



Nederlandse norm

NEN-EN 12952-11

(en)

Water-tube boilers and auxiliary installations -
Part 11: Requirements for limiting devices of the
boiler and accessories

Vervangt NEN-EN 12952-11:2007 2e Ontw.

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VOORBEELD
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Voor de in deze norm vermelde normatieve verwijzingen bestaan in Nederland de volgende equivalenten:

<u>vermelde norm</u>	<u>Nederlandse norm</u>	<u>titel</u>
EN 298:2003	NEN-EN 298:2003	Branderautomaten voor met gas gestookte atmosferische branders en ventilatorbranders (en)
EN 50156-1:2004	NEN-EN 50156-1:2004	Elektrische uitrusting voor verwarmingstoestellen - Deel 1: Eisen voor toepassingsontwerp en installatie (en)
EN 60529:1991	NEN 10529:1992	Beschermingsgraden van omhulsels van elektrisch materieel (IP-codering) (en,fr)
EN 60730-1:2000	NEN-EN-IEC 60730-1:2001	Automatische elektrische regelaars voor huishoudelijk en soortgelijk gebruik - Deel 1: Algemene eisen (en,fr)
EN 61000-4-2:1995	NEN 11000-4-2:1995	Elektromagnetische compatibiliteit (EMC) - Deel 4: Beproevingen en meettechnieken - Sectie 2: Elektrostatische ontlading - Immunitetsproef - Algemene EMC-publicatie (en,fr)
EN 61000-4-3:2006	NEN-EN-IEC 61000-4-3:2006	Elektromagnetische compatibiliteit (EMC) - Deel 4-3: Beproevingen en meettechnieken - Uitgestraalde, radiofrequente, elektromagnetische velden - Immunitetsproef (en)
EN 61000-4-4:2004	NEN-EN-IEC 61000-4-4:2005	Elektromagnetische compatibiliteit (EMC) - Deel 4-4: Beproevingen en meettechnieken - Snelle elektrische transiënten en lawines - Immunitetsproef (en,fr)
EN 61000-4-5:2006	NEN-EN-IEC 61000-4-5:2007	Elektromagnetische compatibiliteit (EMC) - Deel 4-5: Beproevingen en meettechnieken - Stootspanningen - Immunitetsproef (en)
EN 61000-4-6:1996	NEN 11000-4-6:1997	Elektromagnetische compatibiliteit (EMC) - Deel 4: Beproevingen en meettechnieken - Sectie 6: Immunitet voor geleide storingen, veroorzaakt door radiofrequente velden (en)
EN 61000-4-8:1993	NEN 11000-4-8:1994	Elektromagnetische compatibiliteit (EMC) - Deel 4: Beproevingen en meettechnieken - Sectie 8: Magnetische immunitetsproef bij netfrequentie - Algemene EMC-publicatie (en,fr)
EN 61000-4-11:2004	NEN-EN-IEC 61000-4-11:2004	Elektromagnetische compatibiliteit (EMC) - Deel 4-11: Beproevingen en meettechnieken - Immunitetsproeven voor kortstondige spanningsdalingen en onderbrekingen en spanningsvariaties (en,fr)
EN 61000-6-2:2005	NEN-EN-IEC 61000-6-2:2005	Elektromagnetische compatibiliteit (EMC) - Deel 6-2: Algemene normen - Immunitet voor industriële omgevingen (en,fr)
EN 61508-3:2001	NEN-EN-IEC 61508-3:2002	Functionele veiligheid van elektrische/elektronische/programmeerbare elektronische systemen verbandhoudend met veiligheid - Deel 3: Eisen voor programmatuur (en,fr)

Voorbeeld
Preview

ICS 27.040

English Version

Water-tube boilers and auxiliary installations - Part 11:
Requirements for limiting devices of the boiler and accessories

Chaudières à tubes d'eau et installations auxiliaires - Partie
11: Exigences pour les dispositifs de limitation de la
chaudière et de ses accessoires

Wasserrohrkessel und Anlagekomponenten - Teil 11:
Anforderungen an Begrenzungseinrichtungen an Kessel
und Zubehör

This European Standard was approved by CEN on 26 May 2007.

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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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 12952-11:2007) has been prepared by Technical Committee CEN/TC 269 "Shell and water-tube 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 January 2008, and conflicting national standards shall be withdrawn at the latest by January 2008.

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, which is an integral part of this document.

