

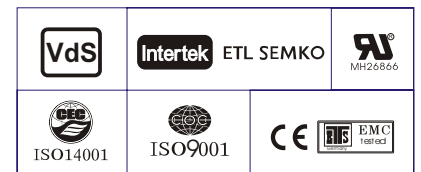
### Specification

|                                  |   |                               |
|----------------------------------|---|-------------------------------|
| 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 12.2 Kg (26.9lbs)  |                               |
| Terminal                         | T6  |                               |
| Container Material               | ABS   |                               |
| Rated Capacity                   | 40.0 AH/2.0A  | (20hr, 1.80V/cell, 25°C/77°F) |
|                                  | 38.0 AH/3.8A  | (10hr, 1.80V/cell, 25°C/77°F) |
|                                  | 32.7 AH/6.55A   | (5hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 29.7 AH/9.89A   | (3hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 23.2 AH/23.2A   | (1hr, 1.60V/cell, 25°C/77°F)  |
| Max. Discharge Current           | 456A (5s)   |                               |
| Internal Resistance              | Approx 10.0mΩ   |                               |
| 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 12.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C   |                               |
|                                  | Standby Use<br>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                   | CT series 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

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



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

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 65.0  | 51.1  | 43.5  | 36.4  | 28.9  | 21.9  | 17.9 | 11.4 | 9.02 | 7.37 | 5.94 | 5.17 | 4.20 | 3.59 | 1.96 |
| 1.80V/cell | 87.3  | 65.3  | 52.5  | 43.0  | 34.1  | 25.4  | 20.1 | 12.5 | 9.71 | 7.87 | 6.38 | 5.55 | 4.45 | 3.80 | 2.00 |
| 1.75V/cell | 98.4  | 71.8  | 57.4  | 46.2  | 35.4  | 26.4  | 21.0 | 12.9 | 9.89 | 8.04 | 6.54 | 5.70 | 4.53 | 3.84 | 2.02 |
| 1.70V/cell | 108.4 | 78.2  | 61.3  | 48.6  | 36.9  | 27.5  | 21.7 | 13.4 | 10.2 | 8.26 | 6.71 | 5.82 | 4.59 | 3.88 | 2.03 |
| 1.65V/cell | 119.5 | 84.4  | 65.1  | 51.6  | 38.9  | 28.1  | 22.4 | 13.8 | 10.6 | 8.54 | 6.90 | 5.95 | 4.67 | 3.96 | 2.06 |
| 1.60V/cell | 131.8 | 91.7  | 69.7  | 55.0  | 41.0  | 29.3  | 23.2 | 14.3 | 10.9 | 8.81 | 7.13 | 6.08 | 4.71 | 4.00 | 2.07 |

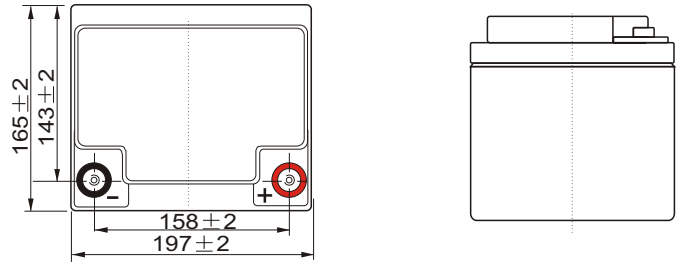
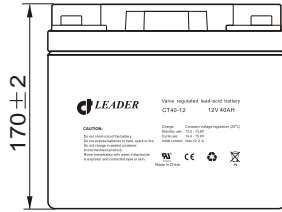
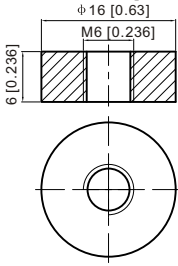
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 118.9 | 94.5  | 81.1  | 68.6  | 55.1  | 42.1  | 34.6 | 22.2 | 17.6 | 14.4 | 11.6 | 10.2 | 8.29 | 7.10 | 3.88 |
| 1.80V/cell | 157.9 | 119.3 | 96.7  | 79.9  | 64.0  | 48.5  | 38.5 | 24.0 | 18.8 | 15.3 | 12.4 | 10.9 | 8.77 | 7.51 | 3.91 |
| 1.75V/cell | 174.3 | 128.9 | 104.3 | 85.1  | 65.9  | 49.9  | 40.1 | 24.8 | 19.1 | 15.6 | 12.7 | 11.1 | 8.90 | 7.57 | 3.94 |
| 1.70V/cell | 186.6 | 137.4 | 109.9 | 88.7  | 68.2  | 51.7  | 41.2 | 25.8 | 19.6 | 16.0 | 13.0 | 11.3 | 9.01 | 7.64 | 4.01 |
| 1.65V/cell | 202.8 | 146.9 | 115.9 | 93.6  | 71.4  | 52.5  | 42.3 | 26.3 | 20.3 | 16.5 | 13.3 | 11.6 | 9.13 | 7.79 | 4.06 |
| 1.60V/cell | 218.5 | 155.8 | 121.9 | 98.6  | 74.8  | 54.4  | 43.6 | 27.1 | 20.9 | 16.9 | 13.7 | 11.8 | 9.20 | 7.86 | 4.08 |

