



Westinghouse Electric Corporation
Transformer Components Division
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Pittsburgh, PA 15220

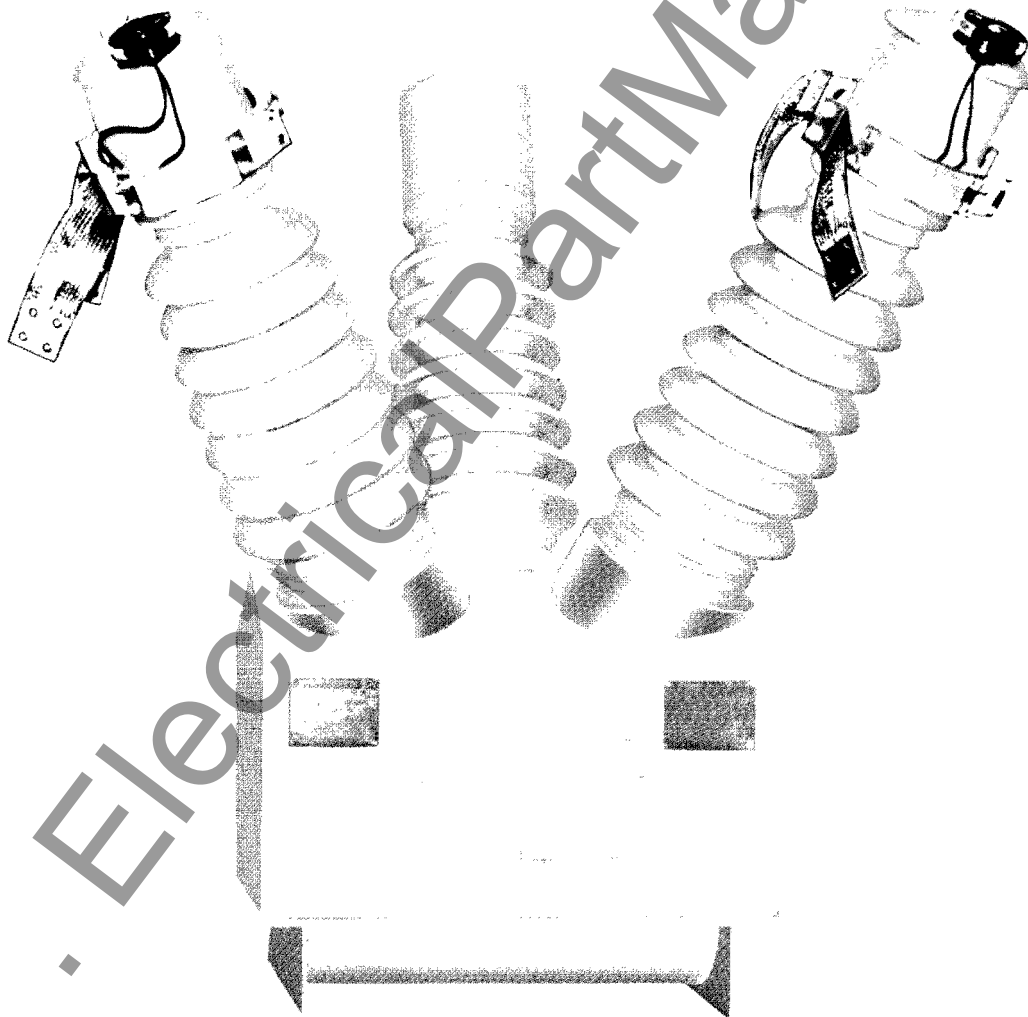
Product Bulletin
44-397

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August 18, 1982
New Information
Mailed to: E, D, C/2048/DB

Three Phase, Outdoor
25 Through 69 KV
150 Through 350 KV BIL
60 Hertz

Type MTP Metering Units



Application

Type MTP Three Phase Outdoor Metering Units are designed for primary metering applications. They consist of individual current and voltage transformer elements mounted in a common case, and can be used instead of individual current and voltage transformers.

