



# Sealed Lead-Acid Battery

UPG No. 45965



Maintenance-Free

Absorbant Glass Mat (AGM) technology for superior performance. Valve regulated, spill proof construction 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.

## Specification

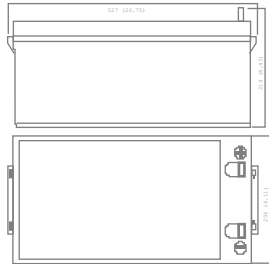
<b>Nominal Voltage</b>	12 volts		
<b>Nominal Capacity</b>	77° F (25° C)		
20-hr. (10.00A)	200 Ah		
10-hr. (18.60A)	186 Ah		
5-hr. (34.00A)	170 Ah		
1-hr. (120.00A)	120 Ah		
<b>Approximate Weight</b>	114.6 lbs (52 kgs)		
<b>Internal Resistance (approx.)</b>	4 mOHMS		
<b>Shelf Life (% of normal capacity at 77° F (25° C))</b>			
3 Months	6 Months	12 Months	
91%	82%	64%	
<b>Temperature Dependency of Capacity</b>	(20 hour rate)		
104° F	77° F	32° F	5° F
102%	100%	85%	65%



## Charge Method (Constant Voltage)

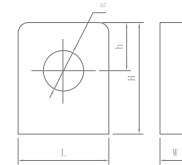
<b>Cycle Use (Repeating Use)</b>	
Initial Current	70 A or smaller
Control Voltage	14.5 - 14.9 V
<b>Float Use</b>	
Control Voltage	13.6 - 13.8 V

## Physical Dimensions: in (mm)



**L:** 20.75 in (527.1 mm)  
**W:** 8.11 in (206 mm)  
**H:** 8.43 in (214.1 mm)  
**TH:** 9.65 in (245.1 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
L1	26.5	8.0	24.5	12.0	9.0

## 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	740	540	380	230	120	70	51.4	40.0	33.0	23.3	21.0	11.34
10.20V	652	492	340	218	112.8	66.8	50.0	39.0	32.4	22.8	20.5	11.06
10.50V	628	468	320	212	109	65.2	48.8	38.4	32.0	22.6	20.0	10.92
10.80V	604	444	300	206	106	63.6	47.6	37.8	31.2	22.0	19.5	10.80
11.10V	580	420	280	200	102	62.0	46.0	36.7	30.4	21.4	19.0	10.26

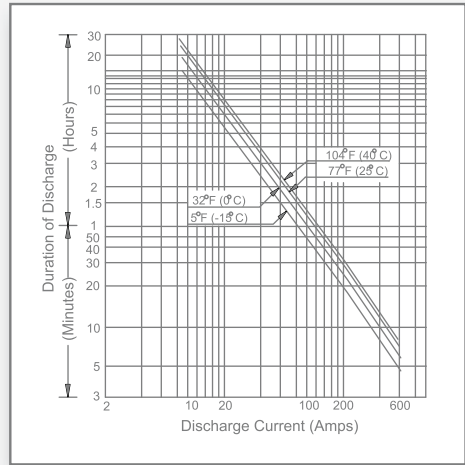
## Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	7858	5735	4036	2443	1390	811	595	463	382	269	243	131.3
10.20V	7237	5461	3774	2420	1306	774	579	452	375	264	237	128.1
10.50V	7122	5307	3628	2404	1265	755	565	445	371	262	234	126.5
10.80V	7031	5168	3492	2398	1229	740	554	435	363	256	233	125.7
11.10V	6902	4998	3332	2380	1214	738	547	433	362	255	226	122.1

