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Specifications for particular types of winding wires – Part 58: Polyamide-imide enamelled rectangular copper wire, class 220

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SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 58: Polyamide-imide enamelled rectangular copper wire, class 220

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IEC 60317-58 edition 1.1 contains the first edition (2010-08) [documents 55/1138/CDV and 55/1168A/RVC] and its amendment 1 (2024-06) [documents 55/1996/CDV and 55/2032/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 60317-58 has been prepared by IEC technical committee 55: Winding wires.

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 60317-0-2 ~~(1997)~~:2020.

The numbering of clauses in this standard is not continuous from Clauses 21 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, 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 – test methods (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 58: Polyamide-imide enamelled rectangular copper wire, class 220

1 Scope

This part of IEC 60317 specifies the requirements of enamelled rectangular copper winding wire of class 220 with a sole coating based on polyamide-imide resin, which may be modified providing it retains the chemical identity of the original resin and meets all specified wire requirements.

Class 220 is a thermal class that requires a minimum temperature index of 220 and a heat shock temperature of at least 240 ºC.

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 nominal conductor dimensions covered by this standard is as follows:

– width: min. 2,0 mm; max. 16,0 mm;
– thickness: min. 0,80 mm; max. 5,60 mm.

Wires of grade 1 and grade 2 are included in this specification and apply to the complete range of conductors.

The specified combinations of width and thickness as well as the specified ratio width/thickness are given in IEC 60317-0-2.

2 Normative references

The following ~~referenced~~ documents are ~~indispensable for the application~~ 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:~~1997~~2020, *Specifications for particular types of winding wires – Part 0-2: General requirements –~~ Section 2:~~ Enamelled~~ rectangular copper~~ round aluminium wire*
~~Amendment 1 (1999)~~
~~Amendment 2 (2005)~~

~~**3 Definitions and general notes on methods of test and appearance**~~

~~**3.1 Definitions and general notes on methods of test**~~

~~For definitions and general notes on methods of test, see Clause 3 of IEC 60317-0-2.~~

~~In case of inconsistencies between IEC 60317-0-2 and this standard, IEC 60317-58 shall prevail.~~

~~**3.2 Appearance**~~

~~See Subclause 3.3 of IEC 60317-0-2.~~

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IEC 60317-0-2:2020, *Specifications for particular types of winding wires – Part 0-2: General requirements – Enamelled round aluminium wire*