

Powered table systems for residential and commercial use



Legal Notice for Standards

Canadian Standards Association (operating as “CSA Group”) develops standards through a consensus standards development process approved by the Standards Council of Canada. This process brings together volunteers representing varied viewpoints and interests to achieve consensus and develop a standard. Although CSA Group administers the process and establishes rules to promote fairness in achieving consensus, it does not independently test, evaluate, or verify the content of standards.

Disclaimer and exclusion of liability

This document is provided without any representations, warranties, or conditions of any kind, express or implied, including, without limitation, implied warranties or conditions concerning this document’s fitness for a particular purpose or use, its merchantability, or its non-infringement of any third party’s intellectual property rights. CSA Group does not warrant the accuracy, completeness, or currency of any of the information published in this document. CSA Group makes no representations or warranties regarding this document’s compliance with any applicable statute, rule, or regulation.

IN NO EVENT SHALL CSA GROUP, ITS VOLUNTEERS, MEMBERS, SUBSIDIARIES, OR AFFILIATED COMPANIES, OR THEIR EMPLOYEES, DIRECTORS, OR OFFICERS, BE LIABLE FOR ANY DIRECT, INDIRECT, OR INCIDENTAL DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES, HOWSOEVER CAUSED, INCLUDING BUT NOT LIMITED TO SPECIAL OR CONSEQUENTIAL DAMAGES, LOST REVENUE, BUSINESS INTERRUPTION, LOST OR DAMAGED DATA, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSS, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR ANY OTHER THEORY OF LIABILITY, ARISING OUT OF OR RESULTING FROM ACCESS TO OR POSSESSION OR USE OF THIS DOCUMENT, EVEN IF CSA GROUP HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES.

In publishing and making this document available, CSA Group is not undertaking to render professional or other services for or on behalf of any person or entity or to perform any duty owed by any person or entity to another person or entity. The information in this document is directed to those who have the appropriate degree of experience to use and apply its contents, and CSA Group accepts no responsibility whatsoever arising in any way from any and all use of or reliance on the information contained in this document.

CSA Group is a private not-for-profit company that publishes voluntary standards and related documents. CSA Group has no power, nor does it undertake, to enforce compliance with the contents of the standards or other documents it publishes.

Intellectual property rights and ownership

As between CSA Group and the users of this document (whether it be in printed or electronic form), CSA Group is the owner, or the authorized licensee, of all works contained herein that are protected by copyright, all trade-marks (except as otherwise noted to the contrary), and all inventions and trade secrets that may be contained in this document, whether or not such inventions and trade secrets are protected by patents and applications for patents. Without limitation, the unauthorized use, modification, copying, or disclosure of this document may violate laws that protect CSA Group’s and/or others’ intellectual property and may give rise to a right in CSA Group and/or others to seek legal redress for such use, modification, copying, or disclosure. To the extent permitted by treaty or by law, CSA Group reserves all intellectual property rights in this document.

Patent rights

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. CSA Group shall not be held responsible for identifying any or all such patent rights. Users of this standard are expressly advised that determination of the validity of any such patent rights is entirely their own responsibility.

Authorized use of this document

This document is being provided by CSA Group for informational and non-commercial use only. The user of this document is authorized to do only the following:

If this document is in electronic form:

- load this document onto a computer for the sole purpose of reviewing it;
- search and browse this document; and
- print this document if it is in PDF form.

Limited copies of this document in print or paper form may be distributed only to persons who are authorized by CSA Group to have such copies, and only if this Legal Notice appears on each such copy.

In addition, users may not and may not permit others to

- alter this document in any way, or remove this Legal Notice from the attached standard;
- sell this document without authorization from CSA Group; or
- make an electronic copy of this document.

If you do not agree with any of the terms and conditions contained in this Legal Notice, you may not load or use this document or make any copies of the contents hereof, and if you do make such copies, you are required to destroy them immediately. Use of this document constitutes your acceptance of the terms and conditions of this Legal Notice.



Standards Update Service

CSA C22.2 No. 203.2:22 January 2022

Title: *Powered table systems for residential and commercial use*

To register for e-mail notification about any updates to this publication

- go to www.csagroup.org/store/
- click on **Product Updates**

The **List ID** that you will need to register for updates to this publication is **24296.2**

If you require assistance, please e-mail techsupport@csagroup.org or call 416-747-2233.

Visit CSA Group's policy on privacy at www.csagroup.org/legal to find out how we protect your personal information.

Canadian Standards Association (operating as “CSA Group”), under whose auspices this National Standard has been produced, was chartered in 1919 and accredited by the Standards Council of Canada to the National Standards system in 1973. It is a not-for-profit, nonstatutory, voluntary membership association engaged in standards development and certification activities.

CSA Group standards reflect a national consensus of producers and users — including manufacturers, consumers, retailers, unions and professional organizations, and governmental agencies. The standards are used widely by industry and commerce and often adopted by municipal, provincial, and federal governments in their regulations, particularly in the fields of health, safety, building and construction, and the environment.

More than 10 000 members indicate their support for CSA Group’s standards development by volunteering their time and skills to Committee work.

CSA Group offers certification and testing services in support of and as an extension to its standards development activities. To ensure the integrity of its certification process, CSA Group regularly and continually audits and inspects products that bear the CSA Group Mark.

In addition to its head office and laboratory complex in Toronto, CSA Group has regional branch offices in major centres across Canada and inspection and testing agencies in fourteen countries. Since 1919, CSA Group has developed the necessary expertise to meet its corporate mission: CSA Group is an independent service organization whose mission is to provide an open and effective forum for activities facilitating the exchange of goods and services through the use of standards, certification and related services to meet national and international needs.

For further information on CSA Group services, write to
CSA Group
178 Rexdale Boulevard
Toronto, Ontario, M9W 1R3
Canada

A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at www.scc.ca.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada’s economic competitiveness and social well-being, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at www.scc.ca.

Standards Council of Canada
600-55 Metcalfe Street
Ottawa, Ontario, K1P 6L5
Canada



La norme nationale du Canada n'est disponible qu'en anglais.

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 to judge its suitability for their particular purpose.

**A trademark of the Canadian Standards Association, operating as “CSA Group”*

National Standard of Canada

CSA C22.2 No. 203.2:22

***Powered table systems for
residential and commercial use***



*®A trademark of the Canadian Standards Association,
operating as "CSA Group."*



*Published in January 2022 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3*

*To purchase standards and related publications, visit our Online Store at www.csagroup.org/store/
or call toll-free 1-800-463-6727 or 416-747-4044.*

*ICS 29.060
ISBN 978-1-4883-3934-9*

*© 2022 Canadian Standards Association
All rights reserved. No part of this publication may be reproduced in any form whatsoever
without the prior permission of the publisher.*

Contents

Technical Committee on Wiring Products	3
Subcommittee on Specialized Wiring Systems	5
Preface	6
1 Scope	8
2 Reference publications	9
3 Definitions	9
4 General requirements	10
5 Construction	10
5.1 General	10
5.2 Frame and enclosure	10
5.2.1 General	10
5.2.2 Metallic electrical enclosures	11
5.3 Electrical enclosures of polymeric material	12
5.4 Mechanical connectors	12
5.5 Metal raceways	12
5.6 Raceways of polymeric material	13
5.7 Mounting means	13
5.8 Internal wiring and separation of circuits	13
5.9 Protection against corrosion	14
5.10 Accessibility of uninsulated live parts	14
5.11 Mechanical assembly	15
5.11.1 General	15
5.11.2 Mechanical connectors	15
5.11.3 Interconnecting cords and supports	15
5.11.4 Raceway support	16
5.11.5 Electrical mating connectors	16
5.12 Power supply connections	16
5.13 Overcurrent protection	17
5.14 Convenience receptacles	18
5.15 Strain relief	18
5.16 Spacing	19
5.17 Flammability of materials	19
5.18 Separation of circuits	19
5.19 Bonding	20
6 Marking	20
7 Installation and operating instructions	21
8 Tests	22

8.1	Mechanical strength of enclosures tests	22
8.1.1	General	22
8.1.2	Loading test	22
8.2	Bond impedance test	23
8.3	Dielectric strength test	23
8.4	Temperature test	24
8.5	Strength of enclosure tests — Impact test — All enclosures	25
8.6	Compression test	25
8.7	Deflection test	26
8.8	Mould-stress test	27
8.9	Flexing test	27
8.10	Retention tests on electrical mating connectors	28
8.10.1	General	28
8.10.2	Separation test	28
8.10.3	Secureness test	28
8.11	Tests on nonmetallic mechanical connectors	29
8.12	Strain-relief tests	29
8.12.1	General	29
8.12.2	Power supply cord	29
8.12.3	Unit-to-unit and pass-through-unit electrical connections	30
8.13	Spill test	30
8.14	Corrosion-resistance coating on steel surface raceway	31

Annex A (normative)	— Manufacturing and production tests	35
---------------------	--------------------------------------	----

