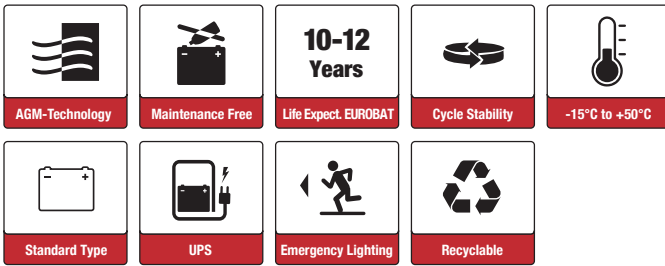




# SBL55-12i (12V55Ah)



## 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

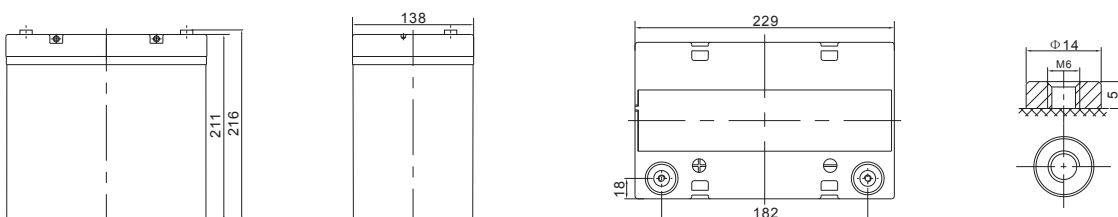
Conform to  
IEC60896-21&22

## Specifications

|                                               |                                  |                                   |                                                                                                                                                             |              |
|-----------------------------------------------|----------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Nominal Voltage</b>                        | 12V                              | <b>Operating Temp. Range</b>      | Discharge:                                                                                                                                                  | -15~50°C     |
| <b>Nominal Capacity</b>                       | 55.0Ah (C <sub>10</sub> , 10.8V) |                                   | Charge:                                                                                                                                                     | -20~40°C     |
| <b>Approx. Weight</b>                         | 16.5kg                           |                                   | Storage:                                                                                                                                                    | -15~40°C     |
| <b>Terminal</b>                               | M6                               | <b>Float Charge</b>               | 2.285V/cell ± 0,5 % @ 20°C                                                                                                                                  |              |
| <b>Container Material</b>                     | ABS UL94 HB                      |                                   | Charging Current:                                                                                                                                           | 0.1-0.2C     |
| <b>Rated Capacity (20°C)</b>                  | 57.8Ah/2.89A, 20hr, 10.8V        |                                   | Temperature coefficient:                                                                                                                                    | -3mV/cell/°C |
|                                               | 55Ah/5.5A, 10hr, 10.8V           | <b>Capacity affected by Temp.</b> | 40°C                                                                                                                                                        | 103%         |
|                                               | 53.52Ah/6.69A, 8hr, 10.5V        |                                   | 25°C                                                                                                                                                        | 100%         |
|                                               | 48Ah/9.60A, 5hr, 10.5V           |                                   | 0°C                                                                                                                                                         | 86%          |
|                                               | 42.6Ah/14.2A, 3hr, 10.5V         | <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. |              |
|                                               | 33.6Ah/33.6A, 1hr, 9.6V          | <b>Life Expectancy</b>            | 10-12 years according to EUROBAT                                                                                                                            |              |
| <b>Max. Discharge Current</b>                 | 550A (5s)                        |                                   |                                                                                                                                                             |              |
| <b>Internal Resistance / Impedance (1kHz)</b> | Approx. 6mΩ                      |                                   |                                                                                                                                                             |              |
| <b>Nominal Oper. Temp. R.</b>                 | 20±2°C                           |                                   |                                                                                                                                                             |              |

## Dimensions

- **M6 Terminal** Unit: mm | Dimensions: 229±2 Length X 138±2 Width X 211±2 Height (216±2 Height incl. Terminal)



