SLOVENSKI STANDARD
kSIST FprEN 14037-2:2015

01-december-2015

Prosto obešene grelne in hladilne površine za vodo s temperaturo do 120 °C - 2. del: Predizdelane stropne sevalne plošče za ogrevanje prostora - Preskusna metoda za določitev toplotne moči

Free hanging heating and cooling surfaces for water with a temperature below 120°C - Part 2: Pre-fabricated ceiling mounted radiant panels for space heating - Test method for thermal output

An der Decke frei abgehängte Heiz- und Kühlflächen für Wasser mit einer Temperatur unter 120 °C - Teil 2: Vorgefertigte Deckenstrahlplatten zur Raumheizung - Prüfverfahren für die Wärmeleistung

Panneaux rayonnants de chauffage et de rafraîchissement alimentés avec une eau à une température inférieure à 120 °C - Partie 2 : Méthode d'essai pour la détermination de la puissance thermique des panneaux rayonnants de plafond préfabriqués destinés au chauffage des locaux

Ta slovenski standard je istoveten z: **FprEN 14037-2**

ICS:

91.140.10	Sistemi centralnega ogrevanja	Central heating systems

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EUROPEAN STANDARD

NORME EUROPÉENNE

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FINAL DRAFT
FprEN 14037-2

September 2015

ICS 91.140.10

Will supersede EN 14037-2:2003

English Version

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This draft European Standard is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 130.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (FprEN 14037-2:2015) has been prepared by Technical Committee CEN/TC 130 “Space heating appliances without integral heat sources”, the secretariat of which is held by UNI.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 14037-2:2003.

The main changes are:

— the title has been changed,

— the introduction has been changed,

— the scope has been changed,

— a new Master panel 2 has been added,

— Clause 9 “Test Report” has been reworked.

The European Standard EN 14037, *Free hanging heating and cooling surfaces for water with a temperature below 120°C*, consists of the following parts:

— *Part 1: Pre-fabricated ceiling mounted radiant panels for space heating - Technical specifications and requirements;*

— *Part 2: Pre-fabricated ceiling mounted radiant panels for space heating - Test method for thermal output;*

— *Part 3: Pre-fabricated ceiling mounted radiant panels for space heating - Rating method and evaluation of radiant thermal output;*

— *Part 4: Pre-fabricated ceiling mounted radiant panels for space heating - Test method for cooling capacity;*

— *Part 5: Open or closed heated ceiling surfaces - Test method for thermal output.*

Introduction

This European Standard results from the recognition, that heated and chilled ceiling radiant panels falling into the field of application hereinafter stated are traded on the basis of their thermal output. For evaluating and comparing different heated and chilled ceiling surfaces it is therefore necessary to refer to a heating stipulated value.

As installations with ceiling mounted radiant panels can also be used in practice for space cooling, it is necessary to have a test method for evaluating the cooling capacity. Installations with different free hanging heating and cooling surfaces need, for the use of space heating a test method for evaluating the heating output. The test method differs from the method for ceiling mounted radiant panels.

1 Scope

This European Standard describes the test method and the test installation for determining the thermal output of pre-fabricated ceiling mounted radiant panels according to the specifications of FprEN 14037-1:2015, 3.3.1.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

FprEN 14037-1:2015: *Prefabricated ceiling mounted radiant panels for space heating - Technical specifications and requirements*

FprEN 14037-3:2015, *Prefabricated ceiling mounted radiant panels for space heating - Rating method and evaluation of radiant thermal output*

EN ISO/IEC 17025:2005, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in FprEN 14037-1:2015 apply.

4 Testing of thermal output

The test is carried out in a testing system, which consists of a closed booth with controlled temperatures of the inside surfaces plus a set of two master panels built according to Clause 6.

The method for measuring the thermal output consists of the measurement of mass flow and enthalpy difference between inlet and outlet (by weighing method). Other measurement methods shall guarantee in minimum the precision obtained by weighing method.

All laboratories that make tests according this standard have to make comparable measurements with the other laboratories (according to Clause 6 of this standard).

5 Test booth

5.1 General

The booth for testing ceiling mounted radiant panels shall be constructed in a way that all six surrounding surfaces can be chilled.

Figure 1 shows the schematic lay-out of a test booth with a six-wall cooling. The walls are defined as follows:

— Wall 1: the wall parallel to the inlet header;

— Wall 2: the wall to the right of wall 1;

— Wall 3: the wall opposite of wall 1;

— Wall 4: the wall to the left of wall 1;