

# ***Network Transformers***



TRANSFORMATEURS L<sup>TÉE</sup>

**PIONEER**

TRANSFORMERS L<sup>TD</sup>

***AN ISO 9001 COMPANY***

**P**ioneer Transformers is a North American leader in the manufacturing of liquid-filled Distribution, Small Power and Specialty Transformers. We manufacture Subway and Vault-type Network Transformers up to 3750KVA as per ANSI standard C57.12.40 and CSA standard C199.

Pioneer has been in the transformer business for over 50 years. Our experienced design and manufacturing team is dedicated to:

- Leading design technology
- Implementation of ISO 9001
- On-Time delivery
- Total customer satisfaction.



*750 kVA 12kV $\Delta$ -480Y/277V  
Network Transformer*

## Core & Coil Design

Pioneer uses core steels which are the most suitable for the application. The steel is cut in-house on TRANCO core cutting machines and then squeezed into rectangular shapes. The final cores are annealed in an inert gas oven to achieve outstanding loss performance.

The LV & HV coils are wound progressively by automatic winding machines on rectangular mandrels with epoxy bonded high density thermally upgraded Kraft paper between the layers. The LV winding is a full width strip foil, adding strength and eliminating axial forces. The HV is a wire-wound type, wound right on top of the LV. Our design takes care to balance the HV tap connections, in order to limit all axial forces, which is very important under short circuit conditions. The coils are then oven processed, which results in the epoxy bonding the coils into one solid structure.

50 years of core & coil clamping experience result in a solidly braced design that withstands short circuit conditions.



*Core & coil assembly*

## Enclosures

All transformer enclosures are designed in accordance with ANSI C57.12.40 and constructed with the corrosion resistance equivalent of copper-bearing steel with a minimum content of 0.20% of copper. They are designed to withstand a minimum pressure of 7 psig and they accommodate all fittings as required by customers specifications. All tanks are surface grid-blasted and then painted with a rich zinc primer, followed by a two-component epoxy-polyamide coating to provide a minimum total dry-film of not less than 7 mils. Special coatings are available on request.



*750 kVA 12kV $\Delta$ -480Y/277 V  
Network Transformer*

## Insulation Mediums

We can supply the transformers with transformer mineral oil or, if required, with silicone, hydrocarbons or biodegradable hydrocarbons.

## Cable Entrance

The HV terminal chamber, which is separate from the transformer tank, allows a variety of high-voltage cable terminations like wiping sleeves, stuffing boxes, potheads and apparatus bushings.



*Typical Cable Entrance*

## HV Grounding Switch

The primary three-pole, three position disconnecting and grounding switch is located in the HV switch chamber and complies with ANSI. It is available as a two or three position switch. The switch can be of the "Mag-Break" type for fast interruption of the exciting current. All interlock features comply with ANSI. All switch handle parts exposed to the atmosphere are made of machined solid stainless steel.



*HV Grounding Switch*



**Granby, Quebec**

### **Head Office & Plant:**

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### **Quotation & Engineering:**

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Please visit our web site at  
**[www.pioneertransformers.com](http://www.pioneertransformers.com)**  
to get in touch with your local sales representative



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