Test Report issued under the responsibility of:

eurofins

TEST REPORT
IEC 60335-2-13
Safety of household and similar electrical appliances
Part 2: Particular requirements for deep fat fryers, frying pans and similar appliances

Report Number. .....:	EFSH14120797-IE-01-L01-A7
Date of issue .....:	2014-12-26; Amendment 7: 2018-10-15
Total number of pages.....:	35 pages
Applicant's name.....:	Zhejiang Weijiang Electric Appliance Co., Ltd.
Address .....:	No. 17 Weier Road, Tongqin Industrial Zone, Wuyi, Jinhua, Zhejiang, P.R. China
Test specification:	
Standard.....:	☐ IEC 60335-2-13:2009 (Sixth Edition) in conjunction with IEC 60335-1:2010 (Fifth Edition) ☒ EN 60335-2-13:2010 + A11:2012 ☒ EN 60335-1:2012 + A11:2014 + A13:2017 ☒ EN 62233:2008
Test procedure .....:	GS Approval + CE-LVD
Non-standard test method……..:	N/A
Test Report Form No.....:	IEC60335_2_13F
Test Report Form(s) Originator.....:	IMQ S.p.A.
Master TRF.....:	Dated 2013-05

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 IECEE 02.

Test item description .....:	Frying Pan
Trade Mark .....:	COYA®
Manufacturer.....:	Same as the applicant
Model/Type reference .....:	EFP-001, EFP-001-A, EFP-001-B, EFP-001-C, EFP-002, EFP-002-A, EFP-005, EFP-005-A, EFP-008, EPP-28, EPP-30, EPP-34, EPP-34-A, EPP-38, EPP-38-A, EPP-40, PP-004-34, PP-004-38, PP-010, PP-010-1, 162367, EPP-28-A, EPP-30-A, EPP-30-B, 162367
Ratings .....:	220-240V~, 50-60Hz, Class I for all models 162367: 1800W EFP-001, EFP-001-A, EFP-001-B, EFP-001-C, EFP-002, EFP-002-A, EFP-005, EFP-005-A, EFP-008, EPP-28, EPP-30, EPP-34, EPP-34-A, EPP-38, EPP-38-A, EPP-40, PP-004-34, PP-004-38, PP-010, PP-010-1, 162367, EPP-30-B: 1500W EPP-28-A, EPP-30-A: 1000W

Testing procedure and testing location:		
☒ **Testing Laboratory:**	Eurofins Product Testing Service (Shanghai) Co., Ltd.	
Testing location/ address ..... :	No. 395 West Jiangchang Road, Jing'an District, Shanghai, China	
☐ **Associated CB Testing Laboratory:**		
Testing location/ address ..... :	N/A	
Tested by (name + signature) ..... :	Jules Xu (Project Engineer)	Jules Xu
Approved by (name + signature) ..... :	Michael Liu (Project Engineer)	Michael Lin
☐ **Testing procedure: TMP**		
Testing location/ address ..... :	N/A	
Tested by (name + signature) ..... :	N/A	
Approved by (name + signature) ..... :	N/A	
☐ **Testing procedure: WMT**		
Testing location/ address ..... :	N/A	
Tested by (name + signature) ..... :	N/A	
Witnessed by (name + signature) .... :	N/A	
Approved by (name + signature) ..... :	N/A	
☐ **Testing procedure: SMT**		
Testing location/ address ..... :	N/A	
Tested by (name + signature) ..... :	N/A	
Approved by (name + signature) ..... :	N/A	
Supervised by (name + signature) .. :	N/A	

List of Attachments (including a total number of pages in each attachment):

European Group Differences and National Differences (EU_GD_IEC60335_2_13G): 2 pages

Photo document: 5 pages (incorporated in the main report)

Constructional data form(CDF): 7 pages (separate file)

Summary of testing: From the result of our inspection and tests on the submitted samples, we conclude they comply with the requirements of the standards.

Tests performed (name of test and test clause):	**Testing location:**
☒Cl.10 Power input and current ☒Cl.11 Heating ☒Cl.13 Leakage current and electric strength at operating temperature ☒Cl.15 Moisture resistance ☒Cl.16 Leakage current and electric strength ☒Cl.19 Abnormal operation ☒Cl.29 Clearances, creepage distances and solid insulation ☒Cl.30 Resistance to heat and fire	Eurofins Product Testing Service (Shanghai) Co., Ltd. No. 395 West Jiangchang Road, Jing'an District, Shanghai, China

Summary of compliance with National Differences

List of countries addressed:

Germany and European Group Differences

Copy of marking plate (Representative, may differ with model no./ rated power input)

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

COYA®
Frying Pan
EFP-001
Series number: xxxx – xxxx
220-240V~, 50-60Hz, 1500W, Class I

Zhejiang Weijiang Electric Appliance Co., Ltd.

No. 17 Weier Road, Tongqin Industrial Zone, Wuyi, Jinhua, Zhejiang, P.R. China

Imported by:
(Full Name of the EU importer)
(Full EU Address of the importer)

: Caution, hot surface

The height this symbol shall be at least 8 mm

Test item particulars ..... :	
Classification of installation and use ..... :	Portable appliance for household indoor use only
Supply Connection..... :	Appliance inlet and cord set
..... :	
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 .....:	2018-09-25
Date (s) of performance of tests.....:	2018-09-26 to 2018-10-10

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.

Throughout this report a ☒ comma / ☐ point is used as the decimal separator.
The related applicable CTL/OSM decisions have been considered and the requirements found fulfilled.

