CE LVD
TEST REPORT

For

POWER SUPPLY - ADAPTOR SERIES

Model No.:	**VT-23002, VT-23003, VT-23005, VT-23018, VT-23024, VT-23024W, VT-23030, VT-23042, VT-23060, VT-23078, VT-23080, VT-24061, VT-24120, VT-24350, VT-23019, VT-23031, VT-23061, VT-23079, VT-23043, VT-25060**
Applicant :	**V-TAC EXPORTS LIMITED** **ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG**
Manufacturer :	**V-TAC EXPORTS LIMITED** **ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG**
Issued By :	**Global-Standard Testing Service Co., Ltd.** **Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An district,Shenzhen, Guangdong, China.**
Tel :	**+86 755 33863599**
Email :	**market@gstslab.com**
Report Number :	**M00.06.0088S-R1**
Issued Date :	**January 17, 2019**
Date of Report :	**January 17, 2019**

Note:

1. The test data and result is based on the tested sample only.
2. Please verify information in the report on GST web: www.gstslab.com through report number.
3.

Test Report

EN 61347-1: 2015
Luminaires — Part 1: General and safety requirements
EN 61347-2-13: 2014+A1:2017

Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

Report reference No. ……..……:	M00.06.0088S-R1
Testing laboratory ……..……:	Global-Standard Testing Service Co., Ltd.
Location……..……..:	Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An district, Shenzhen, Guangdong, China.
Applicant……..……..:	V-TAC EXPORTS LIMITED
Address:……..……..:	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Manufacturer……..……..:	V-TAC EXPORTS LIMITED
Address:……..……..:	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Standards……..……..:	EN 61347-2-13: 2014+A1: 2017 EN 61347-1: 2015
Procedure deviation……..……..:	N/A
Non-standard test method……..……..:	N/A
Type of test equipment ……..……..:	POWER SUPPLY - ADAPTOR SERIES
Trade mark……..……..:	V-TAC
Model/Type designation……..……..:	VT-23002, VT-23003, VT-23005, VT-23018, VT-23024, VT-23024W, VT-23030, VT-23042, VT-23060, VT-23078, VT-23080, VT-24061, VT-24120, VT-24350, VT-23019, VT-23031, VT-23061, VT-23079, VT-23043, VT-25060
Rating……..……..:	Input: 85-265VAC, 50/60Hz Output: 12-36VDC, Max. 1.8A
Test item particulars.....:	--
Operating Condition.....:	Continuous
Tested for IT power systems.....:	No
IT testing, phase-phase voltage (V).....:	N/A.
Protection against ingress of water.....:	IP20

Possible test case verdicts：	
test case does not apply to the test object	N(/A.)
test object does meet the requirement	P(ass)
test object does not meet the requirement	F(ail)

Name and address of the testing laboratory :

Global-Standard Testing Service Co., Ltd.

Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An District, Shenzhen, Guangdong, China.

Tested by :  March 22, 2017

Signature Date

John Huang / Engineer

Name/title

Reviewed by :  January 17, 2019

Signature Date

Gloria Wang / Supervisor

Name/title

Approved by :  January 17, 2019

Signature Date

Nico Xie / Supervisor

Name/title

General remarks: Clause number between brackets refer to clauses in IEC 60598-1 "(see remark #)" refers to a remark appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma is used as the decimal separator. The test results presented in this report relate only to the object tested. This report shall not be reproduced except in full without the written approval of the testing laboratory. Unless otherwise specified, test are made under normal conditions at an ambient temperature within the range of 15℃ to 35℃, RH45% to 75% and an air pressure of 860mbar of 1060mbar	

General remarks:

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

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory,
"(See Enclosure #)" refers to additional information appended to the report;
"(See appended table)" refers to a table appended to the report;

Clause numbers between brackets refer to clauses in IEC 60598-1;

The model VT-23060 as representive model to perform all test in report.

This report is based on report M00.06.0088S dated March 30, 2017.

Label

Representative

POWER SUPPLY - ADAPTOR SERIES
Model No. : VT-23060
Input: 85-265VAC, 50/60Hz
Output: 12-36VDC, 1.8A

V-TAC EXPORTS LIMITED

Note:

1. Due to similarity of the labels, only above label was listed;

2. All labels have the same format excep for model name and wattage;

3. The height of WEEE directive mark is at least 7mm height,and CE directive mark is at least 5mm height.

EN 61347-2-13			
Clause	Requirement+ Test	Result - Remark	Verd.

