SLOVENSKI STANDARD

SIST EN 60898:1995/A17:1999

prva izdaja
april 1999

Circuit-breakers for overcurrent protection for household and similar installations - Amendment A17

ICS 29.120.50

Referenčna številka
SIST EN 60898:1995/A17:1999(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60898/A17

March 1998

UDC 621.316.57:64.06-83:614.8
ICS 29.120.40; 29.120.60

Descriptors: Electrical installation LT, household electrical equipment, overcurrent circuit-breaker, characteristic, construction, test

English version

Circuit-breakers for overcurrent protection for household and similar installations

Disjoncteurs pour installations domestiques et analogues pour la protection contre les surintensités

Leitungsschutzschalter für den Haushalt und ähnliche Anwendungen

This amendment A17 modifies the European Standard EN 60898:1991; it was approved by CENELEC on 1997-10-01. 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 Central Secretariat or to any CENELEC member.

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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

This amendment was prepared by the Technical Committee CENELEC TC 23E, Circuit breakers and similar devices for household and similar applications.

The text of the draft was submitted to the formal vote and was approved by CENELEC as amendment A17 to EN 6089:1991 on 1997-10-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1998-07-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2001-01-01

4 Characteristics of circuit-breakers

Add the following :

4.2.5 **rated making and breaking capacity of an individual pole** (I_{cn1}) : The r.m.s. value of the limiting short-circuit making and breaking capacity on an individual pole of multi-pole circuit-breakers.

NOTE - The corresponding rated quantity of RCBOs is the rated residual making and breaking capacity $I_{\Delta m}$ (see 5.2.7 of EN 61009-1).

The standard values are those given in table 1.

5 Marking and other product information

The text of clause 5 becomes 5.1 with the following modifications:

Add:

5.1 Standard marking

h) *Replace* "ambient air " *by* "calibration"

i) *Replace by* "Energy limiting class in a square in accordance with annex ZA, if applied."

I_{cn} and the energy limiting class when apply shall be both on the device and combined.

Add:

j) making and breaking capacity on an individual pole of multi-pole circuit-breakers (I_{cn1}), if different from I_{cn} .

First paragraph after i):

- *Replace* "a), b), c), e), and f) " *by* "a), b), c), f), g) and i)"
- *Add before* "g)": " Alternatively"

Add between the 2nd and 3rd paragraph after i):

If the degree of protection IP is marked on the device itself, all parts shall comply with the relevant IP requirements (EN 60529). The IP indications in the catalogue or instruction sheets may take into account various methods of installation (e.g. additional covers, terminal covers, enclosures...).

Add the two following subclauses:

5.2 Additional marking

Additional marking to other standards (European or International Standards or other) is allowed under the following conditions:

- The circuit-breaker shall comply with all the requirements of the additional standard.

- The relevant standard to which the additional marking refers shall be indicated adjacent to this marking and shall be clearly differentiated or separated from the standard marking according to 5.1.

Compliance is checked by inspection and by carrying out all the test sequences required by the relevant standard. Equivalent or less severe test sequences need not be repeated.

5.3 Guidance table for marking

See next page

5.3 Guidance table for marking

5	Marking and other product information Each circuit-breaker shall be marked in a durable manner with all or, for small apparatus, part of the following data:	Marking on the circuit-breaker itself Marking visible when the device is installed, in the case of small devices, where the space available does not allow all the data to be marked.	Marking on the circuit-breaker itself Marking allowed on the side or on the back of the device, visible before the device is installed.	Marking on the circuit-breaker itself Alternatively the information may be on the inside of any cover which has to be removed in order to connect the supply wires.	Marking in the catalogue Remaining information to be given in the manufacturer's catalogues, if not marked on the device
a)	the manufacturer's name or trademark;		X		
b)	type designation, catalogue number or serial number,		X		
c)	rated voltage with the symbol ~ ;		X		
d)	rated current without symbol "A" preceded by the symbol of overcurrent instantaneous tripping (B, C or D), for example B 16,	X			
e)	rated frequency if the circuit-breaker is designed only for one frequency (see 4.3.3)				X
f)	rated short-circuit capacity in a rectangle, in amperes, without symbol "A"		X(*)		
g)	wiring diagram, unless the correct mode of connection is evident,		X	X	
h)	reference calibration temperature, if different from 30 °C.				X
i)	Energy limiting class (e.g. 3) in a square in accordance with Annex ZA if applied		X(*)		
	the degree of protection (only if different from IP20);				X
	the position of use (symbol according to IEC 51), if necessary;		X		
	Breaking capacity on one pole of multipole MCBs in case of short circuit to earth I_{cn1}				X
	Indication of the terminal for the neutral with "N"		X		
	Additional marking of performances to other standards				

(*) I_{cn} and the energy limiting class, if applied, shall be both on the device and combined together.

8 Tests

8.1.1 *Add the following note:*

NOTE - Tests to verify compliance of additional marking to 5.2, if any, are carried out according to the relevant standard.

8.12 Short-circuit tests

8.12.1 *Add, after the second paragraph*:

All multipole circuit-breakers are tested according to 8.12.11.4.4.

Add the following line to table XII - List of short circuit-tests:

Test at rated making and breaking capacity on one pole (8.12.11.4.4)	*All multipole circuit-breakers*	*8.12.12.2*

Add the new sublcause :

8.12.11.4.4 *Test at the rated making and breaking capacity on an individual pole* (I_{cn1}) *of multi-pole circuit-breakers*

The test circuit is calibrated according to 8.12.7.

The test is carried out on one pole taken at random which shall not be the switched neutral. This pole is connected according to the diagram of figure 3.

In addition phases which do not carry the short-circuit current during this test shall be connected to their supply voltage at the corresponding terminals.

The sequence of operation is :

O - t - CO

For the " O " operations, the auxiliary switch A is synchronised with respect to the voltage wave so that the circuit is closed on the point 15° on the wave for the " O " operation on the first sample.

This point is then shifted by 30° for the " O " operation on the second sample and by a further 30° for the " O " operation on the third sample.

The synchronisation tolerance shall be ± 5°.

For the three- and four-pole circuit-breakers, the same pole shall be used as reference for the purpose of synchronisation.

8.12.12.2 *Add, in the first line, after 8.12.11.4.3:* "and 8.12.11.4.4".

Replace the tite of figure 3 by:

Figure 3 - Single-pole circuit-breaker or individual pole of a multipole circuit-breaker