



**NSAI**  
Standards

Irish Standard  
I.S. EN IEC 60372:2020

# Locking devices for ball and socket couplings of string insulator units - Dimensions and tests

**I.S. EN IEC 60372:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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*This document is based on:*

EN IEC 60372:2020

*Published:*

2020-10-09

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2020-10-26

ICS number:

29.080.10

29.240.20

NOTE: If blank see CEN/CENELEC cover page

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## National Foreword

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EUROPEAN STANDARD

**EN IEC 60372**

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2020

ICS 29.240.20; 29.080.10

Supersedes EN 60372:2004 and all of its amendments  
and corrigenda (if any)

English Version

**Locking devices for ball and socket couplings of string insulator  
units - Dimensions and tests  
(IEC 60372:2020)**

Dispositifs de verrouillage pour les assemblages à rotule et  
logement de rotule des éléments de chaînes d'isolateurs -  
Dimensions et essais  
(IEC 60372:2020)

Sicherungsvorrichtungen für Klöppel- und  
Pfannenverbindungen von Kettenisolatoren - Maße und  
Prüfungen (IEC 60372:2020)

This European Standard was approved by CENELEC on 2020-08-26. 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.

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

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.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## **EN IEC 60372:2020 (E)**

### **European foreword**

The text of document 36/485/FDIS, future edition 4 of IEC 60372, prepared by IEC/TC 36 "Insulators" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60372:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2021-05-26 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2023-08-26 document have to be withdrawn

This document supersedes EN 60372:2004 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 60372:2020 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 60120:2020	NOTE	Harmonized as EN IEC 60120:2020 (not modified)
IEC 61325:1995	NOTE	Harmonized as EN 61325:1995 (not modified)

## Annex ZA (normative)

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

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NOTE 1 Where 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-471	-	International Electrotechnical Vocabulary - Part 471: Insulators	-	-
ISO 6506-1	-	Metallic materials - Brinell hardness test - Part 1: Test method	EN ISO 6506-1	-
ISO 6507-1	-	Metallic materials – Vickers Hardness – Test Part 1: Test Method	EN ISO 6507-1	-
ISO 6508-1	-	Metallic materials – Rockwell Hardness – Test Part 1: Test Method	EN ISO 6508-1	-

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**IEC 60372**

Edition 4.0 2020-07

# **INTERNATIONAL STANDARD**

## **NORME INTERNATIONALE**

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**Locking devices for ball and socket couplings of string insulator units –  
Dimensions and tests**

**Dispositifs de verrouillage pour les assemblages à rotule et logement de rotule  
des éléments de chaînes d'isolateurs – Dimensions et essais**



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**IEC 60372**

Edition 4.0 2020-07

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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**Locking devices for ball and socket couplings of string insulator units –  
Dimensions and tests**

**Dispositifs de verrouillage pour les assemblages à rotule et logement de rotule  
des éléments de chaînes d'isolateurs – Dimensions et essais**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ELECTROTECHNIQUE  
INTERNATIONALE

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ICS 29.080.10; 29.240.20

ISBN 978-2-8322-8477-3

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# **LOCKING DEVICES FOR BALL AND SOCKET COUPLINGS OF STRING INSULATOR UNITS – DIMENSIONS AND TESTS**

## **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 60372 has been prepared by IEC technical committee 36: Insulators.

This fourth edition cancels and replaces the third edition published in 1984. This edition constitutes a technical revision.

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

- a) Two new designated size of couplings, 36 and 40, were introduced;
- b) According to the results of the questionnaire (36/424/Q), the relevant content of the 28B W-clip was deleted;
- c) Annex A is informative, Annex B is normative, Annex C is informative.

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

FDIS	Report on voting
36/485/FDIS	36/493/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.

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.

## LOCKING DEVICES FOR BALL AND SOCKET COUPLINGS OF STRING INSULATOR UNITS – DIMENSIONS AND TESTS

### 1 Scope

This international standard is applicable to locking devices used with ball and socket couplings of string insulator units and used with the corresponding metal fittings standardized in IEC 60120, when they are supplied separately.

When these locking devices are supplied with an insulator or fitting, they are considered as an integral part of it. In this case, the relevant test is to be included with those of insulators, as specified in IEC 60383-1 and IEC 61325. On request, a certificate is to be delivered confirming that the tests on locking devices as specified in this document have been carried out. The locking devices are usually supplied with the insulator or corresponding metal fittings.

The object of this document is

- to define the shapes and some standard dimensions for locking devices,
- to define the test methods for locking devices,
- to state the acceptance conditions for supply,
- to give other dimensions for guidance of manufacturing only.

The object of this document does not include the specification of the nature of the material, and the material covered by the scope of this document does not have a surface coating for corrosion protection. However, the material which will give rise to significant contact corrosion(chemical reaction) between the locking device and the ball and socket coupling does not covered by this document.

### 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 60050-471, *International Electrotechnical Vocabulary (IEV) – Part 471: Insulators*

ISO 6506-1, *Metallic materials – Brinell Hardness – Test Part 1: Test Method*

ISO 6507-1, *Metallic materials – Vickers Hardness – Test Part 1: Test Method*

ISO 6508-1, *Metallic materials – Rockwell Hardness – Test Part 1: Test Method*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions of IEC 60050-471 and the following apply.



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