



# SSB SBL 18-12i (12V 18AH)



| Specification   |  |              |
|---|--|--------------|
| Nominal Voltage   | 12V  |              |
| Nominal Capacity<br>(20hr / 20°C / 1.75 V/C)                  | 18.0AH   |              |
|   | 20 hour rate (0.85A, 10.5V)  | 18Ah         |
|   | 10 hour rate (1.68A, 10.5V)  | 16.8Ah       |
|   | 5 hour rate (2.91A, 10.5V)   | 15.45Ah      |
|   | 1 hour rate (11.8A, 9.6V)  | 11.8Ah       |
| Internal Resistance   | Fully Charged battery 68°F(20°C) ≤16.5 mOhms   |              |
| Self-Discharge  | 3% of capacity declined per month at 20°C (average)  |              |
|   | SSB series batteries may be stored for up to 6 months at 68°F(20°C) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |              |
| Dimension   | Length (mm / inch)   | 181 / 7.13   |
|   | Width (mm / inch)  | 77 / 3.03    |
|   | Height (mm / inch)   | 167 / 6.57   |
|   | Total Height (mm / inch)   | 167 / 6.57   |
| Approx. Weight (Kg / lbs)                                     | 5.3 / 11.7   |              |
| Operating Temperature Range<br>(temporarily – see our manual) | Discharge : -20~60°C   |              |
|   | Charge : -10~60°C  |              |
|   | Storage : -20~60°C   |              |
| Max. Discharge Current 68°F(20°C)                             | 255A(5s)   |              |
| Short Circuit Current   | 850A   |              |
| Charge Methods:<br>Constant Voltage Charge<br>68°F(20°C)      | Cycle use  | 2.30-2.35VPC |
|   | Maximum charging current   | 6.8A         |
|   | Temperature compensation   | -30mV/°C     |
|   | Standby use  | 2.23-2.30VPC |
|   | Temperature compensation   | -20mV/°C     |
| Life expectancy   | 10~12 years at 20°C with charge voltage 2.25V/cell   |              |

## Applications

- ◆ Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- ◆ Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- ◆ UL-recognized component.
- ◆ Can be mounted in any orientation.
- ◆ Computer designed lead, calcium tin alloy grid for high power density.
- ◆ Long service life, float or cyclic applications.
- ◆ Maintenance-free operation.
- ◆ Low self discharge.
- ◆ Case and cover available in both standard and flame retardant ABS.



Conform to:  
IEC60896-21&22 and/or IEC61427

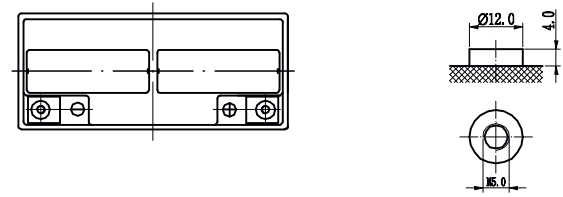
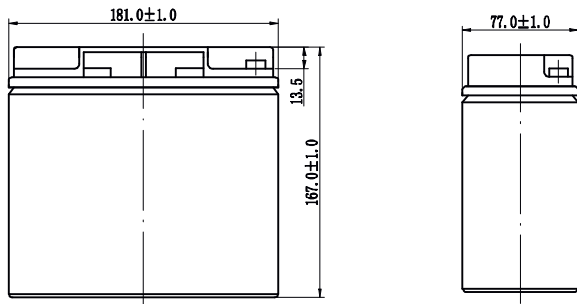
## Discharge Constant Current (Amperes at 68°F20°C)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 1h   | 3h   | 5h   | 10h  | 20h  |
|----------------------|------|-------|-------|-------|------|------|------|------|------|
| 1.60V                | 64.9 | 44.1  | 34    | 19.8  | 11.8 | 4.57 | 3.09 | 1.78 | 0.89 |
| 1.65V                | 62.8 | 43    | 33.3  | 19.4  | 11.6 | 4.5  | 3.03 | 1.75 | 0.88 |
| 1.70V                | 60.5 | 41.9  | 32.6  | 18.9  | 11.4 | 4.42 | 2.97 | 1.72 | 0.87 |
| 1.75V                | 58   | 40.7  | 31.8  | 18.4  | 11.2 | 4.35 | 2.91 | 1.68 | 0.85 |
| 1.80V                | 55.3 | 39.4  | 30.9  | 17.9  | 10.9 | 4.27 | 2.84 | 1.65 | 0.84 |

