

# INTERNATIONAL STANDARD



**Lamp controlgear –  
Part 1: General and safety requirements**

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## CONTENTS

FOREWORD.....	9
INTRODUCTION.....	12
1 Scope.....	13
2 Normative references .....	13
3 Terms and definitions .....	15
4 General requirements .....	23
5 General notes on tests.....	24
6 Classification.....	25
7 Marking .....	25
7.1 Items to be marked .....	25
7.2 Durability and legibility of marking .....	27
8 Terminals .....	28
9 <del>Provisions for protective earthing</del> Earthing .....	28
9.1 Provisions for protective earthing (Symbol: IEC 60417-5019 (2006-08)).....	28
9.2 Provisions for functional earthing (Symbol: IEC 60417-5018 (2011-07)).....	28
9.3 Lamp controlgear with conductors for protective earthing by tracks on printed circuit boards .....	28
9.4 Earthing of built-in lamp controlgear .....	29
9.5 Earthing via independent controlgear.....	29
9.5.1 Earth connection to other equipment.....	29
9.5.2 Earthing of the lamp compartments powered via the independent lamp controlgear .....	29
10 Protection against accidental contact with live parts .....	30
11 Moisture resistance and insulation .....	31
12 Electric strength.....	32
13 Thermal endurance test for windings of ballasts .....	33
14 Fault conditions .....	36
15 Construction.....	41
15.1 Wood, cotton, silk, paper and similar fibrous material.....	41
15.2 Printed circuits.....	41
15.3 Plugs and socket-outlets used in SELV or ELV circuits.....	41
15.4 Insulation between circuits and accessible parts .....	41
15.4.1 General .....	41
15.4.2 SELV circuits .....	42
15.4.3 FELV circuits .....	42
15.4.4 Other circuits .....	43
15.4.5 Insulation between circuits and accessible conductive parts.....	43
16 Creepage distances and clearances .....	45
16.1 General.....	45
16.2 Creepage distances .....	49
16.2.1 General .....	49
16.2.2 Minimum creepage distances for working voltages.....	50
16.2.3 Creepage distances for working voltages with frequencies above 30 kHz .....	50
16.2.4 Compliance with the required creepage distances.....	51

16.3	Clearances .....	52
16.3.1	General .....	52
16.3.2	Clearances for working voltages .....	53
16.3.3	Clearances for ignition voltages and working voltages with higher frequencies .....	54
16.3.4	Compliance with the required clearances .....	56
17	Screws, current-carrying parts and connections .....	57
18	Resistance to heat, fire and tracking .....	57
19	Resistance to corrosion .....	58
20	No-load output voltage .....	58
Annex A (normative) Test to establish whether a conductive part is a live part which may cause an electric shock .....		59
A.1	General test requirements .....	59
A.2	Limits for measured voltages .....	59
A.3	Limits for touch current .....	60
Annex B (normative) Particular requirements for thermally protected lamp controlgear .....		61
B.1	Introductory remark .....	61
B.2	General .....	61
B.3	Terms and definitions .....	61
B.4	General requirements for thermally protected lamp controlgear .....	62
B.5	General notes on tests .....	62
B.6	Classification .....	62
B.6.1	General .....	62
B.6.2	According to the class of protection .....	62
B.6.3	According to the type of protection .....	63
B.7	Marking .....	63
B.8	Thermal endurance of windings .....	63
B.9	Lamp controlgear heating .....	63
B.9.1	Preselection test .....	63
B.9.2	"Class P" thermally protected lamp controlgear .....	64
B.9.3	Temperature declared thermally protected lamp controlgear as specified in IEC 61347-2-8, with a rated maximum case temperature of 130 °C or lower .....	65
B.9.4	Temperature declared thermally protected lamp controlgear as specified in IEC 61347-2-8 with a rated maximum case temperature exceeding 130 °C .....	66
B.9.5	Temperature declared thermally protected lamp controlgear as specified in IEC 61347-2-9 .....	67
Annex C (normative) Particular requirements for electronic lamp controlgear with means of protection against overheating .....		70
C.1	General .....	70
C.2	Terms and definitions .....	70
C.3	General requirements for electronic lamp controlgear with means of protection against overheating .....	70
C.4	General notes on tests .....	71
C.5	Classification .....	71
C.6	Marking .....	71
C.7	Limitation of heating .....	71
C.7.1	Pre-selection test .....	71

