



valve regulated
sealed lead acid type
rechargeable battery

sunbattery®

SB12-110 FT (12V110 AH)

Specification

Nominal Voltage	12V
Nominal Capacity(20HR)	110AH
Dimension	Length 508±3mm (20.0 inches)
	Width 110±2mm (4.33 inches)
	Container Height 238.5±2mm (9.39 inches)
	Total Height (with Terminal) 238.5±2mm (9.39 inches)
Approx Weight	Approx 35.6 Kg (78.5 lbs)
Terminal	T13
Container Material	ABS
Rated Capacity	110.0 AH/5.50A (20hr, 1.80V/cell, 25°C/77°F)
	103.8 AH/103.8A (10hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/12.5A (8hr, 1.80V/cell, 25°C/77°F)
	94.5 AH/18.9A (5hr, 1.75V/cell, 25°C/77°F)
	69.2 AH/69.2A (1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	1000A (5s)
Internal Resistance	Approx 4.3mΩ
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 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	
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	SB series battery 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.



Applications

- ◆ For standard 19 inches or 23 inches power cabinets
- ◆ Network connection equipment of communication system
- ◆ Power system of special network or local area network
- ◆ UPS, standby power supply
- ◆ Power station systems
- ◆ Railway and marine systems

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	173.9	145.0	124.4	97.6	75.7	61.5	36.7	26.4	21.2	17.6	15.3	11.90	9.92	5.26
1.80V/cell	197.2	161.6	137.7	106.8	81.4	65.7	38.7	28.1	22.3	18.5	16.1	12.50	10.38	5.50
1.75V/cell	216.4	174.9	146.9	112.2	84.5	68.0	39.4	28.6	22.9	18.9	16.3	12.70	10.49	5.58
1.70V/cell	231.5	184.2	152.9	115.5	86.5	68.9	40.0	28.8	23.0	19.0	16.5	12.80	10.56	5.62
1.67V/cell	239.5	188.8	156.0	117.0	86.8	69.2	40.1	28.9	23.1	19.1	16.6	12.90	10.65	5.65
1.60V/cell	251.8	196.0	163.0	119.9	89.1	71.0	40.8	29.3	23.4	19.3	16.7	12.98	10.80	5.68

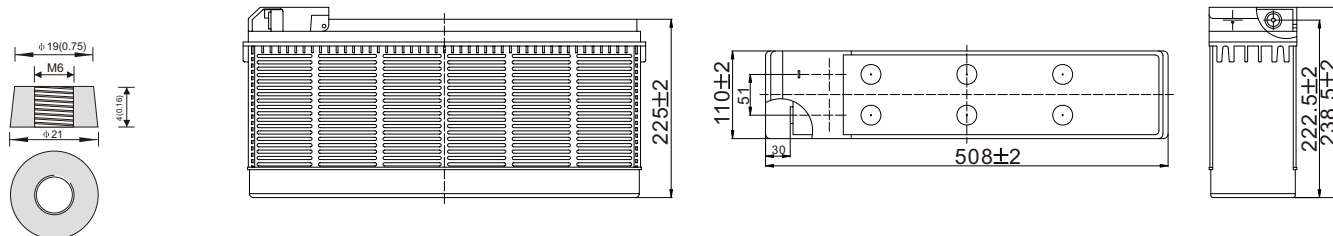
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	324.8	273.4	237.0	187.9	147.0	119.9	72.0	52.0	41.9	34.8	30.3	23.7	19.8	10.52
1.80V/cell	363.9	300.7	258.5	202.5	156.9	127.3	75.4	55.0	43.8	36.4	31.7	24.9	20.7	10.98
1.75V/cell	393.0	321.4	273.3	211.1	161.4	131.2	76.6	55.7	44.8	37.1	32.1	25.2	20.9	11.14
1.70V/cell	411.0	333.9	282.2	216.1	164.5	132.5	77.5	56.2	45.0	37.2	32.5	25.4	21.0	11.21
1.67V/cell	423.6	340.8	286.8	218.4	164.5	132.8	77.6	56.1	45.1	37.3	32.6	25.5	21.2	11.25
1.60V/cell	433.0	346.9	295.4	221.0	167.0	134.9	78.2	56.5	45.4	37.6	32.7	25.6	21.4	11.30

