

Heating boilers — Energy assessment of hot water storage systems

The European Standard EN 15332:2007 has the status of a
British Standard

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National foreword

This British Standard is the UK implementation of EN 15332:2007.

The UK participation in its preparation was entrusted to Technical Committee RHE/10, Heating boilers.

A list of organizations represented on this committee can be obtained on request to its secretary.

This British Standard (BS EN 15332) is one method of assessing the performance of an indirectly heated hot water system comprising of a heating boiler and hot water storage cylinder and where there is a known relationship between the cylinder and the heating boiler. The system is assessed with boiler input occurring during draw off which is not normal UK practice for typical family domestic premises. A more suitable methodology for the assessment and performance comparison of indirectly heated unvented cylinders in domestic premises is contained in BS EN 12897.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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Heating boilers - Energy assessment of hot water storage systems

Chaudières de chauffage - Evaluation de la performance
énergétique des préparateurs d'eau chaude

Heizkessel - Energetische Bewertung von
Warmwasserspeichersystemen

This European Standard was approved by CEN on 22 March 2007.

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Foreword

This document (EN 15332:2007) has been prepared by Technical Committee CEN/TC 57 “Central heating boilers”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by May 2008, and conflicting national standards shall be withdrawn at the latest by May 2008.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies a method for the energy assessment of a domestic hot water system comprising an external heating boiler of specified minimum output indirectly heating an unvented (closed) hot water tank of up to 1 500 l. Whilst tanks intended primarily for direct heating are not covered by this European Standard, it does allow the provision of electric heating elements for auxiliary use.

2 Normative references

The following referenced documents are indispensable for the application 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 12897, *Water supply — Specification for indirectly heated unvented (closed) storage water heaters*

3 Terms and definitions

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

3.1 indirectly heated un-vented (closed) hot water storage tanks
storage vessels used for heating up domestic hot water with an external heat source where the hot water side is not vented to atmosphere, including all devices delivered with it

3.2 hot water side
side of the storage tank which contains domestic hot water

NOTE If a mixing valve is delivered with the storage tank, it is considered as part of the hot water side.

3.3 heating side
side of the storage tank which contains the heating medium

3.4 temperature of the cold water
 ϑ_c
temperature at the entrance of the hot water side of the storage tank in °C

3.5 temperature of the warm water
 ϑ_w
temperature at the outlet of the hot water side in °C

3.6 usable hot water temperature
 ϑ_u
minimum temperature for the hot water to be usable

NOTE Minimum temperature for the hot water defined here as difference between the temperature of the warm water $\vartheta_w = 45$ °C minus the temperature of cold water $\vartheta_c = 10$ °C ($\vartheta_u = \vartheta_w - \vartheta_c = 35$ K).