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Standards

Irish Standard  
I.S. EN 50526-3:2016

# Railway application - Fixed installations - D.C. surge arresters and voltage limiting devices - Part 3: Application Guide

## I.S. EN 50526-3:2016

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN 50526-3:2016 is the adopted Irish version of the European Document EN 50526-3:2016, Railway application - Fixed installations - D.C. surge arresters and voltage limiting devices - Part 3: Application Guide

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EUROPEAN STANDARD

**EN 50526-3**

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English Version

## Railway application - Fixed installations - D.C. surge arresters and voltage limiting devices - Part 3: Application Guide

Applications ferroviaires - Installations fixes - Parafoudres et  
limiteurs de tension pour systèmes à courant continu -  
Partie 3: Guide d'application

Bahnanwendungen - Ortsfeste Anlagen -  
Überspannungsableiter und  
Spannungsbegrenzungseinrichtung für  
Gleichspannungsnetze - Teil 3: Anwendungsleitfaden

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EN 50526-3:2016 (E)

## European foreword

This document (EN 50526-3:2016) 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:

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endorsement
- latest date by which the national standards (dow) 2018-12-07  
conflicting with this document have to  
be withdrawn

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## **Introduction**

This European Standard is divided into three parts.

Part 1 deals with metal oxide arresters without gaps for d.c. railway traction systems (fixed installations) and is based on EN 60099-4.

Part 2 deals with voltage limiting devices for specific use in d.c. railway traction systems (fixed installations).

Part 3 is a Guide of application of metal-oxide arresters and of voltage limiting devices.

EN 50526-3:2016 (E)

## 1 Scope

This Application Guide supports the European Standards EN 50526-1 and EN 50526-2.

Guidance is offered on the following subjects:

- the selection and installation of surge arresters;
- the selection and installation of voltage limiting devices as VLD-O and VLD-F;
- the arrangement of the surge arresters and VLDs.

Because of differences in the established, proven methods, electric traction systems of nominal voltage d.c. 600 V – d.c. 750 V are treated separately from the systems at higher nominal voltages.

This Application Guide only applies to d.c. electrified traction 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 50122-2:2010, *Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 2: Provisions against the effects of stray currents caused by d.c. traction systems*

EN 50123-2:2003, *Railway applications - Fixed installations - D.C. switchgear - Part 2: D.C. circuit breakers*

EN 50123-7-1:2003, *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 50124-1:2001, *Railway applications - Insulation coordination - Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment*

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

EN 50526-1:2012, *Railway applications - Fixed installations - D.C. surge arresters and voltage limiting devices - Part 1: Surge arresters*

EN 50526-2:2014, *Railway applications - Fixed installations - D.C. surge arresters and voltage limiting devices - Part 2: Voltage limiting devices*

EN 62305-2, *Protection against lightning - Part 2: Risk management.*

IEC 60050-195:1998, *International Electrotechnical Vocabulary - Chapter 195: Earthing and protection against electric shock*

IEC 60050-441:1984, *International Electrotechnical Vocabulary - Chapter 441: Switchgear, controlgear and fuses*

IEC 60050-604:1987, *International Electrotechnical Vocabulary. Chapter 604: Generation, transmission and distribution of electricity - Operation*

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