



Battery Range Summary

The EnerSys® range of PowerSafe® SBS XL batteries is regulated lead acid DIN-size single cells and has been designed to deliver 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 battery extended life results in reduced battery replacements during the life of power infrastructures to ultimately provide an industry-leading, low total cost of ownership.

In normal standby operation, the outstanding design life of the SBS XL FR2 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 FR2 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 86°F (30°C) of SBS XL FR2 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 FR2 battery 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 minimize capital expenditure.

Features and Benefits

- Pure lead technology for longer life operation
- 20 year design life at 68°F (20°C) – 10 year design life at 86°F (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°F (-40°C) to +122°F (50°C)
- Installation in vertical or horizontal orientation
- 24 month storage life at 68°F (20°C) for maximum flexibility in project deployment
- Low total cost of ownership



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Construction

- Proven Thin Plate Pure Lead (TPPL) technology optimized 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 in UL94HB and lids in UL94VO 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

Installation and Operation

- PowerSafe® SBS XL battery 2V DIN-size cells are designed for operation in stable grid float applications
- Cells are designed for installation in cabinets or on stands
- Cells can be mounted in any orientation except inverted
- Recommended float charge voltage: 2.29Vpc at 68°F (20°C), 2.275Vpc at 77°F (25°C)
- Wide operating temperature range: -40°F (-40°C) to 122°F (50°C)
- 24 months shelf life at 68°F (20°C) (12 months at 86°F (30°C))
- Low maintenance: no water addition required

Standards

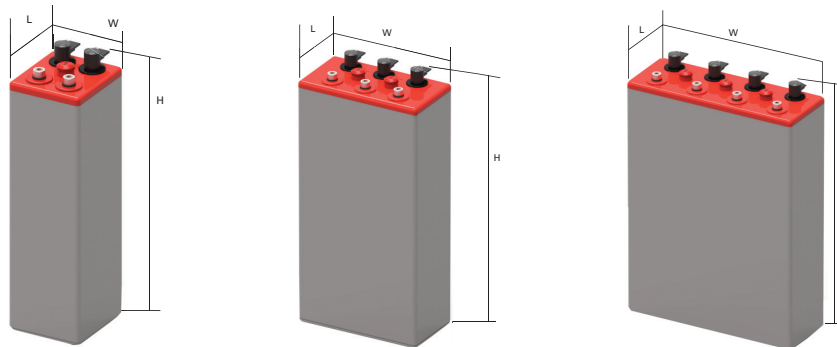
- Designed to be compliant with IEC 60896-21/22
- Classified as “Very Long Life” according to Eurobat guide
- Batteries must be installed in accordance with IEC 62485-2 and local/national regulations
- UL recognized component
- Classified as non-spillable battery and approved as non-hazardous cargo for 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 battery 320-3900 products are ISO 9001, ISO 14001 and ISO 45001 certified

General Specifications

Battery Type	Nominal Voltage(V)	Nominal Capacity (Ah)		Nominal Dimensions						Typical Weight		Short Circuit Current (Amps) ¹	Internal Resistance (mΩ) ¹	Terminals
		C10/1.80Vpc/ @ 68°F (20°C)	C8/1.75Vpc/ @ 77°F (25°C)	Length		Width		Height (over insulation)		lbs	kg			
SBS XL 320FR2	2	320	320	4.1	103	8.1	206	15.9	403	44.0	20.0	4776	0.44	2 x M10 F
SBS XL 400FR2	2	400	400	4.9	124	8.1	206	15.9	403	53.0	24.0	5960	0.35	2 x M10 F
SBS XL 480FR2	2	480	480	5.7	145	8.1	206	15.9	403	62.0	28.0	7152	0.29	2 x M10 F
SBS XL 580FR2	2	580	580	4.9	124	8.1	206	20.5	520	72.8	33.0	6494	0.32	2 x M10 F
SBS XL 680FR2	2	680	680	5.7	145	8.1	206	20.5	520	84.9	38.5	7613	0.28	2 x M10 F
SBS XL 780FR2	2	780	780	6.5	166	8.1	206	20.5	520	97.0	44.0	8736	0.24	2 x M10 F
SBS XL 900FR2	2	900	900	5.7	145	8.1	206	27.4	695	110.2	50.0	8744	0.26	2 x M10 F
SBS XL 970FR2	2	970	970	5.7	145	8.1	206	27.4	695	124.6	56.5	11540	0.18	2 x M10 F
SBS XL 1200FR2	2	1260	1260	8.3	210	7.5	191	27.4	695	172.0	78.0	14227	0.15	4 x M10 F
SBS XL 1500FR2	2	1560	1560	8.3	210	9.2	233	27.4	695	206.0	93.5	17828	0.12	4 x M10 F
SBS XL 1800FR2	2	1870	1870	8.3	210	10.8	275	27.4	695	247.0	112.0	21415	0.1	4 x M10 F
SBS XL 2700FR2	2	2700	2700	8.4	212	15.6	397	32.3	820	359.4	163.0	32122	0.06	6 x M10 F
SBS XL 3100FR2	2	3100	3100	8.4	212	19.2	487	32.3	820	418.9	190.0	36881	0.06	8 x M10 F
SBS XL 3900FR2	2	3900	3900	8.4	212	22.7	576	32.3	820	527.0	239.0	46399	0.04	8 x M10 F

Note: (1) Figures obtained via IEC method.

Typical Outline Drawings



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