



Descriptive Report and Test Results

MASTER CONTRACT: 302422

REPORT: 80099389

PROJECT: 80152955

- Edition 1:** December 29, 2021; Project 80099389 - Shanghai
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- Edition 2:** May 19, 2022; Project 80125047 - Shanghai
Prepared by Jack Jiao
Authorized by Jack Jiao
- Edition 3:** August 29, 2022; Project 80135208 - Shanghai
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Authorized by Jack Jiao
- Edition 4:** August 30, 2022; Project 80135219 - Shanghai
Prepared by Jack Jiao
Authorized by Jack Jiao
- Edition 5:** November 29, 2022; Project 80140165 - Shanghai
Prepared by Jack Jiao
Authorized by Jack Jiao
- Edition 6:** **December 19, 2022; Project 80152955 - Shanghai**
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PRODUCTS

CLASS 1211 02 - COMFORT CONDITIONING EQUIPMENT – Air Conditioning Apparatus
CLASS 1211 82 - AIR CONDITIONING APPARATUS –CERTIFIED TO U.S. STANDARDS

Dehumidifier, cord-connected, self-contained, indoor use, rated 115V, 60Hz, 2.7A, R134a, 4.94oz, models
OL20D-D025C, OL20D-D029A, Kea20-029A, EX287066AAK, OL20D-D033A, **OL20D-D029B and A4229B**

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Dehumidifier, cord-connected, self-contained, indoor use, rated 115V, 60Hz, 2.8A, R134a, 4.94oz, models OL25-D025C, OL25-D029A and OL25-D033A

Dehumidifier, cord-connected, self-contained, indoor use, rated 115V, 60Hz, 2.7A, R134a, 4.59oz, models OL20D-D030A, ES10105US-WH, OL20D-D030B and Kea20-030B

Dehumidifier, cord-connected, self-contained, indoor use, rated 115V, 60Hz, 2.8A, R134a, 4.59oz, models OL25-D030A, EX287065AAK and OL25-D030B

Dehumidifier, cord-connected, self-contained, indoor use, rated 115V, 60Hz, 2.0A, R134a, 3.0oz, models OL12D-D031A, OL10-D031A, OL12D-D031B, OL10-D031B, OL12D-D031C, ES10103US-WH and OL10-D031C

Dehumidifier, cord-connected, self-contained, indoor use, rated 115V, 60Hz, 5.5A, R410A, 12.0oz, model OL50D-D024D

Dehumidifier, cord-connected, self-contained, indoor use, rated 115V, 60Hz, 2.9A, R134a, 4.59oz, model OL20D-D068*

Note: “ * ” represents the product appearance code, which can be any capital letter in A-Z , indicating minor appearance differences that do not affect safety performance.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 60335-1:16/ UL 60335-1 Sixth Edition	- Household and similar electrical appliances - Safety -Part 1: General requirements
CAN/CSA-C22.2 No. 60335-2-40-19/ UL 60335-2-40 Third Edition	- Safety of Household and Similar Electrical Appliances — Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards).

The following markings appear on a CSA Accepted self-adhesive or UL Recognized adhesive-type nameplate on each unit:

- Submitter's name and/or CSA Master Contract number "302422" (adjacent to the CSA Monogram)
- Rated voltage;

- Rated frequency;
- Rated power input in watts or rated current in amperes;
- Name, trade mark or identification mark of the manufacturer or responsible vendor;
- Model or type reference;
- Motor compressor ratings (RLA and LRA);
- Rating of over current protective device;
- Manufacturing date or date code;
- The mass of the refrigerant, or of each refrigerant in a blend other than those of the azeotropic type;
- The refrigerant identification;
- The maximum allowable pressure or design pressure for the low-pressure side and the high-pressure side

Clear wiring diagram and the method of connection of the appliance to the electrical supply shall state in the instruction.

INSTALLATION INSTRUCTIONS:

Each unit is provided with installation and operating instructions. The installation instructions shall specify the installation manual.

Nameplate adhesive label material approval information:

CSA Certified or UR Recognized according to C22.2 No. 0.15 Adhesive Labels and UL 969 Marking and Labeling Systems.

Manufacturer: AVERY DENNISON (CHINA) CO LTD UL (MH20558)

Designation: PET TC/S333

ALTERATIONS

1. The marking as noted above.

FACTORY TESTS

A. Electric strength test:

The equipment, upon completion of manufacture and before shipment, shall be subjected to a voltage of substantially sinusoidal waveform having a frequency of approximately 50 Hz or 60 Hz for 1 s. The value of the test voltage and the points of application are shown in table below:

Test Voltages			
Points of application	Test voltage (V)		
Between LIVE PARTS and ACCESSIBLE METAL PARTS separated from LIVE PARTS by:	Class I and Class II Appliances		Class III Appliances
	Rated Voltages		
	≤ 150 V	>150 V	
BASIC INSULATION only	800	1000	400
DOUBLE or REINFORCED Insulation *	2000	2500	-
*For CLASS I APPLIANCES, this test need not be carried out on parts of CLASS II CONSTRUCTION if the test is considered to be inappropriate.			

Note:

1. It may be necessary for the appliance to be in operation during the test to ensure that the test voltage is applied

to all relevant insulation.

2. Breakdown is assumed to occur when the current in the test circuit exceeds 5 mA. However, this limit may be increased up to 30 mA for appliances with a high leakage current.
3. The circuit used for the test incorporates a current sensing device that trips when the current exceeds the limit.
4. The high voltage transformer is to be capable of maintaining the specified voltage at the limiting current.
5. Instead of being subjected to an a.c. voltage, the insulation may be subjected to a d.c. voltage of 1.5 times the value shown in the table above. An a.c. voltage having a frequency up to 5 Hz is considered to be a d.c. voltage.

B. Functional test

The correct functioning of an appliance is checked by inspection or by an appropriate test if the incorrect connection or adjustment of components has safety implications.

NOTE Examples are verification of the correct direction of motor rotation and the appropriate operation of interlock switches. This does not require testing of thermal controls or PROTECTIVE DEVICES.

C. Earth continuity test:

Each appliance that has a power-supply cord having a grounding conductor shall be tested, as a routine production-line test, to determine that grounding continuity exists between the grounding blade of the attachment plug and the accessible non-current carrying metal parts of the appliance that are likely to become energized.

Only a single test need be conducted if the accessible non-current carrying metal part selected is conductively connected by design to all other accessible non-current carrying metal parts.

Any suitable indicating device - an ohmmeter, a battery-and-buzzer combination, or the like - may be used to determine compliance with the grounding continuity.

D. Refrigerant leakage test

All refrigerant-containing parts of each unit shall be tested and proved tight at no less than the maximum allowable pressure as determined in Annex EE.2 on the high pressure side and Annex EE.4 on the low pressure side, but not less than the saturated pressure at 51,7°C on the high pressure side and 26,5°C on the low pressure side.

- a) 26.5°C (80°F) for low sides; and
- b) 51.7°C (125°F) for high sides.

A method other than the pressure testing at the above pressures may be employed if it can be demonstrated that the alternate test method produces results that are at least equivalent to the pressure test method.

If final assembly of the unit is completed with flare-type fittings or telescoped tubing joints that are sealed with silver solder, brazing, welding, or equivalent means. In this case, any components located on higher pressure sections of the system shall be individually tested by either the unit manufacturer or the manufacturer of the part at no less than the marked design pressure in which those components are used.

Warning: The factory test(s) specified may present a hazard of injury to personnel and/or property and should only be performed by persons knowledgeable of such hazards and under conditions designed to minimize the possibility of injury.

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

1. Component descriptions marked with either the "(INT)" or "(INT*)" identifiers may be substituted with other components providing the requirements specified under the notes in the "Description" are complied with.

COMPONENT SPECIAL PICKUP

1. Component descriptions marked with the identifier "(CT)" are subject to annual pickup and Conformity Testing.

DESCRIPTION

Notes:

1. Component Substitution

- a) Critical components (those identified by mfr name, cat no), which are NOT identified with either "INT" or "INT*" are not eligible for substitution without evaluation and report updating
- b) The term "INT" means a "Certified" and/or "Listed" (or a "Recognized" and/or "Accepted") component may be replaced by one "Certified" and/or "Listed" by another certification organization accredited by the appropriate accreditation body or scheme requirements to the correct standard, for the same application; providing the applicable country identifiers are included and requirements in item "d" below are complied with.
- c) The Term "(INT*)" means a "Recognized" and/or "Accepted" component may be replaced by a component that is CSA Certified. The applicable country identifiers shall be included, the requirements in item "d" below as well as any "conditions of suitability" for the component (as recorded in this descriptive report) shall be complied with;
- d) Components which have been substituted, must be of an equivalent rating, configuration (size, orientation, mounting) and the applicable minimum creepage and clearance distances are to be maintained from live parts to bonded metal parts and secondary parts.
- e) Substitution of a "Certified" and/or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.
- f) Substitution of a "Recognized" and/or "Accepted" component by one that is not CSA Certified is not permitted without a proper evaluation as well as a report update because the Conditions of Acceptance of the original component may be different than the Conditions of Acceptance of the substitute component.
- g) A component description marked with "UR Recognized" or "cUR Recognized" or "cURus Recognized" indicates that a component is UL Recognized and accepted for use in the end product described in this report based on UL Conditions of Acceptability. Conditions of Acceptability of UR Recognized components are based mainly on flammability ratings, electrical ratings, temperature, and number of cycles.

2. Approval codes:

Certified = CSA Certified and suitable for the application.

Accepted = CSA Component Acceptance and suitable for the application.

UL Listed = UL Listed and suitable for the application.

UL Recognized = UL Recognized and suitable for the application.

This report covers dehumidifier units, as described below:

Main electrical component configuration			
Main models	Compressor	Fan motor	Main control PCB
OL20D-D025C OL20D-D033A OL20D-D029A Kea20-029A EX287066AAK OL25-D025C OL25-D029A OL25-D033A	HM55H11AG EE50HHA-U	YY510-4C	OL-D053-STB OL-DK-W-20L-00

OL20D-D029B A4229B			
OL20D-D030A ES10105US-WH OL20D-D030B Kea20-030B OL25-D030A EX287065AAK OL25-D030B	HM55H11AG EE50HHA-U	YYS6-4C	OL-D053-STB OL-DK-W-20L-00
OL12D-D031A OL10-D031A OL12D-D031B OL10-D031B OL12D-D031C ES10103US-WH OL10-D031C	QD36 QD35H11G	YYS6-4	OL-D053-STB OL-DK-W-10L-00
OL50D-D024D	ASK57E11CZZX	YDK-30-6	OL-DK-N-50L-01
OL20D-D068*	EE50HHA-U	YYS10-4	OL-D053-STB

Model	Rating	Refrigerant
OL20D-D025C	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL25-D025C	115 V~, 60 Hz, 2.8 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL20D-D029A	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
Kea20-029A (Brand:Keatar)	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
EX287066AAK	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL25-D029A	115 V~, 60 Hz, 2.8 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL20D-D029B	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
A4229B	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL20D-D033A	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL25-D033A	115 V~, 60 Hz, 2.8 A	Refrigerant: R134a (4.94 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL20D-D030A	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
ES10105US-WH (Brand:COSTWAY)	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL25-D030A	115 V~, 60 Hz, 2.8 A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)

EX287065AAK	115 V~, 60 Hz, 2.8 A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL20D-D030B	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
Kea20-030B (Brand: Keatar)	115 V~, 60 Hz, 2.7 A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL25-D030B	115 V~, 60 Hz, 2.8 A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL12D-D031A	115 V~, 60 Hz, 2.0 A	Refrigerant: R134a (3.0 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL10-D031A	115 V~, 60 Hz, 2.0 A	Refrigerant: R134a (3.0 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL12D-D031B	115 V~, 60 Hz, 2.0 A	Refrigerant: R134a (3.0 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL10-D031B	115 V~, 60 Hz, 2.0 A	Refrigerant: R134a (3.0 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL12D-D031C	115 V~, 60 Hz, 2.0 A	Refrigerant: R134a (3.0 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
ES10103US-WH (Brand:COSTWAY)	115 V~, 60 Hz, 2.0 A	Refrigerant: R134a (3.0 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL10-D031C	115 V~, 60 Hz, 2.0 A	Refrigerant: R134a (3.0 oz) Design pressure: 88 psig (Low side), 204 psig (High side)
OL50D-D024D	115 V~, 60 Hz, 5.5 A	Refrigerant: R410A (12.0 oz) Design pressure: 261 psig (Low side), 580 psig (High side)
OL20D-D068*	115 V~, 60 Hz, 2.9A	Refrigerant: R134a (4.59 oz) Design pressure: 88 psig (Low side), 204 psig (High side)

Note: Models marked with bold are selected as representative to perform tests.

The models are similar to each other except as indicate below:

Reference Model	Similar Model	Differences
OL20D-D025C	N/A	Basic model
OL25-D025C	OL20D-D025C	Different type designation and rating
OL20D-D029A	OL20D-D025C	Different appearance and different main control PCB box
Kea20-029A	OL20D-D029A	Different type designation and brand name
EX287066AAK	OL20D-D029A	Different type designation
OL25-D029A	OL20D-D029A	Different type designation and rating
OL20D-D029B	OL20D-D029A	Different type designation and air outlet
A4229B Brand: 'ZAFRO'	OL20D-D029A	Different type designation, air outlet and brand name
OL20D-D033A	OL20D-D025C	Different appearance and type designation
OL25-D033A	OL20D-D033A	Different type designation and rating
OL20D-D030A	OL20D-D025C	Different appearance, fan, heat exchanger and refrigerant mass

ES10105US-WH	OL20D-D030A	Different type designation and brand name
OL25-D030A	OL20D-D030A	Different type designation and rating
EX287065AAK	OL25-D030A	Different type designation
OL20D-D030B	OL20D-D030A	Different display LED PCB and type designation
Kea20-030B	OL20D-D030B	Different type designation and brand name
OL25-D030B	OL20D-D030B	Different type designation and rating
OL12D-D031A	OL20D-D025C	Different appearance, compressor, fan and refrigerant mass
OL10-D031A	OL12D-D031A	Different type designation
OL12D-D031B	OL12D-D031A	Different type designation and appearance
OL10-D031B	OL12D-D031B	Different type designation
OL12D-D031C	OL12D-D031A	Different type designation and appearance
ES10103US-WH	OL12D-D031C	Different type designation and brand name
OL10-D031C	OL12D-D031C	Different type designation
OL50D-D024D	OL20D-D025C	Different appearance, compressor, refrigerant and fan.
OL20D-D068*	OL20D-D025C	Different dimension, appearance and motor

The description is supplemented with Att1 Photos and Att3&Att4 Illustrations.

