

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

| | | |
|--------------|-------------------|---------|
| 20 hour rate | (2.25A to 10.50V) | 45Ah |
| 5 hour rate | (7.65A to 10.20V) | 38.25Ah |
| 1 hour rate | (24.75A to 9.60V) | 24.75Ah |
| 1 C | (45A to 9.60V) | 24Ah |

Weight

Approx. 15kg(33Lbs.)

Internal Resistance (at 1KHz)

Approx. 6 mΩ

Maximum Discharge Current for

5 seconds:540A

Charging Methods at 25°C (77°F)

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

7-10 Years.

Terminal

F4



⚡ Dimensions

Length (L)

$199 \pm 1^3 (7.83 \pm 0.12)$

Width (W)

$166 \pm 1^3 (6.54 \pm 0.12)$

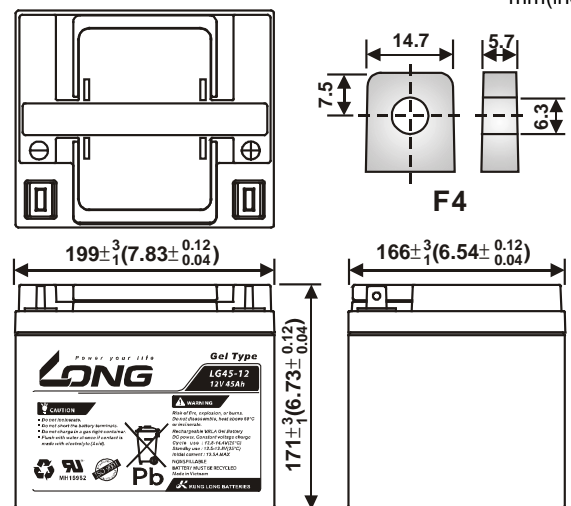
Height (H)

$171 \pm 1^3 (6.73 \pm 0.12)$

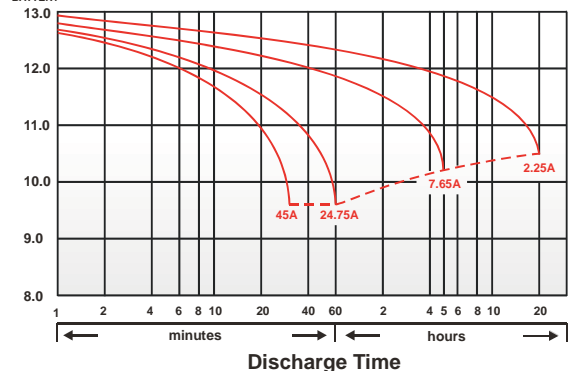
Overall Height (HT)

$171 \pm 1^3 (6.73 \pm 0.12)$

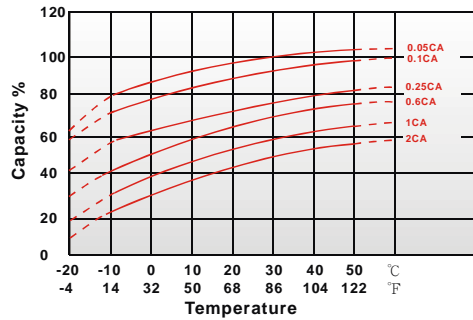
mm(inch)



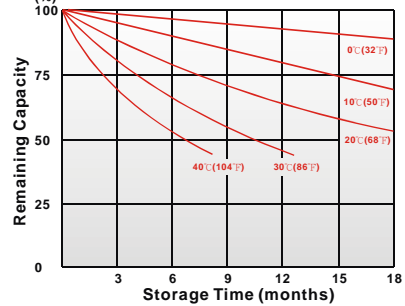
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



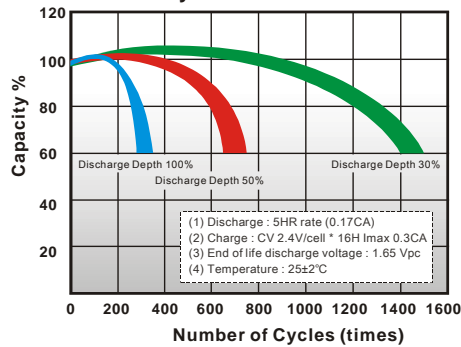
Effect of Temperature on Capacity 25°C (77°F)



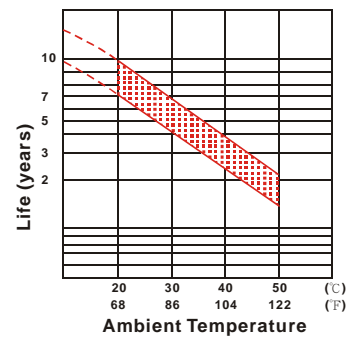
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



- PERFORMANCE DATA

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

| End Voltage | | 1.85V | 1.80V | 1.75V | 1.70V | 1.67V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 170 | 221 | 254 | 273 | 280 | 289 | 299 |
| 10 | min | 125 | 157 | 180 | 195 | 201 | 206 | 209 |
| 15 | min | 112 | 130 | 142 | 149 | 151 | 152 | 154 |
| 30 | min | 62.0 | 71.5 | 78.2 | 81.7 | 82.7 | 83.8 | 85.0 |
| 60 | min | 41.8 | 45.5 | 47.8 | 49.7 | 50.3 | 51.2 | 52.0 |
| 120 | min | 22.7 | 24.8 | 26.3 | 27.5 | 27.8 | 28.3 | 28.8 |
| 180 | min | 18.3 | 19.8 | 21.0 | 21.8 | 22.2 | 22.6 | 22.8 |
| 240 | min | 15.7 | 16.5 | 17.2 | 17.7 | 17.8 | 18.0 | 18.2 |
| 300 | min | 13.7 | 14.6 | 15.1 | 15.4 | 15.6 | 15.7 | 15.9 |
| 600 | min | 8.07 | 8.56 | 8.86 | 9.07 | 9.16 | 9.25 | 9.33 |
| 1200 | min | 4.25 | 4.51 | 4.67 | 4.78 | 4.83 | 4.88 | 4.92 |

- 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 |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| Time | | | | | | | | |
| 5 | min | 90.4 | 122 | 144 | 158 | 163 | 169 | 178 |
| 10 | min | 65.8 | 83.4 | 96.1 | 105 | 108 | 111 | 114 |
| 15 | min | 57.5 | 67.7 | 74.6 | 79.1 | 80.1 | 81.5 | 82.6 |
| 30 | min | 31.7 | 37.3 | 41.1 | 43.6 | 44.2 | 45.0 | 45.8 |
| 60 | min | 23.1 | 24.5 | 25.4 | 26.0 | 26.2 | 26.5 | 26.7 |
| 120 | min | 12.3 | 13.1 | 13.6 | 14.0 | 14.1 | 14.3 | 14.5 |
| 180 | min | 9.48 | 10.2 | 10.7 | 11.0 | 11.1 | 11.3 | 11.4 |
| 240 | min | 7.87 | 8.35 | 8.64 | 8.85 | 8.94 | 9.02 | 9.10 |
| 300 | min | 6.83 | 7.25 | 7.50 | 7.68 | 7.75 | 7.83 | 7.90 |
| 600 | min | 4.02 | 4.24 | 4.39 | 4.51 | 4.56 | 4.60 | 4.65 |
| 1200 | min | 2.11 | 2.23 | 2.31 | 2.37 | 2.39 | 2.42 | 2.45 |

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%)

070123-11