

File SA12617  
Project 4790550482

October 19, 2022

REPORT

On

DEHUMIDIFIERS, REFRIGERATION TYPE

Gd Midea Air-Conditioning Equipment Co Ltd  
FOSHAN, GUANGDONG

Copyright © 2022 UL LLC

UL LLC authorizes the above named company to reproduce this Report only for purposes as described in the Conclusion, provided it is reproduced in its entirety.

## DESCRIPTION

## PRODUCT COVERED:

USL, CNL Refrigeration type dehumidifier Models

US-CFZ0.4BD/N8-DMA(A7), US-CFZ0.7BD/N8-DMB(A9), US-CFZ0.7BD/N8-DMB(A9)-B, US-CFZ1.0BD/N8-DMB(A9), US-CFZ1.0BD/N8-DMB(A9)-B, MDUDMB-50AEN8-BA9, MDUDMB-50AEN8-BA9B, MDUDMB-35AEN8-BA9, MDUDMB-35AEN8-BA9B, MDUDMA-20AEN8-BA7, MC35MWKBA3RCM, MC35MSKBA3RCM, MC35MSWBA3RCM, MC50MSWBA3RCM, MC50MSKBA3RCM, MAD50PS1AQGR, **MC50MPKBA3RCM, MAD50PS1QGRC, MAD20S1QWT, MAD35S1QWT, MAD50S1QWT, MAD50PS1QWT.**

Note: Models MC35MWKBA3RCM, MC35MSKBA3RCM, MC35MSWBA3RCM, MC50MSWBA3RCM, MC50MSKBA3RCM were transferred from SA12617-V1-S26 (report date: 2020-12-08) on 2022-10-19.

**Note: Models MC50MPKBA3RCM, MAD50PS1QGRC, MAD20S1QWT, MAD35S1QWT, MAD50S1QWT, MAD50PS1QWT were transferred from SA12617-V1-S26(report date: 2020-12-08), due to customer request change the basic model for above listee model, effected on 2022-11-29.**

USL - Products designated USL have been investigated using US requirements as noted in the Test Record.

CNL - Products designated CNL have been investigated using Canadian requirements as noted in the Test Record.

\*.

## GENERAL:

Installation/operating instructions are provided with each unit.

These units are cord-connected refrigeration dehumidifiers provided with water bucket. The dehumidifiers may be used alone and connected with drain pipe or installed on the water bucket.

Units described in this report are not intended for water damage restoration in commercial/ household properties.

Unless otherwise specified, refrigerants used within these units are R32. No remote controller was employed.

All foam material shall have a minimum HBF except those noted in the Report.

These units are only subjected to random vibration test for truck transportation mode as declared by applicant.

## TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

All manufacture's BOM codes are not for Field Representative's Use

## MODEL DIFFERENCE:

Model US-CFZ1.0BD/N8-DMB(A9) is similar to model MDUDMB-50AEN1-BA9 (Listed in SA12617-V1-S26, report date 2020-12-08) except for refrigeration system, control PWB.

Model US-CFZ1.0BD/N8-DMB(A9)-B is similar to model US-CFZ1.0BD/N8-DMB(A9) except for employed with water pump.

Model US-CFZ0.7BD/N8-DMB(A9) is similar to model US-CFZ1.0BD/N8-DMB(A9) except for refrigeration system and rating.

Model US-CFZ0.7BD/N8-DMB(A9)-B is similar to model US-CFZ0.7BD/N8-DMB(A9) except for employed with water pump.

Model US-CFZ0.4BD/N8-DMA(A7) is similar to model US-CFZ1.0BD/N8-DMB(A9) except for unit size, refrigeration system, fan motor and rating. Model US-CFZ0.4BD/N8-DMA(A7) is similar to model US-CFZ0.4BD/N8-DMA(A7) (Listed in SA12617-V1-S26, report date 2020-12-08) except for refrigeration system, control PWB.

| Basic Model              | Models similar to basic model except for model designation                        |
|--------------------------|---|
| US-CFZ1.0BD/N8-DMB(A9)   | MDUDMB-50AEN8-BA9, MC50MSWBA3RCM, MC50MSKBA3RCM, <b>MAD50S1QWT</b>                |
| US-CFZ1.0BD/N8-DMB(A9)-B | MDUDMB-50AEN8-BA9B, MAD50PS1AQGR, <b>MC50MPKBA3RCM, MAD50PS1QGRC, MAD50PS1QWT</b> |
| US-CFZ0.7BD/N8-DMB(A9)   | MDUDMB-35AEN8-BA9, MC35MWKBA3RCM, MC35MSKBA3RCM, MC35MSWBA3RCM, <b>MAD35S1QWT</b> |
| US-CFZ0.7BD/N8-DMB(A9)-B | MDUDMB-35AEN8-BA9B  |
| US-CFZ0.4BD/N8-DMA(A7)   | MDUDMA-20AEN8-BA7, <b>MAD20S1QWT</b>  |

## GENERAL DESCRIPTION

## 10 - MARKING:

10-1 Nameplate Marking (See Sec. Gen. for nameplate material)  
(Applicant - Include print of blank nameplate including material  
identification information)

|   |  |
|---|--|
| Model                                   | US-CFZ1.0BD/N8-DMB (A9) , US-CFZ1.0BD/N8-DMB (A9) -B,<br>MDUDMB-50AEN8-BA9, MDUDMB-50AEN8-BA9B,<br>MC50MSWBA3RCM, MC50MSKBA3RCM, MAD50PS1AQGR,<br>MAD50S1QWT, MC50MPKBA3RCM, MAD50PS1QGRC,<br>MAD50PS1QWT  |
| Location                                | On the unit side   |
| Listee's Name                           | See cover Page   |
| V                                       | 115  |
| Frequency                               | 60   |
| Total A                                 | 8.1  |
| Refrigerant, Type                       |  |
| Amount, kg (oz)                         | 0.205 (7.23)   |
| Max. Allowable Pressure                 |  |
| * High Side, MPa (psig)                 | <b>5.9</b> (850)   |
| Low Side, MPa (psig)                    | 2.7 (390)  |
| Design Pressure (For<br>reference only) |  |
| High Side, MPa (psig)                   | 3.7 (540)  |
| Low Side, MPa (psig)                    | 2.1 (300)  |
| Location                                | At least the name or trademark or identification<br>mark of the manufacturer or responsible vendor<br>and the model or type reference shall be visible<br>when the appliance is installed as in normal use |

Date Code - See Section General for explanation of date code

Applicant - include explanation of date code and location.

These models employ with critical refrigeration components shown as followed:

| Compressor                       | Fan motor                         | Condenser                  | Evaporator                 | Capillary               |
|----------------------------------|-----------------------------------|----------------------------|----------------------------|-------------------------|
| KSK66E11VZZX<br>(11103010016873) | YKT-12-4-203L<br>(11002012037594) | ILL.13<br>(15820100000780) | ILL.14<br>(15820100000796) | CT1<br>(15120100002392) |

## 10-1 Nameplate Marking (See Sec. Gen. for nameplate material)

|                                      |   |
|--------------------------------------|---|
| Model                                | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B, MDUDMB-35AEN8-BA9, MDUDMB-35AEN8-BA9B, MC35MWKBA3RCM, MC35MSKBA3RCM, MC35MSWBA3RCM, <b>MAD35S1QWT</b>  |
| Location                             | On the unit side  |
| Listee's Name                        | See cover Page  |
| V                                    | 115   |
| Frequency                            | 60  |
| Total A                              | 6.7   |
| Refrigerant, Type                    | R32   |
| Amount, kg (oz)                      | 0.20 (7.05)   |
| Max. Allowable Pressure              |   |
| High Side, MPa (psig)                | 5.5 (800)   |
| Low Side, MPa (psig)                 | 2.7 (390)   |
| Design Pressure (For reference only) |   |
| High Side, MPa (psig)                | 3.7 (540)   |
| Low Side, MPa (psig)                 | 2.1 (300)   |
| Location                             | At least the name or trademark or identification mark of the manufacturer or responsible vendor and the model or type reference shall be visible when the appliance is installed as in normal use |

Date Code - See Section General for explanation of date code

Applicant - include explanation of date code and location.

These models employ with critical refrigeration components shown as followed:

| Compressor                        | Fan motor                         | Condenser                  | Evaporator                 | Capillary               |
|-----------------------------------|-----------------------------------|----------------------------|----------------------------|-------------------------|
| KSK49E21CZZX3<br>(11103010023820) | YKT-12-4-203L<br>(11002012037594) | ILL.13<br>(15820100000780) | ILL.14<br>(15820100000796) | CT2<br>(15120100002858) |

## 10-1 Nameplate Marking (See Sec. Gen. for nameplate material)

|                                      |   |
|--------------------------------------|---|
| Model                                | US-CFZ0.4BD/N8-DMA(A7), MDUDMA-20AEN8-BA7,<br><b>MAD20S1QWT</b>   |
| Location                             | On the unit side  |
| Listee's Name                        | See cover Page  |
| V                                    | 115   |
| Frequency                            | 60  |
| Total A                              | 4.0   |
| Refrigerant, Type                    | R32   |
| Amount, kg (oz)                      | 0.13 (4.58)   |
| Max. Allowable Pressure              |   |
| High Side, MPa (psig)                | 5.2 (754)   |
| Low Side, MPa (psig)                 | 2.7 (390)   |
| Design Pressure (For reference only) |   |
| High Side, MPa (psig)                | 3.7 (540)   |
| Low Side, MPa (psig)                 | 2.1 (300)   |
| Location                             | At least the name or trademark or identification mark of the manufacturer or responsible vendor and the model or type reference shall be visible when the appliance is installed as in normal use |

Date Code - See Section General for explanation of date code

Applicant - include explanation of date code and location.


These models employ with critical refrigeration components shown as followed:

| Compressor                        | Fan motor                       | Condenser                   | Evaporator                   | Capillary               |
|-----------------------------------|---------------------------------|-----------------------------|------------------------------|-------------------------|
| KSK31E21CZDX3<br>(11103010023675) | YKT-5-4-16L<br>(11002012037595) | ILL.13A<br>(15820100000776) | ILL. 14A<br>(15820100000778) | CT3<br>(15120100002336) |

## 10-10 Special Marking




|       |                             |   |                                |
|-------|-----------------------------|---|--------------------------------|
| Model | All                         |   |                                |
| A.    | Type                        | Label or Nameplate (PGDQ2, 8)   | Or printing on Shipping Carton |
|       | Listee's Name               | Various   | -                              |
|       | Recognized Designation      | Various   | -                              |
|       | Location                    | Shipping Carton (External Surface)  |                                |
|       | Quote Marking               | WARNING - Risk of Fire due to Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with National Regulations. |                                |
|       | Height of letter, mm (min.) | 6.4   |                                |
|       | Special Comments            | For C-UL only - The corresponding French Marking shall be provided.   |                                |


|       |                             |   |  |
|-------|-----------------------------|---|--|
| Model | All                         |   |  |
| B.    | Type                        | Label or Nameplate (PGDQ2, 8)   |  |
|       | Listee's Name               | Various   |  |
|       | Recognized Designation      | Various   |  |
|       | Location                    | Unit Cabinet (External Surface)   |  |
|       | Quote Marking               | WARNING - Risk Of Fire. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Puncture Refrigerant Tubing.<br><br>WARNING - Risk Of Fire. Dispose Of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used. |  |
|       | Height of letter, mm (min.) | 6.4   |  |
|       | Special Comments            | For C-UL only - The corresponding French Marking shall be provided.   |  |

|       |   |   |  |
|-------|---|---|--|
| Model | All   |   |  |
| C.    | Type  | Label or Nameplate (PGDQ2, 8)   |  |
|       | Listee's Name                                   | Various   |  |
|       | Recognized Designation                          | Various   |  |
|       | Location  | Unit Cabinet (External Surface)   |  |
|       | Quote Marking                                   |  |  |
|       | Perpendicular height of the triangle, mm (min.) | 30  |  |
|       | Height of letter "A2L"                          | ≥ 1/3 the height of the symbol  |  |



## 10-10 Special Marking (Cont'd)


|   |   |
|---|---|
| Model                                     | All   |
| D. Type                                   | Label or Nameplate (PGDQ2, 8)   |
| Listee's Name                             | Various   |
| Recognized Designation                    | Various   |
| Location                                  | Unit Cabinet (External Surface)   |
| Quote Marking                             |    |
| Perpendicular height of Symbol, mm (min.) | 10  |

|   |  |
|---|--|
| Model                                     | All  |
| E. Type                                   | Label or Nameplate (PGDQ2, 8)  |
| Listee's Name                             | Various  |
| Recognized Designation                    | Various  |
| Location                                  | On Nameplate (Near refrigerant type and charge information)  |
| Quote Marking                             | <br>(without colours is permitted) |
| Perpendicular height of Symbol, mm (min.) | 10   |
| Height of letter "A2L"                    | ≥ 1/3 the height of the symbol   |

|                             |  |
|-----------------------------|--|
| Model                       | All  |
| F. Type                     | Label or Nameplate (PGDQ2, 8)  |
| Listee's Name               | Various  |
| Recognized Designation      | Various  |
| Location                    | Unit Cabinet (External Surface)  |
| Quote Marking               | WARNING: RISK OF ELECTRIC SHOCK. CAN CAUSE INJURY OR DEATH. DISCONNECT All REMOTE ELECTRIC POWER SUPPLIES BEFORE SERVICING |
| Height of letter, mm (min.) | 3.2  |
| Special Comments            | For C-UL only - The corresponding French Marking shall be provided.  |

## 10-10 Special Marking (Cont'd)

|                             |   |
|-----------------------------|---|
| Model                       | All   |
| G. Type                     | Label or Nameplate (PGDQ2, 8)   |
| Listee's Name               | Various   |
| Recognized Designation      | Various   |
| Location                    | Inside of unit near compressor  |
| Quote Marking               | 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. |
| Height of letter, mm (min.) | 6.4   |
| Special Comments            | For C-UL only - The corresponding French Marking shall be provided.   |

|                        |   |
|------------------------|---|
| Model                  | All   |
| H. Type                | Label or Nameplate (PGDQ2, 8)   |
| Listee's Name          | Various   |
| Recognized Designation | Various   |
| Location               | Nearby Process Tube   |
| Quote Marking          |  A2L |
| Height of letter "A2L" | ≥ 1/3 the height of the symbol  |

|                        |  |
|------------------------|--|
| Model                  | All  |
| I. Type                | Label (PGDQ2, 8)   |
| Listee's Name          | Various  |
| Recognized Designation | Various  |
| Location               | Unit Cabinet (External Surface)  |
| Quote Marking          | "A damaged power supply cord must be replaced with a new power supply cord obtained from the product manufacturer and not repaired." or the equivalent   |
| Special Comments       | For C-UL only - The corresponding French Marking shall be provided if this marking is associated with signal words, such as CAUTION, WARNING and DANGER. |

## 10-10 Installation and Operating Manual(s)

## INSTALLATION AND OPERATING INSTRUCTIONS:

Each unit is provided with installation and operating instructions, see ILL. 1 for installation, use and maintenance details. Instructions shall be written in English for USA and written in English/French for Canada.

The instruction shall state the intended ambient temperature 5-32°C and between 30%(RH) and 80%(RH).

The instruction shall state that at least 40 cm air space between front/top sides of unit, at least 20cm between rear/left/right/and adjacent obstacle should be maintained during normal operation.

The instruction shall also contain the following information or the equivalent:

a), 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 person responsible for their safety.

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

b), 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.

c), The appliance shall be installed in accordance with national wiring regulations.

d), Wiring diagram.

e), Symbols, including flame symbol ISO 7010-W021, "read operator's manual" symbol ISO 7000-0790, "service indicator; read technical manual" symbol ISO 7000-1659 and "operator's manual; operating instructions" ISO 7000-1641.

## INSTALLATION AND OPERATING INSTRUCTIONS: (CONT'D)

## f), WARNING

Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.

The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).

Do not pierce or burn.

Be aware that refrigerants may not contain an odour.

g), information for handling, installation, cleaning, servicing and disposal of refrigerant.

h), a warning to keep any required ventilation openings clear of obstruction.

i), a notice that servicing shall be performed only as recommended by the manufacturer.

j), Information for qualification of workers

k), Information on servicing

l), Repairs to sealed components

m), Repairs to intrinsically safe components

n), Cabling

o), Detection of flammable refrigerants

p), Removal and evacuation

q), Charging procedures

r), Decommissioning, labelling and recovery

## 20 CABINET AND ENCLOSURES:

## 20-1 Unit Cabinet

|   |   |                         |
|---|---|-------------------------|
| Model   | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| W x D x H, (mm) (without water bucket)                    | 332 x 332 x 363   | 305 x 305 x 332         |
| W x D x H, (mm) (installed with water bucket)             | 351 x 351 x 373   | 325 x 325 x 342         |
| W x D x H, (mm) (installed with water bucket and casters) | 351 x 351 x 413   | 325 x 325 x 382         |
| Material  | Plastic, see Item 30 for details  |                         |
| Securement  | By screws   |                         |

## 20-2 Unit Front Cabinet

|                    |   |                         |
|--------------------|---|-------------------------|
| Model              | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material           | Plastic, see Item 30 for details  |                         |
| Min. Thickness, mm | 2.5   | 2.5                     |
| Openings           | None  | None                    |
| Illustration       | ILL. 3  | ILL. 3A                 |

## 20-3 Unit Left Cabinet

|                        |   |                         |
|------------------------|---|-------------------------|
| Model                  | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material               | Plastic, see Item 30 for details  |                         |
| Spacing to moving part | Blocked by condenser  |                         |
| Min. Thickness, mm     | 2.5   | 2.5                     |
| Openings diameter, mm  | 4.0   | 3.2                     |
| Illustration           | ILL. 4  | ILL. 4A                 |

## 20-4 Unit Right Cabinet

|                        |   |                         |
|------------------------|---|-------------------------|
| Model                  | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material               | Plastic, see Item 30 for details  |                         |
| Spacing to moving part | Blocked by condenser  |                         |
| Min. Thickness, mm     | 2.5   | 2.5                     |
| Openings diameter, mm  | 4.0   | 3.2                     |
| Illustration           | ILL. 5  | ILL. 5A                 |

## 20-5 Unit Rear Cabinet

|                       |   |                         |
|-----------------------|---|-------------------------|
| Model                 | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material              | Plastic, see Item 30 for details  |                         |
| Min. Thickness, mm    | 2.5   | 2.5                     |
| Openings diameter, mm | 4.0   | 3.2                     |
| Illustration          | ILL. 6  | ILL. 6A                 |

