



PowerSafe® SBS Front Terminal

Telecommunications

NEBS™ Compliant*

Battery Range Summary

The PowerSafe® SBS Front Terminal battery further extends the technical leadership of PowerSafe SBS battery product line: not only do PowerSafe SBS Front Terminal monoblocs retain the benefits typically associated with Thin Plate Pure Lead (TPPL) technology such as long life, high energy density and superior shelf life, etc., they also deliver exceptional cyclic performance in both float and fast charge applications, even in the hottest and harshest operating environments.

Where conventional Valve Regulated Lead Acid (VRLA)/Absorbed Glass Mat (AGM) batteries struggle to cope with harsh conditions and frequent power outages, cutting edge TPPL technology makes PowerSafe 12V batteries the perfect solution for the challenging operating conditions of today's telecommunication networks.

PowerSafe SBS batteries are designed to high quality standards and a unique manufacturing method means superior energy and power, high performance and proven reliability. There is no substitute for PowerSafe SBS Front Terminal batteries.



Features and Benefits

- Capacity range: 31-190Ah
- 12V monobloc configurations
- Multiple string configurations available
- Two year shelf life
- SR4228 compliant
- Proven long service life
- High energy density and cycling capability

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*NEBS™ Compliant GR63-Core
Includes the following: SBS B8, SBS B10, SBS B14,
SBS C11, SBS 145, SBS 165, SBS 170, SBS 190, SBS 100,
SBS 100F and SBS 112F

Publication No: US-SBSF-RS-005 - March 2015

Construction

- Utilizes TPPL technology. Thin positive grids are produced from high purity lead from a unique manufacturing process to maximize corrosion resistance and service life while maximizing energy density
- Separators are AGM made from high purity, superior quality fibers. The electrolyte is absorbed within the AGM, preventing acid spills in case of accidental damage
- Electrolyte is produced from extremely high purity acid to reduce self discharge rate and float currents
- Container and cover in flame retardant UL94-V0 material, highly resistant to shock and vibration
- Front terminal batteries use tin-plated copper terminals. Top terminal batteries use a copper alloy insert
- Self-regulating one way pressure relief valves prevent ingress of atmospheric oxygen

Installation and Operation

- Space efficient footprint
- VRLA design, reduces maintenance requirements
- Lifting handles for easy handling
- Greater than 10 year life expectancy in float service at 77°F (25°C)
- TPPL technology provides increased active material surface area which yields increased energy density
- Operating temperature:
-40°F (-40°C) to 122°F (50°C)
Recommended temperature:
68°F (20°C) to 86°F (30°C)

Standards

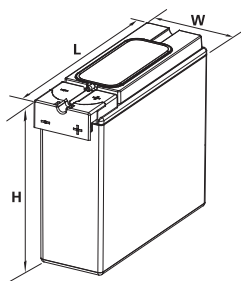
- Approved as non-hazardous cargo for ground, sea and air transportation in accordance with US DOT Regulation 49 and ICAO & IATA Packing Instruction 806. Please see our MSDS for complete details at <http://www.enersys.com/>
- Complies with Telcordia® SR-4228, Network Equipment Building System (NEBS™) Criteria Levels
- The management systems governing the manufacture of this product are ISO 9001:2008 and ISO 14001:2004 certified

