

LPL Series-Long Standby Life

LPL12-12(12V12Ah)

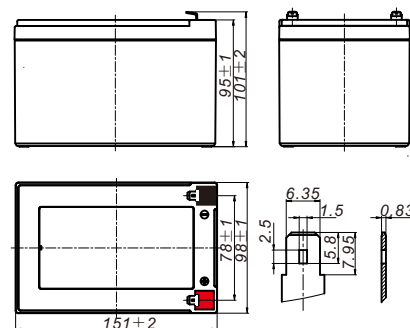


Specifications

| | | |
|-------------------------------|--|--------------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | 12.0Ah | (C ₂₀ , 1.75V/cell) |
| Dimension | Length | 151±2mm (5.95 inches) |
| | Width | 98±1mm (3.86 inches) |
| | Container Height | 95±1mm (3.74 inches) |
| | Total Height | 101±2mm (3.98 inches) |
| Approx Weight | 3.85 Kg (8.49lbs) | |
| Terminal | T2 | |
| Container Material | ABS | |
| Rated Capacity (25°C) | 12.00 Ah | (20hr, 0.600A, 1.75V/cell) |
| | 11.60 Ah | (10hr, 1.16A, 1.75V/cell) |
| | 10.65Ah | (5hr, 2.13A, 1.75V/cell) |
| | 9.39 Ah | (3hr, 3.13A, 1.75V/cell) |
| | 7.89 Ah | (1hr, 7.89A, 1.60V/cell) |
| Max. Discharge Current | 180A (5s) | |
| Internal Resistance (25°C) | Approx 22.0mΩ | |
| 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) | |
| Cycle Use | Initial Charging Current less than 3.6A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| | Standby Use | |
| Effect of temp. to Capacity | Initial Charging Current less than 3.6A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| Self Discharge | 0°C (32°F) | |
| | LPL 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. | |



Layout



Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 23.9 | 18.9 | 15.9 | 12.0 | 8.84 | 7.23 | 4.19 | 3.04 | 2.46 | 2.08 | 1.78 | 1.40 | 1.13 | 0.588 |
| 1.80V/cell | 25.1 | 19.7 | 16.4 | 12.4 | 9.02 | 7.36 | 4.26 | 3.08 | 2.49 | 2.11 | 1.80 | 1.41 | 1.14 | 0.595 |
| 1.75V/cell | 26.3 | 20.4 | 16.9 | 12.6 | 9.20 | 7.49 | 4.32 | 3.13 | 2.53 | 2.13 | 1.82 | 1.43 | 1.16 | 0.600 |
| 1.70V/cell | 27.6 | 21.1 | 17.4 | 12.9 | 9.37 | 7.62 | 4.39 | 3.17 | 2.56 | 2.16 | 1.85 | 1.45 | 1.17 | 0.607 |
| 1.65V/cell | 28.3 | 21.6 | 17.7 | 13.1 | 9.48 | 7.70 | 4.43 | 3.20 | 2.58 | 2.18 | 1.86 | 1.46 | 1.18 | 0.610 |
| 1.60V/cell | 30.0 | 22.6 | 18.4 | 13.5 | 9.73 | 7.89 | 4.52 | 3.27 | 2.63 | 2.22 | 1.89 | 1.48 | 1.20 | 0.619 |

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

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 45.7 | 36.4 | 30.7 | 23.3 | 17.2 | 14.1 | 8.21 | 5.97 | 4.84 | 4.10 | 3.52 | 2.77 | 2.24 | 1.18 |
| 1.80V/cell | 47.7 | 37.6 | 31.5 | 23.8 | 17.4 | 14.3 | 8.31 | 6.05 | 4.90 | 4.15 | 3.56 | 2.80 | 2.27 | 1.19 |
| 1.75V/cell | 49.8 | 38.8 | 32.2 | 24.2 | 17.7 | 14.5 | 8.42 | 6.12 | 4.96 | 4.20 | 3.60 | 2.83 | 2.29 | 1.20 |
| 1.70V/cell | 51.8 | 40.0 | 33.1 | 24.7 | 18.0 | 14.7 | 8.53 | 6.20 | 5.02 | 4.25 | 3.64 | 2.86 | 2.32 | 1.21 |
| 1.65V/cell | 53.0 | 40.7 | 33.5 | 25.0 | 18.1 | 14.8 | 8.60 | 6.25 | 5.05 | 4.28 | 3.66 | 2.88 | 2.33 | 1.22 |
| 1.60V/cell | 55.8 | 42.2 | 34.6 | 25.6 | 18.5 | 15.1 | 8.74 | 6.35 | 5.13 | 4.34 | 3.72 | 2.93 | 2.37 | 1.24 |

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Applications

- UPS and EPS
- Emergency light
- Railway signal and aircraft signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply, DC power supply

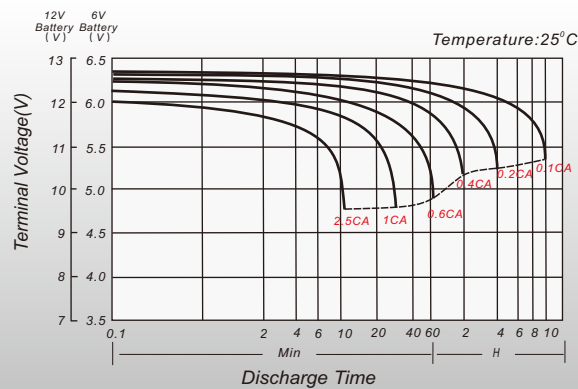
General Features

- 10 ~ 12 years design life(20°C)
- Grid refining technology and the thicker plates are used to extend the battery standby life and reduce the plate grid corrosion speed
- Using oxygen recombination technology: maintenance-free
- Unique vent valve design: control water losing, prevent air and spark going inside

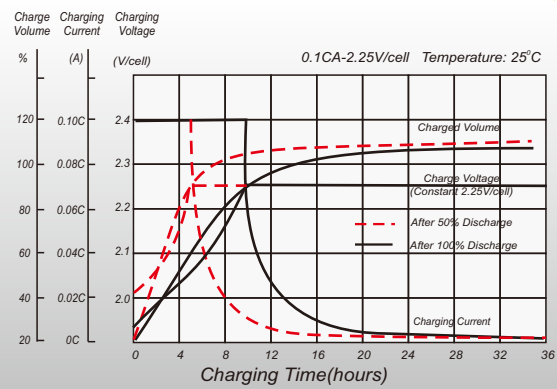
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified

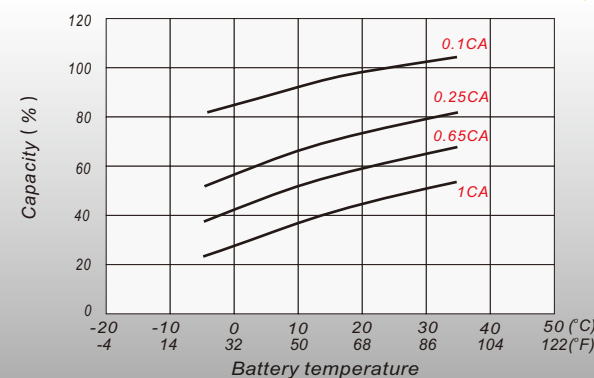
Discharge Characteristics



Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life

