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)
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)
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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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International Standard IEC 61442 has been prepared by IEC technical committee 20: Electric cables.

This second edition of IEC 61442 cancels and replaces the first edition of IEC 61442, published in 1997, and constitutes a technical revision.

Significant technical changes with respect to the previous edition are as follows:

a) a test in water has been added for stop ends;

b) the heating cycles voltage test has been revised to clarify testing in air and water;

c) the testing conditions for the short-circuit tests have been redefined;

d) additional information has been provided for testing separable connectors with a metallic housing;
e) tests not required by IEC, i.e. an immersion test for outdoor terminations and an impact test, have been included in order to have a common test method document with CENELEC under the IEC/CLC Dresden agreement.

The text of this standard is based on the following documents:

<table>
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<tr>
<th>FDIS</th>
<th>Report on voting</th>
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<td>20/748/FDIS</td>
<td>20/762/RVD</td>
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Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under “http://webstore.iec.ch” in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.
1 Scope

This International Standard specifies the test methods to be used for type testing accessories for power cables with rated voltage from 3,6/6 (7,2) kV up to 18/30 (36) kV. Test methods are specified for accessories for extruded and paper insulated cables according to IEC 60502-2 and IEC 60055-1 respectively.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including amendments) applies.

IEC 60055-1: Paper-insulated metal-sheathed cables for rated voltages up to 18/30 kV (with copper or aluminium conductors and excluding gas-pressure and oil-filled cables) – Part 1: Tests on cables and their accessories

IEC 60060-1:1989, High-voltage test techniques – Part 1: General definitions and test requirements

IEC 60230:1966, Impulse tests on cables and their accessories

IEC 60270:2000, High-voltage test techniques – Partial discharge measurements

IEC 60502-2:2005, 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 2: Cables for rated voltages from 6 kV ($U_m = 7,2$ kV) up to 30 kV ($U_m = 36$ kV)


IEC 60986:2000, Short-circuit temperature limits of electric cables with rated voltages from 6 kV ($U_m = 7,2$ kV) up to 30 kV ($U_m = 36$ kV)

IEC 61238-1:2003, Compression and mechanical connectors for power cables for rated voltages up to 30 kV ($U_m = 36$ kV) – Part 1: Test methods and requirements