

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Capacity

|    |           |        |    |         |        |
|----|-----------|--------|----|---------|--------|
| 20 | hour rate | (1.8A  | to | 10.50V) | 36Ah   |
| 10 | hour rate | (3.42A | to | 10.50V) | 34.2Ah |
| 5  | hour rate | (6.12A | to | 10.20V) | 30.6Ah |
| 1  | C         | (36A   | to | 9.60V)  | 20.4Ah |
| 3  | C         | (108A  | to | 9.60V)  | 14.4Ah |

#### Weight

Approx. 10.7kg(23.54Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 8 mΩ

#### Maximum Discharge Current for

5 seconds: 540A

#### Charging Methods at 25°C(77°F)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 10.8A

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

F8



### ⚡ Dimensions

#### Length (L)

196±2-1 (7.72±0.08-0.04)

#### Width (W)

130±2-1 (5.12±0.08-0.04)

#### Height (H)

158±2-1 (6.22±0.08-0.04)

#### Overall Height (HT)

169±2-1 (6.65±0.08-0.04)

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

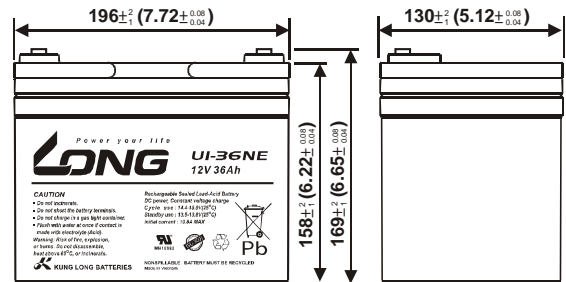
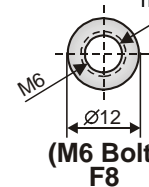
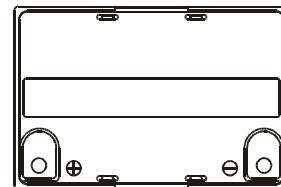
Recommended torque value

M6: 7 N-m (71kgf-cm)

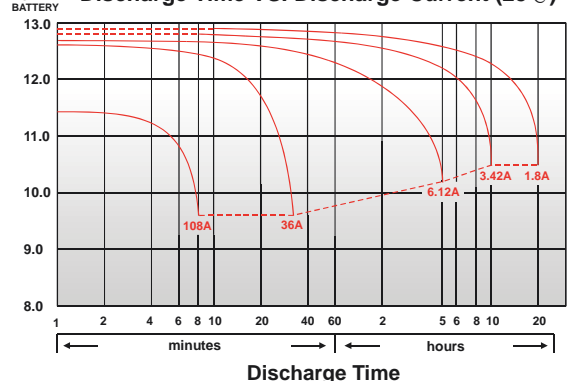
Maximum allowable torque value

M6: 9 N-m (92kgf-cm)

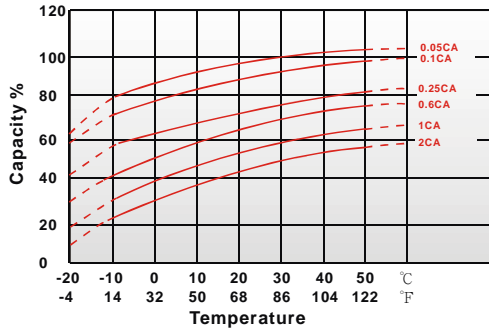
mm(inch)



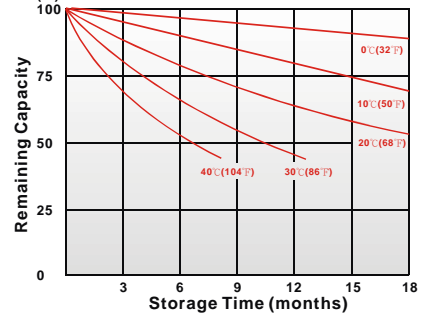
(V) Discharge Time VS. Discharge Current (25°C)



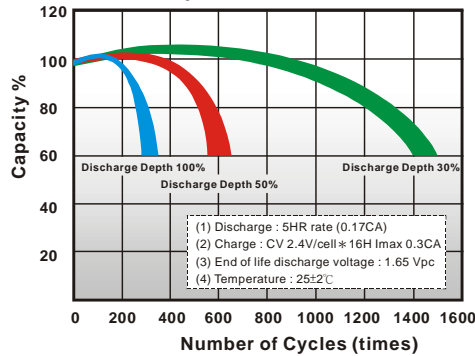
Effect of Temperature on Capacity 25°C(77°F)



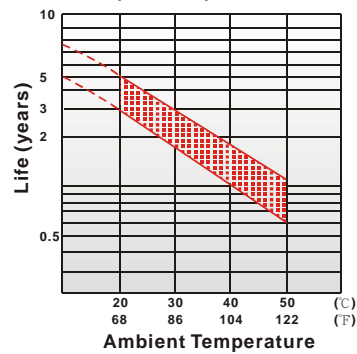
Capacity Retention Characteristic



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 | 175   | 188   | 203   | 215   | 221   | 226   | 235   |
| 10          | min | 134   | 142   | 150   | 158   | 163   | 167   | 174   |
| 15          | min | 117   | 123   | 127   | 131   | 133   | 136   | 139   |
| 30          | min | 73.7  | 76.2  | 77.7  | 79.0  | 79.7  | 80.5  | 81.8  |
| 60          | min | 44.2  | 45.7  | 46.7  | 47.5  | 47.8  | 48.2  | 48.7  |
| 120         | min | 24.3  | 25.5  | 26.3  | 27.0  | 27.2  | 27.5  | 27.8  |
| 180         | min | 18.5  | 19.3  | 20.0  | 20.5  | 20.7  | 20.8  | 21.0  |
| 240         | min | 15.0  | 15.3  | 15.5  | 15.7  | 15.8  | 15.9  | 16.0  |
| 300         | min | 12.3  | 12.5  | 12.7  | 12.9  | 13.0  | 13.0  | 13.1  |
| 600         | min | 7.12  | 7.25  | 7.37  | 7.48  | 7.60  | 7.67  | 7.75  |
| 1200        | min | 3.63  | 3.75  | 3.83  | 3.92  | 3.95  | 3.98  | 4.03  |

#### - 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 | 93.3  | 104   | 115   | 124   | 128   | 132   | 139   |
| 10          | min | 69.0  | 74.3  | 79.4  | 84.2  | 86.7  | 89.4  | 93.9  |
| 15          | min | 60.8  | 63.7  | 64.9  | 66.0  | 66.4  | 66.9  | 67.6  |
| 30          | min | 37.3  | 38.9  | 39.8  | 40.6  | 41.1  | 41.4  | 42.1  |
| 60          | min | 20.6  | 21.7  | 22.6  | 23.4  | 23.7  | 24.1  | 24.5  |
| 120         | min | 11.7  | 12.3  | 12.8  | 13.2  | 13.3  | 13.5  | 13.7  |
| 180         | min | 8.89  | 9.21  | 9.42  | 9.61  | 9.68  | 9.75  | 9.83  |
| 240         | min | 7.38  | 7.52  | 7.59  | 7.64  | 7.66  | 7.69  | 7.73  |
| 300         | min | 6.27  | 6.38  | 6.43  | 6.48  | 6.50  | 6.52  | 6.55  |
| 600         | min | 3.52  | 3.59  | 3.64  | 3.68  | 3.69  | 3.71  | 3.73  |
| 1200        | min | 1.81  | 1.88  | 1.93  | 1.96  | 1.97  | 1.98  | 1.99  |

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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