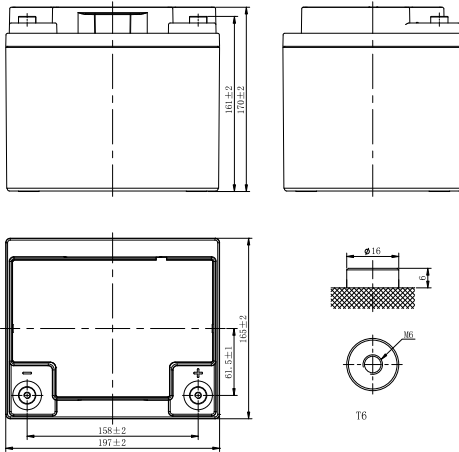


LHR SERIES-HIGH RATE

LHR12120W (12V120W)



CHARACTERISTICS

| Item | Specifications | |
|-------------------------------|-------------------------------|------------------------------|
| Rated Voltage | 12V | |
| Nominal Rate (25°C) | W ₁₅ , 1.67V/cell | 120W/cell |
| Nominal Capacity (25°C) | C ₁₀ , 1.80V/cell | 38Ah |
| Dimension | Length | 197mm (7.76inches) |
| | Width | 165mm (6.50inches) |
| | Container Height | 170mm (6.69inches) |
| | Total Height | 170mm (6.69inches) |
| Approx Weight | 11.6kg (25.6lbs) | |
| Terminal | T6(M6) | |
| Container Material | ABS (UL94 HB or V-0 optional) | |
| Short-circuit current | 760A | |
| Internal Resistance (25°C) | Approx 10 mΩ (Fully charged) | |
| Operating Temp. Range | Discharge | -20~55°C (-4~131°F) |
| | Charge | -20~40°C (-4~104°F) |
| | Storage | -15~50°C (5~122°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Max.Charging Current (25°C) | 0.25C | |
| Charge voltage (25°C) | Standby Use | Equalization Use |
| | 2.25-2.30V/cell | 2.30-2.40V/cell |
| Temp. Coefficient | -3mV/cell/°C | |
| | 40°C (104°F) | 106% |
| 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) |

DISCHARGE TABLE

| Constant Current Discharge (Amperes) at 25°C (77°F) | | | | | | | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 8h | 10h |
| 1.85V/cell | 71.8 | 57.3 | 49.7 | 39.1 | 27.6 | 26.8 | 21.0 | 15.6 | 12.6 | 9.35 | 7.40 | 6.26 | 4.32 | 3.70 |
| 1.80V/cell | 81.6 | 65.1 | 56.3 | 44.2 | 31.1 | 28.4 | 22.4 | 16.6 | 13.3 | 9.79 | 7.67 | 6.50 | 4.41 | 3.80 |
| 1.75V/cell | 88.7 | 70.6 | 61.0 | 47.7 | 33.4 | 29.6 | 23.3 | 17.2 | 13.8 | 10.1 | 7.92 | 6.69 | 4.46 | 3.82 |
| 1.70V/cell | 94.8 | 75.2 | 64.7 | 50.6 | 35.4 | 30.5 | 23.9 | 17.7 | 14.1 | 10.3 | 8.12 | 6.84 | 4.53 | 3.84 |
| 1.67V/cell | 98.1 | 77.6 | 66.6 | 52.0 | 36.3 | 31.3 | 24.5 | 18.1 | 14.5 | 10.6 | 8.22 | 6.93 | 4.58 | 3.90 |
| 1.60V/cell | 101.6 | 80.3 | 68.7 | 53.3 | 37.2 | 31.9 | 24.9 | 18.5 | 14.8 | 10.8 | 8.41 | 7.07 | 4.60 | 3.92 |

| Constant Power Discharge (Watts/cell) at 25°C (77°F) | | | | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 8h | 10h |
| 1.85V/cell | 134.1 | 107.8 | 94.1 | 74.3 | 52.7 | 51.6 | 40.7 | 30.3 | 24.4 | 18.3 | 14.5 | 12.3 | 8.58 | 7.35 |
| 1.80V/cell | 150.0 | 120.6 | 105.2 | 83.1 | 58.9 | 54.3 | 43.0 | 32.0 | 25.7 | 19.0 | 15.0 | 12.8 | 8.73 | 7.55 |
| 1.75V/cell | 160.1 | 128.7 | 112.3 | 88.7 | 62.9 | 56.1 | 44.6 | 33.1 | 26.6 | 19.6 | 15.4 | 13.1 | 8.80 | 7.57 |
| 1.70V/cell | 168.3 | 135.3 | 118.1 | 93.3 | 66.1 | 57.5 | 45.5 | 33.8 | 27.1 | 20.0 | 15.7 | 13.3 | 8.92 | 7.61 |
| 1.67V/cell | 171.0 | 137.5 | 120.0 | 94.8 | 67.2 | 58.7 | 46.4 | 34.4 | 27.7 | 20.3 | 15.9 | 13.5 | 9.00 | 7.72 |
| 1.60V/cell | 173.4 | 139.4 | 121.7 | 96.1 | 68.1 | 59.2 | 46.9 | 34.8 | 28.0 | 20.7 | 16.2 | 13.7 | 9.03 | 7.75 |

LHR SERIES-HIGH RATE

LHR12120W (12V120W)



APPLICATIONS

- UPS
- Hospitals and Testing Laboratories
- Emergency Power Supply
- Industrial Process Control Facilities
- Banks and Financial Markets
- Data and Network Operation Centers

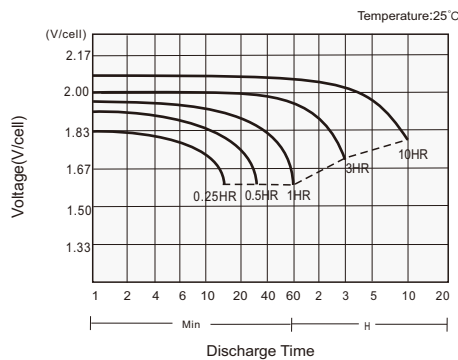
GENERAL FEATURES

- 12 years design life (25°C)
- Excellent high current performance - optimised for short discharge time
- Advanced AGM technology for superior high-rate power
- Long Life Alloy - minimizing grid growth, reducing gassing, and extending battery life
- Epoxy-sealed posts eliminate leaks
- Optimal energy density - saves floor space

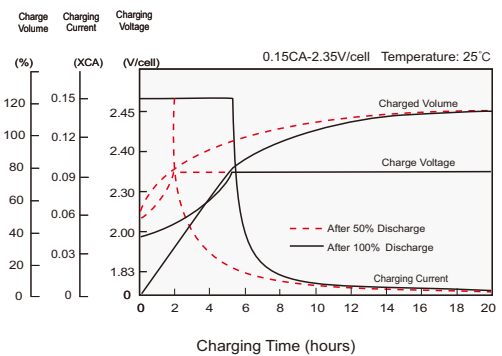
STANDARDS

- Compliance with IEC 60896 standards
- Classified as "Long Life" according to Eurobat
- CE, UL Approved
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

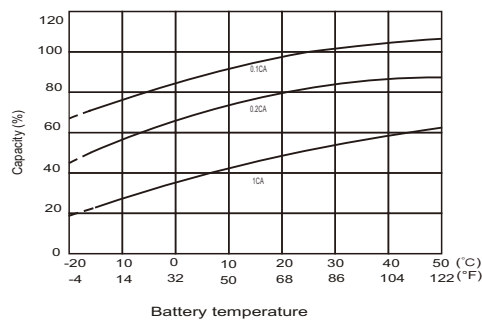
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

