

## STANDARD INFORMATION

**ADDENDUM 2:** See updated information in green font

**ADDENDUM 1:** See updated effective date in blue font

**This SUN establishes the superseding and withdrawal of CSA E335-2-23 and CSA E60335-2-23 and introduces CSA C22.2 No. 60335-2-23 as the superseding standard.**

**Superseded Standards:**

**CSA E335-2-23;** Safety of Household and Similar Electrical Appliances - Part 2: Particular Requirements for Appliances for Skin or Hair Care

**CSA E60335-2-23;** Household and Similar Electrical Appliances - Safety - Part 2-23: Particular

**Superseding Standard:**

**CSA C22.2 No. 60335-2-23;** Household and Similar Electrical Appliances - Safety - Part 2-23: Particular Requirements for Appliances for Skin or Hair Care [CSA C22.2#60335-2-23:2021 Ed.4]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** ~~January 1, 2020~~ April 17, 2024 September 1, 2025

## IMPACT, OVERVIEW, AND ACTION REQUIRED

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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

New appliances and appliances currently Certified to a previous edition of the subject standard (E335-2-23 or E60335-2-23) are required to comply with the requirements of CAN/CSA-C22.2 No. 60335-2-23 4<sup>th</sup> edition prior to the effective date.

The 4<sup>th</sup> edition of CSA C22.2 No. 60335-2-23 is to be used in conjunction with the 2<sup>nd</sup> edition of CSA C22.2 No. 60335-1.



## Overview of Changes:

### CSA C22.2 No. 60335-2-23:15:

- Added a load for testing appliances with socket outlets
- Added moisture resistance tests
- Added a test for PTC heater elements
- Added endurance test for appliances incorporating rope heater elements
- Added tests for cord-connected appliances

### CSA C22.2 No. 60335-2-23:21 4<sup>th</sup> edition:

- New instructions for hair straighteners and curling irons
- Addition to procedures for conducting the test at all heating settings
- New procedures for stability test
- New requirement to delineate handles on curling irons and hair straighteners
- New requirement for protection against hair being pulled into hair dryer intakes

Specific details of new/revised 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/revised paragraphs noted in the attached or explain why these new/revised 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.***



## STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		The following list describes the technical changes between CAN/CSA-E60335-2-23:05 and CAN/CSA-C22.2 No. 60335-2-23:15.
5	Info	<b>General conditions for the tests</b> <i>New clause added;</i>
5.2A		Appliances provided with socket outlets shall be tested with the socket outlet loaded with a 1500 W resistive load if this load would adversely affect the result of the test. This shall apply to the tests of Clauses 10, 11, and 19.
7	Info	<b>Marking and instructions</b> <i>New section added;</i>
7.1		<b>Markings</b> See standard for details. <i>New clause added;</i>
7.16		If 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 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.
10	Info	<b>Power input and current</b>
10.2A		Except for facial saunas, cord-connected appliances intended for use on a 120 V nominal branch circuit protected by an overcurrent device rated or set at not more than 15 A shall not consume more than 15 A when tested at the rated voltage and at 120 V. All other appliances shall not exceed 80% of the rating of the intended overcurrent device for the branch circuit when operated under normal operation at the rated voltage and at the nominal system voltage for which it is intended. Note: Nominal system voltages are given in Table 1 of CAN3-C235-83. <i>New clause added;</i>
11		<b>Heating</b> See standard for details.



CLAUSE	VERDICT	COMMENT
		<b><i>New section added;</i></b>
15		<b>Moisture resistance</b>  See standard for details.
		<b><i>New section added;</i></b>
19		<b>Abnormal operation</b>  See standard for details.
20	Info	<b>Stability and mechanical hazards</b>  <b><i>New clause added;</i></b>
20.1A		For facial saunas only, the 10° test specified in Clause 20.1 shall be conducted at 15°, and the test specified in the seventh and eighth paragraphs of Clause 20.1 shall not apply.
21	Info	<b>Mechanical strength</b>  <b><i>New clause added;</i></b>
21.1		The 2 J blows specified in Clause 21.1DV.2 of the Part 1 shall also be applied to guards for live parts.
22	Info	<b>Construction</b>  <b><i>New clause added;</i></b>
22.2		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.  All other appliances shall provide all-pole disconnection from the supply mains. Note: Supply cords and cord sets used in Class I appliances are considered to be polarized.
		<b><i>New clause added;</i></b>
22.8		Covers required to enclose wiring, bare live parts, etc., that open for cleaning and do not require the use of a tool for opening or removal shall be permanently secured to the frame or enclosure by means of hinges, chains, or other equivalent means, unless the appliance complies with Clause 8.1 with the cover removed. These covers shall incorporate an interlock or shall be marked in accordance with Clause 7.1B.  Other doors or covers, the removal of which provides access to electrical components, shall require a tool for opening or removal and be hinged or otherwise attached.



