



SB SERIES-General Purpose

SB12-55LL (12V55AH)

Specification

Nominal Voltage /Capacity	12V/55Ah(10HR)	
Design life	10 years	
Dimension	Length	239±3mm (9.41 inches)
	Width	132±2mm (5.20 inches)
	Container Height	205±2mm (8.07 inches)
	Total Height (with Terminal)	210±2mm (8.27 inches)
Approx Weight	Approx 15.3 kg (33.7 lbs)	
Terminal	F11(M6)	
Container Material	ABS	
Rated Capacity	58 AH/2.92A	(20hr , 1.80V/cell,25°C/77°F)
	55 AH/ 5.5 A	(10hr, 1.80V/cell,25°C/77°F)
	46.2AH/9.24A	(5hr, 1.75V/cell,25°C/77°F)
	41.0AH/13.7A	(3hr, 1.75V/cell,25°C/77°F)
	35.1AH/35.1A	(1hr, 1.60V/cell,25°C/77°F)
Max. Discharge Current	550A (5s)	
Internal Resistance	Approx 7.0mΩ	
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 16.5A.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	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.80V/cell	128	80	79.5	51.9	31.7	13.3	9.06	5.50	2.90
1.75V/cell	140	105	85.8	53.8	32.5	13.6	9.23	5.55	2.93
1.70V/cell	153	115	90.6	55.6	33.3	13.9	9.40	5.60	2.95
1.65V/cell	162	124	95.4	57.4	34.2	14.2	9.57	5.65	2.96
1.60V/cell	174	129	99.4	59.2	35.1	14.6	9.8	5.70	2.97

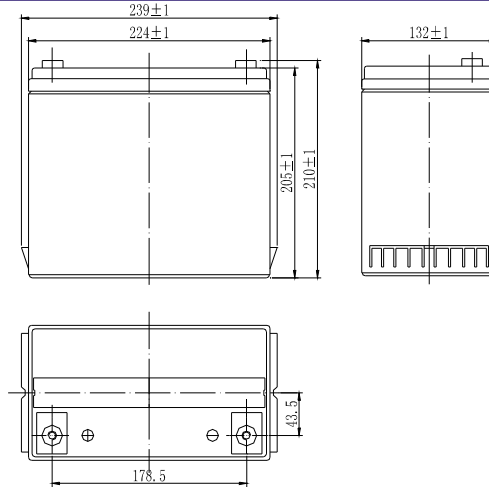
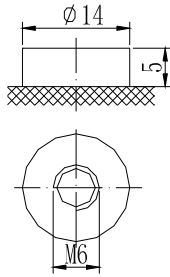
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.80V/cell	302	186	154	103	78.4	62.6	37.4	26.7	17.9
1.75V/cell	314	200	162	105	80.5	64.3	38.4	27.3	18.1
1.70V/cell	335	213	169	107	82.3	65.8	39.4	27.9	18.3
1.65V/cell	356	225	177	109	84.0	67.3	40.2	28.5	18.5
1.60V/cell	378	238	185	111	85.3	68.9	41.1	29.1	18.7

Dimensions

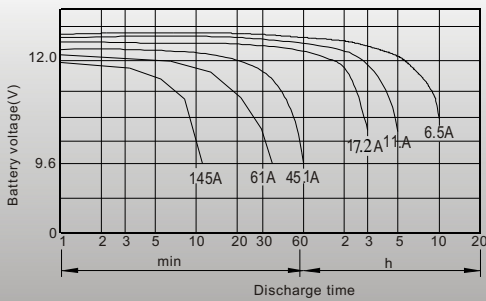
F11 Terminal

Unit: mm [inches]

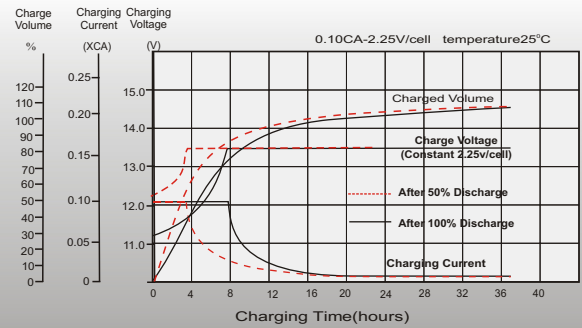


Discharge Characteristics

Discharge characteristic (25°C)

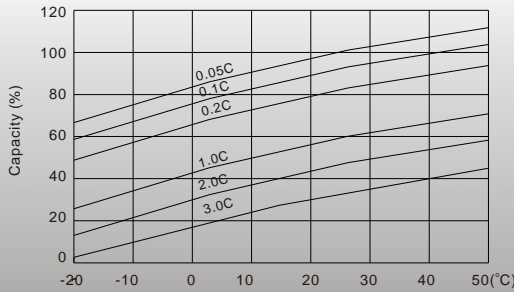


Float Charging Characteristics



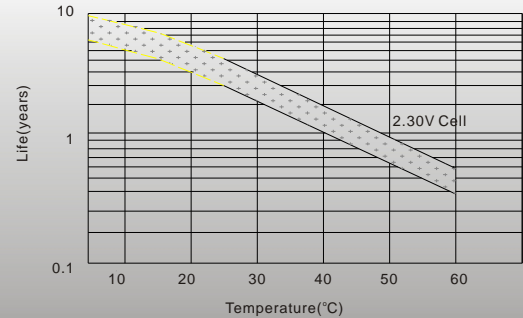
Temperature Effects in Relation to Battery Capacity

Temperature effects on capacity



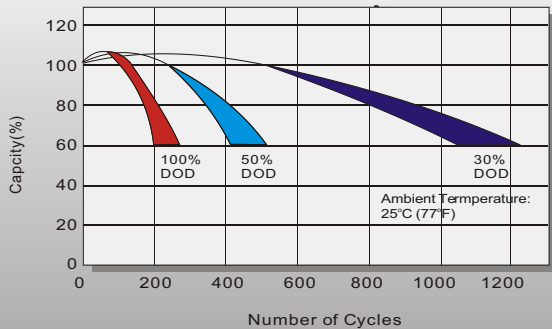
Effect of Temperature on Long Term Float Life

Temperature effects on float life

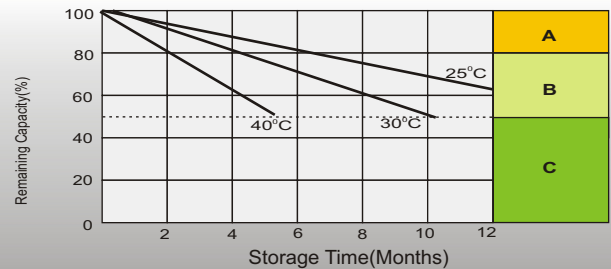


Cycle Life in Relation to Depth of Discharge

Testing condition
Discharging: current 0.17C (FV 1.7V/cell);
Charging: current 0.25C max, voltage 2.45V/cell;
Charging volume: 125% of discharged capacity.



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.