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colour inside

Specifications for particular types of winding wires – Part 12: Polyvinyl acetal enamelled round copper wire, class 120

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SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 12: Polyvinyl acetal enamelled round copper wire, class 120

FOREWORD

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 60317-12 edition 4.1 contains the fourth edition (2020-06) [documents 55/1841/FDIS and 55/1854/RVD] and its amendment 1 (2024-05) [documents 55/1982/CDV and 55/2018/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 60317-12 has been prepared by IEC technical committee 55: Winding wires.

This fourth edition of IEC 60317-12 cancels and replaces the third edition published in 2010. This edition constitutes a technical revision.

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

a) modification of the Scope;

b) addition of reference to transformer oil resistance test method in Clause 20.

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

This International Standard is to be used in conjunction with IEC 60317-0-1:2013 and its Amendment 1:2019.

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 numbering of clauses in this document 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 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

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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 12: Polyvinyl acetal enamelled round copper wire, class 120

1 Scope

This part of IEC 60317 specifies the requirements of enamelled round copper winding wires of class 120 with a sole coating based on polyvinyl acetal or polyvinyl formal resin, which can be modified provided it retains the chemical identity of the original resin and meets all specified wire requirements.

NOTE 1 A modified resin is a resin that has undergone a chemical change, or contains one or more additives to enhance certain performance or application characteristics.

NOTE 2 Polyvinyl acetal is a general name for a family of thermoplastic vinyl resins produced by the condensation of polyvinyl alcohol with an aldehyde. Examples are polyvinyl acetal, polyvinyl formal and polyvinyl butyral.

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

– Grade 1: 0,040 mm up to and including 2,500 mm;
– Grade 2: 0,040 mm up to and including 5,000 mm;
– Grade 3: 0,080 mm up to and including 5,000 mm.

The nominal conductor diameters are specified in Clause 4 of IEC 60317-0-1:2013.

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