



valve regulated  
sealed lead acid type  
rechargeable battery

**sunbattery®**

# SB12-80(12V80AH)

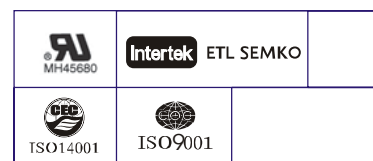
## Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	70.0AH	
Dimension	Length	348 ± 2mm (13.70 inches)
	Width	167 ± 2mm (6.57 inches)
	Container Height	178 ± 2mm (7.01 inches)
	Total Height (with Terminal)	178 ± 2mm (7.01 inches)
Approx Weight	Approx 23.5 Kg ( 51.8 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	75.0 AH/3.75A	(20hr , 1.80V/cell, 25°C/77°F)
	70.0 AH/7.00A	(10hr, 1.80V/cell, 25°C/77°F)
	60.9 AH/12.2A	(5hr, 1.75V/cell, 25°C/77°F)
	54.6 AH/18.2A	(3hr, 1.75V/cell, 25°C/77°F)
	43.4 AH/43.4A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	840A (5s)	
Internal Resistance	Approx 6.6mΩ	
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 21.0A. 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	SB 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.	



## Applications

- ◆ UPS and EPS
- ◆ Emergency light
- ◆ Railway signal and aircraft signal system
- ◆ Marine and power stations Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply, DC power supply



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	81.9	68.9	61.1	50.7	39.1	33.5	21.7	16.3	13.3	11.2	9.84	7.89	6.78	3.62
1.80V/cell	93.7	77.3	67.6	55.0	42.2	35.3	23.3	17.5	14.2	11.9	10.4	8.30	7.00	3.75
1.75V/cell	106.4	87.2	74.7	59.8	46.0	38.5	24.2	18.2	14.7	12.2	10.7	8.58	7.19	3.84
1.70V/cell	120.2	96.7	82.4	65.3	49.6	40.7	25.5	19.2	15.3	12.9	11.3	8.94	7.46	3.94
1.65V/cell	129.1	103.6	87.7	68.9	52.5	42.1	26.5	19.9	15.9	13.3	11.7	9.25	7.67	4.06
1.60V/cell	142.0	113.4	95.2	73.5	54.5	43.4	27.1	20.4	16.3	13.6	11.9	9.41	7.83	4.13

## 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	152.9	129.9	116.4	97.6	76.0	65.2	42.5	32.1	26.4	22.2	19.5	15.7	13.6	7.24
1.80V/cell	172.9	143.9	126.8	104.4	81.3	68.5	45.4	34.3	27.9	23.5	20.6	16.5	14.0	7.48
1.75V/cell	193.3	160.3	138.8	112.5	87.8	74.3	47.0	35.5	28.7	23.9	21.2	17.0	14.3	7.66
1.70V/cell	213.4	175.3	152.1	122.2	94.3	78.4	49.4	37.3	30.0	25.3	22.2	17.7	14.9	7.85
1.65V/cell	227.1	186.3	160.6	127.9	98.9	80.5	51.0	38.6	31.0	26.0	22.9	18.3	15.3	8.09
1.60V/cell	244.2	200.7	172.6	135.5	102.2	82.5	52.0	39.4	31.6	26.5	23.3	18.6	15.6	8.21

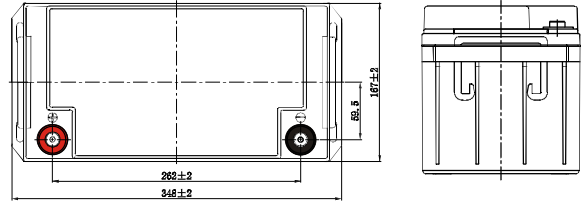
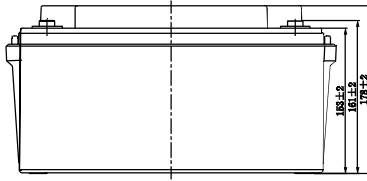
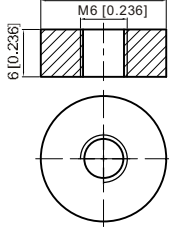


Specifications subject to change without notice.

