



Accreditation number **SCS 042**
Numero d'accreditamento

SCS Directory Registro SCS

Accreditation Standard ISO/IEC 17025:2005
Norma d'accreditamento ISO/IEC

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Calibration laboratory for electrical quantities

ELS-Elektronik GmbH
Unterdorfstrasse 12
CH-8165 Schöfflisdorf
☎ +41 44 / 856 14 92
Fax +41 44 / 856 16 67
<mailto:elscal@elscal.ch>
<http://www.elscal.ch>

Head of laboratory : Karl Haus
Deputy : Adrian Meyer
Responsible for MS : Karl Haus
First accreditation : 19.11.1992
Last accreditation : 25.08.2008
Actual edition : <http://www.sas.ch>

Measured quantities:

DC voltage Capacity
DC current Inductance
DC power Frequency/revolution
DC resistance Risetime/duration time
AC resistance EMC-generators
AC voltage ESD
AC current Damped oscillatory waves
High voltage ac/dc Flickermeter

Mutations:

Personnel : 01.11.01, 01.03.05
Extensions : 25.03.94, 01.10.95,
 : 15.06.96, 01.03.97
 : 17.06.97, 01.05.99
 : 15.10.02, 01.03.05
 : 15.09.06
Address :
Edition : **SCS042/F**

Calibration and Measurement Capability (CMC)

Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability ± (1)	Remarks
DC voltage Calibration of voltage calibrators	3 µV ... < 100 mV 100 mV ... < 1 V 1 V ... < 10 V 10 V ... < 100 V 100 V ... 1000 V		6•10 ⁻⁶ + 1 µV 5•10 ⁻⁶ + 1 µV 5•10 ⁻⁶ + 1 µV 7•10 ⁻⁶ + 65 µV 7•10 ⁻⁶ + 265 µV	> 1000 V see under- high voltage
	Calibration of voltage measurement instruments	3 µV ... < 20 mV 20 mV ... < 330 mV 330 mV ... < 3,3 V 3,3 V ... < 33 V 33 V ... < 330 V 330 V ... 1000 V		7•10 ⁻⁶ + 1 µV 7•10 ⁻⁶ + 1 µV 5•10 ⁻⁶ + 2 µV 7•10 ⁻⁶ + 65 µV 8•10 ⁻⁶ + 290 µV 8•10 ⁻⁶ + 435 µV
DC current Calibration of current calibrators	1 pA ... < 20 pA 20 pA ... < 200 pA 200 pA ... < 2 nA 2 nA ... < 2 µA 2 µA ... < 100 µA 100 µA ... < 1 mA		4•10 ⁻³ 2•10 ⁻³ 1•10 ⁻³ 600•10 ⁻⁶ 25•10 ⁻⁶ + 1,5 nA 25•10 ⁻⁶ + 12 nA	



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability \pm (1)	Remarks
DC current Calibration of current calibrators	1 mA ... < 10 mA 10 mA ... < 100 mA 100 mA ... < 1 A 1 A ... 20 A		25•10 ⁻⁶ + 90 nA 45•10 ⁻⁶ + 0,7 μ A 130•10 ⁻⁶ + 20 μ A 60•10 ⁻⁶	
	Calibration of current measurement instruments		3•10 ⁻³ 1.2•10 ⁻³ 750•10 ⁻⁶ 120•10 ⁻⁶ 75•10 ⁻⁶ 70•10 ⁻⁶ 40•10 ⁻⁶	
	1 pA ... < 10 pA 10 pA ... < 100 pA 100 pA ... < 1 nA 1 nA ... < 10 nA 10 nA ... < 100 nA 100 nA ... < 1 μ A 1 μ A ... < 10 μ A 10 μ A ... < 100 μ A 100 μ A ... < 1 mA 1 mA ... < 10 mA 10 mA ... < 100 mA 100 mA ... < 330 mA 330 mA ... < 1 A 1 A ... < 2,2 A 2,2 A ... < 11 A 11 A ... 20 A	Compliance < 1 V	30•10 ⁻⁶ + 2 nA 30•10 ⁻⁶ + 20 nA 30•10 ⁻⁶ + 0,1 μ A 45•10 ⁻⁶ + 0,7 μ A 130•10 ⁻⁶ + 20 μ A 135•10 ⁻⁶ + 20 μ A 150•10 ⁻⁶ 170•10 ⁻⁶ 350•10 ⁻⁶	
DC resistance Calibration of resistance measurement instruments	0,001 Ω 0,01 Ω 0.1 Ω 1 Ω 10 Ω 100 Ω 1 k Ω 10 k Ω 100 k Ω 1 M Ω 10 M Ω 100 M Ω 1 G Ω 10 G Ω ; 100 G Ω 1 T Ω ; 10 T Ω 100 T Ω		40•10 ⁻⁶ 25•10 ⁻⁶ 20•10 ⁻⁶ 78•10 ⁻⁶ 75•10 ⁻⁶ 19•10 ⁻⁶ 19•10 ⁻⁶ 19•10 ⁻⁶ 44•10 ⁻⁶ 180•10 ⁻⁶ 720•10 ⁻⁶ 40•10 ⁻⁶ 65•10 ⁻⁶ 75•10 ⁻⁶ 120•10 ⁻⁶ 500•10 ⁻⁶ 2•10 ⁻³	Only fixed values



