Valve Regulated Lead Acid Battery

WPL40-12N

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
1C	(40A	to	9.60V)	25.33Ah
3C	(120A	to	9.60V)	16Ah

Weight

Approx. 13.4kg(29.5Lbs.)

Internal Resistance (at 1KHz)

Approx. 7.5 mΩ

Maximum Discharge Current for

5 seconds:480A

Charging Methods at 25℃(77℉)

Maximum Charging Current：	12A
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	97%
3 month	92%
6 month	85%

Case Material

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

Design Life & Standard

EUROBAT(20℃)：10/12 YEARS LONG LIFE

Terminal

F8

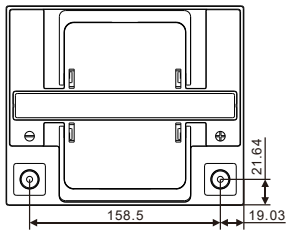
Dimensions

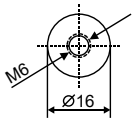
Length (L)	$198\pm^{2}_{1}(7.80\pm^{0.08}_{0.04})$
Width (W)	$166\pm^{2}_{1}(6.54\pm^{0.08}_{0.04})$
Height (H)	$171\pm^{2}_{1}(6.73\pm^{0.08}_{0.04})$
Overall Height (HT)	$171\pm^{2}_{1}(6.73\pm^{0.08}_{0.04})$

Description of torque value of hardware for the terminals:

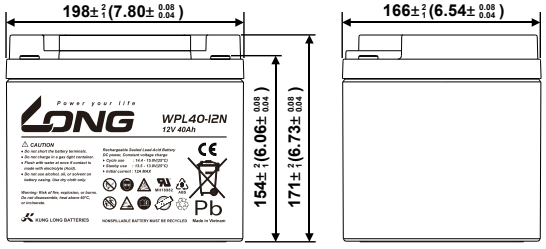
Recommended torque value	M6: 7 N-m (71 kgf-cm)
Maximum allowable torque value	M6: 10 N-m (102 kgf-cm)

mm(inch)

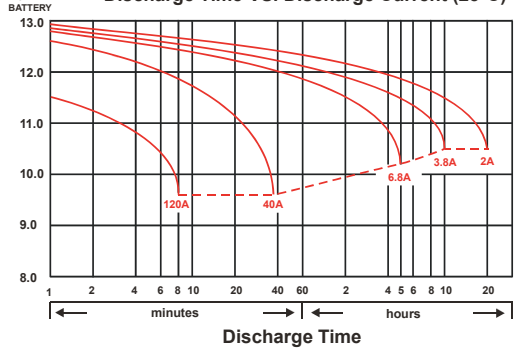




(M6 Bolt)
F8



Discharge Time VS. Discharge Current (25°C)



Power your life

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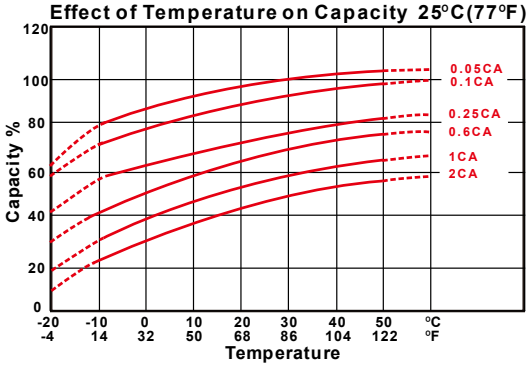

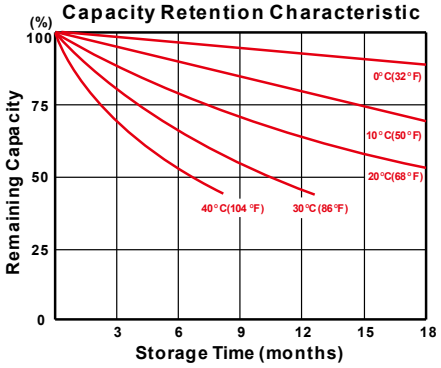

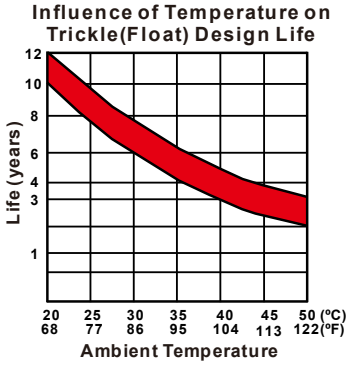

- PERFORMANCE DATA

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

Time \ End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
15	min	134	140	147	149	151	153	154
30	min	83.9	87.0	90.8	92.0	93.1	93.8	94.5
60	min	54.8	55.7	56.8	58.0	59.3	60.0	60.8
90	min	41.4	41.7	42.4	43.3	44.5	44.6	44.9
120	min	32.5	32.8	33.6	33.8	34.0	34.1	34.3
180	min	22.8	23.0	23.4	23.6	23.8	23.9	24.1
240	min	17.3	17.6	17.9	18.3	18.4	18.6	19.0
300	min	14.4	15.0	15.2	15.3	15.4	15.4	15.5
480	min	9.46	9.67	9.89	9.94	10.0	10.0	10.1
600	min	6.86	7.05	7.27	7.40	7.50	7.57	7.74
1200	min	3.51	3.70	3.89	4.01	4.11	4.19	4.30

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

Time \ End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
15	min	69.0	73.5	79.1	80.0	81.0	82.0	82.9
30	min	42.9	44.7	46.6	47.0	47.4	47.9	48.5
60	min	29.7	30.2	30.9	31.3	31.8	32.2	32.8
90	min	20.7	21.0	21.4	21.6	21.8	22.0	22.3
120	min	16.8	16.9	17.0	17.1	17.2	17.3	17.4
180	min	11.3	11.4	11.6	11.7	11.8	11.9	12.1
240	min	8.75	8.84	9.03	9.13	9.22	9.32	9.37
300	min	7.28	7.39	7.50	7.54	7.56	7.58	7.64
480	min	4.74	4.79	4.88	4.90	4.91	4.92	4.95
600	min	3.91	3.96	4.01	4.03	4.04	4.05	4.08
1200	min	2.03	2.06	2.12	2.13	2.14	2.15	2.15

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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