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Specifications for particular types of winding wires – Part 27-3: Paper tape covered rectangular copper wire

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SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 27-3: Paper tape covered rectangular copper wire

FOREWORD

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IEC 60317-27-3 edition 1.1 contains the first edition (2019-11) [documents 55/1801/FDIS and 55/1826/RVD] and its amendment 1 (2024-06) [documents 55/1986/CDV and 55/2022/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 60317-27-3 has been prepared by IEC technical committee 55: Winding wires.

This first edition cancels and replaces the fourth edition of IEC 60317-27 published in 2013. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 60317-27:2013:

a) replacement of Annex A with a reference to ISO 6892-1;
b) renumbering of this document as IEC 60317-27-3, as one in a series of four specifications for paper covered winding wires.

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

This International Standard is to be used in conjunction with the IEC 60317-0-2:~~2013~~2020.

The numbering of clauses in this document is not continuous from Clauses 20 to 30 in order to reserve space for possible future wire requirements prior to those for wire packaging.

A list of all the 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 and its amendment will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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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 27-3: Paper tape covered rectangular copper wire

1 Scope

This part of IEC 60317 specifies the requirements of paper tape covered rectangular copper winding wires. This covering consists of two or more layers of paper tape and is primarily intended for winding coils for oil immersed transformers.

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

– width: min. 2,0 mm max. 31,5 mm;

– thickness: min. 0,80 mm max. 10,0 mm.

The paper tapes included in this document are restricted to those specified in IEC 60554-1 and IEC 60554-3-5.

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 60317-0-2:~~2013~~2020, *Specifications for particular types of winding wires – Part 0-2: General requirements – Enamelled rectangular copper wire*

IEC 60554-1, *Specification for cellulosic papers for electrical purposes – Part 1: Definitions and general requirements*

IEC 60554-3-5, *Specification for cellulosic papers for electrical purposes – Part 3: Specifications for individual materials – Sheet 5: Special papers*

IEC 60851-2~~:~~, *Winding wires – Test methods – Part 2: Determination of dimensions*

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IEC 60554-3-5, *Specification for cellulosic papers for electrical purposes – Part 3: Specifications for individual materials – Sheet 5: Special papers*

IEC 60851-2, *Winding wires – Test methods – Part 2: Determination of dimensions*