RITZ INSTRUMENT TRANSFORMERS, INC.

Instrument Transformers

Current Transformers

GIF 48

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 Current Transformers in the 48kV 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 according to customer specific needs.

Construction

The toroidal core and winding 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.

Thermal & Dynamic Rating

For designs up to 600A the short time thermal rating is 100 times nominal current for 1 second and above 600A it is 60kA/1second. The dynamic short time rating is 2.5 times the thermal rating.

Primary Terminals

Primary terminals are flat tin plated copper NEMA two hole or four hole pads, depending on type designation. Primary terminals are detachable so that alternate terminal configurations can be considered.
Maximum allowable terminal pull is 1100lbs.

Secondary Terminals

Secondary terminals are brass screw type with a 0.24" diameter. Each terminal can be earthed in the terminal box.

Terminal Box

The secondary terminal box is cast aluminum. Two threaded 1" horizontal hubs with pipe plugs for making connections to 1" conduit are provided. A ground lug designed to accept a one hole connector is part of the terminal box.

Base Plate

The base is made of marine grade aluminum.

Mounting

This transformer may only be mounted in the vertical upright position. Please consult Ritz for alternate designs to accommodate horizontal and suspended mounting.

Nameplates

Nameplate data is engraved on blackened stainless steel plates

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.

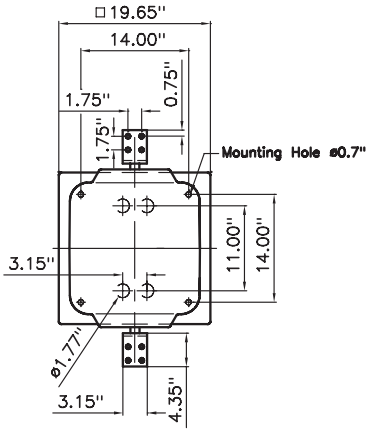
Commissioning and Maintenance

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

CURRENT TRANSFORMER TYPE: GIF 48-58

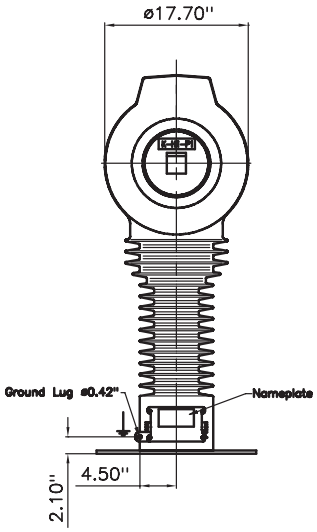
Current Ratio (A)	Catalog Number	IEEE Accuracy Class 60 Hz		Rating Factor
		Meter	Relay	
500/1000:5	114526058 45968	0.3B-2.0	C200/C400	2.0/1.5
600/1200:5	114526058 45969	0.3B-2.0	C200/C400	2.0/1.5
800/1600:5	114526058 45970	0.3B-2.0	C200/C400	2.0/1.5
1000/2000:5	114526058 45971	0.3B-2.0	C200/C400	2.0/1.5
15000/3000:5	114526058 45972	0.3B-2.0	C400/C800	2.0/1.0
200:5	114526058 79157	0.15B-1.8 1% to 150% Rated Current	---	1.5
1000:5	114526058 79156	0.15B-1.8 1% to 150% Rated Current	---	1.5

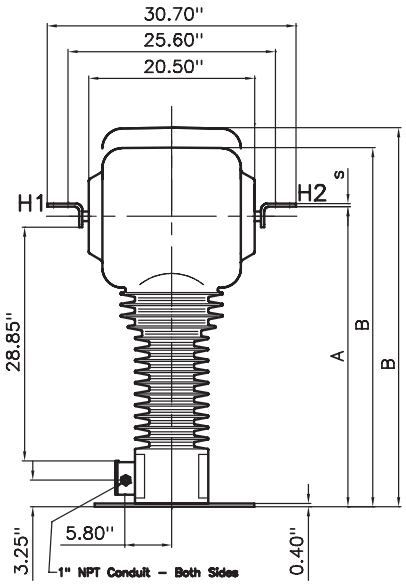
GIF 48-58



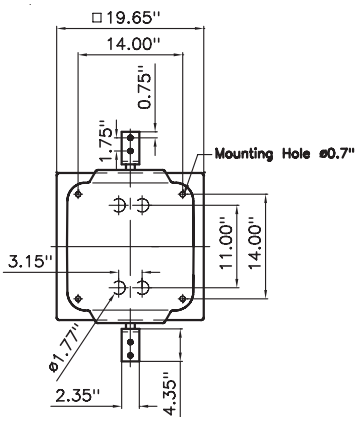
I_{max} /A	s	A	B
<500	0.4"	37.00"	46.75"
>500...1250	0.4"	37.00"	44.30"
>1250...2000	0.6"	37.00"	44.30"
>2000...3000	0.8"	37.40"	44.30"

Maximum System Voltage	48.3 kV
Power Freq. Withstand Volt.	95 kV
Basic Impulse Level	250 kV
Creepage Distance	71.75"
Strike Distance	28.85"
Weight	396 lbs
Cantilever Strength	1100 lbs
Small deviations in weight and dimensions are possible.	





GIF 48-59



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10/20:5	114526059 45974	0.3B-2.0	C200/C400	2.0/1.5
20/40:5	114526059 45975	0.3B-2.0	C200/C400	2.0/1.5
25/50:5	114526059 45960	0.3B-2.0	C200/C400	2.0/1.5
50/100:5	114526059 45961	0.3B-2.0	C200/C400	2.0/1.5
75/150:5	114526059 45962	0.3B-2.0	C200/C400	2.0/1.5
100/200:5	114526059 45963	0.3B-2.0	C200/C400	2.0/1.5
150/300:5	114526059 45964	0.3B-2.0	C200/C400	2.0/1.5
200/400:5	114526059 45965	0.3B-2.0	C200/C400	2.0/1.5
300/600:5	114526059 45966	0.3B-2.0	C200/C400	2.0/1.5
400/800:5	114526059 45967	0.3B-2.0	C200/C400	2.0/1.5

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