

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

| | | |
|--------------|--------------------|---------|
| 20 hour rate | (1.65A to 10.50V) | 33Ah |
| 10 hour rate | (3.135A to 10.50V) | 31.35Ah |
| 5 hour rate | (5.61A to 10.20V) | 28.05Ah |
| 1 C | (33A to 9.60V) | 18.7Ah |
| 3 C | (99A to 9.60V) | 13.2Ah |

Weight

Approx. 10.1kg(22.2Lbs.)

Internal Resistance (at 1KHz)

Approx. 6.5 mΩ

Maximum Discharge Current for

5 seconds: 495A

Charging Methods at 25°C(77°F)

| | |
|----------------------------|----------------|
| Cycle use: | |
| Charging Voltage | 14.4 to 15.0V |
| Coefficient | -5.0mV/°C/cell |
| Maximum Charging Current : | 9.9A |
| 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 | 97% |
| 3 month | 92% |
| 6 month | 85% |

Case Material

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

Design Life

3-5 Years.

Terminal

F4



⚡ Dimensions

Length (L)

197 ± 1 (7.76 ± 0.08)

Width (W)

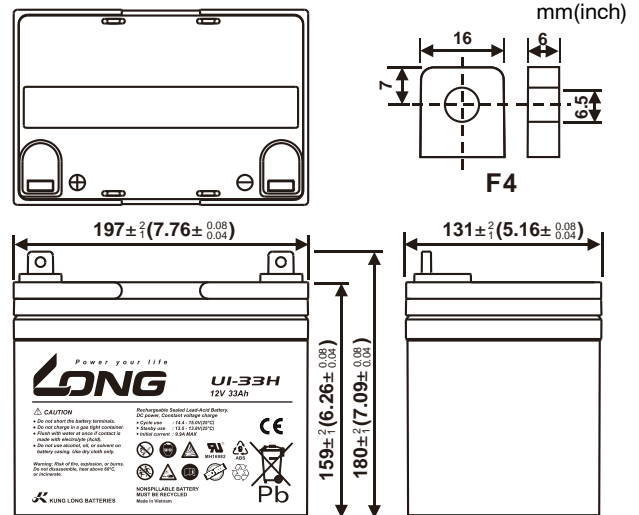
131 ± 1 (5.16 ± 0.08)

Height (H)

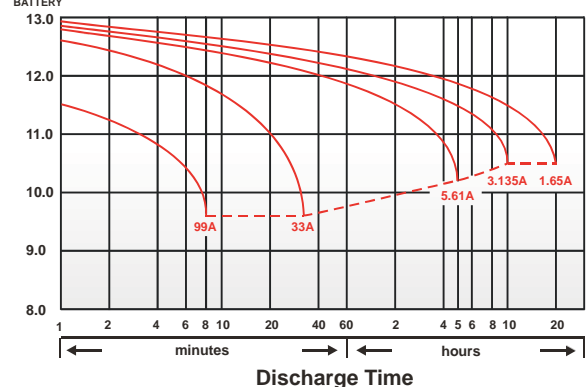
159 ± 2 (6.26 ± 0.08)

Overall Height (HT)

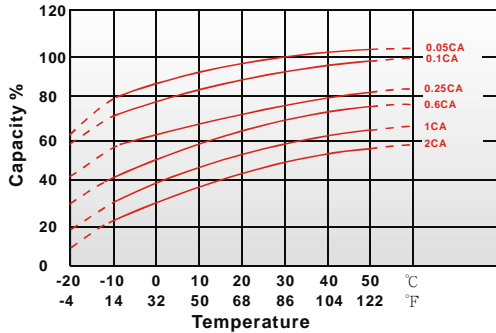
180 ± 2 (7.09 ± 0.08)



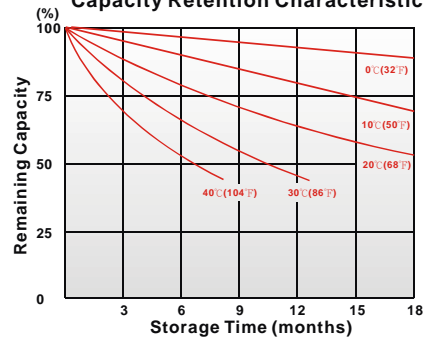
(v) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



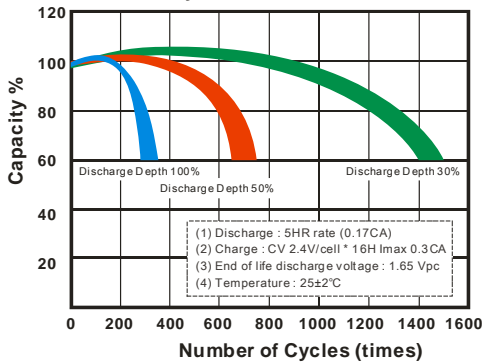
Effect of Temperature on Capacity 25°C(77°F)



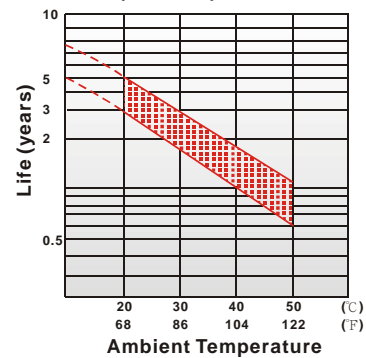
Capacity Retention Characteristic



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 | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 5 | min | 163 | 192 | 211 | 223 | 227 | 232 | 236 |
| 10 | min | 111 | 130 | 143 | 151 | 154 | 156 | 159 |
| 15 | min | 85.8 | 99.3 | 108 | 114 | 115 | 117 | 119 |
| 30 | min | 48.2 | 55.5 | 60.3 | 63.0 | 63.8 | 64.8 | 66.0 |
| 60 | min | 30.3 | 33.2 | 35.0 | 36.8 | 37.5 | 38.2 | 39.0 |
| 120 | min | 19.0 | 20.5 | 21.5 | 22.3 | 22.7 | 23.0 | 23.5 |
| 180 | min | 13.6 | 14.7 | 15.5 | 16.1 | 16.4 | 16.7 | 17.0 |
| 240 | min | 11.0 | 11.7 | 12.3 | 12.8 | 13.0 | 13.2 | 13.4 |
| 300 | min | 9.57 | 10.3 | 10.9 | 11.3 | 11.4 | 11.5 | 11.7 |
| 600 | min | 5.52 | 5.97 | 6.35 | 6.57 | 6.63 | 6.70 | 6.80 |
| 1200 | min | 2.90 | 3.13 | 3.33 | 3.45 | 3.50 | 3.55 | 3.60 |

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

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 5 | min | 86.7 | 106 | 120 | 129 | 132 | 136 | 140 |
| 10 | min | 58.5 | 68.4 | 74.5 | 79.8 | 81.7 | 84.2 | 87.3 |
| 15 | min | 41.1 | 49.3 | 54.2 | 58.4 | 59.6 | 61.5 | 63.0 |
| 30 | min | 27.4 | 31.3 | 32.9 | 34.2 | 34.6 | 35.1 | 35.6 |
| 60 | min | 16.4 | 17.7 | 18.6 | 19.3 | 19.5 | 19.8 | 20.1 |
| 120 | min | 9.67 | 10.3 | 10.8 | 11.2 | 11.3 | 11.5 | 11.7 |
| 180 | min | 6.86 | 7.36 | 7.82 | 8.08 | 8.15 | 8.23 | 8.36 |
| 240 | min | 5.45 | 5.89 | 6.27 | 6.46 | 6.51 | 6.58 | 6.69 |
| 300 | min | 4.74 | 5.11 | 5.43 | 5.61 | 5.65 | 5.70 | 5.78 |
| 600 | min | 2.73 | 2.95 | 3.15 | 3.24 | 3.27 | 3.30 | 3.34 |
| 1200 | min | 1.48 | 1.59 | 1.66 | 1.71 | 1.72 | 1.74 | 1.76 |

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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