UL 61058-1-1

STANDARD FOR SAFETY

Switches for Appliances – Part 1-1: Requirements for Mechanical Switches

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UL Standard for Safety for Switches for Appliances – Part 1-1: Requirements for Mechanical Switches, UL 61058-1-1

First Edition, Dated November 3, 2017

Summary of Topics

This reaffirmation of ANSI/UL 61058-1-1 dated December 17, 2024 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

UL 61058-1-1 is an adoption of IEC 61058-1-1, First Edition, issued by the IEC May 2016. Please note that the National Difference document incorporates all of the U.S. national differences for UL 61058-1-1.

As noted in the Commitment for Amendments statement located on the back side of the title page, ULSE and CSA are committed to updating this harmonized standard jointly. However, the revision pages dated December 17, 2024 will not be jointly issued by ULSE and CSA as these revision pages only address UL ANSI approval dates.

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated October 18, 2024.

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Commitment for Amendments

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This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

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This ANSI/UL Standard for Safety consists of the First Edition including revisions through December 17, 2024. The most recent designation of ANSI/UL 61058-1-1 as a Reaffirmed American National Standard (ANS) occurred on December 17, 2024. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface. The National Difference Page and IEC Foreword are also excluded from the ANSI approval of IEC-based standards.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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PREFACE

This is the harmonized CSA Group and ULSE standard for Switches for Appliances – Part 1-1: Requirements for Mechanical Switches. It is the first edition of CAN/CSA-C22.2 No. 61058-1-1, and the first edition of UL 61058-1-1.

This harmonized standard is based on IEC Publication 61058-1-1: first edition Switches for Appliances – Part 1-1: Requirements for Mechanical Switches issued May 2016. IEC 61058-1-1 is copyrighted by the IEC.

This harmonized standard was prepared by CSA Group and ULSE Inc. (ULSE). The efforts and support of the International Harmonization Committee on Switches for Appliances are gratefully acknowledged.

This standard is considered suitable for use for conformity assessment within the stated scope of the standard.

This standard was reviewed by the CSA Integrated Committee on Wiring Devices, under the jurisdiction of the CSA Technical Committee on Wiring Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee. This standard has been developed in compliance with the Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

Note: Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

This CAN/CSA-C22.2 No. 61058-1-1, Standard for Switches for Appliances – Part 1-1: Requirements for Mechanical Switches, is to be used in conjunction with the Third edition of CAN/CSA-C22.2 No. 61058-1. The requirements for mechanical switches are contained in this Part 1-1 and CAN/CSA-C22.2 No. 61058-1. Requirements of this Part 1-1, where stated, amend the requirements of CAN/CSA-C22.2 No. 61058-1. Where a particular subclause of CAN/CSA-C22.2 No. 61058-1 is not mentioned in CAN/CSA-C22.2 No. 61058-1-1, the CAN/CSA-C22.2 No. 61058-1 subclause applies.

This UL 61058-1-1, Standard for Switches for Appliances – Part 1-1: Requirements for Mechanical Switches, is to be used in conjunction with the Fifth edition of UL 61058-1. The requirements for mechanical switches are contained in this Part 1-1 and UL 61058-1. Requirements of this Part 1-1, where stated, amend the requirements of UL 61058-1. Where a particular subclause of UL 61058-1 is not mentioned in UL 61058-1-1, the UL 61058-1 subclause applies.

Level of Harmonization

This standard adopts the IEC text with national differences.

This standard is published as an identical standard for CSA Group and ULSE.

An identical standard is a standard that is exactly the same in technical content except for national differences resulting from conflicts in codes and governmental regulations and basic safety principles and requirements. Presentation is word for word except for editorial changes.

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All national differences from the IEC text are included in the CSA Group and ULSE versions of the standard. While the technical content is the same in each organization's version, the format and presentation may differ.

Reasons for Differences From IEC

National differences from the IEC are being added in order to address safety and regulatory situations present in the US and Canada.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

IEC Copyright

For CSA Group, the text, figures, and tables of International Electrotechnical Commission Publication 61058-1-1, Switches for Appliances – Part 1-1: Requirements for Mechanical Switches, copyright 2016, are used in this standard with the consent of the International Electrotechnical Commission. The IEC Foreword is not a part of the requirements of this standard but is included for information purposes only.

