

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Capacity

20 hour rate	(2.75A to 10.50V)	55Ah
10 hour rate	(5.225A to 10.50V)	52.25Ah
5 hour rate	(9.35A to 10.20V)	46.75Ah
1 C	(55A to 9.60V)	31.17Ah
3 C	(165A to 9.60V)	22Ah

#### Weight

Approx. 17.3kg(38.06Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 6 mΩ

#### Maximum Discharge Current for

5 seconds: 660A

#### Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current :	16.5A
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

3-5 Years.

#### Terminal

F8



### ⚡ Dimensions

Length (L) 226+2-1 (8.90+0.08-0.04)

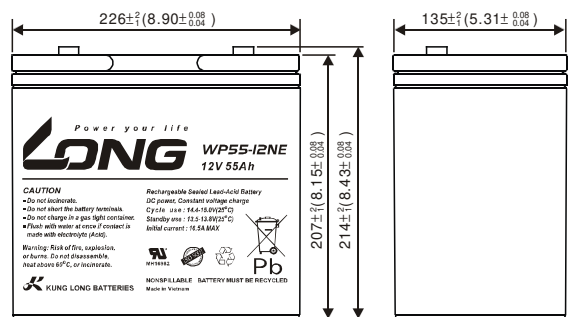
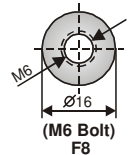
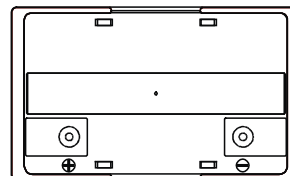
Width (W) 135+2-1 (5.31+0.08-0.04)

Height (H) 207+2-1 (8.15+0.08-0.04)

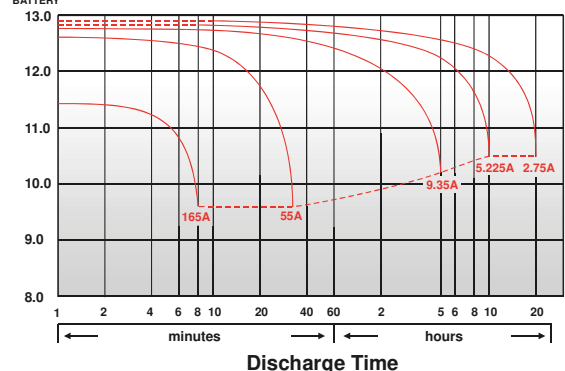
Overall Height (HT) 214+2-1 (8.43+0.08-0.04)

Recommended torque value M6: 7 N-m (71 kgf-cm)

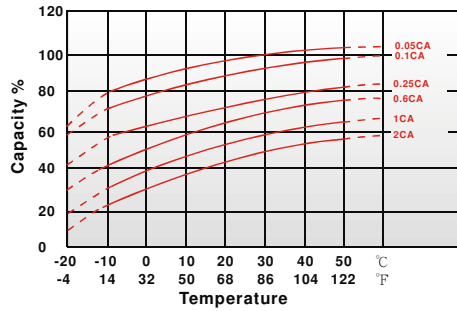
Maximum allowable torque value M6: 10 N-m (102kgf-cm)  
mm(inch)



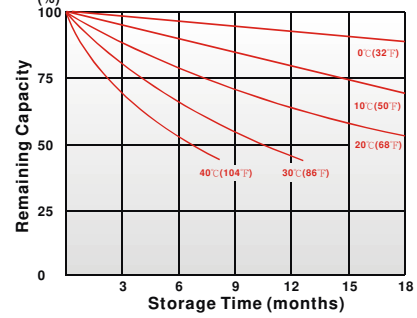
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



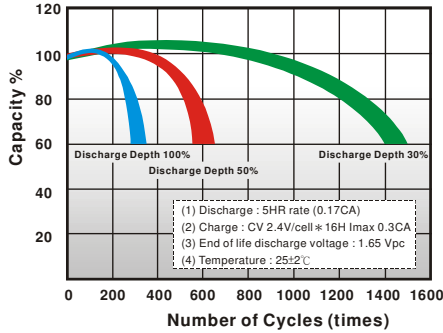
Effect of Temperature on Capacity 25°C(77°F)



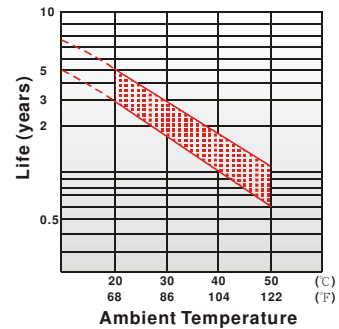
Capacity Retention Characteristic



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
2	min	330	392	424	448	467	484	498
4	min	306	341	369	394	413	430	443
5	min	297	332	360	385	409	426	439
6	min	273	299	320	339	353	368	383
8	min	258	280	298	314	329	343	358
10	min	218	243	263	280	294	301	307
15	min	194	208	219	223	226	229	231
20	min	167	175	180	184	187	190	193
30	min	117	122	126	130	134	137	139
45	min	92.0	94.8	96.8	97.7	98.4	98.8	99.8
60	min	64.7	67.1	69.3	71.3	71.7	72.0	72.2
90	min	50.9	52.7	54.2	54.9	55.4	55.8	56.1
120	min	33.1	35.3	36.9	37.5	38.1	38.5	38.9
180	min	26.7	28.6	29.6	30.0	30.4	30.7	31.0
240	min	21.8	22.8	23.7	24.1	24.4	24.6	24.8
300	min	18.3	19.2	20.0	20.2	20.4	20.6	20.8
600	min	10.6	11.0	11.4	11.6	11.8	12.0	12.1
1200	min	5.48	5.72	5.93	6.01	6.06	6.11	6.16

- 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	181	229	256	271	285	297	306
4	min	175	204	223	239	253	266	274
5	min	156	180	194	207	216	223	228
6	min	138	160	171	185	197	207	213
8	min	127	146	157	161	165	169	172
10	min	116	135	145	150	156	160	162
15	min	90.2	99.8	104	109	113	115	116
20	min	76.7	84.8	88.5	92.4	95.8	97.4	99.0
30	min	57.2	62.3	64.9	66.6	68.4	69.9	70.8
45	min	46.1	47.0	47.7	48.3	48.9	49.4	49.8
60	min	29.1	32.3	34.1	34.7	35.2	35.6	36.0
90	min	23.0	24.6	25.2	25.8	26.3	26.7	26.9
120	min	16.7	18.0	19.0	19.4	19.8	20.1	20.3
180	min	12.7	13.5	13.9	14.2	14.4	14.6	14.8
240	min	10.7	11.1	11.5	11.7	11.9	12.1	12.3
300	min	8.91	9.29	9.48	9.59	9.7	9.8	9.9
600	min	5.27	5.38	5.50	5.53	5.56	5.59	5.62
1200	min	2.73	2.77	2.80	2.83	2.87	2.90	2.93

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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