



SLOVENSKI STANDARD
SIST HD 603 S1:1998/A2:2004
01-januar-2004

Distribucijski kabli za naznačeno napetost 0,6/1 kV

Distribution cables of rated voltage 0,6/1 kV

Energieverteilungskabel mit Nennspannungen 0,6/1 kV

Câbles de distribution de tension nominale 0,6/1 kV

Ta slovenski standard je istoveten z: HD 603 S1:1994/A2:2003

[SIST HD 603 S1:1998/A2:2004](https://standards.iteh.ai/catalog/standards/sist/daf81dea-0f5b-44d0-8ef8-fcef6dada0/sist-hd-603-s1-1998-a2-2004)

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ICS:

29.060.20 Kabli Cables

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HARMONIZATION DOCUMENT

HD 603 S1/A2

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

June 2003

ICS 29.060.20

English version

Distribution cables of rated voltage 0,6/1 kVCâbles de distribution de tension
nominale 0,6/1 kVEnergieverteilungskabel mit
Nennspannungen 0,6/1 kV

This amendment A2 modifies the Harmonization Document HD 603 S1:1994; it was approved by CENELEC on 2003-02-01. 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 one official version (English).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELECEuropean 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 to the Harmonization Document HD 603 S1:1994 was prepared by WG9 of Technical Committee CENELEC TC 20, Electric cables. The Technical Committee CENELEC TC 20 confirmed at its Lucerne meeting (May 2000) that the amendment should go to the Unique Acceptance Procedure.

As well as the listed additions and amendments to the particular sections of Parts 3-8, the whole of Part 1 has been re-issued, especially to the extensive changes to cross-references. Users of HD 603 should note that, in the particular sections, cross-references have only been updated where the complete section has been re-issued. This Part 0 of HD 603 contains a list of relevant changes to cross-references, which should be consulted in conjunction with the particular section. National standards implementing one or more particular sections of HD 603 may update cross-references in advance of changes to the published version of the HD.

By decision of the Technical Board (D81/139 extended by D104/118 & D114/076) this HD exists only in English.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A2 to HD 603 S1:1994 on 2003-02-01.

The following dates were fixed:

- latest date by which the existence of the amendment has to be announced at national level (doa) 2003-08-01
- latest date by which the amendment has to be implemented at national level by publication of an harmonized national standard or by endorsement (dop) 2004-02-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2006-02-01

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- NOTES
- 1) Amendment A1 introduces some changes to the text.
 - 2) Amendment A1 completely revises the particular section.
 - 3) New section introduced by amendment A1.
 - 4) Amendment A2 introduces some changes to the text.
 - 5) Amendment A2 completely revises the particular section.
 - 6) Amendment A1 withdraws the section.
 - 7) Amendment A2 withdraws the section.

List of updated cross-references

Original Ref	Original title	New Ref	New title
HD 186	Marking by inscription for the identification of cores of electric cables having more than five cores	EN 50334	Marking by inscription for the identification of cores of electric cables
HD 405 (series)	Test on electric cables under fire condition	EN 50265 (series)	Common test methods for cables under fire conditions – Test for resistance to vertical flame propagation for a single insulated conductor or cable.
HD 405.1	Tests on electric cables under fire conditions – Part 1: Test on a single vertical insulated wire or cable	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: Procedure – 1 kW pre-mixed flame
HD 405.3	Tests on electric cables under fire conditions – Part 3: Tests on bunched wires or cables	EN 50266 (series)	Common test methods for cables under fire conditions – Test for vertical flame spread of vertically-mounted bunched wires or cables
HD 505 (series)	Common test methods for insulating and sheathing materials of electric cables	EN 60811 (series)	Insulating and sheathing materials of electric cables – Common test methods
HD 606 (series)	Measurement of smoke density of electric cables burning under defined conditions	EN 50268 (series)	Common test methods for cables under fire conditions – Measurement of smoke density of cables burning under defined conditions
IEC 183	Guide to the selection of high-voltage cables	IEC 60183	Guide of the selection of high-voltage cables
IEC 60502	Extruded solid dielectric insulated power cables for rated voltages from 1 kV to 30 kV	IEC 60502-1	Power cables with extruded insulation and their accessories for rated voltages from 1 kV ($U_m = 1,2$ kV) up to 30 kV ($U_m = 36$ kV) – Part 1: Cables for rated voltages of 1 kV ($U_m = 1,2$ kV) and 3 kV ($U_m = 3,6$ kV)
IEC 754-1	Tests on gases evolved during combustion of materials from cables – Part 1: Determination of the amount of halogen acid gas	EN 50267-2-1	Common test methods for cables under fire conditions – Tests on gases evolved during combustion of materials from cables – Part 2-1: Procedures – Determination of the amount of halogen acid gas

