

SLOVENSKI STANDARD

SIST EN 60934:2003/A2:2013

01-junij-2013

Odklopniki za opremo (CBE) (IEC 60934:2000/A2:2013)

Circuit-breakers for equipment (CBE) (IEC 60934:2000/A2:2013)

Geräteschutzschalter (GS) (IEC 60934:2000/A2:2013)

Disjoncteurs pour équipement (DPE) (IEC 60934:2000/A2:2013)

Ta slovenski standard je istoveten z: EN 60934:2001/A2:2013

[SIST EN 60934:2003/A2:2013](https://standards.iteh.ai/catalog/standards/sist/aa879165-69ad-4d33-9dc4-e7c3ee13ab6/sist-en-60934-2003-a2-2013)

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ICS:

29.120.40	Stikala	Switches
29.120.50	Varovalke in druga medtokovna zaščita	Fuses and other overcurrent protection devices

SIST EN 60934:2003/A2:2013

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60934/A2

April 2013

ICS 29.120.40; 29.120.50

English version

Circuit-breakers for equipment (CBE)
(IEC 60934:2000/A2:2013)

Disjoncteurs pour équipement (DPE)
(CEI 60934:2000/A2:2013)

Geräteschutzschalter (GS)
(IEC 60934:2000/A2:2013)

This amendment A2 modifies the European Standard EN 60934:2001; it was approved by CENELEC on 2013-02-22. 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.

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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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

The text of document 23E/767/FDIS, future edition 1 of IEC 60934:2000/A2, prepared by SC 23E, "Circuit-breakers and similar equipment for household use", of IEC TC 23, "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60934:2001/A2:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-11-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-02-22

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Endorsement notice

The text of the International Standard IEC 60934:2000/A2:2013 was approved by CENELEC as a European Standard without any modification.

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IEC 60934

Edition 3.0 2013-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

Circuit-breakers for equipment (CBE)

Disjoncteurs pour équipement (DPE)

STANDARD PREVIEW
(standards.iteh.ai)
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FOREWORD

This amendment 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 amendment is based on the following documents:

FDIS	Report on voting
23E/767/FDIS	23E/774/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC web site 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.

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1 Scope

Replace the entire existing text by the following:

This International Standard is applicable to mechanical switching devices designed as "circuit-breakers for equipment" (CBE) for household and similar applications. CBEs according to this standard are intended to provide protection to circuits within electrical equipment including its components (e.g. motors, transformers, internal wiring). This standard covers also CBEs applicable for protection of electrical equipment in case of undervoltage and/or overvoltage. This standard also covers CBEs which are suitable for isolation.

NOTE The term "equipment" includes appliances.

CBEs are not applicable for overcurrent protection of wiring installations of buildings.

CBEs according to this standard have:

- a rated voltage not exceeding 440 V a.c. (between phases) and/or d.c. not exceeding 250 V;
- a rated current not exceeding 125 A;
- a short-circuit capacity (I_{cn}) of at least $6xI_n$ (a.c types) and $4xI_n$ (d.c.-types) but not exceeding 3 000 A.

CBEs may have a conditional short-circuit current rating in association with a specified short-circuit protective device (SCPD). A guide for coordination of a CBE associated in the same circuit with a SCPD is given in Annex F.

For CBEs having a degree of protection higher than IP20 according to IEC 60529, for use in locations where hazardous environmental conditions prevail (e.g. excessive humidity, heat or cold or deposition of dust) and in hazardous locations (e.g. where explosions are liable to occur), special constructions may be required.

This standard contains all the requirements necessary to ensure compliance with the operational characteristics required for these devices by type tests. It also contains the details relative to test requirements and methods of testing necessary to ensure reproducibility of test results.

This standard states:

- a) the characteristics of CBEs;
- b) the conditions with which CBEs shall comply, with reference to:
 - 1) their operation and behaviour in normal service;
 - 2) their operation and behaviour in case of overload;
 - 3) their operation and behaviour in case of short-circuits up to their rated short-circuit capacity;
 - 4) their dielectric properties;
- c) the tests intended for confirming that these conditions have been met and the methods to be adopted for the tests;
- d) the data to be marked on the devices;
- e) the test sequences to be carried out and the number of samples to be submitted for certification purposes (see Annex C);
- f) the routine tests to be carried out to reveal unacceptable variations in material or manufacture, likely to affect safety (see Annex J).

3 Terms and definitions

3.1.2

circuit-breaker for equipment (CBE)

Add, after the existing definition, a new note as follows:

NOTE These CBEs are intended for:

- automatic interruption and non-automatic or automatic resetting;
- automatic interruption and non-automatic or automatic resetting and manual switching operation.

3.1.3

E-type CBE

Delete the existing definition – introduced by Amendment 1 – and replace by the following text:

"void"

4.5.3 E-type CBEs

Delete the existing subclause.

5.2.5 Rated conditional short-circuit current (I_{nc}) (optional)

Delete, in the title, “(optional)” – text introduced by Amendment 1.

Replace the existing text of the subclause by the following:

The value of the conditional short-circuit current (see 3.11.5) if assigned to the CBE by the manufacturer.

Renumber the existing note as “NOTE 1”.

Add a new “NOTE 2”, as follows:

NOTE 2 The manufacturer can decide not to assign a value of I_{nc} to the CBE, in which case the relevant tests are omitted.

5.2.5.1 Rated conditional short-circuit current performance category PC1 (I_{nc1}) (optional) (see 9.12.4.2)

Delete, in the title, “(optional)” – text introduced by Amendment 1.

Replace the existing text of the subclause by the following:

The value of rated conditional short-circuit current, if assigned by the manufacturer, for which the prescribed conditions do not include the fitness of the CBE for its further use.

5.2.5.2 Rated conditional short-circuit current, performance category PC2 (I_{nc2}) (optional) (see 9.12.4.3)

Delete, in the title, “(optional)” – text introduced by Amendment 1.
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Replace the existing text of the subclause by the following:

The value of rated conditional short-circuit current, if assigned by the manufacturer, for which the prescribed conditions do include the fitness of the CBE for its further use.

8.5.1 Standard time-current zone

Replace the existing text of the listed items in the fourth paragraph by the following:

- the test currents indicated in Table 9, as multiples of the rated current;
- the times (t_1 , t_2 , t_3 , t_4) indicated in Table 9, where applicable.

Table 9 – Time-current operating characteristics

Delete the following line in Table 9:

mI_n ^b Cold^a $t_5 \leq t \leq t_6$ Tripping

Delete footnote ^b.

3.1	Rated short-circuit capacity I_{cn}	M, S, R, J	3	300 to 360	1,05 U_e	6 I_n^c		4 I_n^c	
						6 I_n $< I_{cn} \leq 3\,000\text{ A}$	0,93 to 0,98	4 I_n $< I_{cn} \leq 1\,000\text{ A}$	1 to 2
								1 000 A $< I_{cn} \leq 3\,000\text{ A}$	2 to 3

^c Test is covered by section 2