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## DATA SHEET

### MODEL 7022



### HV Current Transformer

- Operating Voltage 200 kV to Neutral
- Withstand Voltage 275 kV
- Partial Discharge < 10 PC
- 2000 : 1 Ratio < 10 PPM
- 2000 or 4000 Amps

### MODEL INFORMATION

The Model 7022 series of High Voltage Current Transformers was designed for the current input to MI's AccuLoss™ ALMS Loss Measurement Systems. The Model 7022 meets the requirements of both CEI/IEC 44-1 and IEEE STD C57.12.00-2000.

The shielded current transformer assembly is mounted inside a fiberglass and aluminum structure that is capable of operating at voltages up to 100kV line to neutral. The bushing assembly is filled to approximately 150 kPa of SF<sub>6</sub> and is fitted with a pressure indicator or with an optional pressure transducer with a 4-20 mA output for continuous monitoring. Connections to the primary winding of the current transformer are made via a copper bar, machined at both ends.

Utilizing passive two stage compensated technology, errors of less than 10 PPM can be achieved at high voltages with the Model 7022.

The main advantage of a two stage compensated CT is that the effective burden is zero when feeding into another compensated CT such as the current input on the Model 2010A Wattmeter. As a result, the errors of the CT are effectively reduced to zero in both magnitude and phase. Lead length becomes unimportant and there is no further concern for any additional active components. If the Model 7022 is connected to a standard wattmeter that has only a two wire input, the secondary and auxiliary leads must be connected together as close as possible to the input of the wattmeter. Typical errors for burdens at 1 Ohm ( $\Omega$ ) are less than 100 PPM. For more accurate data on errors related to burdens above 100 mOhm ( $\Omega$ ) contact MI.

The Model 7022 is a four-wire single range passive-two-stage current transformer, which can be supplied to operate at primary currents of either 2000A or 4000A



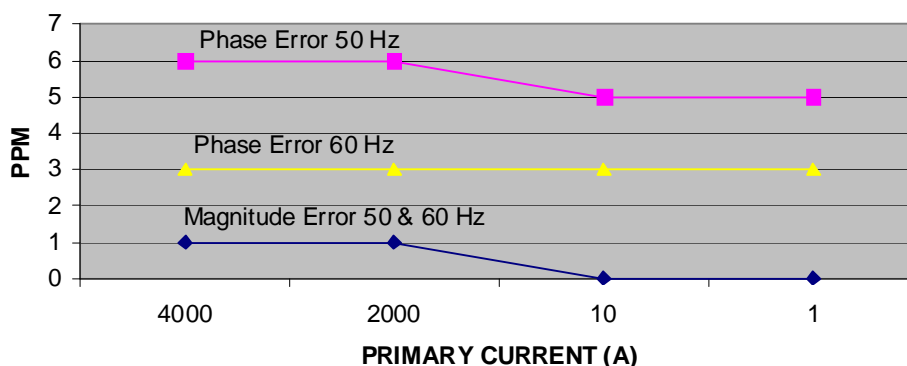
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and secondary currents of 1A and 2A respectively. The secondary and compensation windings are brought out through a tube and connector in the base of the bushing structure for easy connection. All Model 7022 current transformers have 50% over range capabilities.

The Model 7022 can also be used as a Range Extender for the Model 7010 series of Capacitance/Inductance Bridges for measuring losses in reactors.

**Typical Error Chart for 0 to 100 milli-Ohm Burden  
 (Report # E01-003)**



#### Specifications:

Nominal Ratio:	2000:1
Ratio Error	< 10 ppm in magnitude and phase
Operating Voltage (Line-Neutral)	200 kV rms @ 50/60 Hz
Withstand Voltage	275 kV rms @ 50/60 Hz
Partial Discharge	< 10 pC @ 200 kV
Operating Temperature	-5°C to 40°C
Humidity	Up to 95%, non-condensing
Environmental Applications	Indoor Use Only
<b>Product Details</b>	
Dimensions	Diameter 1m x 3.3m high
Weight	250 kg
Warranty	2 Years Parts Labor



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 >163,65546 67818,7 23987 911 56-203 88849<  
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 >145,523286 64486,22 2689 986 56-203 88849<  
 >368,688789 12437,23 2333 977 56-203 55549<



**Accuracy Specifications:**

Nominal Ratio	Primary Current	Ratio Error	Phase Error
2000:1	2000 Amps	± 10 PPM	± 10 PPM
2000:1	1000 Amps	± 10 PPM	± 10 PPM
2000:1	500 Amps	± 10 PPM	± 10 PPM
2000:1	100 Amps	± 10 PPM	± 10 PPM
2000:1	50 Amps	± 10 PPM	± 10 PPM
2000:1	25 Amps	± 10 PPM	± 10 PPM
2000:1	10 Amps	± 20 PPM	± 10 PPM

Data Subject to Change-Revision 3

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