



The Next Generation of High Temperature Batteries

Introducing the SBS® XL
10 year design life @ 95°F (35°C)

As the increased need for digital information continues, both telecom and cable suppliers need to keep up. They have responded by adding additional equipment in central offices and data centers – adding heat to an already fragile environment. Cooling costs continue to rise and are escalated by the density of communication equipment. These extra costs have led to the development of a new battery designed to operate at higher temperatures, allowing end users to raise the AC set points and reduce their maintenance costs.

The next generation of front terminal batteries from EnerSys®. The **SBS XL** series comes from a respected lineage, the industry leading, EnerSys SBS Thin Plate Pure Lead (TPPL) battery. **SBS XL** takes the SBS to the next level. The **SBS XL** is designed to provide 10 years of life at 95°F (35°C) in back up applications at high operating temperatures. The value of this innovative new line is a true cost savings to the operator for both cooling and maintenance.

Product Characteristics

- Wide operating temperature range -40°F (-40°C) to 149°F (65°C)
- Front terminal design
- UL 94 V-0 Plastic
- Designed for operation in accordance with Telcordia® GR-4228 Level III, NEBS™ GR-63
- Designed to comply with the requirements of the international IEC 60896-21/22 standard
- 10 year design life @ 95°F (35°C)*

* 20 year design life @77°F (25°C)

Construction

- Positive Plates - Utilize TPPL technology
- Negative Plates - Provide perfect balance with the positive plate to ensure optimum recombination efficiency
- Separators - Superior quality microporous glass mat separators with high absorption and stability
- Containers and Lids - UL94 V-0 rated flame retardant Polycarbonate (PC) - ABS material, highly resistant to elevated temperatures, shocks and vibrations
- Electrolyte - High grade dilute sulphuric acid absorbed into separator material
- Terminals - High integrity leak resistant terminal seal design
- Terminals - 2 X M6 Male
- Self-regulating Pressure Relief Valves - Prevent ingress of atmospheric oxygen
- Flame Arrestors - Built into each bloc for increased operational safety

Installation and Operation

- Designed for operation at high temperatures in float applications
- Wide operating temperature: -40°F (-40°C) to 149°F (65°C)
- Classic industry container footprint
- Designed for use in cabinets or on stands, close to the point of use; separate battery room is not required
- Blocs should be installed on their base or horizontally on their longest sides
- Up to two year shelf life due to low rate of self-discharge
- Low maintenance; no water addition required

Standards

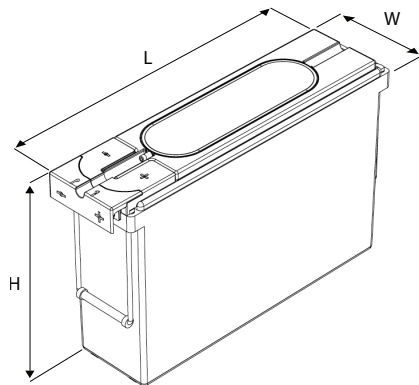
- Approved as non-hazardous cargo for ground, sea and air transportation in accordance with US DOT Regulation 49 and ICAO & IATA Packing instruction 806
- Designed to be compliant with international standard IEC 60896/21 and 22
- Designed to be compliant with Telcordia® GR-4228
- The management systems governing the manufacture of this product are ISO 9001:2008, ISO 14001:2004 and OHSAS 18001 certified.

