Fisher
Aircon Solutions Ltd., Inc. USA

TECHNICAL & SERVICE MANUAL

MEDICAL
Split Wall-mounted Type
Air-Conditioner

FSMED-74HFPL

FSMED-124HFPL

FI-SM-040902

NOTICE
Specifications are subject to change without notice for further improvement.
All the product information has been carefully checked.

Contents

1.Features

1.1 Compact design
1.2 High efficiency and quiet operation
1.3 A class energy level
1.4 Refrigerant R410A
1.5 Bio Filter and Plasma Filter

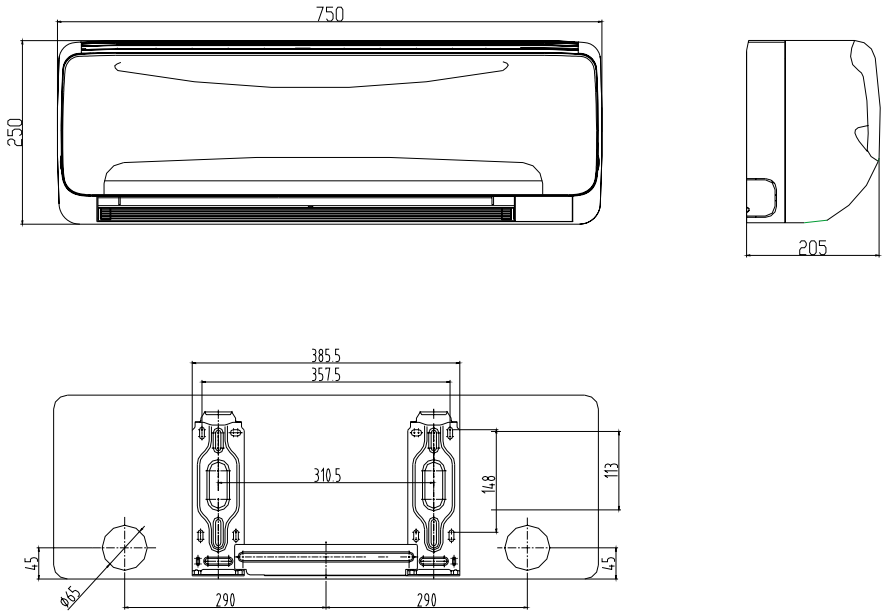
2.Specification

Model			FSMED-74HFPL	FSMED-124HFPL
Power supply		Ph-V-Hz	1, 220-240V~, 50Hz	1, 220-240V~,
Cooling	Capacity	W	2150	3600
	Input	W	640	1120
	Rated current	A	2.8	5.0
	EER		3,36	3,22
Heating	Capacity	W	2500	4400
	Input	W	690	1180
	Rated current	A	3.0	5.3
	COP	W/W	3.62	3.73
Moisture Removal		L/h	0.7	1.2
Max. input consumption		W	1000	1550
Max. current		A	4.5	8
Starting current		A	16	30
Compressor	Model		PA82X1C-4DZ2	PA145X2C-4FT
	Type		Rotary	rotary
	Capacity	Btu/h	6680	12000
	Input	W	675	1200
	Rated current(RLA)	A	3.11	5.6
	Locked rotor Amp(LRA)	A	15.0	29.9
	Thermal protector		UP3QE0591-T71	UP3RE0591-T56
	Capacitor	uF	25	35
	Refrigerant oil	ml	350	480
Indoor fan motor	Model		RPG13H	RPG20D
	Input	W	36.5	51.5
	Capacitor	uF	1.2	1.5
	Speed(hi/mi/lo)	r/min	1050/9200/820	1250/1000/800
Indoor coil	Number of rows		2	2
	Fin type (code)		Hydrophilic aluminium	Hydr0philiC
	Tube outside dia.and type	mm	φ7, innergroove	φ7, innergroove
	Number of circuits		2	2
Indoor air flow (Hi/Mi/Lo)		m3/h	450/400/350	650/520/420
Indoor noise level (Hi/Mi/Lo)		dB(A)	34/32/30	39/33/28
Indoor unit	Dimension (W*H*D)	mm	750*250*205	815*280*215
	Packing (W*H*D)	mm	830X285X335	915X290X360
	Net/Gross weight	Kg	8,5/10,5	10,5/12,5
Outdoor fan motor	Model		YDK24-6T	YDK36-6
	Input	W	56	68
	Capacitor	uF	2.5	2.5
	Speed	r/min	800	900
Outdoor coil	Number of rows		2	2
	Fin type (code)		Hydrophilic aluminium	Hydrophilic
	Tube outside dia.and type	mm	Φ7,innergroove tube	Φ9.53,innergroove
	Coil length x height x width	mm	750x508x26.74	680x550x44
	Number of circuits		2	2
Outdoor air flow		m3/h	1500	1900
Outdoor noise level		dB(A)	49	52
Outdoor unit	Dimension(W*H*D)	mm	700X535X235	760X590X285
	Packing (W*H*D)	mm	815X580X325	890X655X360
	Net/Gross weight	Kg	32/35	41.5/45.5
Refrigerant type R410A		g	820	1170
Design pressure		MPa	4.2	4.2
Refrigerant piping	Liquid side/ Gas side	mm(inch)	Φ6.35/Φ9.53	Φ6.35/Φ12.7
	Max. refrigerant pipe length	m	10	10
	Max. difference in level	m	5	5
Connection wiring			No	No
Plug type			16A	16A
Thermostat type			Electrolic control	Electrolic control
Operation temp		℃	17-30	17-30
Ambient temp		℃	18-43 / -7 -24	18-43 / -7 -24

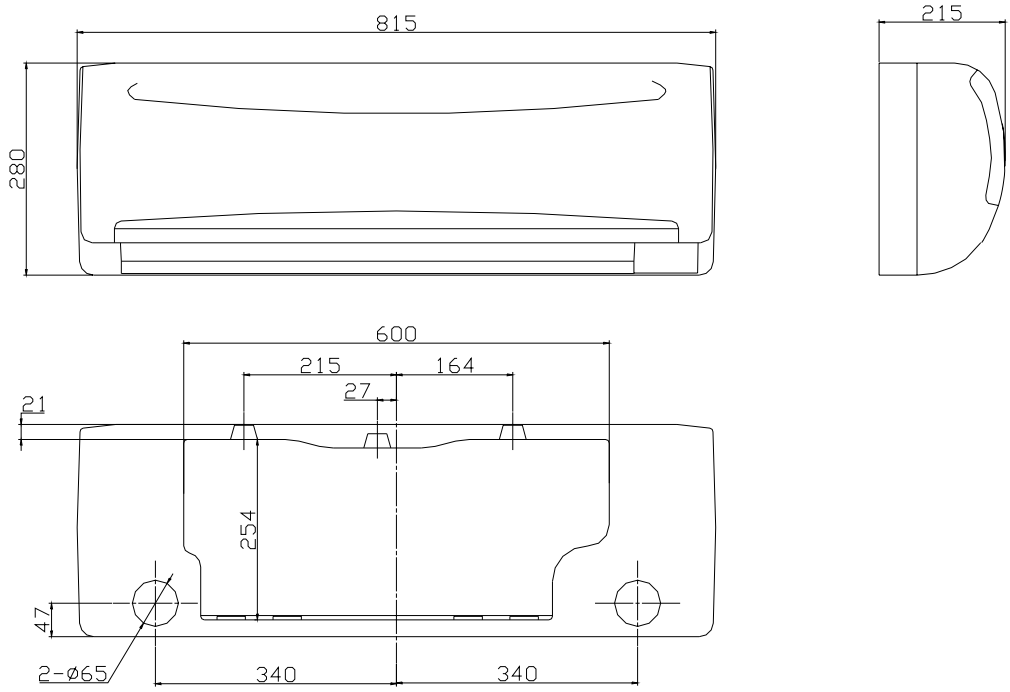
★1 The noise date is base on hemi-anechoic chamber, during actual operation, these values are normally somewhat different as a result of ambient condition.

