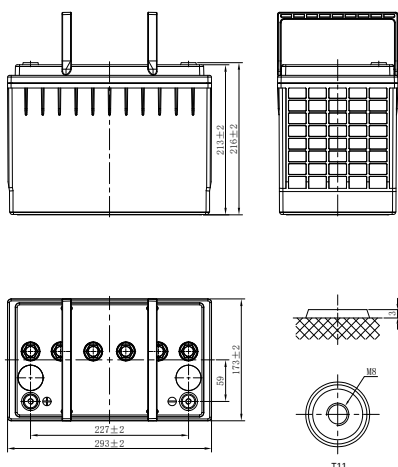


# LHR SERIES-HIGH RATE

## LHR12330W(A) (12V330W)



### CHARACTERISTICS

| Item                          |                      | Specifications                |
|-------------------------------|----------------------|-------------------------------|
| Rated Voltage                 |                      | 12V                           |
| Nominal Rate (25°C)           | $W_{15}, 1.67V/cell$ | 330W/cell                     |
| Nominal Capacity (25°C)       | $C_{10}, 1.80V/cell$ | 80Ah                          |
| Dimension                     | Length               | 293mm (11.5inches)            |
|                               | Width                | 173mm (6.81inches)            |
|                               | Container Height     | 213mm (8.39inches)            |
|                               | Total Height         | 216mm (8.50inches)            |
| Approx Weight                 |                      | 26.7kg (58.9lbs)              |
| Terminal                      |                      | T11(M8)                       |
| Container Material            |                      | ABS (UL94 HB or V-0 optional) |
| Short-circuit current         |                      | 2000.0A                       |
| Internal Resistance (25°C)    |                      | Approx 5 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                                           | 195.4 | 159.9 | 146.9 | 112.5 | 80.9  | 55.0  | 42.0 | 28.9 | 23.1 | 19.4 | 15.4 | 13.4 | 8.91 | 7.71 |
| 1.80V/cell                                           | 214.9 | 174.0 | 153.8 | 125.3 | 86.5  | 58.2  | 44.4 | 30.6 | 24.4 | 20.3 | 16.2 | 13.8 | 9.30 | 8.00 |
| 1.75V/cell                                           | 234.4 | 188.1 | 165.0 | 126.8 | 88.4  | 59.6  | 45.5 | 31.3 | 25.1 | 20.8 | 16.5 | 14.0 | 9.49 | 8.14 |
| 1.70V/cell                                           | 254.0 | 202.2 | 170.3 | 129.4 | 90.0  | 60.5  | 46.2 | 31.8 | 25.4 | 21.1 | 16.6 | 14.1 | 9.59 | 8.21 |
| 1.67V/cell                                           | 277.4 | 215.4 | 175.6 | 131.9 | 90.2  | 60.9  | 46.5 | 32.0 | 25.6 | 21.2 | 16.7 | 14.2 | 9.62 | 8.26 |
| 1.60V/cell                                           | 283.3 | 220.1 | 178.3 | 135.5 | 91.6  | 61.6  | 47.0 | 32.4 | 25.9 | 21.3 | 16.8 | 14.3 | 9.69 | 8.32 |
| 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                                           | 367.3 | 300.6 | 276.1 | 211.5 | 152.1 | 112.4 | 85.8 | 59.1 | 47.3 | 39.7 | 31.4 | 27.4 | 18.2 | 15.8 |
| 1.80V/cell                                           | 404.0 | 327.1 | 289.1 | 235.6 | 162.6 | 118.9 | 90.8 | 62.5 | 50.0 | 41.5 | 33.2 | 28.2 | 19.0 | 16.4 |
| 1.75V/cell                                           | 440.7 | 353.7 | 310.1 | 238.4 | 166.1 | 121.9 | 93.1 | 64.0 | 51.2 | 42.5 | 33.7 | 28.6 | 19.4 | 16.6 |
| 1.70V/cell                                           | 477.5 | 380.2 | 320.1 | 243.3 | 169.2 | 123.7 | 94.4 | 65.0 | 52.0 | 43.0 | 34.0 | 28.8 | 19.6 | 16.8 |
| 1.67V/cell                                           | 521.5 | 404.9 | 335.0 | 251.5 | 169.6 | 124.5 | 95.0 | 65.4 | 52.3 | 43.3 | 34.2 | 28.9 | 19.7 | 16.9 |
| 1.60V/cell                                           | 532.6 | 413.9 | 335.3 | 254.8 | 172.3 | 125.9 | 96.1 | 66.1 | 52.9 | 43.6 | 34.4 | 29.0 | 19.8 | 17.0 |

# LHR SERIES-HIGH RATE

## LHR12330W(A) (12V330W)



### APPLICATIONS

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

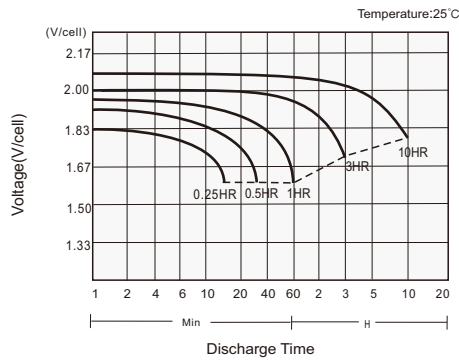
### GENERAL FEATURES

- 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

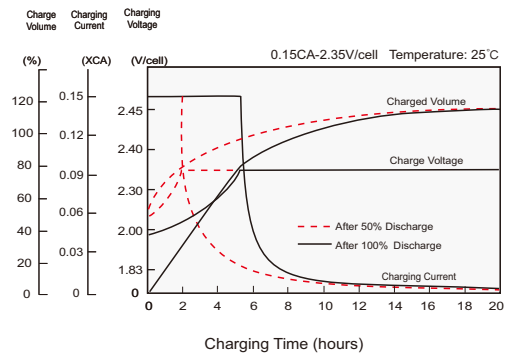
### STANDARDS

- 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

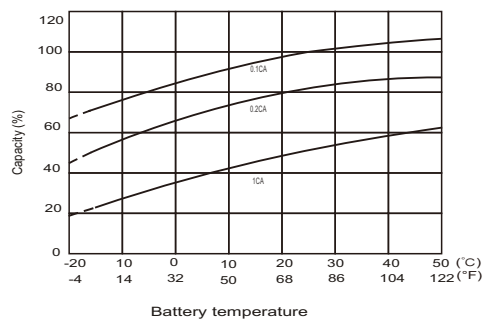
#### Discharge Characteristics



#### Charging Characteristics



#### Effects of Temperature on Capacity



#### Self Discharge Characteristics

