

TJO 7

Outdoor voltage transformer



The TJO 7 is a robust voltage transformer that uses ResiVolt™ transient resistant technology for line-to-ground applications, with an enhanced design for operation in renewable and frequent line switching installations. The TJO 7 is an alternative to type VOG-15B, VOG-20B and VOG-20BR.

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TJO 7 in upright position

Product features:

- 25 and 34.5 kV, outdoor
- 150 and 200 kV BIL, 60 Hertz
- Creep: 44.1" (1120 mm)
- Strike distance: 27.8" (106 mm)
- Approximate weight: 115-121 lbs (52-55 kg)

Industry leading performance

- Superior withstand capability against steep wave power network transients for improved reliability and increased safety in renewable metering and recloser applications, as well as areas where increased line switching is present
- Enhanced creep distance and intelligent shed design minimize flashover potential and provide superior heat dissipation
- Encapsulated in field-proven HCEP material (hydrophobic cycloaliphatic epoxy) to deliver unparalleled performance in outdoor applications, including heavily polluted and coastal environments

Application

- Designed with ResiVolt technology to withstand challenging environments where very fast transient over-voltages (VFTO) are present, such as those caused by inverters and line switching devices
- Optimal solution for line-to-ground metering applications; offers superior performance and compact design

Terminals

The primary H1 bushing features an M12 metric stud type terminal. The H2 terminal is internally grounded to the baseplate. The secondary terminals are M6 metric clamp type and are located in a secondary junction box. The TJO 7 is available with two variants of junction box - aluminum box with metric PG21 conduit hubs as shown or non-metallic junction box with a sealed plastic cover, the same as the VOG. Terminal markings are per IEEE C57.13 (H1, X1).

Mounting

- Unit can be mounted in the following positions:
 - upright
 - cantilever
 - upside down
- Stress relief devices should be used to support cable connections where applicable
- Aluminum baseplate with the same mounting dimensions as VOG-15B, VOG-20B and VOG-20BR

Standards

- The transformers are designed and manufactured to conform with the requirements and recommendations of the following standards: IEEE C57.13-2016, IEC, EN, VDE, ANSI, BS, GOST, ČSN and PN-EN.
- Meets and exceeds IEC 61869-3, clause 7.2.3 and CAN/CSA 411.1, clause 6.6 requirements for basic impulse and fast impulse transient withstand.

TJO 7 selection guide

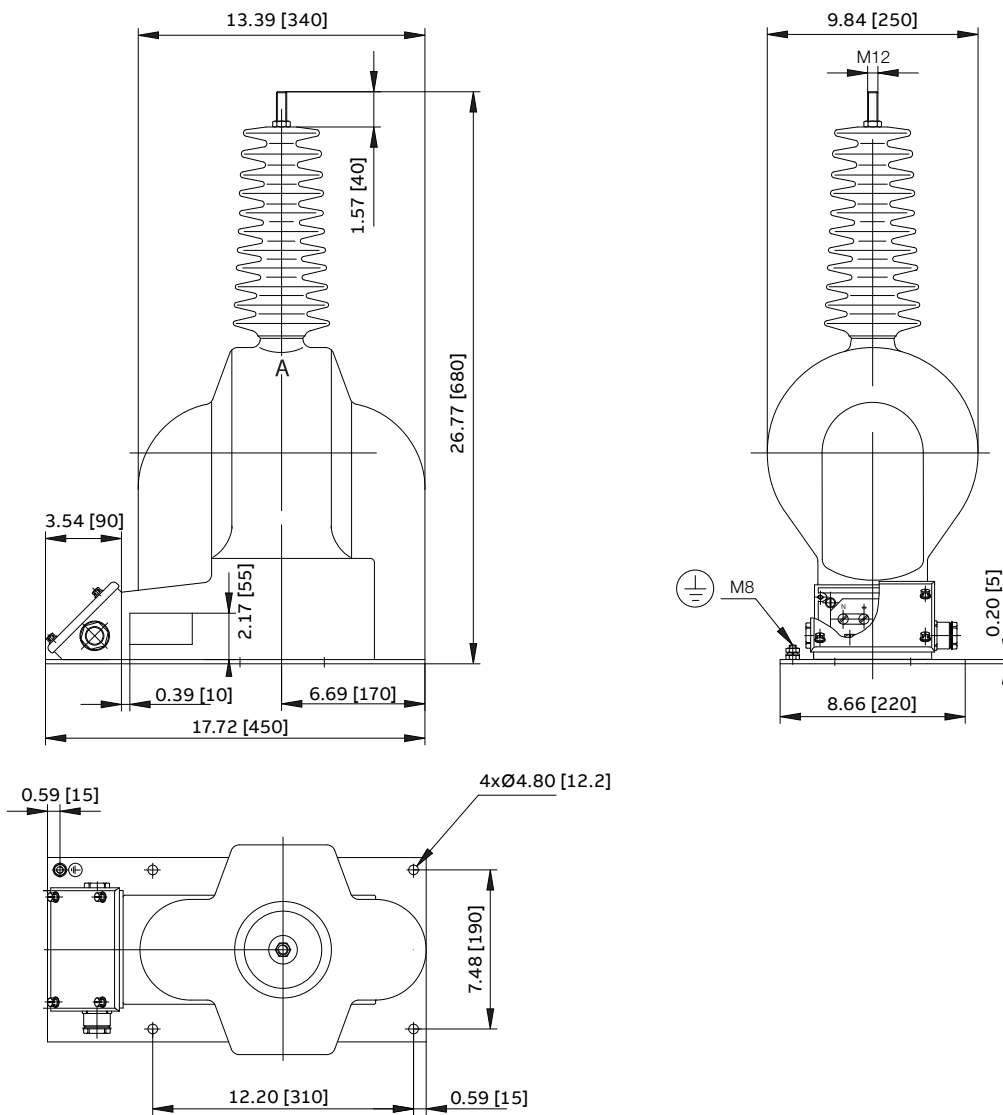
Primary voltage	Secondary voltage	Winding ratio	Metering accuracy	Thermal rating at 30° C	Rated voltage factor (RVF)	Style number
12000/20780GY	120	100:1	0.3Y	1500	1.9	E-923A680G01-CZ
13200/22860GY	120	110:1	0.3Y	1500	1.9	E-923A680G02-CZ
14400/24940GY	120	120:1	0.3Y	1500	1.9	E-923A680G03-CZ
20125/34500GY	115	175:1	0.3Y	1500	1.9	E-923A602G01-CZ
19920/34500GY	120	166:1	0.3Y	1500	1.9	E-923A602G02-CZ
20125/34500GY	115/67.08	175/300:1	0.3Y/0.3Y	1500	1.9	E-923A611G02-CZ
20125/34500GY	115/67 & 115/67	175/300 & 175/300:1	0.3Y	1500	1.9	E-923A663G01-CZ
20125/34500GY	115 & 67.08	175 & 300:1	0.3Y	1500	1.9	E-923A687G01-CZ
20125/34500GY	115 & 115	175 & 175:1	0.3Y	1500	1.9	E-923A687G02-CZ