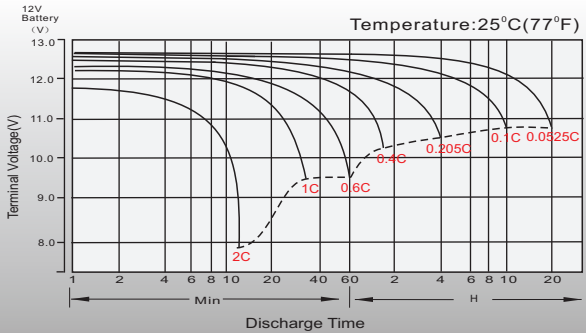
## Dimensions

### T6 Terminal

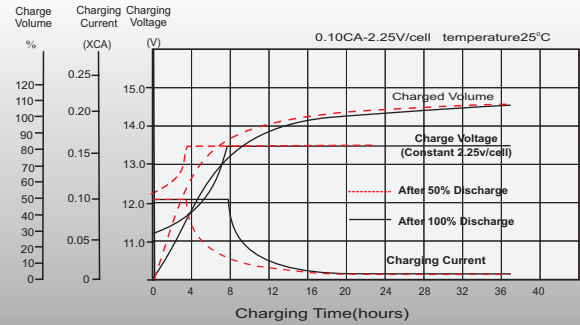
Unit: mm [inches]



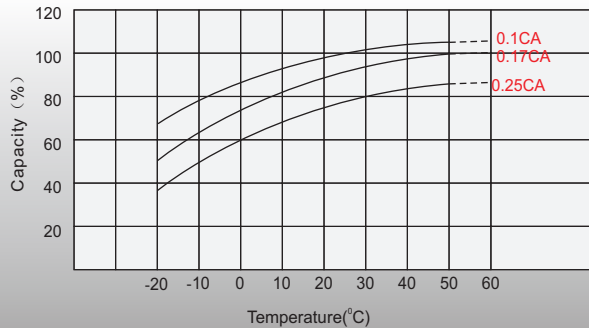
## Discharge Characteristics



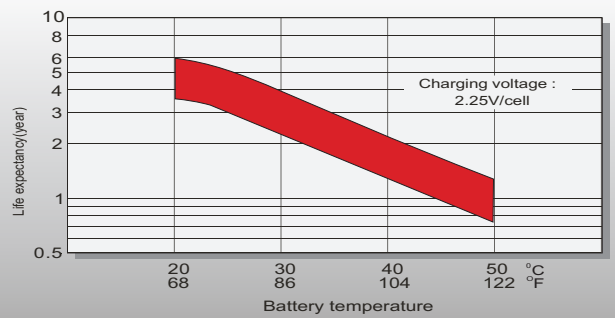
## Float Charging Characteristics



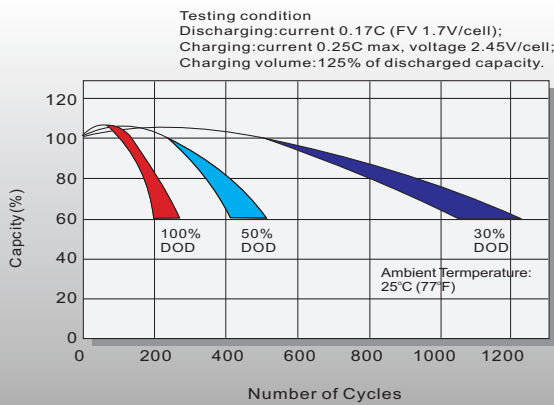
## Temperature Effects in Relation to Battery Capacity



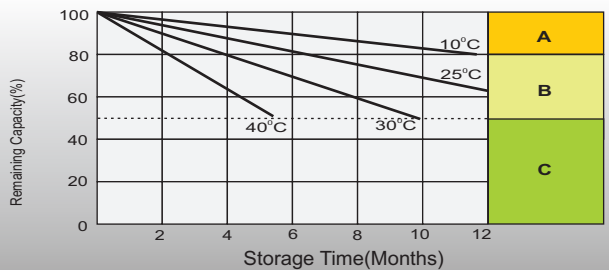
## Effect of Temperature on Long Term Float Life



## 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.

## Sales Office

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