Test Report issued under the responsibility of:

SGS Fimko Ltd.

TEST REPORT
IEC 60335-2-40
Safety of household and similar electrical appliances
Part 2-40: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers

Report Number..... :	GZES141101339802A1
Date of issue ..... :	2014-12-25, Amendment 1: 2016-04-25
Total number of pages..... :	50
Applicant's name ..... :	United International Co., Ltd.
Address ..... :	12 Floor, 520, Section 4, Ren Ai Road, Taipei, Taiwan
Test specification:	
Standard ..... :	IEC 60335-2-40:2002 (Fourth Edition) + A1:2005 (incl. Corr.1:2006) + A2:2005 in conjunction with IEC 60335-1:2010 (Fifth Edition)
Test procedure ..... :	CB Scheme
Non-standard test method..... :	N/A
Test Report Form No. ..... :	IEC60335_2_40G
Test Report Form(s) Originator..... :	VDE
Master TRF ..... :	Dated 2013-05

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Test item description ..... :	Dehumidifier
Trade Mark ..... :	**air master**
Manufacturer ..... :	Zhongshan Lianchang Co., Ltd. 72 Changjiang Road, Zhongshan, Guangdong, China
Model/Type reference ..... :	PDx-PAyz (x=10, 12, 16, 20; y=E, M1, RB, z=Blank, T (when x=16, 20; y=E, M1))
Ratings ..... :	220 V– 240 V; 50 Hz; PD10 series: 250 W; PD12 series: 260 W; PD16 series: 410 W(PD16-PAET, PD16-PAM1T: 850 W (heating function)); PD20 series: 480 W(PD20-PAET, PD20-PAM1T, 950 W(heating function));

Testing procedure and testing location:		
☒	CB Testing Laboratory:	SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch
Testing location/ address.....:		Building 1, European Industrial Park, No.1, Shunhenan Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China
☐	Associated CB Testing Laboratory:	
Tested by (name + signature) .....:		Elaine Gao
Approved by (name + signature).....:		Mike Liu
☐	Testing procedure: TMP	N/A
Testing location/ address.....:		
Tested by (name + signature) .....:		
Approved by (name + signature).....:		
☐	Testing procedure: WMT	N/A
Testing location/ address.....:		
Tested by (name + signature) .....:		
Witnessed by (name + signature) Testing location/ address .....: .....:		
Approved by (name + signature).....:		
☐	Testing procedure: SMT	N/A
Testing location/ address.....:		
Tested by (name + signature) .....:		
Approved by (name + signature).....:		
Supervised by (name + signature) .....:		

List of Attachments:

Attachment 2: 1 page of photo document.
Attachment 3: 1 page of circuit diagram document.
Attachment 4: 1 page of EN 60335-1: 2012 / A11: 2014.
Attachment 5: 12 pages of IEC 60335-1: 2010/ A1: 2013.

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
Tests according to the following standards were carried out: IEC 60335-2-40: 2002 + A1: 2005 + A2: 2005 IEC 60335-1: 2010 + A1: 2013 EN 60335-2-40: 2003 + A11: 2004 + A12: 2005 + A1: 2006 + A2: 2009 + A13: 2012 EN 60335-1: 2012 + A11: 2014 EN 62233: 2008 After reviewing, PD20-PAET subjected to the test of clause 10, 11, 13, 15, 16, 19, 22, 29 and 30. The submitted sample complied with above standards	See page 2.

Summary of compliance with National Differences

Including CENELEC common modifications and national differences for Germany.
Requirements in German legislation ProdSG and EK decisions for electrical equipment have been taken into account. Risk analysis and evaluation for PAH has been performed (ref. AfPS GS 2014:01 PAK, EK 1 601-15).

Copy of marking plate:

N/A

Remark:

1. As declared by the applicant, the importer (and manufacturer, if it is different)'s name, registered trade name or registered trade mark and the postal address will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities.

2. Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.

Test item particulars ..... :	
Classification of installation and use ..... :	Portable appliance
Supply Connection ..... :	Non-detachable cord fixed 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 ..... :	2016-04-14
Date (s) of performance of tests ..... :	2016-04-14 to 2016-04-25

General remarks:

The test results presented in this report relate only to the object tested.
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"(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.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 3 months only.

This TRF includes an appendix EMF containing the IEC/EN 62233 requirements (see below).
IEC 62233:2005 (1. Edition)
EN 62233:2008 (incl. Corr.1:2008)

This test report GZES141101339802A1 was not valid without use conjunction with the original test report GZES141101339801.

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 manufacturer

General product information:

The appliance is for household and indoor use only, refrigerant is R134A. The appliances have dehumidification function.
PDx-PAyz series models have similar construction and similar appearance.
x= 10, 12, 16, 20. It denotes different dehumidification capacity.
y = E, M1, RB. It denotes different control type, E and M1 denote electronic type, RB denote mechanical type.
z =T or Blank. T denotes the appliances with PTC element ; Blank denotes the appliance without PTC element.
PD10-Pay, PD12-Pay and PD16-Payz, PD20-PAyz have different air duct system
Details as follows:

Electronic type (main PCB of without transformer		Electronic type (main PCB of with transformer)		Mechanical type	Other
Without PTC	With PTC	Without PTC	With PTC	Without PTC	--
PD10-PAE	--	PD10-PAM1	--	PD10-PARB	Compressor, fan motor and air duct system
PD12-PAE	--	PD12-PAM1	--	PD12-PARB	Same as PD10 series except the refrigerant mass
PD16-PAE	PD16-PAET	PD16-PAM1	PD16-PAM1T	PD16-PARB	Same as PD 20 series except for the Compressor, fan motor
PD20-PAE	PD20-PAET	PD20-PAM1	PD20-PAM1T	PD20-PARB	Compressor, fan motor and air duct system

Amendment 1:
The original Test Report Ref. No. GZES141101339801, dated on 2014-12-25 was modified on 2016-04-25 to include the following changes:
1. Added alternative main PCB for PDx-PAM1z and PDx-PAEz;
2. Updated the standard to IEC 60335-1: 2010 / A1: 2013;
3. Updated the standard to EN 60335-1: 2012 / A11: 2014.

After reviewing, PD20-PAET subjected to the test of clause 10, 11, 13, 15, 16, 19, 22, 29 and 30.

IEC 60335-2-40			
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
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 carried out at upper and lower limits of the ranges for appliances with one or more rated voltage ranges, unless		N/A
	the rated current is related to the arithmetic mean value of the range		N/A
11	HEATING		--
11.1	No excessive temperatures in normal use (IEC 60335-2-40)		P
	Compliance is checked by the tests of annex C, if (IEC 60335-2-40):		--
	- temperature of motor winding exceeds values shown in table 3 (IEC 60335-2-40)		N/A
	- there is doubt about classification of insulation system of the motor (IEC 60335-2-40)		N/A
11.2	Placing and mounting of appliance (IEC/EN 60335-2-40):		--
	- clearances to adjacent surfaces (IEC 60335-2-40);		P
	- flow rates for liquid source or sink equipment be minimum, except for fan coils where flow rates and liquid temperatures be maximum (IEC 60335-2-40/A2);		N/A
	- static pressures (IEC 60335-2-40);		N/A
	- means of adjusting the flow, flow for tests be minimum obtainable (IEC 60335-2-40);		P
	- adjustable limit controls set at maximum cut-out setting and minimum differential (IEC 60335-2-40).		P
	Appliances with supplementary heaters, use test casing of clause 11.9 (IEC 60335-2-40)		N/A
11.2.1	Appliances with supplementary heaters, inlet duct connected to inlet air opening (IEC 60335-2-40)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
11.2.2	Appliance without supplementary heaters, air outlet used (IEC 60335-2-40)		N/A
11.3	Temperature rise determine by thermocouples or resistance method (IEC 60335-2-40)		P
11.4	Test performed at supply voltage between 0,94 and 1,06 times the rated voltage (IEC 60335-2-40)	1,06 x 240 V= 254,4 V	P
	Heating elements energized at voltage which gives an electrical input of 1,15 times maximum rated power input (IEC 60335-2-40)	$1,15^{1/2}$ x 240 V= 257,4 V	P
11.5	Test conducted in heating mode and cooling mode, if both exist (IEC 60335-2-40)		N/A
	All supplementary heating elements operative simultaneously (IEC 60335-2-40)	PTC	P
11.6	Defrost test in most unfavourable conditions, if needed (IEC/EN 60335-2-40)		N/A
11.7	Appliances operated continuously until steady conditions except for defrost tests (IEC 60335-2-40)		P
11.8	Temperatures not exceeding values of table 3 (IEC 60335-2-40/A2)	(See appended tables)	P
	Protective devices do not operate (IEC 60335-2-40)		P
	Sealing compound not flowing out (IEC 60335-2-40)		P
	Temperature of air in outlet duct not exceed 90 °C (IEC 60335-2-40)		P
11.9	Test casing and installation of appliances in accordance with manufacturer's instructions (IEC 60335-2-40)		P
	Glass fibre insulation for appliances without indication of minimum clearances according to manufacturer; thermocouple in contact with enclosure (IEC 60335-2-40)		N/A
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).....:		N/A
	Motor-operated appliances and combined appliances supplied at 1,06 times the rated voltage (V).....:	254,4 V/257,4 V	P
	Protective impedance and radio interference filters disconnected before carrying out the tests		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
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 .....: (IEC 60335-2-40)	(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		--
15.1	Enclosure provides degree of moisture protection against ingress of water (rain, overflow from drain pan or defrosting), tests of clause 15.2, 15.3, 11.6 and 16) (IEC 60335-2-40)		P
	Motor-compressor not operated and detachable parts removed during tests of clause 15.2 and 15.3 (IEC 60335-2-40/A2)		P
15.1.1	Appliances, other than IPX0, subjected to tests as specified in IEC 60529 .....:		N/A
	Water valves containing live parts in external hoses for connection of an appliance to the water mains tested as specified for IPX7 appliances		N/A
15.1.2	Hand-held appliance turned continuously through the most unfavourable positions during the test		N/A
	Built-in appliances installed according to the instructions		N/A
	Appliances placed or used on the floor or table placed on a horizontal unperforated support		N/A
	Appliances normally fixed to a wall and appliances with pins for insertion into socket-outlets are mounted on a wooden board		N/A
	For IPX3 appliances, the base of wall mounted appliances is placed at the same level as the pivot axis of the oscillating tube		N/A
	For IPX4 appliances, the horizontal centre line of the appliance is aligned with the pivot axis of the oscillating tube, and		N/A
	for appliances normally used on the floor or table, the movement is limited to two times 90° for a period of 5 min, the support being placed at the level of the pivot axis of the oscillating tube		N/A
	Wall-mounted appliances, take into account the distance to the floor stated in the instructions		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliances normally fixed to a ceiling are mounted underneath a horizontal unperforated support, the pivot axis of the oscillating tube located at the level of the underside of the support, and		N/A
	for IPX4 appliances, the movement of the tube is limited to two times 90° from the vertical for a period of 5 min		N/A
	Appliances with type X attachment fitted with a flexible cord as described		N/A
	Detachable parts subjected to the relevant treatment with the main part		N/A
	However, if a part has to be removed for user maintenance and a tool is needed, this part is not removed		N/A
15.2	Tests in accordance with IEC 60529 in appliances other than IPX0, as specified (IEC 60335-2-40) ...:		N/A
15.3	Drain pan filled to brim and subjected to continuous overflow and fan(s) switched on (IEC 60335-2-40)		P
15.101	Spillage test as specified (IEC 60335-2-40/A2)		P
	After spillage completed, appliance withstand test of clause 16 (IEC 60335-2-40/A2)		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).....:	1,06 x 240 V= 254,4 V	P
	Three-phase appliances: test voltage 1,06 times rated voltage divided by √3 (V) .....:		N/A
	Leakage current measurements .....: (IEC 60335-2-40)	(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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	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		--
19.1	The risk of fire or mechanical damage under abnormal or careless operation obviated (tests 19.2-19.14) (IEC 60335-2-40)		P
	Failure of transfer medium flow or of any control device not result in a hazard (IEC 60335-2-40)		P
	Electronic circuits so designed and applied that a fault will not render the appliance unsafe (electric shock, fire or mechanical hazard, dangerous malfunction) (test 19.11 and 19.12) (IEC 60335-2-40)		P
19.2	Test of appliance with motor rotors, other than motor-compressors, operated for 15 days (360 h) or until protection device opens circuit (IEC 60335-2-40)		P
	Insulation of motor windings (IEC 60335-2-40).....:		P
	Temperature of enclosure does not exceed (°C) (IEC 60335-2-40).....:	150 °C	P
	Temperature of the windings does not exceed the values shown in the table ; temperature (°C) (IEC 60335-2-40).....:	(See appendix table)	P
	Electric strength test as specified in 16.3, 72 h after the beginning of the test (IEC 60335-2-40)		P
	30 mA residual current device does not open (IEC 60335-2-40)		P
	At the end, leakage current between windings and enclosure does not exceed 2 mA (IEC 60335-2-40)		P
19.3	Motor-compressor complies with IEC 60335-2-34 (IEC 60335-2-40)		P
	Test of motor-compressor with rotor locked as specified in clause 19.101 of IEC 60335-2-34 and comply with 19.104 of that standard (IEC 60335-2-40)		N/A
19.4	Test of three-phase motors operated under conditions of clause 11 with one phase disconnected until steady conditions or protective device operates (IEC 60335-2-40)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
19.5	Test of appliance with heat transfer medium flow of the outdoor heat exchanger restricted or shut off when reaching steady conditions (IEC 60335-2-40)		P
	Test of appliance with heat transfer flow of the indoor heat exchanger restricted or shut off when reaching steady conditions (IEC 60335-2-40)		P
	Disconnection of motor common to both the outdoor and the indoor heat exchangers when reaching steady conditions (IEC 60335-2-40)		P
19.6	Test of appliances using water as heat transfer medium (IEC 60335-2-40)		N/A
19.7	Test of air to air appliances at rated voltage or at the upper limit of the rated voltage range. Dry-bulb temperature is 5 K below values specified by manufacturer (IEC 60335-2-40)		P
	Test with the dry-bulb temperature 10 K over the values specified by manufacturer (IEC 60335-2-40)		P
19.8	Test of appliances with supplementary heaters (IEC 60335-2-40)		P
19.9	Test at temperature permitting continuous operation of the motor-compressor and electric heating elements at same time (IEC 60335-2-40)		N/A
19.10	Test of appliance with any defect which expected during normal use (IEC 60335-2-40)		P
19.10.101	Test of clause 19.10 repeated on class 0I appliances and class I appliances incorporating tubular sheathed or embedded heating elements (IEC 60335-2-40/A2)		N/A
	However, controls not short-circuited but one end of element connected to sheath of heating element (IEC 60335-2-40/A2)		N/A
	Test repeated with polarity of supply to appliance reversed and with other end of element connected to sheath (IEC 60335-2-40/A2)		N/A
	Test not carried out on appliances intended to permanently connected to fixed wiring and on appliances where an all-pole disconnection occurs during test of clause 19.10 (IEC 60335-2-40/A2)		N/A
19.11	Electronic circuits, compliance checked by evaluation of the fault conditions specified in clause 19.11.2 for all circuits or parts of circuits (IEC 60335-2-40), unless		P
	they comply with conditions specified in clause 19.11.1 (IEC 60335-2-40)		P
	Windings temperature not exceeding values shown in table 8 (IEC 60335-2-40)		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Appliance comply with conditions of clause 19.14 (IEC 60335-2-40)		P
	Appliance withstands test: a conductor becomes open circuited and three conditions are met (IEC 60335-2-40)		P
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 following conditions (IEC 60335-2-40):		--
	- electronic circuit is low-power circuit, that is, maximum power at low-power points not exceed 15 W according to tests specified (IEC 60335-2-40)		P
	- protection against electric shock, fire hazard, mechanical hazard or dangerous malfunction in other parts of appliance does not rely on correct functioning of electronic circuit (IEC 60335-2-40)		P
19.11.2	Fault conditions applied one at a time, appliance operated under conditions specified in clause 11, but supplied at rated voltage, duration of tests as specified (IEC 60335-2-40):		--
	a) short circuit of creepage distances and clearances between live parts of different potential, if these distances less than values specified in clause 29.1, unless relevant part is adequately encapsulated (IEC 60335-2-40)		N/A
	b) open circuit at terminals of any component (IEC 60335-2-40)		P
	c) short circuit if capacitors, unless they comply with IEC 60384-14 (IEC 60335-2-40)		P
	d) short circuit of any two terminals of an electronic component, other than integrated circuits. This fault condition not applied between circuits of an optocoupler (IEC 60335-2-40)		P
	e) failure of triacs in diode mode (IEC 60335-2-40)		N/A
	f) failure of an integrated circuit. Possible hazardous situations of appliance assessed to ensure that safety not rely on correct functioning of such component (IEC 60335-2-40)		P
	Short-circuit of low-power circuits (IEC 60335-2-40)		P
	Duration of tests (IEC 60335-2-40):		--
	- as specified in clause 11.7 but only for one operating cycle, if fault cannot recognised by user (IEC 60335-2-40);		N/A
	- as specified in clause 19.2, if fault can recognised by user (IEC 60335-2-40);		N/A
	- until steady conditions stablished (IEC 60335-2-40).		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Test ended if interruption of supply occurs within the appliance (IEC 60335-2-40)		P
	If electronic circuit operates to ensure compliance with clause 19, relevant test repeated with single fault a) to f) simulated (IEC 60335-2-40)		N/A
	Fault condition f) applied to encapsulated or similar components (IEC 60335-2-40)		N/A
	PTC's, NTC's and VDR's resistors not short-circuited if used as specified by manufacturer (IEC 60335-2-40)		P
19.12	If safety of appliance for any of fault conditions specified in clause 19.11.2 depends on operation of miniature fuse-link complying with IEC 60127, test repeated with fuse-link replaced by an ammeter (IEC 60335-2-40)		P
	Current ≤ 2,1 times rated current of fuse-link, circuit not adequately protected (fuse-link short-circuited) (IEC 60335-2-40)		N/A
	Current ≥ 2,75 times rated current of fuse-link, circuit adequately protected (IEC 60335-2-40)		P
	Current ≥ 2,1 and ≤ 2,75 times rated current, fuse-link short-circuited and test carried out during specified time (IEC 60335-2-40)		N/A
19.13	Appliances with PTC heating elements test as specified (IEC 60335-2-40)		P
19.14	During tests of clause 19.2 to 19.10.101 and 19.11, 19.12 and 19.13 if appropriate, appliances not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts (IEC 60335-2-40/A2)		P
	Enclosures not deform (IEC 60335-2-40)		P
	Temperature rise not exceed values shown in table 9 (IEC 60335-2-40)	(See appended table)	P
	Electric strength test, test voltage as specified in table 4 (IEC 60335-2-40)		P
19.15	For appliances with a mains voltage selector switch, the switch is set to the lowest rated voltage position and the highest value of rated voltage is applied		N/A
19.101	All appliances provided with supplementary heaters and free air discharge subjected to specified test in each mode of operation (IEC 60335-2-40/A2)		P
	During test temperature not exceed 150 °C but an overshoot of 25 °C is permitted during first hour (IEC 60335-2-40/A2)		P
22	CONSTRUCTION		--

