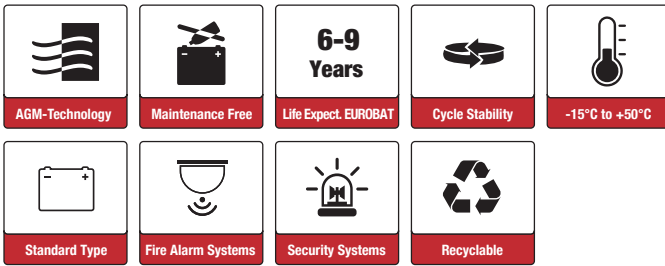




# SB5-12L (12V5Ah)



## Applications

- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Alarm and security system
- Communication power supply
- DC power supply

## Certificates

Conform to  
IEC60896-21&22

## Specifications

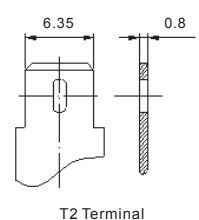
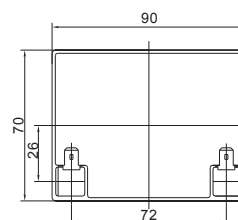
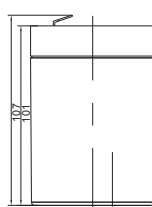
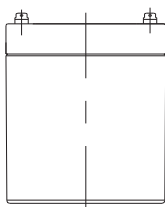


|                                               |                                                                                                                                          |                                   |                                                                                                                                                             |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Nominal Voltage</b>                        | 12V                                                                                                                                      | <b>Nominal Oper. Temp. R.</b>     | 20±3°C                                                                                                                                                      |
| <b>Nominal Capacity</b>                       | 5Ah (C <sub>20</sub> 10.5V)                                                                                                              | <b>Cycle Use</b>                  | Initial Charging Current less than 1.5A.<br>Voltage 14.55V ±1% at 20°C.<br>Temperature Coefficient 3mV/cell/°C.                                             |
| <b>Approx. Weight</b>                         | 1.6kg                                                                                                                                    | <b>Standby Use</b>                | No limit on Initial Charging Current.<br>Voltage 13.65V ±1% at 20°C.<br>Temperature Coefficient 3mV/cell/°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 HB                                                                                                                              | <b>Self Discharge</b>             | SSB batteries may be stored for up to 6 months at 20°C and then a freshening charge is required. For higher temperatures the time interval will be shorter. |
| <b>Rated Capacity (20°C)</b>                  | 5.0Ah/0.250A, 20hr, 10.5V<br>4.5Ah/0.45A, 10hr, 10.5V<br>4.25Ah/0.85A, 5hr, 10.5V<br>3.75Ah/1.25A, 3hr, 10.5V<br>3.25Ah/3.25A, 1hr, 9.6V | <b>Life Expectancy</b>            | 6-9 years according to EUROBAT                                                                                                                              |
| <b>Max. Discharge Current</b>                 | 75A (5s)                                                                                                                                 |                                   |                                                                                                                                                             |
| <b>Internal Resistance / Impedance (1kHz)</b> | Approx. 26mΩ                                                                                                                             |                                   |                                                                                                                                                             |
| <b>Operating Temp. Range</b>                  | Discharge: -20~50°C<br>Charge: -10~50°C<br>Storage: -20~50°C                                                                             |                                   |                                                                                                                                                             |

## Dimensions

### ■ T2 Terminal

Unit: mm | Dimensions: 90 Length X 70 Width X 101 Height (107 Height incl. Terminal)



