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STN	**Železnice Aerodynamika Časť 6: Požiadavky a skúšobné postupy na posudzovanie bočného vetra**	**STN EN 14067-6 28 0340**

Railway applications - Aerodynamics - Part 6: Requirements and test procedures for cross wind assessment

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Railway applications - Aerodynamics - Part 6: Requirements and test procedures for cross wind assessment

Applications ferroviaires - Aérodynamique - Partie 6 : Exigences et procédures d'essai pour l'évaluation de la stabilité vis-à-vis des vents traversiers

Bahnanwendungen - Aerodynamik - Teil 6: Anforderungen und Prüfverfahren zur Bewertung von Seitenwind

This European Standard was approved by CEN on 3 March 2018.

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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

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European foreword

This document (EN 14067-6:2018) has been prepared 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of an identical text or by endorsement, at the latest by January 2019, and conflicting national standards shall be withdrawn at the latest by January 2019.

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 14067-6:2010.

This document has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2008/57/EC.

For the relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document.

The main changes with respect to the previous edition are listed below:

a) References to Part 1 were removed, the coordinate system and all relevant symbols from Part 1 were added to this part.

b) New requirements were added for passenger vehicles and locomotives running at 250 km/h ≤ v_{max} ≤ 360 km/h.

c) New tables were added with reference CWCs for passenger vehicles and locomotives running at 250 km/h ≤ v_{max} ≤ 360 km/h.

d) Formula (1) was corrected as well as the factor f_L in Table 3.

e) Guidance on application of reference CWCs in cross wind risk assessments of railway lines is given in Clause 8.

f) The migration rule (former Annex M) has been removed from the general document and will be provided in national forewords, wherever required.

g) A new Annex M has been added and provides extended CWCs.

h) Annex ZA has been updated.

i) Extension of the scope to track gauges 1 435 mm to 1 668 mm.

This European Standard is part of the series “Railway applications — Aerodynamics” which consists of the following parts:

— *Part 1: Symbols and units*;

— *Part 3: Aerodynamics in tunnels*;

— *Part 4: Requirements and test procedures for aerodynamics on open track*;

— *Part 5: Requirements and test procedures for aerodynamics in tunnels*;

— *Part 6: Requirements and test procedures for cross wind assessment*.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Trains running on open track are exposed to cross winds. The cross wind safety of railway operations depends on vehicle and infrastructure characteristics and operational conditions. Important parameters are:

— aerodynamic characteristics of the vehicle;

— vehicle dynamics (e.g. mass, suspension, bump stops);

— track gauge;

— line characteristics (radius and cant of the track, height of embankments and bridges, walls near the track);

— wind exposure of the line;

— operating speed, mode of operation (non-tilting, tilting, running direction).

1 Scope

This document gives guidelines for the cross wind assessment of railways.
This document is applicable to all passenger vehicles, locomotives and power cars (with a maximum train speed above 140 km/h up to 360 km/h) and freight wagons (with a maximum train speed above 80 km/h up to 160 km/h) and track gauges from 1 435 mm to 1 668 mm inclusive. For passenger vehicles, locomotives and power cars with a maximum train speed between 250 km/h and 360 km/h, a requirement to demonstrate the cross wind stability is imposed. This document is not applicable to light rail and urban rail vehicles.

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 14067-4, *Railway applications – Aerodynamics – Part 4: Requirements and test procedures for aerodynamics on open track*

EN 14363, *Railway applications - Testing and Simulation for the acceptance of running characteristics of railway vehicles - Running Behaviour and stationary tests*

EN 15663, *Railway applications - Vehicle reference masses*