Pumbad. Labapumbad. Märgmootoriga ringluspumbad. Osa 2: Autonoomsete ringluspumpade energiatõhususe indeksi (EEI) arvutamine

Pumps - Rotodynamic pumps - Glandless circulators - Part 2: Calculation of energy efficiency index (EEI) for standalone circulators

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN 16297-2

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ICS 23.080

English Version

Pumps - Rotodynamic pumps - Glandless circulators - Part 2: Calculation of energy efficiency index (EEI) for standalone circulators

Pompes - Pompes rotodynamiques - Circulateurs sans presse-étoupe - Partie 2: Calcul de l'indice d'efficacité énergétique (EEI) pour les circulateurs indépendants

Pumpen - Kreiselpumpen - Umwälzpumpen in Nassläuferbauart - Teil 2: Berechnung des Energieeffizienzindexes (EEI) von externen Umwälzpumpen

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Foreword

This document (EN 16297-2:2012) has been prepared by Technical Committee CEN/TC 197 “Pumps”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by April 2013, and conflicting national standards shall be withdrawn at the latest by April 2013.

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.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This document, together with EN 16297-1:2012, supersedes EN 1151-1:2006.

EN 16297 consists of the following parts under the general title *Pumps — Rotodynamic pumps —Glandless circulators*:

— Part 1: General requirements and procedures for testing and calculation of energy efficiency index (EEI);

— Part 2: Calculation of energy efficiency index (EEI) for standalone circulators;

— Part 3: Energy efficiency index (EEI) for circulators integrated in products.

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, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

The European Standard has been prepared under mandate M/469 EN of 22 June 2010 given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Requirements of the EU Directive 2005/32/EC of 6 July 2005 and Commission Regulation (EC) 641/2009 of 22 July 2009 by describing procedures for measurement and calculation of hydraulic power, power consumption, and energy efficiency index of circulators.

1 Scope

This European Standard specifies the procedure for calculating the energy efficiency index (EEI) of standalone circulators.

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 809:1998+A1 :2009, *Pumps and pump units for liquids – Common safety requirements*

EN 16297-1:2012, *Pumps – Rotodynamic pumps – Glandless circulators – Part 1: General requirements and procedures for testing and calculation of energy efficiency index (EEI)*

EN 60335-2-51:2003, *Household and similar electrical appliances – Safety – Part 2-51: Particular requirements for stationary circulation pumps for heating and service water installations*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in EN 16297-1:2012 and the following apply.

3.1
standalone circulator
circulator designed to operate independently from a product that generates and/or transfers heat

Note 1 to entry For the purpose of this document, the term **circulator** is used in the following in place of **standalone circulator**.

3. 2
differential pressure controlled circulator
circulator adapting in time the differential pressure to the demand by varying the speed

4 Symbols and units

For the purpose of this document, the symbols, quantities and units given in Table 1 of EN 16297-1:2012 apply.

5 Performance requirements and safety requirements

The requirements of EN 16297-1, EN 809 and EN 60335-2-51 apply.

6 Calculation of energy efficiency index (EEI)

6.1 General conditions

Standalone circulators with pump housing shall be measured as a complete unit.

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