

### Specification

|                                  |   |                               |
|----------------------------------|---|-------------------------------|
| Nominal Voltage                  | 12V   |                               |
| Nominal Capacity(20HR)           | 7.5AH   |                               |
| Dimensions                       | Length  | 150±2mm (5.91 inches)         |
|                                  | Width   | 63.5±1mm (2.50 inches)        |
|                                  | Container Height  | 94.5±1mm (3.72 inches)        |
|                                  | Total Height (with Terminal)  | 100±1mm (3.94 inches)         |
| Approx Weight                    | Approx 2.35 kg (5.18lbs)  |                               |
| Terminal                         | T1/T2   |                               |
| Container Material               | ABS   |                               |
| Rated Capacity                   | 7.50 AH/0.375A  | (20hr, 1.80V/cell, 25°C/77°F) |
|                                  | 7.00 AH/0.700A  | (10hr, 1.80V/cell, 25°C/77°F) |
|                                  | 6.25AH/1.25A  | (5hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 5.49 AH/1.83A   | (3hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 4.56 AH/4.56A   | (1hr, 1.60V/cell, 25°C/77°F)  |
| Max. Discharge Current           | 112.5A (5s)   |                               |
| Internal Resistance              | Approx 20mΩ   |                               |
| 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 2.25A. 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                   | Leoch LP 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 | 17.2 | 12.5  | 10.7  | 9.07  | 6.62  | 4.84  | 3.86 | 2.29 | 1.71 | 1.39 | 1.18 | 1.02 | 0.810 | 0.671 | 0.368 |
| 1.80V/cell | 20.6 | 14.6  | 12.1  | 9.86  | 7.13  | 5.14  | 4.10 | 2.40 | 1.78 | 1.45 | 1.22 | 1.06 | 0.839 | 0.700 | 0.375 |
| 1.75V/cell | 23.0 | 16.0  | 12.9  | 10.4  | 7.41  | 5.35  | 4.26 | 2.48 | 1.83 | 1.48 | 1.25 | 1.08 | 0.852 | 0.711 | 0.383 |
| 1.70V/cell | 25.1 | 17.1  | 13.7  | 10.9  | 7.70  | 5.49  | 4.34 | 2.53 | 1.87 | 1.51 | 1.27 | 1.10 | 0.870 | 0.720 | 0.387 |
| 1.65V/cell | 27.3 | 18.0  | 14.3  | 11.3  | 7.97  | 5.66  | 4.46 | 2.58 | 1.90 | 1.54 | 1.29 | 1.12 | 0.881 | 0.728 | 0.391 |
| 1.60V/cell | 28.7 | 18.9  | 14.8  | 11.7  | 8.19  | 5.81  | 4.56 | 2.64 | 1.94 | 1.57 | 1.32 | 1.14 | 0.896 | 0.739 | 0.398 |

### Constant Power Discharge (Watts) 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 | 32.4 | 23.9  | 20.5  | 17.6  | 12.9  | 9.49  | 7.59 | 4.53 | 3.40 | 2.77 | 2.35 | 2.04 | 1.63 | 1.35 | 0.743 |
| 1.80V/cell | 38.5 | 27.7  | 23.0  | 19.0  | 13.8  | 10.0  | 8.06 | 4.74 | 3.53 | 2.89 | 2.43 | 2.12 | 1.68 | 1.40 | 0.755 |
| 1.75V/cell | 42.7 | 30.0  | 24.4  | 19.9  | 14.3  | 10.4  | 8.35 | 4.87 | 3.61 | 2.93 | 2.48 | 2.15 | 1.70 | 1.42 | 0.767 |
| 1.70V/cell | 45.8 | 31.6  | 25.7  | 20.7  | 14.7  | 10.6  | 8.44 | 4.94 | 3.66 | 2.97 | 2.51 | 2.17 | 1.72 | 1.43 | 0.769 |
| 1.65V/cell | 49.0 | 32.9  | 26.5  | 21.3  | 15.1  | 10.8  | 8.59 | 4.98 | 3.69 | 3.00 | 2.53 | 2.19 | 1.73 | 1.43 | 0.771 |
| 1.60V/cell | 50.3 | 33.7  | 26.9  | 21.6  | 15.3  | 11.0  | 8.71 | 5.06 | 3.75 | 3.03 | 2.56 | 2.22 | 1.75 | 1.45 | 0.780 |

