

**CVTO 350-650
OIL-FILLED
SUBSTATION**



METERING UNITS

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CVTO 350-650			Last three digits indicate options			Oil-filled Current / Voltage			
Voltage	69 Kv			115 Kv			138 Kv		
	BIL kV	Turns Ratio	VT Ratio	BIL kV	Turns Ratio	VT Ratio	BIL kV	Turns Ratio	VT Ratio
	350	350/600 & 350/600:1	40250:115/67.08 & 115/67.08	550	600/1000 & 600/1000:1	69000:115/69 & 115/69	650	700/1200 & 700/1200:1	80500:115/67.08 & 115/67.08
Current	Catalog ID			Catalog ID			Catalog ID		
10/20:5	MC203500020C000			MD205500020C000			ME206500020C000		
25/50:5	MC203500050C000			MD205500050C000			ME206500050C000		
50/100:5	MC203500100C000			MD205500100C000			ME206500100C000		
75/150:5	MC203500150C000			MD205500150C000			ME206500150C000		
100/200:5	MC203500200C000			MD205500200C000			ME206500200C000		
150/300:5	MC203500300C000			MD205500300C000			ME206500300C000		
200/400:5	MC203500400C000			MD205500400C000			ME206500400C000		
300/600:5	MC203500600C000			MD205500600C000			ME206500600C000		
400/800:5	MC203500800C000			MD205500800C000			ME206500800C000		
500/1000:5	MC203501000C000			MD205501000C000			ME206501000C000		
600/1200:5	MC203501200C000			MD205501200C000			ME206501200C000		
*800/1600:5	MC203501600C000			MD205501600C000			ME206501600C000		
*1000/2000:5	MC203502000C000			MD205502000C000			ME206502000C000		

Note: All VT characteristic accuracy: 0.3 @W,X, Y, Z, ZZ
All Rating Factors are for 30°C ambient & VT VA 6000.

All CT characteristic accuracy: 0.3 @B0.1..B1.8 on both ratios.
* CT rating factors 1.5 below 800/1600:5, at and above are 1.0.

Application

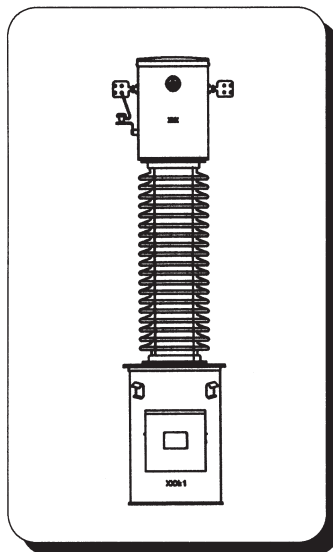
Type CVTO transformers are single phase combined CT/VT metering class units designed to provide metering accuracy at 0.3% when loaded with IEEE burdens through ZZ for VT sections and B0.1..B1.8 for CT sections.

Fabrication

Transformer tanks are mild steel, protected with a latest technology powder coated exterior finish suitable for the most rigorous environmental conditions. Stainless steel is available for special order needs. Porcelain clad bushings are one-piece wet process type designed to exceed IEEE standard creep and strike distances.

Magnetic circuits

All ITEC meter transformers use high grade highly permeable silicon steel cores. Repeatability of accuracy performance is dependent on consistent performance of quality core steel.



Drying and impregnation

In order to achieve the highest possible insulation integrity, CVTOs are dried out and impregnated with oil under vacuum to minimize moisture content. Each unit's final test dissipation factor readings insure that proper drying has been achieved.

Primary terminals

The standard terminal is a 4-hole NEMA spade to satisfy the current requirements. Primary terminals suitable for copper or aluminum bus connections are conveniently located for connection to high voltage lines.

Secondary terminals

Secondary terminations are brought into a weatherproof compartment to low voltage block terminations for connections.

Testing

Every transformer is tested in accordance with IEEE STD C57.13 (Latest revision) . Each must pass NEMA 107 with extinction levels of 35% above operating voltage.

