

This is a preview - click here to buy the full publication



IEC 62873-3-2

Edition 1.0 2016-09

INTERNATIONAL STANDARD

**Residual current operated circuit-breakers for household and similar use –
Part 3-2: Particular requirements for RCDs with flat quick-connect terminations**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 29.120.50

ISBN 978-2-8322-3614-7

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

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Classification.....	7
5 Characteristics of RCDs.....	7
6 Marking and other product information	7
7 Standard conditions for operation in service and for installation	7
8 Requirements for construction and operation.....	8
8.1 General.....	8
8.2 Terminals for external conductors.....	8
9 Tests.....	11
9.1 General.....	11
9.2 Mechanical overload-force.....	11
Bibliography	13
Figure 1 – Dimensions of male tabs	9
Figure 2 – Dimensions of round dimple detents (see Figure 1).....	10
Figure 3 – Dimensions of rectangular dimple detents (see Figure 1).....	10
Figure 4 – Dimensions of hole detents.....	10
Figure 5 – Dimensions of female connectors	11
Figure 6 – Example of position of the thermocouple for measurement of the temperature-rise	12
Table 1 – Colour code of female connectors in relationship with the cross-section of the conductor.....	7
Table 2 – Dimensions of tabs	8
Table 3 – Dimensions of female connectors.....	11
Table 4 – Overload test forces	12

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 3-2: Particular requirements for RCDs with flat quick-connect terminations

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) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62873-3-2 has been prepared by subcommittee 23E: Circuit breakers and similar equipment for household use, of IEC technical committee 23: Electrical accessories.

The text of this standard is based on the following documents:

FDIS	Report on voting
23E/965/FDIS	23E/983/RVD

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

This publication 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 publication will remain unchanged until the stability date indicated on the IEC website 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.

A bilingual version of this publication may be issued at a later date.

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 3-2: Particular requirements for RCDs with flat quick-connect terminations

1 Scope

This part of IEC 62873 applies to RCDs equipped with flat quick-connect terminations consisting of a male tab (see 3.2) with nominal width 6,3 mm and thickness 0,8 mm, to be used with a mating female connector for connecting electrical copper conductors according to the manufacturer's instructions, for rated currents up to and including 16 A.

NOTE The use of RCDs with flat quick-connect terminations for rated currents up to and including 20 A is accepted in BE, FR, IT, ES, PT and US.

This part of IEC 62873 cannot be used alone but is intended to be applied together with an RCD product standard (IEC 61008-1 or IEC 61009-1) if an RCD is equipped with flat quick-connect terminations.

The connectable electrical copper conductors are flexible, having a cross-sectional area up to and including 4 mm², or rigid stranded, having a cross-sectional area up to and including 2,5 mm² (AWG equal to or greater than 12).

This part of IEC 62873 applies exclusively to RCDs having male tabs as an integral part of the device.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61008-1, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) – Part 1: General rules*

IEC 61009-1, *Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) – Part 1: General rules*

IEC 61210, *Connecting devices – Flat quick-connect terminations for electrical copper conductors – Safety requirements*

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