

# Sealed Lead Acid Durable AGM Battery

ES12-1.3



● **Applications**

- Cable Television System
- Uninterruptable Power Supply(UPS)
- Emergency Backup Power Supply
- Electronic Power System(EPS)

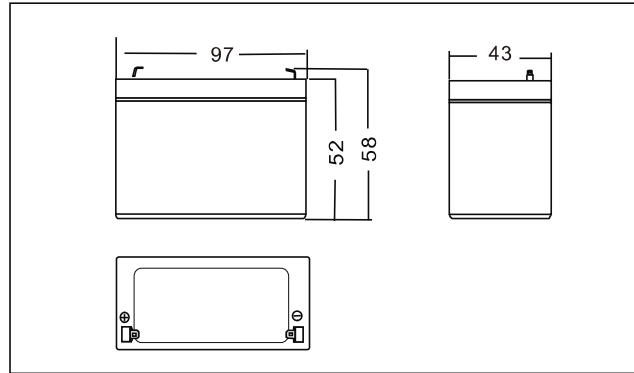
● **Specifications**

|                               |              |                   |
|-------------------------------|--------------|-------------------|
| Nominal Voltage               |              | 12V               |
| Rated Capacity (20 hour rate) |              | 1.3Ah             |
| Dimensions                    | Total Height | 58mm(2.29 inches) |
|                               | Height       | 52mm(2.05 inches) |
|                               | Length       | 97mm(3.82inches)  |
|                               | Width        | 43mm(1.69 inches) |
| Weight Approx                 |              | 0.56kg(1.23 lbs)  |

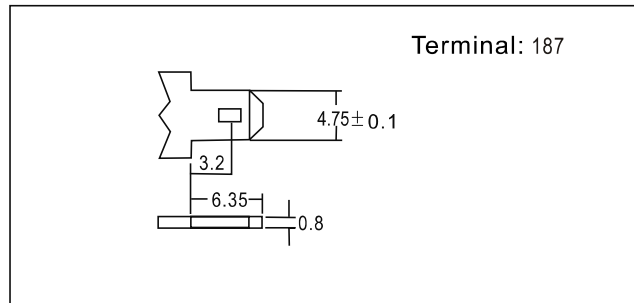
● **Characteristics**

|  |                                    |   |
|--|------------------------------------|---|
| Capacity<br>25°C(77°F)                               | 20 hour rate(0.065A)               | 1.30 AH   |
|  | 10 hour rate(0.123A)               | 1.23AH  |
|  | 5 hour rate(0.24A)                 | 1.20AH  |
|  | 1hour rate(0.90A)                  | 0.90 AH   |
| Internal Resistance                                  | Full charged Battery at 25°C(77°F) | 90m Ω   |
| Capacity affected<br>by Temperature<br>(20hour rate) | 40°C(104°F)                        | 102%  |
|  | 25°C(77°F)                         | 100%  |
|  | 0°C(32°F)                          | 85%   |
|  | -15°C(5°F)                         | 65%   |
| Self-Discharge at<br>25°C(77°F)                      | Capacity after 3 month storage     | 91%   |
|  | Capacity after 6 month storage     | 82%   |
|  | Capacity after 12 month storage    | 64%   |
| Charge<br>(constant<br>voltage)                      | Cycle                              | Initial Charging Current Less than 0.39 A<br>Voltage 14.50-14.90V |
|  | Float                              | Voltage 13.50-13.80V  |

