



SB SERIES-General Purpose

SB12-100LL (12V100AH)

Specification

Nominal Voltage /Capacity	12V/100Ah(10HR)	
Design life	10 years	
Dimension	Length	330 ± 3mm (12.99 inches)
	Width	171 ± 2mm (6.73 inches)
	Container Height	215 ± 2mm (8.46 inches)
	Total Height (with Terminal)	222 ± 2mm (8.74 inches)
Approx Weight	Approx 29.0 kg (63.93lbs)	
Terminal	F12(M8)	
Container Material	ABS	
Rated Capacity	106.0 AH/5.30A	(20hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/10.0A	(10hr, 1.80V/cell, 25°C/77°F)
	83.0 AH/16.6A	(5hr, 1.75V/cell, 25°C/77°F)
	70.5 AH/23.5A	(3hr, 1.75V/cell, 25°C/77°F)
	61.0 AH/61.0A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	900A (5s)	
Internal Resistance	Approx 4.5mΩ	
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 30.0A. 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	Strabat series batteries may be stored for up to 6months 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	130	112	95.7	76.1	57.6	47.1	30.0	20.7	18.5	15.6	13.0	11.0	9.44	5.15
1.80V/cell	156	136	102	87.4	64.0	57.1	32.8	22.8	19.4	16.8	13.6	11.4	10.0	5.30
1.75V/cell	170	145	113	89.3	67.5	58.9	34.0	23.5	20.7	17.2	14.6	11.7	10.2	5.35
1.70V/cell	182	156	121	92.2	70.3	59.7	35.3	24.1	21.2	17.0	15.0	11.9	10.4	5.40
1.65V/cell	197	164	127	95.0	72.1	60.6	36.3	24.6	21.7	17.3	15.3	12.1	10.6	5.45
1.60V/cell	210	173	134	98.9	75.2	61.0	37.6	25.1	22.5	17.6	15.6	12.3	10.8	5.50

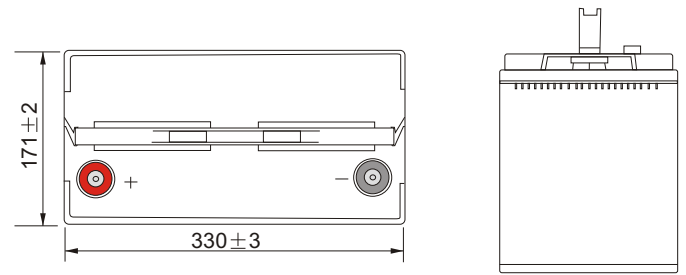
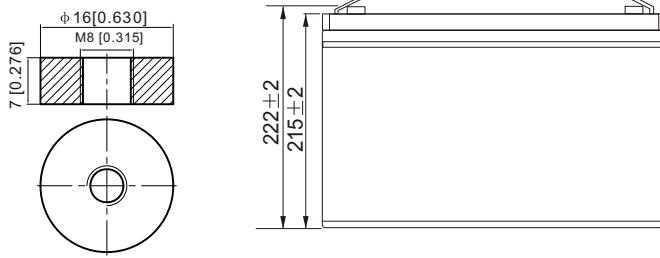
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	258	213	180	145	110	90.9	58.3	44.3	37.9	30.6	26.8	21.8	18.7	10.2
1.80V/cell	296	270	200	164	126	109	63.9	45.7	38.3	32.9	28.6	23.1	19.8	10.3
1.75V/cell	317	279	210	170	129	112	64.6	46.7	40.3	33.2	29.3	23.4	19.9	10.4
1.70V/cell	335	290	223	176	132	116	65.8	47.3	41.0	33.3	29.8	23.7	20.1	10.6
1.65V/cell	353	299	233	180	134	117	67.0	47.8	42.0	33.6	30.4	24.0	20.5	10.7
1.60V/cell	372	304	250	186	138	119	68.2	48.4	43.3	33.8	31.0	24.2	20.7	10.8

