

# UPG Sealed Lead-Acid Battery

STAY POWERED®

Absorbant Glass Mat (AGM) 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.

# UB121100

Maintenance-Free

## Specification

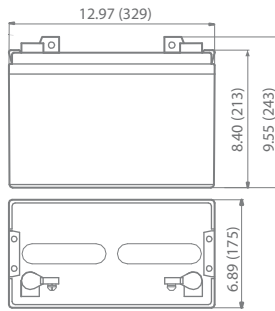
<b>Nominal Voltage</b>	12 volts		
<b>Nominal Capacity</b>	77° F (25° C)		
20-hr. (5.50A)	110 Ah		
10-hr. (10.2A)	102 Ah		
5-hr. (18.7A)	93.5 Ah		
1-hr. (66.0A)	66.0 Ah		
<b>Approximate Weight</b>	65.7 lbs (29.8 kgs)		
<b>Internal Resistance (approx.)</b>	5mΩ		
<b>Shelf Life</b> (% of normal capacity at 68° F (20° C))			
3 Months	6 Months	12 Months	
91%	83%	64%	
<b>Temperature Dependency of Capacity</b>	(20 hour rate)		
104° F (40° C)	77° F (25° C)	32° F (0° C)	5° F (-15° C)
102%	100%	85%	65%
<b>AGM Operational Temperature</b>			
Charge	32° F to 104° F (0° C to 40° C)		
Discharge	5° F to 113° F (-15° C to 45° C)		
<b>AGM Storage Temperature</b>	5° F to 104° F (-15° C to 40° C)		



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

<b>Charge Method</b> (Constant Voltage)	
<b>Cycle Use</b> (Repeating Use)	
Initial Current	33 A or smaller
Control Voltage	14.6 - 14.8 V
<b>Float Use</b>	
Control Voltage	13.6 - 13.8 V

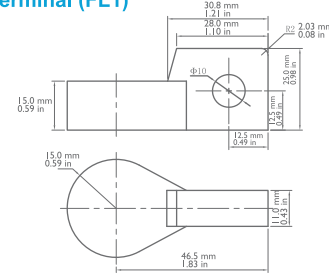
## Physical Dimensions: in (mm)



**L:** 12.97 in (329 mm)  
**W:** 6.89 in (175 mm)  
**H:** 8.40 in (213 mm)  
**TH:** 9.55 in (243 mm)  
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

## Terminals

### Flag Terminal (FL1)



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

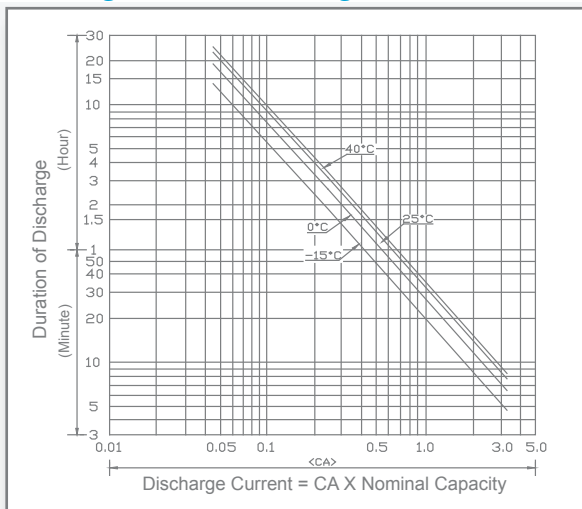
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	361.1	269.3	189.5	114.7	59.9	34.9	25.6	20.0	16.5	11.6	10.5	5.7
10.20V	325.2	245.4	169.6	108.7	56.3	33.3	24.9	19.5	16.2	11.4	10.2	5.5
10.50V	313.2	233.4	159.6	105.7	54.9	32.5	24.3	19.2	16.0	11.3	10.0	5.5
10.80V	301.2	221.4	149.6	102.7	52.9	31.7	23.7	18.9	15.6	11.0	10.0	5.4
11.10V	289.3	209.5	139.7	99.8	50.9	30.9	22.9	18.3	15.2	10.7	9.5	5.1

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

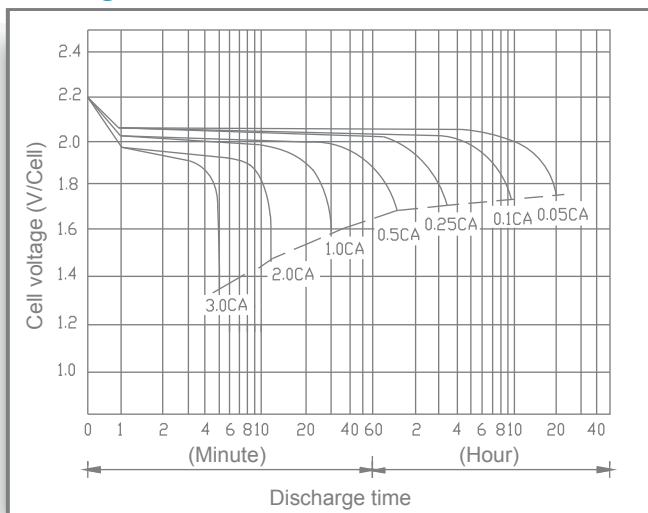
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	3919.2	2959.6	2013.0	1217.9	693.3	404.0	297.3	231.4	190.5	134.7	121.7	65.5
10.20V	3610.0	2724.2	1882.3	1207.0	651.4	386.0	289.3	225.4	149.7	131.7	118.7	63.8
10.50V	3552.1	2647.4	1809.5	1199.0	630.4	377.1	282.3	221.4	184.5	130.7	116.7	63.0
10.80V	3506.2	2577.5	1741.6	1196.0	613.5	369.1	276.3	217.5	181.5	127.7	115.7	62.7
11.10V	3442.4	2492.8	1661.8	1187.0	605.5	368.1	273.3	216.5	180.5	126.7	112.7	60.8

