



Ref. Certif. No.

DE 2-020198-M2

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST  
CERTIFICATES FOR ELECTRICAL EQUIPMENT  
(IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE  
CERTIFICATS D'ESSAIS DES EQUIPEMENTS  
ELECTRIQUES (IECEE) METHODE OC

**CB TEST CERTIFICATE**  
**CERTIFICAT D'ESSAI OC**

Product  
Produit

LED Power Supply

Name and address of the applicant  
Nom et adresse du demandeur

Dongguan Rico Electronic Co., Ltd  
Shangling Industrial Park, Hengli Town  
Dongguan City, 523460 Guangdong, China

Name and address of the manufacturer  
Nom et adresse du fabricant

Dongguan Rico Electronic Co., Ltd  
Shangling Industrial Park, Hengli Town  
Dongguan City, 523460 Guangdong, China

Name and address of the factory  
Nom et adresse de l'usine

Dongguan Rico Electronic Co., Ltd  
Shangling Industrial Park, Hengli Town  
Dongguan City, 523460 Guangdong, China

Note: When more than one factory, please report on page 2  
Note: Lorsque il y plus d'une usine, veuillez utiliser la 2<sup>ème</sup> page

Ratings and principal characteristics  
Valeurs nominales et caractéristiques principales

Input : AC 100-240V; 50/60Hz; 0,6A; Class II  
Output: refer to test report

Trade mark (if any)  
Marque de fabrique (si elle existe)

Trademark of Dongguan Rico Electronic Co., Ltd.

Model/type Ref.  
Ref. de type

RKPO-zzxxxxyyy, RKPO-zzxxxxyyy-D1, RKPO-zzxxxxyyy-D2  
(xxx, yyyy, zz = refer to the test report)

Additional information (if necessary may also be  
reported on page 2)  
Les Information complémentaire (si nécessaire,  
peuvent être indiqués sur la 2<sup>ème</sup> page)

For model differences, refer to the test report  
Re-issue of DE 2-020198-M1 dated 10.05.2016,  
due to second modification.

A sample of the product was tested and found  
to be in conformity with  
Un échantillon de ce produit a été essayé et a été  
considéré conforme à la

**PUBLICATION** IEC 61347-1:2007 + A1 + A2  
IEC 61347-2-13:2014  
for national deviations see test report

**EDITION**

As shown in the Test Report Ref. No. which forms part  
of this Certificate  
Comme indiqué dans le Rapport d'essais numéro de  
référence qui constitue une partie de ce Certificat

17057899 003

This CB Test Certificate is issued by the National Certification Body  
Ce Certificat d'essai OC est établi par l'Organisme National de Certification



TÜV Rheinland LGA Products GmbH  
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Web: www.tuv.com



Date: 15.06.2017

Signature:




Dipl.-Ing. Univ. S. O. Steinke



Test Report issued under the responsibility of:



<b>TEST REPORT</b> <b>IEC 61347-2-13</b> <b>Part 2: Particular requirements:</b> <b>Section 13 – d.c. or a.c. supplied electronic controlgear for</b> <b>LED modules</b>	
<b>Report Number..... :</b>	17057899 003
<b>Date of issue .....</b>	June 12, 2017
<b>Total number of pages .....</b>	69
<b>Name of Testing Laboratory preparing the Report .....</b>	TÜV Rheinland (Shenzhen) Co., Ltd.
<b>Applicant's name .....</b>	Dongguan Rico Electronic Co., Ltd.
<b>Address .....</b>	Shangling Industrial Park, Hengli Town, Dongguan City, 523460 Guangdong, China
<b>Test specification:</b>	
<b>Standard .....</b>	IEC 61347-2-13:2014 (Second Edition) used in conjunction with IEC 61347-1:2007 (Second Edition) + A1:2010 + A2:2012
<b>Test procedure.....</b>	CB Scheme
<b>Non-standard test method.....</b>	N/A
<b>Test Report Form No.....</b>	IEC61347_2_13E
<b>Test Report Form(s) Originator....</b>	Intertek Semko AB
<b>Master TRF .....</b>	2014-12
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If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.	
<b>This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.</b>	
<b>General disclaimer:</b>	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.	

Test item description..... :	LED Power Supply	
Trade Mark..... :		
Manufacturer .....	Same as applicant	
Model/Type reference..... :	RKPO-zzxxxxxyyyy (for definition of variables xxx, yyyy and zz, see page 6 of CB report 17057899 001 for details) RKPO-zzxxxxxyyyy-D1, RKPO-zzxxxxxyyyy-D2 (for definition of variables xxx, yyyy and zz, see page 7 for details)	
Ratings .....	Input: 100-240Vac, 50/60Hz, 0.6A (for model RKPO-zzxxxxxyyyy) 100-240Vac, 50/60Hz, 0.3A (for model RKPO-zzxxxxxyyyy-D1 and model RKPO-zzxxxxxyyyy-D2) Output: for model RKPO-zzxxxxxyyyy see page 7 of CB report 17057899 001 for details, for model RKPO-zzxxxxxyyyy-D1 and model RKPO-zzxxxxxyyyy-D2, see page 8 for details.	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/> CB Testing Laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address .....	East of F/1, F/2~F/4, Building 1, Cybio Technology Building No. 6 Langshan No.2 Road, North Hi-tech Industry Park 518057 Shenzhen Nanshan District CHINA	
<input type="checkbox"/> Associated CB Testing Laboratory:	N/A	
Testing location/ address .....	N/A	
Tested by (name, function, signature)..... :	Michale Yang	
Approved by (name, function, signature) .. :	Winston Chen	
<b>Testing procedure: TMP/CTF Stage 1:</b>		
<input type="checkbox"/> Testing procedure: TMP/CTF Stage 1:	N/A	
Testing location/ address .....	N/A	
Tested by (name, function, signature)..... :		
Approved by (name, function, signature) .. :		
<b>Testing procedure: WMT/CTF Stage 2:</b>		
<input type="checkbox"/> Testing procedure: WMT/CTF Stage 2:	N/A	
Testing location/ address .....	N/A	
Tested by (name + signature)..... :		
Witnessed by (name, function, signature) .. :		
Approved by (name, function, signature) .. :		
<b>Testing procedure: SMT/CTF Stage 3 or 4:</b>		
<input type="checkbox"/> Testing procedure: SMT/CTF Stage 3 or 4:	N/A	
Testing location/ address .....	N/A	
Tested by (name, function, signature)..... :		

<b>Witnessed by (name, function, signature) . :</b>		
<b>Approved by (name, function, signature) .. :</b>		
<b>Supervised by (name, function, signature) :</b>		



**List of Attachments (including a total number of pages in each attachment):**

- Photo documentation (8 pages)

**Summary of testing:****Tests performed (name of test and test clause):**

1. Maximum ambient temperature: 40°C
2. The following tests have been made on representative models:

Clause(s)	Test(s)
EN 61347-2-13:2014	
7	Rubbing test
8	Protection against accidental contact with live part
11	Humidity test
12	Electric strength
14	Fault conditions
15	Transformer heating and Abnormal conditions
17	Creepage distance and clearances
19	Resistance to heat, fire and tracking
EN 61347-1:2008 + A1:2011 + A2:2013	
L.5	Protection against electric shock
L.6	Heating
L.7	Short-circuit and overload protection
L.8	Insulation resistance and electric strength
N.4.2	Electric strength for solid insulation
N.4.3	Mandrel test for insulation tape
EN 60598-1:2008 + A11: 2009	
4.10	Insulation of Class II luminaires
4.13	Mechanical strength
4.14.6	Plug torque test
5	EXTERNAL AND INTERNAL WIRING
8	PROTECTION AGAINST ELECTRIC SHOCK

Unless otherwise specified, all tests were performed on models RKPO-UK0401500-D1, RKPO-UK0900666-D1, RKPO-UK1900315-D1, RKPO-UK2400250-D1, RKPO-UK0602000-D2, RKPO-UK1101090-D2, RKPO-UK1900630-D2 and RKPO-UK2400500-D2, which represent all models.

The EUTs passed the test.

**Testing location:**

All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.

**Summary of compliance with National Differences:**

EU Group differences only

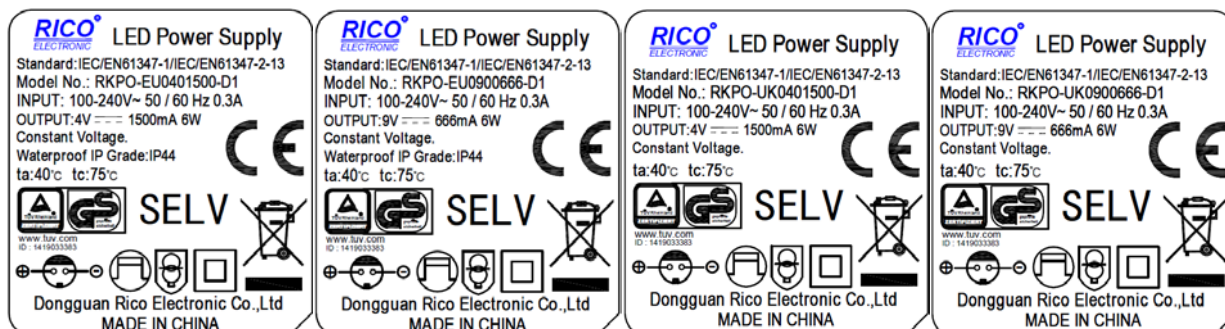
For National Differences see end of this test report.

☒ **The product fulfils the requirements of EN 61347-2-13:2014 used in conjunction with EN 61347-1:2008 (Second Edition) + A1:2011 + A2:2013**

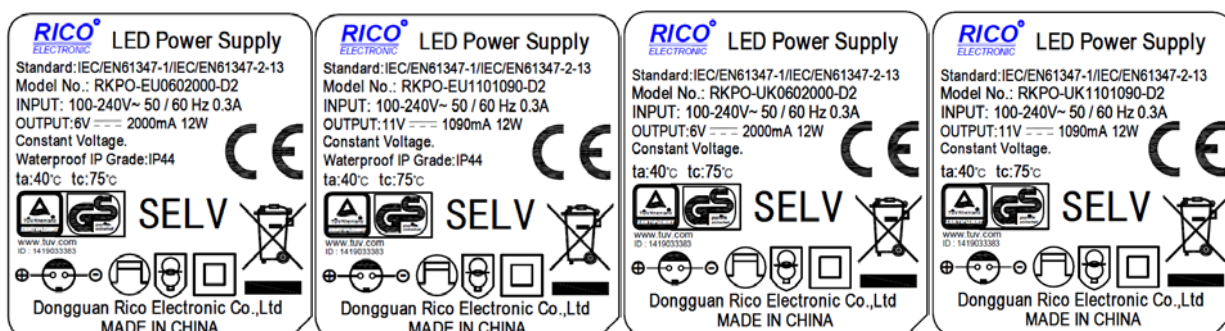
**Copy of marking plate**

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

For model: RKPO-zzxxxxyyy-D1



For model: RKPO-zzxxxxyyy-D2



(Tc point is at the top enclosure near transformer PT2, see photos figure 1 for details.)

Note(s): 1. Above label for representing the other models and it is only a draft.

2. IP44 for RKPO-EUxxxxyyy-D1 and RKPO-EUxxxxyyy-D2 only.

<b>Test item particulars</b> ..... : LED driver	
<b>Classification of installation and use</b> ..... : Class II, Independent SELV type	
<b>Supply Connection</b> ..... : Direct-plug in	
..... :	
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object..... : N/A	
- test object does meet the requirement ..... : P (Pass)	
- test object does not meet the requirement..... : F (Fail)	
<b>Testing</b> ..... :	
<b>Date of receipt of test item</b> ..... : April. 26, 2017	
<b>Date (s) of performance of tests</b> ..... : May 03, 2017 to May 19, 2017	
<b>General remarks:</b>	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.  <b>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</b>  <b>Clause numbers between brackets refer to clauses in IEC 61347-1</b>	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:</b>	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :	<input type="checkbox"/> <b>Yes</b> <input checked="" type="checkbox"/> <b>Not applicable</b>
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies) ..... :</b> Dongguan Rico Electronic Co., Ltd. Huangtang Industrial Park, Hengli Town, Dongguan City, 523460 Guangdong, China	

**General product information:**

Description of changes:

1. Adding new models RKPO-zzxxxxyyy-D1 and RKPO-zzxxxxyyy-D2.
2. All new models have the same enclosure and plug as original models, only use different circuit diagram.

3. Adding trademark  "RICO<sup>®</sup> ELECTRONIC" for products.

For model RKPO-zzxxxxyyy-D1:

- 1) RKPO-EUxxxxyyy-D1 and RKPO-UKxxxxyyy-D1 series are identical to each other except for models name, plug type and IP code.  
(IP20 for UK plug type with model RKPO-UKxxxxyyy-D1, IP44 for EU plug type with model RKPO-EUxxxxyyy-D1)
- 2) All models have the same circuit diagram, construction and PCB layout, only have different ratings for some components (see model different for details).

For model RKPO-zzxxxxyyy-D2:

- 1) RKPO-EUxxxxyyy-D2 and RKPO-UKxxxxyyy-D2 series are identical to each other except for models name, plug type and IP code.  
(IP20 for UK plug type with model RKPO-UKxxxxyyy-D2, IP44 for EU plug type with model RKPO-EUxxxxyyy-D2)
- 2) All models have the same circuit diagram, construction and PCB layout, only have different ratings for some components (see model different for details).

**Table A: Definition of variables****For models RKPO-zzxxxxyyy-D1:**

Variable:	Range of variable:	Content:
xxx	030-240	3 digits represent 10 times of output voltage in Volt. rising in steps of 0.1V. E.g.: 030=3.0VDC, 240=24.0VDC.
yyyy	0100-1500	4 digits represent 1000 times of output current in Ampere, rising in steps of 0.01A. E.g.: 0100=0.1A, 1500=1.5A.
zz	EU, UK	Represents the plug type for different countries. (EU=Europe, UK=United Kingdom)

**For models RKPO-zzxxxxyyy-D2:**

Variable:	Range of variable:	Content:
xxx	030-240	3 digits represent 10 times of output voltage in Volt. rising in steps of 0.1V. E.g.: 030=3.0VDC, 240=24.0VDC.
yyyy	0100-2000	4 digits represent 1000 times of output current in Ampere, rising in steps of 0.001A. E.g.: 0100=0.1A, 2000=2.0A.
zz	EU, UK	Represents the plug type for different countries. (EU=Europe, UK=United Kingdom)



**Table B: Model list****For models RKPO-zzxxxxxyyy-D1:**

Model	Input	Output		Output power (W)
		Output voltage (VDC)	Output current (A)	
RKPO-zzxxxxxyyy-D1	100-240Vac, 50/60Hz, 0.3A	3.0-24.0	0.1-1.5	Max. 6.0

Notes:

- 1) Output voltage rising in steps of 0.1V.
- 2) Output current rising in steps of 0.001A.

The output voltage multiplied by output current cannot exceed the max. output power listed above.

**For models RKPO-zzxxxxxyyy-D2:**

Model	Input	Output		Output power (W)
		Output voltage (VDC)	Output current (A)	
RKPO-zzxxxxxyyy-D2	100-240Vac, 50/60Hz, 0.3A	3.0-24.0	0.1-2.0	Max. 12.0

Notes:

- 1) Output voltage rising in steps of 0.1V.
- 2) Output current rising in steps of 0.001A.

The output voltage multiplied by output current cannot exceed the max. output power listed above.

**Table C: Model different****For models RKPO-zzxxxxxyyy-D1:**

Model	Output voltage (V)	Transformer	R6	R9	D8	C11
RKPO-zzxxxxxyyy-D1 (xxx=030-089, yyy=0200-1500)	3.0-8.9	RK06-05	0.5-5.1Ω	10K-51KΩ	2A40V Min	10V220UF Min
RKPO-zzxxxxxyyy-D1 (xxx=090-189, yyy=0100-0666)	9.0-18.9	RK06-12	0.5-5.1Ω	10K-51KΩ	2A60V Min	16V220UF Min
RKPO-zzxxxxxyyy-D1 (xxx=190-240, yyy=0100-0315)	19.0-24.0	RK06-24	0.5-5.1Ω	10K-51KΩ	2A200V Min	25V100UF Min

All models have the same circuit diagram, PCB layout, construction, only turns of secondary of transformer may be different and ratings for some components are different.

**For models RKPO-zzxxxxxyyy-D2:**

Model	Output voltage (V)	Transformer	R6	R9	D8	C11
RKPO-zzxxxxxyyy-D2 (xxx=030-089, yyyy=0200-2000)	3.0-8.9	RK12-05VI	0.5-5.1Ω	10K-51KΩ	2A40V Min	10V220UF Min
RKPO-zzxxxxxyyy-D2 (xxx=090-189, yyyy=0100-1090)	9.0-18.9	RK12-12VI	0.5-5.1Ω	10K-51KΩ	2A60V Min	16V220UF Min
RKPO-zzxxxxxyyy-D2 (xxx=190-240, yyyy=0100-0630)	19.0-24.0	RK12-24VI	0.5-5.1Ω	10K-51KΩ	2A200V Min	25V100UF Min

All models have the same circuit diagram, PCB layout, construction, only turns of secondary of transformer may be different and ratings for some components are different.

**Rating:**

Independent controlgear, non-inherently short circuit proof, constant voltage output, Class II,  $t_a=40^{\circ}\text{C}$ ,  $t_c=75^{\circ}\text{C}$  (at the top of enclosure near transformer).

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1.	For IEC 61347-2-13:2014: Clause 7, 8, 11, 12, 14, 15, 17, 19 For IEC 61347-1: 2007+A1:2010+A2: 2012: Clause L.5, L.6, L.7, L.8, N4.2, N.4.3 For IEC 60598-1:2008: Clause 4.10, 4.13.1, 4.14.6, 8, 9	Due to adding new models and the new models are difference with original models except for enclosure construction, all clause should be reevaluated, see report for details.
2.	N/A	Due to all models (RKPO-zzxxxxxyyy, RKPO-zzxxxxxyyy-D1 and RKPO-zzxxxxxyyy-D2) have the same enclosure construction, no additional test for IP classification.
3	N/A	No affect to safety, no additional test necessary.

**History of amendments and modifications:**

Refer to 17057899 001, date 15 Apr., 2016 (original report)

Refer to 17057899 002, date 05 May, 2016 (1<sup>st</sup> modification)

Refer to 17057899 003, date 12 June, 2017 (2<sup>nd</sup> modification)

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict
<b>4 (4)</b>	<b>GENERAL REQUIREMENTS</b>		<b>P</b>
- (4)	Insulation materials according requirements in Annex N of IEC 61347-1		N/A
- (4)	Compliance of independent controlgear enclosure with IEC 60 598-1	(see Annex 5)	P
- (4)	Built-in magnetic ballast with double or reinforced insulation comply with Annex I of IEC 61347-1		N/A
- (4)	Built-in electronic controlgear with double or reinforced insulation comply with Annex O of IEC 61347-1		N/A
4 (4)	SELV controlgear comply with Annex I of this part 2 and Annex L of IEC 61347-1	(see Annex L)	P
4 (-)	Transformer comply with IEC 61558		P
	Dielectric strength test of insulated winding wires is limited to 3 kV if input voltage $\leq$ 300 V		P

<b>6 (6)</b>	<b>CLASSIFICATION</b>		<b>P</b>
	Built-in controlgear ..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	Independent controlgear ..... :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	--
	Integral controlgear ..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
6 (-)	Auto-wound controlgear ..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	Separating controlgear ..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	Isolating controlgear ..... :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	--
	SELV controlgear ..... :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	--

<b>7 (7)</b>	<b>MARKING</b>		<b>P</b>
<b>7.1 (7.1)</b>	<b>Mandatory markings</b>		<b>P</b>
	a) mark of origin	See the copy of marking plate	P
	b) model number or type reference	See the copy of marking plate	P
	c) symbol for independent controlgear, if applicable	See the copy of marking plate	P
	d) correlation between interchangeable parts and controlgear marked		N/A
	e) rated supply voltage (V)	100-240 VAC	P
	supply frequency (Hz)	50/60Hz	P
	supply current (A)	See the copy of marking plate	P
	f) earthing symbol	Class II equipment.	N/A

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict
	k) wiring diagram	See the copy of marking plate	P
	l) value of $t_c$	See the copy of marking plate	P
	m) symbol for declared temperature		N/A
	t) LUM earthing symbol		N/A
	u) if not SELV maximum working voltage $U_{out}$ between:	SELV output	N/A
	- output terminals (V) .....		N/A
	- output terminals and earth (V) .....		N/A
7.1 (-)	Constant voltage type:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	--
	- rated output power $P_{rated}$ (W) .....	See copy of marking plate	P
	- rated output voltage $U_{rated}$ (V) .....	See copy of marking plate	P
	Constant current type:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	- rated output power $P_{rated}$ (W) .....		N/A
	- rated output current $I_{rated}$ (A) .....		N/A
	Indication if for LED modules only	See the copy of marking plate	P
7.1 (7.2)	Marking durable and legible		P
	Rubbing 15 s water, 15 s petroleum; marking legible		P
<b>7.2 (7.1)</b>	<b>Information to be provided, if applicable</b>		<b>P</b>
	h) declaration on protection against accidental contact	Mentioned in user manual	P
	i) cross-section of conductors (mm <sup>2</sup> )		N/A
	j) number, type and wattage of lamp(s)		N/A
	s) SELV symbol	Mentioned in user manual	P
7.2 (-)	- declaration of mains connected windings		N/A

<b>8 (10)</b>	<b>PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS</b>		<b>P</b>
- (10.1)	Controlgear protected against accidental contact with live parts	Protected by accessible plastic enclosure.	P
- (A2)	Voltage measured with 50 kΩ	Max. 24.25Vdc	P

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict
- (A3)	Voltage > 35 V peak or > 60 V d.c. or protective impedance device	<p>For model:PKPO-zz2400500-D2 0.25 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p> <p>For model:PKPO-zz1900630-D2 0.26 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p> <p>For model:PKPO-zz1101090-D2 0.23 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p> <p>For model:PKPO-zz0602000-D2 0.22 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p> <p>For model:PKPO-zz0401500-D1 0.18 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p> <p>For model:PKPO-zz0900666-D1 0.21 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p> <p>For model:PKPO-zz1900315-D1 0.23 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p> <p>For model:PKPO-zz2400250-D1 0.24 mA&lt;0.7mA for output 0.01 mA&lt;0.7mA for plastic enclosure</p>	P
- (10.1)	Lacquer or enamel not used for protection or insulation		P



IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict
	Adequate mechanical strength on parts providing protection		N/A
- (10.2)	Capacitors > 0,5 $\mu$ F: voltage after 1 min (V): < 50 V .....	No such capacitors	N/A
<b>- (10.3)</b>	<b>Controlgear providing SELV</b>		<b>P</b>
	Accessible conductive parts are insulated from live parts by double or reinforced insulation in SELV controlgear	Double or reinforced insulation provided	P
	No connection between output circuit and the body or protective earthing circuit		P
	No possibility of connection between output circuit and the body or protective earthing circuit through other conductive parts		P
	SELV outputs separated by at least basic insulation		P
	ELV conductive parts insulated as live parts		P
	Tests according Annex L of IEC 61347-1	(see annex L)	P
<b>- (10.4)</b>	<b>Accessible conductive parts in SELV circuits</b>		<b>P</b>
	Output voltage under load > 25 V r.m.s. or > 60 V d.c.	See below	P
	If output voltage > 25 V r.m.s. or > 60 V d.c.; No load output $\leq$ 35 V peak or $\leq$ 60 V d.c and touch current does not exceed 0,7 mA (peak) or 2 mA d.c. ....	Max. output voltage: 24.25 V DC for all models	N/A
	One conductive part is insulated if output voltage or current exceeding the values above and withstand test voltage 500 V		N/A
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor	One Y1 capacitor (CY1) used between primary circuit and SELV	P
	Y1 or Y2 capacitors comply with IEC 60384-14	VDE approved CY1 provided	P
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A

<b>9 (8)</b>	<b>TERMINALS</b>		<b>P</b>
	Screw terminals according section 14 of IEC 60598-1:		N/A
	Separately approved; component list		N/A
	Part of the controlgear	No such terminals used except for approved input and output terminal	N/A

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict

	Screwless terminals according section 15 of IEC 60598-1:		<b>N/A</b>
	Separately approved; component list	No screwless terminal used	N/A
	Part of the controlgear		N/A

<b>10 (9)</b>	<b>PROVISION FOR PROTECTIVE EARTHING</b>	<i>Class II equipment</i>	<b>N/A</b>
<b>- (9.1)</b>	<b>Provisions for protective earthing</b>		<b>N/A</b>
	Terminal complying with clause 8		N/A
	Locked against loosening and not possible to loosen by hand		N/A
	Not possible to loosen clamping means unintentionally on screwless terminals		N/A
	Earthing via means of fixing		N/A
	Earthing terminal only used for the earthing of the control gear		N/A
	All parts of material minimizing the danger of electrolytic corrosion		N/A
	Made of brass or equivalent material		N/A
	Contact surface bare metal		N/A
<b>- (9.2)</b>	<b>Provision for functional earthing</b>		<b>N/A</b>
	Comply with clause 8 and 9.1		N/A
<b>- (9.3)</b>	<b>Earth contact via the track on the printed board</b>		<b>N/A</b>
	Test with a current of 25 A between earthing terminal and each of the accessible metal parts; measured resistance ( $\square$ ) at $\square$ 10 A according 7.2.3 of IEC 60598-1: < 0,5 $\square$ ..... :		N/A
<b>- (9.4)</b>	<b>Earthing of built-in lamp controlgear</b>		<b>N/A</b>
	Earth by means of fixing to earthed metal of luminaire in compliance of 7.2 of IEC 60598-1		N/A
	Earthing terminal only for earthing the built-in controlgear		N/A
<b>- (9.5)</b>	<b>Earthing via independent controlgear</b>		<b>N/A</b>
<b>- (9.5.1)</b>	<b>Earth connection to other equipment</b>		<b>N/A</b>
	Looping or through connection, conductor min. 1,5 mm <sup>2</sup> and of copper or equivalent		N/A
	Protective earthing wires in line with 5.3.1.1 and clause 7		N/A
<b>- (9.5.2)</b>	<b>Earthing of the lamp compartments powered via the independent lamp controlgear</b>		<b>N/A</b>

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Clause	Requirement + Test	Result - Remark	Verdict
	Test with a current of 25 A between input and output earth terminals; measured resistance ( $\Omega$ ) between earthing terminal and each of the accessible metal parts at $\geq 10$ A according 7.2.3 of IEC 60598-1: $< 0,5 \Omega$ .....		N/A
	Output earthing terminal marked as in 7.1 t) of IEC 61347-1		N/A

11 (11)	MOISTURE RESISTANCE AND INSULATION		P
	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (M $\Omega$ ):		P
	For basic insulation $\geq 2$ M $\Omega$ .....	basic insulation $> 2$ M $\Omega$	P
	For double or reinforced insulation $\geq 4$ M $\Omega$ .....	reinforced insulation $> 4$ M $\Omega$	P
	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1	See annex L	P
11 (-)	Adequate insulation between input and output terminals not bounded together in SELV-equivalent controlgear		N/A

12 (12)	ELECTRIC STRENGTH		P
	Immediately after clause 11 electric strength test for 1 min		P
	Basic insulation for SELV, test voltage 500 V		P
	Working voltage $\leq 50$ V, test voltage 500 V	See only above.	N/A
	Working voltage $> 50$ V $\leq 1000$ V, test voltage (V):		P
	Basic insulation, $2U + 1000$ V	1500 V (see annex L.8.3)	P
	Supplementary insulation, $2U + 1000$ V		P
	Double or reinforced insulation, $4U + 2000$ V	3000 V (see annex L.8.3)	P
	No flashover or breakdown		P
	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1	(see annex N)	N/A

14 (14)	FAULT CONDITIONS		P
- (14)	When operated under fault conditions the controlgear:		P
	- does not emit flames or molten material		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- does not produce flammable gases		P
	- protection against accidental contact not impaired		P
	Thermally protected controlgear does not exceed the marked temperature value		N/A
	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	(see appended table 14)	P
- (14.1)	Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (except between live parts and accessible metal parts)	(see appended table 14)	P
	Creepage distances on printed boards less than specified in clause 16 in Part 1 provided with coating according to IEC 60664-3		N/A
- (14.2)	Short-circuit or interruption of semiconductor devices	(see appended table 14)	P
- (14.3)	Short-circuit across insulation consisting of lacquer, enamel or textile	No such material	N/A
- (14.4)	Short-circuit across electrolytic capacitors	(see appended table 14)	P
- (14.5)	After the tests has been carried out on three samples:		P
	The insulation resistance $\geq 1 \text{ M}\Omega$ ..... : > 1 M $\Omega$		P
	No flammable gases		P
	No accessible parts have become live		P
	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite		P
- (14.6)	Relevant fault condition tests with high-power supply		--
14 (-)	Temperature declared thermally protected lamp controlgear fulfil requirements in Annex C		N/A

<b>15 (-)</b>	<b>TRANSFORMER HEATING</b>		<b>P</b>
<b>15.1</b>	<b>General</b>		<b>P</b>
	Transformer comply with clause L.6 and L.7 of IEC 61347-1	See L.6 and L.7.	P
	Output voltage of SELV controlgear not exceed limits in 10.4 of IEC 61347-1 during the test of 15.1 and 15.2		P
<b>15.2 (-)</b>	<b>Normal operation</b>		<b>P</b>

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Clause	Requirement + Test	Result - Remark	Verdict
	Comply with clause L.6 of IEC 61347-1	See annex 5	P
<b>15.3 (-)</b>	<b>Abnormal operation</b>		<b>P</b>
	Comply with clause L.7 of IEC 61347-1	See annex 6	P
	Double LED modules or equivalent load connected in parallel to the output terminals of constant voltage type	See annex 6	P
	Double LED modules or equivalent load connected in parallel to the output terminals of constant current type		N/A
15 (-)	During and at the end of the tests no defect impairing safety, nor any smoke or flammable gases produced		P
<b>16 (15)</b>	<b>CONSTRUCTION</b>		<b>P</b>
<b>- (15.1)</b>	<b>Wood, cotton, silk, paper and similar fibrous material</b>		<b>P</b>
	Wood, cotton, silk, paper and similar fibrous material not used as insulation		P
<b>- (15.2)</b>	<b>Printed circuits</b>		<b>P</b>
	Printed circuits used as internal connections complies with clause 14		P
<b>- (15.3)</b>	<b>Plugs and socket-outlets used in SELV or ELV circuits</b>		<b>P</b>
	No dangerous compatibility between output socket-outlet and a plug for socket-outlets for input circuit in relation to installation rules, voltages and frequencies		P
	Plugs and socket-outlets for SELV comply with IEC 60906-3 and IEC 60884-2-4		N/A
	Plugs and socket-outlets for SELV $\leq 3 \text{ A}$ , $\leq 25 \text{ V r.m.s.}$ or $\leq 60 \text{ V d.c.}$ and $\leq 72 \text{ W}$ comply with IEC 60906-3 and IEC 60884-2-4 or:		P
	- plugs not able to enter socket-outlets of other standardised system		N/A
	- socket-outlets not admit plugs of other standardised system		P
	- socket-outlets without protective earth		P
<b>17 (16)</b>	<b>CREEPAGE DISTANCES AND CLEARANCES</b>		<b>P</b>
- (16)	Creepage distances and clearances according to Table 3 and 4, as appropriate	See annex 4	P
	Controlgears providing SELV comply with L.11 in Annex L	Considered. Also see L.11	P



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Clause	Requirement + Test	Result - Remark	Verdict
	Insulating lining of metallic enclosures		N/A
	Basic insulation on printed boards tested according to clause 14		P
	Distances subjected to both sinusoidal voltage as non-sinusoidal pulses not less than value in either Table 3 or 4		N/A
	Creepage distances not less than minimum clearance		P

