



valve regulated
sealed lead acid type
rechargeable battery



SB12-150(12V150AH)





Specification

| | |
|----------------------------------|---|
| Nominal Voltage | 12V |
| Nominal Capacity(10HR) | 150.0AH |
| Dimension | Length 483±2mm (19.09 inches) |
| | Width 170±2mm (6.69 inches) |
| | Container Height 238.5±2mm (9.39 inches) |
| | Total Height (with Terminal) 238.5±2mm (9.39 inches) |
| Approx Weight | Approx 47.2 Kg (104.68 lbs) |
| Terminal | T11 |
| Container Material | ABS Standard ABS UL94 HB Optional ABS UL94 V0 |
| Rated Capacity | 160.5 AH/8.03A (20hr, 1.80V/cell, 25°C/77°F) |
| | 150.0 AH/15.0A (10hr, 1.80V/cell, 25°C/77°F) |
| | 130.5 AH/26.1A (5hr, 1.75V/cell, 25°C/77°F) |
| | 117.0 AH/39.0A (3hr, 1.75V/cell, 25°C/77°F) |
| | 93.0 AH/93.0A (1hr, 1.60V/cell, 25°C/77°F) |
| Max. Discharge Current | 1500A (5s) |
| Internal Resistance | Approx 3.5mΩ |
| 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 45.0A. 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 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. |
| 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 | |

Comform 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 | 175.5 | 147.6 | 131.0 | 108.6 | 83.8 | 71.7 | 46.4 | 34.9 | 28.6 | 24.1 | 21.1 | 16.9 | 14.5 | 7.76 |
| 1.80V/cell | 200.8 | 165.7 | 144.8 | 118.0 | 90.4 | 75.7 | 49.9 | 37.5 | 30.4 | 25.5 | 22.3 | 17.8 | 15.0 | 8.03 |
| 1.75V/cell | 228.1 | 186.8 | 160.0 | 128.2 | 98.6 | 82.5 | 51.9 | 39.0 | 31.4 | 26.1 | 23.0 | 18.4 | 15.4 | 8.23 |
| 1.70V/cell | 257.6 | 207.3 | 176.6 | 139.9 | 106.2 | 87.3 | 54.7 | 41.1 | 32.9 | 27.6 | 24.1 | 19.2 | 16.0 | 8.44 |
| 1.65V/cell | 276.6 | 221.9 | 187.9 | 147.7 | 112.4 | 90.3 | 56.7 | 42.7 | 34.1 | 28.5 | 25.0 | 19.8 | 16.4 | 8.70 |
| 1.60V/cell | 304.3 | 243.0 | 204.1 | 157.6 | 116.8 | 93.0 | 58.1 | 43.8 | 34.9 | 29.2 | 25.5 | 20.2 | 16.8 | 8.84 |

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

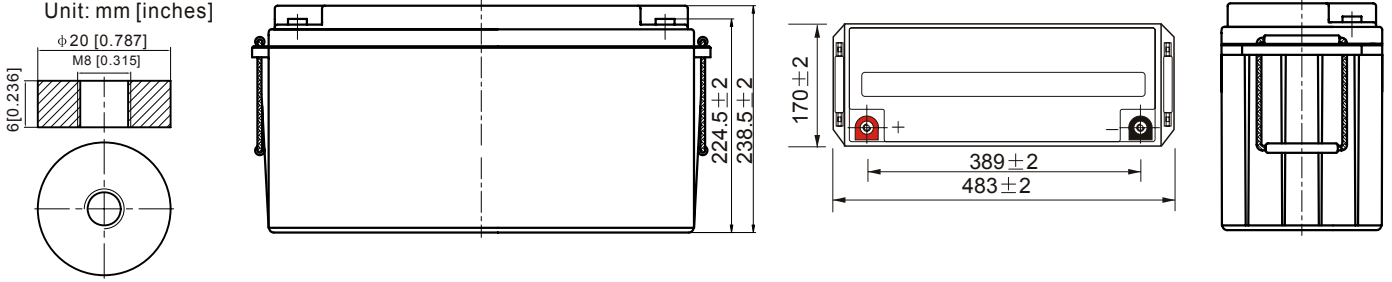
| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 327.7 | 278.4 | 249.5 | 209.2 | 162.8 | 139.7 | 91.1 | 68.7 | 56.5 | 47.6 | 41.9 | 33.7 | 29.1 | 15.5 |
| 1.80V/cell | 370.6 | 308.4 | 271.8 | 223.7 | 174.2 | 146.7 | 97.3 | 73.4 | 59.7 | 50.3 | 44.2 | 35.4 | 29.9 | 16.0 |
| 1.75V/cell | 414.2 | 343.4 | 297.5 | 241.1 | 188.2 | 159.2 | 100.8 | 76.1 | 61.6 | 51.3 | 45.4 | 36.5 | 30.7 | 16.4 |
| 1.70V/cell | 457.4 | 375.7 | 326.0 | 261.8 | 202.0 | 167.9 | 105.9 | 79.9 | 64.2 | 54.1 | 47.5 | 38.0 | 31.9 | 16.8 |
| 1.65V/cell | 486.7 | 399.2 | 344.2 | 274.1 | 211.9 | 172.5 | 109.2 | 82.8 | 66.5 | 55.7 | 49.0 | 39.2 | 32.7 | 17.3 |
| 1.60V/cell | 523.4 | 430.1 | 369.9 | 290.4 | 219.0 | 176.7 | 111.4 | 84.5 | 67.8 | 56.8 | 49.9 | 39.8 | 33.3 | 17.6 |



