

VTM SERIES-General Purpose

VTM 2-150 (2V150AH)

Specification

Nominal Voltage	2V	
Nominal Capacity(10HR)	150.0AH	
Dimension	Length	170±2mm (6.69 inches)
	Width	98±2mm (3.86 inches)
	Container Height	205±2mm (8.07 inches)
	Total Height (with Terminal)	212±2mm (8.35 inches)
	Approx Weight	Approx 8.5 kg (18.74lbs)
Terminal	T7	
Container Material	ABS	
Rated Capacity	157.6 AH/7.88A	(20hr ,1.80V/cell,25°C/77°F)
	150.0 AH/15.0A	(10hr,1.80V/cell,25°C/77°F)
	128.5 AH/25.7A	(5hr,1.75V/cell,25°C/77°F)
	117.6 AH/39.2A	(3hr,1.75V/cell,25°C/77°F)
	90.0 AH/90.0A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 1.1mΩ	
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 45.0A.Voltage	
	2.4V~2.5V at 25°C(77°F)Temp. Coefficient -5mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	2.25V~2.3V at 25°C(77°F)Temp. Coefficient -3mV/°C	
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	175.0	154.2	135.5	120.0	100.3	81.4	66.5	44.6	34.1	27.5	23.5	20.7	16.8	14.3	7.60
1.80V/cell	213.0	180.4	154.5	134.5	110.2	87.6	70.8	46.9	36.9	28.4	24.5	21.6	17.6	15.0	7.88
1.75V/cell	249.0	206.8	174.7	149.0	119.9	94.8	76.2	49.7	37.5	30.0	25.7	22.6	18.0	15.3	7.98
1.70V/cell	284.9	233.7	193.1	163.9	130.2	101.3	80.7	52.5	39.2	31.2	26.7	23.4	18.6	15.7	8.15
1.65V/cell	305.9	249.9	205.5	173.2	136.5	105.3	83.8	54.2	40.4	32.1	27.4	23.8	18.9	15.9	8.28
1.60V/cell	354.7	283.0	231.0	193.1	149.3	113.9	90.0	56.9	42.1	33.5	28.7	24.9	19.7	16.4	8.54

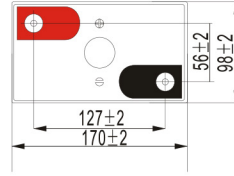
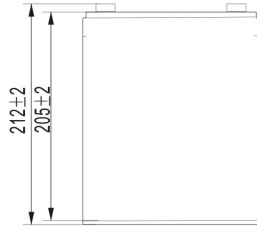
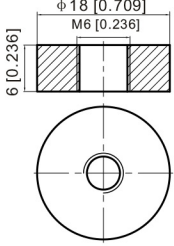
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	321.7	286.4	254.3	227.4	192.1	157.4	128.9	87.0	66.7	53.9	46.3	40.9	33.3	28.5	15.1
1.80V/cell	387.4	331.2	285.9	251.1	207.9	167.9	136.6	90.9	71.9	55.5	48.0	42.4	34.8	29.8	15.7
1.75V/cell	443.2	373.5	319.5	275.6	224.3	180.0	146.3	96.1	72.8	58.4	50.1	44.3	35.6	30.3	15.8
1.70V/cell	493.2	412.7	348.2	300.9	242.4	191.6	154.4	101.2	75.8	60.7	52.1	45.8	36.7	31.1	16.2
1.65V/cell	522.1	437.2	367.7	315.6	251.9	197.4	159.3	103.9	77.9	62.3	53.3	46.5	37.3	31.5	16.4
1.60V/cell	591.6	483.9	406.5	348.1	273.6	212.4	170.1	108.6	80.8	64.7	55.6	48.4	38.6	32.5	16.9

