



# Electrical/Electronics

## New Standards & Editions

**C22.2 No. 18.5-02, 1st edition**  
*Positioning Devices* (Bi-national standard, with UL 1565) . . . . . \$155

This standard applies to metallic and nonmetallic devices used for positioning (which may include bundling and securing) or to a limited extent supporting cable, wire, conduit, or tubing of a wiring system in electrical installations, to reduce the risk of fire, electric shock, or injury to persons. This standard applies to (but is not limited to) cable ties, cable tie mounting blocks, cable clamps, cable and conduit clips, and non-raceway ducts.

**C22.2 No. 182.1-02, 2nd edition**  
*Plugs, Receptacles, and Cable Connectors of the Pin and Sleeve Type* (Bi-national standard, with UL 1682) . . . . . \$200

This standard applies to pin and sleeve type plugs, receptacles, power inlets, and connectors, rated up to 800 A and up to 600 V ac or dc, and which may include two or fewer pilot contacts. These devices are intended to provide power from branch circuits, or are for direct connection to the branch circuit in accordance with the *Canadian Electrical Code, Part I* and the *National Electrical Code ANSI/NFPA 70*, using copper conductors. Devices covered are for use in either indoor or outdoor nonhazardous locations.

**C22.2 No. 214-02, 6th edition**  
*Communications Cables* (Bi-national standard, with UL 444) . . . . . \$200

This standard applies to 60–250°C single- or multiple-conductor jacketed or unjacketed, integral or nonintegral cables, and single or multiple coaxial cables for telephone and other communication circuits such as voice, data, and audio for on-premise customer systems. These cables are not prohibited from containing one or more optical fibre members. For the purpose of this standard:

- A coaxial cable or coaxial member conductor is a single conductor with a shield.
- A single- or multiple-conductor unjacketed cable is a cross-connect wire.

This standard applies to communications cables that are intended primarily for installation in accordance with Section 60 of the *Canadian Electrical Code, Part I*, and Article 800 of the *National Electrical Code*. They are rated for 300 V applications but are not so marked. It does not apply to communication cords.

## Nouvelles parutions en français

**C22.1SB-02, 19<sup>e</sup> édition**  
*Code canadien de l'électricité, Première partie (19<sup>e</sup> édition), Norme de sécurité relative aux installations électriques* (reliure spirale) . . . . . 80 \$

Ce code a pour objet d'établir des normes de sécurité relatives à l'installation et à l'entretien de l'appareillage électrique. Au cours de son élaboration, on a tenu compte de la prévention des risques d'incendie et de chocs électriques ainsi que de l'entretien nécessaire et du bon fonctionnement des appareils.

La conformité à ce code ainsi qu'un entretien adéquat assureront la sécurité indispensable de l'installation.

Ce code n'est pas destiné à servir de spécification de conception ni de manuel d'instruction à l'usage de personnes non qualifiées.

Ce code s'applique à tous les travaux d'électricité et à tout appareillage électrique fonctionnant, ou destiné à fonctionner, sous toutes les tensions possibles dans les installations électriques des bâtiments, constructions et propriétés, y compris les constructions préfabriquées démontables et non démontables, et les bateaux autopropulsés immobilisés pour des périodes dépassant cinq mois et branchés, continuellement ou de temps en temps, à une alimentation électrique côtière, à l'exception :

- a) des installations ou de l'appareillage utilisés par un service public d'électricité, de télécommunications ou de télédistribution fonctionnant en tant que tel et situés à l'extérieur ou à l'intérieur des bâtiments, ou parties de bâtiments réservés à cet usage ;
- b) de l'appareillage et des installations utilisés pour l'exploitation de chemins de fer électriques et alimentés exclusivement par les circuits alimentant la force motrice ;
- c) des installations ou de l'appareillage utilisés par les chemins de fer à des fins de signalisation et de télécommunications et situés à l'extérieur ou à l'intérieur des bâtiments, ou parties de bâtiments réservés à cet usage ;
- d) des aéronefs ;
- e) des réseaux électriques de navires soumis aux normes d'électricité régissant les navires, sous la juridiction de Sécurité maritime, Transports Canada.

Voir aussi la norme CAN/CSA-M421 en ce qui a trait aux mines et aux carrières.



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## Amendments

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### C22.2 No. 38-95

#### *Thermoset Insulated Wires and Cables*

Revision of the Table of Contents, and Clauses 4.6.1, 4.6.2, 5.2, and 6.2.2.1. Addition of Clauses 4.6.4 and 5.1.10. Deletion of Clause 6.4.16 and Table 43.

