

PUBLICLY AVAILABLE SPECIFICATION PRE-STANDARD



Clothes washing machines for commercial use – Methods for measuring the performance

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CLOTHES WASHING MACHINES FOR COMMERCIAL USE – METHODS FOR MEASURING THE PERFORMANCE

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The text of this PAS is based on the following document:

This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document

Draft PAS	Report on voting
59D/448/DPAS	59D/452/RVDPAS

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CLOTHES WASHING MACHINES FOR COMMERCIAL USE – METHODS FOR MEASURING THE PERFORMANCE

1 Scope

This PAS specifies methods for measuring the performance of clothes **washing machines** for **commercial** use utilizing cold and/or hot water supplies and without heating or with heating devices for electricity, steam or gas. It also deals with appliances for both washing and drying textiles (**washer-dryers**) with respect to their washing-related functions. This PAS covers top, front and side-loaded non-household **washing machines** with horizontal or vertical axes and with one or more wash compartments.

NOTE 1 Non household tumble dryer performance is assessed to CLC/TS 50594.

The object is to state and define the principal performance characteristics of non-household **washing machines** and to describe the test methods for measuring these characteristics.

NOTE 2 This PAS does not apply to continuous batch **washing machines** (e.g. tunnel washers) or **washing machines** only possible to operate with automatic loading and unloading.

NOTE 3 This PAS does not specify safety requirements for **non-household washing machines**. Safety requirements are specified in EN 50571 and the EN ISO 10472 series.

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.

IEC 60456, *Clothes washing machines for household use – Methods for measuring the performance*

EN 12127, *Textiles – Fabrics – Determination of mass per unit area using small samples*

EN 12953-10, *Shell boilers – Part 10: Requirements for feedwater and boiler water quality*

EN 50571, *Household and similar electrical appliances – Safety – Particular requirements for commercial electric washing machines*

EN 60734, *Household electrical appliances – Performance – Water for testing* (IEC 60734)

EN ISO 2060, *Textiles – Yarn from packages – Determination of linear density (mass per unit length) by the skein method* (ISO 2060)

EN ISO 2061, *Textiles – Determination of twist in yarns – Direct counting method* (ISO 2061)

EN ISO 3759, *Textiles – Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change* (ISO 3759)

EN ISO 11664-2, *Colorimetry – Part 2: CIE standard illuminants* (ISO 11664-2)

EN ISO 80000-1:2013, *Quantities and units – Part 1: General* (ISO 80000-1:2009 + Cor 1:2011)

DIN 53923, *Testing of textiles; determination of water absorption of textile fabrics*

CIE 015:2004¹, *Colorimetry* (3rd edition)

IAPWS-IF97, *IAPWS Industrial Formulation 1997 for the Thermodynamic Properties of Water and Steam [International Association for the Properties of Water and Steam]*

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