

LHL Series-Front Terminal LHL200-12FR (200 Watt/Cell)

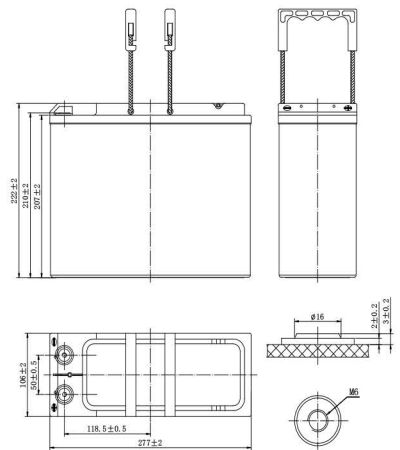


Features

- High Rate Industrial Battery 30% better high power discharge performance compared to conventional batteries
- Pure Lead Battery Technology improves battery theoretical lifetime
- UL 94-V0 Grade Flame Retardant Material

Specifications

| | | |
|-------------------------------|--|---------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | 200 watt/cell | |
| Dimension | Length | 277±2mm (10.9 inches) |
| | Width | 106±2mm (4.17 inches) |
| | Container Height | 222±2mm (8.74 inches) |
| | Total Height | 222±2mm (8.74 inches) |
| Approx Weight | 17.3 Kg (38.2 lbs) | |
| Terminal | M6 | |
| Container Material | UL 94-V0 | |
| Rated Capacity (25°C) | 58.2 Ah | (20hr, 2.91A, 1.80V/cell) |
| | 55.0 Ah | (10hr, 5.50A, 1.80V/cell) |
| | 53.6 Ah | (8hr, 6.70A, 1.75V/cell) |
| | 48.2 Ah | (5hr, 9.64A, 1.75V/cell) |
| | 36.4 Ah | (1hr, 36.4A, 1.60V/cell) |
| Max. Discharge Current | 550A (5s) | |
| Internal Resistance (25°C) | Approx 7.6mΩ | |
| Operating Temp. Range | Discharge | -15 ~ 50°C (5 ~ 122°F) |
| | Charge | -20 ~ 40°C (-4 ~ 104°F) |
| | Storage | -15 ~ 40°C (5 ~ 104°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Cycle Use | Initial Charging Current less than 15.0A. Voltage 14.1V~14.4V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| | Standby Use | |
| Effect of temp. to Capacity | Initial Charging Current less than 15.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| Self Discharge | 0°C (32°F) | 86% |
| | LHL series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. | |



Constant Power Discharge (Watts/cell) at 25 °C (77 °F)

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 167.2 | 146.5 | 127.8 | 100.9 | 77.2 | 62.4 | 36.3 | 26.5 | 21.3 | 17.9 | 15.8 | 12.7 | 10.6 | 5.63 |
| 1.80V/cell | 191.6 | 164.4 | 140.6 | 109.9 | 82.9 | 66.5 | 38.9 | 28.3 | 22.6 | 19.0 | 16.6 | 13.3 | 11.1 | 5.87 |
| 1.75V/cell | 210.0 | 176.5 | 151.1 | 114.9 | 85.5 | 68.3 | 39.6 | 28.8 | 22.9 | 19.2 | 16.8 | 13.4 | 11.2 | 5.90 |
| 1.70V/cell | 218.8 | 184.6 | 155.6 | 117.3 | 86.7 | 69.2 | 39.9 | 28.9 | 23.0 | 19.3 | 16.9 | 13.5 | 11.2 | 5.93 |
| 1.67V/cell | 225.1 | 188.8 | 158.3 | 117.8 | 87.2 | 69.3 | 40.0 | 29.0 | 23.1 | 19.4 | 17.0 | 13.6 | 11.3 | 5.95 |
| 1.60V/cell | 229.8 | 190.9 | 159.6 | 119.0 | 87.5 | 69.8 | 40.2 | 29.1 | 23.2 | 19.5 | 17.1 | 13.7 | 11.3 | 5.98 |

Applications

- UPS
- For standard power cabinet
- Network connection equipment of communication system
- Power system of special network of local area network
- Power station systems

