



SLOVENSKI STANDARD
oSIST prEN 26:2026
01-maj-2026

Pretočni plinski grelniki vode za pripravo tople sanitarne vode

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

Gasbeheizte Durchlauf-Wasserheizer für den sanitären Gebrauch

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

Ta slovenski standard je istoveten z: prEN 26

get full document from standards.iteh.ai

ICS:

91.140.65	Oprema za ogrevanje vode	Water heating equipment
97.100.20	Plinski grelniki	Gas heaters

oSIST prEN 26:2026

en,fr,de

Sample Document

get full document from standards.iteh.ai

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 26

March 2026

ICS 91.140.65

Will supersede EN 26:2023

English Version

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

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

Gasbeheizte Durchlauf-Wasserheizer für den sanitären
Gebrauch

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 48.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

© 2026 CEN All rights of exploitation in any form and by any means reserved
worldwide for CEN national Members.

Ref. No. prEN 26:2026 E

Contents	Page
European foreword.....	7
1 Scope	8
2 Normative references	8
3 Terms and definitions	11
4 Classification	27
4.1 Gases and appliance categories	27
4.2 Mode of air supply and evacuation of the combustion products	27
4.3 Water pressure	27
5 Constructional requirements	27
5.1 Conversion to different gases	27
5.1.1 General	27
5.1.2 Permissible operations for changing gases	28
5.2 Materials	28
5.2.1 General requirements related to the use of materials in water heaters	28
5.2.2 Materials in contact with water for human consumption	29
5.2.3 Durability against corrosion of combustion product evacuation duct	30
5.2.4 Disassembly, recycling and disposal	31
5.2.5 Design - Assembly - Strength	32
5.2.6 Accessibility - Ease of maintenance - Fitting and removal	32
5.2.7 Connection to gas and water pipes	32
5.2.8 Soundness	33
5.2.9 Supply of combustion air and evacuation of the combustion products	34
5.2.10 Checking the state of operation	38
5.2.11 Drainage	38
5.2.12 Electrical and electromagnetic safety	38
5.2.13 Operational safety in the event of failure of the auxiliary energy	39
5.3 Adjusting, control and safety devices	39
5.3.1 General	39
5.3.2 Construction requirements	40
5.3.3 Shut off valves and/or gas rate adjusters	41
5.3.4 Preset gas rate adjusters	42
5.3.5 Gas pressure regulator	42
5.3.6 Pressure test points	42
5.3.7 Automatic water-operated gas valve	43
5.3.8 Ignition devices	43
5.3.9 Flame supervision device	44
5.3.10 Atmosphere sensing device for type A_{AS} appliances	45
5.3.11 Combustion products discharge safety device for type B_{11BS}, B_{12BS} and B_{13BS} appliances	45
5.3.12 Protection against accidental overheating of thermostatic appliances	45
5.3.13 Composition of the gas circuit	46
5.3.14 Protection for appliances intended to be installed in a partially protected place	46
5.4 Main burner	47
5.5 Supplementary requirements for condensing water heaters	47
5.5.1 Materials in contact with condensate	47

