

STANDARD INFORMATION

Standard: CSA E60335-2-54

Standard ID: Safety of Household and Similar Electrical Appliances - Part 2: Particular Requirements for Surface-Cleaning Appliances Employing Liquids or Steam [CSA E60335-2-54:2023 Ed.3]

Previous Standard ID: Safety of Household and Similar Electrical Appliances - Part 2: Particular Requirements for Surface-Cleaning Appliances Employing Liquids (R2020) [CSA E60335-2-54:2001 Ed.2+G1]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **July 25, 2025**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes:

- Additional requirements for moisture resistance
- New marking and instructions
- New requirements for mechanical strength
- New requirements for edison-base lampholders
- New requirements for supply connection and external flexible cords
- Changed pressurized appliances and instantaneous steam cleaners requirements
- Add new requirements about appliances having more than one boiler connected together
- Added 1 m drop requirement for appliances carried on the operator's body

Specific details of new/revised requirements are found in table below

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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 lined-out below.</i>
3	Info	Terms and definitions pressurised appliance
3.101	Info	appliance in which steam is produced in a boiler at a pressure exceeding 50 kPa and in which the pressure does not drop to atmospheric pressure when the steam is not supplied
7	Info	Marking and instructions <i>New clause added;</i>
7.16		If replaceable fuses are provided, the maximum size, in amperes, of the fuse to be used in each circuit shall be marked on or adjacent to its respective fuseholder. Other relevant ratings, including time characteristic, breaking capacity, and voltage, shall be included with the current rating if replacement with a fuse that has other ratings could result in non-compliance with this Standard.
7.16A		<i>New clause added;</i> If the construction of an appliance makes allowance for cleaning or similar servicing by the user that involves the exposure of any normally enclosed or protected live part to accidental contact, the appliance shall be clearly and permanently marked with a warning that such servicing shall be done with the appliance disconnected from the supply circuit.
15	Info	Moisture resistance <i>New clause added;</i>
15.3A		Appliances intended for use outdoors shall comply with the requirements of CSA C22.2 No. 94.2 for Type 3R enclosures.
15.3B		<i>New clause added;</i> Appliances having joints or openings, which could be exposed to the ingress of fluids that can have an impact on shock hazards, shall not show failure either by test or by visual inspection when operated as follows: a) The appliance shall be operated with all controls at the maximum heat position until temperatures become stable. Immediately after disconnection from the



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		<p>power supply, the appliance shall withstand the leakage current test of Clause 16.2 of the Part 1.</p> <p>b) The appliance shall again be heated as required by Item a) and filled to the maximum extent indicated on the appliance or immersed, as appropriate, for 1 h in cold water having an initial temperature of 15 °C. Cold water shall also be poured over exposed joints or openings that are likely to be exposed to spillage during use or cleaning. The appliance shall then be removed from the water, external moisture shall be removed, and within 1 h the appliance shall withstand the repeated leakage current test of Clause 16.2 of the Part 1.</p> <p>c) The appliance tested as required by Item b) shall be operated dry at the voltage specified during the normal temperature test in Clause 11 and with all controls at the maximum heat position for 240 h, during which time the appliance shall be permitted to cool to room temperature five times (every 48 h). After the 240 h period, the test of Item b) shall be repeated.</p> <p>d) The test of Item b) shall be repeated twice, except that the leakage current test shall be conducted after the final immersion.</p> <p>Note: The appliance subjected to these tests may be a separate sample.</p>
20	Info	<p>Stability and mechanical hazards</p> <p><i>New clause added;</i></p> <p>Appliances shall be operated by a switch constructed so that either inadvertent operation is unlikely or they shall be operated by a switch that automatically returns to the off-position when its actuating member is released.</p>
20.101		<p>For appliances operated by a switch that automatically returns to the off-position when its actuating member is released compliance is checked by inspection.</p> <p>For other appliances, compliance is checked by applying a cylindrical rod, having a diameter of 40 mm and a hemispherical end, to the switch. The appliance shall not operate.</p>
21	Info	<p>Mechanical strength</p> <p><i>New clause added;</i></p> <p>Compliance is also checked by holding</p>
21.1		<ul style="list-style-type: none">• hand-held appliances and hand-held parts of appliances incorporating electrical components in the most unfavourable position at a height of 2 m and dropping them onto a concrete floor;• appliances carried on the operator's body in the most unfavourable position at a height of 1 m and dropping them onto a concrete



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		<i>New clause added;</i>
21.105A		<p>A handle used on a steam cleaner shall withstand a force of four times the empty weight of the steam cleaner without damage to the handle, its securing means, or that portion of the enclosure to which the handle is attached.</p> <p>The weight of the appliance plus a force of three times its weight shall be used. The load shall be uniformly applied over a 76.2 mm (3 in) width at the centre of the handle without clamping. The load shall be started at zero and gradually increased so that the test value is reached in 5 to 10 s and shall be maintained for 1 min.</p>
22	Info	Construction
		<i>New clause added;</i>
22.2		<p>Appliances with a rated voltage less than 150 V may use a single-pole switch for disconnection from the supply mains, provided that the supply cord or cord set is polarized. This switch shall not be used to disconnect the neutral supply conductor.</p> <p>All other appliances shall provide all-pole disconnection from the supply mains.</p> <p>Note: Supply cords and cord sets used in Class I appliances are considered to be polarized.</p>
		<i>New clause added;</i>
22.7		<p>Pressurised appliances and instantaneous steam cleaners shall incorporate adequate safeguards against the risk of excessive pressure.</p> <p>If jets of steam or liquids are emitted through protective devices, the electrical insulation shall not be affected or the user exposed to a hazard.</p> <p>Compliance is checked by inspection and by the following tests.</p> <p>The maximum pressure occurring during the test of Clause 11 is measured. All pressure-regulating devices that operated during the test are rendered inoperative and the pressure measured again. The pressure shall not exceed three times the pressure measured during the test in Clause 11. Any pressure-limiting protective device is then rendered inoperative and the pressure in the boiler is raised hydraulically to five times the pressure measured originally or twice the pressure measured with the pressure-regulating device rendered inoperative, whichever is higher. The pressure is maintained for a period of 60 s. There shall be no leakage from the boiler.</p> <p>Steam cleaners incorporating hoses and having a device regulating the steam supply are operated as specified in Clause 11, but with all pressure-regulating</p>



