

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

AMENDMENT 2  
AMENDEMENT 2

**Switches for appliances –  
Part 1: General requirements**

**Interrupteurs pour appareils –  
Partie 1: Règles générales**

Withdrawing



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## FOREWORD

This amendment has been prepared by subcommittee 23J: Switches for appliances, of IEC technical committee 23: Electrical accessories.

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

FDIS	Report on voting
23J/298/FDIS	23J/299/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- withdrawn,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.

The contents of the corrigendum of January 2009 have been included in this copy.

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### CONTENTS

*Add the titles of the new Annexes U and V as follows:*

Annex U (normative) Dimensions of tabs forming part of a switch

Annex V (informative)

Page 11

### FOREWORD

*Replace in the listing showing the differences existing in some countries, "Table 16" by "Table 17" in two places.*

Page 15

### 1 Scope

*Replace in Subclause 1.1, first paragraph, "440 V" by "480 V".*

*Replace Note 6 of Subclause 1.1 by the following:*

NOTE 6 This part of IEC 61058 is applicable when testing incorporated switches. When other types of switches for appliances are tested, this part is applicable together with the relevant Part 2 of IEC 61058.

This part of IEC 61058 may, however, be applied for other types of switches which are not mentioned in a relevant Part 2 of IEC 61058, provided that the electrical safety is not disregarded.

*Replace Subclause 1.4 by the following:*

**1.4** This standard also applies to switches for appliances such as

- switches intended to be connected to a flexible cable (cord switches) for which, however, particular requirements are given in IEC 61058-2-1;  
NOTE In this document, the word "cable" means "cable or cord".
- switches integrated in an appliance (integrated switches);
- switches intended to be mounted separately from the appliance (independently mounted switches) other than those within the scope of IEC 60669-1, for which, however, particular requirements are given in IEC 61058-2-4;
- change-over selectors for which, however, particular requirements are given in IEC 61058-2-5.

*Delete the Note in Subclause 1.5.*

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## **2 Normative references**

*Delete reference IEC 60228A.*

*Replace references IEC 60364-4-41, IEC 60364-4-442 and IEC 60364-4-443 (including the footnotes) by the following:*

IEC 61140, *Protection against electric shock – Common aspects for installation and equipment*

*Replace "IEC 60417-1:1998, Graphical symbols for use on equipment – Part 1: Overview and application" by*

IEC 60417, *Graphical symbols for use on equipment*

*Replace "IEC 60695-2-1 (all sheets), Fire hazard testing – Part 2-1: Test methods" by:*

IEC 60695-2-10:2000, *Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure*

IEC 60695-2-11:2000, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products*

IEC 60695-2-12, *Fire hazard testing – Part 2-12: Glowing/hot-wire based test methods – Glow-wire flammability test method for materials*

IEC 60695-2-13, *Fire hazard testing – Part 2-13: Glowing/hot-wire based test methods – Glow-wire ignitability test method for materials*

Add the following references to the list:

IEC 60065:2001, *Audio, video and similar electronic apparatus – Safety requirements* <sup>1)</sup>  
Amendment 1 (2005)

IEC 60695-10-2, *Fire hazard testing – Part 10-2: Abnormal heat – Ball pressure test*

IEC 61000-4-8, *Electromagnetic compatibility (EMC) – Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test*

IEC 61058-2-5, *Switches for appliances – Part 2-5: Particular requirements for change-over selectors*

IEC 61210:1993, *Connecting devices – Flat quick-connect terminations for electrical copper conductors - Safety requirements*

CISPR 14-1, *Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission*

CISPR 15:2005, *Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment* <sup>2)</sup>  
Amendment 1 (2006)

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### 3 Definitions

Replace in 3.2.2 the reference to IEC 60364-4-41 by the reference to IEC 61140.

Replace in 3.6.12 the second paragraph by the following:

“Examples of tabs are shown in IEC 61210 and Annex U.”

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### 5 General notes on tests

Replace in 5.5.1 the fourth paragraph by the following:

“the tests being carried out on d.c., provided that the d.c. voltage and current ratings for the classified type of load (see 7.1.2) are equal to, or greater than, the a.c. ratings.”

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1) A consolidated edition 7.1 (2005) exists, that includes IEC 60065 (2001) and its Amendment 1.

2) A consolidated edition 7.1 (2007) exists, that includes CISPR 15 (2005) and its Amendment 1.