General Specifications

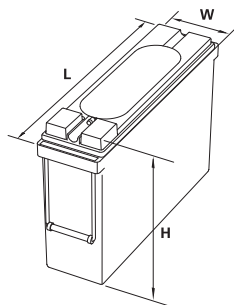
| PowerSafe® SBS Battery | Number of Cells | Nominal Voltage (V) | Nominal Capacity (Ah) | | Nominal Dimensions | | | | | | Electrolyte (1.300 S.G.) | | | | Pure Acid (H2SO4) Acid | | | | | | | | | | |
|------------------------------|-----------------------|---------------------------|--------------------------------|---------------------------------|--------------------|-----|-------|------|--------|-----|--------------------------|--------------------------|--------------------------|------------|------------------------|------|----------------------|------|---------------------------|------|------|------|------|------|------|
| | | | 8hr. Rate 1.75Vpc @ 77°F | 10hr. Rate 1.80Vpc @ 20°C | Length | | Width | | Height | | Typical Weight | Short Circuit Current | Internal** Resistance | Terminals | Volume (per cell) | | Weight (per cell) | | Lead Weight (per cell) | | | | | | |
| | | | | | in | mm | in | mm | in | mm | lbs | kg | (Amps) | Milli-Ohms | | gal | L | lbs | kg | gal | L | lbs | kg | lbs | kg |
| SBS B8F* | 6 | 12 | 31 | 31 | 11.9 | 303 | 3.80 | 97.0 | 6.30 | 159 | 22.7 | 10.3 | 1270 | 10.0 | M6 M | 0.37 | 1.42 | 4.05 | 1.84 | 0.11 | 0.40 | 1.61 | 0.73 | 15.6 | 7.08 |
| SBS B10F* | 6 | 12 | 38 | 38 | 11.9 | 303 | 3.80 | 97.0 | 7.20 | 184 | 28.2 | 12.8 | 1390 | 9.00 | M6 M | 0.48 | 1.80 | 5.15 | 2.34 | 0.13 | 0.51 | 2.04 | 0.93 | 17.7 | 8.03 |
| SBS B14F* | 6 | 12 | 62 | 62 | 11.9 | 303 | 3.80 | 97.0 | 10.4 | 264 | 42.0 | 19.1 | 1800 | 7.00 | M6 M | 0.78 | 2.95 | 8.45 | 3.83 | 0.22 | 0.83 | 3.35 | 1.52 | 29.6 | 13.4 |
| SBS C11F* | 6 | 12 | 92 | 91 | 16.4 | 417 | 4.10 | 105 | 10.1 | 256 | 61.6 | 28.0 | 2300 | 5.50 | M6 M | 1.11 | 4.19 | 12.0 | 5.44 | 0.31 | 1.18 | 4.76 | 2.16 | 43.4 | 19.7 |
| SBS 100F* | 6 | 12 | 100 | 100 | 15.6 | 395 | 4.30 | 108 | 11.3 | 287 | 71.9 | 32.6 | 2210 | 5.60 | M6 M | 1.34 | 5.09 | 14.6 | 6.60 | 0.38 | 1.43 | 5.77 | 2.62 | 49.7 | 22.5 |
| SBS 112F* | 6 | 12 | 112 | 112 | 22.1 | 561 | 4.90 | 125 | 9.00 | 228 | 90.4 | 41.0 | 2500 | 5.00 | M6 M | 1.71 | 6.48 | 18.5 | 8.41 | 0.48 | 1.82 | 7.35 | 3.34 | 56.8 | 25.8 |
| SBS 145F* | 6 | 12 | 145 | 145 | 17.8 | 452 | 6.80 | 172 | 9.40 | 238 | 105 | 47.6 | 4100 | 3.00 | M6 M | 2.27 | 8.51 | 24.3 | 11.0 | 0.63 | 2.39 | 9.66 | 4.38 | 79.6 | 36.1 |
| SBS 165F* | 6 | 12 | 165 | 165 | 17.9 | 455 | 6.80 | 172 | 10.8 | 273 | 117 | 53.3 | 3700 | 2.30 | M6 M | 2.45 | 9.27 | 26.5 | 12.0 | 0.64 | 2.42 | 9.72 | 4.41 | 79.5 | 36.1 |
| SBS 170F* | 6 | 12 | 170 | 170 | 22.1 | 561 | 4.90 | 125 | 11.1 | 283 | 116 | 52.5 | 3400 | 4.00 | M6 M | 2.09 | 7.92 | 22.7 | 10.3 | 0.59 | 2.23 | 8.99 | 4.08 | 80.5 | 36.5 |
| SBS 190F* | 6 | 12 | 190 | 190 | 22.1 | 561 | 4.90 | 125 | 12.4 | 316 | 132 | 60.0 | 3800 | 3.30 | M6 M | 2.34 | 8.86 | 25.3 | 11.5 | 0.66 | 2.49 | 10.1 | 4.56 | 94.3 | 42.8 |

*NEBS™ Compliant GR63-Core

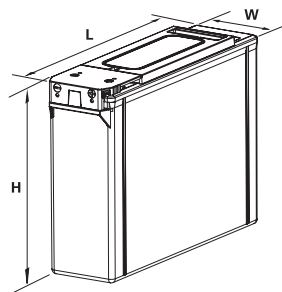
**Resistance values are for reference only and not intended to represent an Ohmic Value or Baseline measurement



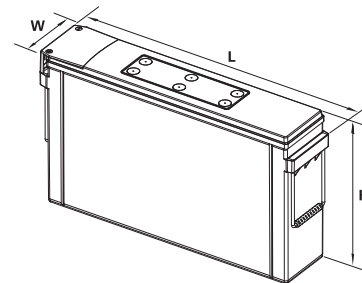
SBS B8F-B14F



SBS C11F



SBS 100F-112F



SBS 145F, 165F-190F

