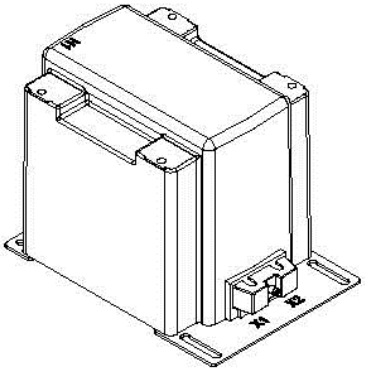
Current Transformer Technologies LTD

Indoor Voltage Transformer

Models PTG5-1-110
PTG5-2-110
rev 05202026



ACCURACY CLASS:
0.3 WXMYZ, 1.2ZZ at 100% rated voltage with 120V based ANSI burden; 0.3 WXMY, 1.2Z at 58% rated voltage with 69.3V based ANSI burden

FREQUENCY:
50/60 Hz

MAXIMUM SYSTEM VOLTAGE:
15.5kV, BIL 110kV full wave

THERMAL RATING:
1500 VA at 30°C. amb.
1000 VA at 55°C. amb.

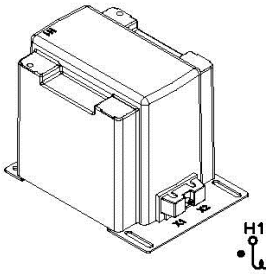
APPROXIMATE WEIGHT: 85 lbs., unfused

CERTIFICATIONS:

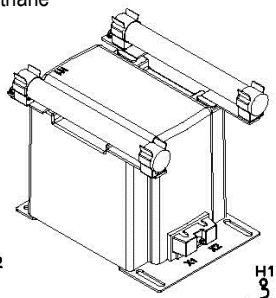
c UL us
E196364

nqa.
ISO 9001
QUALITY MANAGEMENT

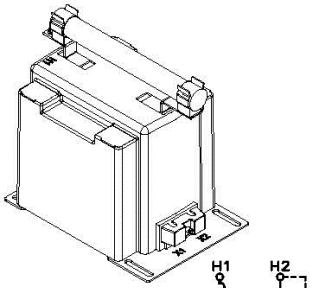
- Primary terminals that are unfused are ¼ - 20 brass screws with one flat washer and lockwasher, unless otherwise specified.
- Primary terminals that are fused are ¼ - 20 brass screws with one flat washer, lockwasher and two nuts.
- Secondary terminals are No. 10-32 brass screws with one flat washer and lockwasher.
- The core and coil assembly is 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.



UNFUSED
TWO BUSHING



TWO FUSE
TWO BUSHING



ONE FUSE
ONE BUSHING

ONE BUSHING (b)

GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	RFR FR (c)	CATALOG NUMBERS		
					FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
4A	2400	20:1	120	65	PTG5-1-110-242F	PTG5-1-110-242C	PTG5-1-110-242S
4A	4200	35:1	120	65	PTG5-1-110-422F	PTG5-1-110-455C	PTG5-1-110-422S
4A	7200	60:1	120	65	PTG5-1-110-722F	PTG5-1-110-722C	PTG5-1-110-722S
4A	7620	63.5:1	120	65	PTG5-1-110-762F	PTG5-1-110-762C	PTG5-1-110-762S
4A	7970	66.4:1	120	65	PTG5-1-110-7970F	PTG5-1-110-7970C	PTG5-1-110-7970S
4A	8400	70:1	120	65	PTG5-1-110-842F	PTG5-1-110-842C	PTG5-1-110-842S
4B	11000	100:1	110-50Hz	65	PTG5-1-110-113F	PTG5-1-110-113C	PTG5-1-110-113S
4B	12000	100:1	120	65	PTG5-1-110-123F	PTG5-1-110-123C	PTG5-1-110-123S
4B	13200	110:1	120	65	PTG5-1-110-1322F	PTG5-1-110-1322C	PTG5-1-110-1322S
4B	13800	115:1	120	65	PTG5-1-110-1382F	PTG5-1-110-1382C	PTG5-1-110-1382S
4B	14400	120:1	120	65	PTG5-1-110-1442F	PTG5-1-110-1442C	PTG5-1-110-1442S

TWO BUSHING (a) — **CATALOG NUMBERS**

GROUP	PRIMARY VOLTAGE	RATIO	SECONDARY VOLTAGE	UNFUSED	FUSES	FUSE CLIPS ONLY	SWITCHGEAR STYLE
1	2400	20:1	120	PTG5-2-110-242	PTG5-2-110-242FF	PTG5-2-110-242CC	PTG5-2-110-242SS
1	4200	35:1	120	PTG5-2-110-422	PTG5-2-110-422FF	PTG5-2-110-422CC	PTG5-2-110-422SS
1	7200	60:1	120	PTG5-2-110-722	PTG5-2-110-722FF	PTG5-2-110-722CC	PTG5-2-110-722SS
1	7620	63.5:1	120	PTG5-2-110-762	PTG5-2-110-762FF	PTG5-2-110-762CC	PTG5-2-110-762SS
1	8400	70:1	120	PTG5-2-110-842	PTG5-2-110-842FF	PTG5-2-110-842CC	PTG5-2-110-842SS
2	11000	100:1	110-50Hz	PTG5-2-110-113	PTG5-2-110-113FF	PTG5-2-110-113CC	PTG5-2-110-113SS
2	12000	100:1	120	PTG5-2-110-123	PTG5-2-110-123FF	PTG5-2-110-123CC	PTG5-2-110-123SS
2	13200	110:1	120	PTG5-2-110-1322	PTG5-2-110-1322FF	PTG5-2-110-1322CC	PTG5-2-110-1322SS
2	13800	115:1	120	PTG5-2-110-1382	PTG5-2-110-1382FF	PTG5-2-110-1382CC	PTG5-2-110-1382SS
2	14400	120:1	120	PTG5-2-110-1442	PTG5-2-110-1442FF	PTG5-2-110-1442CC	PTG5-2-110-1442SS

