



valve regulated
sealed lead acid type
rechargeable battery

 sunbattery®

SB12-200(12V200AH)





Specification

| | | |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Nominal Voltage | 12V | |
| Nominal Capacity(10HR) | 200.0AH | |
| Dimension | Length | 522±2mm (20.55 inches) |
| | Width | 240±2mm (9.45 inches) |
| | Container Height | 218±2mm (8.58 inches) |
| | Total Height (with Terminal) | 224±2mm (8.81 inches) |
| Approx Weight | Approx 64.0 Kg (141.1 lbs) | |
| Terminal | T11 | |
| Container Material | ABS | |
| Rated Capacity | 214.0 AH/10.7A | (20hr, 1.80V/cell, 25°C/77°F) |
| | 200.0 AH/20.0A | (10hr, 1.80V/cell, 25°C/77°F) |
| | 174.0 AH/34.8A | (5hr, 1.75V/cell, 25°C/77°F) |
| | 156.0 AH/52.0A | (3hr, 1.75V/cell, 25°C/77°F) |
| | 124.0 AH/124.0A | (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 2000A (5s) | |
| Internal Resistance | Approx 2.7mΩ | |
| Operating Temp. Range | Discharge : -15~50°C (5~122°F) | |
| | Charge : 0~40°C (32~104°F) | |
| | Storage : -15~40°C (5~104°F) | |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Cycle Use | Initial Charging Current less than 60.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C | |
| | Standby Use No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C | |
| Capacity affected by Temperature | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | SB series batteries maybe 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. | |
| Life expectancy | 8-12 years at 25°C with charge voltage 2.25V/cell. | |



Applications

- ◆ UPS and EPS
- ◆ Emergency light
- ◆ Railway signal and aircraft signal system
- ◆ Marine and power stations Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply, DC power supply

| | | |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--|
|  MH45680 |  ETL SEMKO | |
|  ISO14001 |  ISO9001 | |

Conform to:
IEC60896-21&22 and/or IEC61427

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

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 234.0 | 196.8 | 174.6 | 144.8 | 111.7 | 95.6 | 61.9 | 46.5 | 38.1 | 32.1 | 28.1 | 22.5 | 19.4 | 10.3 |
| 1.80V/cell | 267.8 | 221.0 | 193.0 | 157.3 | 120.5 | 100.9 | 66.5 | 50.0 | 40.5 | 34.0 | 29.8 | 23.7 | 20.0 | 10.7 |
| 1.75V/cell | 304.1 | 249.1 | 213.3 | 170.9 | 131.5 | 110.0 | 69.2 | 52.0 | 41.9 | 34.8 | 30.7 | 24.5 | 20.5 | 11.0 |
| 1.70V/cell | 343.5 | 276.3 | 235.5 | 186.6 | 141.6 | 116.4 | 72.9 | 54.7 | 43.8 | 36.8 | 32.2 | 25.6 | 21.3 | 11.3 |
| 1.65V/cell | 368.8 | 295.9 | 250.5 | 196.9 | 149.9 | 120.4 | 75.6 | 56.9 | 45.5 | 38.0 | 33.3 | 26.4 | 21.9 | 11.6 |
| 1.60V/cell | 405.8 | 324.1 | 272.1 | 210.1 | 155.7 | 124.0 | 77.5 | 58.4 | 46.5 | 38.9 | 34.0 | 26.9 | 22.4 | 11.8 |

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

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1.85V/cell | 436.9 | 371.2 | 332.6 | 278.9 | 217.0 | 186.3 | 121.4 | 91.7 | 75.3 | 63.5 | 55.8 | 45.0 | 38.7 | 20.7 |
| 1.80V/cell | 494.1 | 411.2 | 362.4 | 298.3 | 232.3 | 195.6 | 129.7 | 97.9 | 79.6 | 67.0 | 58.9 | 47.2 | 39.9 | 21.4 |
| 1.75V/cell | 552.3 | 457.9 | 396.7 | 321.5 | 251.0 | 212.3 | 134.4 | 101.4 | 82.1 | 68.4 | 60.6 | 48.6 | 40.9 | 21.9 |
| 1.70V/cell | 609.8 | 501.0 | 434.6 | 349.1 | 269.3 | 223.9 | 141.3 | 106.6 | 85.6 | 72.2 | 63.4 | 50.6 | 42.5 | 22.4 |
| 1.65V/cell | 648.9 | 532.3 | 458.9 | 365.4 | 282.5 | 230.0 | 145.6 | 110.4 | 88.6 | 74.2 | 65.4 | 52.2 | 43.6 | 23.1 |
| 1.60V/cell | 697.8 | 573.5 | 493.2 | 387.2 | 292.0 | 235.6 | 148.6 | 112.7 | 90.3 | 75.8 | 66.5 | 53.0 | 44.4 | 23.4 |

