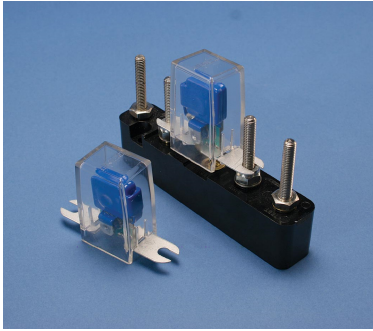


ETSP Series



1. Preparation



Danger: Electrical shock or burn hazard. Qualified personnel should only install this product. Failure to lockout electrical power during installation or maintenance can result in fatal electrocution or severe burns. Before making any connections to the electrical panel please ensure that power has been removed from all associated wiring, electrical panels, and other electrical equipment.



Caution Notes:

1. The installation of this Electronic Track Surge Protector (ETSP) on wayside rail industry electronic equipment should follow all applicable railroad electrical codes.
2. Prior to installation, check to ensure that the maximum continuous operating voltage (U_c) of the ETSP selected is higher than that expected on the circuit being protected.
3. The ground (earth) terminal must be connected to a low impedance earth (<10 ohms) for correct operation.
4. Do not perform a "Flash Test" or use a Megger to test circuits that are protected with these ETSP units. This may damage the unit and affect the insulation readings being performed.
5. Follow all instructions to ensure correct and safe operation and observe nationally recognized codes of authorities having jurisdiction.
6. Do not attempt to open or tamper with the ETSP unit in any way as this may compromise performance and will void warranty.

HAZARDOUS VOLTAGES MAY EXIST INTERNAL TO THE ETSP. THIS UNIT SHOULD BE INSTALLED AND SERVICED ONLY BY QUALIFIED PERSONNEL IN CONFORMANCE WITH ALL GOVERNING CODES, AND INSTRUCTIONS.

1. The power supply to the ETSP should always be turned (and locked) OFF before the unit is accessed for any reason.
2. Prior to installation, ensure that the ETSP is of the correct voltage, current, phasing, and frequency for the applicable rating of the power distribution system.
3. All instructions must be followed to ensure proper and safe operation of the ETSP.
4. Failure to follow instructions or warnings may result in bodily injury, property damage, equipment damage, or ineffective protection.

DANGER: Electrical shock or burn hazard. Installation of this ETSP should only be made by qualified personnel. Failure to lockout electrical power during installation or maintenance can result in fatal electrocution, severe burns, or other injuries. Before working with or making any connections to this electrical panel, be sure that power has been removed from all associated wiring, electrical panels, and other electrical equipment.

CAUTION: Check to make sure line voltage does not exceed ETSP voltage requirement.

CAUTION: This unit must be installed in conformance with all governing codes and instructions, and must be installed on the load side of the main over-current protection.

Diagrams are for reference only. Schematics are representative of typical applications and are only to be used for reference.

WARNING:

1. Pentair products shall be installed and used only as indicated in Pentair product instruction sheets and training materials. Instruction sheets are available at www.erico.pentair.com and from your Pentair customer service representative.
2. Pentair products must never be used for a purpose other than the purpose for which they were designed or in a manner that exceeds specified load ratings.
3. All instructions must be completely followed to ensure proper and safe installation and performance.
4. Improper installation, misuse, misapplication or other failure to completely follow Pentair's instructions and warnings may cause product malfunction, property damage, serious bodily injury and/or death, and void your warranty.

SAFETY INSTRUCTIONS:

All governing codes and regulations and those required by the job site must be observed. Always use appropriate safety equipment such as eye protection, hard hat, and gloves as appropriate to the application.

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2. Electrical Connection

- Ensure that the correct ETSP is selected for the operating voltage to which it will be connected.
- Connect the ETSP to the ERICO Universal Terminal Block across the appropriate terminals to ensure protection of the desired circuit.
- Ensure ground terminal is connected

3. Engaging Power

Tighten terminal hardware and verify all connections, replace the cover if removed, and engage power to the protector. If experiencing difficulties, please contact your supplier, or the manufacturer:

ERICO
34600 Solon Rd
Solon OH 44139
www.erico.pentair.com

4. Indicators

A failsafe spring disconnect is provided on either side of the product on each line or stage being protected. Operation of these disconnects (when sprung), indicates that the ETSP has sustained a surge beyond its ratings, and the protection has been compromised. While there may still be some protection provided by the parallel protection stages within the unit, the ETSP should be replaced immediately.

5. Maintenance

Before removing the ETSP from service, ensure that the power has been removed and if possible "locked out". Qualified personnel should only undertake replacement of an ETSP unit.

Note: It is very important to ensure that the replacement is of the correct type and voltage as that being replaced.