

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

| | | | | |
|--------------|-------|----|---------|-------|
| 20 hour rate | (5A | to | 10.50V) | 100Ah |
| 10 hour rate | (10A | to | 10.80V) | 100Ah |
| 5 hour rate | (17A | to | 10.20V) | 85Ah |
| 1 hour rate | (60A | to | 9.60V) | 60Ah |
| 1 C | (100A | to | 9.60V) | 50Ah |

Weight

Approx. 31.3kg(68.9Lbs.)

Internal Resistance (at 1KHz)

Approx. 4.3 mΩ

Maximum Discharge Current for

5 seconds: 600A

Charging Methods at 25°C(77°F)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 30A

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

12 Years.

Terminal

F18



⚡ Dimensions

Length (L)

507±3 (19.96±0.12)

Width (W)

106±3 (4.17±0.12)

Height (H)

235±3 (9.25±0.12)

Overall Height (HT)

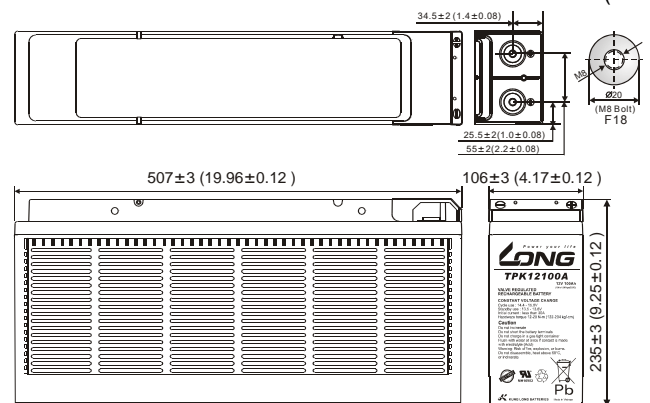
235±3 (9.25±0.12)

Description of torque value of hard ware for the terminals:

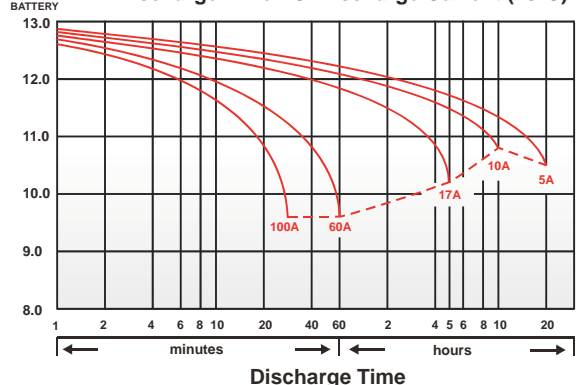
Recommended torque value M8:12 N-m (122kgf-cm)

Maximum allowable torque value M8:20 N-m (204kgf-cm)

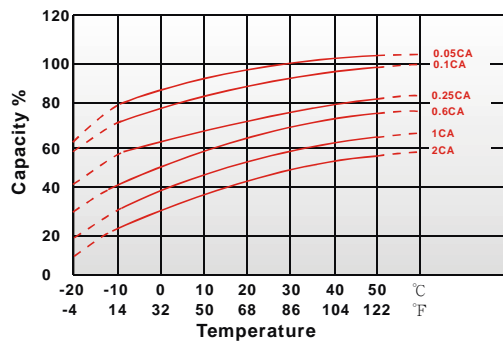
mm(inch)



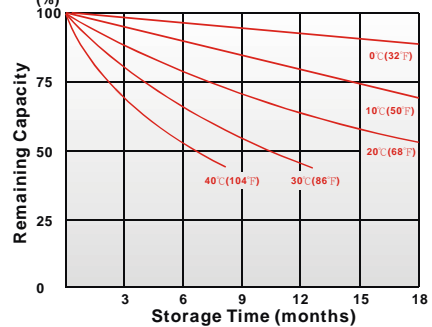
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



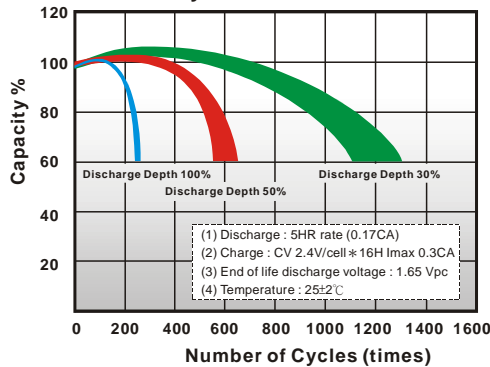
Effect of Temperature on Capacity 25°C(77°F)



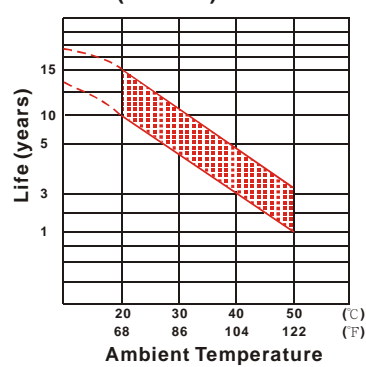
Capacity Retention Characteristic



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 | | | | | | | | |
| 15 | min | 268 | 293 | 329 | 334 | 344 | 354 | 357 |
| 30 | min | 171 | 191 | 203 | 215 | 225 | 232 | 242 |
| 60 | min | 114 | 116 | 119 | 121 | 124 | 127 | 129 |
| 120 | min | 59.8 | 69.9 | 73.4 | 75.3 | 76.7 | 77.5 | 78.3 |
| 180 | min | 46.3 | 48.3 | 49.8 | 51.7 | 52.7 | 53.7 | 55.0 |
| 240 | min | 36.0 | 38.3 | 40.5 | 41.3 | 41.7 | 42.0 | 42.3 |
| 300 | min | 26.7 | 29.5 | 31.3 | 31.8 | 32.7 | 33.5 | 34.2 |
| 480 | min | 21.2 | 21.7 | 23.0 | 23.3 | 24.0 | 24.5 | 25.0 |
| 600 | min | 17.5 | 18.5 | 19.3 | 19.8 | 20.2 | 20.3 | 20.5 |
| 1200 | min | 8.67 | 9.83 | 10.5 | 10.7 | 10.8 | 10.8 | 11.0 |

- 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 | | | | | | | | |
| 15 | min | 135 | 153 | 189 | 190 | 194 | 198 | 202 |
| 30 | min | 100 | 105 | 109 | 112 | 115 | 118 | 125 |
| 60 | min | 54.5 | 60.0 | 61.5 | 62.4 | 63.6 | 64.3 | 64.7 |
| 120 | min | 32.2 | 34.4 | 36.0 | 36.8 | 37.5 | 38.3 | 39.7 |
| 180 | min | 24.3 | 25.1 | 26.4 | 26.7 | 27.0 | 27.4 | 27.8 |
| 240 | min | 18.2 | 19.1 | 20.0 | 20.3 | 20.5 | 20.8 | 21.1 |
| 300 | min | 15.8 | 16.4 | 17.0 | 17.3 | 17.7 | 18.0 | 18.3 |
| 480 | min | 10.5 | 11.3 | 11.7 | 11.9 | 12.0 | 12.1 | 12.2 |
| 600 | min | 9.5 | 10.0 | 10.1 | 10.2 | 10.3 | 10.4 | 10.5 |
| 1200 | min | 4.70 | 5.00 | 5.10 | 5.20 | 5.20 | 5.30 | 5.40 |

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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