SVENSK STANDARD

SS-EN IEC 62623, utg 2:2022

2022-10-19

REDLINE VERSION

Stationära och bärbara datorer – Mätning av elförbrukning

Desktop and notebook computers – Measurement of energy consumption

En så kallad ”Redline version” (RLV) innehåller både den fastställda IEC-standarden och en ändringsmarkerad standard. Alla tillägg och borttagningar sedan den tidigare utgåvan är markerade med färg. Med en RLV sparar du mycket tid när du ska identifiera och bedöma aktuella ändringar i standarden. SEK Svensk Elstandard kan bara ge ut en RLV i de fall den finns tillgänglig från IEC.

IEC 62623

Edition 2.0 2022-04
REDLINE VERSION

INTERNATIONAL STANDARD

colour inside

Desktop and notebook computers – Measurement of energy consumption

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 35.160

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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DESKTOP AND NOTEBOOK COMPUTERS – MEASUREMENT OF ENERGY CONSUMPTION

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.
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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 62623:2012. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC 62623 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 2012. This edition constitutes a technical revision.

The first edition of this standard was originally based on ECMA-383.

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

a) Additions to terms & definitions and modification to short & long idle descriptions.
b) Test setup modifications for notebooks where battery pack cannot be removed for testing.
c) Categorisation procedure based on ECMA-389 removed.
d) Replace majority profile with new duty cycle study including new duty cycle attributes for desktop and notebook in a residential and enterprise application.
e) Removal of any reference and test methodology to ENERGY STAR V5.

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

Draft	Report on voting
100/3583/CDV	100/3669/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.

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/standardsdev/publications.

In this standard, the following print types or formats are used:

– requirements proper and normative annexes: in roman type;
– notes/explanatory matter: in smaller roman type;
– terms that are defined in 3.1: **bold**.

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- replaced by a revised edition, or
- amended.

IMPORTANT – The "colour inside" logo on the cover page of this document 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

This document ~~includes~~ provides definitions of energy saving modes and generic energy saving guidance for designers of desktop and notebook computers, by defining a methodology on how to measure the energy consumption of a product whilst providing key categorisation ~~criteria~~ attributes that enable energy consumption comparisons of similar products.

This document is originally based on ECMA-383 and complements the guidance given in IEC 62075.

DESKTOP AND NOTEBOOK COMPUTERS – MEASUREMENT OF ENERGY CONSUMPTION

1 Scope

This document covers personal computing products. It applies to desktop and notebook computers as defined in 4.1 that are marketed as final products and that are hereafter referred to as the equipment under test (EUT) or product.

This document specifies:

– a test procedure to enable the measurement of the power and/or energy consumption in each of the EUT's power modes;

– formulas for calculating the **typical energy consumption** (**TEC**) for a given period (normally annual);

– a majority profile ~~that should~~ to be used with this document which enables conversion of average power into energy within the **TEC** formulas;

~~– a system of categorisation enabling like for like comparisons of energy consumption between EUTs;~~

– a pre-defined format for the presentation of results.

This document does not set any pass/fail criteria for the EUTs. Users of the test results ~~should~~ define such criteria.

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.~~

~~ECMA-389, *Procedure for the Registration of Categories for ECMA-383 2nd edition*~~

There are no normative references in this document.

SVENSK STANDARD

SS-EN IEC 62623, utg 2:2022

Fastställd	Sida	Ansvarig kommitté
2022-10-19	1 (1+45)	SEK TK 100

Stationära och bärbara datorer – Mätning av elförbrukning

Desktop and notebook computers – Measurement of energy consumption

Som svensk standard gäller europastandarden EN IEC 62623:2022. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62623:2022.

Nationellt förord

Europastandarden EN IEC 62623:2022

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 62623, Second edition, 2022 - Desktop and notebook computers - Measurement of energy consumption**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62623, utg 1:2013, gäller ej fr o m 2025-06-01.

ICS 31.160.00

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
Postadress: Box 1284, 164 29 KISTA
Telefon: 08 - 444 14 00.
E-post: sek@elstandard.se. Internet: www.elstandard.se

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

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Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62623

June 2022

ICS 35.160

Supersedes EN 62623:2013

English Version

Desktop and notebook computers - Measurement of energy consumption (IEC 62623:2022)

Ordinateurs de bureau et ordinateurs portables - Mesure de la consommation d'énergie (IEC 62623:2022)

Desktop- und Notebook-Computer - Messung des Energieverbrauchs (IEC 62623:2022)

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 62623:2022 E

SEK Svensk Elstandard

SS-EN IEC 62623, utg 2:2022

European foreword

The text of document 100/3583/CDV, future edition 2 of IEC 62623, prepared by 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 62623:2022.

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) 2023-03-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-06-01

This document supersedes EN 62623:2013 and all of its amendments and corrigenda (if any).

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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 62623:2022 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62075 NOTE Harmonized as EN 62075

IEC 62623

Edition 2.0 2022-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Desktop and notebook computers – Measurement of energy consumption

Ordinateurs de bureau et ordinateurs portables – Mesurage de la consommation d'énergie

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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