AYA
INSTRUMENTS

Solutions For Power & Process Control

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Single Phase Potential Transformers — PT3

UL Recognized **5.6kV CLASS** **600 VA**

Specifications

INPUT VOLTAGE: 840 TO 4800 VAC
OUTPUT VOLTAGE: 120V-60Hz (Except 50Hz Model)
INSULATION CLASS: 5.6kV, BIL Full Wave.
BASIC IMPULSE LEVEL: 45Kv BIL
BURDEN RATING: 600 VA at 35 DEG. C
400 VA at 55 DEG. C
ACCURACY CLASS: 0.3 WX, 0.6MY, 12Z at FULL SCALE
(with 120V based ANSI BURDEN.)
0.6 WX, 1.2MY, 12Z at 58% Rated Voltage
(with 69.3V based ANSI BURDEN.)
APPROXIMATE WEIGHT: 20lbs.

Applications and Features

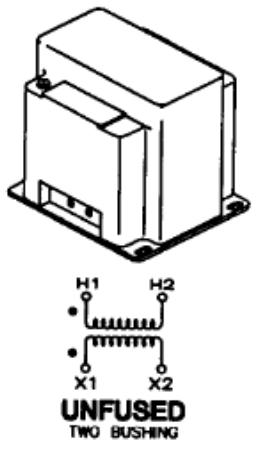
PONTENTIAL TRANSFORMER ASSEMBLY IS ENCASED IN PLASTIC ENCLOSURE AND VACUUM ENCAPSULATED IN POLYURETHANE RESIN. MEET ANSI C57.13 and IEC 185 STANDARDS

PARTIAL DISCHARGE TESTED TO MEET CANADIAN STANDARDS CAN3-C13-M83. (OPIONAL TESTING TO IEC STANDARD ALSO AVAILABLE).

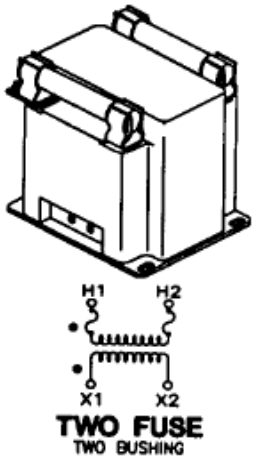
SWITCHGEAR STYLE IS SIMILAR TO FUSED STYLE. NO FUSE OR FUSE CUPS ARE PROVIDED. BUT INSERTS FOR FUSE CLIPS ARE SUPPLIED.

PRIMARY TERMINALS ARE NO. 10-32 BRASS SCREWS WITH ONE FL ATWASHER AND LOCKWASHER.

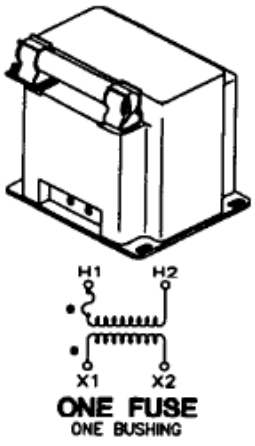
OPTIONS: UNFUSED MODELS ARE STANDARD. ONE FUSE MODELS ARE FOR Y CONNECTIONS. 2-FUSE MODELS ARE FOR DELTA CONNECTIONS. (Do Not Use in Y Connections)



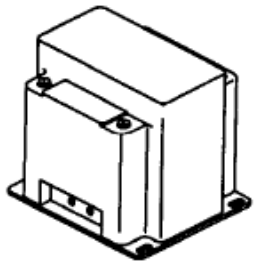
UNFUSED
TWO BUSHING



TWO FUSE
TWO BUSHING



ONE FUSE
ONE BUSHING


SWITCHGEAR STYLE
TWO BUSHING

TWO BUSHING (a)

GROUP	PRIMARY VOLTAGE	RATIO	OUTPUT VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY (c)	SWITCHGEAR
1	840 VAC	7:1	120V-60Hz	PT3-841	PT3-841FF	PT3-841CCS or CCL	PT3-841-SS
1	1200 VAC	10:1	120V-60Hz	PT3-122	PT3-122FF	PT3-122CCS or CCL	PT3-122-SS
1	2400 VAC	20:1	120V-60Hz	PT3-242	PT3-242FF	PT3-242CCS or CCL	PT3-242-SS
2	3300 VAC	30:1	110V-50 Hz	PT3-332	PT3-332FF	PT3-332CCS or CCL	PT3-332-SS
2	4200 VAC	35:1	120V-60Hz	PT3-422	PT3-422FF	PT3-422CCS or CCL	PT3-422-SS
2	4800 VAC	40:1	120V-60Hz	PT3-482	PT3-482FF	PT3-482CCS or CCL	PT3-482-SS

