

STANDARD INFORMATION

Standard Number: ANSI Z83.21 / UL 921 / CSA C22.2 No. 186
Standard Name: Commercial Dishwashers
Standard Edition and Issue Date: 7th Edition Dated March 23, 2016
Date of Revision: March 23, 2016 and September 20, 2017
Date of Previous Revision of Standard: 6th Edition Revised July 6, 2012

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **February 20, 2020**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revise 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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revise requirements.

Overview of Changes:

March 23, 2016:

- Addition of Supplement Section for Commercial Dishwashers Incorporating Self-Contained Condensing Systems

September 20, 2017:

- Added requirements for electronic protective controls relying on software, and electronic protective controls not relying on software

Specific details of new/revise 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 Required:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revise paragraphs noted in the attached or explain why these new/revise 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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



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CLAUSE	VERDICT	COMMENT
<i>Additions to existing requirements are underlined and deletions are shown lined out below.</i>		
The following changes reflect the March 23, 2016 Revision		
<i>New section added;</i>		
SUPPLEMENT SA		<p>COMMERCIAL DISHWASHERS SELF-CONTAINED CONDENSING SYSTEMS</p> <p>This new section includes new construction requirements, performance test requirements, and markings for Commercial Dishwashers Incorporating Self-Contained Condensing Systems (see standard for section details).</p>
SA1	Info	<p>These requirements cover commercial, freestanding dishwashers which incorporate a self-contained condensing system to capture heat and water vapors, thereby reducing the residual heat gain to the premises. These requirements add to the applicable requirements in the body of this Standard.</p> <p>These requirements do not apply to:</p> <p>a) Under-counter-type commercial dishwashing machines;</p>
SA1.2	Info	<p>b) Low-temperature [not greater than] 140°F (60°C) commercial chemical-type dishwashers; and</p> <p>c) Gas-fired dishwashers.</p>
SA4	Info	<p>UL has completed its file review of standard UL 921 for commercial dishwashers, however, the testing phase of the review has been complicated by the lack of adequate testing facilities in the country. UL and the NAFEM commercial dishwasher stakeholders have agreed upon a solution to this complication.</p> <p>Ventless dishwashers that have been evaluated by Intertek to the UL 921 Supplement SA4 heat load calculation test requirements for commercial dishwashers provided with self-contained condensing systems, are authorized to include the sensible and latent heat load ratings on the dishwasher’s nameplate. This information allows the Authorities Having Jurisdiction (AHJ) to determine the need for ventilation of the product and if the establishment has sufficient HVAC capacity to maintain established room ambient conditions. Dishwashers that have not been evaluated by Intertek to the UL 921 Supplement SA4 heat load calculation test requirements are not authorized to include this information on the nameplate.</p>



CLAUSE	VERDICT	COMMENT
The following changes reflect the September 20, 2017 Revision		
4	Info	Construction Requirements Applicable To All Dishwashers
4.22	Info	Controls
		<i>New section added</i>
4.22.3A		Protective Controls and Safety Critical Functions
		An electronic control that manages a Safety Critical Function shall comply with the requirements of:
4.22.3A.1		a) The Evaluation of Electronic Circuits, Supplement SB; or b) The protective control requirements of CSA C22.2 No. 24, CSA C22.2 No. 156, or CAN/CSA-E60730; and c) UL 244A, UL 873, UL 60691, or UL 60730-1.
		Electronic controls that manage a Safety Critical Function shall also be evaluated for reliability in accordance with:
4.22.3A.2		a) The Evaluation of Electronic Circuits, Supplement SB; or b) CAN/CSA-E60730 or CSA C22.2 No. 0.8, and c) The protective controls requirements of UL 60730-1.
4.22.3A.3		Electronic controls that manage a Safety Critical Function not relying on software shall comply with the requirements specified in 4.22.3A.2 except for Clause SB7.2 of the Supplement SB, and Clause H.11.12 of CAN/CSA-E60730-1 and UL 60730-1. If software is relied upon to perform the Safety Critical Function, the electronic control shall comply with the requirements specified in 4.22.3A.2, including the software requirements in Clause SB7.2 of Supplement SB, or the software requirements in Clause H.11.12 of CAN/CSA-E60730-1 and UL 60730-1 shall be considered Software Class B as indicated in Table 14A.
4.22.3A.4		The door interlock, door lock, motor overload protection, temperature-limiting devices, combination temperature-regulating and - limiting devices, and any control relied upon for compliance with the Abnormal Operation testing of 7.15 are considered to manage a Safety Critical Function.
4.22.3A.5		The minimum test parameters for the evaluation of a protective control for use in a commercial dishwasher conforming to CAN/CSA-E60730-1 and UL 60730-1 are specified in Table 14A.
CUSTOMERS PLEASE NOTE: 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.		