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BS 546:2025



BSI Standards Publication

Two-pole and earthing-pin plugs, socket-outlets and adaptors – Specification

bsi.

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 June 2025. It was prepared by Technical Committee PEL/23, *Electrical accessories*. A list of organizations represented on this committee can be obtained on request to the committee manager.

Supersession

This British Standard supersedes BS 546:1950, which is withdrawn.

Relationship with other publications

This document is based on the technical requirements specified in the BS 1363 series, which have been adapted for BS 546 products.

Information about this document

This is a full revision of the document, and introduces the following principal changes to align with current technical requirements of BS 1363 plugs, socket outlets and adaptors:

- conversion of units from imperial to SI; and
- inclusion of requirements for non-rewireable plugs.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at knowledge.bsigroup.com, or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

Use of this document

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this document are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Requirements in this document are drafted in accordance with the *Rules for the structure and drafting of UK standards:2022*, subclause **G.1.1**, which states, “Requirements should be expressed using wording such as: ‘When tested as described in Annex A, the product shall ...’”. This means that only those products that are capable of passing the specified test will be deemed to conform to this document.

Where words have alternative spellings, the preferred spelling of the *Shorter Oxford English Dictionary* is used (e.g. “organization” rather than “organisation”).

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The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

In particular, attention is drawn to the following specific regulations:

- Plugs and Sockets etc. (Safety) Regulations 1994 [1].

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1 Scope

This British Standard specifies requirements for two-pole and earthing-pin plugs, plugs (fused and unfused, rewirable and non-rewirable), socket-outlets and adaptors, having ratings of 2 A, 5 A, 15 A and 30 A for household, commercial and light industrial purposes, with particular reference to safety in normal use. This British Standard covers plugs, socket-outlets and adaptors in AC circuits only, operating at voltages not exceeding 250 V root mean square (RMS) and frequencies from 50 Hz to 60 Hz.

NOTE 1 These are suitable for the connection of portable appliances, sound vision equipment and luminaries. Further guidance can be found in BS 7909.

This British Standard does not cover:

a) plugs incorporating switches, indicator lamps and electronic components; or

b) socket-outlets and adaptors incorporating electronic components.

NOTE 2 For application in the UK, attention is drawn to the Plugs and Sockets etc. (Safety) Regulations 1994 [1], which provide the regulatory framework for the use of these products, and to BS 7671.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions, or limits the application, of this document[1)]. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 646, *Specification for Cartridge fuse-links (rated up to 5 amperes) for a.c. and d.c. service*

BS 4662, *Boxes for flush mounting of electrical accessories – Requirements, test methods and dimensions*

BS 6004:2012+A1:2020, *Electric cables – PVC insulated and PVC sheathed cables for voltages up to and including 300/500 V, for electric power and lighting*

BS EN 10270-1:2024, *Steel wire for mechanical springs – Part 1: Patented cold drawn unalloyed spring steel wire*

BS EN 50075, *Specification for flat non-wirable two-pole plugs 2,5 A 250 V, with cord, for the connection of class II-equipment for household and similar purposes*

BS EN 50525-2-11, *Electric cables – Low voltage energy cables of rated voltages up to and including 450/750V (U_0/U) – Part 2-11: Cables for general applications – Flexible cables with thermoplastic PVC insulation*

BS EN 50525-2-12, *Electric cables – Low voltage energy cables of rated voltages up to and including 450/750 V (U_0/U) – Part 2-12: Cables for general applications – Cables with thermoplastic PVC insultation for extensible leads*

BS EN 50525-2-21, *Electric cables – Low voltage energy cables of rated voltages up to and including 450/750 V (U_0/U) – Part 2-21: Cables for general applications – Flexible cables with crosslinked elastomeric insulation*

BS EN 50525-2-71, *Electric cables – Low voltage energy cables of rated voltages up to and including 450/750 V (U_0/U) – Part 2-71: Cables for general applications – Flat tinsel cables (cords) with thermoplastic PVC insulation*

BS EN 60695-10-2, *Fire hazard testing – Part 10-2: Abnormal heat – Ball pressure test method*

[1)] Documents that are referred to solely in an informative manner are listed in the Bibliography.

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