Väljaspool kodumajapidamist kasutatavad gaasiküttel sundkonvektsiooniga otsepõlemis-õhusoojendid ruumide soojendamiseks, soojuse netosisendväärtusega alla 300 kW, ilma põlemisõhku ja/või põlemisjääke teisaldava ventilaatorita

Non-domestic gas-fired forced convection air heaters for space heating not exceeding a net heat input of 300 kW, without a fan to assist transportation of combustion air and/or combustion products



## **FESTI STANDARDI FESSÕNA**

## **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 621:2010 sisaldab Euroopa standardi EN 621:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 28.02.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 11.11.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 621:2010 consists of the English text of the European standard EN 621:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 28.02.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 11.11.2009.

The standard is available from Estonian standardisation organisation.

ICS 97.100.20

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# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

**EN 621** 

November 2009

ICS 97.100.20

Supersedes EN 621:1998

### **English Version**

Non-domestic gas-fired forced convection air heaters for space heating not exceeding a net heat input of 300 kW, without a fan to assist transportation of combustion air and/or combustion products

Générateurs d'air chaud à convection forcée utilisant les combustibles gazeux pour le chauffage de locaux autres que l'habitat individuel, de débit calorifique sur Hi inférieur ou égal à 300 kW, sans ventilateur pour aider l'alimentation en air comburant et/ou l'évacuation des produits de combustion

Gasbefeuerte Warmlufterzeuger mit erzwungener Konvektion zum Beheizen von Räumen für den nichthäuslichen Gebrauch mit einer Nennwärmebelastung nicht über 300 kW, ohne Gebläse zur Beförderung der Verbrennungsluft und/oder der Abgase

This European Standard was approved by CEN on 10 October 2009.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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# **Foreword**

This document (EN 621:2009) has been prepared by Technical Committee CEN/TC 180 "Domestic and non-domestic gas fired air heaters and non-domestic overhead radiant heaters", the secretariat of which is held by AFNOR.

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 May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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

This document supersedes EN 621:1998.

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 Annexes ZA and ZB, which are integral parts of this document.

This revision modifies EN 621:1998. It has been prepared to incorporate requirements for combustion products evacuation ducts, POCEDs, supplied as an integral part of the system to support the EU Directive 89/106/EEC on construction products under mandate M105. To this end it extends the scope of the standard to cover Type  $B_{41}$  appliances.

Furthermore, the opportunity presented by this revision has been taken to update the standard in respect to EN 437:2003.

NOTE For countries requesting special categories (specified in EN 437:2003), the absence of specific information concerning A.4.3 and A.4.4 implies that the general requirements described in the body of the standard (see 5.1.1, 5.2.2, 5.2.3 and 5.2.5) also apply to these special categories.

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

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## 1 Scope

This European Standard specifies the requirements and test methods for the safety and efficiency of non-domestic gas-fired air heaters not exceeding a net heat input of 300 kW with (an) atmospheric burner(s) and without a fan to assist the transportation of combustion air and/or flue gases, hereafter referred to as "appliances".

This European Standard applies to Type  $B_{11}$ ,  $B_{41}$ ,  $C_{11}$  and  $C_{31}$  appliances intended for use in other than single unit residential dwellings. Provision of the heated air may be by means of ducting or may be directly into the heated space.

This standard does not apply to:

- appliances intended for use in a single unit residential dwelling;
- b) appliances of the condensing type;
- c) appliances for outdoor installation;
- d) dual purpose air conditioning appliances (heating and cooling);
- e) appliances where the air is heated by an intermediate fluid;
- f) appliances with forced draught burners;
- g) appliances fitted with a manual or automatic means of adjusting the combustion air supply or the combustion products evacuation (including flue dampers);
- h) portable or transportable forced convection appliances;
- i) appliances having multiple heating units with a single draught diverter;
- i) appliances fitted with more than one flue outlet;
- k) appliances that are designed for continuous condensation within the flue system under normal operating conditions;
- appliances having combustion products evacuation ducts, POCEDs, that are non-metallic.

This standard is applicable to appliances which are intended to be type tested. It also includes requirements concerning the evaluation of conformity, including factory production control, but these requirements only apply to POCEDs and their associated terminals.

NOTE Requirements for appliances which are not type tested would need to be subject to further consideration.

### 2 Normative references

The following referenced documents are indispensable for the application 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.

EN 88-1, Pressure regulators and associated safety devices for gas appliances – Part 1: Pressure regulators for inlet pressures up to and including 500 mbar

EN 125, Flame supervision devices for gas burning appliances – Thermoelectric flame supervision devices

EN 126, Multifuctional controls for gas burning appliances

EN 161:2007, Automatic shut-off valves for gas burners and gas appliances

EN 257, Mechanical thermostats for gas-burning appliances

EN 298:2003, Automatic gas burner control systems for gas burners and gas burning appliances with or without fans

EN 437:2003, Test gases – Test pressures – Appliance categories

EN 1859:2000, Chimneys – Metal chimneys – Test methods

EN 10226-1, Pipe threads where pressure tight joints are made on the threads – Part 1: Taper external threads and parallel internal threads – Dimensions, tolerances and designation

EN 10226-2, Pipe threads where pressure tight joints are made on the threads – Part 2: Taper external threads and taper internal threads – Dimensions, tolerances and designation

EN 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements (IEC 60335-1:2001, modified)

EN 60335-2-102, Household and similar electrical appliances – Safety – Part 2-102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections (IEC 60335-2-102:2004, modified)

EN 60529:1991, Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)

EN 60584-1, Thermocouples – Part 1: Reference tables (IEC 60584-1:1995)

EN 60584-2:1993, Thermocouples – Part 2: Tolerances (IEC 60584-2:1982 + A1:1989)

EN 60730-1, Automatic electrical controls for household and similar use – Part 1: General requirements (IEC 60730-1:1999, modified)

EN 60730-2-9:2002, Automatic electrical controls for household and similar use – Part 2-9: Particular requirements for temperature sensing controls (IEC 60730-2-9:2000, modified)

EN 61058-1, Switches for appliances – Part 1: General requirements (IEC 61058-1:2000 + A1:2001, modified)

EN ISO 228-1, Pipe threads where pressure-tight joints are not made on the threads – Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)

ISO 1182, Reaction to fire tests for building products - Non-combustibility test

ISO 7005-1, Metallic flanges - Part 1: Steel flanges

ISO 7005-2, Metallic flanges - Part 2: Cast iron flanges

ISO 7005-3, Metallic flanges - Part 3: Copper alloy and composite flanges

CR 1404, Determination of emissions from appliances burning gaseous fuels during type-testing