DAkkS
Deutsche
Akkreditierungsstelle

Accreditation

The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that

PEHLA GmbH
Beckstraße 15, 69469 Weinheim

operates a testing laboratory that fulfills the requirements according to DIN EN ISO/IEC 17025:2018 for those conformity assessment activities specified in detail in the annex listed below. This includes additional existing legal and normative requirements for the testing laboratory including those in relevant sectoral schemes, provided that these are explicitly confirmed in the annex listed below.

D-PL-12072-04-01 Valid from: 10.03.2026

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

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This accreditation certificate only applies in connection with the notice of 10.03.2026. It consists of this cover sheet, the reverse side of the cover sheet and the corresponding annex .

Registration number of the accreditation certificate: **D-PL-12072-04-00**

Berlin, 10.03.2026

Dipl.-Ing. (FH) Florian Burkart | Head of Technical Unit

Translation issued: 09.10.2026

This accreditation certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS). It is digitally sealed and valid without signature. It reflects the status as indicated by the date of issue. The current status of any valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

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

See notes overleaf

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

The Deutsche Akkreditierungsstelle GmbH (DAkkS) is the entrusted national accreditation body of the Federal Republic of Germany according to § 8 section 1 AkkStelleG in conjunction with § 1 section 1 AkkStelleGBV. DAkkS is designated as the national accreditation authority by Germany according to Art. 4 Para. 4 of Regulation (EC) 765/2008 and clause 4.7 of DIN EN ISO/IEC 17000.

Pursuant to Art. 11 section 2 of Regulation (EC) 765/2008, the accreditation certificate shall be recognised as equivalent by the national authorities within the scope of this Regulation as well as by the WTO member states that have committed themselves in bilateral or multilateral mutual agreements to recognise the certificates of participating accreditation bodies as equivalent.

DAkkS is a signatory to the multilateral agreement for mutual recognition of the European co-operation for Accreditation (EA).

The up-to-date state of membership can be retrieved from the following website:
EA: www.european-accreditation.org

This accreditation certificate is the property of the German Accreditation Body

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-12072-04-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **01.04.2026**

Date of issue: 01.04.2026

This annex is part of the Accreditation Certificate D-PL-12072-04-00.

Holder of the Accreditation Certificate:

PEHLA GmbH
Beckstraße 15, 69469 Weinheim

with the location

PEHLA GmbH
PEHLA-Prüffeld Berlin
Paulsternstraße 26, 13629 Berlin

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing 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 testing laboratories and they conform to the principles of DIN EN ISO 9001.

High-Voltage Switchgear and Controlgear
Power Engineering Equipment

This annex to the certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS) and is digitally sealed.
This annex to the certificate 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 valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

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Flexible Scope of Accreditation:

Within the indicated test areas the testing laboratory is permitted without being required to prior inform and obtain approval from DAkkS

[Flex B] to have the free choice from standardised or equivalent test methods.

The test methods listed are examples. The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the website of the testing laboratory.

Scope No.	Test object/item under test	Type of test / Test methodology/ Measurement principle	Measurand / Test parameter	Title Test method *(Modification/ limitation, if applicable)*	Flexibilization (FLEX B/C)
High-power / High-current tests					
1	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Short-time withstand current and peak withstand current test	≤ 270 kA peak	IEC 62271-1 (2017) cl. 7.6	[Flex B]
2	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Ability to withstand short-circuit / Short-circuit current tests / Short-time current tests	≤ 100 kA	IEC 62271-1 (2017) cl. 7.6	[Flex B]
3	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Short-circuit making and breaking tests / Interruption tests / Terminal fault test	≤ 1400 kV and ≤ 100 kA	IEC 62271-100 (2021) cl. 7.107	[Flex B]
4	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Inrush current withstand test / Discharge current test	≤ 600 kV	IEC 62271-100 (2021) cl. 7.111	[Flex B]
5	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Short-line fault tests	≤ 1400 kV and ≤ 100 kA	IEC 62271-100 (2021) cl. 7.109	[Flex B]
6	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Out-of-phase making and breaking tests	≤ 1400 kV and ≤ 100 kA	IEC 62271-100 (2021) cl. 7.110	[Flex B]

