



**SLOVENSKI STANDARD**  
**SIST EN 62423:2013/A11:2021**

**01-oktober-2021**

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**Odklopniki na preostali tok tipov F in B z vgrajeno nadtokovno zaščito ali brez nje za gospodinjsko in podobno rabo**

Type F and type B residual current operated circuit-breakers with and without integral overcurrent protection for household and similar uses

Fehlerstrom-/Differenzstrom-Schutzschalter Typ F und Typ B mit und ohne eingebautem Überstromschutz für Hausinstallationen und für ähnliche Anwendungen

Interrupteurs automatiques à courant différentiel résiduel de type B et de type F avec et sans protection contre les surintensités incorporée pour usages domestiques et analogues

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**Ta slovenski standard je istoveten z: EN 62423:2012/A11:2021**

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**ICS:**

29.120.50	Varovalke in druga nadtokovna zaščita	Fuses and other overcurrent protection devices
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**SIST EN 62423:2013/A11:2021**                      **en,fr,de**

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EUROPEAN STANDARD

**EN 62423:2012/A11**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2021

ICS 29.120; 29.120.50

English Version

## Type F and type B residual current operated circuit-breakers with and without integral overcurrent protection for household and similar uses

Interrupteurs automatiques à courant différentiel résiduel de type B et de type F avec et sans protection contre les surintensités incorporée pour usages domestiques et analogues

Fehlerstrom-/Differenzstrom-Schutzschalter Typ F und Typ B mit und ohne eingebautem Überstromschutz für Hausinstallationen und für ähnliche Anwendungen

This amendment A11 modifies the European Standard EN 62423:2012; it was approved by CENELEC on 2021-03-08. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 CEN-CENELEC Management Centre or to any CENELEC member.

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This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

EN 62423:2012/A11:2021 (E)

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## European foreword

This document (EN 62423:2012/A11:2021) has been prepared by CLC/TC 23E “Circuit breakers and similar devices for household and similar applications”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-03-08
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2024-03-08

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s), and the standardization requests, see informative Annexes ZZA and ZZB, which are an integral part of this document.

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EN 62423:2012/A11:2021 (E)

## 1 Modification to 9.2.4, “Verification of the RCD after test sequences”

Replace:

“The RCD shall trip with a test current of  $2,5 I_{\Delta n}$  with smooth direct current.”

with:

“Under the test condition of 9.2.1.7.1 b) the RCD shall trip with a smooth direct test current of  $2,5 I_{\Delta n}$ ”.

## 2 Addition of 9.2.5, “Electromagnetic Compatibility (EMC)”

Add the following new subclause 9.2.5:

### “9.2.5 Electromagnetic Compatibility (EMC)

#### 9.2.5.1 General

When performing EMC tests according to 9.24 of EN 61008-1:2012 or EN 61009-1:2012, the performance criteria according to EN 61543 shall be applied.

The requirements of CISPR 14-1 apply.

In addition, the following performance criteria shall be applied.

#### 9.2.5.2 Additional performance criteria for tests of T 2.1, T 2.5 and T 2.6

The following additional performance criteria shall be applied when performing the tests of T 2.1, T 2.5 and T 2.6, according to EN 61543.

During the test making reference to this performance criterion, the RCD shall remain closed at continuously applied smooth direct current of  $0,2 I_{\Delta n}$ , and the RCD shall trip with a smooth direct test current of  $2,5 I_{\Delta n}$ , under conditions of 9.2.4.

#### 9.2.5.3 Additional acceptance performance criterion for tests of T 2.2 and T 2.3b

The following additional criteria shall be applied when performing the tests of T 2.2 and T 2.3b, according to EN 61543.

During the test making reference to this performance criterion the RCD shall not trip. After the test, compliance with 9.2.4 shall be checked.

#### 9.2.5.4 Additional acceptance performance criteria for tests of T 2.3a and T 3.1

The following additional criteria shall be applied when performing the tests of T 2.3a and T 3.1, according to EN 61543.

During the test making reference to this performance criterion the RCD may trip.

After each tripping the RCD shall be reclosed. After the test, compliance with 9.2.4 shall be checked.”

## 3 Modification to Annexes A, B, C and D

Delete the following sentences in all Annexes:

“Verification of conformity may be made:

- by the manufacturer for the purpose of suppliers declaration (13.5.1 of ISO/IEC Guide 2);
- by an independent body for certification (13.5.2 of ISO/IEC Guide 2).

According to the terminology of ISO/IEC Guide 2 the term “certification” can be used for the second case only.”

#### 4 Modification to Annexes A and B

In Table A.1 and Table B.1, replace "IEC 61543:1995" with "EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006".