3.Dimensions

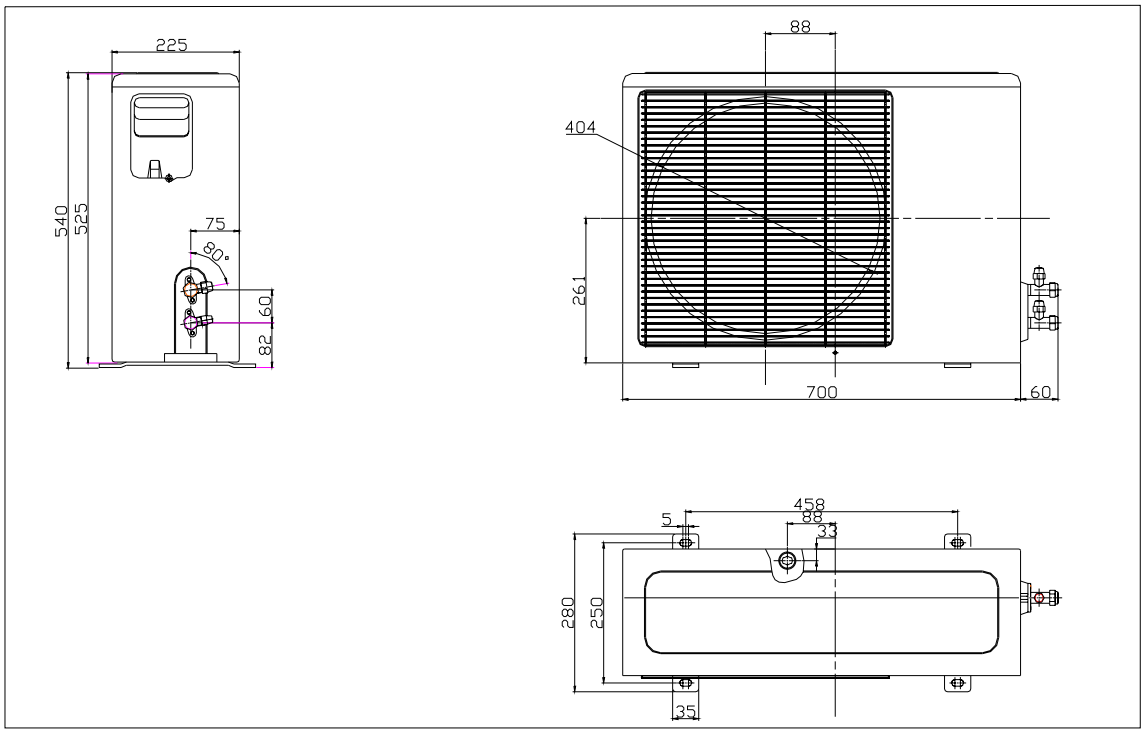
3.1 Indoor unit
FSMED-74HFPL



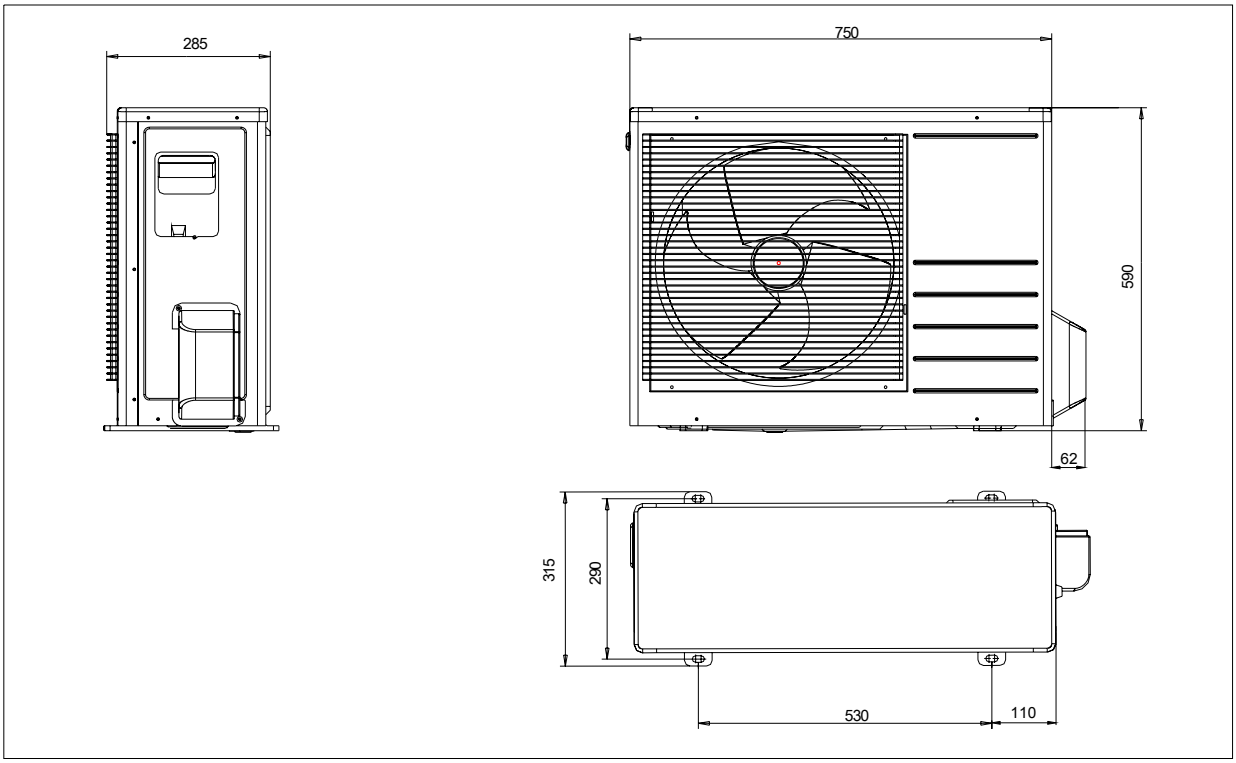
3.2 Indoor unit
FSMED-124HFPL



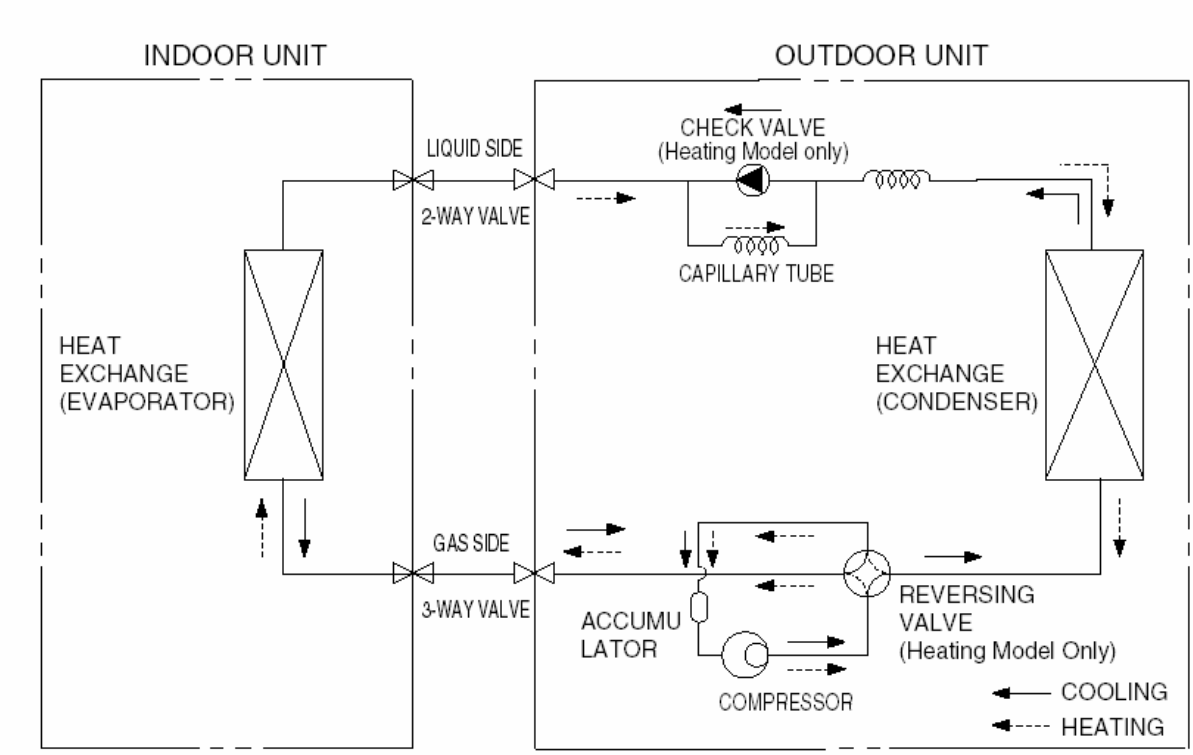
3.3 Outdoor unit
FSMED-74HFPL



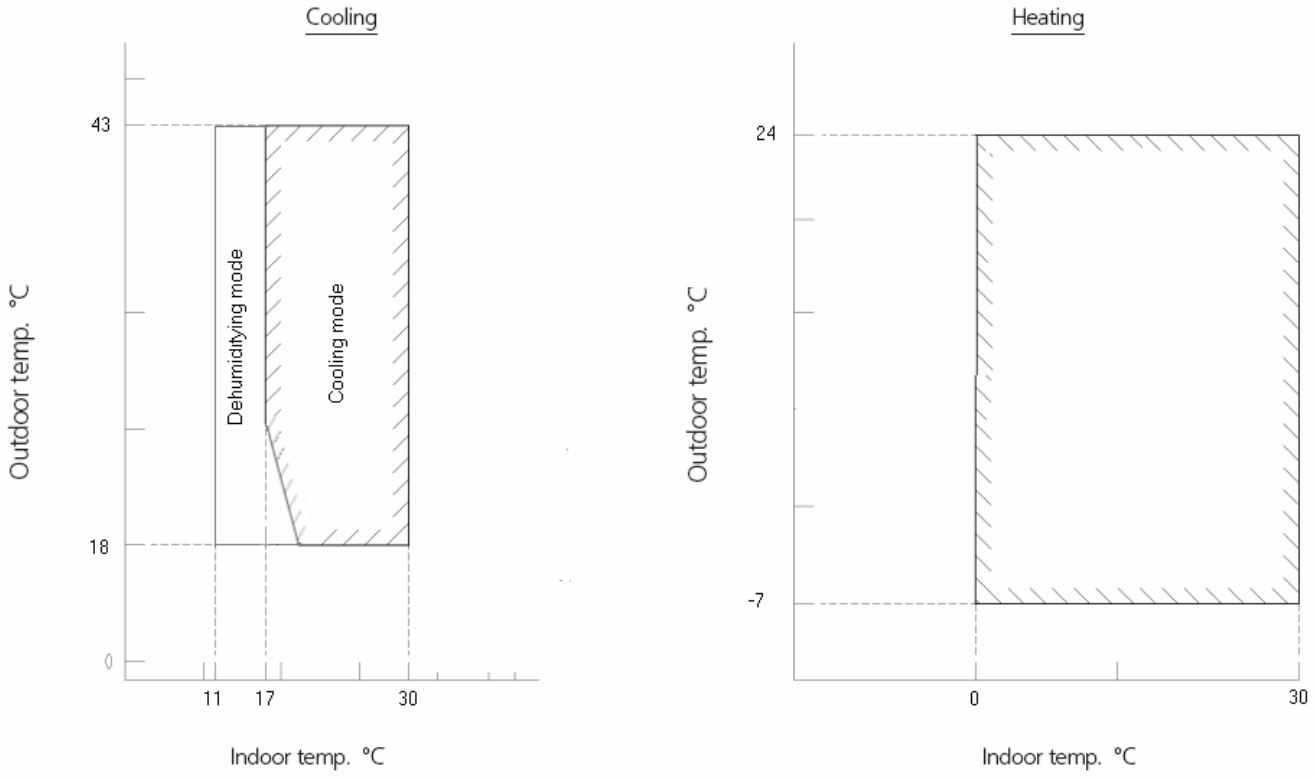
3.4 Outdoor unit
FSMED-124HFPL



4.Refrigeration cycle diagram



5.Operation range



6. Pressure table

Note:

*The pressure data is from 3 way valve, the pressure data are pressure above atmosphere.

