

MLG12-50 (12V50AH C10 @25°C)



Features

- § Maintenance-free operation
- § Gel technology
- § ABS case, Flame Retardant V0 is available

- § Stable quality and high reliability
- § 12 years design life (at 25°C)

Application

- § Telecommunication system
- § Alarm and security system
- § Backup power

- § UPS
- § Emergency lighting
- § Auto control system

- § Electronic apparatus and equipment
- § Communication power supply
- § DC power supply

Specification

| | | | |
|------------------------|-------------------------------------|----------------------------------|--|
| Nominal Voltage | 12V (6 cells) | Operating Temp.Range | Discharge: -15-50°C (5-122°F) |
| Nominal Capacity | 53AH (20hr, 1.80V/cell, 25°C/77°F) | | Charge:0-40°C (32-104°F) |
| | 50AH (10hr, 1.80V/cell, 25°C/77°F) | Storage: -15-40°C (5-104°F) | |
| | 42.5AH (5hr, 1.75V/cell, 25°C/77°F) | Nominal Operating Temp.Range | 25 ± 3°C (77 ± 5°F) |
| Dimension | 30AH (1hr, 1.60V/cell, 25°C/77°F) | Cycle Use | 14.4~14.8V (25°C/77°F) Temp.Coefficient -30mV/°C |
| | Length 228 ± 2mm | | Initial Charging Current Less than 0.3C |
| | Width 137 ± 2mm | Standby Use | 13.5~13.8V (25°C/77°F) Temp.Coefficient -20mV/°C |
| | Container Height 210 ± 2mm | | No limit on Initial Charging Current |
| Approx Weight | Approx 16.2Kg | Capacity affected by Temperature | 40°C (104°F) 103% |
| Terminal | T3 or F5 | | 25°C (77°F) 100% |
| Container Material | ABS | | 0°C (32°F) 86% |
| Max. Discharge Current | 500A (5S) | Self Discharge | MLG series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. |
| Internal Resistance | Approx 8.6mΩ | | For higher temperatures the time interval will be shorter. |

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

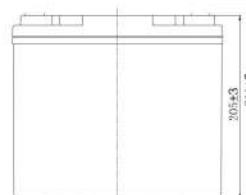
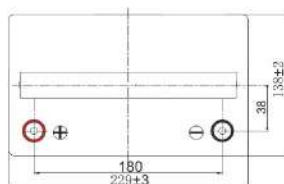
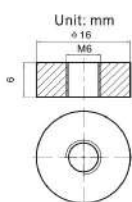
| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|-----|------|------|
| 1.80V/cell | 119.7 | 86.5 | 70.9 | 44.4 | 34.2 | 28.0 | 16.3 | 12.3 | 8.5 | 5.00 | 2.66 |
| 1.75V/cell | 130.7 | 95.1 | 76.9 | 46.3 | 35.5 | 28.8 | 16.8 | 12.6 | 8.7 | 5.10 | 2.70 |
| 1.70V/cell | 141.3 | 101.5 | 83.1 | 47.8 | 36.6 | 29.7 | 17.3 | 12.8 | 8.8 | 5.16 | 2.73 |
| 1.65V/cell | 152.4 | 108.3 | 87.8 | 50.5 | 38.1 | 30.8 | 17.8 | 13.2 | 9.0 | 5.21 | 2.76 |
| 1.60V/cell | 162.9 | 115.7 | 91.8 | 52.7 | 39.5 | 31.9 | 18.2 | 13.4 | 9.2 | 5.26 | 2.79 |

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

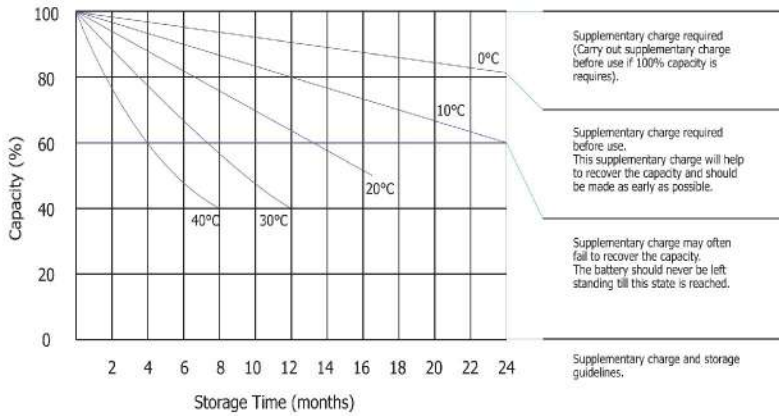
| F.V/Time | 5min | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|-------|------|
| 1.80V/cell | 223.8 | 158.6 | 134.6 | 83.5 | 64.9 | 54.4 | 31.4 | 23.8 | 16.8 | 9.93 | 5.24 |
| 1.75V/cell | 237.9 | 170.0 | 141.3 | 86.9 | 67.6 | 55.7 | 32.3 | 24.3 | 17.0 | 10.06 | 5.32 |
| 1.70V/cell | 251.6 | 178.9 | 148.7 | 89.8 | 69.8 | 56.4 | 33.1 | 24.8 | 17.2 | 10.14 | 5.37 |
| 1.65V/cell | 271.2 | 187.2 | 154.1 | 94.7 | 71.8 | 58.3 | 33.8 | 25.2 | 17.6 | 10.20 | 5.42 |
| 1.60V/cell | 286.7 | 194.8 | 160.8 | 97.6 | 73.7 | 60.1 | 34.4 | 25.7 | 17.8 | 10.28 | 5.48 |

