



Ref. Certif. No.

JPTUV-012730-M1

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

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

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OC

Product
Produit

Room air conditioner indoor unit

Name and address of the applicant
Nom et adresse du demandeur

Electra Consumer Products
21 Aminadav St., Tel-Aviv
67067, Israel

Name and address of the manufacturer
Nom et adresse du fabricant

Electra Consumer Products
21 Aminadav St., Tel-Aviv
67067, Israel

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

(See appendix for factories information)

Rating and principal characteristics
Valeurs nominales et caractéristiques principales

AC 220-230V; 50Hz; Class I
rated power input: refer to the test report
Refrigerant: R22, R407C

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

ELECTRA

Model/type Ref.
Ref. de type

WMZ series

Additional information (if necessary)
Information complémentaire (si nécessaire)

For model differences, refer to the test report.
Re-issue of JPTUV-012730 dated 17.11.2005,
due to first modification.

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

IEC 60335-2-40:1995 + A1
IEC 60335-1:1991 + A1 + A2

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

12011935 002

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



TUV Rheinland Group

TUV Rheinland Japan Ltd.
Shin Yokohama Daini Center Bldg.
3-19-5, Shin Yokohama, Kohoku-ku
Yokohama 222-0033 Japan
Phone +81 45 470-1850
Fax +81 45 473-5221
Mail: info@jpn.tuv.com
Web: www.tuv.com

Dipl.-Phys. M. Werthammer

Date: 01.05.2006

Signature:

Appendix to CB Certificate JPTUV-012730-M1
Report Number: 12011935 002

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Name and address of the manufacturer
Electra Consumer Products
21 Aminadav St., Tel-Aviv
67067
Israel

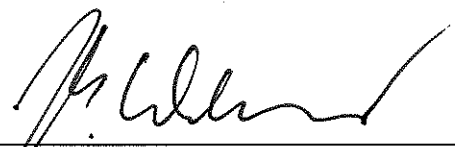
Name and address of the factory(ies)
Electra Air-conditioning (Shenzhen) Co., Ltd.

2 WUHE AVENUE S.,
BANTIAN, BUJI
Shenzhen, Guangdong, P.R. China

Electra Consumer Products Ltd.

Sapir 1, Rishon Lezion
75704
Israel

Date: 01.05.2006



Dipl.-Phys. M. Werthammer

Yokohama Head Office

Shin Yokohama Daini Center Bldg.
3-19-5, Shin Yokohama
Kohoku-ku, Yokohama 222-0033, Japan
www.jpn.tuv.com

Tel. : (045) 470-1850
Fax : (045) 473-5221
e-mail : info@jpn.tuv.com

German Technology Assessment Center

4-25-2 Kita-Yamata
Tsuzuki-ku
Yokohama 224-0021, Japan

Tel. : (045) 914-3888
Fax : (045) 914-3377
e-mail : yoko-lab@jpn.tuv.com

TEST REPORT**IEC 60335-2-40**

Safety of household and similar electrical appliances
Part 2: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers

Report Reference No.....: 12011935 002

Compiled by (+ signature): S. Kischka

Approved by (+ signature): M. Kera

Contents.....: 9 pages

Date of issue: 2006-04-27

CB Testing laboratory Name: TÜV Rheinland Japan Ltd., Yokohama Laboratory

Address: 4-25-2 Kita-Yamata, Tsuzuki-ku, Yokohama 224-0021, Japan

Testing location/procedure.....: CBTL SMT TMP

Address: Same as above

Applicant's Name.....: ELECTRA CONSUMER PRODUCTS

Address: 21 Aminadav St, Tel-Aviv, 67067 Israel

Test specificationStandard.....: IEC 60335-2-40:1995 + A1:2000 used in conjunction with
IEC 60335-1:1991 + A1:1994 + A2:1999

Test procedure: CB

Non-standard test method.....: N.A.

Test Report Form No.....: IEC60335_2_40C

TRF originator.....: AENOR

Master TRF: Dated 2002-02

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Test item description.....: Room air conditioner indoor unit

Trademark: ELECTRA

Model and/or type reference.....: WMZ series indoor unit

Manufacturer.....: Same as applicant

Factory.....: See page 2

Rating(s).....: 220-230V~ 50Hz

Rated Power input: see rating label for details

Refrigerant: R22, R407C

IP20

Summary of testing

The clause 11, 17 and clause 29 are considered and checked on the appliance.

