TEST REPORT

Reference No.	:	WTU19N10074446L
Applicant	:	LUMATEK LTD.
Address	:	Ewropa Business centre Level 3 – 701 Dun Karm Street Birkirkara BKR 9034 MALTA
Manufacturer	:	LUMATEK LTD.
Address	:	Ewropa Business centre Level 3 – 701 Dun Karm Street Birkirkara BKR 9034 MALTA
Product Name	:	Digital ballast
Model No.	:	See model list
Standards	:	EN 61347-2-12:2005+A1：2010 EN 61347-1:2015 Lamp controlgear - Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)
Date of Receipt sample	:	2019-10-20
Date of Test	:	2019-10-20to 2019-11-01
Date of Issue	:	2019-11-01
Test Report Form No.	:	WSL-61347212E-01A
Test Result	:	**Pass**

Remarks: The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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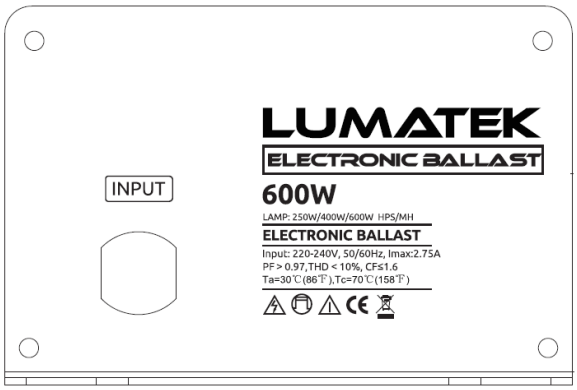
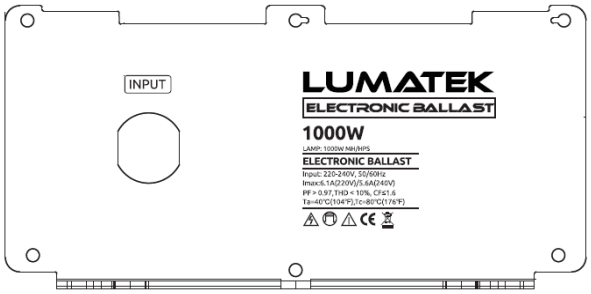
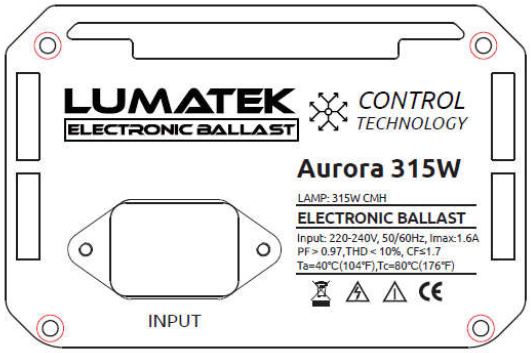
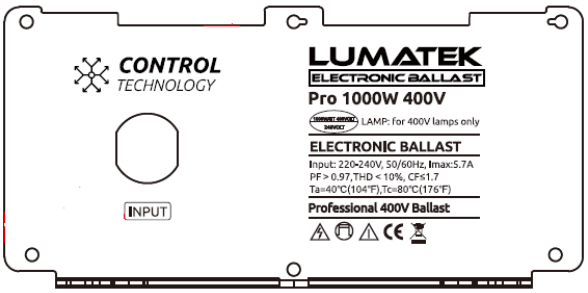
Test item description	..... :	Electronic Ballast
Trademark	..... :	See rating label
Model and/or type reference	..... :	See model list
Rating(s)	..... :	See model list

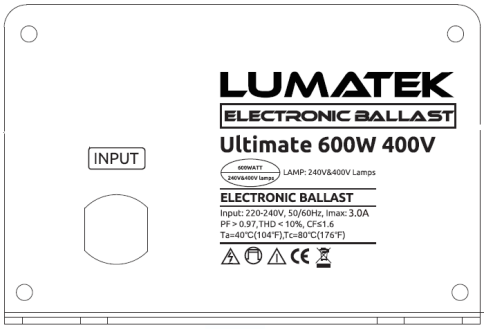
ample of rating label:

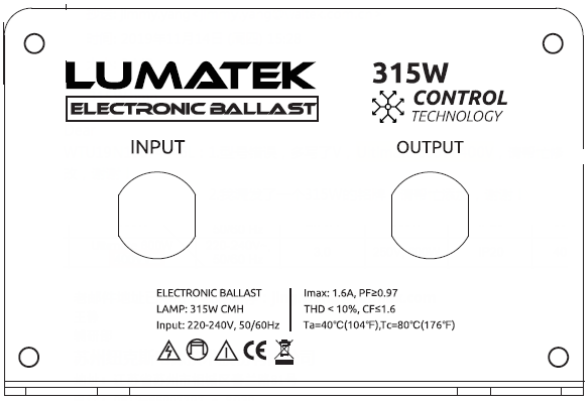












Marked on the exterior surface Note: height of CE mark at least 5mm, height of WEEE mark at least 7mm, height of other marks at least 5mm, heights of letters and numerals at least 2 mm. Remark: The marking labels for other models are identical as above, except with model No. and rating. 1. As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or registered trade mark and the postal address will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities. 2. Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.
Summary of testing: 1. All tests were performed on the representive model "Aurora 315W","Pro 1000W 400V", "600W". Model "315W"," 1000W" and "Ultimate 600W 400V" were tested for temperature measurements and Cl.14. 2. Assessment of lighting equipment related to human exposure to electromagnetic fields was evaluated and fulfilled the requirement of EN 62493: 2015. 3. Only the most unfavourable results had been recorded.

Test items particulars .....:	Electronic Ballast
Test case verdicts	“See below”
Test case does not apply to the test object ...:	N(Not applicable)
Test item does meet the requirement .....:	P(Pass)
Test item does not meet the requirement .....:	F(Fail)

General remarks

”(see remark #)" refers to a remark appended to the report.

"(see Annex #)" refers to an annex appended to the report.

Throughout this report a comma (point) is used as the decimal separator.

The test results presented in this report relate only to the object tested.

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General product information:

1. Independent electronic controlgear for discharge lamps.
2. Connected to supply via plug or lead wire.
3. Class I; IP 20; more information see model list below.

No.	Model	Rated input voltage and frenquency	Max. input current (A)	Rated max. output voltage and wattage	IP	ta / tc (°C)
1	Aurora 315W	220-240V~, 50/60 Hz	1.6	250V, 315W	IP20	40/80
2	315W	220-240V~, 50/60 Hz	1.6	250V, 315W	IP20	40/80
3	Pro 1000W 400V	220-240V~, 50/60 Hz	5.7	250V,1000 W	IP20	40/80
4	1000W	220-240V~, 50/60 Hz	6.1A at 220V, 5.6A at 240V	250V, 1000W	IP20	40/80
5	600W	220-240V~, 50/60 Hz	2.75A	600W	IP20	30/70
6	Ultimate 600W 400V	220-240V~, 50/60 Hz	3.0	250V, 600W	IP20	40/80
7	630W	220-240V~, 50/60 Hz	3.0	250V, 630W	IP20	40/80

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

4 (4)	**GENERAL REQUIREMENTS**		**P**
- (4)	Insulation materials for double or reinforced insulation according requirements in Annex N of IEC 61347-1	(see Annex N)	N
- (4)	Compliance of independent controlgear enclosure with IEC 60598-1		P
- (4)	Built-in magnetic ballast with double or reinforced insulation comply with Annex I of IEC 61347-1		N
- (4)	Built-in electronic controlgear with double or reinforced insulation comply with Annex O of IEC 61347-1	(see Annex O)	N
- (4)	Controlgear with SELV comply with Annex L of IEC 61347-1	(see Annex L)	N

6 (6)	**CLASSIFICATION**		**P**
	Built-in controlgear ..... :	Yes ☐ No ☒	—
	Independent controlgear ..... :	Yes ☒ No ☐	—
	Integral controlgear	Yes ☐ No ☒	—
6.1 (-)	Ignition voltage		—
	≤ 5 kV	Yes ☒ No ☐	—
	> 5 kV ≤ 10 kV	Yes ☐ No ☒	—
	> 10 kV ≤ 100 kV	Yes ☐ No ☒	—

7 (7)	**MARKING**		**P**
7 (7.2)	Marking durable and legible		P
	Rubbing 15 s water, 15 s petroleum; marking legible		P
7.1 (7.1)	Mandatory markings (other than integral ballast)		P
	a) mark of origin	See rating label	P
	b) model number or type reference	See rating label	P
	c) symbol for independent controlgear, if applicable		P
	d) correlation between interchangeable parts and controlgear marked		N
	e) rated supply voltage (V)	220-240V~	P
	supply frequency (Hz)	50/60Hz	P
	supply current (A)	See model list	P
	f) earthing symbol, if applicable		P
	k) wiring diagram		P
	l) value of t_c	See model list	P
7.1 (-)	- control terminals identified, if applicable		N
	- output terminals identified		P
	- ignition voltage if > 1500V (V) ..... :	4KV	P
	- flash symbol if ignition voltage > 5000V		N
	Declared maximum working voltage (r.m.s)		P
	- between output terminals	250V	P
	- between output terminal and earth, if applicable	250V	P
	- given in the description		P
	- marked on the ballast		P

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Clause	Requirement + Test	Result - Remark	Verdict
7.2 (7.1)	Information to be provided, if applicable:		P
	h) declaration on protection against accidental contact		N
	i) cross-section of conductors (mm²)		P
	j) number, type and wattage of lamp(s)		P
	m) symbol for thermally protected ballast		N
	n) heat sink(s)		N
7.2 (-)	- marking of ballast if more than one unit		P
	- overheating in a multi ballast installation		N
	- time limitation of ignition voltage		N
	- control terminals not basic insulated		N
8 (8)	**TERMINALS**		**N**
- (8)	Screw terminals according section 14 of IEC 60598-1:		**N**
	Separately approved; component list	(see Annex 1)	N
	Part of the controlgear	(see Annex 2)	N
	Screwless terminals according section 15 of IEC 60598-1:		**N**
	Separately approved; component list	(see Annex 1)	N
	Part of the controlgear	(see Annex 3)	N
9 (9)	**PROVISION FOR EARTHING**		**P**
- (9.1)	Provisions for protective earthing		P
	Terminal complying with clause 9		P
	Locked against loosening and not possible to loosen by hand		P
	Not possible to loosen clamping means unintentionally on screwless terminals		N
	Earthing via means of fixing		P
	Earthing terminal only used for the earthing of the control gear		P
	All parts of material minimizing the danger of electrolytic corrosion		P
	Made of brass or equivalent material		P
	Contact surface bare metal		P
- (9.2)	Provision for functional earthing		N
	Comply with clause 8 and 9.1		N
- (9.3)	Earth contact via the track on the printed board		P
	Test with a current of 25 A between earthing terminal and each of the accessible metal parts; measured resistance (Ω) at ≥ 10 A according 7.2.3 of IEC 60598-1: < 0,5 Ω ..... :	Aurora 315W:0.05Ω Pro 1000W 400V:0.05Ω 600W:0.06Ω	P
- (9.4)	Earthing of built-in lamp controlgear		N
	Earth by means of fixing to earthed metal of luminaire in compliance of 7.2 of IEC 60598-1		N
	Earthing terminal only for earthing the built-in controlgear		N
- (9.5)	Earthing via independent controlgear		P
- (9.5.1)	Earth connection to other equipment		N
	Looping or through connection, conductor min. 1,5 mm² and of copper or equivalent		N
	Protective earthing wires in line with 5.3.1.1 and clause 7		P

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
- (9.5.2)	Earthing of the lamp compartments powered via the independent lamp controlgear		P
	Test with a current of 25 A between input and output earth terminals; measured resistance (Ω) between earthing terminal and each of the accessible metal parts at ≥ 10 A according 7.2.3 of IEC 60598-1: < 0,5 Ω ..... :	Aurora 315W:0.05Ω Pro 1000W 400V:0.05Ω 600W:0.06Ω	P
	Output earthing terminal marked as in 7.1 t) of IEC 61347-1		P
10 (10)	**PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS**		**P**
- (10.1)	Controlgear protected against accidental contact with live parts		P
- (A2)	Voltage measured with 50 kΩ	(see Annex A)	P
- (A3)	Voltage > 35 V r.m.s. or > 60 V d.c. or protective impendence device	(see Annex A)	N
- (10.1)	Lacquer or enamel not used for protection or insulation		P
	Adequate mechanical strength on parts providing protection		P
- (10.2)	Capacitors > 0,5 μF: voltage after 1 min (V): < 50 V .....:	Aurora 315W:8V Pro 1000W 400V:8V 600W:8V	P
- (10.3)	Controlgear providing SELV		N
	Accessible conductive parts are insulated from live parts by double or reinforced insulation in SELV controlgear		N
	No connection between output circuit and the body or protective earthing circuit		N
	No possibility of connection between output circuit and the body or protective earthing circuit through other conductive parts		N
	SELV outputs separated by at least basic insulation		N
	ELV conductive parts insulated as live parts		N
	Tests according Annex L of IEC 61347-1		N
- (10.4)	Accessible conductive parts in SELV circuits		N
	Output voltage under load ≤ 25 V r.m.s. or ≤ 60 V d.c.		N
	If output voltage > 25 V r.m.s. or > 60 V d.c.; No load output ≤ 35 V peak or ≤ 60 V d.c and touch current does not exceed 0,7 mA (peak) or 2 mA d.c. .....:		N
	One conductive part is insulated if output voltage or current exceeding the values above and withstand test voltage 500 V		N
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		N
	Y1 or Y2 capacitors comply with IEC 60384-14		N
	Resistors comply with test (a) in 14.1 of IEC 60065		N

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Clause	Requirement + Test	Result - Remark	Verdict

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 (MΩ):		P
	For basic insulation ≥ 2 MΩ ..... :	>100 MΩ	P
	For double or reinforced insulation ≥ 4 MΩ ..... :		N
	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1		N

12 (12)	**ELECTRIC STRENGTH**		**P**
- (12)	Immediately after clause 11 electric strength test for 1 min		P
	Basic insulation for SELV, test voltage 500 V		N
	Working voltage ≤ 50 V, test voltage 500 V		N
	Working voltage > 50 V ≤ 1000 V, test voltage (V):		P
	Basic insulation, 2U + 1000 V	L to N(F1 open): 1480V, L /N to enclosure: 1480V, Output to enclosure:1600V	P
	Supplementary insulation, 2U + 1000 V		N
	Double or reinforced insulation, 4U + 2000 V		N
	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		N

14 (14)	**FAULT CONDITIONS**		**P**
- (14.1)	When operated under fault conditions the controlgear:		P
	- does not emit flames or molten material		P
	- does not produce flammable gases		P
	- protection against accidental contact not impaired		P
	Thermally protected controlgear does not exceed the marked temperature value		N
	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	(see appended table)	P
- (14.2)	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)	P
	Creepage distances on printed boards less than specified in clause 16 in Part 1 provided with coating according to IEC 60664-3		P
- (14.3)	Short-circuit or interruption of semiconductor devices	(see appended table)	P
- (14.4)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	P
- (14.5)	Short-circuit across electrolytic capacitors	(see appended table)	P
- (14.6)	After the tests has been carried out on three samples:		P
	The insulation resistance ≥ 1 MΩ ..... :		P
	No flammable gases		P
	No accessible parts have become live		P

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Clause	Requirement + Test	Result - Remark	Verdict
	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite		P
- (14.7)	Relevant fault condition tests with high-power supply		—
15	**PROTECTION OF ASSOCIATED COMPONENTS**		**P**
15.1	Voltage at the output terminals, under normal and abnormal conditions, does not exceed the declared maximum working voltage		P
15.2	Declared time limitation is not exceeded, under normal and abnormal conditions		P
15.3	Control terminals isolated from the mains circuit by at least basic insulation, or marking according to 7.2		N
16	**IGNITION VOLTAGE**		**P**
16.1	Measurements by oscilloscope or electrostatic voltmeter		P
16.2	Ignition voltage not exceed 5 kV or 1,3 x Up		P
16.3	Cut-out time:		N
	- max. 60 s for ignition voltage 5 to 10 kV		N
	- max. 20 min. for ignition voltage 5 to 10 kV if evident that the ballast still trying to ignite		N
	- max. 3 or 30 s for ignition voltage > 10 kV		N
17	**ABNORMAL CONDITIONS**		**P**
	Safety not impaired when ballast is operated at any voltage between 90% and 110% of rated voltage		P
	The following condition(s) was/were applied for 1 h:		—
	a) lamp not inserted or does not ignite		P
	b) burner leaks		P
	c) rectifying effect		P
	No defect impairing safety		P
	No flammable gases, molten material or smoke produced		P
18 (15)	**CONSTRUCTION**		**P**
- (15.1)	Wood, cotton, silk, paper and similar fibrous material		P
	Wood, cotton, silk, paper and similar fibrous material not used as insulation		P
- (15.2)	Printed circuits		P
	Printed circuits used as internal connections complies with clause 14		P
- (15.3)	Plugs and socket-outlets used in SELV or ELV circuits		N
	No dangerous compatibility between output socket-outlet and a plug for socket-outlets for input circuit in relation to installation rules, voltages and frequencies		N
	Plugs and socket-outlets for SELV comply with IEC 60906-3 and IEC 60884-2-4		N
	Plugs and socket-outlets for SELV ≤ 3 A, ≤ 25 V r.m.s. or ≤ 60 V d.c. and ≤ 72 W comply with IEC 60906-3 and IEC 60884-2-4 or:		N
	- plugs not able to enter socket-outlets of other standardised system		N

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Clause	Requirement + Test	Result - Remark	Verdict
	- socket-outlets not admit plugs of other standardised system		N
	- socket-outlets without protective earth		N
- (15.4)	**Insulation between circuits and accessible parts**		P
- (15.4.2)	SELV circuits		P
	Source used to supply SELV circuits:		P
	- safety isolating transformer in accordance with relevant part 2 of IEC 61558		P
	- controlgear providing SELV in accordance with relevant part 2 of IEC 61347		P
	- another source		N
	Voltage in the circuit not higher than ELV		N
	SELV circuits insulated from LV by double or reinforced insulation		N
	SELV circuits insulated from non SELV circuits by double or reinforced insulation		N
	SELV circuits insulated from FELV circuits by supplementary insulation		N
	SELV circuits insulated from other SELV circuits by basic insulation		N
	SELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5		P
- (15.4.3)	FELV circuits		N
	Source used to supply FELV circuits:		N
	- separating transformer in accordance with relevant part 2 of IEC 61558		N
	- separating controlgear providing basic insulation between input and output circuits in accordance with relevant part 2 of IEC 61347		N
	- another source		N
	- source in circuits separated by the LV supply by basic insulation		N
	Voltage in the circuit not higher than ELV		N
	FELV circuits insulated from LV supply by at least basic insulation		N
	FELV circuits insulated from other FELV circuits if functional purpose		N
	FELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5		N
	Plugs and socket-outlets for FELV system comply with:		N
	- plugs not able to enter socket-outlets of other voltage systems		N
	- socket-outlets not admit plugs of other voltage systems		N
	- socket-outlets have a protective conductor contact		N
- (15.4.4)	Other circuits		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Insulation between circuits other than SELV or FELV and accessible conductive parts in according Table 6 in 15.4.5.		P
- (15.4.5)	Insulation between circuits and accessible conductive parts		P
	Accessible conductive parts insulated from active parts of electric circuits by insulating according Table 6		P
	Requirements for Class II construction with equipotential bonding for protection against indirect contact with live parts:		N
	- all conductive parts are connected together		N
	- conductive parts are reliably connected together according test of IEC 60598-1 cl. 7.2.3		N
	- conductive parts comply with requirements of Annex A in case of insulation fault		N
19 (16)	CREEPAGE DISTANCES AND CLEARANCES		P
- (16)	Creepage distances and clearances according to 16.2 and 16.3		P
	Controlgears providing SELV comply with additional requirements in Annex L		P
	Insulating lining of metallic enclosures		N
	Controlgear protected against pollution comply with Annex P	(see Annex P)	P
- (16.2)	Creepage distances		P
- (16.2.2)	Minimum creepage distances for working voltages		P
	Creepage distances according to Table 7	(see appended table)	P
- (16.2.3)	Creepage distances for working voltages with frequencies above 30 kHz		N
	Creepage distances according to Table 8	(see appended table)	N
- (16.3)	Clearances		P
- (16.3.2)	Clearances for working voltages		P
	Clearances distances according to Table 9	(see appended table)	P
- (16.3.3)	Clearances for ignition voltages and working voltages with higher frequencies		N
	Clearances distances for basic or supplementary insulation according to Table 10	(see appended table)	N
	Clearances distances for reinforced insulation according to Table 11	(see appended table)	N
20 (17)	**SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS**		**P**
	Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)		P
(4.11)	Electrical connections		P
(4.11.1)	Contact pressure		P
(4.11.2)	Screws:		N
	- self-tapping screws		N
	- thread-cutting screws		N
(4.11.3)	Screw locking:		N
	- spring washer		N
	- rivets		N
(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
(4.12)	Mechanical connections and glands		P
(4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N