## 20-6 Unit Top Cabinet

|                            |   |                         |
|----------------------------|---|-------------------------|
| Model                      | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material                   | Plastic, see Item 30 for details  |                         |
| Spacing to moving part, mm | 14.0  | 13.5                    |
| Min. Thickness, mm         | 2.5   | 2.5                     |
| Illustration               | ILL. 7  | ILL. 7A                 |

## 20-7 Unit Base

|                    |   |                         |
|--------------------|---|-------------------------|
| Model              | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material           | Plastic, see Item 30 for details  |                         |
| Min. Thickness, mm | 2.5   | 2.5                     |
| Illustration       | ILL. 16   | ILL. 16A                |

## 20-8 Water Bucket

|                    |   |                         |
|--------------------|---|-------------------------|
| Model              | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material           | Plastic, see Item 30 for details  |                         |
| Min. Thickness, mm | 2.5   | 2.5                     |
| Illustration       | ILL. 8  | ILL. 8A                 |

## 20-9 Control Box

|                       |  |                   |
|-----------------------|--|-------------------|
| Model                 | All  |                   |
| Part                  | Control Box Body   | Control Box Cover |
| Material              | Plastic, see Item 30 for details   |                   |
| Material Thickness    | 2.5  | 2.5               |
| Bonding for Grounding | N/A  | N/A               |
| Illustration          | ILL. 9   | ILL. 9A           |
| Openings              | None except for openings for cord and internal wiring entrances)                       |                   |
| Securement            | By screws  |                   |
| Contained Components  | Electric Controller (PWB), Fan Motor Capacitor   |                   |
| Comments              | Consists of two parts.<br>The plastic Control Box was located inside a metal enclosure |                   |

## 20-10 Control Box Outer Enclosure

|                       |  |  |
|-----------------------|--|--|
| Model                 | All  |  |
| Part                  | Control Box Outer Enclosure body                                 | Control Box Outer Enclosure Cover          |
| Material              | Galvanized Steel   |  |
| Material Thickness    | 0.5  | 0.5  |
| Bonding for Grounding | By two screws to Control Box Outer Enclosure Cover               | By earthing conductor of power supply cord |
| Illustration          | ILL. 10  | ILL. 10A                                   |
| Openings              | None except for openings for cord and internal wiring entrances) |  |
| Securement            | By screws  |  |
| Contained Components  | Control Box  |  |
| Comments              | Consists of two parts.   |  |

## 20-11 Compressor Capacitor Terminal Enclosure

|                       |   |  |
|-----------------------|---|--|
| Model                 | All   |  |
| Material              | Plastic, see Item 30 for details                      |  |
| Material Thickness    | 2.5   |  |
| Bonding for Grounding | N/A   |  |
| Openings              | None except for openings for internal wiring entrance |  |
| Securement            | Snap fit  |  |
| Contained Components  | Compressor Capacitor Terminal                         |  |
| Comments              | See ILL. 11 for details                               |  |



## 20-12 Unit Partition

|                  |  |
|------------------|--|
| Model            | All  |
| Material         | Plastic, see item 30 for details   |
| Thickness, mm    | 2.5  |
| Securement       | By screws  |
| Special Comments | Used to support condenser/evaporator, etc.;<br>Also served as drain pan. |

## 20-13 Fan Motor Bracket

|                          |   |
|--------------------------|---|
| Model                    | All   |
| Material                 | Polymeric, see Item 30 for details                    |
| Material Thickness, (mm) | See Item 30 for details                               |
| Securement (Method)      | Secured to condenser/evaporator/cabinets by<br>screws |

## 20-14 Water Pump Enclosure

|                          |  |
|--------------------------|--|
| Model                    | US-CFZ1.0BD/N8-DMB (A9) -B, US-CFZ0.7BD/N8-<br>DMB (A9) -B |
| Material                 | Polymeric, see Item 30 for details                         |
| Material Thickness, (mm) | See Item 30 for details                                    |
| Securement (Method)      | By screws  |
| Illustration             | ILL. 19  |

## 20-15 Fan Wheel

|                    |   |                         |
|--------------------|---|-------------------------|
| Model              | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B,<br>US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B | US-CFZ0.4BD/N8-DMA (A7) |
| Material           | Plastic, see Item 30 for details  |                         |
| Min. Thickness, mm | 1.6   | 1.6                     |
| Illustration       | See ILL. 12   | See ILL. 12A            |

## 30 NONMETALLIC COMPONENTS:

Manufacturer - Provide a description of all nonmetallic materials such as breaker, fan guards, cabinet or door liner light shields, etc. Specify whether or not it is Recognized.

Note: Assembly drawings may be helpful in illustrating the location of nonmetallic material with regard to wiring, fan motors, heaters, controls, etc. to aid in determining the appropriate flammability tests for materials.

## 30-1 Nonmetallic Components

|  |  |  |
|--|--|--|
| Model  | All  |  |
| Unit Cabinet (front, left side, right side, rear, top) | Recognized (QMFZ2, 8)                        | Recognized (QMFZ2)                       |
| Manufacturer   | ZHEN JIANG CHI MEI CHEMICAL CO LTD (E194560) | TOTAL PETROCHEMICALS FOSHAN LTD(E314268) |
| Material Designation                                   | PS, PH-888G                                  | PS, 6351                                 |
| Thickness, (mm)  | 2.5  | 2.5                                      |
| Minimum Flammability Rating                            | HB   | HB                                       |
| RTI, °C  | 50   | 50                                       |
| Comment  | Consist of front cover/rear cover/top cover  |  |

|                             |  |                                    |
|-----------------------------|--|------------------------------------|
| Model                       | All  |                                    |
| Unit Base                   | Recognized (QMFZ2,8)                             |                                    |
| Manufacturer                | ORINKO (HEFEI) ADVANCED PLASTIC CO LTD (E328304) | KINGFA SCI & TECH CO LTD (E171666) |
| Material Designation        | PP, PP-1316(A)                                   | PP, PP-11670                       |
| Minimum Thickness, (mm)     | 2.5  | 2.5                                |
| Minimum Flammability Rating | HB   | HB                                 |
| RTI, °C                     | 65   | 65                                 |

|                             |                      |  |
|-----------------------------|----------------------|--|
| Water Bucket                | Recognized (QMFZ2,8) |  |
| Manufacturer                | Various              |  |
| Material Designation        | Various              |  |
| Minimum Thickness, (mm)     | 2.5                  |  |
| Minimum Flammability Rating | HB                   |  |

## 30-1 Nonmetallic Components - (CONT'D)

|                             |                                    |
|-----------------------------|------------------------------------|
| Model                       | All                                |
| Fan Wheel                   | Recognized (QMFZ2, 8)              |
| Manufacturer                | KINGFA SCI & TECH CO LTD (E171666) |
| Material Designation        | ABS, GFABS15                       |
| Thickness, (mm)             | 1.6                                |
| Minimum Flammability Rating | HB                                 |
| RTI, °C                     | 60                                 |

|                             |  |  |  |
|-----------------------------|--|--|--|
| Model                       | All                                    |  |  |
| Unit Partition              | Recognized (QMFZ2,8)                   |  |  |
| Manufacturer                | KINGFA SCI & TECH CO LTD.<br>(E171666) | NINGBO LG YONGXING CHEMICAL CO LTD (E203955) | ZHEN JIANG CHI MEI CHEMICAL CO LTD (E194560) |
| Material Designation        | ABS, FW-612                            | ABS, HI-121H                                 | ABS, PA-757K                                 |
| Minimum Thickness, (mm)     | 2.5                                    | 2.5  | 2.5  |
| Minimum Flammability Rating | V-2                                    | HB   | HB   |
| RTI, °C                     | 60                                     | 60   | 80   |

|                             |   |   |   |
|-----------------------------|---|---|---|
| Model                       | All   |   |   |
| Fan Motor Bracket           | Recognized (QMFZ2, 8)                                 |   |   |
| Manufacturer                | Ningbo LG<br>Yongxing<br>Chemical Co<br>Ltd (E203955) | TOTAL<br>PETROCHEMICALS<br>FOSHAN<br>LTD(E314268) | ZHEN JIANG<br>CHI MEI<br>CHEMICAL CO<br>LTD (E194560) |
| Material Designation        | HI-121H   | PS, 6351  | PS, PH-888G   |
| Thickness, (mm)             | 1.5   | 1.5   | 2.5   |
| Minimum Flammability Rating | HB  | HB  | HB  |
| RTI, °C                     | 60  | 50  | 50  |

