



# Sealed Lead-Acid Battery

UPG No. D5722

# UB12350

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. (1.75A)  | 35.00 Ah            |           |      |
| 10-hr. (3.26A)  | 32.55 Ah            |           |      |
| 5-hr. (5.95A)   | 29.75 Ah            |           |      |
| 1-hr. (21.00A)  | 21.00 Ah            |           |      |
| <b>Approximate Weight</b>                                 | 23.2 lbs (10.5 kgs) |           |      |
| <b>Internal Resistance (approx.)</b>                      | 10mΩ                |           |      |
| <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)

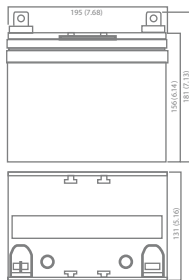
## Cycle Use (Repeating Use)

|                 |                    |
|-----------------|--------------------|
| Initial Current | 12.25 A or smaller |
| Control Voltage | 14.5 - 14.9 V      |

## Float Use

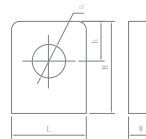
|                 |               |
|-----------------|---------------|
| Control Voltage | 13.6 - 13.8 V |
|-----------------|---------------|

## Physical Dimensions: in (mm)



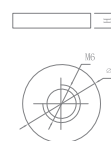
**L:** 7.68 in (195.1 mm)  
**W:** 5.16 in (131.1 mm)  
**H:** 6.14 in (156.0 mm)  
**TH:** 7.13 in (181.1 mm)  
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

## Terminals



### L Series (L Type Terminal)

| Dimension Type | L    | W   | H    | h   | ∅   |
|----------------|------|-----|------|-----|-----|
| L1             | 17.5 | 7.0 | 17.0 | 7.0 | 8.5 |



### I Series (Internal Thread Terminal)

| Dimension Type | ∅  | H |
|----------------|----|---|
| I2             | 15 | 3 |

## 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    | 122.0 | 89.0  | 63.0  | 38.0  | 19.8 | 12.0 | 8.5 | 6.6 | 5.4 | 3.8 | 3.5  | 1.9  |
| 10.20V   | 108.0 | 81.0  | 56.0  | 36.0  | 18.6 | 11.0 | 8.3 | 6.4 | 5.3 | 3.8 | 3.4  | 1.8  |
| 10.50V   | 104.0 | 77.0  | 53.0  | 35.0  | 18.0 | 10.8 | 8.1 | 6.3 | 5.3 | 3.7 | 3.3  | 1.8  |
| 10.80V   | 100.0 | 73.0  | 50.0  | 34.0  | 17.0 | 10.5 | 7.9 | 6.2 | 5.1 | 3.6 | 3.3  | 1.8  |
| 11.10V   | 96.0  | 69.0  | 46.0  | 33.0  | 17.0 | 10.2 | 7.6 | 6.0 | 5.0 | 3.5 | 3.1  | 1.7  |

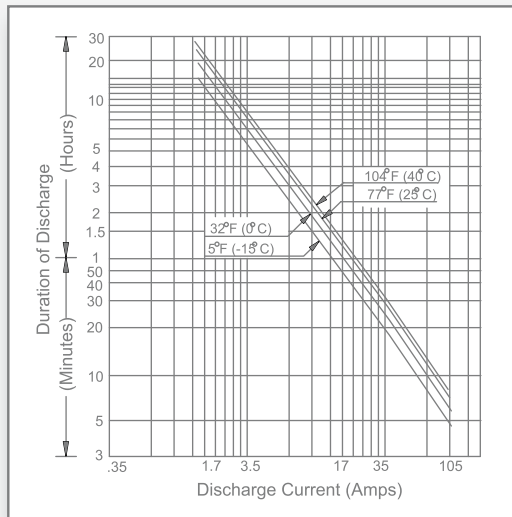
## Constant Power Discharge Characteristics Unit:W (25°C, 77°F)

| F.V/Time | 5MIN   | 10MIN | 15MIN | 30MIN | 1HR   | 2HR   | 3HR  | 4HR  | 5HR  | 8HR  | 10HR | 20HR |
|----------|--------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60V    | 1297.0 | 946.0 | 666.0 | 403.0 | 229.0 | 134.0 | 98.0 | 76.0 | 63.0 | 44.0 | 40.0 | 21.7 |
| 10.20V   | 1194.0 | 901.0 | 623.0 | 399.0 | 216.0 | 128.0 | 96.0 | 75.0 | 62.0 | 43.0 | 39.0 | 21.1 |
| 10.50V   | 1175.0 | 876.0 | 599.0 | 397.0 | 209.0 | 125.0 | 93.0 | 73.0 | 61.0 | 43.0 | 39.0 | 20.9 |
| 10.80V   | 1160.0 | 853.0 | 576.0 | 396.0 | 203.0 | 122.0 | 91.0 | 72.0 | 60.0 | 42.0 | 38.0 | 20.7 |
| 11.10V   | 1139.0 | 825.0 | 550.0 | 393.0 | 200.0 | 122.0 | 90.0 | 71.0 | 60.0 | 42.0 | 37.0 | 20.1 |

