

### ⚡ 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

#### Weight

Approx. 45.5kg(100Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 4.8 mΩ

#### Maximum Discharge Current for

5 seconds: 1500A

#### Charging Methods at 25°C(77°F)

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	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	98%
3 month	94%
6 month	85%

#### Case Material

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

#### Design Life & Standard

Expected Trickle Design Life: 10-12 years at 20°C according to Eurobat.

#### Terminal

F18



### ⚡ 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)

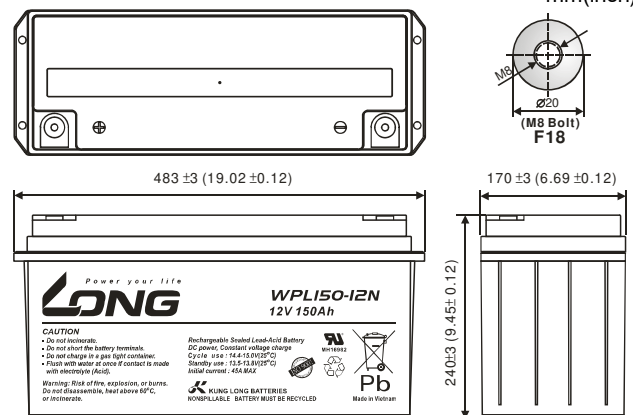
#### Overall Height (HT)

240±3 (9.45±0.12)

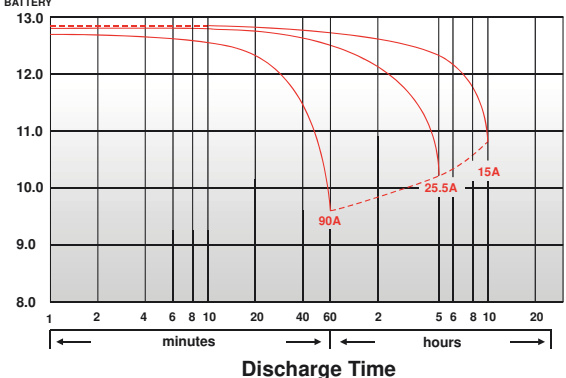
#### Description of torque value of hard ware for the terminals:

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

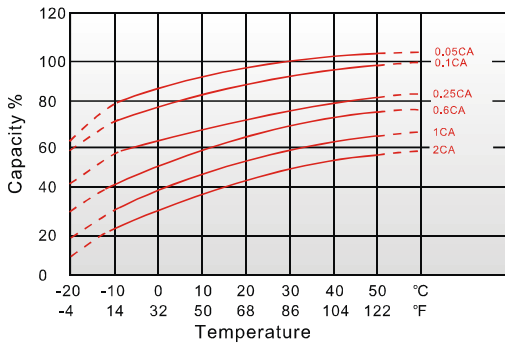
mm(inch)



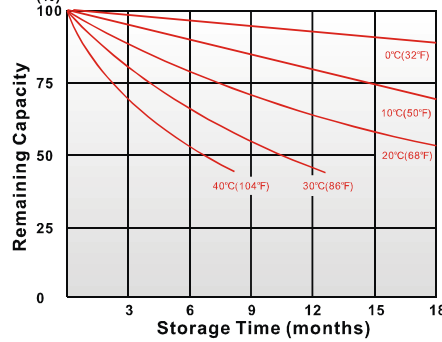
#### (v) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



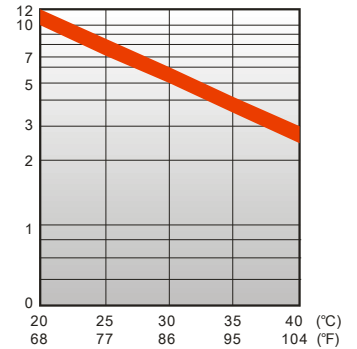
Effect of Temperature on Capacity 25°C(77°F)



Capacity Retention Characteristic



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								
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	14.8	15.3	15.6	15.9	16.1	16.1	16.2

#### - 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								
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	15.0	15.1	15.2	15.2	15.3	15.3
1200	min	7.30	7.52	7.56	7.60	7.64	7.68	7.70

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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