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BSI Standards Publication

Domestic and non-domestic gas-fired forced convection air heaters for space heating not exceeding a net heat input of 300 kW

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National foreword

This British Standard is the UK implementation of EN 17082:2019. It supersedes BS EN 621:2009, BS EN 1319:2009, BS EN 525:2009, BS EN 1196:2011, BS EN 1020:2009 and BS EN 778:2009, which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GSE/20, Non-domestic space heaters (gas).

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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

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Amendments/corrigenda issued since publication

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English Version

Domestic and non-domestic gas-fired forced convection air heaters for space heating not exceeding a net heat input of 300 kW

Générateurs d'air chaud à convection forcée utilisant les combustibles gazeux pour le chauffage de locaux à usage domestique et non domestique, de débit calorifique inférieur ou égal à 300 kW, sur pouvoir calorifique inférieur (PCI)

Häusliche und nicht-häusliche gasbefeuerte Warmlufterzeuger mit erzwungener Konvektion zur Raumbeheizung deren Nennwärmebelastung 300 kW nicht übersteigt

This European Standard was approved by CEN on 5 June 2019.

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

CEN members are the national standards bodies of 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 17082:2019) has been prepared by Technical Committee CEN/TC 180 "Decentralized gas heating", 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 April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 525:2009, EN 621:2009, EN 778:2009, EN 1196:2011, EN 1020:2009 and EN 1319:2009.

This document covers the safety and energy efficiency requirements of domestic and non-domestic warm air heaters previously covered by EN 525:2009, EN 621:2009, EN 778:2009, EN 1196:2011, EN 1020:2009 and EN 1319:2009. Additional technical requirements have been made compared to the superseded documents to take account the following:

- Specific requirements on risk analysis due to differences in the Essential Requirements for the Gas Appliance Regulation compared to those of the Gas Appliance Directive;
- Additional requirements on appliance efficiency, including the need to calculate the seasonal efficiency related to the requirements of the Eco-Design Regulation.

Changes have also been made to the document structure to improve its ease of use, for example requirements and associated test methods have been moved into the same clause.

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, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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1 Scope

This document specifies the requirements and test methods for the safety and efficiency of gas fired air heaters with or without a fan to assist the transportation of combustion air and/or flue gases, hereafter referred to as "appliances".

This document also applies to warm air heaters having forced draught burners.

This document applies to Type A₂, A₃ appliances, with an input not exceeding 300 kW (net CV basis), intended for non-domestic use.

This document also applies to Type B₁₁, B_{11AS}, B_{11BS}, B₁₂, B_{12AS}, B_{12BS}, B₁₃, B_{13AS}, B_{13BS}, B₁₄, B_{14AS}, B_{14BS}, B₂₂, B₂₃, B₄₁, B_{41AS}, B_{41BS}, B₄₂, B_{42AS}, B_{42BS}, B₄₃, B_{43AS}, B_{43BS}, B₄₄, B_{44AS}, B_{44BS}, B₅₂, B₅₃, C₁₁, C₁₂, C₁₃, C₂₁, C₃₁, C₃₂, C₃₃, C₄₁, C₆₂ and C₆₃ appliances with an input not exceeding 300 kW (net CV basis), intended for domestic and non-domestic use.

Provision of the heated air may be by means of ducting.

This document does not apply to:

- a) dual purpose air conditioning appliances (heating and cooling);
- b) appliances where the air is heated by an intermediate fluid;
- c) portable or transportable forced convection appliances;
- d) appliances fitted with manual or automatic means of adjusting the combustion products evacuation by means of flue dampers;
- e) appliances having multiple heating units with a single draught diverter;
- f) appliances fitted with more than one flue outlet;
- g) appliances fitted with gas boosters;
- h) C₂₁ and C₄₁ appliances for 3rd family gases.

NOTE For C₄₁ appliances, see all requirements and test methods that are valid for C₂₁ appliances, unless otherwise stated.

This document is not intended to cover appliances projected for connection to gas grids where the quality of the distributed gas is likely to vary to a large extent over the lifetime of the appliance.

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

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 88-1:2011+A1 2016, *Pressure regulators and associated safety devices for gas appliances — Part 1: Pressure regulators for inlet pressures up to and including 50 kPa*

EN 125:2010+A1 2015, *Flame supervision devices for gas burning appliances — Thermoelectric flame supervision devices*