

Subject 60335-2-67

September 1, 2017

SUMMARY OF TOPICS

The following topics for the Standard for Household and Similar Electrical Appliances – Safety – Part 2–67: Particular Requirements for floor treatment machines, for commercial use, UL 60335-2-67, are being recirculated:

1. Proposed First Edition of the Standard for Household and Similar Electrical Appliances – Safety – Part 2–67: Particular Requirements for floor treatment machines, for commercial use, UL 60335-2-67

COMMENTS DUE: October 16, 2017

For your convenience in review, proposed additions to the previously proposed requirements dated 2017-04-14 are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Proposed First Edition of the Standard for Household and Similar Electrical Appliances – Safety – Part 2–67: Particular Requirements for floor treatment machines, for commercial use, UL 60335-2-67

RATIONALE

Responses to comments have been posted within the 60335-2-67 Proposal Review Work Area dated 2017-04-14.

The cleaning machine industry (via trade association AACEM) requests a harmonized U.S. national adoption of the international product safety standard for floor machines. At present, UL has no standard that specifically addresses this scope of products.

PROPOSAL

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INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. It also covers abnormal situations that can be expected in practice and takes into account the way in which electromagnetic phenomena can affect the safe operation of appliances.

This standard takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

If an appliance within the scope of this standard also incorporates functions that are covered by another part 2 of IEC 60335, the relevant part 2 is applied to each function separately, as far as is reasonable. If applicable, the influence of one function on the other is taken into account.

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 standards.

An appliance that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

~~105DV D2 Modification of the second paragraph of the Part 2 Introduction:~~

~~Delete the last sentence.~~

2 Normative references

~~2.101.DV DE Modification to Clause 2 of the Part 2 to add the following normative references:~~

~~CSA C22.1, Canadian Electrical Code, Part I~~

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7 Marking and instructions

This clause of Part 1 is applicable except as follows.

7.1 Replacement of the 4th dashed item as follows:

- business name and address of the manufacturer and, if applicable, his authorized representative; any address shall be sufficient to ensure postal contact;

Addition:

Machines shall be marked in addition with the following:

- serial number, if any;
- designation of the machine and series or type, allowing the technical identification of the product. This may be achieved by a combination of letters and/or numbers;

NOTE 101 Designation of machine, series or type includes the model or type reference as required in Part 1.

- year of construction, i.e. the year in which the manufacturing process is completed.

NOTE 102 The year of construction can be part of the serial number.

Machines shall be marked with the mass of the most usual configuration in kg.

Machines intended to be used indoors and powered by internal combustion engines shall be marked with the symbol according to Figure 106. It is acceptable to show this symbol in monochrome colour.

7.1DV D2 Modification of Clause 7.1 of the Part 2 by adding the following dashed item to the list:

- if a manufacturer produces or assembles floor-finishing machines at more than one factory, each finished product shall have a distinctive marking, which may be in code, by means of which it can be identified as the product of a particular factory.**

7.1.101 MOTORIZED CLEANING HEADS shall be marked with

- RATED VOLTAGE OR RATED VOLTAGE RANGE in volts;
- RATED POWER INPUT in watts;
- name, trade mark or identification mark of the manufacturer or responsible vendor;
- model or type reference;
- mass of the most usual configuration in kg.

MOTORIZED CLEANING HEADS for water-suction cleaning appliances, except those of CLASS III CONSTRUCTION having a WORKING VOLTAGE up to 24 V shall be marked with symbol IEC 60417-5935 (2002-10).

NOTE This symbol is an information sign and, except for the colours, the rules of ISO 3864-1 apply.

Compliance is checked by inspection.

7.1.101DV D2 Modify the text in Clause 7.1 of the Part 2: Replace the second dashed item with the following:

- RATED POWER INPUT in watts or RATED CURRENT in amps:

7.1.102 Socket-outlets for accessories shall be marked with the maximum load in watts or amps on the socket-outlet or nearby.

Compliance is checked by inspection.

7.1.102.DV D2 Modify the text in Clause 7.1 of the Part 2: Replace the first sentence with the following:

Socket-outlets for accessories shall be marked with the maximum load in watts or current in amps on the socket-outlet or nearby.