*D: Dry bulb temp.

*W: Wet bulb temp.

6.1 FSMED-74HFPL

Cooling mode		**Outdoor temperature (Dry bulb temp)**					
Indoor Conditions	**Pressure**	**25ºC**	**30ºC**	**35ºC**	**40ºC**	**45ºC**	**50ºC**
21ºC D 15ºC W	bar	6.1	6.7	7.1	7.9	8.4	9.4
24ºC D 17ºC W	bar	6.2	6.4	7.4	7.9	8.6	9.4
27ºC D 19ºC W	bar	6.0	6.8	7.4	8.1	9.0	9.9
32ºC D 23ºC W	bar	6.9	7.2	7.7	8.2	9.1	10.0

Heating mode		**OUTDOOR CONDITIONS**					
Indoor Conditions	**Pressure**	**12ºC D 11ºC W**	**7ºC D 6ºC W**	**0ºC D -1ºC W**	**-4ºC D -6ºC W**	**-7ºC D -9ºC W**	**-15ºC D -xºC W**
15ºC	bar	23.5	23.0	23.0	22.5	23.2	/
18ºC	bar	21.5	23.0	20.7	21.0	20.5	/
20ºC	bar	22.0	22.3	21.0	21.3	20.5	/
22ºC	bar	23.5	23.1	21.0	21.3	20.5	/

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Cooling mode		**Outdoor temperature (Dry bulb temp)**					
Indoor Conditions	**Pressure**	**25ºC**	**30ºC**	**35ºC**	**40ºC**	**45ºC**	**50ºC**
21ºC D 15ºC W	bar	8.3	8.4	8.7	8.8	9.3	9.8
24ºC D 17ºC W	bar	8.5	8.7	9.1	9.3	9.9	10.3
27ºC D 19ºC W	bar	8.7	9.1	9.3	9.7	10.2	10.8
32ºC D 23ºC W	bar	9.1	9.5	9.8	10.3	10.7	11.1

Heating mode		**OUTDOOR CONDITIONS**					
Indoor Conditions	**Pressure**	**12ºC D 11ºC W**	**7ºC D 6ºC W**	**0ºC D -1ºC W**	**-4ºC D -6ºC W**	**-7ºC D -9ºC W**	**-15ºC D -xºC W**
15ºC	bar	26.9	25.4	21.7	20.9	19.5	/
18ºC	bar	29.3	26.7	23.3	21.5	20.6	/
20ºC	bar	29.7	28.6	23.7	23.1	21.6	/
22ºC	bar	31.9	39.6	24.9	23.5	22.2	/

