



## Battery Range Summary

The EnerSys® PowerSafe® SBS XL range of valve regulated lead acid DIN-size single cells has been designed to deliver an exceptional performance and outstanding long life in stable grid float applications, including at high operating temperatures. Combining thin plate pure lead (TPPL) technology and the use of catalysts, PowerSafe SBS XL's extended life results in reduced battery replacements during the life of power infrastructures to ultimately provide an industry-leading, low total cost of ownership.

### Features & Benefits

- Pure lead technology for longer life operation
- 20 year design life at 20°C – 10 year design life at 30°C
- Designed for stable grid float applications
- Outstanding Ampere-hour range: 320 to 3900Ah
- Classic industry-standard design (DIN)
- Wide operating temperature range of -40°C to +50°C
- Installation in vertical or horizontal orientation
- 24 month storage life at 20°C for maximum flexibility in project deployment
- Low total cost of ownership

In normal standby operation, the outstanding design life of the SBS XL 320–3900 cells takes EnerSys' TPPL battery offering to a new level. Stakeholders and end users, particularly in the Utility and Telecom market segments, finally have large Ah capacity batteries that combine classic DIN-size designs with a very long float life, together with the multiple and proven benefits of our TPPL technology. High energy density for compact installation footprint and an exceptional storage life are just some of those advantages, to name but a few.

Manufactured on a state-of-the-art platform, the SBS XL 320–3900 battery series is also ideally suited for operation at high temperatures, particularly in the telecom industry. The ever-increasing transmission of digital data inevitably forces telecom companies to add more equipment in already highly dense communication rooms. The extra heat generated increases the demand on cooling which invariably places operators under further financial burden. The outstanding 10 year design life at 30°C of SBS XL DIN-size cells gives operators the freedom to reduce both capital expenditure by investing in lower cost cooling methods (such as free cooling), as well as operating costs by raising air conditioning set points.

Regardless of operating temperatures, the PowerSafe SBS XL series of 2V cells is the ideal solution for the upgrade and replacement of conventional DIN-size batteries operated in stable float applications: EnerSys cells can simply be installed on existing stands to minimise capital expenditure.



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## Construction

- Proven Thin Plate Pure Lead (TPPL) technology optimised for long float service life
- Negative plates provide perfect balance with positive plates to ensure optimum recombination efficiency
- Low resistance microporous glass fibre mat separator with high absorption and stability
- Containers and lids in UL94 V-0 rated flame retardant ABS material, highly resistant to elevated temperatures, shocks and vibrations
- High grade dilute sulphuric acid fully absorbed into the separator for extended float life at high temperatures and to prevent spillage in case of accidental damage
- Proven, high integrity dual-seal terminal design to prevent leakage over the product life
- Self-regulating pressure relief valves prevent ingress of atmospheric oxygen

- Catalyst technology reduces water loss for longer operational float life
- Integral flame arrestors for increased operational safety

## Standards

- Designed to be compliant with IEC 60896-21/22
- Classified as "Very Long Life" according to Eurobat guide
- Batteries must be installed in accordance with IEC 62485-2 and local/national regulations
- UL recognised component
- Classified as non-spillable battery and approved as non-hazardous cargo for land, sea and air transportation in accordance with the requirements of ADR / RID, IMDG and IATA respectively
- The management systems governing the manufacture of PowerSafe SBS XL 320-3900 products are ISO 9001, ISO 14001 and ISO 45001 certified

## General Specifications

| Battery Type | Nominal Voltage (V) | Nominal Capacity (Ah)         |                              | Nominal Dimensions (mm) |       |                          | Typical Weight (Kg) | Short Circuit Current (A) <sup>(1)</sup> | Internal Resistance (mΩ) <sup>(1)</sup> | Terminals |
|--------------|---------------------|-------------------------------|------------------------------|-------------------------|-------|--------------------------|---------------------|--|---|-----------|
|              |                     | C <sub>10</sub> /1.80Vpc/20°C | C <sub>8</sub> /1.75Vpc/25°C | Length                  | Width | Height (over insulation) |                     |  |   |           |
| SBS XL 320   | 2                   | 320                           | 320                          | 103                     | 206   | 403                      | 20.0                | 4776                                     | 0.44                                    | 2 x M10 F |
| SBS XL 400   | 2                   | 400                           | 400                          | 124                     | 206   | 403                      | 24.0                | 5960                                     | 0.35                                    | 2 x M10 F |
| SBS XL 480   | 2                   | 480                           | 480                          | 145                     | 206   | 403                      | 28.0                | 7152                                     | 0.29                                    | 2 x M10 F |
| SBS XL 580   | 2                   | 580                           | 580                          | 124                     | 206   | 520                      | 33.0                | 6494                                     | 0.32                                    | 2 x M10 F |
| SBS XL 680   | 2                   | 680                           | 680                          | 145                     | 206   | 520                      | 38.5                | 7613                                     | 0.28                                    | 2 x M10 F |
| SBS XL 780   | 2                   | 780                           | 780                          | 166                     | 206   | 520                      | 44.0                | 8736                                     | 0.24                                    | 2 x M10 F |
| SBS XL 900   | 2                   | 900                           | 900                          | 145                     | 206   | 695                      | 50.0                | 8744                                     | 0.26                                    | 2 x M10 F |
| SBS XL 970   | 2                   | 970                           | 970                          | 145                     | 206   | 695                      | 56.5                | 11540                                    | 0.18                                    | 2 x M10 F |
| SBS XL 1200  | 2                   | 1260                          | 1260                         | 210                     | 191   | 695                      | 78.0                | 14227                                    | 0.15                                    | 4 x M10 F |
| SBS XL 1500  | 2                   | 1560                          | 1560                         | 210                     | 233   | 695                      | 93.5                | 17828                                    | 0.12                                    | 4 x M10 F |
| SBS XL 1800  | 2                   | 1870                          | 1870                         | 210                     | 275   | 695                      | 112.0               | 21415                                    | 0.10                                    | 4 x M10 F |
| SBS XL 2700  | 2                   | 2700                          | 2700                         | 212                     | 397   | 820                      | 163.0               | 32122                                    | 0.06                                    | 6 x M10 F |
| SBS XL 3100  | 2                   | 3100                          | 3100                         | 212                     | 487   | 820                      | 190.0               | 36881                                    | 0.06                                    | 8 x M10 F |
| SBS XL 3900  | 2                   | 3900                          | 3900                         | 212                     | 576   | 820                      | 239.0               | 46399                                    | 0.04                                    | 8 x M10 F |

Note: <sup>(1)</sup> Figures obtained via IEC method.

## Typical Outline Drawings

