

# UL 62275

# **STANDARD FOR SAFETY**

Cable Management Systems – Cable Ties for Electrical Installations

UL Standard for Safety for Cable Management Systems – Cable Ties for Electrical Installations UL 62275

Third Edition, Dated September 24, 2021

#### Summary of Topics

This new edition of ANSI/UL 62275 dated September 24, 2021 is being issued to update requirements to those published in IEC 62275, Standard for Cable Management Systems – Cable Ties for Electrical Installations.

# UL 62275 is an adoption of IEC 62275, Edition 3, issued August 2018. Please note that the National Difference document incorporates all of the U.S. national differences for UL 62275.

The requirements are substantially in accordance with Proposal(s) on this subject dated December 18, 2020.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of UL.

UL provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will UL be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if UL or an authorized UL representative has been advised of the possibility of such damage. In no event shall UL's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold UL harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

No Text on This Page



Association of Standardization and Certification NMX-J-623-ANCE-2021 Third Edition



CSA Group CSA C22.2 No. 62275:21 Third Edition (IEC 62275:2018, MOD)



Underwriters Laboratories Inc. UL 62275 Third Edition

## Cable Management Systems – Cable Ties for Electrical Installations

September 24, 2021

This national standard is based on publication IEC 62275, Third Edition (2018).





#### **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 anytime. 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 Group and UL pages.

#### Copyright © 2021 ANCE

Rights reserved in favor of ANCE.

#### ISBN 978-1-4883-2904-3 © 2021 Canadian Standards Association

All rights reserved. No part of this publication may be reproduced in any form whatsoever without the prior permission of the publisher.

This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. The technical content of IEC and ISO publications is kept under constant review by IEC and ISO. 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.

To purchase CSA Group Standards and related publications, visit CSA Group's Online Store at www.csagroup.org/store/ or call toll-free 1-800-463-6727 or 416-747-4044.

#### Copyright © 2021 Underwriters Laboratories Inc.

UL's Standards for Safety are copyrighted by UL. Neither a printed nor electronic copy of a Standard should be altered in any way. All of UL's Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of UL.

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

The most recent designation of ANSI/UL 62275 as an American National Standard (ANSI) occurred on September 24, 2021. 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 https://csds.ul.com.

To purchase UL Standards, visit UL's Standards Sales Site at http://www.shopulstandards.com/HowToOrder.aspx or call toll-free 1-888-853-3503.

### CONTENTS

| PREFACE |  |    |  |
|---------|--|----|--|
| NATIO   | NAL DIFFERENCES  | 7  |  |
|         |  | •  |  |
| FOREV   | VORD   | 9  |  |
| 1       | Scope  | 11 |  |
|         | 1DV.1 Modify Clause 1 by replacing the first paragraph with the following:   | 11 |  |
|         | 1DV.2 Modify Clause 1 by deleting the last paragraph and adding the following note:                                    | 11 |  |
| 2       | Normative references   |    |  |
|         | 2DV Modify Clause 2 by adding the following:   |    |  |
| 3       | Terms and definitions.   |    |  |
|         | 3.5DV Modify by adding the following to this definition:   |    |  |
| 4       | 3DV Add the following terms to Clause 3:<br>General requirements   |    |  |
| 4       | 4DV Modify Clause 4 by adding the following:   |    |  |
| 5       | General notes on tests   |    |  |
| U       | 5.6DV Modify Clause 5.6 by replacing it with the following text:   |    |  |
|         | 5.7DV Modify Clause 5.7 by adding the following text:  |    |  |
|         | 5.8DV Modify Clause 5.8 by adding the following paragraph:   |    |  |
|         | 5.9DV Modify Clause 5.9 by replacing the fifth paragraph with the following:   |    |  |
|         | Figure 2DV Modify Figures 2a) and 2b) by replacing the titles with the following:                                      | 22 |  |
|         | 5.10DV Modify Clause <u>5.10</u> by replacing it with the following:   |    |  |
|         | 5.11DV Add Clauses 5.11DV.1 to 5.11DV.4 to Clause 5 as follows:  |    |  |
| 6       | Classification   |    |  |
|         | 6.1 According to material  | 23 |  |
|         | 6.2 According to loop tensile strength for cable ties and mechanical strength for fixing devices.                      | 22 |  |
|         | 6.3 According to temperature   |    |  |
|         | 6.4 According to contribution to fire for non-metallic and composite cable ties and integral                           | 20 |  |
|         | assemblies only.   | 26 |  |
|         | 6.5 According to environmental influences  | 26 |  |
|         | 6.6DV Add Clause 6.6DV to Clause 6 as follows:   | 27 |  |
| 7       | Marking and documentation  |    |  |
|         | 7.1DV Modify by replacing the first paragraph of 7.1 with the following:   |    |  |
|         | 7.2DV.1 Modify Clause 7.2 by replacing the first paragraph with the following:   |    |  |
|         | 7.2DV.2 Modify Clause 7.2 by adding the following:   |    |  |
|         | 7.3DV Modify Clause 7.3 by adding the following:<br>Table 6DV Modify Table 6 by replacing the NOTE with the following: |    |  |
| 8       | Construction   |    |  |
| 0       | 8DV Add Clauses 8DV.1 to 8DV.5 to Clause 8 as follows:   |    |  |
| 9       | Mechanical properties  |    |  |
| Ũ       | 9.1 Requirements   |    |  |
|         | 9.1DV Modify Clause 9.1 by adding the following:   |    |  |
|         | 9.2 Installation test  |    |  |
|         | 9.3 Minimum installation temperature test for cable ties   | 35 |  |
|         | 9.3DV Modify Clause 9.3 by replacing the first paragraph with the following:   |    |  |
|         | 9.4 Minimum operating temperature test for cable ties  |    |  |
|         | 9.5 Loop tensile strength test for cable ties classified according to <u>6.2.2</u>                                     |    |  |
|         | 9.5DV Modify Clause 9.5 by adding the following:   |    |  |
|         | 9.6 Loop tensile strength test for cable ties classified according to <u>6.2.3</u>                                     |    |  |
|         | 9.6DV Modify Clause 9.6 by adding the following:   |    |  |
|         | 9.6.1DV Modify Clause 9.6.1 by adding the following:   | 39 |  |

