

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-K-15068-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 26.02.2023

Date of issue: 26.02.2023

Holder of accreditation certificate:

**Power Diagnostix Systems GmbH
Vaalser Strasse 250, 52074 Aachen**

The calibration laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The calibration laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories and confirm generally with the principles of DIN EN ISO 9001.

Calibrations in the fields:

Electrical quantities

DC and low frequency quantities

- **High voltage quantities ^{a)}**
- **High voltage impulse quantities**
- **Impulse charge ^{a)}**

^{a)} also on-site calibration

This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.

Abbreviations used: see last page

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Permanent Laboratory

Calibration and measurement capabilities(CMC)

Measured quantity / Calibration item	Range	Measurement conditions / procedure	Best measurement capability	Remarks
Impulse charge	1 pC to 50 nC	IEC 60270:2000, AMD1:2015 CSV	$0,02 \cdot q + 0,2 \text{ pC}$	q = Measured value
Rise time	1 ns to 100 ns	Oscilloscope equivalence mode	$0,02 \cdot t + 1 \text{ ns}$	Rise time: Time between 10%- and 90%-value of amplitude of the increasing and decreasing flank of the charge impulse; t = Measured value
		Oscilloscope real time mode	$0,02 \cdot t + 3 \text{ ns}$	
Duration of impulse	5 ns to 1 ms	Oscilloscope equivalence mode	$0,02 \cdot t + 1 \text{ ns}$	Duration of impulse: Time between 10%- value of amplitude of the increasing and decreasing flank of the charge impulse; t = Measured value
		Oscilloscope real time mode	$0,02 \cdot t + 3 \text{ ns}$	
AC voltage effective value	1 V to 750 V	20 Hz to 1 kHz	$0,005 \cdot U$	U = Measured value
	1 kV to 200 kV	15 Hz to 300 Hz		
DC voltage	0,01 V to 1000 V			
AC voltage parameter of amplitude	5 mV to 10 V	DC to 10 MHz	$0,01 \cdot U$	Standart: Oscilloscope input impedance: 1 M Ω U = Measured value

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On site calibration

Calibration and measurement capabilities(CMC)

Measured quantity / Calibration item	Range	Measurement conditions / procedure	Best measurement capability	Remarks
Impulse charge	1 pC to 50 nC	IEC 60270:2000, AMD1:2015 CSV	$0,02 \cdot q + 0,2 \text{ pC}$	$q =$ Measured value
Rise time	1 ns to 100 ns	Oscilloscope equivalence mode	$0,02 \cdot t + 1 \text{ ns}$	Rise time: Time between 10%- and 90%-value of amplitude of the increasing and decreasing flank of the charge impulse; $t =$ Measured value
		Oscilloscope real time mode	$0,02 \cdot t + 3 \text{ ns}$	
Duration of impulse	5 ns to 1 ms	Oscilloscope equivalence mode	$0,02 \cdot t + 1 \text{ ns}$	Duration of impulse: Time between 10%- value of amplitude of the increasing and decreasing flank of the charge impulse; $t =$ Measured value
		Oscilloscope real time mode	$0,02 \cdot t + 3 \text{ ns}$	
AC voltage effective value, peak value	1 V to 750 V	20 Hz to 1 kHz	$0,005 \cdot U$	$U =$ Measured value
	1 kV to 200 kV	15 Hz to 300 Hz		
	1 kV to 500 kV		$0,01 \cdot U$	$U =$ Measured value Measurement in extended range
AC current effective value	1A to 100 A	10 Hz to 300 Hz	$0,005 \cdot I$	$U =$ Measured value
AC voltage parameter of amplitude	5 mV to 10 V	DC to 10 MHz	$0,01 \cdot U$	Standart: Oscilloscope input impedance: 1 M Ω $q =$ Measured value

Abbreviations used:

DIN Deutsches Institut für Normung e.V. – German institute for standardization

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