

VTM SERIES-General Purpose

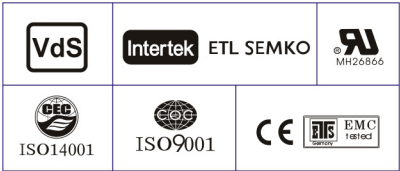
VTM 12-150 (12V150AH)

Specification	
Nominal Voltage	12V
Nominal Capacity(10HR)	150.0AH
Dimension	Length485±3mm (19.09 inches)
	Width170±2mm (6.69 inches)
	Container Height240±2mm (9.45 inches)
	Total Height (with Terminal)240±2mm (9.45 inches)
Approx Weight	Approx 42.5 kg (93.7lbs)
Terminal	T11
Container Material	ABS
Rated Capacity	156.0 AH/7.80A(20hr ,1.80V/cell,25°C/77°F)
	150.0 AH/15.0A(10hr,1.80V/cell,25°C/77°F)
	130.5 AH/26.1A(5hr,1.75V/cell,25°C/77°F)
	115.2 AH/38.4A(3hr,1.75V/cell,25°C/77°F)
	93.9 AH/93.9A(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	1500A (5s)
Internal Resistance	Approx 3.5mΩ
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.Voltage14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40° C (104°F)103%
	25° C (77°F)100%
	0° C (32°F)86%



Applications

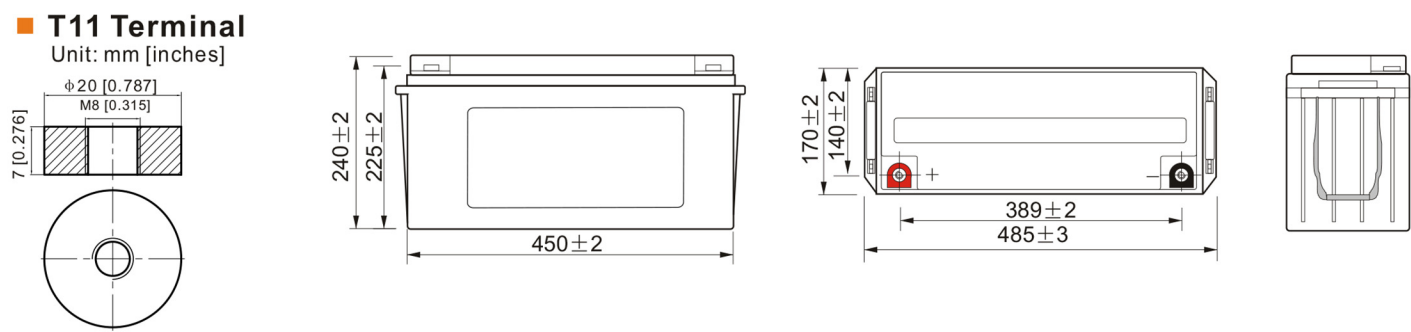
- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
-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



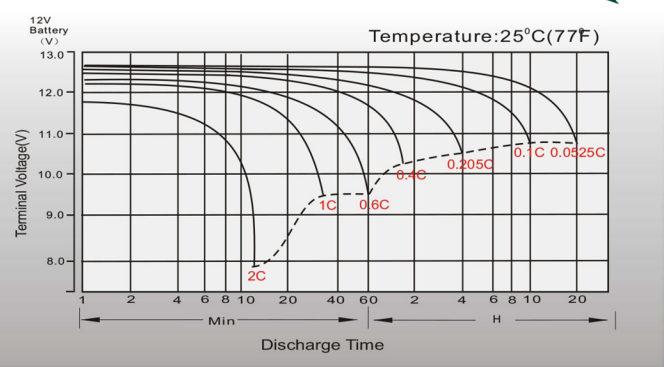
Constant Current Discharge (Amperes) at 25 °C (77°F)															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	259.2	211.5	185.4	156.6	118.5	90.2	74.3	46.5	35.1	28.8	24.4	21.3	17.1	14.4	7.69
1.80V/cell	311.4	243.0	205.8	171.9	129.9	97.4	79.2	49.2	37.6	30.4	25.6	22.3	17.8	15.0	7.80
1.75V/cell	365.4	267.3	223.2	184.5	137.7	102.4	83.1	51.0	38.4	31.0	26.1	22.7	18.1	15.2	7.94
1.70V/cell	401.4	291.6	238.8	198.9	146.7	107.4	86.7	53.0	39.7	31.8	26.6	23.1	18.4	15.3	8.01
1.65V/cell	435.6	315.0	254.4	210.6	154.2	112.2	90.0	54.5	40.7	32.6	27.2	23.5	18.6	15.5	8.09
1.60V/cell	477.0	339.3	269.4	223.2	162.3	117.6	93.9	56.3	41.7	33.3	27.7	23.9	18.9	15.7	8.18

