



NSAI
Standards

Irish Standard
I.S. EN 50526-1:2012

Railway applications - Fixed installations - D.C. surge arresters and voltage limiting devices -- Part 1: Surge arresters

I.S. EN 50526-1:2012

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English version

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

Applications ferroviaires -
Installations fixes -
Parafoudres et limiteurs de tension pour
systèmes à courant continu -
Partie 1: Parafoudres

Bahnanwendungen -
Ortsfeste Anlagen -
Überspannungsableiter und
Niederspannungsbegrenzer -
Teil 1: Überspannungsableiter

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CENELEC

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

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Contents

Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Characteristics	12
4.1 Marking	12
4.2 Service conditions	12
4.3 Requirements	13
5 Arrester classification	14
6 Type test	14
6.1 General	14
6.2 Insulation withstand tests on the arrester housing	15
6.3 Residual voltage tests	16
6.4 Charge transfer test	17
6.5 Operating duty tests	19
6.6 Short-circuit tests	24
6.7 Internal partial discharge tests	27
6.8 Bending moment test	28
6.9 Seal leak rate test	33
6.10 Environmental tests	35
7 Routine tests and acceptance tests	36
7.1 Routine tests	36
7.2 Acceptance tests	37
Annex A (normative) Flowchart of testing procedure of bending moment	38
Annex B (normative) Direct lightning current impulse withstand test	39
Bibliography	40
Figures	
Figure 1 – Impulse current – Rectangular	18
Figure 2 – Power losses of the metal-oxide resistor at elevated temperatures versus time	20
Figure 3 – Circuit layout for short-circuit test (all leads and venting systems in the same plane)	25
Figure 4 – Example of a test circuit for re-applying pre-failing immediately before applying the short-circuit test current	27
Figure 5 – Thermomechanical preconditioning	30
Figure 6 – Example of the arrangement for the thermo-mechanical preconditioning and directions of the cantilever load	31
Figure 7 – Water immersion test	32
Figure 8 – Definition of mechanical loads (base load = SSL)	33
Figure 9 – Surge arrester unit	34
Figure A.1 – Flowchart of testing procedure of bending moment	38
Tables	
Table 1 – Arrester classification	14
Table 2 – Type tests	15
Table 3 – Peak currents for switching impulse residual voltage test	17
Table 4 – Parameters for the charge transfer test	18
Table 5 – Determination of elevated continuous operating voltage	21

Table 6 – Test procedure of operating duty test.....	22
Table 7 – Requirements for high current impulses.....	23
Table 8 – Required currents for short-circuit tests	25
Table B.1 – Parameters for the direct lightning impulse.....	39

Foreword

This document (EN 50526-1:2012) has been prepared by SC 9XC, Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations), of Technical Committee CENELEC 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) 2012-10-10
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2014-10-10

This document supersedes EN 50123-5:2003.

The existing standard EN 50123-5:2003 covers the case of the old technologies of the gapped arresters with SiC resistors and of the low voltage limiters (LVL) with gaps. These technologies at present are superseded. The present standard deals with the new technologies of the gapless metal-oxide arresters and of the LV limiters for application in the electric railway d.c. fixed installations. Guidance for selection and application of SA and LVL is missing in the old standard while it is added in the third part of the new standard.

As there is no standard available at the moment for surge arrester on rolling stock it seems convenient for the WG to note that the same electrical requirements apply for arresters on rolling stock, taking into account other specific requirements.

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.

Introduction

This European Standard is in three parts:

- Part 1 deals with metal-oxide arresters without gaps for d.c. railway traction systems (fixed installations) and is based on EN 60099-4:2004 + A1:2006 + A2:2009;
- Part 2 deals with voltage limiting devices for specific use in d.c. railway traction systems (fixed installations);
- Part 3 deals with a Guide of application of metal-oxide arresters and of voltage limiting devices.

1 Scope

This European Standard applies to non-linear metal-oxide resistor type surge arresters without spark gaps designed to limit voltage surges on d.c. systems with nominal voltage up to 3 kV.

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

EN 50125-2:2002, *Railway applications – Environmental conditions for equipment – Part 2: Fixed electrical installations*

EN 60060-1:2010, *High-voltage test techniques - Part 1: General definitions and test requirements (IEC 60060-1:2010)*

EN 60270:2001, *High-voltage test techniques – Partial discharge measurements (IEC 60270:2000)*

EN 61109:2008, *Insulators for overhead lines – Composite suspension and tension insulators for a.c. systems with a nominal voltage greater than 1 000 V – Definitions, test methods and acceptance criteria (IEC 61109:2008)*

EN ISO 4287:1998, *Geometrical Product Specifications (GPS) - Surface texture: Profile method - Terms, definitions and surface texture parameters (ISO 4287:1997)*

EN ISO 4892-1:2000, *Plastics - Methods of exposure to laboratory light sources - Part 1: General guidance (ISO 4892-1:1999)*

EN ISO 4892-2:2006, *Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (ISO 4892-2:2006)*

EN ISO 4892-3:2006, *Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps (ISO 4892-3:2006)*

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