Test Report issued under the responsibility of:

**SGS Fimko Ltd.**

# TEST REPORT
## IEC 60335-2-80
## Safety of household and similar electrical appliances
## Part 2 : Particular requirements for fans

| | |
|---|---|
| **Report Number. .....:** | GZES181100287803A2 |
| **Date of issue .....:** | 2018-11-26, Amendment no.2: 2019-10-17 |
| **Total number of pages.....:** | 43 |
| **Applicant's name .....:** | |
| **Address .....:** | |
| **Test specification:** | |
| **Standard.....:** | IEC 60335-2-80:2002 (Second edition) + A1:2004 +A2:2008 in conj. With IEC 60335-1:2010 (Fifth Edition) |
| **Test procedure .....:** | CB Scheme |
| **Non-standard test method……..:** | N/A |
| **Test Report Form No. .....:** | IEC60335_2_80E |
| **Test Report Form(s) Originator ....:** | DEKRA Certification B.V. |
| **Master TRF.....:** | Dated 2012-09 |



If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

**This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

| | |
|---|---|
| **Test item description..... :** | **Multifunction Fan** |
| **Trade Mark..... :** | **Midea** |
| **Manufacturer..... :** | Same as applicant |
| **Model/Type reference..... :** | FS40-13QR, FS40-13QRA |
| **Ratings..... :** | 220 V - 240 V; 50 Hz; T; Class II;<br>For FS40-13QR: Fan: 60 W, Total: 100 W;<br>For FS40-13QRA: Fan: 60 W, Total: 95 W |

| | | | |
|---|---|---|---|
| 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, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China | |
| ☐ | **Associated Laboratory:** | N/A | |
| Testing location/ address..……...: | | | |
| | Tested by (name + signature): | Jacky Lv / Project Engineer | Jacky Lv |
| | Approved by (+ signature).....: | Leif Hong / Reviewer | |
| ☐ | **Testing procedure: TMP** | N/A | |
| | Tested by (name + signature): | | |
| | Approved by (+ signature).....: | | |
| Testing location/ address..……...: | | | |
| ☐ | **Testing procedure: WMT** | N/A | |
| | Tested by (name + signature): | | |
| | Witnessed by (+ signature): | | |
| | Approved by (+ signature).....: | | |
| Testing location/ address..……...: | | | |
| ☐ | **Testing procedure: SMT** | N/A | |
| | Tested by (name + signature): | | |
| | Approved by (+ signature).....: | | |
| | Supervised by (+ signature) .....: | | |
| Testing location/ address..……...: | | | |
| ☐ | **Testing procedure: RMT** | N/A | |
| | Tested by (name + signature): | | |
| | Approved by (+ signature).....: | | |
| | Supervised by (+ signature) .....: | | |
| Testing location/ address..……...: | | | |

**List of Attachments:**

Attachment 7 includes 3 pages of photo documentation.

**Summary of testing:**

**Tests performed (name of test and test clause):**

Tests according to the following standards were carried out:
IEC 60335-2-80: 2002 + A1: 2004 + A2: 2008
IEC 60335-2-98: 2002 + A1: 2004 + A2: 2008
IEC 60335-1: 2010
**For Model FS40-13QR following standards were also considered:**
IEC 60335-2-101: 2002 + A1: 2008 + A2: 2014

After reviewed, the following tests were done.

| Model | Test items |
|---|---|
| FS40-13QR | clause 10, 11, 13, 15, 16, 19.7, 19.13, 24.5, 29.1.1, 29.1.5, 29.2.1, 30.1, 30.2.3 and construction check. |
| FS40-13QRA | clause 10 and construction check. |

The tests were carried out at an ambient temperature of 23±2°C with all functions operated.
Tests of clauses 10, 11 and 13 were carried out at an ambient temperature of 40±2°C with fan function operated only.
All tests were done in Shunde CBTL.
The submitted samples fulfil the requirements of the above standards.
The test data is based on test report of GZES170801444301.

**Testing location:**

See page 2

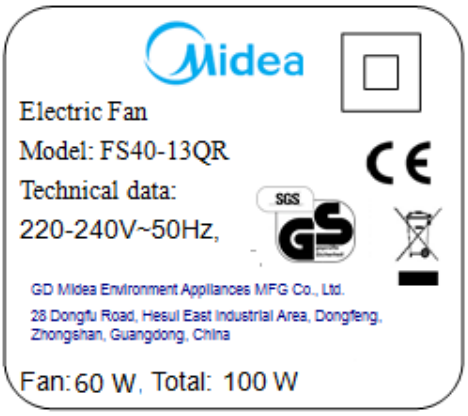
**Summary of compliance with National Differences**

EU Group differences, DE.
EK decisions according to German ProdSG have been taken into account.
PAH risk evaluation according to AfPS GS 2014:01 PAK.
☒ **The product fulfils the requirements of**
**EN 60335-2-80: 2003 + A1: 2004 + A2: 2009,**
**EN 60335-2-98: 2003 + A1: 2005 + A2: 2008,**
**EN 60335-1: 2012 + A11: 2014 + A13: 2017**
**EN 62233: 2008.**
**For Model FS40-13QR following standards were also considered:**
**EN 60335-2-101: 2002 + A1: 2008 + A2: 2014**

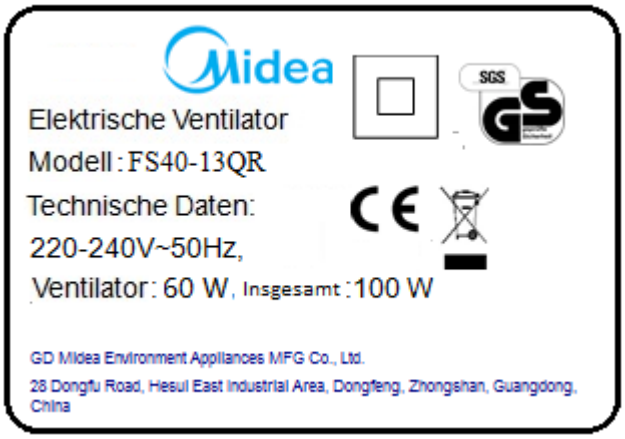
**Copy of marking plate:**
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

For CB


For CE GS (English)




For GS (German)




Remark:
Model “FS40-13QRA” was the same as above label except for the model name and ratings.

1. The Height of CE logo shall not be less than 5 mm; Height of WEEE logo shall not be less than 7 mm;
2. 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.
3. 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 for household use |
| Supply Connection ..... : | Non-detachable cord fitted with a 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 ..... : | 2017-08-28<br>2019-09-12 |
| Date (s) of performance of tests ..... : | 2017-08-28 to 2018-01-24<br>2019-09-12 to 2019-10-17 |

**General remarks:**

"(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.**


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 report GZES181100287803A2 is not valid without report GZES181100287801 and GZES181100287802A1.

**Manufacturer's Declaration per sub-clause 6.2.5 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**<br>☒ **Not applicable** |

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

| | |
|---|---|
| **Name and address of factory (ies) .....:** | Same as applicant |

**General product information:**

Fan with humidifier and vaporizer functions for household and indoor use only.

Model FS40-13QRA which was identical to model FS40-13QR except for the ratings, PCB designed and front cover. And FS40-13QRA had no vaporizer function.

FS40-13QRA is based on model FS40-13QR remove vaporizer function and corresponding components.

**Amendment 1:**

The original test report Reference No. GZES181100287801, dated 2018-11-26 was amended on 2019-01-28 to include the following additions, which were considered technical modifications:

1. Added national difference for Germany.
2. Added PAHs risk evaluation according to AfPS GS 2014:01 PAK.
3. Added alternative fuse-link. Details see below table:

| Component | Manufacturer/ trademark | Type/model | Value / rating | Approval/ Reference |
|---|---|---|---|---|
| Fuse-link | XC Electronics (Shen Zhen) Corp. Ltd. | 4T | AC 250 V, 2 A | VDE 40029295 |

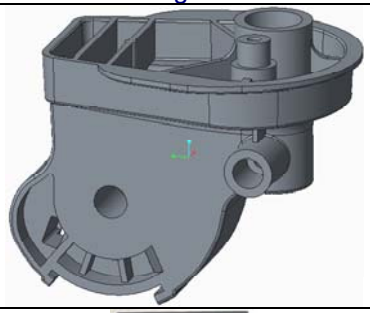
For the relevant test, see “Summary of testing”.

**Amendment 2:**

The original test report Reference No. GZES181100287801, dated 2018-11-26 was amended on 2019-10-17 to include the following additions, which were considered technical modifications:

1. Added alternative construction.
2. Added alternative Infrared controller.

Details see below table:

| Original | Alternative |
|---|---|
|  |  |
|  |  |

3. Added alternative power cord, plug, motor and motor capacitor, Details see below table:

| Component | Manufacturer/ trademark | Type/model | Value / rating | Approval/ Reference |
|---|---|---|---|---|
| Power cord | Foshan Shunde Jiafengshou Plastics Mfg Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | VDE 40047236 |
| AU power cord | Unirise Electric Wire & Cable Co., Ltd. | H05VVH2-F H05VV-F | 2x0,75 $mm^2$ | NSW 23360 |
| BS Plug | Ming Tak Electrical Wiring Co., Ltd. | MT-88 | AC 250 V, 3 A with 3 A fuse link | ASTA 943 |
| (Alt.) | Linoya Electronic Technology Co., Ltd. | XYP-213 | AC 250 V, 3 A with 3 A fuse link | ASTA 1043 |
| (Alt.) | Guangzhou Huan Qiu Electrical & Appliance Co., Ltd. | HQ-BS301, HQ-BS305 | AC 250 V, 3 A with 3 A fuse link | ASTA 1024 |
| (Alt.) | Ming Tak Electrical Wiring Co., Ltd. | NS-17A | AC 250 V, 3 A with 3 A fuse link | ASTA 626 |
| (Alt.) | Unirise Electric Wire & Cable Co., Ltd. | UE-324 | AC 250 V, 3 A with 3 A fuse link | ASTA 941 |
| (Alt.) | Guangdong Kai Hua Electric Appliance Co., Ltd. | KH-9933 | AC 250 V, 3 A with 3 A fuse link | ASTA 1053 |
| (Alt.) | Dongguan Ubill Electrical Co., Ltd. | 8801, 8802 | AC 250 V, 3 A with 3 A fuse link | ASTA 805 |
| Plug | Foshan Shunde Jiafengshou Plastics Mfg Co., Ltd. | JFS-201 | AC 250 V, 2,5 A | VDE 40048393 |
| AU plug | Shenzhen Linoya Electronic Co., Ltd. | XYP-04 | AC 250 V, 3 A, 7,5 A | SAA-192723-EA |
| (Alt.) | Unirise Electric Wire & Cable Co., Ltd. | UE-231 | AC 250 V, 10 A | NSW 18626 |
| (Alt.) | Unirise Electric Wire & Cable Co., Ltd. | UE-232 | AC 250 V, 7,5 A | NSW 18626 |
| Motor | GD Midea Environment Appliances MFG. Co., Ltd. | YSF-12-4-60 | 220-240 V, 50 Hz, Class 130 | Tested with appliance |
| Motor capacitor for YSF-12-4-60 | Sheng Ye Electrical Co., Ltd. | C61-P2-32 | 1,0µF, AC 450 V, T70 | TUV PS B 16 01 73204021 |

| | | | | |
|---|---|---|---|---|
| (Alt.) | Guangdong Fengming Electronic Tech. Co., Ltd. | CBB61-P2 | 1,0μF, AC 450 V, T70 | TUV R 50163114 |
| (Alt.) | Guangdong Shuntai Capacitors & Electrical Equipment Co., Ltd. | CBB61A | 1,0μF, AC 450 V, T70 | TUV R 50268803 |
| (Alt.) | Shunde Kesheng Electronic Co., Ltd. | CBB61S | 1,0μF, AC 450 V, T70 | TUV R 50276081 |

For the relevant test, see “Summary of testing”.

| IEC 60335-2-80 | | | |
|---|---|---|---|
| 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 |
| | Appliances are tested with shutters or similar devices in the open position.(IEC 60335-2-80) | | N/A |
| 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 |
| | Appliances are tested with shutters or similar devices in the open position. (IEC 60335-2-80) | | N/A |
| 11 | HEATING | | -- |
| 11.1 | No excessive temperatures in normal use | | P |
| 11.2 | The appliance is held, placed or fixed in position as described.....: | Placed on floor | P |
| 11.3 | Temperature rises, other than of windings, determined by thermocouples | | P |
| | Temperature rises of windings determined by resistance method, unless | | P |
| | the windings are non-uniform or it is difficult to make the necessary connections | Transformer, DC motor | P |
| 11.4 | Heating appliances operated under normal operation at 1.15 times rated power input (W) .....: | | N/A |
| 11.5 | Motor-operated appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V).....: | 254,4 V | P |
| 11.6 | Combined appliances operated under normal operation at most unfavourable voltage between 0.94 and 1.06 times rated voltage (V).....: | 254,4 V | P |
| 11.7 | Appliances are operated until steady conditions are established. (IEC 60335-2-80) | | P |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 11.8 | Temperature rises monitored continuously and not exceeding the values in table 3 .....: | (see appended table) | P |
| | If the temperature rise of a motor winding exceeds the value of table 3, or | | N/A |
| | if there is doubt with regard to classification of insulation, | | N/A |
| | tests of Annex C are carried out | | N/A |
| | Sealing compound does not flow out | | P |
| | Protective devices do not operate, except | | P |
| | components in protective electronic circuits tested for the number of cycles specified in 24.1.4 | | N/A |
| | The temperature rise limits for appliances for tropical climates are reduced by 15 K. (IEC 60335-2-80) | | P |
| | The temperature rise limits for fans marked with an ambient operating temperature are reduced by the difference between the marked value and 25 °C. (IEC 60335-2-80/A1) | | 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 | P |
| | Protective impedance and radio interference filters disconnected before carrying out the tests | | P |
| 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 | Class II construction | P |
| | For other appliances, a low impedance ammeter may be used | | N/A |
| | Leakage current measurements .....: | (see appended table) | P |
| 13.3 | The appliance is disconnected from the supply | | P |
| | Electric strength tests according to table 4 .....: | (see appended table) | P |
| | No breakdown during the tests | | P |
| 15 | MOISTURE RESISTANCE | | -- |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 15.1 | Enclosure provides the degree of moisture protection according to classification of the appliance | IPX0 | P |
| | Compliance checked as specified in 15.1.1, taking into account 15.1.2, followed by the electric strength test of 16.3 | | N/A |
| | No trace of water on insulation which can result in a reduction of clearances or creepage distances below values specified in clause 29 | | N/A |
| 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 |
| | The outer part of fans to be installed in the external structure is subjected to subclause 14.2.4(a) of IEC 60529. The outer part of fans is not to be installed in the external structure is protected against the water. (IEC 60335-2-80/A1) | | N/A |
| | The fans supplied as rated voltage with shutters or similar devices being the open position. (IEC 60335-2-80/A1) | | 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 60335-2-80 | | | |
|---|---|---|---|
| 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 | Spillage of liquid does not affect the electrical insulation | | P |
| | Appliances with type X attachment fitted with a flexible cord as described | | N/A |
| | Appliances incorporating an appliance inlet tested with or without an connector, whichever is most unfavourable | | N/A |
| | Detachable parts are removed | | P |
| | Overfilling test with additional amount of water, over a period of 1 min (l) .....: | 0,285 L | P |
| | The appliance withstands the electric strength test of 16.3 | | P |
| | No trace of water on insulation that can result in a reduction of clearances or creepage distances below values specified in clause 29 | | P |
| 15.3 | Appliances proof against humid conditions | | P |
| | Checked by test Cab: Damp heat steady state in IEC 60068-2-78 | | P |
| | Detachable parts removed and subjected, if necessary, to the humidity test with the main part | | P |
| | Humidity test for 48 h in a humidity cabinet | 25 °C; R.H. 93 % | P |
| | Reassembly of those parts that may have been removed | | P |
| | The appliance withstands the tests of clause 16 | (see appended table) | P |
| 16 | LEAKAGE CURRENT AND ELECTRIC STRENGTH | | -- |
| 16.1 | Leakage current not excessive and electric strength adequate | | P |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Protective impedance disconnected from live parts before carrying out the tests | | P |
| | Tests carried out at room temperature and not connected to the supply | | P |
| 16.2 | Single-phase appliances: test voltage 1.06 times rated voltage (V).....: | 254,4 V | P |
| | Three-phase appliances: test voltage 1.06 times rated voltage divided by √3 (V) .....: | | N/A |
| | Leakage current measurements .....: | (see appended table) | P |
| | Limit values doubled if: | | -- |
| | - all controls have an off position in all poles, or | | N/A |
| | - the appliance has no control other than a thermal cut-out, or | | N/A |
| | - all thermostats, temperature limiters and energy regulators do not have an off position, or | | N/A |
| | - the appliance has radio interference filters | | P |
| | With the radio interference filters disconnected, the leakage current do not exceed limits specified | | P |
| 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 | | P |
| | No breakdown during the tests | | P |
| 19 | ABNORMAL OPERATION | | -- |
| 19.7 | Stalling test by locking the rotor if the locked rotor torque is smaller than the full load torque, or | | N/A |
| | locking moving parts of other appliances | | P |
| | Locked rotor, capacitors open-circuited one at a time | | P |
| | Test repeated with capacitors short-circuited one at a time, unless | | N/A |
| | capacitor is of class P2 of IEC 60252-1 | | P |
| | Appliances with timer or programmer supplied with rated voltage for each of the tests, for a period equal to the maximum period allowed.....: | | N/A |
| | Other appliances supplied with rated voltage for a period as specified .....: | Operated until steady condition | P |
| | Winding temperatures not exceeding values specified in table 8.....: | (see appended table) | P |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Mounting of separate control (IEC 60335-2-8) | | N/A |
| | Approximately 50 % of the area of each ventilating opening is blocked. (IEC 60335-2-8) | | N/A |
| | Winding temperatures not exceeding values specified in table 8 (IEC 60335-2-80) | | N/A |
| | The temperature rise of the board not exceed: (IEC 60335-2-80) | | -- |
| | – 50 K, for appliances with T marking; | | N/A |
| | – 65 K, for other appliances. | | N/A |
| 19.13 | During the tests the appliance does not emit flames, molten metal, poisonous or ignitable gas in hazardous amounts | | P |
| | Temperature rises not exceeding the values shown in table 9.....: | (see appended table) | P |
| | Compliance with clause 8 not impaired | | P |
| | If the appliance can still be operated it complies with 20.2 | | P |
| | Insulation, other than of class III appliances or class III constructions that do not contain live parts, withstands the electric strength test of 16.3, the test voltage as specified in table 4: | | -- |
| | - basic insulation (V).....: | 1255,6 V | P |
| | - supplementary insulation (V) .....: | 2005,6 V | P |
| | - reinforced insulation (V) .....: | 3511,2 V | P |
| | After operation or interruption of a control, clearances and creepage distances across the functional insulation withstand the electric strength test of 16.3, the test voltage being twice the working voltage | | P |
| | The appliance does not undergo a dangerous malfunction, and | | P |
| | no failure of protective electronic circuits, if the appliance is still operable | | N/A |
| | Appliances tested with an electronic switch in the off position, or in the stand-by mode: | | N/A |
| | - do not become operational, or | | N/A |
| | - if they become operational, do not result in a dangerous malfunction during or after the tests of 19.11.4 | | N/A |
| | If the appliance contains lids or doors that are controlled by one or more interlocks, one of the interlocks may be released provided that: | | N/A |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | - the lid or door does not move automatically to an open position when the interlock is released, and | | N/A |
| | - the appliance does not start after the cycle in which the interlock was released | | N/A |
| 24 | COMPONENTS | | -- |
| 24.5 | Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance, and used accordingly | | P |
| | Voltage across capacitors in series with a motor winding does not exceed 1,1 times rated voltage, when the appliance is supplied at 1,1 times rated voltage under minimum load | Rated voltage of motor running capacitor: 450 V; Measured voltage: 492,0 V (limit: 495 V) | P |
| 29 | CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION | | -- |
| 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 |
| 29.1.5 | 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 | | N/A |
| | - 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 |
| | 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 |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | 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 |
| 29.2.1 | Creepage distances of basic insulation not less than specified in table 17.....: | (see appended table) | P |
| | However, if the working voltage is periodic and has a frequency exceeding 30 kHz, the creepage distances are also determined from table 2 of IEC 60664-4, these values being used if exceeding the values in table 17 .....: | | N/A |
| | Except for pollution degree 1, corresponding creepage distance not less than the minimum specified for the clearance in table 16, if the clearance has been checked according to the test of clause 14 .....: | | N/A |
| 30 | RESISTANCE TO HEAT AND FIRE | | -- |
| 30.1 | External parts of non-metallic material, | | N/A |
| | 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).....: | | N/A |
| | 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 |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | 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 |
| 30.2.3 | 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 | (see appended table) | 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 |
| | parts of non-metallic material within a distance of 3mm, | | 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 | (see appended table) | P |
| | - 650 °C, for other connections | | N/A |
| | 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 |

| IEC 60335-2-80 | | | |
|---|---|---|---|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | - 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 |
| | - 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 |

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|---|

| 10.1 | TABLE: Power input deviation | | | | P |
|---|---|---|---|---|---|
| **Input deviation of/at:** | **P rated (W)** | **P measured (W)** | **Δ P** | **Required Δ P** | **Remark** |
| 230 V, 50 Hz | 95 W | 72,3 W | -23,9 % | +20 % | FS40-13QRA, all functions operate |
| **Test with TYJ50-8A7** | | | | | |
| 230 V, 50 Hz | 60 W | 43,0 W | -28,3 % | +20 % | FS40-13QR, fan function with swing |
| | 100 W | 71,9 W | -28,1 % | +20 % | FS40-13QR, all functions operate |
| **Test with TYC50-B 4** | | | | | |
| 230 V, 50 Hz | 60 W | 42,0 W | -30,0 % | +20 % | FS40-13QR, fan function with swing |
| | 100 W | 71,3 W | -28,7 % | +20 % | FS40-13QR, all functions operate |

| 11.8-1 | TABLE: Heating test, thermocouple measurements (All functions operate) | | P |
|---|---|---|---|
| | Test voltage (V) ..... : | 254,4 V | — |
| | Ambient, t1 (°C) ..... : | 1) 22,7 °C; 2) 24,3 °C | — |
| | Ambient, t2 (°C) ..... : | 1) 24,3 °C; 2) 22,3 °C | — |

| Thermocouple locations | Max. temperature rise measured, dT (K) | | Max. temperature rise limit, dT (K) |
|---|---|---|---|
| | **FS40-13QR with PTC (Qingyuan Xingguang Electric Co., Ltd.)** | | |
| | 1) | 2) | |
| Fan Motor winding | 51,8 | -- | 85-15=70 / Class 130 |
| Syn. winding | 16,9 | 18,7 | 80-15=65 / Class 120 |
| Motor capacitor | 9,3 | -- | T70-40=30 |
| Motor plastic cover outside | 7,9 | -- | 75-15=60 |
| Motor plastic cover inside | 9,4 | -- | For cl. 30.1 |
| Internal wire to motor | 18,2 | -- | 50-15=35 |
| Internal wire to others | 18,6 | -- | 50-15=35 |
| PVC tube | 9,0 | -- | Ref. |
| X2 capacitor on humidifier PCB | 23,4 | -- | T100-40=60 |
| Varistor on humidifier PCB | 19,9 | -- | T85-40=45 |

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| | | | |
|---|---|---|---|
| Y capacitor on humidifier PCB | 28,7 | -- | T125-40=85 |
| Opto-coupler | 18,6 | -- | T100-40=60 |
| Transformer winding on humidifier PCB | 25,0 | -- | 65-15=50 / Class 105 |
| DC motor winding | 6,6 | -- | 80-15=65 / Class 120 |
| X2 capacitor on control panel PCB | 5,0 | -- | T100-40=60 |
| Varistor on control panel PCB | 4,8 | -- | T85-40=45 |
| Ionizer | 3,2 | -- | Ref. |
| Supply cord | 2,7 | -- | 50-15=35 |
| PCB material | 5,4 | -- | 120-15=105 |
| Control panel plastic inside | 4,5 | -- | For cl. 30.1 |
| Base red enclosure inside | 6,4 | -- | For cl. 30.1 |
| Base black enclosure inside | 1,6 | -- | For cl. 30.1 |
| Control panel button | 4,2 | -- | 60-15=45 |
| Enclosure of mosquito killer | 1,4 | -- | For cl. 30.1 |
| Plastic supporting humidifier PCB | 4,1 | -- | For cl. 30.1 |
| Test floor | 0,4 | -- | 65-15=50 |

| 11.8-1 | **TABLE: Heating test, resistance method (All functions operate)** | | | | **P** |
|---|---|---|---|---|---|
| | Test voltage (V) ..... : | 254,4 V | | | — |
| Temperature rise of winding | R1 (Ω) | R2 (Ω) | dT (K) | Max. dT (K) | Insulation class |
| 1) Main winding of fan motor | 476,7 | 577,0 | 51,6 | 95-15=80 | 130 |
| 1) Aux winding of fan motor | 348,8 | 388,9 | 27,1 | 95-15=80 | 130 |
| 1) Synchronous motor winding | 8978 | 9830 | 22,0 | 90-15=75 | 120 |
| 2) Synchronous motor winding | 12400 | 14359 | 42,5 | 90-15=75 | 120 |

Supplementary information:
1) Installed with SYN. motor TYJ50-8A7.
2) Installed with SYN. motor TYC50-B 4.

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| 11.8-2 | TABLE: Heating test, thermocouple measurements (fan function with swing) | | P |
|---|---|---|---|
| | Test voltage (V) ..... : | 254,4 V | — |
| | Ambient, t1 (°C) ..... : | 1) 38,9 °C; 2) 38,9 °C | — |
| | Ambient, t2 (°C) ..... : | 1) 40,8 °C; 2) 39,6 °C | — |

| Thermocouple locations | Max. temperature rise measured, dT (K) | | Max. temperature rise limit, dT (K) |
|---|---|---|---|
| | FS40-13QR | | |
| | 1) | 2) | |
| Fan Motor winding | 56,4 | -- | 85-15=70 / Class 130 |
| Syn. winding | 18,7 | 24,4 | 80-15=65 / Class 120 |
| Motor capacitor | 9,1 | -- | T70-40=30 |
| Motor plastic cover outside | 8,2 | -- | 75-15=60 |
| Motor plastic cover inside | 10,2 | -- | For cl. 30.1 |
| Internal wire to motor | 18,1 | -- | 50-15=35 |
| Internal wire to others | 18,9 | -- | 50-15=35 |
| PVC tube | 10,0 | -- | Ref. |
| X2 capacitor on humidifier PCB | 9,0 | -- | T100-40=60 |
| Varistor on humidifier PCB | 2,2 | -- | T85-40=45 |
| Y capacitor on humidifier PCB | 6,6 | -- | T125-40=85 |
| Opto-coupler | 1,1 | -- | T100-40=60 |
| Transformer winding on humidifier PCB | 3,7 | -- | 65-15=50 / Class 105 |
| DC motor winding | 4,2 | -- | 80-15=65 / Class 120 |
| X2 capacitor on control panel PCB | 5,0 | -- | T100-40=60 |
| Varistor on control panel PCB | 4,9 | -- | T85-40=45 |
| Ionizer | 2,4 | -- | Ref. |
| Supply cord | 1,4 | -- | 50-15=35 |
| PCB material | 6,4 | -- | 120-15=105 |
| Control panel plastic inside | 5,0 | -- | For cl. 30.1 |
| Base red enclosure inside | 2,1 | -- | For cl. 30.1 |
| Base black enclosure inside | 1,9 | -- | For cl. 30.1 |
| Control panel button | 0,4 | -- | 60-15=45 |
| Enclosure of mosquito killer | 2,9 | -- | For cl. 30.1 |
| Plastic supporting humidifier PCB | 1,3 | -- | For cl. 30.1 |

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| | | | | |
|---|---|---|---|---|
| Test floor | 7,6 | -- | 65-15=50 | |
| **11.8-2** | **TABLE: Heating test, resistance method (fan function with swing)** | | | **P** |
| | Test voltage (V) ..... : | 254,4 V | | — |

| Temperature rise of winding | R1 (Ω) | R2 (Ω) | dT (K) | Max. dT (K) | Insulation class |
|---|---|---|---|---|---|
| 1) Main winding of fan motor | 493,8 | 613,9 | 64,6 | 95-15=80 | 130 |
| 1) Aux winding of fan motor | 348,8 | 413,1 | 48,5 | 95-15=80 | 130 |
| 1) Synchronous motor winding | 8978 | 9830 | 22,0 | 90-15=75 | 120 |
| 2) Synchronous motor winding | 13369 | 15023 | 33,1 | 90-15=75 | 120 |
| Supplementary information:<br>1) Installed with SYN. motor TYJ50-8A7.<br>2) Installed with SYN. motor TYC50-B 4. | | | | | |

| **13.2** | **TABLE: Leakage current** | | **P** |
|---|---|---|---|
| | **Heating appliances: 1.15 x rated input (W) .. :** | — | — |
| | **Motor-operated and combined appliances: 1.06 x rated voltage (V)..... :** | 254,4 V | — |
| **Leakage current between:** | | **I (mA)** | **Max. allowed I (mA)** |
| Live part and accessible parts | | Max.: 0,01 | 0,35 Peak |

| **13.3** | **TABLE: Dielectric strength** | **P** |
|---|---|---|
| **Test voltage applied between:** | **Test potential applied (V)** | **Breakdown / flashover (Yes/No)** |
| Winding of motor and motor core | 1255,6 | No |
| Internal wire and accessible part | 2005,6 | No |
| Live parts and accessible part | 3511,2 | No |

| **16.2** | **TABLE: Leakage current** | | **P** |
|---|---|---|---|
| | **Single phase appliances: 1.06 x rated voltage (V) ..... :** | 254,4 V | — |
| | **Three phase appliances 1.06 x rated voltage divided by √3 (V)..... :** | — | — |
| **Leakage current between:** | | **I (mA)** | **Max. allowed I (mA)** |
| Live parts and accessible parts | | Max. 0,03 | 0,25 |

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| 16.3 | TABLE: Dielectric strength | P |
|---|---|---|

| Test voltage applied between: | Test potential applied (V) | Breakdown / flashover (Yes/No) |
|---|---|---|
| Winding of motor and motor core | 1505,6 | No |
| Internal wire and accessible part | 2005,6 | No |
| Live parts and accessible part | 3511,2 | No |

| 19 | Abnormal operation conditions | P |
|---|---|---|

| Operational characteristics | YES/NO | Operational conditions |
|---|---|---|
| Are there electronic circuits to control the appliance operation? | Yes | -- |
| Are there “off” or “stand-by” position? | Yes | Standby position |
| The unintended operation of the appliance results in dangerous malfunction? | No | -- |

| Sub-clause | Operating conditions description | Test results description | PEC description | EMP 19.11.4 | Software type required | 19.11.3 PEC | Final result |
|---|---|---|---|---|---|---|---|
| 19.2 | -- | -- | -- | -- | -- | -- | -- |
| 19.3 | -- | -- | -- | -- | -- | -- | -- |
| 19.4 | -- | -- | -- | -- | -- | -- | -- |
| 19.5 | -- | -- | -- | -- | -- | -- | -- |
| 19.6 | -- | -- | -- | -- | -- | -- | -- |
| 19.7 | Locked fan motor with motor capacitor open-circuit | No hazards | -- | -- | -- | -- | P |
| 19.9 | -- | -- | -- | -- | -- | -- | -- |
| 19.10 | -- | -- | -- | -- | -- | -- | -- |
| 19.11.2 | -- | -- | -- | -- | -- | -- | -- |
| 19.11.4.8 | -- | -- | -- | -- | -- | -- | -- |
| 19.10X | -- | -- | -- | -- | -- | -- | -- |

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| 19.7 | TABLE: Abnormal operation, locked rotor/moving parts | | P |
|---|---|---|---|
| | Test voltage (V): | 240 V | — |

| Temperature rise of winding | T (K) | Max. T (K) |
|---|---|---|
| | 19.7 | |
| Fan motor winding | 102,5 | 225-25=200 |
| Motor plastic cover inside | 3,9 | For cl. 30.1 |
| Internal wire to others | 39,3 | 50 |
| Opto-coupler | 21,6 | T100-25=75 |
| Transformer winding on humidifier PCB | 27,1 | 150-25=125 / Class 105 |
| Supply cord | 4,0 | 150 |
| Control panel plastic inside | 5,9 | For cl. 30.1 |
| Base red enclosure inside | 17,5 | For cl. 30.1 |
| Base black enclosure inside | 3,5 | For cl. 30.1 |
| Plastic supporting humidifier PCB | 6,8 | For cl. 30.1 |
| Test floor | 2,4 | 150 |
| Supplementary information: locked fan motor with motor capacitor open-circuit, thermal link operated. | | |

| 24.1 | TABLE: Critical components information | | | | P |
|---|---|---|---|---|---|
| **Object / part No.** | **Manufacturer/ trademark** | **Type / model** | **Technical data** | **Standard** | **Mark(s) of conformity** |
| Motor | GD Midea Environment Appliances MFG. Co., Ltd. | DT40Bg | 220-240 V, 50 Hz, 50 W, Class 120 | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | GD Midea Environment Appliances MFG. Co., Ltd. | DS40Bh or YSF-13-4-19 | 220-240 V, 50 Hz, Class 120 | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | GD Midea Environment Appliances MFG. Co., Ltd. | YSF-12-4-60 | 220-240 V, 50 Hz, Class 130 | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| Remarks:<br>motor DS40Bh is identical with YSF-13-4-19 except for different model names. | | | | | |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| Motor winding | Guangdong Wellkey Electric Material Co., Ltd. | UEW | 130°C | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E211138 |
| Thermal link | Honghu Bluelight Electronic Co., Ltd. | RH115-2 | 115 °C,<br>AC 250 V, 2 A | IEC 60691:2015<br>EN 60691:2016 | TUV R<br>50077755 |
| (Alt.) | Zhangzhou Aupo Electronics Co., Ltd. | A2-F | 115 °C,<br>AC 250 V, 2 A | IEC 60691:2015<br>EN 60691:2016 | VDE<br>40008720 |
| (Alt.) | Xiamen Set Electronics Co., Ltd. | K2 | 115 °C,<br>AC 250 V, 2 A | IEC 60691:2015<br>EN 60691:2016 | VDE<br>40017055<br>TUV R<br>50161772 |
| Internal wire to AC motor | Xinya Electronic Co., Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E170689 |
| (Alt.) | Yueqing City Gehong Wires & Cable Co., Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E240917 |
| (Alt.) | Zhongshan City Senbao Electric Co., Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E199818 |
| (Alt.) | Ltk Electric Wire (Huizhou) Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E148000 |
| (Alt.) | Jiang Men Gomentech Electrical Co., Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E248990 |
| (Alt.) | Heshan City Tehsing Huanchiu Electric Cable Co., Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E229340 |
| (Alt.) | Guangdong Dongju Wire & Cable Co., Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E189674 |
| (Alt.) | Guangdong Zhoushishenlong Wire Manufacture Co., Ltd. | 1015 / 1007 | 105°C/80°C,<br>600V/300V,<br>18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E257280 |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| (Alt.) | Foshan Shunde Jia Feng Shou Plastics Mfg Co., Ltd. | 1015 / 1007 | 105°C/80°C, 600V/300V, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E331775 |
| (Alt.) | Yueqing Guoxin Electric Wire Factory | 1015 / 1007 | 105°C/80°C, 600V/300V, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E247528 |
| (Alt.) | Changzhou Hong Chang Electronics Co., Ltd. | 1015 / 1007 | 105°C/80°C, 600V/300V, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E212395 |
| (Alt.) | Dongguan Nistar Transmitting Technology Co., Inc. | 1015 / 1007 | 105°C/80°C, 600V/300V, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E214184 |
| (Alt.) | Guangdong Lichang Industrial Co., Ltd. | 1015 / 1007 | 105°C/80°C, 600V/300V, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E228858 |
| (Alt.) | Zhuhai Heangwang Electronics Co., Ltd. | 1015 / 1007 | 18-26 AWG, 600 V and 105 ºC for 1015, 300 V and 80ºC for 1007 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E314186 |
| (Alt.) | Shenzhen Mysun Insulation Materials Co., Ltd. | 1015 / 1007 | 18-26 AWG, 600 V and 105 ºC for 1015, 300 V and 80ºC for 1007 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E239689 |
| (Alt.) | Zhongshan Meitao Electric Industrial Co., Ltd. | 1015 / 1007 | 18-26 AWG, 600 V and 105 ºC for 1015, 300 V and 80ºC for 1007 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E351651 |
| (Alt.) | Linoya Electronic Technology Co., Ltd. | 1015 / 1007 | 18-26 AWG, 600 V and 105 ºC for 1015, 300 V and 80ºC for 1007 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E315619 |
| (Alt.) | Kai Tai Industries Co. | 1015 / 1007/2468 | 18-26 AWG, 600 V and 105 ºC for 1015; 300 V and 80ºC for 1007 and 2468 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E214382 |
| (Alt.) | Zhongshan Zhoushi Shenlong Wire Manufacture Co., Ltd. | AVR-90 | 300 V, 0,2 - 0,4 $mm^2$ | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance |

| IEC 60335-2-80 | | | | | |
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| (Alt.) | Foshan Shunde Yeshun Electrical Appliance Co., Ltd. | AVR-90 | 300 V, 0,2 - 0,4 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | Foshan Shunde Harvest Plastic Co., Ltd. | AVR-90 | 300 V, 0,2 - 0,4 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | Changzhou City Xuexiang Telecommunication Component Co., Ltd. | AVR-90 | 300 V, 0,2 - 0,4 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | Foshan Shunde Lichang Industry Co., Ltd. | AVR-90 | 300 V, 0,2 - 0,4 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | Yueqing Guoxin Electrical Wire Factory | AVR-90 | 300 V, 0,2 - 0,4 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | Foshan Shunde Harvest Plastic Co., Ltd. | RV-90 | 300/500V, 0,25 $mm^2$ to 0,5 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | Zhongshan Meitao Electric Industrial Co., Ltd. | AV-90 | 300V/500V, 0,25 $mm^2$ to 0,5 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested witch appliance |
| (Alt.) | Zhongshan Meitao Electric Industrial Co., Ltd. | RV-90 | 300/500V, 0,25 $mm^2$ to 0,5 $mm^2$ | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested witch appliance |
| Internal wire to syn. motor | Zhongshan Yongrui Electric Wire Co., Ltd. | AVR-90 | 0.3$mm^2$ 300V | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance CCC 2007010105 219103 |
| (Alt.) | Guangdong Yongroi Cable Technology Co., Ltd. | 1015 | 600V, 105°C, 22 or 24AWG | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance UL E204893 |
| (Alt.) | Zhong Xian Electric Wire & Cable Co., Ltd. | AVR-90 | 0.3$mm^2$ 300V | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance & CCC 2013010105 638467 |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| (Alt.) | Zhong Xian Electric Wire & Cable Co., Ltd. | 1015 | 600V, 105°C, 22 or 24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E345624 |
| (Alt.) | Guangdong Zhoushi Shenlong Wire Manufacture Co., Ltd. | AVR-90 | 0.3mm$^2$ 300V | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>CCC 2010010105 386055 |
| (Alt.) | Guangdong Zhoushishenlong Wire Manufacture Co., Ltd. | 1015 | 600V, 105°C, 22 or 24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E257280 |
| (Alt.) | Guang Dong Xin Long Enterprise Co. | 1015 | 600V, 105°C, 22 or 24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E207567 |
| (Alt.) | Foshan City Shunde Area Beijiao Town Jinhui Plastic Metals Factory | AVR-90 | 0,3mm$^2$ 300V | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>CCC 2003010105 032274 |
| (Alt.) | Shunde Beijiao Jinhui Plastic Metals Factory | 1015 | 600V, 105°C, 22 or 24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E237283 |
| (Alt.) | Guangdong Lichang Industrial Co., Ltd. | AVR-90 | 0,3mm$^2$ 300V | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>CCC 2004010105 110725 |
| (Alt.) | Guangdong Lichang Industrial Co., Ltd. | 1015 | 600V, 105°C, 22 or 24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E228858 |
| (Alt.) | Yueqing Tianhe Motor Co., Ltd. | 1015 | 600V, 105°C, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E468600 |
| (Alt.) | Qifurui Electronics Co. | 1015 | 600V, 105°C, 16-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E211048 |
| (Alt.) | Qifurui Electronics Co. | 3122 | 300V, 200ºC, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E211048 |