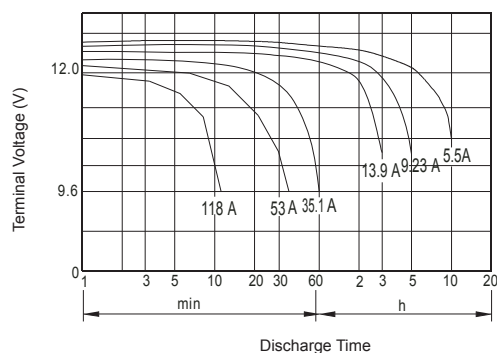
## Constant Current Discharge (Amperes) at 20°C

| F.V/Time | 5min  | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 176.2 | 134.2 | 102.0 | 60.2  | 33.6 | 20.0 | 15.5 | 12.2 | 10.4 | 6.97 | 5.80 | 3.04 |
| 1.65V    | 169.8 | 126.8 | 97.5  | 57.8  | 32.5 | 19.4 | 15.0 | 11.9 | 10.1 | 6.90 | 5.73 | 2.99 |
| 1.70V    | 161.5 | 116.8 | 91.3  | 55.3  | 31.4 | 18.7 | 14.6 | 11.5 | 9.84 | 6.79 | 5.65 | 2.95 |
| 1.75V    | 150.9 | 106.9 | 85.0  | 52.8  | 30.2 | 18.1 | 14.2 | 11.2 | 9.60 | 6.69 | 5.57 | 2.91 |
| 1.80V    | 137.5 | 96.8  | 78.5  | 50.5  | 29.1 | 17.4 | 13.8 | 10.9 | 9.35 | 6.58 | 5.50 | 2.89 |
| 1.85V    | 121.0 | 79.1  | 65.1  | 43.5  | 26.1 | 16.0 | 12.7 | 10.2 | 8.72 | 6.18 | 5.18 | 2.74 |

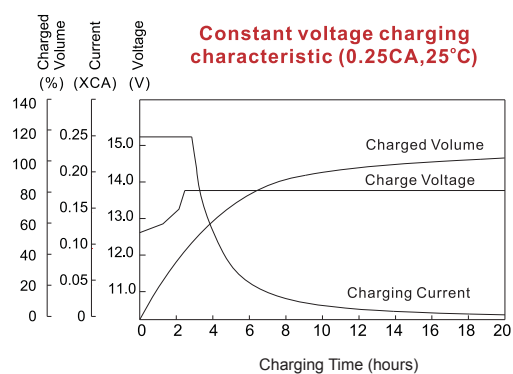
## Constant Power Discharge (Watts/cell) at 20°C

| F.V/Time | 5min  | 10min | 15min | 30min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.60V    | 303.3 | 228.2 | 178.3 | 109.4 | 63.1 | 37.9 | 29.6 | 23.4 | 20.0 | 13.6 | 11.4 | 5.98 |
| 1.65V    | 300.1 | 219.8 | 173.0 | 106.1 | 61.3 | 36.9 | 28.8 | 22.9 | 19.6 | 13.5 | 11.3 | 5.89 |
| 1.70V    | 288.6 | 206.0 | 164.4 | 102.5 | 59.7 | 35.9 | 28.2 | 22.3 | 19.1 | 13.3 | 11.1 | 5.83 |
| 1.75V    | 274.5 | 192.0 | 155.2 | 98.9  | 57.9 | 34.8 | 27.5 | 21.8 | 18.7 | 13.2 | 11.0 | 5.76 |
| 1.80V    | 254.4 | 176.8 | 145.4 | 95.5  | 56.0 | 33.7 | 26.7 | 21.3 | 18.3 | 13.0 | 10.9 | 5.71 |
| 1.85V    | 227.9 | 147.1 | 122.3 | 83.1  | 50.5 | 31.1 | 24.8 | 19.9 | 17.1 | 12.2 | 10.2 | 5.43 |

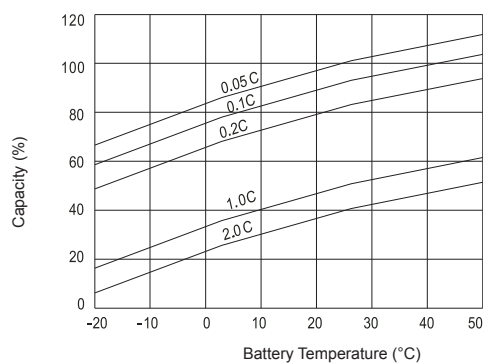
## Discharge Characteristics



## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life