CLAUSE	VERDICT	COMMENT
		<b><i>New clause added;</i></b>
22.24		Heater elements in hoods shall be baffled to prevent hot particles from falling out of the hood while it is in any normal position.
		<b><i>New section added;</i></b>
22.39		<b>Lamps</b> See standard for details.
		<b><i>New section added;</i></b>
22.102		<b>Contruction</b> See standard for details
24	Info	<b>Components</b>
		<b><i>New clause added;</i></b>
24.2		The switch in the flexible cord shall be not more than 610 mm from the supply cord entry in the appliance.
		<b><i>New clause added;</i></b>
24.2A		Heater elements shall comply with CSA C22.2 No. 72.
25	Info	<b>Supply connection and external flexible cords</b>
		<b><i>New clause added;</i></b>
25.3DV		Where supply leads in the terminal box are intended for connection to the power supply conductors at the time of installation, they shall a) be of suitable ampacity and not less than 150 mm in length; b) be No. 18 AWG or larger; and c) have insulation suitable for the conditions, e.g., voltage and temperature.
		<b><i>New clause added;</i></b>
25.4		Where openings for conduit connection are provided in sheet metal enclosures, the metal thickness around such openings shall be not less than a) 0.78 mm for sheet steel; b) 1.27 mm for aluminum; or c) 1.24 mm for other non-ferrous metal.



CLAUSE	VERDICT	COMMENT
		<b><i>New clause added;</i></b>
		Supply cords shall have temperature ratings that are suitable for the temperature encountered on surfaces of the appliance that the supply cord could contact during normal use.
25.7		Supply cords for all household appliances and commercial hand-held appliances shall be minimum Type SPT-2, SVT, or equivalent cord of the not-for-hard-usage type.  Supply cords for all other appliances shall be minimum Type SJT or equivalent cord of the hard-usage type.  Note: The CE Code, Part I, Table 11 specifies suitable uses for supply cords.
		<b><i>New clause added;</i></b>
		For cord-connected facial saunas, the length of the supply cord and attachment plug, as measured from where the supply cord enters the appliance to the face of the attachment plug, or the overall length of a cord set supplied with the appliance shall be at least 0.6 m and not greater than 2.1 m.
25.8DV.1		Cord-connected commercial appliances other than facial saunas shall be provided with a supply cord at least 1520 mm long, terminating in a suitable attachment plug for connection to the supply circuit, except for non-hand-held appliances where a separate cord set and a suitable detachable means of connection are provided. The maximum length shall be restricted to 3660 mm.  Cord-connected household appliances other than facial saunas shall be provided with a supply cord at least 1520 mm long, terminating in a suitable attachment plug for connection to the supply circuit, except for non-hand-held appliances where a separate cord set and a suitable detachable means of connection are provided. The maximum length shall be restricted to 2745 mm.
		<b><i>New section added;</i></b>
25.14		<b>Cord connected appliances</b>  See standard for details.
26	Info	<b>Terminals for external conductors</b>
		<b><i>New clause added;</i></b>
26.10A		Terminal boxes or wiring compartments in which supply connections are made shall be located so that the connections will be accessible for inspection with the equipment installed as intended.



