



SLOVENSKI STANDARD
SIST EN 50163:2005/A3:2023

01-junij-2023

Železniške naprave - Napajalne napetosti sistemov električne vleke - Dopolnilo A3

Railway applications - Supply voltages of traction systems

Bahnanwendungen - Speisespannungen von Bahnnetzen

Applications ferroviaires - Tensions d'alimentation des réseaux de traction

Ta slovenski standard je istoveten z: EN 50163:2004/A3:2022

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ICS:

29.280 Električna vlečna oprema Electric traction equipment

SIST EN 50163:2005/A3:2023 **en**

EUROPEAN STANDARD

EN 50163:2004/A3

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2022

ICS 29.280

English Version

Railway applications - Supply voltages of traction systemsApplications ferroviaires - Tensions d'alimentation des
réseaux de traction

Bahnanwendungen - Speisespannungen von Bahnnetzen

This amendment A3 modifies the European Standard EN 50163:2004; it was approved by CENELEC on 2022-07-04. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 CENELEC member.

This amendment exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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

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European foreword

This document (EN 50163:2004/A3:2022) has been prepared by SC 9XC “Electric supply and earthing systems for public transport equipment and ancillary apparatus (fixed installations)”, of CLC/TC 9X “Electrical and electronic applications for railways”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-07-04
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2025-07-04

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZZ, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

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EN 50163:2004/A3:2022 (E)**1 Modification to Clause 2, “Normative references”**

Delete the following references:

EN 50119, *Railway applications – Fixed installations - Electric traction overhead contact lines*

EN 50122-1:1997, *Railway applications – Fixed installations – Part 1: Protective provisions relating to electrical safety and earthing*

EN 50388¹⁾, *Railway applications – Power supply and rolling stock – Technical criteria for the coordination between power supply (substation) and rolling stock to achieve interoperability*

IEC 60050-811, *International Electrotechnical vocabulary - Chapter 811: Electric traction*

Replace the following references:

EN 50160:1999, *Voltage characteristics of electricity supplied by public distribution systems*

EN 50215:1999, *Railway applications – Testing of rolling stock after completion of construction and before entry into service*

with the following references:

EN 50160:2010, *Voltage characteristics of electricity supplied by public electricity networks¹⁾*

EN 50215:2009, *Railway applications - Rolling stock - Testing of rolling stock on completion of construction and before entry into service*

2 Modification to 4.2, “Frequency”

In the 1st paragraph, replace:

“EN 50160”

with:

“EN 50160:2010”

In 4.2, replace the following NOTE 2:

“NOTE 2 In practice, the variation of frequency is more closely controlled in Europe than stated above. Vehicles will operate only within the frequency tolerances for 15 kV 16,7 Hz from 16,17 Hz to 17 Hz and for 25 kV/50 Hz range from 49 Hz to 51 Hz. If the frequency is out of this range, the vehicles performance may be reduced or the vehicle drives shall be disconnected.

The effects of the frequency variations may be examined by the railway operators to ensure the absence of harmful consequences on the train signalling.”

with the following NOTE 2 and normative text:

“NOTE 2 In practice, the variation of frequency is more closely controlled in Europe than stated above. Vehicles will operate only within the frequency tolerances for 15 kV 16,7 Hz from 16,17 Hz to 17 Hz and for 25 kV/50 Hz range from 49 Hz to 51 Hz. If the frequency is out of this range, the vehicles performance can be reduced or the vehicle drives can be disconnected.

The effects of the frequency variations may be examined by the railway operators to ensure the absence of harmful consequences on the train signalling.”

¹⁾ Document impacted by A1:2015, A2:2019, A3:2019 and AC:2012.

3 Modification to 6.1.1, “Rolling stock”

Replace the sentence:

“Rolling stock shall be tested as described in 9.15 of EN 50215.”

by:

“Rolling stock shall be tested as described in 9.16 of EN 50215:2009.”

4 Modification to Annex ZZ, “Relationship between this European standard and the essential requirements of EU Directive 2016/797/EU [2016 OJ L138] aimed to be covered”

Replace the Annex ZZ by the following:

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