For GS approval, EK1 601-15e Rev. 2, EK1 477-10, EK1 527-12 Rev. 2 and EK1AG2 Rev. 10 were considered.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :

☐ **Yes**

☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies).....:	Same as the applicant

General product information:

The appliances covered by this report are Frying Pans for household indoor use only.
All of the models have the same construction except for the handle, the shape and the size of the pot.

Model differences and similarities are as below:

Model	Ratings	Pot caliber (cm)	Shape of the heating element
EFP-001	220-240V~, 50-60Hz, 1500W	--	Round
EFP-002		--	Rectangle
EPP-28		28	Round
EPP-30		30	Round
EPP-34		34	Round
EPP-34-A		34	Round
EPP-38		38	Round
EPP-38-A		38	Round
EPP-40		40	Round
PP-004-34		34	Round
PP-004-38		38	Round
PP-010		40	Round
PP-010-1		40	Round

After view, full tests were performed on EPP-002 and EPP-40. Test of Cl.7, Cl.20, Cl.21, Cl.22 were performed on the other models and Cl.11.8 for PP-010 (only for metal handle).

Amendment 1: The original test report ref. No. EFSH14120797-IE-01-L01, dated 2014-12-26 was modified on 2015-11-02 to include the following changes and/or additions: 1. Evaluation/Test method for PAH was updated to EK1 601-15e Rev1/Afps GS 2014:01 PAK. 2 Annex CDF report, PAH report were updated After review, no tests need to be done.
Amendment 2: The original test reports ref. No. EFSH14120797-IE-01-L01, dated 2014-12-26, ref no. EFSH14120797-IE-01-L01-A1, dated 2015-11-02, were modified on 2016-06-06 to include the following changes and/or additions: 1.Three new models: EPP-28-A, EPP-30-A and EPP-30-B were added. 2.EPP-28-A is same as EPP-28 in the previous report except that different rated power input. 3.EPP-30-A is same as EPP-30 in the previous report except that different rated power input. 4. EPP-30-B is same as EPP-30 in the previous report except that different earthing view. 5. Added an alternative connector without cord anchorage. After review, only test of Cl.10 need considered for EPP-28-A and EPP-30-A. Tests of Cl.10, Cl.13, Cl.15.3 and Cl.16 need considered for EPP-28-A and EPP-30-A. Tests of Cl.13, Cl.15.3, Cl.16, Cl.25.15 and Cl.27 need considered for EPP-30-B.
Amendment 3: The original test reports ref. No. EFSH14120797-IE-01-L01, dated 2014-12-26, ref no. EFSH14120797-IE-01-L01-A1, dated 2015-11-02, ref no. EFSH14120797-IE-01-L01-A2, dated 2016-06-06, were modified on 2016-09-29 to include the following changes and/or additions: 1. Modify the grounding screw view for all models. After review, only tests of Cl.27 and Cl.28 need to be considered and EFP-002 was selected to the test as representative.
Amendment 4: The original test reports ref. No. EFSH14120797-IE-01-L01, dated 2014-12-26, ref no. EFSH14120797-IE-01-L01-A1, dated 2015-11-02, ref no. EFSH14120797-IE-01-L01-A2, dated 2016-06-06, ref no. EFSH14120797-IE-01-L01-A3, dated 2016-09-29, were modified on 2017-06-09 to include the following changes and/or additions: 1. Five new models: EFP-001-A, EFP-001-B, EFP-002-A, EFP-005, and EFP-008 were added. Compared with EFP-001, the only difference is EFP-001-A has an additional stainless steel ring on the rim of the pan. Similar condition happens to EFP-002 and EFP-002-A. The only difference between EFP-001 and EFP-001-B is that the connection type of EFP-001 is welded while on EFP-001-B is die-casting molded. Similar condition happens to EFP-005 and EFP-008. 2. Add new optional shape of handle for PP series After review, EFP-005 was subjected to do full of the tests as representative. Tests of Cl.11.8 (only for handle) and Cl.22 were performed on EPP-40.

Amendment 5:

The original test reports ref. No. EFSH14120797-IE-01-L01, dated 2014-12-26, ref no. EFSH14120797-IE-01-L01-A1, dated 2015-11-02, ref no. EFSH14120797-IE-01-L01-A2, dated 2016-06-06, ref no. EFSH14120797-IE-01-L01-A3, dated 2016-09-29, ref no. EFSH14120797-IE-01-L01-A4, dated 2017-06-09 were modified on 2017-08-23 to include the following changes and/or additions:

1. New model EFP-001-C was added. Compared with EFP-001, the only difference between EFP-001 and EFP-001-C is the material of handle: metal for EFP-001-C while plastic for EFP-001.

After review, test of Cl.11.8 (only for handle) and CI.22 were performed on EFP-001-C.

Amendment 6:

The original test reports ref. No. EFSH14120797-IE-01-L01, dated 2014-12-26, ref no. EFSH14120797-IE-01-L01-A1, dated 2015-11-02, ref no. EFSH14120797-IE-01-L01-A2, dated 2016-06-06, ref no. EFSH14120797-IE-01-L01-A3, dated 2016-09-29, ref no. EFSH14120797-IE-01-L01-A4, dated 2017-06-09, ref no. EFSH14120797-IE-01-L01-A5, dated 2017-08-23 were modified on 2018-06-27 to include the following changes and/or additions:

1. New model EFP-005-A was added. Compared with EFP-005, EFP-005-A has a different shape of handle.
2. Test standard was updated to EN 60335-1:2012 + A11:2014 + A13:2017.

After review, tests of Cl.11.8 (only for handle) and 11.Z101 were performed on EFP-005-A.