1+4	**SCOPE AND GENERAL REQUIREMENTS**		**---**
	Annex I applicable:		**---**
6 (6)	**CLASSIFICATION**		**---**
	Independent ballast	Yes	---
	Built-in ballast	No	---
	Integral ballast	No	**---**
(-)	SELV-equivalent or isolating controlgear	Yes	---
(-)	Auto-wound controlgear	No	---
(-)	Independent SELV controlgear	Yes	---
7	**MARKING**		**---**
7.1 (7.1)	Mandatory markings		**---**
	- mark of origin	See label	P
	- model number, type reference	See label	P
	- symbol for independent ballast, if applicable		N
	- correlation between interchangeable parts and ballast marked		N
	- legend on the ballast	See label	P
	- manufacturer's catalogue	See label	P
	- rated supply voltage(V)	See label	P
	- rated supply frequency (Hz)	See label	P
	- rated supply current (A)	See label	P
	- earthing symbol		P
	- wiring diagram		P
	- value of t_c	80℃	P
	- symbol for temperature declared	See label	P
(-)	- for constant voltage types: rated output voltage		N
(-)	- for constant current types: rated output current and maximum output votlage		N
(-)	- If applicable: an indication that the control gear is suitable for operation with LED modules only		P
7.2 (7.1)	- information to be provided, if applicable		---

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Clause	Requirement+ Test	Result - Remark	Verd.
	- declaration on protection against accidental contact		N
	- cross-section of conductors (mm^2):		N
	- number, type and wattage of lamp(s)		N
(-)	- mention whether the controlgear has mains-connected windings		N
(-)	- mention that they are SELV-equivalent controlgear, if applicable		N
- (7.2)	Marking durable and legible		P
	Rubbing 15 s water, 15 s petroleum; marking legible		P
8 (10)	**PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS**		**---**
- (10.1)	Lamp controlgear which do not rely upon the luminaire enclosure for protection against electric shock shall be sufficiently protected against accidental contact with live parts (see annex A) when installed as in normal use.		N
	Lamp controlgear relies upon the luminaire enclosure for protection		P
	Lacquer or enamel is not considered to be adequate protection or insulation for the purpose of this requirement.		P
	Adequate mechanical strength on parts providing protection		P
- (10.2)	Capacitors > 0,5 µF: voltage after 1 min (V): < 50 V:		P
8.1	For SELV-equivalent controlgear, the accessible parts shall be insulated from live parts by double or reinforced insulation	Input circuit is isolated from output circuit by double or reinforced insulation. See appended table 18(16) for detail.However, the controlgear is intended to be buit-in, the insulation between live parts and accessible parts shall be evaluated during final system assembly.	P
8.2	Output circuits of SELV- or SELV equivalent control gear may have exposed terminals if		P

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Clause	Requirement+ Test	Result - Remark	Verd.

	- the rated output voltage for constant voltage control gear or maximum output voltage for constant current control gear under load does not exceed 25 V r.m.s.;		P
	- the no-load output voltage does not exceed 33 V r.m.s. and the peak does not exceed 33 $\sqrt{2}$ V		N
	Controlgear with a rated output voltage above 25 V shall have insulated terminals		N
	In the case of capacitors which are connected between SELV or SELV equivalent output and primary circuits, one capacitor Y1 or two capacitors Y2 in series with the same value specified and tested according to Tables 2 and 3 respectively of IEC 60384-14 are to be used		P
	Each capacitor shall comply with the requirements of 14.2 of IEC 60065		P
	If other components are necessary for bridging the separating transformer, Clause 14 of IEC 60065 shall apply		P
9 (8)	**TERMINALS**		**---**
	Screw terminals: compliance with Section 14 of IEC 60598-1	Compliance checked. (See attachment table 1)	N
	Screwless terminals: compliance with section 15 of IEC 60598-1		N
10 (9)	**PROVISION FOR EARTHING**		**---**
	External metal parts connected to the earth-terminal:	Metal enclosure is reliably connected to protective earth.	N
	- compliance with 7.2.1 in IEC 60598-1		N
	Test with a current of 10 A between earthing terminal and each of the accessible metal parts; measured resistance (Ω) : < 0,5 Ω:		N
	Protective earth, symbol		N
	Terminal complying with clause 8 in Part 1		N
	Locked against loosening and not possible to loosen by hand		N
	Not possible to loosen clamping means unintentionally on screwless terminals		N

