



<p>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</p>	
Report Number	GZES160400371005
Date of issue	2016-11-08, Amendment No. 4: 2017-12-25
Total number of pages	71
Applicant's name	GD Midea Air-conditioning Equipment Co., Ltd.
Address	Lingang Road, Beijiao, Shunde, Foshan, 528311, Guangdong, China
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	SGS CSTC
Non-standard test method	N/A
Test Report Form No.	IEC60335_2_40J
Test Report Form(s) Originator	VDE
Master TRF	Dated 2014-06
<p>Copyright © 2014 Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE), Geneva, Switzerland. All rights reserved.</p> <p>This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.</p> <p>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.</p> <p>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.</p>	
General disclaimer:	
<p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.</p>	

Test item description	Split-Type Air-Conditioner
Trade Mark	Midea
Manufacturer.....	Same as applicant
Model/Type reference	Model 1: Indoor unit: MCD-36HRFN8-QRD0, MCD-36HRFNX-QRD0, outdoor unit: MOD30U-36HFN8-QRD0 Model 2: Indoor unit: MUE-36HRFN8-QRD0, MUE-36HRFNX-QRD0, outdoor unit: MOD30U-36HFN8-QRD0 Model 3: Indoor unit: MTI-36HRFN8-QRD0, MTI-36HRFNX-QRD0, outdoor unit: MOD30U-36HFN8-QRD0
Ratings	220 V – 240 V; 50 Hz; Model 1: indoor unit: 170 W; 1,4 A; outdoor unit: 4700 W; 21,5 A; Model 2: indoor unit: 180 W; 1,5 A; outdoor unit: 4700 W; 21,5 A; Model 3: indoor unit: 210 W; 1,6 A; outdoor unit: 4700 W; 21,5 A

Testing procedure and testing location:	
<input checked="" type="checkbox"/> 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
<input type="checkbox"/> Associated CB Testing Laboratory:	
Testing location/ address	
Tested by (name + signature)	Elaine Gao <i>Elaine</i>
Approved by (name + signature)	Ailsa Wang <i>Ailsa Wang</i>
<hr/>	
<input type="checkbox"/> Testing procedure: TMP/CTF Stage 1:	N/A
Testing location/ address	
Tested by (name + signature)	
Approved by (name + signature)	
<hr/>	
<input type="checkbox"/> Testing procedure: WMT/CTF Stage 2:	N/A
Testing location/ address	
Tested by (name + signature)	
Witnessed by (name + signature)	
Approved by (name + signature)	
<hr/>	
<input type="checkbox"/> Testing procedure: SMT/CTF Stage 3 or 4:	N/A
Testing location/ address	
Tested by (name + signature)	
Witnessed by (name + signature)	
Approved by (name + signature)	
Supervised by (name + signature)	



<p>List of Attachments: N/A</p>	
<p>Summary of testing:</p>	
<p>Tests performed (name of test and test clause):</p> <p>Tests according to the following standards were carried out:</p> <p>EN 60335-2-40: 2003 + A11: 2004 + A12: 2005 + A1: 2006 + A2: 2009 + A13: 2012 EN 60335-1: 2012 + A11: 2014 EN 62233: 2008</p> <p>For the tests, see “General product information”. The submitted appliances comply with the above standards.</p>	<p>Testing location:</p> <p>See page 3</p>
<p>Summary of compliance with National Differences:</p> <p>CENELEC common modifications were taken into account.</p>	
<p>Copy of marking plate:</p> <p>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.</p> <p>N/A</p>	

Test item particulars	
Classification of installation and use	Fixed appliance
Supply Connection	Connected to fixed wiring
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	2017-11-20
Date (s) of performance of tests	2017-11-20 to 2017-12-25
General remarks:	
<p>"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p> <p>This document is issued by the Company subject to its General Conditions of Service, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.</p> <p>This test report GZES160400371005 was not valid without using conjunction with the test report GZES160400371001, GZES160400371002, GZES160400371003 and GZES160400371004.</p>	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60335-1:	
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..... :	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	1. GD Midea Air-conditioning Equipment Co., Ltd. Lingang Road, Beijiao, Shunde, Foshan, 528311, Guangdong, China 2. Guangzhou Hualing Refrigerating Equipment Co., Ltd. 6 Meide 1th Road, Zhujiang Industrial Park, Zhujiang Street, Nansha, Guangzhou, China

General product information:

Split-type air conditioner for household use only.
 Appliance had cooling and heating function, the refrigerant was R32.
 Remote control was supplied by AAA type batteries
 After installed, the indoor units shall be complied with the product standards.
 The cord installation or connection shall be according to the national wiring regulation.

Amendment 1:

The original Test Report Ref. No. GZES160400371001, Dated 2016-11-08 was modified on 2016-11-21 to include the following modifications, which were considered technical modifications:

1. Add alternative indoor unit MTI-36HWFN8-QRD0

After reviewing, model MTI-36HWFN8-QRD0 was selected for full tests.

Amendment 2:

The original Test Report Ref. No. GZES160400371001, Dated 2016-11-08 was modified on 2017-10-10 to include the following modifications, which were considered technical modifications:

1. Add new indoor unit, which is the same as original indoor unit accordingly except for the model name.

Original Indoor unit	New Indoor unit
MCD-36HRFN8-QRD0	MCD-36HRFNX-QRD0
MUE-36HRFN8-QRD0	MUE-36HRFNX-QRD0
MTI-36HRFN8-QRD0	MTI-36HRFNX-QRD0

2. Change the applicant, manufacturer and factory address to Lingang Road, Beijiao, Shunde, Foshan, 528311, Guangdong, China

After review, no additional tests carried out necessary.

Amendment 3:

The original Test Report Ref. No. GZES160400371001, Dated 2016-11-08 was modified on 2017-11-10 to include the following modifications, which were considered technical modifications:

1. Add alternative 4-way valve, fuse, relay, varistor, bridge rectifier, electrolytic capacitor, IPM. (see table 24.1 on details)

For the tests, see “summary of testing”

Amendment 4:

The original Test Report Ref. No. GZES160400371001, Dated 2016-11-08 was modified on 2017-12-25 to include the following modifications, which were considered technical modifications:

1. Add alternative fan motor, transformer, 4-way valve, reactor, terminal block, surge absorber, electrolytic capacitor, fuse, varistor X2 capacitor, internal wire, PCB and PVC tube; (details see table 24.1);

2. Add a new factory:

Guangzhou Hualing Refrigerating Equipment Co., Ltd.
 6 Meide 1th Road, Zhujiang Industrial Park, Zhujiang St., Nan Sha, Guangzhou, China

After reviewing, all the models equipped with the alternative components subjected to test of 10, 11, 13, 15, 6, 17, 19, 23.5, 29, 30, Annex E and Annex N.

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.....:	(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 current is related to the arithmetic mean value of the range		P

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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
11.2.1	Appliances with supplementary heaters, inlet duct connected to inlet air opening (IEC 60335-2-40)		N/A
11.2.2	Appliance without supplementary heaters, air outlet used (IEC 60335-2-40)		P
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)		N/A
11.5	Test conducted in heating mode and cooling mode, if both exist (IEC 60335-2-40)		P
	All supplementary heating elements operative simultaneously (IEC 60335-2-40)		N/A
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)		N/A
	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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	Motor-operated appliances and combined appliances supplied at 1,06 times the rated voltage (V).....:	1,06 x 240 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		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
15.2	Tests in accordance with IEC 60529 in appliances other than IPX0, as specified (IEC 60335-2-40) ...:	IP24 for OU	P
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)		N/A
	After spillage completed, appliance withstand test of clause 16 (IEC 60335-2-40/A2)		N/A

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

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

	Three-phase appliances: test voltage 1,06 times rated voltage divided by $\sqrt{3}$ (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
	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		N/A
	No breakdown during the tests		P

17	OVERLOAD PROTECTION OF TRANSFORMERS AND ASSOCIATED CIRCUITS		—
	No excessive temperatures in transformer or associated circuits in event of short-circuits likely to occur in normal use	(see appended table)	P
	Appliance supplied with 1,06 or 0,94 times rated voltage under the most unfavourable short-circuit or overload likely to occur in normal use (V)	(see appended table)	P
	Basic insulation is not short-circuited		P
	Temperature rise of insulation of the conductors of safety extra-low voltage circuits not exceeding the relevant value specified in table 3 by more than 15 K		N/A
	Temperature of the winding not exceeding the value specified in table 8		P
	However, limits do not apply to fail-safe transformers complying with sub-clause 15.5 of IEC 61558-1		N/A

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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	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).....:	(See appended table)	P
	Temperature of enclosure does not exceed (°C) (IEC 60335-2-40).....:	(See appended table)	P
	Temperature of the windings does not exceed the values shown in the table ; temperature (°C) (IEC 60335-2-40).....:	(See appended 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)		P
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)		N/A
19.6	Test of appliances using water as heat transfer medium (IEC 60335-2-40)		N/A

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
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)		N/A
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)	(see appended table)	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
	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)		N/A
19.11.1	Before applying the fault conditions a) to f) in 19.11.2, it is checked if circuits or parts of circuit meet both of following conditions (IEC 60335-2-40):		—

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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 established (IEC 60335-2-40).		P
	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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	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 $\leq 2,1$ times rated current of fuse-link, circuit not adequately protected (fuse-link short-circuited) (IEC 60335-2-40)		N/A
	Current $\geq 2,75$ times rated current of fuse-link, circuit adequately protected (IEC 60335-2-40)		P
	Current $\geq 2,1$ and $\leq 2,75$ 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)		N/A
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)		N/A
	During test temperature not exceed 150 °C but an overshoot of 25 °C is permitted during first hour (IEC 60335-2-40/A2)		N/A
23	INTERNAL WIRING		—

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
23.5	The insulation of internal wiring subjected to the supply mains voltage withstanding the electrical stress likely to occur in normal use		P
	Basic insulation electrically equivalent to the basic insulation of cords complying with IEC 60227 or IEC 60245, or		N/A
	no breakdown when a voltage of 2000 V is applied for 15 min between the conductor and metal foil wrapped around the insulation		P
29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		—
	Clearances, creepage distances and solid insulation withstand electrical stress		P
	For coatings used on printed circuits boards to protect the microenvironment (Type 1) or to provide basic insulation (Type 2), annex J applies		N/A
	The microenvironment is pollution degree 1 under type 1 protection		N/A
	For type 2 protection, the spacing between the conductors before the protection is applied is not less than the values specified in Table 1 of IEC 60664-3		N/A
	These values apply to functional, basic, supplementary and reinforced insulation		N/A
	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

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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	However, clearances at crossover points are not measured		P
	Clearance between surfaces of PTC heating elements may be reduced to 1mm		N/A
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
	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		P

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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
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
29.3.1	Supplementary insulation have a thickness of at least 1 mm	Plastic enclosure: 3,2 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		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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	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:		—
	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		N/A
	the material is classified at least HB40 according to IEC 60695-11-10		N/A
	Parts for which the glow-wire test cannot be carried out need to meet the requirements in ISO 9772 for material classified HBF		N/A
30.2.3	Appliances operated while unattended, tested as specified in 30.2.3.1 and 30.2.3.2		P

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	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
	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:		—