Scope No.	Test object/item under test	Type of test / Test methodology/ Measurement principle	Measurand / Test parameter	Title Test method *(Modification/ limitation, if applicable)*	Flexibilization (FLEX B/C)
7	High-Voltage Switchgear and Controlgear Power Engineering Equipment	By-pass making and insertion tests	≤ 1400 kV and ≤ 100 kA	IEC 62271-109 (2019) cl. 7.103	[Flex B]
8	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Internal arc fault tests / Internal fault test	≤ 100 kA	IEC 62271-203 (2022) cl. 7.105	[Flex B]
9	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Short-circuit tests on arrester	≤ 100 kA	IEC 60099-4 (2014) cl. 8.10	[Flex B]
10	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Capacitive current switching tests	≤ 1200 kV	IEC 62271-100 (2021) cl. 7.111	[Flex B]
11	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Bus-transfer current switching tests	≤ 1200 kV	IEC 62271-102 (2018) cl. 7.106	[Flex B]
12	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Induced current switching tests	≤ 1200 kV	IEC 62271-102 (2018) cl. 7.107	[Flex B]
13	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Inductive load switching tests	≤ 1200 kV	IEC 62271-110 (2023) cl. 4.4	[Flex B]
High-voltage tests					
14	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Power-frequency voltage test (AC)	≤ 1200 kV, 50 Hz	IEC 60060-1 (2010) cl. 6 IEEE Std. 4 (2013) cl. 6	[Flex B]
15	High-Voltage Switchgear and Controlgear Power Engineering Equipment	DC voltage test (DC)	≤ 1200 kV	IEC 60060-1 (2010) cl. 5 IEEE Std. 4 (2013) cl. 7	[Flex B]
16	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Lightning impulse voltage test (LI)	≤ 2,4 MV	IEC 60060-1 (2010) cl. 7 IEEE Std. 4 (2013) cl. 8	[Flex B]
17	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Lightning impulse voltage test (LI), chopped wave	≤ 2,4 MV	IEC 60060-1 (2010) cl. 7 IEEE Std. 4 (2013) cl. 8	[Flex B]
18	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Switching impulse voltage test (SI)	≤ 1,7 MV	IEC 60060-1 (2010) cl. 8 IEEE Std. 4 (2013) cl. 8	[Flex B]

Scope No.	Test object/item under test	Type of test / Test methodology/ Measurement principle	Measurand / Test parameter	Title Test method *(Modification/ limitation, if applicable)*	Flexibilization (FLEX B/C)
19	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Tests with combined and composite voltages (DC, AC, SI, LI)	≤ 800 kV (DC); ≤ 500 kV (AC); ≤ 1,7 kV (SI); ≤ 2,4 MV (LI)	IEC 60060-1 (2010) cl. 9 IEEE Std. 4 (2013) cl. 10	[Flex B]
20	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Test under wet conditions (AC / DC / LI / SI)	x	IEC 60060-1 (2010) cl. 4.4 IEEE Std. 4 (2013) cl. 11	[Flex B]
21	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Partial discharge measurement (AC / DC)	all above noise level	IEC 60270 (2000) cl. 8/11	[Flex B]
22	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Radio interference voltage measurement	all above noise level	IEC 62271-1 (2017) cl. 7.9.1	[Flex B]
23	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Bus-charging current switching tests on disconnectors	≤ 800 kV (AC)	IEC 62271-102 (2018) cl. 7.108	[Flex B]
24	High-Voltage Switchgear and Controlgear Power Engineering Equipment	short-duration power-frequency voltage withstand tests of auxiliary and control circuits of switchgear and controlgear	2 kV	IEC 62271-1 (2017) cl. 7.10.5	[Flex B]
25	High-Voltage Switchgear and Controlgear Power Engineering Equipment	X-radiation test for vacuum interrupters	1 µSv/h to 1 mSv/h 1 keV to 2 MeV	IEC 62271-1 (2017) cl. 7.11	[Flex B]
Mechanical tests / Environmental tests					
26	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Low- and high temperature tests	-60 °C to +80 °C	IEC 62271-100 (2021) cl. 7.101.3	[Flex B]
27	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Mechanical endurance/operation test	x	IEC 62271-100 (2021) cl. 7.101.2	[Flex B]
28	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Gas Tightness test	x	IEC 62271-1 (2017) cl. 7.8	[Flex B]

