

Condensing units for refrigeration - Rating conditions, tolerances and presentation of manufacturer`s performance data

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13215:2000 sisaldab Euroopa standardi EN 13215:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.09.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13215:2000 consists of the English text of the European standard EN 13215:2000.</p> <p>This document is endorsed on 12.09.2000 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>Käsitlusala:</p> <p>This standard specifies the rating conditions, tolerances and presentation of manufactures' s performance data for single-stage condensing units for refrigeration with compressors of the positive-displacement type. This is required so that a comparison of different condensing units can be made. The performance data relate to the refrigerating capacity and power absorbed, they include factors and refer to full load operation of the condensing unit.</p>	<p>Scope:</p> <p>This standard specifies the rating conditions, tolerances and presentation of manufactures' s performance data for single-stage condensing units for refrigeration with compressors of the positive-displacement type. This is required so that a comparison of different condensing units can be made. The performance data relate to the refrigerating capacity and power absorbed, they include factors and refer to full load operation of the condensing unit.</p>
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ICS 27.200

Võtmesõnad:

English version

Condensing units for refrigeration

Rating conditions, tolerances and presentation of manufacturer's performance data

Unités de condensation pour la réfrigération – Conditions de détermination des caractéristiques, tolérances et présentation des performances du fabricant

Verflüssigungssätze für die Kälteanwendung – Nennbedingungen, Toleranzen und Darstellung von Leistungsdaten des Herstellers

This European Standard was approved by CEN on 2000-02-14.

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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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard 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 September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the rating conditions, tolerances and presentation of manufacturer's performance data for single-stage condensing units for refrigeration with compressors of the positive-displacement type. This is required so that a comparison of different condensing units can be made. The performance data relate to the refrigerating capacity and power absorbed, they include correction factors and refer to full load operation of the condensing unit.

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.

prEN 378-1 : 1999

Refrigerating systems and heat pumps – Safety and environmental requirements – Part 1: Basic requirements, definitions, classification and selection criteria

ISO 817

Refrigerants – Number designation

ISO 917

Testing of refrigerant compressors

3 Definitions

For the purposes of this European Standard, the definitions of prEN 378-1 : 1999 and the following apply:

3.1 condensing unit: Combination of one or more compressors, condensers or liquid receivers (when applicable) and the regularly furnished accessories, see 3.4.15 of prEN 378-1 : 1999.

3.2 refrigerating capacity: Product of the mass flow of refrigerant through the condensing unit and the difference between the specific enthalpy of the refrigerant at the condensing unit inlet, the refrigerant being superheated above the suction dew point temperature to the appropriate value (see table 1), and the specific enthalpy of the liquid refrigerant at the condensing unit outlet.

3.3 subcooling: Difference between the bubble point temperature of the refrigerant corresponding to the pressure at the condensing unit outlet and the temperature of the liquid refrigerant at the condensing unit outlet.

3.4 superheat: Difference between the dew point temperature of the refrigerant corresponding to the pressure at the condensing unit inlet and the temperature of the refrigerant vapour at the condensing unit inlet.

3.5 power absorbed:

– for externally driven compressors: the power at the compressor shaft and the power of the fan(s) and other electrical accessories;

– for motor compressors: the electrical power input at the motor terminals and the power of the fan(s) and other electrical accessories.

3.6 coefficient of performance (COP_r): Ratio of refrigerating capacity to the power absorbed.