



BSI Standards Publication

Household refrigerating appliances — Characteristics and test methods

Part 2: Performance requirements

National foreword

This British Standard is the UK implementation of EN 62552-2:2020+A11:2024. It is derived from IEC 62552-2:2015. It supersedes BS EN 62552-2:2020, which is withdrawn.

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.

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Date	Text affected
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English Version

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methods - Part 2: Performance requirements
(IEC 62552-2:2015 , modified)

Appareils de réfrigération à usage ménager -
Caractéristiques et méthodes d'essai - Partie 2: Exigences
de performances
(IEC 62552-2:2015 , modifiée)

Haushaltskühlgeräte - Eigenschaften und Prüfverfahren -
Teil 2: Leistungsanforderungen
(IEC 62552-2:2015 , modifiziert)

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Ref. No. EN 62552-2:2020 E

European foreword

This document (EN 62552-2:2020) consists of the text of IEC 62552-2:2015 prepared by IEC/TC 59 “Performance of household and similar electrical appliances”, together with the common modifications prepared by CLC/TC 59X “Performance of household and similar electrical appliances”.

The following dates are fixed:

- latest date by which this document has (dop) 2021-02-24
to be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2023-02-24
standards conflicting with this document
have to be withdrawn

This standard in combination with standards EN 62552-1:2020 and EN 62552-3:2020 will supersede EN 62552:2013.

This standard shall be read in combination with standards EN 62552-1:2020 and EN 62552-3:2020

EN 62552-2:2020 includes the following significant technical changes:

- a) scope is enlarged with respect to similar refrigerating appliances;
- b) Table 1 and Clauses 6.3.2.1 and Clause 8 were modified completely;
- c) Clause Z1 on airborne acoustical noise was added.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62552-2:2015 are prefixed “Z”.

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This document has been prepared under Standardization Request M/459 given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

Endorsement notice

The text of IEC 62552-2:2015 was approved by CENELEC as a European Standard with agreed common modifications.

European foreword to Amendment A11

This document (EN 62552-2:2020/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) 2025-02-02
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2027-08-02

This document is read in conjunction with EN 62552-1:2020 and EN 62552-3:2020 and their amendments.

EN 62552-2:2020/A11:2024 includes the following significant technical modifications with respect to EN 62552-2:2020:

- a) Clause 6 "Storage test": package placement detailed specified;
- b) Clause 8 "Freezing capacity": temperature control setting defined;
- c) Annex B "Wine storage": demonstration of compliance adjusted;
- d) Annex C "temperature rise": temperature control setting defined.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62552-2:2015 are prefixed "Z".

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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.

Annex ZA
(normative)

Normative references to international publications with their
corresponding European publications

[A11] 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 Z1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE Z2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu/

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>	
IEC 62552-1	2015	Household refrigerating appliances – Characteristics and test methods – Part 1: General requirements	EN 62552-1	2020	
			+ A11	2024	
IEC 62552-3	2015	Household refrigerating appliances - Characteristics and test methods – Part 3: Energy consumption and volume	EN 62552-3	2020	
			+ A11	2024	
		Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-14: Particular requirements for refrigerators, frozen food storage cabinets and food freezers	EN 60704-2-14	2013	
			+ A11	2015	
			+ A1	2019	[A11]
			+ A2	2024	

Annex ZZA (informative)

A11 Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) No 2019/2019 aimed to be covered

This European standard has been prepared under a Commission's standardization request 'M/586' / 'C (2022) 6047 final' to provide one voluntary means of conforming to the ecodesign requirements of Commission Regulation (EU/EC) 2019/2019 of 01 October 2019 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to eco-design requirements for (EC) No 643/2009 [OJEU L315/187 of 05.12.2019].

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative 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 ecodesign requirements of that Regulation and associated EFTA Regulations.

Table ZZA.1 — Correspondence between this European Standard and Commission Regulation (EU) No 2019/2019 of 01 October 2019 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to eco-design requirements (EC) No 643/2009 [OJEU L315/187 of 05.12.2019] and Commission's standardization request 'M/586' / 'C(2022) 6047 final'

Ecodesign requirements of Regulation No 2019/2019 [OJEU L315/187 of 05.12.2019]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Performance of wine storage with regards to temperature fluctuation and humidity range Annex III, part 3, Table 3: note (2) and (6), Annex III, part 4 (a)	Annex B "Wine storage and compartments; storage test"	
Freezing capacity Annex III, part 1 (h)	Clause 8 "Freezing capacity test"	
Storage test at climatic class claimed Annex III, part 1 (i)	Clause 6 "Storage test"	

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WARNING 2 — Other Union legislation may be applicable to the products falling within the scope of this standard. A11

Annex ZZB (informative)

A11 Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) No 2019/2016 aimed to be covered

This European standard has been prepared under a Commission's standardization request 'M/586' / 'C (2022) 6047 final' to provide one voluntary means of conforming to the energy labelling requirements of Commission Delegated Regulation (EU/EC) 2019/2016 of 11 March 2019 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances [OJEU L315/102 of 05.12.2019].