Note: A copy of the user's manual is attached as Att2 User Manual.

Complete details of construction are as follows:

ELECTRICAL SPACINGS:

Unless otherwise noted in this Report, the spacing between uninsulated live parts of opposite polarity and between uninsulated live parts and dead-metal parts are not less than the following:

The CLEARANCES at terminals for the connection of field wiring are increased to 6.4 mm for RATED IMPULSE VOLTAGE of 1 500 V

CORROSION PROTECTION:

All ferrous metal parts used to support or retain electrical components in position are protected against corrosion by a zinc coating and painting.

CONSTRUCTION DESCRIPTION:

Appliances shall have no ragged or sharp edges, other than those necessary for the function of the appliance that could create a hazard for the user in normal use or during USER MAINTENANCE.

10. Unit Cabinet Assembly: See Att1 Photos 1 to 89.

Model: All.

10-10 Unit Enclosure:

Front cover and back cover or left cover and right cover:

Material Manufacturer: LG Chem Huizhou Petrochemical Co Ltd (E476284)

Material: ABS (HP-181)

Thickness (mm): Min 1.6

Flammability: HB, RTI(60, 60, 60)

Dimensions (mm): See Att4 Illustrations

Alternative Material Manufacturer: NINGBO LG YONGXING CHEMICAL CO LTD (E203955)

Material: ABS (HI-121H)

Thickness (mm): Min 1.5

Flammability: HB, RTI(90, 80, 90)

Dimensions (mm): See Att4 Illustrations

Top cover:

Material Manufacturer: LG Chem Huizhou Petrochemical Co Ltd (E476284)

Material: ABS(HP-181)

Thickness (mm): Min 1.6

Flammability: HB RTI(60, 60, 60)

Dimensions (mm): See Att4 Illustrations

Alternative Material Manufacturer: NINGBO LG YONGXING CHEMICAL CO LTD (E203955)

Material: ABS (HI-121H)

Thickness (mm): Min 1.5

Flammability: HB, RTI(90, 80, 90)

Dimensions (mm): See Att4 Illustrations

Bottom plate:Material Manufacturer: LG Chem Huizhou Petrochemical Co Ltd (E476284)Material: ABS(HP-181)Thickness (mm): Min 1.6Flammability: HB RTI(60, 60, 60)Dimensions (mm): See Att4 IllustrationsAlternative Material Manufacturer: NINGBO LG YONGXING CHEMICAL CO LTD (E203955)Material: ABS (HI-121H)Thickness (mm): Min 1.5Flammability: HB, RTI(90, 80, 90)Dimensions (mm): See Att4 IllustrationsOpenings: All openings located at side or top of units. Descript as follow:(a) Air inlet:

Main models	OL20D-D025C	OL20D-D029A	OL20D-D033A	OL20D-D030A/B	OL12D-D031A/B/C	OL50D-D024D	OL20D-D068*
Dimensions (mm)	237×210	200×222	260×228	187×222	180×149	243×278	249x 198

Note: Models listed as representative models

(b) Air outlet:

Main models	OL20D-D025C	OL20D-D029A	OL20D-D033A	OL20D-D030A/B	OL12D-D031A/B/C	OL50D-D024D	OL20D-D068*
Dimensions (mm)	275×70	264×72	273×73	284×85	170×48	268×91	141x78

Note: Models listed as representative models

10-20 Main structure within units: See Att4 IllustrationsMaterial Manufacturer: LG Chem Huizhou Petrochemical Co Ltd (E476284)Material: ABS (HP-181)Thickness (mm): Min 1.6Flammability: HB, RTI(60, 60, 60)Mounting: Secured by screws to unit frame.Alternative Material Manufacturer: NINGBO LG YONGXING CHEMICAL CO LTD (E203955)Material: ABS (HI-121H)Thickness (mm): Min 1.5Flammability: HB, RTI(90, 80, 90)Mounting: Secured by screws to unit frame.10-30 Air duct structure: See Att4 IllustrationsMaterial Manufacturer: LG Chem Huizhou Petrochemical Co Ltd (E476284)Material: ABS (HP-181)Thickness (mm): Min 1.6Flammability: HB, RTI(60, 60, 60)Mounting: Secured by screws to unit frame.Alternative Material Manufacturer: NINGBO LG YONGXING CHEMICAL CO LTD (E203955)

Material: ABS (HI-121H)

Thickness (mm): Min 1.5

Flammability: HB, RTI(90, 80, 90)

10-40 Main Control PCB Box for all models:

Material Manufacturer: LyondellBasell Advanced Polymers, Inc. (E69414)

Material: BMC (BMC610)

Minimum Thickness (mm): Min 1.7

Flammability: 5VA, RTI(130,130,130)

Size (mm): See Att4 Illustrations

Openings: One provided, located at the side of the control box. For power supply connection.

Mounting: Secured by screws to unit frame.

Alternative Material Manufacturer: YUYAO LONGBANG ELECTRIC APPLIANCE CO LTD (E319619)

Material: BMC (BMC-LB0701)

Minimum Thickness (mm): Min 1.5

Flammability: 5VA, RTI(130,130,130)

Size (mm): See Att4 Illustrations

Openings: One provided, located at the side of the control box. For power supply connection.

Mounting: Secured by screws to unit frame.

Main control PCB box cover:

Material Manufacturer: LyondellBasell Advanced Polymers, Inc. (E69414)

Material: BMC (BMC610)

Minimum Thickness (mm): Min 1.7

Flammability: 5VA, RTI(130,130,130)

Size (mm): See Att4 Illustrations

Mounting: Secured by screws to main control pcb box.

Alternative Material Manufacturer: YUYAO LONGBANG ELECTRIC APPLIANCE CO LTD (E319619)

Material: BMC (BMC-LB0701)

Minimum Thickness (mm): Min 1.5

Flammability: 5VA, RTI(130,130,130)

Size (mm): See Att4 Illustrations

Mounting: Secured by screws to main control pcb box.

Alternative main Control PCB Box for OL12D-D031A, OL20D-D068*:

Material Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Material: Steel

Minimum Thickness (mm): Min 0.5

Size (mm): See Att4 Illustrations

Openings: One provided, located at the side of the control box. For power supply connection.

Mounting: Secured by screws to unit frame.

Controller Box Cover:

Material Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Material: Steel

Minimum Thickness (mm): Min 0.8

Size (mm): See Att4 Illustrations

Mounting: Secured by screws to main control pcb box.

10-50 Fan and compressor capacitor cover: For models OL20D-D029A, OL20D-D030A and OL20D-D030B

Material Manufacturer: CHI MEI CORPORATION (E56070)

Material: PA-765A(+)

Minimum Thickness (mm): Min 2.1

Flammability: ABS, V-0 or 5VB, RTI (85,80,85)

Alternative Material Manufacturer: FORMOSA CHEMICALS & FIBRE CORP PLASTICS DIV
(E162823)

Material: AC310(+)

Thickness (mm): Min 2.3

Flammability: ABS, V-0 or 5VB, RTI (90,85,90)

10-60 Water tank: See attachment4 Illustrations

Material Manufacturer: LG Chem Huizhou Petrochemical Co Ltd (E476284)

Material: ABS (HP-181)

Thickness (mm): Min 1.6

Flammability: HB, RTI(60, 60, 60)

Alternative Material Manufacturer: NINGBO LG YONGXING CHEMICAL CO LTD (E203955)

Material: ABS (HI-121H)

Thickness (mm): Min 1.5

Flammability: HB, RTI(90, 80, 90)

10-70 Universal wheel: Four provided, For Models except OL50D-D024D

Material: PA+ Steel

Diameter (mm): Φ25

Flammability: HB

Alternative Universal wheel: Four provided, For Models except OL50D-D024D

Material: PA+ Steel

Diameter (mm): Φ30.5

Flammability: HB

20 Refrigeration System:

Model: All.

Refrigerant Manufacturer: Various.

Trade Name: R134a for all models except OL50D-D024D; R410A for model OL50D-D024D

20-10 Condenser: Test Accepted, suitable for use with R410A and R134a, fin-tube, See Att4 Illustrations

Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Designation: See Att4 Illustrations

Tubing Material: Copper

Tubing OD (mm): Ø5, Ø 7

Tubing Wall Thickness (mm): 0.20,0.22,0.41,

Return Bend OD (mm): Ø 5, Ø 7

Return Bend Thickness (mm): 0.20,0.22,0.41,

Corrosion Protection: Inherent

Bonding for Grounding: Assembly screws

Physical Size Finned Section (mm): Describe as below table

Model	OL20D-D025C	OL20D-D029A	OL20D-D033A	OL20D-D030A/B	OL12D-D031A/B/C	OL50D-D024D	OL20D-D068*
Height (mm)	214.5	214.5	214.5	214.5	175.5	273	195
Width (mm)	230	230	230	230	180	296	230
Depth (mm)	23.2	23.2	23.2	23.2	23.2	38.1	23.2
<u>Number of Tubes (High)</u>	2R(11U)	2R(11U)	2R(11U)	2R(11U)	2R(11U)	3R(19U)	2R(10U)
No. of fins per inch	19	19	19	19	19	18	19
Spacing between fins (mm)	1.3	1.3	1.3	1.3	1.3	1.4	1.3

Note: Models listed as representative models

20-20 Evaporator: Test Accepted, suitable for use with R410A, Fin-tube, See Att4 Illustrations

<u>Manufacturer:</u>	Zhejiang Oulun Electric Co., Ltd.
<u>Designation:</u>	See Att4 Illustrations
<u>Tubing Material:</u>	Copper
<u>Tubing OD (mm):</u>	Ø 5, Ø 7
<u>Tubing Wall Thickness (mm):</u>	0.20, 0.22
<u>Return Bend OD (mm):</u>	Ø 5, Ø 7
<u>Return Bend Thickness (mm):</u>	0.20,0.22
<u>Corrosion Protection:</u>	Inherent
<u>Bonding for Grounding:</u>	Assembly screws.

Physical Size Finned Section (mm): Describe as below table

Model	OL20D-D025C	OL20D-D029A	OL20D-D033A	OL20D-D030A/B	OL12D-D031A/B/C	OL50D-D024D	OL20D-D068*
Height (mm)	210	210	210	210	168	273	189
Width (mm)	230	230	230	230	160	296.6	230
Depth (mm)	25.4	25.4	25.4	25.4	25.4	25.4	25.4
<u>Number of Tubes (High)</u>	2R(10U)	2R(10U)	2R(10U)	2R(9U)	2R(10U)	2R(13U)	2R(9U)
No. of fins per inch	19	19	19	19	23	21	19

Spacing between fins (mm)	1.3	1.3	1.3	1.3	1.1	1.2	1.3
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Note: Models listed as representative models

20-30 Interconnecting Tubing:

Material: Copper
Outside Diameter (mm): Ø 5, Ø 7
Min Wall Thickness (mm) 0.41

20-40 Capillary Tubes:

Material: Copper
ID (mm): 0.9 (OL20D-025C / OL20D-D029A / OL20D-D030A/B/ OL20D-D033A , OL25-025C / OL25-D029A / OL25-D030A/B OL25-D033A)
0.8(OL12D-D031A/ OL12D-D031B/ OL12D-D031C/ OL10D-D031A/ OL10D-D031B/ OL10D-D031C/ OL20D-D068*)
1.1(OL50D-D024D)
Length (mm): 600 (OL20D-025C / OL20D-D029A / OL20D-D030A/B/ OL20D-D033A , OL25-025C / OL25-D029A / OL25-D030A/B/ OL25-D033A)
800(OL12D-D031A/ OL12D-D031B/ OL12D-D031C/ OL10D-D031A/ OL10D-D031B/ OL10D-D031C)
500(OL50D-D024D)
700 (OL20D-D068*)
Note: Models listed as representative models

20-50 Refrigerant Line Fittings and Joints:

Refrigerant tubing joints are telescoped and brazed or silver soldered, or completed with SAE flare fittings of forged brass or plated steel.

30 Bonding for Grounding (earthing):

Model: All.

Parts Bonded to Each Other for Grounding: Exposed non-current-carrying metal parts that are liable to become energized are bonded to the point of the supply circuit grounding connection (conduit termination point, terminal or lead). The following pairs of parts are bonded to each other by the bonding method(s) described below:

<u>Parts Bonded to Each Other</u>	<u>Bonding Method</u>
Compressor, Refrigerant Lines	One end of a green or green/yellow wire No. 16-18AWG is terminated in a ring type terminal and then secured to the grounding terminal of compressor.
Capacitors	Mounted in control box or on main structure

40 Internal Wiring:

Model: All.

40-10 Types:INT

CSA Certified or UR Recognized appliance wiring material (1) with FT-1, VW-1 flammability rating as described below. Wiring which is color coded green or green with one or more yellow stripes is employed on grounding conductors only.

Manufacturer: ZHEJIANG XINXIN ELECTRONIC WIRE ROD CO LTD (E225383)
XINGDA ELECTRONICS WIRE & CABLE CO LTD (E187208)
GUANG DONG XIN LONG ENTERPRISE CO (E207567)
ZHONGSHAN HE YI ELECTRICAL APPLIANCES FACTORY (E313976)
ZHONGSHAN YUXUAN ELECTRONICS CO LTD (E316286)
GUANGDONG ZHIHE WIRE & CABLE CO LTD (E251728)
NINGBO HAOGUANG ELECTRIC APPLIANCE CO LTD (E192545)
GUANGDONG YONGROI CABLE TECHNOLOGY CO LTD (E204893)
TONGXIANG TANSI ELECTRIC CO LTD (E222788)
HANGZHOU HANGHU ELECTRONICS CO LTD (E237806)
NINGBO JIAJIE ELECTRONIC CO LTD (E487091)
ZHEJIANG JINTING NUCLEAR CABLE CO LTD (E313965)
DONGGUAN TRIUMPHCABLE CO LTD (E249743)
TONGXIANG XIN YI HONG ELECTRIC CO LTD (E224763)
SHANGHAI QIFAN CABLE CO LTD (E465725)

Designation: 1015

Ratings: 16-22AWG, 600V, 105°C.

