CSA C22.2 No. 77:14

National Standard of Canada

(reaffirmed 2019)

Motors with inherent overheating protection

Standards Council of Canada
Conseil canadien des normes

REVISED AUGUST 2019

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Revision History

CSA C22.2 No. 77:14, Motors with inherent overheating protection

Errata — February 2015	**Revision symbol (in margin)**
Clauses 6.6.1 and 6.6.5	Δ

National Standard of Canada — August 2019
Outside front cover, National Standard of Canada text, title page, and preface.

Standards Update Service

CSA C22.2 No. 77:14
August 2014

Title: *Motors with inherent overheating protection*

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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 to judge its suitability for their particular purpose.

National Standard of Canada

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Motors with inherent overheating protection

Published in August 2014 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3

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ICS 29.160.30
ISBN 978-1-77139-655-4

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Preface

This is the eighth edition of CSA C22.2 No. 77, *Motors with inherent overheating protection*, part of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*. It supersedes the previous editions published in 1995, 1988, 1976, 1972, 1970, 1957, and 1942.

The major changes in this edition are as follows:

a) Clause 5.5 on motors with electronic protection has been added;
b) Clause 6.4.5.2 on temperature classes has been clarified;
c) the previous Clause 6.6.6 on motors with thermal cutoffs has been deleted;
d) Clause 6.10 on reliability of electronic protection circuit has been added; and
e) an item addressing electronic protection has been added to Clause 7.1.

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

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

This Standard was prepared by a Subcommittee on Motors and Generators, under the jurisdiction of Technical Committee on Industrial Products and the Strategic Steering Committee on Requirements for Electrical Safety, and has formally been 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 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:*
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   c) *wording of the proposed change; and*
   d) *rationale for the change.*

CSA C22.2 No. 77:14
Motors with inherent overheating protection

1 Scope

1.1
This Standard applies to ac and dc motors with inherent overheating protection designed to be used in accordance with the *Canadian Electrical Code, Part I*, as follows:

a) motors with a voltage rating not exceeding 600 V and with a protective device connected in the motor circuit;
b) impedance-protected motors with a voltage rating not exceeding 600 V; and
c) motors with a voltage rating not exceeding 5000 V and having a protective device connected in an external control circuit with a voltage rating not exceeding 600 V.

1.2
This Standard applies to motors with protective devices that are responsive to

a) motor temperature alone; or
b) motor temperature and motor current passing through the device but does not apply to motors with protective devices that are responsive to current alone.

1.3
This Standard does not apply to sealed (hermetic) type motor compressors with inherent overheating protection (see CAN/CSA-C22.2 No. 140.2).

1.4
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 (non-mandatory) 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.