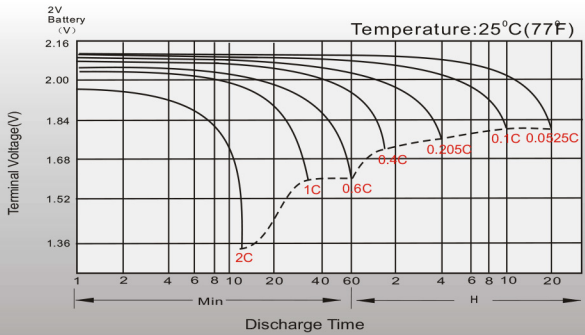
Dimensions

T7 Terminal

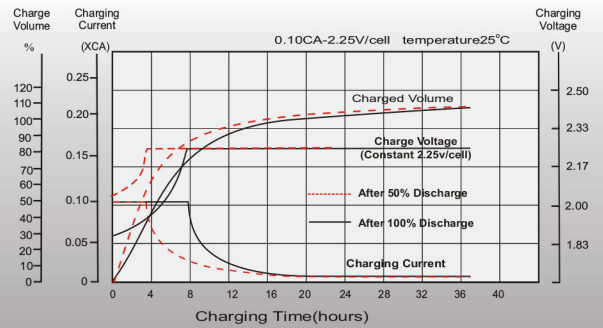
Unit: mm [inches]



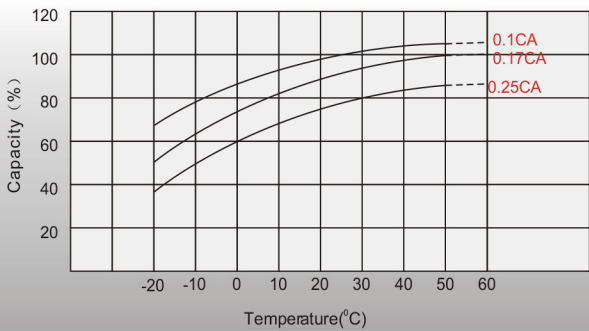
Discharge Characteristics



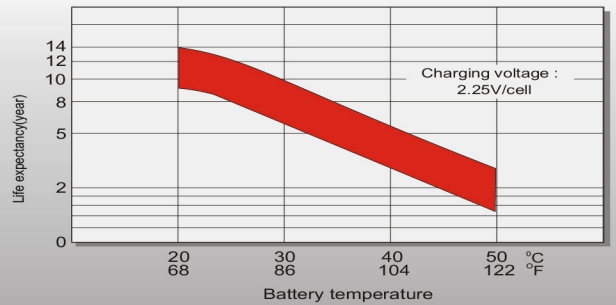
Float Charging Characteristics



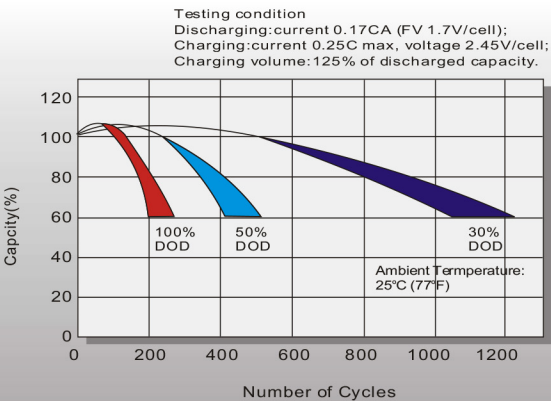
Temperature Effects in Relation to Battery Capacity



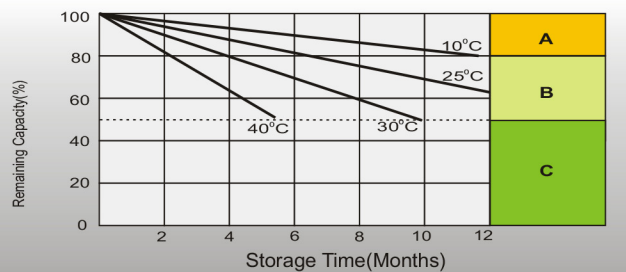
Effect of Temperature on Long Term Float Life



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.)
- B** 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.