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**Črpalke - Metode za kvalifikacijo in verifikacijo indeksa energijske učinkovitosti centrifugalnih črpalk - 2. del: Preskušanje in računanje indeksa energijske učinkovitosti (IEE) enodelnih črpalk**

Pumps - Methods of qualification and verification of the Energy Efficiency Index for rotodynamic pump units - Part 2: Testing and calculation of Energy Efficiency Index (EEI) of single pump units

Pumpen - Methoden zur Qualifikation und Verifikation des Energieeffizienzindex für Kreiselpumpen - Teil 2: Prüfung und Berechnung des Energieeffizienzindex (EEI) einzelner Pumpenaggregate

Pompes - Méthodes de qualification et de vérification de l'indice de rendement énergétique des groupes motopompes rotodynamiques - Partie 2 : Essais et calcul de l'indice de rendement énergétique (EEI) des groupes motopompes simples

**Ta slovenski standard je istoveten z: EN 17038-2:2019/AC:2021**

**ICS:**

23.080	Črpalke	Pumps
27.015	Energijska učinkovitost. Ohranjanje energije na splošno	Energy efficiency. Energy conservation in general

**SIST EN 17038-2:2019/AC:2021****en,fr,de**

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EUROPEAN STANDARD

EN 17038-2:2019/AC

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EUROPÄISCHE NORM

ICS 23.080

English version

Pumps - Methods of qualification and verification of the Energy Efficiency Index for rotodynamic pump units - Part 2: Testing and calculation of Energy Efficiency Index (EEI) of single pump units

Pompes - Méthodes de qualification et de vérification de l'indice de rendement énergétique des groupes motopompes rotodynamiques - Partie 2 : Essais et calcul de l'indice de rendement énergétique (EEI) des groupes motopompes simples

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

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

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Ref. No.: EN 17038-2:2019/AC:2021 E

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## 1 Changes related to EN 17038-2:2019/AC:2020 (00197C15)

### 1.1 Modification to 5.2.3, Determination of part load and over load points and reference control curve

*Format the line "Determination of part load and over load points and reference control curve" as heading 5.2.3.*

### 1.2 Modification to 6.3.4, Determination of $Q_{100\%}$ from $Q_{BEP}$

*In 1), replace "Formula 6.23" with "Formula (23)".*

### 1.3 Modification to 6.3.5, Determination of the $P_{1,avg,c}$ -value

*In 5), replace "Formula (10)" with "Formula (4)".*

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EN 17152-1:2019/AC:2021 (E)

## 2 Changes related to EN 17038-2:2019/AC:2021 (00197C17)

### 2.1 Modification to 5.2.3, Determination of part load and over load points and reference control curve

In Formula (3), the quotient in brackets shall be multiplied by " $H_{100\%}$ " instead of " $Q_{100\%}$ ".

I.e. replace Formula (3): "

$$H_i = \left( \frac{H}{100} \right)_i \cdot Q_{100\%} \quad (3)$$

" with: "

$$H_i = \left( \frac{H}{100} \right)_i \cdot H_{100\%} \quad (3)$$

".

### 2.2 Modification to 6.2, The semi-analytical model of the pump

In Formula (13), – the exponent shall be „-0,15“.

I.e. replace Formula (13): "

$$D_{imp}^2 \cdot \frac{n}{60} < 1 \Rightarrow k_{corr} = \left( \frac{n}{n_{N,PU}} \right)^{0,15} \quad (13)$$

" with: "

$$D_{imp}^2 \cdot \frac{n}{60} < 1 \Rightarrow k_{corr} = \left( \frac{n}{n_{N,PU}} \right)^{-0,15} \quad (13)$$

".

### 2.3 Modification to 6.4.2, The model of the Power Drive System (PDS)

In Formula (33):

— at the beginning of the formula, replace " $p_{l,PDS(100;100)}$ " with " $p_{L,PDS(100;100)}$ ";

— at the end of the formula, replace the index to read " $-2 p_{L,PDS(50;25)}$ ".

