MeterTest

CTS-120 High-Precision Current Separating Transformer

ISO 9001:2008



Features:

- Typical accuracy 0.01%
- Easy mounting
- Direct work with all types of meters
- Broad range of working currents
- High allowable load impedance
- High output power
- Integration with the system

CTS-120 The Current Separating Transformer was designed keeping in mind the alternating current measurement systems requiring galvanic separation of the measuring circuits. The built-in electronic compensation system guarantees excellent parameters in the whole current range, ensuring at the same time high output power. Typical error 0.01% makes the device an ideal solution for a wide range of applications. Among them there is a possibility of using the transformer for testing electricity meters with closed I-P links i.e. meters with connected current and potential circuits. Broad range of working currents, high output power, high allowable load impedance and high accuracy enable the CTS transformer to be

rigidly integrated with a meter testing system. Once integrated, it can handle both self-contained and transformer connected meters, also meters with open links, with negligible influence on the overall system accuracy.

The CTS-120 transformer is available with local or remote control. The latter possibility is meant to be used in a meter testing system where the transformer can be controlled and supervised by the system software or by the individual stand controller of the system.

The CTS-120 Current Separating Transformer may be used for testing both threephase and single-phase meters.

Operating range	CTS-120-1	CTS-120-2	CTS-120-3
Working current range	3 x (1mA ÷ 120A)		
Ratio	1:1		
Frequency range	45Hz ÷ 65 Hz		
Output power	$1.2 \text{ V} \cdot \text{I}_{\text{out}}$	$0.8 \ V \cdot I_{out}$	$0.5 \text{ V} \cdot I_{out}$
Maximum load impedance in the range of 1mA5A	240 mΩ	160 mΩ	100 mΩ
Maximum output voltage	1.2 V	0.8 V	0.5 V
Maximum load impedance in the range of 5A120A	$1.2 \ V / I_{out}$	0.8 V / I _{out}	0.5 V / I _{out}
Error (Ratio error in % and phase angle error in min .)			
$0.5A \le \le 120A$	≤± 0.01%, 0.3'		
$0.1A \le \le 0.5A$	≤± 0.02%, 0.6'		
$0.05A \le < 0.1A$	≤± 0.03%, 1'		
Functionality			
Possibility of working with open secondary circuit	yes		
Local control	START/STOP, failure and/or error signals ⁽¹⁾		
Remote control	an option for the transformer to be controlled and supervised by a meter testing system. ⁽¹⁾		
Protection and safeguards			
Protection against the results of opening the secondary circuit	yes – signaled		
Sensing the difference between the primary and secondary currents	yes – signaled		

⁽¹⁾ The unit can be equipped with one control only, either local or remote

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Having in mind the care about continuous improvement of the product operational qualities, the producer reserves the right to introduce possible modifications in the construction and workmanship. That is why some of the dimensions, drawings, parameters or descriptions may differ from these shown in this catalogue.