

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.

UPG No. 45977

UB12500

Maintenance-Free

Specification

Nominal Voltage		12 volts	
Nominal Capacity		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	
Approximate Weight		30.2 lbs (13.7 kgs)	
Internal Resistance (approx.)		11 mΩ	
Shelf Life (% of normal capacity at 68° F (20° C))			
3 Months	6 Months	12 Months	
91%	83%	64%	
Temperature Dependency of Capacity		(20 hour rate)	
104° F	77° F	32° F	5° F
102%	100%	85%	65%
AGM Operational Temperature			
Charge		32°F to 104°F (0°C to 40°C)	
Discharge		5°F to 113°F (-15°C to 45°C)	
AGM Storage Temperature		5°F to 104°F (-15°C to 40°C)	



Charge Method (Constant Voltage)

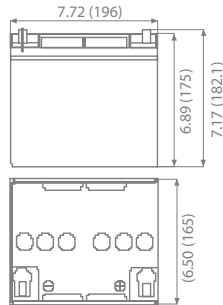
Cycle Use (Repeating Use)

Initial Current	15 A or smaller
Control Voltage	14.6 - 14.8 V

Float Use

Control Voltage	13.6 - 13.8 V
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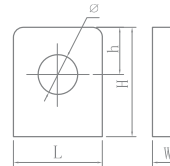
Physical Dimensions: in (mm)



L: 7.72in (196.1 mm)
W: 6.50in (165.1mm)
H: 6.89in (175 mm)
TH: 7.17in (182.1 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	Ø
L2	17.0 mm 0.69 in	9.00 mm 0.35 in	17.0 mm 0.69 in	9.00 mm 0.35 in	6.50 mm 0.26 in

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	158.2	115.4	81.2	49.2	25.7	15.0	11.0	8.6	7.1	5.0	4.5	2.5
10.20V	139.4	105.2	72.7	46.6	24.1	14.3	10.7	8.3	6.9	4.9	4.4	2.5
10.50V	134.2	100.0	68.4	45.3	23.5	13.9	10.4	8.2	6.8	4.8	4.3	2.5
10.80V	129.1	94.9	64.1	44.0	22.7	13.6	10.2	8.1	6.7	4.7	4.3	2.3
11.10V	124.0	89.8	59.9	42.8	21.8	13.3	9.8	7.8	6.5	4.6	4.1	2.2

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	1679.6	1268.4	862.7	522.0	297.1	173.1	127.4	99.2	81.7	57.7	52.2	28.1
10.20V	1547.1	1167.5	806.7	517.3	279.2	165.4	124.0	96.6	64.2	56.4	50.9	27.4
10.50V	1522.3	1134.6	775.5	513.9	270.2	161.6	121.0	94.9	79.1	56.0	50.0	27.0
10.80V	1502.7	1104.7	746.4	512.6	262.9	158.2	118.4	93.2	77.8	54.7	49.6	26.9
11.10V	1475.3	1068.3	712.2	508.7	259.5	157.7	117.1	92.8	77.4	54.3	48.3	26.1

www.upgi.com

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UPG
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UPG is ISO Certified

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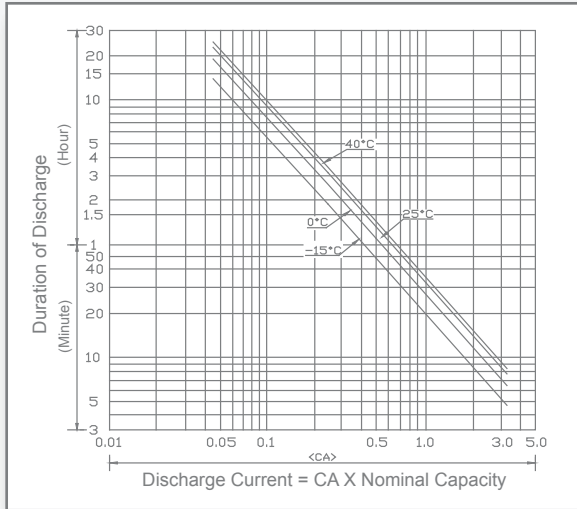
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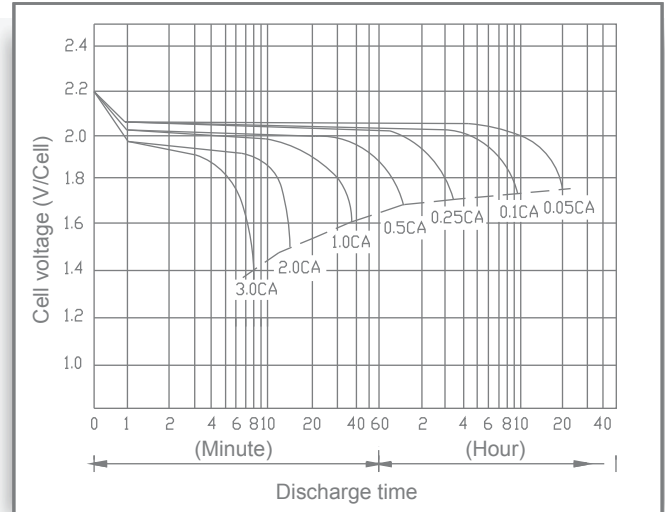
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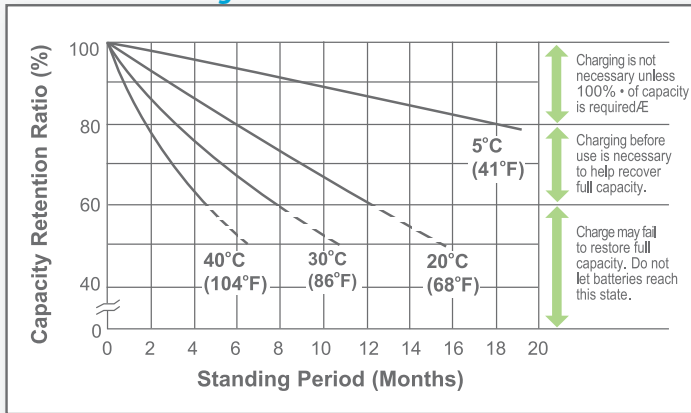
Discharge Time vs. Discharge Current



