

# Accreditation



The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that the testing laboratory

**PEHLA GmbH**  
**Beckstraße 15, 69469 Weinheim**

meets the requirements according to DIN EN ISO/IEC 17025:2018 for the conformity assessment activities listed in the annex to this certificate. This includes additional existing legal and normative requirements for the testing laboratory, including those in relevant sectoral schemes, provided they are explicitly confirmed in the annex to this certificate.

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 notices of 13.03.2024 with accreditation number D-PL-12072-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 6 pages.

Registration number of the accreditation certificate: **D-PL-12072-01-00**

Berlin, 13.03.2024

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

Translation issued:  
13.03.2024



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

*The certificate together with the annex 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 ([www.dakks.de](http://www.dakks.de)).*

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

See notes overleaf

# Deutsche Akkreditierungsstelle GmbH

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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 accreditation bodies that are members of ILAC or IAF as equivalent.

DAkkS is a signatory to the multilateral agreements for mutual recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC).

The up-to-date state of membership can be retrieved from the following websites:

EA: [www.european-accreditation.org](http://www.european-accreditation.org)

ILAC: [www.ilac.org](http://www.ilac.org)

IAF: [www.iaf.nu](http://www.iaf.nu)

## Deutsche Akkreditierungsstelle

### Annex to the Accreditation Certificate D-PL-12072-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 13.03.2024

Date of issue: 13.03.2024

Holder of accreditation certificate:

**PEHLA GmbH**  
**Beckstraße 15, 69469 Weinheim**

with the location

**PEHLA GmbH**  
**PEHLA-Prüffeld Frankfurt/Main**  
**Carl-Benz-Straße 22, 60386 Frankfurt am Main**

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.

Tests in the fields:

**High-voltage switchgear and equipment,**  
**Equipment for electrical power engineering**  
**Environmental simulation**

**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.**

*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.

**Annex to the Accreditation Certificate D-PL-12072-01-00**

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

| Testing field            | Standard / In-House Procedure / Version | Title of Standard or In-House Procedure  | Test Range / Restrictions     |
|--------------------------|---|--|-------------------------------|
| Electrical engineering   | CSA C22.2 No 31:2018-01                 | Switchgear Assemblies  | 8.5.1, 8.5.2, 8.5.3           |
|                          | CSA-C22.2 No. 58:1989-05                | High-Voltage Isolating Switches  | 6.2, 6.3, 6.4, 6.5            |
|                          | CSA-C22.2 No. 193:1986-05               | High Voltage Full-Load Interrupter Switches  | 5.2, 5.3, 5.4, 5.7            |
|                          | IEC 60060-1:2010-09                     | High-voltage test techniques – Part 1: General definitions and test requirements                 | ohne 4.4 und 4.5              |
| Environmental simulation | IEC 60068-2-1:2007-03                   | Environmental testing - Part 2-1: Tests - Test A: Cold   | 5, 6                          |
| Environmental simulation | IEC 60068-2-11: 2021-03                 | Basic environmental testing procedures – Part 2-11: Tests – Test Ka: Salt Mist                   | 5, 6, 8, 10, 11, 12, 13       |
| Environmental simulation | IEC 60068-2-14:2009-01                  | Environmental testing – Part 2-14: Tests – Test N: Change of temperature                         | 8                             |
| Environmental simulation | IEC 60068-2-17:1994-07                  | Basic environmental testing procedures – Part 2-17: Tests – Test Q: Sealing                      | 8                             |
| Environmental simulation | IEC 60068-2-2:2007-07                   | Environmental testing - Part 2-2: Tests - Test B: Dry heat                                       | 5, 6                          |
| Environmental simulation | IEC 60068-2-30:2005-08                  | Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 + 12 h cycle)          |                               |
| Environmental simulation | IEC 60068-2-52: 2017-11                 | Environmental testing - Part 2-52: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution) | Ohne 9.4.8 und 9.4.9          |
| Environmental simulation | IEC 60068-2-78:2012-10                  | Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state                     |                               |
| Electrical engineering   | IEC 60282-1: 2020-04                    | High-voltage fuses - Part 1: Current-limiting fuses  | 7.1, 7.3, 7.4 ohne 7.4.6, 7.5 |
|                          | IEC 60529:2013-08                       | Degrees of protection provided by enclosures (IP code)   |                               |



