

Accreditation



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

IMA Materialforschung und Anwendungstechnik GmbH
Wilhelmine-Reichard-Ring 4, 01109 Dresden

meets the minimum 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, including those in relevant sectoral schemes.

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.

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 partial accreditation certificate only applies in connection with the notices of 28.11.2022 with accreditation number D-PL-13119-02.
It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 9 pages.

Registration number of the partial accreditation certificate: **D-PL-13119-02-03**
It is a part of the accreditation certificate D-PL-13119-02-00.

Berlin, 28.11.2022

Ralf Egner
Head of Department

Translation issued:
05.12.2022



Ralf Egner
Head of Department

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).

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

Office Frankfurt am Main
Europa-Allee 52
60327 Frankfurt am Main

Office Braunschweig
Bundesallee 100
38116 Braunschweig

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

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-13119-02-03 according to DIN EN ISO/IEC 17025:2018

Valid from: 28.11.2022

Date of issue: 05.12.2022

This annex is a part of the accreditation certificate D-PL-13119-02-00.

Holder of partial accreditation certificate:

**IMA Materialforschung und Anwendungstechnik GmbH
Wilhelmine-Reichard-Ring 4, 01109 Dresden**

at the locations

**Wilhelmine-Reichard-Ring 4, 01109 Dresden
Am Lagerplatz 4, 01099 Dresden**

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.

Electrical tests of devices, components and assemblies

Within the given testing field marked with *, the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the free choice of standard or equivalent testing methods 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>.

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

The test methods are indicated with the following abbreviations for locations, in which they are performed respectively:

D2 = Am Lagerplatz 4, 01099 Dresden

1 Electrical tests of devices, components and assemblies * (D2)**

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	VDE 0660 - 100: 2015 DIN EN 60947-1:2015 <i>(withdrawn standard)</i> EN 60947-1: 2007 + A1:2011 + A2:2014	Low-voltage switchgear and controlgear - Part 1: General rules	
Electrical engineering	IEC 60947-1 2007 + A1:2010 + A2:2014	Low-voltage switchgear and control gear - Part 1: General rules	
Electrical engineering	VDE 0660 - 101: 2014 DIN EN 60947-2:2014 <i>(withdrawn standard)</i> EN 60947-2: 2006 + A1:2009 + A2:2013	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers	
Electrical engineering	IEC 60947-2 2006 + A1:2009 + A2:2013	Low-voltage switchgear and control gear - Part 2: Circuit-breakers	
Electrical engineering	VDE 0660 - 107 :2017 DIN EN 60947-3:2017 <i>(withdrawn standard)</i> EN 60947-3: 2009 + A1:2012 + A2:2015	Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch- disconnectors and fuse-combination units	
Electrical engineering	IEC 60947-3 2008/ A1:2012 + A2:2015	Low-voltage switchgear and control gear - Part 3: Switches, disconnectors, switchdisconnectors and fuse-combination units	
Electrical engineering	VDE 0660 - 102:2014 DIN EN 60947-4-1:2014 <i>(withdrawn standard)</i> EN 60947-4-1:2010 + A1:2012	Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor- starters	
Electrical engineering	IEC 60947-4-1:2009 + A1:2012	Low-voltage switchgear and control gear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motorstarters	

