



**NSAI**  
Standards

Irish Standard  
I.S. EN 60317-69:2017

Specifications for particular types of winding wires - Part 69: Polyester or polyesterimide overcoated with polyamide-imide enamelled rectangular aluminium wire, class 220

**I.S. EN 60317-69:2017**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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*This document is based on:*

EN 60317-69:2017

*Published:*

2017-04-21

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2017-05-09

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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## National Foreword

I.S. EN 60317-69:2017 is the adopted Irish version of the European Document EN 60317-69:2017, Specifications for particular types of winding wires - Part 69: Polyester or polyesterimide overcoated with polyamide-imide enamelled rectangular aluminium wire, class 220

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*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60317-69**

April 2017

ICS 29.060.10

English Version

Specifications for particular types of winding wires -  
Part 69: Polyester or polyesterimide overcoated with polyamide-  
imide enamelled rectangular aluminium wire, class 220  
(IEC 60317-69:2017)

Spécifications pour types particuliers de fils de bobinage -  
Partie 69: Fil d'aluminium de section rectangulaire émaillé  
de polyester ou polyestérimide et avec surcouche  
polyamide-imide, classe 220  
(IEC 60317-69:2017)

Technische Lieferbedingungen für bestimmte Typen von  
Wickeldrähten - Teil 69: Mit Polyester oder Polyesterimid  
beschichteter, mit Polyamidimid lackierter Flachdraht aus  
Aluminium der Klasse 220  
(IEC 60317-69:2017)

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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.

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

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

**EN 60317-69:2017****European foreword**

The text of document 55/1571/CDV, future edition 1 of IEC 60317-69, prepared by IEC/TC 55 "Winding wires" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60317-69:2017.

The following dates are fixed:

- latest date by which the document has to be (dop) 2017-11-24  
implemented at national level by  
publication of an identical national  
standard or by endorsement
- latest date by which the national (dow) 2020-02-24  
standards conflicting with the  
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60264 Series	NOTE	Harmonized as EN 60264 Series.
IEC 60317 Series	NOTE	Harmonized as EN 60317 Series.
IEC 60851 Series	NOTE	Harmonized as EN 60851 Series.

## 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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60317-0-9	2015	Specifications for particular types of winding wires - Part 0-9: General requirements - Enamelled rectangular aluminium wire	EN 60317-0-9	2015
IEC 60851-4	2016	Winding wires - Test methods - Part 4: Chemical properties	EN 60851-4	2016

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**IEC 60317-69**

Edition 1.0 2017-01

# INTERNATIONAL STANDARD

**Specifications for particular types of winding wires –  
Part 69: Polyester or polyesterimide overcoated with polyamide-imide enamelled  
rectangular aluminium wire, class 220**



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**IEC 60317-69**

Edition 1.0 2017-01

# INTERNATIONAL STANDARD

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**Specifications for particular types of winding wires –  
Part 69: Polyester or polyesterimide overcoated with polyamide-imide enamelled  
rectangular aluminium wire, class 220**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

ICS 29.060.10

ISBN 978-2-8322-3842-4

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

**Part 69: Polyester or polyesterimide overcoated with  
polyamide-imide enamelled rectangular aluminium wire, class 220**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60317-69 has been prepared by IEC technical committee 55: Winding wires.

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

CDV	Report on voting
55/1571/CDV	55/1592/RVC

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

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

This International Standard is to be read in conjunction with IEC 60317-0-9:2015.

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

The numbering of clauses in this standard is not continuous from Clauses 21 through 30 in order to reserve space for possible future wire requirements prior to those for wire packaging.

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

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

A bilingual version of this publication may be issued at a later date.

## INTRODUCTION

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

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

## SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

### Part 69: Polyester or polyesterimide overcoated with polyamide-imide enamelled rectangular aluminium wire, class 220

#### 1 Scope

This part of IEC 60317 specifies the requirements of enamelled rectangular aluminium winding wire of class 220 with a dual coating. The underlying coating is based on polyester or polyesterimide resin, which may be modified providing it retains the chemical identity of the original resin and meets all specified wire requirements. The superimposed coating is based on polyamide-imide resin.

NOTE A modified resin is a resin that has undergone a chemical change, or contains one or more additives to enhance certain performance of application characteristics.

The range of nominal conductor dimensions covered by this standard is:

	Minimum	Maximum
Width	2,0 mm	16,0 mm
Thickness	0,80 mm	5,60 mm

Wires of grade 1 and grade 2 are included in this part of IEC 60317 and apply to the complete range of conductors.

The specified combinations of width and thickness as well as the specific ratio width/thickness are given in IEC 60317-0-9.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60317-0-9:2015, *Specifications for particular types of winding wires – Part 0-9: General requirements – Enamelled rectangular aluminium wire*

IEC 60851-4:2016, *Winding wires – Test methods – Part 4: Chemical properties*

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

##### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60317-0-9 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
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