



LHT Series-High Temperature

LHT2-300(2V300Ah)

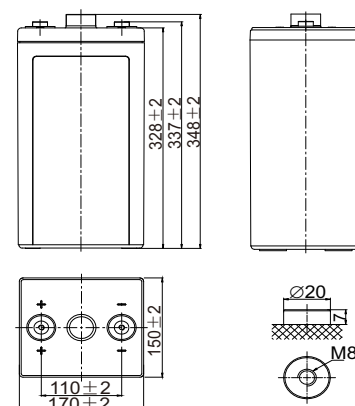


Specifications

| | | |
|-------------------------------|--|--------------------------------|
| Rated Voltage | 2V | |
| Nominal Capacity | 300Ah | (C ₁₀ , 1.80V/cell) |
| Dimension | Length | 170±2mm (6.69 inches) |
| | Width | 150±2mm (5.91 inches) |
| | Container Height | 328±2mm (12.9 inches) |
| | Total Height | 348±2mm (13.7 inches) |
| Approx Weight | 18.8kg (41.4 lbs) | |
| Terminal | M8 | |
| Container Material | PC-ABS flame retardant jar and cover to UL94 V-0 | |
| Rated Capacity (35°C) | 318.0 Ah | (20hr, 15.9A, 1.80V/cell) |
| | 300.0 Ah | (10hr, 30.0A, 1.80V/cell) |
| | 266.5 Ah | (5hr, 53.3A, 1.75V/cell) |
| | 238.5 Ah | (3hr, 79.5A, 1.75V/cell) |
| | 192.3 Ah | (1hr, 192.3A, 1.60V/cell) |
| Max. Discharge Current | 2400A | |
| Internal Resistance (35°C) | Approx 0.8mΩ | |
| Operating Temp. Range | Discharge | -40 ~ 65°C (-40 ~ 149°F) |
| | Charge | -20 ~ 45°C (-4 ~ 113°F) |
| | Storage | -20 ~ 50°C (-4 ~ 122°F) |
| Nominal Operating Temp. Range | 25±10°C (77±18°F) | |
| Cycle Use | Initial Charging Current less than 75A. Voltage 2.30V~2.40V at 35°C(95°F)Temp. Coefficient -5mV/°C | |
| | Standby Use | |
| Effect of temp. to Capacity | Initial Charging Current less than 75A. Voltage 2.20V~2.27V at 35°C(95°F)Temp. Coefficient -3mV/°C | |
| | 40°C (104°F) | 103% |
| | 35°C (95°F) | 100% |
| Self Discharge | 0°C (32°F) | 79% |
| | LHT series batteries may be stored for up to 9 months at 35°C(95°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. | |



Layout



Constant Current Discharge (Amperes) at 35 °C (95°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 350.0 | 297.0 | 271.1 | 243.9 | 205.2 | 168.0 | 141.3 | 93.6 | 72.2 | 58.3 | 49.1 | 42.9 | 34.2 | 28.7 | 15.2 |
| 1.80V/cell | 426.0 | 347.4 | 308.9 | 274.5 | 226.2 | 182.4 | 153.2 | 99.9 | 75.8 | 60.8 | 51.2 | 44.4 | 35.6 | 30.0 | 15.9 |
| 1.75V/cell | 497.9 | 399.6 | 349.5 | 307.8 | 247.8 | 198.8 | 167.3 | 105.6 | 79.5 | 63.8 | 53.3 | 46.1 | 36.6 | 30.6 | 16.2 |
| 1.70V/cell | 569.8 | 448.2 | 386.3 | 334.8 | 266.4 | 210.8 | 177.0 | 110.9 | 83.0 | 66.0 | 54.9 | 47.5 | 37.7 | 31.4 | 16.6 |
| 1.67V/cell | 611.7 | 482.4 | 416.4 | 360.0 | 282.0 | 220.0 | 184.5 | 115.2 | 85.6 | 67.9 | 56.4 | 48.6 | 38.2 | 31.9 | 16.9 |
| 1.60V/cell | 666.0 | 516.6 | 441.6 | 378.0 | 294.6 | 229.6 | 192.3 | 119.6 | 87.7 | 69.4 | 57.5 | 49.5 | 38.9 | 32.2 | 17.0 |

