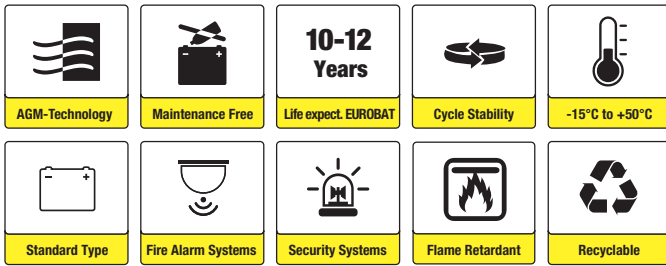




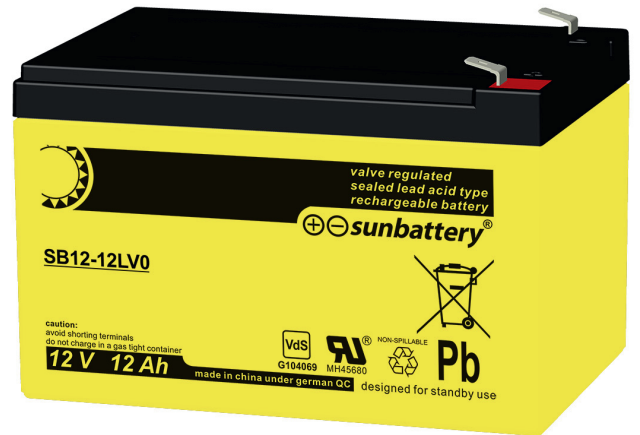
# SB12-12LV0 (12V12Ah)



## Applications

- UPS and EPS
- Emergency light
- Railway signal and aircraft
- Signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply

## Certificates



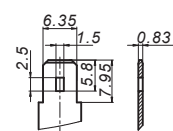
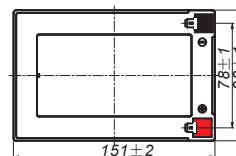
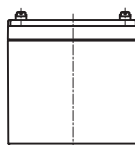
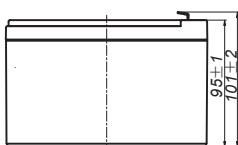
## Specifications

|   |   |                                   |  |
|---|---|-----------------------------------|--|
| <b>Nominal Voltage</b>                        | 12V   | <b>Nominal Oper. Temp. R.</b>     | 25±3°C   |
| <b>Nominal Capacity</b>                       | 12.0Ah (C <sub>20</sub> , 1.80V/cell)   | <b>Cycle Use</b>                  | Initial Charging Current less than 3.6A.<br>Voltage 14.7V +1% at 25°C.<br>Temperature Coefficient -30mV/°C.  |
| <b>Approx. Weight</b>                         | 3.85kg  | <b>Standby Use</b>                | No limit on Initial Charging Current.<br>Voltage 13.65V +1% at 25°C Temp.<br>Coefficient -20mV/°C  |
| <b>Terminal</b>                               | T2  | <b>Capacity affected by Temp.</b> | 40°C            103%<br>25°C            100%<br>0°C              86%   |
| <b>Container Material</b>                     | ABS UL94 V0   | <b>Self Discharge</b>             | SB batteries may be stored for up to 6 months at 25°C and then a freshening charge is required. For higher temperatures the time interval will be shorter. |
| <b>Rated Capacity (25°C)</b>                  | 12.00Ah/0.600A, 20hr, 1.80V/cell<br>11.40Ah/1.14A, 10hr, 1.80V/cell<br>10.65Ah/2.13A, 5hr, 1.75V/cell<br>9.39Ah/3.13A, 3hr, 1.75V/cell<br>7.89Ah/7.89A, 1hr, 1.60V/cell | <b>Life Expectancy</b>            | 10-12 years according to EUROBAT   |
| <b>Max. Discharge Current</b>                 | 180A (5s)   |                                   |  |
| <b>Internal Resistance / Impedance (1kHz)</b> | Approx. 18mΩ  |                                   |  |
| <b>Operating Temp. Range</b>                  | Discharge:        -15~50°C<br>Charge:            0~40°C<br>Storage:           -15~40°C  |                                   |  |

## Dimensions

### ■ T2 Terminal

Unit: mm | Dimensions: 151 Length X 98 Width X 95 Height (101 Height incl. Terminal)





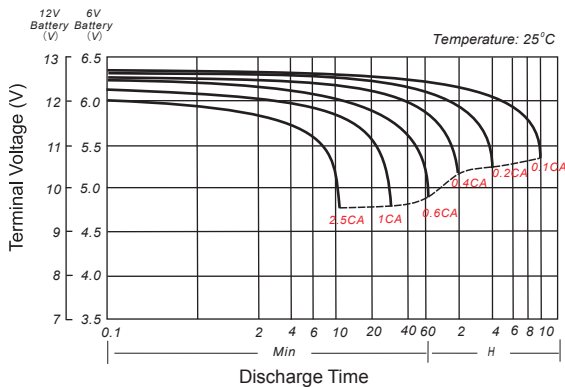
### Constant Current Discharge (Amperes) at 25°C

