SLOVENSKI STANDARD
SIST EN 60669-2-1:2005/A1:2009

01-september-2009

Stikala za gospodinjstva in podobne nepremiļne električne inštalacije - 2-1. del: Posebne zahteve - Elektronska stikala (IEC 60669-2-1:2002/A1:2008, spremenjen)

Switches for household and similar fixed electrical installations - Part 2-1: Particular requirements - Electronic switches (IEC 60669-2-1:2002/A1:2008, modified)

Schalter für Haushalt und ähnliche ortsfeste elektrische Installationen - Teil 2-1: Besondere Anforderungen - Elektronische Schalter (IEC 60669-2-1:2002/A1:2008, modifiziert)

Interrupteurs pour installations électriques fixes domestiques et analogues - Partie 2-1: Prescriptions particulières - Interrupteurs électroniques (CEI 60669-2-1:2002/A1:2008, modifiée)

Ta slovenski standard je istoveten z: **EN 60669-2-1:2004/A1:2009**

ICS:

29.120.40 Stikala Switches

SIST EN 60669-2-1:2005/A1:2009 **en,fr**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60669-2-1/A1

February 2009

ICS 29.120.40

English version

Switches for household and similar fixed electrical installations - Part 2-1: Particular requirements - Electronic switches

(IEC 60669-2-1:2002/A1:2008)

Interrupteurs pour installations électriques fixes domestiques et analogues - Partie 2-1: Prescriptions particulières - Interrupteurs électroniques
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Schalter für Haushalt und ähnliche ortsfeste elektrische Installationen - Teil 2-1: Besondere Anforderungen - Elektronische Schalter
(IEC 60669-2-1:2002/A1:2008)

This amendment A1 modifies the European Standard EN 60669-2-1:2004; it was approved by CENELEC on 2009-02-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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

Central Secretariat: avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 60669-2-1:2004/A1:2009 E

Foreword

The text of document 23B/894/FDIS, future amendment 1 to IEC 60669-2-1:2002, prepared by SC 23B, Plugs, socket-outlets and switches, of IEC TC 23, Electrical accessories, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60669-2-1:2004 on 2009-02-01.

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)	2009-11-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2012-02-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of amendment 1:2008 to the International Standard IEC 60669-2-1:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60364-4-41	NOTE	Harmonized as HD 60364-4-41:2007 (modified).
IEC 61140	NOTE	Harmonized as EN 61140:2002 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

Addition *to Annex ZA of EN 60669-2-1:2004:*

Publication	Year	Title	EN/HD	Year
IEC 60317	Series	Specifications for particular types of winding wires	EN 60317	Series
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60664-3	-[1)]	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coating, potting or moulding for protection against pollution	EN 60664-3	2003[2)]
IEC 60669-2-2	2006	Switches for household and similar fixed electrical installations - Part 2-2: Particular requirements - Electromagnetic remote-control switches (RCS)	EN 60669-2-2	2006
IEC 60669-2-3	2006	Switches for household and similar fixed electrical installations - Part 2-3: Particular requirements - Time-delay switches (TDS)	EN 60669-2-3	2006
IEC 60998-2-1 (mod)	-[1)]	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	EN 60998-2-1	2004[2)]
IEC 61558-2-6	-[1)]	Safety of power transformers, power supply units and similar - Part 2-6: Particular requirements for safety isolating transformers for general use	EN 61558-2-6	1997[2)]

[1)] Undated reference.
[2)] Valid edition at date of issue.

IEC 60669-2-1

Edition 4.0 2008-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

**Switches for household and similar fixed electrical installations –
Part 2-1: Particular requirements – Electronic switches**

**Interrupteurs pour installations électriques fixes domestiques et analogues –
Partie 2-1: Prescriptions particulières – Interrupteurs électroniques**

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FOREWORD

This amendment has been prepared by subcommittee 23B: Plugs, socket-outlets and switches, of IEC technical committee 23: Electrical accessories.

The text of this amendment is based on the following documents:

FDIS	Report on voting
23B/894/FDIS	23B/907/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 maintenance result 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.

Page 11

1 Scope

Replace the beginning of the third paragraph of the Replacement by the following:

The operation and/or control as mentioned…

Replace the fourth paragraph of the Replacement by the following:

This standard also applies to general purpose electronic switches with included automatic functions where the operation and/or the control is initiated by a change of a physical quantity, for example light, temperature, humidity, time, wind velocity, presence of persons, etc.

Add the following after the fifth paragraph of the Replacement:

This standard also applies to electronic RCS and electronic TDS with a rated voltage not exceeding 440 V and a rated current not exceeding 25 A, intended for household and similar fixed electrical installations, either indoors or outdoors.

NOTE 1 Switches including only passive components such as resistors, capacitors, inductors, PTC and NTC components, varistors, printed wiring boards and connectors are not considered as electronic switches.

NOTE 2 Electronic switches may have control circuits with a.c. or d.c. rated control voltages.