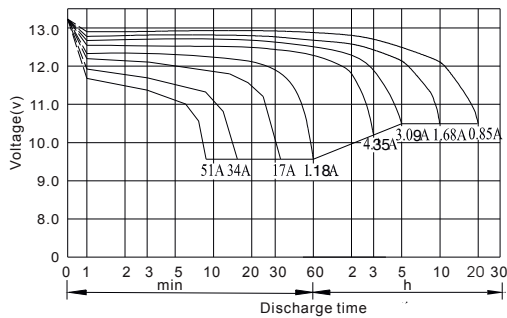
## Discharge Constant Current (Watts at 68°F20°C)

| End Point Volts/Cell | 5min | 10min | 15min | 30min | 45min | 1h   | 2h   | 3h   | 5h   |
|----------------------|------|-------|-------|-------|-------|------|------|------|------|
| 1.60V                | 111  | 78.6  | 61.3  | 35.3  | 27.4  | 22.4 | 13.0 | 9.09 | 6.13 |
| 1.65V                | 107  | 77.2  | 60.2  | 34.8  | 27.1  | 22.2 | 12.9 | 9.01 | 6.07 |
| 1.70V                | 103  | 75.8  | 59.0  | 34.3  | 26.8  | 22.0 | 12.8 | 8.92 | 6.01 |
| 1.75V                | 98.0 | 74.3  | 57.8  | 33.7  | 26.4  | 21.7 | 12.7 | 8.83 | 5.95 |
| 1.80V                | 94.0 | 72.8  | 56.5  | 33.1  | 26.0  | 21.5 | 12.5 | 8.74 | 5.88 |

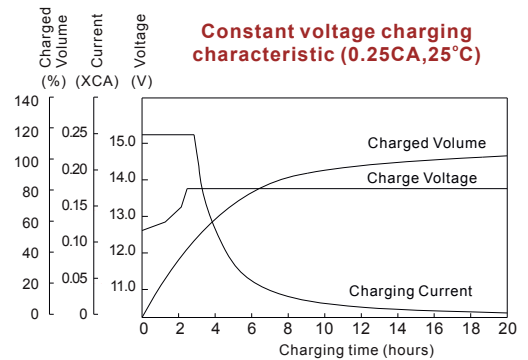
## Dimensions



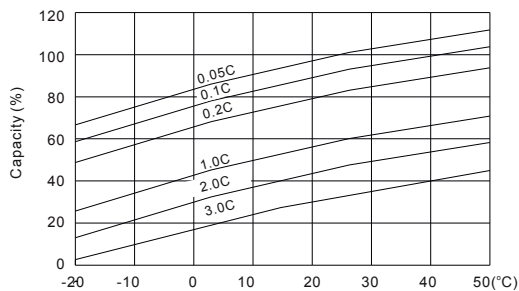
## Discharge Characteristics



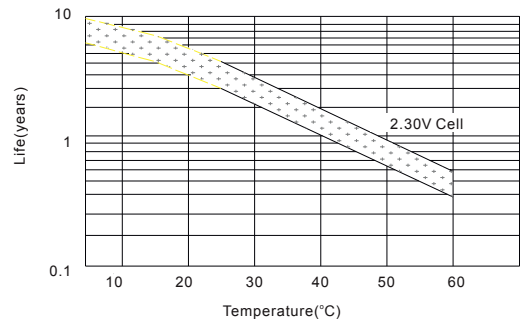
## Float Charging Characteristics



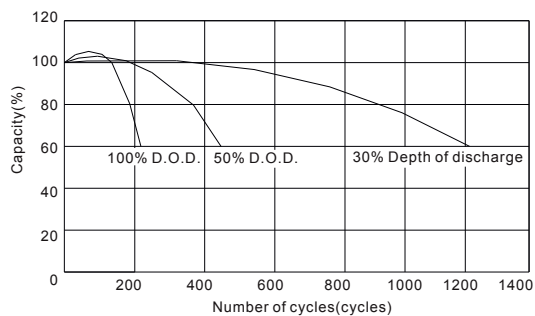
## Temperature Effects in Relation to Battery Capacity



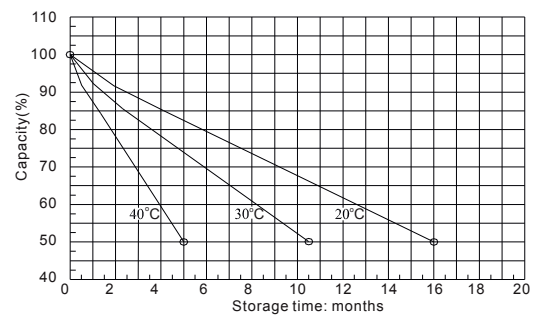
## Effect of Temperature on Long Term Float Life



## 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 20 hours at limited current 0.25CA and constant voltage 2.25V/cell.
  2. Charged for 8-10 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.