

# **SLOVENSKI STANDARD**

## **SIST HD 21.11 S1:1998/A1:2002**

**01-april-2002**

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**Kabli s polivinilkloridno izolacijo za naznačene napetosti do vključno 450/750 V -  
11. del: Kabli za svetilke - Dopnilo A1**

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part  
11: Cables for luminaires

Polyvinylchlorid-isolierte Leitungen mit Nennspannungen bis 450/750 V - Teil 11:  
Leitungen für Leuchten

Conducteurs et câbles isolés au polychlorure de vinyle, de tension assignée au plus  
égale à 450/750 V - Partie 11: Câbles pour luminaires

**Ta slovenski standard je istoveten z: HD 21.11 S1:1995/A1:2001**

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**ICS:**

29.060.20      Kabli      Cables

**SIST HD 21.11 S1:1998/A1:2002      en**

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SIST HD 21.11 S1:1998/A1:2002

<https://standards.iteh.ai/catalog/standards/sist/a3f913c3-c261-46b3-8ebe-b97551482a99/sist-hd-21-11-s1-1998-a1-2002>

HARMONIZATION DOCUMENT

**HD 21.11 S1/A1**

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

August 2001

ICS 29.060.20

English version

**Polyvinyl chloride insulated cables of rated voltages  
up to and including 450/750 V  
Part 11: Cables for luminaires**

Conducteurs et câbles isolés au  
polychlorure de vinyle, de tension  
assignée au plus égale à 450/750 V  
Partie 11: Câbles pour luminaires

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Nennspannungen bis 450/750 V  
Teil 11: Leitungen für Leuchten

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This amendment A1 modifies the Harmonization Document HD 21.11 S1:1995; it was approved by CENELEC on 2001-06-01. 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

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

### Foreword

This amendment was prepared by the Technical Committee CENELEC TC 20, Electric cables, and agreed at the Stresa meeting (April 1999) to go forward to the Unique Acceptance Procedure.

This amendment has been prepared within the regular maintenance programme which covers all Parts of HD 21.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to HD 21.11 S1:1995 on 2001-06-01.

The following dates were fixed:

- latest date by which the existence of the amendment  
has to be announced at national level (doa) 2002-02-01
- latest date by which the amendment has to be  
implemented at national level by publication of  
a harmonised national standard or by endorsement (dop) 2002-08-01
- latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 2003-08-01

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**Clause 1**

**Add** the following note:

NOTE The overall dimensions of the cables of this Part of HD 21 have been calculated in accordance with EN 60719.

**Clause 2**

**Delete** references to HD 405.1 and HD 505 and **insert** the following:

EN 50265-2-1	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 60719	Calculation of the lower and upper limits for the average outer dimensions of cables with circular copper conductors and of rated voltages up to and including 450/750 V
EN 60811 Series	Insulating and sheathing materials of electric and optical fibre cables - Common test methods

**Table I and Table II**

**Delete** the existing Tables I and II and **replace** as attached.

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**Table I - General data for type H03VH7H-F**

1	2	3	4	5	6	7
Number and nominal cross-sectional area of conductors	Thickness of insulation		Mean overall dimensions		Minimum insulation resistance at 70 °C	Minimum thickness at one point of complete insulation <sup>1)</sup>
	Inner layer	Outer layer	Lower limit	Upper limit		
mm <sup>2</sup>	mm	mm	mm	mm	MΩ • km	mm
2 x 0,5	0,5	0,6	3,0 x 6,0	3,7 x 7,3	0,011	0,89
<sup>1)</sup> Measured on section from divided cable.						

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Table II - Tests for type H03VH7H-F

1	2	3	4	5
Ref. No.	Tests	Category	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 2 000 V <sup>4)</sup>	T, S	21.2	2.2
1.3	Insulation resistance at 70 °C <sup>1)</sup>	T, S	21.2	2.4
1.4	Long term resistance of insulation to d.c. <sup>1)</sup>	T	21.2	2.5
1.5	Absence of faults in insulation	R	21.2	2.6
2	<u>Provisions covering constructional and dimensional characteristics</u>			
2.1	Checking of compliance with constructional provisions	T, S	21.1	Inspection and manual tests
2.2	Measurement of thickness of insulation <sup>2)</sup>	T, S	21.2	1.9
2.3	Measurement of overall dimensions	T, S	21.2	1.11
3	<u>Mechanical properties of insulation <sup>3)</sup></u>			
3.1	Tensile test before ageing	T	60811-1-1	9.1
3.2	Tensile test after ageing	T	60811-1-2	8.1.3.1
3.3	Loss of mass test	T	60811-3-2	8.1
4	<u>Pressure test at high temperature <sup>3)</sup></u>	T	60811-3-1	8.1
5	<u>Tests at low temperature <sup>3)</sup></u>			
5.1	Bending test for insulation	T	60811-1-4	8.1
5.2	Impact test for insulation	T	60811-1-4	8.5
6	<u>Heat shock test <sup>3)</sup></u>	T	60811-3-1	9.1
7	<u>Mechanical strength of completed cable</u>			
7.1	Flexing test	T	21.2	3.1
7.2	Test of separation of cores	T	21.2	3.4
8	<u>Test under fire conditions</u>	T	50265-2-1	-

<sup>1)</sup> This test is carried out on an element of the cable after division.  
<sup>2)</sup> The minimum thickness of each layer of insulation is not measured, but the minimum thickness of the dual-layer shall comply with the specified value.  
<sup>3)</sup> This test is carried out with both layers of insulation treated as one.  
<sup>4)</sup> This test is carried out with 5 m of the 20 m length being separated.