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BSI Standards Publication

Energy consumption of vending machines

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National foreword

This British Standard is the UK implementation of EN IEC 63252:2020+A11:2024. It is identical to IEC 63252:2020. It supersedes BS EN IEC 63252:2020, which will be withdrawn on 23 August 2027.

The start and finish of text introduced or altered by amendment A11 is indicated in the text by tags. Tags indicating changes to text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by ⟦A11⟩ ⟨A11⟧.

The UK participation in its preparation was entrusted to Technical Committee CPL/59, Performance of household electrical appliances.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
31 October 2024	Implementation of CENELEC amendment A11:2024

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EUROPEAN STANDARD **EN IEC 63252:2020+A11**

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EUROPÄISCHE NORM

August 2024

ICS 27.015; 97.130.20

Supersedes EN 50597:2018 and all of its amendments and corrigenda (if any)

English Version

Energy consumption of vending machines (IEC 63252:2020)

Consommation d'énergie des distributeurs automatiques (IEC 63252:2020)

Energieverbrauch von Verkaufsautomaten (IEC 63252:2020)

This European Standard was approved by CENELEC on 2020-08-17. 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.

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

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European foreword

The text of document 59/730/FDIS, future edition 1 of IEC 63252, prepared by IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63252:2020.

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)	2021-05-17
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2023-08-17

This document supersedes EN 50597:2018 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.

Endorsement notice

The text of the International Standard IEC 63252:2020 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 62552 (series)	NOTE	Harmonized as EN 62552 (series)
ISO 23953-1	NOTE	Harmonized as EN ISO 23953-1
ISO 23953-2	NOTE	Harmonized as EN ISO 23953-2

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European foreword to amendment A11

This document (EN IEC 63252:2020/A11:2024) has been prepared by CLC/TC 59X “Performance of household and similar electrical appliances”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2025-02-23
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2027-08-23

This document amends EN IEC 63252:2020.

It includes the following significant changes:

— Introduction of a definition of refrigerated vending machine;

— Refinement of the set up of category 4 and 6 machines for testing (5.1);

— Clarification of the placing of M-cans (5.4);

— Clarification of the product loading procedure and introduction of the option for using cans other than 330 ml (5.5);

— Clarification of product storage temperatures (5.6);

— Clarification of the practical definition of stabilization (5.7);

— Clarification of the testing procedure for machines without an energy saving mode (6.3.2);

— Clarification of energy measurement test procedure (6.3.3);

— Modification of the definition of volume (6.4);

— Introduction of an equation for the calculation of energy consumption for machines without energy saving mode (Clause 7);

— Modification of the calculation of energy consumption to provide consumption per day rather than per year (Clause 7);

— Clarification of the definition of category 6 machines;

— Editorial improvement regarding consistent use of terms;

— Introduction of dated normative references;

— and updated Annexes ZZA and ZZB.

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This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annexes ZZA and ZZB, which are an integral part of this document.

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.

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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 60335-1	-	Household and similar electrical appliances - Safety - Part 1: General requirements	EN 60335-1	2012
			+ A11	2014
			+ AC	2014
			+ A13	2017
			+ A14	2019
			+ A1	2019
			+ A2	2019
			+ A15	2021
			+ A16	2023
IEC 60335-2-75	-	Household and similar electrical appliances – Safety – Part 2–75: Particular requirements for commercial dispensing appliances and vending machines	EN 60335-2-75	2004
			+ A1	2005
			+ A11	2006
			+ A2	2008
			+ A12	2010
ISO 5149-2	2014	Refrigerating systems and heat pumps – Safety and environmental requirements – Part 2: Design, construction, testing, marking and documentation	-	-
ISO 5149-3	2014	Refrigerating systems and heat pumps – Safety and environmental requirements – Part 3: Installation site	-	-
+ A1	2021			
-	-	Electrical and electronic household and office equipment – Measurement of low power consumption	EN 50564	2011

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Annex ZZA
(informative)

Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) No 2019/2018 aimed to be covered

This European Standard has been prepared under a Commission's standardization request 'M/582' / 'C (2022) 2764 final' to provide one voluntary means of conforming to the energy labelling requirements of *Commission Delegated Regulation (EU) No 2019/2018 of 11 March 2019 supplementing Regulation (EU) No 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances with a direct sales function* [OJEU L315/155, 5.12.2019].