C.7.2	Functioning of the protection means .....	71
Annex D (normative)	Requirements for carrying out the heating tests of thermally protected lamp controlgear.....	73
D.1	Test enclosure .....	73
D.2	Heating of enclosure .....	73
D.3	Lamp controlgear operating conditions .....	73
D.4	Lamp controlgear position in the enclosure .....	73
D.5	Temperature measurements .....	74
Annex E (normative)	Use of constant S other than 4 500 in $t_w$ tests .....	76
E.1	General.....	76
E.2	Procedure A.....	76
E.3	Procedure B.....	76
Annex F (normative)	Draught-proof enclosure.....	79
Annex G (normative)	Explanation of the derivation of the values of pulse voltages .....	80
G.1	Pulse voltage rise time $T$ .....	80
G.2	Long-duration pulse voltages.....	80
G.3	Short-duration pulse voltages .....	80
G.4	Measurement of short-duration pulse energy .....	80
Annex H (normative)	Tests.....	86
H.1	Ambient temperature and test room.....	86
H.2	Supply voltage and frequency.....	86
H.2.1	Test voltage and frequency .....	86
H.2.2	Stability of supply and frequency .....	86
H.2.3	Supply voltage waveform for reference ballast only.....	86
H.3	Electrical characteristics of lamps .....	87
H.4	Magnetic effects.....	87
H.5	Mounting and connection of reference lamps .....	87
H.6	Reference lamp stability .....	87
H.7	Instrument characteristics.....	87
H.7.1	Potential circuits .....	87
H.7.2	Current circuits .....	87
H.7.3	RMS measurements.....	88
H.8	Inverter power sources.....	88
H.9	Reference ballast.....	88
H.10	Reference lamps.....	88
H.11	Test conditions.....	88
H.11.1	Resistance measurement delays .....	88
H.11.2	Electrical resistance of contacts and leads.....	88
H.12	Lamp controlgear heating.....	88
H.12.1	Built-in lamp controlgear .....	88
H.12.2	Independent lamp controlgear .....	89
H.12.3	Integral lamp controlgear.....	89
H.12.4	Test conditions .....	90
Annex I (normative)	Additional requirements for built-in magnetic ballasts with double or reinforced insulation .....	91
I.1	General.....	91
I.2	Terms and definitions .....	91
I.3	General requirements.....	91
I.4	General notes on tests .....	92

I.5	Classification .....	92
I.6	Marking.....	92
I.7	Protection against accidental contact with live parts.....	92
I.8	Terminals.....	92
I.9	Provision for earthing .....	92
I.10	Moisture resistance and insulation.....	92
I.11	High-voltage impulse test .....	92
I.12	Thermal endurance test for windings of ballasts.....	93
I.13	Ballast heating .....	93
I.14	Screws, current-carrying parts and connections .....	93
I.15	Creepage distances and clearances .....	93
I.16	Resistance to heat and fire.....	93
I.17	Resistance to corrosion.....	93
Annex J (normative) Schedule of more onerous requirements.....		94
Annex K (informative) Conformity testing during manufacture.....		95
K.1	General.....	95
K.2	Testing .....	95
K.3	Additional dielectric strength tests for controlgear with protection against pollution by the use of coating or potting material.....	97
Annex L (normative) Particular additional requirements for controlgears providing SELV.....		98
L.1	General.....	98
L.2	Terms and definitions.....	98
L.3	Classification .....	99
L.4	Marking.....	99
L.5	Protection against electric shock.....	100
L.6	Heating.....	100
L.7	Short-circuit and overload protection.....	101
L.8	Insulation resistance and electric strength .....	102
L.8.1	General.....	102
L.8.2	Insulation resistance.....	102
L.8.3	Electric strength.....	102
L.9	Construction .....	103
L.10	Components.....	103
L.11	Creepage distances, clearances and distances through insulation.....	104
Annex M (informative) Dielectric strength test voltages for controlgear intended for the use in impulse withstand Category III .....		105
Annex N (normative) Requirements for insulation materials used for double or reinforced insulation .....		106
N.1	General.....	106
N.2	Reference document .....	106
N.3	Terms and definitions.....	106
N.4	General requirements.....	106
N.4.1	Material requirements .....	106
N.4.2	Solid insulation .....	106
N.4.3	Thin sheet insulation.....	106
Annex O (normative) Additional requirements for built-in electronic controlgear with double or reinforced insulation .....		110
O.1	General.....	110

