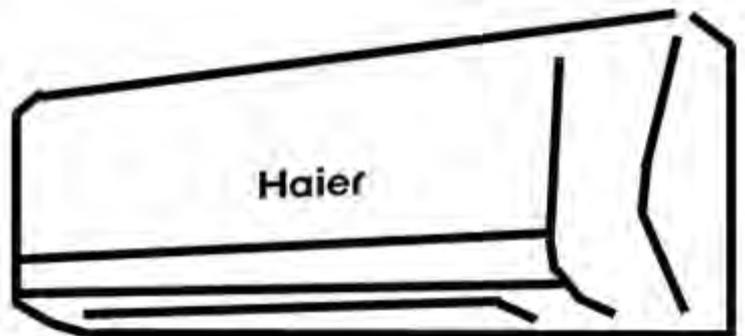# Haier
Inspired living

Domestic
Air conditioner

TECHNICAL DATA

DC Inverter

Wall mounted Type U-Series

HSU-09H03/U(DBPZXF)
HSU-12H03/U(DBPZXF)

CAUTION

1. READ THIS MANUAL CAREFULLY TO DIAGNOSE TROUBLE CORRECTLY BEFORE OFFERING SERVICE.

2. THIS MANUAL IS USED BY QUALIFIED APPLIANCE TECHNICIANS ONLY.

3. HAIER DOES NOT ASSUME ANY RESPONSIBILITY FOR PROPERTY DAMAGE OR PERSONAL INJURY FOR IMPROPER SERVICE PROCEDURES DONE BY ONE UNQUALIFIED PERSON.

Table of Contents

1 Features

Healthy negative ion: make your room full of an abundance natural negative ions

Left&right flow: With specialized motor and flaps,the airflow can be adjusted

DRY function: Make dehumidifying in the room when the unit is working in the "DRY" mode

Healthy UV:UV ray generator can eliminate and prevent bacteria in air effectively

3D air flow: The 3D airflow is able to deliver the airflow horizontally and vertically

24 Hour timer: Use the timer function to set on,or off,or from on to off,or from off to on

Auto restart: The function permits automatic return to previous peration conditions

Easy clean design: The panel is easy to wash and the airflow vents can be detached without any special tools for quick cleaning of the inside of the air conditioner

Intelligent air: With twin-blade technology ,the airflow can be adjusted not to blow directly to human body,so preventing people from the air condintioner sympton

Bacteria-killing medium:3-in-1 effect:Anti-Allergen , Anti-Bactetia

Sleep mode: The setting temprature and the indoor noise can be adjusted to a more comfortable level when you set the "sleep mode"during night sleep

O_2 refresh: This exclusive technology can bring fresh air in and take unpleasant air out but without tempreture and humidity loss

4 Fan setting: Slect the fan speed LO,MED,HI,AUTO

Entire auto mode: You can set a tempreture value,with which the unit can be adjusted theoperation mode automatically

Photocatalyst filter:Eliminiates the air of a wide variety of odor-causing substances from cigarette smoke particles to chemical vapors

Haier

2   Specifications

This information was not available at the time of publication .

NOMINAL CAPACITY and NOMINAL INPUT					
For indoor units only:					
INDOOR UNITS				HSU-09H03/R(DBPZXF)	HSU-12H03/R(DBPZXF)
NOMINAL	Cooling	nominal	kW	0.05	0.05
INPUT	Heating	nominal	kW	0.05	0.05

NOMINALCAPACITY and NOMINAL INPUT					
Model				HSU-09H03/U(DBPZXF)	HSU-12H03/U(DBPZXF)
NORMINAL CAPACITY(3-4)	Cooling(1)	min.~norm.~max.	kw	0.6~2.8.~4.0.	0.6~3.5.~4.2.
	Heating(2)	min.~norm.~max.	kw	0.6.~3.6.~5.0.	0.6.~4.2.~6.0
NORMINAL INPUT	Cooling	min.~norm.~max.	kw	0.12.~0.65.~1.2.	0.12.~0.87.~1.3.
	Heating	min.~norm.~max.	kw	0.12.~0.88.~1.3.	0.12.~1.05.~1.55.
EER	Cooling			4.31	4.02
COP	Heating			4.09	4.00
ENERGY LABEL(7-8)	Cooling			-----	-----
	Heating			-----	-----
ANNUAL ENERGY CONSUMPTION(9)	Cooling		kwh	325	435

TECHNICAL SPECIFICATIONS						
INDOOR UNITS					09H	12H
DIMENSIONS	Unit		H	mm	285	285
			W	mm	850	850
			D	mm	160	160
WEIGHT	Unit			kg	10.5	10.5
COLOR	Unit				Blue	Blue
SOUND LEVEL	Sound pressure (cooling/heating)(5)		high	dB(A)	42/43	43/45
			medium	dB(A)	32/35	35/37
			low	dB(A)	24/26	25/28
	Sound power(cooling/heating)(6)		high	dB(A)	52/54	53/55
FAN	Air flow rate(cooling/heating)		high	m^3/min	11.7/11.7	11.7/11.7
			low	m^3/min	8.0/8.0	8.0/8.0
			super low	m^3/min	5.5/5.5	5.0/5.5
	Speed(cooling/heating)		steps		5steps,silent and auto	
			high	rpm	1350/1350	1350/1350
			medium	rpm	1150/1150	1150/1150
			low	rpm	950/950	950/950
	Type				Cross flow fan	
	Motor output			W	18	18
HEAT EXCHANGER	Type				ML - Φ9.52Hi - XA bube	
	Row x stage x fin pitch			mm	2 x 12 x 1.4	
AIR FILTER					Removable/washable/mildew proof	
REMOTE CONTROLLER					YR-H76	
TEMPERATURE CONTROL					Microcomputer control	
PIPING CONNECTIONS(external diameter)		liquid		mm	Φ6.35	Φ6.35
		gas		mm	Φ9.52	Φ12.7
		drain		mm	Φ16	Φ16
INSULATION MATERIAL	Heat insulation type				both liquid and gas pipes	

TECHNICAL SPECIFICATIONS						
OUTDOOR UNITS					**09H**	**12H**
NET DIMENSIONS (stop valve, and bottom support is not included)	Unit	H	mm		540	540
		W	mm		780	780
		D	mm		245	245
WEIGHT	Unit		kg		43	43
COLOR	Unit				white	white
SOUND LEVEL	Sound pressure(cooling/heating)(5)	high	dB(A)		46/47	52/53
	Sound power(cooling/heating)(6)	high	dB(A)		56/57	62/63
FAN	Air flow rate(cooling/heating)	high	m^3/min		30	30
		low	m^3/min		23	23
	Speed(cooling/heating)	high	rpm		820	820
		low	rpm		700	700
	Type				Propeller fan	
	Motor output		W		30	30
HEAT EXCHANGER	Type				ML - Φ9.52Hi - XA bube	
	Row x stage x fin pitch		mm		2 x 10 x 1.4	
REFRIGERANT CIRCUIT	Refrigerant type				R22	R22
	Refrigerant charge		kg		1.3	1.3
	Maximum allowable distance between indoor and outdoor		m		20	20
	Maximum allowable level difference		m		10	10
	Refrigerant control				Electronic expasion valve	
COMPRESSOR	Type				Rotary Compressor	
	Model				DH130X1C-20FZ3	
	Motor output		w		690	
	Oil type				SUNISO 4GSD/ATMOS NM58EP	
	Oil charge volume		L		0.37	0.37
PIPING CONNECTIONS	liquid		mm		Φ6.35	Φ6.35
	gas		mm		Φ9.52	Φ12.7
	drain		mm		Φ18	Φ18
INSULATION MATERIAL	Heat insulation type				both liquid and gas pipes	

ELECTRICAL SPECIFICATIONS					
For combination indoor units+ outdoor units:				HSU-09H03/U(DBPZXF)	HSU-12H03/U(DBPZXF)
CURRENT	Nominal running current	cooling	A	3.1	4.2
		heating	A	4.2	5.0
	Maximum running current	cooling	A	5.7	6.2
		heating	A	6.2	7.4
	Starting current	cooling	A	1.5	1.6
		heating	A	1.5	1.6

For indoor units only:			HSU-12H03/U(DBPZXF)	HSU-12H03/U(DBPZXF)
POWER SUPPLY			VM	VM
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase		1PH	1PH
	Frequency	Hz	50	50
	Voltage	V	220~230	220~230

NOTES

1 Nominal cooling capacities are based on: indoor temperature 27°CDB/19°CWB * outdoor temperature 35°CDB * refrigerant piping length: 5m * level difference: 0m.

