

## **Railway Applications — Air conditioning for driving cabs — Part 2: Type tests**

Railway applications - Air conditioning for driving  
cabs - Part 2: Type tests

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14813-2:2006 sisaldab Euroopa standardi EN 14813-2:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 20.09.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14813-2:2006 consists of the English text of the European standard EN 14813-2:2006.</p> <p>This document is endorsed on 20.09.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This European Standard is applicable to railway vehicle driving cabs which are air conditioned or heated/ventilated. These include: - locomotives; - mainline, suburban or regional vehicles; - urban vehicles such as metros and trams.</p>	<p><b>Scope:</b></p> <p>This European Standard is applicable to railway vehicle driving cabs which are air conditioned or heated/ventilated. These include: - locomotives; - mainline, suburban or regional vehicles; - urban vehicles such as metros and trams.</p>
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**Võtmesõnad:**

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English Version

**Railway applications - Air conditioning for driving cabs - Part 2:  
Type tests**

Applications ferroviaires - Conditionnement de l'air pour  
cabines de conduite - Partie 2: Essais de type

Bahnanwendungen - Luftbehandlung in Führerräumen -  
Teil 2: Typprüfungen

This European Standard was approved by CEN on 26 June 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.



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## Foreword

This document (EN 14813-2:2006) has been prepared by Technical Committee CEN/TC 256 "Railway applications", 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 February 2007, and conflicting national standards shall be withdrawn at the latest by February 2007.

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 96/48/EC.<sup>1)</sup>

For relationship with the EU Directive, see informative Annex ZA, which is an integral part of this document.

This series of European Standard includes the following parts:

- EN 14813-1, *Railway applications — Air conditioning for driving cabs — Part 1: Comfort parameters*
- EN 14813-2, *Railway applications — Air conditioning for driving cabs — Part 2: Type tests*

In the context of this series, there are two further series on air conditioning in rolling stock:

- EN 13129-1, *Railway applications — Air conditioning for main line rolling stock — Part 1: Comfort parameters*
- EN 13129-2, *Railway applications — Air conditioning for main line rolling stock — Part 2: Type tests*
- EN 14750-1 *Railway applications — Air conditioning for urban and suburban rolling stock — Part 1: Comfort parameters*
- EN 14750-2 *Railway applications — Air conditioning for urban and suburban rolling stock — Part 2: Type tests*

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.

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<sup>1)</sup> Official Journal No L 235 of 17.9.1996. Amended by Directive 2004/50/EC of the European Parliament and of the Council of 29 April 2004, Official Journal No L 164 of 30.4.2004.

## Introduction

The object of this European Standard is to establish programmes and test methods to verify the air conditioning installations as described in EN 14813-1.

If necessary, the revised requirements due to operating constraints of the vehicle will be detailed in the contractual specification. This European Standard applies if there is no particular clause in the contractual specification.

## 1 Scope

This European Standard is applicable to railway vehicle driving cabs which are air-conditioned or heated/ventilated. These include:

- locomotives;
- mainline, suburban or regional vehicles;
- urban vehicles such as metros and trams.

This European Standard does not consider the special operational requirements of shunt locomotives.

This European Standard specifies the comfort parameter measurement methods for driving cabs.

The comfort parameters and their tolerances cited in this European Standard are defined in EN 14813-1.

## 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 14813-1:2006, *Railway applications — Air conditioning for driving cabs — Part 1: Comfort parameters*

EN ISO 3381, *Railway applications — Acoustics — Measurement of noise inside railbound vehicles (ISO 3381:2005)*

EN ISO 7726:2001, *Ergonomics of the thermal environment — Instruments for measuring physical quantities (ISO 7726:1998)*

CIE 85, *Solar spectral irradiance*<sup>2)</sup>

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14813-1:2006 apply.

## 4 Test classification

Two levels of testing are detailed in this European Standard.

TL1 is a simplified level that gives principle information about the functionality of the system. It does not aim to verify the comfort parameters and performance of the system. It can be done in a workshop or at a yard. TL2 is a full level test to verify the comfort parameters and the performance of the system. This test shall be performed in a climatic chamber or in an appropriate environment.

The operator shall detail in his contractual specification the test classification.

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<sup>2)</sup> To be purchased from: International Commission of Illumination, CIE Central Bureau, Kegelgasse 27, A-1030 Wien.