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Table ZZB.1 — Correspondence between this European Standard and Commission Delegated Regulation (EU) 2019/2016 of 11 March 2019 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances [OJEU L315/102 of 05.12.2019] and Commission's standardization request M/586 /(C(2022) 6047 final)

Energy labelling requirements of Regulation 2019/2016 [OJEU L315/102 of 05.12.2019]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Performance of wine storage with regards to temperature fluctuation and humidity range, Annex IV, part 3, Table 3: note (2) and (6), Annex IV, part 4 (a)	Annex B "Wine storage and compartments; storage test"	
Freezing capacity Annex IV, part 1 (h), (i)	Clause 8 "Freezing capacity test"	
Temperature rise time Annex VI, Table 7	Annex C: "Temperature rise test"	
Storage test at climatic class claimed Annex III, part 1 (j)	Clause 6 "Storage test"	

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.

WARNING 2 — Other Union legislation may be applicable to the products falling within the scope of this standard. A11

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD REFRIGERATING APPLIANCES –
CHARACTERISTICS AND TEST METHODS –****Part 2: Performance requirements**

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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International Standard IEC 62552-2 has been prepared by subcommittee 59M: Performance of electrical household and similar cooling and freezing appliances, of IEC technical committee 59: Performance of household and similar electrical appliances

IEC 62552-1, IEC 62552-2 and IEC 62552-3 cancel and replace the first edition of IEC 62552 published in 2007. IEC 62552-1, IEC 62552-2 and IEC 62552-3 together constitute a technical revision and include the following significant technical changes with respect to IEC 62552:2007:

- a) All parts of the standard have been largely rewritten and updated to cope with new testing requirements, new product configurations, the advent of electronic product controls and computer based test-room data collection and processing equipment.
- b) In Part 1 there are some changes to test room equipment specifications and the setup for testing to provide additional flexibility especially when testing multiple appliances in a single test room.

- c) For more efficient analysis and to better characterise the key product characteristics under different operating conditions, the test data from many of the energy tests in Part 3 is now split into components (such as steady state operation and defrost and recovery). The approach to determination of energy consumption has been completely revised, with many internal checks now included to ensure that data complying with the requirements of the standard is as accurate as possible and of high quality.
- d) Part 3 of the standard now provides a method to quantify each of the relevant energy components and approaches on how these can be combined to estimate energy under different conditions on the expectation that different regions will select components and weightings that are most applicable when setting both their local performance and energy efficiency criteria while using a single set of global test measurements.
- e) For energy consumption measurements in Part 3, no thermal mass (test packages) is included in any compartment and compartment temperatures are based on the average of air temperature sensors (compared to the temperature in the warmest test package). There are also significant differences in the position of temperature sensors in unfrozen compartments.
- f) The energy consumption test in Part 3 now has two specified ambient temperatures (16°C and 32°C).
- g) While, in Part 2 (this part) test packages are still used for the storage test to confirm performance in different operating conditions, in Part 1 they have been standardised to one size (100 mm × 100 mm × 50 mm) to simply loading and reduce test variability. A clearance of at least 15 mm is now specified between test packages and the compartment liner.
- h) A load processing energy efficiency test has been added in Part 3.
- i) A tank-type ice making energy efficiency test has been added in Part 3.
- j) A cooling capacity test has been added in Part 2 (this part).
- k) A pull-down test has been added in Part 2 (this part).
- l) Shelf area and storage volume measurement methods are no longer included. In Part 3 the volume measurement has been revised to be the total internal volume with only components necessary for the satisfactory operation of the refrigeration system considered as being in place.
- m) Tests (both performance (Part 2 – this part) and energy (Part 3)) have been added for wine storage appliances.

The following print types are used in this international standard:

- requirements: in roman type;
- test variables: in *italic type*;
- notes: in small roman type.
- words in **bold** are defined in IEC 62552-1:2015.

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

FDIS	Report on voting
59M/62/FDIS	59M/65/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.

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

A list of all parts in the IEC 62252 series, published under the general title *Household refrigerating appliances – characteristics and test methods*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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.

INTRODUCTION

IEC 62552 is split into 3 parts as follows:

- Part 1: Scope, definitions, instrumentation, test room and set up of refrigerating products;
- Part 2: General performance requirements for **refrigerating appliances** and methods for testing them (this part);
- Part 3: **Energy consumption** and **volume** determination.

 This document was developed in relationship with Regulation (EU) 2019/2016 of 11.03.2019 and its amendments on energy labelling and Regulation (EU) 2019/2019 of 01.10.2019 and its amendments on eco-design for refrigerating appliances. 