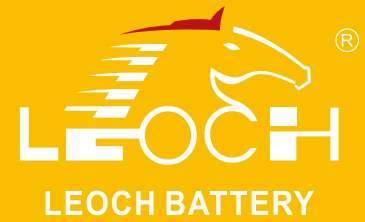


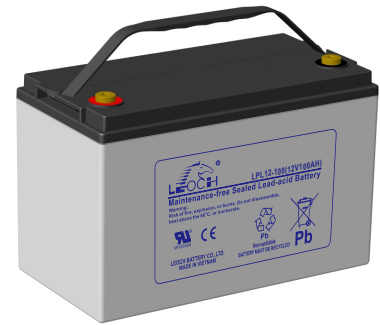


# LPL Series-Long Life Standby LPL12-100(12V100Ah)

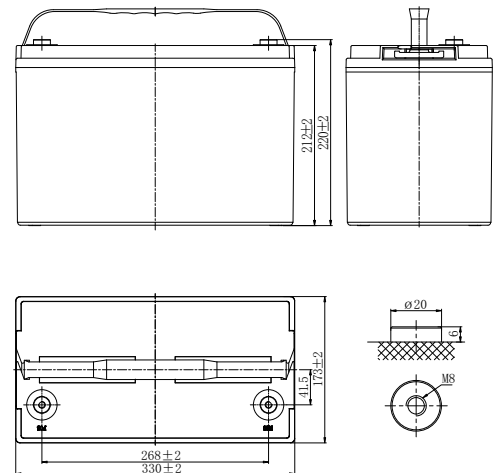


## Specifications

|                               |  |                         |
|-------------------------------|--|-------------------------|
| Rated Voltage                 | 12V  |                         |
| Nominal Capacity              | C <sub>10</sub> , 1.80V/cell   | 100Ah                   |
| Dimension                     | Length   | 330±2mm (13.0 inches)   |
|                               | Width  | 173±2mm (6.81 inches)   |
|                               | Container Height   | 212±2mm (8.35 inches)   |
|                               | Total Height   | 220±2mm (8.66 inches)   |
| Approx Weight                 | 30.5kg (67.2 lbs)  |                         |
| Terminal                      | M8   |                         |
| Container Material            | ABS  |                         |
| Rated Capacity(25°C)          | 105.0 Ah   | C20(5.25A, 1.80V/cell)  |
|                               | 100.0 Ah   | C10(10.0A, 1.80V/cell)  |
|                               | 84.5 Ah  | C5(16.9A, 1.75V/cell)   |
|                               | 77.1 Ah  | C3(25.7A, 1.75V/cell)   |
| Max. Discharge Current        | 1000A (5s)   |                         |
|                               | Internal Resistance(25°C)  | Approx 5.0mΩ            |
| 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)  |                         |
| Standby Use                   | Initial Charging Current less than 30A. Voltage 2.23V~2.27V at 25°C(77°F)Temp. Coefficient -3mV/°C   |                         |
| Equalization Use              | Initial Charging Current less than 30A. Voltage 2.35V~2.40V at 25°C(77°F)Temp. Coefficient -4mV/°C   |                         |
| Cycle Use                     | Initial Charging Current less than 30A. Voltage 2.40V~2.50V at 25°C(77°F)Temp. Coefficient -5mV/°C   |                         |
|                               | 40°C (104°F)   | 103%                    |
|                               | 25°C ( 77°F)   | 100%                    |
| Effect of temp. to Capacity   | 0°C ( 32°F)  | 86%                     |
|                               | 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. |                         |
| Self Discharge                |  |                         |



## Layout



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

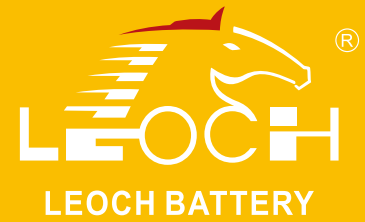
| F.V/Time   | 5min  | 10min | 15min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 197.7 | 140.5 | 121.9 | 78.8  | 58.9  | 50.9 | 37.7 | 31.7 | 23.2 | 18.2 | 15.8 | 13.9 | 10.7 | 9.55 | 5.07 |
| 1.80V/cell | 224.8 | 159.5 | 138.1 | 85.8  | 62.4  | 52.7 | 38.9 | 32.7 | 25.2 | 19.4 | 16.6 | 15.0 | 11.3 | 10.0 | 5.25 |
| 1.75V/cell | 244.2 | 173.0 | 149.5 | 87.6  | 64.6  | 55.3 | 40.9 | 34.4 | 25.7 | 19.8 | 16.9 | 15.1 | 11.3 | 10.1 | 5.30 |
| 1.70V/cell | 261.0 | 184.5 | 158.8 | 89.3  | 65.9  | 56.4 | 41.7 | 35.1 | 26.2 | 20.2 | 17.2 | 15.2 | 11.5 | 10.2 | 5.36 |
| 1.65V/cell | 270.1 | 190.3 | 163.4 | 90.7  | 66.9  | 57.3 | 42.4 | 35.6 | 26.4 | 20.5 | 17.6 | 15.2 | 11.7 | 10.3 | 5.42 |
| 1.60V/cell | 279.7 | 196.8 | 168.5 | 92.0  | 67.9  | 58.1 | 43.0 | 36.1 | 26.7 | 20.7 | 17.8 | 15.3 | 11.8 | 10.5 | 5.49 |