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	VDE 0660 - 117:2013 DIN EN 60947-4-2:2013 EN 60947-4-2:2012	Low-voltage switchgear and controlgear - Part 4-2: Contactors and motor-starters - AC semiconductor motor controllers and starters	
Electrical engineering	IEC 60947-4-2:2011 + Cor.: 2012	Low-voltage switchgear and control gear - Part 4-2: Contactors and motor-starters - AC semiconductor motor controllers and starters	
Electrical engineering	VDE 0660 - 109:2015 DIN EN 60947-4-3:2015 EN 60947-4-3:2014	Low-voltage switchgear and controlgear - Part 4-3: Contactors and motor-starters - AC semiconductor controllers and contactors for non-motor loads	
Electrical engineering	IEC 60947-4-3:2014	Low-voltage switchgear and controlgear - Part 4-3: Contactors and motor-starters - AC semiconductor controllers and contactors for non-motor loads	
Electrical engineering	VDE 0660 - 200:2010 DIN EN 60947-5-1:2018 EN 60947-5-1:2004 + Cor.:2005 + A1:2009	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices (IEC 60947-5-1:2016 + COR1:2016)	
Electrical engineering	IEC 60947-5-1:2003 + A1:2009	Low-voltage switchgear and control gear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	
Electrical engineering	VDE 0660 - 208:2014 DIN EN 60947-5-2:2014 <i>(withdrawn standard)</i> EN 60947-5-2:2007 + A1:2012	Low-voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements - Proximity switches	
Electrical engineering	IEC 60947-5-2:2007 + A1:2012	Low-voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements - Proximity switches	
Electrical engineering	VDE 0660 - 114:2014 DIN EN 60947-6-1:2014 EN 60947-6-1:2005 + A1:2014	Low-voltage switchgear and controlgear - Part 6-1: Multiple function equipment - Transfer switching equipment	
Electrical engineering	IEC 60947-6-1:2005 + A1:2013	Low-voltage switchgear and controlgear - Part 6-1: Multiple function equipment - Transfer switching equipment	

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	VDE 0660 - 115:2007 DIN EN 60947-6-2:2007 EN 60947-6-2:2003 + A1:2007	Low-voltage switchgear and controlgear - Part 6-2: Multiple function equipment - Control and protective switching devices (or equipment) (CPS)	
Electrical engineering	IEC 60947-6-2:2002 + A1:2007	Low-voltage switchgear and controlgear - Part 6-2: Multiple function equipment - Control and protective switching devices (or equipment) (CPS)	
Electrical engineering	VDE 0611 - 1:2010 DIN EN 60947-7-1:2010 EN 60947-7-1:2009	Low-voltage switchgear and controlgear - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors	
Electrical engineering	IEC 60947-7-1:2009	Low-voltage switchgear and controlgear - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors	
Electrical engineering	VDE 0611 - 3:2010 DIN EN 60947-7-2:2010 EN 60947-7-2:2009	Low-voltage switchgear and controlgear - Part 7-1: Ancillary equipment - Terminal blocks for copper conductors	
Electrical engineering	IEC 60947-7-2:2009	Low-voltage switchgear and controlgear - Part 7-2: Ancillary equipment - Protective conductor terminal blocks for copper conductors	
Electrical engineering	VDE 0611 - 6:2010 DIN EN 60947-7-3:2010 EN 60947-7-3:2009	Low-voltage switchgear and controlgear - Part 7-3: Ancillary equipment - Safety requirements for fuse terminal blocks	
Electrical engineering	IEC 60947-7-3 2009	Low-voltage switchgear and controlgear - Part 7-3: Ancillary equipment – Safety requirements for use terminal blocks.	
Electrical engineering	VDE 0660-600-1:2012 DIN EN 61439-1:2012 <i>(withdrawn standard)</i> EN 61439-1:2011	Low-voltage switchgear and controlgear assemblies - Part 1: General rules	
Electrical engineering	IEC 61439-1:2011	Low-voltage switchgear and controlgear assemblies Part 1: General rules	
Electrical engineering	VDE 0660-600-2:2012 DIN EN 61439-2:2012 <i>(withdrawn standard)</i> EN 61439-2 2011	Low-voltage switchgear and controlgear assemblies - Part 2: Power switchgear and controlgear assemblies	
Electrical engineering	IEC 61439-2:2011	Low-voltage switchgear and controlgear assemblies Part 2: Power switchgear and controlgear assemblies	