5.5.2	Discharge of condensate	47
5.5.3	Control of the combustion products temperature.....	48
5.5.4	Chemical composition of the condensate	48
6	Operational requirements	48
6.1	General	48
6.1.1	Introduction.....	48
6.1.2	Characteristics of the test gases	48
6.1.3	Requirements for preparation of the test gases.....	48
6.1.4	Choice of test gases.....	48
6.1.5	Test pressures.....	48
6.1.6	General test conditions.....	48
6.2	Soundness.....	53
6.2.1	Soundness of the gas circuit.....	53
6.2.2	Soundness of the combustion circuit and evacuation of the combustion products	54
6.2.3	Soundness of the water circuit.....	60
6.3	Heat inputs.....	60
6.3.1	General	60
6.3.2	Nominal heat input.....	62
6.3.3	Minimum heat input.....	63
6.4	Temperature of the control knobs	63
6.4.1	Requirements.....	63
6.4.2	Test	63
6.5	Temperature of the adjusting, control and safety devices	63
6.5.1	Requirement.....	63
6.5.2	Test	63
6.6	Temperature of the appliance casing, the surface on which it is installed and adjacent surfaces and external temperature of the ducts	63
6.6.1	Requirements.....	63
6.6.2	Tests	64
6.7	Ignition - Cross-lighting - Flame stability.....	65
6.7.1	Operation in still air for all appliances	65
6.7.2	Supplementary tests for appliances of types A _{AS} and B ₁ except for B ₁₄	66
6.7.3	Supplementary tests for type C ₁₁ appliances and outdoors and/or partially protected appliances.....	67
6.7.4	Supplementary tests for type C ₂ appliances	69
6.7.5	Supplementary tests for appliances of types C ₁₂ , C ₁₃ , C ₃₂ , C ₃₃ , B ₄ and B ₅	69
6.7.6	Supplementary tests for type C ₄₂ and type C ₄₃ appliances.....	70
6.7.7	Supplementary tests for type C ₅₂ and type C ₅₃ appliances.....	70
6.7.8	Supplementary tests for type C ₆ appliances	70
6.7.9	Supplementary tests for type C ₇₂ and type C ₇₃ appliances.....	70
6.7.10	Supplementary tests for type C ₈₂ and type C ₈₃ appliances.....	70
6.7.11	Functioning of a permanent ignition burner when the fan stops during the standby time	71
6.7.12	Air proving device for fan assisted water heaters	71
6.7.13	Functioning of the fan of types C ₄₂ and C ₄₃ water heaters.....	74
6.7.14	Protection against the accumulation of gas in the combustion circuit for water heaters equipped with a fan	74
6.7.15	Leakage of combustion products from type C ₇ water heaters.....	75
6.7.16	Supplementary tests for type B ₁₄ , B ₂ and B ₃ water heaters.....	75
6.8	Adjusting, control and safety devices.....	76
6.8.1	General	76
6.8.2	Control devices	76

prEN 26:2026 (E)

6.8.3	Closing mechanisms.....	76
6.8.4	Ignition devices.....	78
6.8.5	Safety times	79
6.8.6	Gas pressure regulator.....	81
6.8.7	Adjustment of the water rate - Maximum water temperature (all appliances)	82
6.8.8	Overheating of the water.....	82
6.8.9	Effectiveness of the protection against accidental overheating of thermostatic appliances.....	84
6.8.10	Atmosphere sensing device for type A _{AS} appliances	84
6.8.11	Combustion products discharge safety device of type B _{11BS} appliances.....	86
6.9	Combustion	88
6.9.1	Requirements	88
6.9.2	Test.....	88
6.9.3	Nitrogen oxides emissions.....	93
6.10	Soot deposition	95
6.10.1	Requirement.....	95
6.10.2	Test.....	95
6.11	Frost protection system for appliances intended to be installed in a partially protected place	95
6.12	Protection against ingress of rain for appliances intended to be installed in a partially protected place	96
6.13	Condensing water heaters	96
6.13.1	Formation of condensate.....	96
6.13.2	Temperature of combustion products	97
6.14	Electrical power measurements.....	97
6.14.1	General.....	97
6.14.2	Nominal and minimal conditions	97
6.14.3	Standby	97
6.15	Measurement of standby heat losses.....	97
7	Rational use of energy	97
7.1	General.....	97
7.2	Heat input of ignition burners.....	98
7.2.1	Requirement.....	98
7.2.2	Test.....	98
7.3	Efficiency.....	98
7.3.1	Requirement.....	98
7.3.2	Test.....	98
8	Fitness for purpose.....	99
8.1	General.....	99
8.2	Constructional characteristics	99
8.2.1	Preset water rate adjuster	99
8.2.2	Temperature selector and summer-winter switch.....	100
8.2.3	Designation and measurement of reference temperatures of flue systems.....	100
8.2.4	Mechanical resistance and stability of ducts, terminal and fitting pieces.....	100
8.3	Requirements for plastic in the combustion product evacuation ducts, terminals and fitting pieces for appliances	102
8.3.1	Thermal resistance.....	102
8.3.2	Materials.....	102
8.4	Requirements for elastomeric seals and elastomeric sealants in the combustion product evacuation ducts, terminals and fitting pieces.....	108
8.4.1	Characterization.....	108
8.4.2	Long-term resistance to thermal load	108

