

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

| | | | | |
|--------------|-------|----|---------|-------|
| 10 hour rate | (20A | to | 10.80V) | 200Ah |
| 5 hour rate | (34A | to | 10.20V) | 170Ah |
| 1 hour rate | (120A | to | 9.60V) | 120Ah |

Weight

Approx. 61.5kg(135Lbs.)

Internal Resistance (at 1KHz)

Approx. 3 mΩ

Maximum Discharge Current for

5 seconds: 1600A

Charging Methods at 25°C(77°F)

| | |
|----------------------------|---------------|
| Cycle use: | |
| Charging Voltage | 14.4 to 15.0V |
| Coefficient -5.0mV/°C/cell | |
| Maximum Charging Current : | 60A |
| Standby use: | |
| Float Charging Voltage | 13.5 to 13.8V |
| Coefficient -3.0mV/°C/cell | |

Operating Temperature Range

| | | | |
|-----------|------------|----|-------------|
| Charge | -15°C(5°F) | to | 40°C(104°F) |
| Discharge | -15°C(5°F) | to | 50°C(122°F) |
| Storage | -15°C(5°F) | to | 40°C(104°F) |

Charge Retention (shelf life) at 20°C(68°F)

| | |
|---------|-----|
| 1 month | 98% |
| 3 month | 94% |
| 6 month | 85% |

Case Material

ABS UL94 HB
Option: Flammability resistance of (UL94 V-0)

Design Life & Standard

Expected Trickle Design Life: 10-12 years at 20°C according to Eurobat.

Terminal

F18

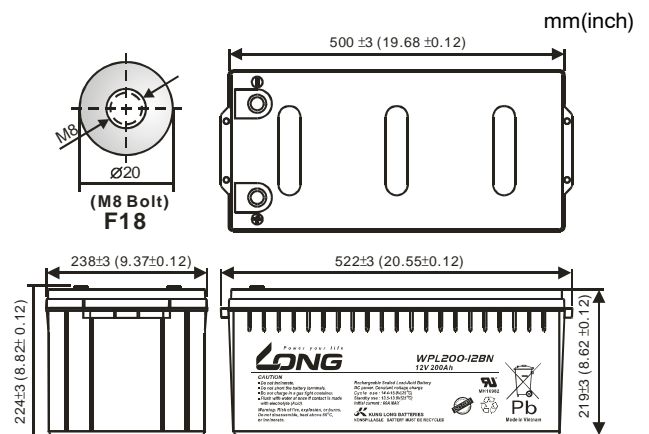


⚡ Dimensions

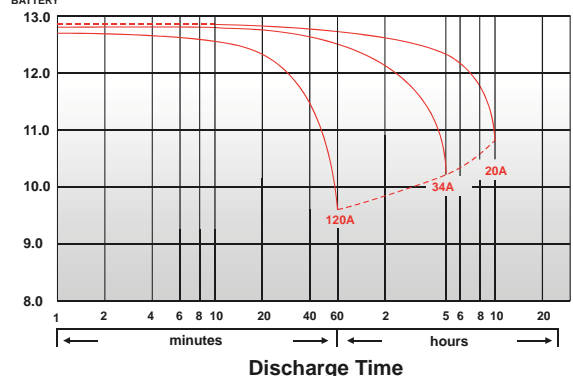
| | |
|---------------------|--------------------|
| Length (L) | 522±3 (20.55±0.12) |
| Width (W) | 238±3 (9.37±0.12) |
| Height (H) | 219±3 (8.62±0.12) |
| Overall Height (HT) | 224±3 (8.82±0.12) |

Description of torque value of hard ware for the terminals:

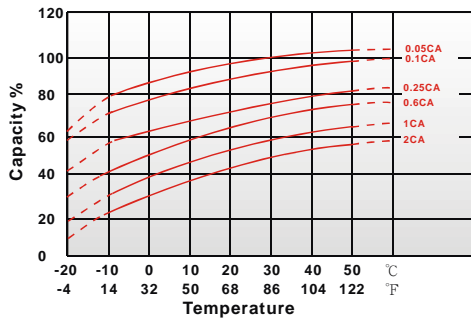
| | |
|--------------------------------|-----------------------|
| Recommended torque value | M8:12 N-m (122kgf-cm) |
| Maximum allowable torque value | M8:15 N-m (153kgf-cm) |



