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BSI Standards Publication

Gas-fired storage water heaters for the production of domestic hot water

This British Standard is the UK implementation of EN 89:2015. It supersedes BS EN 89:2000 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GSE/29, Gas-fired central heating boilers (domestic and non-domestic) and domestic gas-fired water heaters.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Gas-fired storage water heaters for the production of domestic hot water

Appareils de production d'eau chaude par accumulation pour usages sanitaires utilisant les combustibles gazeux

Gasbeheizte Vorrats-Wasserheizer für den sanitären Gebrauch

This European Standard was approved by CEN on 29 November 2014.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 89:2015) has been prepared by Technical Committee CEN/TC 48 “Domestic gas-fired water heaters”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2015 and conflicting national standards shall be withdrawn at the latest by November 2015.

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.

This document supersedes EN 89:1999.

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 Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, Annex ZB or Annex ZC, which are integral parts of this document.

The present standard deals with:

— safety;

— rational use of energy;

— fitness for purpose.

It gives specific requirements relative to:

— appliances with burners with a fan;

— combustion products discharge orifice closure devices;

— type C water heaters with a fan incorporated in the combustion air supply circuit or in the combustion products evacuation circuit;

— condensing water heaters;

— measurement of NO_x emissions of water heaters;

— the metallic, plastic and other non-metallic materials that are used in water heaters and which come into contact with water intended for human consumption. It is intended to ensure that products of this kind complying with these requirements meet current technological development and requirements with regard to the service life of the water heaters and their physiological suitability;

— the growth of microorganism on materials in contact with drinking water.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard defines the specifications and test methods for the construction, safety, rational use of energy and fitness for purpose, environment and classification and marking of gas-fired storage water heaters for domestic hot water uses, hereafter called “appliance”.

This European Standard applies to appliances:

— of selected types B_1, B_2, B_3, B_5, C_1, C_2, C_3, C_4, C_5, C_6, C_7, C_8, C_9 according to CEN/TR 1749;

— fitted with atmospheric burners;

— using one or more combustible gases corresponding to the three gas families and the pressures indicated in EN 437;

— of nominal heat input not exceeding 150 kW (net calorific value);

— fitted with electrically operated mechanical flue dampers that are positioned downstream of the heat exchanger.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 88-1:2011, *Pressure regulators and associated safety devices for gas appliances — Part 1: Pressure regulators for inlet pressures up to and including 50 kPa*

EN 125, *Flame supervision devices for gas burning appliances — Thermoelectric flame supervision devices*

EN 126, *Multifunctional controls for gas burning appliances*

EN 161, *Automatic shut-off valves for gas burners and gas appliances*

EN 298:2012, *Automatic burner control systems for burners and appliances burning gaseous or liquid fuels*

EN 437, *Test gases — Test pressures — Appliance categories*

EN 513, *Unplasticized polyvinylchloride (PVC-U) profiles for the fabrication of windows and doors — Determination of the resistance to artificial weathering*

EN 549, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

EN 573-1, *Aluminium and aluminium alloys — Chemical composition and form of wrought products — Part 1: Numerical designation system*

EN 1057, *Copper and copper alloys — Seamless, round copper tubes for water and gas in sanitary and heating applications*

CR 1404, *Determination of emissions from appliances burning gaseous fuels during type-testing*

EN 1490, *Building valves — Combined temperature and pressure relief valves — Tests and requirements*