I.e. replace Formula (33): "

$$B_n = -p_{l,PDS(100;100)} + 3 \cdot p_{L,PDS(100;50)} - 2 \cdot p_{L,PDS(100;25)} \quad (33)$$

" with: "

$$B_n = -p_{L,PDS(100;100)} + 3 \cdot p_{L,PDS(100;50)} - 2 \cdot p_{L,PDS(50;25)} \quad (33)$$

".

## 2.4 Modification of B.2.1, Additional supporting points at $Q/Q_{BEP} = 0,25$

In Formula (B.9): "

$$\left(\frac{P}{P_{BEP}}\right)_{q=0,25} = \frac{0,0962 \cdot (\lambda_{PL}^*)^3 - 0,0727 \cdot (\lambda_{PL}^*)^2 + 0,6651 \cdot \lambda_{PL}^* + 0,0085}{0,937 \cdot (\lambda_{BEP}^*)^2 + 0,7468 \cdot \lambda_{BEP}^* + 0,02} \cdot \frac{\lambda_{PL}^*}{\lambda_{BEP}^*}$$

replace "+ 0,0085" with "- 0,0085" and "0,937" with "0,0937", to read the following formula: "

$$\left(\frac{P}{P_{BEP}}\right)_{q=0,25} = \frac{0,0962 \cdot (\lambda_{PL}^*)^3 - 0,0727 \cdot (\lambda_{PL}^*)^2 + 0,6651 \cdot \lambda_{PL}^* - 0,0085}{0,0937 \cdot (\lambda_{BEP}^*)^2 + 0,7468 \cdot \lambda_{BEP}^* + 0,02} \cdot \frac{\lambda_{PL}^*}{\lambda_{BEP}^*}$$

".

I.e. replace Formula (B.9): "

$$\left(\frac{P}{P_{BEP}}\right)_{q=0,25} = \frac{0,0962 \cdot (\lambda_{PL}^*)^3 - 0,0727 \cdot (\lambda_{PL}^*)^2 + 0,6651 \cdot \lambda_{PL}^* + 0,0085}{0,937 \cdot (\lambda_{BEP}^*)^2 + 0,7468 \cdot \lambda_{BEP}^* + 0,02} \cdot \frac{\lambda_{PL}^*}{\lambda_{BEP}^*} \quad (B.9)$$

" with: "

$$\left(\frac{P}{P_{BEP}}\right)_{q=0,25} = \frac{0,0962 \cdot (\lambda_{PL}^*)^3 - 0,0727 \cdot (\lambda_{PL}^*)^2 + 0,6651 \cdot \lambda_{PL}^* - 0,0085}{0,0937 \cdot (\lambda_{BEP}^*)^2 + 0,7468 \cdot \lambda_{BEP}^* + 0,02} \cdot \frac{\lambda_{PL}^*}{\lambda_{BEP}^*} \quad (B.9)$$

".

And "0,0937" in the nominator shall also appear in Formula (B.8).

I.e. replace Formula (B.8): "

$$\left(\frac{P}{P_{BEP}}\right)_{q=0,25} = \frac{0,2699 \cdot (\lambda_{PL}^*)^2 - 0,4442 \cdot \lambda_{PL}^* + 0,021}{0,937 \cdot (\lambda_{BEP}^*)^2 + 0,7468 \cdot \lambda_{BEP}^* + 0,02} \cdot \frac{\lambda_{PL}^*}{\lambda_{BEP}^*} \quad (B.8)$$

" with: "

$$\left(\frac{P}{P_{BEP}}\right)_{q=0,25} = \frac{0,2699 \cdot (\lambda_{PL}^*)^2 - 0,4442 \cdot \lambda_{PL}^* + 0,021}{0,0937 \cdot (\lambda_{BEP}^*)^2 + 0,7468 \cdot \lambda_{BEP}^* + 0,02} \cdot \frac{\lambda_{PL}^*}{\lambda_{BEP}^*} \quad (B.8)$$

".