

Kaablid ja juhtmed. Madalpingelised tugevoolujuhtmed nimipingega kuni 450/750 V (U₀/U). Osa 3-31: Tulekahju puhul paremini toimivad juhtmed. Ühesoonelised kaitsekestata halogeenivaba termoplastilise isolatsiooniga ja vähese suitsueraldusega juhtmed

Electric cables - Low voltage energy cables of rated voltages up to and including 450/750 V (U₀/U) - Part 3-31: Cables with special fire performance - Single core non-sheathed cables with halogen-free thermoplastic insulation, and low emission of smoke

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English version

**Electric cables -
Low voltage energy cables of rated voltages up to and including 450/750 V
(U_0/U) -
Part 3-31: Cables with special fire performance -
Single core non-sheathed cables with halogen-free thermoplastic
insulation, and low emission of smoke**

Câbles électriques -
Câbles d'énergie basse tension de tension
assignée au plus égale à 450/750 V
(U_0/U) -
Partie 3-31: Câbles à performances
spéciales au feu -
Conducteurs isolés en matériau
thermoplastique sans halogène, à faible
dégagement de fumée

Kabel und Leitungen -
Starkstromleitungen mit Nennspannungen
bis 450/750 V (U_0/U) -
Teil 3-31: Starkstromleitungen mit
verbessertem Verhalten im Brandfall -
Halogenfreie, raucharme Ader- und
Verdrahtungsleitungen mit
thermoplastischer Isolierung

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CENELEC

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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 20, Electric cables.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50525-3-31 on 2011-01-17.

This document, which is one of a multipart series, supersedes HD 21.15 S1:2006.

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

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-01-17
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-01-17

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Contents

	Page
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 General purpose cables	5
4.1 Cables for fixed wiring – H07Z1-U and H07Z1-R (Type 1 and Type 2).....	5
4.2 Cables for fixed wiring – H07Z1-K (Type 1 and Type 2).....	6
4.3 Cables for internal wiring – H05Z1-U and H05Z1-R.....	7
4.4 Cables for internal wiring – H05Z1-K.....	7
Annex A (normative) Tests for cables to EN 50525-3-31	9
Annex B (normative) General data.....	10
Bibliography	13
Tables	
Table A.1.....	9
Table B.1.....	10
Table B.2.....	11
Table B.3.....	11
Table B.4.....	12

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1 Scope

EN 50525-3-31 applies to non-sheathed single core cables insulated with halogen-free thermoplastic compound and having low emission of smoke and corrosive gases when exposed to fire.

NOTE 1 Low emission of smoke is checked in accordance with EN 61034-2. Low emission of corrosive gases is checked as part of the check for absence of halogens (see Annex B of EN 50525-1).

The cables are of rated voltages U_0/U up to and including 450/750 V.

NOTE 2 Cables rated 450/750 V may be used at 600/1 000 V when this cable is used in fixed installations with mechanical protection within switchgear and control gear - see HD 516.

For cables rated 450/750 V there are two types, Type 1 and Type 2. Type 2 cables are required to meet a more severe test for resistance to flame propagation (EN 60332-3-24) than Type 1, and have particular suitability for installation in bunches (see also HD 516).

The cables are intended for fixed wiring applications.

The maximum conductor operating temperature for each of the cables in this standard is 70 °C.

NOTE 3 HD 516 contains extensive guidance on the safe use of cables in this standard.

This EN 50525-3-31 should be read in conjunction with EN 50525-1, which specifies general requirements.

2 Normative references

The following referenced documents are indispensable for the application 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.

NOTE One or more references to the standards below are in respect of a specific sub-division of that standard, for instance a clause, a table, a class or a type. Cross-references to these standards are undated and, at all times, the latest version applies.

EN 50363-7	Insulating, sheathing and covering materials for low voltage energy cables - Part 7: Halogen-free, thermoplastic insulating compounds
EN 50395	Electrical test methods for low voltage energy cables
EN 50396	Non electrical test methods for low voltage energy cables
EN 50525-1	Electric cables - Low voltage energy cables of rated voltages up to and including 450/750 V (U_0/U) - Part 1: General requirements
EN 60228	Conductors of insulated cables (IEC 60228)
EN 60332-1-2	Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame (IEC 60332-1-2)
EN 60332-3-24	Tests on electric and optical fibre cables under fire conditions - Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C (IEC 60332-3-24)
EN 60811-1-4	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 1-4: General application - Tests at low temperature (IEC 60811-1-4)
EN 61034-2	Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements (IEC 61034-2)