

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity

20 hour rate	(6A	to	10.50V)	120Ah
10 hour rate	(12A	to	10.80V)	120Ah
5 hour rate	(20.4A	to	10.20V)	102Ah
1 hour rate	(72A	to	9.60V)	72Ah

Weight

Approx. 35.5kg(78.1Lbs.)

Internal Resistance (at 1KHz)

Approx. 5.5 mΩ

Maximum Discharge Current for

5 seconds: 1200A

Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current :	36A
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)

Design Life & Standard

Expected Trickle Design Life: 10-12 years at 20°C according to Eurobat.

Terminal

F18



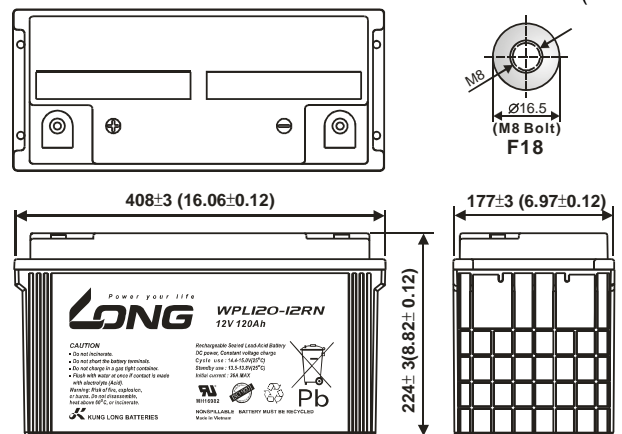
⚡ Dimensions

Length (L)	408±3 (16.06±0.12)
Width (W)	177±3 (6.97±0.12)
Height (H)	224±3 (8.82±0.12)
Overall Height (HT)	224±3 (8.82±0.12)

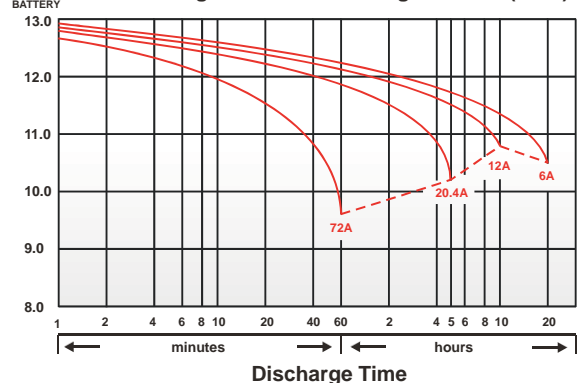
Description of torque value of hard ware for the terminals:

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

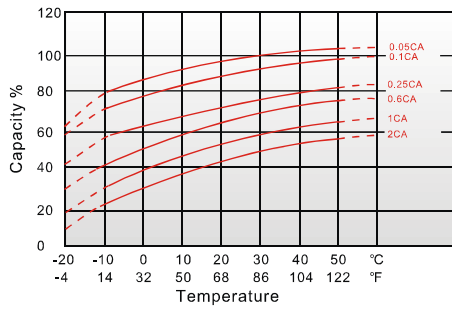
mm(inch)



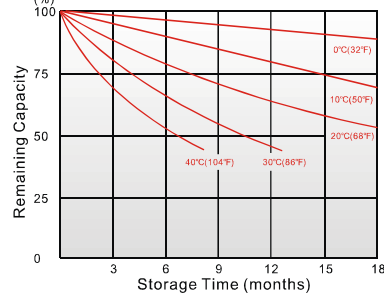
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



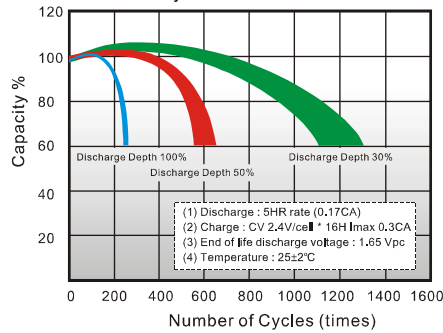
Effect of Temperature on Capacity 25°C(77°F)



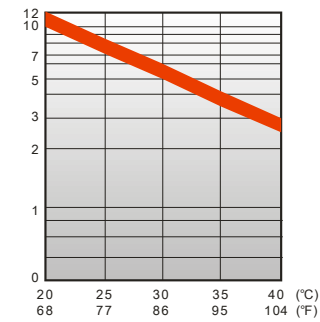
Capacity Retention Characteristic



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							
5	min	382	440	490	540	590	630
10	min	305	365	420	445	470	486
15	min	300	332	350	368	384	396
20	min	255	280	298	311	323	332
30	min	215	225	235	241	247	250
45	min	150	161	169	177	181	184
60	min	130	136	142	145	147	149
90	min	89.8	93.0	95.6	98.4	101.4	105
180	min	53.2	55.7	57.9	59.4	60.9	62.2
300	min	37.3	38.9	39.6	40.3	40.9	41.5
480	min	25.9	27.3	27.8	28.2	28.5	28.8
600	min	21.5	23.4	23.9	24.2	24.4	24.5
1200	min	11.2	11.7	12.0	12.4	12.6	12.7

- 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							
5	min	220	250	283	313	343	368
10	min	175	208	240	261	279	292
15	min	165	185	192	201	210	216
20	min	141	152	162	168	176	185
30	min	108	116	120	125	130	135
45	min	83.5	87.0	90.0	92.0	94.0	96.0
60	min	66.2	70.0	73.0	75.0	77.0	77.7
90	min	47.9	51.0	53.1	55.0	56.9	58.8
180	min	28.9	29.7	30.4	31.0	31.3	31.5
300	min	18.6	20.3	21.0	21.5	21.7	21.9
480	min	13.2	14.1	14.5	14.7	15.0	15.1
600	min	11.7	12.5	12.6	12.7	12.8	13.0
1200	min	5.89	6.29	6.34	6.39	6.44	6.54

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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