UL 1206

STANDARD FOR SAFETY

Electric Commercial Clothes-Washing Equipment

UL Standard for Safety for Electric Commercial Clothes-Washing Equipment, UL 1206

Fourth Edition, Dated April 22, 2003

SUMMARY OF TOPICS

This revision of ANSI/UL 1206 dated June 14, 2021 was issued to add an alternative reference to the Standard for Adjustable Speed Electric Power Drive Systems, UL 61800-5-1; 20A.2.4

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated April 16, 2021.

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APRIL 22, 2003
(Title Page Reprinted: June 14, 2021)

ANSI/UL 1206-2021

UL 1206

Standard for Electric Commercial Clothes-Washing Equipment

Prior to the First edition, the requirements for the products covered by this standard were included in the Standard for Electric Home-Laundry Equipment, UL 560.

The First edition was titled Standard for Electric Coin-Operated and Commercial Clothes-Washing Equipment.

First Edition – February, 1974
Second Edition – August, 1979
Third Edition – January, 1994

Fourth Edition

April 22, 2003

This ANSI/UL Standard for Safety consists of the Fourth Edition including revisions through June 14, 2021.

The most recent designation of ANSI/UL 1206 as an American National Standard (ANSI) occurred on June 14, 2021. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

The Department of Defense (DoD) has adopted UL 1206 on June 14, 1989. The publication of revised pages or a new edition of this Standard will not invalidate the DoD adoption.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 Scope

1.1 These requirements cover electric commercial, industrial, and institutional clothes-washing equipment intended for use in accordance with the National Electrical Code. Equipment covered by this Standard is not intended for use by the general public, but only by trained or supervised personnel.

1.2 These requirements do not cover clothes dryers, coin-operated clothes washing appliances, flatirons, ironing machines, water heaters, water softeners, dry-cleaning machines, garment-finishing machines, appliances employing wringer mechanisms, or other equipment covered by requirements separate from this standard.

1.3 Appliances and field-attached accessories are investigated under these requirements and under such additional requirements as are applicable to the appliance under consideration.

2 References

2.1 In the following text, a requirement that applies only to a specific class of equipment is so identified by a specific reference in that requirement to the class or classes of appliances involved. Absence of such specific reference or use of the term appliance indicates that the requirement applies to all classes of appliances unless the context indicates otherwise.

2.2 In the following text, a specific requirement pertaining to a particular appliance takes precedence over a corresponding requirement specified as being applicable to all appliances.

2.3 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

3 Glossary

3.1 APPLIANCE, AUTOMATIC – An appliance is considered to be automatically controlled under one or more of the following conditions:

a) If repeated starting of the appliance, beyond one complete predetermined cycle of operation, to the point where some form of limit switch opens the circuit is independent of any manual control.

b) If, during any single predetermined cycle of operation, the motor is caused to stop and restart one or more times.

c) If, upon energizing the appliance, the initial starting of the motor may be intentionally delayed beyond normal, conventional starting.

d) If, during any single predetermined cycle of operation, automatic changing of the mechanical load may reduce the motor speed sufficiently to reestablish starting-winding connections to the supply circuit.

3.2 APPLIANCE, RECESSED – An appliance intended to be supported by the floor, and to sit immediately adjacent to a wall in the rear or to sit immediately adjacent to a wall, a cabinet, or another appliance on each side. If the design permits, a counter top may cover the appliance and adjacent cabinets and appliances. A recessed appliance is not intended for permanent attachment to the building structure or to adjacent cabinets or appliances.

3.3 APPLIANCE, SEMI-AUTOMATIC – An appliance employing two or more motors is considered to be semiautomatically controlled if:

a) One or more motors are controlled in accordance with any of the conditions specified in 3.1, and

b) At least one motor is not controlled in accordance with any of the conditions specified in 3.1.

3.4 APPLIANCE, WALL-INSERT – An appliance intended to be mounted permanently in a wall or other vertical surface of a building or cabinet.

3.5 ENCLOSURE – The part of the product that:

a) Reduces the accessibility of all or any parts of the product that may otherwise result in a risk of electric shock or injury to persons; or

b) Retards propagation of flame initiated by electrical disturbances that may occur within the product.

3.6 PART, DECORATIVE – A part used for ornamental purposes only and not as an enclosure or as insulation of electrically live parts.

3.7 PART, FUNCTIONAL – A part that is necessary for the proper functioning of the product, and that is used in such a way that deterioration or breakage of the part would result in a risk of fire, electric shock, or injury to persons.

3.8 OPERATING CONTROL – Control, the operation of which starts or regulates the appliance during normal operation.

3.9 PROTECTIVE CONTROL – Control, the operation of which is intended to prevent the risk of electric shock, fire, or injury to persons during normal or abnormal operation of the appliance.

3.10 SAFETY CRITICAL FUNCTION – Control, protection and monitoring functions which are being relied upon to reduce the risk of fire, electric shock or injury hazards.

3.11 TEMPERATURE-LIMITING DEVICE – A device that functions:

a) only under conditions that produce abnormal temperatures; and

b) that is not intended to function during normal operation of the appliance.

3.12 TEMPERATURE-REGULATING DEVICE – A device that:

a) regulates temperature; and

b) functions during normal operation of the appliance.

3.13 TEMPERATURE-REGULATING AND -LIMITING (Combination) DEVICE – A device that functions to:

a) regulates the temperature under normal conditions of use; and

b) limit abnormal temperatures that might result from conditions of abnormal operation of the appliance.

4 Components

4.1 Except as indicated in 4.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this standard.

4.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or

b) Is superseded by a requirement in this standard.

