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| STN | Práčky bielizne používané v domácnostiach Metódy merania funkčných vlastností Zmena A12 | STN EN 60456/A12 36 1060 |
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Clothes washing machines for household use - Methods for measuring the performance

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/23

STN EN 60456 z októbra 2016 sa bez tejto zmeny A12 môže používať do 27. 10. 2026.

Obsahuje: EN 60456:2016/A12:2023

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EUROPEAN STANDARD

EN 60456:2016/A12

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2023

ICS 97.060

English Version

Clothes washing machines for household use - Methods of measuring the performance

Machines à laver le linge pour usage domestique -
Méthodes de mesure de l'aptitude à la fonction

Waschmaschinen für den Hausgebrauch - Verfahren zur
Messung der Gebrauchseigenschaften

This amendment A12 modifies the European Standard EN 60456:2016; it was approved by CENELEC on 2023-06-29. 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.

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 CENELEC member.

This amendment exists 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.

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

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European foreword

This document (EN 60456:2016/A12:2023) has been prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2024-04-27
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2026-10-27

This document introduces the following technical modifications:

- a) The **programme** to be tested for the **combined test series** is the new introduced **eco 40-60 programme**. This **programme** needs to be tested with default settings with the given temperature.
- b) The **test loads** that have to be used for testing are full, half and quarter of the **rated capacity** of the **washing machine**. Therefore, a new **quarter load** is introduced and defined to be approximately a quarter of the **rated capacity** (see Table ZA.15). The **quarter load** is treated as a separate load and not created by dividing **full load** or **half load**.
- c) The number of **test runs** per **treatment** for the **combined test series** changed to 3 tests with **full load**, 4 tests with **half load** and 3 tests with **quarter load**.
- d) The time between two subsequent **test runs** within one day changed from 2 h to one hour.
- e) The normalization run is included in the calculation of the load age. The maximum number of usages for **base load** with a load mass greater or equal to 4.5 kg was changed to be between 35 and 60 normalization runs and test runs and the maximum number of usages for **base load** with a load mass less than 4.5 kg was changed to be between 30 and 67 normalization runs and test runs.
- f) Annex ZE is integrated, which defines the test procedure for temperature inside the load.
- g) Annex ZF is integrated, which defines the test procedure for rinsing effectiveness.
- h) The procedure to measure low power modes is modified (see Annex ZD).
- i) Specific weighting factors are introduced for the calculation of the weighted average value of the **combined test series**.
- j) Annex ZB Tolerances and control procedures is deleted. Annex ZB is replaced by a new Annex ZB which defines the testing procedure for multi-drum **washing machines**.
- k) A new standard powder detergent IEC-P is introduced (see Annex B), that substitutes the standard powder detergent IEC-A* by replacing the bleach component sodium perborate with sodium percarbonate due to Commission Regulation (EU) 2020/171 amending Annex XIV to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). According to REACH Regulation Article 56, the substances which are listed in the Annex XIV cannot be used or placed on the market after the "sunset date", unless the authorization is granted. Sodium perborate has a sunset date of 27th of May 2023 after having been classified as toxic to reproduction.

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- l) The tolerances for the remaining moisture content in Table E.2 are adapted, due to change in the commercially available material.
- m) In normative clauses undated references were dated.

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

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annexes ZZA and ZZB, which are an integral part of this document.

Annex ZA sets out the procedure to be applied for testing according to Commission Regulations with regard to energy labelling and ecodesign and provides all necessary links to all relevant clauses of this document.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

1 Modification to Clause 2, “Normative references”

Add the following references:

EN 60704-2-4:2012,¹ *Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-4: Particular requirements for washing machines and spin extractors*

EN 50564:2011, *Electrical and electronic household and office equipment - Measurement of low power consumption*

EN 50643:2018,² *Electrical and electronic household and office equipment - Measurement of networked standby power consumption of edge equipment*

2 Modification to Clause 3, “Terms, definitions and symbols”

Add the following table before 3.1.1:

“

Table 3.1 — Reference table for terms in alphabetical order

| Term | subclause |
|--|------------------|
| automatic machine | 3.1.10 |
| base load | 3.1.18 |
| combined cycle time | 3.1.Z19 |
| combined programme time | 3.1.Z18 |
| combined rated capacity | 3.1.Z17 |
| combined test series | 3.1.Z10 |
| Cycle | 3.1.15 |
| cycle time | 3.1.25 |
| delay start | 3.1.Z22 |
| eco 40–60 | 3.1.Z24 |
| end of programme | 3.1.24 |
| full load | 3.1.Z1 |
| half load | 3.1.Z2 |
| horizontal axis washing machine | 3.1.8 |
| left on mode | 3.1.29 |
| main wash duration | 3.1.26 |
| manual washing machine | 3.1.9 |
| multi-drum mode | 3.1.Z14 |
| multi-drum washing machine | 3.1.Z13 |
| network | 3.1.Z21 |
| nominal test load mass | 3.1.21 |

¹ As amended by EN 60704-2-4:2012/A11:2020.

² As amended by EN 50643:2018/A1:2020.

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| Term | subclause |
|--------------------------------------|------------------|
| off-mode | 3.1.28 |
| operation | 3.1.13 |
| part A | 3.1.Z3 |
| part B | 3.1.Z4 |
| programme | 3.1.14 |
| programme time | 3.1.23 |
| quarter load | 3.1.Z5 |
| rated capacity | 3.1.22 |
| rated voltage | 3.1.30 |
| reference machine | 3.1.3 |
| remaining moisture content | 3.1.27 |
| simultaneous cycle | 3.1.Z16 |
| simultaneous programme | 3.1.Z15 |
| spin extraction | 3.1.16 |
| spin extractor | 3.1.5 |
| spin speed | 3.1.17 |
| standard extractor | 3.1.6 |
| standby mode | 3.1.Z20 |
| test load | 3.1.19 |
| test load mass | 3.1.20 |
| test run | 3.1.11 |
| test series | 3.1.12 |
| test washing machine | 3.1.2. |
| Treatment | 3.1.Z6 |
| treatment full | 3.1.Z7 |
| treatment half | 3.1.Z8 |
| treatment quarter | 3.1.Z9 |
| vertical axis washing machine | 3.1.7 |
| washer-dryer | 3.1.4 |
| washing machine | 3.1.1 |
| wrinkle guard function | 3.1.Z23 |

“

Replace the term 3.1.12 and terms 3.1.22 to 3.1.24 and 3.1.28 with the following:

“

koniec náhľadu – text ďalej pokračuje v platenej verzii STN