



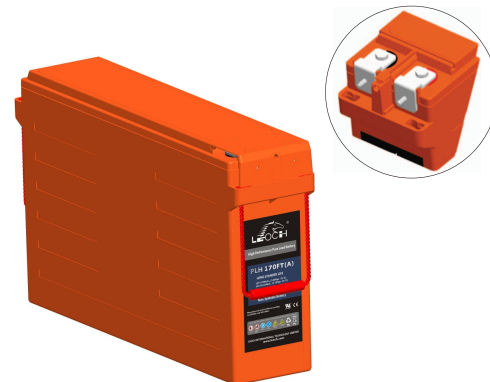
# PLH-Pure Lead Long Standby Life

## PLH170FT(A) (12V170Ah)

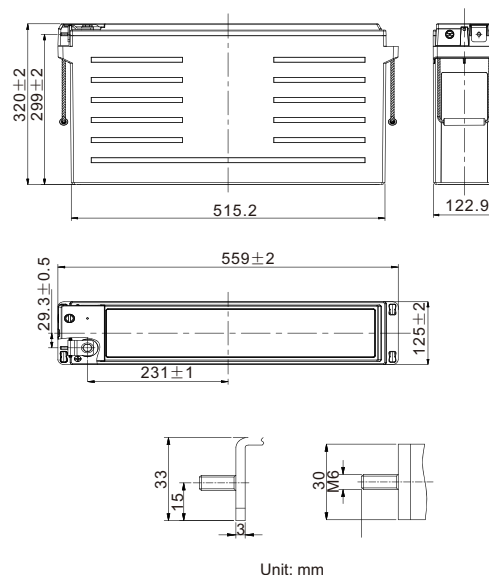


### Specifications

|                               |                                                                                                                                                                                                                                                                                     |                           |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Rated Voltage                 | 12V                                                                                                                                                                                                                                                                                 |                           |
| Nominal Capacity              | C <sub>10</sub> , 1.80V/cell                                                                                                                                                                                                                                                        | 170Ah                     |
|                               | C <sub>8</sub> , 1.75V/cell                                                                                                                                                                                                                                                         | 170Ah                     |
| Dimension                     | Length                                                                                                                                                                                                                                                                              | 559±3mm (22.01 inches)    |
|                               | Width                                                                                                                                                                                                                                                                               | 125±2mm (4.92 inches)     |
|                               | Container Height                                                                                                                                                                                                                                                                    | 320±3mm (12.6 inches)     |
|                               | Total Height                                                                                                                                                                                                                                                                        | 320±3mm (12.6 inches)     |
| Approx. Weight                | 54.8 Kg (120.8 lbs)                                                                                                                                                                                                                                                                 |                           |
| Terminal                      | M6                                                                                                                                                                                                                                                                                  |                           |
| Container Material            | PC-ABS flame retardant jar and cover to UL94 V-0                                                                                                                                                                                                                                    |                           |
| Rated Capacity (25°C)         | 184.8 Ah                                                                                                                                                                                                                                                                            | (20hr, 9.24A, 1.80V/cell) |
|                               | 170.0 Ah                                                                                                                                                                                                                                                                            | (10hr, 17.0A, 1.80V/cell) |
|                               | 162.0 Ah                                                                                                                                                                                                                                                                            | (5hr, 32.4A, 1.75V/cell)  |
|                               | 151.5 Ah                                                                                                                                                                                                                                                                            | (3hr, 50.5A, 1.75V/cell)  |
|                               | 129.9 Ah                                                                                                                                                                                                                                                                            | (1hr, 129.9A, 1.67V/cell) |
| Max. Discharge Current        | 2040A                                                                                                                                                                                                                                                                               |                           |
| Internal Resistance (25°C)    | Approx. 3.5mΩ(Fully charged)                                                                                                                                                                                                                                                        |                           |
| Operating Temp.Range          | Discharge                                                                                                                                                                                                                                                                           | -40 ~ 65°C (-40 ~ 149°F)  |
|                               | Charge                                                                                                                                                                                                                                                                              | 0 ~ 54°C (32 ~ 129°F)     |
|                               | Storage                                                                                                                                                                                                                                                                             | -20 ~ 40°C (-4 ~ 104°F)   |
| Nominal Operating Temp. Range | 25±3°C (77±5°F)                                                                                                                                                                                                                                                                     |                           |
| Max.Charging Current(25°C)    | 51.0A                                                                                                                                                                                                                                                                               |                           |
| Charge voltage(25°C)          | Float                                                                                                                                                                                                                                                                               | 13.62V                    |
|                               | Temp. Coefficient                                                                                                                                                                                                                                                                   | -3mV/cell/°C              |
|                               | Equalization                                                                                                                                                                                                                                                                        | 14.1~14.4V                |
| Effect of temp. to Capacity   | 40°C (104°F)                                                                                                                                                                                                                                                                        | 103%                      |
|                               | 25°C (77°F)                                                                                                                                                                                                                                                                         | 100%                      |
|                               | 0°C (32°F)                                                                                                                                                                                                                                                                          | 86%                       |
| Self Discharge                | PLH series batteries can be stored up to 24 months at 25°C(77°F), For higher temperatures the time interval will be shorter.<br>Battery needs to be given a freshening charge when the OCV approach 2.10V/cell or when the maximum storage time is reached, whichever occurs first. |                           |



