Küttekatlad. Osa 3: Gaas-keskküttekatlad. Katlakerest ja sundtõmbega põletist koosnev komplekt

Heating boilers - Part 3: Gas-fired central heating boilers - Assembly comprising a boiler body and a forced draught burner

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 303-3:1999 sisaldab Euroopa standardi EN 303-3:1998 + AC:2006 ingliskeelset teksti.	This Estonian standard EVS-EN 303-3:1999 consists of the English text of the European standard EN 303-3:1998 + AC:2006.
Standard on kinnitatud Eesti Standardikeskuse 23.11.1999 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 23.11.1999 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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andmeplaadid, gaasiseadmed, katlad, keskküte, küttekehad, kütteüksused, liigitused, märgistus, määratlused, põletid, seadmete eristuskiri, tehnilised märkused, testimine, tööomaduste hindamine

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Descriptors: heaters, gas appliances, boilers, central heating, heating units, burners, definitions, classifications, equipment specifications, performance evaluation, tests, name plates, technical notices, marking

English version

Heating boilers - Part 3: Gas-fired central heating boilers - Assembly comprising a boiler body and a forced draught burner

Chaudières de chauffage - Partie 3: Chaudières de chauffage central utilisant les combustibles gazeux - Assemblage d'un corps de chaudière et d'un brûleur à air soufflé

Heizkessel - Teil 3: Zentralheizkessel für gasförmige Brennstoffe - Zusammenbau aus Kessel und Gebläsebrenner

This European Standard was approved by CEN on 22 August 1997.

CEN 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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN 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 CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 109 "Central heating boilers using gaseous fuels", the secretariat of which is held by NNI.

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 March 1999, and conflicting national standards shall be withdrawn at the latest by March 1999.

This European Standard 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).

This European Standard specifies the tests to be carried out on the assembly of a boiler body in conformity with standard EN 303-1 and a forced draught burner in conformity with standard EN 676.

The European Standard EN 303 includes six Parts :

- Part 1 : Heating boilers with forced draught burners - Terminology, general requirements, testing and marking ;

- Part 2 : Heating boilers with forced draught burners - Special requirements for boilers with atomizing oil burners ;

- this Part 3;

- Part 4 : Heating boilers with forced draught burners - With outputs up to 70 kW and a maximum operating pressure of 3 bar - Terminology, special requirements, testing and marking ;

- Part 5 : Special heating boilers for solid fuels - Hand and automatically fired - Nominal heat output of up 300 kW - Terminology, requirements, testing and marking ;

- Part 6 : Heating boilers with forced draught burners - Specific requirements for the domestic hot water operation of liquid-fired combination boilers of nominal heat output not exceeding 70 kW

This European Standard does not deal with NO_X emissions, as they are treated in EN 676.

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the requirements and test methods for the construction, the safety and the rational energy usage of an assembly made up of a boiler body complying with EN 303- 1[1)] and a forced draught gas burner complying with EN 676, using combustible gases, hereafter referred to as a "boiler".

This European Standard applies to a boiler :

- with a nominal output not exceeding 1 000 kW.

This European Standard does not contain all the necessary requirements for :

- assemblies designed as units ;
- condensing boilers and low temperature boilers ;
- boilers intended to be installed in the open ;
- boilers permanently fitted with more than one flue outlet ;
- boilers fitted with a draught diverter ;
- boilers intended to be connected to a common flue having mechanical extraction.

This European Standard does not apply to living-space dedicated boilers (see 3.6).

If the boiler body has already been tested with a liquid fuel burner, in accordance with EN 303-1, EN 303-2 and EN 304, only the tests described in annex G need to be performed.

In the case of a range of boilers, see annex F.

This European Standard does not contain all the necessary requirements for low temperature boilers. Nevertheless, the testing methods defined by this European Standard for the determination of useful efficiencies can be used for low temperature boilers, after being adapted in accordance with annex H.

This European Standard only covers type testing.

2 Normative references

This present European Standard incorporates by means of dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 303-1	Heating boilers - Heating boilers with forced draught burners - Part 1 : Terminology, general requirements, testing and marking

1) The conformity with the standard EN 303-1 can be obtained jointly by the EN 303-1 specific tests and the EN 303-2 or EN 303-3 tests. If the boiler body has already been tested for conformity with EN 303-2, see annex G.

EN 303-2	Heating boilers - Heating boilers with forced draught burners - Part 2 : Special requirements for boilers with atomizing oil burners
EN 304	Heating boilers - Test code for heating boilers for atomizing oil burners
EN 676	Automatic forced draught burners for gaseous fuels

3 Definitions

For the purposes of this standard, the following definitions apply :

3.1 gas rates

3.1.1 volumetric rate

The volume of gas consumed by the boiler in unit time during continuous operation, expressed in cubic metres per hour (m^3/h).

Symbols :

- V (under test conditions)
- V_r (under reference conditions)

3.1.2 mass rate

The mass of gas consumed by the boiler in unit time during continuous operation, expressed in kilograms per hour (kg/h), or on occasions in grams per hour (g/h).

Symbols :

- M (under test conditions)
- M_r (under reference conditions)

3.2 heat input

The product of the volumetric rate or the mass rate, and the net calorific value of the gas, under the same reference conditions, expressed in kilowatts (kW).

Symbol : Q

3.2.1 nominal heat input [2)]

The heat input stated by the manufacturer, expressed in kilowatts (kW).

Symbol : Q_n

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2) Boilers fitted with a range-rating device operate at a nominal heat input between the maximum and minimum adjustable heat inputs. Modulating boilers operate between the nominal heat input and the minimum controlled heat input. The maximum heat input corresponds to the nominal output of the boiler in accordance with EN 303-1.