



IEC 60317-57

Edition 1.1 2024-06
CONSOLIDATED VERSION

INTERNATIONAL STANDARD



**Specifications for particular types of winding wires –
Part 57: Polyamide-imide enamelled round copper wire, class 220**





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 57: Polyamide-imide enamelled round copper wire, class 220

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

IEC 60317-57 edition 1.1 contains the first edition (2010-08) [documents 55/1137/CDV and 55/1167A/RVC] and its amendment 1 (2024-06) [documents 55/1995/CDV and 55/2031/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 60317-57 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 standard is to be read in conjunction with IEC 60317-0-1-~~(2008)~~:2013 and its Amendment 1:2019.

The numbering of clauses in this standard is not continuous from Clauses 23 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.

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- withdrawn, or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 is one of a series which deals with insulated wires used for windings in electrical equipment. The series has three groups describing

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

SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 57: Polyamide-imide enamelled round copper wire, class 220

1 Scope

This part of IEC 60317 specifies the requirements of an enamelled round 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 °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 nominal conductor diameters covered by this standard is as follows:

- Grade 1: 0,071 mm up to and including 1,600 mm;
- Grade 2: 0,071 mm up to and including 1,600 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~~ 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 60317-0-1:2008¹2013, *Specifications for particular types of winding wires – Part 0-1: General requirements – Enamelled round copper wire*.
IEC 60317-0-1:2013/AMD1:2019

~~3 Definitions, 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 60317-0-1. In case of inconsistencies between IEC 60317-0-1 and this standard, IEC 60317-57 shall prevail.~~

~~3.2 Appearance~~

~~See Subclause 3.3 of IEC 60317-0-1.~~

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