

# UPG Sealed Lead-Acid Battery

UPG No. 45798

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.

# UB23000

Maintenance-Free



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

## Specification

<b>Nominal Voltage</b>	2 Volts		
<b>Nominal Capacity</b>	77°F (25°C)		
20-hr. (15.0 A)	300 Ah		
10-hr. (27.9 A)	279 Ah		
5-hr. (51.0 A)	255 Ah		
1-hr. (180 A)	180 Ah		
<b>Approximate Weight</b>	39.68 lbs (18.0 kgs)		
<b>Internal Resistance</b> (approx.)	0.72 mΩ		
<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)		

## Charge Method (Constant Voltage)

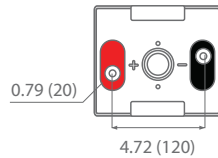
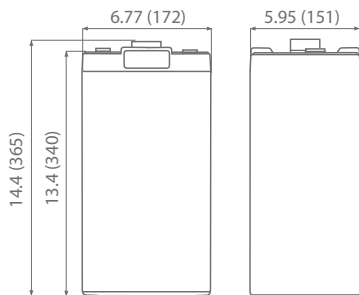
## Cycle Use (Repeating Use)

Initial Current	60 A
Control Voltage	2.45 V

## Float Use

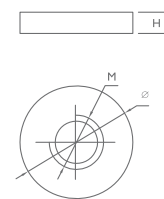
Control Voltage	2.28 V
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## Physical Dimensions: in (mm)



**L:** 6.77 in (172 mm)  
**W:** 5.95 in (151 mm)  
**H:** 13.4 in (340 mm)  
**TH:** 14.4 in (365 mm)  
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

## Terminals



Type	Dimension	M	Ø	H
I 8		10.0 mm 0.39 in	19.0 mm 0.75 in	2.00 mm 0.08 in

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

F.V/Time	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR	24HR
1.60	407	317	197	119	87.7	56.3	41.1	30.5	16.0	13.9
1.65	378	294	183	118	87.3	56.1	40.9	30.4	16.0	13.9
1.70	390	304	189	118	86.8	55.8	40.7	30.2	15.8	13.8
1.75	378	294	183	117	86.4	55.5	40.5	30.1	15.8	13.7
1.80	371	289	179	115	84.7	54.4	39.7	30.0	15.8	13.7

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

F.V/Time	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR	24HR
1.60	732	586	376	219	173	112	82.0	60.9	32.0	27.8
1.65	680	545	350	217	172	112	81.6	60.8	31.9	27.7
1.70	702	562	361	216	171	111	81.2	60.4	31.7	27.5
1.75	680	545	350	215	171	110	80.8	60.2	31.6	27.4
1.80	667	534	343	211	167	108	79.2	60.0	31.5	27.4

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UPG is ISO 9001 Certified

All specifications are subject to change without notice.

488 S. Royal Lane | Coppell, Texas 75019 | P 469.892.1122 | T 866.892.1122 | F 469.892.1123 | sales@upgi.com

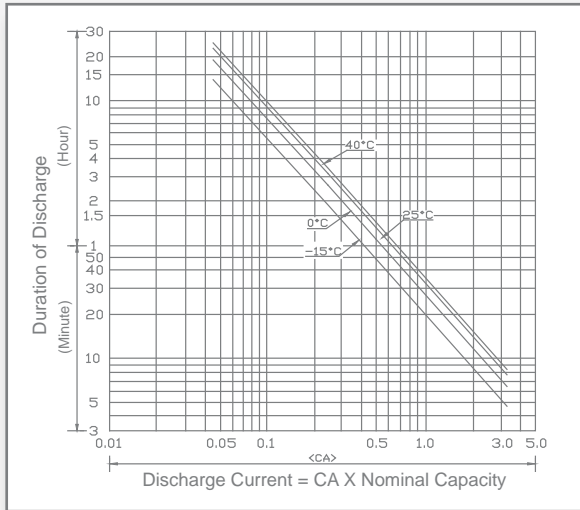
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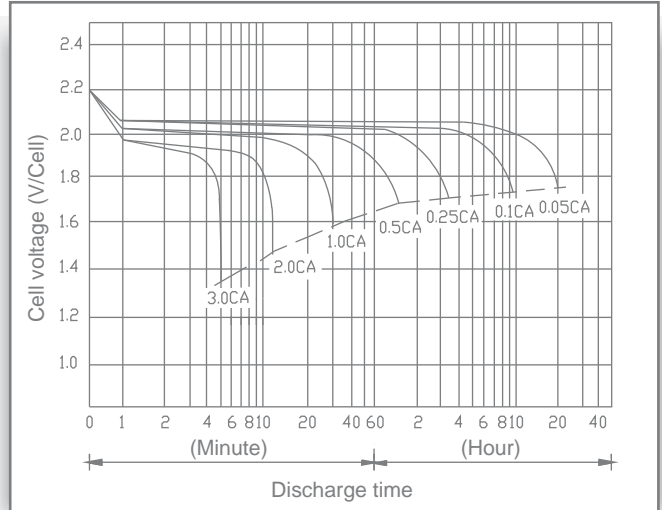
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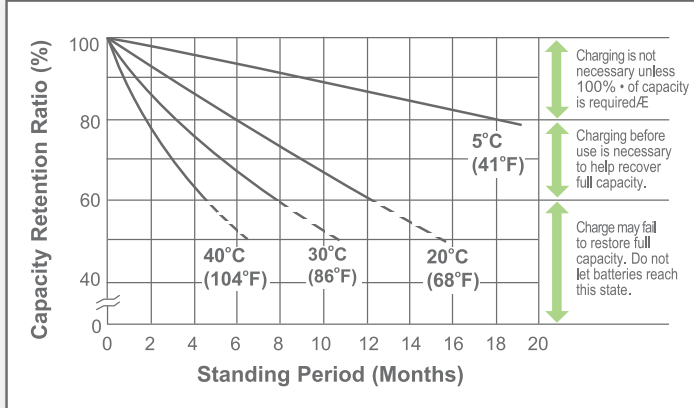
## Discharge Time vs. Discharge Current



