

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

10 hour rate	(15A to 10.80V)	150Ah
5 hour rate	(25.5A to 10.20V)	127.5Ah
1 hour rate	(90A to 9.60V)	90Ah
1 C	(150A to 9.60V)	95Ah

Weight

Approx. 48.4kg(106Lbs.)

Internal Resistance (at 1KHz)

Approx. 2.7 mΩ

Maximum Discharge Current for

5 seconds: 1500A

Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient -5.0mV/°C/cell	
Maximum Charging Current :	45A
Standby use:	
Float Charging Voltage	13.5 to 13.8V
Coefficient -3.0mV/°C/cell	

Operating Temperature Range

Charge	-15°C(5°F) to 60°C(140°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	98%
3 month	94%
6 month	85%

Case Material

ABS UL94 HB
Option: Flammability resistance of (UL94 V-0)

Design Life

12 Years.



⚡ Dimensions

Length (L) 483±3 (19.02±0.12)

Width (W) 170±3 (6.69±0.12)

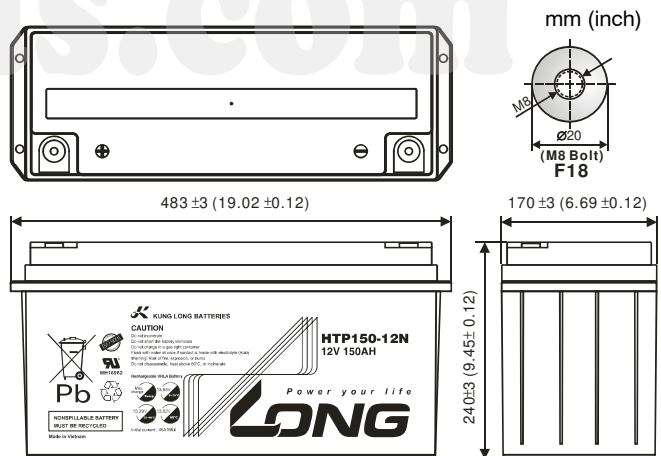
Height (H) 240±3 (9.45±0.12)

Overall Height (HT) 240±3 (9.45±0.12)

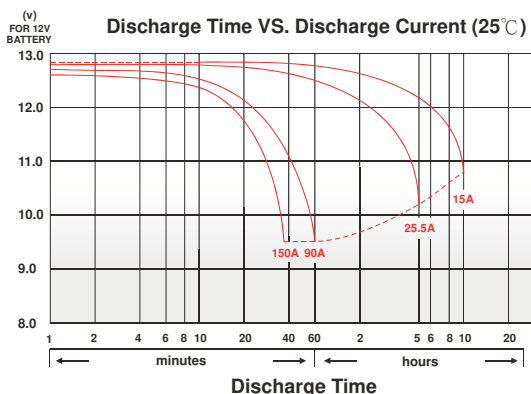
Terminal F18

Description of torque value of hard ware for the terminals:

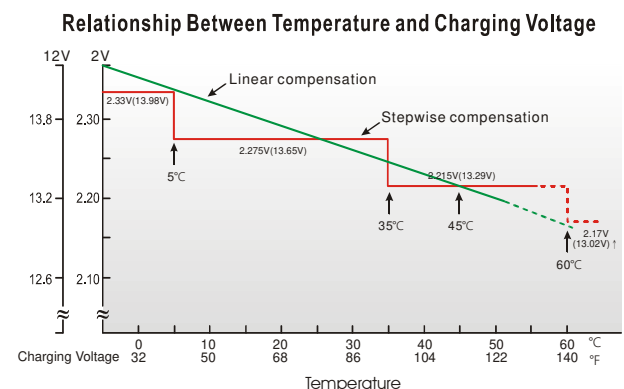
Recommended torque value	M8: 12 N-m (122 kgf-cm)
Maximum allowable torque value	M8: 20 N-m (204 kgf-cm)



