

COLLECTION OF CIG-OSM/IN DECISIONS

Standard: General	Sub clause: General	Sheet no. OSM/IN 004 Page 1(3)
Subject: Instrument accuracy limits to be considered in CCA testing.	Key words: Instrument accuracy limits	Meeting no. 7 Item 6.27
<p>Question: A common accuracy limit is needed to agree for the sake of test reproducibility</p> <p>Decision: To implement the CTL decision No 251 and include it in OSM/IN current decision list.</p> <p>Explanatory notes: Annexed CTL decision No 251 text.</p>		

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Instrument accuracy limits

Measurement values stated in a CB Test Report shall be made with instruments with accuracies within the limits stated below.

<u>Parameter</u>	<u>Range</u>	<u>Instrument accuracy</u>
Voltage		
<u>Up to 1000 V</u>	dc up to 1 kHz	$\pm 1,5\%$
	1 kHz up to 5 kHz	$\pm 2\%$
	5 kHz up to 20 kHz	$\pm 3\%$
	20 kHz and above	$\pm 5\%$
<u>1000 V and above</u>	dc up to 20 kHz	$\pm 3\%$
	20 kHz and above	$\pm 5\%$
Current		
<u>Up to 5 A</u>	dc up to 60 Hz	$\pm 1,5\%$
	60 Hz up to 5 kHz	$\pm 2,5\%$
	5 kHz up to 20 kHz	$\pm 3,5\%$
	20 kHz and above	$\pm 5\%$
<u>5 A and above</u>	dc up to 5 kHz	$\pm 2,5\%$
	5 kHz up to 20 kHz	$\pm 3,5\%$
	20 kHz and above	$\pm 5\%$
Leakage current		
<u>up to 30 mA</u>	50/60 Hz	$\pm 3,5\%$
<u>30 mA and above</u>	50 Hz - 5 kHz	$\pm 5\%$
Power (50/60 Hz)	up to 1W	$\pm 20 \text{ mW}$
	above 1W and up to 3kW	$\pm 3\%$
	above 3kW	$\pm 5\%$
Power Factor (50/60 Hz)		$\pm 0,05$

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Instrument accuracy limits

Frequency	up to 10 kHz	$\pm 0,2\%$
Resistance	1m Ω up to 100m Ω and above 1 M Ω	$\pm 5\%$
	above 1 T Ω	$\pm 10\%$
	for all other cases	$\pm 3\%$
Temperature ¹²	below 100°C	$\pm 2^\circ\text{C}$
	100°C up to 500°C	$\pm 3\%$
Time	10 ms up to 200 ms	$\pm 5\%$
	200 ms up to 1 s	$\pm 10\text{ ms}$
	1 s and above	$\pm 1\%$
Linear dimensions	up to 1 mm	$\pm 0,05\text{ mm}$
	1 mm up to 25 mm	$\pm 0,1\text{ mm}$
	25 mm and above	$\pm 0,5\%$
Mass	above 10 g and up to 100 g	$\pm 1\%$
	100 g up to 5 kg	$\pm 2\%$
	5 kg and above	$\pm 5\%$
Force	for all values	$\pm 6\%$
Mechanical energy	for all values	$\pm 10\%$
Torque		$\pm 10\%$
Angles		$\pm 1\text{ degree}$
Relative humidity	30% to 95% RH	$\pm 6\% \text{ RH}$
Barometric air pressure		$\pm 0,01\text{ MPa}$
Gas & fluid pressure	for static measurement	$\pm 5\%$

¹ Thermocouple not included. Thermocouples type K, premium grade, are recommended.

² Not for measurements related to relative humidity.