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Aerospace series - ECO efficiency of catering equipment - Part 03: Chilling equipment

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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EUROPEAN STANDARD

EN 4855-03

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

**Aerospace series - ECO efficiency of catering equipment -
Part 03: Chilling equipment**Série aérospatiale - Écoefficacité du matériel de
restauration - Partie 03 : Matériel réfrigérantLuft- und Raumfahrt - ECO Effizienz von
Cateringgeräten - Teil 03: Kühlgeräte

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.

CEN members are the national standards bodies of 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 United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

EN 4855-03:2025 (E)

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European foreword

This document (EN 4855-03:2025) 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 4855-03:2020.

This document includes the following significant technical changes with respect to EN 4855-03:2020:

- removed “Only galley chilling equipment with a freeze function will be considered” from the scope;
- correction of the formula for the kerosene consumption due to the correction of the formula in EN 4855-01;
- removed “For this energy consumption index, only equipment with a freeze function will be considered.” from note in 3.2;
- added measurement of the storage volume to 5.1;
- clarified test medium in 5.6;
- rewritten operating conditions to allow for units without freeze mode in 5.8;
- reduced total amount of storage capacity filled by test medium in 6.1 from 100 % of storage volume to 30 % allowing for air to circulate between test media and provide for realistic load situation;
- swapped 6.2 and 6.3;
- clarified the specification of end of pull-down time in 6.3;
- specification of usable inner volume according to actual volume rather than number of media insertable in 7.2;
- reestablishment of reference values required due to procedure changes;
- updated values for scaled reference kerosene consumption in 7.2;
- updated values for reference inner equipment volume and reference pull-down time in 7.3.

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.

EN 4855-03:2025 (E)

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.

Introduction

During aircraft operations the food storage in the cabin is mandatory to maintain the catering on board. There exist different equipment types to cool, freeze or chill any food or drinks. To meet the target to determine an energy efficiency index for galley chilling equipment (freezers, refrigerators and beverage chillers) the purpose of this document is to standardize the test procedure and efficiency calculations for this equipment.

EN 4855-03:2025 (E)**1 Scope**

This document specifies a test procedure to identify performance characteristics and a weight rating of a galley chilling equipment used on aircraft. Furthermore, it specifies the calculation procedure to determine an energy consumption index and a performance index. The effect of the chilling equipment on food quality is not addressed in this document.

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 4855-01:2025, *Aerospace series — ECO efficiency of catering equipment — Part 01: General conditions*

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