
Part 1 General

1.1 RELATED SECTION

- .1 Section 26 05 01 Common Work Results - Electrical.
- .2 Section 26 99 99 Commissioning.

1.2 REFERENCES

- .1 CSA International:
 - .1 CAN/CSA-C22.2 No.47-M90(R2007), Air-Cooled Transformers (Dry Type).
 - .2 CSA C9-02(R2007), Dry-Type Transformers.
 - .3 CAN/CSA-C802.2-06, Minimum Efficiency Values for Dry Type Transformers.
- .2 National Electrical Manufacturers Association (NEMA).

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit shop drawings in accordance with Section 26 05 01 Common Work Results - Electrical.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for dry type transformers and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit voltage regulation/tap tests.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 See Section 01 74 21 Construction Demolition Waste Management.
- .2 Collect and separate plastic, paper packaging and corrugated cardboard in accordance with Waste Management Plan.
- .3 Fold up metal banding, flatten and place in designated area for recycling.

1.5 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for dry type transformers for incorporation into manual.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect dry type transformers from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

Part 2 Products

2.1 DESIGN DESCRIPTION

- .1 Design 1.
 - .1 Type: ANN.
 - .2 Size as indicated on drawing.
 - .3 Voltage taps: standard.
 - .4 Insulation: Class H, 150 degrees C temperature rise.
 - .5 Basic Impulse Level (BIL): standard.
 - .6 Hipot: standard.
 - .7 Average sound level: standard.
 - .8 Impedance at 17 degrees C: standard.
 - .9 Mounting: floor or wall mounted as indicated on drawing.
 - .10 Provide wall mounted bracket for wall mounted application.
 - .11 Finish: in accordance with Section 26 05 01 - Common Work Results - Electrical.
 - .12 Copper windings.
 - .13 Winding configuration to be as noted on drawings.
 - .14 K-Rated Transformers as indicated on drawings.
 - .15 Voltage Regulation to be 4% or better.
 - .16 Transformer to be equipped with dual spade transformer lugs, secured to transformer chassis for grounding.
 - .17 All transformers from same manufacturer.

2.2 ENCLOSURE

- .1 Enclosure to be fabricated from sheet steel, complete with removable metal front panel. Enclosures and ventilation grilles shall be drip-proof in accordance with C.E.C. 26-008.
- .2 Transformers shall be mounted on vibration isolators to reduce noise transmission. These isolators shall be located between the enclosure and the housekeeping pad and shall be in addition to isolators located between the core and coil assembly and the enclosure.

2.3 EQUIPMENT IDENTIFICATION

- .1 Provide equipment identification in accordance with Section 26 05 01 - Common Work Results - Electrical.

- .2 Label size: 7.

Part 3 Execution

3.1 INSTALLATION

- .1 Mount dry type transformers on floor on housekeeping pads as indicated on drawings.
- .2 Mount dry type transformers on wall where indicated on drawing.
- .3 Ensure adequate clearance around transformer for ventilation.
- .4 Install transformers in level upright position.
- .5 Remove shipping supports only after transformer is installed and just before putting into service.
- .6 Loosen isolation pad bolts until no compression is visible.
- .7 Make primary and secondary connections in accordance with wiring diagram.
- .8 Energize transformers after installation is complete.

3.2 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for recycling in accordance with Section 01 74 21 Construction Demolition Waste Management.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.3 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by dry type transformers installation.

END OF SECTION