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability \pm (1)	Remarks
Calibration of resistors	0,001 Ω ... < 0,01 Ω 0,01 Ω ... < 0,1 Ω 0,1 Ω ... < 1 Ω 1 Ω ... < 10 Ω 10 Ω ... < 1 k Ω 1 k Ω ... < 10 k Ω 10 k Ω ... < 100 k Ω 100 k Ω ... < 1 M Ω 1 M Ω ... < 10 M Ω 10 M Ω ... < 100 M Ω 100 M Ω ... < 1 G Ω		45•10 ⁻⁶ 30•10 ⁻⁶ 25•10 ⁻⁶ 20•10 ⁻⁶ + 60 $\mu\Omega$ 15•10 ⁻⁶ + 600 $\mu\Omega$ 15•10 ⁻⁶ + 6 m Ω 14•10 ⁻⁶ + 60 m Ω 20•10 ⁻⁶ + 2,5 Ω 60•10 ⁻⁶ + 120 Ω 600•10 ⁻⁶ + 1,2 k Ω 6,1•10 ⁻³ + 12 k Ω	
	100 M Ω 1 G Ω 10 G Ω 100 G Ω 1 T Ω 10 T Ω 100 T Ω	U = 10 V, 50 V U = 10 V, 50 V U = 20 V, 50 V, 100 V U = 200 V, 500 V U = 500 V, 700 V U = 500 V, 1 kV U = 500 V, 1 kV	45•10 ⁻⁶ 70•10 ⁻⁶ 75•10 ⁻⁶ 120•10 ⁻⁶ 550•10 ⁻⁶ 550•10 ⁻⁶ 2•10 ⁻³	Only fixed values
AC resistance Calibration of resistance measurement instruments	1 Ω ; 10 Ω ; 100 Ω ; 1 k Ω ; 2 k Ω ; 4 k Ω ; 6 k Ω ; 8 k Ω ; 10 k Ω ; 100 k Ω ; 1 M Ω	1 kHz	510•10 ⁻⁶	Only fixed values
Calibration of resistors	1 Ω ... 1 M Ω	1 kHz	510•10 ⁻⁶	
DC power	100 mW ... 300 W	1 V ... 1 kV 100 mA ... 300 mA	340•10 ⁻⁶	