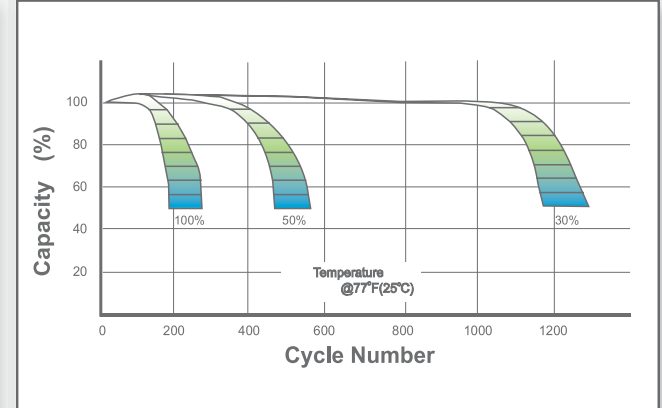
## Discharge Characteristics



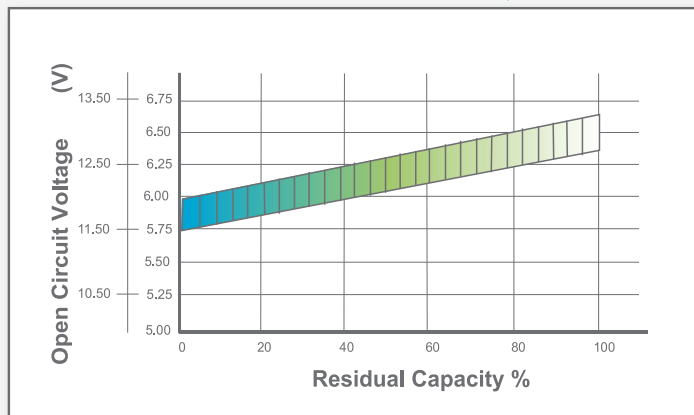
## Shelf Life & Storage



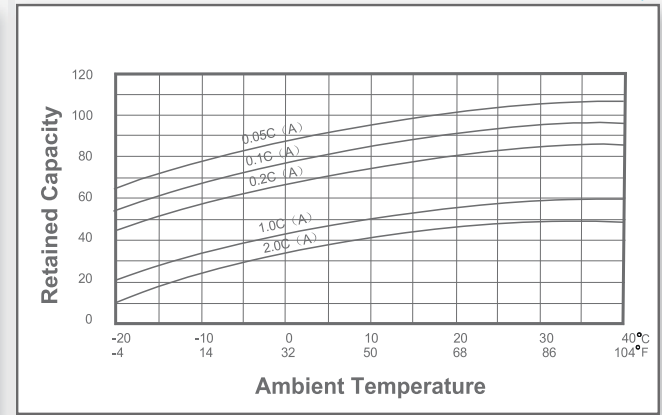
## Cycle Life vs Depth of Discharge



## 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)	2.30	2.27-2.30		1.60	1.30
						0.2C>(A)
						0.2C<(A)<0.5C
						0.5C<(A)<1.0C
						(A)>1.0C



Let UPG Power Your Life.

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