

## WP4.5-12 12Volt 4.5Ah

### Specifications

Nominal Voltage(V) **12V**

#### Nominal Capacity

20 hour rate	(0.225A to 10.50V)	<b>4.5Ah</b>
10 hour rate	(0.428A to 10.50V)	<b>4.275Ah</b>
5 hour rate	(0.765A to 10.20V)	<b>3.825Ah</b>
1 C	(4.5A to 9.60V)	<b>2.55Ah</b>
3 C	(13.5A to 9.60V)	<b>1.8Ah</b>

Weight **Approx. 1.62kg(3.56Lbs.)**

Internal Resistance (at 1KHz) **Approx. 34.2 mΩ**

#### Maximum Discharge Current for

5 seconds: **67.5A**

#### Charging Methods at 25 (77 )

Cycle use:

Charging Voltage **14.4 to 15.0V**

Coefficient -5.0mv/ /cell

Maximum Charging Current : **1.35A**

Standby use:

Float Charging Voltage **13.50 to 13.80V**

Coefficient -3.0mv/ /cell

#### Operating Temperature Range

Charge **-15 (5 ) to 40 (104 )**

Discharge **-15 (5 ) to 50 (122 )**

Storage **-15 (5 ) to 40 (104 )**

#### Charge Retention (shelf life) at 20 (68 )

1 month **92%**

3 month **90%**

6 month **80%**

Case Material **ABS**

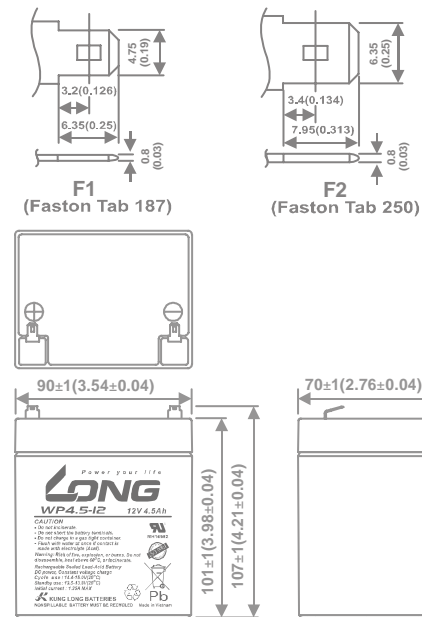
(Option: UL94 HB & UL94 V-0 flame retardant )

Terminal **F1 or F2 (Faston Tab 187 or 250)**

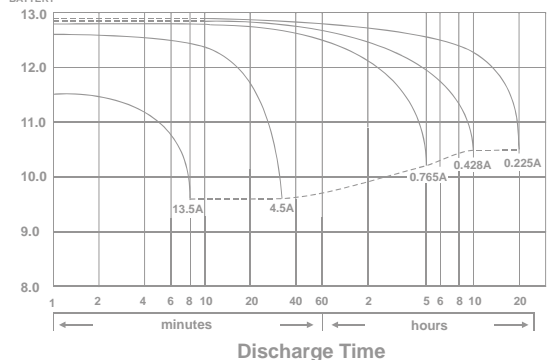


### Dimensions

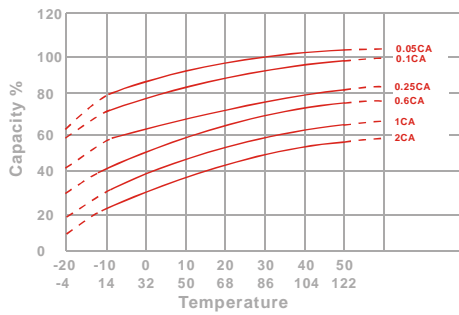
mm(inch)



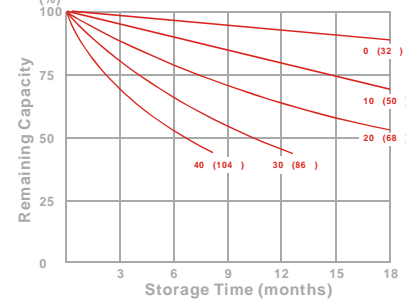
(v) FOR 12V BATTERY Discharge Time VS. Discharge Current (25 )



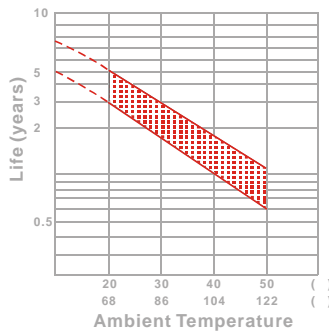
Effect of Temperature on Capacity 25 (77 )



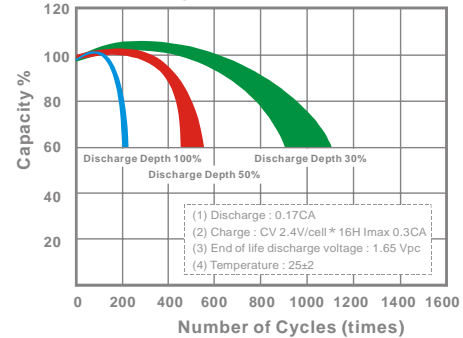
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



## - PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25 (77 )

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	143	161	174	186	191	197	204
10	min	102	115	123	129	132	135	138
15	min	84.5	93.4	97.2	99.1	100	101	102
30	min	49.1	54.9	57.1	58.2	58.8	59.5	60.2
60	min	25.2	28.6	30.8	32.6	33.2	33.9	34.4
120	min	14.9	16.6	17.4	18.0	18.3	18.7	19.1
180	min	11.8	13.0	13.6	14.1	14.3	14.6	14.9
240	min	9.61	10.4	10.8	11.1	11.3	11.5	11.7
300	min	8.76	9.35	9.62	9.81	9.92	10.1	10.3
600	min	5.13	5.48	5.64	5.76	5.81	5.87	5.95
1200	min	2.59	2.81	2.99	3.06	3.08	3.12	3.16

- Discharge Rates in Amperes to Various End Voltages at 25 (77 )

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	15.3	17.6	18.9	19.5	19.7	19.9	20.2
10	min	10.5	11.7	11.9	12.1	12.2	12.3	12.4
15	min	7.56	8.22	8.71	8.92	8.99	9.07	9.15
30	min	4.39	4.94	5.11	5.25	5.3	5.35	5.41
60	min	2.36	2.61	2.73	2.84	2.87	2.91	2.94
120	min	1.32	1.44	1.50	1.54	1.55	1.57	1.59
180	min	1.09	1.15	1.18	1.20	1.21	1.22	1.23
240	min	0.835	0.891	0.916	0.942	0.948	0.955	0.963
300	min	0.776	0.812	0.825	0.837	0.841	0.846	0.852
600	min	0.435	0.452	0.464	0.473	0.477	0.481	0.486
1200	min	0.219	0.233	0.241	0.247	0.250	0.253	0.257

All data on the spec. sheet is an average value:

The tolerance range : X<6min(+15%~-15%), 6min X<10min(+12%~-12%), 10min X < 60min(+8%~-8%), X 60min(+5%~-5%)

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