CLAUSE	VERDICT	COMMENT
30	Info	<b>Resistance to heat and fire</b>
		<i><b>New clause added;</b></i>
30.2A		<p>Non-metallic enclosures for heating elements and live parts, air intake and air exhaust guards and grilles (whether decorative or not), and supports for electrical components shall comply with the requirements of 5 VA from CAN/CSA-C22.2 No. 0.17.</p> <p>Materials having flame-retardant coatings, liners, or coverings shall comply with the flame-retardant coating requirements in CAN/CSA-C22.2 No. 0.17, except for the flexing and surface resistivity tests.</p>
		The following list describes the technical changes between CAN/CSA-C22.2 No. 60335-2-23:15 and CAN/CSA-C22.2 No. 60335-2-23:21 (4 <sup>th</sup> edition). Editorial changes to the standard are not included.
6	Info	<b>Classification</b>
		<p>Appliances shall be of one of the following classes with respect to protection against electric shock:</p> <ul style="list-style-type: none"><li>– hairdryers, curling irons, curling combs, facial saunas and other steam-producing or spray-producing appliances shall be class II or class III. However, fixed hairdryers intended to be permanently connected to fixed wiring, helmet-type hairdryers for hairdressers and</li><li>– steam-producing or spray-producing appliances for hairdressers may be class I; <u>– water filled foot care appliances shall be class II or class III;</u></li><li>– other appliances shall be class I, class II or class III.</li></ul> <p>Compliance is checked by inspection and by the relevant tests.</p>
6.1		
7	Info	<b>Marking and instructions</b>
		<i><b>New clause added;</b></i>
7.1J		<p>Switches provided for the testing and resetting of a protective device by the user shall be permanently marked “TEST” and “RESET” (respectively) on or adjacent to the switch actuators.</p> <p>Compliance is checked by inspection.</p>



CLAUSE	VERDICT	COMMENT
7.12		<p>The instructions for portable appliances shall include the substance of the following:</p> <p><u>The instructions for water filled foot care appliances shall include the substance of the following warnings:</u></p> <p><u>WARNING: This appliance is intended to be used under the feet of a sitting person.</u> <u>WARNING: If water leaks from the appliance, the appliance should no longer be used.</u> <u>WARNING: Persons insensitive to heat must be careful when using the appliance.</u></p>
8	Info	<b>Protection against access to live parts</b> <i>New clause added;</i>
8.1.4		All energized parts in water filled foot care appliances are considered to be live parts. However, this requirement is not applicable to class III appliances or class III constructions that have working voltage not exceeding 12 V.
10	Info	<b>Power input and current</b>
10.2A		<p>Except for facial saunas and as otherwise indicated in Clause 7.1A, cord-connected appliances intended for use on a 120 V nominal branch circuit protected by an overcurrent device rated or set at not more than 15 A shall not consume more than 15 A when tested at the rated voltage and at 120 V.</p> <p><u>Cord-connected appliances intended for use on a 120 V nominal branch circuit protected by an overcurrent device rated or set at not more than 20 A and marked as specified in Clause 7.1D shall not exceed the rating of the intended overcurrent device for the branch circuit when tested at the rated voltage and at 120 V.</u></p> <p>All other appliances shall not exceed 80% of the rating of the intended overcurrent device for the branch circuit when operated under normal operation at the rated voltage and at the nominal system voltage for which it is intended.</p> <p>Note: Nominal system voltages are given in Table 1 of CSA C235.</p>
11	Info	<b>Heating</b>
11.8		<p>The temperature rise limits of motors, transformers and components of electronic circuits, including parts directly influenced by them, may be exceeded when the appliance is operated at 1,15 times rated power input.</p> <p>The temperature rise of the handles of curling irons heated by a heater for detachable curlers incorporating a timer is determined at the end of the first cycle.</p> <p>The temperature rise of detachable curlers is not measured.</p> <p><u>The water temperature at the geometric centre of the water volume shall not exceed 50 °C.</u></p>





CLAUSE	VERDICT	COMMENT
15	Info	<b>Moisture resistance</b> <i>New clause added;</i>
15.2		Water filled foot care appliances are completely filled with the spillage solution and are then emptied within 30 s by being tilted or overturned in the most unfavourable way.
19	Info	<b>Abnormal operation</b> Hairdryers are operated as specified in Clause 11 until steady conditions are established. The voltage at the terminals of the motor is then reduced until the running speed of the motor is just sufficient to prevent the thermal cut-out from operating, the power input to the heating element being maintained at 1,15 times rated power input.  The voltage is decreased at  19.101 – 1 V per minute, for motors having a working voltage not exceeding 30 V; – 5 V per minute, for motors having a working voltage exceeding 30 V. The appliance is then operated until steady conditions are established.  <u>The test is repeated with the heat setting switch placed in each position. The voltage to the heating element is maintained at the value that gives 1,15 times rated power input with the switch at the highest heat setting position.</u>
20	Info	<b>Stability and mechanical hazards</b> <i>New cause added;</i>  Appliances, other than fixed appliances and hand-held appliances without a charging stand, intended to be used on a surface such as the floor or a table, shall have adequate stability. Hand-held appliances with an integral rest shall have adequate stability when placed on the integral rest.  20.1 Compliance is checked by the following test, appliances incorporating an appliance inlet being fitted with an appropriate connector and flexible cord. Hand-held appliances are subjected to the test while placed on their charging stand or integral rest.  The appliance, not connected to the supply mains, is placed in any normal position of use on a plane inclined at an angle of 10° to the horizontal, the supply cord resting on the inclined plane in the most unfavourable position. However, if part of an appliance comes into contact with the horizontal supporting surface when the appliance is tilted through an angle of 10°, the appliance is placed on a horizontal support and tilted in the most unfavourable direction through an angle of 10°.



