



# **CSA C22.2 No. 190:14** National Standard of Canada *(reaffirmed 2019)*



## **Capacitors for power factor correction**



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# ***Revision History***

## **CSA C22.2 No. 190:14, Capacitors for power factor correction**

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# *National Standard of Canada*

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# Preface

This is the second edition of CSA C22.2 No. 190, *Capacitors for power factor correction*, one of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*. It supersedes the first edition published in 1985.

Changes to this edition include the insertion of Update 1 (December 1985) and Update 2 (January 1988) and the addition of Clause [10](#), and Tables [7](#), [8](#), [9](#), and [10](#).

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 conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Subcommittee on Capacitors for Power Factor Correction, under the jurisdiction of the Technical Committee on Industrial 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."

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  - c) *wording of the proposed change; and*
  - d) *rationale for the change.*

# ***CSA C22.2 No. 190:14***

## ***Capacitors for power factor correction***

### **1 Scope**

#### **1.1**

This Standard applies to indoor or outdoor, open or enclosed, shunt power capacitors and assemblies of shunt power capacitors with associated interconnections and supporting structures, for power factor improvement and other applications on ac power systems having voltages up to 46 kV, designed to be installed in accordance with the Rules of the *Canadian Electrical Code, Part I*.

#### **1.2**

The requirements of this Standard also apply to self-healing capacitor with metallized electrode for use on ac systems having a maximum voltage between phases of 1000 V and less.

#### **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.

#### **CSA Group**

C22.1-12

*Canadian Electrical Code, Part I*

CAN/CSA-C22.2 No. 0-10

*General Requirements—Canadian Electrical Code, Part II*

CAN/CSA-C22.2 No. 0.4-04 (R2013)

*Bonding of Electrical Equipment*