



Inductive Voltage Transformer

Application

The VTO-250 is an outdoor, inductive voltage transformer suitable for metering or relaying applications on 46,000 volt systems at 250 kV BIL, at 60 Hz.

Fabrication

All ITEC transformers utilize high permeability, low loss, grain orientated silicon steel cores to optimize performance and physical size of the transformers.

Transformer tanks and expansion chambers are manufactured from mild steel and finished with the latest powder coating technology to withstand the most rigorous environmental conditions. Standard finish color is ANSI 70 light Gray.

All VTO's are hermetically sealed, full vacuum assemblies provided with a dry nitrogen cushion.

One-piece, wet processed porcelain bushings are used on all VTO's. Bushings are designed to exceed IEEE standards for creep and strike distances. The standard bushing color is ANSI 70 light Gray.

The primary terminal is a 4-hole NEMA pad, suitable for use with copper or aluminum bus connections. The secondary connections are ¼"-20 copper studs with hardware located in a weatherproof, hinged cover, terminal box with three (3) 1-½" conduit hubs. All VTO's are equipped with a stainless steel, NEMA 2-hole ground pad.

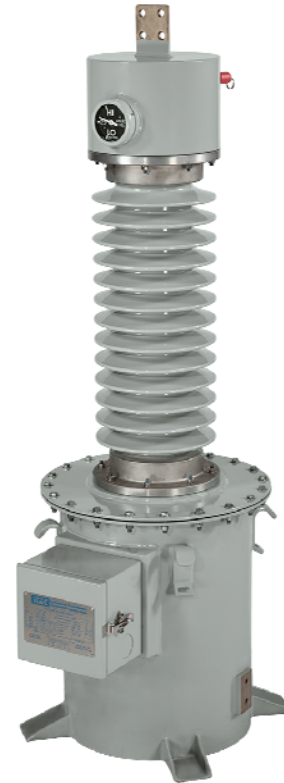
All VTO's are equipped with a 5kV HO bushing, magnetic oil level gauge, ½" drain valve, ¾" oil fill plug and pressure relief valve.

Accuracy

VTO-250's are designed to provide 0.3% accuracy class when loaded with IEEE burdens of W, X, M, Y, Z and ZZ. Optional High Accuracy 0.15% class is available at W, X, M, Y and Z Burdens.

Magnetic Circuits

The VTO-250 is available in single ratio or dual ratio designs with up to three secondary windings.



Mounting

The VTO-250 is designed for mounting on substation structures.

Seismic Rating

The VTO-250 has been qualified through Dynamic Analysis to withstand High Level per IEEE 693-2005.

