

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

| | | | | |
|--------------|--------|----|---------|---------|
| 20 hour rate | (1.7A | to | 10.50V) | 34Ah |
| 10 hour rate | (3.23A | to | 10.50V) | 32.3Ah |
| 5 hour rate | (5.78A | to | 10.20V) | 28.9Ah |
| 1 C | (34A | to | 9.60V) | 19.27Ah |
| 3 C | (102A | to | 9.60V) | 13.6Ah |

Weight

Approx. 10.3kg(22.7Lbs.)

Internal Resistance (at 1KHz)

Approx. 6 mΩ

Maximum Discharge Current for

5 seconds: 510A

Charging Methods at 25°C(77°F)

| | |
|----------------------------|----------------|
| Cycle use: | |
| Charging Voltage | 14.4 to 15.0V |
| Coefficient | -5.0mV/°C/cell |
| Maximum Charging Current : | 10.2A |
| 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 | 92% |
| 3 month | 90% |
| 6 month | 80% |

Case Material

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

Design Life

3-5 Years.

Terminal

F4



⚡ Dimensions

Length (L)

197+2-1 (7.76+0.08-0.04)

Width (W)

131+2-1 (5.16+0.08-0.04)

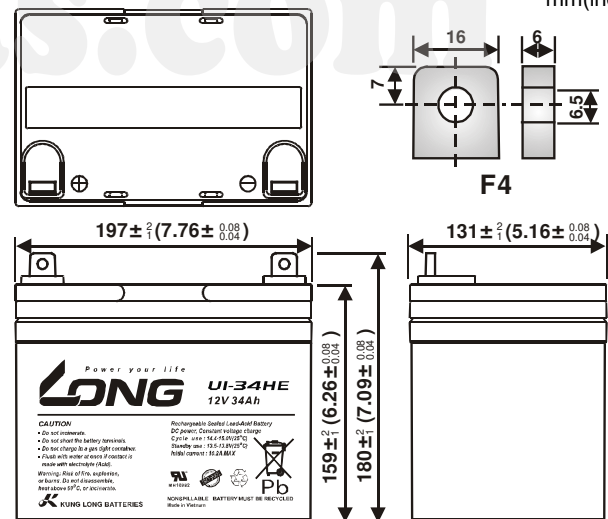
Height (H)

159+2-1 (6.26+0.08-0.04)

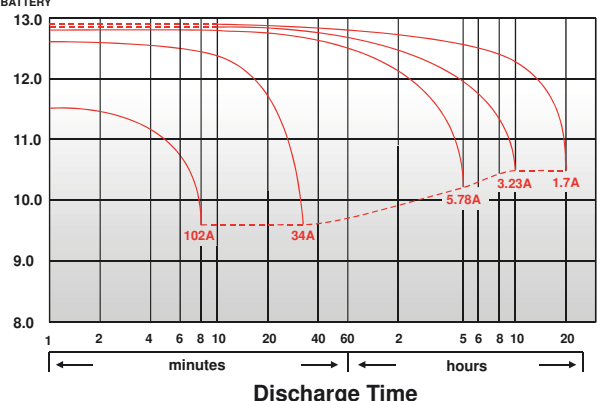
Overall Height (HT)

180+2-1 (7.09+0.08-0.04)

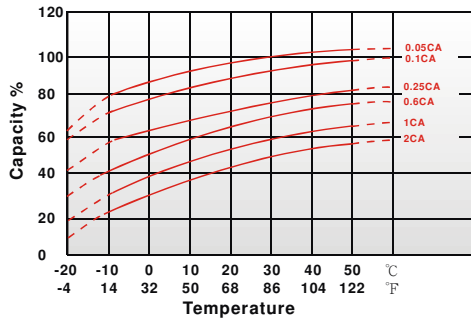
mm(inch)



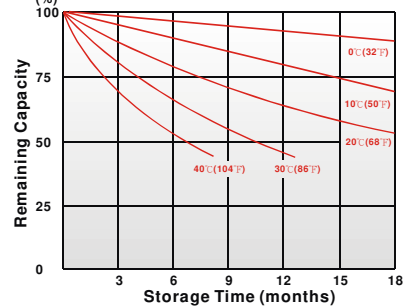
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