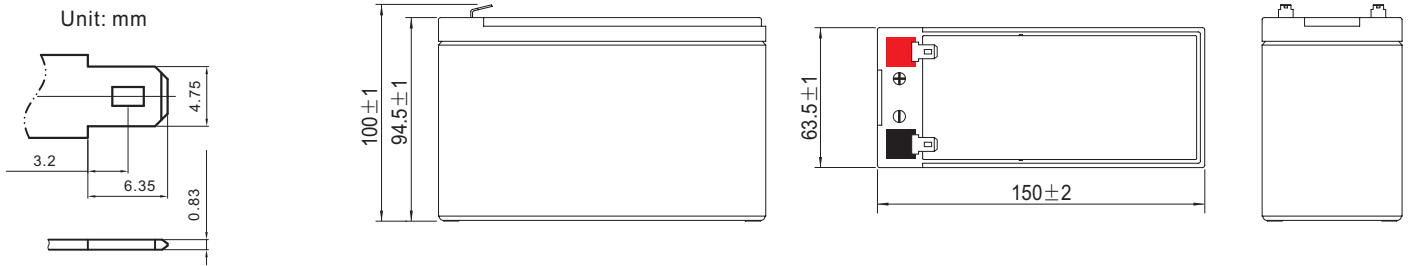
Specifications subject to change without notice.



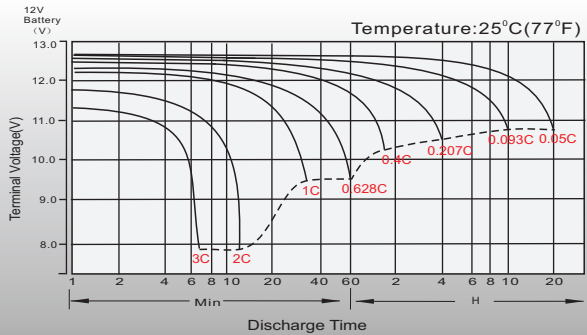
# Dimensions

## T1 Terminal

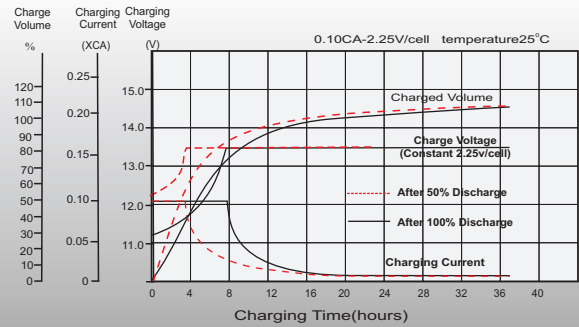
Unit: mm



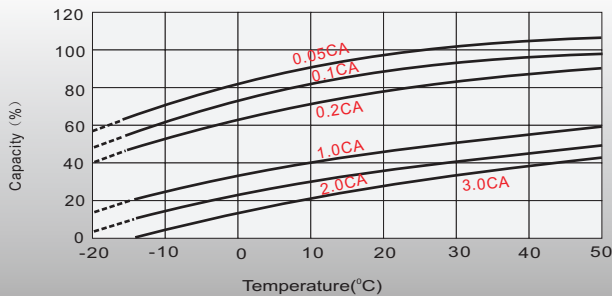
## Discharge Characteristics



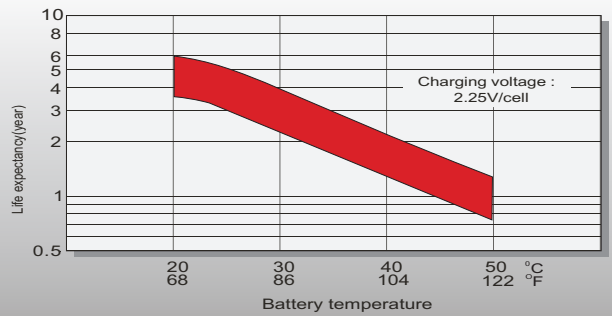
## Float Charging Characteristics



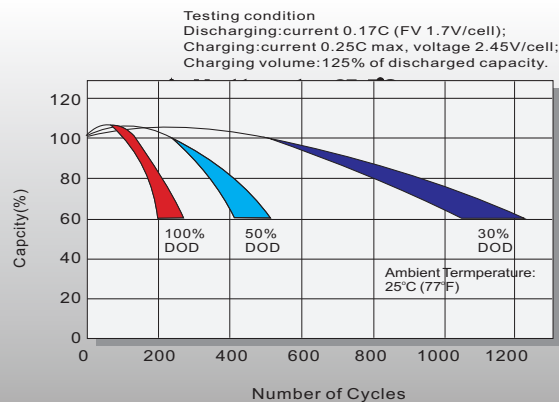
## Temperature Effects in Relation to Battery Capacity



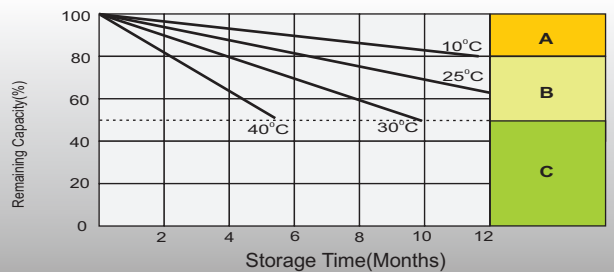
## Effect of Temperature on Long Term Float Life



## 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.