

# INTERNATIONAL STANDARD

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

IEC 62873-2:2016  
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**RESIDUAL CURRENT OPERATED CIRCUIT-BREAKERS  
FOR HOUSEHOLD AND SIMILAR USE –****Part 2: Residual current devices (RCDs) – Vocabulary**

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International Standard IEC 62873-2 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/963/FDIS	23E/981/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

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## INTRODUCTION

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

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

## Part 2: Residual current devices (RCDs) – Vocabulary

### 1 Scope

This part of IEC 62873 provides the terms and definitions used in RCD product standards.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

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

Where the terms "voltage" or "current" are used, they imply r.m.s. values, unless otherwise specified.

NOTE Reference to IEC definitions is also made when the term "device" or "mechanical switching device" has been replaced by the term "RCCB", "RCBO" or "RCD".

#### *Alphabetical index of definitions*

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### 3.1 Definitions relating to currents flowing from live parts to earth

#### 3.1.1

##### earth fault current

current flowing to earth due to an insulation fault

[SOURCE: IEC 60050-442:1998, 442-01-23]

**3.1.2****earth leakage current**

current flowing from the live parts of the installation to earth, in the absence of an insulation fault

[SOURCE: IEC 60050-442:1998, 442-01-24]

**3.1.3****pulsating direct current**

current of pulsating wave form which assumes, in each period of the rated power frequency, the value 0 during one single interval of time, expressed in angular measure, of at least 180°

Note 1 to entry: The adjective "pulsating" is defined in IEC 60050-103:2009, 103-06-07.

**3.1.4****current delay angle**

$\alpha$

time, expressed in angular measure, by which the starting instant of current conduction is delayed by phase control

[SOURCE: IEC 60050-442:1998, 442-05-42, modified – In the definition, "the phase angle representing the time" has been replaced by "time, expressed in angular measure,".]

**3.1.5****smooth direct current**

direct current which is ripple free

Note 1 to entry: A current is considered to be ripple free when the coefficient of ripple is below 10 %.

**3.2 Definitions relating to the energization of an RCD****3.2.1****energizing quantity**

electrical excitation quantity which, alone or in combination with other such quantities, is applied to an RCD to enable it to accomplish its function under specified conditions

**3.2.2****energizing input-quantity**

energizing quantity by which the RCD is activated when it is applied under specified conditions

Note 1 to entry: These conditions involve, for example, the energizing of certain auxiliary elements.

**3.2.3****residual current**

$I_{\Delta}$

r.m.s. value of the vector sum of the instantaneous values of the currents flowing through the main circuit of the RCD

[SOURCE: IEC 60050-442:1998, 442-05-19, modified – "of the instantaneous values" has been inserted.]

**3.2.4****residual operating current**

$I_{\Delta n}$

value of residual current which causes the RCD to operate under specified conditions

[SOURCE: IEC 60050-442:1998, 442-05-20]