## 30-1 Nonmetallic Components - (CONT'D)

|                             |   |                                       |
|-----------------------------|---|---------------------------------------|
| Models                      | All   |                                       |
| Control Box                 | Recognized (QMFZ2, CN)  |                                       |
| Listee's Name               | ORINKO (HEFEI)<br>ADVANCED PLASTIC CO<br>LTD (E328304)  | KINGFA SCI & TECH CO<br>LTD (E171666) |
| Material Designation        | ABS, ABS-3265   | HF-630 (ABS)                          |
| Minimum Thickness, mm       | 2.0   | 2.0                                   |
| Minimum Flammability Rating | 5VA   | 5VA                                   |
| RTI, °C                     | 60  | 60                                    |
| Special comments            | Used to support Electric Controller (PWB);<br>Distance from live parts of Electric<br>Controller (PWB) to Supporting Base: > 1.0 mm |                                       |

|   |                                       |                                       |
|---|---------------------------------------|---------------------------------------|
| Model                                   | All                                   |                                       |
| Compressor capacitor terminal enclosure | Recognized (QMFZ2,8)                  |                                       |
| Manufacturer                            | SHIN-ETSU CHEMICAL CO<br>LTD (E48923) | KINGFA SCI & TECH CO<br>LTD (E171666) |
| Material Designation                    | KE-5612G@, MSR-1                      | HF-630 (ABS)                          |
| Minimum Thickness, (mm)                 | 2.0                                   | 2.0                                   |
| Minimum Flammability Rating             | 5VA                                   | 5VA                                   |
| RTI, °C                                 | 150                                   | 60                                    |
| Special Note:                           | @ - May be suffixed<br>with "U".      |                                       |

|                             |  |                                       |
|-----------------------------|--|---------------------------------------|
| Model                       | US-CFZ1.0BD/N8-DMB (A9)-B, US-CFZ0.7BD/N8-DMB (A9)-B   |                                       |
| Water Pump Enclosure        | Recognized (QMFZ2,8)                                   |                                       |
| MANUFACTURER                | ORINKO (HEFEI)<br>ADVANCED PLASTIC CO<br>LTD (E328304) | KINGFA SCI & TECH CO<br>LTD (E171666) |
| MATERIAL DESIGNATION        | ABS-3265   | ABS, HF-630                           |
| THICKNESS, (MM)             | 2.0  | 2.0                                   |
| MINIMUM FLAMMABILITY RATING | 5VA  | 5VA                                   |
| RTI, °C                     | 60   | 60                                    |

Note: Line voltage wiring is isolated from 94HB and 94HBF rated materials unless the wiring is rated VW-1.

## 30-20 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 and have materials within the flame cylinder which have required them to be evaluated to the Nichrome Wire Test.

| Ref. Model | Connector Description                        | Location                                       | Materials Surrounding the Connection   |
|------------|--|--|--|
| All        | Power supply wiring connector on control PWB | Within control box                             | Materials within 3 mm:<br>a) Sleeving with VW-1<br>b) Wire Insulation, VW-1 Wiring<br>Materials within 20 x 50mm cylinder:<br>a) control box, 5VA<br>b) Relay housing, V-0<br>c) Unit partition, HB    |
| All        | Compressor wiring connector on control PWB   | Within control box                             | Materials within 3 mm:<br>a) Sleeving with VW-1<br>b) Wire Insulation, VW-1 Wiring<br>Materials within 20 x 50mm cylinder:<br>a) control box, 5VA<br>b) Relay housing, V-0<br>c) Unit partition, HB    |
| All        | Compressor running capacitor terminal        | Within compressor capacitor terminal enclosure | Materials within 3 mm:<br>a) Sleeving with VW-1<br>b) Wire Insulation, VW-1 Wiring<br>Materials within 20 x 50mm cylinder:<br>a) Compressor capacitor terminal enclosure, 5VA<br>b) Unit partition, HB |
| All        | Compressor Terminal                          | Within Compressor terminal cover               | Materials within 3 mm:<br>a) Sleeving with VW-1<br>b) Wire Insulation, VW-1 Wiring<br>Materials within 20 x 50mm cylinder:<br>a) Compressor terminal cover, 5VA  |

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:

## 40-1 Compressor (Recognized SLIS2, 8)

|                                 |   |
|---------------------------------|---|
| Model                           | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B   |
| Manufacturer                    | GUANGDONG MEIZHI COMPRESSOR LTD (SA12105)   |
| UL File No./Issued Date         | SA12105, 2009-09-17   |
| Designation                     | KSK66E11VZZX  |
| Midea Code                      | 11103010016873  |
| Electrical Rating               |   |
| V, Hz, Phase                    | 115, 60, 1  |
| LRA                             | 27  |
| Bonding for Grounding           | A dedicated bonding wire identified by color combination green/yellow (16 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |
| Terminal Enclosure              | R/C (QMFZ2, CN), Rated 5VA, RTI - Min. 150°C  |
| Gasket under Terminal Enclosure | R/C (QMFZ2, CN), Rated Min. HB, RTI - Min. 150°C  |

## 40-2 Overload Protector

|                          |   |
|--------------------------|---|
| Model                    | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B |
| Employed with Compressor | KSK66E11VZZX  |
| Listee's Name            | Ubukata Industries Co., Ltd.(E85460)                |
| Model or Designation     | UP3RE0591-T56(UP3-43)                               |
| Internal or External     | Internal  |

## 40-5 Run Capacitor (Recognized CYWT2, CN) (See Sec. Gen. for Spacings)

|   |   |
|---|---|
| Model   | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B |
| Employed with Compressor                        | KSK66E11VZZX  |
| Type  | Oil Filled  |
| Listee's Name                                   | Various   |
| Model No.                                       | Various   |
| Rating, uF, V min., minimum Ambient Temperature | 40, 250, T70  |
| Minimum AFC Rating                              | 5000  |
| Location  | Beside the Fan shroud                               |
| Container Material                              | Aluminum or steel                                   |
| Corrosion Protection                            | Inherent  |
| Mounting (+)                                    | Minimum 14.3 mm clearance                           |
| Retention means                                 | Secured by a metal strap and screw                  |

(+) - No obstruction located in front of cover.

## 40-1 Compressor (Recognized SLIS2, 8)

|                                 |   |
|---------------------------------|---|
| Model                           | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B   |
| Manufacturer                    | GUANGDONG MEIZHI COMPRESSOR LTD (SA12105)   |
| UL File No./Issued Date         | SA12105, 2009-09-17   |
| Designation                     | KSK49E21CZZX3   |
| Midea Code                      | 11103010023820  |
| Electrical Rating               |   |
| V, Hz, Phase                    | 115, 60, 1  |
| LRA                             | 19  |
| Bonding for Grounding           | A dedicated bonding wire identified by color combination green/yellow (16 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |
| Terminal Enclosure              | R/C (QMFZ2, CN), Rated 5VA, RTI - Min. 150°C  |
| Gasket under Terminal Enclosure | R/C (QMFZ2, CN), Rated Min. HB, RTI - Min. 150°C  |

## 40-2 Overload Protector

|                          |   |
|--------------------------|---|
| Model                    | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B |
| Employed with Compressor | KSK49E21CZZX3                                       |
| Listee's Name            | Ubukata Industries Co., Ltd.(E85460)                |
| Model or Designation     | UP3PE0578-T71 (UP3-00)                              |
| Internal or External     | Internal  |

## 40-5 Run Capacitor (Recognized CYWT2, CN) (See Sec. Gen. for Spacings)

|   |   |
|---|---|
| Model   | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B |
| Employed with Compressor                        | KSK49E21CZZX3                                       |
| Type  | Oil Filled  |
| Listee's Name                                   | Various   |
| Model No.                                       | Various   |
| Rating, uF, V min., minimum Ambient Temperature | 35, 250, T70  |
| Minimum AFC Rating                              | 5000  |
| Location  | Beside the Fan shroud                               |
| Container Material                              | Aluminum or steel                                   |
| Corrosion Protection                            | Inherent  |
| Mounting (+)                                    | Minimum 14.3 mm clearance                           |
| Retention means                                 | Secured by a metal strap and screw                  |

(+) - No obstruction located in front of cover.

## 40-1 Compressor (Recognized SLIS2, 8)

|                                 |   |
|---------------------------------|---|
| Model                           | US-CFZ0.4BD/N8-DMA (A7)   |
| Manufacturer                    | GUANGDONG MEIZHI COMPRESSOR LTD (SA12105)   |
| UL File No./Issued Date         | SA12105, 2009-09-17   |
| Designation                     | KSK31E21CZDX3   |
| Midea Code                      | 11103010023675  |
| Electrical Rating               |   |
| V, Hz, Phase                    | 115, 60, 1  |
| LRA                             | 11  |
| Bonding for Grounding           | A dedicated bonding wire identified by color combination green/yellow (16 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |
| Terminal Enclosure              | R/C (QMFZ2, CN), Rated 5VA, RTI - Min. 150°C  |
| Gasket under Terminal Enclosure | R/C (QMFZ2, CN), Rated Min. HB, RTI - Min. 150°C  |

## 40-2 Overload Protector

|                          |                                      |
|--------------------------|--------------------------------------|
| Model                    | US-CFZ0.4BD/N8-DMA (A7)              |
| Employed with Compressor | KSK31E21CZDX3                        |
| Listee's Name            | Ubukata Industries Co., Ltd.(E85460) |
| Model or Designation     | URP-187-78                           |
| Internal or External     | Internal                             |

## 40-5 Run Capacitor (Recognized CYWT2, CN) (See Sec. Gen. for Spacings)

|   |                                    |
|---|------------------------------------|
| Model   | US-CFZ0.4BD/N8-DMA (A7)            |
| Employed with Compressor                        | KSK31E21CZDX3                      |
| Type  | Oil Filled                         |
| Listee's Name                                   | Various                            |
| Model No.                                       | Various                            |
| Rating, uF, V min., minimum Ambient Temperature | 35, 250, T70                       |
| Minimum AFC Rating                              | 5000                               |
| Location  | Beside the Fan shroud              |
| Container Material                              | Aluminum or steel                  |
| Corrosion Protection                            | Inherent                           |
| Mounting (+)                                    | Minimum 14.3 mm clearance          |
| Retention means                                 | Secured by a metal strap and screw |

(+) - No obstruction located in front of cover.