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NATIONAL DIFFERENCES

In the CSA Group and ULSE publications of this standard, National Differences from the text of International Electrotechnical Commission (IEC) Publication 61058-1-1, Switches for Appliances – Part 1-1: Requirements for Mechanical Switches, copyright 2016, are indicated by notations (differences) and are presented in bold text. The national difference type is included in the body.

There are five types of National Differences as noted below. The difference type is noted on the first line of the National Difference in the standard. The standard may not include all types of these National Differences.

DR – These are National Differences based on the **national regulatory requirements**.

D1 – These are National Differences which are based on **basic safety principles and requirements**, elimination of which would compromise safety for consumers and users of products.

D2 – These are National Differences from IEC requirements based on existing **safety practices**. These requirements reflect national safety practices, where empirical substantiation (for the IEC or national requirement) is not available or the text has not been included in the IEC standard.

DC – These are National Differences based on the **component standards** and will not be deleted until a particular component standard is harmonized with the IEC component standard.

DE – These are National Differences based on **editorial comments or corrections**.

Each national difference contains a description of what the national difference entails. Typically one of the following words is used to explain how the text of the national difference is to be applied to the base IEC text:

Addition / Add - An addition entails adding a complete new numbered clause, subclause, table, figure, or annex. Addition is not meant to include adding select words to the base IEC text.

Modification / Modify - A modification is an altering of the existing base IEC text such as the addition, replacement or deletion of certain words or the replacement of an entire clause, subclause, table, figure, or annex of the base IEC text.

Deletion / Delete - A deletion entails complete deletion of an entire numbered clause, subclause, table, figure, or annex without any replacement text.

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FOREWORD

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SWITCHES FOR APPLIANCES – PART 1-1: REQUIREMENTS FOR MECHANICAL SWITCHES

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and nongovernmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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6) All users should ensure that they have the latest edition of this publication.

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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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

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

FDIS	Report on voting
23J/399/FDIS	23J/403/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.

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A list of all parts in the IEC 61058-1 series, published under the general title *Switches for appliances*, can be found on the IEC website.

This part of IEC 61058 is to be used in conjunction with IEC 61058-1(2016).

This Part 1-1 supplements or modifies the corresponding clauses in IEC 61058-1, so as to convert that publication into the IEC standard: *Requirements for mechanical switches*.

When a particular subclause of Part 1 is not mentioned in this Part 1-1, that subclause applies as far as reasonable. Where this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

In this standard:

1) The following print types are used:

– Requirements proper: in roman type;

– *Test specifications: in italic type;*

– Notes/explanatory matters: in small roman type.

2) Subclauses, notes, figures and tables which are additional to those in Part 1 are numbered starting from 101. Annexes which are additional to those in Part 1 are lettered AA, BB, etc.

The committee has decided that the contents of this 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.

DV.1 D2 *Addition of the following:*

This nationally adopted Part 1-1 standard shall be used in conjunction with the nationally adopted IEC 61058-1 Part 1 standard, the nationally adopted IEC 61058-1-2 Part 1-2 standard, and any relevant nationally adopted IEC 61058-2-x Part 2 standards. For references to IEC 61058, IEC 61058-1, or IEC 61058-1-2, replace the reference with CAN/CSA-C22.2 No. 61058/UL 61058, CAN/CSA-C22.2 No. 61058-1/UL 61058-1, or CAN/CSA-C22.2 No. 61058-1-2/UL 61058-1-2 accordingly.

DV.2 DE *Addition of the following:*

The numbering system in the standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.

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SWITCHES FOR APPLIANCES – PART 1-1: REQUIREMENTS FOR MECHANICAL SWITCHES

1 Scope

This clause of part 1 is applicable.

Add the following at the end of Clause 1.

This part of IEC 61058 applies to mechanical switching devices and shall be used in conjunction with the requirements of IEC 61058-1.

NOTE Additional requirements for particular switches may be found in the relevant part 2 of IEC 61058.

2 Normative References

This clause of part 1 is applicable.

3 Terms and Definitions

This clause of part 1 is applicable.

4 General Requirements

This clause of part 1 is applicable.

5 General Information on Tests

This clause of part 1 is applicable with the following addition.

Add the following at the end of 5.3.

Table 101 provides information on:

– The minimum number of specimens needed for each test.

– The minimum number of total specimens, when applicable tests are added, needed for each evaluation.

– Additional specimens that may be required as a result of additional electrical rating, unique construction or damage/breakage during testing.

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