



CSA C22.2 No. 187:20

National Standard of Canada



Electrostatic air cleaners



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Preface

This is the fifth edition of CSA C22.2 No. 187, *Electrostatic air cleaners*, one of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*. It supersedes the previous editions, published in 2015, 2009, 1986, and 1982.

The major changes to this edition include

- a) scope revision to clarify the Standard coverage of duct-mounted type electrostatic air cleaners, air ionizers, and other similar ionizing equipment intended for general indoor residential use;
- b) addition of safety function requirements and power supply requirements;
- c) revision of ozone requirements; and
- d) addition of requirements for coatings and spacings on printed circuit boards.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Subcommittee on Electrostatic Air Cleaners, under the jurisdiction of the Technical Committee on Consumer and Commercial Products and the Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

Interpretations: The Strategic Steering Committee on Requirements for Electrical Safety has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant CSA committee interpretation has not already been published, CSA Group's procedures for interpretation shall be followed to determine the intended safety principle".

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
 - a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
 - b) *provide an explanation of circumstances surrounding the actual field condition; and*
 - c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.
- 5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
 - a) *Standard designation (number);*
 - b) *relevant clause, table, and/or figure number;*

- c) *wording of the proposed change; and*
- d) *rationale for the change.*

CSA C22.2 No. 187:20

Electrostatic air cleaners

1 Scope

1.1

This Standard applies to

- a) electrostatic air cleaners intended to remove dust and dirt from the air and intended for general indoor residential and commercial use;
- b) air ionizer type air cleaners;
- c) other similar ionizing equipment; and
- d) duct-mounted type electrostatic air cleaners, air ionizers, and other similar ionizing equipment intended for general indoor residential use.

1.2

This Standard applies to equipment for commercial use that intentionally produces ozone in a temporarily unoccupied space.

1.3

This Standard applies to cord-connected and permanently-connected equipment operating at nominal supply voltages up to 600 V, single-phase or polyphase, that is intended to be installed or used in accordance with CSA C22.1, *Canadian Electrical Code, Part I*.

1.4

This Standard applies to portable and duct-mounted air-cleaning devices that incorporate a UV (ultraviolet) lamp that emits UV radiation between 100 and 280 nm (UVC).

1.5

This Standard does not apply to electrostatic air cleaners for use in hazardous locations or in atmospheres defined as hazardous by the *Canadian Electrical Code, Part I*.

1.6

This Standard does not apply to air cleaners designed to remove particles other than dust and dirt normally found in heating and ventilating systems.

1.7

This Standard does not specify requirements for the effectiveness of air cleaners with respect to the removal of airborne particles.

1.8

This Standard does not apply to electrostatic air cleaners intended for industrial use.