



Descriptive Report and Test Results

MASTER CONTRACT: 257272

REPORT: 80055017

PROJECT: 80118272

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Report pages reissued

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13, 13A, 13B, 13C, 13D, 13E, 13F, 13G, 13H, 13I, 14, 14A, 14B, 14C, 14D, 14E
Att2 Illustrations - 1 to 9 (detail at description part)

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PRODUCTS

CLASS 1211 02 - COMFORT CONDITIONING EQUIPMENT (ELECTRICAL) – Air Conditioners

CLASS 1211 82 - COMFORT CONDITIONING EQUIPMENT (ELECTRICAL) – Air Conditioners -
CERTIFIED TO U.S. STANDARDS

CLASS 1211 05 - COMFORT CONDITIONING EQUIPMENT (ELECTRICAL) - Heat Pumps

CLASS 1211 85 - COMFORT CONDITIONING EQUIPMENT (ELECTRICAL) - Heat Pumps -CERTIFIED
TO U.S. STANDARDS

Single or Dual Duct Portable type Air Conditioners and Heat Pumps, free air discharge, self-contained employing with hermetic refrigerant motor compressor, cord connected, rated 115V, 60Hz, 1 phase, refrigerant R410A or R32, as follows:

Air Conditioner Designation (cooling only)	Heat Pump Designation (with reverse cycle)	Refrigerant
JHS-A018*-06KR-D	JHS-A018*-06KRH-D	R410A
JHS-A018*-07KR-D	JHS-A018*-07KRH-D	R410A
JHS-A018*-08KR-D	JHS-A018*-08KRH-D	R32
JHS-A018*-07KR-D3	JHS-A018*-07KRH-D3	R32
JHS-A018*-06KR-D3	JHS-A018*-06KRH-D3	R32

Note 1: The “*” may be A, B, C, D, E, F, G, A1 or B1 for different shape of front cover or display panel.

Note 2: Single Duct Portable type Air Conditioners can be assembled with RAP02 Dual Hose Conversion Kit to be Dual Duct Portable type Air Conditioners.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 60335-1:16	-	Safety of Household and Similar Appliances, Part 1: General Requirements
ANSI/UL 60335-1 6th Ed.	-	Safety of Household and Similar Appliances, Part 1: General Requirements
CAN/CSA C22.2 No. 60335-2-40:17	-	Safety of Household and Similar Electrical Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers
ANSI/UL 60335-2-40, 2nd Ed.	-	Safety of Household and Similar Electrical Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers

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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.

Markings as given below and/or described in the report appear on each unit:

- Submittor's name or Master Contract number "257272";
- Model designation;
- Electrical rating in volts, hertz, RATED POWER INPUT in watts or RATED CURRENT in amperes;
- Motor ratings (FLA, and Horsepower);
- Motor compressor ratings (RLA and LRA);
- High/low side designed pressures;
- Type and mass of refrigerant;
- Date of manufacture;

Suitable wiring diagram is provided on each unit (paper wiring diagram is affixed on the top of the electronic controller cover inside the unit).

Installation operating manual is provided with each unit.

The instructions shall state the substance of the following:

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

- That the appliance shall be installed in accordance with national wiring regulations
- The dimensions of the space necessary for correct installation of the appliance including the minimum permissible distances to adjacent structures
- A wiring diagram with a clear indication of the connections and wiring to external control devices and supply cord.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

For APPLIANCES using FLAMMABLE REFRIGERANTS, an installation, service and operation manual, either separate or combined manuals, shall be provided and include the information given in Annex DD of CAN/CSA C22.2 No. 60335-2-40:17, ANSI/UL 60335-2-40, 2nd Ed.

Following markings, or the equivalent, shall be permanently affixed to the equipment:

1. Statement requiring that a damaged cord be replaced with one supplied by the unit manufacture and not repaired.

Following markings, or the equivalent, shall be permanently affixed to the equipment in the location indicated when a flammable refrigerant is used:

1. The following markings, or the equivalent, shall be located on the outside of the product when flammable refrigerants are employed:
DANGER – Risk Of Fire Or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing.

CAUTION – Risk Of Fire Or Explosion. Dispose Of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used.

In Canada, the equivalent French wording for the markings is as follows:

- “DANGER – Risque d’incendie ou d’explosion. Contient un frigorigène inflammable. Confier la réparation à une personne qualifiée. Ne pas perforer la tubulure contenant le frigorigène.”
- “ATTENTION – Risque d’incendie ou d’explosion. Mettre au rebut conformément aux règlements fédéraux ou locaux. Contient un frigorigène inflammable.”

2. The following markings, or the equivalent, shall be located inside of the product near the compressor when flammable refrigerants are employed:
CAUTION – Risk Of Fire Or Explosion. Flammable Refrigerant Used. Consult Repair Manual/Owner’s Guide Before Attempting To Service This Product. All Safety Precautions Must Be Followed.

In Canada, the equivalent French wording for the marking is as follows:

- “ATTENTION – Risque d’incendie ou d’explosion. Contient un frigorigène inflammable. Consulter la notice de réparation/utilisation avant de tenter de réparer ce produit. Respecter toutes les mesures de sécurité.”

3. The shipping carton of an air conditioner that employs a flammable refrigerant shall be marked with the following or equivalent:
Caution – Risk of Fire or Explosion due to Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with National Regulations.

In Canada, the equivalent French wording for the marking is as follows:

- ATTENTION – Risque d’incendie ou d’explosion en raison du frigorigène inflammable. Respecter le mode d’emploi pour assurer la conformité aux règlements nationaux.

The markings specified from Item 1 to Item 3 above shall be in letters at least 6.35 mm (0.25 in) high.

4. Warning symbol W021 of ISO 7010, including colour and format, shall be permanently placed on the appliance. The perpendicular height of the triangle containing the “Caution, risk of fire” symbol shall be at least 30 mm.



5. If the refrigerant is flammable the air conditioning equipment shall have red, Pantone® Matching System

(PMS) #185 marked service ports, pipes, hoses, and other devices through which the refrigerant is serviced. This colour shall be present at all service ports and where service puncturing or otherwise creating an opening from the refrigerant circuit to the atmosphere might be expected (e.g., process tubes). The colour mark shall extend at least 25 mm (1 inch) from the refrigerant servicing point and shall be replaced if removed.

If a FLAMMABLE REFRIGERANT is used, the symbols for “read operator’s manual”, “operator’s manual; operating instructions” and “service indicator; read technical manual” (symbols ISO 7000-0790 (2004-01), ISO-7000-1641 (2004-01) and ISO 7000-1659 (2004-01)) shall be placed on the appliance in a location visible to the persons required to know the information. The perpendicular height shall be at least 10 mm.

An additional warning symbol (flame symbol: W021 of ISO 7010) shall be placed on the nameplate of the unit near the declaration of the refrigerant type and charge information. The perpendicular height shall be at least 10 mm, and the symbol need not be in colour. When installed, the marking should be visible after removing a DETACHABLE part.

Products certified for Canada shall have all Caution and Warning markings in both English and French.

ALTERATIONS

Markings as noted above appear.

FACTORY TESTS

1. **Dielectric Withstand 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.

2. **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.

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.

PRODUCT DESCRIPTION:

Products covered in this report are cord connected, Single or Dual Duct Portable type Air Conditioners and Heat Pumps. The meaning of the letters and numerical digits in the model designation are as described in the following section.

The models are similar to each other with differences as noted below:

Code	Model	Similar model	Differences
A1	JHS-A018A-06KR-D	--	Basic model
A2	JHS-A018A-06KRH-D	A1	With additional four way valve
A3	JHS-A018B-06KR-D	A1	With different appearance and display board
A4	JHS-A018C-06KR-D	A1	With different appearance and display board
A5	JHS-A018D-06KR-D	A1	With different appearance and display board
A6	JHS-A018E-06KR-D	A1	With different appearance and display board
A7	JHS-A018A1-06KR-D	A1	With different appearance and display board
A8	JHS-A018B1-06KR-D	A1	With different appearance and display board
A9	JHS-A018A-07KR-D	A1	With different evaporator fan motor, evaporator
A10	JHS-A018A-08KR-D	A1	With different compressor, evaporator fan motor and evaporator
A11	JHS-A018A-07KRH-D	A9	With additional four way valve
A12	JHS-A018A-08KRH-D	A10	With additional four way valve
A13	JHS-A018A-07KR-D3	A9	With different compressor and refrigeration
A14	JHS-A018A-07KRH-D3	A13	With additional four way valve
A15	JHS-A018A-06KR-D3	A1	With different compressor and refrigeration
A16	JHS-A018A-06KRH-D3	A15	With additional four way valve
A17	JHS-A018F-06KR-D	A5	With different top cover, front shell and display board
A18	JHS-A018G-06KR-D	A1	With different top cover and display board