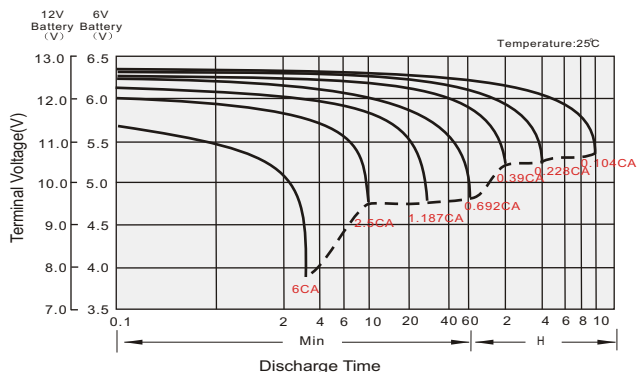
Dimensions

T13 Terminal

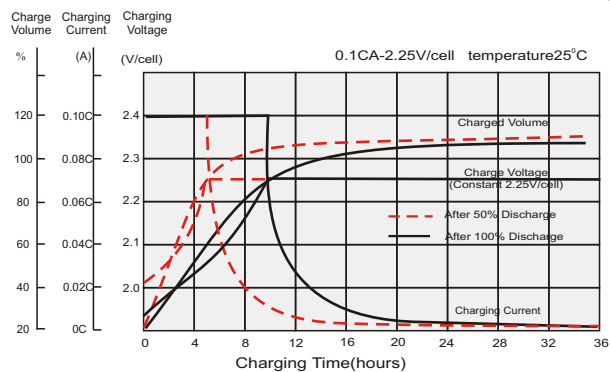
Unit: mm [inches]



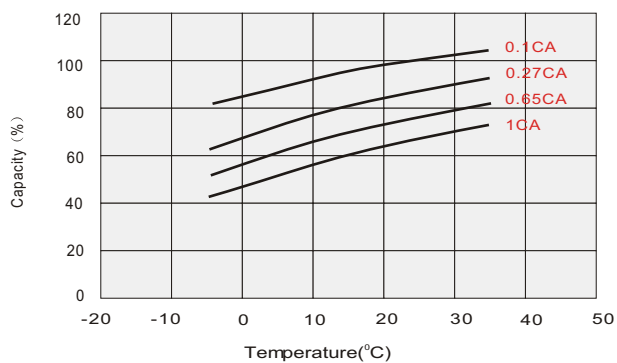
Discharge Characteristics



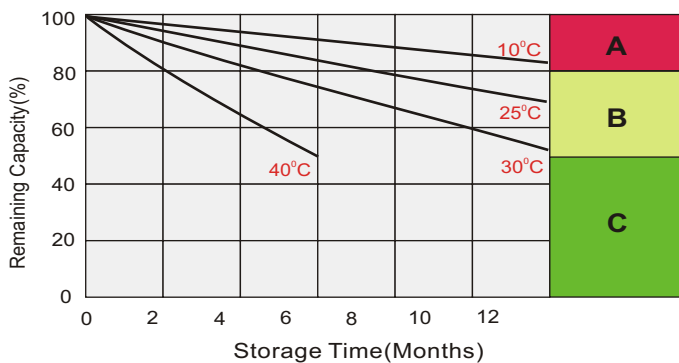
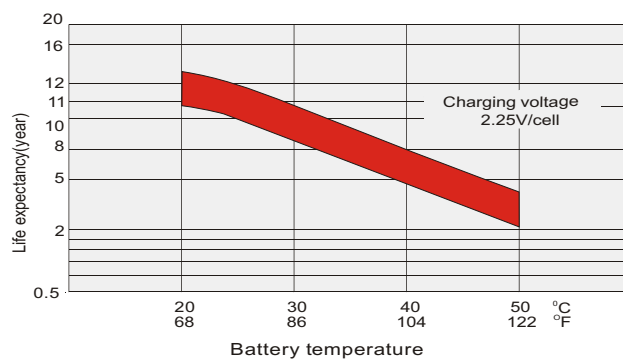
Float Charging Characteristics



Temperature Effects in Relation to Batter 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 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.