

## CE LVD TEST REPORT

For

#### **LED BULB**

Model No.: VT-1880, VT-1886, VT-1896, VT-1855TP, VT-1855, VT-2029, VT-2033, VT-

2043, VT-2032, VT-2076, VT-2106, VT-2097, VT-2098

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** 

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Report Number: J02.06.0181S

Issued Date: July 11, 2017

Date of Report: July 11, 2017

### Note:

1. The test data and result is based on the tested sample only.

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### TEST REPORT EN 62560: 2012+ A1:2015

# Self-ballasted LED-lamps for general lighting services by voltage > 50 V - Safety specifications

- Odicty specifications
J02.06.0181S
Global-Standard Testing Service Co., Ltd.
Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An District, Shenzhen, Guangdong, China.
V-TAC EXPORTS LIMITED
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
V-TAC EXPORTS LIMITED
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
EN 62560: 2012+ A1:2015 EN 60061-1:1993+A53:2015 EN 62031: 2008+A2:2015 EN 61347-1:2015 EN 61347-2-13:2014 EN 62471:2008 EN 62493: 2015
N/A
N/A
LED BULB
V-TAC
VT-1880, VT-1886, VT-1896, VT-1855TP, VT-1855, VT-2029, VT-2033, VT-2043, VT-2032 VT-2076, VT-2106, VT-2097, VT-2098
AC100-240V, 50Hz, 6W Max.
Global-Standard Testing Service Co., Ltd.
Continuous
Class II equipment
IP20



General remarks:	
"(see remark #)" refers to a remark appended to the report.	Attached with:
"(see appended table)" refers to a table appended to the report.	Attachment - A. Photo Documentation
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.	
Until otherwise specified, all tests are done	
under normal ambient condition 25°C+10°C	
Max RH: 75% and air pressure of 860 mbar to 1060 mbar.	
Brief description of the test sample:	

Brief description of the test sample:

- 1. The equipment with models VT-1880, VT-1886, VT-1896, VT-1855TP, VT-1855, VT-2029, VT-2033, VT-2043, VT-2032, VT-2076, VT-2106, VT-2097, VT-2098 are class II LED BULB used for Self-ballasted lamps for general lighting services
- 2. All the models are the same construction except LED color and LED numbers. The control gear inside lamp with different out voltage have different parameters of secondary components.
- 3. Model VT-1880 was selected as representative sample.
- 4. The European standard EN 62471 for LED laser product requirement has considered.
- 5. Clauses 8,10, 11, 12, 14, 16, 17, 18, 19 and 20 of the European standard test EN61347-2-13 used in conjunction with EN 61347-1 for lamp control gear inside VT-1880 have been consideration.
- 6. The Safety specifications of LED modules for general lighting was evaluated with reference to EN 62031.
- 7. The European standard EN 62493 for requirement has considered.
- 8. This report is based on report J01.06.0234S, dated June 27, 2016.



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 : Signature July 04, 2017

Date

Sean Xiao/ Engineer
Name/title

Witnessed by: 

| Leter Chen | July 11, 2017 |
| Signature | Date |

Peter Chen / Project Engineer
Name/title

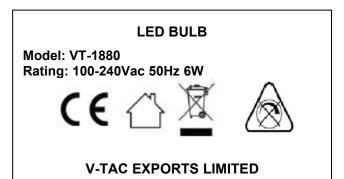
Approved by:

| July 11, 2017 | Date

Name/title



### Copy of marking plate



Note: Due to similarity of the labels, only above label was listed.

- The above copy of marking plate as an example, All the other models will have the same marking plate except the model name and input rating only and other parameter
- -The above markings are the minimum requirements required by the safety standard. For the final productions samples, the additional markings which do not give rise to misunderstanding may be added.
- the height of WEEE directive mark is at least 7mm height.



	EN 62560			
Clause	Requirement	Result - Remark	Verd.	
4	GENERAL REQUIREMENTS		P	
4.1	The lamp shall be so designed and constructed that in normal use cause no danger to the user.		Р	
4.2	Self-ballasted LED-Lamp are non-repairable.		Р	

5.	MARKING		Р
5.1	Mandatory marking		Р
	- mark of origin	V-TAC EXPORTS LIMITED	Р
	- rated supply voltage (V)	100-240VAC	Р
	- rated wattage (W)	See label	Р
	- rated frequency (Hz)	50Hz	Р
5.2	Addition marking	See label	Р
	- burning position		N
	- rated current (A)		Р
	- weight significantly higher	Warning:increased weight of lamp may reduce the mechanical stability of certain luminaires and lampholders and may impair contact making and lanp retention (inthe instruction manual)	Р
	- special conditions or restrictions		N
	Not suiltable for dimming;symbol used		Р
	- eye protection	The products are classified as exempt group according to IEC 62471:2006.	Р
5.3	Marking durable and legible		Р
	rubbing 15 s water, 15 s petroleum; marking legible		Р
Addition:	Position of the marking	On the body	Р
	Language of instructions	English	Р
	Suitability for use indoors		Р
	Wireways smooth and free from sharp edges		Р



Ν

Report Reference No.: 302.00.0101				
	EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict	
6	INTERCHANGEABILITY		P	
6.1	Cap interchangeability in accordance with IEC 60061-1		Ъ	
	Gauge in accordance with IEC 60061-3		Р	
6.2	Bending moment,axial pull ande mass		Р	
	Bending moment imparted by the lamp at the lampholder		Р	
	Lamp construction withstands axial pull		Р	

Mass not exceeding value gave in table 2

(kg) .....:

7. PROTECTION AGAINST ACCIDENTAL CONTACT WIT		WITH LIVE PARTS	Р
	Internal, basic insulated or live metal parts not accessible		Р
	Tested with a test finger with a force of 10 N		Р
	Compliance checked with appropriate gauges		N
Addition:	Live parts not accessible		Р
	Protection in any position		Р
	Insulation lacquer not reliable		Р
	Class II luminaire:		Р
	- insulation-encased, reinforced insulation		Р
	- glass protective shields not used as supplementary insulation		Р
	Covers have adequate strength		Р
	Covers reliably secured		Р
	Portable plug connected luminaire with capacitor		N

8.	INSULATION RESISTANCE AND ELECTRIC ST TREATMENT	RENGTH AFTER HUMIDITY	Р
8.1	Insulation resistance and electric strength shall be adequate between live parts of the lamp and accessible parts of the lamp.		Р
8.2	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (M $\Omega$ ):		Р
	$\geq$ 4 M $\Omega$ for double or reinforced insulation :	100 MΩ.	Р
8.3	Immediately after clause 8.2 electric strength test for 1 min		Р



	EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict	
			_	
	Double or reinforced insulation, 4U + 2000 V	3000	Р	
	No flashover or breakdown		Р	

9.	MECHANICAL STRENGTH		Р
	Torsion resistance of unused lamps		
9.1	Torque test		Р
	B 15 d Cap1.15 Nm		N
	B 22 d Cap		N
	E 11 Cap		N
	E 12 Cap		N
	E 14 Cap1,15 Nm		Р
	E 27 Cap		N
	Cap3,0 Nm		N
	GX 53 Cap	under consideration	N
9.2	Torsion resistance of lamps after a defined time of u	sage	N
	Torsion resistance of used lamp	under consideration.	N
9.3	Repetition of clause 8		
	Clause 8 shall comply after the mechanical strength test.		Р
Addition:	Lampholders		N
	Mounting brackets for Edison screw or bayonet- capped lampholders are subjected to testing for 1min, to the following bending moments:		N
	Locked connections:		N
	- fixed arms; torque (Nm):		N
	- lampholder; torque (Nm)		N
	- push-button switches; torque (Nm):		N
	No sharp point or edges		N
	Impact tests:		N
	- fragile parts; energy (Nm):		N
	- other parts; energy (Nm)		N
	1) live parts		N
	2) linings		N



	EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict	
	3) protection		N	
	4) covers		N	
	Straight test finger		N	
	•	•	'	

10	CAP TEMPERATURE RISE	Р
	The cap temperature rise $\Delta t_s$ of the lamp shall not exceed 120 K.	Р
	- B22d125K :	N
	- B15d120K :	N
	- E27120K :	N
	- E17125 K :	N
	-G1355 K :	N
	- E14120K : 55.1	Р

11	RESISTANCE TO HEAT		Р
	External parts of insulating material providing protection against electric shock, and parts of insulating material retaining live parts in position, ball pressure test:		Р
	Part tested; temperature (°C);	See appended table	Р
	diameter of impression (≤ 2 mm):		
	Part tested; temperature (°C);		N
	diameter of impression (≤ 2 mm):		
	Part tested; temperature (°C);		N
	diameter of impression (≤ 2 mm):		

12.	RESISTANCE TO FLAME AND IGNITION		Р
	Parts of insulating material retaining live parts in position and external parts of insulating material providing protection against electric shock, glowwire test 650 °C		
	- no flaming drops igniting tissue paper		Р
	- flame extinguished within 30s		Р
	Part tested; temperature (°C)	See table 11	Р
	No visible flame and no sustained glowing		Р



		EN 62560	<u> </u>	
Clause	Requirement – Test		Result - Remark	Verdict

13	FAULT CONDITIONS		Р	
13.2	Extreme electrical conditions (dimmable lamps)			
	Lamp withstands overpower condition >15 min.		Р	
	Lamp fails safe after 15 min overpower condition		N	
	Lamp with automatic protective device or power limiter, test performed 15 min. at limit.		Р	
13.3	Extreme electrical conditions (non-dimmable lamps)			
	Tested according 13.2 (as far as possible)		Р	
13.4	Short-circuit across capacitors	(see appended table)	Р	
13.5	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected	(see appended table)	Р	
13.6	When operated under fault conditions the lamp			
	- does not emit flames or molten material		Р	
	- does not produce flammable gases or smoke		Р	
	- live parts not accessible		Р	
	After the tests the insulation resistance with d.c. 1000 V complies with requirements of Cl. 8.1		Р	

14 (16)	CREEPAGE DISTANCES AND CLEARANCES	
	Creep age distances and clearances according to Table 3 and 4 of IEC 61347-1, as appropriate	Р
	Printed boards see clause 14 of IEC 61347-1	Р
	Insulating lining of metallic enclosures	N

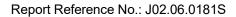




TABLE 错误!未 指定书签。	List of critical component	ts and mate	erials	
Component	manufacturers / trademark	Type / model	Value / rating	Approval/ Reference
Fusing Resistor	VISHAY COMPONENTS INDIA PVT LTD	SVR37#\$	1/2W, AC 250V	VDE
РСВ	DONG GUAN CITY XINXIONG ELECTRONICS	XX-2	V-0, 130°C	UL
Heat-shrinkable tube	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR	600V, 125℃	UL
Internal wire		1007	VW-1, 300V, 80°C, 22AWG	UL
Plastic part	CHENGUANG RESEARCH INSTITUTE OF CHEMICAL IND CHINA NATL BLUE STAR CO LTD	PCV0	V-0, 130°C	UL
Insulation Tape	CHANG SHU LIANG YI TAPEINDUSTRY CO LTD	LY-02A	130°C	UL





