Descriptive Report and Test Results

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REPORT: 80225833
PROJECT: 80229405

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Contents:

PRODUCTS

CLASS 1211 02 - COMFORT CONDITIONING EQUIPMENT-Air Conditioning Apparatus
CLASS 1211 82 - COMFORT CONDITIONING EQUIPMENT-Air Conditioning Apparatus - Certified to U.S. Standards

Window type Air conditioners, household, cord connected, free air discharge, self-contained employing hermetic refrigerant motor-compressors, refrigerant R32, 1 phase, Class I appliances, with ratings as flowing: KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500), CL-RAC10EWES, CL-RAC10EWES-6A, BWAC10WT 01, CATS10C1, WHAW101CW, AMAP101CW, CE-WAC110ESR32, 57H-IFJ-TWAC10CRD1/L, 57H-IFJ-TWAC10CRD1/LW, KU-WAC110ESR32, HME030341N, BWAC10WT01, BWAC10WTB, E*RC10RE1, E*RC10RSE1, 048-TL-WAC10KS, RACE1011-6COM, 57H-IFJ-TWAC10CRD1/LT, CL-RAC12EWES, CL-RAC12EWES-6A, FAW-E12/32ES, BWAC12WT 01, CATS12C1, WHAW121CW, AMAP121CW, CE-WAC112ESR32, 57H-IFJ-TWAC12CRD1/L, 57H-IFJ-TWAC12CRD1/LW, KU-WAC112ESR32, HME030342N, BWAC12WT01, BWAC12WTB, E*RC12RE1, E*RC12RSE1, 048-TL-WAC12KS, 048-TL-W12KW, RACE1211-6COM, RACE1202E-B, 57H-IFJ-TWAC12CRD1/LT, GWE-12CR/caer, GWE-12CR/caez, 293069, E*RC10RE1T, E*RC10RSE1T, 57H-IFJ-TWAC10CRD1LT, 048-TL-WAC12K32, TWC-12CRD1/L0U-CA, E*RC12RE1T, 57H-IFJ-TWAC12CRD1LT,

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PS-WAC110ESR32, CQAWR12C1DYW, H10W26W, H10W25W, H10W25B, H10W26W-CA, H10W25W-CA, H10W25B-CA, H12W26W, H12W25W, H12W26W-CA, H12W25W-CA, CEW101CS, TWC-10CRD1/L0U(ES), NPRAC10KEWMZ2, CL-RAC10EWES-22, CCF10B10A, DS-10WACW, CEW121CS, CL-RAC12EWES-22, CCF12B10A, DS-12WACW, KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432), RACE1003, 3AW10000DA, EATE10RSD2T, 3AW12000DA, EATE12RSD2T, RACE1024-6COM, EATC10RE1T, RACE1202E-D, RACE1224-6COM, EATC12RE1T, ACE1205MW-B, FP10138UC-WH, H10W24W, H12W24W, KC-35/YXRD(E1/6)(002147), CL-12CRA1, CCF12B10B, RACE1206WF, W12W9E2-3, KC-41/YXRD(E1/6)(000797), CL-14CRA1, CCF14B10B, RACE1406WF, BWAC14WTB, W14W9E2-3, H14W35W, 048-TL-WAC14K32, CATS12D1, CATS14A1, CEW141DS, 57H-IFJ-TWAC14CRD1LT, A54-WAC-003-12K, A54-WAC-003-12K-WIFI, GWE-14CA/caer, GWE-14CA/caez, HAC12, IWA12-LS23, IWA12-LS23-6, HAC14, IWA14-LS23, IWA14-LS23-6, WAG-A12KECO115E, DS-2W1212C, DS-2W1412C, KC-35/YXRD(E1/6)(002767), CL-12CMD1, W12W92-4CA, 048-TL-W12KWD, AMAP121-DO, WHAT121-DO, CZ12761, KC-41/YXRD(E1/6)(000919), W14W92-4, W14W92-4CA, 048-TL-W14KWD, AMAP141-DO, WHAT141-DO, CATE14A1, H14W35W-A, IWA14-LR24*, H12W35W-A, CATE12A1, 292854, IWA12-LR24*, BEV12WiNCC, ACB-2610A, ACB-2610, KC-35/YXRD(E1/6)(004206), W12W92-4, H12W35W, H12W35W-CA, H12W55W, H12W55W-A, H12W55W-CA, W12W92-5, **H12W35W-CA, KC-41/YXRD(E1/6)(001075), H14W55W, H14W55W-A, H14W55W-CA, W14W92-5, W14W92-4, H14W35W, H14W35W-A, W14W92-4CA, H14W35W-CA, DS-2W1212C, DS-2W1412C, GWE-14CA/caez, GWE-12CR/caez, A54-WAC-003-12K, A54-WAC-003-12K-WIFI, UWAA12KEC109E, A8512W-12K, 048-TL-W12KWD, 048-TL-W14KWD, PWC-12CRD1(DOE), PWC-14CRD1(DOE), CE-WAC112USW, HAC12, HAC14, IWA12-LR23, IWA14-LR23, TWAC-14CRA1/K8U(DOE), A8514W-14K.**

Note: “*” may be any letter

APPLICABLE REQUIREMENTS

CSA-C22.2 No. 60335-1:2016	-	Safety of Household and Similar Appliances - Part 1: General Requirements
CSA-C22.2 No. 60335-2-40:19	-	Safety of Household and Similar Electrical Appliances - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers
UL 60335-1 6th Edition	-	Safety of Household and Similar Appliances - Part 1: General Requirements
UL 60335-2-40 3nd 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 following markings appear on CSA Accepted or UL recognized adhesive type, nameplate suitable for metal, readily visible with the Room Air-conditioners installed:

(a) Submittor's name and/or CSA Master Contract number "303897";
(b) Model designation or Type;
(c) Electrical rating in volts, hertz, rated power input in watts or rated current (total input current) in amperes;
(d) Name, trade mark or identification mark of the manufacturer or responsible vendor;
(e) Refrigerant number in accordance with ISO 817 and mass of refrigerant charge;
(f) High/low side maximum allowable pressures;
(g) IP number, other than IPX0;
(h) CSA Mark with "C" and "US" indicator;
(i) Manufacturing date or date code;
(j) Manufacturing location if the product is produced in more than one location.

NOTE: For the REFRIGERATING SYSTEM, if the MAXIMUM ALLOWABLE PRESSURE of the LOW-PRESSURE SIDE and the HIGH-PRESSURE SIDE is the same, a single indication is permitted.

Caution/Warning Wordings:

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

1, A damaged cord should be replaced with one supplied by the unit manufacture and not repaired.

2, WARNING: RISK OF ELECTRIC SHOCK. CAN CAUSE INJURY OR DEATH. DISCONNECT All REMOTE ELECTRIC POWER SUPPLIES BEFORE SERVICING.

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

1. For appliances using FLAMMABLE REFRIGERANTS, the flame symbol ISO 7010-W021 (2011-05) and the operator's manual symbol described in 7.6 shall be visible when viewing the appliance after it has been installed. The marking may be behind a detachable part that has to be detached before maintenance or repair work. The perpendicular height of the triangle used for the symbol shall be at least 30 mm. The refrigerant class A2L shall be in text not less than 1/3 the height of the symbol.

2. The symbols for "read operator's manual", "operator's manual; operating instructions" and "service indicator; read technical manual" (symbols ISO 7000-0790 (2004-01), and ISO 7000-1659 (2004-01)) including colour and format shall be placed on the appliance in a location visible to the persons required to know the information. The perpendicular height of the symbol shall be at least 10 mm.

3. An additional warning symbol (flame symbol: ISO 7010-W021 (2011-05)) shall be placed on the nameplate of the unit near the declaration of the refrigerant type and charge information. The perpendicular height of the symbol shall be at least 10 mm, and the symbol need not be in colour.

4. Symbol ISO 7010-W021, including the refrigerant class per ISO 817, shall be visible when accessing a SERVICE PORT and where service puncturing or otherwise creating an opening from the refrigerant circuit to the atmosphere might be expected (e.g., process tubes). The symbol shall be in colour. Red (Pantone® Matching System (PMS) #185) marked extend at least 25 mm from process tube.

5. Appliances using flammable refrigerants shall comply with the additional marking and instruction requirements.

Required wording	All text font size, min (mm)	Location
WARNING – Risk Of Fire. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing ("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.")	6.4	Outside of unit

WARNING – Risk Of Fire. Dispose Of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used ("ATTENTION – Risque d'incendie ou d'explosion. Mettre au rebut conformément aux règlements fédéraux ou locaux. Contient un frigorigène inflammable.")	6.4	Outside of unit
WARNING – Risk Of Fire. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must Be Followed ("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.")	6.4	Inside of unit near compressor
WARNING – Risk of Fire due to Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with National Regulations (ATTENTION – Risque d'incendie ou d'explosion en raison du frigorigène inflammable. Respecter le mode d'emploi pour assurer la conformité aux règlements nationaux.)	6.4	On appliance Packaging if factory charged

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

Instructions:

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.

For appliances intended for use at altitudes exceeding 2 000 m, the maximum altitude of use shall be stated.

If it is necessary to take precautions during installation of the appliance, appropriate details shall be given.

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.

The minimum CLEARANCE from the appliance to combustible surfaces.

A wiring diagram with a clear indication of the connections and wiring to external control devices and SUPPLY CORD.

Indication of which parts of the appliance are suitable for outdoor use, if applicable.

The instructions for BUILT-IN APPLIANCES shall include information with regard to the following:

– dimensions of the space to be provided for the appliance;

– dimensions and position of the means for supporting and fixing the appliance within this space;

– minimum distances between the various parts of the appliance and the surrounding structure;

– minimum dimensions of ventilating openings and their correct arrangement;

– connection of the appliance to the supply mains and the interconnection of any separate components;

– necessity to allow disconnection of the appliance from the supply after installation, unless the appliance incorporates a switch complying with 24.3. The disconnection may be achieved by having the plug accessible or by incorporating a switch in the fixed wiring in accordance with the wiring rules.

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.

The instructions for FIXED APPLIANCES shall state how the appliance is to be fixed to its support. The method of fixing stated is not to depend on the use of adhesives since they are not considered to be a reliable fixing means.

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.

NOTE: Instructions may be marked on the appliance as long as they are visible in normal use.

Products certified for Canada shall have all Caution, Warning markings and Instructions 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.

Jurisdictions in Canada may require these markings to be also in French. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the

Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the products.

ALTERATIONS

1. Markings as noted above.

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.

FACTORY TESTS

1. Dielectric Withstand Test: The equipment, upon completion of manufacture and before shipment, shall withstand, for not less than one second, without breakdown, the application of the following ac voltages, between live parts and exposed metal parts:

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.			

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.

3. 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.

4. Pressure tests for leakage and strength:

ADV.101.1 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.

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

ADV.101.2 If the test described in Clause ADV.101.1 is conducted prior to reforming or bending of the coil assembly, the test shall be repeated on at least one finished coil assembly from each production run, but no less than four times per year. Records of such tests shall be made available for review.

ADV.101.3 The leakage test on the complete unit may be conducted at the maximum allowable pressure as determined in Annex EE.4 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.

ADV.101.4 Sample refrigerant-containing parts of the shell type, including compressor shells, that have an inside diameter greater than 76 mm shall be subjected to the strength test in Clause ADV.101.5. Pressure vessels bearing the ASME Code U or UM symbol need not be tested.

ADV.101.5 The test specified in Clause ADV.101.4 shall be conducted on at least one sample of each size and type. The sample shall not fail when subjected to pressures specified in the requirements for the strength test. These tests shall be conducted at least once every three months on current production and at least once a year on limited production. Records of such tests shall be made available for review.

ADV.101.6 Each centrifugal liquid chiller with a design pressure of 103 kPa or less shall be tested at a pressure not less than 1-1/3 times the maximum allowable pressure and shall be tested and proved tight at not less than the maximum allowable pressure of the low side of the system.

ADV.101.7 Each refrigerant-containing component of a centrifugal liquid chiller with a maximum allowable pressure greater than 103 kPa shall be tested at a pressure not less than the maximum allowable pressure of the component, and the chiller shall be tested and proved tight at not less than the maximum allowable pressure of the low side of the system.

ADV.101.8 For appliances or components applied in compliance with Clause EE.5 of Annex EE continued compliance shall be demonstrated periodically by testing of randomly sampled appliance from production at least one time per year.

ADV.101.9 For multi-split appliances using flammable refrigerants in compliance with Annex 101.DVG, compliance with Clause EE.5 of Annex EE indoor coil assemblies shall be demonstrated periodically by testing of indoor coil assemblies randomly sampled from production at least 3 times per year.

ADV.101.10 For the periodic tests of ADV.101.2, ADV.101.5, ADV.101.8 and ADV.101.9, in the event of failure, corrective action shall be taken and randomly selected samples from production shall be tested at least once per month until three consecutive samples pass the test.

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.

General:

The products covered in this report are household window type air conditioners, cord-connected, self-contained, 60Hz, 1 phase, refrigerant R32.

New model	Basic model	Model Difference
CL-RAC10EWES, CL-RAC10EWES-6A, FAW-E10/32ES, BWAC10WT 01, CATS10C1, WHAW101CW, AMAP101CW, CE-WAC110ESR32, 57H-IFJ-TWAC10CRD1/L, 57H-IFJ-TWAC10CRD1/LW, KU-WAC110ESR32, HME030341N, BWAC10WT01, BWAC10WTB, E*RC10RE1, E*RC10RSE1, 048-TL-WAC10KS, 048-TL-W10KW, RACE1011-6COM, 57H-IFJ-TWAC10CRD1/LT, GWE-10CR/caer, GWE-10CR/caez, 048-TL-WAC10K32, 293069, E*RC10RE1T, E*RC10RSE1T, 57H-IFJ-	KC-29/YXRD(E1/6)(00408)	Model designation

TWAC10CRD1LT, PS-WAC110ESR32, H10W26W, H10W25W, H10W25B, H10W26W-CA, H10W25W-CA, H10W25B-CA, CEW101CS, TWC-10CRD1/L0U(ES), NPRAC10KEWMZ2, CL-RAC10EWES-22, CCF10B10A, DS-10WACW, RACE1024-6COM, EATC10RE1T		
CL-RAC12EWES, CL-RAC12EWES-6A, BWAC12WT 01, CATS12C1, WHAW121CW, AMAP121CW, CE-WAC112ESR32, 57H-IFJ-TWAC12CRD1/L, 57H-IFJ-TWAC12CRD1/LW, KU-WAC112ESR32, HME030342N, BWAC12WT01, E*RC12RE1, E*RC12RSE1, 048-TL-WAC12KS, RACE1211-6COM, RACE1202E-B, 57H-IFJ-TWAC12CRD1/LT, E*RC12RE1T, 57H-IFJ-TWAC12CRD1LT, CQAWR12C1DYW, H12W26W, H12W25W, H12W26W-CA, H12W25W-CA, CEW121CS, CL-RAC12EWES-22, CCF12B10A, DS-12WACW, RACE1202E-D, RACE1224-6COM, EATC12RE1T	KC-35/YXRD(E1/6)(40500)	Model designation
RACE1003, 3AW10000DA, EATE10RSD2T, FP10138UC-WH, H10W24W	KC-29/YXRD(E1/6)(001431)	Model designation
3AW12000DA, EATE12RSD2T, H12W24W	KC-35/YXRD(E1/6)(001432)	Model designation
CL-12CRA1, TWC-12CRD1/L0U-CA, FAW-E12/32ES, CCF12B10B, RACE1206WF, BWAC12WTB, W12W9E2-3, 048-TL-WAC12K32, 048-TL-W12KW, CATS12D1, A54-WAC-003-12K, A54-WAC-003-12K-WIFI, IWA12-LS23, IWA12-LS23-6, WAG-A12KECO115E	KC-35/YXRD(E1/6)(002147)	Model designation
CCF14B10B, RACE1406WF, BWAC14WTB, W14W9E2-3, 048-TL-WAC14K32, CATS14A1, CEW141DS, 57H-IFJ-TWAC14CRD1LT, IWA14-LS23, IWA14-LS23-6**,** DS-2W1412C	KC-41/YXRD(E1/6)(000797)	Model designation
CL-12CMD1, W12W92-4CA, 048-TL-W12KWD, AMAP121-DO, WHAT121-DO, CZ12761, ACE1205MW-B, HAC12, GWE-12CR/caer, GWE-12CR/caez, DS-2W1212C, H12W35W-A, CATE12A1, 292854, IWA12-LR24*, BEV12WiNCC, ACB-2610A, ACB-2610	KC-35/YXRD(E1/6)(002767)	Model designation
W14W92-4, W14W92-4CA, 048-TL-W14KWD, AMAP141-DO, WHAT141-DO, CATE14A1, H14W35W-A, IWA14-LR24*, H14W35W, CL-14CRA1, HAC14, GWE-14CA/caer, GWE-14CA/caez	KC-41/YXRD(E1/6)(000919)	Model designation
KC-35/YXRD(E1/6)(004206)	KC-35/YXRD(E1/6)(002767)	Different compressor

W12W92-4, H12W35W, H12W35W-CA, H12W55W, H12W55W-A, H12W55W-CA, W12W92-5.	KC-35/YXRD(E1/6)(004206)	Model designation
KC-41/YXRD(E1/6)(001075)	**KC-41/YXRD(E1/6)(000919)**	**Different compressor**
W12W92-4,H12W35W,H12W35W-A,W12W92-4CA,H12W35W-CA,TWAC-12CRA1/L0U(DOE)	**KC-35/YXRD(E1/6)(004206)**	**Model designation**
H14W55W,H14W55W-A,H14W55W-CA,W14W92-5,W14W92-4,H14W35W,H14W35W-A,W14W92-4CA,H14W35W-CA,TWAC-14CRA1/K8U(DOE)	**KC-41/YXRD(E1/6)(001075)**	**Model designation**
DS-2W1412C	**KC-41/YXRD(E1/6)(001075)**	**Model designation, brand name Hema**
DS-2W1212C	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name Hema**
A8514W-14K	**KC-41/YXRD(E1/6)(001075)**	**Model designation, brand name ZAFRO, KISSAIR, COWSAR, Electactic, Antarctic Sta**
TWAC-14CRA1/K8U(DOE)	**TWAC-14CRA1/K8U(DOE)**	**Model designation, brand name ZAFRO, KISSAIR, COWSAR, Electactic, Antarctic Sta**
UWAA12KEC109E	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name UNIWATT**
GWE-12CR/caez	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name Ktaxon, ROVSUN, ZOKOP**
GWE-14CA/caez	**KC-41/YXRD(E1/6)(001075)**	**Model designation, brand name Ktaxon, ROVSUN, ZOKOP**
048-TL-W14KWD	**KC-41/YXRD(E1/6)(001075)**	**Model designation, brand name DELLA**
PWC-14CRD1(DOE)	**KC-41/YXRD(E1/6)(001075)**	**Model designation, brand name PHILODECO**
HAC14	**KC-41/YXRD(E1/6)(001075)**	**Model designation, brand name Continental Electric**
IWA14-LR23	**KC-41/YXRD(E1/6)(001075)**	**Model designation, brand name IMPECCA**

A54-WAC-003-12K	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name MOLLIE**
A54-WAC-003-12K-WIFI	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name MOLLIE**
A8512W-12K	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name ZAFRO, KISSAIR, COWSAR, Electactic, Antarctic Sta**
TWAC-12CRA1/L0U(DOE)	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name ZAFRO, KISSAIR, COWSAR, Electactic, Antarctic Sta**
048-TL-W12KWD	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name DELLA**
PWC-12CRD1(DOE)	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name PHILODECO**
CE-WAC112USW	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name**
HAC12	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name Continental Electric**
IWA12-LR23	**KC-35/YXRD(E1/6)(004206)**	**Model designation, brand name IMPECCA**

Note:
Model KC-29/YXRD(E1/6)(00408) is similar to model TWAC-10CRA1/L0U(ES) (Listed in SA13446, Vol. 4, Sec. 3, report date 2016-11-21) except for refrigeration system (including refrigerant, compressor, condenser, evaporator and capillary), relays, Decorative Front and rating.
Model KC-35/YXRD(E1/6)(40500) is similar to model KC-29/YXRD(E1/6)(00408) except for refrigeration system (including refrigerant, compressor, evaporator and capillary) and rating.
Model KC-29/YXRD(E1/6)(001431) is similar to model KC-29/YXRD(E1/6)(00408) except for refrigeration system (compressor, refrigerant amount, condenser, evaporator, capillary) and rating.
Model KC-35/YXRD(E1/6)(001432) is similar to model KC-35/YXRD(E1/6)(40500) except for refrigeration system (compressor, refrigerant amount, condenser, evaporator, capillary) and rating.
Model KC-35/YXRD(E1/6)(002147) is similar to model KC-35/YXRD(E1/6)(001432) except for refrigeration system, rating, control PWB and Class 2 Power Unit.
Model KC-41/YXRD(E1/6)(000797) is similar to KC-35/YXRD(E1/6)(002147) except for refrigeration system (includes compressor, condenser, evaporator, refrigerant amount and capillary tube) and rating.
Model KC-35/YXRD(E1/6)(002767) is similar to model KC-35/YXRD(E1/6)(40500) except for refrigeration system and rating.

Model KC-41/YXRD(E1/6)(000919) is similar to model KC-35/YXRD(E1/6)(002767) except for refrigeration system and rating.

