

Specifications

Nominal Voltage(V)

12V

Nominal Power

15 mins rate: 700W/cell to 1.67V/cell

Nominal Capacity

20 hour rate	(10A	to	10.50V)	200Ah
10 hour rate	(19A	to	10.50V)	190Ah
8 hour rate	(22A	to	10.50V)	176Ah
5 hour rate	(34A	to	10.20V)	170Ah

Weight

Approx. 68kg(150Lbs.)

Internal Resistance (at 1KHz)

Approx. 3 mΩ

Maximum Discharge Current for

5 seconds: 1600A

Short Circuit Current (A) IEC 60896-21-22

3801 A

Charging Methods at 25°C(77°F)

Maximum Charging Current :	60A
Boost Charging Voltage	14.1 to 14.4V
Boost Charge Time	8-9Hr
Float Charging Voltage	13.5 to 13.65V
Coefficient	-3.0mV/°C/cell

Operating Temperature Range

Charge	-15°C(5°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	98%
3 month	96%
6 month	94%

Case Material

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

Battery Construction

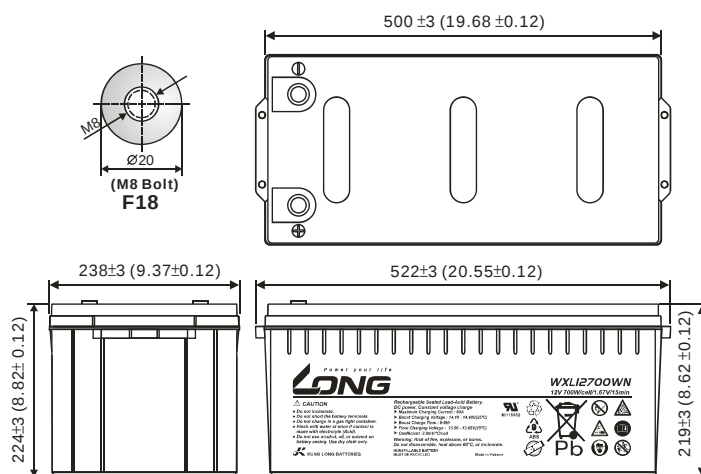
Component	Positive Plate	Negative plate	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	Rubber	Lead	AGM	Sulfuric acid



Dimensions

Length (L)	522±3(20.55±0.12)
Width (W)	238±3 (9.37±0.12)
Height (H)	219±3 (8.62±0.12)
Overall Height (HT)	224±3 (8.82±0.12)

mm(inch)



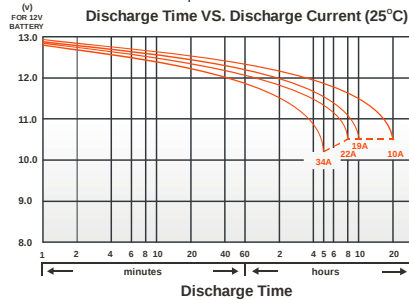
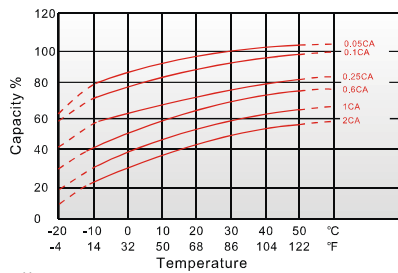
Terminal

F18	
Recommended torque value	M8:12 N-m (122 kgf-cm)
Maximum allowable torque value	M8:20 N-m (204 kgf-cm)

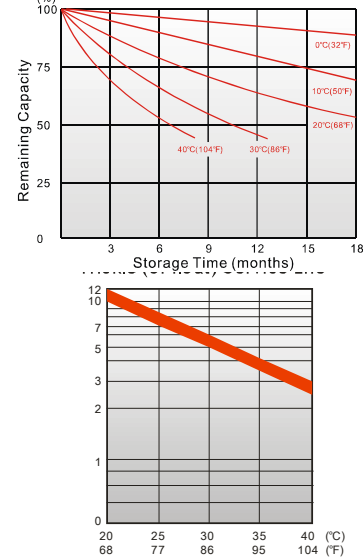
Design Life

Expected Trickle Design Life: 10-12 years at 20°C according to Eurobat.

Effect of Temperature on Capacity 25°C(77°F)



Capacity Retention Characteristic



- PERFORMANCE DATA

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
2	min	988	1063	1138	1213	1288	1360	1430
4	min	900	1010	1065	1120	1170	1215	1260
5	min	870	970	1018	1065	1112	1158	1202
6	min	845	965	1005	1050	1095	1120	1145
8	min	785	875	945	1010	1055	1075	1095
10	min	715	825	885	930	945	960	970
15	min	645	697	737	777	802	815	825
20	min	577	615	640	655	675	690	705
30	min	440	495	508	515	522	527	530
40	min	378	413	432	442	450	452	454
45	min	330	375	386	390	393	395	397
60	min	245	251	256	261	264	267	270
90	min	162	168	174	179	184	189	192
120	min	136	139	142	144	145	147	149
180	min	92.5	98.0	102	106	109	112	114
240	min	74.8	79.7	81.7	82.7	83.0	83.5	83.7
300	min	67.5	74.5	77.4	78.9	80.4	81.9	82.5
480	min	42.5	43.9	45.1	46.1	46.9	47.7	48.5
600	min	38.8	39.8	40.6	41.4	42.2	42.6	43.4
1200	min	21.3	21.8	22.2	22.5	22.8	23.0	23.2

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
2	min	510	625	690	755	810	840	870
4	min	475	570	640	685	730	770	780
5	min	470	535	600	650	690	720	750
6	min	457	519	581	640	665	690	715
8	min	425	475	520	560	600	635	660
10	min	385	430	480	530	555	580	590
15	min	340	380	415	440	465	473	480
20	min	305	335	360	380	395	405	410
30	min	225	255	267	277	287	294	300
40	min	195	213	225	228	231	233	235
45	min	170	188	200	202	203	204	205
60	min	129	140	147	152	157	160	163
90	min	86.5	92.0	97.5	104	107	108	109
120	min	68.2	73.9	78.4	82.6	85.1	87.6	88.8
180	min	49.5	53.0	55.5	57.7	59.2	60.7	61.5
240	min	39.2	42.2	44.4	45.7	46.5	47.3	47.8
300	min	34.6	37.1	37.9	38.3	38.7	39.1	39.3
480	min	23.0	25.5	25.9	26.2	26.5	26.7	26.8
600	min	20.5	20.9	21.1	21.3	21.4	21.5	21.6
1200	min	10.8	11.1	11.3	11.5	11.7	11.8	11.9

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

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

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