

**Polüvinüülkloriidisolatsiooniga kaablid
nimipingega kuni 450/750 V. Osa 7:
Ühesoonelised kaitsekestata kaablid
sisejuhistikule juhi temperatuuriga 90 °C**

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 7: Single core non-sheathed cables for internal wiring for a conductor temperature of 90° C

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-HD 21.7 S2:2001 sisaldab Euroopa standardi HD 21.7 S2:1996+A1:1999 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 10.10.2001 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-HD 21.7 S2:2001 consists of the English text of the European standard HD 21.7 S2:1996+A1:1999.

This standard is ratified with the order of Estonian Centre for Standardisation dated 10.10.2001 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

ICS 29.060.20

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HARMONIZATION DOCUMENT
DOCUMENT D'HARMONISATION
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HD 21.7 S2

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ICS 29.060.20

Supersedes HD 21.7 S1:1990 and its amendments

Descriptors: Insulated cable, polyvinyl chloride

English version

**Polyvinyl chloride insulated cables of rated voltages
up to and including 450/750 V
Part 7: Single core non-sheathed cables for internal wiring for a
conductor temperature of 90° C**

Conducteurs et câbles isolés au
polychlorure de vinyle, de tension
assignée au plus égale à 450/750 V
Partie 7: Conducteurs pour une
température de l'âme de 90° C,
pour filerie interne

Polyvinylchlorid-isolierte Leitungen mit
Nennspannungen bis 450/750 V
Teil 7: Einadrige Leitungen ohne Mantel
für die innere Verdrahtung mit einer
höchstzulässigen Betriebstemperatur am
leiter von 90° C

This Harmonization Document was approved by CENELEC on 1995-11-28. 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, 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

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, original parts amended and in addition HD 505 has superseded HD 385 as the cross-reference for test methods.

This edition 2 of HD 21.7 has been introduced to cover the complete revision of the overall dimensions, in line with EN 60719, and was approved by TC 20 at its Rotterdam meeting in March 1995 to go forward to the formal vote.

HD 21 now has the following parts:

HD 21.1 S2	-	General requirements (with A1 to A4 inclusive)
HD 21.2 S2	-	Test methods (with A1 inclusive)
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 S1	-	Single core non-sheathed cables for decorative chains (with A1 inclusive)
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

In order that this revision of Part 7 of HD 21 does not introduce unnecessary changes to long-established clause numbers, the Normative references (which would otherwise be inserted as clause 2) are given in Annex A.

This Harmonization Document was prepared by the Technical Committee CENELECTC 20, Electric cables.

The text of the draft was submitted to the formal vote and was approved by CENELEC as HD 21.7 S2 on 1995-11-28.

The following dates were fixed:

- | | | |
|--|-------|------------|
| - latest date by which the existence of the HD has to be announced at national level | (doa) | 1996-03-01 |
| - latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsement | (dop) | 1996-09-01 |
| - latest date by which the national standards conflicting with the HD have to be withdrawn | (dow) | 1996-09-01 |

For products which have complied with HD 21.7 S1:1990 and its amendments A1:1992 and A2:1993 before 1996-09-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1997-09-01.

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1. Scope

This Part 7 of the HD details the particular requirements for polyvinyl chloride insulated cables of rated voltages U_0/U up to and including 450/750V for internal wiring of electrical apparatus where wiring is operated in a high temperature zone. The high temperature may be caused by high ambient temperature and/or by heat generated by the equipment.

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

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

2. Single core non-sheathed cables for internal wiring for a conductor temperature of 90°C (300/500V)

2.1 Code designation

H05V2-U with solid conductor
H05V2-R with stranded rigid conductor
H05V2-K with flexible conductor

2.2 Rated voltage

300/500V

2.3 Construction

2.3.1 Conductor

Number of Conductors : 1

The conductor shall comply with the requirements given in HD 383:

Class 1 for solid conductors

Class 2 for stranded rigid conductors (*)

Class 5 for flexible conductors

(*) If the cable is to be used for insulation displacement connectors (IDC) the conductor shall be of seven wires, concentric and circular.

2.3.2 Insulation

The insulation shall be polyvinyl chloride compound of the type T1 3, applied around each conductor.

The insulation thickness shall comply with the specified value given in Part 7, Table I, column 3.

The insulation resistance at 90°C shall be not less than the values given in Part 7, Table I, column 6.