

WP50-12N 12Volt 50Ah

Specifications

Nominal Voltage(V) **12V**

Nominal Capacity

20 hour rate	(2.5A to 10.50V)	50Ah
10 hour rate	(4.75A to 10.50V)	47.5Ah
5 hour rate	(8.5A to 10.20V)	42.5Ah
1 C	(50A to 9.60V)	28.33Ah
3 C	(150A to 9.60V)	20Ah

Weight **Approx. 15.1kg(33.2Lbs.)**

Internal Resistance (at 1KHz) **Approx. 5 mΩ**

Maximum Discharge Current for 5 seconds: **600A**

Charging Methods at 25°C(77°F)

Cycle use:

Charging Voltage **14.4 to 15.0V**

Coefficient **-5.0mV/°C/cell**

Maximum Charging Current : **15A**

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)

Terminal **F8**

Description of torque value of hard ware for the terminals:

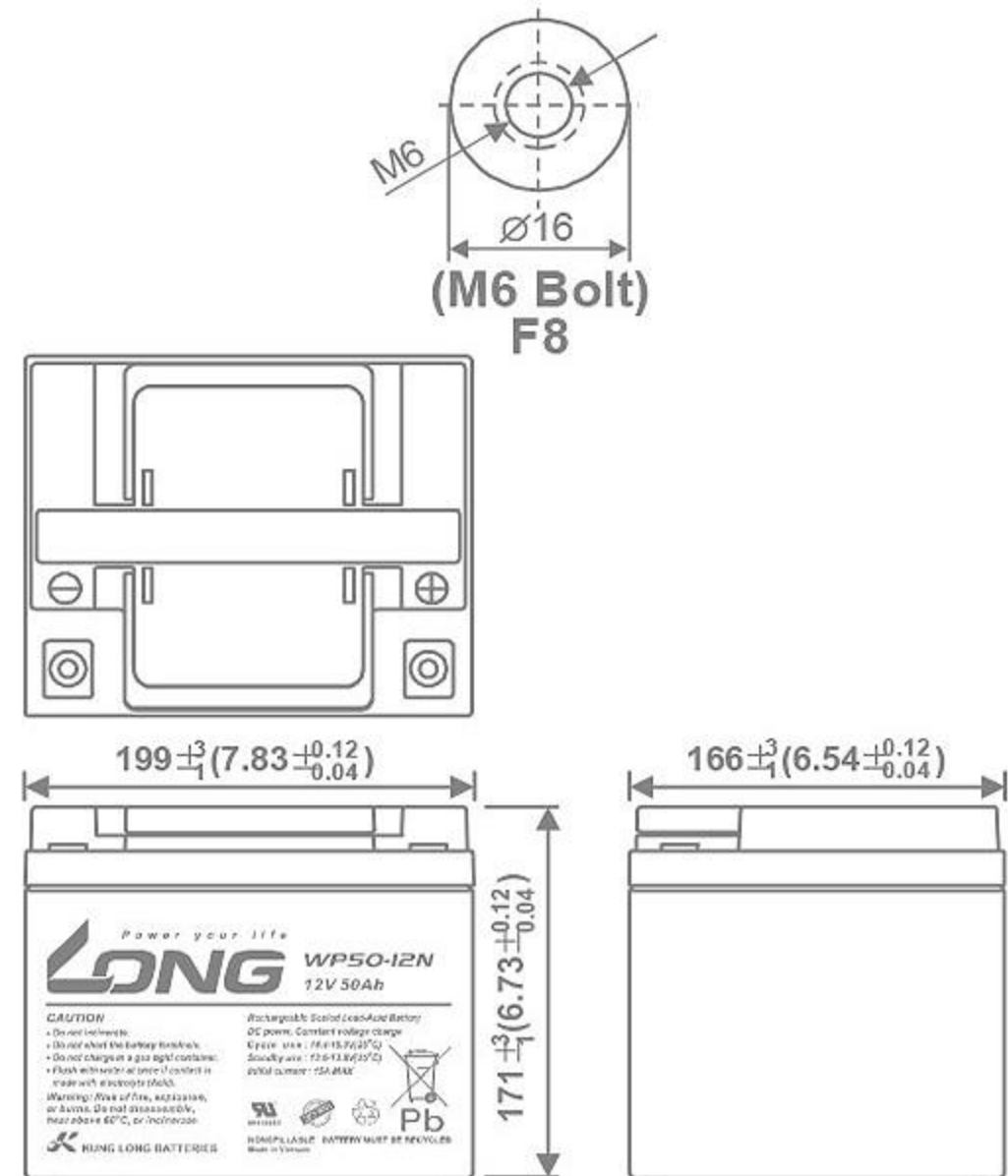
Recommended torque value **M6: 7 N-m (71kgf-cm)**

