



# Indoor Voltage Transformer

**Models PTW4-1-75  
PTW4-2-75 rev 053123**

**ACCURACY CLASS:**

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

**FREQUENCY:**

60 Hz.

**MAXIMUM SYSTEM VOLTAGE:**

12 kV, BIL 75kV full wave

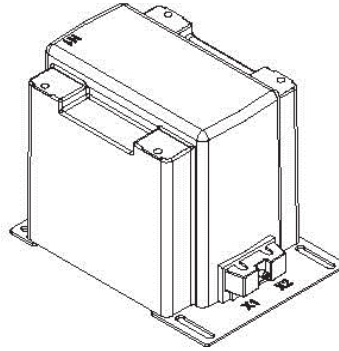
**THERMAL RATING:**

1500 va AT 30°C amb.

1000 VA at 55°C. amb.

**APPROXIMATE WEIGHT:**

85 lbs., unfused

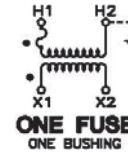
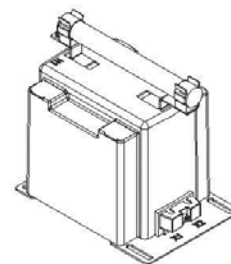
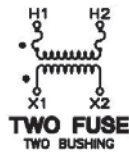
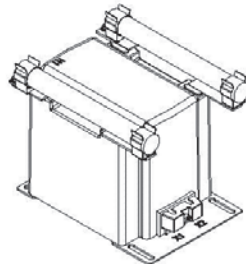
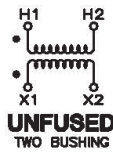
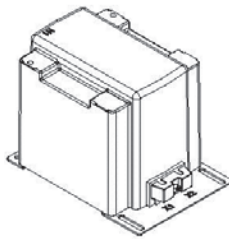


**CERTIFICATIONS:**



- Primary terminals that are unfused are 1/4-20 brass screws with one lockwasher and flat washer.
- Primary terminals that are fused are 1/4-20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer 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 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.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.
- A test cord is provided with each unit.

