

>368,688789 12437,23 2933 977 56-203 88849<
>163,65546 67818,7 23967 911 56-203 88849<
>198,65546 65612,23 2829 955 56-203 46549<
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>152,698016 68818,23 2399 92356-203 85549<
>198,643636 78617,73 2289 783 56-203 55549<
>124,634546 78672,23-7779 683 56-203 88349<
>458,11142 83417,73-2337 876 56-203 83339<
>145,523286 64486,22 2889 966 56-203 88849<
>368,688789 12437,23 2933 977 56-203 55549<

DATA SHEET

MODEL 2500A & 2501A



High Voltage Divider

- 120 to 1,000,000 Volts
- Outputs of 120 & 1V AC
- IEEE488 Interface
- Division Accuracy < 20 PPM
- Calibration Period 3 to 5 years
- Loss Measurement Systems

MODEL INFORMATION

The Model 2500A is the low voltage arm of a high voltage capacitive divider. Based on the compensated current-comparator capacitive divider principle, it provides ultra precise ratio division of high voltage AC voltages down to workable levels. The Model 2500A also provides an easy means of inputting directly to precision wattmeters for direct measurement of transformer losses under control of the IEEE 488 interface.

The Model 2500A will accept inputs up to 10mA. Several selector scaling ranges of 1, 2, 5, 10, 20, 50 & 100 are also designed in to allow flexibility for various input voltages. On range selection 1 the full scale input is 120 kV, through a 100 pF low-loss high voltage standard reference capacitor while range selection 100 offers a full scale input of 1200 volts. The full scale output is 120 volts.

The Model 2501A will also accept inputs up to 10mA but it's maximum input voltage is 2400 volts. The selector scaling ranges are designed for inputs of 2400, 1200, 600, 480, 360, 240 and 120 volts.

Both models are front panel and IEEE 488 controllable. The two LCD displays monitor the null and output of the divider. The divider is housed in a rack mounted enclosure and is shielded and fully protected against transients. All connections are made to the rear of the instrument.

The model 2500A compares the current through the high voltage reference capacitor to a low voltage standard reference capacitor connected to the feedback circuit of the current comparator. The current comparator automatically corrects for any phase and magnitude errors. The divider output is determined solely by the capacitance ratio of the two standard capacitors. Recommended calibration for the 2500A is 3 to 5 years.



Specifications:

Model 2500A

HV Std Capacitor	Input Voltage (kV)	Output Voltage (Volts)
100 pF	100, 50, 20, 10, 5, 2, 1	100
50 pF	200, 100, 50, 20, 10, 5, 2	100
33 pF	1000, 500, 200, 100, 50, 20, 10	100

Model 2501A

HV Std Capacitor	Input Voltage (Volts)	Output Voltage (Volts)
1000 pF	2400, 1200, 600, 480, 360, 240, 120	120

Other input and output voltages are available, please consult factory

Maximum Input Current	10mA
Maximum Primary Output Voltage	120 VAC RMS with 10% Over Range
Division Ratio Uncertainty 50 – 60Hz	Magnitude <20 ppm Quadrature <20 ppm
Optional: Secondary Output Voltage (max)	1 VAC RMS with 10% Over Range
Division Ratio Uncertainty 50 – 60Hz	Magnitude <50 ppm Quadrature <50 ppm
Frequency Range of Measured Values	40 Hz to 3 kHz
Range Selection	7 Range Settings of 1,2,5,10,20,50,100
Warm Up Time	30 Minutes to Full Rated Accuracy
Operating Environment	18 to 34°C, 10 to 80% RH
Product Details	
Operating Power	100, 120, 220, 240V - 50/60 Hz
Dimensions	221 x 482 x 584 mm
Weight	18 kg
Shipping Weight	22 kg
Warranty	1 Year Parts & Labor

Data Subject to Change-Revision 2

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