SLOVENSKI STANDARD
SIST EN ISO 15927-2:2009

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Higrotermalne značilnosti stavb - Izračun in predstavitev podnebnih podatkov - 2. del: Urni podatki za določanje hladilnih obremenitev (ISO 15927-2:2009)

Hygrothermal performance of buildings - Calculation and presentation of climatic data - Part 2: Hourly data for design cooling load (ISO 15927-2:2009)

Wärme- und feuchteschutztechnisches Verhalten von Gebäuden - Berechnung und Darstellung von Klimadaten - Teil 2: Stundendaten zur Bestimmung der Kühllast (ISO 15927-2:2009)

Performance hygrothermique des bâtiments - Calcul et présentation des données climatiques - Partie 2: Données horaires pour la charge de refroidissement de conception (ISO 15927-2:2009)

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ICS:

07.060	Geologija. Meteorologija. Hidrologija	Geology. Meteorology. Hydrology
91.120.10	Toplotna izolacija stavb	Thermal insulation of buildings

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EUROPEAN STANDARD

NORME EUROPÉENNE

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English Version

Hygrothermal performance of buildings - Calculation and presentation of climatic data - Part 2: Hourly data for design cooling load (ISO 15927-2:2009)

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 15927-2:2009) has been prepared by Technical Committee CEN/TC 89 “Thermal performance of buildings and building components", the secretariat of which is held by SIS, in collaboration with Technical Committee ISO/TC 163 "Thermal performance and energy use in the built environment".

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of an identical text or by endorsement, at the latest by August 2009, and conflicting national standards shall be withdrawn at the latest by August 2009.

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INTERNATIONAL STANDARD

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Hygrothermal performance of buildings — Calculation and presentation of climatic data —

Part 2: Hourly data for design cooling load

Performance hygrothermique des bâtiments — Calcul et présentation des données climatiques —

Partie 2: Données horaires pour la charge de refroidissement de conception

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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.

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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.

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ISO 15927-2 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 89, *Thermal performance of buildings and building components*, in collaboration with Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 2, *Calculation methods*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 15927 consists of the following parts, under the general title *Hygrothermal performance of buildings — Calculation and presentation of climatic data*:

— *Part 1: Monthly means of single meteorological elements*

— *Part 2: Hourly data for design cooling load*

— *Part 3: Calculation of a driving rain index for vertical surfaces from hourly wind and rain data*

— *Part 4: Hourly data for assessing the annual energy use for heating and cooling*

— *Part 5: Data for design heat load for space heating*

— *Part 6: Accumulated temperature differences (degree-days)*

Introduction

The choice of design load for space cooling is a matter of balancing user needs against cost. On the one hand, users expect a cooling system to maintain the internal temperatures needed for health and comfort; on the other hand, very high cooling loads can arise from extreme meteorological conditions. It is usually uneconomic to design cooling systems for rare extremes, as this leads to high capital cost and, usually, to lower operational efficiency of the system. The highest cooling loads occur with a combination of high daily mean dry-bulb temperature and dewpoint temperature, high daily total irradiation, low daily swing in temperature and low wind speed. Data are therefore needed on the values of these parameters when they occur in combination at specific return periods.

