

T80W and T80E Transient Voltage Surge Suppressor (TVSS)



INTRODUCTION

The T80W and T80E Surge Protective Devices (SPD) are designed to provide protection at the service entrance, branch panels or other critical locations.

PRECAUTIONS

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, BURN OR EXPLOSION.

- This equipment must be installed and serviced only by qualified electrical personnel in accordance with National and Local Electrical Codes.
- Turn off all power supplying this equipment before working on or inside enclosure containing this equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

Not for use on ungrounded systems.

Failure to follow these instructions can result in death or serious injury.

CAUTION

HAZARD OF EQUIPMENT DAMAGE.

- Megger[®] or hi-potential tests will damage this surge protective device. Turn off all power supplying the equipment and isolate the surge protective device before testing.
- Must be installed with provided class CC fuses.

Failure to follow these precautions can result in equipment damage.

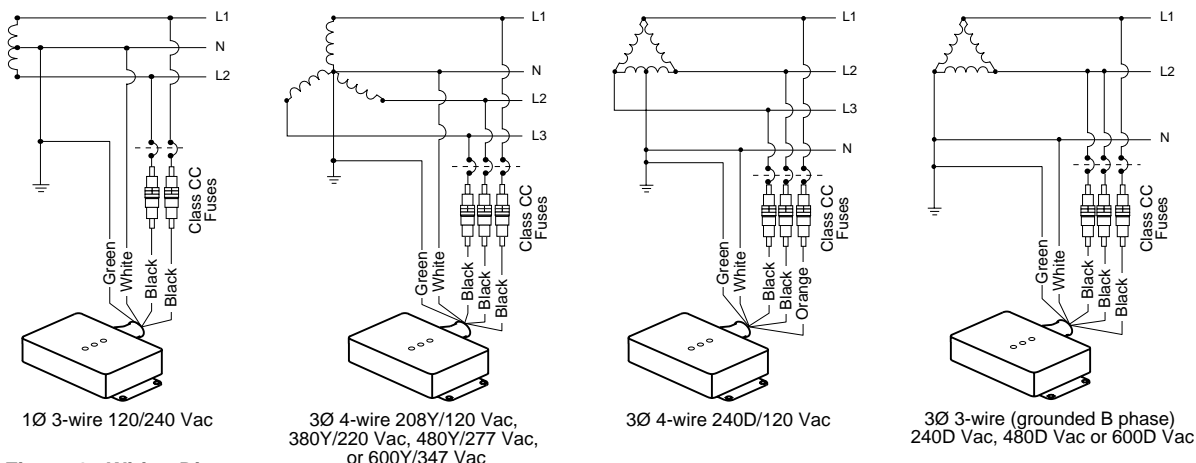
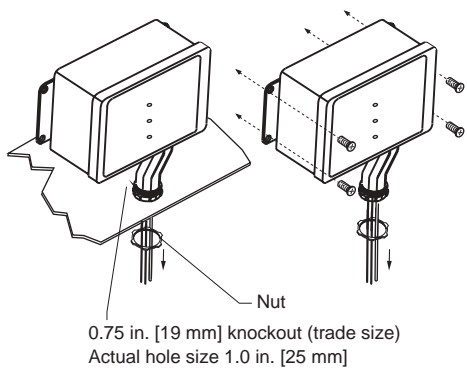


Figure 1: Wiring Diagrams



NOTE: The surge protective device must be installed in an accessible location (not within walls).

Figure 2: Mounting Unit

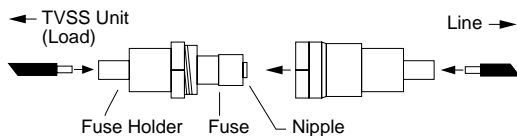


Figure 3: Connecting TVSS Unit to Fuse Holder and Circuit Breaker

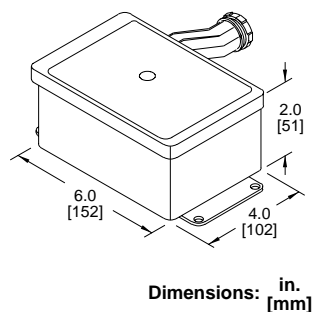


Figure 5: Dimensions

INSTALLATION

1. Turn off all power supplying this equipment before working on or inside enclosure containing this equipment.
2. See Figure 1, 2 for mounting instructions.
NOTE: The surge protective device must be installed in an accessible location (not within walls).
3. Confirm the SPD is rated for your system by comparing voltage measurements to the Line Voltage (L-L, L-N) on the product label.
4. Install in accordance with National and Local Electric Codes and match branch circuit breakers to the size of wire being used (#10 AWG, up to 30 A).
5. Confirm that the electrical terminals used to attach this device are identified for these conductors.
6. Install class CC fuses (provided) into fuse holders, if they are not already installed (See Figure 3). Do not substitute fuse, use only the provided class CC 30 type fuses.
NOTE: These protectors or fuses do not replace the need for branch circuit protection as stated in step 4 above.
7. Twist conductors 1/2 turn or more for every 12 inches of length.
8. Keep conductor length as short as possible with no sharp bends.
9. Do not loop or coil wires. Be sure to maintain adequate wire bending space per NFPA 70 2002 Edition, article 408.35.
10. Use on solidly grounded systems only.
11. Install cover and/or close door on equipment.
12. Apply power. If all three lights not on, go to diagnostic operation.

CAUTION

LOSS OF OVERVOLTAGE SURGE PROTECTION.

- Operation or opening of a provided CC fuse indicates a loss of protection in the T80 product.
 - Always replace the T80 product when replacing provided CC fuses.
- Failure to follow these instructions can result in equipment damage.**

Diagnostic Operation

- LED ON = Normal operation (see Figure 4)
- LED OFF (one or more) = Fault. Check phase voltage, circuit breakers and connections. If OK replace TVSS unit and all associated fuses and fuseholders.
- If fuses open, replace TVSS unit and all associated fuses and fuseholders.

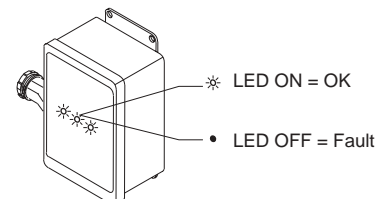


Figure 4: Diagnostic Operation

General Specifications

Max Surge Current	80 kA/Phase
Short Circuit Current Rating	22 kA, 600 V Maximum
Housing Rating	NEMA Type 1
Product Weight	3.05 lbs. (1.38 kg)
Connection Method	Parallel, #10 AWG Stranded Wire
EMI/RFI Noise Rejection	Up to -35 dB (T80W only)
Operating Temperature	-40° to +140°F (-40° to +60°C)
Operating Frequency	50/60/400 Hz
Diagnostics	Green Status LEDs
Product Standards	cULus to UL 1449-2nd Ed, CSA C22.2 No. 0-M91