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Interested committees:

Title: Draft BS EN IEC 61347-2-3 Lamp control gear. Part 2-3: Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent lamps.

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- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



34C/1495/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER: IEC 61347-2-3 ED3	
DATE OF CIRCULATION: 2020-07-10	CLOSING DATE FOR COMMENTS: 2020-10-02
SUPERSEDES DOCUMENTS: 34C/1444/CD, 34C/1475B/CC	

IEC SC 34C : AUXILIARIES FOR LAMPS	
SECRETARIAT: United Kingdom	SECRETARY: Mr Petar Luzajic
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.
FUNCTIONS CONCERNED: ☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☐ SAFETY	

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

Lamp control gear - Part 2-3: Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent lamps

NOTE FROM TC/SC OFFICERS:

As addition to this CD, 34C/1491/INF provides further guidance to the current IEC 61347 series revision.

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1 CONTENTS

2	1	Scope	7
3	2	Normative references	7
4	3	Terms and definitions	8
5	4	General requirements	9
6	5	General notes on tests	9
7	6	Classification	9
8	7	Marking	9
9	7.1	Marking and information	9
10	7.1.1	Mandatory marking	9
11	7.1.2	Information to be provided	10
12	7.2	Durability and legibility of markings	10
13	8	Terminals	10
14	9	Earthing	10
15	10	Protection against accidental contact with live parts	10
16	11	Moisture resistance and insulation	10
17	12	Electric strength	10
18	13	Thermal endurance test for windings	10
19	14	Fault conditions	11
20	15	Protection of associated components	11
21	15.1	Maximum peak voltage under normal operation conditions	11
22	15.2	Maximum working voltage under normal and abnormal operating conditions	11
23	15.3	Maximum working voltage and rectifying effect	11
24	15.4	Output voltage and abnormal conditions	11
25	15.5	Isolation of input terminals of controllable electronic controlgear	12
26	16	Abnormal conditions	12
27	16.1	Abnormal conditions for AC and DC controlgear	12
28	16.2	Additional abnormal conditions for DC supplied electronic controlgear	13
29	17	Behaviour of the controlgear at end of lamp life	13
30	17.1	End of lamp life effects	13
31	17.2	Asymmetric pulse test	13
32	17.3	Asymmetric power test	15
33	17.4	Open filament test	17
34	17.4.1	Selection	17
35	17.4.2	Measurements to be carried out prior to test procedure A	17
36	17.4.3	Test procedure A	17
37	17.4.4	Test procedure B	18
38	18	Construction	19
39	19	Creepage distances and clearances	19
40	20	Screws, current-carrying parts and connections	19
41	21	Resistance to heat, fire and tracking	19
42	22	Resistance to corrosion	19
43	Annex A (normative)	Measurement of high-frequency leakage current	24
44	Annex B (normative)	Additional requirements for centrally supplied controlgear for	
45		emergency lighting	29

46	B.1	General	29
47	B.2	Terms and definitions	29
48	B.3	Marking	30
49	B.3.1	Mandatory markings	30
50	B.3.2	Information to be provided if applicable	30
51	B.4	General statement	30
52	B.5	Starting conditions	31
53	B.6	Operating conditions	31
54	B.7	Current	31
55	B.8	Maximum current in any lead to a cathode	31
56	B.9	Lamp operating current waveform	31
57	B.10	EMC immunity	31
58	B.11	Pulse voltage from central battery systems	31
59	B.12	Tests for abnormal conditions	32
60	B.13	Temperature cycling test and endurance test	32
61	B.14	Functional safety (EBLF)	32
62	Annex C (informative)	Components used in the asymmetric pulse test circuit (see	
63	Figure 1)		33
64	Annex D (informative)	Schedule of more onerous requirements	34
65	Bibliography		35
66	Figure 1 – Asymmetric pulse test circuit		15
67	Figure 2 – Asymmetric power detection circuit		16
68	Figure 3 – Open filament test circuits		19
69	Figure 4 – Circuit for testing rectifying effect		20
70	Figure 5 – Nomographs for the capacitive leakage current limits of HF-operated		
71	fluorescent lamps		23
72	Figure A.1 – Leakage current test arrangement for various fluorescent lamps		28
73	Table 1 – Relation between RMS working voltage and maximum peak voltage		11
74	Table B.1 – Pulse voltages		32
75	Table C.1 – Material specification		33
76	Table C.2 – Transformer specification		33
77			
78			

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LAMP CONTROLGEAR –

**Part 2-3: Particular requirements for AC and/or DC
supplied electronic controlgear for fluorescent lamps**

1 FOREWORD

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125 International Standard IEC 61347-2-3 has been prepared by subcommittee 34C: Auxiliaries
126 for lamps, of IEC technical committee 34: Lighting.

127 This third edition cancels and replaces the second edition published in 2011 and
128 amendment 1:2016; it includes the following changes with respect to the previous edition:

- 129 – Introduction of dated references where appropriate
- 130 – Introduction of new type of emergency lighting controlgear (EL-P)
- 131 – Clarification of sample item numbers
- 132 – Alignment of Clause Numbers with part 1
- 133 – Minor editorial changes

134 This document is intended to be used in conjunction with IEC 61347-1. Where the
135 requirements of any of the clauses of IEC 61347-1 are referred to in this document by the
136 phrase "IEC 61347-1, Clause n applies", this phrase is interpreted as meaning that all
137 requirements of the clause in question of IEC 61347-1 apply, except any which are clearly
138 inapplicable to the specific type of controlgear covered by this document.

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

141 The text of this International Standard is based on the following documents:

FDIS	Report on voting
34C/____/FDIS	34C/____/RVD

142
143 Full information on the voting for the approval of this standard can be found in the report on
144 voting indicated in the above table.

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

146 The committee has decided that the contents of this publication will remain unchanged until
147 the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data
148 related to the specific publication. At this date, the publication will be

- 149 • reconfirmed,
- 150 • withdrawn,
- 151 • replaced by a revised edition, or
- 152 • amended.

153

154

INTRODUCTION

155 This document, and the parts which make up IEC 61347-2, in referring to any of the clauses
156 of IEC 61347-1, specify the extent to which such a clause is applicable and the order in which
157 the tests are to be performed; they also include additional requirements, as necessary. All
158 parts which make up IEC 61347-2 are self-contained and, therefore, do not include references
159 to each other.

160

LAMP CONTROLGEAR –

Part 2-3: Particular requirements for AC and/or DC supplied electronic controlgear for fluorescent lamps

1 Scope

This document specifies particular safety requirements for electronic controlgear for use on AC supplies at 50 Hz or 60 Hz up to 1000 V and/or DC supplies up to 1 000 V with lamp operating frequencies deviating from the supply frequency, associated with fluorescent lamps as specified in IEC 60081 and IEC 60901, and other fluorescent lamps for high-frequency operation.

NOTE 1 For emergency lighting operation, particular requirements for centrally supplied controlgear are given in Annex B. This also includes performance requirements as far as they are considered to be safety-related with respect to reliable emergency operation.

NOTE 2 Requirements for emergency lighting controlgear operating from non-centralised power supplies are given in IEC 61347-2-7.

NOTE 3 Performance requirements are the subject of IEC 60929.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE References are binding exactly the way (dated or undated) they are made in the following clauses; the following list is only for information.

IEC 60081: *Double capped fluorescent lamps - Performance specifications* IEC 60081:1997
Double capped fluorescent lamps - Performance specifications
Amendment 1 (2000)
Amendment 2 (2003)
Amendment 3 (2005)
Amendment 4 (2010)
Amendment 5 (2013)
Amendment 6 (2017)

IEC 60901: *Single-capped fluorescent lamps - Performance specifications*

IEC 60901:1997: *Single-capped fluorescent lamps - Performance specifications*
Amendment 1 (1997)
Amendment 2 (2000)
Amendment 3 (2004)
Amendment 4 (2007)
Amendment 5 (2011)
Amendment 6 (2014)

IEC 60929:2011 A.C. *supplied electronic ballasts for tubular fluorescent lamps - Performance requirements*
Amendment 1(2015)

206 IEC 61347-1:2015, *Lamp control gear – Part 1: General and safety requirements*
207 Amendment 1(2017)

208 IEC 61347-1:20XX, *Lamp control gear – Part 1: General and safety requirements*

209 IEC 61347-2-7:2011 *Specification for lamp controlgear - Part 2-7: Particular requirements for*
210 *DC supplied electronic ballasts for emergency lighting*
211 Amendment 1(2017)

212 IEC 61547: *Equipment for general lighting purposes – EMC immunity requirements*

213 3 Terms and definitions

214 IEC 61347-1:2015+AMD1:2017, Clause 3 applies, together with the following.

215 3.1

216 AC supplied electronic controlgear

217 mains-supplied AC to AC inverter including stabilizing elements for starting and operating one
218 or more fluorescent lamps, generally at high frequency

219 3.2

220 maximum value of lamp power (of a controllable controlgear)

221 lamp power (light output) which complies with 8.1 of IEC 60929:2011++AMD1:2015, unless
222 otherwise declared by the manufacturer or responsible vendor

223 3.3

224 maximum allowed peak voltage at the output terminals

225 highest permitted peak voltage across any insulation of the output under open-circuit
226 condition and any normal and abnormal operating conditions

227 NOTE TO ENTRY The maximum peak voltage is related to the declared RMS working voltage; see Table 1.

228 3.4

229 minimum value of lamp power (of a controllable controlgear)

230 lowest percentage of the lamp power defined in 3.2 declared by the manufacturer or
231 responsible vendor

