

# SBL440-12HR V0 Xtreme (12V100Ah)

## Applications (for industrial standby use)

- 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



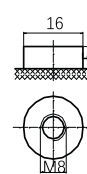
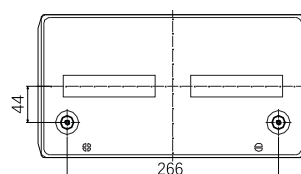
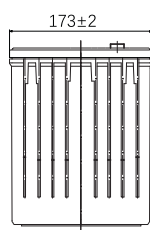
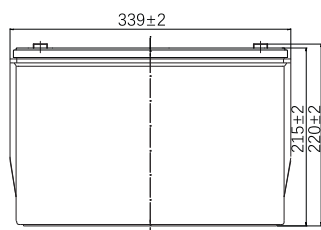
## Specifications

|                                               |                                                                                                              |                                   |                                                                                                                                                             |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Nominal Voltage</b>                        | 12V                                                                                                          | <b>Operating Temp. Range</b>      | Discharge: -20~60°C                                                                                                                                         |
| <b>Nominal Capacity</b>                       | 100Ah (C <sub>10</sub> , 1.8V/cell)                                                                          |                                   | Charge: -10~45°C                                                                                                                                            |
| <b>Approx. Weight</b>                         | 31.5kg                                                                                                       |                                   | Storage: -20~40°C                                                                                                                                           |
| <b>Terminal</b>                               | M8                                                                                                           | <b>Float Charge</b>               | 2.285V/cell ± 0,5 % @ 20°C                                                                                                                                  |
| <b>Container Material</b>                     | ABS UL94 V0                                                                                                  |                                   | Charging Current: 0.1-0.2C                                                                                                                                  |
| <b>Rated Capacity (20°C)</b>                  | 100Ah/10A, 10hr, 10.8V<br>85.6Ah/17.12A, 5hr, 10.5V<br>78.51Ah/26.17A, 3hr, 10.5V<br>76.7Ah/76.7A, 1hr, 9.6V |                                   | Temperature coefficient: -3mV/cell/°C                                                                                                                       |
| <b>Max. Discharge Current</b>                 | 1000A (5s)                                                                                                   | <b>Capacity affected by Temp.</b> | 30°C 103%                                                                                                                                                   |
| <b>Internal Resistance / Impedance (1kHz)</b> | Approx. 4.2mΩ                                                                                                |                                   | 20°C 100%                                                                                                                                                   |
| <b>Nominal Oper. Temp. R.</b>                 | 20±2°C                                                                                                       | <b>Self Discharge</b>             | 0°C 89%                                                                                                                                                     |
|                                               |                                                                                                              | <b>Life Expectancy</b>            | 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. |
|                                               |                                                                                                              |                                   | >12 years according to EUROBAT                                                                                                                              |

## Dimensions

### ■ M8 Terminal

Unit: mm | Dimensions: 339±2 Length X 173±2 Width X 215±2 Height (220±2 Height incl. Terminal)



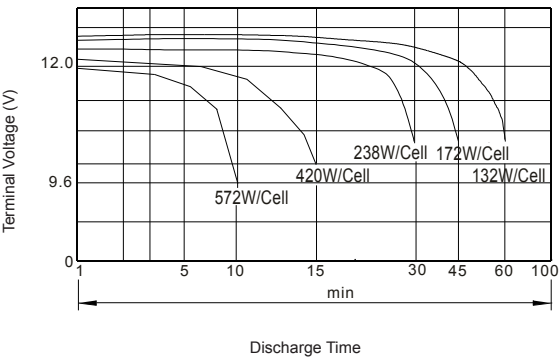
Constant Current Discharge (Amperes) at 20°C

