



SLOVENSKI STANDARD
SIST EN 60669-2-3:1997
01-november-1997

Switches for household and similar fixed-electrical installations - Part 2: Particular requirements - Section 3: Time-delay switches (T.D.S.) (IEC 669-2-3:1996)

Switches for household and similar fixed electrical installations -- Part 2-3: Particular requirements - Time-delay switches (TDS)

Schalter für Haushalt und ähnliche ortsfeste elektrische Installationen -- Teil 2-3: Besondere Anforderungen - Zeitschalter

Interrupteurs pour installations électriques fixes domestiques et analogues - Partie 2-3: Prescriptions particulières - Interrupteurs temporisés (minuteriers)

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Ta slovenski standard je istoveten z: EN 60669-2-3:1997

ICS:

29.120.40	Stikala	Switches
39.040.99	Öi~ * ǻ ^! ǻ ã ǻ æ æ	Other time-measuring instruments

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60669-2-3

December 1997

ICS 29.120.40

Supersedes EN 60669-2-3:1996

Descriptors: Household installations, time-delay switches, requirements, classification, testing, properties, definitions, electrical safety requirements, materials testing

English version

**Switches for household and similar fixed electrical installations
Part 2-3: Particular requirements - Time-delay switches (TDS)
(IEC 60669-2-3:1997)**

Interrupteurs pour installations
électriques fixes domestiques et
analogues
Partie 2-3: Prescriptions particulières
Interrupteurs temporisés (minuteries)
(CEI 60669-2-3:1997)

Schalter für Haushalt und ähnliche
ortsfeste elektrische Installationen
Teil 2-3: Besondere Anforderungen
Zeitschalter
(IEC 60669-2-3:1997)

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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 European Standard 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

The text of document 23B/520/FDIS, future edition 2 of IEC 60669-2-3, 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 EN 60669-2-3 on 1997-10-01.

This European Standard supersedes EN 60669-2-3:1996.

The following dates were fixed:

- latest date by which the EN 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 EN have to be withdrawn (dow) 1999-06-01

This part 2 of EN 60669 is to be used in conjunction with EN 60669-1:1995. It supplements or modifies the corresponding clauses of part 1, so as to convert it into a specific standard for time-delay switches.

Subclauses which are additional to those in part 1 are numbered starting from 101.

Annexes designated "normative" are part of the body of the standard.

In this standard, annexes ZA and ZB are normative.

Annexes ZA and ZB have been added by CENELEC.

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Endorsement notice

SIST EN 60669-2-3:1997

The text of the International Standard IEC 60669-2-3:1996 was approved by CENELEC as a European Standard without any modification.

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SWITCHES FOR HOUSEHOLD AND SIMILAR FIXED ELECTRICAL INSTALLATIONS –

Part 2-3: Particular requirements – Time-delay switches (TDS)

1 Scope

This clause of part 1 is applicable, except as follows:

Replace the first paragraph by the following:

This standard applies to time-delay switches (hereinafter referred to as TDS) with a rated voltage not exceeding 440 V and a rated current not exceeding 63 A, intended for household and similar fixed electrical installations, either indoors or outdoors, operated by hand and/or by remote control and which are provided with a mechanical, thermal, pneumatic, hydraulic or electrical operated time-delay device or with a device which combines any of them.

NOTE – TDS including parts with electronic components in control or switching circuits are not covered by this standard, relevant additional requirements being under consideration. Provisionally the requirements of this standard together with the requirements, as far as applicable, of IEC 60669-2-1, may apply.

2 Normative references

This clause of part 1 is applicable, with the following additions:

IEC 60317: *Specifications for particular types of winding wires*

IEC 60445: 1988, *Identification of equipment terminals and of terminations of certain designated conductors, including general rules for an alphanumeric system*

IEC 60669-2-1: 1996, *Switches for household and similar fixed-electrical installations – Part 2: Particular requirements – Section 1: Electronic switches*

IEC 60742: 1983, *Isolating transformers and safety isolating transformers – Requirements*

3 Definitions

This clause of part 1 is applicable with the following additions:

3.14 *Add the following note:*

NOTE – This definition is only applicable to the switching circuit.

3.15 *Add the following note:*

NOTE – This definition is only applicable to the switching circuit.

