

### Specifications

#### Nominal Voltage(V)

12V

#### Nominal Capacity

|              |        |    |         |        |
|--------------|--------|----|---------|--------|
| 20 hour rate | (0.9A  | to | 10.50V) | 18Ah   |
| 10 hour rate | (1.71A | to | 10.50V) | 17.1Ah |
| 5 hour rate  | (3.06A | to | 10.20V) | 15.3Ah |
| 1 C          | (18A   | to | 9.60V)  | 11.4Ah |
| 3 C          | (54A   | to | 9.60V)  | 7.2Ah  |

#### Cold Cranking Amperes (-18°C)

200A

#### Cranking Amperes (25°C)

275A

#### Weight

Approx. 5.6kg(12.32Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 10.5 mΩ

#### Maximum Discharge Current for

5 seconds: 270A

#### Charging Methods at 25°C (77°F)

|                            |                |
|----------------------------|----------------|
| Cycle use:                 |                |
| Charging Voltage           | 14.4 to 15.0V  |
| Coefficient                | -5.0mV/°C/cell |
| Maximum Charging Current : | 5.4A           |
| 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

F6

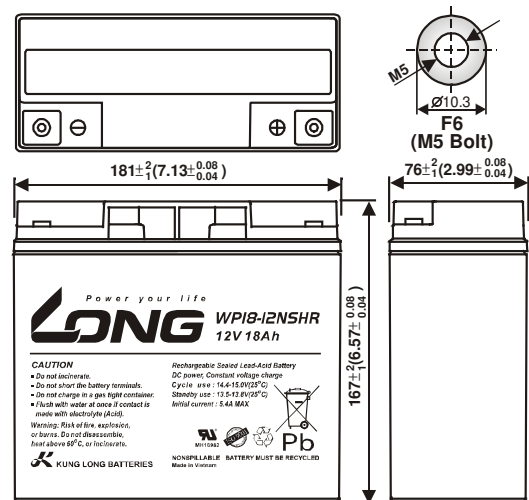


### Dimensions

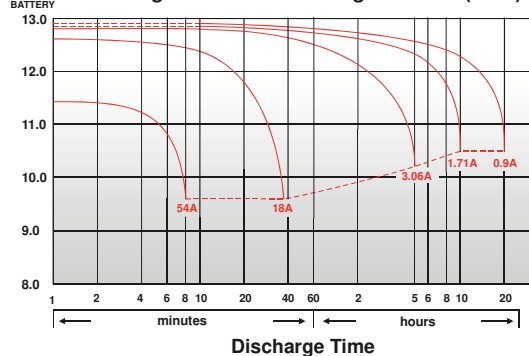
|                     |                          |
|---------------------|--------------------------|
| Length (L)          | 181±2-1 (7.13±0.08-0.04) |
| Width (W)           | 76±2-1 (2.99±0.08-0.04)  |
| Height (H)          | 167±2-1 (6.57±0.08-0.04) |
| Overall Height (HT) | 167±2-1 (6.57±0.08-0.04) |

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

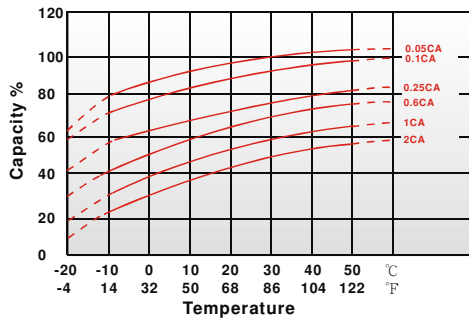
|                                |                      |
|--------------------------------|----------------------|
| Recommended torque value       | M5: 4 N-m (41kgf-cm) |
| Maximum allowable torque value | M5: 6 N-m (62kgf-cm) |
|                                | mm(inch)             |



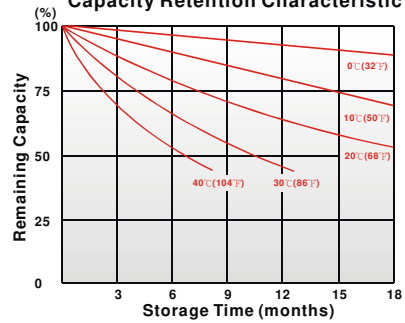
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



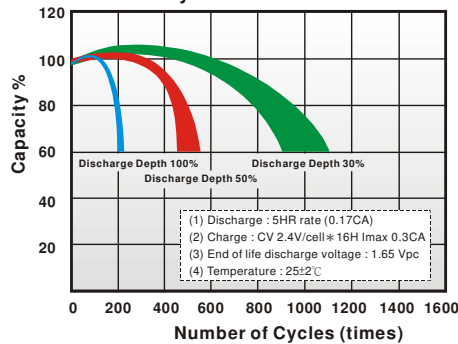
Effect of Temperature on Capacity 25°C(77°F)



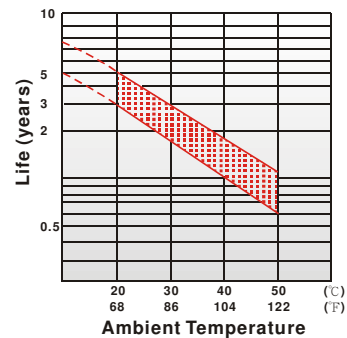
Capacity Retention Characteristic



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        |     |       |       |       |       |       |       |       |
| 5           | min | 98.9  | 116   | 128   | 135   | 137   | 139   | 141   |
| 10          | min | 67.0  | 77.1  | 84.5  | 89.1  | 90.2  | 91.7  | 92.9  |
| 15          | min | 57.2  | 64.5  | 69.4  | 72.5  | 73.3  | 74.2  | 75.1  |
| 30          | min | 32.7  | 35.1  | 37.7  | 39.4  | 39.8  | 40.3  | 40.8  |
| 60          | min | 18.8  | 19.8  | 20.7  | 21.3  | 21.5  | 21.8  | 22.2  |
| 120         | min | 11.9  | 12.4  | 12.7  | 13.1  | 13.2  | 13.3  | 13.5  |
| 180         | min | 8.75  | 9.10  | 9.33  | 9.53  | 9.60  | 9.68  | 9.78  |
| 240         | min | 6.63  | 6.93  | 7.12  | 7.27  | 7.32  | 7.38  | 7.46  |
| 300         | min | 5.82  | 6.05  | 6.17  | 6.27  | 6.30  | 6.35  | 6.41  |
| 600         | min | 3.40  | 3.52  | 3.60  | 3.67  | 3.68  | 3.72  | 3.75  |
| 1200        | min | 1.77  | 1.83  | 1.88  | 1.92  | 1.93  | 1.95  | 1.96  |

#### - 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 | 62.6  | 68.3  | 71.9  | 75.1  | 76.4  | 77.8  | 80.2  |
| 10          | min | 38.6  | 41.8  | 44.3  | 46.5  | 47.4  | 48.4  | 50.1  |
| 15          | min | 31.9  | 34.6  | 36.3  | 37.7  | 38.2  | 38.8  | 39.7  |
| 30          | min | 17.4  | 18.7  | 19.8  | 20.7  | 21.0  | 21.4  | 21.9  |
| 60          | min | 9.74  | 10.3  | 10.7  | 11.0  | 11.1  | 11.3  | 11.5  |
| 120         | min | 5.98  | 6.23  | 6.39  | 6.53  | 6.58  | 6.64  | 6.72  |
| 180         | min | 4.35  | 4.52  | 4.64  | 4.73  | 4.76  | 4.80  | 4.85  |
| 240         | min | 3.43  | 3.52  | 3.58  | 3.62  | 3.63  | 3.65  | 3.68  |
| 300         | min | 2.96  | 3.02  | 3.07  | 3.11  | 3.12  | 3.14  | 3.16  |
| 600         | min | 1.73  | 1.77  | 1.80  | 1.82  | 1.83  | 1.84  | 1.85  |
| 1200        | min | 0.893 | 0.914 | 0.931 | 0.946 | 0.952 | 0.959 | 0.962 |

All data on the spec. sheet is an average value:

The tolerance range : X<6min(+15%~-15%), 6min ≤ X < 10min(+12%~-12%), 10min ≤ X < 60min(+8%~-8%), X ≥ 60min(+5%~-5%)

251220-1K