

INTERNATIONAL STANDARD

**Plugs and socket-outlets for household and similar purposes –
Part 2-1: Particular requirements for fused plugs**

IECNORM.COM : Click to view the full PDF of IEC 60884-2-1:2025



THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2025 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IECNORM.COM : Click to view the full text of IEC 60384-21:2025

INTERNATIONAL STANDARD

**Plugs and socket-outlets for household and similar purposes –
Part 2-1: Particular requirements for fused plugs**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 29.120.30

ISBN 978-2-8327-0198-0

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references	5
3 Terms and definitions	5
4 General requirements	6
5 General remarks on tests	6
6 Ratings.....	6
7 Classification.....	6
8 Marking	6
9 Checking of dimensions.....	7
10 Protection against electric shock	7
11 Provision for earthing	7
12 Terminals and terminations.....	7
13 Construction of fixed socket-outlets	7
14 Construction of plugs and portable socket-outlets.....	7
15 Interlocked socket-outlets.....	8
16 Resistance to ageing, protection provided by enclosures and resistance to humidity.....	8
17 Insulation resistance and electric strength	8
18 Operation of earthing contacts.....	8
19 Temperature rise	8
20 Breaking capacity	8
21 Normal operation	9
22 Force necessary to withdraw the plug.....	9
23 Flexible cables and their connection.....	9
24 Mechanical strength.....	9
25 Resistance to heat.....	9
26 Screws, current-carrying parts and connections.....	9
27 Creepage distances, clearances and distances through sealing compound.....	9
28 Resistance of insulating material to abnormal heat, to fire and to tracking	9
29 Resistance to rusting	9
30 Additional tests on pins provided with insulating sleeves	9
31 EMC requirements.....	9
32 Electromagnetic fields (EMF) requirements.....	9
Annexes	10

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD
AND SIMILAR PURPOSES –****Part 2-1: Particular requirements for fused plugs**

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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 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.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 60884-2-1 has been prepared by subcommittee 23B: Plugs, socket-outlets and switches, of IEC technical committee 23: Electrical accessories. It is an International Standard.

This third edition cancels and replaces the second edition published in 2006. This edition constitutes a technical revision.

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

- a) alignment to IEC 60884-1, fourth edition.

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

Draft	Report on voting
23B/1545/FDIS	23B/1558/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/publications.

This document is to be used in conjunction with IEC 60884-1:2022.

This document supplements or modifies the corresponding clauses in IEC 60884-1:2022, so as to convert that publication into the IEC standard: Particular requirements for fused plugs.

When a particular subclause of IEC 60884-1:2022 is mentioned in this document, that subclause applies as far as reasonable. Where this document states "addition", "modification" or "replacement", the relevant text of IEC 60884-1:2022 is to be adapted accordingly.

In this document the following print types are used:

- requirements proper: in roman type;
- *test specification: in italic type;*
- explanatory notes: in small roman type.

Subclauses, notes, figures and tables which are additional to those in IEC 60884-1:2022 are numbered starting from 101.

A list of all parts in the IEC 60884 series, published under the general title: *Plugs and socket-outlets for household and similar purposes*, can be found on the IEC website.

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, or
- revised.

PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES –

Part 2-1: Particular requirements for fused plugs

1 Scope

IEC 60884-1:2022, Clause 1 is applicable except as follows.

Addition:

This part of IEC 60884 applies to fused plugs, where the fuses are primarily intended to protect the flexible cable connected to the plug.

These fuses are not intended to protect appliances or parts of them against overload.

NOTE In the following countries, fused plugs are not used: AU, DK, ZA.

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 60884-1:2022, Clause 2 is applicable except as follows.

Addition:

IEC 60269-1:2009, *Low-voltage fuses – Part 1: General requirements*

IEC 60269-3:2024, *Low-voltage fuses – Part 3: Supplementary requirements for fuses for operation by unskilled persons (fuses mainly for household and similar applications) – Examples of standardized systems of fuses A to F*

IEC 60884-1:2022, *Plugs and socket-outlets for household and similar purposes – Part 1: General requirements*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

IEC 60884-1:2022, Clause 3 is applicable except as follows.

Addition:

3.101

fused plug

plug incorporating one or more replaceable fuse-link(s)

4 General requirements

IEC 60884-1:2022, Clause 4 is applicable.

5 General remarks on tests

IEC 60884-1:2022, Clause 5 is applicable.

6 Ratings

IEC 60884-1:2022, Clause 6 is applicable except as follows.

Addition:

6.101 Fused plugs shall have a minimum current rating higher than or equal to the rating of the fuse intended to be fitted in accordance with the marking.

