National Standards Authority of Ireland
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IRISH STANDARD

**I.S. EN 61138:2008**

ICS 29.060.20

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# CABLES FOR PORTABLE EARTHING AND SHORT-CIRCUITING EQUIPMENT (IEC 61138:2007 (MOD))

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**I.S. EN 61138:2008**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 61138

December 2007

ICS 29.060.20

Supersedes EN 61138:1997 + A11:2003

English version

## Cables for portable earthing and short-circuiting equipment
(IEC 61138:2007, modified)

Câbles d'équipements portables
de mise à la terre et de court-circuit
(CEI 61138:2007, modifiée)

Leitungen für ortsveränderliche
Erdungs- und Kurzschließ-Einrichtungen
(IEC 61138:2007, modifiziert)

This European Standard was approved by CENELEC on 2007-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 Central Secretariat or to any CENELEC member.

This European Standard 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 Central Secretariat has the same status as the official versions.

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

CENELEC

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**



Ref. No. EN 61138:2007 E

## Foreword

The text of document 20/881/FDIS, future edition 3 of IEC 61138, prepared by IEC TC 20, Electric cables, was submitted to the IEC-CENELEC parallel vote.

A draft amendment containing common modifications to the future IEC 61138 was prepared by the Technical Committee CENELEC TC 20, Electric cables, and was submitted to formal vote.

The combined text was approved by CENELEC as EN 61138 on 2007-10-01.

This European Standard supersedes EN 61138:1997 + A11:2003.

The significant technical changes with respect to EN 61138:1997 are as follows:

– extension of the scope to cover silicone rubber as an insulation material;

– introduction of a new normative annex for clashing test.

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) | 2008-10-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2009-10-01 |

Annex ZA has been added by CENELEC.

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# Endorsement notice

The text of the International Standard IEC 61138:2007 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

## 1 Scope

In paragraph 4, **delete** IEC 60227-2 and IEC 60245-2 and **add** EN 50395 and EN 50396.

## 2 Normatives references

**Delete** IEC 60227-1, IEC 60227-2 and IEC 60245-2.

**Add** the following:

EN 50363-2-1, *Insulating, sheathing and covering materials for low voltage energy cables – Part 2-1: Cross-linked elastomeric sheathing compounds*

EN 50363-4-1, *Insulating, sheathing and covering materials for low voltage energy cables – Part 4-1: PVC sheathing compounds*

EN 50395, *Electrical test methods for low voltage energy cables*

EN 50396, *Non-electrical test methods for low voltage energy cables*

## 4 General requirements for the construction of cables

In 4.3.4, last paragraph, **replace** “1.9 of IEC 60227-2 or IEC 60245-2” by “4.1 of EN 50396”.

In 4.3.5, **replace** the second, third and fourth indents with the following:

– EN 50363-4-1, Table 2, TM 2 as a general purpose PVC compound;

– EN 50363-4-1, Table 2, TM 6 as a cold-resistant PVC compound; in addition cables covered with this type of compound shall be subjected to a cold impact test at -35 °C;

– EN 50363-2-1, Table 2, EM 9 as a cross-linked silicone rubber compound.

In 4.4.4, **replace** “1.8 of IEC 60227-2 or IEC 60245-2” by “5.1 of EN 50396”.

## 5 Tests on completed cables

In 5.2, last paragraph, **replace** “1.11 of IEC 60227-2 or IEC 60245-2” by “4.4 of EN 50396”.

In 5.3.2, first paragraph, **replace** “3.2 of IEC 60245-2” by “6.1 of EN 50396”.

In 5.3.2, third paragraph, **replace** “Figure 2 in IEC 60245-2” by **“**Figure 3 of EN 50396”.

In 5.3.3, first paragraph, **replace** "see also IEC 60227-2 or IEC 60245-2” by “see also EN 50396”.

## 6 Particular specifications

In 6.2, **replace** the code designation for the following types with the CENELEC code designation according to HD 361:

| | |
|---|---|
| PVC/ST 5 – Copper | H00V-D |
| PVC/ST 5 – Aluminium | H00V-AD |
| PVC/ST 11 – Copper | H00V3-D |
| PVC/ST 11 – Aluminium | H00V3-AD |
| SiR – Copper | H00S-D |
| SiR – Aluminium | H00S-AD |

## 7 Guide to the use of the cables

**Replace** the second paragraph by the following.

These cables are suitable for indoor and outdoor use within the following temperature limits:

| | |
|---|---|
| EPR: | –40 °C to + 70 °C |
| TM 2: | –5 °C to + 70 °C |
| TM 6: | –25 °C to + 55 °C |
| EM 9: | –40 °C to + 70 °C |

**Table 3**

**Replace** the title by:

**Table 3 – General data for Type 61138 IEC 60110, and types H00V-D, H003V-D, H00S-D**

**Table 4**

**Replace** the title by:

**Table 4 – General data for Type 61138 IEC 60210, and types H00V-AD, H003V-AD, H00S-AD**

**Table 5**

In the heading of column 4, **replace** "IEC publication" by "IEC publication or EN where shown".

In column 4, **replace** the references to IEC 60245-2 in accordance with the following:

| | | |
|---|---|---|
| Subclause 2.1 | EN 50395 | 5 |
| Subclause 2.2 | EN 50395 | 6 |
| Subclause 1.9 | EN 50396 | 4.1 |
| Subclause 1.11 | EN 50396 | 4.4 |