CSA Group

C22.2 No. 113-15

Fans and ventilators

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Preface

This is the tenth edition of CSA C22.2 No. 113, *Fans and ventilators*, one of a series of Standards issued under Part II of the *Canadian Electrical Code*. It supersedes the previous editions, published in 2012, 2010, 2008, 1984, 1982, 1981, 1976, 1974, and 1959.

This edition includes the incorporation of update one, changes to Clauses 5.1.5, 5.2.11.1, 5.2.11.2, 5.3.12, 5.3.14.5, 5.4.2.15, 5.4.3.4, 5.16.1, 5, 5.20.5, 6.7.2, 6.12.1, 6.12.3, 6.13.1, 7.2.3.2, 7.11.1, 7.11.2, 8.6.1, 10.1.2, 10.2.1.5 and a new Clause 5.16.5 (LED lighting) was added.

For general information on the Standards of the *Canadian Electrical Code, Part II*, see the preface of CAN/CSA-C22.2 No. 0.

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 Fans and Ventilators, 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.

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 committee interpretation has not already been published, CSA's procedures for interpretation shall be followed to determine the intended safety principle".

Acknowledgement: With the permission of Underwriters Laboratories Inc., material in Clauses 5.2.5.3, 5.2.7.5, 5.2.9.5, 5.3.10, 5.3.11, 5.4.2.14, 5.4.2.18–5.4.2.20, 5.19.4–5.19.7, 6.4.11, 6.4.12, 6.13.2–6.13.4, 6.14.1, 6.14.2, 6.14.3, 7.3.3, 7.24, 7.26, 7.29, 7.30, 7.32, 8.6, 10, and 11 and Figures 13–17 and Figures 19–21 is reproduced from UL 507, which is copyrighted by Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, Illinois 60062 USA. UL shall not be responsible to anyone for the use of or reliance upon a UL Standard by anyone. UL shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon a UL Standard. UL's Standards for Safety are copyrighted by UL.

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 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;*

d) *rationale for the change.*

C22.2 No. 113-15
Fans and ventilators

1 Scope

1.1

This Standard applies to fans and ventilation equipment that is

a) cord-connected, rated at not more than 250 V;
b) permanently-connected to supply circuits of 600 V and less, single-phase or three-phase;
c) used in non-hazardous locations;
d) used in household, commercial, agricultural, or industrial locations;
e) used indoors or outdoors; and
f) used in accordance with the Rules of the *Canadian Electrical Code, Part I*.

1.2

This Standard applies to roof and wall-mounted power ventilators, exhaust and filter units consisting of an air-circulating fan and a mechanical filter, fans for use in unattended areas, clothes dryer booster fans for use in the exhaust duct of household clothes dryers, blowers intended for household, commercial or industrial use, and air curtains without any heating.

1.3

This Standard applies to air-circulating-type fans and ventilators, such as desk, pedestal, hassock, utility, suitcase, and ceiling fans.

1.4

This Standard applies to fans such as wall insert, ceiling insert, attic, duct, bathtub and shower stall, household range hoods or canopies, household down-draft fans, and window fans. It also applies to fan-type air-to-air heat exchangers, component fans including extra-low voltage component fans, and to commercial fans and blowers used for carpet cleaning or flood restoration and remediation.

1.5

This Standard does not apply to the following:

a) air conditioning equipment;
b) electric air heaters;
c) fan coil units;
d) humidifiers;
e) evaporative coolers;
f) electrostatic or ionizer air cleaners;
g) blowers of particulate matter;
h) air-to-air heat exchangers with gas or oil-fired heating means;
i) air curtains with heaters;
j) fans and ventilators intended to exhaust flammable vapours;
k) fans and ventilators intended to be used with vehicle exhaust systems; and
l) combination microwave/range hood units.

1.6
Throughout this Standard, the term “fan” also includes ventilators.

1.7
The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

1.8
In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

2 Reference publications
This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

CSA Group

C22.1-15
Canadian Electrical Code, Part I

CAN/CSA-C22.2 No. 0-10
General requirements — Canadian Electrical Code, Part II

CAN/CSA-C22.2 No. 0.4-04 (R2013)
Bonding of electrical equipment

C22.2 No. 0.8-12
Safety functions incorporating electronic technology

C22.2 No. 0.12-M1985 (R2012)
Wiring space and wire bending space in enclosures for equipment rated 750 V *or less*

C22.2 No. 0.15-01 (R2012)
Adhesive labels

CAN/CSA-C22.2 No. 0.17-00 (R2013)
Evaluation of properties of polymeric materials

