Westinghouse Electric Corporation
Transformer Components Division
Five Parkway Center, Greentree Rd.
Pittsburgh, PA 15220

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

92 Kv and Above, Outdoor
450 Kv BIL and Above
Primary Volts: 55200 and Above
60 Hertz

Type APT Voltage Transformers

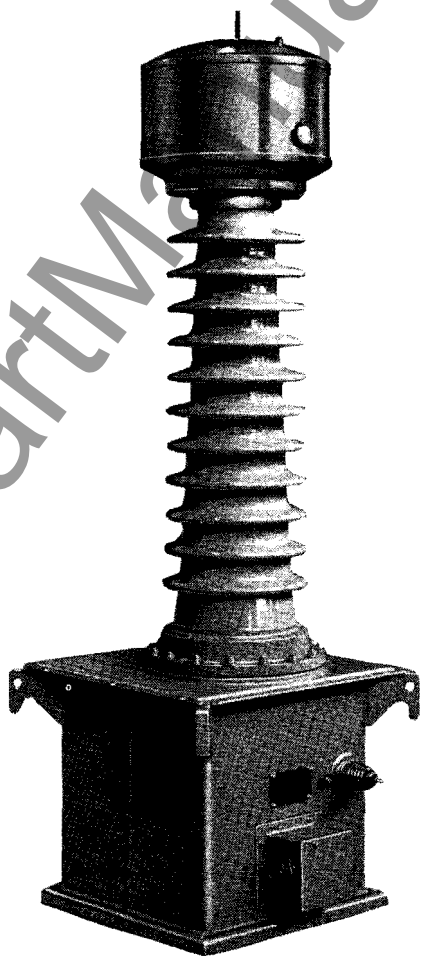
Application
The type APT outdoor voltage transformer is an oil-filled single bushing design with graded insulation suitable for line-to-ground connection.

Accuracy
ANSI Accuracy Class (60 Hertz):
● 3 Class for W, X, Y, Z and ZZ Burdens

Design Features
1. Service Reliability
Coil assembly uses the uniform dielectric or "solid insulation" principle. Oil ducts within the coil have been replaced with an oil-impregnated paper structure. There are no direct creep surfaces and the solid insulation is stressed in puncture, where it has its greatest insulation strength. This gives the APT a high degree of insulation reliability, which has been reflected in its outstanding 2● year field service record.

2. Application Flexibility
All designs are built with two secondary windings, each with a tap.

3. High Thermal Ratings
As much as 11 Kva capacity available when used as a source of auxiliary power.



Further Information
Prices: Price List 44-321

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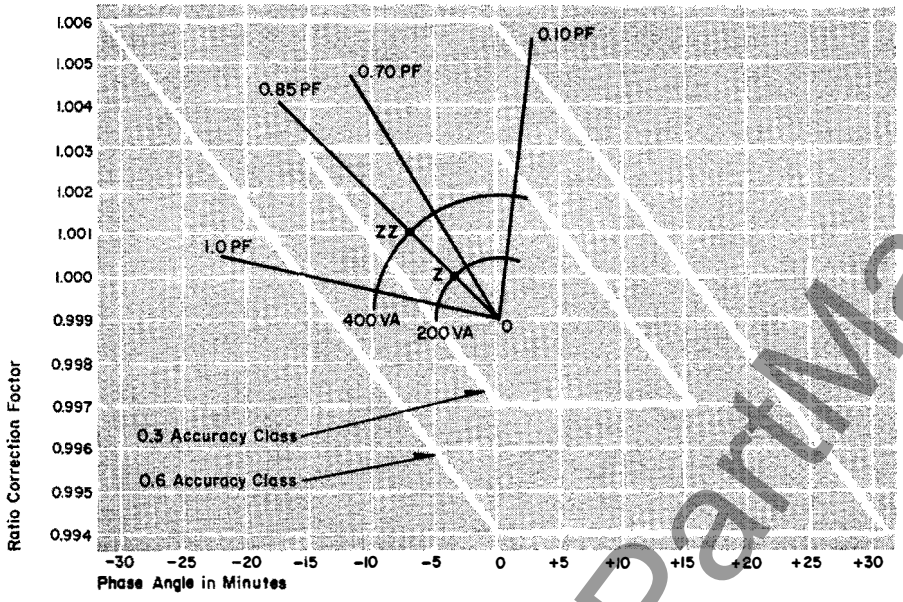
Selector Guide

