



# SBMGL100(12V100Ah) GEL BATTERY

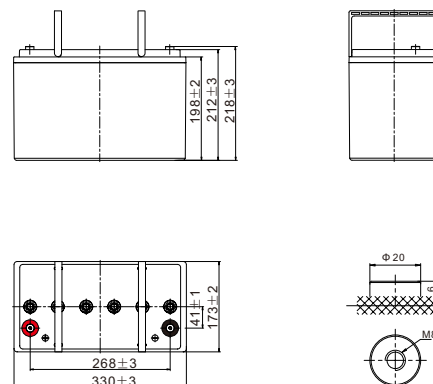


## Specifications

|                               |   |                                |
|-------------------------------|---|--------------------------------|
| Rated Voltage                 | 12V   |                                |
| Nominal Capacity              | 100Ah   | (C <sub>10</sub> , 1.80V/cell) |
| Dimension                     | Length  | 330±3mm (13.0 inches)          |
|                               | Width   | 173±2mm (6.81 inches)          |
|                               | Container Height  | 212±3mm (8.35 inches)          |
|                               | Total Height  | 218±3mm (8.58 inches)          |
| Approx Weight                 | 30.8 Kg (67.9 lbs)  |                                |
| Terminal                      | M8  |                                |
| Container Material            | ABS   |                                |
| Rated Capacity (25°C)         | 103.0 Ah  | (20hr, 5.15A, 1.80V/cell)      |
|                               | 100.0 Ah  | (10hr, 10.0A, 1.80V/cell)      |
|                               | 85.0 Ah   | (5hr, 17.0A, 1.75V/cell)       |
|                               | 73.8 Ah   | (3hr, 24.6A, 1.75V/cell)       |
|                               | 57.0 Ah   | (1hr, 57.0A, 1.65V/cell)       |
| Max. Discharge Current        | 1200A (5s)  |                                |
| Internal Resistance (25°C)    | Approx 4.9mΩ  |                                |
| Operating Temp. Range         | Discharge : -20 ~ 55°C (-4 ~ 131°F)   |                                |
|                               | Charge : -20 ~ 40°C (-4 ~ 104°F)  |                                |
|                               | Storage : -20 ~ 50°C (-4 ~ 122°F)   |                                |
| Nominal Operating Temp. Range | 25±3°C (77±5°F)   |                                |
| Cycle Use                     | Initial Charging Current less than 25.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C   |                                |
| Standby Use                   | Initial Charging Current less than 25.0A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C   |                                |
| Effect of temp. to Capacity   | 40°C (104°F)  | 103%                           |
|                               | 25°C (77°F)   | 100%                           |
|                               | 0°C (32°F)  | 86%                            |
| Self Discharge                | Batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                                |



## Layout



## Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 161.2 | 126.8 | 107.8 | 90.2  | 71.2  | 54.1  | 44.8 | 28.5 | 22.1 | 18.2 | 15.4 | 13.5 | 11.0 | 9.28 | 5.00 |
| 1.80V/cell | 213.3 | 159.6 | 128.3 | 105.0 | 82.0  | 61.4  | 49.8 | 30.9 | 23.8 | 19.4 | 16.6 | 14.4 | 11.7 | 10.0 | 5.15 |
| 1.75V/cell | 245.4 | 179.0 | 143.1 | 115.3 | 87.4  | 64.9  | 52.7 | 32.4 | 24.6 | 20.0 | 17.0 | 14.8 | 11.9 | 10.1 | 5.20 |
| 1.70V/cell | 273.4 | 197.4 | 154.5 | 122.6 | 92.2  | 68.2  | 55.0 | 34.0 | 25.5 | 20.6 | 17.5 | 15.2 | 12.0 | 10.2 | 5.30 |
| 1.65V/cell | 298.6 | 210.9 | 162.7 | 129.0 | 96.6  | 70.2  | 57.0 | 34.9 | 26.4 | 21.2 | 17.9 | 15.5 | 12.2 | 10.3 | 5.35 |
| 1.60V/cell | 332.0 | 230.9 | 175.5 | 138.5 | 102.6 | 74.3  | 59.7 | 36.2 | 27.3 | 21.7 | 18.2 | 15.8 | 12.4 | 10.4 | 5.40 |

## Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 297.0 | 235.9 | 202.7 | 171.2 | 136.5 | 104.5 | 86.8  | 55.4 | 43.2 | 35.7 | 30.4 | 26.5 | 21.7 | 18.4 | 9.94 |
| 1.80V/cell | 389.0 | 293.8 | 238.3 | 196.7 | 155.2 | 117.7 | 96.0  | 59.9 | 46.2 | 37.8 | 32.5 | 28.4 | 23.1 | 19.8 | 10.2 |
| 1.75V/cell | 437.8 | 324.0 | 262.2 | 213.7 | 164.0 | 123.4 | 101.1 | 62.6 | 47.7 | 38.9 | 33.2 | 29.1 | 23.4 | 20.0 | 10.3 |
| 1.70V/cell | 473.5 | 348.6 | 278.8 | 225.2 | 171.8 | 128.9 | 105.0 | 65.5 | 49.2 | 40.0 | 34.0 | 29.6 | 23.7 | 20.1 | 10.5 |
| 1.65V/cell | 508.8 | 368.4 | 290.7 | 234.7 | 178.2 | 131.7 | 108.1 | 66.9 | 50.9 | 41.0 | 34.7 | 30.2 | 24.0 | 20.3 | 10.6 |
| 1.60V/cell | 552.6 | 394.1 | 308.3 | 249.3 | 187.8 | 138.3 | 112.7 | 69.0 | 52.4 | 41.8 | 35.2 | 30.8 | 24.3 | 20.6 | 10.7 |



# SBMGL100(12V100Ah)



## Applications

- Communication power supply
- Engine starting
- Pump systems
- Alarm installations
- Marine and power stations

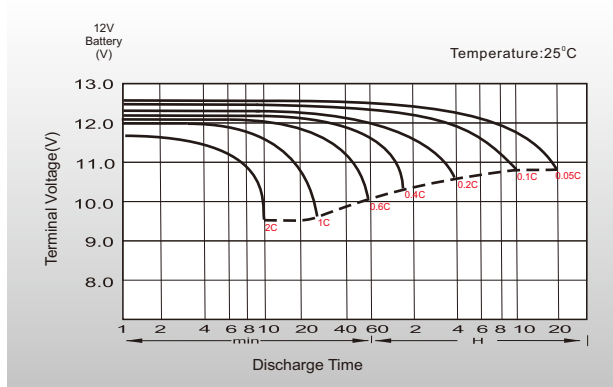
## General Features

- Adopted advantage AGM-GEL technology
- Operation temperature -20~55°C
- ≤3% Self discharge @25°C

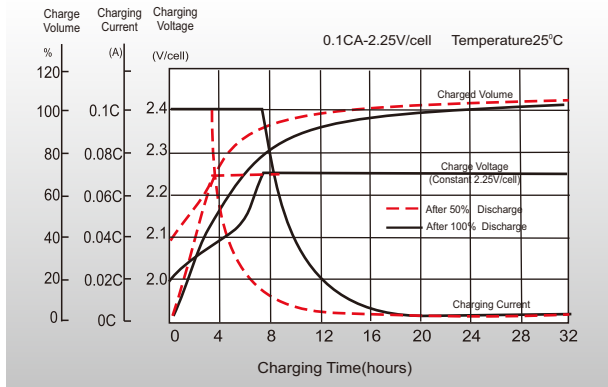
## Standards

- IEC 60896 Certified
- Classified as "Long Life" according to Eurobat
- CE Certified

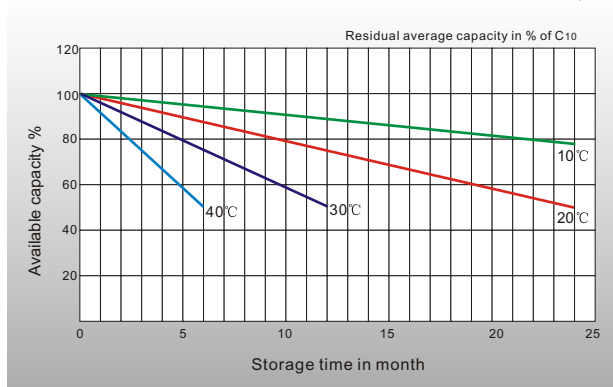
### Discharge Characteristics



### Float Charging Characteristics



### General Relation of Capacity VS. Storage Time



### Effect of Temperature on Long Term Float Life

