UL 248-13

STANDARD FOR SAFETY

Low-Voltage Fuses – Part 13:
Semiconductor Fuses

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UL Standard for Safety for Low-Voltage Fuses – Part 13: Semiconductor Fuses, UL 248-13

Third Edition, Dated March 31, 2022

Summary of Topics

~~*The Third Edition of the Standard for Low-Voltage Fuses – Part 13: Semiconductor Fuses, ANSI/UL 248-13 dated March 31, 2022.*~~

~~*As noted in the Commitment for Amendments statement located on the back side of the title page, UL, CSA, and ANCE are committed to updating this harmonized standard jointly.*~~

The revision of ANSI/UL 248-13 dated September 30, 2026 includes changes in requirements for fuses having DC ratings only and updating the voltage demarcations referring to NEC and CEC; 1.2, 7.1.1, and 10.3.2.

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 revised requirements are substantially in accordance with Proposal(s) on this subject dated ~~July 9, 2021~~ February 6, 2026 and May 29, 2026.

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NMX-J-009/248/13-2022-ANCE

Second Edition

CSA Group

CSA C22.2 No. 248.13:22

Third Edition

Underwriters LaboratoriesULSE Inc.

UL 248-13

Third Edition

Low-Voltage Fuses – Part 13: Semiconductor Fuses

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ANSI

NATIONAL STANDARD OF CANADA
STANDARDS COUNCIL OF CANADA
CONSEIL CANADIEN DES NORMES
NORME NATIONALE DU CANADA

ANSI/UL 248-13-20222026

Commitment for Amendments

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This ANSI/UL Standard for Safety consists of the Third edition including revisions through September 30, 2026. The most recent designation of ANSI/UL 248-13 as an American National Standard (ANSI) occurred on March 31, 2022September 30, 2026. 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 ~~UL~~ULSE Standard for Low-Voltage Fuses – Part 13: Semiconductor Fuses. It is the ~~second edition of NMX-J-009/248/13-ANCE,~~ third edition of CSA C22.2 No. 248.13~~,~~ and the third edition of UL 248-13. This edition of ~~NMX-J-009/248/13-ANCE supersedes the first edition published in 2000. This edition of CSA C22.2~~ CSAC22.2 No. 248.13 supersedes the second edition published in 2000. This edition of UL 248-13 supersedes the second edition published in 2000. This harmonized standard has been jointly revised on September 30, 2025. For this purpose, CSA Group and ULSE are issuing revision pages dated September 30, 2026.

This harmonized standard was prepared by ~~the Association of Standardization and Certification, (ANCE),~~ CSA Group, and ~~Underwriters Laboratories Inc. (UL).~~ULSE. The efforts and support of the Technical Harmonization Subcommittee, 32B, Fuses, Fuseholders, 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 TC 32 Fuses from the Comite de Normalizacion de la Asociacion de Normalizacion y Certificacion, A.C., CONANCE, with the collaboration of the fuse manufacturers and users.~~

This Standard was reviewed by the CSA Subcommittee on Fuses and Fuseholders and approved by the CSA Technical Committee on Industrial Products under the jurisdiction of the CSA Strategic Steering Committee on the Requirements for Electrical Safety. This standard has been developed in compliance with the 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**~~

CSA C22.2 No. 248.13 is to be used in conjunction with the fourth edition of CSA C22.2 No. 248.1. The requirements for semiconductor fuses are contained in this Part 13 Standard and CSA C22.2 No. 248-1. Requirements of this Part 13 Standard, where stated, amend the requirements of CSA C22.2 No. 284-1. Where a particular subclause of CSA C22.2 No. 248-1 is not mentioned in CSA C22.2 No. 248.13, the CSA C22.2 No. 248-1 subclause applies

UL Standard 248-13 is to be used in conjunction with the fourth edition of UL 248-1. The requirements for semiconductor fuses are contained in this Part 13 Standard and UL 248-1. Requirements of this Part 13 Standard, where stated, amend the requirements of UL 248-1. Where a particular subclause of UL 248-1 is not mentioned in UL 248-13, the UL 248-1 subclause applies.

Level of Harmonization

This standard is published as an identical standard for ~~ANCE,~~ CSA Group and ~~UL~~ULSE.

An identical standard is a standard that is exactly the same in technical content except for national differences resulting from conflicts in codes and governmental regulations. Presentation is word for word except for editorial changes.

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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Low-Voltage Fuses – Part 13: Semiconductor Fuses

1 Scope

1.1 This Part is intended to be read together with the Standard for Low-Voltage Fuses – Part 1: General Requirements, hereafter referred to as Part 1. The titles of the Clauses in this Part correspond to the similarly titled Clauses in Part 1. The requirements of Part 1 apply unless modified by this Part. For the Part 1 requirements, refer to the Standard for Low-Voltage Fuses – Part 1: General Requirements, NMX-J-009-248/1-ANCE / CSA C22.2 No. 248.1 / UL 248-1.

1.2 This Part applies to semiconductor fuses rated 2000 ~~Vac~~V or less~~. DC ratings are optional~~, AC or DC or both.

NOTE: CSA C22.1, Canadian Electrical Code, Part I, defines low voltage as any voltage exceeding 30 ~~V~~Vac or 60 Vdc but not exceeding 1000 ~~V inclusive~~Vac or 1500 Vdc, inclusive, and high voltage as any voltage exceeding 1000 ~~V. The National Electrical Code~~Vac or 1500 Vdc. The NFPA 70®, ~~NFPA 70~~*National Electrical Code*® (NEC®), defines high voltage as more than 600 V, nominal.

NFPA 70®, *National Electrical Code*®, and NEC® are registered trademarks of the National Fire Protection Association, Quincy, MA.

2 Referenced Publications

2.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

2.2 When a reference is made to a code or standard, the product shall comply with the code or standard of the country in which the product is intended to be used.

2.3 Throughout this Standard, the CSA standard references apply to products intended for use in Canada, the ANCE NMX standard references apply to products intended for use in Mexico, and the UL standard references apply to products intended for use in the United States. Combined references are separated by a slash (“ / ”) to denote the difference between the applicable requirements specified for use in Canada, Mexico, and the United States.

2.4 The following publications are referenced in this Standard:

United States	Canada	Mexico
	CSA C22.1, Canadian Electrical Code, Part I	
NFPA 70, National Electrical Code		NOM – 001, Mexican Electrical Code
	CSA C22.2 No. 0, General Requirements – Canadian Electrical Code, Part II	
UL 248-1, Low-Voltage Fuses – Part 1: General Requirements	CSA C22.2 No. 248.1, Low-Voltage Fuses – Part 1: General Requirements	NMX-J-009/248/1-ANCE, Low-Voltage Fuses – Part 1: General Requirements