Standard styles shown have series-parallel primary windings to provide for double current ratios. Tapped secondary designs are also available when specified. Secondary leads terminate in a weather-proof junction box provided with conduit connections.

Accuracy

ANSI Metering Accuracy Class (60 Hertz)

Current Transformers

0.3 Class for B0.1, B0.2, B0.5, B1.0, B2.0 Burdens

Voltage Transformers

0.3 Class for W, X, Y, Z, ZZ Burdens

Ratings

Continuous Current Rating Factor 1.5

Thermal Rating: 75 times normal, 1 second

Mechanical Rating: 100 times normal, RMS symmetrical

Selector Guide

	Primary Ampere Rating	MTP-150 Style Number	MTP-200 Style Number	MTP-250 Style Number	MTP-350 Style Number
System Voltage Line-to-Line		24000	34500	46000	69000
Voltage Transformer Ratio		24000/120	34500/115	46000/115	69000/115
Three Bushings for Three-Wire Circuits	10x20 25x50 50x100 75x150 100x200	2737A11G02 2737A11G05 2737A11G08 2737A11G10 2737A11G11	2737A12G02 2737A12G05 2737A12G08 2737A12G10 2737A12G11	2737A13G02 2737A13G05 2737A13G08 2737A13G10 2737A13G11	2737A14G02 2737A14G05 2737A14G08 2737A14G10 2737A14G11
Two Current and Two Voltage Elements	150x300 200x400 300x600 400x800 600x1200	2737A11G13 2737A11G14 2737A11G16 2737A11G17 2737A11G19	2737A12G13 2737A12G14 2737A12G16 2737A12G17 2737A12G19	2737A13G13 2737A13G14 2737A13G16 2737A13G17 2737A13G19	2737A14G13 2737A14G14 2737A14G16 2737A14G17 2737A14G19
System Voltage Line-to-Line		24000	34500	46000	69000
Voltage Transformer Ratio		14400/120	20125/115	27600/115	40250/115
Three Bushings for Four-Wire Circuits	10x20 25x50 50x100 75x150 100x200	2737A15G02 2737A15G05 2737A15G08 2737A15G10 2737A15G11	2737A16G02 2737A16G05 2737A16G08 2737A16G10 2737A16G11	2737A17G02 2737A17G05 2737A17G08 2737A17G10 2737A17G11	2737A18G02 2737A18G05 2737A18G08 2737A18G10 2737A18G11
Three Current and Two Voltage Elements	150x300 200x400 300x600 400x800 600x1200	2737A15G13 2737A15G14 2737A15G16 2737A15G17 2737A15G19	2737A16G13 2737A16G14 2737A16G16 2737A16G17 2737A16G19	2737A17G13 2737A17G14 2737A17G16 2737A17G17 2737A17G19	2737A18G13 2737A18G14 2737A18G16 2737A18G17 2737A18G19
Three Bushings for Four-Wire Circuits	10x20 25x50 50x100 75x150 100x200	2737A19G02 2737A19G05 2737A19G08 2737A19G10 2737A19G11	2737A20G02 2737A20G05 2737A20G08 2737A20G10 2737A20G11	2737A21G02 2737A21G05 2737A21G08 2737A21G10 2737A21G11	2737A22G02 2737A22G05 2737A22G08 2737A22G10 2737A22G11
Three Current and Three Voltage Elements	150x300 200x400 300x600 400x800 600x1200	2737A19G13 2737A19G14 2737A19G16 2737A19G17 2737A19G19	2737A20G13 2737A20G14 2737A20G16 2737A20G17 2737A20G19	2737A21G13 2737A21G14 2737A21G16 2737A21G17 2737A21G19	2737A22G13 2737A22G14 2737A22G16 2737A22G17 2737A22G19