8.4.3	Long-term resistance to condensate exposure.....	109
8.4.4	Cyclic condensate resistance test	110
8.4.5	Relaxation behaviour	111
8.4.6	Compression set.....	111
8.4.7	Low temperature resistance.....	111
8.4.8	Joints in elastomeric seals	111
8.5	Operational characteristics	112
8.5.1	Minimum heat input	112
8.5.2	Nominal and minimum useful outputs	112
8.5.3	Ignition of permanent ignition burners by a spark generator.....	112
8.5.4	Ignition opening time (T_{IA}).....	112
8.5.5	Automatic water-operated gas valve.....	113
8.5.6	Adjustment of the water rate - Water temperature	113
8.5.7	Heating-up time.....	119
8.5.8	Specific rate	119
8.6	Limiting surface temperatures.....	119
8.6.1	Requirements.....	119
8.6.2	Test conditions	120
8.6.3	Limiting surface temperatures, consideration of children and the elderly	120
8.6.4	Surface temperature mitigation.....	120
8.6.5	Limiting temperature of the test panels.....	121
9	It is checked that the above requirements are met. Marking and instructions.....	121
9.1	Water heater marking	121
9.1.1	Data plate.....	121
9.1.2	Markings related to the state of adjustment.....	123
9.1.3	Packaging.....	123
9.1.4	Warnings notices on the water heater and the packaging	123
9.1.5	Other information	124
9.2	Instructions.....	125
9.2.1	Instructions for installation.....	125
9.2.2	Instructions for use and servicing.....	131
9.2.3	Conversion instructions	132
9.3	Presentation	133
10	Nitrogen oxides emissions	133
11	Sound power level (L_{WA}).....	133
12	Figures referenced in this standard.....	134
Annex A (informative)	National situations.....	146
A.1	General	146
A.2	Gas connections in common use in the various countries.....	146
A.3	Flue pipe diameters in force in the various countries	149
Annex B (normative)	Test apparatus for type C ₁ , C ₃ , B ₄ and B ₅ water heaters (see 6.7.3.2).....	150
Annex C (normative)	Test apparatus for type C ₂₁ appliances (see 6.7.4.2)	154
Annex D (normative)	Description of the sealed room for the tests of type A _{AS} appliances (see 6.8.10.1.2.1).....	155
D.1	Configuration of the sealed room	155
D.2	Soundness of the room	155

prEN 26:2026 (E)

D.3	Effectiveness of mixing.....	155
D.4	Equipment of the room	155
Annex E (informative) Soundness of the gas circuit test - Volumetric method		156
E.1	Equipment	156
E.2	Test method	156
Annex F (informative) Principal symbols and abbreviations used.....		157
Annex G (informative) Guidelines for extension to other appliances categories.....		159
Annex H (informative) Lists of materials currently used for the construction of the gas water heaters.....		160
H.1	General.....	160
H.2	Special types of steel.....	160
H.3	Copper and copper alloys.....	160
H.4	Plastic materials	161
Annex I (normative) Test methods to determine the effects of to long-term thermal load, long-term condensate exposure, condensing/ non-condensing cycling and resistance to UV radiation		162
Annex J (informative) NO _x conversion calculation.....		163
Annex K (normative) Parts in copper or copper alloys.....		165
Annex L (informative) Compilation of the test conditions for the various gas families		166
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of the Commission Regulation (UE) 2016/426 of the European Parliament and of the Council of 9 March 2016 on appliances burning gaseous fuels and repealing Directive 2009/142/EC aimed to be covered.....		168
Annex ZB (informative) Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) n°814/2013 [OJEU L239 of 6 September 2013] aimed to be covered		176
Annex ZC (informative) Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) No 812/2013 [OJEU L239 of 6 September 2013] aimed to be covered		177
Bibliography.....		178

European foreword

This document (prEN 26:2026) has been prepared by Technical Committee CEN/TC 48 “Domestic gas-fired water heaters”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 26:2023.

