

# UPG Sealed Lead-Acid Battery

UPG No. 45979

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.

# UB12500

Maintenance-Free

## Specification

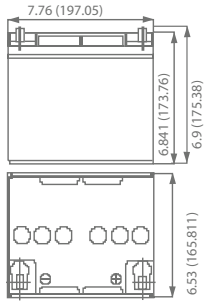
<b>Nominal Voltage</b>	12 volts		
<b>Nominal Capacity</b>	77° F (25° C)		
20-hr. (2.50A)	50.0 Ah		
10-hr. (4.65A)	46.5 Ah		
5-hr. (8.50A)	42.5 Ah		
1-hr. (30.0A)	30.0 Ah		
<b>Approximate Weight</b>	30.2 lbs (13.7 kgs)		
<b>Internal Resistance (approx.)</b>	11 mΩ		
<b>Shelf Life (% of normal capacity at 68° F (20° C))</b>			
3 Months	6 Months	12 Months	
91%	83%	64%	
<b>Temperature Dependency of Capacity (20 hour rate)</b>			
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 (Constant Voltage)</b>	
<b>Cycle Use (Repeating Use)</b>	
Initial Current	15 A or smaller
Control Voltage	14.6 - 14.8 V
<b>Float Use</b>	
Control Voltage	13.6 - 13.8 V

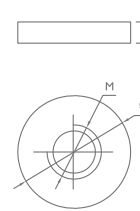
## Physical Dimensions: in (mm)



**L:** 7.76in (197.05mm)  
**W:** 6.53in (165.81mm)  
**H:** 6.84in (173.76mm)  
**TH:** 6.9in (175.38mm)  
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

## Terminals

I Series (Internal Thread)



Dimension Type	M	Ø	H
I 6	6.00 mm 0.24 in	16.0 mm 0.63 in	4.00 mm 0.16 in

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

F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	210.0	91.0	55.1	30.8	17.9	12.68	8.80	5.63	4.72	2.59
1.67V	202.0	89.0	53.8	30.5	17.5	12.63	8.73	5.60	4.68	2.57
1.70V	195.0	88.4	53.3	30.0	17.3	12.54	8.67	5.58	4.65	2.50
1.75V	181.0	85.8	51.7	29.3	16.8	12.49	8.50	5.55	4.57	2.45
1.80V	163.0	82.8	49.7	28.2	16.2	12.15	8.26	5.52	4.46	2.41

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

F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	2124.0	1022.0	613.0	360.0	215.0	154.0	107.0	78.24	58.60	32.00
1.67V	2060.0	997.0	597.0	353.0	212.0	150.0	106.0	77.65	58.10	31.50
1.70V	2031.0	981.0	590.0	350.0	207.0	148.0	105.0	76.47	57.70	31.20
1.75V	1895.0	940.0	571.0	342.0	200.0	143.0	104.0	75.88	56.30	31.00
1.80V	1693.0	882.4	528.0	332.0	192.0	136.0	103.0	74.71	54.60	30.30

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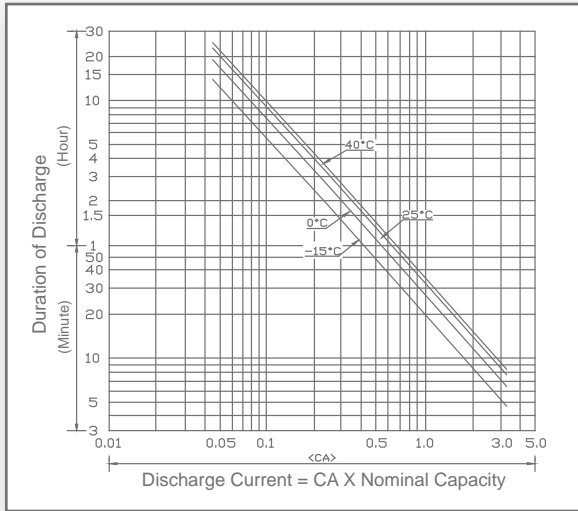


