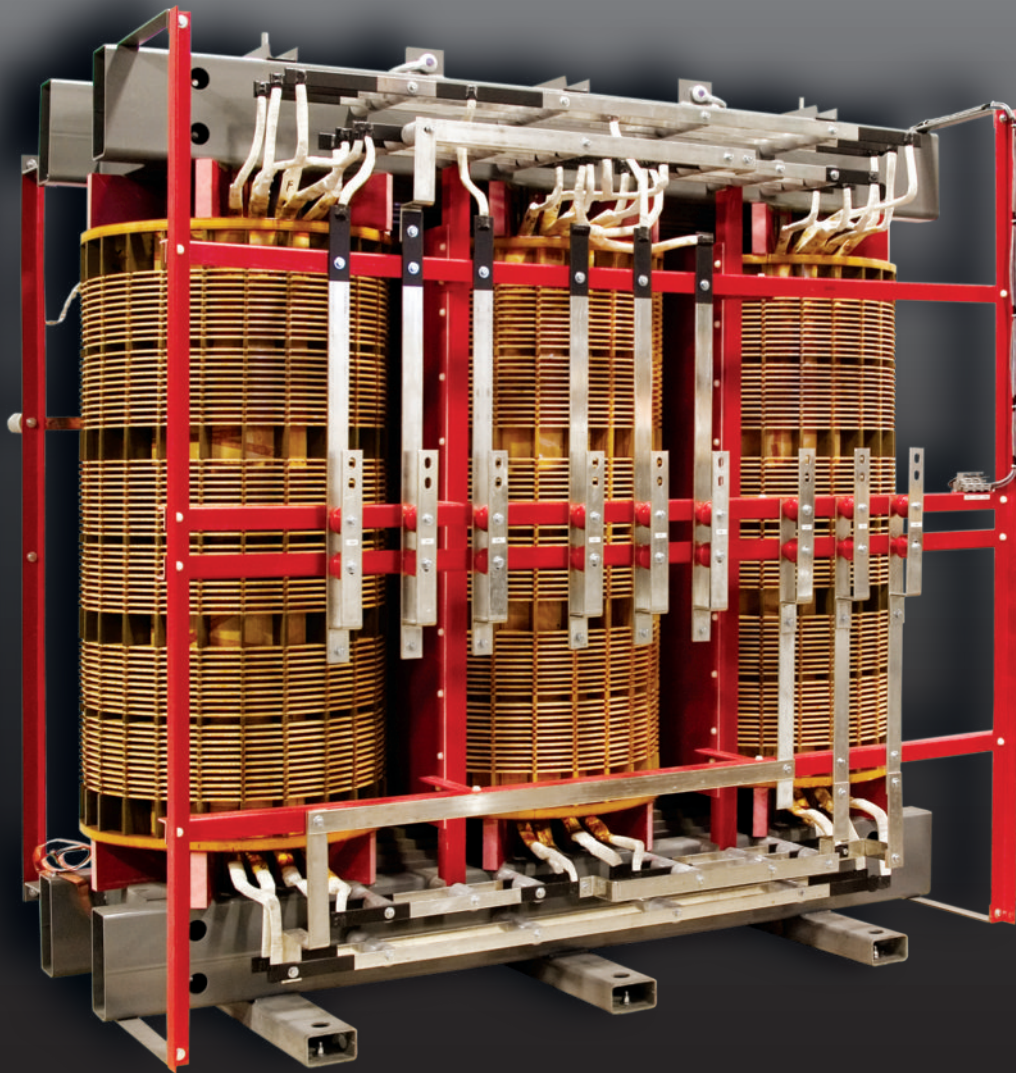




TRANSFORMATEURS LTEE  
**PIONEER**  
TRANSFORMERS LTD



Certified ISO 9001



TRANSFORMATEURS LTEE  
**PIONEER**  
TRANSFORMERS LTD

Pioneer Transformers medium voltage transformers offer an economical alternative for industrial facilities and process lines, drilling and mining installations and commercial power applications. Designed for indoor or outdoor installations, Pioneer Transformers will customize each unit to meet your specifications.

#### Coil

- Multi-section barrel or disk design to reduce short circuit stress.
- Designed to maximize cooling characteristics.
- Foil winding on low voltage coils to minimize short circuit forces.
- Core and coil isolated from the floor with neoprene pads to reduce vibration and noise.
- Coils are constructed with 220° C Nomex insulation system.



