



BSI Standards Publication

## **Water supply – Specification for indirectly heated unvented (closed) storage water heaters**

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## National foreword

This British Standard is the UK implementation of EN 12897:2016+A1:2020. It supersedes BS EN 12897:2016, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by A1 A1.

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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EUROPEAN STANDARD

**EN 12897:2016+A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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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 amendment A1 modifies the European Standard EN 12897:2016; it was approved by CEN on 9 October 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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 amendment 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 COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

<b>Contents</b>	<b>Page</b>
European foreword.....	4
Introduction .....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms, definitions and symbols.....	7
3.1 Terms and definitions .....	7
3.2 Symbols.....	8
4 Requirements .....	8
4.1 Constructional requirements .....	8
4.1.1 Inspection access.....	8
4.1.2 Draining.....	8
4.1.3 Hydraulic connections.....	8
4.2 Temperature control .....	9
4.3 Mechanical resistance and stability .....	9
4.3.1 Pressure resistance of water storage vessel .....	9
4.3.2 Pressure resistance of primary heater.....	9
4.3.3 Durability .....	9
4.3.4 Leakage test on double-walled primary heater .....	11
4.4 Safety equipment.....	11
4.4.1 General.....	11
4.4.2 Energy cut-out device .....	11
4.4.3 Temperature relief valve .....	11
4.4.4 Pressure relief/expansion valve .....	11
4.4.5 Pressure reducing valve .....	11
4.4.6 Provision for expansion.....	12
4.4.7 Backflow prevention.....	12
5 Marking.....	12
6 Evaluation of conformity .....	12
6.1 General.....	12
6.1.1 Compliance testing .....	12
6.1.2 Market surveillance .....	13
6.2 Initial type testing.....	13
6.2.1 General.....	13
6.2.2 Actual volume.....	13
6.2.3 Rated storage volume.....	13
6.2.4 Hot water volume.....	13
6.2.5 Primary heating power (heat exchanger performance).....	14
6.2.6 Durability testing .....	14
6.2.7 Double-walled primary heaters.....	14
6.2.8 Standing heat loss .....	14
6.2.9 Pressure resistance .....	14
6.2.10 Temperature control devices .....	14
6.2.11 Heat exchanger pressure drop.....	14
6.3 Production testing .....	14
6.4 Factory production control (FPC) .....	15

7	Technical documents .....	15
7.1	General .....	15
7.2	Assembly and maintenance instructions.....	15
7.3	Operating instructions.....	16
	<b>Annex A (normative) Hot water safety and performance testing.....</b>	<b>17</b>
A.1	Tests required.....	17
A.2	Test apparatus and tolerances .....	17
A.3	Performance tests .....	19
A.4	Interpretation and calculation of hot water performance results .....	21
A.5	Function of safety devices.....	22
	<b>Annex B (normative) Measurement of standing heat loss for factory insulated storage water heaters .....</b>	<b>23</b>
B.1	General .....	23
B.2	Apparatus .....	23
B.3	Test Procedure .....	25
B.4	Calculation of Results.....	26
	<b>Annex C (informative) Inspection access .....</b>	<b>28</b>
	<b>Annex ZA (informative) <math>\square_{A1}</math> Relationship between this European Standard and the requirements of Commission Delegated Regulation (EU) No 812/2013 of 18 February 2013 supplementing Directive 2010/30/EU regarding energy labelling of water heaters, hot water storage tanks and packages of water heater and solar device.....</b>	<b>30</b>
	<b>Annex ZB (informative) <math>\square_{A1}</math> Relationship between this European Standard and the requirements of Commission Regulation (EU) No 814/2013 of 2 August 2013 implementing Directive 2009/125/EC with regard to ecodesign requirements for water heaters and hot water storage tanks .....</b>	<b>32</b>
	<b>Bibliography .....</b>	<b>34</b>

## European foreword

This document (EN 12897:2016+A1:2020) 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 August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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 includes Amendment 1 approved by CEN on 2019-10-09.

This document supersedes A1 EN 12897:2016 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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.

A1 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom. A1

## 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.

## 1 Scope

This document 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 document, it does allow the provision of electric heating elements for auxiliary use.

## 2 Normative references

<sup>[A1]</sup> 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. <sup>[A1]</sup>

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)*