JOINT CANADA-UNITED STATES
NATIONAL STANDARD

ANSI/CAN/UL 3100:2026

STANDARD FOR SAFETY

Automated Mobile Platforms (AMPs)

ANSI/UL 3100-2026

SCC FOREWORD

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UL Standard for Safety for Automated Mobile Platforms (AMPs), ANSI/CAN/UL 3100

First Edition, Dated May 26, 2021

Summary of Topics

This revision of ANSI/CAN/UL 3100 dated June 10, 2026 includes the following changes in requirements:

– Remove wet location conditions and redefine Hazardous Voltage as 60 VDC; 5.3B, 5.10, and Table 5.1.

– Clarification; 52.3.

– Revision of Impact Test; 64.1 and 64.3.

– Modification to Clause 60 Vibration Test; 60.1 and 60.3.

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 December 12, 2025 and April 3, 2026.

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ANSI/UL 3100-2026

MAY 26, 2021
(Title Page Reprinted: June 10, 2026)

ANSI/CAN/UL 3100:2026

Standard for Automated Mobile Platforms (AMPs)

First Edition

May 26, 2021

This ANSI/CAN/UL Safety Standard consists of the First Edition including revisions through June 10, 2026.

The most recent designation of ANSI/UL 3100 as an American National Standard (ANSI) occurred on June 10, 2026. 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 June 10, 2026.

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PREFACE

This is the First Edition of the ANSI/CAN/UL 3100 Standard for Automated Mobile Platforms (AMPs).

ULSE is accredited by the American National Standards Institute (ANSI) and 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 3100 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.

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.

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This list represents the TC 3100 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 battery-operated mobile platforms with or without a payload, as specified in 1.2. These devices are intended to be used indoors only or as outdoor use devices in a commercial or industrial environment. The device is battery powered using either lead acid batteries or lithium based batteries that, if rechargeable, are charged through a conductive system while either on board or off board the device.

1.2 Mobile platforms that are covered by this Standard are intended for lifting, carrying, product picking, towing, and the like. These actions may be provided by a gripping attachment, suction attachment, scope attachment, and the like, to lift or carry the load.

1.3 Portions of a system, such as the charger, that are located off board the AMP, are intended to be installed in accordance with the National Electrical Code (NEC), NFPA 70 and the Canadian Electrical Code (CE Code), CSA C22.1.

1.4 This Standard does not include requirements for industrial robots, which are covered under the Standard for Robots and Robotic Equipment, UL 1740 and Industrial Robots and Robot Systems, CSA Z434. A robotic manipulator that is in compliance with these standards may be used as the payload for the integrated system.

1.5 This Standard does not include requirements for Automatic Guided Vehicles or Automated Vehicles that function as commercial and industrial floor cleaning equipment. This equipment is covered under the standard for Particular Requirements for Rechargeable Battery-Operated Commercial Robotic Floor Treatment Machines with Traction Drives, CSA C22.2 No. 336.

1.6 This Standard does not cover battery powered industrial trucks that are rated Type E, EE, ES, or EX, and marked as such, as defined in the Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations, NFPA 505. These truck types are covered under the Standard for Electric-Battery-Powered Industrial Trucks, UL 583 and the Guide for the Investigation of Electric-Battery-Powered Industrial Trucks, ULC/ORD-C583.

1.7 Automated mobile platforms are not provided with “forks” and are not intended to operate as “forklifts.” Any device with that capability is considered an industrial truck and is evaluated as indicated in 1.6.

1.8 This standard does not cover products intended to transport persons.

2 Components

2.1 A component of a product covered by this Standard shall:

a) Comply with the requirements for that component as specified in this Standard;

b) Be used in accordance with its rating(s) established for the intended conditions of use; and

c) Be used within its established use limitations or conditions of acceptability.

2.2 A component of a product covered by this Standard is not required to comply with a specific component requirement that:

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