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h   |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 23.9  | 18.9  | 15.9  | 12.0  | 8.84  | 7.23 | 4.19 | 3.04 | 2.46 | 2.08 | 1.78 | 1.40 | 1.13 | 0.588 |
| 1.80V/cell | 25.1  | 19.7  | 16.4  | 12.4  | 9.02  | 7.36 | 4.26 | 3.08 | 2.49 | 2.11 | 1.80 | 1.41 | 1.14 | 0.600 |
| 1.75V/cell | 26.3  | 20.4  | 16.9  | 12.6  | 9.20  | 7.49 | 4.32 | 3.13 | 2.53 | 2.13 | 1.82 | 1.43 | 1.16 | 0.602 |
| 1.70V/cell | 27.6  | 21.1  | 17.4  | 12.9  | 9.37  | 7.62 | 4.39 | 3.17 | 2.56 | 2.16 | 1.85 | 1.45 | 1.17 | 0.607 |
| 1.65V/cell | 28.3  | 21.6  | 17.7  | 13.1  | 9.48  | 7.70 | 4.43 | 3.20 | 2.58 | 2.18 | 1.86 | 1.46 | 1.18 | 0.610 |
| 1.60V/cell | 30.0  | 22.6  | 18.4  | 13.5  | 9.73  | 7.89 | 4.52 | 3.27 | 2.63 | 2.22 | 1.89 | 1.48 | 1.20 | 0.619 |

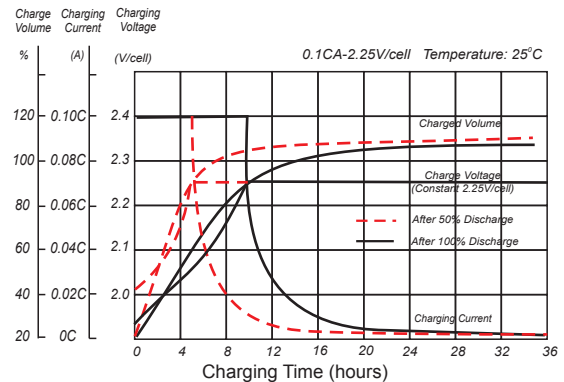
### Constant Power Discharge (Watts/cell) at 25°C

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 45.7  | 36.4  | 30.7  | 23.3  | 17.2  | 14.1 | 8.21 | 5.97 | 4.84 | 4.10 | 3.52 | 2.77 | 2.24 | 1.18 |
| 1.80V/cell | 47.7  | 37.6  | 31.5  | 23.8  | 17.4  | 14.3 | 8.31 | 6.05 | 4.90 | 4.15 | 3.56 | 2.80 | 2.27 | 1.19 |
| 1.75V/cell | 49.8  | 38.8  | 32.2  | 24.2  | 17.7  | 14.5 | 8.42 | 6.12 | 4.96 | 4.20 | 3.60 | 2.83 | 2.29 | 1.20 |
| 1.70V/cell | 51.8  | 40.0  | 33.1  | 24.7  | 18.0  | 14.7 | 8.53 | 6.20 | 5.02 | 4.25 | 3.64 | 2.86 | 2.32 | 1.21 |
| 1.65V/cell | 53.0  | 40.7  | 33.5  | 25.0  | 18.1  | 14.8 | 8.60 | 6.25 | 5.05 | 4.28 | 3.66 | 2.88 | 2.33 | 1.22 |
| 1.60V/cell | 55.8  | 42.2  | 34.6  | 25.6  | 18.5  | 15.1 | 8.74 | 6.35 | 5.13 | 4.34 | 3.72 | 2.93 | 2.37 | 1.24 |

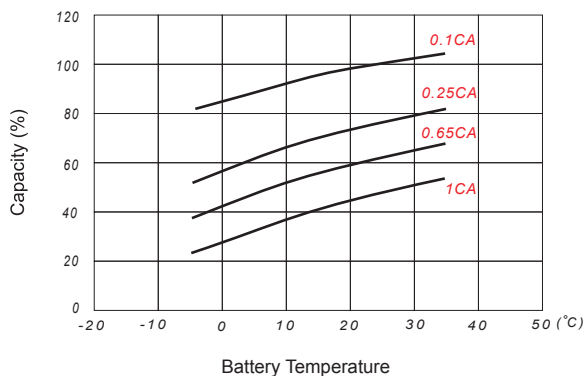
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life

