

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Power

15 mins rate: 51W/cell to 1.60V/cell

#### Nominal Capacity

5 hour rate	(2.04A to 10.20V)	10.2Ah
1 C	(12A to 9.60V)	7.6Ah
3 C	(36A to 9.60V)	4.8Ah

#### Cold Cranking Amperes (-18°C)

190A

#### Cranking Ampere (25°C)

230A

#### Weight

Approx. 3.65kg(8.03Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 10 mΩ

#### Maximum Discharge Current for

5 seconds: 360A

#### Charging Methods at 25°C (77°F)

Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient -5.0mV/°C/cell	
Maximum Charging Current :	3.6A
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

M7.5mm



### ⚡ Dimensions

#### Length (L)

151±1 (5.94±0.04)

#### Width (W)

98±1 (3.86±0.04)

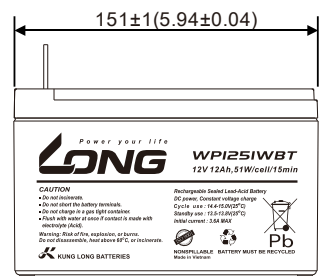
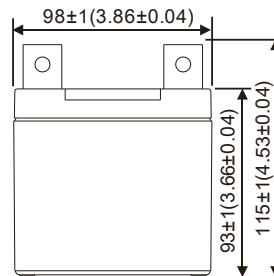
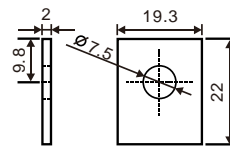
#### Height (H)

93±1 (3.66±0.04)

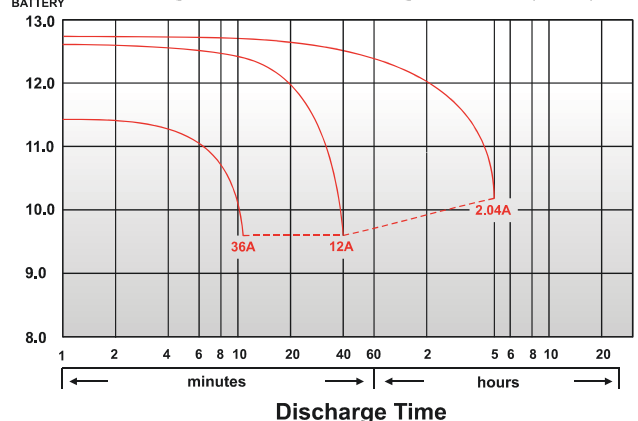
#### Overall Height (HT)

115±1 (4.53±0.04)

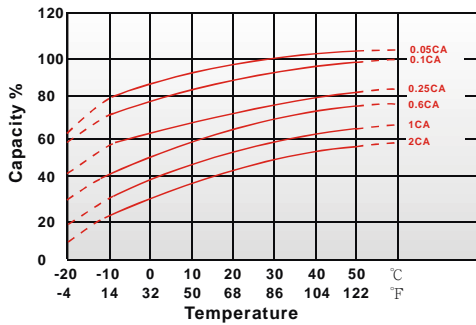
mm(inch)



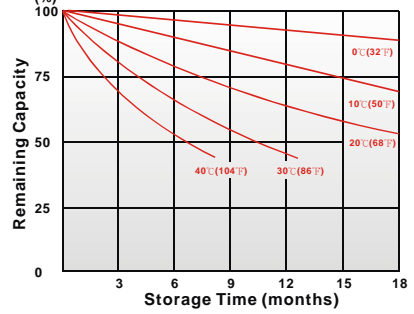
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



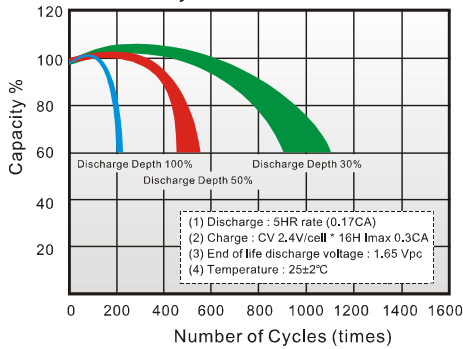
Effect of Temperature on Capacity 25°C (77°F)



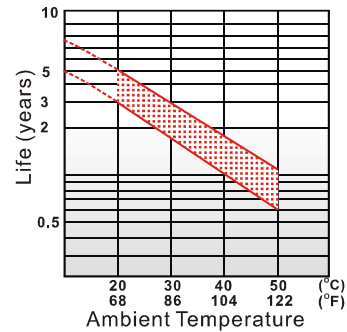
Capacity Retention Characteristic



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	1.60V
Time							
2	min	129	142	155	162	165	172
4	min	98.5	107	116	121	124	128
5	min	86.7	95.0	102	106	109	113
6	min	85.0	88.3	91.8	95.7	97.7	101
8	min	73.5	76.8	80.0	82.0	83.2	84.0
10	min	63.2	65.6	68.1	70.3	71.7	73.5
15	min	48.4	50.1	51.8	52.8	53.3	54.2
20	min	39.2	39.8	40.7	41.5	41.8	42.8
30	min	29.5	29.8	30.2	30.6	30.7	30.9
45	min	20.9	21.0	21.2	21.4	21.5	21.7
60	min	16.3	16.4	16.5	16.6	16.6	16.7
90	min	12.8	12.9	13.1	13.2	13.3	13.3

**- 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	1.60V
Time							
2	min	54.3	73.0	77.4	80.7	82.6	86.0
4	min	51.7	54.9	58.0	60.6	61.7	64.1
5	min	46.6	49.0	51.5	53.5	54.6	56.6
6	min	42.8	44.7	46.6	48.2	49.4	51.0
8	min	36.6	38.4	40.1	41.4	42.0	43.2
10	min	31.7	33.0	34.4	35.3	35.9	36.9
15	min	23.9	24.8	25.8	26.5	26.8	27.2
20	min	19.6	19.9	20.4	20.8	21.0	21.5
30	min	14.7	14.9	15.2	15.3	15.4	15.5
45	min	10.4	10.5	10.6	10.7	10.8	10.9
60	min	8.18	8.22	8.27	8.31	8.32	8.36
90	min	6.37	6.45	6.55	6.61	6.64	6.68

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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