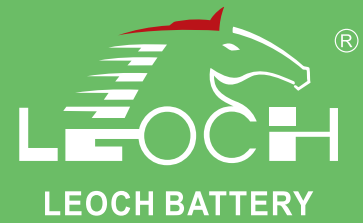


IEEE/UL Battery
Sizing by
MooreU
610-952-6067
www.mooreu.com



OPzS Series-Flooded Battery

5 OPzS250(2V250Ah)

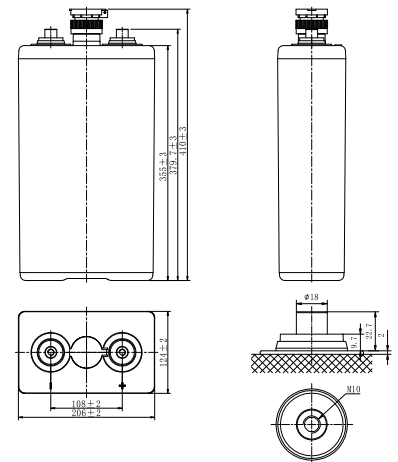


Specifications

| | | |
|-------------------------------|--|---------------------------|
| Rated Voltage | 2V | |
| Nominal Capacity | C ₁₀ , 1.80V/cell | 250.0Ah |
| Dimension | Length | 124±2mm (4.88 inches) |
| | Width | 206±2mm (8.11 inches) |
| | Container Height | 355±3mm (13.98 inches) |
| | Total Height | 410±3mm (16.14 inches) |
| Approx Weight | Without Electrolyte | 15.4kg (33.9lbs) |
| | With Electrolyte | 20.4 kg (45.0lbs) |
| Terminal | M10 | |
| Container Material | SAN transparent container | |
| Rated Capacity | 250.0 Ah | (10hr, 25.0A, 1.80V/cell) |
| | 222.0 Ah | (5hr, 44.4A, 1.75V/cell) |
| | 192.9 Ah | (3hr, 64.3A, 1.75V/cell) |
| | 142.8 Ah | (1hr, 142.8A, 1.60V/cell) |
| Max. Discharge Current | 2000A (5s) | |
| Internal Resistance (20°C) | Approx 1.10mΩ | |
| Operating Temp. Range | Discharge | -15 ~ 55°C (5 ~ 131°F) |
| | Charge | 0 ~ 45°C (32 ~ 113°F) |
| | Storage | -15 ~ 45°C (5 ~ 113°F) |
| Nominal Operating Temp. Range | 25±5°C (77±9°F) | |
| Cycle Use | Initial Charging Current less than 0.15CA. Voltage | |
| | 2.40V~2.45V at 20°C(68°F)Temp. Coefficient -5mV/°C | |
| Standby Use | Initial Charging Current less than 0.15CA. Voltage | |
| | 2.23V~2.25V at 20°C(68°F)Temp. Coefficient -3mV/°C | |
| Effect of temp. to Capacity | 40°C (104°F) | 103% |
| | 20°C (68°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | ≤4% per month at 20°C | |



Layout



Constant Current Discharge (Amperes) at 20 °C (68°F)

| F. V/Time | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 24h | 72h | 100h | 120h |
|------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 99.3 | 72.5 | 55.8 | 46.2 | 39.9 | 35.0 | 28.6 | 23.9 | 13.1 | 11.0 | 3.95 | 2.96 | 2.54 |
| 1.80V/cell | 116.0 | 79.9 | 61.0 | 50.0 | 42.6 | 37.2 | 30.0 | 25.0 | 13.7 | 11.5 | 4.13 | 3.10 | 2.65 |
| 1.75V/cell | 126.0 | 85.0 | 64.3 | 52.2 | 44.4 | 38.6 | 30.9 | 25.6 | 13.9 | 11.7 | 4.19 | 3.14 | 2.69 |
| 1.70V/cell | 132.8 | 88.8 | 66.3 | 53.8 | 45.6 | 39.6 | 31.4 | 26.0 | 14.2 | / | / | / | / |
| 1.65V/cell | 138.0 | 90.9 | 68.3 | 55.1 | 46.6 | 40.3 | 32.0 | 26.4 | 14.4 | / | / | / | / |
| 1.60V/cell | 142.8 | 93.0 | 69.5 | 55.9 | 47.3 | 40.9 | 32.4 | 26.7 | 14.5 | / | / | / | / |

