SVENSK STANDARD SS-EN 50215

Fastställd	Utgåva	Sida	Ansvarig kommitté
2010-05-24	2	1 (1+57)	SEK TK 9

Järnvägsanläggningar – Provning av rullande materiel efter tillverkning och före idrifttagning

Railway applications – Rolling stocks – Testing of rolling stock after completion of construction and before entry into service

Som svensk standard gäller europastandarden EN 50215:2009. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50215:2009.

Nationellt förord

Tidigare fastställd svensk standard SS-EN 50215, utgåva 1, 1999, gäller ej fr o m 2012-07-01.

ICS 45.060.01

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50215

October 2009

ICS 45.060.01

Supersedes EN 50215:1999

English version

Railway applications - Rolling stock - Testing of rolling stock on completion of construction and before entry into service

Applications ferroviaires - Matériel roulant - Essais sur matériel roulant après achèvement et avant mise en service

Bahnanwendungen - Bahnfahrzeuge - Prüfung von Bahnfahrzeugen nach Fertigstellung und vor Indienststellung

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 50215:2009 E

SEK Svensk Elstandard

Foreword

This European Standard was prepared by SC 9XB, Electromechanical material on board rolling stock, of Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50215 on 2009-07-01.

This European Standard supersedes EN 50215:1999.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2010-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-07-01

Contents

1 Scope

This European Standard specifies general criteria to demonstrate by testing that newly constructed complete railway vehicles conform with standards or other normative documents.

This standard is intended to be used as technical instructions for the processing of tests which may be needed for demonstration of certain technical requirements where they are relevant.

This standard is not intended to be used as a list of approval requirements without consideration of aforementioned technical requirements.

This standard, as a whole or in part, applies to all railway vehicles except special purpose vehicles such as track-laying machines, ballast cleaners and personnel carriers. The extent of application of the standard for particular vehicles will be specifically mentioned in the contract.

NOTE 1 The parts of the standard which are applicable will depend on the type of vehicle (e.g. passenger, freight, powered, trailer, etc.).

NOTE 2 The scope of this standard excludes railbound and road/rail vehicles for construction and maintenance of railway infrastructure.

NOTE 3 This standard does not deal with tests carried out on components or equipment before fitting to the vehicle.

In so far as this standard is applicable it may be used for the following:

- generator sets mounted on a vehicle provided for auxiliary purposes;
- the electrical transmission used on trolley buses or similar vehicles;
- control and auxiliary equipment of vehicles with non-electrical propulsion systems;
- vehicles guided, supported or electrically propelled by systems which do not use the adhesion between wheel and rail.

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 12663:2000, *Railway applications - Structural requirements of railway vehicle bodies*

EN 13129-2:2004, *Railway applications - Air conditioning for main line rolling stock - Part 2: Type tests*

EN 13272:2001, *Railway applications - Electrical lighting for rolling stock in public transport systems*

EN 13452-2:2003, *Railway applications - Braking - Mass transit brake systems - Part 2: Methods of test*

EN 13775-1:2003, *Railway applications - Measuring of new and modified freight wagons - Part 1: Measuring principles*

EN 13775-2:2003, *Railway applications - Measuring of new and modified freight wagons - Part 2: Freight wagons with bogies*

EN 13775-3:2003, *Railway applications - Measuring of new and modified freight wagons - Part 3: Freight wagons with 2 wheelsets*

EN 13775-4:2004, *Railway applications - Measuring of new and modified freight wagons - Part 4: Bogies with 2 wheelsets*

EN 13775-5:2003, *Railway applications - Measuring of new and modified freight wagons - Part 5: Bogies with 3 wheelsets*

EN 13775-6:2004, *Railway applications - Measuring of new and modified freight wagons - Part 6: Multiple and articulated freight wagons*

EN 14067-4:2005, *Railway applications - Aerodynamics - Part 4: Requirements and test procedures for aerodynamics on open track*

EN 14067-5:2006, *Railway applications - Aerodynamics - Part 5: Requirements and test procedures for aerodynamics in tunnels*

EN 14363:2005, *Railway applications - Testing for the acceptance of running characteristics of railway vehicles - testing of running behaviour and stationary tests*

EN 14531-1:2005, *Railway applications - Braking - Methods for calculation of stopping distances, slowing distances and immobilisation braking - Part 1: General algorithms*