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled		N/A
22.2	Stationary appliance: means to ensure all-pole disconnection from the supply being provided:		--
	- a supply cord fitted with a plug, or		N/A
	- a switch complying with 24.3, or		N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or		N/A
	- an appliance inlet		N/A
	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Applied torque not exceeding 0,25 Nm		N/A
	Pull force of 50 N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1 mm		N/A
	Each pin subjected to a torque of 0,4 Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		P
22.5	No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance exceeding 0,1 μF, the appliance being disconnected from the supply at the instant of voltage peak		P
	Voltage not exceeding 34 V (V) .....:	12 V	P
22.6	Electrical insulation not affected by condensing water or leaking liquid		P
	Electrical insulation of class II appliances not affected if a hose ruptures or seal leaks		P
	In case of doubt, test as described		N/A
	Electrical insulation not affected by snow penetration to appliance enclosure (IEC 60335-2-40)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		N/A
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use		P
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		P
	the substance has adequate insulating properties		N/A
22.10	Not possible to reset voltage-maintained non-self-resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N/A
	- a non-self-resetting thermal cut-out is required by the standard, and		N/A
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A
	Non-self-resetting thermal motor protectors have a trip-free action, unless		N/A
	they are voltage maintained		N/A
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely		N/A
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		P
	Obvious locked position of snap-in devices used for fixing such parts		N/A
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		N/A
	Tests as described		P
22.12	Handles, knobs etc. fixed in a reliable manner		P
	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible		P
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		P
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		P
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		P
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		P
22.15	Storage hooks and the like for flexible cords smooth and well rounded		N/A
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts		N/A
	Cord reel tested with 6000 operations, as specified		N/A
	Electric strength test of 16.3, voltage of 1000 V applied		N/A
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N/A
22.18	Current-carrying parts and other metal parts resistant to corrosion		P
22.19	Driving belts not relied upon to provide the required level of insulation, unless		N/A
	constructed to prevent inappropriate replacement		N/A
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		N/A
	material used is non-corrosive, non-hygroscopic and non-combustible		N/A
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		P
	impregnated		N/A
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		N/A
22.22	Appliances not containing asbestos		P
22.23	Oils containing polychlorinated biphenyl (PCB) not used		P
22.24	Bare heating elements adequately supported to prevent contact with accessible metal parts in case of rupture or sagging (IEC 60335-2-40)		N/A
	Bare heating elements only used with metal enclosures (wood or composite enclosures not allowed) (IEC 60335-2-40)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts		N/A
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		N/A
22.27	Parts connected by protective impedance separated by double or reinforced insulation		N/A
22.28	Metal parts of class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation		N/A
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N/A
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		P
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		N/A
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		P
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29		P
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N/A
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A
	Insulating material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts		P
	Electrodes not used for heating liquids		N/A
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		P
	the reinforced insulation consists of at least 3 layers		N/A
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless		N/A
	the reinforced insulation consists of at least 3 layers		N/A
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		P
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		P
	the shaft is not accessible when the part is removed		N/A
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		P
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A
	This requirement does not apply to handles, levers and knobs on stationary appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N/A
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		N/A
	they are separated from live parts by double or reinforced insulation		N/A
22.37	Capacitors in class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless		N/A
	the capacitors comply with 22.42		N/A
22.38	Capacitors not connected between the contacts of a thermal cut-out		P
22.39	Lamp holders used only for the connection of lamps		N/A
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible		N/A
	If the appliance can operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible		N/A
22.41	No components, other than lamps, containing mercury		P
22.42	Protective impedance consisting of at least two separate components		N/A
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		N/A
	Resistors checked by the test of 14.1 a) in IEC 60065		N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		N/A
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N/A
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N/A
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N/A
	No leakage from any part, including any inlet water hose		N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non-potable water		N/A
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless		N/A
	the appliance switches off automatically or can operate continuously without hazard		N/A
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode		N/A
	There is a visual indication showing that the appliance is adjusted for remote operation		N/A
	These requirements not necessary on appliances that can operate as follows, without giving rise to a hazard:		--
	- continuously, or		N/A
	- automatically, or		N/A
	- remotely		N/A
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		N/A
22.101	Appliances intended to be fixed, securely fixed (IEC 60335-2-40)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
22.102.1	At least two thermal cut-outs in appliances with supplementary heating elements for air (first one be self-resetting and other non-self-resetting thermal cut-out) (IEC 60335-2-40/A2)		P
22.102.2	Appliances provided with supplementary heaters for water incorporate non-self-resetting thermal cut-out, providing all-pole disconnection that operates separately from water thermostats (IEC 60335-2-40/A2)		N/A
	However, for appliances intended to be connected to fixed wiring, the neutral conductor need not be disconnected (IEC 60335-2-40/A2)		N/A
22.102.3	Thermal cut-outs of capillary type open in event of leakage from capillary tube (IEC 60335-2-40/A2)		N/A
22.103	Non-self-resetting cut-outs independent of other control devices (IEC 60335-2-40)		P
22.104	Containers of sanitary hot water heat pumps withstand twice permissible operating pressure in closed containers (IEC 60335-2-40) or		N/A
	0,15 MPa in open containers (IEC 60335-2-40)		N/A
	without leakage or rupture (IEC 60335-2-40)		N/A
22.105	Air or vapour cushion in closed containers not exceeding 10 % (IEC 60335-2-40)		N/A
22.106	Pressure relief devices operating at 0,1 MPa over permissible operating pressure (IEC 60335-2-40)		N/A
22.107	Water outlet systems of open containers free from obstruction causing over-pressure (IEC 60335-2-40)		N/A
	Vented containers of sanitary hot water heat pumps always open to the atmosphere through appropriate aperture (IEC 60335-2-40)		N/A
22.108	Not vented open containers subjected to test in accordance with clause 22.104 to vacuum of 33 kPa for 15 min (IEC 60335-2-40)		N/A
	Container shiw no derformation which result in a hazard (IEC 60335-2-40)		N/A
22.109	Replacement of non-self-resetting thermal cut-outs does not damage other connections (IEC 60335-2-40)		N/A
22.110	Non-self-resetting thermal cut-outs operate without short-circuiting live parts of different potential and without causing contact between live parts and enclosure (IEC 60335-2-40)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Test repeated five times without blowing 3 A fuse which connects appliance to earth (IEC 60335-2-40)		N/A
	Electric strength test as specified in clause 16.3 for supplementary heating elements (IEC 60335-2-40)		N/A
22.111	Manual resetting of thermostats not necessary after power supply interruption (IEC 60335-2-40)		N/A
22.112	Construction of refrigerating system comply with requirements of Section 3 of ISO 5149 (IEC 60335-2-40/A1)		P
22.113	Flammable refrigerant used, refrigerant tubing protected or enclosed to avoid mechanical damage (IEC 60335-2-40/A1)		N/A
	Tubing protected to extent that it will not be handled or used for carrying during moving of product (IEC 60335-2-40/A1)		N/A
	Tubing located within confines of cabinet considered to be protected from mechanical damage (IEC 60335-2-40/A1)		N/A
22.114	Flammable refrigerant used, low temperature solder alloys, such as lead/tin alloys, not acceptable for pipe connections (IEC 60335-2-40/A1)		N/A
22.115	Total refrigerant mass (M) of all refrigerating systems within appliance employing flammable refrigerants, not exceed m_3 defined in annex GG (IEC 60335-2-40/A1)		N/A
22.116	Appliances using flammable refrigerants constructed that any leaked refrigerant not flow or stagnate so as to cause fire or explosion hazard in areas within appliance where electrical components, which could be a source of ignition and which could function under normal conditions or in event of leak, fitted (IEC 60335-2-40/A1)		N/A
	Separate components, such as thermostats, which charged with less than 0,5 g of flammable gas not considered to cause fire or explosion hazard in event of leakage of gas within component itself (IEC 60335-2-40/A1)		N/A
	All electrical components that could be a source of ignition and which could function under normal conditions or in the event of a leak, comply with one of the following (IEC 60335-2-40/A1):		--
	- IEC 60079-15:2001, Cl. 9 to 26, for group IIA gases or the refrigerant used or an applicable standard that makes electrical components suitable for use in Zone 2, 1 or 0 as defined in IEC 60079-14 (IEC 60335-2-40/A1)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- Not be located in an area where a potentially flammable gas mixture will accumulate as demonstrated by the test of annex FF (IEC 60335-2-40/A1)		N/A
	- Be located in an enclosure. The enclosure containing the electrical components comply with IEC 60079-15:2001 for enclosures suitable for use with group IIA gases or the refrigerant used (IEC 60335-2-40/A1)		N/A
22.117	Temperatures on surfaces that exposed to leakage of flammable refrigerants not exceed auto-ignition temperature of refrigerant reduced by 100 K; some typical values given in annex BB (IEC 60335-2-40/A1)		N/A
22.118	Flammable refrigerant used, all appliances charged with refrigerant at manufacturing location or charged on site as recommended by manufacturer (IEC 60335-2-40/A1)		N/A
	Part of appliance that charged on site, which requires brazing or welding in installation not shipped with flammable refrigerant charge. Joints made in installation between parts of refrigerating system, with at least one part charged, made in accordance with following (IEC 60335-2-40/A1):		--
	- A brazed, welded, or mechanical connection shall be made before opening the valves to permit refrigerant to flow between the refrigerating system parts. A vacuum valve shall be provided to evacuate the interconnecting pipe and/or any uncharged refrigerating system part (IEC 60335-2-40/A1)		N/A
	- Reusable mechanical connectors and flared joints are not allowed indoors (IEC 60335-2-40/A1)		N/A
	- Refrigerant tubing shall be protected or enclosed to avoid damage (IEC 60335-2-40/A1)		N/A
	Flexible refrigerant connectors (such as connecting lines between the indoor and outdoor unit) that may be displaced during normal operations shall be protected against mechanical damage (IEC 60335-2-40/A1)		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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	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
	For motor-compressor not complying with IEC 60335-2-34, additions and modifications as specified (IEC 60335-2-40)		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 1500 V and above are increased by 0,5 mm and the impulse voltage test is not applicable		P
	Impulse voltage test is not applicable:		--
	- when the microenvironment is pollution degree 3, or		N/A
	- for basic insulation of class 0 and class 01 appliances		N/A
	Appliances are in overvoltage category II		P
	A force of 2 N is applied to bare conductors, other than heating elements		N/A
	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		N/A
	Lacquered conductors of windings considered to be bare conductors		P
29.1.2	Clearances of supplementary insulation not less than those specified for basic insulation in table 16 .....:	(see appended table)	P