General Specifications

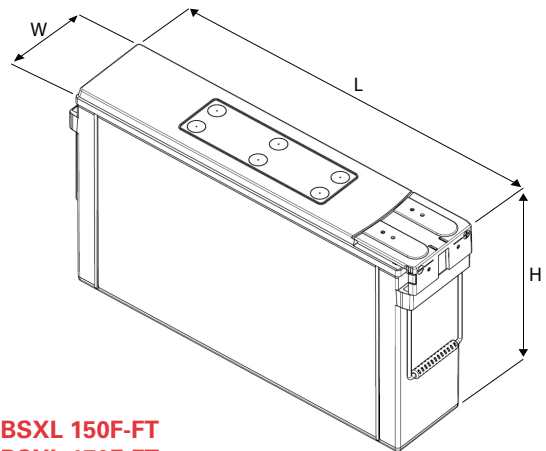
| Battery Type | Nominal Voltage (V) | Nominal Ah | | | | Nominal Dimensions | | | | | | Typical Weight lbs | Short Circuit Current (Amps) | Internal Resistance Milli-ohms | Electrolyte 1.33SG Weight (per bloc) | | Lead Weight (per bloc) | | Pure Acid (H ₂ SO ₄) Volume (per bloc) | | |
|----------------------|---------------------|---------------------------|---------------------------|----------------------------|----------------------------|--------------------|----------|-----------|-----|------|-----|--------------------|------------------------------|--------------------------------|--------------------------------------|-------|------------------------|------|---------------------------------------------------------------|------|------|
| | | 8hr. Rate 1.75Vpc @ 77°F* | 8hr. Rate 1.75Vpc @ 95°F* | 10hr. Rate 1.75Vpc @ 68°F* | 10hr. Rate 1.75Vpc @ 95°F* | Length in | Width in | Height in | mm | mm | mm | | | | lbs | kg | lbs | kg | gal | L | |
| SBSXL 80F-FT | 12 | 78.4 | 80 | 80 | 82.5 | 16.4 | 417 | 4.1 | 105 | 10.1 | 256 | 58.8 | 26.7 | 1700 | 7.7 | 11.46 | 5.2 | 41.4 | 18.8 | 0.32 | 1.23 |
| SBSXL 150F-FT | 12 | 147.2 | 150.4 | 150 | 155 | 22.1 | 561 | 4.9 | 125 | 11.1 | 283 | 111.7 | 50.7 | 2950 | 4.4 | 21.82 | 9.9 | 78.2 | 35.5 | 0.62 | 2.35 |
| SBSXL 170F-FT | 12 | 167.2 | 170.4 | 170 | 175 | 22.1 | 561 | 4.9 | 125 | 12.4 | 316 | 127.8 | 58.0 | 4100 | 3.0 | 25.57 | 11.6 | 89.5 | 40.6 | 0.73 | 2.75 |

*All rates for SBSXL 80F-FT are currently preliminary. Final rates will be available 4th qtr of 2017.

Outline Drawings



SBSXL 80F-FT



SBSXL 150F-FT
SBSXL 170F-FT

Discharge Currents (Amperes) 77°F (25°C)

| Battery Type | Vpc | Standby Time (Minutes) | | | | Standby Time (Hours) | | | | | | | | | | | |
|---------------|------|------------------------|-------|-------|-------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|--|
| | | 30 | 35 | 40 | 45 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 20 | |
| SBSXL 80F-FT* | 1.75 | 89.98 | 80.79 | 73.46 | 67.45 | 54.48 | 31.88 | 22.88 | 17.89 | 14.77 | 12.63 | 11.05 | 9.83 | 8.87 | 8.08 | 4.33 | |
| | 1.80 | 82.56 | 74.51 | 68.06 | 62.68 | 51.05 | 30.45 | 22.15 | 17.52 | 14.56 | 12.50 | 10.97 | 9.79 | 8.852 | 8.084 | 4.33 | |
| | 1.85 | 71.25 | 54.73 | 59.39 | 54.97 | 45.6 | 27.81 | 20.44 | 16.28 | 13.59 | 11.70 | 10.29 | 9.20 | 8.33 | 7.60 | 4.13 | |
| SBSXL 150F-FT | 1.75 | 168.1 | 150.9 | 137.3 | 126.1 | 101.9 | 59.68 | 42.85 | 33.52 | 27.69 | 23.66 | 20.71 | 18.43 | 16.63 | 15.16 | 7.98 | |
| | 1.80 | 154.3 | 139.2 | 127.2 | 117.2 | 95.49 | 57.00 | 41.49 | 32.82 | 27.29 | 23.42 | 20.56 | 18.35 | 16.6 | 15.16 | 7.98 | |
| | 1.85 | 133.2 | 121.0 | 111.1 | 102.8 | 85.31 | 52.07 | 38.29 | 30.51 | 25.46 | 21.93 | 19.29 | 17.25 | 15.62 | 14.24 | 7.59 | |
| SBSXL 170F-FT | 1.75 | 192.9 | 173.1 | 157.3 | 144.3 | 116.4 | 67.98 | 48.73 | 38.08 | 31.43 | 26.85 | 23.49 | 20.9 | 18.85 | 17.18 | 9.21 | |
| | 1.80 | 176.9 | 159.5 | 145.6 | 134.1 | 109.1 | 64.92 | 47.18 | 37.29 | 30.98 | 26.58 | 23.32 | 20.81 | 18.81 | 17.18 | 9.21 | |
| | 1.85 | 152.5 | 138.5 | 127.0 | 117.5 | 97.37 | 59.28 | 43.53 | 34.65 | 28.9 | 24.88 | 21.88 | 19.55 | 17.70 | 16.16 | 8.76 | |