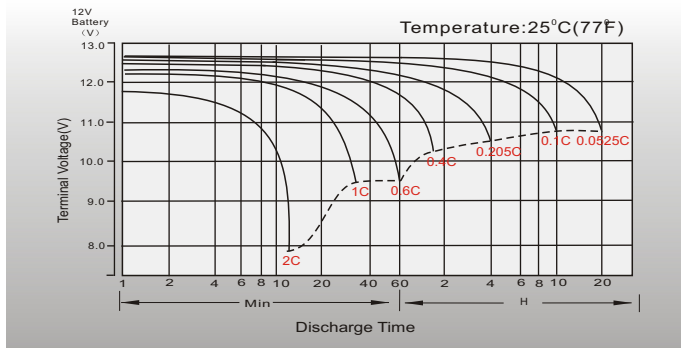
Dimensions

F12 Terminal

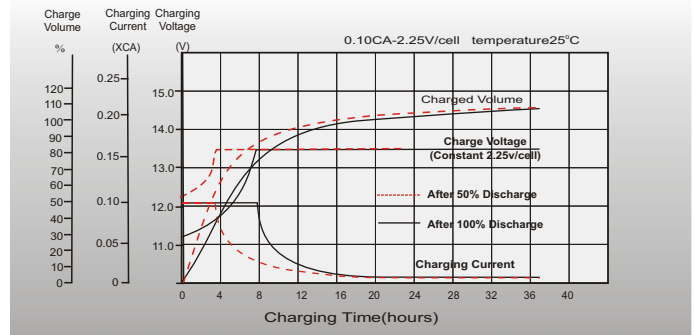
Unit: mm [inches]



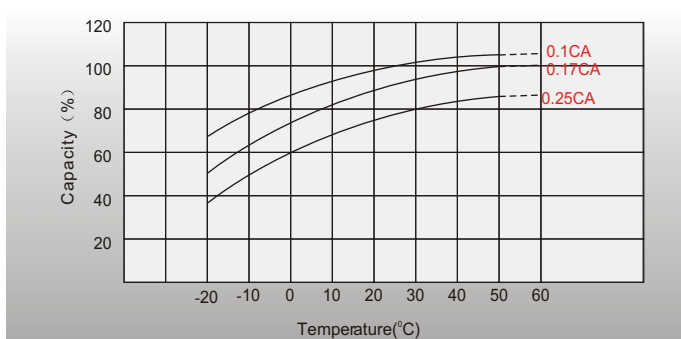
Discharge Characteristics



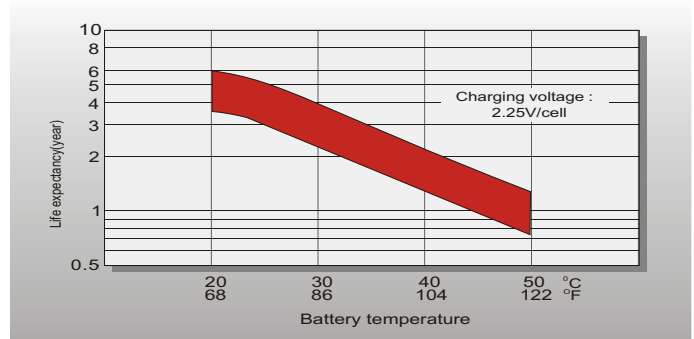
Float Charging Characteristics



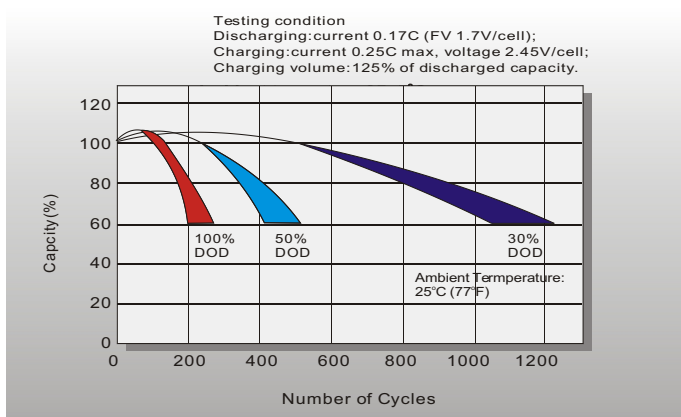
Temperature Effects in Relation to Battery Capacity



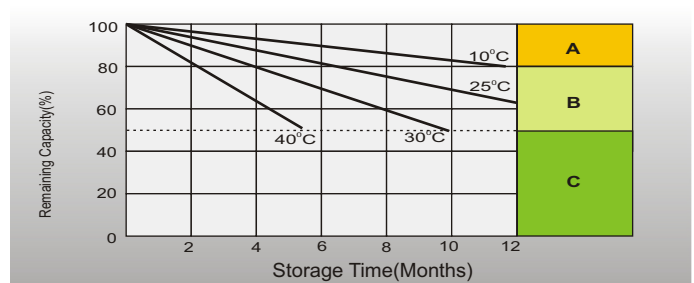
Effect of Temperature on Long Term Float Life



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.