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| Testing field          | Standard / In-House Procedure / Version | Title of Standard or In-House Procedure  | Test Range / Restrictions   |
|------------------------|---|--|---|
| Electrical engineering | IEC 61180:2016-06                       | High-voltage test techniques for low-voltage equipment<br>Definitions, test and procedure requirements, test equipment | 4, 6  |
|                        | IEC 62262: 2002-02 + AMD1: 2021-09      | Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts              | 4, 5, 6 ohne IK 11, 7   |
|                        | IEC 62271-1: 2017-07 + AMD1: 2021-10    | High-voltage switchgear and controlgear –<br>Part 1: Common specifications   | 7.2 ohne 7.2.3, 7.2.8 und 7.2.9<br>7.4 ohne 7.4.1 und 7.4.2<br>7.5<br>7.6<br>7.7<br>7.8 ohne 7.8.2 und 7.8.5<br>7.10 ohne 7.10.3.3, 7.10.3.4 und 7.10.4.5 |
|                        | IEC 62271-100: 2021-07                  | High-voltage switchgear and controlgear - Part 100: Alternating-current circuit-breakers                               | 7.2 ohne 7.2.3 und 7.2.8 und 7.2.9<br>7.4, 7.5, 7.6, 7.7, 7.8, 7.10, 7.101 ohne 7.101.5   |
|                        | IEC 62271-102: 2018-05 + AMD1: 2022-04  | High-voltage switchgear and controlgear - Part 102: Alternating current disconnectors and earthing switches            | 7.2 ohne 7.2.3 und 7.2.8 und 7.2.9;<br>7.4, 7.5, 7.6 ohne 7.6.2.103;<br>7.7, 7.8, 7.102 ohne 7.102.2 und 7.102.4;<br>7.104, 7.105                         |

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| Testing field          | Standard / In-House Procedure / Version | Title of Standard or In-House Procedure  | Test Range / Restrictions   |
|------------------------|---|--|---|
| Electrical engineering | IEC 62271-103: 2021-05                  | High-voltage switchgear and controlgear - Part 103: Alternating current switches for rated voltages above 1 kV up to and including 52 kV   | 7.2 ohne 7.2.3 und 7.2.8 und 7.2.9<br>7.4, 7.5, 7.6, 7.7, 7.8, 7.10, 7.102 ohne 7.102.5                     |
|                        | IEC 62271-105: 2021-06                  | High-voltage switchgear and controlgear - Part 105: Alternating current switch-fuse combinations for rated voltages above 1 kV up to and including 52 kV   | 7.2, 7.4, 7.5, 7.7, 7.8, 7.10, 7.102, 7.103, 7.104  |
|                        | IEC 62271-106: 2021-04                  | High-voltage switchgear and controlgear - Part 106: Alternating current contactors, contactor-based controllers and motor-starters   | 7.2 ohne 7.2.3;<br>7.4, 7.5 ohne 7.5.6.101 bis 7.5.6.104; 7.6, 7.7, 7.8, 7.10, 7.102                        |
|                        | IEC 62271-200: 2021-05                  | High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV   | 7.2 ohne 7.2.3 und 7.2.8 und 7.2.9<br>7.4, 7.5, 7.6, 7.7, 7.8, 7.10, 7.102, 7.103, 7.104 ohne 7.104b, 7.105 |
|                        | IEC 62271-201:2014-03                   | High-voltage switchgear and controlgear - Part 201: AC insulation-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV  | 6.2 ohne 6.2.7 und 6.2.8;<br>6.4, 6.5, 6.6, 6.7, 6.8, 6.10, 6.102, 6.103, 6.104, 6.105, 6.106               |
|                        | IEC 62271-202:2014-03                   | High-voltage switchgear and controlgear - Part 202: High-voltage/low-voltage prefabricated substation  | 6.6, 6.7, 6.10 ohne 6.10.5 und 6.10.6;<br>6.101.3, 6.102  |
|                        | IEC CDV 62271-207: 2022-03              | High-voltage switchgear and controlgear - Part 207: Seismic qualification for gas-insulated switchgear assemblies, metal enclosed and solid-insulation enclosed switchgear for rated voltages above 1 kV | 5.4.2 ohne I) und j)  |