BIL: Kv①	Normal Circuit Voltage	Winding Ratio	Transformer Voltage		Thermal Rating: Va②		ANSI Minimum Hv Bushing Creep Distance (Inches)	Style Numbers
		Primary To Secondary or Tertiary	Primary	Secondary or Tertiary	All on One Lv Winding Secondary or Tertiary	Divided Equally Between Secondary and Tertiary		
450	92000	800/480:1	55200	69/115	6500	8500	66	5787D40G01
450	115000	1000/600:1	69000	69/115	6500	8500	66	5787D40G02
550	115000	1000/600:1	69000	69/115	6500	8500	79	5787D40G10
550	138000	1200/700:1	80500	67.08/115	6500	8500	79	5787D40G11
650	138000	1200/700:1	80500	67.08/115	7000	9500	92	5787D40G20
650	161000	1400/800:1	92000	65.71/115	7000	9500	92	5787D40G21
750	161000	1400/800:1	92000	65.71/115	7500	11000	114	5787D40G30
750	196000	1700/1000:1	115000	67.65/115	7500	11000	114	5787●40G31

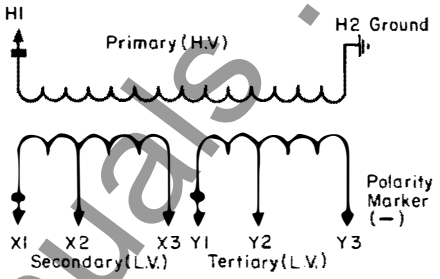
① For Voltage Transformers 900 Kv BIL and above, refer to PB 44-396, Type MSV.
② Applies to both full and tapped voltages.

Performance Curve

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).

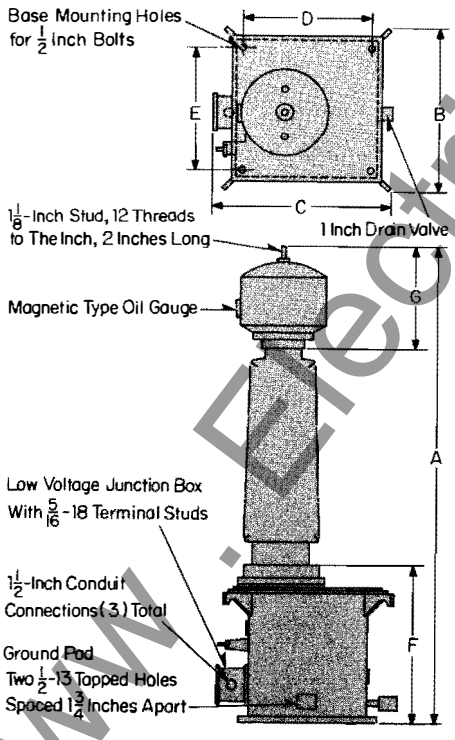


Typical Wiring Diagram



With rated primary voltage applied on high voltage winding, both secondary (X_1-X_3) and tertiary (Y_1-Y_3) will provide 115 volts. The tapped portions of the secondary (X_2-X_3) and tertiary (Y_2-Y_3) will provide approximately $115/\sqrt{3}$ volts. (Actual voltage is determined by winding ratio.)

Dimensions and Weights



BIL: Kv	Approximate Overall Dimensions – Inches							Wt. Lbs. Approx.		Approx. Gallons Oil
	A	B	C	D	E	F①	G①	Net	Shipping	
450	82⅝	28	31⅛	22	21½	27¼	15⅜	1205	1400	38
550	82⅝	28	31⅛	22	21½	27¼	15⅜	1205	1400	38
650	95¾	31½	32⅞	24	25	32¼	15⅜	1560	1750	55
750	108⅛	34	35⅜	26¼	27½	34¾	17⅞	2100	2350	80

① To Porcelain.

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