

# INTERNATIONAL STANDARD



Switches for appliances –  
Part 1: General requirements

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Part 1: General requirements**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SWITCHES FOR APPLIANCES –

## Part 1: General requirements

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International Standard IEC 61058-1 has been prepared by subcommittee 23J: Switches for appliances, of IEC technical committee 23: Electrical accessories.

This fourth edition cancels and replaces the third edition published in 2000, Amendment 1:2001 and Amendment 2:2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) requirements for mechanical switches are now given in IEC 61058-1-1;
- b) requirements for electronic switches are now given in IEC 61058-1-2.

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

FDIS	Report on voting
23J/401/FDIS	23J/405/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61058 series, published under the general title *Switches for appliances*, can be found on the IEC website.

In this part, the following print types are used:

- requirements proper: roman type;
- test specifications: *italic type*;
- notes: smaller roman type.

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## SWITCHES FOR APPLIANCES –

### Part 1: General requirements

#### 1 Scope

~~1.1~~ This part of IEC 61058 applies to switches ~~(mechanical or electronic)~~ for appliances ~~actuated by hand, by foot or by other human activity~~. The switches are intended to operate or control electrical appliances and other equipment for household or similar purposes with a rated voltage not exceeding ~~440~~ 480 V and a rated current not exceeding 63 A.

Switches for appliances are intended to be operated by

- a person via an actuating member ~~or by~~,
- indirect actuation,
- an actuating sensing unit.

~~The actuating member or sensing unit can be integral with or arranged separately, either physically or electrically, from the switch and may involve transmission of a signal, for example electrical, optical, acoustic or thermal, between the actuating member or sensing unit and the switch.~~

~~Switches which incorporate additional control functions governed by the switch function are within the scope of this standard.~~

~~This standard also covers the indirect actuation of the switch when the operation of the actuating member or sensing unit is provided by a remote control or a part of an appliance or equipment such as a door.~~

~~NOTE 1 Electronic switches may be combined with mechanical switches giving full disconnection or micro-disconnection.~~

~~NOTE 2 Electronic switches without a mechanical switch in the supply circuit provide only electronic disconnection. Therefore, the circuit on the load side is always considered to be live.~~

~~NOTE 3 For switches used in tropical climates, additional requirements may be necessary.~~

~~NOTE 4 Attention is drawn to the fact that the standards for appliances may contain additional or alternative requirements for switches.~~

~~NOTE 5 Throughout this standard, the word "appliance" means "appliance or equipment".~~

~~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 IEC 61058-2.~~

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

~~1.2~~ This standard applies to switches intended to be incorporated in, on or with an appliance.

~~1.3~~ This standard also applies to switches incorporating electronic devices.

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

— switches intended to be connected to a flexible cable (cord switches);

— NOTE In this document, the word "cable" means "cable or cord".

- ~~— switches integrated in an appliance (integrated switches);~~
- ~~— switches intended to be mounted apart from the appliance (independently mounted switches) other than those within the scope of IEC 60669-1;~~
- ~~— change-over selectors for which, however, particular requirements are given in IEC 61058-2.~~

~~1.5 This standard does not contain requirements for isolating switches.~~

~~NOTE Requirements for isolating switches are under consideration.~~

~~1.6 This standard does not apply to devices which control appliances and equipment not actuated intentionally by a person. These are covered by IEC 60730.~~

Transmission of a signal between the actuating member or sensing unit and the switch may be connected by optical, acoustic, thermal, electrical or other relevant connection and may include remote controlled units.

This part of IEC 61058 applies to switches for appliances provided with additional control functions governed by the switch provided with electronic circuits and devices that are necessary for the intended and/or correct operation of the switch.

This part of IEC 61058 applies to circuitry when evaluated with a switch and necessary for the switching function.

This part of IEC 61058 applies in general to switches for appliances in conjunction with the following parts:

- *Part 1-1: Requirements for mechanical switches, and/or*
- *Part 1-2: Requirements for electronic switches.*

This part of IEC 61058 does not apply to devices covered by:

- IEC 60669 (all parts), *Switches for household and similar fixed-electrical installations*, and
- IEC 60730 (all parts), *Automatic electrical controls*.

This part of IEC 61058 does not contain requirements for safety isolating switches (IEC 60050-811:1991, 811-29-17).

NOTE 1 For switches used in tropical climates, additional requirements may be necessary.

NOTE 2 Attention is drawn to the fact that the end product standards for appliances may contain additional or alternative requirements for switches.

