# 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.

**AGM-12V-8AH-F2**

Maintenance-Free



## Specification

| | |
|---|---|
| **Nominal Voltage** | 12 volts |
| **Nominal Capacity** | 77° F (25° C) |
| 20-hr. (0.90A) | 8.0 Ah |
| 10-hr. (1.67A) | 7.44 Ah |
| 5-hr. (3.06A) | 6.80 Ah |
| 1-hr. (10.80A) | 4.8 Ah |
| **Approximate Weight** | 4.81 lbs (2.18 kgs) |
| **Internal Resistance** (approx.) | 23mΩ |

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

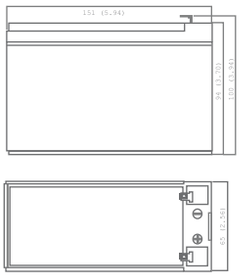
| 3 Months | 6 Months | 12 Months |
|---|---|---|
| 91% | 82% | 64% |

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

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

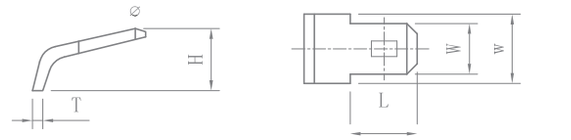
| | |
|---|---|
| **Charge Method** (Constant Voltage) | |
| **Cycle Use** (Repeating Use) | |
| Initial Current | 2.8 A or smaller |
| Control Voltage | 14.5 - 14.9 V |
| **Float Use** | |
| Control Voltage | 13.6 - 13.8 V |

## Physical Dimensions: in (mm)



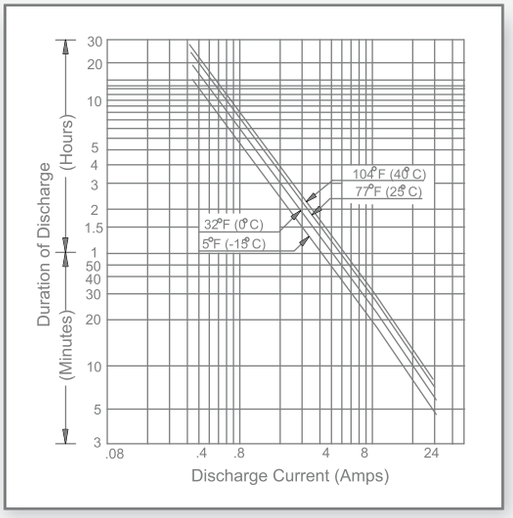
**L:** 5.94in (150.9 mm)
**W:** 2.56in (65 mm)
**H:** 3.70in (94 mm)
**TH:** 3.94in (100.1 mm)
Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

***Terminals***

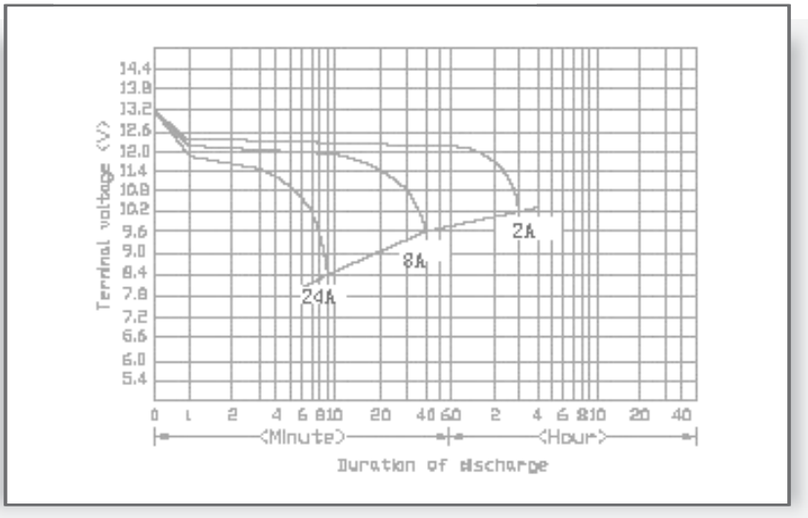



| Dimension / Type | L | W | w | H | T |
|---|---|---|---|---|---|
| F1 | 6.50 | 4.75 | 6.00 | 5.00 | 0.80 |
| F2 | 7.80 | 6.35 | 7.80 | 6.00 | 0.80 |

