

## STANDARD INFORMATION

**If your product is certified to UL 508 and is covered under UL 60947-4-1 then it needs to be recertified to UL 60947-4-1. See clause 1.11 below.**

**Standard:** UL 508

**Standard ID:** Industrial Control Equipment [UL 508:2018 Ed.18+R:08Jul2021]

**Previous Standard ID:** Industrial Control Equipment [UL 508:2018 Ed.18]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **July 8, 2023**

## 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 Reports not updated to this version by the effective date above will be withdrawn.

### Overview of Changes:

- Update to lithium battery requirements
- Addition of LED driver rating
- Revision of scope to reflect effective UL 60947 standards
- Ground current requirement for flush-device box switches controlling lighting loads

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.***



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CLAUSE	VERDICT	COMMENT
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined-out</del> below.</i>
1	Info	<b>Scope</b>  <i><b>New clause added;</b></i>
1.11		Magnetic motor controllers, manual motor controllers, combination motor controllers, and overload relays are covered by the Standard for Safety for Low-Voltage Switchgear and Controlgear – Part 4-1: Contactors and Motor-Starters – Electromechanical Contactors and Motor-Starters, UL 60947-4-1.  <i><b>New section added;</b></i>
31		<b>Lithium Cells and Batteries</b>  This section applies to rechargeable lithium (typically lithium ion) and non-rechargeable lithium (typically lithium metal) batteries supplying power to any primary or secondary circuit. A circuit supplied by a lithium cell or battery shall comply with the primary circuit requirements in this standard or with the requirements for Secondary Circuits, Section 32. See standard for details.
42	Info	<i><b>New section added;</b></i>
42.4		<b>Switches intended for mounting in a flush-device box and suitable for lighting control</b>
42.4.1		An industrial switch intended for mounting in a flush-device box shall be so constructed that a metallic flush cover plate will be bonded to ground when installed in the intended manner.
42.4.2		Circuitry shall be arranged such that an equipment-grounding/bonding connection or conductor does not carry current.  Exception: A current not exceeding 0.5 mA conducted through an equipment-grounding conductor or connection, when measured in accordance with Section 66A, is not prohibited if the leakage current is limited by any two independent means listed below in (a) to (d) and the device is marked in accordance with 70.40. Each independent means shall be capable of limiting the available leakage current to not more than 0.5 mA:  a) Metal film, carbon film, wire wound, and metal glazed resistors;



CLAUSE	VERDICT	COMMENT
		<p>b) Metallized polyester film capacitors used in isolated secondary circuits according to the requirements of Section 33;</p> <p>c) Fixed capacitors of Class Y, or two fixed capacitors of Class X in series in accordance with UL 60384-14 used in circuits other than isolated secondary circuits according to the requirements of Section 33; and</p> <p>d) Other components, if investigated and found acceptable for the application.</p>
42.4.3		<p>An industrial switch terminal that is intended to accommodate an installation using either grounded (neutral) conductor or grounding conductor shall also comply with the Terminal Assembly Test described in Section 68A and be marked in accordance with 70.40.</p> <p>Exception: An industrial switch that is provided with both individual grounded conductor (neutral) and grounding conductor terminals need not be subject to testing nor so marked, if the grounding terminal carries no current under normal operation.</p>
66A		<p><b><i>New section added;</i></b></p> <p><b>Switches Intended for Mounting in a Flush-Device Box and Suitable for Lighting Control</b></p> <p>With respect to 42.4.2, the leakage current conducted through an equipment-grounding or the equipment-bonding conductor or connection of an industrial switch shall be tested in accordance with 66A.2. See standard for details.</p>
68	Info	<p><b>Electronic Fluorescent Ballasts, CFLs, and LED Drivers</b></p>
68.1		<p>A lighting control <u>for use with electronic ballasts, self-ballasted LED and Compact Fluorescent Lamps (CFL), LED drivers and similar loads with capacitive load characteristics</u> having a rated current (steady state current) and rated voltage in accordance with Table 68.1, Table 68.2, <u>or Table 68.3</u> shall be tested as described in 68.2 – 68.4 to determine if the lighting control is compatible with an electronic fluorescent ballast, CFL, or LED driver that operates within the parameters defined by Table 68.1, Table 68.2, <u>or Table 68.3</u> and ANSI C82.11.</p>
68A		<p><b><i>New section added;</i></b></p> <p><b>Terminal Assembly Test</b></p> <p>An industrial switch provided with a terminal that may be connected to either a grounded (neutral) conductor or a grounding conductor as in 42.4.3, when tested as described in this section, shall not exhibit: See standard for details.</p>
70	Info	<p><b>MARKING</b></p>
70.11		<p>A device not tested in accordance to Section 68 which is intended to control a specific model electronic ballast, <u>self-ballasted LEDs or CFLs</u>, LED driver, or <u>other similar loads with capacitive load characteristics</u> shall be marked with the manufacturer's name and model number of the electronic ballast(s), <u>self-ballasted</u></p>



CLAUSE	VERDICT	COMMENT
		<u>LEDs or CFLs, LED driver(s), or other similar loads with capacitive load characteristics</u> with which the device is intended to be used. The marking shall be on the device or provided with the device on the packaging or stuffer sheet.
		<b><i>New clause added;</i></b>
70.40		With reference to 42.4.2 and 42.4.3, an industrial switch shall be marked with the following or equivalent statement: "For use in replacement or retrofit applications only where the grounded (neutral) conductor is not provided in the outlet box." When an equivalent wording is used it shall contain "replacement or retrofit applications only".
72	Info	<b>Cautionary Markings</b>
		<b><i>New clause added;</i></b>
72.14		Equipment provided with a replaceable lithium battery shall have a caution marking close to the battery that consists of the word "WARNING" and the following or equivalent, "Risk of explosion if battery is replaced by an incorrect type. Replace battery only with the same type of battery. Dispose of used batteries according to the instructions."
78-109	Info	<b><i>Clauses deleted</i></b>
163-186	Info	<b><i>Clauses deleted</i></b>