2 Nominal heating capacities are based on: indoor temperature 20°CDB * outdoor temperature 7°CDB/6°CWB * refrigerant piping length 5m (horizontal) * level difference 0m.

3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

4 Units should be selected on nominal capacity. Maximum capacity is limited to peak periods.

5 The sound pressure level is measured in an anechoic room at 1m distance from the unit. It is a relative value, depending on the distance and acoustic environment. For measuring conditions: please refer to item 8 of this chapter.

6 The sound power level is an absolute value indicating the "power" which a sound source generates.

7 Energy label: scale from A (most efficient) to G (less efficient).

8 The energy label Directive 2002/31/EC will enter into force once the relevant measurement standard will be published in the European official Standard.

9 Annual energy consumption: based on average use of 500 running hours per year at full load (= nominal conditions)

3 Remote controller lists

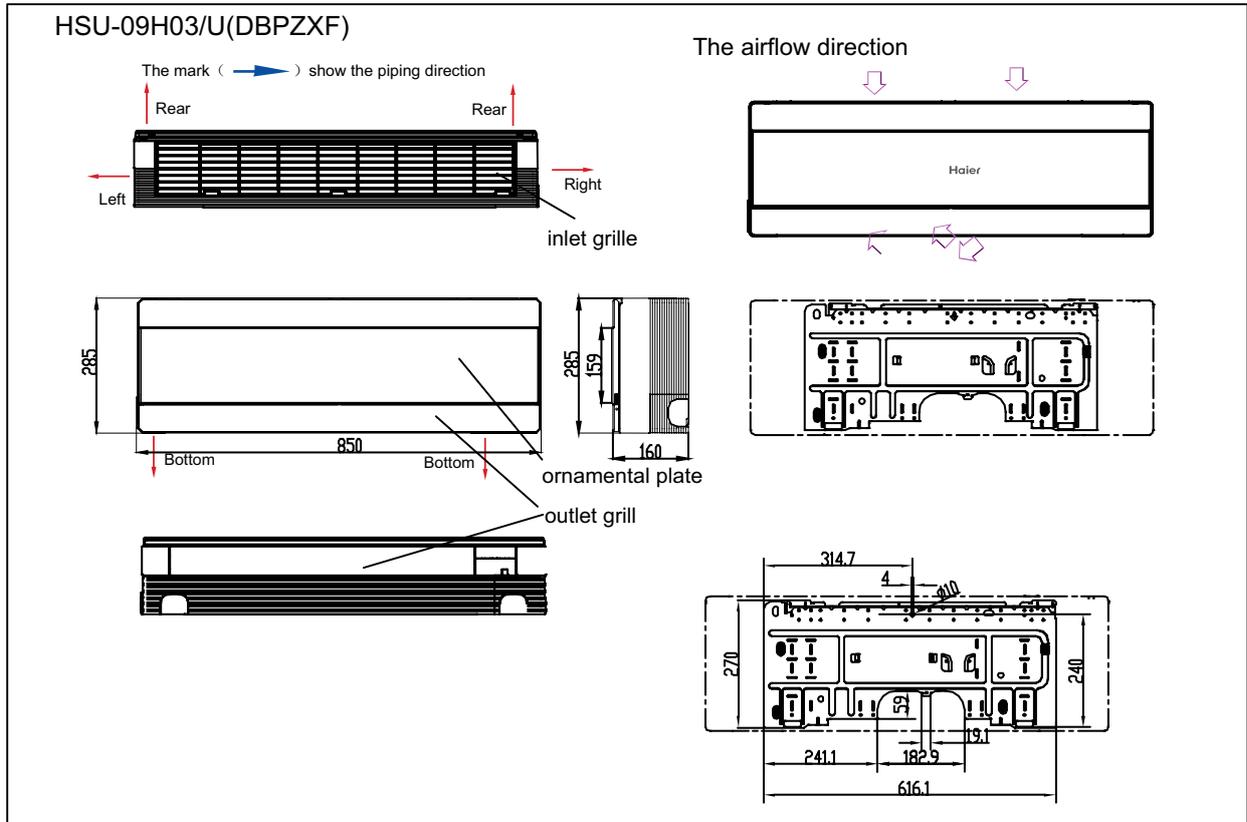| Model	HSU-09H03/U(DBPZXF)	HSU-12H03/U(DBPZXF)
YR-H79	Y	Y
YR-U01	Y	Y

4 Sensors lists

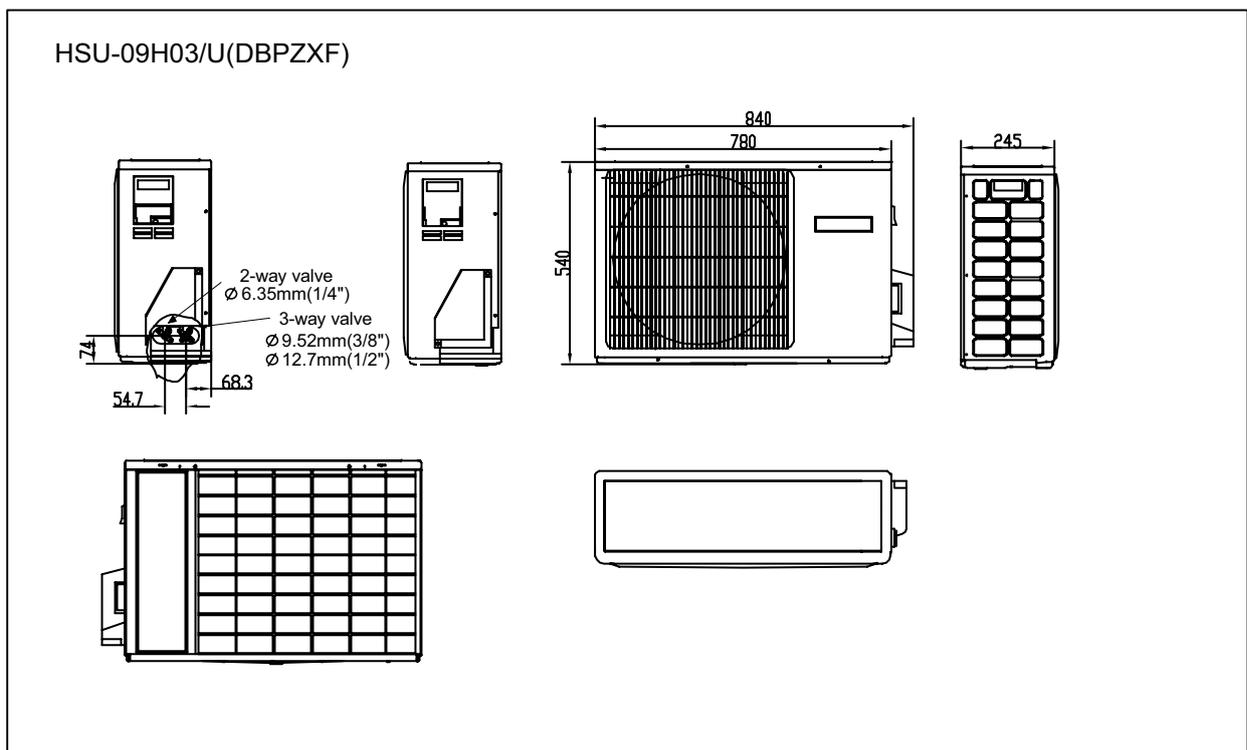| INDOOR UNIT		
type	Description	Qty
Room sensor	It's used for detecting room temperature	1
Pipe sensor	It's used for detecting temperature of evaporator	1

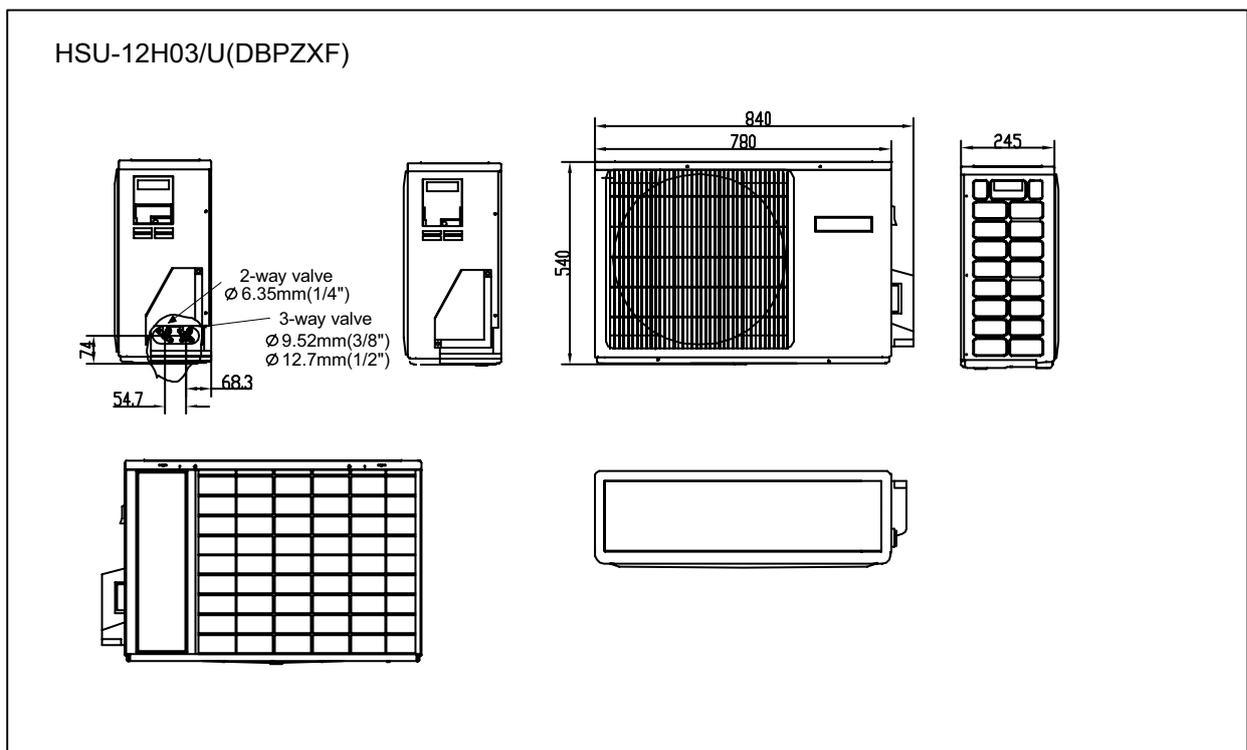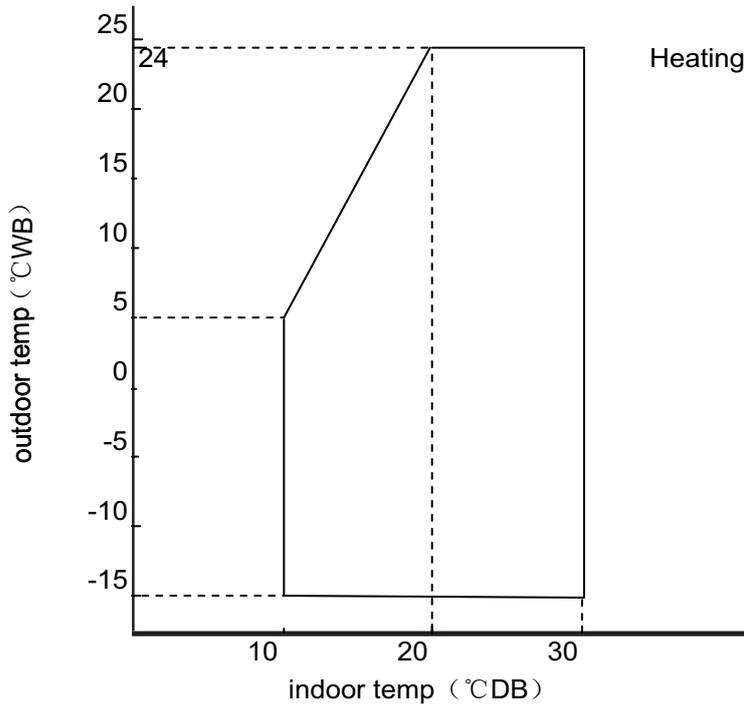| OUTDOOR UNIT		
type	Description	Qty
Ambient sensor	It's used for detecting temperature outdoor side	1
Suction sensor	It's used for detecting suction pipe temperature of compressor to adjust gas flowing	1
Defrosting sensor	It's used for controlling outdoor defrosting at heating mode	1
Discharging sensor	It's used for protecting compressor in case of over-heat	1

5 Dimensional drawings

Indoor unit

HSU-09H03/U(DBPZXF)

The mark（ ➝ ）show the piping direction

The airflow direction

Rear   Rear

Left

Right

inlet grille

285

285   159

850

160

Bottom   Bottom

ornamental plate

outlet grill

314.7

4

Ø10

270

240

59

19.1

241.1   182.9

616.1

Outdoor unit

HSU-09H03/U(DBPZXF)

840

780

245

540

2-way valve
Ø6.35mm(1/4")

3-way valve
Ø9.52mm(3/8")
Ø12.7mm(1/2")

74

54.7   68.3

Indoor unit

HSU-12H03/U(DBPZXF)

The mark （ ——▶ ） show the piping direction

The airflow direction

Rear   Rear

Left

Right

inlet grille

285   285   159

850   160

Bottom   Bottom   ornamental plate

outlet grill

314.7   4   Ø10

270   240

59

19.1

241.1   182.9

616.1

Outdoor unit

HSU-12H03/U(DBPZXF)

840

780

245

540

2-way valve
Ø6.35mm(1/4")

3-way valve
Ø9.52mm(3/8")
Ø12.7mm(1/2")