Amendment 7:

The original Eurofins report ref. No. EFSH14120797-IE-01-L01, dated 2014-12-26 was additionally modified on 2018-10-15 to include the following changes and/or additions:

1. New model 162367 was added. Compared with PP-010, the rated power input, position of metal handle, shape of heating element and reflection plate are different.
2. CDF and PAH report were updated.

After review, tests of CI.10, CI.11, CI.13, CI.15, CI.16, CI.19, CI.29 and CI.30 were performed on 162367. This report is only valid in conjunction with the original Eurofins report ref. No. EFSH14120797-IE-01-L01, and the related amendment reports.

IEC 60335-2-13			
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 carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated power input is related to the arithmetic mean value		P
11	HEATING		--
11.1	No excessive temperatures in normal use		P
11.2	The appliance is held, placed or fixed in position as described.....:	Placed away from the walls of the test corner	P
	Portable appliances are placed away from the walls of the test corner (IEC 60335-2-13)		P
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 are non-uniform or it is difficult to make the necessary connections		N/A
	The temperature rise of the oil in deep fat fryers is determined by means of thermocouples attached to disk of copper or brass, 15 mm diameter and 1 mm thick (IEC 60335-2-13)		N/A
11.4	Heating appliances operated under normal operation at 1.15 times rated power input (W) .....:	2253,9 W	P
11.7	Appliance are operated until steady conditions are established (IEC 60335-2-13)		P
11.8	Temperature rises monitored continuously and not exceeding the values in table 3 .....:	(see appended table)	P
	If the temperature rise of a motor winding exceeds the value of table 3, or		N/A
	if there is doubt with regard to classification of insulation,		N/A
	tests of Annex C are carried out		N/A
	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
	The temperature of the oil shall not exceed 225 °C, except (IEC 60335-2-13)		N/A

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	that a temperature of 243 °C is allowed for the first cycle of operation of the thermostat (IEC 60335-2-13)		N/A
	The temperature rise of parts of deep fat fryers likely to be contacted by spilt oil shall not exceed 275 K (IEC 60335-2-13)		N/A
	When an appliance connector incorporates a thermostat, the temperature rise limit for the pins of the inlet does not apply (IEC 60335-2-13)		P
13	LEAKAGE CURRENT AND ELECTRIC STRENGTH AT OPERATING TEMPERATURE		--
13.1	Leakage current not excessive and electric strength adequate		P
	Heating appliances operated at 1.15 times the rated power input (W) .....:	(see appended table)	P
	Motor-operated appliances and combined appliances supplied at 1.06 times the rated voltage (V).....:		N/A
	Protective impedance and radio interference filters disconnected before carrying out the tests		N/A
13.2	For class 0, class II and class III appliances, leakage current measured by means of the circuit described in figure 4 of IEC 60990		N/A
	For other appliances, a low impedance ammeter may be used		P
	Leakage current measurements .....:	(see appended table)	P
13.3	The appliance is disconnected from the supply		P
	Electric strength tests according to table 4.....:	(see appended table)	P
	No breakdown during the tests		P
15	MOISTURE RESISTANCE		--
15.2	Spillage of liquid does not affect the electrical insulation		P
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable		P
	Detachable parts are removed		P
	Overfilling test with additional amount of water, over a period of 1 min (l):	5,2x0,15=0,78 l	P
	The appliance withstands the electric strength test of 16.3		P

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	No trace of water on insulation that can result in a reduction of clearances or creepage distances below values specified in clause 29		P
15.3	Appliances proof against humid conditions		P
	Checked by test Cab: Damp heat steady state in IEC 60068-2-78		P
	Detachable parts removed and subjected, if necessary, to the humidity test with the main part		P
	Humidity test for 48 h in a humidity cabinet	23°C, 93%R.H	P
	Reassembly of those parts that may have been removed		P
	The appliance withstands the tests of clause 16		P
16	LEAKAGE CURRENT AND ELECTRIC STRENGTH		--
16.1	Leakage current not excessive and electric strength adequate		P
	Protective impedance disconnected from live parts before carrying out the tests		N/A
	Tests carried out at room temperature and not connected to the supply		P
16.2	Single-phase appliances: test voltage 1.06 times rated voltage (V):	254,4 V~	P
	Three-phase appliances: test voltage 1.06 times rated voltage divided by √3 (V):		N/A
	Leakage current measurements:	(see appended table)	P
	Limit values doubled if:		--
	- all controls have an off position in all poles, or		N/A
	- the appliance has no control other than a thermal cut-out, or		N/A
	- all thermostats, temperature limiters and energy regulators do not have an off position, or		N/A
	- the appliance has radio interference filters		N/A
	With the radio interference filters disconnected, the leakage current do not exceed limits specified:		N/A
16.3	Electric strength tests according to table 7:	(see appended table)	P
	Test voltage applied between the supply cord and inlet bushing and cord guard and cord anchorage as specified:	(see appended table)	P
	No breakdown during the tests		P
19	ABNORMAL OPERATION		--

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
19.1	The risk of fire, mechanical damage or electric shock under abnormal or careless operation obviated		P
	Electronic circuits so designed and applied that a fault will not render the appliance unsafe .....:		N/A
	Appliances incorporating heating elements subjected to the tests of 19.2 and 19.3, and		P
	if the appliance also has a control that limit the temperature during clause 11 it is subjected to the test of 19.4, and		N/A
	if applicable, to the test of 19.5		N/A
	Appliances incorporating PTC heating elements are also subjected to the test of 19.6		N/A
	Appliances incorporating motors subjected to the tests of 19.7 to 19.10, as applicable		N/A
	Appliances incorporating electronic circuits subjected to the tests of 19.11 and 19.12, as applicable		N/A
	Appliances incorporating contactors or relays subjected to the test of 19.14, being carried out before the tests of 19.11		N/A
	Appliances incorporating voltage selector switches subjected to the test of 19.15		N/A
	Unless otherwise specified, the tests are continued until a non-self-resetting thermal cut-out operates, or		P
	until steady conditions are established		P
	If a heating element or intentionally weak part becomes open-circuited, the relevant test is repeated on a second sample		N/A
	Deep fat fryers incorporating a thermal cut-out of the capillary type are also subjected to the test of 19.101 (IEC 60335-2-13)		N/A
	Deep fat fryers with detachable heating element are also subjected to the test of 19.102 (IEC 60335-2-13)		N/A
	Frying pans are not subjected to the tests of 19.4 and 19.5 (IEC 60335-2-13)		P
19.2	Test of appliances with heating elements with restricted heat dissipation; test voltage (V), power input of 0.85 times rated power input (W) :	206,1 V, 1399,8 W	P
	Deep fat fryers are filled with oil as described (IEC 60335-2-13)		N/A
	Frying pans are operated without oil in the container (IEC 60335-2-13)		P

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
19.3	Test of 19.2 repeated; test voltage (V), power input of 1.24 times rated power input (W) .....:		P
	Frying pans are tested at 1,15 times rated power input, the thermostat being adjusted to its highest setting. (IEC 60335-2-13)	261,6 V, 2253,9 W	P
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
	Compliance with clause 8 not impaired		P
	If the appliance can still be operated it complies with 20.2		N/A
	Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4:		--
	- basic insulation (V) .....:	1000V, 1min	P
	- supplementary insulation (V) .....:	1750V, 1min	P
	- reinforced insulation (V) .....:	3000V, 1min	P
	After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand 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		N/A
	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, or		N/A
	- if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4		N/A
	If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that:		--
	- the lid or door does not move automatically to an open position when the interlock is released, and		N/A
	- the appliance does not start after the cycle in which the interlock was released		N/A

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	The temperature of the oil in deep fat fryers and the temperature at the centre of the heated surface of frying pans shall not exceed 295 °C (IEC 60335-2-13)		N/A
	During the tests of 19.2 and 19.3, the temperature of the oil in deep fat fryers, shall not exceed 265 °C (IEC 60335-2-13)		N/A
	A temperature of 280 °C is allowed for the first cycle of operation of the thermostat (IEC 60335-2-13)		N/A
	A temperature rise of 200 K is allowed for the floor and the walls of the test corner during the first minute of the test of 19.102 (IEC 60335-2-13)		N/A
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		--
	Clearances, creepage distances and solid insulation withstand electrical stress		P
	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), Annex J applies .....:		N/A
	The microenvironment is pollution degree 1 under type 1 protection		N/A
	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3		N/A
	These values apply to functional, basic, supplementary and reinforced insulation.....:		N/A
29.1	Clearances not less than the values specified in table 16, taking into account the rated impulse voltage for the overvoltage categories of table 15, unless .....:	(see appended table)	P
	for basic insulation and functional insulation they comply with the impulse voltage test of clause 14		N/A
	However, if the distances are affected by wear, distortion, movement of the parts or during assembly, the clearances for rated impulse voltages of 1500V and above are increased by 0,5 mm and the impulse voltage test is not applicable		N/A
	Impulse voltage test is not applicable:		--
	- when the microenvironment is pollution degree 3, or		P
	- for basic insulation of class 0 and class 01 appliances		N/A
	Appliances are in overvoltage category II		P

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
29.1.1	Clearances of basic insulation withstand the overvoltages, taking into account the rated impulse voltage		P
	The values of table 16 or the impulse voltage test of clause 14 are applicable.....:	(see appended table)	P
	Clearance at the terminals of tubular sheathed heating elements may be reduced to 1,0 mm if the microenvironment is pollution degree 1		P
	Lacquered conductors of windings considered to be bare conductors		N/A
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in table 16:	(see appended table)	P
29.1.3	Clearances of reinforced insulation not less than those specified for basic insulation in table 16, using the next higher step for rated impulse voltage .....:	(see appended table)	P
	For double insulation, with no intermediate conductive part between basic and supplementary insulation, clearances are measured between live parts and the accessible surface, and the insulation system is treated as reinforced insulation		N/A
29.1.4	Clearances for functional insulation are the largest values determined from:		--
	- table 16 based on the rated impulse voltage .....:	(see appended table)	P
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		N/A
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If values of table 16 are largest, the impulse voltage test of clause 14 may be applied instead, unless		N/A
	the microenvironment is pollution degree 3, or		P
	the distances can be affected by wear, distortion, movement of the parts or during assembly		N/A
	However, clearances are not specified if the appliance complies with clause 19 with the functional insulation short-circuited		N/A
	Lacquered conductors of windings considered to be bare conductors		N/A
	However, clearances at crossover points are not measured		N/A

