Instrument transformers

Type CVC-110ER
Outdoor extended range combined transformer

Product features
- For outdoor use
- 15 kV, 60 hertz
- 110 kV BIL
- Electrical characteristics:
  Strike: 20.56" (522 mm)
  Creep: 26.00" (660 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. The entire assembly is vacuum cast in polyurethane for insulation and protection.

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.

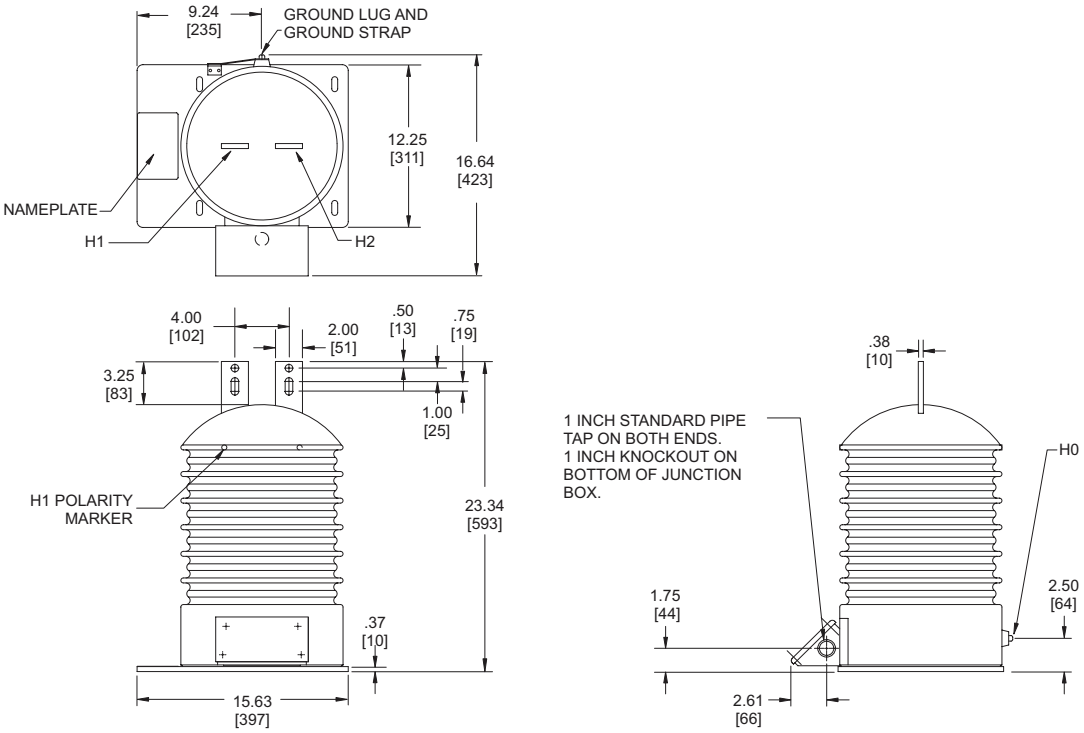
Junction box
The junction box, provided with 1" conduit connections on three sides, encloses the secondary terminals.

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

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

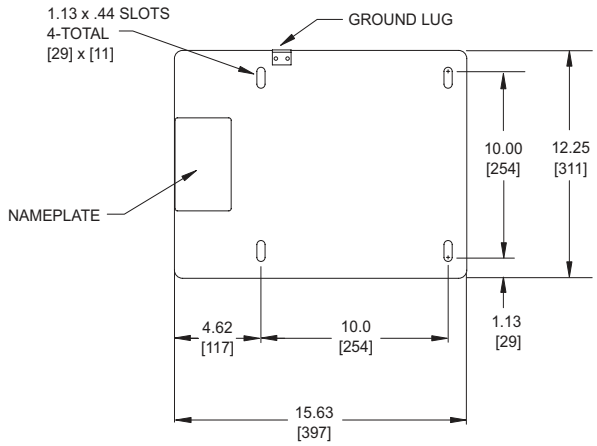
Standards
This unit can be tested to all applicable IEEE, CSA, or IEC standards as requested. This unit is tested in accordance with IEEE C57.13.6-2005 for high accuracy instrument transformers.

Unit dimensions



Strike		Creep		Weight	
(in)	(mm)	(in)	(mm)	(lb)	(kg)
20.56	522	26.00	660	164	74

Baseplate dimensions



Type CVC-110ER selection guide

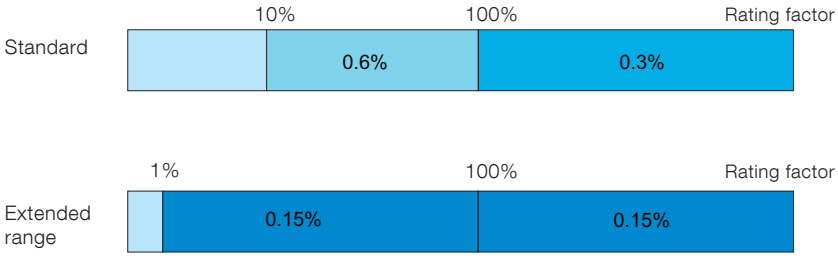
Current transformer				Voltage transformer				
Ratio	Rating factor @ 30°C	Accuracy*	One second thermal/ mechanical rating	Ratio	Accuracy	Rated voltage factor	Thermal rating	Style number
200:5	3.0	0.15B-0.5	190/270	60:1	0.3Y	1.9	750	923A428G01
200:5	1.5	0.15B-1.8	150/215	60:1	0.3Y	1.9	750	923A428G02
1000:5	1.5	0.15B-1.8	150/215	60:1	0.3Y	1.9	750	923A428G03
200:5	3.0	0.15B-0.5	190/270	63.5:1	0.3Y	1.9	750	923A428G04
200:5	1.5	0.15B-1.8	150/215	63.5:1	0.3Y	1.9	750	923A428G05
1000:5	1.5	0.15B-1.8	150/215	63.5:1	0.3Y	1.9	750	923A428G06
200:5	3.0	0.15B-0.5	190/270	70:1	0.3Y	1.9	750	923A428G07
200:5	1.5	0.15B-1.8	150/215	70:1	0.3Y	1.9	750	923A428G08
1000:5	1.5	0.15B-1.8	150/215	70:1	0.3Y	1.9	750	923A428G09

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.

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.

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