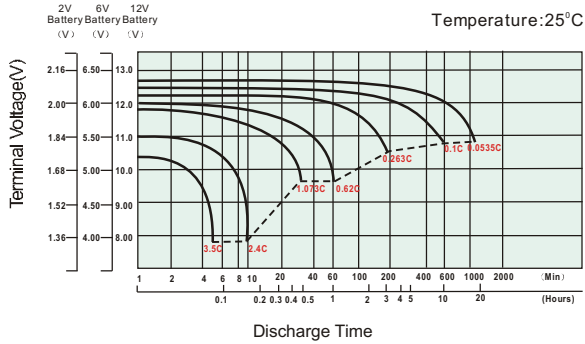
## Dimensions

### T6 Terminal

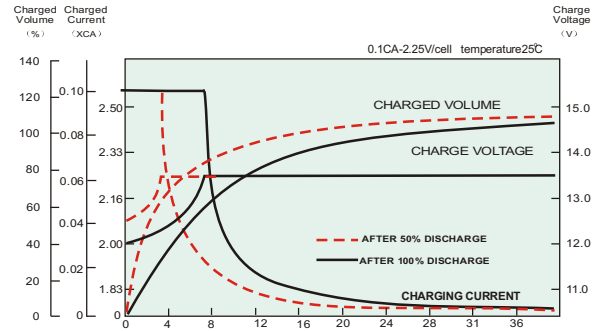
Unit: mm [inches]  
±16 [0.63]



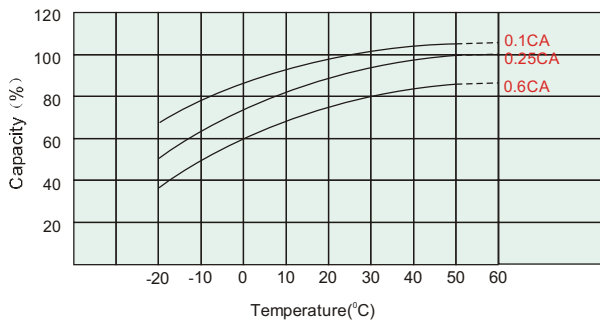
## Discharge Characteristics



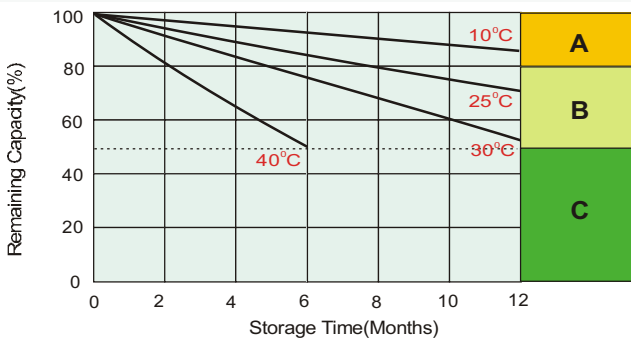
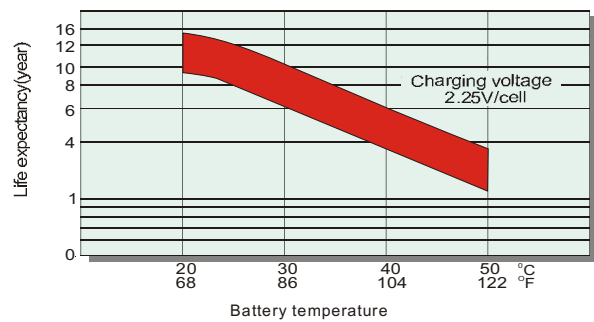
## Float Charging Characteristics



## 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 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.