



**SLOVENSKI STANDARD**  
**SIST EN 50525-1:2011/A1:2023**

**01-januar-2023**

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**Električni kabli - Nizkonapetostni energetska kabli z naznačeno napetostjo do vključno 450/750 V (U0/U) - 1. del: Splošne zahteve - Dopolnilo A1**

Electric cables - Low voltage energy cables of rated voltages up to and including 450/750 V (U0/U) - Part 1: General requirements

Kabel und Leitungen - Starkstromleitungen mit Nennspannungen bis 450/750 V (U0/U) - Teil 1: Allgemeine Anforderungen

Câbles électriques - Câbles d'énergie basse tension de tension assignée au plus égale à 450/750 V (U0/U) - Partie 1: Exigences générales

**Ta slovenski standard je istoveten z: EN 50525-1:2011/A1:2022**

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**ICS:**

29.060.20      Kabli      Cables

**SIST EN 50525-1:2011/A1:2023      en**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 50525-1:2011/A1**

November 2022

ICS 29.060.20

English Version

**Electric cables - Low voltage energy cables of rated voltages up to and including 450/750 V (U0/U) - Part 1: General requirements**

Câbles électriques - Câbles d'énergie basse tension de tension assignée au plus égale à 450/750 V (U0/U) - Partie 1: Exigences générales

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This amendment A1 modifies the European Standard EN 50525-1:2011; it was approved by CENELEC on 2022-10-10. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

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

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 50525-1:2011/A1:2022) 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) 2023-10-10
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2025-10-10

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

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**EN 50525-1:2011/A1:2022 (E)****1 Modifications to the Contents**

*Under chapter 7, below Clause 7.5, Add the following new clause:*

“7.6 Reaction to Fire”

*In the entry for Annex E, delete “... and its derivation from HD 21 and HD 22”*

*Below Annex E, add the following new title:*

“Annex ZB (normative) Special National Conditions”

*In Tables, delete:*

“Table E.2 – Specific structure of EN 50525 and its derivation from HD 21 and HD 22”

“Table E.3 – Location of each part of HD 21 and HD 22”

*And replace with “Table E.2 – References to previous standards HD 21 and HD 22”*

**2 Modifications to the Introduction**

*Delete the text and replace with:*

“This document provides the general part of series EN 50525. The individual product standard parts in Annex-E are for equipment manufacturers, installers and end-users.

The use of these cable standards in a different way than that recommended by EN 50565-1 and EN 50565-2 could result in a lowering of safety and/or in a reduction of the expected life of the cable.

For the relationship with EU Directive (2014/35/EU) see informative Annex ZZ of the individual parts. This part contains only the general requirements. Each separate product standard part refers to this part.

In some countries local regulation(s) may define reaction of fire performances if the product is for permanent installation in works. Performance requirements are those given in EN 50575 for relevant properties.”

**3 Modifications to the Scope**

*In the second line, delete “a.c.” and replace it with “AC”*

*In NOTE 2, delete “(a.c.)” and “(d.c.)”.*

**4 Modifications to Clause 2, “Normative references”**

*Delete the following references:*

“

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*

EN 50267-2-2, *Common test methods for cables under fire conditions – Tests on gases evolved during combustion of materials from cables – Part 2-2: Procedures – Determination of degree of acidity of gases for materials by measuring pH and conductivity*

HD 516, *Guide to use of low voltage harmonized cables*

”

*And replace with the following references:*

“

EN 50565-1, *Electric cables - Guide to use for cables with a rated voltage not exceeding 450/750 V (U0/U) - Part 1: General guidance*

EN 50565-2, *Electric cables - Guide to use for cables with a rated voltage not exceeding 450/750 V (U0/U) - Part 2: Specific guidance related to EN 50525 cable types*

EN 50575, *Power, control and communication cables - Cables for general applications in construction works subject to reaction to fire requirements*

EN 60754-1, *Test on gases evolved during combustion of materials from cables - Part 1: Determination of the halogen acid gas content*

EN 60754-2, *Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity*

”

## 5 Modifications to Clause 4, “Rated voltage”

*At the end of the paragraph, in the NOTE, delete “(a.c. or d.c.) refer to HD 516” and replace with “(AC or DC) refer to EN 50565-1”.*

## 6 Modifications to Clause 5, “Requirements for the construction of cables”

*In 5.3.1, in the NOTE:*

*Delete “See HD 516 for further guidance.”.*

*and replace with “See EN 50565-1 and EN 50565-2 for further guidance.”*

*In 5.3.2, in the 3rd sentence:*

*Delete “coherent”*

*And replace with “cohesive”.*

*In 5.7.4.1, first sentence:*

*Delete “... of the sheath (or the whole of the outer layer in a two layer construction) or on its surface”*

*and replace with “... of the sheath or the whole of the outer layer in a two layer construction on its surface”.*

