
**Energy performance of buildings —
Overall energy performance
assessment procedures —**

**Part 2:
Guideline for using indoor
environmental input parameters for
the design and assessment of energy
performance of buildings**

*Performance énergétique des bâtiments — Modes opératoires
d'évaluation de la performance énergétique globale —*

*Partie 2: Lignes directrices pour l'utilisation des paramètres d'entrée
de l'environnement intérieur pour la conception et l'évaluation de la
performance énergétique des bâtiments*

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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Introduction

This document provides guidance to users in the application of ISO 17772-1 and gives additional background information. This document also describes and recommends additional topics related to the evaluation of the indoor environmental quality and new possibilities to improve the indoor environmental quality and reduce energy use of buildings like personalized systems, air cleaning technologies, consideration of adapted persons, etc.

This document explains how design criteria can be established and used for dimensioning of systems. It explains how to establish and define the main parameters to be used as input for building energy calculation and long-term evaluation of the indoor environment. This document also describes how gas phase air cleaning in the future can improve the indoor air quality and partly substitute for outside air. Finally, it identifies parameters to be used for monitoring and displaying of the indoor environment. Different categories of criteria can be used depending on type of building, type of occupants, type of climate and national differences. This document explains how these different categories of indoor environment can be individually selected as national criteria, be used in project agreement for design criteria and for displaying the yearly building performance in relation to indoor environmental quality. The designer can also define other categories using the principles from ISO 17772-1 and this document.

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Energy performance of buildings — Overall energy performance assessment procedures —

Part 2:

Guideline for using indoor environmental input parameters for the design and assessment of energy performance of buildings

1 Scope

This document deals with the indoor environmental parameters for thermal environment, indoor air quality, lighting and acoustic. It explains how to use ISO 17772-1 for specifying indoor environmental input parameters for building system design and energy performance calculations.

This document:

- specifies methods for long-term evaluation of the indoor environment obtained as a result of calculations or measurements;
- specifies criteria for measurements which can be used if required to measure compliance by inspection;
- identifies parameters to be used by monitoring and displaying the indoor environment in existing buildings.

This document is applicable where the criteria for indoor environment are set by human occupancy and where the production or process does not have a major impact on indoor environment. It explains how different categories of criteria for the indoor environment can be used.

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.

ISO 13731, *Ergonomics of the thermal environment — Vocabulary and symbols*

ISO 17772-1, *Energy performance of buildings — Indoor environmental quality — Part 1: Indoor environmental input parameters for the design and assessment of energy performance of buildings*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13731 and ISO 17772-1 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 <https://www.iso.org/obp>