

Voľne visiace vykurovacie a chladiace povrchy s prietokom vody s teplotou do 120 °C. Časť 5: Otvorené alebo uzatvorené vyhrievané stropné povrchy. Skúšobné metódy hodnotenia tepelného výkonu.

STN EN 14037-5

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Free hanging heating and cooling surfaces for water with a temperature below 120C - Part 5: Open or closed heated ceiling surfaces - Test method for thermal output

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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#### **English Version**

# Free hanging heating and cooling surfaces for water with a temperature below 120°C - Part 5: Open or closed heated ceiling surfaces - Test method for thermal output

Panneaux rayonnants de chauffage et de rafraîchissement alimentés avec une eau à une température inférieure à 120 °C - Partie 5 : Méthode d'essai pour la détermination de la puissance thermique des surfaces de plafond de chauffage ouverts ou fermés

An der Decke frei abgehängte Heiz- und Kühlflächen für Wasser mit einer Temperatur unter 120 °C - Teil 5: Prüfverfahren für die Wärmeleistung von offenen oder geschlossenen Deckenheizflächen

This European Standard was approved by CEN on 18 March 2016.

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 CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Con	tents	Page
Euro	pean foreword	3
Intro	oduction	4
1	Scope	5
2	Normative references	5
3	Terms and definitions	
4	Symbols and units	6
5	Testing of thermal output	7
6	Test methods	9
7	Carrying out the measurement	9
7.1	General	
7.2	Test design	9
7.3	Connection of the test sample to the measuring circuit	
7.4	Mass flow	
7.5	Test temperature	
7.6	Reference room temperature	
7.7	Steady-state conditions	
7.8 7.9	Heat output	
7.9 7.10	Result of measurement - characteristic equationStandard output	
7.10 7.11	Interpolation of values of the thermal output	
	Upper insulation	
8	••	
9	Test report	
9.1	General	
9.2	Data	11
10	Examples for the determination of the active length of different ceiling mounted he	ating
	surfaces	_
Anne	ex A (informative) Specimen of the test report for heating capacity	18
	ography	
	~~~ ~~~ ~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~	<b>4</b> 1

# **European foreword**

This document (EN 14037-5:2016) 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 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 March 2017, and conflicting national standards shall be withdrawn at the latest by March 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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

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

## 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 ceiling mounted heating surfaces according to the specifications 3.1, 3.2. and 3.3.

This part applies to determine thermal output when chilled ceilings according to EN 14240 are also used for heating.

NOTE Test results according to this part cannot be compared with results according EN 14037–2 because great discrepancies are given at open ceilings, convective components and heating surfaces without upper insulation.

#### 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.

EN 14037-1:2016, Pre-fabricated ceiling mounted radiant panels for space heating - Technical specifications and requirements

EN 14037-2:2016, Pre-fabricated ceiling mounted radiant panels for space heating - Test method for thermal output

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

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