



IEC 62911

Edition 2.0 2025-06
REDLINE VERSION

Corrected version
2026-06

INTERNATIONAL STANDARD

Audio, video and information technology equipment – Routine electrical safety testing in production

CONTENTS

FOREWORD 2

1 Scope 4

2 Normative references 4

3 Terms and definitions 4

4 Conformance 7

5 Routine ~~electrical safety~~ tests 7

 5.1 Resistance of the protective bonding system 7

 5.2 Electric strength test 8

6 Records of tests 12

Bibliography 14

Table 1 – Test voltage for equipment ~~with a.c. mains~~ supplied by an AC mains (3.7) in overvoltage category I or overvoltage category II 9

Table 2 – Test voltage for equipment intended to be supplied by an AC mains (3.7) 9

Table 3 – Test voltage for equipment ~~with d.c. mains~~ intended to be supplied by a DC mains (3.7) 10

~~Table 3 – DC test voltages 10~~

INTERNATIONAL ELECTROTECHNICAL COMMISSION

Audio, video and information technology equipment - Routine electrical safety testing in production

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 62911:2016. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 62911 has been prepared by IEC technical committee 108: Safety of electronic equipment within the field of audio/video, information technology and communication technology. It is an International Standard.

This second edition cancels and replaces the first edition published in 2016. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) this edition aligns with the terminology and requirements of IEC 62368-1:2023;
- b) test conditions for DC mains have been added;
- c) smaller size technical changes were made.

The text of this International Standard is based on the following documents:

Draft	Report on voting
108/833/FDIS	108/837/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at http://www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at <http://www.iec.ch/publications>.

In this document, the following print types or formats are used:

- compliance statements and test specifications: in *italic type*.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

The content of the corrigendum 1 (2026-06) has been included in this copy.

1 Scope

This International Standard defines ~~routine electrical safety test~~ routine test (3.16) procedures for use during or after manufacturing of complete equipment, sub-assemblies or components, complying with ~~IEC 60065, IEC 60950-1 or~~ IEC 62368-1 and powered by an AC mains (3.7) or DC mains (3.7), to detect manufacturing failures and unacceptable tolerances in manufacturing and materials.

NOTE 1 Not all the tests defined in this document ~~do not~~ are necessarily ~~have to be~~ performed at the end product manufacturing location. The optimal location for the ~~routine electrical safety tests~~ routine tests (3.16) can be defined by the equipment manufacturer and reviewed under the applicable conformity assessment scheme.

NOTE 2 The test procedures in this document are intended to identify production and manufacturing errors. These test procedures are not intended for product development or verification (see IEC 62368-1 [1]).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

~~IEC 60065, Audio, video and similar electronic apparatus – Safety requirements~~

~~IEC 60950-1, Information technology equipment – Safety – Part 1: General requirements~~

IEC 62368-1:2023, *Audio/video, information and communication technology equipment - Part 1: Safety requirements*

IEC 62368-1, *Audio/video, information and communication technology equipment - Part 1: Safety requirements*

Bibliography

- [1] IEC 62368-1, *Audio/video, information and communication technology equipment - Part 1: Safety requirements*
 - [2] IEC 62368-1:2023, *Audio/video, information and communication technology equipment - Part 1: Safety requirements*
 - [3] IEC 60050-851:2008, *International Electrotechnical Vocabulary (IEV) - Part 851: Electric welding*
 - [4] IEC 60050-151:2001, *International Electrotechnical Vocabulary (IEV) - Part 151: Electrical and magnetic devices*
 - [5] IEC 60050-195:2021, *International Electrotechnical Vocabulary (IEV) - Part 195: Earthing and protection against electric shock*
 - [6] IEC 60664-1:2020, *Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests*
 - [7] IEC 60050-411:1996, *International Electrotechnical Vocabulary (IEV) - Part 411: Rotating machinery*
 - [8] IEC 61180:2016, *High-voltage test techniques for low-voltage equipment - Definitions, test and procedure requirements, test equipment*
 - [9] IEC 60204-1:2016, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements*
 - [10] IEC 61010-1:2010, *Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements*
-