STANDARDS UPDATE NOTICE (SUN)
ISSUED: June 10, 2026

STANDARD INFORMATION

Standard: CSA C22.2 No. 187
Standard ID: Electrostatic Air Cleaners [CSA C22.2#187:2025 Ed.6]
Previous Standard ID: Electrostatic Air Cleaners [CSA C22.2#187:2020 Ed.5]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **July 1, 2027**

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 Reports not updated to this version by the effective date above will be withdrawn.

This standard contains Functional Safety requirements.

Overview of Changes:

- Scope revision to for ozone-generating air cleaners
- Addition of requirements for battery-operated equipment
- Updated construction and testing requirements
- Shielded and interlocked UV devices
- Indent instructions

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		Additions to existing requirements are underlined and deletions are shown ~~lined out~~ below.
1	Info	**Scope**
1.1		This Standard applies to ~~electrostatic~~ air ~~cleaners~~ cleaning devices intended to potentially remove or reduce airborne particulate matter, volatile organic compounds (VOCs), or micro-organisms from the air in indoor residential and commercial occupancies with self-contained or duct-mounted applications.
1.2		This Standard applies to powered a) extra-low- and low-voltage electrostatic air cleaners; ~~b) equipment for commercial use~~ b) ionizing air cleaners; c) photocatalytic-oxidizer-type air cleaners; or d) ultraviolet (UV) devices that emit ultraviolet radiation (UV-C) between 180 and 280 nm.
1.4		***New clause added;*** This Standard also applies to products powered by a universal serial bus supply source and rechargeable batteries.
1.5		***New clause added;*** This Standard does not apply to unpowered air filters.
5	Info	**Construction**
5.1	Info	**General**
5.1.9		***New clause added;*** Duct-mounted air cleaners shall be provided with suitable flanges for mounting on both the inlet and exhaust sides. minimum space of 25 ± 10 mm shall be provided between the mounting holes in the cabinet and removable parts such as cells.
5.2	Info	**UV air cleaners**
5.2.1		***New clause added;*** The requirements of CSA C22.2 No. 74 shall apply when a ballast is used.

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5.2.2		***New clause added;*** UV radiation produced by air cleaners shall not exceed RG0 emission limits based on 8 h exposure, at any uncontrolled space that is accessible by an untrained person. devices designed to intentionally emit UV light radiation into the occupied space shall be exempt from the UV safety measurements detailed in Clause 5.2.3. Note: UV safety for these devices is covered under other Standards.
5.2.3		***New clause added;*** UV light radiation shall be measured as per IEC 62471-6 at a distance of 1 m and shall not exceed an RG0 emission limit. Details of the measurement are identified in Annex B.
5.2.8		***New clause added;*** UV duct-type air purifiers that provide provision to replace the UV lamp by the user shall be constructed with an interlock, or the cover or panel shall be secured by a means requiring the use of a tool to open it and shall be marked in accordance with Clause 8.6. The interlock shall interrupt the power to the lamp when the cover that provides access to the lamp is removed or when the cover is not secured properly as confirmed in the installation manual. A warning label shall be provided on the cover of the interlock as in Clause 8.9.
5.2.9		***New clause added;*** The installation instructions shall confirm that no exposure to the UV light will occur in the final installation when the heating ventilation air conditioning (HVAC) system filter and/or any other associated panel is removed.
5.3	Info	**Frame and enclosure**
5.3.4	Info	**Properties of nonmetallic enclosures and supports**
5.3.4.2		***New clause added;*** Enclosures and parts of enclosures of non-metallic material shall not cause a fire or shock hazard in equipment because of susceptibility to ignition, melting by electrical disturbances within, deterioration from long-term thermal aging effects, or exposure to the operating environment, and shall comply with the impact test of Clause 6.16and the flame test of Clause 6.13. Polymeric enclosures need not comply with the flame test specified in Clause 6.13if they comply with the requirements of Clause 30 of CSA C22.2 No. 60335-1.

