

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Specifications for particular types of winding wires –  
Part 93: Polyester or polyesterimide overcoated with polyamide-imide enamelled  
rectangular copper wire, class 220**

**Spécifications pour types particuliers de fils de bobinage –  
Partie 93: Fil de section rectangulaire en cuivre émaillé au polyamide-imide, avec  
émail sous-jacent en polyester ou polyesterimide, classe 220**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

**Part 93: Polyester or polyesterimide overcoated with polyamide-imide enamelled rectangular copper wire, class 220**

## FOREWORD

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IEC 60317-93 has been prepared by IEC technical committee 55: Winding wires. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
55/1940/CDV	55/1973/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

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

The numbering of clauses in this standard is not continuous from Clauses 21 through 30 in order to reserve space for possible future wire requirements prior to those for wire packaging.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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 committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This part of IEC 60317 belongs to 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 93: Polyester or polyesterimide overcoated with 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 dual coating. The underlying coating is based on polyester or polyesterimide resin, which 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.

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

- width: min. 2,0 mm max. 25,0 mm;
- thickness: min. 0,80 mm max. 10,0 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 width/thickness ratio are given in IEC 60317-0-2.

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

#### 3 Terms, definitions, general notes and appearance

##### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60317-0-2 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
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