The main technical changes compared to EN 26:2023 are the following:

- a) technical addition related to ecodesign and energy labelling for appliances $< = 400$ kW:
 - 1) review of Annex ZA;
 - 2) addition of Annex ZB and Annex ZC;
- b) new or generally reworded requirements:
 - 1) separation between requirements and test methods in to different clauses;
 - 2) update of normative references;
 - 3) alignment with clauses from EN 15502-1 series when relevant and applicable (e.g. requirements and tests on controls, ...);
- c) updating of the Annex ZA by referring to the Gas Appliances Regulation 426/2016/UE. This document has been prepared under the mandate M/595 given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EU Directive(s).

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

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

EN 13203-2:2022 provides a means of conforming to the Commission Delegated Regulation (EU) No 812/2013 of 18 February 2013 supplementing Directive 2010/30/UE of the European Parliament and of the Council with regard to energy labelling of water heaters, hot water storage tanks and packages of water heaters and solar service, except on Sound power level (L_{WA}) covered by the present standard, see Clause 11.

EN 13203-2:2022 provides a means of conforming to the Commission Regulation (EU) No 814/2013 of 2 August 2013 supplementing Directive 2009/125/EC of the European Parliament and of the Council with regard to eco design requirements for water heaters and hot water storage tanks, except on nitrogen oxides emissions (NO_x) covered by the present standard, see Clause 10.

prEN 26:2026 (E)

1 Scope

This document defines the specifications and test methods and also the classification, marking and energy labelling of gas-fired instantaneous water heaters for sanitary uses, hereafter called “water heaters”.

This document applies to water heaters:

- of types A, B and C as described at the appropriated clauses;

NOTE For more information on the configuration of the types of appliances, see EN 1749:2020.

- using one or more combustible gases corresponding to the three gas families and at the pressures stated in accordance with EN 437:2021;
- of nominal heat input not exceeding 77 kW based on the gross calorific value (GCV);
- with an ignition burner or with direct ignition of the main burner.

In this document, the heat inputs are expressed in relation to the net calorific value (H_i).

This document does not contain all the requirements necessary for:

- boiling water appliances;
- appliances intended to be connected to a mechanical means of evacuating the combustion products;
- appliances which fulfil a dual role of space heating and heating water for sanitary use.

This document only covers water heaters where the fan, if any, is an integral part of the appliance.

This document is not intended to cover appliances designed and constructed to burn gas containing toxic components.

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 88-1:2022+A1:2023, *Pressure regulators and associated safety devices for gas appliances — Part 1: Pressure regulators for inlet pressures up to and including 50 kPa*

EN 125:2022+A1:2024, *Flame supervision devices for gas burning appliances — Thermoelectric flame supervision devices*

EN 126:2025, *Multifunctional controls for gas burning appliances*

EN 161:2022+A1:2025, *Automatic shut-off valves for gas burners and gas appliances*

EN 298:2022, *Automatic burner control systems for burners and appliances burning gaseous or liquid fuels*

EN 437:2021, *Test gases - Test pressures - Appliance categories*

EN 513:2018, *Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of the resistance to artificial weathering*