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability \pm (1)	Remarks
Calibration of power measurement instruments	300 mW ... 1 kW	1 V ... 1 kV 300 mA ... 1 A	$210 \cdot 10^{-6}$	
	1W ... 2,2 kW	1 V ... 1 kV 1 A ... 2,2 A	$160 \cdot 10^{-6}$	
	2,2 W ... 11 kW	1 V ... 1 kV 2,2 A ... 11 A	$180 \cdot 10^{-6}$	
	11 W ... 20 kW	1 V ... 1 kV 11 A ... 20 A	$360 \cdot 10^{-6}$	
AC voltage Calibration of voltage calibrators	10 mV ... < 22 mV	40 Hz ... < 1 kHz	$350 \cdot 10^{-6} + 4 \mu\text{V}$	
		1 kHz ... < 20 kHz	$380 \cdot 10^{-6} + 4 \mu\text{V}$	
		20 kHz ... < 50 kHz	$500 \cdot 10^{-6} + 4 \mu\text{V}$	
		50 kHz ... 100 kHz	$1,1 \cdot 10^{-3} + 5 \mu\text{V}$	
	22 mV ... < 100 mV	40 Hz ... < 1 kHz	$145 \cdot 10^{-6} + 4 \mu\text{V}$	
		1 kHz ... < 20 kHz	$200 \cdot 10^{-6} + 4 \mu\text{V}$	
		20 kHz ... < 50 kHz	$390 \cdot 10^{-6} + 4 \mu\text{V}$	
		50 kHz ... 100 kHz	$980 \cdot 10^{-6} + 4 \mu\text{V}$	
	100 mV ... < 1 V	40 Hz ... < 1 kHz	$105 \cdot 10^{-6} + 30 \mu\text{V}$	
		1 kHz ... < 20 kHz	$175 \cdot 10^{-6} + 30 \mu\text{V}$	
		20 kHz ... < 50 kHz	$370 \cdot 10^{-6} + 35 \mu\text{V}$	
		50 kHz ... < 100 kHz	$940 \cdot 10^{-6} + 35 \mu\text{V}$	
	1 V ... < 2,2 V	100 kHz ... < 300 kHz	$3,5 \cdot 10^{-3} + 120 \mu\text{V}$	
		300 kHz ... 1 MHz	$1,2 \cdot 10^{-2} + 200 \mu\text{V}$	
		40 Hz ... < 1 kHz	$90 \cdot 10^{-6} + 235 \mu\text{V}$	
		1 kHz ... < 20 kHz	$165 \cdot 10^{-6} + 235 \mu\text{V}$	
	20 kHz ... < 50 kHz	$360 \cdot 10^{-6} + 235 \mu\text{V}$		
	50 kHz ... < 100 kHz	$940 \cdot 10^{-6} + 235 \mu\text{V}$		
	100 kHz ... < 300 kHz	$3,5 \cdot 10^{-3} + 1,2 \text{ mV}$		
	300 kHz ... < 1 MHz	$1,2 \cdot 10^{-2} + 1,2 \text{ mV}$		



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability \pm (1)	Remarks
Calibration of voltage calibrators	2,2 V ... < 10 V	40 Hz ... < 1 kHz 1 kHz ... < 20 kHz 20 kHz ... < 50 kHz 50 kHz ... < 100 kHz 100 kHz ... < 300 kHz 300 kHz ... < 1 MHz	$90 \cdot 10^{-6} + 235 \mu\text{V}$ $170 \cdot 10^{-6} + 235 \mu\text{V}$ $355 \cdot 10^{-6} + 250 \mu\text{V}$ $940 \cdot 10^{-6} + 260 \mu\text{V}$ $3,5 \cdot 10^{-3} + 1,5 \text{ mV}$ $1,2 \cdot 10^{-2} + 4,2 \text{ mV}$	
	10 V ... < 100 V	40 Hz ... < 20 kHz 20 kHz ... < 50 kHz 50 kHz ... < 100 kHz	$240 \cdot 10^{-6} + 2,4 \text{ mV}$ $410 \cdot 10^{-6} + 2,4 \text{ mV}$ $1,4 \cdot 10^{-3} + 4,7 \text{ mV}$	
	100 V ... < 220 V	40 Hz ... < 1 kHz 1 kHz ... < 20 kHz 20 kHz ... < 50 kHz 50 kHz ... < 100 kHz	$470 \cdot 10^{-6} + 24 \text{ mV}$ $700 \cdot 10^{-6} + 24 \text{ mV}$ $1,4 \cdot 10^{-3} + 24 \text{ mV}$ $3,5 \cdot 10^{-3} + 24 \text{ mV}$	
	220 V ... < 700 V	50 Hz ... < 1 kHz 1 kHz ... < 20 kHz 20 kHz ... < 50 kHz 50 kHz ... < 100 kHz	$470 \cdot 10^{-6} + 24 \text{ mV}$ $710 \cdot 10^{-6} + 57 \text{ mV}$ $1,4 \cdot 10^{-3} + 57 \text{ mV}$ $3,5 \cdot 10^{-3} + 57 \text{ mV}$	
	700 V ... 1000 V	50 Hz ... < 100 Hz 100 Hz ... < 10 kHz 10 kHz ... < 20 kHz 20 kHz ... < 30 kHz 30 kHz ... < 100 kHz	$115 \cdot 10^{-6} + 24 \text{ mV}$ $160 \cdot 10^{-6} + 56 \text{ mV}$ $265 \cdot 10^{-6} + 70 \text{ mV}$ $270 \cdot 10^{-6} + 70 \text{ mV}$ $600 \cdot 10^{-6} + 240 \text{ mV}$	
Calibration of voltage measurement instruments	10 mV ... < 22 mV	45 Hz ... < 1 kHz 1 kHz ... < 20 kHz 20 kHz ... 50 kHz 50 kHz ... 100 kHz	$360 \cdot 10^{-6} + 4 \mu\text{V}$ $390 \cdot 10^{-6} + 4 \mu\text{V}$ $550 \cdot 10^{-6} + 4 \mu\text{V}$ $1,4 \cdot 10^{-3} + 5 \mu\text{V}$	
	22 mV ... < 100 mV	45 Hz ... < 1 kHz 1 kHz ... < 20 kHz 20 kHz ... < 50 kHz 50 kHz ... 100 kHz	$150 \cdot 10^{-6} + 4 \mu\text{V}$ $210 \cdot 10^{-6} + 4 \mu\text{V}$ $400 \cdot 10^{-6} + 4 \mu\text{V}$ $990 \cdot 10^{-6} + 4 \mu\text{V}$	



