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>145,523286 64486,22 2689 966 56-203 88849<
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DATA SHEET

MODEL 7021U



HV Current Transformer

- Operating Voltage 100 kV to Neutral
- With Stand Voltage 185 kV
- Partial Discharge < 10 PC
- 2000 : 1 Ratio < 10 ppm
- 2000 or 4000 Amps

MODEL INFORMATION

The Model 7021U series of High Voltage Current Transformers was designed for the current input to MI's AccuLoss™ ALMS Loss Measurement Systems. For voltages above 200 kV to neutral see Model 7022. Model 7021U 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 SF₆ 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 7021U.

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 7021U 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 (Ω) are less than 100 PPM. For more accurate data on errors related to burdens above 100 mOhm (Ω) contact MI.

The Model 7021U is a four-wire single range passive-two-stage current transformer, which can be supplied to operate at primary currents of either 2000 or 4000



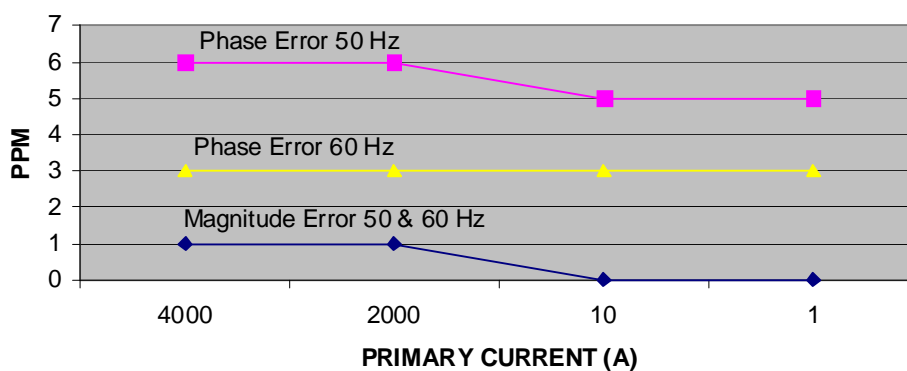
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 >145,523286 64486,22-2689 986 56-203 88849<
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amperes and secondary currents of 1 and 2 amps respectively. The secondary and compensation windings are brought out through a tube and connector in the base of the bushing structure for easy connection. All Model 7021U current transformers have 50% over range capabilities.

The Model 7021U 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)	100 kV rms @ 50/60 Hz
Withstand Voltage	185 kV rms @ 50/60 Hz
Partial Discharge	< 10 pC @ 100 kV
Operating Temperature	-5°C to 40°C
Humidity	Up to 95%, non-condensing
Environmental Applications	Indoor Use Only
Product Details	
Dimensions	Diameter 1m x 1.8m high
Weight	181 kg



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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 5

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