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Clause	Requirement + Test	Result - Remark	Verdict
	Torque test: torque (Nm); part ..... :	Aurora 315W, Pro 1000W 400V, 600W: Screws for fixing enclosure, 0.5Nm	P
	Torque test: torque (Nm); part ..... :	Aurora 315W, Pro 1000W 400V, 600W:Screws for earthing, 0.5Nm	P
	Torque test: torque (Nm); part ..... :		N
(4.12.2)	Screws with diameter < 3 mm screwed into metal		N
(4.12.4)	Locked connections:		N
	- fixed arms; torque (Nm)..... :		N
	- lampholder; torque (Nm)..... :		N
	- push-button switches; torque 0,8 Nm..... :		N
(4.12.5)	Screwed glands; force (Nm) ..... :		N
21 (18)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		**P**
- (18.1)	Ball-pressure test:		P
	- part tested; temperature (°C)..... :	Aurora 315W:Bobbin, 151°C, 0.8mm Pro 1000W 400V: Bobbin, 126°C, 1.0mm 600W:Bobbin, 125°C, 0.8mm	P
	- part tested; temperature (°C)..... :	Aurora 315W:PCB,125°C, 0.8mm Pro 1000W 400V:PCB,125°C,1.0mm 600W:PCB,125°C, 0.8mm	P
	- part tested; temperature (°C)..... :	Aurora 315W:Enclosure of D7, 125°C, 0.6mm Pro 1000W 400V:Enclosure of BR1, 125°C, 0.6mm 600W:Enclosure of BR1, 125°C, 0.6mm	P
- (18.2)	Test of printed boards:		P
	- part tested..... :	PCB	P
	- part tested..... :		N
- (18.3)	Glow-wire test (650°C):		P
	- part tested..... :	Polyethylene Terephthalate (PET), film	P
	- part tested..... :	silicone molding resin	P
- (18.4)	Needle flame test (10 s):		P
	- part tested..... :	Bobbin	P
	- part tested..... :	PCB	P
	- part tested..... :	Enclosure ofD7(Aurora 315W) Enclosure ofBR1(Pro 1000W 400V) Enclosure of BR1(600W)	P
- (18.5)	Tracking test:		N
	- part tested..... :		N
	- part tested..... :		N
22 (19)	**RESISTANCE TO CORROSION**		**P**
	- test according 4.18.1 of IEC 60598-1		P

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	- adequate varnish on the outer surface		N

14	**TABLE: tests of fault conditions**	**P**
Aurora 315W		
Part	Simulated fault	Hazard
D7	Short circuit, fuse opened, no harzard.	NO
C17	Short circuit, fuse opened, no harzard.	NO
C11	Short circuit, Product off, no harzard	NO
C21	Short circuit, Product off, no harzard	NO
Q18(G-D)	Short circuit, fuse opened, R48 damaged, no harzard.	NO
Q18(S-D)	Short circuit, fuse opened, R48 damaged, no harzard.	NO
U1(1-4)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
Q4(G-D)	Short circuit, fuse opened, R27 damaged, no harzard.	NO
Q4(S-D)	Short circuit, fuse opened, R27 damaged ,no harzard.	NO
Output	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
Output	Open circuit, unit shut down immediately, recoverable, no harzard.	NO
315W		
Part	Simulated fault	Hazard
D7	Short circuit, fuse opened, no harzard.	NO
C17	Short circuit, fuse opened, no harzard.	NO
C11	Short circuit, Product off, no harzard	NO
C21	Short circuit, Product off, no harzard	NO
Q19(G-D)	Short circuit, fuse opened, no harzard.	NO
Q19(S-D)	Short circuit, fuse opened, no harzard.	NO
U1(1-4)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
Q4(G-D)	Short circuit, fuse opened, R27 damaged, no harzard.	NO
Q4(S-D)	Short circuit, fuse opened, R27 damaged ,no harzard.	NO
Output	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
Output	Open circuit, unit shut down immediately, recoverable, no harzard.	NO
Pro 1000W 400V		
Part	Simulated fault	Hazard
BR1	Short circuit, fuse opened, no harzard.	NO
C42	Short circuit, fuse opened, no harzard.	NO
C1	Short circuit, Product off, no harzard	NO
C11	Short circuit, Product off, no harzard	NO
T1(G-D)	Short circuit, fuse opened, no harzard.	NO
T1(S-D)	Short circuit, fuse opened, no harzard.	NO
U1(1-4)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
T4(G-D)	Short circuit, fuse opened, no harzard.	NO
T4(S-D)	Short circuit, fuse opened, no harzard.	NO
Output	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
Output	Open circuit, unit shut down immediately, recoverable, no harzard.	NO
1000W		
Part	Simulated fault	Hazard
BR1	Short circuit, fuse opened, no harzard.	NO
C12	Short circuit, fuse opened, no harzard.	NO
C17	Short circuit, Product off, no harzard	NO
C18	Short circuit, Product off, no harzard	NO
T1(G-D)	Short circuit, fuse opened, no harzard.	NO
T1(S-D)	Short circuit, fuse opened, no harzard.	NO
U1(1-4)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
T4(G-D)	Short circuit, fuse opened, no harzard.	NO

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Clause	Requirement + Test	Result - Remark	Verdict

T4(S-D)	Short circuit, fuse opened, no harzard.	NO
C35	Short circuit, Product off, no harzard	NO
C36	Short circuit, Product off, no harzard	NO
L9（1-6）	Short circuit, Product off, no harzard	NO
Output	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
Output	Open circuit, unit shut down immediately, recoverable, no harzard.	NO
600W		
Part	Simulated fault	Hazard
BR1	Short circuit, fuse opened, no harzard.	NO
C16	Short circuit, fuse opened, no harzard.	NO
C12	Short circuit, Product off, no harzard	NO
C9	Short circuit, Product off, no harzard	NO
T1(G-D)	Short circuit, fuse opened,R11 damaged, no harzard.	NO
T1(S-D)	Short circuit, fuse opened, R11 damaged, no harzard.	NO
L4(output)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
D3	Short circuit, fuse opened, T1 damaged	NO
U1(1-4)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
T3(G-D)	Short circuit, fuse opened, R15 damaged, no harzard.	NO
T3(S-D)	Short circuit, fuse opened, R15, T2 damaged, no harzard.	NO
Ultimate 600W 400V		
Part	Simulated fault	Hazard
BR1	Short circuit, fuse opened, no harzard.	NO
C16	Short circuit, fuse opened, no harzard.	NO
C12	Short circuit, Product off, no harzard	NO
C9	Short circuit, Product off, no harzard	NO
T1(G-D)	Short circuit, fuse opened, R11, R13 damaged, no harzard.	NO
T1(S-D)	Short circuit, fuse opened, R11, R13 damaged, no harzard.	NO
L4(output)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
D5	Short circuit, fuse opened, T1 damaged, no harzard	NO
U1(1-4)	Short circuit, unit shut down immediately, recoverable, no harzard.	NO
T3(G-D)	Short circuit, fuse opened, R17 damaged, no harzard.	NO
T3(S-D)	Short circuit, fuse opened, R17,T2 damaged ,no harzard.	NO

19 (16)	**TABLES: Creepage distances and clearances**					**P**
Table 3	**Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages**					**P**
Aurora 315W						
RMS working voltage (V) not exceeding	50	150	250	500	750	1000
Creepage distances						
Required basic insulation, PTI ≥ 600	0,6	0,8	1,5	3	4	5,5
Measured	-	-	-	-	-	-
Required basic insulation, PTI < 600	1,2	1,6	2,5	5	8	10
Measured	-	-	3.2	7.3	-	-
Required supplementary insulation PTI ≥ 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	5	6	8	11
Measured	-	-	-	-	-	-
Clearances						

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Clause	Requirement + Test	Result - Remark	Verdict

Required basic insulation		0,2	0,8	1,5	3	4	5,5
Measured		-	-	3.2	7.3	-	-
Required supplementary insulation		-	0,8	1,5	3	4	5,5
Measured		-	-	-	-	-	-
Required reinforced insulation		-	1,6	3	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	-	-	-	-	-	-	
Pro 1000W 400V							
Table 3	**Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages**						**P**
RMS working voltage (V) not exceeding		50	150	250	500	750	1000
Creepage distances							
Required basic insulation, PTI ≥ 600		0,6	0,8	1,5	3	4	5,5
Measured		-	-	-	-	-	-
Required basic insulation, PTI < 600		1,2	1,6	2,5	5	8	10
Measured		-	-	3.2	7.3	-	-
Required supplementary insulation PTI ≥ 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	5	6	8	11
Measured		-	-	-	-	-	-
Clearances							
Required basic insulation		0,2	0,8	1,5	3	4	5,5
Measured		-	-	3.2	7.3	-	-
Required supplementary insulation		-	0,8	1,5	3	4	5,5
Measured		-	-	-	-	-	-
Required reinforced insulation		-	1,6	3	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	-	-	-	-	-	-	
600W							
Table 3	**Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages**						**P**
RMS working voltage (V) not exceeding		50	150	250	500	750	1000
Creepage distances							

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Clause	Requirement + Test	Result - Remark	Verdict

Required basic insulation, PTI ≥ 600	0,6	0,8	1,5	3	4	5,5
Measured	-	-	-	-	-	-
Required basic insulation, PTI < 600	1,2	1,6	2,5	5	8	10
Measured	-	-	3.2	7.3	-	-
Required supplementary insulation PTI ≥ 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	5	6	8	11
Measured	-	-	-	-	-	-
Clearances						
Required basic insulation	0,2	0,8	1,5	3	4	5,5
Measured	-	-	3.2	7.3	-	-
Required supplementary insulation	-	0,8	1,5	3	4	5,5
Measured	-	-	-	-	-	-
Required reinforced insulation	-	1,6	3	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	-	-	-	-	-	-	

	ANNEXES FROM IEC 61347-1		**P**
A	**ANNEX A - TEST TO ESTABLISH WHETHER A CONDUCTIVE PART IS A LIVE PART WHICH MAY CAUSE AN ELECTRIC SHOCK**		P
A.1	Comply with A.2 or A.3		P
A.2	Voltage ≤ 35 V peak or ≤ 60 V d.c ..... :	Aurora 315W:Max. 16V peak Pro 1000W 400V:Max. 16V peak 600W:Max. 16V peak	P
A.3	If voltage > 35 V r.m.s. or > 60 V d.c. or protective impendence device; touch current does not exceed 0,7 mA (peak) or 2 mA d.c. ..... :		N
	Comply with Annex G of IEC 60598-1		P

C	**ANNEX C – PARTICULAR REQUIREMENTS FOR ELECTRONIC LAMP CONTROLGEAR WITH MEANS OF PROTECTION AGAINST OVERHEATING**	**N**
C3	**GENERAL REQUIREMENTS**	**N**

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Clause	Requirement + Test	Result - Remark	Verdict
C3.1	Thermal protection means integral with the controlgear, protected against mechanical damage		N
	Renewable only by means of a tool		N
	If function depending on polarity, for cord-connected equipment protection means in both leads		N
	Thermal links comply with IEC 60691		N
	Electrical controls comply with IEC 60730-2-3		N
C3.2	No risk of fire by breaking (clause C7)		N
C5	**CLASSIFICATION**		**N**
	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
C6	**MARKING**		**N**
C6.1	Symbol for temperature declared thermally protected controlgear		N
C6.2	Declaration of the type of protection provided		N
C7	**LIMITATION OF HEATING**		**N**
C7.1	Preselection test:		N
	Test sample placed for at least 12 h in an oven having temperature (t_c - 5) K		N
	No operation of the protection device		N
C7.2	Functioning of protection means:		N
	Normal operation of the sample in a test enclosure according to Annex D at an ambient temperature such that (t_c +0; -5) °C is obtained		N
	No operation of the protection device		N
	Introducing of the most onerous test condition determined during test of clause 14		N
	Output of windings connected to the mains supply short-circuited, and other part of the controlgear operated under normal conditions		N
	Increasing of the current through the windings continuously until operation of the protection means		N
	Continuous measuring of the highest surface temperature		N
	Controlgear according to C5 a) or C5 e) operated until stable conditions are achieved		N

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Clause	Requirement + Test	Result - Remark	Verdict
	Automatic-resetting thermal protectors working 3 times		N
	Controlgear according to C5 b) working 6 times		N
	Controlgear according to C5 c) and C5) d) working once		N
	Highest temperature does not exceed the marked value		N
	Any overshoot of 10% over the marked value within 15 min		N
D	**ANNEX D – REQUIREMENTS FOR CARRY OUT THE HEATING TESTS OF THERMALLY PROTECTED LAMP CONTROLGEAR**		**N**
	Tests in C7 performed in accordance with Annex D, if applicable		N
F	**ANNEX F – DRAUGHT-PROOF ENCOSURE**		**P**
	Draught-proof enclosure in accordance with the description		P
	Dimensions of the enclosure		P
	Other design; description		N
I (-)	**ANNEX I IN THIS PART 2 - – PRECAUTIONS TO BE OBSERVED WHEN MEASURING WITH SPHERICAL SPARK GAPS**		N
	Precautions according Annex I		N
L	**ANNEX L IN PART 1: PARTICULAR ADDITIONAL REQUIREMENTS FOR CONTROLGEAR PROVIDING SELV**		N
L.3	**Classification**		**N**
	Class I	Yes ☐ No ☐	—
	Class II	Yes ☐ No ☐	—
	Class III	Yes ☐ No ☐	—
	non-inherently short circuit proof controlgear	Yes ☐ No ☐	—
	inherently short circuit proof controlgear	Yes ☐ No ☐	—
	fail safe controlgear	Yes ☐ No ☐	—
	non-short-circuit proof controlgear	Yes ☐ No ☐	—
L.4	**Marking**		**N**
	Adequate symbols are used		N
L.5	**Protection against electric shock**		**N**
	Comply with 9.2 of IEC 61558-1		N
L.6	**Heating**		**N**
	No excessive temperatures in normal use		N
	Value if capacitor t_c marked .....:		—
	Winding insulation classified as Class .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Comply with tests of clause 14 of IEC 61558-1 with adjustments		N
L.7	**Short-circuit and overload protection**		**N**
	Comply with tests of clause 15 of IEC 61558-1 with adjustments		N
L.8	**Insulation resistance and electric strength**		**N**
L.8.1	Conditioned 48 h between 91 % and 95 %		N
L.8.2	Insulation resistance		N
	Between input- and output circuits not less than 5 _MΩ .....:		N
	Between metal parts of class II convertors which are separated from live parts by basic insulation only and the body not less than 5 MΩ .....:		N
	Between metal foil in contact with the inner and outer surfaces of enclosures of insulating material not less than 2 MΩ .....:		N
L.8.3	Electric strength		N
	1) Between live parts of input circuits and live parts of output circuits .....:		N
	2) Over basic or supplementary insulation between:		N
	a) live parts having different polarity .....:		N
	b) live parts and body if intended to be connected to protective earth .....:		N
	c) accessible metal parts and a metal rod of the same diameter as the flexible cable or cord .....:		N
	d) live parts and an intermediate metal part .....:		N
	e) intermediate metal parts and the body .....:		N
	f) each input circuit and all other input circuits ...:		N
	3) Over reinforced insulation between the body and live parts .....:		N
L.9	**Construction**		**N**
L.9.1	Transformer comply with 19.12 of IEC 61558-1 and 19 of IEC 61558-2-6		N
	HF transformer comply with 19 of IEC 61558-2-16		N
L.10	**Components**		**N**
	Protective devices comply with 20.6 – 20.11 of IEC 61558-1		N
L.11	**Creepage distances and clearances**		**N**
	1. Insulation between input and output circuits, basic insulation:		N
	a) measured values ≥ specified values (mm) .....:		N
	b) measured values ≥ specified values (mm) .....:		N
	c) measured values ≥ specified values (mm) .....:		N
	2. Insulation between input and output circuits, double or reinforced insulation:		N

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Clause	Requirement + Test	Result - Remark	Verdict
	a) measured values ≥ specified values (mm) ..... :		N
	b) measured values ≥ specified values (mm) ..... :		N
	c) measured values ≥ specified values (mm) ..... :		N
	3. Insulation between adjacent input circuits		N
	- measured values ≥ specified values (mm) ..... :		N
	3. Insulation between adjacent output circuits		N
	- measured values ≥ specified values (mm) ..... :		N
	4. Insulation between terminals for external connection:		N
	- measured values ≥ specified values (mm) ..... :		N
	5. Basic or supplementary insulation:		N
	a) measured values ≥ specified values (mm) ..... :		N
	b) measured values ≥ specified values (mm) ..... :		N
	c) measured values ≥ specified values (mm) ..... :		N
	d) measured values ≥ specified values (mm) ..... :		N
	e) measured values ≥ specified values (mm) ..... :		N
	6. Reinforced insulation or insulation:		N
	Between body and output circuit: measured values ≥ specified values (mm) ..... :		N
	Between body and output circuit if provision against transient voltages: measured values ≥ specified values (mm) ..... :		N
	7. Distance through insulation:		N
	a) measured values ≥ specified values (mm) ..... :		N
	b) measured values ≥ specified values (mm) ..... :		N
	c) measured values ≥ specified values (mm) ..... :		N

N	**ANNEX N: REQUIREMENTS FOR INSULATION MATERIALS USED FOR DOUBLE OR REINFORCED INSULATION**		N
N.4	**General requirements**		**N**
N.4.1	Material comply with IEC 60085 and IEC 60216 series		N
N.4.2	Solid insulation		N
	Electric strength test at least 5 kV or 1,35 x test voltage in Table N.1		N
	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
N.4.3	Thin sheet insulation		N
N.4.3.1	Thickness and composition of thin sheet insulation		N
	- Inside the ballast and not subjected to handling or abrasion during the production and during maintenance		N

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Clause	Requirement + Test	Result - Remark	Verdict
	- Non-separated layers: Min. 3 layers and fulfil mandrel test of 150N		N
	- Separated layers: Min. 2 layers and each layer fulfil mandrel test of 50N		N
	- Separated layers (alternative): Min. 3 layers and 2/3 of the layers fulfil mandrel test of 100N		N
N.4.3.2	Mandrel test (electric strength test during mechanical stress)		N
	Electric strength test after mandrel test:		N
	- Non-separated layers: min. 5 kV or 1,35 x test voltage in Table N.1		N
	- 2/3 of min. 3 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1		N
	- one of 2 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1		N
	No flashover or breakdown occurred		
O	**ANNEX O: ADDITIONAL REQUIREMENTS FOR BUILT-IN ELECTRONIC CONTROLGEAR WITH DOUBLE OR REINFORCED INSULATION**		**N**
O.6	**Marking**		**N**
	Marking according clause 7 (7)	See clause 7	N
	Special symbol		N
	Meaning of the special symbol explained in catalogue		N
O.7	**Protection against accidental contact with live parts**		**N**
	Requirements of clause 8 (10)	See clause 8	N
	Test finger not possible to make contact with basic insulated metal parts		N
O.8	**Terminals**		**N**
	Clause 9 (8)	See clause 9	N
O.9	**Provision for earthing**		**N**
	Functional earthing terminals comply with clause 9 of part 1		N
	No protective earthing terminal		N
O.10	**Moisture resistance and insulation**		**N**
	Clause 11 (11)	See clause 11	N
O.11	**Electric strength**		**N**
	Clause 12 (12)	See clause 12	N
O.13	**Fault conditions**		**N**
	Clause 14 (14)	See clause 14	N
	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

