



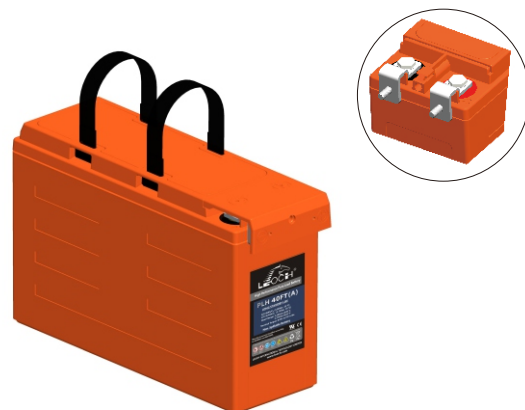
PLH-Pure Lead Long Standby Life

PLH40FT(A) (12V38Ah)

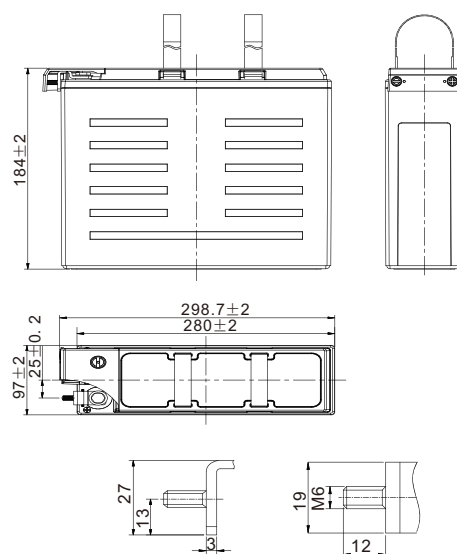


Specifications

| | | |
|-------------------------------|--|---------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | $C_{10}, 1.80V/cell$ | 38Ah |
| | $C_8, 1.75V/cell$ | 38Ah |
| Dimension | Length | 298.7±2mm (11.76 inches) |
| | Width | 97±2mm (3.82 inches) |
| | Container Height | 184±2mm (7.24 inches) |
| | Total Height | 184±2mm (7.24 inches) |
| Approx. Weight | 12.5 Kg (27.5 lbs) | |
| Terminal | M6 | |
| Container Material | PC-ABS flame retardant jar and cover to UL94 V-0 | |
| Rated Capacity (25°C) | 42.4 Ah | (20hr, 2.12A, 1.80V/cell) |
| | 38.0 Ah | (10hr, 3.80A, 1.80V/cell) |
| | 34.8 Ah | (5hr, 6.96A, 1.75V/cell) |
| | 32.4 Ah | (3hr, 10.8A, 1.75V/cell) |
| | 27.2 Ah | (1hr, 27.2A, 1.67V/cell) |
| Max. Discharge Current | 456A | |
| Internal Resistance (25°C) | Approx. 6.0mΩ(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) | 11.4A | |
| 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 | <p>PLH series batteries can be stored up to 24 months at 25°C(77°F), For higher temperatures the time interval will be shorter.</p> <p>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.</p> | |



Layout



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 | 77.7 | 64.2 | 55.1 | 42.7 | 31.7 | 24.7 | 15.9 | 10.6 | 8.50 | 6.63 | 4.57 | 3.72 | 2.08 |
| 1.80V/cell | 86.7 | 70.5 | 59.0 | 44.8 | 32.9 | 25.6 | 16.1 | 10.7 | 8.56 | 6.80 | 4.66 | 3.80 | 2.12 |
| 1.75V/cell | 91.9 | 73.7 | 61.6 | 46.2 | 33.8 | 26.3 | 16.2 | 10.8 | 8.59 | 6.96 | 4.75 | 3.86 | 2.15 |
| 1.70V/cell | 96.7 | 76.8 | 63.5 | 47.5 | 34.5 | 26.8 | 16.4 | 10.9 | 8.63 | 7.09 | 4.80 | 3.86 | 2.17 |
| 1.67V/cell | 104.9 | 81.6 | 66.5 | 48.8 | 35.1 | 27.2 | 16.5 | 11.0 | 8.65 | 7.20 | 4.86 | 3.94 | 2.18 |
| 1.60V/cell | 110.6 | 85.1 | 69.0 | 50.0 | 35.7 | 27.4 | 16.6 | 11.1 | 8.69 | 7.31 | 4.93 | 3.97 | 2.26 |