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	473.9	390.7	346.0	295.2	225.9	173.4	143.2	90.3	68.3	56.3	47.9	41.8	33.7	28.5	15.2
1.80V/cell	563.3	443.6	378.9	319.3	243.8	185.8	152.0	94.8	72.8	59.1	49.9	43.6	35.1	29.6	15.4
1.75V/cell	646.9	480.1	405.8	339.4	256.3	193.4	158.7	98.0	74.0	60.1	50.9	44.2	35.5	29.9	15.7
1.70V/cell	690.9	511.9	428.2	363.1	271.5	202.1	165.1	101.7	76.4	61.4	51.7	44.9	36.0	30.2	15.8
1.65V/cell	739.2	547.9	452.6	381.6	283.1	209.3	170.1	103.9	78.0	62.8	52.6	45.6	36.5	30.5	16.0
1.60V/cell	790.7	576.7	471.4	400.0	295.9	218.1	176.5	106.9	79.6	64.0	53.4	46.3	36.8	30.8	16.1

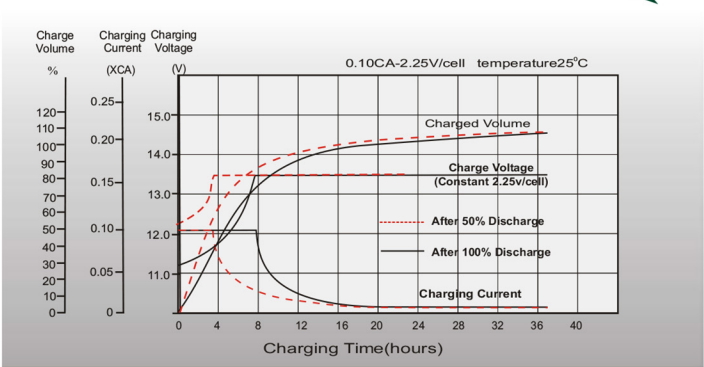
Dimensions



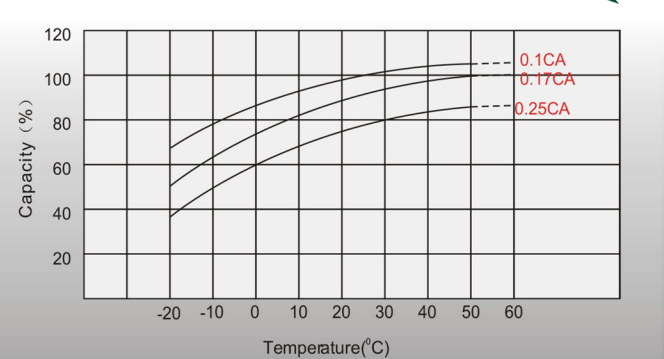
Discharge Characteristics



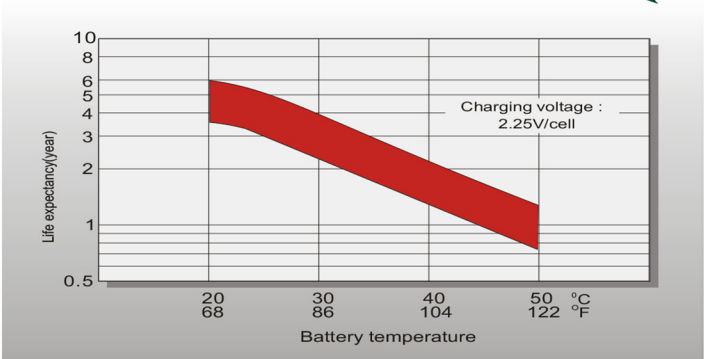
Float Charging Characteristics



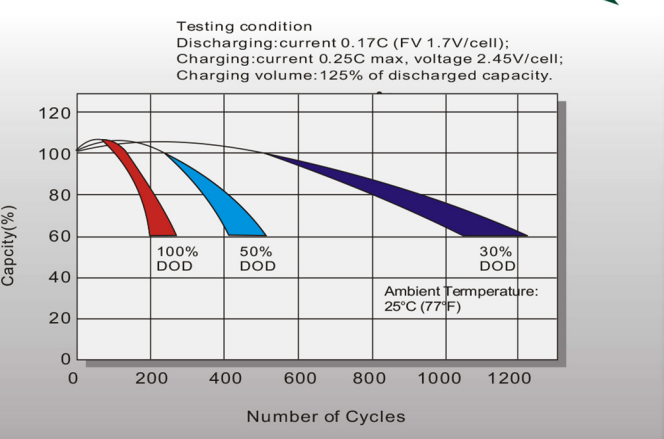
Temperature Effects in Relation to Battery Capacity



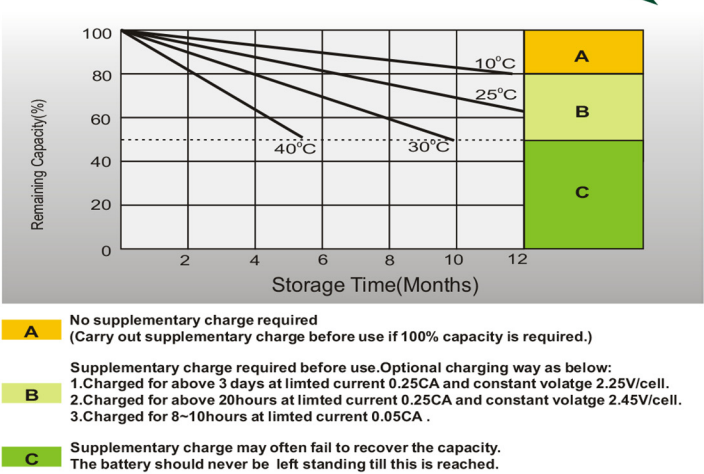
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge

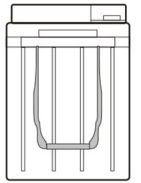
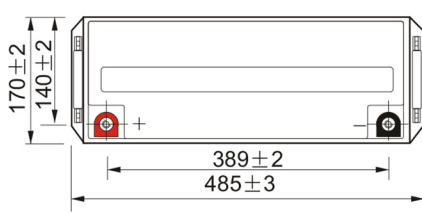
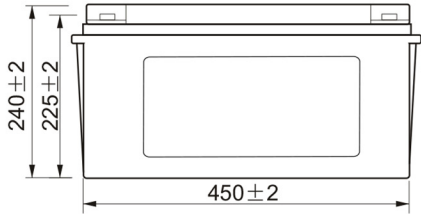
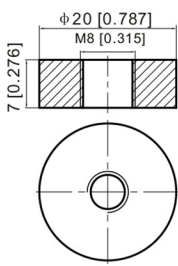


