

Irish Standard I.S. EN 50525-3-11:2011

Electric cables - Low voltage energy cables of rated voltages up to and including 450/750 V (U<sub>o</sub>/U) -- Part 3-11: Cables with special fire performance - Flexible cables with halogen-free thermoplastic insulation, and low emission of smoke

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**EUROPEAN STANDARD** 

EN 50525-3-11

NORME EUROPÉENNE EUROPÄISCHE NORM

May 2011

ICS 29.060.20

Supersedes HD 21.14 S1:2003

English version

# **Electric cables -**

Low voltage energy cables of rated voltages up to and including 450/750 V  $(U_0/U)$  -

Part 3-11: Cables with special fire performance Flexible 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 3-11: Câbles à performances spéciales au feu -

Câbles souples isolés en matériau thermoplastique sans halogène, à faible dégagement de fumée

Kabel und Leitungen - Starkstromleitungen mit Nennspannungen bis  $450/750 \text{ V } (U_0/U)$  -

Teil 3-11: Starkstromleitungen mit verbessertem Verhalten im Brandfall - Flexible halogenfreie, raucharme Leitungen mit thermoplastischer Isolierung

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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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 50525-3-11 on 2011-01-17.

This document, which is one of a multipart series, supersedes HD 21.14 S1:2003.

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latest date by which the national standards conflicting with the EN have to be withdrawn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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# 1 Scope

EN 50525-3-11 applies to flexible cables, insulated and sheathed 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 300/500 V.

The cables are intended for the connection of domestic appliances to the fixed supply.

Circular cables and flat cables are included.

The maximum conductor operating temperature for each of the cables in this standard is  $70\,^{\circ}\text{C}$ .

NOTE 2 HD 516 contains extensive guidance on the safe use of cables in this standard.

This EN 50525-3-11 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 50363-8   | Insulating, sheathing and covering materials for low voltage energy cables - Part 8: Halogen-free, thermoplastic sheathing 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 -<br>Part 1-2: Test for vertical flame propagation for a single<br>insulated wire or cable - Procedure for 1 kW pre-mixed flame<br>(IEC 60332-1-2)                         |
| EN 60811-1-1 | Insulating and sheathing materials of electric and optical cables - Common test methods - Part 1-1: General application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties (IEC 60811-1-1) |
| EN 60811-1-2 | Insulating and sheathing materials of electric and optical cables - Common test methods - Part 1-2: General application - Thermal ageing methods (IEC 60811-1-2)  |
| 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)  |



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