

### ⚡ 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. 31.3kg(68.9Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 4 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

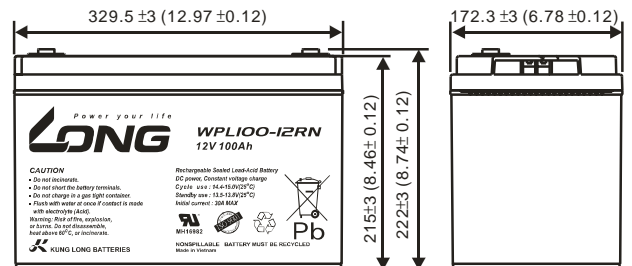
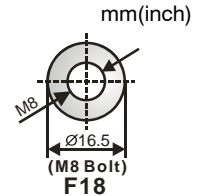
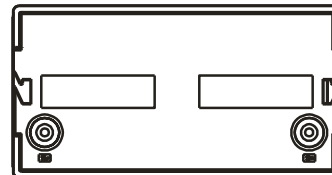


### ⚡ Dimensions

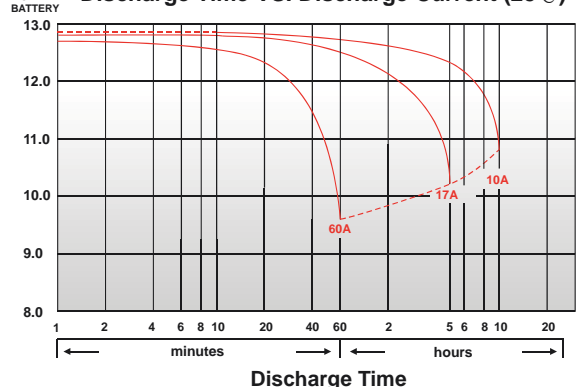
Length (L)	329.5±3 (12.97±0.12)
Width (W)	172.3±3 (6.78±0.12)
Height (H)	215±3 (8.46±0.12)
Overall Height (HT)	222±3 (8.74±0.12)

#### Description of torque value of hard ware for the terminals:

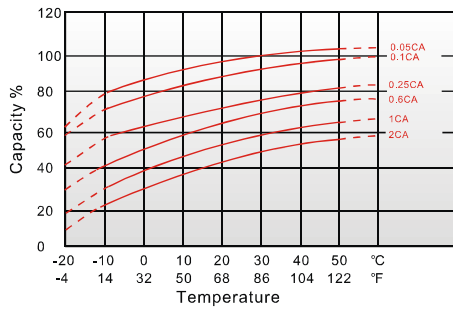
Recommended torque value	M8:12 N-m (122kgf-cm)
Maximum allowable torque value	M8:20 N-m (204kgf-cm)



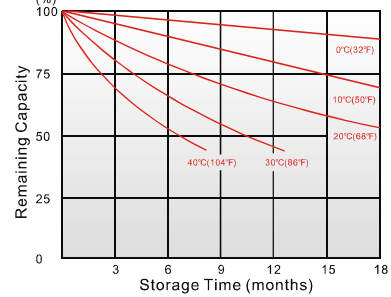
#### (V) Discharge Time VS. Discharge Current (25°C)



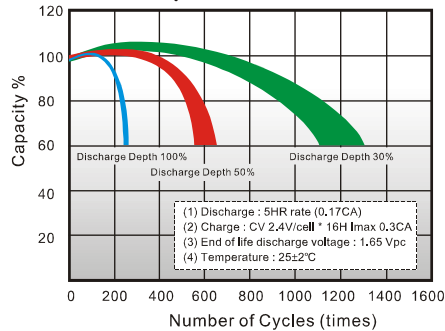
Effect of Temperature on Capacity 25°C(77°F)



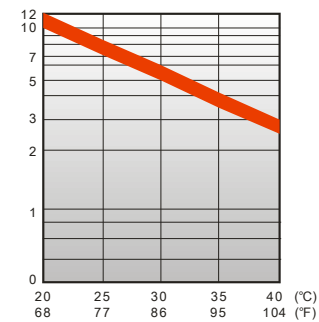
Capacity Retention Characteristic



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%)

240321-1N-V