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Aerospace series - ECO efficiency of catering equipment - Part 01: General conditions

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. 01/26

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English Version

**Aerospace series - ECO efficiency of catering equipment -
Part 01: General conditions**Série aérospatiale - Écoefficacité du matériel de
restauration - Partie 01 : Conditions généralesLuft- und Raumfahrt - ECO Effizienz von
Cateringgeräten - Teil 01: Allgemeine Bedingungen

This European Standard was approved by CEN on 18 August 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN 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 STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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EN 4855-01:2025 (E)

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European foreword

This document (EN 4855-01:2025) has been prepared by ASD-STAN.

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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

This document supersedes EN 4855-01:2020.

This document includes the following significant technical changes with respect to EN 4855-01:2020:

- added description, function parameters, formulas and calculation sheets for trash compactors and espresso maker equipment throughout the document;
- correction of the formula for the kerosene consumption due to the mass;
- expanded scope of chilling equipment to chilling equipment not capable to freeze;
- clarified specification of weight measurement conditions;
- corrected labelling of $m_{K,F}$ and $m_{K,B}$ to be “overall kerosene consumption”, instead of “kerosene consumption due to electrical energy”;
- added scaled kerosene consumption to all calculation sheets in 5.7;
- corrected labelling of several items on the calculation sheets.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

EN 4855-01:2025 (E)**Introduction**

Efficient and economic aircraft operation is one of the main objectives in the aviation industry. The main goals for a competitive and environmental friendly operation are to reduce weight, fuel consumptions and thus to lower the costs leading to a more sustainable aircraft.

Today's aviation industry standards do not provide a classification of catering equipment according to their power demand and weight. Since it is state of the art for household appliances to be rated with ECO-label categories, the purpose of this document is to standardize the test procedures and calculations to determine the ECO efficiency for catering equipment installed in the aircraft.

1 Scope

This document specifies the test procedures and calculations to determine the ECO efficiency of the following catering equipment installed in an aircraft:

- chilling equipment (with and without freeze function);
- ovens (steam and convection ovens);
- beverage makers (coffee makers, water heaters);
- trash compactors (single and double bin);
- espresso makers (grain, powder, pad and capsule based).

Based on the results it will be possible to derive the energy consumption index and a performance index of the considered equipment type. The two index values represent the ECO efficiency.

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.

EN 4855-02, *Aerospace series — ECO efficiency of catering equipment — Part 02: Oven equipment*

EN 4855-03, *Aerospace series — ECO efficiency of catering equipment — Part 03: Chilling equipment,*

EN 4855-04, *Aerospace series — ECO efficiency of catering equipment — Part 04: Beverage makers*

EN 4855-05, *Aerospace series — ECO efficiency of catering equipment — Part 05: Trash compactors*

EN 4855-06, *Aerospace series — ECO efficiency of catering equipment — Part 06: Espresso makers*

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