



Combination Current Voltage Transformer

Application

All CVTO combination transformers shown in this section are suitable for revenue metering or protective relaying applications on high voltage systems rated 230 kV, 138,000 volts at 1050 BIL primary with current ratings from 10 to 3000 amperes.

Fabrication

Domes and tanks are fabricated from mild steel and protected with the latest technology, powder coated external finish. ANSI 70 light gray is the standard finish color. Stainless steel domes and bases are available for high corrosion applications.

One piece, wet-process porcelain insulators are used to provide high mechanical strength with suitable cantilever for high wind and seismic locations. ANSI 70 light gray is the standard color.

Primary terminals are NEMA standard 4-hole pads, suitable for copper or aluminum connectors. The H1 terminal is provided with a by-pass protector to safeguard primary turn-to-turn insulation in cases of voltage stresses induced by high frequency, high current surges.

Separate weatherproof, hinged cover, terminal boxes with three (3) 1-½" conduit hubs are supplied for the CT and VT secondary terminations. A shorting terminal block is provided in the CT element box

All CVTO's are equipped with a 5kV HO bushing, NEMA 2-hole ground pad, magnetic oil level gauge, ¾" drain valve, ¾" oil fill plug and pressure relief valve.

Accuracy and Thermal Rise

Current Transformer elements are available at 0.3 accuracy class at burdens of B0.1 to B1.8 for revenue metering applications. In addition, 0.15 and 0.15s high accuracy class designs are available.

CVTO-1050 voltage elements are designed to provide 0.3% accuracy class when loaded with IEEE burdens of W, X, Y, Z and ZZ. Optional high accuracy 0.15% class is available at W, X, Y and Z Burdens.

Extended range elements and custom designs are available for wind and solar applications. Contact the factory with your specific requirements.



Magnetic Circuits

CVTO's are available in single ratio, dual ratio by secondary tap, dual ratio by series-parallel primary connection, or multi-ratio winding configurations as well as multiple core designs to fit specific requirements.

Mounting

All CVTO transformers are designed for outdoor, vertical platform mounting and must not be tilted more than 15 degrees from vertical during installation or shipment.

Seismic Rating

The CVTO-1050 has been qualified through Dynamic Analysis to withstand High Level per IEEE 693-2005.

Testing

Every transformer is tested in accordance with IEEE Standard C57.13 (latest revision).

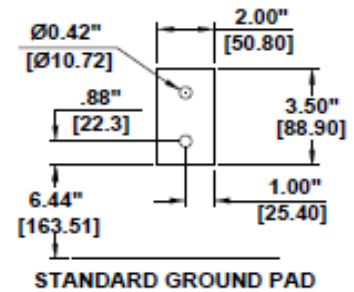
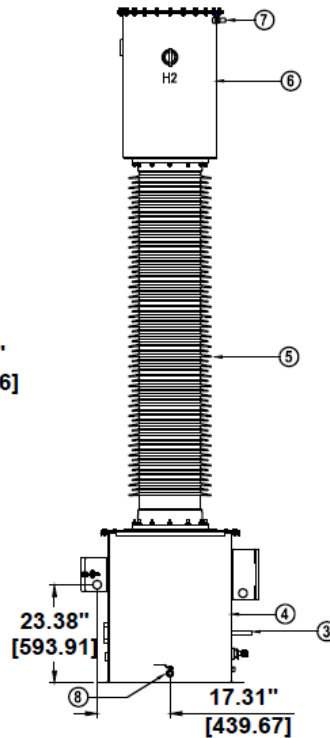
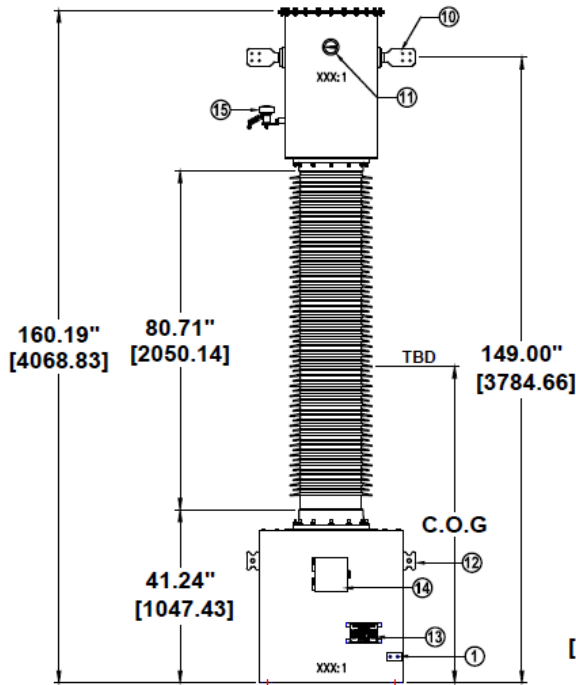
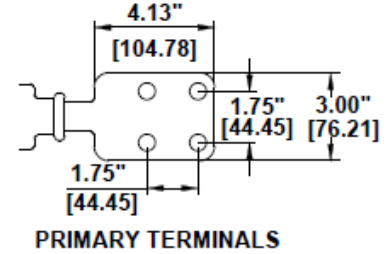
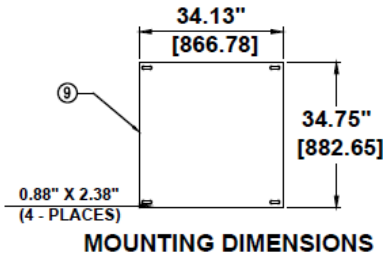
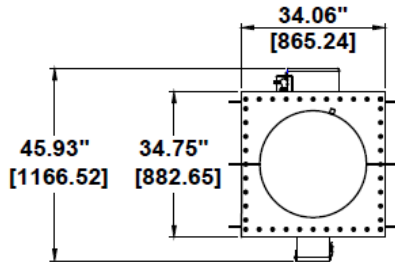
Instrument Transformer Equipment Corporation

Product Data
 CVTO-1050
 Combo Current
 Voltage Transformer
 230 kV Class
 1050 kV BIL



Combination Current Voltage Transformer

Dimensions and Details



CVTO-1050
 1050 kV BIL
 Creep Min: 147inches
 Strike Min: 84 inches
 Weight: 2800 lbs.