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## Modifications publiées en français

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### C22.2 n° 96-98

#### *Câbles de puissance mobiles*

Des modifications ont été apportées à la table des matières et aux articles 2.1, 4.3.3.7, 5.1.4.5, 5.1.11.2.5, 5.2.1 et 6.3.1 ainsi qu'aux tableaux 4, 10 et 26. Les articles 5.3.13, 6.4.13, 7.4.11 et le tableau 4A ont été ajoutés. Les articles 4.5.12, 5.3.11, 6.4.11, 7.4.9 et 8.4.7 ont été abrogés.

### CAN/CSA-C68.3-97 (C2001)

#### *Câbles de puissance avec écran et à neutre concentrique d'une tension nominale de 5 à 46 kV*

Des modifications ont été apportées à la table des matières, aux articles 2.1, 3.1, 4.2.3, 4.2.5, 4.2.6, 4.3.3, 4.4.2.1, 4.4.2.2, 4.4.2.3, 4.4.4.5, 4.8.1.2.1, 5.1j), 6.2.2 et 6.3.11, et aux tableaux 3, 4, 5, 8, 18, 23 et 26 ainsi qu'aux appendices C et E. L'article 1.3A a été ajouté.

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## Proposed New Projects

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For more information about the proposed development of the following new editions, contact Brian Haydon at 416-747-4006 or [brian.haydon@csa.ca](mailto:brian.haydon@csa.ca):

- **C22.2 No. 211.0, 2nd edition**  
*General Requirements and Methods of Testing for Nonmetallic Conduit*
- **C22.2 No. 262, 1st edition**  
*Optical Fiber Cable Raceway Systems*

For more information about the proposed development of the following new editions, contact Tim Pope at 416-747-2572 or [tim.pope@csa.ca](mailto:tim.pope@csa.ca):

- **C22.2 No. 31, 8th edition**  
*Switchgear Assemblies*
- **C22.2 No. 261, 1st edition**  
*Requirements for Arc Resistant Ratings*

For more information about the proposed development of the following new project, contact Denis Vaz at 416-747-2519 or [denis.vaz@csa.ca](mailto:denis.vaz@csa.ca):

- **C22.2 No. 61058, 1st edition**  
*Appliance Switches*

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## Drafts

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**Please note:** Public comments about the draft standards and proposed amendments listed in this issue are due by October 7, 2002.

To receive copies of the following, or to offer comments, contact Annie Pereira at 416-747-4094 or [annie.pereira@csa.ca](mailto:annie.pereira@csa.ca):

- **C22.2 No. 5-02, Proposed amendments**  
*Molded-Case Circuit Breakers, Molded-Case Switches and Circuit-Breaker Enclosures*  
  
Proposed revisions of Clauses 6.4, 7.4, 8.8, and 9.4.
- **C22.2 No. 36-M1989 (R1999), Proposed amendments**  
*Hairdressing Equipment*  
  
Proposed revisions of Clauses 4.2.3, 4.2.4, 4.2.5, and 6.11.3.
- **C22.2 No. 60950-1, 1st edition**  
*Information Technology Equipment—Safety—Part 1: General Requirements*

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## Proposed Adoption of Standards

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**Note:** Public comments about proposed adoptions listed in this issue are due by October 7, 2002.

For more information about the proposed adoption of the following IEC standards, contact David Hulford at 416-747-2740 or [david.hulford@csa.ca](mailto:david.hulford@csa.ca):

- **IEC 60127-6 (1994-04)**  
*Miniature Fuses—Part 6: Fuse-holders for Miniature Cartridge Fuse-links*
- **IEC 61347-1 (2000-10)**  
*Lamp Controlgear—Part 1: General and Safety Requirements*
- **IEC 61347-2-3 (2000-10)**  
*Lamp Controlgear—Part 2-3: Particular Requirements for A.C. Supplied Electronic Ballasts for Fluorescent Lamps*




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## Reaffirmed Standards

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C22.2 No. 98-1954 (R2002)

*Construction and Test of Power-Operated Radio Transmitters*

C22.2 No. 112-97 (R2002)

*Electric Clothes Dryers*

C22.2 No. 117-1970 (R2002)

*Room Air Conditioners*

C22.2 No. 167-97 (R2002)

*Household Dishwashers*

C22.2 No. 169-97 (R2002)

*Electric Clothes Washing Machines and Extractors*

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## Informs Notices (Bulletins from CSA Certification and Testing)

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Date	Subject	Title
May 6, 2002	CSA program for qualification of facilities engaged in the repair of electrical motors and generators, certified by CSA to US standards, for use in hazardous locations.	Certification Informs No. 370-US

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## Certification Notices

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Please note: ▶ Notices marked with an arrowhead are new in this issue.

