

ML12-100 (12V100AH)

Features

Maintenance-free operation
Compact design

Stable quality and high reliability
10 years design time (at 25°C)



Application

- Telecommunication system
- Alarm and security system
- Backup power for testing and measuring instruments
- UPS
- Emergency lighting
- Fire alarm and security systems
- Auto control system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply

Specifications

| | | | |
|------------------------|-------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Nominal Voltage | 12V (6 cells) | Operating Temp.Range | Discharge: -15 - 50°C (5 - 122°F) |
| Nominal Capacity | 106AH (20hr, 1.80V/cell, 25°C/76°F) | | Charge : 0 - 40°C (32 - 104°F) |
| | 100AH (10hr, 1.80V/cell, 25°C/77°F) | Storage : -15 - 40°C (5 - 104°F) | |
| | 85AH (5hr, 1.75V/cell, 25°C/77°F) | Nominal Operating Temp.Range | 25 ± 3°C (77 ± 5°F) |
| Dimension | 60AH (1hr, 1.60V/cell, 25°C/77°F) | Cycle Use | 14.4~14.8V (25°C/77°F) Temp.Coefficient -30mV/°C |
| | Length 329±2mm | | Initial Charging Current Less than 30A |
| | Width 172±2mm | Standby Use | 13.5~13.8V (25°C/77°F) Temp.Coefficient -20mV/°C |
| | Container Height 214±2mm | | No limit on Initial Charging Current |
| Approx Weight | Total Height(with Terminal) 216±2mm | Capacity affected by Temperature | 40°C (104°F) 103% |
| Terminal | Approx 31Kg | | 25°C (77°F) 100% |
| Container Material | T5 or F7 | | 0°C (32°F) 86% |
| Max. Discharge Current | 1000A (5S) | Self Discharge | Sunstone MLGseries batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. |
| Internal Resistance | Approx 5.8mΩ | | For higher temperatures the time interval will be shorter. |

Constant Current Discharge (Amperes at 25°C/77°F)

| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 10h | 20h |
|------------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.80V/cell | \ | 176.0 | 143.5 | 89.5 | 69.2 | 56.9 | 33.6 | 25.2 | 17.3 | 10.5 | 5.52 |
| 1.75V/cell | \ | 193.3 | 155.7 | 93.2 | 73.2 | 58.7 | 34.5 | 25.8 | 17.8 | 10.7 | 5.60 |
| 1.70V/cell | \ | 206.5 | 168.1 | 96.4 | 76.4 | 60.4 | 35.5 | 26.4 | 18.1 | 10.8 | 5.65 |
| 1.65V/cell | \ | 220.2 | 177.7 | 101.6 | 81.6 | 62.8 | 36.5 | 27.2 | 18.4 | 10.9 | 5.74 |
| 1.60V/cell | \ | 235.3 | 185.8 | 106.2 | 86.2 | 64.9 | 37.5 | 27.6 | 18.8 | 11.0 | 5.79 |

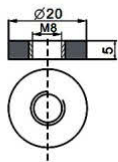
Constant Power Discharge (Watts per cell at 25°C/77°F)

| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|-------|
| 1.80V/cell | \ | 322.5 | 272.4 | 168.1 | 131.4 | 110.8 | 64.6 | 48.9 | 34.3 | 20.8 | 10.88 |
| 1.75V/cell | \ | 345.7 | 286.0 | 175.0 | 136.9 | 113.3 | 66.4 | 49.9 | 34.8 | 21.1 | 11.04 |
| 1.70V/cell | \ | 363.8 | 300.9 | 180.9 | 141.9 | 114.9 | 68.0 | 50.9 | 35.2 | 21.3 | 11.15 |
| 1.65V/cell | \ | 380.7 | 312.0 | 190.8 | 145.4 | 118.7 | 69.4 | 51.9 | 35.9 | 21.4 | 11.26 |
| 1.60V/cell | \ | 396.2 | 325.4 | 196.6 | 149.2 | 122.4 | 70.8 | 52.8 | 36.5 | 21.6 | 11.36 |

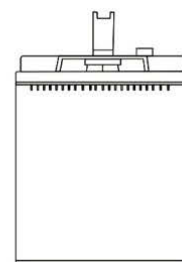
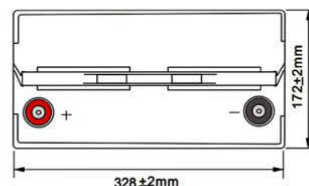
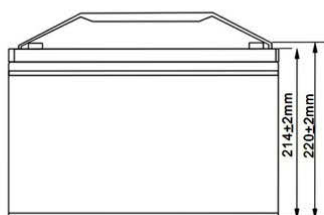
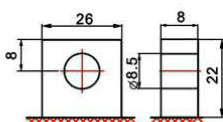
Note: The above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.

