

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

Part 4: Requirements

The European Standard EN 14511-4:2004 has the status of a British Standard

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National foreword

This British Standard is the official English language version of EN 14511-4:2004. It supersedes BS EN 255-4:1997 and BS EN 814-3:1997 which are both withdrawn. Also, together with BS EN 14511-1, -2 and -3:2004 it supersedes BS EN 12055:1998 and BS 7120:1989 which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RHE/17, Testing of air conditioning units, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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English version

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

Climatiseurs, groupes refroidisseurs de liquide et pompes à
chaleur avec compresseur entraîné par moteur électrique
pour le chauffage et la réfrigération - Partie 4: Exigences

Luftkonditionierer, Flüssigkeitskühlsätze und
Wärmepumpen mit elektrisch angetriebenen Verdichtern
für die Raumheizung und -kühlung - Teil 4: Anforderungen

This European Standard was approved by CEN on 30 April 2004.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 14511-4:2004) has been prepared by Technical Committee CEN/TC 113 “Heat pumps and air conditioners”, 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 November 2004, and conflicting national standards shall be withdrawn at the latest by November 2004.

This document supersedes EN 255-4:1997, EN 814-3:1997 and partially EN 12055:1998.

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(s).

For relationship with EU Directive(s), see informative annex ZA, which is an integral part of this document.

This standard consists of the following parts:

- Part 1: Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Part 1: Terms and definitions.
- Part 2: Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Part 2: Test conditions.
- Part 3: Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Part 3: Test methods.
- Part 4: Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling - Part 4: Requirements.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This part of EN 14511 specifies minimum requirements which ensure that air conditioners, heat pumps and liquid chilling packages with electrical driven compressor, are fit for the use designated by the manufacturer when used for space heating and/or cooling.

This European Standard applies to factory-made units that can be ducted.

This standard applies to factory-made liquid chilling packages with integral condensers or for use with remote condensers.

This standard applies 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 standard, except water cooled multisplit systems.

In the case of units consisting of several parts, the standard applies only to those designed and supplied as a complete package, except for liquid chilling packages with remote condenser.

This standard is primarily intended for water and brine chilling packages but can be used for cooling any other liquid subject to agreement.

This standard applies to air-to-air air conditioners which evaporate the condensate on the condenser side.

The units having their condenser cooled by air and by the evaporation of external additional water are not covered by this standard.

This standard does not apply to units using transcritical cycles, e.g. with CO₂ as refrigerant.

Installations used for heating and/or cooling of industrial processes are not within the scope of this standard.

NOTE Part load testing of units is dealt with in CEN/TS 14825.

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 14511-1:2004, *Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling – Part 1: Terms and definitions*

EN 14511-2:2004, *Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling – Part 2: Test conditions.*

EN 14511-3:2004, *Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling – Part 3: Test methods.*

EN 60204-1, *Safety of machinery – Electrical equipment of machines – Part 1: General requirements (IEC 60204-1:1997).*

EN 60335-2-40, *Household and similar electrical appliances – Safety – Part 2-40: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers (IEC 60335-2-40, modified).*