Notes:

1. NEMA 2- hole Ground Pad
2. Removable Ground Strap
3. HO Neutral Bushing and Cover Guard
4. Mild Steel Tank
5. Porcelain Insulator, ANSI 70 Lt. Gray
6. Expansion Chamber
7. 3/4" NPT Vacuum/Fill Port/PRV
8. 1/2" Drain Valve
9. Base Plate with (4) 0.62" x 1.50" Mounting Slots
10. Primary Terminals 4 hole NEMA Pad
11. Oil Level Indicator
12. Lifting Eyes
13. Terminal Box Cover and Nameplate
14. Secondary Terminal Box with (3) 1.5" conduit hubs.
15. By Pass Protector

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 ITEC is not responsible for typographical errors.

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Combination Current Voltage Transformer

Voltage Transformer Ratings - 1050 BIL 230 kV 138000 V, 1200/2000:1& 1200/2000:1, 115/69& 115/69 and 3000 VA
Current Transformer Characteristics with accuracy of 0.3 B1.8

Dual Ratio "C"	Catalog Number	Single Ratio "S"	Catalog Number	Rating Factor at 30° C	Mech. Current Rating kA RMS	1 Sec Thermal Rating kA RMS	Accuracy and Burden Rating
25/50:5	MG210500050C000	50:5	MG210500050S000	1.5	3.75	3.5	0.3 B1.8
50/100:5	MG210500100C000	100:5	MG210500100S000	1.5	7.5	6.0	0.3 B1.8
75/150:5	MG210500150C000	150:5	MG210500150S000	1.5	11.5	10.0	0.3 B1.8
100/200:5	MG210500200C000	200:5	MG210500200S000	1.5	15.0	12.0	0.3 B1.8
150/300:5	MG210500300C000	300:5	MG210500300S000	1.5	20.0	18.0	0.3 B1.8
200/400:5	MG210500400C000	400:5	MG210500400S000	1.5	25.0	25.0	0.3 B1.8
300/600:5	MG210500600C000	600:5	MG210500600S000	1.5	30.0	25.0	0.3 B1.8
400/800:5	MG210500800C000	800:5	MG209000800S000	1.5	60.0	50.0	0.3 B1.8
500/1000:5	MG210501000C000	1000:5	MG210501000S000	1.5	60.0	50.0	0.3 B1.8
600/1200:5	MG210501200C000	1200:5	MG210501200S000	1.5	60.0	50.0	0.3 B1.8
750/1500:5	MG210501500C000	1500:5	MG210501500S000	1.5	90.0	90.0	0.3 B1.8
800/1600:5	MG210501600C000	1600:5	MG210501600S000	1.5	90.0	90.0	0.3 B1.8
1000/2000:5	MG210502000C000	2000:5	MG210502000S000	1.5	90.0	90.0	0.3 B1.8
1500/3000:5	MG210503000C000	3000:5	MG210503000S000	1.0	90.0	90.0	0.3 B1.8

Voltage Transformer Ratings - 1050 BIL 230 kV 138000 V, 1200/2000:1& 1200/2000:1, 115/69& 115/69 and 3000 VA
Current Transformer Characteristics with accuracy of 0.15 B1.8

Dual Ratio "P"	Catalog Number	Single Ratio "S"	Catalog Number	Rating Factor at 30° C	Mech. Current Rating kA RMS	1 Sec Thermal Rating kA RMS	Accuracy and Burden Rating
75 X 150:5	MH210500150P000	150:5	MH210500150S000	1.5	11.5	10.0	0.15 B1.8
100 X 200:5	MH210500200P000	200:5	MH210500200S000	1.5	15.0	12.0	0.15 B1.8
150 X 300:5	MH210500300P000	300:5	MH210500300S000	1.5	20.0	18.0	0.15 B1.8
200 X 400:5	MH210500400P000	400:5	MH210500400S000	1.5	25.0	25.0	0.15 B1.8
300 X 600:5	MH210500600P000	600:5	MH210500600S000	1.5	30.0	25.0	0.15 B1.8
400 X 800:5	MH210500800P000	800:5	MH210500800S000	1.5	60.0	50.0	0.15 B1.8
500 X 1000:5	MH210501000P000	1000:5	MH210501000S000	1.5	60.0	50.0	0.15 B1.8
600 X 1200:5	MH210501200P000	1200:5	MH210501200S000	1.5	60.0	50.0	0.15 B1.8
750 X 1500:5	MH210501500P000	1500:5	MH210501500S000	1.5	90.0	90.0	0.15 B1.8
800 X 1600:5	MH210501600P000	1600:5	MH210501600S000	1.5	90.0	90.0	0.15 B1.8
1000 X 2000:5	MH210502000P000	2000:5	MH210502000S000	1.5	90.0	90.0	0.15 B1.8
1500 X 3000:5	MH210503000P000	3000:5	MH210503000S000	1.0	90.0	90.0	0.15 B1.8

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Other ratings and options may be available
Please contact the factory with your requirements.

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