

# SBL500-12HR (12V134Ah)

## 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



Conform to  
IEC60896-21&22



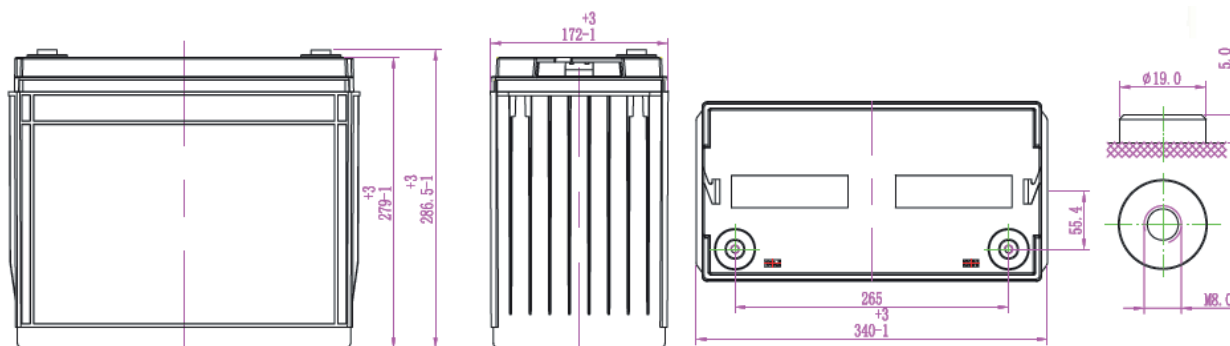
## Specifications

|                                               |                                                                                                                   |                                   |                                                                                                                                                             |          |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>Nominal Voltage</b>                        | 12V                                                                                                               | <b>Operating Temp. Range</b>      | Discharge:                                                                                                                                                  | -20~60°C |
| <b>Nominal Capacity</b>                       | 134Ah (C <sub>10</sub> 1.8V/cell)                                                                                 |                                   | Charge:                                                                                                                                                     | -10~45°C |
| <b>Approx. Weight</b>                         | 40.0kg                                                                                                            |                                   | Storage:                                                                                                                                                    | -20~60°C |
| <b>Terminal</b>                               | M8                                                                                                                | <b>Standby Use</b>                | Initial Charging Current less than 42A.                                                                                                                     |          |
| <b>Container Material</b>                     | ABS UL94 HB                                                                                                       |                                   | Voltage 2.295 V/cell at 20° C.                                                                                                                              |          |
| <b>Rated Capacity (20°C)</b>                  | 134Ah/13.40A, 10hr, 10.8V<br>114.7Ah/22.94A, 5hr, 10.5V<br>105.18Ah/35.06A, 3hr, 10.5V<br>96.6Ah/96.6A, 1hr, 9.6V | <b>Capacity affected by Temp.</b> | 40°C                                                                                                                                                        | 103%     |
| <b>Max. Discharge Current</b>                 | 1500A (5s)                                                                                                        |                                   | 25°C                                                                                                                                                        | 100%     |
| <b>Internal Resistance / Impedance (1kHz)</b> | Approx. 3.8mΩ                                                                                                     | <b>Self Discharge</b>             | 0°C                                                                                                                                                         | 86%      |
| <b>Nominal Oper. Temp. R.</b>                 | 20±2°C                                                                                                            | <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. |          |
|                                               |                                                                                                                   |                                   | 10-12 years according to EUROBAT                                                                                                                            |          |

## Dimensions

### ■ M8 Terminal

Unit: mm | Dimensions: 340 Length X 172 Width X 279 Height (286.5 Height incl. Terminal)



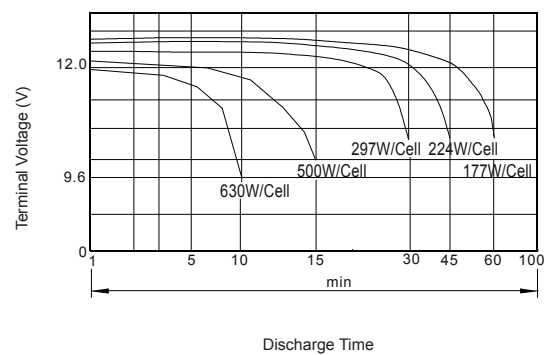
Constant Current Discharge (Amperes) at 20°C

