

Dekoratiivsed kütuseefektiga gaasiseadmed

Decorative fuel- effect gas appliances

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 509:2000 sisaldab Euroopa standardi EN 509:1999 ingliskeelset teksti.	This Estonian standard EVS-EN 509:2000 consists of the English text of the European standard EN 509:1999.
Käesolev dokument on jõustatud 17.03.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 17.03.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard specifies the requirements and test methods for the construction, safety, and marking of decorative fuel effect gas appliances not exceeding a nominal heat input of 20 kW, (based on the net calorific value), thereafter referred to as applinaces. This standard is applicable to appliances that are designed to simulate a solid fuel fire and incorporate a natural draught burner with or without an ignition burner. The appliances are for decorative purposes only and are not heating appliances.	Scope: This European Standard specifies the requirements and test methods for the construction, safety, and marking of decorative fuel effect gas appliances not exceeding a nominal heat input of 20 kW, (based on the net calorific value), thereafter referred to as applinaces. This standard is applicable to appliances that are designed to simulate a solid fuel fire and incorporate a natural draught burner with or without an ignition burner. The appliances are for decorative purposes only and are not heating appliances.
--	--

ICS 97.100.20

Võtmesõnad: classifications, combustion, decorating, definitions, equipment specifications, gas appliances, heaters, marking, name plates, performance evaluation, safety, technical notices, testing, testing condition, tests

English version

Decorative fuel-effect gas appliances

Appareils à effet décoratif de combustion utilisant les combustibles gazeux

Dekorative Gasgeräte mit Brennstoffeffekt

This European Standard was approved by CEN on 1998-11-08.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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

Contents

	Page
Foreword	4
1 Scope	5
2 Normative references	5
3 Definitions	7
3.1 Decorative fuel effect gas appliances	7
3.2 Gases	7
3.3 Appliance construction	9
3.4 Adjusters and controls	12
3.5 Appliance performance	13
3.6 Marking of the appliance and packaging	14
4 Classification of appliances	15
4.1 Classification according to the nature of gases used (categories)	15
4.2 Classification according to the method of evacuation of the products of combustion	18
5 Constructional requirements	19
5.1 General	19
5.2 Adjusting, control and safety devices	24
5.3 Ignition devices	29
5.4 Flame supervision systems	30
5.5 Ignition burner or start-gas flame establishment	30
5.6 Main flame establishment	31
5.7 Burners	32
5.8 Clocks and timing devices	32
5.9 Gas pressure test points	32
6 Operational requirements	32
6.1 General	32
6.2 Soundness of the gas circuit and correct evacuation of combustion products	33
6.3 Heat inputs	33
6.4 Temperature of various parts of the appliance and its surroundings	34
6.5 Ignition, cross-lighting and flame stability	35
6.6 Pressure governors	36
6.7 Combustion	36
6.8 Sooting	36
6.9 Atmosphere sensing device	37
6.10 Flame supervision device	37

7	Test methods	38
7.1	General	38
7.2	Soundness of the gas circuit and correct evacuation of combustion products	46
7.3	Heat inputs	47
7.4	Temperature of various parts of the appliance and its surroundings	51
7.5	Ignition: cross-lighting and flame stability	52
7.6	Pressure governors	56
7.7	Combustion	57
7.8	Sooting	60
7.9	Atmosphere sensing device	62
7.10	Flame supervision device	63
8	Marking and instructions	65
8.1	Marking	65
8.2	Instructions	69
Annex A (informative) National situations		85
Annex B (informative) Equivalence rules		97
Annex C (normative) Additional and amended requirements for decorative fuel effect gas appliances not exceeding a net heat input of 20 kW designed to be installed under a non-combustible canopy		100
Annex D (normative) High voltage ignition circuits		107
Annex E (informative) Means of identification of the types of gas in force in the various countries		109
Annex F (normative) Special national conditions		110
Annex G (informative) A - deviations		111
Annex H (informative) Bibliography		111
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or provisions of EU Directives.		112

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 62 "Independent gas-fired space heaters", the secretariat of which is held by BSI

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 2000, and conflicting national standards shall be withdrawn at the latest by May 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 specifies the requirements and test methods for the construction, safety, and marking of decorative fuel effect gas appliances not exceeding a nominal heat input of 20 kW, (based on the net calorific value), thereafter referred to as appliances.

This standard is applicable to appliances that are designed to simulate a solid fuel fire and incorporate a natural draught burner with or without an ignition burner. The appliances are for decorative purposes only and are not heating appliances.

This standard is applicable to type B_{AS}, as described in 4.2.2, decorative fuel effect gas appliances that are designed to be installed within a non-combustible builder's opening or a non-combustible fireplace recess.

In addition, this standard is applicable to decorative fuel-effect gas appliances that are designed to be installed under a non-combustible canopy which may be independent or integral with a flue box, for which additional requirements are specified in annex C.

This standard is not applicable to:

- catalytic combustion appliances;
- appliances in which the supply of combustion air and/or the evacuation of products of combustion is achieved by mechanical means.

This standard is only applicable to appliances which are intended to be type tested.

Matters related to quality assurance systems, tests during production and to certificates of conformity of auxiliary devices are not dealt with by this standard.

Requirements concerning the rational use of energy have not been included in this European Standard because the appliances are for decorative purposes.

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 88: 1991	Pressure governors for gas appliances for inlet pressures up to 200 mbar
EN 125: 1991	Flame supervision devices for gas burning appliances - Thermo-electric flame supervision devices
EN 126: 1995	Multifunctional controls for gas burning appliances
EN 161: 1991	Automatic shut-off valves for gas burners and gas appliances
EN 298: 1993	Automatic gas burner control systems for gas burners and gas burning appliances with or without fans
EN 437: 1993	Test gases - Test pressures - Appliance categories
EN 23166: 1993	Codes for the representations of names of countries (ISO 3166 : 1993)
EN 60335-1: 1994	Safety of household and similar electrical appliances - Part 1: General requirements (IEC 60335-1 : 1991)
EN 60529: 1991	Degrees of protection provided by enclosures (IP Code) (IEC 60529 : 1989)
ISO 7 - 1: 1994	Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation
ISO 228 - 1: 1994	Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation
ISO 274: 1975	Copper tubes of circular section - Dimensions