



## 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 46 kV, 27,600 volts at 250 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-250 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-250 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).

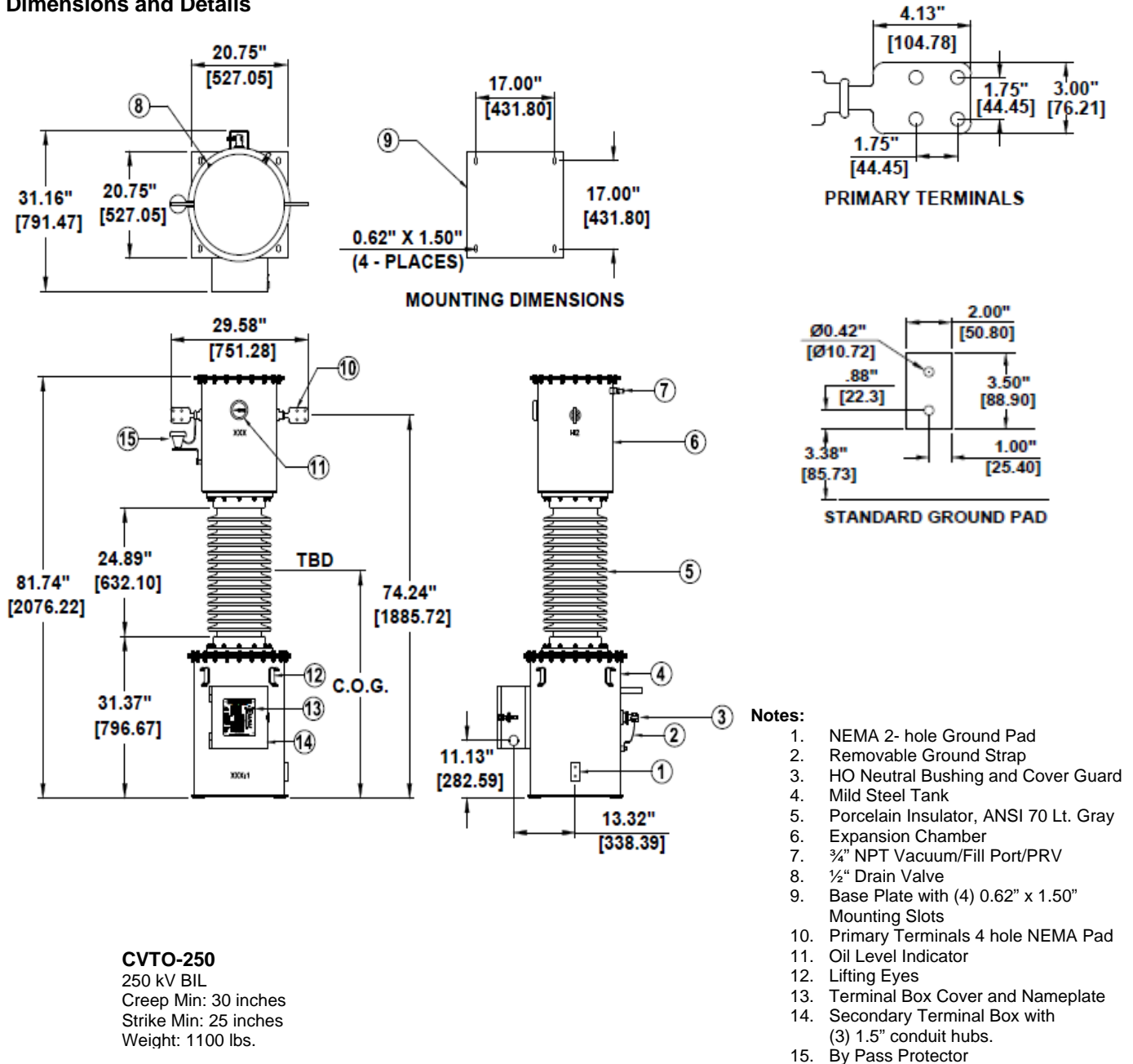
## Instrument Transformer Equipment Corporation

**Product Data**  
 CVTO-250  
 Combo Current  
 Voltage Transformer  
 46 kV Class  
 250 kV BIL



## Combination Current Voltage Transformer

### Dimensions and Details



**CVTO-250**  
 250 kV BIL  
 Creep Min: 30 inches  
 Strike Min: 25 inches  
 Weight: 1100 lbs.

This information is subject to change without notice.  
 ITEC is not responsible for typographical errors.