A complete description of above models is described below:

The description is supplemented with Att1 Photos and Att2 Illustrations.

An operating instruction manual for these models is provided with each unit. (Attachment 3)

Index of Photos:

Photos.	Description
1	Overall view
2	Front View
3	Left Side View
4	Right Side View
5	Rear View
6	Top View
7	Over all view without Unit Cabinet
8	Side view without Unit Cabinet
9	Top view without Control Enclosure Cover (Employed with Class 2 Transformer)
9A	Top view without Control Enclosure Cover (Employed with Class 2 Power Supply)
10	Class 2 Power Unit A010467

ILLUSTRATION INDEX:

Illustration No.	Description
1	Instruction Manual
2, 2A	Wiring Diagram for electric control unit
3	Unit Base Pan
4	Unit Cabinet
5, 5A~5E	Unit Front
6	Control Enclosure
7	Control PWB Support
8, 8A~8E	Condenser
9, 9A~9G	Evaporator
10	Circuit Schematic for control PWB
11	Printed Wiring Board Layout for control PWB
12	Strain Relief Device
13	Mounting Hardware
14	Explosion View
15	Explosion proof certificate for relay model MPD, MPY (For reference only)
15A	Update explosion proof Certificate for relay (SFK, MPY, SJ, MPD) (For reference only)
16	PWB Component and Trace Layout of A010467
17	Schematic diagram of A010467
18	L2 of A010467
19	Transformer EE19-1010uH on A010467

REPORT DESCRIPTION INDEX:

Section	Description
10	Markings
20	Enclosure
30	Nonmetallic Components
40	Refrigeration System
50	Motor Compressor Assembly
60	Fan Motor Assembly
70	Electrical Components
80	Internal Wiring
90	Supply Connections
100	Additional Components

GENERAL REQUIREMENTS:

The models covered in this Report, employs a single speed hermetic refrigerant motor-compressor with a factory sealed and fully charged refrigerant system. Power supply cord are provided for the interconnection of units to the electrical supply source.

Components are CSA Certified or UL Listed or UR Recognized, or accepted by testing 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.			
		Basic Insulation	Supplementary Insulation	Reinforce Insulation	Functional Insulation
115V	Clearance	1.2, 6.4**	1.2	1.5	1.2
115V	Creepage	1.5 or 0.75*, 6.4**	1.5 or 0.75*	3.0 or 1.5*	1.4 or 0.71*

Note 1: The above do not apply to clearances and creepage distances on solid state controls the requirements of which are specified in the applicable standards for the controllers.
Note 2: * 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. 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.

ELV wiring of the controller boards, which are UR Recognized for 300V 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:

10-10 Nameplate Marking Ill. 1

The nameplate is permanently located on the outside surface of each unit 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, approved for indoor use
Location: Enclosure
Secured by: Adhesive

Model Designation	KC-29/YXRD(E1/6)(00408), CL-RAC10EWES, CL-RAC10EWES-6A, FAW-E10/32ES, BWAC10WT 01, CATS10C1, WHAW101CW, AMAP101CW, CE-WAC110ESR32, 57H-IFJ-TWAC10CRD1/L, 57H-IFJ-TWAC10CRD1/LW, KU-WAC110ESR32, HME030341N, BWAC10WT01, BWAC10WTB, E*RC10RE1, E*RC10RSE1, 048-TL-WAC10KS, 048-TL-W10KW, RACE1011-6COM, 57H-IFJ-TWAC10CRD1/LT, GWE-10CR/caer, GWE-10CR/caez, 048-TL-WAC10K32, 293069, E*RC10RE1T, E*RC10RSE1T, 57H-IFJ-TWAC10CRD1LT, PS-WAC110ESR32, H10W26W, H10W25W, H10W25B, H10W26W-CA, H10W25W-CA, H10W25B-CA, CEW101CS, TWC-10CRD1/L0U(ES), NPRAC10KEWMZ2, CL-RAC10EWES-22, CCF10B10A, DS-10WACW, RACE1024-6COM, EATC10RE1T	KC-35/YXRD(E1/6)(40500), CL-RAC12EWES, CL-RAC12EWES-6A, BWAC12WT 01, CATS12C1, WHAW121CW, AMAP121CW, CE-WAC112ESR32, 57H-IFJ-TWAC12CRD1/L, 57H-IFJ-TWAC12CRD1/LW, KU-WAC112ESR32, HME030342N, BWAC12WT01, E*RC12RE1, E*RC12RSE1, 048-TL-WAC12KS, RACE1211-6COM, RACE1202E-B, 57H-IFJ-TWAC12CRD1/LT, E*RC12RE1T, 57H-IFJ-TWAC12CRD1LT, CQAWR12C1DYW, H12W26W, H12W25W, H12W26W-CA, H12W25W-CA, CEW121CS, CL-RAC12EWES-22, CCF12B10A, DS-12WACW, RACE1202E-D, RACE1224-6COM, EATC12RE1T
Maximum allowable Pressure:		
Low	2.5 Mpa (360 P.S.I)	2.5 Mpa (360 P.S.I)
High	6.3 MPa (915 P.S.I)	6.3 MPa (915 P.S.I)
Refrigerant-factory charged:		
Type	R32	R32

Amount	0.35 Kg (12.35 OZ.)		0.52 Kg (18.34 OZ.)	
Frequency	60 Hz		60 Hz	
Phase	1 ph		1 ph	
Indoor/ Outdoor	Indoor Part	Outdoor Part	Indoor Part	Outdoor Part
Voltage	115	-	115	-
Current (A):				
Rated Current(A):	8.8		10.2	
IP	-	IPX4	-	IPX4

Model Designation	KC-29/YXRD(E1/6)(001431), RACE1003, 3AW10000DA, EATE10RSD2T, FP10138UC-WH, H10W24W		KC-35/YXRD(E1/6)(001432), 3AW12000DA, EATE12RSD2T, H12W24W	
Maximum allowable Pressure:				
Low	2.5 Mpa (360 P.S.I)		2.5 Mpa (360 P.S.I)	
High	6.3 MPa (915 P.S.I)		6.3 MPa (915 P.S.I)	
Refrigerant-factory charged:				
Type	R32		R32	
Amount	0.31 Kg (10.94 OZ.)		0.35 Kg (12.35 OZ.)	
Frequency	60 Hz		60 Hz	
Phase	1 ph		1 ph	
Indoor/ Outdoor	Indoor Part	Outdoor Part	Indoor Part	Outdoor Part
Voltage	115	-	115	-
Current (A):				
Rated Current(A):	8.8		10.8	
IP	-	IPX4	-	IPX4

Model Designation	KC-35/YXRD(E1/6)(002147), CL-12CRA1, TWC-12CRD1/L0U-CA, FAW-E12/32ES, CCF12B10B, RACE1206WF, BWAC12WTB, W12W9E2-3, 048-TL-WAC12K32, 048-TL-W12KW, CATS12D1, A54-WAC-003-12K, A54-WAC-003-12K-WIFI, IWA12-LS23, IWA12-LS23-6, WAG-A12KECO115E	KC-41/YXRD(E1/6)(000797), CCF14B10B, RACE1406WF, BWAC14WTB, W14W9E2-3, 048-TL-WAC14K32, CATS14A1, CEW141DS, 57H-IFJ-TWAC14CRD1LT, IWA14-LS23, IWA14-LS23-6**,** DS-2W1412C
Maximum allowable Pressure:		
Low	2.5 Mpa (360 P.S.I)	2.5 Mpa (360 P.S.I)
High	6.3 MPa (915 P.S.I)	6.3 MPa (915 P.S.I)
Refrigerant-factory charged:		
Type	R32	R32
Amount	0.38 Kg (13.4 OZ.)	0.53 Kg (18.7 OZ.)
Frequency	60 Hz	60 Hz
Phase	1 ph	1 ph

Indoor/ Outdoor	Indoor Part	Outdoor Part	Indoor Part	Outdoor Part
Voltage	115	-	115	-
Current (A):				
Rated Current(A):	11.0		12.0	
IP	-	IPX4	-	IPX4

Model Designation	KC-35/YXRD(E1/6)(002767), CL-12CMD1, W12W92-4, W12W92-4CA, 048-TL-W12KWD, AMAP121-DO, WHAT121-DO, CZ12761, ACE1205MW-B, H12W35W, HAC12, GWE-12CR/caer, GWE-12CR/caez, DS-2W1212C, H12W35W-A, CATE12A1, 292854, IWA12-LR24*, BEV12WiNCC, ACB-2610A, ACB-2610	KC-41/YXRD(E1/6)(000919), W14W92-4, W14W92-4CA, 048-TL-W14KWD, AMAP141-DO, WHAT141-DO, CATE14A1, H14W35W-A, IWA14-LR24*, H14W35W, CL-14CRA1, HAC14, GWE-14CA/caer, GWE-14CA/caez
Maximum allowable Pressure:		
Low	2.5 Mpa (360 P.S.I)	2.5 Mpa (360 P.S.I)
High	6.3 MPa (915 P.S.I)	6.3 MPa (915 P.S.I)
Refrigerant-factory charged:		
Type	R32	R32
Amount	0.325 Kg (11.46 OZ.)	0.45 Kg (15.87 OZ.)
Frequency	60 Hz	60 Hz
Phase	1 ph	1 ph

Indoor/ Outdoor	Indoor Part	Outdoor Part	Indoor Part	Outdoor Part
Voltage	115	-	115	-
Current (A):				
Rated Current(A):	11.0		12.0	
IP	-	IPX4	-	IPX4

Model Designation	KC-35/YXRD(E1/6)(004206)，W12W92-4, H12W35W, H12W35W-CA, H12W55W, H12W55W-A, H12W55W-CA, W12W92-5,W12W92-4,H12W35W,H12W35W-A,W12W92-4CA,H12W35W-CA,DS-2W1212C ,A54-WAC-003-12K ,A54-WAC-003-12K-WIFI ,GWE-12CR/caez ,UWAA12KEC109E, A8512W-12K,048-TL-W12KWD, PWC-12CRD1(DOE), CE-	KC-41/YXRD(E1/6)(001075), H14W55W,H14W55W-A,H14W55W-CA,W14W92-5,W14W92-4,H14W35W, H14W35W-A,W14W92-4CA,H14W35W-CA,DS-2W1412C ,GWE-14CA/caez,048-TL-W14KWD，PWC-14CRD1(DOE), HAC14, IWA14-LR23,**A8514W-14K,TWAC-14CRA1/K8U(DOE) .**

	WAC112USW，HAC12，IWA12-LR23,**TWAC-12CRA1/L0U(DOE)** .			
Maximum allowable Pressure:				
Low	2.5 Mpa (360 P.S.I)		2.5 Mpa (360 P.S.I)	
High	6.3 MPa (915 P.S.I)		6.3 MPa (915 P.S.I)	
Refrigerant-factory charged:				
Type	R32		R32	
Amount	0.320 Kg (11.28 OZ.)		0.4 Kg (14.01 OZ.)	
Frequency	60 Hz		60 Hz	
Phase	1 ph		1 ph	
Indoor/ Outdoor	Indoor Part	Outdoor Part	Indoor Part	Outdoor Part
Voltage	115	-	115	-
Current (A):				
Rated Current(A):	11.0		12.0	
IP	-	IPX4	-	IPX4

10-20 Wiring Diagram

Model:	KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500), KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432), KC-35/YXRD(E1/6)(002767), KC-41/YXRD(E1/6)(000919), KC-35/YXRD(E1/6)(004206), **KC-41/YXRD(E1/6)(001075)**
Location	Control Enclosure Cover
Material	Adhesive backed paper label or equivalent.
Comment	See ILL. 2 for models employed with Class 2 transformer

Model:	KC-35/YXRD(E1/6)(002147), KC-41/YXRD(E1/6)(000797)
Location	Control Enclosure Cover
Material	Adhesive backed paper label or equivalent.
Comment	See ILL. 2A for models employed with switch type Class 2 Power Supply.

