

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Capacity

|              |        |    |         |         |
|--------------|--------|----|---------|---------|
| 10 hour rate | (8A    | to | 10.80V) | 80Ah    |
| 5 hour rate  | (13.6A | to | 10.20V) | 68Ah    |
| 1 hour rate  | (48A   | to | 9.60V)  | 48Ah    |
| 1C           | (80A   | to | 9.60V)  | 50.67Ah |

#### Weight

Approx. 24.2kg(53.2Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 5 mΩ

#### Maximum Discharge Current for

5 seconds:960A

#### Charging Methods at 25°C(77°F)

|                            |               |
|----------------------------|---------------|
| Maximum Charging Current : | 24A           |
| 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

F8



### ⚡ Dimensions

#### Length (L)

260±2-1 (10.24±0.08-0.04)

#### Width (W)

170±2-1 (6.69±0.08-0.04)

#### Height (H)

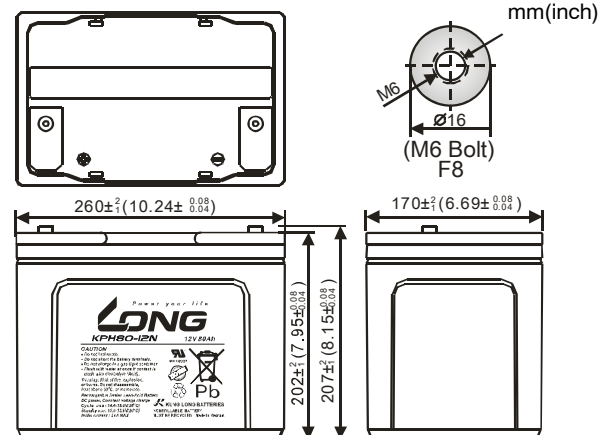
202±2-1 (7.95±0.08-0.04)

#### Overall Height (HT)

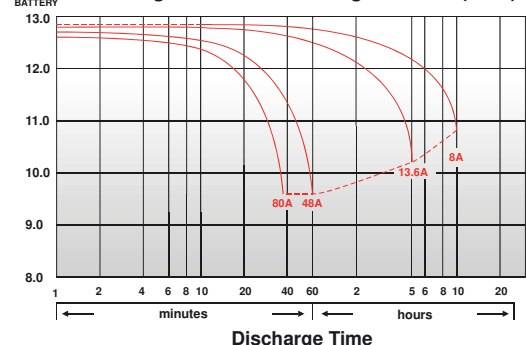
207±2-1 (8.15±0.08-0.04)

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

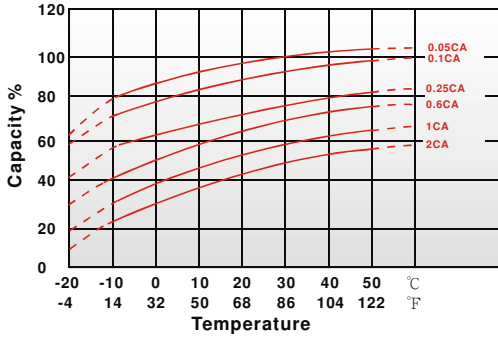
|                                |                        |
|--------------------------------|------------------------|
| Recommended torque value       | M6: 7 N-m (71kgf-cm)   |
| Maximum allowable torque value | M6: 10 N-m (102kgf-cm) |



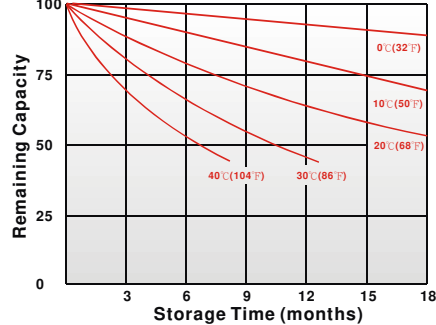
#### (V) Discharge Time VS. Discharge Current (25°C)



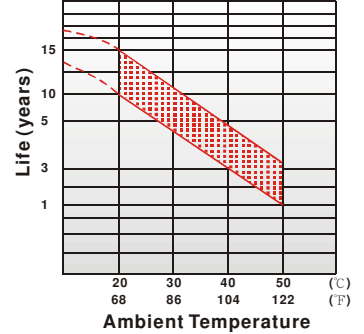
Effect of Temperature on Capacity 25°C (77°F)



Capacity Retention Characteristic



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 | 407   | 429   | 491   | 521   | 537   | 552   | 567   |
| 10          | min | 278   | 294   | 336   | 357   | 368   | 378   | 388   |
| 15          | min | 178   | 225   | 240   | 274   | 280   | 287   | 294   |
| 30          | min | 139   | 149   | 155   | 159   | 160   | 162   | 165   |
| 60          | min | 82.5  | 86.9  | 89.4  | 91.4  | 92.1  | 92.9  | 94.9  |
| 120         | min | 47.2  | 49.8  | 51.3  | 52.7  | 53.2  | 53.7  | 54.3  |
| 180         | min | 34.0  | 35.8  | 36.8  | 37.7  | 38.0  | 38.3  | 38.8  |
| 240         | min | 27.8  | 28.8  | 29.7  | 30.3  | 30.5  | 30.8  | 31.2  |
| 300         | min | 25.2  | 25.7  | 26.1  | 26.4  | 26.6  | 26.7  | 26.9  |
| 600         | min | 15.4  | 16.0  | 16.0  | 16.2  | 16.2  | 16.3  | 16.3  |
| 1200        | min | 7.84  | 8.11  | 8.16  | 8.18  | 8.26  | 8.29  | 8.33  |

#### - 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 | 178   | 214   | 245   | 272   | 281   | 292   | 304   |
| 10          | min | 112   | 143   | 167   | 186   | 192   | 199   | 207   |
| 15          | min | 90.5  | 109   | 124   | 138   | 141   | 145   | 150   |
| 30          | min | 63.2  | 72.6  | 79.4  | 84.5  | 85.6  | 87.2  | 89.0  |
| 60          | min | 39.4  | 42.3  | 44.1  | 45.6  | 46.1  | 46.7  | 48.0  |
| 120         | min | 20.2  | 22.4  | 23.9  | 25.0  | 25.4  | 25.8  | 26.3  |
| 180         | min | 15.8  | 17.4  | 18.4  | 19.3  | 19.6  | 20.0  | 20.4  |
| 240         | min | 12.9  | 13.9  | 14.7  | 15.3  | 15.6  | 15.9  | 16.2  |
| 300         | min | 12.0  | 12.8  | 13.3  | 13.6  | 13.8  | 14.0  | 14.3  |
| 600         | min | 7.73  | 8.00  | 8.05  | 8.07  | 8.12  | 8.16  | 8.21  |
| 1200        | min | 3.87  | 4.00  | 4.03  | 4.04  | 4.06  | 4.08  | 4.11  |

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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