



INTERNATIONAL STANDARD

**Residual current operated circuit-breakers for household and similar use –
Part 3-1: Particular requirements for devices with screwless-type terminals for
external copper conductors**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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Part 3-1: Particular requirements for devices with screwless-type terminals for external copper conductors

FOREWORD

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International Standard IEC 62873-3-1 has been prepared by subcommittee 23E: Circuit-breakers and similar equipment for household use, of IEC technical committee 23: Electrical accessories.

This second edition cancels and replaces the first edition published in 2016. This edition constitutes a technical revision.

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

- a) Modification of scope to cover screwless-type terminals up to 40 A;
- b) Modification of scope to address other devices in addition to RCDs;
- c) Modification of Table 1 to cover rated currents up to 40 A;

- d) Modification of 8.1 so that IEC 62873-3-1 can be referred to by other product standards in addition to those for RCDs;
- e) Modification of 9.1 so that IEC 62873-3-1 can be referred to by other product standards in addition to those for RCDs.

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

| FDIS | Report on voting |
|---------------|------------------|
| 23E/1190/FDIS | 23E/1200/RVD |

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document is intended to be referred to by a product standard of subcommittee IEC SC23E (e.g. from the IEC 61008 series, IEC 61009 series, IEC 62606, and IEC 63052).

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

A list of all parts of the IEC 62873 series, published under the general title *Residual current operated circuit-breakers for household and similar use*, 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 "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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- withdrawn,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

INTRODUCTION

This document is part of the series described in the outline document IEC 62873-1.

RESIDUAL CURRENT OPERATED CIRCUIT-BREAKERS FOR HOUSEHOLD AND SIMILAR USE –

Part 3-1: Particular requirements for devices with screwless-type terminals for external copper conductors

1 Scope

This document applies to devices equipped with screwless-type terminals for current not exceeding 40 A, primarily suitable for connecting unprepared copper conductors of cross-section up to 10 mm².

This document cannot be used alone but is intended to be applied together with the applicable product standard in which it is referred to.

NOTE 1 In CZ, DK, NL, PO and CH, the upper limit of current for use of screwless-type terminals is 16 A.

NOTE 2 In JP, the upper limit of current for use of screwless-type terminals is 30 A.

NOTE 3 The manufacturer can declare in its documentation specific conditions permitting the use of prepared conductors.

In this document, screwless-type terminals are referred to as terminals, and copper conductors are referred to as conductors.

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 62873-2, *Residual current operated circuit-breakers for household and similar use – Part 2: Residual current devices (RCDs) – Vocabulary*

3.2

universal terminal

terminal for the connection and disconnection of all types of conductors (rigid and flexible)

Note 1 to entry: In the following countries, only universal screwless-type terminals are accepted: AT, BE, CN, DK, DE, ES, FR, IT, PT, SE and CH.

3.3

non-universal terminal

terminal for the connection and disconnection of a certain kind of conductor only (e.g. rigid-solid conductors only or rigid-[solid or stranded] conductors only)

3.4

push-wire terminal

non-universal terminal (see 3.3) in which the connection is made by pushing in rigid (solid or stranded) conductors

3.5

unprepared conductor

conductor which has been cut and the insulation of which has been removed for insertion into a terminal

Note 1 to entry: A conductor the shape of which is arranged for introduction into a terminal or the strands of which are twisted to consolidate the end is considered as an unprepared conductor.

[SOURCE: IEC 60050-442:1998, 442-01-26]

3.6

low-current terminal

terminal intended to connect a conductor to a device capable of supplying a voltage signal and/or a current not exceeding 300 mA to the device

Note 1 to entry: This does not apply to special terminal constructions intended to connect to flat or other multiwire cables by performing one "clamping action" only for more than one wire (e.g. bus connections).

4 Classification

Clause 4 of the product standard, in which this document is referred to, applies.

5 Characteristics of devices

Clause 5 of the product standard, in which this document is referred to, applies.

6 Marking and other product information

In addition to Clause 6 of the product standard, in which this document is referred to, the following markings apply:

Universal terminals:

- no marking.

Non-universal terminals:

- terminals declared for rigid-solid conductors shall be marked with the letters "sol";
- terminals declared for rigid (solid and stranded) conductors shall be marked with the letter "r";