



valve regulated  
sealed lead acid type  
rechargeable battery

**sunbattery®**

# SB12-150A FT (12V150AH)

## Specification

Nominal Voltage	12V
Nominal Capacity(10HR)	150AH
Dimension	Length 551±3mm (21.7 inches)
	Width 110±2mm (4.33 inches)
	Container Height 288±3mm (11.3 inches)
	Total Height (with Terminal) 288±3mm (11.3 inches)
Approx Weight	Approx 46.0 Kg (101.4 lbs)
Terminal	T13
Container Material	ABS Standard ABS UL94 HB Optional ABS UL94 V0
Rated Capacity	158.8 AH/7.94A (20hr, 1.80V/cell, 25°C/77°F)
	150.0 AH/15.0A (10hr, 1.80V/cell, 25°C/77°F)
	142.4 AH/17.8A (8hr, 1.80V/cell, 25°C/77°F)
	130.5 AH/26.1A (5hr, 1.75V/cell, 25°C/77°F)
	95.9 AH/95.9A (1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)
Internal Resistance	Approx 5.0 mΩ
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 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage 13.5V~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%
Self Discharge	SUN FT series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.
Life expectancy	8-12 years at 25°C with charge voltage 2.25V/cell.



## 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



Conform to:  
IEC60896-21&22 and/or IEC61427

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	216.9	190.8	171.0	136.8	105.8	85.7	50.9	37.3	29.9	25.1	21.7	17.2	14.3	7.60
1.80V/cell	252.0	220.2	190.8	148.5	112.6	90.6	52.7	38.6	30.8	25.8	22.3	17.8	15.0	7.94
1.75V/cell	278.1	237.0	203.4	154.8	115.8	93.0	53.9	39.2	31.2	26.1	22.6	18.1	15.2	8.02
1.70V/cell	296.1	248.4	211.5	160.5	118.8	94.5	54.7	39.7	31.6	26.4	22.9	18.3	15.3	8.07
1.67V/cell	309.6	256.8	216.0	163.8	121.0	95.9	55.4	40.1	31.9	26.7	23.1	18.5	15.5	8.12
1.60V/cell	323.1	264.0	222.3	167.4	123.4	97.5	56.1	40.6	32.2	27.1	23.5	18.7	15.6	8.16

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	405.0	359.8	325.8	263.5	205.5	166.9	99.9	73.4	59.0	49.6	43.0	34.4	28.7	15.2
1.80V/cell	465.1	409.8	358.2	281.7	217.0	175.6	102.8	75.6	60.5	50.8	44.0	35.5	29.9	15.9
1.75V/cell	505.1	435.7	378.2	291.2	221.1	179.5	104.7	76.5	61.1	51.3	44.5	35.9	30.2	16.0
1.70V/cell	525.7	450.3	390.4	300.3	226.0	181.8	105.9	77.4	61.8	51.6	45.0	36.3	30.5	16.1
1.67V/cell	547.6	463.7	397.1	305.8	229.4	183.9	107.2	77.9	62.3	52.3	45.3	36.6	30.8	16.2
1.60V/cell	555.7	467.2	402.9	308.5	231.4	185.3	107.6	78.3	62.5	52.8	45.9	36.9	31.0	16.2

