



# Sealed Lead-Acid Battery

UPG No. D5745

# UB12180

Maintenance-Free

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.

## Specification

<b>Nominal Voltage</b>	12 volts		
<b>Nominal Capacity</b>	77° F (25° C)		
20-hr. (0.90A)	18 Ah		
10-hr. (1.67A)	16.74 Ah		
5-hr. (3.06A)	15.30 Ah		
1-hr. (10.80A)	10.80 Ah		
<b>Approximate Weight</b>	11.7 lbs (5.3 kgs)		
<b>Internal Resistance (approx.)</b>	18mΩ		
<b>Shelf Life</b> (% of normal capacity at 77° F (25° C))			
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)

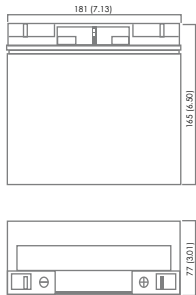
## Cycle Use (Repeating Use)

Initial Current	6.3 A or smaller
Control Voltage	14.5 - 14.9 V

## Float Use

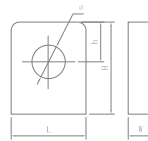
Control Voltage	13.6 - 13.8 V
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## Physical Dimensions: in (mm)



**L:** 7.13in (181.1 mm)  
**W:** 3.01in (76.5 mm)  
**H:** 6.50in (165.1 mm)  
**TH:** 6.57in (166.9 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
L3	25.5	7.0	22.0	10.5	8.5
L4	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
1.60V	48.2	31.4	24.1	14.8	8.83	5.12	3.66	2.89	2.33	1.53	1.23	0.645
1.67V	44.6	30.0	23.1	14.6	8.86	5.03	3.64	2.88	2.32	1.52	1.22	0.624
1.70V	42.9	28.2	22.7	14.5	8.57	5.00	3.63	2.87	2.31	1.51	1.21	0.615
1.75V	39.9	28.0	22.0	14.3	8.45	4.92	3.61	2.86	2.30	1.50	1.20	0.600
1.80V	36.9	26.7	21.3	14.0	8.30	4.82	3.60	2.84	2.28	1.49	1.18	0.585
1.85V	33.9	25.3	20.6	13.8	8.16	4.80	3.58	2.82	2.27	1.48	1.17	0.570

## 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
1.60V	48.2	31.4	24.1	14.8	8.83	5.12	3.66	2.89	2.33	1.53	1.23	0.645
1.67V	44.6	30.0	23.1	14.6	8.86	5.03	3.64	2.88	2.32	1.52	1.22	0.624
1.70V	42.9	28.2	22.7	14.5	8.57	5.00	3.63	2.87	2.31	1.51	1.21	0.615
1.75V	39.9	28.0	22.0	14.3	8.45	4.92	3.61	2.86	2.30	1.50	1.20	0.600
1.80V	36.9	26.7	21.3	14.0	8.30	4.82	3.60	2.84	2.28	1.49	1.18	0.585
1.85V	33.9	25.3	20.6	13.8	8.16	4.80	3.58	2.82	2.27	1.48	1.17	0.570

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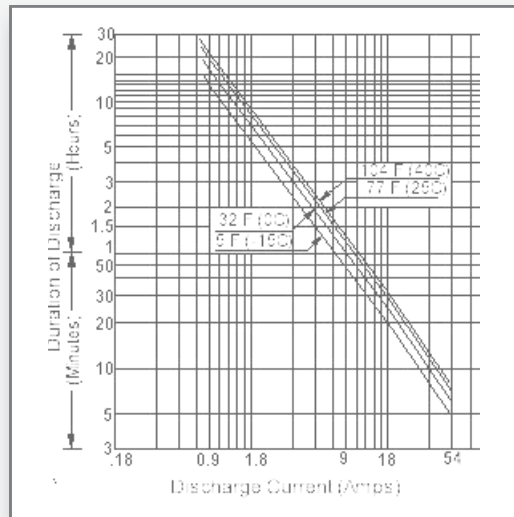
ISO 9001:2008

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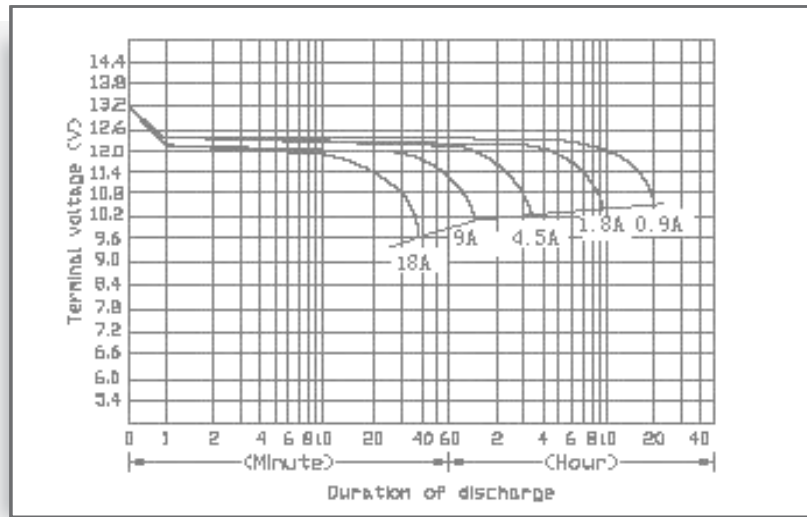
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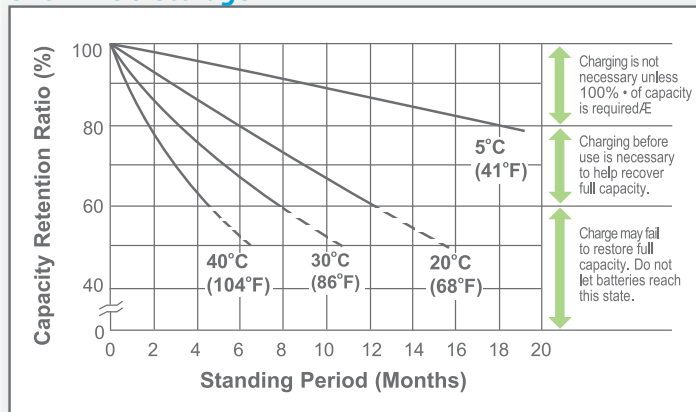
## Discharge Time vs. Discharge Current



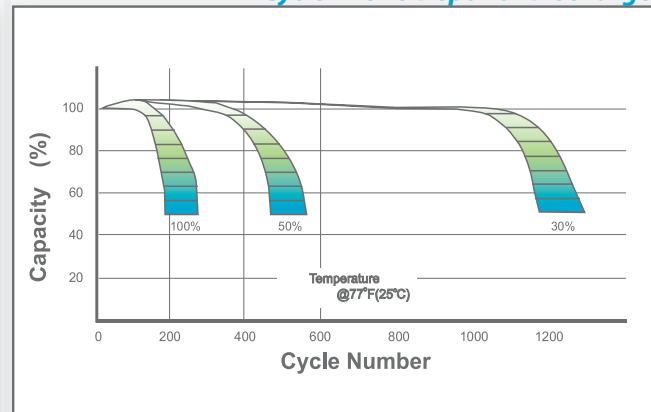
## Discharge Characteristics



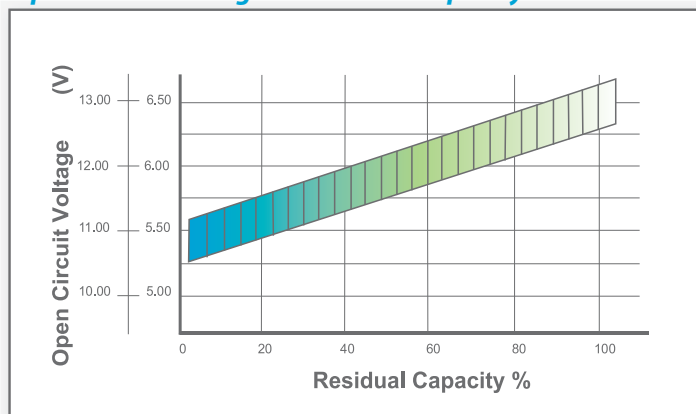
## Shelf Life & Storage



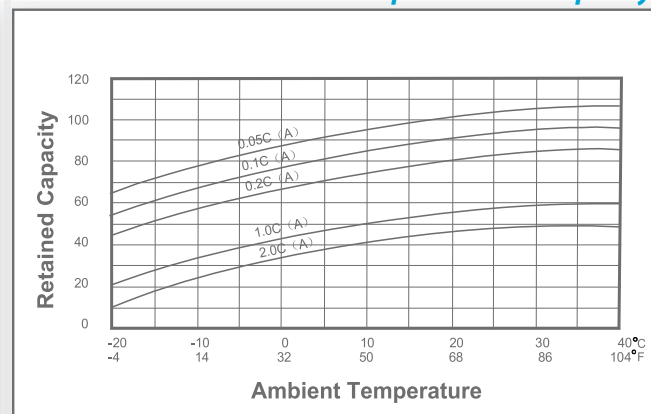
## Cycle Life vs. Depth of Discharge



## 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	0.35C	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		Current(A)				



ISO 9001 :2008

Let UPG Power Your Life.

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