



SLOVENSKI STANDARD
SIST EN 50600-4-2:2017/oprAA:2018
01-oktober-2018

**Informacijska tehnologija - Naprave in infrastruktura podatkovnih centrov - 4-2.
del: Učinkovitost porabe energije - Dopolnilo AA**

Information technology - Data centre facilities and infrastructures - Part 4-2: Power Usage Effectiveness

Informationstechnik - Einrichtungen und Infrastrukturen von Rechenzentren - Teil 4-2: Kennzahl zur eingesetzten Energie

Technologie de l'information - Installation et infrastructures de centres de traitement de données - Partie 4-2 : Efficacité de l'utilisation de l'énergie

Ta slovenski standard je istoveten z: EN 50600-4-2:2016/prAA:2018

ICS:

35.110 Omreževanje Networking

SIST EN 50600-4-2:2017/oprAA:2018 en,fr

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 50600-4-2:2016

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August 2018

ICS 35.020; 35.110; 35.160

English Version

Information technology - Data centre facilities and infrastructures - Part 4-2: Power Usage Effectiveness

Technologie de l'information - Installation et infrastructures
de centres de traitement de données - Partie 4-2 : Efficacité
de l'utilisation de l'énergie

Informationstechnik - Einrichtungen und Infrastrukturen von
Rechenzentren - Teil 4-2: Kennzahl zur eingesetzten
Energie

This draft amendment prAA, if approved, will modify the European Standard EN 50600-4-2:2016; it is submitted to CENELEC members for enquiry.

Deadline for CENELEC: 2018-11-02.

It has been drawn up by CLC/TC 215.

If this draft becomes an amendment, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

This draft amendment was established by CENELEC in three official versions (English, French, German).

A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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EN 50600-4-2:2016/prAA:2018 (E)

1 **Contents**

2 **European foreword**.....3

3 **1 Modification to the Introduction**4

4 **2 Modification to 5.2, Total data centre energy consumption**4

5 **3 Modification to 6.2.3, Category 2 (PUE2) – intermediate resolution**5

6 **4 Modification to Annex B, Calculation of PUE using various energy supplies**.....5

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iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50600-4-2:2017/A1:2019](https://standards.iteh.ai/catalog/standards/sist/ff685335-e09f-4eeb-aa0b-390c01833959/sist-en-50600-4-2-2017-a1-2019)

<https://standards.iteh.ai/catalog/standards/sist/ff685335-e09f-4eeb-aa0b-390c01833959/sist-en-50600-4-2-2017-a1-2019>

8 European foreword

9 This document (EN 50600-4-2:2016/prAA:2018) has been prepared by CLC/TC 215 “Electrotechnical
10 aspects of telecommunication equipment”.

11 This document is currently submitted to the Enquiry.

12 The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

13 This document updates subclauses 5.2 and 6.2.3 and Annex B.

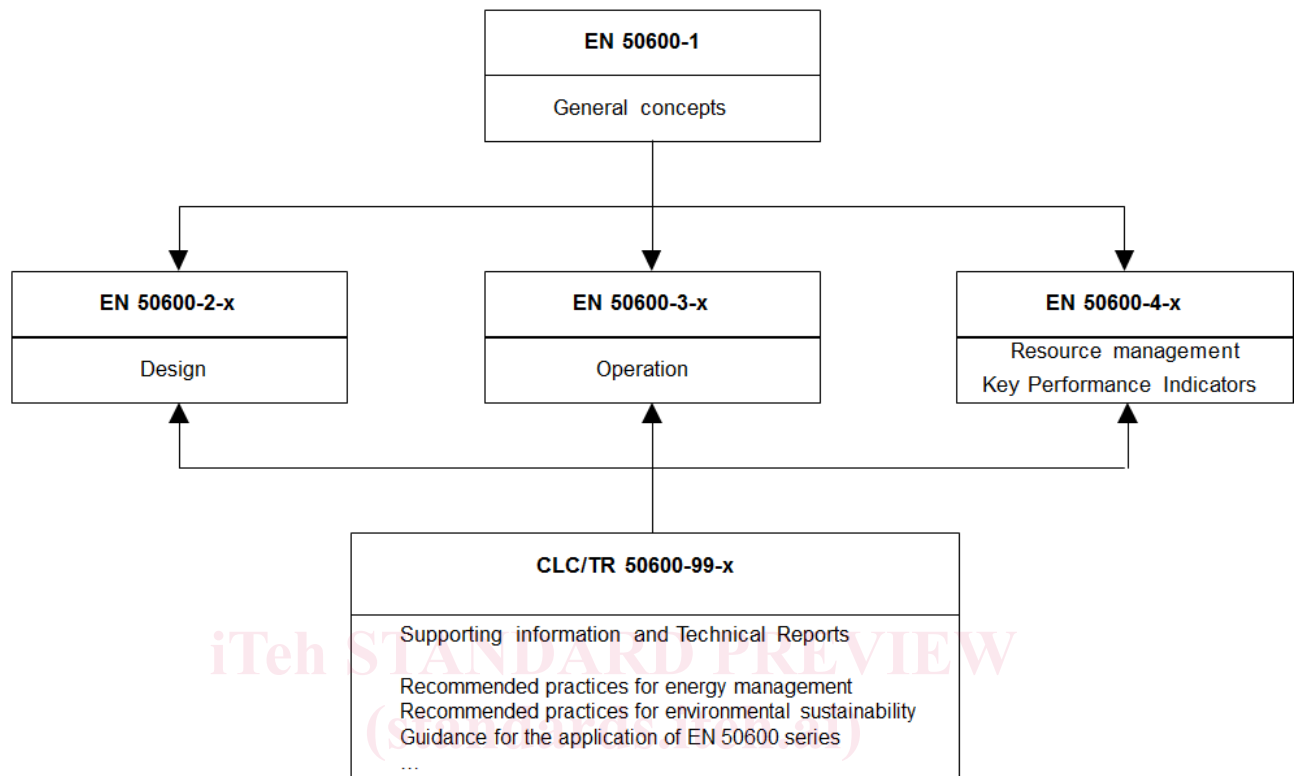
14 This document has been prepared under a mandate given to CENELEC by the European Commission and
15 the European Free Trade Association.

Note of the Secretariat:

As decided by TC 215, this draft re-aligns EN 50600-4-2: 2016 with ISO/IEC 30134-2:2016, Amendment 1. Where appropriate, new text has been underlined to identify the changes to EN 50600-4-2:2016.

<https://standards.iteh.ai/catalog/standards/sist/ff685335-e09f-4eeb-aa0b-390c01833959/sist-en-50600-4-2-2017-a1-2019>

EN 50600-4-2:2016/prAA:2018 (E)

16 **1 Modification to the Introduction**17 **Replace Figure 1 with:**

18

19 <https://standards.globalspec.com/stdn/ISO-TC-59/sist-en-50600-4-2-2017-a1-2019> **Figure 1 — Schematic relationship between EN 50600 series of standards**20 **2 Modification to 5.2, Total data centre energy consumption**21 **Replace paragraphs 5 to 7 with:**

22 Gaseous or liquid fuels shall be metered in kWh or converted into kWh using the heat of combustion values
 23 for the fuel used. Where information on combustion values is not available and no local regulation applies,
 24 the following values shall be applied:

- diesel: 9,9 kWh/l;
- gas: 10,5 kWh/m³;
- hydrogen: 38,9 kWh/kg;
- bioethanol: 6 kWh/l.

25 The energy contribution of fluids for cooling shall be measured using heat meters (providing information on
 26 flow rate and differential temperature) and multiplied by the relevant conversion factor X of the system used
 27 to provide the fluid used.

28 For the conversion of thermal energy to its electrical equivalent, the conversion factor X shall be obtained
 29 from the supplier; in case there is no equivalent available, a conversion factor X = 0,4 shall be used.

30 Technical subsystems, e.g. on-site co-generation of heat and electricity, shall have meters at their output
 31 and are considered external to the system.

