

# POTENTIAL TRANSFORMERS

## HIGH VOLTAGE POTENTIAL TRANSFORMER

MODEL PTG5

### FEATURES

- Frequency ..... 60Hz.
- Standard Secondary Voltage ..... 120VAC
- Insulation Class ..... 15.5kV, BIL 110KV Full Wave
- UL Recognized
- FOR INDOOR USE ONLY

### SPECIFICATIONS

#### Accuracy Class

0.3 WXYZ, 1.2ZZ at 100% rated voltage with 120V based ANSI burden. 0.3 WXY, 1.2Z at 58% rated voltage with 69.3 V based ANSI burden.

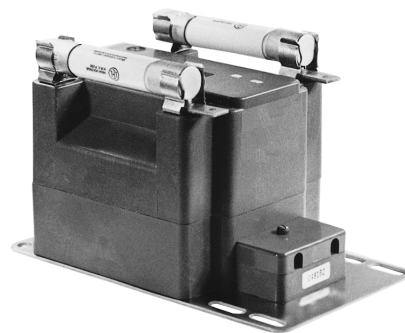
Frequency ..... 60Hz

Insulation Class ..... 15.5 kV, BIL 110kV Full Wave

Thermal Rating ..... 1500 VA at 30°C Amb.

1000 VA at 55°C Amb.

Weight ..... Approximately 88 lbs.



15KV CLASS



POTENTIAL TRANSFORMERS

	TWO BUSHING (b*)			
	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	CATALOG NUMBER
	7200	60:1	120	PTG5-2-110-722FF
	8400	70:1	120	PTG5-2-110-842FF
	12000	100:1	120	PTG5-2-110-123FF
	14400	120:1	120	PTG5-2-110-1442FF

	SINGLE BUSHING (a*)			
	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	CATALOG NUMBER
	7200	60:1	120	PTG5-1-110-722F
	8400	70:1	120	PTG5-1-110-842F
	12000	100:1	120	PTG5-1-110-123F
	14400	120:1	120	PTG5-1-110-1442F

(a\*) Voltage transformers connected line-to-ground cannot be considered to be grounding transformers and must not be operated with the secondaries in closed delta because excessive currents may flow in the delta.

(b\*) Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal, using a fuse in the line side of the primary only. By this connection a transformer can never be "alive" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 110% of rated value. Use one fuse, one bushing models for Y applications. Use two fuse, two bushing models for delta applications.

**Note:** It is recommended that the system line-to-line voltage not exceed the transformer insulation level.

- Primary terminals that are fused are 1/4 - 20 brass screws with one flatwasher, lockwasher and two nuts.
- Secondary terminals are NO. 10-32 brass screws with one flatwasher and lockwasher.
- The transformers are tested for partial discharge to Canadian Standards CAN 3-C13-M83. This test can also be carried out to IEC requirements if requested.
- The core and coil assembly is encased in a plastic enclosure and vacuum encapsulated in polyurethane resin.
- Thermal burden rating is for 120 volt secondaries.
- Plated steel mounting base.
- Fuses have 1.63" Dia. Caps and 11.50" clip centers.
- A test card is provided with each unit.

**FLEX-CORE®**

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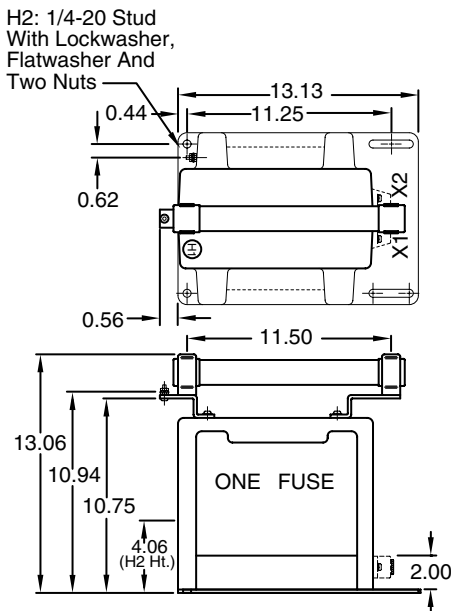
FAX # (614) 876-8538

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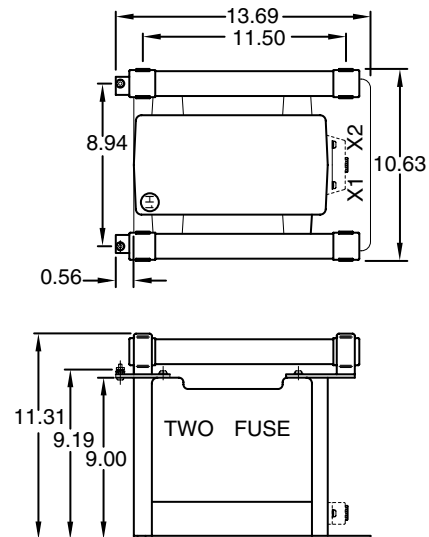
## DIMENSIONS, ETC.

## MODEL PTG5

### PTG5-1-110 DIMENSIONS

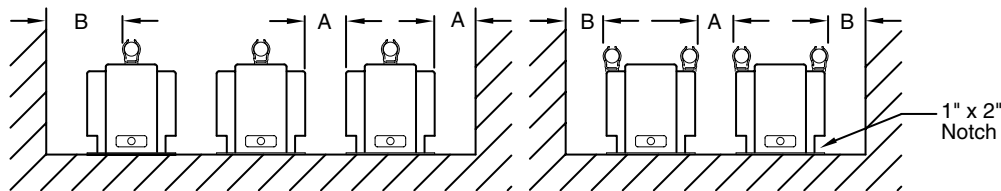


### PTG5-2-110 DIMENSIONS



### RECOMMENDED SPACINGS

A = Unit To Unit Or To Ground = 1.25" Min.  
 B = HV To Ground In Air = 6.5" Min.



Recommended spacings are for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge; high altitude; and other considerations like configuration.

Fuse For Model PTG5 Transformer	Rating Volts	Interrupting Amperes(SYM)	Continuous Amperes	Cap Dia. Inches	Length Inches	Clip Center Inches
7200:120V	15.5kV	80,000	1.0E	1.63	13	11.50
8400:120V	15.5kV	80,000	1.0E	1.63	13	11.50
12000:120V	15.5kV	80,000	0.5E	1.63	13	11.50
14400:120V	15.5kV	80,000	0.5E	1.63	13	11.50

The circle diagram can be used to predict the performance of a transformer for various loads and power factors. A convenient scale of volt-amperes is shown on the unity power factor line (u.p.f.) and commences at the zero or no-load locus. To use the diagram, measure the known V.A. and scribe an arc about the "zero" locus of a length that contains the angle of the burden power factor. The point at which the arc terminates is the error locus in phase angle minutes and ratio correction factor.