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Clause	Requirement+ Test	Result - Remark	Verd.
	Earthing via means of fixing		N
	Earthing terminal only used for the earthing of the control gear		N
	All parts of material minimizing the danger of electrolytic corrosion		N
	Made of brass or equivalent material		N
	Contact surface bare metal		N
	Conductors by tracks on printed circuit boards:		---
	- a.c. current of 25 A for 1 min between earthing terminal and accessible metal parts		N
	- compliance with clause 7.2.1 in IEC 60598-1		N
11 (11)	**MOISTURE RESISTANCE AND INSULATION**		**---**
	After storage 48 h at 91-98% relative humidity and 20-30 ℃ measuring of insulation resistance with d.c. 500 V (MΩ): > 2 MΩ:		P
	≥2 MΩ for basic insulation……:	Between different polarity measured: more than1000 MΩ	P
	≥4 MΩ for double or reinforced insulation……:	Between live parts and output circuits measured: more than1000 MΩ, Between live parts and metal enclosure measured: more than1000 MΩ	P
(-)	For SELV-equivalent controlgear, the insulation between input and output terminals not bonded together shall be adequate	Input terminals are separated from output termimals by double or reinforced insulation	P
(-)	With double or reinforced insulation, the resistance shall be not less than 4 MΩ		P
12 (12)	**ELECTRIC STRENGTH**		**---**
	Immediately after clause 11 electric strength test for 1 min		---
	Working voltage ≤ 42 V, test voltage 500 V		N
	Working voltage > 42 V, test voltage (V): 2U + 1000 V:		P
	Reinforced insulation, test voltage (V) :		P
	No flashover or breakdown		P

EN 61347-2-13			
Clause	Requirement+ Test	Result - Remark	Verd.
(-)	Insulation conditions of windings of separating transformers in SELV-equivalent control gear shall apply according to 14.3.2 of IEC 60065		P
13 (13)	**THERMAL ENDURANCE FOR WINDINGS**		**---**
	Not applicable		**---**
14 (14)	**FAULT CONDITIONS**		**---**
	When operated under fault conditions the ballast: - does not emit flames or molten material		P
	- does not produce flammable gases		P
	- protection against accidental contact not exceed the marked temperature value		P
	Thermally protected ballasts does not exceed the marked temperature value		P
	Fault conditions: capacitors resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected		P
(14.1)	Short-circuit of creepage distances and clearances if less than specified in clause 18 (except between live parts and accessible metal parts)		N
	Distances not printed boards provided with coating according to IEC 60664-3 is used		N
(14.2)	Short-circuit or interruption of semiconductor devices		P
(14.3)	Short-circuit across insulation consisting of lacquer, enamel or textile		N
(14.4)	Short-circuit across electrolytic capacitors	(see appended table)	P
	During the tests, a five-layer, tissue paper, where the test specimen is wrapped, does not ignite		P
(-)	In the case of controlgear provided with the marking of thermally protected controlgear, the requirements specified in Annex C shall be fulfilled		P
15	**TRANSFORMER HEATING**		**---**
	In SELV-equivalent controlgear, windings of separating transformers shall be tested according to 7.1 and 11.2 of IEC 60065		P

EN 61347-2-13			
Clause	Requirement+ Test	Result - Remark	Verd.
15.1	Normal operation		P
	For normal operation, the values in the second column of Table 3 of IEC 60065 shall apply		P
15.2	Abnormal operation		P
	For operation under abnormal conditions according to Clause 16 and fault conditions according to Clause 14 of this standard, the values in the third column of Table 3 of IEC 60065 shall apply		P
	Tests shall be made under conditions such that the controlgear is brought to t_C, as reached under normal operation		P
	For moulded-in transformers specially prepared samples provided with thermocouples shall be submitted for testing		N
16	**ABNORMAL CONDITIONS**		**---**
	The controlgear shall not impair safety when operated under abnormal conditions. The short-circuit in 16.1 and 16.2 shall be applied with the length of the output cable of both, 20 cm and 200 cm, unless otherwise declared by the manufacturer		N
16.1	Controlgear which are of the constant voltage output type		---
	Compliance is checked by the following test at any voltage between 90 % and 110 % of the rated supply voltage		N
	a) No LED module is inserted		N
	b) Double the LED modules or equivalent load for which the controlgear is designed, connected in parallel to the output terminals		N
	c) The output terminals of the controlgear shall be short-circuited		N
	no defect impairing safety, nor shall any smoke or flammable gases be produced		N
16.2	Controlgear which are of the constant current output type		---
	The maximum output voltage shall not be exceeded		P

