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C57-16

# Electric power connectors for use in overhead line conductors

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# *C57-16*

# *Electric power connectors for use in overhead line conductors*

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# Preface

This is the third edition of CSA C57, *Electrical power connectors for use in overhead line conductors*. It supersedes previous editions published in 1998 and 1966.

This edition includes the following key revisions:

a) Reference publications and definitions have been updated.
b) Electrical and mechanical performance as applied to range-taking connectors has been clarified (see Clauses 4.2.1 and 4.4.7, respectively).
c) An accelerated method for electrical performance has been included (see Clause 6.6.1.3).
d) Testing requirements for connectors of similar design but of difference sizes has been specified (see Clause 5).
e) An optional short-circuit test that can be specified by the purchaser has been included (see Clause 6.10). As experience with this optional test is gained, consideration will be given in the context of a future edition to specifying the short-circuit test as normative.
f) The environmental test procedure has been revised (see Clause 8).
g) Annex A has been clarified.
h) Annex D has been expanded to provide additional guidance on test loops.
i) Three new informative annexes have been included, as follows:
   i) Annex E on a sheave testing;
   ii) Annex F illustrating the types of connectors covered by this Standard; and
   iii) Annex G listing various conductor Standards.

Major funding in support of the consensus process of this Standard was provided by the Canadian Electricity Association (CEA), whose assistance is acknowledged with thanks.

This Standard was prepared by the Technical Committee on Connectors for Use in Power and Communications Line Conductors, under the jurisdiction of the Strategic Steering Committee on Power Engineering and Electromagnetic Compatibility and has been formally approved by the Technical Committee.

**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.*

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a) *Standard designation (number);*
b) *relevant clause, table, and/or figure number;*
c) *wording of the proposed change; and*
d) *rationale for the change.*


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# C57-16
# Electric power connectors for use in overhead line conductors

## 1 Scope

### 1.1
This Standard specifies requirements for the mechanical, electrical, and environmental performance of connectors designed for installation on the bare surface of overhead line conductors at normal operating temperatures up to 100 °C.

**Note:** *Although the requirements of this Standard were developed primarily for connections to aluminum conductors, the requirements are also applicable to connectors for copper-to-copper or aluminum-to-copper conductors.*

### 1.2
This Standard does not apply to station connectors.

### 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.

### 1.4
The values given in SI units are the units of record for the purposes of this Standard. Where values are given in parentheses, they are for information and comparison only.

## 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**

CAN/CSA-C61089-11 (R2015)
*Round wire concentric lay overhead electrical stranded conductors*


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