Testing

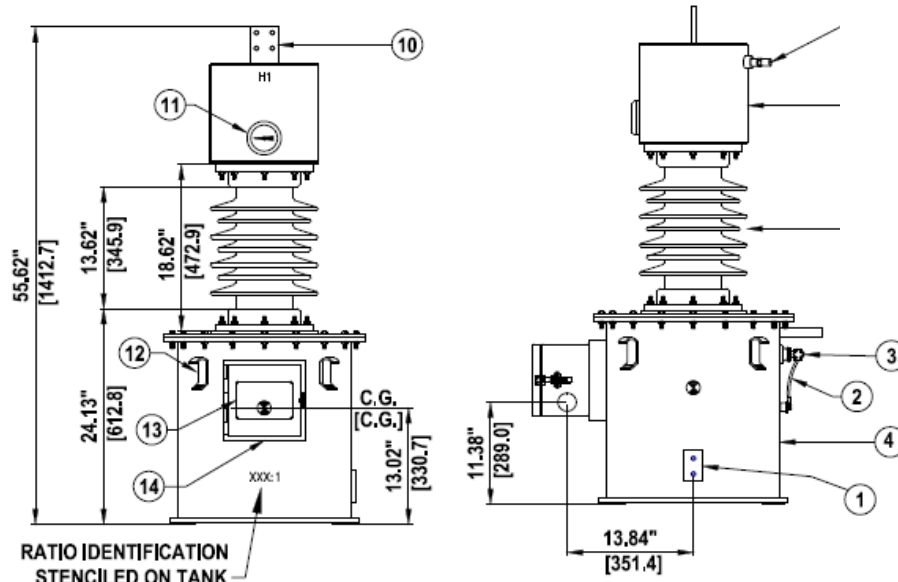
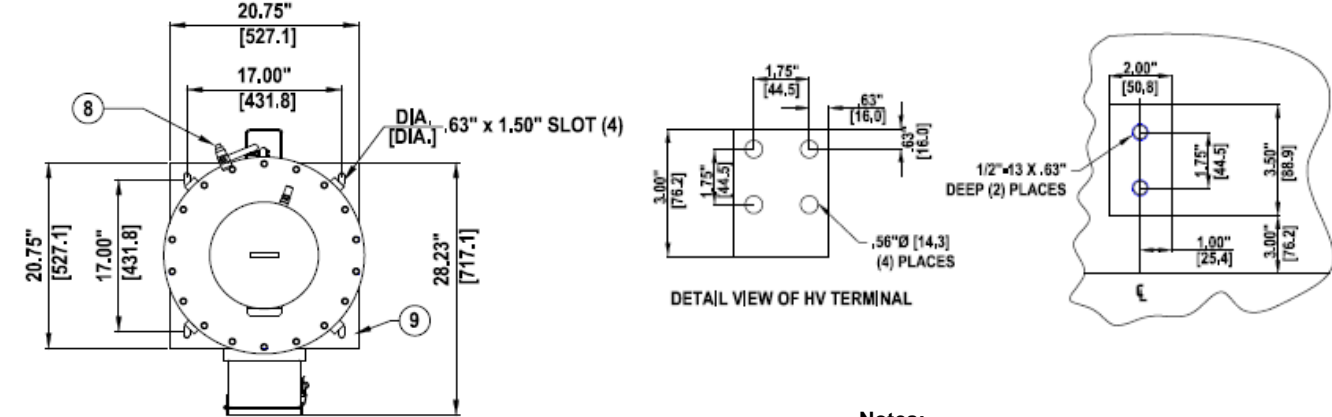
Every transformer is tested in accordance with IEEE Standard C57.13 (latest revision). Standard tests include applied and induced voltage, accuracy, polarity, dissipation factor and partial discharge. All transformers are guaranteed to be partial discharge free at 135% of nominal system voltage.

Options

- Stainless Steel Tank and/or Expansion Chamber.
- Extra Creep Bushings

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Dimensions and Details



- Notes:**
1. NEMA 2- hole Ground Pad
 2. Removable HO Ground Strap
 3. HO Bushing
 4. Welded Steel Tank
 5. Porcelain Insulator, ANSI 70 Lt. Gray
 6. Welded Steel Expansion Chamber
 7. 3/4" NPT Vacuum Port and PRV
 8. 1/2" Drain Valve
 9. Mounting Foot
 10. Primary 4 Hole NEMA Terminal Pad
 11. Oil Level Indicator
 12. Lifting Eyes
 13. Stainless Steel Nameplate
 14. Secondary Terminal Box with three 1.5" hubs.

VTO-250
 250 kV BIL
 Weight: 465 pounds
 Gallons Oil: 22
 Creep Minimum: 37 inches
 Strike Minimum: 15 inches

Primary Voltage	Secondary Voltage	Winding Ratio	Thermal Rating	0.3 Accuracy Class / Burden Ratings	Catalog Number	0.15 Accuracy Class / Burden Ratings	Catalog Number
27600	115	240:1	5000 VA	W, X, Y, Z, ZZ	VA102500240T000	W, X, Y, Z	VH102500240S000
27600	115 & 115	240 & 240:1	5000 VA	W, X, Y, Z, ZZ	VA102500240T000	W, X, Y, Z	VH102500240X000
27600	115/69	240/400:1	5000 VA	W, X, Y, Z, ZZ	VA102500240D000	W, X, Y, Z	VH102500240D000
27600	115/69 & 115/69	240/400 & 240/400:1	5000 VA	W, X, Y, Z, ZZ	VA102500240T000	W, X, Y, Z	VH102500240T000

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Other ratings and options may be available
 Please contact the factory with your requirements.