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

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	**components**					P
object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Aurora 315W						
Plug	B	NEW SQUARE COMPANY LTD	MT-45A	250V 16A	EN60320	VDE 40031154
	D	MING TAK ELECTRICAL WIRING COMPANY LIMITEDS	NS-15	250V 10A	IEC 60320	ASTA LICENCE NO.705
	D	NEW SQUARE COMPANY LTD	NS-15	250V 10A	EN60320	VDE 40031519
Inlet(Optional)	B	Jackson Electronics Ind.Corp	JR-101-1FS	10A,250V	EN 60320	VDE40030692
	D	Lcr Electronics Inc	LCR080 series	10A,250V	EN 60320	VDE40013515
	D	Rich Bay Co Ltd	R-301	10A,250V	EN 60320	VDE40029319
Input cord, Output cord	B	SHENZHEN BAOHING	H05VV-F	3x1.0-1.5mm^2	VDE0281	VDE131689
	D	New Square Company Ltd	H05VV-F	3 x1.0-1.5mm	VDE0281	VDE116006
	D	YUYAO JIINGYI	H05VV-F	3x1.0-1.5mm^2	VDE 0281	VDE
Silicone molding resin	B	Dongguan city first quality silicone rubber electron material co ltd	YIP300a	V-0;150^{0}C	UL94	UL E341634
	D	SHENZHEN HFC SHIELDING PRODUCTS CO LTD	HFC-A	V-0;150^{0}C	UL94	UL E304652
-Alt. Silicone molding resin	D	UNI-HOME INDUSTRY CORP	SBHC	V-0;150^{0}C	UL94	UL E143853

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Clause	Requirement + Test	Result - Remark	Verdict

Film	B	SKC Co. Ltd	SG82	PET, VTM-2, 105°C	UL94	UL E74359
Strain relief device	B	KAI SUH SUH ENTERPRISE CO LTD	SR-6R1	——	UL635	UL E98707
Fuse	B	CONQUER ELECTRONICS CO LTD	MST	300V, 10A	IEC 60127	TUV R 50176525
Internal wire	B	SHANGHAI CHAOTONG WIRE & CABLE CO LTD	2468	26AWG, 80°C	UL 758	UL E472053
X2-capacitor (C15 , C25)	B	XIAMEN FARATRONIC	MKP62	1uF, 275V, 110°C	IEC 60384-14	VDE 40000358
	D	ZHUHAI SUNG HO ELECTRONICS CO LTD	CMPP	1uF, 275V, 110°C	IEC 60384-14	VDE 40026078
L4	C	Suzhou YeeHoo Electronics Co., Ltd.	LFC68	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
-Alt.	B	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
Tube	B	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR-H	600V, 125°C	UL 224	UL E203950
L5	C	Suzhou Molei Electronic Technology Co., Ltd.	LP315-05	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW/155	155°C	UL 1446	UL E344055

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
Y2-capacitor (C9, CY1, CY2, CY3, CY4)	B	Success Electronics Co., Ltd.	SB	2200pF, 250V, 125°C	IEC 60384-14	VDE 40016621
	D	Success Electronics Co., Ltd.	SF	2200pF, 250V, 125°C	IEC 60384-14	VDE 40016665
	D	Success Electronics Co., Ltd.	SE	2200pF, 250V, 125°C	IEC 60384-14	VDE 122995
	D	Murata Mfg. Co., Ltd.	KY	2200pF, 250V, 125°C	IEC 60384-14	VDE 40006273
	D	TDK Corporation	CS (miniature series)	2200pF, 250V, 125°C	IEC 60384-14	VDE 40017931
Varistor (RV1)	B	Brightking Inc.	471KD20	470V, D20, 85°C	IEC 61051	VDE 40022070
	D	THINKING ELECTRONIC INDUSTRIAL CO LTD	TVR20471KSY	470V;D20	IEC61051	VDE 40031391
L11	C	Suzhou YeeHoo Electronics Co., Ltd.	LFC67	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Triple insulation wire	B	SHANGHAI LUCKY TRADE CO LTD	TIW-F	155°C	--	UL E305883
L7	C	Suzhou Molei Electronic Technology Co., Ltd.	LFC129-01	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW/155	155°C	UL 1446	UL E344055
L10	C	Suzhou YeeHoo Electronics Co., Ltd.	LFC18	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	2UEW/180	180°C	UL 1446	UL E327855

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	B	HENG YA ELECTRIC KUN SHAN LTD	TYFPNS-H180	180°C	UL 1446	UL E245514
L10	C	Suzhou Molei Electronic Technology Co., Ltd.	LFC18	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	xSEIW/180, QZYH-x/180	180°C	UL 1446	UL E344055
T1	C	Suzhou Molei Electronic Technology Co., Ltd.	LR315-1	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	xUEW/155, QA-x/155	155°C	UL 1446	UL E344055
-Triple insulation wire	B	SHANGHAI LUCKY TRADE CO LTD	TIW-F	155°C	--	UL E305883
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Margin tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-233	130°C	UL 510	UL E309872
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
T1	C	Suzhou YeeHoo Electronics Co., Ltd.	LR315-1	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*(c)(g)	130°C	UL 510	UL E165111
-Triple insulation wire	B	SHANGHAI LUCKY TRADE CO LTD	TIW-F	155°C	--	UL E305883
-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	UL 224	UL E156256
T1 on power module	C	Suzhou YeeHoo Electronics Co., Ltd.	LBK12	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	WUXI JUFENG COMPOUND LINE CO LTD	xUEW155*, QA-x/155F*	155°C	UL 1446	UL E206882
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*Yellow(c)(g)	130°C	UL 510	UL E165111
-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	UL 224	UL E156256
-Triple insulation wire	B	SHANGHAI LUCKY TRADE CO LTD	TIW-F	155°C	--	UL E305883

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	D	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(F)*	155°C	--	UL E211989
T1 on power module	C	CreateMax Wuxi Electronics Co., Ltd.	LBK12	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	CHANGZHOU DAYANG WIRE & CABLE CO LTD	UEW/155	155°C	UL 1446	UL E158909
-Triple insulation wire	B	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(F)*	155°C	--	UL E211989
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
L12	C	Suzhou Molei Electronic Technology Co., Ltd.	LFC110-01	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	xUEW/155, QA-x/155	155°C	UL 1446	UL E344055
L1	C	Suzhou Molei Electronic Technology Company Limited	LL315-07	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341
	B	DONG GUAN YIDA INDUSTRIAL CO LTD	xUEW/155, QA-x/155	155°C	UL 1446	UL E344055
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

L7	C	Suzhou YeeHoo Electronics Co., Ltd.	TAK10	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Margin tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-233	130°C	UL 510	UL E309872
K1	B	SONG CHUAN	835-1A-B-C	10A, 250V	IEC61810	VDE40010643
Pro 1000W 400V						
Plug	B	NINGBO XUNSHI	JL-03	250V, 16A	EN60320	VDE
	D	MING TAK ELECTRICAL WIRING COMPANY LIMITEDS	NS-15	250V 10A	IEC 60320	ASTA LICENCE NO.705
	D	NEW SQUARE COMPANY LTD	NS-15	250V 10A	EN60320	VDE 40031519
	D	NEW SQUARE COMPANY LTD	MT-45A	250V 16A	EN60320	VDE 40031154
Inlet(Optional)	B	New Square Company Ltd	NS-20	16A, 250V	VDE 0620-1	VDE 40012985

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	D	New Square Company Ltd	NS-21	16A, 250V	VDE 0620-1	VDE 40016066
	D	Ming Tak Electrical Wiring Co Ltd	NS-17A	13A, 250V	BS 1363-1	ASTA NO.626
	D	Chau's Electrical Co Ltd	BS-01	10A, 250V	BS 1363	BSI KM41436
Input cord, Output cord	B	SHENZHEN BAOHING	H05VV-F	3x1.0-1.5mm^2	VDE0281	VDE131689
	D	New Square Company Ltd	H05VV-F	3 x1.0-1.5mm	VDE0281	VDE116006
	D	YUYAO JIINGYI	H05VV-F	3x1.0-1.5mm^2	VDE 0281	VDE
Silicone molding resin	B	Dongguan city first quality silicone rubber electron material co ltd	YIP300a	V-0;150^{0}C	UL94	UL E341634
-Alt. Silicone molding resin	D	SHENZHEN HFC SHIELDING PRODUCTS CO LTD	HFC-A	V-0;150^{0}C	UL94	UL E304652
Film	B	SKC Co. Ltd	SG82	PET, VTM-2, 105^{0}C	UL94	UL E74359
Strain relief device	B	KAI SUH SUH ENTERPRISE CO LTD	SR-6R1	——	UL635	UL E98707
Fuse	B	LITTELFUSE INC	0215012.MXEP	250V, 12A	IEC 60127	UL E10480
Internal wire	B	SHANGHAI CHAOTONG WIRE & CABLE CO LTD	2468	26AWG, 80°C	UL 758	UL E472053
X2-capacitor (C6 , C8)	B	XIAMEN FARATRONIC	MKP62	1.5uF, 275V, 110°C	IEC 60384-14	VDE 40000358
X2-capacitor (C9)	B	XIAMEN FARATRONIC	MKP62	0.68uF, 305V, 110°C	IEC 60384-14	VDE 40000358

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

LF1, LF2	C	Suzhou Molei Electronic Technology Co., Ltd.	LFC122	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW/155	155°C	UL 1446	UL E344055
L1	C	Suzhou Molei Electronic Technology Co., Ltd.	LPS60-1	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW/155	155°C	UL 1446	UL E344055
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
L1	C	Suzhou YeeHoo Electronics Co., Ltd.	LPS60-1	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*Yellow(c)(g)	130°C	UL 510	UL E165111
-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	UL 224	UL E156256
Y2-capacitor (C3, C4)	B	Success Electronics Co., Ltd.	SB	4700pF, 250V, 125°C	IEC 60384-14	VDE 40016621
	D	Success Electronics Co., Ltd.	SF	4700pF, 250V, 125°C	IEC 60384-14	VDE 40016665
	D	Success Electronics Co., Ltd.	SE	4700pF, 250V, 125°C	IEC 60384-14	VDE 122995
	D	Murata Mfg. Co., Ltd.	KY	4700pF, 250V, 125°C	IEC 60384-14	VDE 40006273
	D	TDK Corporation	CS (miniature series)	4700pF, 250V, 125°C	IEC 60384-14	VDE 40017931
Varistor (RV1)	B	Brightking Inc.	511KD20	510V, D20, 85°C	IEC 61051	VDE 40027827
	D	THINKING ELECTRONIC INDUSTRIAL CO LTD	TVR20511	510V;D20	IEC61051	VDE 005944
L2	C	Suzhou YeeHoo Electronics Co., Ltd.	LBK25	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Triple insulation wire	B	SHANGHAI LUCKY TRADE CO LTD	TIW-F	155°C	--	UL E305883
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*Yellow(c)(g)	130°C	UL 510	UL E165111
L2	C	Suzhou Molei Electronic Technology Co., Ltd.	LBK25	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW/155	155°C	UL 1446	UL E344055
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
L3	C	Suzhou YeeHoo Electronics Co., Ltd.	LBD11	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*(c)(g)	130°C	UL 510	UL E165111
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	2UEW/180	180°C	UL 1446	UL E327855

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	B	HENG YA ELECTRIC KUN SHAN LTD	TYFPNS-H180	180°C	UL 1446	UL E245514
L3	C	Suzhou Molei Electronic Technology Co., Ltd.	LBD11	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	xSEIW/180, QZYH-x/180	180°C	UL 1446	UL E344055
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Margin tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-233	130°C	UL 510	UL E309872
L4	C	Suzhou Molei Electronic Technology Co., Ltd.	TAK10	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	DONG GUAN YIDA INDUSTRIAL CO LTD	xUEW/155, QA-x/155	155°C	UL 1446	UL E344055
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
L4	C	Suzhou YeeHoo Electronics Co., Ltd.	TAK10	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*(c)(g)	130°C	UL 510	UL E165111
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	2UEW/180	180°C	UL 1446	UL E327855
	B	HENG YA ELECTRIC KUN SHAN LTD	TYFPNS-H180	180°C	UL 1446	UL E245514
L5	C	Suzhou Molei Electronic Technology Co., Ltd.	LRC100-02	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*(c)(g)	130°C	UL 510	UL E165111
-Margin Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF*(c)(h)	130°C	UL 510	UL E165111
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
L6	C	Suzhou YeeHoo Electronics Co., Ltd.	LBY02	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Margin tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-233	130°C	UL 510	UL E309872
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
L6	C	Suzhou YeeHoo Electronics Co., Ltd.	LBY02	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341
-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	UL 224	UL E156256
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*(c)(g)	130°C	UL 510	UL E165111
L7	C	Suzhou Molei Electronic Technology Co., Ltd.	LPS60	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	B	DONG GUAN YIDA INDUSTRIAL CO LTD	xUEW/155, QA-x/155	155°C	UL 1446	UL E344055
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
L7	C	Suzhou YeeHoo Electronics Co., Ltd.	LPS60	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEWF	155°C	UL 1446	UL E229341
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	UL 224	UL E156256
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
-Margin tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*(c)(g)	130°C	UL 510	UL E165111
JK1	B	SONG CHUAN PRECISION CO LTD	793-P-1A	250V 16A	IEC61810	VDE40010643
Alt.	D	Ningbo Jinhai Electronic Co Ltd	HF14FW	250V 16A	IEC61810	VDE 40023508

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

PCB	B	KUNSHAN JINPENG ELECTRONICS CO LTD	JP-1	V-0,130°C	UL94	UL E306084
	D	ANHUI HONGXIN ELECTRONIC TECHNOLOGY CO LTD	HX-02	V-0,130°C	UL94	UL E468758
	D	ANHUI JUKANG ELECTRONICS CO LTD	JK-1,JK-2	V-0,130°C	UL94	UL E472363
600W						
Plug	B	NEW SQUARE COMPANY LTD	MT-45A	250V 16A	EN60320	VDE 40031154
	D	MING TAK ELECTRICAL WIRING COMPANY LIMITEDS	NS-15	250V 10A	IEC 60320	ASTA LICENCE NO.705
	D	NEW SQUARE COMPANY LTD	NS-15	250V 10A	EN60320	VDE 40031519
Inlet(Optional)	B	Jackson Electronics Ind.Corp	JR-101-1FS	10A,250V	EN 60320	VDE40030692
	D	Lcr Electronics Inc	LCR080 series	10A,250V	EN 60320	VDE40013515
	D	Rich Bay Co Ltd	R-301	10A,250V	EN 60320	VDE40029319
Input cord, Output cord	B	SHENZHEN BAOHING	H05VV-F	3x1.0-1.5mm^2	VDE0281	VDE131689
	D	New Square Company Ltd	H05VV-F	3 x1.0-1.5mm	VDE0281	VDE116006
	D	YUYAO JIINGYI	H05VV-F	3x1.0-1.5mm^2	VDE 0281	VDE
Silicone molding resin	B	Dongguan city first quality silicone rubber electron material co ltd	YIP300a	V-0;150^{0}C	UL94	UL E341634

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	D	SHENZHEN HFC SHIELDING PRODUCTS CO LTD	HFC-A	V-0;150^{0}C	UL94	UL E304652
Film	B	SKC Co. Ltd	SG82	PET, VTM-2, 105^{0}C	UL94	UL E74359
Strain relief device	B	KAI SUH SUH ENTERPRISE CO LTD	SR-6R1	——	UL635	UL E98707
Fuse	B	Hollyland Co Ltd	50CT series	250V, 8A	IEC 60127	VDE40014896
	D	Suzhou Littelfuse Ovs Ltd	215 series	250V,8A	IEC 60127	VDE40013521
Internal wire	B	SHANGHAI CHAOTONG WIRE & CABLE CO LTD	2468	26AWG, 80°C	UL 758	UL E472053
X2-capacitor (C4 、 C5)	B	XIAMEN FARATRONIC	MKP62	1uF, 275V, 110°C	IEC 60384-14	VDE 40000358
	D	ZHUHAI SUNG HO ELECTRONICS CO LTD	CMPP	1uF, 275V, 110°C	IEC 60384-14	VDE 40026078
X2-capacitor (C3)	B	XIAMEN FARATRONIC	MKP62	1.5uF, 275V, 110°C	IEC 60384-14	VDE 40000358
	D	ZHUHAI SUNG HO ELECTRONICS CO LTD	CMPP	1.5uF, 275V, 110°C	IEC 60384-14	VDE 40026078
LF1& LF2	C	CreateMax Wuxi Electronics Co., Ltd.	LFE10	8mH, 130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375HF	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	CHANGZHOU DAYANG WIRE & CABLE CO LTD	UEW/155	155°C	UL 1446	UL E158909
Y2-capacitor (C1, C2, C23, C24)	B	Success Electronics Co., Ltd.	SB	4700pF, 250V, 125°C	IEC 60384-14	VDE 40016621

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	D	Success Electronics Co., Ltd.	SF	4700pF, 250V, 125°C	IEC 60384-14	VDE 40016665
	D	Success Electronics Co., Ltd.	SE	4700pF, 250V, 125°C	IEC 60384-14	VDE 122995
Alt. Y2-capacitor (C1, C2, C23, C24)	D	Murata Mfg. Co., Ltd.	KY	4700pF, 250V, 125°C	IEC 60384-14	VDE 40006273
	D	TDK Corporation	CD (miniature series)	4700pF, 250V, 125°C	IEC 60384-14	VDE 40017931
Varistor (RV1)	B	Brightking Inc.	471KD20	470V, D20, 85°C	IEC 61051	VDE 40022070
	D	THINKING ELECTRONIC INDUSTRIAL CO LTD	TVR20471KSY	470V;D20	IEC61051	VDE 40031391
L3	C	Suzhou YeeHoo Electronics Co., Ltd.	LP60-1	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
	D	Hangzhou Weifeng Electronic Co Ltd	UEW-@, QA-@/130	130°C	UL 1446	UL E229341
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFT	300V, 200°C	UL 224	UL E156256

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

L3	C	CreateMax Wuxi Electronics Co., Ltd.	LP60-1	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	ELEKTRISOLA HANGZHOU CO LTD	Polysol 155	155°C	UL 1446	UL E258243
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
-Tube	B	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C	UL 224	UL E203950
L4	C	Suzhou YeeHoo Electronics Co., Ltd.	LBK23	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
-Triple insulation wire	B	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(F)*	155°C	--	UL E211989
	D	SHANGHAI LUCKY TRADE CO LTD	TIW-F	155°C	--	UL E305883