7. Capacity table

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SUMMER		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		**25ºC**	**30ºC**	**35ºC**	**40ºC**	**45ºC**	**50ºC**
21ºC D 15ºC W	Total capacity kW	2.04	1.94	1.70	1.61	1.53	1.41
	Sensitive capacity kW	1.52	1.41	1.39	1.32	1.19	1.07
	Input kW.	0.53	0.58	0.60	0.67	0.73	0.80
24ºC D 17ºC W	Total capacity kW	2.14	2.05	1.93	1.81	1.73	1.51
	Sensitive capacity kW	1.61	1.46	1.45	1.54	1.23	1.15
	Input kW.	0.54	0.60	0.62	0.70	0.74	0.82
27ºC D 19ºC W	Total capacity kW	2.31	2.24	**2.05**	1.95	1.70	1.65
	Sensitive capacity kW	1.78	1.65	**1.54**	1.43	1.26	1.28
	Input kW.	0.57	0.62	**0.64**	0.71	0.75	0.83
32ºC D 23ºC W	Total capacity kW	2.33	2.36	2.31	2.25	2.15	2.03
	Sensitive capacity kW	1.83	1.67	1.65	1.64	1.57	1.52
	Input kW.	0.58	0.64	0.66	0.73	0.80	0.86

WINTER		OUTDOOR CONDITIONS					
Indoor Conditions		**12ºC D 11ºC W**	**7ºC D 6ºC W**	**4ºC D 3ºC W**	**0ºC D -1ºC W**	**-4ºC D -6ºC W**	**-7ºC D -8ºC W**
15ºC	Capacity kW	3.01	2.73	2.47	1.76	1.65	1.58
	Input kW.	0.76	0.66	0.60	0.58	0.50	0.45
18ºC	Capacity kW	2.86	2.64	2.34	1.69	1.53	1.41
	Input kW.	0.78	0.67	0.62	0.59	0.62	0.47
20ºC	Capacity kW	2.77	**2.49**	2.28	1.62	1.59	1.33
	Input kW.	0.81	**0.69**	0.64	0.59	0.53	0.48
22ºC	Capacity kW	2.61	2.43	2.13	1.58	1.26	1.17
	Input kW.	0.83	0.68	0.65	0.60	0.56	0.51

