

Station Service Transformer

Product Data PST-650 Station Service Transformer 138 kV Class 650 kV BIL

Application

Type PST voltage transformers are designed to provide remote location power needs up to 167 kVA on a systems rated 138 kV, 80,500 volts line to ground at 650 kV BIL primary.

Product Mechanical Details

Transformer tanks and expansion chambers are fabricated from mild steel and protected with the latest technology, powder coated external finish ANSI 70 light gray is the standard finish color. All PST's are hermetically sealed, full vacuum assemblies provided with a dry nitrogen cushion.

One-piece, wet processed porcelain bushings are used on all PST's. Bushings are designed to exceed IEEE standards for creep and strike distances. The standard bushing color is ANSI 70 light Gray.

The primary terminal is a NEMA standard 4-hole pad, suitable for copper or aluminum bus connectors. The secondary power terminations are NEMA 6-hole spades located in a 20" x 22" x 10" terminal box with removable bottom plate. Optional metering winding terminations are ¼"-20 studs with flat and lock washers located inside a separate 8" x 8" x 6" terminal box with three (3) 1.5" conduit hubs. A NEMA 2-hole, stainless steel tank ground pad is provided.

All PST's are equipped with a 5kV HO bushing, magnetic oil level gauge, ¾" drain valve, ¾" oil fill plug and pressure relief valve.

Winding Options

The standard PST voltage transformer has two (2) isolated power windings that are designed to be connected in either series or parallel to provide the rated output voltages 125/250V for control power. Optional metering winding configurations are available. The transformer is accurate from 90% to 110% or rated primary voltage. 0.3% accuracy is available through IEEE burdens of W, X, Y, Z and ZZ.

The metering windings are typically used for control or relay applications and will remain accurate up to 10% loading of rated KVA. The metering windings will be less accurate as the power winding loading is increased.



Mounting

All PST voltage transformers are designed for outdoor, vertical platform mounting and must not be tilted more than 15 degrees from vertical.

Testing

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

Seismic Withstand Capability

All PST designs are rated for high seismic withstand per IEEE 693 through dynamic analysis.

Options

Stainless Steel Tank and/or Expansion Chamber Extra Creep Bushings

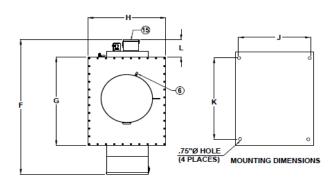
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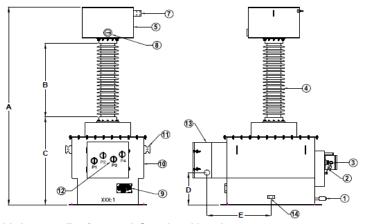


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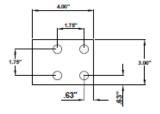
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Dimensions and Details





4.88" - .63" - .75" 3.50"



SECONDARY TERMINALS

PRIMARY 4 - HOLE NEMA PAD

Notes:

- . ¾" NPT Drain Valve
- 2. HO Neutral Bushing w/ removable ground strap
- 3. HO Bushing Guard
- 4. Porcelain Insulator, ANSI 70 Lt. Gray
- 5. Expansion Chamber
- 6. ¾" NPT Vacuum/Fill Port
- 7. Primary Terminal 4 hole NEMA Pad
- 8. Oil Level Indicator
- 9. Stainless Steel Nameplate
- 10. Mild Steel Tank
- 11. Lifting Eyes
- 12. Secondary Terminals NEMA 6 hole NEMA Pad
- 13. Secondary Terminal Box with removable bottom plate.
- 14. 2 Hole NEMA Ground Pad
- Optional Metering Terminal Box with (3) 1.5" conduit hubs.

PST-650

650 kV BIL

Creep Min: 103 inches Strike Min: 42 inches

Voltages, Ratios and Catalog Numbers

KVA	Primary Voltage	Power Winding Voltage	Power Winding Ratio	Metering Winding Voltage	Metering Winding Ratio	Catalog Power	Number Metering	
10	80500	250/125	322/644:1	115/67.08 &115/67.08	700/1200 & 700/1200:1	PA1065064410P01	PA1065064410M01	
25	80500	250/125	322/644:1	115/67.08 &115/67.08	700/1200 & 700/1200:1	PA1065064425P01	PA1065064425M01	
50	80500	250/125	322/644:1	115/67.08 &115/67.08	700/1200 & 700/1200:1	PA1065064450P01	PA1065064450M01	
100	80500	250/125	322/644:1	115/67.08 &115/67.08	700/1200 & 700/1200:1	PA1065064499P01	PA1065064499M01	
167	80500	250/125	322/644:1	115/67.08 &115/67.08	700/1200 & 700/1200:1	PA1065064467P01	PA1065064467M01	

Dimensions and Weights

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KVA	Α	В	С	D	E	F	G	Н	J	K	L	Weight	Gals
10	103.50"	41.54"	42.36"	16.00"	15.19"	43.00"	28.38"	35.88"	26.75"	34.00"	9.84"	2100	150
25	108.50"	41.54"	44.36"	13.88"	28.52"	66.30"	40.00"	40.00"	38.00"	38.00"	9.84"	2400	180
50	111.76"	41.54"	49.61"	18.19"	33.69"	76.03"	50.00"	41.00"	38.00"	46.00"	9.84"	5800	310
100	113.75"	41.54"	49.61"	18.19"	34.62"	77.99"	52.00"	42.00"	38.00"	46.00"	9.84"	5800	310
167	127.50"	41.54"	57.48"	16.50"	45.37"	99.57"	73.60"	53.60"	46.50"	72.00"	9.84"	10500	565

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

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

Instrument Transformer Equipment Corporation

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