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		<p>devices operating during the test of Clause 11 rendered inoperative. The steam outlet is sealed and the device regulating the steam supply is opened. There shall be no leakage from the hose except at an intentionally weak place within the enclosure of the boiler. If this occurs, the test is repeated on another appliance that shall also leak in the same way.</p> <p>The steam outlet of instantaneous steam cleaners is sealed and the pressure in the water container is raised hydraulically until the pressure-limiting protective device operates. The pressure shall not exceed three times the pressure measured during the test of Clause 11. The outlet of the protective device is then sealed, and the pressure is further raised to twice the previous value. The pressure is maintained for a period of 60 s. There shall be no leakage from the container.</p> <p>NOTE 101 An instantaneous steam cleaner is an appliance in which small quantities of water are pumped from the water container, the steam being produced when the water contacts the heated surface of the steam chamber. The water container and the steam chamber are at atmospheric pressure.</p>
		<p><i>New clause added;</i></p>
22.104		<p>For appliances having more than one boiler connected together, each boiler provided with a heating element shall incorporate a pressure-limiting protective device.</p> <p>Compliance is checked by the test of 22.7 after blocking the connection between the boilers.</p>
		<p><i>New clause added;</i></p>
22.39.1A		<p>Edison-base lampholders shall be prevented from turning by means other than friction.</p>
		<p><i>New clause added;</i></p>
22.39.1B		<p>Appliances incorporating Edison-base lampholders shall have polarized supply cords, and the screwshell of the Edison-base lampholder shall be connected to the identified (neutral) conductor unless the lamp is supplied from a transformer winding that is electrically separate from the primary winding.</p>
		<p><i>New clause added;</i></p>
22.39.1C		<p>Lamps shall be replaceable without dismantling the appliance or a portion thereof, unless dismantling does not disturb electric parts or damage the assembly means.</p>



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		<i>New clause added;</i>
22.104A		Openings in external enclosures of appliances shall not be located directly below a) terminals; b) heater elements other than those with metal sheaths that are cast in, brazed on, or swaged to external enclosures; c) wiring; and d) other live parts, unless baffled in order to prevent molten metal, flaming particles, etc., from falling through to the supporting surface.
		<i>New clause added;</i>
22.104B		Aluminum-sheathed elements shall not be used in appliances where the elements are immersed in liquid during normal use.
		<i>New clause added;</i>
22.104C		Overcurrent devices shall be of types recognized as suitable for the particular application and shall be readily accessible from the outside of appliances, but not without opening a door or cover that is hinged or attached in an equivalent manner.
		<i>New clause added;</i>
22.104D		Fuseholders shall be constructed and installed so that bare live parts other than the screwshell in plug fuses will not be exposed to contact by persons removing or replacing fuses (i.e., they shall be deadfront). The screwshells of plug fuseholders and the contact of extractor-post-cartridge-type fuseholders adjacent to the mounting surface shall be connected to the load side of the circuit.
25	Info	Supply connection and external flexible cords
		<i>New clause added;</i>
25.7DV		Supply cords shall have temperature ratings that are suitable for the temperatures encountered on surfaces of the appliance that the supply cord could contact during normal use. Supply cords for indoor appliances not having any temperature rise of surfaces accessible with test probe 41 of IEC 61032 exceeding 80 K during the test of Clause 11 shall be minimum Type SPT-2, Type SVT, or equivalent “not for hard usage” type cords. Supply cords for all other indoor appliances shall be Type HPN or equivalent heater-type cords.



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		Supply cords for outdoor appliances shall be minimum Type SJOW, Type SJTW, or equivalent outdoor “hard usage” or outdoor “extra-hard usage” type cords. Note: Table 11 of the Canadian Electrical Code, Part I, specifies suitable uses for supply cords.
25.8DV.1		<i>New clause added;</i> The length of the supply cord and attachment plug shall be not less than 1.8 m.
25.14		<i>New clause added;</i> Cord-connected steam cleaners shall be subjected to the following test instead. The test shall be conducted on a separate sample. The flexing shall be conducted at the point on the cord where the cord enters the enclosure or where the cord enters the appliance plug (or thermostatic probe). The rate of flexings shall be 10 cycles per minute, and the number of cycles shall be 20 000. One cycle shall consist of the movement of the cord from one position of the most extreme flex to the opposite position of the most extreme flex and back again, but no more than a total of 180° (twice), and in the direction resulting in the most severe test. During the test, the cord shall be under a tension of 0.12 kg, with the tension applied to the cord 20 cm from the point of the cord entry. The test shall not result in exposure or breakage/discontinuity of the conductors, or displacement or breakage of the anti-kink device. The appliance shall still function and comply with the electric strength test of Clause 16.3.