# VRLA Battery CBAT12AH 12V12AH

## MS Series SLA Battery

### MHB MS Series--Small-size batteries

- 100% before shipment testing, stable and reliable long-term quality
- patented grid alloy formula and updated manufacturing technique
- completely sealed and maintenance-free, low self-discharge
- Excellent charging and re-charging acceptance
- Cycle use: More than 260 cycles at 100% DOD
- Floating & standby use: 3-5 years



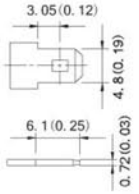

### Application:

- Alarm System
- Cable Television
- Communication Equipment
- Emergency Power System
- Security System
- Medical Equipment
- UPS
- Power tools
- Control Equipment
- Toys

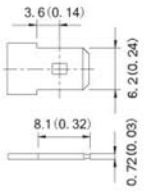
ISO14001 ISO9001 TB09075935 MH 47104

### Construction:

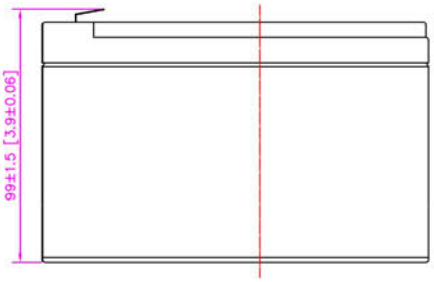
- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....ABS
- Cover .....ABS
- Sealant .....Epoxy
- Safety valve .... Rubber
- Terminal .....Copper
- Separator .....Fiber glass
- Electrolyte .....Sulfuric acid

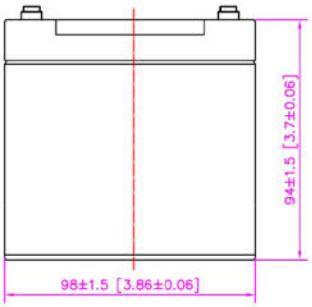


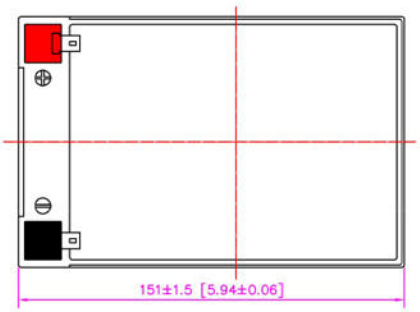

F1 Terminal




F2 Terminal




### Speification:

| Battery Model | 12V12AH | | | |
|---|---|---|---|---|
| Designed Floating Life | 3～5 Years | | | |
| Capacity (25℃) | 20HR(0.60A,10.5V) | 10HR(1.155A,10.5V) | 5HR(2.16A,10.5V) | 1HR(7.23A,10.5V) |
| | 12.00AH | 11.55AH | 10.80AH | 7.23AH |
| Dimensions | Length | Width | Height | Total Height |
| | 151mm (5.94inch) | 98mm (3.86inch) | 94mm (3.70inch) | 98mm (3.86inch) |
| Approx. Weight | 3.70Kg (8.16 lbs) ±5% | | | |
| Internal Resistance | Full charged at 25℃ : ≤16. 0mΩ | | | |
| Self Discharge | 3% of capacity declined per month at (25℃) | | | |
| Capacity Affected by Temp.(20HR) | 40℃ | 25℃ | 0℃ | -15℃ |
| | 102% | 100% | 85% | 65% |
| Charge Voltage(25oC) | Cycle use | | Float use | |
| | 14.4-15.0V(-30mV/℃), max. Current: 3.60A | | 13.6-13.8V (-20mV/℃) | |

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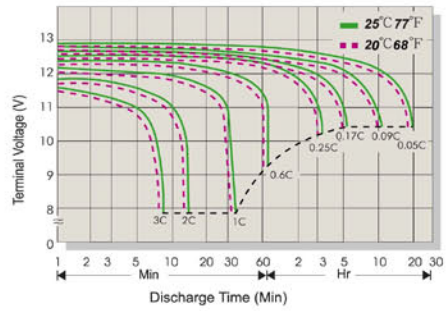
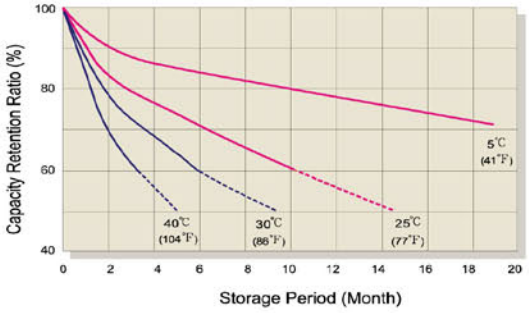
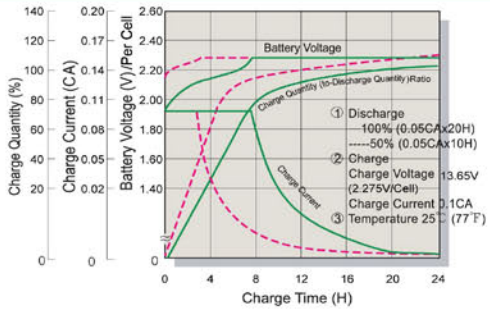
## Terminal Voltage (V) and Discharge Time