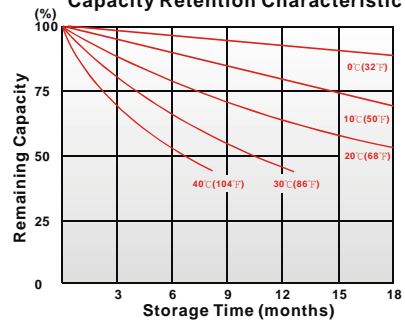
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



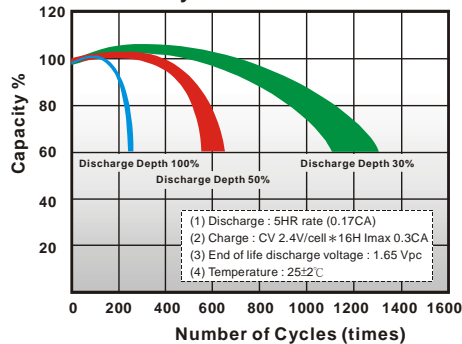
Effect of Temperature on Capacity 25°C (77°F)



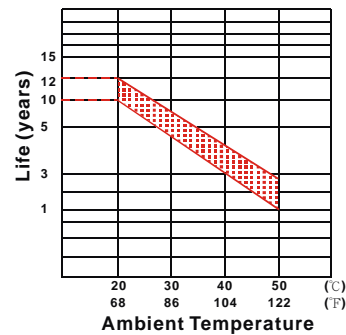
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25°C (77°F)

| End Voltage | | 1.80V | 1.75V | 1.70V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|
| Time | min | | | | | |
| 10 | min | 604 | 641 | 666 | 693 | 712 |
| 15 | min | 519 | 548 | 568 | 589 | 604 |
| 30 | min | 334 | 347 | 355 | 367 | 374 |
| 60 | min | 215 | 222 | 226 | 232 | 236 |
| 120 | min | 133 | 137 | 139 | 140 | 141 |
| 180 | min | 95.0 | 98.0 | 98.7 | 99.3 | 100 |
| 240 | min | 78.0 | 80.3 | 81.0 | 81.5 | 82.0 |
| 300 | min | 66.8 | 69.0 | 69.5 | 69.8 | 70.3 |
| 600 | min | 39.8 | 40.0 | 40.3 | 40.5 | 40.5 |
| 1200 | min | 21.0 | 21.2 | 21.3 | 21.3 | 21.3 |

- Discharge Rates in Amperes to Various End Voltages at 25°C (77°F)

| End Voltage | | 1.80V | 1.75V | 1.70V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|
| Time | min | | | | | |
| 10 | min | 334 | 354 | 367 | 383 | 393 |
| 15 | min | 284 | 300 | 310 | 322 | 330 |
| 30 | min | 179 | 185 | 190 | 196 | 200 |
| 60 | min | 113 | 117 | 119 | 122 | 124 |
| 120 | min | 69.1 | 70.9 | 72.0 | 72.6 | 73.1 |
| 180 | min | 48.5 | 50.0 | 50.4 | 50.7 | 51.0 |
| 240 | min | 39.8 | 41.0 | 41.3 | 41.6 | 41.8 |
| 300 | min | 34.0 | 35.0 | 35.2 | 35.5 | 35.7 |
| 600 | min | 20.0 | 20.1 | 20.3 | 20.3 | 20.4 |
| 1200 | min | 10.5 | 10.6 | 10.6 | 10.7 | 10.7 |

All data on the spec. sheet is an average value:

The tolerance range : $X < 6\text{min}$ (+15%~-15%), $6\text{min} \leq X < 10\text{min}$ (+12%~-12%), $10\text{min} \leq X < 60\text{min}$ (+8%~-8%), $X \geq 60\text{min}$ (+5%~-5%)

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