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

L4	C	WUXI XUCHENG ELECTRONICS CO LTD	LBK23	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	WUXI JUFENG COMPOUND LINE CO LTD	xUEW155*, QA-x/155F*	155°C	UL 1446	UL E206882
-Triple insulation wire	B	SHANGHAI LUCKY TRADE CO LTD	TIW-F	155°C	--	UL E305883
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
L4	C	CreateMax Wuxi Electronics Co., Ltd.	LBK23	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	CHANGZHOU DAYANG WIRE & CABLE CO LTD	UEW/155	155°C	UL 1446	UL E158909
-Triple insulation wire	B	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(F)*	155°C	--	UL E211989
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
-Tube	B	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C	UL 224	UL E203950
L6	C	Suzhou YeeHoo Electronics Co., Ltd.	LBD11	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Huzhou Sanxing Cable Co Ltd	QA-x/155	155°C	UL 1446	UL E327855
	D	HENG YA ELECTRIC KUN SHAN LTD	TYA1-U155(UEW/QA-F)	155°C	UL 1446	UL E245514
-Tape	B	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
	D	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*Yellow(c)(g)	130°C	UL 510	UL E165111
-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C	UL 224	UL E156256
L6	C	WUXI XUCHENG ELECTRONICS CO LTD	LBD11	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEW-@, QA-@/130	130°C	UL 1446	UL E229341
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Margin tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-233	130°C	--	UL E309872
L6	C	CreateMax Wuxi Electronics Co., Ltd.	LBD11	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

-Magnet wire	B	CHANGZHOU DAYANG WIRE & CABLE CO LTD	UEW/155	155°C	UL 1446	UL E158909
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
-Tube	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF*(c)(h)	130°C	UL 510	UL E165111
L6	C	SUZHOU MIAOYUE METAWORK ELECTRONIC CO LTD	LBD11	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	CHANGZHOU DAYANG WIRE & CABLE CO LTD	UEW/155	155°C	UL 1446	UL E158909
	D	SHANGHAI ASIA PACIFIC ELECTRIC CO LTD	UEW	155°C	UL 1446	UL E214423
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
	D	SYMBIO INC	33646+	130°C	--	UL E50292
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
L7	C	Suzhou YeeHoo Electronics Co., Ltd.	LR60D-2	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
	D	SUMITOMO BAKELITE CO LTD	PM9820	V-0, 130°C	UL 94	UL E41429
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEW-@, QA-@/130	130°C	UL 1446	UL E229341

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

-Tube	B	GREAT HOLDING INDUSTRIAL CO LTD	TFL	150V, 200°C	--	UL E156256
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*Yellow(c)(g)	130°C	UL 510	UL E165111
	D	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
-Margin tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF*(c)(h)	130°C	UL 510	UL E165111
	D	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD	JY312#	130°C	UL 510	UL E188295
L7	D	CreateMax Wuxi Electronics Co., Ltd.	LR60D-2	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	CHANGZHOU NEW DISTRICT DAYI ELECTRICAL MATERIAL CO LTD	xUEW@/155	155°C	UL 1446	UL E158909
-Tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111
-Margin tape	B	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	WF*(c)(h)	130°C	UL 510	UL E165111
-Tube	B	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C	--	UL E203950

EN 61347-2-12			
Clause	Requirement + Test	Result - Remark	Verdict

L7	C	Suzhou Molei Electronic Technology Company Limited	LR60D-2	130°C	EN 61347-1, EN 61347-2-12	Tested with appliance
-Bobbin	B	CHANG CHUN PLASTICS CO LTD	T375J	V-0, 150°C	UL 94	UL E59481
-Magnet wire	B	Hangzhou Weifeng Electronic Co Ltd	UEW-@, QA-@/130	130°C	UL 1446	UL E229341
-Tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-133	130°C	UL 510	UL E309872
-Margin tape	B	JINGJIANG JINGYANG INSULATING PRODUCT CO LTD	JY-233	130°C	UL 510	UL E309872
-Tube	B	CHANGYUAN ELECTRONICS GROUP CO LTD	CB-TT-L	150V, 200°C	--	UL E180908
PCB	B	KUNSHAN JINPENG ELECTRONICS CO LTD	JP-1, JP-2	V-0, 130°C	UL 94	UL E306084
K1	B	SONG CHUAN	793-P-1A	16A, 250V	--	TUV R50056914

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

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	**screw terminals (part of the controlgear)**		**N**

(14)	**SCREW TERMINALS** (EN 60598-1)		**N**
(14.2)	Type of terminal.....		—
	Rated current (A).....		—
(14.3.2.1)	One or more conductors		N
(14.3.2.2)	Special preparation		N
(14.3.2.3)	Terminal size		N
	Cross-sectional area (mm²).....		N
(14.3.3)	Conductor space (mm).....		N
(14.4)	Mechanical tests		N
(14.4.1)	Minimum distance		N
(14.4.2)	Cannot slip out		N
(14.4.3)	Special preparation		N
(14.4.4)	Nominal diameter of thread (metric ISO thread) .		N
	External wiring		N
	No soft metal		N
(14.4.5)	Corrosion		N
(14.4.6)	Nominal diameter of thread (mm).....		N
	Torque (Nm)		N
(14.4.7)	Between metal surfaces		N
	Lug terminal		N
	Mantle terminal		N
	Pull test; pull (N)		N
(14.4.8)	Without undue damage		N

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 3	**screwless terminals (part of the controlgear)**		N

(15)	**SCREWLESS TERMINALS** (EN 60598-1)		N
(15.2)	Type of terminal ..... :		—
	Rated current (A) ..... :		—
(15.3.1)	Material		N
(15.3.2)	Clamping		N
(15.3.3)	Stop		N
(15.3.4)	Unprepared conductors		N
(15.3.5)	Pressure on insulating material		N
(15.3.6)	Clear connection method		N
(15.3.7)	Clamping independently		N
(15.3.8)	Fixed in position		N
(15.3.10)	Conductor size		N
	Type of conductor		N
(15.5)	Terminals and connections for internal wiring		N
(15.5.1)	Mechanical tests		N
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples)….:		N
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples)……:		N
	Insertion force not exceeding 50 N		N
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N
(15.6)	Electrical tests		N
	Voltage drop (mV) after 1 h (4 samples) ..... :		N
	Voltage drop of two inseparable joints		N
	Number of cycles ..... :		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples) ..... :		N
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples) ..... :		N
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N
(15.7)	Terminals external wiring		N
	Terminal size and rating		N
(15.8.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) ..... :		N

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

	Pull test pin or tab terminals (4 samples); pull (N) ..... :										N
(15.9)	Contact resistance test										N
	Voltage drop (mV) after 1 h										N
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)	--	--	--	--	--	--	--	--	--	--	
	Voltage drop of two inseparable joints										N
	Voltage drop after 10th alt. 25th cycle										N
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)	--	--	--	--	--	--	--	--	--	--	
	Voltage drop after 50th alt. 100th cycle										N
	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										N
	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										N
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)	--	--	--	--	--	--	--	--	--	--	

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 4	**Temperature measurements**		**P**
	Type reference	Aurora 315W	—
	Lamp used	315W CMH	—
	Operation: heating test is under at tc condition		N
	- abnormal operating mode…:	2a. No lamp connected. (Unit shut down immediately. No output.) 2b. Double load (Unit shut down immediately. No output.) 2c. The output terminal be short-circuited (Unit shut down immediately. No output.)	—
	- test 1:……:	240x 1.06= 254.4V, Input: 1.31A, 328W	—
	- test 2: ……:	N	—

Temperature rise (K) of part	Normal operation		Abnormal operation				
Temperature rise of part	Test (254.4V)	Limits (°C)	Test 2 a	Test 2 b	Test 2 c	Test d	Limit (°C)
Power cord	78.1	90	--	--	--	--	--
Output cord	88.0	90	--	--	--	--	--
Dimming switch	51.7	For ref.	--	--	--	--	--
Tc	80.0	80	--	--	--	--	--
Enclosure near L1	84.8	For ref.	--	--	--	--	--
L7 winding	94.8	120	--	--	--	--	--
L11 winding	103.9	120	--	--	--	--	--
L5 winding	99.9	120	--	--	--	--	--
L1 winding	131.9	145	--	--	--	--	--
L1 bobbin	126.3	150	--	--	--	--	--
T1 winding	128.4	145	--	--	--	--	--
T1 bobbin	121.1	150	--	--	--	--	--
T2 winding	101.9	120	--	--	--	--	--
T2 bobbin	101.0	150	--	--	--	--	--
C17	102.8	105	--	--	--	--	--
PCB near Q19	103.7	130	--	--	--	--	--
C7	96.7	105	--	--	--	--	--
Y-capacitor	88.0	100	--	--	--	--	--
Mounting surface	76.9	90	--	--	--	--	--
Ambient	45	--	--	--	--	--	--

Note: None of the temperatures exceed the limit values when tc was 80℃.

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 4	Temperature measurements		P
	Type reference	315W	—
	Lamp used.....	315W CMH	—
	Operation: heating test is under at tc condition		N
	- abnormal operating mode…:	2a. No lamp connected. (Unit shut down immediately. No output.) 2b. Double load (Unit shut down immediately. No output.) 2c. The output terminal be short-circuited (Unit shut down immediately. No output.)	—
	- test 1:……:	240x 1.06=254.4V, Input: 1.37A, 342W	—
	- test 2: ……:	N	—

Temperature rise (K) of part	Normal operation		Abnormal operation				
Temperature rise of part	Test (254.4V)	Limits (°C)	Test 2 a	Test 2 b	Test 2 c	Test d	Limit (°C)
Power cord	78.5	90	--	--	--	--	--
Output cord	80.9	90	--	--	--	--	--
Dimming switch	67.1	For ref.	--	--	--	--	--
Tc	80.3	80	--	--	--	--	--
Enclosure near L1	83.8	For ref.	--	--	--	--	--
L7 winding	101.3	120	--	--	--	--	--
L11 winding	97.2	120	--	--	--	--	--
L5 winding	90.4	120	--	--	--	--	--
L1 winding	104.4	145	--	--	--	--	--
L1 bobbin	102.6	150	--	--	--	--	--
T1 winding	106.9	145	--	--	--	--	--
T1 bobbin	103.4	150	--	--	--	--	--
T2 winding	90.2	120	--	--	--	--	--
T2 bobbin	88.3	150	--	--	--	--	--
C17	89.2	105	--	--	--	--	--
PCB near Q19	89.3	130	--	--	--	--	--
C7	88.2	105	--	--	--	--	--
Mounting surface	76.1	90	--	--	--	--	--
Ambient	42	--	--	--	--	--	--
Note: None of the temperatures exceed the limit values when tc was 80℃.							

ANNEX 4	Temperature measurements		P
	Type reference	Pro 1000W 400V	—

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

	Lamp used	400V LAMP	—
	Operation: heating test is under at tc condition		N
	- abnormal operating mode…:	2a. No lamp connected. (Unit shut down immediately. No output.) 2b. Double load (Unit shut down immediately. No output.) 2c. The output terminal be short-circuited (Unit shut down immediately. No output.)	—
	- test 1:……:	240x 1.06= 254.4V, Input: 4.74A, 1193W	—
	- test 2: ……:	N	—

Temperature rise (K) of part	Normal operation		Abnormal operation				
Temperature rise of part	Test (254.4V)	Limits (°C)	Test 2 a	Test 2 b	Test 2 c	Test d	Limit (°C)
Power cord	84.3	90	--	--	--	--	--
Output cord	80.9	90	--	--	--	--	--
Dimming switch	60.1	For ref.	--	--	--	--	--
Tc	80.0	80	--	--	--	--	--
Enclosure near L5	79.8	For ref.	--	--	--	--	--
L7 winding	89.6	120	--	--	--	--	--
L1 winding	91.8	120	--	--	--	--	--
L5 winding	105.2	120	--	--	--	--	--
L5 Bobbin	100.7	145	--	--	--	--	--
L2 winding	91.8	150	--	--	--	--	--
RV1	89.4	105	--	--	--	--	--
JK1	89.7	For ref.	--	--	--	--	--
BR1	79.3	For ref.	--	--	--	--	--
C42	98.4	105	--	--	--	--	--
PCB near U1	94.9	130	--	--	--	--	--
C1	90.0	105	--	--	--	--	--
Mounting surface	75.3	90	--	--	--	--	--
Ambient	42.0	--	--	--	--	--	--
Note: None of the temperatures exceed the limit values when tc was 80℃.							

ANNEX 4	**Temperature measurements**		**P**
	Type reference	1000W	—
	Lamp used	1000W LAMP	—
	Operation: heating test is under at tc condition		N

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

	- abnormal operating mode…:	2a. No lamp connected. (Unit shut down immediately. No output.) 2b. Double load (Unit shut down immediately. No output.) 2c. The output terminal be short-circuited (Unit shut down immediately. No output.)	—
	- test 1:……:	240x 1.06= 254.4V, Input: 4.84A, 1210W	—
	- test 2: ……:	N	—

Temperature rise (K) of part	Normal operation		Abnormal operation				
Temperature rise of part	Test (254.4V)	Limits (°C)	Test 2 a	Test 2 b	Test 2 c	Test d	Limit (°C)
Power cord	82.2	90	--	--	--	--	--
Output cord	78.9	90	--	--	--	--	--
Dimming switch	61.1	For ref.	--	--	--	--	--
Tc	80.0	80	--	--	--	--	--
Enclosure near L7	86.4	For ref.	--	--	--	--	--
LF1 winding	87.4	120	--	--	--	--	--
LF2 winding	82.1	120	--	--	--	--	--
L7 winding	93.4	120	--	--	--	--	--
L7 Bobbin	85.9	145	--	--	--	--	--
L5 winding	86.2	150	--	--	--	--	--
RV1	77.2	105	--	--	--	--	--
JK1	78.2	For ref.	--	--	--	--	--
BR1	85.8	For ref.	--	--	--	--	--
C5	76.7	105	--	--	--	--	--
PCB near BR1	81.7	130	--	--	--	--	--
C12	78.3	105	--	--	--	--	--
Mounting surface	78.3	90	--	--	--	--	--
Ambient	42.0	--	--	--	--	--	--
Note: None of the temperatures exceed the limit values when tc was 80℃.							

ANNEX 4	**Temperature measurements**		**P**
	Type reference	600W	—
	Lamp used	600W High pressure sodium lamp	—
	Operation: heating test is under at tc condition		N

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

	- abnormal operating mode…:	2a. No lamp connected. (Unit shut down immediately. No output.) 2b. Double load (Unit shut down immediately. No output.) 2c. The output terminal be short-circuited (Unit shut down immediately. No output.)	—
	- test 1:……:	240 x 1.06 = 254.4V Input: 2.74A, 689W	—
	- test 2: ……:	N	—

Temperature rise (K) of part	Normal operation		Abnormal operation				
Temperature rise of part	Test (254.4V)	Limits (°C)	Test 2 a	Test 2 b	Test 2 c	Test d	Limit (°C)
Power cord	58.5	90	--	--	--	--	--
Output cord	63.6	90	--	--	--	--	--
Control board PCB	90.3	130	--	--	--	--	--
Dimming switch	63.8	For ref.	--	--	--	--	--
C5 body	77.6	110	--	--	--	--	--
LF1 winding	72.7	120	--	--	--	--	--
LF2 winding	73.1	120	--	--	--	--	--
RV1 body	73.6	85	--	--	--	--	--
L3 winding	79.5	120	--	--	--	--	--
L3 bobbin	79.8	120	--	--	--	--	--
L7 winding	87.9	120	--	--	--	--	--
L4 winding	85.2	120	--	--	--	--	--
L6 winding	89.6	120	--	--	--	--	--
C16 body	86.7	105	--	--	--	--	--
PCB under U1	86.3	For material test	--	--	--	--	--
BR1	74.8	For material test	--	--	--	--	--
Metal enclosure near L7	70	70	--	--	--	--	--
Ambient	55	--	--	--	--	--	--

ANNEX 4	**Temperature measurements**		**P**
	Type reference	Ultimate 600W 400V	—
	Lamp used	600W High pressure sodium lamp	—
	Operation: heating test is under at tc condition		N

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict

	- abnormal operating mode…:	2a. No lamp connected. (Unit shut down immediately. No output.) 2b. Double load (Unit shut down immediately. No output.) 2c. The output terminal be short-circuited (Unit shut down immediately. No output.)	—
	- test 1:……:	240 x 1.06 = 254.4V, Input: 2.76A, 702W	—
	- test 2: ……:	N	—

Temperature rise (K) of part	Normal operation		Abnormal operation				
Temperature rise of part	Test (254.4V)	Limits (°C)	Test 2 a	Test 2 b	Test 2 c	Test d	Limit (°C)
Power cord	56	90	--	--	--	--	--
Output cord	62.9	90	--	--	--	--	--
Control board PCB	87.1	130	--	--	--	--	--
Dimming switch	61.4	For ref.	--	--	--	--	--
C6 body	82.5	110	--	--	--	--	--
L1 winding	84.7	120	--	--	--	--	--
L2 winding	84.1	120	--	--	--	--	--
RV1 body	80.7	85	--	--	--	--	--
L3 winding	91.5	120	--	--	--	--	--
L5 winding	90.0	120	--	--	--	--	--
L6 winding	92.9	120	--	--	--	--	--
L4 winding	87.2	120	--	--	--	--	--
L7 winding	94.6	120	--	--	--	--	--
C17 body	90.7	105	--	--	--	--	--
K1	83.9	For ref.	--	--	--	--	--
PCB under U1	97	For material test	--	--	--	--	--
BR1	82	For material test	--	--	--	--	--
Metal enclosure near L6	70	70	--	--	--	--	--
Ambient	47	--	--	--	--	--	--
Note: None of the temperatures exceed the limit values when tc was 80℃.							

