

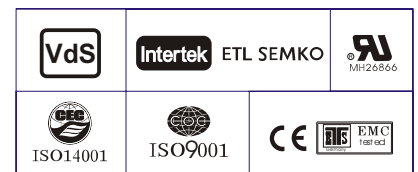
Specification

| | | |
|----------------------------------|---|-------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity(10HR) | 38.0AH | |
| Dimension | Length | 197±2mm (7.76 inches) |
| | Width | 165±2mm (6.50 inches) |
| | Container Height | 170±2mm (6.69 inches) |
| | Total Height (with Terminal) | 170±2mm (6.69 inches) |
| | Approx Weight | Approx 14.2 Kg (31.3lbs) |
| Terminal | T6 | |
| Container Material | ABS | |
| Rated Capacity | 40.8 AH/2.04A | (20hr , 1.80V/cell,25°C/77°F) |
| | 38.0 AH/3.80A | (10hr, 1.80V/cell,25°C/77°F) |
| | 33.4AH/6.67A | (5hr, 1.75V/cell,25°C/77°F) |
| | 30.3AH/10.1A | (3hr, 1.75V/cell,25°C/77°F) |
| | 24.5AH/24.5A | (1hr, 1.60V/cell,25°C/77°F) |
| Max. Discharge Current | 456A (5s) | |
| Internal Resistance | Approx 9.0mΩ | |
| Operating Temp. Range | Discharge : -15~50°C (5~122°F) | |
| | Charge : 0~40°C (32~104°F) | |
| | Storage : -15~40°C (5~104°F) | |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Cycle Use | Initial Charging Current less than 11.4A. Voltage | |
| | 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| Standby Use | No limit on Initial Charging Current Voltage | |
| | 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| Capacity affected by Temperature | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | batteries may be stored for up to 6 months | |
| | at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. | |



Applications

- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golf cart
- ◆ Portable apparatus, lights and instruments;
- ◆ Electric toys
- ◆ Illumination light
- ◆ Fire alarms
- ◆ Portable power
- ◆ Wheelchairs
- ◆ Medical equipments.



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

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 55.6 | 46.8 | 40.9 | 29.4 | 23.4 | 19.0 | 11.8 | 9.19 | 7.44 | 6.05 | 5.28 | 4.31 | 3.59 | 2.02 |
| 1.80V/cell | 71.1 | 56.6 | 48.4 | 34.7 | 27.2 | 21.3 | 12.9 | 9.89 | 7.95 | 6.49 | 5.66 | 4.57 | 3.80 | 2.04 |
| 1.75V/cell | 78.1 | 61.8 | 52.0 | 36.1 | 28.2 | 22.2 | 13.3 | 10.1 | 8.12 | 6.67 | 5.81 | 4.65 | 3.84 | 2.06 |
| 1.70V/cell | 85.1 | 66.0 | 54.7 | 37.5 | 29.3 | 22.9 | 13.9 | 10.4 | 8.34 | 6.83 | 5.94 | 4.71 | 3.88 | 2.09 |
| 1.65V/cell | 91.9 | 70.1 | 58.1 | 39.6 | 30.1 | 23.7 | 14.3 | 10.8 | 8.63 | 7.02 | 6.06 | 4.79 | 3.96 | 2.12 |
| 1.60V/cell | 99.8 | 75.0 | 61.9 | 41.8 | 31.4 | 24.5 | 14.7 | 11.1 | 8.90 | 7.25 | 6.20 | 4.83 | 4.00 | 2.13 |

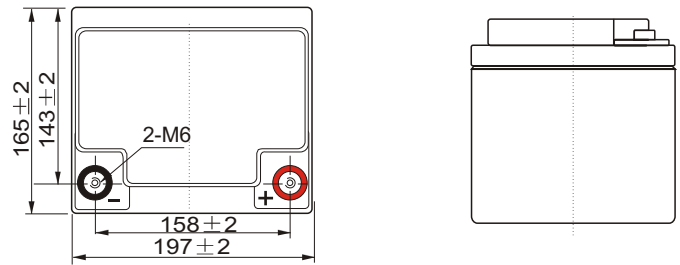
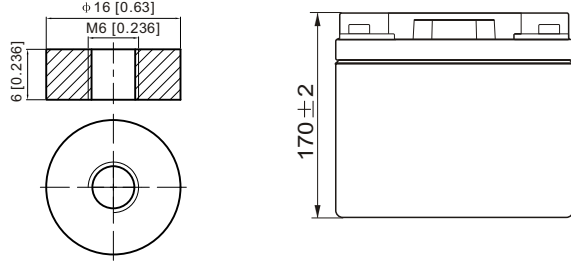
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|------|------|------|
| 1.85V/cell | 103.8 | 88.3 | 78.0 | 56.6 | 45.2 | 36.8 | 23.0 | 18.0 | 14.6 | 11.9 | 10.42 | 8.52 | 7.11 | 4.04 |
| 1.80V/cell | 130.9 | 105.1 | 90.8 | 65.9 | 52.2 | 41.0 | 24.9 | 19.2 | 15.5 | 12.7 | 11.14 | 9.02 | 7.52 | 4.07 |
| 1.75V/cell | 142.0 | 113.6 | 96.8 | 68.1 | 53.9 | 42.7 | 25.8 | 19.5 | 15.8 | 13.0 | 11.43 | 9.17 | 7.59 | 4.10 |
| 1.70V/cell | 152.6 | 120.4 | 101.2 | 70.6 | 55.9 | 44.0 | 26.7 | 20.0 | 16.2 | 13.3 | 11.65 | 9.29 | 7.66 | 4.18 |
| 1.65V/cell | 163.6 | 127.2 | 107.0 | 74.2 | 57.1 | 45.3 | 27.4 | 20.8 | 16.7 | 13.7 | 11.89 | 9.43 | 7.81 | 4.22 |
| 1.60V/cell | 174.6 | 134.4 | 112.8 | 77.5 | 58.9 | 46.5 | 28.1 | 21.4 | 17.2 | 14.1 | 12.12 | 9.51 | 7.89 | 4.24 |

