

WPL230-12N 12Volt 230Ah

Specifications

Nominal Voltage(V) 12V

Nominal Capacity

10 hour rate (23A to 10.80V)	230Ah
5 hour rate (39.1A to 10.20V)	195.5Ah
1 hour rate (138A to 9.60V)	138Ah

Weight Approx. 75.6kg(166Lbs.)

Internal Resistance (at 1KHz) Approx. 2.2 mΩ

Maximum Discharge Current for

5 seconds: 1840A

Charging Methods at 25 (77)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mv/ /cell

Maximum Charging Current : 69A

Standby use:

Float Charging Voltage 13.50 to 13.80V

Coefficient -3.0mv/ /cell

Design Life 12 years

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-V0 flame retardant case / cover)

Terminal F18

Description of torque value of hard ware for the terminals:

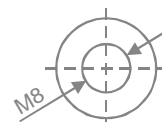
Recommended torque value M8: 7.35 N-m (75kg-cm)

Maximum allowable torque value M8: 9.8 N-m (100kg-cm)

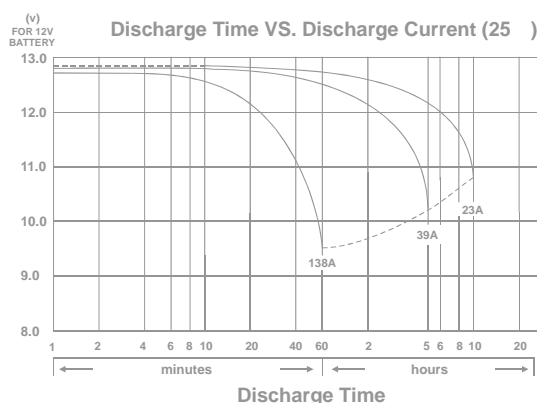
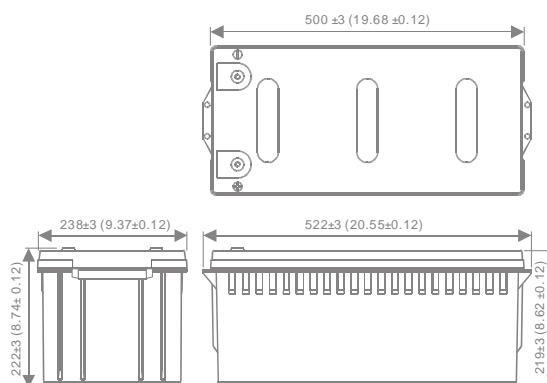


Dimensions

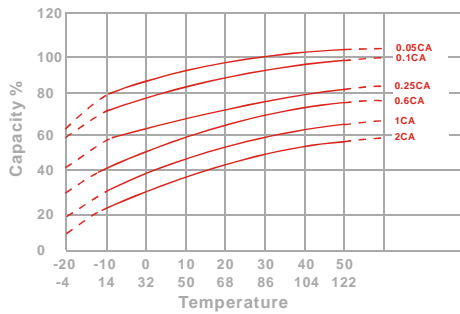
mm(inch)



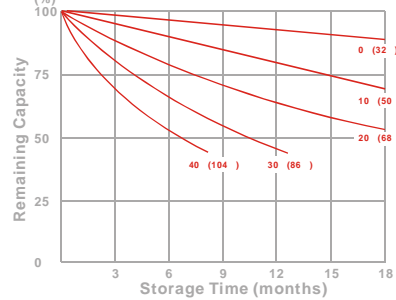
(M8 Bolt)
F18



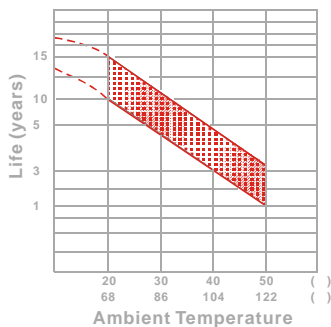
Effect of Temperature on Capacity 25 (77)



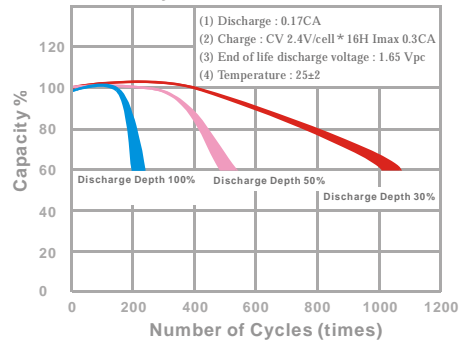
Capacity Retention Characteristic



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	1.67V	1.65V	1.60V
Time								
10	min	3927	4566	4942	5246	5356	5468	5691
15	min	3228	3762	4032	4269	4364	4463	4635
30	min	2369	2711	2895	3059	3129	3204	3298
60	min	1384	1537	1664	1781	1832	1896	1963
120	min	967	1022	1060	1091	1103	1117	1142
180	min	706	748	771	789	795	802	813
240	min	553	582	601	617	622	628	637
300	min	474	496	509	520	523	527	533
600	min	257	269	278	285	287	290	294
1200	min	139	146	150	153	154	155	157

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
10	min	342	391	431	462	473	487	511
15	min	299	341	368	392	401	412	426
30	min	226	252	271	285	290	296	305
60	min	124	137	148	155	158	162	168
120	min	73.4	81.5	86.2	89.6	91.1	92.8	95.1
180	min	54.5	58.6	61.3	63.7	64.4	65.2	66.9
240	min	43.8	46.4	48.5	49.9	50.5	51.2	52.3
300	min	38.1	40.5	41.9	43.1	43.5	43.0	43.8
600	min	22.3	23.0	23.3	23.6	23.7	23.9	24.1
1200	min	11.6	12.1	12.4	12.6	12.7	12.8	12.9

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%)