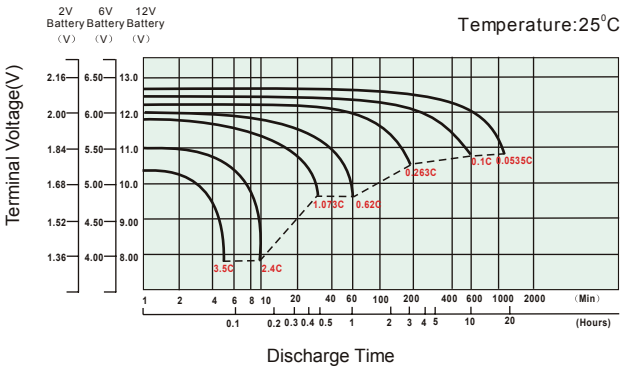
Dimensions

T11 Terminal

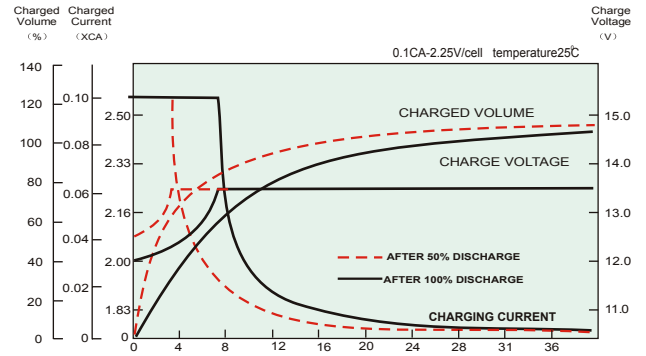
Unit: mm [inches]



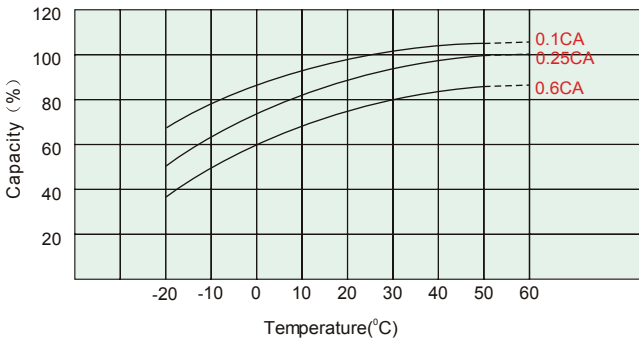
Discharge Characteristics



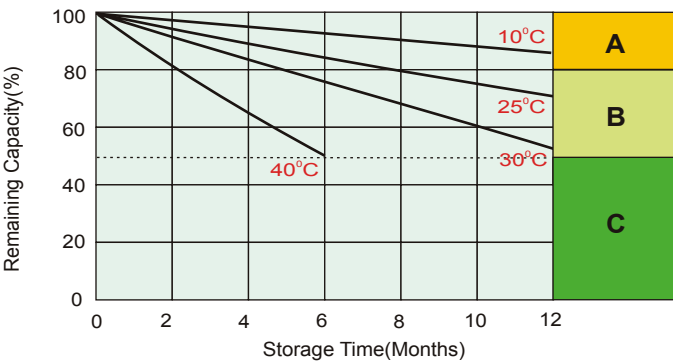
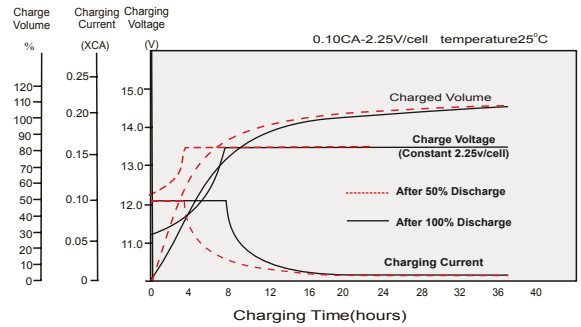
Float Charging Characteristics



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.