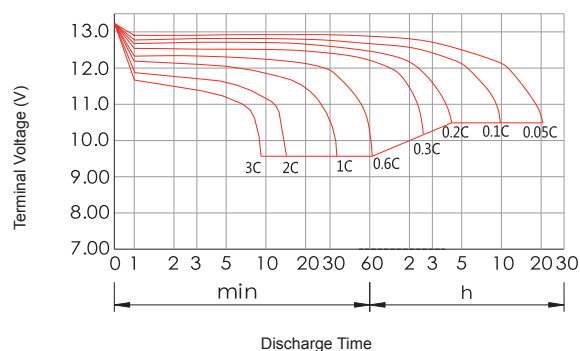
## Constant Current Discharge (Amperes) at 20°C

| F.V/Time | 5min | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 9.60V    | 19.1 | 12.0  | 9.50  | 5.30  | 3.25 | 1.78 | 1.28 | 1.02 | 0.87 | 0.56 | 0.46 | 0.25 |
| 9.90V    | 18.0 | 11.6  | 9.27  | 5.19  | 3.20 | 1.77 | 1.27 | 1.01 | 0.86 | 0.56 | 0.46 | 0.25 |
| 10.2V    | 16.4 | 11.2  | 8.93  | 5.04  | 3.12 | 1.75 | 1.26 | 1.01 | 0.86 | 0.56 | 0.45 | 0.25 |
| 10.5V    | 15.2 | 10.7  | 8.63  | 4.91  | 3.06 | 1.72 | 1.25 | 1.00 | 0.85 | 0.56 | 0.45 | 0.25 |
| 10.8V    | 14.5 | 10.1  | 8.17  | 4.73  | 2.96 | 1.68 | 1.21 | 0.97 | 0.82 | 0.54 | 0.44 | 0.25 |

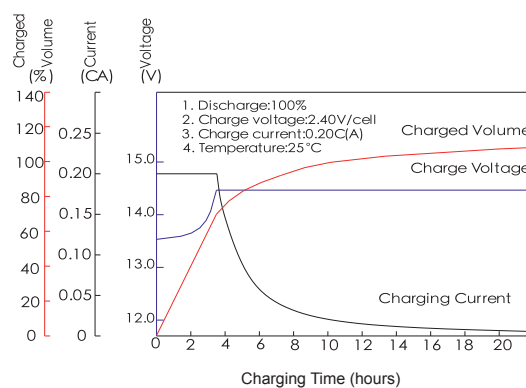
## Constant Power Discharge (Watts/cell) at 20°C

| F.V/Time | 5min | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 9.60V    | 181  | 135   | 108   | 60.7  | 37.6 | 20.8 | 15.1 | 12.1 | 10.4 | 6.72 | 5.66 | 3.05 |
| 9.90V    | 177  | 131   | 106   | 59.5  | 37.1 | 20.7 | 15.1 | 12.1 | 10.3 | 6.70 | 5.64 | 3.03 |
| 10.2V    | 174  | 126   | 102   | 57.7  | 36.1 | 20.5 | 15.0 | 12.0 | 10.2 | 6.64 | 5.61 | 3.02 |
| 10.5V    | 168  | 120   | 98.3  | 56.3  | 35.4 | 20.2 | 14.9 | 11.9 | 10.1 | 6.58 | 5.58 | 3.00 |
| 10.8V    | 161  | 114   | 93.1  | 54.2  | 34.3 | 19.7 | 14.4 | 11.6 | 9.84 | 6.41 | 5.47 | 2.94 |

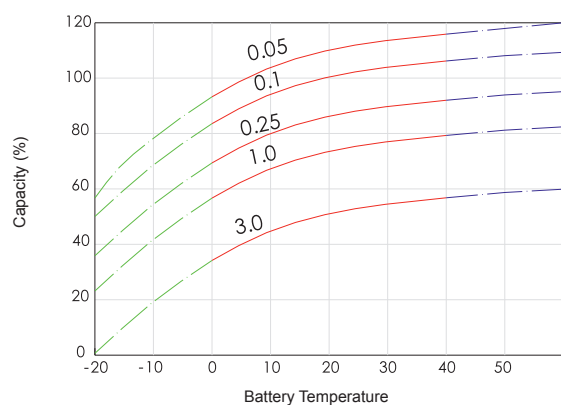
## Discharge Characteristics



## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life