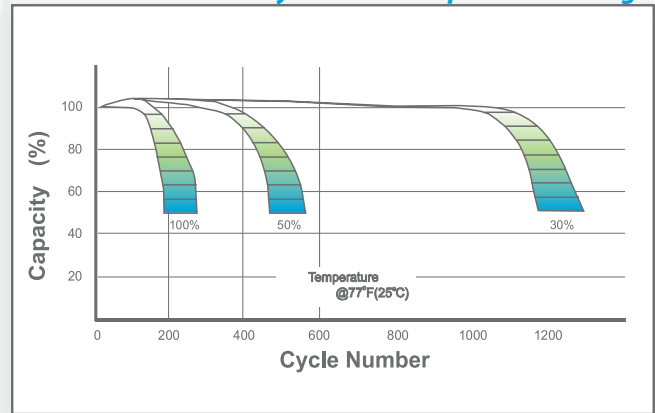
Discharge Characteristics



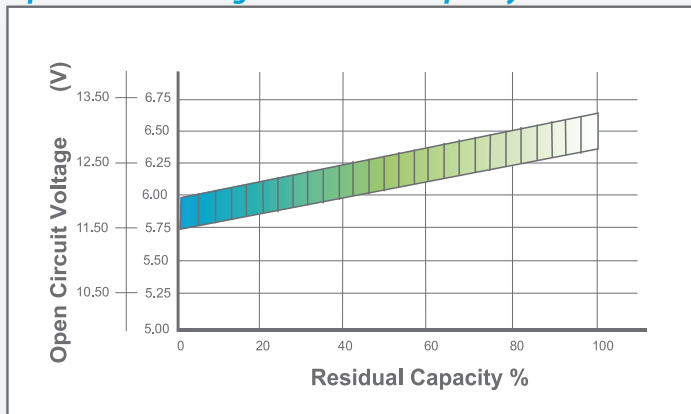
Shelf Life & Storage



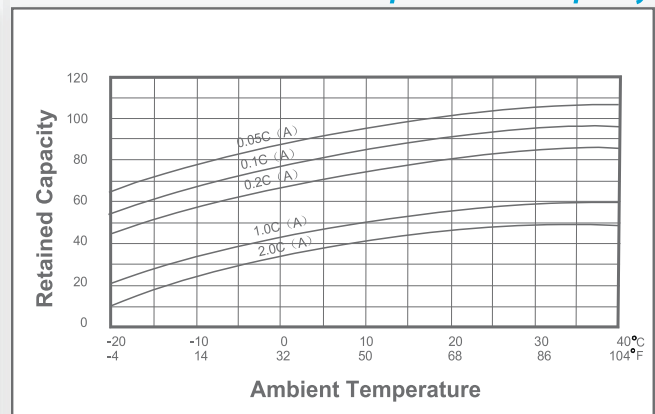
Cycle Life vs Depth of Discharge



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	1.75	1.70	1.60	1.30
	Temperature	Set Point	Allowable Range						
Cycle Use	25°C(77°F)	2.45	2.40~2.50	0.30C	Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C
Standby	25°C(77°F)	2.30	2.27~2.30						