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Specifications for particular types of winding wires – Part 13: Polyester or polyesterimide overcoated with polyamide-imide enamelled round copper wire, class 200

INTERNATIONAL
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Part 13: Polyester or polyesterimide overcoated with polyamide-imide enamelled round copper wire, class 200

FOREWORD

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IEC 60317-13 edition 3.1 contains the third edition (2010-03) [documents 55/1179/FDIS and 55/1190/RVD] and its amendment 1 (2024-06) [documents 55/1983/CDV and 55/2019/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 60317-13 has been prepared by IEC technical committee 55: Winding wires.

This third edition of IEC 60317-13 cancels and replaces the second edition published in 1990, its amendment 1 (1997) and its Amendment 2 (1997). This edition constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

– new requirements for appearance;
– reference to new resistance to refrigerants test in IEC 60851-4;
– deletion of high temperature failure requirement;
– new pin hole test requirements.

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

This International Standard is to be read in conjunction with IEC 60317-0-1 ~~(2008)~~:2013 and its Amendment 1:2019.

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.

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INTRODUCTION

This Part of IEC 60317 is one of a series which deals with insulated wires used for windings in electrical equipment. The series has three groups describing

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

SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 13: Polyester or polyesterimide overcoated with polyamide-imide enamelled round copper wire, class 200

1 Scope

This Part of IEC 60317 specifies the requirements of enamelled round copper winding wire of class 200 with a dual coating. The underlying coating is based on polyester or polyesterimide resin, which may be modified providing it retains the chemical identity of the original resin and meets all specified wire requirements. The superimposed coating is based on polyamide-imide resin.

NOTE 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.

Class 200 is a thermal class that requires a minimum temperature index of 200 and a heat shock temperature of at least 220 °C.

The temperature in degrees Celsius corresponding to the temperature index is not necessarily that at which it is recommended that the wire be operated and this will depend on many factors, including the type of equipment involved.

The range of a nominal conductor diameters covered by this standard is as follows:

– Grade 1: 0,050 mm up to and including 2,000 mm;
– Grade 2: 0,050 mm up to and including 5,000 mm.

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

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 60317-0-1[1]:~~2008~~2013, *Specifications for particular types of winding wires – Part 0-1: General requirements – Enamelled round copper wire*
IEC 60317-0-1:2013/AMD1:2019

IEC 60851-4:~~1996~~2016, ~~*Methods of test for winding wires –*~~ *Winding wires – Test methods – Part 4: Chemical properties*

~~Amendment 1 (1997)~~

~~Amendment 2 (2005)~~

[1] There exists a consolidated edition 4.1:2021 that includes IEC 60317-0-1:2013 and its Amendment 1:2019.

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