



SLOVENSKI STANDARD

SIST HD 21.8 S2:2000

01-september-2000

Nadomešča:

SIST HD 21.8 S1:1998

SIST HD 21.8 S1:1998/A2:1998

Kabli s polivinilkloridno izolacijo za naznačene napetosti do vključno 450/750 V - 8. del: Enožilni neoplaščeni kabli za okrasne verige

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 8: Single core non-sheathed cables for decorative chains

iTeh STANDARD PREVIEW

Polyvinylchlorid-isolierte Leitungen mit Nennspannungen bis 450/750 V - Teil 8: Einadrige Leitungen ohne Mantel für Lichterketten

[SIST HD 21.8 S2:2000](https://standards.itih.ai/catalog/standards/sist/a86b2b18-1866-4e4f-a71c-b11f78c197/sist-hd-21-8-s2-2000)

Conducteurs et câbles isolés au polychlorure de vinyle de tension assignée au plus égale à 450/750 V - Partie 8: Monoconducteurs pour guirlandes lumineuses

Ta slovenski standard je istoveten z: HD 21.8 S2:1999

ICS:

29.060.20 Kabli Cables

SIST HD 21.8 S2:2000 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST HD 21.8 S2:2000

<https://standards.iteh.ai/catalog/standards/sist/a86b2b18-1866-4e4f-a71c-fb10f7f8c197/sist-hd-21-8-s2-2000>

English version

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V
Part 8: Single core non-sheathed cables for decorative chains

Conducteurs et câbles isolés au polychlorure de vinyle de tension assignée au plus égale à 450/750 V
Partie 8: Monoconducteurs pour guirlandes lumineuses

Polyvinylchlorid-isolierte Leitungen mit Nennspannungen bis 450/750 V
Teil 8: Einadrige Leitungen ohne Mantel für Lichterketten

(standards.iteh.ai)

SIST HD 21.8 S2:2000

<https://standards.iteh.ai/catalog/standards/sist/a86b2b18-1866-4e4f-a71c-fb10f7f8c197/sist-hd-21-8-s2-2000>

This Harmonization Document was approved by CENELEC on 1999-08-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document 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 Harmonization Document 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

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

Foreword

HD 21 was originally adopted by CENELEC on 9th July 1975.

Edition 2 of HD 21 was implemented on 1st January 1984, and at that time contained five parts.

Since 1984, new parts have been published and original parts amended.

This new edition of HD 21.8 provides a full updating, and amalgamation of amendments.

HD 21 now has the following parts:

- HD 21.1 S3 - General requirements
- HD 21.2 S3 - Test methods
- HD 21.3 S3 - Non sheathed cables for fixed wiring
- HD 21.4 S2 - Sheathed cables for fixed wiring (Reprint)
- HD 21.5 S3 - Flexible cables (cords)
- HD 21.6 - (Spare)
- HD 21.7 S2 - Single core non-sheathed cables for internal wiring for a conductor temperature of 90° C
- HD 21.8 S2 - Single core non-sheathed cables for decorative chains
- HD 21.9 S2 - Single core non-sheathed cables for installation at low temperatures
- HD 21.10 S1 - Extensible leads
- HD 21.11 S1 - Cables for luminaires
- HD 21.12 S1 - Heat-resistant flexible cables (cords)
- HD 21.13 S1 - Oil resistant PVC sheathed cables with two or more conductors

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as HD 21.8 S2 on 1999-08-01.

This European standard supersedes HD 21.8 S1:1990 and its amendment A2:1994.

The following dates were fixed:

- latest date by which the existence of the HD has to be announced at national level (doa) 2000-02-01
- latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsement (dop) 2000-08-01
- latest date by which the national standards conflicting with the HD have to be withdrawn (dow) 2001-08-01



ALINEVOLE A11111111
EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS
UNIT FOR COORDINATION OF STANDARDS
1049 BRUSSELS

CONTENTS

	Page
1. Scope	4
2. Normative references	4
3. Single core insulated cables for indoor decorative lighting chains.....	4
3.1 Code designation	4
3.2 Rated voltage	4
3.3 Construction	4
3.4 Tests.....	5
3.5 Guide to use (informative)	5
Annex A Bibliography (Informative)	7

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST:HD 21.8 S2:2000

<https://standards.iteh.ai/catalog/standards/sist/a86b2b18-1866-4e4f-a71c-fb10f7f8c197/sist-hd-21-8-s2-2000>

1. Scope

This Part 8 of the HD details the particular requirements for PVC insulated cables of rated voltage U_0/U of 300/300 V for use indoors as decorative chains.

