

### ⚡ 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
1C	(150A to 9.60V)	95Ah

#### Weight

Approx. 46.0kg(101.2Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 4 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 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

12 Years.

#### Terminal

F8



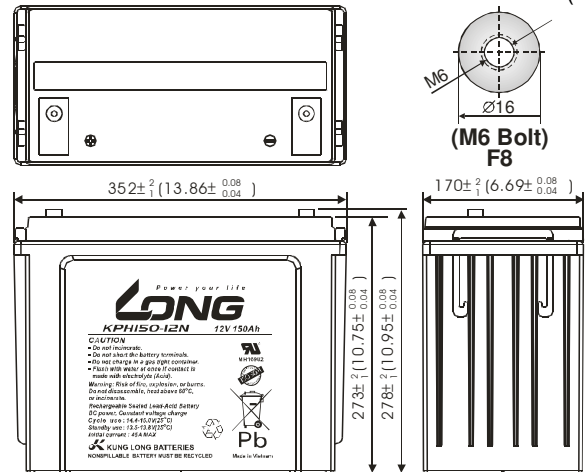
### ⚡ Dimensions

Length (L)	352+2-1 (13.86+0.08-0.04)
Width (W)	170+2-1 (6.69+0.08-0.04)
Height (H)	273+2-1 (10.75+0.08-0.04)
Overall Height (HT)	278+2-1 (10.95+0.08-0.04)

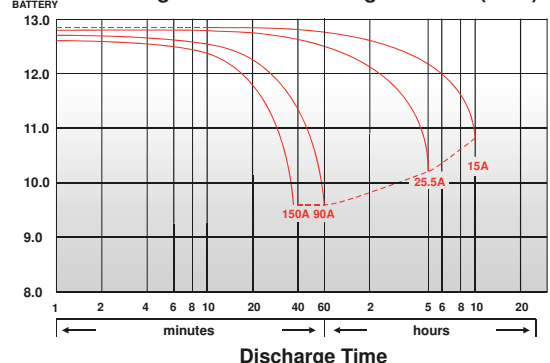
#### Description of torque value of hard ware for the terminals:

Recommended torque value	M6: 7 N-m (71kgf-cm)
Maximum allowable torque value	M6: 10 N-m (102kgf-cm)

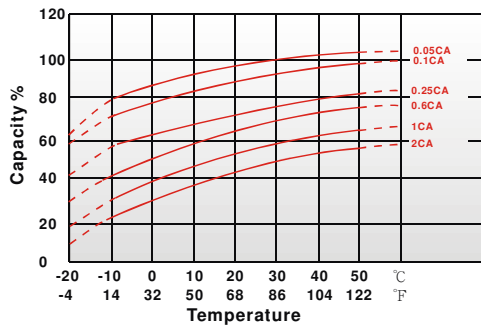
mm(inch)



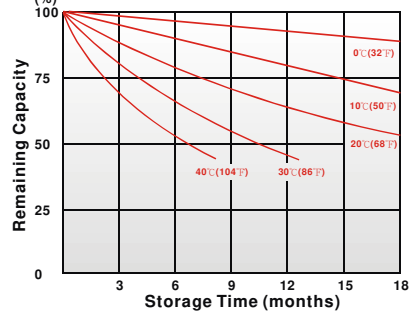
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



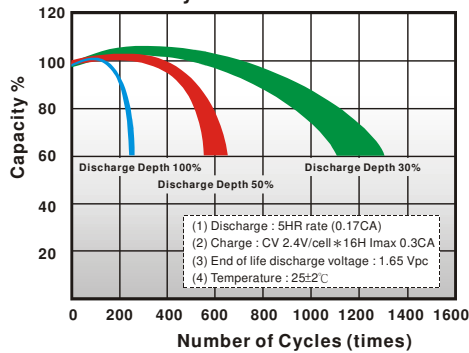
Effect of Temperature on Capacity 25°C(77°F)



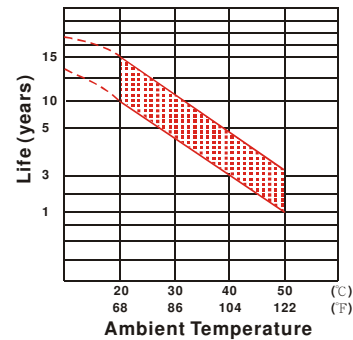
Capacity Retention Characteristic



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	min	561	626	682	731	755	779	826
5	min	501	546	572	597	609	622	645
10	min	443	468	487	505	513	522	537
15	min	259	272	282	292	296	300	308
30	min	155	164	170	174	176	177	179
60	min	83.8	89.0	91.8	94.2	95.2	96.5	98.5
120	min	68.7	73.2	75.5	77.7	78.7	79.8	81.3
180	min	56.0	59.0	60.8	62.2	62.7	63.3	64.3
240	min	48.2	50.2	51.5	52.7	53.0	53.5	54.2
300	min	28.5	29.7	30.7	31.5	31.7	32.2	32.7
600	min	15.1	15.6	16.0	16.4	16.5	16.7	16.8
1200	min							

### - 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	min	296	373	417	446	459	472	490
5	min	245	276	303	325	335	346	363
10	min	218	246	265	278	283	289	306
15	min	119	131	141	149	152	155	160
30	min	70.7	79.6	82.8	85.2	86.5	87.9	90.0
60	min	37.5	44.2	45.9	47.1	47.6	48.2	49.1
120	min	32.6	36.2	37.5	38.6	39.1	39.6	40.2
180	min	25.8	28.7	29.8	30.7	31.0	31.3	31.7
240	min	23.9	24.8	25.5	26.1	26.2	26.6	26.9
300	min	14.4	15.0	15.3	15.5	15.6	15.8	15.9
600	min	7.43	7.62	7.76	7.90	7.95	8.01	8.06
1200	min							

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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