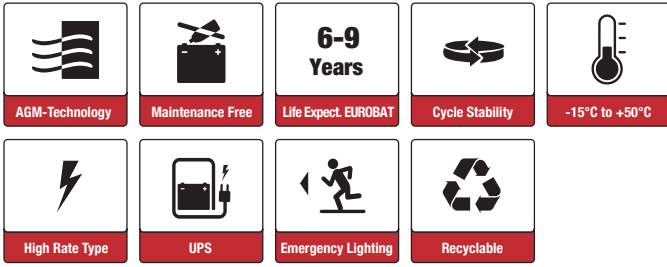




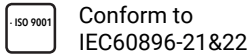
SBH190-12 (12V188W)



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



Specifications

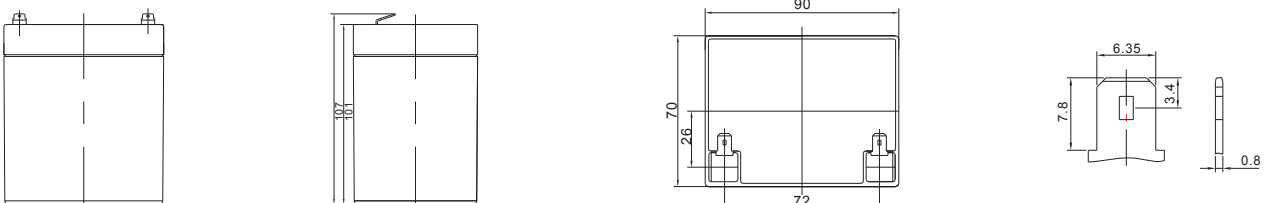
| | | | |
|---|--|-----------------------------------|---|
| Nominal Voltage | 12V | Operating Temp. Range | Discharge: -20~50°C |
| Nominal Capacity | 5.1Ah (C ₁₀ , 9.6V) 5.5Ah (C ₂₀ , 9.6V) | | Charge: -10~50°C |
| Approx. Weight | 1.55kg | | Storage: -20~50°C |
| Terminal | T2 | Cycle Use | Initial Charging Current less than 1.65A. Voltage 14.7V +0.1V at 20°C. Temperature Coefficient -30mV/°C. |
| Container Material | ABS UL94 HB | Standby Use | No limit on Initial Charging Current. Voltage 13.7V +0.1V at 20°C. Temperature Coefficient -20mV/°C. |
| Nominal Power | 5 min 271.92W (20°C / 9.6V/Block) 10 min 187.56W 15 min 139.68W | Capacity affected by Temp. | 40°C 103% 25°C 100% 0°C 86% |
| Nominal Power | 5 min 45.32W (20°C / 1.6V/Cell) 10 min 31.26W 15 min 23.28W | Self Discharge | 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. |
| Max. Discharge Current | 55A (5s) | Life Expectancy | 6-9 years according to EUROBAT |
| Internal Resistance / Impedance (1kHz) | Approx. 30mΩ | | |
| Nominal Oper. Temp. R. | 20±3°C | | |



Dimensions

■ T2 Terminal

Unit: mm | Dimensions: 90 Length X 70 Width X 101 Height (107 Height incl. Terminal)



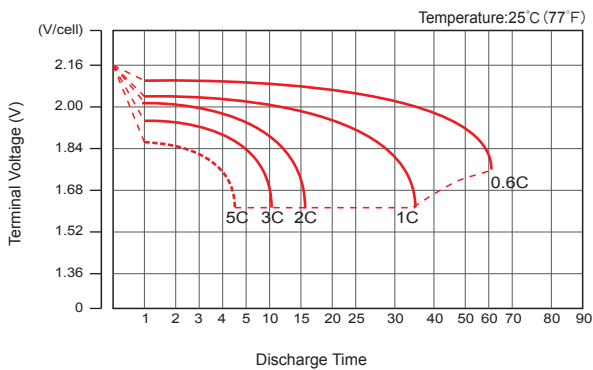
Constant Current Discharge (Amperes) at 20°C

