Power your life

Valve Regulated Lead Acid Battery

TPK12100A

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. 30.0kg(66.0 Lbs.)

Internal Resistance (at 1KHz)

Approx. 4.3 mΩ

Maximum Discharge Current for

5 seconds: 1000A

Charging Methods at 25℃(77℉)

Cycle use:

Charging Voltage	14.4 to 15.0V
Coefficient -5.0mV/℃/cell	
Maximum Charging Current：	30A

Standby use:

Float Charging Voltage	13.5 to 13.8V
Coefficient -3.0mV/℃/cell	

Operating Temperature Range

Charge	-15℃(5℉)	to	40℃(104℉)
Discharge	-15℃(5℉)	to	50℃(122℉)
Storage	-15℃(5℉)	to	40℃(104℉)

Charge Retention (shelf life) at 20℃(68℉)

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.

Terminal

F18

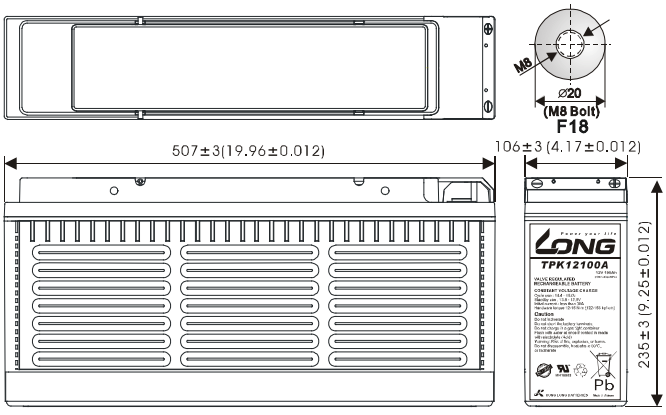
Dimensions

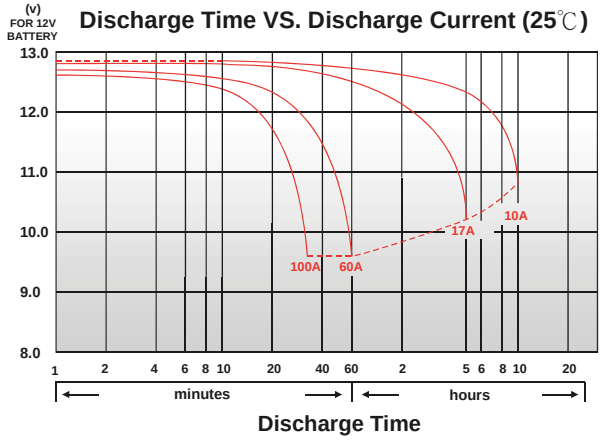
Length (L)	507±3 (19.96±0.12)
Width (W)	106±3 (4.17±0.12)
Height (H)	235±3 (9.25±0.12)
Overall Height (HT)	235±3 (9.25±0.12)

Description of torque value of hard ware for the terminals:

Recommended torque value	M8:12 N-m (122kgf-cm)
Maximum allowable torque value	M8:15 N-m (153kgf-cm)

mm(inch)





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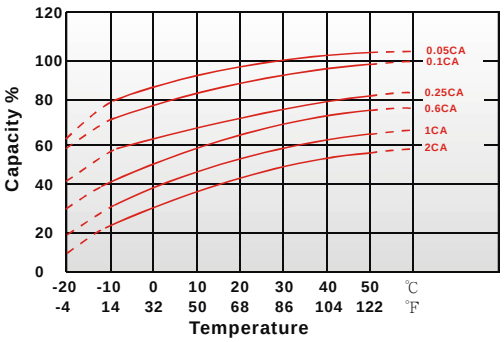
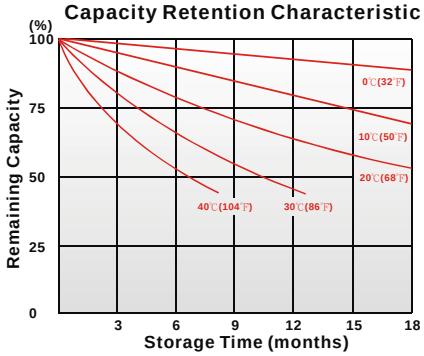
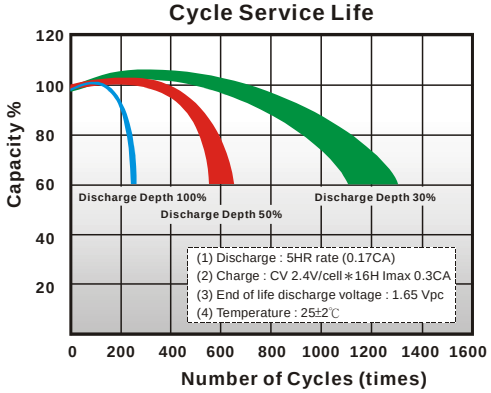
Effect of Temperature on Capacity 25℃(77℉)



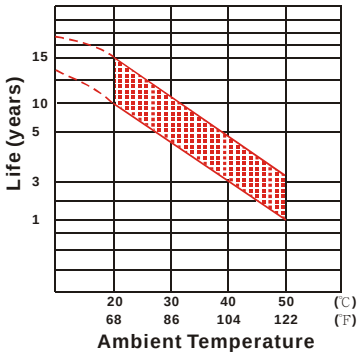
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



- PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25℃(77℉)

Time \ End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
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	8.67	9.83	10.5	10.7	10.8	10.8	11.0

- Discharge Rates in Amperes to Various End Voltages at 25℃(77℉)

Time \ End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
15	min	135	153	189	190	194	198	202
30	min	100	105	109	112	115	118	125
60	min	54.5	60.0	61.5	62.4	63.6	64.3	64.7
120	min	32.2	34.4	36.0	36.8	37.5	38.3	39.7
180	min	24.3	25.1	26.4	26.7	27.0	27.4	27.8
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<6min(+15%~-15%), 6min≦X<10min(+12%~-12%),10min ≦X < 60min(+8% ~-8%), X≧60min(+5%~-5%)

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