

**VTO-SB 550-650
OIL-FILLED
SUBSTATION CLASS**



**Instrument Transformer
Equipment Corporation**

**VTO-SB 550-650
OIL-FILLED
SUBSTATION CLASS**

Transformer Characteristics						Catalog ID
BIL kV	Nominal System Voltage	Winding Ratio	Primary Voltage	Secondary Voltage	Thermal Rating @30°C amb	Last three digits indicate options
<i>One bushing for phase-to-ground application with tertiary</i>					<i>Accuracy: 0.3@ W,X,Y,Z -ZZ</i>	
550	115000	600/1000 & 600/1000:1	69000	115/69 & 115/69	6000	VA105500600T000
650	138000	700/1200 & 700/1200:1	80500	115/67.08 & 115/67.08	6000	VA106500700T000
650	161000	800/1400 & 800/1400:1	92000	115/65.71 & 115/65.71	6000	VA106500800T000

Application

Type VTO transformers are substation class designed to provide relaying performance or metering accuracy at 0.3% when loaded with IEEE burdens through ZZ. They are oil filled and hermetically sealed with a dry Nitrogen cushion. Please contact the factory or local agent if your needs are not outlined in the ordering information above.

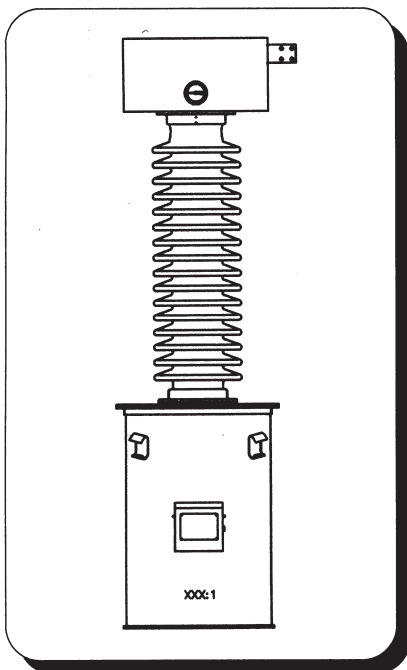
Fabrication

Standard transformer tanks are manufactured from mild steel, protected with a latest technology powder coated exterior finish suitable for withstanding the most rigorous environmental conditions. Stainless steel components are available for special order needs.

Porcelain clad bushings are one-piece wet process type designed to exceed IEEE standard creep and strike distances.

Magnetic circuits

All ITEC voltage transformers use high grade highly permeable silicon steel cores. Repeatability of accuracy performance from one transformer to another is dependent on consistent performance of quality core steel. For this reason all magnetic cores used in ITEC transformers are from high quality suppliers.



Primary terminals

The selected standard terminal for ITEC voltage VTO model transformers is a the 4-hole NEMA pad type. Primary terminals suitable for copper, aluminum or bus connections are conveniently located at the top of the transformer for hook-up to high voltage lines.

Secondary terminals

Secondary terminations are brought into the low voltage compartment and secured to low voltage block terminations for convenient connections. The low voltage compartment is suitably weatherproofed to maintain dry connections.

Drying and impregnation

In order to achieve the highest possible insulation integrity, transformers are dried out and impregnated with transformer oil under vacuum in order to minimize moisture content. Dissipation factor readings are checked on each transformer at final test to insure proper drying has been achieved.

Testing

Every voltage transformer is tested in accordance with IEEE STD C57.13 (Latest revision). In addition ITEC tests each unit in accordance with NEMA 107. Extinction levels are required to be a minimum of 35% above operating voltage for all transformers. Test reports are available if specified for a fee.

Ground Connections

Each transformer is supplied with a NEMA 2-hole ground pad.

Nameplate Information

In addition to the nameplate, ratio information is stenciled onto the tank wall in 2" high numerals for remote identification.

