

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Power

15 mins rate: 500W/cell to 1.67V/cell

Nominal Capacity

| | | |
|--------------|--------------------|---------|
| 20 hour rate | (7.5A to 10.50V) | 150Ah |
| 10 hour rate | (14.25A to 10.50V) | 142.5Ah |
| 8 hour rate | (17.55A to 10.50V) | 140.4Ah |
| 5 hour rate | (25.5A to 10.20V) | 127.5Ah |

Weight

Approx. 50.5kg(111Lbs.)

Internal Resistance (at 1KHz)

Approx. 4.5 mΩ

Maximum Discharge Current for

5 seconds: 1500A

Short Circuit Current (A) IEC 60896-21-22

2670A

Charging Methods at 25°C(77°F)

| | |
|----------------------------|----------------|
| Maximum Charging Current : | 45A |
| Boost Charging Voltage | 14.1 to 14.4V |
| Boost Charge Time | 8-9Hr |
| Float Charging Voltage | 13.5 to 13.65V |
| 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 | 96% |
| 6 month | 94% |

Case Material

ABS UL94 V-0

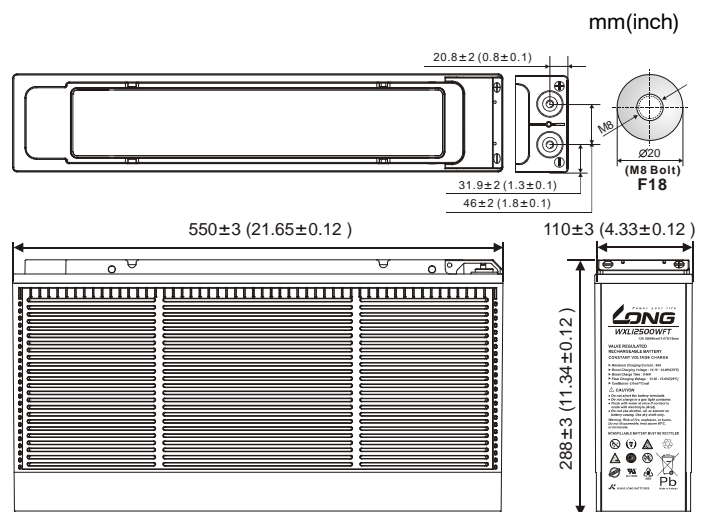
Battery Construction

| Component | Positive Plate | Negative plate | Safety valve | Terminal | Separator | Electrolyte |
|--------------|----------------|----------------|--------------|----------|-----------|---------------|
| Raw material | Lead dioxide | Lead | Rubber | Lead | AGM | Sulfuric acid |



⚡ Dimensions

| | |
|---------------------|--------------------|
| Length (L) | 550±3 (21.65±0.12) |
| Width (W) | 110±3 (4.33±0.12) |
| Height (H) | 288±3 (11.34±0.12) |
| Overall Height (HT) | 288±3 (11.34±0.12) |



Terminal

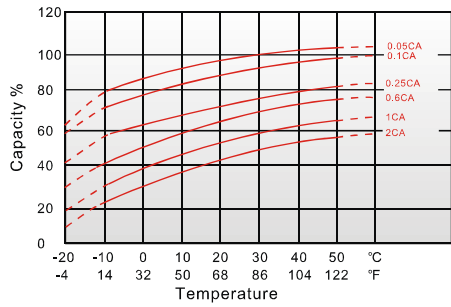
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| | |
|--------------------------------|-------------------------|
| Recommended torque value | M8: 12 N-m (122 kgf-cm) |
| Maximum allowable torque value | M8: 20 N-m (204 kgf-cm) |

