



National Differences For

UL 61058-1

Switches for Appliances - Part 1: General Requirements

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National Differences For

UL 61058-1

Switches for Appliances - Part 1: General Requirements

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UL 61058-1 is an adoption of the second amendment of IEC 61058-1 published in November 2007, the consolidated reprint of IEC 61058-1 Ed. 3.2 published in April of 2008, and the Corrigendum to IEC 61058-1 Ed 3.0 published in January of 2009.

The revisions dated February 15, 2013 were issued to reflect the latest ANSI approval date as an American National Standard and to include the following revisions that were proposed June 8, 2012. Please note that the national difference document incorporates all of the U.S. national differences for UL 61058-1 including the new and revised national differences itemized below.

- 1. Added a new national difference, Clause 21.4DV, for the use of thermoset material.***
- 2. Clarified the use of RTI values in Clauses 21.1DV.1.1.1 and 21.1DV.1.1.2, and added instructions on the thickness of material in Clause 21.1DV.1.1.3.***
- 3. Revised Clause DVB.4.1 for clarification.***

This document provides a single listing of the National Differences included in the UL adoption of the corresponding IEC standard.

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Preface

This document provides a single listing of the technical National Differences included in the UL adoption of the corresponding IEC standard.

In its IEC-based standards, UL uses the notations indicated below to identify national difference type, and these types are additionally noted in this document. The standard may not use all types of these deviations.

D1 - These are deviations which are based on basic safety principles and requirements, elimination of which would compromise safety for U.S. consumers and users of products.

D2 - These are deviations based on safety practices. These are deviations for IEC requirements that may be acceptable, but adopting the IEC requirements would require considerable retesting or redesign on the manufacturer's part.

DC - These are deviations 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 deviations based on editorial comments or corrections.

DR - These are deviations based on the national regulatory requirements.

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.

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

National Differences

1.1DV.1 D2 Modification of 1.1 to revise Note 6 as follows:

Remove "relevant Part 2 of IEC 61058" and replace with "appropriate supplements, annexes to UL 61058-1, CSA 22.2 No. 61058-1, or UL and CSA Standards."

1.1DV.2 D2 Modification of 1.1 to include electrical ratings unique to North America (such as switches with a horsepower (hp), lamp loads, and television (TV) ratings) by adding the following:

See Annexes DVA, DVB, and DVC.

1.7DV D2 Addition of 1.7DV to indicate which switches do not apply:

These requirements do not cover those electronic controls covered by existing standards such as UL 244A, UL 60730, CSA C22.2 No. 156, and CSA E60730-1. Examples of these products include automatic controls, unintentional automatic OPERATION, and sensing (temperature, pressure, light, etc.) actuation.

1.8DV DC Addition of 1.8DV to indicate which switches do not apply:

These requirements do not cover switches which are covered by an existing standard such as those constructed so that they can be installed readily in a flush-device box or an outlet-box cover or can otherwise be used in a wiring system that complies with NFPA-70 and Part 1 of the Canadian Electrical Code (CEC). This part does not apply to switches intended to be covered within the scope of CSA C22.2 No. 111, UL 20, CSA C22.2 No. 4, UL 98, CSA C22.2 No. 205, or UL 773A.

2DV DC Modification to add the following:

ASTM D3638

Standard Test Method for Comparative Tracking Index of Electrical Insulation Materials

CSA C22.2 No. 0.17

Evaluation of Properties of Polymeric Materials

IEC 60695-11-10:2003

Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods

Amendment 1 (2003)

UL 94

Tests for Flammability of Plastic Materials for Parts in Devices and Appliances

UL 746B

Polymeric Materials – Long Term Property Evaluations

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3.1.32DV D2 Addition:

COMPARATIVE TRACKING INDEX (CTI): The voltage, as determined under the conditions specified in the Standard Test Method for Comparative Tracking Index of Electrical Insulation Materials, ASTM D3638 (IEC 60112), that causes a permanent electrically conductive carbon path with the application of 50 drops of electrolyte that is applied at the rate of one drop every 30 s to the specimen.

5.4DV D1 Modification of 5.4 to add the following to address aspects related to LIVE PARTS shorting to dead metal parts:

For the endurance cycling testing of Clause 17, including horsepower overload (overcurrent), all exposed dead metal parts shall be connected through a fuse to ground (earth). Dead metal parts can include frame, enclosures and actuators. The potential between LIVE PARTS and dead metal parts shall be the full test potential. The purpose of the fuse is to detect hazardous ground arcs shorting from live parts to exposed dead metal. The fuse amp rating, shall not be greater than 15 A but less than the available output amperage of the electrical supply source. The voltage rating of the fuse shall be equal to or greater than the maximum potential to ground.

5.5.4DV DR Addition to include switches with a horsepower rating (hp), North American lamp rating, or a television (TV) rating:

The test method and compliance requirements are indicated in Annexes DVA (hp), DVB (lamp), or DVC (TV).

7.1.2.11DV D2 Addition of 7.1.2.11DV to include television ratings:

- circuit for controlling the supply in a television-receiving appliance (e.g., a TELEVISION SWITCH):

7.1.2.12DV D2 Addition of 7.1.2.12DV to include inductive ratings:

- circuit for an inductive load with a power factor of not less than 0,75;

7.1.2.13DV D2 Addition of 7.1.2.13DV to include inductive and motor ratings:

- circuit for an inductive load, a motor load with a power factor not less than 0,6, or a combination of both;

7.1.2.14DV D2 Addition of 7.1.2.14DV to include inductive and horsepower ratings:

- circuit for an inductive load, a horsepower load with a power factor not less than 0,4, or a combination of both;

7.1.4.5DV D1 Modification of 7.1.4.5 to specify the minimum number of cycles as follows:

Replace "6 000 OPERATING CYCLES" with "A minimum of 6 000 cycles of OPERATION. A greater number of OPERATIONS may be employed when agreeable to those concerned."

