

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Specifications for particular types of winding wires –
Part 0-2: General requirements – Enamelled rectangular copper wire**

**Spécifications pour types particuliers de fils de bobinage –
Partie 0-2: Exigences générales – Fil de section rectangulaire en cuivre émaillé**



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CONTENTS

FOREWORD	4
INTRODUCTION	6
1 Scope	7
2 Normative references	7
3 Terms, definitions, general notes and appearance	7
3.1 Terms and definitions	7
3.2 General notes	9
3.2.1 Methods of test	9
3.2.2 Winding wire	9
3.3 Appearance	9
4 Dimensions	9
4.1 Conductor dimensions	9
4.2 Tolerance on conductor dimensions	10
4.3 Rounding of corners	10
4.4 Increase in dimensions due to the insulation and the bonding layer	12
4.4.1 Enamelled wires without a bonding layer	12
4.4.2 Enamelled wires with a bonding layer	12
4.5 Overall dimensions	12
4.5.1 Nominal overall dimensions	12
4.5.2 Minimum overall dimensions	13
4.5.3 Maximum overall dimensions	13
5 Electrical resistance	13
6 Elongation	13
7 Springiness (applicable to nominal proof strength $\leq 80 \text{ N}\cdot\text{mm}^{-2}$)	14
8 Flexibility and adherence	14
8.1 Mandrel winding test	14
8.2 Adherence test	14
9 Heat shock	14
10 Cut-through	15
11 Resistance to abrasion	15
12 Resistance to solvents	15
13 Breakdown voltage	15
14 Continuity of insulation	15
15 Temperature index	15
16 Resistance to refrigerants	16
17 Solderability	16
18 Heat or solvent bonding	16
19 Dielectric dissipation factor	16
20 Resistance to transformer oil	16
21 Loss of mass	16
23 Pin hole test	16
30 Packaging	16

Annex A (informative) Nominal cross-sectional areas for preferred and intermediate sizes	18
Bibliography	27
Table 1 – Conductor tolerances	10
Table 2 – Nominal cross-sectional areas of preferred sizes	11
Table 3 – Corner radii	12
Table 4 – Increases in dimensions	12
Table 5 – Percentage elongation after fracture	13
Table 6 – Proof strength and resistivity	14
Table 7 – Mandrel winding	14
Table 8 – Breakdown voltage	15
Table A.1 – Nominal cross-sectional areas	18

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –**Part 0-2: General requirements – Enamelled rectangular copper wire**

FOREWORD

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International Standard IEC 60317-0-2 has been prepared by IEC technical committee 55: Winding wires.

This fourth edition cancels and replaces the third edition published in 2013. This edition constitutes a technical revision.

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

- a) revision to Clause 2 to add new normative references for specifications for copper rods;
- b) revision to 3.1 to add a new definition for the term "bonding layer";
- c) revision to 3.2.1 to the conditions specified for tests to be carried out;
- d) revision to 4.5 to add requirements for minimal, nominal and maximal overall dimensions with a bonding layer;
- e) revision to Clause 5 to reference specifications for rectangular and square copper rod;

- f) revision to Clause 6 to take into account nominal proof strength;
- g) revision to 8.2 to the adherence test requirement;
- h) revision to Clause 18 to make reference to the relevant specification sheet

The text of this International Standard is based on the following documents:

FDIS	Report on voting
55/1847/FDIS	55/1865/RVD

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 60851 (all parts). The clause numbers used in this part of IEC 60317 are identical with the respective list numbers of IEC 60851 (all parts).

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

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

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 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.

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. It is composed of the following series:

- 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 0-2: General requirements – Enamelled rectangular copper wire

1 Scope

This part of IEC 60317 specifies the general requirements of enamelled rectangular copper winding wires.

The range of nominal conductor dimensions is given in 4.1 and the relevant specification sheet.

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 60172, *Test procedure for the determination of the temperature index of enamelled and tape wrapped winding wires*

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

IEC 60851-3, *Winding wires – Test methods – Part 3: Mechanical properties*

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

ISO 1190-1, *Copper and copper alloys – Code of designation – Part 1: Designation of materials*

ISO 6892-1:2016, *Metallic materials – Tensile testing – Part 1: Method of test at room temperature*

EN 1977, *Copper and copper alloys – Copper drawing stock (wire rod)*

ASTM B40, *Standard Specification for Copper Rod for Electrical Purposes*

3 Terms, definitions, general notes and appearance

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6892-1:2016 and the following 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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