

INSTRUMENT TRANSFORMERS, INC.

Voltage Transformers

VEF 48-01 Single 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 48 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 4 hole NEMA pads. 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. The allowable terminal pull is 1100 lbs.

Secondary Terminals

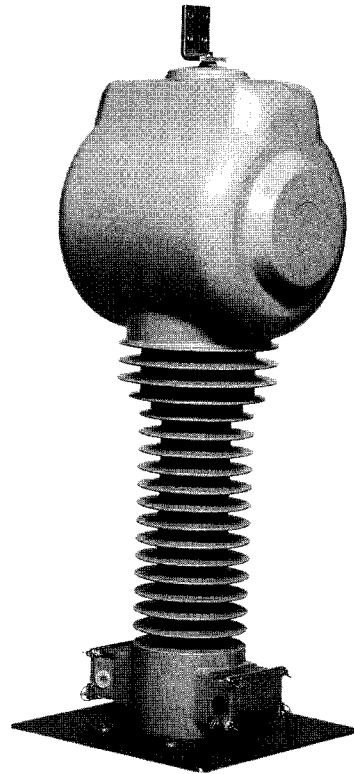
Secondary terminals are brass clamp type for #14 through #3 wire. A ground terminal is also provided for grounding of the secondaries at the transformer.

Terminal Box

The cast aluminum terminal box has one-inch conduit hubs on either end.

Base Plate

The base is made of marine grade aluminum and is securely attached to the transformer body.



Nameplates

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

Mounting

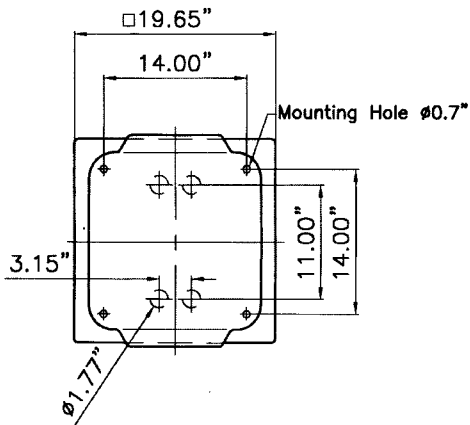
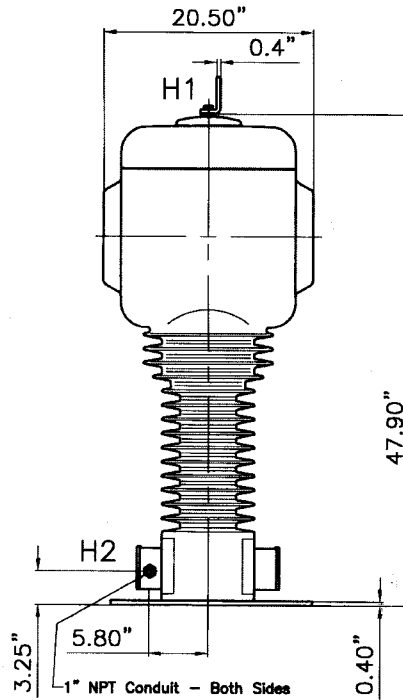
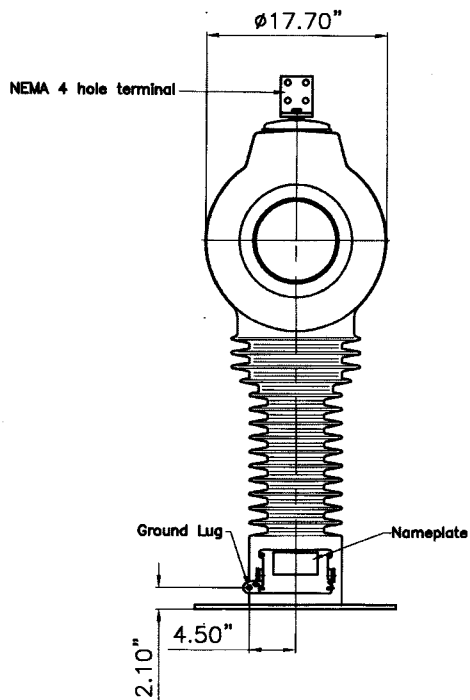
The transformers may only be mounted in the vertical upright position. Please consult Ritz for other designs which can be mounted in the horizontal or suspended position.

Tests

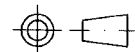
Routine tests in compliance with IEEE are standard. In addition internal partial discharge measurements are performed as a routine test with acceptance criteria of $< 20 \text{ pC}$ at $1.2 \text{ Vm}/\sqrt{3}$ and $< 50 \text{ pC}$ at 1.2 Vm . Test cards are included with each unit.

Commissioning and Maintenance

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



Maximum System Voltage	48.3 kV
Power Freq. Withstand Volt.	95 kV
Basic Impulse Level	250 kV
Creepage Distance	75.20"
Strike Distance	45.25"
Weight	375 lbs
Cantilever Strength	1100 lbs
Small deviations in weight and dimensions are possible.	



VOLTAGE TRANSFORMER TYPE: VEF 48-01

Primary Voltage	Winding Ratio	Catalog Number	ANSI Accuracy Class, 60 Hz	THERMAL RATING (VA)
27600/46000 GY	240:1	124531001 60390	0.3WXY, 0.6Z	2000
27600/46000 GY	240/400:1	124531001 60391	0.3WXY, 0.6Z	2000

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