

Circuit-breakers for overcurrent protection for household and similar installations —

Part 2: Circuit-breakers for a.c. and d.c. operation

The European Standard EN 60898-2:2001 has the status of a
British Standard

ICS 29.120.50

National foreword

This British Standard is the official English language version of EN 60898-2:2001. It is identical with IEC 60898-2:2000

The UK participation in its preparation was entrusted to Technical Committee PEL/23/1, Circuit-breakers and similar equipment for household use, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 18, an inside back cover and a back cover.

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Amendments issued since publication

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**Circuit-breakers for overcurrent protection
for household and similar installations
Part 2: Circuit-breakers for a.c. and d.c. operation
(IEC 60898-2:2000)**

Disjoncteurs pour la protection contre
les surintensités pour installations
domestiques et analogues
Partie 2: Disjoncteurs pour
le fonctionnement en courant alternatif
et en courant continu
(CEI 60898-2:2000)

Leitungsschutzschalter für
Hausinstallationen und ähnliche Zwecke
Teil 2: Leitungsschutzschalter für
Wechsel- und Gleichstrom
(IEC 60898-2:2000)

This European Standard was approved by CENELEC on 2000-08-01. 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 Central Secretariat or to any CENELEC member.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 23E/412/FDIS, future edition 1 of IEC 60898-2, prepared by SC 23E, Circuit-breakers and similar equipment for household use, of IEC TC 23, Electrical accessories, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60898-2 on 2000-08-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2001-10-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2003-08-01

This part 2 is to be used in conjunction with EN 60898:1991 and its amendments.

This part 2 supplements or modifies the clauses of EN 60898. When a particular subclause of part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. Where this part 2 states "addition", "modification" or "replacement", the relevant text of part 1 is to be adapted accordingly.

In this standard, the following print types are used:

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

Endorsement notice

The text of the International Standard IEC 60898-2:2000 was approved by CENELEC as a European Standard without any modification.

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4)

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

Part 2: Circuit-breakers for a.c. and d.c. operation

1 General

This clause of Part 1 is applicable except as follows:

1.1 Scope

Addition at the end of the first paragraph:

This standard gives additional requirements for single- and two-pole circuit-breakers suitable for operation with direct current, having a rated d.c. voltage not exceeding 220 V for single-pole and 440 V for two-pole circuit-breakers, a rated current not exceeding 125 A and a rated d.c. short-circuit capacity not exceeding 10 000 A.

NOTE This standard applies to circuit-breakers able to make and break both a.c. current and d.c. current.

Delete the last two paragraphs.

1.2 Object

Delete item 6.

2 Normative references

Clause 2 of Part 1 applies with the following modification:

Delete IEC 61009-1:1991, IEC 61009-2-1:1991 and IEC 61009-2-2:1991.

3 Definitions

Clause 3 of Part 1 applies with the following modification:

Addition:

3.5.20

time constant

the rise time $T = L/R$ (ms) of a prospective direct current to reach a value of 0,63 times the maximum peak current

4 Classification

Clause 4 of Part 1 applies with the following modifications:

4.1 According to the number of poles

Replacement:

- single-pole circuit-breakers;
- two-pole circuit-breakers with two protected poles.

4.5 According to the instantaneous tripping current (see 3.5.17)

Delete D-Type.

Addition:

4.7 According to the time constant

- Circuit-breakers suitable for d.c. circuits with a time constant of $T \leq 4$ ms.
- Circuit-breakers suitable for d.c. circuits with a time constant of $T \leq 15$ ms.

NOTE It is assumed that short-circuit currents of 1 500 A are not exceeded in installations in which, due to the loads connected, time constants in normal service up to 15 ms can occur. Where higher short-circuit currents may occur, the time constant of $T = 4$ ms is considered sufficient.

5 Characteristics of circuit-breakers

Clause 5 applies with the following modification:

5.3.1 Preferred values of rated voltage

Replacement:

The preferred values of rated voltages are given in table 1.

Examples of connections of circuit-breakers in d.c. systems are given in figure 17.