

LP SERIES-General Purpose

LP12-9.0(12V9.0AH)



Specification

| | | |
|----------------------------------|--|-------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity(20HR) | 9.0AH | |
| Dimensions | Length | 151±2mm (5.95 inches) |
| | Width | 65±1mm (2.56 inches) |
| | Container Height | 93.5±1mm (3.68 inches) |
| | Total Height (with Terminal) | 99±1mm (3.90 inches) |
| | Approx Weight | Approx 2.66 kg (5.86 lbs) |
| Terminal | T2 | |
| Container Material | ABS | |
| Rated Capacity | 9.00 AH/0.450A | (20hr , 1.75V/cell,25°C/77°F) |
| | 8.50 AH/0.850A | (10hr, 1.75V/cell,25°C/77°F) |
| | 7.65AH/1.53A | (5hr, 1.75V/cell,25°C/77°F) |
| | 7.11AH/2.37A | (3hr, 1.75V/cell,25°C/77°F) |
| | 5.96 AH/5.96A | (1hr, 1.60V/cell,25°C/77°F) |
| Max. Discharge Current | 135A (5s) | |
| Internal Resistance | Approx 17mΩ | |
| 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 2.70A.Voltage | |
| | 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| Standby Use | No limit on Initial Charging Current Voltage | |
| | 13.6V~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 | 2min | 3min | 4min | 5min | 8min | 10min | 15min | 30min | 1h | 1.5h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|------------|------|------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|-------|-------|
| 1.85V/cell | 47.4 | 39.6 | 35.4 | 29.7 | 23.9 | 19.3 | 17.9 | 10.7 | 5.75 | 4.30 | 3.01 | 2.15 | 1.76 | 1.43 | 1.02 | 0.823 | 0.418 |
| 1.80V/cell | 50.9 | 42.2 | 38.2 | 32.0 | 25.2 | 21.2 | 18.1 | 10.8 | 5.79 | 4.35 | 3.28 | 2.32 | 1.93 | 1.50 | 1.06 | 0.838 | 0.432 |
| 1.75V/cell | 54.4 | 45.8 | 41.0 | 34.2 | 27.1 | 22.9 | 18.3 | 11.0 | 5.84 | 4.40 | 3.33 | 2.37 | 1.95 | 1.53 | 1.08 | 0.850 | 0.450 |
| 1.70V/cell | 57.9 | 47.4 | 43.8 | 36.5 | 28.8 | 24.7 | 18.5 | 11.1 | 5.88 | 4.45 | 3.50 | 2.44 | 2.00 | 1.55 | 1.1 | 0.872 | 0.463 |
| 1.67V/cell | 59.2 | 49.3 | 44.9 | 37.5 | 29.5 | 25.3 | 18.6 | 11.2 | 5.92 | 4.46 | 3.65 | 2.55 | 2.05 | 1.58 | 1.12 | 0.883 | 0.470 |
| 1.60V/cell | 62.4 | 53.4 | 47.6 | 39.9 | 31.1 | 26.6 | 18.7 | 11.3 | 5.96 | 4.49 | 3.75 | 2.64 | 2.12 | 1.60 | 1.14 | 0.901 | 0.490 |

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

| F.V/Time | 2min | 3min | 4min | 5min | 8min | 10min | 15min | 30min | 1h | 1.5h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|------------|-------|------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 89.9 | 75.3 | 67.5 | 57.1 | 46.2 | 39.2 | 32.1 | 20.9 | 11.2 | 8.60 | 5.98 | 4.22 | 3.46 | 2.82 | 2.02 | 1.68 | 0.92 |
| 1.80V/cell | 94.5 | 78.7 | 71.7 | 60.6 | 48.8 | 41.7 | 33.3 | 21.2 | 11.4 | 8.68 | 6.47 | 4.53 | 3.78 | 2.94 | 2.09 | 1.72 | 0.93 |
| 1.75V/cell | 99.1 | 84.0 | 75.8 | 64.2 | 51.5 | 44.2 | 34.6 | 21.4 | 11.5 | 8.75 | 6.53 | 4.60 | 3.80 | 2.98 | 2.13 | 1.76 | 0.97 |
| 1.70V/cell | 102.7 | 85.4 | 80.0 | 67.8 | 54.2 | 46.7 | 35.8 | 21.7 | 11.6 | 8.83 | 6.83 | 4.72 | 3.88 | 3.02 | 2.16 | 1.80 | 0.99 |
| 1.67V/cell | 105.8 | 89.1 | 82.0 | 69.6 | 55.4 | 47.7 | 36.1 | 21.8 | 11.7 | 8.85 | 7.09 | 4.92 | 3.98 | 3.07 | 2.20 | 1.82 | 1.00 |
| 1.60V/cell | 110.0 | 95.7 | 86.7 | 73.8 | 58.3 | 50.0 | 36.7 | 22.0 | 11.9 | 8.90 | 7.23 | 5.06 | 4.09 | 3.09 | 2.22 | 1.84 | 1.01 |

