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NSAI Standards

Irish Standard
I.S. EN 15420:2010

Gas-fired central heating boilers - Type C boilers of nominal heat input exceeding 70 kW, but not exceeding 1 000 kW

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15420

December 2010

ICS 91.140.10

English Version

Gas-fired central heating boilers - Type C boilers of nominal heat input exceeding 70 kW, but not exceeding 1 000 kW

Chaudières de chauffage central utilisant les combustibles gazeux - Chaudières de type C dont le débit calorifique nominal est supérieur à 70 kW mais inférieur ou égal à 1 000 kW

Heizkessel für gasförmige Brennstoffe - Heizkessel der Bauart C mit einer Nennwärmebelastung größer als 70 kW aber gleich oder kleiner als 1 000 kW

This European Standard was approved by CEN on 23 October 2010.

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Foreword

This document (EN 15420:2010) has been prepared by Technical Committee CEN/TC 109 "Central heating boilers using gaseous fuels", the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by June 2011, and conflicting national standards shall be withdrawn at the latest by June 2011.

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.

It was established to deal with aspects related to:

— safety;

— rational use of energy;

— fitness for purpose.

Other types of boilers are dealt with in separate standards.

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 Directives 90/396/EEC and 92/42/EEC.

For relationship with EU Directives 90/396/EEC "Approximation of the laws of Member States concerning gas appliances" and 92/42/EEC "Efficiency requirements for new hot water boilers fired with liquid or gaseous fuels" see informative Annex ZA, which is an integral part of this standard.

This standard covers only type testing.

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

It is impractical to use the full range of test gases to EN 437 for type testing since their availability, for inputs over 300 kW, may present problems for test houses and manufacturers. Informative Annex O gives guidance on the use of gases for tests in order to ensure conformity with EU Directive 90/396/EEC “Approximation of the laws of Member States concerning gas appliances".

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, Croatia, 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.

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1 Scope

This document specifies the requirements and test methods concerning, in particular, the construction, safety, fitness for purpose, and rational use of energy, as well as the classification and marking of gas-fired central heating boilers that are fitted with atmospheric burners, fan-assisted atmospheric burners or fully premixed burners, and are hereafter referred to as "boilers".

This document applies to boilers of type C, as listed in 4.2:

— that use one or more combustible gases of the three gas families at the pressures stated in Tables 14 and 15;

— that have a nominal heat input (on the basis of net calorific value) exceeding 70 kW, but not exceeding 1 000 kW, including modular boilers;

— where the temperature of the heat transfer fluid does not exceed 105 °C during normal operation;

— where the maximum operating pressure in the water circuit does not exceed 6 bar;

— which can give rise to condensation under certain circumstances.

The document applies to boilers designed for sealed water systems or for open water systems.

The document does not contain all the requirements necessary for boilers:

— intended to be installed in the open or in living rooms;

— permanently fitted with more than one flue outlet;

— of the condensing type;

— intended to be connected to a common flue having mechanical extraction;

— type C21, C41, C51, C61, C7 and C81 boilers;

— fitted with a forced draught burner in accordance with EN 676;

— producing hot water for domestic purposes.

This document only covers type testing.

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 — Thermo-electric flame supervision devices*

EN 126, *Multifunctional controls for gas burning appliances*

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