ICS 29.060.10 SLOVENSKÁ TECHNICKÁ NORMA Jún 2018

| STN | **Špecifikácie jednotlivých typov vodičov na vinutia Časť 56: Medené spájkovateľné plne izolované vodiče na vinutia (FIW), kruhový prierez, bezchybne lakované polyuretánom, trieda 180** | **STN EN 60317-56**<br><br>34 7307 |
|---|---|---|

Specifications for particular types of winding wires - Part 56: Solderable fully insulated (FIW) zero-defect polyurethane enamelled round copper wire, class 180

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 05/18

Obsahuje: EN 60317-56:2017, IEC 60317-56:2017

Oznámením tejto normy sa od 13.09.2020 ruší
STN EN 60317-56 (34 7307) z decembra 2012

**126432**

# EUROPEAN STANDARD
# NORME EUROPÉENNE
# EUROPÄISCHE NORM

**EN 60317-56**

October 2017

ICS 29.060.10

Supersedes EN 60317-56:2012

English Version

# Specifications for particular types of winding wires - Part 56: Solderable fully insulated (FIW) zero-defect polyurethane enamelled round copper wire, class 180 (IEC 60317-56:2017)

Spécifications pour types particuliers de fils de bobinage - Partie 56: Fil brasable de section circulaire, isolé en continu, en cuivre émaillé avec polyuréthane sans défaut électrique, classe 180
(IEC 60317-56:2017)

Technische Lieferbedingungen für bestimmte Typen von Wickeldrähten - Teil 56: Isolationsfehlerfreie Runddrähte (FIW) aus Kupfer, verzinnbar, lackisoliert mit Polyurethan, mit Nenndurchmesser von 0,040 mm bis 1,600 mm, Klasse 180
(IEC 60317-56:2017)

This European Standard was approved by CENELEC on 2017-09-13. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.


European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**



Ref. No. EN 60317-56:2017 E

**EN 60317-56:2017**

## European foreword

The text of document 55/1616/FDIS, future edition 2 of IEC 60317-56, prepared by IEC/TC 55 "Winding wires" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60317-56:2017.

The following dates are fixed:

| | | |
|---|---|---|
| latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2018-06-13 |
| latest date by which the national standards conflicting with the document have to be withdrawn | (dow) | 2020-09-13 |

This document supersedes EN 60317-56:2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

## Endorsement notice

The text of the International Standard IEC 60317-56:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | | |
|---|---|---|
| IEC 60264 (series) | NOTE | Harmonized as EN 60264 (series). |
| IEC 60317 (series) | NOTE | Harmonized as EN 60317 (series). |
| IEC 60851 (series) | NOTE | Harmonized as EN 60851 (series). |

# Annex ZA
(normative)

## Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

| Publication | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| IEC 60317-0-7 | - | | FprEN 60317-0-7 | - |

IEC 60317-56

Edition 2.0 2017-08

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

## Specifications for particular types of winding wires – Part 56: Solderable fully insulated (FIW) zero-defect polyurethane enamelled round copper wire, class 180

## Spécifications pour types particuliers de fils de bobinage – Partie 56: Fil brasable de section circulaire, isolé en continu, en cuivre émaillé avec polyuréthane sans défaut électrique, classe 180

IEC 60317-56:2017-08(en-fr)

# IEC 60317-56

Edition 2.0 2017-08

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INTERNATIONALE

ICS 29.060.10 ISBN 978-2-8322-4680-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

## Part 56: Solderable fully insulated (FIW) zero-defect polyurethane enamelled round copper wire, class 180

## FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60317-56 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) Clause 1: revision of the scope, reducing the number of grades of FIW from 3 through 9 to 4, 6 and 8 only;
b) Clause 1: revision of the scope, reducing the wire diameter range from (0,040 to 1,600) mm to (0,090 to 0,900) mm;
c) addition of an informative annex for abrasion resistance requirements for grades FIW 3 to 9.

The text of this standard is based on the following documents:

| FDIS | Report on voting |
|---|---|
| 55/1616/FDIS | 55/1622/RVD |

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 read in conjunction with IEC 60317-0-7:–[1].

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.

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 committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "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.

1 Under preparation. Stage at the time of publication: IEC/FDIS 60317-0-7:2017.

# INTRODUCTION

The IEC 60317 series is part of a group of International Standards which define insulated wires used for windings in electrical equipment:

1) IEC 60851 (all parts), *Winding wires – Test methods*;
2) IEC 60317 (all parts), *Specifications for particular types of winding wires*;
3) IEC 60264 (all parts), *Packaging of winding wires*.

# SPECIFICATIONS FOR PARTICULAR TYPES OF WINDING WIRES –

## Part 56: Solderable fully insulated (FIW) zero-defect polyurethane enamelled round copper wire, class 180

## 1 Scope

This part of IEC 60317 specifies the requirements of solderable fully insulated (FIW) zero-defect enamelled round copper wire, class 180, with a single coating based on polyurethane resin, which may be modified providing it retains its chemical identity and satisfies all the required technical specifications.

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

- Grade of FIW 4, 6, 8: 0,090 mm up to and including 0,900 mm.

Nominal conductor diameters are specified in IEC 60317-0-7–.

## 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 60317-0-7:–, *Specifications for particular types of winding wires – Part 0-7: General requirements – Fully insulated (FIW) zero-defect enamelled round copper wire*