### Layout



Unit: mm

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

| F.V/Time   | 10 min | 15min | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|------------|--------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 314.0  | 268.1 | 224.3 | 180.9 | 139.4 | 115.2 | 66.3 | 47.8 | 37.7 | 30.8 | 20.3 | 16.3 | 8.90 |
| 1.80V/cell | 337.2  | 288.5 | 238.5 | 193.0 | 146.7 | 121.1 | 68.8 | 49.5 | 38.9 | 31.9 | 21.0 | 17.0 | 9.24 |
| 1.75V/cell | 372.6  | 313.2 | 255.9 | 203.4 | 152.9 | 125.3 | 70.5 | 50.5 | 39.6 | 32.4 | 21.3 | 17.2 | 9.37 |
| 1.70V/cell | 408.1  | 336.6 | 272.0 | 212.4 | 157.9 | 128.5 | 71.9 | 51.4 | 40.2 | 32.9 | 21.5 | 17.4 | 9.46 |
| 1.67V/cell | 425.8  | 347.5 | 279.5 | 216.4 | 159.9 | 129.9 | 72.8 | 52.1 | 40.5 | 33.1 | 21.7 | 17.5 | 9.51 |
| 1.60V/cell | 450.7  | 360.6 | 287.2 | 219.3 | 160.7 | 130.4 | 72.8 | 52.1 | 40.8 | 33.3 | 21.8 | 17.6 | 9.55 |

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

| F.V/Time   | 10 min | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h    | 4h   | 5h   | 8h   | 10h  | 20h  |
|------------|--------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1.85V/cell | 577.1  | 497.0 | 438.2 | 360.2 | 275.1 | 230.3 | 132.4 | 96.8  | 76.7 | 62.2 | 41.0 | 33.4 | 18.7 |
| 1.80V/cell | 610.1  | 522.1 | 461.0 | 378.0 | 286.0 | 238.7 | 136.6 | 99.5  | 78.8 | 63.9 | 42.2 | 34.4 | 19.3 |
| 1.75V/cell | 661.3  | 561.1 | 485.4 | 393.2 | 295.2 | 244.6 | 139.2 | 100.0 | 79.8 | 64.7 | 42.7 | 34.8 | 19.5 |
| 1.70V/cell | 710.2  | 594.2 | 507.5 | 406.2 | 302.1 | 249.0 | 141.0 | 102.1 | 80.7 | 65.3 | 43.1 | 35.0 | 19.6 |
| 1.67V/cell | 731.6  | 608.0 | 517.3 | 411.6 | 304.5 | 250.3 | 142.1 | 102.9 | 81.2 | 65.6 | 43.2 | 35.2 | 19.7 |
| 1.60V/cell | 758.2  | 621.9 | 525.2 | 414.3 | 305.4 | 250.8 | 142.3 | 103.0 | 81.4 | 65.9 | 43.4 | 35.3 | 19.7 |



