CSA Group

C22.2 No. 57-17

Flatiron and appliance plugs

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CSA Group
CSA C22.2 No. 57
First Edition

Underwriters Laboratories Inc.
UL 498C
First Edition

Flatiron and Appliance Plugs

April 28, 2017

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ANSI/UL 498C-2017

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PREFACE

This is the harmonized CSA Group and UL standard for Appliance and Flatiron Plugs. It is the First edition of CAN/CSA-C22.2 No. 57, and the First edition of UL 498C.

This harmonized standard was prepared by the CSA Group and Underwriters Laboratories Inc. (UL). The efforts and support of the Technical Harmonization Subcommittee for Switch and Outlet Boxes, THSC 23B-1, on the Harmonization of Electrotechnical Standards of the Nations of the Americas (CANENA), are gratefully acknowledged.

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

This standard was reviewed by the CSA Inegrated Commitee on Wiring Devices, under the jurisdiction of the CSA Technical Committee on Wiring Devices and the CSA Strategic Steering Committee on requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee.

This standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

Note: 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.

Level of Harmonization

This standard uses the IEC format but is not based on, nor is it considered equivalent to, an IEC standard.

This standard is published as an equivalent standard for CSA Group and UL.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

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Flatiron and Appliance Plugs

INTRODUCTION

1 Scope

1.1 These requirements cover flatiron and appliance plugs intended for use on cord-connected portable cooking or heating appliances rated up to 20 A, 250 Volts or less, intended for use in ordinary non-hazardous locations – all intended for connection to a branch circuit for use in accordance with the National Electrical Code, NFPA 70 and the Canadian Electrical Code, Part I, CSA C22.1-15.

1.2 This Standard does not directly apply to the following devices, but may be used to supplement the requirements within these standards when a device is evaluated to these standards:

a) Devices produced integrally with flexible cord or cables that are covered by the Standard for Cord Sets and Power-Supply Cords, UL 817;

b) Devices intended for connection to the branch circuit, such as attachment plugs, cord connectors, receptacles, inlets, and outlets, which are covered by the Standard for Attachment Plugs and Receptacles, UL 498;

c) Devices solely intended for direct connection to the branch circuit in accordance with the National Electrical Code, NFPA 70, and that are provided with contacts of the pin and sleeve type, that are covered by the Standard for Plugs, Receptacles, and Cable Connectors of the Pin and Sleeve Type, UL 1682;

d) Devices consisting of wiring terminals and supporting blocks intended for the connection of wiring that are covered by the Standard for Terminal Blocks, UL 1059;

e) Devices such as wire connectors and soldering lugs that are covered by the Standard for Wire Connectors, UL 486A-486B; the Standard for Splicing Wire Connectors, UL 486C; or the Standard for Equipment Wiring Terminals for Use with Aluminum and/or Copper Conductors, UL 486E;

f) Devices such as quick-connect terminals that are covered by the Standard for Electrical Quick-Connect Terminals, UL 310; or

g) Devices such as appliance couplers that are covered by the Standard for Appliance Couplers for Household and Similar General Purposes – Part 1: General Requirements, UL 60320-1.

2 Reference Publications

2.1 Products covered by this Standard shall comply with the referenced installation codes and standards noted in this clause as appropriate for the country where the product is to be used. When the product is intended for use in more than one country, the product shall comply with the installation codes and standards for all countries where it is intended to be used.

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2.2 Where reference is made to any Standards, such reference shall be considered to refer to the latest editions and revisions thereto available at the time of printing, unless otherwise specified.

CSA Group Standards

C22.1-15
Canadian Electrical Code, Part I (CE Code, Part I)

CAN/CSA C22.2 No. 0.17
Evaluation of properties of polymeric materials

CSA C22.2 No. 21
Cord sets and power supply cords

CSA C22.2 No. 24
Temperature-indicating and -regulating equipment

CSA C22.2 No. 55
Special use switches

UL Standards

UL 20
General-Use Snap Switches

UL 94
Tests for Flammability of Plastic Materials for Parts in Devices and Appliances

UL 746A
Polymeric Materials – Short Term Property Evaluations

UL 746B
Polymeric Materials – Long Term Property Evaluations

UL 746D
Polymeric Materials – Fabricated Parts

UL 817
Cord Sets and Power Supply Cords

UL 873
Temperature-Indicating and Regulating Equipment

UL 60730-1
Automatic Electrical Controls – Part 1: General Requirements

NFPA (National Fire Protection Association)

NFPA 70
National Electrical Code

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3 Components

3.1 Except as indicated in Clause 3.2, a component of a product covered by this Standard shall comply with the requirements for that component. See Clause 2 for a list of standards covering components generally used in the products covered by this Standard. A component shall comply with the CSA Group or UL standards as appropriate for the country where the product is to be used.

3.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or

b) Is superseded by a requirement in this standard.

3.3 A component shall be used in accordance with its rating established for the intended conditions of use.

3.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

4 Units of Measurements

4.1 When a value for measurement is followed by a value in other units in parentheses, the first stated value is the requirement.

5 Definitions

5.1 For the purposes of this standard, the following definitions apply.

5.2 APPLIANCE PLUG (Appliance Connector) – A female contact device having a cord guard and a slot configuration specified for use with heating or cooking appliances and intended to mate with appliance pins. Used as a component of a heater cord set. See the Standard for Cord Sets and Power Supply Cords, UL 817 and Cord Sets and Power Supply Cords, CSA C22.2 No. 21.

5.3 FLATIRON PLUG (Appliance Connector) – A female contact device with a cord guard and a slot configuration specified for use with electric irons and similar heating appliances and intended to mate with appliance pins.

6 References

6.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

CONSTRUCTION

7 General

7.1 The ratings mentioned throughout this Standard including those mentioned in Table 24.1 represent maximum ampacity and maximum operating potential in volts.

7.2 A device is considered to be for use on either alternating or direct current unless the rating includes the letters *″ac″* to restrict the use to alternating current. See MARKINGS, General, Clause 32.

8 Insulating Materials

8.1 General

8.1.1 All parts that act as the electrical insulation or enclosure of either an appliance or flatiron plug shall be permitted, provided that the material complies with the requirements in Clauses 8.2 – 8.4. Hard rubber shall not be employed.

8.1.2 An insulating material used for electrical insulation or enclosure of live parts shall be fabricated in accordance with the Standard for Polymeric Materials – Fabricated Parts, UL 746D.

8.1.3 An insulating material that is fabricated in the same location where final assembly takes place and where no blending or compounding operations are involved is not required to comply with this requirement.

8.2 Flammability

8.2.1 An insulating material used for electrical insulation or enclosure of live parts shall have a minimum flame class rating of V-2 or better (V-1, V-0, VTM-2, VTM-1, or VTM-0) in accordance with the requirements of the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL 94 or with the Evaluation of properties of polymeric materials, CAN/CSA-C22.2 No. 0.17.

8.2.2 The flame class rating of the material shall be judged at the minimum thickness employed at the walls and barriers in the device which are critical to the functioning of the insulation or enclosure of the device.