![TTL Transformer Technologies Ltd. logo]

Indoor Voltage Transformer

Models PTW3-1-60 PTW3-2-60

CERTIFICATIONS:

c**UL**us
E196364

nqa.
ISO 9001
QUALITY MANAGEMENT

ACCURACY CLASS:
0.3 WXMY, 1.2Z at 100% rated voltage with 120V based ANSI burden; 0.6 WX,1.2 MY, 1.2 Y at 58% rated voltage with 69.3V based ANSI burden

FREQUENCY:
60 Hz.

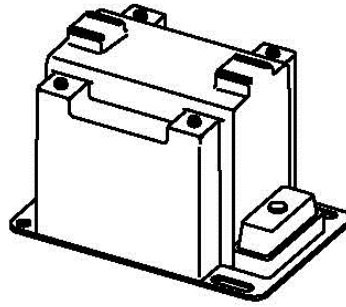**MAXIMUM SYSTEM VOLTAGE:**
5.6kV, BIL 60kV full wave

**THERMAL RATING:**
750 VA at 30°C. amb.
500 VA at 55°C. amb.

APPROXIMATE WEIGHT:
34 lbs.. unfused

- Primary terminals that are unfused are ¼ - 20 brass screws with one flat washer and lockwasher.
- Primary terminals that are fused are ¼ - 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 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" Dia Caps and 5" clip centers.
- Switchgear style is similar to fused style. No fuse or fuse clip is provided, but inserts for fuse clips are supplied.

UNFUSED TWO BUSHING   TWO FUSE TWO BUSHING   ONE FUSE ONE BUSHING
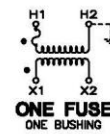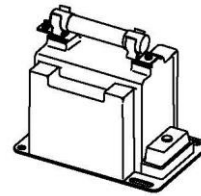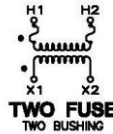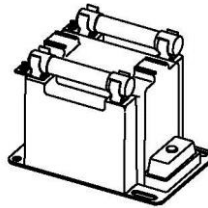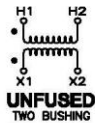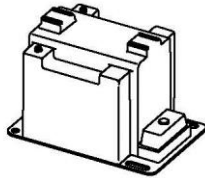
GROUP	ONE BUSHING (b)			RFR FR (c)	CATALOG NUMBERS		
					FUSES	FUSE CLIPS ONLY (d)	SWITCHGEAR STYLE
4A	2400	20:1	120	230	PTW3-1-60-242F	PTW3-1-60-242CSorCL	PTW3-1-60-242S
4B	4200	35:1	120	230	PTW3-1-60-422F	PTW3-1-60-422CSorCL	PTW3-1-60-422S
4B	4800	40:1	120	230	PTW3-1-60-482F	PTW3-1-60-482CSorCL	PTW3-1-60-482S

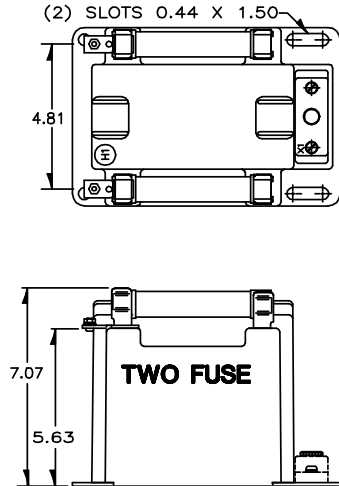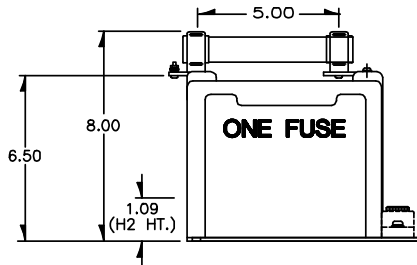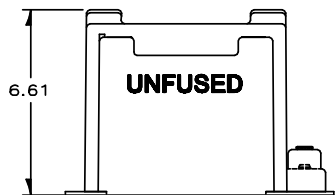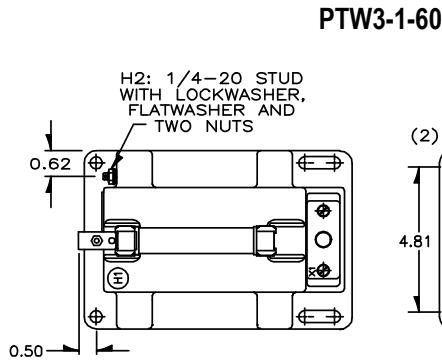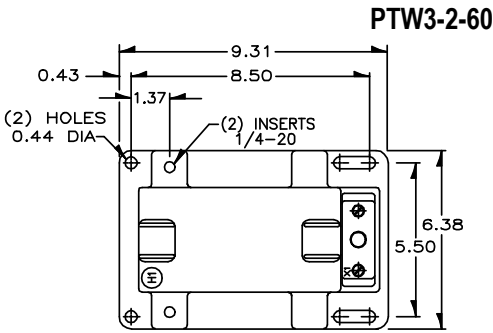| GROUP	TWO BUSHING (a)			CATALOG NUMBERS			
	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY (d)	SWITCHGEAR STYLE
1	2400	20:1	120	PTW3-2-60-242	PTW3-2-60-242FF	PTW3-2-60-242CCSorCCL	PTW3-2-60-242SS
2	3300	30:1	110-50Hz	PTW3-2-60-332	PTW3-2-60-332FF	PTW3-2-60-332CCSorCCL	PTW3-2-60-332SS
2	4200	35:1	120	PTW3-2-60-422	PTW3-2-60-422FF	PTW3-2-60-422CCSorCCL	PTW3-2-60-422SS
2	4800	40:1	120	PTW3-2-60-482	PTW3-2-60-482FF	PTW3-2-60-482CCSorCCL	PTW3-2-60-482SS

(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) **Fuse clips noted as "CCS" or "CS" accept fuses with 1" Dia. Caps and 5" clip centers. Fuse clips noted as "CCL" or "CL" accept fuses with 1.63" Dia. Caps and 5.88" clip centers**
  NOTE: It is recommended the system line-to-line voltage not exceed the transformer maximum system voltage level.

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

PTW3-2-60

PTW3-1-60

H2: 1/4-20 STUD WITH LOCKWASHER, FLATWASHER AND TWO NUTS

(2) HOLES 0.44 DIA

(2) INSERTS 1/4-20

(2) SLOTS 0.44 X 1.50

UNFUSED

ONE FUSE

TWO FUSE

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.

A=UNIT TO UNIT OR TO GROUND=1.0" MIN.
B=HV TO GROUND IN AIR=3.0" MIN.
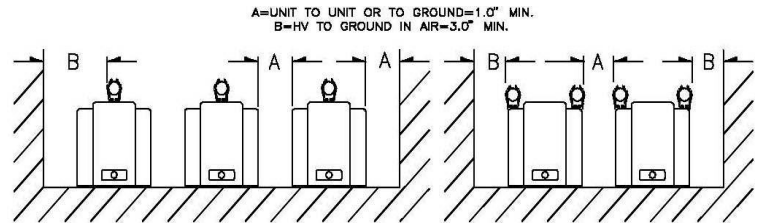
FUSE FOR MODEL PTW3 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
2400:120V	5.5kV	45,000	2.0E	1.0	5.63	5.00
3300:110V	5.5kV	45,000	2.0E	1.0	5.63	5.00
4200:120V	5.5kV	45,000	1.0E	1.0	5.63	5.00
4800:120V	5.5kV	45,000	1.0E	1.0	5.63	5.00

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.

CIRCLE DIAGRAM