Dimensions unitimm[inches]

T5 Terminal

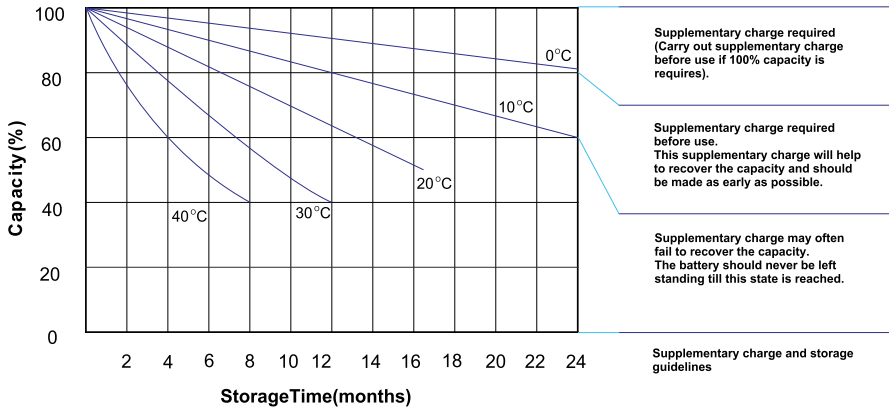


F7 Terminal

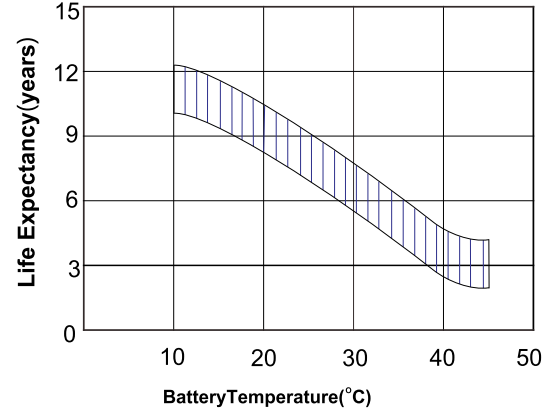


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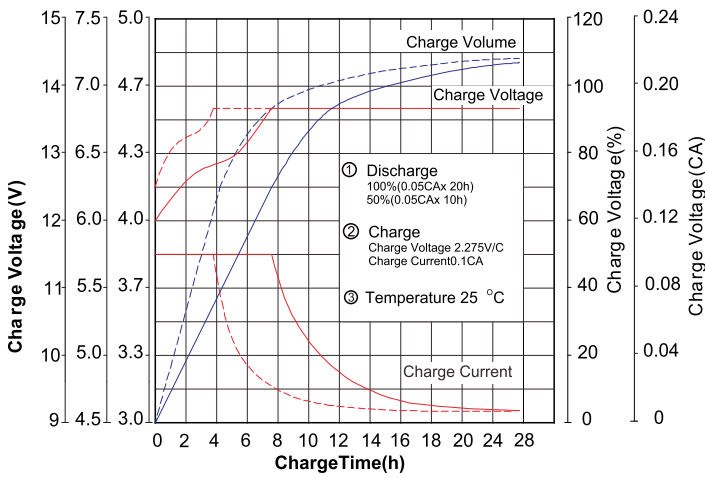
Storage characteristics



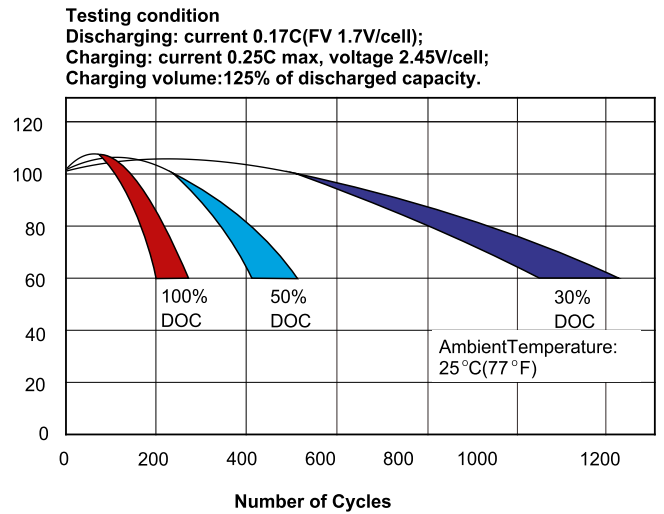
Effect of temperature on long term float life



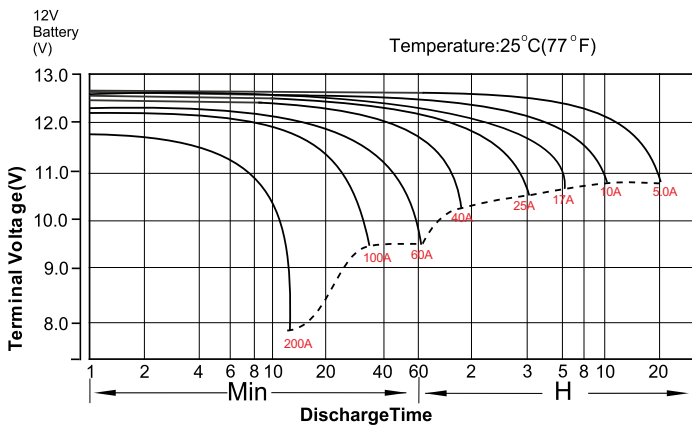
Charge characteristic Curve for standby use



Cycle Life in Relation to Depth of Discharge



Discharge characteristic Curve



Temperature Effects in Relation to Battery Capacity