8.1DV D2 Modification of 8.1:

In the United States, add the reference to table 3DV after table 3.

Table 3DV D2 Modification of table 3 to replace entire table to revise for North American type loads and identifiers:

Table 3DV – SWITCH information

No.	Characteristic	Subclause	Means of information	
			COMMON TYPE REFERENCE C.T.	UNIQUE TYPE REFERENCE U.T.
1	SWITCH IDENTIFICATION			
1.1	Manufacturer's name or trade mark		Ma	Ma
1.2	Type reference		Ma	Ma
2	SWITCH ENVIRONMENT/MOUNTING			
2.1	Degree of protection provided for the SWITCH when mounted according to documentation (IP Code of IEC 60529) NOTE Additional letters listed in IEC 60529 are not used.	7.1.5.1 and 7.1.5.2	Do	Do
2.2	Degree of protection against electric shock, from outside an appliance	7.1.5.3	Do	Do
2.3	Method of mounting and actuating the SWITCH and method of providing earthing, if appropriate. The intended method(s) of mounting and the intended orientation(s) shall be declared. The declared methods of mounting, together with any earthing TERMINAL, are deemed to be the methods of earthing CONDUCTIVE PARTS unless otherwise specified.	7.1.7 and 7.1.7.7	Do	Do
2.4	POLLUTION DEGREE	7.1.6	Do	Do
3	TEMPERATURE			
3.1	Ambient temperature limits if different from 0 °C to 55 °C	7.1.3	Ma	Do
3.2	AMBIENT AIR TEMPERATURE for ELECTRONIC SWITCHES – cord switches and independently mounted switches if different from 0 °C to 35 °C – other switches, if different from 0 °C to 55 °C	7.1.3.4.1 or 7.1.3.4.2 7.1.3.2 or 7.1.3.3	Ma Ma	Do Do
4	ELECTRICAL LOAD			
4.1	RATED VOLTAGE or RATED VOLTAGE range	6.1	Ma	Do
4.2	Nature of supply if the SWITCH is not intended for both a.c. and d.c. or if the rating is different for a.c. and d.c.	7.1.1	Ma	Do
4.3	Frequency or frequency range if different from 50 Hz or 50 to 60 Hz		Ma	Do
4.4	For circuits of substantially resistive loads, the RATED CURRENT of the RATED LOAD	7.1.2.1	Ma	Do

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Table 3DV – SWITCH information Continued

No.	Characteristic	Subclause	Means of information	
			COMMON TYPE REFERENCE C.T.	UNIQUE TYPE REFERENCE U.T.
4.5	For circuits for resistive and motor load with a power factor not less than 0,6, the rated resistive current and rated motor current and, for ELECTRONIC SWITCHES, the minimum current (or power)	7.1.2.2	Ma/Do	Do
4.6	For circuits for resistive and capacitive load, the RATED CURRENT and rated peak surge current and, for ELECTRONIC SWITCHES, the minimum current (or power)	7.1.2.3	Ma/Do	Do
4.7	For circuits for tungsten filament lamp load, the rated resistive current and alternatively either the peak inrush lamp current or the rated lamp current, and, for ELECTRONIC SWITCHES, the minimum current (or power)	7.1.2.4	Ma/Do	Do
4.8	For circuits for declared specific loads, relevant details of the appliance to be controlled, or other specific load	7.1.2.5		Do
4.9	For SWITCHES for more than one circuit, the current applicable to each circuit and to each TERMINAL. If these are different from each other, then it shall be made clear to which circuit or which TERMINAL the information applies		Ma/Do	Do
4.10	Rated IMPULSE WITHSTAND VOLTAGE	7.1.10	Do	Do
4.11	For ELECTRONIC SWITCHES, the THERMAL CURRENT	8.4.5	Ma	Do
4.12	For ELECTRONIC SWITCHES, the DUTY-TYPE	7.1.16	Do	Do
4.13	For ELECTRONIC SWITCHES, the ON/OFF-time for the relevant DUTY-TYPE		Do	Do
4.14	Type and/or connection of SWITCH	7.1.13	Do	Do
4.15	For circuits for specific lamp load, the RATED CURRENT and the inrush current	7.1.2.7	Do	Do
4.16	For circuits for an inductive load with a power factor not less than 0,6	7.1.2.8	Do	Do
4.17	For circuits for specific load of motor with a locked rotor and with a power factor not less than 0,6	7.1.2.9	Do	Do
4.18	A TELEVISION SWITCH shall be rated in amperes and volts	7.1.2.11DV	Ma	Do
4.19	For circuits of substantially inductive loads with a power factor of not less than 0,75, the RATED CURRENT of the RATED LOAD	7.1.2.12DV	Ma	Do
4.20	For circuits for inductive and motor load with a power factor 7.1.2.13DVnot less than 0,6 the RATED CURRENT		Ma	Do
4.21	For circuits for inductive and horsepower load with a power factor not less than 0,4 the RATED CURRENT and horsepower	7.1.2.14DV	Ma	Do
5	TERMINALS/CONDUCTORS			
5.1	All TERMINALS shall be suitably identified, or their purpose self-evident, or the SWITCH circuitry visually apparent. For TERMINALS intended for the connection of supply conductors, the Identification may take the form of a letter L, a number or of an arrow		Ma	Ma

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