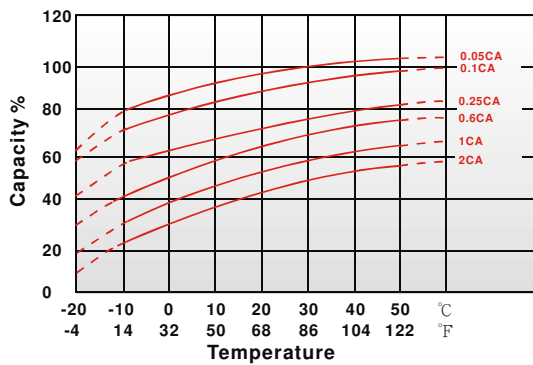
Discharge Time VS. Discharge Current (25°C)



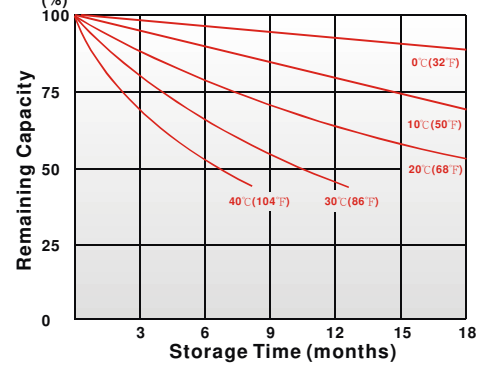
Relationship Between Temperature and Charging Voltage



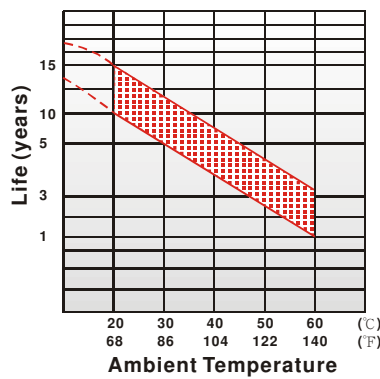
Effect of Temperature on Capacity 25°C(77°F)



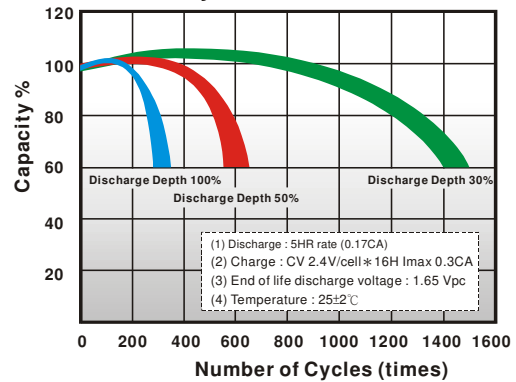
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25°C(77°F)

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
10	min	405	461	517	544	573	587	598
15	min	359	401	440	459	478	489	500
20	min	322	354	383	397	411	419	431
30	min	257	276	293	301	309	313	324
60	min	161	167	170	172	174	176	183
90	min	132	139	141	142	143	143	145
120	min	106	112	113	114	115	115	117
180	min	75.0	78.5	79.7	80.5	80.9	81.1	81.9
240	min	58.7	61.3	62.2	62.8	63.1	63.3	63.9
300	min	48.3	50.4	51.1	51.6	51.9	52.0	52.5
480	min	32.9	34.1	34.6	35.0	35.2	35.3	35.5
600	min	29.3	30.3	30.7	31.0	31.2	31.2	31.5
1200	min	14.6	15.0	15.2	15.4	15.5	15.5	15.5

- Discharge Rates in Amperes to Various End Voltages at 25°C(77°F)

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
10	min	221	252	282	297	312	320	326
15	min	196	219	240	250	261	267	273
20	min	168	185	200	207	215	219	225
30	min	133	143	152	156	160	162	168
60	min	80.9	84.0	85.9	86.9	87.9	88.6	92.3
90	min	66.2	69.9	70.9	71.6	71.9	72.1	73.1
120	min	53.3	56.1	56.9	57.5	57.7	57.9	58.6
180	min	37.5	39.3	39.9	40.3	40.4	40.6	41.0
240	min	29.2	30.5	31.0	31.3	31.4	31.5	31.8
300	min	24.1	25.1	25.5	25.7	25.9	25.9	26.1
480	min	16.3	17.0	17.2	17.4	17.5	17.5	17.6
600	min	14.5	15.1	15.2	15.4	15.4	15.5	15.6
1200	min	7.23	7.42	7.54	7.62	7.67	7.68	7.70

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%)

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