40-20 Wiring Methods:

All wiring is installed and positively routed in such a manner that it is not subject to mechanical damage due to contact with sharp edges, abrasive surfaces, vibrating or moving parts.

Line voltage wiring which is completely enclosed within certified PVC sleeving or separate electrical enclosures employs 2/64 in thick (min) electrical insulation unless specified differently in this report.

Green or green with yellow stripe wire may be employed only as grounding conductors. Splices are not employed in grounding conductors unless otherwise noted in the report.

Holes for the passage of wires or cords through walls, panels or barriers have smooth, rounded surfaces or are provided with smoothly rounded bushings.

All splices are mechanically secured to a fixed member or located in a separate enclosure.

Unless otherwise noted all wires terminate in quick-connect or eyelet type materials.

Unless provided with insulation rated for the highest voltage involved, insulated conductors of different circuits shall be separated by barriers or shall be segregated; and shall, in any case, be separated; and shall, in any case, be separated or segregated from uninsulated live parts connected to different circuits.

40-30 Wireways:

All factory-installed wiring is protected by one of the following wireways or enclosures:

- A. Certified flexible metal conduit.
- B. Wiring connection box or other electrical enclosure.

C. Unit Cabinet.

50 Electrical Components:

Model: All.

50-10 Compressor Unit: cURus Recognized

Models: OL20D-D025C, OL20D-D033A,OL20D-D029A,OL20D-D030A/B

Manufacturer: NINGBO ANUODAN MACHINERY CO LTD (SA33342)

Designation: HM55H11AG

Volts/ph/Hz: 110-120V, 60 Hz, R134a

RLA: 2.2 A

LRA: 13A

Including the following assemble:

a) Overload Protector:

Manufacturer: ZHEJIANG WORLD-BU ELECTRONIC CO LTD(E326516)

Designation: MP4RE444LL175-53

Rating: Action temperature:130±5°C, Reset temperature:61±9°C

b) Starter:

Manufacturer: ZHEJIANG WORLD-BU ELECTRONIC CO LTD(SA33369)

Designation: MS2-4.7L-12

Rating: 4.7Ω±20%, 12A,

c) Compressor Run Capacitors: INT, cURus Recognized

Manufacturer: GUANGDONG FENGMINGELECTRONIC TECH CO LTD (E307429)

NINGGUO HUILI ELECTRIC CO LTD (E313438)

SHENG YE ELECTRIC CO LTD (185116)

ZHONGSHAN EPERS ELECTRIC ALAPPLIANCES CO LTD (E487578)

Designation: CBB61

Alternative Manufacturer: SHENG YE ELECTRIC CO LT (E237947)

Designation: C61-P2

Rating: 12μF, 250 V, S3, Min T70

Minimum AFC Rating: 10000

Terminal Enclosure: Insulated quick connect tab terminals

Location: Inside PCB box.

Alternative Compressor Unit: cURus Recognized

Models: OL20D-D025C, OL20D-D033A, OL20D-D029A, OL20D-D030A/B, OL20D-D068*

Manufacturer: ANHUI MEIZHI COMPRESSOR CO LTD (SA32976)

Designation: EE50HHA-U

Volts/ph/Hz: 115V, 60 Hz, R134a

RLA: 1.8A

LRA: 9.25A

Including the following assemble:

a) Overload Protector:

Manufacturer: HANG ZHOU STAR SHUAIER ELECTRIC APPLIANCE CO LTD (E213160)

Designation: DRB35V61A1

Rating: Action temperature:150±5°C, Reset temperature:61±9°C

b) Starter:

Manufacturer: HANG ZHOU STAR SHUAIER ELECTRIC APPLIANCE CO LTD (E232371)

Designation: QP2-4R7

Rating: 4.7Ω±20%,12A

c) Compressor Run Capacitors: INT, cURus Recognized

Manufacturer: GUANGDONG FENGMINGELECTRONIC TECH CO LTD (E307429)

NINGGUO HUILI ELECTRIC CO LTD (E313438)

SHENG YE ELECTRIC CO LTD (185116)

ZHONGSHAN EPERS ELECTRIC ALAPPLIANCES CO LTD (E487578)

Designation: CBB61

Alternative Manufacturer: SHENG YE ELECTRIC CO LT (E237947)

Designation: C61-P2

Rating: 12μF, 250 V, S3, Min T70

Minimum AFC Rating: 10000

Terminal Enclosure: Insulated quick connect tab terminals

Location: Inside PCB box.

Compressor Unit: cURus Recognized

Models: OL12D-D031A, OL12D-D031B, OL12D-D031C

Manufacturer: NINGBO ANUODAN MACHINERY CO LTD (SA33342)

Designation: QD36

Volts/ph/Hz: 110-120V, 60 Hz, R134a

RLA: 1.4A

LRA: 8.0A

Including the following assemble:

a) Overload Protector:

Manufacturer: ZHEJIANG WORLD-BU ELECTRONIC CO LTD(E326516)

Designation: MP4RE414LL120-52

Rating: Action temperature:130±5°C, Reset temperature:61±9°C

b) Starter:

Manufacturer: ZHEJIANG WORLD-BU ELECTRONIC CO LTD(SA33369)

Designation: MS2-4.7L-12

Rating: 4.7Ω±20%, 12A

Alternative Compressor Unit: cURus Recognized

Models: OL12D-D031A, OL12D-D031B, OL12D-D031C

Manufacturer: Zhejiang Maidi Refrigeration Technology Co Ltd (SA33802)

Designation: QD35H11G

Volts/ph/Hz: 110-120V, 60 Hz, R134a

RLA: 1.75A

LRA: 10.0A

Including the following assemble:

a) Overload Protector:

Manufacturer: HANG ZHOU STAR SHUAIER ELECTRIC APPLIANCE CO LTD (E213160)

Designation: DRB30P61A1

Rating: Action temperature:130±5°C, Reset temperature:61±7°C

b) Starter:

Manufacturer: HANG ZHOU STAR SHUAIER ELECTRIC APPLIANCE CO LTD (E232371)

Designation: QP2-4R7

Rating: 4.7Ω±5%,12A

Compressor Unit: cURus Recognized

Models: OL50D-D024D

Manufacturer: GUANGDONG MEIZHI COMPRESSOR LTD (SA12105)

Designation: ASK57E11CZZX

Volts/ph/Hz: 115 V, 60 Hz, R410A

RLA: 3.12A

LRA: 20A

Including the following assemble:

a) Overload Protector: Built-in type

Manufacturer: HALLIBURTON ENERGY SERVICES INC (E85460)

Designation: UP3-00

Rating: Action temperature: $145 \pm 5^{\circ}\text{C}$, Reset temperature: $90 \pm 10^{\circ}\text{C}$

Alternative Material Manufacturer: Jiangsu Changrong Electrical Appliance Co Ltd (E237353)

Designation: HPA-418

Rating: Action temperature: $145 \pm 5^{\circ}\text{C}$, Reset temperature: $90 \pm 10^{\circ}\text{C}$

b) Refrigerant-Oil Separator: welding to compressor, located at low side of refrigeration system.

Shell Material:

Corrosion Protection: Painted

Length (mm): 150

Outside Diameter (mm): $\varnothing 32$

Wall thickness (mm): 1

c) Compressor Run Capacitors: INT, cURus Recognized

Manufacturer: GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E307429)

NINGGUO HUILI ELECTRIC CO LTD (E313438)

NINGGUO HUNING ELECTRIC APPARATUS CO LTD (E312167)

Designation: CBB65

Alternative Manufacturer: SHENG YE ELECTRIC CO LTD (E237947)

Designation: C65R

Rating: $35\mu\text{F}$, 250 V, S2

Minimum AFC Rating: 10000

Terminal Enclosure: Insulated quick connect tab terminals

Location: Inside PCB box.

50-20 Fan motor: Test Accepted, see Att1 Photo 93,94 and Att3 Illustration 13.

Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Designation: YYS10-4C

Rating: 110-120V, 60Hz, 0.32 A

Insulation Class: Class A

Protection: Thermally protected.

Mounting: Secured to Fan Motor Mounting Plate by four bolts.

Other components described as follow:

(a) Stator:

Material: Laminated steel.

Dimensions: 85.5mm OD, 42mm ID, 31.5 mm stack.

Winding: Enameled copper wire, Cat No. JDMW80C, manufactured by Tongling Jinda Special Magnet Wire Co.Ltd. (E174580) or Q(A/X)-x/155, manufactured by ROSHOW technology Co.,Ltd.(E215691) , temperature rating 155°C ; by main winding: 0.16mm dia. by 580 turns; auxiliary winding: 0.15mm dia by 85+425 turns.

Impregnation: NO

Slot insulation: 6021, 0.06mm thick, extending 4 mm min beyond the stator core, temperature rating 105°C.

Insulation paper: 6021, 0.06mm thick, 66 mm Dim., temperature rating 105°C.

(b)Stator Leads: UR recognized.

Type: AWM, VW-1

Size: No 20-22 AWG, 105°C, 300 V.

Method of Connection to Coil Ends: Mechanically secured and soldered to windings and Use PVC sleeving tubing.

(c)Rotor:

Material: Laminated steel.

Dimensions: 41.7 mm OD, 8mm stack.

End Ring: None.

Method of Securement to Shaft: Press fitted.

(d)Automatic Thermal Protector: UR recognized

Manufacturer: Foshan Changhong Tongli Electric Appliance Co Ltd (E309547)

Designation: KW-C1

Rating: 250V, 8A, open 95 ± 5 °C or open 75 ± 5 °C

Connection: Fixed on the limit slot of the plastic shell of the motor

Alternative Manufacturer: JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD
(E214731)

Designation: 18AM-C

Rating: 250V, 5A, open 95 ± 5 °C or open 75 ± 5 °C

Alternative Manufacturer: DONGYANG HENGDIAN THERMAL PROTECTOR FACTORY
(GENERAL PARTNERSHIP) (E213246)

Designation: KSD-IB

Rating: 250V, 5A, open 95 ± 5 °C or open 75 ± 5 °C

(e)Run Capacitor: UL Recognized

Manufacturer: GUANGDONG FENGMINGELECTRONIC TECH CO LTD (E307429)

NINGGUO HUILI ELECTRIC CO LTD (E313438)

SHENG YE ELECTRIC CO LTD (185116)

ZHONGSHAN EPERS ELECTRIC ALAPPLIANCES CO LTD (E487578)

Designation: CBB61

Alternative Manufacturer: SHENG YE ELECTRIC CO LT (E237947)

Designation: C61-P2

Electrical Rating: 3.0uF, 250V, Min T70, S3

Container Material: PBT

Terminal Enclosure: Insulated quick connect tab terminals.

Location and Mounting: Secured by screws in the capacitor box.

(f) Fan Blades:

Type: Cylindrical

Blade dia. & Height (mm): 200 by 60

Blade Material: ABS+ GF

Securing Method: Fixed on shaft

Fan motor: Test Accepted, see Att1 Photo 93,94 and Att3 Illustration 12.

Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Designation: YYS6-4C

Rating: 110-120V, 60Hz, 0.25A,

Insulation Class: Class A

Protection: Thermally protected.

Mounting: Secured to Fan Motor Mounting Plate by four bolts.

Other components described as follow:

(a) Stator:

Material: Laminated steel.

Dimensions: 85.5mm OD, 42mm ID, 31.5 mm stack.

Winding: Enameled copper wire, Cat No. JDMW80C, manufactured by Tongling Jinda Special Magnet Wire Co.Ltd. (E174580) or Q(A/X)-x/155, manufactured by ROSHOW technology Co.,Ltd.(E215691) , temperature rating 155 °C; main winding: 0.15mm dia. by 560 turns; auxiliary winding: 0.18mm dia by 80+320 turns.

Impregnation: NO

Slot insulation: 6021, 0.06mm thick, extending 4 mm min beyond the stator core, temperature rating 105°C.

Insulation paper: 6021, 0.06mm thick, 66 mm Dim., temperature rating 105°C.

(b) Stator Leads: UR recognized.

Type: AWM, VW-1

Size: No 20-22 AWG, 105°C, 300 V.

Method of Connection to Coil Ends: Mechanically secured and soldered to windings and Use PVC sleeving tubing.

(c) Rotor:

Material: Laminated steel.

Dimensions: 41.7 mm OD, 8mm stack.

End Ring: None.

Method of Securement to Shaft: Press fitted.

(d) Automatic Thermal Protector: UR recognized

Manufacturer: Foshan Changhong Tongli Electric Appliance Co Ltd (E309547)

Designation: KW-C1

Rating: 250V, 8A, open 95±5 °C or open 75±5 °C

Connection: Fixed on the limit slot of the plastic shell of the motor

Alternative Manufacturer: JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD
(E214731)

Designation: 18AM-C

Rating: 250V, 5A, open 95±5 °C or open 75±5 °C

Alternative Manufacturer: DONGYANG HENGDIAN THERMAL PROTECTOR FACTORY
(GENERAL PARTNERSHIP) (E213246)

Designation: KSD-IB

Rating: 250V, 5A, open 95±5 °C or open 75±5 °C

(e) Run Capacitor: UL Recognized

Manufacturer: GUANGDONG FENGMINGELECTRONIC TECH CO LTD (E307429)
NINGGUO HUILI ELECTRIC CO LTD (E313438)
SHENG YE ELECTRIC CO LTD (185116)
ZHONGSHAN EPERS ELECTRIC ALAPPLIANCES CO LTD (E487578)

Designation: CBB61

Alternative Manufacturer: SHENG YE ELECTRIC CO LT (E237947)

Designation: C61-P2

Electrical Rating: 3.5uF,250V, T70 or T85, S3

Container Material: PBT

Terminal Enclosure: Insulated quick connect tab terminals.

Location and Mounting: Secured by screws in the capacitor box.

(f) Fan Blades:

Type: Cylindrical

Blade dia. & Height (mm): 187by 89

Blade Material: ABS+ GF

Securing Method: Fixed on shaft

Fan motor: Test Accepted, see Att1 Photo 93-94 and Att3 Illustration 11.

Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Designation: YYS6-4

Rating: 110-120V, 60Hz, 0.17A,

Insulation Class: Class A

Protection: Thermally protected.

Mounting: Secured to Fan Motor Mounting Plate by four bolts.

Other components described as follow:

(a) Stator:

Material: Laminated steel.

Dimensions: 85.5mm OD, 42mm ID, 31.5 mm stack.

