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**Ships and marine technology —  
Air-conditioning and ventilation of  
accommodation spaces — Design  
conditions and basis of calculations**

*Navires et technologie maritime — Conditionnement d'air et ventilation des  
emménagements — Conditions de conception et bases de calcul*



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Printed in Switzerland

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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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7547 was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 3, *Piping and machinery*.

This second edition cancels and replaces the first edition (ISO 7547:1985), which has been technically revised.

Annexes A and B of this International Standard are for information only.

# Ships and marine technology — Air-conditioning and ventilation of accommodation spaces — Design conditions and basis of calculations

## 1 Scope

This International Standard specifies design conditions and methods of calculation for air-conditioning and ventilation of accommodation spaces and the radio cabin on board seagoing merchant ships for all conditions except those encountered in extremely cold or hot climates (i.e. with lower or higher conditions than those stated in 4.2 and 4.3).

Annex A provides guidance and details of good practice in the design of ventilation and air-conditioning systems in ships.

Annex B gives the thermal conductivities of commonly used construction materials.

Users of this International Standard should note that, while observing the requirements of this International Standard, they should at the same time ensure compliance with statutory requirements, rules and regulations as may be applicable to the individual ship concerned.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 31-4:1992, *Quantities and units — Part 4: Heat*

ISO 3258:1976, *Air distribution and air diffusion — Vocabulary*

## 3 Terms and definitions

For the purposes of this International Standard, the definitions given in ISO 31-4, ISO 3258 and the following apply.

### 3.1

#### **accommodation**

space used as public rooms, cabins, offices, hospitals, cinemas, games and hobby rooms, hairdressing saloons and pantries without cooking appliances

### 3.2

#### **air-conditioning**

form of air treatment whereby temperature, humidity, ventilation and air cleanliness are all controlled within limits prescribed for the enclosure to be air-conditioned