

Specifications

Nominal Voltage(V)

12V

Nominal Capacity

| | | |
|--------------|--------------------|---------|
| 20 hour rate | (2.25A to 10.50V) | 45Ah |
| 10 hour rate | (4.275A to 10.50V) | 42.75Ah |
| 5 hour rate | (7.65A to 10.20V) | 38.25Ah |
| 1 C | (45A to 9.60V) | 25.5Ah |
| 3 C | (135A to 9.60V) | 18Ah |

Weight

Approx. 14.5kg(31.9Lbs.)

Internal Resistance (at 1KHz)

Approx. 7 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 : | 13.5A |
| 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

EUROBAT Classification:6-9 Years General Purpose

Terminal

F8



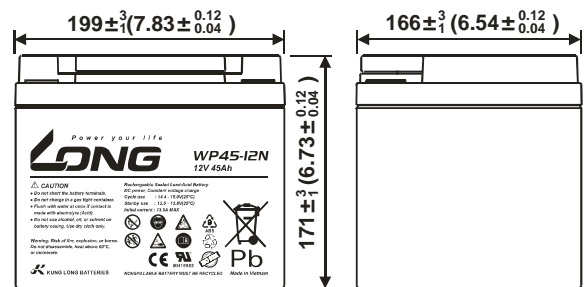
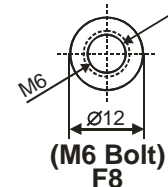
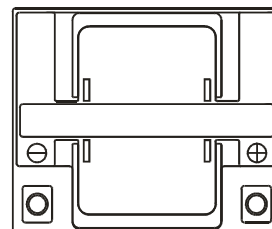
Dimensions

| | |
|---------------------|---|
| Length (L) | 199 ⁺³ ₋₁ (7.83 ^{+0.12} _{-0.04}) |
| Width (W) | 166 ⁺³ ₋₁ (6.54 ^{+0.12} _{-0.04}) |
| Height (H) | 171 ⁺³ ₋₁ (6.73 ^{+0.12} _{-0.04}) |
| Overall Height (HT) | 171 ⁺³ ₋₁ (6.73 ^{+0.12} _{-0.04}) |

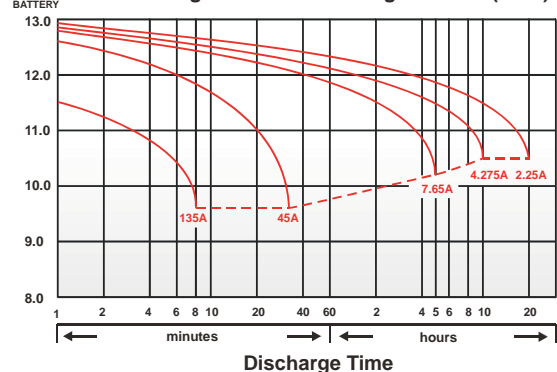
Description of torque value of hard ware for the terminals:

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

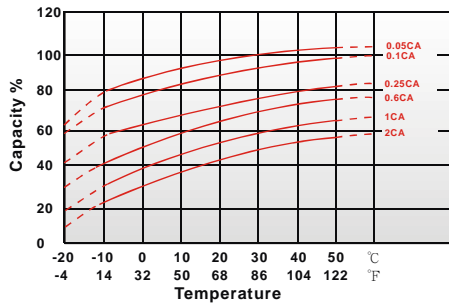
mm(inch)



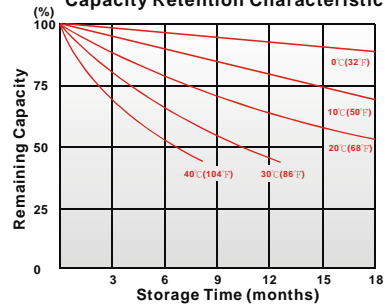
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



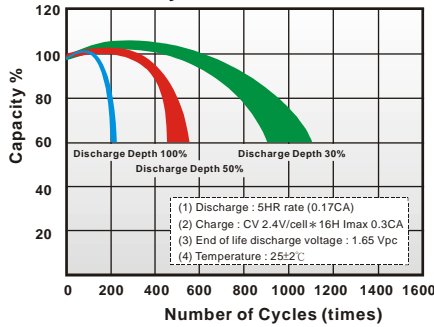
Effect of Temperature on Capacity 25°C (77°F)



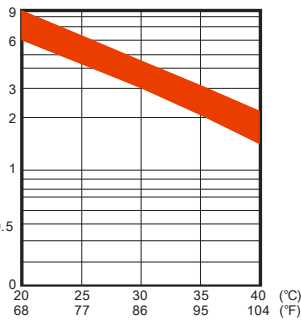
Capacity Retention Characteristic



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 | min | | | | | | | |
| 5 | min | 233 | 280 | 314 | 336 | 341 | 347 | 354 |
| 10 | min | 148 | 178 | 200 | 214 | 217 | 221 | 225 |
| 15 | min | 116 | 136 | 150 | 159 | 162 | 164 | 167 |
| 30 | min | 62.0 | 73.0 | 80.5 | 85.4 | 86.5 | 88.1 | 89.4 |
| 60 | min | 48.8 | 51.8 | 53.6 | 54.9 | 55.3 | 55.9 | 56.4 |
| 120 | min | 25.7 | 27.3 | 28.2 | 28.9 | 29.2 | 29.5 | 29.7 |
| 180 | min | 20.5 | 21.8 | 22.5 | 23.1 | 23.2 | 23.5 | 23.7 |
| 240 | min | 16.4 | 17.4 | 18.0 | 18.4 | 18.7 | 18.8 | 19.0 |
| 300 | min | 14.0 | 14.9 | 15.4 | 15.7 | 15.9 | 16.0 | 16.2 |
| 600 | min | 8.23 | 8.74 | 9.04 | 9.26 | 9.35 | 9.44 | 9.52 |
| 1200 | min | 4.34 | 4.61 | 4.76 | 4.88 | 4.93 | 4.98 | 5.02 |

- 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 | min | | | | | | | |
| 5 | min | 127 | 153 | 171 | 183 | 186 | 190 | 193 |
| 10 | min | 79.5 | 95.6 | 107 | 114 | 116 | 118 | 121 |
| 15 | min | 60.3 | 71.0 | 78.3 | 83.1 | 84.2 | 85.6 | 87.0 |
| 30 | min | 31.7 | 37.3 | 41.1 | 43.6 | 44.2 | 45.0 | 45.7 |
| 60 | min | 24.6 | 26.1 | 27.0 | 27.7 | 27.9 | 28.2 | 28.4 |
| 120 | min | 12.9 | 13.7 | 14.2 | 14.6 | 14.7 | 14.8 | 14.9 |
| 180 | min | 10.3 | 10.9 | 11.3 | 11.5 | 11.6 | 11.8 | 11.9 |
| 240 | min | 8.20 | 8.70 | 9.00 | 9.22 | 9.31 | 9.40 | 9.48 |
| 300 | min | 6.97 | 7.40 | 7.65 | 7.84 | 7.91 | 7.99 | 8.06 |
| 600 | min | 4.10 | 4.35 | 4.50 | 4.61 | 4.65 | 4.70 | 4.74 |
| 1200 | min | 2.15 | 2.28 | 2.36 | 2.42 | 2.44 | 2.47 | 2.49 |

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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