INTERNATIONAL STANDARD

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Non-ducted air conditioners and heat pumps — Testing and rating for performance

Climatiseurs et pompes à chaleur non raccordés — Essais et détermination des caractéristiques de performance

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 5151 was prepared by Technical Committee ISO/TC 86, *Refrigeration and air-conditioning*, Subcommittee SC 6, *Testing and rating of air-conditioners and heat pumps*.

This second edition cancels and replaces the first edition (ISO 5151:1994), which has been technically revised.

Non-ducted air conditioners and heat pumps — Testing and rating for performance

1 Scope

This International Standard specifies the standard conditions for capacity and efficiency ratings of non-ducted air-cooled air conditioners and non-ducted air to air heat pumps. This International Standard is applicable to ducted units rated at less than 8 kW and intended to operate at an external static pressure of less than 25 Pa. This International Standard also specifies the test methods for determining the capacity and efficiency ratings.

Residential, commercial and industrial single-package and split-system air conditioners and heat pumps are included. The equipment (taken to mean non-ducted air conditioners or non-ducted heat pumps, as well as ducted air conditioners and/or ducted heat pumps, rated at less than 8 kW and intended to operate at external static pressures of less than 25 Pa) shall be factory-made, electrically driven and use mechanical compression. This International Standard is applicable to equipment utilizing one or more refrigeration systems, one outdoor unit and one or more indoor units, controlled by a single thermostat/controller. It is applicable to equipment utilizing single, multiple and variable capacity components.

This International Standard is not applicable to the rating and testing of the following:

a) water-source heat pumps or water cooled air conditioners;

b) multi-split-system air conditioners and air-to-air heat pumps (see ISO 15042 for the testing of such equipment);

c) mobile (windowless) units having a condenser exhaust duct;

d) individual assemblies not constituting a complete refrigeration system;

e) equipment using the absorption refrigeration cycle;

f) ducted equipment except for those specified in this clause (see ISO 13253 for the testing of such equipment).

This International Standard does not cover the determination of seasonal efficiencies which can be required in some countries because they provide a better indication of efficiency under actual operating conditions.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 817, *Refrigerants — Designation system*