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

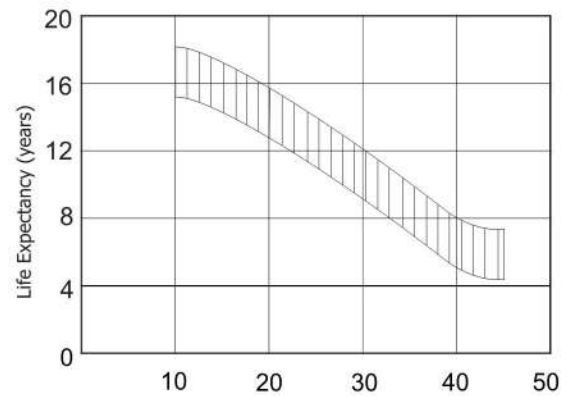
Dimension



Storage Characteristics

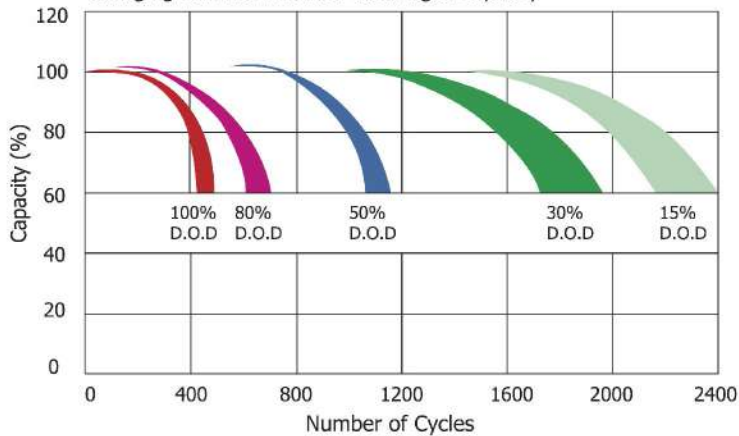


Effect Of Temperature On Float Life

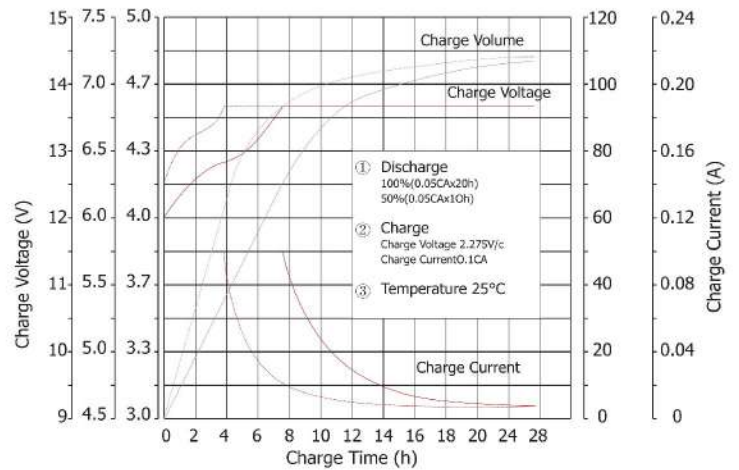


Cycle Life With Depth Of Discharge (D.O.D.)

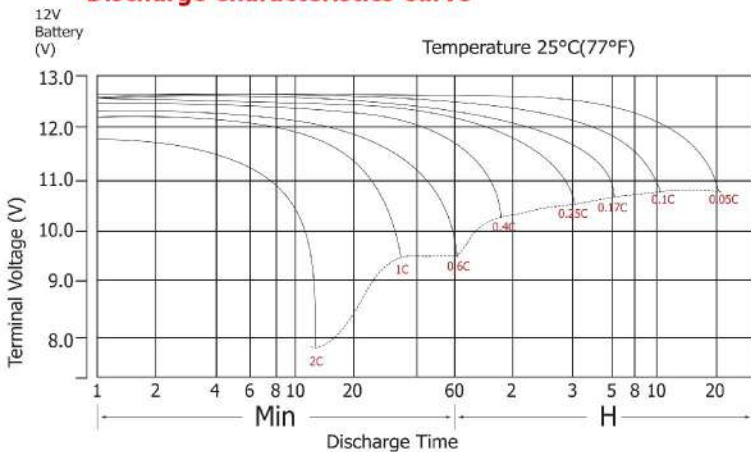
Testing condition
 Discharging: current 0.17C (FV 1.7V/cell);
 Charging: current 0.25C max, voltage 2.45V/cell;
 Charging volume: 125% of discharged capacity



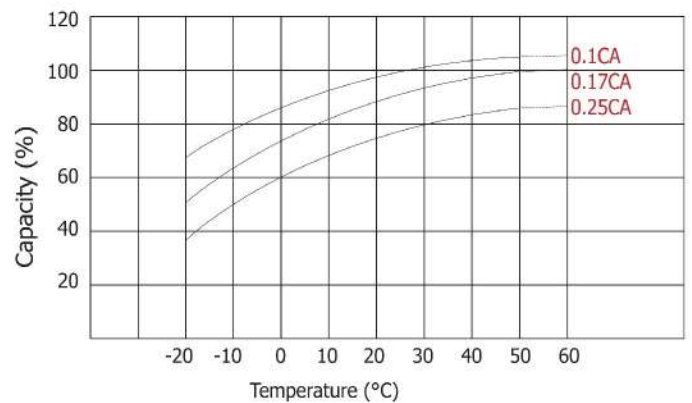
Charge Characteristics Curve For Standby Use



Discharge Characteristics Curve



Temperature Effects With Capacity



Certificates

