

Gelled Silica technology for superior 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.

Maintenance-Free

## Specification

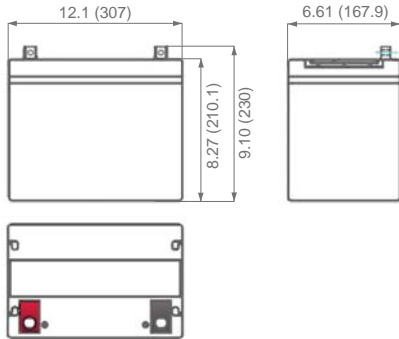
<b>Nominal Voltage</b>	12 volts		
<b>Nominal Capacity</b>	77° F (25° C)		
20-hr. (4.50A)	90.0 Ah		
10-hr. (8.37)	83.7 Ah		
5-hr. (15.30A)	76.5 Ah		
1-hr. (54.00A)	54 Ah		
<b>Approximate Weight</b>	55.12 lbs (25 kgs)		
<b>Internal Resistance (approx.)</b>	7mΩ		
<b>Shelf Life (% of normal capacity at 77° F (25° C))</b>			
3 Months	6 Months	12 Months	
91%	82%	64%	
<b>Temperature Dependency of Capacity (20 hour rate)</b>			
104° F	77° F	32° F	5° F
102%	100%	85%	65%
<b>GEL Operational Temperature</b>			
Charge	32 F to 113 F (0 C to 45 C)		
Discharge	5° F to 131° F (-15° C to 55° C)		
<b>GEL Storage Temperature</b>	5° F to 104° F (-15° C to 40° C)		
<b>UPG Recommends</b>	32° F to 86° F (0° C to 30° C) Storage		



Due to continuous improvements to our products, product may vary slightly from depiction.

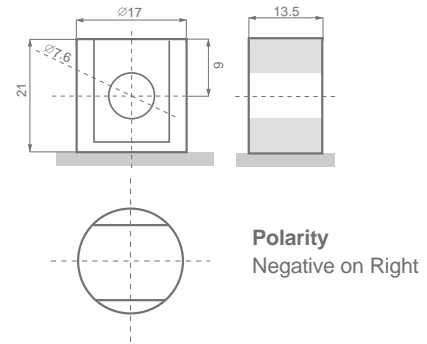
<b>Charge Method (Constant Voltage)</b>		
<b>Cycle Use (Repeating Use)</b>		
Initial Current	18.0 A or smaller	
Control Voltage	14.2 - 14.4 V	
<b>Float Use</b>		
Control Voltage	13.2 - 13.4 V	

## Physical Dimensions: in (mm)



**L:** 12.1 in (307 mm)  
**W:** 6.61 in (167.9 mm)  
**H:** 8.27 in (210.1 mm)  
**TH:** 9.10 in (230 mm)  
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

## Terminals



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

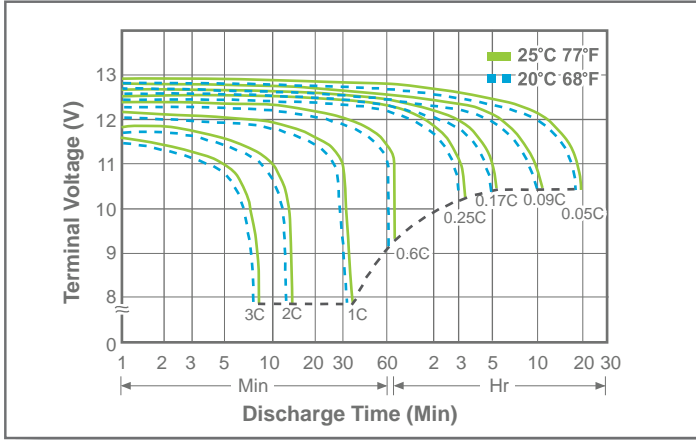
F.V/Time	5MIN	10MIN	15MIN	30MIN	60MIN	2h	3h	5h	8h	10h	20h
9.60	255	210	165	100.5	55.6	33.4	25.2	16.1	10.41	8.68	4.56
9.90	247	204	162	98.5	54.5	33.2	25.0	16.1	10.36	8.64	4.53
10.2	242	200	159	96.4	53.4	32.9	24.8	15.9	10.32	8.60	4.52
10.5	228	194	154	93.4	51.7	32.6	24.5	15.7	10.29	8.58	4.50
10.8	209	188	151	91.6	50.7	32.3	24.3	15.6	10.26	8.55	4.49