Self Discharge Characteristics

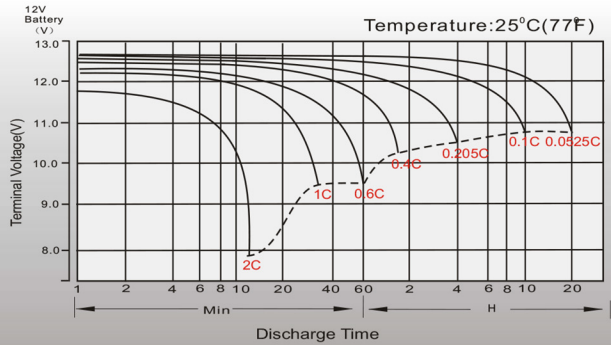


T11 Terminal

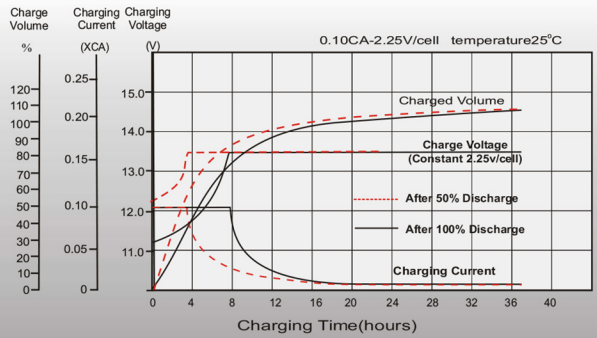
Unit: mm [inches]



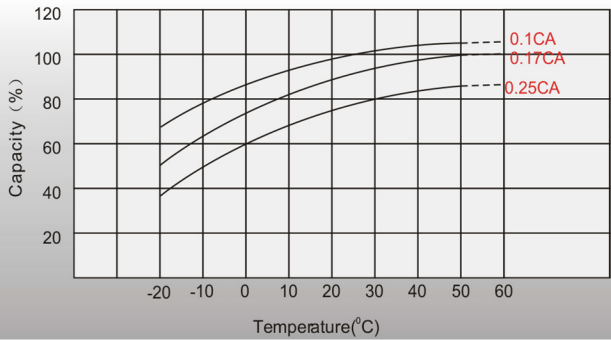
Discharge Characteristics



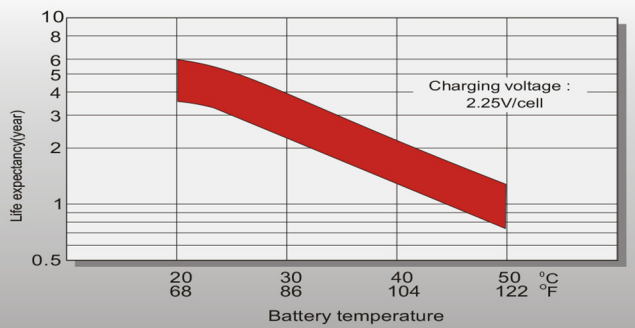
Float Charging Characteristics



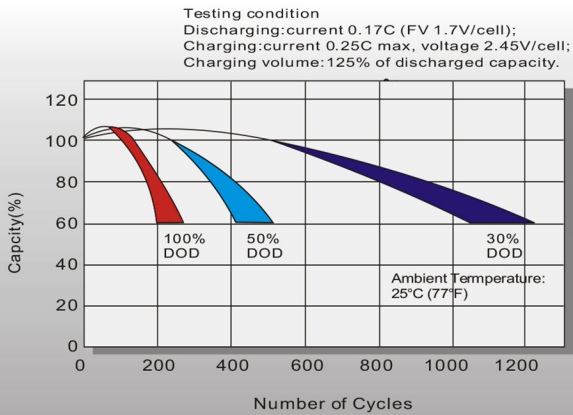
Temperature Effects in Relation to Battery Capacity



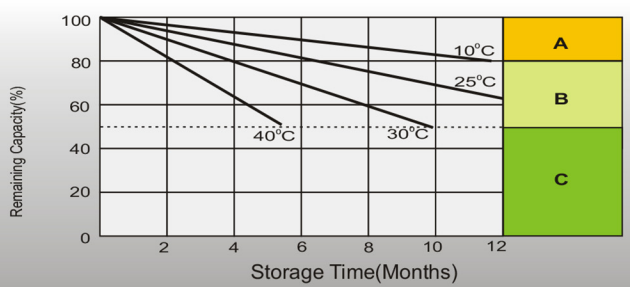
Effect of Temperature on Long Term Float Life



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.