

## Deutsche Akkreditierungsstelle GmbH

**Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV**

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

# Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

**Tyco Electronics Raychem GmbH  
Finsinger Feld 1, 85521 Ottobrunn**

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

**Dielectric, mechanical and thermal tests on high-voltage equipment and components, especially cable accessories for low, medium and high voltage cables**

The accreditation certificate shall only apply in connection with the notice of accreditation of 01.10.2021 with the accreditation number D-PL-21163-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 08 pages.

Registration number of the certificate: **D-PL-21163-01-00**

Berlin,  
29.11.2023

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

Translation issued:  
29.11.2023

  
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 at <https://www.dakks.de/en/accredited-bodies-search.html>.*

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

See notes overleaf.

# Deutsche Akkreditierungsstelle GmbH

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60327 Frankfurt am Main

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The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkKS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkKS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council setting out the requirements for accreditation and market surveillance relating to the marketing of products. 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 signatories to these agreements recognise each other's accreditations.

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 GmbH

### Annex to the Accreditation Certificate D-PL-21163-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **01.10.2021**

Date of issue: 29.11.2023

Holder of certificate:

**Tyco Electronics Raychem GmbH**  
**Finsinger Feld 1, 85521 Ottobrunn**

Tests in the fields:

**Dielectric, mechanical and thermal tests on high-voltage equipment and components, especially cable accessories for low, medium and high voltage cables**

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.

Testing field	Standard or In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
Electrical Engineering	DIN EN 60060-1:2011-10 VDE 0432-1-2011-10	High-voltage test techniques - Part 1: General definitions and test requirements (IEC 60060-1:2010); German version EN 60060-1:2010	

*The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.*

*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 at <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

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.

Testing field	Standard or In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
Electrical Engineering	IEC 60060-1:2010	High-voltage test techniques - Part 1: General definitions and test requirements	
Electrical Engineering	DIN EN 60270:2001-08 VDE 0434-2001-08	High-voltage test techniques - Partial discharge measurement (IEC 60270:2000); German version EN 60270:2001	
Electrical Engineering	IEC 60270:2000	High-voltage test techniques - Partial discharge measurements	
Electrical Engineering	DIN EN 60270:2016-11 VDE 0434-2016-11	High-voltage test techniques - Partial discharge measurements (IEC 60270:2000 + Cor.:2001 + A1:2015); German version EN 60270:2001 + A1:2016	
Electrical Engineering	IEC 60270:2000+AMD 1:2015	High-voltage test techniques - Partial discharge measurements	
Electrical Engineering	DIN EN 61180:2017-04 VDE 0432-10:2017-04	High-voltage test techniques for low-voltage equipment - Definitions, test and procedure requirements, test equipment (IEC 61180:2016); German version EN 61180:2016	
Electrical Engineering	IEC 61180:2016-06	High-voltage test techniques for low-voltage equipment - Definitions, test and procedure requirements, test equipment	
Electrical Engineering	DIN EN 60230:2003-03 VDE 0481-230:2003-03	Impulse tests on cables and their accessories (IEC 60230:1966); German version EN 60230:2002	Only cl. 6
Electrical Engineering	IEC 230:1966	Impulse tests on cables and their accessories	Only cl. 6



Testing field	Standard or In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
Electrical Engineering	IEC 60230:2018	Impulse tests on cables and their accessories	Only cl. 6
Electrical Engineering	DIN EN 50393:2015-10 VDE 0278-393:2015-10	Test methods and requirements for accessories for use on distribution cables of rated voltage 0,6/1,0 (1,2) kV; German version EN 50393:2015	Not cl. 8.9
Electrical Engineering	IEC 60502-4:2010-12	Power cables with extruded insulation and their accessories for rated voltages from 1 kV ( $U_m = 1,2$ kV) up to 30 kV ( $U_m = 36$ kV) - Part 4: Test requirements on accessories for cables with rated voltages from 6 kV ( $U_m = 7,2$ kV) up to 30 kV ( $U_m = 36$ kV)	Not AC wet (table 13) Not thermal short circuit (screen) (table 13)  Not thermal short circuit (conductor) (table 13)  Not dynamic short circuit (table 13)  Not screen fault test (table 13)  Not operating force (table 13) Not operating eye (table 13)
Electrical Engineering	DIN EN 61442:2006-01 VDE 0278-442:2006-01	Test methods for accessories for power cables with rated voltages from 6 kV ( $U_m = 7,2$ kV) up to 36 kV ( $U_m = 42$ kV) (IEC 61442:2005, modified); German version EN 61442:2005	Not Thermal short-circuit test (screen) §10 Not Thermal short-circuit test (conductor) §11

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Testing field	Standard or In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
			<p>Not Dynamic short-circuit test §12</p> <p>Not Screen fault current initiation test §17</p> <p>Not Operating force test §18</p> <p>Not Operating eye test §19</p>
Electrical Engineering	IEC 61442:2005-03	Test methods for accessories for power cables with rated voltages from 6 kV ( $U_m = 7,2$ kV) up to 30 kV ( $U_m = 36$ kV)	<p>Not Thermal short-circuit test (screen) §10</p> <p>Not Thermal short-circuit test (conductor) §11</p> <p>Not Dynamic short-circuit test §12</p> <p>Not Screen fault current initiation test §17</p> <p>Not Operating force test §18</p> <p>Not Operating eye test §19</p>
Electrical Engineering	DIN EN 0278-629-1:2009-07 VDE 0278-629-1:2009-07	Test requirements on accessories for use on power cables of rated voltage	Not AC wet (table 4)

Valid from: 01.10.2021  
Date of issue: 29.11.2023

Testing field	Standard or In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
		from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 1: Cables with extruded insulation; German version HD 629.1 S2:2006 + A1:2008	Not thermal short circuit(screen) (table 3-8)  Not thermalshort circuit (conductor) (table 3-8)  Not dynamicshort circuit(table 3-8)  Not screen faulttest (table 7-8)  Not operatingforce (table 7)  Not operatingeye (table 7)
Electrical Engineering	DIN EN 0278-629-2:2009-07 VDE 0278-629-2:2009-07	Test requirements on accessories for use on power cables of rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 2: Cables with impregnated paper insulation; German version HD 629.2 S2:2006 + A1:2008	Not AC wet (table 4)  Not thermal short circuit(screen) (table 3-8)  Not thermalshort circuit (conductor) (table 3-8)

Testing field	Standard or In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
			<p>Not dynamic short circuit (table 3-8)</p> <p>Not screen fault test (table 7-8)</p> <p>Not operating force (table 7)</p> <p>Not operating eye (table 7)</p>
Electrical Engineering	HD 629.1 S2:2006-02	Test requirements on accessories for use on power cables of rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 2: Cables with extruded insulation;	<p>Not AC wet (table 4)</p> <p>Not thermal short circuit (screen) (table 3-8)</p> <p>Not thermal short circuit (conductor) (table 3-8)</p> <p>Not dynamic short circuit (table 3-8)</p> <p>Not screen fault test (table 7-8)</p> <p>Not operating force</p>



Testing field	Standard or In-House Procedure / Version	Title of Standard or In-House Procedure	Test Range / Restrictions
			(table 7)  Not operatingeye (table 7)
Electrical Engineering	HD 629.2 S2:2006-02	Test requirements on accessories for use on power cables of rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 2: Cables with impregnated paper insulation;	Not AC wet (table 4) Not thermal short circuit(screen) (table 3-8) Not thermalshort circuit(conductor)(table 3-8) Not dynamicshort circuit(table 3-8) Not screen faulttest (table 7-8) Not operatingforce (table 7) Not operatingeye (table 7)
Electrical Engineering	IEC 60840:2011	Power cables with extruded insulation and their accessories for rated voltages above 30 kV ( $U_m = 36$ kV) up to 150 kV ( $U_m = 170$ kV) - Test methods and requirements	$U_m \leq 72,5$ kV Only 15.4.1 a) – e), g)

