

LP SERIES-General Purpose

LP12-5.0 (12V5.0AH)

Specification

| | | |
|----------------------------------|---|---|
| Nominal Voltage | 12V | |
| Nominal Capacity(20HR) | 5.0AH | |
| Dimension | Length | 151±1mm (5.94 inches) |
| | Width | 53±1mm (2.09 inches) |
| | Container Height | 93±1mm (3.66 inches) |
| | Total Height (with Terminal) | 99±1mm (3.90 inches) |
| Approx Weight | Approx 1.74 kg (3.84lbs) | |
| Terminal | T1 / T2 | |
| Container Material | ABS | |
| Rated Capacity | 5.00 AH/0.250A | (20hr, 1.80V/cell, 25°C/77°F) |
| | 4.65 AH/0.465A | (10hr, 1.80V/cell, 25°C/77°F) |
| | 4.25 AH/0.850A | (5hr, 1.75V/cell, 25°C/77°F) |
| | 3.84 AH/1.28A | (3hr, 1.75V/cell, 25°C/77°F) |
| | 3.14 AH/3.14A | (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 75A (5s) | |
| Internal Resistance | Approx 45mΩ | |
| Operating Temp. Range | Discharge | -15~50°C (5~120°F) |
| | Charge | 0~40°C (5~104°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 1.5A. 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 | 9.52 | 7.31 | 6.06 | 5.24 | 4.05 | 2.98 | 2.51 | 1.49 | 1.16 | 0.95 | 0.77 | 0.67 | 0.540 | 0.451 | 0.248 |
| 1.80V/cell | 12.8 | 9.34 | 7.32 | 6.19 | 4.78 | 3.47 | 2.82 | 1.62 | 1.25 | 1.01 | 0.83 | 0.72 | 0.573 | 0.465 | 0.250 |
| 1.75V/cell | 14.4 | 10.3 | 7.99 | 6.66 | 4.96 | 3.60 | 2.95 | 1.68 | 1.28 | 1.03 | 0.85 | 0.74 | 0.583 | 0.478 | 0.253 |
| 1.70V/cell | 15.9 | 11.2 | 8.53 | 7.00 | 5.16 | 3.74 | 3.04 | 1.73 | 1.31 | 1.06 | 0.87 | 0.75 | 0.591 | 0.487 | 0.257 |
| 1.65V/cell | 17.5 | 12.1 | 9.07 | 7.44 | 5.45 | 3.84 | 3.11 | 1.75 | 1.37 | 1.10 | 0.90 | 0.77 | 0.600 | 0.497 | 0.261 |
| 1.60V/cell | 19.3 | 13.1 | 9.71 | 7.92 | 5.75 | 4.00 | 3.14 | 1.83 | 1.41 | 1.13 | 0.93 | 0.79 | 0.606 | 0.503 | 0.262 |

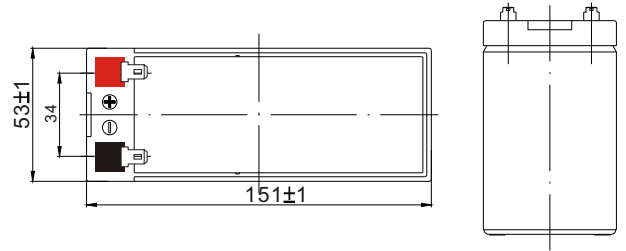
Constant Power Discharge (Watts) at 25 °C (77°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|
| 1.85V/cell | 17.4 | 13.5 | 11.3 | 9.87 | 7.72 | 5.73 | 4.85 | 2.89 | 2.27 | 1.85 | 1.51 | 1.32 | 1.066 | 0.893 | 0.490 |
| 1.80V/cell | 23.1 | 17.1 | 13.5 | 11.5 | 8.97 | 6.62 | 5.40 | 3.13 | 2.43 | 1.96 | 1.62 | 1.41 | 1.127 | 0.919 | 0.495 |
| 1.75V/cell | 25.5 | 18.4 | 14.5 | 12.3 | 9.23 | 6.80 | 5.63 | 3.23 | 2.46 | 2.00 | 1.65 | 1.44 | 1.144 | 0.942 | 0.499 |
| 1.70V/cell | 27.3 | 19.6 | 15.3 | 12.8 | 9.56 | 7.05 | 5.79 | 3.31 | 2.53 | 2.05 | 1.69 | 1.47 | 1.159 | 0.960 | 0.507 |
| 1.65V/cell | 29.7 | 21.0 | 16.1 | 13.5 | 10.0 | 7.16 | 5.88 | 3.34 | 2.62 | 2.11 | 1.73 | 1.50 | 1.174 | 0.979 | 0.514 |
| 1.60V/cell | 32.0 | 22.3 | 17.0 | 14.2 | 10.5 | 7.42 | 5.90 | 3.46 | 2.69 | 2.17 | 1.78 | 1.52 | 1.183 | 0.988 | 0.516 |