Test items particulars

Serial Number : Prototype samples

Additional information..... : N(.A.)

..... :

..... :

Test case verdicts

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

Test item does meet the requirement..... : P(ass)

Test item does not meet the requirement : F(ail)

Testing

Date of receipt of test item : 2006-02-21

Date(s) of performance of test..... : 2006-03-12—2006-04-12

General remarks

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IEC 60335-1.

This test report shall not be reproduced except in full, without the written approval of the issuing testing laboratory.

Clause numbers between brackets refer to clauses in IEC 60335-1

"(see Enclosure #)" refers to an additional information 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.

Factory 1: Electra Air-Conditioning (Shenzhen) Co., Ltd.

Address: 2 Wuhe Avenue S., Bantian, Buji, Shenzhen, Guangdong, P. R. China

Factory 2: ELECTRA CONSUMER PRODUCTS LTD.

Address: Sapir 1, Rishon Lezion, 75704, Israel

History of amendments and modifications:

Ref. No.12011935 001, dated 2005-11-16 (original report);

Ref. No.12011935 002, dated 2006-04-27 (modification report);

Description of modification:

This report is based on 12011935 001 and has modifications as following:

1. Change the licence holder from **Electra Air-Conditioning (Shenzhen) Co.,Ltd.** 2 Wuhe Avenue S., Bantian, Buji, Shenzhen, Guangdong, P. R. China, into **ELECTRA CONSUMER PRODUCTS** 21 Aminadav St, Tel-Aviv, 67067 Israel.
2. Add a new factory **ELECTRA CONSUMER PRODUCTS LTD.** Sapir 1, Rishon Lezion, 75704, Israel.
3. Add alternate components for all issued model, details please refer to table 24.1.
The alternate controller are identical with original controller except the manufacture is different, they have same layout, same silkscreen and same components as previous controller.

IEC 60335-2-40			
Clause	Requirement - Test	Result - Remark	Verdict
11	HEATING		P
11.8	Monitored temperatures not exceeding the values of Table 3 (IEC 60335-2-40:1995)	(See appended table)	P
	Protective devices do not operate		P
	Sealing compound not flowing out		P
	Temperature of the air in the outlet duct not exceeding 90 °C (IEC 60335-2-40:1995)		N
13	LEAKAGE CURRENT		P
13.1	Leakage current not excessive and electric strength adequate		P
13.2	Leakage current measured by means of circuit described in Annex G (IEC 60335-2-40:1995)		P
	Leakage current measurements	(See appended table)	P
13.3	Electric strength test of insulation. See Note in Interpretation Sheet I-SH 02, August 1994	(See appended table)	P
	No breakdown during the test		P
17	OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS		P
	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use	See appended table	P
	Appliance supplied with 1,06 or 0,94 times rated voltage and the most unfavourable short-circuit or overload likely to occur in normal use applied		P
	Temperature rise of insulation of the conductors of safety extra-low voltage circuits not exceeding the relevant value specified in table 3 by more than 15 K		N
	Temperature of the winding not exceeding the value specified in table 6		P
	Except fail-safe transformer complying 15.5 of IEC 61558-1 (IEC 60335-1/A2:1999)		N
29	CREEPAGE DISTANCES, CLEARANCES AND DISTANCES THROUGH INSULATION		P
29.1	Creepage distances and clearances not less than specified in table 13	(See appended table)	P
	Values increased by 4 mm in case of reinforced insulation when resonance voltage		N
	Creepage distances and clearances for circuits with voltages greater than 250 V r.m.s. (345 V peak) comply with table (IEC 60335-2-40:1995)		P

