

**Fukt- och värmetekniska egenskaper hos
byggnader – Klimatdata –**

Del 4: Timbaserade data för att bestämma årlig
energianvändning för uppvärmning och kylning
(ISO 15927-4:2005)

**Hygrothermal performance of buildings –
Calculation and presentation of climatic data –**
Part 4: Hourly data for assessing the annual energy
use for heating and cooling (ISO 15927-4:2005)

Europastandarden EN ISO 15927-4:2005 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 15927-4:2005.

The European Standard EN ISO 15927-4:2005 has the status of a Swedish Standard. This document contains the official English version of EN ISO 15927-4:2005.

Standarden beskriver hur man tar fram lämpliga meteorologiska data för bestämning av genomsnittlig årlig energianvändning för uppvärmning och kylning av byggnader. Detta görs genom att man konstruerar ett referensår (reference year) sammansatt av ett antal månader från olika år, men utvalda så att varje månad så nära som möjligt överensstämmer med "medelmånaden" under en längre period av år. De klimatparametrar som ingår är: lufttemperatur, solstrålning, luftfuktighet och vindhastighet.

Meteorologiska instrument eller observationsmetoder ingår inte i standarden.

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(ISO 15927-4:2005)

Performance hygrothermique des bâtiments - Calcul et
présentation des données climatiques - Partie 4: Données
horaires pour l'évaluation du besoin énergétique annuel de
chauffage et de refroidissement (ISO 15927-4:2005)

Wärme- und feuchtetechnisches Verhalten von Gebäuden -
Berechnung und Darstellung von Klimadaten - Teil 4:
Stündliche Daten zur Abschätzung des
Jahresenergiebedarfs für Heiz- und Kühlsysteme (ISO
15927-4:2005)

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CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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EN ISO 15927-4:2005(E)

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Foreword

This document (EN ISO 15927-4:2005) 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 insulation".

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 January 2006, and conflicting national standards shall be withdrawn at the latest by January 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EN ISO 15927-4:2005(E)

Introduction

This standard covers the selection of appropriate meteorological data for the assessment of the long-term mean energy use for heating and cooling of buildings. Means of selecting data to assess the maximum heating demand are specified in ISO 15927-5.

Correct simulation of building performance depends not only on the appropriate mean values of the meteorological parameters, but also on the frequency distributions of individual parameters and the cross correlations between them. As these can be difficult to retain in the type of artificially constructed reference year discussed in this part of ISO 15927, the use of long periods (at least ten years but preferably more) of hourly meteorological data is preferred where possible. This also takes into account long spells of unusually warm or cold weather, lasting several months, which is eliminated in the construction of a reference year. In practice, however, long runs of hourly data containing all the necessary parameters are very expensive and can be difficult to obtain for many areas. There is, therefore, still a need for annual sets of data that can be used to represent the long-term mean performance of buildings. These can be generated once from long runs of expensive data and then distributed more cheaply.

This part of ISO 15927 specifies a method for the construction of a reference year from a longer meteorological record. Other methods are possible for constructing reference years for specific purposes, including those methods that are based on an analysis of general weather situations.