

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

10 hour rate	(20A	to	10.80V)	200Ah
5 hour rate	(34A	to	10.80V)	170Ah
3 hour rate	(50A	to	10.80V)	150Ah
1 hour rate	(110A	to	10.80V)	110Ah

Weight

Approx. 64kg(140.8Lbs.)

Internal Resistance (at 1KHz)

Approx. 3.5 mΩ

Maximum Discharge Current for

5 seconds: 1600A

Charging Methods at 25°C (77°F)

Maximum Charging Current :	60A
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	94%
6 month	85%

Case Material

ABS UL94 HB
Option: Flammability resistance of (UL94 V-0)

Design Life

12 Years.

Terminal

F18



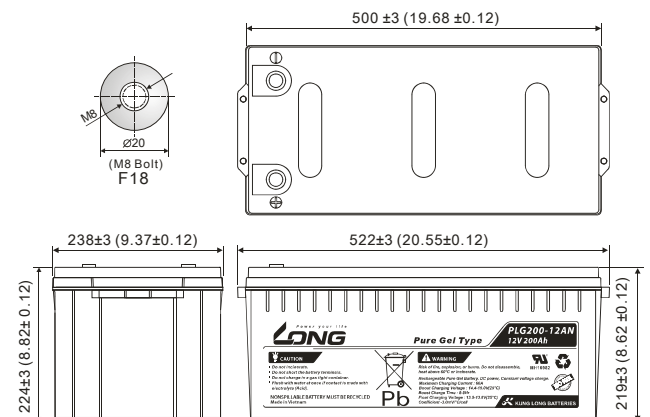
⚡ Dimensions

Length (L)	522±3 (20.55±0.12)
Width (W)	238±3 (9.37±0.12)
Height (H)	219±3 (8.62±0.12)
Overall Height (HT)	224±3 (8.82±0.12)

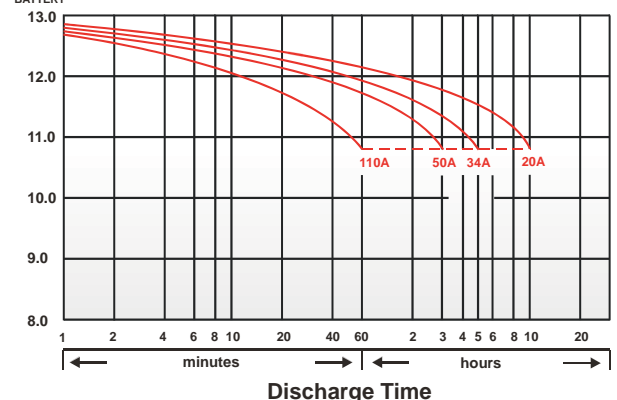
Description of torque value of hard ware for the terminals:

Recommended torque value	M8:12 N-m (122kgf-cm)
Maximum allowable torque value	M8:20 N-m (204kgf-cm)

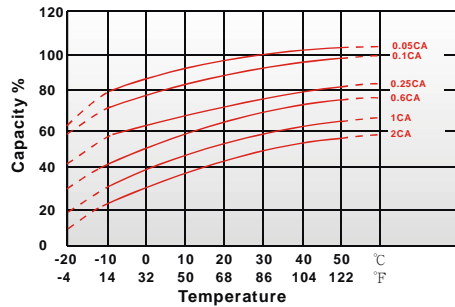
mm(inch)



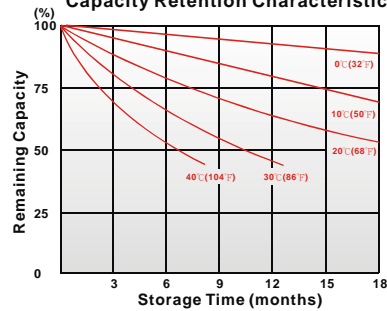
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



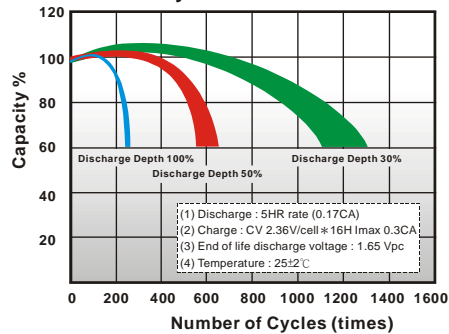
Effect of Temperature on Capacity 25°C (77°F)



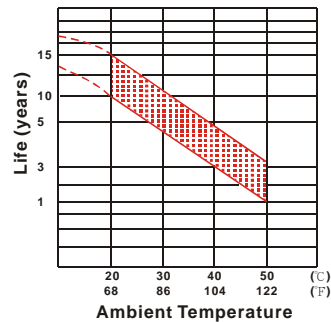
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) 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	1.65V	1.60V
Time							
10	min	604	618	641	663	686	712
15	min	519	529	548	567	586	604
30	min	334	341	347	355	364	374
60	min	215	219	222	226	230	236
120	min	133	135	137	139	140	141
180	min	95.0	96.5	98.0	98.7	99.3	100
240	min	78.0	79.2	80.3	81.0	81.5	82.0
300	min	66.8	67.9	69.0	69.5	69.8	70.3
600	min	39.8	39.9	40.0	40.2	40.4	40.5
1200	min	21.0	21.0	21.1	21.2	21.2	21.3

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.65V	1.60V
Time							
10	min	334	344	354	367	380	393
15	min	284	292	300	310	320	330
30	min	179	182	185	190	195	200
60	min	113	115	117	119	121	124
120	min	69.1	70.0	70.9	71.7	72.4	73.1
180	min	48.5	50.0	50.4	50.6	50.8	51.0
240	min	39.8	40.4	41.0	41.3	41.6	41.8
300	min	34.0	34.5	35.0	35.2	35.5	35.7
600	min	20.0	20.1	20.1	20.2	20.3	20.4
1200	min	10.5	10.5	10.6	10.6	10.7	10.7

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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