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	Clearance between surfaces of PTC heating elements may be reduced to 1mm		N/A
29.2	Creepage distances not less than those appropriate for the working voltage, taking into account the material group and the pollution degree.....:	(see appended table)	P
	Pollution degree 2 applies, unless		N/A
	- precautions taken to protect the insulation; pollution degree 1	End of heating elements	P
	- insulation subjected to conductive pollution; pollution degree 3		P
	A force of 2 N is applied to bare conductors, other than heating elements		P
	A force of 30 N is applied to accessible surfaces		P
	In a double insulation system, the working voltage for both the basic and supplementary insulation is taken as the working voltage across the complete double insulation system		P
	Pollution degree 3 applies, unless the insulation is enclosed or located so that it is unlikely to be exposed to pollution during normal use of the appliance (IEC 60335-2-13)		P
29.2.1	Creepage distances of basic insulation not less than specified in table 17.....:	(see appended table)	P
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 17.....:		N/A
	Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in table 16, if the clearance has been checked according to the test of clause 14 .....:		N/A
29.2.2	Creepage distances of supplementary insulation at least those specified for basic insulation in table 17, or .....:	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable .....:		N/A
29.2.3	Creepage distances of reinforced insulation at least double those specified for basic insulation in table 17, or .....:	(see appended table)	P
	Table 2 of IEC 60664-4, as applicable .....:		N/A
29.2.4	Creepage distances of functional insulation not less than specified in table 18.....:	(see appended table)	P

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 18.....:		N/A
	Creepage distances may be reduced if the appliance complies with clause 19 with the functional insulation short-circuited		N/A
29.3	Supplementary and reinforced insulation have adequate thickness, or a sufficient number of layers, to withstand the electrical stresses		P
	Compliance checked:		--
	- by measurement, in accordance with 29.3.1, or		P
	- by an electric strength test in accordance with 29.3.2, or		N/A
	- by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3, and		N/A
	for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		N/A
	- as specified in subclause 6.3 of IEC 60664-4 for insulation that is subjected to any periodic voltage having a frequency exceeding 30 kHz		N/A
29.3.1	Supplementary insulation have a thickness of at least 1 mm		P
	Reinforced insulation have a thickness of at least 2 mm		P
30	RESISTANCE TO HEAT AND FIRE		--
30.1	External parts of non-metallic material,		P
	parts supporting live parts, and		P
	parts of thermoplastic material providing supplementary or reinforced insulation		P
	sufficiently resistant to heat		P
	Ball-pressure test according to IEC 60695-10-2		P
	External parts tested at 40 °C plus the maximum temperature rise determined during the test of clause 11, or at 75 °C, whichever is the higher; temperature (°C).....:	(see appended table)	P

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	Parts supporting live parts tested at 40°C plus the maximum temperature rise determined during the test of clause 11, or at 125 °C, whichever is the higher; temperature (°C).....:	(see appended table)	P
	Parts of thermoplastic material providing supplementary or reinforced insulation tested at 25 °C plus the maximum temperature rise determined during clause 19, if higher; temperature (°C) .....:		N/A
30.2	Parts of non-metallic material resistant to ignition and spread of fire		P
	This requirement does not apply to:		--
	parts having a mass not exceeding 0,5 g, provided the cumulative effect is unlikely to propagate flames that originate inside the appliance by propagating flames from one part to another, or		P
	decorative trims, knobs and other parts unlikely to be ignited or to propagate flames that originate inside the appliance		P
	Compliance checked by the test of 30.2.1, and in addition:		P
	- for attended appliances, 30.2.2 applies		P
	- for unattended appliances, 30.2.3 applies		N/A
	For appliances for remote operation, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		N/A
	For frying pans, 30.2.2 applies (IEC 60335-2-13)		P
	For deep fat fryers, 30.2.3 applies (IEC 60335-2-13)		N/A
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C	(see appended table)	P
	However, test not carried out if the material is classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least 550 °C, or		N/A
	the material is classified at least HB40 according to IEC 60695-11-10		N/A
	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF		N/A
30.2.2	Appliances operated while attended, parts of non-metallic material supporting current-carrying connections, and		P
	parts of non-metallic material within a distance of 3mm of such connections,		N/A

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict
	subjected to the glow-wire test of IEC 60695-2-11		N/A
	The test severity is:		--
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation	(see appended table)	P
	- 650 °C, for other connections		N/A
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	The glow-wire test is not carried out on parts of material classified as having a glow-wire flammability index according to IEC 60695-2-12 of at least:		--
	- 750 °C, for connections carrying a current exceeding 0,5 A during normal operation		N/A
	- 650 °C, for other connections		N/A
	The glow-wire test is also not carried out on small parts. These parts are to:		--
	- comprise material having a glow-wire flammability index of at least 750 °C, or 650 °C as appropriate, or		N/A
	- comply with the needle-flame test of Annex E, or		N/A
	- comprise material classified as V-0 or V-1 according to IEC 60695-11-10 .....:		N/A
	Glow-wire test not applicable to conditions as specified .....:		N/A

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

10.1	TABLE: Power input deviation				P
Input deviation of/at:	**P rated (W)**	**P measured (W)**	**Δ P**	**Required Δ P**	**Remark**
162367	1800	1765	-1,9%	-10% - +5%	230V~, 50-60Hz
Supplementary information:					

11.8	TABLE: Heating test (With lid closed)		P
	Test voltage (V).....:	261,6	—
	Ambient (°C).....:	22	—

Thermocouple locations	Max. temperature rise measured, Δ T (K)	Max. temperature rise limit, Δ T (K)
Supply cord	22,5	50
Internal wire	33,5	50
Ambient of thermostat	23,4	100(T125)
Thermostat knob	21,2	60
Surface around knob	18,7	60
Grip of lid	23,4	60
Metal handle	16,1	35
Plastic shroud around inlet pin	18,1	For CI.30
Enclosure of connector	36,4	For CI.30
Enclosure of frying pan	40,9	For reference
Center of heated surface	176,9	For reference
Test corner	26,6	65

13.2	TABLE: Leakage current		P
	Heating appliances: 1.15 x rated input (W) ..:	2253,9	—
	Motor-operated and combined appliances: 1.06 x rated voltage (V).....:	--	—