#### Core

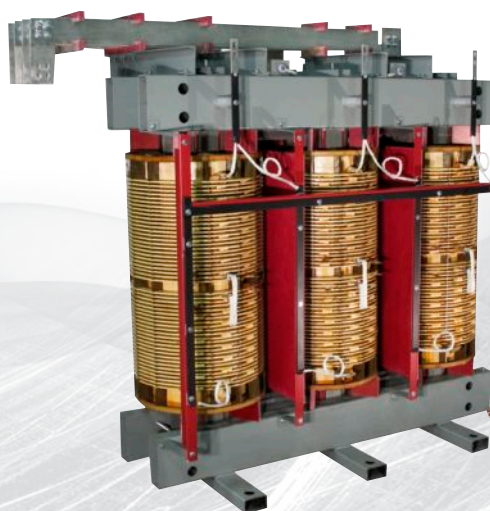
- The core consists of high quality grain oriented steel with low losses.
- Core laminations are free of burrs and stacked without gaps.
- Cores are bolted to ensure uniform pressure to minimize noise and maximize durability.
- Extra bracing is added on each unit, to make sure the mechanical strength exceeds your requirements.

#### V.P.I. Process (Vacuum Pressure Impregnation)

- The V.P.I. process ensures the encapsulant materials penetrate the windings and eliminate air-pockets. The V.P.I. process improves mechanical strength and heat dissipation extending the transformers life expectancy.

#### Standard Production Tests

- Winding resistance
- Voltage ratio
- Polarity
- Exciting current
- Core Loss
- Load loss and impedance
- Tested per CSA, UL and IEEE Standards







TRANSFORMATEURS LITEE  
**PIONEER**  
TRANSFORMERS LTD

#### Applications Include:

- Malls and Commercial Buildings
- Power Distribution
- Industrial Facilities
- Substations Indoor/outdoor
- Mining

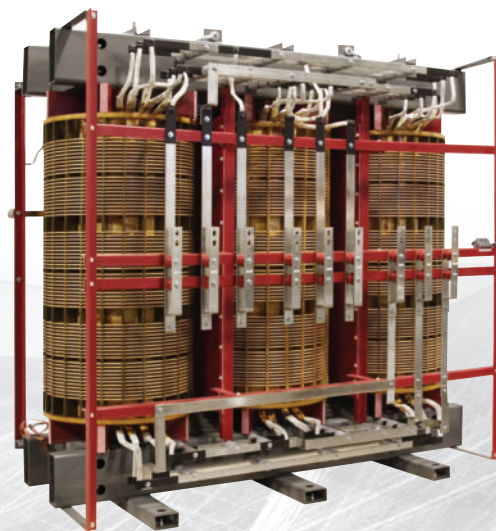
#### General Specifications:

- 5 kV Class : 150kVA to 4000 kVA
- 15 kV Class: 150kVA to 20,000 kVA
- 25 kV Class: 300kVA to 20,000 kVA
- 35 kV Class: 500kVA to 20,000 kVA
- NEMA 1
- Three-Phase, 60 Hz
- Standard 150°C rise, 220°C Insulation
- Copper windings
- Energy efficient (meets TP-1 and C802.2)
- Taps: 4 taps at 2.5%, 2 above and 2 below rated voltage
- Impedance and audible sound level designed to CSA C9 and C22.2-47 Standards
- Designed to, CSA, UL, ANSI and NEMA Standards



#### Optional Features:

- Aluminum Windings
- 50 Hz
- Electrostatic shielding
- Temperature rise: 80°C and 115°C
- Terminals with flexible connectors
- Lightning arrestors
- Neutral grounding resistor (NGR)
- Digital thermometer and monitor
- Enclosure NEMA 3R (w/filters), NEMA 4, NEMA 12
- Custom Coordination
- Forced air cooling fans/or provisions
- Key Interlock System
- Multiple Secondaries
- Rectifier, Traction, Mining Duty
- Seismic Mounting



# PROJECTS HIGH & MEDIUM VOLTAGE



TRANSFORMATEURS LTEE  
**PIONEER**  
TRANSFORMERS LTD.



Alcoa	Lakeshore Gold (Timmins, Ontario)
Algoma	Lovat (North York Sewage), (Theresa, Spain)
Ancaster High School	Lovat (TTC Expansion)
Apollo Gold (Matheson, Ontario)	Me Noya Winnipeg Health Center
Brandon lift Station	North American Palladium (Thunder Bay, Ontario)
Canada Salt (Pugwash, Nova Scotia)	Northgate Minerals Corp (Matachewan, Ontario)
Cementation Canada Inc. (North Bay, Ontario)	Osika
Century Mining	Picadilly Mine Projects, Picadilly Potash Corp.
Chevron (Houston, Tx)	Pinnacle Tour A, Pinnacle Tour B
Domtar	Pratt & Whitney
Dynatech	Raglan's mining
Elk Valley Res	Rio Tinto Alcan
EMS --- Port of Montreal	Sait Temp. Bldg
Epcor Towers	SeaBee
FNX Podoslky	Sifto Salt (Goderich, Ontario)
GE	Shell (Houston, Tx)
Goldcorp (Red Lake, Ontario) Goldcorp (Quebec)	Spectra Energy
Hilton Niagara Falls	St-Mary's Hospital
Hotel Mariott Dorval	TCP Press Line
Hudson Bay Store Winnipeg	Trelawney Mining & Exploration (Gogama, Ontario)
J.S. Redpath Limited	University of Montreal