

## LG50-12N 12Volt 50Ah

### Specifications

Nominal Voltage(V) **12V**

#### Nominal Capacity

20 hour rate	(2.5A)	to	10.50V)	<b>50Ah</b>
5 hour rate	(8.5A)	to	10.20V)	<b>42.5Ah</b>
1 hour rate	(27.5A)	to	9.60V)	<b>27.5Ah</b>
1 C	(50A)	to	9.60V)	<b>26.67Ah</b>

Weight **Approx. 14.5kg(31.9Lbs.)**

Internal Resistance (at 1KHz) **Approx. 6 mΩ**

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

#### Charging Methods at 25°C (77°F)

##### Cycle use:

Charging Voltage **13.8 to 14.4V**

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:

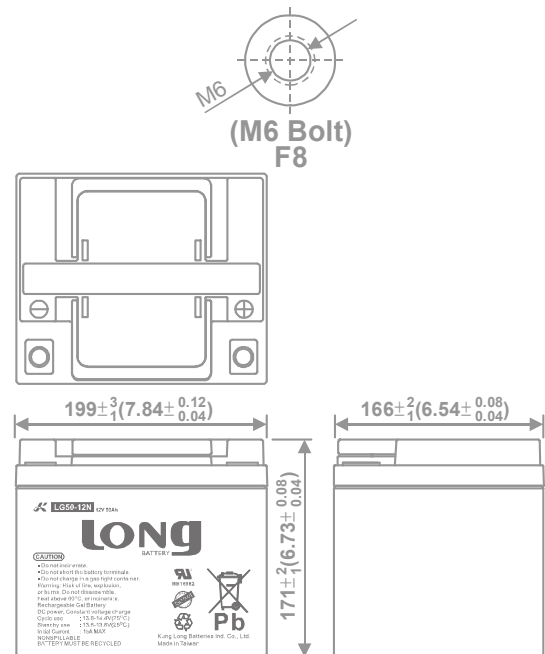
Recommended torque value **M6: 5.39 N-m (55kg-cm)**

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

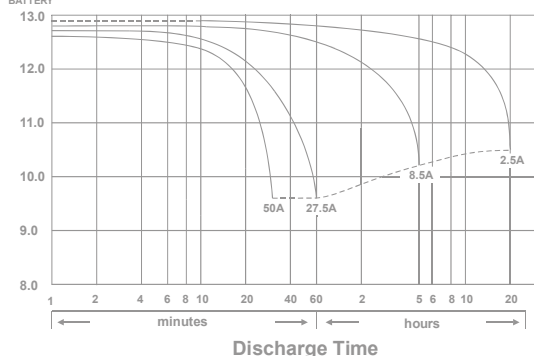


### Dimensions

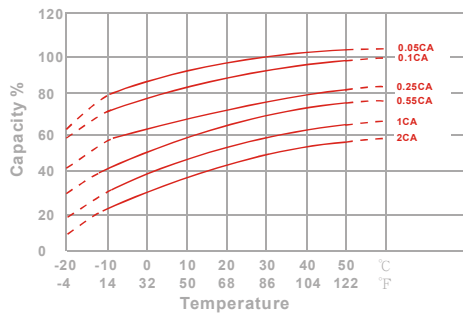
mm(inch)



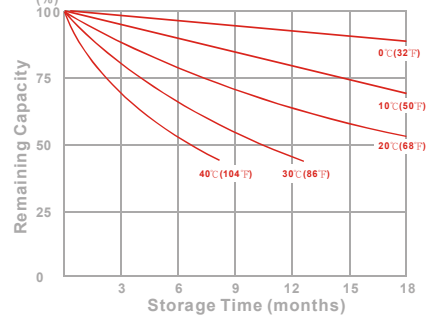
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



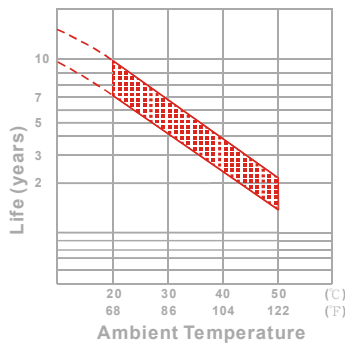
**Effect of Temperature on Capacity 25°C (77°F)**



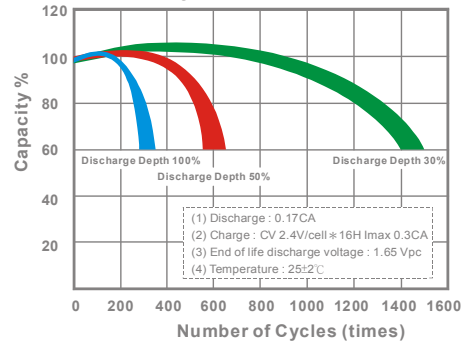
**Capacity Retention Characteristic**



**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
5	min	1295	1555	1741	1865	1892	1920	1950
10	min	923	1096	1202	1258	1281	1303	1327
15	min	681	788	863	901	915	931	943
30	min	421	485	525	542	548	555	563
60	min	303	319	328	336	338	342	345
120	min	166	182	190	197	199	201	204
180	min	120	131	137	142	144	146	148
240	min	99.8	107	111	114	115	117	119
300	min	93.7	97.3	100	102	103	104	105
600	min	50.7	53.5	55.2	56.3	56.5	56.9	57.4
1200	min	27.0	28.6	29.7	30.4	30.6	30.9	31.2

**- 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
5	min	125	149	167	179	185	189	193
10	min	78.1	93.5	103	110	113	116	118
15	min	71.6	77.7	80.6	83.0	83.6	84.5	85.5
30	min	40.9	45.6	47.5	49.0	49.4	50.0	50.6
60	min	24.4	27.1	28.1	28.8	29.0	29.2	29.5
120	min	14.3	15.4	16.0	16.4	16.6	16.8	17.0
180	min	10.6	11.2	11.6	11.9	12.0	12.1	12.2
240	min	8.67	9.16	9.41	9.59	9.66	9.80	9.88
300	min	7.69	8.09	8.33	8.50	8.56	8.62	8.69
600	min	4.40	4.64	4.75	4.81	4.83	4.86	4.90
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<6min(+15%~-15%), 6min ≤ X<10min(+12%~-12%), 10min ≤ X < 60min(+8%~-8%), X ≥ 60min(+5%~-5%)