| End Voltage | 3min | 5min | 10min | 15min | 20min | 25min | 30min | 45min | 60min | 90min | 3h    | 5h    | 8h    | 10h   |
|-------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V/cell  | 467  | 388  | 322   | 240   | 208   | 176   | 153   | 103   | 76.7  | 52.27 | 28.20 | 18.26 | 12.21 | 10.40 |
| 1.65V/cell  | 453  | 376  | 314   | 229   | 193   | 164   | 144   | 101   | 74.4  | 50.80 | 27.40 | 17.88 | 11.95 | 10.30 |
| 1.67V/cell  | 448  | 372  | 306   | 225   | 187   | 160   | 141   | 100   | 73.5  | 50.27 | 27.20 | 17.64 | 11.81 | 10.30 |
| 1.70V/cell  | 434  | 358  | 294   | 210   | 175   | 151   | 132   | 93.5  | 71.4  | 49.67 | 26.90 | 17.46 | 11.68 | 10.20 |
| 1.75V/cell  | 419  | 342  | 284   | 200   | 170   | 145   | 126   | 88.2  | 69.3  | 48.53 | 26.17 | 17.12 | 11.46 | 10.10 |
| 1.80V/cell  | 405  | 328  | 263   | 191   | 164   | 141   | 121   | 86.1  | 67.2  | 47.27 | 25.43 | 16.70 | 11.20 | 10.00 |

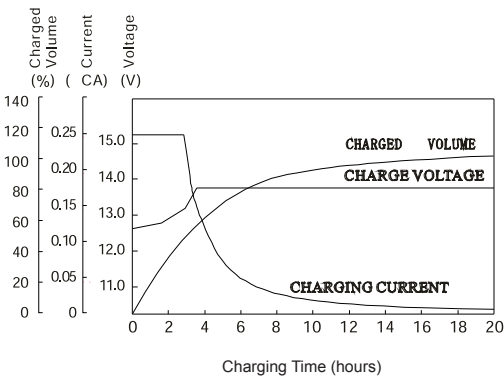
Constant Power Discharge (Watts/cell) at 20°C

| End Point  | 3min | 5min | 10min | 15min | 20min | 25min | 30min | 45min | 60min | 90min | 3h    | 5h    | 8h    | 10h   |
|------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V/cell | 886  | 746  | 572   | 437   | 365   | 315   | 267   | 191   | 144   | 95.52 | 56.12 | 36.14 | 23.88 | 19.79 |
| 1.65V/cell | 870  | 729  | 558   | 425   | 364   | 306   | 256   | 188   | 142   | 92.98 | 54.78 | 35.40 | 23.38 | 19.40 |
| 1.67V/cell | 864  | 723  | 553   | 420   | 360   | 302   | 252   | 187   | 141   | 91.69 | 54.02 | 35.01 | 23.13 | 19.20 |
| 1.70V/cell | 849  | 697  | 512   | 395   | 339   | 289   | 251   | 182   | 137   | 90.44 | 53.28 | 34.64 | 22.90 | 19.01 |
| 1.75V/cell | 832  | 664  | 482   | 372   | 323   | 273   | 238   | 172   | 132   | 87.90 | 51.94 | 33.90 | 22.41 | 18.59 |
| 1.80V/cell | 818  | 645  | 465   | 349   | 305   | 261   | 228   | 162   | 125   | 85.50 | 50.44 | 33.00 | 21.90 | 18.21 |

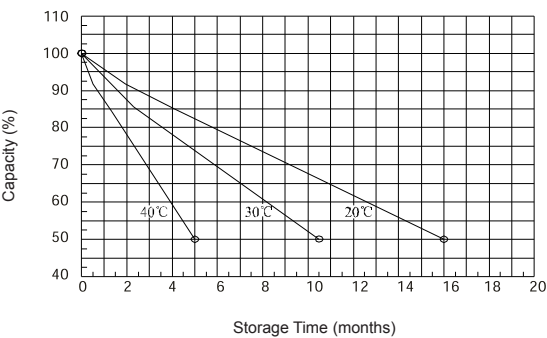
Discharge Characteristics



Float Charging Characteristics



Self-Discharge Characteristic



Effect of Temperature on Long Term Float Life

