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Railway applications - Braking - General vocabulary
(ISO 24478:2023, including corrected version
2024-04)

EESTI STANDARDI EESSÕNA

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ICS 01.040.45, 45.020

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EUROPEAN STANDARD

EN ISO 24478

NORME EUROPÉENNE

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English Version

Railway applications - Braking - General vocabulary (ISO 24478:2023, including corrected version 2024-04)

Applications ferroviaires - Freinage - Vocabulaire général (ISO 24478:2023, y compris version corrigée 2024-05)

Bahnanwendungen - Bremsen - Fachbegriffe (ISO 24478:2023, einschließlich korrigierte fassung 2024-04)

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

The text of ISO 24478:2023, including corrected version 2024-04 has been prepared by Technical Committee ISO/TC 269 "Railway applications" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 24478:2024 by Technical Committee CEN/TC 256 "Railway applications" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by February 2025, and conflicting national standards shall be withdrawn at the latest by February 2025.

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Endorsement notice

The text of ISO 24478:2023, including corrected version 2024-04 has been approved by CEN as EN ISO 24478:2024 without any modification.

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Foreword

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This document was prepared by Technical Committee ISO/TC 269, *Railway applications*, Subcommittee SC 2, *Rolling stock*.

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This corrected version of ISO 24478:2023 incorporates the following correction: footnotes "a" and "b" have been replaced with the symbols "c" and "d", respectively, in Figure B.1.

Introduction

This document provides unambiguous definitions of generic terminology used in the field of railway braking. The terms and definitions reflect those used in numerous published International Standards.

The braking includes all factors that have a bearing on the stopping, slowing or immobilization performance of the train (e.g. train resistance, gradient) and may involve the conversion and dissipation of braking energy.

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Railway applications — Braking — General vocabulary

1 Scope

This document defines terms for brakes and braking in rolling stock.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

3.1 Basic definitions

3.1.1 braking

process generating controlled forces which result in the deceleration of the train, or maintaining a constant speed on a falling gradient, or preventing a stationary train from moving

3.1.2 brake

brake system

combination of *brake unit(s)* (3.1.3) with their trainwide/local control device(s) ensuring one or more braking function(s)

Note 1 to entry: Brakes and brake systems can also be used for other functions e.g. shunting, de-icing of friction brake units.

3.1.3 brake unit

device or assembly of components, that generates a braking force

Note 1 to entry: See [Annex E](#).

Note 2 to entry: For tread brake and disc brake, it consists of the brake actuator, the friction material (pads or block) and the disc (for disc brake units).

Note 3 to entry: The *magnetic track brake* (3.7.3.3) unit includes two magnet assemblies (one per rail).

Note 4 to entry: The primary purpose of the brake unit might not be to generate a braking force, for example elements of the traction system can also function as a brake unit.

3.2 Brake system compatibility

3.2.1 brake system compatibility

ability of the brake systems of coupled rail vehicles/trains to achieve the specified levels of braking performance, functionality and safety