

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Specifications for particular types of winding wires –  
Part 0-3: General requirements – Enamelled round aluminium wire**

**Spécifications pour types particuliers de fils de bobinage –  
Partie 0-3: Exigences générales – Fil de section circulaire en aluminium émaillé**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

**Part 0-3: General requirements –  
Enamelled round aluminium wire**

## FOREWORD

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International Standard IEC 60317-0-3 has been prepared by IEC technical committee 55: Winding wires.

This third edition cancels and replaces the second edition published in 1997 and its amendments 1 (1999) and 2 (2004) and constitutes a technical revision.

Technical changes from the previous edition include clarification to appearance requirements, revisions to the wire size ranges applicable to the flexibility and adherence tests, and clarification that pin hole test requirements are under consideration.

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

FDIS	Report on voting
55/1056/FDIS	55/1068/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 the parts in the IEC 60317 series, under the general title *Specifications for particular types of winding wires*, can be found on the IEC website.

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 IEC 60851.

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

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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- withdrawn,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 that deals with insulated wires used for windings in electrical equipment. The series has three groups describing

- 1) winding wires and test methods (IEC 60851);
- 2) specifications for particular types of winding wires (IEC 60317);
- 3) packaging of winding wires (IEC 60264).

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## SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

### Part 0-3: General requirements – Enamelled round aluminium wire

#### 1 Scope

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

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

When reference is made to a winding wire according to a standard of the IEC 60317 series mentioned under Clause 2, the following information is given in the description:

- reference to IEC specification;
- nominal conductor diameter, in millimetres;
- grade.

EXAMPLE: IEC 60317-14 – 0,500 Grade 1

#### 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.

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 and general notes on methods of tests and appearance

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

##### 3.1 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**

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