



# TITAN 16DT GUIDE SPECIFICATIONS

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## Part 1 — GENERAL:

### A. DESCRIPTION:

1. This section describes the materials and installation requirements for surge protective devices (SPD). Surge protective devices are used for the protection of electrical equipment from the effects of lightning induced currents, substation switching transients and internally generated transients resulting from inductive and/or capacitive load switching.

### B. SUBMITTALS:

1. Submit shop drawings, product data and manufacturer's installation instructions.
2. The surge suppression submittals shall also include:
  - a. Dimensional drawing of each suppressor types indicating mounting arrangements.
  - b. UL 1449 clamp voltage documentation.

### C. CERTIFIED TESTS

1. The surge suppressor manufacturer shall provide certified test results on the actual product being shipped to the job site. The test results shall be certified by an officer or engineer of the company as being performed on the product after manufacture.
2. The test conducted shall be per ANSI C62.41-1991 and ANSI C62.45. The units shall be tested in all modes and to the full capacity claimed in the manufacturer's specifications.
3. The engineer, after review of test data, may require unit to be returned and a new unit provided that meets the requirements of this specification.

### D. WARRANTY

1. The surge suppressor manufacturer shall warrant the surge protective devices and supporting components against defects in material and workmanship for a period of ten years.

### E. MANUFACTURER QUALIFICATIONS

1. Surge protective devices shall be manufactured in the USA, by a company normally engaged in the design and manufacture of such devices for at least five (5) years.

### F. SAFETY AGENCY APPROVALS

1. Suppressors shall be recognized in accordance with UL 1449 2nd Edition, standard for safety, transient voltage surge suppressors. They shall also be CSA or cUL approved.



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## Part 2 — PRODUCTS:

### DINRAIL SUPPRESSOR

1. Surge Protective Devices shall be installed at the power entry of equipment cabinet.
2. Visible indication of proper suppressor connection and operation shall be provided.
3. The suppressor shall exhibit Sine Wave Tracking circuitry.
4. Suppressors shall meet or exceed the following criteria:
  - a. Minimum single impulse current rating (L-N + L-G): 16,000 amperes per phase.
  - b. UL Clamping voltage shall not exceed the following:

VOLTAGE	L-N	L-G	N-G
120	500V	500V	500V
200		1140V	
5. Suppressors shall consist of solid-state components and operate bi-directionally.
6. Maximum continuous operating voltage of the suppressor shall be greater than 110% of the nominal system voltage.
7. The following manufacturers are approved, provided they meet the above specifications:
  - a. EFI Electronics Corporation, Titan 16DT.

## Part 3 — EXECUTION:

### DINRAIL SUPPRESSOR

1. Install one dinrail suppressor at the power entry of equipment cabinet. Follow manufacturer's installation instructions.
2. Suppressor shall be installed per the manufacturer's installation instructions. Equipment shall be protected by a 20Amp circuit breaker
3. Conductors between suppressor and point of attachment shall be #12 AWG stranded copper. The conductors shall be kept as short and straight as possible. The maximum length of connecting wiring shall not exceed 18 inches.