

Svenska Elektriska Kommissionen, SEK

| Fastställt | Utgåva | Sida    | Ingår i        |
|------------|--------|---------|----------------|
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**Järnvägsanläggningar –  
Fasta installationer –  
Särskilda fordringar på växelspanningsställverk –  
Del 3-3: Mät-, manöver- och skyddsutrustning för  
speciell användning i växelspanningstraktionsystem –  
Spänningstransformatörer för enfas**

*Railway applications –*

*Fixed installations –*

*Particular requirements for a.c. switchgear –*

*Part 3-3: Measurement, control and protection devices for specific use in a.c. traction systems –*

*Single-phase inductive voltage transformers*

Som svensk standard gäller europastandarden EN 50152-3-3:2001. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50152-3-3:2001.

SS-EN 50152-3-3 skall användas tillsammans med SS-EN 60044-2, utgåva 1, 2000.



**Railway applications - Fixed installations -  
Particular requirements for a.c. switchgear  
Part 3-3: Measurement, control and protection devices  
for specific use in a.c. traction systems -  
Single-phase inductive voltage transformers**

Applications ferroviaires -  
Installations fixes -  
Exigences particulières pour appareillage  
à courant alternatif  
Partie 3-3: Dispositifs de mesure, de  
commande et de protection pour usage  
spécifique dans les systèmes de traction à  
courant alternatif -  
Transformateurs de tension monophasés

Bahnanwendungen -  
Ortsfeste Anlagen -  
Besondere Anforderungen an  
Wechselstrom-Schaltanlagen  
Teil 3-3: Meß-, Steuerungs- und  
Schutzeinrichtungen für Wechselstrom-  
Bahnanlagen -  
Einphasen-Spannungswandler

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat 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 Central Secretariat has the same status as the official versions.

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## CENELEC

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

This European Standard was prepared by SC9XC, Electric supply and earthing systems for public transport equipment and ancillary apparatus (fixed installations), of the Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50152-3-3 on 2000-01-01.

The following dates were fixed:

- |                                                                                                                                                |       |            |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------|
| – latest date by which the EN has to be implemented<br>at national level by publication of an identical<br>national standard or by endorsement | (dop) | 2001-09-01 |
| – latest date by which the national standards conflicting<br>with the EN have to be withdrawn                                                  | (dow) | 2003-01-01 |

This European Standard is to be used in conjunction with EN 60044-2:1999.

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## Introduction

Part 3 of EN 50152, "Railway applications - Fixed installations - Particular requirements for a.c. switchgear", concerning the measurement, control and protection devices for specific use in a.c. traction systems, comprises:

ENV 50152-3-1:            Application guide (informative document)

EN 50152-3-2:            Single-phase current transformers (normative document)

EN 50152-3-3:            Single-phase inductive voltage transformers (normative document)

This European Standard applies when the equipment is concerned with the specified characteristics.

The requirements contained in this EN 50152-3-3 complement those given in EN 60044-2:1999.

## 1 Scope

This European Standard gives particular requirements for voltage transformers used in a.c. single-phase railway applications, fixed installations.

This European standard refers to single-phase inductive voltage transformers for railway applications on 15 kV, 16 ⅔ Hz and 25 kV, 50 Hz overhead lines, these voltages and frequencies being defined in accordance with EN 50163.

The main uses of these voltage transformers are:

- voltage indication;
- measurement;
- protection.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated reference the latest edition of the publication referred to applies.

|            |        |                                                                                                                                                              |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EN 50121-5 | 2000   | Railway applications - Electromagnetic compatibility -- Part 5: Emission and immunity of fixed power supply installations and apparatus                      |
| EN 50124-1 | 2001   | Railway applications - Insulation coordination -- Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment |
| EN 50152   | series | Railway applications - Fixed installations - Particular requirements for a.c. switchgear                                                                     |
| EN 50163   | 1995   | Railway applications - Supply voltages of traction systems                                                                                                   |
| EN 60044-2 | 1999   | Instrument transformers – Part 2: Inductive voltage transformers (IEC 60044-1:1997 modified)                                                                 |
| EN 60529   | 1991   | Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)                                                                                      |

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