7 Classification

IEC 60884-1:2022, Clause 7 is applicable.

8 Marking

IEC 60884-1:2022, Clause 8 is applicable except as follows.

8.1 General

Addition:

Fused plugs shall be marked to indicate the presence of a fuse within the plug; this marking may be in the form of a symbol.

Rewirable fused plugs shall be permanently marked to indicate the maximum current rating of the fuse which may be fitted to the plug. This marking may be on the plug or on a permanently attached label.

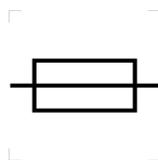
Non-rewirable fused plugs shall be permanently marked to indicate the rated current of the fuse appropriate to the attached flexible cable and to the associated appliances as declared by the manufacturer.

Compliance is checked by inspection.

8.2 Symbols

Addition to the list of symbols:

Fuse



(IEC 60417-5016
(DB:2002-10))

9 Checking of dimensions

IEC 60884-1:2022, Clause 9 is applicable.

10 Protection against electric shock

IEC 60884-1:2022, Clause 10 is applicable except as follows.

Addition:

10.101 Fuse-link

It shall not be possible to remove or replace the fuse-links in a fused plug unless the plug is completely withdrawn from the socket-outlet.

Compliance is checked by inspection.

11 Provision for earthing

IEC 60884-1:2022, Clause 11 is applicable.

12 Terminals and terminations

IEC 60884-1:2022, Clause 12 is applicable.

13 Construction of fixed socket-outlets

IEC 60884-1:2022, Clause 13 is not applicable.

14 Construction of plugs and portable socket-outlets

IEC 60884-1:2022, Clause 14 is applicable except as follows.

Addition:

14.101 Fuse-link

Fuse-links shall be replaceable.

Provision shall be made within the body of a fused plug for a suitable fuse-link complying with IEC 60269-1 and IEC 60269-3 as far as they reasonably apply (see 14.21).

A fuse-link shall not be fitted in the earthing circuit.

For plugs to be used in a non-polarized system, fuse-links shall be fitted in all current-carrying poles (line and neutral).

For plugs to be used in a polarized system, a fuse-link shall only be fitted in each line pole.

Fuse-links shall be mounted between contacts fitted to the terminal or termination of the conductor of the flexible cable and to the corresponding plug pin.

The design of plugs shall be such that adequate contact with fuse-links is maintained when the plug is assembled.

A fused plug in a polarized system shall be so designed that when inserted in a socket-outlet installed in a polarized wiring installation, the correct relationship between the neutral and the line pole or poles is maintained.

Compliance is checked by inspection.

15 Interlocked socket-outlets

IEC 60884-1:2022, Clause 15 is not applicable.

16 Resistance to ageing, protection provided by enclosures and resistance to humidity

IEC 60884-1:2022, Clause 16 is applicable.

17 Insulation resistance and electric strength

IEC 60884-1:2022, Clause 17 is applicable.

18 Operation of earthing contacts

IEC 60884-1:2022, Clause 18 is applicable.

19 Temperature rise

IEC 60884-1:2022, Clause 19 is applicable except as follows.

Replace in 19.1, 45 K with 52 K.

19.5 Additional tests

Addition:

For the execution of the test of this Subclause 19.5, fuses shall be electrically short circuited with a link of negligible resistance.

20 Breaking capacity

IEC 60884-1:2022, Clause 20 is applicable.

21 Normal operation

IEC 60884-1:2022, Clause 21 is applicable.

22 Force necessary to withdraw the plug

IEC 60884-1:2022, Clause 22 is applicable.

23 Flexible cables and their connection

IEC 60884-1:2022, Clause 23 is applicable.

24 Mechanical strength

IEC 60884-1:2022, Clause 24 is applicable.

25 Resistance to heat

IEC 60884-1:2022, Clause 25 is applicable.

26 Screws, current-carrying parts and connections

IEC 60884-1:2022, Clause 26 is applicable.

27 Creepage distances, clearances and distances through sealing compound

IEC 60884-1:2022, Clause 27 is applicable.

28 Resistance of insulating material to abnormal heat, to fire and to tracking

IEC 60884-1:2022, Clause 28 is applicable.

29 Resistance to rusting

IEC 60884-1:2022, Clause 29 is applicable.

30 Additional tests on pins provided with insulating sleeves

IEC 60884-1:2022, Clause 30 is applicable.

31 EMC requirements

IEC 60884-1:2022, Clause 31 is applicable.

32 Electromagnetic fields (EMF) requirements

IEC 60884-1:2022, Clause 32 is applicable.