



**CENTRE OF TESTING SERVICE
INTERNATIONAL**

OPERATE ACCORDING TO ISO/IEC 17025

LVD TEST REPORT

TEST REPORT NUMBER : CNB3090505-01600-L-F



CTS (Ningbo) Testing Service Technology Co., Ltd.
F1.2 South, HuoJu Building, No.181 CangHai Rd., Jiangdong Hi-tech Park
Ningbo



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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has Passed all the relevant tests conforms to a specification (only telecommunication products).

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.

The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.

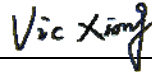
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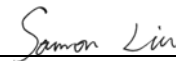


1.2 Tester

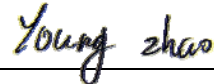
Tested by:

08 June 2009	Vic Xiong	
Date	Name	Signature

Reviewed by:

08 June 2009	Samon Liu	
Date	Name	Signature

Approved by:

08 June 2009	Young Zhao	
Date	Name	Signature



1.3 Testing laboratory

1.3.1 Location

CTS (Ningbo) Testing Service Technology Co., Ltd.
Fl. 2 South Huoju Building No. 181. Canghai Rd. Jiangdong High-tech. Park
Ningbo China
Telephone: + 86-574-87912121
Telefax : + 86-574-87907993

1.3.2 Test location, where different from CTS:

Name: ./.
Street: ./.
Town: ./.
Country: ./.
Telephone: ./.
Fax: ./.
Teletex: ./.

1.4 Application details

1.4.1 Details of applicant

Name : Megawatt Electronic (Zhenjiang) CO., Ltd.
Street : Floor 2, No 45, Areas 5, HuaShanWan, JingKou District,
Town : ZhenJiang, JiangSu,
Country : China
Telephone : +86- 511-88850685
Fax : +86- 511-88850685
Teletex : ./.
Contact : WANG JIAN
Telephone : +86-511-88850685



1.4.2 Details of wanted approval holder

Name : Megawatt Electronic (Zhenjiang) CO., Ltd.
Street : Floor 2, No 45, Areas 5, HuaShanWan, JingKou District,
Town : ZhenJiang, JiangSu,
Country : China
Telephone : +86- 511-88850685
Fax : +86- 511-88850685
Teletex : ./.
Contact : WANG JIAN
Telephone : +86-511-88850685

1.4.3 Manufacturer

Name : Megawatt Electronic (Zhenjiang) CO., Ltd.
Street : Floor 2, No 45, Areas 5, HuaShanWan, JingKou District,
Town : ZhenJiang, JiangSu,
Country : China

1.4.4 Dates of application

Date of receipt of application : 05 May 2009
Date of receipt of test item : 05 May 2009
Date of test : 05 May 2009—05 June 2009

1.5 Test item Description

1.5.1 Description of test item

Type of product : Self-ballasted lamps for general lighting services
Model/Type reference : 6U-E14-25W
Serial number : ---



1.5.2 Test item particulars

Test item	ENERGY-SAVING LAMP
Trade Mark	MEGA●WATT®
Manufacture	Megawatt Electronic (Zhenjiang) CO., Ltd.
Rated Voltage(Range).....	220-240V ~
Rated Frequency.....	<input checked="" type="checkbox"/> 50Hz; <input type="checkbox"/> 60Hz; <input type="checkbox"/> 50/60Hz; <input type="checkbox"/> DC; <input type="checkbox"/> Other:
Rated Wattage	25 W
Lamp Current	165mA
Lamp(s) type	<input type="checkbox"/> Self-ballasted lamps; <input checked="" type="checkbox"/> Edison Screw: E14; <input type="checkbox"/> bayonet caps: Bxx
Mass of Equipment.....	0,06kg
Instructions language	<input checked="" type="checkbox"/> English; <input type="checkbox"/> French; <input type="checkbox"/> Other:

(all informations was provided by the applicant or detected at the sample)
Please see also attachment

1.6 Test standards

<p>EN 60968: 1990 + A1: 1993 + A2: 1999 Self-ballasted lamps for general lighting services - Safety requirements (IEC 60968:1988(Modified))</p> <p>Amendment A1: 1993 to EN 60968: 1990 (IEC 60968:1988/A1:1991)</p> <p>Amendment A2: 1999 to EN 60968:1990 (IEC 60968:1988/A2:1999)</p>



2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.



2.2 Test environment

Temperature:	24 ... 26 °C
Relative humidity content:	20 ... 75 %
Air pressure:	860 ... 1060 hPa
Details of power supply:	100 ... 250 V, AC
Other parameters:	---



2.3 Conformity verification - Summary of inspection

Clause	Summary of inspection	Test result		
		N.A.	Pass	Fail
1	Scope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	General requirement and general test requirements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Marking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Interchangeability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Protection against electric shock	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Insulation resistance and electric strength after humidity treatment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Mechanical strength	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Cap temperature rise	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	Resistance to heat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Resistance to flame and ignition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Fault conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Annexes		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Test case verdicts

N.A.: Test case does not apply to the test object

Pass: Test item does meet the requirement

Fail: Test item does not meet the requirement



3 Test results basic standard(s)

3.1 Particulars: test item vs. Test requirements

IEC 60968 and/or EN 60968 Self-ballasted lamps for general lighting services - Safety requirements	
Possible test case verdicts:	
- test case does not apply to the test object : N(N/A)	
- test object does meet the requirement..... : P(Pass)	
- test object does not meet the requirement..... : F(Fail)	
Test specification:	
Standard..... :	<input type="checkbox"/> IEC 60968:1988 + A1:1991 + A2:1999
	<input checked="" type="checkbox"/> EN 60968:1990 + A1:1993 + A2: 1999
Test procedure	LVD DOC approval.
Non-standard test method..... :	N/A
Test Report Form No. :	EN 60968_A
Test Report Form(s) Originator :	Centre of Testing Service
Master TRF	Dated Jan 2007
Copyright blank test report	Centre of Testing Service



General remarks:

“(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.

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Copy of marking plate:



**3.2 General requirements and results**

IEC 60968 and/or EN 60968			
Clause	Requirement - Test	Result - Remark	Verdict
1	SCOPE		—
	Self-ballasted lamps intended for domestic and similar general lighting purposes, having :		—
	-a rated wattage up to 60W	25W	P
	-a rated voltage of 100V to 250V	220-240V~	P
	-Edison screw or bayonet caps	E14	P
3	GENERAL REQUIREMENT AND GENERAL TEST REQUIREMENTS		—
	Tests performed according to cl. 3, e.g. nature of supply, draught-proof room, etc.		P
4	MARKING		—
4.1	Mandatory marking on the lamp		P
	-mark of origin	MEGA●WATT®	P
	-rated voltage or voltage range	220-240V~	P
	-rated wattage	25W	P
	-rated frequency	50Hz	P
4.2	Additional information		P
	-lamp current	165mA	P
	-burning position if restricted		N
	-lamp weight		N
	-not suitable for dimming		P
4.3	Marking clearly legible and durable		P
5	INTERCHANGEABILITY		—
5.1	Use of caps in accordance with IEC publication 61-1		P
5.2	The dimensions controlling interchangeability in accordance with Table I		P
5.3	Self-ballasted lamp capped with B22d or E27		N
	-not exceeding 1kg		N
	-lampholder bending moment not exceeding 2 Nm		N

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IEC 60968 and/or EN 60968			
Clause	Requirement - Test	Result - Remark	Verdict

6	PROTECTION AGAINST ELECTRIC SHOCK		—
	Self-ballasted lamps shall be so constructed that:		P
	-Without any additional enclosure in the form of a luminaire		P
	-no internal metal parts or live metal parts of the lamp cap are accessible when the lamp is installed in a lampholder.		P
	Edison screw cap shall comply with the requirements for GLS.		P
	-E27 and E14 lamp caps	E14	P
	-B22 and B15 lamp caps		N
	-external parts other than current-carrying parts		P

7	INSULATION RESISTANCE AND ELECTRIC STRENGTH AFTER HUMIDITY TREATMENT		—
7.1	Measured in the humidity cabinet with a d.c. voltage of approximately 500V. 1min		P
	Insulation resistance $\geq 4M \Omega$	$>100 M \Omega$	P
7.2	Electric strength for ES caps or bayonet cap		P
	-type BV(100V to 120V):2U+1000V r.m.s.		N
	-type HV(220V to 250V): 4000V r.m.s.	See the attached table	P
	No flash-over or breakdown		P

8	MECHANICAL STRENGTH		—
	Torsion resistance (See the attached table)		P
	-B22d-----3Nm		N
	-B15d-----1.15Nm		N
	-E27-----3Nm		N
	-E14-----1,15Nm		P
	-relative movement between cap and bulb not exceeding 10°		P
	Comply with the requirements of Clause 6		P



