



**CSA
Group**

C22.2 No. 49-14

Flexible cords and cables

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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 ANCE, CSA Group, and UL standard for flexible cords and cables. It is the fifth edition of NMX-J-436-ANCE, the fourteenth edition of CSA-C22.2 No. 49, and the nineteenth edition of UL 62. This edition of CSA C22.2 No. 49 supersedes the previous edition(s) published in 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 2010.

This harmonized standard was prepared by the Association of Standardization and Certification (ANCE), CSA Group, and Underwriters Laboratories Inc. (UL). 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.

The present Mexican standard was developed by the CT 20 – Conductores from the Comité de Normalización de la Asociación de Normalización y Certificación, A.C., CONANCE, with the collaboration of the wire and cables manufacturers and users.

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 approved by the American National Standards Institute (ANSI) as an American National Standard.

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 to be considered equivalent to, an IEC standard. This standard is published as an equivalent standard for ANCE, CSA Group, and UL.

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.

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.

ANCE Effective Date

The effective date for ANCE will be announced through the Diario Oficial de la Federación (Official Gazette) and is indicated on the cover page.

CSA Group Effective Date

The effective date for CSA Group will be announced through *CSA News* or *CSA Group Certification Notice*.

UL Effective Date

As of March 14, 2016, all products Listed or Recognized by UL must comply with the requirements in this standard.

Between March 14, 2014, and March 14, 2016, all product submittals to UL may be evaluated under all requirements in this standard or, if requested in writing, evaluated under presently effective requirements only.

A UL effective date is one established by Underwriters Laboratories Inc. and is not part of the ANSI approved standard.

1 Scope

1.1 General

This standard specifies the requirements for flexible cords, elevator cables, electric vehicle cables, electric vehicle cables, and hoistway cables rated 600 V maximum and intended for use in accordance with CSA C22.1, *Canadian Electrical Code (CEC), Part I* and CAN/CSA-C22.2 No. 0, *General Requirements – Canadian Electrical Code, Part II*, in Canada, NOM-001-SEDE, *La Norma de Instalaciones Electricas (Mexican Electrical Code [MEC])*, in Mexico, and NFPA 70, *National Electrical Code (NEC)*, in the United States.

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) Cords for decorative lighting;
- g) Tinsel and lamp cords;
- h) Special use cords; and
- i) Electric vehicle cables.

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: