



RECHARGEABLE SEALED LEAD ACID BATTERY

Revision 1.1

WP50-12NE

Specifications

Nominal Voltage (V) 12V

Nominal Capacity

20hour rate (2.5A	to	10.50V)	50Ah
10hour rate (5A	to	10.50V)	47.5Ah
5hour rate (8.5A	to	10.20V)	42.5Ah
1C (50A	to	9.60V)	35Ah
3C (150A	to	9.60V)	25Ah

Weight Approx. 14.294kg(31.45Lbs.)

Internal Resistance (at 1KHz) 5 mΩ

Maximum Discharge Current for 5 seconds : 851A

Operating Temperature Range

Charge	0°C (32°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%

Charging Methods at 20°C (68°F)

Cycle use:

Charging Voltage 14.4 to 15.0V
Maximum Charging Current : 15A

Standby use :

Float Charging Voltage 13.50 to 13.80V

Life expectancy :

Cycle Use :

100% depth of discharge 225 cycles
80% depth of discharge 250 cycles
50% depth of discharge 750 cycles

Standby Use : 3~5years

Case Material

ABS

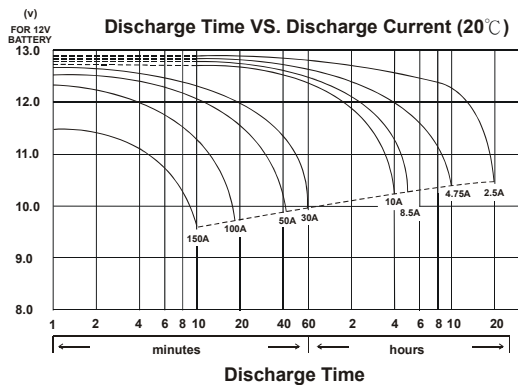
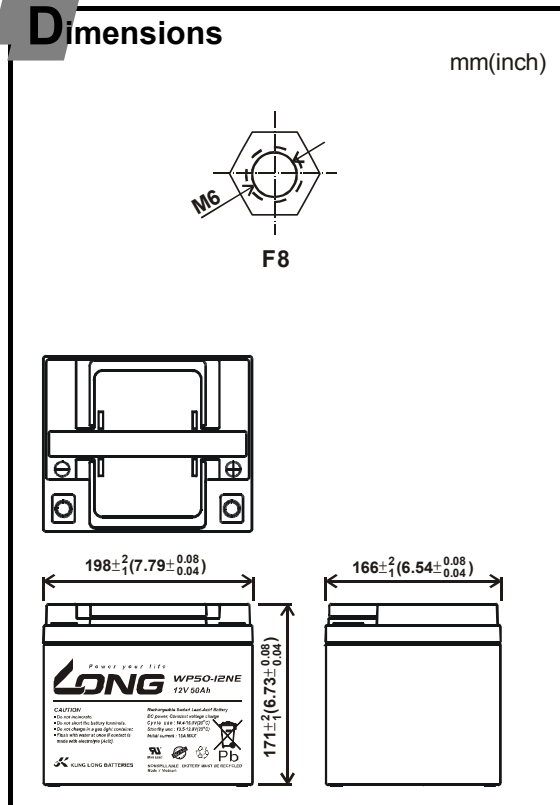
(Option : 94-HB & 94V-0 flame retardant case)

Terminal

F8

Dimensions

mm(inch)





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All data on the spec. sheet is an average value:

The tolerance range : $X < 6\text{min}(+15\% \sim -15\%)$, $6\text{min} \leq X < 10\text{min}(+12\% \sim -12\%)$, $10\text{min} \leq X < 60\text{min}(+8\% \sim -8\%)$, $X \geq 60\text{min}(+5\% \sim -5\%)$

Discharge Rates in Watts to Various End Voltages at 25°C

Time \ End Voltage	11.40V	11.10V	10.80V	10.50V	10.20V	9.90V	9.60V
1 min	1934	1957	2154	2535	2953	3479	3964
2 min	1809	1873	2077	2352	2630	2942	3212
3 min	1673	1751	1945	2159	2363	2578	2756
5 min	1455	1539	1707	1854	1984	2105	2200
7 min	1294	1377	1523	1633	1724	1802	1860
10 min	1118	1195	1316	1394	1454	1499	1531
15 min	922	988	1080	1131	1166	1188	1202
20 min	790	848	921	957	980	992	998
30 min	620	665	715	737	749	753	754
60 min	383	409	429	438	442	443	443
90 min	278	295	303	307	309	310	311
120 min	223	236	242	245	246	247	248
180 min	160	169	173	176	177	177	178
240 min	125	132	136	137	138	138	139
300 min	102	108	111	113	113	114	114
360 min	86.5	91.9	94.3	95.5	96.0	96.3	96.6
480 min	65.8	70.2	72.1	73.0	73.4	73.6	73.9
600 min	52.9	56.7	58.2	58.9	59.3	59.4	59.6
1200 min	25.7	28.1	28.9	29.3	29.4	29.5	29.6

Discharge Rates in Amperes to Various End Voltages at 25°C

Time \ End Voltage	11.40V	11.10V	10.80V	10.50V	10.20V	9.90V	9.60V
1 min	171	203	247	280	308	309	344
2 min	151	175	200	220	236	236	256
3 min	137	156	174	188	198	199	212
5 min	117	131	142	151	157	157	165
7 min	104	115	123	129	133	134	139
10 min	89.6	98.5	104	109	111	111	115
15 min	74.4	81.1	85.3	88.0	89.4	89.7	91.6
20 min	64.4	69.9	73.3	75.2	76.1	76.4	77.6
30 min	51.6	55.6	58.4	59.6	60.1	60.3	60.9
60 min	33.6	36.0	38.3	38.9	39.1	39.3	39.4
90 min	22.6	24.2	24.9	25.2	25.4	25.5	26.3
120 min	17.9	19.2	19.7	19.8	20.0	20.1	20.7
180 min	12.7	13.6	13.9	14.1	14.2	14.3	14.7
240 min	9.82	10.6	10.8	10.9	11.0	11.1	11.4
300 min	8.00	8.63	8.87	8.96	9.03	9.10	9.36
360 min	6.73	7.29	7.51	7.59	7.66	7.71	7.93
480 min	5.09	5.55	5.75	5.83	5.88	5.92	6.08
600 min	4.07	4.47	4.66	4.73	4.77	4.81	4.93
1200 min	1.96	2.21	2.35	2.42	2.44	2.46	2.51