# UL 2738

## STANDARD FOR SAFETY

Induction Power Transmitters and Receivers for use with Low Energy Products

UL Standard for Safety for Induction Power Transmitters and Receivers for use with Low Energy Products, UL 2738

Second Edition, Dated January 12, 2018

***Summary of Topics***

***This revision of ANSI/UL 2738 dated November 1, 2022 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.***

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 requirements are substantially in accordance with Proposal(s) on this subject dated September 9, 2022.

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**JANUARY 12, 2018**
(Title Page Reprinted: November 1, 2022)



# UL 2738

## Standard for Induction Power Transmitters and Receivers for use with Low Energy Products

First Edition – April, 2011

**Second Edition**

**January 12, 2018**

This ANSI/UL Standard for Safety consists of the Second Edition including revisions through November 1, 2022.

The most recent designation of ANSI/UL 2738 as a Reaffirmed American National Standard (ANS) occurred on November 1, 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 apply to:

a) Induction power transmitters intended to be supplied by an internal or external power source, which is powered by a branch circuit of 600 volts or less; and

b) Induction receivers intended for use with induction power transmitters.

1.2 With regard to 1.1(b), the output from an induction receiver assembly does not exceed:

a) 60 V dc or 42.4 V ac peak; and

b) 100 VA capacity.

*Exception: Greater voltage or VA limits are permitted when the combination receiver and supplied equipment comply with the applicable end-product requirements.*

1.3 An induction power transmitter employs a magnetic induction coil(s) transmitting energy to a receiving coil in a device placed near the power platform.

1.4 An induction receiver is a device intended for powering a low energy product. The receiver may be an incomplete device intended for installation in or on the low energy product, or the receiver may be a complete device intended for connection to a low energy product.

1.5 An “induction battery charger” is an example of induction power transmitting and receiving equipment covered by these requirements. Examples of low energy products powered by the induction transmitter and receiver include cell phones, personal data assistants, portable media players, global positioning devices, and similar small battery powered portable devices.

1.6 These requirements do not apply to a product powered by an induction receiver. Requirements for the powered product are specified in the appropriate end-product Standard which may be supplemented by these requirements.

1.7 These requirements do not apply to a product with an integral induction receiver. Requirements for such products are specified in the appropriate end-product Standard which may be supplemented by these requirements.

1.8 These requirements do not address physiological effects, or electromagnetic compatibility with other equipment and power systems.

### 2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this Standard shall comply with the requirements for that component.

2.2 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.

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

2.4 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.

## 3 Units of Measurement

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

## 4 Undated References

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.

## 5 Glossary

5.1 For the purpose of this Standard, the following definitions apply.

5.2 INDUCTION POWER TRANSMITTER – The equipment consisting of the supply connections, control circuitry, induction transmitting coils, power platform, and overall enclosure.

5.3 INDUCTION RECEIVER – The equipment consisting of control circuitry, induction receiving coil, electrical output connections and enclosure. An induction receiver may be a complete assembly with output plug for connection to a low energy product, or it may be an assembly for installation in or on a low energy product. For a product with an integral induction receiver, see 1.7.

5.4 LOW ENERGY PRODUCT – For the purposes of these requirements, a product intended to receive no more than 100 VA from the induction receiver under normal operation.

5.5 POWER PLATFORM – The part or surface of the induction power transmitter housing the inductive transmitting coil.

5.6 RF CONVERSION CIRCUIT – For a transmitter coil, the circuit interface between the input supply (e.g. 60 Hz, DC, etc.) and the RF coil. For a receiver coil, the circuit interface between the RF coil and the induction receiver output.

# CONSTRUCTION

## 6 General

6.1 In addition to these requirements, an induction power transmitter shall comply with the construction, performance, production, marking, and instruction requirements of one of the following:

a) The Standard for Class 2 Power Units, UL 1310;

b) The Standard for Power Units other than Class 2, UL 1012;

c) The Standard for Information Technology Equipment Safety – Part 1: General Requirements, UL 60950-1;