PRECISION MULTI-RANGE CURRENT TRANSFORMER MCT-1

INTRODUCTION

The Multi-range Current Transformer has been designed for use at national metrology institutes as part of standards for electrical power. It converts a wide range of alternating currents into a voltage with 0.8 V or 1 V nominal value and can be remotely controlled via a USB interface. The transformer allows full automation of the measurement setup and offers high accuracy. Its long-term stability is determined by one ultra-stable 10 Ω resistor.

The transformer is supplied with three precision resistors, connecting and interface cables, software drivers, a calibration certificate and a manual.

SPECIFICATIONS

Input current ranges:	0.125, 0.25, 0.5, 1.25, 2.5, 5, 10, 20, 50*, 100*, 200* A (* with the Range Extender)
Nominal output voltage:	0.8 V or 1 V (must be specified at the time of order)
Frequency range:	10 Hz to 10 kHz
Maximum in-phase error at 50 Hz:	5 μV/V
Maximum quadrature error at 50 Hz:	10 μrad
Typical calibration uncertainty at 50 Hz (95%):	
Transformer ratio:	2 μV/V, 3 μrad
Resistor ac-dc difference:	3 μV/V
Resistor phase:	3 μrad
Interface:	USB
Input connector:	4-pin 30A Amphenol (up to 20 A) 12 mm terminals (above 20 A)
Output connector:	N-type or BNC
Output resistance:	30 Ω

ENQUIRIES

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