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability \pm (1)	Remarks
Calibration of voltage measurement instruments	100 mV ... < 1 V	45 Hz ... < 1 kHz	$110 \cdot 10^{-6} + 30 \mu\text{V}$	
		1 kHz ... < 20 kHz	$190 \cdot 10^{-6} + 30 \mu\text{V}$	
		20 kHz ... < 50 kHz	$380 \cdot 10^{-6} + 35 \mu\text{V}$	
		50 kHz ... < 100 kHz	$970 \cdot 10^{-6} + 35 \mu\text{V}$	
		100 kHz ... < 300 kHz	$3,6 \cdot 10^{-3} + 120 \mu\text{V}$	
		300 kHz ... < 500 kHz	$1,2 \cdot 10^{-2} + 200 \mu\text{V}$	
	1 V ... < 2,2 V	45 Hz ... < 1 kHz	$100 \cdot 10^{-6} + 235 \mu\text{V}$	
		1 kHz ... < 20 kHz	$180 \cdot 10^{-6} + 235 \mu\text{V}$	
		20 kHz ... < 50 kHz	$370 \cdot 10^{-6} + 235 \mu\text{V}$	
		50 kHz ... < 100 kHz	$960 \cdot 10^{-6} + 235 \mu\text{V}$	
		100 kHz ... < 300 kHz	$3,6 \cdot 10^{-3} + 1,2 \text{ mV}$	
		300 kHz ... < 500 kHz	$1,2 \cdot 10^{-2} + 1,2 \text{ mV}$	
	2,2 V ... < 10 V	45 Hz ... < 1 kHz	$100 \cdot 10^{-6} + 235 \mu\text{V}$	
		1 kHz ... < 20 kHz	$180 \cdot 10^{-6} + 235 \mu\text{V}$	
		20 kHz ... < 50 kHz	$370 \cdot 10^{-6} + 250 \mu\text{V}$	
		50 kHz ... < 100 kHz	$970 \cdot 10^{-6} + 260 \mu\text{V}$	
	10 V ... < 100 V	45 Hz ... < 1 kHz	$250 \cdot 10^{-6} + 2,4 \text{ mV}$	
		1 kHz ... < 20 kHz	$260 \cdot 10^{-6} + 2,4 \text{ mV}$	
		20 kHz ... < 50 kHz	$430 \cdot 10^{-6} + 2,4 \text{ mV}$	
		50 kHz ... < 100 kHz	$1,5 \cdot 10^{-3} + 4,7 \text{ mV}$	
	100 V ... < 220 V	50 Hz ... < 1 kHz	$480 \cdot 10^{-6} + 24 \text{ mV}$	
		1 kHz ... < 20 kHz	$710 \cdot 10^{-6} + 24 \text{ mV}$	
		20 kHz ... < 50 kHz	$1,4 \cdot 10^{-3} + 24 \text{ mV}$	
		50 kHz ... < 100 kHz	$3,5 \cdot 10^{-3} + 24 \text{ mV}$	
220 V ... < 700 V	50 Hz ... < 1 kHz	$480 \cdot 10^{-6} + 24 \text{ mV}$		
	1 kHz ... < 5 kHz	$720 \cdot 10^{-6} + 57 \text{ mV}$		
	5 kHz ... < 10 kHz	$1,5 \cdot 10^{-3} + 57 \text{ mV}$		
700 V ... 1000 V	50 Hz ... < 1 kHz	$140 \cdot 10^{-6} + 24 \text{ mV}$		
	1 kHz ... < 5 kHz	$180 \cdot 10^{-6} + 24 \text{ mV}$		
	5 kHz ... < 10 kHz	$180 \cdot 10^{-6} + 57 \text{ mV}$		