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Clause	Requirement + Test	Result - Remark	Verdict
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		P
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		P
	- 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		P
	the microenvironment is pollution degree 3, or		N/A
	the distances can be affected by wear, distortion, movement of the parts or during assembly		P
	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		P
	However, clearances at crossover points are not measured		P
	Clearance between surfaces of PTC heating elements may be reduced to 1mm		P
29.1.5	Appliances having higher working voltages than rated voltage, clearances for basic insulation are the largest values determined from:		--
	- table 16 based on the rated impulse voltage .....:		P
	- table F.7a in IEC 60664-1, frequency not exceeding 30 kHz		P
	- clause 4 of IEC 60664-4, frequency exceeding 30 kHz		N/A
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1 or clause 4 of IEC 60664-4, the clearances of supplementary insulation are not less than those specified for basic insulation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	If clearances for basic insulation are selected from Table F.7a of IEC 60664-1, the clearances of reinforced insulation dimensioned as specified in Table F.7a are to withstand 160% of the withstand voltage required for basic insulation		N/A
	If clearances for basic insulation are selected from clause 4 of IEC 60664-4, the clearances of reinforced insulation are twice the value required for basic insulation		N/A
	If the secondary winding of a step-down transformer is earthed, or if there is an earthed screen between the primary and secondary windings, clearances of basic insulation on the secondary side not less than those specified in table 16, but using the next lower step for rated impulse voltage		N/A
	Circuits supplied with a voltage lower than rated voltage, clearances of functional insulation are based on the working voltage used as the rated voltage in table 15		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		P
	- precautions taken to protect the insulation; pollution degree 1		N/A
	- insulation subjected to conductive pollution; pollution degree 3	For insulation located in airflow	P
	A force of 2 N is applied to bare conductors, other than heating elements		N/A
	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
	Insulation located in airflow, pollution degree 3 unless (IEC 60335-2-40)		P
	insulation enclosed or located so that unlikely to be exposed to pollution due to normal use (IEC 60335-2-40)		P
29.2.1	Creepage distances of basic insulation not less than specified in table 17 .....:	(see appended table)	P

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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 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
	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		P
	- 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

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Clause	Requirement + Test	Result - Remark	Verdict
29.3.1	Supplementary insulation have a thickness of at least 1 mm		P
	Reinforced insulation have a thickness of at least 2 mm		N/A
29.3.2	Each layer of material withstand the electric strength test of 16.3 for supplementary insulation		P
	Supplementary insulation consist of at least 2 layers	Plastic enclosure: 1,6 mm; Control panel: 1,3 mm	P
	Reinforced insulation consist of at least 3 layers		N/A
29.3.3	The insulation is subjected to the dry heat test Bb of IEC 60068-2-2, followed by		N/A
	the electric strength test of 16.3		N/A
	If the temperature rise during the tests of clause 19 does not exceed the value specified in table 3, the test of IEC 60068-2-2 is not carried out		N/A
29.3.4	Thickness of accessible parts of reinforced insulation consisting of a single layer not less than specified in table 19 .....:		N/A
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
	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:		--

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Clause	Requirement + Test	Result - Remark	Verdict
	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		N/A
	- for unattended appliances, 30.2.3 applies		P
	For appliances for remote operation, 30.2.3 applies		N/A
	For base material of printed circuit boards, 30.2.4 applies		P
30.2.1	Parts of non-metallic material subjected to the glow-wire test of IEC 60695-2-11 at 550 °C		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		P
	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
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		P
	The tests are not applicable to conditions as specified .....:		N/A
30.2.3.1	Parts of non-metallic material supporting connections carrying a current exceeding 0,2 A during normal operation, and		P
	parts of non-metallic material, other than small parts, within a distance of 3 mm,		P
	subjected to the glow-wire test of IEC 60695-2-11 with a test severity of 850 °C		P
	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 850 °C		N/A
30.2.3.2	Parts of non-metallic material supporting connections, and		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	parts of non-metallic material within a distance of 3 mm,		P
	subjected to glow-wire test of IEC 60695-2-11		P
	The test severity is:		--
	- 750 °C, for connections carrying a current exceeding 0,2 A during normal operation		P
	- 650 °C, for other connections		P
	Glow-wire applied to an interposed shielding material, if relevant		N/A
	However, the glow-wire test of 750 °C or 650 °C as appropriate, is not carried out on parts of material fulfilling both or either of the following classifications:		--
	- a glow-wire ignition temperature according to IEC 60695-2-13 of at least:		N/A
	- 775 °C, for connections carrying a current exceeding 0,2 A during normal operation		N/A
	- 675 °C, for other connections		N/A
	- a glow-wire flammability index according to IEC 60695-2-12 of at least:		N/A
	- 750 °C, for connections carrying a current exceeding 0,2 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 ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- 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
	The consequential needle-flame test of annex E applied to non-metallic parts that encroach within the vertical cylinder placed above the centre of the connection zone and on top of the non-metallic parts supporting current-carrying connections, and parts of non-metallic material within a distance of 3 mm of such connections if these parts are those:		--
	- parts that withstood the glow-wire test of IEC 60695-2-11 of 750 °C or 650 °C as appropriate, but produce a flame that persist longer than 2 s, or		N/A
	- parts that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	- small parts, that comprised material having a glow-wire flammability index of at least 750 °C or 650 °C as appropriate, or		N/A
	- small parts for which the needle-flame test of annex E was applied, or		N/A
	- small parts for which a material classification of V-0 or V-1 was applied		N/A
	However, the consequential needle-flame test is not carried out on non-metallic parts, including small parts, within the cylinder that are:		-
	- parts having a glow-wire ignition temperature of at least 775 °C or 675 °C as appropriate, or		N/A
	- parts comprising material classified as V-0 or V-1 according to IEC 60695-11-10, or		N/A
	- parts shielded by a flame barrier that meets the needle-flame test of annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10		N/A
30.2.4	Base material of printed circuit boards subjected to the needle-flame test of annex E		P
	Test not applicable to conditions as specified.....:		N/A

10.1	TABLE: Power input deviation				P
Input deviation of/at:	P rated (W)	P measured (W)	dP	Required dP	Remark
230 V; 50 Hz	480	467,5	-2,6 %	+15 %	PD20-PAET dehumidification
230 V; 50 Hz	950	873,9	-8,0 %	+5 %,-10%	PD20-PAET heating
230 V; 50 Hz	500	461,0	-7,8%	+5 %,-10%	PD20-PAET (PTC)

10.2	TABLE: Current deviation				N/A
Current deviation of/at:	I rated (A)	I measured (A)	dI	Required dI	Remark

11.8	TABLE: Heating test, thermocouples (PD20-PAET with alternative main PCB)		P
	Test voltage (V) ..... :	254,4 V/257,4 V	—
	Ambient, t_1 (°C) ..... :	Dehumidification: DB 35 °C, WB: 24 °C; Heating: DB 25 °C, WB: 22,4 °C;	—
	Ambient, t_2 (°C) ..... :		—

Thermocouple locations	T (°C)		Max. T (°C)
	Dehumidification	Heating	
Power cord	49,7	57,5	75
Air outlet temperature	51,5	57,0	90
Control panel PCB	38,5	30,2	130
Control panel	40,9	35,2	85/For cl 30.1
Internal wire for PTC heater	50,5	47,5	T105
Plastic enclosure	45,7	49,4	85/For cl 30.1
Fan motor winding	61,6	74,9	110(class B)
Fan motor running capacitor	52,7	55,8	T70
Transformer winding	72,0	76,5	110(class B)
X2 capacitor	53,0	53,2	T100
Relay of fan motor	42,7	41,0	T70
Relay of PTC heater	53,3	53,2	T70
Relay for compressor	50,9	50,7	T70

PCB	49,6	49,1	130
Varistor	54,8	54,9	T85
Self-resetting thermal cut-out	48,9	45,0	T205
Thermal link	49,4	45,9	T250
Discharge pip of compressor	57,6	50,5	Ref.
Top enclosure of compressor	60,6	54,7	150
Compressor running capacitor	49,6	55,1	T70
Internal wire to the compressor	46,6	36,7	T105
Test corner	35,4	25,4	90
Water level switch	46,2	44,7	T85

Remark: 206,8 V and 254,4 V were conducted at dehumidification, maximum value were recorded.
Heating includes the compressor mode and all heaters on with rated voltage of 1,15 times.