Nameplate information

In addition to the nameplate, ratio information is stenciled onto the tank wall in 2" high numerals for remote reading.

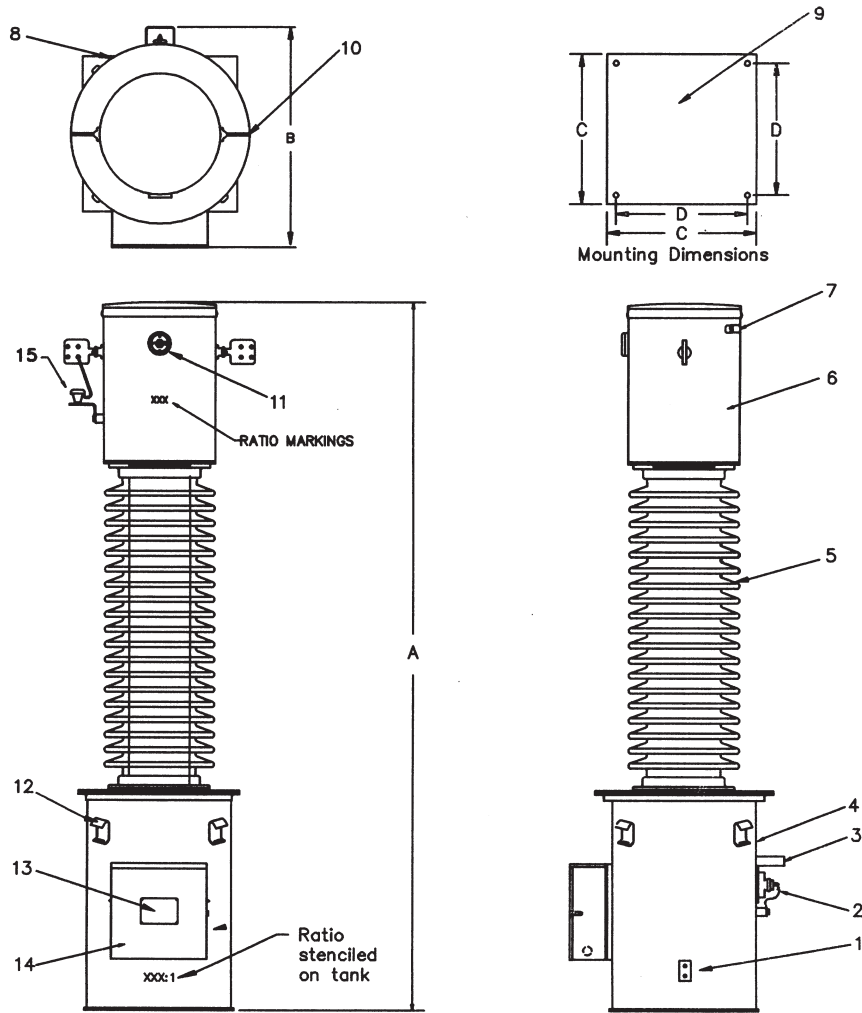
OIL-21

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

Specifications

Description

Bil	350	550	650	1. Two Hole NEMA Standard ground.	10. Four hole NEMA spade.
A	83"	111"	115"	2. Removable ground strap.	11. Oil level indicator..
B	74"	101"	105"	3. HO neutral bushing and cover guard.	12. Lifting ears..
C	31"	38.5"	38.5"	4. Mild steel tank	13. Stainless Steel Nameplate.
D	17"	22"	22"	5. Porcelain insulator, glaze ANSI 70 grey	14. Secondary Terminal box.
E	20"	25"	25"	6. Expansion chamber.	15. By-pass protector.
Weight (lbs)	1000	1700	1800	7. 3/4" NPT vacuum port / PRV.	
Min. Creep	52"	101"	103"	8. 1/2" drain/fill valve	
Min. Strike	23"	37.5"	41.5"	9. Baseplate w/ mounting slots. .62 x 1.5"	

OIL-22 CVTO offers an excellent way to reduce mounting cost when compared to multiple units.

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