Maximum allowable torque value **M6: 9 N-m (92kgf-cm)**

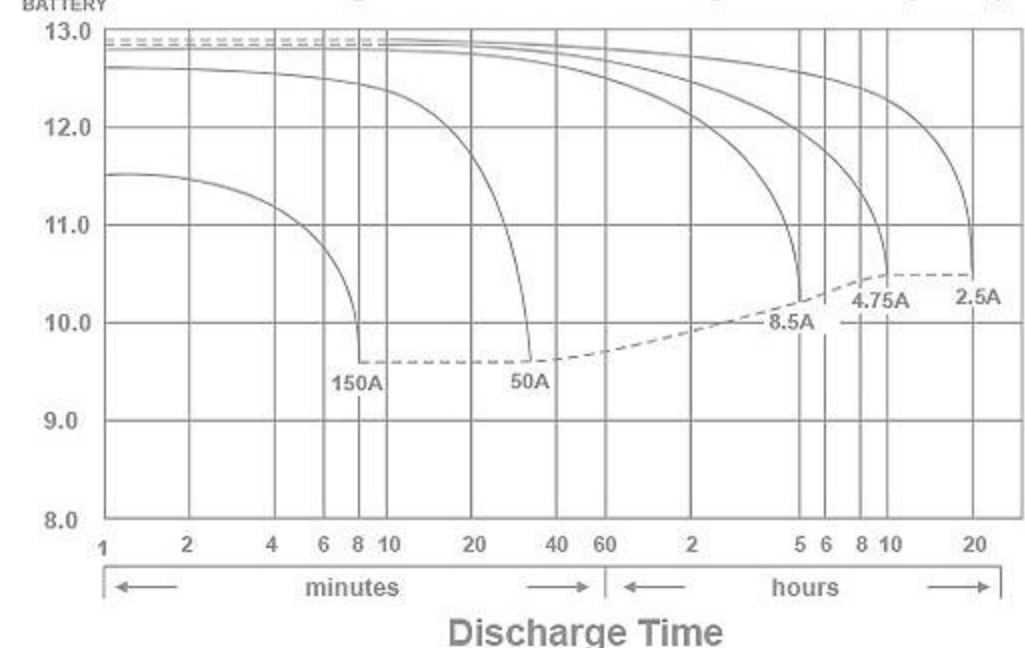


Dimensions

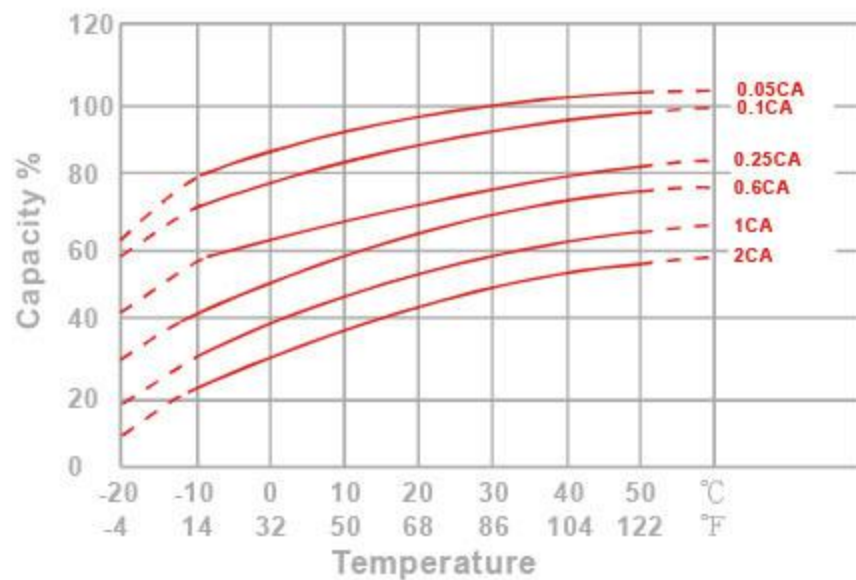
mm(inch)



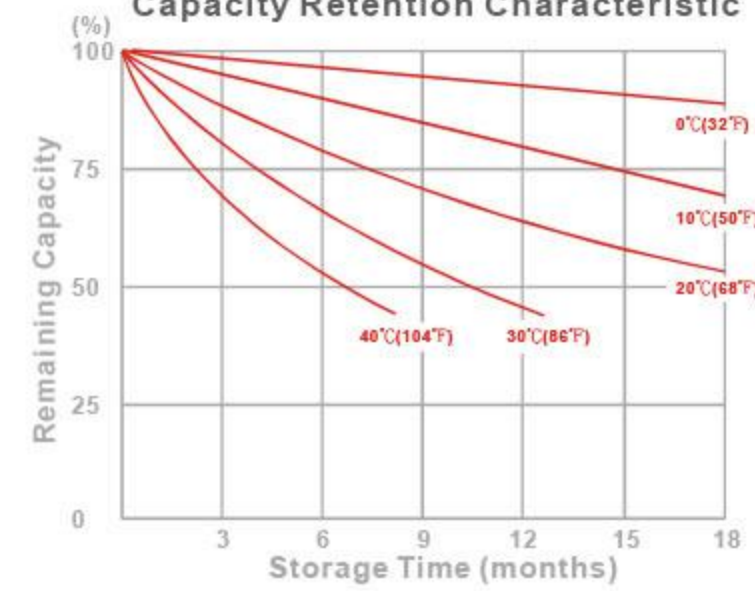
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



