

4762

High Precision Current Comparator 400A

Datasheet



HAEFELY

Current and voltage – our passion

Designed by



General Description

The high precision Current Comparators (current transformers) are used to convert high currents to a lower, measureable level.

The errors of conventional standard current transformers inevitably depend on their burden. A magnetic flux in the core produces the e.m.f. which sustains the secondary current in the burden.

This disadvantage has been eliminated by the development of the new current comparators.

An indicator winding measures the magnetic flux in the core, while an amplifier - by regulating the current in a compensating winding - ensures that the amplitude of the residual flux in the core is approximately zero.

With this technique, the high precision Current Comparators will maintain typical current ratio errors below 20 ppm and current phase errors below 0.15 min on a long term basis over an extremely broad current range.

This electronically controlled current transformer is specifically designed for current range extension in capacitance measurements. It has divider measurements of 1:10 and 1:100.

The special transformer is accommodated inside a portable casing with all terminals on the top panel.

Features

- Especially suitable for range extension of capacitance and $\tan \delta$ measuring bridges
- Outstanding accuracy and stability over a very broad working range 10mA ... 400A

Advantages

- ☑ Negligible transformer error eliminates calculation of measured C and $\tan \delta$ correction factors
- ☑ **Accuracy at best level** – The 4762 units are prepared for accuracy testing of current instrument transformers with most stringent accuracy requirements – 476x units are qualified for use as standard current transformers in metrology institutes.

Applications

- Accuracy test on current instrument transformers
- Range extension of capacitance and $\tan \delta$ bridges

Scope of Supply

- Current Comparator 4762 (115 or 230V type -> specify in order),
- Mains cable

Technical Data

Accuracy Specification		
Current Ratio	1 : 10	1 : 100
min. primary current	10 mA	100 mA
max. primary current	40 A	400 A
min. secondary current	1 mA	1 mA
max. secondary current	4 A	4 A
Burden	Max. 1 Ω	
Current error	< 0.002 %	
Phase angle @ burden < 0.1 Ω	< 0.05 min or < 1.5×10^{-5} radian ($\tan \delta$)	
Phase angle @ burden < 1 Ω	< 0.15 min or < 4×10^{-5} radian ($\tan \delta$)	
Frequency Range	45 to 65 Hz	
Mechanical and Power Supply		
Dimensions (W x D x H)	305 x 180 x 255 mm (12 x 7.1 x 10")	
Weight	9.5 kg (20.9 lbs)	
Power supply Spec.	230 or 115 VAC, 50/60 Hz	

Global Presence

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HIGH VOLTAGE



INSTRUMENTS



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