74

54.7   68.3

6 Operation range

The name of parts   Cooling

Outdoortemp.（℃DB）

50
46
43
40
30
pull down
20
18
10
0
     16   23   32
     10   20   30

indoor temp（℃WB）

outdoor temp（℃WB）

25
24
20
15
10
5
0
-5
-10
-15

Heating

     10   20   30

indoor temp（℃DB）
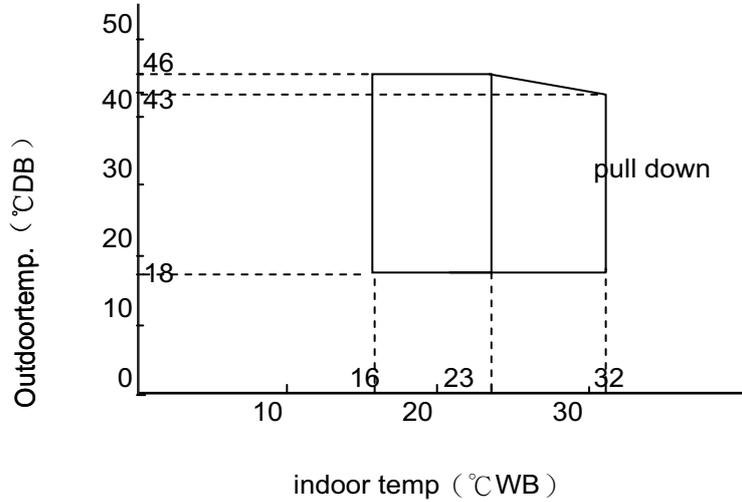
Notes：

The graphs are based on the following condition：
Equivalent piping length   7.5m
Level difference   0m
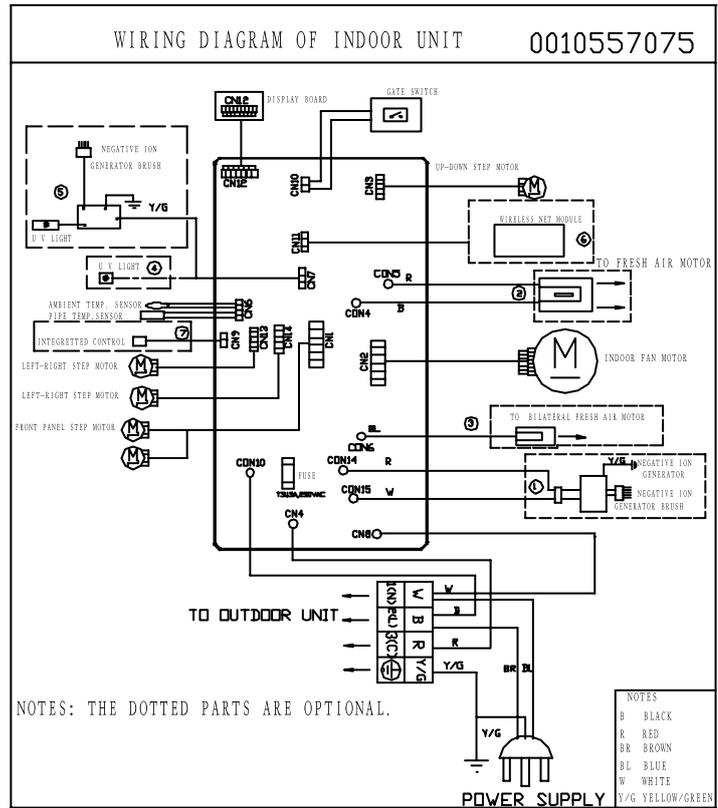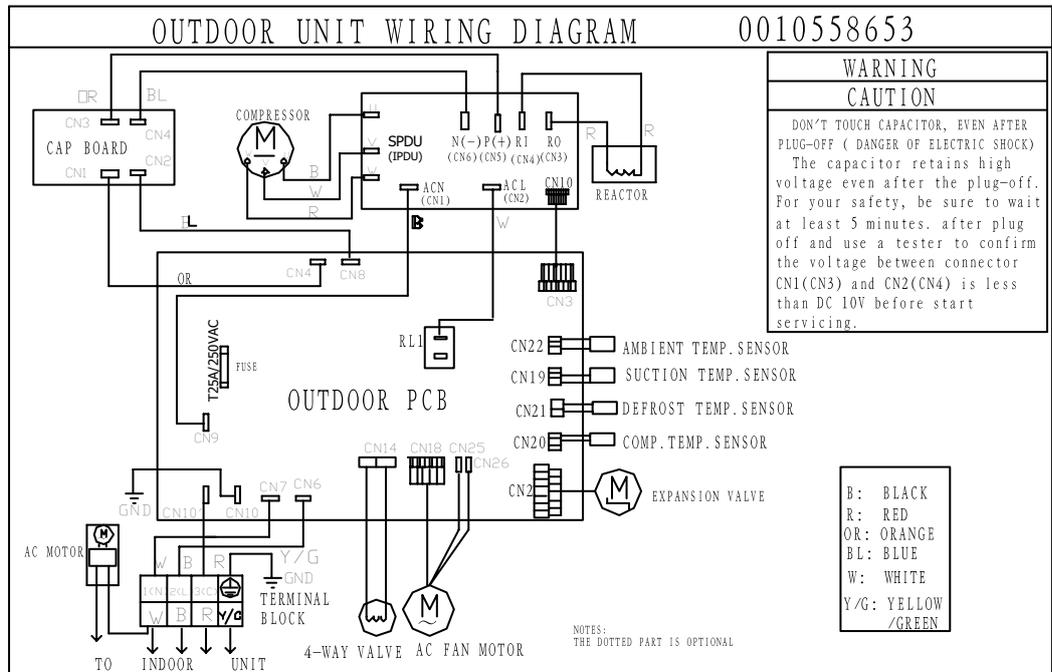Air flow rate   high

7 Piping diagrams

Cooling mode
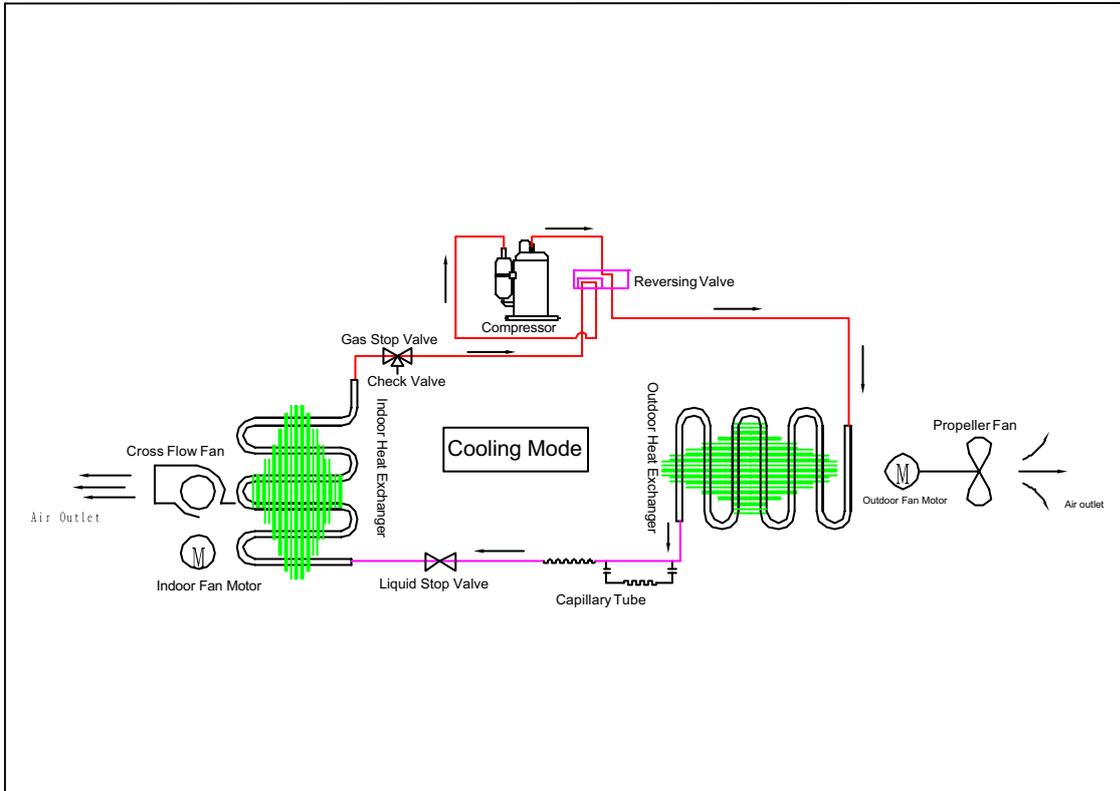
Heating mode
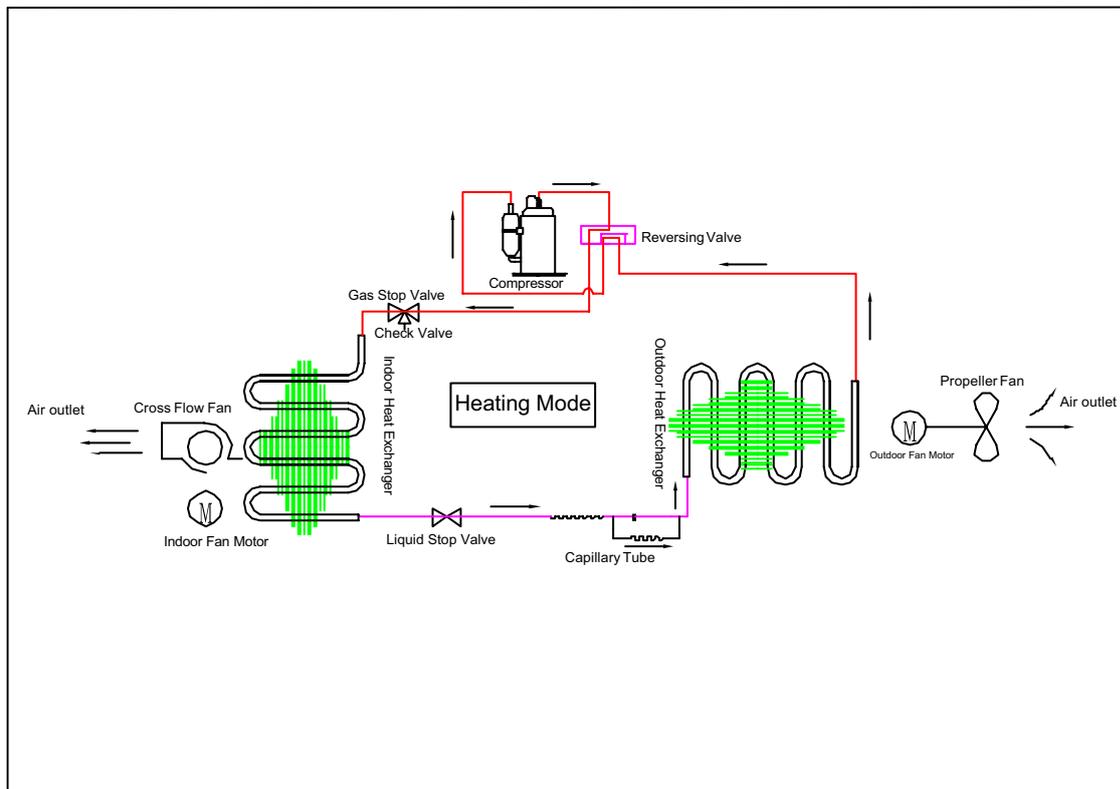
8 Wiring diagrams

HSU-09，12H03/U(DBPZXF)
Indoor unit

WIRING DIAGRAM OF INDOOR UNIT   0010557075

NOTES: THE DOTTED PARTS ARE OPTIONAL.

NOTES:
B   BLACK
R   RED
BR   BROWN
BL   BLUE
W   WHITE
Y/G YELLOW/GREEN

TO OUTDOOR UNIT

POWER SUPPLY

HSU-09，12H03/U(DBPZXF)
Outdoor unit

OUTDOOR UNIT WIRING DIAGRAM   0010558653

WARNING
CAUTION

DON'T TOUCH CAPACITOR, EVEN AFTER PLUG-OFF (DANGER OF ELECTRIC SHOCK) The capacitor retains high voltage even after the plug-off. For your safety, be sure to wait at least 5 minutes. after plug off and use a tester to confirm the voltage between connector CN1(CN3) and CN2(CN4) is less than DC 10V before start servicing.

CAP BOARD

COMPRESSOR

SPDU (IPDU)

REACTOR

OUTDOOR PCB

AMBIENT TEMP.SENSOR
SUCTION TEMP.SENSOR
DEFROST TEMP.SENSOR
COMP.TEMP.SENSOR

EXPANSION VALVE

B: BLACK
R: RED
OR: ORANGE
BL: BLUE
W: WHITE
Y/G: YELLOW /GREEN

AC MOTOR

TERMINAL BLOCK

TO   INDOOR   UNIT

4-WAY VALVE   AC FAN MOTOR

NOTES:
THE DOTTED PART IS OPTIONAL

11

9 Capacity tables and curve diagrams

| HSU-09H03/U(DBPZXF)　performance curves								
cooling capacity and indoor/outdoor temp.curves								
indoor temp.	outdoor temp.(humidity 46%)							
DB/WB	16℃	20℃	25℃	32℃	35℃	40℃	43℃	46℃
18/12℃	2391	2368	2298	2251	2041	1921	1643	1573
18/14℃	2589	2515	2441	2391	2115	2041	1745	1670
20/15℃	2665	2592	2515	2464	2234	2103	1798	1721
22/16℃	2807	2680	2635	2548	2309	2137	1858	1735
25/18℃	2904	2809	2726	2670	2420	2278	1947	1785
27/19℃	3095	2897	2805	2748	2480	2270	2003	1917
30/22℃	3300	3124	2978	2917	2643	2488	2126	2034
32/23℃	3395	3228	3132	3068	2779	2582	2234	2138
32/24℃	3512	3364	3263	3196	2896	2725	2328	2227

cooling value-temp.curves

HSU-09H03/U(DBPZXF)performance curves

Heating capacity and indoor/outdoor temp. table

Outdoor temp.	Indoor temp.(humidity 46%)		
DB/WB(∗)	15	20	25
-10	2146	1662	1431
-5	2343	1973	1719
5	2643	2354	1881
7/6	2874	2712	2308
15	3160	2978	2618
20	3672	3324	2845
25	3866	3762	3027