NOTE 3 Throughout this part of IEC 61058, the word "appliance" means "appliance or equipment".

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- ~~IEC 60034-1:1996, *Rotating electrical machines — Part 1: Rating and performance*<sup>1)</sup>~~
- ~~Amendment 1 (1997)~~
- ~~Amendment 2 (1999)~~

<sup>1)</sup> ~~There is a consolidated edition 10.2 (1999) that includes IEC 60034-1 and its amendments 1 (1997) and 2 (1999).~~

IEC 60038:~~1983~~, *IEC standard voltages*

~~IEC 60050(151):1978, International Electrotechnical Vocabulary (IEV) – Chapter 151: Electrical and magnetic devices~~

~~IEC 60050(411):1973, International Electrotechnical Vocabulary (IEV) – Chapter 411: Rotating machinery~~

~~IEC 60050(441):1984, International Electrotechnical Vocabulary (IEV) – Chapter 441: Switchgear, controlgear and fuses~~

~~IEC 60050(826):1982, International Electrotechnical Vocabulary (IEV) – Chapter 826: Electrical installations of buildings –  
Amendment 1 (1990)  
Amendment 2 (1995)~~

IEC 60060-1:~~1989~~, *High-voltage techniques – Part 1: General definitions and test requirements*

IEC 60065:2014, *Audio, video and similar electronic apparatus – Safety requirements*

~~IEC 60068-2-20:1979, Environmental testing – Part 2-20: Tests – Test T: Soldering~~

IEC 60068-2-75:~~1997~~, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

~~IEC 60085:1984, Thermal evaluation and classification of electrical insulation~~

IEC 60112:~~1979~~ 2003, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials – under moist conditions*  
Amendment 1:2009

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IEC 60127 (all parts), *Miniature fuses – Part 2: Cartridge fuse-links*

~~IEC 60228:1978, Conductors of insulated cables~~

~~IEC 60228A:1982, Conductors of insulated cables – First supplement: Guide to the dimensional limits of circular conductors~~

~~IEC 60269-1:1998, Low-voltage fuses – Part 1: General requirements~~

IEC 60269-3, *Low-voltage fuses – Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household or similar applications) – Examples of standardized systems of fuses A to F*

~~IEC 60269-3-1:1994, Low-voltage fuses – Part 3-1: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications) – Sections I to IV~~

~~IEC 60335-1:1991, Safety of household and similar electrical appliances – Part 1: General requirements~~  
Amendment 1 (1994)

~~IEC 60335 (all parts 2), Safety for household and similar electrical appliances~~

~~IEC 60364-4-41:1992, *Electrical installations of buildings — Part 4: Protection for safety — Chapter 41: Protection against electric shock*<sup>2)</sup>  
Amendment 1 (1996)  
Amendment 2 (1999)~~

~~IEC 60364-4-442:1993, *Electrical installations of buildings — Part 4: Protection for safety — Chapter 44: Protection against overvoltage — Section 442: Protection of low-voltage installations against faults between high voltage systems and earth*<sup>3)</sup>  
Amendment 1 (1995)  
Amendment 2 (1999)~~

~~IEC 60364-4-443:1995, *Electrical installations of buildings — Part 4: Protection for safety — Chapter 44: Protection against overvoltages — Section 443: Protection against overvoltages of atmospheric origin or due to switching*<sup>4)</sup>  
Amendment 1 (1998)~~

IEC 60384-14:1993, *Fixed capacitors for use in electronic equipment – Part 14: Sectional specification – Fixed capacitors for electromagnetic interference suppression and connection to the supply mains*

IEC 60417, *Graphical symbols for use on equipment* (available at: <http://www.graphical-symbols.info/equipment>)

~~IEC 60417-1:1998, *Graphical symbols for use on equipment — Part 1: Overview and application*~~

IEC 60529:1989, *Degree of protection provided by enclosures (IP code)*  
Amendment 1:1999  
Amendment 2:2013

IEC 60617, *Graphical symbols for diagrams* (available at: <http://std.iec.ch/iec60617>)

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<sup>2)</sup> There is a consolidated edition 3.2 (1999) that includes IEC 60364-4-41 and its amendments 1 (1996) and 2 (1999).

<sup>3)</sup> There is a consolidated edition 1.2 (1999) that includes IEC 60364-4-442 and its amendments 1 (1995) and 2 (1999).

<sup>4)</sup> There is a consolidated edition 3.2 (1999) that includes IEC 60364-4-443 and its amendment 1 (1998).