IEC 60968 and/or EN 60968			
Clause	Requirement - Test	Result - Remark	Verdict
9	CAP TEMPERATURE RISE		—
	The cap temperature rise not exceeding		P
	-measured at the rated voltage or the mean of rated voltage range.		P
	-B22d:125K		N
	-B15d:120K		N
	-E27:120K		N
	-E14:120K	56,2K	P

10	RESISTANCE TO HEAT		—
	-the temperature of (25 ± 5) °C in excess of the operating temperature of clause 9		P
	-External parts of insulating material providing protection against electric shock (ball-pressure test :80 °C)	Enclosure: 95°C	P
	-Parts of insulating material retaining live parts(ball-pressure test :125 °C)	PCB	P
	The diameter of the impression ≤ 2 mm		P

11	RESISTANCE TO FLAME AND IGNITION		—
	-External parts of insulating material providing protection against electric shock and parts of insulating material retaining live parts: glow-wire test: 650°C	Enclosure PCB	P

12	FAULT CONDITIONS		—
	-in a switch-start circuit, the starter is short-circuited	No such parts	N
	-short-circuit across capacitors		P
	-the lamp does not start, because one of the cathodes is broken		P
	-the lamp does not start, although the cathode circuits are intact(de-activated lamp)		P
	-the lamp operates, but one of the cathodes is de-activated or broken(rectifying effect)		P
	-opening or bridging other points in the circuit where the diagram indicates that such a fault condition may impair safety		P

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IEC 60968 and/or EN 60968			
Clause	Requirement - Test	Result - Remark	Verdict
	Components or devices in which a short-circuit does not occur shall not be bridged		P
	The sample shall not catch fire, or produce flammable gases and live parts shall not become accessible		P

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3.3 Annex as stated in the standards

IEC 60968 and/or EN 60968			
Clause	Requirement - Test	Result - Remark	Verdict
A	ANNEX ZA (normative) Other international publications quoted in this standard with the references of the relevant European publications		—
	When the international publications has been modified by CENELEC common modifications, indicated by(mod), the relevant EN/HD applies		P



3.4 Tables

Table 1 components

object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
---	---	---	---	---	---

Table 2

7.2	TABLE: Electric strength			P
Test voltage applied between:		Voltage (V)	Breakdown (Yes/No)	
current-carrying metal parts of the lamp and accessible insulation of the lamp		4000	No	

Table 3

8	TABLE: Torsion resistance			P
Type of lamp cap		Applied torque (Nm)		
E14		1,15		

Table 4

11	TABLE: Glow wire test		
Part	Test temperature (°C)		Verdict
Enclosure	650		P
PCB	650		P



Manufacturer/ Approval holder Declaration

The following identical model(s):

2U-E14-7W	2U-E14-9W	2U-E14-11W	2U-E14-15 W
3U-E14-15W	4U-E14-11W	4U-E14-13W	4U-E14-15W
5U-E14-15W	6U-E14-11W	6U-E14-13W	6U-E14-15W
full spiral-E14-7W	full spiral-E14-9W	full spiral-E14-11W	
full spiral-E14-13W	full spiral-E14-15W	semi-spiral-E14-9W	
semi-spiral-E14-11W	semi-spiral-E14-13W	semi-spiral-E14-15W	

belong to the tested device:

Product description: **ENERGY-SAVING LAMP**

Model name: **6U-E14-25W**

No additional models were tested.



Attachments

- Photo document
- BOM
- CDF (critical data form)
- Copies of certificates of certified components
- Instruction manual
- Circuit diagram
- Explosion block
- Other if necessary

-----end of report-----

Type Designation:
Report Number:

ENERGY-SAVING LAMP;6U-E14-25W
CNB3090505-01600-L-F



Figure 1 (External view-1)

