



NSAI
Standards

Irish Standard
I.S. EN 50164-2:2008

Lightning Protection Components (LPC) - Part 2: Requirements for conductors and earth electrodes

I.S. EN 50164-2:2008

Incorporating amendments/corrigenda issued since publication:

<i>This standard replaces:</i>	<i>This standard is based on:</i> EN 50164-2:2008	<i>Published:</i> 7 August, 2008	
This Irish Standard was published under the authority of the NSAI and comes into effect on: 3 September, 2008		ICS number: 91.120.40	
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie	Price Code: I
Údarás um Chaighdeáin Náisiúnta na hÉireann			

English version

**Lightning Protection Components (LPC) -
Part 2: Requirements for conductors and earth electrodes**

Composants de protection
contre la foudre (CPF) -
Partie 2: Caractéristiques des conducteurs
et des électrodes de terre

Blitzschutzbauteile -
Teil 2: Anforderungen an Leitungen
und Erder

This European Standard was approved by CENELEC on 2008-04-01. 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 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.

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

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

I.S. EN 50164-2:2008

EN 50164-2:2008

- 2 -

Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 81X, Lightning protection.

It includes the texts of EN 50164-2:2002 + A1:2006 and a draft amendment (prA2) which was submitted to the Unique Acceptance Procedure. The combined texts were approved by CENELEC as EN 50164-2 on 2008-04-01.

This European Standard supersedes EN 50164-2:2002 + A1:2006.

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) 2009-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-04-01

EN 50164 is a family standard and consists of the following parts under the generic title "*Lightning Protection Components (LPC)*":

- Part 1 Requirements for connection components
- Part 2 Requirements for conductors and earth electrodes
- Part 3 Requirements for isolating spark gaps
- Part 4 Requirements for conductor fasteners
- Part 5 ¹⁾ Requirements for earth electrode inspection housings and earth electrode seals
- Part 6 ¹⁾ Requirements for lightning strike counters
- Part 7 Requirements for earthing enhancing compounds

¹⁾ In preparation.

Contents

1	Scope	5
2	Normative references	5
3	Definitions	6
4	Requirements	7
4.1	Documentation.....	7
4.2	Air termination conductors, air termination rods and down conductors.....	7
4.3	Earth electrodes.....	9
5	Tests	12
5.1	General conditions for tests.....	12
5.2	Air termination conductors, air termination rods, earth lead-in rods, down conductors and earth conductors.....	13
5.3	Earth rods.....	14
5.4	Joints for earth rods.....	17
6	Electromagnetic compatibility (EMC)	17
7	Structure and content of the test report	17
7.1	Report identification.....	18
7.2	Specimen description.....	18
7.3	Conductor.....	18
7.4	Standards and references.....	18
7.5	Test procedure.....	18
7.6	Testing equipment, description.....	19
7.7	Measuring instruments description.....	19
7.8	Results and parameters recorded.....	19
7.9	Statement of pass/fail.....	19
Annex A	(normative) Environmental test for conductors, air termination rods, earth rods and earth lead-in rods	23
Annex B	(normative) Requirements for minimum cross sectional area, mechanical and electrical characteristics, tests to be applied	24
Annex C	(normative) Requirements for minimum dimensions, mechanical and electrical characteristics, tests to be applied	25
Annex D	(informative) Typical example calculation of conductor resistivity	26

I.S. EN 50164-2:2008

EN 50164-2:2008

- 4 -

Tables

Table 1 – Material, configuration and minimum cross sectional area of air termination conductors, air termination rods, earth lead-in rods and down conductors.....8

Table 2 – Mechanical and electrical characteristics of air termination conductors, air termination rods, earth lead-in rods and down conductors.....9

Table 3 – Material, configuration and minimum dimensions of earth electrodes11

Table 4 – Mechanical and electrical characteristics of earth electrodes12

Figures

Figure 1 – Definitions of upper yield strength R_{eH} [MPa] and tensile strength R_m [MPa] 20

Figure 2 – Typical test arrangement for the compression test by mechanical means 21

Figure 3 – Typical test arrangement for adhesion test..... 22

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-