|      | 9.6.2DV Modify Clause 9.6.2 by adding the following:  | 40 |
|------|---|----|
|      | 9.6.3DV Modify Clause 9.6.3 by adding the following:  | 41 |
|      | 9.7 Mechanical strength test for fixing devices and integral assemblies                     |    |
|      | 9.7.3DV.1 Modify Clause 9.7.3 by adding the following item to the third paragraph:          | 53 |
|      | 9.7.3DV.2 Modify Clause 9.7.3 by adding the following dashed item to the list in the fourth |    |
|      | paragraph:  | 53 |
|      | 9.7.3DV.3 Modify Clause 9.7.3 by adding the following dashed item to the list in the fifth  |    |
|      | paragraph:  | 53 |
|      | 9.8DV Add Clause 9.8DV to Clause 9 as follows:  |    |
| 10   | Contribution to fire  |    |
|      | 10DV Modify Clause 10 by replacing it with the following:                                   |    |
|      | Figure 7DV Modify Figure 7 by adding the following note:                                    |    |
| 11   | Environmental influences  |    |
|      | 11.1 Resistance to ultraviolet light  |    |
|      | 11.1.1DV Modify Clause 11.1.1 by adding the following to the third paragraph:               |    |
|      | 11.1.4DV Modify Clause 11.1.4 by replacing it with the following:                           |    |
|      | 11.2 Resistance to corrosion  |    |
|      | 11.2DV Modify Clause 11.2 by replacing it with the following:                               |    |
| 12   | Electromagnetic compatibility   |    |
|      | 13DV Add Clause 13DV as follows:  | 67 |
| ex / | 13DV Add Clause 13DV as follows:  |    |

#### Annex A (normative) Compliance checks to be carried out for cable ties and fixing devices currently complying with IEC 62275:2013 in order to comply with this edition 3

. . .

.

| ANNEX DVA (Informative) Substitution of materials                                |
|--|
| Annex DVA Add Annex DVA:70   |
| ANNEX DVB (informative) Polymeric material modifications                         |
| Annex DVB Add Annex DVB:72   |
| ANNEX DVC (normative) Tests for polymer identification                           |
| Annex DVC Add Annex DVC:74   |
| ANNEX DVD (informative) Index of requirements by type                            |
| Annex DVD Add Annex DVD:77   |
| ANNEX DVE (informative) Classifications worksheet (Canada and the United States) |
| Annex DVE Add Annex DVE:   |
| ANNEX DVF (normative) Mexican normative references                               |
| Annex DVF Add Annex DVF:   |
| Bibliography   |

### PREFACE

This is the harmonized ANCE, CSA Group, and UL standard for Cable management systems – Cable ties for electrical installations. It is the third edition of NMX-J-623-ANCE, CSA C22.2 No. 62275, and UL 62275. This edition of NMX-J-623-ANCE, CSA C22.2 No. 62275 and UL 62275 supersedes the previous edition published October 14, 2016.

This harmonized standard is based on IEC Publication 62275: third edition, Cable management systems – Cable ties for electrical installations, issued August 2018. IEC 62275 is copyrighted by the IEC.

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 the CANENA Technical Harmonization Subcommittee 23A-62275 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 PIE-A from the Comite de Normalizacion de la Asociacion de Normalizacion y Certificacion, A.C., CONANCE, with the collaboration of the manufacturers and users.

This standard was reviewed by the CSA Integrated Committee on Fittings, Hardware, and Positioning Devices, 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 developed in compliance with 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

This standard adopts the IEC text with national differences.

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

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.

All national differences from the IEC text are included in the ANCE, CSA Group and UL versions of the standard. While the technical content is the same in each organization's version, the format and presentation may differ.

#### **Reasons for Differences From IEC**