OIL-9

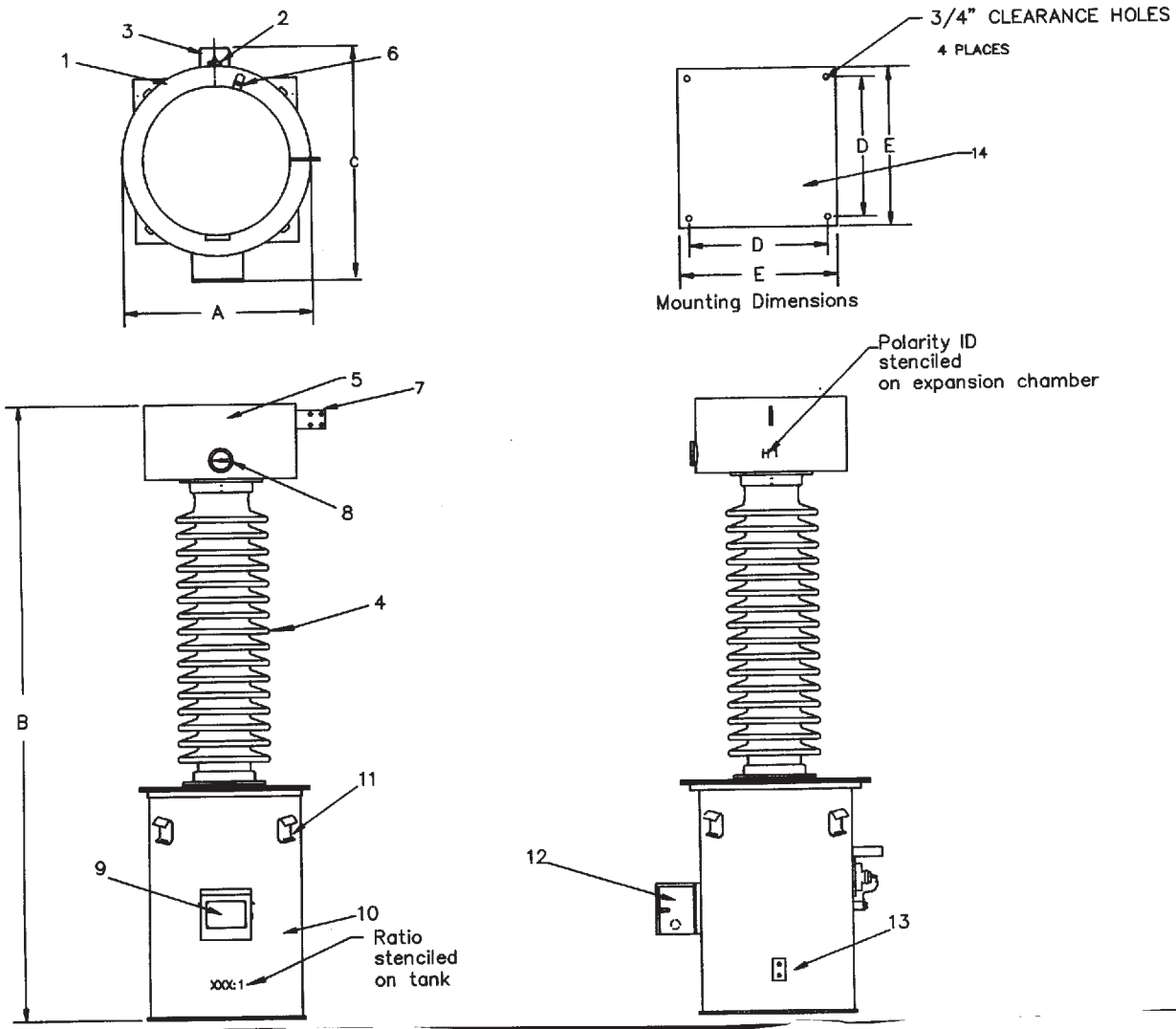
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This information is subject to change without notice. Not responsible for typographical errors.

Specifications

BII.	550	650
A	27"	27"
B	94"	98"
C	36"	36"
D	22"	22.0"
E	25"	25.0"
Weight (lbs)	1550	1650
Oil Volume (gal)	55	95
Min. Creep	101"	103"
Min. Strike	37.5"	41.5"

Description

- | | |
|---|---|
| 1. 1/2" drain valve. | 8. Oil level indicator. |
| 2. HO neutral bushing/removable ground strap. | 9. Stainless steel nameplate. |
| 3. HO bushing guard. | 10. Mild steel tank. |
| 4. Porcelain insulator, glaze ANSI 70 light gray. | 11. Lifting ears. |
| 5. Expansion chamber. | 12. Secondary terminal box w/3 each 1 1/2" conduit knockouts. |
| 6. 3/4" NPT vacuum port-1/4" NPT pressure relief valve. | 13. 2-hole NEMA Standard ground pad. |
| 7. Primary connection 4 hole standard terminal | 14. Baseplate with (4) 0.62" x 1.5" slot. |

OIL-10 VTO products are conservatively designed design for substation use.

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