UL 498B

STANDARD FOR SAFETY

Receptacles with Integral Switching Means

UL Standard for Safety for Receptacles with Integral Switching Means, UL 498B

First Edition, Dated August 19, 2022

SUMMARY OF TOPICS

This First Edition ANSI/UL 498B, Standard for Receptacles with Integral Switching Means, dated August 19, 2022 covers a receptacle with integral switching means rated 600 V or less, used in ordinary dry locations and intended for connection to a branch circuit in accordance with the National Electrical Code, NFPA 70.

The requirements are substantially in accordance with Proposal(s) on this subject dated March 11, 2022 and June 24, 2022.

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Standard for Receptacles with Integral Switching Means

First Edition

August 19, 2022

This ANSI/UL Standard for Safety consists of the First Edition.

The most recent designation of ANSI/UL 498B as an American National Standard (ANSI) occurred on August 19, 2022. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 Scope

1.1 These requirements cover a receptacle with integral switching means rated 600 V or less, used in ordinary locations and intended for connection to a branch circuit in accordance with the National Electrical Code, NFPA 70. A receptacle with integral switching means that is intended for energy management and building automation, in accordance with Article 406 of the National Electrical Code, NFPA 70, shall also comply with Annex A of this standard.

1.2 This standard contains Annex A – (Normative) – Receptacles with Integral Switching Means Intended for Energy Management and Building Automation.

1.3 This standard contains Annex B – (Normative) – Weather-Resistant Receptacles with Integral Switching Means.

1.4 A receptacle with integral switching means covered by this standard shall meet the following requirements:

a) No voltage greater than 600 V above ground will be present in the device;

b) An isolation transformer, if provided, shall furnish power at a lower potential than the primary voltage;

c) The output of the device shall not be located in a circuit operating at greater than 600 V above ground; and

d) The switching device shall be integral to the receptacle.

1.5 This standard does not apply to the following devices and the associated standards:

a) A receptacle that does not employ an integral switching means but are marked with the word "CONTROLLED" and the symbol shown in Table A8.1 Reference No. 2 is covered by the Standard for Attachment Plugs and Receptacles, UL 498 and are intended for use in energy management and building automation.

b) A health care facility outlet assembly is covered by the Outline of Investigation for Cord-and-Plug-Connected Health Care Facility Outlet Assemblies, UL 2930.

1.6 This standard does not directly apply to, but may supplement the following standards:

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

b) Current taps and adapters covered by the Standard for Current Taps and Adapters, UL 498A;

c) Devices employing male or female screwshells, covered by the Standard for Lampholders, UL 496;

d) Single and multipole connectors intended for factory assembly to copper or copper alloy conductors or printed wiring boards for use in data, signal, control and power applications within and between electrical equipment, covered by the Standard for Component Connectors for Data, Signal, Control and Power Applications, UL 1977;

e) Devices intended for installation and use in hazardous (classified) locations in accordance with the National Electrical Code, NFPA 70, covered by the Standard for Explosion-Proof and Dust-Ignition-Proof Equipment for Use in Hazardous (Classified) Locations, UL 1203;

f) Devices intended for use with telecommunications networks, covered by the Standard for Audio/Video, Information and Communication Technology Equipment – Part 1: Safety Requirements, UL 62368-1, or the Standard for Communications Circuit Accessories, UL 1863;

g) Devices incorporating ground-fault circuit interruption circuitry, covered by the Standard for Ground-Fault Circuit Interrupters, UL 943;

h) Direct plug-in devices incorporating transient voltage surge suppression circuitry, covered by the Standard for Surge Protective Devices, UL 1449;

i) Direct plug-in devices incorporating electromagnetic interference filter circuitry, covered by the Standard for Electromagnetic Interference Filters, UL 1283;

j) Cord-connected, relocatable power taps intended only for indoor use as a temporary extension of a grounding alternating-current branch circuit for general use, covered by the Standard for Relocatable Power Taps, UL 1363;

k) Energy management equipment covered by the Standard for Energy Management Equipment, UL 916.

2 Components

2.1 A component of a product covered by this standard shall:

a) Comply with the requirements for that component as specified in this standard;

b) Be used in accordance with its rating(s) established for the intended conditions of use; and

c) Be used within its established use limitations or conditions of acceptability.

2.2 A component of a product covered by this standard is not required to comply with a specific component requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product;

b) Is superseded by a requirement in this standard; or

c) Is separately investigated when forming part of another component, provided the component is used within its established ratings and limitations.

2.3 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.

2.4 A component that is also intended to perform other functions such as overcurrent protection, ground-fault circuit-interruption, surge suppression, any other similar functions, or any combination thereof, shall comply additionally with the requirements of the applicable UL standard(s) that cover devices that provide those functions.

3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

4 Referenced Publications

4.1 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.

4.2 The following publications are referenced in this standard:

ASTM 653, *Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process*

ASTM A90, *Standard Test Method for Weight (Mass) of Coating on Iron or Steel Articles with Zinc or Zinc-Alloy Coatings*

ASTM E230/E230M, *Standard Specification and Temperature-Electromotive Force (emf) Tables for Standardized Thermocouples*

ASTM G151, *Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources*

ASTM G153, *Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials*

ASTM G155, *Standard Practice For Operating Xenon Arc Light Apparatus For Exposure Of Non-Metallic Materials*

NEMA WD6, *Wiring Devices – Dimensional Specifications*

NFPA 70, *National Electrical Code*

UL 13, *Power-Limited Circuit Cables*

UL 20, *General-Use Snap Switches*

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

UL 224, *Extruded Insulating Tubing*

UL 496, *Lampholders*

UL 498, *Attachment Plugs and Receptacles*

UL 498A, *Current Taps and Adapters*

UL 746C, *Polymeric Materials – Use in Electrical Equipment Evaluations*

UL 746E, *Polymeric Materials – Industrial Laminates, Filament Wound Tubing, Vulcanized Fibre, and Materials Used in Printed Wiring Boards*