



SB SERIES-General Purpose

SB12-150LL (12V150AH)

Specification

Nominal Voltage /Capacity	12V/150AH(10HR)	
Design life	10 years	
Dimension	Length	482±3mm (18.98 inches)
	Width	170±2mm (6.69 inches)
	Container Height	240±2mm (9.45 inches)
	Total Height (with Terminal)	240±2mm (9.45 inches)
Approx Weight	Approx 44.8 kg (98.8lbs)	
Terminal	F12(M8)	
Container Material	ABS	
Rated Capacity	157.6 AH/7.88A	(20hr , 1.80V/cell,25°C/77°F)
	150.0 AH/15.0A	(10hr, 1.80V/cell,25°C/77°F)
	122.5 AH/24.5A	(5hr, 1.75V/cell,25°C/77°F)
	112.2 AH/37.4A	(3hr, 1.75V/cell,25°C/77°F)
	103 AH/103 A	(1hr, 1.60V/cell,25°C/77°F)
Max. Discharge Current	970A (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.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

- ◆ 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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	202	175	143	134	86.4	80.7	45.0	35.6	29.1	21.5	20.4	16.6	14.2	7.73
1.80V/cell	274	230	162	153	100	87.2	49.2	36.7	31.1	23.7	21.9	17.6	15.0	7.88
1.75V/cell	285	239	172	158	104	89.2	51.0	37.4	31.8	24.5	22.5	17.9	15.1	7.93
1.70V/cell	303	254	180	167	108	94.1	53.0	39.3	32.6	25.3	23.0	18.1	15.2	8.98
1.65V/cell	322	268	193	177	111	98.7	54.5	41.1	33.7	26.4	23.5	18.4	15.3	8.03
1.60V/cell	340	283	207	186	115	103	56.3	42.9	34.8	27.6	24.0	18.6	15.4	8.07

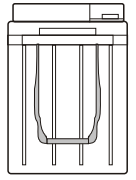
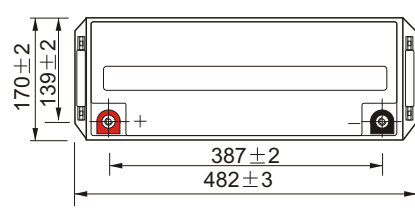
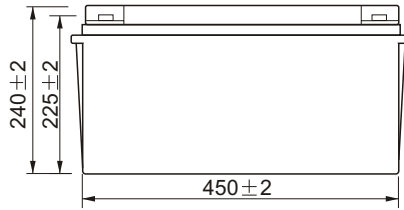
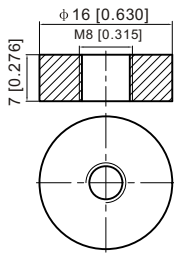
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	450	380	270	252	190	152	90.5	67.4	56.9	46.0	40.1	32.7	28.0	15.3
1.80V/cell	515	435	315	286	212	170	97.6	71.3	60.4	48.8	42.9	34.6	29.6	15.4
1.75V/cell	537	452	335	297	220	174	101	73.3	61.5	50.0	43.9	35.1	29.9	15.6
1.70V/cell	560	470	350	308	227	178	104	75.2	63.0	51.0	44.8	35.6	30.2	15.8
1.65V/cell	583	487	369	318	234	182	107	77.2	65.0	52.4	45.6	36.1	30.7	16.0
1.60V/cell	605	505	389	329	241	186	109	79.2	66.8	53.7	46.5	36.3	31.0	16.1