- EN 573-1:2004, *Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 1: Numerical designation system*
- EN 1057:2006+A1:2010, *Copper and copper alloys - Seamless, round copper tubes for water and gas in sanitary and heating applications*
- EN 1092-1:2018, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges*
- EN 1092-2:2023, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2: Cast iron flanges*
- EN 1092-3:2003, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 3: Copper alloy flanges*
- EN 1092-4:2002, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 4: Aluminium alloy flanges*
- EN 1749:2020, *Classification of gas appliances according to the method of supplying combustion air and of evacuation of the combustion products (types)*
- EN 1856-1:2009, *Chimneys - Requirements for metal chimneys - Part 1: System chimney products*
- EN 1856-2:2009, *Chimneys - Requirements for metal chimneys - Part 2: Metal flue liners and connecting flue pipes*
- EN 1859:2009+A1:2013, *Chimneys - Metal chimneys - Test methods*
- EN 10088-1:2023, *Stainless steels — Part 1: List of stainless steels*
- 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*
- EN 12067-2:2022, *Safety and control devices for burners and appliances burning gaseous or liquid fuels - Control functions in electronic systems - Part 2: Fuel/air ratio control/supervision of the electronic type*
- EN 13203-1:2025, *Gas fired domestic appliances producing hot water - Part 1: Assessment of performance of hot water deliveries*
- EN 13216-1:2019, *Chimneys — Test methods for system chimneys — Part 1: General test methods*
- EN 13501-1:2018, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*
- EN 13611:2019,¹ *Safety and control devices for burners and appliances burning gaseous and/or liquid fuels - General requirements*
- EN 14241-1:2013, *Chimneys - Elastomeric seals and elastomeric sealants - Material requirements and test methods - Part 1: Seals in flue liners*

¹ As impacted by EN 13611:2019/AC:2021.

prEN 26:2026 (E)

EN 14459:2021, *Safety and control devices for burners and appliances burning gaseous or liquid fuels - Control functions in electronic systems - Methods for classification and assessment*

EN 14471:2013+A1:2015, *Chimneys — System chimneys with plastic flue liners — Requirements and test methods*

EN 15036-1:2006, *Heating boilers - Test regulations for airborne noise emissions from heat generators - Part 1: Airborne noise emissions from heat generators*

EN 60335-1:2012,² *Household and similar electrical appliances - Safety — Part 1: General requirements (IEC 60335-1:2010)*

EN 60529:1991,³ *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN ISO 178:2019, *Plastics — Determination of flexural properties (ISO 178:2019)*

EN ISO 179-1:2023, *Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test (ISO 179-1:2023)*

EN ISO 228-1:2003, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

EN ISO 527-1:2019, *Plastics — Determination of tensile properties — Part 1: General principles (ISO 527-1:2019)*

EN ISO 527-2:2025, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2:2025)*

EN ISO 1183-1:2025, *Plastics - Methods for determining the density of non-cellular plastics - Part 1: Immersion method, liquid pycnometer method and titration method (ISO 1183-1:2025)*

EN ISO 1183-2:2019, *Plastics - Methods for determining the density of non-cellular plastics - Part 2: Density gradient column method (ISO 1183-2:2019)*

EN ISO 1183-3:1999, *Plastics - Methods for determining the density of non-cellular plastics - Part 3: Gas pycnometer method (ISO 1183-3:1999)*

EN ISO 3166-1:2020, *Codes for the representation of names of countries and their subdivisions - Part 1: Country code (ISO 3166-1:2020)*

EN ISO 9969:2016, *Thermoplastics pipes - Determination of ring stiffness (ISO 9969:2016)*

² As impacted by EN 60335-1:2012/AC:2014, EN 60335-1:2012/A11:2014, EN 60335-1:2012/A13:2017, EN 60335-1:2012/A14:2019, EN 60335-1:2012/A1:2019, EN 60335-1:2012/A2:2019, EN 60335-1:2012/A15:2021, and EN 60335-1:2012/A16:2023.

³ As impacted by EN 60529:1991/corrigendum May 1993, EN 60529:1991/A1:2000, EN 60529:1991/A2:2013, EN 60529:1991/A2:2013/AC:2019-02, and EN 60529:1991/AC:2016-12.

EN IEC 60335-2-102:2024,⁴ *Household and similar electrical appliances - Safety - Part 2-102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections ((IEC 60335-2-102:2017)*

EN IEC 60730-2-9:2019,⁵ *Automatic electrical controls — Part 2-9: Particular requirements for temperature sensing controls (IEC 60730-2-9:2015)*

ISO 37:2024, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 48-4:2018, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 4: Indentation hardness by durometer method (Shore hardness)*

ISO 188:2023, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 262:2023, *ISO general purpose metric screw threads — Selected sizes for screws, bolts and nuts*

