Valve Regulated Lead Acid Battery

WP45-12N

Specifications

Nominal Voltage(V)

12V

Nominal Capacity

20 hour rate	(2.25A	to	10.50V)	45Ah
10 hour rate	(4.275A	to	10.50V)	42.75Ah
5 hour rate	(7.65A	to	10.20V)	38.25Ah
1 C	(45A	to	9.60V)	25.5Ah
3 C	(135A	to	9.60V)	18Ah

Weight

Approx. 13.5kg(29.7Lbs.)

Internal Resistance (at 1KHz)

Approx. 7 mΩ

Maximum Discharge Current for

5 seconds: 675A

Charging Methods at 25℃(77℉)

Cycle use:

Charging Voltage	14.4 to 15.0V
Coefficient -5.0mV/℃/cell	
Maximum Charging Current：	13.5A

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

EUROBAT(20℃): 3-5 YEARS STANDARD COMMERCIAL

Terminal

F8

Dimensions

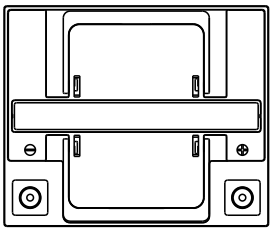
Length (L)	$198^{+2}_{-1}(7.80^{+0.08}_{-0.04})$
Width (W)	$166^{+2}_{-1}(6.54^{+0.08}_{-0.04})$
Height (H)	$171^{+2}_{-1}(6.73^{+0.08}_{-0.04})$
Overall Height (HT)	$171^{+2}_{-1}(6.73^{+0.08}_{-0.04})$

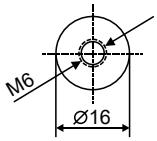
Description of torque value of hardware for the terminals:

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

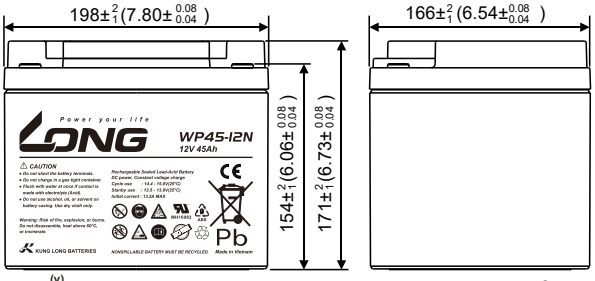
Maximum allowable torque value M6: 10 N-m (102 kgf-cm)

mm(inch)

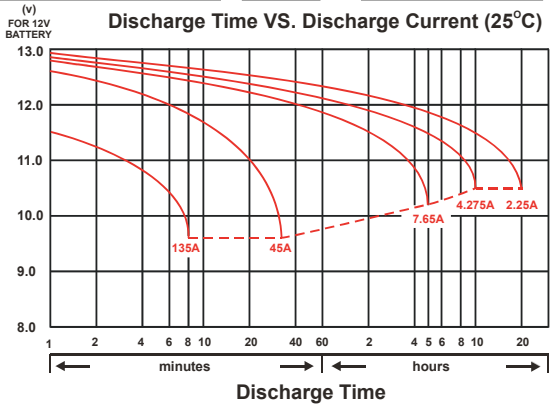




(M6 Bolt)
F8



Discharge Time VS. Discharge Current (25°C)



Power your life

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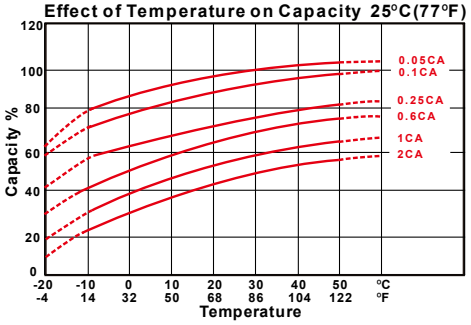

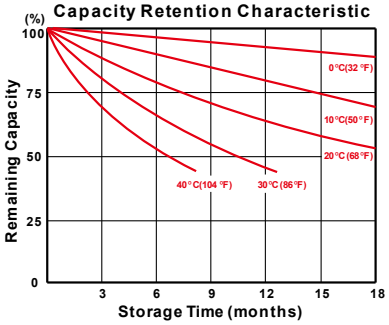

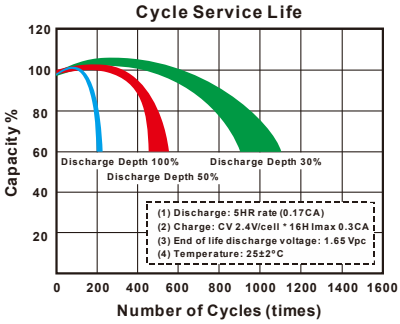

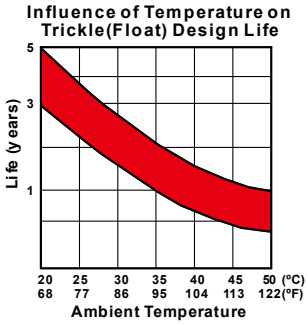

- PERFORMANCE DATA

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
10	min	179	190	199	204	206	208	210
15	min	136	143	150	153	155	156	157
30	min	85.2	89.0	92.3	94.0	94.9	95.5	96.0
60	min	63.2	65.6	66.9	67.4	67.7	68.0	68.2
90	min	43.7	45.4	46.2	46.5	46.7	46.9	47.1
120	min	33.7	35.0	35.6	35.8	36.0	36.2	36.3
180	min	23.4	24.2	24.6	24.8	24.9	25.0	25.0
240	min	18.1	18.7	19.0	19.1	19.2	19.3	19.3
300	min	14.7	15.3	15.5	15.6	15.7	15.8	15.8
480	min	9.61	9.93	10.1	10.2	10.2	10.3	10.3
600	min	6.96	7.19	7.39	7.59	7.71	7.81	7.91
1200	min	3.57	3.77	3.95	4.10	4.19	4.28	4.37

- 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
10	min	97.5	104	109	112	113	114	115
15	min	72.5	76.5	80.0	81.8	82.6	83.4	83.9
30	min	43.7	45.7	47.3	48.2	48.6	48.9	49.2
60	min	31.9	33.1	33.8	34.0	34.2	34.3	34.4
90	min	22.0	22.8	23.2	23.4	23.5	23.6	23.7
120	min	16.9	17.6	17.9	18.0	18.1	18.2	18.2
180	min	11.7	12.1	12.3	12.4	12.5	12.6	12.6
240	min	8.98	9.30	9.45	9.52	9.56	9.59	9.62
300	min	7.33	7.58	7.70	7.76	7.79	7.82	7.84
480	min	4.77	4.93	5.00	5.04	5.06	5.08	5.09
600	min	3.93	4.08	4.275	4.22	4.23	4.23	4.24
1200	min	2.08	2.19	2.25	2.28	2.31	2.33	2.35

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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