



# SLOVENSKI STANDARD

## SIST EN 62087-1:2016

01-julij-2016

Nadomešča:  
SIST EN 62087:2012

---

**Avdio, video in pripadajoča oprema - Ugotavljanje porabe energije - 1. del:  
Splošno (IEC 62087-1:2015)**

Audio, video, and related equipment - Determination of power consumption -- Part 1:  
General (IEC 62087-1:2015)

Messverfahren für die Leistungsaufnahme von Audio-, Video- und verwandten Geräten -  
Teil 1: Allgemeines (IEC 62087-1:2015)

Appareils audio, vidéo et matériel connexe - Détermination de la consommation de  
puissance - Partie 1: Généralités (IEC 62087-1:2015)

**Ta slovenski standard je istoveten z: EN 62087-1:2016**

---

**ICS:**

33.160.01	Avdio, video in avdiovizualni sistemi na splošno	Audio, video and audiovisual systems in general
-----------	--	---

**SIST EN 62087-1:2016**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 62087-1:2016

<https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8ceee1cba2db/sist-en-62087-1-2016>

EUROPEAN STANDARD

**EN 62087-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2016

ICS 33.160.10

Supersedes EN 62087:2012 (partially)

English Version

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

Appareils audio, vidéo et matériel connexe - Détermination de la consommation de puissance - Partie 1: Généralités  
(IEC 62087-1:2015)

Messverfahren für die Leistungsaufnahme von Audio-, Video- und verwandten Geräten - Teil 1: Allgemeines  
(IEC 62087-1:2015)

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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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 62087-1:2016****European foreword**

The text of document 100/2466/FDIS, future edition 1 of IEC 62087-1, 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 62087-1:2016.

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 62087-1:2015 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 Series	NOTE	Harmonized as EN 62087 Series
IEC 62087-2	NOTE	Harmonized as EN 62087-2.
IEC 62087-3	NOTE	Harmonized as EN 62087-3.
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.

## 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](http://www.cenelec.eu)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62301 (mod)	2011	Household electrical appliances - Measurement of standby power	EN 50564	2011
IEC 62542	2013	Environmental standardization for electrical and electronic products and systems - Glossary of terms	EN 62542	2013

## iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 62087-1:2016

<https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8ceee1cba2db/sist-en-62087-1-2016>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 62087-1:2016

<https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8ceee1cba2db/sist-en-62087-1-2016>



IEC 62087-1

Edition 1.0 2015-06

# INTERNATIONAL STANDARD



---

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

**STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 62087-1:2016

<https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8ceee1cba2db/sist-en-62087-1-2016>

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

---

ICS 33.160.10

ISBN 978-2-8322-2681-0

**Warning! Make sure that you obtained this publication from an authorized distributor.**

## CONTENTS

FOREWORD .....	3
INTRODUCTION .....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms, definitions, and abbreviations .....	6
3.1 Terms and definitions .....	6
3.2 Abbreviations .....	7
4 Specification of operating modes and functions .....	7
5 General method .....	8
5.1 General conditions .....	8
5.1.1 Power source .....	8
5.1.2 Environmental conditions .....	9
5.1.3 Adjustment of controls .....	10
5.1.4 Input signals .....	10
5.1.5 Power measuring instrument .....	10
5.1.6 Measurement uncertainty .....	10
5.1.7 Luminance measuring device .....	10
5.1.8 Illuminance measuring instrument .....	11
5.2 General measuring procedure .....	11
6 Determination of power consumption, Off mode .....	11
7 Verification procedure .....	11
Annex A (informative) Verification procedure .....	12
A.1 General .....	12
A.2 Verification procedure .....	12
Annex B (informative) Electricity supplies .....	13
Bibliography .....	14
Figure A.1 – Flowchart, verification procedure .....	12
Table 1 – General operating modes and functions .....	8
Table B.1 – Typical declared electricity supplies for some regions .....	13



## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

### Part 1: General

#### 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.  
<https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2->
- 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) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62087-1 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 62087-1 together with IEC 62087-2 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 1 to 5 of IEC 62087:2011.

- It includes new information about operation modes.
- Equipment that includes removable main batteries are now considered.
- Light measuring equipment is now specified.

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

FDIS	Report on voting
100/2466/FDIS	100/2496/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
- amended.

**iTeh STANDARD PREVIEW**

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

SIST EN 62087-1:2016

[https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-](https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8c9e1cbe2db/sist-en-62087-1-2016)

[8c9e1cbe2db/sist-en-62087-1-2016](https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8c9e1cbe2db/sist-en-62087-1-2016)

**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.**

## INTRODUCTION

The IEC 62087 series specifies the general conditions and procedure for determining the power consumption of audio, video and related equipment. The specific conditions and procedures for specific types of equipment are specified in IEC 62087-3 to IEC 62087-6. IEC 62087-2 specifies signals and media that may be required to determine the power consumption of some types of equipment.

IEC 62087:2008<sup>1</sup> added methods for determining the On (average) mode power consumption of televisions, based on three video signal sets. These include static, dynamic broadcast-content, and Internet-content signals.

IEC 62087:2011<sup>2</sup> revised methods for determining the power consumption of set top boxes.

The IEC 62087 series separates IEC 62087 into parts, including this general part which specifies the common conditions and procedures and adds new information about operating modes.

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

**ITEH STANDARD PREVIEW**  
**(standards.iteh.ai)**  
[SIST EN 62087-1:2016](https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8ceee1cba2db/sist-en-62087-1-2016)  
<https://standards.iteh.ai/catalog/standards/sist/ca1486f1-3758-4479-b7d2-8ceee1cba2db/sist-en-62087-1-2016>

---

<sup>1</sup> IEC 62087:2008, *Methods of measurement for the power consumption of audio, video and related equipment*

<sup>2</sup> IEC 62087:2011, *Methods of measurement for the power consumption of audio, video and related equipment*