



Application

- * Emergency Power System
- * Communication equipment
- * Telecommunication systems
- * Uninterruptible power supplies
- * Electric toy car and wheelchairs, etc.

- * Power tools
- * Alarm system
- * Marine equipment
- * Medical equipment
- * Fire and Security System

General Features

- * Heavy Duty Grid
- * Mechanized assembly
- * Non-spillable construction
- * High Reliability and Stability
- * Sealed and Maintenance-free
- * Long Life and low self-discharge design

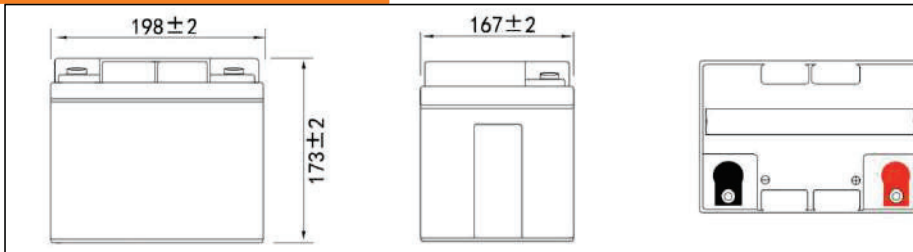
Construction

- * Positive Lead dioxide
- * Electrolyte . . . Sulfuric acid
- * Separator . . . Fiber glass
- * Container ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- * Negative Lead
- * Safety Valve . . . EPDR
- * Terminal Copper

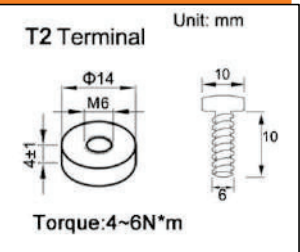
Specification

| | | | | |
|----------------------------------|--|---------------------------|------------------------------------|-------------------------|
| Battery Model | Nominal Voltage | | 12V (6 cells per unit) | |
| | Rated capacity (10 Hour rate) | | 42Ah | |
| Dimension | Length | Width | Height | Total Height |
| | 198mm (7.79 inches) | 167mm (6.57 inches) | 173mm (6.81 inches) | 173mm (6.81 inches) |
| Approx Weight | 12.40kg(27.34 lbs) ± 3% | | | |
| Internal Resistance | Full charged at 25°C(77°F):Approx 6.85mΩ | | | |
| Maximum Charge Current | 12.6A | | | |
| Max.discharge current | 630A (5Sec.) | | | |
| Operating Temperature Range | Nominal Operating Temperature | Discharge | Charge | Storage |
| | 25°C(77°F) | -15°C~ 50°C (5°F~122°F) | -15°C~ 40°C (5°F~104°F) | -15°C~ 40°C (5°F~104°F) |
| Capacity @ 25°C (77°F) | 20 hour rate(2.32A,10.5V) | 10 hour rate(4.33A,10.5V) | 5 hour rate(8.15A,10.5V) | 1 hour rate(30.5A,9.6V) |
| | 46.4Ah | 43.3Ah | 40.75Ah | 30.5Ah |
| Capacity affected by Temp.(10HR) | 40°C (104°F) | 25°C (77°F) | 0°C (32°F) | -15°C (5°F) |
| | 102% | 100% | 85% | 65% |
| Charge method | Float Charging Voltage | | Equalization Charging Voltage | |
| | 13.5 ~ 13.8 VDC/Unit at 25°C (77°F) | | 14.4~ 15.0 VDC/Unit at 25°C (77°F) | |

Outer dimension (mm)



