

WPL60-12ARN 12Volt 60Ah

Specifications

Nominal Voltage(V) **12V**

Nominal Capacity

20 hour rate	(3A)	to	10.50V)	60Ah
10 hour rate	(5.7A)	to	10.50V)	57Ah
5 hour rate	(10.2A)	to	10.20V)	51Ah
1 C	(60A)	to	9.60V)	38Ah
3 C	(180A)	to	9.60V)	24Ah

Weight **Approx. 20.5kg(45.1Lbs.)**

Internal Resistance (at 1KHz) **Approx. 6.5 mΩ**

Maximum Discharge Current for

5 seconds: **720A**

Charging Methods at 25 (77)

Cycle use:

Charging Voltage **14.4 to 15.0V**

Coefficient -5.0mV/ /cell

Maximum Charging Current : **18A**

Standby use:

Float Charging Voltage **13.5 to 13.8V**

Coefficient -3.0mV/ /cell

Operating Temperature Range

Charge **-15 (5) to 40 (104)**

Discharge **-15 (5) to 50 (122)**

Storage **-15 (5) to 40 (104)**

Charge Retention (shelf life) at 20 (68)

1 month **98%**

3 month **94%**

6 month **85%**

Case Material

ABS

(UL94 HB flame retardant)

Terminal

F8

Description of torque value of hard ware for the terminals:

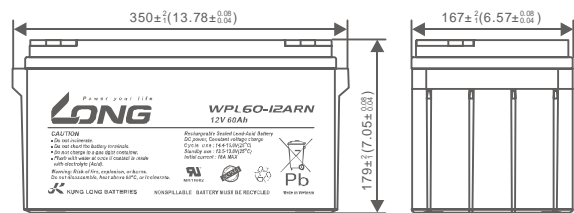
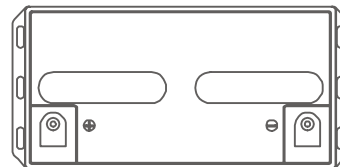
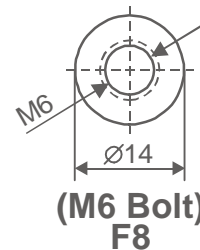
Recommended torque value **M6: 7 N-m (71kgf-cm)**

Maximum allowable torque value **M6: 9 N-m (92kgf-cm)**

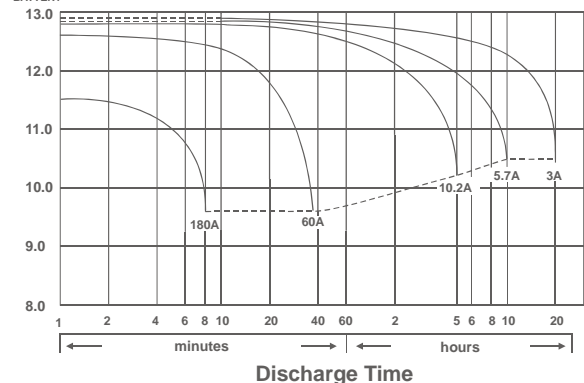


Dimensions

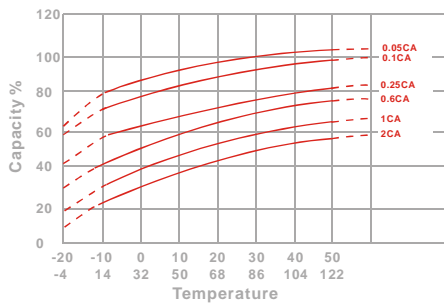
mm(inch)



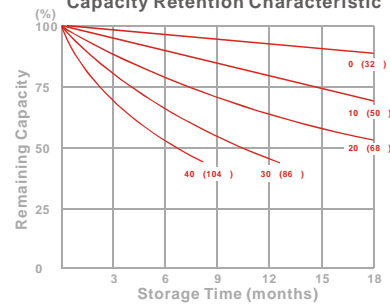
(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25)



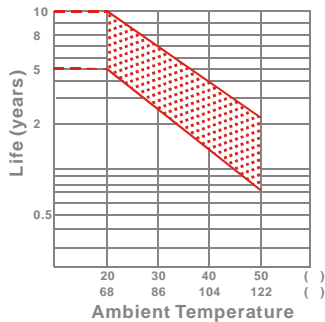
Effect of Temperature on Capacity 25 (77)



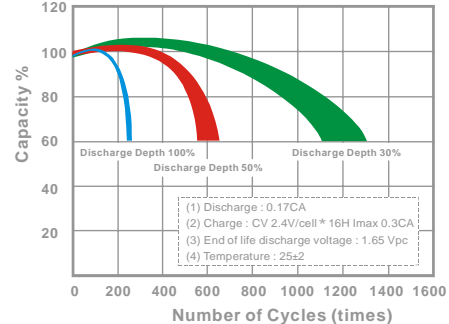
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25 (77)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.65V	1.60V
Time							
5	min	218	258	298	312	328	360
10	min	178	208	233	243	253	263
15	min	157	172	184	195	206	217
20	min	147	156	166	173	182	191
30	min	104	120	131	136	140	147
60	min	66.2	73.8	77.5	79.0	81.1	83.4
90	min	45.0	46.7	48.7	51.7	56.7	63.3
120	min	36.2	42.3	46.7	48.4	49.4	50.8
180	min	29.5	33.2	33.7	34.5	35.8	36.8
240	min	20.8	22.0	23.7	24.3	24.8	25.5
300	min	18.8	19.5	20.7	21.0	21.3	21.7
480	min	14.6	15.5	15.7	15.9	16.1	16.2
600	min	12.2	12.9	13.1	13.2	13.4	13.5
1200	min	6.76	6.82	6.87	7.01	7.09	7.12

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.65V	1.60V
Time							
5	min	21.2	23.3	28.0	30.3	32.8	35.2
10	min	17.5	19.9	21.9	22.8	23.6	25.6
15	min	13.6	16.5	18.0	18.7	19.8	20.9
20	min	11.5	13.0	14.0	14.5	15.2	15.8
30	min	9.4	10.7	11.1	11.3	11.4	11.7
60	min	6.12	6.29	6.58	6.78	7.02	7.28
90	min	4.25	4.43	4.82	4.93	5.07	5.28
120	min	3.32	3.62	3.76	3.83	3.93	4.07
180	min	2.77	2.99	3.04	3.10	3.17	3.22
240	min	1.88	1.98	2.05	2.10	2.17	2.22
300	min	1.60	1.71	1.75	1.80	1.85	1.91
480	min	1.23	1.31	1.33	1.35	1.37	1.38
600	min	1.03	1.05	1.10	1.11	1.13	1.14
1200	min	0.570	0.575	0.580	0.592	0.598	0.602

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%)

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