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 | 147.4 | 122.8 | 106.0 | 83.1 | 62.6 | 49.0 | 31.8 | 21.2 | 17.1 | 13.4 | 9.26 | 7.58 | 4.25 |
| 1.80V/cell | 161.9 | 133.1 | 112.4 | 86.6 | 64.7 | 50.4 | 32.0 | 21.4 | 17.1 | 13.7 | 9.40 | 7.72 | 4.32 |
| 1.75V/cell | 169.8 | 137.8 | 116.4 | 88.6 | 65.9 | 51.6 | 32.0 | 21.5 | 17.2 | 13.9 | 9.57 | 7.80 | 4.36 |
| 1.70V/cell | 176.0 | 141.9 | 118.8 | 90.4 | 66.9 | 52.2 | 32.3 | 21.7 | 17.2 | 14.2 | 9.66 | 7.79 | 4.40 |
| 1.67V/cell | 189.0 | 149.2 | 123.4 | 92.4 | 67.8 | 52.8 | 32.4 | 21.7 | 17.2 | 14.4 | 9.76 | 7.92 | 4.41 |
| 1.60V/cell | 194.0 | 152.4 | 126.0 | 93.5 | 68.2 | 52.7 | 32.4 | 21.8 | 17.2 | 14.5 | 9.82 | 7.94 | 4.57 |



PLH-Pure Lead Long Standby Life

PLH40FT(A) (12V38Ah)



Applications

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

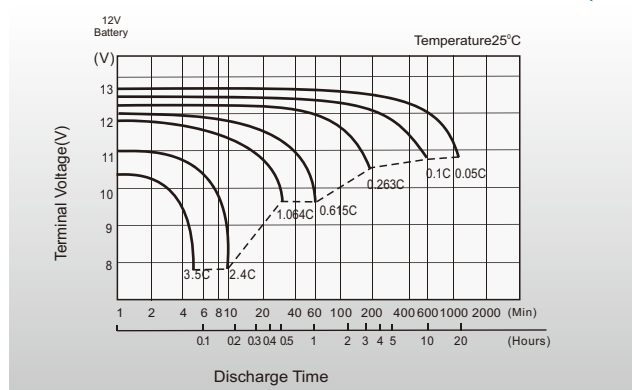
General Features

- 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

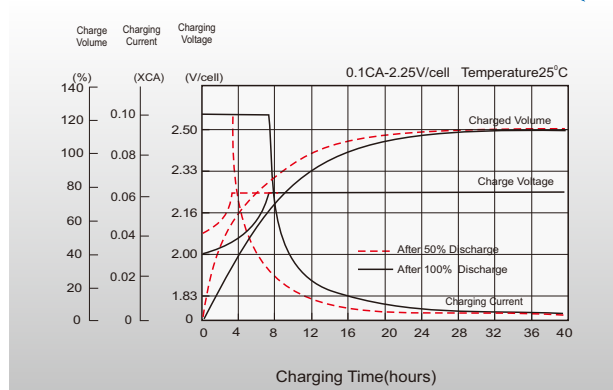
Standards

- 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

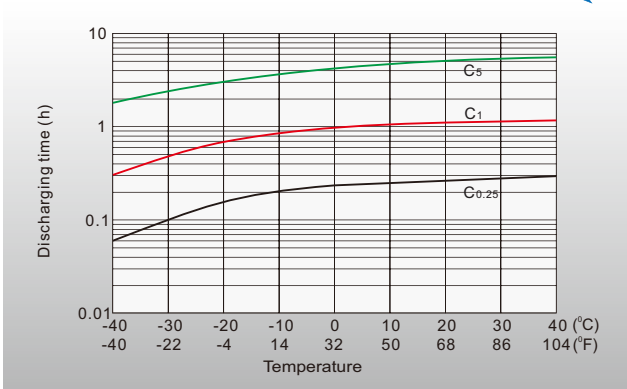
Discharge Characteristics



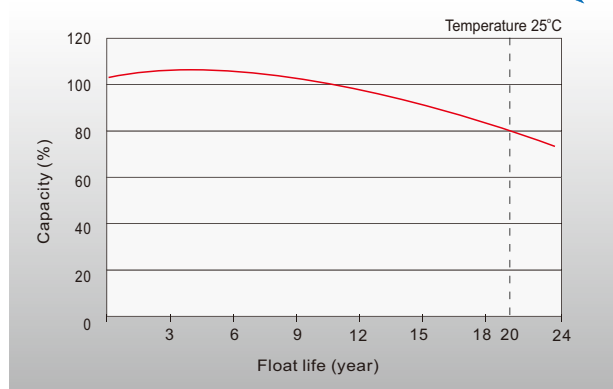
Float Charging Characteristics



Effects of Temperature on Discharging Time



Float Life



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