11.8	**TABLE: Heating test, resistance method**		P
	Test voltage (V) ..... :	254,4 V/257,4 V	—
	Ambient, t1 (°C) ..... :	Dehumidification: DB 35 °C, WB: 24 °C; Heating: DB 25 °C, WB: 22,4 °C;	—
	Ambient, t2 (°C) ..... :		—

Temperature of winding	R1 (Ω)	R2 (Ω)	T (°C)	Max. T (°C)	Insulation class
Dehumidification:					
Transformer winding (primary)	2153,3	2572,6	76,7	115	E
Transformer winding (secondary)	8,4	10,1	78,7	115	E
Fan motor winding (main)	1028	1301,5	93,5	120	B
Fan motor winding (aux.)	876	1103,2	92,7	120	B
Heating:					
Transformer winding (primary)	2153,3	2593,9	79,3	115	E
Transformer winding (secondary)	8,4	10,2	81,8	115	E
Fan motor winding (main)	1028	1320,2	98,2	120	B
Fan motor winding (aux.)	876	1124,8	99,1	120	B

Supplementary information: R1 was measured at 25 °C

13.2	TABLE: Leakage current		P
	Heating appliances: 1.15 x rated input .....:	--	—
	Motor-operated and combined appliances: 1.06 x rated voltage .....:	240 V x 1,06 = 254,4 V $1,15^{1/2}$ x 240 V= 257,4 V	—

Leakage current between	I (mA)	Max. allowed I (mA)
L,N and earthed metal enclosure	0,28	0,75
L,N and plastic enclosure	0,10 (peak)	0,35 (peak)

13.3	TABLE: Electric strength	P

Test voltage applied between:	Voltage (V)	Breakdown (Yes/No)
L,N and earthed metal enclosure	1000	No
L,N and plastic enclosure	3000	No
L/N and control panel	3000	No

16.2	TABLE: Leakage current		P
	Single phase appliances: 1.06 x rated voltage ...:	240 V x 1,06 = 254,4 V	—
	Three phase appliances 1.06 x rated voltage divided by 3:.....:	--	—

Leakage current between	I (mA)	Max. allowed I (mA)
L,N and earthed metal enclosure	0,48	0,75
L,N and plastic enclosure	0,16	0,25

16.3	TABLE: Electric strength	P

Test voltage applied between:	Voltage (V)	Breakdown (Yes/No)
L,N and earthed metal enclosure	1250	No
L,N and plastic enclosure	3000	No

24.1	**TABLE: Critical components information**				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Plug	Guangdong Xiongrun Electrical Co., Ltd.	XR-322	AC 250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40006857
(Alternative)	Zhongshan Guzhen Hongli Cable & Appliance Factory	HL-5B	AC 250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 131607
(Alternative)	Zhongshan Ke Jin Power Supply Cord Co., Ltd.	KJ-138	AC 250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40011001

(Alternative)	Zhong Shan Dong Sheng Colon Electrical Factory	CL-05	AC 250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40004757
(Alternative)	Zhongshan Xiaolan Qiangli Electric Factory Co., Ltd.	QC-002	AC 250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40014224
(Alternative)	Hong Shan Chuan Industry (Shen Zhen) Co., Ltd.	HSC-403 or HSC-402	AC 250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40021749
(Alternative)	Zhongshan Guzhen Hongli Cable & Appliance Factory	HL-28	AC250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40018857
(Alternative)	Da Zheng Wire &Cable Mfg, Ltd.	DZP-03	AC250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40015107
(Alternative)	Ningbo Qiaopu Electric Co., Ltd.	DO3	AC 250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40002872
(Alternative)	Hunan Aomeng Electrical Equipment Co. Ltd.	AM-007	AC250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40016388
(Alternative)	Kenic Electric Mfg. Co., Ltd.	KE-30	AC250V, 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40031264
(Alternative)	Zhongshan Xinsheng Electric Co., Ltd.	YT-316	250VAC; 16A	DIN VDE 0620-1 IEC 60884-1	VDE 40036804
AU plug	Hong Shan Chuan Industry (Hong Kong) Limited	HSC-502 HSC-501	AC 250V, 10A or 7.5A	AS/NZS3112: 2004 +A1 AS/NZS3112: 2011 +A1 IEC 60884-1	TUV RH TUV15589E A
(Alternative)	Zhongshan Guzhen Hongli Cable & Appliance Factory	HL-11-11 or HL-13	AC 250V, 10A	AS/NZS3112: 2004 +A1 IEC 60884-1	ESO ESO110576/ 01
Power cord	Guangdong Xiongrun Electrical Co., Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40020627
(Alternative)	Zhongshan Xiaolan Qiangli Electric Factory Co., Ltd	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 109832
(Alternative)	Shunde Ronggui Xiongrun Electrical Co., Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40006857
(Alternative)	Zhongshan Ke Jin Power Supply Cord Co., Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40013045
(Alternative)	Zhong Shan Dong Sheng Colon Electrical Factory	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40004757
(Alternative)	Zhongshan Xiaolan Qiangli Electric Factory Co., Ltd.	H05VV-F 60227 IEC 53	3G 1, 5 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40014224
(Alternative)	Awin Wire & Cable Co., Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40023114
(Alternative)	Da Zheng Wire &Cable Mfg. Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40004765

(Alternative)	Hunan Aomeng Electrical Equipment Co. Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 135724
(Alternative)	Ningbo Qiaopu Electric Co., Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40035976
(Alternative)	Hong Shan Chuan Industry (Shen Zhen) Co., Ltd	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40037206
(Alternative)	Zhongshan Guzhen Hongli Cable & Appliance Factory	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 139259
(Alternative)	Zhongshan Rifeng Electric Cable Co., Ltd.	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	IEC 60245-4	VDE 40015999
(Alternative)	Zhongshan Guzhen Hongli Cable & Appliance Factory	H05RN-F or H05RR-F 60245 IEC 57 60245 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	IEC 60245-4	VDE 40015521
(Alternative)	Lucky United Electric Wire & Cable Co., Ltd.	H05RN-F 60245 IEC 57	3G 0, 75 mm^2, 3G 1,0 mm^2	IEC 60245-4	VDE 40016378
(Alternative)	Zhongshan Xinsheng Electric Co., Ltd.	H05VV-F 60227 IEC 53	3G 0,75 mm^2 or 3G 1,0 mm^2	EN 50252-11 IEC 60227-5	VDE 40035262
AU power cord	Shengzhen Hong-Shan- Chuan Industry Co., Ltd	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	AS/NZS 60227.5	SAI SAI-400010
(Alternative)	Zhongshan Guzhen Hongli Cable & Appliance Factory	H05VV-F 60227 IEC 53	3G 0, 75 mm^2, 3G 1,0 mm^2	AS/NZS3191: 2008	ESO ESO110501/ 00
Compressor PD10-PAyz, PD12-PAyz	Tatung Co., Ltd.	FE140Y-E	220-240V, 50Hz, R134a	EN/IEC 60335-1 EN/IEC 60335-2-34	TUV RH R 09754237
Compressor for PD16-PAyz	Tatung Co., Ltd.	FH250Y2-E	220-240V, 50Hz, R134a	EN/IEC 60335-1 EN/IEC 60335-2-34	TUV RH R 09754237
Compressor for PD20-PAyz	Tatung Co., Ltd.	FH300Y2-E	220-240V, 50Hz, R134a	EN/IEC 60335-1 EN/IEC 60335-2-34	TUV RH R 09754237
Capacitor for Compressor FH250Y2-E, FH300Y2-E,	New Tech Electronic Co., Ltd.	CBB61-P2	450V or 400V AC; 4,0µF; T85 or T70; P2; C	IEC/EN 60252-1	TUV RH R50246603
(Alternative)	New Tech Electronic Co., Ltd.	CBB61-P2	450V or 400V AC;4,0µF; T85 or T70; P2; B	IEC/EN 60252-1	TUV RH R50285501
(Alternative)	Shunde Dahua Electric Co., Ltd.	CBB61 (CBB6-1)	450V or 400V AC; 4,0µF; T85 or T70; P2; C	IEC/EN 60252-1	TÜV Rh R 50033889
(Alternative)	Sheng Ye Electrical Co., Ltd	C61-P2-xy x=1,2; y=1,2	450V or 400V AC; 4,0µF; T85 or T70; P2; C	IEC/EN 60252-1	TÜV Rh R 50010886
(Alternative)	Sheng Ye Electrical Co., Ltd.	C61-P2-xy (xy=31,32,41,42)	450V or 400VAC, 4,0µF, T85 or T70, P2, B or C	IEC/EN 60252-1	TUV PS B130573204 005

(Alternative)	Guangdong Fengming Electronic Tech. Co., Ltd	CBB61-P2	450V or 400V AC; 4,0μF; T85 or T70; P2; C	IEC/EN 60252-1	TUV Rh R 50163114
(Alternative)	Guangdong Fengming Electronic Tech. Co., Ltd	CBB61-P2	450V or 400VAC, 4,0μF, T85 or T70, P2, B	IEC/EN 60252-1	TUV RH 50274996
(Alternative)	Shunde Kesheng Electronic Co., Ltd	CBB61S	450V AC; 4,0 μF; T85 or T70; P2; B	IEC/EN 60252-1	TUV Rh R50276081
(Alternative)	New Tech Electronic Co., Ltd.	CBB 65	450VAC; 4,0 μF; T70; P2; C	IEC/EN 60252-1	VDE 133580
(Alternative)	New Tech Electronic Co., Ltd.	CBB65	400VAC or 450VAC; 4,0 μF; T85 or T70; P2; B or C	IEC/EN 60252-1	TUV Rh R 50181282
(Alternative)	Sheng Ye Electrical Co., Ltd.	CBB 65	450VAC; 4,0μF; T70 or T85; P2; C	IEC/EN 60252-1	VDE 126534
(Alternative)	Sheng Ye Electrical Co., Ltd.	CBB 65	450VAC; 4,0μF; T70 or T85; P2; B or C	IEC/EN 60252-1	TUV SUD B100773204 001
(Alternative)	Guangdong Fengming Electronic Tech. Co., Ltd.	CBB 65	450VAC; 4,0μF; T70 or T85, P2, C	IEC/EN 60252-1	TUV Rh R50174485
Fan motor for PD10-PAyz, for PD12-PAyz	Zhongshan Lian Da Co., Ltd.	MD70-3	230VAC, 50Hz , Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested With appliance
Fan motor for PD16-PAyz, for PD20-PAy	Zhongshan Lian Da Co., Ltd.	MD60-3	230VAC, 50Hz , Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested With appliance
Overload protector for all motor	Hubei Honghu Blue Light Electronic Co., Ltd.	RH130-2	250VAC, 2A, Tf130°C	IEC/EN 60730-1 IEC/EN 60730-2-2	VDE 40019233
(Alternative)	Hubei Honghu Blue Light Electronic Co., Ltd.	RH130-2	250VAC, 2A, Tf130°C	IEC/EN 60730-1 IEC/EN 60730-2-2	TUV R50077755
(Alternative)	Aupo Electronics Ltd.	A4	250VAC, 2A, Tf130°C	IEC/EN 60730-1 IEC/EN 60730-2-2	VDE 40005586
(Alternative)	Aupo Electronics Ltd.	A4-F	250VAC, 2A, Tf130°C	IEC/EN 60730-1 IEC/EN 60730-2-2	VDE 40008720
(Alternative)	Xiamen Set Electronics Co., Ltd.	K4	250VAC, 2A, Tf130°C	IEC/EN 60730-1 IEC/EN 60730-2-2	TUVRH 50161772
(Alternative)	Hubei Honghu Blue Light Electronic Co., Ltd.	RH115-2	250VAC, 2A, Tf115°C	IEC/EN 60730-1 IEC/EN 60730-2-2	VDE 40019233
(Alternative)	Hubei Honghu Blue Light Electronic Co., Ltd.	RH115-2	250VAC, 2A, Tf115°C	IEC/EN 60730-1 IEC/EN 60730-2-2	TUV R50077755
(Alternative)	Aupo Electronics Ltd.	A2	250VAC, 2A, Tf115°C	IEC/EN 60730-1 IEC/EN 60730-2-2	VDE 40005586

(Alternative)	Aupo Electronics Ltd.	A2-F	250VAC, 2A, Tf115°C	IEC/EN 60730-1 IEC/EN 60730-2-2	VDE 40008720
(Alternative)	Xiamen Set Electronics Co., Ltd.	K2	250VAC, 2A, Tf115°C	IEC/EN 60730-1 IEC/EN 60730-2-2	TUVRH 50161772
Thermal protector for MD60-3	Changzhou New Zone Desheng Electric Appliance Co., Ltd.	BR Series	AC250V, Tf: 130°C, operation cycles: 3000	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 40015893
(Alternative)	Changzhou New Zone Desheng Electric Appliance Co., Ltd.	17AM Series	AC250V, Tf: 130°C, operation cycles: 3000	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 40016509
(Alternative)	Changzhou New Zone Desheng Electric Appliance Co., Ltd.	BW Series	AC250V, Tf: 130°C, operation cycles: 3000	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 40015893
(Alternative)	Sensata Technologies Hollang B.V	8CM	AC250V, Tf: 130°C, operation cycles: 3000	EN/IEC 60730-1 EN/IEC 60730-2-2	ENEC 2014531.02
(Alternative)	Changzhou City Changlian Radio Co.,Ltd	KW Series	AC 250V, Tf: 130°C, operation cycles: 3000	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 40010692
(Alternative)	Guangzhou Guangbao Electrical Equipment Co., Ltd.	T11-U	AC 250V, Tf: 130°C, operation cycles: 3000	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 40001200
(Alternative)	Dongguan Kain Electronic Sci. & Tech. Co., Ltd.	BW-A1D, BW-B2D	AC250V, Tf 130°C, Operation cycles: 3000	IEC/EN 60730-1 IEC/EN 60730-2-2	VDE 40031453
Micro switch	Saia-Burgess Electronics Ag	X3C	250V, 10(3)A, 5E4, T125	IEC/EN 61058-1	ENEC 99-03462/A1
(Alternative)	Saia-Burgess Electronics Ag	X3M	16(6)A 250Va.c., Operation cycles: 5E4,T125	IEC/EN 61058-1	ENEC 99-03462/A1
(Alternative)	Toneluck Electronics Industrial Ltd	MQS-216	250V AC; 16(4) A 5E4, T85	IEC/EN 61058-1	ENEC 1579
(Alternative)	Yueqing Dongnan Electronics Co., Ltd.	KW3A	250V AC; 16(4)A 5E4,T105	IEC/EN 61058-1	ENEC 00323/VDE4 0022705
(Alternative)	Foshan Shunde Yuanfeng Metal Electrical Appliances Co., Ltd.	MS4-16Z	250V AC; 16(4)A 5E4,T105	IEC/EN 61058-1	TUV R 50223406
(Alternative)	Huiyang Zing Ear Industry Co.,Ltd	G5T16	250V AC; 16(4)A 5E4, T125	IEC/EN 61058-1	ENEC 184546