Constant Power Discharge (Watts/cell) at 20 °C (68°F)

| F. V/Time | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 24h | 72h | 100h | 120h |
|------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 185.7 | 136.7 | 105.8 | 88.0 | 76.3 | 67.3 | 55.1 | 46.4 | 25.6 | 21.5 | 7.64 | 5.70 | 4.87 |
| 1.80V/cell | 213.9 | 149.0 | 114.4 | 94.1 | 80.7 | 70.9 | 57.5 | 48.1 | 26.4 | 22.1 | 7.88 | 5.88 | 5.03 |
| 1.75V/cell | 229.4 | 157.2 | 119.6 | 97.7 | 83.7 | 73.2 | 58.8 | 48.9 | 26.7 | 22.4 | 7.97 | 5.95 | 5.08 |
| 1.70V/cell | 239.4 | 162.9 | 122.7 | 100.3 | 85.6 | 74.7 | 59.6 | 49.5 | 27.1 | / | / | / | / |
| 1.65V/cell | 247.1 | 166.1 | 125.8 | 102.2 | 87.2 | 75.9 | 60.4 | 50.1 | 27.4 | / | / | / | / |
| 1.60V/cell | 253.5 | 169.1 | 127.3 | 103.2 | 87.9 | 76.6 | 60.9 | 50.5 | 27.5 | / | / | / | / |



OPzS Series-Flooded Battery

5 OPzS250(2V250Ah)



Applications

- Telecommunications
- Buoy lighting
- Standby power
- Railway signalling
- Emergency lighting systems
- Alternative power (solar, wind)
- Maritime standby power on ships and ashore

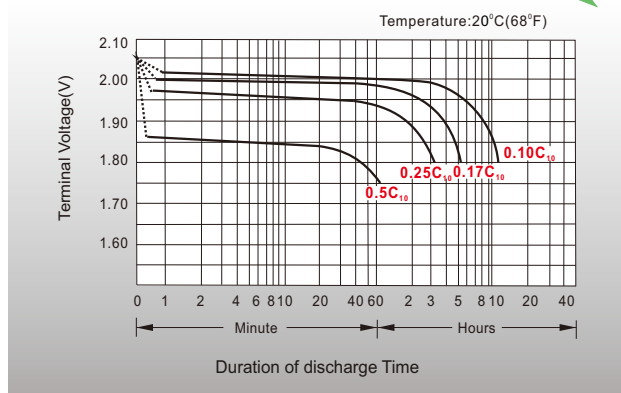
General Features

- 20 years design life(20°C)
- Lower self discharge
- Higher thermal capacity, no thermal runaway will occur
- Superior deep cycle performance
- Wide operation temperature range

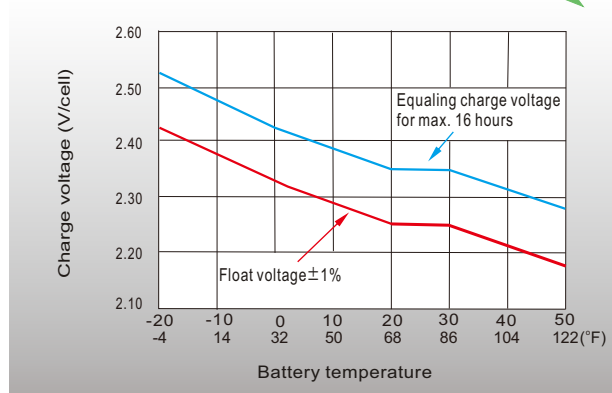
Standards

- Acc. to IEC60896, DIN 40736 standards
- Manufactured in Leoch@IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

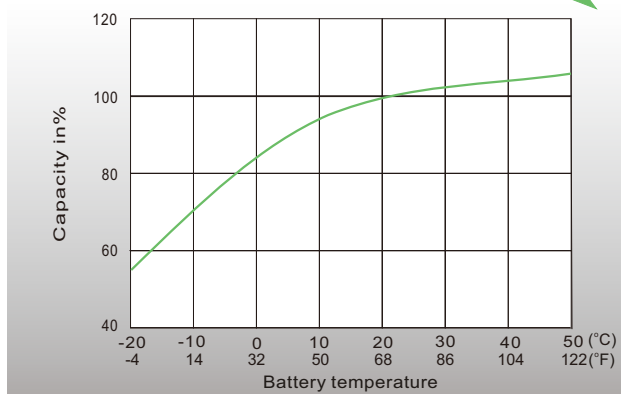
Discharge Characteristics



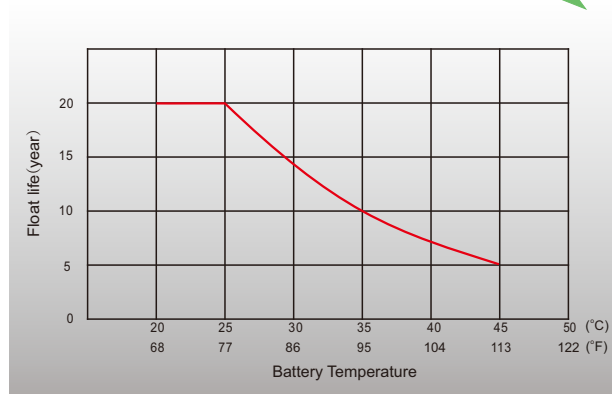
Charge voltage Vs ambient temperature curve



Discharge capacity Vs Ambient temperature curve (I10A)



Effect of Temperature on Long Term Float Life



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