UPG STAY POWERED

# Sealed Lead-Acid Battery

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. r ecognized under file number MH 20567.

UPG No. D5751

# UB121100

Maintenance-Free

## Specification

| | |
|---|---|
| **Nominal Voltage** | 12 volts |
| **Nominal Capacity** | 77° F (25° C) |
| 20-hr. (5.50A) | 110 Ah |
| 10-hr. (10.23A) | 102.3 Ah |
| 5-hr. (18.70A) | 93.5 Ah |
| 1-hr. (66.00A) | 66 Ah |
| **Approximate Weight** | 62.7 lbs (28.44 kgs) |
| **Internal Resistance** (approx.) | 5mΩ |

**Shelf Life** (% of normal capacity at 77° F (25° C))

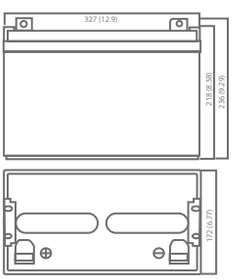
| 3 Months | 6 Months | 12 Months |
|---|---|---|
| 91% | 82% | 64% |

**Temperature Dependancy of Capacity** (20 hour rate)

| 104° F | 77° F | 32° F | 5° F |
|---|---|---|---|
| 102% | 100% | 85% | 65% |

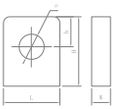
| | |
|---|---|
| **Charge Method** (Constant Voltage) | |
| **Cycle Use** (Repeating Use) | |
| Initial Current | 33 A or smaller |
| Control Voltage | 14.5 - 14.9 V |
| **Float Use** | |
| Control Voltage | 13.6 - 13.8 V |

## Physical Dimensions: in (mm)



**L:** 12.91in (328 mm)
**W:** 6.77in (172 mm)
**H:** 8.58in (218 mm)
**TH:** 9.49in (241 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)**

| Type \ Dimension | L | W | H | h | ⌀ |
|---|---|---|---|---|---|
| L3 | 25.5 | 7.0 | 22.0 | 10.5 | 8.5 |

## 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 | 361.1 | 269.3 | 189.5 | 114.7 | 59.9 | 34.9 | 25.6 | 20.0 | 16.5 | 11.6 | 10.5 | 5.7 |
| 10.20V | 325.2 | 245.4 | 169.6 | 108.7 | 56.3 | 33.3 | 24.9 | 19.5 | 16.2 | 11.4 | 10.2 | 5.5 |
| 10.50V | 313.2 | 233.4 | 159.6 | 105.7 | 54.9 | 32.5 | 24.3 | 19.2 | 16.0 | 11.3 | 10.0 | 5.5 |
| 10.80V | 301.2 | 221.4 | 149.6 | 102.7 | 52.9 | 31.7 | 23.7 | 18.9 | 15.6 | 11.0 | 10.0 | 5.4 |
| 11.10V | 289.3 | 209.5 | 139.7 | 99.8 | 50.9 | 30.9 | 22.9 | 18.3 | 15.2 | 10.7 | 9.5 | 5.1 |

## 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 | 3919.2 | 2959.6 | 2013.0 | 1217.9 | 693.3 | 404.0 | 297.3 | 231.4 | 190.5 | 134.7 | 121.7 | 65.5 |
| 10.20V | 3610.0 | 2724.2 | 1882.3 | 1207.0 | 651.4 | 386.0 | 289.3 | 225.4 | 149.7 | 131.7 | 118.7 | 63.8 |
| 10.50V | 3552.1 | 2647.4 | 1809.5 | 1199.0 | 630.4 | 377.1 | 282.3 | 221.4 | 184.5 | 130.7 | 116.7 | 63.0 |
| 10.80V | 3506.2 | 2577.5 | 1741.6 | 1196.0 | 613.5 | 369.1 | 276.3 | 217.5 | 181.5 | 127.7 | 115.7 | 62.7 |
| 11.10V | 3442.4 | 2492.8 | 1661.8 | 1187.0 | 605.5 | 368.1 | 273.3 | 216.5 | 180.5 | 126.7 | 112.7 | 60.8 |

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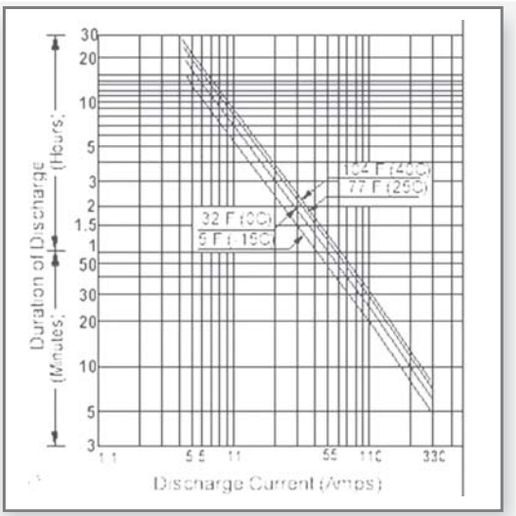
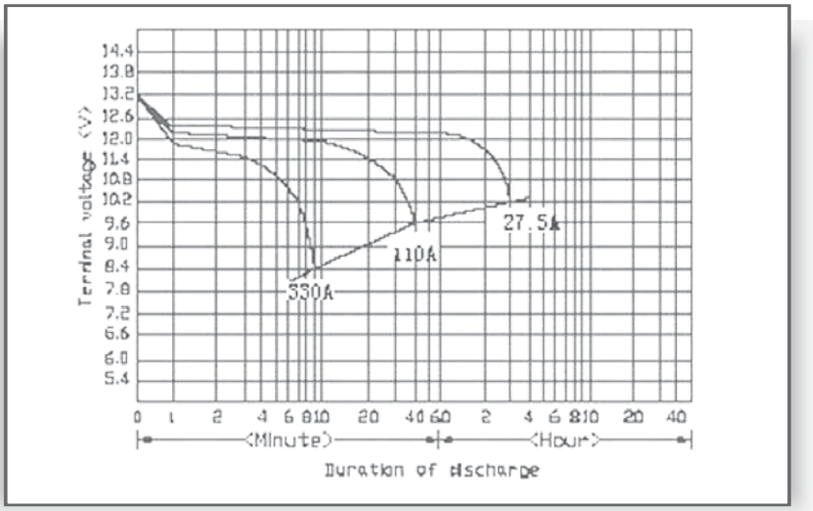
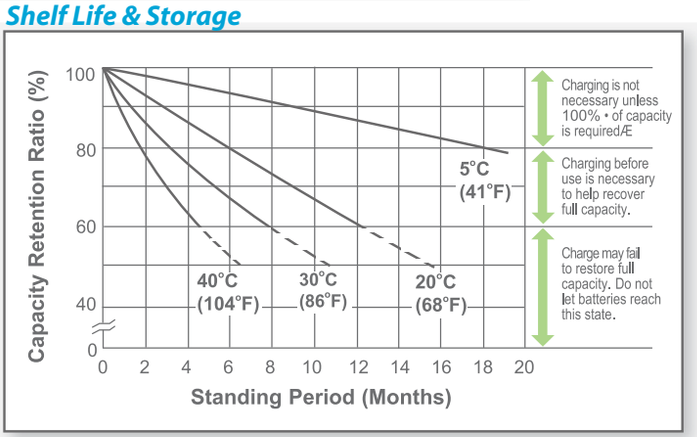
## Discharge Time vs. Discharge Current



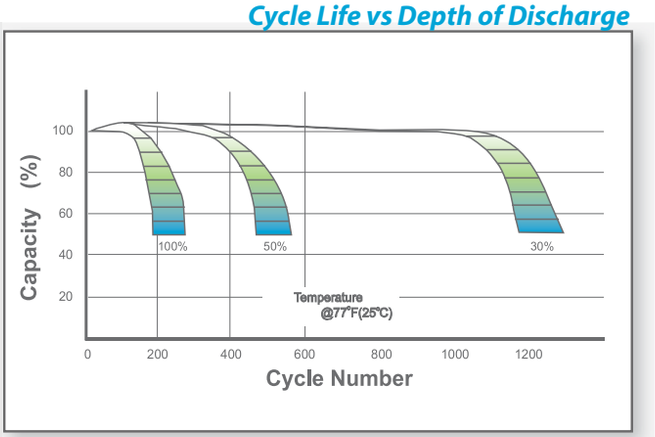

## Discharge Characteristics



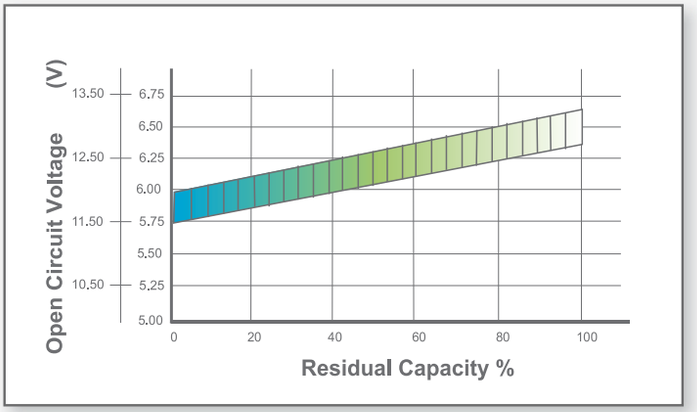

## Shelf Life & Storage



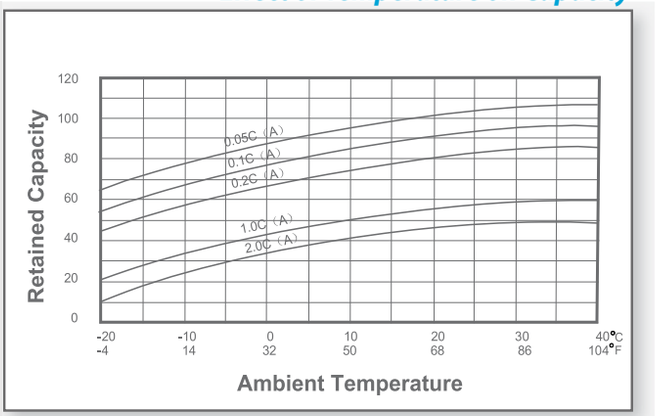

## Cycle Life vs Depth of Discharge




## Open Circuit Voltage vs Residual Capacity




## Effect of Temperature on Capacity




## Charge Current & Final Discharge Voltage

| Application | Charge Voltage(V/Cell) | | | Max.Charge Current |
|---|---|---|---|---|
| | Temperature | Set Point | Allowable Range | |
| Cycle Use | 25℃(77℉) | 2.45 | 2.40~2.50 | 0.30C |
| Standby | 25℃(77℉) | 2.325 | 2.30~2.35 | |

| Final Discharge Voltage V/Cell | 1.75 | 1.70 | 1.60 | 1.30 |
|---|---|---|---|---|
| Discharge Current(A) | 0.2C>(A) | 0.2C<(A)<0.5C | 0.5C<(A)<1.0C | (A)>1.0C |