Constant Power Discharge(Watts/cell) at 35 °C (95°F)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 1.85V/cell | 653.7 | 558.7 | 513.3 | 463.9 | 392.2 | 323.0 | 273.3 | 182.1 | 141.1 | 114.3 | 96.8 | 84.7 | 67.9 | 57.0 | 30.2 |
| 1.80V/cell | 782.6 | 644.1 | 577.4 | 516.6 | 428.8 | 348.4 | 294.6 | 193.4 | 147.4 | 118.7 | 100.4 | 87.4 | 70.5 | 59.6 | 31.6 |
| 1.75V/cell | 898.7 | 729.1 | 644.0 | 572.7 | 466.2 | 377.5 | 320.3 | 203.6 | 154.2 | 124.2 | 104.1 | 90.4 | 72.2 | 60.7 | 32.2 |
| 1.70V/cell | 1011.4 | 806.3 | 704.5 | 617.6 | 497.0 | 397.5 | 337.1 | 212.8 | 160.4 | 128.0 | 106.9 | 93.1 | 74.3 | 62.1 | 33.0 |
| 1.67V/cell | 1066.3 | 854.9 | 749.9 | 656.9 | 522.2 | 412.5 | 349.5 | 220.3 | 164.8 | 131.2 | 109.5 | 94.9 | 75.1 | 63.1 | 33.5 |
| 1.60V/cell | 1136.9 | 897.6 | 782.2 | 681.9 | 540.0 | 426.5 | 361.8 | 227.1 | 167.8 | 133.5 | 111.3 | 96.4 | 76.3 | 63.5 | 33.7 |



LHT Series-High Temperature

LHT2-300(2V300Ah)



Applications

- Tele-communication base station
- High temperature station without air-condition
- Station in the open air
- Electric power system, UPS
- Solar energy, wind saving energy power supply

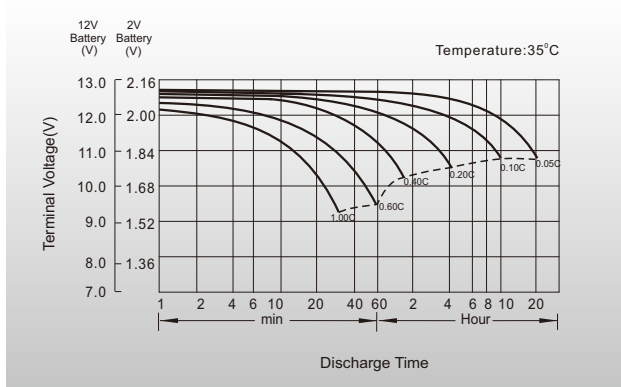
General Features

- Battery design life up to 15 years at 35°C
- Special anti-high-temperature paste formula
- Special anti-high-temperature container
- Special double sealing and anti-high-temperature sealing agent
- High performance separator and special electrolyte formula

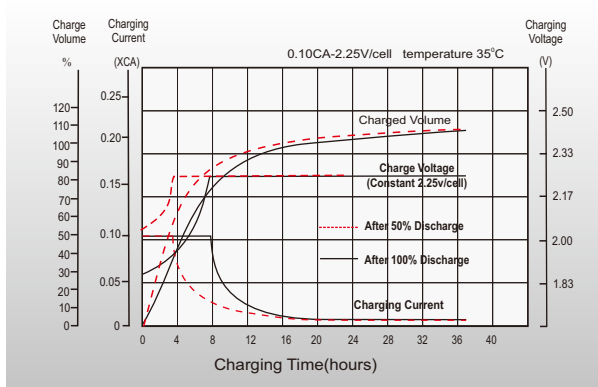
Standards

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

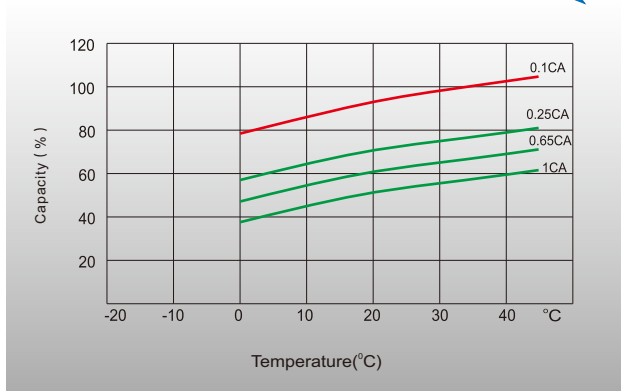
Discharge Characteristics



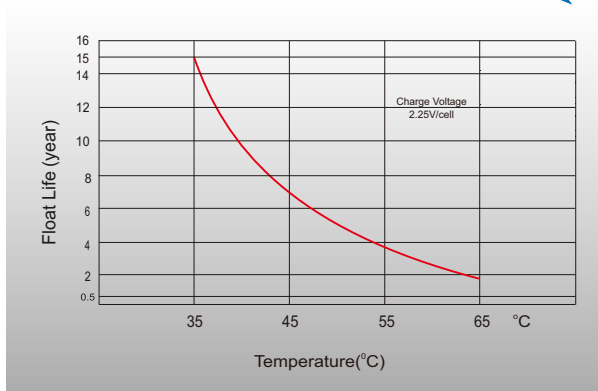
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



distributed by: Power Storage Deutschland GmbH

+49 (0)6081 96582-0

info@psd-power.de



www.psd-power.de



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