BSI Standards Publication

Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors

Part 2: Test conditions

bsi.

National foreword

This British Standard is the UK implementation of EN 14511-2:2018. It supersedes BS EN 14511-2:2013, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RHE/17, Testing of air conditioning units.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

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

Climatiseurs, groupes refroidisseurs de liquide et pompes à chaleur pour le chauffage et le refroidissement des locaux et refroidisseurs industriels avec compresseur entraîné par moteur électrique - Partie 2: Conditions d'essai

Luftkonditionierer, Flüssigkeitskühlsätze und Wärmepumpen für die Raumbeheizung und -kühlung und Prozess-Kühler mit elektrisch angetriebenen Verdichtern - Teil 2: Prüfbedingungen

This European Standard was approved by CEN on 31 December 2017.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

This document (EN 14511-2:2018) has been prepared by Technical Committee CEN/TC 113 “Heat pumps and air conditioning units”, 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of an identical text or by endorsement, at the latest by September 2018, and conflicting national standards shall be withdrawn at the latest by March 2021.

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

This document supersedes EN 14511-2:2013.

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 Regulation(s).

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

The main change with respect to the previous edition is the inclusion of process chillers in the scope of the standard with a table of relevant test conditions.

EN 14511, *Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors* currently comprises the following parts:

— *Part 1: Terms and definitions*

— *Part 2: Test conditions*

— *Part 3: Test methods*

— *Part 4: Requirements*

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1 Scope

1.1 The scope of EN 14511-1 is applicable.

1.2 This European Standard specifies the test conditions for the rating of air conditioners, liquid chilling packages and heat pumps, using either, air, water or brine as heat transfer media, with electrically driven compressors when used for space heating and/or cooling. The standard also specifies the test conditions for the rating of air-cooled and water(brine)-cooled process chillers.

1.3 This European Standard specifies the conditions for which performance data is to be declared for single duct and double duct units for compliance to the Ecodesign Regulation 206/2012 and Energy Labelling Regulation 626/2011.

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 14511-1:2018, *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 14511-4:2018, *Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors - Part 4: Requirements*

EN 15218, *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*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14511-1:2018 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4 Test conditions

4.1 Environmental conditions and electrical power supply requirements

The tests shall be carried out under the environmental conditions specified in Table 1 or Table 2 depending on the location of the unit.

For all units, electrical power voltage and frequency shall be given by the manufacturer.

Table 1 — Environmental conditions for units designed for installation indoors

Type	Measured quantities	Rating test
Water(brine)-to-water(brine) units	Dry bulb temperature	15 °C to 30 °C
Air-to-water(brine) units with duct connection on the air inlet and outlet side	Dry bulb temperature	15 °C to 30 °C