UL 62

STANDARD FOR SAFETY

Flexible Cords and Cables

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UL Standard for Safety for Flexible Cords and Cables, UL 62

Twenty-first Edition, Dated August 31, 2026

Summary of Topics

This is the Twenty-First Edition of ANSI/UL 62 dated August 31, 2026.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated December 5, 2025 and June 12, 2026.

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Twenty-First Edition

Flexible Cords and Cables

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The Department of Defense (DoD) has adopted UL 62 on November 6, 1987. The publication of revised pages or a new edition of this Standard will not invalidate the DoD adoption.

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PREFACE

This is the harmonized CSA Group and ULSE standard for Flexible Cords and Cables. It is the seventh edition of NMX-J-436-ANCE, the sixteenth edition of CSA C22.2 No. 49, and the twenty-first edition of UL 62. This edition of CSA C22.2 No. 49 supersedes the previous editions published in 2018, 2014, 2010, 2006, 1998, 1992, 1989, 1988, 1981, 1973, 1962, 1960, 1956, 1941, and 1937. This edition of UL 62 supersedes the previous edition published in 2018.

This harmonized standard was prepared by CSA Group and ULSE. The efforts and support of the Technical Harmonization Subcommittee, Flex Cords, THSC 20, of the Council on the Harmonization of Electrotechnical Standards of the Nations of the Americas (CANENA) are gratefully acknowledged.

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

While ANCE continues to participate in the technical development of this trinational standard, the ANCE logo has been removed from the title page as standards cannot be formally published in Mexico at this time.

This standard was reviewed by the CSA Integrated Committee on Flexible Cords/Equipment and Appliance Wires and Cables, 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 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.

Level of Harmonization

This Standard uses the IEC format but is not based on, nor is it considered equivalent to, an IEC standard.

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

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

Reasons for Differences From IEC

This standard provides requirements for insulated cords and cables in accordance with the codes of Canada, Mexico, and the United States. At present there is no IEC standard for cords and cables for use in accordance with these codes. Therefore, this standard does not employ any IEC standard for base requirements.

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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.

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1 Scope

1.1 General

This standard specifies the requirements for flexible cords, elevator cables, and hoistway cables rated 600 V maximum intended for use in accordance with CSA C22.1, *Canadian Electrical Code, Part I*, in Canada, NOM-001-SEDE, *La Norma de Instalaciones Electricas*, in Mexico, and NFPA 70®, *National Electrical Code*® (NEC®) in the United States.

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1.2 Products included

This standard covers the following products:

a) Service cords;

b) Elevator cables;

c) Hoistway cables;

d) Heater cords;

e) Range and dryer cords;

f) Tinsel and lamp cords;

g) Special use cords; and

h) Shore power cable.

1.3 National differences

In cases where product types are not approved in all three countries, a national difference is indicated by superscripts, as shown below:

Superscript letter	National difference*
c	For use in Canada only
m	For use in Mexico only
u	For use in United States only
c,m	For use in Canada and Mexico only
c,u	For use in Canada and United States only
m,u	For use in Mexico and United States only
* See Annex D for products recognized by their respective countries.	

2 Reference publications

This Standard refers to the following publications. For dated references, only the edition cited shall apply. For undated references, the latest edition of the referenced document (including any amendments) shall apply.

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ANCE (Association of Standardization and Certification)

NMX-J-008-ANCE, *Wires and Cables – Tinned Soft or Annealed Copper Wire for Electrical Purposes – Specifications*

NMX-J-036-ANCE, *Wires and Cables – Soft or Annealed Copper Wire for Electrical Purposes – Specifications*

NMX-J-040-ANCE, *Wires and Cables – Determination of the Moisture Absorption in Insulations of Electrical Conductors – Test Method*

NMX-J-066-ANCE, *Wires and Cables – Determination of Diameter and Cross-sectional Area of Electrical Conductors – Test Method*

NMX-J-177-ANCE, *Wires and Cables – Determination of Thicknesses of Semiconducting Shields, Insulations, Protective Jackets or Other Elements in an Electrical Conductor - Test Method*

NMX-J-178-ANCE, *Wires and Cables – Ultimate Strength and Elongation of Insulation, Semiconducting Shields and Jackets of Electrical Conductors – Test Method*

NMX-J-190-ANCE, *Wires and Cables – Thermal Shock Resistance of Thermoplastic Insulations and Protective Jackets of Electrical Conductors – Test Method*

NMX-J-191-ANCE, *Wire and Cables – Heat Distortion of Insulations and Protective Jackets of Electrical Conductors – Test Method*

NMX-J-192-ANCE, *Wires and Cables – Flame Test on Electrical Cables – Test Methods*

NMX-J-193-ANCE, *Wires and Cables – Cold Bend of Insulation and Non Metallic Protective Jackets Used on Insulated Wire and Cable – Test Method*

