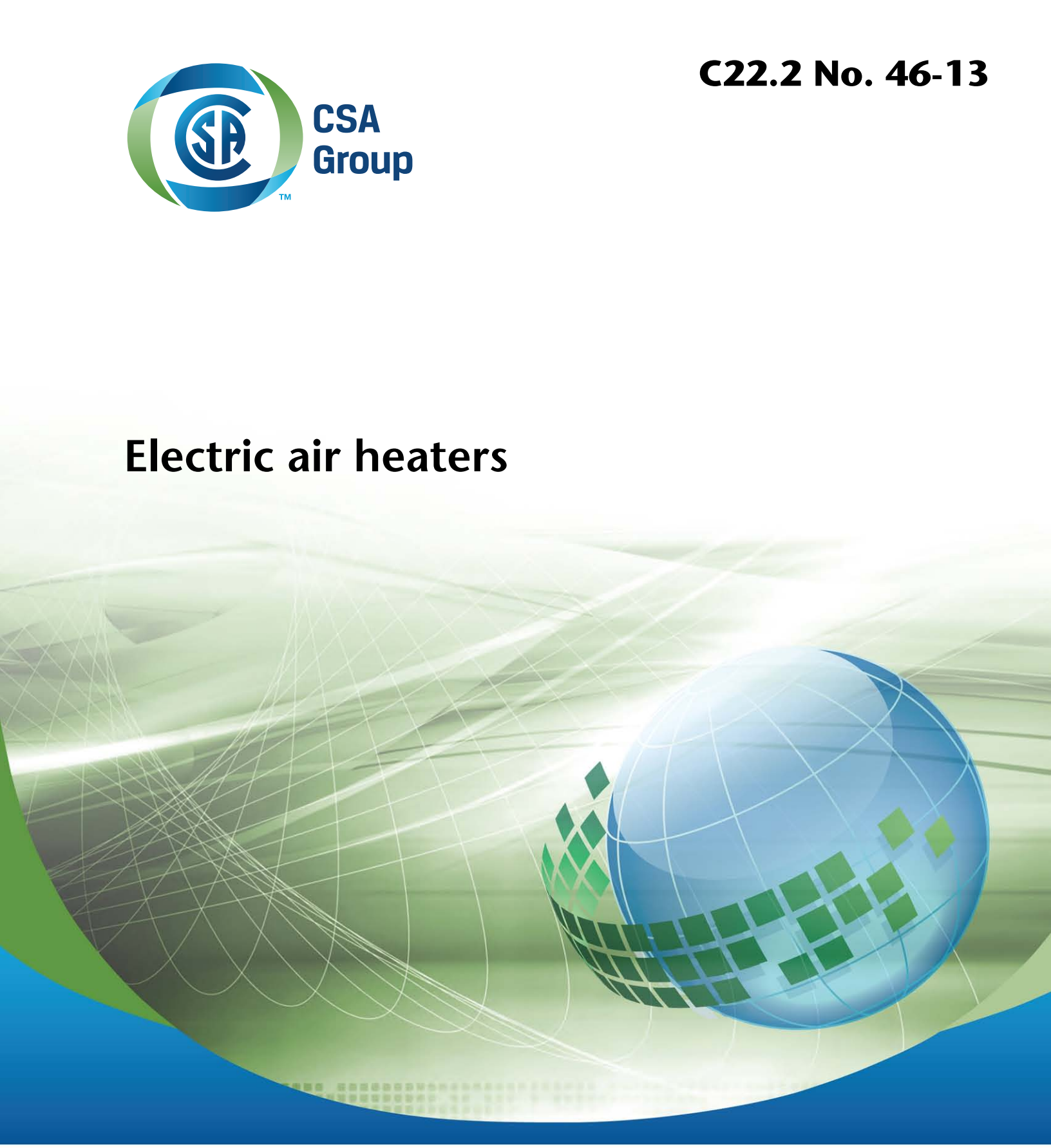
CSA Group

C22.2 No. 46-13

Electric air heaters



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Electric air heaters

CSA Group

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M. Humphries	CSA Group, Mississauga, Ontario	*Project Manager*

Preface

This is the ninth edition of CSA C22.2 No. 46, *Electric air heaters*, one of a series of Standards issued by CSA Group under *Part II* of the *Canadian Electrical Code*. It supersedes previous editions published in 1988, 1981, 1980, 1971, 1966, 1959, 1942, and 1938.

This edition mainly serves to incorporate Updates 1 through 4 of the 1988 edition, modify the scope to clarify the products not covered by this Standard, and to update the reference publications.

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 Electric Air-Heaters, 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 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 five years from the date of publication, and 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.

C22.2 No. 46-13
Electric air heaters

1 Scope

1.1
This Standard applies to air heaters intended for use on nominal system voltages of 600 V or less and designed to be used in accordance with the *Canadian Electrical Code, Part I.*

1.2
This Standard applies to permanently connected and cord-connected air heaters for household, commercial, and industrial use in non-hazardous locations.

1.3
The term "air heater" includes the following types:
(a) convection;
(b) forced air;
(c) radiation;
(d) ceiling types, alone or in combination with lighting or ventilating components, or both;
(e) liquid-filled radiator; and
(f) combinations of (a), (b), or (c).

Note: *For convenience, except where distinctions are necessary, portable and stationary air heaters are referred to throughout this Standard as "heaters".*

1.4
This Standard does not apply to
(a) unit heaters involving only steam or hot-water heating with an electric air circulator;
(b) electric duct heaters, as covered in CSA C22.2 No. 155;
(c) central electric warm-air furnaces, as covered in CSA C22.2 No. 236; and
(d) radiant space-heating panels
    (i) installed below the subfloor;
    (ii) mounted behind drywall or above plaster ceilings;
    (iii) mounted above a suspended ceiling grid system;
    (iv) forming all or part of a finished ceiling system; and
    (v) dropped into a ceiling system in its final finished form.

Requirements for cord-connected double-insulated electric air heaters are specified in Clause 8 of this Standard.

1.5
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.