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## **Kopplingsdetaljer av kläpptyp för kedjeisolatorer – Mått**

*Ball and socket couplings of string insulator units –  
Dimensions*

Som svensk standard gäller europastandarden EN IEC 60120:2020. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60120:2020.

### **Nationellt förord**

Europastandarden EN IEC 60120:2020

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60120, Fourth edition, 2020 - Ball and socket couplings of string insulator units - Dimensions**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-IEC 120, utgåva 2, 1986, gäller ej fr o m 2023-08-26.

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English Version

## Ball and socket couplings of string insulator units - Dimensions (IEC 60120:2020)

Assemblages à rotule des éléments de chaînes d'isolateurs  
- Dimensions  
(IEC 60120:2020)

To be completed  
(IEC 60120:2020)

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.

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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**

## **European foreword**

The text of document 36/486/FDIS, future edition 4 of IEC 60120, prepared by IEC/TC 36 "Insulators" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60120:2020.

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- latest date by which the national standards conflicting with the (dow) 2023-08-26 document have to be withdrawn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 HD 474 S1:1986 and all of its amendments and corrigenda (if any).

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## **Endorsement notice**

The text of the International Standard IEC 60120:2020 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 60305   | NOTE | Harmonized as EN 60305   |
| IEC 60383-1 | NOTE | Harmonized as EN 60383-1 |
| IEC 60433   | NOTE | Harmonized as EN 60433   |
| IEC 61325   | NOTE | Harmonized as EN 61325   |

## 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 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      | 2007        | International Electrotechnical Vocabulary -<br>Part 471: Insulators                                  | -            | -           |
| IEC 60372          | -           | Locking devices for ball and socket<br>couplings of string insulator units -<br>Dimensions and tests | -            | -           |

## CONTENTS

|                                                                                                 |    |
|-------------------------------------------------------------------------------------------------|----|
| FOREWORD .....                                                                                  | 4  |
| 1 Scope .....                                                                                   | 6  |
| 2 Normative references .....                                                                    | 6  |
| 3 Terms and definitions .....                                                                   | 6  |
| 4 Designated size of coupling .....                                                             | 7  |
| 5 Pin ball .....                                                                                | 7  |
| 6 Socket .....                                                                                  | 7  |
| 7 Hook-on "GO" gauge .....                                                                      | 7  |
| 8 Lower part of the insulator .....                                                             | 7  |
| 9 Locking device .....                                                                          | 7  |
| 10 Dimensions of the pin ball .....                                                             | 8  |
| 11 Dimensions of the socket end .....                                                           | 9  |
| 12 Dimensions of the hook-on "GO" gauge .....                                                   | 10 |
| 13 Dimensions of twin-balled pins .....                                                         | 13 |
| 14 Dimensions of the hole for the split-pin .....                                               | 13 |
| 15 Dimensions of the hole for the W-clip .....                                                  | 15 |
| Annex A (informative) Extreme positions of the pin ball in the socket .....                     | 16 |
| Annex B (normative) Recommended gauges .....                                                    | 18 |
| Annex C (informative) Dimensions obtained by calculation .....                                  | 35 |
| Bibliography .....                                                                              | 37 |
| Figure 1 – Schematic of the pin ball .....                                                      | 8  |
| Figure 2 – Schematic of the socket end .....                                                    | 9  |
| Figure 3 – Schematic of the hook-on "GO" gauge .....                                            | 10 |
| Figure 4 – Schematic of twin-balled pins .....                                                  | 13 |
| Figure 5 – Schematic of the hole for the split-pin .....                                        | 14 |
| Figure 6 – Schematic of the hole for the W-clip .....                                           | 15 |
| Figure A.1 – Sliding position of the pin ball (socket end) .....                                | 16 |
| Figure A.2 – Over-tilting position of the pin ball in the socket end .....                      | 17 |
| Figure B.1 – Schematic of ball part for pin ball .....                                          | 19 |
| Figure B.2 – Schematic of inspecting part for cap .....                                         | 19 |
| Figure B.3 – Schematic of pin "GO" gauge for ball height, shank diameter and shank length ..... | 20 |
| Figure B.4 – Schematic of pin "GO" gauge for ball diameter .....                                | 22 |
| Figure B.5 – Schematic of pin "NOT GO" gauge for ball height .....                              | 23 |
| Figure B.6 – Schematic of pin "NOT GO" gauge for ball diameter .....                            | 25 |
| Figure B.7 – Schematic of pin "NOT GO" gauge for shank diameter .....                           | 26 |
| Figure B.8 – Schematic of socket "GO" gauge for entry height, entry width and neck width .....  | 27 |
| Figure B.9 – Schematic of socket "GO" gauge for internal height and internal diameter .....     | 29 |
| Figure B.10 – Schematic of socket "NOT GO" gauge for entry height .....                         | 32 |
| Figure B.11 – Schematic of socket "NOT GO" gauge for neck width .....                           | 34 |