Winding: Enameled copper wire, Cat No. JDMW80C, manufactured by Tongling Jinda Special Magnet Wire Co.Ltd. (E174580) or Q(A/X)-x/155, manufactured by ROSHOW technology Co.,Ltd.(E215691) , temperature rating 155 °C; main winding: 0.1mm dia. by 640 turns; auxiliary winding: 0.11mm dia by 80+390 turns.

Impregnation: NO

Slot insulation: 6021, 0.06mm thick, extending 4 mm min beyond the stator core, temperature rating 105°C.

Insulation paper: 6021, 0.06mm thick, 66 mm Dim., temperature rating 105°C.

(b)Stator Leads: UR recognized.

Type: AWM, VW-1

Size: No 20-22 AWG, 105°C, 300 V.

Method of Connection to Coil Ends: Mechanically secured and soldered to windings and Use PVC sleeving tubing.

(c)Rotor:

Material: Laminated steel.

Dimensions: 41.7 mm OD, 8mm stack.

End Ring: None.

Method of Securement to Shaft: Press fitted.

(d)Automatic Thermal Protector: UR recognized

Manufacturer: Foshan Changhong Tongli Electric Appliance Co Ltd (E309547)

Designation: KW-C1

Rating: 250V, 8A, open 95 ± 5 °C or open 75 ± 5 °C

Connection: Fixed on the limit slot of the plastic shell of the motor

Alternative Manufacturer: JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD
(E214731)

Designation: 18AM-C

Rating: 250V, 5A, open 95 ± 5 °C or open 75 ± 5 °C

Alternative Manufacturer: DONGYANG HENGDIAN THERMAL PROTECTOR FACTORY
(GENERAL PARTNERSHIP) (E213246)

Designation: KSD-IB

Rating: 250V, 5A, open 95 ± 5 °C or open 75 ± 5 °C

(e) Run Capacitor: UL Recognized

Manufacturer: GUANGDONG FENGMINGELECTRONIC TECH CO LTD (E307429)

NINGGUO HUILI ELECTRIC CO LTD (E313438)

SHENG YE ELECTRIC CO LTD (185116)

ZHONGSHAN EPERS ELECTRIC ALAPPLIANCES CO LTD (E487578)

Designation: CBB61

Alternative Manufacturer: SHENG YE ELECTRIC CO LT (E237947)

Designation: C61-P2

Electrical Rating: 2.0uF,250V,T70 or T85, S3

Container Material: PBT

Terminal Enclosure: Insulated quick connect tab terminals.

Location and Mounting: Secured by screws in the capacitor box.

(f) Fan Blades:

Type: Cylindrical

Blade dia. & Height (mm): 153 by42

Blade Material: ABS+ GF

Securing Method: Fixed on shaft

Fan motor: Test Accepted, see Att1 Photo 90-92 and Att3 Illustration 10

Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Designation: YDK-30-6

Rating: 110-120V, 60Hz, 0.5A,

Insulation Class: Class A

Protection: Thermally protected.

Mounting: Secured to Fan Motor Mounting Plate by four bolts.

Other components described as follow:

(a) Stator:

Material: Laminated steel.

Dimensions: 94mm OD, 55 mm ID, 25 mm stack.

Winding: Enameled copper wire, Cat No. Q(Z/X)-x/130L, manufactured by Zhejiang Greatwall Electric Science & Technology Co.,Ltd. (E206121), temperature rating 130 °C, main winding: 0.23 mm dia. by 295 turns; auxiliary winding: 0.27 mm dia by 255 turns.

Impregnation: Varnish, Cat No. 844@, temperature rating 180°C.

Slot insulation: DF-155 (DMD), 0.2 mm thick, extending 4 mm min beyond the stator core, temperature rating 155°C.

(b)Stator Leads: UR recognized.

Type: AWM, VW-1

Size: No 20-22AWG,105°C, 600 V.

Method of Connection to Coil Ends: Mechanically secured and soldered to windings and Use PVC sleeving tubing.

(c)Rotor:

Material: Laminated steel.

Dimensions: 55 mm OD, 10mm ID, 25 mm stack.

End Ring: None.

Method of Securement to Shaft: Press fitted.

(d)Automatic Thermal Protector: UR recognized

Manufacturer: CHANGZHOU DESHENG HENGHUI ELECTRONICS CO LTD(E343123)

Designation: BW-B2D

Rating: 250V, 6A, 125 °C

Connection: Mechanically secured and soldered to windings.

Alternative Automatic Thermal Protector:

Manufacturer: TaiXing Changhong Tongling electric appliance Co LTD (E504551)

Designation: KW-C1

Rating: 250V, 8A, 125 °C

Connection: Mechanically secured and soldered to windings

(e)Run Capacitor: UL Recognized

Manufacturer: GUANGDONG FENGMINGELECTRONIC TECH CO LTD (E307429)

NINGGUO HUILI ELECTRIC CO LTD (E313438)

SHENG YE ELECTRIC CO LTD (185116)

ZHONGSHAN EPERS ELECTRIC ALAPPLIANCES CO LTD (E487578)

Designation: CBB61

Alternative Manufacturer: SHENG YE ELECTRIC CO LT (E237947)

Designation: C61-P2

Electrical Rating: 6uF,250V,T70 or T85, S3

Container Material: PBT

Terminal Enclosure: Insulated quick connect tab terminals.

Location and Mounting: Secured by screws in the capacitor box.

(f)Fan Blades:

Type: Cylindrical

Blade dia. & Height (mm): 226 by 90

Blade Material: ABS+ GF

Securing Method: Fixed on shaft

Fan motor: Test Accepted, see Att1 Photo 111 and Att3 Illustration 81

Manufacturer: Zhejiang Oulun Electric Co., Ltd.

Designation: YYS10-4

Rating: 110-120V, 60Hz, 0.23 A

Insulation Class: Class A

Protection: Thermally protected.

Mounting: Secured to Fan Motor Mounting Plate by four bolts.

Other components described as follow:

(a) Stator:

Material: Laminated steel.

Dimensions: 85.5mm OD, 42mm ID, 31.5 mm stack.

Winding: Enameled copper wire, Cat No. JDMW80C, manufactured by Tongling Jinda Special Magnet Wire Co.Ltd. (E174580) or Q(A/X)-x/155, manufactured by ROSHOW technology Co.,Ltd.(E215691) , temperature rating 155 °C; by main winding: 0.15mm dia. by 720 turns; auxiliary winding: 0.16mm dia by 105+505 turns.

Impregnation: NO

Slot insulation: 6021, 0.06mm thick, extending 4 mm min beyond the stator core, temperature rating 105°C.

Insulation paper: 6021, 0.06mm thick, 66 mm Dim., temperature rating 105°C.

(b) Stator Leads: UR recognized.

Type: AWM, VW-1

Size: No 20-22 AWG, 105°C, 300 V.

Method of Connection to Coil Ends: Mechanically secured and soldered to windings and Use PVC sleeving tubing.

(c) Rotor:

Material: Laminated steel.

Dimensions: 41.7 mm OD, 8mm stack.

End Ring: None.

Method of Securement to Shaft: Press fitted.

(d) Automatic Thermal Protector: UR recognized

Manufacturer: Foshan Changhong Tongli Electric Appliance Co Ltd (E309547)

Designation: KW-C1

Rating: 250V, 8A, open 95 ± 5 °C

Connection: Fixed on the limit slot of the plastic shell of the motor

Alternative Manufacturer: JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD (E214731)

Designation: 18AM-C

Rating: 250V, 5A, open 95 ± 5 °C

Alternative Manufacturer: DONGYANG HENGDIAN THERMAL PROTECTOR FACTORY (GENERAL PARTNERSHIP) (E213246)

Designation: KSD-IB

Rating: 250V, 5A, open 95 ± 5 °C

(e) Run Capacitor: UL Recognized

Manufacturer: GUANGDONG FENGMINGELECTRONIC TECH CO LTD (E307429)

NINGGUO HUILI ELECTRIC CO LTD (E313438)

SHENG YE ELECTRIC CO LTD (185116)

ZHONGSHAN EPERS ELECTRIC ALAPPLIANCES CO LTD (E487578)

Designation: CBB61

Alternative Manufacturer: SHENG YE ELECTRIC CO LT (E237947)

Designation: C61-P2

Electrical Rating: 3.0uF, 250V, Min T70, S3

Container Material: PBT

Terminal Enclosure: Insulated quick connect tab terminals.

Location and Mounting: Secured by screws in the capacitor box.

(f) Fan Blades:

Type: Cylindrical

Blade dia. & Height (mm): 185 by 65

Blade Material: ABS+ GF

Securing Method: Fixed on shaft

50-30a Electronic Controller: Test Accepted. See Att1 Photos 97-98 , and Att3 Illustrations 6-9.

Manufacturer: Guangzhou Qingyuan Electronics Co., Ltd.

Designation: OL-D053-STB

Rating: Input:115V, 60Hz; output: 12V, 0.6A

The following are major components on the PCB of the electronic controller located in the 115V circuit.

(a) PWB material: cURus Recognized

Manufacture: KINGBOARD LAMINATES HOLDINGS LTD (E123995)

Designation: KB-5150(CEM-1), FR-4-KB-6160, FR-4-KB-6160A

Manufacture: SHANDONG JINBAO ELECTRONICS CO LTD (E141940)

Designation: ZD-95(G)F(CEM-1)

Manufacture: SHENGYI TECHNOLOGY CO LTD (E109769)

Designation: S3110(CEM-1)

Manufacture: GUANGDONG CHENGDE ELECTRONIC TECHNOLOGY CO LTD (E322995)

Designation: 2

Manufacture: JIABAO ELECTRONIC CORPORATE (MEIXIAN) LTD (E108448)

Designation: JB0-1

Material: Epoxy fiberglass, 1.6 mm thick.

Dimensions (mm): 118 by 60

Flammability: V-0

Operating temperature: 130C

Mounting: Secured by four recognized plastic standoffs to control box.

(b) Fuse: INT, cURus Recognized

Manufacturer: XC ELECTRONICS (SHENZHEN) CORP LTD (E249609)

Designation: 4T or 3F or 5TE or 4F

Manufacturer: DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD (E300003)

Designation: 334 or 331 or 932 or 332

Manufacturer: ZHONG SHAN LANBAO ELECTRICAL APPLIANCES CO LTD (E213695)

Designation: RTI-10 or RFI-10

Manufacturer: HOLLYLAND CO LTD (156471)

Designation: 5ET

Manufacturer: HONG HU BLUELIGHT ELECTRONIC CO LTD (E324232)

Designation: 6ET or L3CT or L3T

Manufacturer: SHENZHEN LANSON ELECTRONICS CO LTD (E221465)

Designation: SMT

Rating: 2.0A or 3.15 A, 250Vac

(c) Varistor (ZR1): INT, cURus Recognized

Manufacturer: THINKING ELECTRONIC INDUSTRIAL CO LTD (E314979)

Designation: TVR 10221/10271/10471/10561

Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: CENTRA SCIENCE CORP (E316325)

Designation: CNR 10D221K/10D271K/10D471K/10D561K

Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: GUANGXI NEW FUTURE INFORMATION INDUSTRY CO LTD (E323753)

Designation: NFC 10D221K/10D271K/10D471K /10D561K

Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: GUANGDONG FENGHUA ADVANCED TECHNOLOGY HOLDING CO LTD
(E325462)

Designation: FNR-10K221/10K271/10K471 /10K561

Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: CERGLASS MFG INC (E317616)

Designation: VDR 10D221K/10D271K/10D471K/10D561K

Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: HUIZHOU SONGLONGXINDIAN ELECTRONICS TECHNOLOGY
CO LTD(E359158)

Designation: 10D221K /10D271K /10D471K/ 10D561K

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: BRIGHTKING (SHENZHEN) CO LTD (E327997)

Designation: 221KD10 /271KD10 /471KD10 /561KD10

Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: HAOHUA ELECTRONIC CO. (E332662)

Designation: HVR 10K221 /HVR 10K271/ HVR 10K471/ HVR 10K561

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

Alternative varistor (ZR1): INT, cURus Recognized

Manufacturer: Joyin Co Ltd (E325508)

Designation: 10N221K /10N271K/ 10N471K/ 10N561K

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

(d) Capacitor X2(CC40): INT, cURus Recognized

Manufacturer: DAIN ELECTRONICS CO LTD (E147776)

Type: X2

Designation: MPX, MEX , NPX

Rating: 250VAC/275VAC/310VAC, 0.1µF,T110 or T100.

Alternative capacitor X2(CC40): INT, cURus Recognized

Manufacturer: ULTRA TECH XIPHI ENTERPRISE CO LTD (E183780)

Type: X2
Designation: HQX
Rating: 250/275/280/300/305/310V, 0.1μF,T110

Alternative capacitor X2(CC40): INT, cURus Recognized
Manufacturer: GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E345487)
Type: X2
Designation: MKP-X2
Rating: 250/275/310VAC, 0.1μF,T85/105/110

Alternative capacitor X2(CC40): INT, cURus Recognized
Manufacturer: FOSHAN SHUNDE CHUANG GE ELECTRONIC INDUSTRIAL CO LTD
(E308832)
FOSHAN SHUNDE HONGYE ELECTRICAL APPLIANCE CO., LTD (E349882)
Type: X2
Designation: MKP or MKP-X2
Rating: 250/275/300/310VAC, 0.1μF,T105/T110

Alternative capacitor X2(CC40): INT, cURus Recognized
Manufacturer: Winday Electronic (Dong Guan) Co Ltd (E302125)
Type: X2
Designation: MPX
Rating: 250 VAC, 275 VAC, 280 VAC, 300 VAC, 310VAC, 0.1μF,T100/110

Alternative capacitor X2(CC40): INT, cURus Recognized
Manufacturer: SHANGHAI XIANG RI YA ELECTRONICS CO LTD (E256815)
Type: X2
Designation: MPX/MKP X2 or MKP41
Rating: 250/310VAC, 0.1μF,T110

Alternative capacitor X2(CC40): INT, cURus Recognized
Manufacturer: FOSHAN SHUNDE BEIJIAO HUA DA ELECTRIC INDUSTRIAL CO LTD
(E227157)
Type: X2
Designation: HD/HD MKP
Rating: 250/275/280/ 300/305/310/330/350VAC, 0.1μF,T 85/105/110

Alternative capacitor X2(CC40): INT, cURus Recognized
Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN
ENTERPRISE CO LTD (E208107)
Type: X2
Designation: MPX or MKP
Rating: 250/275/305/310VAC, 0.1μF,T110

Alternative capacitor X2(CC40): INT, cURus Recognized
Manufacturer: SHENZHEN JING YU ELECTRONICS CO LTD (E230035)
Type: X2
Designation: CBBX2
Rating: 250/275/305VAC, 0.1μF,T100/110

- (e) Capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: JYH HSU (JEC) ELECTRONICS LTD (E356696)

Type: Y1

Designation: JD102 , JD222,JD472

Rating: 400 VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized

Manufacturer:DONG GUAN CITY JIANKUN ELECTRONICS TECHNOLOGY CO LTD
(E340699)

Type: Y1

Designation: JT102, JT222, JT472

Rating: 250/300/400 VAC,1000pF or 2200pF or 4700pF, 85°C or 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized

Manufacturer: JYH CHUNG ELECTRONICS CO LTD(E187963)

Type: Y1

Designation: JD102 or JD222 or JD472

Rating: 400VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized

Manufacturer: SHENZHEN SONGTE ELECTRONIC CO LTD (E302622)

Type: Y1

Designation: CT7 102 or CT7 222 or CT7 472

Rating: 400 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized

Manufacturer: GUANGDONG SOUTH HONGMING ELECTRONIC SCIENCE &
TECHNOLOGY CO LTD (E154889)

Type: Y1

Designation: F102,F222, F472

Rating: 400 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized

Manufacturer: Haohua Electronic Co. (E233106)

Type: Y1

Designation: CT7 102 or CT7 222 or CT7 472

Rating: 250/500VAC, 1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized

Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN
ENTERPRISE CO LTD (E208107)

Type: Y1

Designation: CD 102 or CD 222 or CD 472

Rating: 250/400 /500 VAC, 1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized

Manufacturer: JYA-NAY CO LTD (E201384)

Type: Y1

Designation: JN 102 or JN 222 or JN 472

Rating: 250/400 /500 VAC, 1000pF or 2200pF or 4700pF, 125°C

(f) Electrolytic capacitor (C50,C51): Accepted by test

Rating: 400/450V, 4.7 μ F, 105 C

- (g) Rectifier Bridge (DB1): Accepted by test
Rating: DB107S
- (h) Switch Transformer (T1): Test accepted
Manufacturer: FOSHAN CITY SHUNDE AREA QIANGLI ELECTRICAL CO LTD
Cat No: QLK-EE16
Insulation Class: Class B.
Core: FERRITE CORE.
Bobbin: Phenolic Molding Compound (PMC), by CHANG CHUN PLASTICS CO LTD (E59481), Cat T375J, flame rated UL94 V-0, 150C.
Insulating Tape: SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD (E188295), Cat JY313#, Polyethylene terephthalate film tapes, rated 130C, 0.025 mm thick min.
Primary Winding: Heshan Jiangci Wire & Cable Co Ltd (E192838), Cat No '*UEW/155-UL'.
Secondary Winding: Triple Insulated Wire, SUZHOU YUSHENG ELECTRONIC CO LTD (E332529), Cat No 'TIW-B*'.
Varnish: Cat No. 8562*, rated 155°C, by HANG CHEUNG COATINGS (HUIYANG) LTD (E200154) .
Tubing: Cat No. CJ-TT-L, rated 200°C, 150V, NT color, VW-1, DONGGUAN CITY CHANGJIE METALS & PLASTIC PRODUCTS CO LTD (E338209).
Note: min 3.2mm spacing between primary and secondary traces.
- Alternative Manufacturer: Foshan Shunde Jingwei Electrical & Electronics Co.,Ltd
Cat No: QJEE16A
Insulation Class: Class B.
Core: FERRITE CORE.
Bobbin: Phenolic Molding Compound (PMC), by CHANG CHUN PLASTICS CO LTD (E59481), Cat T375J, flame rated UL94 V-0, 150C.
Insulating Tape: JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), Cat CT* (c)(g), Polyethylene terephthalate film tapes, rated 130C, 0.055 mm thick min.
Primary Winding: JINYANG ENAMELLED ROUND WINDING WIRES CO LTD OF JIEYANG (E488662), Cat No 'MW 79-C(*UEW/155, QA-*/155)'.
Secondary Winding: Triple Insulated Wire, SHANGHAI HENGYI SPECIAL CABLE CO LTD (E346236), Cat No 'HY-88(*)'.
Varnish: Cat No. Waterborne 96X-Y*, rated 180°C, by GUANGDONG SHUNDE DADIYUAN NEW MATERIALS CO LTD (E488664) .
Tubing: Cat No. CJ-TT-L, rated 200°C, 150V, NT color, VW-1, DONGGUAN CITY CHANGJIE METALS & PLASTIC PRODUCTS CO LTD (E338209).
Note: min 3.2mm spacing between primary and secondary traces.
- (i) Compressor Relay (Relay 1): cURus Recognized
Manufacturer: SANYOU CORPORATION LIMITED (E190598)
Designation: SJ-SH-112DMH2, SJ-S-112DMH
Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)
Designation: RJ-SS-112DM1, RJ-SS-112DM1-S
Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD (E321783)
Designation: GI-1A-12DH
Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)
Designation: HF32F-G ,HF32FV-G
Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DMF
Contact rating: 250VAC,10A
Contact Cycle Rating: 100000
Coil Rating: 12 VDC
Operating Ambient: -40 to 85 C
Load Controlled: Compressor

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)
Designation: TRG1 HD-12VDC-S-H
Contact rating: 240VAC, 8A
Coil Rating: 12VDC
Operating Ambient: -40°Cto+85°C
Load Controlled: Compressor

- (j) Fan Relay(Relay 2/3): cURus Recognized
Manufacturer: SANYOU CORPORATION LIMITED (E190598)
Designation: SJ-SH-112DM2, SJ-S-112DM
Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)
Designation: RJ-SS-112DM, RJ-SS-112DM-S
Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD (E321783)
Designation: GI-1A-12D
Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)
Designation: HF32F,JZC-32F
Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)
Designation: BJ-SS-112DM
Contact rating: 250VAC,5A
Coil Rating: 12VDC
Operating Ambient: -40 to 85 C
Electrical Connection: Fan motor
- Alternative fan Relay(Relay 2/3): cURus Recognized
Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)
Designation: TRG1H D-12VDC-S-H
Contact rating: 240VAC,8A
Coil Rating: 12VDC
Operating Ambient: -40°Cto+85°C
Electrical Connection: Fan motor
- Alternative fan Relay(Relay 2/3): cURus Recognized
Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)
Designation: TRG1 D-12VDC-S-H
Contact rating: 240VAC,5A
Coil Rating: 12VDC
Operating Ambient: -40°Cto+85°C
Electrical Connection: Fan motor
- Alternative fan Relay(Relay 2/3): cURus Recognized
Manufacturer: SANYOU CORPORATION LIMITED (E190598)
Designation: SJ-SH-112DMH2, SJ-S-112DMH
Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)
Designation: RJ-SS-112DM1, RJ-SS-112DM1-S

Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD
(E321783)

Designation: GI-1A-12DH

Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F-G,HF32FV-G

Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DMF

Contact rating: 250VAC,10A

Contact Cycle Rating: 100000

Coil Rating: 12 VDC

Operating Ambient: -40 to 85 C

Electrical Connection: Fan motor

50-30b

Electronic Controller: Test Accepted.

Manufacturer: Zhejiang Real-design Electronics Technical Co., Ltd.

Designation: OL-DK-W-20L-00

Rating: Input:115V, 60Hz; output: 12V, 0.6A

The following are major components on the PCB of the electronic controller located in the 115V circuit.

- (a) PWB material: cURus Recognized
Manufacture: KINGBOARD LAMINATES HOLDINGS LTD (E123995)
Designation: KB-5150(CEM-1), FR-4-KB-6160, FR-4-KB-6160A
Manufacture: SHANDONG JINBAO ELECTRONICS CO LTD (E141940)
Designation: ZD-95(G)F(CEM-1)
Manufacture: SHENGYI TECHNOLOGY CO LTD (E109769)
Designation: S3110(CEM-1)
Manufacture: GUANGDONG CHENGDE ELECTRONIC TECHNOLOGY CO LTD (E322995)
Designation: 2
Manufacture: JIABAO ELECTRONIC CORPORATE (MEIXIAN) LTD (E108448)
Designation: JB0-1
Material: Epoxy fiberglass, 1.6 mm thick.
Dimensions (mm): 138 by 60
Flammability: V-0
Operating temperature: 130C
Mounting: Secured by four recognized plastic standoffs to control box.
- (b) Fuse: INT, cURus Recognized
Manufacturer: XC ELECTRONICS (SHENZHEN) CORP LTD (E249609)
Designation: 4T or 3F or 5TE or 3T, or 4F
Manufacturer: DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD (E300003)
Designation: 334 or 331 or 932 or 332
Manufacturer: ZHONG SHAN LANBAO ELECTRICAL APPLIANCES CO LTD (E213695)
Designation: RTI-10 or RFI-10
Manufacturer: HOLLYLAND CO LTD (156471)
Designation: 5ET
Manufacturer: HONG HU BLUELIGHT ELECTRONIC CO LTD (E324232)
Designation: 6ET or L3CT or L3T
Manufacturer: SHENZHEN LANSO ELECTRONICS CO LTD (E221465)
Designation: SMT
Rating: 2.0A or 3.15 A, 250Vac

- (c) Varistor (RV1): INT, cURus Recognized
Manufacturer: THINKING ELECTRONIC INDUSTRIAL CO LTD (E314979)
Designation: TVR 10221/10271/10471/10561
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: CENTRA SCIENCE CORP (E316325)
Designation: CNR 10D221K/10D271K/10D471K/10D561K
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: GUANGXI NEW FUTURE INFORMATION INDUSTRY CO LTD (E323753)
Designation: NFC 10D221K/10D271K/10D471K /10D561K
Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: GUANGDONG FENGHUA ADVANCED TECHNOLOGY HOLDING CO LTD (E325462)
Designation: FNR-10K221/10K271/10K471 /10K561
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: CERGLASS MFG INC (E317616)
Designation: VDR 10D221K/10D271K/10D471K/10D561K
Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: HUIZHOU SONGLONGXINDIAN ELECTRONICS TECHNOLOGY CO LTD(E359158)
Designation: 10D221K /10D271K /10D471K/ 10D561K
Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: BRIGHTKING (SHENZHEN) CO LTD (E327997)
Designation: 221KD10 /271KD10 /471KD10 /561KD10
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: HAOHUA ELECTRONIC CO. (E332662)
Designation: HVR 10K221 /HVR 10K271/ HVR 10K471/ HVR 10K561
Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: Joyin Co Ltd (E325508)
Designation: 10N221K /10N271K/ 10N471K/ 10N561K
Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.
- (d) Capacitor X2(CX1): INT, cURus Recognized
Manufacturer: DAIN ELECTRONICS CO LTD (E147776)
Type: X2
Designation: MPX, MEX , NPX
Rating: 250/275/310VAC, 0.1µF,T110 or T100.

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: ULTRA TECH XIPHI ENTERPRISE CO LTD (E183780)
Type: X2
Designation: HQX
Rating: 250/275/280/300/305/310VAC, 0.1μF,T110

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E345487)
Type: X2
Designation: MKP-X2
Rating: 250/275/310VAC, 0.1μF,T85/105/110

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: FOSHAN SHUNDE CHUANG GE ELECTRONIC INDUSTRIAL CO LTD
(E308832)
FOSHAN SHUNDE HONGYE ELECTRICAL APPLIANCE CO., LTD (E349882)
Type: X2
Designation: MKP or MKP-X2
Rating: 250/275/300/310VAC, 0.1μF,T105/T110

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: Winday Electronic (Dong Guan) Co Ltd (E302125)
Type: X2
Designation: MPX
Rating: 250 VAC, 275 VAC, 280 VAC, 300 VAC, 310VAC, 0.1μF,T100/110

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: SHANGHAI XIANG RI YA ELECTRONICS CO LTD (E256815)
Type: X2
Designation: MPX/MKP X2 or MKP41
Rating: 250/310VAC, 0.1μF,T110

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: FOSHAN SHUNDE BEIJIAO HUA DA ELECTRIC INDUSTRIAL CO LTD
(E227157)
Type: X2
Designation: HD/HD MKP
Rating: 250/275/280/ 300/305/310/ 330/350VAC, 0.1μF,T 85/105/110

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN
ENTERPRISE CO LTD (E208107)
Type: X2
Designation: MPX or MKP
Rating: 250/275/305/310VAC, 0.1μF,T110

Alternative capacitor X2(CX1): INT, cURus Recognized
Manufacturer: SHENZHEN JING YU ELECTRONICS CO LTD (E230035)
Type: X2
Designation: CBBX2
Rating: 250/275/305VAC, 0.1μF,T100/110

- (e) Capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: JYH HSU (JEC) ELECTRONICS LTD (E356696)
Type: Y1
Designation: JT102, JD222, JD472
Rating: 400VAC,1000pF or 2200pF or 4700pF, 85°C or 125°C

Alternative Capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: DONG GUAN CITY JIANKUN ELECTRONICS TECHNOLOGY CO LTD (E340699)
Type: Y1
Designation: JT102, JT222, JT472
Rating: 250/300/400 VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: JYH CHUNG ELECTRONICS CO LTD(E187963)
Type: Y1
Designation: JD102 or JD222 or JD472
Rating: 400VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: SHENZHEN SONGTE ELECTRONIC CO LTD (E302622)
Type: Y1
Designation: CT7 102 or CT7 222 or CT7 472
Rating: 400 VAC,1000pF or 2200pF or 4700pF,, 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: GUANGDONG SOUTH HONGMING ELECTRONIC SCIENCE & TECHNOLOGY CO LTD (E154889)
Type: Y1
Designation: F102, F222, F472
Rating: 400 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: Haohua Electronic Co. (E233106)
Type: Y1
Designation: CT7 102 or CT7 222 or CT7 472
Rating: 250/500VAC,1000pF or 2200pF or 4700pF ,125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD (E208107)
Type: Y1
Designation: CD 102 or CD 222 or CD472
Rating: 250/400 /500 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(CY1,CY2): INT, cURus Recognized
Manufacturer: JYA-NAY CO LTD (E201384)
Type: Y1
Designation: JN 102 or JN 222 or JN472
Rating: 250/400 /500 VAC,1000pF or 2200pF or 4700pF, 125°C

- (f) Electrolytic capacitor (EC1,EC2): Accepted by test
Rating: 400/450V, 4.7 μ F, 105 C
- (g) Rectifier Bridge (DB1): Accepted by test
Rating: DB107S
- (h) Switch Transformer (T1): Test accepted
Manufacturer: FOSHAN CITY SHUNDE AREA QIANGLI ELECTRICAL CO LTD
Cat No: QLK-EE16
Insulation Class: Class B.
Core: FERRITE CORE.
Bobbin: Phenolic Molding Compound (PMC), by CHANG CHUN PLASTICS CO LTD (E59481), Cat T375J, flame rated UL94 V-0, 150C.
Insulating Tape: SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD (E188295), Cat JY313#, Polyethylene terephthalate film tapes, rated 130C, 0.025 mm thick min.
Primary Winding: Heshan Jiangci Wire & Cable Co Ltd (E192838), Cat No '*UEW/155-UL'.
Secondary Winding: Triple Insulated Wire, SUZHOU YUSHENG ELECTRONIC CO LTD (E332529), Cat No 'TIW-B*'.
Varnish: Cat No. 8562*, rated 155°C, by HANG CHEUNG COATINGS (HUIYANG) LTD (E200154) .
Tubing: Cat No. CJ-TT-L, rated 200°C, 150V, NT color, VW-1, DONGGUAN CITY CHANGJIE METALS & PLASTIC PRODUCTS CO LTD (E338209).
Note: min 3.2mm spacing between primary and secondary traces.
- Alternative Manufacturer: Foshan Shunde WanXin Electron Electrin Co., Ltd.
Cat No: WX-E16144
Insulation Class: Class B.
Core: FERRITE CORE.
Bobbin: Phenolic Molding Compound (PMC), by CHANG CHUN PLASTICS CO LTD (E59481), Cat T375J, flame rated UL94 V-0, 150C.
Insulating Tape: J CHANG SHU LIANG YI TAPE INDUSTRY CO LTD (E246820), LY-XX*, Polyethylene terephthalate film tapes, rated 130C, 0.025 mm thick min.
Primary Winding: JINYANG ENAMELLED ROUND WINDING WIRES CO LTD OF JIEYANG (E488662), Cat No 'MW 79-C(*UEW/155, QA-*/155)'.
Secondary Winding: Triple Insulated Wire, SHENZHEN DARUN SCIENCE AND TECHNOLOGY CO LTD (E335841), Cat No 'DRTIW-B'.
Varnish: Cat No. E962, rated 130°C, by ZHUHAI CHANGXIAN NEW MATERIALS TECHNOLOGY CO LTD (E335405) .
Tubing: Cat No. CB-TT-L, rated 200°C, 150V, NT color, VW-1, CHANGYUAN ELECTRONICS GROUP CO LTD (E180908).
Note: min 3.2mm spacing between primary and secondary traces.
- (i) Compressor Relay (Relay 1): cURus Recognized
Manufacturer: SANYOU CORPORATION LIMITED (E190598)
Designation: SJ-SH-112DMH2, SJ-S-112DMH
Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)
Designation: RJ-SS-112DM1, RJ-SS-112DM1-S
Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD (E321783)
Designation: GI-1A-12DH
Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F-G, HF32FV-G

Contact rating: 250VAC,10A

Contact Cycle Rating: 100000

Coil Rating: 12 VDC

Operating Ambient: -40 to 85 C

Load Controlled: Compressor

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)

Designation: TRG1H D-12VDC-S-H

Contact rating: 240VAC,8A

Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Load Controlled: Compressor

- (j) Fan Relay(Relay 3/4): cURus Recognized

Manufacturer: SANYOU CORPORATION LIMITED (E190598)

Designation: SJ-SH-112DM2, SJ-S-112DM

Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD
(E345228)

Designation: RJ-SS-112DM, RJ-SS-112DM-S

Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD
(E321783)

Designation: GI-1A-12D

Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F,JZC-32F

Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DM

Contact rating: 250VAC,5A

Coil Rating: 12VDC

Operating Ambient: -40 to 85 C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 3/4): cURus Recognized

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)

Designation: TRG1H D-12VDC-S-H

Contact rating: 240VAC,8A

Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 3/4): cURus Recognized

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)

Designation: TRG1 D-12VDC-S-H

Contact rating: 240VAC,5A

Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 3/4): cURus Recognized

Manufacturer: SANYOU CORPORATION LIMITED (E190598)

Designation: SJ-SH-112DMH2, SJ-S-112DMH

Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)

Designation: RJ-SS-112DM1, RJ-SS-112DM1-S

Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD
(E321783)

Designation: GI-1A-12DH

Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F-G, HF32FV-G

Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DMF

Contact rating: 250VAC,10A

Contact Cycle Rating: 100000

Coil Rating: 12 VDC

Operating Ambient: -40 to 85 C

Electrical Connection: Fan motor

(k) Optocoupler (U 2): cURus Recognized

Manufacturer: EVERLIGHT ELECTRONICS CO LTD (E214129)

Designation: EL817

Manufacturer: BRIGHT LED ELECTRONICS CORP (E236324)

Designation: BPC-817C

Manufacturer: Sharp Corporation (E64380)

Designation: PC817

Manufacturer: NingBo Qunxin Microelectronics Co., LTD (E509768)

Designation: 817C

Rating: 5000 vac isolation

Alternative Optocoupler (U 2): cURus Recognized

Manufacturer: LITE-ON Technology Corporation (E113898)

Designation: LTV-817

Rating: 5300 vac isolation

50-30c Electronic Controller: Test Accepted.

Manufacturer: Zhejiang Real-design Electronics Technical Co., Ltd.

Designation: OL-DK-W-10L-00

Rating: Input:115V, 60Hz; output: 12V, 0.6A

The following are major components on the PCB of the electronic controller located in the 115V circuit.

(a) PWB material: cURus Recognized

Manufacture: KINGBOARD LAMINATES HOLDINGS LTD (E123995)

Designation: KB-5150(CEM-1) , FR-4-KB-6160, FR-4-KB-6160A

Manufacture: SHANDONG JINBAO ELECTRONICS CO LTD (E141940)

Designation: ZD-95(G)F(CEM-1)

Manufacture: SHENGYI TECHNOLOGY CO LTD (E109769)

Designation: S3110(CEM-1)

Manufacture: GUANGDONG CHENGDE ELECTRONIC TECHNOLOGY CO LTD (E322995)

Designation: 2

Manufacture: JIABAO ELECTRONIC CORPORATE (MEIXIAN) LTD (E108448)

Designation: JB0-1

Material: Epoxy fiberglass, 1.6 mm thick.

Dimensions (mm): 118 by 60

Flammability: V-0

Operating temperature: 130C

- Mounting: Secured by four recognized plastic standoffs to control box.
- (b) Fuse: INT, cURus Recognized
Manufacturer: XC ELECTRONICS (SHENZHEN) CORP LTD (E249609)
Designation: 4T or 3F or 5TE or 3T or 4F
Manufacturer: DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD (E300003)
Designation: 334 or 331 or 932 or 332
Manufacturer: ZHONG SHAN LANBAO ELECTRICAL APPLIANCES CO LTD (E213695)
Designation: RTI-10 or RFI-10
Manufacturer: HOLLYLAND CO LTD (156471)
Designation: 5ET
Manufacturer: HONG HU BLUELIGHT ELECTRONIC CO LTD (E324232)
Designation: 6ET or L3CT or L3T
Manufacturer: SHENZHEN LANSOON ELECTRONICS CO LTD (E221465)
Designation: SMT
Rating: 2.0A or 3.15 A, 250Vac
- (c) Varistor (VDR1): INT, cURus Recognized
Manufacturer: THINKING ELECTRONIC INDUSTRIAL CO LTD (E314979)
Designation: TVR 10221/10271/10471/10561
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (VDR1): INT, cURus Recognized
Manufacturer: CENTRA SCIENCE CORP (E316325)
Designation: CNR 10D221K/10D271K/10D471K/10D561K
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (VDR1): INT, cURus Recognized
Manufacturer: GUANGXI NEW FUTURE INFORMATION INDUSTRY CO LTD (E323753)
Designation: NFC 10D221K/10D271K/10D471K /10D561K
Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.
- Alternative varistor (VDR1): INT, cURus Recognized
Manufacturer: GUANGDONG FENGHUA ADVANCED TECHNOLOGY HOLDING CO LTD (E325462)
Designation: FNR-10K221/10K271/10K471 /10K561
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (VDR1): INT, cURus Recognized
Manufacturer: CERGLASS MFG INC (E317616)
Designation: VDR 10D221K/10D271K/10D471K/10D561K
Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.
- Alternative varistor (VDR1): INT, cURus Recognized
Manufacturer: HUIZHOU SONGLONGXINDIAN ELECTRONICS TECHNOLOGY CO LTD(E359158)
Designation: 10D221K /10D271K /10D471K/ 10D561K
Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.
- Alternative varistor (VDR1): INT, cURus Recognized
Manufacturer: BRIGHTKING (SHENZHEN) CO LTD (E327997)

Designation: 221KD10 /271KD10 /471KD10 /561KD10

Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.

Alternative varistor (VDR1): INT, cURus Recognized

Manufacturer: HAOHUA ELECTRONIC CO. (E332662)

Designation: HVR 10K221 /HVR 10K271/ HVR 10K471/ HVR 10K561

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

Alternative varistor (VDR1): INT, cURus Recognized

Manufacturer: Joyin Co Ltd (E325508)

Designation: 10N221K /10N271K/ 10N471K/ 10N561K

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

(d) Capacitor X2(C5): INT, cURus Recognized

Manufacturer: DAIN ELECTRONICS CO LTD (E147776)

Type: X2

Designation: MPX, MEX, NPX

Rating: 250/275/310VAC, 0.22μF,T110 or T100.

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: ULTRA TECH XIPI ENTERPRISE CO LTD (E183780)

Type: X2

Designation: HQX

Rating: 250/275/280/300/305/310VAC, 0.22μF,T110

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E345487)

Type: X2

Designation: MKP-X2

Rating: 250/275/310VAC, 0.22μF,T85/105/110

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: FOSHAN SHUNDE CHUANG GE ELECTRONIC INDUSTRIAL CO LTD
(E308832)

FOSHAN SHUNDE HONGYE ELECTRICAL APPLIANCE CO., LTD (E349882)

Type: X2

Designation: MKP or MKP-X2

Rating: 250/275/300/310VAC, 0.22μF,T105/T110

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: Winday Electronic (Dong Guan) Co Ltd (E302125)

Type: X2

Designation: MPX

Rating: 250 VAC, 275 VAC, 280 VAC, 300 VAC, 310VAC, 0.22μF,T100/110

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: SHANGHAI XIANG RI YA ELECTRONICS CO LTD (E256815)

Type: X2

Designation: MPX/MKP X2 or MKP41

Rating: 250/310VAC, 0.22μF,T110

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: FOSHAN SHUNDE BEIJIAO HUA DA ELECTRIC INDUSTRIAL CO LTD
(E227157)

Type: X2

Designation: HD/HD MKP

Rating: 250/275/280/ 300/305/310/ 330/350VAC, 0.22μF,T 85/105/110

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN
ENTERPRISE CO LTD (E208107)

Type: X2

Designation: MPX or MKP

Rating: 250/275/305/310VAC, 0.22μF,T110

Alternative capacitor X2(C5): INT, cURus Recognized

Manufacturer: SHENZHEN JING YU ELECTRONICS CO LTD (E230035)

Type: X2

Designation: CBBX2

Rating: 250/275/305VAC, 0.22μF,T100/110

(e) Capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: JYH HSU (JEC) ELECTRONICS LTD (E356696)

Type: Y1

Designation: JD102 or JD222or JD472

Rating: 400 VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer:DONG GUAN CITY JIANKUN ELECTRONICS TECHNOLOGY CO LTD
(E340699)

Type: Y1

Designation: JT102, JT222,JT472

Rating: 250/300/400 VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: JYH CHUNG ELECTRONICS CO LTD(E187963)

Type: Y1

Designation: JD102 or JD222 or JD472

Rating: 400VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: SHENZHEN SONGTE ELECTRONIC CO LTD (E302622)

Type: Y1

Designation: CT7 102 or CT7 222 or CT7 472

Rating: 400 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: GUANGDONG SOUTH HONGMING ELECTRONIC SCIENCE &
TECHNOLOGY CO LTD (E154889)

Type: Y1

Designation: F102,F222, F472

Rating: 400 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: Haohua Electronic Co. (E233106)

Type: Y1

Designation: CT7 102 or CT7 222 or CT7 472

Rating: 250/500VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD (E208107)

Type: Y1

Designation: CD 102 or CD 222 or CD 472

Rating: 250/400 /500 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: JYA-NAY CO LTD (E201384)

Type: Y1

Designation: JN 102 or JN 222 or JN 472

Rating: 250/400 /500 VAC,1000pF or 2200pF or 4700pF, 125°C

- (f) Electrolytic capacitor (EC2,EC3): Accepted by test

Rating: 400/450V, 10 μ F, 105 C

- (g) Rectifier Bridge (DB1): Accepted by test

Rating: DB107S

- (h) Switch Transformer (T1): Test accepted

Manufacturer: ZHEJIANGWANYANG ELECTRONICS CO., LTD

Cat No: S-EE19(2.0mH)

Insulation Class: Class B.

Core: FERRITE CORE.

Bobbin: Phenolic Molding Compound (PMC), by CHANG CHUN PLASTICS CO LTD (E59481), Cat T375J, flame rated UL94 V-0, 150C.

Insulating Tape: JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD (E246950), Cat JY25-A (b), Polyethylene terephthalate film tapes, rated 130C, 0.025 mm thick min.

Primary Winding: ZHEJIANG SANXING ELECTRICAL TECHNOLOGY CO., LTD. (E327855), Cat No 'QA-*/155'.or ROSHOW TECHNOLOGY CO LTD(E215691), Cat No: xUEW@/155, QA@-x/155.

Secondary Winding: Triple Insulated Wire, SHANGHAI XIANGXIANG ELECTRON CO LTD (E308908), Cat No 'TKE-B *.

Varnish: Cat No. T-4260(a), rated 155°C, by SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD (E228349) .

Tubing: Cat No. LING FREE PTFE TUBE (150V), rated 200°C, 150V, NT color, VW-1, DONGGUAN LING FREE HARDWARE PLASTICS PRODUCT CO LTD (E352366).

Note: min 3.2mm spacing between primary and secondary traces.

- (i) Compressor Relay (Relay 1): cURus Recognized

Manufacturer: SANYOU CORPORATION LIMITED (E190598)

Designation: SJ-SH-112DMH2, SJ-S-112DMH

Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)

Designation: RJ-SS-112DM1, RJ-SS-112DM1-S

Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD
(E321783)

Designation: GI-1A-12DH

Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F-G, HF32FV-G

Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DMF

Contact rating: 250VAC,10A

Contact Cycle Rating: 100000

Coil Rating: 12 VDC

Operating Ambient: -40 to 85 C

Load Controlled: Compressor

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)

Designation: TRG1H D-12VDC-S-H

Contact rating: 240VAC,8A

Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Load Controlled: Compressor

(j) Fan Relay(Relay 2/3): cURus Recognized

Manufacturer: SANYOU CORPORATION LIMITED (E190598)

Designation: SJ-SH-112DM2, SJ-S-112DM

Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD
(E345228)

Designation: RJ-SS-112DM, RJ-SS-112DM-S

Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD
(E321783)

Designation: GI-1A-12D

Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F,JZC-32F

Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DM

Contact rating: 250VAC,5A

Coil Rating: 12VDC

Operating Ambient: -40 to 85 C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 2/3): cURus Recognized

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)

Designation: TRG1H D-12VDC-S-H

Contact rating: 240VAC,8A

Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 2/3): cURus Recognized

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)

Designation: TRG1 D-12VDC-S-H

Contact rating: 240VAC,5A

Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 2/3): cURus Recognized

Manufacturer: SANYOU CORPORATION LIMITED (E190598)

Designation: SJ-SH-112DMH2, SJ-S-112DMH

Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD
(E345228)

Designation: RJ-SS-112DM1, RJ-SS-112DM1-S

Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD
(E321783)

Designation: GI-1A-12DH

Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F-GHF32FV-G

Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DMF

Contact rating: 250VAC,10A

Contact Cycle Rating: 100000

Coil Rating: 12 VDC

Operating Ambient: -40 to 85 C

Electrical Connection: Fan motor

(k) Optocoupler (U 1): cURus Recognized

Manufacturer: EVERLIGHT ELECTRONICS CO LTD (E214129)

Designation: EL817

Manufacturer: BRIGHT LED ELECTRONICS CORP (E236324)

Designation: BPC-817C

Manufacturer: Sharp Corporation (E64380)

Designation: PC817

Manufacturer: NingBo Qunxin Microelectronics Co., LTD (E509768)

Designation: 817C

Rating: 5000 vac isolation

Alternative Optocoupler (U 1): cURus Recognized

Manufacturer: LITE-ON Technology Corporation (E113898)

Designation: LTV-817

Rating: 5300 vac isolation

50-30d Electronic Controller: Test Accepted. See Att1 Photos 95-96 , and Att3 Illustrations 3-5

Manufacturer: Zhejiang Real-design Electronics Technical Co., Ltd.

Designation: OL-DK-N-50L-01

Rating: Input:115V, 60Hz; output: 12V,0.6A

The following are major components on the PCB of the electronic controller located in the 208V circuit.

(a) PWB material: cURus Recognized

Manufacture: KINGBOARD LAMINATES HOLDINGS LTD (E123995)

Designation: KB-5150(CEM-1) , FR-4-KB-6160, FR-4-KB-6160A

Manufacture: SHANDONG JINBAO ELECTRONICS CO LTD (E141940)

Designation: ZD-95(G)F(CEM-1)

Manufacture: SHENGYI TECHNOLOGY CO LTD (E109769)

Designation: S3110(CEM-1)

Manufacture: GUANGDONG CHENGDE ELECTRONIC TECHNOLOGY CO LTD (E322995)

- Designation: 2
Manufacture: JIABAO ELECTRONIC CORPORATE (MEIXIAN) LTD (E108448)
Designation: JB0-1
Material: Epoxy fiberglass, 1.6 mm thick.
Dimensions (mm): 130 by 65
Flammability: V-0
Operating temperature: 130C
Mounting: Secured by four recognized plastic standoffs to control box.
- (b) Fuse: INT, cURus Recognized
Manufacturer: XC ELECTRONICS (SHENZHEN) CORP LTD (E249609)
Designation: 4T or 3F or 5TE or 4F
Manufacturer: DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD (E300003)
Designation: 334 or 331 or 932 or 332
Manufacturer: ZHONG SHAN LANBAO ELECTRICAL APPLIANCES CO LTD (E213695)
Designation: RTI-10 or RFI-10
Manufacturer: HOLLYLAND CO LTD (156471)
Designation: 5ET
Manufacturer: HONG HU BLUELIGHT ELECTRONIC CO LTD (E324232)
Designation: 6ET or L3CT or L3T
Manufacturer: SHENZHEN LANSON ELECTRONICS CO LTD (E221465)
Designation: SMT
Rating: 2.0A or 3.15 A, 250Vac
- (c) Varistor (RV1): INT, cURus Recognized
Manufacturer: THINKING ELECTRONIC INDUSTRIAL CO LTD (E314979)
Designation: TVR 10221/10271/10471/10561
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: CENTRA SCIENCE CORP (E316325)
Designation: CNR 10D221K/10D271K/10D471K/10D561K
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (ZR1): INT, cURus Recognized
Manufacturer: GUANGXI NEW FUTURE INFORMATION INDUSTRY CO LTD (E323753)
Designation: NFC 10D221K/10D271K/10D471K /10D561K
Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.
- Alternative varistor (ZR1): INT, cURus Recognized
Manufacturer: GUANGDONG FENGHUA ADVANCED TECHNOLOGY HOLDING CO LTD (E325462)
Designation: FNR-10K221/10K271/10K471 /10K561
Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: CERGLASS MFG INC (E317616)
Designation: VDR 10D221K/10D271K/10D471K/10D561K
Rating: 220VAC/270V/470V/560V, 125°C. Secured to main PWB by soldering.
- Alternative varistor (RV1): INT, cURus Recognized
Manufacturer: HUIZHOU SONGLONGXINDIAN ELECTRONICS TECHNOLOGY

CO LTD(E359158)

Designation: 10D221K /10D271K /10D471K/ 10D561K

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

Alternative varistor (RV1): INT, cURus Recognized

Manufacturer: BRIGHTKING (SHENZHEN) CO LTD (E327997)

Designation: 221KD10 /271KD10 /471KD10 /561KD10

Rating: 220VAC/270V/470V/560V, 105°C. Secured to main PWB by soldering.

Alternative varistor (RV1): INT, cURus Recognized

Manufacturer: HAOHUA ELECTRONIC CO. (E332662)

Designation: HVR 10K221 /HVR 10K271/ HVR 10K471/ HVR 10K561

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

Alternative varistor (RV1): INT, cURus Recognized

Manufacturer: Joyin Co Ltd (E325508)

Designation: 10N221K /10N271K/ 10N471K/ 10N561K

Rating: 220VAC/270V/470V/560V, 85°C. Secured to main PWB by soldering.

- (d) Capacitor X2(CX1): INT, cURus Recognized
Manufacturer: DAIN ELECTRONICS CO LTD (E147776)
Type: X2
Designation: MPX, MEX , NPX
Rating: 250/275/310VAC, 0.1μF,T110 or T100.

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: ULTRA TECH XIPHI ENTERPRISE CO LTD (E183780)

Type: X2

Designation: HQX

Rating: 250/275/280/300/305/310VAC, 0.1μF,T110

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: GUANGDONG FENGMING ELECTRONIC TECH CO LTD (E345487)

Type: X2

Designation: MKP-X2

Rating: 250/275/310VAC, 0.1μF,T85/105/110

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: FOSHAN SHUNDE CHUANG GE ELECTRONIC INDUSTRIAL CO LTD
(E308832)

FOSHAN SHUNDE HONGYE ELECTRICAL APPLIANCE CO., LTD (E349882)

Type: X2

Designation: MKP or MKP-X2

Rating: 250/275/300/310VAC, 0.1μF,T105/T110

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: Winday Electronic (Dong Guan) Co Ltd (E302125)

Type: X2

Designation: MPX

Rating: 250 VAC, 275 VAC, 280 VAC, 300 VAC, 310VAC, 0.1μF,T100/110

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: SHANGHAI XIANG RI YA ELECTRONICS CO LTD (E256815)

Type: X2

Designation: MPX/MKP X2, or MKP41

Rating: 250/310VAC, 0.1 μ F,T110

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: FOSHAN SHUNDE BEIJIAO HUA DA ELECTRIC INDUSTRIAL CO LTD (E227157)

Type: X2

Designation: HD/HD MKP

Rating: 250/275/280/ 300/305/310/ 330/350VAC, 0.1 μ F,T 85/105/110

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD (E208107)

Type: X2

Designation: MPX or MKP

Rating: 250/275/305/310VAC, 0.1 μ F,T110

Alternative capacitor X2(CX1): INT, cURus Recognized

Manufacturer: SHENZHEN JING YU ELECTRONICS CO LTD (E230035)

Type: X2

Designation: CBBX2

Rating: 250/275/305VAC, 0.1 μ F,T100/110

(e) Capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: JYH HSU (JEC) ELECTRONICS LTD (E356696)

Type: Y1

Designation: JD102 or JD222or JD472

Rating: 400 VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer:DONG GUAN CITY JIANKUN ELECTRONICS TECHNOLOGY CO LTD (E340699)

Type: Y1

Designation: JT102, JT222,JT472

Rating: 250/300/400 VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: JYH CHUNG ELECTRONICS CO LTD(E187963)

Type: Y1

Designation: JD102 or JD222 or JD472

Rating: 400VAC,1000pF or 2200pF or 4700pF ,85°C or 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: SHENZHEN SONGTE ELECTRONIC CO LTD (E302622)

Type: Y1

Designation: CT7 102 or CT7 222 or CT7 472

Rating: 400 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: GUANGDONG SOUTH HONGMING ELECTRONIC SCIENCE & TECHNOLOGY CO LTD (E154889)

Type: Y1

Designation: F102,F222, F472

Rating: 400 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: Haohua Electronic Co. (E233106)

Type: Y1

Designation: CT7 102 or CT7 222 or CT7 472

Rating: 250/500VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD (E208107)

Type: Y1

Designation: CD 102 or CD 222 or CD 472

Rating: 250/400 /500 VAC,1000pF or 2200pF or 4700pF, 125°C

Alternative capacitor Y(Y1,Y2): INT, cURus Recognized

Manufacturer: JYA-NAY CO LTD (E201384)

Type: Y1

Designation: JN 102 or JN 222 or JN 472

Rating: 250/400 /500 VAC,1000pF or 2200pF or 4700pF, 125°C

- (f) Electrolytic capacitor (EC1,EC2): Accepted by test

Rating: 400/450V, 4.7 μ F, 105 C

- (g) Rectifier Bridge (DB1): Accepted by test

Rating: DB107S

- (h) Optocoupler (U1):INT, cURus Recognized

Manufacturer: EVERLIGHT ELECTRONICS CO LTD (E214129)

Model: EL817

Manufacturer: NingBo Qunxin Microelectronics Co., LTD (E509768)

Designation: 817C

Rating: 5000 Vac isolation

Optocoupler (U1):INT, cURus Recognized

Manufacturer: SHARP CORPORATION (E64380)

Model: PC817

Rating: 5000 Vac isolation

Optocoupler (U1):INT, cURus Recognized

Manufacturer: LITE-ON TECHNOLOGY CORPORATION (E113898)

Model: LTV-817

Rating: 5300 Vac isolation

Optocoupler (U1):INT, cURus Recognized

Manufacturer: BRIGHT LED ELECTRONICS CORP (E236324)

Model: BPC-817

Rating: 5000 Vac isolation

- (i) Switch Transformer (T1): Test accepted
Manufacturer: DONGGUAN DAZHONG ELECTRONICS CO LTD
Cat No: DZEE16(DZ16003)
Insulation Class: Class B.
Core: FERRITE CORE.
Bobbin: Phenolic Molding Compound (PMC), by CHANG CHUN PLASTICS CO LTD (E59481), Cat T375J, flame rated UL94 V-0, 150C.
Insulating Tape: JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), Cat PZ* (b), Polyethylene terephthalate film tapes, rated 130C, 0.025 mm thick min.
Primary Winding: TAI-I ELECTRIC WIRE & CABLE CO LTD (E85640), Cat No 'UEW'.
Secondary Winding: FURUKAWA ELECTRIC CO LTD. (E206440), Cat No 'TEX-E'.
Varnish: 8562*, rated 155°C, by HANG CHEUNG COATINGS (HUIYANG) LTD (E200154) ..
Tubing: Cat No. CB-TT-L, rated 200°C, 150 V, NT color, VW-1, CHANGYUAN ELECTRONICS GROUP CO LTD (E180908).
Note: min 3.2mm spacing between primary and secondary traces.
- (j) Compressor Relay (Relay 1): cURus Recognized
Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)
Designation: TRAF-PD-12VDC-H
Alternative manufacturer: SANYOU CORPORATION LIMITED (E190598)
Designation: SFK-112DMP
Contact rating: 250VAC,20A
Contact Cycle Rating: 100000
Coil Rating: 12 VDC
Operating Ambient: -40 to 85 C
Load Controlled: Compressor.
- (k) Fan Relay(Relay 2/4): cURus Recognized
Manufacturer: SANYOU CORPORATION LIMITED (E190598)
Designation: SJ-SH-112DM2, SJ-S-112DM
Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)
Designation: RJ-SS-112DM, RJ-SS-112DM-S
Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD (E321783)
Designation: GI-1A-12D
Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)
Designation: HF32F,JZC-32F
Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)
Designation: BJ-SS-112DM
Contact rating: 250VAC,5A
Coil Rating: 12VDC
Operating Ambient: -40 to 85 C
Electrical Connection: Fan motor

Alternative fan Relay(Relay 2/4): cURus Recognized
Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)
Designation: TRG1H D-12VDC-S-H
Contact rating: 240VAC,8A
Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 2/4): cURus Recognized

Manufacturer: NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485)

Designation: TRG1 D-12VDC-S-H

Contact rating: 240VAC,5A

Coil Rating: 12VDC

Operating Ambient: -40°Cto+85°C

Electrical Connection: Fan motor

Alternative fan Relay(Relay 2/4): cURus Recognized

Alternative Manufacturer: SANYOU CORPORATION LIMITED (E190598)

Designation: SJ-SH-112DMH2, SJ-S-112DMH

Alternative manufacturer: WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228)

Designation: RJ-SS-112DM1, RJ-SS-112DM1-S

Alternative manufacturer: DONGGUAN GOLDEN ELECTRICAL APPLIANCE CO LTD
(E321783)

Designation: GI-1A-12DH

Alternative manufacturer: XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517)

Designation: HF32F-G,HF32FV-G

Alternative manufacturer: ANHUI MINGGUANG LIFE ELECTRIC CO LTD (E333244)

Designation: BJ-SS-112DMF

Contact rating: 250VAC,10A

Contact Cycle Rating: 100000

Coil Rating: 12 VDC

Operating Ambient: -40 to 85 C

Electrical Connection: Fan motor

50-40 Power cord: cURus Recognized

Type SJT, No 18AWG or 16AWG, 3-conductor, rated 105C 300V, terminating in a CSA certified or UR or ETL recognized molded parallel-blade grounding type attachment plug, Type 5-15P, rated 250V, 15A. The supply cord main bonding conductor terminates in a ring or eyelet type terminal and is secured to the compressor base by one screw engaged in minimum two threads with starwasher. Strain relief is provided by a molded PVC block securing the cord with two screws to the compressor base.

Alternative cord set: cURus Recognized

Manufacturer: Ningbo Yirun Electric Appliance Co., Ltd. (E314536)

Power Plug Designation: YR-03

Alternative manufacturer: NINGBO QIAOPU ELECTRIC CO LTD(E232289)

Power Plug Designation: QP3

Alternative manufacturer: NINGBO QIAOPU ELECTRIC CO LTD(ETL 3179370)

Power Plug Designation: QP3

Alternative manufacturer: Ningbo Hoson Electrical Appliance Co Ltd (E524825)

Power Plug Designation: HS515P

Alternative manufacturer: ZHEJIANG BATONG CABLE CO LTD (E343947)

Power Plug Designation: F.A.9

Alternative manufacturer: NINGBO XUANHUA ELECTRIC CO LTD (E257089)

Power Plug Designation: XN515P-A

Rating: 5-15P,13A/125V, 10A/125V

Cord: 16 AWG or 18 AWG, SJT

- 50-50 Connector for fan motor: cURus Recognized
Manufacturer: Zhejiang ZUCH Technology Co Ltd (E326081)
Designation: VH-4Y
Material: PA66
Rating: AC 250V, 10A, 94V-0
Alternative Connector for fan motor:
Manufacturer: ZHEJIANG HONGXING ELECTRICAL CO LTD(E344515)
Designation: HX39600-5Y
Material: PA66
Rating: PA66, 94V-0, AC 250V,7.5A
- 50-60 Display PCB and Indicator PCB: supplied by Class 2 circuit
- 50-70 Humidity module: supplied by Class 2 circuit
- 50-80 Floating switch: supplied by Class 2 circuit
Manufacturer: Dongguan Exin Electronic Technology Co.,Ltd.
Designation: PS-23-2
Rating: DC5V, 0.5A
- 50-90 Anion Generator (Optional): Approved +test acceptance, supplied by class 2 circuit
Manufacturer: CIXI HONGE ELECTRIC APPLIANCES Co Ltd (R 50423006)
Designation: ZF-205
Rating: Input:DC5V, 1W; Output: DC-3.5 ±0.5kV
Mounting: Fixed in air duct

TEST HISTORY**Ed. 1 Project 80099389**

The tests were performed below.

Test Conducted at	
1	Zhejiang Oulun Electric Co.,Ltd. No.17 Tangmei Road, Hangzhou City, Zhejiang, China
2	CCIC-CSA International Certification Co., Ltd. Shanghai Branch Floor 1, Building 4, Qilai Industrial City,889 Yishan Road, Shanghai 200233, China
3	Suzhou Teso Technology Service Co., Ltd. No. 1 Rongfeng Road, Xiangcheng District, Suzhou, 215155 China

Models OL50D-D024D, OL12D-D031A, OL20D-D025C, OL20D-D029A, OL20D-D030A and OL20D-033A were selected as representative models to perform tests and pass.

All tests are in accordance to CSA Standard CSA/UL 60335-1-16 and CSA/UL 60335-2-40-19 Edition unless otherwise indicated below:

Remark: Y - Applicable, N/A - Not Applicable			
Clause	Test Description	Required (Y or N/A)	Comment
7.14	Marking and instructions - Marking legible and durable test	Y	
8	Protection against access to live parts	Y	
9DV	Starting of motor-operated appliances	Y	
10	Power input and current	Y	
11	Heating	Y	
13	Leakage current and electric strength at operating temperature	Y	
15.2	Moisture resistance – Protection degree against water test	Y	
15.3	Block drain pan discharge pipe test	Y	
15.101	Spillage test	Y	
16	Leakage current and electric strength	Y	
17	Overload protection of transformers and associated circuits	N/A	Refer to Class 2 evaluation test data
19.2DV	Abnormal operation – Test about appliance with supplementary heaters	N/A	No heater
19.3	Abnormal operation – Test while all electric heating elements are energized	N/A	No heater
19.4	Abnormal operation – Test at fault conditions	N/A	No heater

19.5	Abnormal operation – Short-circuited the sheath and polarity of supply test	N/A	No heater
19.6	Abnormal operation – PTC heating elements over voltage test	N/A	No heater
19.7	Abnormal operation – Locked motor and motor-compressor test	Y	
19.7	Abnormal operation – Capacitor open-circuit and lock motor test	Y	
19.7	Abnormal operation – Capacitor short-circuit and lock motor test	Y	
19.8	Abnormal operation – Three-phase motor test with one phase disconnected	N/A	Single phase
19.10	Abnormal operation – Series motor lowest load test	N/A	
19.11.1 & 19.11.2	Abnormal operation – Fault conditions of electronic circuits test	N/A	Refer to Class 2 evaluation test data
19.11.4	Abnormal operation – EMP test	N/A	
19.12	Abnormal operation – Current fuse reliability test	Y	
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	
19.14	Abnormal operation – Contact point short circuited	N/A	
19.101	Abnormal operation – Restricted or shut off heat transfer medium flow	Y	
19.101DV.1	Abnormal operation – Refrigerant reduce test	Y	
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	
19.102	Abnormal operation – Test about indoor heat exchanger using water as a heat transfer medium	N/A	
19.103	Abnormal operation – High / Low temperataure test	Y	
19.104	Abnormal operation – Cover Appliance Test	N/A	
19.105DV	Abnormal operation –Backup Protection) test	N/A	
20.1	Stability and mechanical hazards – Stability test	Y	
20.2	Stability and mechanical hazards – Mechanical hazards test	Y	
20.101DV	Stability and mechanical hazards – Stability test for window type room air condtioner	N/A	
21.1	Mechanical strength – Impact test and pressure test(refer to Annex EE)	Y	
21.2	Mechanical strength – Solid insulation strength	N/A	
21.101DV	Mechanical strength –Load Test mechanical abuse	Y	
22.1	Construction – IP test against access to hazardous parts and against solid foreign objects	N/A	
22.5	Construction – plug discharge test	Y	

22.11	Construction – Non-detachable parts push and pull test	Y	
22.12	Construction – Handles, knobs, grips and levers pull test	Y	
23.3	Internal wiring – Flexing test	N/A	
23.5	Internal wiring – Insulation test	N/A	
24.5	Components – Capacitor voltage test	Y	
25.14	Supply connection and external flexible cords – Flexing test	N/A	
25.15	Supply connection and external flexible cords – Pull and torque test	Y	
26.3	Terminals for external conductors - Torque test	N/A	
27.5	Provision for earthing – Ground impedance test	Y	
28.1	Screws and connections – Screws torque test	Y	
29.1	Clearances distance	Y	
29.2	Creepage distance	Y	
29.3	Solid insulation	Y	
30.1	Resistance to heat and fire – Ball pressure test	N/A	UL approved material
30.2.1 & 30.2.3	Resistance to heat and fire – Glow-wire Test Record	N/A	UL approved material
30.2.4	Resistance to heat and fire – Needle flame test	N/A	UL approved material
31	Resistance to rusting	Y	
Annex G	Safety isolating transformers	Y	
Annex H	Switches	N/A	
Annex N	Proof tracking Test	N/A	
Annex EE	Pressure Test	Y	
101.DVI.3	Nichrome Wire Test	Y	See Nichrome wire test report 80108014
GG.8.2.1	Vibration Test for Appliance using flammable refrigerants	N/A	Non-flammable refrigerants
GG.8.2.2, 8.2.3	Packaging Drop Test for Appliance using flammable refrigerants	N/A	
GG.8.2.4	Operation Test for Appliance using flammable refrigerants	N/A	
GG.8.3	Operation Test for Appliance using flammable refrigerants	N/A	

Main control PCBs were evaluated by C22.2 No. 223-15/ UL Standard No. 1310 6th Ed

Tests	Clauses/ Section	Comments/Rationale	Verdict
Open Circuit Secondary Voltage/Maximum Output Voltage	6.3.1/ 28		P
Rated Input/Maximum Input	6.3.2/ 29		P
Maximum Output Current and Power/Output Current and Power	6.3.4/ 30		P
Dielectric strength/ Dielectric Voltage Withstand Test	6.5/ 34		P
Abnormal	6.8/ 39.3 to 39.7		P

Construction Review:

Construction review performed with satisfactory results.

Ed. 2 Project 80125047

Update report 80099389 to add two new control PCBs OL-DK-W-20L-00 and OL-DK-W-10L-00 as alternative.

Models OL12D-D031A with OL-DK-W-10L-00 and OL20D-D025C with OL-DK-W-20L-00 were selected as representative models to perform tests and pass. Tests were performed in Guangdong CSA Lab.

All tests are in accordance to CSA Standard CSA/UL 60335-1-16 and CSA/UL 60335-2-40-19 Edition unless otherwise indicated below:

Remark: Y - Applicable, N/A - Not Applicable			
Clause	Test Description	Required (Y or N/A)	Comment
10	Power input and current	Y	
11	Heating	Y	
13	Leakage current and electric strength at operating temperature	Y	
22.5	Construction – plug discharge test	Y	

Main control PCBs were evaluated by C22.2 No. 223-15/ UL Standard No. 1310 6th Ed

Tests	Clauses/ Section	Comments/Rationale	Verdict
Open Circuit Secondary Voltage/Maximum Output Voltage	6.3.1/ 28		P
Rated Input/Maximum Input	6.3.2/ 29		P
Maximum Output Current and Power/Output Current and Power	6.3.4/ 30		P
Dielectric strength/ Dielectric Voltage Withstand Test	6.5/ 34		P
Abnormal	6.8/ 39.3 to 39.7		P

Construction Review:

Construction review performed with satisfactory results.
This edition supersedes all previous edition.

Ed. 3 Project 80135208

Update report 80099389 to add one new compressor EE50HHA-U and approved components as alternatives.

Models OL20D-D025C, OL20D-D030A and OL20D-D029A were selected for relevant tests and passed.

All tests are in accordance to CSA Standard CSA/UL 60335-1-16 and CSA/UL 60335-2-40-19 Edition unless otherwise indicated below:

Remark: Y - Applicable, N/A - Not Applicable			
Clause	Test Description	Required (Y or N/A)	Comment
10	Power input and current	Y	
11	Heating	Y	
13	Leakage current and electric strength at operating temperature	Y	
19.7	Abnormal operation – Locked motor and motor-compressor test	Y	
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	
19.101DV.1	Abnormal operation- Refrigerant reduce test	Y	
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	
19.103	Abnormal operation – High / Low temperature test	Y	
24.5	Components – Capacitor voltage test	Y	

Construction Review:

Construction review not applicable. No construction changes.

Ed. 4 Project 80135219

Update report 80099389 to add one new compressor QD35H11G as alternative, which was marked with bold in this report.

Model OL12D-D031A was selected for relevant tests and passed.

All tests are in accordance to CSA Standard CSA/UL 60335-1-16 and CSA/UL 60335-2-40-19 Edition unless otherwise indicated below:

Remark: Y - Applicable, N/A - Not Applicable
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Clause	Test Description	Required (Y or N/A)	Comment
10	Power input and current	Y	
11	Heating	Y	
13	Leakage current and electric strength at operating temperature	Y	
19.7	Abnormal operation – Locked motor and motor-compressor test	Y	
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	
19.101DV.1	Abnormal operation- Refrigerant reduce test	Y	
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	
19.103	Abnormal operation – High / Low temperature test	Y	
24.5	Components – Capacitor voltage test	Y	

Construction Review:

Construction review not applicable. No construction changes.

Ed. 5 Project 80140165

Update report 80099389 to add new models OL20D-D068*.

Model OL20D-D068A was selected for relevant tests and passed.

All tests are in accordance to CSA Standard CSA/UL 60335-1-16 and CSA/UL 60335-2-40-19 Edition unless otherwise indicated below:

Remark: Y - Applicable, N/A - Not Applicable			
Clause	Test Description	Required (Y or N/A)	Comment
10	Power input and current	Y	
11	Heating	Y	
13	Leakage current and electric strength at operating temperature	Y	
19.7	Abnormal operation – Locked motor and motor-compressor test	Y	
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	
19.103	Abnormal operation – High / Low temperature test	Y	
20.1	Stability and mechanical hazards – Stability test	Y	
20.2	Stability and mechanical hazards – Mechanical hazards test	Y	

21.1	Mechanical strength – Impact test and pressure test(refer to Annex EE)	Y	
24.5	Components – Capacitor voltage test	Y	

Construction Review:

Construction review not applicable. No construction changes.

Ed. 6 Project 80152955

Update report 80099389 to add new models OL20D-D029B and A4229B.

New models OL20D-D029B and A4229B is identical with OL20D-D029A except different designation and air outlet.

Model OL20D-D029B was selected for relevant tests and passed.

All tests are in accordance to CSA Standard CSA/UL 60335-1-16 and CSA/UL 60335-2-40-19 Edition unless otherwise indicated below:

Remark: Y - Applicable, N/A - Not Applicable			
Clause	Test Description	Required (Y or N/A)	Comment
10	Power input and current	Y	
20.2	Stability and mechanical hazards – Mechanical hazards test	Y	
21.1	Mechanical strength – Impact test and pressure test	Y	

Construction Review:

Construction review not applicable. No construction changes.

This edition supersedes all previous edition.

---End of Report---