SLOVENSKI STANDARD
SIST HD 361 S4:2020

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Sistem označevanja kablov

System for cable designation

System für Typkurzzeichen von isolierten Leitungen

Système de désignation de câbles

Ta slovenski standard je istoveten z: HD 361 S4:2020

ICS:

29.060.20 Kabli Cables

SIST HD 361 S4:2020 **en**

HARMONIZATION DOCUMENT

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

HD 361 S4

September 2020

ICS 29.060

Supersedes HD 361 S3:1999 and all of its amendments and corrigenda (if any)

English Version

System for cable designation

Système de désignation de câbles

System für Typkurzzeichen von isolierten Leitungen

This Harmonization Document was approved by CENELEC on 2020-08-31. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document at national level.

Up-to-date lists and bibliographical references concerning such national implementations may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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

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

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European foreword

This document (HD 361 S4:2020) has been prepared by CLC/TC 20 “Electric cables”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2021-08-31
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2023-08-31

This document supersedes HD 361 S3:1999 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Introduction

HD 361 was adopted by CENELEC on 18 November 1976. A second edition was published in 1986. The third edition (1999) restricted the rated voltage of cables covered by this HD to an upper limit of 450/750V, and to harmonized cables and cords or Recognized National Types (RNT).

This fourth edition incorporates amendment HD 361 S3:1999/A1:2006 to HD 361 S3:1999, which recognized the discontinuation of the system of RNT, and expands the cable types to include EN 50618 and EN 50620. The incorporation of the former raises the upper voltage limit to 1000/1000 V.

1 Scope

This document details a designation system for harmonized power cables and cords according to EN 50525 (series), EN 50214, EN 50618 and EN 50620.

NOTE The use of the system for Recognized National Types of cable or cord has been withdrawn by CLC/TC 20. For non-harmonized cables, National Committees are permitted to use any designation that does not conflict with this HD, but see Tables 2 and 4 for recommendations.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60228, *Conductors of insulated cables (IEC 60228)*

IEC 60050-461, *International Electrotechnical Vocabulary (IEV) - Part 461: Electric cables*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-461 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Basic elements of the designation

The cable designation shall be composed of three parts indicating the essential characteristics of a cable (Table 1).

Table 1 — Basic elements of the cable description

Part	Basic elements of the description	See Table(s)
1	**Relationship to Standards**	**2**
	Rated voltage	**3**
2	**Construction of the cable, generally in a radial sequence and starting with the insulation material; then after a dash,**	**4 to 7**
	Material and form of conductor(s)	**8 and 9**
3	**Number and size of conductors**	**10**

Part 1 and Part 2 of the designation are generally written without a space and constitute the « type designation » of a cable or cord.

Part 3 of the designation constitutes specific information on the number and size of conductors, when required.

A survey of symbols and their sequence in the cable designation is given in Clause 8.

5 Part 1 of the Designation

Part 1 of the designation covers the relationship to standards and the rated voltages. The details are given in Table 2 and Table 3

Table 2 — Relationship to standards

Symbol	Relationship of cable to standards
H	Cable conforming with harmonized standards
–	Non-harmonized cable
National Committees may use any symbol or system that does not conflict with HD 361. If the system laid down by HD 361 is used for non-harmonized cables, it is recommended not to use a prefix symbol.	

Table 3 — Rated Voltage

Symbol	Value *Uo*/*U*
01	**100/100 V**
03	**300/300 V**
05	**300/500 V**
07	**450/750 V**
1	**1000/1000 V** [a]
[a] At present, the rated voltage is limited to PV-cables acc. to EN 50618.	

6 Part 2 of the Designation

Part 2 of the designation relates to the insulation and non-metallic sheathing materials (Table 4), metallic coverings (Table 5), special constructional components (Table 6), special construction of cables (Table 7), conductor material (Table 8) and conductor form (Table 9).

The descriptions given for the symbols are used in certain instances to cover a group of materials which gave similar performance requirements to the reference material. Full details of the specified material requirements for a given cable type will be found in the appropriate cable standard.

Table 4 — Insulating and non-metallic sheathing materials

Symbol	Material
B	**Ethylene- propylene rubber for conductor temperature 90 °C**
G	**ethylene-vinyl-acetate**
J	**Glass-fibre braid**
M	**mineral**
N	**polychloroprene-rubber (or equivalent material)**
N2	**special-rubber compound of polychloroprene for sheathing of welding cable**
N4	**Chlorosulphonated polyethylene**
N8	**special-rubber compound of polychloroprene, water resistant**
Q	**polyurethane**
Q4	**polyimide**
R	**ethylene- propylene or equivalent synthetic rubber for conductor temperature 60 °C**
S	**silicone-rubber**
T	**textile braid, impregnated or not, on assembled cores**
T6	**textile braid, impregnated or not, on individual cores of a multicore cable**
V	**ordinary PVC**
V2	**PVC compound for conductor temperature of 90 °C**

Symbol	Material
V3	ordinary PVC, for low temperature operating
V4	ordinary PVC, crosslinked
V5	ordinary PVC, special oil resistant
Z	crosslinked polyolefin-compound for cable with low smoke and non-corrosive gases in the case of fire
Z1	thermoplastic polyolefin-compound for cable with low smoke and non-corrosive gases in the case of fire
Z2	crosslinked polyolefin-compound for cable with low smoke and non-corrosive gases in the case of fire for photovoltaic cable
Z5	thermoplastic compound EVM-1 for cable with non-corrosive gases in the case of fire for EV charging cable
Z6	crosslinked compound EVM-2 for cable with non-corrosive gases in the case of fire for EV charging cable

Table 5 — Metallic coverings

Symbol	Sheath, - concentric conductors and screens
C	concentric copper conductor
C4	Copper braid over assembled cores

The symbols in Table 6, when required, are to follow the symbols selected from any of the previous Table 4 and Table 5.

Table 6 — Special constructional components of a cable

Symbol	Constructional components
D3	Strain-bearing element consisting of one or more components (textile or metallic), placed at the centre of a round cable or distributed inside a flat cable
D5	Central heart (non-strain-bearing)

The symbols of Table 7, when required, are to follow the symbols selected from any of the previous Tables 4 to 6.

Table 7 — Special construction of cable

Symbol	Special construction
No Symbol	Round cable construction
H	Flat construction of „divisible“ cables and cores, either sheathed or non-sheathed
H2	Flat construction of „non-divisible“ cables and cords
H6	Flat cable having 3 or more cores, according to EN 50214
H7	Cables with extruded double layer insulation
H8	Coiled cable

The symbols of Table 8, when required, are to follow the symbols selected from any of the previous Tables 4 to 7.