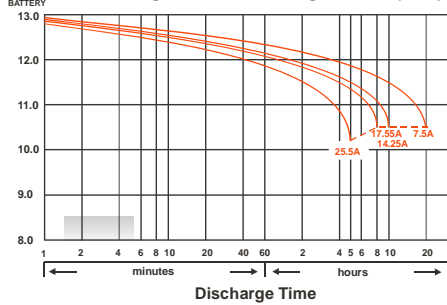
Design Life

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

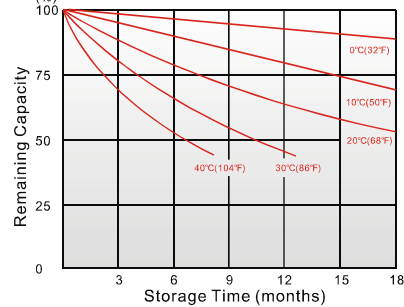
Effect of Temperature on Capacity 25°C(77°F)



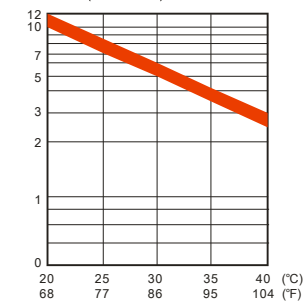
Discharge Time VS. Discharge Current (25°C)



Capacity Retention Characteristic



Trickle (or float) Service Life



- PERFORMANCE DATA

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

| Time | End Voltage | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|------|-------------|-------|-------|-------|-------|-------|-------|-------|
| 5 | min | 462 | 523 | 580 | 613 | 643 | 680 | 710 |
| 10 | min | 380 | 450 | 505 | 525 | 542 | 557 | 567 |
| 15 | min | 330 | 405 | 456 | 489 | 499 | 509 | 520 |
| 30 | min | 197 | 241 | 272 | 291 | 297 | 303 | 310 |
| 60 | min | 164 | 175 | 182 | 186 | 187 | 188 | 189 |
| 120 | min | 88.3 | 93.2 | 95.8 | 98.0 | 98.8 | 99.7 | 101 |
| 180 | min | 70.2 | 73.8 | 76.5 | 78.5 | 79.2 | 80.0 | 80.8 |
| 240 | min | 57.5 | 60.3 | 62.2 | 63.7 | 64.2 | 64.8 | 65.5 |
| 300 | min | 48.8 | 51.3 | 53.2 | 54.3 | 54.7 | 55.2 | 55.7 |
| 480 | min | 35.7 | 36.7 | 38.2 | 39.2 | 39.5 | 39.8 | 40.2 |
| 600 | min | 29.3 | 31.2 | 31.8 | 32.3 | 32.5 | 32.7 | 32.8 |
| 1200 | min | 15.0 | 15.8 | 16.4 | 16.8 | 17.0 | 17.2 | 17.3 |

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

| Time | End Voltage | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|------|-------------|-------|-------|-------|-------|-------|-------|-------|
| 5 | min | 247 | 272 | 334 | 363 | 390 | 415 | 437 |
| 10 | min | 210 | 250 | 282 | 302 | 319 | 334 | 349 |
| 15 | min | 193 | 234 | 261 | 280 | 285 | 291 | 298 |
| 30 | min | 107 | 132 | 148 | 159 | 162 | 165 | 169 |
| 60 | min | 82.7 | 89.9 | 92.7 | 94.8 | 95.6 | 96.4 | 97.5 |
| 120 | min | 43.7 | 49.6 | 52.1 | 53.9 | 54.6 | 55.4 | 56.4 |
| 180 | min | 32.4 | 37.2 | 39.1 | 40.5 | 41.0 | 41.6 | 42.3 |
| 240 | min | 27.4 | 30.1 | 31.4 | 32.4 | 32.7 | 33.1 | 33.5 |
| 300 | min | 23.7 | 25.6 | 26.6 | 27.4 | 27.6 | 27.9 | 28.1 |
| 480 | min | 16.6 | 17.5 | 18.0 | 18.3 | 18.4 | 18.6 | 18.7 |
| 600 | min | 14.4 | 15.0 | 15.2 | 15.4 | 15.6 | 15.8 | 16.0 |
| 1200 | min | 7.25 | 7.50 | 7.78 | 7.82 | 7.90 | 7.97 | 8.02 |

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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