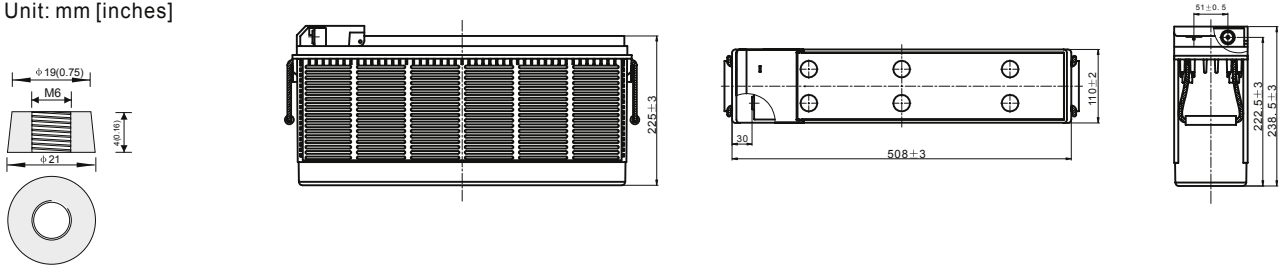


Specifications subject to change without notice. Updated: 13.02.2020

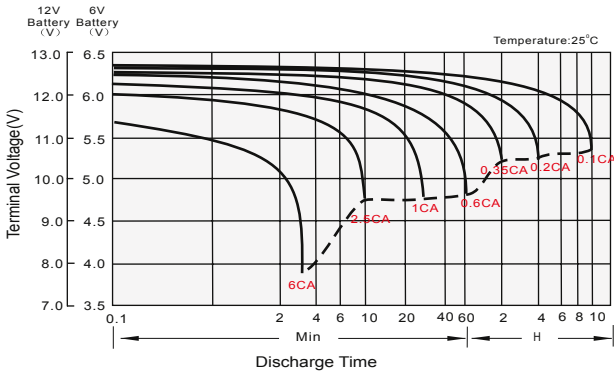
# Dimensions

## T13 Terminal

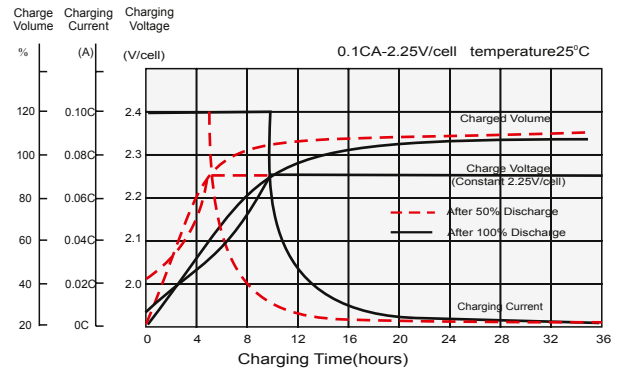
Unit: mm [inches]



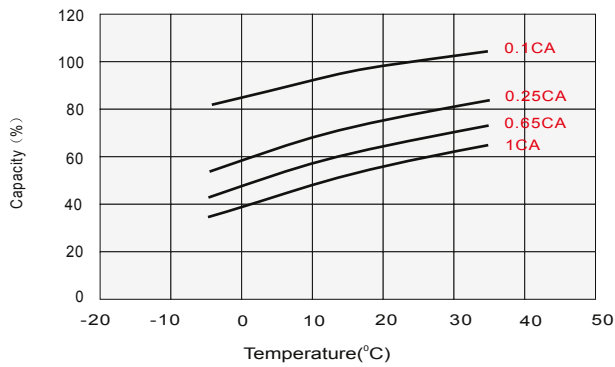
## Discharge Characteristics



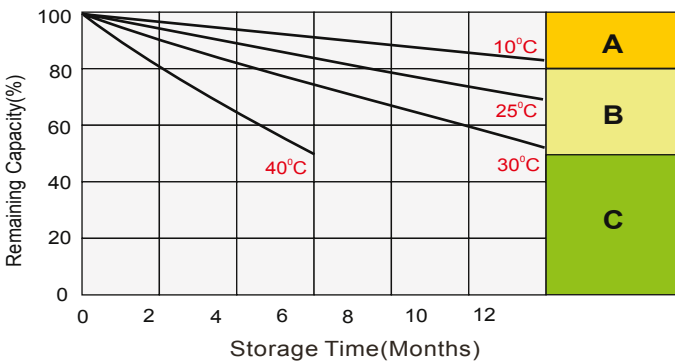
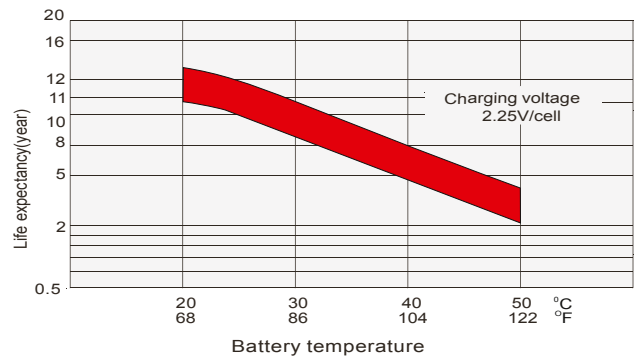
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## 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 volatge 2.25V/cell.
  2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
  3. Charged for 8~10hours 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.