CLAUSE	VERDICT	COMMENT
5.5	Info	**Supply connections**
5.5.2	Info	**Cord-connected equipment**
5.5.2.4		***New clause added;*** A cord-connected product without a grounding conductor shall be provided with two blade attachment plugs (Type A), and the rated voltage shall be less than 150 V.
5.5.3		***New clause added;*** **Battery-operated equipment** Products covered by this Standard that are powered by rechargeable batteries, either solely, or as an alternative, or in conjunction with other sources, shall meet the requirements of CSA C22.2 No. 0.23, with the conditions and specifications as required by Annex C. The requirements in Annex C supplement and, in case of discrepancy, shall take precedence over the general requirements in this Standard. The indents of Annex D of CSA C22.2 No. 0.23 are shown in Table C.1.
5.5.5		***New clause added;*** **Push back relief test** The flexible cord or supply leads cannot be pushed into the product through the cord-entry hole, and compliance shall be verified by Clause 6.10.
5.16	Info	**Spacings**
5.16.1	Info	**Low-voltage circuits**
5.16.1.7		If the spacings specified in Clauses 5.16.1.1and 5.16.1.6cannot be maintained, an insulating barrier or liner may be used to achieve the required spacings, provided that the insulating barrier or liner a) is capable of withstanding a voltage five times the voltage in use; b) is resistant to the absorption of moisture, or otherwise treated to resist moisture absorption; c) is constructed to withstand the most severe conditions anticipated in the service;
5.18		**Maximum output** ~~The maximum output current shall not exceed 5 mA rms when the air cleaner is tested in accordance with Clause 6.4.~~ On the high-voltage circuit, the maximum secondary output voltage shall not exceed 110% of the rated value when the air cleaner is tested in accordance with Clause 6.4.

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5.19	Info	**Grounding and bonding**
5.19.3		***New clause added;*** An ungrounded high-voltage transformer core likely to become energized shall comply with the dielectric voltage-withstand test specified in Clause 6.5.8.
5.27		***New clause added;*** **Optical isolators and similar devices** Optical isolators (optocouplers) used as a means of achieving electrical isolation shall have an isolation voltage rating not less than the electric strength test potential required in the end-product standard and shall comply with UL 1577 or CSA Component Acceptance Notice No. 5A.
6	Info	**Tests**
6.3	Info	**Temperature — Abnormal**
6.3.2	Info	**Single-fault condition**
6.3.2.3		These tests, along with the tests specified in Clause 6.3.3, shall be continued for at least 24 h or until a) breakdown occurs; b) protective devices trip; or c) temperature equilibrium has been reached.
6.3.3		***New clause added;*** **Compliance requirements** There shall be neither permanent damage to nor any breakdown of insulation or spacings, and the cheesecloth shall not glow or flame, when the unit is operated continuously under the following conditions and tested in accordance with Clause 6.3.2.1: a) with one or more or all high-voltage circuits open-circuited; or b) with one or more or all high-voltage circuits short-circuited to ground.
6.4	Info	**Maximum high-voltage output**
6.4.1		***New clause added;*** The high-voltage circuit shall be connected to the rated load, and the secondary output voltage shall be measured using suitable test equipment and shall not be greater than 110% of the rated value.

