

Enclosures for electrical equipment, non-environmental considerations



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Revision History

CSA C22.2 No. 94.1:15, Enclosures for electrical equipment, non-environmental considerations

National Standard of Canada — August 2020
Outside front cover, National Standard of Canada text, and title page.
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ICS 21.180
ISBN 978-1-77139-755-1



Association of Standardization and Certification
NMX-J-235/1-ANCE-2015
Third Edition



CSA Group
CSA C22.2 No. 94.1-15
Second Edition



Underwriters Laboratories Inc.
UL 50
Thirteenth Edition

Enclosures for Electrical Equipment, Non Environmental Considerations

October 16, 2015



ANSI/UL 50-2015



Standards Update Service

CSA C22.2 No. 94.1:15
October 2015

Title: *Enclosures for electrical equipment, non-environmental considerations*

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Preface

This is the harmonized ANCE, CSA Group, and UL standard for Enclosures for Electrical Equipment, Non-Environmental Considerations. It is the third edition of NMX-J-235/1-ANCE, the second edition of CAN/CSA C22.2 No. 94.1, and the thirteenth edition of UL 50. This edition of CSA C22.2 No. 94.1 supersedes the previous edition published in 2007. This edition of UL 50 supersedes the previous edition published on September 4, 2007.

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 Technical Harmonization Committee 70/31 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 CDI Control y Distribución Industrial from the Comité de Normalización de la Asociación de Normalización y Certificación, A.C., CONANCE, with the collaboration of the enclosures manufacturers and users.

This standard was reviewed by the CSA Integrated Committee on Enclosures, under the jurisdiction of the CSA Technical Committee on Industrial 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 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 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

The THSC investigated and found no existing IEC standards or work programs covering the scope of the products in this standard.

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.

ENCLOSURES FOR ELECTRICAL EQUIPMENT, NON-ENVIRONMENTAL CONSIDERATIONS

1 Scope

1.1 This standard applies to enclosures for electrical equipment intended to be installed and used in non-hazardous locations in accordance with the Canadian Electrical Code, Part I, CSA C22.1, the provisions of the National Electrical Code, NFPA 70, and the provisions of Mexico's Electrical Installations, NOM-001-SEDE, as follows:

- a) Enclosures for indoor locations, Types 1, 2, 5, 12, 12K, and 13; and
- b) Enclosures for indoor or outdoor locations, Types 3, 3X, 3R, 3RX, 3S, 3SX, 4, 4X, 6, and 6P.

1.2 This standard covers the non-environmental construction and performance requirements for enclosures to provide a degree of protection to personnel against incidental contact with the enclosed equipment. The additional environmental construction and performance requirements for enclosures are located in CSA C22.2 No. 94.2, UL 50E, and NMX-J-235/2-ANCE (See Annex B, Ref. No. 15), which are intended to be used in conjunction with this standard.

1.3 Where an individual product standard contains requirements that are at variance with those of this standard, the requirements of the individual product standard take precedence.

1.4 In the United States and Mexico, cabinets and cutout boxes and junction and pull boxes are covered by Clauses 9 and 10 of this Standard. In Canada, junction boxes, cutout boxes, and pull boxes are covered by CSA C22.2 No. 40 and are not covered by this standard. See Annex B, Ref. No. 12.

1.5 Outlet boxes having a volume of not more than 1640 cm³ (100 in³) are covered by CSA C22.2 No. 18.1, NMX-J-023/1-ANCE, and the UL 514 series (see Annex B, Ref. No. 6 and 13) and are not covered by this standard.

1.6 In Canada and the United States, swimming pool type junction boxes are covered by CSA C22.2 No. 89 and UL 1241 (see Annex B, Ref. No. 11) and are not covered by this standard.

2 Units of Measurement

2.1 The values given in SI (metric) units shall be normative. Any other values given shall be for informational purposes only.

3 Components

3.1 Except as indicated in Clause 3.2, a component of a product covered by this standard shall comply with the requirements for that component. See Annex A for a list of standards covering components generally used in the products covered by this standard. A component shall comply with the ANCE, CSA Group, or UL standards as appropriate for the country where the product is to be used.