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Air conditioners and liquid chilling packages with evaporatively cooled condenser and with electrically driven compressors for space cooling - Terms, definitions, test conditions, test methods and requirements



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15218:2022 sisaldab Euroopa standardi EN 15218:2022 ingliskeelset teksti.

This Estonian standard EVS-EN 15218:2022 consists of the English text of the European standard EN 15218:2022.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 21.12.2022.

Date of Availability of the European standard is 21.12.2022.

Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.

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ICS 27.200, 91.140.30

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EUROPEAN STANDARD

EN 15218

NORME EUROPÉENNE EUROPÄISCHE NORM

December 2022

ICS 27.200; 91.140.30

Supersedes EN 15218:2013

English Version

Air conditioners and liquid chilling packages with evaporatively cooled condenser and with electrically driven compressors for space cooling - Terms, definitions, test conditions, test methods and requirements

Climatiseurs et groupes refroidisseurs de liquide à condenseur refroidi par évaporation et compresseur entraîné par moteur électrique pour la réfrigération des locaux - Termes, définitions, conditions d'essai, méthodes d'essai et exigences

Luftkonditionierer und Flüssigkeitskühlsätze mit verdunstungsgekühltem Verflüssiger und elektrisch angetriebenen Verdichtern für die Raumkühlung -Begriffe, Prüfbedingungen, Prüfverfahren und Anforderungen

This European Standard was approved by CEN on 7 November 2022.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 15218:2022) has been prepared by Technical Committee CEN/TC 113 "Heat pumps and air conditioners", the secretariat of which is held by UNE.

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 June 2023, and conflicting national standards shall be withdrawn at the latest by June 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15218:2013.

EN 15218:2022 includes the following significant technical changes with respect to EN 15218:2013:

- alignment with the EN 14511 series under revision;
- addition of Annex ZB relating to Commission Regulation (EU) No 626/2011 aimed to be covered.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annexes ZA and ZB, which are integral parts of this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

1 Scope

This document specifies the terms, definitions, test conditions, test methods and requirements for rating the performance of air conditioners and liquid chilling packages, with electrically driven compressors and with evaporatively cooled condenser when used for space cooling. The evaporatively cooled condenser is cooled by air and by the evaporation of external additional water. This additional external water is fed by a specific water supply circuit or by a water tank.

This document is not applicable to air-to-air and air-to-water air conditioners with a condenser cooled by air and by the evaporation of water condensed on their evaporator.

This document is applicable to units equipped with a water tank or with a continuous water circuit supply that can also operate without water feeding. However, this document only concerns the testing of these units with water feeding.

This document is applicable to factory-made units which can be ducted.

This document is applicable to factory-made units of either fixed capacity or variable capacity by any means.

Packaged units, single split and multisplit systems are covered by this document.

With regard to units consisting of several parts, this document applies only to those designed and supplied as a complete package.

For evaporatively cooled condenser units that can also operate in heating mode, their performance in this mode is determined according to EN 14511:2022 (all parts).

Units used for industrial processes cooling are not within the scope of this document.

This document specifies the conditions for which performance data will be declared for compliance with the Ecodesign Regulation 206/2012 and with the Energy Labelling Regulation 626/2011 of air conditioners with evaporatively cooled condenser in cooling mode.

NOTE All the symbols given in this text can be used regardless of language.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 14511-1:2022, Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors - Part 1: Terms and definitions

EN 14511-2:2022, Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors - Part 2: Test conditions

EN 14511-3:2022, Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors - Part 3: Test methods

EN 14511-4:2022, Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors - Part 4: Requirements