

# INSTRUMENT TRANSFORMERS, INC.

## Voltage Transformers

### VEF 25-10 Single Pole

### VZF 25-10 Double Pole

#### General Description

Ritz manufactures an extensive line of cast epoxy resin insulated transformers across the voltage range of 5.5 kV to 72.5 kV. This brochure describes outdoor Voltage Transformers in the 25 kV class with performance ratings which coincide with industry standard product offerings. Ritz, because of product depth, familiarity with international standards and custom design capability is also capable to design a solution to your specific needs.

#### Construction

The core and coil assembly is encapsulated in cycloaliphatic epoxy resin in a single process under vacuum using the pressure gelation method. The resin color is grey. Brown is available by special order. Epoxy resin was chosen because of its excellent tracking resistance, high mechanical strength, ability to withstand ultraviolet radiation and weathering effects and its inflammability.

#### Primary Terminals

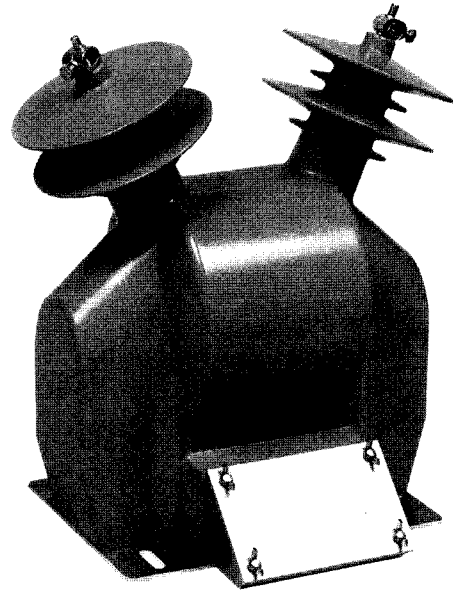
Primary line terminals are tin plated copper studs with connectors capable of accommodating #10 to 250 mcm conductor. The H2 neutral terminal is insulated to withstand a 19 kV test level. Line terminals are detachable so that alternate terminal configurations can be considered.

#### Secondary Terminals

Secondary terminals are bronze clamp type with a large diameter hole. A ground terminal is also provided for grounding of the secondaries at the transformer.

#### Terminal Box

The cast aluminum terminal box has one inch conduit hubs on either end and a knock out for a one inch conduit fitting on the bottom. The box is attached to the transformer body by four bolts in an industry standard pattern and can easily be detached, simplifying change out procedures.



#### Base Plate

The base is made of marine grade aluminum and is securely attached to the transformer body. Industry standard mounting dimensions and a single hole ground pad 90° to the mounting plate are provided.

#### Nameplates

Nameplates are of marine grade aluminum with the markings applied by a metal photo process.

#### Mounting

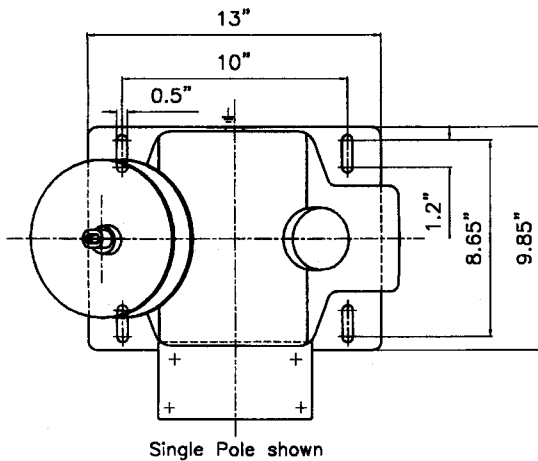
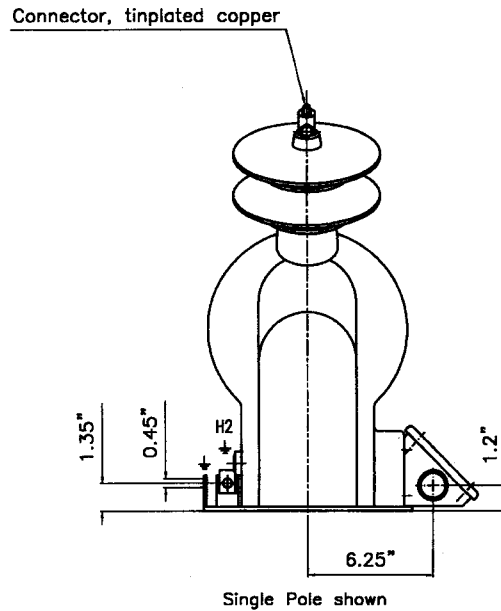
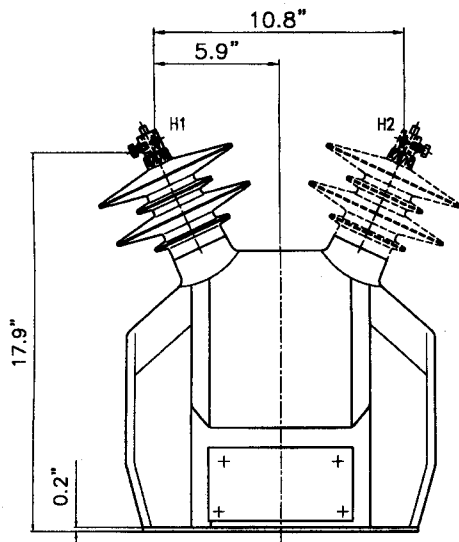
The transformers can be mounted in the horizontal, vertical or suspended position.

#### Tests

Routine tests in compliance with IEEE are standard. In addition internal partial discharge is performed as a routine test with acceptance criteria of < 20 pC at 1.2 Vm/√3 and < 50 pC at 1.2 Vm. Test cards are included with each unit.

#### Commissioning and Maintenance

Transformers are supplied ready for service. No special tools are required. Instruction manuals are provided with each shipment. Periodic wiping down of the units with silicone grease is recommended.



Maximum System Voltage	25.5 kV
Power Freq. Withstand Volt.	50 kV
Basic Impulse Level	150 kV
Creepage Distance	27.55"
Strike Distance	15.75"
Weight Single/Double Pole	112/115 lbs

**VOLTAGE TRANSFORMER TYPE: VEF 25-10**

Primary Voltage	Winding Ratio	Catalog Number	ANSI Accuracy Class, 60 Hz	THERMAL RATING (VA)
12000/20780 GY	100:1	122031010 60342	0.3WXYZ	2000
14400/24940 GY	120:1	122031010 60343	0.3WXYZ	2000

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Primary Voltage	Winding Ratio	Catalog Number	ANSI Accuracy Class, 60 Hz	THERMAL RATING (VA)
12000/20780 Y	100:1	122030010 60350	0.3WXYZ	2000
14400/24940 Y	120:1	122030010 60351	0.3WXYZ	2000
18000/18000 Y	150:1	122030010 60352	0.3WXYZ	2000
24000/24000 Y	200:1	122030010 60353	0.3WXYZ	2000

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