Renumber NOTES 1 and 2 as NOTES 3 and 4.

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2 Normative references

Add the following standards to the existing list:

IEC 60317 (all parts), *Specifications for particular types of winding wires*

IEC 60664-1:2007, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60664-3, *Insulation coordination for equipment within low-voltage systems – Part 3: Use of coating, potting or moulding for protection against pollution*

IEC 60669-2-2:2006, *Switches for household and similar fixed electrical installations – Part 2-2: Particular requirements - Electromagnetic remote-control switches (RCS)*

IEC 60669-2-3:2006, *Switches for household and similar fixed electrical installations – Part 2-3: Particular requirements - Time-delay switches (TDS)*

IEC 60998-2-1, *Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units*

IEC 61558-2-6, *Safety of power transformers, power supply units and similar – Part 2: Particular requirements for safety isolating transformers for general use*

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3 Definitions

Add, on page 17, the following new definitions:

3.112
RCS
remote controlled switch
switch intended to be operated from a distance

3.112.1
electromagnetic RCS
RCS provided with a coil which is operated by means of impulses or which may be permanently energized by means of a control circuit

NOTE These devices are covered by IEC 60669-2-2.

3.112.2
electronic RCS
electronic switch providing the function, markings and connection configuration of an RCS according to IEC 60669-2-2, but containing electronic components and/or a combination of electronic components and a coil or coils, which is operated by means of an electronic extension unit or units

NOTE This electronic RCS may for example be used as a look alike replacement for RCS according to IEC 60669-2-2.

3.113
rated control voltage
the voltage assigned to the external control circuit by the manufacturer

3.114
switching circuit
the circuit which contains the parts which allow the rated current to flow through the RCS or TDS

3.115
control circuit
the circuit which includes electrical parts to actuate the switching mechanism

3.116
control mechanism
mechanism which includes all the parts which are intended for the operation of the RCS or TDS

3.117
incorporated hand-operated device
device incorporated in the switch which allows the switching circuit to be operated, directly or indirectly. This device is not intended for the normal operation of the RCS or TDS

3.118
rated control current
current required for the initiation of the electronic RCS assigned to the control circuit by the manufacturer

3.119
bistable electronic RCS
electronic RCS containing a control mechanism which, when not initiated electrically or actuated mechanically, remains stable in its operating position and will change its operating position on initiation or actuation

3.120
monostable electronic RCS
electronic RCS containing a control mechanism which, on electrical initiation or mechanical actuation, changes the operating position of the switch which remains in this condition while the electronic RCS is initiated or actuated, and returns to the position prior to initiation or actuation of the electronic RCS after initiation or actuation is discontinued

3.121
priority electronic RCS
electronic RCS used to operate directly or indirectly a first load circuit or group of load circuits the use of which at times can be dispensed with, and where the control circuit of the electronic RCS is influenced by or connected to a second circuit or group of circuits (priority or circuits) which when energized will thus initiate the control circuit of the electronic RCS to de-energize the first load circuit or circuits for the time during which the second circuit or group of circuits is energized

NOTE The electronic RCS may have a means for adjusting the sensitivity of the electronic RCS control circuit to initiate the electronic RCS depending on the total load or current delivered to any part of the circuits (priority switch with current coil) or be sensitive to the voltage (priority switch with voltage coil) applied to the second load or group of loads.

3.122
TDS
time delayed switch
switch provided with a time-delay device which operates for a certain time (the delay time). It may be either manually actuated and/or remotely electrically initiated

3.123
electronic TDS
electronic switch providing the function, markings and connection configuration of a TDS according to IEC 60669-2-3, but containing electronic components

NOTE This electronic TDS may for example be used as a look alike replacement for TDS according to IEC 60669-2-3.

3.124
delay time
period during which the switching circuit(s) is (are) kept closed. Any time taken for the decreasing of the voltage (e.g. to reduce the light) at the end of the delay period is included within the delay time

3.125
delay device
all components which have an influence on the delay time. The delay time may be adjustable

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5 General notes on tests

5.4 *Replace Table 101 by the following new Table 101:*

Table 101 – Number of specimens

Type of electronic switch	Number for general tests	Additional specimens for clause or subclause					
		18.2	19.101	19.102	24	26	101 and 102
Marked with one rated current and							
– one rated voltage	3	3[a]	3 [a]	3 [a]	3	3	3[c]
– two rated voltages	6	6 [a]	6 [a]	6 [a]	6	6	6 [b,c]

[a] Only for electronic switches with mechanical and electromechanical switching devices; only the complete contact mechanism may be submitted.

[b] It may be necessary to provide three additional specimens for the test of 101.3.

[c] When the tests of Clause 26 have been passed successfully, the specimens can be used for these tests.

On page 19, add the following new subclauses:

5.105 If an electronic RCS or electronic TDS is provided with an incorporated hand-operated device, it shall be tested as specified in Clause 19.