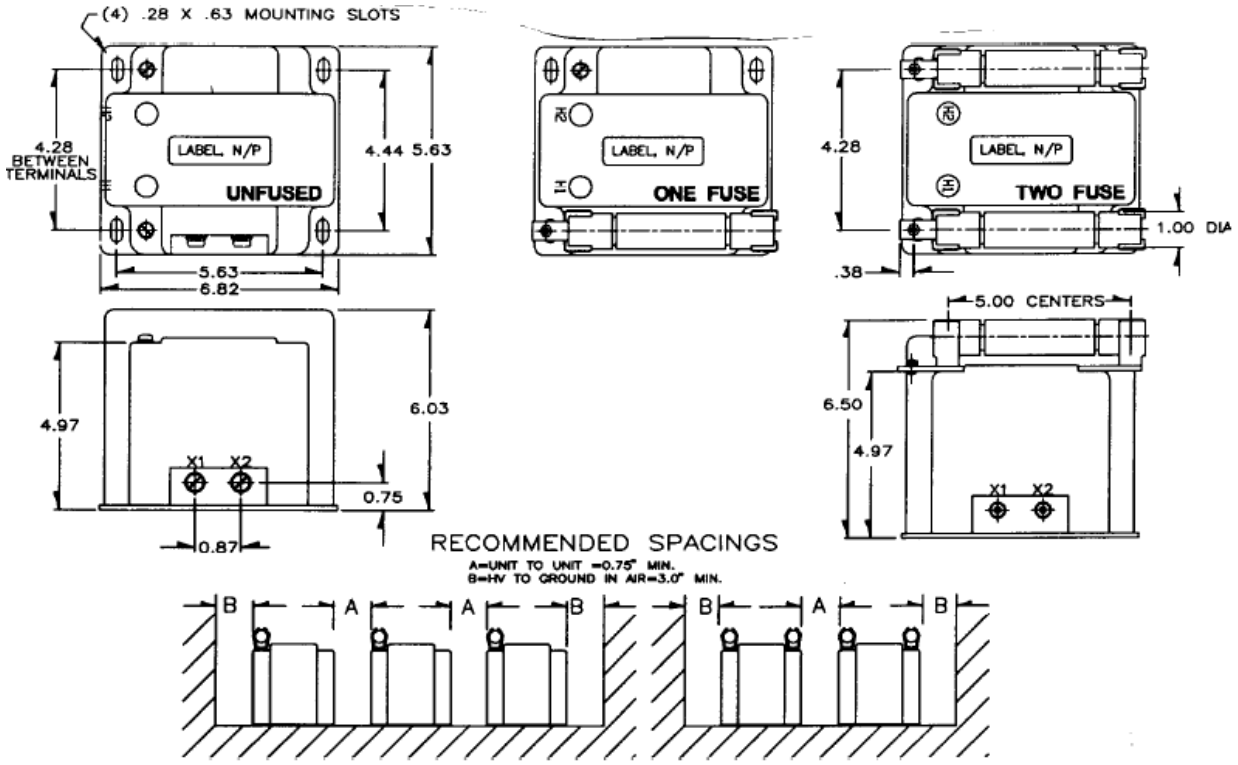
ONE BUSHING (b)

GROUP	PRIMARY VOLTAGE	RATIO	OUTPUT VOLTAGE	FUSES	FUSE CLIPS ONLY (c)	SWITCHGEAR
4A	2400 VAC	20:1	120V-60Hz	PT3-242F	PT3-242-C	PT3-242S
4B	4200 VAC	35:1	120V-60Hz	PT3-422F	PT3-422-C	PT3-422S
4B	4800 VAC	40:1	120V-60Hz	PT3-482F	PT3-482-C	PT3-482S

(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 secondary's in closed delta because excessive currents may flow in the delta.

(c) Fuse clips with suffix .CC. or .C. accept fuses with 1.0 in. dia. caps and 5 in. clip centers. Fuse clips with suffix "CCS. or .CS" accept fuses with 081 in. dia. caps and 5 in. clip centers. 15-6



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 PT3 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 potential transformer for various loads and power factors. A convenient scale of volt-amperes is shown an 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 on 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