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 15kV class with performance ratings coinciding with industry standard product offerings. Ritz, because of product depth, familiarity with international standards and custom design capability can also design a solution to your specific needs.

Construction
The core and coil assembly is encapsulated in cycloaliphatic epoxy resin in a single process, performed 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, superior weathering characteristics and its noncombustibility.

Primary Terminals
Primary line terminals are tin plated copper studs with connectors capable of accommodating #10 to #1 AWG conductor. The H2 neutral terminal on single bushing models 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 both ends 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
Nameplate data is engraved on blackened stainless steel plates.

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 < 20pC at 1.2Vm/√3 and <50pC 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.
Voltage Transformer Type: VEF 15-20

<table>
<thead>
<tr>
<th>Primary Voltage (V)</th>
<th>Winding Ratio</th>
<th>Catalog Number</th>
<th>IEEE Accuracy Class, 60Hz</th>
<th>Thermal Rating (VA)</th>
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<td>7200/12470 GY</td>
<td>60:1</td>
<td>122031010 60305</td>
<td>0.3WXYZ</td>
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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: 115 lbs
Cantilever Strength: 1100 lbs
Small deviations in weight and dimensions are possible.