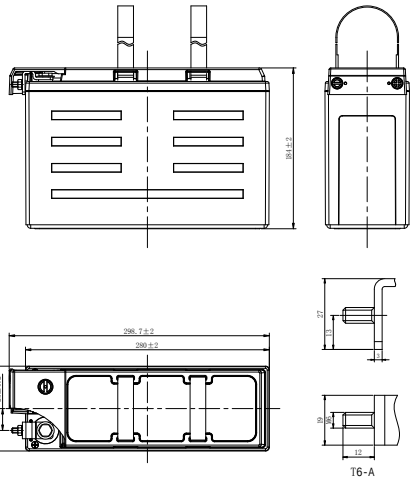
# PLH+C-PURE LEAD CARBON

PLH+C 40FT (12V38Ah)

LEOCH BATTERY








## CHARACTERISTICS

| Item | | Specifications |
|---|---|---|
| Rated Voltage | | 12V |
| Nominal Capacity (25℃) | $C_{10}$,1.80V/cell | 38Ah |
| | $C_8$,1.75V/cell | 38Ah |
| Dimension | Length | 298.7mm (11.8inches) |
| | Width | 97mm (3.82inches) |
| | Container Height | 184mm (7.24inches) |
| | Total Height | 184mm (7.24inches) |
| Approx Weight | | 12.5kg (27.6lbs) |
| Terminal | | T6-A(M8) |
| Container Material | | PC-ABS (UL94 V-0) |
| Short-circuit current | | 760A |
| Internal Resistance (25℃) | | Approx 4.9 mΩ (Fully charged) |
| Operating Temp. Range | Discharge | -20~60℃ (-4~140°F) |
| | Charge | -20~40℃ (-4~104°F) |
| | Storage | -20~50℃ (-4~122°F) |
| Nominal Operating Temp. Range | | 25±3℃ (77±5°F) |
| Max.Charging Current (25℃) | | 0.3C |
| Charge voltage (25℃) | Float Charge | Equalization Charge |
| | 2.27±0.02V/cell | 2.35-2.40V/cell |
| Temp. Coeffcient | -3mV/cell/℃ | -4mV/cell/℃ |
| Effect of temp. to Capacity | 40℃ (104°F) | 103% |
| | 25℃ (77°F) | 100% |
| | 0℃ (32°F) | 86% |
| Self Discharge | PLH+C series batteries can be stored up to 24 months at 25°C(77°F), For higher temperatures the time interval will be shorter.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. | |

## DISCHARGE TABLE

| Constant Current Discharge (Amperes) at 25°C (77°F) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
| 1.85V/cell | 72.5 | 59.7 | 51.1 | 40.0 | 30.5 | 24.3 | 14.6 | 10.4 | 8.44 | 6.92 | 4.60 | 3.76 | 2.02 |
| 1.80V/cell | 79.7 | 64.7 | 54.8 | 42.4 | 31.9 | 25.5 | 14.9 | 10.6 | 8.57 | 7.05 | 4.69 | 3.80 | 2.06 |
| 1.75V/cell | 87.1 | 69.8 | 58.6 | 44.7 | 33.4 | 26.6 | 15.3 | 10.8 | 8.74 | 7.18 | 4.75 | 3.89 | 2.11 |
| 1.70V/cell | 93.7 | 74.2 | 61.7 | 46.7 | 34.6 | 27.4 | 15.6 | 10.9 | 8.87 | 7.30 | 4.81 | 3.93 | 2.14 |
| 1.67V/cell | 97.2 | 76.4 | 63.3 | 47.6 | 35.1 | 28.1 | 15.7 | 11.0 | 8.91 | 7.30 | 4.86 | 3.93 | 2.15 |
| 1.60V/cell | 103.7 | 80.0 | 65.7 | 48.9 | 35.8 | 28.4 | 15.9 | 11.2 | 9.04 | 7.39 | 4.94 | 4.01 | 2.17 |
| **Constant Power Discharge (Watts/cell) at 25°C (77°F)** | | | | | | | | | | | | | |
| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
| 1.85V/cell | 140.8 | 112.8 | 97.0 | 75.2 | 57.5 | 48.2 | 27.6 | 20.5 | 16.6 | 13.8 | 9.13 | 7.46 | 3.99 |
| 1.80V/cell | 153.2 | 120.6 | 104.2 | 79.2 | 59.8 | 50.3 | 28.4 | 20.8 | 16.9 | 13.9 | 9.21 | 7.59 | 4.11 |
| 1.75V/cell | 159.4 | 124.0 | 106.2 | 81.2 | 61.0 | 50.9 | 28.8 | 21.1 | 17.2 | 14.1 | 9.34 | 7.67 | 4.17 |
| 1.70V/cell | 166.1 | 131.1 | 109.3 | 83.0 | 62.2 | 51.0 | 29.1 | 21.4 | 17.4 | 14.3 | 9.46 | 7.75 | 4.21 |
| 1.67V/cell | 173.4 | 135.9 | 112.7 | 85.3 | 63.6 | 51.3 | 29.6 | 21.5 | 17.5 | 14.4 | 9.50 | 7.79 | 4.25 |
| 1.60V/cell | 178.8 | 139.0 | 112.8 | 86.5 | 64.3 | 51.8 | 29.8 | 21.7 | 17.6 | 14.5 | 9.58 | 8.02 | 4.26 |

