MASTER CONTRACT: 257272 REPORT: 80055063 PROJECT: 80113931

# Illustration 1- Nameplates

Portable Air Con	ditioner
Model No.	JHS-A016A-05KRH-D
Power Supply	115V~ 60Hz,1PH
Cooling Capacity(*)	8000 Btu/h
Total Input Current(Cooling)	7.5 A
SACC(^)	5400 Btu/h
CEER(^)	6.7
Heatling Capacity(*)	6000 Btu/h
Total Input Current(Heating)	7.0 A
Max. Operating Pressure(High sid	le) 3.72 MPa(540psig
Max. Operating Pressure(Low side	e) 2.07 MPa(300psig
Maximum Allowable Pressure	4.00 MPa(580psig
Refrigerant/Charge	R410A,300g(10.58 oz
Fan Motor FLA	1.6 A
Motor Compressor (RLA/LRA)	6.4A / 38A
Manufacturer Date	
Serial No.	

Made in China

Conforms to UL Std.60335-1&60335-2-40

Certified to CSA Std.C22.2 No.60335-1&60335-2-40

(\*)Based on ANSI/ASHRAE Standard 128-2001 (^)Based on U.S.DOE Standard 10 CFR Pt.430, Subpt. B, App. CC

P	ortable Air Co	nditioner
Model No.		JHS-A016A-06KRH-D
Power Supply		115V~ 60Hz,1PH
Cooling Capaci	ty(*)	9000 Btu/h
Total Input Curr	rent(Cooling)	8.8 A
SACC(^)		6100 Btu/h
CEER(^)		6.8
Heatling Capac	ity(*)	7000 Btu/h
Total Input Curr	ent(Heating)	7.5 A
Max. Operating Max. Operating		, , , , , ,
Max. Operating Maximum Allow Refrigerant/Cha	Pressure(Low s able Pressure	ide) 2.07 MPa(300psig) 4.00 MPa(580psig) R410A,340g(11.99 oz)
Max. Operating Maximum Allow Refrigerant/Cha Fan Motor FLA	Pressure(Low s vable Pressure arge	ide) 2.07 MPa(300psig) 4.00 MPa(580psig) R410A,340g(11.99 oz)
Max. Operating Maximum Allow Refrigerant/Cha Fan Motor FLA Motor Compres	Pressure(Low s vable Pressure arge	ide) 2.07 MPa(300psig) 4.00 MPa(580psig) R410A,340g(11.99 oz) 1.6 A
Max. Operating Maximum Allow Refrigerant/Cha Fan Motor FLA Motor Compres Manufacturer D	Pressure(Low s vable Pressure arge	ide) 2.07 MPa(300psig) 4.00 MPa(580psig) R410A,340g(11.99 oz) 1.6 A
Max. Operating Maximum Allow Refrigerant/Cha Fan Motor FLA Motor Compres Manufacturer D	Pressure(Low s vable Pressure arge	ide) 2.07 MPa(300psig) 4.00 MPa(580psig) R410A,340g(11.99 oz) 1.6 A 7.8A / 28A
Max. Operating Maximum Allow Refrigerant/Cha Fan Motor FLA	Pressure(Low s vable Pressure arge ssor (RLA/LRA)	ide) 2.07 MPa(300psig) 4.00 MPa(580psig) R410A,340g(11.99 oz) 1.6 A 7.8A / 28A

(\*)Based on ANSI/ASHRAE Standard 128-2001

(^)Based on U.S.DOE Standard 10 CFR Pt.430,Subpt. B,App.CC

P	ortable Air Co	nditioner
Model No.		JHS-A016A-06KRH-D
Power Supply		115V~ 60Hz,1PH
Cooling Capacity(*)		9000 Btu/h
Total Input Current(Cooling)		8.8 A
SACC(^)		6100 Btu/h
CEER(^)		6.8
Heatling Capac	ity(*)	7000 Btu/h
Total Input Curr	ent(Heating)	7.5 A
Maximum Allow Refrigerant/Cha Fan Motor FLA Motor Compres Manufacturer D	sor (RLA/LRA)	4.00 MPa(580psig) R410A,380g(13.41 oz) 1.6 A 6.2A / 36A
Manutacturer D Serial No.	ate	
	Made in Chir	C4M
(SP°	Conforms to UL Std.60335-18	&60335-2-40
257272	Certified to CSA Std.C22.2 f	No.60335-1&60335-2-40
(*)Based on ANSI/	ASHRAE Standard 1	28-2001



(\*)Based on ANSI/ASHRAE Standard 128-2001 (^)Based on U.S.DOE Standard 10 CFR Pt.430,Subpt. B,App.CC

	Portable Air Conditioner	
	Model No. JH	S-A016A-07KRH-D3
	Power Supply	115V~ 60Hz,1PH
	Cooling Capacity(*)	10000 Btu/h
	Total Input Current(Cooling)	9.2 A
	SACC(^)	7100 Btu/h
	CEER(^)	7.0
^	Heatling Capacity(*)	8000 Btu/l
	Total Input Current(Heating)	8.1 A
(E)	Max. Operating Pressure(High side)	3.72 MPa(540psig
	Max. Operating Pressure(Low side)	2.07 MPa(300psig
	Maximum Allowable Pressure	4.00 MPa(580psig
	Refrigerant/Charge	R32,255g(9.00 oz
	Fan Motor FLA	1.6 /
	Motor Compressor (RLA/LRA)	6.7A / 35/
	Manufacturer Date	
	Serial No.	
_	Made in China	C31
<b>S</b> A	<ul> <li>Conforms to</li> <li>UL Std 60335-1860335-2-40</li> </ul>	