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6.5	Info	**Dielectric withstand**
6.5.8		***New clause added;*** An ungrounded high-voltage transformer core shall be tested with four times the maximum secondary voltage applied between the primary core and secondary windings connected together for 1 min.
6.13		***New clause added;*** **Flame test for nonmetallic enclosures of live parts** Polymeric material shall be tested in accordance with the 5 V (500 W) flame test for combustion-resistant materials of CSA C22.2 No. 0.17.
6.16		***New section added;*** **Impact test** As required by Clause 5.3.4, enclosures of non-metallic materials shall be tested for strength in the locations judged most likely to be subjected to impact. See standard for details.
7	Info	**Ozone by-product emissions testing**
7.1		**General** Clause 7 applies to a) air cleaners; b) ionizers; and c) air cleaners incorporating or using ~~UVC lamps~~ <u>lamps producing UV at frequencies from 180 to 280 nm.</u> Such products might or might not have a manual ozone-level control.
7.2	Info	**Requirements**
7.2.3	Info	**Duct-mounted air cleaner**
7.2.3.1		***New clause added;*** **Duct-mounted cleaner with portable use** Duct-mounted air cleaners provided with a power cord and that can be operated independent of an HVAC installation shall be considered a portable system and shall be tested as per Clause 7.3.

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7.2.3.2		***New clause added;*** **Test requirements for duct-mounted cleaner with portable use** Devices passing the tests noted in Clause 7.3shall not be required to be tested to Clause 7.4.
7.3	Info	**Ozone by-product emissions tests**
7.3.2	Info	**Normal conditions**
7.3.2.4		**Ozone by-product test procedure** For devices with a fan that moves air, the product shall be located in the centre of the test room floor, approximately 750 mm above the floor. The ozone monitor sampling tube shall be located 50 mm from the air outlet of the product, centred in the air stream and pointed directly at the product. The removable filter shall be removed if the removal creates a more unfavourable condition. For devices incorporating lamps producing UV at frequencies from 180 to 280 nm, that do not move air, portable devices shall be located in the centre of the test room floor. Ceiling- or wall-mounted devices shall be located 750 mm above the floor. The ozone monitor sampling tube shall be located 25 mm from the air outlet of the product, centred in the light-emitting area of the device and pointed directly at the product. If the device has light level controls, the device shall be set to the maximum light output of the device.
7.4	Info	**Electrostatic in-duct-type air cleaners for residential use**
7.4.2	Info	**Duct test fixture**
7.4.2.2	Info	**In-duct mounting options**
7.4.2.2.2		In accordance with ASHRAE 52.2, Figure 1a, the DUT shall be placed in the duct stream and sealed on both sides (Figure 1a). In the event the filter under test is not 610 × 610 mm, transitions shall be used. The angle for all transitions shall not exceed 7°. See the example in Figure 1b. The mounting system shall comply with the following requirements: a) The system shall be engineered in such a fashion as to prevent airflow bypass to ensure that all air flowing in the duct flows through the DUT. b) The system shall have a sealed pass through for electrical connections. c) All electrical connections shall be isolated from the duct. d) If the mounting section is larger than 610 × 610 mm, transitions shall be used to connect that section to the main test duct. The angle for all transitions shall not exceed 7°. e) Access door(s) shall be sealed. f) Mounting/testing shall be done in a fashion that is representative of its end use installation and design. For an example, see Figure 1c.

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		g) Devices that are designed with the end use installation (as shown in Figure 1c) shall be tested as a portable unit as described in Clause 7.3.
7.4.2.2.3		***New clause added;*** **In-line mounting — Alternative 1** To avoid the requirement for multiple transitions, the DUT shall be mounted within the duct using an in- duct flange and mounting plates fitted to the device opening. See the example in Figure 2a.
7.4.2.2.4		**In-line mounting — Alternative 2** The air-cleaning device is designed to be connected external to the duct system and the DUT is provided with collars for connection to the duct system by a flexible duct. This test is only valid for devices in which the airflow coming from the duct is routed into the unit and circulated back into the supply main duct system. In the above design, the air-cleaning device shall be tested while placing it inside at the centre of the duct, in parallel with the airflow. If a fan is provided integral to the device, the fan speed shall be set to the lowest level (Figure 2b). The duct leakage test required in Clause 7.4.4.2.1 shall be completed with the external collars and test unit in place.
7.4.5	Info	**Test method**
7.4.5.1		**Background ozone measurement** The ozone background level shall be determined as specified in Clause 7.4.5.3 and shall not exceed 0.005 ppm. This value shall be subtracted from the maximum measured value as specified in Clause 7.4.5.4.
7.4.5.2	Info	**Flow**
7.4.5.2.1		**Test conditions** The test in Clause 7.4.5.1shall be performed with the blower fan set to the following three flows: a) zero flow test; b) flow test: 0.177 m3/s; and c) high flow test: the maximum declared by the manufacturer. The flow shall be monitored at 1 min intervals during the test.
7.4.5.3		The ozone test shall be conducted as follows: a) Two samples of the product shall be supplied for testing. The test shall be conducted on i) one sample, if the measured maximum ozone concentration is less than 0.030 ppm; or

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		ii) a second sample, if the measured maximum ozone level from the first sample tested is 0.030 ppm or more. b) The device under test shall be installed in the test rig for this test but not powered.
7.4.5.6		The reporting requirements shall be as follows: a) calculate and report the 8 h TWA using the corrected ozone concentration as noted in Annex A; b) report the corrected maximum ozone concentration during the test: i) the report shall include the results from all tests; and ii) the report shall include the flow used for the high flow test; and c) report the emissions rate for both low and high flow conditions.
8	Info	**Markings**
8.10		***New clause added;*** The following caution marking shall be applied both in English and French in a permanent manner: CAUTION — THE AIR CLEANER SHALL NOT BE INSTALLED IN A SYSTEM WITH AIRFLOW LESS THAN XXX m3/s TO ENSURE OZONE LEVELS ARE NOT EXCEEDED. and ATTENTION — LE PURIFICATEUR D'AIR NE DOIT PAS ÊTRE INSTALLÉ DANS UN SYSTÈME OÙ LA CIRCULATION DE L'AIR EST INFÉRIEURE À XXX m3/s POUR ASSURER QUE LES NIVEAUX D'OZONE LIMITES NE SOIENT PAS DÉPASSÉS. Note: The "XXX" value that is to be marked on the caution label is the minimum cubic metres per second rating used when conducting the ozone test in accordance with Clause 7.4.5.3.
8.11		***New clause added;*** The following shall be marked in English and French in a permanent and visible manner on air cleaners intended for commercial use: a) CAUTION: HIGH LEVELS OF OZONE CAN BE INJURIOUS TO HEALTH. USE AS DIRECTED IN A LOCATION NO SMALLER THAN INDICATED IN THE INSTALLATION INSTRUCTIONS. and ATTENTION: DES NIVEAUX ÉLEVÉS D'OZONE PEUVENT ÊTRE NOCIFS. RESPECTER LES CONSIGNES ET UTILISER DANS UN ENDROIT QUI N'EST PAS INFÉRIEUR QU'INDIQUÉ DANS LES INSTRUCTIONS D'INSTALLATION. b) FOR COMMERCIAL USE ONLY. NOT FOR RESIDENTIAL USE. and POUR USAGE COMMERCIAL UNIQUEMENT. NE CONVIENT PAS POUR USAGE DOMESTIQUE.

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		c) CERTIFIED FOR SHOCK AND ELECTRICAL FIRE HAZARD ONLY. and CERTIFIÉ UNIQUEMENT DU POINT DE VUE DE LA PROTECTION CONTRE LES CHOCS ET LES INCENDIES D'ORIGINE ÉLECTRIQUE.
Annex B		***New annex added;*** **Shielded and interlocked UV devices — Not intended to emit accessible radiation** The appliance operates at its rated voltage and is subjected to standard operating conditions. Irradiance measurements are taken from a distance of 1 m, ensuring that the measuring instrument captures the maximum radiation. See standard for details.
Annex C		***New annex added;*** **Indent instructions** This annex covers battery-operated air cleaners that are powered by rechargeable batteries, either solely, as an alternative, or in conjunction with other sources.