#### 5 Modifications to Annex C, "Number of samples to be submitted and test sequences to be applied for verification of conformity for Type B RCCBs"

Replace lines H, I and J in Table C.1 to read:

“

H <sup>b</sup>	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 4 -T1.1	No	Harmonics, inter harmonics
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 4 -T1.2	No	Signalling voltages
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.3	9.2.5	Conducted unidirectional transients of the ms and $\mu$ s time scale
I	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.1	9.2.5 <sup>c</sup>	Conducted sine-wave form voltages or currents
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.5	9.2.5 <sup>c</sup>	Radiated electromagnetic field
	EN 61543:1995, EN61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.2	9.2.5	Fast transients (bursts)
J	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 - T2.6	9.2.5 <sup>c</sup>	Conducted common mode disturbances in the frequency range lower than 150 kHz
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 6 -T3.1	9.2.5	Electrostatic discharges

“

**EN 62423:2012/A11:2021 (E)**

Add the following footnote to Table C.1:

“

<sup>c</sup> On request of the manufacturer, the relevant EMC tests on RCD type A and type B can be carried out at the same time. In that case the RCD shall be installed as for normal use. The test shall be carried out with the RCD supplied at  $U_n$  with rated frequency and without load. During the test making reference to the relevant performance criterion the RCD shall remain closed at continuously applied simultaneously a residual current of  $0,3 I_{\Delta n}$  and a smooth direct current of  $0,2 I_{\Delta n}$ . Verification of tripping shall be done with alternating (according to IEC 61543) then with smooth d.c. residual current (under condition of 9.2.4).

“

## 6 Modifications to Annex D, “Number of samples to be submitted and test sequences to be applied for verification of conformity for Type B RCBOs”

Replace lines H, I and J in Table D.1 to read:

“

H <sup>b</sup>	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 4 -T1.1	No	Harmonics, inter harmonics
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 4 -T1.2	No	Signalling voltages
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.3	9.2.5	Conducted unidirectional transients of the ms and $\mu$ s time scale
I	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.1	9.2.5 <sup>c</sup>	Conducted sine-wave form voltages or currents
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.5	9.2.5 <sup>c</sup>	Radiated electromagnetic field
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 -T2.2	9.2.5	Fast transients (bursts)
J	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 5 - T2.6	9.2.5 <sup>c</sup>	Conducted common mode disturbances in the frequency range lower than 150 kHz
	EN 61543:1995, EN 61543:1995/A11:2003, EN 61543:1995/A12:2005 and EN 61543:1995/A2:2006, Table 6 -T3.1	9.2.5	Electrostatic discharges

“



Add the following footnote to Table D.1:

“

<sup>c</sup> On request of the manufacturer, the relevant EMC tests on RCD type A and type B can be carried out at the same time. In that case the RCD shall be installed as for normal use. The test shall be carried out with the RCD supplied at  $U_n$  with rated frequency and without load. During the test making reference to the relevant performance criterion the RCD shall remain closed at continuously applied simultaneously a residual current of  $0,3 I_{\Delta n}$  and a smooth direct current of  $0,2 I_{\Delta n}$ . Verification of tripping shall be done with alternating (according to IEC 61543) then with smooth d.c. residual current (under condition of 9.2.4).

“

## 7 Modification to Annex ZA, “Normative references to international publications with their corresponding European publications”

Modify the information as follows:

IEC 61008-1	series	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's)	EN 61008-1 + A1 + A2 + A11 + A12	2012 2014 2014 2015 2017
IEC 61008-2-1		Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's) - Part 2-1: Applicability of the general rules to RCCB's functionally independent of line voltage	EN 61008-2-1 + A11	1994 1998
IEC 61009	series	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's)	EN 61009-1 + A1 + A2 + A11 + A12	2012 2014 2014 2015 2016
IEC 61009-2-1		Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2-1: Applicability of the general rules to RCBO's functionally independent of line voltage	EN 61009-2-1 + A11	1994 1998
IEC 61543	1995	Residual current-operated protective devices (RCDs) for household and similar use - Electromagnetic compatibility	EN 61543 + corr. December + A2 + A11 + A12	1995 1997 2006 2003 2005

”

EN 62423:2012/A11:2021 (E)

## 8 Modifications to Annex ZZ, “Coverage of Essential Requirements of EU Directives”

Replace Annex ZZ with the following Annexes:

“

### Annex ZZA (informative)

#### Relationship between this European standard and the essential requirements of Directive 2014/30/EU [2014 OJ L96] aimed to be covered

This European standard has been prepared under the European Commission standardization request C(2016) 7641 final of 30.11.2016<sup>1</sup>, ('M/552'), as regards harmonized standards in support of Directive 2014/30/EU relating to electromagnetic compatibility, to provide one voluntary means of conforming to essential requirements of Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to electromagnetic compatibility [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

**Table ZZA.1 — Correspondence between this European standard and Annex I of Directive 2014/30/EU [2014 OJ L96]**

Essential requirements of Directive 2014/30/EU	Clause(s) / subclause(s) of this EN	Remarks / Notes
Annex I. 1(a) (electromagnetic disturbances)	Annex A, B, C, D (sequences H, I and J) 9.2.5	When this standard in Clause 9.2.5.1 normatively references EN 55014-1 for emission requirements the following applies: Clause 7.1 of EN 55014-1 (Significance of a CISPR limit) shall not be applied, if Clause 4 of EN 55014-1 (Limits of disturbances) is applied for the purposes of the presumption of conformity.

<sup>1</sup> COMMISSION IMPLEMENTING DECISION C(2016) 7641 final of 30.11.2016 on a standardisation request to the European Committee for Standardisation, to the European Committee for Electrotechnical Standardisation and to the European Telecommunications Standards Institute as regards harmonised standards in support of Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.