



VTM 100A-12

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)	63.33Ah

Weight Approx. 29.5kg(64.9Lbs.)

Internal Resistance (at 1KHz) Approx. 5 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

Design Life 12 years

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

Terminal F8

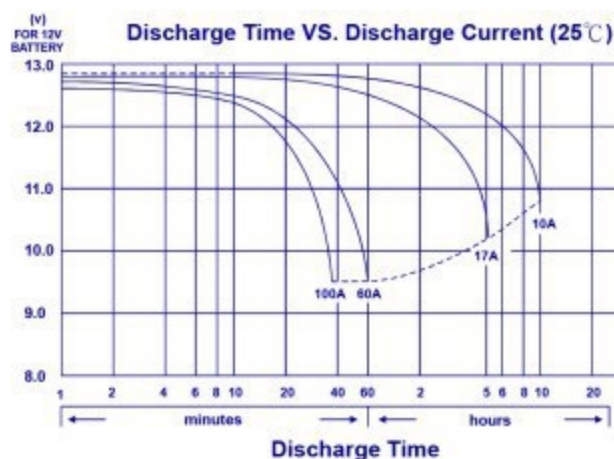
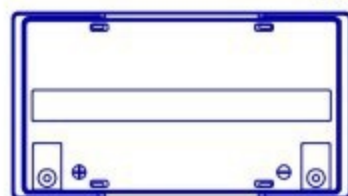
Description of torque value of hard ware for the terminals:

Recommended torque value M6: 7 N-m (71kgf-cm)

Maximum allowable torque value M6: 9 N-m (92kgf-cm)

Dimensions

mm(inch)



- 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	458	512	549	584	600	617	649
10	min	348	380	407	432	443	455	477
15	min	277	301	320	338	346	354	370
30	min	163	174	183	191	195	199	206
60	min	112	116	119	122	123	125	126
120	min	66.3	69.5	72.0	73.5	74.5	75.7	77.2
180	min	47.2	49.7	51.8	52.2	53.0	54.0	55.2
240	min	35.2	37.3	39.3	41.3	42.0	42.8	43.8
300	min	31.3	32.8	34.2	35.2	35.5	36.0	36.7
600	min	18.0	19.2	20.0	20.8	21.2	21.5	21.8
1200	min	10.4	10.7	11.0	11.2	11.3	11.4	11.5

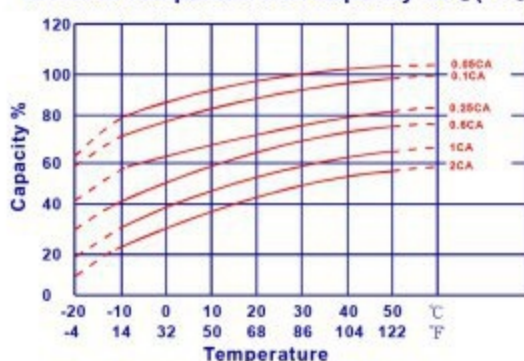
- Discharge Rates in Amperes to Various End Voltages at 25°C (77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	202	267	305	336	346	358	375
10	min	159	188	209	226	234	243	257
15	min	119	146	165	179	184	190	198
30	min	71.2	83.7	92.1	101	103	106	111
60	min	43.6	50.8	56.5	60.6	61.5	63.0	64.9
120	min	25.8	29.3	32.5	35.6	36.4	37.3	38.5
180	min	22.6	23.7	24.8	25.7	26.1	26.5	27.2
240	min	18.3	19.1	19.8	20.5	20.8	21.1	21.6
300	min	16.1	16.7	17.2	17.6	17.8	17.9	18.1
600	min	9.71	10.0	10.2	10.4	10.5	10.6	10.7
1200	min	5.09	5.26	5.38	5.48	5.53	5.57	5.64

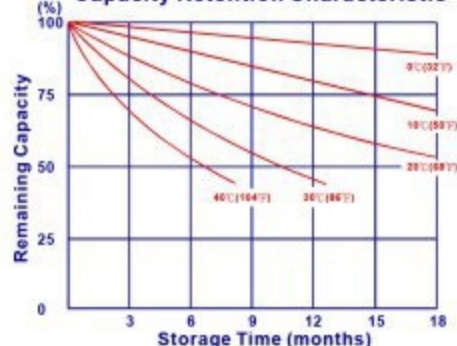
All data on the spec. sheet is an average value:

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%)

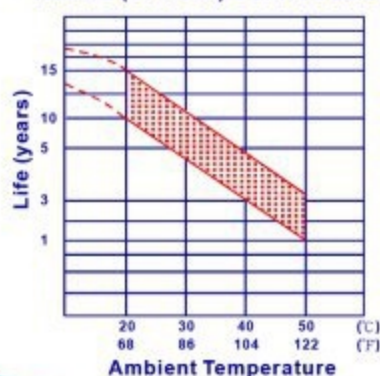
Effect of Temperature on Capacity 25°C (77°F)



Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life