ILLUSTRATIONS:

Illustration No.	Description
1	Nameplates
2, 2A, 2B	Caution Labels
3	Electrical wiring diagram
4.1, 4.2, 4.2A, 4.2B, 4.2C	Electrical diagram for main control PCB

4.3, 4.4, 4.5, 4.6, 4.7	Lay out for main control PCB
5.1	Condenser
6.1, 6.2	Evaporator
7.1, 7.1A, 7.2, 7.3, 7.3A	Fan motor
8.1, 8.2, 8.3, 8.4, 8.5	Instruction Manuel

REPORT DESCRIPTION INDEX:

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100	Bonding For Grounding

MODEL DESIGNATION:

JHS - A 018 * - 06 KR H - D R

1 2 3 4 5 6 7 8 9

Position 1 JHS : Manufacture short name

Position 2 A : Air Conditioner first character

Position 3 018 : Design model

Position 4 *: Different appearance, may be A-Z or A1-Z1

Position 5 06, 07 or 08: about 6000, 7000 or 8000 Btu/h cooling capacity(SACC)

Position 6 KR : Cooling only

Position 7 H or <blank> : Reverse cycle heat or not

Position 8 D or <blank> : conforms to DOE standard or not

Position 9 <blank> or A-Z : Different Compressor Manufacture

GENERAL REQUIREMENTS:

The models covered in this Report, employs a variable speed hermetic refrigerant motor-compressor with a factory charged refrigerant system. Field wiring terminals are provided for the interconnection of both units and to the electrical supply source by means of field installed conductors. The unit is controlled by a remote wireless infrared controller, or could be controlled by an optional wired remote controller, sold separately. Single Duct unit can be assembled with RAP02 Dual Hose Conversion Kit to Dual Duct unit.

Components are CSA Certified or UL Listed or Recognized, or accepted in the end product.

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:

Working Volts	Minimum spacing (mm)- Pollution degree 1 or 2.
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		Basic Insulation	Supplementary Insulation	Reinforce Insulation	Functional Insulation
115 V	Clearance	1.2, 0.2 [#] , 6.4 ^{**}	1.2, 0.2 [#]	1.5	1.2, 0.2 [#]
	Creepage	1.5, 0.75*	1.5, 0.75*	3.0, 1.5*	1.4, 0.71*
230V	Clearance	1.5, 6.4 ^{**}	1.5	3.5	1.5
	Creepage	2.5 or 1.25*, 6.4 ^{**}	2.5 or 1.25*	5.0 or 2.5*	2.0 or 1.0*

Note: [#] For tracks of printed circuit boards

* The CTI of the PCB should be at least 600V.

**For the field wiring terminal block.

INSTALLATION INSTRUCTIONS:

Each unit is provided with installation and operating instructions.

CORROSION PROTECTION:

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

WIRING:

Unless otherwise noted in this report, all wiring is CSA Certified or UR Recognized R/C AVL V2, min 18 AWG except for integral leads of components, suitable for a min of 300 V. It 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.

Wiring which is completely enclosed within metal conduit, metal raceways or other separate electrical enclosure employs 2/64 in (0.8 mm) thick min electrical insulation unless specified differently in this Report.

Wiring which is not completely enclosed within metal conduit, metal raceways or other separate electrical enclosure and employs 2/64 in (0.8 mm) thick or components with integral leads with insulation thickness less than 4/64 in (1.6 mm) thickness are protected by PVC sleeving in the entire length of the wire harness

Lead wires of ELV components such as Thermistors, which do not have CSA or UL listing, are sleeved with UR Recognized PVC sleeving rated for 600V as means for isolation and separation from hazardous voltage wiring for the length which are in contact with hazardous voltage wiring.

ELV wiring of the controller boards, which are UR Recognized for 300 V minimum and are in contact with hazardous voltage wiring, are sleeved with any types of sleeving for supplementary protection.

Green or green with a yellow stripe may be employed only as grounding conductors.

All routing of wiring through metal panels is made through holes provided with bushings with resilient rubber or holes for the passage of wires or cords through wall, panels or barriers having smooth, rounded surfaces.

MARKINGS:

All markings required to be permanent shall be molded, die stamped, paint stenciled, stamped or etched on permanently secured metal, or indelibly stamped or painted on pressure sensitive labels secured by adhesive. Pressure sensitive labels shall be CSA Accepted or UR Recognized U/C PGDQ3, or R/C PGDQ2. For the outdoor units, the Pressure sensitive labels shall be approved for outdoor use. The system designation shall appear on the label, the label package, roll core, or on the label release liner (removable backing).

GENERAL CONSTRUCTION DESCRIPTION:

10 MARKING: III. 1

10-10 Nameplate Marking

The nameplate is permanently located on the bottom or right side of each unit (for indoor units) and at the right hand side of each unit (for outdoor units) and is visible and legible without requiring the use of tools for removal of panels, covers, etc. The nameplate includes the following information in addition to the Listee's name or private labeler's name.

Material: Polyester film, UR Recognized
Location: Enclosure.
Secured by: Adhesive
Listee's Name: Dongguan JHS Electrical Co., Ltd, or trade name JHS

Model Designation	JHS-A018*-06KR-D, JHS-A018*-06KRH-D	JHS-A018*-07KR-D, JHS-A018*-07KRH-D	JHS-A018*-08KR-D, JHS-A018*-08KRH-D
Design Pressure:			
High	3.72 MPa(540psig)	3.72 MPa(540psig)	3.72 MPa(540psig)
Low	2.07 MPa(300psig)	2.07 MPa(300psig)	2.07 MPa(300psig)
Refrigerant-factory charged:			
Type	R410A	R410A	R32
Amount (oz)	11.99 oz (340g)	13.76 oz (390g)	11.99 oz (340g)
Electrical rating:			
Frequency	60 Hz	60 Hz	60 Hz
Phase	1 ph	1 ph	1 ph
Voltage	115 Vac	115 Vac	115 Vac
Current (A):	8.8	9.2	10.0

Model Designation	JHS-A018*-07KR-D3, JHS-A018*-07KRH-D3	JHS-A018*-06KR-D3, JHS-A018*-06KRH-D3
Design Pressure:		
High	3.72 MPa(540psig)	3.72 MPa(540psig)
Low	2.07 MPa(300psig)	2.07 MPa(300psig)
Refrigerant-factory charged:		
Type	R32	R32
Amount (oz)	9.35 oz (265g)	8.47 oz (240g)
Electrical rating:		
Frequency	60 Hz	60 Hz
Phase	1 ph	1 ph
Voltage	115 Vac	115 Vac
Current (A):	9.9	8.8

Date Code (Series numbers)

A0192017060001

A019- Model

2017 - Year

06 - Month

0001 – Numbers

10-20 Caution Markings UR Recognized **III. 2, 2A, 2B**

Model	All
Location	Adjacent to the cord entrance on the exterior of enclosure
Material	Polyester film

20 **ENCLOSURE:**

20-10 Ultimate Enclosure

Model	All
Approximate Physical size	420 mm by 360 mm by 720 mm

20-20 Unit Base Pan UR Recognized

Model	All
Manufacturer	Grand Pacific(UL file No.E88637), Chi-Mei Corporation Corporation (UL file No.E56070), or Ningbo LG Yongxing Chemical Co Ltd(UL file E203955) or LG Chem Huizhou Petrochemical Co Ltd(UL fileE476284) or Petrochina Co Ltd Jilin Petrochemical Co (UL file E243093)
R/C Designation (QMFZ2)	D-150, PA-757, PA-758, HI-121H or HP181 or HP171 or 0215H
Thickness, mm	3.0 mm minimum
Flammability Classification	94HB
Chassis retention in cabinet	By Screw
Means provided for condensate drainage	Splash motor remove the condensate water from base pan. Several holes provided for condensate water drainage.

