

VTM 1.2A-12

Specifications



Nominal Voltage(V) 12V

Nominal Capacity

20 hour rate	(0.06A	to	10.50V)	1.2Ah
10 hour rate	(0.114A	to	10.50V)	1.14Ah
5 hour rate	(0.204A	to	10.20V)	1.02Ah
1 C	(1.2A	to	9.60V)	0.68Ah
3 C	(3.6A	to	9.60V)	0.48Ah

Weight Approx. 564g(1.24Lbs.)

Internal Resistance (at 1KHz) Approx. 75.4 mΩ

Maximum Discharge Current for
5 seconds: 18A

Charging Methods at 25°C(77°F)

Cycle use:	
Charging Voltage	14.4 to 15.0V
Coefficient -5.0mV/°C/cell	
Maximum Charging Current :	0.36A
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)

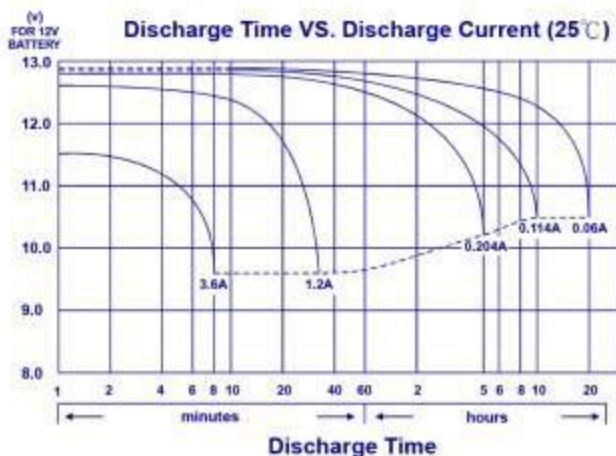
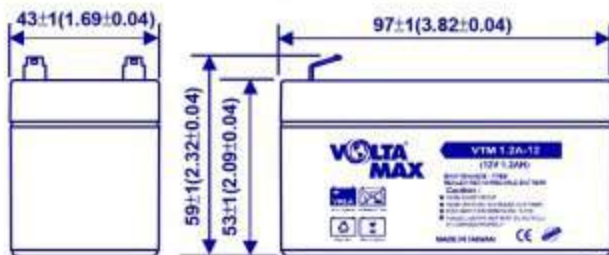
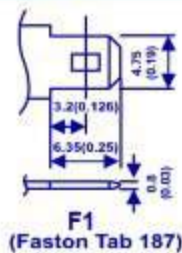
Charge Retention (shelf life) at 20°C(68°F)

1 month	92%
3 month	90%
6 month	80%

Case Material ABS UL94 HB

Terminal F1 (Faston Tab 187)

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	7.18	7.82	8.27	8.65	8.80	8.98	9.28
10	min	4.62	5.00	5.30	5.52	5.58	5.67	5.77
15	min	3.65	3.87	4.05	4.20	4.25	4.32	4.38
30	min	2.15	2.25	2.32	2.37	2.38	2.42	2.45
60	min	1.32	1.39	1.43	1.47	1.48	1.50	1.52
120	min	0.747	0.808	0.847	0.875	0.887	0.900	0.915
180	min	0.533	0.573	0.602	0.623	0.633	0.645	0.657
240	min	0.435	0.470	0.495	0.513	0.520	0.528	0.537
300	min	0.420	0.442	0.457	0.468	0.472	0.477	0.482
600	min	0.220	0.233	0.243	0.250	0.252	0.255	0.258
1200	min	0.123	0.126	0.129	0.130	0.131	0.131	0.132

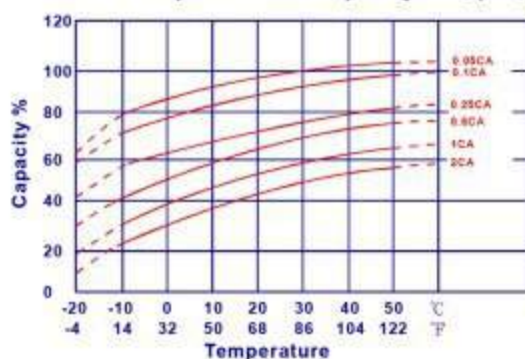
- Discharge Rates in Amperes to Various End Voltages at 25°C (77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
5	min	3.49	4.11	4.57	4.94	5.09	5.26	5.51
10	min	2.12	2.43	2.63	2.81	2.88	2.96	3.11
15	min	1.71	1.95	2.09	2.20	2.24	2.29	2.35
30	min	0.931	1.06	1.17	1.24	1.26	1.29	1.32
60	min	0.680	0.716	0.735	0.759	0.765	0.772	0.779
120	min	0.392	0.415	0.429	0.440	0.444	0.449	0.456
180	min	0.272	0.291	0.302	0.311	0.314	0.318	0.324
240	min	0.223	0.238	0.247	0.254	0.257	0.260	0.264
300	min	0.207	0.219	0.226	0.231	0.233	0.236	0.238
600	min	0.112	0.117	0.121	0.124	0.125	0.126	0.127
1200	min	0.0615	0.0624	0.0631	0.0637	0.0639	0.0642	0.0646

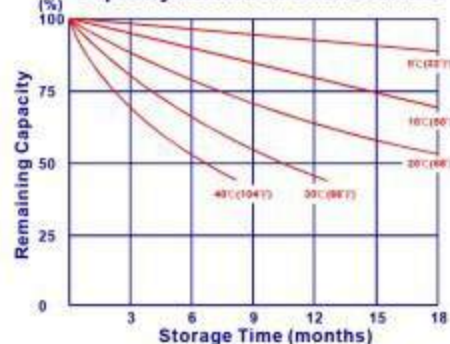
All data on the spec. sheet is an average value:

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%)

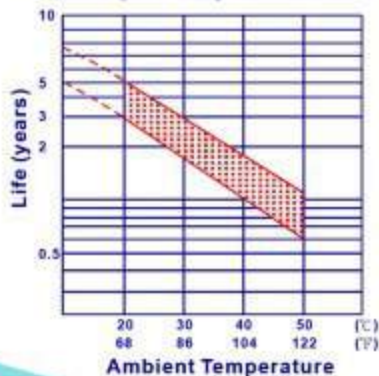
Effect of Temperature on Capacity 25°C (77°F)



Capacity Retention Characteristic



Trickle (or float) Service Life



Cycle Service Life

