

Measuring Bridge for Testing of Current Transformer WM 303 - I



General

The bridge WM 303-I can be used in transformer test laboratories for manual, semiautomatic and automatic tests of current transformers.

Features

- The use of 20-bit-dual-AD-converters is guaranteeing a high precise measurement of the N- and X-current.
- With this measurement principle the ratio error and the phase displacement will be measured with very high accuracy.
- The WM 303-I can operate in two measuring modes:
 - In the **ABSOLUTE** mode, the WM 303-I will measure the absolute currents of the standard transformer and the transformer under test. Therefore an adjustment of the secondary current is possible by using an internal programmable divider. In this mode the WM 303-I is operating self-calibrated.
 - In **DIFFERENCE** mode the WM 303-I will measure the current of the standard transformer and the differential current.
- The WM 303-I is controlled by an external PC with Windows-based control software.

Technical Data

Measuring Bridge	WM 303 - I
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General	
Power supply	230 VAC, 185 V ... 265 V, 47 Hz ... 65 Hz
Power consumption	approx. 55 VA
Current ranges	10 - 5 - 2 - 1 A, 500 - 200 - 100 mA automatic and manual ranging
Dimensions (HxWxD)	129 x 483 x 260 mm
Weight	approx. 10.5 kg
Technical Specifications	
2 measuring current inputs	10 mA ... 10.5 A
Nominal current of the CT (N)	10 mA ... 10 A
Nominal current of the normal CT (X)	10 mA ... 10 A
Frequency	15 ... 65 Hz
Resolution ratio error	0.0001 %
Resolution phase angle error	0.001 min
Interface	1 RS232
Divider Range	$T = \frac{I_{PX}}{I_{SX}} : \frac{I_{PN}}{I_{SN}} = 0.5...2$
Normal CT	
Uncertainty of ratio measurement	50 mA ... 10 A : ± 100 ppm 10 mA ... 50 mA : ± 200 ppm
Uncertainty of phase angle measurement	50 mA ... 10 A : ± 0.5 min 10 mA ... 50 mA : ± 1 min
Inherent burden N side	2 mΩ
Inherent burden X side	2 mΩ
Resolution current measurement	0.01 %
Uncertainty current measurement	50 mA ... 10 A : 0.1 % of range 10 mA ... 50 mA : 0.5% of range

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