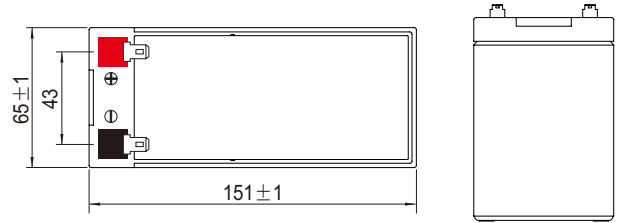
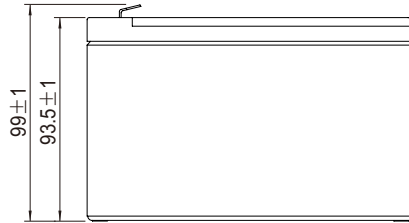
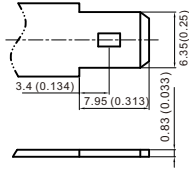
Specifications subject to change without notice.



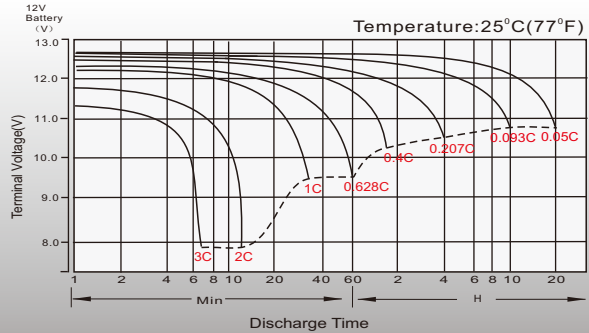
Dimensions

T2 Terminal

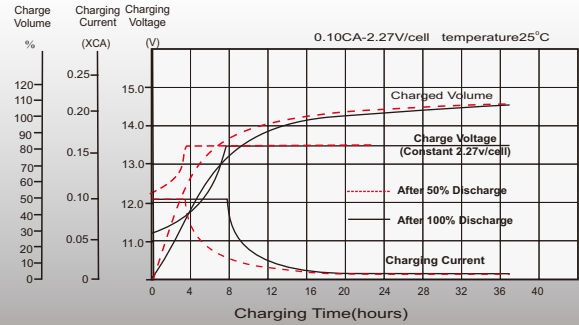
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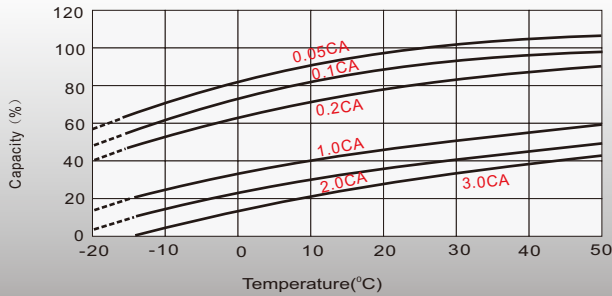
Discharge Characteristics



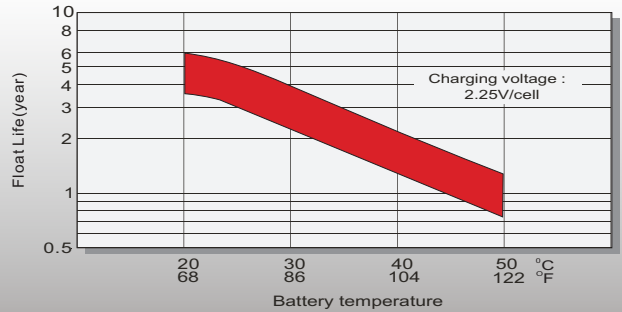
Float Charging Characteristics



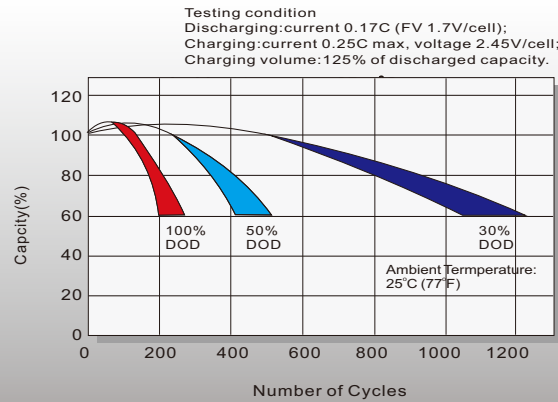
Temperature Effects in Relation to Battery Capacity



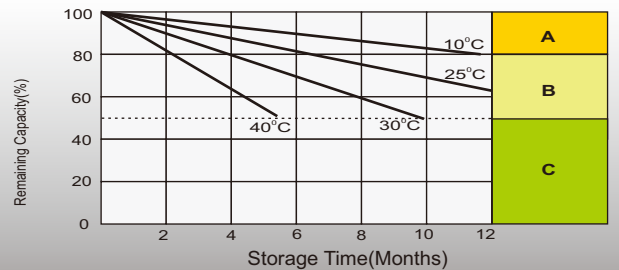
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Charge Characteristics



A No supplementary charge required (Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.27V/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.

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