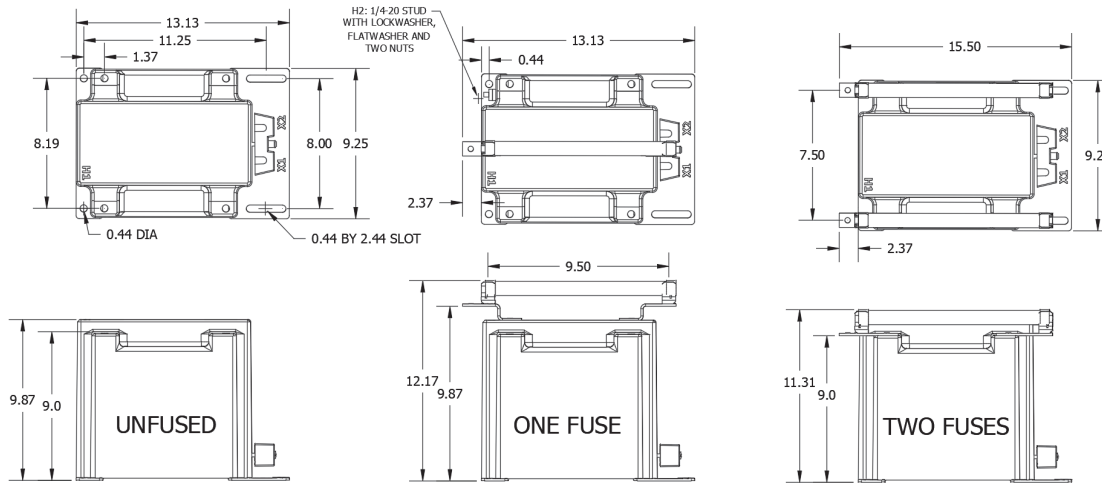


ONE BUSHING(b)					CATALOG NUMBERS		
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	R FR (c)	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
4A	4200	35:1	120	65	PTW4-1-75-422F	PTW4-1-75-422C	PTW4-1-75-422S
4A	4800	40:1	120	65	PTW4-1-75-482F	PTW4-1-75-482C	PTW4-1-75-482S
4B	6600	60:1	110-50Hz	65	PTW4-1-75-662F	PTW4-1-75-662C	PTW4-1-75-662S
4B	7200	60:1	120	65	PTW4-1-75-722F	PTW4-1-75-722C	PTW4-1-75-722S
4B	8400	70:1	120	65	PTW4-1-75-842F	PTW4-1-75-842C	PTW4-1-75-842S
4B	11000	100:1	110-50Hz	65	PTW4-1-75-113F	PTW4-1-75-113C	PTW4-1-75-113S
4B	12000	100:1	120	65	PTW4-1-75-123F	PTW4-1-75-123C	PTW4-1-75-123S

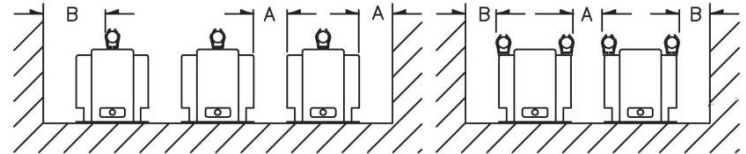
TWO BUSHING(a)					CATALOG		
GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
1	4200	35:1	120	PTW4-2-75-422	PTW4-2-75-422FF	PTW4-2-75-422CC	PTW4-2-75-422SS
1	4800	40:1	120	PTW4-2-75-482	PTW4-2-75-482FF	PTW4-2-75-482CC	PTW4-2-75-482SS
2	6600	60:1	110-50Hz	PTW4-2-75-662	PTW4-2-75-662FF	PTW4-2-75-662CC	PTW4-2-75-662SS
2	7200	60:1	120	PTW4-2-75-722	PTW4-2-75-722FF	PTW4-2-75-722CC	PTW4-2-75-722SS
2	8400	70:1	120	PTW4-2-75-842	PTW4-2-75-842FF	PTW4-2-75-842CC	PTW4-2-75-842SS
2	11000	100:1	110-50Hz	PTW4-2-75-113	PTW4-2-75-113FF	PTW4-2-75-113CC	PTW4-2-75-113SS
2	12000	100:1	120	PTW4-2-75-123	PTW4-2-75-123FF	PTW4-2-75-123CC	PTW4-2-75-123SS

Products are manufactured in a plant whose quality management system has been certified to be in compliance with ISO 9001:2015 by NQA

- (a) 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 using this connection, a transformer can never be made "live" 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.
- (b) 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.
- (c) Possibility of ferroresonance should be considered.

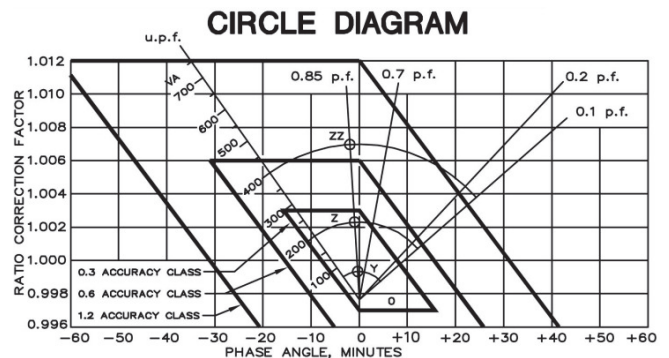


Recommended spacing is for guidance only. User needs to set appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTW4 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
4200:120V	12 kV	50,000	2.0E	0.812	10	9.5
4800:120V	12 kV	50,000	2.0E	0.812	10	9.5
6600:110V	12 kV	50,000	1.0E	0.812	10	9.5
7200:120V	12 kV	50,000	1.0E	0.812	10	9.5
8400:120V	12 kV	50,000	1.0E	0.812	10	9.5
11000:110V	12 kV	50,000	0.5E	0.812	10	9.5
12000:120V	12 kV	50,000	0.5E	0.812	10	9.5

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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