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict
Annex 5	**Independent lamp controlgear acc. to the requirements of EN 60598-1**		**P**
4	**CONSTRUCTION**		**P**
4.13	Mechanical strength		P
4.13.1	Impact tests:		P
	- fragile parts; energy (Nm).....	---	N
	- other parts; energy (Nm)	Enclosure: 0,5 Nm	P
	1) live parts		P
	2) linings		N
	3) protection		P
	4) covers		P
5	**External and internal wiring tested with conductor of the largest and smallest section to the input terminal**		**P**
5.2.10.3	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N)	60N	P
	- torque test: torque (Nm)	0.25Nm	P
	- displacement ≤ 2 mm	<1mm	P
	- no movement of conductors		P
	- no damage of cable or cord		P
9	**RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE**		**P**
9.2	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP	IP20	—
	- mounting position during test	As in normal use	—
	- fixing screws tightened; torque (Nm).....	---	—
	- tests according to clauses	9.2.0	—
	- electric strength test afterwards		N
	a) no deposit in dust-proof luminaire		N
	b) no talcum in dust-tight luminaire		N
	c) no trace of water on current-carrying parts or SELV parts or where it could become a hazard		N
	d) i) For luminaires without drain holes – no water entry		N
	d) ii) For luminaires with drain holes – no hazardous water entry		N

EN 60598-1			
Clause	Requirement + Test	Result - Remark	Verdict
	e) no water in watertight luminaire		N
	f) no contact with live parts (IP 2X)		P
	f) no entry into enclosure (IP 3X and IP 4X)		N
	f) no contact with live parts (IP3X and IP4X)		N
	g) no trace of water on part of lamp requiring protection from splashing water		N
	h) no damage of protective shield or glass envelope		N
1.13.1 (-)	Parts removed before humidity treatment	No such part	N

====== End of Report ======

Photo Documentation

Reference No.: WTU19N10074446L

Model: Aurora 315W

Photo 1

Photo 2

Photo Documentation

Reference No.: WTU19N10074446L

Photo 3

Photo 4

Photo Documentation

Reference No.: WTU19N10074446L

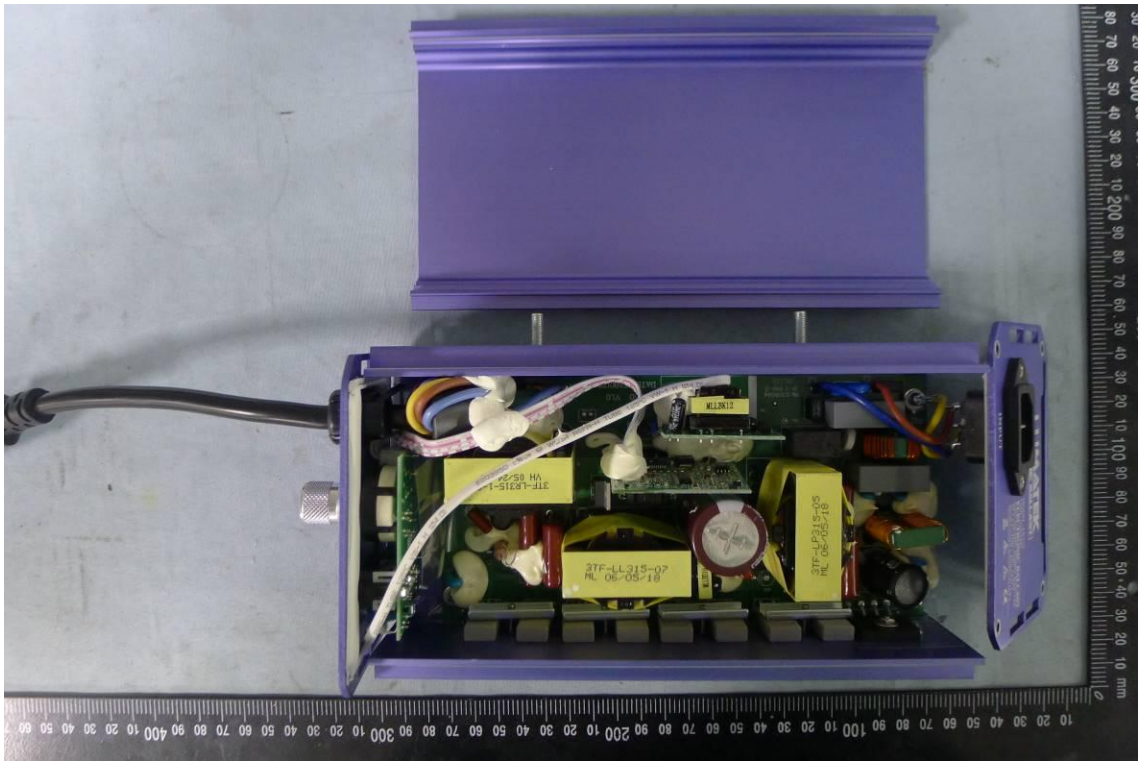

Photo 5

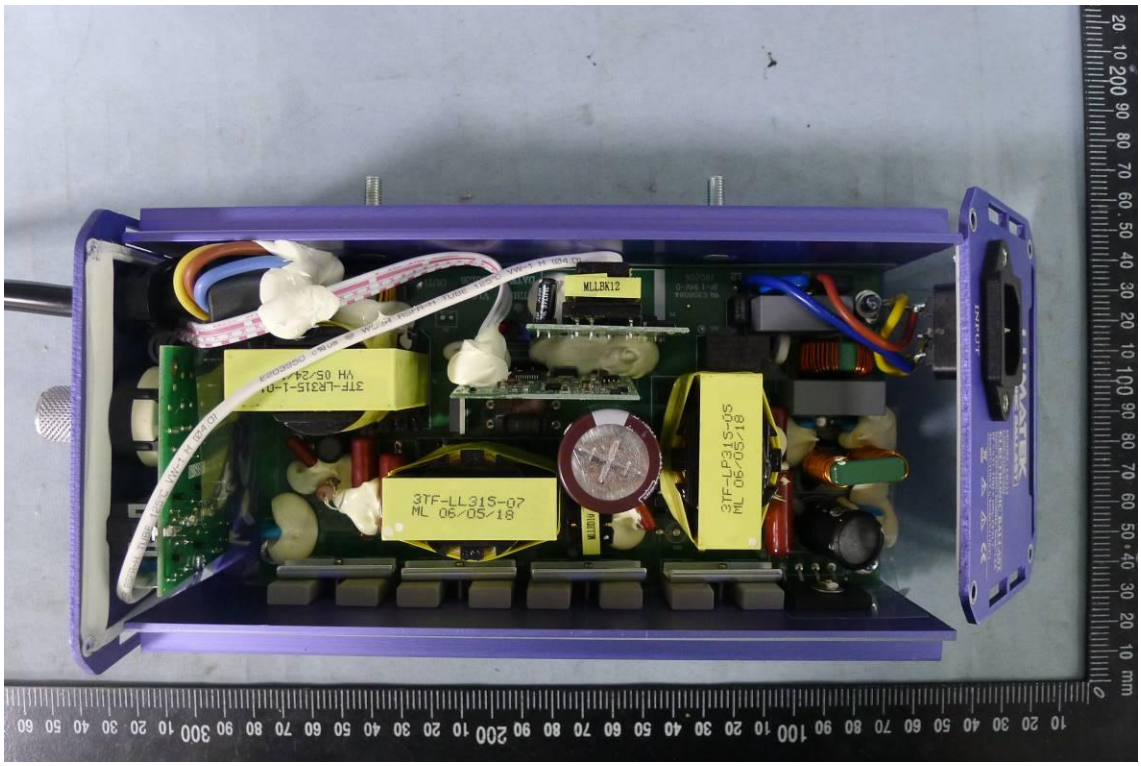

Photo 6

Photo Documentation

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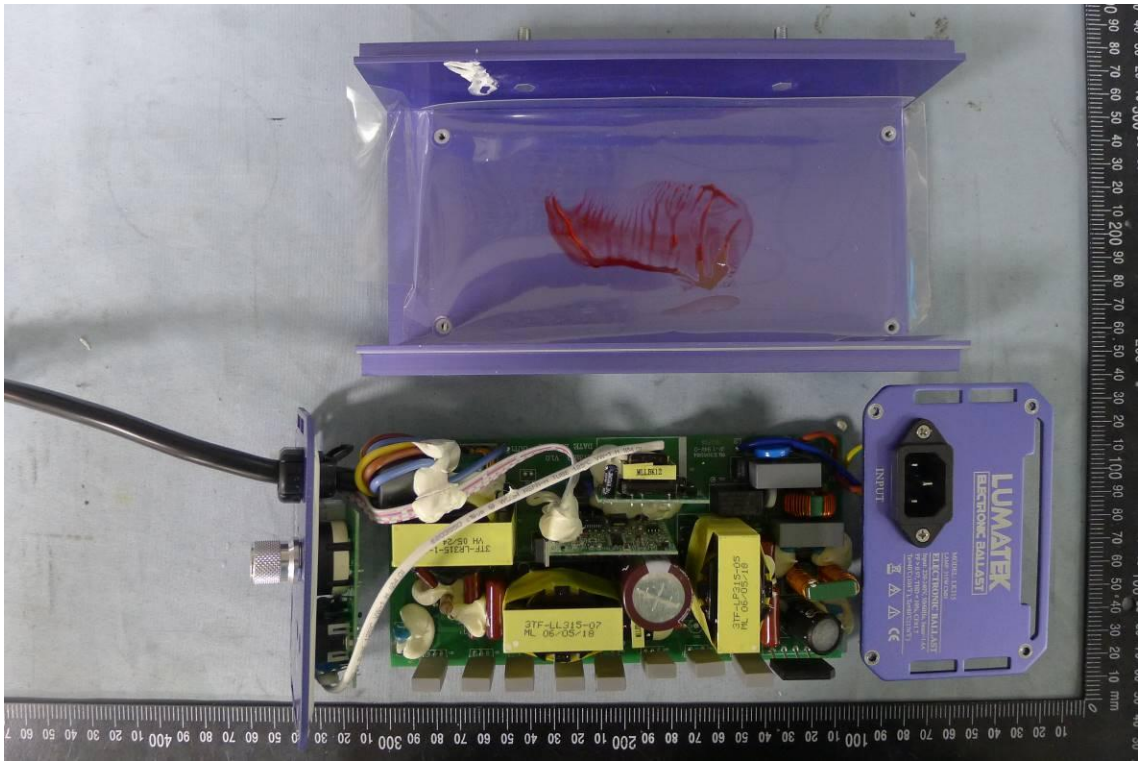

Photo 7

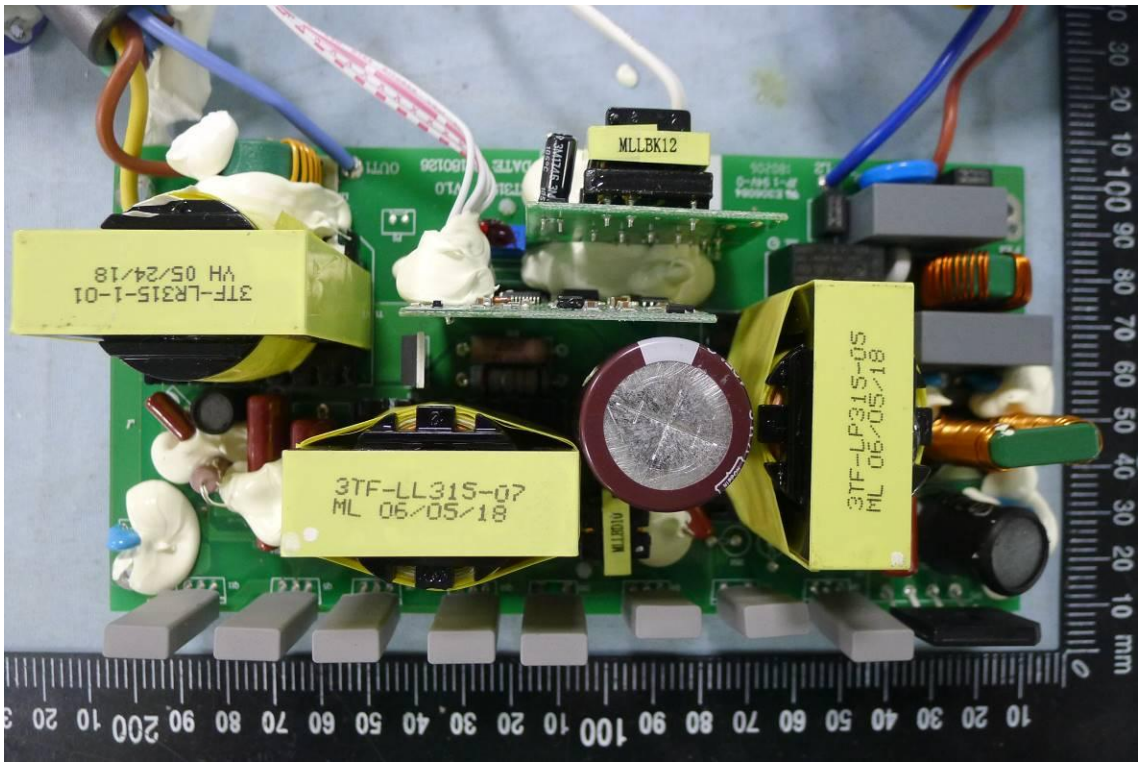

Photo 8

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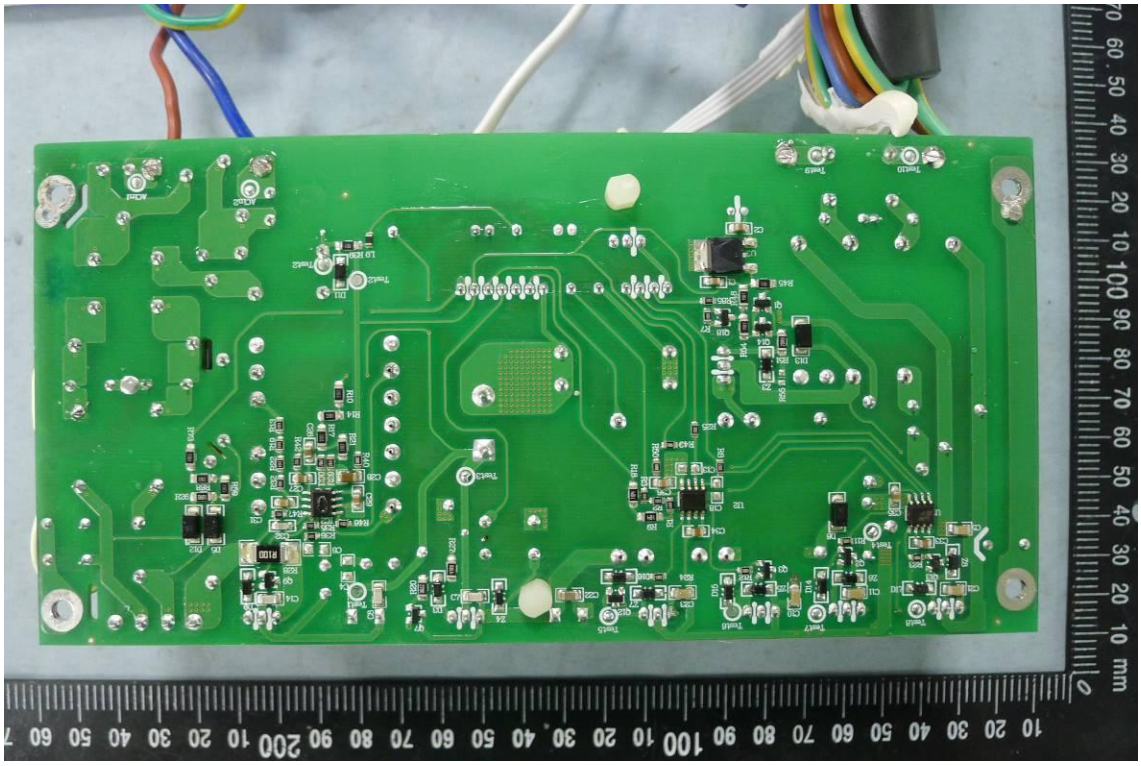

Photo 9

Model: 315W

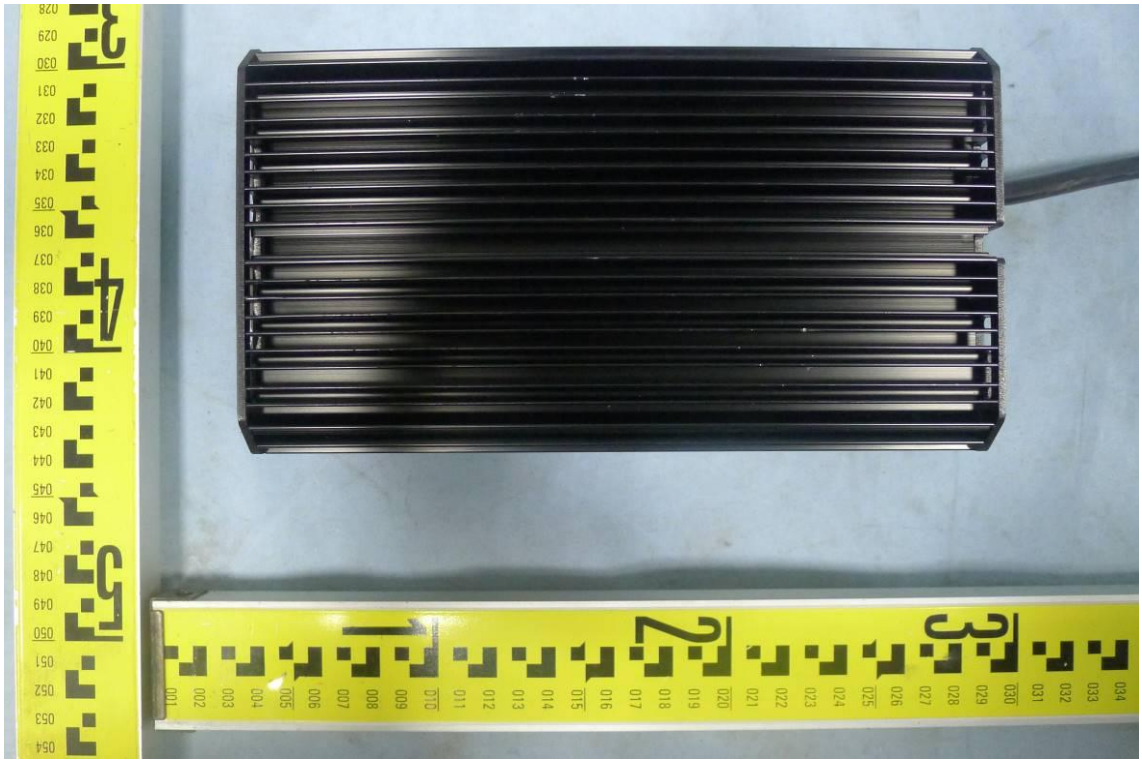

Photo 10

Photo Documentation

Reference No.: WTU19N10074446L

Photo 11

Photo 12

Photo Documentation

Reference No.: WTU19N10074446L

Photo 13

Photo 14

Photo Documentation

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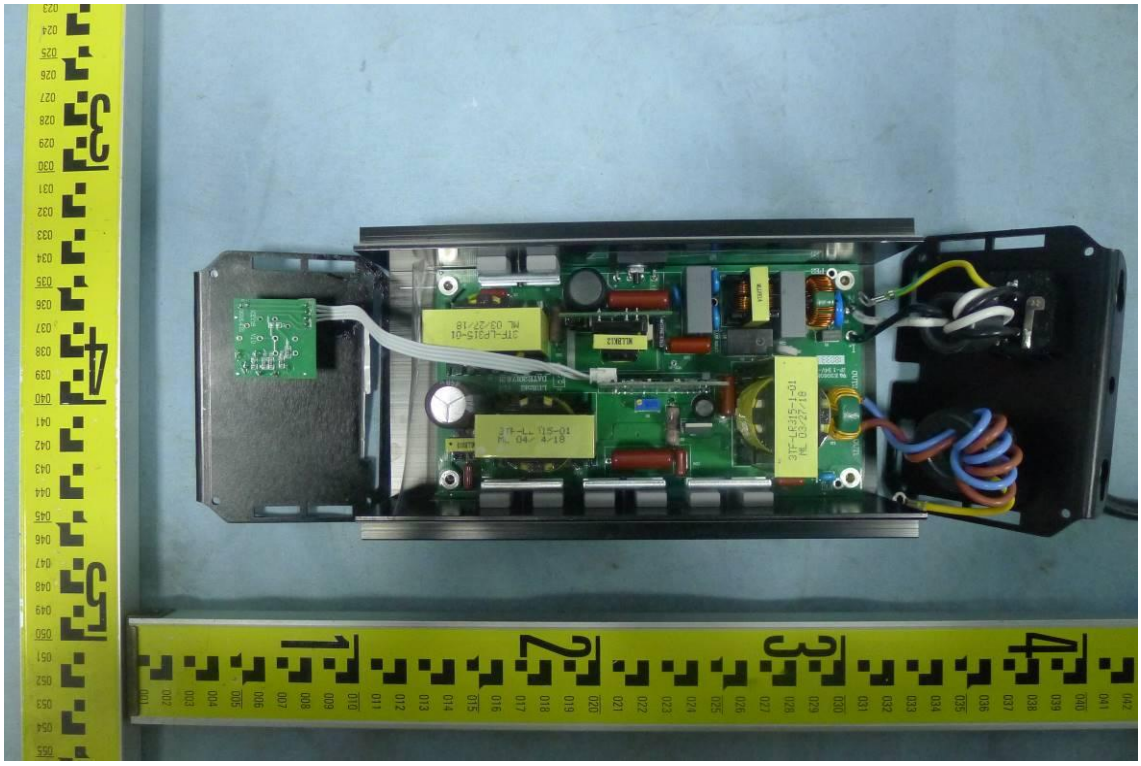

Photo 15

Photo 16

Photo Documentation

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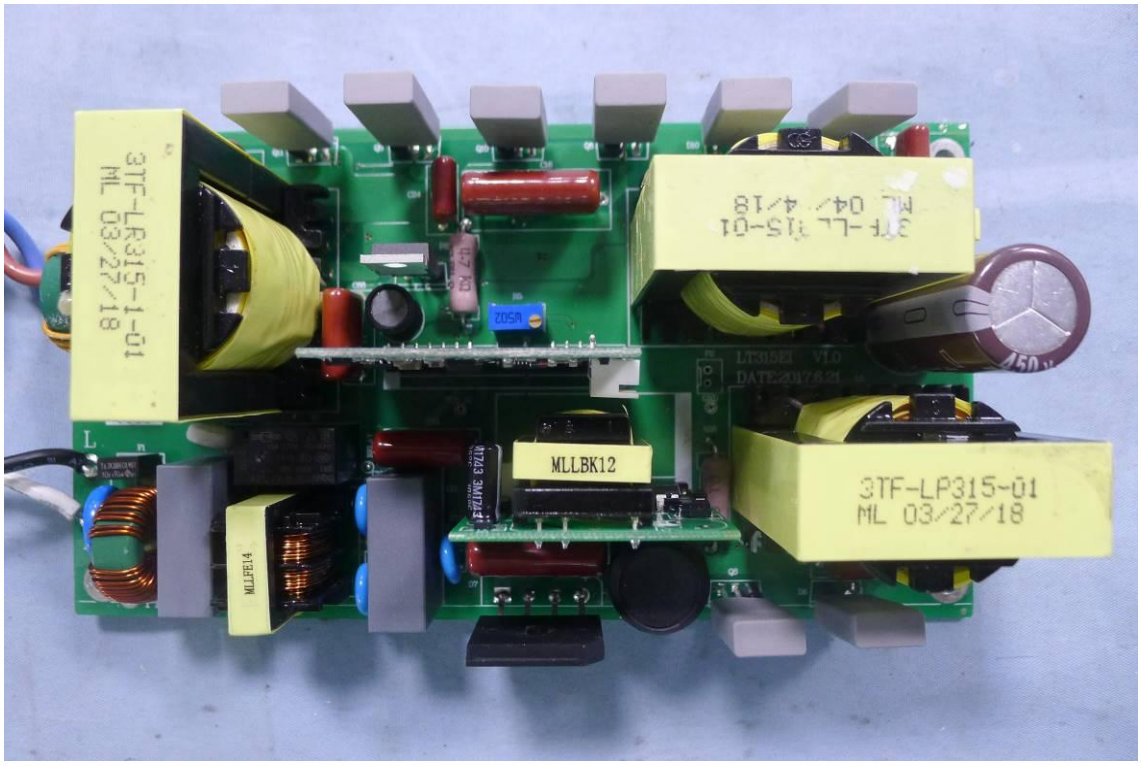

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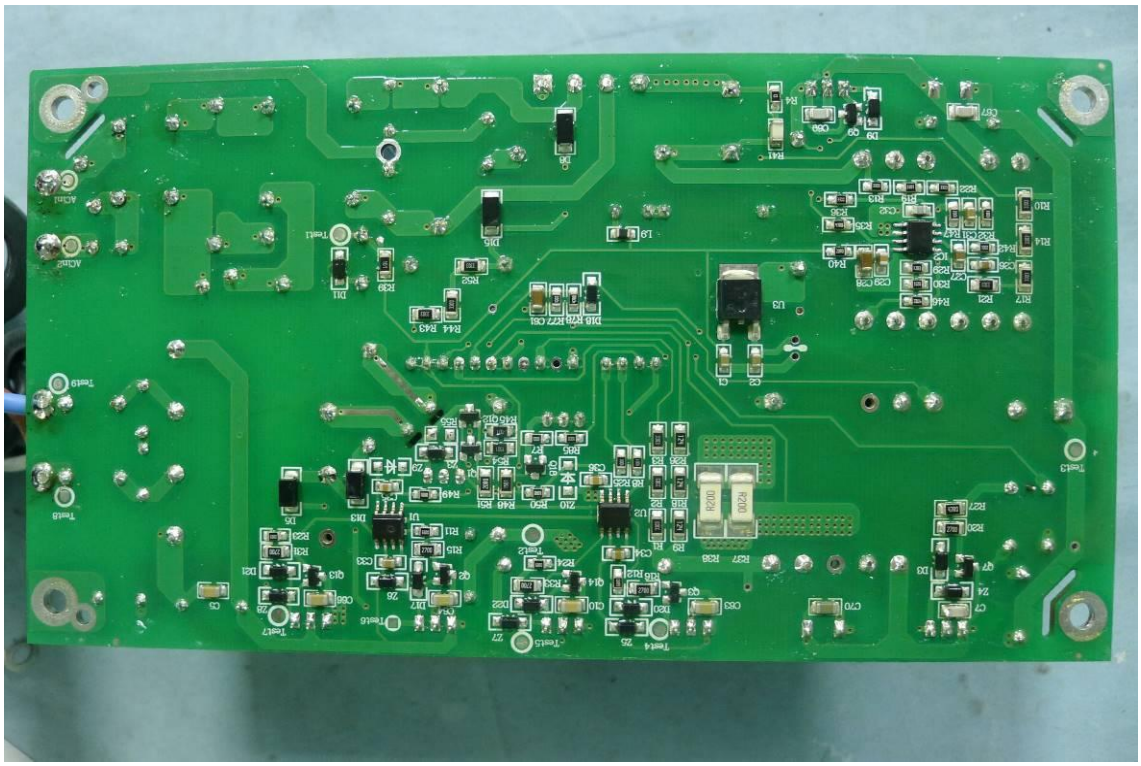

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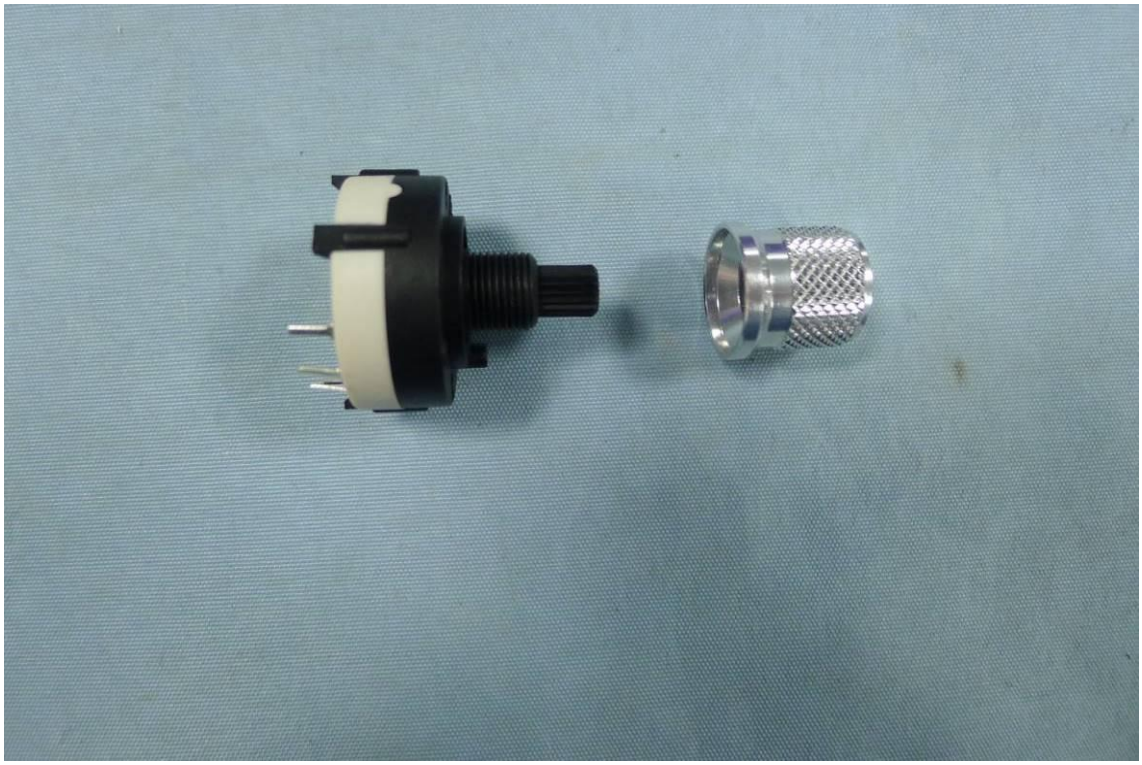

Photo 19

Model: Pro 1000W 400V

Photo 20

Photo Documentation

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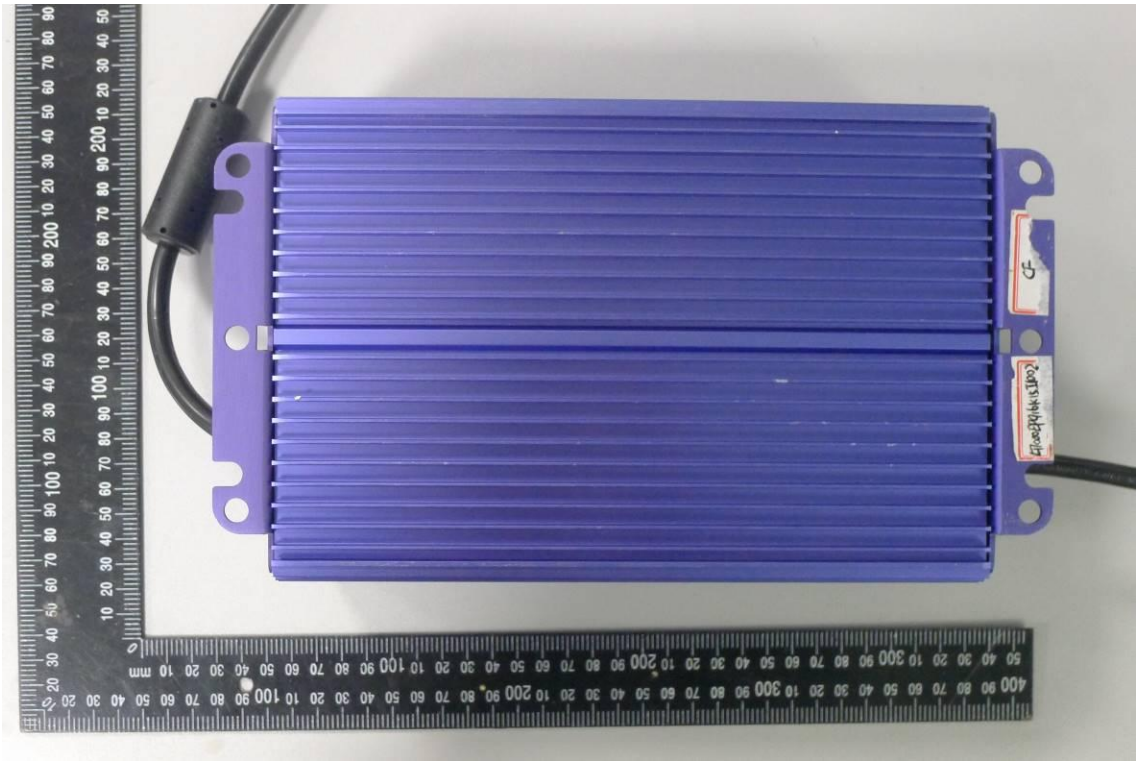

Photo 21

Photo 22

Photo Documentation

Reference No.: WTU19N10074446L

Photo 23

Photo 24

Photo Documentation

Reference No.: WTU19N10074446L

Photo 25

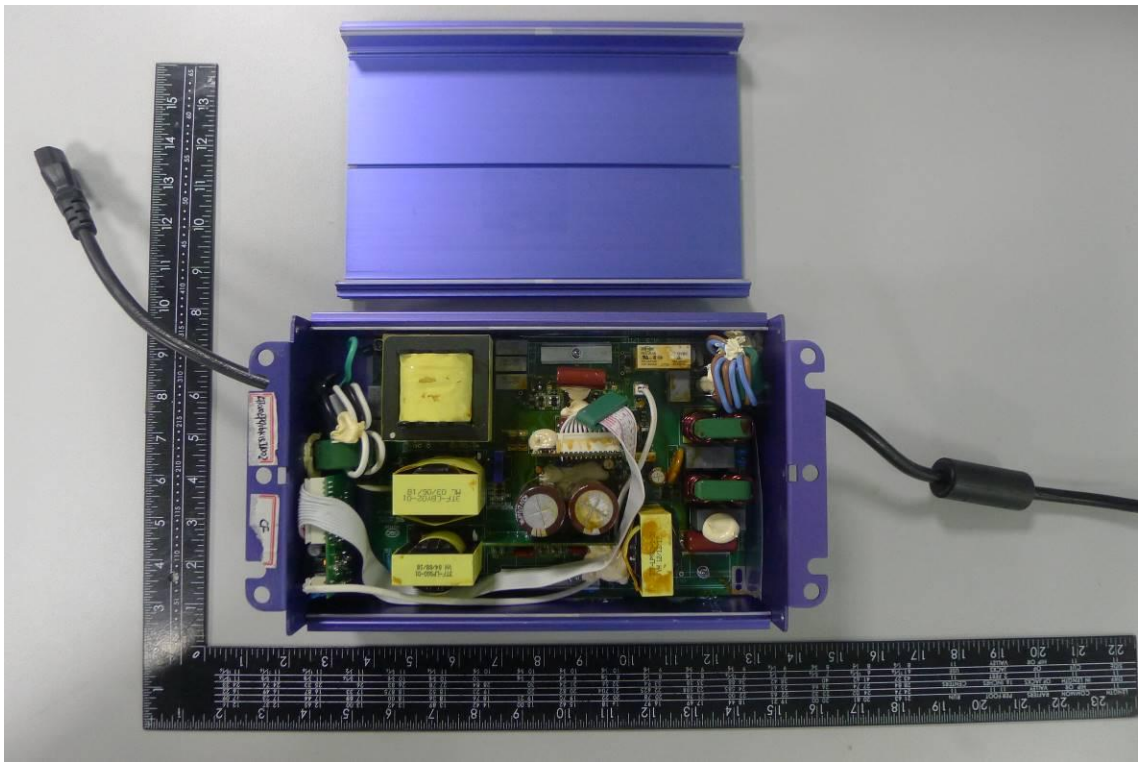

Photo 26

Photo Documentation

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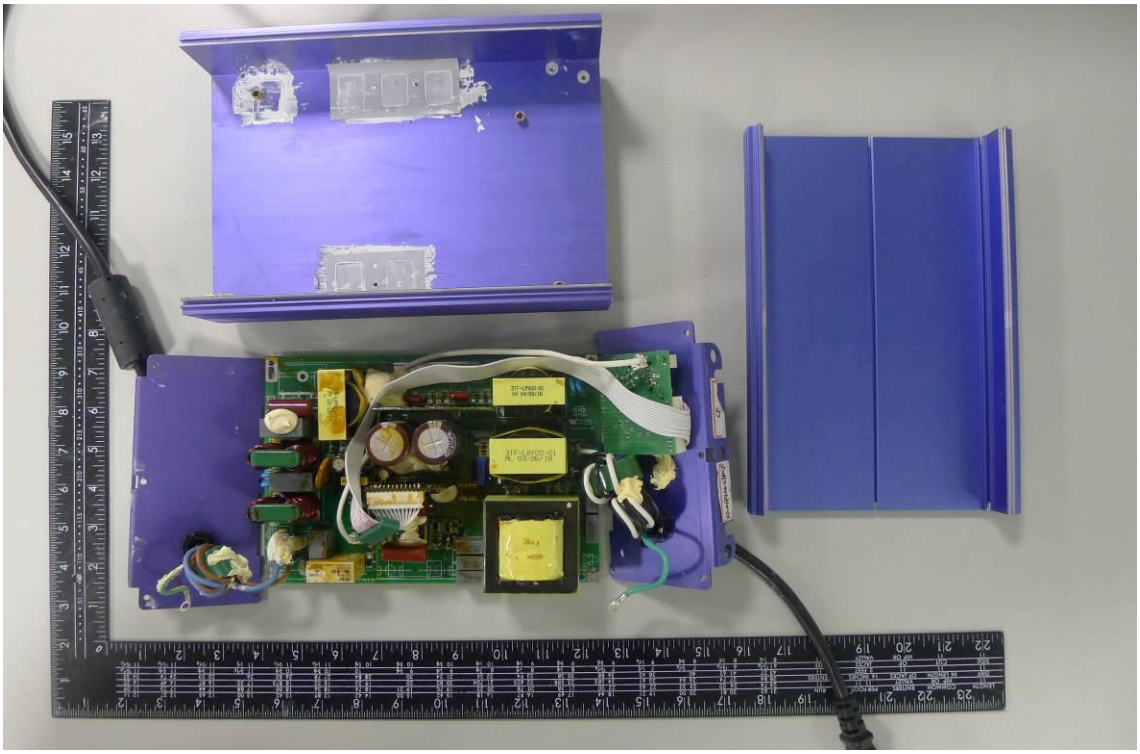

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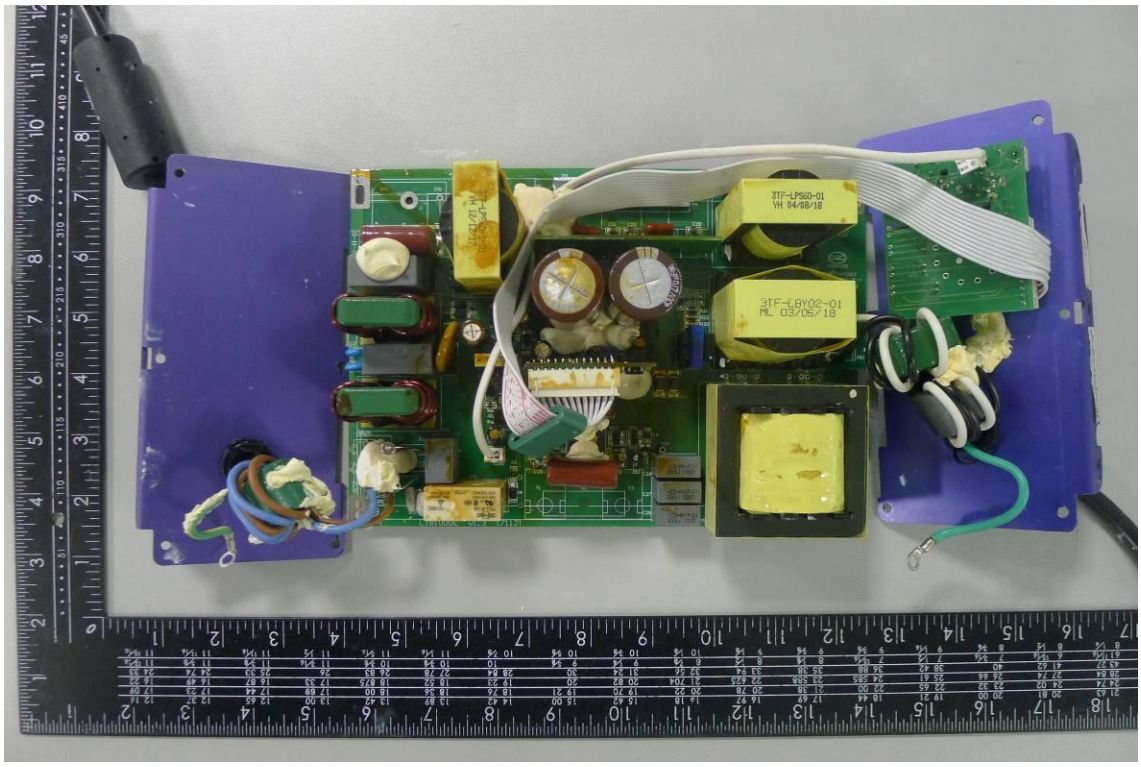

