

TJO 7

Outdoor voltage transformer



01
TJO 7, CBS modification
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: 26.3" (668 mm) for CBS mod.
- 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 in a compact design

CBS modification

The TJO 7, CBS modification is an alternative to VOG-15B, VOG-20B and VOG-20BR having identical

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, CBS modification is an alternative to types VOG-15B, VOG-20B and VOG-20BR.

clamp type primary, base plate and secondary terminal box.

Terminals

The primary H1 bushing terminal of the TJO 7, CBS modification accommodates #10 to #250 MCM conductors and the other TJO 7 solution 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. Terminal markings are per IEEE C57.13 (H1, X1).

Junction box

The TJO 7 is available with two variants of junction box depending on the selected modification:

- CBS modification is non-metallic junction box with a sealed plastic cover, equipped with 1"-11.5 NPT conduit hub on either end and a knock out for a 1" conduit fitting on the bottom
- aluminum box with metric PG21 conduit hubs

The cover of the junction box for both modifications is provided with a lead seal lock.

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
- CBS modification has aluminum baseplate with the same mounting dimensions as VOG-15B, VOG-20B and VOG-20BR

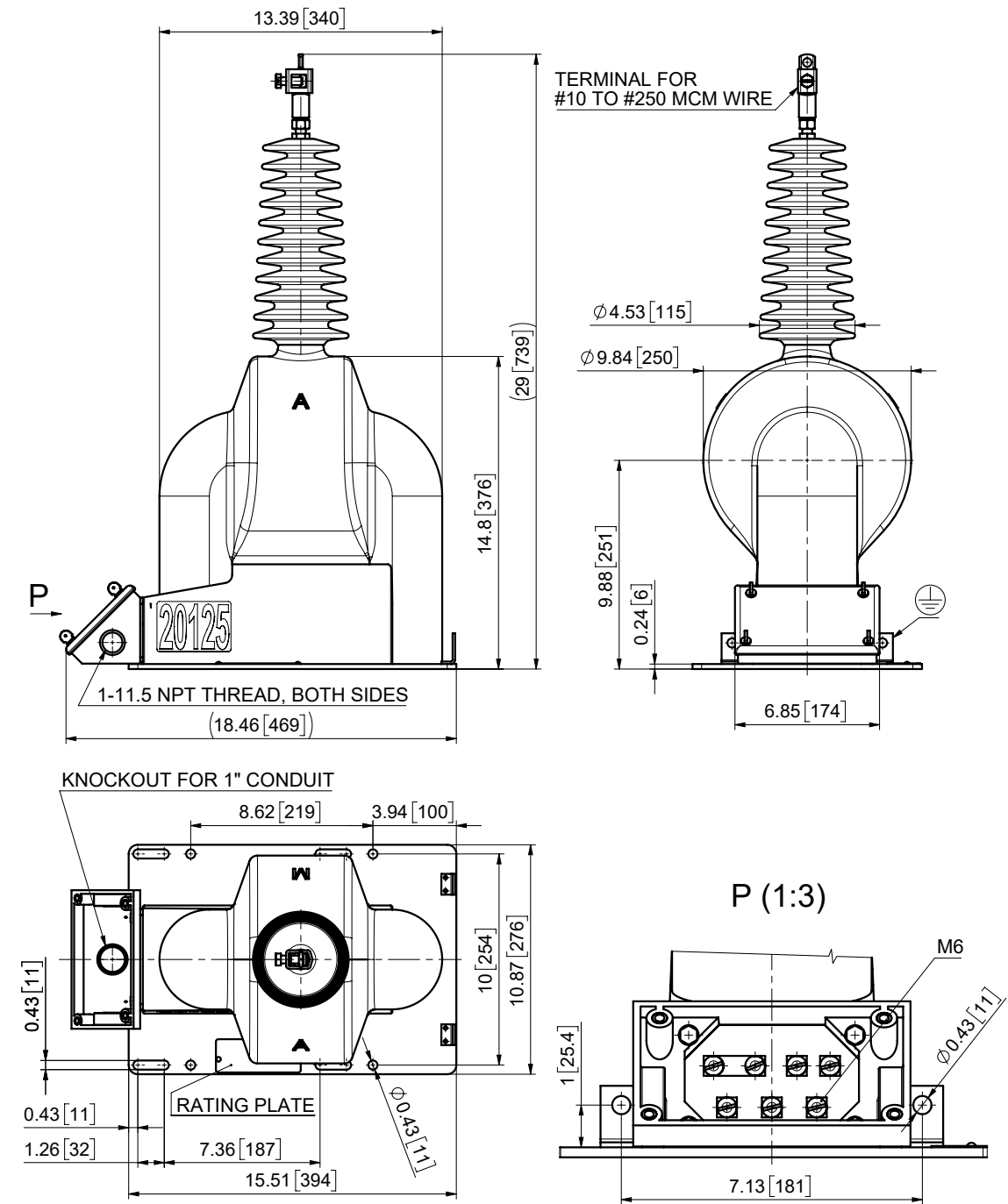
Standards

- The transformers are designed and manufactured to conform to the requirements and recommendations of the following standards:
IEEE C57.13-2016, CAN/CSA-C61869-3, IEC 61869-3 and others such as 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, CBS modification								
Style number	Product name	Primary voltage	Secondary voltage	Winding ratio	Metering accuracy	Thermal rating at 30° C	Rated voltage factor (RVF)	VOG alternative
