



Mission Critical Systems

Surge Protection for Rail Transportation Networks

Surge Protection Experts for Positive Train Control

For decades, the rail industry has relied upon simple surge protection technologies primarily consisting of components such as spark gaps, gas tubes, or basic metal oxide varistors (MOVs). As leaders in suppression technology and experts in Positive Train Control, PolyPhaser and Transtector Systems have designed state-of-the-art solutions to provide the rail market with reliable transient voltage surge protection that meet and exceed AREMA requirements and standards.

Application	Network Component	Value
AC	Panelboard	Provides power to signal and communications equipment.
DC	Signal line protection	Provides power to track and train monitoring equipment.
DC	Track Circuit	Monitors occupation of train in a designated section of tracks.
RF	Voice Radio	Used for communication between rail personnel.
RF	PTC Radio	Used for wireless communication of train status.
RF	End of Train or Distributed Power Radio	On board locomotive communications.
RF	Cellular Network	Wireless communications.
DC	Communications Over Copper Pairs	Relays information from one signal house to another.
Data	Ethernet Switch's, Cameras, Radios	Transmits data from one point to another.

AC Surge Protection



I2R Storm



MCP30



SP Plus



DRDC



DRI Series



SXRR



DC Defender



DTA

DC Surge Protection

Premier Surge Protection Vendor for Railway Systems Solutions

PolyPhaser and Transtector Systems end-to-end surge protection product offering includes RF, AC, DC, data line and integrated cabinets developed to keep rail yards open, trains on schedule and passengers safe. From the GPS satellite to the bungalow we have protection solutions to meet your needs.

- Surge protection products designed to meet AREMA standards.
- Preferred Class I Rail vendor – ranked as a top supplier for on-time delivery and innovative technology.
- Technical service well versed in PTC compliance requirements.
- Dedicated regional staff to assist in beta test evaluations, site surveys, and logistics management.

Superior Protection. Patented Technology. Guaranteed Performance.

Surge Protection Required	Recommended Surge Protection
1, 2 or 3 phase parallel or series connected surge protection	MCP30 RR series
AAR or Din Rail mounted 12-48V DC surge protection	SXRR, DRDC, DRI
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160 MHz surge protection or hybrid surge protector/filter	VHF50, RRF-160-NFF, RRF160-NFF-L, RRF160-UNFM-L
220 MHz surge protection or hybrid surge protector/filter	RRF- 220-NFF, RRF-220-NFM-L
450 MH surge protector/filter	RRF-450-NFM-L
698 MHz and up to 2.7 GHz	TSX
7-48V DC	FSP, DRDC, DRI
Data and POE	TSJ, ALPU, CPX, IX

RF Surge Protection

Data Line Surge Protection



RF-RRF Filters



TSX-NFF



DGXZ-06NFFN-A



ALPU



CPX



TSJ POE



TSJ 100BT

Committed to Service

Meeting our customers' requirements is paramount to our effort in creating highly satisfied customers. We are the only surge protection supplier that offers a full line of professional services, including:

- **Consulting and Site Audits**—More than 30 years of expertise and professional experience in power and grounding consulting, site audits and educational courses for railway transportation systems worldwide.
- **Custom-Engineered Solutions**—Experts in transient technology and standards required by AREMA.
- **Tailored Product Expedite (TPE) Program**—Designed to provide application-specific surge protection solutions, through modification or enhancement of a current product.
- **Technical Support**—Global engineering service teams available to answer PTC application questions, troubleshoot, or assist in the design and development of a custom solution.
- **Customer Service**—Dedicated inside sales and customer service teams trained in the unique surge protection requirements for the Rail industry: these seasoned teams provide a full range of support from helping to select the right product to providing order status and RMA assistance.

