

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Capacity

|              |       |    |         |       |
|--------------|-------|----|---------|-------|
| 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. 30.0kg(66.0 Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 4.3 mΩ

#### Maximum Discharge Current for

5 seconds: 1000A

#### 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)

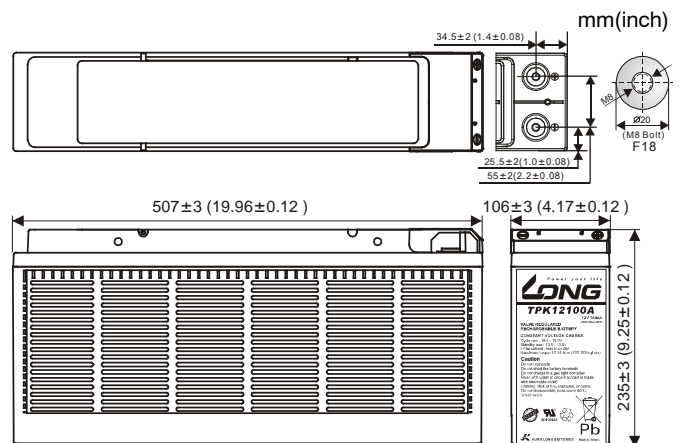
#### Overall Height (HT)

235±3 (9.25±0.12)

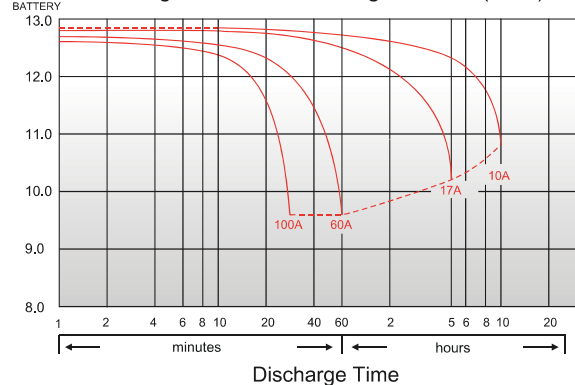
#### Description of torque value of hard ware for the terminals:

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

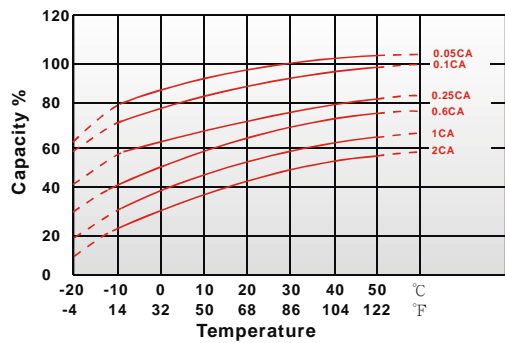
Maximum allowable torque value M8:15 N-m (153kgf-cm)



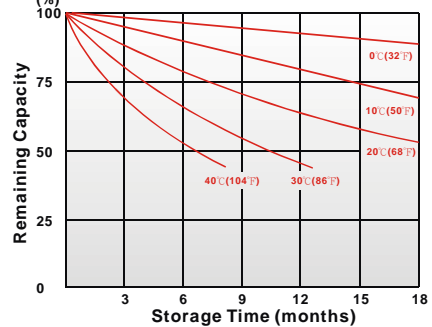
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



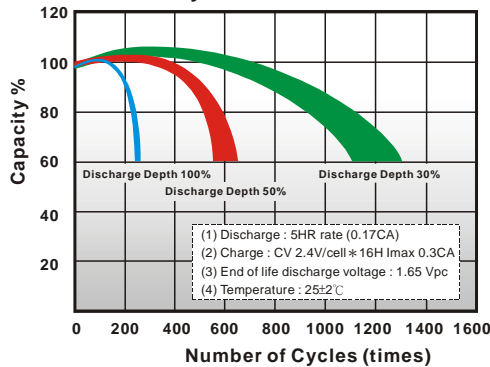
Effect of Temperature on Capacity 25°C(77°F)



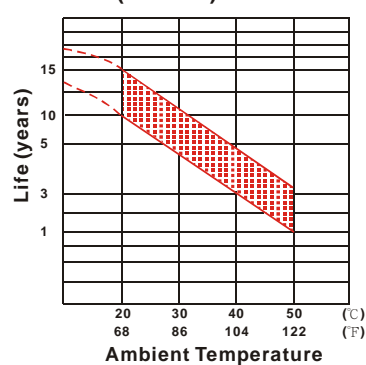
Capacity Retention Characteristic



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 |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 15          | min | 268   | 293   | 364   | 369   | 379   | 389   | 392   |
| 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 |
|-------------|-----|-------|-------|-------|-------|-------|-------|-------|
| 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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