<b>18 (17)</b>	<b>SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS</b>		<b>P</b>
	Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)		P
<b>(4.11)</b>	<b>Electrical connections</b>		<b>P</b>
(4.11.1)	Contact pressure		P
<b>(4.11.2)</b>	<b>Screws:</b>		<b>N/A</b>
	- self-tapping screws	Not used.	N/A
	- thread-cutting screws	Not used.	N/A
<b>(4.11.3)</b>	<b>Screw locking:</b>		<b>N/A</b>
	- spring washer	No such screws.	N/A
	- rivets		N/A
(4.11.4)	Material of current-carrying parts		P
(4.11.5)	No contact to wood or mounting surface		P
(4.11.6)	Electro-mechanical contact systems		N/A
<b>(4.12)</b>	<b>Mechanical connections and glands</b>		<b>N/A</b>
(4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part .....		N/A
	Torque test: torque (Nm); part .....		N/A
	Torque test: torque (Nm); part .....		N/A
(4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
<b>(4.12.4)</b>	<b>Locked connections:</b>		<b>N/A</b>
	- fixed arms; torque (Nm) .....		N/A
	- lampholder; torque (Nm) .....		N/A
	- push-button switches; torque 0,8 Nm .....		N/A
(4.12.5)	Screwed glands; force (Nm) .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

<b>19 (18)</b>	<b>RESISTANCE TO HEAT, FIRE AND TRACKING</b>		<b>P</b>
- (18.1)	Ball-pressure test:		P
	- part tested; temperature (°C)..... :	-- Transformer bobbin of T1 tested at 125°C Measured: 0.8mm --Plastic enclosure tested at 125°C Measured: 0.9 mm -- Output connector tested at 125°C Measured: 1.1 mm	P
	- part tested; temperature (°C)..... :		N/A
- (18.2)	Test of printed boards:	Comply with relevant requirements	P
	- part tested..... :		N/A
	- part tested..... :		N/A
- (18.3)	Glow-wire test (650°C):		P
	- part tested..... :	Enclosure, output connector	P
	- part tested..... :		N/A
- (18.4)	Needle flame test (10 s):		P
	- part tested..... :	Enclosure, output connector	P
	- part tested..... :		P
- (18.5)	Tracking test:		P
	- part tested..... :	Enclosure, output connector	P
	- part tested..... :	Plug pin holder	P

<b>20 (19)</b>	<b>RESISTANCE TO CORROSION</b>		<b>N/A</b>
	- test according 4.18.1 of IEC 60598-1		N/A
	- adequate varnish on the outer surface		N/A

14	TABLE: tests of fault conditions	P
Part	Simulated fault	Hazard
1, Model: RKPO-zz2400250-D1 (test at input 100V/240V)		
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal	No hazards

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Clause	Requirement + Test	Result - Remark	Verdict
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
IC1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
IC1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R6	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R10	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(2-4)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(A-B)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
C12	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
<b>2, Model: RKPO-zz1900315-D1 (test at input 100V/240V)</b>			
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal		No hazards
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
IC1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
IC1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict
R6	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R10	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(2-4)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(OA-OB)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
C12	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
<b>3, Model: RKPO-zz0900666-D1 (test at input 100V/240V)</b>			
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal		No hazards
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
IC1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
IC1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R6	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R10	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards

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Clause	Requirement + Test	Result - Remark	Verdict
T1(2-4)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(OA-OB)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
C12	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
<b>4, Model: RKPO-zz0401500-D1 (test at input 100V/240V)</b>			
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal		No hazards
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
IC1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
IC1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R6	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R10	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(2-4)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(OA-OB)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
C12	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards



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Clause	Requirement + Test	Result - Remark	Verdict
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
<b>5, Model: RKPO-zz2400500-D2 (test at input 100V/240V)</b>			
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal		No hazards
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
U1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
U1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R5	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R8	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(4-5)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(6-7)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
C11	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
D3	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
<b>6, Model: RKPO-zz1900630-D2 (test at input 100V/240V)</b>			
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal		No hazards

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Clause	Requirement + Test	Result - Remark	Verdict
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
U1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
U1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R5	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R8	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(4-5)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(6-7)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
C11	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
D3	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
<b>7, Model: RKPO-zz1101090-D2 (test at input 100V/240V)</b>			
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal		No hazards
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
U1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards

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Clause	Requirement + Test	Result - Remark	Verdict
U1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R5	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R8	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(4-5)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
T1(6-7)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
C11	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
D3	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
<b>8, Model: RKPO-zz0602000-D2 (test at input 100V/240V)</b>			
BD1	Fault: Short circuit. Test result: F1 opened immediately, no flame emission, no molten metal		No hazards
C2	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
U1(1-8)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal		No hazards
U1(5-8)	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards
R5	Fault: Short circuit. Test result: Unit shut down immediately, unrecoverable, no flame emission, no molten metal		No hazards

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Clause	Requirement + Test	Result - Remark	Verdict

R8	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal	No hazards
T1(1-3)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal	No hazards
T1(4-5)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal	No hazards
T1(6-7)	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal	No hazards
C11	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal	No hazards
D3	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal	No hazards
Output	Fault: Short circuit. Test result: Unit shut down immediately, recoverable, no flame emission, no molten metal	No hazards

Note: Each fault where fuse F1 opened was repeated with all sources of fuse, the same result obtained.

17 (16)	<b>TABLES: Creepage distances and clearances</b> (see annex 4 for details )						P
Table 3	<b>Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages</b>						P
RMS working voltage (V) not exceeding	50	150	250	500	750	1000	
<b>Creepage distances</b>							
Required basic insulation, PTI $\geq$ 600	0,6	0,8	1,5	3	4	5,5	
Measured							
Required basic insulation, PTI < 600	1,2	1,6	<u>2,5</u>	5	8	10	
Measured							
Required supplementary insulation PTI $\geq$ 600	-	0,8	1,5	3	4	5,5	
Measured							
Required supplementary insulation PTI < 600	-	1,6	2,5	5	8	10	
Measured							
Required reinforced insulation	-	3,2	<u>5</u>	6	8	11	
Measured							
<b>Clearances</b>							

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Clause	Requirement + Test	Result - Remark	Verdict

Required basic insulation	0,2	0,8	<u>1,5</u>	3	4	5,5
Measured						
Required supplementary insulation	-	0,8	1,5	3	4	5,5
Measured						
Required reinforced insulation	-	1,6	<u>3</u>	6	8	11
Measured						

Table 4	Minimum distances (mm) for non-sinusoidal pulse voltages						
Rated pulse voltage (peak kV)	2,0	2,5	3,0	4,0	5,0	6,0	8,0
Required clearances	1,0	1,5	2	3	4	5,5	8
Measured							
Rated pulse voltage (peak kV)	10	12	15	20	25	30	40
Required clearances	11	14	18	25	33	40	60
Measured							
Rated pulse voltage (peak kV)	50	60	80	100	-	-	-
Required clearances	75	90	130	170	-	-	-
Measured							

<b>A (A)</b>	<b>ANNEX A - TEST TO ESTABLISH WHETHER A CONDUCTIVE PART IS A LIVE PART WHICH MAY CAUSE AN ELECTRIC SHOCK</b>		P
(A.1)	Comply with A.2 or A.3		P
(A.2)	Voltage $\leq 35$ V peak or $\leq 60$ V d.c. .... :	Measured between output terminals.	P
(A.3)	If voltage $> 35$ V peak or $> 60$ V d.c. or protective impedance device; touch current does not exceed 0,7 mA (peak) or 2 mA d.c. .... :	Measured between one output terminal and Earth. See (10.1).	P
	Comply with Annex G of IEC 60598-1		P

<b>C (C)</b>	<b>ANNEX C – PARTICULAR REQUIREMENTS FOR ELECTRONIC LAMP CONTROLGEAR WITH MEANS OF PROTECTION AGAINST OVERHEATING</b>		N/A
<b>(C3)</b>	<b>GENERAL REQUIREMENTS</b>		N/A
(C3.1)	Thermal protection means integral with the convertor, protected against mechanical damage		N/A
	Renewable only by means of a tool		N/A
	If function depending on polarity, for cord-connected equipment protection means in both leads		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Thermal links comply with IEC 60691		N/A
	Electrical controls comply with IEC 60730-2-3		N/A
(C3.2)	No risk of fire by breaking (clause C7)		N/A
<b>(C5)</b>	<b>CLASSIFICATION</b>		<b>N/A</b>
	a) automatic resetting type		--
	b) manual resetting type		--
	c) non-renewable, non-resetting type		--
	d) renewable, non-resetting type		--
	e) other type of thermal protection; description .. :		N/A
<b>(C6)</b>	<b>MARKING</b>		<b>N/A</b>
(C6.1)	Symbol for temperature declared thermally protected ballasts		N/A
(C6.2)	Declaration of the type of protection provided		N/A
<b>(C7)</b>	<b>LIMITATION OF HEATING</b>		<b>N/A</b>
<b>(C7.1)</b>	<b>Preselection test:</b>		<b>N/A</b>
	Test sample placed for at least 12 h in an oven having temperature ( $t_c - 5$ ) K		N/A
	No operation of the protection device		N/A
<b>(C7.2)</b>	<b>Functioning of protection means:</b>		<b>N/A</b>
	Normal operation of the sample in a test enclosure according to Annex D at an ambient temperature such that ( $t_c + 0; -5$ ) $\square$ is obtained		N/A
	No operation of the protection device		N/A
	Introducing of the most onerous test condition determined during test of clause 14		N/A
	Output of windings connected to the mains supply short-circuited, and other part of the convertor operated under normal conditions		N/A
	Increasing of the current through the windings continuously until operation of the protection means		N/A
	Continuous measuring of the highest surface temperature		N/A
	Ballasts according to C5 a) or C5 e) operated until stable conditions are achieved		N/A
	Automatic-resetting thermal protectors working 3 times		N/A
	Ballasts according to C5 b) working 6 times		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Ballasts according to C5 c) and C5) d) working once		N/A
	Highest temperature does not exceed the marked value		N/A
	Any overshoot of 10% over the marked value within 15 min		N/A
<b>D (D)</b>	<b>ANNEX D – REQUIREMENTS FOR CARRY OUT THE HEATING TESTS OF THERMALLY PROTECTED LAMP CONTROLGEAR</b>		N/A
	Tests in C7 performed in accordance with Annex D, if applicable		N/A
<b>E (E)</b>	<b>ANNEX E – USE OF CONSTANT S OTHER THAN 4500 IN <math>t_w</math> TESTS</b>		N/A
	Comply with tests according Annex E		N/A
<b>F</b>	<b>ANNEX F - DRAUGHT-PROOF ENCLOSURE</b>		P
	Draught-proof enclosure in accordance with the description		P
	Dimensions of the enclosure		P
	Other design; description		P
<b>H (H)</b>	<b>ANNEX H - TESTS</b>		P
	All tests performed in accordance with the advice given in Annex H, if applicable		P
<b>I (L)</b>	<b>ANNEX I: PARTICULAR ADDITIONAL REQUIREMENTS FOR SELV D.C. OR A.C. SUPPLIED ELECTRONIC CONTROLGEAR FOR LED MODULES</b>		P
<b>(L.3)</b>	<b>Classification</b>		<b>P</b>
	Class I	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	Class II	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	--
	Class III	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	non-inherently short circuit proof controlgear	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	--
	inherently short circuit proof controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	fail safe controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
	non-short-circuit proof controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	--
<b>(L.4)</b>	<b>Marking</b>		<b>P</b>
	Adequate symbols are used		P
<b>(L.5)</b>	<b>Protection against electric shock</b>		<b>P</b>

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Clause	Requirement + Test	Result - Remark	Verdict
	Comply with 9.2 of IEC 61558-1		N/A
<b>(L.6)</b>	<b>Heating</b>		<b>P</b>
	No excessive temperatures in normal use		P
	Value if capacitor $t_c$ marked .....		--
	Winding insulation classified as Class .....	Class B	--
	Comply with tests of clause 14 of IEC 61558-1 with adjustments	See annex 5	P
<b>(L.7)</b>	<b>Short-circuit and overload protection</b>		<b>P</b>
	Comply with tests of clause 15 of IEC 61558-1 with adjustments	See annex 6, test at 90V and 264V	P
<b>(L.8)</b>	<b>Insulation resistance and electric strength</b>		<b>P</b>
(L.8.1)	Conditioned 48 h between 91 % and 95 %		P
(L.8.2)	Insulation resistance		P
	Between input- and output circuits not less than 5 M $\Omega$ .....	100 M $\Omega$	P
	Between metal parts of class II convertors which are separated from live parts by basic insulation only and the body not less than 5 M $\Omega$ .....		N/A
	Between metal foil in contact with the inner and outer surfaces of enclosures of insulating material not less than 2 M $\Omega$ .....	100 M $\Omega$	P
(L.8.3)	Electric strength		P
	1) Between live parts of input circuits and live parts of output circuits .....	3000 V (Between input and output and between transformer T1 secondary and core)	P
	2) Over basic or supplementary insulation between:		P
	a) live parts having different polarity .....	1500 V (Between L and N after fusible resistor F1 removed)	P
	b) live parts and body if intended to be connected to protective earth .....		N/A
	c) accessible metal parts and a metal rod of the same diameter as the flexible cable or cord .....		N/A
	d) live parts and an intermediate metal part .....		N/A
	e) intermediate metal parts and the body .....		N/A
	f) each input circuit and all other input circuits ...		N/A
	3) Over reinforced insulation between the body and live parts .....	3000 V (Between input and accessible enclosure)	P



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Clause	Requirement + Test	Result - Remark	Verdict
<b>(L.9)</b>	<b>Construction</b>		<b>P</b>
(L.9.1)	Transformer comply with 19.12 of IEC 61558-1 and 19 of IEC 61558-2-6	All windings fixed by bobbin and insulation tape VDE approved triple insulated wires used for secondary winding of transformer T1	P
	HF transformer comply with 19 of IEC 61558-2-16	Safety isolating transformer used. Double insulation or reinforced insulation between primary winding/core and secondary winding. Insulation tape fold back used on primary enamelled wire and secondary triple insulated wire where can contact each other.	P
<b>(L.10)</b>	<b>Components</b>		<b>P</b>
	Protective devices comply with 20.6 – 20.11 of IEC 61558-1	VDE approved fusible resistor used	P
<b>(L.11)</b>	<b>Creepage distances and clearances</b>		<b>P</b>
	1. Insulation between input and output circuits, basic insulation:		N/A
	a) measured values $\geq$ specified values (mm) .....		N/A
	b) measured values $\geq$ specified values (mm) .....		N/A
	c) measured values $\geq$ specified values (mm) .....		N/A
	2. Insulation between input and output circuits, double or reinforced insulation:		P
	a) measured values $\geq$ specified values (mm) .....	See annex 4	P
	b) measured values $\geq$ specified values (mm) .....		N/A
	c) measured values $\geq$ specified values (mm) .....	See annex 4	P
	3. Insulation between adjacent <u>input</u> circuits		N/A
	- measured values $\geq$ specified values (mm) .....		N/A
	3. Insulation between adjacent <u>output</u> circuits		N/A
	- measured values $\geq$ specified values (mm) .....		N/A
	4. Insulation between terminals for external connection:		N/A
	- measured values $\geq$ specified values (mm) .....	Terminals on different ends of the PCB.	N/A
	5. Basic or supplementary insulation:		P
	a) measured values $\geq$ specified values (mm) .....	See annex 4	P
	b) measured values $\geq$ specified values (mm) .....		N/A
	c) measured values $\geq$ specified values (mm) .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	d) measured values $\geq$ specified values (mm) ..... :		N/A
	e) measured values $\geq$ specified values (mm) ..... :		N/A
	6. Reinforced insulation or insulation:		P
	Between body and output circuit: measured values $\geq$ specified values (mm) ..... :	See Annex 4	P
	Between body and output circuit if provision against transient voltages: measured values $\geq$ specified values (mm) ..... :		N/A
	7. Distance through insulation:		P
	a) measured values $\geq$ specified values (mm) ..... :		N/A
	b) measured values $\geq$ specified values (mm) ..... :		N/A
	c) measured values $\geq$ specified values (mm) ..... :	See annex 4	P

