

## SECTION 261200 – MEDIUM-VOLTAGE TRANSFORMERS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:

- 1. This Section specifies pad-mounted transformers for buildings and structures.
- 2. Provide all labor, materials, and equipment as necessary to complete all work as indicated on the drawings, and as specified herein for a complete operating system.

- B. Related Sections:

- 1. Applicable sections of Division 26 - Electrical

#### 1.3 SUBMITTALS

- A. Shop Drawings

- 1. Pad-mount transformers

#### 1.4 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70, “National Electrical Code”
- C. Transformers shall be in accordance with the latest applicable standards as recommended by A.N.S.I., N.E.M.A., and I.E.E.E.
- D. Guarantee
  - 1. Furnish full parts and labor warranty to cover the transformer(s) for one year from date of installation.

## PART 2 - PRODUCTS

### 2.1 PAD-MOUNT TRANSFORMERS

- A. Transformers shall be liquid filled ABB BIOTEMP or Cooper Envirottemp, primary dead front construction, and each provided with two 2-1/2% FCAN and two 2-1/2% FCBN taps in the high voltage winding, with externally operated no-load tap changer.
- B. Transformers shall be 65 degree C rise, OA, 95 KV BIL primary, 30 KV BIL secondary, standard impedance; voltages, size(s), and phases as noted on drawings.
- C. Each transformer shall have the following:
  - 1. Radial feed primary dead front wells, inserts, load break elbows, MOV surge arresters, and parking stands.
  - 2. Oil immersed primary gang operated load break switch with externally operated handle in primary compartment.
  - 3. Bay-O-Net fusing is series with partial range current limiting fusing.
  - 4. Secondary terminations shall be spade type tin plated copper in molded epoxy bushings.
- D. Each transformer shall be provided with the following accessories:
  - 1. Drain and sampling valves
  - 2. Filter-press and filling connections
  - 3. Top liquid dial-type thermometer
  - 4. Liquid level gauge
  - 5. Pressure-vacuum gauge
  - 6. Pressure relief device
  - 7. Ground pad (one each in high and low voltage compartments)
  - 8. Nameplate
  - 9. Provisions for padlocking tap changer handle
  - 10. Provisions for lifting and jacking
  - 11. Factory supplied integral containment pan
- E. The transformers and associated terminal compartments shall be so designed and constructed as to be completely tamper-proof. There shall be no exposed screws, bolts, or other removable fastening devices. No openings shall be provided through which foreign objects such as sticks, rods, or wires might be inserted to contact live parts. Any possible access of birds or animals shall be positively prevented. The base construction shall be of the fabricated type and suitable for using rollers or skidding in any direction.
- F. Terminal compartments shall be full height, air filled compartments with hinged doors. The high voltage and low voltage compartments shall be located side-by-side with the high voltage on the left. The high voltage compartment shall be accessible only after the door to the low

voltage compartment has been opened. All doors shall be provided with provisions for padlocking.

- G. Information supplied by the manufacturer shall include dimensional sketches, installation requirements, instruction books, guaranteed efficiencies at full, 3/4, 1/2, and 1/4 loads, guaranteed regulation at unity and 80% P.F., and core loss.
- H. Load break elbows and surge arresters shall be manufactured by RTE Corporation.
- I. Padmount transformers shall be manufactured by Eaton/Cooper, GE, ABB, Square D, or approved equal.

### PART 3 - EXECUTION

Not Used

END OF SECTION 261200