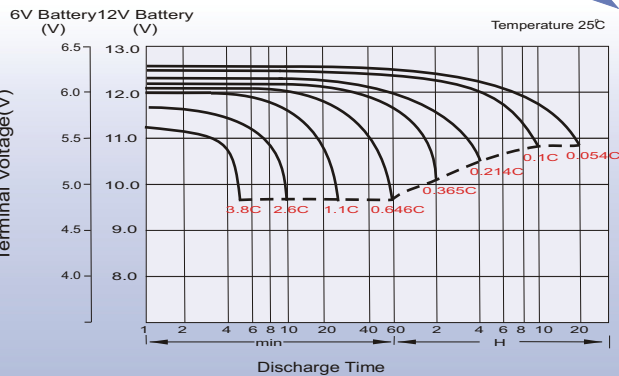
Dimensions

T6 Terminal

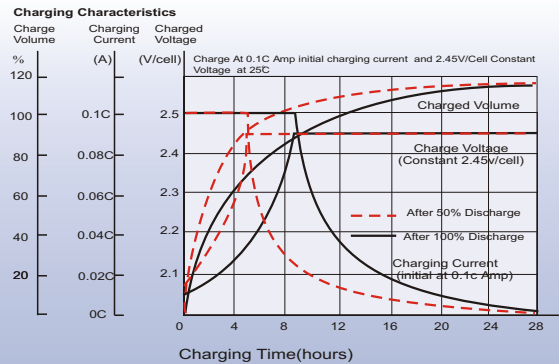
Unit: mm [inches]



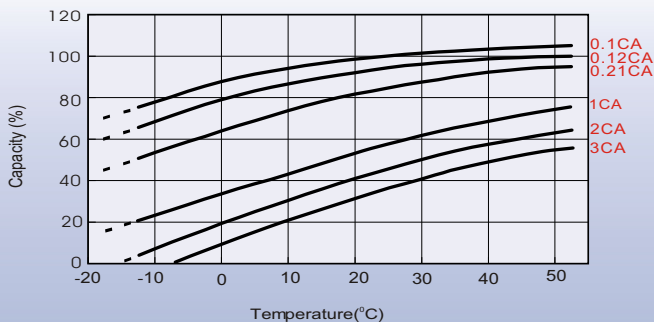
Discharge Characteristics



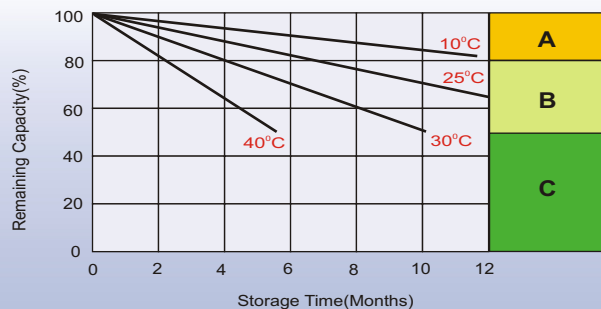
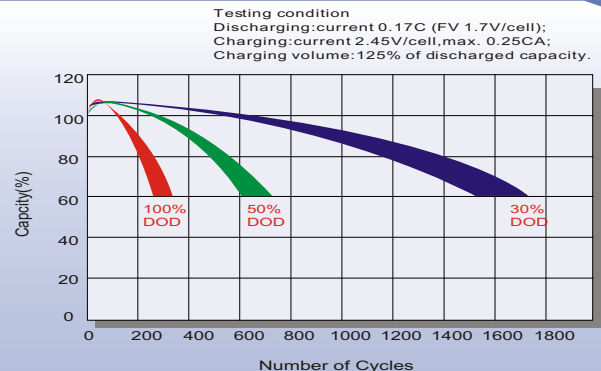
Charging Characteristics (cycle use)



Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.