20-30 Unit Cabinet UR Recognized

Model:	All
Manufacturer	Grand Pacific(UL file No.E88637), Chi-Mei Corporation Corporation (UL file No.E56070), or Ningbo LG Yongxing Chemical Co Ltd(UL file E203955) or LG Chem Huizhou Petrochemical Co Ltd(UL fileE476284) or Petrochina Co Ltd Jilin Petrochemical Co (UL file E243093)
R/C Designation (QMFZ2)	D-150, PA-757, PA-758, HI-121H or HP181 or HP171 or 0215H
Thickness, mm	2.4 mm minimum
Flammability Classification	94HB
Chassis retention in cabinet	By Screw

Openings

Model	All
Type	Grille for evaporator air inlet
Location	Top of rear enclosure
Area (L by W), mm	Approx 286 by 247
Spacing, mm	Approx 8

Type	Grille for evaporator air outlet
Location	Top of the unit
Area (Radius), mm	Approx 245 by 99
Spacing, mm	10
Type	Grille for condenser air outlet
Location	Middle of rear enclosure
Area (Radius), mm	75
Spacing, mm	Approx 8
Type	Grille for condenser air inlet
Location	Lower of rear and/or side enclosure
Area (Radius), mm	Approx 255 by 120 / Approx 255 by 120
Spacing, mm	8

20-40 Filter UR Recognized

Model	All
Manufacturer	Grand Pacific(UL file No.E88637), Chi-Mei Corporation Corporation (UL file No.E56070), or Ningbo LG Yongxing Chemical Co Ltd(UL file E203955) or LG Chem Huizhou Petrochemical Co Ltd(UL fileE476284) or Petrochina Co Ltd Jilin Petrochemical Co (UL file E243093)
R/C Designation (QMFZ2)	D-150, PA-757, PA-758, HI-121H or HP181 or HP171 or 0215H
Flammability Classification	94HB
Location	On the inner side of the unit over the evaporator inlet

20-50 Electrical box

Model	All
Material	Sheet metal
Thickness, mm	0.6
Approximate Physical size	62 mm by 137 mm by 210 mm or 62 mm by 142 mm by 214 mm
Mounting	Fixed to the Unit Base Pan and Secured to metal frame by screws

Alternative Electrical box UR Recognized

Model:	All
Manufacturer	Grand Pacific (UL file No.E88637), Chi-Mei Corporation (UL file No.E56070), Kingfa SCI & Tech Co Ltd(UL file No.E171666), Formosa Chemicals & Fibre Corp Plastics Div(UL file No.E162823)
R/C Designation (QMFZ2)	D-1000, PA-765, or FW-620T or ANC100
Flammability Classification	5VA
Thickness, mm	2.0(at least)
Approximate Physical size	56 mm by 140 mm by 214 mm or 67 mm by 158 mm by 239
Mounting	Fixed to the Unit Base Pan and Secured to metal frame by screws

30 NONMETALLIC COMPONENTS:30-10 Other Non-Metallic Materials:

- (a)
- Air Chanel(Upper)
- UR Recognized

Manufacturer	Various
Material	Polystyrene (PS)
Flammability Rating	HF-1
Size, mm	Approx 290 by 285 by 124
Means of Securing	Screws

- (b)
- Air Chanel(Nether)
- UR Recognized

Manufacturer	Various
Material	ABS+GF
Flammability Rating	HB
Size, mm	Approx 330 by 320 by 113
Means of Securing	Screws

- (c)
- Upper Blower
- UR Recognized

Manufacturer	Various
Material	ABS+GF
Flammability Rating	HB
Size, mm	Diameter 190, Height 85, 54 blades.
Means of Securing	Nut to the motor

- (d)
- Nether Blower
- UR Recognized

Manufacturer	Various
Material	ABS+GF
Flammability Rating	HB
Size, mm	Diameter 220, Height 90, 70 blades.
Means of Securing	Nut to the motor

- (e)
- Condenser Outtake Hose
- UR Recognized

Manufacturer	Various
Single Hose Outtake Baffles	
Material	ABS
Thickness, mm	2.4 mm minimum
Area (Radius), mm	75
Flammability Rating	HB
Outtake Hose Adapter to AC	
Material	ABS
Thickness, mm	2.0 mm minimum
Size, mm	See Att2 Illustration 9.2
Flammability Rating	HB
Outtake Hose Adapter to Window Kit	
Material	ABS
Thickness, mm	2.0 mm minimum
Size, mm	See Att2 Illustration 9.3
Flammability Rating	HB

Outtake Hose	
Material	HD-PE
Flammability Rating	HB
Length, mm	Min270, Max 1500
Inner Diameter, mm	150
Single Hose Window Panel	
Material	ABS
Thickness, mm	2.0 mm minimum
Flammability Rating	HB
Means of Securing	One side of the Duct is inner lock to hose adapter and the hose adapter is inner lock to outlet Baffle. The other side of the duct is inner lock to outtake hose adapter and the adapter is secured to a window panel by screws.

(f) RAP02 Dual Hose Conversion Kit UR Recognized

Manufacturer	Various
Dual Hose Conversion Baffles	
Material	ABS
Thickness, mm	2.4 mm minimum
Size, mm	See Att2 Illustration 9.1
Flammability Rating	HB
Intake Hose adapter to AC	
Material	ABS
Thickness, mm	2.0 mm minimum
Size, mm	See Att2 Illustration 9.2
Flammability Rating	HB
Intake Hose Adapter to Window Kit	
Material	ABS
Thickness, mm	2.0 mm minimum
Size, mm	See Att2 Illustration 9.3
Flammability Rating	HB
Intake Hose	
Material	HD-PE
Flammability Rating	HB
Length, mm	Min 270, Max 1500
Inner Diameter, mm	150
Dual Hose Window Panel	
Material	ABS
Thickness, mm	2.0 mm minimum
Flammability Rating	HB
Means of Securing	One side of the Duct is inner lock to hose adapter and the hose adapter is inner lock to outlet/inlet Baffle. The other side of the duct is inner lock to intake/outtake hose adapter and the adapter is secured to a window panel by screws.

40 REFRIGERATION SYSTEM:40-10 CondenserAccepted, **III. 5.1**

Model	JHS-A018*-06KR-D,JHS-A018*-06KRH-D, JHS-A018*-07KR-D,JHS-A018*-07KRH-D, JHS-A018*-08KR-D,JHS-A018*-08KRH-D	JHS-A018*-07KR-D3, JHS-A018*-07KRH-D3 JHS-A018*-06KR-D3, JHS-A018*-06KRH-D3
Manufacturer	Dongguan JHS Electrical Co., Ltd	
Recognized Designation	A018-16K-401	A018-9K-403H
Corrosion Protection	Inherent	
Tested Accepted Pressure:	20.0 MPa (2901 psig)	
Mounting:	Screw to the Unit Base Pan	

40-20 EvaporatorAccepted, **III. 6.1, 6.2**

Model	JHS-A018*-06KR-D, JHS-A018*-06KRH-D JHS-A018*-06KR-D3, JHS-A018*-06KRH-D3	JHS-A018*-07KR-D,JHS-A018*-07KRH-D, JHS-A018*-08KR-D,JHS-A018*-08KRH-D JHS-A018*-07KR-D3,JHS-A018*-07KRH-D3
Manufacturer	Dongguan JHS Electrical Co., Ltd	
Recognized Designation	A018-9K-401	A018-12K-401
Corrosion Protection	Inherent	
Tested Accepted Pressure:	16.05 MPa (2328 psig)	
Mounting:	Screw to the air Chanel(Nether)	

40-30 Interconnecting Tubing:

Model	All						
Material	Copper						
Outside Diameter/ in. (mm)	1/4 (6.35)	5/16 (7.94)	3/8 (9.52)	1/2 (12.7)	3/6* (4.76)	15/64* (6.0)	7/25* (7.0)
Min. Wall Thickness in.(mm)	0.0245 (0.662)				0.0236 (0.6)	0.0393 (1.0)	0.0197 (0.5)

40-40 Refrigeration System Joints

Model	All
Method of joining	Brazing

40-50 Capillary

Model	JHS-A018*-06KR-D, JHS-A018*-06KRH-D	JHS-A018*-07KR-D, JHS-A018*-07KRH-D	JHS-A018*-08KR-D, JHS-A018*-08KRH-D
Material	Copper		
Inside Diameter	1.0 mm	1.0 mm	0.9 mm
length	1000 mm	1100 mm	1100 mm

Model	JHS-A018*-07KR-D3, JHS-A018*-07KRH-D3	JHS-A018*-06KR-D3, JHS-A018*-06KRH-D3
Material	Copper	Copper
Inside Diameter	0.9 mm	0.9 mm
length	650 mm	1000 mm

50 MOTOR COMPRESSOR ASSEMBLY:

50-10 Compressor

UR Recognized

Model	JHS-A018*-06KR-D, JHS-A018*-06KRH-D, JHS-A018*-07KR-D, JHS-A018*-07KRH-D	JHS-A018*-08KR-D, JHS-A018*-08KRH-D
Manufacturer	Guangdong Meizhi Compressor Ltd <SA12105>	
Designation	ASN86E1V series	KSM93E12U series
Electrical Rating/V	115	115
RLA / Amps	6.6	8.6
LRA/ Amps	38.9	49
Phase	1	1
Frequency	60	60
Insulation Class	E	E
Thermal Protection Marking	"Thermally Protected"	"Thermally Protected"
Overload Protector	External	Internal
Mounting:	Nut to the Unit Base Pan	