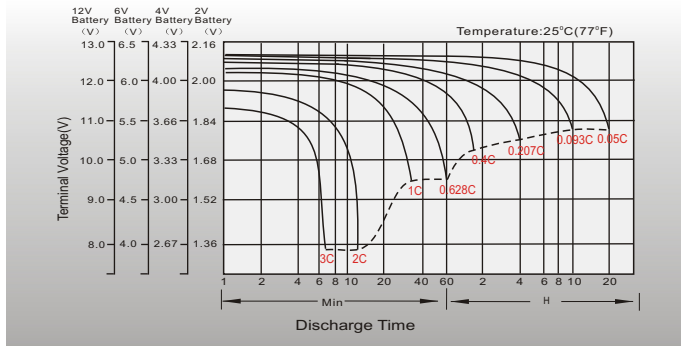
Dimensions

T1 Terminal

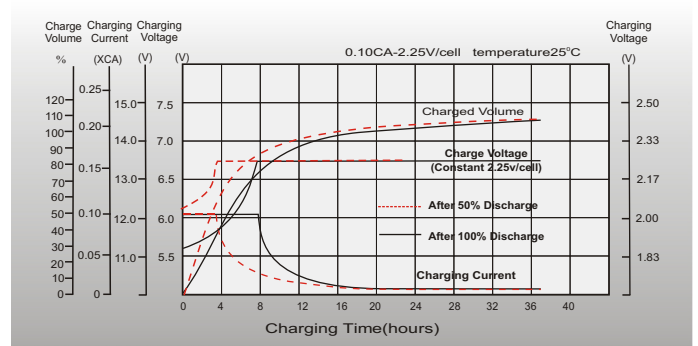
Unit: mm [inches]



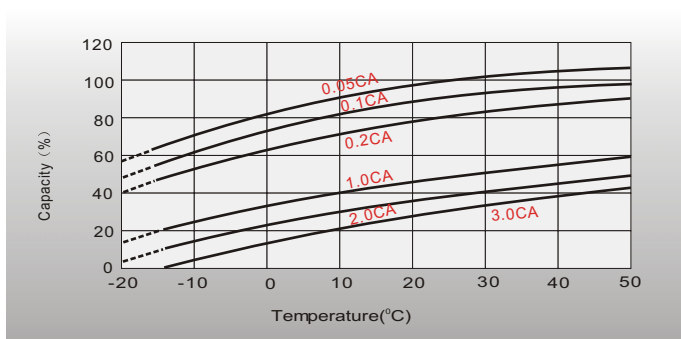
Discharge Characteristics



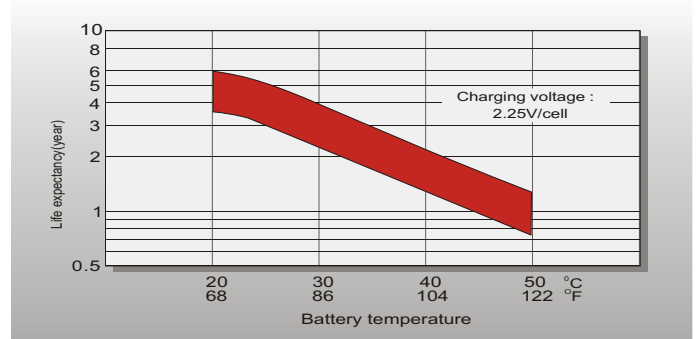
Float Charging Characteristics



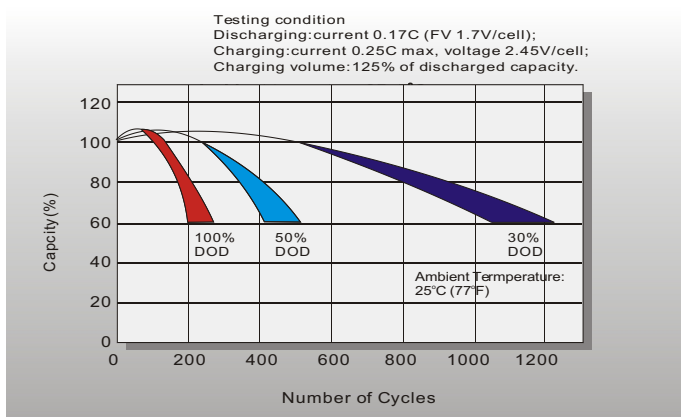
Temperature Effects in Relation to Batter Capacity



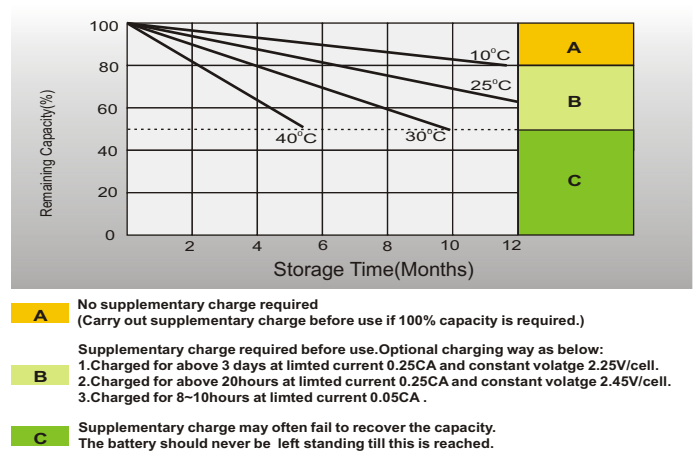
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



Sales Office

China sales office:

Add: 5th Floor, Xinbaohui Bldg., Nanshan, Shenzhen, China. 518052
 Tel: +86-755-86036060 (100 lines)
 Fax: +86-755-26067269
 E-mail: battery@leoch.com
 Http://www.leoch.com

North America sales office:

Add: 19751 Descartes, Unit A, Foothill Ranch, CA 92610, USA
 Tel: 949-588-5853
 Fax: 949-588-5966
 E-mail: sales@leoch.us
 Http://www.leoch.us

Europe sales office:

Add: La Campagna House, Main Road, Gloucester, GL2-8JH, United Kingdom
 Tel: +44(0) 1452 751016
 E-mail: malcolm@leoch.com
 Http://www.leoch.com