SLOVENSKI STANDARD
oSIST prEN 50317:2010

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Železniške naprave - Sistemi za odjem toka - Zahteve in veljavnost meritev medsebojnih dinamičnih vplivov med odjemnikom toka in kontaktnim vodnikom

Railway applications - Current collection systems - Requirements for and validation of measurements of the dynamic interaction between pantograph and overhead contact line

Bahnanwendungen - Stromabnahmesysteme - Anforderungen und Validierung von Messungen des dynamischen Zusammenwirkens zwischen Stromabnehmer und Oberleitung

Applications ferroviaires - Systèmes de captage de courant - Prescriptions et validation des mesures de l'interaction dynamique entre le pantographe et la caténaire

Ta slovenski standard je istoveten z: **prEN 50317:2010**

ICS:

29.280	Električna vlečna oprema	Electric traction equipment

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EUROPEAN STANDARD

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ICS

Will supersede EN 50317:2002 + A1:2004 + A2:2007

English version

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This draft European Standard is submitted to CENELEC members for CENELEC enquiry.
Deadline for CENELEC: 2010-07-23.

It has been drawn up by CLC/SC 9XC.

If this draft becomes a European Standard, CENELEC 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.

This draft European Standard was established by CENELEC in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

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1 # Foreword

2 This draft European Standard was prepared by SC 9XC, Electric supply and earthing systems for public
3 transport equipment and ancillary apparatus (Fixed installations), of Technical Committee CENELEC TC 9X,
4 Electrical and electronic applications for railways. It is submitted to the CENELEC enquiry.

5 This document will supersede EN 50317:2002 + A1:2004 + A2:2007.

6 This draft European Standard has been prepared under a mandate given to CENELEC by the European
7 Commission and the European Free Trade Association and covers essential requirements of EC Directive
8 2008/57/EC. See Annex ZZ.

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Contents

Figure

1 Scope

This European Standard specifies the functional requirements for output and accuracy of measurements of the dynamic interaction between pantograph and overhead contact line.

2 Normative references

The following referenced documents are indispensable for the application 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 50119	Railway applications – Fixed installations – Electric traction overhead contact lines
EN 50206-1	Railway applications – Rolling stock – Pantographs: Characteristics and tests – Part 1: Pantographs for main line vehicles

3 Definitions

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

3.1
collector head / pantograph head
pantograph equipment comprising the contact strips and their mountings

3.2
contact point
point of mechanical contact between a contact strip and a contact wire

3.3
working area of pantograph head
lateral and vertical range of possible contact points on the contact strips during normal operation

3.4
contact force
vertical force applied by the pantograph to the overhead contact line. The contact force is the sum of the forces of all contact points

3.5
mean contact force (F_M)
statistical mean value of the contact force. F_M is formed by the static and aerodynamic components of the pantograph contact force

3.6
static contact force
vertical force exerted upward by the collector head on the overhead contact line at standstill

3.7
aerodynamic force
additional vertical force applied by the pantograph as a result of air flow around the pantograph assembly. The aerodynamic force depends upon speed

3.8
statistical minimum of contact force
value of contact force represented by $F_M - 3\,\sigma$