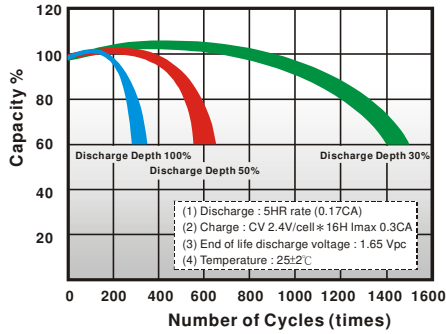
Effect of Temperature on Capacity 25°C(77°F)



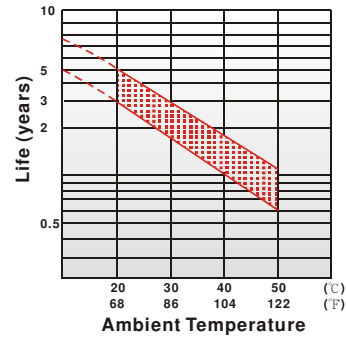
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



- PERFORMANCE DATA

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

| Time | End Voltage | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|------|-------------|-------|-------|-------|-------|-------|-------|-------|
| 5 | min | 116 | 158 | 188 | 208 | 215 | 222 | 231 |
| 10 | min | 82.3 | 109 | 129 | 141 | 145 | 150 | 155 |
| 15 | min | 67.9 | 88.2 | 103 | 113 | 115 | 119 | 123 |
| 30 | min | 36.4 | 47.5 | 55.7 | 60.8 | 62.4 | 64.4 | 66.6 |
| 60 | min | 30.7 | 34.8 | 37.0 | 38.5 | 39.0 | 39.5 | 40.0 |
| 120 | min | 19.2 | 21.0 | 22.5 | 23.7 | 24.0 | 24.5 | 24.8 |
| 180 | min | 14.6 | 15.6 | 16.3 | 16.7 | 16.8 | 17.0 | 17.2 |
| 240 | min | 12.1 | 12.8 | 13.3 | 13.6 | 13.8 | 13.9 | 14.0 |
| 300 | min | 10.5 | 11.2 | 11.6 | 11.9 | 12.0 | 12.1 | 12.2 |
| 600 | min | 6.27 | 6.67 | 6.93 | 7.07 | 7.13 | 7.20 | 7.27 |
| 1200 | min | 3.32 | 3.50 | 3.65 | 3.72 | 3.75 | 3.78 | 3.82 |

- 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 | 84.0 | 104 | 119 | 127 | 130 | 134 | 138 |
| 10 | min | 59.2 | 68.9 | 74.9 | 79.1 | 80.8 | 83.3 | 86.4 |
| 15 | min | 46.5 | 53.8 | 58.5 | 61.1 | 61.9 | 62.9 | 64.2 |
| 30 | min | 27.8 | 31.7 | 33.2 | 34.5 | 34.9 | 35.4 | 36.0 |
| 60 | min | 16.9 | 18.2 | 19.1 | 19.8 | 20.0 | 20.3 | 20.6 |
| 120 | min | 10.2 | 11.0 | 11.5 | 11.9 | 12.0 | 12.2 | 12.4 |
| 180 | min | 7.26 | 7.85 | 8.31 | 8.47 | 8.53 | 8.62 | 8.76 |
| 240 | min | 5.68 | 6.14 | 6.51 | 6.69 | 6.74 | 6.81 | 6.91 |
| 300 | min | 5.31 | 5.59 | 5.76 | 5.89 | 5.94 | 6.01 | 6.08 |
| 600 | min | 3.11 | 3.23 | 3.34 | 3.42 | 3.45 | 3.48 | 3.52 |
| 1200 | min | 1.62 | 1.70 | 1.75 | 1.79 | 1.80 | 1.82 | 1.84 |

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

The tolerance range : X<6min(+15%~-15%), 6min ≤ X < 10min(+12%~-12%), 10min ≤ X < 60min(+8%~-8%), X ≥ 60min(+5%~-5%)