HSU-12H03/U(DBPZXF) performance curves

cooling capacity and indoor/outdoor temp.curves

indoor temp.	outdoor temp.(humidity 46%)							
DB/WB	16 ℃	20 ℃	25 ℃	32 ℃	35 ℃	40 ℃	43 ℃	46 ℃
18/12℃	3180	3149	3056	2994	2714	2556	2186	2093
18/14℃	3443	3345	3246	3180	2813	2714	2321	2221
20/15℃	3544	3448	3346	3277	2971	2797	2391	2289
22/16℃	3600	3565	3505	3389	3071	2842	2472	2308
25/18℃	3862	3736	3625	3551	3218	3029	2589	2374
27/19℃	3983	3853	3731	3655	3298	3019	2664	2550
30/22℃	4123	4083	3961	3880	3516	3309	2827	2706
32/23℃	4382	4293	4165	4080	3696	3434	2972	2844
32/24℃	4518	4474	4340	4251	3851	3625	3096	2962

cooling value-temp.curves

14

HSU-12H03/U(DBPZXF) performance curves			
Heating capacity and indoor/outdoor temp. table			
Outdoor temp.	Indoor temp.(humidity 46%)		
DB/WB(∗)	15	20	25
-10	2146	1662	1431
-5	2343	1973	1719
5	2643	2354	1881
7/6	2874	2712	2308
15	3160	2978	2618
20	3672	3324	2845
25	3866	3762	3027

Heating capacity and indoor/outdoor temp.curves

10 Sound level

Model	Sound presure level			Measuring location Location of microphone	sound power level (cooling/heating)
	220~230V,50Hz				
	Cooling/heating				
	H	L	SL		
HSU-09H03/U(DBPZXF)	42/43	32/35	24/26		52/54
HSU-12H03/U(DBPZXF)	43/45	35/37	25/28		53/55
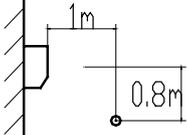
HSU-09H03/U(DBPZXF) cooling

HSU-09H03/U(DBPZXF) heating

HSU-12H03/U(DBPZXF) cooling

HSU-12H03/U(DBPZXF) heating

16
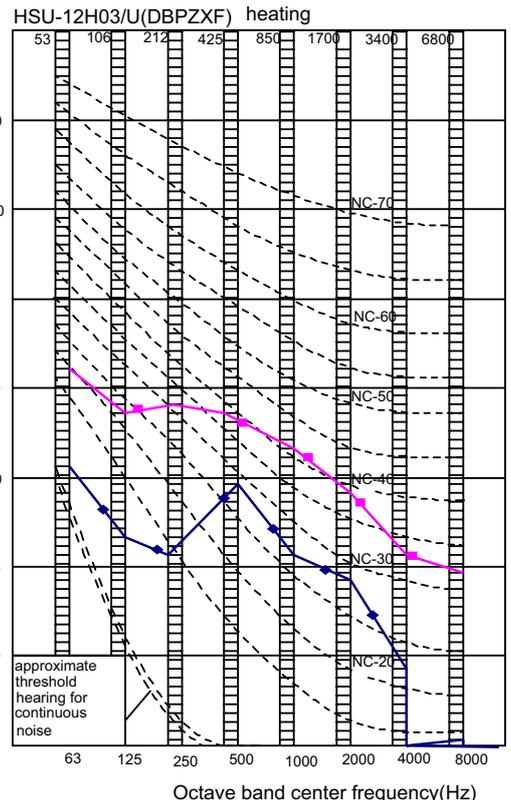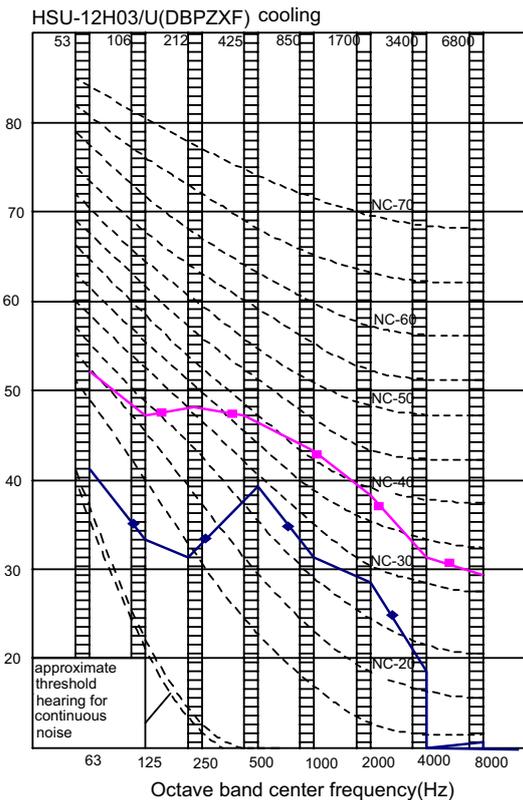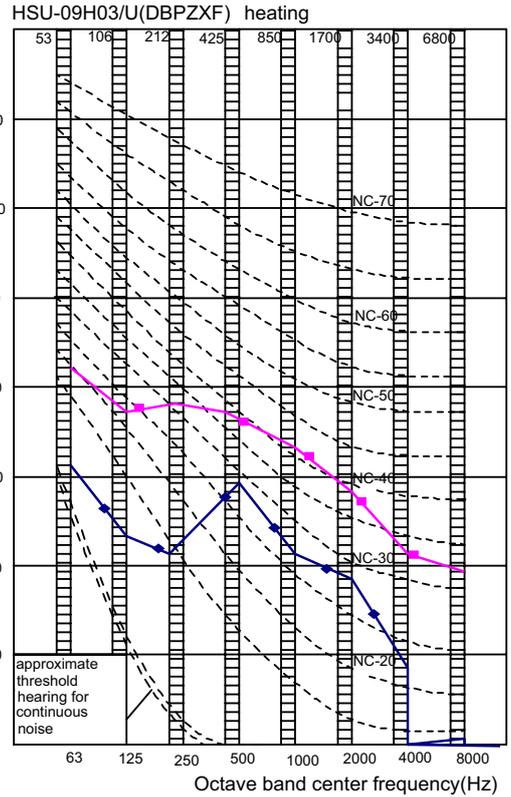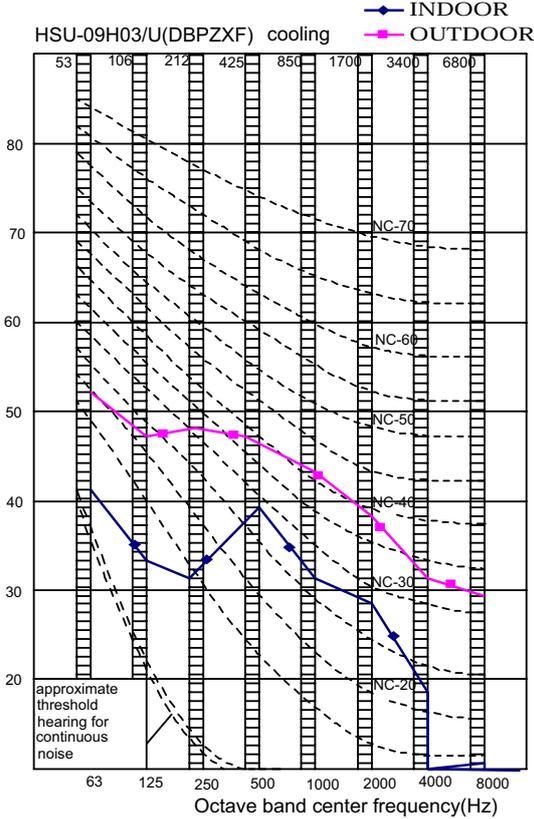
11 Accessories

Standard accessories

Standard name	HSU-09H03/U(DBPZXF)	HSU-12H03/U(DBPZXF)
Drain hose	1	1
Plastic bag	1	1
screw assembly	1	1
Air purifier	2	2
Battery	2	2
Mounting plate	1	1
Remote controller	1	1
Installation manual	1	1
Operation manual	1	1

12 Control systems

1.CODE

Used to select CODE A or B with a press,A or B will be displayed on LCD.
Please select A without special explanation.