Leakage current between	I (mA)	Max. allowed I (mA)
L/N – Earthing metal parts	0,037	0,75
L/N – Switch/knob/handle	0,010	0,35peak

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Basic insulation		1000	No
Supplementary insulation		1750	No
Reinforced insulation		3000	No
Supplementary information:			

16.2	TABLE: Leakage current		P
	Single phase appliances: 1.06 x rated voltage (V):	254,4	—
	Three phase appliances 1.06 x rated voltage divided by √3 (V):	--	—
Leakage current between		**I (mA)**	**Max. allowed I (mA)**
L/N – Earthing metal parts		0,098	0,75
L/N – Switch/knob/handle		0,027	0,25
Supplementary information:			

16.3	TABLE: Dielectric strength		P
Test voltage applied between:		**Test potential applied (V)**	**Breakdown / flashover (Yes/No)**
Basic insulation		1250	No
Supplementary insulation		1750	No
Reinforced insulation		3000	No
Supplementary information:			

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

19	Abnormal operation conditions	P

Operational characteristics	YES/NO	Operational conditions
Are there electronic circuits to control the appliance operation?	NO	N.A
Are there “off” or “stand-by” position?	YES	Manual operation
The unintended operation of the appliance results in dangerous malfunction?	NO	N.A

Sub-clause	Operating conditions description	Test results description	PEC description	EMP 19.11.4	Software type required	19.11.3 PEC	Final result
19.2	Refer to Cl.19.2	No hazard	N.A	N.A	N.A	N.A	P
19.3	Refer to Cl.19.3	No hazard	N.A	N.A	N.A	N.A	P

Supplementary information: N/A

19.13	TABLE: Abnormal operation, temperature rises	P

Thermocouple locations	Max. temperature rise measured, Δ T (K)	Max. temperature rise limit, Δ T (K)
19.2 & 19.3		
Wall and floor of the test corner	28,9	150
Power cord	22,4	150
Plastic shround around inlet pin	17,3	For Cl.30
Enclosure of connector	47,9	For Cl.30
Center of heated surface	224,9°C	295°C

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

29.1	TABLE: Clearances					P
	Overvoltage category .... :		II			—
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic (mm)	Supplementary (mm)	Reinforced (mm)	Functional (mm)	Verdict / Remark
330	0,2* / 0,5 / 0,8**					N/A
500	0,2* / 0,5 / 0,8**					N/A
800	0,2* / 0,5 / 0,8**					N/A
1 500	0,5 / 0,8** / 1,0***					N/A
2 500	**1,5** / 2,0***	>2,0	>2,0		>2,0	P
4 000	**3,0** / 3,5***			>3,9		P
6 000	5,5 / 6,0***					N/A
8 000	8,0 / 8,5***					N/A
10 000	11,0 / 11,5***					N/A

Supplementary information:

***) For tracks on printed circuit boards if pollution degree 1 and 2**
****) For pollution degree 3**
*****) If the construction is affected by wear, distortion, movement of the parts or during assembly**

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	**Creepage distance (mm) Pollution degree**										
	1	**2**			**3**			**Type of insulation**			
		Material group			**Material group**						
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	**B****	**S****	**R****	**Verdict**
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9		—	—	N/A
≤50	0,18	0,6	0,85	1,2	1,5	1,7	1,9	—		—	N/A
≤50	0,36	1,2	1,7	2,4	3,0	3,4	3,8	—	—		N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4		—	—	N/A
125	0,28	0,75	1,05	1,5	1,9	2,1	2,4	—		—	N/A
125	0,56	1,5	2,1	3,0	3,8	4,2	4,8	—	—		N/A
250	**0,56**	1,25	1,8	2,5	3,2	3,6	**4,0**	2,4/ >5,2	—	—	P
250	0,56	1,25	1,8	2,5	3,2	3,6	**4,0**	—	>5,2	—	P
250	1,12	2,5	3,6	5,0	6,4	7,2	**8,0**	—	—	>10,4	P
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3		—	—	N/A
400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—		—	N/A
400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—		N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0		—	—	N/A
500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—		—	N/A
500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—		N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0		—	—	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—		—	N/A
>630 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—		N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5		—	—	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—		—	N/A
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—		N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0		—	—	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—		—	N/A
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—		N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0		—	—	N/A

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—		—	N/A
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—		N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0		—	—	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—		—	N/A
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—		N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0		—	—	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—		—	N/A
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—		N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0		—	—	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—		—	N/A
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—		N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0		—	—	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—		—	N/A
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—		N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0		—	—	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—		—	N/A
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—		N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0		—	—	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—		—	N/A
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—		N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0		—	—	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—		—	N/A
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—		N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0		—	—	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—		—	N/A
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—		N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0		—	—	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—		—	N/A
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—		N/A

Supplementary information:

***) Material group IIIb is allowed if the working voltage does not exceed 50 V**
****) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation**

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

29.2	TABLE: Creepage distances, functional insulation							P
Working voltage (V)	**Creepage distance (mm) Pollution degree**							
	1	**2**			**3**			
		Material group			**Material group**			
		I	**II**	**IIIa/IIIb**	**I**	**II**	**IIIa/IIIb***	**Verdict / Remark**
≤10	0,08	0,4	0,4	0,4	1,0	1,0	1,0	N/A
50	0,16	0,56	0,8	1,1	1,4	1,6	1,8	N/A
125	0,25	0,71	1,0	1,4	1,8	2,0	2,2	N/A
250	0,42	1,0	1,4	2,0	2,5	2,8	**3,2**	P(>4,0)
400	0,75	1,6	2,2	3,2	4,0	4,5	5,0	N/A
500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A
>630 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N/A
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N/A
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N/A
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N/A
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N/A
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N/A
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N/A
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N/A
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N/A
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N/A
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N/A
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N/A
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	N/A