232 3.5

233 AC/DC supplied electronic controlgear for maintained emergency lighting

234 mains/battery-supplied AC/DC to AC inverter including stabilizing elements for starting and
235 operating one or more fluorescent lamps, generally at high frequency for emergency lighting

236 3.6

237 cathode dummy resistor

238 cathode substitution resistor as specified on the relevant lamp data sheet of IEC 60081 or
239 IEC 60901 or as declared by the relevant lamp manufacturer or by the responsible vendor

240 3.7

241 DC supplied electronic controlgear

242 DC supplied electronic controlgear or inverter includes stabilisation elements for starting and
243 operating one or more tubular fluorescent lamps, generally at high frequency

244 3.8

245 sample

246 one or more sampling items intended to provide information on the population or on the
247 material provided by the manufacturer or responsible vendor

248 [SOURCE: IEC 151-16-19 modified]

3.9**Sample item**

one of the individual items in a population of similar items, or a portion of material forming a cohesive entity and taken from one place and at one time

[SOURCE: IEC 151-16-18]

4 General requirements

IEC 61347-1:2015+AMD1:2017, Clause 4 applies, together with the following:

- For G5-capped lamps with diameter 16 mm, the working voltage between any lamp terminal and earth shall not exceed 430 V (RMS)

NOTE 1 This requirement is in accordance with Annex E of IEC 61195:2000+AMD1:2012+AMD2:2014.

- For centrally supplied controlgear for emergency lighting Annex B applies.

NOTE 2 This includes AC, AC/DC and DC supplied types.

EXAMPLE Examples of centrally supplied systems are central battery systems and generator-based systems.

NOTE 3 Electronic controlgear used in self-contained emergency lighting luminaires is in the scope of IEC 61347-2-7.

- For controlgear with means of protection against overheating IEC 61347-1:2015+AMD1:2017, Annex C applies.

5 General notes on tests

IEC 61347-1:2015+AMD1:2017, Clause 5, applies, together with the following:

- IEC 61347-1:2015+AMD1:2017, Annex H applies.
- One sample item shall be used for all tests, unless otherwise specified in the corresponding clause.

To allow for parallel testing and reduced test times, additional sample items may be used except where the outcome of the test can be affected by preceding tests, e.g. clauses 11 and 12.

Specially prepared sample items may be used where required.

- Tests to meet the safety requirements for electronic controlgear for emergency lighting shall be performed under the conditions specified in Annex B.

For information on requalification of products compliant with the previous edition of this document, i.e. IEC 61347-2-3:2011+AMD1:2016, refer to Annex D.

6 Classification

IEC 61347-1:2015+AMD1:2017, Clause 6, applies.

7 Marking**7.1 Marking and information****7.1.1 Mandatory marking**

Controlgear, other than integral controlgear, shall be marked with the following:

- items a), b), c), d), e), f), k), l), m), t) and u) of IEC 61347-1:2015+AMD1:2017, 7.1;

- 286 – item s) of IEC 61347-1:2015+AMD1:2017, 7.1;
287 this item has priority over the requirements of SELV controlgear in Table L.1);
288 – according to Subclause 15.4, the declaration of U_{out} can be based on a reduced number
289 of measurements.

290 **7.1.2 Information to be provided**

291 The following information, if applicable, shall be given either on the controlgear, or be made
292 available in the manufacturer's catalogue or similar:

- 293 – items h), i), j) and n) of IEC 61347-1:2015+AMD1:2017, 7.1;
294 – for DC supplied controlgear: information regarding voltage polarity reversal protection.

295 **7.2 Durability and legibility of markings**

296 IEC 61347-1:2015+AMD1:2017, 7.2 applies.

297 **8 Terminals**

298 IEC 61347-1:2015+AMD1:2017, Clause 8 applies.

299 **9 Earthing**

300 IEC 61347-1:2015+AMD1:2017, Clause 9 applies.

301 **10 Protection against accidental contact with live parts**

302 IEC 61347-1:2015+AMD1:2017, Clause 10 applies.

303 **11 Moisture resistance and insulation**

304 IEC 61347-1:2015+AMD1:2017, clause 11 applies, together with the following:

305 The leakage current that may occur from contact with fluorescent lamps operated at high
306 frequency from AC supplied electronic controlgear shall not exceed the values in Figure 5
307 when measured in accordance with Annex A. The values are RMS values.

308 The limits of leakage current values for frequencies between the values shown in Figure 5
309 should be obtained by calculation according to the formula in the figure (under consideration).

310 *Compliance with these requirements is checked in accordance with Annex A.*

311 **12 Electric strength**

312 IEC 61347-1:2015+AMD1:2017, clause 12 applies.

313 **13 Thermal endurance test for windings**

314 No requirements.

315 NOTE The requirements of clause 13 of IEC 61347-1:2015+AMD1:2017 are not applicable.