



SLOVENSKI STANDARD
SIST HD 21.2 S2:1998/A4:1998
01-februar-1998

**Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V
- Part 2: Test methods - Amendment A4**

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V -- Part 2: Test methods

Polyvinylchlorid-isolierte Leitungen mit Nennspannungen bis 450/750 V -- Teil 2: Prüfverfahren

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Conducteurs et câbles isolés au polychlorure de vinyle, de tension assignée au plus égale à 450/750 V -- Partie 2: Méthodes d'essais

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Ta slovenski standard je istoveten z: HD 21.2 S2:1990/A4:1993

ICS:

29.060.20 Kabli Cables

SIST HD 21.2 S2:1998/A4:1998 en

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HARMONIZATION DOCUMENT

HD 21.2 S2/A4

DOCUMENT D'HARMONISATION

REPUBLIKA SLOVENIJA

MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO

Urad RS za standardizacijo in meroslovje

LJUBLJANA

HARMONISIERUNGSDOKUMENT

SIST..... HD 21.2 S2/A4.....

-02- 1998 August 1993

PREVZET PO METODI RAZGLASITVE

UDC (621.315.211.2+621.315.32).027.475-036.743.22-001.2.001.4

Descriptors: See HD 21.2 S2:1990

ENGLISH VERSION

Polyvinyl chloride insulated cables of rated
voltages up to and including 450/750 V
Part 2: Test methods

Conducteurs et câbles isolés
au polychlorure de vinyle, de
tension assignée au plus égale à
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Deuxième partie: Méthodes
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This amendment A4 modifies the Harmonization Document HD 21.2 S2:1990. It was approved by CENELEC on 1993-07-06. 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 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 and German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, 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

Central Secretariat: rue de Stassart 35, B-1050 Brussels

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FOREWORD

Following a decision taken by CENELEC Technical Committee TC 20, Electric cables, an amendment to HD 21.2 S2:1990 was submitted to the CENELEC Unique Acceptance Procedure (UAP) in October 1992 for acceptance as an amendment to the Harmonization Document.

The text of the draft was approved by CENELEC as amendment A4 to HD 21.2 S2 on 6 July 1993.

The following dates were fixed:

- latest date of announcement
of the amendment at national level (doa) 1994-03-01
- latest date of publication of
a harmonized national standard (dop) 1994-09-01
- latest date of withdrawal of
conflicting national standards (dow) 1994-09-01

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For products which have complied with HD 21.2 S2:1990 and its amendments before 1994-09-01 as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1995-09-01.



Delete the existing sub-clause 3.1 and insert the following:

3.1 Flexing test

3.1.1 General

The requirements are given in Part 1, sub-clause 5.6.3.1.

This test does not apply to tinsel cords, to single-core cables with flexible conductors for fixed wiring nor to multi-core flexible cables having cores of nominal cross sectional area greater than 2,5mm².

3.1.2 Apparatus

This test shall be carried out by means of the apparatus shown in Part 2, Figure 1. This apparatus consists of a carrier C, a driving system for the carrier and four pulleys for each sample of cable to be tested. The carrier C supports two pulleys A and B, which are of the same diameter. The two fixed pulleys, at either end of the apparatus, may be of a different diameter from pulleys A and B, but all four pulleys shall be so arranged that the sample is horizontal between them. The carrier makes cycles (forward and backward movements) over a distance of 1m at an approximately constant speed of 0,33m/s between each reversal of the direction of movement.

The pulleys shall be made of metal and have a semi-circular shaped groove for circular cables and a flat groove for flat cables. The restraining clamps D shall be fixed so that the pull is always applied by the weight from which the carrier is moving away. The distance from one restraining clamp to its support, while the other clamp is resting on its support, shall be maximum 5cm.

The driving system shall be such that the carrier turns smoothly and without jerks when it reverses from one direction to another.

3.1.3 Sample preparation

A sample of flexible cable about 5m long shall be stretched over the pulleys, as shown in Figure 1, each end being loaded with a weight. The mass of this weight and the diameter of pulleys A and B are given in Table A.

3.1.4 Current loading of cores

During the flexing test the cable sample shall be loaded with the current specified in Table B as follows:

- * 2 and 3 core cables: All cores to be loaded fully.
- * 4 and 5 core cables: Three cores to be loaded fully or all cores to be loaded according to the following formula:

$$I_n = I_3 \sqrt{\frac{3}{n}}$$

where n = number of cores

I_3 = full current according to Table B

For the current loading either a low voltage or a voltage about 230/400V may be used. On cores which are not loaded, a signal current shall be applied.

3.1.5 Voltage between cores

For two-core cables and for light, sheathed three- and four-core cables, the voltage between the conductors shall be about 230V A.C. For all other cables having three or more cores, a three-phase A.C. voltage of about 400V shall be applied to three conductors, any additional conductors being connected to the neutral.

This also applies when a low voltage current loading system is used.

3.1.6 Fault detection (Construction of the flexing apparatus)

The flexing apparatus shall be constructed so that it will detect and stop if the following occurs during the flexing test:

- * Interruption of the current load.
- * Short circuit between the conductors.
- * Short circuit between the test sample and the pulleys (flexing apparatus).