

⚡ Specifications

Nominal Voltage(V)

12V

Nominal Capacity (at 25°C)

10 hour rate	(10.0A 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. 31kg(±1kg)(68.2Lbs.(±2.2Lbs.))

Internal Resistance (at 20°C)

Approx. 5.5 mΩ

Maximum Discharge Current for (at 20°C)

5 seconds: 600A

Short Circuit Current (A) IEC60896-21-22

2567 A

Charging Methods at 25°C(77°F)

Cycle use:		
Charging Voltage	14.4 to 15.0V	
Coefficient -5.0mV/°C/cell		
Maximum Charging Current :	20~30A	
Standby use:		
Float Charging Voltage	13.5 to 13.8V	
Coefficient -3.0mV/°C/cell		

Operating Temperature Range

Charge	-20°C (-4°F)	to	40°C (104°F)
Discharge	-20°C (-4°F)	to	40°C (104°F)
Storage	-20°C (-4°F)	to	40°C (104°F)

Charge Retention (shelf life) at 80Rh% 25°C

1 month	at	30°C ~ 45°C
3 month	at	25°C ~ 40°C
6 month	at	5°C ~ 20°C
Self-discharge rate ≤ 2% / month		

Case Material

ABS UL94 V-0

Design Life

12 years at 25°C

Terminal

M6

Battery Construction

Component	Positive Plate	Negative plate	Safety valve	Terminal	Separator	Electrolyte
Raw material	Pasted plates made of thick grids with Pb-Ca-Sn Alloy	Pasted plates made of thick grids with Pb-Ca-Sn Alloy	Rubber	Copper Alloy	AGM	Sulfuric acid



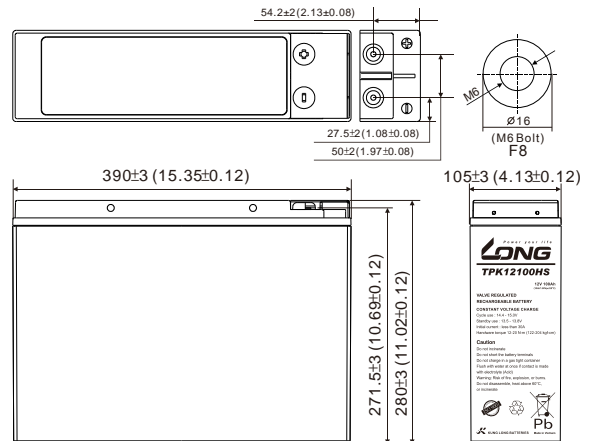
⚡ Dimensions

Length (L)	390±3 (15.35±0.12)
Width (W)	105±3 (4.13±0.12)
Height (H)	280±3 (11.02±0.12)
Overall Height (HT)	280±3 (11.02±0.12)

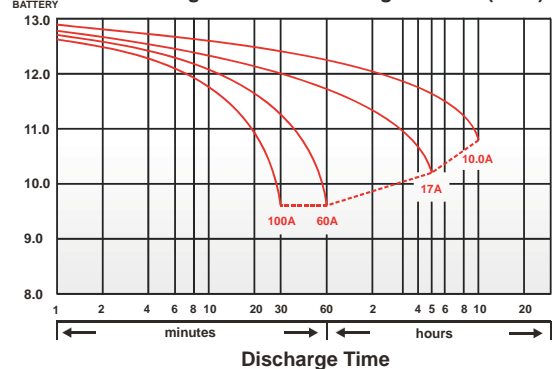
Description of torque value of hard ware for the terminals:

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

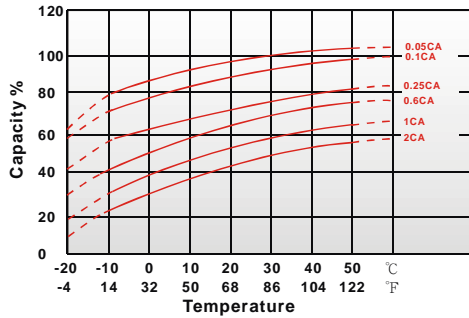
mm(inch)



