



Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN IEC 61204-7:2018

### Low-voltage switch mode power supplies - Part 7: Safety requirements

Alimentations à découpage basse  
tension - Partie 7: Exigences de sécurité

Stromversorgungsgeräte für  
Niederspannung mit  
Gleichstromausgang - Teil 7:  
Sicherheitsanforderungen

03/2018



## National Foreword

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## English Version

# Low-voltage switch mode power supplies - Part 7: Safety requirements (IEC 61204-7:2016)

Alimentations à découpage basse tension - Partie 7:  
Exigences de sécurité  
(IEC 61204-7:2016)

Stromversorgungsgeräte für Niederspannung mit  
Gleichstromausgang - Teil 7: Sicherheitsanforderungen  
(IEC 61204-7:2016)

This European Standard was approved by CENELEC on 2016-12-12. 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 CEN-CENELEC Management Centre or to any CENELEC member.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

The text of document 22E/175/FDIS, future edition 2 of IEC 61204-7, prepared by IEC/SC 22E "Stabilized power supplies" of IEC/TC 22 "Power electronic systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61204-7:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-09-16
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-03-16

This document supersedes EN 61204-7:2006.

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.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive 2014/35/EU, see informative Annex ZZ, which is an integral part of this document.

## Endorsement notice

The text of the International Standard IEC 61204-7:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated :

IEC 60085	NOTE	Harmonized in EN 60085.
IEC 61140	NOTE	Harmonized in EN 61140.
IEC 60127 series	NOTE	Harmonized in EN 60127 series.
IEC 60146-1-1	NOTE	Harmonized in EN 60146-1-1.
IEC 60317-43	NOTE	Harmonized in EN 60317-43.
IEC 60364-4-41	NOTE	Harmonized in HD 60364-4-41.
IEC 60747-5-1	NOTE	Harmonized in EN 60747-5-1.
IEC 60747-5-2	NOTE	Harmonized in EN 60747-5-2.

IEC 60950-1:2005	NOTE	Harmonized in EN 60950-1:2006 (modified).
A1:2009		A1:2010 (modified)
A2:2013		A2:2013 (modified)
IEC 61032:1997	NOTE	Harmonized in EN 61032:1998.
IEC 61180 series	NOTE	Harmonized in EN 61180 series.
IEC 61347-2-2	NOTE	Harmonized in EN 61347-2-2.
IEC 61349-1:2011	NOTE	Harmonized in EN 61349-1:2011.
IEC 61508 series	NOTE	Harmonized in EN 61508 series.
IEC 61558 series	NOTE	Harmonized in EN 61558 series.
IEC 61643-21	NOTE	Harmonized in EN 61643-21.
IEC 61643-311	NOTE	Harmonized in EN 61643-311.
IEC 61643-321	NOTE	Harmonized in EN 61643-321.
IEC 61643-331	NOTE	Harmonized in EN 61643-331.
IEC 62386 series	NOTE	Harmonized in EN 62386 series.

## Annex ZA

(normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60227	series	Polyvinyl chloride insulated cables of rated - voltages up to and including 450/750 V -- Part 1: General requirements		series
IEC 60245	series	Rubber insulated cables - Rated voltages - up to and including 450/750 V -- Part 1: General requirements		series
IEC 60320	series	Appliance couplers for household and similar general purposes - Part 1: General requirements	EN 60320	series
IEC 60384-14	2013	Fixed capacitors for use in electronic equipment -- Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 60384-14	2013
IEC 60417	2002	Graphical symbols for use on equipment	-	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
-	-		+ corrigendum May 1993	
IEC 60529 AMD 1	1999	Degrees of protection provided by enclosures (IP_code); Amendment_1	-	-
IEC 60529 AMD 2	2013	Degrees of protection provided by enclosures (IP_code); Amendment_2	-	-
IEC 60695-11-5	-	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	2017
IEC 60695-11-20	1999	Fire hazard testing - Part 11-20: Test flames - 500_W flame test methods	-	-
IEC 60730-1	2010	Automatic electrical controls for household and similar use -- Part 1: General requirements	EN 60730-1	2011 (mod)