## **Test Data table**

BD1 240V ,Short circuit Normal working C2 240V ,Short circuit Fusing resistor broken  11 TABLE: ball pressure test of thermoplastics  Part Test temperature (°C) Impression diameter (mm) Required impression diameter (mm)	Hazard NO NO	
BD1 240V ,Short circuit Normal working C2 240V ,Short circuit Fusing resistor broken  11 TABLE: ball pressure test of thermoplastics  Part Test temperature (°C) Impression diameter (mm) Required impression diameter (mm)	NO NO	
C2 240V ,Short circuit Fusing resistor broken  11 TABLE: ball pressure test of thermoplastics  Part Test temperature (°C) Impression diameter (mm) Required impression diameter (mm)	NO	
11     TABLE: ball pressure test of thermoplastics       Part     Test temperature (°C)     Impression diameter (mm)     Required impression diameter (mm)		
Part Test temperature (°C) Impression diameter Required impression (mm) diameter (mr	_	
(mm) diameter (mr	Р	
PCB 125 1.1 <2.0	Required impression diameter (mm)	
120 1.1 =2.0	≤2.0	
14(16) TABLE: Clearance And Creep age Distance Measurements	Р	
	decry (mm)	
L and N on PCB 240 1.5 2.9 2.5	2.9	
Live parts on driver PCB 240 3.0 >3.0 3.0	>3.0	
Supplementary information:		



# Attachment –A Photo Documentation

Report Reference No.: J02.06.0181S

Photo 1

View:

 $[\sqrt{\ }]$  Front

[] Rear

[] Right side

[] Left side

[ ] Top

[] Bottom

[] Internal



Photo 2

View:

[] Internal

[] Rear

[] Right side

[] Left side

[ ] Top

[] Bottom

[√] Internal







Photo 3

View:

[] Front

[] Rear

[] Right side

[] Left side

[] Top

[] Bottom

[] LED

[√] PCB

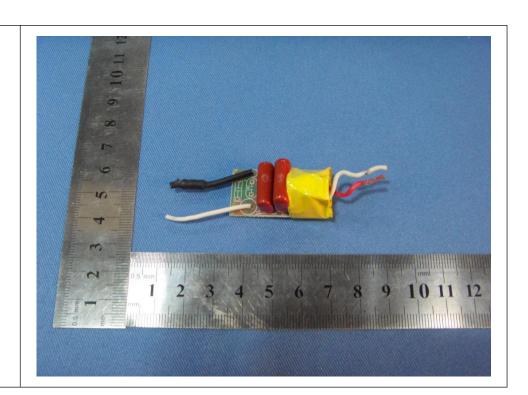


Photo 4

View:

[] Front

[] Rear

[] Right side

[ ] Left side

[] Top

[] Bottom

[ ] LED

[√] PCB

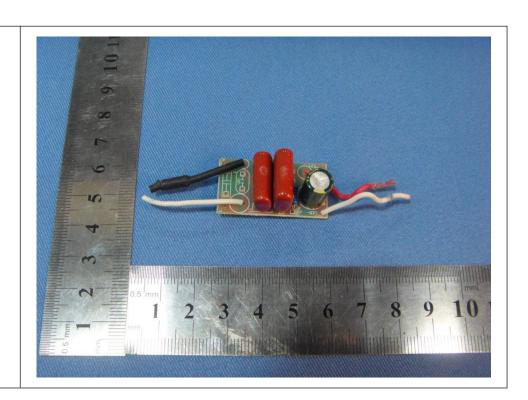






Photo 5

View:

[] Front

[] Rear

[] Right side

[] Left side

[] Top

[] Bottom

[] LED

[√] PCB

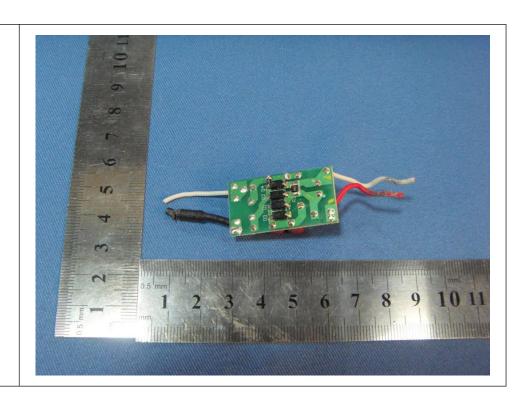


Photo 6

View:

[] Front

[] Rear

[] Right side

[] Left side

[ ] Top

[] Bottom

[√] Internal



END.