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Gasutrustningar – Värmeutrustning med bränsleceller och med högst 70 kW nominell tillförd effekt

Gas appliances –

Fuel cell gas heating appliances –

Fuel cell gas heating appliance of nominal heat input inferior or equal to 70 kW

Som svensk standard gäller europastandarden EN 50465:2008. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50465:2008.

ICS 27.070; 97.100.99

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**Gas appliances -
Fuel cell gas heating appliances -
Fuel cell gas heating appliance of nominal heat input
inferior or equal to 70 kW**

Appareils fonctionnant au gaz -
Appareils à gaz produisant de la chaleur
au moyen d'une pile à combustible -
Appareil de chauffage produisant
de la chaleur au moyen d'une pile
à combustible dont le débit calorifique
nominal est inférieur ou égal à 70 kW

Gasgeräte -
Brennstoffzellen-Gasheizgeräte -
Brennstoffzellen-Gasheizgerät
mit einer Nennwärmebelastung
kleiner oder gleich 70 kW

This European Standard was approved by CENELEC on 2008-05-01.

CEN and CENELEC 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 CENELEC Central Secretariat or to any CEN or CENELEC 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 or CENELEC member into its own language and notified to the CENELEC Central Secretariat has the same status as the official versions.

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Foreword

This European Standard was prepared by the CEN/CLC/JWG FCGA, "Fuel cell gas appliances".

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50465 on 2008-05-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2009-05-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2011-05-01

This European Standard has been prepared under Mandate M/349 given to CEN and CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 90/396/EEC (see Annex ZZ, which is an integral part of this document).

The essential requirement of EC Directive 90/396/EEC relating to "rational use of energy" is defined by the maximum quantity of energy recovered (thermal and electrical energy output) from the gas energy input.

This European Standard deals with a very early state of new technology. The requirements of this European Standard are not intended to constrain innovations. When considering materials, designs or constructions not specifically dealt with in this European Standard the alternatives shall be evaluated as to their ability to yield levels of safety and performance equivalent to those prescribed by this European Standard. This can be done by a risk assessment. Furthermore not all requirements could be described in detail up to now. This is valid both for the requirements and the test procedures. This will be done in later revisions of this European Standard. Guidance to fuel cell stacks and their performance may be found in EN 62282-2.

Due to the development of new technology other solutions than those described in this standard are possible if these solutions provide at least an equivalent level of safety.

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

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1 Scope

This European Standard applies to the construction, the safety, the functional requirements and the test methods, as well as the classification and the marking of a fuel cell gas heating appliance, which will be operated predominantly heat followed, meeting the following boundary conditions:

- maximum heat load (gas input): 70 kW
- maximum electrical output: 11 kW.

NOTE Due to the fact, that there are national deviations on the maximum electrical output in Europe, this maximum electrical output is independent referring the number of connected phases to the public low voltage grid.

- fuel: combustion gas in accordance with EN 437
- maximum heating water temperature: 95 °C (under normal operational conditions)
- process pressures in the fuel cell gas appliance:
 - heating water: max. 6 bar
 - domestic hot water (if installed): max. 10 bar
- device construction: According to the expositions in accordance with CEN/TR 1749, EN 483 or EN 297 (B₂₂, B₂₃, B₃₂, B₃₃, C₁₂, C₁₃, C₃₂, C₃₃, C₄₂, C₄₃, C₅₂, C₅₃, C₆₂, C₆₃, C₈₂, C₈₃)¹⁾.

This European Standard applies to type testing only.

This European Standard does not contain the requirements necessary for appliances for producing electrical energy without thermal energy.

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	Pressure governors for gas appliances for inlet pressures up to 200 mbars
EN 125	Flame failure devices
EN 126	Multifunctional controls for gas burning appliances
EN 161	Automatic shut-off valves for gas burners and gas appliances
EN 297	Heating boilers operated with gaseous fuels – Type B ₁₁ + B _{11BS} boilers of nominal heat input not exceeding 70 kW
EN 298	Automatic gas burner control systems for gas burners and gas burning appliances with or without fans

¹⁾ The classification used in this European Standard is based on upon the classification of CEN/TR 1749.