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	VDE 0660-600-3:2013 DIN EN 61439-3:2013 EN 61439-3:2012	Low-voltage switchgear and controlgear assemblies - Part 3: Distribution boards intended to be operated by ordinary persons (DBO)	
Electrical engineering	IEC 61439-3:2012	Low-voltage switchgear and controlgear assemblies - Part 3: Distribution boards intended to be operated by ordinary persons (DBO)	
Electrical engineering	VDE 0660-600-4:2013 DIN EN 61439-4:2013 EN 61439-4:2013	Low-voltage switchgear and controlgear assemblies - Part 4: Particular requirements for assemblies for construction sites (ACS)	
Electrical engineering	IEC 61439-4:2012	Low-voltage switchgear and controlgear assemblies - Part 4: Particular requirements for assemblies for construction sites (ACS)	
Electrical engineering	VDE 0660-600-5:2015 DIN EN 61439-5:2015 EN 61439-5:2015 IEC 61439-5:2014 + Cor.:2015	Low-voltage switchgear and controlgear assemblies - Part 5: Assemblies for power distribution in public networks	
Electrical engineering	VDE 0660-600-6:2013 DIN EN 61439-6:2013 EN 61439-6:2012 IEC 61439-6:2012	Low-voltage switchgear and controlgear assemblies - Part 6: Busbar trunking systems (busways)	
Electrical engineering	VDE 0606-200:2013 DIN EN 61535:2013 <i>(withdrawn standard)</i> EN 61535:2009 + A1:2013 IEC 61535:2009 + A1:2012	Installation couplers intended for permanent connection in fixed installations	

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	VDE 0609-1:2000 DIN EN 60999-1:2000 EN 60999-1:2000 IEC 60999-1:1999	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors 0,2 mm ² up to 35 mm ² (included)	
Electrical engineering	VDE 0609-101:2004 DIN EN 60999-2:2004 EN 60999-2:2003 IEC 60999-2:2003	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 2: Particular requirements for clamping units for conductors above 35 mm ² up to 300 mm ²	
Electrical engineering	VDE 0613-1:2005 DIN EN 60998-1:2005 EN 60998-1:2004 IEC 60998-1:2002, modifiziert	Connecting devices for low-voltage circuits for household and similar purposes - Part 1: General requirements	
Electrical engineering	VDE 0613-2-1:2005 DIN EN 60998-2-1:2005 EN 60998-2-1:2004 IEC 60998-2-1:2002, modifiziert	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	
Electrical engineering	VDE 0613-2-2:2005 DIN EN 60998-2-2:2005 EN 60998-2-2:2004 IEC 60998-2-2:2002, modifiziert	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units	
Electrical engineering	VDE 0613-2-3:2005 DIN EN 60998-2-3:2005 EN 60998-2-3:2004 IEC 60998-2-3:2002, modifiziert	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units	
Electrical engineering	VDE 0115-460-1:2003 DIN EN 60077-1:2003 <i>(withdrawn standard)</i> EN 60077-1:2002 IEC 60077-1:1999, modifiziert	Railway applications - Electric equipment for rolling stock - Part 1: General service conditions and general rules	

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	VDE 0115-460-2:2003 DIN EN 60077-2:2003 <i>(withdrawn standard)</i> EN 60077-2:2002 IEC 60077-2:1999, modifiziert	Railway applications - Electric equipment for rolling stock - Part 2: Electrotechnical components - General rules	
Electrical engineering	VDE 0115-460-3:2003 DIN EN 60077-3:2003 <i>(withdrawn standard)</i> EN 60077-3:2002 IEC 60077-3:2001	Railway applications - Electric equipment for rolling stock - Part 3: Electrotechnical components - Rules for d.c. circuit-breakers	
Electrical engineering	VDE 0110-1:2008 DIN EN 60664-1:2008 <i>(withdrawn standard)</i> EN 60664-1:2007 IEC 60664-1:2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	
Electrical engineering	VDE 0115-200:2008 DIN EN 50155:2018 <i>(withdrawn standard)</i>	Railway applications - Rolling stock - Electronic equipment	
Electrical engineering	DIN EN 50124-1:2017 VDE 0115-107-1:2017-12	Railway applications - Insulation coordination - Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment	
Electrical engineering	DIN EN 50124-2:2017 VDE 0115-107-2:2017-12	Railway applications - Insulation coordination - Part 2: Overvoltages and related protection	
Electrical engineering	DIN EN 60898-1:2003 <i>(withdrawn standard)</i> VDE 0641-11:2006-03	Electrical accessories - Circuit-breakers for overcurrent protection for household and similar installations - Part 1: Circuit-breakers for a.c. operation	
Tests on electrical connectors ***			
Electrical engineering	DIN EN 60512-1-1:2003 IEC 60512-1-1:2002	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	
Electrical engineering	DIN EN 60512-1-2:2003 IEC 60512-1-2:2002	Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination; Test 1b: Examination of dimension and mass	

