

### Specifications

#### Nominal Voltage(V)

12V

#### Nominal Power

15 mins rate: 23W/cell to 1.67V/cell

#### Nominal Capacity

20 hour rate	(0.25A	to	10.50V)	5Ah
8 hour rate	(0.6A	to	10.50V)	4.8Ah
5 hour rate	(0.85A	to	10.20V)	4.25Ah

#### Weight

Approx. 1.97kg(4.33Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 17 mΩ

#### Maximum Discharge Current for

5 seconds: 75A

#### Short Circuit Current (A)

300 A

#### Charging Methods at 25°C(77°F)

Maximum Charging Current :	1.5A
Boost Charging Voltage	14.4 to 15.0V
Boost Charge Time	8-9Hr
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	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	Copper	Fiberglass	Sulfuric acid



### Dimensions

#### Length (L)

90±1 (3.54±0.04)

#### Width (W)

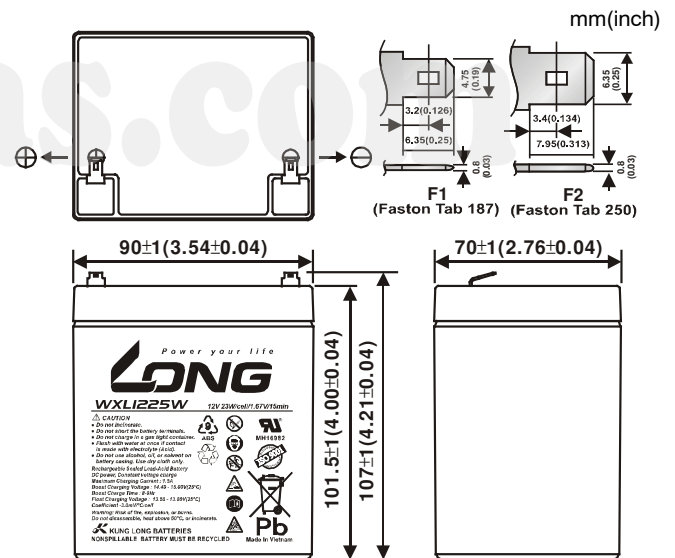
70±1 (2.76±0.04)

#### Height (H)

101.5±1 (4.00±0.04)

#### Overall Height (HT)

107±1 (4.21±0.04)



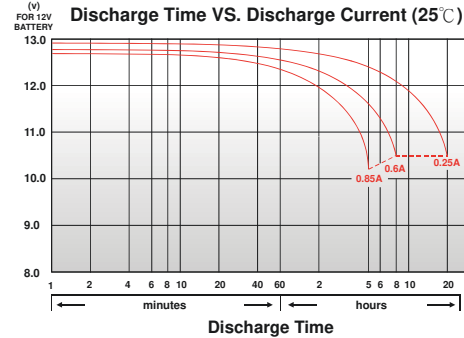
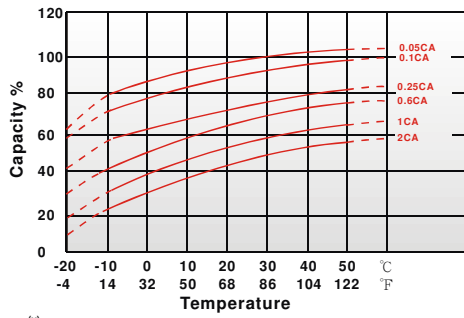
#### Terminal

F1 or F2 (Faston Tab 187 or 250)

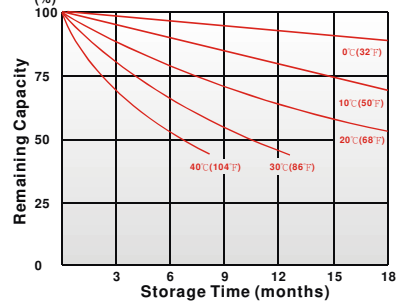
#### Design Life

Expected Trickle Design Life: 6-9 years at 20°C according to Eurobat.

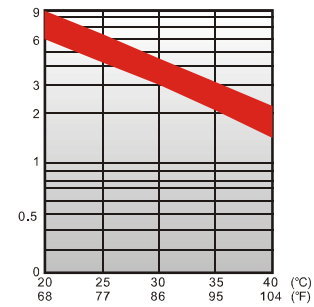
**Effect of Temperature on Capacity 25°C(77°F)**



**Capacity Retention Characteristic**



**Trickle (or float) Service Life**



**- PERFORMANCE DATA**

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

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
2	min	57.2	61.7	65.6	67.8	70.0	71.8	73.6
4	min	42.9	45.8	48.3	50.8	53.3	55.8	58.2
5	min	37.1	40.1	43.0	45.7	47.0	48.2	49.3
6	min	36.0	39.0	41.7	42.5	43.0	43.3	43.6
8	min	33.2	35.2	36.3	36.7	37.1	37.5	37.7
10	min	26.2	28.3	29.8	30.6	31.0	31.3	31.6
15	min	21.5	22.2	22.7	23.1	23.5	23.8	24.0
20	min	17.1	17.9	18.5	18.9	19.2	19.5	19.7
30	min	12.0	12.7	13.1	13.3	13.4	13.5	13.6
45	min	8.94	9.59	10.2	10.4	10.6	10.7	10.8
60	min	5.97	6.45	6.70	6.93	7.05	7.15	7.28
90	min	5.03	5.38	5.69	5.77	5.85	5.91	5.95
120	min	3.15	3.63	3.85	3.98	4.07	4.16	4.20
180	min	2.43	2.65	2.85	2.97	3.04	3.11	3.16
240	min	2.08	2.21	2.32	2.38	2.42	2.46	2.50
300	min	1.70	1.82	1.90	1.94	1.98	2.01	2.04
480	min	1.10	1.19	1.25	1.29	1.30	1.31	1.32
1200	min	0.519	0.544	0.573	0.580	0.585	0.590	0.594

**- 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
2	min	27.6	31.3	34.3	36.9	38.9	40.9	42.1
4	min	24.9	26.4	27.3	28.0	28.6	29.1	29.6
5	min	18.7	22.8	25.2	26.4	27.0	27.3	27.5
6	min	17.6	21.1	22.2	23.1	23.7	24.1	24.4
8	min	16.5	17.7	18.5	19.1	19.7	20.1	20.3
10	min	13.8	15.0	15.9	16.7	16.9	17.3	17.8
15	min	10.6	11.3	11.7	12.0	12.2	12.4	12.6
20	min	9.03	9.35	9.63	9.74	9.82	9.90	9.95
30	min	5.98	6.31	6.49	6.59	6.68	6.77	6.85
45	min	4.65	4.96	5.24	5.30	5.34	5.36	5.38
60	min	3.09	3.34	3.48	3.57	3.63	3.69	3.74
90	min	2.53	2.73	2.85	2.91	2.97	3.03	3.08
120	min	1.72	1.85	1.92	1.98	2.01	2.03	2.06
180	min	1.37	1.46	1.51	1.55	1.57	1.59	1.61
240	min	0.974	1.05	1.09	1.13	1.15	1.17	1.18
300	min	0.863	0.868	0.872	0.874	0.876	0.878	0.880
480	min	0.533	0.572	0.600	0.625	0.634	0.639	0.643
1200	min	0.240	0.249	0.256	0.258	0.259	0.260	0.261

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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