

EUROPEAN STANDARD

**EN 17038-1:2019/AC**

NORME EUROPÉENNE

October 2021

EUROPÄISCHE NORM

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ICS 23.080

English version

Pumps - Methods of qualification and verification of the Energy Efficiency Index for rotodynamic pump units - Part 1: General requirements and procedures for testing and calculation of Energy Efficiency Index (EEI)

Pompes - Méthodes de qualification et de vérification de l'indice de rendement énergétique des groupes motopompes rotodynamiques - Partie 1 : Exigences générales et procédures d'essai et de calcul de l'indice de rendement énergétique (EEI)

Pumpen - Methoden zur Qualifikation und Verifikation des Energieeffizienzindexes für Kreiselpumpen - Teil 1: Allgemeine Anforderungen und Vorgehensweisen zur Prüfung und Berechnung des Energieeffizienzindexes (EEI)

This corrigendum becomes effective on 13 October 2021 for incorporation in the official English version of the EN.



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

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## 1 Modification to Annex A

*In Annex A, text after Figure A.3, 2<sup>nd</sup> paragraph, add at the end of the main sentence "the smaller" to read:.*

"Generally, the width of the confidence interval is the smaller:

- the smaller the performance scatter within the pump unit type population is (what requires good manufacturing quality, small manufacturing tolerances).

In the case of sample tests the width of the confidence interval is the smaller:

- the smaller the measurement uncertainties of the tests on the sample pump units are (this requires high accuracy of measuring equipment and small random errors, Annex D),
- the larger the number  $M$  of tested sample pump units is, see Annex B.

In case the semi-analytical models are applied, the confidence interval is smaller:

- the smaller the model errors of the applied models are (what depends on the type of the models, see specific parts of this standard).

Two possibilities to determine – based on tests as described in the subsequent parts of this standard on sample pump units - the confidence interval of the mean *EEI*-value for a pump unit type are described in detail in Annex B.".

## 2 Modification to C.2

*Replace the sentence before Formula (C.3) and Formula (C.3) with the following:*

"Formula (C.3) can be written as:

$$p(Z) = \frac{1}{\sqrt{2\pi}} \cdot \exp\left(-\frac{Z^2}{2}\right) \quad (\text{C.3})$$

".