



## Inductive Voltage Transformer

### Application

The VTO-350 is an outdoor, inductive voltage transformer suitable for metering or relaying applications on 69,000 volt systems at 350 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 1/4"-20 copper studs with hex nuts, cup washers and lock washers located in a weatherproof, hinged cover, terminal box with three (3) conduit knockouts suitable for 1-1/2" 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, 1/2" drain valve, 3/4" oil fill plug and pressure relief valve.

### Accuracy

VTO-350's are designed to provide 0.3% accuracy class when loaded with IEEE burdens of W, X, Y, Z and ZZ. Optional High Accuracy 0.15% class is available at W, X, Y and Z Burdens.

### Magnetic Circuits

The VTO-350 is available in single, dual ratio, dual ratio with taps and up to three secondary windings.



### Mounting

The VTO-350 is designed for mounting on substation structures.

### Seismic Rating

The VTO-350 has been qualified through Dynamic Analysis to withstand High Level withstand 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

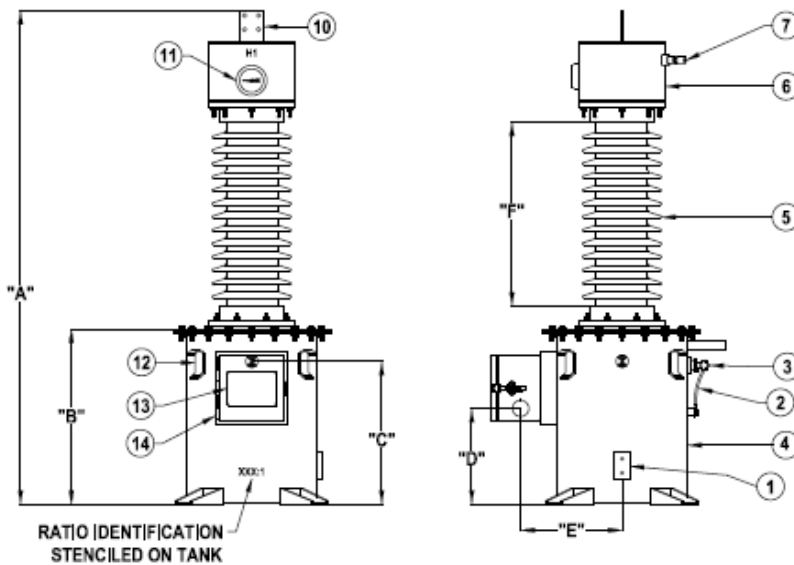
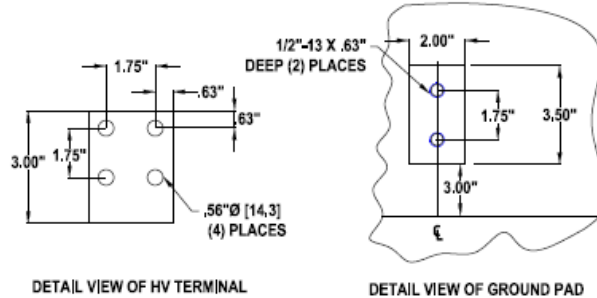
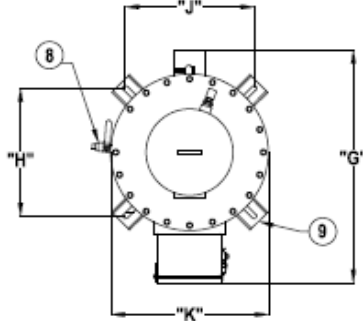
- Stainless Steel Tank and/or Expansion Chamber.
- Extra Creep Porcelain Bushings

**Product Data**  
 VTO-350  
 Voltage Transformer  
 69 kV Class  
 350 kV BIL



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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 knockouts for 1.5" hubs.

Model	BIL (kV)	A	B	C	D	E	F	G	H	J	K	Wt	Gals	Creep Min	Strike Min
VTO-350	350	61.28"	21.75"	17.75"	11.88"	12.48"	22.78"	28.97"	15.92"	15.92"	19.44"	500	25	52"	23"

Primary Voltage	Secondary Voltage	Winding Ratio	Thermal Rating	0.3 Accuracy Class / Burden Ratings	Catalog Number	0.15 Accuracy Class / Burden Ratings	Catalog Number
40250	115	350:1	6000 VA	W, X, Y, Z, ZZ	VB103500350S000	W, X, Y, Z	VH103500350S000
40250	115 & 115	350 & 350:1	6000 VA	W, X, Y, Z, ZZ	VB103500350X000	W, X, Y, Z	VH103500350X000
40250	115/67.08	350/600:1	6000 VA	W, X, Y, Z, ZZ	VB103500350D000	W, X, Y, Z	VH103500350D000
40250	115/67.08 & 115/67.08	350/600 & 350/600:1	6000 VA	W, X, Y, Z, ZZ	VB103500350T000	W, X, Y, Z	VH103500350T000

This information is subject to change without notice.  
 ITEC is not responsible for typographical errors.

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

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### Instrument Transformer Equipment Corporation

PO Box 129  
 Monroe, NC 28110-0129  
[www.itec-ctvt.com](http://www.itec-ctvt.com)

Tel: (704)-282-4331  
 Fax: (704) 283-3017  
 Email: [sales@itec-ctvt.com](mailto:sales@itec-ctvt.com)