*In 5.7.4.2, Outdoor use:*

*In the first sentence, delete “(see HD 516)” and replace with “(see EN 50565-1 and EN 50565-2)”.*

*Delete the last sentence: “Surface colouring shall not be permitted for a)”.*

## 7 Modifications to subclause 7.2, “Electrical requirements”

*In the last sentence of the first paragraph:*

*Delete “19 kV a.c. or 28 kV d.c.”*

*and replace with “19 kV AC or 28 kV DC”.*

*In Table 1, in the column “Test”:*

- Ref N° 2.2: *delete “(a.c.)” and replace with “(AC)”*
- Ref N° 3.2: *delete “(a.c.)” and replace with “(AC)”*

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- Ref N° 5: *delete* “d.c.” *and replace with* “DC”
- Ref N° 5.1 (4th item): *delete* “d.c.” *and replace with* “DC”
- Ref N° 6.2.1 (1st item): *delete* “a.c.” *and replace with* “AC”
- Ref N° 6.2.1 (2nd item): *delete* “d.c.” *and replace with* “DC”
- Ref N° 7.1: *delete* “d.c.” *and replace with* “DC”

**8 Addition of a new subclause 7.6, “Reaction to fire”**

*Add the following new subclause:*

**“7.6 Reaction to fire**

The requirements on fire behaviour and related tests are defined in the individual parts of EN 50525.

Where the cable’s intended use is for permanent installation and general application in constructions and civil engineering works, this falls within the scope of the CPR (Construction Products Regulation (EU) 305/2011) as set out in EN 50575: the performance requirements are given by those of EN 50575 for relevant properties. The fire performance class may be specified in national or local regulation in accordance with EN 13501-6.”

**9 Modifications to Clause 8, “Guide to use of the cables”**

*Delete*

“See HD 516.

NOTE HD 516 includes current ratings for flexible cables”

*and replace with*

“See EN 50565-1 and EN 50565-2.”

NOTE EN 50565-1 includes current ratings for flexible cables”.

**10 Modifications to Annex B**

*In Table B.1 – test method, measurement, requirements:*

- Line 1: *Delete* “EN 50267-2-2” *and replace with* “EN 60754-2, 8.2”
- Line 2: *Delete* “EN 50267-2-1” *and replace with* “EN 60754-1”

*In Table B.2 – Sequential test programme:*

- Stage 1: *Delete* “EN 50267-2-2” *and replace with* “EN 60754-2, 8.2”
- Stage 2: *Delete* “EN 50267-2-1” *and replace with* “EN 60754-1”

*In B.2, Type and sample tests:*

*In the 2nd sentence, delete* “EN 50267-2-2” *and replace with* “EN 60754-2, 8.2”

**11 Modifications to Annex D**

*In D.2:*

*Delete* “The base colour shall be black and the inscription colour shall be white or yellow.”



And replace with “The recommended colour is black and the inscription colour should be preferably white or yellow.”

## 12 Modifications to Annex E

In the title, delete “Structure and content of EN 50525 and its derivation from HD 21 and HD 22” and replace with “Structure and content of EN 50525”.

Delete the following NOTE

“NOTE The purpose of this annex is to show the position at the time of conversion of HD 21 and HD 22 to ENs. It is not intended to maintain this annex to show changes after the publication of EN 50525.”

Delete Table E.2.

Replace the title of Table E.3 with “Table E.2 – References to previous standards HD 21 and HD 22”

## 13 Addition of a new annex

Add the following new annex:

“

### Annex ZB (normative)

#### Special national conditions

**Special national condition:** National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions.

NOTE If it affects harmonization, it forms part of the European Standard or Harmonization Document.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

<u>Clause</u>	<u>Special National Condition</u>
	<p><b>Italy</b></p> <p>Cables used for fixed and permanent installation provided by this EN standard may be subject to the European CPR regulation. If subject, the Italian fire behaviour requirements - according to CEI UNEL 35016 - related to the single type of cables, are reported in the specific national CEI product standards and in the installation standard CEI 64-8 which shall be referenced for the correct choice of the cables.</p> <p><b>Spain</b></p> <p>Cables used for fixed and permanent installation provided by this EN standard may be subject to the European CPR regulation.</p> <p>If subject, see the Spanish Low Voltage Installation Regulation (Royal Decree 842/2002).</p>

”

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## 14 Modifications to the Bibliography

*Delete the following reference:*

“HD 516 <sup>1)</sup> Guide to use of low voltage harmonized cables”

*Add the following reference:*

“EN 13501-6, *Fire classification of construction products and building elements - Part 6: Classification using data from reaction to fire tests on power, control and communication cables*”

*Between EN 50525-2 and EN 50525-3, add:*

“EN 50525-2-81, *Electric cables - Low voltage energy cables of rated voltage up to and including 450/750 V (U<sub>o</sub>/U) - Part 2-81: Cables for general applications - Cables with crosslinked elastomeric covering for arc welding*”

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