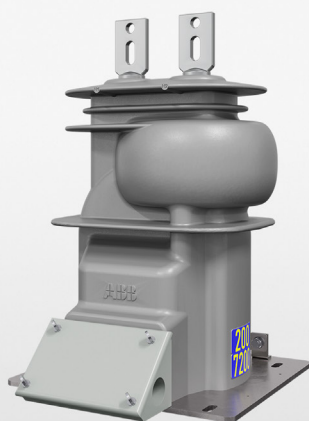


INSTRUMENT TRANSFORMERS

CVC-110BER and CVC-110BRER

15 kV combination current and voltage transformers



The CVC-110BER and CVC-110BRER combination transformers combine a current transformer and voltage transformer in one device to help reduce installation time, cost and footprint.

Product features

- 15 kV, outdoor
- 110 kV BIL, 60 Hz
- Electrical clearances:
 - Strike: 14.4" (366 mm)
 - Creep: 22.3" (567 mm)
- Minimum operating temperature: -50 °C
- Approximate weight: 98 lbs. (44 kg)

Application

The CVC-110BER and CVC-110BRER are combination transformers that consist of a current transformer (CT) and a voltage transformer (VT) in one apparatus. These units are designed for metering applications and are commonly used in pole-mounted primary metering frames, pad-mounted primary metering cabinets or substations. The combined transformer leads to both cost and space savings, as well as a faster installation with a higher level of safety.

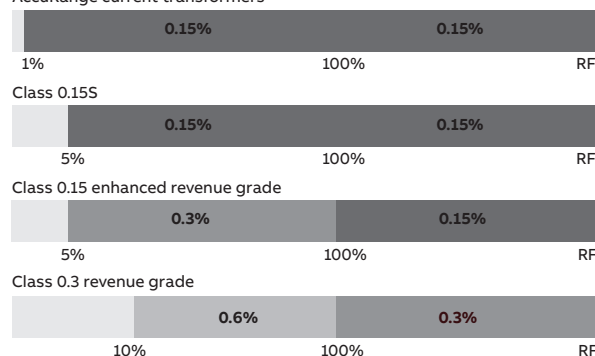
Construction features

Extended creep distance provides outstanding flashover resistance and increased surface area for better heat dissipation. Encapsulated in HCEP (hydrophobic cycloaliphatic epoxy), these units provide unparalleled performance in outdoor applications, including wet, polluted or coastal environments.

High accuracy and extended range

Both transformers are part of the AccuRange® current transformer family and delivers high accuracy and stable performance over a wide load swing, making them a great fit for variable load applications. Accuracy is guaranteed to be $\pm 0.15\%$ from 1% of nominal current through rating factor. ABB's extended range units deliver savings through improved accuracy metering and reduced inventory.

AccuRange current transformers



ResiVolt™ technology for very fast transient (VFT) overvoltage mitigation

The CVC-110BRER is designed with ResiVolt technology and offers improved reliability and increased safety in renewable metering and recloser applications, as well as in areas where increased line switching is present. The unit provides superior withstand capability against steep wave power network transients.

Terminals

Primary terminals are electro-tin-plated copper. The current transformer secondary connections are clamp-type and accommodate #14 to #1 AWG wire. The voltage transformer secondary connections are clamp-type and accommodate #13 to #3 AWG wire.

Junction box

The junction box has a 1" conduit hub on either end and a knockout for a 1" conduit fitting on the bottom. The box is anchored to the body of the transformer with screws and can be easily detached, simplifying installation and change-out procedures.

Baseplate

The base is constructed of corrosion-resistant aluminum and secured to the encapsulated base support.

Mounting

The CVC-110BER and CVC-110BRER can be mounted in upright or cantilever positions. Stress relief devices should be used to support cable connections. For inverted mounting (upside down) or more information on mounting instructions, reference the MV Outdoor Combination Transformers Installation Guide at www.abb.com/mediumvoltage.

Test reports

Test reports are stored electronically and can be e-mailed in various formats at the time of shipment.

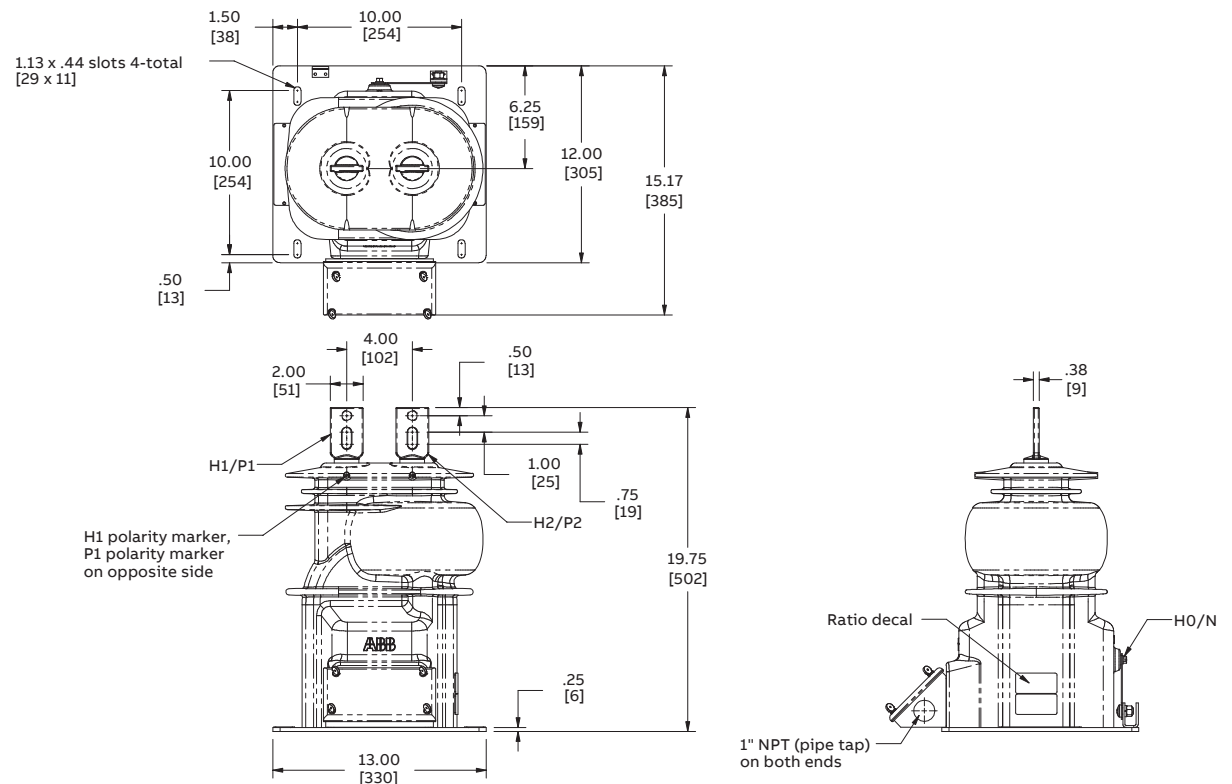
Standards

These units meet or exceed all requirements of IEEE C57.13-2016 and can be tested to other standards as requested. They also meet and exceed IEC 61869-3, clause 7.2.3 and CAN/CSA 411.1, clause 6.6 requirements for basic impulse and fast impulse transient withstand.

Warranty

The CVC-110BRER with ResiVolt technology is provided with a 3-year warranty. The CVC-110BER is provided with a standard warranty — contact the factory for details.

Unit dimensions



CVC-110BER and CVC-110BRER selection guide

Current transformer			Voltage transformer						Style number	
Ratio	Rating factor	Accuracy	Primary voltage	Secondary voltage	Ratio	Accuracy	Rated voltage factor (RVF)	Thermal rating	CVC-110BER	CVC-110BRER
	@ 30 °C									
25:5	3.0	0.15SB-0.5	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G02	E-923A709G02
50:5	3.0	0.15SB-0.5	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G01	E-923A709G01
200:5	1.5	0.15SB-1.8	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G03	E-923A709G03
200:5	3.0	0.15SB-0.5	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G04	E-923A709G04
400:5	1.5	0.15SB-0.9	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G05	E-923A709G05
400:5	3.0	0.15SB-0.5	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G06	E-923A709G06
600:5	1.5	0.15SB-0.5	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G07	E-923A709G07
800:5	1.2	0.15SB-1.8	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G08	E-923A709G08
1000:5	1.5	0.15SB-1.8	7200/12470GY	120	60:1	0.3Y	1.2	500	E-923A705G09	E-923A709G09
200:5	1.5	0.15SB-1.8	7620/13200GY	120	63.5:1	0.3Y	1.2	500	E-923A705G10	E-923A709G10
200:5	3.0	0.15SB-0.5	7620/13200GY	120	63.5:1	0.3Y	1.2	500	E-923A705G11	E-923A709G11
1000:5	1.5	0.15SB-1.8	7620/13200GY	120	63.5:1	0.3Y	1.2	500	E-923A705G12	E-923A709G12
50:5	3.0	0.15SB-0.5	8400/14560GY	120	70:1	0.3Y	1.2	500	E-923A705G13	E-923A709G13
200:5	1.5	0.15SB-1.8	8400/14560GY	120	70:1	0.3Y	1.2	500	E-923A705G14	E-923A709G14
200:5	3.0	0.15SB-0.5	8400/14560GY	120	70:1	0.3Y	1.2	500	E-923A705G15	E-923A709G15
600:5	1.5	0.15SB-0.5	8400/14560GY	120	70:1	0.3Y	1.0	500	E-923A705G17	E-923A709G17
1000:5	1.5	0.15SB-1.8	8400/14560GY	120	70:1	0.3Y	1.2	500	E-923A705G18	E-923A709G18
25:5	3.0	0.15SB-0.5	7200/12470GY 8400/14560GY	120	60/70:1	0.3M	1.2	500	E-923A706G01	E-923A710G01
50:5	3.0	0.15SB-0.5	7200/12470GY 8400/14560GY	120	60/70:1	0.3M	1.2	500	E-923A706G02	E-923A710G02
200:5	3.0	0.15SB-0.5	7200/12470GY 8400/14560GY	120	60/70:1	0.3M	1.2	500	E-923A706G04	E-923A710G04
1000:5	1.5	0.15SB-1.8	7200/12470GY 8400/14560GY	120	60/70:1	0.3M	1.2	500	E-923A706G03	E-923A710G03

One-second thermal rating:
25–600 amps, 100 x normal; 800 amps, 75 x normal; 1000 amps, 60 x normal

Mechanical rating:
2.7 times thermal rating

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