4.3 A component shall be used in accordance with its rating established for the intended conditions of use.

4.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

5 Units of Measurement

5.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

6 Field-Attached Accessories

6.1 The requirements in 6.2 – 6.9 apply to accessories intended for installation on or connection to an appliance for the purpose of modifying or supplementing the functions of the appliance or accessory.

6.2 An appliance that has provision for the use of an accessory to be attached in the field shall be constructed so that the use of the accessory will not introduce a risk of fire, electric shock, or injury to persons.

6.3 The installation of an accessory by the user shall be restricted to an arrangement that can be accomplished by means of receptacles and plug-in connectors of other than the general-use or specific-purpose type.

6.4 The installation of an accessory by a qualified electrician or serviceman is acceptable if connections are made to existing terminals by use of wire connectors.

6.5 Accessories intended to be field wired shall be provided with a means for connection to the power-supply circuit of the appliance as specified in 11.1.1.

6.6 An appliance that has provision for field connection of a dispenser or the like shall include a circuit that provides a programmed signal to the dispenser.

6.7 Any installation that requires field rearrangement of components or wiring, cutting or splicing of wiring, or soldering of connections is not acceptable.

6.8 As part of the investigation, an accessory shall be tested and trial-installed to determine that installation is feasible, that the instructions are detailed and correct, and that the use of the accessory will not introduce a risk of fire, electric shock, or injury to persons.

6.9 An appliance that has provision for the field connection of an accessory and a field-attached accessory shall be marked as specified in 50.1 and 50.21 – 50.23, as applicable.

CONSTRUCTION

7 Frame and Enclosure

7.1 An appliance shall be formed and assembled so that it will have the strength and rigidity necessary to resist the abuses to which it may be subjected, without increasing the risk of fire, electric shock, or injury to persons due to total or partial collapse with resulting reduction of spacings, loosening or displacement of parts, or other serious defects.

7.2 An appliance shall be provided with an enclosure of material found by investigation to be acceptable for the application that shall house all parts that may present a risk of fire, electric shock, or injury to persons under any condition of use.

7.3 Among the factors that shall be taken into consideration when judging the acceptability of an enclosure material are its:

a) Mechanical strength,

b) Resistance to impact,

c) Moisture – absorptive properties,

d) Combustibility, and

e) Resistance to distortion at temperatures to which the material may be subjected under conditions of normal or abnormal use.

7.4 An enclosure constructed of polymeric material shall comply with the requirements in Polymeric Materials, Section 44.

7.5 For an unreinforced, flat surface, cast metal shall not be less than 1/8-in (3.2-mm) thick, malleable iron shall not be less than 3/32-in (2.4-mm) thick, and die-cast metal shall not be less than 5/64-in (2.0-mm) thick.

Exception: Metal of lesser thickness but not less than 3/32 in, 1/16 in (1.6 mm), and 3/64 in (1.2 mm), respectively, may be acceptable provided the surface under consideration is:

a) Curved, ribbed, or otherwise reinforced to provide mechanical strength equivalent to that required; or

b) Of a size or shape that provides mechanical strength equivalent to that required.

7.6 An enclosure of sheet metal shall be judged with respect to size, shape, thickness of metal, and acceptability for the application considering the intended use of the complete appliance.

7.7 For an enclosure of sheet metal, sheet steel shall have a minimum thickness of 0.026 in (0.66 mm), aluminum shall have a minimum thickness of 0.036 in (0.91 mm), and copper or brass shall have a minimum thickness of 0.033 in (0.84 mm).

Exception: This requirement does not apply to an area that is relatively small or a surface that is curved or otherwise reinforced.

7.8 At a point where the power-supply conductors enter the enclosure, sheet metal shall not be less than 0.032 in (0.81 mm) thick if uncoated steel, not less than 0.034 in (0.86 mm) if galvanized steel, not less than 0.044 in (1.12 mm) if aluminum, and not less than 0.043 in (1.09 mm) if copper or brass.

7.9 In an automatic free-standing or recessed appliance, provision shall be made to prevent molten metal, burning insulation, or the like from falling upon combustible materials, including the surface on which the appliance is supported.

Exception: This requirement does not apply to the supporting surface of an appliance that is:

a) Intended to be permanently bolted to an uncovered concrete floor,

b) Marked in accordance with 50.24, and

c) Provided with installation instructions that include a warning statement in accordance with 50.25.

7.10 The requirement in 7.9 will necessitate the use of a barrier of noncombustible material:

a) Under a motor unless:

1) The structural parts of the motor or the appliance provide the equivalent of such a barrier;

2) The protection provided with the motor is such that no burning insulation or molten material falls to the surface that supports the appliance when the motor is energized under each of the following fault conditions:

i) Open main winding,

ii) Open starting winding,

iii) Starting switch short-circuited, and

iv) Capacitor of permanent-split capacitor motor short circuited – the short circuit is to be applied before the motor is energized, and the rotor is to be locked; or

3) The motor is provided with a thermal motor protector – a protective device that is sensitive to temperature and current – that will prevent the temperature of the motor windings from exceeding 125°C (257°F) under the maximum load under which the motor will run without causing the protector to cycle and from exceeding 150°C (302°F) with the rotor of the motor locked.

b) Under wiring, unless it is neoprene-or thermoplastic-insulated.

7.11 The requirement in 7.9 will also necessitate that a switch, a relay, a solenoid, or the like be individually and completely enclosed.

Exception No. 1: The terminals of a switch, a relay, a solenoid, or the like are not required to be individually and completely enclosed.