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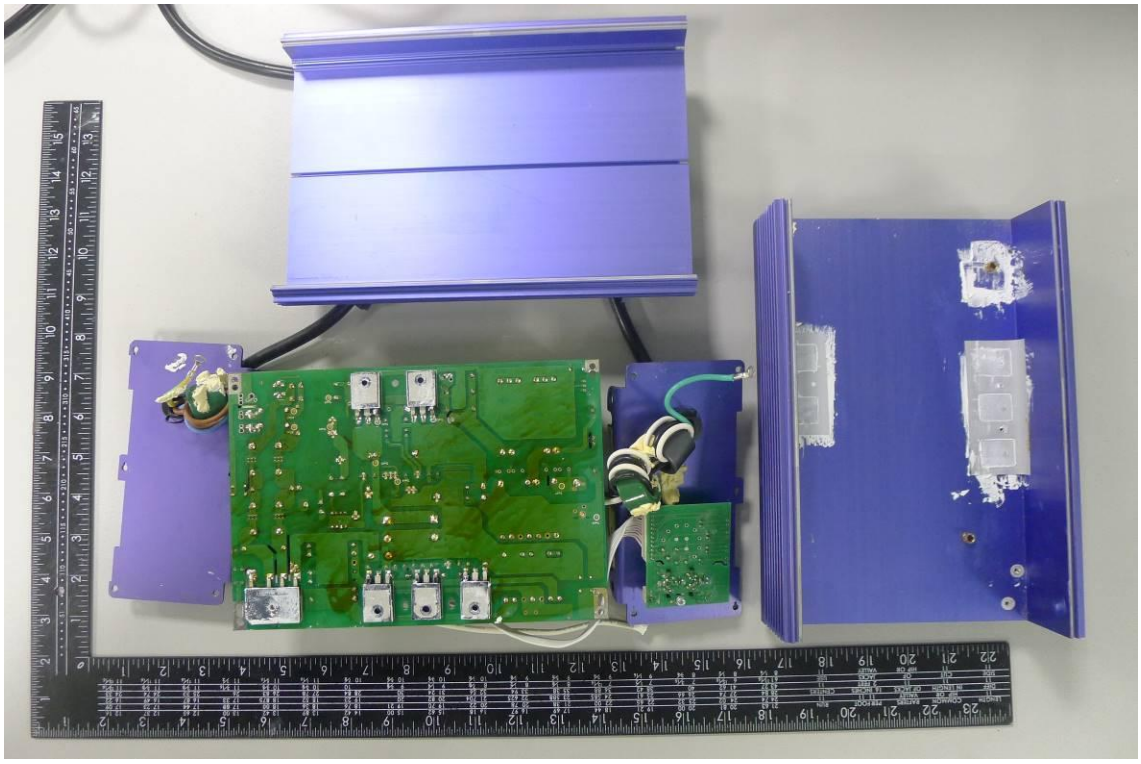

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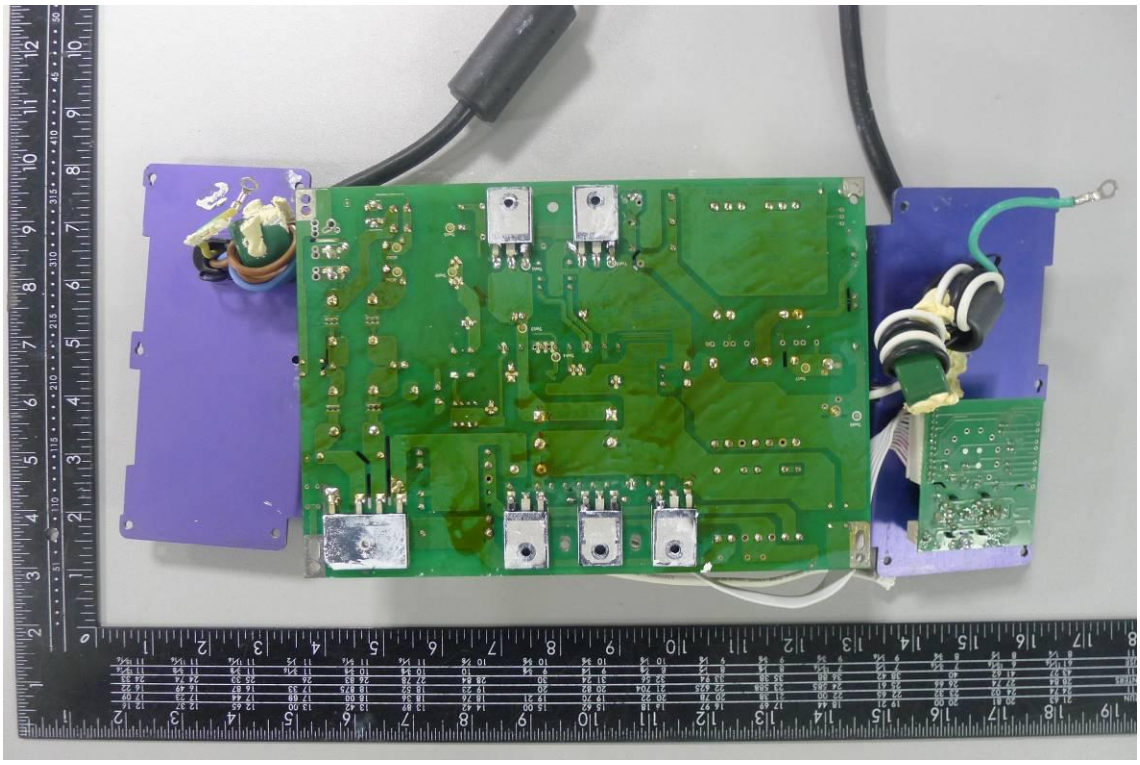


Photo 30

Photo Documentation

Reference No.: WTU19N10074446L

Model: 1000W

Photo 31

Photo 32

Photo Documentation

Reference No.: WTU19N10074446L

Photo 33

Photo 34

Photo Documentation

Reference No.: WTU19N10074446L

Photo 35

Photo 36

Photo Documentation

Reference No.: WTU19N10074446L

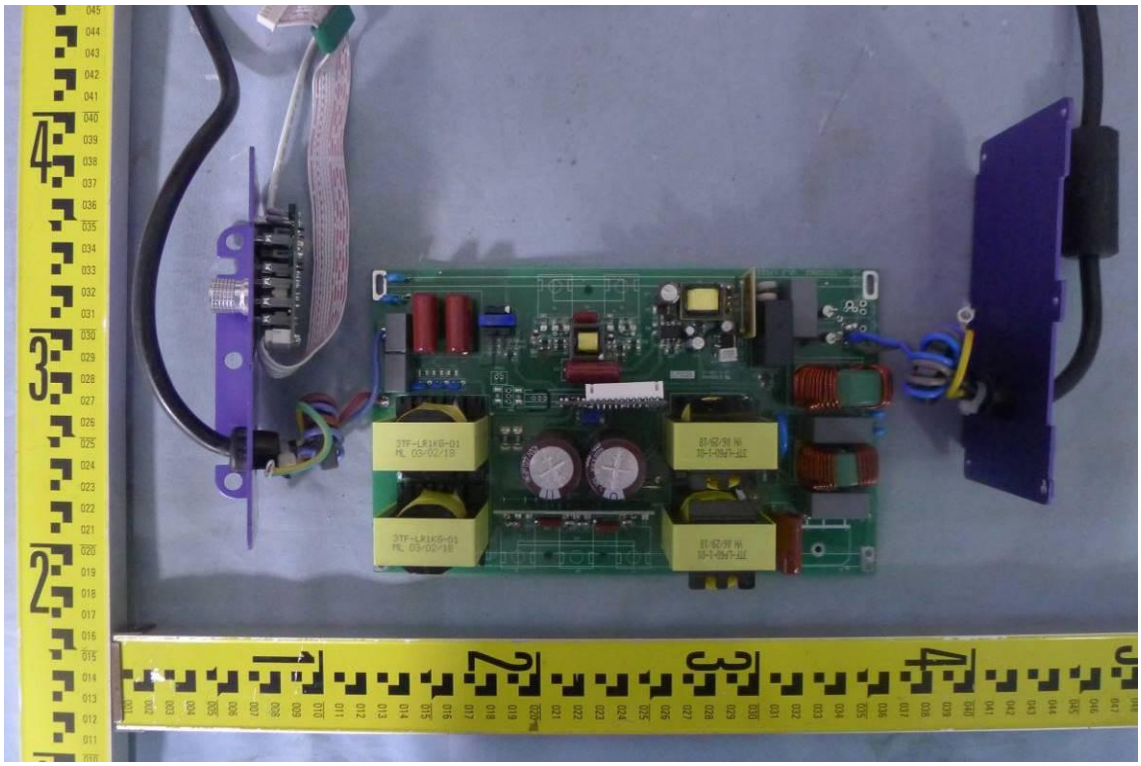
Photo 37

Photo 38

Photo Documentation

Reference No.: WTU19N10074446L

Photo 39



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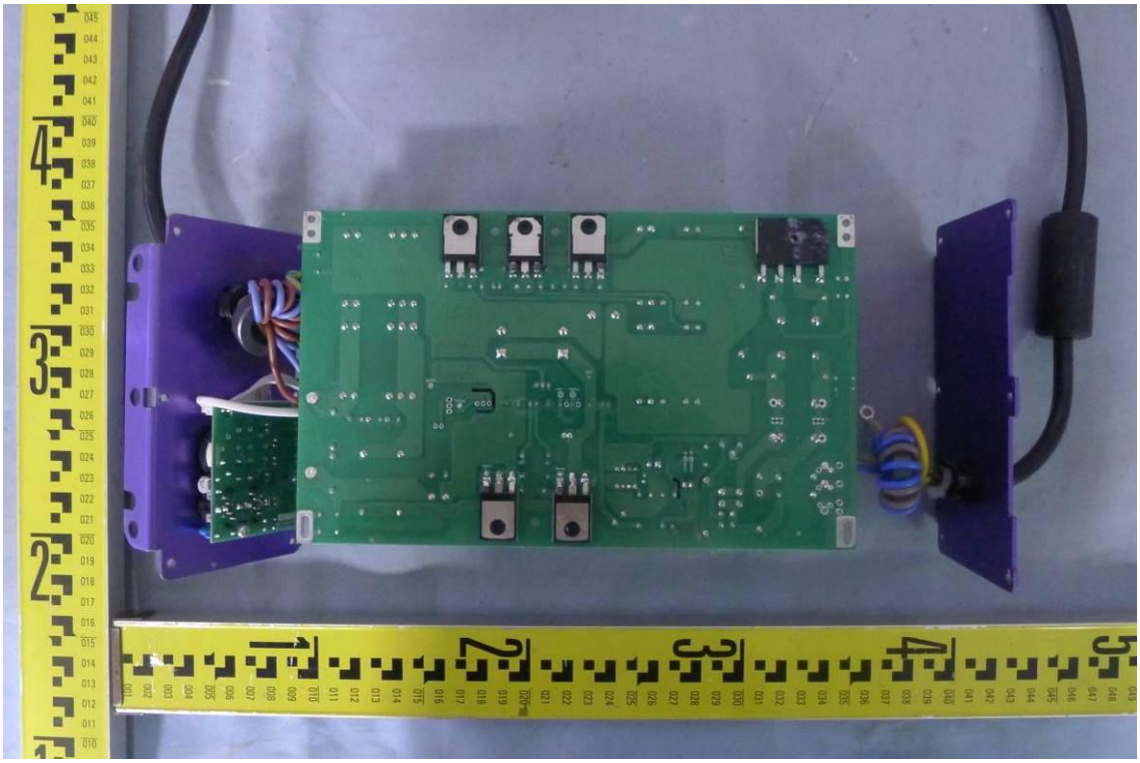

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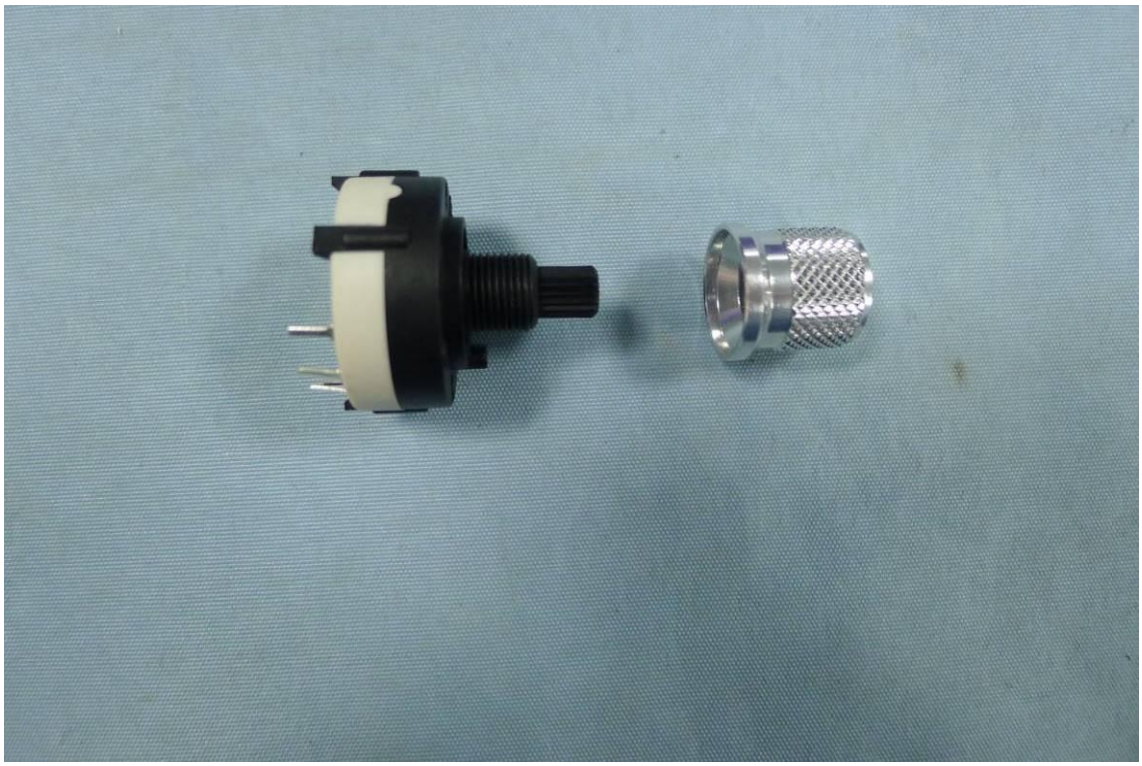

Photo 42

Photo Documentation

Reference No.: WTU19N10074446L

Model: 600W

Photo 43

Photo 44

Photo Documentation

Reference No.: WTU19N10074446L

Photo 45

Photo 46

Photo Documentation

Reference No.: WTU19N10074446L

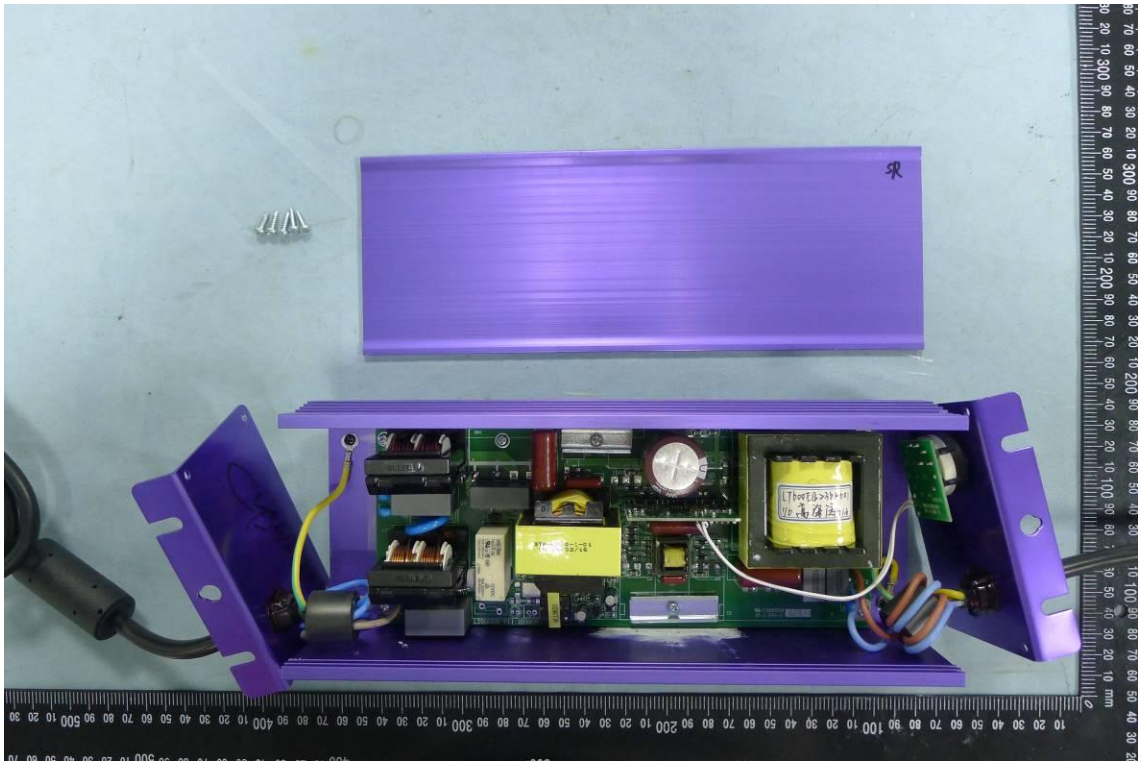

Photo 47

Photo 48

Photo Documentation

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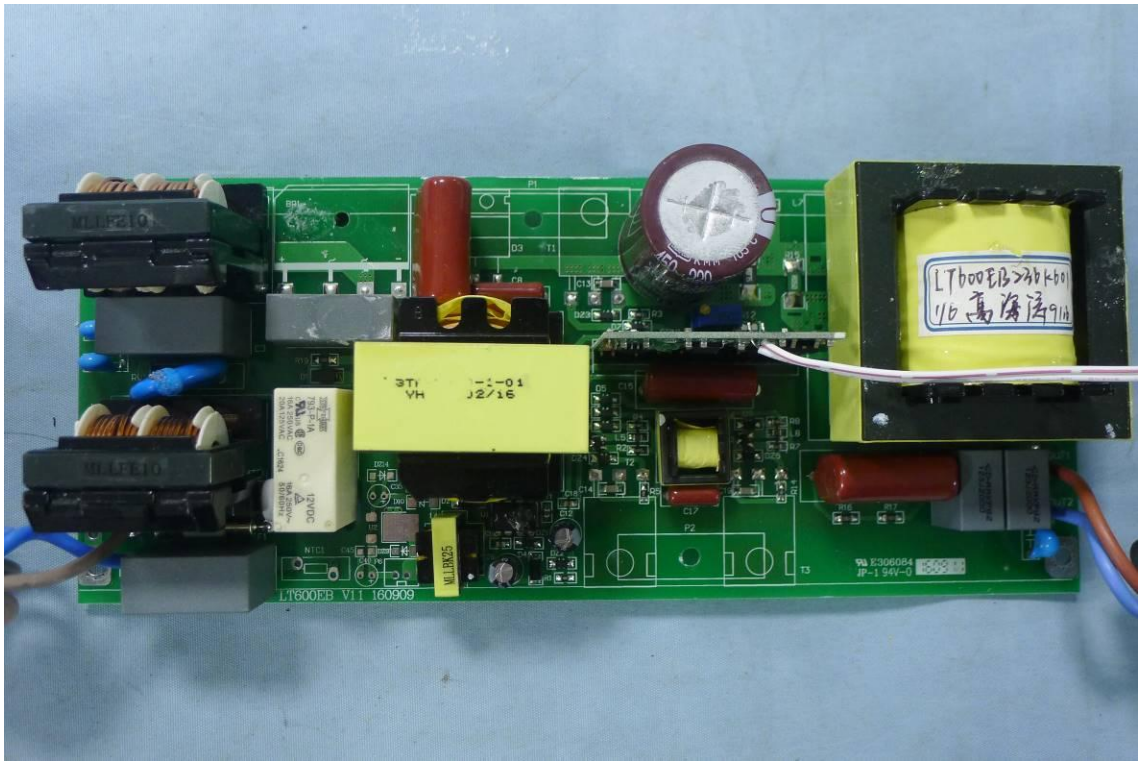

