



# MU series MU-1000



## Valve Regulated Lead Acid Battery

Maintenance-Free Sealed Lead Acid Battery.  
Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99%.

### General Design for Standby Power Applications

#### 【Design Life】

Up to 20 Years in Standby Service at 25°C  
Eurobat (20°C) : >12 YEARS VERY LONG LIFE

#### 【Operating Temperature Range】

Nominal Operating Temperature : 25°C (77°F)  
Discharge : -15°C ~ 50°C (5°F~122°F)  
Charge : -15°C ~ 40°C (5°F~104°F)  
Storage : -15°C ~ 40°C (5°F~104°F)

#### 【Float Charging Voltage】

2.21 ~ 2.25 VDC/Unit at 25°C (77°F)

#### 【Equalization Charging Voltage】

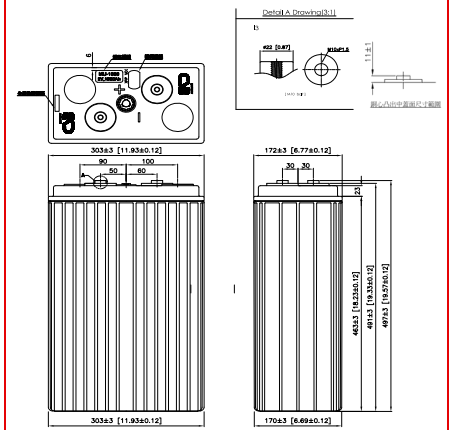
2.35 VDC/Unit at 25°C (77°F)

#### 【Self Discharge】

Less than 10% after 90 days, can be stored up to 6 months at 25°C (77°F);  
Fully recharging is required before usage, and charged sooner if stored at higher temperature than 25°C (77°F).

### Specification

|                            |  |              |                 |
|----------------------------|--|--------------|-----------------|
| Nominal Voltage            | 2V (single cell per unit)                          |              |                 |
| Nominal Capacity           | 1000 Ah @10hr-rate to 1.80V per cell @25°C (77°F)  |              |                 |
| Weight                     | Approx. 54.50 Kg (120.12 lbs)                      |              |                 |
| Maximum Discharge Current  | 3000 A (5sec)                                      |              |                 |
| Internal Resistance        | Approx. 0.29mΩ                                     |              |                 |
| Short Circuit Current      | --   |              |                 |
| Maximum Charge Current     | 300 A  |              |                 |
| Terminal types             | I3 thread copper alloy terminal to accept M10 bolt |              |                 |
| Terminal tightening torque | 249±50 Kgf·cm / 216±43 Lbf·in / 24.4±4.9 N·m       |              |                 |
| Container Material         | Flame Retardant Polypropylene (UL 94-V0)           |              |                 |
| Dimensions                 | Length (L)   | 303.0±3.0 mm | 11.93±0.12 inch |
|                            | Width (W)  | 172.0±3.0 mm | 6.77±0.12 inch  |
|                            | Depth (D)  | 497.0±3.0 mm | 19.57±0.12 inch |



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

| F.V/Time | 30MIN | 60MIN | 90MIN | 2HR | 2.5HR | 3HR | 5HR | 6HR | 8HR | 10HR | 20HR | 24HR |
|----------|-------|-------|-------|-----|-------|-----|-----|-----|-----|------|------|------|
| 1.60V    | --    | 566   | 427   | 348 | 290   | 250 | 170 | 148 | 116 | 104  | 55.5 | 46.3 |
| 1.67V    | --    | 535   | 410   | 339 | 285   | 248 | 169 | 147 | 115 | 103  | 55.1 | 45.9 |
| 1.70V    | --    | 513   | 398   | 332 | 282   | 247 | 168 | 146 | 114 | 102  | 54.8 | 45.7 |
| 1.75V    | --    | 457   | 371   | 316 | 272   | 241 | 166 | 145 | 113 | 101  | 54.0 | 45.0 |
| 1.80V    | --    | 398   | 339   | 293 | 257   | 231 | 160 | 140 | 111 | 100  | 52.6 | 43.8 |
| 1.83V    | --    | 357   | 316   | 275 | 244   | 221 | 154 | 134 | 107 | 97.3 | 51.2 | 42.6 |

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

| F.V/Time | 30MIN | 60MIN | 90MIN | 2HR | 2.5HR | 3HR | 5HR | 6HR | 8HR | 10HR | 20HR | 24HR |
|----------|-------|-------|-------|-----|-------|-----|-----|-----|-----|------|------|------|
| 1.60V    | --    | 1013  | 768   | 628 | 535   | 469 | 320 | 278 | 223 | 202  | 109  | 90.7 |
| 1.67V    | --    | 964   | 736   | 610 | 525   | 465 | 318 | 276 | 222 | 201  | 108  | 90.4 |
| 1.70V    | --    | 928   | 714   | 597 | 519   | 463 | 317 | 275 | 221 | 200  | 107  | 89.2 |
| 1.75V    | --    | 831   | 664   | 567 | 501   | 453 | 312 | 272 | 218 | 199  | 106  | 88.3 |
| 1.80V    | --    | 726   | 601   | 526 | 473   | 434 | 299 | 262 | 213 | 196  | 105  | 87.5 |
| 1.83V    | --    | 651   | 555   | 495 | 449   | 414 | 287 | 253 | 207 | 192  | 104  | 86.5 |

\*\*Preliminary spec sheet

Issued: 210422

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Recognized under UL 1989,  
and certified by ISO 9001, 14001, 45001, 50001.



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