

### Specification

|                                  |   |                               |
|----------------------------------|---|-------------------------------|
| Nominal Voltage                  | 24V   |                               |
| Nominal Capacity(20HR)           | 3.5AH   |                               |
| Dimensions                       | Length  | 185±2mm (7.28 inches)         |
|                                  | Width   | 73±1mm (2.87 inches)          |
|                                  | Container Height  | 70±1mm (2.76 inches)          |
|                                  | Total Height (with Terminal)  | 70±1mm (2.76 inches)          |
| Approx Weight                    | Approx 2.6 kg (5.73lbs)   |                               |
| Terminal                         | /   |                               |
| Container Material               | ABS   |                               |
| Rated Capacity                   | 3.50 AH/0.175A  | (20hr, 1.80V/cell, 25°C/77°F) |
|                                  | 3.26 AH/0.326A  | (10hr, 1.80V/cell, 25°C/77°F) |
|                                  | 2.94 AH/0.588A  | (5hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 2.57 AH/0.856A  | (3hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 2.12 AH/1.21A   | (1hr, 1.60V/cell, 25°C/77°F)  |
| Max. Discharge Current           | 52.5A (5s)  |                               |
| Internal Resistance              | Approx 90mΩ   |                               |
| 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 1.05A. Voltage   |                               |
|                                  | 28.8V~30.0V at 25°C(77°F)Temp. Coefficient -60mV/°C   |                               |
| Standby Use                      | No limit on Initial Charging Current Voltage  |                               |
|                                  | 27.0V~27.6V at 25°C(77°F)Temp. Coefficient -40mV/°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 | 6.72 | 4.68  | 3.86  | 3.35  | 2.69  | 2.07  | 1.69 | 1.03 | 0.786 | 0.647 | 0.549 | 0.475 | 0.378 | 0.314 | 0.173 |
| 1.80V/cell | 8.26 | 5.59  | 4.48  | 3.79  | 2.98  | 2.25  | 1.82 | 1.10 | 0.827 | 0.680 | 0.573 | 0.496 | 0.392 | 0.326 | 0.175 |
| 1.75V/cell | 9.79 | 6.32  | 4.94  | 4.13  | 3.18  | 2.39  | 1.91 | 1.14 | 0.856 | 0.701 | 0.588 | 0.509 | 0.403 | 0.332 | 0.177 |
| 1.70V/cell | 11.1 | 6.97  | 5.35  | 4.43  | 3.34  | 2.49  | 2.00 | 1.19 | 0.884 | 0.718 | 0.603 | 0.521 | 0.409 | 0.337 | 0.180 |
| 1.65V/cell | 12.2 | 7.50  | 5.66  | 4.65  | 3.48  | 2.59  | 2.08 | 1.23 | 0.907 | 0.733 | 0.616 | 0.531 | 0.415 | 0.342 | 0.182 |
| 1.60V/cell | 12.9 | 7.81  | 5.89  | 4.80  | 3.58  | 2.64  | 2.12 | 1.27 | 0.929 | 0.752 | 0.629 | 0.541 | 0.424 | 0.348 | 0.183 |

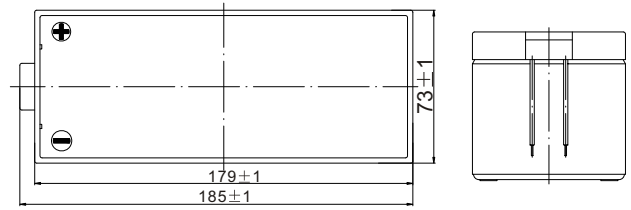
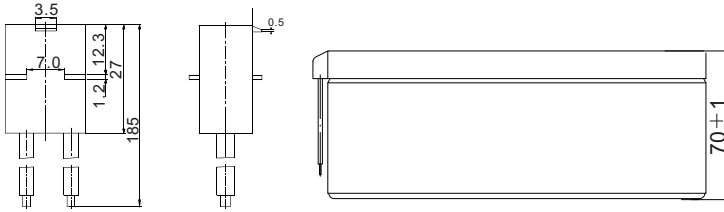
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time   | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h    | 8h    | 10h   | 20h   |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|
| 1.85V/cell | 12.7 | 8.92  | 7.43  | 6.49  | 5.24  | 4.05  | 3.33 | 2.04 | 1.56 | 1.29 | 1.10 | 0.954 | 0.760 | 0.634 | 0.350 |
| 1.80V/cell | 15.4 | 10.5  | 8.54  | 7.29  | 5.76  | 4.39  | 3.57 | 2.16 | 1.63 | 1.35 | 1.14 | 0.989 | 0.784 | 0.652 | 0.352 |
| 1.75V/cell | 18.0 | 11.8  | 9.33  | 7.87  | 6.11  | 4.64  | 3.73 | 2.24 | 1.68 | 1.38 | 1.16 | 1.01  | 0.800 | 0.661 | 0.353 |
| 1.70V/cell | 20.2 | 12.9  | 10.0  | 8.39  | 6.38  | 4.79  | 3.87 | 2.32 | 1.73 | 1.41 | 1.18 | 1.03  | 0.807 | 0.668 | 0.357 |
| 1.65V/cell | 22.0 | 13.7  | 10.5  | 8.72  | 6.59  | 4.94  | 4.00 | 2.37 | 1.76 | 1.43 | 1.20 | 1.04  | 0.816 | 0.674 | 0.360 |
| 1.60V/cell | 22.7 | 14.1  | 10.8  | 8.89  | 6.71  | 5.01  | 4.06 | 2.43 | 1.79 | 1.46 | 1.22 | 1.06  | 0.829 | 0.682 | 0.361 |