2.RESET

When the remote controller appears abnormal, use a sharp pointed article to press this button to reset the remote controller normal.

3.LIGHT button

Control the lightening and extinguishing of the indoor LCD display board.

4. TIMER button

Used to select TIMER ON, TIMER OFF, TIMER ON-OFF.

5. CLOCK button

Used to set correct time.

6. SLEEP button

Used to select sleep mode.

7. MODE button

8. HOUR button

Used to set clock and timer setting.

9. HEALTH button

Used to set healthy operation.

NOTE: Cooling only unit do not have functions and displays related with heating.

The fresh function is optional.

10. ON/OFF button

Used for unit start and stop.

11. TIMER ON display

12. FAN SPEED display
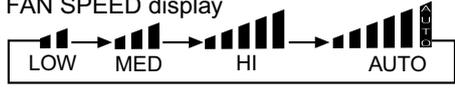
13. LOCK display

14. SWING UP/DOWN display

15. SLEEP display

16. HEALTH display

17.FRESH AIR display

18. Operation mode display

Operation mode	AUTO	COOL	DRY	HEAT	FAN
Remote controller	▽	❄	●	☀	🍥
Display board	○	❄	●	●	❄

19.Singal sending display

20. POWER/SOFT display

21. Left/right air flow display

22. TEMP display

Remote controller: to display the TEMP. setting.

23. TIMER OFF display

24. CLOCK display

25. TEMP button

Used to select your desired temperature.

26. FAN button

Used to select fan speed: LOW,MED, HI, AUTO.

27. HEALTH AIRFLOW button

Used to set the health airflow mode.

28. SWING UP/DOWN button

Used to select up or down air sending direction.

29. SWING LEFT/RIGHT button

Used to select left/right air flow.

30. FRESH button

Use to set fresh air function.

31. SET button

Used to confirm timer and clock settings.

32. POWER/SOFT button

Use to set power/soft function.

33. LOCK

Used to lock buttons and LCD display. If pressed, the other buttons will be disabled and the lock condition display appears. Press it once again, lock will be canceled and lock condition display disappears.

13 Center of gravity

Indoor unit
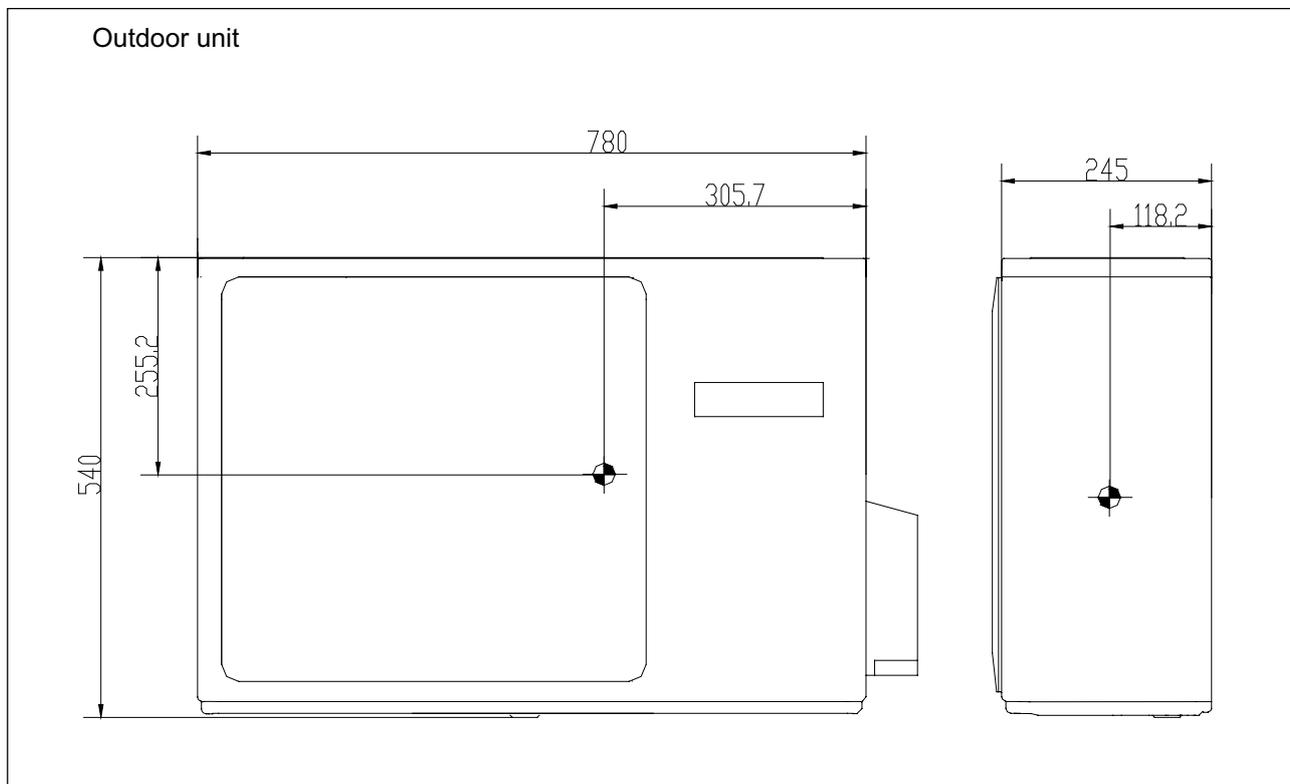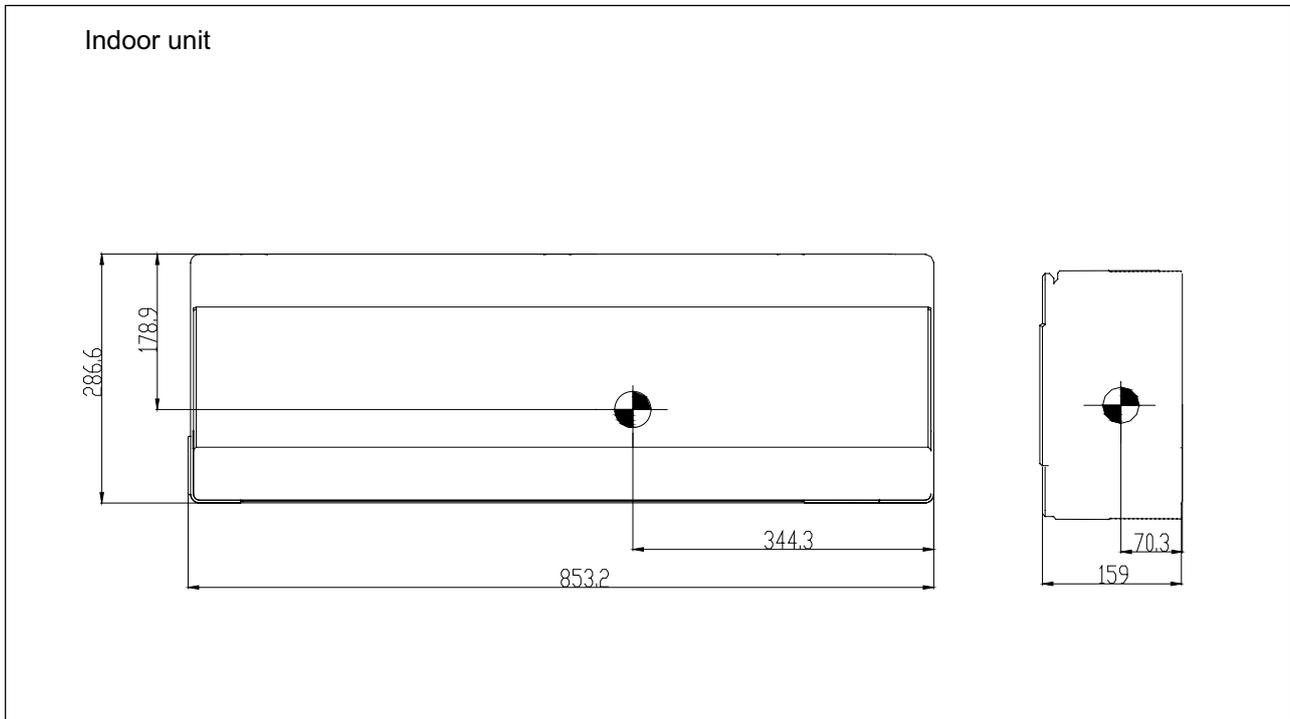
Outdoor unit

