

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)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN IEC 61442:2024 sisaldab Euroopa standardi EN IEC 61442:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.12.2024.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN IEC 61442:2024 consists of the English text of the European standard EN IEC 61442:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 20.12.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

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 61442:2023)

Méthodes d'essais des accessoires de câbles d'énergie de
tensions assignées de 6 kV ($U_m = 7,2$ kV) à 36 kV ($U_m =$
42 kV)
(IEC 61442:2023)

Prüfverfahren für Starkstromkabelgarnituren mit einer
Nennspannung von 6 kV ($U_m = 7,2$ kV) bis 36 kV ($U_m = 36$
kV)
(IEC 61442:2023)

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European foreword

The text of document 20/2108/FDIS, future edition 3 of IEC 61442, prepared by TC 20 "Electric cables" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61442:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-12-31 level by publication of an identical national standard or by endorsement
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- | | | |
|----------------|------|--|
| IEC 60228 | NOTE | Approved as EN IEC 60228 |
| IEC 60507:2013 | NOTE | Approved as EN 60507:2014 (not modified) |
| IEC 62475:2010 | NOTE | Approved as EN 62475:2010 (not modified) |

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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)

Méthodes d'essais des accessoires de câbles d'énergie de tensions assignées de 6 kV ($U_m = 7,2$ kV) à 36 kV ($U_m = 42$ kV)



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INTERNATIONAL STANDARD

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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)****FOREWORD**

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IEC 61442 has been prepared by IEC technical committee 20: Electric cables. It is an International Standard.

This third edition cancels and replaces the second edition published in 2005. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) 4.6 – the option to start tests immediately has been included;
- b) 4.11 – methods for testing on belted cables have been included;
- c) 5.3.2 and 10.3 – details of insulation resistance testing has been added;
- d) 8.2 – pre-stress with slightly increased test voltage before applying the partial discharge test has been included;
- e) 11.2 – testing of accessories with external earthing devices has been included;
- f) 11.2 – short-circuit duration and maximum kA levels have been added;

g) 11.2 – temperature measurement is not required if the time between short-circuits > 1 h.

The text of this International Standard is based on the following documents:

Draft	Report on voting
20/2108/FDIS	20/2132/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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**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)**

1 Scope

This document specifies the test methods applicable for type testing accessories for power cables with rated voltages from 3,6/6 (7,2) kV up to 18/30 (36) kV. The test methods specified in this document apply to accessories for extruded and paper insulated cables according to IEC 60502-2 and IEC 60055-1 respectively.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60060-1:2010, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60230:2018, *Impulse tests on cables and their accessories*
IEC 60230:2018/AMD1:2021

IEC 60270:2000, *High-voltage test techniques – Partial discharge measurements*
IEC 60270:2000/AMD1:2015

IEC 60811-401:2012, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 401: Miscellaneous tests – Thermal ageing methods – Ageing in an air oven*
IEC 60811-401:2012/AMD1:2017

IEC 60885-2:1987¹, *Electrical test methods for electric cables – Part 2: partial discharge tests*

IEC 61238-1-3:2018, *Compression and mechanical connectors for power cables – Part 1-3: Test methods and requirements for compression and mechanical connectors for power cables for rated voltages above 1 kV ($U_m = 1,2$ kV) up to 30 kV ($U_m = 36$ kV) tested on non-insulated conductors*

IEC 60949:1988, *Calculation of thermally permissible short-circuit currents, taking into account non-adiabatic heating effects*
IEC 60949:1988/AMD1:2008

¹ Withdrawn.