IEC 60317-61

Edition 2.0 2020-05

INTERNATIONAL STANDARD

colour inside

REDLINE VERSION

Specifications for particular types of winding wires – Part 61: Polyester glass-fibre wound, ~~minimum class 180~~ resin or varnish impregnated, bare or enamelled rectangular copper wire, temperature index 180

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

Part 61: Polyester glass-fibre wound, ~~minimum class 180~~ resin or varnish impregnated, bare or enamelled rectangular copper wire, temperature index 180

FOREWORD

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International Standard IEC 60317-61 has been prepared by IEC technical committee 55: Winding wires.

This second edition cancels and replaces the first edition published in 2012. This edition constitutes a technical revision.

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

a) revision of the title of the standard;
b) revision to Clause 1, Scope;
c) revision to the descriptions of grades of thickness of polyester glass-fibre coverings in 3.2.2.

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

CDV	Report on voting
55/1771/CDV	55/1819/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

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

This International standard is to be used in conjunction with the IEC 60317-0-8:2019.

A list of all the 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 standard is not continuous from Clauses 20 and 30 in order to reserve space for possible future wire requirements prior to those for wire packaging.

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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 61: Polyester glass-fibre wound, ~~minimum class 180~~ resin or varnish impregnated, bare or enamelled rectangular copper wire, temperature index 180

1 Scope

This part of IEC 60317 specifies the requirements of polyester glass-fibre wound, resin or varnish impregnated bare, grade 1 or grade 2 enamelled rectangular copper winding wires, temperature index 180. The impregnating agent can be, for instance, epoxy, polyester, or polyesterimide resin based.

NOTE For this type of wire, the heat shock test is inappropriate and therefore a heat shock temperature cannot be established. Consequently, a class based on the requirements for temperature index and heat shock temperature cannot be specified.

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

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

The specified combinations of width and thickness as well as the specified width/thickness ratio are according to IEC 60317-0-8.

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 60317-0-8:~~2012~~2019, *Specifications for particular types of winding wires – Part 0-8: General requirements – Polyester glass-fibre wound unvarnished and fused, or resin or varnish ~~impregnated or not~~ impregnated, bare or enamelled rectangular copper wire*

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Specifications for particular types of winding wires – Part 61: Polyester glass-fibre wound, resin or varnish impregnated, bare or enamelled rectangular copper wire, temperature index 180

Spécifications pour types particuliers de fils de bobinage – Partie 61: Fil de section rectangulaire en cuivre nu ou émaillé, guipé de fibres de verre polyester imprégnées de résine ou de vernis, d'indice de température 180

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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IEC 60317-0-8:2019, *Specifications for particular types of winding wires – Part 0-8: General requirements – Polyester glass-fibre wound unvarnished and fused, or resin or varnish impregnated, bare or enamelled rectangular copper wire*

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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La Norme Internationale IEC 60317-61 a été établie par le comité d'études 55 de l'IEC: Fils de bobinage.

Cette deuxième édition annule et remplace la première édition parue en 2012. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) révision du titre de la norme;
b) révision de l'Article 1, Domaine d'application;

c) révision des descriptions des grades d'épaisseur des revêtements en fibre de verre en 3.2.2.

Le texte de cette Norme internationale est issu des documents suivants:

CDV	Rapport de vote
55/1771/CDV	55/1819/RVC

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

La présente Norme internationale doit être utilisée conjointement avec l'IEC 60317-0-8:2019.

Une liste de toutes les parties de la série IEC 60317, publiées sous le titre général *Spécifications pour types particuliers de fils de bobinage*, peut être consultée sur le site web de l'IEC.

La numérotation des articles dans la présente norme n'est pas continue entre les Articles 20 et 30 afin de permettre l'introduction d'éventuelles futures exigences concernant les fils avant celles concernant le conditionnement des fils.

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INTRODUCTION

La présente partie de l'IEC 60317 appartient à une série de normes traitant des fils isolés utilisés pour les enroulements des appareils électriques. L'ensemble est composé des trois séries de normes suivantes:

1) *Fils de bobinage – Méthodes d'essai* (série IEC 60851);
2) *Spécifications pour types particuliers de fils de bobinage* (série IEC 60317);
3) *Conditionnement des fils de bobinage* (série IEC 60264).

SPÉCIFICATIONS POUR TYPES PARTICULIERS DE FILS DE BOBINAGE –

Partie 61: Fil de section rectangulaire en cuivre nu ou émaillé, guipé de fibres de verre polyester imprégnées de résine ou de vernis, d'indice de température 180

1 Domaine d'application

La présente partie de l'IEC 60317 spécifie les exigences relatives aux fils de bobinage de section rectangulaire en cuivre nus ou émaillés de grade 1 ou de grade 2, guipés de fibres de verre polyester imprégnées de résine ou de vernis, d'indice de température 180. L'agent d'imprégnation peut être, par exemple, un matériau à base de résine époxy, polyester ou polyesterimide.

NOTE Pour ce type de fil, l'essai de choc thermique ne s'applique pas et la température de choc thermique ne peut donc pas être définie. Par conséquent, il n'est pas possible de spécifier une classe fondée sur les exigences d'indice de température et de température de choc thermique.

La gamme des dimensions nominales des conducteurs couvertes par le présent document est:

– largeur: min. 2,0 mm max. 16,0 mm;
– épaisseur: min. 0,80 mm max. 5,60 mm.

Les combinaisons largeur-épaisseur spécifiées ainsi que le rapport largeur/épaisseur spécifié sont conformes à l'IEC 60317-0-8.

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60317-0-8:2019, *Spécifications pour types particuliers de fils de bobinage – Partie 0-8: Exigences générales – Fil de section rectangulaire en cuivre nu ou émaillé, guipé de fibres de verre avec polyester fondues sans vernis, ou imprégnées de résine ou de vernis*