<b>(N)</b>	<b>ANNEX N: REQUIREMENTS FOR INSULATION MATERIALS USED FOR DOUBLE OR REINFORCED INSULATION</b>		N/A
<b>(N.4)</b>	<b>General requirements</b>		N/A
(N.4.1)	Material comply with IEC 60085 and IEC 60216 series		N/A
<b>(N.4.2)</b>	<b>Solid insulation</b>		N/A
	Electric strength test at least 5 kV or 1,35 x test voltage in Table N.1		N/A
	If not classified according IEC 60085 and IEC 60216 series: Electric strength test increased 10 % of 5,5 kV or 1,5 x test voltage in Table N.1		N/A
<b>(N.4.3)</b>	<b>Thin sheet insulation</b>		N/A
(N.4.3.1)	Thickness and composition of thin sheet insulation		N/A
	- Inside the ballast and not subjected to handling or abrasion during the production and during maintenance		N/A
	- Non-separated layers: Min. 3 layers and fulfil mandrel test of 150N		N/A
	- Separated layers: Min. 2 layers and each layer fulfil mandrel test of 50N		N/A
	- Separated layers (alternative): Min. 3 layers and 2/3 of the layers fulfil mandrel test of 100N		N/A
(N.4.3.2)	Mandrel test (electric strength test during mechanical stress)		N/A
	Electric strength test after mandrel test:		N/A
	- Non-separated layers: min. 5 kV or 1,35 x test voltage in Table N.1		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- 2/3 of min. 3 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1		N/A
	- one of 2 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1		N/A
	No flashover or breakdown occurred		N/A

<b>(O)</b>	<b>ANNEX O: ADDITIONAL REQUIREMENTS FOR BUILT-IN ELECTRONIC CONTROLGEAR WITH DOUBLE OR REINFORCED INSULATION</b>		N/A
<b>(O.6)</b>	<b>Marking</b>		<b>N/A</b>
	Marking according clause 7 (7)	See clause 7	N/A
	Special symbol		N/A
	Meaning of the special symbol explained in catalogue		N/A
<b>(O.7)</b>	<b>Protection against accidental contact with live parts</b>		<b>N/A</b>
	Requirements of clause 8 (10)	See clause 8	N/A
	Test finger not possible to make contact with basic insulated metal parts		N/A
<b>(O.8)</b>	<b>Terminals</b>		<b>N/A</b>
	Clause 9 (8)	See clause 9	N/A
<b>(O.9)</b>	<b>Provision for earthing</b>		<b>N/A</b>
	Functional earthing terminals comply with clause 9 of part 1		N/A
	No protective earthing terminal		N/A
<b>(O.10)</b>	<b>Moisture resistance and insulation</b>		<b>N/A</b>
	Clause 11 (11)	See clause 11	N/A
<b>(O.11)</b>	<b>Electric strength</b>		<b>N/A</b>
	Clause 12 (12)	See clause 12	N/A
<b>(O.13)</b>	<b>Fault conditions</b>		<b>N/A</b>
	Clause 14 (14)	See clause 14	N/A
	End of test, between live part and accessible metal parts or external parts of insulating material in contact with the supporting surface comply with dielectric strength test reduced to 35 % of values according Table 1 in part 1		N/A
	Insulation resistance according to O.10 between live part and accessible metal parts or external parts of insulating material in contact with the supporting surface not less than 4 M $\square$		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>(O.14)</b>	<b>Construction</b>		<b>N/A</b>
	Clause 17 (15)	See clause 17	N/A
	Accessible metal parts insulated from live parts by double or reinforced insulation		N/A
	Live part insulated from supporting surface in contact with external faces by double or reinforced insulation		N/A
<b>(O.15)</b>	<b>Creepage distances and clearances</b>		<b>N/A</b>
	Clause 18 (16)	See clause 18	N/A
	Comply with corresponding values for luminaries in IEC 60598-1		N/A
<b>(O.16)</b>	<b>Screws, current-carrying parts and connections</b>		<b>N/A</b>
	Clause 19 (17)	See clause 19	N/A
<b>(O.17)</b>	<b>Resistance to heat and fire</b>		<b>N/A</b>
	Clause 20 (18)	See clause 20	N/A
<b>(O.18)</b>	<b>Resistance to corrosion</b>		<b>N/A</b>
	Clause 21 (19)	See clause 21	N/A

<b>J</b>	<b>ANNEX J: PARTICULAR ADDITIONAL SAFETY REQUIREMENTS FOR A.C., A.C./D.C. OR D.C. SUPPLIED ELECTRONIC CONTROLGEAR FOR EMERGENCY LIGHTING</b>		N/A
<b>J.1</b>	<b>General</b>		<b>N/A</b>
	Intended for centralized emergency power supply	Yes <input type="checkbox"/> No <input type="checkbox"/>	--
<b>J.2</b>	<b>Marking</b>		<b>N/A</b>
J.2.1	Mandatory markings		N/A
	a) symbol EL		N/A
	b) rated emergency supply voltage (V)		N/A
J.2.2	Information to be provided if applicable		N/A
	a) Limits of ambient temperature		N/A
	b) Emergency output factor (EOF <sub>x</sub> )		N/A
	c) Information if intended for use in luminaires for high-risk task area lighting		N/A
J.3	General notes on tests		N/A
	Length of output cable in tests..... :		N/A
	Load instead of LED lamps/modules..... :		N/A
J.4	Starting conditions		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Start rated load in emergency mode without adversely affecting the performance		N/A
J.5	Operating condition		N/A
	Comply with the requirements of 7.2 of IEC 62384 at 90% and 110% of rated emergency supply voltage		N/A
J.6	Emergency supply current		N/A
	Emergency supply current not differ more than $\pm 15\%$		N/A
	Supply of low impedance and low inductance		N/A
J.7	EMC immunity		N/A
	Comply with the requirements of IEC 61547		N/A
J.8	Pulse voltage from central battery systems		N/A
	Withstand pulses according Table J.1		N/A
J.9	Tests for abnormal conditions		N/A
	Comply with the requirements of 12 of IEC 62384		N/A
J.10	Comply with the requirements of 13 of IEC 62384		N/A
J.11	Functional safety (EOF <sub>x</sub> )		N/A
	Declared emergency output factor (EOF <sub>x</sub> ) achieved during emergency operation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

<b>ANNEX 1: components</b>	<b>P</b>
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object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Components for models RKPO-zzxxxyyy-D1 and RKPO-zzxxxyyy-D2						
EU Plug portion	C	Dongguan Rico Electronic Co., Ltd.	RKPO-EUxxxyyy	250Vac, 0.6A	DIN VDE 0620-1:2010-02	Tested with appliance (See attachment 3 of report 17057899 001)
UK plug portion	C	Dongguan Rico Electronic Co., Ltd.	RKPO-UKxxxyyy	250Vac, 0.6A	BS 1363-1	Tested with appliance(See attachment 2 of report 17057899 001)
Plug pin holder	B,C	SABIC INNOVATIVE PLASTICS B V	943X(GG)(X)	PC, V-0, 120°C, Min. thickness: 1.5mm	UL 746	UL E45329
UK ISOD material	B,C	SABIC INNOVATIVE PLASTICS B V	943X(GG)(X)	PC, V-0, 120°C, Min. thickness: 1.5mm	UL 746	UL E45329
Metal material of Plug pin	C	Interchangeable	Interchangeable	Copper content : Min. 64.5%	--	Test with appliance(See attachment 3 of report 17057899 001)
Enclosure	B,C	SABIC INNOVATIVE PLASTICS B V	357M(f1)	V-0, min. 2.5mm thickness, 130°C	UL 746	UL E45329
DC Connector plastic	B,C	DONGGUAN QILONG ELECTRICITY CO LTD	QL 80A	V-0, Min. 2.5mm thickness, 105°C	UL 746	UL E351522
Input lead wire	B,C	Interchangeable	Interchangeable	24AWG-18AWG, 105°C, 300V	UL 758	UL

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Clause	Requirement + Test			Result - Remark		Verdict
Output lead wire	B,C	Interchangeable	Interchangeable	22AWG-18AWG, 105°C, 300V	UL 758	UL
PCB	B,C	SHANDONG JINBAO ELECTRONICS CO LTD	ZD-95(G)F ZD-90F ZD-90F1	V-0, 130°C	UL 94, UL746	UL E141940
(Alternative)	D	Interchangeable	Interchangeable	V-1 or better, 130 °C	UL 94	UL
Y- capacitor (CY1) (Y1 type)	B	Guangdong South Hongming Electronic Science and Technology Co., Ltd.	F	Max. 3300pF, 250VAC, 125°C	IEC/EN 60384- 14	VDE 40036393
(Alternative)	D	Shantou High- New Technology Dev. Zone Songtian Enterprise Co., Ltd.	CD-Series	Max. 3300pF, 275VAC, 125°C	IEC/EN 60384- 14	VDE 40025754
Components for models RKPO-zzxxxyyyy-D1						
Fusible Resistor (F1)	B	DONGGUAN HONGDA ELECTRONIC TECHNOLOGY CO.,LTD Co.,Ltd	RXF	1W&1WS, 10R	DIN EN 60065	VDE 40036858
Heat Shrinkable tube for fuse	B, C	DONGGUAN SALIPT CO LTD	SALIPT S-901- 300	Rating 300V, Minimum 125 degree C.	UL 224	UL E209436
Bridge Diodes (BD1)	C	Interchangeable	Interchangeable	Min. 0.5A, Min. 600V	--	Test with appliance
Line Filter (L1)	C	Interchangeable	Interchangeable	130 °C, 1mH	--	Tested with appliance
Line Filter (L2)	C	Interchangeable	Interchangeable	130 °C, 1μH	--	Tested with appliance
Current sensor Resistor (R6)	B, C	Interchangeable	Interchangeable	Min. 0.47Ω, Min. 1/4W.	--	Test with appliance
IC1	C	Interchangeable	Interchangeable	Min. 600V, Min. 0.8A.	--	Test with appliance

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Clause	Requirement + Test			Result - Remark		Verdict
Transformer (T1) Output:3-8.9Vdc	C	Dongguan Rico Electronic Co.,Ltd	RK06-05	Class B	--	Tested with appliance
Transformer (T1) Output:9-18.9Vdc	C	Dongguan Rico Electronic Co.,Ltd	RK06-12	Class B	--	Tested with appliance
Transformer (T1) Output:19-24Vdc	C	Dongguan Rico Electronic Co.,Ltd	RK06-24	Class B	--	Tested with appliance
Bobbin of T1	B, C	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic, V-0, 150 °C, min. thickness 0.8mm.	UL 94	UL E41429
Insulation tape of T1	B, C	Jingjiang Yahua Pressure Sensitive Glue Co Ltd	PZ, CT	130°C	UL 510	UL E165111
(Alternative)	B, C	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1	130 °C.	UL 510	UL E17385
Triple insulated wire (T1)	B	Furukawa Electric Co., Ltd	TEX-E	130°C	IEC 60950-1 UL 2353	VDE 6735 UL E206440
(Alternative)	D	TOTOKU ELECTRIC CO.,LTD	TIW-2X	130°C	UL 2353	UL E305883
Components for models RKPO-zzxxxyyy-D2						
Fuse (F1)	B	DONGGUAN HONGDA ELECTRONIC TECHNOLOGY CO.,LTD Co.,Ltd	RXF	1W&1WS, 4.7R	DIN EN 60065	VDE 40036858
Varistor (MOV1) (optional)	B	Guangdong South Hongming Electronic Science and Technology Co., Ltd.	ZVR-10D-471	Max. 300Vac, 85°C, V-0 coating, 6KV/3KA complied	IEC/EN 61051-1 IEC 61051-2 IEC 61051-2-2 UL 1449	VDE 40027789 UL E321851



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Clause	Requirement + Test			Result - Remark		Verdict
(Alternative) (optional)	D	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	10D471K	Max. 300Vac, 85°C, V-0 coating, 6KV/3KA complied	IEC/EN 61051-1 IEC 61051-2 IEC 61051-2- 2 UL 1449	VDE 40023049 UL E330837
Bridge Diodes (BD1)	C	Interchangeable	Interchangeable	Min. 0.5A, Min. 600V	--	Tested with appliance
Line Filter (L1)	C	Interchangeable	Interchangeable	130 °C, 1mH	--	Tested with appliance
Current sensor Resistor (R5, R6)	C	Interchangeable	Interchangeable	Min. 0.51Ω, min.1/4W.	--	Test with appliance
IC1	C	Interchangeable	Interchangeable	Min. 800V, Min. 0.8A.	--	Test with appliance
Transformer (T1) Output:3-8.9Vdc	C	Dongguan Rico Electronic Co.,Ltd	RK12-05VI	Class B	--	Tested with appliance
Transformer (T1) Output: 9-18Vdc	C	Dongguan Rico Electronic Co.,Ltd	RK12-12VI	Class B	--	Tested with appliance
Transformer (T1) Output:18-24Vdc	C	Dongguan Rico Electronic Co.,Ltd	RK12-24VI	Class B	--	Tested with appliance
Bobbin of T1	B, C	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic, V-0, 150 °C, min.	UL 94, UL 746C	UL E41429
Insulation tape of T1	B, C	Jingjiang Yahua Pressure Sensitive Glue Co Ltd	PZ ,CT	130°C	UL 510	UL E165111
(Alternative)	D	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1	130 °C.	UL510	UL E17385
Triple insulated wire (T1)	B	Furukawa Electric Co., Ltd	TEX-E	130°C	IEC/EN 60950-1 UL 2353	VDE 6735 UL E206440
(Alternative)	D	TOTOKU ELECTRIC CO.,LTD	TIW-2X	130°C	UL 2353	UL E305883

IEC 61347-2-13						
Clause	Requirement + Test			Result - Remark		Verdict
Silicone Rubber	B, C	Shen Zhen Anpin Silicone Material Co Ltd	AP-905B	V-0, 105°C	UL 94	UL E257078
(Alternative)	D	Shenzhen Bonic Science & Technology Ltd	BN160	V-0, 150°C	UL 94	UL E254560
(Alternative)	D	TIANHUAN TECH(DONGGUAN) CO LTD	TH100A/B--2	V-0,130 °C	UL 94	UL E257593

The codes above have the following meaning:

- A - The component is replaceable with another one, also certified, with equivalent characteristics
- B - The component is replaceable if authorised by the test house
- C - Integrated component tested together with the appliance
- D - Alternative component

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict

<b>ANNEX 2: screw terminals (part of the luminaire)</b>	N/A
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<b>(14)</b>	<b>SCREW TERMINALS</b>		N/A
(14.2)	Type of terminal .....	No screws used	--
	Rated current (A) .....		--
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm <sup>2</sup> ) .....		N/A
(14.3.3)	Conductor space (mm) .....		N/A
(14.4)	Mechanical tests		N/A
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread) .		N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm) .....		N/A
	Torque (Nm) .....		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N) .....		N/A
(14.4.8)	Without undue damage		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

<b>ANNEX 3: screwless terminals (part of the luminaire)</b>	N/A
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<b>(15)</b>	<b>SCREWLESS TERMINALS</b>		N/A
(15.2)	Type of terminal .....		--
	Rated current (A) .....		--
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5)	Terminals and connections for internal wiring		N/A
(15.5.1)	Mechanical tests		N/A
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples).....:		N/A
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples).....:		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.6)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples) .....		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles .....		--
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples) .....		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples) .....		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples) .....		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples) .....		N/A
(15.7)	Terminals external wiring		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	Terminal size and rating										N/A
(15.8.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) ..... :										N/A
	Pull test pin or tab terminals (4 samples); pull (N) ..... :										N/A
(15.9)	Contact resistance test										N/A
	Voltage drop (mV) after 1 h										N/A
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop of two inseparable joints										
	Voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV)..... :										<input type="checkbox"/>
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV)..... :										--
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV)..... :										--
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV)..... :										<input type="checkbox"/>
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											

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Clause	Requirement + Test	Result - Remark	Verdict

Annex 4: Limits according to table L.5 and table 3 whichever is higher applied to this product.

Clearance cl and creepage distance dcr at/of:	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)
<b>For model: RKPO-zzxxxxyyy-D1</b>					
<b>On primary</b>					
L-N on PCB before F1 (B)*	240	2.4	3.5	2.5	3.5
Different polarity of fuse F1 (B)*	240	2.4	2.9	2.5	2.9
<b>Primary components to accessible part</b>					
Primary component C2 to outside of plastic enclosure outside(R)*	240	4.6	11.7	4.8	11.7
Core of T1 to outside of plastic enclosure(R)*	241	4.6	12.5	4.8	12.5
Winding of L1 to outside of plastic enclosure(R)*	240	4.6	14.9	4.8	14.9
<b>Primary components to secondary components</b>					
Different pin of CY1(R)*	240	4.6	5.3	4.8	5.3
Primary trace of D6 to secondary pin of T1 (R)*	241	4.6	5.8	4.8	5.8
Core of T1 to secondary component L1 (R)*	241	4.6	5.0	4.8	5.0
Core of T1 to secondary component C11 (R)*	241	4.6	6.7	4.8	6.7
Core of T1 to secondary pin of CY1 (R)*	241	4.6	7.5	4.8	7.5
Core of T1 to secondary pin of CY1 (R)*	241	4.6	7.5	4.8	7.5
Core of T1 to secondary pin A of T1 (R)*	241	4.6	5.5	4.8	5.5
Core of T1 to secondary pin B of T1 (R)*	241	4.6	6.1	4.8	6.1
Primary winding of T1 to secondary pin A of T1 (R)*	241	4.6	7.8	4.8	7.8
Primary winding of T1 to secondary pin B of T1 (R)*	241	4.6	10.1	4.8	10.1
<b>For model: RKPO-UKxxxxyyy-D1</b>					
Core of T1 to plug pin (R)*	241	4.6	6.1	4.8	6.1
<b>For model: RKPO-zzxxxxyyy-D2</b>					

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Clause	Requirement + Test	Result - Remark	Verdict

<b>On primary</b>					
L-N on PCB before F1 (B)*	240	2.4	6.1	2.5	6.1
Different polarity of fuse F1 (B)*	240	2.4	5.5	2.5	5.5
<b>Primary components to accessible part</b>					
Primary component C1/C2 to outside of plastic enclosure outside(R)*	240	4.6	9.1	4.8	9.1
<b>Primary components to secondary components</b>					
Different pin of CY1(R)*	240	4.6	6.5	4.8	6.5
Primary trace of D1 to secondary pin of T1 (R)*	268	5.0	7.0	5.4	7.0
Core of T1 to secondary component C11 (R)*	268	5.0	5.5	5.4	5.5
Core to secondary pin of T1 (R)*	268	5.0	12.6	5.4	12.6
Primary winding to secondary pin of T1 (R)*	268	5.0	7.8	5.4	7.8
<b>For model: RKPO-UKxxxxyyy-D2</b>					
Primary component C1 to plug pin (R)*	240	4.6	5.7	4.8	5.7
1) 3 layers insulation tape wrapped around transformer. 2) Triple insulated wire used for secondary winding of the transformer. Core considered as primary. 3) Enclosure minimum thickness 2.5mm > 0.86mm (working voltage 240V).					

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Clause	Requirement + Test	Result - Remark	Verdict

<b>ANNEX 5 (Clause 15.2(L.6))</b>	<b>Temperature measurements, thermal tests</b>		
	Type reference .....	1, RKPO-UK2400500-D2	--
	Load used.....	Equivalent load or LED module	--
	Mounting position of luminaire .....	On the black testing board (label up and label down)	-
	Ta .....	40°C	--
	- test : rated voltage .....	100V-240V	--
	- test : test voltage(normal) .....	Input : 1.06U <sub>R</sub> =254.4 V; I=0.108 A; P=13.6W Output: U=24.0V; I=0.5A; 1.06U <sub>R</sub> =106 V; I=0.224A; P=14.0W Output: U=24.0V; I=0.5A;	--

#### Normal operation

temperature (°C) of part	normal				
	106V /50Hz		254.4V /50Hz		Limit
	Label up	Label down	Label up	Label down	--
Mounting position					
Plastic enclosure near plug pin holder, outside	48.1	49.9	47.5	47.7	75
Plastic enclosure near plug pin holder, inside	49.1	50.6	47.9	48.3	130
Input lead wire	64.6	66.6	53.1	54.4	105
MOV1	61.7	64.3	54.5	55.7	85
C1 body	65.2	66.8	58.0	58.9	105
C2 body	67.9	68.6	62.1	62.6	105
C3 body	65.2	63.5	63.6	62.1	105
CY1 body	65.0	63.1	64.5	62.6	125
T1 winding	70.2	69.6	69.1	68.4	110
T1 bobbin	69.9	68.8	69.3	68.2	110
C11 body	53.9	53.1	53.4	52.4	105
PCB near T1	70.3	68.1	70.2	68.0	130
Output lead wire	50.6	49.9	50.2	49.3	105
Output connector	42.4	42.6	42.4	42.3	105
Tc point	48.0	47.6	47.4	46.9	75



IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict

Plastic enclosure near T1, outside	48.0	47.6	47.4	46.9	85
Plastic enclosure near T1, inside	51.4	50.4	50.9	49.9	130
Support	41.9	44.2	41.0	41.0	90
Ambient	40.0	40.0	40.0	40.0	--

<b>ANNEX 5 (Clause 15.2(L.6))</b>	<b>Temperature measurements, thermal tests</b>		
	Type reference .....	2, RKPO-UK1900630-D2	--
	Load used.....	Equivalent load or LED module	--
	Mounting position of luminaire .....	On the black testing board (label up and label down)	--
	Ta .....	40°C	--
	- test : rated voltage .....	100V-240V	--
	- test : test voltage(normal) .....	Input : 1.06U <sub>R</sub> =254.4 V; I=0.107 A; P=13.2W Output: U=19.0V; I=0.63A; 1.06U <sub>R</sub> =106 V; I=0.222A; P=13.7W Output: U=19.0V; I=0.63A;	--

Normal operation					
temperature (°C) of part	normal				
	106V /50Hz		254.4V /50Hz		Limit
Mounting position	Label up	Label down	Label up	Label down	--
Plastic enclosure near plug pin holder, outside	44.9	47.2	44.7	44.9	75
Plastic enclosure near plug pin holder, inside	46.1	48.9	45.4	45.9	130
Input lead wire	60.7	65.0	53.0	55.4	105
MOV1	66.3	71.4	56.7	59.3	85
C1 body	72.9	76.2	62.2	64.4	105
C2 body	77.0	77.7	68.3	68.8	105
C3 body	73.6	72.1	69.7	68.4	105
CY1 body	80.5	78.6	76.2	76.1	125

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Clause	Requirement + Test			Result - Remark	Verdict
T1 winding	79.4	78.2	78.8	75.1	110
T1 bobbin	76.7	74.7	69.3	68.1	110
C11 body	76.3	75.4	74.4	72.9	105
PCB near T1	63.6	63.1	62.4	60.7	130
Output lead wire	60.0	59.5	59.3	57.4	105
Output connector	43.4	44.0	44.3	43.1	105
Tc point	50.2	51.7	49.7	49.7	75
Plastic enclosure near T1, inside	75.1	74.2	74.5	72.4	130
Plastic enclosure near T1, outside	50.2	51.7	49.7	49.7	85
Support	42.3	44.0	42.8	42.4	90
Ambient	40.0	40.0	40.0	40.0	--

<b>ANNEX 5 (Clause 15.2(L.6))</b>	<b>Temperature measurements, thermal tests</b>				
	Type reference .....	:	3, RKPO-UK1101090-D2		--
	Load used.....	:	Equivalent load or LED module		--
	Mounting position of luminaire .....	:	On the black testing board (label up and label down)		--
	Ta .....	:	40°C		--
	- test : rated voltage .....	:	100V-240V		--
	- test : test voltage(normal) .....	:	Input : 1.06U <sub>R</sub> =254.4 V; I=0.111 A; P=14.3W Output: U=11.0V; I=1.09A; 1.06U <sub>R</sub> =106 V; I=0.243A; P=15.0W Output: U=11.0V; I=1.09A;		--
<b>Normal operation</b>					
temperature (°C) of part	normal				
	106V /50Hz		254.4V /50Hz		Limit
Mounting position	Label up	Label down	Label up	Label down	--
Plastic enclosure near plug pin holder, outside	46.5	47.2	48.7	46.4	75

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Clause	Requirement + Test	Result - Remark	Verdict

Plastic enclosure near plug pin holder, inside	47.2	48.4	48.4	46.5	130
Input lead wire	64.3	58.2	56.5	50.2	105
MOV1	69.6	62.3	59.9	52.7	85
C1 body	79.3	75.4	67.1	61.3	105
C2 body	82.6	82.7	72.5	68.9	105
C3 body	79.9	77.8	74.4	68.8	105
CY1 body	82.0	84.8	79.5	79.1	125
T1 winding	93.2	96.2	88.6	88.3	110
T1 bobbin	84.5	89.1	80.7	83.0	110
PCB near T1	104.3	105.6	103.5	105.3	130
C11 body	73.7	79.4	71.7	74.0	105
Output lead wire	67.9	73.5	66.7	68.9	105
Output connector	46.8	51.4	47.7	49.4	105
Tc point	53.0	56.5	52.5	52.6	75
Plastic enclosure near T1, inside	86.7	86.4	87.0	84.5	130
Plastic enclosure near T1, outside	53.0	56.5	52.5	52.6	85
Support	43.0	42.2	44.6	41.6	90
Ambient	40.0	40.0	40.0	40.0	--

ANNEX 5 (Clause 15.2(L.6))	Temperature measurements, thermal tests		
	Type reference .....	4, RKPO-UK0602000-D2	--
	Load used.....	Equivalent load or LED module	--
	Mounting position of luminaire .....	On the black testing board (label up and label down)	--
	Ta .....	40°C	--
	- test : rated voltage .....	100V-240V	--

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Clause	Requirement + Test	Result - Remark	Verdict

	- test : test voltage(normal) ..... :	Input : 1.06U <sub>R</sub> =254.4 V; I=0.111 A; P=14.0W Output: U=6.0V; I=2.00A; 1.06U <sub>R</sub> =106 V; I=0.233A; P=14.6W Output: U=6.0V; I=2.00A;	--
--	---------------------------------------	--	----

Normal operation					
temperature (°C) of part	normal				
	106V /50Hz		254.4V /50Hz		Limit
Mounting position	Label up	Label down	Label up	Label down	--
Plastic enclosure near plug pin holder, outside	46.8	49	44.8	47	75
Plastic enclosure near plug pin holder, inside	46.3	49	44.8	47.1	130
Input lead wire	76.7	76.2	57.9	63.1	105
MOV1	71.0	76.6	59.5	64.1	85
C1 body	77.7	82.2	65.9	70.6	105
C2 body	80.8	82.0	71.4	73.9	105
C3 body	77.8	77.7	72.7	73.5	105
CY1 body	78.3	77.4	74.2	74.2	125
T1 winding	95.1	94.1	89.8	89.9	110
T1 bobbin	86.4	85.8	81.7	82.3	110
PCB near T1	109.9	104.5	102.9	99.7	130
C11 body	79.4	82.8	74.5	73.2	105
Output lead wire	65.8	64.1	62.4	61.9	105
Output connector	47.4	48.0	46.7	47.5	105
Tc point	53.7	53.3	51.7	52.4	75
Plastic enclosure near T1, inside	59.1	59.0	56.6	57.3	130
Plastic enclosure near T1, outside	53.7	53.3	51.7	52.4	85
Support	41.4	42.6	41.1	42.3	90
Ambient	40	40.0	40.0	40.0	--

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Clause	Requirement + Test	Result - Remark	Verdict

<b>ANNEX 5 (Clause 15.2(L.6))</b>	<b>Temperature measurements, thermal tests</b>		
	Type reference .....	5, RKPO-UK0401500-D1	--
	Load used.....	Equivalent load or LED module	--
	Mounting position of luminaire .....	On the black testing board (label up and label down)	--
	Ta .....	40°C	--
	- test : rated voltage .....	100V-240V	--
	- test : test voltage(normal) .....	Input : 1.06U <sub>R</sub> =254.4 V; I=0.068 A; P=8.74W Output: U=4.0V; I=1.50A; 1.06U <sub>R</sub> =106 V; I=0.14A; P=9.13W Output: U=4.0V; I=1.50A;	--

#### Normal operation

temperature (°C) of part	normal				
	106V /50Hz		254.4V /50Hz		Limit
	Label up	Label down	Label up	Label down	--
Mounting position					
Plastic enclosure near plug pin holder, outside	43.6	44.4	43.3	42.9	75
Plastic enclosure near plug pin holder, inside	44.6	45.8	44.7	44.1	130
Input lead wire	62.6	56.9	57.1	50.6	105
C5 body	83.5	80.3	77.0	68.9	105
C1 body	84.3	79.8	76.6	68.7	105
C2 body	82.0	79.9	77.9	71.9	105
L2 winding	75.0	69.5	69.9	61.9	120
CY1 body	76.3	78.0	76.0	74.2	125
T1 winding	89.8	91.5	89.9	87.3	110
T1 bobbin	79.8	78.9	79.4	75.2	110
PCB near T1	77.2	78.6	77.8	76.4	130
C11 body	82.2	89.2	85.6	85.3	105
C12 body	64.7	70.0	65.3	68.4	105
L1 winding	71.5	77.2	73.1	76.6	120
Output lead wire	62.8	70.1	64.2	70.9	105

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Clause	Requirement + Test		Result - Remark	Verdict

Output connector	42.7	47.2	42.7	46.1	105
Tc point	68.3	70.1	68.1	66.3	75
Plastic enclosure near T1, inside	74.5	76.9	74.6	73.5	130
Plastic enclosure near T1, outside	68.3	70.1	68.1	66.3	85
Support	42.4	42.0	43.5	42.3	90
Ambient	40.0	40.0	40.0	40.0	--

<b>ANNEX 5 (Clause 15.2(L.6))</b>	<b>Temperature measurements, thermal tests</b>		
	Type reference .....	6, RKPO-UK0900666-D1	--
	Load used.....	Equivalent load or LED module	--
	Mounting position of luminaire .....	On the black testing board (label up and label down)	--
	Ta .....	40°C	--
	- test : rated voltage .....	100V-240V	--
	- test : test voltage(normal) .....	Input : 1.06U <sub>R</sub> =254.4 V; I=0.058 A; P=7.01W Output: U=9.0V; I=0.66A; 1.06U <sub>R</sub> =106 V; I=0.114A; P=7.14W Output: U=9.0V; I=0.66A;	--

#### Normal operation

temperature (°C) of part	normal				
	106V /50Hz		254.4V /50Hz		Limit
Mounting position	Label up	Label down	Label up	Label down	--
Plastic enclosure near plug pin holder, outside	44.4	45.4	49.5	49.3	75
Plastic enclosure near plug pin holder, inside	43.9	45.6	49.5	50.4	130
Input lead wire	57.8	59.2	65.9	64.4	105
C5 body	64.6	66.0	76.4	74.4	105
C1 body	65.9	68.3	81.2	80.4	105
C2 body	66.2	68.2	83.6	82.5	105

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Clause	Requirement + Test	Result - Remark	Verdict

L2 winding	63.1	64.6	77.3	75.7	120
CY1 body	62.0	58.7	77.0	67.3	125
T1 winding	73.6	71.9	92.1	84.4	110
T1 bobbin	68.5	68.0	84.7	79.6	110
PCB near T1	66.0	62.8	84.6	74.0	130
C11 body	64.1	61.3	75.4	67.7	105
C12 body	55.8	53.0	65.7	57.6	105
L1 winding	56.9	54.4	66.3	59.0	120
Output lead wire	54.9	52.2	63.0	55.9	105
Output connector	42.2	42.2	44.5	41.9	105
Tc point	56.4	52.7	68.6	57.8	75
Plastic enclosure near T1, inside	62.3	59.4	81.0	70.3	130
Plastic enclosure near T1, outside	56.4	52.7	68.6	57.8	85
Support	41.7	41.2	48.6	41.2	90
Ambient	40.0	40.0	40.0	40.0	--

<b>ANNEX 5 (Clause 15.2(L.6))</b>	<b>Temperature measurements, thermal tests</b>		
	Type reference .....	7, RKPO-UK1900315-D1	--
	Load used.....	Equivalent load or LED module	--
	Mounting position of luminaire .....	On the black testing board (label up and label down)	--
	Ta .....	40°C	--
	- test : rated voltage .....	100V-240V	--
	- test : test voltage(normal) .....	Input : 1.06U <sub>R</sub> =254.4 V; I=0.056 A; P=7.01W Output: U=19.0V; I=0.315A; 1.06U <sub>R</sub> =106 V; I=0.116A; P=7.33W Output: U=19.0V; I=0.315A;	--
<b>Normal operation</b>			
temperature (°C) of part	normal		
	106V /50Hz	254.4V /50Hz	Limit

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict

Mounting position	Label up	Label down	Label up	Label down	--
Plastic enclosure near plug pin holder, outside	48.9	50.3	48.5	49.6	75
Plastic enclosure near plug pin holder, inside	50.7	52.6	50.5	51.9	130
Input lead wire	66.5	67.6	58.4	59.5	105
C5 body	67.8	69.5	64.0	65.5	105
C1 body	73.8	76.2	68.4	70.4	105
C2 body	74.6	69.8	69.2	69.0	105
L2 winding	70.5	73.6	65.8	68.3	120
CY1 body	69.8	69.2	67.6	67.3	125
T1 winding	79.2	80.0	76.1	77.0	110
T1 bobbin	65.7	62.5	59.4	61.2	110
PCB near T1	73.9	71.6	71.0	69.6	130
C11 body	61.5	60.6	60.1	59.6	105
Output lead wire	53.5	51.8	52.2	51.2	105
Output connector	42.2	42.8	41.6	42.7	105
Tc point	51.9	49.4	50.5	48.8	75
Plastic enclosure near T1, inside	55.5	52.8	53.9	52.1	130
Plastic enclosure near T1, outside	51.9	49.4	50.5	48.8	85
Support	43.8	41.5	46.0	41.3	90
Ambient	40.0	40.0	40.0	40.0	--

ANNEX 5 (Clause 15.2(L.6))	Temperature measurements, thermal tests		
	Type reference .....	8, RKPO-UK2400250-D1	--
	Load used.....	Equivalent load or LED module	--
	Mounting position of luminaire .....	On the black testing board (label up and label down)	--
	Ta .....	40°C	--
	- test : rated voltage .....	100V-240V	--



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Clause	Requirement + Test	Result - Remark	Verdict

	- test : test voltage(normal) ..... :	Input : 1.06U <sub>R</sub> =254.4 V; I=0.058 A; P=6.96W Output: U=24.0V; I=0.25A; 1.06U <sub>R</sub> =106 V; I=0.108A; P=7.22W Output: U=24.0V; I=0.25A;	--
--	---------------------------------------	--	----

Normal operation					
temperature (°C) of part	normal				
	106V /50Hz		254.4V /50Hz		Limit
	Label up	Label down	Label up	Label down	
Mounting position					--
Plastic enclosure near plug pin holder, outside	45.2	45.8	46.6	47.3	75
Plastic enclosure near plug pin holder, inside	45.6	46.3	46.8	47.6	130
Input lead wire	66.0	62.5	58.6	56.7	105
C1 body	73.9	70.6	68.8	65.8	105
C2 body	76.5	73.9	72.8	70.6	105
L2 winding	68.5	63.1	64.0	59.8	120
C5 body	73.9	72.3	69.3	67.0	105
CY1 body	69.3	70.8	68.3	69.4	125
C11	64.8	69.2	64.4	68.3	105
T1 winding	81.8	82.6	80.5	80.8	110
T1 bobbin	77.0	76.0	75.7	75.4	110
PCB near T1	68.0	70.8	67.7	69.7	130
Output lead wire	59.2	62.8	58.8	62.0	105
Output connector	42.5	44.5	42.5	44.5	105
Tc point	59.0	60.5	58.1	59.4	75
Plastic enclosure near T1, inside	55.9	54.6	54.4	53.6	130
Plastic enclosure near T1, outside	59.0	60.5	58.1	59.4	85
Support	42.1	43.1	42.4	43.7	90
Ambient	40.0	40.0	40.0	40.0	--

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 6 (L.7)	TABLE: SHORT-CIRCUIT PROTECTION							P
	ambient temperature (°C) .....: 40							
type/rated output	r-cold Ω	r-warm Ω	winding °C	ext. encl. (T <sub>c</sub> point) °C	support °C	int. + ext. wire	further information	
1, RKPO- UK2400500-D2 /24.0Vdc, 0.5A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
1, RKPO- UK2400500-D2 /24.0Vdc, 0.5A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	
2, RKPO- UK1900630-D2 /19.0Vdc, 0.63A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
2, RKPO- UK1900630-D2 /19.0Vdc, 0.63A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	
3, RKPO- UK1101090-D2 /11.0Vdc, 1.09A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
3, RKPO- UK1101090-D2 /11.0Vdc, 1.09A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	
4, RKPO- UK0602000-D2 /6.0Vdc, 2.0A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
4, RKPO- UK0602000-D2 /6.0Vdc, 2.0A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	
5, RKPO- UK0401500-D1 /4.0Vdc, 1.5A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
5, RKPO- UK0401500-D1 /4.0Vdc, 1.5A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	
6, RKPO- UK0900666-D1 /9.0Vdc, 0.666A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
6, RKPO- UK0900666-D1 /9.0Vdc, 0.666A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	

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Clause	Requirement + Test				Result - Remark		Verdict

7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>
7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>
Limits:	--	--	190	105	105	105	--

Supplementary information:

- 1) Shorted output (+) – (-), for each model the equipment shutdown immediately.  
 2) No emitted flames, molten metal, poisonous or ignitable gas.

ANNEX 6 (Clause 15.3(L.7))		TABLE: Double LED Modules						P
		ambient temperature (°C) .....:				40		
type/rated output	r-cold Ω	r-warm Ω	winding °C	ext. encl. (Tc point) °C	support °C	int. + ext. wire	further information	
1, RKPO-UK2400500-D2 /24.0Vdc, 0.5A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
1, RKPO-UK2400500-D2 /24.0Vdc, 0.5A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	
2, RKPO-UK1900630-D2 /19.0Vdc, 0.63A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
2, RKPO-UK1900630-D2 /19.0Vdc, 0.63A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	
3, RKPO-UK1101090-D2 /11.0Vdc, 1.09A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>	
3, RKPO-UK1101090-D2 /11.0Vdc, 1.09A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>	

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Clause	Requirement + Test					Result - Remark	Verdict

4, RKPO-UK0602000-D2 /6.0Vdc, 2.0A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>
4, RKPO-UK0602000-D2 /6.0Vdc, 2.0A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>
5, RKPO-UK0401500-D1 /4.0Vdc, 1.5A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>
5, RKPO-UK0401500-D1 /4.0Vdc, 1.5A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>
6, RKPO-UK0900666-D1 /9.0Vdc, 0.666A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>
6, RKPO-UK0900666-D1 /9.0Vdc, 0.666A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>
7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>
7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	--	--	--	--	Tested at 90V <sup>1)</sup>
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	--	--	--	--	Tested at 264V <sup>1)</sup>
Limits:	--	--	190	105	105	105	--

Supplementary information:

- 1) Double LED modules, for each model the equipment shutdown immediately.
- 2) No emitted flames, molten metal, poisonous or ignitable gas.

ANNEX 6 (Clause 14)		TABLE: Fault condition (See table 14 for details)						P
		ambient temperature (°C) .....				See below		
type/rated output	r-cold Ω	r-warm Ω	winding °C	ext. encl. (T <sub>c</sub> point) °C	support °C	int. + ext. wire	further information	

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Clause	Requirement + Test			Result - Remark			Verdict
1, RKPO-UK2400500-D2 /24.0Vdc, 0.5A	--	--	101.8	75	73.5	88.8/76.7	Tested at 100V <sup>1)</sup>
1, RKPO-UK2400500-D2 /24.0Vdc, 0.5A	--	--	97.4	75	72.0	78.6/74.5	Tested at 240V <sup>1)</sup>
2, RKPO-UK1900630-D2 /19.0Vdc, 0.63A	--	--	100.1	75	60.6	83.6/75.0	Tested at 100V <sup>1)</sup>
2, RKPO-UK1900630-D2 /19.0Vdc, 0.63A	--	--	102.3	75	61.5	77.9/76.3	Tested at 240V <sup>1)</sup>
3, RKPO-UK1101090-D2 /11.0Vdc, 1.09A	--	--	113.3	75	67.7	85.5/76.0	Tested at 100V <sup>1)</sup>
3, RKPO-UK1101090-D2 /11.0Vdc, 1.09A	--	--	107.4	75	67.0	74.9/76.1	Tested at 240V <sup>1)</sup>
4, RKPO-UK0602000-D2 /6.0Vdc, 2.0A	--	--	113.5	75	67.4	86.1/74.1	Tested at 100V <sup>1)</sup>
4, RKPO-UK0602000-D2 /6.0Vdc, 2.0A	--	--	109.2	75	66.5	77.7/77.0	Tested at 240V <sup>1)</sup>
5, RKPO-UK0401500-D1 /4.0Vdc, 1.5A	--	--	114.8	75	71.3	92.1/87.6	Tested at 100V <sup>1)</sup>
5, RKPO-UK0401500-D1 /4.0Vdc, 1.5A	--	--	118.3	75	71.9	87.9/85.7	Tested at 240V <sup>1)</sup>
6, RKPO-UK0900666-D1 /9.0Vdc, 0.666A	--	--	118.6	75	69.7	88.8/86.3	Tested at 100V <sup>1)</sup>
6, RKPO-UK0900666-D1 /9.0Vdc, 0.666A	--	--	118.5	75	67.8	85.5/85.8	Tested at 240V <sup>1)</sup>
7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	115.6	75	73.3	99.1/80.4	Tested at 100V <sup>1)</sup>
7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	118.1	75	73.3	91.5/80.0	Tested at 240V <sup>1)</sup>

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Clause	Requirement + Test			Result - Remark			Verdict
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	110.6	75	70.3	92.0/82.7	Tested at 100V <sup>1)</sup>
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	108.0	75	70.8	85.3/81.6	Tested at 240V <sup>1)</sup>
Limits:	--	--	190	105	105	105	--
Supplementary information: 1) The fault condition test was tested when the unit were brought to tc. The temperature measured until stable conditions are obtained. When fault condition applied, for each model the equipment shutdown immediately or fuse opened immediately so no temperatures were recorded. 2) No emitted flames, molten metal, poisonous or ignitable gas.							

ANNEX 6 (L.7)		TABLE: OVERLOAD PROTECTION						P
		ambient temperature (°C) .....: 40						
type/rated output	r-cold Ω	r-warm Ω	winding °C	ext. encl. °C	support °C	int. + ext. wire (input lead wire/output t lead wire)	further information	
1, RKPO-UK2400500-D2 /24.0Vdc, 0.5A	--	--	72.3	49.3	46.4	69.4/51.0	Tested at 90V. Output overload to 23.05V /0.536A	
1, RKPO-UK2400500-D2 /24.0Vdc, 0.5A	--	--	71.9	49.2	44.7	56.5/51.0	Tested at 264V. Output overload to 24.25V /0.53A	
2, RKPO-UK1900630-D2 /19.0Vdc, 0.63A	--	--	80.5	51.7	44.2	65.5/59.8	Tested at 90V. Output overload to 18.01V /0.625A	
2, RKPO-UK1900630-D2 /19.0Vdc, 0.63A	--	--	84.3	52.8	43.8	57.4/60.9	Tested at 264V. Output overload to 18.66V /0.655A	

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Clause	Requirement + Test			Result - Remark			Verdict
3, RKPO-UK1101090-D2 /11.0Vdc, 1.09A	--	--	99.9	57.1	44.7	58.6/76.6	Tested at 90V. Output overload to 10.867V /1.289A
3, RKPO-UK1101090-D2 /11.0Vdc, 1.09A	--	--	90.0	54.2	44.2	56.5/71.3	Tested at 264V. Output overload to 11.152V /1.23A
4, RKPO-UK0602000-D2 /6.0Vdc, 2.0A	--	--	96.1	53.7	42.9	78.2/65.4	Tested at 90V. Output overload to 5.46V /2.25A
4, RKPO-UK0602000-D2 /6.0Vdc, 2.0A	--	--	97.7	55.5	44.0	67.8/66.8	Tested at 264V. Output overload to 5.79V /2.5A
5, RKPO-UK0401500-D1 /4.0Vdc, 1.5A	--	--	96.4	73.8	43.8	59.7/73.3	Tested at 90V. Output overload to 3.83V /1.839A
5, RKPO-UK0401500-D1 /4.0Vdc, 1.5A	--	--	94.4	73.1	43.0	57.5/75.4	Tested at 264V. Output overload to 4.091V /1.909A
6, RKPO-UK0900666-D1 /9.0Vdc, 0.666A	--	--	99.5	57.6	47.3	59.8/77.0	Tested at 90V. Output overload to 8.26V /0.985A
6, RKPO-UK0900666-D1 /9.0Vdc, 0.666A	--	--	105.0	57.0	44.5	59.7/75.2	Tested at 264V. Output overload to 8.61V /1.095A

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Clause	Requirement + Test			Result - Remark			Verdict
7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	86.3	53.5	43.9	67.7/53.7	Tested at 90V. Output overload to 18.63V /0.365A
7, RKPO-UK1900315-D1 /19.0Vdc, 0.315A	--	--	83.5	53.6	45.0	59.8/54.2	Tested at 264V. Output overload to 18.66V /0.375A
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	95.8	61.0	44.5	58.4/73.8	Tested at 90V. Output overload to 23.256V /0.359A
8, RKPO-UK2400250-D1 /24.0Vdc, 0.250A	--	--	90.7	61.5	44.5	58.0/66.5	Tested at 264V. Output overload to 23.78V /0.37A
Limits:	--	--	190	105	105	105	--
Supplementary information:							
1) The above test performed at unit continuous operation.							
2) No emitted flames, molten metal, poisonous or ignitable gas.							



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Clause	Requirement + Test	Result - Remark	Verdict

Annex 7	Tests according to EN 60598-1:2008 + A11: 2009		
Clause	Requirement - Test	Result – Remark	Verdict

4.10	Insulation of Class II luminaires		P
4.10.1	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
4.10.2	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
4.10.3	Retention of insulation:		N/A
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A
	- lining in lampholder		N/A

4.11	Electrical connections		P
4.11.1	Contact pressure		P
4.11.2	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
4.11.3	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
4.11.4	Material of current-carrying parts		P
4.11.5	No contact to wood or mounting surface		P
4.11.6	Electro-mechanical contact systems		N/A

4.13	Mechanical strength		P
4.13.1	Impact tests:		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- fragile parts; energy (Nm) :		N/A
	- other parts; energy (Nm) :	0.5 Nm	P
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		P
4.13.2	Metal parts have adequate mechanical strength		N/A
4.13.3	Straight test finger		N/A

4.14.6	Strain on socket-outlets	For model: RKPO-zzxxxxyyy-D1 Max.0.054 Nm < 0.25 Nm For model: RKPO-zzxxxxyyy-D2 Max.0.061 Nm < 0.25 Nm	P
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<b>5</b>	<b>EXTERNAL AND INTERNAL WIRING</b>		—
5.2	Supply connection and external wiring		—
5.2.1	Means of connection .....	Direct plug-in type	N/A
5.2.2	Type of cable .....		N/A
	Nominal cross-sectional area (mm <sup>2</sup> ) .....		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
5.2.3	Type of attachment, X, Y or Z		N/A
5.2.5	Type Z not connected to screws		N/A
5.2.6	Cable entries:		—
	- suitable for introduction		N/A
	- adequate degree of protection		N/A
5.2.7	Cable entries through rigid material have rounded edges		N/A
5.2.8	Insulating bushings:		—
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
5.2.9	Locking of screwed bushings		N/A
5.2.10	Cord anchorage:		—
	- covering protected from abrasion		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- clear how to be effective		N/A
	- no mechanical or thermal stress		N/A
	- no tying of cables into knots etc.		N/A
	- insulating material or lining		N/A
5.2.10.1	Cord anchorage for type X attachment:		—
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
5.2.10.2	Adequate cord anchorage for type Y and type Z attachment		N/A
5.2.10.3	Tests:		—
	- impossible to push cable; unsafe		N/A
	- pull test: 25 times; pull (N)..... :		N/A
	- torque test: torque (Nm) ..... :		N/A
	- displacement $\leq 2$ mm		N/A
	- no movement of conductors		N/A
	- no damage of cable or cord		N/A
5.2.11	External wiring passing into luminaire		N/A
5.2.12	Looping-in terminals		N/A
5.2.13	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
5.2.14	Mains plug same protection	Shall be evaluated in national approval.	N/A
	Class III luminaire plug		N/A
5.2.16	Appliance inlets (IEC 60320)		N/A
	Appliance couplers of class II type		N/A
5.2.17	No standardized interconnecting cables properly assembled		N/A
5.2.18	Used plug in accordance with		—

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Clause	Requirement + Test	Result - Remark	Verdict
	- IEC 60083	Shall be evaluated in national approval.	N/A
	- other standard		N/A
5.3	Internal wiring		—
5.3.1	Internal wiring of suitable size and type	UL listed wire used.	P
	Through wiring		—
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A)..... :		N/A
	- temperatures ..... :		N/A
	Green-yellow for earth only		N/A
5.3.1.1	Internal wiring connected directly to fixed wiring		—
	Cross-sectional area (mm <sup>2</sup> )..... :	Direct plug-in equipment	N/A
	Insulation thickness		N/A
	Extra insulation added where necessary		N/A
5.3.1.2	Internal wiring connected to fixed wiring via internal current-limiting device		—
	Adequate cross-sectional area and insulation thickness	See Annex 1	--
5.3.1.3	Double or reinforced insulation for class II		P
5.3.1.4	Conductors without insulation		N/A
5.3.1.5	SELV current-carrying parts		P
5.3.1.6	Insulation thickness other than PVC or rubber		P
5.3.2	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		P
	Telescopic tubes etc.		P
	No twisting over 360°		P
5.3.3	Insulating bushings:		—
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
5.3.4	Joints and junctions effectively insulated		N/A
5.3.5	Strain on internal wiring		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.6	Wire carriers		N/A
5.3.7	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A

<b>8</b>	<b>PROTECTION AGAINST ELECTRIC SHOCK</b>		<b>P</b>
8.2.1	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable and adjustable luminaires		P
	Basic insulated parts not accessible with Ø 50 mm probe from outside, within arms reach, on wall-mounted luminaires		P
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N/A
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		P
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
8.2.2	Portable luminaire adjusted in most unfavourable position		N/A
8.2.3.a	Class II luminaire:		N/A
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
8.2.3.b	BC lampholder of metal in class I luminaires shall be earthed		N/A
8.2.3.c	Class III luminaires with exposed SELV parts:		N/A
	Ordinary luminaire:		N/A
	- touch current .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- no-load voltage .....		N/A
	Other than ordinary luminaire:		N/A
	- nominal voltage .....		N/A
8.2.4	Portable luminaire have protection independent of supporting surface		N/A
8.2.5	Compliance with the standard test finger or relevant probe		P
8.2.6	Covers reliably secured		P
8.2.7	Discharging of capacitors $\geq 0,5 \mu\text{F}$		N/A
	Portable plug connected luminaire with capacitor		N/A
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		N/A
	Discharge device mounted separately		N/A

IEC 61347-2-13			
Clause	Requirement + Test	Result - Remark	Verdict

<p align="center"><b>ATTACHMENT TO TEST REPORT IEC 61347-2-13</b>  <b>EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES</b>  Part 2: Particular requirements  Section Thirteen – d.c. or a.c. supplied electronic controlgear for LED modules</p>	
<b>Differences according to.....:</b>	EN 61347-2-13:2014 used in conjunction with EN 61347-1:2008 + A1:2011 + A2:2013
<b>Attachment Form No.....:</b>	IEC61347_2_13E
<b>Attachment Originator .....</b>	Intertek Semko AB
<b>Master Attachment .....</b>	2014-12
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	<b>CENELEC COMMON MODIFICATIONS (EN)</b>	P
	No Common modifications	P

Product: LED Power Supply

Type Designation: RKPO-zzxxxyyyy, RKPO-zzxxxyyyy-D1, RKPO-zzxxxyyyy-D2



Figure 1. Overall view



Figure 2. Internal view



Product: LED Power Supply

Type Designation: RKPO-zzxxxxyyy, RKPO-zzxxxxyyy-D1, RKPO-zzxxxxyyy-D2



Figure 3. Internal view of model RKPO-EUxxxxyyy-D1

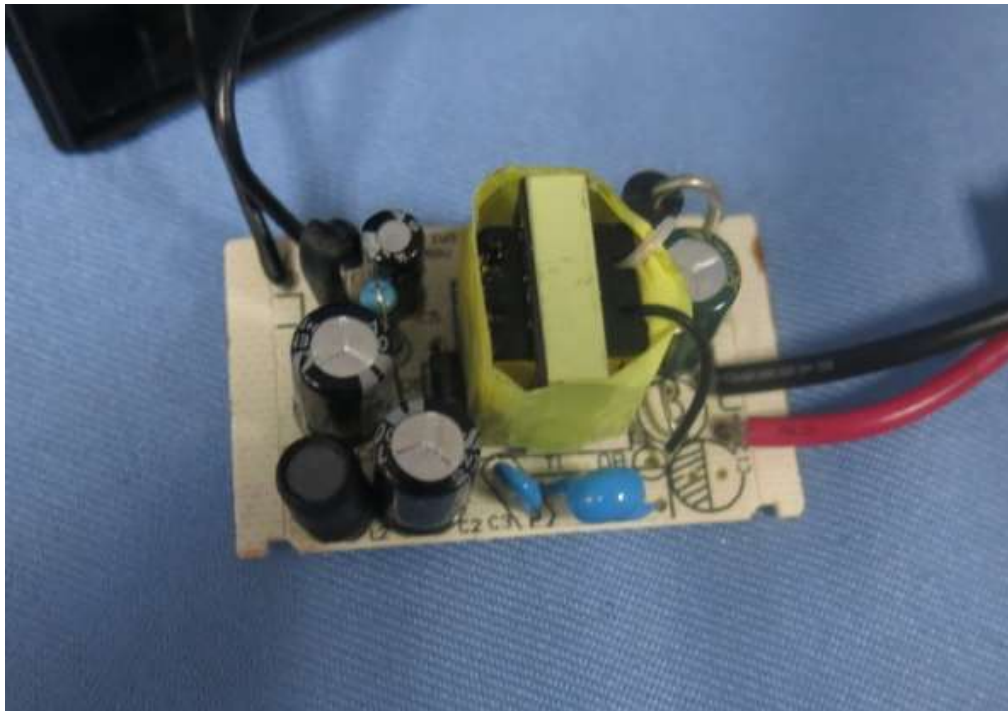


Figure 4. PCB component side view of model RKPO-zzxxxxyyy-D1 (after removed glue)

Product: LED Power Supply

Type Designation: RKPO-zzxxxxyyy, RKPO-zzxxxxyyy-D1, RKPO-zzxxxxyyy-D2

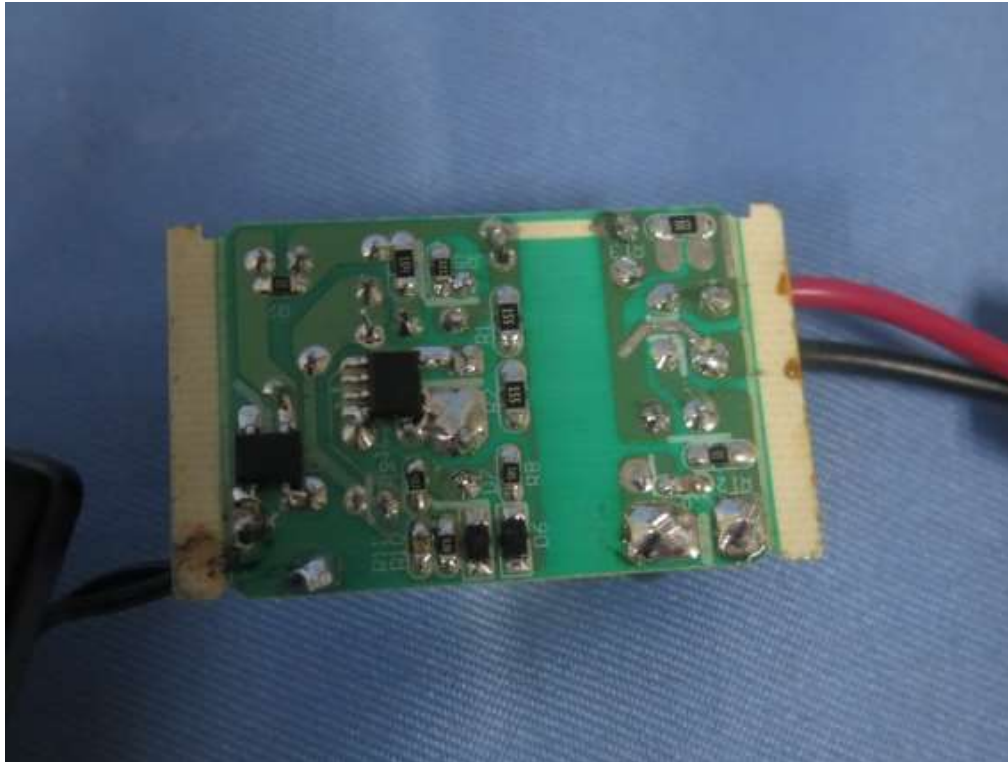


Figure 5. PCB trace side view of model RKPO-zzxxxxyyy-D1

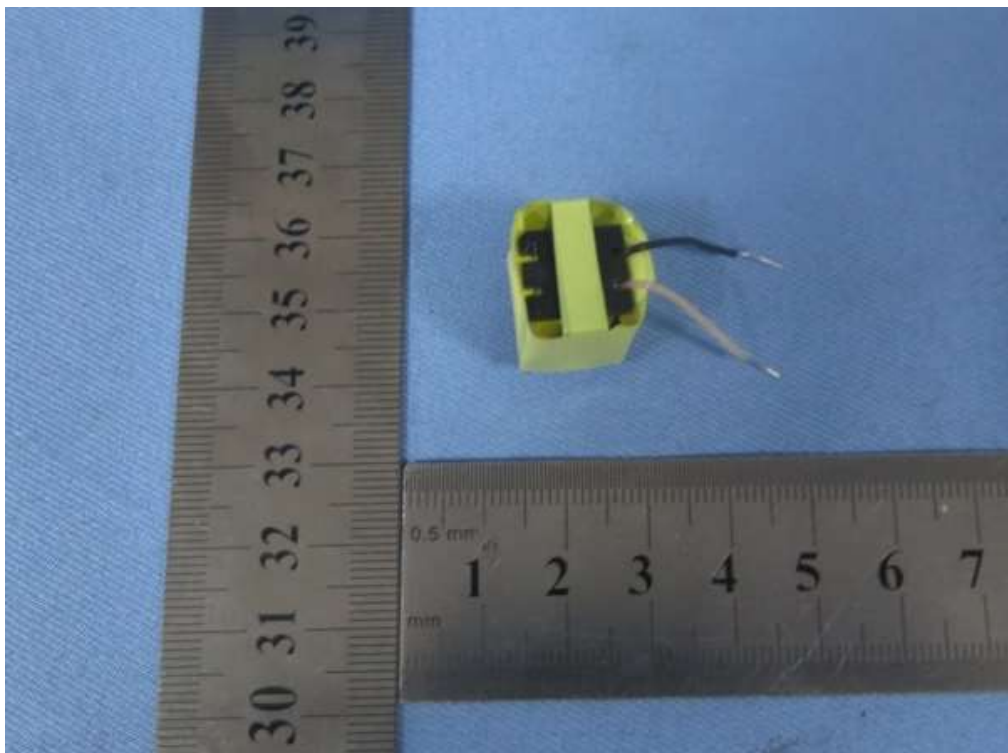


Figure 6. External view of transformer which used in model RKPO-zzxxxxyyy-D1

Product: LED Power Supply

Type Designation: RKPO-zzxxxyyyy, RKPO-zzxxxyyyy-D1, RKPO-zzxxxyyyy-D2

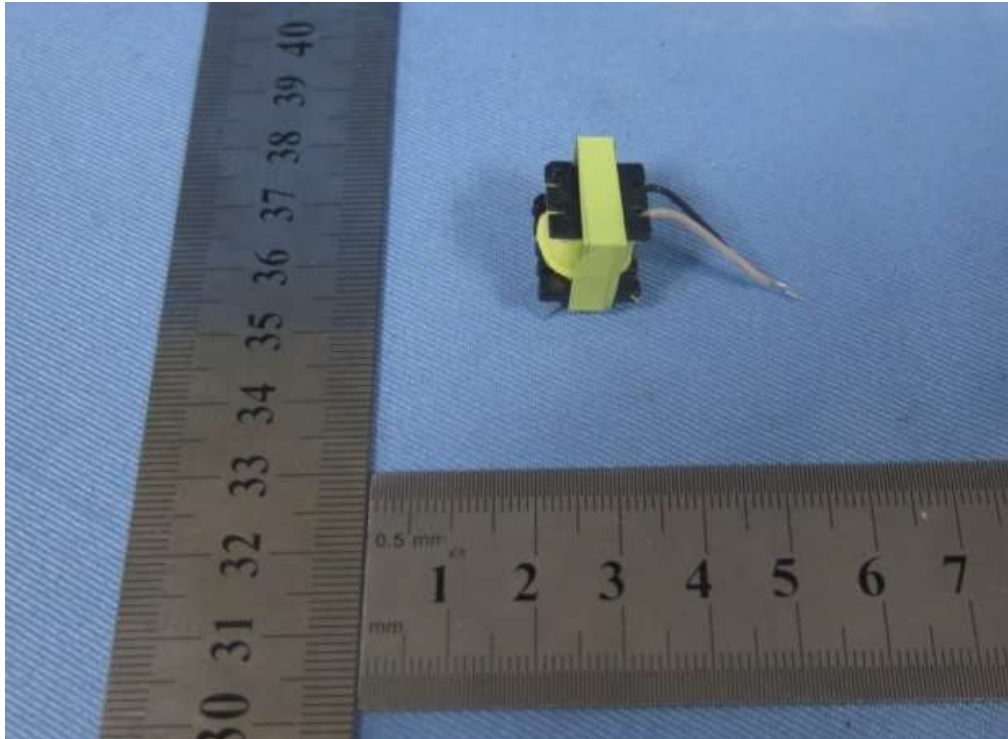


Figure 7. Internal view of transformer which used in model RKPO-zzxxxyyyy-D1

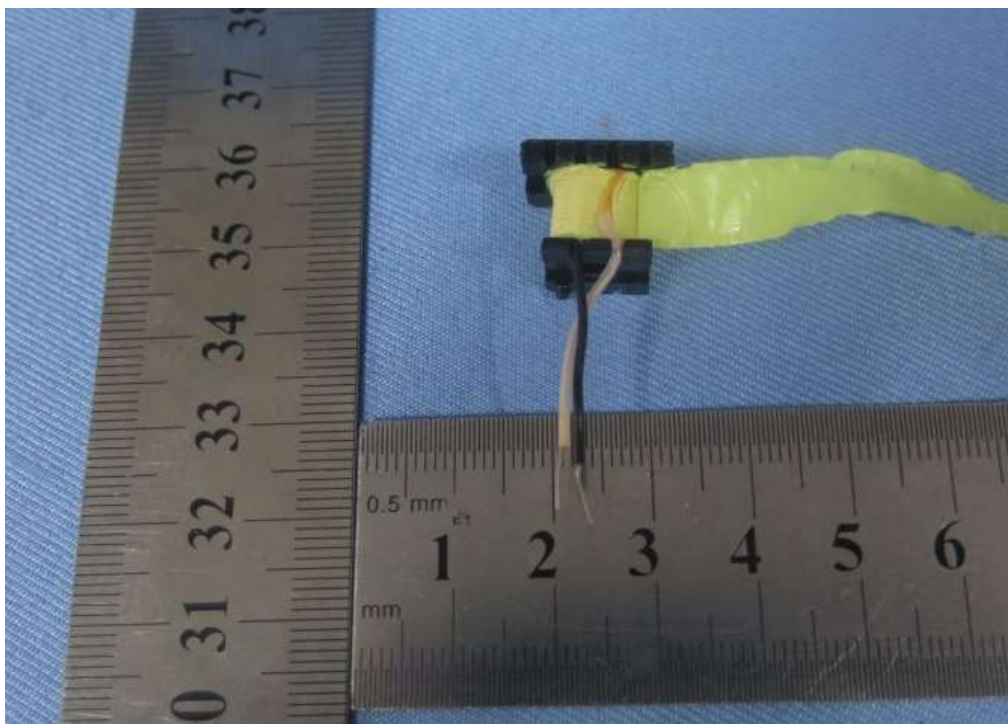


Figure 8. Internal view of transformer which used in model RKPO-zzxxxyyyy-D1



Product: LED Power Supply

Type Designation: RKPO-zzxxxxyyy, RKPO-zzxxxxyyy-D1, RKPO-zzxxxxyyy-D2

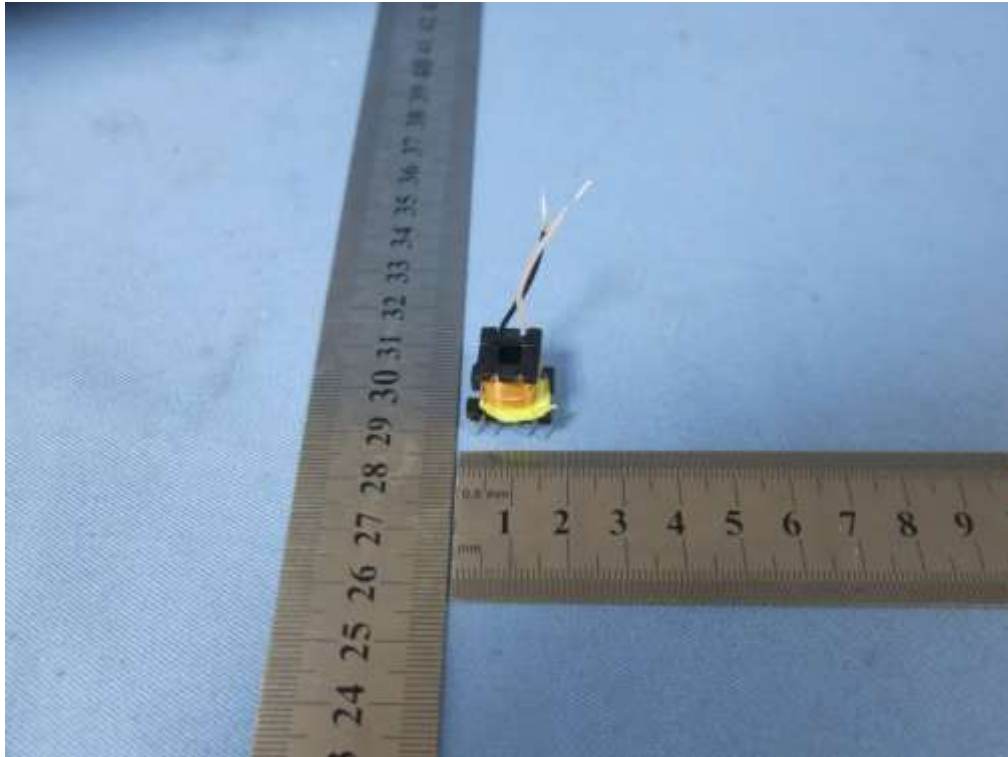


Figure 9. Insulation tape fold back used between primary winding and secondary TIW where can contact at angle 45-90



Figure 10. Internal view of model RKPO-EUxxxxyyy-D2

Product: LED Power Supply

Type Designation: RKPO-zzxxxxyyy, RKPO-zzxxxxyyy-D1, RKPO-zzxxxxyyy-D2



Figure 11. PCB component side view of model RKPO-zzxxxxyyy-D2 (after removed glue)

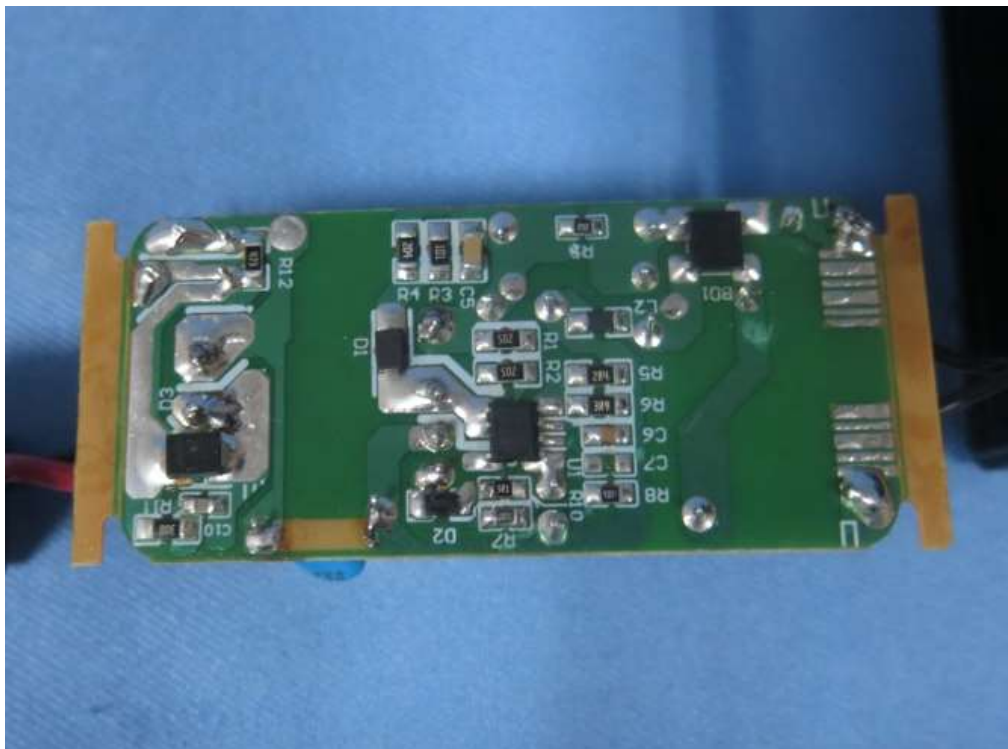


Figure 12. PCB trace side view of model RKPO-zzxxxxyyy-D2

Product: LED Power Supply

Type Designation: RKPO-zzxxxyyyy, RKPO-zzxxxyyyy-D1, RKPO-zzxxxyyyy-D2

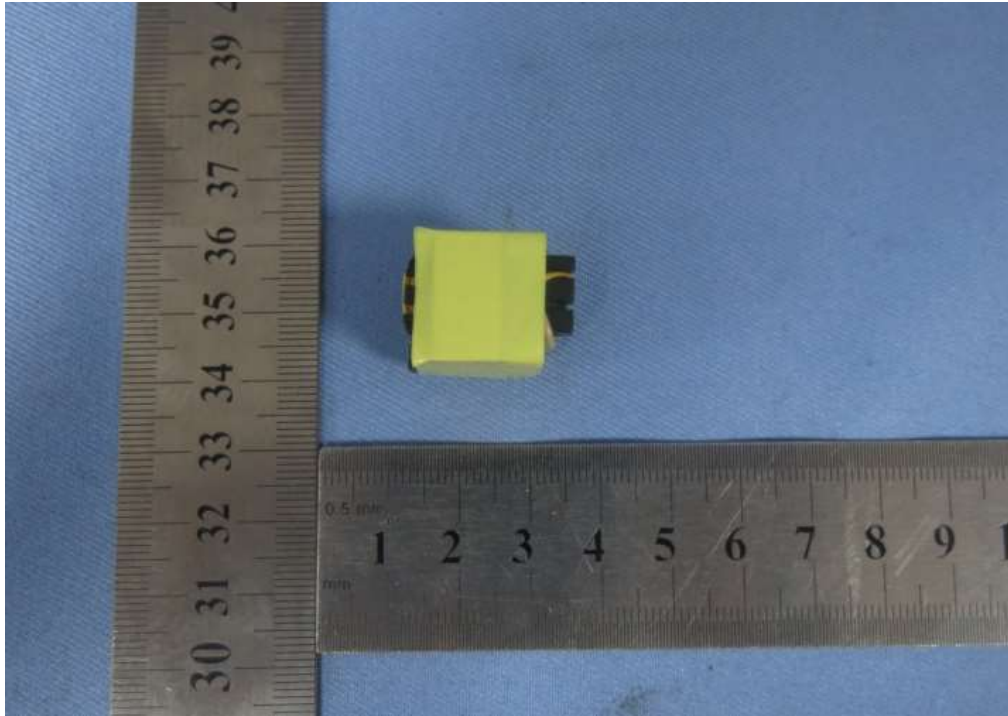


Figure 13. External view of transformer which used in model RKPO-zzxxxyyyy-D2

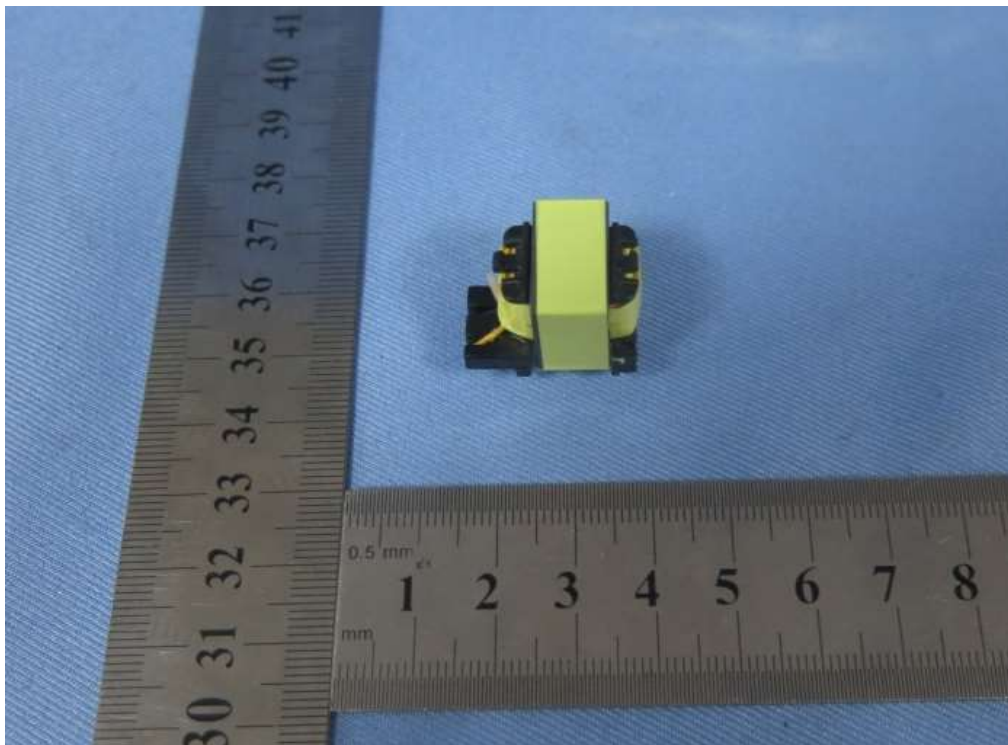


Figure 14. Internal view of transformer which used in model RKPO-zzxxxyyyy-D2



Product: LED Power Supply

Type Designation: RKPO-zzxxxxyyy, RKPO-zzxxxxyyy-D1, RKPO-zzxxxxyyy-D2

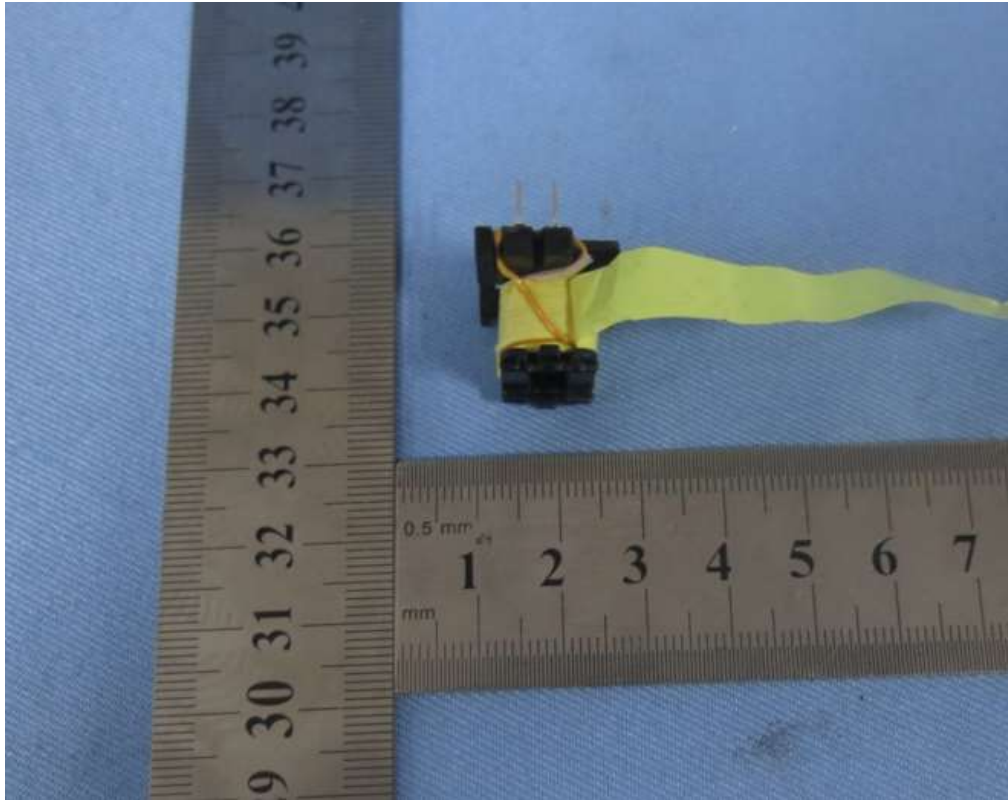


Figure 15. Internal view of transformer which used in model RKPO-zzxxxxyyy-D2

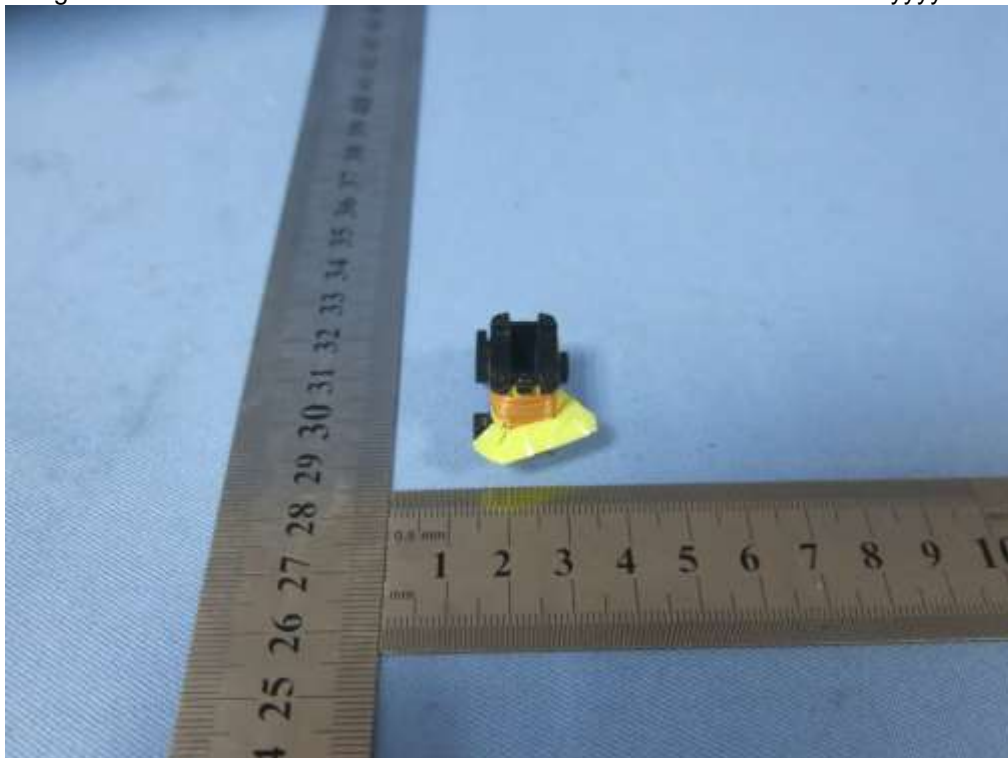


Figure 16. Insulation tape fold back used between primary winding and secondary TIW where can contact at angle 45-90