O.2	Terms and definitions .....	110
O.3	General requirements .....	110
O.4	General notes on tests .....	110
O.5	Classification .....	111
O.6	Marking .....	111
O.7	Protection against accidental contact with live parts .....	111
O.8	Terminals .....	111
O.9	Provision for earthing .....	111
O.10	Moisture resistance and insulation .....	111
O.11	Electric strength .....	111
O.12	Thermal endurance of windings .....	111
O.13	Fault conditions .....	111
O.14	Construction .....	112
O.15	Creepage distances and clearances .....	112
O.16	Screws, current-carrying parts and connections .....	112
O.17	Resistance to heat and fire .....	112
O.18	Resistance to corrosion .....	112
Annex P (normative)	Creepage distances and clearances and distance through isolation (DTI) for lamp controlgear which are protected against pollution by the use of coating or potting .....	113
P.1	General .....	113
P.2	Creepage distances .....	113
P.2.1	General .....	113
P.2.2	Minimum creepage distances for working voltages and rated voltage with frequencies up to 30 kHz .....	113
P.2.3	Creepage distances for working voltages with frequencies above 30 kHz .....	113
P.2.4	Compliance with the required creepage distances .....	114
P.3	Distance through isolation .....	116
P.3.1	General .....	116
P.3.2	Compliance tests .....	116
P.3.3	Preconditioning of the lamp controlgear .....	116
P.3.4	Electrical tests after conditioning .....	117
Annex Q (informative)	Example for $U_p$ calculation .....	119
Annex R (informative)	Concept of creepage distances and clearances .....	120
R.1	Basic concept considerations .....	120
R.1.1	Creepage distances .....	120
R.1.2	Clearances .....	120
R.2	Why setting up tables? .....	121
Annex S (informative)	Examples of controlgear insulation coordination .....	122
Annex T (informative)	Creepage distances and clearances for controlgear with a higher degree of availability (impulse withstand category III) .....	123
T.1	General .....	123
T.2	Clearances for working voltages of lamp controlgear not protected against pollution by coating or potting materials .....	123
T.3	Clearances for working voltages of lamp controlgear protected against pollution by coating or potting .....	124
T.4	Distances through insulation – Particular additional requirements for controlgear providing SELV .....	124
Bibliography	.....	126



Figure 1 – Relation between winding temperature and endurance test duration .....	34
<del>Figure 2 – Creepage distances between conductors on printed boards not conductively connected to the supply mains .....</del>	<del>40</del>
Figure 2 – Test circuit for controlgear .....	40
Figure 3 – Example of a controlgear insulation related to Table 6.....	44
Figure 4 – Application of Table 7 and Table 8.....	49
Figure 5 – Application of Table 9, Table 10 and Table 11.....	52
Figure 6 – Application of Table 10 and Table 11 .....	53
Figure B.1 – Test circuit for thermally protected lamp controlgear .....	67
Figure D.1 – Example of heating enclosure for thermally protected ballasts.....	75
Figure E.1 – Assessment of claimed value of S .....	78
Figure G.1 – Circuit for measuring short-duration pulse energy.....	83
Figure G.2 – Suitable circuit for producing and applying long-duration pulses.....	85
Figure H.1 – Test arrangement for heating test.....	90
Figure N.1 – Test arrangement for checking mechanical withstanding of insulating materials in thin sheet layers.....	109
Figure Q.1 – Example for the calculation of $U_p$ .....	119
Figure S.1 – Example of schematic drawings, showing the different controlgear insulation coordination .....	122
Table 1 – Required rated impulse withstand voltage of equipment.....	22
Table 2 – Working voltage and $U_{out}$ steps.....	27
<del>Table 3 – Minimum distances for a.c. (50/60 Hz) sinusoidal voltages .....</del>	<del>32</del>
<del>Table 4 – Minimum distances for non-sinusoidal pulse voltages .....</del>	<del>32</del>
Table 3 – Electric strength test voltage.....	32
Table 4 – Theoretical test temperatures for ballasts subjected to an endurance test duration of 30 days.....	35
Table 5 – Minimum creepage distance on printed circuit board .....	39
Table 6 – Insulation requirements between active parts and accessible conductive parts.....	45
Table 7 – Minimum creepage distances for working voltage .....	50
Table 8 – Minimum value of creepage distances for sinusoidal or non-sinusoidal working voltages at different frequency ranges; basic or supplementary insulation .....	51
Table 9 – Minimum clearances for working voltages .....	53
Table 10 – Minimum distances of clearances for sinusoidal or non-sinusoidal voltages; inhomogeneous field conditions; basic or supplementary insulation.....	55
Table 11 – Minimum distances of clearances for sinusoidal or non-sinusoidal voltages; inhomogeneous field conditions; reinforced insulation.....	56
Table B.1 – Thermal protection operation .....	65
Table B.2 – Thermal protection operation .....	66
Table G.1 – Component values for measurement of pulse energy .....	84
Table K.1 – Minimum values for electrical tests .....	96
Table L.1 – Symbols for marking if marking is used .....	100
Table L.2 – Values of temperatures in normal use .....	101
Table L.3 – Values of insulation resistances .....	102

