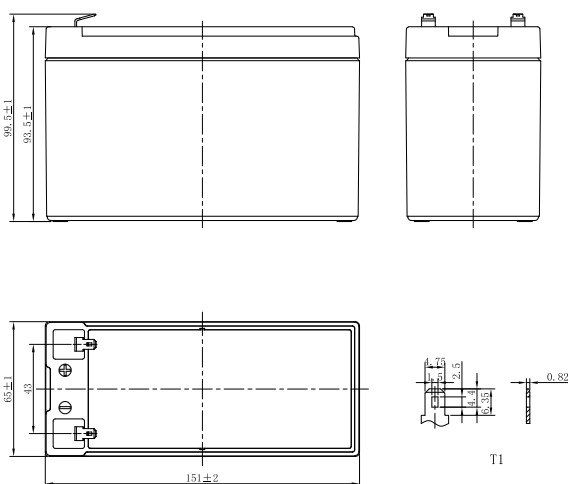


LP SERIES-GENERAL PURPOSE

LP12-9.0 (12V9.0Ah)



CHARACTERISTICS

| Item | Specifications | |
|-------------------------------|--|---------------------|
| Rated Voltage | 12V | |
| Nominal Capacity (25°C) | C ₂₀ , 1.75V/cell | 9.0Ah |
| Dimension | Length | 151mm (5.94inches) |
| | Width | 65mm (2.56inches) |
| | Container Height | 93.5mm (3.68inches) |
| | Total Height | 99.5mm (3.92inches) |
| Approx Weight | 2.52kg (5.56lbs) | |
| Terminal | T1/T2 | |
| Container Material | ABS (UL94 HB or V-0 optional) | |
| Short-circuit current | 252A | |
| Internal Resistance (25°C) | Approx 17 mΩ (Fully charged) | |
| Operating Temp. Range | Discharge | -15~50°C (5~122°F) |
| | Charge | -20~40°C (-4~104°F) |
| | Storage | -15~40°C (5~104°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Max. Charging Current (25°C) | 0.3C | |
| Charge voltage (25°C) | Standby Use | Cycle Use |
| | 2.25-2.30V/cell | 2.35-2.45V/cell |
| Temp. Coefficient | -3mV/cell/°C | -5mV/cell/°C |
| | 40°C (104°F) | 103% |
| Effect of temp. to Capacity | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| | ≤3% per month at 25°C (77°F). LP series batteries may be stored 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. | |
| Self Discharge | | |