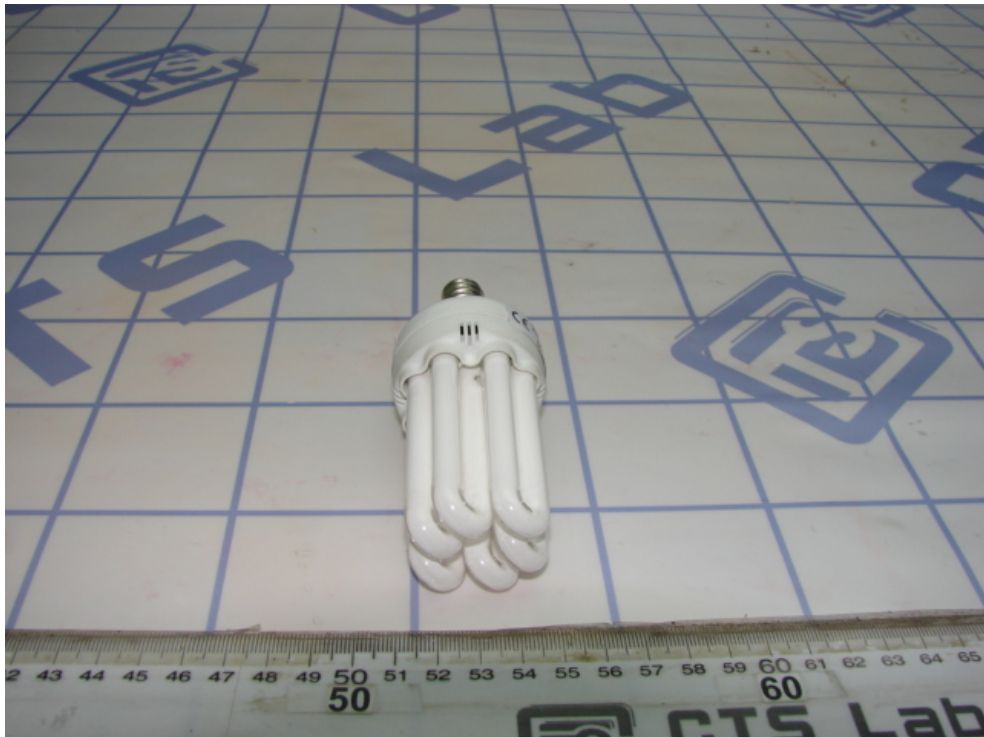


Figure 2 (External view-2)

Type Designation:
Report Number:

ENERGY-SAVING LAMP;6U-E14-25W
CNB3090505-01600-L-F



Figure 3 (External view-marking-1)



Figure 4 (External view-marking-2)

Type Designation: ENERGY-SAVING LAMP;6U-E14-25W
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Figure 5 (External view-marking-3)



Figure 6 (Internal view- 1)

Type Designation: ENERGY-SAVING LAMP;6U-E14-25W
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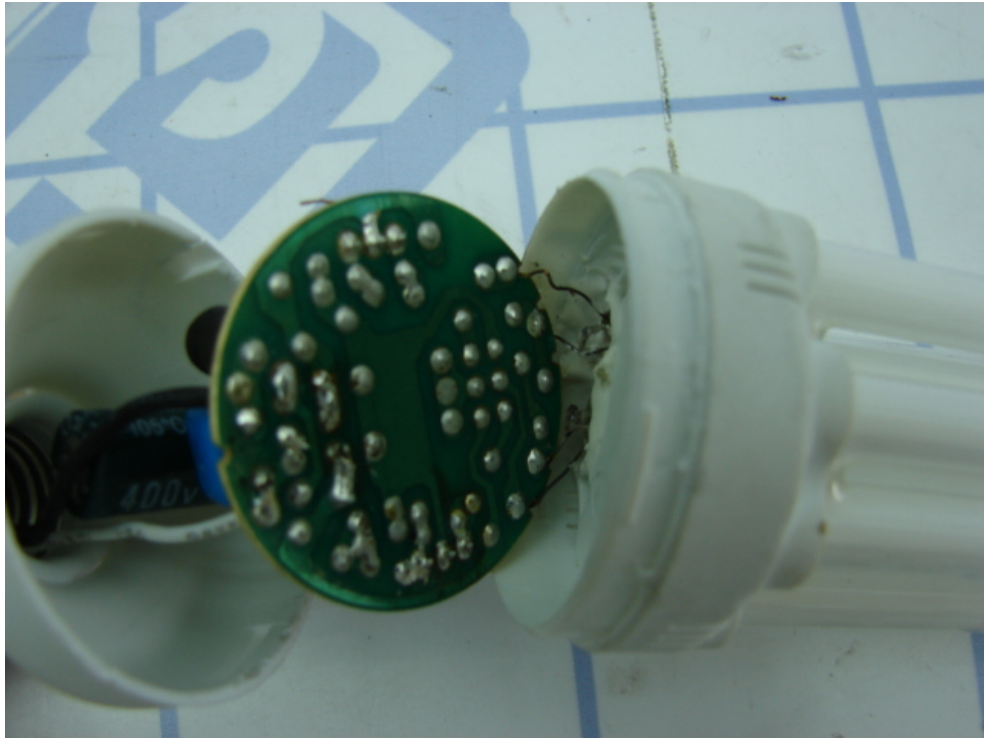


Figure 7 (Internal view- 2)