| IEC 60335-2-80 | | | | | |
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| (Alt.) | Tition Electric Wire Group Co., Ltd. | 1015 | 600V, 105°C, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E216894 |
| (Alt.) | Zhejiang Londa Electronic Wire & Cable Co., Ltd. | 1015 | 600V, 105°C, 16-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E205056 |
| (Alt.) | Zhejiang Londa Electronic Wire & Cable Co., Ltd. | 3122 | 300V, 200ºC, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E205056 |
| (Alt.) | Shenzhen Mysun Insulation Materials Co., Ltd. | 3122 | 300V, 200ºC, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E239689 |
| (Alt.) | Ningbo Haoguang Electric Appliance Co., Ltd. | 1015 | 600V, 105°C, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E192545 |
| (Alt.) | Xingda Electronics Wire & Cable Co., Ltd. | 1015 | 600V, 105°C, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E187208 |
| (Alt.) | Jiangyin Tianqi Silicone Rubber Products Co., Ltd. | 3122 | 300V; 200°C; 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E225526 |
| (Alt.) | Dongguan Boli Electronic Co., Ltd. | 1015 | 600V, 105°C, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E305164 |
| (Alt.) | Guangdong Yongroi Cable Technology Co., Ltd. | 1015 | 600V, 105°C, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E204893 |
| (Alt.) | Zhuhai Heangwang Electronics Co., Ltd. | 1015 | 600V, 105ºC, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E314186 |
| (Alt.) | Hanstar Fluoro-Plastic Insulated Electric Wires | 1015 | 600V, 105°C, 18-24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E159007 |

| IEC 60335-2-80 | | | | | |
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| (Alt.) | Jiangmen City Pengjiang District Huaxing Electric Industrial Co., Ltd. | AVR-90 | 0,3mm², 300V | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>CCC 2013010105 614949 |
| (Alt.) | Yueqing Tianhe Motor Co., Ltd. | 1015 | 600V, 105°C, 22 or 24AWG | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E468600 |
| (Alt.) | Lonsid Electric Co., Ltd. | AVR-90 | 0,3mm², 300V | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>CCC 2004010105 130947 |
| DC fan | Shenzhen Sanly Electronic Co., Ltd. | SF6028SM | DC 24 V, Class 120 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance |
| Power cord | Unirise Electric Wire & Cable Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 40017449 |
| (Alt.) | New Square Company Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 116006 |
| (Alt.) | Linoya Electronic Technology Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 40035072 |
| (Alt.) | Guangzhou Huan Qiu Electrical & Appliance Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 40000917 |
| (Alt.) | Foshan Shunde Jiafengshou Plastics Mfg Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 40047236 |
| Power cord except GS | Xinya Electronic Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 40000965 |
| (Alt.) | Guangdong Xiongrun Electrical Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 40020627 |
| (Alt.) | Ningbo Haoda Electronics Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 134577 |
| (Alt.) | Hang Lee Industrial Co. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011<br>EN 50525-2-21:2011 | VDE 40008908 |

| IEC 60335-2-80 | | | | | |
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| (Alt.) | I-Sheng Electric Wire & Cable Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011 EN 50525-2-21:2011 | VDE 103726 |
| (Alt.) | Shunde Lunjiao Kaite Wire And Cables Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011 EN 50525-2-21:2011 | VDE 40004728 |
| (Alt.) | Dongguan City Xin Tai Electronic Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011 EN 50525-2-21:2011 | VDE 40029231 |
| (Alt.) | Toong Yean Plastic Ind. Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011 EN 50525-2-21:2011 | VDE 40024356 |
| (Alt.) | Changzhou Hong Chang Electronics Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011 EN 50525-2-21:2011 | VDE 124978 |
| (Alt.) | Guangdong KaiHua Electric Appliance Co., Ltd. | 60227 IEC 53, H05VV-F or H05VVH2-F | 2x0,5 $mm^2$ (Length<2m), 2x0,75 $mm^2$ | IEC 60227-5:2011 EN 50525-2-21:2011 | VDE 40001903 |
| AU power cord | Guangzhou Huan Qiu Electrical & Appliance Co., Ltd. | H05VVH2-F H05VV-F | 2x0,75 $mm^2$ | AS/NZS 60227.5:2003+A1 | NSW 24982 |
| (Alt.) | New Square Company Ltd. | H05VVH2-F H05VV-F | 2x0,75 $mm^2$ | AS/NZS 60227.5:2003+A1 | NSW 14440 |
| (Alt.) | Linoya Electronic Technology Co., Ltd. | H05VVH2-F H05VV-F | 2x0,75 $mm^2$ | AS/NZS 60227.5:2003+A1 | NSW 25761 |
| (Alt.) | Unirise Electric Wire & Cable Co., Ltd. | H05VVH2-F H05VV-F | 2x0,75 $mm^2$ | AS/NZS 60227.5:2003+A1 | NSW 23360 |
| BS Plug | Ming Tak Electrical Wiring Co., Ltd. | MT-88 | AC 250 V, 3 A with 3 A fuse link | BS 1363-1: 2016 +A1 | ASTA 943 |
| (Alt.) | Linoya Electronic Technology Co., Ltd. | XYP-213 | AC 250 V, 3 A with 3 A fuse link | BS 1363-1: 2016 +A1 | ASTA 1043 |
| (Alt.) | Guangzhou Huan Qiu Electrical & Appliance Co., Ltd. | HQ-BS301, HQ-BS305 | AC 250 V, 3 A with 3 A fuse link | BS 1363-1: 2016 +A1 | ASTA 1024 |
| (Alt.) | Ming Tak Electrical Wiring Co., Ltd. | NS-17A | AC 250 V, 3 A with 3 A fuse link | BS 1363-1: 2016 +A1 | ASTA 626 |
| (Alt.) | Unirise Electric Wire & Cable Co., Ltd. | UE-324 | AC 250 V, 3 A with 3 A fuse link | BS 1363-1: 2016 +A1 | ASTA 941 |

| IEC 60335-2-80 | | | | | |
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| (Alt.) | Guangdong Kai Hua Electric Appliance Co., Ltd. | KH-9933 | AC 250 V, 3 A with 3 A fuse link | BS 1363-1: 2016 +A1 | ASTA 1053 |
| (Alt.) | Dongguan Ubill Electrical Co., Ltd. | 8801, 8802 | AC 250 V, 3 A with 3 A fuse link | BS 1363-1: 2016 +A1 | ASTA 805 |
| Plug | Unirise Electric Wire & Cable Co., Ltd. | UE-211 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40014452 |
| (Alt.) | Linoya Electronic Technology Co., Ltd. | XYP-01 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40014956 |
| (Alt.) | New Square Company Ltd. | MT-11 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40009538 |
| (Alt.) | Foshan Shunde Jiafengshou Plastics Mfg Co., Ltd. | JFS-201 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40048393 |
| (Alt.) | Guangzhou Huan Qiu Electrical & Appliance Co., Ltd. | HQ-B201 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40004761 |
| Plug except GS | Hunan Aomeng Electrical Equipment Co., Ltd. | AM-008 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40015046 |
| (Alt.) | Ningbo Haoda Electronics Co., Ltd. | YD-1 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40014846 |
| (Alt.) | Shunde Lunjiao Kaite Wire And Cables Co., Ltd. | KE-101 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40008752 |
| (Alt.) | Toong Yean Plastic Ind. Co., Ltd. | TY-011 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40002154 |
| (Alt.) | Hong Shan Chuan Industry (Shen Zhen) Co., Ltd. | HSC-401 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40020005 |
| (Alt.) | Dongguan City Xintai Electronic Co., Ltd. | XT-101 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40033631 |
| (Alt.) | Changzhou Hong Chang Electronics Co., Ltd. | DTIII-2P-03 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40015278 |
| (Alt.) | Guangdong Kaihua Electric Appliance Co., Ltd. | KH-9903 | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 138563 |

| IEC 60335-2-80 | | | | | |
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| (Alt.) | Guangdong Kaihua Electric Appliance Co., Ltd. | KH-9903B | AC 250 V, 2,5 A | DIN VDE 0620 Teil 101:1992-05; EN 50075:1990 | VDE 40024149 |
| AU plug | New Square Company Limited | NS-51 | AC 250 V, 3 A, 7,5 A, 10 A | AS/NZS 3112:2011+A1 | NSW 18301 |
| (Alt.) | Guangzhou Huan Qiu Electrical & Appliance Co., Ltd. | HQ-AU201 | AC 250 V, 10 A | AS/NZS 3112:2011+A1 | TPE20207-A4 |
| (Alt.) | Shenzhen Linoya Electronic Co., Ltd. | XYP-04 | AC 250 V, 3 A, 7,5 A | AS/NZS 3112:2011+A1 | SAA-192723-EA |
| (Alt.) | Unirise Electric Wire & Cable Co., Ltd. | UE-231 | AC 250 V, 10 A | AS/NZS 3112:2011+A1 | NSW 18626 |
| (Alt.) | Unirise Electric Wire & Cable Co., Ltd. | UE-232 | AC 250 V, 7,5 A | AS/NZS 3112:2011+A1 | NSW 18626 |
| Motor capacitor for DT40Bg | New Tech Electronic Co., Ltd. | CBB61-P2 | 1,5μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50246603 |
| (Alt.) | Foshan Shunde Beijiao Hua Da Electric Industrial Co., Ltd. | CBB6-1 P2 | 1,5μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50033889 |
| (Alt.) | Sheng Ye Electrical Co., Ltd. | C61-P2-32 | 1,5μF, AC 450 V, T70 or T85 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV PS B 16 01 73204021 |
| (Alt.) | Guangdong Fengming Electronic Tech. Co., Ltd. | CBB61-P2 | 1,5μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50163114 |
| (Alt.) | Guangdong Shuntai Capacitors & Electrical Equipment Co., Ltd. | CBB61A | 1,5μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50268803 |
| (Alt.) | Foshan Shunde Hongye Electrical Appliance Co., Ltd. | CBB61 | 1,5μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50281536 |
| (Alt.) | Shunde Kesheng Electronic Co., Ltd. | CBB61S | 1,5uF, 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50276081 |

| IEC 60335-2-80 | | | | | |
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| Motor capacitor for DS40Bh and YSF-13-4-19 | New Tech Electronic Co., Ltd. | CBB61-P2 | 1,2μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50246603 |
| (Alt.) | Foshan Shunde Beijiao Hua Da Electric Industrial Co., Ltd. | CBB6-1 P2 | 1,2μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50033889 |
| (Alt.) | Sheng Ye Electrical Co., Ltd. | C61-P2-32 | 1,2μF, AC 450 V, T70 or T85 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV PS B 16 01 73204021 |
| (Alt.) | Guangdong Fengming Electronic Tech. Co., Ltd. | CBB61-P2 | 1,2μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50163114 |
| (Alt.) | Guangdong Shuntai Capacitors & Electrical Equipment Co., Ltd. | CBB61A | 1,2μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50268803 |
| (Alt.) | Foshan Shunde Hongye Electrical Appliance Co., Ltd. | CBB61 | 1,2μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50281536 |
| (Alt.) | Shunde Kesheng Electronic Co., Ltd. | CBB61S | 1,2μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50276081 |
| Motor capacitor for YSF-12-4-60 | Sheng Ye Electrical Co., Ltd. | C61-P2-32 | 1,0μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV PS B 16 01 73204021 |
| (Alt.) | Guangdong Fengming Electronic Tech. Co., Ltd. | CBB61-P2 | 1,0μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50163114 |
| (Alt.) | Guangdong Shuntai Capacitors & Electrical Equipment Co., Ltd. | CBB61A | 1,0μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50268803 |
| (Alt.) | Shunde Kesheng Electronic Co., Ltd. | CBB61S | 1,0μF, AC 450 V, T70 | IEC 60252-1:2010+A1 EN 60252-1:2011+A1 | TUV R 50276081 |
| Closed-end connector | Heavy Power Co., Ltd. | CE2 | --- | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance UL E113650 |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| (Alt.) | Shenzhen Hongyu Electrical Co., Ltd. | HY-CE2 | --- | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E314734 |
| (Alt.) | Foshan Shunde Kaixiang Electrical Co., Ltd. | KX-C2 | --- | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E318098 |
| Syn. Motor | Foshan Shunde Hengxing Micro Motor Co., Ltd. | TYJ50-8A7 | 220-240V~, 50Hz/60Hz, 4W, Class120 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>TÜV SÜD B 14 11 54563 050 |
| (Alt.) | Jiangmen Creative Motor Manufactring Co., Ltd. | TYC50-B 4 | 220-240V~, 50Hz/60Hz, 4W, Class120 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>TUV R 50261782 |
| (Alt.) | Foshan Ruiyi Motor Mfy. Co., Ltd. | 50TYZ-0.3B01 | 220 V – 240 V; 50 Hz / 60 Hz; 4 W; Class B | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | SGS No. GZES18080 1292231 |
| (Alt.) | Yueqing Tianhe Motor Co., Ltd. | TYJ50-20-8A4 | 220 V – 240 V; 50 Hz / 60 Hz; 4 W; Class E | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | SGS No. GZES18080 1292231 |
| Ionizer | Zhejiang Hanbang Technology Co., Ltd. | HB-213 | AC 100-250 V, 50/60Hz; Max, 1,0 W, output: -3,0kV | IEC 60335-2-65: 2002 + A1 + A2<br>EN 60335-2-65: 2003 + A1 + A11 | SG-HS-02541 |
| (Alt.) | Zhejiang Hanbang Technology Co., Ltd. | HB-213Byz | Input: AC 100-250 V, 50/60 Hz, Max, 1,0 W, GWT: 650°C | IEC 60335-2-65: 2002 + A1 + A2<br>EN 60335-2-65: 2003 + A1 + A11 | TUV SUD B 14 12 41319 023 |
| (Alt.) | Dongguan Nanbai Electronic Technology Co., Ltd. | NB-S | I/P: AC 100-250 V, 50/60Hz; 1 W | IEC 60335-2-65: 2002 + A1 + A2<br>EN 60335-2-65: 2003 + A1 + A11 | TUV B 18 03 83210 010 |
| PTC for FS40-13QR | Qingyuan Xingguang Electric Co., Ltd. | -- | 230V or 220-240V, 5W | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance |
| (Alt.) | Qingyuan Xinghang Electric Co., Ltd. | -- | 230V or 220-240V, 5W | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance |
| PCB | Kingboard Laminates Holdings Ltd. | KB-5150<br>KB-3151C | V-0 | IEC/EN 60335-1<br>IEC/EN 60335-2-80<br>IEC/EN 60335-2-98<br>IEC/EN 60335-2-101 | Tested with appliance<br>UL E123995 |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| (Alt.) | Shandong Jinbao Tech-Innov Corporation | ZD-95(G)F ZD-90F | V-0 | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance UL E141940 |
| (Alt.) | Jiangyin Huchengxinyuan Electronic Technology Co,. Ltd. | V-86 | V-0 | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance UL E214321 |
| Humidifier power PCB: | | | | | |
| Transformer | Foshan Shunde Um Electronics Co., Ltd. | HYT0144/D E28 | Input: 220-240V, output: 24Vdc, Class 105 | IEC/EN 60335-1 IEC/EN 60335-2-80 IEC/EN 60335-2-98 IEC/EN 60335-2-101 | Tested with appliance |
| Optocoupler | Bright Led Electronics Corp. | BPC-817 | T100 | IEC 60747-5-5:2007+A1 EN 60747-5-5:2011+A1 | VDE 40007240 |
| (Alt.) | Everlight Electronics Co., Ltd. | EL817 | T110 | IEC 60747-5-5:2007+A1 EN 60747-5-5:2011+A1 | VDE 132249 |
| Fuse-link | Dongguan Better Electronics Technology Co., Ltd. | VDE: 334-Serie(s), 932 CB: 334, 932 | AC 250 V, 2,5 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40025428 CB CN12357 |
| (Alt.) | XC Electronics (Shenzhen) Co., Ltd. | VDE: 3T-Serie(s) CB: 3T | AC 250 V, 2,5 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40019614 CB DE1-37836 |
| (Alt.) | Honghu Bluelight Electronic Co., Ltd. | L3F | AC 250 V, 2,5 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40026903 CB CN12784 |
| (Alt.) | Honghu Bluelight Electronic Co., Ltd. | L3T | AC 250 V, 2,5 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40026874 CB CN12783 |
| Varistor | Thinking Electonic Industatial Co., Ltd. | TVR10561 | 560V, T85 | IEC 61051-1:2007 IEC 61051-2:1991+A1 IEC 61051-2-2:1991 EN 61051-1:2009 | VDE 005944 |
| (Alt.) | Xi'an Xiwuer Electronics & Information Co., Ltd. | MYG3-10K360 | 560V, T85 | IEC 61051-1:2007 IEC 61051-2:1991+A1 IEC 61051-2-2:1991 EN 61051-1:2009 | VDE 40008528 |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| (Alt.) | Centra Science Corp. | CNR-10D561K | 560V, T85 | IEC 61051-1:2007 IEC 61051-2:1991+A1 IEC 61051-2-2:1991 EN 61051-1:2009 | VDE 40008220 |
| X2 capacitor | Guangdong Fengming Electronic Tech. Co., Ltd. | MKP-X2 | 275VAC, 0,1uF, T105 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40025702 |
| (Alt.) | Shanghai Xiang Ri Ya Electronic Co., Ltd. | MPX X2, MKP X2 | 275VAC, 0,1uF, T100 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40001876 |
| (Alt.) | Xiangriya Electronic Co., Ltd. | MPX, MKP | X2, 275VAC, 0,1uF, T110 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | ENEC 2017015 |
| (Alt.) | Xiamen Faratronic Co., Ltd. | MKP62 MKP62 version2 X2 | 0,1uF, AC275V, T110 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40000358 |
| (Alt.) | Ultra Tech Xiphi Enterprise Co., Ltd. | HQX | 0,1uF, 275VAC, T100 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40015608 |
| (Alt.) | Tenta Electric Industrial Co., Ltd. | MEX | 0,1uF, 275VAC, T100 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 119119 |
| (Alt.) | Foshan Shunde Chuang Ge Electronic Industrial Co., Ltd. | MKP-X2 | 0,1uF, 275VAC, T105 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40008922 |
| Y1 capacitor | Haohua Electronic Co., Ltd. | CT7 | 2200pF, 250V, T125 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40003902 |
| (Alt.) | Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd. | CD series | 2200pF, 250V, T125 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40025754 |
| (Alt.) | Jya-Nay Co., Ltd. | JN | 2200pF, 250V, T125 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | TUV R 50232059 |
| (Alt.) | Walsin Technology Corp. | AH | 2200pF, 250V, T125 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40001804 |
| Control panel PCB: | | | | | |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| Fuse-link | Dongguan Better Electronics Technology Co., Ltd. | 334-Serie(s) | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40025428 |
| (Alt.) | XC Electronics (Shenzhen) Co., Ltd. | 3T-Serie(s) | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40019614 |
| (Alt.) | Honghu Bluelight Electronic Co., Ltd. | L3F | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40026903 |
| (Alt.) | Honghu Bluelight Electronic Co., Ltd. | L3T | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40026874 |
| (Alt.) | Dongguan Better Electronics Technology Co., Ltd. | 932 | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40033369 |
| (Alt.) | XC Electronics (Shenzhen) Co., Ltd. | 5TE | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40029550 |
| (Alt.) | Conquer Electronics Co., Ltd. | MST | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40017118 |
| (Alt.) | XC Electronics (Shenzhen) Co., Ltd. | 3F | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40019636 |
| (Alt.) | XC Electronics (Shen Zhen) Corp. Ltd. | 4T | AC 250 V, 2 A | IEC 60127-1:2006+A1+A2 IEC 60127-3:2015 EN 60127-1:2006+A1+A2 | VDE 40029295 |
| Varistor | Thinking Electonic Industatial Co. Ltd. | TVR10561 | 560V, T85 | IEC 61051-1:2007 IEC 61051-2:1991+A1 IEC 61051-2-2:1991 EN 61051-1:2009 | VDE 005944 |

