

**STANDARD INFORMATION****Standard:** ANSI/CAN/UL 3100**Standard ID:** Automated Mobile Platforms (AMPs) [ANSI/CAN/UL 3100:2021 Ed.1+R:15Sep2025]**Previous Standard ID:** Automated Mobile Platforms (AMPs) [ANSI/CAN/UL 3100:2021 Ed.1+R:23May2024]**EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS****Effective Date:** **September 15, 2027****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 Reports not updated to this version by the effective date above will be withdrawn.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:**

- Modifications to Risk Assessment
- Modifications to environmental considerations

Specific details of new/revised 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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>		
21	Info	<b>Risk Assessment</b>  Note: Section 21 have been completely re-written. New clauses are shown below.
21.1		A risk assessment of the AMP shall be performed. Risks shall be identified for fire, shock, and injury associated with the intended use and reasonably foreseeable misuse, including charging and discharging, of the AMP.
		Risks associated with fire, shock, and injury due to component faults shall be evaluated according to 21.3 and Section 53.
21.1A		<ul style="list-style-type: none"><li>a) Identify the conditions of use associated with charging, discharging and general use of the AMP electrical system.</li><li>b) The conditions of use shall evaluate intended use and reasonably foreseeable misuse.</li><li>c) Identify the hazards associated with the conditions of use identified in (a) under intended use conditions and single fault conditions within the electrical system of the AMP.</li><li>d) Subsequent faults due to the single fault condition shall be included.</li><li>e) Identify the protective measures or other protective means that are provided or that shall be implemented to reduce the risks identified in (c).</li></ul>
21.1B		In accordance with ISO 12100 and ISO 20607, information shall be provided with the AMP to enable integration and use. This information shall include the results of the risk assessment and the following: <ul style="list-style-type: none"><li>a) Specifications for preparing the intended environment for use of the AMP; and</li><li>b) Guidance about training and procedures for the safe use of the AMP as integrated.</li></ul>
21.1C		For safety functions, the information shall be in accordance with ISO 13849, including the following: <ul style="list-style-type: none"><li>a) The triggering event(s) and intended reactions shall be specified; and</li><li>b) Parameterization, if provided,<ul style="list-style-type: none"><li>1) Shall be described; and</li><li>2) Guidance of how to use shall be provided.</li></ul></li></ul>
21.2		The risk assessment process in 21.1 may require more than one iteration to address the identified risks.
21.4		Once the risk assessment is complete, the risk reduction determined from the risk assessment shall be implemented in the AMP, including any safety functions and application of electrical protection.



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21.5		<p>Risk reduction that requires functional safety shall be designed and implemented in accordance with Functional Safety, Section 22.</p>
21A		<p>Note: As an example, safety function could be provided to reduce the risks associated with overheating or risks of traveling at speeds too high for stopping, stability or turning.</p> <p><b><i>New section added;</i></b></p>
21A.1		<p><b>Verification and Validation</b></p> <p>Verification and validation of the system risk reduction measures shall be performed.</p>
21A.2		<p>Note: See IEC 61508-1-7, ISO 13849-1, ISO 13849-2, or IEC 62061 for guidance on validation of functional safety.</p> <p>The risk assessment shall be reviewed to determine if all reasonably foreseeable risks have been identified and reduced to an acceptable level.</p>
33	Info	<p><b>Environmental Considerations</b></p> <p><del>All enclosures shall be rated for one of the enclosure types in UL 50E and CSA C22.2 No. 94.2. As a minimum, the enclosure shall be rated Type 3R for outdoor use AMPs. The enclosure rating shall be suitable for the intended use of the AMP.</del></p>
33.1		<p><u>All enclosures and externally mounted devices and components shall be Type rated. The Type or IP rating specified by the manufacturer shall comply with the specific requirements for that Type rating or IP rating as specified in the respective standards.</u></p> <p><b><i>New clause added;</i></b></p>
33.1A		<p>An AMP intended to be used outdoors shall be evaluated to determine the effects of anticipated environmental conditions to which they will be exposed.</p>