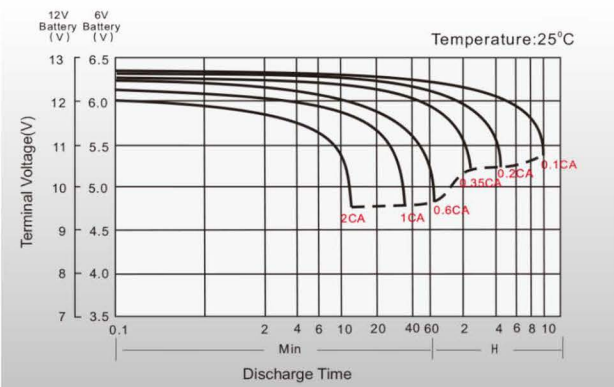
General Features

- 12 years design life (20°C)
- Specifically ideal for 19 inches or 23 inches power cabinets
- Front terminals make the installation, maintenance and supervision easy
- Shield designs protect terminals from short circuit and show good appearance
- Unique vent valve design: reduce water losing and prevent air/spark going inside

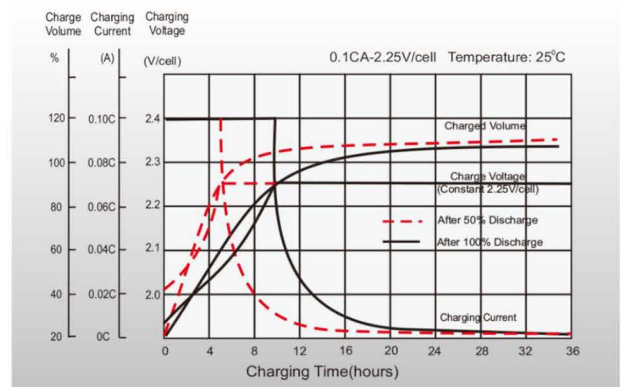
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

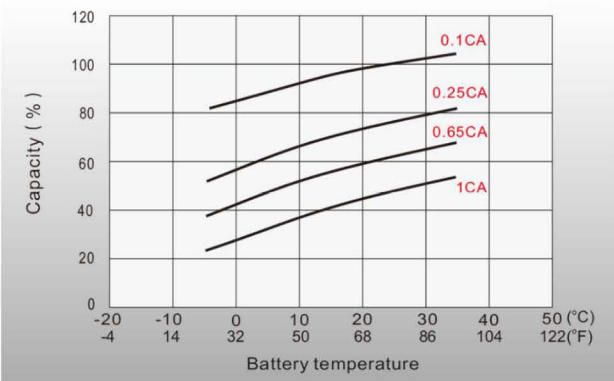
Discharge Characteristics



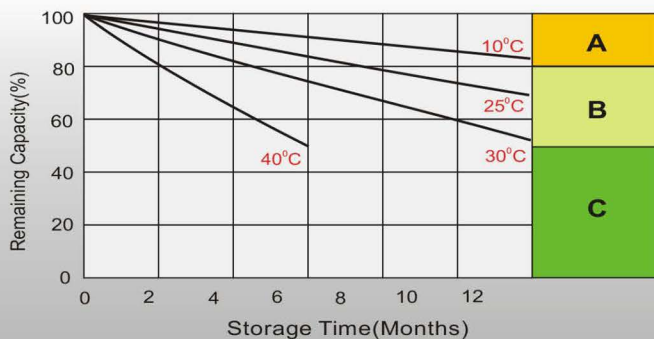
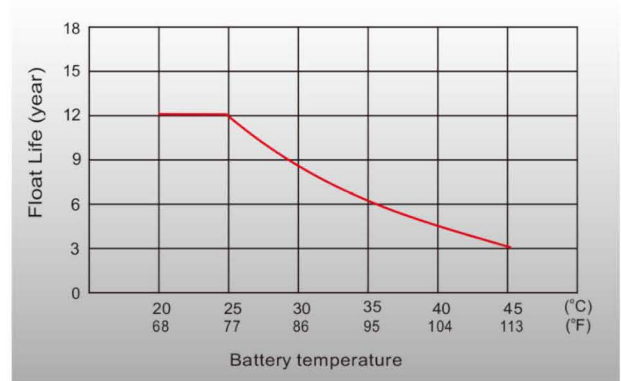
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8~10 hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.