

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

20 hour rate	(1.8A	to	10.50V)	36Ah
5 hour rate	(6.12A	to	10.20V)	30.6Ah
1 hour rate	(19.8A	to	9.60V)	19.8Ah
1 C	(36A	to	9.60V)	19.2Ah

Weight

Approx. 10.7kg(23.54Lbs.)

Internal Resistance (at 1KHz)

Approx. 4 mΩ

Maximum Discharge Current for

5 seconds:540A

Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	13.8 to 14.4V
Coefficient -5.0mV/°C/cell	
Maximum Charging Current :	10.8A
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

7-10 Years.

Terminal

F8



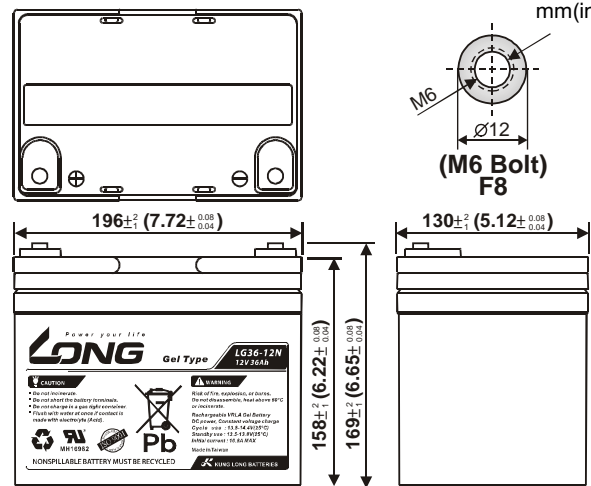
⚡ Dimensions

Length (L)	196±2-1 (7.72±0.08-0.04)
Width (W)	130±2-1 (5.12±0.08-0.04)
Height (H)	158±2-1 (6.22±0.08-0.04)
Overall Height (HT)	169±2-1 (6.65±0.08-0.04)

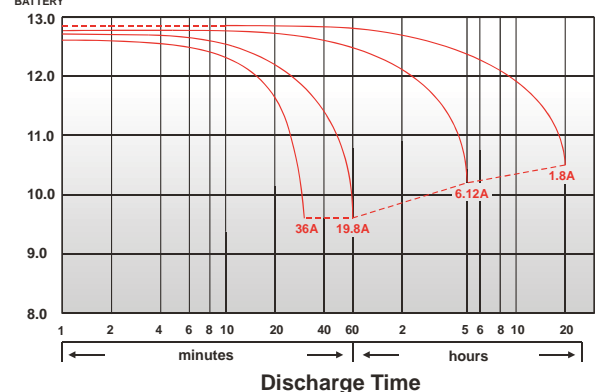
Description of torque value of hard ware for the terminals:

Recommended torque value	M6:7 N-m (71kgf-cm)
Maximum allowable torque value	M6:9 N-m (92kgf-cm)

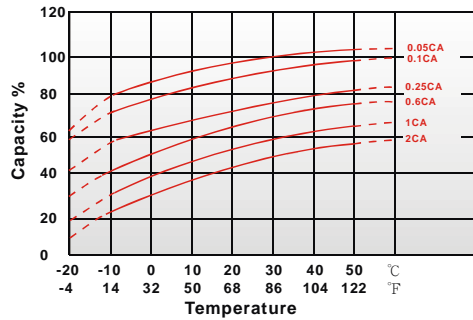
mm(inch)



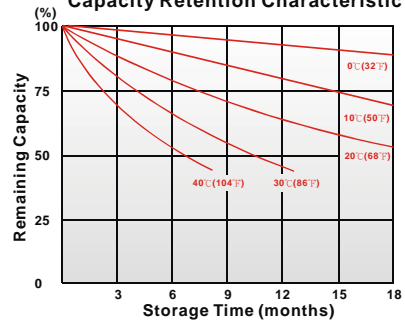
(v) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



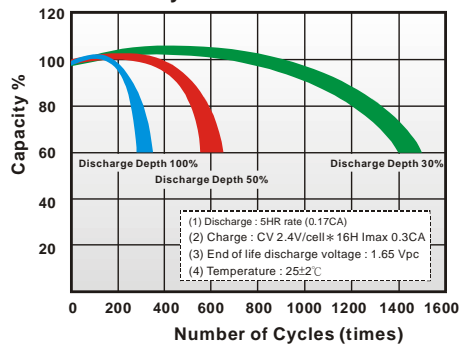
Effect of Temperature on Capacity 25°C (77°F)



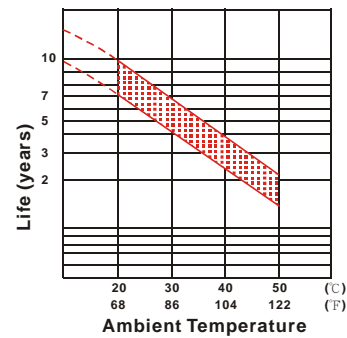
Capacity Retention Characteristic



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	154	166	179	190	195	200	208
10	min	117	125	133	139	144	147	154
15	min	101	106	110	113	115	118	121
30	min	67.1	68.7	70.1	71.3	71.9	72.6	73.7
60	min	43.7	44.5	45.0	45.4	45.6	45.9	46.2
120	min	23.7	24.0	24.3	24.4	24.6	24.8	24.9
180	min	19.0	19.1	19.3	19.4	19.6	19.6	19.7
240	min	14.6	14.7	14.8	14.9	15.0	15.0	15.1
300	min	12.3	12.4	12.4	12.5	12.5	12.5	12.5
600	min	6.94	7.07	7.19	7.30	7.42	7.48	7.56
1200	min	3.50	3.61	3.69	3.77	3.81	3.84	3.90

- 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	82.2	91.8	102	110	113	117	123
10	min	60.7	65.4	70.0	74.3	76.6	79.0	83.1
15	min	52.7	55.4	56.4	57.4	57.8	58.2	58.9
30	min	34.4	35.4	36.2	36.8	37.3	37.5	38.2
60	min	22.4	22.7	22.9	23.1	23.2	23.4	23.7
120	min	11.8	12.1	12.3	12.5	12.6	12.8	13.0
180	min	9.03	9.14	9.29	9.38	9.48	9.57	9.66
240	min	7.25	7.31	7.37	7.42	7.44	7.46	7.50
300	min	5.95	6.02	6.08	6.13	6.15	6.17	6.19
600	min	3.45	3.51	3.56	3.60	3.61	3.63	3.64
1200	min	1.72	1.80	1.85	1.88	1.89	1.90	1.91

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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