Dimension drawings

TJO 7

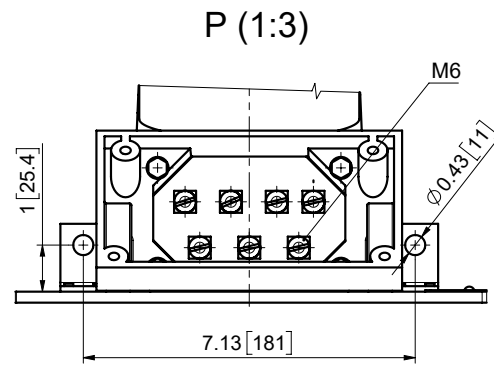
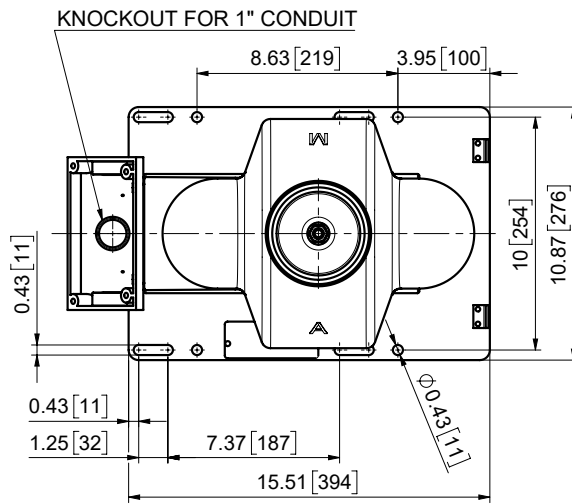
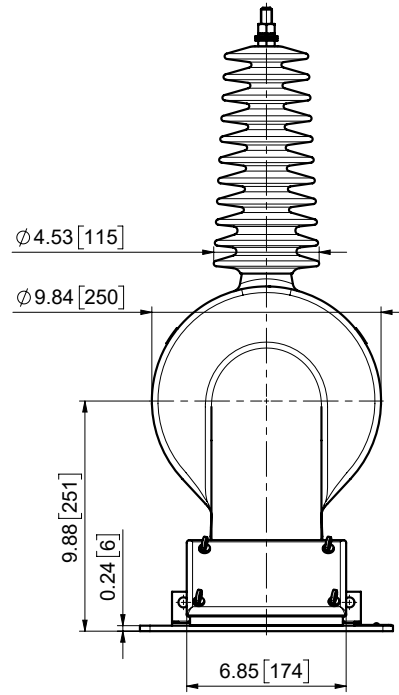
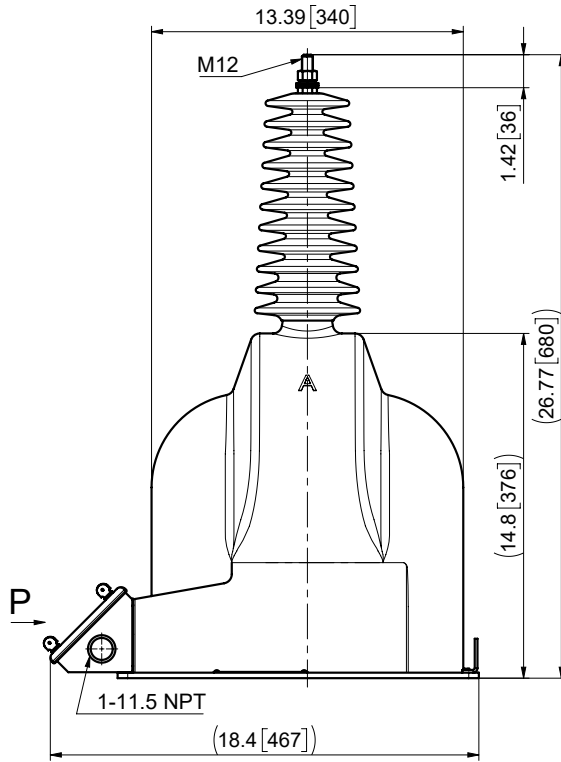
Inches [mm]