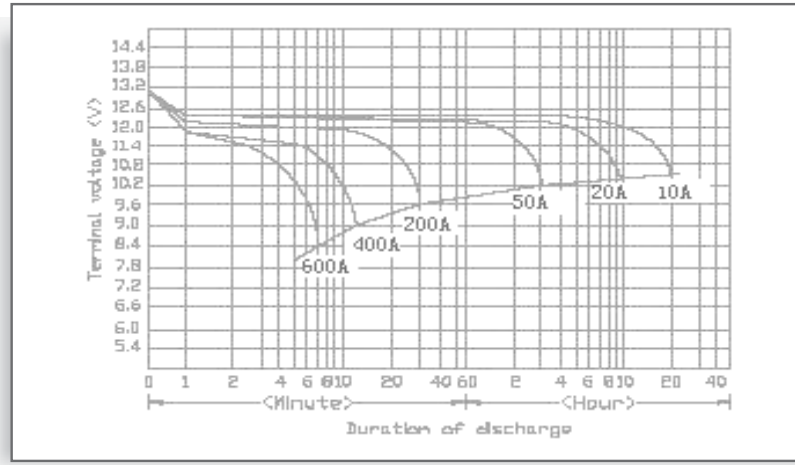


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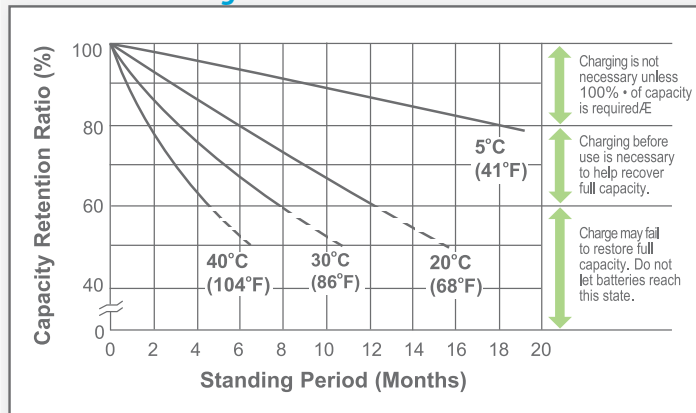
### Discharge Time vs. Discharge Current



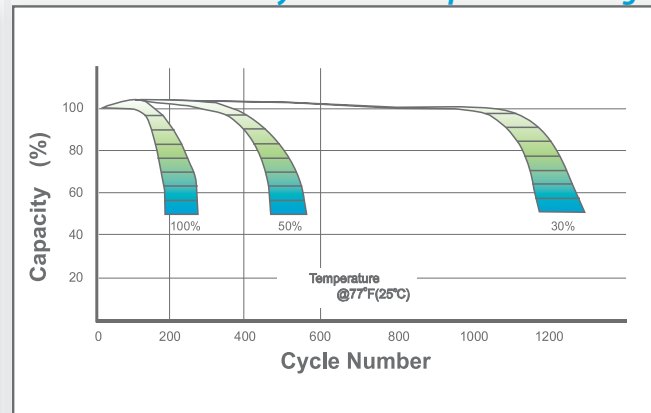
### Discharge Characteristics



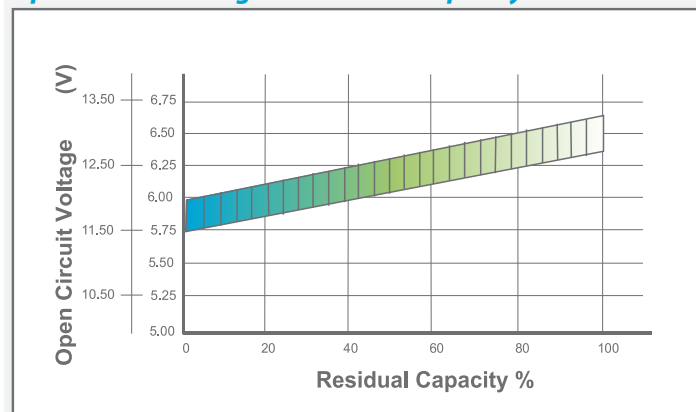
### Shelf Life & Storage



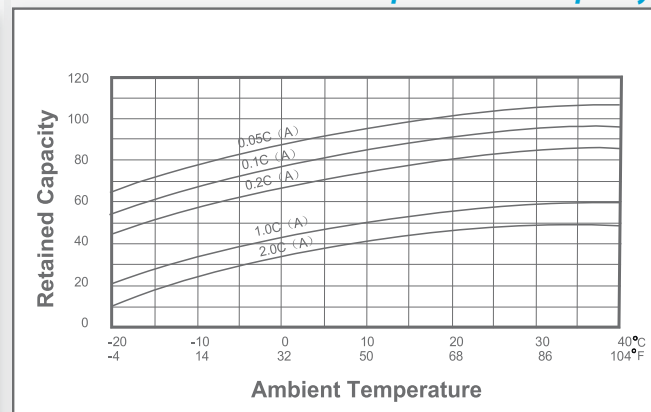
### Cycle Life vs Depth of Discharge



### 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	0.35C	Discharge	0.2C<(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C
Standby	25°C(77°F)	2.325	2.30~2.35						



ISO 9001:2000

Let UPG Power Your Life.

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