14 Installation

Indoor unit

- How to attach the indoor unit.
  Hook the claws of the bottom frame to the mounting plate.
  If the claws are difficult to hook ,remove the front panel.
- How to remove the indoor unit.
  Push up the marked area (at the lower part of the front panel) to release the
 the claws . If it is difficult to release ,remove the front panel .
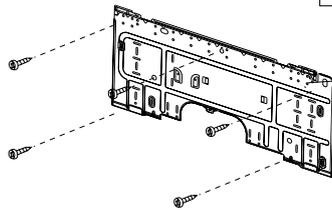
The mounting plate should be installed on a wall
which can support the weight of the indoor unit.
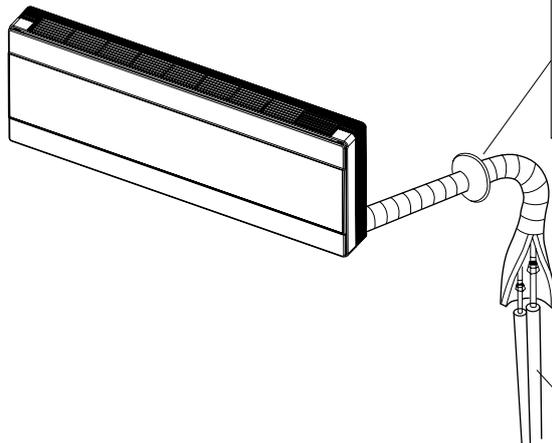
Piping hole pipe

(Section of wall hole)

Indoor side   Outdoor side
Wall hole   Thickness
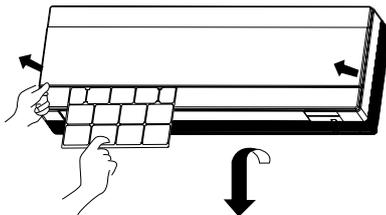   of wall
66mm

Piping hole pipe

Cut thermal insulation pipe to an
appropriate length and wrap it with
tape, making sure that no gap is left in
the insulation pipe's cut line .
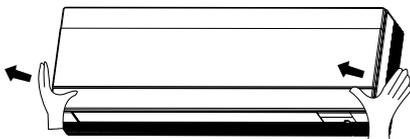
How to remove the air filter.

Open the inlet grille by pulling it upward.

Push up the filter's center tab slightly until it is released
from the stopper, and remove the filter downward.

How to Attach the air filter.

Attach the filter correctly so that the "FRONT" indication is

facing to the front.Make sure that the filter is completely

fixed behind the stopper.If the right and left filters are not

attached correctly, that may cause defects.
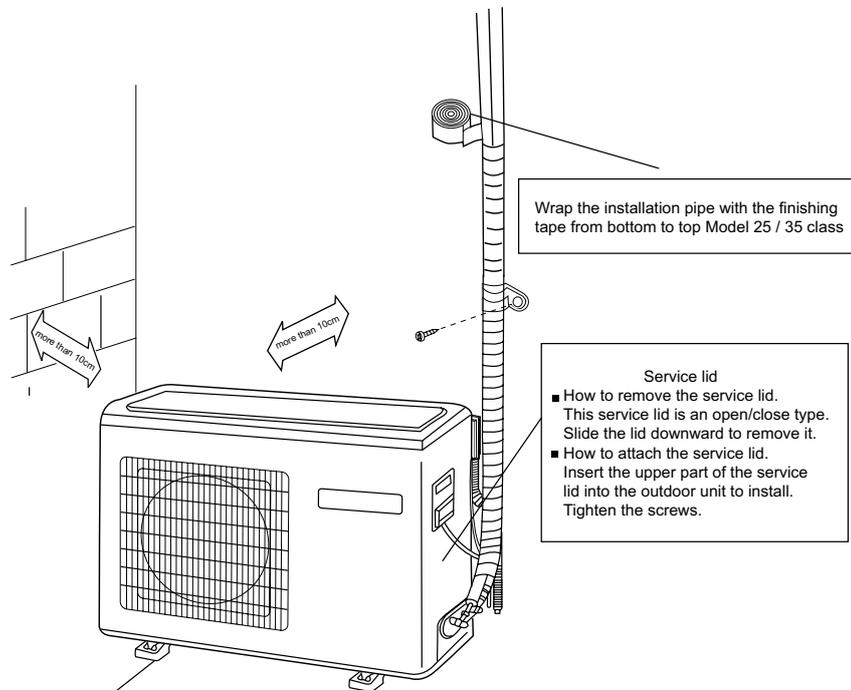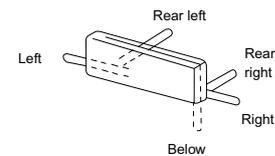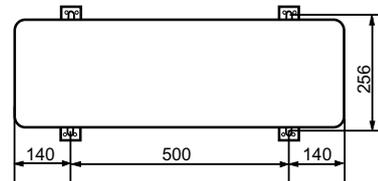
Close the inlet grille.

Outdoor unit

Model	35/40 class
Max.allowable length	20m
Max.allowable height	10m
Additional refrigerant required for refrigerant pipe exceeding 5m in length	16g/m
Gas pipe	O.D. 9.52/12.7
Liquid pipe	O.D. 6.35

*Be sure to add the proper amount of additional refrigerant.
 Failuretodosomayresultinreducedperformance.

Arrangement of piping directions

Rear left

Left

Rear right

Right

Below

Wrap the installation pipe with the finishing tape from bottom to top Model 25 / 35 class

more than 10cm

more than 10cm

Service lid
■ How to remove the service lid.
 This service lid is an open/close type.
 Slide the lid downward to remove it.
■ How to attach the service lid.
 Insert the upper part of the service lid into the outdoor unit to install.
 Tighten the screws.

Where there is a danger of the unit falling, use foot bolts, or wires.

256

140   500   140

● Fix the unit to concrete or block with bolts(Φ10mm) and nuts firmly and horizontally.

● When fitting the unit to wall surface, roof or rooftop, fix a supporter surely with nails
 or wires in consideration of earthquake and strong wind. The distance between the indoor unit and the floor should be more than 2m

● If vibration may affect the house, fix the unit by attaching a vibration-proof mat.

Sincere Forever

Haier Group

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