SVENSK STANDARD

SS-EN IEC 62087-3, utg 2:2023

Fastställd	Sida	Ansvarig kommitté
2023-10-18	1 (53)	SEK TK 100

Audio- och videoutrustning – Mätning av elförbrukning – Del 3: TV-mottagare

Audio, video, and related equipment – Determination of power consumption – Part 3: Television sets

Som svensk standard gäller europastandarden EN IEC 62087-3:2023. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62087-3:2023.

Nationellt förord

Europastandarden EN IEC 62087-3:2023

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 62087-3, Second edition, 2023 - Audio, video, and related equipment - Determination of power consumption - Part 3: Television sets**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62087-3, utg 1:2016 med eventuella tillägg, ändringar och rättelser gäller ej fr o m 2026-03-24.

ICS 33.160.10

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62087-3

March 2023

ICS 33.160.10

Supersedes EN 62087-3:2016

English Version

Audio, video, and related equipment - Determination of power consumption - Part 3: Television sets (IEC 62087-3:2023)

Appareils audio, vidéo et matériel connexe - Détermination de la consommation de puissance - Partie 3: Téléviseurs (IEC 62087-3:2023)

Audio-, Video- und verwandte Geräte - Messverfahren für die Leistungsaufnahme - Teil 3: Fernsehgeräte (IEC 62087-3:2023)

This European Standard was approved by CENELEC on 2023-03-24. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 62087-3:2023 E

SEK Svensk Elstandard

SS-EN IEC 62087-3, utg 2:2023

European foreword

The text of document 100/3772/CDV, future edition 2 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 IEC 62087-3:2023.

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)	2023-12-24
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2026-03-24

This document supersedes EN 62087-3:2016 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62087-3:2023 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 standard indicated:

IEC 62087-4 NOTE Approved as EN 62087-4

IEC 62087-5 NOTE Approved as EN 62087-5

IEC 62087-6 NOTE Approved as EN 62087-6

IEC 62542 NOTE Approved as EN 62542

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where 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.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 62087-1	2015	Audio, video, and related equipment - Determination of power consumption - Part 1: General	EN 62087-1	2016
IEC 62087-2	2023	Audio, video, and related equipment - Determination of power consumption - Part 2: Signals and media	EN IEC 62087-2	2023
IEC 62301	-	Household electrical appliances - Measurement of standby power	EN 50564	-

IEC 62087-3

Edition 2.0 2023-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Audio, video, and related equipment – Determination of power consumption – Part 3: Television sets

Appareils audio, vidéo et matériel connexe – Détermination de la consommation de puissance –
Partie 3: Téléviseurs

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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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IEC 62087-3 has been prepared by technical area 19: Environmental and energy aspects for multimedia systems and equipment, of IEC technical committee 100: Audio, video and multimedia systems and equipment. It is an International Standard.

This second edition cancels and replaces the first edition published in 2015. This edition constitutes a technical revision.

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

a) it introduces measuring procedures for the determination of power consumption in the On mode while viewing static metadata HDR video content;
b) all tests for On mode power determination are performed with MDD disabled;
c) only progressive video signals are used for testing;
d) a dimmable LED reflector lamp is used as a light source for illuminating the ABC sensor to achieve specific illuminance levels;

e) a dynamic box and outline video signal is used for determining the ratio of peak luminance.

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

Draft	Report on voting
100/3772/CDV	100/3849/RVC

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.

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 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 www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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

INTRODUCTION

This document specifies the determination of the power consumption of television sets for consumer use.

This document 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 document also defines the determination of the peak luminance ratio for use associated with television set power consumption evaluation as well as the power factor. It also defines measuring procedures for the determination of power consumption in the On mode while viewing representative static metadata HDR video content.

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

The IEC 62087 series 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
– Part 7: Computer monitors

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 LCD, 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 document 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 document. Television sets can include any number of auxiliary batteries.

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

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

IEC 62087-2:2023, *Audio, video, and related equipment – Determination of power consumption – Part 2: Signals and media*

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