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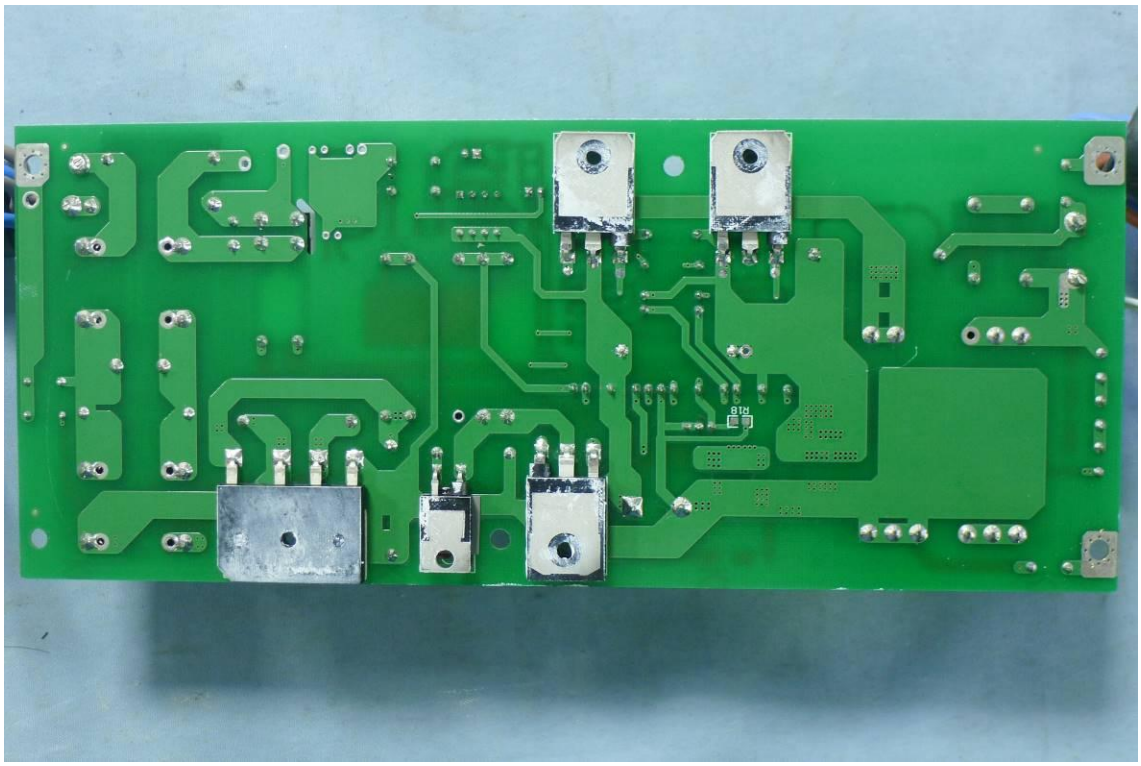

Photo 50

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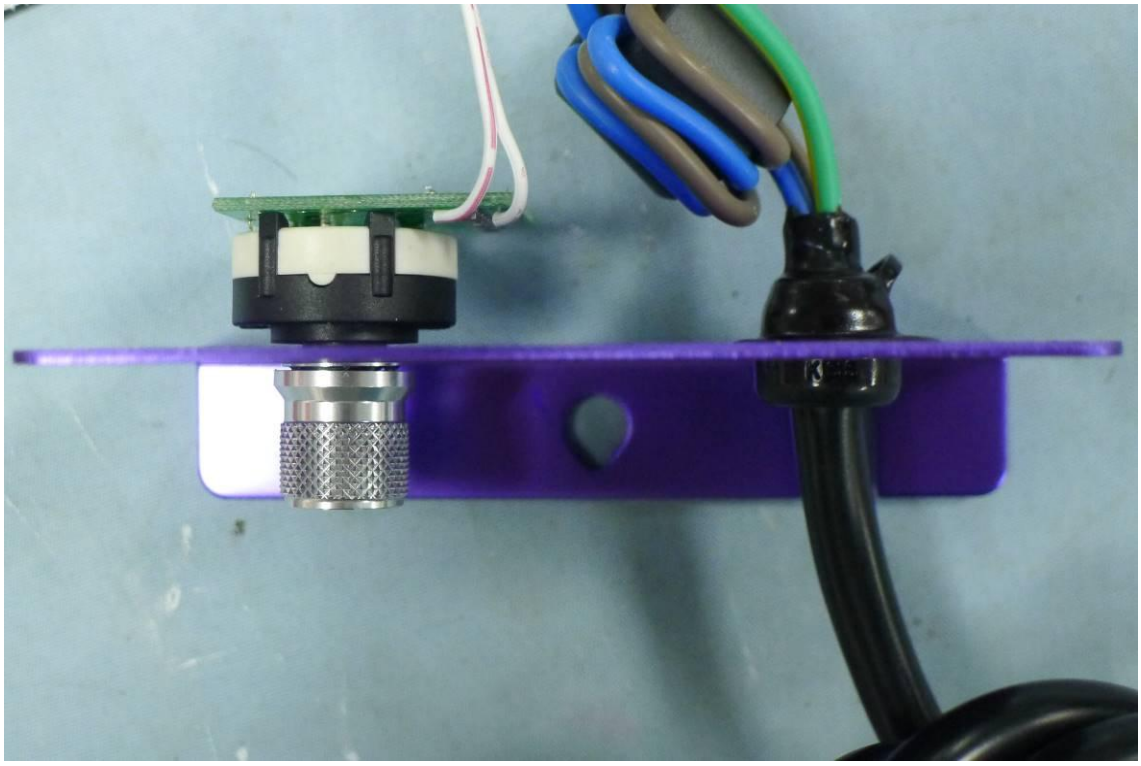

Photo 51

Model: 630W and Ultimate 600W 400V

Photo 52

Photo Documentation

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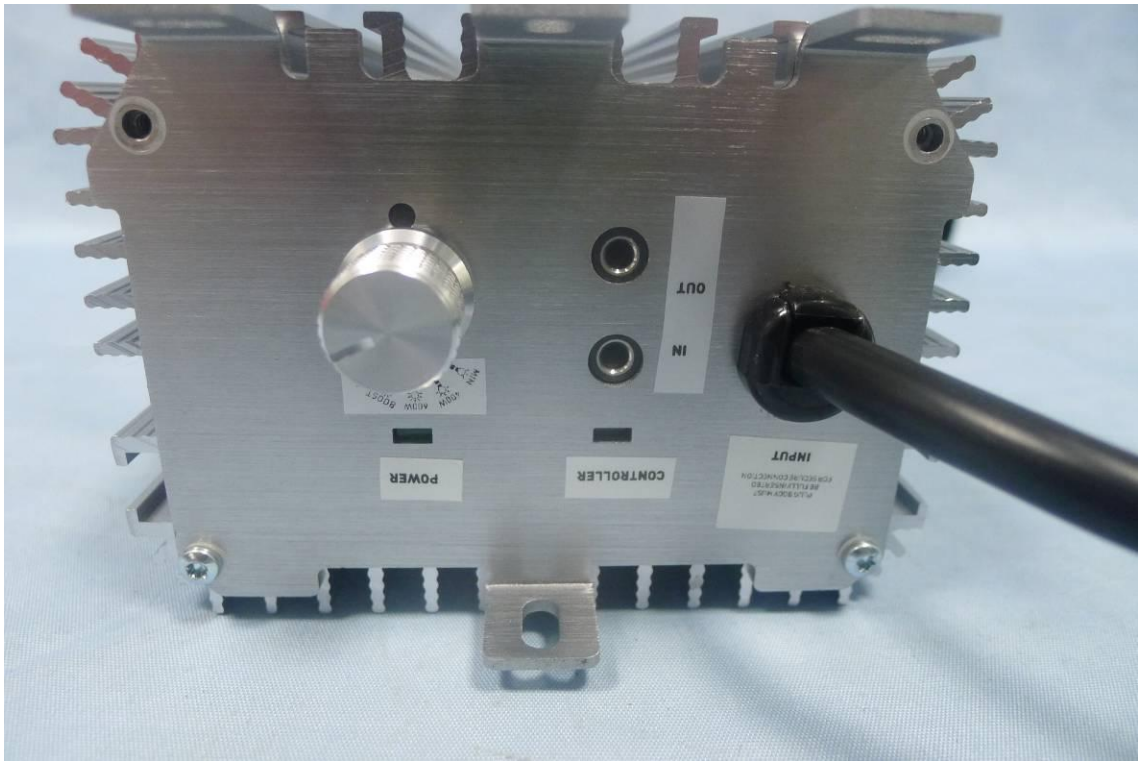

Photo 53

Photo 54

Photo Documentation

Reference No.: WTU19N10074446L

Photo 55

Photo 56

Photo Documentation

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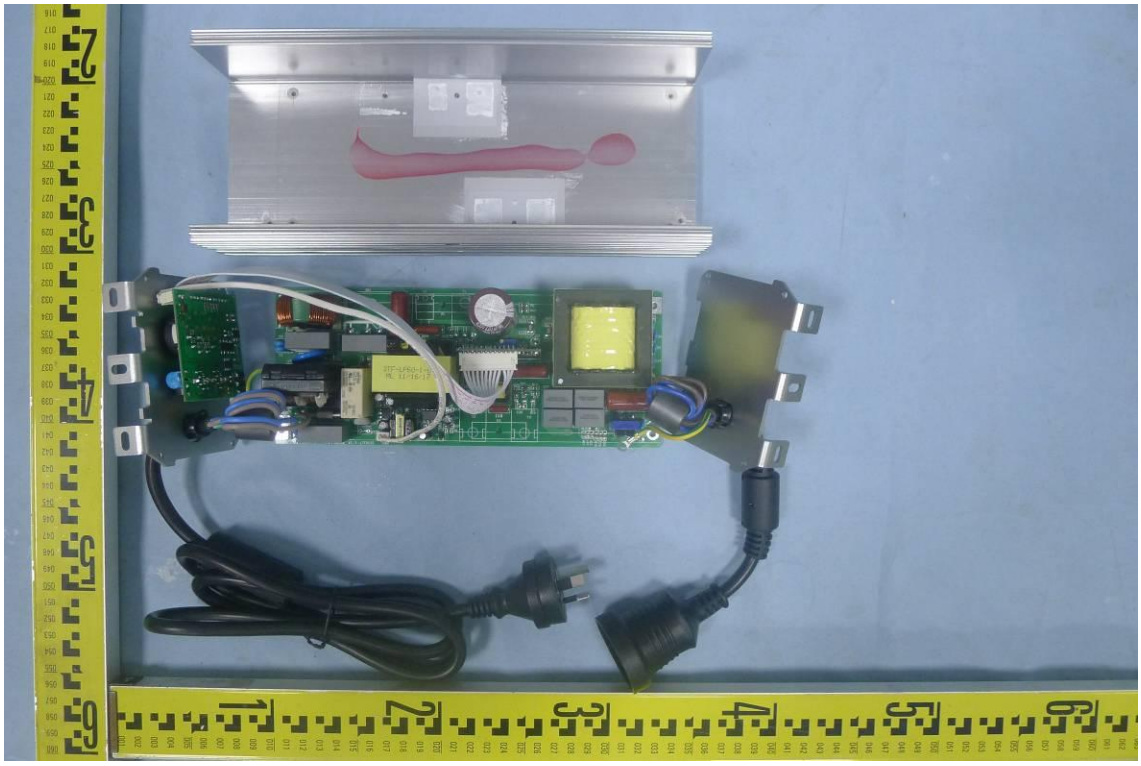

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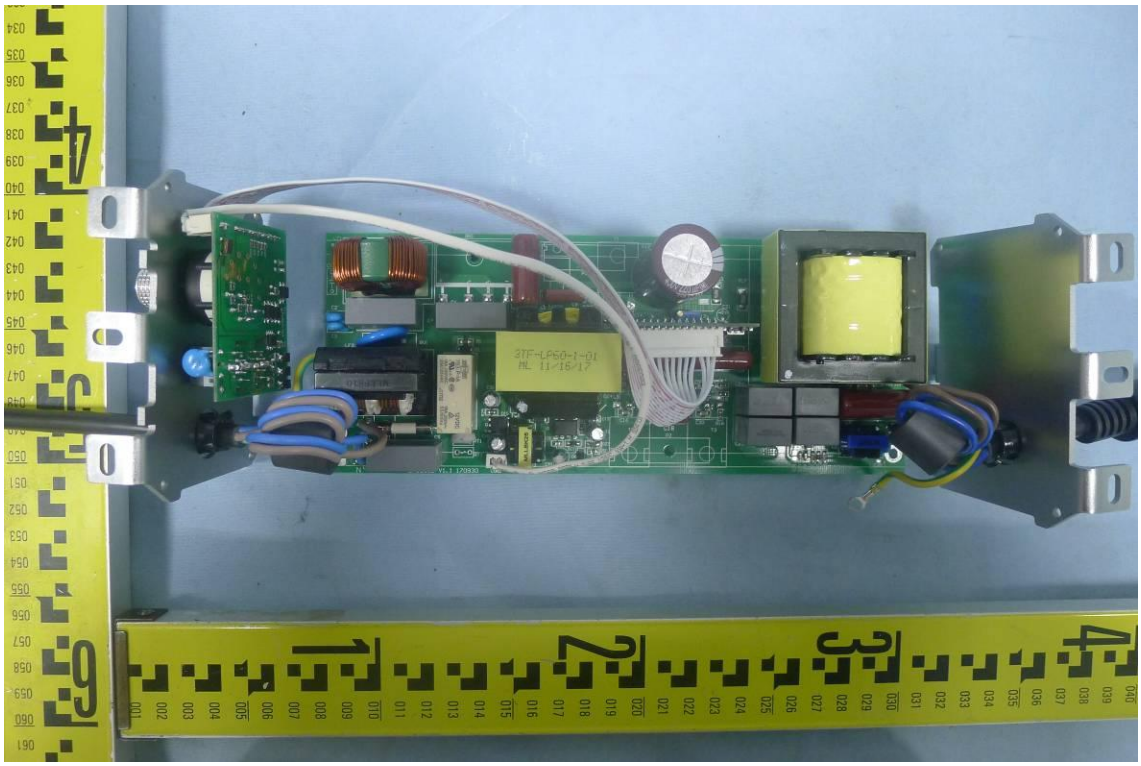

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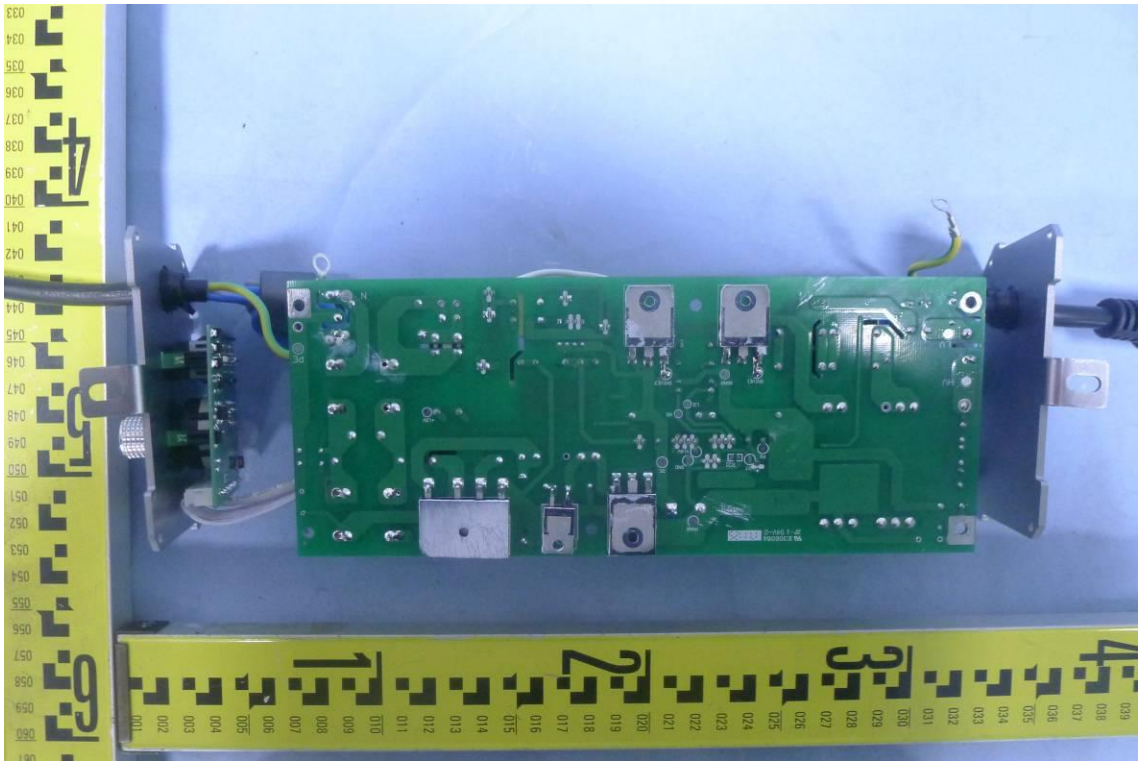

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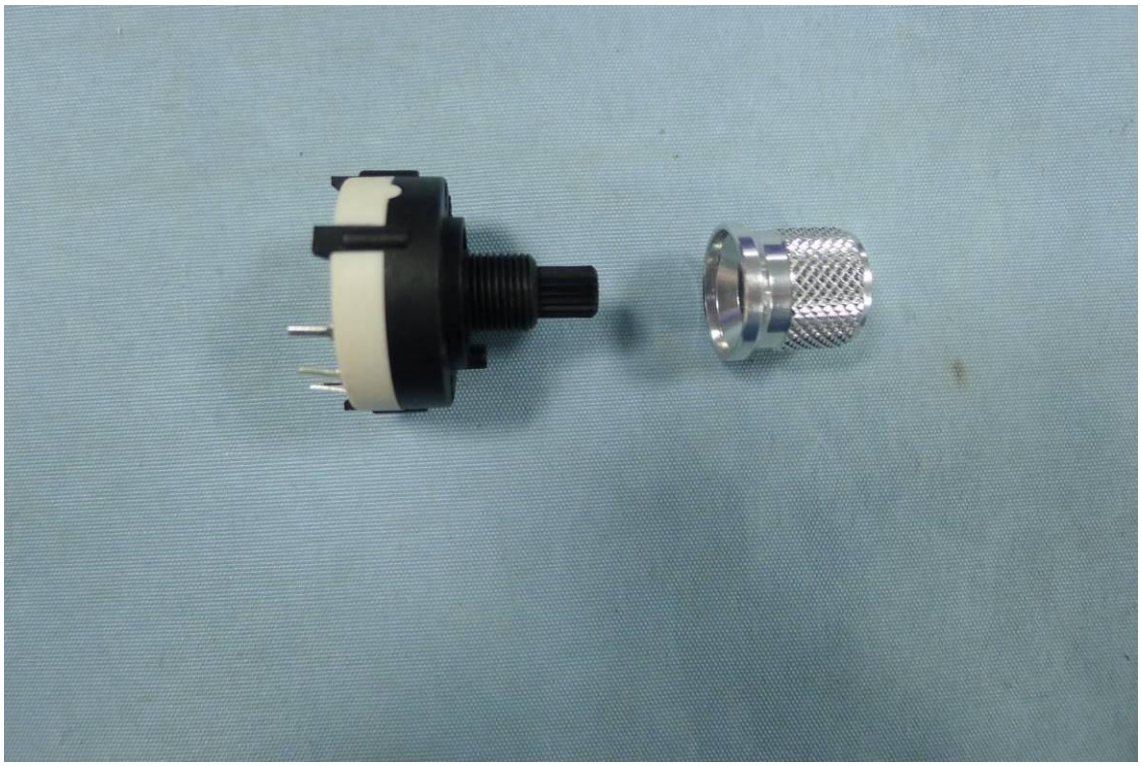

Photo 60