Effective Date	Subject	Title
▶ Immediately	Publication of CSA standard C22.2 No. 5-02, <i>Moulded-Case Circuit Breakers, Moulded-Case Switches and Circuit Breaker Enclosures</i> . (Replaces Certification Notice "Circuit Breakers No. 1" and Informs "Switches No. 1.")	Circuit Breakers No. 2/ Switches No. 6
▶ November 7, 2003	Publication of the third edition of CSA standard C22.2 No. 104-01, <i>Humidifiers</i> . (Supersedes Certification Notice "Humidifiers No. 1.")	Humidifiers No. 2

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## Status of CSA Standards Projects

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**TYPE:** ns new standard; ne new edition; spec special publication; p preliminary standard.

**STATUS:** 1 The project is under initial evaluation.

2 The technical content is being drafted.

3 The draft is undergoing an internal quality audit by CSA.

4 The publication is being processed for formal letter-ballot approval.

5 The approved publication will be for sale within 2–3 months.

H The publication is on hold.

C The publication has been cancelled. It will be removed from the next status report.

SUBJECT	NUMBER	TYPE	STATUS
<b>Wiring Products</b>			
Metal Outlet Boxes	C22.2 No. 18.1	ns	4
Conduit and Cable Fittings	C22.2 No. 18.3	ns	4
Conduit and Cable Support Hardware	C22.2 No. 18.4	ns	3

**Status of CSA Standards Projects (cont'd)**

<b>SUBJECT</b>	<b>NUMBER</b>	<b>TYPE</b>	<b>STATUS</b>
<b>Wiring Products (cont'd)</b>			
Cord Sets and Power Supply Cords	C22.2 No. 21	ne	2
Lampholders	C22.2 No. 43	ne	1
Rigid Metal Conduit–Steel	C22.2 No. 45.1	ns	3
Flexible Cords and Cables	C22.2 No. 49	ne	2
Non-metallic Surface Raceways	C22.2 No. 62.1	ns	3
Wire Connectors	C22.2 No. 65	ne	3
Thermoplastic-Insulated Wires and Cables (Tri-national standard)	C22.2 No. 75	ne	4
Electrical Metallic Tubing–Steel	C22.2 No. 83.1	ns	3
Portable Power Cables	C22.2 No. 96	ne	2
Mine Power Feeder Cables	C22.2 No. 96.1	ns	2
Metal Cable Tray Systems	C22.2 No. 126.1	ne	4
Non-metallic Cable Tray Systems	C22.2 No. 126.2	ns	4
Neutral Supported Cable	C22.2 No. 129	ne	2
Heat Tracing Cable Systems for Ordinary and Hazardous Locations	C22.2 No. 130	ne	3
Coated Electrical Sleeving	C22.2 No. 198.3	ne	2
Appliance Wiring Material Products	C22.2 No. 210.2	ne	2
Reinforced Thermosetting Resin Conduit–Above Ground	C22.2 No. 211.3	ne	3
Reinforced Thermosetting Resin Conduit (RTRC)–Below Ground	C22.2 No. 211.4	ns	3
Liquid-Tight Flexible Nonmetallic Conduit	C22.2 No. 227.2.1	ns	3
Flexible Non-metallic Tubing	C22.2 No. 227.3	ne	2
<b>Industrial Products</b>			
Enclosed Switches	C22.2 No. 4	ne	3
Industrial Control Equipment	C22.2 No.14	ne	2
Panelboards and Enclosed Panelboards	C22.2 No. 29	ne	3
Switchgear Assemblies	C22.2 No. 31	ne	2
Specialty Transformers	C22.2 No. 66	ne	3
Motors with Inherent Overheating Protection	C22.2 No. 77	ne	2
Special Purpose Enclosures	C22.2 No. 94	ne	2
Motors and Generators	C22.2 No. 100	ne	C
Safety of Uninterruptible Power Supplies (UPS)–Part 1	C22.2 No. 107.3	ns	4
Ground Fault Circuit Interrupters	C22.2 No. 144	ne	1
Automatic Transfer Switches	C22.2 No. 178.1	ns	2
Supplementary Protectors	C22.2 No. 235	ne	2
Switchboards	C22.2 No. 244	ns	1
Neon and Cold Cathode Supplies	C22.2 No. 255	ns	2
Safety of Laser Products–Part 1: Equipment Classification, Requirements and User's Guide	E60825-1	ns	3
Safety of Power Transformers, Power Supply Units and Similar —			
— Part 1: General Requirements and Tests	E61558-1	ns	3
— Part 2-1: Separating Transformers for General Use	E61558-2-1	ns	3
— Part 2-2: Control Transformers	E61558-2-2	ns	3
— Part 2-4: Isolating Transformers for General Use	E61558-2-4	ns	3
— Part 2-5: Shaver Transformers and Shaver Supply Units	E61558-2-5	ns	3
— Part 2-6: Safety Isolating Transformers for General Use	E61558-2-6	ns	3
— Part 2-13: Auto-transformers for General Use	E61558-2-13	ns	3