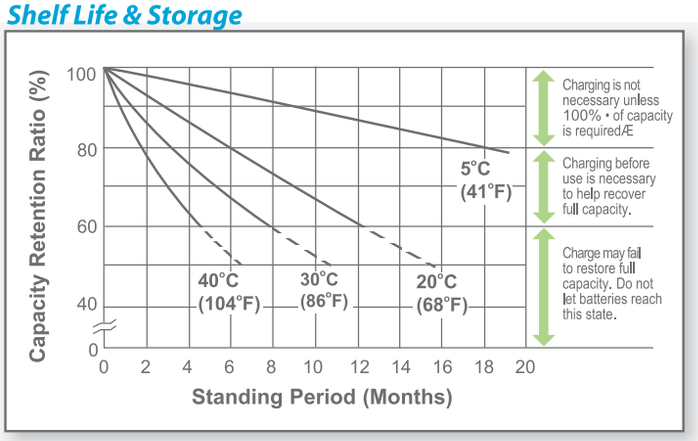
***Discharge Time vs. Discharge Current***



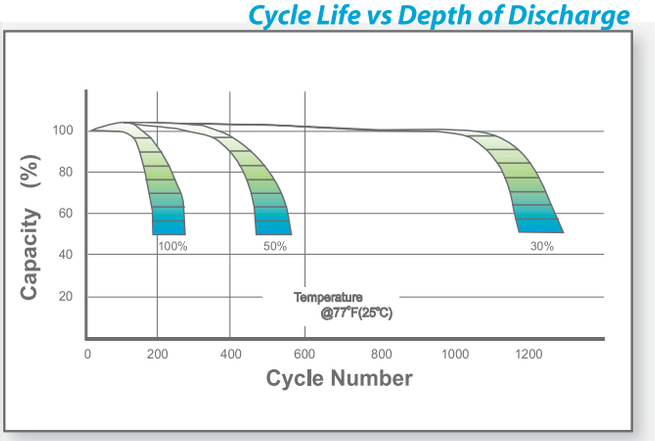

***Discharge Characteristics***



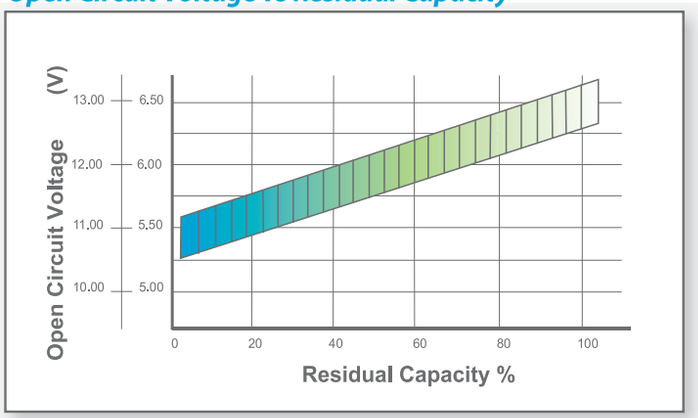
## Shelf Life & Storage



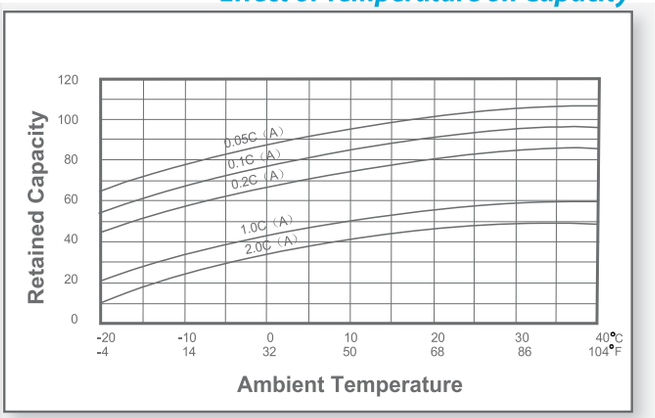

## Cycle Life vs Depth of Discharge




## 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 | 0.35C |
| 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 |

# Matching the Correct Charger to Your Lead-Acid Battery

A standard overnight recharge is normally recommended for typical lead-acid batteries. This is based on a C/10 charge rate. (C=Ah capacity of your battery)

For Example:

If you have a 12 Volt, 25 Ah battery then your charging rate is 2.5 Amps (C/10 = 25/10 = 2.5)

If a faster recharge time is required, the following formulas can be used to determine either the correct charge rate or the time required to recharge your battery to 90% of capacity.

$$\text{Recharge Time} = \frac{\text{AH} \times 1.2}{\text{I max}} \quad \text{(Add 3 hours for 100\%)}$$

The Ah rating of the battery x 1.2 equals the amperes required to recharge, divided by the charging circuit, equals the amount of time (in hours) required to recharge the battery to 90%. These times are based on a fully discharged battery. For 100% recharging, add 3 hours "float" time to the charging time. If the battery is only partially discharged, the recharge time will be shorter.

Since the recommended voltage setting for each battery type varies, we follow the manufacturer's specifications to determine the correct voltage setting for each charger. This will help to insure maximum battery life and will provide the most efficient recharging possible.

**Larson Electronics, LLC**
**9419 US-HWY 175**
**Kemp, TX 75143**
**sales@larsonelectronics.com**
**800-369-6671**
**903-498-3363**