



UL 1030

STANDARD FOR SAFETY

Sheathed Heating Elements

UL Standard for Safety for Sheathed Heating Elements, UL 1030

Eighth Edition, Dated March 31, 2015

Summary of Topics

This revision of ANSI/UL 1030 dated March 10, 2025 includes the Leakage Current requirements referencing UL 101: Section [12](#) and [17.3](#)

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

The revised requirements are substantially in accordance with Proposal(s) on this subject dated September 27, 2024.

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1

UL 1030

Standard for Sheathed Heating Elements

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Eighth Edition

March 31, 2015

This ANSI/UL Standard for Safety consists of the Eighth Edition including revisions through March 10, 2025.

The most recent designation of ANSI/UL 1030 as an American National Standard (ANSI) occurred on March 10, 2025. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

The Department of Defense (DoD) has adopted UL 1030 on January 2, 1992. The publication of revised pages or a new edition of this Standard will not invalidate the DoD adoption.

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

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CONTENTS

INTRODUCTION

1	Scope	5
2	Glossary	5
3	Units of Measurement	6
4	Undated References	6

CONSTRUCTION

5	General	6
6	Insulation	7
7	Spacings	7

PERFORMANCE

8	General	8
9	Power Input Test	9
10	Dielectric Voltage-Withstand Test	10
	10.1 General	10
	10.2 Quadrature method	10
	10.3 Single-phase method	10
11	Resistance to Moisture Test	11
12	Leakage Current Test	11
13	Thermal Endurance Test	13
14	Temperature Test	13

MANUFACTURING AND PRODUCTION TESTS

15	Dielectric Voltage-Withstand Test	15
----	---	----

RATING

16	Details	16
----	---------------	----

MARKING

17	Details	16
----	---------------	----

SUPPLEMENT SA – Medium Voltage Sheathed Heating Elements

INTRODUCTION

SA1	Scope	19
SA2	Glossary	19
SA3	Units of Measurement	19

CONSTRUCTION

SA4	General	19
SA5	Internal Insulation	19
SA6	Spacings	19

SA7	Electrical Insulation	20
-----	-----------------------------	----

PERFORMANCE

SA8	General.....	20
SA9	Power Input Test.....	21
SA10	Dielectric Voltage-Withstand Test	21
SA11	Resistance to Moisture Test	21

MANUFACTURING AND PRODUCTION LINE TESTS

SA12	Dielectric Voltage-Withstand Test	21
------	---	----

RATING

SA13	Details	22
------	---------------	----

MARKING

SA14	Details	22
------	---------------	----

INTRODUCTION

1 Scope

1.1 These requirements cover metal-sheathed heating elements intended for use in appliances and equipment that comply with the requirements for such appliances and equipment.

1.2 The main body of this standard covers requirements for sheathed heating elements rated 600 volts or less. Supplement [SA](#) covers cartridge-type sheathed heating elements that do not incorporate a bend in the sheath, rated between 601 and 15,000 V.

1.3 These requirements do not cover heating elements for use in equipment for use in hazardous locations as defined in the National Electrical Code, NFPA 70.

1.4 Wherever the terms heating element and element are used in these requirements, they are intended to mean a sheathed heating element as defined in [2.4](#).

2 Glossary

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

2.2 DIELECTRIC VOLTAGE WITHSTAND – The ability of a heating element to withstand specified voltages applied between current-carrying parts and dead metal parts for specified times without flashover or puncture.

2.3 LEAKAGE CURRENT – A current, including a capacitively coupled current, that may be conveyed between exposed conductive surfaces of a heating element and ground.

2.4 SHEATHED HEATING ELEMENT – A resistance element that is usually encased in magnesium oxide or encased in a similar insulating material that is, in turn, surrounded by a metal sheath.

2.5 SHEATH WATTAGE DENSITY – The watts per unit area of actively heated sheath surface area. The actively heated sheath surface area is considered to be the area of the exposed surface of that portion of the sheathed heating element between the terminal pins. See [Figure 2.1](#).