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KODUMAJAPIDAMISES. OSA 4: ENERGIATARBIMISE  
HINDAMINE KUUMA VEE JA ELEKTRI TOOTMISEL  
GAASIGA TÖÖTAVATES SOOJUSE JA ELEKTRI  
KOOSTOOTMISSEADMETES (MIKROCHP)

Gas-fired domestic appliances producing hot water -  
Part 4: Assessment of energy consumption of gas  
combined heat and power appliances (mCHP)  
producing hot water and electricity

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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English Version

**Gas-fired domestic appliances producing hot water - Part  
4: Assessment of energy consumption of gas combined  
heat and power appliances (mCHP) producing hot water  
and electricity**

Appareils domestiques produisant de l'eau chaude  
sanitaire utilisant les combustibles gazeux - Partie 4:  
Évaluation de la consommation énergétique des  
appareils à gaz de production combinée de chaleur et  
d'électricité (mCHP) produisant de l'eau chaude et de  
l'électricité

Gasbeheizte Geräte für die sanitäre  
Warmwasserbereitung für den Hausgebrauch - Teil 4:  
Bewertung des Energieverbrauchs von Gasgeräten mit  
Kraft-Wärme-Kopplung (Mikro-KWK) zur  
Warmwasserbereitung und Stromerzeugung

This European Standard was approved by CEN on 6 August 2016.

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## European foreword

This document (EN 13203-4:2016) 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of an identical text or by endorsement, at the latest by April 2017, and conflicting national standards shall be withdrawn at the latest by April 2017.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, B, C or D, which is an integral part of this document.

The safety operation of the boiler is not covered by this standard. Safety is proved by means of the essential safety requirements of the Gas Appliances Directive 2009/142/EC. This way be achieved by compliance with the appropriate existing harmonized standards.

NOTE Useful standards are EN 26, EN 89, EN 15502-1, EN 15502-2-1, EN 15502-2-2 and EN 50465:2015.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard is applicable to gas-fired mCHP appliances producing domestic hot water and electricity. The electricity is generated in a process linked to the production of useful heat.

It applies to a mCHP appliances marketed as single unit or as a package fully specified by a manufacturer that have:

- a gas heat input not exceeding 70 kW;
- an electrical output not exceeding 50 kW and
- a hot water storage capacity not exceeding 500 l.

EN 13203-1 sets out in qualitative and quantitative terms the performance in delivery of domestic hot water for a 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 gas fired mCHP appliances. It defines a number of daily tapping cycles 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.

When the mCHP generator does not supply domestic hot water in the summer period, the present standard is not applicable. EN 13203-2 is used for performance assessment of these generators.

## 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.

EN 13203-1, *Gas fired domestic appliances producing hot water - Part 1: Assessment of performance of hot water deliveries*

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

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **storage tank**

reservoir for domestic hot water and or central heating water

### 3.2

#### **nominal domestic hot water heat input ( $Q_{nw}$ )**

value of the heat input stated in the appliance instructions for the production of domestic hot water

Note 1 to entry:  $Q_{nw}$  is expressed in kilowatt (kW)

### 3.3

#### **summer mode**

conditions during which the appliance supplies energy only for the production of domestic hot water