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ABSORPTSIOON-SOOJUSPUMPADE ENERGIATARBIMISE
HINDAMINE

Gas-fired domestic appliances producing hot water -
Part 6: Assessment of energy consumption of
adsorption and absorption heat pumps

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13203-6:2022 sisaldab Euroopa standardi EN 13203-6:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 13203-6:2022 consists of the English text of the European standard EN 13203-6:2022.
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English Version

Gas-fired domestic appliances producing hot water - Part 6: Assessment of energy consumption of adsorption and absorption heat pumps

Appareils domestiques produisant de l'eau chaude sanitaire utilisant les combustibles gazeux - Partie 6 : Évaluation de la consommation énergétique des pompes à chaleur à adsorption et absorption

Gasbefeuerte Geräte zur Warmwasserbereitung für den Hausgebrauch - Teil 6: Bewertung des Energieverbrauchs von Adsorptions- und Absorptionswärmepumpen

This European Standard was approved by CEN on 13 June 2022.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 7 September 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 13203-6:2022) has been prepared by Technical Committee CEN/TC 109 “Central heating boilers using gaseous fuels”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2023, and conflicting national standards shall be withdrawn at the latest by February 2023.

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

This document supersedes EN 13203-6:2018.

The main technical changes compared to EN 13203-6:2018 are the following:

- to provide a means of conforming to requirements of Commission Delegated Regulation (EC) n° 813/2013, (EC) n° 811/2013, (EC) n° 812/2013 and (EC) n° 814/2013;
- incorporation of ECOTESTS results.

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

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, ZB, ZC or ZD, which is an integral part of this document.

The safety operation of the boiler or water heater is not covered by this document. Safety should be proved by means of the essential safety requirements of the Gas Appliances Regulation 2016/426/UE. This may be achieved by compliance with the appropriate existing harmonized standards.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document refers to clauses of EN 13203-2:2022 or adapts clauses by stating in the corresponding clause, on the principle:

- shall be according to EN 13203-2:2022, (clause number) with the following modification;
- shall be according to EN 13203-2:2022, (clause number) with the following addition;
- EN 13203-2:2022, (clause number) is replaced with the following;
- EN 13203-2:2022, (clause number) is not applicable.

NOTE Useful standards are series EN 15502 and series EN 12309.

1 Scope

This document is applicable to gas-fired appliances producing domestic hot water. It applies to sorption heat pumps connected to or including a domestic hot water storage tank. It applies to a package marketed as single unit or fully specified that have:

- a heat input not exceeding 400 kW;
- a hot water storage tank capacity (if any) not exceeding 2 000 l.

In the case of gas-fired sorption heat pumps, with or without storage tank, domestic hot water production is integrated or coupled, the whole being marketed as a single unit.

EN 13203-1:2015 sets out in qualitative and quantitative terms the performance in delivery of domestic hot water for a selected variety of uses. It also gives a system for presenting the information to the user. The present document sets out a method for assessing the energy performance of the appliances. It specifies a number of daily load profiles for each domestic hot water use, kitchen, shower, bath and a combination of these, together with corresponding test procedures, enabling the energy performances of different gas-fired appliances to be compared and matched to the needs of the user. Where other technologies are combined with a gas-fired sorption heat pump to produce domestic hot water, specific parts of EN 13203 apply.

Horizontal ground heat sources are not covered by the scope of the present document.

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.

Shall be according to EN 13203-2:2022, Clause 2, with the following additions:

EN 13203-2:2022, *Gas-fired domestic appliances producing hot water — Part 2: Assessment of energy consumption*

EN 14511-3:2018, *Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors — Part 3: Test methods*

3 Terms and definitions

Shall be according to EN 13203-2:2022, Clause 3, with the following additions:

3.1 indoor ambient air
heat source for a heat pump which absorbs heat by a heat exchanger in direct contact with the air inside a building without any dedicated duct

3.2 brine
heat transfer medium which has a freezing point depressed relative to water

3.3 sorption heat pump
encased assembly or assemblies designed as an appliance whose primary function is delivery of domestic hot water or domestic hot water and heating, where the primary function is dependent on circulation of fluid (refrigerant and/or solution) within the absorption, adsorption or refrigerant circuit(s)