

>165.65546 67616.122787 577  
>198.65546 65612.232829 955  
>198.65546 65612.232829 95556  
>152.698016 68818.282399 92356  
>198.643636 78617.732289 783 56  
>124.634546 78672.237779 683 56  
>458.11142 83417.782397 876 56  
>145.523286 64486.222689 986 56  
>140.77060 32814.077060 328 56

## MODEL 2503A



## Precision AC Divider

- 300 to 360,000 Volts
- Outputs of 120 & 1V AC
- Loss Measurement Systems
- Power Calibration Systems
- IEEE488 Interface
- Division Accuracy < 20 PPM
- Calibration Period 3 to 5 years

## MODEL INFORMATION

The model 2503A 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 AC voltages down to workable levels. The model 2503A also provides an easy means of interfacing directly to precision wattmeter (2010A) for direct measurements of transformer losses under control of the IEEE488 interface.

The model 2503A will accept inputs up to 10mA. Several ranges kV of 300, 150, 60, 30, 15, 6 & 3 are also built in to allow flexibility for various input voltages. On range 300 the full scale input is 360 kV, through a 50 pF low-loss high voltage standard capacitor while range 3 offers a full scale input of 3.6 kV. The full scale output is 120 volts.

Front panel and IEEE488 controllable. The two LCD displays monitor the null and output of the divider. The divider is housed in a rack mounted enclosure and is fully protected against transients. All connections are made to the rear of the instrument.

The model 2503A compares the current through the high voltage capacitor to a low voltage standard capacitor connected to the feed-back 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 2503A is 3 to 5 years.

>163,65546 67810,7 2337 971  
 >198,65546 65612,23 2829 955  
 >198,65546 65612,23 2829 95556  
 >152,698016 68818,28 2399 92356  
 >198,643636 78617,73 2289 783 56  
 >124,634546 78672,23 7779 683 56  
 >458,11142 83417,73 2397 876 56  
 >145,523286 64486,22 2889 986 56  
 >140,77060 32814,07 7060 328 56



**Specifications:**

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 kV	300, 150, 60, 30, 15, 6, 3
Warm Up Time	30 Minutes to Full Rated Accuracy
Operating Environment	18 to 34°C, 10 to 80% RH

**Dimensions (W x D x H):**

221mm x 482mm x 584mm

**Weight:**

18 kg

**Shipping Weight:**

22 kg

**Operating Power:**

100/120/220/240V - 50/60 Hz

**How to Order:**

Model: 2503A - High Voltage Divider

Distributed By:

**Corporate Headquarters**

**Measurements International**  
 PO Box 2359, 118 Commerce Drive  
 Prescott, Ontario, Canada K0E 1T0  
 Phone: (613) 925-5934  
 Fax: (613) 925-1195  
 Email: sales@mintl.com

Toll Free: 1-800-324-4988

**Worldwide Offices**

**MI-USA**

Phone: (407) 706-0328  
 Fax: (407) 706-0318  
 Email: sales@mintl.com  
 Toll Free: 1-866-684-6393

**MI-China**

Phone: 86-10-64459890  
 Fax: 86-10-64459871  
 Email: sales@mintl.com

**MI-Europe**

Phone: (420) 731-440-663  
 Fax: (420) 572-572-358  
 Email: sales@mintl.com