Certified to CSA Std.C22.2 No.60335-1&60335-2-40

(\*)Based on ANSI/ASHRAE Standard 128-2001 (^)Based on U.S.DOE Standard 10 CFR Pt.430, Subpt. B,App.CC

MASTER CONTRACT: 257272

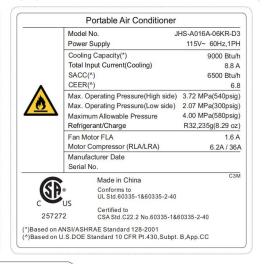
**REPORT**: 80055063 **PROJECT**: 80113931

Illustration 1A- Nameplates(the nameplates for JHS-A030 series are sam as the nameplates for JHS-A016 series except the different models)



P	ortable Air Cond	litioner
Model No.		JHS-A016A-06KR-D
Power Supply		115V~ 60Hz,1PH
Cooling Capacity(*)		9000 Btu/h
Total Input Cur	rent(Cooling)	8.8 A
SACC(^)		6100 Btu/h
CEER(^)		6.8
Max. Operating	g Pressure(High side	e) 3.72 MPa(540psig)
Max. Operating	Pressure(Low side	e) 2.07 MPa(300psig)
Maximum Allov	vable Pressure	4.00 MPa(580psig)
Refrigerant/Ch	arge F	R410A,340g(11.99 oz)
Fan Motor FLA		1.6 A
Motor Compressor (RLA/LRA)		7.8A / 28A
Manufacturer Derial No.	Date	
	Made in China	
(SP°	Conforms to UL Std. 60335-1&60335-2-40	
US	Certified to	
257272	CSA Std.C22.2 No.60335-1&60335-2-40	
(*)Based on ANSI/	ASHRAE Standard 128-	2001









MASTER CONTRACT: 257272 REPORT: 80055063

**PROJECT**: 80113931

Illustration 2 - Caution Labels

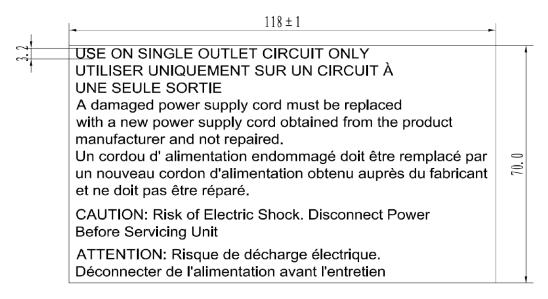
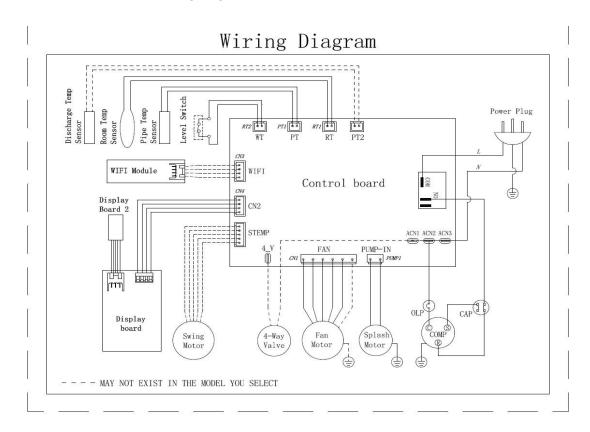


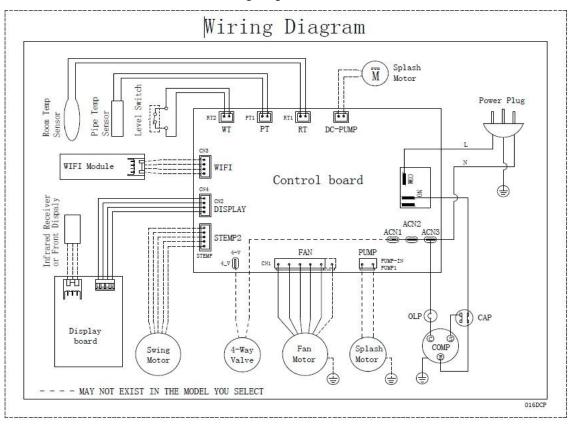
Illustration 3 - Electrical wiring diagram



MASTER CONTRACT: 257272 REPORT: 80055063

**REPORT**: 80055063 **PROJECT**: 80113931

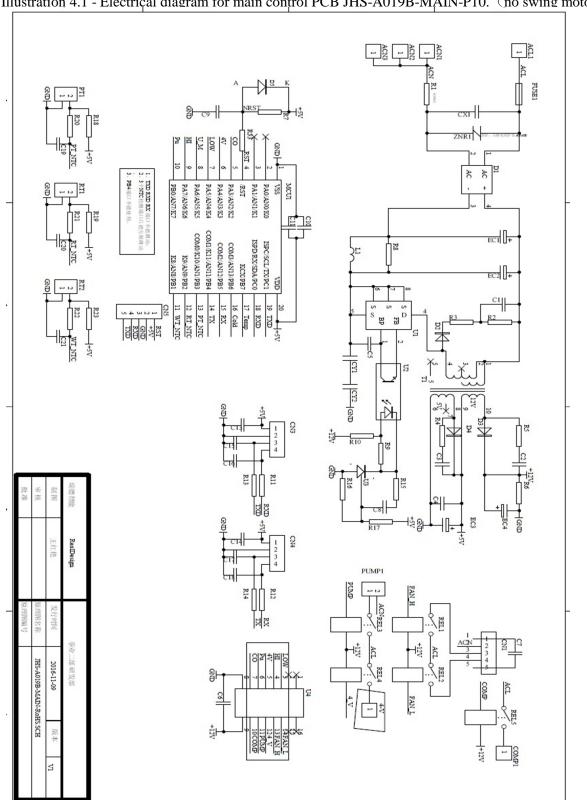
Illustration 3A - Alternative electrical wiring diagram



MASTER CONTRACT: 257272

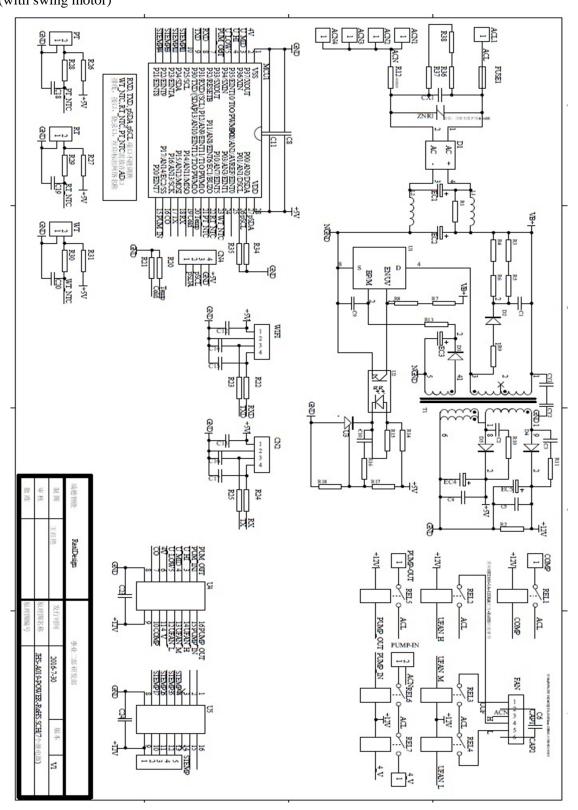
REPORT: 80055063 **PROJECT:** 80113931

Illustration 4.1 - Electrical diagram for main control PCB JHS-A019B-MAIN-P10. (no swing motor)



**MASTER CONTRACT**: 257272 **REPORT**: 80055063 **PROJECT**: 80113931

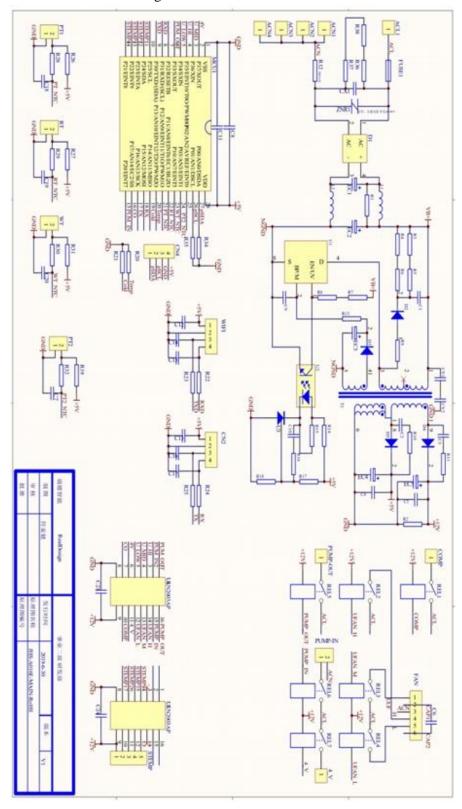
Illustration 4.2- Electrical diagram for alternative main control PCB JHS-A019-MAIN-P13 (with swing motor)



MASTER CONTRACT: 257272
REPORT: 80055063
PDO JECT: 80113031

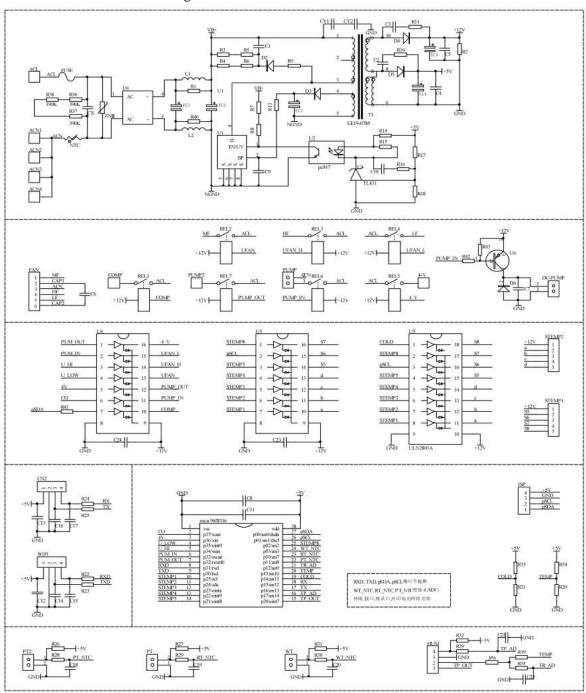
**PROJECT:** 80113931

Illustration 4.3 - Electrical diagram for alternative main control PCB JHS-A016E-MAIN-P10.



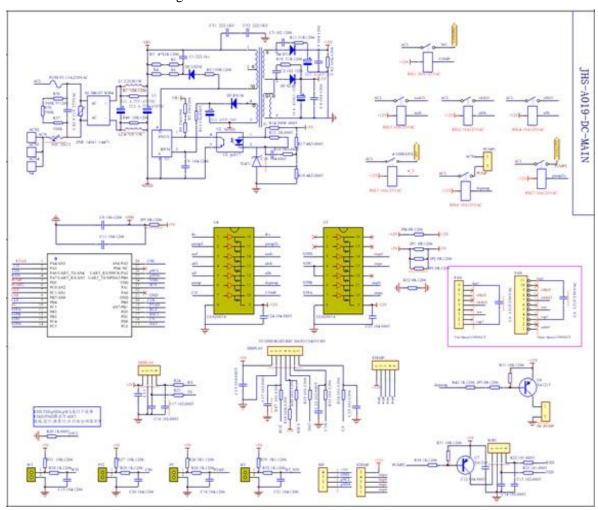
**MASTER CONTRACT**: 257272 **REPORT**: 80055063 **PROJECT**: 80113931

Illustration 4.3A - Electrical diagram for alternative main control PCB JHS-A016DCP-MAIN.



**MASTER CONTRACT**: 257272 **REPORT**: 80055063 **PROJECT**: 80113931

Illustration 4.3B - Electrical diagram for alternative main control PCB JHS-A019-DC-MAIN



MASTER CONTRACT: 257272 Att2 Illustrations Page 10 of 28

**REPORT**: 80055063 **PROJECT**: 80113931

Illustration 4.4 - Lay out for main control PCB JHS-A019B-MAIN-P10.

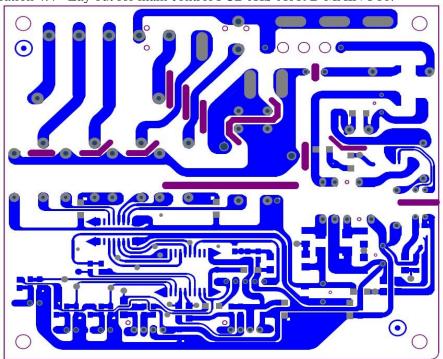
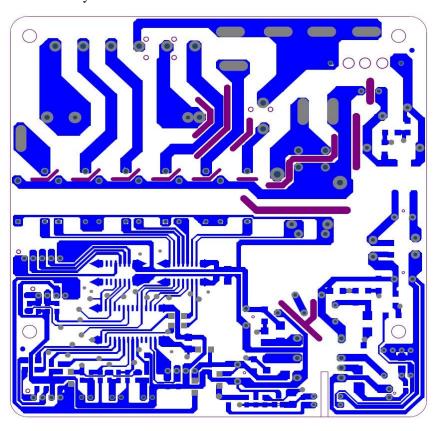


Illustration 4.5- Lay out for alternative main control PCB JHS-A019-MAIN-P13.



MASTER CONTRACT: 257272 Att2 Illustrations Page 11 of 28

**REPORT**: 80055063 **PROJECT**: 80113931

Illustration 4.6 - Lay out for alternative main control PCB JHS-A016E-MAIN-P10.

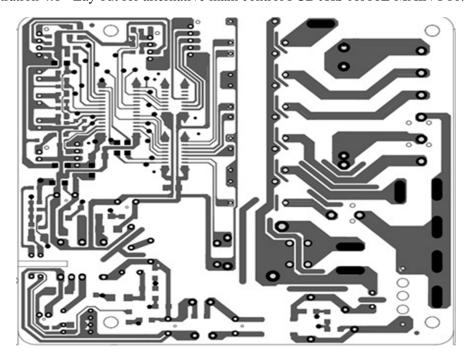


Illustration 4.7 - Lay out for alternative main control PCB JHS-A016DCP-MAIN.

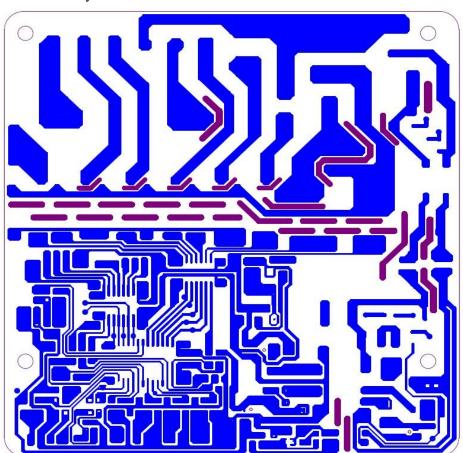
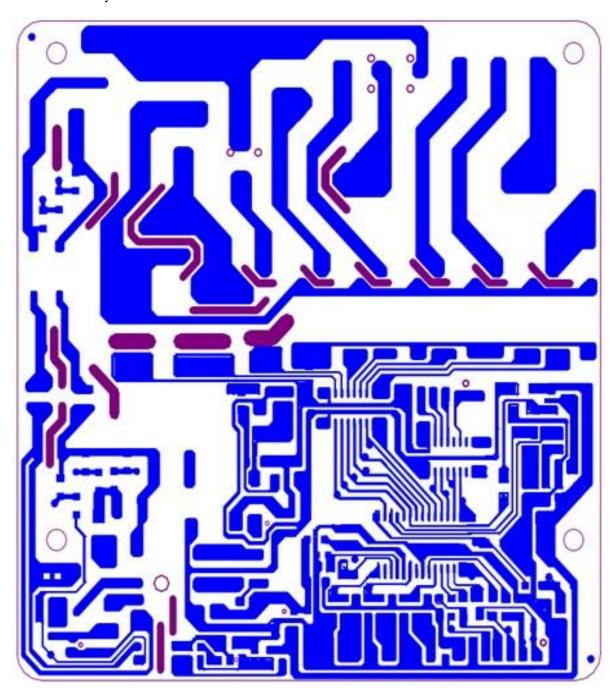
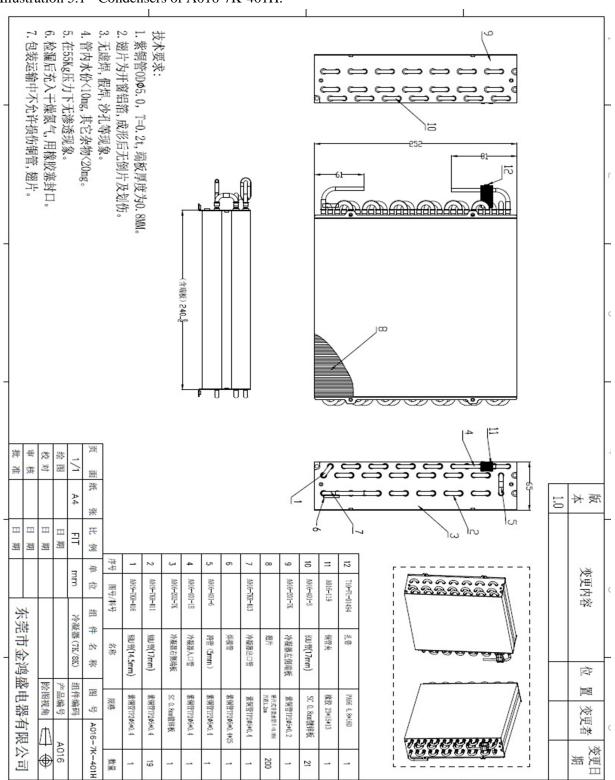


Illustration 4.8 - Lay out for alternative main control PCB JHS-A019-DC-MAIN



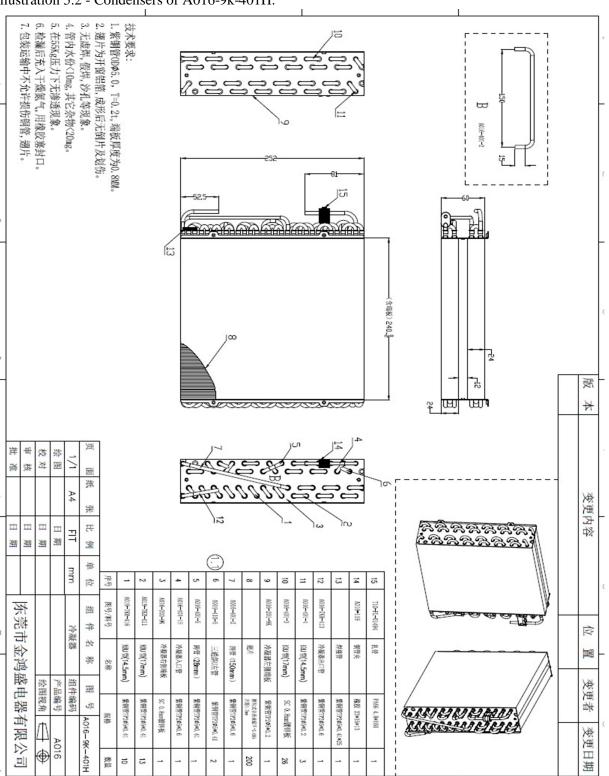
MASTER CONTRACT: 257272

Illustration 5.1 - Condensers of A016-7K-401H.



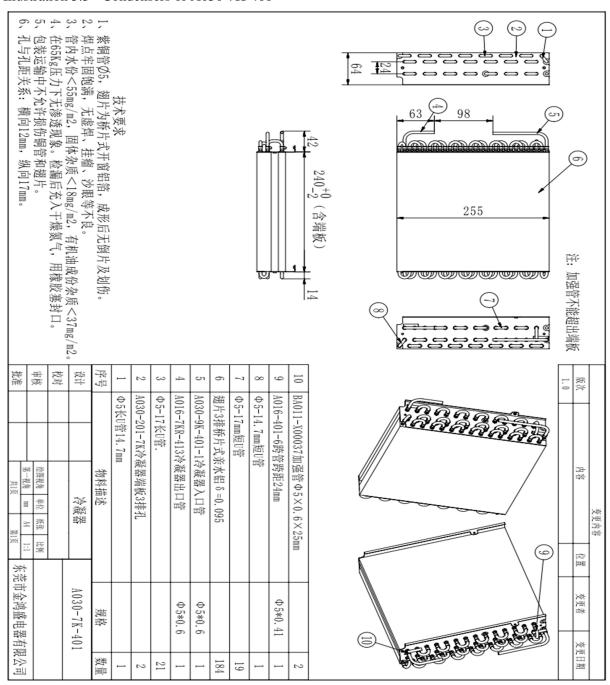
MASTER CONTRACT: 257272 REPORT: 80055063 **PROJECT:** 80113931

Illustration 5.2 - Condensers of A016-9k-401H.



MASTER CONTRACT: 257272

Illustration 5.3 - Condensers of A030-7K-401



**MASTER CONTRACT**: 257272 **REPORT**: 80055063 **PROJECT**: 80113931

Illustration 5.4 - Condensers of A030-9K-401

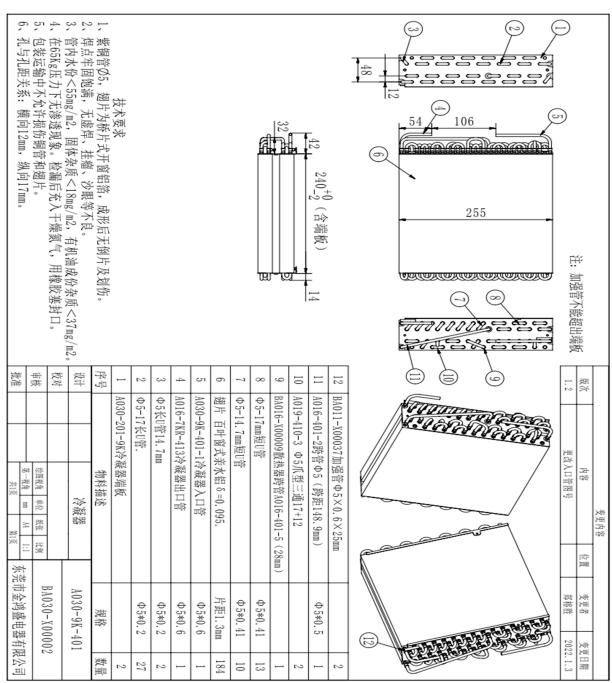
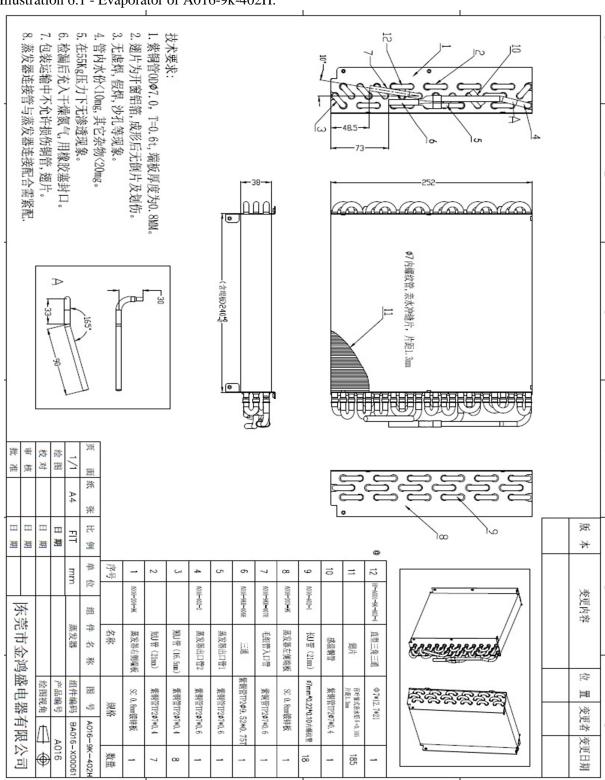
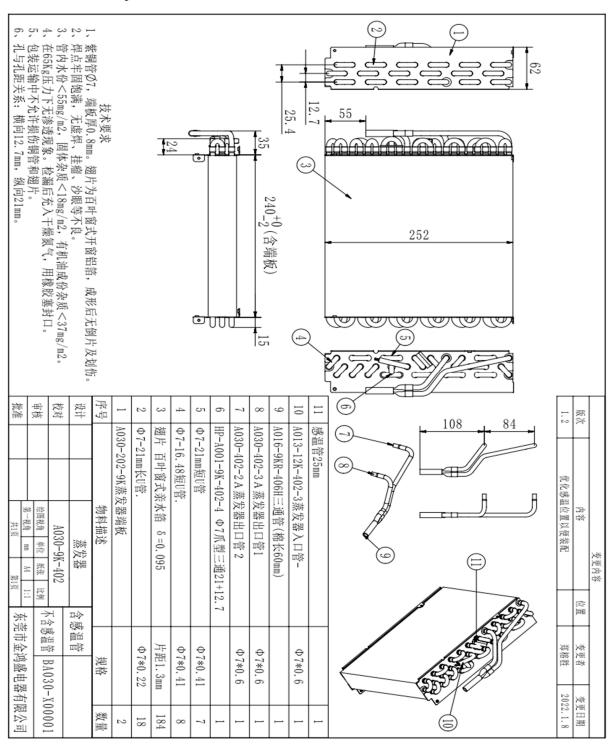


Illustration 6.1 - Evaporator of A016-9k-402H.

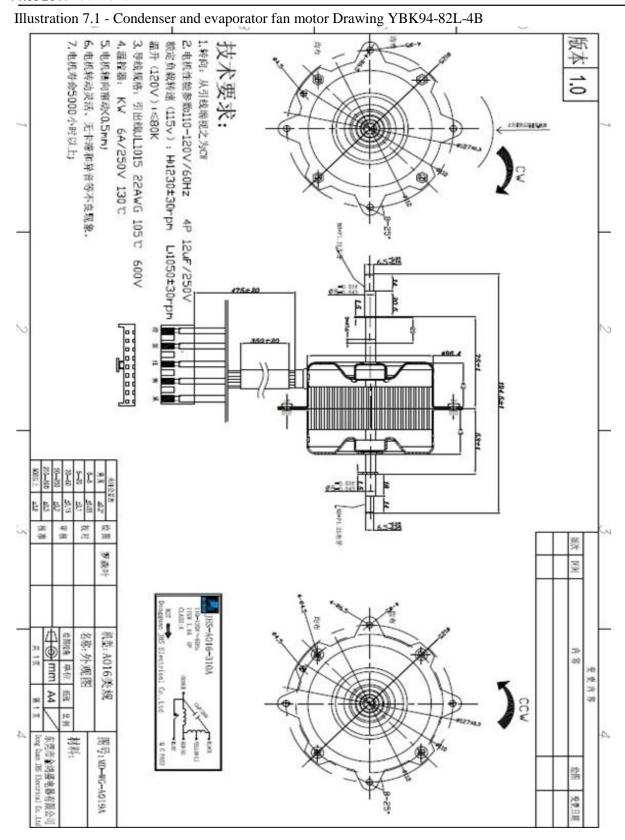


MASTER CONTRACT: 257272 REPORT: 80055063 PROJECT: 80113931

Illustration 6.2 - Evaporator of A030-9K-402

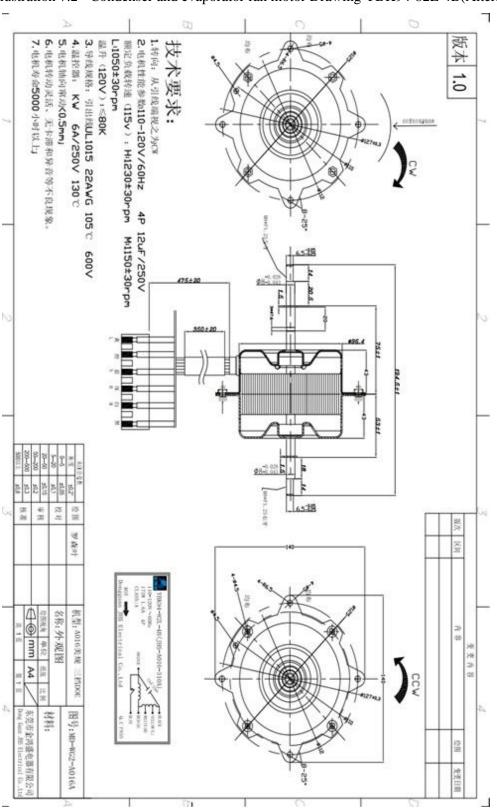


MASTER CONTRACT: 257272



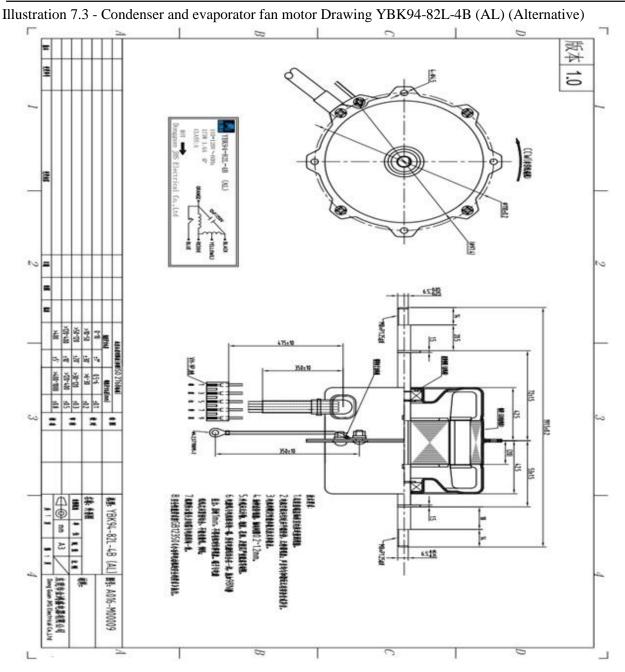
MASTER CONTRACT: 257272 REPORT: 80055063 **PROJECT:** 80113931

Illustration 7.2 - Condenser and evaporator fan motor Drawing YBK94-82L-4B(Alternative)



MASTER CONTRACT: 257272 REPORT: 80055063

**PROJECT:** 80113931



MASTER CONTRACT: 257272 Att2 Illustrations Page 22 of 28

**REPORT**: 80055063 **PROJECT**: 80113931

## Illustration 8.1 - Instruction Manuel

\* 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 appliance shall be stored so as to prevent mechanical damage from occurring.
- \* The appliance shall be installed in accordance with national wiring regulations.
- \* Do not operate your air conditioner in a wet room such as a bathroom or laundry room.

## I.2 Specical Safety Instructions for using flammable refrigerant

## 1. Transport of equipment containing flammable refrigerants

Compliance with the transport regulations

## 2. Marking of equipment using signs

Compliance with local regulations

## 3. Disposal of equipment using flammable refrigerants

Compliance with national regulations

## 4. Storage of equipment/appliances

The storage of equipment should be in accordance with the manufacturer's instructions.

### 5. Storage of packed (unsold) equipment

- Storage package protection should be constructed such that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge.
- The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.

### 6.Information on servicing

### 6-1 Checks to the area

- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised.
- For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

## 6-2 Work procedure

Work shall be undertaken under a controlled procedure so as to minimise the risk of a flammable gas or vapour being present while the work is being performed.

MASTER CONTRACT: 257272 Att2 | Illustrations Page 23 of 28

**REPORT:** 80055063 **PROJECT:** 80113931

## Illustration 8.2 - Instruction Manuel

## 6-3 General work area

- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided.
- The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

### 6-4 Checking for presence of refrigerant

- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres.
- Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

## 6-5 Presence of fire extinguisher

- If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand.
- Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

### 6-6 No ignition sources

- No person carrying out work in relation to a refrigeration system which
  involves exposing any pipe work that contains or has contained
  flammable refrigerant shall use any sources of ignition in such a manner
  that it may lead to the risk of fire or explosion.
- All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space.
- Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

### 6-7 Ventilated area

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work.

A degree of ventilation shall continue during the period that the work is carried out.

The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

## Illustration 8.3 - Instruction Manuel

## 6-8 Checks to the refrigeration equipment

- Where electrical components are being changed, they shall be fit for the purpose and to the correct specification.
- At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt consult the manufacturer's technical department for assistance.
- The following checks shall be applied to installations using flammable refrigerants:
- The charge size is in accordance with the room size within which the refrigerant containing parts are installed;
- The ventilation machinery and outlets are operating adequately and are not obstructed;
- If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;
- Marking to the equipment continues to be visible and legible.
   Markings and signs that are illegible shall be corrected;
- Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are

constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

## 6-9 Checks to electrical devices

- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
- This shall be reported to the owner of the equipment so all parties are advised.
- · Initial safety checks shall include:
- That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
- That there no live electrical components and wiring are exposed while charging, recovering or purging the system;
  - That there is continuity of earth bonding.

# Illustration 8.4 - Instruction Manuel

- Leak detection fluids are suitable for use with most refrigerants but the use of

detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

- If a leak is suspected, all naked flames shall be removed/ extinguished.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.
- Oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

### 12.Removal and evacuation

- When breaking into the refrigerant circuit to make repairs or for any other purpose – conventional procedures shall be used. However, for flammable refrigerants it is important that the best practice is followed since flammability is a consideration. Opening of the refrigeration systems shall not be done by brazing.
- The following procedure shall be adhered to:
- Remove refrigerant;
- Purge the circuit with inert gas;
- Evacuate;

- Purge again with inert gas;
- Open the circuit by cutting or brazing.
- The refrigerant charge shall be recovered into the correct recovery cylinders.
- . The system shall be "flushed" with OFN to render the unit safe.
- · This process may need to be repeated several times.
- · Compressed air or oxygen shall not be used for this task.
- Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
- This process shall be repeated until no refrigerant is within the system.
   When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- This operation is absolutely vital if brazing operations on the pipe-work are to take place.
- Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.

# Illustration 8.5 - Instruction Manuel

## 14.Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail.
- It is recommended good practice that all refrigerants are recovered safely.
- Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of reclaimed refrigerant.
   It is essential that electrical power is available before the task is commenced.
- a) Become familiar with the equipment and its operation.
- b) Isolate system electrically.
- c) Before attempting the procedure ensure that:
- Mechanical handling equipment is available, if required, for handling refrigerant

## cylinders;

- All personal protective equipment is available and being used correctly;
- The recovery process is supervised at all times by a competent person;
- Recovery equipment and cylinders conform to the appropriate standards.

- d) Pump down refrigerant system, if possible.
- e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- f) Make sure that cylinder is situated on the scales before recovery takes place
- g) Start the recovery machine and operate in accordance with manufacturer's instructions.
- h) Do not overfill cylinders. (No more than 80 % volume liquid charge).
- Do not exceed the maximum working pressure of the cylinder, even temporarily.
- j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off
- k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

### 15. Labelling

- Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant.
- The label shall be dated and signed.

## Illustration 8.6 - Instruction Manuel

- The evacuation process shall be carried out prior to returning the compressor to the suppliers.
- Only electric heating to the compressor body shall be employed to accelerate this process.
- · When oil is drained from a system, it shall be carried out safely.
- 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.
- When moving or relocating the air conditioner, consult experienced service technicians for disconnection and reinstallation of the unit.
- Do not place any other electrical products or household belongings under the unit. Condensation dripping from the unit might get them wet, and may cause damage or malfunction of your property.
- To keep ventilation openings clear of obstruction.
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.

- The appliance shall be stored in a room without continuously operating open flames (for example: an operating gas appliance) and ignition sources (for example operating electric heater).
- Any person who is involved with working on or breaking into a
  refrigerant circuit should hold a current valid certifificate from an
  industry-accredited assessment authority, which authorises their
  competence to handle refrigerants safely in accordance with an
  industry recognised assessment specifification.
- Servicing shall only be performed as recommended by the equipment manufacturer.
- Maintenance and repair requiring the assistance of other skilled personnel shall be carried out by the person competent in the use of flammable refrigerants.
- · The pipe-work shall be complianced with national gas regulations.
- The maxmum refrigerant charge amount is 0.45kg.
- The installation of pipe-work shall be kept to minimum.
- If the refrigerant is flammable the air conditioning equipment shall have red, Pantone® Matching System (PMS) #185 marked service ports, pipes, hoses, and other devices through which the refrigerant is serviced. This colour shall be present at all service ports and where

Page 28 of 28

**REPORT:** 80055063 **PROJECT:** 80113931

MASTER CONTRACT: 257272

## Illustration 8.7 - Instruction Manuel

service puncturing or otherwise creating an opening from the refrigerant circuit to the atmosphere might be expected (e.g., process tubes). The colour mark shall extend at least 25 mm (1 inch) from the refrigerant servicing point and shall be replaced if removed

### WARNING

- Do not use means to accelerate the defrosting process or to clean, other thanthose 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.



Caution, risk of fire

Avertissement : risque
d'incendie/matériaux
inflammables

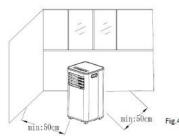
### AVERTISSEMENT

- Ne pas utiliser de produits permettant d'accélérer le dégel ou de produits de nettoyage autres que ceux recommandés par le fabricant.
- L'appareil doit être entreposé dans un endroit sans source d'allumage

fonctionnant en continu (par exemple : flamme nue, appareil au gaz en marche ou radiateur électrique en marche).

- Ne pas percer ni brûler.
- Attention : les frigorigènes peuvent être inodores.

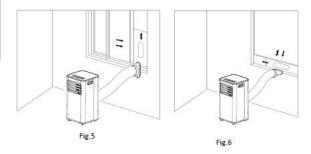
- 1.2 Install the window sealing plate assembly
- Half open the window, and mount the window sealing plate assembly to the window (as shown in Fig.2 and Fig.3); the assembly can be placed in horizontal and vertical direction.
- 2) Pull various components of the window sealing plate assembly open, adjust their opening distance to bring both ends of the assembly into contact with the window frame, and fix various components of the assembly 1.2 Install the window sealing plate assembly
- 1.3 Install the body
- Move the machine with installed heat pipe and fittings before the window, and the distance between the body and walls or other objects shall be least 50 cm (as shown in Fig. 4).



2) Elongate the exhaust pipe and snap the flat end of the exhaust pipe joints into the hole of the window sealing plate assembly (as shown in Fig.5 and Fig.6).

Notes: 1. the flat end of the exhaust pipe joints must be snapped into place.

2. The pipe cannot be distorted nor has substantial turning (greater than 45 °). Keep the ventilation of the exhaust pipe not blocked.



## Important Notice

The length of the exhaust hose shall be 280~1,500mm, and this length is based on the specifications of the air conditioning. Do not use extension tubes or replace it with other different hoses, or this may cause a malfunction. Exhaust host must be not blocked; otherwise it may cause overheating.