

#### MHB MM Series—Medium-size Battery

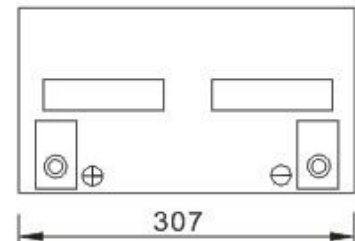
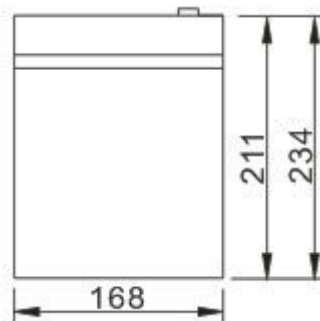
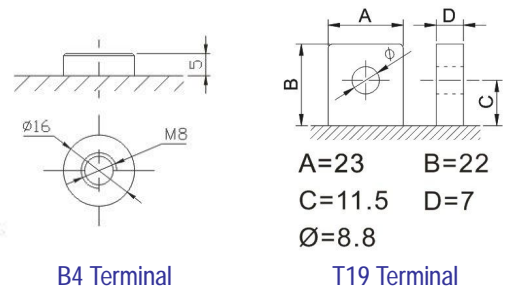
- High performance, completely maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula and updated manufacturing technique
- Floating & standby use: up to 8 years
- Cycle use 1: Up to 260 cycles at 100% DOD
- Cycle use 2: Up to 500 cycles at 50% DOD

#### Application:

- Telecommunications
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

#### Construction:

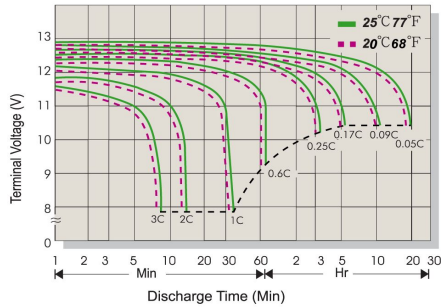
- Component .....Raw material
- Positive .....Lead dioxide
- Negative .....Lead
- Container .....ABS
- Cover .....ABS
- Sealant .....Epoxy
- Safety valve .... Rubber
- Terminal .....Copper/Pb
- Separator .....Fiber glass
- Electrolyte ..... Sulfuric acid



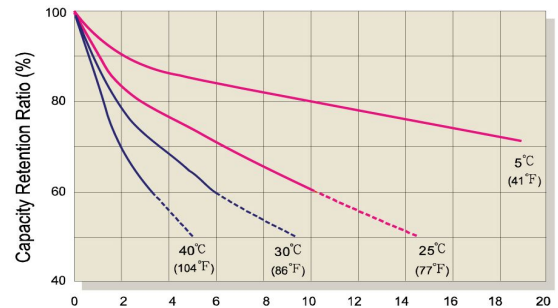
#### Specification:

|                                  |   |                   |                       |                  |
|----------------------------------|---|-------------------|-----------------------|------------------|
| Battery Model                    | MM 100-12 12V100AH                          |                   |                       |                  |
| Designed Floating Life           | Up to 10 Years                              |                   |                       |                  |
| Capacity (25°C)                  | 20HR(5.0A,10.5V)                            | 10HR(9.30A,10.5V) | 5HR(16.0A,10.5V)      | 1HR(56.0A,10.5V) |
|                                  | 100.0AH                                     | 93.0AH            | 80.0AH                | 56.0AH           |
| Dimensions                       | Length                                      | Width             | Height                | Total Height     |
|                                  | 330mm (12.99inch)                           | 173mm (6.81inch)  | 215mm (8.46inch)      | 220mm (8.66inch) |
| Approx. Weight                   | 28.60Kg (63.06 lbs)                         |                   |                       |                  |
| Internal Resistance              | Full charged at 25°C: ≤6.5mΩ                |                   |                       |                  |
| Self Discharge                   | 2% of capacity declined per month at (25°C) |                   |                       |                  |
| Capacity Affected by Temp.(20HR) | 40°C  | 25°C              | 0°C                   | -15°C            |
|                                  | 102%  | 100%              | 85%                   | 65%              |
| Charge Voltage(25°C)             | Cycle use                                   |                   | Float use             |                  |
|                                  | 14.4-14.6V(-30mV/°C), max. Current:30A      |                   | 13.6-13.8V (-20mV/°C) |                  |

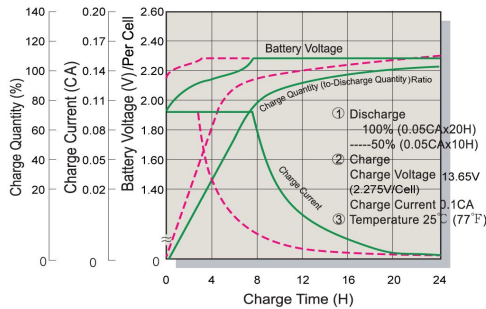
### Terminal Voltage (V) and Discharge Time