*All rates for SBSXL 80F-FT are currently preliminary. Final rates will be available 4th qtr of 2017.

Discharge Currents (Amperes) 95°F (35°C)

| Battery Type | Vpc | Standby Time (Minutes) | | | | Standby Time (Hours) | | | | | | | | | | | |
|---------------|------|------------------------|------|------|------|----------------------|------|------|------|------|------|------|------|------|------|------|--|
| | | 30 | 35 | 40 | 45 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 20 | |
| SBSXL 80F-FT* | 1.75 | 94.2 | 84.4 | 76.6 | 70.2 | 56.5 | 32.7 | 23.5 | 18.3 | 15.1 | 12.9 | 11.3 | 10.0 | 9.05 | 8.25 | 4.43 | |
| | 1.80 | 86.0 | 77.5 | 70.7 | 65.1 | 52.7 | 31.2 | 22.7 | 17.9 | 14.8 | 12.7 | 11.2 | 9.99 | 9.03 | 8.25 | 4.43 | |
| | 1.85 | 73.7 | 67.0 | 61.4 | 56.7 | 46.9 | 28.5 | 20.9 | 16.6 | 13.8 | 11.9 | 10.5 | 9.38 | 8.50 | 7.76 | 4.22 | |
| SBSXL 150F-FT | 1.75 | 176 | 158 | 143 | 131 | 106 | 61.3 | 44.0 | 34.3 | 28.3 | 24.1 | 21.1 | 18.8 | 17.0 | 15.5 | 8.16 | |
| | 1.80 | 161 | 145 | 132 | 122 | 98.6 | 58.5 | 42.5 | 33.5 | 27.8 | 23.9 | 21.0 | 18.7 | 16.9 | 15.5 | 8.16 | |
| | 1.85 | 138 | 125 | 115 | 106 | 87.7 | 53.3 | 39.2 | 31.1 | 25.9 | 22.4 | 19.7 | 17.6 | 15.9 | 14.5 | 7.76 | |
| SBSXL 170F-FT | 1.75 | 202 | 181 | 164 | 150 | 121 | 69.8 | 50.0 | 38.9 | 32.1 | 27.4 | 24.0 | 21.3 | 19.2 | 17.5 | 9.41 | |
| | 1.80 | 184 | 166 | 151 | 139 | 113 | 66.6 | 48.4 | 38.1 | 31.6 | 27.1 | 23.8 | 21.2 | 19.2 | 17.5 | 9.41 | |
| | 1.85 | 158 | 143 | 131 | 121 | 100 | 60.7 | 44.5 | 35.3 | 29.5 | 25.4 | 22.3 | 19.9 | 18.1 | 16.5 | 8.98 | |

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