BS EN 62552-3:2020

BSI Standards Publication

Household refrigerating appliances — Characteristics and test methods

Part 3: Energy consumption and volume

bsi.

National foreword

This British Standard is the UK implementation of EN 62552-3:2020. It is derived from IEC 62552-3:2015. Together with BS EN 62552-1:2020 and BS EN 62552-2:2020, it supersedes BS EN 62552:2013, which is withdrawn.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags 〈C〉 〈C〉.

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 secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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EUROPEAN STANDARD

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EN 62552-3

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Supersedes EN 62552:2013 (partially) and all of its amendments and corrigenda (if any)

English Version

Household refrigerating appliances - Characteristics and test methods - Part 3: Energy consumption and volume (IEC 62552-3:2015 , modified)

Appareils de réfrigération à usage ménager - Caractéristiques et méthodes d'essai - Partie 3: Consommation d'énergie et volume (IEC 62552-3:2015 , modifié)

Haushaltskältegeräte - Eigenschaften und Prüfverfahren - Teil 3: Energieverbrauch und Rauminhalt (IEC 62552-3:2015 , modifiziert)

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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.

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

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EN 62552-3:2020

European foreword

This document (EN 62552-3:2020) consists of the text of IEC 62552-3:2015 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 to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2021-02-24
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2023-02-24

This standard in combination with standards EN 62552-1:2020 and EN 62552-2:2020 will supersede EN 62552:2013.

This standard shall be read in combination with standards EN 62552-1:2020 and EN 62552-2:2020.

EN 62552-3:2020 includes the following significant technical changes:

a) definition of the “regional function”, i.e. calculation formula for annual energy consumption for Europe;

b) some clauses have been completely modified, i.e. D.3, F.1 and H.2.2;

c) adding of H.Z1 and Figures H.Z1, H.Z2, H.Z3, H.Z4 and H.Z5.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62552-3:2015 are prefixed “Z”.

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.

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 62552-3:2015 was approved by CENELEC as a European Standard with agreed common modifications.

Annex ZA
(normative)

Chill compartment temperature control test

A chill compartment shall be able to control its average temperature within a certain range without user-adjustments of its control. This shall be checked during a set of temperature control tests which consists of two parts: reference tests at 32 °C and verification tests at 16 °C. All temperature control tests shall be performed as prescribed for the energy consumption tests. The controller setting of the chill compartment, if present, shall be the same for all temperature control tests.

Note Z1 In general all or part of the temperature control tests can also be used for the energy consumption determination.

Determine the reference chill compartment temperature $T_{ccma,ref}$ by performing one or more reference tests at 32 °C ambient. $T_{ccma,ref}$ is the interpolated value of T_{ccma} according Annex E and all reference tests shall be valid tests for interpolation subject to the following conditions:

a) If the temperature control of the chill compartment is not adjustable by the user, the chill compartment is tested in the condition as delivered.

b) If the temperature control of the chill compartment is accessible to the user (e.g. visible control on the display or by following manufacturer instructions), it is set to a position which leads to an interpolated temperature of T_{ccma} at or as close as possible below the target temperature (+2 °C) .

The interpolation can be to the target temperature(s) of any controlled compartment present, with the exception of the chill compartment as the controller setting shall be the same for each reference test.

Perform one or more verification tests at 16 °C ambient temperature with the same temperature control setting of the chill compartment as applied at 32 °C. Other control settings shall be such that the controlled compartments are within 4 K of their target temperature, with the exception of the fresh food compartment, where, if present, the fresh food compartment temperature T_{ma} shall be in the range from 2 °C to 6 °C.

For each of these verification tests, T_{ccma} shall be within $T_{ccma,ref}$ ± 1,5 K. An example of a temperature control diagram is given in Figure Z1. In case any of the verification tests is not complying with this requirement, the compartment shall not be classified as a chill compartment.

It is allowed to perform the reference tests for determining $T_{ccma,ref}$ at 16 °C ambient temperature and perform the verification tests at 32 °C.