EN 61347-2-13			
Clause	Requirement+ Test	Result - Remark	Verd.
	Compliance is checked by the following test at any voltage between 90 % and 110 % of the rated supply voltage		P
	a) No LED modules are connected		N
	b) Double the LED modules or equivalent load for which the controlgear is designed, connected in series to the output terminals		P
	c) The output terminals of the controlgear shall be short-circuited		P
	No defect impairing safety, nor shall any smoke or flammable gases be produced		P
17 (15)	**CONSTRUCTION**		**---**
(15.1)	Wood, cotton, silk, paper and similar fibrous material shall not be used as insulation, unless impregnated		N
(15.2)	Printed circuits are permitted for internal connections		P
(-)	Socket-outlets in the output circuit shall not accept plugs complying with IEC 60083 and IEC 60906; neither shall it be possible to engage plugs accepted by socket-outlets in the output circuit with socket-outlets complying with IEC 60083 and IEC 60906		N
18 (16)	**CREEPAGE DISTANCES AND CLEARANCES**		---
	Creepage distances and clearances according to Table 3 and 4, as apporpriate	See appended table	P
	Printed boards see clause 14		P
	Insulating lining of metallic enclosures		P
19 (17)	**SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS**		**---**
	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		---
(4.11.1)	Contact pressure		P
(4.11.2)	Screws:		---
	- self-tapping screws		N
	- thread-cutting screws		N

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Clause	Requirement+ Test	Result - Remark	Verd.
	- at least two self-tapping screws		N
(4.11.3)	Screw locking:		---
	- spring washer		N
	- rivets		N
(4.11.4)	Material of current-carrying parts		P
(4.11.5)	No contact to wood		N
(4.12)	Mechanical connections and glands		P
(4.12.1)	Mechanical stress		P
	Screws not made of soft metal		N
	Screws of insulating material		N
	Torque test: part; torque (Nm)		N
	Torque test: part; torque (Nm)		N
	Torque test: part; torque (Nm)		N
(4.12.2)	Screw diameter < 3mm screwed into metal		P
(4.12.3)	Void		---
(4.12.4)	Locked connections		P
(4.12.5)	Screwed glands: force (N)		N
20 (18)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		---
(18.1)	Parts of insulating material retaining live parts in position, ball-pressure test:		---
	- part; test temperature (℃)	PCB: 125℃, 0.60mm	P
	- part; test temperature (℃)		N
(18.2)	Printed boards in accordance with IEC 60249-1, 4.3		P
(18.3)	External parts of insulating material preventing electric shock glow-wire test 650 ℃	PCB	P
(18.4)	Parts of insulating material retaining live parts in position, needle-flame test 10 s:		---
	- flame extinguished within 30 s	PCB	P
	- no flaming drops igniting tissue paper		N
(18.5)	Tracking test		N
21 (19)	**RESISTANCE TO CORROSION**		---
	Rust protection:		---

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Clause	Requirement+ Test	Result - Remark	Verd.

	- 10% solution of ammonium chloride in water		P
	- adequate varnish on the outer surface		P
-(20)	**NO-LOAD OUTPUT VOLTAGE**		P
	No load output voltage not differ more than 10% from rated voltage		P

14	**TABLE: TESTS OF FAULT CONDITIONS**			**P**
Part	Simulated fault			Hazard
--	Fault condition	Result		--
--	--	Time	Observation	--
Output + and -	254 S/C	10 min	Shutdown recoverable	NO
Q1 G-D	254 S/C	10 min	Fuse open	NO
Q1 G-S	254 S/C	10 min	Shutdown recoverable	NO
Q1 S-D	254 S/C	10 min	Fuse open	NO
L1	254 S/C	10 min	Fuse open	NO
C1	254 S/C	10 min	Unit protection,recoverable	NO
D1	254 S/C	10 min	Shutdown recoverable	NO

EN 61347-2-13			
Clause	Requirement+ Test	Result - Remark	Verd.