DISCHARGE TABLE

| Constant Current Discharge (Amperes) at 25°C (77°F) | | | | | | | | | | | | | | | | |
|--|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|-------|
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
| 1.85V/cell | 30.2 | 20.7 | 16.1 | 12.9 | 9.34 | 6.72 | 5.41 | 3.92 | 3.08 | 2.22 | 1.77 | 1.51 | 1.29 | 1.02 | 0.832 | 0.440 |
| 1.80V/cell | 32.4 | 21.9 | 16.9 | 13.4 | 9.63 | 6.90 | 5.54 | 4.00 | 3.14 | 2.26 | 1.80 | 1.53 | 1.31 | 1.03 | 0.843 | 0.445 |
| 1.75V/cell | 34.2 | 22.8 | 17.4 | 13.8 | 9.88 | 7.05 | 5.66 | 4.08 | 3.19 | 2.30 | 1.82 | 1.55 | 1.33 | 1.04 | 0.851 | 0.450 |
| 1.70V/cell | 35.8 | 23.7 | 18.0 | 14.2 | 10.1 | 7.21 | 5.76 | 4.15 | 3.24 | 2.33 | 1.85 | 1.57 | 1.34 | 1.05 | 0.860 | 0.454 |
| 1.67V/cell | 37.0 | 24.4 | 18.5 | 14.5 | 10.3 | 7.32 | 5.85 | 4.20 | 3.28 | 2.35 | 1.86 | 1.58 | 1.35 | 1.06 | 0.866 | 0.457 |
| 1.60V/cell | 39.3 | 25.4 | 19.1 | 14.9 | 10.6 | 7.50 | 5.98 | 4.29 | 3.34 | 2.40 | 1.90 | 1.61 | 1.37 | 1.08 | 0.877 | 0.462 |
| Constant Power Discharge (Watts/cell) at 25°C (77°F) | | | | | | | | | | | | | | | | |
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
| 1.85V/cell | 57.1 | 39.4 | 30.8 | 24.8 | 18.1 | 13.0 | 10.5 | 7.66 | 6.03 | 4.37 | 3.49 | 2.98 | 2.55 | 2.02 | 1.65 | 0.880 |
| 1.80V/cell | 60.8 | 41.4 | 32.1 | 25.7 | 18.5 | 13.3 | 10.8 | 7.79 | 6.13 | 4.43 | 3.53 | 3.02 | 2.59 | 2.04 | 1.67 | 0.890 |
| 1.75V/cell | 63.3 | 42.8 | 33.0 | 26.2 | 18.9 | 13.6 | 10.9 | 7.91 | 6.22 | 4.49 | 3.58 | 3.05 | 2.62 | 2.06 | 1.69 | 0.900 |
| 1.70V/cell | 65.7 | 44.2 | 33.9 | 26.9 | 19.3 | 13.8 | 11.1 | 8.03 | 6.30 | 4.55 | 3.62 | 3.09 | 2.64 | 2.08 | 1.71 | 0.907 |
| 1.67V/cell | 67.4 | 45.2 | 34.6 | 27.4 | 19.6 | 14.0 | 11.2 | 8.11 | 6.36 | 4.59 | 3.65 | 3.11 | 2.67 | 2.10 | 1.72 | 0.914 |
| 1.60V/cell | 70.1 | 46.5 | 35.6 | 28.0 | 20.0 | 14.3 | 11.4 | 8.30 | 6.46 | 4.66 | 3.71 | 3.15 | 2.70 | 2.13 | 1.74 | 0.924 |

LP SERIES-GENERAL PURPOSE

LP12-9.0 (12V9.0Ah)



APPLICATIONS

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

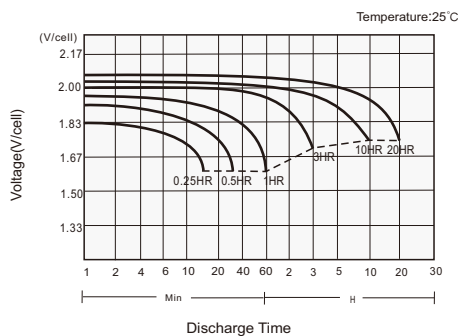
GENERAL FEATURES

- 5 years design life (25°C)
- Lead calcium alloy, sealed design, no watering required
- Puncture resistant micro-porous glass mat separators extend life
- Unique technology optimizes power capacity, cell consistency, and long-term reliability
- Designed for a wide range of applications

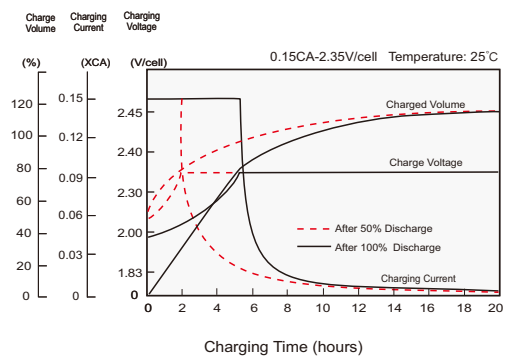
STANDARDS

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Approved
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

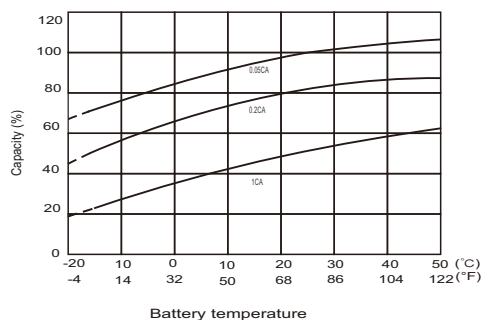
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