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

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
E	ANNEX E (NORMATIVE) NEEDLE-FLAME TEST		—
	Needle-flame test carried out in accordance with IEC 60695-11-5, with the following modifications:		—
7	Severities		—
	The duration of application of the test flame is 30 s ± 1 s		P
9	Test procedure		—
9.1	The specimen so arranged that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1		P
9.2	The first paragraph does not apply		P
	If possible, the flame is applied at least 10 mm from a corner		P
9.3	The test is carried out on one specimen		P
	If the specimen does not withstand the test, the test may be repeated on two additional specimens, both withstanding the test		N/A
11	Evaluation of test results		—
	The duration of burning not exceeding 30 s		N/A
	However, for printed circuit boards, the duration of burning not exceeding 15 s		P

N	ANNEX N (NORMATIVE) PROOF TRACKING TEST		—
	The proof tracking test is carried out in accordance with IEC 60112 with the following modifications:		—
7	Test apparatus		—
7.3	Test solutions		—
	Test solution A is used		P
10	Determination of proof tracking index (PTI)		—
10.1	Procedure		—
	The proof voltage is 100 V, 175 V, 400 V or 600 V:		P
	The test is carried out on five specimens		P
	In case of doubt, additional test with proof voltage reduced by 25 V, the number of drops increased to 100		N/A
10.2	Report		—

IEC 60335-2-40			
Clause	Requirement + Test	Result - Remark	Verdict
	The report states if the PTI value was based on a test using 100 drops with a test voltage of (PTI-25) V		N/A

IEC 60335-2-40

10.1	TABLE: Power input deviation					P
Input deviation of/at:	P rated (W)	P measured (W)	ΔP	Required ΔP	Remark	
1. Model A: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2 (WZDK120-38G-W) (Broad-Ocean), MCD-36HRFN1-QRD0 with alternative indoor fan motor WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean).						
230 V; 50 Hz;	4700	3654	-22,3%	+15 %	Cooling model	
230 V; 50 Hz;	4700	3342	-28,9%	+15 %	Heating model	
230 V; 50 Hz;	170	108	-36,5%	+20 %	Indoor unit	
2. Model A: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MCD-36HRFN1-QRD0 with alternative indoor fan motor WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean).						
230 V; 50 Hz;	4700	3762	-20,0%	+15 %	Cooling model	
230 V; 50 Hz;	4700	3324	-29,3%	+15 %	Heating model	
230 V; 50 Hz;	170	110	-35,3%	+20 %	Indoor unit	
3. Model B: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Broad-Ocean), MUE-36HRFN1-QRD0 with alternative indoor fan motor WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean).						
230 V; 50 Hz;	4700	3542	-24,6%	+15 %	Cooling model	
230 V; 50 Hz;	4700	3241	-31,0%	+15 %	Heating model	
230 V; 50 Hz;	180	107	-40,6%	+20 %	Indoor unit	
4. Model B: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MUE-36HRFN1-QRD0 with alternative indoor fan motor WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean).						
230 V; 50 Hz;	4700	3654	-22,3%	+15 %	Cooling model	
230 V; 50 Hz;	4700	3321	-29,3%	+15 %	Heating model	
230 V; 50 Hz;	180	110	-38,9%	+20 %	Indoor unit	
5. Model C: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Broad-Ocean), MTI-36HWFN8-QRD0 with alternative indoor fan motor ZKFN-300-8-1(Broad-Ocean).						
230 V; 50 Hz;	4700	3654	-22,3%	+15 %	Cooling model	
230 V; 50 Hz;	4700	3342	-28,9%	+15 %	Heating model	
230 V; 50 Hz;	210	112	-46,7%	+20 %	Indoor unit	
6. Model C: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MTI-36HWFN8-QRD0 with alternative indoor fan motor ZKFN-300-8-1(Broad-Ocean).						
230 V; 50 Hz;	4700	3722	-20,8%	+15 %	Cooling model	
230 V; 50 Hz;	4700	3356	-28,6%	+15 %	Heating model	
230 V; 50 Hz;	210	116	-44,8%	+20 %	Indoor unit	
Supplementary information: --						

IEC 60335-2-40

10.2	TABLE: Current deviation					P
Current deviation of/at	I rated (A)	I measured (A)	ΔI	Required ΔI	Remark	
1. Model A: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2 (WZDK120-38G-W) (Broad-Ocean), MCD-36HRFN1-QRD0 with alternative indoor fan motor WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean).						
230 V; 50 Hz;	21,5	16,6	-22,8%	+15 %	Cooling model	
230 V; 50 Hz;	21,5	15,8	-26,5%	+15 %	Heating model	
230 V; 50 Hz;	1,4	1,0	-28,6%	+20 %	Indoor unit	
2. Model A: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MCD-36HRFN1-QRD0 with alternative indoor fan motor WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean).						
230 V; 50 Hz;	21,5	16,5	-23,3%	+15 %	Cooling model	
230 V; 50 Hz;	21,5	15,9	-26,0%	+15 %	Heating model	
230 V; 50 Hz;	1,4	1,1	-21,4%	+20 %	Indoor unit	
3. Model B: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Broad-Ocean), MUE-36HRFN1-QRD0 with alternative indoor fan motor WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean).						
230 V; 50 Hz;	21,5	16,5	-23,3%	+15 %	Cooling model	
230 V; 50 Hz;	21,5	15,9	-26,0%	+15 %	Heating model	
230 V; 50 Hz;	1,5	1,1	-26,7%	+20 %	Indoor unit	
4. Model B: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MUE-36HRFN1-QRD0 with alternative indoor fan motor WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean).						
230 V; 50 Hz;	21,5	16,7	-22,3%	+15 %	Cooling model	
230 V; 50 Hz;	21,5	16,0	-25,6%	+15 %	Heating model	
230 V; 50 Hz;	1,5	1,08	-28,0%	+20 %	Indoor unit	
5. Model C: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Broad-Ocean), MTI-36HWFN8-QRD0 with alternative indoor fan motor ZKFN-300-8-1(Broad-Ocean).						
230 V; 50 Hz;	21,5	16,2	-24,7%	+15 %	Cooling model	
230 V; 50 Hz;	21,5	15,8	-26,5%	+15 %	Heating model	
230 V; 50 Hz;	1,6	1,2	-25,0%	+20 %	Indoor unit	
6. Model C: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MTI-36HWFN8-QRD0 with alternative indoor fan motor ZKFN-300-8-1(Broad-Ocean).						
230 V; 50 Hz;	21,5	16,3	-24,2%	+15 %	Cooling model	
230 V; 50 Hz;	21,5	15,6	-27,4%	+15 %	Heating model	
230 V; 50 Hz;	1,6	1,3	-18,8%	+20 %	Indoor unit	
Supplementary information: --						

IEC 60335-2-40

11.8-1	TABLE: Heating test, thermocouples Model A: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2 (WZDK120-38G-W) (Broad-Ocean), MCD-36HFRN1-QRD0 with alternative indoor fan motor WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean).					P
	Test voltage (V).....	:	1,06 x 240 V = 254,4 V			—
	Ambient, t ₁ (°C).....	:	See supplementary information			—
	Ambient, t ₂ (°C).....	:	See supplementary information			—
Thermocouple locations		T (°C)		Max. T (°C)		
		Cooling mode	Heating mode			
Indoor unit						
Indoor fan motor		42,2	41,5	150		
Air outlet		25,2	46,6	90		
Transformer winding		34,2	40,3	110 (Class B)		
Reactor		32,5	31,0	165 (Class H)		
Test corner		24,7	34,9	90		
Outdoor unit						
Discharge pipe		62,1	66,5	Ref.		
Motor compressor, side		74,7	72,8	140		
Outdoor fan motor		46,7	43,7	150		
Transformer winding		66,4	38,8	165 (Class H)		
Reactor		46,8	43,2	Ref.		
Test corner		65,4	29,5	90		
Temperature of winding		R ₁ (Ω) 25°C	R ₂ (Ω)	T (°C)	Max. T (°C)	Insulation class
Cooling mode						
Winding of reactor		0,4	0,476	74,3	165	H
Heating mode						
Winding of reactor		0,4	0,481	77,5	165	H
Supplementary information:						
1. Test ambient: Cooling mode: Indoor: 32/23(DB/WB); Outdoor: 50/23(DB/WB), Heating mode: Indoor: 30/19(DB/WB); Outdoor: 24/18(DB/WB)						
2. The alternative components with the appliance and the 0,94 times rated voltage were also conducted; the most unfavourable test results were recorded.						

IEC 60335-2-40

11.8-2	TABLE: Heating test, thermocouples Model A: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MCD-36HFRN1-QRD0 with alternative indoor fan motor WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean).					P
	Test voltage (V).....	:	1,06 x 240 V = 254,4 V			—
	Ambient, t ₁ (°C).....	:	See supplementary information			—
	Ambient, t ₂ (°C).....	:	See supplementary information			—
Thermocouple locations		T (°C)		Max. T (°C)		
		Cooling mode	Heating mode			
Indoor unit						
Indoor fan motor		45,2	44,5	150		
Air outlet		25,5	46,9	90		
Transformer winding		34,0	40,5	110 (Class B)		
Reactor		32,7	31,2	165 (Class H)		
Test corner		24,3	35,3	90		
Outdoor unit						
Discharge pipe		61,8	66,8	Ref.		
Motor compressor, side		76,1	74,2	140		
Outdoor fan motor		45,5	44,9	150		
Transformer winding		67,2	39,6	165 (Class H)		
Reactor		46,0	44,0	Ref.		
Test corner		66,1	30,2	90		
Temperature of winding	R ₁ (Ω) 25°C	R ₂ (Ω)	T (°C)	Max. T (°C)	Insulation class	
Cooling mode						
Winding of reactor	0,4	0,477	75,0	165	H	
Heating mode						
Winding of reactor	0,4	0,486	80,8	165	H	
Supplementary information:						
1. Test ambient: Cooling mode: Indoor: 32/23(DB/WB); Outdoor: 50/23(DB/WB), Heating mode: Indoor: 30/19(DB/WB); Outdoor: 24/18(DB/WB)						
2. The alternative components with the appliance and the 0,94 times rated voltage were also conducted; the most unfavourable test results were recorded.						

IEC 60335-2-40

11.8-3	TABLE: Heating test, thermocouples Model B: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Broad-Ocean), MUE-36HRFN1-QRD0 with alternative indoor fan motor WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean).					P
	Test voltage (V).....	:	1,06 x 240 V = 254,4 V			—
	Ambient, t ₁ (°C).....	:	See supplementary information			—
	Ambient, t ₂ (°C).....	:	See supplementary information			—
Thermocouple locations		T (°C)		Max. T (°C)		
		Cooling mode	Heating mode			
Indoor unit						
Indoor fan motor		58,2	47,5	150		
Air outlet		25,8	47,2	90		
Transformer winding		33,8	40,7	110 (Class B)		
Reactor		32,8	31,3	165 (Class H)		
Test corner		23,9	35,7	90		
Outdoor unit						
Discharge pipe		71,5	67,1	Ref.		
Motor compressor, side		87,5	75,6	140		
Outdoor fan motor		44,3	46,1	150		
Transformer winding		68,0	40,4	165 (Class H)		
Reactor		45,2	44,8	Ref.		
Test corner		66,8	30,9	90		
Temperature of winding		R ₁ (Ω) 25°C	R ₂ (Ω)	T (°C)	Max. T (°C)	Insulation class
Cooling mode						
Winding of reactor		0,4	0,472	71,7	165	H
Heating mode						
Winding of reactor		0,4	0,482	78,2	165	H
Supplementary information:						
1. Test ambient: Cooling mode: Indoor: 32/23(DB/WB); Outdoor: 50/23(DB/WB), Heating mode: Indoor: 30/19(DB/WB); Outdoor: 24/18(DB/WB)						
2. The alternative components with the appliance and the 0,94 times rated voltage were also conducted; the most unfavourable test results were recorded.						

IEC 60335-2-40

11.8-4	TABLE: Heating test, thermocouples Model B: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MUE-36HRFN1-QRD0 with alternative indoor fan motor WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean).					P
	Test voltage (V).....	:	1,06 x 240 V = 254,4 V			—
	Ambient, t ₁ (°C).....	:	See supplementary information			—
	Ambient, t ₂ (°C).....	:	See supplementary information			—
Thermocouple locations		T (°C)		Max. T (°C)		
		Cooling mode	Heating mode			
Indoor unit						
Indoor fan motor		41,2	50,5	150		
Air outlet		26,1	47,5	90		
Transformer winding		33,6	40,9	110 (Class B)		
Reactor		33,0	31,5	165 (Class H)		
Test corner		23,4	36,2	90		
Outdoor unit						
Discharge pipe		71,2	67,4	Ref.		
Motor compressor, side		88,9	77,0	140		
Outdoor fan motor		43,1	47,3	150		
Transformer winding		68,8	41,2	165 (Class H)		
Reactor		44,4	45,6	Ref.		
Test corner		67,5	31,6	90		
Temperature of winding		R ₁ (Ω) 25°C	R ₂ (Ω)	T (°C)	Max. T (°C)	Insulation class
Cooling mode						
Winding of reactor		0,4	0,478	75,6	165	H
Heating mode						
Winding of reactor		0,4	0,481	77,5	165	H
Supplementary information:						
1. Test ambient: Cooling mode: Indoor: 32/23(DB/WB); Outdoor: 50/23(DB/WB), Heating mode: Indoor: 30/19(DB/WB); Outdoor: 24/18(DB/WB)						
2. The alternative components with the appliance and the 0,94 times rated voltage were also conducted; the most unfavourable test results were recorded.						

IEC 60335-2-40

11.8-5	TABLE: Heating test, thermocouples Model C: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Broad-Ocean), MTI-36HWFN8-QRD0 with alternative indoor fan motor ZKFN-300-8-1(Broad-Ocean).					P
	Test voltage (V).....	:	1,06 x 240 V = 254,4 V			—
	Ambient, t ₁ (°C).....	:	See supplementary information			—
	Ambient, t ₂ (°C).....	:	See supplementary information			—
Thermocouple locations		T (°C)		Max. T (°C)		
		Cooling mode	Heating mode			
Indoor unit						
Indoor fan motor		44,2	53,5	150		
Air outlet		26,3	47,7	90		
Transformer winding		33,3	41,2	110 (Class B)		
Reactor		33,1	31,6	165 (Class H)		
Test corner		23,0	36,6	90		
Outdoor unit						
Discharge pipe		60,9	67,7	Ref.		
Motor compressor, side		80,3	78,4	140		
Outdoor fan motor		41,9	48,5	150		
Transformer winding		69,6	42,0	165 (Class H)		
Reactor		43,6	46,4	Ref.		
Test corner		68,2	32,3	90		
Temperature of winding		R ₁ (Ω) 25°C	R ₂ (Ω)	T (°C)	Max. T (°C)	Insulation class
Cooling mode						
Winding of reactor		0,4	0,479	76,3	165	H
Heating mode						
Winding of reactor		0,4	0,480	76,9	165	H
Supplementary information:						
1. Test ambient: Cooling mode: Indoor: 32/23(DB/WB); Outdoor: 50/23(DB/WB), Heating mode: Indoor: 30/19(DB/WB); Outdoor: 24/18(DB/WB)						
2. The alternative components with the appliance and the 0,94 times rated voltage were also conducted; the most unfavourable test results were recorded.						

IEC 60335-2-40

11.8-6	TABLE: Heating test, thermocouples Model C: MOD30U-36HFN8-QRD0 with alternative outdoor fan motor ZKFN-120-8-2(WZDK120-38G-W) (Wolong), MTI-36HWFN8-QRD0 with alternative indoor fan motor ZKFN-300-8-1(Broad-Ocean).					P
	Test voltage (V).....	:	1,06 x 240 V = 254,4 V			—
	Ambient, t ₁ (°C).....	:	See supplementary information			—
	Ambient, t ₂ (°C).....	:	See supplementary information			—
Thermocouple locations		T (°C)		Max. T (°C)		
		Cooling mode	Heating mode			
Indoor unit						
Indoor fan motor		49,2	38,5	150		
Air outlet		19,9	46,3	90		
Transformer winding		34,4	40,1	110 (Class B)		
Reactor		32,4	30,9	165 (Class H)		
Test corner		25,2	34,4	90		
Outdoor unit						
Discharge pipe		62,4	66,2	Ref.		
Motor compressor, side		73,3	71,4	140		
Outdoor fan motor		47,9	42,5	150		
Transformer winding		65,6	38,0	165 (Class H)		
Reactor		47,6	42,4	Ref.		
Test corner		64,7	28,8	90		
Temperature of winding		R ₁ (Ω) 25°C	R ₂ (Ω)	T (°C)	Max. T (°C)	Insulation class
Cooling mode						
Winding of reactor		0,4	0,479	76,3	165	H
Heating mode						
Winding of reactor		0,4	0,485	80,1	165	H
Supplementary information:						
1. Test ambient: Cooling mode: Indoor: 32/23(DB/WB); Outdoor: 50/23(DB/WB), Heating mode: Indoor: 30/19(DB/WB); Outdoor: 24/18(DB/WB)						
2. The alternative components with the appliance and the 0,94 times rated voltage were also conducted; the most unfavourable test results were recorded.						

IEC 60335-2-40

13.2	TABLE: Leakage current		P
	Heating appliances: 1,15 x rated input (W)	1,06 x 240 V = 254,4 V	—
	Motor-operated and combined appliances: 1,06 x rated voltage (V).....:	—	—
Leakage current between		I (mA)	Max. allowed I (mA)
L/N and earthed metal parts		0,23	2 mA/ kW
L/N and plastic enclosure		0,07 (peak)	0,35(peak)
Supplementary information: ---			

13.3	TABLE: Dielectric strength		P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)
L/N and earthed metal parts		1000	No
L/N and plastic enclosure		3000	No
Supplementary information: ---			

16.2	TABLE: Leakage current		P
	Single phase appliances: 1,06 x rated voltage (V)	IU: 1,06 x 240 V = 254,4 V	—
	Three phase appliances 1,06 x rated voltage divided by $\sqrt{3}$ (V)	—	—
Leakage current between		I (mA)	Max. allowed I (mA)
L/N and earthed metal parts		0,36	2 mA/ kW
L/N and plastic enclosure		0,14	0,25
Supplementary information: ---			

16.3	TABLE: Dielectric strength		P
Test voltage applied between:		Test potential applied (V)	Breakdown / flashover (Yes/No)
L/N and earthed metal parts		1250	No
L/N and plastic enclosure		3000	No
Supplementary information: ---			

IEC 60335-2-40

17	TABLE: Overload protection		P
Thermocouple locations		T (°C)	Max. T (°C)
Winding of transformer E28069 (EI28(8+8)5/P4-2.61L1) (Jewel)		67,3	225
Winding of transformer E22102 (EE22(5+5)2/P4-1.52L1) (Jiayang)		67,5	225
Winding of transformer E22102 (EE22(5+5)2/P4-1.52L1) (Jewel)		65,4	225
Supplementary information: ---			

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?		Stand-by	—
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	1	P	N.A	N.A	N.A	N.A	P
19.3	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.4	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.5	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.6	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.7	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.8	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.9	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.10	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.11.2	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.11.4.8	N.A	N.A	N.A	N.A	N.A	N.A	N/A
19.10X	N.A	N.A	N.A	N.A	N.A	N.A	N/A

Supplementary information:
 1. For 19.2, fan motor locked for 15 days, the most unfavourable test results were recorded.
 The most unfavourable test results were recorded.

IEC 60335-2-40

19.2	TABLE: Abnormal operation, locked rotor/moving parts			P
Temperature of winding	Measured temperature(°C)	required temperature(°C)	Insulation class	
Fan motor winding ZKFN-300-8-1 (Broad-Ocean)	27,4	215	E	
Fan motor enclosure ZKFN-300-8-1 (Broad-Ocean)	26,9	150	E	
Fan motor winding ZKFN-120-8-2 (WZDK120-38G-W) (Broad-Ocean)	25,6	215	E	
Fan motor enclosure ZKFN-120-8-2 (WZDK120-38G-W) (Broad-Ocean)	24,3	150	E	
Fan motor winding ZKFN-120-8-2 (WZDK120-38G-W) (Wolong)	27,5	215	E	
Fan motor enclosure ZKFN-120-8-2 (WZDK120-38G-W) (Wolong)	24,6	150	E	
Fan motor winding WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean)	25,8	215	E	
Fan motor enclosure WZDK124-38G (ZKFP-124-8-2) (Broad-Ocean)	24,1	150	E	
Fan motor winding WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean)	28,1	215	E	
Fan motor enclosure WZDK90-38GS-W (ZKFN-90-8-1) (Broad-Ocean)	27,2	150	E	
Supplementary information: ---				

24.1	TABLE: Components				P
Component	Manufacturer/ trademark	Type/model	Value / rating	Standard	Approval/ Reference
Indoor controller for A	GD Midea Air-Conditioning Equipment Co., Ltd.	EU-KFR160Q4/BP 3N1Y-D.D.16.NP1-1	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor controller for B	GD Midea Air-Conditioning Equipment Co., Ltd.	CE-KFR105T1/BP 3N1Y-D.18.NP1-2	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Inverter controller for B	GD Midea Air-Conditioning Equipment Co., Ltd.	DC-FAN-15A(PS21964). D.13.MP1-1	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Filter board for B	GD Midea Air-Conditioning Equipment Co., Ltd.	FILTER-BOARD.D.37.L P1-1	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor controller for C	GD Midea Air-Conditioning Equipment Co., Ltd.	EU-KFR160T2/BP 3N1X-B.JD.T.NK.NP1-1	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

