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Household and similar electrical air cleaning appliances — Methods for measuring the performance —

Part 2-5: Particulate requirements for measurement of performance change with particle loading

Appareils électrodomestiques et analogues de purification de l'air — Méthodes de mesure de la performance —

Partie 2-5: Exigences en matière de particules pour la mesure de la modification de la performance en fonction du chargement en particules

This draft is submitted to a parallel vote in ISO and in IEC.

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Reference number
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Household and similar electrical air cleaning appliances - Methods for measuring the performance - Part 2-5: Particular requirements for determination of the performance change by loading with particles

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IEC TS 63086-2-5 has been prepared by subcommittee 59N: Electrical air cleaners for household and similar purposes, of IEC technical committee 59: Performance of household and similar electrical appliances, in co-operation with ISO technical committee 142: Cleaning equipment for air and other gases. It is a Technical Specification.

It is published as a double logo Technical Specification.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
59N/XX/FDIS	59N/XX/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 63086 series, published under the general title *Household and similar electrical air cleaning appliances - Methods for measuring the performance*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

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1 Scope

This part of IEC 63086 specifies test methods for measuring the performance change of electrically powered household and similar air cleaners caused by the loading with particles.

NOTE The main intention of the document is to compare differences in the performance change between air cleaners exposed to the same loading with particles. The performance change is not necessarily representative for real-use applications since concentration, size, morphology and chemical composition of particles present in household or similar environments can strongly differ.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 63086-1:2020, *Household and similar electrical air cleaning appliances - Methods for measuring the performance - Part 1: General requirements*

IEC 63086-2-1:2024, *Household and similar electrical air cleaning appliances - Methods for measuring the performance - Part 2-1: Particular requirements for determination of particle reduction*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 63086-1:2020, IEC 63086-2-1:2024, as well as the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

– IEC Electropedia: available at https://www.electropedia.org
– ISO Online browsing platform: available at https://www.iso.org/obp

3.1.1
air-cleaning module
replaceable part of the DUT which is responsible for the reduction of particles

Note 1 to entry: Pre-filters which can be cleaned by the consumer are not part of the air-cleaning module (3.1.1). If the air-cleaning module (3.1.1) consists of several parts which address different target pollutants, only those relevant for filtration of particulate pollutants are loaded with particles.

3.1.2
CCM
cumulative clean mass
mass of particles loaded on the air-cleaning module or DUT to reduce the initial CADR by 50 %

Note 1 to entry: An alternative definition of the CCM (3.1.2) using different values than 50 % for the reduction of the initial CADR is given in Annex A.

Note 2 to entry: An estimate for the service interval time of the air-cleaning module based on the CCM (3.1.2) is described in Annex B.

3.1.3
loading aerosol
aerosol used for exposing either the air-cleaning module (3.1.1) or the DUT to particles with the aim to build up a filter cake or to reduce electrostatic charges on the filter material

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