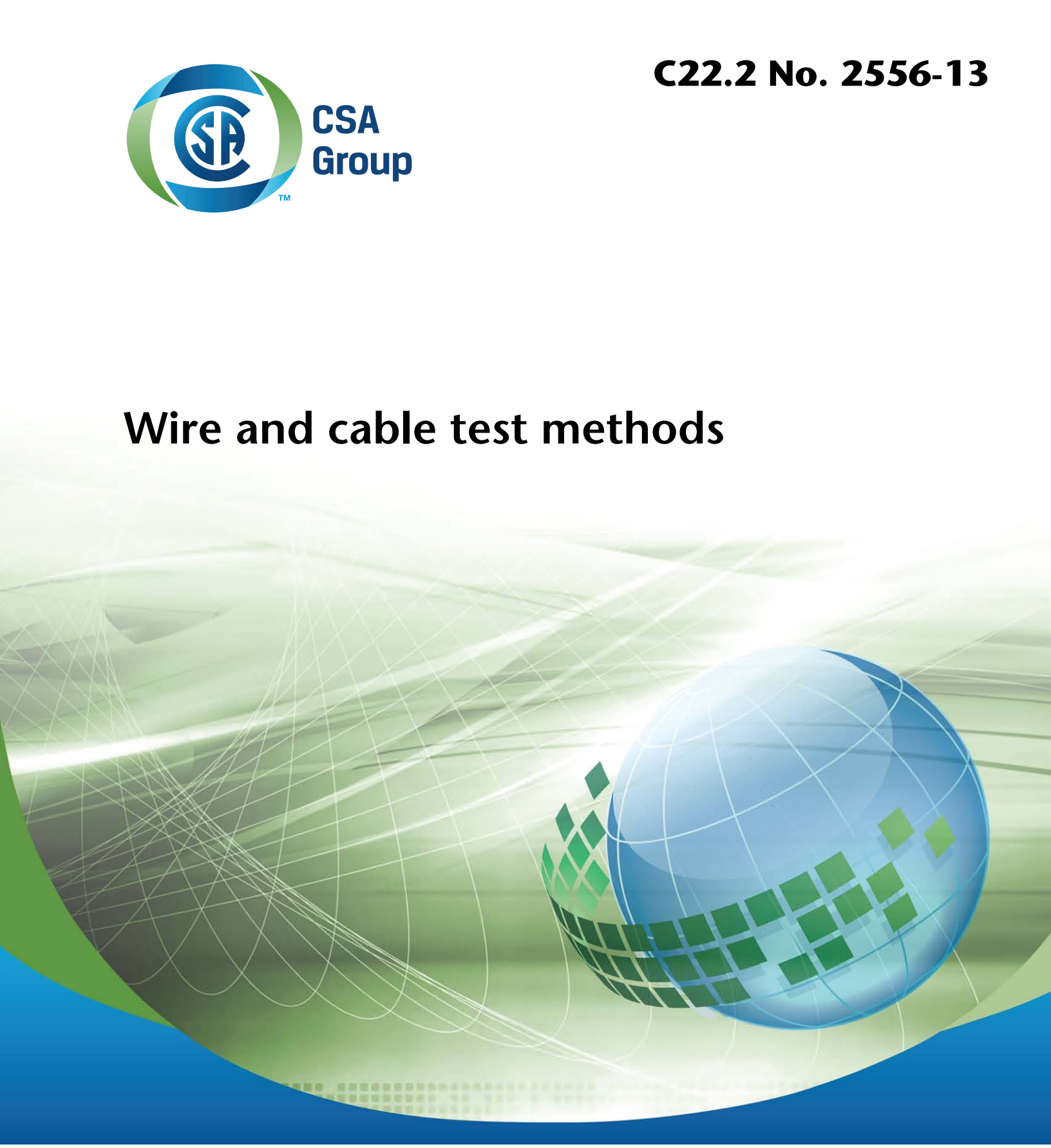
CSA Group

C22.2 No. 2556-13

Wire and cable test methods



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Association of Standardization and Certification
NMX-J-556-ANCE-2013
Third Edition

CSA Group
CSA C22.2 No. 2556-13
Third Edition

Underwriters Laboratories Inc.
UL 2556
Third Edition

Wire and Cable Test Methods

March 22, 2013

ANSI/UL 2556-2013

Commitment for Amendments

This Standard is issued jointly by the Association of Standardization and Certification (ANCE), the Canadian Standards Association (operating as "CSA Group"), and Underwriters Laboratories Inc. (UL). Comments or proposals for revisions on any part of the standard may be submitted to ANCE, CSA Group, or UL at any time. Revisions to this standard will be made only after processing according to the standards development procedures of ANCE, CSA Group, and UL. CSA Group and UL will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue. ANCE will incorporate the same revisions into a new edition of the standard bearing the same date of issue as the CSA and UL pages.

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This Standard is subject to periodic review, 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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The most recent designation of ANSI/UL 2556 as an American National Standard (ANSI) occurred on March 22, 2013.

This ANSI/UL Standard for Safety consists of the Third Edition.

The most recent designation of ANSI/UL 2556, as an American National Standard (ANSI) occurred on March 22, 2013. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

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

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Preface

This is the common ANCE, CSA Group, and UL standard for Wire and Cable Test Methods. It is the third edition of NMX-J-556-ANCE, the third edition of CSA C22.2 No. 2556, and the third edition of UL 2556. This edition of CSA C22.2 No. 2556 supersedes the previous version published in 2007.

This common 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 Committee for Wire and Cable Test Methods, 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.

This standard was reviewed by the CSA Integrated Committee on Test Methods for 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.

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 shall it 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 wires and cables for use in accordance with the electrical installation codes of Canada, Mexico, and the United States. At present there is no IEC standard for wires 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 Informs or a CSA Group certification notice.

UL effective date

UL 2556 is effective immediately for reference by other standards.

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

Wire and Cable Test Methods

1 Scope

1.1 This standard describes the apparatus, test methods, and formulas to be used in carrying out the tests and calculations required by wire and cable standards.

1.2 Specific acceptance requirements are found in individual product standards.

1.3 Where a test method indicates a “specified” test parameter or condition, the parameter or condition is found in the individual product standard.

2 General

2.1 Units of measure

The unit of measure shall be SI. If a value for measurement is followed by a value in other units in parentheses, the second value represents a direct conversion or an alternative value. Except for conductor size, the first stated value is the requirement.

2.2 Normative references

Where reference is made to any Standards, such reference shall be considered to refer to the latest editions and revisions thereto available at the time of printing, unless otherwise specified.

ANCE (Association of Standardization and Certification)

NMX-E-034-SCFI
Plastic Industry – Carbon Black Contents on Polyethylene Materials – Test Methods

NMX-J-178-ANCE
Electrical Products – Wires and Cables – Determination of Cross Sectional Area of Stranded Electrical Conductors Related to the Mass – Test Method

NMX-J-192-ANCE
Flame Test on Electrical Wires – Test Method

NMX-J-417-ANCE
Wires and Cables – Convection Laboratory Ovens for Evaluation of Electrical Insulation – Specifications and Test Methods

NMX-J-437-ANCE
Wires and Cables – Determination of Light Absorption Coefficient of Polyethylene Pigmented with Carbon Black – Test Methods

NMX-J-474-ANCE
Electrical Products – Wires and Cables – Determination of Specific Optical Density of Smoke Generated by Electrical Wires and Cables – Test Methods

NMX-J-498-ANCE
Vertical Tray – Flame Test – Test Method