

## **Compressors and condensing units for refrigeration - Performance testing and test methods - Part 1: Refrigerant compressors**

Compressors and condensing units for refrigeration -  
Performance testing and test methods - Part 1:  
Refrigerant compressors

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13771-1:2003 sisaldab Euroopa standardi EN 13771-1:2003 ingliskeelset teksti.	This Estonian standard EVS-EN 13771-1:2003 consists of the English text of the European standard EN 13771-1:2003.
Käesolev dokument on jõustatud 16.05.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 16.05.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

<b>Käsitlusala:</b> This part of this European Standard applies only to refrigerant compressors and describes a number of selected performance test methods. These methods provide sufficiently accurate results for the determination of the refrigerating capacity, power absorbed, refrigerant mass flow, isentropic efficiency and the coefficient of performance	<b>Scope:</b> This part of this European Standard applies only to refrigerant compressors and describes a number of selected performance test methods. These methods provide sufficiently accurate results for the determination of the refrigerating capacity, power absorbed, refrigerant mass flow, isentropic efficiency and the coefficient of performance
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**ICS** 23.140, 27.200

**Võtmesõnad:** begriffe, berechnung, kaelteleistung, kaeltemaschine, kaeltemittel, kaeltemittelkreislauf, kaeltemittelverdichter, kaeltetechnik, leistung, leistungspruefung, pruefbedingung, pruefung, pruefverfahren

ICS 23.140; 27.200

English version

Compressors and condensing units for refrigeration -  
Performance testing and test methods - Part 1: Refrigerant  
compressors

Compresseurs et unités de condensation pour la  
réfrigération - Essais de performances et méthodes d'essai  
- Partie 1: Compresseurs pour fluides frigorigènes

Kältemittel-Verdichter und Verflüssigungssätze für die  
Kälteanwendung - Leistungsprüfung und Prüfverfahren -  
Teil 1: Kältemittel-Verdichter

This European Standard was approved by CEN on 9 January 2003.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## Foreword

This document EN 13771-1:2003 has been prepared by Technical Committee CEN/TC 113 "Heat pumps and air conditioning units", the secretariat of which is held by AENOR.

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 October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

It consists of the following parts:

*Part 1: Refrigerant compressors*

*Part 2: Condensing units for refrigeration*

Annex A is normative.

This document includes a Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard : Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This part of this European Standard applies only to refrigerant compressors and describes a number of selected performance test methods. These methods provide sufficiently accurate results for the determination of the refrigerating capacity, power absorbed, refrigerant mass flow, isentropic efficiency and the coefficient of performance.

This standard applies only to performance tests conducted at the manufacturer's works or wherever the equipment for testing to the accuracy required is available.

The type of measuring instrument and the allowable uncertainty within which measurements shall be made are listed in normative annex A.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 378-1:2000, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 1: Basic requirements, definitions, classification and selection criteria.*

EN 378-2, *Refrigerating systems and heat pumps - Safety and environmental requirements - Part 2: Design, construction, testing, marking and documentation.*

EN ISO 5167-1, *Measurement of fluid flow by means of pressure differential devices - Part 1: Orifice plates, nozzles and Venturi tubes inserted in circular cross-section conduits running full (ISO 5167-1:1991).*

ISO/TR 5168, *Measurement of fluid flow - Evaluation of uncertainties.*