

Summary of Substantive Changes between the 3rd edition, dated November 30, 2000, including the July 22, 2010 update, and the 4th edition, dated January 31, 2012, of UL 763, "Motor-Operated Commercial Food Preparing Machines"

Presented to the IAPMO Standards Review Committee on September 10, 2012

General: Currently listed products may be affected by the changes to this standard. The major changes are:

- Expanded the scope of the standard to include wand-type mixers (Sections 28, 33.2 and 39)
- Clarified requirements for the malfunction or breakdown of electronic controls (Section 26.7)
- Added requirements for a blender cover opening that is not located in the center of the cover and to provide for a lid without an opening for a blender jar (Sections 27.4 and 57.6)
- Added Class F & H motor insulation system temperature limits (Table 33.1)
- Revised the blender carrot load (Section 33.20.4)
- Revised the food loads for commercial juicer normal operation (Sections 33.23 and 33.24)
- Former Appendix A, the component reference list was removed and the referenced standards were relocated throughout the body of the standard

Section 6.2, Attachment plugs, receptacles, connectors, and terminals: Clarified the requirements of some of the components formerly listed in Appendix A; attachment plugs, receptacles, connectors and terminals.

Section 6.3, Capacitors and filters:

Section 6.3.1: Added new requirements for capacitors that are connected between the ungrounded and grounded conductors.

Section 6.3.2 and Section 6.3.6: Added the exception that capacitors complying with UL 810 or filters complying with UL 1283 are considered adequately protected.

Section 6.4, Controls:

Section 6.4.2, Operating controls: Added new requirements and Table 6.1, Operating control parameters, to define the minimum test parameters for operating controls evaluated in accordance with UL 60730.

Section 6.4.3, Protective controls: Added new requirements and Table 6.2, Protective control parameters to define the minimum test parameters for protective controls evaluated in accordance with UL 60730.



Section 6.5, Cords, cables, and internal wiring: Added a requirement for internal wiring composed of insulated conductors and clarified the requirements of some of the components formerly listed in Appendix A; power supply cord, and flexible cords and cables.

Section 6.6, Cord reels: Added the following new requirement for cord reels; Section 6.6.1: <u>A cord reel shall comply with the special-use cord reel requirements of the Standard for Cord Reels, UL 355.</u>

Section 6.7, Field wiring boxes and raceways: Clarified the acceptable standards for which the electrical boxes and the associated bushings and fittings, and raceways are considered to comply with the requirements in this end product standard.

Section 6.8, Heating elements: added new requirements for heating elements.

Section 6.9, Lampholders, indicating lamps and lighting ballasts: Added new requirements for LED light sources and lighting ballasts.

Section 6.10, Motors: Added exceptions for the evaluation of a motor to UL 1004-1.

Section 6.11 Motor overload protection: added provisions for electronic motor protection.

Section 6.12, Overcurrent protection: Added requirements for overcurrent protection and clarified the requirements of some of the components formerly listed in Appendix A; fuseholders, and supplementary protectors.

Section 6.13, Polymeric materials and enclosures: Added requirements for polymeric materials and enclosures.

Section 6.14, Power supplies: Added the requirements for power supplies.

Section 6.15, Printed wiring boards: Added requirements for printed wiring boards and clarified the requirement of the component formerly listed in Appendix A; printed wiring boards.

Section 6.16, Semiconductors, relays and small electrical and electronic components: Added the requirements for semiconductors, relays and small electrical components.

Section 6.17, Solenoids and electrically operated valves: Added requirements for solenoids and electrically operated valves.

Section 6.18, Supplemental insulation, insulating bushings and assembly aids: Added requirements for wire positioning devices and insulated bushings and clarified requirement of the components formerly listed in Appendix A; Insulating tape, sleeving, and tubing.

Section 6.19, Switches, timers and interlocks: Added new requirements for switches and clarified requirements of components formerly listed in Appendix A; switches and timing switches and controls.



Section 6.20, Transformers: Added an exception for transformers located in a low voltage circuit and clarified the requirement of the components formerly listed in Appendix A; general-purpose transformers, and Class 2 and Class 3 transformers.

Section 9, Protection Against Corrosion:

Section 9.3: Added a new requirement for protection against galvanic corrosion.

Figure 9.1, Table of electrochemical potentials: Added a new table for galvanic compatibility.

Section 10, Accessibility of Live Parts:

Section 10.5: Added requirements for enclosure openings.

Section 16, Spacings:

Section 16.10: Added spacing requirements for expansion type protected capacitors.

Section 26, Switches, Controls, and Interlocks:

Section 26.7: Clarified requirements for the malfunction or breakdown of an electronic component resulting in increased risk of injury to persons.

Section 27, Liquid Mixing and Blending Machine:

Section 27.4: Added two exceptions

- Exception No. 1: to provide for a cover opening that is not in the center of the cover.
- Exception No. 2: to provide for a lid without an opening.

Section 28, Wand-type Mixers: expanded the scope of the standard to include wand-type mixers.

Table 33.1, Maximum temperature rises: Added Class F and H motor insulation system temperature limits.

Section 33.20, Blending mixers

Section 33.20.4: Revised the blender carrot load as follows;

The carrot pieces are to be soaked in water for 24 hours and drained before being weighed and added to the mixture.

Section 33.22, Wand-type mixers: Added the performance requirements for wand-type mixers.

Section 33.23, Centrifugal juicers: Added the performance requirements for Centrifugal juicers.

Section 33.24, Reamer (citrus) juicers: Added the performance requirements for Reamer juicers.

39 Wand-type Mixer Moisture Resistance Test: Added testing for want-type mixers.

40 Blender Cover Opening Splash Test: Added a new test for blender cover openings.

57.4 Cautionary marking:



57.4.6: Added new marking requirements for products in accordance with the exception to section 26.7.

57.6 Specific machine markings:

57.6.1.2: Added new marking requirements for blending jars.

57.6.1.3: Added new marking requirements for open top blenders