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

| F.V/Time   | 5min  | 10min | 15min | 30min | 45min | 1h    | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 369.1 | 264.4 | 230.7 | 150.7 | 113.2 | 98.5  | 73.0 | 61.6 | 45.4 | 35.7 | 31.1 | 27.5 | 21.3 | 19.0 | 10.1 |
| 1.80V/cell | 412.9 | 295.8 | 258.1 | 162.7 | 119.2 | 101.4 | 75.1 | 63.3 | 49.0 | 38.0 | 32.6 | 29.5 | 22.3 | 19.9 | 10.4 |
| 1.75V/cell | 440.7 | 315.7 | 275.4 | 164.8 | 122.7 | 106.0 | 78.6 | 66.3 | 49.9 | 38.6 | 33.1 | 29.6 | 22.4 | 20.0 | 10.5 |
| 1.70V/cell | 463.3 | 331.9 | 289.6 | 166.7 | 124.3 | 107.5 | 79.8 | 67.4 | 50.6 | 39.1 | 33.5 | 29.7 | 22.7 | 20.2 | 10.6 |
| 1.65V/cell | 470.9 | 337.2 | 294.3 | 167.9 | 125.4 | 108.5 | 80.6 | 68.1 | 50.9 | 39.6 | 34.1 | 29.8 | 23.0 | 20.4 | 10.7 |
| 1.60V/cell | 477.4 | 342.0 | 298.4 | 168.6 | 126.1 | 109.3 | 81.2 | 68.6 | 51.1 | 39.9 | 34.4 | 29.9 | 23.2 | 20.6 | 10.9 |



# LPL Series-Long Life Standby LPL12-100(12V100Ah)



## 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

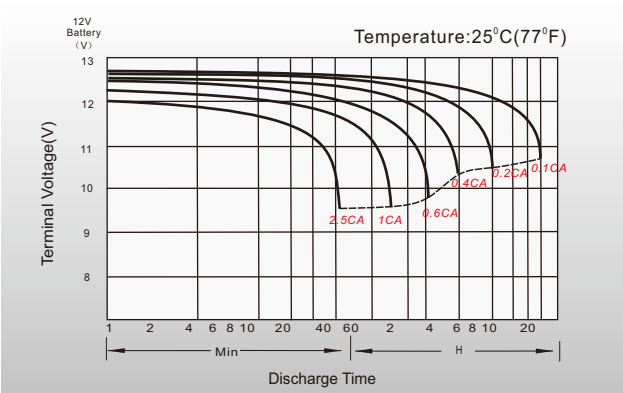
## General Features

- 12 years design life(25°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

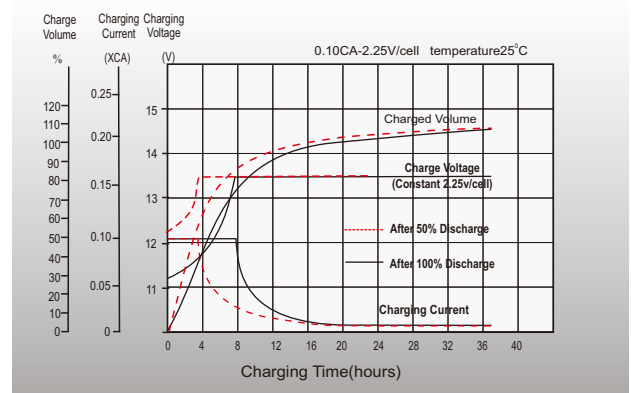
## Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

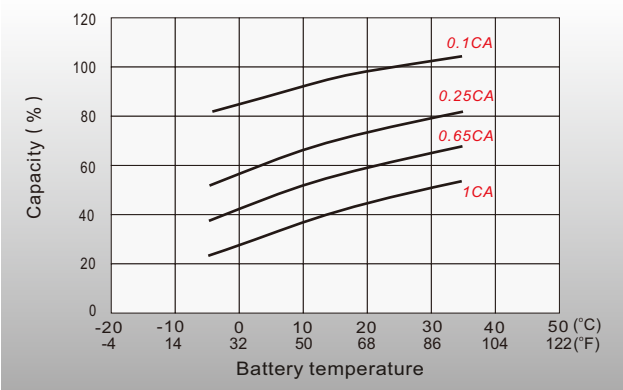
### Discharge Characteristics



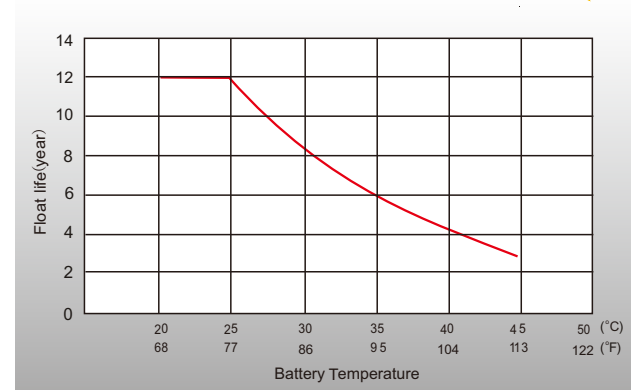
### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



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