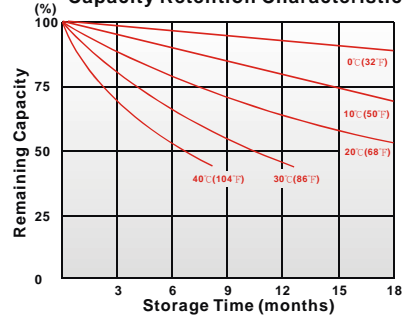
(v) FOR 12V BATTERY Discharge Time VS. Discharge Current (25°C)



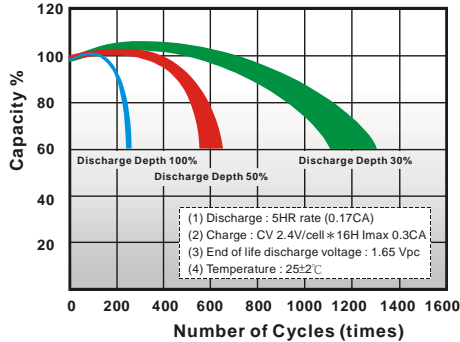
Effect of Temperature on Capacity 25°C (77°F)



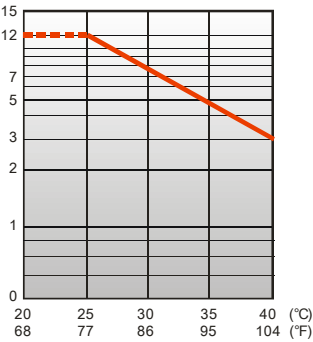
Capacity Retention Characteristic



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	1.67V	1.65V	1.60V
Time								
5	min	417	464	502	532	551	563	572
10	min	331	369	393	411	423	433	440
15	min	265	294	314	329	338	346	352
20	min	235	255	268	273	277	281	284
30	min	190	203	212	216	220	223	225
60	min	116	120	123	126	128	130	132
90	min	77.5	81.7	84.5	86.2	86.7	87.2	87.4
120	min	58.6	66.6	71.9	73.8	75.2	76.0	76.7
180	min	47.1	49.2	51.1	52.6	53.9	55.0	56.0
240	min	36.4	38.8	41.0	41.8	42.2	42.5	42.8
300	min	27.1	30.0	31.8	32.7	33.5	34.2	34.7
480	min	21.5	22.8	23.5	24.0	24.5	25.0	25.4
600	min	17.7	18.7	19.5	20.0	20.4	20.6	20.7
1200	min	8.78	9.96	10.6	10.8	10.9	11.0	11.1

- 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								
5	min	250	265	275	284	290	296	301
10	min	178	197	210	223	236	244	250
15	min	138	160	176	183	188	194	198
20	min	129	145	153	161	169	174	178
30	min	98.5	103	107	110	113	115	116
60	min	52.8	56.8	60.0	60.3	60.5	60.7	60.8
90	min	42.9	43.9	44.8	45.7	46.6	47.4	47.9
120	min	32.9	35.1	36.8	38.0	39.0	39.8	40.5
180	min	24.7	26.0	26.9	27.3	27.7	28.0	28.3
240	min	18.4	19.4	20.0	20.6	21.1	21.6	21.9
300	min	15.9	16.5	17.1	17.5	17.8	18.1	18.4
480	min	10.7	11.5	11.9	12.1	12.2	12.3	12.4
600	min	9.52	10.0	10.2	10.3	10.4	10.5	10.6
1200	min	4.78	5.01	5.12	5.18	5.23	5.28	5.32

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

The tolerance range : X < 6min (+15%~-15%), 6min ≤ X < 10min (+12%~-12%), 10min ≤ X < 60min (+8%~-8%), X ≥ 60min (+5%~-5%)

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