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INTERNATIONAL STANDARD



**Safety requirements for radio transmitting equipment – General requirements
and terminology**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SAFETY REQUIREMENTS FOR RADIO TRANSMITTING EQUIPMENT –
GENERAL REQUIREMENTS AND TERMINOLOGY**

FOREWORD

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International Standard IEC 60215 has been prepared by IEC technical committee 103: Transmitting equipment for radiocommunication.

This fourth edition cancels and replaces the third edition, published in 1987, Amendment 1:1989 and Amendment 2:1993. This edition constitutes a technical revision.

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

- The test methods in this standard are similar to those given in IEC 60215:1987 and continue to apply only to radio transmitting equipment and equipment defined in Clause 1, operating under the responsibility of SKILLED persons.
- Reorganization and revision of the content are summarized in Annex F.

Words printed in SMALL CAPITALS are terms that are defined in Clause 3.

The text of this standard is based on the following documents:

FDIS	Report on voting
103/143/FDIS	103/146/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

SAFETY REQUIREMENTS FOR RADIO TRANSMITTING EQUIPMENT – GENERAL REQUIREMENTS AND TERMINOLOGY

1 Scope

This International Standard applies to radio transmitting equipment, operating under the responsibility of SKILLED persons. It also applies to auxiliary equipment and ancillary apparatus, including combining units and matching networks and cooling systems where these form an integral part of the transmitter system.

The requirements of IEC 60215 may also be used to meet safety requirements for cognate equipment. Examples of equipment that could be within the scope of this International Standard are shown in Table 1.

Table 1 – Examples of equipment

Generic product type	Specific example of generic type
RF amplifiers	High power RF amplifiers used for industrial, medical or scientific applications
High-voltage power supplies (HVPS)	DC HVPS based on PSM technology or any cognate technology

Table 1 is not intended to be comprehensive, and equipment that is not listed is not necessarily excluded.

When the equipment is to be manufactured and/or installed in territories that have safety standards covering the scope of this International Standard that are more stringent, then those standards apply.

Antenna systems, associated feeder lines and matching networks, not forming an integral part of the transmitter, are excluded.

This International Standard does not apply to transmitters of safety-insulated construction using DOUBLE INSULATION or REINFORCED INSULATION and without provision for protective earthing. This type of equipment is designated CLASS II EQUIPMENT and is usually marked with a symbol as shown in 3.2.2 b).

This International Standard does not apply to battery powered transmitters or to radio base stations and fixed terminal stations for wireless telecommunication, as this equipment is covered by other standards.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60112, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60244-6, *Methods of measurement for radio transmitters – Part 6: Cabinet radiation at frequencies between 130 kHz and 1 GHz*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60695-1-10, *Fire hazard testing – Part 1-10: Guidance for assessing the fire hazard of electrotechnical products – General guidelines*

IEC 60695-1-11, *Fire hazard testing – Part 1-11: Guidance for assessing the fire hazard of electrotechnical products – Fire hazard assessment*

IEC 60825-12, *Safety of laser products – Part 12: Safety of free space optical communication systems used for transmission of information*

IEC 62232, *Determination of RF field strength and SAR in the vicinity of radiocommunication base stations for the purpose of evaluating human exposure*

IEC 62311, *Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz)*

ISO 1999, *Acoustics – Estimation of noise-induced hearing loss*

Directive 2011/65/EU of the European Parliament and the Council of 8 June 2011 on the restriction of the use of hazardous substances in electrical and electronic equipment