

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Power

15 mins rate: 550W/cell to 1.67V/cell

#### Nominal Capacity

20 hour rate	(7.0A	to	10.50V)	140Ah
8 hour rate	(15A	to	10.50V)	120Ah
5 hour rate	(23.8A	to	10.20V)	119Ah

#### Weight

Approx. 45kg(99Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 3.5 mΩ

#### Maximum Discharge Current for

5 seconds: 1400A

#### Short Circuit Current (A)

4775 A

#### Charging Methods at 25°C(77°F)

Maximum Charging Current :	45A
Boost Charging Voltage	14.1 to 14.4V
Boost Charge Time	8-9Hr
Float Charging Voltage	13.5 to 13.65V
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	96%
6 month	94%

#### Case Material

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

#### Battery Construction

Component	Positive Plate	Negative plate	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	Rubber	Lead	Fiberglass	Sulfuric acid



### ⚡ Dimensions

#### Length (L)

338+2-1 (13.31+0.08-0.04)

#### Width (W)

173+2-1 (6.81+0.08-0.04)

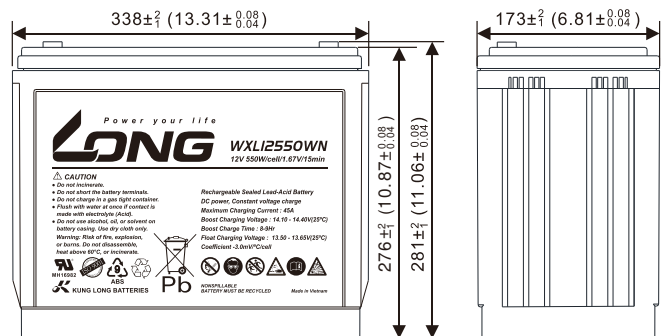
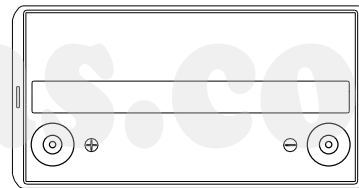
#### Height (H)

276+2-1 (10.87+0.08-0.04)

#### Overall Height (HT)

281+2-1 (11.06+0.08-0.04)

mm(inch)



#### Terminal

F8

Recommended torque value

M6:7 N-m (71 kgf-cm)

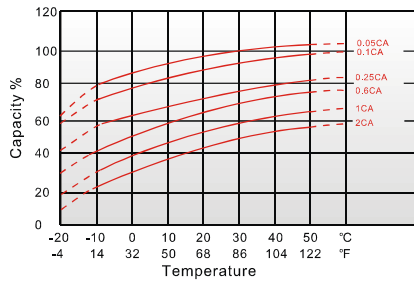
Maximum allowable torque value

M6:10 N-m (102 kgf-cm)

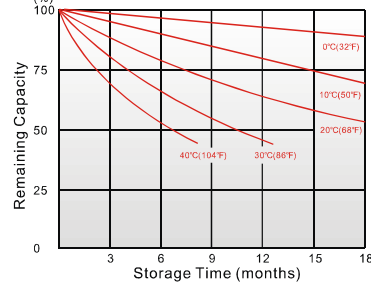
#### Design Life

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

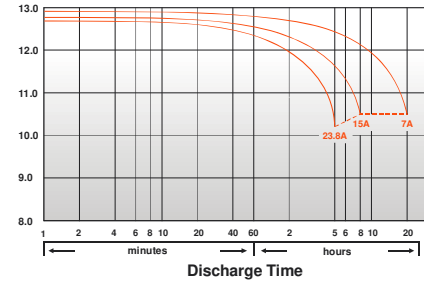
Effect of Temperature on Capacity 25°C(77°F)



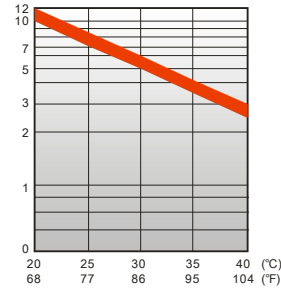
Capacity Retention Characteristic



Discharge Time VS. Discharge Current (25°C)



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
2	min	808	926	1035	1144	1234	1324	1400
4	min	800	887	957	1012	1052	1082	1112
5	min	698	803	893	963	1023	1063	1096
6	min	672	742	797	837	877	892	907
8	min	637	695	738	773	801	819	834
10	min	570	630	672	705	738	751	761
15	min	475	515	530	543	553	558	562
20	min	426	440	450	457	462	465	468
30	min	300	312	317	322	325	328	330
40	min	245	249	252	254	256	257	258
45	min	234	239	241	243	245	246	247
60	min	151	163	171	173	175	176	177
90	min	101	109	114	119	124	127	130
120	min	84.3	87.8	90.3	91.6	92.5	93.3	93.8
180	min	66.2	68.1	69.3	70.1	70.5	70.7	70.9
240	min	49.3	50.9	51.7	52.1	52.4	52.6	52.8
300	min	42.8	44.2	45.1	45.4	45.7	45.9	46.1
480	min	26.3	27.5	28.4	28.9	29.4	29.7	30.0
1200	min	12.7	13.0	13.5	13.7	13.8	13.9	14.0

### - 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
2	min	450	530	598	661	713	765	809
4	min	388	463	527	564	598	630	660
5	min	380	445	506	527	560	580	598
6	min	372	427	467	506	527	542	550
8	min	320	358	392	422	447	467	482
10	min	285	332	372	380	385	388	390
15	min	236	261	281	301	309	314	317
20	min	200	219	234	242	247	252	255
30	min	142	157	166	171	174	177	180
40	min	125	131	133	135	137	138	139
45	min	117	122	127	128	128	129	129
60	min	77.5	79.4	81.0	81.2	81.4	81.6	81.7
90	min	62.2	64.0	65.4	65.8	66.0	66.2	66.4
120	min	45.5	48.4	50.0	50.8	51.2	51.6	51.8
180	min	29.8	33.0	33.3	33.6	33.8	34.0	34.2
240	min	25.3	27.5	29.0	29.7	30.0	30.2	30.4
300	min	22.7	24.6	25.2	25.5	25.7	25.8	25.9
480	min	14.9	15.0	15.9	16.0	16.1	16.1	16.2
1200	min	7.12	7.30	7.40	7.41	7.42	7.43	7.43

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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