20 <u>ENCLOSURES</u>:

20-05 <u>Ultimate Enclosure(:</u>

Model:	KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500), KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432), KC-35/YXRD(E1/6)(002147), KC-41/YXRD(E1/6)(000797), KC-35/YXRD(E1/6)(002767), KC-41/YXRD(E1/6)(000919), KC-35/YXRD(E1/6)(004206), **KC-**

	41/YXRD(E1/6)(001075)
Material:	Painted galvanized steel
Approximate Physical Size: (H x W x D), mm	502×540×372
Thickness, mm:	0.8
Corrosion Protection (Method):	Galvanization

20-10 Unit Base Pan (Bottom):

Model:	All.
Material:	Painted galvanized steel
Thickness, mm:	0.8
Corrosion Protection (Method):	Galvanization
Mounting:	Chassis retention in cabinet by screws
Bonding for Grounding (Method)	By screws to Evaporator and Condenser
Means Provided for Condensate Drainage	By drainage hole on base pan
Remark:	See ILL. 3 for details

20-15 Unit Cabinet:

Model:	All.
Material:	Painted galvanized steel
Thickness, mm:	0.6
Corrosion Protection (Method):	Galvanization
Mounting:	Securement to chassis by screws
Bonding for Grounding (Method)	By screws to unit base pan
Remark:	See ILL. 4 for details

Outdoor Side openings

Openings (Outdoor Side Inlet)

Model	ALL
Type	Louver
Location	Outdoor cabinet rear, on both sides
-	Area (L x W), mm
Left side:	44 openings, width of each opening: 8 mm.
Right side:	44 openings, width of each opening: 8 mm.
Spacing to moving part, mm	N/A, blocked by grill and fan shroud
Remark:	See ILL. 4 for metal grill details, top: 24 openings, width of each opening: 8 mm.

Openings (Outdoor Side Discharge)

Model	ALL
Type	Louver

Location	Cabinet rear, center
-	Area (L x H), mm
-	Four area, each measured 430 x 330
Spacing to moving part, mm	N/A, blocked by condenser

Model	All
Openings (Indoor Side Inlet)	
Type	Rectangular openings with Grille
Location	Bottom of Decorative Front
Openings (Indoor Side Discharge)	
Type	Rectangular openings with Grille
Location	Top of Unit Front
Area (L x H), mm	2 openings, 167.6 x 68.9 and 167.7 x 68.9
Spacing between grills, mm	11.5
Illustration	ILL. 5 (Indoor side Outlet) ILL. 5A (“UE” type inlet) ILL. 5B (“UF” type inlet) ILL. 5C (“UG” type inlet) ILL. 5D (”UH” type inlet) ILL. 5E (”UI” type inlet)

20-20 Unit Front, Display panel: INT, UR Recognized

Model:	All.
Material Manufacturer:	KINGFA SCI & TECH CO LTD (E171666) or PETROCHINA CO LTD JILIN PETROCHEMICAL CO (E243093) or NINGBO LG YONGXING CHEMICAL CO LTD (E203955)
Designation:	ABS-122 or 0215H or HI-121H
Flame Rating:	UL94 HB
Thickness:	2.5 mm
Mounting:	Secured to Bottom and Enclosure by screws

20-25 PCB Box (Control Enclosure):

Model:	All
Material:	Galvanization steel Plate
Thickness, mm:	0.6
Corrosion Protection (Method):	Galvanization
Mounting:	Secured to Chassis by screws
Bonding for Grounding (Method)	By grounding wiring of power supply cord

Contained Components	Control PWB, internal wiring, compressor capacitor and fan motor capacitor
Remark:	Refer to Illustrations 6

20-30 Middle Bulkhead:

Model:	All
Material:	Foam material, see sec.30 for details
Thickness, mm:	9
Corrosion Protection (Method):	N/A
Mounting:	Secured to Base Pan
Bonding for Grounding (Method)	By screws to Base Pan
Remark:	Used to support fan motor and separate indoor/outdoor compartment

20-35 Moving Parts – Guarding

Model	All
Room Side Blower	
Material	Plastic
Spacings, mm	190
Securement (Method)	By tabs
Outdoor Side Fan	
Material	Painted galvanized steel (Unit Cabinet)
Spacings, mm	64
Securement (Method)	By screws

30 NONMETALLIC COMPONENTS:

30-10 Condenser Fan Shroud: INT, UR Recognized

Model:	All
Material Manufacturer:	KINGFA SCI & TECH CO LTD (E171666) or PETROCHINA CO LTD JILIN PETROCHEMICAL CO (E243093) or NINGBO LG YONGXING CHEMICAL CO LTD (E203955)
Designation:	ABS-122 or 0215H or HI-121H
Flame Rating:	HB
Thickness:	2.5 mm
Mounting:	Secured to bottom by screws

30-20 Bulkhead Liner: INT, UR Recognized

Model:	All
Material Manufacturer:	Various
Designation:	Various
Flame Rating:	HBF or HF-2
Thickness:	9.0 mm
Mounting:	Secured to middle bulkhead

30-30 Condenser Fan Impeller: INT, UR Recognized

Model:	All
Material Manufacturer:	GUANGDONG SUNWILL SANTECH ENGINEERING PLASTICS DEVELOPMENT CO LTD（E489905）
Designation:	E112F31
Flame Rating:	UL94 HB
Thickness:	2.0 mm
Mounting:	Secured to motor shaft by nut

30-40 Evaporator Fan Impeller: INT, UR Recognized

Model:	All.
Material Manufacturer:	GUANGDONG SUNWILL SANTECH ENGINEERING PLASTICS DEVELOPMENT CO LTD （E489905）
Designation:	E112F31
Flame Rating:	UL94 HB
Thickness:	2.5 mm
Mounting:	Secured to motor shaft by nut

30-50 Air Filter: INT, UR Recognized

Model:	All.
Material Manufacturer:	Various
Designation:	Various
Material	Plastic with nylon mesh
Mounting:	Snap fit to the front panel

30-55 Control PCB Support: UR Recognized

Model:	KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500), KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432), KC-35/YXRD(E1/6)(002767), KC-41/YXRD(E1/6)(000919), KC-35/YXRD(E1/6)(004206), **KC-41/YXRD(E1/6)(001075)**

Material Manufacturer:	KINGFA SCI & TECH CO LTD (E171666)
Designation:	FRABS-518, FRABS-518C
Flame Rating:	5VA
Thickness:	2.5
Mounting:	Snap fit to the mental PCB Box
Remark:	See ILL. 7 for construction details.

30-60 Connection-related nonmetallic materials

The electrical connectors shown below are used in circuits where the total circuit load is greater than 60W during normal operation, connector materials are rated V-0 minimum or have a GWIT of at least 775°C, and don't have materials within the flame cylinder.

Ref. Model	Connector Description	Location	Materials Surrounding the Connection
All electric control units	Running capacitor wiring connector	Within control enclosure	Materials within 3 mm: •Wire connector tubing, VW-1 •Wire Insulation, VW-1. Materials within 20 x 50mm cylinder: •Wire Insulation, VW-1
All electric control units	Power supply and compressor wiring connector	Within control enclosure	Materials within 3 mm: •Wire connector tubing, VW-1 •Wire Insulation, VW-1. Materials within 20 x 50mm cylinder: •Wire Insulation, VW-1 •Compressor relay housing, V-0 •Varistor housing, V-0
All electric control units	Fan Motor wiring connector	Within control enclosure	Materials within 3 mm: •Wire connector tubing, VW-1 •Wire Insulation, VW-1. Materials within 20 x 50mm cylinder: •Wire Insulation, VW-1

Any other connector housings used in the models described in this report are used in circuits where the total circuit load is less than 60W.

40 REFRIGERATION SYSTEM:

40-10 Condenser: Test Accepted

Model	KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500)	KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Number Tubes High	19, 19, 18	19, 19
Number Tubes Deep	3	3

Physical Size, Finned Section, mm (H x W x D)	370.5 x 435 x 34.8	370.5 x 435 x 23.2
Tubing Material	Copper	Copper
Tubing OD, mm	5	5
Tubing Wall Thickness, mm	0.2	0.2
Return Bend OD, mm	5	5
Return Bend Thickness, mm	0.41	0.41
Corrosion Protection	Inherent	
Bonding for Grounding (Method)	Evaporator connected to compressor and compressor provided grounding.	
Remark:	See ILL. 8 for details	See ILL. 8A for details

Model	KC-35/YXRD(E1/6)(002147)	KC-41/YXRD(E1/6)(000797)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Number Tubes High	19, 19, 18	19
Number Tubes Deep	3	4
Physical Size, Finned Section, mm (H x W x D)	370.5 x 435 x 34.8	370.5 x 435 x 46.4
Tubing Material	Copper	Copper
Tubing OD, mm	5	5
Tubing Wall Thickness, mm	0.2	0.2
Return Bend OD, mm	5	5
Return Bend Thickness, mm	0.41	0.41
Corrosion Protection	Inherent	
Bonding for Grounding (Method)	Evaporator connected to compressor and compressor provided grounding.	
Remark:	See ILL. 8B for details	See ILL. 8C for details

Model	KC-35/YXRD(E1/6)(002767) KC-35/YXRD(E1/6)(004206)	KC-41/YXRD(E1/6)(000919), **KC-41/YXRD(E1/6)(001075)**
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Number Tubes High	19, 19	19, 19, 18
Number Tubes Deep	2	3
Physical Size, Finned Section, mm (H x W x D)	**370.5 x 435 x 23.2**	370.5 x 435 x 34.8
Tubing Material	Copper	Copper
Tubing OD, mm	5	5
Tubing Wall Thickness, mm	0.2	0.2
Return Bend OD, mm	5	5

Return Bend Thickness, mm	0.41	0.41
Corrosion Protection	Inherent	
Bonding for Grounding (Method)	Evaporator connected to compressor and compressor provided grounding.	
Remark:	See ILL. 8D for details	See ILL. 8E for details

40-20 Evaporator: Test Accepted

Model	KC-29/YXRD(E1/6)(00408)	KC-35/YXRD(E1/6)(40500)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Number Tubes High	12	12
Number Tubes Deep	2	3
Physical Size, Finned Section, mm (H x W x D)	252 x 380 x 50.8	252 x 380 x 50.8
Tubing Material	Copper	Copper
Tubing OD, mm	7	7
Tubing Wall Thickness, mm	0.22	0.22
Return Bend OD, mm	7	7
Return Bend Thickness, mm	0.41	0.41
Corrosion Protection	Inherent	
Bonding for Grounding (Method)	By screws to unit base pan	
Remark:	See ILL. 9 for details	See ILL. 9A for details

Model	KC-29/YXRD(E1/6)(001431)	KC-35/YXRD(E1/6)(001432)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Number Tubes High	12	12, 12, 12, 6
Number Tubes Deep	3	4
Physical Size, Finned Section, mm (H x W x D)	252 x 380 x 38.1	252 x 381.2 x 50.8
Tubing Material	Copper	Copper
Tubing OD, mm	7	7
Tubing Wall Thickness, mm	0.22	0.22
Return Bend OD, mm	7	7
Return Bend Thickness, mm	0.41	0.41
Corrosion Protection	Inherent	
Bonding for Grounding (Method)	By screws to unit base pan	
Remark:	See ILL. 9B for details	See ILL. 9C for details

Model	KC-35/YXRD(E1/6)(002147)	KC-41/YXRD(E1/6)(000797), KC-41/YXRD(E1/6)(000919), **KC-41/YXRD(E1/6)(001075)**
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Number Tubes High	12	12
Number Tubes Deep	3	4
Physical Size, Finned Section, mm (H x W x D)	252 x 380 x 38.1	252 x 380 x 50.8
Tubing Material	Copper	Copper
Tubing OD, mm	7	7
Tubing Wall Thickness, mm	0.22	0.22
Return Bend OD, mm	7	7
Return Bend Thickness, mm	0.41	0.41
Corrosion Protection	Inherent	
Bonding for Grounding (Method)	By screws to unit base pan	
Remark:	See ILL. 9D for details	See ILL. 9E for details

Model	KC-35/YXRD(E1/6)(002147)	KC-35/YXRD(E1/6)(002767)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Number Tubes High	12	12
Number Tubes Deep	3	3
Physical Size, Finned Section, mm (H x W x D)	252 x 376 x 38.1	252 x 376.6 x 38.1
Tubing Material	Aluminum	Aluminum
Tubing OD, mm	7	7
Tubing Wall Thickness, mm	0.47	0.47
Return Bend OD, mm	7	7
Return Bend Thickness, mm	1	1
Corrosion Protection	Inherent	
Bonding for Grounding (Method)	By screws to unit base pan	
Remark:	See ILL. 9F for details	See ILL. 9G for details

40-30 Pressure Relief

Model: All
Means Provided: Soldered or Brazed Joint
Location: Refrigeration tubing

40-40 Refrigeration System Joints

Model:	All
Means Provided:	Soldered or Brazed Joint
Location:	Refrigeration tubing

40-50 Accumulator - Integral part of R/C Compressor

40-60 Refrigerant Control

Model	KC-29/YXRD(E1/6)(00408)	KC-35/YXRD(E1/6)(40500)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Capillary Tube - No. Provided	1	2
Material	Copper	Copper
ID, mm	1.2	0.9
Wall Thickness, mm	0.9	0.8
Length, mm	850	800, 600
Capillary Code No. (For reference only)	CT1	CT2

Model	KC-29/YXRD(E1/6)(001431)	KC-35/YXRD(E1/6)(001432)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Capillary Tube - No. Provided	1	2
Material	Copper	Copper
ID, mm	1.2	0.9
Wall Thickness, mm	0.65	0.8
Length, mm	950	650, 550
Capillary Code No. (For reference only)	CT3	CT4

Model	KC-35/YXRD(E1/6)(002147)	KC-41/YXRD(E1/6)(000797)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Capillary Tube - No. Provided	1	2
Material	Copper	Copper
ID, mm	1.2	2.5
Wall Thickness, mm	0.65	1.0
Length, mm	650	800, 600
Capillary Code No. (For reference only)	CT5	CT6

Model	KC-35/YXRD(E1/6)(002767)	KC-41/YXRD(E1/6)(000919)
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	

Capillary Tube - No. Provided	1	2
Material	Copper	Copper
ID, mm	1.2	2.5
Wall Thickness, mm	0.65	1.0
Length, mm	800	800, 600
Capillary Code No. (For reference only)	CT7	CT8

Model	KC-35/YXRD(E1/6)(004206)	**KC-41/YXRD(E1/6)(001075)**
Manufacturer	TCL Airconditioner (zhongshan) Co Ltd	
Capillary Tube - No. Provided	1	**2**
Material	Copper	**Copper**
ID, mm	2.5	**2.5**
Wall Thickness, mm	0.65	**0.75**
Length, mm	800	**800, 600**
Capillary Code No. (For reference only)	CT7	**CT8**

50 MOTOR COMPRESSOR ASSEMBLY:

50-10 Compressor UR Recognized

Model	KC-29/YXRD(E1/6)(00408)
Manufacturer	Guangdong Meizhi Compressor Ltd (SA12105)
Designation	KSN81E13VBZ
Rating	115 Vac, 60 Hz, RLA 6.25A, LRA 33 A
Refrigerant	R32
Insulation class	Class A
Mounting	Secured by 3 screws to the compressor base on basic pan.
Bonding for Grounding (Method)	By copper tubing to Condenser and Evaporator coil
Overload Protector: UR Recognized	
Protector Manufacturer	Changzhou Changrong Electrical Appliance Co., Ltd. (E237353)
Protector Model	HPA-436
Location	Within Compressor Enclosure
Running Capacitor: UR Recognized	
Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	50+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

Model	KC-35/YXRD(E1/6)(40500)

Manufacturer	Guangdong Meizhi Compressor Ltd (SA12105)
Designation	KSM99E11VEZ
Rating	115 Vac, 60 Hz, RLA 6.3A, LRA 49 A
Refrigerant	R32
Insulation class	Class A
Mounting	Secured by 3 screws to the compressor base on basic pan.
Bonding for Grounding (Method)	By copper tubing to Condenser and Evaporator coil
Overload Protector: UR Recognized	
Protector Manufacturer	Ubukata Industries Co., Ltd. (E85460)or Changzhou Changrong Electrical Appliance Co.Ltd (E237353)
Protector Model	UP3QE0391-T39 (UP3-27) or HPA-544
Location	Within Compressor Enclosure
Running Capacitor: UR Recognized	
Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	70+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

Model	KC-29/YXRD(E1/6)(001431)
Manufacturer	Guangdong Meizhi Compressor Ltd (SA12105)
Designation	KSN81E13VBZ
Rating	115 Vac, 60 Hz, RLA 6.25A, LRA 33 A
Refrigerant	R32
Insulation class	Class A
Mounting	Secured by 3 screws to the compressor base on basic pan.
Bonding for Grounding (Method)	By copper tubing to Condenser and Evaporator coil
Overload Protector: UR Recognized	
Protector Manufacturer	Jiangsu Changrong Electrical Appliance Co Ltd (E237353)
Protector Model	HPA-436
Location	Within Compressor Enclosure
Running Capacitor: UR Recognized	
Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	50+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

Model	KC-35/YXRD(E1/6)(001432)
Manufacturer	RECHI PRECISION CO LTD (SA10219)
Designation	44X271L
Rating	115 Vac, 60 Hz, RLA 9.5A, LRA 50.4 A
Refrigerant	R32

Insulation class	Class A
Mounting	Secured by 3 screws to the compressor base on basic pan.
Bonding for Grounding (Method)	By copper tubing to Condenser and Evaporator coil
Overload Protector: UR Recognized	
Protector Manufacturer	Jiangsu Changrong Electrical Appliance Co Ltd (E237353)
Protector Model	HPD-450
Location	Within Compressor Enclosure
Running Capacitor: UR Recognized	
Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	55+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

Model	KC-35/YXRD(E1/6)(002147), KC-35/YXRD(E1/6)(002767)
Manufacturer	Guangdong Meizhi Compressor Ltd (SA12105)
Designation	KSM103E05VDZE3
Rating	115 Vac, 60 Hz, RLA 8.2A, LRA 50 A
Refrigerant	R32
Insulation class	Class A
Mounting	Secured by 3 screws to the compressor base on basic pan.
Bonding for Grounding (Method)	By copper tubing to Condenser and Evaporator coil
Overload Protector: UR Recognized	
Protector Manufacturer	Jiangsu Changrong Electrical Appliance Co Ltd (E237353)
Protector Model	HPA-544
Location	Within Compressor Enclosure
Running Capacitor: UR Recognized	
Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	75+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

Model	KC-41/YXRD(E1/6)(000797), KC-41/YXRD(E1/6)(000919)
Manufacturer	Guangdong Meizhi Compressor Ltd (SA12105)
Designation	KSM120E2VEZL
Rating	115 Vac, 60 Hz, RLA 9.1A, LRA 51 A
Refrigerant	R32
Insulation class	Class A
Mounting	Secured by 3 screws to the compressor base on basic pan.
Bonding for Grounding (Method)	By copper tubing to Condenser and Evaporator coil
Overload Protector: UR Recognized	

Protector Manufacturer	Jiangsu Changrong Electrical Appliance Co Ltd (E237353)
Protector Model	HPA-449
Location	Within Compressor Enclosure
Running Capacitor: UR Recognized	
Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	70+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

Model	KC-35/YXRD(E1/6)(004206)
Manufacturer	Guangdong Meizhi Compressor Ltd (SA12105)
Designation	KSM101E01VEZ3
Rating	115 Vac, 60 Hz, RLA 8.3A, LRA 47 A
Refrigerant	R32
Insulation class	Class B
Mounting	Secured by 3 screws to the compressor base on basic pan.
Bonding for Grounding (Method)	By copper tubing to Condenser and Evaporator coil
Overload Protector: UR Recognized	
Protector Manufacturer	Jiangsu Changrong Electrical Appliance Co Ltd (E237353)
Protector Model	HPA-544
Location	Within Compressor Enclosure
Running Capacitor: UR Recognized	
Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	50+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

Model	**KC-41/YXRD(E1/6)(001075)**
Manufacturer	**XIAN QINGAN REFRIGERATION EQUIPMENT CO LTD (SA32170)**
Designation	**YZG-E122FY8D2T6**
Rating	**115 Vac, 60 Hz, RLA 9.58A, LRA 57 A**
Refrigerant	**R32**
Insulation class	**Class A**
Mounting	**Secured by 3 screws to the compressor base on basic pan.**
Bonding for Grounding (Method)	**By copper tubing to Condenser and Evaporator coil**
Overload Protector: UR Recognized	
Protector Manufacturer	**Jiangsu Changrong Electrical Appliance Co Ltd (E237353)**
Protector Model	**HPD-560L**
Location	**Within Compressor Enclosure**
Running Capacitor: UR Recognized	

Type	Oil Filled
Manufacturer	Various
Designation	Various
Rating, uF, V min, Temp.	70+15, 250, T70 min.
Location	Within capacitor box integral welded with the control box

60 FAN MOTOR ASSEMBLY:

60-10 Fan Motor: UR Recognized

Model	KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500), KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432), KC-35/YXRD(E1/6)(002147), KC-41/YXRD(E1/6)(000797), KC-35/YXRD(E1/6)(002767), KC-41/YXRD(E1/6)(000919), KC-35/YXRD(E1/6)(004206), **KC-41/YXRD(E1/6)(001075)**
Use	Condenser and Evaporator Coaxial Fan Motor
Motor Manufacturer	ZHONGSHAN BROAD-OCEAN MOTOR CO LTD (E256965)
Model No.	Y6L464C532L
Electrical Rating	115V, 1.25A, 90W, 60Hz
Insulation class	B
Mounting	Secured by screws to the Middle Bulkhead
Bonding for Grounding (Method)	Secured to Condenser Fan Shroud by screws
Overheating Protection	Thermally Protected
Protector: UR Recognized	
Protector Manufacturer	JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD (E214731)
Protector Model	BR-A2D-

60-20 Fan Motor Capacitor UR Recognized, See 50-10

70 ELECTRICAL COMPONENTS:

70-10 Control PCB cooperate with Class 2 Transformer

Model	KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500), KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432), KC-35/YXRD(E1/6)(002767**),** KC-41/YXRD(E1/6)(000919), KC-35/YXRD(E1/6)(004206), **KC-41/YXRD(E1/6)(001075)**
Manufacturer	Various

Circuit Schematic	High voltage circuit shall not differ from ILL. 10
Printed Wiring Board Layout	High voltage circuit PWB layout shall not differ from ILL. 11
Populated Components:	
Printed Wiring Board	INT, UR Recognized, various, Rated V-0, 105°C, suitable for direct support Current-Carrying Parts.
Fuse (F1)	INT, UR Recognized, various, rated 3.15 A, 125 Vac. Secured on PWB by soldering.
Varistor (ZR1)	INT, UR Recognized, various, rated 270 Vac min.. Secured on PWB by soldering.
X – Capacitor (C1)	INT, UR Recognized, various, rated 250Vac. Secured on PWB by soldering.
Compressor Relay (1 provided)	UR Recognized SANYOU CORPORATION LIMITED (E190598), Type SFK-112DMP, rated 1 HP, 120V ac, 100k cycles, T80ºC. Or DONGGUAN CHUROD ELECTRONICS CO LTD (E341422), Type CHFN-S-112DA2, rated 240V, 2HP, 100k cycles, T85°C. Or ZHEJIANG MEISHUO ELECTRIC TECHNOLOGY CO LTD (E358149), Type MPY-S-112-A-P, Rated 2HP, 240Vac, 30K cycles, T105°C.
Fan Motor Relay (3 provided)	UR Recognized SANYOU CORPORATION LIMITED (E190598), Type SJ-SH-112DM2, rated 240Vac, 1/3HP, 30k cycles, T105ºC. Or DONGGUAN CHUROD ELECTRONICS CO LTD (E341422), Type A1-S-112DA, rated 1/6HP, 125V, 100k cycles, T85°C. Or ZHEJIANG MEISHUO ELECTRIC TECHNOLOGY CO LTD (E358149), Type MPD-S-112-A, Rated 277Vac, 1/3HP, 100k cycles, T105°C.
Class 2 Transformer	See item 70-15

70-20 Control PCB with switch type Class 2 Power Supply

Model	KC-35/YXRD(E1/6)(002147), KC-41/YXRD(E1/6)(000797)
Manufacturer	Various
Model Designation	A010467
Class 2 Power Supply	See Item 110 for details
Compressor Relay for KC-35/YXRD(E1/6)(002147) (1 provided)	NINGBO ZETTLER ELECTRONICS CO LTD (E319069), Type SFK-112DMP, rated 1 HP, 120V ac, 100k cycles, T80ºC. Or DONGGUAN CHUROD ELECTRONICS CO LTD (E341422), Type CHFN-S-112DA2, rated 240V, 2HP, 100k cycles, T85 ºC. Or ZHEJIANG MEISHUO ELECTRIC TECHNOLOGY CO LTD (E358149), Type MPY-S-112-A-P, Rated 2HP, 240Vac, 30K cycles, T105°C.
Compressor Relay for KC-41/YXRD(E1/6)(000797) (1 provided)	DONGGUAN SANYOU ELECTRICAL APPLIANCES CO LTD (E190598), Type SFK-112DMP-E, rated LRA 80A, FLA 20A, 250/277 Vac, 200,000 cycles, at 85°C. Or

	ZHEJIANG MEISHUO ELECTRIC TECHNOLOGY CO LTD (E358149), Type MPY-S-112-A-P, Rated 2HP, 250Vac, 30000 cycles, T105°C. Or DONGGUAN CHUROD ELECTRONICS CO LTD (E341422), Type CHFN-S-112DA2, rated 240V, 2HP, 100000 cycles, T85 ºC.
Fan Motor Relay (3 provided)	DONGGUAN SANYOU ELECTRICAL APPLIANCES CO LTD (E190598), Type SJ-SH-112DM2, rated FLA 5 A, LRA 7.5 A, 125/250/277 Vac, 100K cycles, T105˚C. Or ZHEJIANG MEISHUO ELECTRIC TECHNOLOGY CO LTD (E358149), Type MPD-S-112-A, Rated 277Vac, 1/3HP, 100k cycles, T105°C. Or DONGGUAN CHUROD ELECTRONICS CO LTD (E341422), Type A1-S-112DA, rated 1/6HP, 125V, 100k cycles, T85 °C

70-15 Class 2 Transformer UR Recognized

Model	KC-29/YXRD(E1/6)(00408), KC-35/YXRD(E1/6)(40500), KC-29/YXRD(E1/6)(001431), KC-35/YXRD(E1/6)(001432), KC-35/YXRD(E1/6)(002767), KC-41/YXRD(E1/6)(000919), KC-35/YXRD(E1/6)(004206), **KC-41/YXRD(E1/6)(001075)**	
Use	Used to supply Class 2 low voltage control circuit	
Manufacturer	DONGGUAN CITY DAZHONG ELEC CO LTD DONGGUAN CITY WANXING ELEC FTY (E218861)	
Designation	DZ-35-105300A/W	DZ-41-1050600W
Rating	Primary: 110-120 V, 60Hz; Secondary: 10.5V, 300mA.	Primary: 110-120V, 60Hz; Secondary: 10.5V, 600mA
Means of Securing	By screws and tabs inside control enclosure	

70-30 Control and Display PCB: Located in Class 2 ELV circuit

Model	All
Manufacturer	Various
Printed Wiring Board	INT, UR Recognized Rated 130°C, V-0.

80 INTERNAL WIRING: INT, UR Recognized

80-10 Types

Recognized (AVLV2) appliance wiring material(1), Listed cords or Listed insulated wiring as described below. Wiring which is color-coded green or green with one or more yellow stripes is employed on grounding conductors only. All wiring is rated VW-1, 300V min.

Model All

Key No	Wire Type (2)	Wire Style No. (3)	Wire Size AWG	Insulation Wall Thickness mm	Maximum Temperature Rating, °C	Maximum Voltage Rating,V
1	AWM	1015	14	0.76	105	300
2	AWM	1015	18	0.76	105	300
3	AWM	1015	20	0.76	105	300
4	AWM	1015	22	0.76	105	300
5	AWM	1007	22	0.76	105	300

1) - Acceptable for refrigeration use.
2) - Appliance wiring material, cord type or Listed wire type.
3) - Applies only to Recognized appliance wiring material.
4) - Information on the voltage and temperature ratings for the insulation of wiring that has a marked National Electrical Code Type designation need not be provided.

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
2 or 3	Fan Motor	Control PWB	Wiring routed through the hole on the Control Box. Wiring is spaced away from sharp edge and terminated in Quick Connect Terminal (RFWV 2/8) with tubing. The high voltage internal wiring was separated from low voltage wiring by physical securement (for example, tie cord).
2 or 3	Fan Motor	Running Capacitor	
1	Compressor	Control PWB	
1	Compressor	Running Capacitor	
4(#)	Transformer primary	Control PWB	
5(#)	Transformer secondary	Control PWB	
1	Capacitor	Control PWB	

(#) – Only apply to units with Class 2 Transformer.

80-30 Bonding Methods

Item	Method of Bonding
Cabinet Top and Sides	By scraper painting screw on one side to the bottom
Bottom	Secured to PCB box by screws
Middle Bulkhead	by screws
Fan Motor	Connected to middle bulkhead by screws, also connected to the Evaporator.
Refrigeration System (Compressor, Evaporator, Condenser)	Refrigeration System Connected by copper tube from each other and the side plate of Evaporator Secured to PCB box by screws
PCB Box	Connected to the power supply main bonding (grounding) wire.
Front panel	Not metal part, not required.

90 SUPPLY CONNECTIONS:

90-10 Power Supply Cord Set with LCDI: UR Recognized

Model:	All
Manufacturer:	TOWER MFG CORP (E242788) or SUZHOU ELE MFG CO LTD (E250451)
Designation	30380610 or L15515 or L22515
LCDI Type:	21571 or JLL301 or CAT NO. 27
Wires Type:	No. 14 AWG, min rated 105°C, 300 V
Wires Length:	Between 1.5 and 3 meters long, terminated in a UL/CSA recognized LCDI
Attachment Plug Cap Rating, V, A	125 V, 15 A
Cord Set Rating, V, A	120 V, 13 A
Strain Relief Means	See ILL. 12 for details
Grounding Conductor Color	Green With or Without One or More Yellow Stripes
Securement of Grounding Conductor	By mechanical screws to the Control Enclosure
Comments:	One additional shrinkable tubing (YDPU2, CN) used to fully enclose the spilt point of power supply cord. The extension length from the spilt point to front/rear direction should be at least 6.4 mm.

100 MOUNTING HARDWARE:

Model: All
Covers load bearing members and fasteners only. (Provide quantity, metal sizes and corrosion protection for each component.)

Hardware is shipped with each unit.

100-10

1	Top Mounting Rail	
	Material	Steel
	Quantity, Number	1
	Thickness, mm	1.0
	Corrosion Protection (method)	Painted
2	Frame Lock	
	Material	Steel
	Quantity, Number	2
	Thickness, mm	1.0
	Corrosion Protection (method)	Galvanized
3	Sash Lock	
	Material	Steel
	Quantity, Number	1
	Thickness, mm	1.0
	Corrosion Protection (method)	Galvanized
4	Screws	
	Size and number	3/4 inch, 4
	Size and number	3/8 inch, 4
	Size and number	1/2 inch, 3
	Corrosion Protection (method)	Galvanized
5	Accordion Panels	
	Material	Plastic
	Quantity, Number	2
6	Sealing material	Foam material

Marking (If Required)
See Special Marking Section.

110 - ADDITIONAL COMPONENTS:

Model: All
Cluster Connectors - Recognized (ECBT2,8) or CN, suitable for size and type of wires used, connector body material V-0(not for field representative use.

Quick Connectors - Recognized (RFWV2,8) or CN, suitable for size and type of wires used with VW-1 tubing

110-10 Wifi Module - (Optional):

Model	All
Printed Wiring Board	R/C (ZPMV2,8)
Connection	Connect to Control PWB by VW-1 wire
Mounting	Fixed in Control Enclosure
Comments	Only for regulating usage, no safety functions. Supplied by Extra-Low-Voltage of Class 2 circuit. With FCC IC and ID

110-20 Wiring Connector Tubing

Model	All
All high voltage wiring connector tubing	Recognized (YDPU2,8)
Listee's Name	FOSHAN FANGPU DIPPING TECHNOLOGY CO LTD (E185679)
Material Designation	Series FP
Rating	Voltage: 600V, VW-1, Max Oper. Temp.: 105°C

110-30 Class 2 Power Supply:

Model designation	A010467
Location	Secured by plastic supporting leg and Located within Control Box.
Electrical rating	Input: 120/208/230 V, 60 Hz; Output: 12 Vdc, 0.2A; 5 Vdc 0.8A
PWB Component and Trace Layout	See Ill. 16 for A010467
Schematic diagram	See Ill. 17 for A010467
Printed Wiring Board	R/C ZPMV2, rated minimum 130°C, V-0, CTI 600V. (Suitable for direct support of live parts.) Printed Wiring Boards, measured 160 by 70 mm, 1.6 mm thick.
Populated Components on PWB	
Current Fuse (FUSE), R/C (JDYX2/8) or (JDYX/7)	DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD (E300003), type 334, rated 3.15A, 250V; Or HOLLYLAND CO LTD (E156471), type 36S, rated 3.15A, 250V.
Varistor (ZR1) R/C (VZCA2/8)	Various, rated voltage 385 or 420V, minimum MLV 1410Vpk, In 3kA, minimum 75°C
NTC (NTC1), R/C (XGPU2/8)	Various, rated voltage 240V, 5A.
X Capacitors (C29) R/C (FOWX2/8)	Various, rated 0.22uF, 275V.

Line Choke (L2) – Constructed as below:	Type HG-0.6A-33mH. See ILL. 18 for construction details. Constructed as below: a) Bobbin – R/C (QMFZ2), PMC, rated V-0, 150°C, measured minimum 0.5 mm thick. Maintain min. 2.8 mm spacing between L and N windings. b) Core – Ferrite. c) Windings – R/C (OBMW2), Two provided. Enamelled copper wire, each measures 0.28 mm diameter, 95 or 98 turns.
Bridge (DB1)	Bridge Rectifiers, Rated 2A, 1000V.
Y Capacitor (CY4) R/C (FOWX2/8)	Various, Y1 type, rated 400V, 4700pF.
Control IC (U1)	Type TOP264VG, Manufactured by PI.
Optical Coupler (IC6)	R/C (FPQU2), CSA Certified, SHARP CORPORATION (E64380), type PC817, double protection, rated 5000 V ac (isolation voltage), 110°C (max. operating temp.), 125°C (max. junction temperature TJ) Or – R/C (FPQU2/8), EVERLIGHT ELECTRONICS CO LTD (E214129), type EL816, double protection, rated 5000 V ac (isolation voltage), 110°C (max. operating temp.), 125°C (max. junction temperature TJ). Alternate – R/C (FPQU2/8), LITE-ON TECHNOLOGY CORP (E113898), type LTV-817, double protection, rated 5300 V ac (isolation voltage), 115°C (max. operating temp.), 125°C (max. junction temperature TJ).
Electrolytic Capacitor (E8)	Rated 22uF, 450V
Resistor (R59, R58, R57)	Rated 3.3 Mohom
Resistor (R61, R62, R63)	Rated 1.3 Mohom
Resistor (R46, R51)	Rated 22 ohm, 1/4 W
Resistor (R76)	Rated 100 kohm, 2W
Diode (D1, D2)	Peak reverse voltage 560 V minimum, average forward current 1.0 A minimum.
Capacitor (C23)	Rated 2200pf, 1kV
Resistor (R50)	Rated 3 ohm
Electrolytic Capacitor (E10)	Rated 10uF, 50V
Resistor (R64)	Rated 6.8 ohm
Electrolytic Capacitor (E9)	Rated 47uF, 25V
Capacitor (C10, C11, 22)	Rated 0.1 uF
Diode (D3, D4)	Peak reverse voltage 70 V minimum, average forward current 3.0 A minimum.
Electrolytic Capacitor (E1)	Rated 220uF, 25V
Electrolytic Capacitor (E2)	Rated 1000uF, 25V
Capacitor (EC1)	Rated 220pF
Resistor (R53)	Rated 10 ohm
Resistor (R65, R68, R69)	Rated 10 kohm
Resistor (R66, R67)	Rated 1 kohm
Resistor (R70)	Rated 220ohm
Electrolytic Capacitor (E14)	Rated 4.7uF, 50V
D9	Peak reverse voltage 85V minimum, average forward current 100 mA minimum.
U2	Control IC, Type TL431AILPR

Transformer (TR1)	Model EE19-1010uH, Constructed as follows (ILL. 19) A. Core – Ferrite, E-E type, measures 19.6x16.6x4.8 mm. Outer wrapped by 3 layers of Insulation Tape, measured 4.8 mm in width, each 0.05 mm thick. B. Primary Windings (N1, N2, N3) – R/C (OBMW2), magnet copper wire, rated 155°C, layer wound. C. Secondary Windings (N4, N5) – R/C (OBJT2), SHENZHEN KAIZHONG HEDONG NEW MATERIALS CO LTD (E357240), Cat. No. TIW-F, rated 155 ºC, Reinforced insulation. Or R/C Huizhou Huaying Electronic Technology Co Ltd (E470559), Cat. No. NIW-F, rated 155 ºC, Reinforced insulation. D. Bobbin – R/C (QMFZ2), Chang Chun Plastics Co Ltd (E59481), PMC, Designation T375HF, rated V-0, 150ºC, minimum 0.65 mm thick, black or Brown color E. Insulation Tape – R/C (OANZ2) CHANG SHU LIANG YI TAPE INDUSTRY CO LTD (E246820), Cat. No. LY-XX, rated 130ºC, PET, 0.05 mm thick. Or R/C (OANZ2) JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD (E246950), Cat. No. JY25-A, rated 130ºC, PET, 0.05 mm thick. Or R/C (OANZ2), JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), Cat. No. CT280, rated 130ºC, PET, 0.05 mm thick.

TEST HISTORY

Project: 80225833 (Ed.1)

Transfer UL report (UL SA13446, SEC 11) and add new list models KC-35/YXRD(E1/6)(004206) with new compressor and supply cord. Add list models W12W92-4, H12W35W, H12W35W-CA, H12W55W, H12W55W-A, H12W55W-CA, W12W92-5.

As per the difference description on Page 13, only the following tests was considered necessary for models KC-35/YXRD(E1/6)(004206). Both models were tested with satisfaction result with standard CAN/CSA C22.2 No. 60335-2-40:19, 3nd Edition and ANSI/UL 60335-2-40 3nd Edition with acceptable results.

The tests were witness at the WMTC test lab as following:
Test Lab Name: Jiayu (Guangdong) Testing Technology Co., Ltd.
Test Lab Address/Location: Unit 107-113, 1 / F, Block C, No.7 Jianfeng Road Rongli, Ronggui, Shunde, Foshan, Guangdong China

The test item and test result were listed as below:

Remark: Y - Applicable, N/A - Not Applicable, P - passed, F - Failed.				
Clause	Test Description	Required (Y or N/A)	Test result (P or F or N/A)	Sample No.
7.14	Marking and instructions - Marking legible and durable test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
8	Protection against access to live parts	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
9DV	Starting of motor-operated appliances	Y	P	EE-S240904382
10	Power input and current	Y	P	EE-S240904382
11	Heating	Y	P	EE-S240904382
13	Leakage current and electric strength at operating temperature	Y	P	EE-S240904382
15.2	Moisture resistance – Protection degree against water test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A

15.3	Block drain pan discharge pipe test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
15.101	Spillage test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
16	Leakage current and electric strength	Y	P	EE-S240904382
17	Overload protection of transformers and associated circuits	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.2DV	Abnormal operation – Test about appliance with supplementary heaters	N/A No heater	N/A	N/A
19.3	Abnormal operation – Test while all electric heating elements are energized	N/A No heater	N/A	N/A
19.4	Abnormal operation – Test at fault conditions	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.5	Abnormal operation – Short-circuited the sheath and polarity of supply test	N/A No heater	N/A	N/A
19.6	Abnormal operation – PTC heating elements over voltage test	N/A No heater	N/A	N/A
19.7	Abnormal operation – Locked motor and motor-compressor test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.7	Abnormal operation – Capacitor open-circuit and lock motor test	Y	P	EE-S240904382
19.7	Abnormal operation – Capacitor short-circuit and lock motor test	Y	P	EE-S240904382
19.8	Abnormal operation – Three-phase motor test with one phase disconnected	N/A Not three-phase motor	N/A	N/A
19.10	Abnormal operation – Series motor lowest load test	N/A No series motor	N/A	N/A
19.11.1 & 19.11.2	Abnormal operation – Fault conditions of electronic circuits test	N/A Refer to SA13446 Vol. 4 Sec.	N/A	N/A

		11Refer to SA13446 Vol. 4 Sec. 11		
19.11.4	Abnormal operation – EMP test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.12	Abnormal operation – Current fuse reliability test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	P	EE-S240904382
19.14	Abnormal operation – Contact point short circuited	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.101	Abnormal operation – Restricted or shut off heat transfer medium flow	Y	P	EE-S240904382
19.101DV.1	Abnormal operation – Refrigerant reduce test	N/A Compressor adequately ventilated and not enclosed by non-metallic material	N/A	N/A
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	P	EE-S240904382
19.102	Abnormal operation – Test about indoor heat exchanger using water as a heat transfer medium	N/A Not use water as a heat transfer medium	N/A	N/A
19.103	Abnormal operation – High / Low temperataure test	Y	P	EE-S240904382
19.104	Abnormal operation – Cover Appliance Test	N/A No SUPPLEMENTARY HEATERS	N/A	N/A
19.105DV	Abnormal operation –Backup Protection test	N/A No SUPPLEMENTARY HEATERS	N/A	N/A
19.106DV	Abnormal operation –Bypass temperature-regulating control	N/A Not heating water	N/A	N/A
20.1	Stability and mechanical hazards – Stability test	N/A	N/A	N/A

		Refer to SA13446 Vol. 4 Sec. 11		
20.2	Stability and mechanical hazards – Mechanical hazards test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
20.101DV	Stability and mechanical hazards – Stability test for window type room air condtioner	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.1	Mechanical strength – Impact test and pressure test(refer to Annex EE)	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.2	Mechanical strength – Solid insulation strength	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.2（Addition）	Vibration Test for Appliance using flammable refrigerants	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.101DV	Mechanical strength –Load Test mechanical abuse	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
22.1	Construction – IP test against access to hazardous parts and against solid foreign objects	N/A IPX4	N/A	N/A
22.5	Construction – plug discharge test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
22.11	Construction – Non-detachable parts push and pull test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
22.12	Construction – Handles, knobs, grips and levers pull test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
22.54	Construction –Button cells and batteries test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A

23.3	Internal wiring – Flexing test	N/A Internal wiring can not move in normal use or during user maintenance	N/A	N/A
23.5	Internal wiring – Insulation test	N/A UL Recognized Internal wiring	N/A	N/A
24.5	Components – Capacitor voltage test	Y	P	EE-S240904382
25.14	Supply connection and external flexible cords – Flexing test	N/A Supply cord will not move while in operation	N/A	N/A
25.15	Supply connection and external flexible cords – Pull and torque test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
26.3	Terminals for external conductors - Torque test	N/A Type Y attachment	N/A	N/A
27.5	Provision for earthing – Ground impedance test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
28.1	Screws and connections – Screws torque test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
29.1	Clearances distance	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
29.2	Creepage distance	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
29.3	Solid insulation	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
30.1	Resistance to heat and fire – Ball pressure test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A

30.2.1 & 30.2.3	Resistance to heat and fire – Glow-wire Test Record	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
30.2.4	Resistance to heat and fire – Needle flame test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
31	Resistance to rusting	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex G	Safety isolating transformers	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex H	Switches	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex N	Proof tracking Test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex EE	Pressure Test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
101.DV I.3	Nichrome Wire Test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
GG.8.2. 1	Vibration Test for Appliance using flammable refrigerants	N/A M≤m1, not requirement	N/A	N/A
GG.8.2. 2, 8.2.3	Packaging Drop Test for Appliance using flammable refrigerants	N/A M≤m1, not requirement	N/A	N/A
GG.8.2. 4	Operation Test for Appliance using flammable refrigerants	N/A M≤m1, not requirement	N/A	N/A
GG.8.3	Operation Test for Appliance using flammable refrigerants	N/A M≤m1, not requirement	N/A	N/A

Construction Review:

Construction review with satisfaction result.

Project: 80229405 (Ed.2)

Update report 80225833 to add model KC-41/YXRD(E1/6)(001075).Add list models W12W92-4,H12W35W,H12W35W-A,W12W92-4CA,H12W35W-CA, DS-2W1212C, A54-WAC-003-12K, A54-WAC-003-12K-WIFI, GWE-12CR/caez, UWAA12KEC109E, A8512W-12K,**TWAC-12CRA1/L0U(DOE),** H14W55W,H14W55W-A,H14W55W-CA,W14W92-5,W14W92-4,H14W35W,H14W35W-A,W14W92-4CA,H14W35W-CA,DS-2W1412C, GWE-14CA/caez,048-TL-W12KWD, 048-TL-W14KWD, PWC-12CRD1(DOE), PWC-14CRD1(DOE), CE-WAC112USW, HAC12, HAC14, IWA12-LR23, IWA14-LR23,**TWAC-14CRA1/K8U(DOE) , A8514W-14K**.

As per the difference description on Page 13, only the following tests was considered necessary for model KC-41/YXRD(E1/6)(001075). Both models were tested with satisfactory result with standard CAN/CSA C22.2 No. 60335-2-40:19, 3nd Edition and ANSI/UL 60335-2-40 3nd Edition with acceptable results.

The tests were witnesses at the WMTC test lab as follows:
Test Lab Name: Jiayu (Guangdong) Testing Technology Co., Ltd.
Test Lab Address/Location: Unit 107-113, 1 / F, Block C, No.7 Jianfeng Road Rongli, Ronggui, Shunde, Foshan, Guangdong China

The test item and test result were listed as below:

Remark: Y - Applicable, N/A - Not Applicable, P - passed, F - Failed.				
Clause	Test Description	Required (Y or N/A)	Test result (P or F or N/A)	Sample No.
7.14	Marking and instructions - Marking legible and durable test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
8	Protection against access to live parts	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
9DV	Starting of motor-operated appliances	Y	P	EE- S240904397
10	Power input and current	Y	P	EE- S240904397
11	Heating	Y	P	EE- S240904397
13	Leakage current and electric strength at operating temperature	Y	P	EE- S240904397

15.2	Moisture resistance – Protection degree against water test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
15.3	Block drain pan discharge pipe test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
15.101	Spillage test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
16	Leakage current and electric strength	Y	P	EE- S240904397
17	Overload protection of transformers and associated circuits	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.2DV	Abnormal operation – Test about appliance with supplementary heaters	N/A No heater	N/A	N/A
19.3	Abnormal operation – Test while all electric heating elements are energized	N/A No heater	N/A	N/A
19.4	Abnormal operation – Test at fault conditions	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.5	Abnormal operation – Short-circuited the sheath and polarity of supply test	N/A No heater	N/A	N/A
19.6	Abnormal operation – PTC heating elements over voltage test	N/A No heater	N/A	N/A
19.7	Abnormal operation – Locked motor and motor-compressor test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.7	Abnormal operation – Capacitor open-circuit and lock motor test	Y	P	EE- S240904397
19.7	Abnormal operation – Capacitor short-circuit and lock motor test	Y	P	EE- S240904397
19.8	Abnormal operation – Three-phase motor test with one phase disconnected	N/A Not three-phase motor	N/A	N/A
19.10	Abnormal operation – Series motor lowest load test	N/A No series motor	N/A	N/A

19.11.1 & 19.11.2	Abnormal operation – Fault conditions of electronic circuits test	N/A Refer to SA13446 Vol. 4 Sec. 11Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.11.4	Abnormal operation – EMP test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.12	Abnormal operation – Current fuse reliability test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.13	Abnormal operation – Acceptance conditions after all abnormal operation tests	Y	P	EE- S240904397
19.14	Abnormal operation – Contact point short circuited	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
19.101	Abnormal operation – Restricted or shut off heat transfer medium flow	Y	P	EE- S240904397
19.101DV.1	Abnormal operation – Refrigerant reduce test	N/A Compressor adequately ventilated and not enclosed by non-metallic material	N/A	N/A
19.101DV.2	Abnormal operation –Blocked Outlet test	Y	P	EE- S240904397
19.102	Abnormal operation – Test about indoor heat exchanger using water as a heat transfer medium	N/A Not use water as a heat transfer medium	N/A	N/A
19.103	Abnormal operation – High / Low temperataure test	Y	P	EE- S240904397
19.104	Abnormal operation – Cover Appliance Test	N/A No SUPPLEMENTARY HEATERS	N/A	N/A
19.105DV	Abnormal operation –Backup Protection test	N/A No SUPPLEMENTARY HEATERS	N/A	N/A

19.106DV	Abnormal operation –Bypass temperature-regulating control	N/A Not heating water	N/A	N/A
20.1	Stability and mechanical hazards – Stability test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
20.2	Stability and mechanical hazards – Mechanical hazards test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
20.101DV	Stability and mechanical hazards – Stability test for window type room air condtioner	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.1	Mechanical strength – Impact test and pressure test(refer to Annex EE)	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.2	Mechanical strength – Solid insulation strength	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.2（Addition）	Vibration Test for Appliance using flammable refrigerants	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
21.101DV	Mechanical strength –Load Test mechanical abuse	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
22.1	Construction – IP test against access to hazardous parts and against solid foreign objects	N/A IPX4	N/A	N/A
22.5	Construction – plug discharge test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
22.11	Construction – Non-detachable parts push and pull test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
22.12	Construction – Handles, knobs, grips and levers pull test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A

22.54	Construction –Button cells and batteries test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
23.3	Internal wiring – Flexing test	N/A Internal wiring can not move in normal use or during user maintenance	N/A	N/A
23.5	Internal wiring – Insulation test	N/A UL Recognized Internal wiring	N/A	N/A
24.5	Components – Capacitor voltage test	Y	P	EE- S240904397
25.14	Supply connection and external flexible cords – Flexing test	N/A Supply cord will not move while in operation	N/A	N/A
25.15	Supply connection and external flexible cords – Pull and torque test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
26.3	Terminals for external conductors - Torque test	N/A Type Y attachment	N/A	N/A
27.5	Provision for earthing – Ground impedance test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
28.1	Screws and connections – Screws torque test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
29.1	Clearances distance	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
29.2	Creepage distance	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
29.3	Solid insulation	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A

30.1	Resistance to heat and fire – Ball pressure test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
30.2.1 & 30.2.3	Resistance to heat and fire – Glow-wire Test Record	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
30.2.4	Resistance to heat and fire – Needle flame test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
31	Resistance to rusting	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex G	Safety isolating transformers	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex H	Switches	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex N	Proof tracking Test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
Annex EE	Pressure Test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
101.DV I.3	Nichrome Wire Test	N/A Refer to SA13446 Vol. 4 Sec. 11	N/A	N/A
GG.8.2. 1	Vibration Test for Appliance using flammable refrigerants	N/A M≤m1, not requirement	N/A	N/A
GG.8.2. 2, 8.2.3	Packaging Drop Test for Appliance using flammable refrigerants	N/A M≤m1, not requirement	N/A	N/A
GG.8.2. 4	Operation Test for Appliance using flammable refrigerants	N/A M≤m1, not requirement	N/A	N/A
GG.8.3	Operation Test for Appliance using flammable refrigerants	N/A	N/A	N/A

		M≤m1, not requirement		

Construction Review:

Construction review with satisfaction result.

--End of Report--

