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BSI Standards Publication

Gas-fired overhead luminous radiant heaters for non-domestic use — Safety and energy efficiency

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National foreword

This British Standard is the UK implementation of EN 419:2019. It supersedes BS EN 419-1:2009 and BS EN 419-2:2006, which are withdrawn.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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Gas-fired overhead luminous radiant heaters for non-domestic use - Safety and energy efficiency

Appareils surélevés de chauffage à rayonnement lumineux au gaz à usage non domestique - Sécurité et efficacité énergétique

Gasbefeuerte Hellstrahlerheizgeräte für gewerbliche und industrielle Anwendungen - Sicherheit und Energieeffizienz

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European foreword

This document (EN 419:2019) 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of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.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 419-1:2009 and EN 419-2:2006.

Aspects of safety and energy efficiency of appliances are brought together. Significant changes of the new document compared to the earlier standards are: incorporation recent state of the art of luminous heaters, incorporation of medium gas pressure appliances for industrial use, unique and more detailed description of method to determine radiant factor, incorporating terms and calculation scheme of Ecodesign Regulation (EU) No. 2015/1188.

The test gases, test pressures and appliance categories given in this European Standard are in accordance with those specified in EN 437:2018.

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 EC Directive(s).

For relationship with EC 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 construction, safety, rational use of energy, classification and marking of non-domestic gas-fired overhead luminous radiant heaters for environmental comfort, referred to in the body of the text as "appliances".

This document is applicable to Type A₁ and Type A₃ appliances only (see 4.2.2) intended for use in other than residential dwellings:

- a) low gas pressure appliances operating at pressures up to and including 50 mbar;
- b) medium gas pressure appliances operating at pressures above 50 mbar and up to 2 bar.

This document is not applicable to:

- appliances designed for use in domestic dwellings;
- outdoor appliances;
- appliances of heat input in excess of 120 kW (based on the net calorific value of the appropriate reference gas);

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 88-2:2007, *Pressure regulators and associated safety devices for gas appliances - Part 2: Pressure regulators for inlet pressures above 500 mbar up to and including 5 bar*

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

EN 126:2012, *Multifunctional controls for gas burning appliances*

EN 161:2011+A3:2013, *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 437:2018, *Test gases - Test pressures - Appliance categories*

EN 1057:2006+A1:2010, *Copper and copper alloys - Seamless, round copper tubes for water and gas in sanitary and heating applications*

EN 1106:2010, *Manually operated taps for gas burning appliances*

EN 10226-1:2004, *Pipe threads where pressure tight joints are made on the threads - Part 1: Taper external threads and parallel internal threads - Dimensions, tolerances and designation*