

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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

**Fiches, socles fixes de prise de courant, prises mobiles et socles de connecteur pour usages industriels –  
Partie 1: Exigences générales**



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COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PLUGS, FIXED OR PORTABLE SOCKET-OUTLETS AND  
APPLIANCE INLETS FOR INDUSTRIAL PURPOSES –****Part 1: General requirements**

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International Standard IEC 60309-1 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 classification, requirements and tests for accessories with shutters;
- b) additional marking to indicate neutral terminal and/or earthing terminal;
- c) replacement of the term "connector" by the term "portable socket-outlet".

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

FDIS	Report on voting
23H/480/FDIS	23H/486/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

In this document, the following print types are used:

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

Subsequent parts of IEC 60309 deal with the requirements of particular types of accessories. The clauses of these particular requirements supplement or modify the corresponding clauses in this document.

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.

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

## Part 1: General requirements

### 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 800 A, primarily intended for industrial use, either indoors or outdoors.

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

The list of preferred ratings is not intended to exclude other ratings.

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

These accessories are intended to be connected to cables of copper or copper alloy only.

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.

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

Fixed 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.

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

This document does not cover single-pole accessories.

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

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 60068-2-14, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-78, *Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state*

IEC TR 60083, *Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC*