

FINAL VERSION

VERSION FINALE

**Electrical accessories – Circuit-breakers for overcurrent protection
for household and similar installations –
Part 1: Circuit-breakers for a.c. operation**

**Petit appareillage électrique – Disjoncteurs pour la protection
contre les surintensités pour installations domestiques et analogues –
Partie 1: Disjoncteurs pour le fonctionnement en courant alternatif**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL ACCESSORIES –
CIRCUIT-BREAKERS FOR OVERCURRENT PROTECTION
FOR HOUSEHOLD AND SIMILAR INSTALLATIONS –****Part 1: Circuit-breakers for a.c. operation**

FOREWORD

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This Consolidated version of IEC 60898-1 bears the edition number 2.1. It consists of the second edition (2015-03) [documents 23E/881/FDIS and 23E/894/RVD] and its corrigendum (2015-11), and its amendment 1 (2019-12) [documents 23E/1156/FDIS and 23E/1157/RVD]. The technical content is identical to the base edition and its amendment.

This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 60898-1 has been prepared by sub-committee 23E: Circuit-breakers and similar equipment for household use, of IEC technical committee 23: Electrical accessories.

This second edition constitutes a technical revision.

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

- a) Revision of 9.5 Terminals
- b) Revision of the test of glow wire
- c) Simplification of the figures for short circuit tests.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The following differing practices of a less permanent nature exist in the countries indicated below.

- Annex J, Clause J.1: Upper limit of current for use of screwless terminals is 6 A (CZ, DK, NL and CH; upper limit of current for use of screwless terminals is 30 A (Japan).
- J.3.3: Only universal screwless-type terminals are accepted (A, BE, CN, DK, DE, ES, FR, IT, PT, SE and CH).

In this standard, the following print types are used:

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

A list of all parts in the IEC 60898 series, published under the general title *Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

ELECTRICAL ACCESSORIES – CIRCUIT-BREAKERS FOR OVERCURRENT PROTECTION FOR HOUSEHOLD AND SIMILAR INSTALLATIONS –

Part 1: Circuit-breakers for a.c. operation

1 Scope

This part of IEC 60898 applies to a.c. air-break circuit-breakers for operation at 50 Hz, 60 Hz or 50/60 Hz, having a rated voltage not exceeding 440 V (between phases), a rated current not exceeding 125 A and a rated short-circuit capacity not exceeding 25 000 A.

As far as possible, it is in line with the requirements contained in IEC 60947-2.

NOTE 1 Additional requirements are necessary for circuit-breakers used in locations having more severe overvoltage conditions.

These circuit-breakers are intended for the protection against overcurrents of wiring installations of buildings and similar applications; they are designed for use by uninstructed people and do not require maintenance.

They are intended for use in an environment with pollution degree 2 and overvoltage category III.

For an environment with a higher pollution degree, enclosures giving the appropriate degree of protection are used.

They are suitable for isolation.

Circuit-breakers of this standard, with the exception of those rated 120 V or 120/240 V (see Table 1), are suitable for use in IT systems.

This standard also applies to circuit-breakers having more than one rated current, provided that the means for changing from one discrete rating to another is not accessible in normal service and that the rating cannot be changed without the use of a tool.

This standard does not apply to

- circuit-breakers intended to protect motors;
- circuit-breakers, the current setting of which is adjustable by means accessible to the user.

For circuit-breakers having a degree of protection higher than IP20 according to IEC 60529, for use in locations where arduous environmental conditions prevail (e.g. excessive humidity, heat or cold or deposition of dust) and in hazardous locations (e.g. where explosions are liable to occur), special constructions may be required.

This standard does not apply to circuit-breakers for a.c. and d.c. operation, which is covered by IEC 60898-2.