SLOVENSKI

STANDARD

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Test requirements on accessories for use on power cables of rated voltages from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 2: Cables with impregnated paper insulation

ICS 29.035.10; 29.060.20

Referenčna številka
SIST HD 629.2 S1:1998/A1:2002(en)

HARMONIZATION DOCUMENT **HD 629.2 S1/A1**

DOCUMENT D'HARMONISATION

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ICS 29.060.20

English version

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

Prescriptions relatives aux essais sur les accessoires des câbles d'énergie pour des tensions assignées 3,6/6(7,2) kV à 20,8/36(42) kV Partie 2: Câbles isolés au papier imprégné

Prüfanforderungen für Kabelgarnituren für Starkstromkabel mit einer Nennspannung von 3,6/6(7,2) kV bis 20,8/36(42) kV Teil 2: Kabel mit massegetränkter Papierisolierung

This amendment A1 modifies the Harmonization Document HD 629.2 S1:1997; it was approved by CENELEC on 2000-11-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this amendment on a national level.

Up-to-date lists and bibliographical references concerning such national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This amendment to HD 629.2 S1:1997 has been prepared by WG 11 of CENELEC TC 20, Electric Cables. CENELEC TC 20 confirmed at its Stresa meeting (April 1999) that the draft amendment should go to the Unique Acceptance Procedure.

The draft was submitted to the Unique Acceptance Procedure in December 1999 and was approved by CENELEC as amendment A1 to HD 629.2 S1 on 2000-11-01.

The following dates were fixed:

- latest date by which the existence of the amendment has to be announced at national level	(doa)	2001-04-01
- latest date by which the amendment has to be implemented at national level by publication of a harmonized national standard or by endorsement	(dop)	2001-10-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2002-10-01

1.1 General

Replace the second paragraph by:

Formerly, approvals for such products have been achieved on the basis of national standards and specifications and/or the demonstration of satisfactory service performance. The publication of this CENELEC standard does not invalidate existing approvals. However, products approved to such earlier standards or specifications shall not claim approval to this CENELEC standard unless specifically tested to it.

3 Definitions

Add new definitions as follows:

3.19
tracking
an irreversible degradation by formation of paths, which are conductive even under dry conditions, starting and developing on the surface of an insulating material and which may occur on surfaces in contact with air and also on the interfaces between different insulating materials

3.20
erosion
an irreversible and non-conducting degradation of the surface of the insulator that occurs by loss of material, and which may be uniform, localised or tree-shaped

NOTE Shallow surface traces, commonly tree-shaped may occur on terminations, after partial flashover. These traces are acceptable as long as they are non-conductive. When they are conductive they are classed as tracking.

3.21
metallic housing
a metal enclosure in intimate contact with the outer screen of a separable connector and having at least the same current carrying capacity to earth as the metallic screen of the cable with which the separable connector is to be used

7 Test sequences

After the existing text **add** a new subclause as follows:

7.1 Dynamic short circuit performance

In respect of short circuit performance, accessories shall be classed as:

Class 1 — Three core accessories designed for peak currents above 63 kA up to and including 80 kA.

The test current shall be 80 kA peak.

Class 2 Three core and single core accessories designed for peak currents above 80 kA up to and including 100 kA

The test current shall be 100 kA peak.

Class 3 Three core and single core accessories designed for peak currents above 100 kA up to and including 125 kA.

The test current shall be 125 kA peak.

7 Test results

Table 2 – Indoor terminations for impregnated paper insulated cables (including shrouded terminations)

Add a note for test 8 as follows:

8	Dynamic short circuit	1 short circuit at I_d (3)

Add new footnote (3) as follows:

(3) For the value of the current I_d, see 7.1.

Table 3 – Outdoor terminations for impregnated paper insulated cables

Add a note for test 10 as follows:

10	Dynamic short circuit	1 short circuit at I_d (3)

Add new footnote (3) as follows:

(3) For the value of the current I_d, see 7.1.

Table 4 – Joints and transition joints for impregnated paper insulated cables

Add a note for test 10 as follows:

10	Dynamic short circuit	1 short circuit at I_d (3)

Add new footnote (3) as follows:

(3) For the value of the current I_d, see 7.1.

Table 6 – Screened separable connectors for impregnated paper insulated cables

Add new notes or amend existing notes for tests 6, 7 and 8 as follows:

6	Dynamic short circuit	1 short circuit at I_d [5]
7	Electrical heat cycling in air	63 cycles at 1,5 U_o [4]
8	Electrical heat cycling in water	63 cycles at 1,5 U_o [4]

Amend the axial force requirement for test No 13 “Operating eye” from 2 200 N to 1 300 N.

Against test No. 18 **change** note [4] to note [3].

Delete existing footnotes [3], [4] and [5], and replace as follows:

[3] This test is required for separable connectors without a metallic housing or with a removable metallic housing. The metallic housing shall be removed prior to the test.
This test is not required for separable connectors which can only be used in service with the metallic housing in position.

[4] Current, see Table 1.

[5] For the value of the current I_d, see 7.1.

Table 7 – Unscreened separable connectors (excluding shrouded terminations) for impregnated paper insulated cables

Add a note for test 6 as follows:

6	Dynamic short circuit	1 short circuit at I_d [4]

Add new footnote [4] as follows:

[4] For the value of the current I_d, see 7.1.

Table 10 – Summary of test voltages and requirements

Amend footnote [1] to read:

[1] It is considered that substantial damage has occurred when it is evident that the performance of the accessory has been severely reduced by:

(i) loss of dielectric quality due to tracking;

and/or (ii) Erosion to a depth of 2 mm or 50 %, whichever is the smaller, of the wall thickness of the insulating material as applied;

and/or (iii) Splitting of the material;

and/or (iv) Puncture of the material