weight: 115-121 lbs [52-55 kg]
creepage distance: 44.1" [1120 mm]



Dimension drawings
TJO 7 PINETOPS
 Inches [mm]

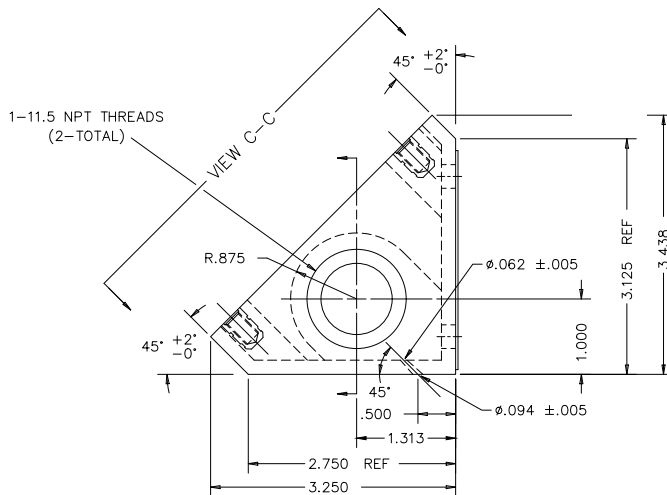
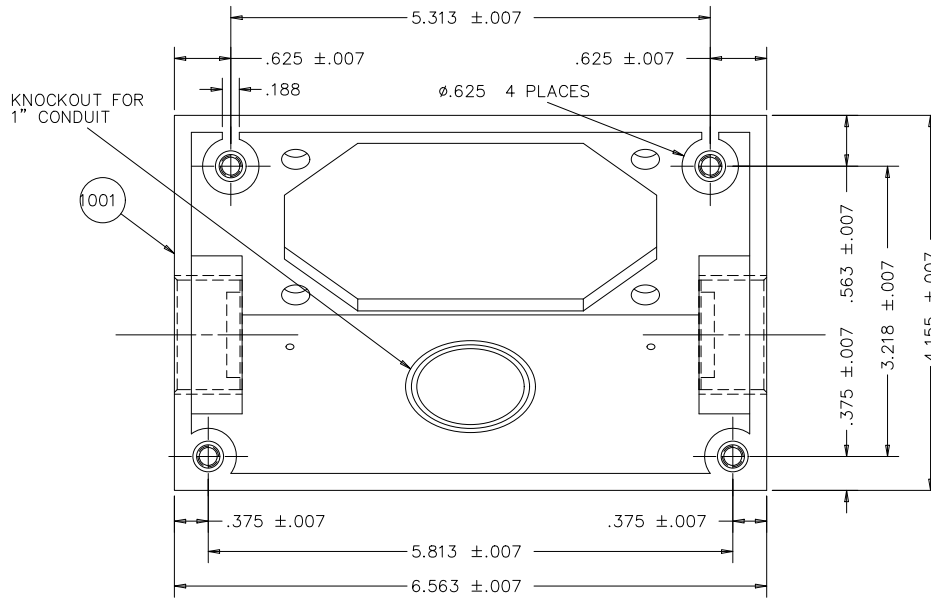
weight: 115-121 lbs [55 kg]
 creepage distance: 44.1" [1120 mm]
 strike distance: 27.8" [106 mm]



Dimension drawings

NAM junction box

Inches



NOTE
 Additional styles available upon request.
 Contact your ABB sales representative or call
 +1-252-827-3212 for more product information
 or comparison with VOG-20B and VOG-
 20BR.

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