The European Standard EN 12952 concerning water-tube boilers and auxiliary installations consists of the following Parts:

- *Part 1: General.*
- *Part 2: Materials for pressure parts of boilers and accessories.*
- *Part 3: Design and calculation for pressure parts.*
- *Part 4: In-service boiler life expectancy calculations.*
- *Part 5: Workmanship and construction of pressure parts of the boiler.*
- *Part 6: Inspection during construction, documentation and marking of pressure parts of the boiler.*
- *Part 7: Requirements for equipment for the boiler.*
- *Part 8: Requirements for firing systems for liquid and gaseous fuels for the boiler.*
- *Part 9: Requirements for firing systems for pulverized solid fuels for the boiler.*
- *Part 10: Requirements for safeguards against excessive pressure.*
- *Part 11: Requirements for limiting devices of the boiler and accessories.*
- *Part 12: Requirements for boiler feedwater and boiler water quality.*
- *Part 13: Requirements for flue gas cleaning systems.*
- *Part 14: Requirements for flue gas DENOX systems using liquefied pressurized ammonia and ammonia water solution.*
- *Part 15: Acceptance tests.*
- *Part 16: Requirements for grate and fluidized bed firing systems for solid fuels for the boiler.*

CR 12952 Part 17: Guideline for the involvement of an inspection body independent of the manufacturer.

Although these Parts can be obtained separately, it should be recognised that the Parts are inter-dependent. As such, the design and manufacture of water-tube boilers requires the application of more than one Part in order for the requirements of the standard to be satisfactorily fulfilled.

NOTE Parts 4 and 15 are not applicable during the design, construction and installation stages.

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.

Introduction

The types of limiters which shall be fitted to boilers are specified in EN 12952-7 and the design of the safety systems are specified in EN 50156-1.

A limiter (or limiting device) is one element of a water-tube boiler safety system. It comprises a sensor and monitoring elements to achieve the desired level of reliability.

In order to provide the necessary safety function, for example, to cut off the heat supply to the boiler in the event of a low water fault, the limiter is connected to other elements in the safety system such as actuators and safety logic circuits.

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1 Scope

This European Standard specifies requirements for limiters (or limiting devices) which are incorporated into safety systems for water-tube boilers as defined in EN 12952-1.

A limiter (or limiting device) can be either:

- a safety accessory as defined in the Pressure Equipment Directive, Article 1, clause 2.1.3, and needs to include the safety logic and final actuator, or
- one element of a safety system, for example, a self-monitoring water level sensor used as part of a safety accessory as defined in the Pressure Equipment Directive, Article 1, clause 2.1.3. The overall boiler protection function shall be provided in association with additional safety logic (where appropriate) and a final actuator.

The design requirements and examination of functional capability for the limiters are covered in this European Standard.

For an explanation of the extent of the limiter (or limiting device) see Figure A.1.

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 298:2003, *Automatic gas burner control systems for gas burners and gas burning appliances with or without fans*

EN 50156-1:2004, *Electrical equipment for furnaces and ancillary equipment — Part 1: Requirements for application design and installation*

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

EN 60730-1:2000, *Automatic electrical controls for household and similar use — Part 1: General requirements (IEC 60730-1:1999, modified)*

EN 61000-4-2:1995, *Electromagnetic compatibility (EMC) — Part 4: Testing and measurement techniques — Section 2: Electrostatic discharge immunity test — Basic EMC publication (IEC 61000-4-2:1995)*

EN 61000-4-3:2006, *Electromagnetic compatibility (EMC) — Part 4-3: Testing and measurement techniques — Radiated, radio-frequency, electromagnetic field immunity test (IEC 61000-4-3:2006)*

EN 61000-4-4:2004, *Electromagnetic compatibility (EMC) — Part 4-4: Testing and measurement techniques — Electrical fast transient/burst immunity test (IEC 61000-4-4:2004)*

EN 61000-4-5:2006, *Electromagnetic compatibility (EMC) — Part 4-5: Testing and measurement techniques — Surge immunity test (IEC 61000-4-5:2005)*

EN 61000-4-6:1996, *Electromagnetic compatibility (EMC) — Part 4: Testing and measurement techniques — Section 6: Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-4-6:1996)*

EN 61000-4-8:1993, *Electromagnetic compatibility (EMC) — Part 4: Testing and measurement techniques — Section 8: Power frequency magnetic field immunity test; basic EMC publication (IEC 61000-4-8:1993)*

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