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

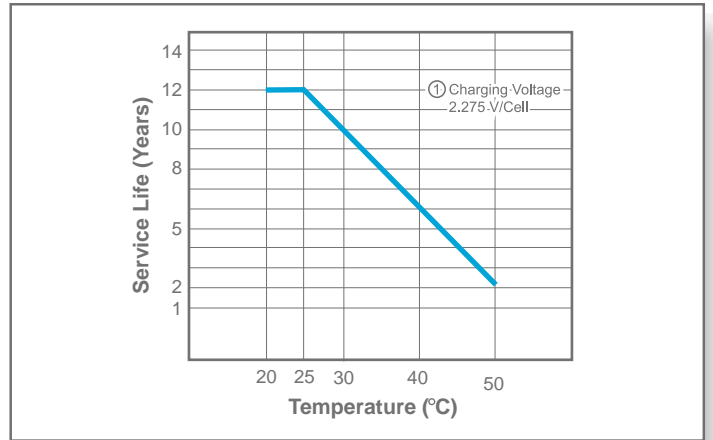
F.V/Time	5MIN	10MIN	15MIN	30MIN	60MIN	2h	3h	5h	8h	10h	20h
9.60	2752	2297	1834	1127	634	387	296	191	125.0	103.6	54.7
9.90	2669	2228	1777	1105	621	385	295	190	124.4	103.1	54.4
10.2	2614	2182	1741	1082	608	381	292	188	123.9	102.7	54.2
10.5	2463	2113	1687	1048	589	377	289	186	123.5	102.4	54.0
10.8	2256	2051	1654	1028	578	374	286	184	123.1	102.1	53.9



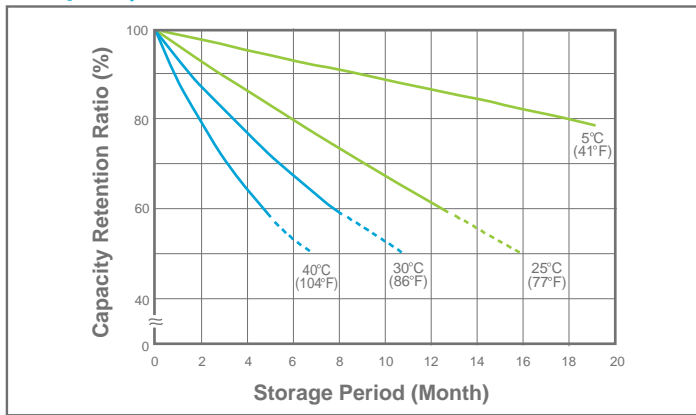
## Terminal Voltage (V) and Discharge Time



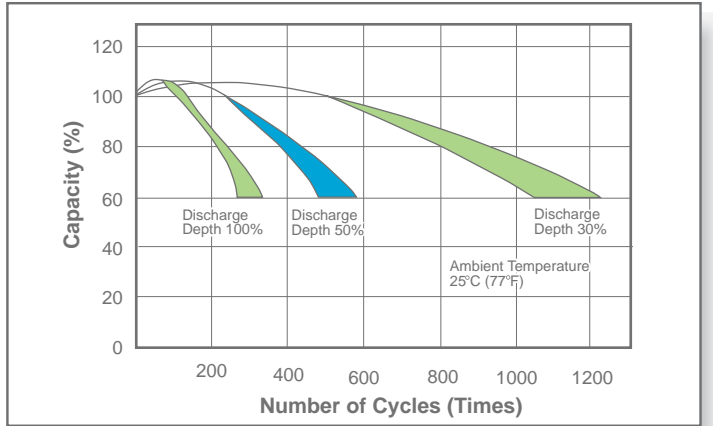
## Trickle (or float) Service Life



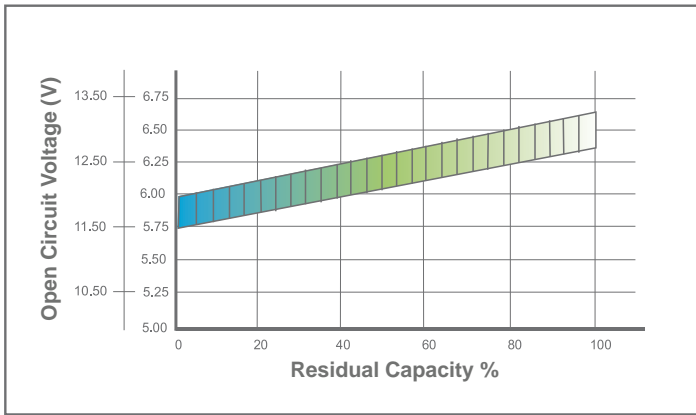
## Capacity Retention Characteristic



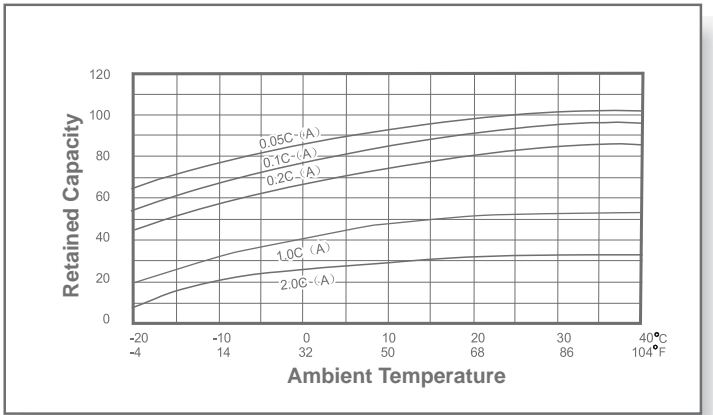
## Cycle Service Life



## 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	1.75	1.70	1.60	1.30
	Temperature	Set Point	Allowable Range						
Cycle Use	25°C(77°F)	2.40	2.36~2.40	0.20C	Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C
Standby	25°C(77°F)	2.23	2.20~2.23						



ISO 9001 :2008

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