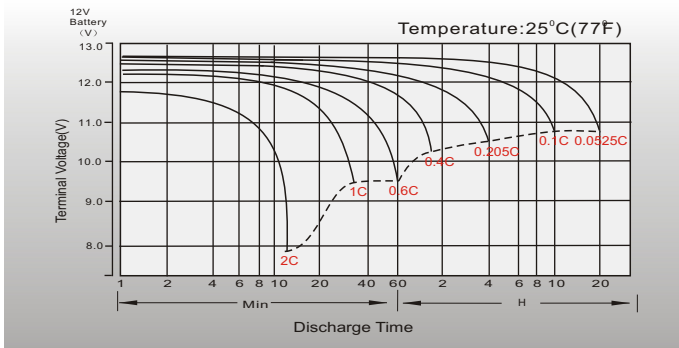
Dimensions

F12 Terminal

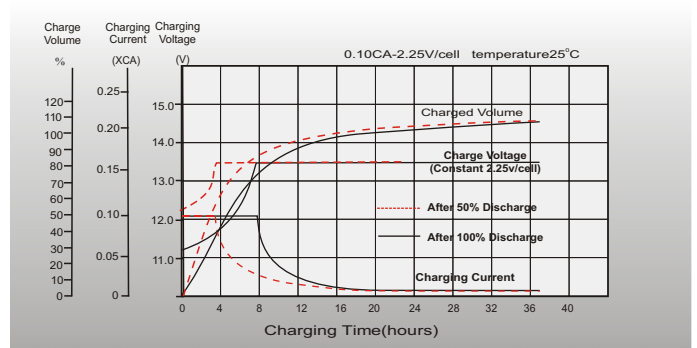
Unit: mm [inches]



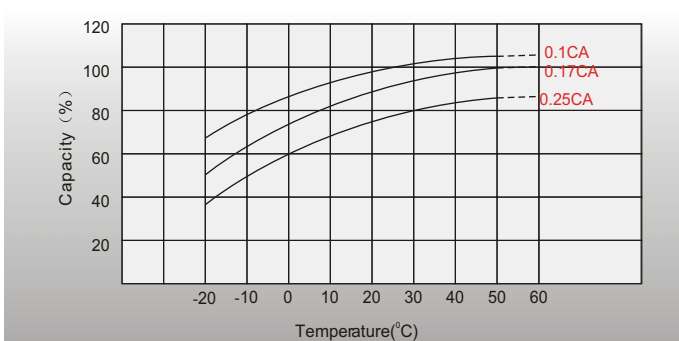
Discharge Characteristics



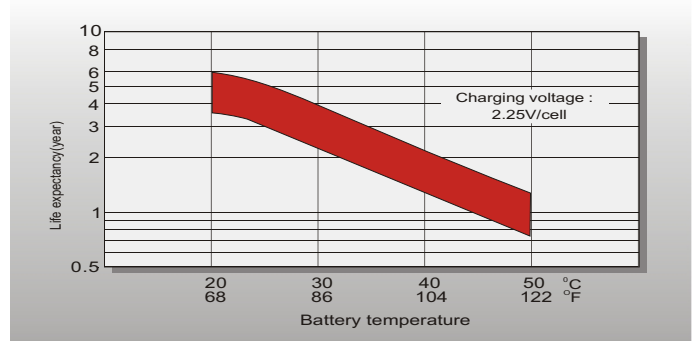
Float Charging Characteristics



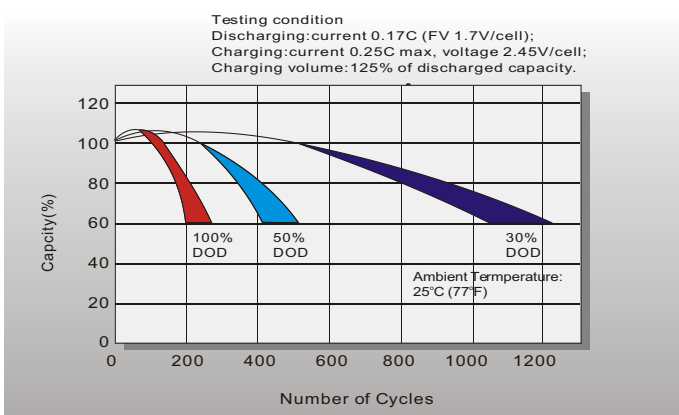
Temperature Effects in Relation to Battery Capacity



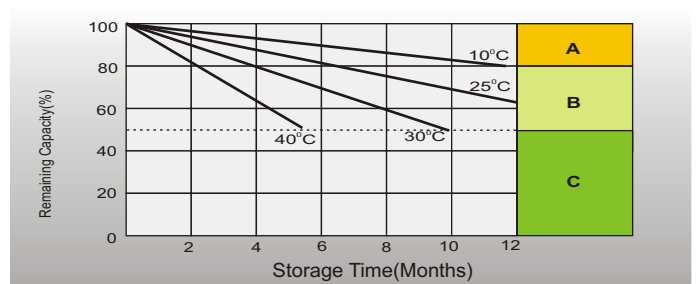
Effect of Temperature on Long Term Float Life



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.