

WP50-12NE 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)	31.67Ah
3 C	(150A	to	9.60V)	20Ah

Weight **Approx. 14.3kg(31.5Lbs.)**

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

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

Terminal

F8

Description of torque value of hard ware for the terminals:

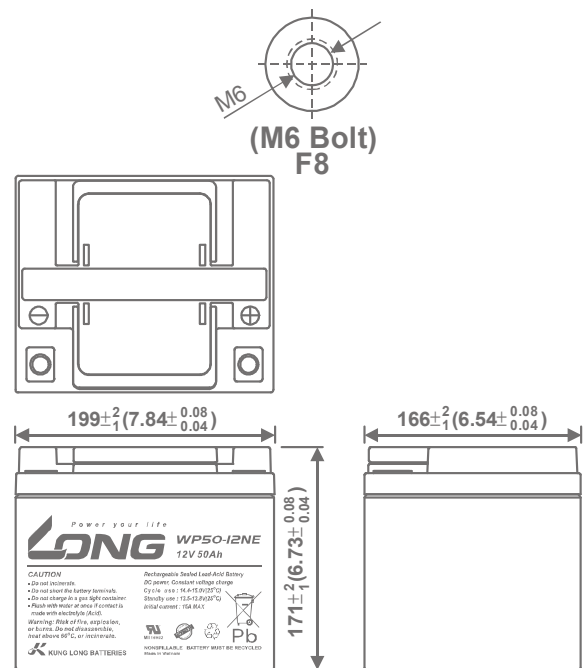
Recommended torque value **M6: 5.39 N-m (55kg-cm)**

Maximum allowable torque value **M6: 8.82 N-m (90kg-cm)**

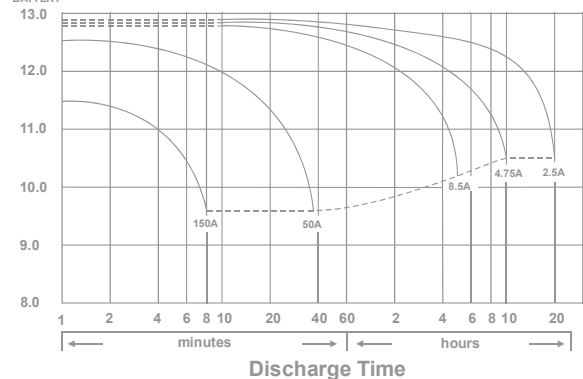


Dimensions

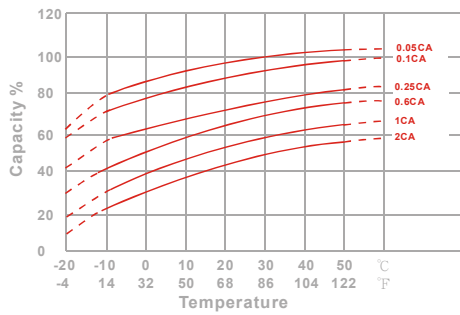
mm(inch)



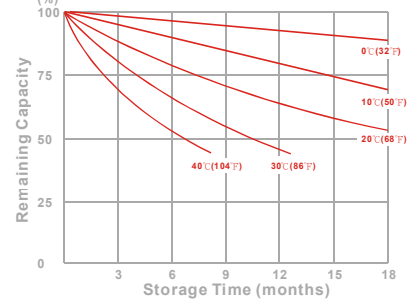
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



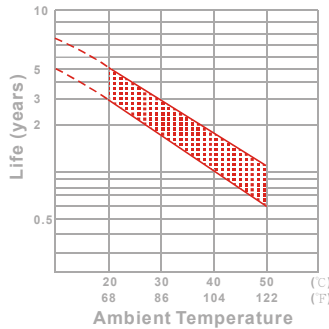
Effect of Temperature on Capacity 25°C(77°F)



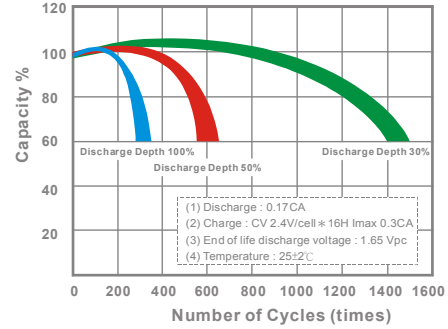
Capacity Retention Characteristic



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								
5	min	1410	1693	1895	2031	2060	2090	2124
10	min	1005	1194	1309	1370	1395	1419	1445
15	min	742	858	940	981	997	1013	1027
30	min	459	528	571	590	597	605	613
60	min	316	332	342	350	353	357	360
120	min	175	192	200	207	209	212	215
180	min	125	136	143	148	150	152	154
240	min	103	110	114	118	119	121	123
300	min	95.6	99.3	102	104	105	106	107
600	min	51.7	54.6	56.3	57.4	57.7	58.1	58.6
1200	min	27.5	29.2	30.3	31.0	31.2	31.5	31.8

- 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								
5	min	136	163	181	195	202	206	210
10	min	86.7	104	115	123	125	128	131
15	min	76.2	82.8	85.8	88.4	89.1	90.0	91.0
30	min	44.5	49.7	51.7	53.3	53.8	54.4	55.1
60	min	25.5	28.2	29.3	30.0	30.2	30.5	30.8
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

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%)