Model	JHS-A018*-07KR-D3, JHS-A018*-07KRH-D3	JHS-A018*-06KR-D3, JHS-A018*-06KRH-D3
Manufacturer	Guangdong Meizhi Compressor Ltd <SA12105>	Guangdong Meizhi Compressor Ltd <SA12105>
Designation	KSN84E12V series	KSN78E11V series
Electrical Rating/V	115	115
RLA / Amps	6.7	6.2
LRA/ Amps	35	36
Phase	1	1
Frequency	60	60
Insulation Class	E	E
Thermal Protection Marking	"Thermally Protected"	"Thermally Protected"
Overload Protector	Internal	Internal
Mounting:	Nut to the Unit Base Pan	Nut to the Unit Base Pan

50-20 Compressor Running Capacitor INT (CYWT2, 8)

Manufacturer	Various	Various
R/C Designation (CYWT2,8)	Various	Various
Rating, μ F, V minimum	50, 250	65, 250

Container material	Aluminium	Aluminium
Terminal enclosure	Not Provided	Not Provided
Location	In control box	In control box
Terminal orientation	Horizontal	Horizontal
Mounting	Screw and metal strap	Screw and metal strap
Retention	Tab and metal strap	Tab and metal strap
Remarks	Used for compressor ASN86E1V, KSN84E12V series, KSN78E11V series	Used for compressor KSM93E12U

60 FAN MOTOR ASSEMBLY: III. 7.1, 7.2, 7.3

60-10 Fan Motor Tested accepted

Model	JHS-A018*-06KR-D, JHS-A018*-06KRH-D, JHS-A018*-06KR-D3, JHS-A018*-06KRH-D3
Use	Evaporator fan motor
Manufacturer	Dongguan JHS Electrical Co., Ltd.
Model No.	YDK94-20L-6B
Recognized Designation	YDK94-20L-6B
Electrical Rating (V, A, HP or output watt)	110-120V, 0.45A, 20W, marked on the motor nameplate.
Enclosed or Open type	Enclosed
Overheating Protection	
Type	Thermal Protected. Auto reset
Listee's Name	Chan Zhou City Tong Li Electronics Co., Ltd
Recognized Designation	KW series rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32) Or BR-A2D, rated 6 A, 130°C (for the motor used for the model with R410A or R32) Complied with IEC60079-15.
Mounting	By screws to the Air Chanel assembly.
Bonding for Grounding (Method)	By a dedicated wiring
Insulation class	Class A
Insulation System	
Magnet wire (manufacturer, type designation, temperature rating)	UR Recognized, polyurethane and polyamide copper wire by Dong Guan Yida, QZ-2/155, 130°C
Slot insulation & slot wedges (manufacturer, type designation, temperature rating)	UR Recognized, PET, CL color, VTM-2, 105°C, minimum thickness 0.2 mm. Wrap winding for insulating.
Insulating Sleeving	CSA/UR Recognized, Silicone coated fiberglass sleeving, 300 V, VW-1, 130°C minimum. Insulated Lead wires terminal.
Lead Wires	1015, 22 or 20AWG
Connector	CSA/UR Recognized,
Remarks	Leads are terminated in a multi pin connector.

	The wiring harness is provided with PVC sleeving.
Model	JHS-A018*-07KR-D,JHS-A018*-07KRH-D, JHS-A018*-08KR-D,JHS-A018*-08KRH-D JHS-A018*-07KR-D3,JHS-A018*-07KRH-D3
Use	Evaporator fan motor
Manufacturer	Dongguan JHS Electrical Co., Ltd.
Model No.	YDK94-45-4B (A018U-A1)
Recognized Designation	YDK94-45-4B (A018U-A1)
Electrical Rating (V, A, HP or output watt)	110-120V, 0.9A,45W, marked on the motor nameplate.
Enclosed or Open type	Enclosed
Overheating Protection	
Type	Thermal Protected. Auto reset
Listee's Name	Chan Zhou City Tong Li Electronics Co., Ltd
Recognized Designation	KW series rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32) Or BR-A2D, rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32)
Mounting	By screws
Bonding for Grounding (Method)	By a dedicated wiring
Insulation class	Class A
Insulation System	
Magnet wire (manufacturer, type designation, temperature rating)	UR Recognized, polyurethane and polyamide copper wire by Dong Guan Yida, QZ-2/155, 130°C
Slot insulation & slot wedges (manufacturer, type designation, temperature rating)	UR Recognized, PET, CL color, VTM-2, 105°C, minimum thickness 0.2 mm. Wrap winding for insulating.
Insulating Sleeving	CSA/UR Recognized, Silicone coated fiberglass sleeving, 300 V, VW-1, 130°C minimum. Insulated Lead wires terminal.
Lead Wires	1015, 22 or 20AWG
Connector	CSA/UR Recognized,
Remarks	Leads are terminated in a multi pin connector. The wiring harness is provided with PVC sleeving.

Alternative

Model	JHS-A018*-07KR-D,JHS-A018*-07KRH-D, JHS-A018*-08KR-D,JHS-A018*-08KRH-D, JHS-A018*-07KR-D3,JHS-A018*-07KRH-D3
Use	Evaporator fan motor
Manufacturer	Dongguan JHS Electrical Co., Ltd.
Model No.	YDK94-45-4B (A018U-A1)AL
Recognized Designation	YDK94-45-4B (A018U-A1)AL
Electrical Rating (V, A, HP or output watt)	110-120V, 0.9A,45W, marked on the motor nameplate.

Enclosed or Open type	Enclosed
Overheating Protection	
Type	Thermal Protected. Auto reset
Listee's Name	Chan Zhou City Tong Li Electronics Co., Ltd
Recognized Designation	KW series rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32) Or BR-A2D, rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32)
Mounting	By screws
Bonding for Grounding (Method)	By a dedicated wiring
Insulation class	Class A
Insulation System	
Magnet wire (manufacturer, type designation, temperature rating)	UR Recognized, polyurethane and polyamide copper wire by Dong Guan Yida, QZYL-2, 180°C
Slot insulation & slot wedges (manufacturer, type designation, temperature rating)	UR Recognized, PET, CL color, VTM-2, 105°C, minimum thickness 0.2 mm. Wrap winding for insulating.
Insulating Sleeve	CSA/UR Recognized, Silicone coated fiberglass sleeving, 300 V, VW-1, 130°C minimum. Insulated Lead wires terminal.
Lead Wires	1015, 22 or 20AWG
Connector	CSA/UR Recognized,
Remarks	Leads are terminated in a multi pin connector. The wiring harness is provided with PVC sleeving.

Model	All
Use	Condenser fan motor
Manufacturer	Dongguan JHS Electrical Co., Ltd.
Model No.	YDK94-70-4B (A018D-A)
Recognized Designation	YDK94-70-4B (A018D-A)
Electrical Rating (V, A, HP or output watt)	110-120V, 1.2A, 70W, marked on the motor nameplate.
Enclosed or Open type	Enclosed
Overheating Protection	
Type	Thermal Protected. Auto reset
Listee's Name	Chan Zhou City Tong Li Electronics Co., Ltd
Recognized Designation	KW series rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32) Or BR-A2D, rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32)
Mounting	By screws

Bonding for Grounding (Method)	By a dedicated wiring
Insulation class	Class A
Insulation System	
Magnet wire (manufacturer, type designation, temperature rating)	UR Recognized, polyurethane and polyamide copper wire by Dong Guan Yida, QZ-2/155, 130°C
Slot insulation & slot wedges (manufacturer, type designation, temperature rating)	UR Recognized, PET, CL color, VTM-2, 105°C, minimum thickness 0.2 mm. Wrap winding for insulating.
Insulating Sleeve	CSA/UR Recognized, Silicone coated fiberglass sleeving, 300 V, VW-1, 130°C minimum. Insulated Lead wires terminal.
Lead Wires	1015, 22 or 20AWG
Connector	CSA/UR Recognized,
Remarks	Leads are terminated in a multi pin connector. The wiring harness is provided with PVC sleeving.

Alternative

Model	All
Use	Condenser fan motor
Manufacturer	Dongguan JHS Electrical Co., Ltd.
Model No.	YDK94-70-4B (A018D-A)AL
Recognized Designation	YDK94-70-4B (A018D-A)AL
Electrical Rating (V, A, HP or output watt)	110-120V, 1.2A, 70W, marked on the motor nameplate.
Enclosed or Open type	Enclosed
Overheating Protection	
Type	Thermal Protected. Auto reset
Listee's Name	Chan Zhou City Tong Li Electronics Co., Ltd
Recognized Designation	KW series rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32) Or BR-A2D, rated 6 A, 130°C Complied with IEC60079-15. (for the motor used for the model with R410A or R32)
Mounting	By screws
Bonding for Grounding (Method)	By a dedicated wiring
Insulation class	Class A
Insulation System	
Magnet wire (manufacturer, type designation, temperature rating)	UR Recognized, polyurethane and polyamide copper wire by Dong Guan Yida, QZYL-2, 180°C
Slot insulation & slot wedges (manufacturer, type designation, temperature rating)	UR Recognized, PET, CL color, VTM-2, 105°C, minimum thickness 0.2 mm. Wrap winding for insulating.
Insulating Sleeve	CSA/UR Recognized, Silicone coated fiberglass sleeving, 300 V, VW-1, 130°C minimum. Insulated Lead wires terminal.

