

Specifications

Nominal Voltage(V)

12V

Nominal Capacity

20 hour rate	(5A	to	10.50V)	100Ah
10 hour rate	(10A	to	10.80V)	100Ah
5 hour rate	(17A	to	10.20V)	85Ah
1 hour rate	(60A	to	9.60V)	60Ah

Weight

Approx. 31.5kg(69.3Lbs.)

Internal Resistance (at 1KHz)

Approx. 4.5 mΩ

Maximum Discharge Current for

5 seconds: 1200A

Charging Methods at 25°C(77°F)

Cycle use:

Charging Voltage 14.4 to 15.0V

Coefficient -5.0mV/°C/cell

Maximum Charging Current : 30A

Standby use:

Float Charging Voltage 13.5 to 13.8V

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 94%

6 month 85%

Case Material

ABS UL94 HB

Option: Flammability resistance of (UL94 V-0)

Design Life & Standard

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

Terminal

F18

Battery Construction



Dimensions

Length (L) 329.5 $\pm$ 1 (12.97 $\pm$ 0.08)

Width (W) 172.3 $\pm$ 1 (6.78 $\pm$ 0.08)

Height (H) 215 $\pm$ 1 (8.46 $\pm$ 0.08)

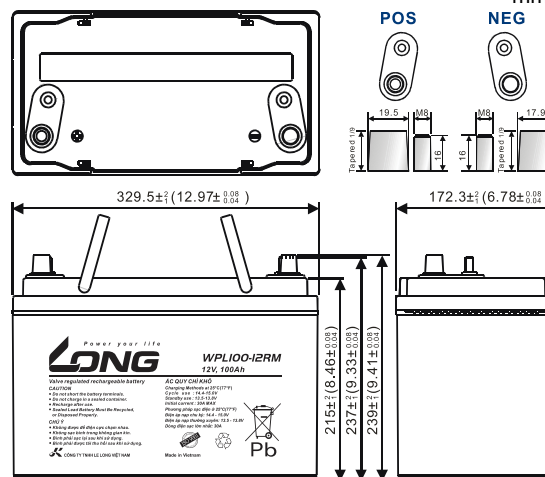
Overall Height (HT) 239 $\pm$ 1 (9.41 $\pm$ 0.08)

Description of torque value of hard ware for the terminals:

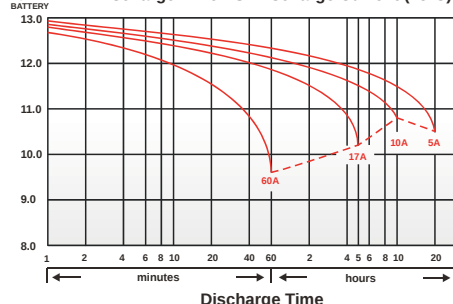
Recommended torque value M8:12 N-m (122kgf-cm)

Maximum allowable torque value M8:20 N-m (204kgf-cm)

mm(inch)

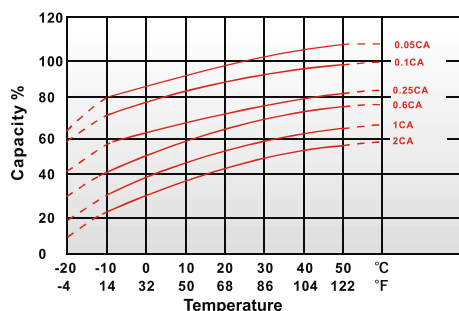


(V) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)

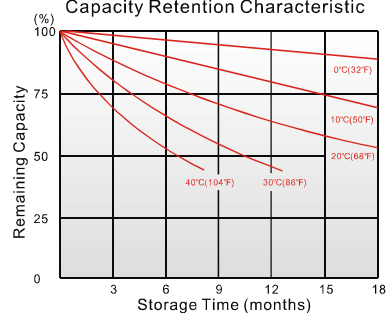


Component	Positive Plate	Negative plate	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	Rubber	SAE auto-posts & M8 Stainless screw	AGM	Sulfuric acid

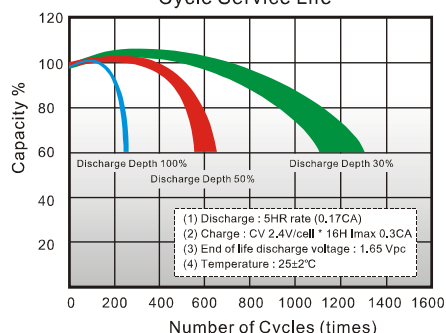
Effect of Temperature on Capacity 25°C (77°F)



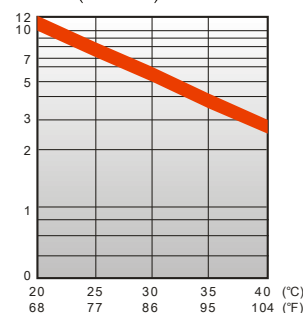
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



- 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	1.65V	1.60V
Time							
10	min	303	358	412	436	461	476
15	min	295	327	340	358	378	385
20	min	246	268	295	308	320	329
30	min	210	220	233	236	239	241
45	min	147	159	167	175	179	182
60	min	128	134	140	143	145	147
90	min	88.9	92.1	94.6	96.7	98.7	100
180	min	50.4	53.7	55.8	57.6	58.6	59.2
300	min	33.8	35.5	37.3	37.7	38.0	38.3
480	min	20.2	22.5	23.2	23.7	24.2	24.4
600	min	19.2	19.9	20.2	20.5	20.8	21.0
1200	min	10.5	10.8	11.1	11.2	11.4	11.6

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.65V	1.60V
Time							
10	min	170	205	235	256	274	287
15	min	163	181	191	200	206	212
20	min	134	147	160	166	174	183
30	min	106	114	118	123	127	132
45	min	82.7	86.1	89.1	91.1	93.1	95.0
60	min	61.0	65.3	69.5	71.7	72.8	73.9
90	min	44.2	47.3	49.4	50.2	50.8	51.3
180	min	28.3	29.1	29.8	30.4	30.7	30.9
300	min	17.1	17.9	18.7	18.9	19.1	19.3
480	min	11.0	11.9	12.3	12.5	12.8	12.9
600	min	9.81	10.1	10.3	10.5	10.7	10.8
1200	min	5.13	5.28	5.42	5.45	5.48	5.50

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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