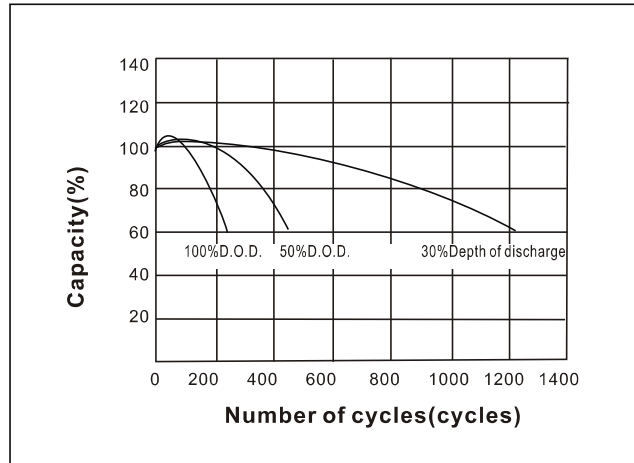
● **Outer Dimensions (mm)**



● **Terminal Type (mm)**



● **Cycle Life on D.O.D(25°C)**



**Constant Current(AMP) and Constant Power(Watt) Discharge Table at 25°C(77°F)**

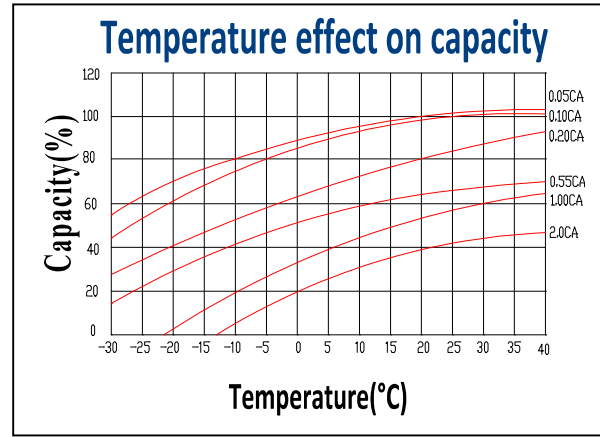
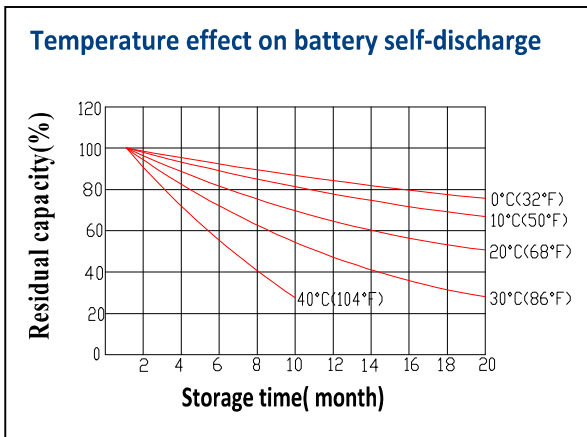
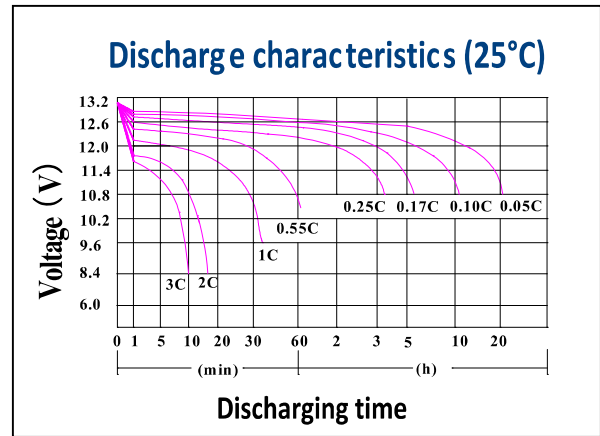
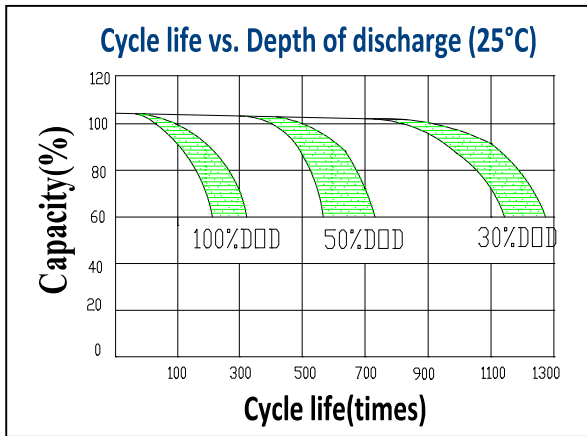
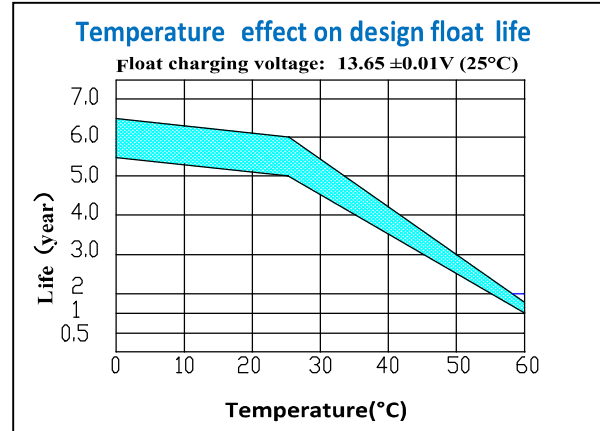
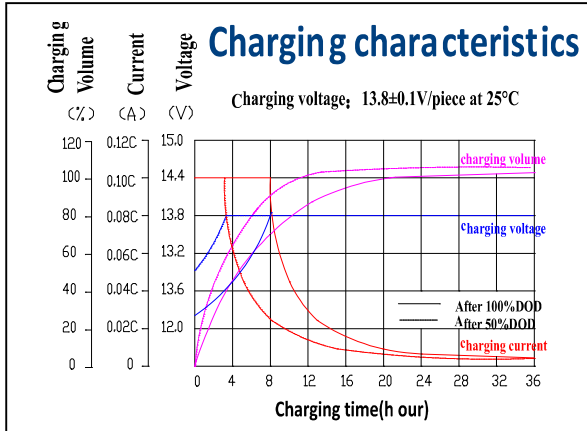
| Time  | 5min | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h    | 5h    | 10h   | 20h   |       |
|-------|------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|
| 9.60V | A    | 5.32  | 3.36  | 2.66  | 1.48  | 0.91 | 0.50 | 0.347 | 0.276 | 0.241 | 0.123 | 0.068 |
|       | W    | 59.4  | 37.9  | 30.3  | 17.0  | 10.5 | 5.82 | 4.14  | 3.32  | 2.80  | 1.49  | 0.81  |
| 9.90V | A    | 5.16  | 3.26  | 2.60  | 1.45  | 0.90 | 0.49 | 0.345 | 0.274 | 0.241 | 0.123 | 0.068 |
|       | W    | 57.6  | 36.8  | 29.6  | 16.7  | 10.4 | 5.78 | 4.12  | 3.28  | 2.78  | 1.48  | 0.81  |
| 10.2V | A    | 4.95  | 3.12  | 2.50  | 1.41  | 0.87 | 0.49 | 0.342 | 0.272 | 0.239 | 0.121 | 0.066 |
|       | W    | 55.2  | 35.2  | 28.5  | 16.2  | 10.1 | 5.73 | 4.09  | 3.26  | 2.76  | 1.47  | 0.80  |