IEC 60738-1	2006	Thermistors - Directly heated positive temperature coefficient -- Part 1: Generic specification	EN 60738-1	2006
IEC 60747-5-5	2007	Semiconductor devices - Discrete devices - Part 5-5: Optoelectronic devices - Photocouplers	EN 60747-5-5	2011
IEC 60799	-	Electrical accessories - Cord sets and interconnection cord sets	EN 60799	1998
IEC 60851-3	2009	Winding wires - Test methods -- Part 3: Mechanical properties	EN 60851-3	2009
IEC 60851-5	2008	Winding wires - Test methods -- Part 5: Electrical properties	EN 60851-5	2008
IEC 60851-6	1996	Winding wires - Test methods -- Part 6: Thermal properties	-	-
IEC 60947-1	-	Low-voltage switchgear and controlgear -- Part 1: General rules	EN 60947-1	2007
IEC 60947-3	-	Low-voltage switchgear and controlgear -- Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units	EN 60947-3 +A1 +A2	2009 2012 2015
IEC 60990	1999	Methods of measurement of touch current and protective conductor current	EN 60990	1999
IEC 61010-1	2010	Safety requirements for electrical equipment for measurement, control and laboratory use -- Part 1: General requirements	EN 61010-1	2010
IEC 61058-1	2000	Switches for appliances -- Part 1: General requirements	-	-
+ A1	2001		EN 61058-1	2002
+ A2	2007		+ A2	2008
+ corrigendum Jan.	2009		-	-
IEC 61293	1994	Marking of electrical equipment with ratings related to electrical supply - Safety requirements	EN 61293	1994
IEC 61558-1	2005	Safety of power transformers, power supplies, reactors and similar products -- Part 1: General requirements and tests	EN 61558-1	2005
-	-		+ corrigendum Aug.	2006
+ A1	2009		+ A1	2009
IEC 61558-2	series	Safety of power transformers, power supplies, reactors and similar products -- Part 2-1: Particular requirements and tests for separating transformers and power supplies incorporating separating transformers for general applications	EN 61558-2	series
IEC 61810-1	2008	Electromechanical elementary relays -- Part 1: General requirements	EN 61810-1	2008

IEC 62368-1	2014	Audio/video, information and communication technology equipment -- Part 1: Safety requirements	EN 62368-1	2014 (mod)
-	-		+ AC	2015
-	-		+ A11	2017
-	-		+ AC	2017-03
IEC 62477-1	2012	Safety requirements for power electronic converter systems and equipment -- Part 1: General	EN 62477-1	2012
-	-		+ A11	2014



## Annex ZZ

(informative)

### Relationship between this European Standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European Standard has been prepared under a Commission's standardization request relating to harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

**Table ZZ.1 – Correspondence between this European Standard and Annex I of Directive 2014/35/EU [2014 OJ L96]**

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
(1)(a)	6	
(1)(b)	6 Annex AC 5	
(1)(c)	<i>Refer to 2a) to 2d) and 3a) to 3c) in this table.</i> <i>Refer to standard clause 1, 6</i> Annex AC 5	
(2)(a)	4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.11, 4.12, 5.2, Annex A, Annex D, Annex F, Annex AA, Annex AC	Hazards arising from electric, magnetic, and electromagnetic fields, other ionizing and non-ionizing radiation are covered in separate standards.
(2)(b)	4.3, 4.4, 4.6, 4.10, 4.11, 4.12, Annex AC	
(2)(c)	4.7, 4.9, 4.11, 4.12, 5.2	
(2)(d)	4.1 4.2, 4.11, 4.12, 5.2, Annex D, Annex F, Annex AA, Annex AC	
(3)(a)	4.7, 4.9, 4.12, 5.2	Hazards arising from electric, magnetic, and electromagnetic fields, other ionizing and non-ionizing radiation are covered in separate standards.  Hazards arising from unattended operation have been duly considered.
(3)(b)	4.2, 4.9, 5.2	
(3)(c)	4.1, 4.2, 4.3, 5.2, Annex AA, Annex AC	

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.



# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Low-voltage switch mode power supplies –  
Part 7: Safety requirements**

**Alimentations à découpage basse tension –  
Partie 7: Exigences de sécurité**

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