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability \pm (1)	Remarks
AC current Calibration of current calibrators	10 μ A ... < 100 μ A	45 Hz ... 2 kHz	$390 \cdot 10^{-6} + 20$ nA	Compliance < 1V
	100 μ A ... < 1 mA	45 Hz ... < 100 Hz 100 Hz ... 5 kHz	$260 \cdot 10^{-6} + 0,2$ μ A $390 \cdot 10^{-6} + 0,2$ μ A	
	1 mA ... < 10 mA	45 Hz ... < 100 Hz 100 Hz ... 5 kHz	$260 \cdot 10^{-6} + 1,2$ μ A $440 \cdot 10^{-6} + 1,2$ μ A	
	10 mA ... < 100 mA	45 Hz ... < 100 Hz 100 Hz ... 5 kHz	$260 \cdot 10^{-6} + 12$ μ A $350 \cdot 10^{-6} + 12$ μ A	
	100 mA ... < 1 A	45 Hz ... < 100 Hz 100 Hz ... 5 kHz	$620 \cdot 10^{-6} + 240$ μ A $1,2 \cdot 10^{-3} + 235$ μ A	
	1 A ... < 10 A	40 Hz ... < 1 kHz 1 kHz ... 5 kHz	$765 \cdot 10^{-6}$ $800 \cdot 10^{-6}$	
	10 A ... < 20 A	40 Hz ... < 1 kHz 1 kHz ... 5 kHz	$460 \cdot 10^{-6}$ $530 \cdot 10^{-6}$	
	10 A ... 100 A	50 Hz	$1 \cdot 10^{-3} + 23$ mA	
Calibration of current measurement instruments	30 μ A ... < 330 μ A	45 Hz ... 5 kHz	$385 \cdot 10^{-6} + 0,2$ μ A	Compliance < 1V
	330 μ A ... < 3,3 mA	45 Hz ... < 100 Hz 100 Hz ... 5 kHz	$265 \cdot 10^{-6} + 1,2$ μ A $445 \cdot 10^{-6} + 1,2$ μ A	
	3,3 mA ... < 33 mA	45 Hz ... < 100 Hz 100 Hz ... 5 kHz	$265 \cdot 10^{-6} + 12$ μ A $445 \cdot 10^{-6} + 12$ μ A	
	33 mA ... < 1 A	45 Hz ... < 100 Hz 100 Hz ... 5 kHz	$615 \cdot 10^{-6} + 240$ μ A $1,2 \cdot 10^{-3} + 235$ μ A	
	1 A ... < 3 A	45 Hz ... < 1 kHz 1 kHz ... 5 kHz	$800 \cdot 10^{-6}$ $830 \cdot 10^{-6}$	
	3 A ... 20 A	45 Hz ... < 1 kHz 1 kHz ... 5 kHz	$490 \cdot 10^{-6}$ $520 \cdot 10^{-6}$	



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability ± (1)	Remarks
High voltage DC Calibration of high voltage sources	1 kV ... 15 kV	DC	0,15 % + 1 V	
	Calibration of high voltage measurement instruments	1 kV ... 8 kV 8 kV ... 15 kV	DC DC	0,2 % + 1 V 0,3 % + 1 V
High voltage AC Calibration of high voltage sources	1 kV ... 12 kV	(50 ± 5) Hz	0,15 % + 1 V	Sine wave shaped
	Calibration of high voltage measurement instruments	1 kV ... 6 kV 6 kV ... 12 kV	(50 ± 5) Hz (50 ± 5) Hz	0,2 % + 1 V 0,3 % + 1 V
Capacity Calibration of capacities	10 pF ... 10 µF	1 kHz	510•10 ⁻⁶	
Calibration of capacity measurement instruments	10 pF; 100 pF; 1 nF; 2 nF; 4 nF; 6 nF; 8 nF; 10 nF; 100 nF, 1 µF; 10 µF	1 kHz	510•10 ⁻⁶ pF	Only fixed values
Inductivity Calibration of inductances	100 µH ... 10 H	1 kHz	525•10 ⁻⁶	



