EESTI STANDARD

EVS-EN 461:2000

Vedelgaasiseadmete tehniline kirjeldus. Majapidamises mittekasutatavad lõõrita kütteseadmed, mis ei ületa 10 kW, ruumide kütmiseks

Specification for dedicated liquefied petroleum gas appliances - Flueless non-domestic space heaters not exceeding 10 kW

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA	NATIONAL FOREWORD
Käesolev Eesti standard EVS-EN 461:2000 sisaldab Euroopa standardi EN 461:1999 ingliskeelset teksti. Standard on kinnitatud Eesti Standardikeskuse 18.02.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 461:2000 consists of the English text of the European standard EN 461:1999. This standard is ratified with the order of Estonian Centre for Standardisation dated 18.02.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

ICS 97.100.20

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 461

September 1999

ICS 91.140.20

English version

Specification for dedicated liquefied petroleum gas appliances - Flueless non-domestic space heaters not exceeding 10 kW

Spécifications pour les appareils fonctionnant exclusivement aux gaz de pétrole liquéfiés - Appareils de chauffage non domestiques non raccordés avec un débit calorifique ne dépassant pas 10 kW

Festlegungen für Flüssiggasgeräte - Abzuglose Gewerberaumheizgeräte bis zu 10 kW

This European Standard was approved by CEN on 11 October 1998.

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

Ref. No. EN 461:1999 E

Page

Flueless non-domestic space heaters not exceeding 10 kW

Contents

FOREWORD

This European Standard has been prepared by Technical Committee CEN/TC 181 "Dedicated liquefied petroleum gas appliances", the secretariat of which is held by NSAI.

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 2000, and conflicting national standards shall be withdrawn at the latest by March 2000.

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).

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 defines, for the purpose of type examination, the requirements, the test methods and the marking of non-domestic flueless space heaters (including greenhouse heaters and diffusive catalytic combustion heaters), having a nominal heat input not exceeding 10 kW (H_S) burning 3rd family gases at nominal operating pressure not exceeding 50 mbar, referred to in the body of the text as 'appliances'.

It covers the following types of appliance:

a) fixed heaters designed for installation up to 2,5 m burning commercial butane, commercial propane, or their mixtures;

b) portable or mobile heaters burning commercial butane and/or commercial propane including those that incorporate a compartment for a transportable refillable liquefied petroleum gas cylinder.

> **NOTE 1**: Appliances having a nominal heat input not exceeding 4,2 kW and intended for use in domestic premises are covered by EN 449.

There are no specific thermal efficiency requirements appropriate to these types of appliances as:

c) all the heat produced by the combustion process is released into the space to be heated;

d) the requirements with regard to the combustion performance, which is a safety matter, ensure the effective burning of the fuel gas.

It does not apply to appliances which incorporate a fan for either the assistance of combustion or the circulation of convected air. Neither does it cover appliances incorporating full sequence automatic controls.

Requirements for appliances given in this Standard assume that the supply of gas will be controlled by a pressure regulator giving an outlet pressure as indicated in Table A.1.

Requirements for controls, given herein, relate to controls fitted as part of, or supplied with, particular appliances; they do not necessarily provide a complete specification for controls intended for general use.

> **NOTE 2:** Catalytic heaters are not considered suitable for use in areas having chemicals present which are likely to prevent the correct operation of the catalytic pad.

This Standard does not cover cylinders for liquefied petroleum gases or their associated regulators.

2 Normative references

This European Standard incorporates by 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 to 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 125	Flame supervision devices for gas burning appliances - Thermo-electric flame supervision devices
EN 126	Multifunctional controls for gas-burning appliances
EN 161	Automatic shut-off valves for gas burners and gas appliances
EN 257	Mechanical thermostats for gas-burning appliances
EN 437	Test gases, Test pressures, Appliance categories
EN 449	Specification for dedicated liquefied petroleum gas appliances - Domestic flueless space heaters (including diffusive catalytic combustion heaters)
EN 549	Rubber materials for seals and diaphragms for gas appliances and gas equipment
EN 1057	Copper and copper alloys - Seamless, round copper tubes for water and gas in sanitary and heating applications
prEN 1763-1	Rubber and plastic tubing and hoses for use with propane and butane in the vapour phase - Part 1: Requirements for rubber, plastic hoses and tubing - Specification
EN 50165	Electrical equipment of non-electric heating appliances for household and similar purposes - Safety requirements
EN 60335-1	Safety of household and similar electrical appliances Part 1: General requirements
EN 60730-2-1	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electrical control for electrical household appliances

EN 60730-2-9	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electrical thermosensitive controls
CR 1472	General guidance for the marking of gas appliances
ISO 7-1	Pipe threads where pressure-tight joints are made on the threads - Part 1: Designation, dimensions and tolerances
ISO 228-1	Pipe threads where pressure-tight joints are not made on the threads - Part 1: Designation, dimensions and tolerances

3 Definitions

For the purpose of this standard the following definitions apply:

3.1 atmosphere sensing device: A device that is designed to shut off the gas supply when the carbon dioxide content of the surrounding atmosphere exceeds a given level. Such a device normally comprises a vitiation sensitive pilot in conjunction with a suitable flame supervision device.

3.2 auxiliary equipment: Equipment comprising:

- taps and cocks;
- flame supervision devices;
- thermostats;
- multifunctional controls;
- automatic shut-off valves;
- atmosphere sensing devices.

3.3 burner: A component that allows the gas to burn.

It may be one of two types:

3.3.1 aerated burner: A burner in which part of the air for combustion, termed 'primary air', is mixed with gas before the burner port: the remainder of the air drawn in at the port is termed 'secondary air'.

3.3.2 non-aerated burner: A burner in which the air for combustion is entrained entirely at the burner outlet.