32 3 Modification to 6.2.3, Category 2 (PUE2) – intermediate resolution

33 *Replace the subclause with:*

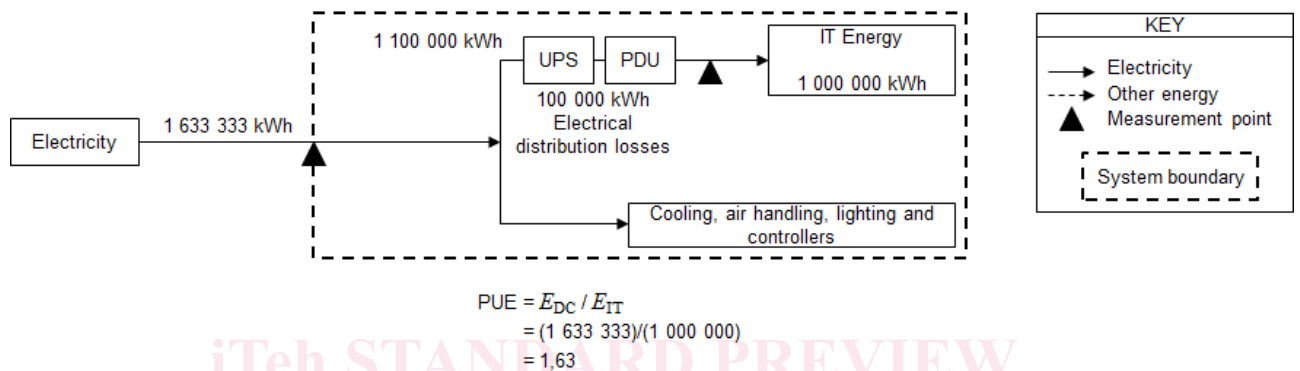
34 The IT load is measured at the output of the PDUs within the data centre and is typically read from a meter
35 on the PDU output (with or without transformer, the measurement point is then after the transformer).

36 4 Modification to Annex B, Calculation of PUE using various energy supplies

37 *Replace Annex B with:*

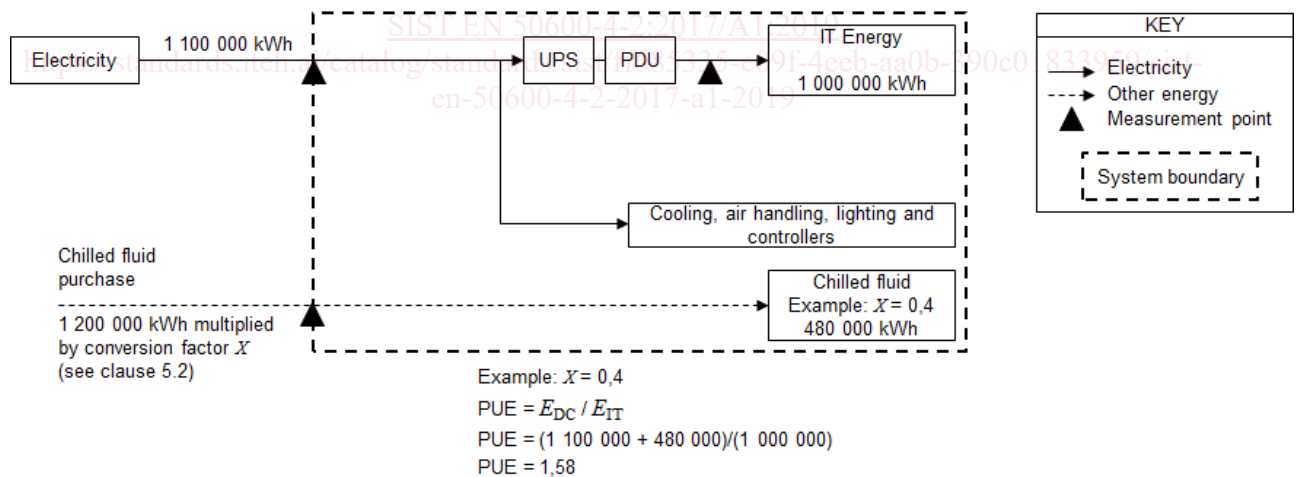
38 B.1 Examples of PUE calculation with various energy supplies

39 Figures B.1 to B.4 show examples of PUE calculation with various energy supplies.



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41 **Figure B.1 — Example for a data centre purchasing all electricity**



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43 **Figure B.2 — Example for a data centre purchasing electricity and chilled water**