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**Ducted air-conditioners and air-to-air heat  
pumps — Testing and rating for  
performance**

*Climatiseurs et pompes à chaleur air/air 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 13253 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 13253:1995), which has been technically revised.



# Ducted air-conditioners and air-to-air heat pumps — Testing and rating for performance

## 1 Scope

This International Standard specifies the standard conditions for capacity and efficiency ratings of ducted, air-cooled air-conditioners and ducted air-to-air heat pumps. This International Standard is applicable to 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 ducted air-conditioners and/or ducted heat pumps) shall be factory-made and electrically driven, and shall 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. This International Standard 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 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) non-ducted equipment (see ISO 5151 for testing of such equipment).

This International Standard does not cover the determination of seasonal efficiencies that 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/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

ISO 817, *Refrigerants — Designation and safety classification*

ISO 5151, *Non-ducted air conditioners and heat pumps — Testing and rating for performance*