Each cable shall comply with the appropriate requirements given in Part 1 of this HD and the particular requirements of this Part 8.

2. Normative references

HD 21.8 incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to HD 21.8 only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- | | |
|------------|--|
| HD 383 | Conductors of insulated cables (Endorsing IEC 60228 and 60228A) |
| EN 50265-1 | Common test methods for cables under fire conditions - Test for resistance to vertical flame propagation for a single insulated conductor or cable Part 2-1: Procedures - 1 kW pre-mixed flame |
| EN 60811 | Insulating and sheathing materials of electric cables - Common test methods |

3. Single core insulated cables for indoor decorative lighting chains

3.1 Code designation

H03VH7-H

3.2 Rated voltage

300/300 V

3.3 Construction

3.3.1 Conductor

Number of conductors: 1

The conductor shall comply with requirements given in HD 383 for Class 6 conductors.

3.3.2 Insulation

The insulation shall be polyvinyl chloride compound of the Type TI 2, applied by dual extrusion around the conductor.

The outer layer of insulation shall be a contrasting colour to that of the inner layer, but shall adhere to the inner layer.

The minimum and mean overall values of the combined thickness of inner and outer layer of insulation shall comply with the overall thickness specified in Table I, columns 3 and 4 of this Part, but at no point shall the thickness of either layer be less than 0,2mm.

The insulation resistance at 70°C shall be not less than the values given in Table I, column 5 of this Part.

3.3.3 Cable identification

Bi-colours shall not be used.
Preferred outer layer colour: green.

3.4 Tests

Compliance with the requirements of sub-clause 3.3 of this Part shall be checked by inspection and by the tests given in Table II of this Part.

3.5 Guide to use (informative)

See HD 516.

Table I : General data for type H03VH7-H

1	2	3	4	5
Nominal cross-sectional areas of conductors	Thickness of each layer of insulation Minimum value	Overall thickness Minimum value	Overall thickness Mean value	Insulation resistance at 70°C Minimum value
mm ²	mm	mm	mm	MΩ.km
0,5 0,75	0,2 0,2	0,6 0,6	0,7 0,7	0,014 0,013

Table II: Tests for Type H03VH7-H

1	2	3	4	5
Ref. No.	Tests	Category of test	Test method described in	
			HD / EN	Clause
1.	<u>Electrical tests</u>			
1.1	Resistance of conductors	T, S	21.2	2.1
1.2	Voltage test on completed cable at 2000V	T, S	21.2	2.2
1.3	Insulation resistance at 70°C (Note 1)	T, S	21.2	2.4
1.4	Resistance of insulation to d.c. (Note 1)	T	21.2	2.5
1.5	Absence of faults on insulation (Note 1)	R	21.2	2.6
2.	<u>Constructional/dimensional characteristics</u>			
2.1	Compliance with constructional provisions	T, S	21.1	Inspection and manual tests
2.2	Measurement of insulation thickness of inner layer (min. only)	T, S	21.8 21.2	3.3 1.9
2.3	Measurement of insulation thickness of outer layer (min. only)	T, S	21.2	1.9
2.4	Measurement of overall thickness	T, S	21.2	1.9
3.	<u>Mechanical properties of insulation</u>			
3.1	Tensile test before ageing (Note 1)	T	60811-1-1	9.1
3.2	Tensile test after ageing (Note 1)	T	60811-1-2	8.1.3.1
3.3	Loss of mass test (Note 1)	T	60811-3-2	8.1
4.	<u>Pressure test at high temperature</u> (Note 1)	T	60811-3-1	8.1
5.	<u>Test at low temperature</u>			
5.1	Bending test for insulation (Note 1)	T	60811-1-4	8.1
6.	<u>Heat shock test</u> (Note 1)	T	60811-3-1	9.1
7.	Test under fire conditions	T	50265-2-1	-

NOTE 1: Because of the simultaneous extrusion of the same compound for both layers of insulation, the composite layer shall be tested as one layer and evaluated accordingly.