



# UL 248-5

## STANDARD FOR SAFETY

### Low-Voltage Fuses – Part 5: Class G Fuses

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UL Standard for Safety for Low-Voltage Fuses – Part 5: Class G Fuses, UL 248-5

Second Edition, Dated August 1, 2000

### **Summary of Topics**

***This revision of ANSI/UL 248-5 dated July 5, 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, UL, CSA, and ANCE are committed to updating this harmonized standard jointly. However, the revision pages dated July 5, 2024 will not be jointly issued by UL, 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 May 17, 2024.

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This ANSI/UL Standard for Safety consists of the Second Edition including revisions through July 5, 2024.

The most recent designation of ANSI/UL 248-5 as a Reaffirmed American National Standard (ANS) occurred on July 5, 2024. 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 ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at <https://csds.ul.com..>

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## Preface

This is the common ULSE, CSA, and ANCE Standard for *Low-Voltage Fuses – Part 5: Class G Fuses*. This is the second edition of CAN/CSA-C22.2 No. 248.5-00 (superseding the first edition, published in 1996), the second edition of UL 248-5, and the first edition of NMX-J-009/248/5-ANCE-2000.

This Standard was prepared by a Technical Harmonization Committee comprised of members from ULSE Inc. (ULSE), CSA International, the National Association of Standardization and Certification of the Electrical Sector, the end product manufacturers, and material suppliers. The efforts and support of the members of the Technical Harmonization Committee are gratefully acknowledged.

The present Mexican Standard was developed by the TC 32 Fuses from the Comité de Normalización de la Asociación de Normalización y Certificación, A.C., CONANCE, with the collaboration of the fuse manufacturers and users.

This Standard was reviewed by the CSA Subcommittee on Fuses and approved by the Technical Committee on Industrial Products under the jurisdiction of the CSA Strategic Steering Committee on the Requirements for Electrical Safety.

*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 trinational standard is published as an Identical Standard. An identical standard is a standard that is the same in technical content except for conflicts in Codes and Governmental Regulations. Presentation is word for word except for editorial changes.

## Interpretations

The interpretation by the SDO (Standards Development Organization) of an identical standard shall be based on the literal text to determine compliance with the standard in accordance with the procedural rules of the SDO. If more than one interpretation of the literal text has been identified, a revision shall be proposed as soon as possible to each of the SDOs to more accurately reflect the intent.

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## Low-Voltage Fuses – Part 5: Class G Fuses

### 1 General

NOTE –

*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 numbering of the Clauses in this Part correspond to like numbered Clauses in Part 1. The requirements of Part 1 apply unless modified by this Part. For Clauses not shown below, refer to the Standard for Low-Voltage Fuses – Part 1: General Requirements, NMX-J-009/248/5-2000-ANCE ♦ CAN/CSA C22.2 No. 248.1 ♦ UL 248-1.*

#### 1.1 Scope

This Part applies to Class G fuses rated 20 A or less, 600 V ac; 21 – 60 A, 480 V ac. DC ratings are optional.

### 4 Classification

Class G fuses are non-renewable and current limiting, with an interrupting rating of 100,000 A. Class G fuses are divided into four body sizes. The maximum current rating,  $I_n$ , for each size is specified in this Part. Time-delay ratings are optional.

### 5 Characteristics

#### 5.2 Voltage rating

For AC, the rating shall be 600 V ac for the 0 – 20 A body sizes, and 480 V ac for the 21 – 60 A body sizes. The DC voltage rating may be different from the AC rating.

#### 5.3 Current rating

Refer to [Figure A](#) for range of current ratings in each body size.

#### 5.5 Interrupting rating

For AC – 100,000 A

For DC, the preferred ratings are 10,000, 20,000, 50,000, or 100,000 A.

#### 5.6 Peak let-through current and clearing $I^2t$ characteristics

Maximum values of peak let-through current and clearing  $I^2t$  at 100,000 A are given in [Table A](#).

**Table A**  
**Maximum peak let-through current and clearing  $I^2t$  for Class G fuses**

Current rating $I_n$ , A	Peak let-through current, A	$I^2t$ , ampere-squared seconds
1	1,000	800
3	1,500	1,200
6	2,000	1,800
10	3,000	2,800
15	4,000	3,800
20	5,000	5,000
25	6,000	6,000
30	7,000	7,000
35	8,000	14,000
40	8,500	17,000
45	9,000	18,500
50	9,500	21,000
60	10,500	25,000

## 7 Construction

### 7.1 Dimensions

Fuse dimensions are shown in [Figure A](#).