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Calibration of inductances measurement instruments	100 μ H; 1 mH; 10 mH; 25 mH; 50 mH; 75 mH; 100 mH; 1 H; 10H	1 kHz	$525 \cdot 10^{-6}$	Only fixed values
Frequency Calibration of frequency counters	10 MHz		$6 \cdot 10^{-11}$	Measurement time 24 h
Calibration of frequency generators	1 Hz ... 1,5 GHz		$6 \cdot 10^{-9} + u_{Tf}$	Measurement time > 100 sec
Burst generators Amplitudes - at generator - at coupling network Pulse width and delay time Rise time Pulse frequency Burst duration time/interval	 100 V ... 8 kV 5 ns ... 10 μ s 3 ns ... 1 μ s 10 μ s ... 500 ms	 Into 50 Ω or 1000 Ω Into 50 Ω Pulse requency: 2.5 kHz, 5 kHz	 3.5 % 6 % 130 ps 130 ps 0.5 %	Calibration of Burst generators according to IEC 61000-4-4:2004
Surge generators Voltage amplitude	 100 V ... 20 kV	 open circuit	 2,5 %	Calibration of Surge Generators according to IEC 61000-4-5:2005



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability ± (1)	Remarks
Rise time and pulse width	0,4 µs ... 1 ms		4 ns	
Current amplitude	1 A ... 10 kA	short circuit	2 %	
Rise time and pulse width	0,5 µs ... 1 ms		6 ns	
Transients				
Voltage variations voltage dips, short interrupts	1 V ... 240 V/50 Hz		2 %	According to IEC 61000-4-11:2004
Inrush current	< 1000 A		2,5 %	
Rise time	1 µs ... 1 ms		20 ns	
Duration time	0,5 s ... 6 s		0,5 %	
Current transformers Shunts	100 A ... 5 kA	Rise time 4 µs ... 12 µs	4 ns	Sine wave shaped pulses
Ringwave generators				
Voltage amplitude open circuit	100 V ... 8 kV	DC ... 5 MHz	2 %	Calibration of ring- wave generators - according to IEC 61000-4-12:2006
Rise time and pulse width	100 V ... 8 kV	0,4 µs ... 1 ms	4 ns	
Current amplitude short circuited	1 A ... 600 A	40 Hz ... 700 kHz	2 %	
Rise time	1 A ... 600 A	0,5 µs ... 4 µs	4 ns	



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Measured Quantity Instrument or Gauge	Measurement Range	Measurement Conditions at 23 °C	Best Measurement Capability \pm (1)	Remarks
Damped oscillatory wave generators				Calibration of damped oscillatory wave generators - according to IEC 61000-4-18:2006, slow wave
Voltage amplitude	100 V ... 8 kV	DC ... 5 MHz	2 %	
Rise time	100 V ... 8 kV	60 ns ... 90 ns	4 ns	
Duration time / repetitions rate	100 V ... 8 kV	10 μ s ... 500 ms	0,5 %	
Frequency	100 V ... 8 kV	90 kHz ... 1.1 MHz	0,5 %	
Electrostatic discharge (ESD)				Calibration of ESD generators according to IEC 61000-4-2:2008
Current pulse		Measurement at: \pm 2 kV; 4 kV; 6 kV; 8 kV		
Peak value	1 A ... 40 A		5 %	
Characteristic values	1 A ... 40 A	after 30 ns	5 % + (8 %)*	Target according to IEC 61000-4.2 Annex B
		after 60 ns	5 % + (16 %)*	
			(%)* Reproductability and Geometry of UUT	
Rise time	400 ps ... < 700 ps 700 ps ... 2 ns		60 ps 45 ps	



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Flickermeter Flicker (Pst)	Pst = 1,2,3 Range $\Delta U/U$ 0,4 % ... 0,725 % 0,725 % ... 0,91 % 0,91 % ... 1,46 % 1,46 % ... 10 %	Square wave modulated sine wave of 230 V and 50 Hz, relative voltage change $\Delta U/U$	 Pst-value 1,8 % 1,0 % 0,8 % 0,5 %	Calibration of Flickermeter according to IEC 61000-4-15:2003 Voltage gradient according to table 5 and voltage expanded according to page 16 in IEC 61000-4-15:2003
Revolution	1 ... 500000 r/min		$1 \cdot 10^{-8}$	Optically

The dimensionless parts of the measurement uncertainty are relative values, referred to the measured value

(1) The given extended measurement uncertainty is the standard uncertainty of the measurement multiplied by an extension factor $k = 2$, which corresponds to a confidence level of about 95% for a normal distribution.