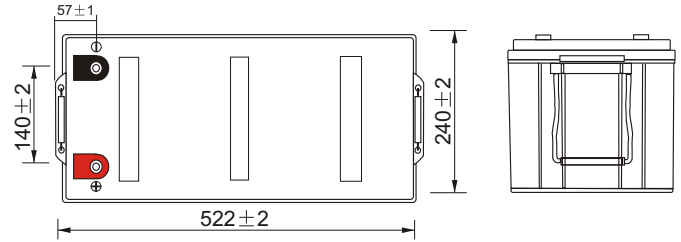
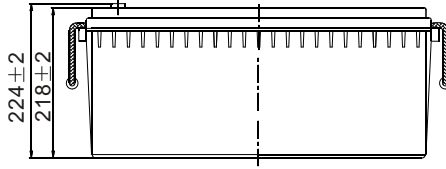
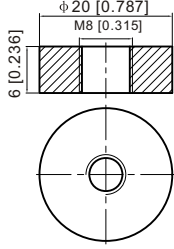


Specifications subject to change without notice.

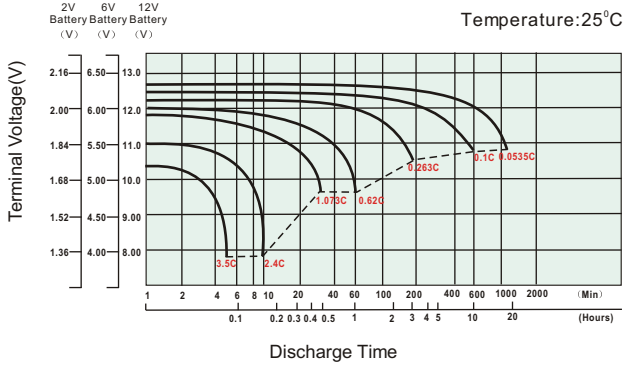
Dimensions

T11 Terminal

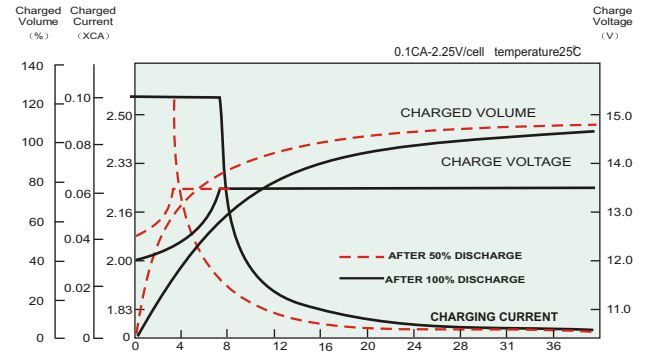
Unit: mm [inches]



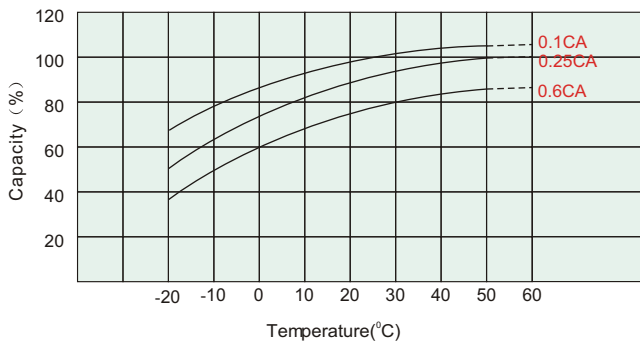
Discharge Characteristics



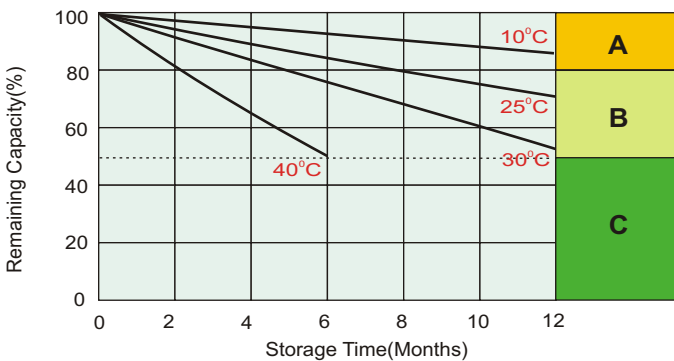
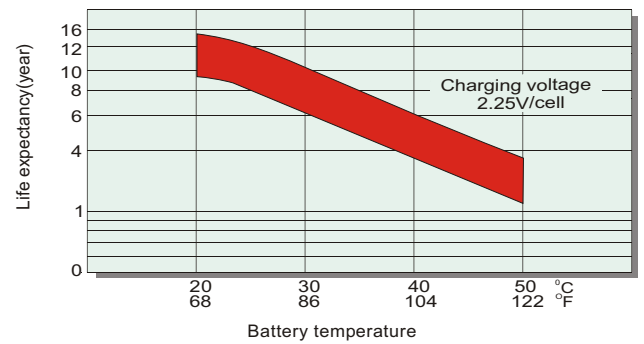
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
 2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 3. Charged for 8~10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.