



TEST REPORT

IEC 60335-2-32

Safety of household and similar electrical appliances Part 2: Particular requirements for massage appliance

Report Reference No.: GZES100800181503
Date of issue: 2012-07-13
CB Testing Laboratory.....: SGS-CSTC Standards Technical Services Co., Ltd. - E&E Lab
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Applicant's name.....: HoMedics Group Ltd
Address: HoMedics House, Somerhill Business Park, Five Oak Green Road, Tonbridge, Kent TN11 0GP England

Test specification:

Standard.....: IEC 60335-2-32:2002 (Fourth edition) + A1 :2008 used in conjunction with IEC 60335-1:2001 (Fourth Edition) + A1 : 2004 + A2: 2006
Test procedure: SGS-CSTC
Non-standard test method.....: N/A

Test Report Form No.: IEC60335_2_32E

Test Report Form(s) Originator: LCIE

Master TRF: Dated 2009-05

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Test item description: Cocoon Shiatsu Max Back Massager

Trade Mark.....: 

Manufacturer: —

Model/Type reference: CBS-1000-EU & CBS-1000-GB

Ratings: 220 V – 240 V, 50 Hz / 60 Hz, 35 W, Class II

Factory: —

Testing procedure and testing location:

☒ **CB Testing Laboratory:**

SGS-CSTC Standards Technical Services Co., Ltd. - E&E
Lab Guangzhou

Testing location/ address:

198 Kezhu Road, Sciencetech Park, Guangzhou Economic &
Technology Development District, Guangzhou, Guangdong,
China 510663

☐ **Associated CB Laboratory:**

N/A

Testing location/ address:

Tested by (name + signature):

Kyle Zhang

Approved by (+ signature).....:

Nick Cui


☐ Testing procedure: TMP

N/A

Tested by (name + signature):

Approved by (+ signature).....:

Testing location/ address:

☐ Testing procedure: WMT

N/A

Tested by (name + signature):

Witnessed by (+ signature):

Approved by (+ signature).....:

Testing location/ address:

☐ Testing procedure: SMT

N/A

Tested by (name + signature):

Approved by (+ signature).....:

Supervised by (+ signature):

Testing location/ address:

☐ Testing procedure: RMT

N/A

Tested by (name + signature):

Approved by (+ signature).....:

Supervised by (+ signature):

Testing location/ address:

Summary of testing:

Tests performed (name of test and test clause):

Tests according to the following standards were carried out:

BS EN / EN 60335-1: 2002 + A11: 2004 + A1: 2004 + A12: 2006 + A2: 2006 + A13: 2008 + A14: 2010 + A15: 2011
BS EN / EN 60335-2-32: 2003 + A1: 2008
BS EN / EN 62233: 2008

After reviewed

The model CBS-1000-EU was subjected to clause 10, 11, 19.11(only perform on main control PCB), 30.1, EMF tests and construction check.

The submitted samples fulfil the requirements of the relevant standards.

Testing location:

See page one

Summary of compliance with National Differences:

National differences of United Kingdom and CENELEC common modifications were taken into account.

Copy of marking plate



Test item particulars : —
Classification of installation and use..... : Portable appliance
Supply Connection : Non-detachable power cord fitted with plug
Possible test case verdicts: - test case does not apply to the test object..... N/A - test object does meet the requirement..... P (Pass) - test object does not meet the requirement..... F (Fail)
Testing Date of receipt of test item 2012-06-28 Date (s) of performance of tests 2012-06-28 to 2012-07-09
General remarks: <p>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.</p> <p>Throughout this report a comma is used as the decimal separator.</p> <p>This document is issued by the company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.</p> <p>Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.</p> <p>Unless otherwise stated: (a) the results shown in this document refer only to the sample(s) tested and (b) such sample(s) are retained for 3 months. This document cannot be reproduced except in full, without prior approval of the company.</p> <p>This report GZES100800181503 is not valid without GZES100800181502.</p> <p>This test report includes the following additional documents to original TRF:</p> <p>Annex I: including EN 60335-1:2002 / A15: 2011 and EMF Annex II: including photo documents Annex III: including circuit diagram</p>
General product information: Cocoon Shiatsu Max Back Massager for household and indoor use only. The models CBS-1000-EU and CBS-1000-GB are identical except that CBS-1000-EU uses EU plug, CBS-1000-GB uses BS plug. P.O. No.: PC0001068 Amendment-1: The original Test Report Ref. No. GZES100800181502, dated 2011-03-10 was modified on 2012-07-10 to include the following changes and additions, which were considered technical modifications: <ol style="list-style-type: none"> 1. Add alternative main control PCB, on which motors were control by MOS transistors instead of relays , more details refer to annex II and annex III. 2. Update standard to BS EN / EN 60335-1: 2002 + A11: 2004 + A1: 2004 + A12: 2006 + A2: 2006 + A13: 2008 + A14: 2010 + A15 : 2011 & BS EN / EN 60335-2-32: 2003 + A1: 2008

IEC 60335-2-32			
Clause	Requirement - Test	Result - Remark	Verdict
10	POWER INPUT AND CURRENT		—
10.1	Power input at normal operating temperature, rated voltage and normal operation not deviating from rated power input by more than shown in table 1	(see appended table)	P
	Test for an appliance with one or more rated voltage ranges		P
10.2	Current at normal operating temperature, rated voltage and normal operation not deviating from rated current by more than shown in table 2		N/A
	Test for an appliance with one or more rated voltage ranges		N/A

11	HEATING		—
11.1	No excessive temperatures in normal use		P
11.2	Placing and mounting of appliance as described		P
	Combined appliances are positioned as specified for motor-operated appliances. (IEC 60335-2-32)		N/A
11.3	Temperature rises, other than of windings, determined by thermocouples		P
	Temperature rises of windings determined by resistance method, unless		N/A
	the windings makes it difficult to make the necessary connections		P
11.4	Heating appliances operated under normal operation at 1.15 times rated power input		N/A
11.5	Motor-operated appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage		N/A
11.6	Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage	1,06 x 240 V = 254,4 V	P
11.7	Hand-held appliances are operated for 20 min (IEC 60335-2-32)		N/A
	Other appliances are operated until steady conditions are established (IEC 60335-2-32)		P
11.8	Temperature rises not exceeding values in table 3	(see appended tables)	P
	Sealing compound does not flow out		P
	Protective devices do not operate, except		P
	components in protective electronic circuits tested for the number of cycles specified in 24.1.4		N/A

IEC 60335-2-32			
Clause	Requirement - Test	Result - Remark	Verdict
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in 19.11.2 for all circuits or parts of circuits, unless they comply with the conditions specified in 19.11.1		P
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.3 and 19.11.4		N/A
	Appliances having a switch with an off position obtained by electronic disconnection, or a switch placing the appliance in a stand-by mode, subjected to the tests of 19.11.4		N/A
	Appliances incorporating an electronic circuit that relies upon a programmable component to function correctly, subjected to the test of 19.11.4.8		N/A
19.11.1	Before applying the fault conditions a) to f) in 19.11.2, it is checked if circuits or parts of circuit meet both of the following conditions:		—
	- the electronic circuit is a low-power circuit, that is, the maximum power at low-power points does not exceed 15 W according to the tests specified	R3 on control PCB is low-power point:1,3 W	P
	- the protection against electric shock, fire hazard, mechanical hazard or dangerous malfunction in other parts of the appliance does not rely on the correct functioning of the electronic circuit		P
19.11.2	Fault conditions applied one at a time, the appliance operated under conditions specified in cl. 11, but supplied at rated voltage, the duration of the tests as specified:		—
	a) short circuit of functional insulation if clearances or creepage distances are less than the values specified in 29		N/A
	b) open circuit at the terminals of any component	Control PCB: C1: Appliance normal operate R1: Appliance stop working D1: Appliance stop working R2: Appliance stop working D2: Appliance stop working	P
	c) short circuit of capacitors, unless they comply with IEC 60384-14	Control PCB: C1: Appliance stop working	P
	d) short circuit of any two terminals of an electronic component, other than integrated circuits. This fault condition is not applied between the two circuits of an optocoupler	Control PCB: D1: Appliance normal operate D2: Appliance stop working	P
	e) failure of triacs in the diode mode		N/A
	f) failure of an integrated circuit		N/A
	g) failure of an electronic power switching device		N/A
19.11.3	If the appliance incorporates a protective electronic circuit which operates to ensure compliance with clause 19, the relevant test is repeated with a single fault simulated, as indicated in a) to f) of 19.11.2		N/A