Lead Wires	1015, 22 or 20AWG
Connector	CSA/UR Recognized,
Remarks	Leads are terminated in a multi pin connector. The wiring harness is provided with PVC sleeving.

70 ELECTRICAL COMPONENTS:**70-10 Fan Motor Capacitor** UR Recognized or equivalent

Manufacturer	Various		
Designation	Various		
Rating	6 μ F, 250 VAC, 50/60 Hz	10 μ F, 250 VAC, 50/60 Hz	12 μ F, 250 VAC, 50/60 Hz
Means of Securing	Secured to Electrical box by screw		
Remarks	Used for motor YDK94-20L-6B	Used for motor YDK94-45-4B YDK94-45-4B (A018U-A1)AL	Used for motor YDK94-70-4B YDK94-70-4B (A018D-A)AL

70-20 Water Splash Motor

Model	All
Type	MD-DS-A018
Manufacturer	Dongguan JHS Electrical Co., Ltd.
Designation	Various
Rating	DC12V, 2W
Means of Securing	Secured to unit base pan by screw

70-30 WIFI module

Model	All
Type	Various
Manufacturer	Various
Designation	Various
Means of Securing	Secured to enclosure
Remarks	One FCC ID number marked on the module surface.

70-40 4-Way Valve UR Recognized

Model	JHS-A018*-06KRH-D, JHS-A018*-07KRH-D, JHS-A018*-08KRH-D JHS-A018*-07KRH-D3, JHS-A018*-06KRH-D3
Type	SHF-4 series
Manufacturer	Zhejiang Sanhua Climate & Appliance Controls Group Co Ltd <Mh25894>
Rating	AC110-120 V; 3.5 W
Alternative	
Model	JHS-A018*-06KRH-D, JHS-A018*-07KRH-D, JHS-A018*-08KRH-D JHS-A018*-07KRH-D3, JHS-A018*-06KRH-D3
Type	DSF-4 series
Manufacturer	Anhui Tianda Electronic Science & Technology Co Ltd <Mh27995>
Rating	AC110-120 V; 3.5 W

70-50 Electronic Controller - See **Ill. 4.1, 4.2, 4.2A, 4.3, 4.4, 4.5** for schematic

The controller consists of one pieces of printed wiring boards mounted in a controller box, consists of a Class 2 Switch Mode Power Supply and an Extra-Low Voltage Circuit PCB Assembly, a minimum spacing of 1.6 mm is maintained between 120Vac printed conductors of opposite polarities, and between 120Vac printed conductors and the ELV printed conductors. No spacing requirement on ELV circuit.

Model	All
Manufacturer	Various
Controller Model (Main)	JHS-A018-MAIN, JHS-A020E-MAIN or CTTC-A018-MAIN-JHS-PCB(A1), JHS-A018-MAIN-D, JHS-A018D-MAIN
Major Components in hazardous voltage circuit are as described below:	
Printed Wiring Board	UR Recognized or CSA Certified. Shandong Jinbao Tech-Innov Corporation. <E141940>. Type ZD series, rated 130°C, V-0 Or Kingboard Laminates Holdings Ltd. <E123995>. Type KB series, rated 130°C, V-0 Or Goldenmax International Technology (Zhuhai) Ltd. <E330731>. Type GDM-series, rated 130°C, V-0 Or Shengyi Technology Co., Ltd. <E109769>. Type S3110, rated 130C, V-0 Type Q360G, rated 130C, V-0 Or Changzhou Haihong Electronics Co., Ltd. <E166702> Type S3110, rated 130°C, V-0 Or Laizhou Pengzhou Electronics Co Ltd. <E249104>. Type PZ series, rated 130°C, V-0
Quick-Connect Terminals	UL Listed (RFWV), and UL Listed (RFWV7) or CSA Certified. Various manufacturers, minimum electrical rating 300 VAC.
Fuse	UR Recognized or CSA Certified or other Certified equivalent with same electrical ratings. Xc Electronics (Shenzhen) Corp Ltd <E249609>. Type 5TE, rated 250 V, 3.15 A Type 5H T3.15H250V or 5T , rated 250 V, 3.15 A Or Shenzhen Lanson Electronics Co Ltd <E221465>. Type SMT, rated 250VAC, 3.15A Type 5H T3.15AH250V or 5K, rated 250 V, 3.15 A Or Dongguan Better Electronics Technology Co Ltd <E300003>. Type 932, rated 250 V, 3.15 A Type 524 , rated 250 V, 3.15 A Or Zhong Shan Lanbao Electrical Appliances Co LTD <E213695>. Type RFI-20 T3.15AL250V, rated 250 V, 3.15 A Or

	Hollyland Co Ltd<E156471>. Type 50CT or 50T, rated 250 V, 3.15 A Direct solder on PCB. The rating of the fuse is marked adjacent to the fuse.
Varistor	UR Recognized or CSA Certified or other Certified equivalent with same electrical ratings. Thinking Electronic Industrial Co., Ltd. <E314979>. Type TVR 14271, rated 270 V Type TVR 14D471, rated 470 V Or Centra Science Corp.<E316325 >. Type CNR 14D271K, rated 270 V Type CNR 14D471K, rated 470 V Or Guangdong Fenghua Advanced Technology Holding Co Ltd. Xianhua New Sensitive Components Branch. <E325462 >. Type FNR14K271, rated 270V Type FNR 14K471, rated 470V Or Guangxi New Future Information Industry Co Ltd. <E323753 >. Type NFC14D271K, rated 270V NFC 14D471K, rated 470V Or Joyin Co Ltd<E325508> Type 14N271K, rated 270V Type 14N471K, rated 470V Or Dongguan city Dafu Electronics Co Ltd<E502211>. Type NDF 14D271K, rated 270V Type NDF 14D471K, rated 470V
X Capacitor	UR Recognized. Dain Electronics Co., Ltd.<E147776 >. Type MPX, rated 275 Vac, 0.1 nF. Or Foshan Shunde Beijiao Hua Da Electric Industrial Co., Ltd. <E227157 >. Type HD-Series, rated 250VAC, 0.1nF Or Guangdong Fengming Electronic Tech Co Ltd.< E345487>. Type MKP-X2, rated 275 Vac, 0.1 nF or Foshan Shunde Chuang Ge Electronic Industrial Co Ltd,<E308832>. Type MKP-X2, rated 250 or 275 Vac, 0.1 nF. Or Shantou High-New Technology Developmmt Zone Songtian Enterprise Co Ltd. <E208107 >. Type MPX, 250 or 275 Vac, 0.1 nF. Or Foshan Shunde Hongye Electrical Appliance Co Ltd. <E349882 >. Type MKP series, rated 275 VAC, 0.1 μF Or

	Shenzhen Surong Capacitors Co., Ltd. <E314875 >, Type MPX or MKP, rated 250VAC, 0,1nF Or Ultra Tech Xiphi Enterprise Co Ltd<E183780> Type HQX , rated 250 or 275VAC, 0,1nF Or Shanghai Xiang Ri Ya Electronics Co Ltd<E256815> Type MPX/ MKP, rated 250 or 310VAC, 0,1nF Or Shenzhen Jing Yu Electronics Co Ltd<E230035>. Type CBBX2, rated 275 VAC, 0.1nF Or Tenta Electric Industrial Co Ltd<E222911>. Type MEX, rated 275 VAC, 0.1nF Or Europtronic (Taiwan) Industrial Corp<E211347>. Type MPX2, rated 275 VAC, 0.1nF Or Zhuhai Sung Ho Electronics Co Ltd<E327138>. Type CMPP, rated 275 VAC, 0.1nF Or Dongguan city Dafu Electronics Co Ltd<E465278>. Type MPX, rated 275 VAC, 0.1nF
Relays For Compressor (only used for the model with R410A)	UR Recognized. Sanyou Corporation Limited <E190598> Type SLI-S-112DM rated 240V, 30A, 100 K cycles Type SLI-SH-112DMK-P-F, rated 240V, 30A, 100 K cycles Or Dongguan Churod Electronics Co Ltd <E341422>. Type CHS02-V-112LA, rated 277V, 30A, 100 K cycles Or Dongguan Golden Electrical Appliance Co Ltd<E321783>. Type GK-C-1A-12D, rated 250V, 30A, 100 K cycles Type GK-D-1A-12DSFT, rated 250V, 30A , 100 K cycles Or Ningbo Forward Relay Corp Ltd<E160644> Type NT90T series, rated 240V, 30A, 100 K cycles Or Wangrong Electronics (Shenzhen) Co Ltd <E345228>. Type RA2-112LM, rated 250V, 30A, 100 K cycles
Relays For Compressor (used for the model with R410A or R32)	UR Recognized, Complied with IEC60079-15. Sanyou Corporation Limited <E190598> Type SLI-SH-112DMK, rated 240V, 30A, 100 K cycles Type SLI-SH-112DM , rated 240V, 30A, 100 K cycles Type SFK -112DME series, rated 277V or 250V, 25A, 100 K cycles Or Dongguan Churod Electronics Co Ltd <E341422>. Type CHS02-S-112LA , rated 277V, 30A, 100 K cycles Type CHF-S-112DA2, rated 277V or 250V, 25A, 100 K cycles Or Dongguan Golden Electrical Appliance Co Ltd<E321783>. Type GK-D-1A-12DHS, rated 277V, 30A , 100 K cycles Or Wangrong Electronics (Shenzhen) Co Ltd <E345228>.

