UL 355

STANDARD FOR SAFETY

Cord Reels

UL Standard for Safety for Cord Reels, UL 355

Tenth Edition, Dated June 25, 2004

Summary of Topics

This revision of ANSI/UL 355 dated June 10, 2021 is being issued to add requirements for Cord Reels with USB Outlets; 1.6, 2.2.1, 2.7.2, 2.11.1, 6.9, 16.20 – 16.22, Section 16A, Table 19.1, 52.6

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated April 23, 2021.

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Standard for Cord Reels

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This ANSI/UL Standard for Safety consists of the Tenth Edition including revisions through June 10, 2021.

The most recent designation of ANSI/UL 355 as an American National Standard (ANSI) occurred on June 10, 2021. 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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CONTENTS

INTRODUCTION

CONSTRUCTION

ALL CORD REELS

GENERAL-USE CORD REELS

GENERAL-USE OUTDOOR CORD REELS

COMMERCIAL/INDUSTRIAL USE CORD REELS

PERFORMANCE

MANUFACTURING AND PRODUCTION TESTS

RATING

MARKING

APPENDIX A

INTRODUCTION

1 Scope

1.1 These requirements cover cord reels for general use, as well as cord reels – herein referred to as special-use cord reels – intended to be mounted on or in electrical utilization equipment such as appliances, portable lamps, or similar equipment. These cord reels are intended for use in accordance with the National Electrical Code, NFPA 70.

1.2 These requirements also cover reels for use in factories, household workshops, garages, commercial facilities and construction sites where an additional degree of protection against the risk of the entrance of water, dust or other contaminates might be needed.

1.3 These requirements also cover cord reels for use above but not in hazardous locations in commercial garages as defined in the National Electrical Code, NFPA 70.

1.4 A cord reel, as covered by these requirements, is a reel equipped with, or intended for use with, a length of flexible cord. The reel provides a means for the cord to be unwound by the user as desired. The reel is provided with a take-up mechanism, by which the cord is rewound on the reel. The mechanism by which the cord is extended or retracted to the desired length might or might not be driven by a motor. A latch is provided in some cases to restrain the action of a spring take-up mechanism while the cord reel is in use.

1.5 A cord reel shall be permitted to employ Ground-Fault Circuit-Interrupter(s) (GFCI) outlet(s) at the load connection. The Ground-Fault Circuit Interrupters shall be investigated under the applicable requirements in the Standard for Ground-Fault Circuit Interrupters, UL 943.

1.6 A cord reel shall be permitted to employ any of the following:

a) An integral Class 2, LIMITED POWER SOURCE (LPS), PS1, or PS2 power supply provided with an integral output connector(s); or

b) Specialty power units with integral Class 2 output connector(s); or

c) Receptacles employing integral power supplies provided with Class 2, LPS, PS1, or PS2 output connector(s).

2 Glossary

2.1 For the purpose of this standard, the following definitions apply.

2.2 BRUSH – The part, which is mounted on the fixed part of the cord reel or the rotating hub, that conveys the current to the slip ring.

2.2.1 CLASS 2 SEPARABLE INTERFACE – A separable component containing Class 2, LPS, PS1, or PS2 low-voltage connector(s) only (such as Universal Serial Bus (USB) connector(s).

2.3 COMMERCIAL/INDUSTRIAL USE CORD REEL – A cord reel subject to severe use in factories, commercial garages, construction sites, and similar locations requiring a harder service type cord.

2.4 CORD STORAGE DEVICE – A spool for storage of insulated flexible cord but does not enclose or support uninsulated live parts.

2.5 CORD REEL – A device used to store insulated flexible cord with allowance for variable lengths of cord to be extracted from the reel or spool.

2.6 GENERAL-USE INDOOR CORD REEL – A cord reel for use only in indoor, dry, residential type applications.

2.7 GENERAL-USE OUTDOOR CORD REEL – A cord reel that is acceptable for use outdoors as well as indoors in residential applications. The cord reel is intended to be stored indoors when not in use.

2.7.1 OPEN NEUTRAL PROTECTION – Consists of the opening of the line contacts of a protective device when either live contact loses power, whereby the output potential is interrupted to provide shock hazard protection. As an example, if the input neutral opens due to a broken conductor or loose plug connection, the protective device circuitry would not receive power, and therefore would not operate to provide protection. A current path from line to ground could exist, under these circumstances; a person in contact with the live conductor could receive a lethal shock. (A faulty appliance that has an internal insulation failure could allow the case to become energized.)

2.7.2 RECEPTACLE EMPLOYING INTEGRAL POWER SUPPLY PROVIDED WITH ONE OR MORE CLASS 2, LPS, or PS1 or PS2 OUTPUT CONNECTOR(S) – A receptacle employing an integral power supply having limited voltage and energy capacity that incorporates one or more one or more associated Class 2 output connectors accessible to the user after a cover plate is installed.

2.8 RETRACTION, AUTOMATIC – Retraction by inherent force, such as by spring tension, to position the cord back onto the spool of the cord reel.

2.9 RETRACTION, MANUAL – Retraction by the user, such as by hand cranking action, to position the cord back onto the spool of the cord reel.

2.10 SLIP RING – The part, which is mounted on the fixed part of the cord reel or the rotating hub, that is the circular conductor on which the brush rides.

2.11 SPOOL – The part that the cord is wrapped on when the cord is stored on the cord reel.

2.11.1 SPECIALTY POWER SUPPLY UNIT WITH ONE OR MORE CLASS 2, LPS, or PS1 or PS2 OUTPUT CONNECTOR (S) – A power supply unit having limited voltage and energy capacity that incorporates one or more associated Class 2, LPS, or PS1 or PS2 output connectors accessible to the user after a cover plate is installed.

2.12 SPECIAL-USE CORD REEL – A cord reel for use only permanently on or in electrical utilization equipment such as appliances, portable lamps, or similar equipment.

3 General

3.1 Components

3.1.1 Except as indicated in 3.1.2, a component of a product covered by this Standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this standard.

3.1.2 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