

Type CVC-110ER (HCEP)

Outdoor extended range combined transformer

Product features

- For outdoor use
- 15 kV, 60 Hertz, 110 kV BIL
- Electrical characteristics:
 - Strike: 16.0" (406 mm)
 - Creep: 28.10" (715 mm)

Application

The CVC-110ER is a combination unit that consists of a current transformer (CT) and voltage transformer (VT) in one body. It is designed for metering applications and can be pole-mounted or used in substations. The combined unit provides the customer with both cost and space savings, as well as reduced installation time.

The current transformer element is highly accurate and is ideal for use in cogeneration and in applications where there are large power exchanges, as it preserves stated accuracies with loads ranging from one percent of the full rated current through the rating factor. Due to its wide operating range in conventional metering applications, the CVC-110ER provides greater value for the utility customer by reducing inventory requirements.

Construction

In the current transformer, primary and secondary windings are assembled around a toroidal wound core. The voltage transformer primary and secondary coils are wound using special winding and shielding techniques for improved voltage stress distribution. Each coil is insulated with mylar film to provide a high dielectric strength between layers. The coils and core are combined to create a complete winding structure that is assembled to a support frame.

For insulation and protection, the assembly is cast in hydrophobic cycloaliphatic epoxy (HCEP) using automatic pressure gelation. The HCEP material offers superior arc track, ozone, and ultraviolet-resistant properties while maintaining physical strength. The hydrophobic surface properties of HCEP ensure highly reliable performance in wet or humid conditions.

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, provided with 1" conduit connections on three sides, encloses the secondary terminals.

Baseplate

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

Mounting

The CVC-110ER can be mounted in upright, cantilever, or upside-down positions. Stress relief devices should be used to support cable connections.

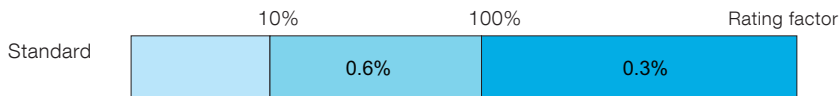
Test reports

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

Standards

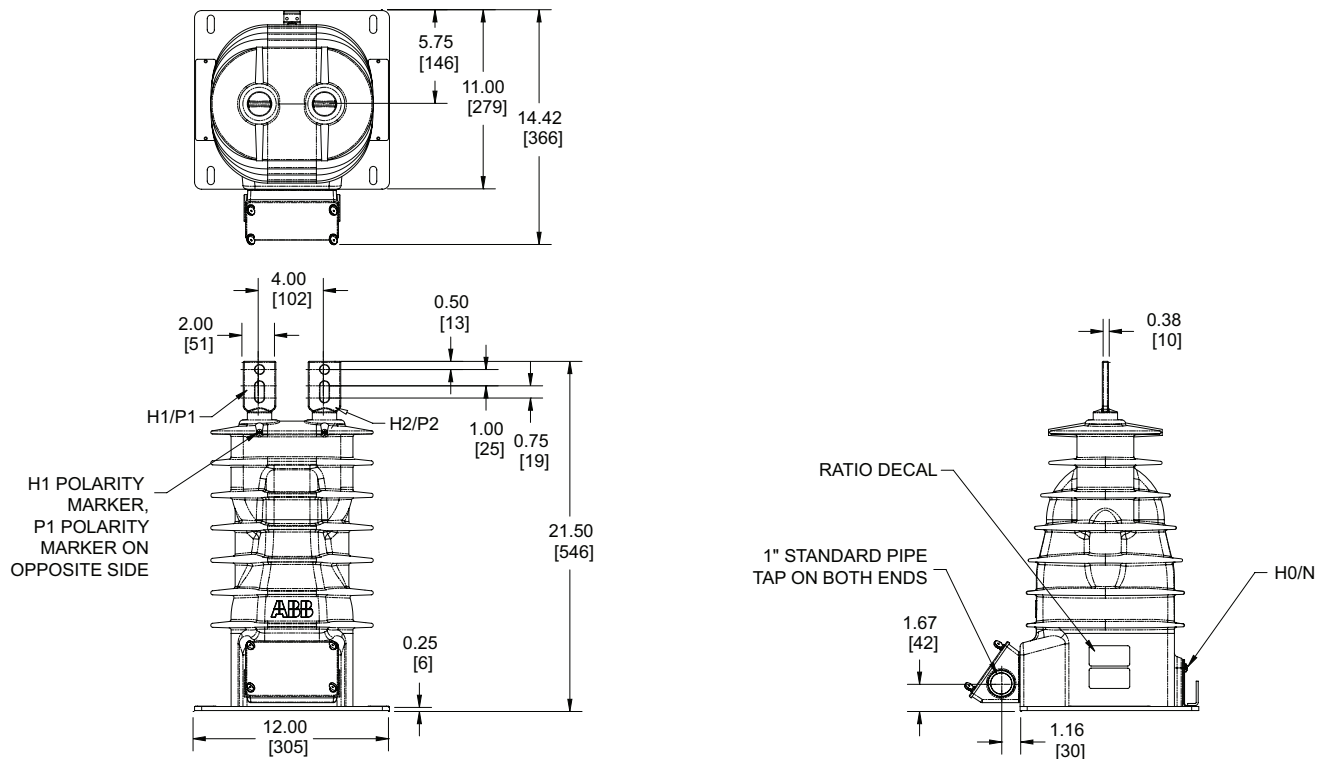
This unit can be tested to all applicable IEEE, CSA, or IEC standards as requested. This unit is tested in accordance with IEEE C57.13.6-2005 for high accuracy instrument transformers.

