

WP40-12N 12Volt 40Ah

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(2A	to	10.50V)	40Ah
10 hour rate	(3.8A	to	10.50V)	38Ah
5 hour rate	(6.8A	to	10.20V)	34Ah
1 C	(40A	to	9.60V)	22.67Ah
3 C	(120A	to	9.60V)	16Ah

Weight Approx. 13.1kg(28.82Lbs.)

Internal Resistance (at 1KHz) Approx. 7 mΩ

Maximum Discharge Current for

5 seconds: 480A

Charging Methods at 25°C(77°F)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 12A

Standby use:

Float Charging Voltage 13.50 to 13.80V

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 92%

3 month 90%

6 month 80%

Case Material

ABS

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

Terminal

F8

Description of torque value of hard ware for the terminals:

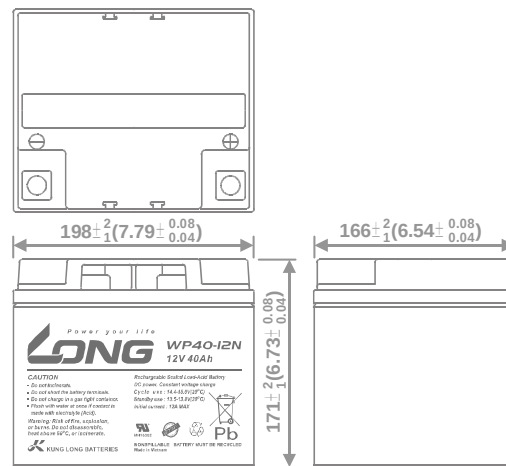
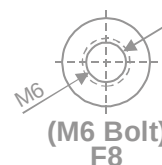
Recommended torque value M6: 5.39 N-m (55kg-cm)

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

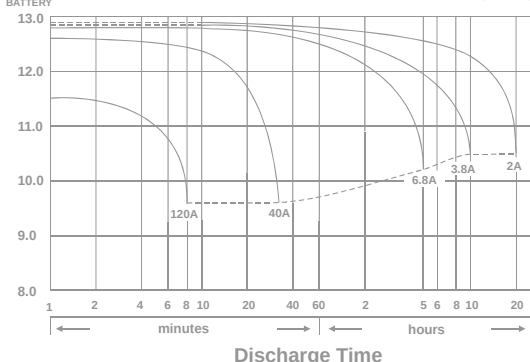


Dimensions

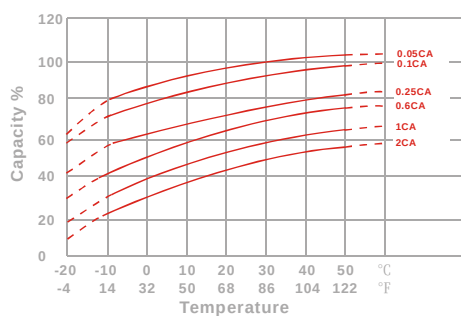
mm(inch)



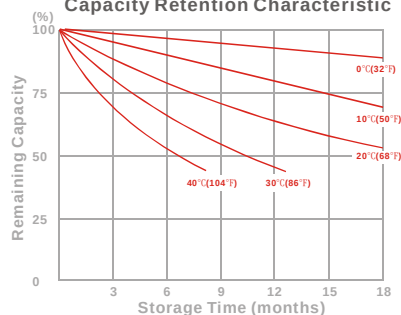
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



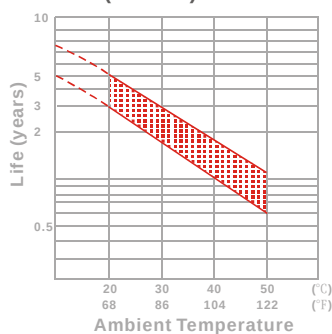
Effect of Temperature on Capacity 25°C(77°F)



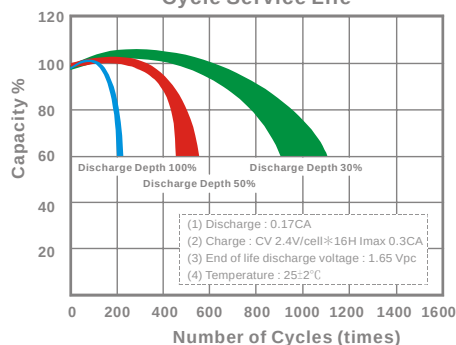
Capacity Retention Characteristic



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	1337	1603	1795	1919	1951	1987	2022
10	min	856	1029	1153	1232	1251	1275	1298
15	min	663	780	861	913	927	942	960
30	min	354	416	459	487	494	502	510
60	min	263	272	279	284	286	288	291
120	min	155	161	164	167	168	170	172
180	min	113	117	120	122	123	124	126
240	min	89.1	91.6	93.4	95.0	95.5	96.1	97.2
300	min	81.4	83.6	85.2	86.6	87.2	87.8	88.7
600	min	41.6	42.9	44.1	45.3	45.8	46.4	47.2
1200	min	21.3	22.5	23.6	24.5	24.9	25.4	26.1

- 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	116	140	157	168	171	174	178
10	min	74.1	89.0	99.2	105	107	109	111
15	min	56.5	66.4	73.3	77.8	79.1	80.2	81.4
30	min	30.7	34.9	38.7	40.0	40.9	42.2	42.9
60	min	22.7	23.4	23.8	24.2	24.4	24.6	24.9
120	min	12.6	13.1	13.5	13.8	13.9	14.1	14.3
180	min	9.27	9.62	9.84	10.0	10.1	10.20	10.4
240	min	7.34	7.63	7.88	8.06	8.09	8.13	8.21
300	min	6.43	6.68	6.84	6.98	7.02	7.05	7.13
600	min	3.52	3.70	3.87	3.98	4.02	4.07	4.12
1200	min	1.87	1.95	2.03	2.07	2.09	2.12	2.14

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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