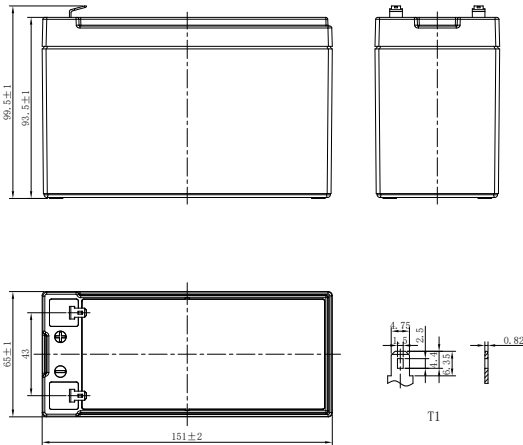


LHR SERIES-HIGH RATE

LHR1224W(A) (12V24W)



CHARACTERISTICS

| Item | Specifications | |
|-------------------------------|-------------------------------|-------------------------------|
| Rated Voltage | 12V | |
| Nominal Rate (25°C) | $W_{15}, 1.67V/cell$ | 24W/cell |
| Nominal Capacity (25°C) | $C_{10}, 1.80V/cell$ | 6.56Ah |
| Dimension | Length | 151mm (5.94inches) |
| | Width | 65mm (2.56inches) |
| | Container Height | 93.5mm (3.68inches) |
| | Total Height | 99.5mm (3.92inches) |
| Approx Weight | 2.13kg (4.70lbs) | |
| Terminal | T1/T2 | |
| Container Material | ABS (UL94 HB or V-0 optional) | |
| Short-circuit current | 183.7A | |
| Internal Resistance (25°C) | Approx 31 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) | Float Charge | Equalization Charge |
| | 2.25-2.30V/cell | 2.30-2.40V/cell |
| Temp. Coefficient | -3mV/cell/°C | -4mV/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 | 19.5 | 13.1 | 10.2 | 8.58 | 6.32 | 4.63 | 3.81 | 2.81 | 2.22 | 1.63 | 1.32 | 1.14 | 0.790 | 0.647 |
| 1.80V/cell | 21.0 | 13.9 | 10.7 | 8.92 | 6.51 | 4.76 | 3.90 | 2.87 | 2.27 | 1.66 | 1.34 | 1.16 | 0.800 | 0.656 |
| 1.75V/cell | 22.1 | 14.5 | 11.1 | 9.17 | 6.68 | 4.86 | 3.98 | 2.92 | 2.31 | 1.68 | 1.36 | 1.17 | 0.810 | 0.662 |
| 1.70V/cell | 23.2 | 15.0 | 11.4 | 9.44 | 6.85 | 4.97 | 4.05 | 2.97 | 2.34 | 1.71 | 1.37 | 1.19 | 0.820 | 0.669 |
| 1.67V/cell | 24.0 | 15.5 | 11.7 | 9.63 | 6.97 | 5.05 | 4.11 | 3.01 | 2.37 | 1.72 | 1.39 | 1.20 | 0.830 | 0.674 |
| 1.60V/cell | 25.4 | 16.1 | 12.1 | 9.92 | 7.16 | 5.17 | 4.21 | 3.07 | 2.42 | 1.76 | 1.41 | 1.22 | 0.840 | 0.682 |

| 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 | 38.2 | 25.8 | 21.4 | 16.5 | 12.2 | 8.99 | 7.40 | 5.49 | 4.36 | 3.20 | 2.60 | 2.25 | 1.57 | 1.29 |
| 1.80V/cell | 40.7 | 27.2 | 22.3 | 17.1 | 12.5 | 9.20 | 7.56 | 5.58 | 4.43 | 3.25 | 2.63 | 2.28 | 1.59 | 1.30 |
| 1.75V/cell | 42.5 | 28.1 | 22.9 | 17.5 | 12.8 | 9.36 | 7.69 | 5.67 | 4.49 | 3.29 | 2.66 | 2.30 | 1.61 | 1.31 |
| 1.70V/cell | 44.0 | 29.0 | 23.5 | 17.9 | 13.1 | 9.53 | 7.80 | 5.75 | 4.55 | 3.34 | 2.70 | 2.33 | 1.62 | 1.33 |
| 1.67V/cell | 45.2 | 29.6 | 24.0 | 18.2 | 13.3 | 9.66 | 7.91 | 5.81 | 4.59 | 3.36 | 2.72 | 2.35 | 1.63 | 1.34 |
| 1.60V/cell | 47.0 | 30.5 | 24.7 | 18.7 | 13.6 | 9.84 | 8.05 | 5.91 | 4.67 | 3.42 | 2.76 | 2.38 | 1.65 | 1.35 |

LHR SERIES-HIGH RATE

LHR1224W(A) (12V24W)



APPLICATIONS

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

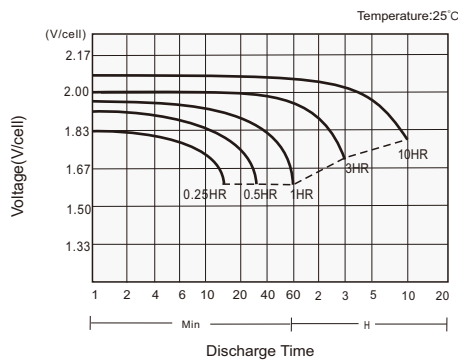
GENERAL FEATURES

- 6 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

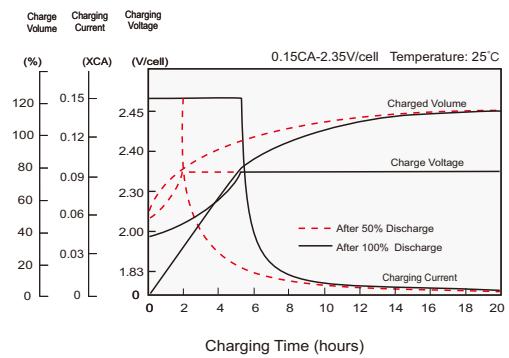
STANDARDS

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

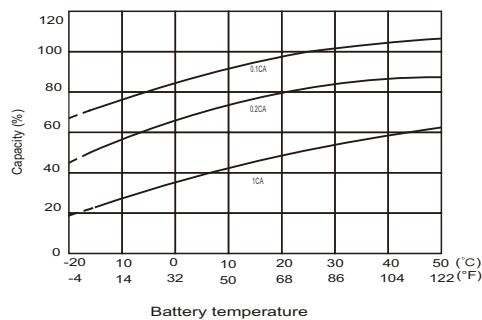
Discharge Characteristics



Charging Characteristics



Effects of Temperature on Capacity



Self Discharge Characteristics

