



CSA C22.2 No. 51:20

National Standard of Canada



Armoured cables



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Preface

This is the thirteenth edition of CSA C22.2 No. 51, *Armoured cables*, one of a series of Standards issued by CSA Group under the *Canadian Electrical Code, Part II*. It supersedes the previous editions published in 2014, 2009, 1995, 1989, 1981, 1968, 1961, 1957, 1953, 1949, 1941, and 1938.

The main changes to this edition include the following:

- reduction of the minimum conductors size from 14 to 18 AWG;
- introduction of the “-PCS” suffix indicating a construction, including control and signal insulated copper conductors;
- in Clause [7.1.2](#), tape markers or jacket printing may be substituted for the indented and embossed markings;
- addition of optional halogen-free marking in Clause [7.1.2](#); and
- addition of Tables [22](#) and [23](#) and Figure [5](#).

For general information on the Standards of the *Canadian Electrical Code, Part II*, see the Preface of 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 Integrated Committee on Metal Clad Cables, under the jurisdiction of the Technical Committee on Wiring Products and the Strategic Steering Committee on Requirements for Electrical Safety, and was formally 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:*
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 - b) *provide an explanation of circumstances surrounding the actual field condition; and*
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 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

CSA C22.2 No. 51:20

Armoured cables

1 Scope

1.1

This Standard specifies requirements for single- and multi-conductor insulated cables having metallic interlocked armour without an overall jacket (Type AC90 or ACG90) or with an overall jacket (Type ACWU90 or ACGWU90) that are intended for installation in accordance with CSA C22.1, *Canadian Electrical Code, Part I*, on systems having nominal voltages of 2000 V and less. ACG90 and ACGWU90 apply to multi-conductor cables only. ACG90 and ACGWU90 shall have voltages of 600 V and less.

1.2

This Standard specifies requirements for cables having insulated conductors in sizes 18 AWG to 2000 kcmil. The maximum cable temperature rating is 90 °C.

Note: See Annex B for a summary of the cable types covered by this Standard and corresponding constructions, voltage ratings, and the number and size of conductors for the types to which this Standard applies.

1.3

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, including all amendments published thereto.

CSA Group

C22.1-18

Canadian Electrical Code, Part I

CSA C22.2 No. 0:20

General Requirements — Canadian Electrical Code, Part II