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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 4855-01:2020 sisaldab Euroopa standardi EN 4855-01:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 4855-01:2020 consists of the English text of the European standard EN 4855-01:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 12.02.2020.	Date of Availability of the European standard is 12.02.2020.
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EUROPEAN STANDARD

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NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

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

Série aérospatiale - Efficacité du matériel de  
restauration - Partie 01 : Conditions générales

Luft- und Raumfahrt - ECO-Effizienz von  
Cateringgeräten - Teil 01: Allgemeine Bedingungen

This European Standard was approved by CEN on 12 August 2019.

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  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 4855-01:2020) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, 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 August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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.

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## **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 standardise the test procedures and calculations to determine the ECO efficiency for catering equipment installed in the aircraft.

## 1 Scope

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

- Chilling equipment (with freeze function);
- Ovens (steam and convection ovens);
- Beverage makers (coffee maker, water heater).

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 2: Oven equipment*<sup>1</sup>

EN 4855-03, *Aerospace series — ECO efficiency of catering equipment — Part 3: Chilling equipment*<sup>1</sup>

EN 4855-04, *Aerospace series — ECO efficiency of catering equipment — Part 4: Beverage makers*<sup>1</sup>

EN ISO 3744:2010, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### **catering equipment**

equipment installed in an aircraft to provide or support food or beverage service

Note 1 to entry: Includes ovens, beverage makers, water heaters and chilling equipment.

### 3.2

#### **electrical energy consumption**

measured apparent power integrated over a period of time

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<sup>1</sup> Published as ASD-STAN Prestandard at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe – Standardization (ASD-STAN) ([www.asd-stan.org](http://www.asd-stan.org)).