KÜLMLETID. OSA 1: SÕNASTIK

Refrigerated display cabinets - Part 1: Vocabulary (ISO 23953-1:2023)

### EESTI STANDARDI EESSÕNA

### NATIONAL FORFWORD

See Eesti standard EVS-EN ISO 23953-1:2023 sisaldab Euroopa standardi EN ISO 23953-1:2023 ingliskeelset teksti.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.12.2023.

Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.

This Estonian standard EVS-EN ISO 23953-1:2023 consists of the English text of the European standard EN ISO 23953-1:2023.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.

Date of Availability of the European standard is 06.12.2023.

The standard is available from the Estonian Centre for Standardisation and Accreditation.

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ICS 01.040.97, 97.130.20

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### EUROPEAN STANDARD

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### EN ISO 23953-1

## EUROPÄISCHE NORM

December 2023

ICS 01.040.97; 97.130.20

Supersedes EN ISO 23953-1:2015

### **English Version**

# Refrigerated display cabinets - Part 1: Vocabulary (ISO 23953-1:2023)

Meubles frigorifiques de vente - Partie 1: Vocabulaire (ISO 23953-1:2023)

Verkaufskühlmöbel - Teil 1: Begriffe (ISO 23953-1:2023)

This European Standard was approved by CEN on 25 September 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

### **European foreword**

This document (EN ISO 23953-1:2023) has been prepared by Technical Committee ISO/TC 86 "Refrigeration and air-conditioning" in collaboration with Technical Committee CEN/TC 44 "Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption" the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

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 ISO 23953-1:2015.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. 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.

### **Endorsement notice**

The text of ISO 23953-1:2023 has been approved by CEN as EN ISO 23953-1:2023 without any modification.

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### **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 86, *Refrigeration and air-conditioning*, Subcommittee SC 7, *Testing and rating of commercial refrigerated display cabinets*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 44, *Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 23953-1:2015), which has been technically revised.

The main changes are as follows:

- the following terms have been significantly revised: "semi-vertical refrigerated display cabinet", "horizontal refrigerated display cabinet", "combined refrigerated display cabinet with glass-door top", "combined refrigerated display cabinet with open top", "multi-temperature refrigerated display cabinet", "front panel", "display opening area", "product temperature", "product family", "total revised daily electrical energy consumption", "published standard rating and standard configuration";
- the following terms have been added: "multi-use refrigerated display cabinet", "assisted-service door", "assisted-service lid", "self-service door", "self-service lid", "door for loading food", "sneeze guard", "compartment", "cabinet with incorporated liquid-cooled condensing unit", "cabinet with incorporated air-cooled condensing unit", "full loading", "half loading", "sensitive foodstuff loading", "coefficient of performance for liquid-cooled condensing unit", "cooling system energy consumption", "heat extracted condenser", "revised heat removal energy consumption", "heat load extracted daily", "heat removal energy consumption", "additional heat removal energy consumption", "refrigeration electrical energy consumption indirect", "additional refrigeration daily electrical energy consumption", "configuration", "standard configuration";

- the following term has been deleted: "visibility of products by arc method";
- relevant symbols have been added.

A list of all parts in the ISO 23953 series can be found on the ISO website.

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### Refrigerated display cabinets —

# Part 1: **Vocabulary**

## 1 Scope

This document defines terms related to refrigerated display cabinets used for the sale and display of foodstuffs.

It does not apply to refrigerated vending machines or cabinets intended for use in catering or similar non-retail applications.

### 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.

ISO 23953-2:2023, Refrigerated display cabinets — Part 2: Classifications, requirements and test conditions

### 3 Terms and definitions

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

- ISO Online browsing platform: available at <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>
- IEC Electropedia: available at <a href="https://www.electropedia.org/">https://www.electropedia.org/</a>

### 3.1 Cabinet families and types

#### 3.1.1

### refrigerated display cabinet

cabinet cooled by a refrigerating system which enables chilled and frozen *foodstuffs* (3.7.4) placed therein for a *display* (3.4.4) to be maintained within prescribed temperature limits

#### 3.1.2

### vertical refrigerated display cabinet

refrigerated display cabinet (3.1.1) that is semi-vertical multi-deck, roll-in or glass door

#### 3.1.3

### semi-vertical refrigerated display cabinet

vertical refrigerated display cabinet (3.1.2) whose overall height does not exceed 1,5 m, with a vertical or inclined display opening, where the total vertical display height ( $V_g + V_o$ ) is greater than 45 % of the total horizontal display depth ( $H_g + H_o$ )

Note 1 to entry: The meaning of  $V_g$ ,  $V_o$ ,  $H_g$  and  $H_o$  shall be in accordance with ISO 23953-2:2023, Annex A.