Table L.4 – Table of dielectric strength test voltages for controlgears intended for use in impulse withstand Category II.....	103
Table L.5 – Distances through insulation (DTI) for the impulse withstand category II / material group IIIa (175 CTI < 400).....	104
Table M.1 – Table of dielectric strength test voltages for controlgears intended for use in impulse withstand Category III.....	105
Table N.1 – Electric strength test voltage required during the mandrel test.....	108
Table P.1 – Minimum creepage distances for working voltages and rated voltages with frequencies up to 30 kHz .....	113
Table P.2 – Minimum value of creepage distances for sinusoidal or non-sinusoidal working voltages at different frequency ranges; basic or supplementary insulation .....	114
Table P.3 – Impulse withstand test voltage for products of impulse withstand category II .....	117
Table T.1 – Minimum clearances for working voltages – Impulse withstand category III.....	123
Table T.2 – Impulse withstand test voltages of impulse withstand category III for lamp controlgear protected against pollution by coating or potting material.....	124
Table T.3 – Distances through insulation (DTI) for the impulse withstand category III/material group IIIa (175 CTI < 400).....	125

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## LAMP CONTROLGEAR –

## Part 1: General and safety requirements

## FOREWORD

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International Standard IEC 61347-1 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This third edition cancels and replaces the second edition published in 2007, Amendment 1:2010 and Amendment 2:2012. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) additional marking requirements;
- b) additional requirements for creepage distances and clearances:
  - for working voltages with operating frequencies up to 30 kHz;
  - for working voltages with higher operating frequencies than 30 kHz;
  - for impulse and resonance voltages ignition;
  - for basic, supplementary and reinforced insulation;
  - for insulation between circuits;
  - for coated or potted controlgear;
- c) modification of definition of ELV and FELV;
- d) modification of schematic drawing, showing the different controlgear classification and insulation requirements;
- e) scope extension;
- f) new Annex A: test to establish whether a conductive part is a live part which may cause an electric shock;
- g) new Annex M: creepage distances and clearances for controlgear where a higher degree of availability (impulse withstand category III) may be requested;
- h) new Annex Q: example for  $U_p$  calculation;
- i) new Annex P: creepage distances and clearances and distance through isolation (DTI) for lamp controlgear which are protected against pollution by the use of coating or potting;
- j) new Annex R: concept of creepage distances and clearances.

The text of this standard is based on the following documents:

FDIS	Report on voting
34C/1118/FDIS	34C/1135/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 1 is to be used in conjunction with the appropriate Part 2, which contains clauses to supplement or modify the corresponding clauses in Part 1, to provide the relevant requirements for each type of product.

NOTE In this standard, the following print types are used.

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

A list of all parts of the IEC 61347 series, published under the general title *Lamp controlgear*, can be found on the IEC website.

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## INTRODUCTION

This part of IEC 61347 provides a set of general and safety requirements and tests which are considered to be generally applicable to most types of lamp controlgear and which can be called up as required by the different parts that make up IEC 61347-2. This Part 1 is thus not to be regarded as a specification in itself for any type of lamp controlgear, and its provisions apply only to particular types of lamp controlgear, to the extent determined by the appropriate Part 2 of IEC 61347.

The parts which make up IEC 61347-2, in referring to any of the clauses of this part, specify the extent to which such a clause is applicable and the order in which the tests are to be performed; they also include additional requirements as necessary. The order in which the clauses of this part are numbered has no particular significance, as the order in which their provisions apply is determined for each type of lamp controlgear by the appropriate Part 2 of the IEC 61347-2 series. All such parts are self-contained and therefore do not contain references to each other.

Where the requirements of any of the clauses of this part of IEC 61347 are referred to in the various parts that make up IEC 61347-2 by the phrase "The requirements of clause n of IEC 61347-1 apply", this phrase will be interpreted as meaning that all requirements of the clause in question of Part 1 apply, except any which are clearly inapplicable to the particular type of lamp controlgear covered by the Part 2 concerned.

Lamp controlgear which complies with the text of this standard will not necessarily be judged to comply with the safety principles of the standard if, when examined and tested, it is found to have other features which impair the level of safety covered by these requirements.

Lamp controlgear employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirement and, if found to be substantially equivalent, may be judged to comply with the safety principles of the standard.

Performance requirements for lamp controlgear are the subject of IEC 60921, IEC 60923, IEC 60925, IEC 60927, IEC 60929, IEC 61047 and IEC 62384 (in preparation) as appropriate for the type of lamp controlgear.

**NOTE** Safety requirements ensure that electrical equipment constructed in accordance with these requirements does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was intended.

Requirements for electronic lamp controlgear for other types of lamps will be the subject of a separate standard, as the need arises.

**NOTE** Controlgear can consist of a printed circuit board and may incorporate the following:

- controlgear;
- lampholder(s);
- switch(es);
- supply terminals.

The lamp controlgear should comply with this standard.

The lampholders(s), switch(es) and supply terminals should comply with their own standards.