## POTENTIAL TRANSFORMERS

## FEATURES

- Standard Secondary Voltage $\qquad$
- UL Recognized, CSA
- FOR INDOOR USE ONLY
- Primary voltages marked with an (*) are approved Revenue Metering in Canada by Industry Canada Approval No. AE-0431 Rev 1.


## SPECIFICATIONS

## Accuracy Class

0.3 WXMYZ, 1.2ZZ at 100\% rated voltage with 120 V based ANSI burden.
0.3 WXMY, 1.2 Z at $58 \%$ rated voltage with 69.3 V based ANSI burden.
Frequency. $\qquad$ 60 Hz Insulation Class ..........................15.5kV, 110kV BIL Full Wave Thermal Rating...................................... 1500VA at $30^{\circ} \mathrm{C}$ Amb. 1000VA at $55^{\circ} \mathrm{C}$ Amb.
Weight $\qquad$ Approximately 91 Lbs .

(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.
(c) For ferroresonance considerations. Values in table are in Ohms.

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 flat washer, lock washer and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lock washer.
- 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.


## POTENTIAL TRANSFORMERS

## DIMENSIONS, ETC.

## PTG5-1-110 DIMENSIONS

PTG5-2-110 DIMENSIONS
H2: 1/4-20 Stud
With Lockwasher,


RECOMMENDED SPACINGS
A = Unit To Unit Or To Ground =1.25" Min.
$B=H V$ 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 <br> MODEL PTG5 <br> TRANSFORMER | RATING <br> VOLTS | INTERRUPTING <br> AMPERES (SYM) | SUGGESTED <br> RATING <br> CONTINUOUS <br> AMPERES | CAP DIA. <br> INCHES | LENGTH <br> INCHES | CLIP CENTERS <br> INCHES | REPLACEMENT <br> FUSE \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7200: 120 \mathrm{~V}$ | 15.5 kV | 80,000 | 1.0 E | 1.63 | 13 | 11.50 | $15.5 \mathrm{KV} 12 \mathrm{CAVH1E}$ |
| $8400: 120 \mathrm{~V}$ | 15.5 kV | 80,000 | 1.0 E | 1.63 | 13 | 11.50 | 15.5 KV 12 CAVH E |
| $11000: 110 \mathrm{~V}$ | 15.5 kV | 80,000 | 0.5 E | 1.63 | 13 | 11.50 | $15.5 \mathrm{KV} 12 \mathrm{CAVH0.5E}$ |
| $12000: 120 \mathrm{~V}$ | 15.5 kV | 80,000 | 0.5 E | 1.63 | 13 | 11.50 | $15.5 \mathrm{KV} 12 \mathrm{CAVH0.5E}$ |
| $13200: 120 \mathrm{~V}$ | 15.5 kV | 80,000 | 0.5 E | 1.63 | 13 | 11.50 | $15.5 \mathrm{KV} 12 \mathrm{CAVH0.5E}$ |
| $13800: 120 \mathrm{~V}$ | 15.5 kV | 80,000 | 0.5 E | 1.63 | 13 | 11.50 | $15.5 \mathrm{KV} 12 \mathrm{CAVH0.5E}$ |
| $14400: 120 \mathrm{~V}$ | 15.5 kV | 80,000 | 0.5 E | 1.63 | 13 | 11.50 | $15.5 \mathrm{KV} 12 \mathrm{CAVH0.5E}$ |

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.


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