

MCTS CENTRE	DRY TYPE TRANSFORMERS	Sect 26 12 16.01
PORT AUX BASQUES, NL	UP TO 600 V PRIMARY	Page 1
R.082780.004		2017-08-01

PART 1 - GENERAL

<u>1.1 REFERENCES</u>	.1	Canada Green Building Council (CaGBC)
	.1	LEED Canada-NC-2009, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.
	.2	CSA International
	.1	CAN/CSA-C22.2 No.47, Air-Cooled Transformers (Dry Type).
	.2	CSA C9, Dry-Type Transformers.
	.3	National Electrical Manufacturers Association (NEMA)
<u>1.2 ACTION AND INFORMATIONAL SUBMITTALS</u>	.1	Submit in accordance with Section 01 33 00 - Submittal Procedures.
	.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.
	.3	Sustainable Design Submittals:
	.1	LEED Canada submittals: in accordance with Section 01 35 21 - LEED Requirements.
	.2	Construction Waste Management:
	.1	Submit project Waste Management Plan highlighting recycling and salvage requirements.
	.2	Submit calculations on end-of-project recycling rates, salvage rates, and landfill rates demonstrating that 75% of construction wastes were recycled or salvaged.
<u>1.3 CLOSEOUT SUBMITTALS</u>	.1	Submit in accordance with Section 01 78 00 - Closeout Submittals.

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| 1.3 CLOSEOUT
SUBMITTALS
(Cont'd) | .2 | Operation and Maintenance Data: submit operation and maintenance data for dry type transformers for incorporation into manual. |
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| 1.4 DELIVERY,
STORAGE AND
HANDLING | .1 | Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and 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 accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
.2 Store and protect from nicks, scratches, and blemishes.
.3 Replace defective or damaged materials with new. |
| | .4 | Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section 01 35 21 - LEED Requirements. |
| | .5 | Packaging Waste Management: remove for reuse or return of pallets, crates, padding, banding, and packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and Section 01 35 21 - LEED Requirements. |
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PART 2 - PRODUCTS

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| 2.1 DESIGN
<u>DESCRIPTION</u> | .1 Design. <ul style="list-style-type: none">.1 Type: ANN..2 Single and 3 phase, kVA and voltage as noted, 60 Hz..3 Voltage taps: standard..4 Basic Impulse Level (BIL): standard..5 Hipot: standard..6 Average sound level: standard..7 Impedance at 17 degrees C: standard..8 Enclosure: NEMA, removable metal front panel..9 Mounting: floor or wall..10 Finish: in accordance with Section 26 05 00 - Common Work Results for Electrical..11 Copper windings..12 Voltage Regulation to be 4% or better. |
| 2.2 EQUIPMENT
<u>IDENTIFICATION</u> | .1 Provide equipment identification in accordance with Section 26 05 00 - Common Work Results for Electrical. <ul style="list-style-type: none">.2 Label size: 7..3 Nameplate wording: indicate transformer number, kVA and voltage. |

PART 3 - EXECUTION

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| 3.1 <u>INSTALLATION</u> | .1 Mount dry type transformers up to 75 kVA as indicated. <ul style="list-style-type: none">.2 Mount dry type transformers above 75 kVA on floor..3 Ensure adequate clearance around transformer for ventilation..4 Install transformers in level upright position. |
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3.1 INSTALLATION
(Cont'd)

- .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. Use flexible conduits.
- .8 Energize transformers after installation is complete.
- .9 Make conduit entry into bottom 1/3 of transformer enclosure.

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 reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and Section 01 35 21 - LEED Requirements.
 - .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.