# PLH-Pure Lead Long Standby Life

## PLH170FT(A) (12V170Ah)



### Applications

- Telecommunication
- Railway signal
- Alarm and security system
- Power station systems
- Emergency power supply

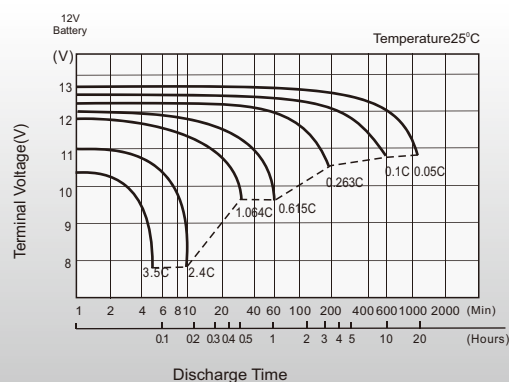
### General Features

- 20 years design life(25°C)
- Premium ABS+PC jar & covers, Flame Retardant to UL94 V-0
- High-rate performance, high energy density
- High quality AGM separators minimize electrical resistance to allow high current discharging properties

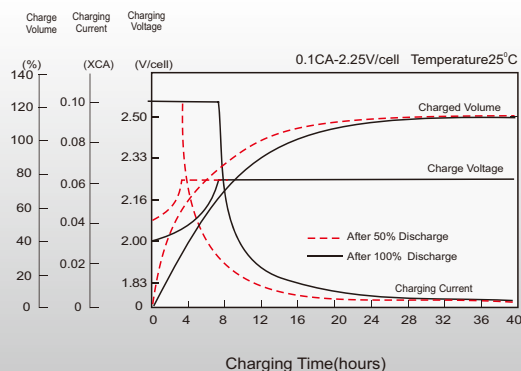
### Standards

- Compliance with IEC 60896 standards
- Classified as "Very Long Life" according to Eurobat
- CE, UL Certified
- Manufactured in Leoch® IATF16949, OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

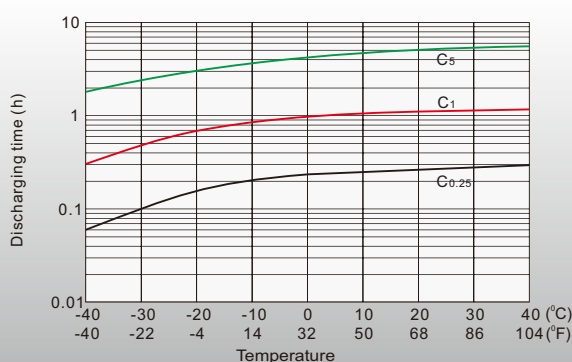
### Discharge Characteristics



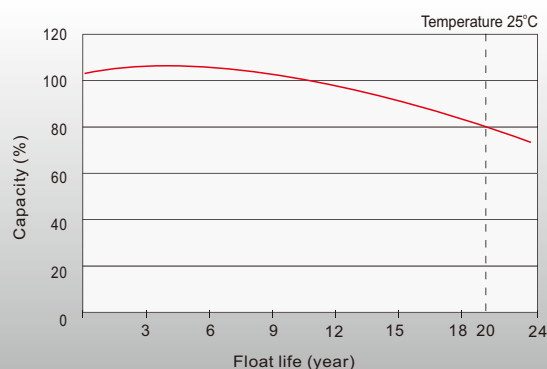
### Float Charging Characteristics



### Effects of Temperature on Discharging Time



### Float Life



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Publication No.: LB-PLH170FT(A)-PD-EN-V3.4-202101