EN 14750-2:2006, *Railway applications - Air conditioning for urban and suburban rolling stock - Part 2: Type tests*

EN 14752:2005, *Railway applications - Bodyside entrance systems*

EN 14813-2:2006, *Railway applications - Air conditioning for driving cabs - Part 2: Type tests*

EN 15806 [1)], *Railway application - Braking - Static brake testing*

EN 50121-3-1:2006, *Railway applications - Electromagnetic compatibility - Part 3-1: Rolling stock - Train and complete vehicle*

EN 50121-3-2:2006, *Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus*

EN 50126-1:1999, *Railway applications - The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS) - Part 1: Basic requirements and generic process*

EN 50153:2002, *Railway applications - Rolling stock - Protective provisions relating to electrical hazards*

EN 50155:2007, *Railway applications - Electronic equipment used on rolling stock*

EN 50163:2004, *Railway applications - Supply voltages of traction systems*

EN 50206-1:1998, *Railway applications - Rolling stock - Pantographs: Characteristics and tests - Part 1: Pantographs for main line vehicles*

EN 50206-2:1999, *Railway applications - Rolling stock - Pantographs: Characteristics and tests - Part 2: Pantographs for metros and light rail vehicles*

EN 50238:2003, *Railway applications - Compatibility between rolling stock and train detection systems*

EN 50317:2002 (+ A1:2004 + A2:2007), *Railway applications - Current collection systems - Requirements for and validation of measurements of the dynamic interaction between pantograph and overhead contact line*

EN 50343:2003, *Railway applications - Rolling stock - Rules for installation of cabling*

EN 50388:2005, *Railway applications - Power supply and rolling stock - Technical criteria for the coordination between power supply (substation) and rolling stock to achieve interoperability*

EN 60077-1:2002*, Railway applications - Electric equipment for rolling stock - Part 1: General service conditions and general rules* (IEC 60077-1:1999, mod.)

[1)] At draft stage.

EN 60077-2:2002*, Railway applications - Electric equipment for rolling stock - Part 2: Electrotechnical components - General rules* (IEC 60077-2:1999, mod.)

EN 60077-3:2003*, Railway applications - Electric equipment for rolling stock - Part 3: Electrotechnical components - Rules for d.c. circuit-breakers* (IEC 60077-3:2001)

EN 60077-4:2003, *Railway applications - Electric equipment for rolling stock - Part 4: Electrotechnical components - Rules for AC circuit-breakers* (IEC 60077-4:2003)

EN 60077-5:2003, *Railway applications - Electrotechnical equipment for rolling stock - Part 5: Electrotechnical components - Rules for HV fuses* (IEC 60077-5:2003)

EN 60310:2004, *Railway applications - Traction transformers and inductors on board rolling stock* (IEC 60310:2004)

EN 60322:2001, *Railway applications - Electric equipment for rolling stock - Rules for power resistors of open construction* (IEC 60322:2001)

EN 60349-1:2000 (+ A1:2002), *Electric traction - Rotating electrical machines for rail and road vehicles - Part 1: Machines other than electronic convertor-fed alternating current motors* (IEC 60349-1:1999 + A1:2002)

EN 60349-2:2001, *Railway applications - Rotating electrical machines for rail and road vehicles - Part 2: Electronic converter-fed alternating current motors* (IEC 60349-2:1993, mod.)

EN 60529:1991 (+ A1:2000), *Degrees of protection provided by enclosures (IP Code)* (IEC 60529:1989 + A1:1999)

EN 61287-1:2006, *Railway applications - Power convertors installed on board rolling stock - Part 1: Characteristics and test methods* (IEC 61287-1:2005)

EN 61377-1:2006, *Railway applications - Rolling stock - Part 1: Combined testing of inverter-fed alternating current motors and their control system* (IEC 61377-1:2006)

EN 61377-2:2002, *Railway applications - Rolling stock - Combined testing - Part 2: Chopper-fed direct current traction motors and their control* (IEC 61377-2:2002)

EN 61377-3:2002, *Railway applications - Rolling stock - Part 3: Combined testing of alternating current motors, fed by an indirect convertor, and their control system* (IEC 61377-3:2002)

EN ISO 3095:2005, *Railway applications - Acoustics - Measurement of noise emitted by railbound vehicles* (ISO 3095:2005)

EN ISO 3381:2005, *Railway applications - Acoustics - Measurement of noise inside railbound vehicles* (ISO 3381:2005)