

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

| | | | | |
|--------------|--------|----|---------|---------|
| 10 hour rate | (18A | to | 10.80V) | 180Ah |
| 5 hour rate | (32.3A | to | 10.50V) | 161.5Ah |
| 1 hour rate | (118A | to | 9.60V) | 118Ah |

Weight

Approx. 58kg(127.6Lbs.)

Internal Resistance (at 20°C)

Approx. 3.8 mΩ

Maximum Discharge Current for (at 20°C)

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 : 54A

Standby use:

Float Charging Voltage 13.5 to 13.8V

Coefficient -3.0mV/°C/cell

Operating Temperature Range

Charge -10°C(14°F) to 60°C(140°F)

Discharge -20°C(-44°F) to 60°C(140°F)

Storage -20°C(-4°F) to 60°C(140°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)

546±2 (21.5±0.08)

Width (W)

125±2 (4.92±0.08)

Height (H)

317±2 (12.48±0.08)

Overall Height (HT)

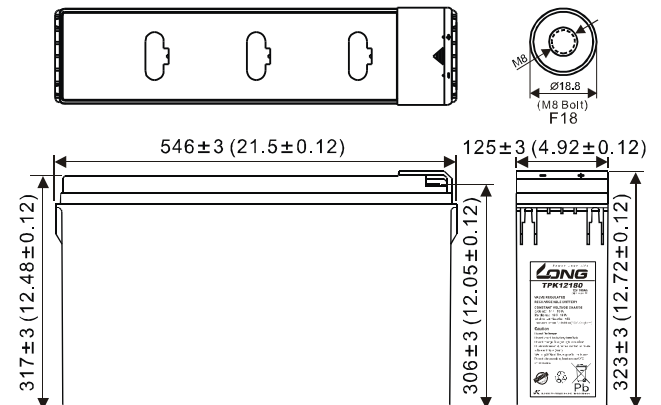
323±2 (12.72±0.08)

Description of torque value of hard ware for the terminals:

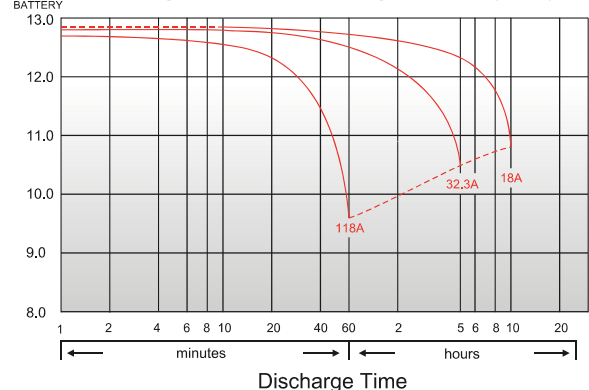
Recommended torque value M8:12 N-m (122kgf-cm)

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

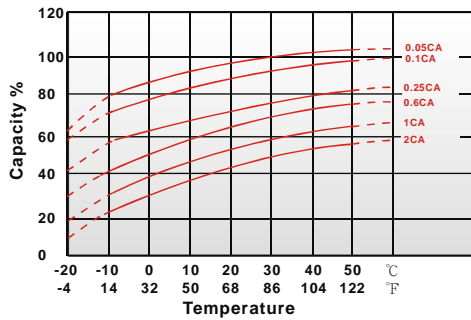
mm(inch)



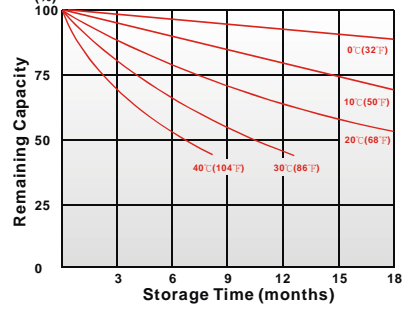
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



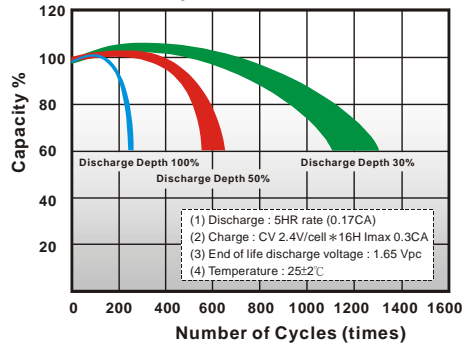
Effect of Temperature on Capacity 25°C(77°F)



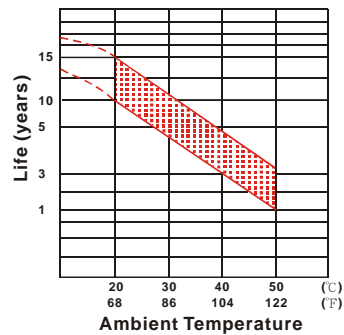
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 20°C(68°F)

| End Voltage | | 1.80V | 1.75V | 1.70V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|
| Time | | | | | | |
| 15 | min | 435 | 458 | 480 | 503 | 525 |
| 30 | min | 318 | 328 | 339 | 349 | 360 |
| 45 | min | 251 | 257 | 362 | 268 | 274 |
| 60 | min | 208 | 212 | 217 | 221 | 225 |
| 120 | min | 125 | 127 | 130 | 132 | 134 |
| 180 | min | 94.0 | 95.0 | 96.0 | 97.0 | 98.0 |
| 300 | min | 62.0 | 62.5 | 63.1 | 63.6 | 64.1 |

- Discharge Rates in Amperes to Various End Voltages at 20°C(68°F)

| End Voltage | | 1.80V | 1.75V | 1.70V | 1.65V | 1.60V |
|-------------|-----|-------|-------|-------|-------|-------|
| Time | | | | | | |
| 15 | min | 238 | 254 | 269 | 285 | 300 |
| 30 | min | 176 | 181 | 187 | 192 | 197 |
| 45 | min | 135 | 138 | 140 | 143 | 145 |
| 60 | min | 109 | 111 | 114 | 116 | 118 |
| 180 | min | 48.0 | 48.8 | 49.5 | 50.3 | 51.0 |
| 300 | min | 32.1 | 32.3 | 32.6 | 32.8 | 33.0 |
| 600 | min | 18.0 | 18.1 | 18.2 | 18.3 | 18.4 |

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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