| End Voltage | 3min | 5min | 10min | 15min | 20min | 25min | 30min | 45min | 60min | 90min | 3h    | 5h    | 8h    | 10h   |
|-------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V/cell  | 520  | 441  | 348   | 276   | 238   | 207   | 179   | 121   | 96.6  | 70.04 | 37.79 | 24.47 | 16.36 | 13.94 |
| 1.65V/cell  | 504  | 432  | 327   | 263   | 229   | 198   | 173   | 117   | 92.1  | 68.07 | 36.72 | 23.96 | 16.01 | 13.80 |
| 1.67V/cell  | 498  | 428  | 318   | 258   | 226   | 195   | 171   | 116   | 90.3  | 67.36 | 36.45 | 23.64 | 15.83 | 13.80 |
| 1.70V/cell  | 486  | 412  | 309   | 251   | 214   | 184   | 161   | 110   | 88.2  | 66.55 | 36.05 | 23.40 | 15.64 | 13.67 |
| 1.75V/cell  | 469  | 401  | 298   | 239   | 202   | 176   | 154   | 108   | 85.1  | 65.03 | 35.06 | 22.94 | 15.36 | 13.53 |
| 1.80V/cell  | 456  | 387  | 290   | 229   | 195   | 171   | 149   | 105   | 81.9  | 63.34 | 34.08 | 22.38 | 15.01 | 13.40 |

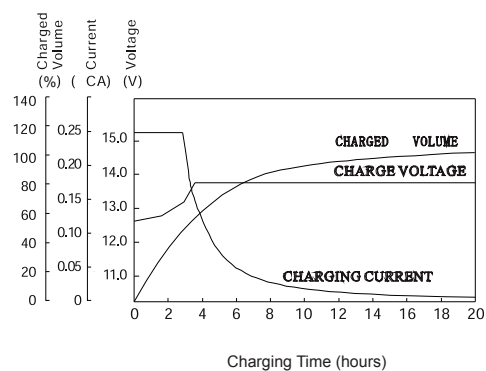
Constant Power Discharge (Watts/cell) at 20°C

| End Point  | 3min | 5min | 10min | 15min | 20min | 25min | 30min | 45min | 60min | 90min  | 3h    | 5h    | 8h    | 10h   |
|------------|------|------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 1.60V/cell | 1056 | 834  | 630   | 503   | 424   | 371   | 331   | 246   | 189   | 127.99 | 75.20 | 48.42 | 32.01 | 26.51 |
| 1.65V/cell | 1040 | 818  | 614   | 501   | 419   | 364   | 324   | 240   | 187   | 124.59 | 73.41 | 47.44 | 31.33 | 25.99 |
| 1.67V/cell | 1034 | 812  | 607   | 500   | 417   | 361   | 321   | 238   | 186   | 122.87 | 72.39 | 46.92 | 31.00 | 25.73 |
| 1.70V/cell | 1012 | 783  | 568   | 455   | 391   | 347   | 311   | 231   | 182   | 121.19 | 71.40 | 46.41 | 30.69 | 25.47 |
| 1.75V/cell | 973  | 759  | 528   | 438   | 381   | 334   | 297   | 224   | 177   | 117.79 | 69.60 | 45.42 | 30.03 | 24.91 |
| 1.80V/cell | 944  | 726  | 521   | 421   | 368   | 321   | 287   | 216   | 173   | 114.57 | 67.59 | 44.22 | 29.35 | 24.40 |

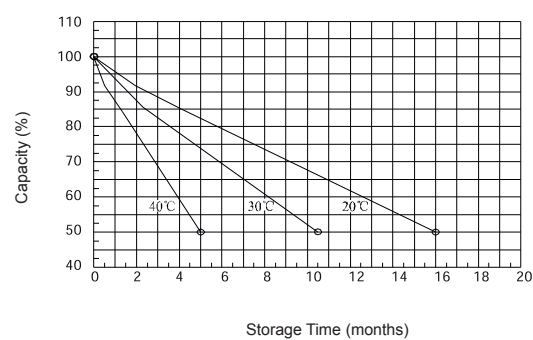
Discharge Characteristics



Float Charging Characteristics



Self-Discharge Characteristic



Effect of Temperature on Long Term Float Life

