

SECTION 26 22 00

LOW-VOLTAGE TRANSFORMERS

PART 1 GENERAL

A. Product Data:

1. Outline and support point dimensions of enclosures and accessories and unit weight.
2. Voltage, kVA, impedance rating, tap configurations, insulation system type, and rated temperature rise.
3. Loss data and efficiency at 25, 50, 75, and 100 percent rated load.
4. Sound level.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Dry-Type Two-Winding Transformers:

1. ACME
2. General Electric
3. Hevi-Duty/Sorgel/Square D
4. Siemens
5. Eaton

2.02 MATERIALS

- A. Factory-assembled Air Cooled Dry Type Transformers.
- B. Transformer operational efficiency shall meet latest applicable federal, state and energy code requirements.
- C. Transformers shall be supplied with quality, full width electrostatic shields.
- D. Insulation and Temperature Rise:
 1. Rating 3 to 15 kVA, NEMA Class F, Temperature Class 185° C and 115° C temperature rise.
 2. Rating 30 to 500 kVA, NEMA Class H, Temperature Class 220° C and 115° C temperature rise.
- E. Winding Taps:
 1. Transformers less than 15 kVA: Two 5 percent below rated voltage, full capacity taps on primary winding.
 2. Transformers 15 kVA and larger: two 2.5 percent above rated voltage, four 2.5 percent below normal, full capacity taps on primary winding.
- F. Sound levels:
 1. Require maximum sound levels as follows:
 - a) 0 to 9 kVA: 40 dB.
 - b) 10 to 50 kVA: 45dB.
 - c) 51 to 150 kVA: 50 dB.
 - d) 151 to 300 kVA: 55 dB.
 - e) 301 to 500 kVA: 60 dB.
- G. Mounting:
 1. Transformers 75 kVA and less may be suspended or wall-mounted and should be suitable for that possibility.
 2. Transformers over 75 kVA shall be floor-mounted.

- 3. Floor mounted transformers shall be installed on a 4" house keeping pad.
- H. Vibration Isolations: Transformer winding assemblies shall be isolated from housing by vibration isolation mounts. Provide vibration isolation pads between transformer housing and floor concrete pad or support bracket system.
- I. Coil Conductors:
 - 1. Continuous copper windings with terminations brazed or welded, regardless of size.
- J. Transformer Terminations: terminations shall be suitable for landing copper conductors without any special preparation.

2.03 K-RATED TRANSFORMERS

- A. Provide minimum K13 K-Factor rated transformers, when specified.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Vibration Isolation:
 - 1. Provide minimum of 2' and maximum 3' flexible conduit for transformer connections.
 - 2. Require standard manufacturer vibration isolation mounts for all connections between structure and housing of transformer. Mount so transmission from transformer to floor, wall or mounting brackets is reduced to a minimum.

END OF SECTION 26 22 00