



SLOVENSKI STANDARD
SIST EN 509:2001/A2:2005
01-junij-2005

Plinski aparati z dekorativnim plamenom – Dopnilo A2

Decorative fuel-effect gas appliances

Dekorative Gasgeräte mit Brennstoffeffekt

Appareils a effet décoratif de combustion utilisant les combustibles gazeux

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Ta slovenski standard je istoveten z: EN 509:1999/A2:2004

[SIST EN 509:2001/A2:2005](https://standards.iteh.ai/catalog/standards/sist/ef9c64c0-fa37-4b22-a943-4d6d9433cd76/sist-en-509-2001-a2-2005)

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ICS:

97.100.20

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ICS 97.100.20

English version

Decorative fuel-effect gas appliances

Appareils à effet décoratif de combustion utilisant les
combustibles gazeux

Dekorative Gasgeräte mit Brennstoffeffekt

This amendment A2 modifies the European Standard EN 509:1999; it was approved by CEN on 4 November 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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 amendment 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This document (EN 509:1999/A2:2004) has been prepared by Technical Committee CEN /TC 62 "*Independent gas-fired space heaters*", the secretariat of which is held by BSI.

This Amendment to the European Standard EN 509:1999 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

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

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1 CLAUSE 1 SCOPE

Include the following as a new paragraph:

'This document includes additional requirements for Type B_{BS} appliances which are specified in Annex J.'

Add the following text as a new Annex:

2 ANNEX J (normative)

'Additional requirements for decorative fuel effect gas appliances not exceeding a net heat input of 20 kW fitted with a combustion products discharge safety device without a canopy

'J.1 Scope

'This Annex specifies the additional requirements and test methods for the safety of decorative fuel effect gas appliances not exceeding a net heat input of 20 kW fitted with a combustion products discharge safety device, hereafter referred to as appliances. This device is mounted by the manufacturer on a fixed frame and is an integral part of the appliance. The frame is fitted around the fireplace opening so that the relationship between the device and the fire bed is fixed.

NOTE The Clause numbering in this Annex follows the Clause numbering format used in the main body of the document, with the addition of the prefix J. For example J.5.2.10 corresponds to 5.2.10.

'This Annex applies to Type B_{BS} appliances which are for decorative purposes only. They are not heating appliances.

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'J.2 Normative references

'As specified in Clause 2.

'J.3 Definitions

'As specified in Clause 3.

'J.4 Classification of appliances

'Appliances shall comply with Clause 4 subject to the following addition:

'J.4.2.3 Type B_{BS}

'A Type B appliance incorporating a temperature device to prevent the release of combustion products in a dangerous quantity into the room under abnormal draught conditions

'J.5 Constructional requirements

'Appliances shall comply with Clause 5 except Clause 5.2.10 which shall be replaced by:

'J.5.2.10 Spillage monitoring system

'The appliance shall incorporate a combustion products discharge safety device, to prevent the release of combustion products in a dangerous quantity into the room under abnormal draught conditions.

'Any safety device used for this purpose shall:

- not have any adjustment other than that made and sealed by the manufacturer;
- be so designed that it cannot be removed or dismantled without the use of a tool;
- have electrical insulation that will withstand the thermal and chemical stresses resulting from spillage of the combustion products;
- be designed so that interruption of any link between the sensor and the device shall cause safety shutdown, if necessary after a waiting time.

'J.6 Operational requirements

'Appliances shall comply with Clause 6 subject to the following modification:

'J.6.9 Combustion products discharge safety device**'J.6.9.1 Nuisance shutdown**

'Under the test conditions described in J.7.9.2, any safety shutdown shall not occur.

'J.6.9.2 Shutdown times (standards.iteh.ai)

'Under the test conditions described in J.7.9.3, the shutdown times given in Table J.1 shall not be exceeded.

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'Where safety shutdown occurs, automatic restart shall be possible only after a minimum waiting time of 10 min. The manufacturer shall state in the technical instructions the actual waiting time of the appliance.

