IEC 60317-0-7

Edition 2.0 2017-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Specifications for particular types of winding wires – Part 0-7: General requirements – Fully insulated (FIW) zero-defect enamelled round copper wire

Spécifications pour types particuliers de fils de bobinage – Partie 0-7: Exigences générales – Fil de section circulaire, isolé en continu (FIW), en cuivre émaillé, sans défaut d'isolation électrique

IEC 60317-0-7:2017-08 (en-fr)

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Part 0-7: General requirements – Fully insulated (FIW) zero-defect enamelled round copper wire

FOREWORD

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International Standard IEC 60317-0-7 has been prepared by IEC technical committee 55: Winding wires.

This second edition cancels and replaces the first edition published in 2012. This edition constitutes a technical revision.

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

a) reduction in the number of grades of FIW from 3 through 9 to 4, 6 and 8 only;
b) reduction of the wire diameter range from (0,040 to 1,000) mm to (0,090 to 0,900) mm for several requirements;
c) revision of Clause 5 to delete the Table 2 resistance requirements;

d) revision of Clause 13 to clarify that breakdown is determined when a calculated minimum test voltage is reached, which can be less than 10 000 V;

e) expansion of Annex A to include requirements for FIW 3, 5, 7 and 9 and for all grades, wire diameters below 0,090 mm and above 0,900 mm.

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

FDIS	Report on voting
55/1619/FDIS	55/1623/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.

A list of all parts in the IEC 60317 series, published under the general title *Specifications for particular type 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- withdrawn,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

The IEC 60317 series is part of a group of International Standards which define insulated wires used for windings in electrical equipment:

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

SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 0-7: General requirements – Fully insulated (FIW) zero-defect enamelled round copper wire

1 Scope

This part of IEC 60317 establishes general requirements for fully insulated (FIW) zero-defect enamelled round copper wires.

The nominal conductor diameter range is given in the relevant technical specification.

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

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

IEC 60851-5:2008, *Winding wires – Test methods – Part 5: Electrical properties*
IEC 60851-5:2008/AMD1:2011

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

3 Terms, definitions, general notes and appearance

3.1 Terms and definitions

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

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

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1.1
class
thermal performance of a wire expressed by the temperature index and the heat shock temperature