CLAUSE	VERDICT	COMMENT
		<p>NOTE 101 The test on the horizontal support can be necessary for appliances provided with rollers, castors or feet. In this case, castors or wheels can be blocked to prevent the appliance from rolling.</p> <p>Appliances intended to be filled with liquid by the user in normal use are tested empty or filled with the most unfavourable quantity of water up to the capacity indicated in the instructions.</p> <p>The appliance shall not overturn unless the appliance or the part of the appliance which overturns complies with all of the following:</p> <ul style="list-style-type: none"><li>– It only contains circuits operating at SELV according to 8.1.4;</li><li>– It only contains low power circuits according to 19.11.1;</li><li>– It is dropped from a height of 700 mm on a rigidly supported hard wood board 5 times, the appliance being held in different positions likely to occur. After the drops, the appliance or part of the appliance as relevant shall show no damage so that compliance with 15.1 and 20.2 is not impaired;</li><li>– It has a maximum weight of 450 g when ready for use;</li><li>– It does not have sharp edges when ready for use. An edge with a radius of 1 mm or more is not considered a sharp edge.</li></ul> <p>The test is repeated on appliances with heating elements with the angle of inclination increased to 15°. If the appliance overturns in one or more positions, it is subjected to the tests of Clause 11 in each of these overturned positions.</p> <p>During this test, temperature rises shall not exceed the values shown in Table 9.</p>
21	Info	<b>Mechanical strength</b>
		Hand-held appliances are also subjected to the test of 21.101.
21.1		<u>Water filled foot care appliances are loaded as specified for normal operation but with the mass increased to 90 kg. The mass is applied for 30 s.</u>
		<del>The appliance is operated under the conditions of Clause 11. It is then placed on a horizontal surface positioned 700 mm above a rigidly supported hardwood board.</del>
		<u>The hand-held part of the appliance is placed in a sling that is constructed by tying together the four corners of a single layer of cheesecloth. The lowest point of the sling is suspended at a height of 900 mm above a concrete or similar hard surface.</u>
21.101		<u>The hand-held part of the appliance in the sling is dropped from a stationary position. The test is carried out a total of five times with the hand-held part of the appliance being positioned so that it falls onto the concrete surface in five different orientations.</u>
		<u>The appliance shall not be damaged to such an extent that compliance with 8.1 and Clause 29 is impaired.</u>



CLAUSE	VERDICT	COMMENT
22	Info	<b>Construction</b> <i>New clause added;</i>
22.13		To avoid accidental contact with hot surfaces, the handle of curling irons and hair straighteners shall be clearly identified by tactile means, or colour or other visual means. <i>New clause added;</i>
22.102L		Hand-held hairdryers shall be provided with a Class A ground-fault circuit-interrupter GFCI or an appliance leakage current interrupter (ALCI) that is an integral part of the plug of the supply cord or the wall-mounted unit of those permanently connected to fixed wiring. GFCIs and ALCIs shall not be of a type that can automatically reset. Compliance is checked by inspection. <i>New clause added;</i>
22.102M		Appliances that incorporate a GFCI or ALCI and have a socket outlet for general use shall be wired such that the socket outlet for general use is connected to the load side of the GFCI. Compliance is checked by inspection. <i>New clause added;</i>
22.103		Hairdryers shall be fitted with a grid or similar protection means to limit the risk of hair being sucked into the air intake. Compliance is checked by inspection.
24	Info	<b>Components</b> <i>New clause added;</i>
24.101		Protective devices incorporated in fixed hand dryers in order to comply with 19.2 and 19.3 shall not be self-resetting. Compliance is checked by inspection during the tests of 19.2 and 19.3.
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.		