



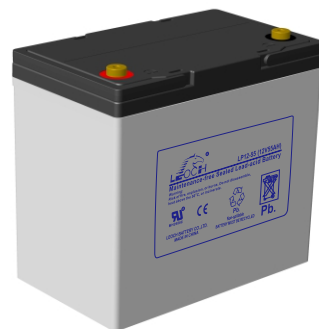
# LP Series-General Purpose

## LP12-55(12V55Ah)

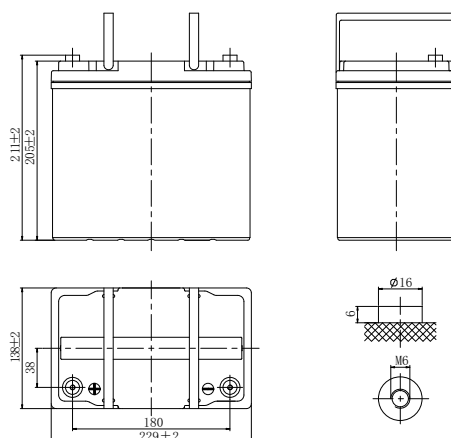


### Specifications

|                               |                                                                                                                                                                         |                                |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Rated Voltage                 | 12V                                                                                                                                                                     |                                |
| Nominal Capacity              | 55.0Ah                                                                                                                                                                  | (C <sub>10</sub> , 1.80V/cell) |
| Dimension                     | Length                                                                                                                                                                  | 229±2mm (9.02 inches)          |
|                               | Width                                                                                                                                                                   | 138±2mm (5.43 inches)          |
|                               | Container Height                                                                                                                                                        | 205±2mm (8.07 inches)          |
|                               | Total Height                                                                                                                                                            | 211±2mm (8.31 inches)          |
| Approx Weight                 | 16.2 Kg (35.7 lbs)                                                                                                                                                      |                                |
| Terminal                      | M6                                                                                                                                                                      |                                |
| Container Material            | ABS                                                                                                                                                                     |                                |
| Rated Capacity (25°C)         | 57.8 Ah                                                                                                                                                                 | (20hr, 2.89A, 1.80V/cell)      |
|                               | 55.0 Ah                                                                                                                                                                 | (10hr, 5.50A, 1.80V/cell)      |
|                               | 50.0 Ah                                                                                                                                                                 | (5hr, 10.0A, 1.75V/cell)       |
|                               | 45.6 Ah                                                                                                                                                                 | (3hr, 15.2A, 1.75V/cell)       |
|                               | 35.1 Ah                                                                                                                                                                 | (1hr, 35.1A, 1.60V/cell)       |
| Max. Discharge Current        | 550A (5s)                                                                                                                                                               |                                |
| Internal Resistance (25°C)    | Approx 9.0mΩ                                                                                                                                                            |                                |
| 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 16.5A. Voltage                                                                                                                       |                                |
|                               | 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C                                                                                                                     |                                |
| Standby Use                   | Initial Charging Current less than 16.5A. 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   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 112.1 | 79.7  | 70.5  | 55.5  | 49.6  | 36.3  | 30.7 | 22.3 | 18.7 | 13.7 | 10.8 | 9.35 | 8.24 | 6.34 | 5.25 | 2.79 |
| 1.80V/cell | 127.5 | 90.5  | 79.9  | 62.7  | 54.0  | 38.4  | 31.8 | 23.0 | 19.3 | 14.9 | 11.5 | 9.83 | 8.86 | 6.67 | 5.50 | 2.89 |
| 1.75V/cell | 138.5 | 98.2  | 86.5  | 67.7  | 55.1  | 39.8  | 33.4 | 24.2 | 20.4 | 15.2 | 11.7 | 10.0 | 8.93 | 6.70 | 5.56 | 2.92 |
| 1.70V/cell | 148.1 | 104.7 | 91.9  | 71.8  | 56.2  | 40.6  | 34.1 | 24.7 | 20.8 | 15.5 | 11.9 | 10.2 | 8.97 | 6.81 | 5.61 | 2.95 |
| 1.67V/cell | 153.3 | 108.0 | 94.6  | 73.8  | 57.0  | 41.2  | 34.6 | 25.1 | 21.1 | 15.6 | 12.1 | 10.4 | 9.01 | 6.90 | 5.68 | 2.98 |
| 1.60V/cell | 158.7 | 111.7 | 97.5  | 75.7  | 57.9  | 41.8  | 35.1 | 25.4 | 21.4 | 15.8 | 12.2 | 10.5 | 9.08 | 6.99 | 5.75 | 3.02 |