## 50 REFRIGERATION SYSTEM: (Refrigerant Containing Components)

## 50-1 Condenser (Fin and Tube Types)

|   |  |
|---|--|
| Model   | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9)-B, US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9)-B |
| Manufacturer                                    | See cover page   |
| Midea code (NOT FOR FIELD REPRESENTATIVE'S USE) | 15820100000780   |
| No. Tubes High                                  | 12   |
| No. Tubes Deep                                  | 2  |
| Physical Size of Finned Section, W x H x D, mm  | U shape, 249 x 234 x 254   |
| Tubing Material                                 | Copper   |
| Tubing OD, mm                                   | 5  |
| Tubing Wall Thickness, mm                       | 0.2  |
| Return Bend Tubing OD, mm                       | 5  |
| Return Bend Wall Thickness, mm                  | 0.41, 0.6  |
| Fins per Inch                                   | 21   |
| Bonding for Grounding (Method)                  | Through copper tubing to compressor  |
| Product Line Test Pressure, MPa (Minimum)       | 3.4  |
| Illustration                                    | Refer to ILL. 13 for details   |

|   |                                     |
|---|-------------------------------------|
| Model   | US-CFZ0.4BD/N8-DMA (A7)             |
| Manufacturer                                    | See cover page                      |
| Midea code (NOT FOR FIELD REPRESENTATIVE'S USE) | 15820100000776                      |
| No. Tubes High                                  | 14                                  |
| No. Tubes Deep                                  | 1                                   |
| Physical Size of Finned Section, W x H x D, mm  | U shape, 213 x 203 x 195            |
| Tubing Material                                 | Copper                              |
| Tubing OD, mm                                   | 5                                   |
| Tubing Wall Thickness, mm                       | 0.2                                 |
| Return Bend Tubing OD, mm                       | 5                                   |
| Return Bend Wall Thickness, mm                  | 0.41, 0.6                           |
| Fins per Inch                                   | 21                                  |
| Bonding for Grounding (Method)                  | Through copper tubing to compressor |
| Product Line Test Pressure, (MPa) (Minimum)     | 3.3                                 |
| Illustration                                    | Refer to ILL. 13A for details       |

## 50-2 Evaporator (Fin and Tube Type)

|   |  |
|---|--|
| Model   | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B, US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B |
| Manufacturer                                    | See cover page   |
| Midea code (NOT FOR FIELD REPRESENTATIVE'S USE) | 15820100000796   |
| No. Tubes High                                  | 10   |
| No. Tubes Deep                                  | 1  |
| Physical Size of Finned Section, W x H x D, mm  | U shape, 280 x 231 x 271   |
| Tubing Material                                 | Aluminum   |
| Tubing OD, mm                                   | 7  |
| Tubing Wall Thickness, mm                       | 0.47   |
| Return Bend OD, mm                              | 7  |
| Return Bend Wall Thickness, mm                  | 0.7  |
| Fins per Inch                                   | 21   |
| Bonding   | Through copper tubing to compressor  |
| Product Line Test Pressure, MPa (Minimum)       | 2.0  |
| Illustration                                    | Refer to ILL. 14 for details   |

|   |                                     |
|---|-------------------------------------|
| Model   | US-CFZ0.4BD/N8-DMA (A7)             |
| Manufacturer                                    | SEE COVER PAGE                      |
| Midea code (NOT FOR FIELD REPRESENTATIVE'S USE) | 15820100000778                      |
| No. Tubes High                                  | 10                                  |
| No. Tubes Deep                                  | 1                                   |
| Physical Size of Finned Section, W x H x D, mm  | U SHAPE, 248 X 210 X 211            |
| Tubing Material                                 | Aluminum                            |
| Tubing OD, mm                                   | 7                                   |
| Tubing Wall Thickness, mm                       | 0.47                                |
| Return Bend OD, mm                              | 7                                   |
| Return Bend Wall Thickness, mm                  | 0.7                                 |
| Fins per Inch                                   | 21                                  |
| Bonding   | Through copper tubing to compressor |
| Product Line Test Pressure, MPa (Minimum)       | 2.0                                 |
| Illustration                                    | Refer to ILL. 14A for details       |

50-3 Accumulator - Integrated Part of R/C Compressor

50-4 Refrigerant Control

|  |   |   |
|--|---|---|
| Model  | US-CFZ1.0BD/N8-DMB (A9) ,<br>US-CFZ1.0BD/N8-DMB (A9) -B | US-CFZ0.7BD/N8-DMB (A9) ,<br>US-CFZ0.7BD/N8-DMB (A9) -B |
| Capillary Tube - No.<br>Provided                       | 1   | 1   |
| Material   | Copper  | Copper  |
| ID, mm   | 0.9   | 0.9   |
| Wall Thickness, mm                                     | 0.65  | 0.65  |
| Length, mm   | 400   | 450   |
| Capillary Code (Not<br>for UL<br>Representative's use) | CT1 (15120100002392)                                    | CT2 (15120100002858)                                    |
| Model  | US-CFZ0.4BD/N8-DMA (A7)                                 |   |
| Capillary Tube - No.<br>Provided                       | 1   |   |
| Material   | Copper  |   |
| ID, mm   | 0.9   |   |
| Wall Thickness, mm                                     | 0.65  |   |
| Length, mm   | 700   |   |
| Capillary Code (Not<br>for UL<br>Representative's use) | CT3 (15120100002336)                                    |   |

50-6 Interconnecting Tubing (See Sec. Gen.)

50-7 Method of Joining Tubing and Components - See Sec. Gen.

Copper-aluminum transition joints are employed, galvanic corrosion was prevented by painting or plastic tubing.

## 60-1 Fan Motor (Recognized XEWR2, 8) -

|                         |  |
|-------------------------|--|
| Model                   | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B  |
| Listee's Name           | GUANGDONG WELLING MOTOR MFG CO LTD (E193481)   |
| Midea Code              | 11002012037594, YKT-12-4-203L  |
| Recognized Designation  | YKT-12-4-203L  |
| UL File No./Issued Date | E193481, 2014-08-15  |
| Rating                  | 115V, 0.33A, 12W, 60Hz, Class B  |
| Winding material        | Aluminum   |
| Overheating Protection  | Thermally protected  |
| Listee's Name           | Foshan Changhong Tongli Electric Appliance Co Ltd (E309547)  |
| Model Designation       | KW-A2  |
| Motor Type              | Enclosed   |
| Mounting                | Secured to fan motor bracket by screws   |
| Bonding for Grounding   | A dedicated bonding wire identified by color combination green/yellow (Minimum No.22 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |

## 60-2 Fan Capacitor (Recognized CYWT2, 8) (See Sec. Gen. For Spacings)

|  |   |
|--|---|
| Model  | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B |
| Employed with Fan Motor                      | YKT-12-4-203L                                       |
| Type   | Dry   |
| Listee                                       | Various   |
| Model No.                                    | Various   |
| Rating, uF, V min., min. Ambient Temperature | 6, 250, T70   |
| Location                                     | Within Control Box                                  |
| Securement                                   | By one screw  |

## 60-1 Fan Motor (Recognized XEWR2, 8) - Alternate

|                         |  |
|-------------------------|--|
| *Model                  | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B  |
| Listee's Name           | ZHONGSHAN BROAD-OCEAN MOTOR CO LTD (E256965)   |
| Midea Code              | 11002012037594, YKT-12-4-203L  |
| Recognized Designation  | Y4L403A551L  |
| UL File No./Issued Date | E256965, 2018-02-12  |
| Rating                  | 115V, 0.33A, 60Hz, Class B   |
| Winding material        | Aluminum   |
| Overheating Protection  | Thermally protected  |
| Listee's Name           | JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD (E214731)   |
| Model Designation       | BR-A2D   |
| Motor Type              | Enclosed   |
| Mounting                | Secured to fan motor bracket by screws   |
| Bonding for Grounding   | A dedicated bonding wire identified by color combination green/yellow (Minimum No.22 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |

## 60-2 Fan Capacitor (Recognized CYWT2, 8) (See Sec. Gen. For Spacings)

|  |   |
|--|---|
| *Model                                       | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B |
| Employed with Fan Motor                      | Y4L403A551L   |
| Type   | Dry   |
| Listee                                       | Various   |
| Model No.                                    | Various   |
| Rating, uF, V min., min. Ambient Temperature | 6, 250, T70   |
| Location                                     | Within Control Box                                  |
| Securement                                   | By one screw  |

## 60-1 Fan Motor (Recognized XEWR2, 8) - Alternate

|                         |  |
|-------------------------|--|
| Model                   | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B  |
| Listee's Name           | GREEN-INTELLIGENCE ELECTRICAL EQUIPMENT CO., LTD, NANHAI DISTRICT, FOSHAN CITY (E235113)   |
| Midea Code              | 11002012037594, YKT-12-4-203L  |
| Recognized Designation  | YDK-AI-12-4X   |
| UL File No./Issued Date | E235113, 2020-08-17  |
| Rating                  | 115V, 0.32A, 60Hz, 12W, Class A  |
| Winding material        | Aluminum   |
| Overheating Protection  | Thermally protected  |
| Listee's Name           | JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD (E214731)   |
| Model Designation       | BR-A   |
| Motor Type              | Enclosed   |
| Mounting                | Secured to fan motor bracket by screws   |
| Bonding for Grounding   | A dedicated bonding wire identified by color combination green/yellow (Minimum No.22 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |

## 60-2 Fan Capacitor (Recognized CYWT2, 8) (See Sec. Gen. For Spacings)

|  |   |
|--|---|
| Model  | US-CFZ1.0BD/N8-DMB (A9), US-CFZ1.0BD/N8-DMB (A9) -B |
| Employed with Fan Motor                      | YDK-AI-12-4X  |
| Type   | Dry   |
| Listee                                       | Various   |
| Model No.                                    | Various   |
| Rating, uF, V min., min. Ambient Temperature | 6, 250, T70   |
| Location                                     | Within Control Box                                  |
| Securement                                   | By one screw  |

## 60-1 Fan Motor (Recognized XEWR2, 8) -

|                         |  |
|-------------------------|--|
| Model                   | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B  |
| Listee's Name           | GUANGDONG WELLING MOTOR MFG CO LTD (E193481)   |
| Midea Code              | 11002012037594, YKT-12-4-203L  |
| Recognized Designation  | YKT-12-4-203L  |
| UL File No./Issued Date | E193481, 2014-08-15  |
| Rating                  | 115V, 0.24A, 9W, 60Hz, Class B   |
| Winding material        | Aluminum   |
| Overheating Protection  | Thermally protected  |
| Listee's Name           | Foshan Changhong Tongli Electric Appliance Co Ltd (E309547)  |
| Model Designation       | KW-A2  |
| Motor Type              | Enclosed   |
| Mounting                | Secured to fan motor bracket by screws   |
| Bonding for Grounding   | A dedicated bonding wire identified by color combination green/yellow (Minimum No.22 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |

## 60-2 Fan Capacitor (Recognized CYWT2, 8) (See Sec. Gen. For Spacings)

|  |   |
|--|---|
| Model  | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B |
| Employed with Fan Motor                      | YKT-12-4-203L                                       |
| Type   | Dry   |
| Listee                                       | Various   |
| Model No.                                    | Various   |
| Rating, uF, V min., min. Ambient Temperature | 3, 250, T70   |
| Location                                     | Within Control Box                                  |
| Securement                                   | By one screw  |

## 60-1 Fan Motor (Recognized XEWR2, 8) - Alternate

|                         |  |
|-------------------------|--|
| Model                   | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B  |
| Listee's Name           | ZHONGSHAN BROAD-OCEAN MOTOR CO LTD (E256965)   |
| Midea Code              | 11002012037594, YKT-12-4-203L  |
| Recognized Designation  | Y4L403A551L  |
| UL File No./Issued Date | E256965, 2018-02-12  |
| Rating                  | 115V, 0.23A, 60Hz, Class B   |
| Winding material        | Aluminum   |
| Overheating Protection  | Thermally protected  |
| Listee's Name           | JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD (E214731)   |
| Model Designation       | BR-A2D   |
| Motor Type              | Enclosed   |
| Mounting                | Secured to fan motor bracket by screws   |
| Bonding for Grounding   | A dedicated bonding wire identified by color combination green/yellow (Minimum No.22 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |

## 60-2 Fan Capacitor (Recognized CYWT2, 8) (See Sec. Gen. For Spacings)

|  |   |
|--|---|
| Model  | US-CFZ0.7BD/N8-DMB (A9), US-CFZ0.7BD/N8-DMB (A9) -B |
| Employed with Fan Motor                      | Y4L403A551L   |
| Type   | Dry   |
| Listee                                       | Various   |
| Model No.                                    | Various   |
| Rating, uF, V min., min. Ambient Temperature | 3, 250, T70   |
| Location                                     | Within Control Box                                  |
| Securement                                   | By one screw  |



60-1 Fan Motor (Recognized XEWR2, 8) - Alternate

(Reserved for future use)

## 60-1 Fan Motor (Recognized XEWR2, 8) - (CONT'D)

|                         |   |
|-------------------------|---|
| Model                   | US-CFZ0.4BD/N8-DMA (A7)   |
| Listee's Name           | GUANGDONG WELLING MOTOR MFG CO LTD (E193481)  |
| Midea Code              | 11002012037595, YKT-5-4-16L   |
| Recognized Designation  | YKT-5-4-16L   |
| UL File No./Issued Date | E193481, 2014-08-15   |
| Rating                  | 115V, 0.14A, 5W, 60Hz, Class B  |
| Overheating Protection  | Thermally protected   |
| Listee's Name           | Foshan Changhong Tongli Electric Appliance Co Ltd (E309547)   |
| Model Designation       | KW-A2   |
| Motor Type              | Enclosed  |
| Mounting                | Secured to fan motor bracket by screws  |
| Bonding for Grounding   | A dedicated bonding wire identified by color combination green/yellow (Minimum No.22AWG) secured to control box by a mechanical screw with 4 mm thread diameter |

## 60-2 Fan Capacitor (Recognized CYWT2, 8) (See Sec. Gen. For Spacings)

|  |                         |
|--|-------------------------|
| Model  | US-CFZ0.4BD/N8-DMA (A7) |
| Employed with Fan Motor                      | YKT-5-4-16L             |
| Type   | Dry                     |
| Listee                                       | Various                 |
| Model No.                                    | Various                 |
| Rating, uF, V min., min. Ambient Temperature | 2, 250, T70             |
| Location                                     | Within Control Box      |
| Securement                                   | By one screw            |

## 60-1 Fan Motor (Recognized XEWR2, 8) - Alternate

|                         |  |
|-------------------------|--|
| Model                   | US-CFZ0.4BD/N8-DMA (A7)  |
| Listee's Name           | ZHONGSHAN BROAD-OCEAN MOTOR CO LTD (E256965)   |
| Midea Code              | 11002012037595, YKT-5-4-16L  |
| Recognized Designation  | Y4L403A552L  |
| UL File No./Issued Date | E256965, 2018-02-12  |
| Rating                  | 115V, 0.16A, 60Hz, Class B   |
| Overheating Protection  | Thermally protected  |
| Listee's Name           | JIANGSU CHANGSHENG ELECTRIC APPLIANCE CO LTD (E214731)   |
| Model Designation       | BR-A2D   |
| Motor Type              | Enclosed   |
| Mounting                | Secured to fan motor bracket by screws   |
| Bonding for Grounding   | A dedicated bonding wire identified by color combination green/yellow (Minimum No.22 AWG) secured to control box by a mechanical screw with 4 mm thread diameter |

## 60-2 Fan Capacitor (Recognized CYWT2, 8) (See Sec. Gen. For Spacings)

|  |                         |
|--|-------------------------|
| Model  | US-CFZ0.4BD/N8-DMA (A7) |
| Employed with Fan Motor                      | Y4L403A552L             |
| Type   | Dry                     |
| Listee                                       | Various                 |
| Model No.                                    | Various                 |
| Rating, uF, V min., min. Ambient Temperature | 2, 250, T70             |
| Location                                     | Within Control Box      |
| Securement                                   | By one screw            |

## 70 ELECTRICAL COMPONENTS:

## 70-1 Switches

|                    |   |
|--------------------|---|
| Model              | All   |
| Location/Enclosure | Unit Base, within cabinet   |
| Comments           | Electrically locating in SELV. Control humidity operation by sending signal to control IC (low voltage circuit). No safety functions. |

## 70-2 Water Pump - Recognized (REUZ2,8)

|                                |  |                               |
|--------------------------------|--|-------------------------------|
| Model                          | US-CFZ1.0BD/N8-DMB(A9)-B, US-CFZ0.7BD/N8-DMB(A9)-B |                               |
| Manufacturer                   | JIANGSU LEILI MOTOR CO LTD (E254223)               | ET TECHNOLOGY LTD (E331129)   |
| Issue Date                     | 2015-05-29   | 2009-09-01                    |
| Recognized Designation,        | EP11-2   | M8                            |
| Electrical Rating, V, A, W, Hz | 120, 0.16, 16, 60, CLASS F                         | 100-120, 0.2, 16, 60, Class F |
| Location                       | Under unit partition                               |                               |
| Comments                       | Used to pump water from water bucket to drain pipe |                               |

Alternate: same as before except below

|               |  |                              |
|---------------|--|------------------------------|
| Model         | US-CFZ1.0BD/N8-DMB(A9)-B, US-CFZ0.7BD/N8-DMB(A9)-B |                              |
| Listee's name | KELI MOTOR GROUP CO., LTD (E513488)                | ET Technology Ltd. (E331129) |
| Recognition   | REUZ2,8  | REUZ2,8                      |
| Designation   | EPSE   | M5                           |
| Rating        | 100-127V, 50/60Hz, 16W, 0.22A                      | 120V, 60Hz, 16W, 0.2A        |

## 70-3 Electric Controller

|   |   |
|---|---|
| Models  | ALL   |
| Main Control PWB Model  | US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1  |
| Manufacturer  | GD MIDEA AIR-CONDITIONING EQUIPMENT CO LTD  |
| Note  | See Sec. 110-5 for details  |
| Populated Components on PWB -   |   |
| Compressor Relay<br>(Electrically located<br>at ungrounded side, 1<br>provided)<br>(11203401000807) | <p>Or R/C (NLDX2, CN), XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517), Type HF115FK/12-HS1PT, Rated 250V, 10FLA, 60LRA, 50K cycles, T85. (#)</p> <p>Or R/C (NLDX2, CN), WANGRONG ELECTRONICS (SHENZHEN) CO LTD(E345228), Type RMIH-SS-112LM-S, Rated 250V, 1/3 HP, 30K cycles, T105. Also recognized as sealed device - R/C (NWFR2, 8), WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E504961), -40°C to 126.1 °C, epoxy resin seal.</p> <p>Or R/C (NLDX2, CN), ZHEJIANG MEISHUO ELECTRIC TECHNOLOGY CO LTD (E358149), Type MPJ-S-112-A-2, rated 1/3 HP, 120 V ac, 30K cycles, T105. (#)</p> <p>Or R/C (NLDX2, CN), SANYOU CORPORATION LIMITED (E190598), SMIH-SH-112LM, rated 1/3 HP, 120 V ac, 30K cycles, T85. Also recognized as sealed device - R/C (NWFR2, 8), Sanyou Corporation Limited (E480915), -40°C to 127.6 °C, epoxy resin seal.</p> <p># - See ILL. 22 for IEC 60079-15 certificate for relays.</p> |

## 70-3 Electric Controller (CONT'D)

|   |  |
|---|--|
| Models  | ALL  |
| Main Control PWB Model  | US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1   |
| Populated Components on   | PWB -  |
| <p>Fan Motor Relays<br/>(Electrically located at ungrounded side, 3 provided)</p> <p>Water Pump Relay (For units with water pump only, electrically located at ungrounded side, 1 provided)</p> <p>(Midea code: 11203401000808)</p> | <p>R/C (NLDX2, CN), DONGGUAN CHUOD ELECTRONICS CO LTD (E341422), Type CHM-S-112DA3, Rated 250 Vac, 1.4 FLA, 7.5 LRA, 100K cycle, T85. (Special Note - Not for UL Representative's Use: electrical load <math>\leq</math> 2500 VA)</p> <p>Or R/C (NRNT2, CN), NINGBO TIANBO GANGLIAN ELECTRONICS CO LTD (E173485), Type TRGB L-SS-112DM, rated 277VAC, 1/10 hp (1.25FLA, 7.5LRA), 100K cycles, T70. (Special Note - Not for UL Representative's Use: electrical load <math>\leq</math> 2500 VA)</p> <p>Or R/C (NLDX2, CN), SHENZHEN GOLDEN ELECTRICAL APPLIANCES CO LTD (E321783), Type Y5-1A-12LSFHT, Rated 240 Vac, 1/8 hp, 100K cycles, T85. (Special Note - Not for UL Representative's Use: electrical load <math>\leq</math> 2500 VA)</p> <p>Or R/C (NLDX2, CN), WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E345228), Type RC-112DM1H, Rated 240 Vac, 1/8HP, 30K cycles, T85. Also recognized as sealed device - R/C (NWFR2, 8), WANGRONG ELECTRONICS (SHENZHEN) CO LTD (E504961), -40°C to 124.5 °C, epoxy resin seal.</p> <p>Or R/C (NRNT2, CN), Zhejiang Meishuo Electric Technology Co.,LTD (E313266), Type MPR-S-112-A, rated 1/10 hp (1.25 FLA, 7.5 LRA), 277 Vac, 30K cycles, T105. (#)</p> <p>Or R/C (NLDX2, CN), Tyco Electronics (Shenzhen) Co Ltd (E58304), Type PCJ-112D3MH-WG, Rated 2.0 FLA/12 LRA, 250 Vac, 100K cycles, T85. (Special Note - Not for UL Representative's Use: electrical load <math>\leq</math> 2500 VA)</p> <p>Or R/C (NLDX2, CN), XIAMEN HONGFA ELECTROACOUSTIC CO LTD (E134517), Type HF46F/12-HS1(335), Rated 250V, 2 FLA, 12 LRA, 100K cycles, T85. (Special Note - Not for UL Representative's Use: electrical load <math>\leq</math> 2500 VA)</p> <p>Or R/C (NLDX2, CN), SANYOU CORPORATION LIMITED (E190598), Type SRB-SH-112DM2, Rated 1/6HP, 250/277Vac, 30K cycles, T85. (#)<br/># - See ILL. 22 for IEC 60079-15 certificate for relays.</p> |
| Display PWB   | R/C (ZPMV2), Located in Low Voltage Circuit supplied by switching mode power supply  |

## 80 INTERNAL WIRING:

## 80-1 Wiring Method

Except as follows, see Sec. Gen. for complete wiring details.

- A. Compressor leads are No. 16 AWG (UL 1015), rated 105°C.
- B. Fan motor leads are Minimum NO. 22AWG (UL 1015), rated 105°C.
- C. Water pump lead (if employed), Minimum NO. 18AWG (UL 1015), rated 105°C.
- D. All wiring is rated VW-1, 300 V minimum.
- E. The high voltage internal leads are insulated from low voltage internal leads (SELV) by physical position arrangement. See figure 10. The internal leads are additionally covered by one layer of R/C (YDPU2, CN) insulating sleeving as supplementary protection.

Wiring Diagram (For reference only) -

See ILL. 2 for details.

## 90 ELECTRICAL SUPPLY CONNECTION:

## 90-1 Cord Connected Unit

|  |  |
|--|--|
| Model                                  | All  |
| Power Supply Cord (with plug)          | Any Listed (ELBZ,7)  |
| Flexible Cord Type                     | SJT  |
| Size, AWG No.                          | 16   |
| Attachment Plug Cap                    |  |
| Midea Code                             | 17401202008407   |
| Rating (V, A)                          | 125, 15  |
| Cord Length(+), (m)                    | 1.5 minimum, 3.0 maximum   |
| Strain Relief Means                    | See ILL. 15  |
| Means to prevent pushback displacement | By cable clamp   |
| Grounding Conductor Color              | Green with one or more yellow stripes.   |
| Securement of Grounding Conductor      |  |
| Location                               | Control Box Outer Enclosure Cover  |
| Securement of Means                    | Mechanical screw diameter 4 mm with star washer  |
| Comments                               | Symbol IEC 60417-5019 (protective earthing) shall be provided besides earthing terminal. |

+ - Measured between the attachment plug and (1) any point at which the cord exits the product cabinet or (2) the last strain relief, whichever is shorter.



## 100 ADDITIONAL COMPONENTS:

|   |     |
|---|-----|
| Model   | All |
| Cluster Connectors - Recognized (ECBT2, CN), suitable for size and type of wires used.    |     |
| Quick Connectors - Recognized (RFWV2, CN), suitable for size and type of wires used.      |     |
| Tubing/Sleeving - Recognized (YDPU2, CN), VW-1, suitable for size and type of wires used. |     |

## 100-5 Wifi Module - (Optional)

|                      |  |
|----------------------|--|
| Model                | All  |
| Printed Wiring Board | R/C (ZPMV2,8)  |
| Connection           | Connect to Temperature Controllers                                   |
| Mounting             | Secured to Wifi Module Box by tap.                                   |
| Location             | Within Wifi Module Box   |
| Comments             | Only for regulating usage, no safety functions.<br>Supplied by SELV. |

## 100-10 Casters - (Optional)

|          |  |
|----------|--|
| Model    | All                                    |
| Number   | 4                                      |
| Mounting | By snip fit to water bucket            |
| Location | Bottom of water bucket at four corners |
| Comments | See Fig. 13                            |

## 110-5 Power Supply - Main control PWB

|  |   |
|--|---|
| Main Control PWB model                     | US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1  |
| Manufacturer                               | GD MIDEA AIR-CONDITIONING EQUIPMENT CO LTD  |
| Location                                   | Within Control Box  |
| Electrical rating                          | Input: 115 V, 60 Hz   |
| Circuit Schematic                          | See ILL. 17 for details   |
| PWB Layout                                 | See ILL. 18 for details   |
| Printed Wiring Board                       | R/C ZPMV2, rated minimum 130°C, V-0, CTI -3, suitable for direct support of live parts  |
| Populated Components on PWB                |   |
| Current Fuse (FUSE1)<br>(11203001002541)   | R/C (JDYX2, 8), XC ELECTRONICS (SHENZHEN) CORP LTD (E249609), Type 4T, rated 250Vac, 3.15A.<br>Or R/C (JDYX2, 8), DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD (E300003), Type 334, rated 250Vac, 3.15A.   |
| Varistor (ZR1)<br>(11201315000025)         | R/C (VZCA2/8), THINKING ELECTRONIC INDUSTRIAL CO LTD (E314979), Type TVR14681, rated voltage 420V, MLV 1600Vpk, In 3kA, 105°C.<br><br>Alternate - R/C (VZCA2/8), Success Electronics Co Ltd (E330256), Type SVR14D681K, rated Voltage 420V, MLV 1540Vpk, In 3kA, 105°C.<br><br>Alternate - R/C (VZCA2/8), NANJING SHAGON ELECTRONICS CO LTD (E321069), Type MYG14K681, Rated Voltage 420V, MLV 1720Vpk, In 3kA, 85°C<br><br>Alternate -R/C (VZCZ2/8), GUANGXI NEW FUTURE INFORMATION INDUSTRY CO LTD (E323753), Type 14D681K, Rated Voltage 420V, MLV 1620Vpk, In 3kA, 125°C<br><br>Alternate -R/C (VZCZ2/8), Chengdu Tieda Electronics Corporation (E334320), Type MYN15-681K, Rated Voltage 420V, MLV 1620Vpk, In 3kA, 85°C |
| Bridge Rectifier (BR1)<br>(11201418000061) | Type DB157S or any equivalent rated Maximum On-state Current 1.5A, RMS Reverse Voltage 700V.  |
| NTC (NTC1)<br>(11201307000008)             | Type UND104G396G35, manufactured by U-Nisum Technology Co. LTD, rated 100kohm +/-2% at 25°C.<br>Or Type WF01I104, manufactured by XIAOGAN HUAGONG GAOLI ELECTRON CO., LTD, rated 100kohm +/-2% at 25°C.   |
| Capacitors (C1)<br>(11201202000138)        | R/C (FOWX2/8), ceramic disc type, by XIAMEN FARATRONIC CO LTD (E186600), Type MKP62, subclass X2, rated 0.22µF, 275Vac, upper temperature 125°C minimum.<br><br>Alternate - Any R/C (FOWX2/8), subclass X2, rated 0.22µF, 275Vac, upper temperature 125°C minimum.  |
| Line Choke (L2)<br>(11201106000015)        | Type HG-600mA-33mH. See ILL. 20 for construction details.<br>Constructed as below:<br><br>a) Bobbin - R/C (QMFZ2), PMC, rated V-0, 150°C, measured minimum 0.7 mm thick. Maintain min. 2.4 mm spacing between L and N windings.<br>b) Core - Ferrite.<br>c) Windings - R/C (OBMW2), Two provided. Enamelled copper wire, each measures 0.28 mm diameter, 105 turns.   |

## 110-10 Power Supply - Main PWB (Cont'd)

|  |   |
|--|---|
| Model designation                                      | US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1  |
| Populated Components on PWB                            |   |
| Resistor (R211)<br>(11201312000579)                    | SMD 2010. Rated 1M ohms, 1/2W minimum.  |
| Capacitor (E1)<br>(11201205000557)                     | Electrolytic with integral pressure relief. Rated 450V, 22uF, 105°C.  |
| Capacitor (E401)<br>(11201205000126)                   | Electrolytic with integral pressure relief. Rated 50V, 47uF, 105°C  |
| Capacitor (E403)<br>(11201205001019)                   | Electrolytic with integral pressure relief. Rated 25V, 680uF, 105°C.  |
| Capacitor (C401)<br>(11201203000363)                   | 2200pF, 2kV   |
| Capacitor (C402, C403, C404, C407)<br>(11201209000109) | SMD 0603, Rated 100nF, 50V  |
| Capacitor (C406)<br>(11201203000120)                   | Ceramic type, Rated 470pF, 250V   |
| Resistor (R401)<br>(11201316000126)                    | Through-hole. Metal-film type. Rated 150k ohms, 2W.   |
| Resistor (R402)<br>(11201312003473)                    | SMD 0603, Rated 15 kΩ, 1/10 W   |
| Resistor (R403)<br>(11201312003440)                    | SMD 0805, Rated 330 kΩ, 1/8 W   |
| Resistor (R404)<br>(11201312000742)                    | SMD 0805, Rated 470 Ω, 1/8 W  |
| Resistor (R405)<br>(11201312003453)                    | SMD 0805, Rated 1000 Ω, 1/8W  |
| Resistor (R406)<br>(11201312003476)                    | SMD 0805, Rated 10 kΩ, 1/8 W  |
| Resistor (R407)<br>(11201312003193)                    | SMD 0805, Rated 18 kΩ, 1/8 W  |
| Resistor (R408)<br>(11201312003466)                    | SMD 0805, Rated 4.7 kΩ, 1/8 W   |
| Resistor (R409)<br>(11201312003432)                    | SMD 0805, Rated 100 kΩ, 1/8 W   |
| Resistor (R411)<br>(11201312000418)                    | SMD 1206, Rated 120 Ω, 1/4W   |
| Diode (D401)<br>(11201514000004)                       | Type M7 or any equivalent, rated RMS reverse voltage 700 V minimum, average forward current 1.0 A minimum.                  |
| Diode (D402)<br>(11201509001474)                       | Type US1MF or any equivalent fast rectifier rated RMS reverse voltage 700 V minimum, average forward current 1.0 A minimum. |
| Diode (D403)<br>(11201513000954)                       | Type MB3150 or any equivalent rectifier rated RMS reverse voltage 150 V minimum, Max. forward current 3.0 A minimum.        |
| Shunt Regulator IC<br>(IC603)<br>(11201406000096)      | Type TL431, manufactured by TEXAS INSTRUMENTS.  |
| IC (IC401)<br>(11201406005141)                         | Type PN8173, Manufactured by Wuxi Chipown Microelectronics Co.,Ltd.   |

## 110-10 Power Supply - Main PWB (Cont'd)

|   |   |
|---|---|
| Model designation                           | US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1  |
| Populated Components on PWB                 |   |
| Optical Coupler (IC402)<br>(11201409000003) | <p>R/C (FPQU2/8), SHENZHEN ORIENT COMPONENTS CO LTD (E323844), Type ORPC817x "x" may be any letter, number, or blank, double protection, Rated 5000Vac(isolation voltage), 110°C (max. operating temp.), 125°C (max. junction temperature TJ).</p> <p>Alternate - 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).</p> <p>Alternate - 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).</p> <p>Alternate - R/C (FPQU2/8), LITE-ON TECHNOLOGY CORP (E113898), type LTV-816, double protection, rated 5300 V ac (isolation voltage), 115°C (max. operating temp.), 125°C (max. junction temperature TJ).</p> <p>Alternate - R/C (FPQU2/8), CRM ICBG (Wuxi) Co Ltd (E465130), type HK817B, double protection, rated 5000 V ac (isolation voltage), 110°C (max. operating temp.), 125°C (max. junction temperature TJ).</p> |

## 110-10 Power Supply - Main PWB (Cont'd)

|  |  |
|--|--|
| Model designation                      | US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1   |
| Populated Components on PWB            |  |
| Transformer (T401)<br>(11203102004536) | <p>Cat. No. EE22(5+4)3P4-1.1L5. Bobbin Base formed by R/C (QMFZ2), Type Phenolic (PF) or PMC, rated V-0, 150°C, minimum 0.5 mm thick, Black color. Refer to ILL. 21 for manufacture and construction details. (Manufacturer code "RC", "JY" or "CY", "JS", "WM", "ZL". Note: "JY" and "CY" are identical except for manufacture location)</p> <p>Insulation tape -<br/>R/C (OANZ2) JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD (E246950), Cat. No. JY25-A(b), rated 130°C, PET, minimum 0.05 mm thick.<br/>Or R/C (OANZ2) CHANG SHU LIANG YI TAPE INDUSTRY CO LTD (E246820), type LY-XX, rated 130°C, PET, minimum 0.05 mm thick.<br/>Or R/C (OANZ2) JINGJIANG JINGYANG INSULATING PRODUCT CO LTD (E309872), type JY-133, rated 130°C, PET, minimum 0.05 mm thick.<br/>Or R/C (OZANZ2) JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111), Type CT, rated 130°C, minimum 0.05 mm thick.<br/>Or R/C (OZANZ2) TIANCHANG CHANGHE INSULATION PRODUCTS CO LTD (E505070), Type CH-A-01, rated 130°C, minimum 0.05 mm thick.</p> |

## Figures

| Fig.       |  |
|------------|--|
| 1          | Top view   |
| 2          | Front view   |
| 3          | Left side view   |
| 4          | Right side view  |
| 5          | Rear view  |
| 6          | Unit Base  |
| 7          | Internal view, front                                     |
| 8          | Internal view, left side                                 |
| 9          | Internal view, right side                                |
| 10         | Internal view, rear                                      |
| 11         | Internal view, control box                               |
| 12         | Internal view, for models with water pump                |
| 13         | Overall view for models with casters                     |
| 14,<br>14A | Control PWB US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1 |

## Illustrations

| ILL.    |   |
|---------|---|
| 1       | Installation/Operating Instructions   |
| 2       | Wiring Diagram  |
| 3, 3A   | Unit Front Cabinet  |
| 4, 4A   | Unit Left Cabinet   |
| 5, 5A   | Unit Right Cabinet  |
| 6, 6A   | Unit Rear Cabinet   |
| 7, 7A   | Unit Top Cabinet  |
| 8, 8A   | Water Bucket  |
| 9, 9A   | Control Box   |
| 10, 10A | Control Box Outer Enclosure   |
| 11      | Compressor Capacitor Terminal Enclosure                                     |
| 12, 12A | Fan Wheel   |
| 13, 13A | Condenser   |
| 14, 14A | Evaporator  |
| 15      | Strain Relief Device  |
| 16, 16A | Unit Base   |
| 17      | Circuit Schematic of US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1           |
| 18      | Printed Wiring Board Layout of US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1 |
| 19      | Water Pump Enclosure  |
| 20      | L2 of US-CF-DM(R7F0C908+PN8173).ZY001.JD.CS.NK.NP1                          |
| 21      | Transformer EE22 (5+4) 3P4-1.1L5  |
| 22      | IEC 60079-15 certificate for relay model HF115FK, MPJ, MPR, SRB series.     |