SVENSK STANDARD

SS-EN IEC 60309-2, utg 4:2023

| Fastställd | Sida | Ansvarig kommitté |
|---|---|---|
| 2023-11-15 | 1 (78) | SEK TK 23 |



# Industriuttagsdon – Stickproppar, vägguttag och apparatanslutningsdon för industribruk – Del 2: Fordringar på dimensionell oförväxelbarhet för uttagsdon med stift och kontakthylsor

*Plugs, fixed or portable socket-outlets and appliance inelts for industrial purposes – Part 2: Dimensional compatibility requirements for pin and contact-tube accessories*

Som svensk standard gäller europastandarden EN IEC 60309-2:2022. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60309-2:2022.

**Nationellt förord**

Europastandarden EN IEC 60309-2:2022

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 60309-2, Fifth edition, 2021**[*)] **- Plugs, fixed or portable socket-outlets and appliance inelts for industrial purposes – Part 2: Dimensional compatibility requirements for pin and contact-tube accessories**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN IEC 60309-1, utg 4:2023.

Tidigare fastställd svensk standard SS-EN 60309-2, utg 3:1999 med ändringarna SS-EN 60309-2, utg 3:1999/A1:2007 och SS-EN 60309-2, utg 3:1999/A2:2012, gäller ej fr o m 2025-06-17.

[*)] Anmärkning: I måttbladet STANDARD SHEET 2-II på sidan 47 i IEC-standarden finns ett fel. Måtten $\varnothing d_5$ och $\varnothing d_6$ är förväxlade. IEC är underrättade, men rättelse är ännu ej utgiven.

ICS 29.120.30

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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## *Standarder underlättar utvecklingen och höjer elsäkerheten*

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

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SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

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Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN IEC 60309-2

June 2022

ICS 29.120.30

Supersedes EN 60309-2:1999 + A1:2007 + A2:2012

English Version

# Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes - Part 2: Dimensional compatibility requirements for pin and contact-tube accessories (IEC 60309-2:2021)

Fiches, socles fixes de prise de courant, prises mobiles et socles de connecteur pour usages industriels - Partie 2: Exigences dimensionnelles de compatibilité pour les appareils à broches et alvéoles
(IEC 60309-2:2021)

Stecker, ortsfeste oder ortsveränderliche Steckdosen und Gerätestecker für industrielle Anwendungen - Teil 2: Anforderungen an die maßliche Kompatibilität von Stift- und Buchsensteckvorrichtungen
(IEC 60309-2:2021)

This European Standard was approved by CENELEC on 2021-09-08. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, 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: Rue de la Science 23, B-1040 Brussels**



Ref. No. EN IEC 60309-2:2022 E

SEK Svensk Elstandard

SS-EN IEC 60309-2, utg 4:2023

# European foreword

The text of document 23H/481/FDIS, future edition 5 of IEC 60309-2, prepared by SC 23H "Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles" of IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60309-2:2022.

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) 2022-12-17
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-06-17

This document supersedes EN 60309-2:1999 and all of its amendments and corrigenda (if any).

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.

This document is read in conjunction with EN IEC 60309-1:2022.

This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

## Endorsement notice

The text of the International Standard IEC 60309-2:2021 was approved by CENELEC as a European Standard without any modification.

# 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.

Clause 2 of EN IEC 60309-1:2022 applies except as follows:

*Add the following normative references:*

| Publication | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| IEC 60309-1 | 2021 | Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes - Part 1: General requirements | EN IEC 60309-1 | 2022 |
| IEC 60364-4-41 | - | Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock | HD 60364-4-41 | - |

IEC 60309-2

Edition 5.0 2021-06

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

## Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes – Part 2: Dimensional compatibility requirements for pin and contact-tube accessories

## Fiches, socles fixes de prise de courant, prises mobiles et socles de connecteur pour usages industriels – Partie 2: Exigences dimensionnelles de compatibilité pour les appareils à broches et alvéoles

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# PLUGS, FIXED OR PORTABLE SOCKET-OUTLETS AND APPLIANCE INLETS FOR INDUSTRIAL PURPOSES –

## Part 2: Dimensional compatibility requirements for pin and contact-tube accessories

## 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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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
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International Standard IEC 60309-2 has been prepared by subcommittee SC 23H: Plugs, socket-outlets and couplers for industrial and similar applications, and for electric vehicles, of IEC technical committee 23: Electrical accessories.

This fifth edition cancels and replaces the fourth edition published in 1999, Amendment 1:2005 and Amendment 2:2012. This edition constitutes a technical revision.

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

a) addition of requirements and test for non-solid pins;
b) additional rating IPX9;
c) additional marking to indicate neutral terminal and/or earthing terminal.

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

| FDIS | Report on voting |
|---|---|
| 23H/481/FDIS | 23H/487/RVD |

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This document is to be read in conjunction with IEC 60309-1:2021.

In this document, the following print types are used:

– requirements proper: in roman type;
– *test specifications: in italic type*;
– notes: in smaller roman type.

IEC 60309-1:2021 deals with general requirements and comprises all clauses of a general character.

Subsequent parts deal with the requirements of particular types of accessories. The clauses of these particular requirements supplement or modify the corresponding clauses in IEC 60309-1:2021.

Clauses, subclauses, figures, tables and notes which are additional to those in IEC 60309-1:2021 are numbered starting from 201.

A list of all parts in the IEC 60309 series, published under the general title *Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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

# PLUGS, FIXED OR PORTABLE SOCKET-OUTLETS AND APPLIANCE INLETS FOR INDUSTRIAL PURPOSES –

## Part 2: Dimensional compatibility requirements for pin and contact-tube accessories

## 1 Scope

This document applies to plugs, fixed or portable socket-outlets, and appliance inlets, hereinafter referred to as accessories, with a rated operating voltage not exceeding 1 000 V DC or 1 000 V AC with a frequency not exceeding 500 Hz and a rated current not exceeding 125 A, primarily intended for industrial use, either indoors or outdoors.

These accessories are intended to be installed by instructed persons or skilled persons only.

NOTE 1 All references for accessories with a rated current of more than 125 A in IEC 60309-1 are not applicable to this document.

This document applies to accessories with pins and contact-tubes of standardized configurations.

This document applies to accessories, for use when the ambient temperature is normally within the range −25 °C to 40 °C.

The use of these accessories on building sites and for agricultural, commercial and domestic applications is not precluded.

This document applies to accessories with screwless-type terminals or insulation piercing terminals, with a rated current up to and including 32 A for series I and 30 A for series II.

Socket-outlets or appliance inlets incorporated in or fixed to electrical equipment are within the scope of this document. This document also applies to accessories intended to be used in extra-low voltage installations.

NOTE 2 This document does not apply to accessories primarily intended for domestic and similar general purposes.

In locations where special conditions prevail, for example on board ship or where explosions are liable to occur, additional requirements can be necessary.

## 2 Normative references

Clause 2 of IEC 60309-1:2021 applies except as follows:

*Additional normative references:*

IEC 60309-1:2021, *Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes – Part 1: General requirements*

IEC 60364-4-41, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*