



LP Series-General Purpose LP12-180(12V180Ah)

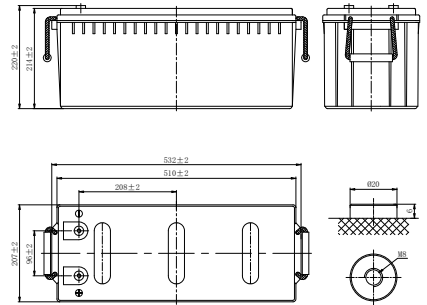


Specifications

| | | |
|-------------------------------|---|--------------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | 180.0Ah | (C ₁₀ , 1.80V/cell) |
| Dimension | Length | 532±2mm (20.9 inches) |
| | Width | 207±2mm (8.15 inches) |
| | Container Height | 214±2mm (8.42 inches) |
| | Total Height | 220±2mm (8.66 inches) |
| Approx Weight | 51.0 Kg (112.4 lbs) | |
| Terminal | M8 | |
| Container Material | ABS | |
| Rated Capacity (25°C) | 189.0 Ah | (20hr, 9.45A, 1.80V/cell) |
| | 180.0 Ah | (10hr, 18.0A, 1.80V/cell) |
| | 164.0 Ah | (5hr, 32.8A, 1.75V/cell) |
| | 149.1 Ah | (3hr, 49.7A, 1.75V/cell) |
| | 114.8Ah | (1hr, 114.8A, 1.60V/cell) |
| Max. Discharge Current | 1800A (5s) | |
| Internal Resistance (25°C) | Approx 3.5mΩ | |
| 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 54.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| Standby Use | Initial Charging Current less than 54.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| Effect of temp. to Capacity | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | 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. | |



Layout



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

| F.V/Time | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 207.8 | 163.4 | 146.1 | 106.8 | 100.6 | 72.9 | 61.3 | 44.9 | 35.3 | 30.6 | 27.0 | 20.7 | 17.2 | 9.12 |
| 1.80V/cell | 235.5 | 184.7 | 159.1 | 113.2 | 104.2 | 75.4 | 63.3 | 48.8 | 37.6 | 32.2 | 29.0 | 21.8 | 18.0 | 9.45 |
| 1.75V/cell | 254.9 | 199.4 | 162.3 | 117.3 | 109.3 | 79.2 | 66.6 | 49.7 | 38.3 | 32.8 | 29.2 | 21.9 | 18.2 | 9.54 |
| 1.70V/cell | 270.8 | 211.5 | 165.6 | 119.6 | 111.5 | 80.8 | 67.9 | 50.7 | 39.0 | 33.3 | 29.4 | 22.3 | 18.4 | 9.64 |
| 1.67V/cell | 278.6 | 217.3 | 168.0 | 121.4 | 113.1 | 82.0 | 68.9 | 51.2 | 39.6 | 34.0 | 29.5 | 22.6 | 18.6 | 9.76 |
| 1.60V/cell | 287.3 | 222.8 | 170.4 | 123.2 | 114.8 | 83.2 | 69.9 | 51.7 | 40.1 | 34.5 | 29.7 | 22.9 | 18.8 | 9.88 |

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

| F.V/Time | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 393.4 | 310.8 | 279.2 | 205.4 | 175.0 | 127.2 | 107.3 | 79.1 | 69.2 | 60.3 | 53.3 | 41.2 | 34.2 | 18.2 |
| 1.80V/cell | 440.1 | 347.7 | 301.6 | 216.2 | 180.3 | 130.9 | 110.2 | 85.4 | 73.6 | 63.1 | 57.0 | 43.2 | 35.7 | 18.8 |
| 1.75V/cell | 469.7 | 371.1 | 305.4 | 222.7 | 188.4 | 137.0 | 115.6 | 86.8 | 74.7 | 64.0 | 57.3 | 43.3 | 36.1 | 19.0 |
| 1.70V/cell | 493.8 | 390.1 | 308.9 | 225.6 | 191.1 | 139.1 | 117.4 | 88.2 | 75.7 | 64.9 | 57.5 | 43.9 | 36.4 | 19.1 |
| 1.67V/cell | 501.8 | 396.4 | 311.1 | 227.6 | 192.8 | 140.4 | 118.6 | 88.6 | 76.6 | 66.0 | 57.6 | 44.4 | 36.8 | 19.3 |
| 1.60V/cell | 508.9 | 402.0 | 312.4 | 228.8 | 194.3 | 141.5 | 119.6 | 89.0 | 77.2 | 66.6 | 57.8 | 44.9 | 37.2 | 19.5 |



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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

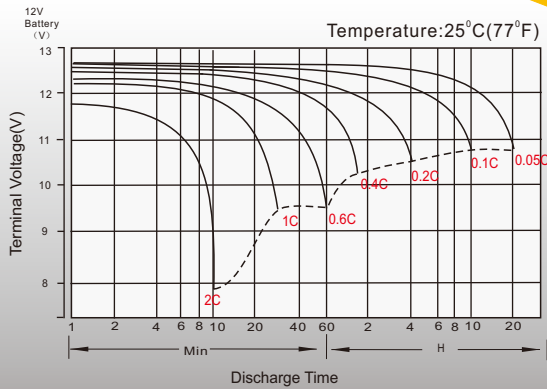
General Features

- 8 years design life(25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

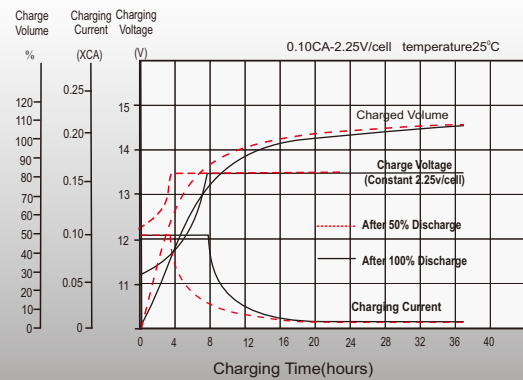
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch®IATF 16949, ISO45001, ISO 9001 and ISO 14001 certified production facilities

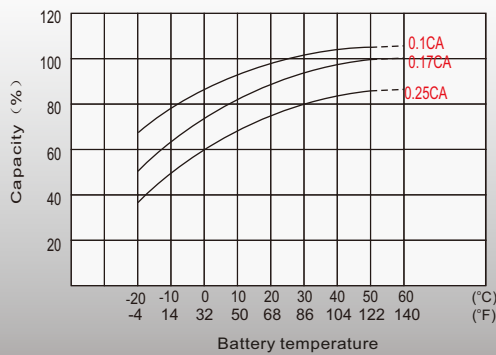
Discharge Characteristics



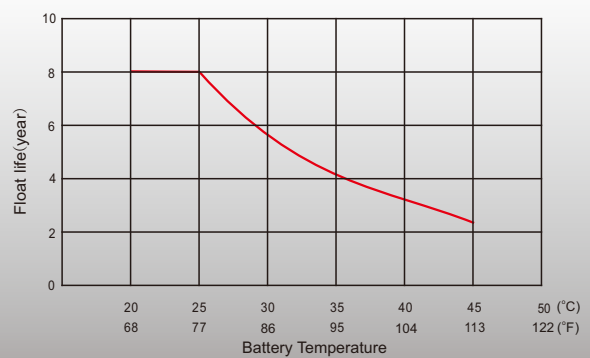
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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