



SLOVENSKI STANDARD

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**Avdio, video in pripadajoča oprema - Ugotavljanje porabe energije - 3. del:
Televizijski sprejemnik (IEC 62087-3:2015)**

Audio, video, and related equipment - Determination of power consumption -- Part 3:
Television sets (IEC 62087-3:2015)

Messverfahren für die Leistungsaufnahme von Audio-, Video- und verwandten Geräten -
Teil 3: Fernsehgeräte (IEC 62087-3:2015)

Appareils audio, vidéo et matériel connexe - Détermination de la consommation de
puissance - Partie 3: Téléviseurs (IEC 62087-3:2015)

Ta slovenski standard je istoveten z: EN 62087-3:2016

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| 17.220.20 | Merjenje električnih in magnetnih veličin | Measurement of electrical and magnetic quantities |
| 33.160.25 | Televizijski sprejemniki | Television receivers |

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EUROPEAN STANDARD

EN 62087-3

NORME EUROPÉENNE

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February 2016

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Supersedes EN 62087:2012 (partially)

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**Audio, video, and related equipment - Determination of power consumption - Part 3: Television sets
(IEC 62087-3:2015)**

Appareils audio, vidéo et matériel connexe - Détermination de la consommation de puissance - Partie 3: Téléviseurs
(IEC 62087-3:2015)

Messverfahren für die Leistungsaufnahme von Audio-, Video- und verwandten Geräten - Teil 3: Fernsehgeräte
(IEC 62087-3:2015)

This European Standard was approved by CENELEC on 2015-07-10. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN 62087-3:2016**European foreword**

The text of document 100/2468/FDIS, future edition 1 of IEC 62087-3, prepared by Technical Area 12 "AV energy efficiency and smart grid applications" of IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62087-3:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-08-19
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-02-19

This document supersedes EN 62087:2012 (partially).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62087-3:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | | |
|------------------|------|---|
| IEC 62087:2008 | NOTE | Harmonized as EN 62087-2:2009 ¹⁾ (not modified). |
| IEC 62087:2011 | NOTE | Harmonized as EN 62087-2:2012 (not modified). |
| IEC 62087 Series | NOTE | Harmonized as EN 62087 Series. |
| IEC 62087-4 | NOTE | Harmonized as EN 62087-4. |
| IEC 62087-5 | NOTE | Harmonized as EN 62087-5. |
| IEC 62087-6 | NOTE | Harmonized as EN 62087-6. |
| IEC 62542:2013 | NOTE | Harmonized as EN 62542:2013 (not modified). |

¹⁾ Superseded by EN 62087-2:2012 (IEC 62087:2011).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|--------------|-------------|
| IEC 62087-1 | 2015 | Audio, video, and related equipment - Determination of power consumption - Part 1: General | EN 62087-1 | 2016 |
| IEC 62087-2 | 2015 | Audio, video, and related equipment - Determination of power consumption - Part 2: Signals and media | EN 62087-2 | 2016 |
| IEC 62301 (mod) | 2011 | Household electrical appliances - Measurement of standby power | EN 50564 | 2011 |

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INTERNATIONAL STANDARD



**Audio, video, and related equipment – Determination of power consumption –
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**AUDIO, VIDEO, AND RELATED EQUIPMENT –
DETERMINATION OF POWER CONSUMPTION –****Part 3: Television sets**

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.
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International Standard IEC 62087-3 has been prepared by technical area 12: AV energy efficiency and smart grid applications, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This first edition of IEC 62087-3 cancels and replaces Clauses 6 and 11 and Annex B of IEC 62087:2011. This standard together with IEC 62087-1 to IEC 62087-2 and IEC 62087-4 to IEC 62087-6 cancels and replaces IEC 62087:2011 in its entirety. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to Clauses 6 and 11 and Annex B of IEC 62087:2011.

- For TVs with an automatic brightness control feature, power may now be measured at multiple specific illumination levels.
- A method has been defined for determining the ratio of peak luminance expected in the home versus the peak luminance expected in the retail environment.

- Sections related to general measuring conditions and procedures are now in IEC 62087-1:2015.
- Sections related to signals and media are now in IEC 62087-2:2015.
- The titles have changed in order to comply with the current directives and to accommodate the multipart structure.

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

| FDIS | Report on voting |
|---------------|------------------|
| 100/2468/FDIS | 100/2498/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.

A list of all parts in the IEC 62087 series, published under the general title *Audio, video, and related equipment – Determination of power consumption*, can be found on the IEC website.

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 [SIST EN 62087-3:2016](#)
- amended. <https://standards.iteh.ai/catalog/standards/sist/d20cc5c6-0b16-4f94-bb95-d09c90511583/sist-en-62087-3-2016>

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

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INTRODUCTION

This standard specifies the determination of the power consumption of television sets for consumer use. It is used in conjunction with IEC 62087-2:2015, which specifies signals and media.

This standard includes measuring procedures for the determination of power consumption in the On (operation) mode, which was identified as “On (average) mode” in previous editions of IEC 62087. Additionally, it specifies measuring procedures for the determination of power consumption in the Off mode and Partial On mode. This standard also defines the determination of the peak luminance ratio for use associated with television set power consumption evaluation as well as the power factor.

A verification procedure to assess product compliance is described in Annex A of IEC 62087-1:2015.

IEC 62087 has been subdivided and currently consists of the following planned or published parts:

- Part 1: General
- Part 2: Signals and media
- Part 3: Television sets
- Part 4: Video recording equipment
- Part 5: Set top boxes
- Part 6: Audio equipment

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AUDIO, VIDEO, AND RELATED EQUIPMENT – DETERMINATION OF POWER CONSUMPTION –

Part 3: Television sets

1 Scope

This part of IEC 62087 specifies the determination of the power consumption and related characteristics of television sets. Television sets include, but are not limited to, those with CRT, LCD, PDP, OLED, or projection technologies.

The operating modes and functions, as they specifically apply to television sets, are defined in detail in this part of IEC 62087.

This standard is limited to television sets that can be connected to an external power source. Television sets that include a non-removable, main battery are not covered by this standard. Television sets may include any number of auxiliary batteries.

The measuring conditions in this standard represent the normal use of the equipment and may differ from specific conditions, for example as specified in safety standards.

2 Normative references (standards.iteh.ai)

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 62087-1:2015, *Audio, video, and related equipment – Determination of power consumption – Part 1: General*

IEC 62087-2:2015, *Audio, video, and related equipment – Determination of power consumption – Part 2: Signals and media*

IEC 62301:2011, *Household electrical appliances – Measurement of standby power*

3 Terms, definitions, and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms, definitions and abbreviations, in IEC 62087-1:2015, IEC 62087-2:2015, and the following apply.

3.1.1

additional functions

functions that are not required for the basic operation of the device

Note 1 to entry: Examples of additional functions include, but are not limited to, a VCR unit, a DVD unit, an HDD unit, an FM-radio unit, a memory card-reader unit, or an ambient lighting unit.