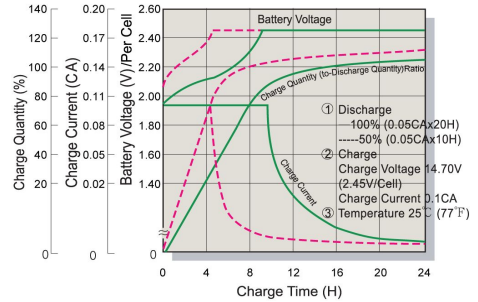
### Capacity Retention Characteristic



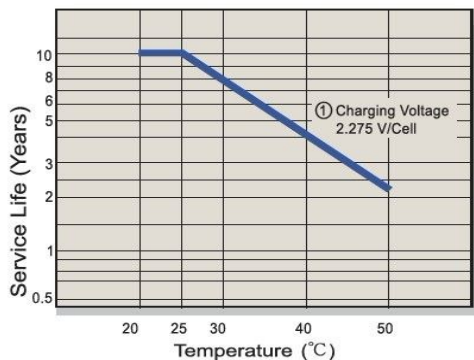
### Battery Voltage and Charge Time for Standby Use



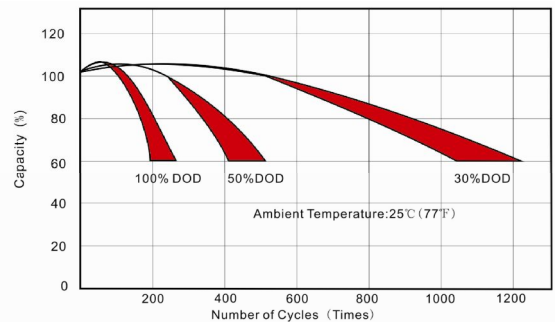
### Battery Voltage and Charge Time for Cycle Use



### Tickle(or Float) Service Life



### Cycle Service Life



### Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

| F.V/Time   | 5Min  | 10Min | 15Min | 30Min | 1Hr  | 2Hr  | 3Hr  | 4Hr   | 5Hr   | 6Hr   | 10Hr  | 20Hr |
|------------|-------|-------|-------|-------|------|------|------|-------|-------|-------|-------|------|
| 1.85V/Cell | 226.0 | 166.4 | 144.5 | 87.2  | 51.4 | 30.2 | 22.6 | 19.01 | 15.65 | 14.40 | 9.60  | 4.90 |
| 1.80V/Cell | 234.6 | 172.8 | 150.0 | 90.5  | 53.5 | 31.5 | 23.5 | 19.80 | 16.30 | 15.00 | 10.00 | 5.00 |
| 1.75V/Cell | 258.1 | 181.4 | 157.5 | 94.1  | 55.6 | 32.4 | 24.2 | 20.00 | 16.46 | 15.15 | 10.10 | 5.05 |
| 1.70V/Cell | 288.6 | 190.1 | 165.0 | 98.6  | 56.7 | 33.1 | 24.7 | 20.20 | 16.63 | 15.30 | 10.20 | 5.10 |
| 1.67V/Cell | 319.1 | 198.7 | 172.5 | 101.4 | 58.9 | 34.0 | 25.4 | 20.39 | 16.79 | 15.45 | 10.30 | 5.15 |

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

| F.V/Time   | 5Min  | 10Min | 15Min | 30Min | 1Hr   | 2Hr  | 3Hr  | 4Hr   | 5Hr   | 6Hr   | 10Hr  | 20Hr |
|------------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|------|
| 1.85V/Cell | 429.3 | 316.2 | 274.5 | 165.6 | 97.6  | 57.5 | 42.9 | 36.12 | 29.73 | 27.36 | 18.24 | 9.30 |
| 1.80V/Cell | 445.7 | 328.3 | 285.0 | 172.0 | 101.7 | 59.9 | 44.7 | 37.62 | 30.97 | 28.50 | 19.00 | 9.50 |
| 1.75V/Cell | 490.3 | 344.7 | 299.3 | 178.8 | 105.7 | 61.6 | 46.0 | 38.00 | 31.28 | 28.79 | 19.19 | 9.60 |
| 1.70V/Cell | 548.3 | 361.2 | 313.5 | 187.4 | 107.7 | 62.8 | 46.9 | 38.37 | 31.59 | 29.07 | 19.38 | 9.69 |
| 1.67V/Cell | 606.2 | 377.6 | 327.8 | 192.6 | 111.8 | 64.6 | 48.2 | 38.75 | 31.90 | 29.36 | 19.57 | 9.79 |