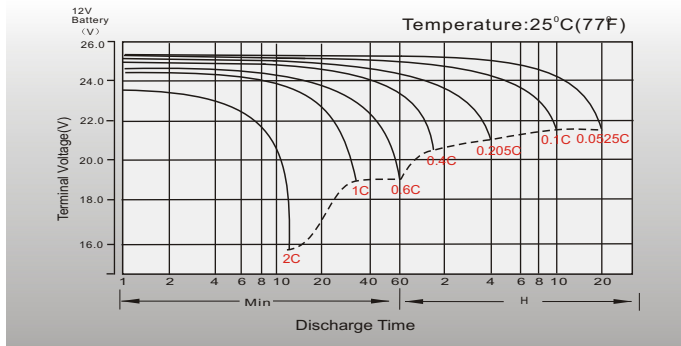
# Dimensions

## Terminal

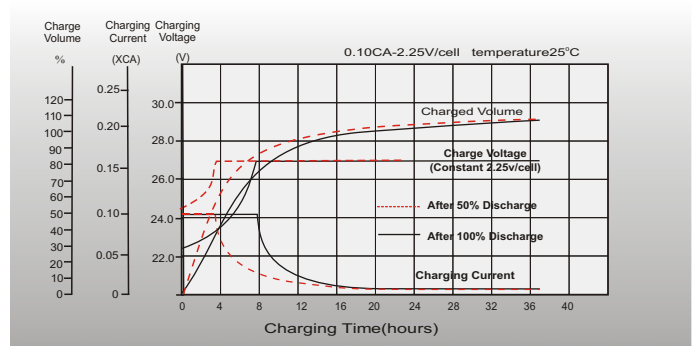
Unit: mm [inches]



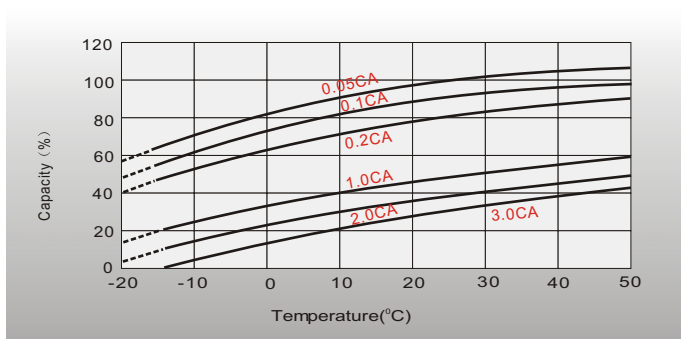
## Discharge Characteristics



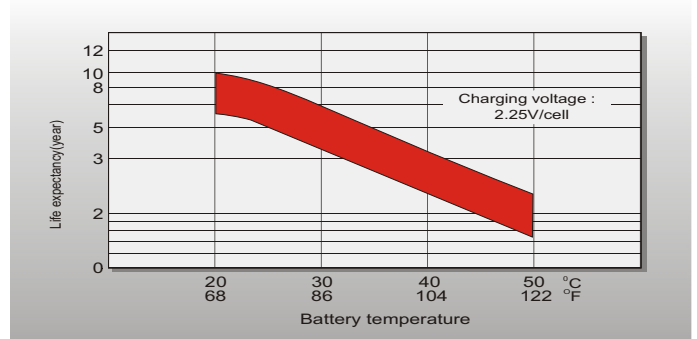
## Float Charging Characteristics



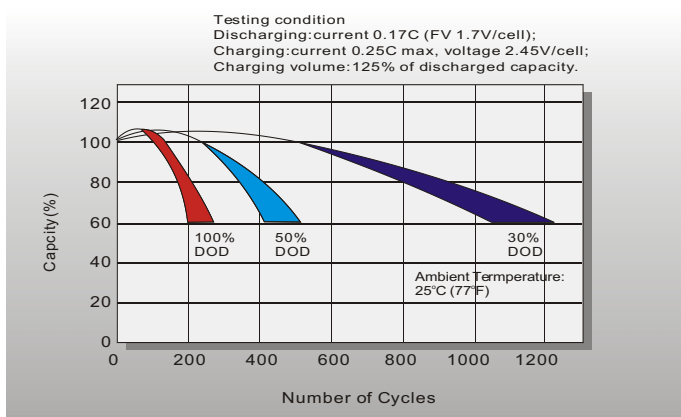
## Temperature Effects in Relation to Battery Capacity



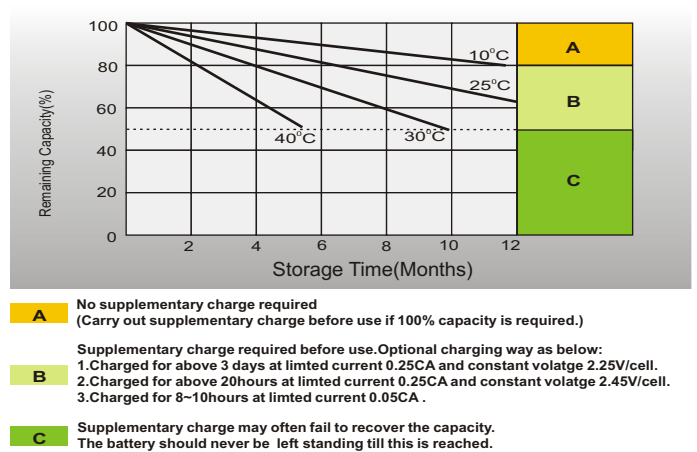
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



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