## Status of CSA Standards Projects (cont'd)

SUBJECT	NUMBER	TYPE	STATUS
<b>Consumer and Commercial Products</b>			
Landscape Lighting	C22.2 No. 9.1	ns	H
Portable Luminaires	C22.2 No. 9.12	ne	1
Christmas Tree and other Decorative Lighting Outfits	C22.2 No. 37	ne	2
Unit Equipment for Emergency Lighting	C22.2 No. 141	ne	5
Central System for Unit Equipment for Emergency Lighting	C22.2 No. 141.1	ns	2
Electrostatic Air Cleaners	C22.2 No. 187	ne	3
Radiant Space Heating Panels, Panel Sets, and Systems	C22.2 No. 217	ne	H
Heating and Cooling Equipment	C22.2 No. 236	ne	2
Direct Plug-in Portable Luminaires	C22.2 No. 256	ns	3
Safety of Household and Similar Electrical Appliances–Part 1: General Requirements	E60335-1/4E	ne	3
Luminaires–Part 1: General Requirements and Tests	E60598-1	ne	5
Automatic Electrical Controls for Household and Similar Use–Part 1: General Requirements	E60730-1/3E	ne	5
<b>Electrical Engineering</b>			
Single-Phase and Three-Phase Distribution Transformers, Types ONAN and LNaN	C2	ne	4
Pole-Mounted, Single-Phase, Distribution Transformers for Electric Utilities	C2.2	ns	4
Dry-type Transformers	C9	ne	4
Three-Phase Network Transformers	C199	ne	3
Three-phase, Live-front Pad-mounted Distribution Transformers	C227.2	ne	3
Low-Profile, Single-Phase, Pad-mounted Distribution Transformer with Separable Insulated High-Voltage Connectors	C227.3	ne	4
Three-Phase, Pad-mounted Distribution Transformers with Separable Insulated Connectors	C227.4	ne	4
Single-Phase, Submersible Distribution Transformers, Type ONAN	C301.1	ne	4
Three-Phase, Submersible Distribution Transformers, Type ONAN	C301.2	ne	4
Aluminium-Magnesium-Silicon Alloy Wire for Overhead Line Conductors	IEC 60104	ns	3
Zinc-coated Steel Wires for Overhead Line Conductors	IEC 60888	ns	3
Hard-drawn Aluminium Wire for Overhead Line Conductors	IEC 60889	ns	3
Round Wire Concentric Lay Overhead Electrical Stranded Conductors	IEC 61089	ns	3
Aluminum-clad Steel Wires for Electrical Purposes	IEC 61232	ns	3
<b>Electromagnetic Compatibility</b>			
Electromagnetic Compatibility (EMC)–Part 4: Testing and Measurement Techniques–Section 8: Power Frequency Magnetic Field Immunity Test–Basic EMC Publication	61000-4-8	ns	5
Electromagnetic Compatibility (EMC)–Part 4: Testing and Measurement Techniques–Section 9: Pulse Magnetic Field Immunity Test–Basic EMC Publication	61000-4-9	ns	5
Electromagnetic Compatibility (EMC)–Part 4-16: Testing and Measurement Techniques–Test for Immunity to Conducted, Common Mode Disturbances in the Frequency Range 0 Hz to 150 Hz	61000-4-16	ns	5
Electromagnetic Compatibility (EMC)–Part 4-17: Testing and Measurement Techniques–Ripple on D.C. Input Power Port Immunity Test	61000-4-17	ns	5



## Status of CSA Standards Projects (cont'd)

SUBJECT	NUMBER	TYPE	STATUS
<b>Electromagnetic Compatibility (cont'd)</b>			
Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods–Part 1: Radio Disturbance and Immunity Measuring Apparatus	CISPR 16-1	ns	C
Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods–Part 2: Methods of Measurement of Disturbance and Immunity	CISPR 16-2	ns	C
Information Technology Equipment–Radio Disturbance Characteristics–Limits and Methods of Measurement	CISPR 22	ne	5