E-923A680G08-CZ	TJO 7	7620/13200GY	120	63.5:1	0.3Y	1500	1.9	VOG-15B
E-923A680G05-CZ	TJO 7	8400/14400GY	120	70:1	0.3Y	1500	1.2	VOG-15B
E-923A680G01-CZ	TJO 7	12000/20780GY	120	100:1	0.3Y	1500	1.9	VOG-15B
E-923A680G02-CZ	TJO 7	13200/22860GY	120	110:1	0.3Y	1500	1.9	VOG-15B
E-923A680G03-CZ	TJO 7	14400/24940GY	120	120:1	0.3Y	1500	1.9	VOG-15B
E-923A680G04-CZ	TJO 7	16100/27890GY	115	140:1	0.3Y	1500	1.1	VOG-15B
E-923A655G01-CZ	TJO 7	14400/24940GY	240/120	60/120:1	0.3Y/0.3Y	1500	1.25	VOG-20B
E-923A652G02-CZ	TJO 7	19920/34500GY	120	166:1	0.3Y	1500	1.9	VOG-20B
E-923A685G03-CZ	TJO 7	19920/34500GY	120 & 120	166:1 & 166:1	0.3Y & 0.3Y	1500	1.9	VOG-20B
E-923A652G01-CZ	TJO 7	20125/34500GY	115	175:1	0.3Y	1500	1.9	VOG-20B
E-923A655G02-CZ	TJO 7	20125/34500GY	115/67.08	175/300:1	0.3Y/0.3Y	1500	1.9	VOG-20B
E-923A685G01-CZ	TJO 7	20125/34500GY	115 & 67.08	175:1 & 300:1	0.3Y & 0.3Y	1500	1.9	VOG-20B
E-923A685G02-CZ	TJO 7	20125/34500GY	115 & 115	175:1 & 175:1	0.3Y & 0.3Y	1500	1.9	VOG-20B
E-923A609G01-CZ	TJO 7	20125/34500GY	115/67.08 & 115/67.08	175/300:1 & 175/300:1	0.3Y/0.3Y & 0.3Y/0.3Y	1500	1.9	VOG-20B
E-923A652G04-CZ	TJO 7	34500/34500GY	115	300:1	0.3Y	1500	1.1	VOG-20B

TJO 7 ResiVolt technology, CBS modification								
Style number	Product name	Primary voltage	Secondary voltage	Winding ratio	Metering accuracy	Thermal rating at 30° C	Rated voltage factor (RVF)	VOG alternative
E-923A602G02-CZ	TJO 7	19920/34500GY	120	166:1	0.3Y	1500	1.9	VOG-20BR
E-923A602G01-CZ	TJO 7	20125/34500GY	115	175:1	0.3Y	1500	1.9	VOG-20BR
E-923A611G02-CZ	TJO 7	20125/34500GY	115/67.08	175/300:1	0.3Y/0.3Y	1500	1.9	VOG-20BR
E-923A687G01-CZ	TJO 7	20125/34500GY	115 & 67.08	175:1 & 300:1	0.3Y & 0.3Y	1500	1.9	VOG-20BR
E-923A687G02-CZ	TJO 7	20125/34500GY	115 & 115	175:1 & 175:1	0.3Y & 0.3Y	1500	1.9	VOG-20BR
E-923A663G01-CZ	TJO 7	20125/34500GY	115/67.08 & 115/67.08	175/300:1 & 175/300:1	0.3Y/0.3Y & 0.3Y/0.3Y	1500	1.9	VOG-20BR

