

## STANDARD INFORMATION

**Standard:** ANSI/CAN/UL 3100

**Standard ID:** Automated Mobile Platforms (AMPs) [ANSI/CAN/UL 3100:2021 Ed.1+R:23May2024]

**Previous Standard ID:** Automated Mobile Platforms (AMPs) [ANSI/CAN/UL 3100:2021 Ed.1+R:31Oct2023]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **May 23, 2026**

## IMPACT, OVERVIEW, AND ACTION REQUIRED

**Impact Statement:** Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

**This standard contains Functional Safety Requirements.**

### Overview of Changes:

- Revision of on-board charger and charging station requirements
- Revision of requirements regarding motors and motor overload
- Revision of battery requirements

Specific details of new/revise requirements are found in table below

***Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.***



## STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined-out</del> below.</i>
5	Info	<b>Glossary</b> <i><b>New clause added;</b></i>
5.3	Info	CHARGING UNIT – An accessory for the AMP, which is used for charging the AMP's battery.
	Info	<b>CONSTRUCTION</b>
6	Info	<b>General</b>
6.2		AMPs covered by this Standard shall be provided with a means of <del>conductive</del> connection to the external charging device, <u>with the exception of applications where batteries are intended to be removed for charging</u> . While connected to the charger, the AMP shall not be capable of being energized in a manner that would allow movement of the AMP that would strain connections to the charger or cause the connection to break under load, unless evaluated for those conditions. Energizing systems for other than operation, such as communications, is allowed during charging.
7	Info	<b>Battery and Battery Management Systems</b> <i><b>New clause added;</b></i>
7.4		The terminals of a battery shall be protected or located so they are unlikely to be inadvertently short-circuited during installation, replacement, or while in service
8	Info	<b>Lithium Based Batteries</b>
8.1		Lithium based battery packs shall be provided with an appropriate Battery Management System (BMS) and shall be designed to withstand anticipated abuse conditions for the AMP involved without resulting in a risk of fire, shock, injury or explosion. A lithium-based battery pack used in AMPs covered by this standard shall be in accordance with one of the following:  a) UL/ULC 2580; b) UL/ULC 2271; c) UL 62133-2 and CSA C22.2 No. 62133-2; or d) <u>IEC 62619</u>



CLAUSE	VERDICT	COMMENT
11	Info	<b>Chargers</b>
		For charging batteries, whether the battery is located on board the AMP or the battery is intended to be removed from the AMP, <del>the charger shall be located off board the AMP and</del> <u>or charging unit</u> shall comply with one of the following:
11.1		a) UL 1310 and CSA C22.2 No. 223. b) UL 1012 and CSA C22.2 No. 107.1. c) UL 60950-1 and CSA C22.2 No. 60950-1. d) UL 62368-1 and CSA C22.2 No. 62368-1. e) UL 2202 and CSA C22.2 No. 107.1. f) UL 1564 and CSA C22.2 No. 107.2. g) UL 1236 and CSA C22.2 No. 107.2. h) UL 60335-1 and CSA C22.2 No. 60335-2-29.
		<b><i>New clause added;</i></b>
11.2		f motion during charging would present a hazard, as determined by risk assessment per Section 21, AMP motion shall be prevented.
		<b><i>New clause added;</i></b>
11.3		When charging via a charging unit, the AMP and associated charging unit shall be designed such that the reachable charging contacts are only activated when the AMP is connected to the charging unit.
13	Info	<b>Motors</b>
		The overload protection required by 13.2 shall consist of one of the following:
13.3		a) Impedance protection complying with the requirements in UL 1004-2 and UL 1004-1 and CSA C22.2 No. 100; or b) Thermal protection complying with the applicable requirements in UL 1004-3 and UL 1004-1 and CSA C22.2 No. 100; <u>c) Electronically protected motors shall comply with the applicable requirements in UL 1004-7, UL 1004-1, CSA C22.2 No. 100 and CSA C22.2 No. 0.8; or</u> d) Other protection, such as overload relays and the like, that tests show is equivalent to the protection mentioned in (a), (b) or (c).
32	Info	<b>Battery Compartments/Enclosures</b>
		Support and protection shall be provided for the battery or battery pack by means of a compartment that is an integral part of the AMP or a separate enclosure, such as a tray and cover.
32.1		Exception: In cases where the battery or battery pack provides its own protection, a compartment or separate enclosure is not required.



CLAUSE	VERDICT	COMMENT
37	Info	<b>Connections (Battery to AMP, Battery to Charger, AMP to Charger)</b> <i>New clause added;</i>
37.6		The terminals of a battery shall be protected or located so they are unlikely to be inadvertently short-circuited during installation, replacement, or while in service.