

## STANDARD INFORMATION

**Standard Number:** UL 563

**Standard Name:** Ice Makers

**Standard Edition and Issue Date:** 8<sup>th</sup> Edition Dated July 31, 2009

**Date of Revision:** August 30, 2018

**Date of Previous Revision of Standard:** January 12, 2017

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **August 30, 2020**

## IMPACT, OVERVIEW, AND ACTION REQUIRED

**Impact Statement:** A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

**Overview of Changes:** Revision of the control requirements, Motor Protection, Switches and Controllers, and Transformer Protection. Specific details of new/revised requirements are found in table below.

**If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).**

### Client Action:

**Information** – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

***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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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>
19A	Info	<b>Motor Protection</b>
19A.2	Info	<b>Protection of single-phase nonhermetic motors</b>
		All single-phase motors other than a hermetic refrigerant motor compressor shall be protected by one or more of the following:
		a) A separate device responsive to motor current and rated or set to trip at not more than the percentage of the motor nameplate full-load current rating specified in Table 19A.1. If the percentage protection specified in Column A of Table 19A.1 does not correspond to the percentage value of an overload relay of a standard size, the device of the next higher size may be used. However, the overload device of the next higher size shall protect against currents exceeding the percentage values specified in Column B of Table 19A.1.
		b) A separate overload device which combines the functions of overload and overcurrent protection and is responsive to motor current rated or set at values not greater than the percentages of the motor nameplate full-load current rating as specified Table 19A.1. Such a device shall be capable of fully protecting the circuit and motor both under overload and short circuit conditions.
19A.2.1		<del>c) A protective device integral with the motor that complies with the Standard for Overheating Protection for Motors, UL 2111. If such a device relies on software as part of the protection, the software shall comply with the Standard for Software in Programmable Components, UL 1998 or Annex H of the Standard for Automatic Electrical Controls – Part 1: General Requirements, UL 60730-1.</del>
		d) A protective device integral with the motor that complies with the Standard for Thermally Protected Motors, UL 1004-3. A motor intended to move air only, by means of an air-moving fan that is integrally attached, keyed, or otherwise fixed to the motor, is required to have locked-rotor protection only.
		<del>e) Impedance protection complying with the Standard for Overheating Protection for Motors, UL 2111 or Impedance Protected Motors, UL 1004-2.</del>
		f) Protective electronic circuits integral to the motor that comply with the Standard for Electronically Protected Motors, UL 1004-7.
		g) Protective electronic circuits that comply with Clause 19A.2.2.
		h) Other protection that is shown by test to be equivalent to the protection specified in (c) and (d).



CLAUSE	VERDICT	COMMENT
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19A.2.2		<p>Except as indicated in clause 19A.2.1 (c) and (f), electronically protected motor circuits shall comply with one of the following:</p> <p>a) <del>The Standard for Tests for Safety-Related Controls Employing Solid State Devices, UL 991. When the protective electronic circuit is relying upon software as a protective component, it shall comply with the requirements in the Standard for Tests for Software in Programmable Components, UL 1998. If software is relied upon to perform a safety function, it shall be considered software Class 1; or</del></p> <p>b) The Standard for Automatic Electrical Controls – Part 1: General Requirements, UL 60730-1 as well as the Standard for Automatic Electrical Controls – Part 2-9: Particular Requirements for Temperature Sensing Controls, UL 60730-2-9. If software is relied upon to perform a safety function, it shall be considered software Class B; or</p> <p>c) The Standard for Power Conversion Equipment, UL 508C for a power conversion controller incorporating overcurrent protection with the percentage protection set as indicated in Table 19A.1.</p>
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Exception: Compliance with the above standards is not required for an electronically protected motor circuit if there is no risk of fire, electric shock, or casualty hazard during abnormal testing with the motor electronic circuit rendered ineffective.

**Acceptability criteria**

Table 19A.2	<b>Application of UL 60730-1, and Parts 2</b>	
	Radio-frequency electromagnetic field immunity: Immunity to conducted disturbances – When applicable test level 3 shall be used Immunity to radiated electromagnetic fields – field strength of $3 \text{ V/m}$ <u><math>10 \text{ V/m}</math></u> shall be used	
	<u>Voltage dips, variations and interruptions. See Clause SC12.1(f) in Supplement SC of UL 471.</u>	
	<u>Harmonics and Interharmonics: Mains Signaling. See SC12.1(g) in Supplement SC of UL 471.</u>	

20	Info	<b>Switches and Controllers</b>
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20.19		<p>Operating controls shall comply with one of the following standards:</p> <p>a) <del>Standard for Temperature Indicating and Regulating Equipment, UL 873;</del></p> <p>b) Standard for Solid State Controls for Appliances, UL 244A;</p> <p>c) Standard for Automatic Electrical Controls – Part 1: General Requirements, UL 60730-1, and the specific applicable Part 2 Standard;</p> <p>d) Standard for Industrial Control Equipment, UL 508;</p> <p>e) Standard for Power Conversion Equipment, UL 508C.</p>
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CLAUSE	VERDICT	COMMENT
20.20		<p>Unless specified elsewhere in this standard, protective (safety) controls, such as temperature and pressure limiting controls, shall comply with one of the following standards:</p> <p>a) <del>Standard for Temperature Indicating and Regulating Equipment, UL 873. If the control is electronic in nature, the requirements of the Standard for Tests for Safety-Related Controls Employing Solid-State Devices, UL 991 shall be applied;</del>            b) Standard for Limit Controls, UL 353;            c) Standard for Automatic Electrical Controls – Part 1: General Requirements, UL 60730-1, and the specific applicable Part 2 Standard.</p> <p>Calibration requirements are to be applied. A control evaluated to UL 60730-1 shall have Type 2 Action.</p>
20.22		<p>Protective (Safety) controls and switches relying on software to provide the protective function shall be investigated to the requirements of:</p> <p>a) Software Class B in Annex H of the Standard for Automatic Electrical Controls – Part 1: General Requirements, UL 60730-1; or            b) Supplement SA in the Standard for Limit Controls, UL 353.            c) <del>Software Class 1 in the Standard for Software in Programmable Components, UL 1998, if the overall control is evaluated to UL 873.</del></p>
21	Info	<b>Transformer Protection</b>
21.1	Info	<b>High-voltage transformers</b>
21.1.2		<b>Thermal protection</b>
21.1.2.2		<p>A thermal cutoff shall comply with the Standard for Thermal-Links – Requirements and Application Guide, UL 60691. A manual or automatic resetting thermal protector shall have an endurance rating of not less than 6000 cycles and shall comply with the <del>Standard for Temperature Indicating and Regulating Equipment, UL 873, pertaining to the calibration of temperature limiting controls</del> requirements for a type-2 action thermal cut-out, as specified in the Standard for Automatic Electrical Controls – Part 1: General Requirements, UL 60730-1 and the Standard for Automatic Electrical Controls – Part 2-9: Particular Requirements for Temperature Sensing Controls, UL 60730-2-9.</p>
<p><b>CUSTOMERS PLEASE NOTE:</b> This Table and column “Verdict” can be used in determining how your current or future production is or will be in compliance with new/ revised requirements.</p>		