DO NOT LIFT BY PRIMARY BUSHING!

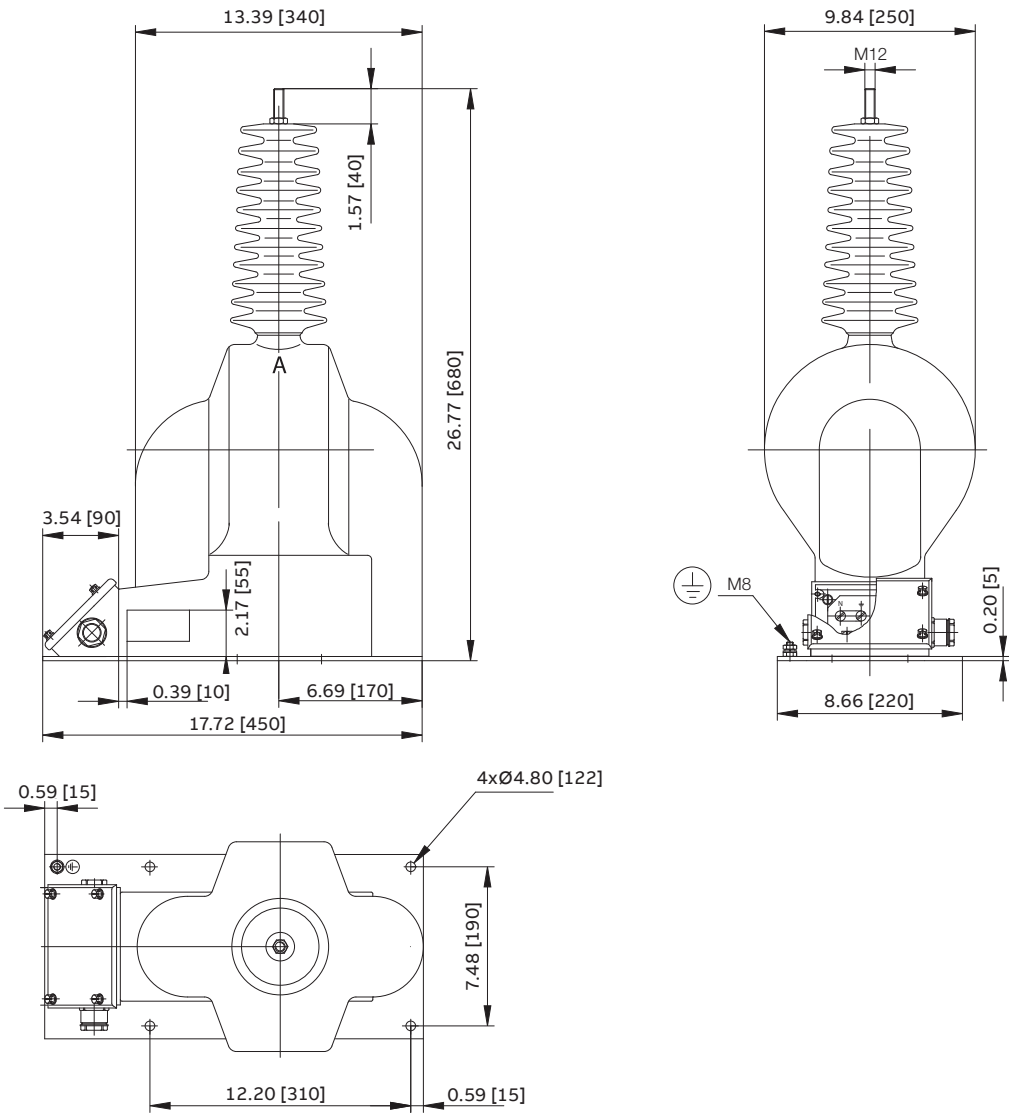


Drawing n.
1VL4200639R0001

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Dimension drawings
TJO 7
Inches [mm]