Tables

	components	**P**

TABLE	**List of critical components and materials**			
Component	manufacturers / trademark	Type / model	Value / rating	Approval/ Reference
PCB	Hui zhou lianxing electronic co., ltd	LX-D	V-0, 130℃	Tested with appliance and UL
Fuse (F1)	XC Electronics (Shen Zhen)Corp. Ltd.	5TE	T2A, 250VAC	VDE
X1-Capacitor	Haohua Electronic Co.Ltd.	X1	400Vac,	VDE
Y1-Capacitor	Haohua Electronic Co.Ltd.	CT 7	400Vac,	VDE
Transformer (T1)	Zhuhai Engy Electronics Co., Ltd.	EE19	Class B, 130℃	Tested with appliance
Transformer insulation system	Shenzhen City Flame Electronics Tech Co Ltd.	TaYa 130-1	Class 130(B)	Tested with appliance and UL
Pri. winding of transformer	Dongguan Yida Industrial Co., Ltd.	xUEW	155℃	Tested with appliance and UL
Sec.winding of transformer	Fluo Tech Industrial Co., Ltd.	TWBR(B)	130℃	VDE
Bobbin of transformer	Chang Chun Plastics Co., Ltd.	T375J	150℃	Tested with appliance and UL
Insulation tape of transformer	Jingjiang Yhua Pressure Sensetive Glue Co., Ltd.	CT-280B	130℃	Tested with appliance and UL
Varnishes of transformer	Zhuhai Changxian New Materials Technology Co., Ltd.	E962	130℃	Tested with appliance and UL
Tube	Fluo Tech Industrial Co., Ltd.	TFL	200℃	Tested with appliance and UL

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Clause	Requirement+ Test	Result - Remark	Verd.

	TABLE: Temperature measurements, thermal tests of Section 12		P
	Type reference.....:	VT-23060	—
	Lamp used.....:	As in normal use	—
	Lamp control gear used.....:	Indenpendent contol gear	—
	Mounting position of luminaire.....:	As in normal use	—
	Supply wattage (W).....:	58.8	—
	Supply current (A)..... :	1.76A	—
	Calculated power factor.....:	—	—
	Table: measured temperatures corrected for ta = 50 °C:		P
	- abnormal operating mode.....:		—
	- test 1: rated voltage..... :	—	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....:	Supplied from adapter 1.06x240V=254.4V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage..... :	—	—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....:	—	—
	Through wiring or looping-in wiring loaded by a current of A during the test ..... :	—	—

Temperature measurements, (°C)

Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Connector	25	–	51.3	–	125	–	–
F1	25	–	43.8	–	90	–	–
L1	25	–	59.6	–	110	–	–
CX1	25	–	53.5	–	110	–	–
D1	25	–	79.5	–	120	–	–
Winding of T1	25	–	86.7	–	110	–	–
Core of T1	25	–	81.3	–	110	–	–
PCB near T1	25	–	63.4	–	130	–	–
C3	25	–	54.8	–	105	–	–

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Clause	Requirement+ Test	Result - Remark	Verd.

Enclosure, inside	25	–	68.0	–	90	–	–
Enclosure, outside(Tc)	25	–	63.5	–	80	–	–
Ambient	25	–	_	–	--	–	–

EN 61347-2-13			
Clause	Requirement+ Test	Result - Remark	Verd.
	screw terminals (part of the luminaire)		**N/A**

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

EN 61347-2-13			
Clause	Requirement+ Test	Result - Remark	Verd.
	screwless terminals (part of the luminaire)		**N/A**
(15)	**SCREWLESS TERMINALS**		N/A
(15.2)	Type of terminal..... :		—
	Rated current (A)..... :		—
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5.1)	Terminals internal wiring		N/A
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples)….:		N/A
(15.5.1.2)	Pull test pin or tab terminals (4 N, 4 samples)……:		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.2)	Permanent connections: pull-off test (20 N)		N/A
(15.6)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples).....:		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles..... :		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
(15.7)	Terminals external wiring		N/A
	Terminal size and rating		N/A
(15.8.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) ..... :		N/A

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Clause	Requirement+ Test	Result - Remark	Verd.

	Pull test pin or tab terminals (4 samples); pull (N) .....:		N/A
(15.9)	Contact resistance test		N/A
	Voltage drop (mV) after 1 h		N/A

terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										
	Voltage drop of two inseparable joints									N/A
	Voltage drop after 10th alt. 25th cycle									N/A
	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/A
	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/A
	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/A
	Max. allowed voltage drop (mV).....:									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										

Photo Documents

Photo 1 View: [√] Front [ ] Rear [ ] Right side [ ] Left side [ ] Top [ ] Bottom [ ] Internal	

Photo 2 View: [ ] Front [ ] Rear [ ] Right side [ ] Left side [ ] Top [ ] Bottom [√] Internal	