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| Testing field          | Standard / In-House Procedure / Version | Title of Standard or In-House Procedure  | Test Range / Restrictions   |
|------------------------|---|--|---|
| Electrical engineering | IEC/TS 62271-210:2013-02                | High-voltage switchgear and controlgear - Part 210: Seismic qualification for metal enclosed and solid-insulation enclosed switchgear and controlgear assemblies for rated voltages above 1 kV and up to and including 52 kV | 5.4.2   |
|                        | IEC 62271-213:2021-06                   | High Voltage switchgear and controlgear – Part 213: Voltage detecting and indicating system  | 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7 ohne 7.7.4, 7.9, 7.10, 7.11, 7.12, 7.13, 7.14, 7.15, 7.18 |
|                        | IEC/TS 62271-304: 2019-03               | High-voltage switchgear and controlgear - Part 304: Design classes for indoor enclosed switchgear and controlgear for rated voltages above 1 kV up to and including 52 kV to be used in severe climatic conditions           |   |
|                        | IEC 62505-1:2016-02                     | Railway application – Fixed installations – Particular requirements for AC switchgear - Part 1: Circuit-breakers with nominal voltage above 1 kV   | 7.2 ohne 7.2.4 7.4  |
|                        | IEC 62505-2:2016-02                     | Railway application – Fixed installations – Particular requirements for AC switchgear - Part 2: Disconnectors, earthing switches and switches with nominal voltage above 1 kV  | 7.2, 7.5  |
|                        | IEEE C37.09: 2018                       | IEEE Standard Test Procedure for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis   | 4.4, 4.5.4, 4.5.4.1, 4.5.5, 4.13, 4.15, 4.18.   |
|                        | IEEE C37.100.1: 2018                    | IEEE Standard of Common Requirements for High Voltage Power Switchgear Rated Above 1000 V  | 7.3.7.2, 7.3.7.3, 7.3.10, 7.3.12, 7.5, 7.6, 7.7, 7.8, 7.9                                   |
|                        | IEEE C37.20.2:2015                      | IEEE Standard for Metal-Clad Switchgear  | 6.2.1, 6.2.1.1, 6.2.1.2, 6.2.1.3, 6.2.2, 6.2.3, 6.2.4, 6.2.6                                |



| Testing field          | Standard / In-House Procedure / Version | Title of Standard or In-House Procedure   | Test Range / Restrictions                                  |
|------------------------|---|---|--|
|                        | IEEE C37.20.3:2013                      | IEEE Standard for Metal-Enclosed Interrupter Switchgear   | 6.2.6.1, 6.2.6.2, 6.2.9, 6.4, 6.5, 6.6, 6.12, 6.14         |
| Electrical engineering | IEEE C37.20.4:2013                      | IEEE Standard for Indoor AC Switches (1 kV - 38 kV) for Use in Metal-Enclosed Switchgear  | 6.2.6.1, 6.2.6.2, 6.4, 6.5, 6.6, 6.8, 6.12                 |
|                        | IEEE C37.20.7: 2017                     | IEEE Guide for Testing Switchgear Rated Up to 52 kV for Internal Arcing Faults  | 5 ohne 5.3.6.3; ANNEX C, E, F, G und L                     |
|                        | IEEE C37.20.9: 2019                     | IEEE Approved Draft Standard for Metal-Enclosed Switchgear Rated 1 kV to 52 kV Incorporated Gas Insulating Systems                                    | 7.2.7.2, 7.2.7.3, 7.2.10, 7.2.12, 7.4, 7.5, 7.6, 7.8, 7.12 |
|                        | NEMA C37.55: 2020                       | Medium-Voltage Metal-Clad Switchgear Assemblies - Conformance Test Procedures   | 5.4, 5.5, 5.6, 5.7, 5.8                                    |
|                        | NEMA C37.57:2003                        | Metal-Enclosed Interrupter Switchgear Assemblies - Conformance Testing  | 4.5.2, 4.5.3, 4.6, 4.7, 4.8, 4.9                           |
|                        | NEMA C37.58: 2020                       | Indoor AC Medium-Voltage Switches for Use in Metal-Enclosed Switchgear - Conformance Test Procedures  | 4.5, 4.6, 4.7, 4.8, 4.9, 4.10                              |
|                        | NEMA/ANSI C37.54:2002                   | For Indoor Alternating Current High-Voltage Circuit Breakers Applied as Removable Elements in Metal-Enclosed Switchgear - Conformance Test Procedures | 3.5, 3.6, 3.7, 3.9, 6.2                                    |

#### Abbreviations used:

|      |   |
|------|---|
| ANSI | American National Standards Institute                       |
| CDV  | Committee draft for vote                                    |
| CSA  | Canadian Standards Association                              |
| DIN  | German Institute for Standardisation Registered Association |
| EN   | European Standard   |
| IEC  | International Electrotechnical Commission                   |
| IEEE | Institute of Electrical and Electronics Engineers           |
| ISO  | International Organization for Standardization              |
| NEMA | National Electrical Manufacturers Association               |
| TS   | Technical Specification                                     |