



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

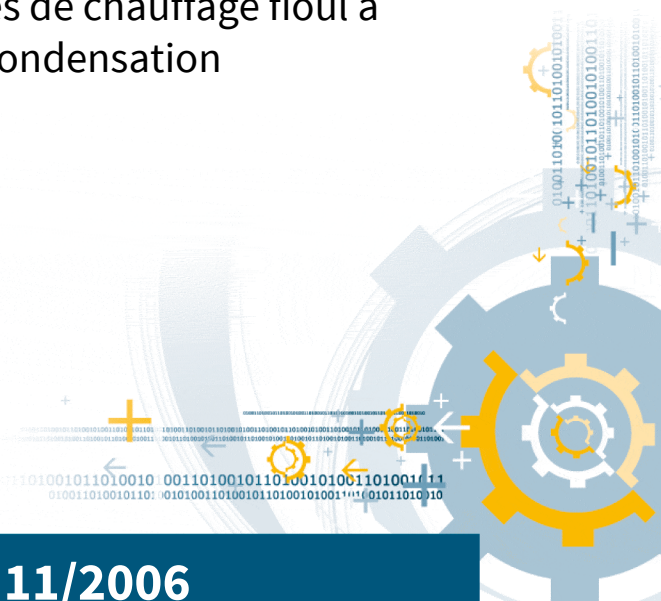
ILNAS-EN 15034:2006

Heating boilers - Condensing heating boilers for fuel oil

Heizkessel - Öl-Brennwertkessel

Chaudières pour le chauffage central -
Chaudières de chauffage fioul à
condensation

11/2006



National Foreword

This European Standard EN 15034:2006 was adopted as Luxembourgish Standard ILNAS-EN 15034:2006.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

EUROPEAN STANDARD ILNAS-EN 15034:2006 **EN 15034**
NORME EUROPÉENNE
EUROPÄISCHE NORM

November 2006

ICS 97.100.40

English Version

Heating boilers - Condensing heating boilers for fuel oil

Chaudières de chauffage - Chaudières de chauffage à
condensation au fioul

Heizkessel - Öl-Brennwertkessel

This European Standard was approved by CEN on 22 September 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, 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.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Requirements	5
5 Test methods.....	7
6 Marking, labelling and packaging	11
Annex A (normative) Corrections for the determined efficiency for the low water temperature test of condensing boilers	12
Annex B (informative) Transforming results of efficiency tests to the reference point H_s	13
Annex C (informative) Indirect method (checking purposes only)	14
C.1 General.....	14
C.2 Indirect method	14
C.2.1 Measurements.....	14
C.2.2 Calculations.....	15
Bibliography.....	17
Table 1 — Level of performance for energy efficiency.....	7
Table 2 — Calculation of part load efficiency	10
Table C.1 — Symbols and quantities needed to calculate the efficiency at part load.	15

Foreword

This document (EN 15034:2006) 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 2007, and conflicting national standards shall be withdrawn at the latest by May 2007.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 applies to oil-fired heating boilers, which are declared by the manufacturer to be condensing boilers up to a nominal heat output of 1 000 kW supplied as a unit with an atomizing oil burner which meets the requirements of EN 267.

NOTE This European Standard defines three classes of oil fired boilers with efficiency requirements higher than those given for low temperature boilers in the Boiler Efficiency Directive (BED) 94/42/EEC.

This European Standard completes/modifies EN 303-1, EN 303-2 and EN 304 and specifies supplementary requirements for condensing boilers.

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 303-1:1999, *Heating boilers — Part 1: Heating boilers with forced draught burners — Terminology, general requirements, testing and marking*

EN 303-2:1998, *Heating boilers — Part 2: Heating boilers with forced draught burners — Special requirements for boilers with atomizing oil burners*

EN 304:1992, *Heating boilers — Test code for heating boilers for atomizing oil burners*

EN 1443, *Chimneys — General requirements*

EN 60730-2-9, *Automatic electrical controls for household and similar use — Part 2-9: Particular requirements for temperature sensing controls (IEC 60730-2-9:2000, modified)*

3 Terms and definitions

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

3.1

condensate

liquid formed from combustion products during the condensation process

3.2

nominal condensing output

(*P*)

value of useful output declared by the manufacturer, in kW and corresponding to the operation of the boiler in a 50 °C/30 °C water temperature regime

3.3

maximum allowable working temperature

temperature that the material can withstand over a long period of time

3.4

condensing boiler

boiler that, under normal operating conditions and at certain operating water temperatures, partially condenses the water vapour in the combustion products in order to make use of the latent heat of water vapour for heating purposes and also satisfy the efficiency requirements of this European standard