### 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 | 203.0 | 145.4 | 133.6 | 105.5 | 94.8  | 69.7  | 59.4 | 43.2 | 36.4 | 26.8 | 21.1 | 18.4 | 16.3 | 12.6 | 10.4 | 5.55 |
| 1.80V/cell | 227.1 | 162.7 | 149.4 | 118.0 | 102.4 | 73.4  | 61.2 | 44.4 | 37.4 | 29.0 | 22.5 | 19.3 | 17.4 | 13.2 | 10.9 | 5.74 |
| 1.75V/cell | 242.4 | 173.6 | 159.5 | 126.0 | 103.7 | 75.6  | 64.0 | 46.5 | 39.2 | 29.5 | 22.8 | 19.6 | 17.5 | 13.2 | 11.0 | 5.79 |
| 1.70V/cell | 254.8 | 182.5 | 167.6 | 132.4 | 104.9 | 76.6  | 64.9 | 47.2 | 39.9 | 29.9 | 23.1 | 19.8 | 17.6 | 13.4 | 11.1 | 5.84 |
| 1.67V/cell | 259.0 | 185.5 | 170.4 | 134.6 | 105.6 | 77.3  | 65.5 | 47.7 | 40.3 | 30.1 | 23.4 | 20.2 | 17.6 | 13.6 | 11.2 | 5.91 |
| 1.60V/cell | 262.6 | 188.1 | 172.8 | 136.5 | 106.1 | 77.7  | 66.0 | 48.0 | 40.6 | 30.2 | 23.6 | 20.4 | 17.7 | 13.7 | 11.4 | 5.97 |



# LP Series-General Purpose

## LP12-55(12V55Ah)



### 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

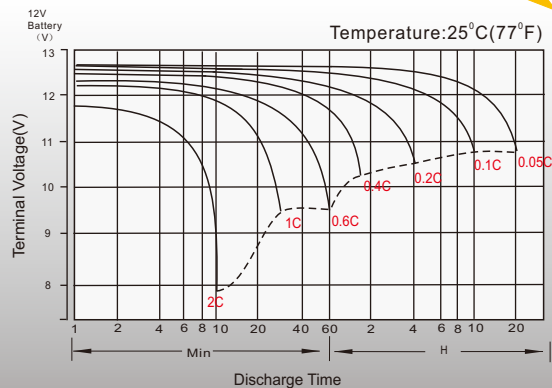
### General Features

- 10 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

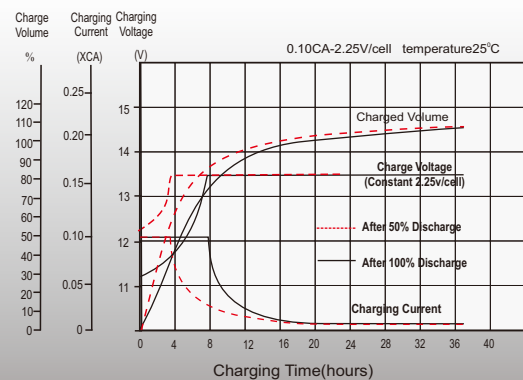
### Standards

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

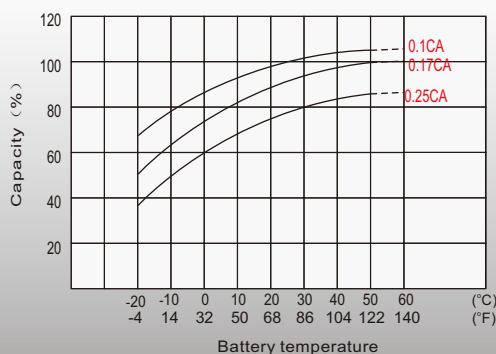
### Discharge Characteristics



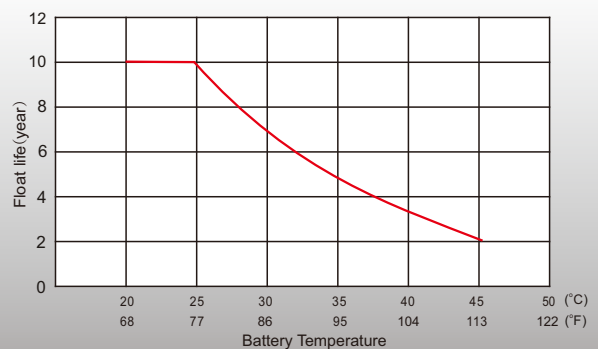
### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Float Service Life



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