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29	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Temperature-rise tests / continuous current tests of the main current path	DC ≤ 10 kA AC ≤ 10 kA (50/60 Hz)	IEC 62271-1 (2017) cl. 7.5	[Flex B]
30	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Resistance measurement of the main current path	x	IEC 62271-1 (2017) cl. 7.5.5	[Flex B]
31	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Continuous current test/temperature rise test of the auxiliary and control circuit	x	IEC 62271-1 (2017) cl. 7.5.3.2	[Flex B]
32	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Test on the power kinematic chain and the position-indicating kinematic chain	x	IEC 62271-102 (2018) cl. 7.105	[Flex B]
33	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Verification of IP coding	IP 3X, 4X, 5X, 6X, X3, X4, X5	IEC 62271-1 (2017) cl. 7.7.1	[Flex B]
34	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Sound level measurement	x	ISO 3744:2010	[Flex B]
35	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Electrical continuity of earth metallic parts	x	IEC 62271-1 (2017) cl. 7.4.3	[Flex B]
36	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Testing of mechanical interlocking devices	x	IEC 62271-102 (2018) cl. 7.102.6	[Flex B]
37	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Operation under severe ice condition	x	IEC 62271-100 (2021) cl. 7.101.5	[Flex B]
Surge arrester and insulators tests					
38	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Power-frequency current test (AC)	≤ 800 A, 50 Hz	IEC 60099-4 (2014) cl. 8.8	[Flex B]

Scope No.	Test object/item under test	Type of test / Test methodology/ Measurement principle	Measurand / Test parameter	Title Test method *(Modification/ limitation, if applicable)*	Flexibilization (FLEX B/C)
39	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Leakage current measurement (AC)	≤ 400 mA, 50 Hz, 150 Hz	IEC 60099-4 (2014) cl. 8.7	[Flex B]
40	High-Voltage Switchgear and Controlgear Power Engineering Equipment	DC current test	≤ 30 mA	IEC 60099-9 (2014) cl. 9.14	[Flex B]
41	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Impulse currents	1/2 µs ≤ 25 kA; 2/20 µs ≤ 40 kA; 4/10 s ≤ 150 kA; 8/20 µs ≤ 40 kA; 30/60 µs ≤ 3 kA; 200 µs ≤ 40 kA	IEC 60099-4 (2014) cl. 8.3	[Flex B]
42	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Long duration current	0.5 ms – 5 ms, ≤ 5 kA	IEC 60099-4 (2014) cl. 8.5.2	[Flex B]
43	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Residual voltage	1/2 µs ≤ 30 kV; 2/20 µs ≤ 50 kV; 4/10 µs ≤ 50 kV; 8/20 µs ≤ 500 kV; 30/60 µs ≤ 50 kV; 200 µs ≤ 20 kV, 0.5 ms – 5 ms, ≤ 20 kV	IEC 60099-4 (2014) cl. 8.3	[Flex B]
44	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Heat dissipation behaviour verification	10 °C – 250 °C	IEC 60099-4 (2014) cl. 8.6	[Flex B]
45	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Test to verify long term stability under continuous operating voltage/ Accelerated ageing procedure		IEC 60099-4 (2014) cl. 8.4	[Flex B]
46	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Repetitive charge transfer withstand / Repeated energy withstand test		IEC 60099-4 (2014) cl. 8.5	[Flex B]
47	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Operating duty/ Energy withstand and power-frequency voltage stability test (thermal recovery test)		IEC 60099-4 (2014) cl. 8.7	[Flex B]

Scope No.	Test object/item under test	Type of test / Test methodology/ Measurement principle	Measurand / Test parameter	Title Test method *(Modification/ limitation, if applicable)*	Flexibilization (FLEX B/C)
48	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Power-frequency voltage versus time		IEC 60099-4 (2014) cl. 8.8	[Flex B]
49	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Test to verify the dielectric withstand	4/10 µs ≤ 150 kA	IEC 60099-4 (2014) cl. 8.15	[Flex B]
50	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Arrester disconnector/fault indicator		IEC 60099-4 (2014) cl. 8.9	[Flex B]
51	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Force (tensile test)	100 kN to 980 kN	IEC 61952 (2008) cl. 10.4.2	[Flex B]
52	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Bending moment (Test of the bending moment)	0.06 kNm to 410 kNm	IEC 60099-4 (2014) cl. 8.11	[Flex B]
53	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Displacement (Test of the bending moment)	up to 500 mm	IEC 60099-4 (2014) cl. 8.11	[Flex B]
54	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Thermo-mechanical preconditioning (Test of the bending moment)	+80 °C to -60 °C, 0.06 kNm to 225 kNm	IEC 60099-4 (2014) cl. 10.8.11.3.1	[Flex B]
55	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Water immersion test	NaCl, up to +100 °C	IEC 62217 (2012) cl. 9.2.6	[Flex B]
56	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Temperature cycling test	+80 °C to -60 °C	IEC 60099-4 (2014) cl. 8.16.2, 8.12.3.1	[Flex B]
57	High-Voltage Switchgear and Controlgear Power Engineering Equipment	Seal leak rate		IEC 60099-4 (2014) cl. 8.13	[Flex B]

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