

KPH110-12N 12Volt 110Ah

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

10 hour rate	(11A	to	10.80V)	110Ah
5 hour rate	(18.7A	to	10.20V)	93.5Ah
1 hour rate	(66A	to	9.60V)	66Ah
1 C	(110A	to	9.60V)	69.67Ah

Weight Approx. 32.5kg(71.5Lbs.)

Internal Resistance (at 1KHz) Approx. 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 : 33A

Standby use:

Float Charging Voltage 13.5 to 13.8V

Coefficient -3.0mV/°C/cell

Design Life 12 years

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:

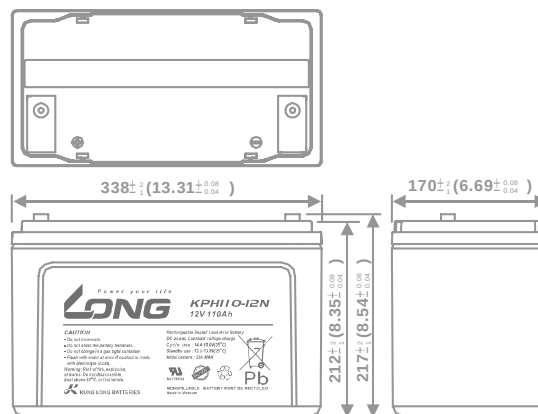
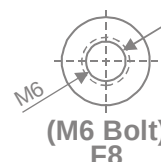
Recommended torque value M6: 5.39 N-m (55kg-cm)

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



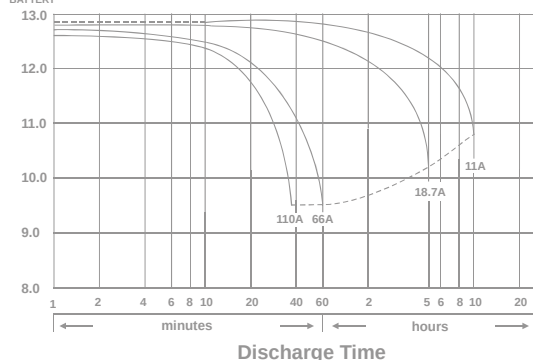
Dimensions

mm(inch)

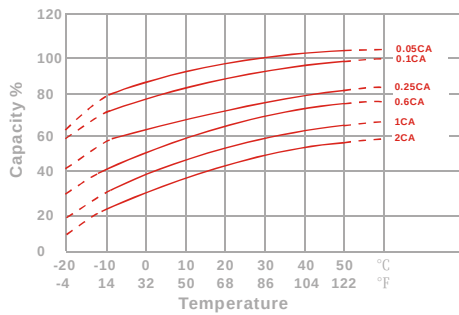


(V)
FOR 12V
BATTERY

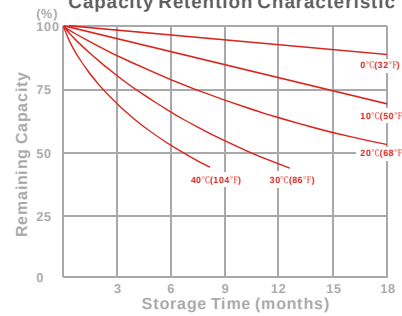
Discharge Time VS. Discharge Current (25°C)



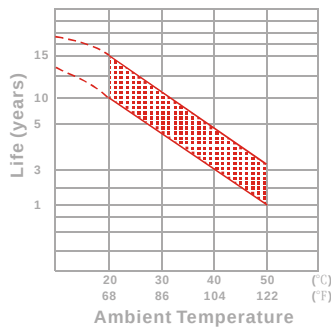
Effect of Temperature on Capacity 25°C(77°F)



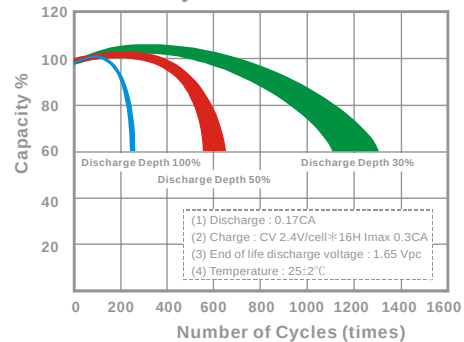
Capacity Retention Characteristic



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	2880	3202	3423	3634	3731	3833	4025
10	min	2145	2339	2498	2650	2715	2789	2920
15	min	1757	1904	2016	2124	2168	2229	2314
30	min	1075	1139	1193	1243	1265	1291	1332
60	min	711	738	756	773	780	789	800
90	min	505	531	550	566	573	582	594
120	min	414	435	450	459	465	472	481
180	min	301	317	328	339	343	348	355
240	min	240	253	265	277	281	286	292
300	min	211	225	235	240	243	245	249
600	min	136	139	141	144	145	146	148
1200	min	70.3	72.2	74.2	75.5	76.0	76.6	77.4

- 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	214	279	317	348	358	370	387
10	min	167	196	217	234	242	251	265
15	min	124	151	170	184	189	195	203
30	min	74.3	86.7	95.1	104	106	109	114
60	min	44.4	52.6	58.3	62.4	63.3	64.8	66.7
90	min	33.3	38.4	42.2	45.4	46.3	47.4	48.9
120	min	25.1	29.2	32.4	35.5	36.3	37.2	38.4
180	min	21.5	23.9	25.7	27.2	27.7	28.3	29.1
240	min	18.5	20.3	21.6	22.5	22.8	23.2	23.7
300	min	16.8	18.0	18.9	19.4	19.6	19.8	20.1
600	min	10.7	11.0	11.2	11.4	11.5	11.6	11.8
1200	min	5.45	5.62	5.79	5.91	5.96	6.02	6.09

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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