| F.V/Time | 3min | 5min | 8min | 10min | 15min | 20min | 30min | 60min | 90min |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.6V | 28.69 | 25.22 | 20.15 | 17.27 | 12.74 | 10.01 | 7.136 | 4.002 | 2.837 |
| 10.0V | 26.03 | 22.88 | 18.43 | 15.92 | 11.92 | 9.453 | 6.762 | 3.814 | 2.715 |
| 10.2V | 24.91 | 21.90 | 17.69 | 15.34 | 11.55 | 9.201 | 6.594 | 3.731 | 2.665 |
| 10.5V | 23.07 | 20.28 | 16.48 | 14.38 | 10.91 | 8.742 | 6.319 | 3.606 | 2.584 |
| 10.8V | 21.13 | 18.58 | 15.24 | 13.41 | 10.36 | 8.330 | 6.043 | 3.470 | 2.492 |
| 11.1V | 18.07 | 15.88 | 12.98 | 11.39 | 8.88 | 7.235 | 5.344 | 3.137 | 2.280 |

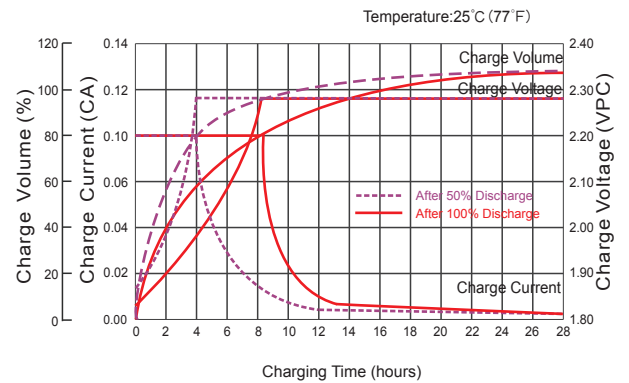
Constant Power Discharge (Watts/cell) at 20°C

| F.V/Time | 3min | 5min | 8min | 10min | 15min | 20min | 30min | 60min | 90min |
|----------|-------|-------|-------|-------|--------|--------|-------|-------|-------|
| 9.6V | 309.3 | 271.9 | 218.0 | 187.6 | 139.68 | 110.64 | 79.1 | 45.02 | 32.22 |
| 10.0V | 284.2 | 249.8 | 202.1 | 175.4 | 132.0 | 105.60 | 76.2 | 43.33 | 31.12 |
| 10.2V | 274.4 | 241.2 | 195.6 | 170.2 | 129.24 | 103.32 | 74.4 | 42.64 | 30.64 |
| 10.5V | 256.6 | 225.6 | 184.3 | 161.5 | 123.18 | 99.42 | 72.1 | 41.45 | 29.85 |
| 10.8V | 238.3 | 209.5 | 172.4 | 152.3 | 117.72 | 95.46 | 69.7 | 40.27 | 29.06 |
| 11.1V | 207.1 | 182.0 | 148.9 | 130.9 | 102.3 | 83.70 | 62.0 | 36.64 | 26.69 |

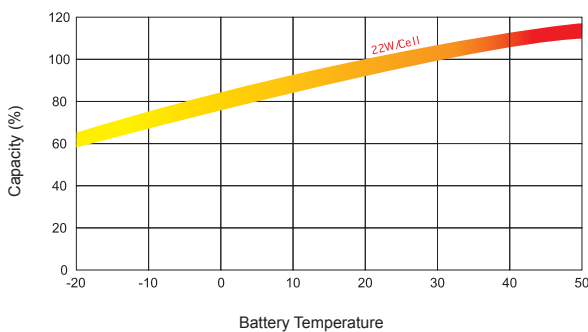
Discharge Characteristics



Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life

