STC Series – Data/Signal Line Surge Protection Devices for Transient Data

The rapid development of automated controls, telecommunications and fire/security systems has made it imperative to have properly coordinated low-voltage protection. Modern networked industrial facilities require error free transmission of information for maximum productivity and integrity of data.

The SolaHD STC series protects all susceptible low-voltage cable routes entering a facility and at key points within the building. These devices can be used as part of a multi-stage protection strategy which involves clamping the initial high-energy impulse, filtering any remaining noise or transients to the PLC or sensitive equipment and finally, protecting the Data/Signal lines entering and leaving the control panel. Modern, networked industrial facilities require error free transmission of information for maximum productivity and data integrity.

The hybrid design of these Data/Signal Line surge suppressors allows them to respond quickly with high energy absorption. These units are available in a variety of application specific voltage levels and packaging configurations. The STC series is used to protect network signal lines entering or leaving control panels including PLCs, universal remote I/O, DeviceNet™ and Data Highway Plus.

Related Products
- Single and Three Phase Power Conditioners
- Uninterruptible Power System
- Transient Voltage Surge Protective Devices
- Active Tracking® Filters
- Power Supplies

Low Voltage - Data/Signal, STC Series

<table>
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<th>Series</th>
<th>Application</th>
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<td>STC-POE</td>
<td>Power-over-Ethernet, Category 5 and Category 6</td>
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<tr>
<td>STC-DRS</td>
<td>DIN Rail mountable, single pair surge protection</td>
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<tr>
<td>STC-642</td>
<td>Two-Pair Data/Signal Protection</td>
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<td>STC-CCTV</td>
<td>High-Frequency Coaxial protection for head and camera ends</td>
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Power Protection and Conditioning

STC-DRS Series, DIN Rail Protection

Using three-stage hybrid technology, this DIN Rail mountable, single pair, surge protection device attenuates over-voltage transients with gas tubes and silicon avalanche components while resetable fuses (PTCs) mitigate sneak currents. The PTC increases resistance by several orders of magnitude when over-currents exceed safe levels. A normal state resumes when over-currents are removed. The ability to self-restore in this manner significantly increases performance and survivability.

The STC-DRS Series mounts onto a standard 35 mm industrial DIN rail. There are three Field Side and three Electronics Side screw terminals. One is reserved for a shield. Three electrically tied ground terminals are provided for grounding the unit to building-approved ground. The shield is isolated from ground.

Features
- Low-Voltage data surge protection
- Three-Stage hybrid technology
- Sneak/Fault current protection with resetable fuses (PTCs)
- Low profile packaging
- Easy installation
- Fits standard 35 mm DIN Rail
- Fast response time <1 nanosecond
- Five year limited warranty

Certifications and Compliances
- UL Listed
  - UL 497B
- RoHS Compliant

Notes:
These protectors are intended for indoor use on communication loop circuits that have been isolated from the Public Switch Telephone Network.

The communication loop circuits shall not be exposed to accidental contact with the electric light or power conductors. The protectors shall be installed per the applicable requirements of the National Electric Code, ANSI/NFPA 70.

Certifications and Compliances

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Max Peak Signal Voltage</th>
<th>Nominal Breakdown Voltage</th>
<th>Max Current 1p 10X1000 ms (Occurrences)</th>
<th>Peak Current 8X20 ms</th>
<th>Typ. Cap (PF)</th>
<th>Max Continuous Current</th>
<th>Nominal Series Resistance</th>
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<tbody>
<tr>
<td>STC-DRS-232</td>
<td>15</td>
<td>22</td>
<td>&gt;100</td>
<td>10KA</td>
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<td>STC-DRS-036</td>
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