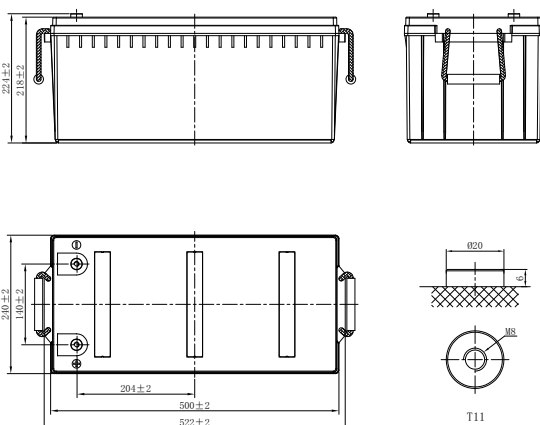


# LPL SERIES-LONG LIFE STANDBY

## LPL12-200 (12V200Ah)



### CHARACTERISTICS

| Item                          | Specifications                                                                                                                                                                                            |                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Rated Voltage                 | 12V                                                                                                                                                                                                       |                     |
| Nominal Capacity (25°C)       | C <sub>10</sub> , 1.80V/cell                                                                                                                                                                              | 200Ah               |
| Dimension                     | Length                                                                                                                                                                                                    | 522mm (20.6inches)  |
|                               | Width                                                                                                                                                                                                     | 240mm (9.45inches)  |
|                               | Container Height                                                                                                                                                                                          | 218mm (8.58inches)  |
|                               | Total Height                                                                                                                                                                                              | 224mm (8.82inches)  |
| Approx Weight                 | 62.3kg (137.3lbs)                                                                                                                                                                                         |                     |
| Terminal                      | T11(M8)                                                                                                                                                                                                   |                     |
| Container Material            | ABS (UL94 HB or V-0 optional)                                                                                                                                                                             |                     |
| Short-circuit current         | 3600A                                                                                                                                                                                                     |                     |
| Internal Resistance (25°C)    | Approx 3.2 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)         | Float Charge                                                                                                                                                                                              | Equalization Charge |
|                               | 2.25-2.30V/cell                                                                                                                                                                                           | 2.35-2.40V/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%                 |
| Self Discharge                | ≤3% per month at 25°C (77°F).<br>LPL series batteries may be stored up to 6 months at 25°C (77°F) and then a freshening charge is required.<br>For higher temperatures the time interval will be shorter. |                     |

### DISCHARGE TABLE

| 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                                           | 281.1 | 243.7 | 200.7 | 157.7 | 117.8 | 101.8 | 63.3  | 46.4  | 36.4 | 31.6 | 27.9 | 21.4 | 19.1 | 10.1 |
| 1.80V/cell                                           | 319.1 | 276.2 | 224.0 | 171.7 | 124.8 | 105.5 | 65.4  | 50.4  | 38.9 | 33.3 | 29.9 | 22.6 | 20.0 | 10.5 |
| 1.75V/cell                                           | 346.0 | 299.0 | 237.1 | 175.2 | 129.3 | 110.7 | 68.8  | 51.4  | 39.6 | 33.9 | 30.2 | 22.7 | 20.2 | 10.6 |
| 1.70V/cell                                           | 368.9 | 317.6 | 248.2 | 178.7 | 131.9 | 112.9 | 70.2  | 52.4  | 40.3 | 34.4 | 30.3 | 23.0 | 20.4 | 10.7 |
| 1.67V/cell                                           | 380.6 | 326.8 | 254.1 | 181.3 | 133.8 | 114.6 | 71.2  | 52.9  | 40.9 | 35.1 | 30.5 | 23.3 | 20.7 | 10.8 |
| 1.60V/cell                                           | 393.6 | 337.0 | 260.5 | 183.9 | 135.7 | 116.2 | 72.3  | 53.4  | 41.4 | 35.6 | 30.7 | 23.6 | 20.9 | 11.0 |
| 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                                           | 528.8 | 461.4 | 381.4 | 301.3 | 226.4 | 197.0 | 123.2 | 90.8  | 71.5 | 62.3 | 55.1 | 42.5 | 38.0 | 20.2 |
| 1.80V/cell                                           | 591.5 | 516.2 | 420.9 | 325.5 | 238.3 | 202.9 | 126.6 | 98.0  | 76.0 | 65.2 | 58.9 | 44.6 | 39.7 | 20.9 |
| 1.75V/cell                                           | 631.3 | 550.9 | 440.3 | 329.6 | 245.5 | 212.0 | 132.7 | 99.7  | 77.2 | 66.2 | 59.2 | 44.7 | 40.1 | 21.1 |
| 1.70V/cell                                           | 663.7 | 579.1 | 456.3 | 333.4 | 248.6 | 215.1 | 134.8 | 101.2 | 78.2 | 67.1 | 59.4 | 45.4 | 40.4 | 21.3 |
| 1.67V/cell                                           | 674.5 | 588.6 | 462.2 | 335.7 | 250.9 | 217.0 | 136.2 | 101.8 | 79.2 | 68.2 | 59.5 | 45.9 | 40.9 | 21.5 |
| 1.60V/cell                                           | 683.9 | 596.8 | 467.0 | 337.2 | 252.1 | 218.6 | 137.3 | 102.2 | 79.7 | 68.9 | 59.8 | 46.4 | 41.3 | 21.7 |

# LPL SERIES-LONG LIFE STANDBY

LPL12-200 (12V200Ah)



## 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

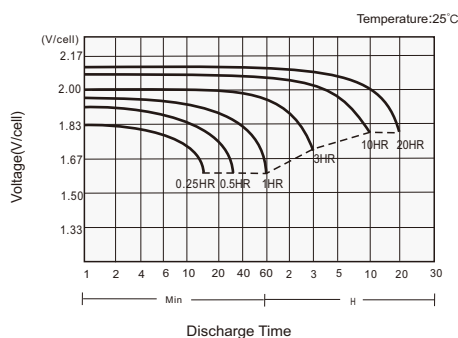
## GENERAL FEATURES

- 12 years design life (25°C)
- 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

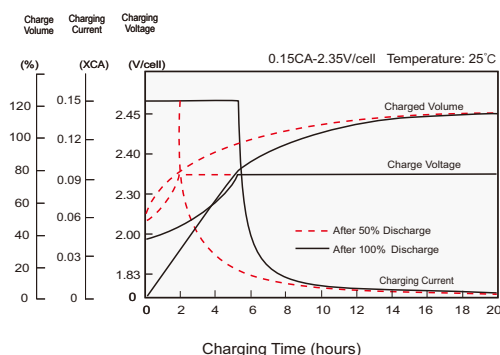
## STANDARDS

- 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

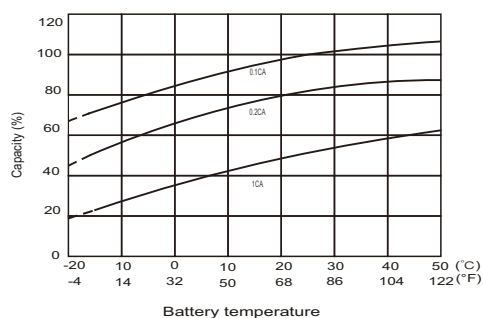
### Discharge Characteristics



### Charging Characteristics



### Effects of Temperature on Capacity



### Self Discharge Characteristics