# PLH+C-PURE LEAD CARBON

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## APPLICATIONS

- Backup Power
- Telecom base station with unstable mains
- Light hybrid and renewable energy applications

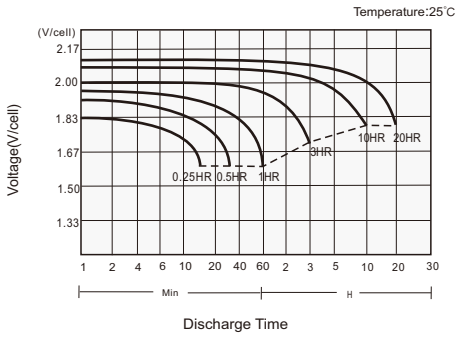
## GENERAL FEATURES

- 20 years design life (25°C)
- Utlizes pure lead technology. Thin positive grids and unique manufacturing process to maximize corrosion resistance and servicelife while increasing energy density
- Carbon technology for high charge acceptance and excellent cycling performance
- Case and cover are UL94 V-0 and highly resistant to shock, heat sealed and 100% tested to prevent leaks
- Front access design for easy installation and maintenance

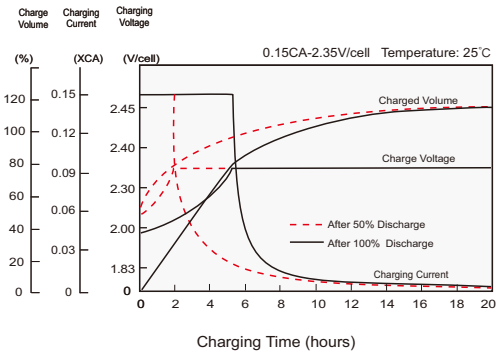
## STANDARDS

- Compliance with IEC 60896 standards
- Manufactured in Leoch®IATF 16949, ISO 45001,ISO 9001 and ISO 14001 certified production facilities

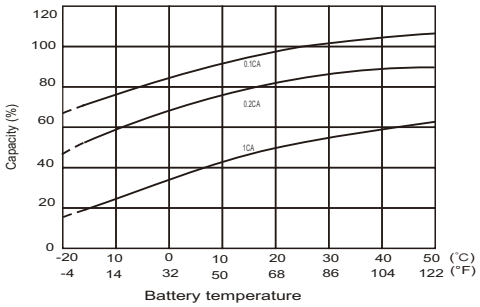
## Discharge Characteristics



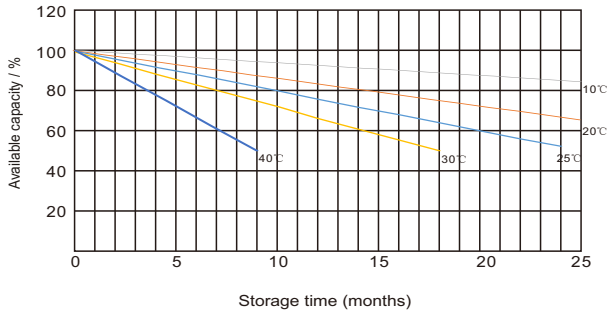

## Charging Characteristics




## Effects of Temperature on Capacity




## Self Discharge Characteristics





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