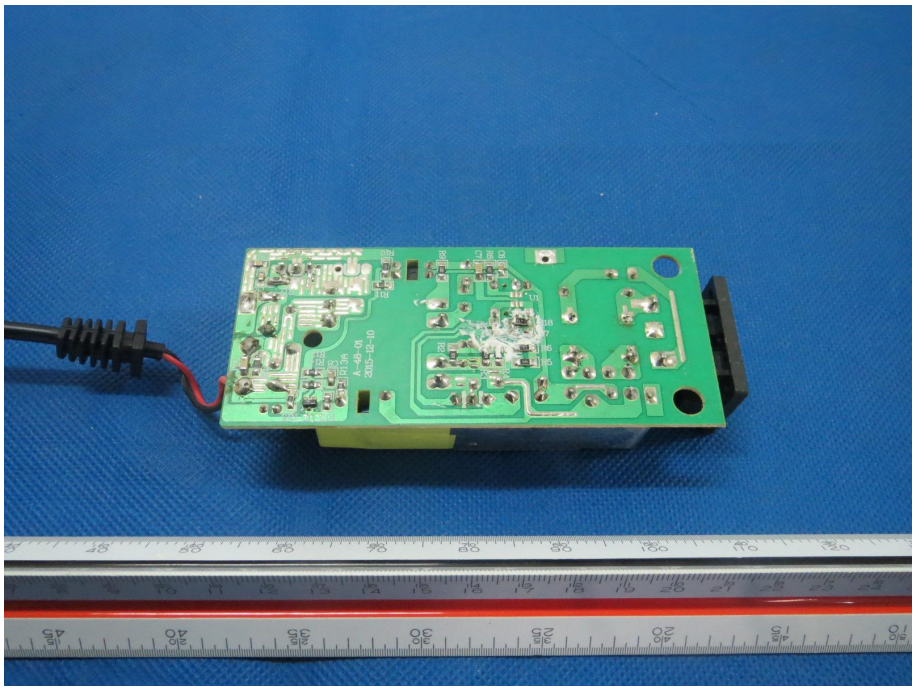
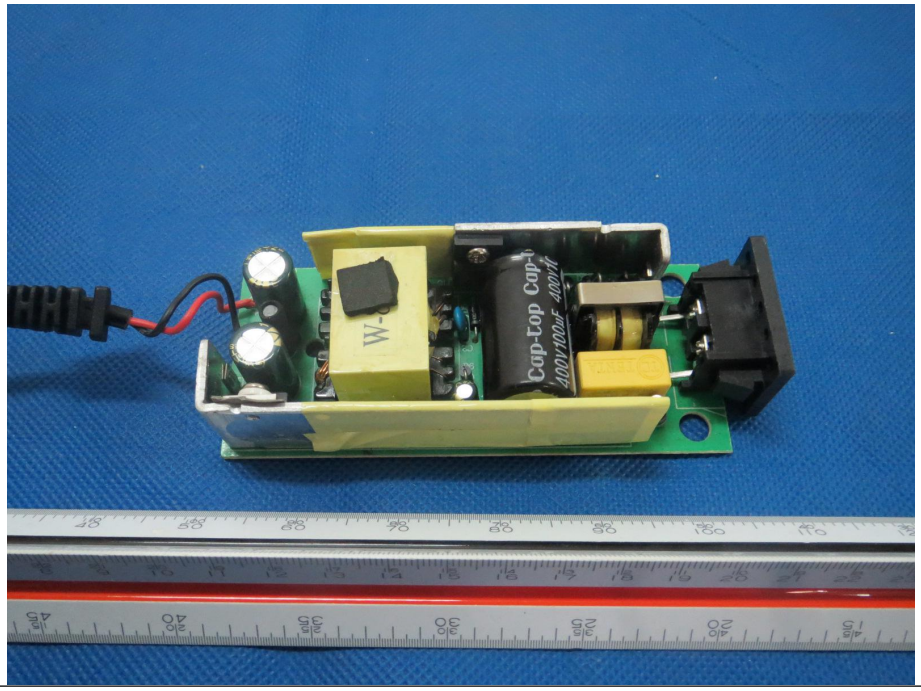
Photo 3 View: [ ] Front [ ] Rear [ ] Right side [ ] Left side [ ] Top [ ] Bottom [√] Internal	

Photo 4 View: [ ] Front [ ] Rear [ ] Right side [ ] Left side [ ] Top [ ] Bottom [√] Internal	

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