

Standard Information

Standard Number: CSA C22.2 No. 21

Standard Name: Cord sets and power-supply cords

Standard Edition and Issue Date: 9th Edition Dated February 1, 2014

Date of Previous Revision to Standard: 8th Edition Revised May 26, 2009

Effective Date of New/Revised Requirements

Effective Date: December 30, 2016

Impact, Overview, Fees and Action Required

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

Overview of Changes (Specific details of new/revised requirements are found in table below):

- Rearrangement to include separate sections for each type of cord set, including those using connectors complying with requirements in CAN/CSA-C22.2 No. 60320-1;
- New requirements that will require retesting; and
- Requirements that have been added from other standards that were referenced in the previous edition C22.2 No 21-95 (R2009)

The content in this SUN is based on the CSA Certification Notice for wiring devices No. 101 dated May 5, 2015.

Fees: So that production of products bearing the Listing Mark will not be interrupted, a quote will be issued for the Applicant to work with their local Intertek Lab to determine the necessary test program, sampling requirement and needed construction details and/or updated marking/instruction details.

Client Action Required:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



Standards Update Notice (SUN)

Issued: July 31, 2015

Description of New/Revised Technical Requirements

Clause	Verdict	Comment
5.1.1.1		References to configurations of IEC CAN/CSA-60320-1, IEC 60320-2-2, were added
5.1.3		Addition of new requirements for accessibility of live parts
5.1.6		New requirements for terminal identification and positioning of earthing, line and neutral contacts added
5.1.7; 7.1.7; 7.1.8		New tests added for outdoor use fittings (Weather Resistance, Crushing & Impact)
5.2.3.1		Hospital grade attachment plugs may be 1-15P and are not limited to power supply cords only
5.3.1.3		Depth of cavity test added for 1-15R cord connectors
5.3.1.5		Requirements for closure of openings for cord connectors added
5.3.2		Holes, indentions and projections reduced from 10mm to 9.5mm
5.3.5		New test for cord connectors for outdoor use - Adhesion Test
5.4.3.1		Requirements for pendant and through cord switches have been added
5.4.3.2		New marking requirement added for supplementary protectors
5.4.4		New requirements added for outdoor use switches
5.4.5		New requirements for Current Taps and pendant switches added
5.4.6		New requirements for Through-cord heating-pad switches
5.4.8		New requirements added for overcurrent protection
5.4.9		New temperature test requirements added for cord restraint devices
6.1.2.1.3		New requirements power supply cord for toy transformer or electric toy
6.1.4		Revised Length and ampacity tables 2, 3 and 4
6.1.5		Revised Lengths Table 5, 6.minor changes
6.1.6		Revisions to ratings not a file review item
6.1.7		New requirements for power supply cords packaged individually. Marking requirements per 8.12.
6.2.3		New requirement for A special-use power-supply cord intended for use with a toy transformer or electric toy

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6.2.4		New requirements for A special-use power-supply cord intended to be woven in the lings of a chain-suspended portable lamp
6.3 & 6.4		New requirements for power supply cords for RV's and mobile homes
6.7.2.2		Added new section for cold usage cord sets. This test is in addition to the already outdoor usage cord set of minimum -20C
6.7.3.2		Minimum switch ratings added for through cord switches and pendant switches
6.7.4.3		Outdoor use size added 18AWG (smaller)
6.7.5.2		Add minimum length requirements for outdoor use extension cord-sets 1.8m
6.8		Added requirements for Adapter cord sets
6.9.1.1		Added reference to 60320 products for special use cord sets
6.9.2.3		Connector may be lower rating than the plug for special use cord sets (Clarification)
6.10		Separated out section specific for Vacuum cleaners and floor-finishing machines
6.11		Separate section for RV cord sets minimum length 7M
6.12		Hospital grade cord sets minimum length requirement 4.6M
6.16		New section for Appliances rated 50W or less (i.e. shaver cord sets)
6.17		New type of replacement special use cord set with nonstandard polarization
7.1.3		Strain Relief: Added the use of a tensile machine
7.1.3.6 - .7		Added additional testing for through cord switches and assemblies
7.1.5		Added Insulation Resistance test
7.1.7		Crush Test now added into this standard instead of reference to C22.2 no 42
7.1.8		Increase impact test for all fittings to 1000 cycles
7.1.10		Jacket Retention test: Same as Abrupt pull test but with torsion added
7.1.11		New Adhesion test (Visual exam after bending)
7.2.2.2		New Temperature test for Adapter cord set joints
7.3.3		New Test "Push Back Force" for range and dryer cords
7.4.1		New Test for cord connectors "Depth of Cavity test"
7.4.10		New Closure of openings test (Ref: 5.3.1.5)
7.6.1		New Tests added for Overcurrent protective devices
7.9		Added Test for Permanence of warning tag (indoor, outdoor, oil...)

