

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-20165-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 04.11.2022

Date of issue: 01.03.2023

Holder of accreditation certificate:

Trench Germany GmbH
Nürnberger Straße 199, 96050 Bamberg

The testing laboratory meets the minimal requirements of DIN EN ISO/IEC 17025:2018 and, if applicable, additional legal and normative requirements, including those in relevant sectoral schemes, in order to carry out the conformity assessment activities listed below.

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

Tests in the fields:

Testing of high-voltage appliances and components

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.

The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

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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This document is a translation. The definitive version is the original German annex to the accreditation certificate.

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Testing field	Standard / In-House Procedure / Version	Title of Standard or In-House Procedure (Deviations / Modifications of Standard)	Test Range / Restrictions
Electrical engineering	DIN EN 61869-1:2010-04 EN 61869-1 :2009	Instrument transformers - Part 1: General requirements (IEC 61869-1:2007, modified); German version EN 61869-1:2009	Instrument transformers without 7.2.5, 7.2.7, 7.2.9, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5
	IEC 61869-1:2007, modified	Instrument transformers –Part 1: General requirements	Instrument transformers without 7.2.5, 7.2.7, 7.2.9, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5
	DIN EN 61869-2 :2013-07 DIN EN 61869-2 Ber. 1: 2014-06 EN 61869-2 :2012	Instrument transformers - Part 2: Additional requirements for current transformers (IEC 61869-2:2012); German version EN 61869-2:2012	Current transformers without 7.2.5, 7.2.7 - 7.2.9, 7.2.201, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	IEC 61869-2:2012	Instrument transformers - Part 2: Additional requirements for current transformers	Current transformers without 7.2.5, 7.2.7, 7.2.9, 7.2.201, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	DIN EN 61869-3:2012-05 EN 61869-3: 2011	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers (IEC 61869-3:2011); German version EN 61869-3:2011	Voltage transformers $U_m \leq 550$ kV without 7.2.5, 7.2.7 - 7.2.9, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1.

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Electrical engineering	IEC-61869-3: 2011	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers	Voltage transformers $U_m \leq 550$ kV without 7.2.5, 7.2.7, 7.2.9, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	DIN EN 61869-4:2015-4 EN 61869-4 : 2014	Instrument transformers - Part 4: Additional requirements for combined transformers (IEC 61869-4:2013); German version EN 61869-4:2014	Combined transformers $U_m \leq 550$ kV Ohne 7.2.5, 7.2.7 - 7.2.9, 7.2.201, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	IEC-61869-4 : 2013	Instrument transformers - Part 4: Additional requirements for combined transformers	Combined transformers $U_m \leq 550$ kV without 7.2.5, 7.2.7, 7.2.9, 7.2.201, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	DIN EN 60137:2018-05 EN 60137 : 2017	Insulated bushings for alternating voltages above 1 000 V (IEC 60137:2017); German version EN 60137:2017	Insulated bushings
	IEC 60137 : 2017	Insulated bushings for alternating voltages above 1000 V	Insulated bushings
	DIN EN 60270:2016-11 EN 60270:2001 + A1:2016	High-voltage test techniques - Partial discharge measurements (IEC 60270:2000 + Cor.:2001 + A1:2015); German version EN 60270:2001 + A1:2016	
	IEC 60270:2000+AMD1:2015	High-voltage test techniques - Partial discharge measurements	
	DIN EN 60060-1:2011-10 EN 60060-1:2011	High-voltage test techniques - Part 1: General definitions and test requirements	

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Electrical engineering	IEC 60060-1:2010	High-voltage test techniques - Part 1: General definitions and test requirements	
	IEEE C57.13 :2016	IEEE Standard Requirements for Instrument Transformers	Instrument Transformers without 11.1.1 para. 1
	IEEE Std. 4 : 2013	IEEE Standard for High-Voltage Testing Techniques.	without 9 - impulse current.
	CSA C61869-1:14 (R2019)	Instrument transformers - Part 1: General requirements (Adopted IEC 61869-1:2007, edition 1.0:2007, with Canadian deviations)	Instrument transformers without 7.2.5, 7.2.7, 7.2.9, 7.2.9A, 7.2.9C-7.2.9F, 7.2.201, 7.3.7.2, 7.3.8, 7.3.8C-7.3.8E, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.4.10A, 7.5.1
	CSA C61869-2:14 (R2019)	Instrument transformers - Part 2: Additional requirements for current transformers (Adopted IEC 61869-2:2012, edition 1.0:2012, with Canadian deviations)	Current transformers without 7.2.5, 7.2.7, 7.2.9, 7.2.9A, 7.2.9C-7.2.9F, 7.2.201, 7.3.7.2, 7.3.8, 7.3.8C-7.3.8E, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.4.10A, 7.5.1
	CSA C61869-3:14 (R2019)	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers (Adopted IEC 61869-3:2011, edition 1.0:2011, with Canadian deviations)	Voltage transformers without 7.2.5, 7.2.7, 7.2.9, 7.2.9A, 7.2.9C-7.2.9F, 7.3.7.2, 7.3.8, 7.3.8C - 7.3.8E, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.4.10A, 7.4.10B

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Electrical engineering	CSA C61869-4:14 (R2019)	Instrument transformers - Part 4: Additional requirements for combined transformers (Adopted IEC 61869-4:2013, edition 1.0:2013, with Canadian deviations)	Combined transformers without 7.2.5, 7.2.7, 7.2.9, 7.2.9A, 7.2.9C-7.2.9F, 7.2.201, 7.3.7.2, 7.3.8, 7.3.8C-7.3.8E, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.4.10A, 7.4.10B, 7.5.1
	AS 61869.1:2021	Instrument transformers - Part 1: General requirements (IEC 61869-1:2007 (ED.1.0) MOD)	Instrument transformers without 7.2.5, 7.2.7, 7.2.9, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	AS 61869.2:2021	Instrument transformers - Part 2: Additional requirements for current transformers (IEC 61869-2:2012 (ED.1.0) MOD)	Instrument transformers without 7.2.5, 7.2.7, 7.2.9, 7.2.201, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	AS 61869.3:2021	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers (IEC 61869-4:2011 (ED.1.0) MOD)	Voltage transformers $U_m \leq 550$ kV without 7.2.5, 7.2.7, 7.2.9, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1
	AS 61869.4:2021	Instrument transformers - Part 4: Additional requirements for combined transformers (IEC 61869-4:2013 (ED.1.0) MOD)	Combined transformers $U_m \leq 550$ kV without 7.2.5, 7.2.7, 7.2.9, 7.2.201, 7.3.7.2, 7.3.8, 7.4.4 - 7.4.7, 7.4.9, 7.4.10, 7.5.1

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Electrical engineering	DIN EN 50463-2 (VDE 0115-480-2):2018-03	Railway applications - Energy measurement on board trains - Part 2: Energy measuring; German version EN 50463-2:2017	<p>Current / voltage sensors (-transformers),</p> <p>only 15kV / 16,7 Hz</p> <p>only tests current / voltage sensors (-transformers), at reference conditions according Table 2: (T=23 °C ± 2°C)</p> <p>Sec. 5.4.3.4.1 Accuracy tests for the VMF with confirmation of accuracy classes according to Table 4</p> <p>Sec. 5.4.3.4.2 Accuracy tests for the CMF with confirmation of accuracy classes according to Table 8</p>

Abbreviations used:

- AS Australian standard
- CSA Canadian Standards Association
- DIN Deutsches Institut für Normung e.V.
- IEEE Institute of Electrical and Electronics Engineers