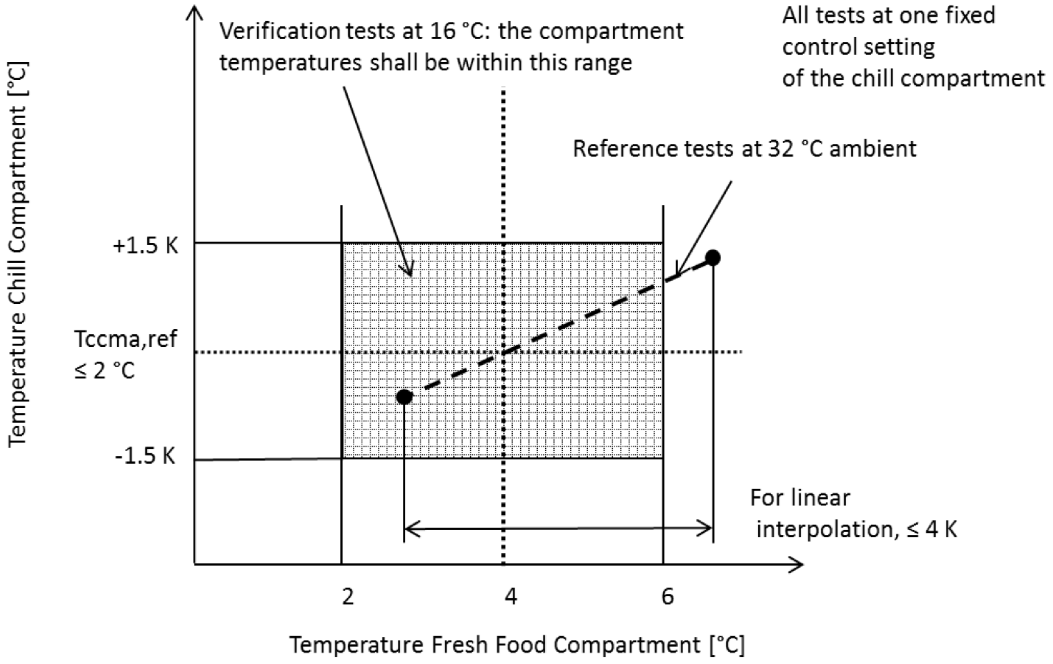

Figure Z1 − Example of a temperature control diagram for a combination appliance with a fresh food and chill compartment

Annex ZB
(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 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.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 62552-1 (mod)	2015	Household refrigerating appliances – Characteristics and test methods – Part 1: General requirements	EN 62552-1	2020
IEC 62552-2 (mod)	2015	Household refrigerating appliances – Characteristics and test methods – Part 2: Performance requirements	EN 62552-2	2020

Annex ZZA
(informative)

Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) 2019/2019 aimed to be covered

This European standard has been prepared under a Commission's standardisation request "Mandate to CEN, CENELEC and ETSI for Standardisation in the field of household refrigerating appliances", M/459 (2009) to provide one voluntary means of conforming to the ecodesign requirements of Commission Regulation (EU) 2019/2019 of 1.10.2019 laying down ecodesign requirements for refrigerating appliances pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EC) No 643/2009 [OJEU L315/187 of 5.12.2019].

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) 2019/2019 of 1.10.2019 laying down ecodesign requirements for refrigerating appliances pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulation (EC) No 643/2009 [OJEU L315/187 of 5.12.2019] and Commission's standardisation request "Mandate to CEN, CENELEC and ETSI for Standardisation in the field of household refrigerating appliances", M/459 (2009)

Ecodesign requirements of Regulation No 2019/2019 [OJEU L315/187 of 5.12.2019]	Clause(s) / sub-clause(s) of this EN	Remarks/ Notes
Art. 6 Circumvention	Clause 7	
Article 4.4 Anti-condensation heater that can be switched on and off by the end-user	Annex F.2.6, F.2.7, F.2.8	
Article 4.4	Annex F.2.5	
Ambient controlled anti-condensation heaters		
Article 4.4 Chill requirements	Annex ZA	
Article 4.4, Annex II, 1 a), Table 1 and 1 b), Table 2 Energy efficiency index	Clauses 4, 5, 6, 8	
Article 4.4, Annex II, 1 a), Table 1 and 1 b), Table 2 Energy efficiency index for low noise refrigerator	Clause 6	

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.

Annex ZZB
(informative)

Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) 2019/2016 aimed to be covered

This European standard has been prepared under a Commission's standardisation request "Mandate to CEN, CENELEC and ETSI for Standardisation in the field of household refrigerating appliances", M/459 (2009) to provide one voluntary means of conforming to the energy labelling requirements of Commission Delegated Regulation (EU) 2019/2016 of 11.3.2019 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances and repealing Commission Delegated Regulation (EU) No 1060/2010 [OJEU L315/102 of 5.12.2019].

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 ZZB.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding energy labelling requirements of that Regulation and associated EFTA Regulations.

Table ZZB.1 – Correspondence between this European Standard and Commission Delegated Regulation (EU) 2019/2016 of 11.3.2019 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances and repealing Commission Delegated Regulation (EU) No 1060/2010 [OJEU L315/102 of 5.12.2019] and Commission's standardisation request "Mandate to CEN, CENELEC and ETSI for Standardisation in the field of household refrigerating appliances", M/459 (2009)

Energy labelling Requirements of Regulation No 2019/2016 [OJEU L315/102 of 5.12.2019]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Annex VI, Table 7 (general product specification) Anti-condensation heater that can be switched on and off by the end-user	Annex F.2.6, F.2.7, F.2.8	
Annex VI, Table 7 (general product specification) Ambient controlled anti-condensation heaters	Annex F.2.5	
Annex V, Table 6 (compartment parameters); Annex VI, Table 7 (compartment specifications) Chill requirements	Annex ZA	
Annex III, 1.2.V. and 2.2.V.;Annex V, Table 6 (general product parameters); Annex VI, Table 7 (general product specifications) Energy consumption and energy efficiency index	Clauses 4, 5, 6, 8	
Annex III, 1.2 and 2.2; Annex IV, 4 a); Annex V, Table 6 (compartment parameters) Compartment volume and total volume	Annex H	

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