	Type RA2-112LM-S, rated 250V, 30A, 100 K cycles Or Zhejiang Meishuo Electric Technology Co Ltd<E358149> Type MPQ4-S-112D-A, rated 240V, 30A, 100 K cycles Or Ningbo Zettler Electronics Co Ltd<E319069> Type JT2160 series, rated 240V, 30A, 100 K cycles Or Ningbo Tianbo Ganglian Electronics Co LTD <E173485> Type HJQ-15F-2-S-H or HJQ-15F series, rated 240V, 30A, 100 K cycles Type HJQ-15F-2 series, rated 240V, 30A, 100 K cycles Or Xiamen Hongfa Electroacoustic Co Ltd<E134517> Type HF2160 series, rated 240V or 250V, 30A, 100 K cycles
Relays For Condenser Fan And Evaporator Fan, 4-Way Valve, water motor (only used for the model with R410A)	UR Recognized. Ningbo Jinhai Electronic Co., Ltd<E190575>. Type JH32F, rated 125 VAC, 10 A, 100 K cycles Or Xiamen Hongfa Electroacoustic Co Ltd<E134517>. Type JZC-32F or JZC-32FA or JZC-32F/012-HS, rated 125 VAC, 10 A or 250V,5A, 100 K cycles Type HF32F or HF32FA, rated 125 VAC, 10 A or 250V,5A, 100 K cycles Or Sanyou Corporation Limited<E190598>. Type SJ-S-112DM, rated 120V or 250V, 10A or 5A, 100 K cycles or Dongguan Churod Electronics Co., Ltd<E341422>. Type A1-S-112DA, rated250V, 10A, 100 K cycles TypeA1-V-112DA, rated250V, 5A, 100 K cycles or Dongguan Golden Electrical Appliance Co Ltd<E321783>. Type GI-1A-12D, rated 125V, 10A, 100 K cycles Or Ningbo Forward Relay Corp Ltd<E160644>. Type JZC-32F series, rated 125V, 10A, 100 K cycles Or Wangrong Electronics (Shenzhen) Co Ltd <E345228>. Type RJ-SS-112DM, rated 250V, 5A, 100 K cycles Or Ningbo Tianbo Ganglian Electronics Co Ltd<E173485> Type TRG1 D-12VDC-S-H, rated120V, 10A, 100 K cycles Or Ningbo Zettler Electronics Co Ltd<E319069> Type RJ-SS-112DM-S series, rated 125V, 10A, 100 K cycles
Relays For Condenser Fan And Evaporator Fan, 4-Way Valve, water motor (used the model with R410A or R32)	UR Recognized, Complied with IEC60079-15. Xiamen Hongfa Electroacoustic Co Ltd<E134517>. Type HF32FV series, rated 250V, 5A, 100 K cycles Type HF32FV-G series , rated 250V, 5A, , 100 K cycles Or Sanyou Corporation Limited<E190598>. Type SJ-SH-112DM2, rated 120V or 250V, 5A, 100 K cycles or

	Dongguan Churod Electronics Co., Ltd<E341422>. Type A1-S-112DA, rated250V, 5A, 100 K cycles or Dongguan Golden Electrical Appliance Co Ltd<E321783>. Type GI-1A-12DHS, rated 125V, 10A, 100 K cycles Type GI-1A-12LHS, rated 125V, 10A, 100 K cycles Type GI-1A-12DS, rated 250V, 5A, 100 K cycles Type GI-1A-12DSFT, rated 277V, 5A, 100 K cycles Or Wangrong Electronics (Shenzhen) Co Ltd <E345228>. Type RJ-SS-112DM-S , rated 250V, 5A, 100 K cycles Type RJ-SS-112DM1-S, rated 250V, 10A, 100 K cycles Or Zhejiang Meishuo Electric Technology Co Ltd<E358149> Type MPD-S-112A, rated 250V, 5A, 100 K cycles Or Zhejiang Meishuo Electric Technology Co Ltd<E313266> Type MPR-S-112A , rated 250V, 5A, 100 K cycles Or Ningbo Tianbo Ganglian Electronics Co Ltd<E173485> Type TRG1 D-12VDC-S-H, rated120V, 5A, 100 K cycles	
Transformer	Accepted.	
	Manufacturer	Foshan City ShunDe Area QiangLi Electrical Co., Ltd
	Model Designation	DZEE16, DZ16003, DZEE19-0785, DZEE19, or QLK-EE19-408
	Ratings	Input: 120 V Output1: 11 V~
	Class of Insulation	Class A
	Bobbin	UL recognized, PA66, rated V-2 minimum, 130°C, 0.71 mm minimum
	Winding	UL recognized, 130°C minimum
	Insulating tapes	UL recognized, polyester film, 130°C
Alternate Transformer	Accepted.	
	Manufacturer	Shenzhen H&T Intelligent control Co., Ltd.
	Model Designation	EEF20-904uH, EF20-904uH or WK-E20044
	Ratings	Input: 110-120VAC, 60Hz; output: 12VDC/1.2A,
	Class of Insulation	Class A
	Bobbin	UL recognized, PA66, rated V-2 minimum, 130°C, 0.71 mm minimum
	Winding	UL recognized, 130°C minimum
	Insulating tapes	UL recognized, polyester film, 130°C
Alternate Transformer	Accepted.	
	Manufacturer	Dongguan city koreyoshi electronics co ltd.
	Model Designation	EE25-1.6mH

	Ratings	Input: 110-120VAC, 60Hz; output: 12VDC/1.2A,
	Class of Insulation	Class B (E321058)
	Bobbin	UL recognized, PA66, rated V-2 minimum, 130°C, 0.71 mm minimum
	Winding	UL recognized, 130°C minimum
	Insulating tapes	UL recognized, polyester film, 130°C

80 INTERNAL WIRING:**80-10 Types**

CSA certified or UR Recognized (AVLV2) appliance wiring material (1), UL Type 1015/CSA TEW, or UL Type 3386 or UL Type 3271, or equivalent. Wiring which is color-coded green or green with one or more yellow stripes is employed on grounding conductors only. All wires are terminated in quick insulated connectors unless soldered to the PCB.

Model All

Key No	Wire Type(2)	Wire Style No.(3)	Wire Size AWG	Insulation Wall Thickness mm(in)	Minimum Temperature Rating, °C	Minimum Voltage Rating
1	AWM	1007, 3386, 2468, or 3271	26	0.4 (1/64)	80	300
2	AWM	1007, 3386, 2468, or 3271	24	0.4 (1/64)	80	300
3	AWM	1007, 3386, 2468, or 3271	22	0.4 (1/64)	80	300
4	AWM	1015, or 3266	22	0.8 (1/32)	105, 125	600
5	AWM	1015, or 3266	20	0.8 (1/32)	105, 125	600
6	AWM	1015, or 3266	18	0.8 (1/32)	105, 125	600
7	AWM	1015, or 3266	16	0.8 (1/32)	105, 125	600

- 1) - Acceptable for refrigeration use.
- 2) - Appliance wiring material, cord type or Listed wire type.
- 3) - Applies only to Recognized appliance wiring material.

80-20 Wiring Methods

All wiring is protected against damage and is routed and supported to prevent damage due to sharp edges, moving parts, vibrating parts and to surfaces and parts which operate at temperatures in excess of the temperature rating of the wire insulation. Unless otherwise noted all wires terminate in quick-connect or eyelet type terminals.

Model: All

Wiring is employed as follows:

No. from previous page	Specify the electrical components connected to the wiring described	Specify all details of wire routing including locations and types of clamps, means of isolating from combustible materials, Recognized splice and wire connecting lead terminations, etc.

Key No.	From	To	Details
1	Control PCB	Display PCB, Sensor, swing motor	1007, 3386, 2468, or 3271; 26, 24, 22 AWG, quick connector
2	Control PCB	Fan motor, water pump	1015 or 3266, 22, 20 AWG, quick connector
3	Control PCB	Compressor	1015 or 3266, 18, 16 AWG, quick connector

90 **SUPPLY CONNECTIONS:**

Model	All
Power supply cord with LCDI	INT CSA Accepted and UL Recognized (ELGN2), provided with Leakage Current Detection and Interruption (LCDI)
The Plug for the LCDI	Type 5-15P
Strain relief means	Cord is secured by clamp and screw
Cord length, m	1.5 minimum, 3 maximum
Grounding conductor color	Green with or without one or more yellow stripes
Securement of grounding conductor	Control box
Location Means	Screw and eyelet terminal with a star washer
Rating	120 V, 13A or 15 A
Cord Size	16 or 14 AWG
LCDI Attachment Plug Cap	Located on line end of power supply cord
Manufacturer	Tower MFG Corp.<E242788>
Cat. No.	30380(120VAC, 15A) 30385(120VAC, 13A)
Style	AWM 21571 or (Cord Set with LCDI, , equal to SJT cord)
Alternate LCDI Attachment Plug Cap	
Manufacturer	Shanghai ELE MFG Corp. <E250451>
Cat. No.	L15515(120VAC, 15A) L15515(120VAC, 13A)
Style	JLL 301 or (Cord Set with LCDI, , equal to SJT cord)
Alternate LCDI Attachment Plug Cap	
Manufacturer	Xiangyi Railroad Locomotive Electrical Equipment Co Ltd <E335493>
Cat. No.	2180553 (120VAC,15A) 2180552 (120VAC,13A)
Style	AWM 21571 or (Cord Set with LCDI, equal to SJT cord)

100 **Bonding:**

Model	All
Metal frame	The power supply cord grounding conductor connects the metal frame.
Refrigeration System (Compressor)	The compressor connects with the refrigerant tubing, the copper tubes of the condenser and evaporator, the green with yellow dedicated wiring connected the compressor to the metal frame.

TEST HISTORY

Project 80055017

Model JHS-A018A-06KRH-D, JHS-A018A-07KRH-D and JHS-A018A-08KRH-D were tested according to the standard CAN/CSA C22.2 No. 60335-1:16, ANSI/UL 60335-1 6th Ed and CAN/CSA C22.2 No. 60335-2-40:17, ANSI/UL 60335-2-40, 2nd Ed, and the results were acceptable.

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
7.14	Marking and instructions - Marking legible and durable test	N/A (Label is recognized and suitable)	N/A	N/A
8	Protection against access to live parts	Y	P	Lab1
9DV	Starting of motor-operated appliances	Y	P	Lab1
10	Power input and current	Y	P	Lab1
11	Heating	Y	P	Lab1
13	Leakage current and electric strength at operating	Y	P	Lab1
15.2	Moisture resistance – Protection degree against water test	N/A (Indoor used)	N/A	N/A
15.3	Block drain pan discharge pipe test	Y	P	Lab1
15.101	Spillage test	Y	P	Lab1
16	Leakage current and electric strength	Y	P	Lab1
17	Overload protection of transformers and associated circuits	Y	P	Lab1
19.2DV	Abnormal operation – Test about appliance with supplementary heaters	N/A (No heater used)	N/A	N/A
19.3	Abnormal operation – Test while all electric heating elements are energized	N/A (No heater used)	N/A	N/A
19.4	Abnormal operation – Test at fault conditions	Y	P	Lab1
19.5	Abnormal operation – Short-circuited the sheath and polarity of supply test	N/A(No heater used)	N/A	N/A
19.6	Abnormal operation – PTC heating elements over voltage test	N/A(No heater used)	N/A	N/A
19.7	Abnormal operation	N/A(Motor evaluated with UL1004, CSA C22.2NO.77, Capacitors are recognized)	N/A	N/A

19.8	Abnormal operation – Three-phase motor test with one phase disconnected	N/A(No these motors used)	N/A	N/A N/A
19.10	Abnormal operation – Series motor lowest load test	N/A(No these motors used)	N/A	N/A
19.11.1 & 19.11.2	Abnormal operation – Fault conditions of electronic circuits test	N/A(the controller evaluated with UL1310)	N/A	N/A
19.11.4	Abnormal operation – EMP test	N/A(No protective electronic circuit used)	N/A	N/A
19.12	Abnormal operation – Current fuse reliability test	Y	P	Lab1
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	p	Lab1
19.14	Abnormal operation – Contact point short circuited	N/A(No switch conducted in the test of clause 11)	N/A	N/A
19.101	Abnormal operation – Restricted or shut off heat transfer medium flow	Y	p	Lab1
19.101DV.1	Abnormal operation – Refrigerant reduce test	N/A(Air conditioner)	N/A	N/A
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	P	Lab1
19.102	Abnormal operation – Test about indoor heat exchanger using water as a heat transfer medium	N/A(Air is the Heat transfer medium)	N/A	N/A
19.103	Abnormal operation – High / Low temperature test	Y	P	Lab1
19.104	Abnormal operation – Cover Appliance Test	N/A (No heater used)	N/A	N/A
19.105DV	Abnormal operation –Backup Protection) test	N/A (No heater used)	N/A	N/A
20.1	Stability and mechanical hazards – Stability test	Y	P	Lab1
20.2	Stability and mechanical hazards – Mechanical hazards test	Y	P	Lab1
20.101DV	Stability and mechanical hazards – Stability test for window type room air conditioner	N/A(portable air conditioner)	N/A	N/A
21.1	Mechanical strength – Impact test and pressure test(refer to Annex EE)	Y	p	Lab1
21.2	Mechanical strength – Solid insulation strength	N/A (no such construction)	N/A	N/A

21.2 (Addition)	Vibration Test for Appliance using flammable refrigerants	Y	P	Lab2
21.101DV	Mechanical strength –Load Test mechanical abuse	Y	P	Lab1
22.1	Construction – IP test against access to hazardous parts and against solid foreign objects	N/A(no IP number marked)	N/A	N/A
22.5	Construction – plug discharge test	Y	P	Lab1
22.11	Construction – Non-detachable parts push and pull test	Y	P	Lab1
22.12	Construction – Handles, knobs, grips and levers pull test	N/A(no such construction)	N/A	N/A
23.3	Internal wiring – Flexing test	N/A(no such construction)	N/A	N/A
23.5	Internal wiring – Insulation test	N/A(recognized wire used)	N/A	N/A
24.5	Components – Capacitor voltage test	N/A(recognized capacitors used)	N/A	N/A
25.14	Supply connection and external flexible cords – Flexing test	N/A(no such construction)	N/A	N/A
25.15	Supply connection and external flexible cords – Pull and torque test	Y	P	Lab1
26.3	Terminals for external conductors - Torque test	N/A(no such construction)	N/A	N/A
27.5	Provision for earthing – Ground impedance test	Y	P	Lab1
28.1	Screws and connections – Screws torque test	Y	P	Lab1
29.1	Clearances distance	Y	P	Lab1
29.2	Creepage distance	Y	P	Lab1
29.3	Solid insulation	N/A(no such construction)	N/A	N/A
30.1	Resistance to heat and fire – Ball pressure test	Y	P	Lab1
30.2.1 & 30.2.3	Resistance to heat and fire – Glow-wire Test Record	N/A(recognized plastic material used)	N/A	N/A
30.2.4	Resistance to heat and fire – Needle flame test	N/A(recognized plastic material used)	N/A	N/A
31	Resistance to rusting	N/A (plastic outside enclosure used)	N/A	N/A

Annex G	Safety isolating transformers	N/A (no such transformer used)	N/A	N/A
Annex H	Switches	N/A (no such switch used)	N/A	N/A
Annex N	Proof tracking Test	N/A (have the CTI rating)	N/A	N/A
Annex EE	Pressure Test	Y	P	Lab1
Annex FF	Leak simulation tests	N/A (the Overheating Protections used in the motor and the relays are complied with IEC 60079-15.)	N/A	N/A
101.DVI.3*	Nichrome Wire Test	Y	P	Lab1
GG.8.2.1	Vibration Test for Appliance using flammable refrigerants	N/A(M≤m1)	N/A	N/A
GG.8.2.2, 8.2.3	Packaging Drop Test for Appliance using flammable refrigerants	N/A(M≤m1)	N/A	N/A
GG.8.2.4	Operation Test for Appliance using flammable refrigerants	N/A(M≤m1)	N/A	N/A
GG.8.3	Operation Test for Appliance using flammable refrigerants	N/A(M≤m1)	N/A	N/A

Note: * For the test date, refer to project 80048347.

Fan motor YDK94-20L-6B, YDK94-45-4B (A018U-A) and YDK94-70-4B (A018D-A) were tested to CSA Std. C22.2 No. 77-14 /UL 1004-3 1st Edition with acceptable results.(YDK94-45-4B (A018U-A) and YDK94-70-4B (A018D-A) were test in project 70168798.

UL 1004:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
41A	Motors with automatic reset protection	Y	P	Lab1
41B	Endurance:	Y	P	Lab1

C22.2 No. 77:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
6.4.3	Motors with automatic reset protection	Y	P	Lab1
6.5	Dielectric strength	Y	P	Lab1
6.6.2	Endurance	Y	P	Lab1

Power PCB Assembly JHS-A018-MAIN and JHS-A020E-MAIN were tested to CSA Std. C22.2 No. 223-M91/UL 1310 6th Edition with acceptable results.

UL 1310:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
28	Maximum Output Voltage Test	Y	P	Lab1
30	Output Current and Power Test	Y	P	Lab1
34	Dielectric Voltage Withstand Test	Y	P	Lab1
39.7	Abnormal Tests - Component breakdown	Y	P	Lab1

C22.2 No. 223-15:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
6.3.1	Open-circuit secondary voltage	Y	P	Lab1
6.3.4	Maximum output current and power	Y	P	Lab1
6.5	Dielectric strength	Y	P	Lab1
6.8.2	Abnormal- Component breakdown	Y	P	Lab1

Note:

Lab1	CSA Group Testing & Certification Inc.
	No. 10, Ke Yan Road, Guangzhou Science Park, Luo Gang District, Guangzhou, 510663, China
Lab2	Dongguan JHS Electrical Co., Ltd
	Dongping Avenue No. 3, Industrial Park, Changping Area, Dongguan Eastern Industrial District, Dongguan City, Guangdong, CHINA

Construction Review:

Construction review performed with satisfactory results.

Project 80066809

Added one alternative power PCB with model CTTC-A018-MAIN-JHS-PCB(A1).

The following tests about the standard CAN/CSA C22.2 No. 60335-1:16, ANSI/UL 60335-1 6th Ed and CAN/CSA C22.2 No. 60335-2-40:17, ANSI/UL 60335-2-40, 2nd Ed were conducted on in project 80066808, and the results were acceptable.

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
11	Heating	Y	P	Lab1
13	Leakage current and electric strength at operating	Y	P	Lab1
16	Leakage current and electric strength	Y	P	Lab1

Power PCB Assembly CTTC-A018-MAIN-JHS-PCB(A1) was tested to CSA Std. C22.2 No. 223-M91/UL 1310 6th Edition with acceptable results.(these tests were conducted on in project 80066808)
UL 1310:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
28	Maximum Output Voltage Test	Y	P	Lab1
30	Output Current and Power Test	Y	P	Lab1
34	Dielectric Voltage Withstand Test	Y	P	Lab1
39.7	Abnormal Tests - Component breakdown	Y	P	Lab1

C22.2 No. 223-15:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
6.3.1	Open-circuit secondary voltage	Y	P	Lab1
6.3.4	Maximum output current and power	Y	P	Lab1
6.5	Dielectric strength	Y	P	Lab1
6.8.2	Abnormal- Component breakdown	Y	P	Lab1

Note:

Lab1	CSA Group Testing & Certification Inc.
	No. 10, Ke Yan Road, Guangzhou Science Park, Luo Gang District, Guangzhou, 510663, China

Construction Review:

Construction review not applicable.

Added the alternative power PCB.

Project 80068401

Update report 80055017 to add condenser air intake duct construction for all models. Compare to the original construction, only a RAP02 Dual Hose Conversion Kit was added, no other construction to change. So, tests in below table were considered necessary to test. The tests were performed on models JHS-A018A-06KRH-D, JHS-A018A-07KRH-D and JHS-A018A-08KRH-D as representative models. All the tests were conducted according the standard CAN/CSA C22.2 No. 60335-1:16, ANSI/UL 60335-1 6th Ed and CAN/CSA C22.2 No. 60335-2-40:17, ANSI/UL 60335-2-40, 2nd Ed, and the results were acceptable.

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
9DV	Starting of motor-operated appliances	Y	P	Lab1
10	Power input and current	Y	P	Lab1
11	Heating	Y	P	Lab1
13	Leakage current and electric strength at operating	Y	P	Lab1
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	P	Lab1
19.101	Abnormal operation – Restricted or shut off heat transfer medium flow	Y	P	Lab1
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	P	Lab1
19.103	Abnormal operation – High / Low temperature test	Y	P	Lab1
Annex EE	Pressure Test	Y	P	Lab2

Note:

Lab1	CSA Group Testing & Certification Inc.
	No. 10, Ke Yan Road, Guangzhou Science Park, Luo Gang District, Guangzhou, 510663, China
Lab2	Dongguan JHS Electrical Co., Ltd
	Dongping Avenue No. 3, Industrial Park, Changping Area, Dongguan Eastern Industrial District, Dongguan City, Guangdong, CHINA

Construction Review:

Construction review performed with satisfactory results.

Project 80097141

Added new models JHS-A018*-07KR-D3 and JHS-A018*-07KRH-D3.

Added one alternative Evaporator fan motor YDK94-45-4B (A018U-A1)AL for model JHS-A018*-07KR-D, JHS-A018*-07KRH-D, JHS-A018*-08KR-D, JHS-A018*-08KRH-D, JHS-A018*-07KR-D3, JHS-A018*-07KRH-D3

Added one alternative Condenser fan motor YDK94-70-4B (A018D-A)AL for all models.

Added alternative Electronic Controller JHS-A018-MAIN-D and JHS-A018D-MAIN

The tests were performed on model JHS-A018B-07KRH-D3 as one representative model. All the tests were conducted according the standard CAN/CSA C22.2 No. 60335-1:16, ANSI/UL 60335-1 6th Ed and CAN/CSA C22.2 No. 60335-2-40:17, ANSI/UL 60335-2-40, 2nd Ed, and the results were acceptable.

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
9DV	Starting of motor-operated appliances	Y	P	Lab1
10	Power input and current	Y	P	Lab1
11	Heating	Y	P	Lab1
13	Leakage current and electric strength at operating	Y	P	Lab1
16	Leakage current and electric strength	Y	P	Lab1
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	p	Lab1
19.101	Abnormal operation – Restricted or shut off heat transfer medium flow	Y	p	Lab1
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	P	Lab1
19.103	Abnormal operation – High / Low temperature test	Y	P	Lab1

Fan motor YDK94-45-4B (A018U-A1)AL and YDK94-70-4B (A018D-A)AL were tested to CSA Std. C22.2 No. 77-14 /UL 1004-3 1st Edition with acceptable results.

UL 1004:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
41A	Motors with automatic reset protection	Y	P	Lab1
41B	Endurance:	Y	P	Lab1

C22.2 No. 77:

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
6.4.3	Motors with automatic reset protection	Y	P	Lab1
6.5	Dielectric strength	Y	P	Lab1
6.6.2	Endurance	Y	P	Lab1

Note:

	CSA Group Testing & Certification Inc.
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Lab1	No. 10, Ke Yan Road, Guangzhou Science Park, Luo Gang District, Guangzhou, 510663, China
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Construction Review:

Construction review not applicable.

The added new models have the same construction as the original models.

Project 80100693

Added new models JHS-A018*-06KR-D3 and JHS-A018*-06KRH-D3.

Added some alternative components.

The tests were performed on model A018A-06KRH-D3 as one representative model. All the tests were conducted according to the standard CAN/CSA C22.2 No. 60335-1:16, ANSI/UL 60335-1 6th Ed and CAN/CSA C22.2 No. 60335-2-40:17, ANSI/UL 60335-2-40, 2nd Ed, and the results were acceptable.

Clause	Test Description	Required (Y or N/A with rationale)	Test result (P or N/A)	Test lab
9DV	Starting of motor-operated appliances	Y	P	Lab1
10	Power input and current	Y	P	Lab1
11	Heating	Y	P	Lab1
13	Leakage current and electric strength at operating	Y	P	Lab1
16	Leakage current and electric strength	Y	P	Lab1
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	P	Lab1
19.101	Abnormal operation – Restricted or shut off heat transfer medium flow	Y	P	Lab1
19.101DV.2	Abnormal operation – Blocked Outlet test	Y	P	Lab1
19.103	Abnormal operation – High / Low temperature test	Y	P	Lab1

Note:

Lab1	CSA Group Testing & Certification Inc. No. 10, Ke Yan Road, Guangzhou Science Park, Luo Gang District, Guangzhou, 510663, China
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Construction Review:

Construction review not applicable.

The added new models have the same construction as the original models.

Project 80118272

Updated report 80055017 to add F and G series models. The added models are same as the previous models except the different top cover, front shell, display board.

Construction Review:

Construction review not applicable.

The added models are same as the previous models except the different top cover, front shell, display board.

This Edition supersedes all previous editions.

---End of Report---