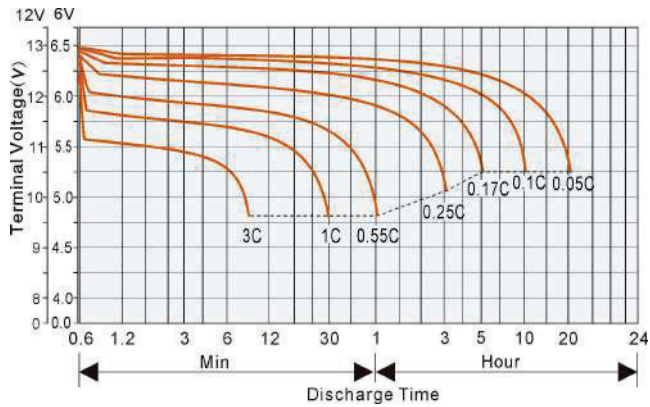
Terminal Type



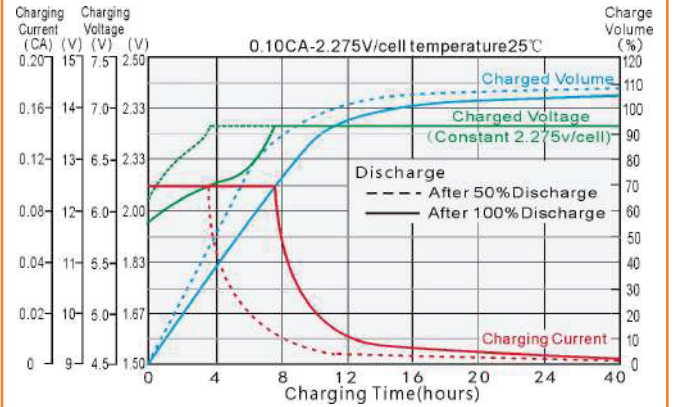
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

| F.V/Time | | 5min | 10min | 15min | 20min | 30min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| 1.85V/cell | A | 118 | 91 | 73.5 | 61.0 | 44.5 | 25.80 | 16.30 | 11.70 | 7.80 | 5.45 | 4.18 | 2.23 |
| | W | 228 | 177 | 144 | 120 | 87.5 | 51.02 | 32.36 | 23.30 | 15.59 | 10.96 | 8.43 | 4.48 |
| 1.80V/cell | A | 132 | 98 | 77.7 | 64.3 | 46.5 | 26.90 | 16.77 | 12.12 | 7.98 | 5.54 | 4.26 | 2.28 |
| | W | 254 | 189 | 150 | 126 | 91.0 | 52.83 | 33.07 | 24.02 | 15.88 | 11.09 | 8.55 | 4.56 |
| 1.75V/cell | A | 145 | 105 | 81.8 | 67.5 | 48.7 | 27.98 | 17.22 | 12.52 | 8.15 | 5.62 | 4.33 | 2.32 |
| | W | 276 | 201 | 157 | 131 | 94.7 | 54.51 | 33.75 | 24.66 | 16.14 | 11.19 | 8.65 | 4.63 |
| 1.70V/cell | A | 157 | 111 | 85.8 | 70.6 | 50.8 | 29.05 | 17.65 | 12.90 | 8.31 | 5.69 | 4.39 | 2.35 |
| | W | 294 | 210 | 163 | 136 | 97.8 | 56.07 | 34.27 | 25.18 | 16.35 | 11.26 | 8.71 | 4.67 |
| 1.67V/cell | A | 164 | 114 | 87.8 | 72.2 | 52.0 | 29.54 | 17.87 | 13.08 | 8.38 | 5.71 | 4.41 | 2.36 |
| | W | 306 | 214 | 165 | 137 | 99.2 | 56.64 | 34.47 | 25.36 | 16.37 | 11.22 | 8.70 | 4.69 |
| 1.60V/cell | A | 177 | 122 | 92.5 | 75.2 | 54.0 | 30.50 | 18.25 | 13.40 | 8.50 | 5.75 | 4.45 | 2.37 |
| | W | 317 | 222 | 170 | 140 | 101.0 | 58.06 | 34.95 | 25.79 | 16.49 | 11.22 | 8.74 | 4.71 |

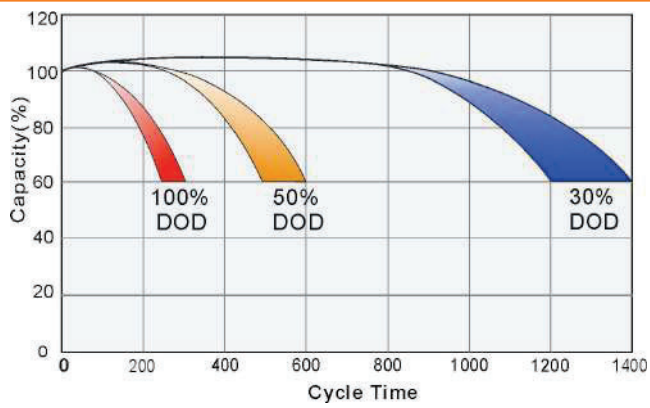
Discharge characteristic curve (25°C/77°F)



