

INSTRUMENT TRANSFORMERS, INC.

Voltage Transformers

VEF 15-20 Single Pole VZF 15-20 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 15 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

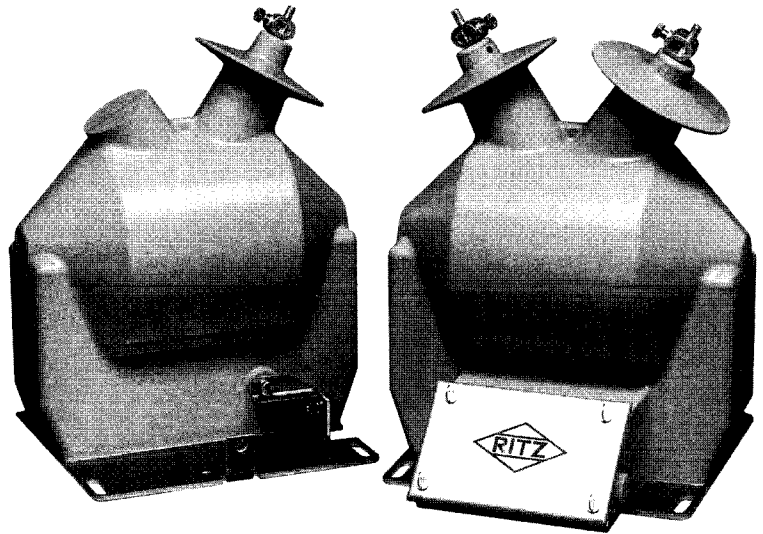
Primary line terminals are tin plated copper studs with connectors capable of accommodating #10 to 250 mcm conductor. The H2 neutral terminal is insulated to withstand a 19 kV test level. Line terminals are detachable so that alternate terminal configurations can be considered.

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

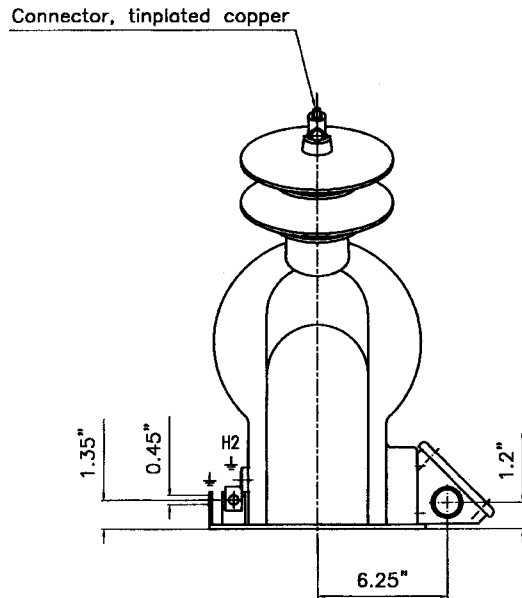
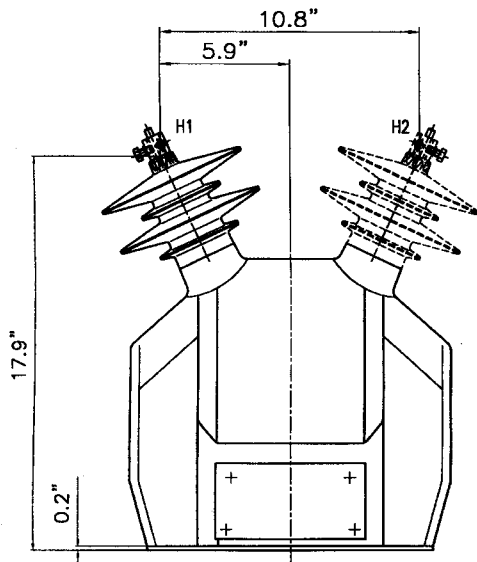
The transformers can be mounted in the horizontal, vertical or suspended position.

Tests

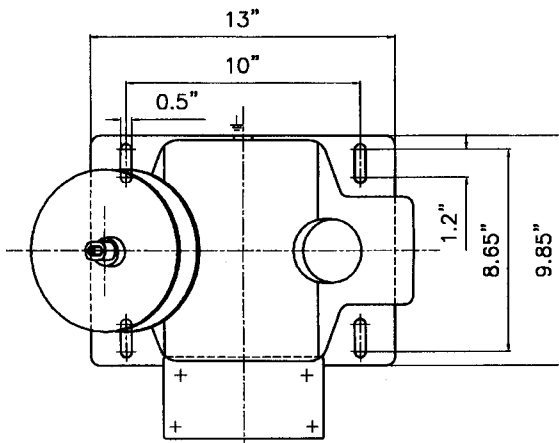
Routine tests in compliance with IEEE are standard. In addition internal partial discharge is performed as a routine test with acceptance criteria of < 20 pC at 1.2 Vm/ $\sqrt{3}$ and < 50 pC at 1.2 Vm. Test cards are included with each unit.

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.



Single Pole shown



Single Pole shown

Maximum System Voltage	15.5 kV
Power Freq. Withstand Volt.	34 kV
Basic Impulse Level	110 kV
Creepage Distance	27.55"
Strike Distance	15.75"
Weight Single/Double Pole	112/115 lbs

VOLTAGE TRANSFORMER TYPE: VEF 15-20

Primary Voltage	Winding Ratio	Catalog Number	ANSI Accuracy Class, 60 Hz	THERMAL RATING (VA)
7200/12470 GY	60:1	121531010 60305	0.3WXYZ	1500
8400/14560 GY	70:1	121531010 60306	0.3WXYZ	1500

VOLTAGE TRANSFORMER TYPE: VZF 15-20

Primary Voltage	Winding Ratio	Catalog Number	ANSI Accuracy Class, 60 Hz	THERMAL RATING (VA)
7200/12470 Y	60:1	122030010 60320	0.3WXYZ	1500
7620/13200 Y	36.5:1	122030010 60321	0.3WXYZ	1500
8400/14560 Y	70:1	122030010 60322	0.3WXYZ	1500
12000/12000 Y	100:1	122030010 60323	0.3WXYZ	1500
13200/13200 Y	110:1	122030010 60324	0.3WXYZ	1500
14400/14400 Y	120:1	122030010 60325	0.3WXYZ	1500

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SALES REPRESENTATIVE

