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ANSI/CAN/UL/ULC 1395:2025

STANDARD FOR SAFETY

Transients Test Method

Approved American National Standard
ANSI

ANSI/UL 1395-2025

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UL Standard for Safety for Transients Test Method, ANSI/CAN/UL/ULC 1395

First Edition, Dated December 9, 2024

Summary of Topics

This revision of ANSI/CAN/UL/ULC 1395 dated August 4, 2025 includes changes in requirements for radiated electromagnetic fields; 3.2, Table 5.1, 5.5.3, 5.5.4, and 5.5.6.

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 new and revised requirements are substantially in accordance with Proposal(s) on this subject dated April 25, 2025.

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ANSI/CAN/UL/ULC 1395:2025

Standard for Transients Test Method

First Edition

December 9, 2024

This ANSI/CAN/UL/ULC Safety Standard consists of the First Edition including revisions through August 4, 2025.

The most recent designation of ANSI/UL 1395 as an American National Standard (ANSI) occurred on August 4, 2025. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This Standard has been designated as a National Standard of Canada (NSC) on August 4, 2025.

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Preface

This is the First Edition of ANSI/CAN/UL/ULC 1395, Standard for Transients Test Method.

ULSE is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO). ULC Standards is accredited by the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization.

This ANSI/CAN/UL/ULC 1395 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

Annex A, identified as Informative, is for information purposes only.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a “yes” or “no” answer based on the literal text of the requirement concerned.

Comments or proposals for revisions on any part of the Standard may be submitted 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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This Edition of the Standard has been formally approved by the Technical Committee (TC) on Transients Test Method, TC 1395.

This list represents the TC 1395 membership when the final text in this standard was balloted. Since that time, changes in the membership may have occurred.

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This Standard is intended to be used for conformity assessment.

The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

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INTRODUCTION

1 Scope

1.1 These requirements cover the transients test method for fire, security, and life safety equipment. These tests include supply line (ring wave surge voltage) transients, Internally induced Transients, Sequential Arc Transients, Radiated Electromagnetic Fields, Field-Wiring Transients, Surge Immunity Test (Combination Wave), Surge Current Test, and Static Discharge Test.

1.2 Tests conducted in accordance with these requirements are intended to demonstrate that the intended operation of the device is not impaired [electromagnetic compatibility (EMC)] when subject to electromagnetic interferences (EMI) generated by the specified test method, devices and/or appliances outlined in this standard.

1.3 These requirements cover the circuits, ports, or surfaces being subjected to the relevant tests unless otherwise specified in the end product standard.

2 Units of Measurement

2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

3 Referenced Publications

3.1 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.

3.2 The following publications are referenced in this Standard:

ASTM B3, *Standard Specification for Soft or Annealed Copper Wire*

IEC 61000-4-3, *Electromagnetic Compatibility (EMC) – Part 4-3: Testing and Measurement Techniques – Radiated, Radio-Frequency, Electromagnetic Field Immunity Test*

IEC 61000-4-5, *Electromagnetic Compatibility (EMC) – Part 4-5: Testing and Measurements Techniques – Surge Immunity Test*

IEC 61000-4-20, *Electromagnetic Compatibility (EMC) – Part 4-20: Testing and Measurement Techniques – Emission and Immunity Testing in Transverse Electromagnetic (TEM) Waveguides*

IEC 61000-6-2, *Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity standard for industrial environments*

IEEE C62.41, *IEEE Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits*

4 Glossary

4.1 For the purpose of this Standard, the following definitions apply.

4.2 DEVICE UNDER TEST (DUT) – Refers to a product, system, equipment, or device that is being subjected to evaluation to verify its functionality, performance, reliability, or other specific characteristics to ensure that it meets the desired specifications or requirements.

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