ICS 29.280 SLOVENSKÁ TECHNICKÁ NORMA Apríl 2017

STN	**Dráhové aplikácie. Pevné inštalácie. Princípy ochrany elektrických trakčných sietí striedavého a jednosmerného prúdu.**	**STN EN 50633** 34 1509

Railway applications - Fixed installations - Protection principles for AC and DC electric traction systems

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/17

Obsahuje: EN 50633:2016

124452

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50633

August 2016

ICS 29.280

English Version

Railway applications - Fixed installations - Protection principles for AC and DC electric traction systems

Applications ferroviaires - Installations fixes - Principes de protection pour les réseaux de traction électrique à courant alternatif et à courant continu

Bahnanwendungen - Ortsfeste Anlagen - Schutzprinzipien für AC und DC Bahnenergieversorgungssysteme

This European Standard was approved by CENELEC on 2016-04-18. 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.

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 European Standard 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 50633:2016 E

Contents

Page

Figures

Tables

European foreword

This document (EN 50633:2016) has been prepared by CLC/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)	2017–04–18
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2019–04–18

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

1 Scope

This European Standard applies to the electrical protection system, provided for AC and DC electric traction systems. It:

– establishes railway specific protection principles;

– describes the railway specific protection system functionality;

– specifies minimum functional requirements and informative examples of their application;

– establishes limitations of the protection system and the acceptability of residual risks;

– specifies principles for conformity assessment.

It applies to:

– railways;

– guided mass transport systems, such as tramways, elevated and underground railways, mountain railways, trolleybus systems, and magnetically levitated systems which use a contact line system.

This European Standard may also be applied to electrified road traffic with a contact line, such as truck-trolley systems.

This European Standard applies to new electric traction systems and may be applied to changes of existing systems.

It does not apply to:

– underground mine traction systems;

– cranes, transportable platforms and similar transportation equipment on rails, temporary structures (e.g. exhibition structures) in so far as these are not supplied directly or via transformers from the contact line system and are not endangered by the traction power supply system;

– suspended cable cars;

– funicular railways;

– magnetic levitated systems (without a contact line system);

– railways with an inductive power supply without contact system;

– railways with a buried contact system that is required to be energized only below the train to ensure safety.

This European Standard does not cover:

– technical requirements for products, e.g. protection devices;

– rules for maintenance of protection systems.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50122-1:2011, *Railway applications — Fixed installations — Electrical safety, earthing and the return circuit — Part 1: Protective provisions against electric shock*

EN 50122-3, *Railway applications — Fixed installations — Electrical safety, earthing and the return — Part 3: Mutual Interaction of a.c. and d.c. traction systems*

EN 50123-1, *Railway applications — Fixed installations — D.C. switchgear — Part 1: General*

EN 50123-7-1, *Railway applications — Fixed installations — D.C. switchgear — Part 7-1: Measurement, control and protection devices for specific use in d.c. traction systems — Application guide*

EN 50153, *Railway applications — Rolling stock — Protective provisions relating to electrical hazards*

EN 50327, *Railway applications — Fixed installations — Harmonisation of the rated values for converter groups and tests on converter groups*

EN 50388:2012, *Railway Applications — Power supply and rolling stock — Technical criteria for the coordination between power supply (substation) and rolling stock to achieve interoperability*