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

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## Combination Current Voltage Transformer

**Voltage Transformer Ratings - 250 BIL 46.0 kV 27600 V, 240/400:1, 115/69 and 4000 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	MC202500050C000	50:5	MC202500050S000	1.5	3.75	3.5	0.3 B1.8
50/100:5	MC202500100C000	100:5	MC202500100S000	1.5	7.5	6.0	0.3 B1.8
75/150:5	MC202500150C000	150:5	MC202500150S000	1.5	11.5	10.0	0.3 B1.8
100/200:5	MC202500200C000	200:5	MC202500200S000	1.5	15.0	12.0	0.3 B1.8
150/300:5	MC202500300C000	300:5	MC202500300S000	1.5	20.0	18.0	0.3 B1.8
200/400:5	MC202500400C000	400:5	MC202500400S000	1.5	25.0	25.0	0.3 B1.8
300/600:5	MC202500600C000	600:5	MC202500600S000	1.5	30.0	25.0	0.3 B1.8
400/800:5	MC202500800C000	800:5	MC202500800S000	1.5	60.0	50.0	0.3 B1.8
500/1000:5	MC202501000C000	1000:5	MC202501000S000	1.5	60.0	50.0	0.3 B1.8
600/1200:5	MC202501200C000	1200:5	MC202501200S000	1.5	60.0	50.0	0.3 B1.8
750/1500:5	MC202501500C000	1500:5	MC202501500S000	1.5	90.0	90.0	0.3 B1.8
800/1600:5	MC202501600C000	1600:5	MC202501600S000	1.5	90.0	90.0	0.3 B1.8
1000/2000:5	MC202502000C000	2000:5	MC202502000S000	1.5	90.0	90.0	0.3 B1.8
1500/3000:5	MC202503000C000	3000:5	MC202503000S000	1.0	90.0	90.0	0.3 B1.8

**Voltage Transformer Ratings - 250 BIL 46.0 kV 27600 V, 240/400:1, 115/69 and 4000 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	MH202500150P000	150:5	MH202500150S000	1.5	11.5	10.0	0.15 B1.8
100 X 200:5	MH202500200P000	200:5	MH202500200S000	1.5	15.0	12.0	0.15 B1.8
150 X 300:5	MH202500300P000	300:5	MH202500300S000	1.5	20.0	18.0	0.15 B1.8
200 X 400:5	MH202500400P000	400:5	MH202500400S000	1.5	25.0	25.0	0.15 B1.8
300 X 600:5	MH202500600P000	600:5	MH202500600S000	1.5	30.0	25.0	0.15 B1.8
400 X 800:5	MH202500800P000	800:5	MH202500800S000	1.5	60.0	50.0	0.15 B1.8
500 X 1000:5	MH202501000P000	1000:5	MH202501000S000	1.5	60.0	50.0	0.15 B1.8
600 X 1200:5	MH202501200P000	1200:5	MH202501200S000	1.5	60.0	50.0	0.15 B1.8
750 X 1500:5	MH202501500P000	1500:5	MH202501500S000	1.5	90.0	90.0	0.15 B1.8
800 X 1600:5	MH202501600P000	1600:5	MH202501600S000	1.5	90.0	90.0	0.15 B1.8
1000 X 2000:5	MH202502000P000	2000:5	MH202502000S000	1.5	90.0	90.0	0.15 B1.8
1500 X 3000:5	MH202503000P000	3000:5	MH202503000S000	1.0	90.0	90.0	0.15 B1.8

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