(Alternative)	Guangdong Hushun Electrical Appliance Co., Ltd	LXW-16-1-3/ LXW-16-2-3/ LXW-16-3-3	250V AC; 16 A 10E3, T125	IEC/EN 61058-1	VDE 40028157
Capacitor for fan motor (MD60-3,)	New Tech Electronic Co., Ltd.	CBB61-P2	450V or 400V AC; 0,8µF; T85 or T70; P2; C	IEC/EN 60252-1	TUV RH R50246603
(Alternative)	New Tech Electronic Co., Ltd.	CBB61-P2	450V or 400V AC;0,8µF; T85 or T70; P2; B	IEC/EN 60252-1	TUV RH R50285501
(Alternative)	Shunde Dahua Electric Co., Ltd.	CBB61 (CBB6-1)	450V or 400V AC; 0,8µF; T85 or T70; P2; C	IEC/EN 60252-1	TÜV Rh R 50033889
(Alternative)	Sheng Ye Electrical Co., Ltd.	C61-P2-xy x=1,2; y=1,2	450V or 400V AC; 0,8µF; T85 or T70; P2; C	IEC/EN 60252-1	TÜV Rh R 50010886
(Alternative)	Sheng Ye Electrical Co., Ltd.	C61-P2-xy (xy=31,32,41,42)	450V or 400VAC, 0.8µF, T85 or T70, P2, B or C	IEC/EN 60252-1	TUV PS B130573204005
(Alternative)	Guangdong Fengming Electronic Tech. Co., Ltd	CBB61-P2	450V or 400V AC; 0,8µF; T85 or T70; P2; C	IEC/EN 60252-1	TUV Rh R 50163114
(Alternative)	Guangdong Fengming Electronic Tech. Co., Ltd	CBB61-P2	450V or 400VAC, 0,8µF, T85 or T70, P2, B	IEC/EN 60252-1	TUV RH 50274996
(Alternative)	Shunde Kesheng Electronic Co., Ltd	CBB61S	450V AC; 0,8 µF; T85 or T70; P2; B	IEC/EN 60252-1	TUV Rh R50276081
Material of PCB	Shenzhen Weigao Electronics Co., Ltd.	WLG-1	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E234479
(Alternative)	Kingboard Laminates (Macao Commercial Offshore) Ltd	KB-5150 or KB	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E123995
(Alternative)	Zhaoyuan Jinbao Electronics Co., Ltd.	ZD-90F or ZD	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E141940
(Alternative)	Zhaoyuan Jinbao Electronics Co., Ltd.	ZD-95(G)F	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E141940
(Alternative)	Kingboard Laminates (Macao Commercial Offshore) Ltd	KB V-0	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E123995
(Alternative)	Zhaoyuan Jinbao Electronics Co., Ltd.	ZD V-0	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E141940
(Alternative)	Guangzhou Timesquick Electronic Co., Ltd	SD-M	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E315225

(Alternative)	Guangzhou Timesquick Electronic Co., Ltd	SD-BQ	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E315225
(Alternative)	Zhongshan Yichunda Electronic Co., Ltd.	YCD-1	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E322701
(Alternative)	Zhongshan Chengye Pcb Co., Ltd.	001 or 002 or 003	94V-0, 1,6mm thickness	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E245652
Transformer for 800166 Series, 800327 Series	Zhong Shan Lian-Da Co., Ltd.	EI-35	Input: AC230V 50/60Hz, Output: AC 12V 300mA, Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested With appliance
Thermal link built in transformer	Hubei Honghu Blue Light Electronic Co., Ltd.	RH130-2	250VAC, 2A, Tf 130°C	IEC/EN 60691	TUV R50077755
(Alternative)	Hubei Honghu Blue Light Electronic Co., Ltd.	RH130-2	250VAC, 2A, Tf 130°C	IEC/EN 60691	VDE 40019233
(Alternative)	Aupo Electronics Ltd.	A4	250VAC, 2A, Tf130°C	IEC/EN 60691	VDE 40005586
(Alternative)	Aupo Electronics Ltd.	A4-F	250VAC, 2A, Tf130°C	IEC/EN 60691	VDE 40005586
(Alternative)	Xiamen Set Electronics Co., Ltd.	K4	250VAC, 2A, Tf130°C	IEC/EN 60691	TUVRH 50086377
Varistor for PDx-PAM1z, PDx-PAEz	Hongzhi Enterprises Ltd.	HEL-14D471K, HEL-7D471K, HEL-10D471K	470V, T85°C	IECEN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008621
(Alternative)	Hongzhi Enterprises Ltd.	HEL-14D561K, HEL-10D561K, HEL-7D561K,	560V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008621
(Alternative)	Xianhua Advanced Sensitive Components Co., Ltd.	FNR-14K471, FNR-07K471 , FNR-10K471K	470V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008242
(Alternative)	Xianhua Advanced Sensitive Components Co., Ltd.	FNR-07K561K FNR-10K561K FNR-14K561K	560V, T85°C	IECEN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008242
(Alternative)	Joyin Co., Ltd.	14N471K, 7N471K 10N471K	470V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 005937
(Alternative)	Joyin Co., Ltd.	14N561K, 7N561K 10N561K	560V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 005937
(Alternative)	Thinking Electronic Industrial Co., Ltd.	TVR 14471 TVR 07471 TVR 10471	470V, T85°C	IECEN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 005944
(Alternative)	Thinking Electronic Industrial Co., Ltd.	TVR 14561 TVR 07561 TVR 10561	560V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 005944

(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co.,Ltd.	STE-14D471K, STE-07D471K STE-10D471K,	470V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40023049
(Alternative)	Shantou High-New Technology Dev .Zone Songtian Enterprise Co., Ltd.	STE-14D561K, STE-07D561K STE-10D471K,	560V, T85°C	IECEN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40023049
(Alternative)	Dongguan Littelfuse Electronics Co., Ltd.	471KD14, 471KD10 471KD07	470V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40026161
(Alternative)	Dongguan Littelfuse Electronics Co., Ltd.	561KD14, 561KD10 561KD07	560V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40026161
(Alternative)	Centra Science Corp	CNR-14D471K, CNR-10D471K CNR-07D471K	470V, T85°C	IECEN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008220
(Alternative)	Centra Science Corp	CNR-07D561K CNR-10D561K CNR-14D561K	560V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008220
(Alternative)	Lien Shun Technical Co., Ltd.	14D471K, 10D471K, 07D471K	470V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40005858
(Alternative)	Lien Shun Technical Co., Ltd.	14D561K, 10D561K, 07D561K	560V, T85°C	IECEN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40005858
(Alternative)	Brightking Inc.	561K D07, 561K D10 561K D14	560V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40022070
(Alternative)	Brightking Inc.	471K D07, 471K D10 471K D14	470V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40022070
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	14D471K , 07D471K 10D471K	470V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40030322
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	14D561K , 07D561K 10D561K	560V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40030322
X2 capacitor for PDx-PAM1z,PDx-PAEz	Shenzhen Su Rong Electronic Co., Ltd.	X2	X2, AC 280V, 0,1µF, T100°C	IEC/EN 60384-14	VDE 40008924
(Alternative)	Tenta Electric Industrial Co., Ltd.	MEX	X1, AC300V, 0,1µF, T100°C	IEC/EN 60384-14	VDE 123198
(Alternative)	Tenta Electric Industrial Co., Ltd.	MEX	X2, AC275V, 0,1µF, T100°C	IEC/EN 60384-14	VDE 119119
(Alternative)	Llow Gu Electronics Industry Co., Ltd	GS-L	X2, AC275V, 0,1µF, T100°C	IEC/EN 60384-14	VDE 101345
(Alternative)	Carli Electronics Co., Ltd.	MPX	X2, AC275V, 0,1µF, T100°C	IEC/EN 60384-14	VDE 40008520

(Alternative)	Ultra Tech Enterprise Xiphi Co., Ltd.	HQX	X2, AC275V, 0,1µF, T100°C	IEC/EN 60384-14	VDE 40015608
(Alternative)	Dain Electronics Co., Ltd.	MPX	X2, AC275V, 0,1µF, T100	IEC/EN 60384-14	VDE 40018798
(Alternative)	Dain Electronics Co., Ltd.	MPX	X2, AC275V, 0,1µF, T110°C	IEC/EN 60384-14	VDE 40018798
(Alternative)	Dongguan City Jurcc Electronics Co. Ltd	MPX or MKP	X2, AC275V, 0,1µF, T110°C	IEC/EN 60384-14	VDE 40034920
(Alternative)	Jimson Electronics (Xiamen) Co., Ltd.	MKP	X2, AC275V, 0,1µF, T110°C	IEC/EN 60384-14	VDE 40000463
(Alternative)	Ultra Tech Enterprise Xiphi Co., Ltd.	HQX	X2, AC275V, 0,1µF, T100°C	IEC/EN 60384-14	VDE 40015608
Main Controller PCB for PDx-PAM1z	**--**	**800327 Series**	**--**	**IEC/EN 60335-1 IEC/EN 60335-2-40**	**Tested With appliance**
Main Controller PCB for PDx-PAEz	**--**	**800308 Series**	**--**	**IEC/EN 60335-1 IEC/EN 60335-2-40**	**Tested With appliance**
Main Controller PCB for PDx-PAM1z and PDx-PAEz (Alternative)	**--**	**800166 Series**	**--**	**IEC/EN 60335-1 IEC/EN 60335-2-40**	**Tested With appliance**
Fuse on Main Controlle PCB for 800308 Series, 800327 Series	**Zhong Shan Lan Bao Electrical Appliances**	**RTI-20**	**T 3,15A or 2A, L, AC 250V**	**IEC/EN 60127-1 IEC/EN 60127-2**	**VDE 40012120**
(Alternative)	**Zhong Shan Lan Bao Electrical Appliances**	**RFI-20**	**F, 3,15A or 2A, L, AC 250V**	**IEC/EN 60127-1 IEC/EN 60127-2**	**VDE 40012079**
(Alternative)	**XC Electronics (Shen Zhen) Corp. Ltd.**	**3T**	**T, 3,15A or 2A, 250V AC**	**IEC/EN 60127-1 IEC/EN 60127-2**	**VDE 40019614**
(Alternative)	**Suzhou Littelfuse OVS Ltd**	**618 Series**	**T or F ,3,15A or 2A, 250V AC**	**IEC/EN 60127-1 IEC/EN 60127-2**	**VDE 40014776**

(Alternative)	Walter Electronic Co., Ltd	FSD	T or F ,3,15A or 2A, 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40001373
(Alternative)	Shenzhen Lanson Elctronics Co., Ltd	5J	T or F ,3,15A or 2A , 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40009306
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	3F	F,3,15A or 2A, L, AC 250V	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40019636
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	5T	T or F ,3,15A, or 2A, 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40009610
(Alternative)	Hollyaad Co., Ltd	50T /50F	T or F ,3,15A or 2A , 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40014460
(Alternative)	Hollyland Company Limited	50T/50F	3,15A or 2A, 250V AC, T or F	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40014477
Fuse on Main Controlle PCB for 800166 Series	Zhong Shan Lan Bao Electrical Appliances	RTI-20	T, 3,15A or 6,3A, L, AC 250V	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40012120
(Alternative)	Zhong Shan Lan Bao Electrical Appliances	RFI-20	F, 3,15A or 6,3A, L, AC 250V	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40012079
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	3T	T, 3,15A or 6,3A , 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40019614
(Alternative)	Suzhou Littelfuse OVS Ltd	618 Series	T or F ,3,15A or 6,3A, 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40014776
(Alternative)	Walter Electronic Co.,Ltd	FSD	T or F ,3,15A or 6,3A , 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40001373
(Alternative)	Shenzhen Lanson Elctronics Co.,Ltd	5J	T or F ,3,15A or 6,3A , 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40009306
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	3F	F,3,15A or 6,3A, L, AC 250V	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40019636
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	5T	T or F ,3,15A, or 6,3A, 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40009610
(Alternative)	Hollyland Co., Ltd.	50T /50F	T or F ,3,15A or 6,3A, 250V AC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40014460
(Alternative)	Hollyland Co., Ltd.	50T/50F	3,15A or 6,3A, 250V AC, T or F	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40014477
Relay for PDx-PAM1z,PDx-PAEz	Chengdu Tongda Relay Manufacturing Co., Ltd.	JZC-8F	250VAC, 5A, 100000 cycles, T85	IEC/EN 61810-1	TUVRH R 02156493

