

STN	Sorpčné plynové spotrebiče na vykurovanie a (alebo) chladenie s tepelným príkonom najviac 70 kW. Časť 2: Bezpečnosť.	STN EN 12309-2 06 1520
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Gas-fired sorption appliances for heating and/or cooling with a net heat input not exceeding 70 kW - Part 2: Safety

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/15

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Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

English Version

Gas-fired sorption appliances for heating and/or cooling with a net heat input not exceeding 70 kW - Part 2: Safety

Appareils à sorption fonctionnant au gaz pour le chauffage et/ou le refroidissement de débit calorifique sur PCI inférieur à 70 kW - Partie 2 : Sécurité

Gasbefeuerte Sorptions-Geräte für Heizung und/oder Kühlung mit einer Nennwärmebelastung nicht über 70 kW - Teil 2: Sicherheit

This European Standard was approved by CEN on 14 February 2015.

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.

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Foreword

This document (EN 12309-2:2015) has been prepared by Technical Committee CEN/TC 299 “Gas-fired sorption appliances, indirect fired sorption appliances, gas-fired endothermic engine heat pumps and domestic gas-fired washing and drying appliances”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by November 2015, and conflicting national standards shall be withdrawn at the latest by November 2015.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 12309-1:1999.

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 and Annex ZC, which are integral parts of this document.

EN 12309 comprises the following parts under the general title, *Gas-fired sorption appliances for heating and/or cooling with a net heat input not exceeding 70 kW*:

- Part 1: Terms and definitions;
- Part 2: Safety;
- Part 3: Test conditions;
- Part 4: Test methods;
- Part 5: Requirements;
- Part 6: Calculation of seasonal performances;
- Part 7: Specific provisions for hybrid heating appliances;
- Part 8: Environmental aspects.

EN 12309-1 and EN 12309-2 supersede EN 12309-1:1999, whereas EN 12309-1 and EN 12309-3, EN 12309-4, EN 12309-5, EN 12309-6 and EN 12309-7 supersede EN 12309-2:2000. EN 12309-1, EN 12309-2, EN 12309-3, EN 12309-4, EN 12309-5, EN 12309-6 and EN 12309-7 have been prepared to address the essential requirements of the European Directive 2009/142/EC relating to appliances burning gaseous fuels (see EN 12309-2:2015, Annex ZA, for safety aspects and EN 12309-5:2014, Annex ZA, for rational use of energy aspects).

These documents are linked to the following European Directives:

- Energy Related Products Directive (2009/125/EC) in terms of tests conditions, tests methods and seasonal performances calculation methods under Mandate M/495 (see EN 12309-5:2014, Annex ZB);

For the relationship with EU Directive(s), see EN 12309-2:2015, Annex ZA, and EN 12309-5:2014, Annex ZA, Annex ZB and Annex ZC. These documents will be reviewed whenever new mandates could apply.

EN 12309-8, Environmental aspects, deals with the incorporation of the Resolution BT 27/2008 regarding CEN approach on addressing environmental issues in product and service standards.

This document deals particularly with the operational safety of the appliance.

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, 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

1.1 Scope of EN 12309 series

Appliances covered by this European Standard include one or a combination of the following:

- gas fired sorption chiller;
- gas fired sorption chiller/heater;
- gas fired sorption heat pump.

This European Standard applies to appliances only when used for space heating and cooling with or without heat recovery.

This European Standard applies to appliances having flue gas systems of type B and C (according to CEN/TR 1749) and to appliances designed for outdoor installations. EN 12309 does not apply to air conditioners, it only applies to appliances having:

- integral burners under the control of fully automatic burner control systems;
- closed system refrigerant circuits in which the refrigerant does not come into direct contact with the water or air to be cooled or heated;
- mechanical means to assist transportation of the combustion air and/or the flue gas.

The above appliances can have one or more primary or secondary functions (i.e. heat recovery - see definitions in EN 12309-1:2014). In the case of packaged units (consisting of several parts), the standard applies only to those designed and supplied as a complete package.

The appliances having their condenser cooled by air and by the evaporation of external additional water are not covered by this European Standard.

Installations used for heating and/or cooling of industrial processes are not within the scope of these standards.

NOTE All the symbols given in this text are used regardless of the language used.

1.2 Scope of this Part 2 to EN 12309

This part of EN 12309 deals with the safety of gas-driven sorption heat pumps as defined in EN 12309-1. Only types B12 for outdoor installations, B13 for outdoor installations, B22 for outdoor installations, B23 for outdoor installations, C12 and C13, C32 and C33 are covered in this European Standard.

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 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 126:2012, *Multifunctional controls for gas burning appliances*
- EN 161:2011+A3:2013, *Automatic shut-off valves for gas burners and gas appliances*
- EN 257:2010, *Mechanical thermostats for gas-burning appliances*
- EN 298:2012, *Automatic burner control systems for burners and appliances burning gaseous or liquid fuels*
- EN 378-2:2008+A2:2012, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 2: Design, construction, testing, marking and documentation*
- EN 378-3:2008+A1:2012, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 3: Installation site and personal protection*
- EN 437:2003+A1:2009, *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 1092-1:2007+A1:2013, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges*
- EN 1092-2:1997, *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 1254-2:1998, *Copper and copper alloys - Plumbing fittings - Part 2: Fittings with compression ends for use with copper tubes*
- CR 1404, *Determination of emissions from appliances burning gaseous fuels during type-testing*
- CEN/TR 1749, *European scheme for the classification of gas appliances according to the method of evacuation of the combustion products (types)*
- EN 12067-2:2004, *Gas/air ratio controls for gas burners and gas burning appliances - Part 2: Electronic types*
- EN 12309-1:2014, *Gas-fired sorption appliances for heating and/or cooling with a net heat input not exceeding 70 kW - Part 1: Terms and definitions*
- EN 12309-3:2014, *Gas-fired sorption appliances for heating and/or cooling with a net heat input not exceeding 70 kW - Part 3: Test conditions*
- EN 12309-4:2014, *Gas-fired sorption appliances for heating and/or cooling with a net heat input not exceeding 70 kW - Part 4: Test methods*
- EN 12309-5:2014, *Gas-fired sorption appliances for heating and/or cooling with a net heat input not exceeding 70 kW - Part 5: Requirements*
- EN 14459:2007, *Control functions in electronic systems for gas burners and gas burning appliances - Methods for classification and assessment*
- EN 60335-1:2012, *Household and similar electrical appliances - Safety - Part 1: General requirements (IEC 60335-1:2010, modified)*

EN 12309-2:2015 (E)

EN 60335-2-102:2006, *Household and similar electrical appliances - Safety - Part 2-102: Particular requirements for gas, oil and solid-fuel burning appliances having electrical connections (IEC 60335-2-102:2004, modified)*

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

EN 60730-2-9:2010, *Automatic electrical controls for household and similar use - Part 2-9: Particular requirements for temperature sensing controls (IEC 60730-2-9:2008, modified)*

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 3166-1:2014, *Codes for the representation of names of countries and their subdivisions - Part 1: Country codes (ISO 3166-1:2013)*

ISO 7-1:1994, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 1182:2010, *Reaction to fire tests for products — Non-combustibility test*

ISO 3864-2:2004, *Graphical symbols — Safety colours and safety signs — Part 2: Design principles for product safety labels*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN