

SLS



Element®

LOW MAINTENANCE VRLA RAILWAY DIESEL LOCOMOTIVE STARTING BATTERY

Breakthrough in Technology

GNB Industrial Power brings the first real advancement in the area of Railway Diesel Locomotive Starting Batteries in over 50 years! The SLS utilizes proven Absolyte® VRLA technology to create the industry's first low maintenance railway diesel starting battery. Absolyte® technology was first developed in 1983 for military applications. Since then, it has been used in hundreds of thousands of back-up power and deep cycle applications. Unlike the standard flooded battery where electrolyte is fully mobile (spillable), the electrolyte in the SLS battery is absorbed in glass mat separators. This design facilitates the oxygen recombination with virtually no loss of liquid, and thus, no maintenance watering is required. Also, the batteries are non-spillable, eliminating damage to equipment, greatly reducing environmental concerns and increasing personnel safety.

Superior Performance

Because of its advanced design, GNB Industrial Power's SLS can outperform conventional flooded railway diesel locomotive starting batteries at any operating temperature. The cell design results in a more electrically efficient (lower internal resistance) battery that offers more Cold-Cranking-Amps (CCA) across the entire operating temperature range. At temperatures of 40°F or below, the SLS can retain anywhere from 10% to 20% more of its rated capacity than a conventional flooded battery. This equates directly to fewer "no starts" in today's operating environment where the engines are shut down more often. In addition, the battery can safely be discharged and go below 32°F and safely recover to full operability.

Maintenance & Serviceability

Since the cells never need watering, the only maintenance required is proper charging and periodic inspection. Epoxy coating on connector bolts provides vibration resistance to intercell connections. Also, with bolt-on intercell connectors, any cell replacement is safe and can be accomplished without removal of the tray from the locomotive. The cells are placed in a horizontal orientation in a partitioned steel tray that permits easy cell removal during battery service.



GNB Industrial Power Reliability and Performance

GNB Industrial Power has been producing lead-acid batteries for railroad applications for over 100 years! It has been the undisputed technological leader in research and development in lead-acid batteries for railroad applications during that time. This has resulted in improved designs to meet the ever-increasing demands in diesel engine starting requirements. GNB Industrial Power's revolutionary SLS batteries are the culmination of 100 years of GNB Industrial Power's expertise and know-how.

Total Battery Management

GNB Industrial Power has a complete approach to the business of manufacturing, distributing and recycling lead-acid batteries. GNB Industrial Power takes the risk out of the disposal of your spent lead-acid batteries. GNB Industrial Power will pick up and transport any spent lead-acid battery to one of the EPA-approved recycling centers in North America. Only companies with the strongest commitment to the environment are able to make this kind of long-term commitment to recycling. GNB Industrial Power is one of the largest recyclers of lead-acid batteries in North America. You can contact the GNB Industrial Power Total Battery Management Program in the United States at 1-888-438-5865. In Canada, call 1-800-267-7581 (English) or 1-800-231-9081 (French). In Mexico, call 1-800-862-2225.

FOR SALES AND SERVICE IN THE UNITED STATES AND CANADA, CALL 1-800-GNB-RAIL (1-800-462-7245)

GNB®

INDUSTRIAL POWER

A Division of EXIDE Technologies

TECHNICAL DATA

SPECIFICATIONS

Performance

Unit Type	Cells per Unit	Plates per Cell	Operating Temperature	Amp-Hr Capacities 1.310 Specific Gravity to 1.70 VPC Avg.		Discharge Rates 1.310 Specific Gravity to 1.00 VPC Avg.		Unit Dimensions						Approx Net Weight per Unit	
				8 Hour Rate	1 Min. Rate	5 Sec. Rate	Length		Width		Height		Lbs.	Kg.	
							In.	mm	In.	mm	In.	mm			
SLS-710	16	19	77°F	710	3200	3800	40.9	1038	24.6	625	20.9	530	1950	885	
			32°F	550	2300	2800									
SLS-520	16	13	77°F	520	2140	2555	24.47	621	40.75	1033	17.18	436	1460	664	
			32°F	400	1690	2000									

Tray

- Powder Coated, Heat Cured Epoxy Fully Welded Steel Tray
- Split Cover Access

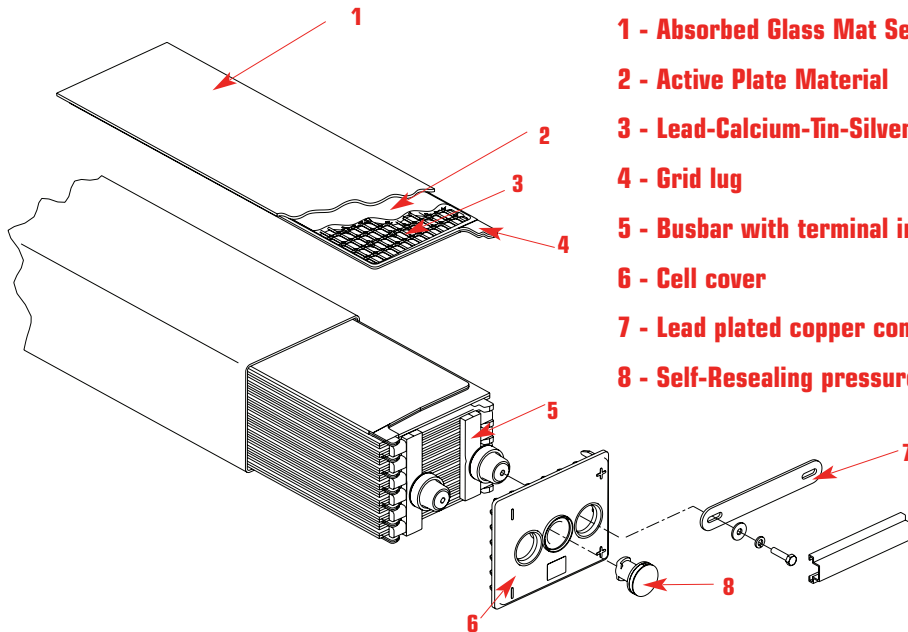
Individual Cell

- Heat Sealed, High-Impact Polypropylene Jar & Cover
- Bolt-on Terminals

Terminals

- Lead Plated Copper

SLS Cell Design



Separators

- Absorbed Glass Mat (AGM)

Positive Plates

- Patented Lead Calcium Tin Silver Grid Alloy

Negative Plates

- Calcium Alloyed Lead Grids

Charging Requirements

- 2.23 - 2.27 VPC Float

Inter-Tray Connectors

- Lead Plated Copper, Insulated Cable

- 1 - Absorbed Glass Mat Separator (AGM)
- 2 - Active Plate Material
- 3 - Lead-Calcium-Tin-Silver Positive Grid Alloy
- 4 - Grid lug
- 5 - Busbar with terminal insert
- 6 - Cell cover
- 7 - Lead plated copper connector
- 8 - Self-Resealing pressure relief valve

Absolyte® is a registered trademark of GNB Industrial Power, a division of Exide Technologies.

Note: Design and/or specifications are subject to change without notice. If questions arise, contact your local GNB Industrial Power railroad sales representative for clarification.

GNB Industrial Power

A division of Exide Technologies

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Canada – Tel: 800.268.2698

www.exide.com



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