Add the following definitions:

3.101 TDS: 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.

3.102 rated control voltage: Voltage assigned to the control circuit by the manufacturer.

3.103 switching circuit: Circuit which contains the parts which allow the rated current to flow through the TDS.

3.104 control circuit: Circuit which includes electrical parts to control the switching circuit in an electrically controlled TDS.

3.105 control mechanism: All the parts which are intended for the operation of the TDS.

3.106 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 TDS.

3.107 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.

3.108 delay device: All components which have an influence on the delay time. The delay device is energized by means of an impulse into the control circuit in an electrically controlled TDS. The delay time may be adjustable.

3.109 resetting TDS: TDS which reverts to the full-time delay when the operating means is actuated during a previously stated time delay.

3.110 plug-in TDS: TDS consisting of two parts, the first being used as a base and including the terminals, the other being removable and including the switching and the control circuits, the two parts being resiliently connected together using a means which allows joining and/or separating with or without the use of a tool.

4 General requirements

This clause of part 1 is applicable, with the following addition:

Add after the second paragraph:

The operation of a TDS shall not be impaired when it is mounted at an angle deviating not more than 5° from the specified position of use.

5 General notes on tests

This clause of part 1 is applicable, with the following addition:

5.4 *Add after the last paragraph:*

For the tests of clause 101, three additional specimens are necessary.

Add the following subclauses:

5.101 If a TDS is provided with an incorporated hand-operated device, actuating the switching circuit directly, it shall be tested as specified in 19.101.

5.102 For a TDS operated by hand, the requirements relating to the control voltage do not apply.

5.103 In the case of a TDS for which the control and the switching circuits have no common point, the test is made with the circuits supplied with the rated voltages which are specified in this standard.

6 Ratings

This clause of part 1 is applicable, except as follows:

6.1 Replace by:

Preferred rated voltages are:

- a.c.: 6 V, 8 V, 12 V, 24 V, 42 V, 48 V, 110 V, 130 V, 220 V, 230 V and 240 V;
- d.c.: 12 V, 24 V, 48 V, 60 V, 110 V and 220 V.

NOTE – These rated voltages are aligned with the rated control voltages specified in 6.101 to simplify the tests on TDS having a common point between the control and switching circuits.

6.2 Replace by:

Preferred rated currents are:

- 4 A, 6 A, 10 A, 16 A, 25 A, 32 A, 40 A and 63 A.

NOTE – In certain TDS auxiliary contacts designed for a current lower than the rated current of the switching circuit may be added. Relevant ratings and requirements are under consideration.

Add the following subclause:

6.101 Preferred rated control voltages are:

- a.c.: 6 V, 8 V, 12 V, 24 V, 42 V, 48 V, 110 V, 130 V, 220 V, 230 V and 240 V;
- d.c.: 12 V, 24 V, 48 V, 60 V, 110 V and 220 V.

7 Classification

This clause of part 1 is applicable, except as follows:

7.1.1 Replace by:

According to the possible connections (see figure 1 of IEC 60669-1):

	Pattern number
– single-pole switches	1
– double-pole switches	2
– three-pole switches	3
– three-pole plus switched neutral switches	03
– two-way switches.....	6

7.1.5 Add the following:

- time-delay switches (TDS):
 - manually operated;
 - remotely operated;
 - manually and remotely operated.

NOTE – The above methods of operation may be combined with a complementary method of operation allowing permanent on and/or permanent off. These possibilities are given by a complementary device acting either directly on the switching circuit, or on the control circuit.

7.1.7 Add the following:

- plug-in TDS;

Add the following subclause:**7.1.101 According to the type of control mechanism:**

- mechanical;
- thermal;
- pneumatic;
- hydraulic;
- electric;
- combination(s) of the above.

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8 Marking

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This clause of part 1 is applicable, with the following additions:
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8.1 Add after the last dashed text:

- rated control voltage in volts, if different from the rated voltage;
- symbol for the variation of the adjustment of the delay time, if applicable;
- symbols for the positions "Permanent on" and "Permanent off", if applicable;
- symbol for "Delay time".

Add after note 2:

3 If a delay time value is indicated, it should be expressed in minutes.