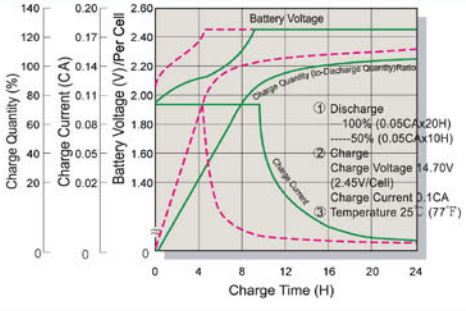

## Capacity Retention Characteristic



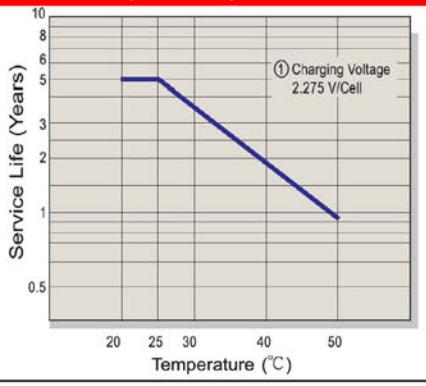

## Battery Vlotage and Charge Time for Standby Use



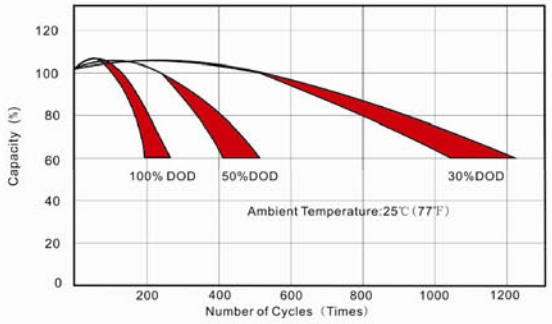

## Battery Vlotage and Charge Time for Cycle Use




## Tickle(or Float) Service Life




## Cycle Service Life




**Constant Current Discharge(CC,Unit:A) at 25℃(77℉)**

| F.V/Time | 5Min | 10Min | 15Min | 30Min | 1Hr | 2Hr | 3Hr | 4Hr | 5Hr | 6Hr | 10Hr | 20Hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/Cell | 37.72 | 25.60 | 20.62 | 13.67 | 7.50 | 4.03 | 3.32 | 2.538 | 2.196 | 1.754 | 1.118 | 0.578 |
| 1.80V/Cell | 38.44 | 26.09 | 21.01 | 13.93 | 7.64 | 4.10 | 3.39 | 2.587 | 2.238 | 1.787 | 1.139 | 0.589 |
| 1.75V/Cell | 39.16 | 26.58 | 21.40 | 14.19 | 7.79 | 4.18 | 3.45 | 2.635 | 2.280 | 1.821 | 1.161 | 0.600 |
| 1.70V/Cell | 42.69 | 28.17 | 22.69 | 14.75 | 7.93 | 4.25 | 3.51 | 2.682 | 2.320 | 1.853 | 1.181 | 0.611 |
| 1.67V/Cell | 46.99 | 30.57 | 24.62 | 15.58 | 8.01 | 4.30 | 3.55 | 2.711 | 2.345 | 1.872 | 1.194 | 0.617 |
| 1.60V/Cell | 50.91 | 32.16 | 25.90 | 16.25 | 8.10 | 4.34 | 3.59 | 2.740 | 2.370 | 1.893 | 1.206 | 0.624 |

**Constant Power Discharge (CP,Unit:W) at 25℃(77℉)**

| F.V/Time | 5Min | 10Min | 15Min | 30Min | 1Hr | 2Hr | 3Hr | 4Hr | 5Hr | 6Hr | 10Hr | 20Hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/Cell | 73.55 | 49.92 | 40.20 | 26.65 | 14.63 | 7.85 | 6.48 | 4.95 | 4.28 | 3.42 | 2.18 | 1.13 |
| 1.80V/Cell | 74.96 | 50.88 | 40.97 | 27.16 | 14.91 | 8.00 | 6.60 | 5.04 | 4.36 | 3.48 | 2.22 | 1.15 |
| 1.75V/Cell | 76.36 | 51.83 | 41.74 | 27.67 | 15.19 | 8.15 | 6.73 | 5.14 | 4.45 | 3.55 | 2.26 | 1.17 |
| 1.70V/Cell | 83.24 | 54.94 | 44.24 | 28.77 | 15.45 | 8.29 | 6.84 | 5.23 | 4.52 | 3.61 | 2.30 | 1.19 |
| 1.67V/Cell | 91.64 | 59.61 | 48.00 | 30.38 | 15.62 | 8.38 | 6.92 | 5.29 | 4.57 | 3.65 | 2.33 | 1.20 |
| 1.60V/Cell | 99.27 | 62.72 | 50.50 | 31.68 | 15.79 | 8.47 | 6.99 | 5.34 | 4.62 | 3.69 | 2.35 | 1.22 |