(Alternative)	Shaanxi Qunli Radio Appliance Factory	JZC-11F	AC 250V, 5A, 100000 cycles, T85	IEC/EN 61810-1	TUV RH R50100487
(Alternative)	Xiamen Hongfa Electroacoustic Co., Ltd.	JZC-32F	AC 250V, 5A, 100000 cycles, T70	IEC/EN 61810-1	VDE 40012204
(Alternative)	Xiamen Hongfa Electroacoustic Co., Ltd	JZC-33F	5A or 3A 250VAC, 100000 cycles, T85	IEC/EN 61810-1	VDE 125661
(Alternative)	Chengdu Tongda Relay Manufacturing Co., Ltd.	JQC-3F	AC250V 10A, 100000 cycles, T70	IEC/EN 61810-1	TUV RH R50039295
(Alternative)	Shaanxi Qunli Radio Appliance Factory	JQC-3FB	AC 240V, 7A, 100000 cycles, T70	IEC/EN 61810-1	TUV RH R50100487
(Alternative)	Shaanxi Qunli Radio Appliance Factory	JQC-3FB	AC 240V, 10A, 100000 cycles, T85	IEC/EN 61810-1	TUV RH R50100487
(Alternative)	Shaanxi Qunli Radio Appliance Factory	JQC-3FB	AC240V, 10A, 100000 cycles, T85	IEC/EN 61810-1	TUVRH R 09933044
(Alternative)	Yueqing Meishuo Electric Co., Ltd.	MPA-S-112-A	AC250V,10A, 100000 cycles, T85	IEC/EN 61810-1	TUV R 50184948
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SJ-S-112DM	AC250V, 3A or 5A, 100000 cycles, T85	IEC/EN 61810-1	VDE 4002146
(Alternative)	Yueqing Meishuo Electric Co., Ltd.	MPD-S-112-A	AC250V, 5A, 100000 cycles, T85	IEC/EN 61810-1	TUV R 50184948
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SJ-S-112D	AC250V, 3A or 5A, 100000 cycles, T85	IEC/EN 61810-1	VDE 4002146
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SJ-S-112DMH	AC250V, 10A, 100000 cycles, T85	IEC/EN 61810-1	VDE 4002146
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SJ SERIES	AC250V, 3A or 5A or 10A, 100000 cycles, T85	IEC/EN 61810-1	VDE 4002146
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SRD series	250VAC,7A or 10A, 100000 cycles, T85	IEC/EN 61810-1	TUV RH R50142424
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SRD-S-112DM	250VAC,7A or 10A, 100000 cycles, T85	IEC/EN 61810-1	TUV RH R50142424
(Alternative)	Xiamen Hongfa Electroacoustic Co., Ltd.	JQC-3FF	AC 250V, 5A or 8A, 100000 cycles, T85	IEC/EN 61810-1	TUV RH R50148356
(Alternative)	Xiamen Hongfa Electroacoustic Co., Ltd.	JQC-3FF	AC 277V, 10A, 100000 cycles, T85	IEC/EN 61810-1	TUV RH R50148356

(Alternative)	Shenazhen Golden Electrical Appliance Co.,Ltd.	GA-1A	5A, 100000 cycles, T70	IEC/EN 61810-1	TUV R50079533
(Alternative)	Anhui Ming Guang Life Electronic Co., Ltd.	BJ-SS-112DMF	250VAC; 10A; T85; 10E4 cycles	IEC/EN 61810-1	TUV Rh R 50183595
(Alternative)	Anhui Ming Guang Life Electronic Co., Ltd.	BJ-SS-112DM	250VAC; 5A; T85; 10E4 cycles	IEC/EN 61810-1	TUV Rh R 50183595
(Alternative)	Anhui Ming Guang Life Electronic Co., Ltd.	BJ series	250VAC; 5A or 8A or 10A; T85; 10E4 cycles	IEC/EN 61810-1	TUV Rh R 50183595
(Alternative)	Anhui Mingguang Life Electronic Co., Ltd.	BRF-SS-112DM	250VAC; 17A; T85; 10E4 cycles	IEC/EN 61810-1	TUV Rh R 50208738
(Alternative)	Anhui Mingguang Life Electronic Co., Ltd.	BRF-SS-112D	250VAC; 17A; T85; 10E4 cycles	IEC/EN 61810-1	TUV Rh R 50208738
PTC heater for PDx-PAM1T, PDx-PAET	Zhongshan Lian Da Co., Ltd.	---	500W, 220-240V 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Self-resetting thermal cut-out for PTC Heater	Zhejiang Dongyang Hengdian Thermal Protector Factory	KSD Series	250VAC, 5A, Open temperature:85 °C T150	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 139430
(Alternative)	Tongbao-Hualong Controls Co., Ltd.	KSD Series	250VAC, 5A or 10A, Open temperature: 85°C, T190	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 40011625
(Alternative)	Sensata Technologies Holland,B.V	1NT	240VAC, 10A,Open temperature:85 °C T204	EN/IEC 60730-1 EN/IEC 60730-2-2	ENEC 2014531.16
(Alternative)	Zhongshan Yong Jian Thermostat Factory	KSD Series	250VAC, 10A, Open temperature: 85°C, T170	EN/IEC 60730-1 EN/IEC 60730-2-2	VDE 134996
Thermal link for PTC Heater	Therm-O-Disc Europe B.V.Gulberg 33	G4 Series	250VAC, 10A, Tf 110°C	IEC/EN60691	VDE 40017228
(Alternative)	Therm-O-Disc Europe B.V.Gulberg 33	E4 Series	250VAC, 10A, Tf 110°C	IEC/EN60691	VDE 40017228
(Alternative)	Zhongshan Sheng Ping Thermal Protectors Co., Ltd.	SPF 106	250VAC, 10A, Tf 108°C	IEC/EN60691	VDE 40004430
(Alternative)	Aupo Electronics Ltd.	AF 104	250Vac, 10A, Tf 104°C	IEC/EN60691	VDE 40005418
(Alternative)	Aupo Electronics Ltd.	BF 104	250VAC, 10A, Tf 104°C	IEC/EN60691	VDE 40005418

Thermostat switch PDx-PARB	Guangzhou Jintong Industry Co., Ltd.	GWL-xyz series	250VAC; 20A Operation cycles: 1E5, T70	EN/IEC 60730-1 EN/IEC 60730-2-9	TUV R 50068189
(Alternative)	Foshan Tongbao Co., Ltd.	WK***-***-****	250VAC; 20A Operation cycles: 1E5, T60	EN/IEC 60730-1 EN/IEC 60730-2-9	VDE 40011452
Humidity switch for PDx-PARB	Tecx-Unions Technology Corporation	TW2001R-A	AC 240V; 50Hz; Operation cycles: 6000	EN/IEC 61058-1	VDE 40004882
(Alternative)	Auone Electronic Manufacturing Ltd	H4600D,H4600E	AC 250V; 50Hz; 10A;Operation cycles: 10E4;	EN/IEC 61058-1	TUV PS B131175998004
Internal wire for motor and Compressor and PTC	Lu Chiang Electric Wire & Cable Industrial Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E72332
(Alternative)	Dongguan Guneetal Wire & Cable Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E204204
(Alternative)	Xinya Electronic Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E170689
(Alternative)	Zhongshan Dongfeng Zhoushishenlong Electronic Wire Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E257280
(Alternative)	Foshan Zhuo Sheng Green Wire Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E251755
(Alternative)	Zhong Shan Kenda Electrical Factory	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E216895
(Alternative)	Shunde Yonggao Electric Appliance Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E178844
(Alternative)	Heshan City Tehsing Huanchiu Electric Cable Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E229340
(Alternative)	Zhong Shan Yong Roi Electric Factory Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E204893
(Alternative)	Zhongshan City Senbao Electric Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E199818
(Alternative)	Guang Dong Xin Long Enterprise Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E207567

(Alternative)	Shanghai Sumin Wire Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E212872
(Alternative)	Zhongshan Hualan Electronic Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E303124
(Alternative)	Rei Hsing Wire Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E108485
(Alternative)	Da Zheng Wire & Cable Mfg Ltd	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E256597
(Alternative)	Dong Guang Hu Men Wan Tong Electric Wire Factory	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E218585
(Alternative)	Zhongshan Nantou Boyu Wire Mfr	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E314089
(Alternative)	Dongguan Yue Yang Wire & Cable Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E230810
(Alternative)	Zhong Shan Shen Wan Fu Yuan Tong Wire & Cable Factory	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E241989
(Alternative)	Mainland Electric Wire & Cable Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E242365
(Alternative)	Zhong Shan Dong Sheng Colon Electrical Factory	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E256599
(Alternative)	Foshan Shunde Yonggaolian Wire & Cable Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E314925
(Alternative)	Linoya Electronic Technology Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E315619
(Alternative)	Zhongshan Xinsheng Electric Co., Ltd.	1015	16-24AWG, 105 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E328303
(Alternative)	Shenzhen Woer Heat-Shrinkable Material Co., Ltd.	3321	16-24AWG, 150 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance UL E227566
(Alternative)	Shenzhen Mysun Insulation Materials Co., Ltd.	UL 3123	16-24AWG, 600VAC, 150°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested With appliance UL E239689
(Alternative)	Shenzhen Mysun Insulation Materials Co., Ltd.	UL 3122	16-24AWG, 300VAC, 200°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested With appliance UL E239689
(Alternative)	Shenzhen Mysun Insulation Materials Co., Ltd.	UL 3135	16-24AWG, 300VAC, 200°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested With appliance UL E239689
Supplementary information:					

28.1	TABLE: Threaded part torque test		P
Threaded part identification	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)
Screw for earthing terminal	3,9	II	1,2

29.1	TABLE: Clearances					P
	Overvoltage category.. :	II				
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic	Functional	Supplementary	Reinforced	Verdict / Remark
330	0,5	--	--	--	--	N/A
500	0,5	--	--	--	--	N/A
800	0,5	--	--	--	--	N/A
1 500	0,5	--	--	--	--	N/A
2 500	1,5	--	--	--	--	N/A
2 500	**1,5**	--	**F1**	--	--	P
4 000	3,0	--	--	--	--	N/A
6 000	5,5	--	--	--	--	N/A
8 000	8,0	--	--	--	--	N/A
10 000	11,0	--	--	--	--	N/A
Remark: F1: Between L and N on PCB: 4,5 mm;						

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
≤50	0,2	0,6	0,8	1,1	1,4	1,6	1,8	N/A
>50 and ≤125	0,3	0,7	1,0	1,4	1,8	2,0	2,2	N/A
>125 and ≤250	0,4	1,0	1,4	2,0	2,5	2,8	3,2	N/A
>125 and ≤250	0,4	1,0	1,4	2,0	2,5	2,8	**3,2**	P
>250 and ≤400	0,8	1,6	2,2	3,2	4,0	4,5	5,0	N/A
>400 and ≤500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N/A
>500 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
Remark: F1: Between L and N on PCB: 4,5 mm								

TABLE 30	RENSISTANCE TO HEAT, FIRE AND TRACKING (appended table)													P
Component	Manufacturer	Type	Ball pressure test				Tracking test [CTI/ PTI]	Glow wire test					Needle-flame test	Verdict
			75°C	cl. 11 +40°C	125°C	cl. 19 +25°C		GWT 550°C	GWT 650°C	GWT 750°C	GWFI 850°C	GWIT		
All Relay	--	--	--	--	--	--	--	--	--	0	X	--	--	P
All PCB	--	--	--	--	--	--	--	--	--	--	--	--	X	P
Motor capacitor	--	--	--	--	--	--	--	--	--	0	X	--	--	P

[1] Flame persisting longer than 2 s
[2] Surrounding parts are subjected to the needle-flame test of annex E
[3] These parts subjected to the needle-flame test of annex E
[4] Adjacent parts subjected to the needle-flame test of annex E
[5] Parts of material classified as V-0 or V-1
[6] Base material classified as V-0
supplementary information:

---End of Report---

Attachment 2 Photo documentation
Report No.: GZES141101339802A1 Page 1 of 1

Type of equipment, model: Dehumidifier / PDx-PAyz
(x=10, 12, 16, 20; y=E, M1, RB, z=Blank, T (when x=16, 20; y=E, M1))

Details of: Alternative main PCB with transformer

View:

☒ general

☐ front

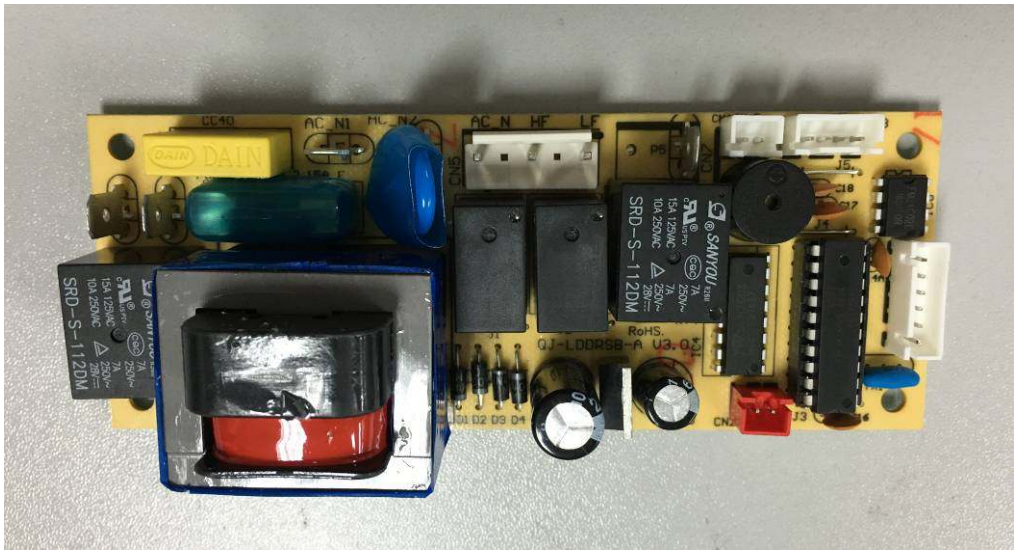
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: Alternative main PCB lay-out with transformer

View:

☒ general

☐ front

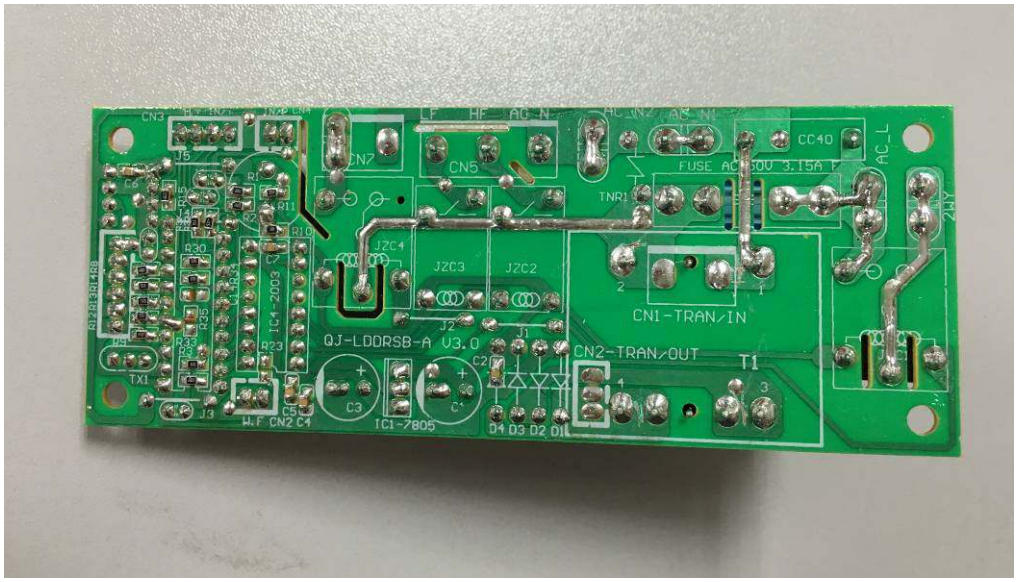
☒ rear

☐ right

☐ left

☐ top

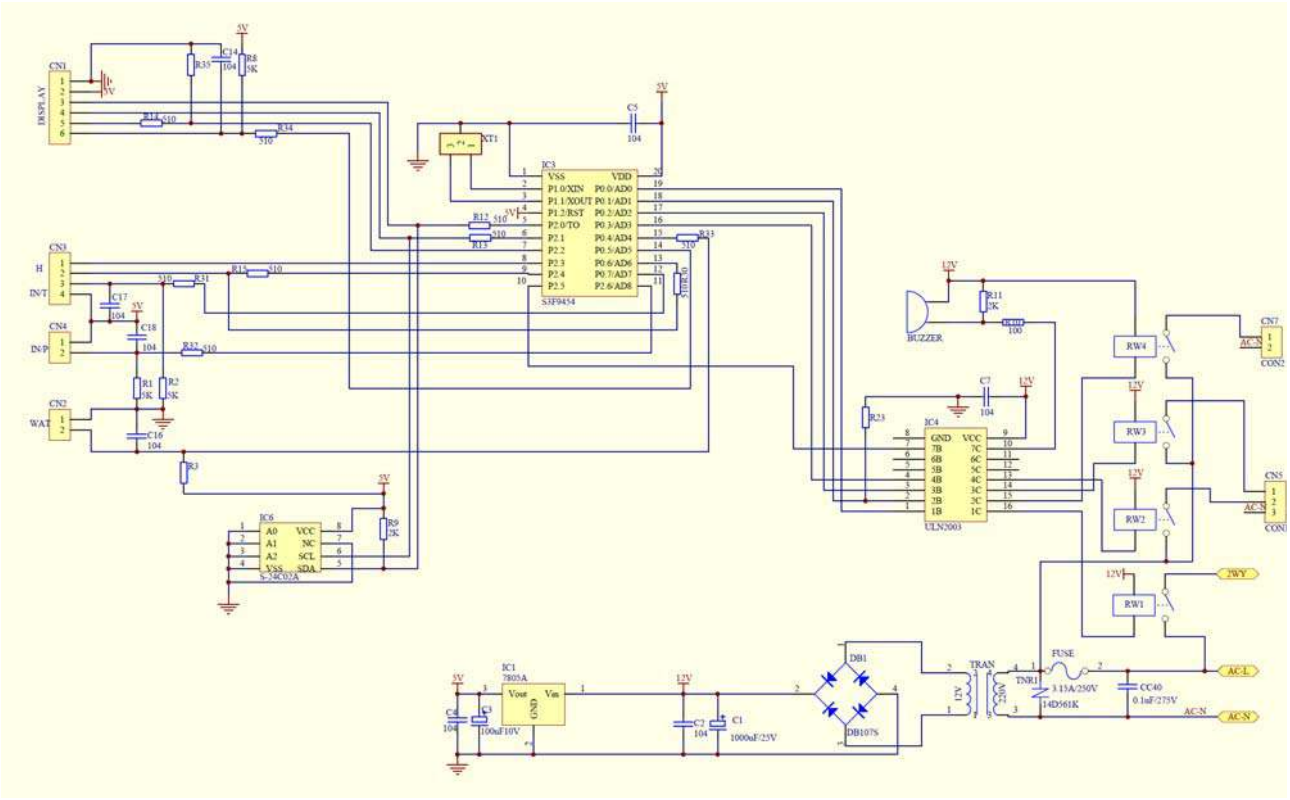
☐ bottom



--- End of Attachment 2 ---

Circuit diagram documents

Alternative main PCB with transformer:



---End of Attachment 3---

Attachment 4

Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-1 Household and similar electrical appliances – Safety – Part 1: General requirements	
Differences according to:	EN 60335-1:2012/ A11: 2014
Attachment Form No.:	EN 60335-1/A11
Attachment Originator:	SGS-CSTC
Master Attachment:	Date 2014-09

7.14	In NOTE Z1, replace "IEC 82079-1" by "EN 82079-1".		P
Annex ZF	In Table ZF.1 – List of standards under CLC/TC 61, replace line of EN 60335-2-38 by the following: EN 60335-2-38, Commercial electric griddles and griddle grills with moving parts		N/A

--- End of Attachment 4 ---

Clause	Requirement - Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60335-1
Household and similar electrical appliances – Safety –
Part 1: General requirements

Differences according to:	IEC 60335-1:2010 / A1: 2013
Attachment Form No.:	IEC60335-1/A1_B
Attachment Originator:	SGS-CSTC
Master Attachment:	Date 2014-09

IEC 60335-1: 2010 / A1: 2013			
7	Marking and instructions		—
7.1	Add the following new paragraph after Note 4: Class II appliances and class III appliances incorporating a functional earth shall be marked with the symbol IEC 60417-5018 (2011-07).		N/A
7.3	In Note 3, replace the text of the example by the following. EXAMPLE: 230 V /400 V 3N : The appliance is only suitable for the voltage values indicated, 230 V being for single-phase, a.c. operation and 400 V 3N for three-phase, a.c. with neutral operation (an appliance with terminals for both supplies).		N/A
7.4	Replace the requirement by the following: If the appliance can be adjusted for different rated voltages or rated frequencies, the voltage or the frequency to which the appliance is adjusted shall be clearly discernible. If frequent changes in voltage setting or frequency setting are not required, this requirement is considered to be met if the rated voltage or rated frequency to which the appliance is to be adjusted can be determined from a wiring diagram fixed to the appliance.		N/A
7.6	Replace [symbol ISO 7000-0434 (2004-01)] by [symbol ISO 7000-0434A (2004-01)		N/A
7.8	Add the following to the first paragraph of the requirement: – functional earthing terminals shall be indicated by symbol IEC 60417-5018 (2011-07).		N/A
7.12	Delete “for use” in the first paragraph and in the Note. Add the following after the existing last paragraph of the requirement: For appliances intended for use at altitudes exceeding 2 000 m, the maximum altitude of use shall be stated.		N/A
	The instructions for appliances incorporating a functional earth shall state the substance of the following: This appliance incorporates an earth connection for functional purposes only.		N/A

Clause	Requirement - Test	Result - Remark	Verdict
7.12.1	Add the following text: For appliances marked with different rated voltages or different rated frequencies (separated by a /), instructions shall be included to indicate to the user or installer what action must be taken to adjust the appliance for operation at the required rated voltage or rated frequency.		N/A
7.15	Add the following: The symbol IEC 60417-5018 (2011-07) shall be placed next to the symbol IEC 60417-5172 (2003-02) or the symbol IEC 60417-5180 (2003-02) as appropriate.		N/A
8	Protection against access to live parts		—
8.1.1	Delete the Note.		N/A
10	Power input and current		—
10.1	Replace the penultimate paragraph of the test specification by the following: If the power input varies throughout the operating cycle and the maximum value of the power input exceeds, by a factor greater than two, the arithmetic mean value of the power input occurring during a representative period, then the power input is the maximum value that is exceeded for more than 10 % of the representative period. Otherwise the power input is taken as the arithmetic mean value.		N/A
10.2	Replace the penultimate paragraph of the test specification by the following: If the current varies throughout the operating cycle and the maximum value of the current exceeds, by a factor greater than two, the arithmetic mean value of the current occurring during a representative period, then the current is the maximum value that is exceeded for more than 10 % of the representative period. Otherwise the current is taken as the arithmetic mean value.		N/A
11	Heating		—
11.8	Delete the second sentence of the first paragraph		P
	Table 3 and its notes modification *External enclosure of **motor-operated appliances** except handles held in normal use:*[m] – *of bare metal* 48 – *of coated metal*[n] 59 – *of glass and ceramic* 65 – *of plastic having a thickness exceeding 0,4 mm*[j] 74 *Surfaces of handles, knobs, grips and similar parts which are continuously held in normal use (e.g. soldering irons):*[m] – *of bare metal* 30 – *of coated metal*[n] 34 – *of porcelain or vitreous material* 40 – *of rubber or of plastic having a thickness exceeding 0,4 mm*[j] 50 – *of wood* 50 *Surfaces of handles, knobs, grips and similar parts*[k] *which are held for short periods only in normal use (e.g. switches):*[m] – *of bare metal* 35 – *of coated metal*[n] 39 – *of porcelain or vitreous material* 45 – *of rubber or of plastic having a thickness exceeding 0,4 mm*[j] 60 – *of wood* 65		P
13	Leakage current and electric strength at operating temperature		—

Clause	Requirement - Test	Result - Remark	Verdict
13.2	In the first paragraph, after “class II appliances” add “, class II constructions” and replace the second sentence by the following: For class 0I appliances and class I appliances, C may be replaced by a low impedance ammeter responding to the rated frequency of the appliance.		P
	Replace the second paragraph by the following: The leakage current is measured between any pole of the supply and – accessible metal parts intended to be connected to protective earth, for class I appliances and class 0I appliances; – metal foil having an area not exceeding 20 cm × 10 cm which is in contact with accessible surfaces of insulating material and metal parts not intended to be connected to protective earth, for class 0 appliances, class II appliances, class II constructions and class III appliances.		P
	Replace the fourth paragraph by the following: For single-phase appliances, the measuring circuit is shown in the following figures: – if they are class II appliances or parts of class II construction, Figure 1; – if they are neither class II appliances nor parts of class II construction, Figure 2.		P
	Replace the sixth paragraph by the following: For three-phase with neutral (3N~) connected appliances, the measuring circuit is shown in the following figures: – if they are class II appliances or parts of class II construction, Figure 3; – if they are neither class II appliances nor parts of class II construction, Figure 4.		N/A
	Delete “For three-phase appliances,” from the first sentence of the seventh paragraph.		N/A
	Replace the third sentence of the seventh paragraph by the following: For three-phase without neutral (3~) connected appliances, the measuring circuit in Figure 3 or Figure 4 shall be used as applicable, but the neutral is not connected to the appliance.		N/A
	In the existing eighth paragraph, replace the first dashed item by the following: – for class II appliances and for parts of class II construction 0,35 mA peak		P
15	Moisture resistance		—
15.2	Replace the first paragraph of the test specification by the following: Compliance is checked by the following test using a spillage solution comprising water containing approximately 1 % NaCl and 0,6 % rinsing agent.		N/A

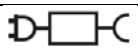
Clause	Requirement - Test	Result - Remark	Verdict
	Replace the fifth paragraph of the test specification by the following: The liquid container of the appliance is completely filled with the solution and a further quantity equal to 15 % of the capacity of the container or 0,25 l, whichever is the greater, is poured in steadily over a period of 1 min.		N/A
	Add the following new text as a penultimate paragraph: Any commercially available rinsing agent may be used, but if there is any doubt with regards to the test results, the rinsing agent shall have the following properties: – viscosity, 17 mPa.s; – pH, 2,2 (1 % in water). and its composition shall be *Substance* / *Parts by mass %* Plurafac ® LF 221[2] — 15,0 Cumene sulfonate (40 % solution) — 11,5 Citric acid (anhydrous) — 3,0 Deionized water — 70,5		N/A
16	Leakage current and electric strength		—
16.2	Replace the first paragraph by the following: An a.c. test voltage is applied between live parts and – accessible metal parts intended to be connected to protective earth, for class I appliances and class 0I appliances; – metal foil having an area not exceeding 20 cm × 10 cm which is in contact with accessible surfaces of insulating material and metal parts not intended to be connected to protective earth, for class 0 appliances, class II appliances, class II constructions and class III appliances.		P
	In the fourth paragraph, replace the first dashed item by the following: – for class II appliances and for parts of class II construction		P
19	ABNORMAL OPERATION		—
19.7	Add the following to the fourth paragraph. If the timer or programmer is an electronic type that operates to ensure compliance with the test before the maximum period under the conditions of Clause 11 is reached, it is considered to be a protective electronic circuit as well as a control that operates under the conditions of Clause 11.		N/A