7.1.103.DV D2 Add Clause 7.1.103.DV to Clause 7.1 of the Part 2:

BATTERIES and BATTERY ASSEMBLIES shall be legibly and permanently marked with the following:

- a) The manufacturer's name, trade name, or trademark. The manufacturer's identification may be in a traceable code when the BATTERY is identified by the brand or trademark owned by a private labeler.
- b) Catalog designation or equivalent identification.
- c) BATTERY nominal voltage, rated ampere-hour capacity and the hour rating at which this capacity is determined.
- d) Additionally, BATTERY ASSEMBLIES shall be marked with identification letters – "Type E," "Type EE," or "Type EO." Individual batteries do not require type marking.

7.12.104.DV.1 The instructions for earthed Class I, cord-connected products shall include the text or the equivalent in (a) plus the information in (b) or (c), as appropriate. The instructions for Class II mains supplied machines shall include the text or the equivalent in (d)

a) For all Class I appliances:

This floor-finishing machine shall be grounded while in use to protect the operator from electric shock. The machine is provided with a three-contact grounding-type attachment plug to fit the proper grounding type receptacle.

b) For a Class I an earthed, cord-connected appliance rated less than 15 A and intended for use on a nominal 120-V supply circuit, the instructions shall include the statements in either item 1 or 2:

1) This appliance is for use on a nominal 120-V circuit, and has a grounded plug that looks like the plug illustrated in sketch A in Figure 107.DV. A temporary adaptor that looks like the adaptor illustrated in sketches B and C may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (sketch A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet. Whenever the adaptor is used, it must be held in place by a metal screw.

Exception: In Canada, the use of a temporary adaptor is not permitted by the Canadian Electrical Code, C22.1.

2) This appliance is for use on a nominal 120-V circuit and has a grounding attachment plug that looks like the plug illustrated in sketch A in Figure 107.DV. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adaptor should be used with this appliance.

c) For Class I floor-finishing machines rated 150 – 250 volts:

No adapter is available for this plug.

d) For all Class II appliances~~double-insulated products~~:

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated machine, nor should a means for grounding be added to the machine. Servicing a double-insulated machine requires extreme care and knowledge of the system, and should be performed only by qualified service personnel. Replacement parts for a double-insulated machine must be identical to the parts they replace. Always replace a damaged cord. A double-insulated product is marked with the words "DOUBLE INSULATION" or  "DOUBLE INSULATED." The symbol: (square within a square) may also be marked on the machine.

Exception No. 1: Machines intended for rental use may be provided with legible and permanent safety instruction markings instead of an instruction manual. The markings shall include all of the applicable safety instructions required in 7.12 and its subclauses. The marking's letter height shall be not less than 3/32 inch (2.4 mm) and any caution or warning signal word shall be more prominent than any other required marking on the unit.

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Exception No. 2: Machines intended for rental use, and provided with a specialty connector or assembly for connection of the power supply cord to the machine, may be provided with the markings described in Exception No. 1 in the form of a cord tag; see 7.14DV. The statement, "Do Not Remove This Tag", or equivalent wording, shall be included on the cord tag.

7.12.104.DV.2 A double-insulated Class II appliance provided with a two-blade, polarized attachment plug shall be provided with the following instructions or the equivalent: To reduce the risk of electric shock, this appliance has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

8 Protection against access to live parts

This clause of Part 1 is applicable except as follows.

8.1 Addition:

Water and water-borne cleaning agents are considered conductive.

8.1.4DV D2 Modification by replacing the second bullet item of the first dashed item of Clause 8.1.4 of the Part 1 with the following: Modification by adding a dash item to 8.1.4 of the Part 1:

- for d.c., the voltage does not exceed 60 V, the part is supplied by a battery, and the voltage does not exceed 60 V d.c.**

13 Leakage current and electric strength at operating temperature

This clause of Part 1 is applicable except as follows.

13.1DV.1 D2 Delete Clause 13.1DV.1 of the Part 1:

The requirements of Clause 13.1DV.1 do not apply.

13.DV.2 D2 Modification by adding the following to Clause 13.1 of the Part 1:

Additionally, printed wiring assemblies and other electronic circuit components that would be damaged by application of the test potential, or that short-circuit the test potential, shall be removed, disconnected, or otherwise rendered inoperative before the dielectric voltage-withstand tests are made. Testing a representative subassembly instead of an entire unit is permitted. Individually shunting the semiconductor devices in the unit before the test is made to avoid destroying them in the case of a malfunction elsewhere in the secondary circuits is permitted.

13.2 Addition:

For CLASS I APPLIANCES where several motors operate at the same time, the leakage current shall not exceed 3,5 mA.