|                                                                                                 |    |
|-------------------------------------------------------------------------------------------------|----|
| Figure C.1 – Schematic of clearance between the pin ball and the socket end .....               | 35 |
| Figure C.2 – Effectiveness of locking the pin ball .....                                        | 36 |
| Table 1 – Dimensions of the pin ball .....                                                      | 8  |
| Table 2 – Dimensions of the socket end.....                                                     | 9  |
| Table 3 – Dimensions of the hook-on "GO" gauge.....                                             | 11 |
| Table 4 – Dimensions of twin-balled pins .....                                                  | 13 |
| Table 5 – Dimensions of the hole for the split-pin.....                                         | 14 |
| Table 6 – Dimensions of the hole for the W-clip .....                                           | 15 |
| Table A.1 – Allowed deviation angle of pin.....                                                 | 16 |
| Table A.2 – Allowed deviation angle of pin.....                                                 | 17 |
| Table B.1 – Dimensions of pin "GO" gauge for ball height, shank diameter and shank length ..... | 21 |
| Table B.2 – Dimensions of pin "GO" gauge for ball diameter.....                                 | 23 |
| Table B.3 – Dimensions of pin "NOT GO" gauge for ball height.....                               | 24 |
| Table B.4 – Dimensions of pin "NOT GO" gauge for ball diameter.....                             | 25 |
| Table B.5 – Dimensions of pin "NOT GO" gauge for shank diameter .....                           | 26 |
| Table B.6 – Dimensions of socket "GO" gauge for entry height, entry width and neck width.....   | 27 |
| Table B.7 – Dimensions of socket "GO" gauge for internal height and internal diameter.....      | 30 |
| Table B.8 – Dimensions of socket "NOT GO" gauge for entry height .....                          | 32 |
| Table B.9 – Dimensions of socket "NOT GO" gauge for neck width.....                             | 34 |
| Table C.1 – Clearance between the pin ball and the socket end.....                              | 35 |
| Table C.2 – Effectiveness of locking the pin ball .....                                         | 36 |

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**BALL AND SOCKET COUPLINGS OF STRING  
INSULATOR UNITS – DIMENSIONS**

## 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 60120 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) The  $Q_{min}$  column in Table C.1 was deleted;
- d) 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 |
|-------------|------------------|
| 36/486/FDIS | 36/492/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.

## BALL AND SOCKET COUPLINGS OF STRING INSULATOR UNITS – DIMENSIONS

### 1 Scope

The object of this international standard is to define the dimensions of a series of standard ball and socket couplings using the standard locking devices (see IEC 60372) in order to permit the assembly of insulators or metal fittings supplied by different manufacturers.

This document applies to string insulator units of the cap and pin and long rod types and their associated metal fittings.

For the pin ball and the socket, dimensions apply to the finished product after any surface treatment.

Extreme positions of the pin ball in the socket are given in Annex A.

Typical examples of gauges for checking the dimensions of pin balls and sockets are given in Annex B.

NOTE Only the dimensions necessary for assembly are dealt with in this standard. Properties of material and working loads are not specified. The co-ordination of dimensions with strength classes is specified in IEC 60305 and IEC 60433.

### 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 60050-471:2007, *International Electrotechnical Vocabulary (IEV) – Part 471: Insulators*

IEC 60372, *Locking devices for ball and socket couplings of string insulator units – Dimensions and tests*