

VTM SERIES-General Purpose

VTM 2-100 (2V100AH)

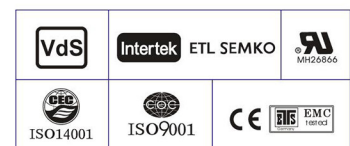
Specification

Nominal Voltage	2V
Nominal Capacity(10HR)	100.0AH
Dimension	Length 170±2mm (6.69 inches)
	Width 72±2mm (2.83 inches)
	Container Height 205±2mm (8.07 inches)
	Total Height (with Terminal) 212±2mm (8.35 inches)
Approx Weight	Approx 6.0 kg (13.2lbs)
Terminal	T6
Container Material	ABS
Rated Capacity	105.0 AH/5.25A (20hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/10.0A (10hr, 1.80V/cell, 25°C/77°F)
	85.5 AH/17.1A (5hr, 1.75V/cell, 25°C/77°F)
	75.0 AH/25.0A (3hr, 1.75V/cell, 25°C/77°F)
	60.0 AH/60.0A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	800A (5s)
Internal Resistance	Approx 1.4mΩ
Operating Temp. Range	Discharge : -15~50°C (5~122°F)
	Charge : 0~40°C (32~104°F)
	Storage : -15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 30.0A. Voltage 2.4V~2.5V at 25°C(77°F)Temp. Coefficient -5mV/°C
	No limit on Initial Charging Current Voltage 2.25V~2.3V at 25°C(77°F)Temp. Coefficient -3mV/°C
Standby Use	
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%



Applications

- ♦ Tele-communication central station (wired or cellular)
- ♦ Power system communication, military communication, etc.
- ♦ Network communication including: data transmission, television signal transmission, etc.
- ♦ Uninterruptable Power System (UPS- for Telecom)



Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	116.7	102.8	90.4	80.0	66.9	54.3	44.3	29.7	22.7	18.3	15.7	13.8	11.2	9.55	5.07
1.80V/cell	142.0	120.3	103.0	89.7	73.5	58.4	47.2	31.3	24.6	18.9	16.3	14.4	11.7	10.0	5.25
1.75V/cell	166.0	137.9	116.5	99.4	79.9	63.2	50.8	33.2	25.0	20.0	17.1	15.1	12.0	10.2	5.32
1.70V/cell	189.9	155.8	128.8	109.3	86.8	67.5	53.8	35.0	26.1	20.8	17.8	15.6	12.4	10.5	5.43
1.65V/cell	203.9	166.6	137.0	115.5	91.0	70.2	55.9	36.2	26.9	21.4	18.3	15.9	12.6	10.6	5.52
1.60V/cell	236.5	188.7	154.0	128.8	99.5	75.9	60.0	38.0	28.1	22.3	19.1	16.6	13.1	11.0	5.69

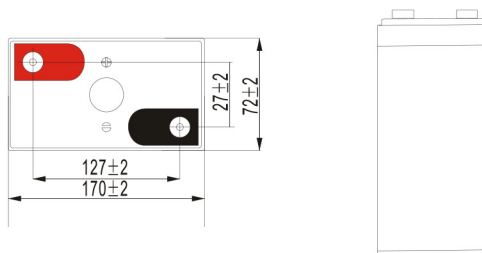
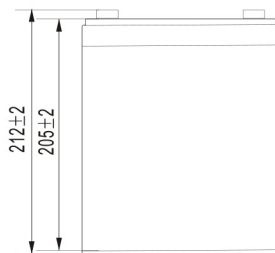
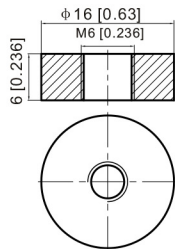
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	214.5	190.9	169.5	151.6	128.1	104.9	85.9	58.0	44.5	36.0	30.9	27.2	22.2	19.0	10.1
1.80V/cell	258.3	220.8	190.6	167.4	138.6	112.0	91.1	60.6	47.9	37.0	32.0	28.3	23.2	19.9	10.4
1.75V/cell	295.5	249.0	213.0	183.8	149.5	120.0	97.5	64.0	48.5	38.9	33.4	29.5	23.7	20.2	10.6
1.70V/cell	328.8	275.1	232.2	200.6	161.6	127.7	102.9	67.5	50.6	40.4	34.7	30.5	24.5	20.7	10.8
1.65V/cell	348.1	291.4	245.1	210.4	167.9	131.6	106.2	69.3	51.9	41.5	35.5	31.0	24.8	21.0	10.9
1.60V/cell	394.4	322.6	271.0	232.1	182.4	141.6	113.4	72.4	53.9	43.1	37.1	32.3	25.7	21.7	11.3

