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BS EN 12897:2016



BSI Standards Publication

Water supply — Specification for indirectly heated unvented (closed) storage water heaters

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This British Standard is the UK implementation of EN 12897:2016. It supersedes BS EN 12897:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/504/-/10, Hot & Cold Water Storage.

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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English Version

Water supply - Specification for indirectly heated unvented (closed) storage water heaters

Alimentation en eau - Prescriptions pour préparateurs d'eau chaude par accumulation à chauffage indirect non ouverts à l'air libre (fermés)

Wasserversorgung - Bestimmung für mittelbar beheizte, unbelüftete (geschlossene) Speicher-Wassererwärmer

This European Standard was approved by CEN on 15 April 2016.

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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European foreword

This document (EN 12897:2016) has been prepared by Technical Committee CEN/TC 164 "Water supply", 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of an identical text or by endorsement, at the latest by December 2016, and conflicting national standards shall be withdrawn at the latest by December 2016.

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 12897:2006.

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 Commission Delegated Regulation (EU) No 812/2013 and Commission Regulation (EU) No 814/2013.

For relationship with EU Directives, see informative Annexes ZA and ZB which are an integral part of this document.

In comparison with EN 12897:2006, the following significant changes have been made:

- the capacity range extended from 1 000 l to 2 000 l;
- the maximum temperature reduced from 100 °C to 95 °C;
- revisions in durability testing for cylinders using expansion vessels or internal expansion space;
- provision is made in Annex A for the calculation of the V_{40} hot water capacity;
- Annex B has been revised to improve the test methodology and bring the standing heat loss test requirements in line with those required by the EU directives for the Ecodesign and labelling of hot water storage tanks.

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.

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Introduction

In respect of potential adverse effects on the quality of water intended for human consumption caused by the product covered by this standard:

- a) This standard provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA.
- b) It should be noted that, while awaiting the adoption of the verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

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1 Scope

This European Standard specifies the constructional and performance requirements and methods of test for indirectly heated, unvented (closed) storage water heaters of up to 2 000 l volume suitable for connection to a water supply at a pressure between 0,05 MPa and 1,0 MPa (0,5 bar and 10 bar), and fitted with control and safety devices designed to prevent the temperature of the stored drinking water from reaching 95 °C.

Whilst storage water heaters intended primarily for direct heating are not covered by this standard, it does allow the provision of electric heating elements for auxiliary use.

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 1487, *Building valves — Hydraulic safety groups — Tests and requirements*

EN 1488, *Building valves — Expansion groups — Tests and requirements*

EN 1489, *Building valves — Pressure safety valves — Tests and requirements*

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

EN 1491, *Building valves — Expansion valves — Tests and requirements*

EN 1567, *Building valves — Water pressure reducing valves and combination water pressure reducing valves — Requirements and tests*

EN 1717, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow*

EN 13203 (all parts), *Gas-fired domestic appliances producing hot water*

EN 13959, *Anti-pollution check valves — DN 6 to DN 250 inclusive family E, type A, B, C and D*

EN 15332:2007, *Heating boilers — Energy assessment of hot water storage systems*

EN 60379:2004, *Methods for measuring the performance of electric storage water-heaters for household purposes (IEC 60379:1987)*

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

3 Terms, definitions and symbols

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