Technical Committee on Wiring Products

P. Desilets	Leviton Canada, Pointe-Claire, Québec, Canada <i>Category: Producer Interest</i>	<i>Chair</i>
T. Simmons	British Columbia Institute of Technology, Burnaby, British Columbia, Canada <i>Category: General Interest</i>	<i>Vice-Chair</i>
Z. Bekele	CSA Group, Independence, Ohio, USA <i>Category: General Interest</i>	
W. J. Burr	Burr and Associates, Campbell River, British Columbia, Canada <i>Category: User Interest</i>	
C. Davis	Electro Cables Incorporated, Trenton, Ontario, Canada <i>Category: Producer Interest</i>	
S. W. Douglas	QPS Evaluation Services Inc. Toronto, Ontario, Canada <i>Category: General Interest</i>	
D. Drysdale	Nexans Canada Inc., Fergus, Ontario, Canada <i>Category: Producer Interest</i>	
R. W. Horner	Allied International (Allied Tube & Conduit Corporation), Merriville, Illinois, USA <i>Category: Producer Interest</i>	
J. Imlah	Imlah Electrical Consulting, Aloha, Oregon, USA <i>Category: User Interest</i>	
S. Malikarachchi	City of Winnipeg Planning, Property & Development, Winnipeg, Manitoba, Canada <i>Category: Regulatory Authority</i>	
S. Mercier	Régie du bâtiment du Québec, Montréal, Québec, Canada <i>Category: Regulatory Authority</i>	

T. Olechna	Electrical Safety Authority, Mississauga, Ontario, Canada <i>Category: Regulatory Authority</i>
K. L. Rodel	Pontypool, Ontario, Canada <i>Category: Producer Interest</i>
A. Z. Tsisserev	AES Engineering Ltd., Vancouver, British Columbia, Canada <i>Category: General Interest</i>
J. Turner	Swansea Consulting, Toronto, Ontario, Canada <i>Category: User Interest</i>
L. Letea	Canadian Standards Association, Toronto, Ontario, Canada <i>Project Manager</i>

Subcommittee on Specialized Wiring Systems

C. D. Mercier	Southwire Company, Carrollton, Georgia, USA	<i>Chair</i>
J. Austin	Cable Management Products Ltd. A Thomas & Betts Company, Coleshill, Birmingham, United Kingdom	
M. Everhart	Steelcase Incorporated, LEC-TL, Grand Rapids, Michigan, USA	
T. Hamden	CSA Group, Toronto, Ontario, Canada	
R. W. Horner	Atkore International (Allied Tube & Conduit Corporation), Harvey, Illinois, USA	
D. Juden	C.C.G., Ottawa, Ontario, Canada	
R. Kummer	Southwire Company, Carrollton, Georgia, USA	
W. G. McMullan	Winnipeg, Manitoba, Canada	
A. Nakhuda	Esmond Manufacturing, a Div. of Teknion Ltd., Scarborough, Ontario, Canada	
C. Rueck	Southwire Canada, Burnaby, British Columbia, Canada	
H. Shahee	Esmond Manufacturing, a Div. of Teknion Ltd., Scarborough, Ontario, Canada	
N. J. Sutton	Legrand Canada Inc., Vaughan, Ontario, Canada	
L. Letea	Canadian Standards Association, Toronto, Ontario, Canada	<i>Project Manager</i>

Preface

This is the second edition of CSA C22.2 No. 203.2, *Powered table systems for residential and commercial use*. It supersedes the previous edition published in 2014. It is one of a series of Standards issued 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 the latest edition of CSA C22.2 No. 0.

The major changes to this edition include the following:

- a) added installation rules;
- b) clarified maximum voltage ratings for separation of circuits; and
- c) editorial changes.

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

This Standard was prepared by the Subcommittee on Insulation Systems, under the jurisdiction of the Technical Committee on Wiring Products and the Strategic Steering Committee on Requirements for Electrical Safety, and has been 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 CSA 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:*
 - 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 within five years from the date of publication and 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.*

CSA C22.2 No. 203.2:22

Powered table systems for residential and commercial use

1 Scope

1.1

This Standard covers electrical safety requirements for 120 V cord-connected single-circuit wiring systems for residential and commercial use and for use with freestanding interconnected tables, provided with communication, video, and/or power receptacles that are intended for frequent setup and breakdown.

1.2

The requirements apply to powered tables connected to 15 A or 20 A, 120 V (single-phase) branch circuits, for use in non-hazardous locations, in accordance with the Rules of the *Canadian Electrical Code, Part I*.

1.3

The requirements do not apply to tables employing multi-circuit electrical systems, tables that are integral to an office panel system, kiosks, carts and utility stands, or wired cabinets.

1.4

This Standard covers the requirements for protective routing of communication circuits.

1.5

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.

1.6

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