Inverter controller for C	GD Midea Air-Conditioning Equipment Co., Ltd.	DCFanT2(MN103DF46XEA+PS219C4).JD.TY.MMK.MP1-1	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor controller	GD Midea Air-Conditioning Equipment Co., Ltd.	EU-KFR105W/BP3 T5N1-350S.D.13.WP 1-1	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor inverter controller	GD Midea Air-Conditioning Equipment Co., Ltd.	EU-KFR105W/BP2 T3N1-350(767).D.13.MP2-1	220-240VAC; 50Hz	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor fan motor for A	Nidec Shibaura	WZDK124-38G (ZKFP-124-8-2)	DC310V; 50Hz; 124W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhonshan Broad-Ocean Motor Co. Ltd	WZDK124-38G (ZKFP-124-8-2)	DC310V; 50Hz; 124W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor fan motor for B	Welling	WZDK90-38GS-W (ZKFN-90-8-1)	DC310V; 50Hz; 90W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhonshan Broad-Ocean Motor Co. Ltd	WZDK90-38GS-W (ZKFN-90-8-1)	DC310V; 50Hz; 90W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor fan motor for C	Welling	ZKFN-300-8-1	DC310V; 50Hz; 300W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhonshan Broad-Ocean Motor Co. Ltd	ZKFN-300-8-1	DC310V; 50Hz; 300W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor fan motor	Welling	ZKFN-120-8-2 (WZDK120-38G-W)	DC310V; 50Hz; 120W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhonshan Broad-Ocean Motor Co. Ltd	ZKFN-120-8-2 (WZDK120-38G-W)	DC310V; 50Hz; 120W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Wolong Electric Group Co., Ltd.	ZKFN-120-8-2 (WZDK120-38G-W)	DC310V; 50Hz; 120W; class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor transformer	Zhongshan Coin Electronics Co., Ltd. (Maanshan Coiner Electronics Co Ltd).	E22102 (EE22(5+5)2/P 4-1.52L1)	EE22; 212,1~373,3VDC; output: 15VDC/200mA; 12VDC/ 600mA; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shunde Zhanliang Industrial Co., Ltd	E22102 (EE22(5+5)2/P 4-1.52L1)	EE22; 212,1~373,3VDC; output: 15VDC/200mA; 12VDC/ 600mA; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

(Alternative)	Tdk Xiamen Co., Ltd	E22102 (EE22(5+5)2/P4-1.52L1)	EE22; 212,1~373,3VDC; output: 15VDC/200mA; 12VDC/ 600mA; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Hui Zhou Jia Yang Core New-Tech Co., Ltd.	E22102 (EE22(5+5)2/P4-1.52L1)	EE22; 212,1~373,3VDC; output: 15VDC/200mA; 12VDC/ 600mA; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shekou Jewel Electronic Co., Ltd (Js)	E22102 (EE22(5+5)2/P4-1.52L1)	EE22; 212,1~373,3VDC; output: 15VDC/200mA; 12VDC/ 600mA; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor transformer	Zhongshan Coin Electronics Co., Ltd. (Maanshan Coiner Electronics Co Ltd).	E28069 (EI28(8+8)5/P4-2.61L1)	EI28; 212,1~373,3VDC; output:17VDC; 11VDC; 9VDC; 5VDC; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shenzhen Zhizhuo Electron Corporation	E28069 (EI28(8+8)5/P4-2.61L1)	EI28; 212,1~373,3VDC; output:17VDC; 11VDC; 9VDC; 5VDC; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Huizhou Jiayang Core New-Tech Co., Ltd.	E28069 (EI28(8+8)5/P4-2.61L1)	EI28; 212,1~373,3VDC; output:17VDC; 11VDC; 9VDC; 5VDC; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shekou Jewel Electronic Co., Ltd	E28069 (EI28(8+8)5/P4-2.61L1)	EI28; 212,1~373,3VDC; output:17VDC; 11VDC; 9VDC; 5VDC; Class B	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor terminal block for A, B	Changzhou Hualing Xinte Electrical Manufacturing Co., Ltd.	JXO-B1-3	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Foshan Shunde Yuanfeng Metal Electrical Appliances Co.,Ltd.	YF2001	660V4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Yueqing Jing Grid Electric Co., Ltd.	JGD-ZR3-W-1	660V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhong Shan Shi Jointec Electronics Co.,Ltd	RS9101	450VAC 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

(Alternative)	Wenzhou Lizijia Electric Co., Ltd.	JXZ-1203D	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Changzhou Chanchenc Kaidu Electric Products Co., Ltd	JX-B-3P	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nantong Huaguan Electric Co., Ltd	JXW-3-H	600V 4mm²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor terminal block II for B	Changzhou Chanchenc Kaidu Electric Products Co., Ltd	JX-PF-5	250V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Changzhou Hualing Xinte Electrical Manufacturing Co., Ltd.	JXO-Ee-5P-5	250V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhong Shan Shi Jointec Electronics Co., Ltd	RS9103C-5 RS9103C	250VAC 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Yueqing Jing Grid Electric Co., Ltd.	JGD-ZR5-P-1	250V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Foshan Shunde Yuanfeng Metal Electrictrical Appliances Co., Ltd.	YF2004	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Wenzhou Lizijia Electric Co., Ltd.	JXZ-2205B	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nantong Huaguan Electric Co., Ltd	JXW-5-M	450V 4mm²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor terminal block I for C	Changzhou Chanchenc Kaidu Electric Products Co., Ltd	JXO-2B	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Foshan Shunde Yuanfeng Metal Electrictrical Appliances Co., Ltd.	YF2001	600V 4 mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor terminal block II for C	Deca Switchlab Inc	25-3P	PITCH 7,62 mm, 10A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Excel Cell Electronic Co., Ltd	ETB54022030 21Z	PITCH 7,62 mm	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor terminal block I	Zhong Shan Shi Jointec Electronics Co., Ltd	RS9413 (RS9413-5F)	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

(Alternative)	Foshan Shunde Yuanfeng Metal Electricrical Appliances Co., Ltd.	YF2004A	660VAC 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor terminal block II	Zhong Shan Shi Jointec Electronics Co., Ltd	RS9103-2	250V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Foshan Shunde Yuanfeng Metal Electricrical Appliances Co., Ltd.	YF2004-2C (YF2004)	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Changzhou Chanchenc Kaidu Electric Products Co., Ltd	PF-2	450V 4mm ²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Changzhou Kaidu Electrical Co., Ltd.	JX-PF-2	250 V 4 mm²	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Step motor I for B	Jiangsu Huayang Co., Ltd.	SM-35-17-12-22/MP35EA3/MP35EA4	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Changzhou Ouck Electric Co., Ltd.	SM-35-17-12-22/MP35EA3/MP35EA4	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Taishan City Kexinte Motor Products Co., Ltd	SM-35-17-12-22/MP35EA3/MP35EA4	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Foshan Shunde Hengxing Micro Motor Co., Ltd	SM-35-17-12-22/MP35EA3/MP35EA4	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Changchou Leili Electrical Equipment Co., Ltd.	SM-35-17-12-22/MP35EA3/MP35EA4	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Huilip Motor Co., Ltd.	SM-35-17-12-22/MP35EA3/MP35EA4	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Step motor II for B	Jiangsu Huayang Co., Ltd.	SM-35-17-12-46	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Changzhou Ouck Electric Co., Ltd.	SM-35-17-12-46	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Taishan City Kexinte Motor Products Co., Ltd	SM-35-17-12-46	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Foshan Shunde Hengxing Micro Motor Co., Ltd	SM-35-17-12-46	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

(Alternative)	Changchou Leili Electrical Equipment Co., Ltd.	SM-35-17-12-46	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Huilip Motor Co., Ltd.	SM-35-17-12-46	DC12V; Class E	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Compressor	Gmcc	KTF310D43UM T	R32	EN 60335-2-34	TUV RH R 50296950
4-way valve	Zhejiang Dunan Hetian Metal Co., Ltd	DSF-9-R410A	AC220-240V; 50/60Hz; 7/5W; Class B	EN/IEC 60730-1	VDE 40013212
(Alternative)	Zhejiang Sanhua Climate & Appliance Controls Group Co., Ltd (Zhejiang Sanhua Group Co., Ltd.)	SHF-7H-34U or SHF-7H-34U-P	AC220-240V; 50/60Hz; 4,5/3,5W; Class B	EN/IEC 60730-1	VDE 40003240
(Alternative)	Anhui Tianda Electronic Science & Technology Co., Ltd	DSF-9-R410A	AC220-240V; 50/60Hz; 5-8W; Class B	EN/IEC 60730-1	TUV PS B030744665 003
(Alternative)	Foshan Hualu Automatic Controls Ltd	STF-0201G	AC220-240V; 50/60Hz; 6/5W; Class B	EN/IEC 60730-1	VDE 40018984
(Alternative)	Zhejiang Chunhui Intelligent Controlco.Ltd	DHF-9	AC220-240V; 50/60Hz; 4-7W; Class B	EN/IEC 60730-1	TUV Rh B080147761 012
(Alternative)	Henan Yuanquan Electron Co., Ltd.	DSF-09	AC220-240V; 50/60Hz; 5,5W/3,5W; Class B	EN/IEC 60730-1	VDE 15053320
(Alternative)	Zhongshan City Gangli Refrigeration Fittings Co., Ltd.	SHF-7 R410A	AC220-240V; 50/60Hz; 4,5/3,5W; Class B	EN/IEC 60730-1	VDE 40026249
Fuse I	Hollyland Co., Ltd.	5CT	T 5 A; 250 VAC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40034697
(Alternative)	Dongguan Better Electronics Technology Co., Ltd.	524	T 5 A; 250 VAC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40025424
(Alternative)	Dongguan Better Electronic Technology Co Ltd	524T	T 5 A; 250 VAC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40025424
(Alternative)	Hollyland (China) Electronics Technology Corporation Limited.	50T	T 5 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40014460

IEC 60335-2-40

(Alternative)	Hollyland (China) Electronics Technology Corporation Limited.	5ET	T 5 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40015669
(Alternative)	Dongguan Better Electronic Technology Co Ltd	522T	T 5 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co Ltd	524T	T 5 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co Ltd	932T	T 5 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	XuCheng Electronics (Shenzhen) Co., Ltd	5T (5*20)	T 5 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40009610
(Alternative)	Hollyland (China) Electronics Technology Corporation Ltd.	50CT	T 5 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40014896
Fuse II	Hollyland Co., Ltd.	65TS/65TS(P)	T; 30AL; 250VAC	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co Ltd	614	T; 30AL; 250VAC	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Hollyland (China) Electronics Technology Corporation Limited.	65TS	T 30 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co Ltd	614	T 30 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
Fuse III for A	Dongguan Better Electronic Technology Co., Ltd	334	T; 3,15AL; 250VAC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40025428
(Alternative)	Dongguan Better Electronic Technology Co Ltd	932T	3,15A/250VAC	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40033369
(Alternative)	Xucheng Electronics (Shenzhen) Co., Ltd	5TE	3,15A/250V	IEC/EN 60127-1 IEC/EN 60127-2	VDE 40036821

IEC 60335-2-40

(Alternative)	Hollyland (China) Electronics Technology Co., Ltd.	50T	T 3,15 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40014460
(Alternative)	Hollyland (China) Electronics Technology Co., Ltd.	50CT	T 3,15 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40014869
(Alternative)	Hollyland (China) Electronics Technology Co., Ltd.	5ET	T 3,15 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40015669
(Alternative)	Hollyland (China) Electronics Technology Co., Ltd.	61S	T 3,15 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co., Ltd.	932T	T 3,15 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co Ltd	316	T 3,15 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co Ltd	522T	T 3,15 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Dongguan Better Electronic Technology Co Ltd	334T	T 3,15 A; 250 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	XuCheng Electronics (Shenzhen) Co., Ltd	5T (5*20)	T 3,15 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40009610
(Alternative)	XuCheng Electronics (Shenzhen) Co., Ltd	5TE	T 3,15 A; 250 VAC	EN 60127-1 EN 60127-2	VDE 40036821
(Alternative)	XuCheng Electronics (Shenzhen) Co., Ltd	4T (3.6*10)	T 3,15 A; 350 VAC	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Hollyland (China) Electronics Technology Corporation Ltd.	30TS-032H1/H2/L	T 3,15 A; 350 VAC	EN 60127-1 EN 60127-2	CSA LR101178
Relay I	Yueqing Meishuo Electric Co., Ltd	MPD-S-112-A	5A; 250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.198 2U

IEC 60335-2-40

(Alternative)	Wangrong Electronics (Shenzhen) Co., Ltd.	RJ-SS-112DM-S	5A;250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	TUV SUD NO.64.105.1 5.01733.01
(Alternative)	Dongguan Churod Electronics Co., Ltd.	A1-S-112DA	5A;250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.048 6U
(Alternative)	Omron Electronic Components (Shenzhen) Ltd.	G5NB-1A4-E-HA	5A;250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.268 2U
(Alternative)	Te Connectivity (Shenzhen) Co., Ltd	OJE-SH-112DM	5A;250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.111 2U
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SJ-SH-112DM2	5A 250VAC;T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.150 6U CNEx15.152 1U
(Alternative)	Yueqing Meishuo Electric Co., Ltd	MPR-S-112-A	5A;250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.198 3U
(Alternative)	Dongguan Churod Electronics Co., Ltd.	CHM-S-112DA3	5A;250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.048 8U
(Alternative)	Omron Electronic Components (Shenzhen)Ltd.	G5NB-1A4-E-HA	5A;250VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEX15.268 2U
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SRB-SH-112DM2	5A; 277VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.150 9U CNEx15.152 3U
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SJ-S-112DM	5A; 250VAC; operation cycles: 100000cycle; T85°C	EN/IEC 61810-1 EN/IEC 60079-15	VDE400021 46 CQC020010 02114 TUVR50142 420
Relay II	Yueqing Meishuo Electric Co., Ltd	MPQ1-S-112D-A	30A; 240VAC; T85°C; operation cycles:100000	EN/IEC 61810-1 EN/IEC 60079-15	CNEx15.197 9U
(Alternative)	Dongguan Sanyou Electrical Appliances Co., Ltd	SLA-SH-112DMJ	30A; 250VAC; operation cycles: 100000cycle; T85°C	EN/IEC 61810-1 EN/IEC 60079-15	CQC020010 02109 VDE-40036707 TUV-R50143450
Varistor	Ceramate Techn.Co., Ltd	GNR14D681K(GNR14D681KM)	680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 005938
(Alternative)	Centra Science Corp.(Cnju)	CNR-14D681K(CNJU 14D681KM)	680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008220

IEC 60335-2-40

(Alternative)	Xian Xiwuer Electronic & Info Co., Ltd.	MYG3-14K681 (MYG314K420)	680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40008528
(Alternative)	Foshan Kestar Electronic Co., Ltd.	MYG14-681 (MYN14-681A)	680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40005616
(Alternative)	Foshan Kexin Electrical Appliances Co., Ltd	KVR MYN14- 681A	680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40005616
(Alternative)	Epcos (Zhuhai Ftz) Co., Ltd.	14D681K-M (S14 K420)	AC420V;50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40027582
(Alternative)	Nanjing Shagon Electronics Co., Ltd	MYG14K 681M(MYG14K 681)	AC680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	TUV SUD Z1 12 03 797 12001
(Alternative)	Foshan Kestar Electronic Co.	14D681K-M (CNR(OLD))	AC50-300V; 50A; T85 °C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40005616
(Alternative)	Panasonic	E14681	680V;50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40035231
(Alternative)	Guangxi New Future Information Industry Co., Ltd	14D681K	680V; 50A; 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	14D681K-K or 14D681KK	680V; 50A; 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	14D681K- M(CNR(OLD)) or 14D681KM	680V; 50A; 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	NFC14D681K or NFC14D681K M	680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40030322
(Alternative)	Centra Science Corp.(Cnju)	CNR-14D581K (CNJU 14D581K-M or CNJU 14D581K-K)	AC50-680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 40008220
(Alternative)	Ceramate Technical Co Ltd	GNR14D581K (GNR14D581K M)	AC350-1000V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2- 2	VDE 005938

IEC 60335-2-40

(Alternative)	Guangxi New Future Information Industry Co., Ltd	NFC14D581K (NFC14D581K M)	AC50-680V; 50A; 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.	NFC14D681K M NFC14D681K	680V; 50A; T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D681K-M /14D681K	680V;T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008220
(Alternative)	Nanjing Shagon Electronics Co.,Ltd	MYG14K681N/ MYG14K681	680V,T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	TUV Z116067971 2002
(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN15-681K/MYN15-681K	680V; 50A; T125°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 40008571
(Alternative)	Guangdong Welkin Thinking Electronic Co.,Ltd	TVR14681 /TVR14681	680V, T85°C	IEC/EN 61051-1 IEC/EN 61051-2 IEC/EN 61051-2-2	VDE 005944
(Alternative)	Guangxi New Future Information Industry Co.,Ltd.	NFC14D561K NFC14D561K	560V; 50A; T85°C	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D561K	560V;T85°C	IEC 61051-1/IEC 61051-2	VDE 40008220
(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN15-561K/MYN15-561K	560V; 50A; T125°C	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40008571
(Alternative)	Guangxi New Future Information Industry Co.,Ltd.	NFC10D471K 10D471K	470V; 25A; T85°C	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	10D471K	470V; T85°C	IEC 61051-1/IEC 61051-2	VDE 40008220
(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN12-471K/MYN12-471K	470V; 50A; T125°C	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40008571
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	NFC10D471K (10D471K)	470V;25A;T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	10D471K	470V;T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008220

IEC 60335-2-40

(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN12-471K	470V; 50A; T125° C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008571
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	NFC14D471K M (NFC14D471K)	470V; 50A; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D471K-M (14D471K)	470V; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008220
(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN15-471K	470V; 50A; T125° C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008571
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	NFC14D561K	560V; 50A; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D561K	560V; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008220
(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN15-561K	560V; 50A; T125°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008571
(Alternative)	PT. Panasonic Industrial Devices Batam	E11621	558V ~ 682V, T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	CQC 1300109490 9
(Alternative)	PT. Panasonic Industrial Devices Batam	E11621	558 V ~ 682 V, T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	CQC 1300109490 9
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D681K-K (14D681K)	680 V; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008220
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	NFC14D681K M (NFC14D681K)	680 V; 50 A; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D681K-M (14D681K)	680 V; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008220
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	NFC14D621K MS (NFC14D621K)	620 V; 50 A; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030322
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D621K	620 V; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008220

IEC 60335-2-40

(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN15-621K	620 V; 50 A; T125°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008571
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	NFC14D621K	620 V; 50 A; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030322
(Alternative)	Success Electronics Co., Ltd.	10D621KH /SVR10D621K XXXXH(VDE)	620V; In=3KA; T85°C (UL:T105°C)	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030401
(Alternative)	Shenzhen Chenju Electric Technology Co., Ltd	14D681K	680V; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008220
(Alternative)	Chengdu Tieda Electronic Co., Ltd.	MYN15-681K	680 V; 50 A; T125°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40008571
(Alternative)	Nanjing Shagon Electronics Co., Ltd	MYG14K681M (MYG14K681)	680 V, T85°C; 5KA*4	EN 61051-1 EN 61051-2 EN 61051-2-2	TUV: Z116067971 2002
(Alternative)	Nanjing Shagon Electronics Co., Ltd	MYG14K681N (MYG14K681)	680 V, T85°C; 4.5KA*1	EN 61051-1 EN 61051-2 EN 61051-2-2	TUV: Z116067971 2002
(Alternative)	Guangxi New Future Information Industry Co., Ltd.	NFC14D681K MS (NFC14D681K)	680 V; 50 A; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 40030322
(Alternative)	Guangdong Welkin Thinking Electronic Co., Ltd	TVR14681	Φ14; 680V; T85°C	EN 61051-1 EN 61051-2 EN 61051-2-2	VDE 005944
X2 capacitor	Anhui Xinyang Electronics Co., Ltd.	MPX / MPK / MKP	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40024537
(Alternative)	Xiamen Faratronic Co. Ltd.	MKP61	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40007424
(Alternative)	Xiamen Faratronic Co. Ltd.	MKP62	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40000358
(Alternative)	Ultra Tech Xiphi Enterprise Co Ltd	HQX	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40024534

IEC 60335-2-40

(Alternative)	Jimson Electronics(Xia Men)Co., Ltd	MKP	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40000463
(Alternative)	Shunde Da Hua Electric Co., Ltd	HD-Series	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40027182
(Alternative)	Epcos	B3292#	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40010694
(Alternative)	Foshan City Nanhai District Xinyuan Electronic Co., Ltd.	MKP-X2	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 40027433
(Alternative)	Shanghai Xiangriya Electronic Co., Ltd (Xry)	MPX/MKP	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; T 85°C or above; X2	EN/IEC 60384-14	VDE 112996
(Alternative)	Shanghai Xiangriya Electronic Co., Ltd (Xry)	MPX/MKP	33nF; 85°C or above; AC275V; X2	EN/IEC 60384-14	VDE 40001876
(Alternative)	Shanghai Xiangriya Electronic Co.,Ltd(Xry)	MPX/MKP	100nF; 85°C or above; AC275V; X2	EN/IEC 60384-14	VDE 40001876
(Alternative)	Shanghai Xiangriya Electronic Co.,Ltd(Xry)	MPX/MKP	220nF; 275VAC; 85°C or above; X2	EN/IEC 60384-14	VDE 40001876
(Alternative)	Okaya	SE12001	275VAC; 0.01uf; 0.033uf; T 85°C or above; X2	EN/IEC 60384-14	SE/0142-9C
(Alternative)	Changzhou Jiaguan Electronics Co., Ltd	MKP-X2	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	VDE 40037250
(Alternative)	Changzhou Jiaguan Electronics Co., Ltd	MKP	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	VDE 40037250

IEC 60335-2-40

(Alternative)	Foshan City Xinyuan Electronic Co., Ltd,	MKP-X2	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	VDE 40027433
(Alternative)	OKAYA Electric Industries Co., Ltd.	LE104-MX	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	ENEC SE/0142-1
(Alternative)	OKAYA Electric Industries Co., Ltd.	LE105-MX	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	ENEC SE/0142-1
(Alternative)	OKAYA Electric Industries Co., Ltd.	LE224-MX	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	ENEC SE/0142-1
(Alternative)	OKAYA Electric Industries Co., Ltd.	LE474-MX	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	ENEC SE/0142-1
(Alternative)	Shanghai Xiangriya Electronic Co., Ltd (Xry)	MPX/MKP X2	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	VDE 40001876

IEC 60335-2-40

(Alternative)	Ultra Tech Xiphi Enterprise Co., Ltd	HQX	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	VDE 40024534
(Alternative)	Xiamen Faratronic Co., Ltd.	C4B	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	SEMKO:SE/0366-6
(Alternative)	Xiamen Faratronic Co., Ltd.	MKP62	275VAC;104K,104 M, 224K, 224M, 335K, 335M, 474K, 474M; 33nF; 100nF; 220nF; 0.01uf; 0.033uf; T 85°C or above; X2	EN 60384-14	VDE 40000358
X2 capacitor II	Okaya	HCP	104K,1250V or 1000V, T 85°C or above;	EN/IEC 60384-14	VDE
(Alternative)	Xiamen Faratronic Co. Ltd.	C32(MKP21)	MKP21-104K,1000V, T 85°C or above;	EN/IEC 60384-14	VDE 40000358
Indoor Bridge rectifier for A, C	Leshan Radio Company, Ltd.	GBU15K	800VAC; 15A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shindengen	U15K80R	800VAC; 15A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shindengen Electric Mfg. Co.,Ltd.	GBU15K	800V;15A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor Bridge Rectifier for B	Leshan Share Electronic Co.,Ltd	GBJ35D-M	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Microsemi	GBJ35M	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	MP3510	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Lite-On Semiconductor Corp.	GBJ3510	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Share Electronic Co.,Ltd	D35SB100	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

(Alternative)	Leshan Share Electronic Co.,Ltd	GBJ35D-M	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Share Electronic Co.,Ltd.	GBU15M	1000V;15A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Suzhou Good-Ark Electronics Co. Ltd	GBJ15M	1000V:15A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Microsemi Shanghai Co.,Ltd.	GBJ25J	1000V;25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shindengen Electric Mfg. Co.,Ltd.	D25X100	1000V;25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Share Electronic Co.,Ltd.	D25SB100	1000V;25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Lite-On Semiconductor Corp.	GBJ2510-F or GBJ2510	1000V;25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	D25SB100	1000V;25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Pan Jit International Inc.	KBJ2510	1000V;25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Suzhou Good-Ark Electronics Co. Ltd	GBJ25M	1000V;25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Taiwan Semiconducor	TS25P07G	1000V; 25A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	D35SB100	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	GBJ35M	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Lite-On Semiconductor Corp.	GBJ3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Taiwan Semiconducor	TS35P07G	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Pan Jit International Inc.	KBJ3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Suzhou Good-Ark Electronics Co. Ltd	GBJ35M	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	GBPC3510 WS	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	MP3510W	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance

IEC 60335-2-40

(Alternative)	Leshan Radio Company, Ltd.	MP3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	GBPC3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co.,Ltd.	S35VB100	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	MP3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	GBPC3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	GBPC3510 WC	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	D35SB100	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	D25XB100(N) or GBJ25J	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	D25SB100	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Lite-On Semiconductor Corp.	GBJ2510-F or GBJ2510	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Suzhou Good-Ark Electronics Co. Ltd	GBJ25M	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	GBJ25J	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Shindengen Electric Mfg. Co., Ltd.	D25X100	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	D25SB100	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Lite-On Semiconductor Corp.	GBJ2510-F or GBJ2510	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	D25SB100	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Pan Jit International Inc.	KBJ2510	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Taiwan Semiconducior	TS25P07G	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	S25VB60	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co.,Ltd.	S25VB-60	1000 V; 25 A	EN 60335-2-40 EN 60335-1	Tested with appliance

IEC 60335-2-40

(Alternative)	Leshan Radio Company, Ltd.	GBU15K	1000 V; 15 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	GBU15M	1000 V; 15 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Suzhou Good-Ark Electronics Co. Ltd	GBJ15M	1000 V; 15 A	EN 60335-2-40 EN 60335-1	Tested with appliance
Outdoor Bridge Rectifier	Leshan Share Electronic Co.,Ltd	GBPC3510W(GBPC3510WS)	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Share Electronic Co.,Ltd	GBPC3510WC	1000VAC; 35A	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	D35SB100	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	GBJ35M	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Lite-On Semiconductor Corp.	GBJ3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Taiwan Semiconducor	TS35P07G	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Pan Jit International Inc.	KBJ3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Suzhou Good-Ark Electronics Co. Ltd	GBJ35M	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	GBPC3510 WS	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	MP3510W	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	MP3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	GBPC3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co.,Ltd.	S35VB100	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	MP3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Microsemi Shanghai Co., Ltd.	GBPC3510	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Share Electronic Co., Ltd.	GBPC3510 WC	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leshan Radio Company, Ltd.	D35SB100	1000 V; 35 A	EN 60335-2-40 EN 60335-1	Tested with appliance

IEC 60335-2-40

Indoor Electrolytic capacitor	Jianghao Electron	CD289A	400VAC or 450VAC; 220µF; VENT 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Jianghai Electron	CD289A	400VAC or 450VAC; 220µF; VENT 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Panasonic	CE or CEM	400VAC or 450VAC,220µF; VENT 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Hunan Aihua Group Co.,Ltd.	LH	450V,220µF 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nichicon Corporation Co.,Ltd	GG(M) 220uF450V CE 105°C	400VAC or 450VAC;220uF;VENT 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Hunan Aihua Group Co., Ltd.	LH	450V,220 µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co., Ltd.	LH	400V, 220µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Nichicon Corporation Co., Ltd	GG(M) 220uF450V CE 105°C	400VAC or 450VAC; 220µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD289A	450VDC 220µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD289A	400 VDC 220 µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
outdoor Electrolytic capacitor	Hongkong Chemi-Con Ltd.	NCC- EKM401LIN6 81MA45S	680uF/400V or 450VAC - 25~+105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shenzhen Jianghao Electronics Co.,Ltd.	CD291D	680uF/400V or 450VAC -25°C--+105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Panasonic Electronic Devices Co.,Ltd.	CE or CEM	680uF/400V or 450VAC -25°C--+105°C - 20~+20% 2000 (h)	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Jianghao Electron	CD289A	400VAC or 450VAC, 450-820µF; VENT 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Jianghai Electron	CD289A	400VAC or 450VAC, 450-820µF; VENT 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nippon	KMQ or KMW	400VAC or 450VAC, 450-820µF; VENT 105°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

(Alternative)	Jianghao Electron	CD291D OR CD291A	400VAC or 450VAC, 450-820 μ F; VENT 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Jianghai Electron	CD291D OR CD291A	400VAC or 450VAC, 450-820 μ F; VENT 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Panasonic	EERHC2G821 LJ	400VAC, 820 μ F; VENT 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nichicon	CD291D OR CD291A	400VAC or 450VAC, 450-820 μ F; VENT 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Suzhou Kaimei Electronic Ltd	CD291D OR CD291A	400VAC or 450VAC, 450-820 μ F; VENT 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Panasonic	CE or CEM	400VAC or 450VAC, 450-820 μ F; VENT 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nippon Chemi-Con Corporation	KMW	450V, 820UF 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Hunan Aihua Group Co.,Ltd.	LH	450V, 820 μ F 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nichicon Corporation Co.,Ltd	GG(M) 820uF450V CE 105 $^{\circ}$ C	400VAC or 450VAC; 820uF; VENT 105 $^{\circ}$ C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	EPCOS (Xiamen) Co., Ltd.	B43252-S5477-M7	450V, 470μF; VENT 105$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co., Ltd.	LH	450V, 470μF; 105$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co.,Ltd.	LK	400V, 470μF; 500μF 85$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Nichicon Corporation Co., Ltd	GG(M) 470uF450V CE 105$^{\circ}$C	400VAC or 450VAC; 470μF; VENT 105$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Nippon Chemi-Con Corporation	KMQ	450 V, 470μF; 105$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD291A	400VDC; 470uF VENT 105$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD291A	450VDC; 470μF VENT 105$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co.,Ltd.	LK	400V, 500μF; 500μF 85$^{\circ}$C	EN 60335-2-40 EN 60335-1	Test with appliance

IEC 60335-2-40

(Alternative)	Nippon Chemi-Con Corporation	CE	400V ,500µF; 85°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Panasonic	ECEL26P501E S	400V or 450V; 500µF; VENT 85°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD291R	400VDC; 500uF VENT 85°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co., Ltd.	LH	400V, 510 µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD289A	400 VDC; 510 µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co., Ltd.	LK	450V, 560µF; 85°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD289L	450VDC; 560µF VENT 85°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	EPCOS (Xiamen) Co., Ltd.	B43252- S5687-M4	450V, 680µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co., Ltd.	LH	450V, 680µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Hunan Aihua Group Co., Ltd.	LH	400V, 680µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Nichicon Corporation Co., Ltd	GG(M) 680uF400V CE 105°C	400VAC or 450VAC; 680µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Nippon Chemi-Con Corporation	KMQ	450 V, 680µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Nippon Chemi-Con Corporation	KMQ	400V, 680µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Panasonic	CD291D	400V or 450V; 680uF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Panasonic	CD291A	400V or 450V; 680uF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD291A	450VDC; 680µF VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD291D	400VDC; 680µF VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	EPCOS (Xiamen) Co., Ltd.	B43641- S5827-M1	450V, 820µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Nichicon Corporation Co., Ltd	GG(M) 820uF450V CE 105°C	400VAC or 450VAC; 820uF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance

IEC 60335-2-40

(Alternative)	Nippon Chemi-Con Corporation	KMW	450V, 820µF; 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Panasonic	CD291D	400V or 450V; 820µF; VENT - 25~+105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD289A	450VDC; 820µF; VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
(Alternative)	Shenzhen Jianghao Electronics Co., Ltd.	CD291A	400VDC; 820µF VENT 105°C	EN 60335-2-40 EN 60335-1	Test with appliance
Optocoupler	Toshiba	TLP521-1GB	IF: 50mA; IFM: 1A; VR: 6V; VCEO: 35V; VECO: 6V; IC: 50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhongyangtian Electronics Technology Co., Ltd.	PC817	IF:50mA; IFM:1A ; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Guangzhou Wisdom Techno Co., Ltd.	PC817	IF:50mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shenzhen Langpu Technology Co., Ltd.	PC817	IF:50mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhongyangtian Electronics Technology Co., Ltd.	PC851	IF:50mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Guangzhou Wisdom Technl Co., Ltd.	PC851	IF:50mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Shenzhen Langpu Technology Co., Ltd.	PC851	IF:50mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Sharp	PC851	IF:50 mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance

IEC 60335-2-40

(Alternative)	Sharp	PC817	IF:50 mA; IFM:1A;VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nec	PC851	IF:50 mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Nec	PC817	IF:50 mA; IFM:1A;VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Lite-On Electronics, Inc	PC851	IF:50mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Everlight Electronics.,Ltd.	PC851	IF:50mA; IFM:1A; VR: 6V; VCEO:35V; VECO:6V; IC:50mA	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Sharp Corp Electronic Components Group	PC851	350V/50mA, -25°C-100 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Sharp Corp Electronic Components Group	PC817	80V/50mA, -30°C-100 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Sharp Corp Electronic Components Group	PC817(BP)	80V/50mA, -30°C-100 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Sharp Corp Electronic Components Group	PC817(BP)	80V/50mA, -30°C-100 °C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Everlight Electronics.,Ltd.	EL816C	80V,60mA,110°C	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Avago Technologies	A817V	IF: 50 mA; VR: 6V; VCEO:70V; VECO:6V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Everlight Electronics., Ltd.	EL354N	IF: ±50 mA; IFP: ±1A; VCEO:80V; VECO:6V	EN 60335-2-40 EN 60335-1	Tested with appliance

IEC 60335-2-40

(Alternative)	Lite-On Electronics, Inc.	MOC3022	IF:50mA; VR:6V; VDRM:400V; VTSM:1A; Viso:5000Vrms; IFT MAX:10mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Lite-On Electronics, Inc.	816 C	IF:50 mA; VR: 6V; VCEO:80V; VECO:6V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Lite-On Electronics, Inc.	816 B	IF:50 mA; VR: 6V; VCEO:80V; VECO:6V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Lite-On Electronics, Inc.	MOC3021	IF:50 mA; VR: 6V; VDRM:400V; VTSM:1A; Viso: 5000Vrms;IFT MAX 15mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Renesas Electronics Corporation	R705A	IF: ±50 mA; IFM: ±0.5A; VCEO:70V; VECO:5V; IC:30mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Sharp Corp Electronic Components Group	PC817	IF:50 mA; IFM:1A; VR: 6V; VCEO:80V; VECO:6V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Sharp Corp Electronic Components Group	PC851	IF:50 mA; IFM:1A; VR: 6V; VCEO:350V; VECO:6V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Toshiba Semiconductor Company	P181	IF:50 mA; IFP:1A; VR: 5V; VCEO:80V; VECO:7V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Toshiba Semiconductor Company	P628	IF:50 mA; IFM:1A; VR: 6V; VCEO:350V; VECO:6V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Toshiba Semiconductor Company	P620	IF:50/60 mA; IFP:1A; VR: 6V; VCEO:55V; VECO:7V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Toshiba Semiconductor Company	P521	IF:50/70 mA; IFP:1A; VR: 5V; VCEO:55V; VECO:7V	EN 60335-2-40 EN 60335-1	Tested with appliance

IEC 60335-2-40

(Alternative)	Toshiba Semiconductor Company	TLP3526	IF:50 mA; IFP:1A; VR: 5V; VDRM600V	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Toshiba Semiconductor Company	TLP521	Ic:50mA; Vceo:55V; BVs:2500Vrms	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Toshiba Semiconductor Company	TLP184	IF: ±50 mA; IFP: ±1A; VCEO:80V; VECO:7V; IC:50mA	EN 60335-2-40 EN 60335-1	Tested with appliance
Water pump for A	Huayang	PLD12	220-240VAC, 50/60HZ, 12W, Class E	EN/IEC 60335-1	VDE 40031533
(Alternative)	Zhejiang Zhongbao Auto-Condrol Component Co., Ltd.	PLD12(PSB12)	220-240VAC, 50/60HZ, 12W, Class E	EN/IEC 60335-1	TÜV Rh R50134169
(Alternative)	Foshan Lepuda Motor	PLD-12 (PSB12)	AC220-240V; 50/60Hz; Max.12W;	EN/IEC 60335-1	TUV SUD B12 10 67595 009
Indoor IPM for B, C	Mitsubishi	PS219C4-ASTX(IPM-PS219C4-ASTX/PIN25)	15A; 450VAC	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor IPM I	Sanken Electric Co., Ltd.	SIM6822M	5A;450VAC	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Sanken Electric Co., Ltd.	SIM6822MV	5A;600V	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Outdoor IPM II	Mitsubishi	PS21767	30A; 450VAC	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
Indoor Reactor for B, C	Foshan Welling Electronic and Electric Co., Ltd.	R05094A	5A; CLASS H	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhejiang Zhengliang Electronic Co., Ltd	R05094A	5A; CLASS H	IEC/EN 60335-1 IEC/EN 60335-2-40	Tested with appliance
(Alternative)	Zhejiang Zhengliang Electronic Co., Ltd.	R05094B (SX)	5 A, Class N	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Zhejiang Zhengliang Electronic Co., Ltd.	R05094A	5 A, Class N	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Guangdong Welling Motor Manufacturing Co., Ltd.	R0594	5 A, Class H	EN 60335-2-40 EN 60335-1	Tested with appliance

IEC 60335-2-40

(Alternative)	Guangdong Welling Motor Manufacturing Co., Ltd.	R0594A	5 A, Class H	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	DPC Nantong Co., Ltd	R05094A	5 A, Class N	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leqing Zhengliang Electronic Co., Ltd.	R05094B (SX)	5 A, Class N	EN 60335-2-40 EN 60335-1	Tested with appliance
(Alternative)	Leqing Zhengliang Electronic Co., Ltd.	R05094A	5 A, Class N	EN 60335-2-40 EN 60335-1	Tested with appliance
Internal wire	Yueqing Guoxin Electric Wire Factory	UL1015	600VAC; 105°C; AWG 12-22;	EN 60335-2-40 EN 60335-1	UL E247528 (Test with appliance)
(Alternative)	Various	UL1015	600VAC; 105°C; AWG 12-22	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Foshan Shunde Baosheng Electronics Co Ltd	UL1007	300VAC; 80°C; AWG16-32;	EN 60335-2-40 EN 60335-1	UL E257286 (Test with appliance)
(Alternative)	Various	UL1007	300VAC; 80°C; AWG16-32	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Guangdong Linoya Electronic Technology Co., Ltd.	UL1430	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL E315619 (Test with appliance)
(Alternative)	Various	UL1430	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	3A PVC Wire & Cable Co., Ltd	UL3286	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL E209277 (Test with appliance)
(Alternative)	Various	UL3286	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Various	UL3122	AWG14; 105°C;	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Shenzhen Mysun Insulation Materials Co Ltd	UL3071	AWG14; 105°C;	EN 60335-2-40 EN 60335-1	UL E239689 (Test with appliance)
Internal wire	Yueqing Guoxin Electric Wire Factory	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E247528 Test with appliance
(Alternative)	Changzhou Hongchang Electronics Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E212395 Test with appliance
(Alternative)	Huasheng Eletrical Industrial Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E230918 Test with appliance

IEC 60335-2-40

(Alternative)	Guangdong Province Guangzhou Panyu Cable Works Co Ltd Panyu Cable Factory	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E216775 Test with appliance
(Alternative)	Guangdong Xinya Electronics Technology Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E170689 Test with appliance
(Alternative)	Zhongshan City Shenbao Electric Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E199818 Test with appliance
(Alternative)	Lichang Connector Industry Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E228858 Test with appliance
(Alternative)	Huizhou Ltk Electronic Cable Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E148000 Test with appliance
(Alternative)	Heshan City Tehsing Huanchiu Electric Cable Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E229340 Test with appliance
(Alternative)	Guangdong Linoya Electronic Technology Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E315619 Test with appliance
(Alternative)	Guangzhou Kaiheng Enterprise Group	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E248582 Test with appliance
(Alternative)	Shenzhen Qifurui Electronics Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E211048 Test with appliance
(Alternative)	Foshan Zhuo Sheng Green Wire Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E251755 Test with appliance
(Alternative)	LS Cable(Wuxi) Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E52853 Test with appliance
(Alternative)	Guangzhou Zhongte Electrical Material Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E307902 Test with appliance
(Alternative)	Chau's Electrical Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E114082 Test with appliance
(Alternative)	Wuhu Shuncheng Electronics Co., Ltd	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E314693 Test with appliance
(Alternative)	Foshan Shunde Yonggaolian Wire & Cable Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E314925 Test with appliance

IEC 60335-2-40

(Alternative)	Zhongshan Dongfeng Zhoushishenlong Electronic Wire Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E257280 Test with appliance
(Alternative)	Dongguan Jinlong Electronics Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E333717 Test with appliance
(Alternative)	Jiangmen Huayuan Enterprise Co Ltd	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E341507 Test with appliance
(Alternative)	Foshan Shunde Zhanliang Industrialist	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E330864 Test with appliance
(Alternative)	Various	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	CB approved
(Alternative)	Anhui Xinke New Materials Stock Co Ltd Cable & Wires Branch Co	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E220455 Test with appliance
(Alternative)	Jiangyin Jiangzhou Copper Product Co Ltd	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E341212 Test with appliance
(Alternative)	Guangdong Yong Roi Cable Technology Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E204893 Tested with appliance
(Alternative)	Wuxi Huahao Electric Co., Ltd.	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E231903 Tested with appliance
(Alternative)	Foshan Shunde Huakun Electric Co Ltd	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E305878 Tested with appliance
(Alternative)	Jiaxing Tition Wire Co Ltd	UL1015	600VAC; 105°C; AWG 12-22;	EN 60335-2-40 EN 60335-1	UL E320271 (Test with appliance)
(Alternative)	Jiaxing Tition Wire Co Ltd	UL1007	300VAC; 80°C; AWG16-32;	EN 60335-2-40 EN 60335-1	UL(E320271 Test with appliance)
(Alternative)	Foshan Shunde Huakun Electric Co Ltd	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E305878 Test with appliance
(Alternative)	Anhui Xinke New Materials Stock Co Ltd Cable & Wires Branch Co	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E220455 Test with appliance
(Alternative)	Jiangyin Jiangzhou Copper Product Co Ltd	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E341212 Test with appliance
(Alternative)	Guangdong Yong Roi Cable Technology Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E204893 Tested with appliance

IEC 60335-2-40

(Alternative)	Wuxi Huahao Electric Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E231903 Tested with appliance
(Alternative)	Yueqing Guoxin Electric Wire Factory	UL1007	AWG16-32#; 300VAC; 80°C;	EN 60335-2-40 EN 60335-1	UL E247528 Test with appliance
(Alternative)	Changzhou Hongchang Electronics Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E212395 Test with appliance
(Alternative)	Huasheng Eletrical Industrial Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E230918 Test with appliance
(Alternative)	Guangdong Province Guangzhou Panyu Cable Works Co Ltd Panyu Cable Factory	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E216775 Test with appliance
(Alternative)	Guangdong Xinya Electronics Technology Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E170689 Test with appliance
(Alternative)	Zhongshan City Shenbao Electric Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E199818 Test with appliance
(Alternative)	Foshan Shunde Baosheng Electronics Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E257286 Test with appliance
(Alternative)	Lichang Connector Industry Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E228858 Test with appliance
(Alternative)	Huizhou Ltk Electronic Cable Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E148000 Test with appliance
(Alternative)	Heshan City Tehsing Huanchiu Electric Cable Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E229340 Test with appliance
(Alternative)	Guangdong Linoya Electronic Technology Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E315619 Test with appliance
(Alternative)	Guangzhou Kaiheng Enterprise Group	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E248582 Test with appliance
(Alternative)	Shenzhen Qifurui Electronics Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E211048 Test with appliance
(Alternative)	Foshan Zhuo Sheng Green Wire Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E251755 Test with appliance

IEC 60335-2-40

(Alternative)	LS Cable (Wuxi) Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E52853 Test with appliance
(Alternative)	Guangzhou Zhongte Electrical Material Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E307902 Test with appliance
(Alternative)	Chau's Electrical Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E114082 Test with appliance
(Alternative)	Wuhu Shuncheng Electronics Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E314693 Test with appliance
(Alternative)	Foshan Shunde Yonggaolian Wire & Cable Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E314925 Test with appliance
(Alternative)	Zhongshan Dongfeng Zhoushishenlong Electronic Wire Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E257280 Test with appliance
(Alternative)	Dongguan Jinlong Electronics Co., Ltd.	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E333717 Test with appliance
(Alternative)	Jiangmen Huayuan Enterprise Co Ltd	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E341507 Test with appliance
(Alternative)	Foshan Shunde Zhanliang Industrialist	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	UL E330864 Test with appliance
(Alternative)	Various	UL1007	AWG16-32#; 300VAC; 80°C	EN 60335-2-40 EN 60335-1	CB approved
(Alternative)	Yong Hao Electrical Industry Co Ltd	UL1015	AWG12-22#; 600VAC; 105°C	EN 60335-2-40 EN 60335-1	UL E240426 Test with appliance
(Alternative)	Yong Hao Electrical Industry Co Ltd	UL1007	AWG16-32#; 300VAC; 80°C;	EN 60335-2-40 EN 60335-1	UL E240426 Test with appliance
(Alternative)	Guangdong Linoya Electronic Technology Co., Ltd.	UL1430	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL E315619 (Test with appliance)
(Alternative)	Various	UL1430	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	3A PVC Wire & Cable Co., Ltd	UL3286	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL E209277 (Test with appliance)
(Alternative)	Various	UL3286	300VAC; 105°C; AWG16-30;	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Shenzhen Mysun Insulation Materials Co Ltd	UL3122	300VAC; 105°C; AWG14;	EN 60335-2-40 EN 60335-1	UL E239689 (Test with appliance)
(Alternative)	Various	UL3122	300VAC; 105°C; AWG14;	EN 60335-2-40 EN 60335-1	UL(Test with appliance)

IEC 60335-2-40

(Alternative)	Shenzhen Mysun Insulation Materials Co Ltd	UL3071	AWG14; 105°C;	EN 60335-2-40 EN 60335-1	UL E239689 (Test with appliance)
PVC tube	Dae Chang Eleccom Co., Ltd	DC-6	600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E120268 (Test with appliance)
(Alternative)	Zhejiang Zhongtian Electrical Jacket Co Ltd	ZT300	105°C; 300V; vw-1;	EN 60335-2-40 EN 60335-1	UL E317046 (Test with appliance)
(Alternative)	Foshan Shunde Kaidaxin Plastic Industry Co Ltd	KDS01	600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E314911 (Test with appliance)
(Alternative)	Guangzhou Kaiheng Enterprise Group	S-2	600V; 105°C;	EN 60335-2-40 EN 60335-1	UL E214175 (Test with appliance)
(Alternative)	Guangzhou Pu Sheng Electronics Insulating Material Co., Ltd.	GX-600	600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E248681 (Test with appliance)
(Alternative)	Heng Hui Chang Insulation Material Co Ltd	HHC-01 (GX-600V)	600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E327311 (Test with appliance)
(Alternative)	Lianda Co., Ltd	LHX-01	600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E218446 (Test with appliance)
(Alternative)	Nissei Eco Co Ltd	NH-3 (NIS-S-SE1)	600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E199505 (Test with appliance)
(Alternative)	Shenzhen Woer Heat-Shrinkable Material Co Ltd	RSFR-H or SBRS	600VAC; 125°C;	EN 60335-2-40 EN 60335-1	UL E203950 (Test with appliance)
(Alternative)	Suzhou Fuchen Electric Material Co Ltd	FC-600	105°C; 600VAC;	EN 60335-2-40 EN 60335-1	UL E304705 (Test with appliance)
(Alternative)	Wenzhou Hongxin Plastic Co Ltd	HXT-600 (GX-600)	105°C; 600V; vw-1;	EN 60335-2-40 EN 60335-1	UL E305314 (Test with appliance)
(Alternative)	Zhangjiagang City Yilida Electronics Co Ltd	CSGV-600	600VAC, 105°C,	EN 60335-2-40 EN 60335-1	UL E301348 (Test with appliance)
(Alternative)	Zhejiang Zhongtian Electrical Jacket Co Ltd	ZT600	105°C; 600V; vw-1;	EN 60335-2-40 EN 60335-1	UL E317046 (Test with appliance)
(Alternative)	Changzhou Shi Yu Wang Plastic Co., Ltd	WS3-14	600VAC; 105°C;	EN 60335-2-40 EN 60335-1	UL E238569 (Test with appliance)
(Alternative)	Wuhu Donghe Electron Co L Td	PVC-DHB	105°C; 600VAC;	EN 60335-2-40 EN 60335-1	UL E352940 (Test with appliance)
(Alternative)	Kunshan Shengda Plastic Products Co Ltd	SDT-105	105°C; 600VAC;	EN 60335-2-40 EN 60335-1	UL E340362 (Test with appliance)

IEC 60335-2-40

(Alternative) only for fan motor	Lianda Co.Ltd.	HB	750VAC; 105°C; VW-1	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative) only for fan motor	Lianda Co., Ltd.	SH	750VAC; 105°C; VW-1	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative) only for fan motor	Kai Da Xin	Φ6, Φ8, Φ10, Φ12	750VAC; 105°C; VW-1	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Dongguan Quanxin Plastic Co Ltd	VW-1	105°C; 600VAC;	EN 60335-2-40 EN 60335-1	UL E361235 (Test with appliance)
(Alternative)	YI LI DA	Φ4, Φ6,Φ8,Φ14,Φ1 0,Φ12	105°C 600V	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Wen Shi Da	VAST-600	105°C 600V	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Dongguan City Zhengfeng Wire & Cable Co Ltd	ZF-600	105°C; 600VAC;	EN 60335-2-40 EN 60335-1	UL E342662 (Test with appliance)
(Alternative)	Li Xin Dian Qi	CSGV or GSGV	105°C; 600VAC;	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
(Alternative)	Various	Various	105°C; 600VAC	EN 60335-2-40 EN 60335-1	UL(Test with appliance)
PCB board	Baoyuejia Electronics (Zhongshan) Co., Ltd	BYJ-3	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E230225 (Test with appliance)
(Alternative)	Chang Chun Plastics Co.,Ltd.	CCP-508SW/ CCP- 508/CCP-3400	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E108591 (Test with appliance)
(Alternative)	Changzhou Haihong Electronics Co.,Ltd.	HDCEM1	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E166702 (Test with appliance)
(Alternative)	Shengyi Technology Co Ltd	S3110/S1141/ S3116/S1600	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E109769 (Test with appliance)
(Alternative)	Guangzhou Panyu Cali-Tech Electronics Co Ltd	CT-101&CT- 101A	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E216635 (Test with appliance)
(Alternative)	Ht Circuits Ltd	1294V0	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E56334 (Test with appliance)
(Alternative)	Huizhou Xingzhiguang Technology Co., Ltd	XZG-P1	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E246887 (Test with appliance)
(Alternative)	International Laminate Material Ltd.	ILM-R1##	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E134893 (Test with appliance)

IEC 60335-2-40

(Alternative)	Kingboard Laminates Holdings Ltd.	KB-6150/KB-6160/KB-5150/KB-6150C/KB-6160C /KB-6164F	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E123995 (Test with appliance)
(Alternative)	Shenzhen Wuzhu Tech Co Ltd	KB-6150/KB-6160/KB-5150/KB-6150C/KB-6160C	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E170968 (Test with appliance)
(Alternative)	Shanghai Nanya Copper Clad Laminates Co., Ltd.	SN-L4 or FR-4-86PY or FR-4-11PY or NP-140TL	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E213990 (Test with appliance)
(Alternative)	Shunde Junda Electronic Co.,Ltd	JD-D1orJD-D or JD-E	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E173873 (Test with appliance)
(Alternative)	Guang Dong Xing Da Hong Ye Electronic Co Ltd	XD-102	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E193079 (Test with appliance)
(Alternative)	Zhuhai Jointek Electric Co., Ltd.	JK-004	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E214852 (Test with appliance)
(Alternative)	Ronghui Electronics (Huizhou) Co.,Ltd	RH-3	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E252098 (Test with appliance)
(Alternative)	Victory Giant Technology (Huizhou) Co., Ltd	SH1&SH6	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E346395 (Test with appliance)
(Alternative)	Hangzhou Baolin Printed Circuit Co., Ltd.	BL2 or BL1	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E207143 (Test with appliance)
(Alternative)	Express Electronics Co., Ltd.	EP or 10V0	94V-0; thickness: 1,6mm/2.0mm;	EN 60335-2-40 EN 60335-1	UL E157925 (Test with appliance)
(Alternative)	Changzhou Aohong Electronics Co., Ltd	AOH-2	94V-0; thickness: 1,6mm/2.0mm;	EN 60335-2-40 EN 60335-1	UL E303981 (Test with appliance)
(Alternative)	International Laminate Material Ltd	GF111T6/GF12T6, GF21/22	94V-0; thickness: 1,6mm/2.0mm;	EN 60335-2-40 EN 60335-1	UL E134893 (Test with appliance)
(Alternative)	Guangdong Chengde Electronic Technology Co Ltd	D-12	94V-0; thickness: 1,6mm/2.0mm;	EN 60335-2-40 EN 60335-1	UL E346273 (Test with appliance)
(Alternative)	Guangzhou Panyu Cali-Tech Electronics Co., Ltd	CT-101A	94V-0; Thickness: 1,6mm	EN 60335-2-40 EN 60335-1	UL E216635 (Test with appliance)
Supplementary information: ---					

IEC 60335-2-40

29.1	TABLE: Clearances					P
	Overvoltage category	II				—
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic (mm)	Supplementary (mm)	Reinforced (mm)	Functional (mm)	Verdict / Remark
330	0,2* / 0,5 / 0,8**	—	—	—	—	N/A
500	0,2* / 0,5 / 0,8**	—	—	—	—	N/A
800	0,2* / 0,5 / 0,8**	—	—	—	—	N/A
1 500	0,5 / 0,8** / 1,0***	—	—	—	—	N/A
2 500	1,5 / 2,0***	B	—	—	—	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
<p>Supplementary information:</p> <p>*) For tracks on printed circuit boards if pollution degree 1 and 2</p> <p>**) For pollution degree 3</p> <p>***) If the construction is affected by wear, distortion, movement of the parts or during assembly</p> <p>B: Between motor winding and iron core: 2,8 mm.</p>						

IEC 60335-2-40

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

Supplementary information:

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

**) B = Basic insulation, S = Supplementary insulation, R = Reinforced insulation

B: Between motor winding and iron core: 2,8 mm.

IEC 60335-2-40

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
									te	ti	te	ti				
4-way valve	--	--	--	--	X	--	X	--	0s	0s	--	--	--	--	--	P
Reactor	--	--	--	--	X	--	X	--	--	--	0s	0s	X	--	--	P
X2 capacitor	--	--	--	--	--	--	--	--	--	--	0s	0s	X	--	--	P
Fan motor bobbin	--	--	--	--	X	--	X	--	--	--	0s	0s	X	--	--	P
Transformer bobbin	--	--	--	--	X	--	X	--	--	--	0s	0s	X	--	--	P
Terminal block	--	--	--	--	X	--	X	--	--	--	0s	0s	X	--	--	P
PCB	--	--	--	--	--	--	X	--	--	--	--	--	--	--	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---