| IEC 60335-2-80 | | | | | |
|---|---|---|---|---|---|
| (Alt.) | Xi'an Xiwuer Electronics & Information Co., Ltd. | MYG3-10K360 | 560V, T85 | IEC 61051-1:2007 IEC 61051-2:1991+A1 IEC 61051-2-2:1991 EN 61051-1:2009 | VDE 40008528 |
| (Alt.) | Centra Science Corp. | CNR-10D561K | 560V, T85 | IEC 61051-1:2007 IEC 61051-2:1991+A1 IEC 61051-2-2:1991 EN 61051-1:2009 | VDE 40008220 |
| X2 capacitor | Guangdong Fengming Electronic Tech. Co., Ltd. | MKP-X2 | 275VAC, 0,1uF, T105 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40025702 |
| (Alt.) | Shanghai Xiang Ri Ya Electronic Co., Ltd. | MPX X2/MKP X2 | 275VAC, 0,1uF, T100 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40001876 |
| (Alt.) | Xiangriya Electronic Co., Ltd. | MPX/MKP | X2, 275VAC, 0,1uF, T110 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | ENEC 2017015 |
| (Alt.) | Xiamen Faratronic Co., Ltd. | MKP62 MKP62 version2 X2 | 0,1uF, AC275V, T110 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40000358 |
| (Alt.) | Ultra Tech Xiphi Enterprise Co., Ltd. | HQX | 0,1uF, 275VAC, T100 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40015608 |
| (Alt.) | Tenta Electric Industrial Co., Ltd. | MEX | 0,1uF, 275VAC, T100 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 119119 |
| (Alt.) | Foshan Shunde Chuang Ge Electronic Industrial Co., Ltd. | MKP-X2 | 0,1uF, 275VAC, T105 | IEC 60384-14:2013+A1 EN 60384-14:2013+A1 | VDE 40008922 |
| Optocoupler | Bright Led Electronics Corp. | BPC-817 | T100 | IEC 60747-5-5:2007+A1 EN 60747-5-5:2011+A1 | VDE 40007240 |
| (Alt.) | Everlight Electronics Co., Ltd. | EL817 | T110 | IEC 60747-5-5:2007+A1 EN 60747-5-5:2011+A1 | VDE 132249 |

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

Supplementary information:

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

****) For appliances having higher working voltages than rated voltage, the voltage used for determining clearances from table 16 shall be the sum of the rated impulse voltage and the difference between the peak value of the working voltage and the peak value of the rated voltage.

(a) Between fan motor winding and iron core.

| **29.2** | **TABLE: Creepage distances, basic, supplementary and reinforced insulation** | | | | | | | | | | **P** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Working voltage (V) | Creepage distance (mm) Pollution degree | | | | | | | | | | |
| | 1 | 2 | | | 3 | | | Type of insulation | | | |
| | | Material group | | | Material group | | | | | | |
| | | I | II | IIIa/IIIb | I | II | IIIa/IIIb*) | B**) | S**) | R**) | Verdict |
| ≤50 | 0,18 | 0,6 | 0,85 | 1,2 | 1,5 | 1,7 | 1,9 | | — | — | N/A |
| ≤50 | 0,18 | 0,6 | 0,85 | 1,2 | 1,5 | 1,7 | 1,9 | — | | — | N/A |
| ≤50 | 0,36 | 1,2 | 1,7 | 2,4 | 3,0 | 3,4 | 3,8 | — | — | | N/A |
| 125 | 0,28 | 0,75 | 1,05 | 1,5 | 1,9 | 2,1 | 2,4 | | — | — | N/A |
| 125 | 0,28 | 0,75 | 1,05 | 1,5 | 1,9 | 2,1 | 2,4 | — | | — | N/A |
| 125 | 0,56 | 1,5 | 2,1 | 3,0 | 3,8 | 4,2 | 4,8 | — | — | | N/A |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 250 | 0,56 | 1,25 | 1,8 | 2,5 | 3,2 | 3,6 | 4,0 | | — | — | N/A |
| 250 | 0,56 | 1,25 | 1,8 | 2,5 | 3,2 | 3,6 | 4,0 | — | | — | N/A |
| 250 | 1,12 | 2,5 | 3,6 | 5,0 | 6,4 | 7,2 | 8,0 | — | — | | N/A |
| 400 | 1,0 | 2,0 | 2,8 | 4,0 | 5,0 | 5,6 | 6,3<br>**(2,0) ***** | (a)<br>3,8 | — | — | P |
| 400 | 1,0 | 2,0 | 2,8 | 4,0 | 5,0 | 5,6 | 6,3 | — | | — | N/A |
| 400 | 2,0 | 4,0 | 5,6 | 8,0 | 10,0 | 11,2 | 12,6 | — | — | | N/A |
| 500 | 1,3 | 2,5 | 3,6 | 5,0 | 6,3 | 7,1 | 8,0 | | — | — | N/A |
| 500 | 1,3 | 2,5 | 3,6 | 5,0 | 6,3 | 7,1 | 8,0 | — | | — | N/A |
| 500 | 2,6 | 5,0 | 7,2 | 10,0 | 12,6 | 14,2 | 16,0 | — | — | | N/A |
| >630 and ≤800 | 1,8 | 3,2 | 4,5 | 6,3 | 8,0 | 9,0 | 10,0 | | — | — | N/A |
| >630 and ≤800 | 1,8 | 3,2 | 4,5 | 6,3 | 8,0 | 9,0 | 10,0 | — | | — | N/A |
| >630 and ≤800 | 3,6 | 6,4 | 9,0 | 12,6 | 16,0 | 18,0 | 20,0 | — | — | | N/A |
| >800 and ≤1000 | 2,4 | 4,0 | 5,6 | 8,0 | 10,0 | 11,0 | 12,5 | | — | — | N/A |
| >800 and ≤1000 | 2,4 | 4,0 | 5,6 | 8,0 | 10,0 | 11,0 | 12,5 | — | | — | N/A |
| >800 and ≤1000 | 4,8 | 8,0 | 11,2 | 16,0 | 20,0 | 22,0 | 25,0 | — | — | | N/A |
| >1000 and ≤1250 | 3,2 | 5,0 | 7,1 | 10,0 | 12,5 | 14,0 | 16,0 | | — | — | N/A |
| >1000 and ≤1250 | 3,2 | 5,0 | 7,1 | 10,0 | 12,5 | 14,0 | 16,0 | — | | — | N/A |
| >1000 and ≤1250 | 6,4 | 10,0 | 14,2 | 20,0 | 25,0 | 28,0 | 32,0 | — | — | | N/A |
| >1250 and ≤1600 | 4,2 | 6,3 | 9,0 | 12,5 | 16,0 | 18,0 | 20,0 | | — | — | N/A |
| >1250 and ≤1600 | 4,2 | 6,3 | 9,0 | 12,5 | 16,0 | 18,0 | 20,0 | — | | — | N/A |
| >1250 and ≤1600 | 8,4 | 12,6 | 18,0 | 25,0 | 32,0 | 36,0 | 40,0 | — | — | | N/A |
| >1600 and ≤2000 | 5,6 | 8,0 | 11,0 | 16,0 | 20,0 | 22,0 | 25,0 | | — | — | N/A |
| >1600 and ≤2000 | 5,6 | 8,0 | 11,0 | 16,0 | 20,0 | 22,0 | 25,0 | — | | — | N/A |
| >1600 and ≤2000 | 11,2 | 16,0 | 22,0 | 32,0 | 40,0 | 44,0 | 50,0 | — | — | | N/A |
| >2000 and ≤2500 | 7,5 | 10,0 | 14,0 | 20,0 | 25,0 | 28,0 | 32,0 | | — | — | N/A |
| >2000 and ≤2500 | 7,5 | 10,0 | 14,0 | 20,0 | 25,0 | 28,0 | 32,0 | — | | — | N/A |
| >2000 and ≤2500 | 15,0 | 20,0 | 28,0 | 40,0 | 50,0 | 56,0 | 64,0 | — | — | | N/A |
| >2500 and ≤3200 | 10,0 | 12,5 | 18,0 | 25,0 | 32,0 | 36,0 | 40,0 | | — | — | N/A |
| >2500 and ≤3200 | 10,0 | 12,5 | 18,0 | 25,0 | 32,0 | 36,0 | 40,0 | — | | — | N/A |
| >2500 and ≤3200 | 20,0 | 25,0 | 36,0 | 50,0 | 64,0 | 72,0 | 80,0 | — | — | | N/A |
| >3200 and ≤4000 | 12,5 | 16,0 | 22,0 | 32,0 | 40,0 | 45,0 | 50,0 | | — | — | N/A |
| >3200 and ≤4000 | 12,5 | 16,0 | 22,0 | 32,0 | 40,0 | 45,0 | 50,0 | — | | — | N/A |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| >3200 and ≤4000 | 25,0 | 32,0 | 44,0 | 64,0 | 80,0 | 90,0 | 100,0 | — | — | | N/A |
| >4000 and ≤5000 | 16,0 | 20,0 | 28,0 | 40,0 | 50,0 | 56,0 | 63,0 | | — | — | N/A |
| >4000 and ≤5000 | 16,0 | 20,0 | 28,0 | 40,0 | 50,0 | 56,0 | 63,0 | — | | — | N/A |
| >4000 and ≤5000 | 32,0 | 40,0 | 56,0 | 80,0 | 100,0 | 112,0 | 126,0 | — | — | | N/A |
| >5000 and ≤6300 | 20,0 | 25,0 | 36,0 | 50,0 | 63,0 | 71,0 | 80,0 | | — | — | N/A |
| >5000 and ≤6300 | 20,0 | 25,0 | 36,0 | 50,0 | 63,0 | 71,0 | 80,0 | — | | — | N/A |
| >5000 and ≤6300 | 40,0 | 50,0 | 72,0 | 100,0 | 126,0 | 142,0 | 160,0 | — | — | | N/A |
| >6300 and ≤8000 | 25,0 | 32,0 | 45,0 | 63,0 | 80,0 | 90,0 | 100,0 | | — | — | N/A |
| >6300 and ≤8000 | 25,0 | 32,0 | 45,0 | 63,0 | 80,0 | 90,0 | 100,0 | — | | — | N/A |
| >6300 and ≤8000 | 50,0 | 64,0 | 90,0 | 126,0 | 160,0 | 180,0 | 200,0 | — | — | | N/A |
| >8000 and ≤10000 | 32,0 | 40,0 | 56,0 | 80,0 | 100,0 | 110,0 | 125,0 | | — | — | N/A |
| >8000 and ≤10000 | 32,0 | 40,0 | 56,0 | 80,0 | 100,0 | 110,0 | 125,0 | — | | — | N/A |
| >8000 and ≤10000 | 64,0 | 80,0 | 112,0 | 160,0 | 200,0 | 220,0 | 250,0 | — | — | | N/A |
| >10000 and ≤12500 | 40,0 | 50,0 | 71,0 | 100,0 | 125,0 | 140,0 | 160,0 | | — | — | N/A |
| >10000 and ≤12500 | 40,0 | 50,0 | 71,0 | 100,0 | 125,0 | 140,0 | 160,0 | — | | — | N/A |
| >10000 and ≤12500 | 80,0 | 100,0 | 142,0 | 200,0 | 250,0 | 280,0 | 320,0 | — | — | | N/A |
| Supplementary information:<br>*) Material group IIIb is allowed if the working voltage does not exceed 50 V<br>**) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation<br>***), Lacquered conductors of windings are considered to be bare conductors, but creepage distances need not be greater than the associated clearance specified in table 16 taking into account 29.1.1.<br>(a) Between fan motor winding and iron core. | | | | | | | | | | | |