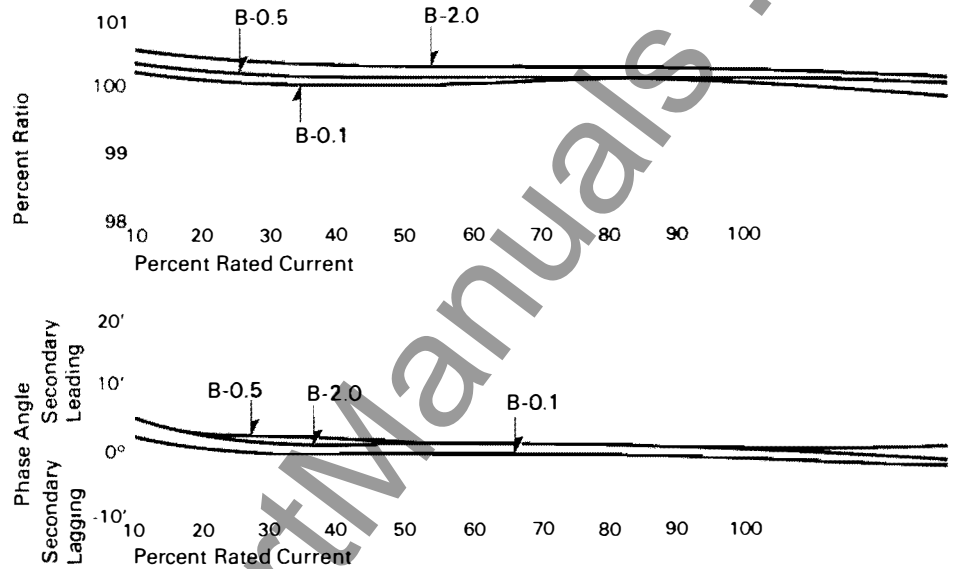
Typical Performance Curves

Current Transformer Elements

B0.1:0.1 ohm, 90% pf, 60 Hertz, 2.5 VA

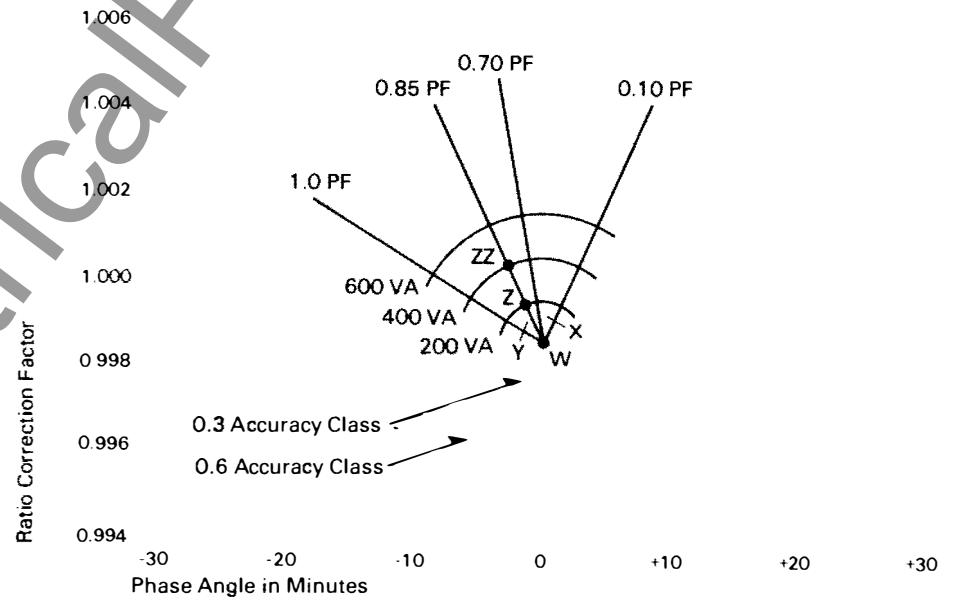
B0.5:0.5 ohm, 90% pf, 60 Hertz, 12.5 VA

B2.0:2.0 ohms, 50% pf, 60 Hertz, 50.0 VA



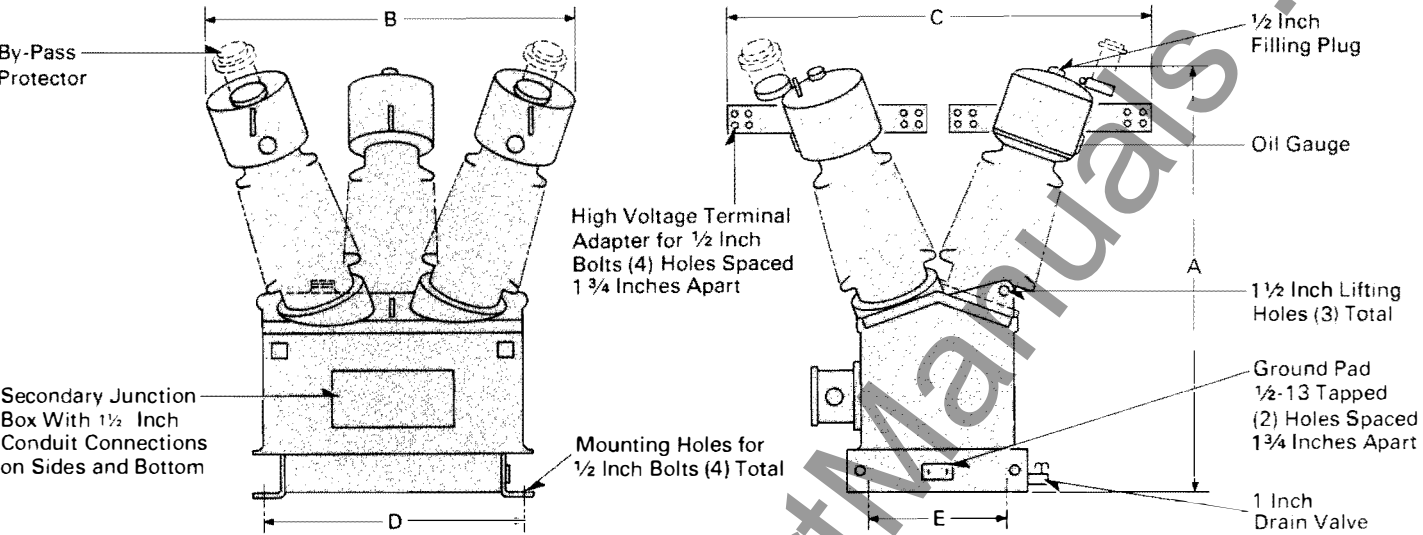
Voltage Transformer Elements

Typical ratio correction factors and phase angle values plotted for standard burdens, using the Farber Method ("The Analytical and Graphical Determination of Complete Potential Transformer Characteristics" – Settles, Farber, Conner – AIEE Transaction Paper 60-1246, October, 1960).





Dimension and Weights



	System Voltage Line-to-Line	Voltage Transformer Ratio	BIL: Kv	Approximate Dimensions			D Mtg. Holes		Gals. Oil	Weight
				A	B	C		E		
3 Phase, 3 Wire 2 Current and 2 Voltage Elements	24000	24000/120	150	55	44	47	31	16	40	1200
	34500	34500/115	200	58	47	49	31	16	40	1250
	46000	46000/115	250	70	57	56	35	20	65	1870
	69000	69000/115	350	76	62	61	35	20	65	1975
3 Phase, 4 Wire 3 Current and 2 Voltage Elements	24000	14400/120	150	56	60	56	45	16	50	1420
	34500	20125/115	200	59	62	58	45	16	50	1470
	46000	27600/115	250	72	73	64	49	20	85	2250
	69000	40250/115	350	72	78	70	49	20	85	2350
3 Phase, 4 Wire 3 Current and 3 Voltage Elements	24000	11400/120	150	56	60	56	45	16	50	1550
	34500	20125/115	200	59	62	58	45	16	50	1600
	46000	27600/115	250	72	73	64	49	20	85	2480
	69000	40250/115	350	72	78	70	49	20	85	2590