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Group**

**C22.2 No. 0.4-17**

# **Bonding of electrical equipment**

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***Bonding of electrical equipment***



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# Preface

This is the fourth edition of CSA C22.2 No. 0.4, *Bonding of electrical equipment*, 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 2004, 1982, and 1972.

The major changes in this edition are as follows:

- a) the addition of an informative annex showing possible techniques for bonding;
- b) a definition of “Exposed”, since the usage in this Standard is different from that in the *Canadian Electrical Code, Part I*;
- c) clarification of which symbol to use for bonding;
- d) allowing the option of DC testing for DC only products; and
- e) reorganizations according to current editorial practice.

This Standard was prepared by the Subcommittee on Bonding of Electric Equipment, under the jurisdiction of the Technical Committee on General Requirements, CE Code, Part II 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 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](mailto: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](http://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](mailto: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. 0.4-17

## Bonding of electrical equipment

### 1 Scope

#### 1.1

This Standard applies to electrical equipment that is intended for installation and use in accordance with the requirements of Part I of the *Canadian Electrical Code* (CE Code) and is

- a) cord connected or permanently connected and required to be bonded by either Part I or Part II of the CE Code; or
- b) constructed in a manner intended to ensure that it can be bonded when installed.

**Note:** *The bonding specified in this Clause does not include bonding that is applied to equipment solely for a purpose such as protection from lightning discharge or preventing electrical noise from interfering with the functioning of communications and computer circuits.*

#### 1.2

This Standard includes provisions for certain details of construction and for testing procedures by which a certification body may determine compliance with the applicable standard.

#### 1.3

This Standard does not include the evaluation of bonding path provisions for equipment used as wiring methods in accordance with Section 12 of the CE Code.

**Note:** *Short-time-current test requirements for equipment used as a bonding path are found in CSA C22.2 No. 41 Grounding and bonding equipment.*

#### 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: