



## SB12-55A FT V0 (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

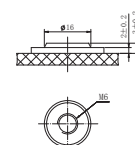
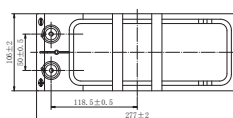
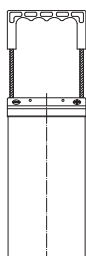
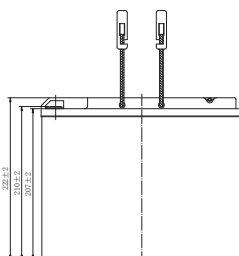


|                                               |                                                                                                                                                                     |                                   |                                                                                                                                                            |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Nominal Voltage</b>                        | 12V                                                                                                                                                                 | <b>Nominal Oper. Temp. R.</b>     | 25±3°C                                                                                                                                                     |
| <b>Nominal Capacity</b>                       | 55.0Ah (C <sub>10</sub> , 1.80V/cell)                                                                                                                               | <b>Cycle Use</b>                  | Initial Charging Current less than 15.0A.<br>Voltage 14.7V +1% at 25°C.<br>Temperature Coefficient -30mV/°C.                                               |
| <b>Approx. Weight</b>                         | 17.3kg                                                                                                                                                              | <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>                               | M6                                                                                                                                                                  | <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>                  | 58.2Ah/2.91A, 20hr, 1.80V/cell<br>55.0Ah/5.50A, 10hr, 1.80V/cell<br>53.6Ah/6.70A, 8hr, 1.75V/cell<br>48.2Ah/9.64A, 5hr, 1.75V/cell<br>36.4Ah/36.4A, 1hr, 1.60V/cell | <b>Life Expectancy</b>            | 10-12 years according to EUROBAT                                                                                                                           |
| <b>Max. Discharge Current</b>                 | 550A (5s)                                                                                                                                                           |                                   |                                                                                                                                                            |
| <b>Internal Resistance / Impedance (1kHz)</b> | Approx. 7.6mΩ                                                                                                                                                       |                                   |                                                                                                                                                            |
| <b>Operating Temp. Range</b>                  | Discharge: -15~50°C<br>Charge: 0~40°C<br>Storage: -15~40°C                                                                                                          |                                   |                                                                                                                                                            |

### Dimensions

#### ■ M6 Terminal

Unit: mm | Dimensions: 277 Length X 106 Width X 222 Height (222 Height incl. Terminal)





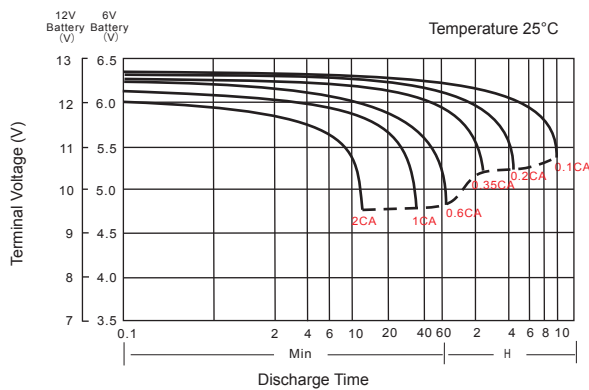
## Constant Current Discharge (Amperes) at 25°C

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 87.8  | 76.2  | 65.9  | 51.7  | 39.4  | 31.7 | 18.3 | 13.3 | 10.7 | 8.97 | 7.86 | 6.30 | 5.26 | 2.79 |
| 1.80V/cell | 101.3 | 86.0  | 73.0  | 56.6  | 42.5  | 33.9 | 19.7 | 14.3 | 11.3 | 9.52 | 8.29 | 6.62 | 5.50 | 2.91 |
| 1.75V/cell | 111.9 | 93.1  | 78.9  | 59.5  | 43.9  | 34.9 | 20.1 | 14.5 | 11.5 | 9.64 | 8.39 | 6.70 | 5.56 | 2.93 |
| 1.70V/cell | 118.1 | 98.3  | 82.0  | 61.2  | 44.9  | 35.5 | 20.4 | 14.7 | 11.6 | 9.73 | 8.46 | 6.75 | 5.60 | 2.95 |
| 1.67V/cell | 123.4 | 102.1 | 84.5  | 62.2  | 45.5  | 35.9 | 20.5 | 14.8 | 11.7 | 9.82 | 8.53 | 6.81 | 5.64 | 2.97 |
| 1.60V/cell | 128.7 | 104.9 | 86.3  | 63.5  | 46.1  | 36.4 | 20.7 | 14.9 | 11.8 | 9.90 | 8.61 | 6.86 | 5.68 | 2.99 |

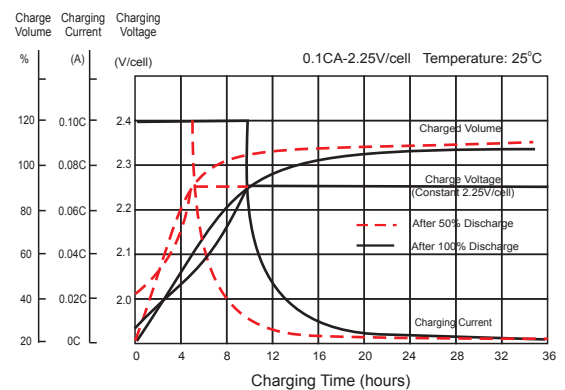
## Constant Power Discharge (Watts/cell) at 25°C

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 167.2 | 146.5 | 127.8 | 100.9 | 77.2  | 62.4 | 36.3 | 26.5 | 21.3 | 17.9 | 15.8 | 12.7 | 10.6 | 5.63 |
| 1.80V/cell | 191.6 | 164.4 | 140.6 | 109.9 | 82.9  | 66.5 | 38.9 | 28.3 | 22.6 | 19.0 | 16.6 | 13.3 | 11.1 | 5.87 |
| 1.75V/cell | 210.0 | 176.5 | 151.1 | 114.9 | 85.5  | 68.3 | 39.6 | 28.8 | 22.9 | 19.2 | 16.8 | 13.4 | 11.2 | 5.90 |
| 1.70V/cell | 218.8 | 184.6 | 155.6 | 117.3 | 86.7  | 69.2 | 39.9 | 28.9 | 23.0 | 19.3 | 16.9 | 13.5 | 11.2 | 5.93 |
| 1.67V/cell | 225.1 | 188.8 | 158.3 | 117.8 | 87.2  | 69.3 | 40.0 | 29.0 | 23.1 | 19.4 | 17.0 | 13.6 | 11.3 | 5.95 |
| 1.60V/cell | 229.8 | 190.9 | 159.6 | 119.0 | 87.5  | 69.8 | 40.2 | 29.1 | 23.2 | 19.5 | 17.1 | 13.7 | 11.3 | 5.98 |

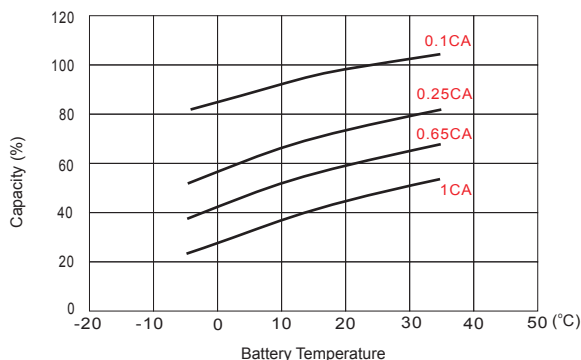
## Discharge Characteristics



## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life