ISO 9001

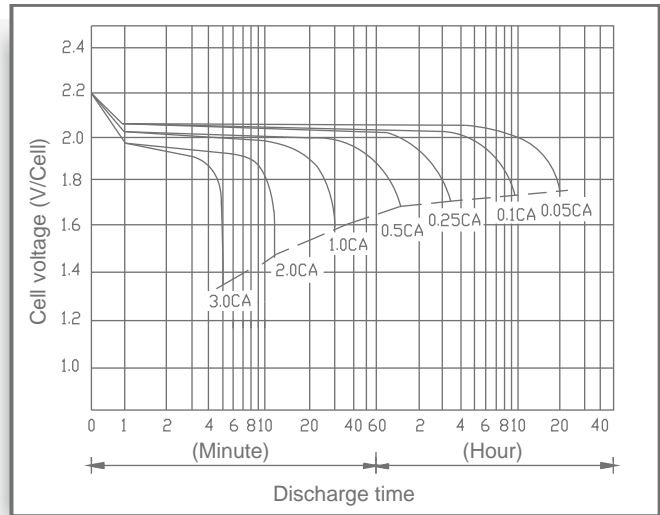
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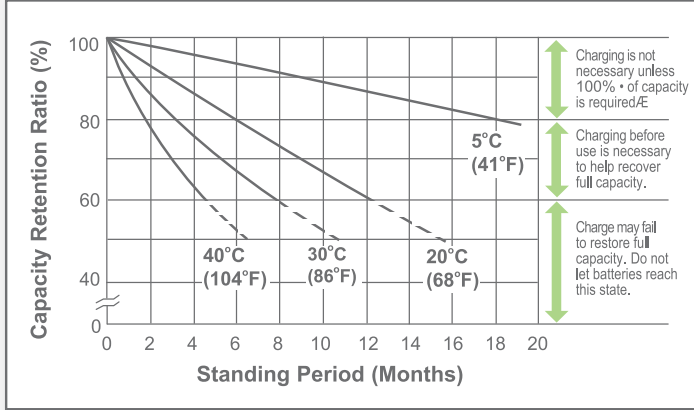
### Discharge Time vs. Discharge Current



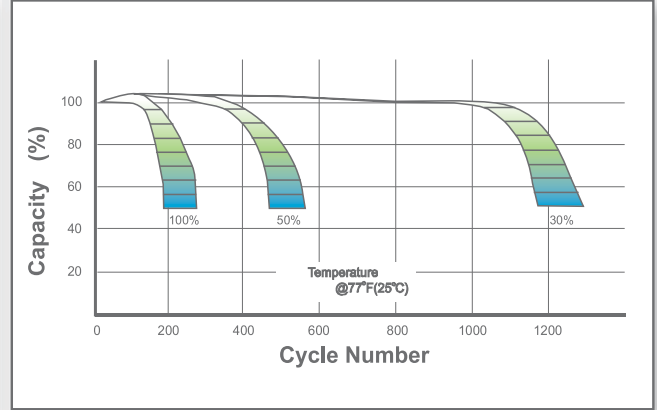
### Discharge Characteristics



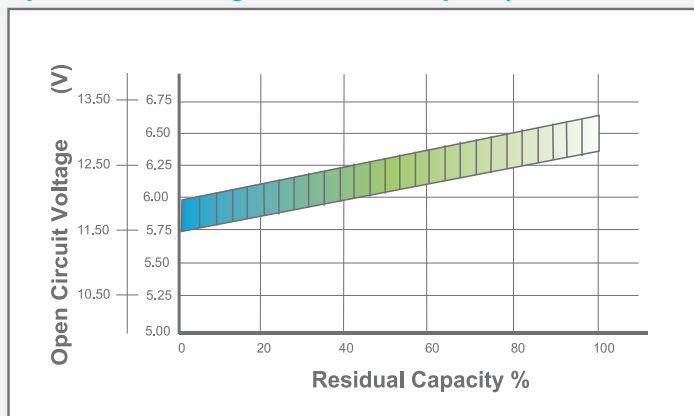
### Shelf Life & Storage



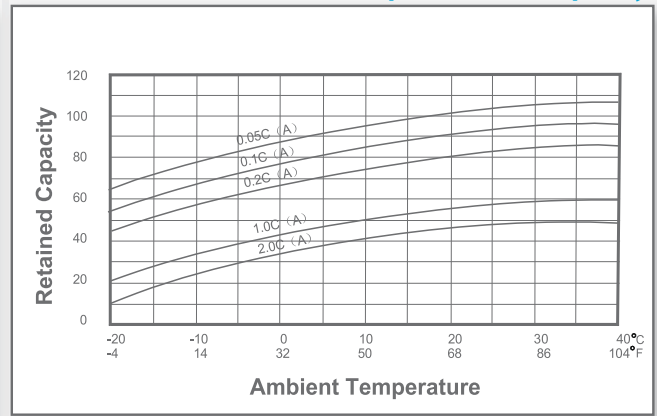
### Cycle Life vs Depth of Discharge



### 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	2.43-2.47	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