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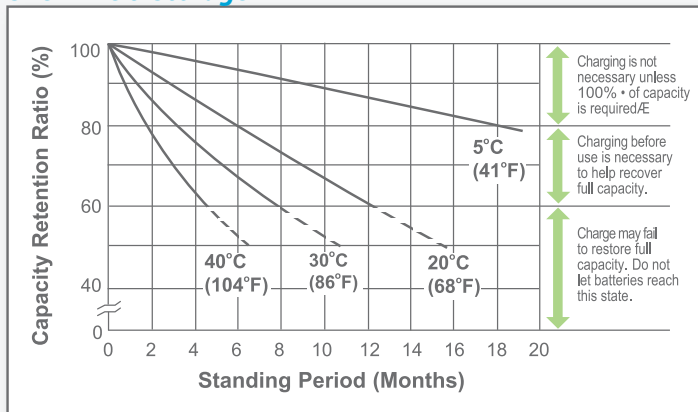
## Discharge Time vs. Discharge Current



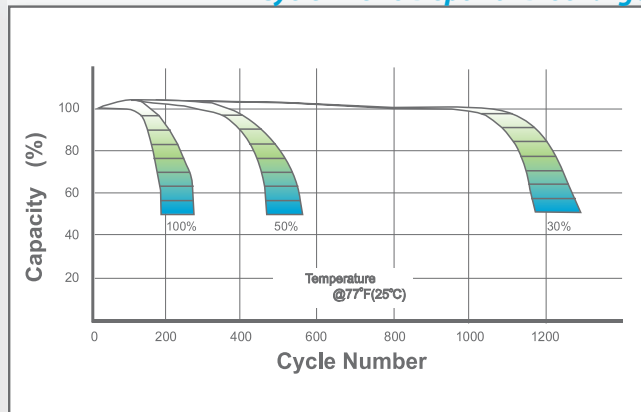
## Discharge Characteristics



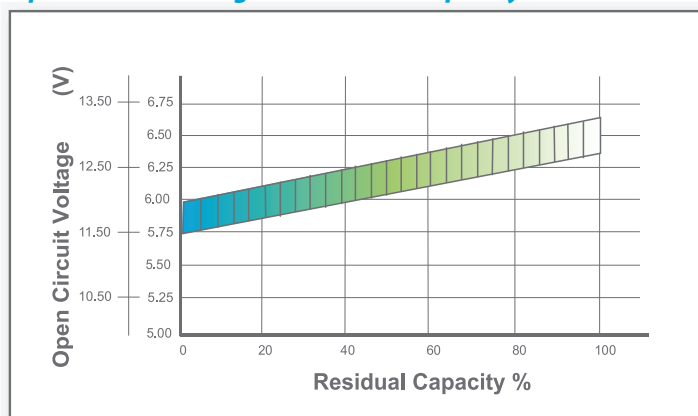
## Shelf Life & Storage



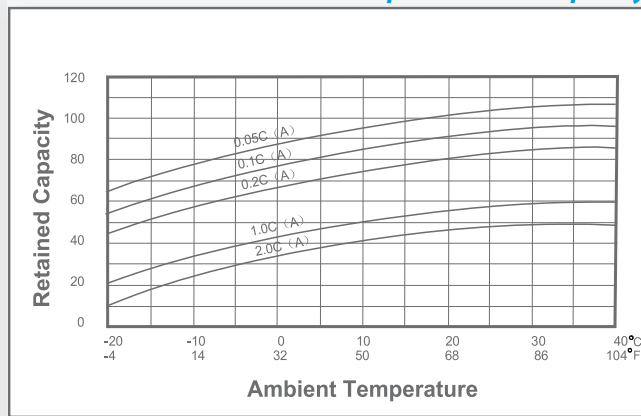
## Cycle Life vs Depth of Discharge



## 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)
	Temperature	Set Point	Allowable Range			
Cycle Use	25°C(77°F)	2.45	2.40~2.47	0.30C	1.75	1.70
Standby	25°C(77°F)	2.28	2.27~2.30		1.60	1.30
						0.2C>(A)
						0.2C<(A)<0.5C
						0.5C<(A)<1.0C
						(A)>1.0C