| 10.5V | A    | 4.73  | 2.99  | 2.42  | 1.38  | 0.86 | 0.48 | 0.340 | 0.270 | 0.237 | 0.120 | 0.066 |
|       | W    | 52.8  | 33.7  | 27.5  | 15.8  | 9.90 | 5.65 | 4.06  | 3.23  | 2.74  | 1.46  | 0.79  |
| 10.8V | A    | 4.47  | 2.82  | 2.29  | 1.33  | 0.83 | 0.47 | 0.331 | 0.262 | 0.230 | 0.118 | 0.065 |
|       | W    | 49.9  | 31.8  | 26.1  | 15.2  | 9.65 | 5.50 | 3.95  | 3.13  | 2.66  | 1.43  | 0.73  |

**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **Eco Shield** for the latest information.

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**Performance Characteristics**



**Battery Construction**

| Component | Positive plate                               | Negative plate  | Container & Cover | Safety valve                         | Terminal | Separator  | Electrolyte                      | Pillar seal                 |
|-----------|--|---|-------------------|--------------------------------------|----------|--|----------------------------------|-----------------------------|
| Features  | Thick high Sn low Ca grid with special paste | Balanced Pb-Ca grid for improved recombination efficiency | ABS (UL94-V0)     | Flame Si-Rubber and aging resistance | F1/F2    | Advanced AGM separator for high pressure cell design | Dilute high purity sulfuric acid | Two layers epoxy resin seal |