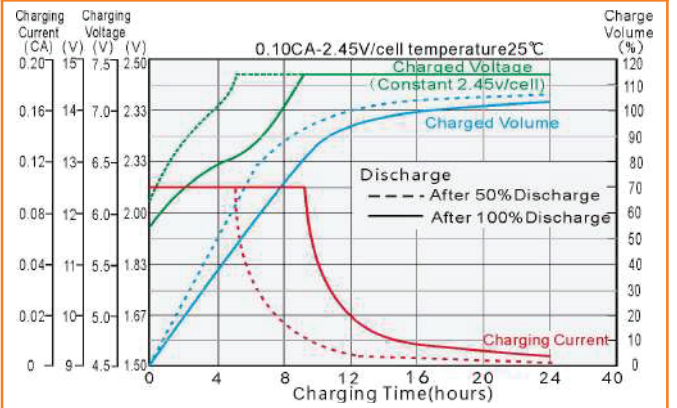
Charging characteristic curve of floating charge (25°C/77°F)



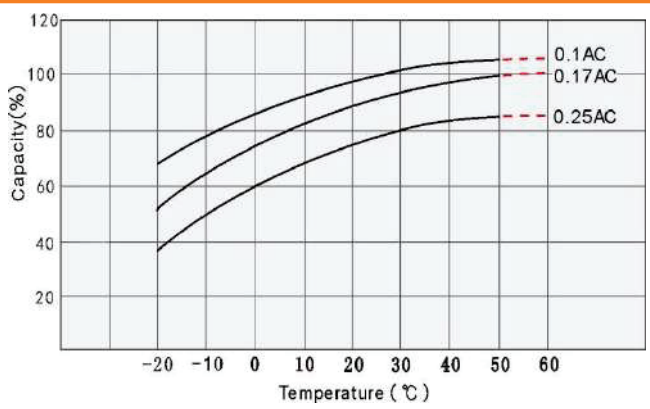
Cycle service life in relation to depth of discharge



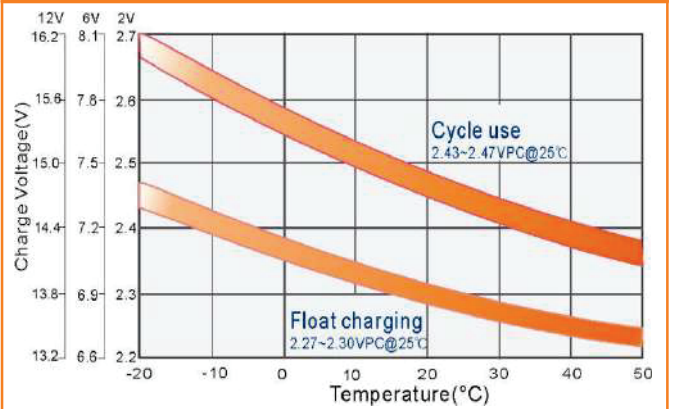
Cyclic charging characteristic curve (25°C/77°F)



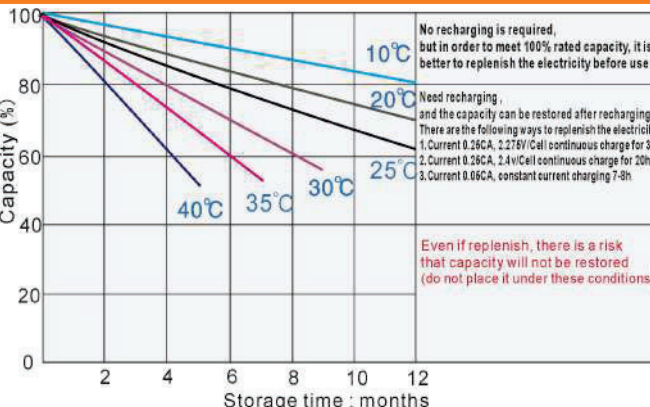
Relationship between temperature and capacity



Relationship between charging voltage and temperature



Self discharge characteristics



Temperature vs Float Life