Once this standard is cited in the Official Journal of the European Union under that Commission Regulation, compliance with the clauses of this standard given in Table ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding requirements of that and associated EFTA regulations.

Table ZZA.1 — Correspondence between this European Standard and Commission Delegated Regulation (EU) No 2019/2018 of 11 March 2019 supplementing Regulation (EU) No 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances with a direct sales function and Commission's standardization request 'M/582 / 'C(2022) 2764 final'

Energy labelling requirements of Commission Delegated Regulation (EU) No 2019/2018 [OJEU L315/155, 5.12.2019]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Annex IV 1 (c) The requirement to set the relative sizes of the compartments in category 4 and category 6 machines	The means of setting the relative sizes of compartments is set out in Clause 5.1 General	The colder compartment of a multicompartment chilled vending machine is always the lower compartment
Annex IV 2(b) Daily energy consumption E_{daily}	Measurement of energy consumption is described in clauses 6.2 Loading and pull down test 6.3 Ready mode, energy saving mode and recovery period measurements 7 Calculation of energy consumption	Because some energy uses only occur occasionally during the week, the energy consumption is calculated as a weekly total. The figure for daily energy consumption is calculated from the weekly total and is included in Table B.1
Annex IV Table 4 (c) Temperature class	5.6 Product storage temperatures	
Annex III 1.2 VIII and Annex IV Table 4 (c) Maximum measured product temperature	5.6 Product storage temperatures	

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Energy labelling requirements of Commission Delegated Regulation (EU) No 2019/2018 [OJEU L315/155, 5.12.2019]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Annex III 1.2 VII and Annex V 5 Volume	6.4 Measurement of the net volume	This includes the measurement of the individual volumes of the two compartments in a category 4 or category 6 machine

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Annex ZZB
(informative)

Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) No 2019/2024 aimed to be covered

This European Standard has been prepared under a Commission's standardization request 'M/582' / 'C (2022) 2764 final' to provide one voluntary means of conforming to the ecodesign requirements of *Commission Regulation (EU) No 2019/2024 of 1 October 2019 laying down ecodesign requirements for refrigerating appliances with a direct sales function pursuant to Directive 2009/125/EC of the European Parliament and of the Council* [OJEU L315/313, 5.12.2019].

Once this standard is cited in the Official Journal of the European Union under that Commission Regulation, compliance with the clauses of this standard given in Table ZZB.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding requirements of that and associated EFTA regulations.

Table ZZB.1 — Correspondence between this European Standard and Commission Regulation (EU) No 2019/2024 of 1 October 2019 pursuant to Directive 2009/125/EC of the European Parliament and of the Council and Commission's standardization request 'M/582/ 'C (2022) 2764 final'

Ecodesign requirements of Commission Regulation (EU) No 2019/2024 [OJEU L315/313, 5.12.2019]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Annex III 1 (c) The requirement to set the relative sizes of the compartments in category 4 and category 6 machines	The means of setting the relative sizes of compartments is set out in Clause 5.1 General	The colder compartment of a multicompartment chilled vending machine is always the lower compartment
Annex III, 2 (b) Measurement of E_{daily}	Measurement of energy consumption is described in clauses 6.2 Loading and pull down test 6.3 Ready mode, energy saving mode and recovery period measurements 7 Calculation of energy consumption	Because some energy uses only occur occasionally during the week, the energy consumption is calculated as a weekly total. The figure for daily energy consumption is calculated from the weekly total and is included in Table B.1
Annex III 2 (3).(c) Maximum measured product temperature	5.6 Product storage temperatures	
Annex III 2.(3)(c) Temperature class	5.6 Product storage temperatures	
Annex III 2 (c) (4)(c) Measurement of volume	6.4 Measurement of the net volume	This includes the measurement of the individual volumes of the two compartments in a category 4 machine

