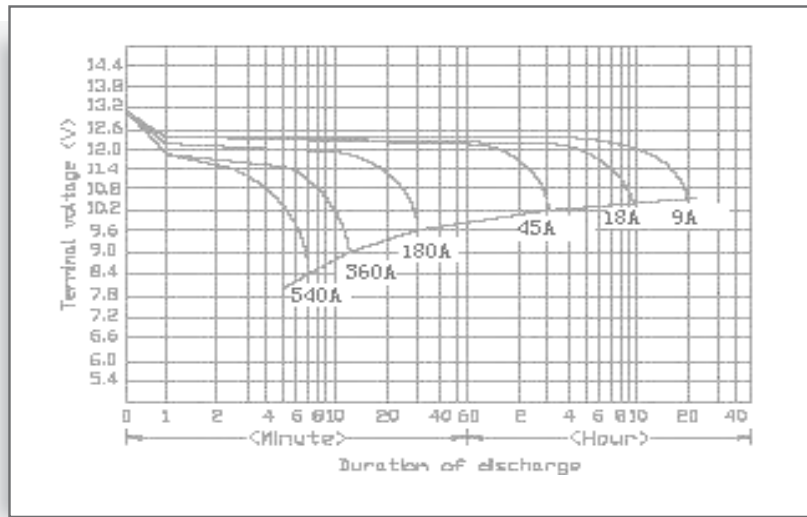
Constant Current Discharge Characteristics Unit:W (25°C, 77°F)

F.V/Time	5MIN	10MIN	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR	24HR
1.90V	231	187	134	83	51.9	37.8	30.1	26.7	22.3	19.1	17.1	14.5	7.8	6.5
1.85V	306	226	158	97	56.4	40.9	32.4	28.7	23.9	20.5	18.3	15.5	8.3	7.0
1.80V	382	260	176	106	61.2	43.5	34.2	30.2	25.3	21.5	19.2	16.2	8.8	7.3
1.75V	418	282	187	108	62.5	45.0	35.3	31.0	26.0	22.3	19.6	16.7	9.0	7.5

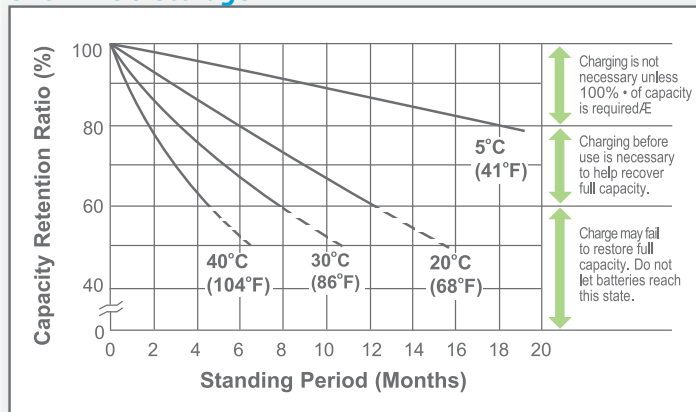
Discharge Time vs. Discharge Current



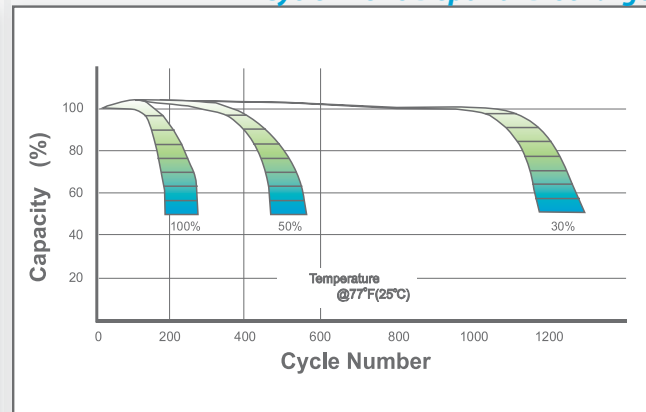
Discharge Characteristics



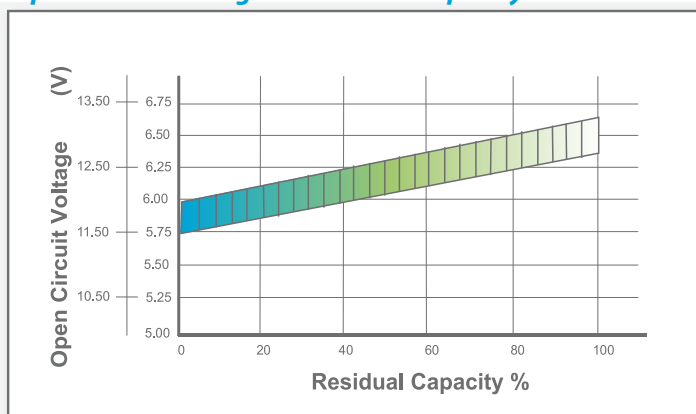
Shelf Life & Storage



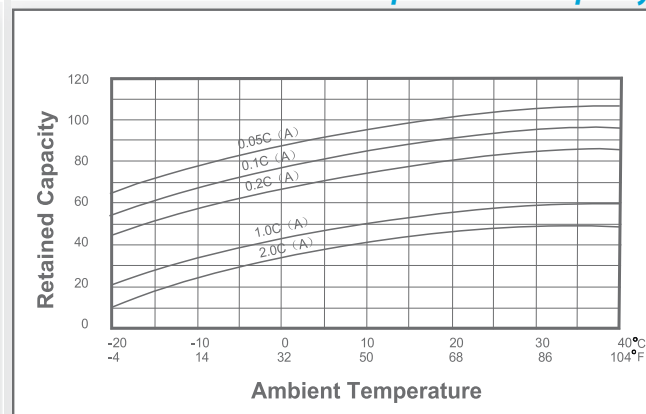
Cycle Life vs Depth of Discharge



Open Circuit Voltage vs Residual Capacity



Effect of Temperature on Capacity



Charge Current & Final Discharge Voltage

Application	Charge Voltage(V/Cell)			Max.Charge Current	Final Discharge Voltage V/Cell	Discharge Current(A)	1.75	1.70	1.60	1.30
	Temperature	Set Point	Allowable Range							
Cycle Use	25°C(77°F)	2.40	2.37~2.40	0.20C	1.75	0.2C>(A)				
Standby	25°C(77°F)	2.23	2.20~2.23		1.70	0.2C<(A)<0.5C				
					1.60	0.5C<(A)<1.0C				
					1.30	(A)>1.0C				



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