

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Capacity

10 hour rate	(10A	to	10.80V)	100Ah
5 hour rate	(17A	to	10.20V)	85Ah
1 hour rate	(60A	to	9.60V)	60Ah
1 C	(100A	to	9.60V)	50Ah

#### Weight

Approx. 34.0kg(74.8Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 4.3 mΩ

#### Maximum Discharge Current for

5 seconds: 1000A

#### Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.4 to 14.7V
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	60°C(140°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

12 Years.



### ⚡ Dimensions

**Length (L)** 507±3 (19.96±0.12)

**Width (W)** 106±3 (4.17±0.12)

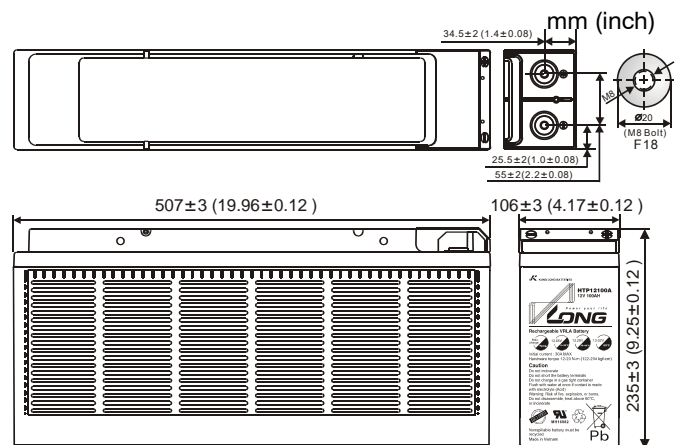
**Height (H)** 235±3 (9.25±0.12)

**Overall Height (HT)** 235±3 (9.25±0.12)

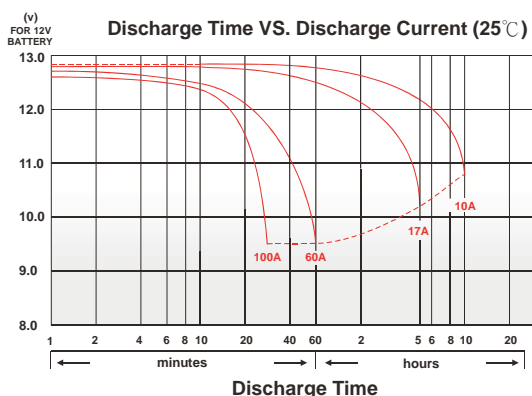
**Terminal** F18

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

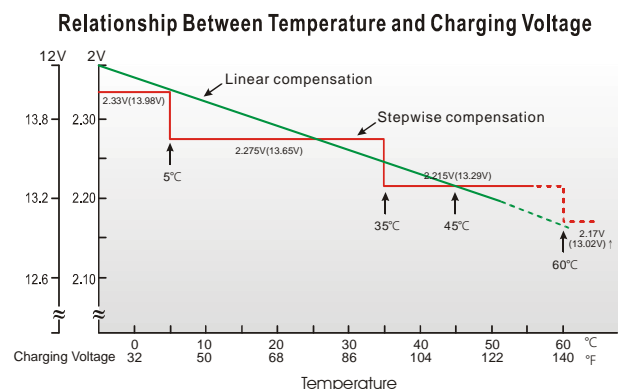
Recommended torque value	M8: 12 N-m (122 kgf-cm)
Maximum allowable torque value	M8: 20 N-m (204 kgf-cm)



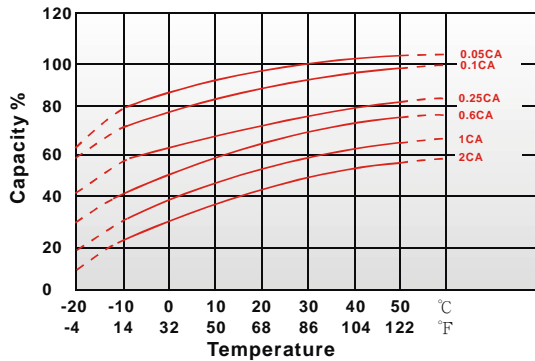
### Discharge Time VS. Discharge Current (25°C)



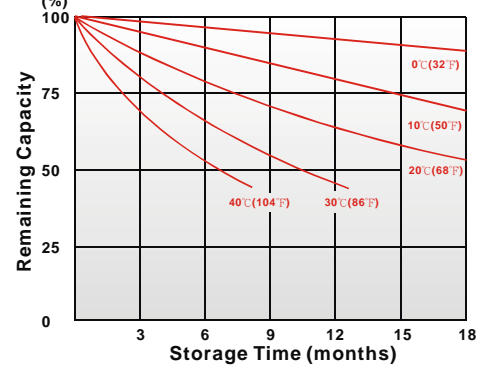
### Relationship Between Temperature and Charging Voltage



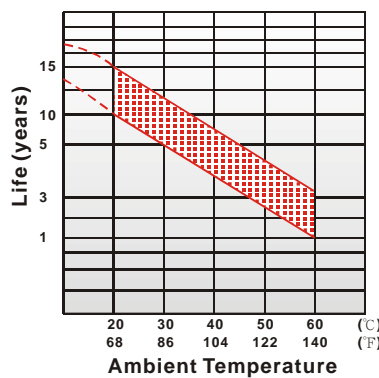
Effect of Temperature on Capacity 25°C(77°F)



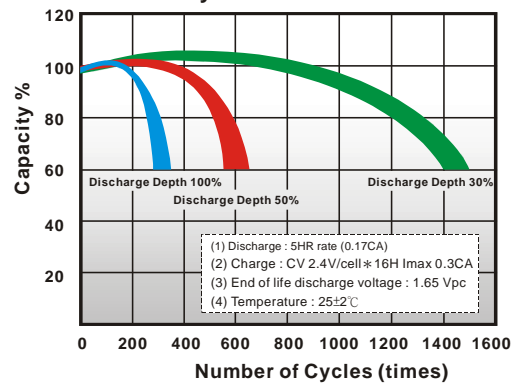
Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle 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	1.67V	1.65V	1.60V
Time								
15	min	268	293	364	369	379	389	392
30	min	171	191	203	215	225	232	242
60	min	114	116	119	121	124	127	129
120	min	59.8	69.9	73.4	75.3	76.7	77.5	78.3
180	min	46.3	48.3	49.8	51.7	52.7	53.7	55.0
240	min	36.0	38.3	40.5	41.3	41.7	42.0	42.3
300	min	26.7	29.5	31.3	31.8	32.7	33.5	34.2
480	min	21.2	21.7	23.0	23.3	24.0	24.5	25.0
600	min	17.5	18.5	19.3	19.8	20.2	20.3	20.5
1200	min	8.7	9.8	10.5	10.7	10.8	10.8	11.0

### - 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								
15	min	135	153	189	190	194	198	202
30	min	100	105	109	112	115	118	125
60	min	60.0	66.0	67.2	68.0	68.9	69.4	70.1
120	min	34.0	36.0	36.6	37.3	37.8	38.5	39.8
180	min	25.0	26.4	26.7	27.0	27.4	27.8	28.2
240	min	18.2	19.1	20.0	20.3	20.5	20.8	21.1
300	min	15.8	16.4	17.0	17.3	17.7	18.0	18.3
480	min	10.5	11.3	11.7	11.9	12.0	12.1	12.2
600	min	9.5	10.0	10.1	10.2	10.3	10.4	10.5
1200	min	4.70	5.00	5.10	5.20	5.20	5.30	5.40

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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