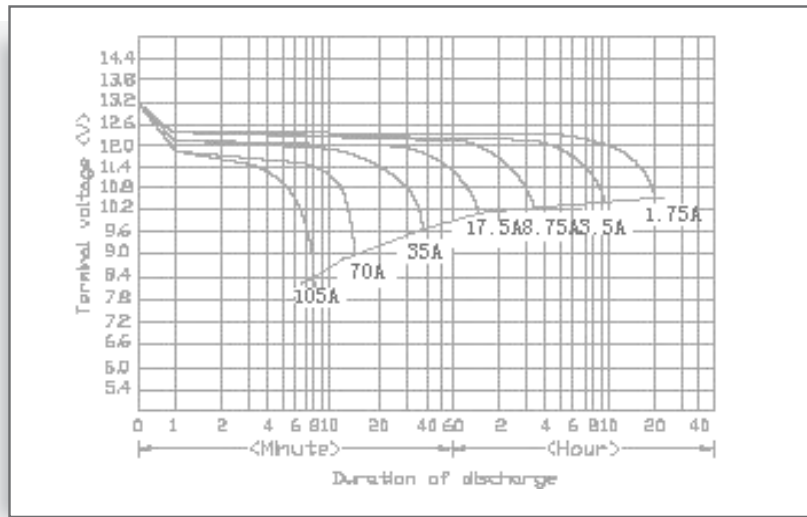
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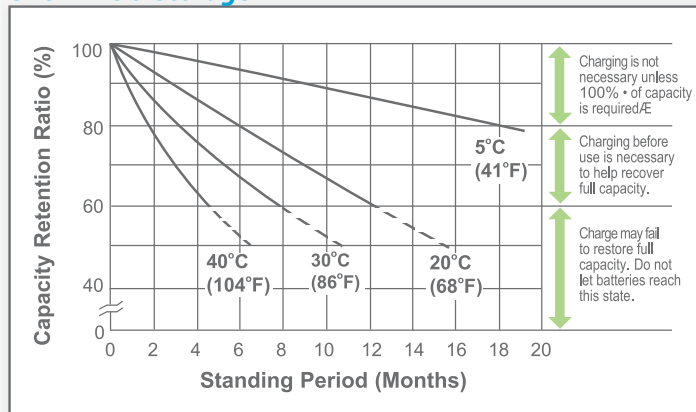
## Discharge Time vs. Discharge Current



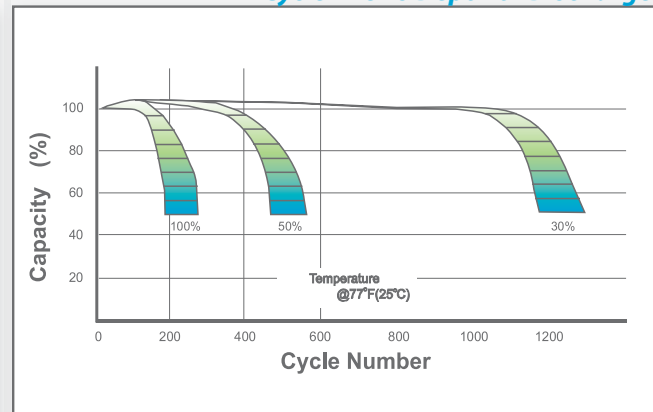
## Discharge Characteristics



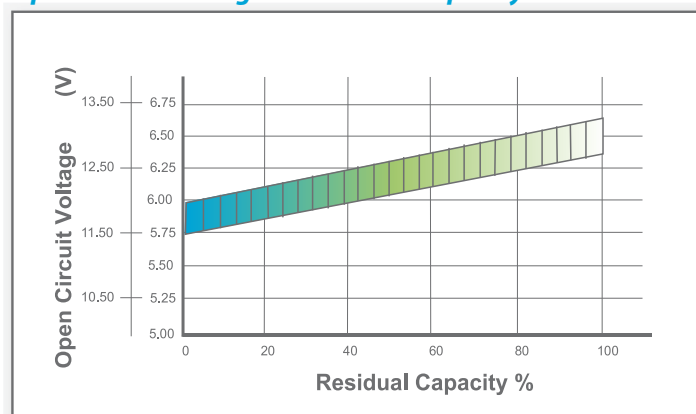
## Shelf Life & Storage



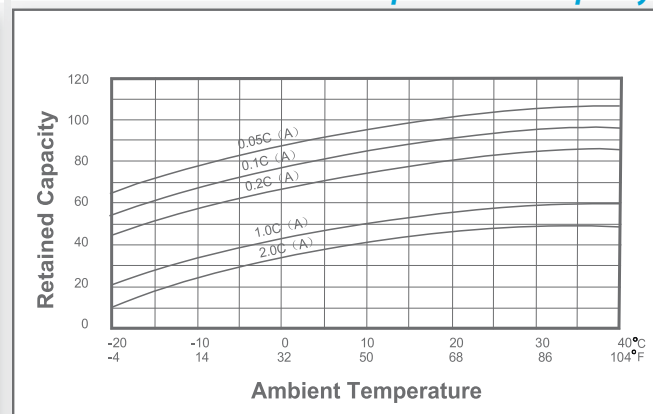
## Cycle Life vs Depth of Discharge



## 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       |                    |                                |          |               |               |          |



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