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Irish Standard  
I.S. EN 60317-0-1:2014

# Specifications for particular types of winding wires -- Part 0-1: General requirements - Enamelled round copper wire

**I.S. EN 60317-0-1:2014**

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EUROPEAN STANDARD

**EN 60317-0-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2014

ICS 29.060.10

Supersedes EN 60317-0-1:2008

English version

**Specifications for particular types of winding wires -  
Part 0-1: General requirements -  
Enamelled round copper wire  
(IEC 60317-0-1:2013)**

Spécifications pour types particuliers de  
fils de bobinage -  
Partie 0-1: Exigences générales -  
Fil de section circulaire en cuivre émaillé  
(CEI 60317-0-1:2013)

Technische Lieferbedingungen für  
bestimmte Typen von Wickeldrähten -  
Teil 0-1: Allgemeine Anforderungen -  
Runddrähte aus Kupfer, lackisoliert  
(IEC 60317-0-1:2013)

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**CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 55/1409/FDIS, future edition 4 of IEC 60317-0-1, prepared by IEC/TC 55 "Winding wires" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60317-0-1:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-08-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-11-11

This document supersedes EN 60317-0-1:2008.

EN 60317-0-1:2014 includes the following significant technical changes with respect to EN 60317-0-1:2008:

- revision to the definition of nominal conductor dimension;
- new subclause containing general notes on winding wire, formerly a part of the scope;
- revision to elongation requirements in Table 4;
- revisions to Clause 13, Breakdown voltage, to include new requirements for intermediate wire diameters;
- revision to continuity of insulation requirements in Table 13;
- revision to the introduction of Annex A;
- revision to B.2 of Annex B;
- revision to Table C.1 of Annex C.

This standard is to be read in conjunction with the EN 60851 series. The clause numbers used in this part of EN 60317 are identical with the respective test numbers of the EN 60851 series.

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IEC 60264 Series	NOTE	Harmonized as EN 60264 Series (not modified).
IEC 60317 Series	NOTE	Harmonized as EN 60317 Series (not modified).

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60172	-	Test procedure for the determination of the temperature index of enamelled winding wires	EN 60172	-
IEC 60851	Series	Winding wires - Test methods	EN 60851	Series
ISO 3	-	Preferred numbers - Series of preferred numbers	-	-

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**IEC 60317-0-1**

Edition 4.0 2013-10

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**Specifications for particular types of winding wires –  
Part 0-1: General requirements – Enamelled round copper wire**

**Spécifications pour types particuliers de fils de bobinage –  
Partie 0-1: Exigences générales – Fil de section circulaire en cuivre émaillé**





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**IEC 60317-0-1**

Edition 4.0 2013-10

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**Specifications for particular types of winding wires –  
Part 0-1: General requirements – Enamelled round copper wire**

**Spécifications pour types particuliers de fils de bobinage –  
Partie 0-1: Exigences générales – Fil de section circulaire en cuivre émaillé**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –**

#### **Part 0-1: General requirements – Enamelled round copper wire**

#### FOREWORD

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International Standard IEC 60317-0-1 has been prepared by IEC technical committee 55: Winding wires.

This fourth edition cancels and replaces the third edition published in 2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- revision to the definition of nominal conductor dimension;
- new subclause containing general notes on winding wire, formerly a part of the scope;
- revision to elongation requirements in Table 4;
- revisions to Clause 13, Breakdown voltage, to include new requirements for intermediate wire diameters;

- revision to continuity of insulation requirements in Table 13;
- revision to the introduction of Annex A;
- revision to B.2 of Annex B;
- revision to Table C.1 of Annex C.

This standard is to be read in conjunction with the IEC 60851 series. The clause numbers used in this part of IEC 60317 are identical with the respective test numbers of the IEC 60851 series.

In case of inconsistencies between IEC 60851 and this part of IEC 60317, the latter prevails.

The text of this standard is based on the following documents:

FDIS	Report on voting
55/1409/FDIS	55/1430/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60317 series, published under the general title *Specifications for particular types of winding wires*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This part of IEC 60317 is one of a series which deals with insulated wires used for windings in electrical equipment. The series has three groups describing:

- 1) Winding wires – Test methods (IEC 60851);
- 2) Specifications for particular types of winding wires (IEC 60317);
- 3) Packaging of winding wires (IEC 60264).

## **SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –**

### **Part 0-1: General requirements – Enamelled round copper wire**

#### **1 Scope**

This part of IEC 60317 specifies general requirements of enamelled round copper winding wires with or without bonding layer.

The range of nominal conductor diameters is given in the relevant specification sheet.

#### **2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60172, *Test procedure for the determination of the temperature index of enamelled winding wires*

IEC 60851 (all parts), *Winding wires – Test methods*

ISO 3, *Preferred numbers – Series of preferred numbers*

#### **3 Terms, definitions, general notes and appearance**

For the purposes of this document, the following terms and definitions apply.

##### **3.1 Terms and definitions**

###### **3.1.1**

###### **bonding layer**

material which is deposited on an enamelled wire and which has the specific function of bonding wires together

###### **3.1.2**

###### **class**

thermal performance of a wire expressed by the temperature index and the heat shock temperature

###### **3.1.3**

###### **coating**

material which is deposited on a conductor or wire by a suitable means and then dried and/or cured

###### **3.1.4**

###### **conductor**

bare metal after removal of the insulation

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