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8		Marking changes added tags etc.
Table 1		NEW: Types of flexible cord, cable, and wire for power-supply cords and cord sets: Adds clarity
Table 2		Amperage similar but conflicts with Clause 6.7.4.3 (Committee to fix)
Table 3		NEW: Circuit-conductor ampacity and voltage rating for braid-covered cords in general-use cord sets and power-supply cords
Table 4		NEW: Circuit-conductor ampacity and voltage rating for jacketed cords in extension cord sets and power-supply cords
Table 5		NEW: Circuit-conductor ampacity and voltage rating for braidless parallel cord in general-use cord sets and power-supply cords
Table 6		NEW: Smallest acceptable conductor size with respect to fittings used on outdoor-use cord sets and outdoor-use power-supply cords
Table 7		NEW: Sizes and number of conductors in recreational-vehicle power-supply
Table 9		NEW: Diameter of locknut
Table 10		NEW: Flexible cord for general-use cord sets
Table 11		NEW: Ratings of cord sets 125-V, 2-pole, 2-wire, and 2-pole, 3-wire
Table 12		NEW: Ratings of cord sets 250-V, 2-pole, 3-wire
Table 13		NEW: Ratings of cord sets 277-V, 2-pole, 3-wire
Table 14		NEW: Ratings of cord sets 125/250-V, 3-pole, 4-wire
Table 15		NEW: Ratings of cord sets 250-V, 3-pole, 4-wire, 3-phase delta
Table 16		NEW: Adapter cord set fittings and cord length
Table 17		NEW: Fittings and cord length for adapter cord sets employing in-line outlets
Table 18		NEW: Pins of appliance and flatiron plugs
Table 19		NEW: Contacts
Table 20		NEW: Range and dryer power-supply cords
Table 21		NEW: Oven temperatures for aging test for range and dryer strain relief
Table 22		NEW: Test gauge configurations for conditioning
Table 23		NEW: Test gauge configurations for retention testing
Table 24		NEW: Test gauge configurations for withdrawal testing
Table 25		NEW: Mating plug configurations for overload testing
Table 26		NEW: Mating plug configurations for temperature testing



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Figure 1		NEW: Added Articulate probe with web stop
Figure 2		NEW: Grounding pin profiles
Figure 4		NEW: Male fitting face dimensions
Figure 5		NEW: Blade construction of 2-pole, 2-wire attachment plug
Figure 6		NEW: Female plug face dimensions
Figure 7		NEW: Depth of cavity gauge
Figure 8		NEW: Faces of outlet devices showing smallest acceptable obstructions
Figure 9		NEW: Outdoor-use cord set and 3-outlet cord connector
Figure 10		NEW: Cord set and power-supply cord length measurement
Figure 11		NEW: Minimum insulation thicknesses for appliance wiring material used in a chain suspended lamp
Figure 13		NEW: Single to single configuration
Figure 14		NEW: Multiple outlets with no joints
Figure 15		NEW: Multiple single outlets with joints
Figure 16		NEW: Adapter cord sets employing in-line outlets
Figure 17		NEW: Torque testing equipment
Figure 30		NEW: Water-spray-head piping
Figure 35		NEW: Example of marking required in Clause 8.15.5
Annex A (Normative)		NEW: Added a component standards reference list
Annex B (Normative)		NEW: Added illustrative definitions of various cord set types
Annex D (Normative)		NEW: Added requirements for cord reels and power bars, including requirements that were previously in withdrawn TILs A-16, A-24, and B-52 <i>Note: The standard CSA C22.2 No. 12 referenced in Clause D.3.1.1.4, has been superseded by CSA C22.2 No. 250.4-14</i>
Annex E (Normative)		NEW: Added requirements for seasonal use cord sets from TIL A-29A. TIL A-29A will now be withdrawn
		CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.