

VTM SERIES-General Purpose

VTM12-200 (12V200AH)

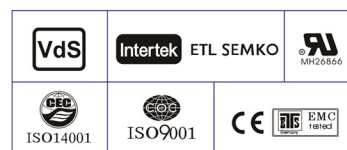
Specification

Nominal Voltage	12V
Nominal Capacity(10HR)	200.0AH
Dimension	Length 522±3mm (20.55 inches)
	Width 240±2mm (9.45 inches)
	Container Height 218±2mm (8.58 inches)
	Total Height (with Terminal) 224±2mm (8.81 inches)
Approx Weight	Approx 61.0 kg (134.5lbs)
Terminal	T11
Container Material	ABS
Rated Capacity	208.0 AH/10.4A (20hr, 1.80V/cell, 25°C/77°F)
	200.0 AH/20.0A (10hr, 1.80V/cell, 25°C/77°F)
	172.5 AH/34.5A (5hr, 1.75V/cell, 25°C/77°F)
	156.0 AH/52.0A (3hr, 1.75V/cell, 25°C/77°F)
	122.0 AH/122.0A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	2000A (5s)
Internal Resistance	Approx 2.7mΩ
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 60.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Standby Use	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Capacity affected by Temperature	



Applications

- ♦ All purpose
- ♦ Uninterruptable Power Supply (UPS)
- ♦ Electric Power System (EPS)
- ♦ Emergency backup power supply
- ♦ Emergency light
- ♦ Railway signal
- ♦ Aircraft signal
- ♦ Alarm and security system
- ♦ Electronic apparatus and equipment
- ♦ Communication power supply
- ♦ DC power supply
- ♦ Auto control system



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	342.3	278.4	240.0	204.6	154.8	115.1	94.3	60.1	46.2	37.6	31.3	27.2	22.1	18.9	10.3
1.80V/cell	459.5	343.9	282.4	235.8	179.5	133.9	105.6	65.5	50.6	40.6	33.6	29.2	23.4	20.0	10.4
1.75V/cell	\	377.8	302.0	250.2	189.2	139.0	110.5	68.0	52.0	41.7	34.5	30.0	23.8	20.2	10.5
1.70V/cell	\	411.8	322.5	264.0	196.4	144.5	114.0	70.7	53.5	42.7	35.3	30.6	24.2	20.4	10.7
1.65V/cell	\	444.4	342.9	281.4	204.6	148.1	117.8	72.7	55.8	44.2	36.3	31.3	24.7	20.8	10.8
1.60V/cell	\	476.4	366.7	297.6	216.0	154.4	122.0	75.1	57.5	45.5	37.3	32.0	25.1	21.0	10.9

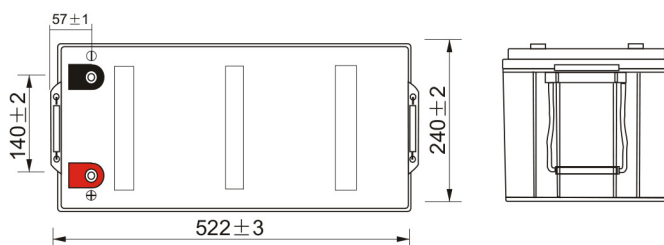
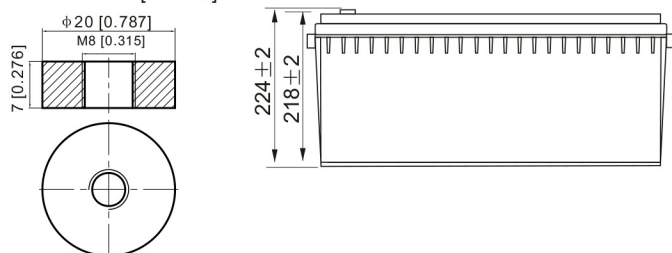
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	625.9	514.3	447.8	385.7	295.0	221.3	181.9	116.6	90.1	73.4	61.3	53.5	43.6	37.4	20.4
1.80V/cell	831.2	627.7	519.9	438.0	336.9	255.4	202.6	126.4	98.1	78.9	65.5	57.2	46.1	39.5	20.6
1.75V/cell	\	678.7	549.2	460.2	352.2	262.5	211.0	130.6	100.5	80.7	67.2	58.6	46.8	39.9	20.7
1.70V/cell	\	723.0	578.2	482.0	363.5	272.0	217.0	135.6	103.1	82.6	68.6	59.7	47.4	40.2	21.1
1.65V/cell	\	773.1	610.1	509.9	375.7	276.3	222.7	138.5	107.0	85.1	70.2	60.8	48.4	41.0	21.4
1.60V/cell	\	809.8	641.7	533.4	393.8	286.4	229.4	142.5	109.8	87.3	72.0	61.9	49.0	41.4	21.5