Supplementary information:

***) Material group IIIb is allowed if the working voltage does not exceed 50 V**

IEC 60335-2-13			
Clause	Requirement - Test	Result - Remark	Verdict

30 **TABLE: Resistance to heat and fire**

Object/ part No.	Manufacturer/ trademark	Type/ model	Ball pressure test °C				Glow wire test (GWT) °C					Glow-wire flammability index (GWFI) °C				Glow- wire ignition temp. (GWIT) °C		Needle-flame test (NFT)	Verdict
			75	125	cl. 11 +40	cl. 19 +25	550	650		750		850	550	650	750	850	675	775		
								te	ti	te	ti									
Plastic shroud around inlet pin	Refer to table 24.1	Refer to table 24.1	75° C (1,0 mm)				X													P
Enclosure of connector	Same as above	Same as above		125 °C (1,2 mm)						NI	NI									P

Supplementary information:

[1] Parts of material classified at least HB40 or if relevant HBF
[2] Parts of material classified as V-0 or V-1
[3] Flame persisting longer than 2 s (= te – ti) need only be reported for unattended appliances
[4] Surrounding parts subjected to the needle-flame test of annex E
[5] Base material classified as V-0 or if relevant VTM-0
[6] The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not applicable for attended appliances
[7] NI: No ignition.

IEC60335_2_13G - ATTACHMENT			
Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-2-13
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Safety of household and similar electrical appliances
Part 2: Particular requirements for deep fat fryers, frying pans and similar appliances

Differences according to.....:	EN 60335-2-13:2010 + A11:2012 used in conjunction with EN 60335-1:2012 + A11:2014 EN 62233:2008
Attachment Form No.....:	EU_GD_IEC60335_2_13G
Attachment Originator .....:	IMQ S.p.A.
Master Attachment.....:	Dated 2015-06

	ANNEX EN 62233:2008		
	EMF- ELECTROMAGNETICS FIELDS		
	The tested product also complies with the requirements of EN 62233:2008		P
	Limit ……..……100 %	Measured max. : <10%	P

IEC60335_2_13G - ATTACHMENT			
Clause	Requirement - Test	Result - Remark	Verdict

	CENELEC COMMON MODIFICATIONS (EN)		
11.8	During the test, the temperature rises are monitored continuously and shall not exceed the values shown in table 3 and table Z101 in accordance with 11.Z101 (EN 60335-2-13/A11)	(see appended table)	P
11.Z101	The appliance is supplied at rated power and operated under normal operation (EN 60335-2-13/A11)		P
15.1.2	Appliances with an automatic cord reel tested with the cord in the most unfavourable position so that the reeling of the wet cord may affect electrical insulation during operation, the cord not being dried before reeling		N/A

11.Z101	TABLE: Temperature rise limits of external enclosure		P
	Test voltage (V) ..... :	246,4	—
	Ambient (^{o}C) ..... :	22	—

Surface	**Max. temperature rise measured, ΔI (K)**	**Max. temperature rise limit, ΔI (K) [d], [e]**
Accessible metal surface (Probe 41)	46,6	45x2
Plastic surface (25mm away from hot functional surface)	40,9	65

Photo 1.

Description: Over view of 162367

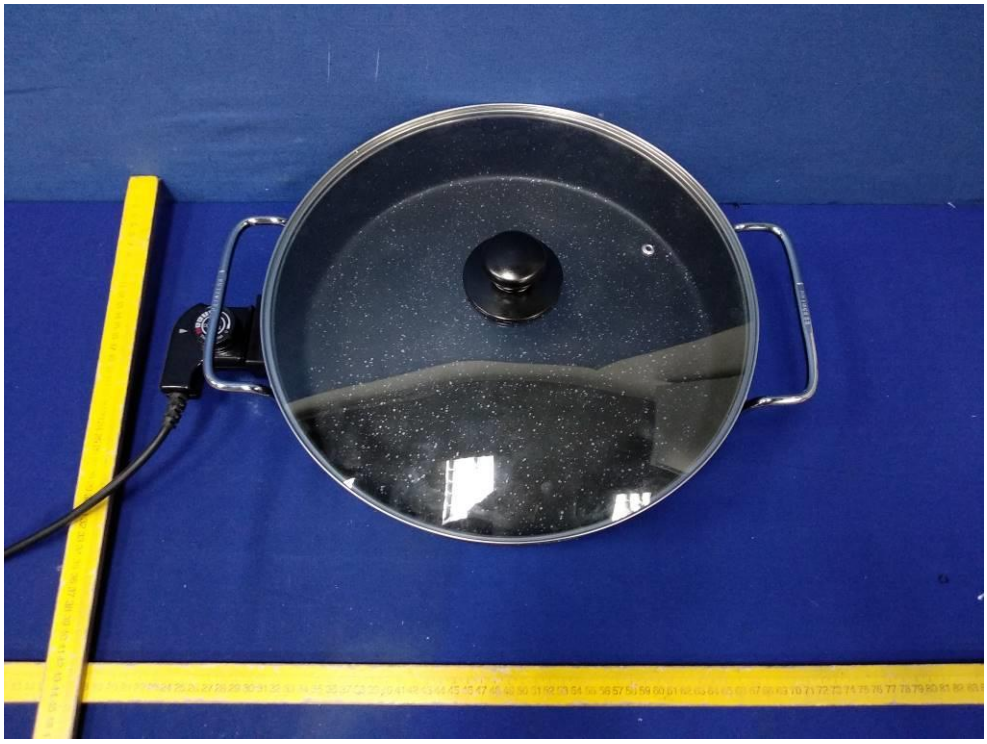

Photo 2.