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	DIN EN 60512-1-3:1998 IEC 60512-1-3:1997	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 1: General examination - Section 3: Test 1c: Electrical engagement length	
Electrical engineering	DIN EN 60512-2-1:2003 IEC 60512-2-1:2002	Connectors for electronic equipment - Tests and measurements - Part 2-1: Electrical continuity and contact resistance tests - Test 2a: Contact resistance; Millivolt level method	
Electrical engineering	DIN EN 60512-2-2:2004 IEC 60512-2-2:2003	Connectors for electronic equipment - Tests and measurements - Part 2-2: Electrical continuity and contact resistance tests - Test 2b: Contact resistance - Specified test current method	
Electrical engineering	DIN EN 60512-2-3:2003 IEC 60512-2-3:2002	Connectors for electronic equipment - Tests and measurements - Part 2-3: Electrical continuity and contact resistance tests - Test 2c: Contact resistance variation	
Electrical engineering	DIN EN 60512-2-5:2004 IEC 60512-2-5:2003	Connectors for electronic equipment - Tests and measurements - Part 2-5: Electrical continuity and contact resistance tests - Test 2e: Contact disturbance	
Electrical engineering	DIN EN 60512-3-1:2003 IEC 60512-3-1:2002	Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests - Test 3a: Insulation resistance	
Electrical engineering	DIN EN 60512-4-1:2004 IEC 60512-4-1:2003	Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests - Test 4a: Voltage proof	
Electrical engineering	DIN EN 60512-5-1:2003 IEC 60512-5-1:2002	Connectors for electronic equipment - Tests and measurements - Part 5-1: Current-carrying capacity tests - Test 5a: Temperature rise	

Annex to the Partial Accreditation Certificate D-PL-13119-02-03

Field of testing	Standard or test method/issue	Title of the standard or test method	Restriction on the test procedure
Electrical engineering	DIN EN 60512-5-2:2003 IEC 60512-5-2:2002	Connectors for electronic equipment - Tests and measurements - Part 5-2: Current-carrying capacity tests - Test 5b: Current-temperature derating	
Electrical engineering	DIN EN 60512-6-5:2000 IEC 60512-6-5:1997	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 6: Dynamic stress tests; section 5: Test 6e: Random vibration	
Electrical engineering	DIN EN 60512-10-4:2004 IEC 60512-10-4:2003	Connectors for electronic equipment - Tests and measurements - Part 10-4: Impact tests (free components), static load tests and overload tests - endurance tests and overload tests - Test 10d: Electrical overload (connectors)	
Electrical engineering	DIN EN 60512-13-1:2006 IEC 60512-13-1:2006	Connectors for electronic equipment - Tests and measurements - Part 13-1: Mechanical operation tests - Test 13a: Engaging and separating forces	
Electrical engineering	DIN EN 60512-13-5:2006	Connectors for electronic equipment - Tests and measurements - Part 13-5: Mechanical operation tests - Test 13e: Polarizing and keying method	
Electrical engineering	DIN EN 60512-15-6:2009	Connectors for electronic equipment - Tests and measurements - Part 15-6: Connector tests (mechanical) - Test 15f: Effectiveness of connector coupling devices	

Abbreviations used:

DIN	Deutsches Institut für Normung e.V. - German Institute for Standardisation
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organisation for Standardisation
VDE	Verband der Elektrotechnik Elektronik Informationstechnik e.V. - Association of electrotechnic electronic information technic