



SLOVENSKI STANDARD
SIST EN 60317-36:2001/A2:2001
01-september-2001

Addition of clause 18 to EN

Specifications for particular types of winding wires -- Part 36: Solderable polyesterimide enamelled round copper wire, class 180, with a bonding layer

Technische Lieferbedingungen für bestimmte Typen von Wickeldrähten -- Teil 36: Runddrähte aus Kupfer, verzinnbar und verbackbar, lackisoliert mit Polyesterimid, Klasse 180

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Spécifications pour types particuliers de fils de bobinage -- Partie 36: Fil de section circulaire en cuivre émaillé avec polyesterimide brasable, classe 180, avec une couche adhérente

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Ta slovenski standard je istoveten z: EN 60317-36:1994/A2:2000

ICS:

29.060.10 Žice Wires

SIST EN 60317-36:2001/A2:2001 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60317-36/A2

February 2000

ICS 29.060.10

English version

**Specifications for particular types of winding wires
Part 36: Solderable polyesterimide enamelled round copper wire,
class 180, with a bonding layer
(IEC 60317-36:1992/A2:1999)**

Spécifications pour types particuliers
de fils de bobinage
Partie 36: Fil de section circulaire en
cuivre émaillé avec polyesterimide
brasable, classe 180, avec une couche
adhérente
(CEI 60317-36:1992/A2:1999)

Technische Lieferbedingungen für
bestimmte Typen von Wickeldrähten
Teil 36: Runddrähte aus Kupfer,
verzinnbar und verbackbar, lackisoliert
mit Polyesterimid, Klasse 180
(IEC 60317-36:1992/A2:1999)

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This amendment A2 modifies the European Standard EN 60317-36:1994; it was approved by CENELEC on 2000-01-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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EN 60317-36:1994/A2:2000

Foreword

The text of document 55/702/FDIS, future amendment 2 to IEC 60317-36, prepared by IEC TC 55, Winding wires, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60317-36:1994 on 2000-01-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2000-10-01
- latest date by which the national standards conflicting
with the amendment have to be withdrawn (dow) 2003-01-01

Endorsement notice

The text of amendment 2:1999 to the International Standard IEC 60317-36:1992 was approved by CENELEC as an amendment to the European Standard without any modification.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

60317-36

1992

AMENDEMENT 2
AMENDMENT 2
1999-10

Amendement 2

**Spécifications pour types particuliers de fils
de bobinage –**

**Partie 36:
Fil de section circulaire en cuivre émaillé
avec polyesterimide brasable, classe 180,
avec une couche adhérente**

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Amendment 2

**Specifications for particular types of
winding wires –**

**Part 36:
Solderable polyesterimide enamelled
round copper wire, class 180,
with a bonding layer**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

D

*Pour prix, voir catalogue en vigueur
Für preis, see current catalogue*

FOREWORD

This amendment has been prepared by IEC technical committee 55: Winding wires.

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

| | |
|-------------|------------------|
| FDIS | Report on voting |
| 55/702/FDIS | 55/729/RVD |

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

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17 Solderability

17.3 Nominal conductor diameters over 0,100 mm

Replace the existing title and text by the following:

17.3 Nominal conductor diameter over 0,100 mm

The temperature of the solder bath shall be $(470 \pm 5) ^\circ\text{C}$. The maximum immersion time (in seconds) shall be the following multiple of the nominal conductor diameter (in millimetres) with a minimum of 2 s.

| Grade 1B | Grade 2B |
|----------|----------|
| 12 s/mm | 16 s/mm |

The surface of the tinned wire shall be smooth and free from holes and enamel residues.

18 Heat or solvent bonding

Replace the existing text by the following:

NOTE – Solvent bonding: test required but not yet under consideration.

18.1 Heat bonding

18.1.1 Heat bonding strength of a helical coil

18.1.1.1 At room temperature

The specimens shall be prepared according to the test method, and the temperature of the oven for bonding shall be fixed as agreed between purchaser and supplier for the different types of bonding enamels. The suggested temperature for polyamide bonding enamel is $(200 \pm 2) ^\circ\text{C}$ and the suggested temperature for aromatic polyamide bonding enamel is $(230 \pm 2) ^\circ\text{C}$.

Results: when testing the specimens according to the test method, under the action of load specified in table 2, no turns other than possibly the first and the last shall be separated.

18.1.1.2 At elevated temperature

The specimens shall be prepared and shall be conditioned as described in the test method.

The elevated temperature shall be fixed as agreed between purchaser and supplier for the different types of bonding enamels. The suggested temperature for polyamide bonding enamel is (155 ± 2) °C and the suggested temperature for aromatic polyamide bonding enamel is (170 ± 2) °C.

Results: when testing the specimens according to the test method, under the action of load specified in table 2, no turns (other than possibly the first and the last) shall be separated.

Table 2 – Loads

| Nominal conductor diameter mm | | Room temperature | Elevated temperature |
|----------------------------------|---------------------|------------------|----------------------|
| Over | Up to and including | Load N | Load N |
| – | 0,050 | * | * |
| 0,050 | 0,071 | 0,05 | 0,04 |
| 0,071 | 0,100 | 0,08 | 0,06 |
| 0,100 | 0,160 | 0,12 | 0,08 |
| 0,160 | 0,200 | 0,25 | 0,19 |
| 0,200 | 0,315 | 0,35 | 0,25 |
| 0,315 | 0,400 | 0,70 | 0,55 |
| 0,400 | 0,500 | 1,10 | 0,80 |
| 0,500 | 0,630 | 1,60 | 1,20 |
| 0,630 | 0,710 | 2,20 | 1,70 |
| 0,710 | 0,800 | 2,80 | 2,10 |
| 0,800 | 0,900 | 3,40 | 2,60 |
| 0,900 | 1,000 | 4,20 | 3,20 |
| 1,000 | 1,120 | 5,00 | 3,80 |
| 1,120 | 1,250 | 5,80 | 4,40 |
| 1,250 | 1,400 | 6,50 | 4,90 |
| 1,400 | 1,600 | 8,50 | 6,40 |
| 1,600 | 1,800 | 10,00 | 7,90 |
| 1,800 | 2,000 | 12,00 | 7,90 |

* For nominal conductor diameters up to and including 0,050 mm, the test method and requirements shall be agreed between purchaser and supplier.

18.1.2 Bond strength on a twisted coil

This test shall be considered only as a special test and is applicable to the diameter 0,315 mm.

18.1.2.1 At room temperature

When preparing a test sample of diameter 0,315 mm according to the test method, the time shall be 30 s and the current shall be fixed as agreed between purchaser and supplier. The suggested value for polyamide bonding enamel is $(2,7 \pm 0,1)$ A and the suggested value for aromatic polyamide bonding enamel is $(3,0 \pm 0,1)$ A.

Results: when testing the samples according to the test method, under the action of the deflection force of 100 N, the sample shall not be broken.

18.1.2.2 At elevated temperature

The samples of diameter 0,315 mm shall be prepared according to the test method, using the parameters listed in 18.1.2.1 and shall then be conditioned as described in the test method.

The elevated temperature shall be fixed as agreed between purchaser and supplier. The suggested temperature for polyamide bonding enamel is (155 ± 2) °C and the suggested temperature for aromatic polyamide bonding enamel is (170 ± 2) °C.

Results: when testing the samples according to the test method, under the action of the deflection force of 10 N, the sample shall not be broken.

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