Standard vs. extended range



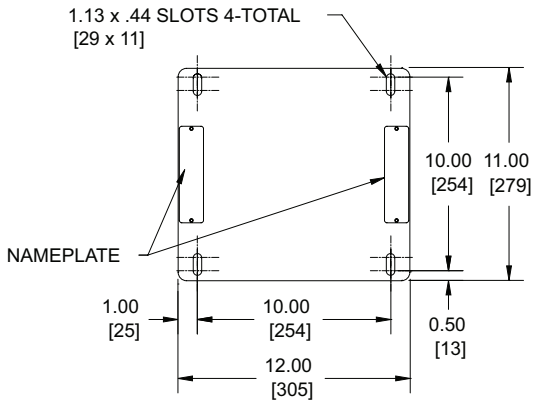
ABB's extended range design delivers high accuracy and stable performance over a wide load swing, making it a great fit for variable load applications. Accuracy is guaranteed to be +/- 0.15% from 1% of nominal current through rating factor. ABB's extended range units deliver savings through improved accuracy metering and reduced inventory.

Unit dimensions



Strike		Creep		Weight	
(in)	(mm)	(in)	(mm)	(lb)	(kg)
16.0	406	28.1	715	90	41

Baseplate dimensions



Type CVC-110ER (HCEP) selection guide

Current transformer				Voltage transformer				Style number
Ratio	Rating factor @ 30°C	Accuracy*	One second thermal/mechanical rating	Ratio	Accuracy	Rated voltage factor	Thermal rating	
200:5	3.0	0.15B-0.5	190/270	7200/12470GY to 120	0.3Y	1.2	500	E-923A464G01
200:5	1.5	0.15B-1.8	190/270	7200/12470GY to 120	0.3Y	1.2	500	E-923A464G02
1000:5	1.5	0.15B-1.8	60/162	7200/12470GY to 120	0.3Y	1.2	500	E-923A464G03
200:5	3.0	0.15B-0.5	190/270	7620/13200GY to 120	0.3Y	1.2	500	E-923A464G04
200:5	1.5	0.15B-1.8	190/270	7620/13200GY to 120	0.3Y	1.2	500	E-923A464G05
1000:5	1.5	0.15B-1.8	60/162	7620/13200GY to 120	0.3Y	1.2	500	E-923A464G06
200:5	3.0	0.15B-0.5	190/270	8400/14560GY to 120	0.3Y	1.2	500	E-923A464G07
200:5	1.5	0.15B-1.8	190/270	8400/14560GY to 120	0.3Y	1.2	500	E-923A464G08
1000:5	1.5	0.15B-1.8	60/162	8400/14560GY to 120	0.3Y	1.2	500	E-923A464G09

Additional styles available upon request. Contact your ABB sales representative or call +1-252-827-3212 for more information.

Note: Line-to-ground connection only.

* Current transformer accuracy range from 1% I_{RATED} to rating factor.

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Note:

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