ISO 301:2006, *Zinc alloy ingots intended for castings*

ISO 815-1:2019, *Rubber, vulcanized or thermoplastic — Determination of compression set — Part 1: At ambient or elevated temperatures*

ISO 1817:2024, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO 2781:2018, *Rubber, vulcanized or thermoplastic — Determination of density*

ISO 6914:2021, *Rubber, vulcanized or thermoplastic — Determination of ageing characteristics by measurement of stress relaxation in tension*

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

instantaneous water heater

appliance where the heating of water is directly dependent on the draw off

3.1.1

instantaneous water heater with fixed heat output

appliance where the burner operates at a fixed heat input

⁴ As impacted by EN IEC 60335-2-102:2024/A11:2024.

⁵ As impacted by EN IEC 60730-2-9:2019/A1:2019 and EN IEC 60730-2-9:2019/A2:2020.

prEN 26:2026 (E)

3.1.2

instantaneous water heater with adjustable heat output

appliance where the heat input can only be reduced by operation of the manual gas rate control incorporated in the appliance

3.1.3

instantaneous water heater with automatic heat output variation (AVO)

appliance where the gas rate varies automatically so as to keep the hot water temperature within a predetermined range when the water delivery rate varies

3.1.3.1

thermostatic appliance

appliance with automatic heat output variation where the gas rate is varied by a thermostatic device controlling the water temperature, the set point of this device being adjustable or non-adjustable

3.1.3.2

proportioning appliance

appliance with automatic heat output variation where the gas rate is varied proportionally to the water rate, the factor of proportionality may be adjustable

3.1.4

condensing instantaneous water heater

appliance in which under normal operating conditions and for normal inlet water temperatures the water vapour of the combustion products is partially condensed in order to use the latent heat of this water vapour to produce hot water

3.1.5

range of automatic heat output variation

range of useful outputs of an appliance with automatic heat output variation inside which the subordination of the gas rate to the water rate maintains the hot water temperature within a predetermined range when the water rate varies

3.1.6

condensate

liquid formed from the combustion products during the condensation process

3.2

characteristics of the gas and electricity supplies

3.2.1

reference conditions

conditions which correspond to 15 °C, 1 013, 25 mbar, unless otherwise specified

[SOURCE: EN 437:2021, 3.10]

3.2.2

test gas

gas intended for the verification of the operational characteristics of gas appliances

Note 1 to entry: They consist of reference gases and limit gases.

[SOURCE: EN 437:2021, 3.3, modified, note 1 to entry added.]

3.2.2.1**reference gas**

test gas with which appliances operate under nominal conditions when they are supplied at the corresponding normal pressure

[SOURCE: EN 437:2021, 3.4]

3.2.2.2**limit gas**

test gas representative of the extreme variations in the characteristics of the gases for which appliances have been designed

[SOURCE: EN 437:2021, 3.5]

3.2.3**calorific value**

quantity of heat produced by the complete combustion, at a constant pressure equal to 1 013,25 mbar, of a unit volume or mass of gas, the constituents of the combustible mixture being taken at reference conditions and the products of combustion being brought back to the same conditions

Note 1 to entry: A distinction is made between:

- the gross calorific value H_s : the water produced by combustion is assumed to be condensed;
- the net calorific value H_i : the water produced by combustion is assumed to be in the vapour state

Note 2 to entry: The calorific value is expressed:

- either in megajoules per cubic metre (MJ/m^3) of dry gas under the reference conditions;
- or in megajoules per kilogram (MJ/kg) of dry gas.

[SOURCE: EN 437:2021, 3.12]

3.2.4**relative density**

d

ratio of the masses of equal volumes of dry gas and dry air under the same conditions of temperature and pressure: 15 °C or 0 °C and 1 013, 25 mbar

[SOURCE: EN 437:2021, 3.11]

3.2.5**Wobbe number****Wobbe index**

ratio of the calorific value of a gas per unit volume and the square root of its relative density under the same reference conditions

Note 1 to entry: The Wobbe indices are expressed:

- either in megajoules per cubic metre (MJ/m^3) of dry gas under the reference conditions;
- or in megajoules per kilogram (MJ/kg) of dry gas.