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| **30** | **TABLE: Resistance to heat and fire** | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Object/ part No. | Manufacturer /trademark | Type/ model | Ball pressure test °C | | | | Glow wire test (GWT) °C | | | | | Glow-wire flammability index (GWFI) °C | | | | Glow-wire ignition temp. (GWIT) °C | | Needle - flame test (NFT) | Verdict |
| | | | 75 | 125 | cl. 11 +40 | cl. 19 +25 | 550 | 650 | | 750 | | 850 | 550 | 650 | 750 | 850 | 675 | 775 | | |
| | | | | | | | | $t_e$ | $t_i$ | $t_e$ | $t_i$ | | | | | | | | | |
| Fan motor bobbin | GD Midea Environment Appliances MFG. Co., Ltd. | (YSF-12-4-60) | - | 1,4 | - | - | - | - | - | 0s | 0s | x | - | - | - | - | - | - | - | P |
| Connector on fan motor | - | - | - | 1,2 | - | - | - | - | - | 0s | 0s | x | - | - | - | - | - | - | - | P |

Supplementary information:

[1] Parts of material classified at least HB40 or if relevant HBF
[2] Parts of material classified as V-0 or V-1
[3] Flame persisting longer than 2 s (= $t_e - t_i$) need only be reported for unattended appliances
[4] Surrounding parts subjected to the needle-flame test of annex E
[5] Base material classified as V-0 or if relevant VTM-0
[6] The GWIT pre-selection option, the 850 °C GWFI pre-selection option, and the 850 °C GWT are not applicable for attended appliances

---End of Report---

## Attachment 7

## Photo documentation

Type of equipment / model: Multifunction Fan / FS40-13QR, FS40-13QRA

Details of: Add alternative Motor “YSF-12-4-60”

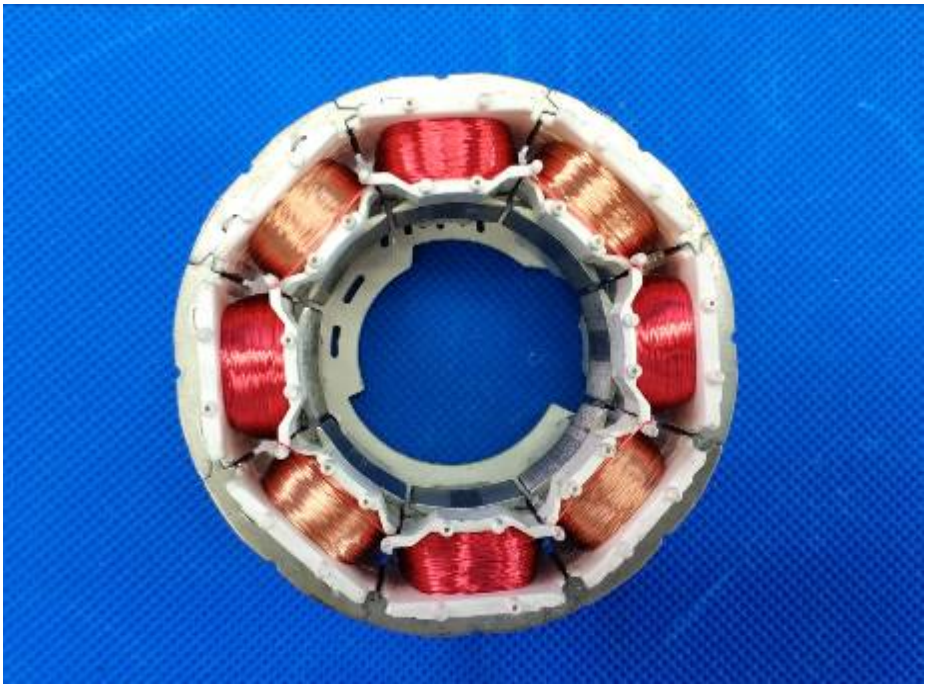
View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom

Details of: Internal view of motor “YSF-12-4-60”

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



## Attachment 7

Details of: Internal view of motor “YSF-12-4-60”

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom

Details of: Add alternative Infrared controller

View:

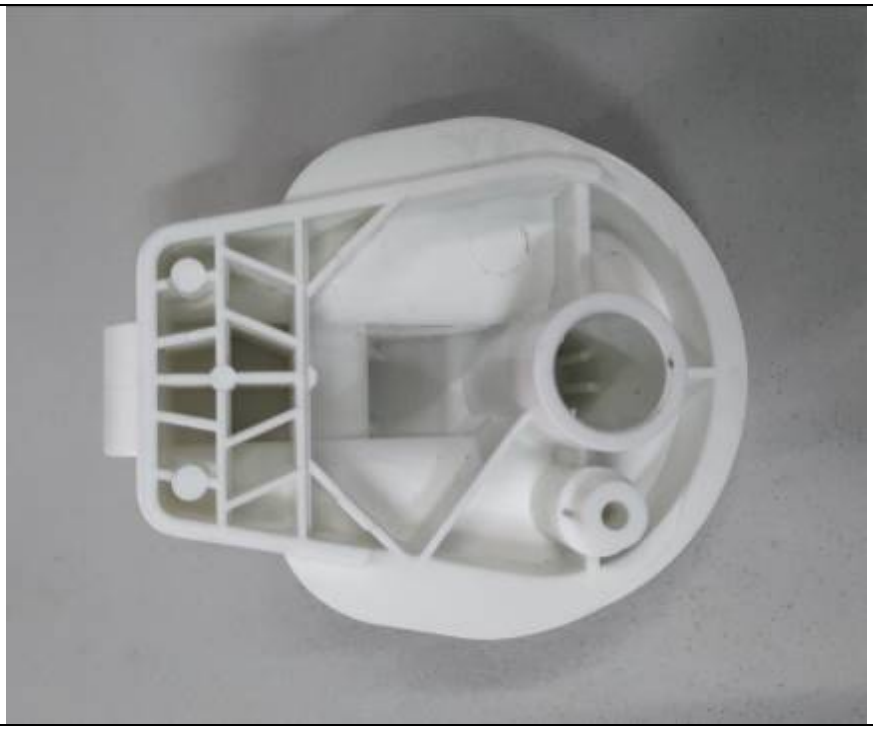
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom

## Attachment 7

Details of: Add alternative construction

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom
- ☐ internal



--- End of this Attachment 7 ---