

### ⚡ Specifications

#### Nominal Voltage(V)

12V

#### Nominal Capacity

20 hour rate	(3A	to	10.50V)	60Ah
10 hour rate	(5.7A	to	10.50V)	57Ah
5 hour rate	(10.2A	to	10.20V)	51Ah
1C	(60A	to	9.60V)	38Ah
3C	(180A	to	9.60V)	24Ah

#### Weight

Approx. 20.5kg(45.1Lbs.)

#### Internal Resistance (at 1KHz)

Approx. 6.5 mΩ

#### Maximum Discharge Current for

5 seconds:720A

#### Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient	-5.0mV/°C/cell
Maximum Charging Current :	18A
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	97%
3 month	92%
6 month	85%

#### Case Material

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

#### Design Life & Standard

EUROBAT(20°C) : 10/12 YEARS LONG LIFE

#### Terminal

F8

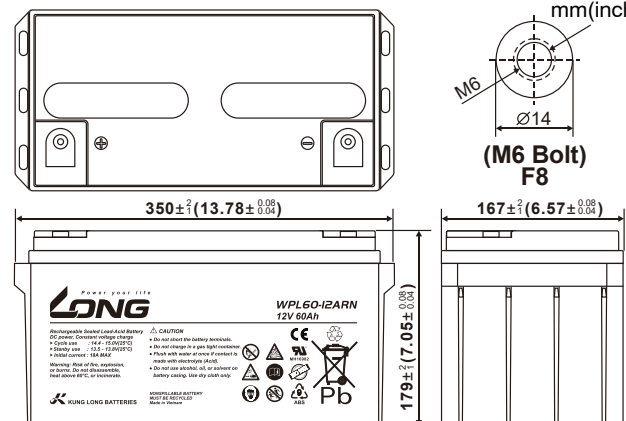


### ⚡ Dimensions

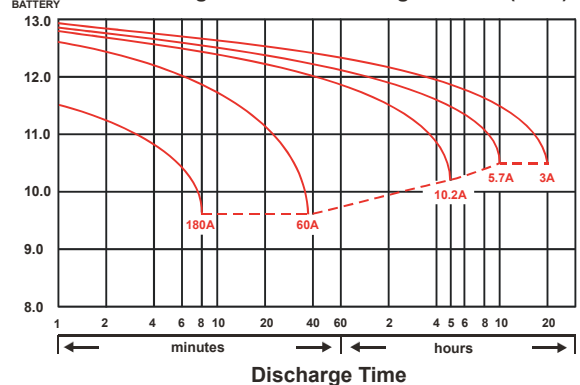
Length (L)	$350 \pm 1^{+2}$ (13.78 ± 0.08 / 0.04)
Width (W)	$167 \pm 1^{+2}$ (6.57 ± 0.08 / 0.04)
Height (H)	$179 \pm 1^{+2}$ (7.05 ± 0.08 / 0.04)
Overall Height (HT)	$179 \pm 1^{+2}$ (7.05 ± 0.08 / 0.04)

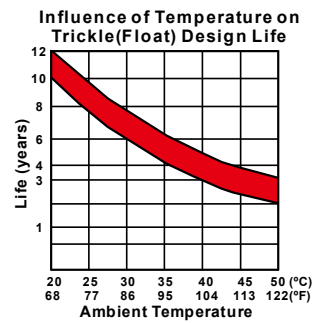
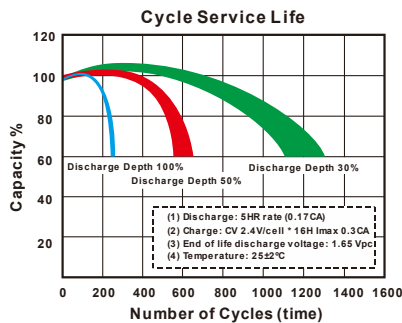
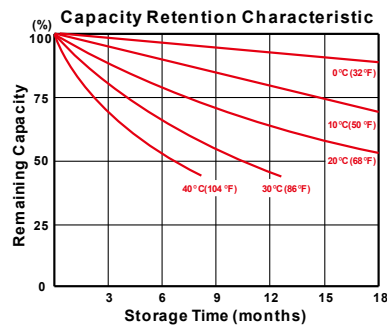
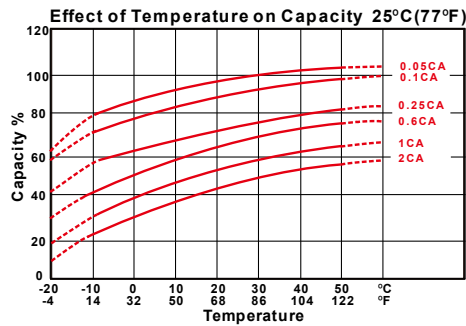
#### Description of torque value of hardware for the terminals:

Recommended torque value	M6:7 N-m (71 kgf-cm)
Maximum allowable torque value	M6:10 N-m (102 kgf-cm)



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





### - 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							
15	min	157	172	184	195	206	217
20	min	147	156	166	173	182	191
30	min	104	120	131	136	140	147
60	min	66.2	73.8	77.5	79.0	81.1	83.4
90	min	45.0	46.7	48.7	51.7	56.7	63.3
120	min	36.2	42.3	46.7	48.4	49.4	50.8
180	min	29.5	33.2	33.7	34.5	35.8	36.8
240	min	20.8	22.0	23.7	24.3	24.8	25.5
300	min	18.8	19.5	20.7	21.0	21.3	21.7
480	min	14.6	15.5	15.7	15.9	16.1	16.2
600	min	12.2	12.9	13.1	13.2	13.4	13.5
1200	min	6.76	6.82	6.87	7.01	7.09	7.12

#### - 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							
15	min	81.8	98.9	108	112	119	125
20	min	69.0	77.9	83.8	86.7	91.2	94.8
30	min	56.2	64.1	66.7	67.5	68.2	70.2
60	min	36.7	37.7	39.5	40.7	42.1	43.7
90	min	25.5	26.6	28.9	29.6	30.4	31.7
120	min	19.9	21.7	22.5	23.0	23.6	24.4
180	min	16.6	17.9	18.3	18.6	19.0	19.3
240	min	11.3	11.9	12.3	12.6	13.0	13.3
300	min	9.59	10.2	10.5	10.8	11.1	11.5
480	min	7.40	7.85	7.98	8.10	8.22	8.30
600	min	6.18	6.32	6.58	6.67	6.81	6.84
1200	min	3.42	3.45	3.48	3.55	3.59	3.61

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%)

140525-1M-V