



**CSA  
Group**

**C22.2 No. 31-14**

## **Switchgear assemblies**

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***Switchgear assemblies***



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# Preface

This is the tenth edition of CSA C22.2 No. 31, *Switchgear assemblies*. It supersedes previous editions, published in 2010, 2004, 1989, 1983, 1977, 1972, 1965, 1958, and 1939.

It is one of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*. For general information on the Standards of the *Canadian Electrical Code, Part II*, see the Preface of CAN/CSA-C22.2 No. 0.

This new edition contains two new annexes, Annex F (normative) and Annex G (informative), dealing with the requirements for pressurized gas insulated switchgear. These annexes have been written to align with accepted international IEC practices for these types of equipment as much as possible.

The requirements previously published in CSA TIL D-25 (May 2001) are now incorporated in this edition.

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

This Standard was prepared by the Working Group on Switchgear Assemblies, under the jurisdiction of the Integrated Committee on Switchgear Products, the Technical Committee on Industrial Products, and the Strategic Steering Committee on Requirements for Electrical Safety. The Standard 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 the 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 publication 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 publication.*
- 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; and*
  - d) *rationale for the change.*

# C22.2 No. 31-14

## Switchgear assemblies

### 1 Scope

#### 1.1

This Standard applies to deadfront indoor enclosed and outdoor enclosed assemblies of switchgear devices such as

- a) switches;
- b) interrupting devices;
- c) air circuit breakers;
- d) power circuit breakers; and
- e) control, metering, protective, and regulating equipment with associated interconnections and supporting structures.

#### 1.2

This Standard covers equipment with a nominal voltage of 46 kV or less that is intended to be used

- a) in accordance with the *Canadian Electrical Code, Part I*;
- b) in non-hazardous locations;
- c) for controlling and protecting the power from generators or other sources; and
- d) for supplying electrical energy to power and lighting circuits.

#### 1.3

General requirements applicable to this Standard are provided in CAN/CSA-C22.2 No. 0.

#### 1.4

This Standard does not apply to panelboards, industrial control equipment, switchboards for communication circuits (see the *Canadian Electrical Code, Part I*), or low-voltage assemblies consisting of separately supported enclosed switches, enclosed circuit breakers, and possibly service meters, with interconnection between them enclosed in raceways.

**Note:** *Manufacturers and installers of switchgear assemblies approved under this Standard should take due note of the Canadian Electrical Code, Part I, with respect to the location of switchgear devices in areas where certain components might not be acceptable.*

#### 1.5

Clauses 2 to 6 apply to all switchgear assemblies and are supplemented and amended by

- a) Clause 7 for low-voltage switchgear assemblies; and
- b) Clause 8 for high-voltage switchgear assemblies.

#### 1.6

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.