*Replace in Table 1 the title of the 3<sup>rd</sup> column by the following:*

“The number of the specimen which is submitted to the test <sup>1)</sup>”

*Replace, in Table 1, Note 2) by the following:*

“2) Three additional new specimens may be required according to 11.1.3.4 or Table 12, Footnote 2).”

*Add in Table 1 a new note 6):*

“6) Additional samples may be required for destructive tests in Clauses 20, 21 and 23.”

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## 6 Rating

*Replace Subclause 6.1 by the following and delete the Note:*

**6.1** The maximum rated voltage is 480 V.

*Replace Subclause 6.3 by the following:*

**6.3** The maximum rated current is 63 A.

*Compliance of 6.1 to 6.3 is checked by inspection in conjunction with Clause 8.*

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## 7 Classification

*Replace Subclause 7.1.3.2 by the following:*

**7.1.3.2** – switches at which the complete switch, including the actuating member, is intended to be used in an ambient temperature higher than 55 °C or lower than 0 °C, or both:

- preferred values of maximum ambient temperature are 85 °C, 100 °C, 125 °C and 150 °C;
- preferred values of minimum ambient air temperature are – 10 °C, – 25 °C and – 40 °C;
- values differing from these preferred values are allowed, as long as the values are multiples of 5 °C.

*Delete the 2<sup>nd</sup> dashed item in 7.1.3.3.*

*Delete the 2<sup>nd</sup> sentence of the note of 7.1.7.*

*Replace Subclause 7.1.9 by the following:*

**7.1.9 According to the glow wire temperature:**

**7.1.9.1** – 650 °C;

**7.1.9.2** – 750 °C;

**7.1.9.3** – 850 °C.

NOTE When selecting the declared glow wire temperature, consideration should be given to the requirements of the relevant appliance or equipment standard.

*Replace Subclause 7.1.17 by the following:*

**7.1.17 According to test conditions:**

**7.1.17.1** – functional test conditions for electronic switches with thermal current or maximum rated resistive current;

NOTE This test condition reflects the proper functioning of the switch. This test does not simulate the actual load of the end application.

**7.1.17.2** – simulated test conditions for electronic switches with type of load as classified in 7.1.2;

NOTE This test condition reflects the proper functioning of the switch. It also simulates all conditions of the end application.

**7.1.17.3** – specific test conditions of end application for electronic switches, i.e. in or together with the appliance and under the cooling conditions of the appliance;

**7.1.17.4** – test conditions for electronic switches according to duty-type;

*Add the following new subclause:*

**7.1.17.5** – test conditions for switches having a contact making and breaking speed independent from the speed of actuation.

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*Delete in Table 2, classification 7.1.13.3.9, the explanation “A = Auxiliary switch”*

*Replace Subclause 7.2 by the following:*

## **7.2 Classification of terminals**

**7.2.1** – terminals intended for the connection of unprepared conductors and not requiring the use of any special purpose tool;

NOTE Twisting of a stranded conductor to consolidate the end is not considered as special preparation.

**7.2.2** – terminals intended for the connection of unprepared conductors and not requiring the use of any special purpose tool but with a restricted clamping range and /or wire type;

**7.2.3** – terminals intended for the connection of prepared conductors and/or requiring the use of a special purpose tool;

**7.2.4** – terminals suitable for the connection of supply cables or cords with unprepared conductors and not requiring the use of any special purpose tool;

**7.2.5** – terminals suitable for the connection of supply cables or cords with prepared conductors and/or requiring the use of a special purpose tool;

**7.2.6** – terminals suitable for the interconnection of two or more conductors;

**7.2.7** – terminals intended for the connection of rigid, solid conductors;

**7.2.8** – terminals intended for the connection of rigid, solid and stranded conductors;

**7.2.9** – terminals intended for the connection of flexible conductors;

**7.2.10** – terminals suitable for the connection of both flexible and rigid (solid and stranded) conductors;

**7.2.11** – solder terminals intended for soldering by hand with a soldering iron;

**7.2.12** – solder terminals intended for soldering with a solder bath;

**7.2.13** – solder terminals with provisions for securing the conductor by mechanical means and providing circuit continuity by soldering;

**7.2.14** – solder terminals without provisions for securing the conductor by mechanical means. The circuit continuity is ensured by soldering solely.

**7.2.15** – According to the resistance to soldering heat:

**7.2.15.1** – solder terminals type 1;

**7.2.15.2** – solder terminals type 2.