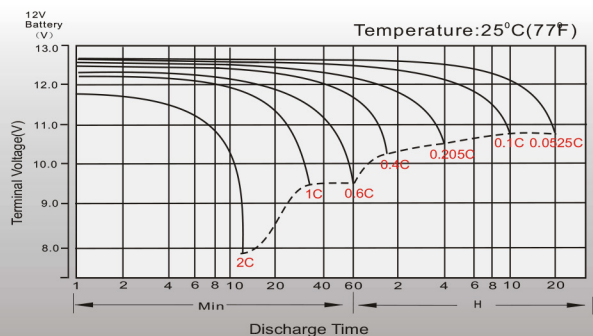
Dimensions

T11 Terminal

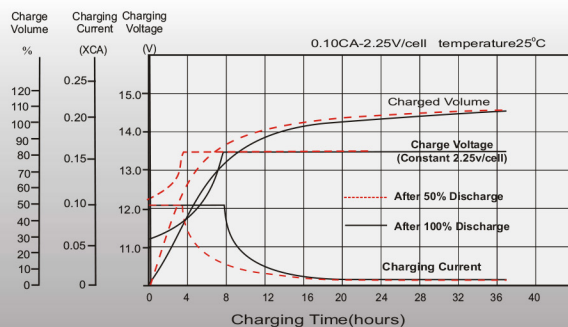
Unit: mm [inches]



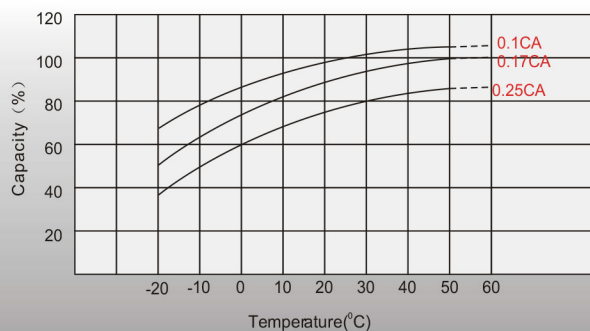
Discharge Characteristics



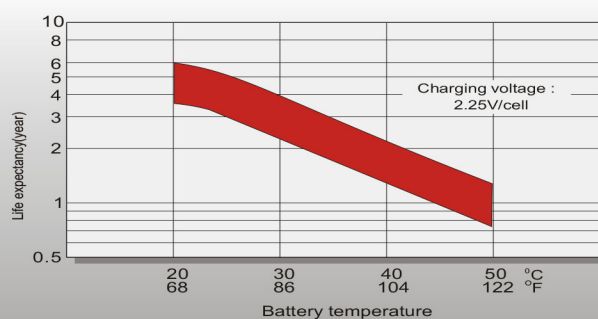
Float Charging Characteristics



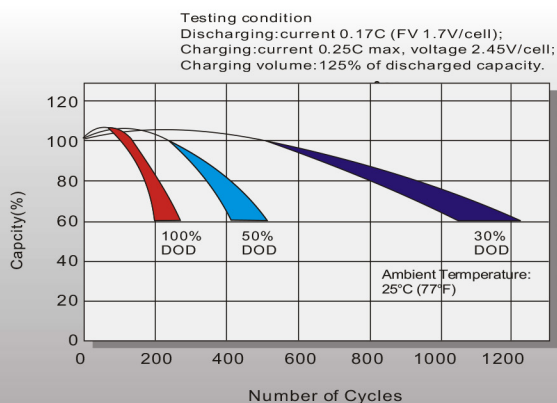
Temperature Effects in Relation to Battery Capacity



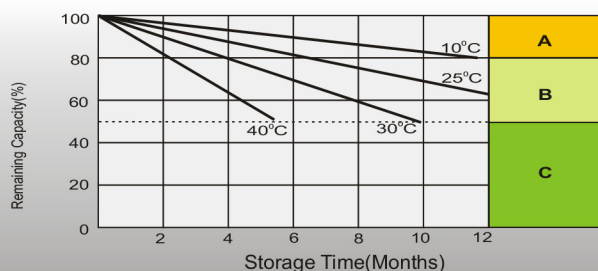
Effect of Temperature on Long Term Float Life



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.