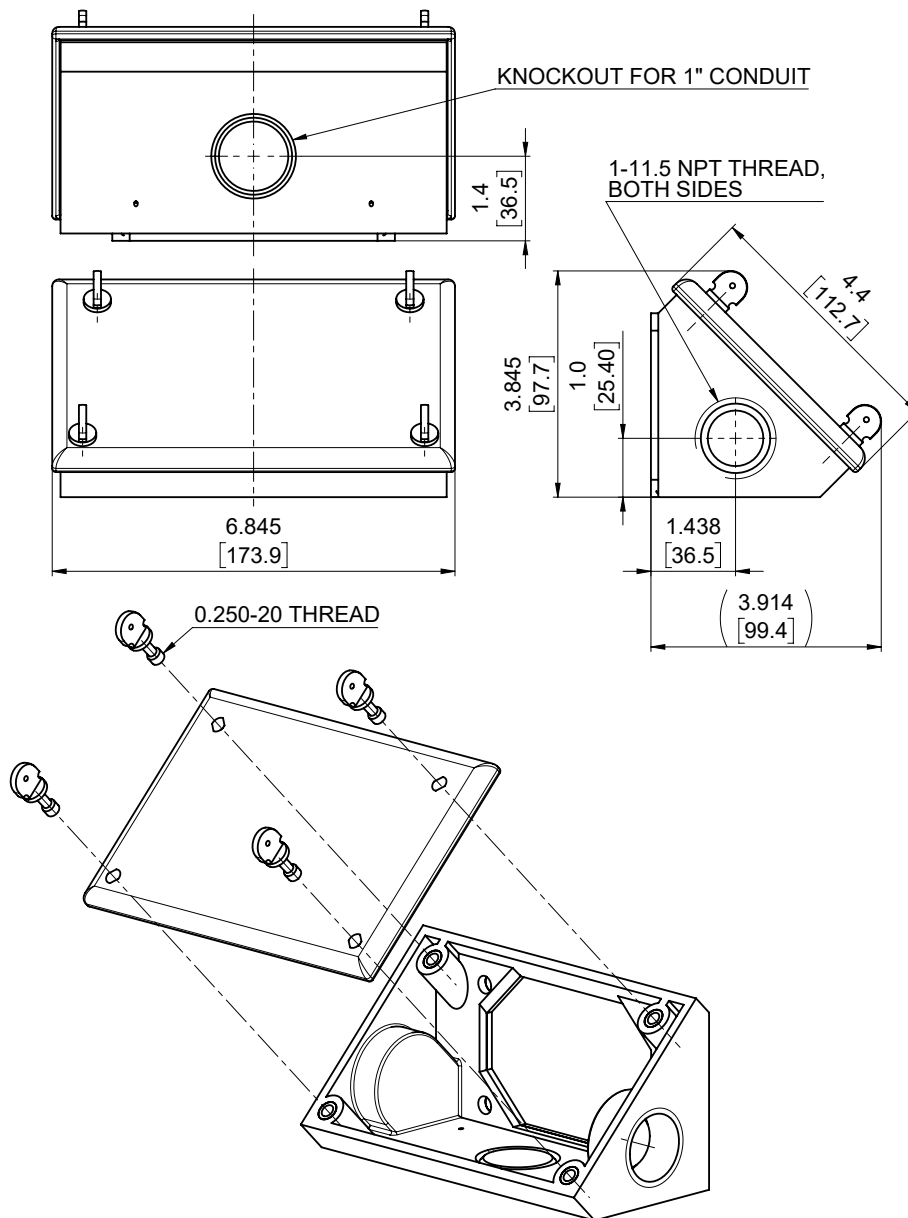
weight: 115-121 lbs [55 kg]
creepage distance: 44.1" [1120 mm]
strike distance: 27.8" [706 mm]



Dimension drawings

CBS junction box

Inches [mm]



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-15B, VOG-20B
and VOG-20BR.

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