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PART 1: GENERAL REQUIREMENTS

Replace the complete part by the following:

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HD 603 S1:1994/A2:2003

**DISTRIBUTION CABLES OF RATED VOLTAGE 0,6/1 KV
PART 1: GENERAL REQUIREMENTS**

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REFERENCES

References are made in this Part 1 to other parts of HD 603 and to other Harmonization Documents as follows:

HD 383	Conductors of insulated cables – First supplement: Guide to the dimensional limits of circular conductors (endorsing IEC 60228 and IEC 60228A)
HD 605	Electric cables – Additional test methods
EN 50265 (series)	Common test methods for cables under fire conditions – Test for resistance to vertical flame propagation for a single insulated conductor or cable
EN 50334	Marking by inscription for the identification of cores of electric cables
EN 60811 (series)	Insulating and sheathing materials of electric cables – Common test methods
IEC 60287 (series)	Electric cables – Calculation of current rating

In all cases reference to another HD or International Standard implies the latest edition of that document.

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1 General

1.1 Scope

HD 603 applies to cables of rated voltage $U_0/U = 0,6/1$ kV used in underground power distribution systems mainly for public distribution, of nominal voltage not exceeding 0,6/1 kV a.c.

This part (Part 1) specifies the general requirements applicable to these cables, unless otherwise specified in the particular sections of this HD.

Test methods are specified in HD 605 and in HD 383, EN 50265 and EN 60811.

The particular types of cables are specified in Parts 3 to 8.

1.2 Object

The objects of this Harmonization Document are:

- to standardise cables that are safe and reliable when properly used, in relation to the technical requirements of the system of which they form a part;
- to state the characteristics and manufacturing requirements which have a direct or indirect bearing on safety,
- and to specify methods for checking conformity with those requirements.

2 Definitions

2.1 Definitions concerning the insulating and sheathing compounds

2.1.1 Insulating and sheathing compounds

The types of insulating and sheathing compounds covered by this HD are listed below, together with their abbreviated designations:

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Table 2.1.1 – Insulating and sheathing compounds

	Insulating and sheathing compounds	See:
Insulation	a) <i>Thermoplastic:</i> Insulating compounds based on: <ul style="list-style-type: none"> - polyvinyl chloride or copolymers (PVC) - polyolefin (PO) b) <i>Cross-linked:</i> Insulating compounds based on: <ul style="list-style-type: none"> - cross-linked polyethylene (XLPE) - ethylene propylene rubber (EPR) - hard ethylene propylene rubber (HEPR) 	Table 1 Table 4C Table 2A Table 2B Table 2C
Sheathing	a) <i>Elastomeric</i> Sheathing compound based on: <ul style="list-style-type: none"> - Polychloroprene (PCP) - Chlorosulfonated polyethylene (CSP) or similar polymer b) <i>Thermoplastic:</i> Sheathing compounds based on: <ul style="list-style-type: none"> - polyvinyl chloride (PVC) - polyethylene (PE) - polyolefin (PO) 	Table 3 Table 4A Table 4B Table 4C

2.1.2 Type of compound

The category in which a compound is placed according to its properties is determined by specific tests. The type designation is not directly related to the composition of the compound.

2.2 Definitions relating to the tests

NOTE Tests classified as sample (S) or routine (R) may be required as part of any type approval schemes.

2.2.1 Type tests (Symbol T)

Tests required to be made before supplying a type of cable covered by this HD on a general commercial basis in order to demonstrate satisfactory performance characteristics to meet the intended application. These tests are of such a nature that, after they have been made, they need not be repeated unless changes are made in the cable material, design or type of manufacturing process which might change the performance characteristics.

2.2.2 Sample tests (Symbol S)

Tests made on samples of completed cable, or components taken from a completed cable adequate to verify that the finished product meets the design specifications.

2.2.3 Routine tests (Symbol R)

Tests made on all production cable lengths to demonstrate compliance with requirements.

2.2.4 Tests after installation

Test intended to demonstrate the integrity of the cable and its accessories as installed.