Clause	Requirement - Test	Result - Remark	Verdict
19.11.4.4	Replace the first paragraph by the following: The power supply terminals of the appliance are subjected to voltage surges in accordance with IEC 61000-4-5, five positive impulses and five negative impulses being applied at the selected points. An open circuit test voltage of 2 kV is applicable for the line-to-line coupling mode, a generator having a source impedance of 2 Ω being used. An open circuit test voltage of 4 kV is applicable for the line-to-earth coupling mode, a generator having a source impedance of 12 Ω being used.		N/A
22	Construction		—
22.5	In the requirement, replace “exceeding” by “equal to or greater than”.		N/A
	Add the following text after the existing last paragraph of the test specification. If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied one at a time to the appliance. The discharge test is then repeated three times and for each test, the voltage shall not exceed 34 V.		N/A
22.32	Replace the words ‘Insulating material’ at the beginning of the 4th paragraph of the requirement by ‘Ceramic and similar porous material’ and combine this paragraph with the third paragraph of the requirement.		N/A
22.33	Add the following to the first sentence of the first paragraph of the requirement: “or unearthed metal parts that are separated from live parts by basic insulation only.”		N/A
22.35	In the second paragraph of the requirement add ‘and cordless appliances’ after ‘stationary appliances’.		N/A
	Add the following note after the requirement: NOTE A cordless appliance is an appliance that is connected to the supply only when placed on its associated stand.		N/A
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts shall have at least double insulation or reinforced insulation between live parts and the functionally earthed parts.		N/A
22.54	Button cells and batteries designated R1 shall not be accessible without the aid of a tool unless the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously.		N/A
23	Internal wiring		—
23.5	Replace Note 2 by the following text. For class II construction, the requirements for supplementary insulation and reinforced insulation apply except that the sheath of a cord complying with IEC 60227 or IEC 60245 may provide supplementary insulation.		P

Clause	Requirement - Test	Result - Remark	Verdict
	A single layer of internal wiring insulation does not provide reinforced insulation.		P
24	COMPONENTS		—
24.1	Replace Notes 1, 2, 3 and 4 by the following, and renumber Note 5 to Note 2.		—
	Compliance with the IEC standard for the relevant component does not necessarily ensure compliance with the requirements of this standard.		P
	Motors are not required to comply with IEC 60034-1. They are tested as part of the appliance according to this standard.		P
	Relays shall be tested as part of the appliance according to this standard. They may be alternatively tested to IEC 60730-1, in which case they must also meet the additional requirements in IEC 60335-1.		P
	Unless otherwise specified, the requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance. Unless otherwise specified, components may comply with the requirements for clearances and creepage distances for functional insulation as specified in the relevant component standard.		P
	Unless otherwise specified, the requirements of 30.2 of this standard apply to parts of nonmetallic material in components including parts of non-metallic material supporting currentcarrying connections inside components.		P
	Components that have not been previously tested and shown to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2 of this standard.		N/A
	Components that have been previously tested and shown to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided that − the severity specified in the component standard is not less than the severity specified in 30.2 of this standard, and − unless the pre-selection alternatives in 30.2 are used, the test report for the component states the values of te and ti. as required by IEC 60695-2-11.		P
	If the above two conditions are not satisfied, the component shall be tested as part of the appliance.		P
	NOTE 1 There are two levels of severity specified for appliances for which 30.2.3 is applicable.		N/A
	Power electronic converter circuits are not required to comply with IEC 62477-1. They are tested as part of the appliance according to this standard.		N/A
24.1.2	Add the following text as a new first paragraph. The relevant standard for transformers in associated switch mode power supplies is Annex BB of IEC 61558-2-16. Clause 26 of IEC 61558-1 and Annex H of IEC 61558-1 are not applicable.		N/A

Clause	Requirement - Test	Result - Remark	Verdict
24.1.4	Add the following new paragraph: Thermal cut-outs of the capillary type shall comply with the requirements for type 2.K controls in IEC 60730-2-9.		N/A
24.1.5	In the second sentence of the first paragraph, add “class II” before “appliances”.		N/A
25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		—
25.1	Replace the first dashed item of the requirement by the following: – supply cord fitted with a plug, the current rating and voltage rating of the plug being not less than the corresponding ratings of its associated appliance;		P
25.7	Delete the third dashed item in the first paragraph of the requirement.		N/A
25.10	Add the following as a new paragraph to the requirement. In multi-phase appliances, the colour of the neutral conductor of the supply cord, if any, shall be blue.		N/A
25.13	In the requirement, replace the second sentence by the following: If it is not evident from the construction of the appliance that the supply cord can be introduced without risk of damage, a non-detachable lining or non-detachable bushing shall be provided that complies with 29.3 for supplementary insulation.		N/A
25.15	Replace the second paragraph of the test specification by the following: A mark is made on the cord at a distance of approximately 20 mm from the cord anchorage or other suitable point. The mark is made while the cord is subjected to a pull force of – 100 N, for fixed appliances regardless of the mass of the appliance; – the value as shown in Table 12, for other appliances.		N/A
25.20	Delete “insulated” and “additionally” from the requirement.		N/A
27	Provision for earthing		—
27.1	In the first paragraph of the requirement replace “an insulation fault” by “a failure of basic insulation”.		P
	Delete Note 1 and replace “Note 2” by “Note”.		P
	Replace the third paragraph by the following: Class 0 appliances, class II appliances and class III appliances shall have no provision for protective earthing. Class II appliances and class III appliances may incorporate an earth for functional purposes.		N/A
27.2	Add the following paragraph to the requirement: These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes.		N/A

Clause	Requirement - Test	Result - Remark	Verdict
27.3	Add the following paragraph to the requirement: These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes.		N/A
27.4	Add the following paragraph to the requirement: These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes.		N/A
27.5	Add the following paragraph to the requirement:		N/A
	These requirements are not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes.		N/A
	Replace existing Note 1 by the following as an addition to the existing second paragraph of the test specification. The test is carried out until steady conditions have been established.		P
	Replace existing Note 2 by the following as an addition to the last paragraph of the test specification. The resistance of the supply cord is not included in the resistance calculation.		N/A
	Renumber existing Note 3 as Note.		N/A
27.6	Add the following sentence to the requirement: This requirement is not applicable to class II appliances and class III appliances that incorporate an earth for functional purposes.		N/A
28	Screws and connections		—
28.2	In the second paragraph of the requirement, replace bullets with dashes in the two bulleted items.		N/A
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		—
29.1	Add the following as a new second paragraph of the requirement: For appliances intended for use at altitudes exceeding 2 000 m, the clearances in Table 16 shall be increased according to the relevant multiplier values in Table A.2 of IEC 60664-1.		N/A
	Add the following to the existing second paragraph of the requirement: or to appliances intended for use at altitudes exceeding 2 000 m.		N/A
	Table 17 – Minimum creepage distances for basic insulation		—
	Replace Note 1 by the following: Lacquered conductors of windings are considered to be bare conductors but creepage distances for basic insulation in other than a double insulation construction need not be greater than the associated clearance specified in Table 16 taking into account 29.1.1.		P

Clause	Requirement - Test	Result - Remark	Verdict
29.3	Replace the third dashed item by the following: – for insulation, other than single layer internal wiring insulation, by an assessment of the thermal quality of the material combined with an electric strength test, in accordance with 29.3.3 and for accessible parts of reinforced insulation consisting of a single layer, by measurement in accordance with 29.3.4, or		P
	Add the following as the fourth dashed item of the test specification: − by an assessment of the thermal quality of the material according to 29.3.3 combined with an electric strength test in accordance with 23.5, for each single layer internal wiring insulation touching each other, or		P
ANNEX B	Appliances powered by rechargeable batteries that are recharged in the appliance		—
	Replace the introductory text		—
7	Marking and instructions		—
7.1	Add the following: Appliances intending to be supplied from a detachable supply unit for the purposes of recharging the battery shall be marked with symbol IEC 60417-6181 (2013-03) and its type reference along with symbol ISO 7000-0790 (2004-01) or with the substance of the following: Use only with <model designation> supply unit		N/A
7.6	Add the following:		—
	 [symbol IEC 60417-6181 (2013-03)] detachable supply unit		N/A
7.12	Add the following: For appliances intending to be supplied from a detachable supply unit for the purposes of recharging the battery, the type reference of the detachable supply unit shall be stated along with the substance of the following: WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.		N/A
	If the symbol for detachable supply unit is used, its meaning shall be explained.		N/A
7.15	Add the following: The type reference of the detachable supply unit shall be placed in close proximity to the symbol.		N/A
11	Heating		—
11.8	The temperature rise of the battery surface shall not exceed the temperature rise limit in the battery manufacturer's specification for the type of battery supplied. If no limit is specified, the temperature rise shall not exceed 20 K.		N/A
19	Abnormal operation		—

Clause	Requirement - Test	Result - Remark	Verdict
19.13	The battery shall not rupture or ignite.		N/A
ANNEX H	Switches		—
20	Clearances, creepage distances, solid insulation and coatings of rigid printed board assemblies		—
	Replace the text by the following: Clause 20 is applicable to clearances across full disconnection and micro-disconnection. It is also applicable to creepage distances for functional insulation, across full disconnection and micro-disconnection, as stated in Table 24.		N/A
ANNEX S	Battery-operated appliances powered by batteries that are non-rechargeable or not recharged in the appliance		—
5	General conditions for the tests		—
5.8.1	Where the supply terminals for the connection of the battery have no indication of polarity, the more unfavourable polarity shall be applied.		N/A
5.S.101	Battery-operated appliances intended for use with a battery box are tested with the battery box supplied with the appliance or with the battery box recommended in the instructions.		N/A
5.S.102	Battery-operated appliances are tested as motor-operated appliances.		N/A
7	Marking and instructions		—
7.1	Battery-operated appliances shall be marked with the battery voltage and the polarity of the terminals unless the polarity is irrelevant.		N/A
	Battery-operated appliances shall also be marked with the – name, trade mark or identification mark of the manufacturer or responsible vendor; – model or type reference; – IP number according to degree of protection against ingress of water, other than IPX0; – type reference of battery or batteries.		N/A
	If relevant, the positive terminal shall be indicated by the symbol IEC 60417-5005 (2002-10) and the negative terminal by the symbol IEC 60417-5006 (2002-10).		N/A
	If appliances use more than one battery, they shall be marked to indicate correct polarity connection of the batteries.		N/A
	NOTE 1 Examples of acceptable marking representing three batteries are shown in Figure S.1.		N/A
	NOTE 2 It is not necessary for the rated current or rated power input to be marked.		N/A
7.6	+ [symbol IEC 60417-5005 (2002-10)] plus; positive polarity — [symbol IEC 60417-5006 (2002-10)] minus; negative polarity		N/A

Clause	Requirement - Test	Result - Remark	Verdict
7.12	The instructions for battery-operated appliances shall contain the substance of the following, as applicable: – the types of batteries that may be used; – how to remove and insert the batteries; – non-rechargeable batteries are not to be recharged; – rechargeable batteries are to be removed from the appliance before being charged; – different types of batteries or new and used batteries are not to be mixed; – batteries are to be inserted with the correct polarity; – exhausted batteries are to be removed from the appliance and safely disposed of; – if the appliance is to be stored unused for a long period, the batteries should be removed; – the supply terminals are not to be short-circuited.		N/A
11	Heating		—
11.5	By means of an external power supply, battery-operated appliances are supplied at the terminals for the connection of the battery with the most unfavourable supply voltage between – 0,55 and 1,0 times the battery voltage, if the appliance can be used with non-rechargeable batteries; – 0,75 and 1,0 times battery voltage, if the appliance is designed for use with rechargeable batteries only.		N/A
	The values specified in Table S.101 for the internal resistance per cell of the battery shall be taken into account.		N/A
19	Abnormal operation		—
19.1	For battery-operated appliances, the tests are carried out with the battery fully charged unless otherwise specified.		N/A
19.13	The battery shall not rupture or ignite.		N/A
19.S.101	Battery-operated appliances are supplied with the voltage specified in 11.5. The supply terminals having an indication of polarity are connected to the opposite polarity, unless such a connection is unlikely to occur due to the construction of the appliance.		N/A
19.S.102	For battery-operated appliances with provision for multiple batteries, one or more of the batteries shall be reversed and the appliance shall be operated, if reversal of batteries is allowed by the construction.		N/A
25	Supply connection and external flexible cords		—
25.5	The flexible leads or flexible cord used to connect an external battery or battery box in battery-operated appliances shall be connected to the appliance by a type X attachment.		N/A

Clause	Requirement - Test	Result - Remark	Verdict
25.13	This requirement is not applicable to the flexible leads or flexible cord connecting external batteries or a battery box with an appliance.		N/A
25.S.101	Battery-operated appliances shall have suitable means for connection of the battery. If the type of battery is marked on the appliance, the means of connection shall be suitable for this type of battery.		N/A
26	Terminals for external conductors		—
26.5	Terminal devices in an appliance for the connection of the flexible leads or flexible cord connecting an external battery or battery box shall be so located or shielded that there is no risk of accidental connection between supply terminals.		N/A
30	Resistance to heat and fire		—
30.2.3.2	Addition: There shall be no battery in the area of the vertical cylinder used for the consequential needle flame test unless the battery is shielded by a barrier that meets the needle flame test of Annex E or that comprises material classified as V-0 or V-1 according to IEC 60695-11-10 provided that the test sample used for the classification was no thicker than the relevant part of the appliance.		N/A

--- End of Attachment 5 ---