IEC 60335-2-32			
Clause	Requirement - Test	Result - Remark	Verdict
	During and after each test the following is checked:		—
	- the temperature rise of the windings do not exceed the values specified in table 8		N/A
	- the appliance complies with the conditions specified in 19.13		N/A
	- any current flowing through protective impedance not exceeding the limits specified in 8.1.4		N/A
	If a conductor of a printed board becomes open-circuited, the appliance is considered to have withstood the particular test, provided all three of the following conditions are met:		—
	- the material of the printed circuit board withstands the burning test of annex E		N/A
	- any loosened conductor does not reduce the clearances or creepage distances between live parts and accessible metal parts below the values specified in cl. 29		N/A
	- the appliance withstands the tests of 19.11.2 with open-circuited conductor bridged		N/A
19.11.4	Appliances having a switch with an off position obtained by electronic disconnection, or		N/A
	a switch that can be placed in the stand-by mode,		N/A
	subjected to the tests of 19.11.4.1 to 19.11.4.7		N/A
	Appliances incorporating a protective electronic circuit subjected to the tests of 19.11.4.1 to 19.11.4.7, except that		N/A
	appliances operated for 30 s or 5 min during the test of 19.7 are not subjected to the tests for electromagnetic phenomena. (IEC 60335-1/A1 : 2004)		N/A
	Appliances having a device with an off position obtained by electronic disconnection,		N/A
	or a device that can be placed in the stand-by mode, subjected to the tests of 19.11.4.1 to 19.11.4.7		N/A
19.11.4.1	The appliance is subjected to electrostatic discharges in accordance with IEC 61000-4-2, test level 4		N/A
19.11.4.2	The appliance is subjected to radiated fields in accordance with IEC 61000-4-3, test level 3		N/A
19.11.4.3	The appliance is subjected to fast transient bursts in accordance with IEC 61000-4-4, test level 3 or 4 as specified		N/A
19.11.4.4	The power supply terminals of the appliance subjected to voltage surges in accordance with IEC 61000-4-5, test level 3 or 4 as specified		N/A
	Earthed heating elements in class I appliances disconnected		N/A

IEC 60335-2-32			
Clause	Requirement - Test	Result - Remark	Verdict
19.11.4.5	The appliance is subjected to injected currents in accordance with IEC 61000-4-6, test level 3		N/A
19.11.4.6	The appliance is subjected to voltage dips and interruptions in accordance with IEC 61000-4-11		N/A
19.11.4.7	The appliance is subjected to mains signals in accordance with IEC 61000-4-13, test level class 2		N/A
19.11.4.8	The appliance is supplied at rated voltage and operated under normal operation. After 60s the power supply is reduced to a level such that the appliance ceases to respond or a programmable component ceases to operate		N/A
19.13	During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts		P
	Temperature rises not exceeding the values shown in table 9	(see appended table)	P
	Enclosures not deformed to such an extent that compliance with cl. 8 is impaired		P
	If the appliance can still be operated it complies with 20.2		N/A
	Insulation, other than of class III appliance, withstand the electric strength test of 16.3, the test voltage specified in table 4:		—
	- basic insulation.....:		N/A
	- supplementary insulation.....:		N/A
	- reinforced insulation.....:	3000 V	P
	During the test of 19.101, the temperature rise of the surface of the container shall not exceed 60 K. (IEC 60335-2-32)		N/A
	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstanding the electric strength test of 16.3. the test voltage being twice the working voltage		N/A
	The appliance does not undergo a dangerous malfunction, and		P
	no failure of protective electronic circuits, if the appliance is still operable		N/A
	Appliances tested with an electronic switch in the off position or in the stand-by mode, do not become operational		N/A
	Appliances tested with an electronic switch in the off position, or in the stand-by mode		N/A
	- do not become operational, or		N/A

IEC 60335-2-32			
Clause	Requirement - Test	Result - Remark	Verdict
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A

10.1	TABLE: Power input deviation					P
Input deviation of/at:		P rated (W)	P measured (W)	Dp	Required Dp	Remark
220 – 240 V / 230 V, 50 Hz		35	38,0	8,6%	± 10%	—
220 – 240 V / 230 V, 60 Hz		35	37,0	5,7%	± 10%	—

11.8	TABLE: Heating test, thermocouples		P
	Test voltage (V).....:	254,4	—
	Ambient (°C).....:	t ₁ : 24,6 t ₂ : 24,8	—
Thermocouple locations		dT (K)	Max. dT (K)
Power cord		31,5	50
PCB (switching power board)		55,5	120
Internal wire		26,6	T200-25=175
VDR		32,4	T85-25=60
X capacitor		43,1	T100-25=75
L winding		47,7	65
Optocoupler		54,6	T100-25=75
Y capacitor		53,1	T85-25=60
Transformer winding / transformer bobbin		58,6	65
Switching power board cover up / down (inside)		44,9	For clause 30.1
Massage head surface		22,9	For clause 30.1
Indicator PCB		24,3	120
Shiatsu motor (ESPL-3430-D024) winding		10,8	80(Class 120)
Rolling motor (ESPL-3420-D024) winding		40,8	80(Class 120)
Appliance massage surface (accessible massage head)		13,8	50
Vibrant motor winding (seat)		22,5	65(Class 105)
Controller surface		1,8	50
Controller PCB		1,8	120
Test floor		5,9	65

30.1	TABLE: Ball pressure			P
Part		Test temperature (°C)	Impression diameter (mm)	Allowed impression diameter (mm)
Switching power board cover		84,9	1,3	2,0

--End of Report--