



# SBL100-12i (12V100Ah)



## 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

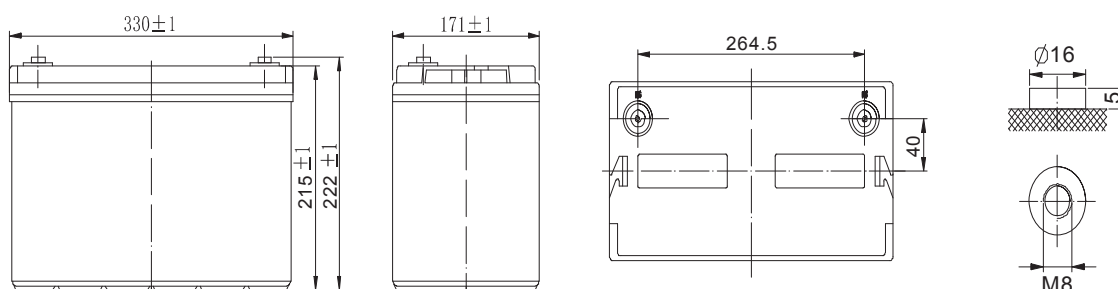
## Specifications

|                                               |                                                                                                                                                                     |                                   |                                                                                                                                                             |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Nominal Voltage</b>                        | 12V                                                                                                                                                                 | <b>Nominal Oper. Temp. R.</b>     | 20±3°C                                                                                                                                                      |
| <b>Nominal Capacity</b>                       | 100.0Ah (C <sub>10</sub> , 10.8V)                                                                                                                                   | <b>Operating Temp. Range</b>      | Discharge: -20~50°C<br>Charge: -10~50°C<br>Storage: -20~50°C                                                                                                |
| <b>Approx. Weight</b>                         | 29kg                                                                                                                                                                | <b>Standby Use</b>                | No limit on Initial Charging Current.<br>Voltage 2.295 V/cell at 20° C.<br>Temperature Coefficient 3mV/cell/°C.                                             |
| <b>Terminal</b>                               | M8                                                                                                                                                                  | <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>                  | 106Ah/5.30A, 20hr, 10.8V<br>100.0Ah/10.0A, 10hr, 10.8V<br>94.96Ah/11.87A, 8hr, 10.5V<br>83.0Ah/16.6A, 5hr, 10.5V<br>80.7Ah/26.9A/3hr/10.5V<br>66.2Ah/66.2A/1hr/9.6V | <b>Life Expectancy</b>            | 10-12 years according to EUROBAT                                                                                                                            |
| <b>Max. Discharge Current</b>                 | 900A (5s)                                                                                                                                                           |                                   |                                                                                                                                                             |
| <b>Internal Resistance / Impedance (1kHz)</b> | Approx. 5.7mΩ                                                                                                                                                       |                                   |                                                                                                                                                             |

## Dimensions

### ■ M8 Terminal

Unit: mm | Dimensions: 330 Length X 171 Width X 215 Height (222 Height incl. Terminal)



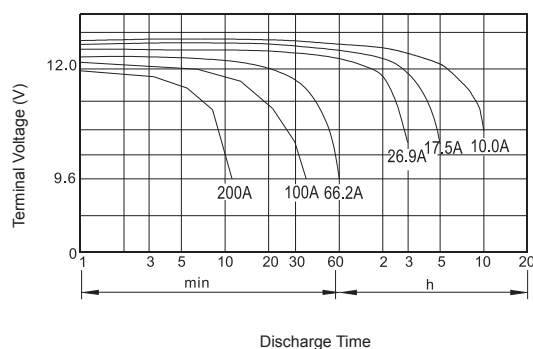
## Constant Current Discharge (Amperes) at 20°C

| End Point  | 5min | 10min | 15min | 30min | 1h   | 1.5h | 2h   | 3h   | 5h   | 6h   | 8h    | 10h  | 20h  |
|------------|------|-------|-------|-------|------|------|------|------|------|------|-------|------|------|
| 1.60V/cell | -    | 229   | 185   | 108   | 66.2 | 45.6 | 35.2 | 27.9 | 17.6 | 15.6 | 12.54 | 10.8 | 5.5  |
| 1.65V/cell | -    | 221   | 178   | 104   | 62.5 | 45.1 | 34.5 | 27.7 | 17.3 | 15.4 | 12.35 | 10.6 | 5.45 |
| 1.70V/cell | -    | 200   | 164   | 96    | 61.5 | 44.4 | 33.8 | 27.2 | 17   | 15.1 | 12.11 | 10.4 | 5.4  |
| 1.75V/cell | -    | 187   | 153   | 93    | 60.5 | 43.7 | 33.1 | 26.9 | 16.6 | 14.8 | 11.87 | 10.2 | 5.35 |
| 1.80V/cell | -    | 175   | 143   | 91    | 57.4 | 42.5 | 32.5 | 25.3 | 16.3 | 14.5 | 11.63 | 10   | 5.3  |

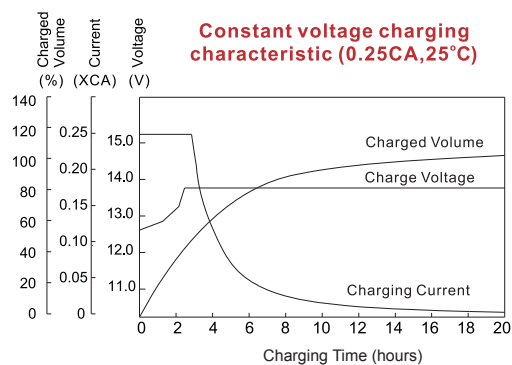
## Constant Power Discharge (Watts/cell) at 20°C

| End Point  | 30min | 45min | 1h  | 1.5h | 2h   | 3h   | 5h   | 8h   | 10h   | 20h  |
|------------|-------|-------|-----|------|------|------|------|------|-------|------|
| 1.60V/cell | 199   | 150   | 124 | 88.9 | 70.6 | 52.8 | 35.8 | 23.6 | 19.6  | 10   |
| 1.65V/cell | 188   | 146   | 118 | 87.4 | 67.8 | 51.2 | 35.4 | 22   | 19.30 | 9.90 |
| 1.70V/cell | 183   | 137   | 114 | 86.3 | 66.8 | 50.9 | 35   | 21.5 | 19.00 | 9.80 |
| 1.75V/cell | 177   | 134   | 111 | 83.8 | 64.5 | 49.1 | 34.4 | 20.8 | 18.70 | 9.70 |
| 1.80V/cell | 171   | 131   | 104 | 82.1 | 62.5 | 48.5 | 34   | 19.8 | 18.50 | 9.60 |

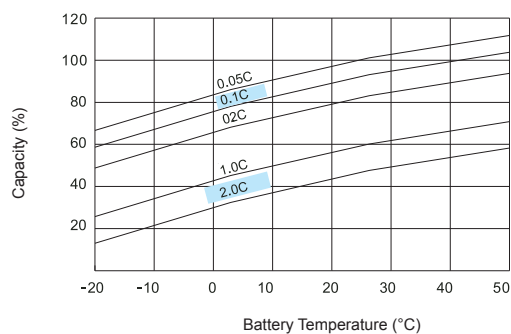
## Discharge Characteristics



## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life