Description: Top view of 162367

Photo 3.

Description: Front view of 162367

Photo 4.

Description: Side view of 162367

Photo 5.

Description: Rear view of 162367

Photo 6.

Description: Side view of 162367

Photo 7.

Description: Bottom view of 162367

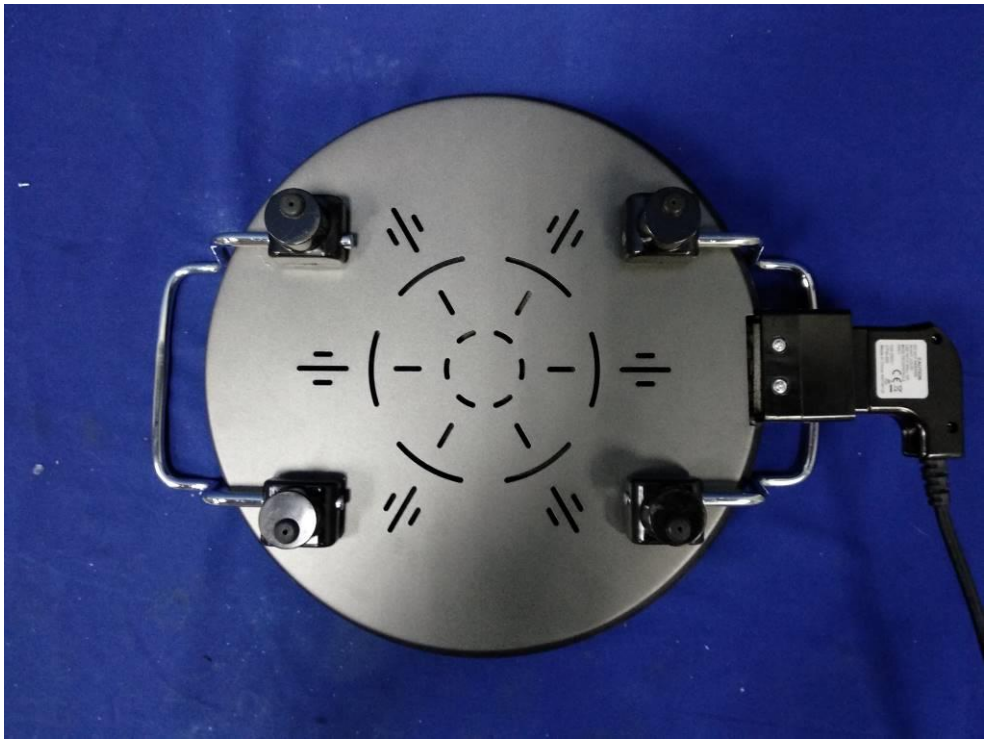

Photo 8.

Description: Internal view of 162367

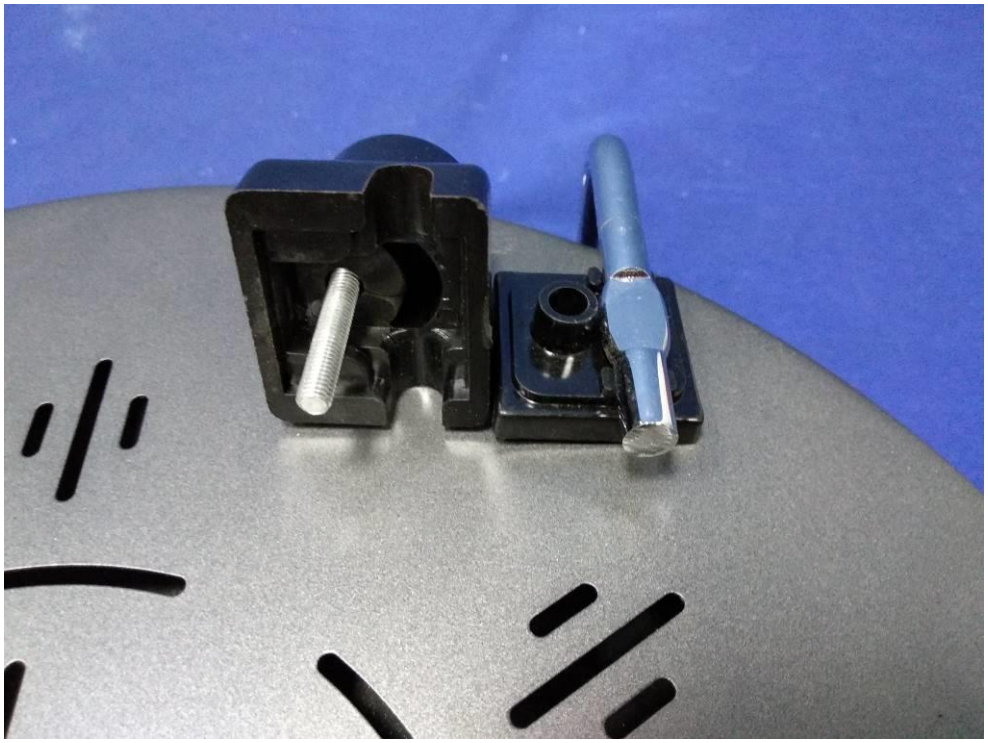

Photo 9.

Description: Internal view of 162367

Photo 10.

Description: Earthing view of 162367