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

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CONTENTS

FOREWORD 4
1 Scope 6
2 Normative references 6
3 Terms and definitions 7
3.1 Terms relating specifically to the vending process 7
3.2 Terms relating to the tests 8
4 General requirements 9
4.1 Applicability 9
4.2 Test room 9
4.3 Instruments, measuring equipment and measuring accuracy 10
4.4 Power supply 10
5 Conditions for the tests 10
5.1 General 10
5.2 Equipment location for test 11
5.3 Energy consumption and recording 11
5.4 M-cans 11
5.5 Product loading for test 11
5.6 Product storage temperatures 12
5.7 Stabilization 12
6 Energy consumption measurement 12
6.1 General 12
6.2 Loading and pull-down test 13
6.2.1 Test procedure 13
6.2.2 Loading for loading and pull-down test 13
6.2.3 Measurement for loading and pull-down test 14
6.3 Ready mode, energy-saving mode and recovery period measurements 14
6.3.1 General 14
6.3.2 Test procedure 15
6.3.3 Measurement 15
6.4 Measurement of the net volume 16
7 Calculations – Energy consumption 16
8 Marking plate 17
Annex A (informative) Test timeline 18
Annex B (informative) Test report template 19
Bibliography 23

A11 Figure A.1 – Test timeline 18 A11
Figure A.2 – Test timeline without energy-saving mode 18
Figure B.1 – Location of machine 20
A11 Figure B.2 – Glass fronted vending machine – example 1 21
Figure B.3 – Glass fronted vending machine – example 2 ..... 21 A11
Figure B.4 – Carousel or drum machine 22
Figure B.5 – Combined snack and vertical stack can machine 22
A11 Figure B.6 – Vertical stack can and bottle machine 22 A11

This is a preview of BS EN IEC 63252:2020+A11:2024. Click here to purchase the full version from the ANSI store

Table 1 – Vending machine categories 6
Table 2 – Description of vending machine categories 9
Table 3 – Product loading temperatures for reloading and pull-down test 14
Table 4 – Permitted loading times 14
Table B.1 – Data to be reported 19

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ENERGY CONSUMPTION OF VENDING MACHINES

FOREWORD

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International Standard IEC 63252 has been prepared by IEC technical committee 59: Performance of household and similar electrical appliances.

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

FDIS	Report on voting
59/730/FDIS	59/736/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
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- amended.

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ENERGY CONSUMPTION OF VENDING MACHINES

1 Scope

This document defines methods for the measurement of energy consumption of vending machines, whether or not fitted with refrigerating appliances.

The standard applies (but is not limited) to the categories of machines shown in Table 1.

Table 1 – Vending machine categories

[A11] Category	Machine type
1	Refrigerated closed-fronted can and bottle machines where the products are held in stacks
2	Refrigerated glass-fronted can and bottle, confectionery and snack machines
3	Refrigerated glass-fronted machines entirely for perishable foodstuffs
4	Refrigerated dual-temperature glass-fronted machines
5	Confectionery and snack machines that are not refrigerated
6	Combination machines consisting of two machines in the same housing and powered by one chiller [A11]

The following types of vending machine are excluded from this document:

– drink machines dispensing hot and/or cold drinks into cups;
– machines with a food-heating function;
– vending machines operating at temperatures below 0 °C; or
– any machine including one or more of these compartments.

For verification purposes, it is essential to apply all of the tests specified to a single unit. The tests can also be made individually for the study of a particular characteristic.

This document does not deal with any characteristics of machine design other than energy consumption.

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 60335-1, *Household and similar electrical appliances – Safety – Part 1: General requirements*

IEC 60335-2-75, *Household and similar electrical appliances – Safety – Part 2-75: Particular requirements for commercial dispensing appliances and vending machines*

ISO 5149-2, *Refrigerating systems and heat pumps – Safety and environmental requirements – Part 2: Design, construction, testing, marking and documentation*