IEC 60335-2-40			
Clause	Requirement - Test	Result - Remark	Verdict
	For motor-compressors with working voltages ≤ 250 V, 29.1 of IEC 60335-2-34 applies (IEC 60335-2-40:1995)		N
	Creepage distances and clearances for motor-compressors with working voltages > 250 V r.m.s. and ≤ 600 V r.m.s. not less than stated in Table 101 (IEC 60335-2-40:1995)		P
29.2	Distances through insulation not less than 1,0 mm for supplementary insulation, and 2,0 mm for reinforced insulation. Interpretation of this requirement: see Interpretation Sheet I-SH 02, August, 1994		N
29.2.1	Supplementary insulation applied in thin sheet form, other than mica or similar scaly material, consists of at least two layers, each of the layers withstands the electric strength test of 16.3 for supplementary insulation		N
	Reinforced insulation applied in thin sheet form, other than mica or similar scaly material, consists of at least three layers, and any two of the layers together withstand the electric strength test of 16.3 for reinforced insulation		N
29.2.2	Supplementary or reinforced insulation inaccessible and does not exceed the maximum permissible temperature values		N
	Supplementary or reinforced insulation, after conditioning as specified, withstands the electric strength test as specified in 16.3, both at the oven temperature and room temperature		N
30	RESISTANCE TO HEAT, FIRE AND TRACKING		P
30.1	See Annex H		P
	Relevant external parts of non-metallic material		P
	Parts supporting live parts and parts providing supplementary or reinforced insulation sufficiently resistant to heat		P
	Ball-pressure test with a force of 20 N, diameter of impression not exceeding 2 mm :		P
	External parts: at 75 °C	Enclosure	P
	Parts supporting live parts: at 125 °C	PCB, Winding bobbin	P
	Parts providing supplementary or reinforced insulation: temperature (°C) :		N
30.2	Relevant parts of non-metallic material adequately resistant to ignition and spread of fire		P
30.2.1	Possible burning test of relevant parts according to Annex J		N

IEC 60335-2-40			
Clause	Requirement - Test	Result - Remark	Verdict
	Glow-wire test of Annex K made at temperature 550 °C	Enclosure	P
30.2.3	Appliances operated while unattended, possible bad-connection test according to Annex L		N
	Glow-wire test of Annex K made at 850 °C	PCB, Winding bobbin	P
	Possible needle-flame test according to Annex M		N
30.2.4	Parts of non-metallic material within a distance of 50 mm from parts not withstanding the tests of 30.2.2 or 30.2.3, subjected to the needle-flame test of Annex M		N
30.3	Relevant insulating material have adequate resistance to tracking		P
	Tracking test at 175 V according to Annex N	PCB, Winding bobbin	P
	Tracking test at 250 V according to Annex N		N
	No hazard other than fire, tracking test at 175 V according to Annex N, and in addition needle-flame test of surrounding parts according to Annex M		P
	Possible needle-flame test of non-metallic material		N

11.8	TABLE: temperature rise measurements		P
WMZ22RC R407C	Operation mode	Cooling mode: Indoor: 32/23 °C Heating mode: Indoor: 27/- °C	P
	t1 (°C)	21	—
	t2 (°C)	See operation mode	—
	Test voltage (V)	244V	—
Temperature T of part:		Measured temperature (°C)	Required Temperature (°C)
Enclosure of step motor		40,0	150

13.2	TABLE: LEAKAGE CURRENT AT OPERATING TEMPERATURE		P
	At 1,15 times rated input (W)	N/A	-
	At 1,06 times rated voltage (V)	244V	-
Measured between:		Measured (mA)	Limit (mA)
L/N to earthed metal parts		0,88	3,5
L/N to outside enclosure (class II construction)		0,071	0,25

13.3	TABLE: ELECTRICAL INSULATION AT OPERATING TEMPERATURE		P
Test voltage applied between:		Test voltage (V)	Result
L/N- GND		1000	No
L/N - enclosure of indoor unit (with aluminum foil)		3750	No

IEC 60335-2-40					
Clause	Requirement - Test			Result - Remark	Verdict
17.1	TABLE: OVERLOAD PROTECTION				P
	at 1,06 - 0,94 times rated voltage (V).....:			244V	-
	Test model::			OH-41936ET	-
Short-circuit of:		Measured temperature (°C)	Limit temperature (°C)	Result	
SC secondary winding		51,6/35,7	225	P	
Remark: the test was performed with PTC together and the test operated 20 days.					