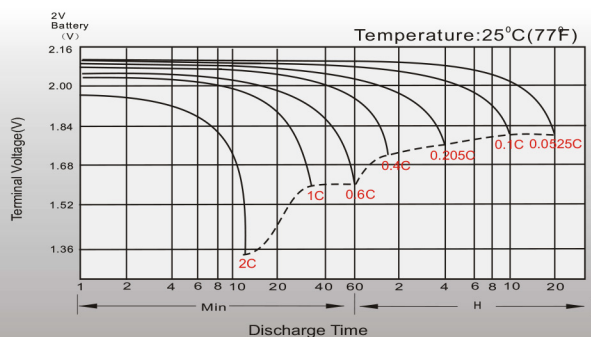
Dimensions

T6 Terminal

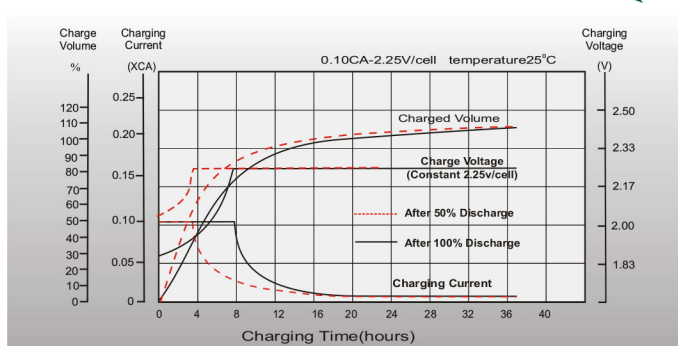
Unit: mm [inches]



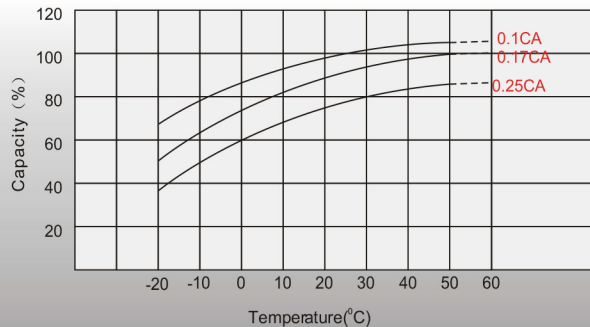
Discharge Characteristics



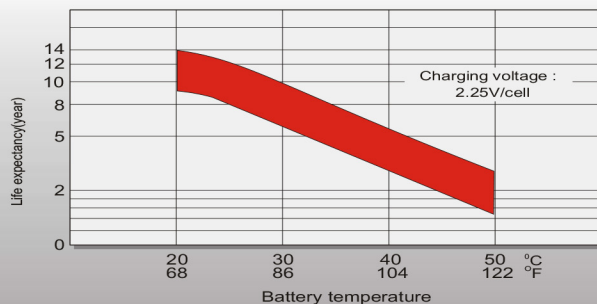
Float Charging Characteristics



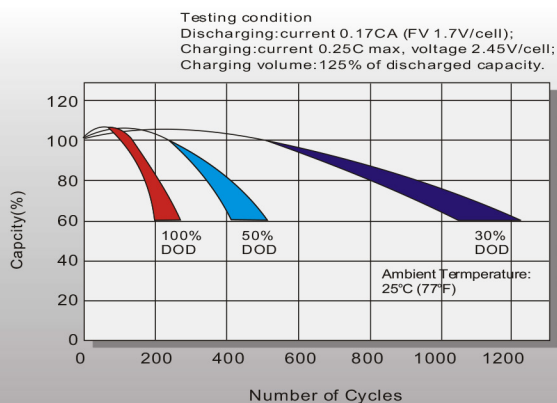
Temperature Effects in Relation to Battery Capacity



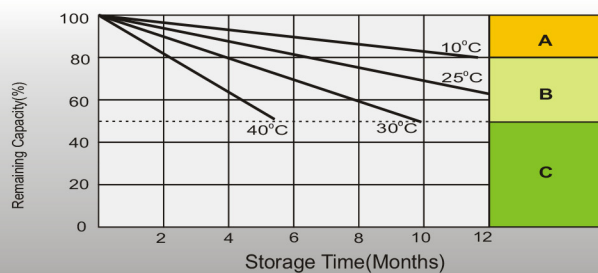
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA.

C Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.