



valve regulated
sealed lead acid type
rechargeable battery

⊕⊖ sun battery®

SB6-10(6V10AH)

Specification

Nominal Voltage	6V	
Nominal Capacity(20HR)	10.0AH	
Dimension	Length	151±2mm (5.94 inches)
	Width	51±1mm (2.01 inches)
	Container Height	94±1mm (3.70 inches)
	Total Height (with Terminal)	100±1mm (3.94 inches)
Approx Weight	Approx 1.70 kg (3.74lbs)	
Terminal	T2	
Container Material	ABS	
Rated Capacity	10.0 AH/0.50A	(20hr , 1.80V/cell, 25°C/77°F)
	9.30 AH/0.93A	(10hr, 1.80V/cell, 25°C/77°F)
	8.10 AH/1.70A	(5hr, 1.75V/cell, 25°C/77°F)
	7.65 AH/2.55A	(3hr, 1.75V/cell, 25°C/77°F)
	6.28 AH/6.28A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	150A (5s)	
Internal Resistance	Approx 17mΩ	
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 3.0A. Voltage 7.2V~7.5V at 25° C(77° F)Temp. Coefficient -15mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 6.75V~6.9V at 25° C(77° F)Temp. Coefficient -10mV/°C	
Capacity affected by Temperature	40° C (104° F)	103%
	25° C (77° F)	100%
	0° C (32° F)	86%
Life expectancy	3~5 years at 25° C with charge voltage of 2.25V/cell	
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

- ◆ 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	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	19.0	14.6	12.1	10.5	8.10	5.97	5.03	2.97	2.33	1.89	1.54	1.34	1.080	0.902	0.495
1.80V/cell	25.6	18.7	14.6	12.4	9.56	6.94	5.63	3.25	2.50	2.02	1.66	1.44	1.145	0.930	0.500
1.75V/cell	28.8	20.5	16.0	13.3	9.92	7.20	5.89	3.37	2.55	2.07	1.70	1.48	1.165	0.955	0.505
1.70V/cell	31.7	22.4	17.1	14.0	10.3	7.49	6.08	3.45	2.62	2.12	1.74	1.51	1.181	0.974	0.514
1.65V/cell	35.0	24.2	18.1	14.9	10.9	7.68	6.22	3.50	2.73	2.19	1.79	1.54	1.200	0.994	0.521
1.60V/cell	38.6	26.2	19.4	15.8	11.5	8.00	6.28	3.65	2.82	2.26	1.85	1.57	1.212	1.005	0.524

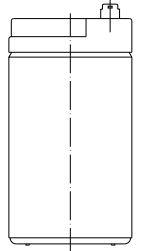
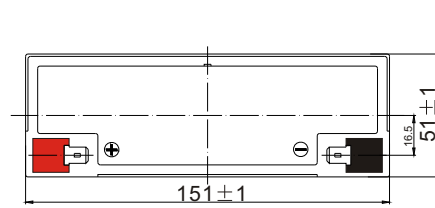
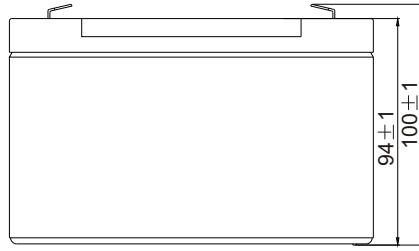
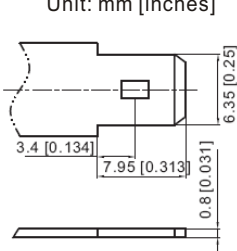
Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	34.8	27.0	22.6	19.7	15.4	11.5	9.7	5.78	4.54	3.70	3.03	2.63	2.13	1.79	0.981
1.80V/cell	46.2	34.1	26.9	23.0	17.9	13.2	10.8	6.26	4.85	3.93	3.23	2.81	2.25	1.84	0.989
1.75V/cell	51.0	36.9	29.1	24.5	18.5	13.6	11.3	6.47	4.92	4.00	3.31	2.88	2.29	1.88	0.998
1.70V/cell	54.6	39.3	30.6	25.6	19.1	14.1	11.6	6.62	5.05	4.10	3.38	2.94	2.32	1.92	1.015
1.65V/cell	59.4	42.0	32.3	26.9	20.0	14.3	11.8	6.67	5.24	4.23	3.47	2.99	2.35	1.96	1.027
1.60V/cell	64.0	44.6	34.0	28.4	21.0	14.8	11.8	6.93	5.38	4.35	3.57	3.04	2.37	1.98	1.032

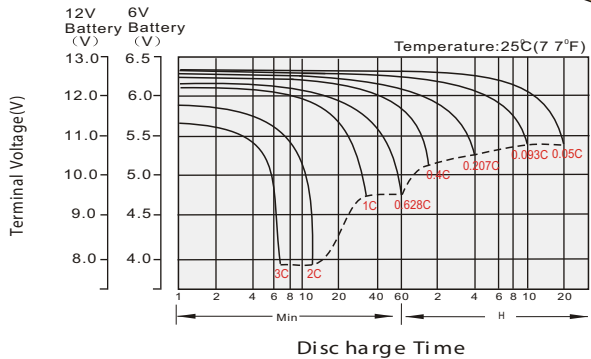
Dimensions

T2 Terminal

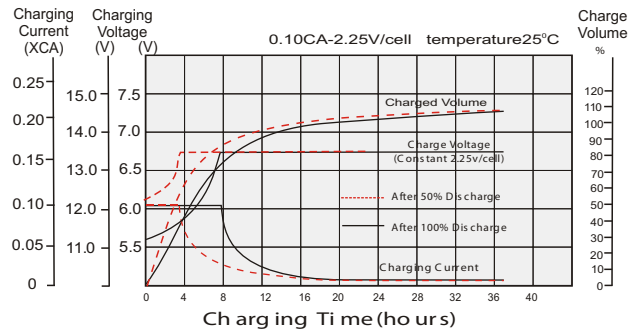
Unit: mm [inches]



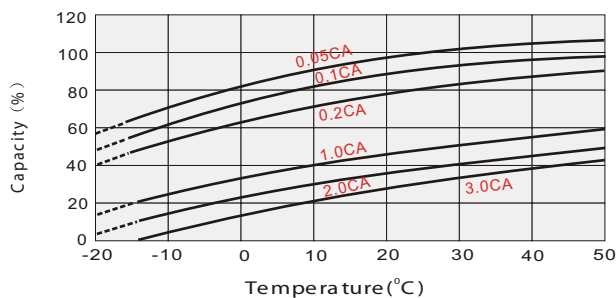
Discharge Characteristics



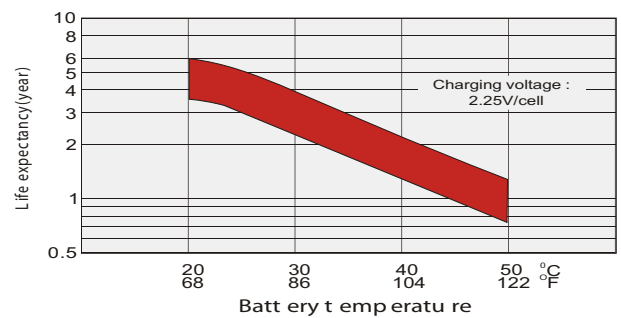
Float Charging Characteristics



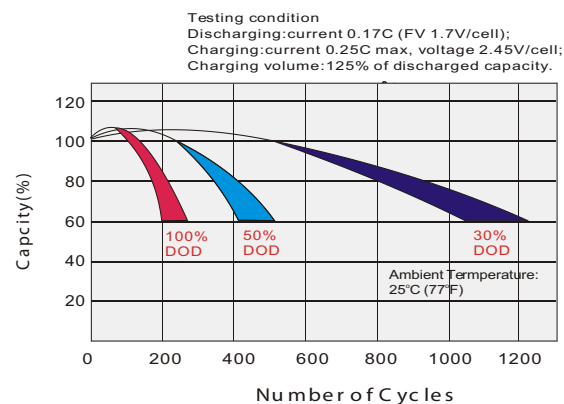
Temperature Effects in Relation to Battery Capacity



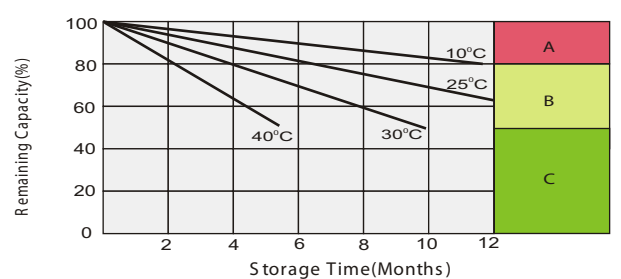
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



A No supplementary charge required (Carry over supplementary charge before use if 100% capacity is required.)

B Supplementary charge required before use. Optional charging ways as below:
 1. Charged for a above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for a above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8 ~10 hours at limited current 0.05 CA.

C Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.