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

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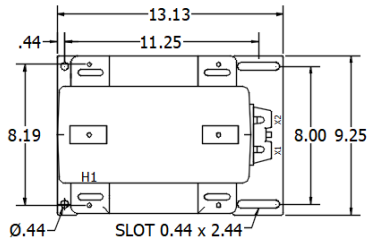
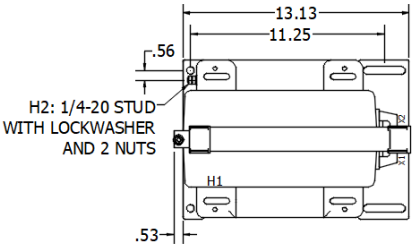
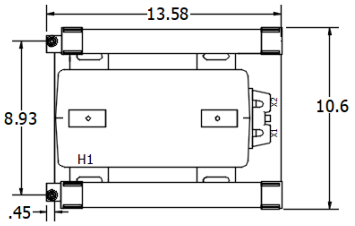
(a) Two fuse transformers should not be used for Y connections. It is preferred practice to connect one lead from each voltage transformer directly to the neutral terminal using a fuse in the line side of the primary only. By using this connection. a transformer can never be made "live" from the line side by reason of a blown fuse in the neutral side. For continuous operation, the transformer primary voltage should not exceed 100% 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.

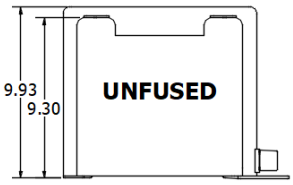
PTG5-1-110

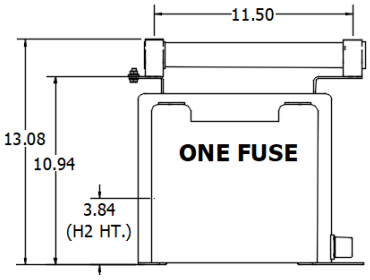


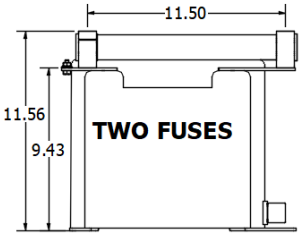
PTG5-2-110



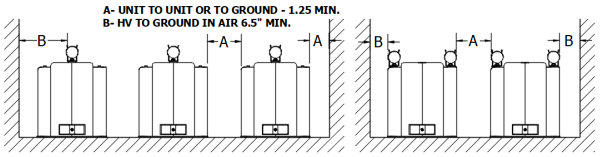








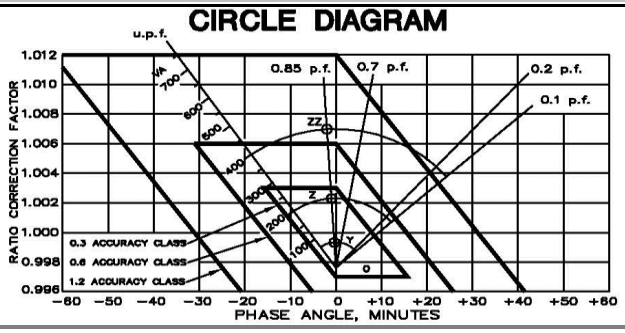
appropriate values to assure performance for: high potential test; impulse test; high humidity; partial discharge, high altitude; and other considerations like configuration.



FUSE FOR MODEL PTG5 TRANSFORMER	RATING VOLTS	INTERRUPTING AMPERES (SYM)	SUGGESTED RATING * CONTINUOUS AMPERES	CAP DIA. INCHES	LENGTH INCHES	CLIP CENTERS INCHES
2400:120V	5kV	80,000	3.0E	0.81	5.6	5.0
4200:120V	15.5kV	80,000	2.0E	1.63	13	11.50
7200:120V	15.5kV	80,000	1.0E	1.63	13	11.50
7620:120V	15.5kV	80,000	1.0E	1.63	13	11.50
7970:120V	15.5kV	80,000	1.0E	1.63	13	11.50
8400:120V	15.5kV	80,000	1.0E	1.63	13	11.50
11000:110V	15.5kV	80,000	0.5E	1.63	13	11.50
12000:120V	15.5kV	80,000	0.5E	1.63	13	11.50
13200:120V	15.5kV	80,000	0.5E	1.63	13	11.50
13800:120V	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.

CIRCLE DIAGRAM



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