24.1	TABLE: COMPONENTS					P
Object/part No.	Manufacturer/trademark	Type/model	Technical data	Standard	Mark(s) of conformity	
Remark 1: For thermal cut-outs, thermal links of fan motors and transformers which have been approved according to relevant IEC standards, the manufacturer, types and characters not listed in the CDF but should be in this scope authorized by original certification bodies.						
Remark 2: only different components are listed.						
Built-in components with windings: (motors, transformers, magnetic coils etc.)						
Transformer	YINLI	YL-41-120300B	Pri.: 230VAC, 50/60Hz Sec.: 12VAC 300mA Class: B	IEC 61558	TUV 50076114	
Alternate	New ERA	OH-41936ET	Pri.: 230VAC, 50/60Hz Sec.:12VAC 400mA Class: B	IEC 60335-2-40	Tested with appliance	
Step motor	Oukai	28BY48	AC220-240V 50/60Hz 250±7%Ω Class A	IEC 60335-2-40	Tested with appliance	
Built-in components:(switches, thermostats, heater, plugs, wires, capacitors, sockets, rfi-filters etc.)						
Controller for WMN-7* WMN-9* WMN-12*	HL	WMZ	--	IEC 60335-2-40	Tested with appliance	
PTC for transformer	Shenzhen Xinsanbao	WMZ75S	Max. Operation voltage: 300VAC Max. Operation current: 800mA	IEC 60335-2-40	Tested with appliance	

29.1	TABLE: MINIMUM CREEPAGE DISTANCES AND CLEARANCES									P	
creepage (cr) and clearance (cl) distance (mm):			Class III appliances		Other appliances, working voltage:				Remark		
					< 130 V		130-250 V		250-440 V		
			cr	cl	cr	cl	cr	cl	cr	cl	
Between live parts of different potential											
- if protected against deposition of dirt			1,0	1,0	1,0	1,0	<u>3,0</u>	<u>3,0</u>	2,0	2,0	P

IEC 60335-2-40									
Clause	Requirement - Test				Result - Remark				Verdict
- if not protected against deposition of dirt	2,0	1,5	2,0	1,5	<u>4,0</u>	<u>4,0</u>	4,0	3,0	P
- if lacquered or enameled windings	1,0	1,0	1,5	1,5	<u>4,0</u>	<u>4,0</u>	3,0	3,0	P
- for positive temperature coefficient (PTC) resistors including their connecting wires, if protected against deposition of moisture or dirt	—	—	1,0	1,0	1,0	1,0	—	—	N
Cl and Cr measured between:									
1. L and N on PCB, Cr=Cl=4mm;									
2. Input of transformer: Cr=Cl=4mm;									
The shortest value is considered.									
Between live parts and other metal parts over basic insulation:									
- if protected against deposition of dirt:									N
- if of ceramic material, pure mica and similar material	1,0	1,0	1,0	1,0	2,5	2,5	—	—	N
- if of other material	1,5	1,0	1,5	1,0	3,0	2,5	—	—	N
- if not protected against deposition of dirt	2,0	1,5	2,0	1,5	<u>4,0</u>	<u>4,0</u>	—	—	P
- if the live parts are lacquered or enamelled windings	1,0	1,0	1,5	1,5	<u>4,0</u>	<u>4,0</u>	—	—	P
- at the end of tubular sheathed-type heating elements	—	—	1,0	1,0	1,0	1,0	—	—	N
Cl and Cr measured between:									
1. Live part on PCB and earthing metal part, Cr>Cl=4mm;									
2. Winding of transformer and enclosure/body, Cr>Cl=4mm;									
3. Live part on PCB and lower voltage parts, Cr>Cl=4mm;									
The shortest value is considered.									
Between live parts and other metal parts over reinforced insulation									
- if the live parts are lacquered or enamelled windings	—	—	6,0	6,0	6,0	6,0	—	—	N
- for other live parts	—	—	8,0	8,0	<u>10,0</u>	<u>10,0</u>	—	—	P
Cl and Cr measured between:									
1. Test finger and internal live part through the gap of enclosure.									
The shortest value is considered.									

30	TABLE: material test				P	
Part	Ball-pressure test		Glow-wire test		Tracking test (V)	
	Temp.(°C)	Diameter (mm)	Temp. (°C)	Burning time(s)		
PCB	125	0,6	850	0	175V	
Winding bobbin	125	1,0	850	0	175V	

IEC 60335-2-40			
Clause	Requirement - Test	Result - Remark	Verdict

Remark: the test was performed on all winding bobbins, PCBs and highest value was listed.

--End of report--