UL 6A

STANDARD FOR SAFETY

Electrical Rigid Metal Conduit – Aluminum, Red Brass, and Stainless Steel

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UL Standard for Safety for Electrical Rigid Metal Conduit – Aluminum, Red Brass, and Stainless Steel, UL 6A

Second Edition, Dated October 31, 2008

Summary of Topics

This reaffirmation of ANSI/UL 6A dated November 20, 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.

As noted in the Commitment for Amendments statement located on the back side of the title page, ULSE, CSA, and ANCE are committed to updating this harmonized standard jointly. However, the revision pages dated November 20, 2024 will not be jointly issued by ULSE, CSA, and ANCE 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 September 27, 2024.

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This ANSI/UL Standard for Safety consists of the Second Edition including revisions through November 20, 2024. The most recent designation of ANSI/UL 6A as a Reaffirmed American National Standard (ANS) occurred on November 20, 2024. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

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Preface

This is the harmonized ANCE, CSA Group, and ULSE standard for electrical rigid metal conduit – aluminum, red brass, and stainless steel. It is the second edition of NMX-J-576-ANCE, the first edition of CSA C22.2 No. 45.2, and the second edition of UL 6A. This harmonized standard has been jointly revised on March 5, 2021. For this purpose, CSA Group and UL are issuing revision pages dated March 5, 2021, and ANCE is issuing a new edition dated March 5, 2021.

This harmonized standard was prepared by the Association of Standardization and Certification (ANCE), CSA Group, and ULSE. The efforts and support of the conduit manufacturing industry and the Technical Harmonization Subcommittee for Conduit and Tubing 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 CT Technical Committee 23 Electrical Accessories from the Comite de Normalizacion de la Asociacion de Normalizacion y Certificacion, A.C., CONANCE, with the collaboration of the metal conduit and tubing manufacturers and users.

This standard was reviewed by the CSA Subcommittee on Metal Conduit and Tubing, 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.

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 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

The Technical Harmonization Subcommittee identified several IEC standards that address electrical conduit and tubing included in the scope of this standard. The IEC standards for electrical conduit and tubing are recognized as being generally system-specific, containing the requirements for the relevant conduits and cables and associated fittings in several discrete IEC standards.

The THSC determined the safe use of electrical conduit and tubing is dependent on the design and performance of the conduit and tubing systems with which they are intended to be installed. Significant investigation is required to assess safety and system compatibility issues that may lead to harmonization of traditional North American electrical conduit and tubing and associated fittings with those presently

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addressed in the known IEC standards. The THSC agreed such future investigation might be facilitated by the completion of harmonization of the North American standards for electrical conduit and tubing and their fittings.

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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Electrical Rigid Metal Conduit – Aluminum, Red Brass, and Stainless Steel

1 Scope

1.1 These requirements cover aluminum (ERMC-A) and stainless steel (ERMC-SS) electrical rigid metal conduit, nipples, elbows, and couplings in 12 – 155 (3/8 – 6) trade sizes for use as metal raceway for the installation of wires and cables in accordance with CSA C22.1, Canadian Electrical Code, Part 1, NOM-001-SEDE, Standard for Electrical Installations, and NFPA 70, National Electrical Code (see Reference Item No. 1, Annex A). It is the user's responsibility to determine the appropriate product for the application.

1.2 These requirements also cover red brass (ERMC-RB) electrical rigid metal conduit, nipples, elbows, and couplings in 16 (1/2) trade size for use as metal raceway for the installation of wires and cables in direct burial and swimming pool applications in accordance with the applicable national electrical installation codes.

1.3 Steel conduit is covered by the standards listed in Reference Item No. 2, Annex A.

2 Normative references

2.1 Products covered by this standard shall comply with the reference installation codes and standards appropriate for the country where the product is to be used. When the product is intended for use in more than one country, the product shall comply with the installation codes and standards for all countries where it is intended to be used. A "Reference Item No." is provided at the point of use for each reference in this standard. See Annex A for a list of reference publications and the correlating list of reference item numbers to applicable country publications.

2.2 Undated references to standards shall be considered to refer to the latest edition and all revisions to that edition up to the time when this standard was approved. Dated references to standards shall be considered to refer to the dated edition and all revisions published to that edition up to the time the standard was approved.

3 Definitions

3.1 The following definitions apply in this standard.

3.2 Elbow – A manufactured curved section of conduit threaded on each end.

3.3 Electrical rigid metal conduit – aluminum (ERMC-A) – A threadable aluminum raceway of circular cross-section designed for the physical protection and routing of wire conductors and use as an equipment grounding conductor when installed utilizing appropriate fittings.

3.4 Electrical rigid metal conduit – red brass (ERMC-RB) – A threadable red brass raceway of circular cross-section designed for the physical protection and routing of wire conductors and use as an equipment grounding conductor when installed utilizing appropriate fittings.

3.5 Electrical rigid metal conduit – stainless steel (ERMC-SS) – A threadable stainless steel raceway of circular cross-section designed for the physical protection and routing of wire conductors and use as an equipment grounding conductor when installed utilizing appropriate fittings.

3.6 Finished conduit – A straight conduit with one coupling attached.

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