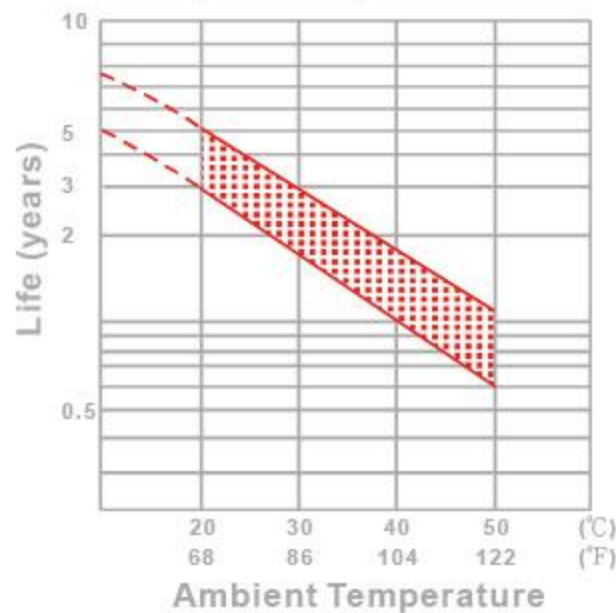
Effect of Temperature on Capacity 25°C(77°F)



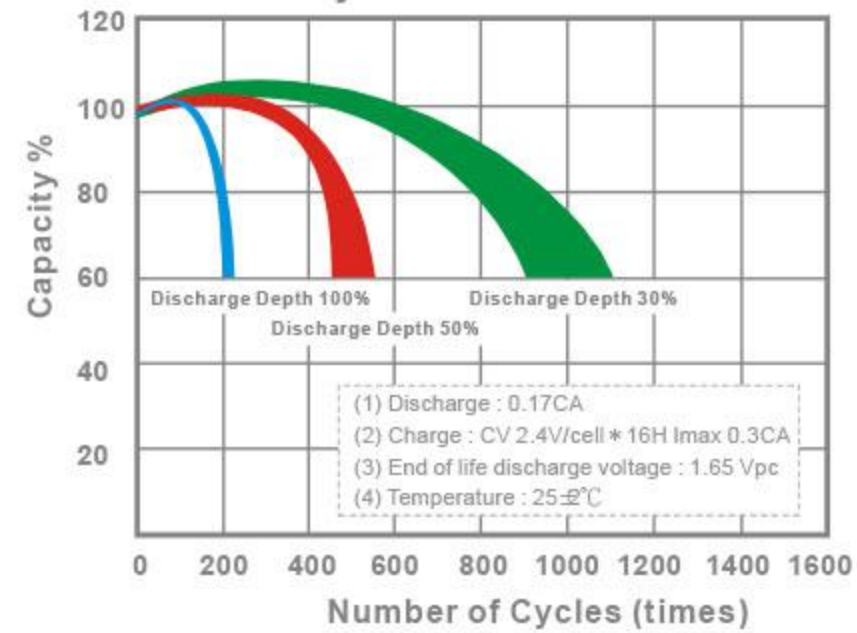
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle 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							
5	min	240	288	322	345	350	356	361
10	min	171	203	223	233	237	241	246
15	min	126	146	160	167	170	172	175
30	min	78.0	89.8	97.2	100	102	103	104
60	min	53.7	56.5	58.2	59.5	60.0	60.7	61.2
120	min	29.2	32.0	33.3	34.5	34.8	35.3	35.8
180	min	20.8	22.7	23.8	24.7	25.0	25.3	25.7
240	min	17.2	18.3	19.0	19.7	19.8	20.2	20.5
300	min	15.9	16.6	17.0	17.3	17.5	17.7	17.8
600	min	8.62	9.10	9.38	9.57	9.62	9.68	9.77
1200	min	4.58	4.87	5.05	5.17	5.20	5.25	5.30

- 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							
5	min	139	166	185	199	206	210	214
10	min	88.5	106	117	125	128	131	134
15	min	77.8	84.5	87.6	90.2	90.9	91.8	92.9
30	min	45.4	50.7	52.8	54.4	54.9	55.5	56.2
60	min	26.0	28.8	29.9	30.6	30.8	31.1	31.4
120	min	15.1	16.2	16.8	17.3	17.5	17.7	17.9
180	min	11.0	11.7	12.1	12.4	12.5	12.6	12.7
240	min	8.96	9.44	9.70	9.89	9.96	10.1	10.2
300	min	7.85	8.26	8.50	8.67	8.73	8.80	8.87
600	min	4.41	4.65	4.76	4.82	4.84	4.87	4.91
1200	min	2.32	2.44	2.50	2.55	2.57	2.59	2.61