NMX-J-205-ANCE, *Wires and Cables – Determination of Dissipation Factor and Ionization Factor on Insulated Cables – Test Methods*

NMX-J-212-ANCE, *Wires and Cables – Electrical Resistance, Resistivity and Conductivity – Test Method*

NMX-J-293-ANCE, *Wires and Cables – Dielectric Voltage Withstand – Test Method*

NMX-J-294-ANCE, *Wires and Cables – Insulation Resistance – Test Method*

NMX-J-473-ANCE, *Wires and Cables – Spark Test, Which Applies Through the Process of Electrical Wires and Cables Manufacturing – Test Method*

NMX-J-498-ANCE, *Wires and Cables – Vertical Tray Flame Test – Test Method*

NMX-J-516-ANCE, *Wires and Cables – Determination of Direction and Length of Lay for Bare and Insulated Conductors – Test Method*

NMX-J-553-ANCE, *Wires and Cables – Determination of the Weather Resistance with Controlled Conditions and Exposure to Light Source of a Xenon-Arc Lamp – Test Method*

NMX-J-556-ANCE, *Wires and Cables – Test Methods*

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CSA Group

CSA C22.1, *Canadian Electrical Code, Part I*

CSA C22.2 No. 0, *General requirements – Canadian Electrical Code, Part II*

CSA C22.2 No. 21-18 (R2023), *Cord sets and power-supply cords*

CSA C22.2 No. 65:25, *Wire connectors*

CSA C22.2 No. 2556:21, *Wire and cable test methods*

CSA Z240 RV Series:23, *Recreational vehicles*

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UL 817, *Cord Sets and Power-Supply Cords*

UL 1659, *Attachment Plug Blades for Use in Cord Sets and Power-Supply Cords*

UL 2556, *Wire and Cable Test Methods*

ASTM (American Society for Testing and Materials)

ASTM B3-2013 (R2024), *Standard Specification for Soft or Annealed Cpper Wire*

ASTM B33-2010 (R2020), *Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes*

CENELEC

EN 50214, *Flat polyvinyl chloride sheathed flexible cables*

Government of Mexico

NOM-001-SEDE, *La Norma de Instalaciones Electricas*

NFPA (National Fire Protection Association)

NFPA 70, *National Electrical Code*

3 Definitions and units of measurement

3.1 Definitions

The following definitions apply in this standard:

Breather tube – an element placed in cords intended to equalize pressure.

Bunch stranding – a group of wires twisted together without a predetermined pattern.

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Control/signal conductors – conductors used for the sole purpose of transmitting signal current for controlling a component or the like in the end use. These conductors are not considered circuit conductors and may be present as individual(s), pairs, or groups.

Diameter tape – a measuring tape that is graduated so that the circumference of a cylindrical object is measured and the reading results in the diameter of the object.

Direction of lay – the longitudinal direction, designated as left-hand (counterclockwise) or right-hand (clockwise), in which the wires of a member or units of a conductor run over the top of the member or conductor as they recede from an observer looking along the axis of the member or conductor.

Elevator travelling cable – a cable intended for use as a flexible connection between an elevator or dumbwaiter car and its hoistway.

Equipment grounding (bonding) conductor – a conductor that is defined in Mexico, in NOM-001-SEDE, and in the United States, in the NEC, as "Grounding Conductor, Equipment", and in Canada, in the Canadian Electrical Code, as "Bonding conductor".

Extra-hard-usage cord – a cord intended for use with heavy equipment and for hand held appliances and tools, classified as the highest grade in mechanical serviceability.

Grounded conductor – a system or circuit conductor that is intentionally grounded.

Hard-usage cord – a cord intended for use with moderately heavy equipment and for hand-held appliances and tools, classified as the medium grade in mechanical serviceability.

Heater cord – a cord intended for connection to equipment that has a heating element.

Hoistway cable – a cable for control and signal applications in an elevator hoistway.

Neutral conductor – a circuit conductor that normally carries current, and is connected to ground (earth) at the main electrical panel. The conductor of a 2-wire circuit connected to the supply neutral point and earth ground is referred to as the "neutral".

Normal vision – vision without any aid other than the examiner’s normal corrective lenses, if any.

Not-for-hard-usage cord – a cord intended for use with light equipment, classified as the lowest grade in mechanical serviceability.

PCS subassembly – an assembly consisting of control/signal insulated conductors, as individual(s) or pairs or groups, provided within a jacket.

Room temperature – 25 ±10°C (77 ±18°F).

Rope-lay-stranded conductor – a conductor composed of groups of twisted strands having one or more layers.

Shore power cable – a cable intended to be used to supply electrical power to a marine vessel moored at a dock.

Thermoplastic – a polymeric-based material that can be repeatedly softened by heating and hardened by cooling, and that in the softened state can be shaped through the application of force.

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