
Električni pribor - Odklopniki za nadtokovno zaščito za gospodinjске in podobne inštalacije - 1. del: Odklopniki za izmenični tok

Electrical accessories - Circuit breakers for overcurrent protection for household and similar installations - Part 1: Circuit-breakers for a.c. operation

Elektrisches Installationsmaterial - Leitungsschutzschalter für Hausinstallationen und ähnliche Zwecke - Teil 1: Leitungsschutzschalter für Wechselstrom (AC)

Petit appareillage électrique - Disjoncteurs pour la protection contre les surintensités pour installations domestiques et analogues - Partie 1: Disjoncteurs pour le fonctionnement en courant alternatif

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Ta slovenski standard je istoveten z: EN 60898-1:2003/A13:2012

ICS:

29.120.50	Varovalke in druga medtokovna zaščita	Fuses and other overcurrent protection devices
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SIST EN 60898-1:2004/A13:2012 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60898-1/A13

June 2012

ICS 29.120.50

English version

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This amendment A13 modifies the European Standard EN 60898-1:2003; it was approved by CENELEC on 2012-05-21. 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.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

This document (EN 60898-1:2003/A13:2012) 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) 2013-05-21
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-05-21

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

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60898-1:2003 are prefixed "Z".

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

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4.6

Replace by:

4.6 According to the I²t characteristic

Circuit-breakers of B-type and C-type, having rated current up to and including 63 A and having short-circuit breaking capacity of 3 000 A, 4 500 A, 6 000 A and 10 000 A, are classified according to the limits within which their I²t characteristics lie, measured according to 9.12.6 (see Annex ZA).

6.3 Guidance table for marking

Replace in line j) of the table “if applied” by “as applicable**”

Replace in note (*) of the table “if applied” by “as applicable”

Add note (**) in the table:

(**) If Annex ZA is not applicable to the device, I²t characteristics shall be available on request.

9.7.2 Insulation resistance of the main circuit

Replace c) by:

c) with the circuit-breaker in the closed position, between all poles connected together and the frame including a metal foil or part in contact with the outer surface of the housing of insulating material but with the terminal areas kept completely free to avoid flashover between terminals and the metal foil;

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9.12.11.2.2 Short-circuit test on circuit-breakers for verifying their suitability for use in IT systems

Modify the end of the 1st paragraph as follows:

... at a power factor between 0,93 and 0,98, at a voltage 105 % of 400 V.

Annex I Routine tests

I.1 Tripping tests

Replace b) by:

b) Verification of the instantaneous tripping

Each circuit-breaker shall perform the tests of instantaneous tripping of 9.10.2 at the upper value of the test current and only for the O operation, according to the type: B, C or D. The test is carried out at any convenient voltage.

Annex ZA

Replace by:

Annex ZA
(normative)**Classification of circuit-breakers Type B and C up to and including 63 A into energy limiting classes**

Circuit-breakers of B-type and C-type up to and including 63 A, shall be classified into energy limiting classes 1 or 3 in accordance with Table ZA.1 or Table ZA.2, as applicable, and be marked with the number of the energy limiting class in a square adjoining the symbol given in f) of Clause 6.

This classification shall not be applied to circuit-breakers type D and to circuit-breakers with rated current higher than 63 A.

Table ZA.1 – Permissible I^2t (let-through) values for circuit-breakers type B with rated current up to and including 63 A

Rated shortcircuit capacity A	Type B				
	Class 1	Class 3			
	≤ 63 A	≤ 16 A	20 A, 25 A, 32 A	40 A	50 A, 63 A
3 000	No limits specified	15 000	18 000	21 600	28 000
4 500		25 000	32 000	38 400	48 000
6 000		35 000	45 000	54 000	65 000
10 000		70 000	90 000	108 000	135 000

Table ZA.2 – Permissible I^2t (let-through) values for circuit breakers type C with rated current up to and including 63 A

Rated shortcircuit capacity A	Type C				
	Class 1	Class 3			
	≤ 63 A	≤ 16 A	20 A, 25 A, 32 A	40 A	50 A, 63 A
3 000	No limits specified	17 000	20 000	24 000	30 000
4 500		28 000	37 000	45 000	55 000
6 000		40 000	52 000	63 000	75 000
10 000		80 000	100 000	120 000	145 000

The maximum I^2t values measured during the test of I_{cn} (test sequence E₁ or E₂ as applicable) in accordance with 9.12.11.4 serve as reference values for the classification.

Compliance with the requirements of Tables ZA.1 and ZA.2 is checked on the circuit-breakers with the highest rated current available within the range covered by each of these tables.

If these current ratings are not included in the samples submitted to test sequence E₁ or E₂ of Annex C, the appropriate number of samples of these ratings shall be additionally submitted to that test sequence. None of the values measured shall exceed the permissible I^2t value of the proposed energy limiting class in accordance with Tables ZA.1 and ZA.2.

If circuit-breakers rated 40 A are submitted with the range of circuit-breakers with rating exceeding 16 A and their measured I^2t values are lower than those indicated in Table ZA.1 or Table ZA.2 for rating 32 A, no relevant test is necessary for the circuit-breakers rated 32 A.

If circuit-breakers rated 50 A or 63 A are submitted with the range of circuit-breakers with rating exceeding 32 A and their measured I^2t values are lower than those indicated in Table ZA.1 or Table ZA.2 for rating 40 A, no relevant test is necessary for the circuit-breakers rated 40 A.

Add a new annex:

Annex ZD
(informative)

List of clauses that require retesting

Based on EN 60898-1:2003, A1:2004, A11:2005 and A12:2008, the following tests and/or requirements have been technically modified and may require retesting or inspection as applicable:

- 6.3 Guidance table for marking, line j) of the table (including the comparison of already measured I^2t values with new Tables ZA.1 and ZA.2)

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