

**Audio- ja videoseadmete ja nendega seotud seadmete  
tarbitava võimsuse mõõtmismeetodid**

**Methods of measurement for the power consumption of  
audio, video and related equipment**

## EESTI STANDARDI EESSÕNA

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**Methods of measurement for the power consumption of audio, video and related equipment**  
(IEC 62087:2011)

Méthodes de mesure de la consommation  
de puissance des appareils audio, vidéo  
et du matériel connexe  
(CEI 62087:2011)

Messverfahren für die Leistungsaufnahme  
von Audio-, Video- und verwandten  
Geräten  
(IEC 62087:2011)

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

This document (EN 62087:2012) consists of the text of IEC 62087:2011 prepared by technical area 12, "AV energy efficiency and smart grid applications", of IEC/TC 100, "Audio, video and multimedia systems and equipment".

The following dates are fixed:

- latest date by which the document has to be implemented (dop) 2013-02-13  
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2015-02-13  
with the document have to be withdrawn

This document supersedes EN 62087:2009.

EN 62087:2012 includes the following significant technical changes with respect to EN 62087:2009:

– Clause 8 is expanded.

– Annex D and Annex E are added.

Furthermore, methods for measuring power consumption of set top boxes mainly in the modes of on mode and standby-active, high mode are revised.

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 62087:2011 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 62087:2002	NOTE	Harmonized as EN 62087:2003 (not modified).
IEC 62087:2008	NOTE	Harmonized as EN 62087:2009 (not modified).
IEC 62301:2005	NOTE	Harmonized as EN 62087:2005 (modified).

## 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
-	-	Domestic and similar electronic equipment interconnection requirements: Peritelevision connector	EN 50049-1	-
IEC 60107-1	1997	Methods of measurement on receivers for television broadcast transmissions - Part 1: General considerations - Measurements at radio and video frequencies	EN 60107-1	1997
IEC 61938	1996	Audio, video and audiovisual systems - Interconnections and matching values - Preferred matching values of analogue signals	EN 61938 + corr. February	1997 1997
IEC 62216	2009	Digital terrestrial television receivers for the DVB-T system	EN 62216	2011

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## INTRODUCTION

This standard specifies methods of measurement for the power consumption of television sets, video recording equipment, set top boxes, audio equipment and multifunction equipment for consumer use.

This International Standard gives methods of measuring On (average) mode power consumption of television sets (see Clause 11). The power consumption of television sets varies depending upon the video signal being displayed. Clause 11 includes three different video signals: static, dynamic broadcast-content, and Internet-content. For information about the three video signals and guidance on which signal(s) to use, see Annex C. For additional considerations regarding average television power consumption, see Annex B.

This IEC standard is planned to be subdivided into parts. Some clauses and subclauses of this third edition may therefore be superseded by future parts of the IEC 62087 series of standards.

## METHODS OF MEASUREMENT FOR THE POWER CONSUMPTION OF AUDIO, VIDEO AND RELATED EQUIPMENT

### 1 Scope

This International Standard specifies methods of measurement for the power consumption of television sets, video recording equipment, set top boxes, audio equipment and multifunction equipment for consumer use. Television sets include, but are not limited to, those with CRT, LCD, PDP or projection technologies.

Moreover, the different modes of operation which are relevant for measuring power consumption are defined.

The methods of measurement are only applicable for equipment which can be connected to the mains.

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

The following referenced documents are indispensable for the application 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 60107-1:1997, *Methods of measurement on receivers for television broadcast transmissions – Part 1: General considerations – Measurements at radio and video frequencies*

IEC 61938:1996, *Audio, video and audiovisual systems – Interconnections and matching values – Preferred matching values of analogue signals*

IEC 62216:2009, *Digital terrestrial television receivers for the DVB-T system*

EN 50049-1, *Domestic and Similar Electronic Equipment Interconnection Requirements: Peritelevision Connector*

### 3 Terms, definitions and abbreviations

#### 3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

##### 3.1.1

##### **additional functions**

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

NOTE In the case of a television set, examples of additional functions include, but are not limited to, a VCR unit, a DVD unit, a HDD unit, a FM-radio unit, a memory card-reader unit, or an ambient lighting unit.

##### 3.1.2

##### **audio equipment**

stand-alone equipment or a system of separable or non-separable components for one or more audio functions