Table J.1 — Blockage and shutdown time

Degree of blockage	Diameter of opening in the blocking plate d	Maximum shutdown time (s)	
		Q_n	Q_m
Complete blockage	0	200	$200 \cdot \frac{Q_n}{Q_m}$
Partial blockage	0,6 D or 0,6 D'	600	
Where: D is the internal diameter of the test flue at its top D' is the hole diameter obtained at the point at which spillage occurs Q_n is the nominal heat input Q_m is the minimum heat input for modulating appliances or appliances with several rates			

J.7 Test methods

Appliances shall be tested as described in Clause 7 subject to the following modifications:

J.7.1.6.3 Test installation

The appliance shall be installed in accordance with the manufacturer's instructions.

NOTE For the convenience of carrying out tests, the appliance may be installed at a height above the floor which is other than that specified in the manufacturer's instructions, provided that this does not affect the performance of the appliance.

Unless otherwise stated, tests shall be carried out with a standard test box (see Figures 2, 3 & 5) and flue (see Figure C2).

The gas connections and system up to and including the burner shall be examined for soundness both before and after test. The test results are deemed invalid unless the system is sound (see 6.2.1).

The appliance shall be at room temperature at the start of each test.

The initial adjustment of the appliance shall not be altered except where specified.

Test pressures shall be measured correct to 0,2 mbar and controlled so that the variation does not exceed $\pm 0,2$ mbar.

J.7.9 Combustion products discharge safety device**J.7.9.1 General**

The appliance is installed in accordance with the manufacturer's instructions under the following conditions:

— the appliance is installed as described in J.7.1.6.3;

- the tests are carried out with the reference gas for the appliance category at normal pressure;
- the spillage point is sought by means of a sampling probe connected to a rapid-response CO₂ analyzer enabling concentrations of the order of 0,1 % to be detected (see 7.2.2).

'J.7.9.2 Nuisance shutdown

'The appliance is installed as described in J.7.9.1.

'The appliance is kept in operation for 30 min at its maximum temperature. It is checked that the device does not cause shutdown. The main burner is then shut off.

'The rise in temperature after the burner shutdown shall not result in a signal from the device to initiate shutdown.

'J.7.9.3 Shutdown times

'J.7.9.3.1 Test with complete blockage

'The appliance is installed as described in J.7.9.1 and is operated at nominal heat input. When the appliance is at thermal equilibrium, the flue is completely blocked (see Figure C.2). The reaction time between the flue being blocked and shutdown is measured. For appliances without lockout, the obstruction is maintained and the time between shutdown and ignition of the main burner is measured.

'For range-rated appliances and for appliances with several rates, a second test will be carried out at the minimum heat input.

It is checked that J.6.9.2 is satisfied.

'J.7.9.3.2 Test with partial blockage

'The appliance is installed in accordance with J.7.9.1 fitted with a telescopic flue (see Figure C.2) and brought to thermal equilibrium at the nominal heat input in accordance with J.7.9.3.1.

'The length of the telescopic flue is reduced until spillage just does not occur. Should this "spillage point" not be obtainable at the minimum height of the telescopic flue then a concentric annulus is fitted to the flue in order to reach this point.

'If the device is actuated before this length is obtained, the requirement of J.6.9.2 is deemed to be satisfied.

'If not, the test flue is covered with a blocking plate having a concentric circular orifice in which the diameter is equal to 0,6 times the diameter D of the test flue at its upper extremity (see Figure C.2).

'If spillage is not achieved with the telescopic test flue, it is covered with a plate incorporating a circular hole of diameter D' which allows the limit of spillage to be obtained.

This plate is then replaced by another blocking plate incorporating a circular hole of diameter d which is equal to 0,6 times D' .

'The time between the plate being put into position and shutdown is measured.

'It is checked that J.6.9.2 is satisfied.

'However, if the manufacturer specifies a minimum flue height, the test is carried out with a flue of this height.