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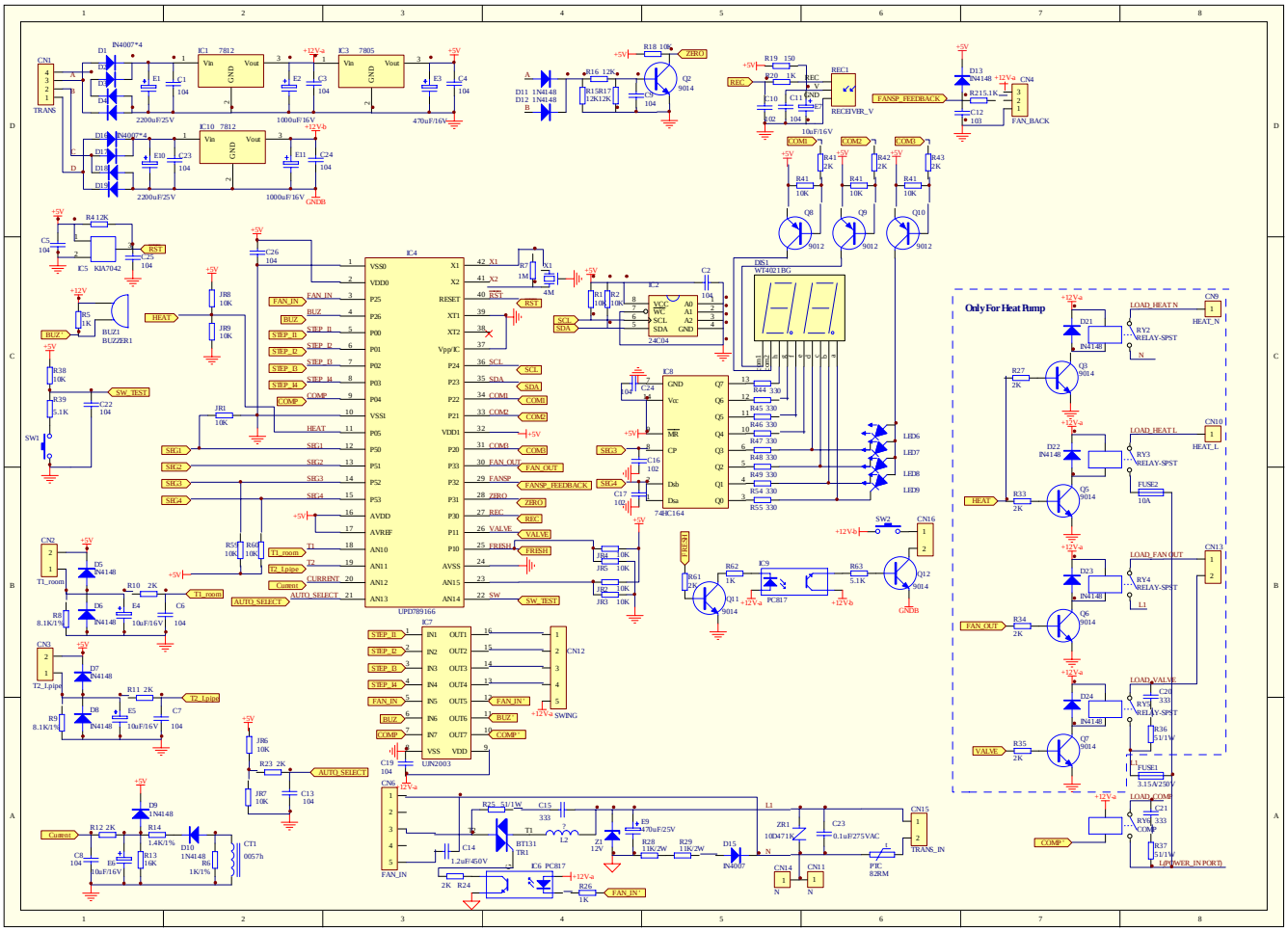
SUMMER		OUTDOOR TEMPERATURE DRY					
Indoor Conditions		25ºC	30ºC	35ºC	40ºC	45ºC	50ºC
21ºC D 15ºC W	Total capacity kW	3276	3187	3105	2821	2746	2621
	Sensitive capacity kW	2567	2457	2413	2287	2210	2087
	Input kW.	890	1010	1082	1188	1243	1337
24ºC D 17ºC W	Total capacity kW	3663	3503	3315	3148	3076	2932
	Sensitive capacity kW	2918	2766	2725	2557	2453	2334
	Input kW.	915	1033	1121	1228	1278	1367
27ºC D 19ºC W	Total capacity kW	3860	3700	**3626**	3371	3215	3125
	Sensitive capacity kW	3039	2913	**2832**	2645	2567	2419
	Input kW.	944	1048	**1120**	1253	1312	1426
32ºC D 23ºC W	Total capacity kW	4215	4100	3845	3601	3501	3313
	Sensitive capacity kW	3120	2939	2891	2715	2589	2503
	Input kW.	969	1088	1189	1302	1349	1455

	WINTER	OUTDOOR CONDITIONS					
Indoor Conditions		12ºC D 11ºC W	7ºC D 6ºC W	4ºC D 3ºC W	0ºC D -1ºC W	-4ºC D -6ºC W	-7ºC D -8ºC W
15ºC	Capacity kW	4446	4264	4132	3838	3335	305
	Input kW.	1141	1106	1059	1035	895	812
18ºC	Capacity kW	4380	4248	3954	3761	3258	2948
	Input kW.	1188	1153	1142	1082	953	918
20ºC	Capacity kW	4261	**4153**	3877	3683	3189	2871
	Input kW.	1224	**1180**	1129	1082	976	941
22ºC	Capacity kW	4106	3989	3761	3567	3045	2876
	Input kW.	1259	1212	1153	1106	1000	836

8. Schematic diagram and wiring diagram

8.1 Schematic diagram



8.2 Wiring diagram

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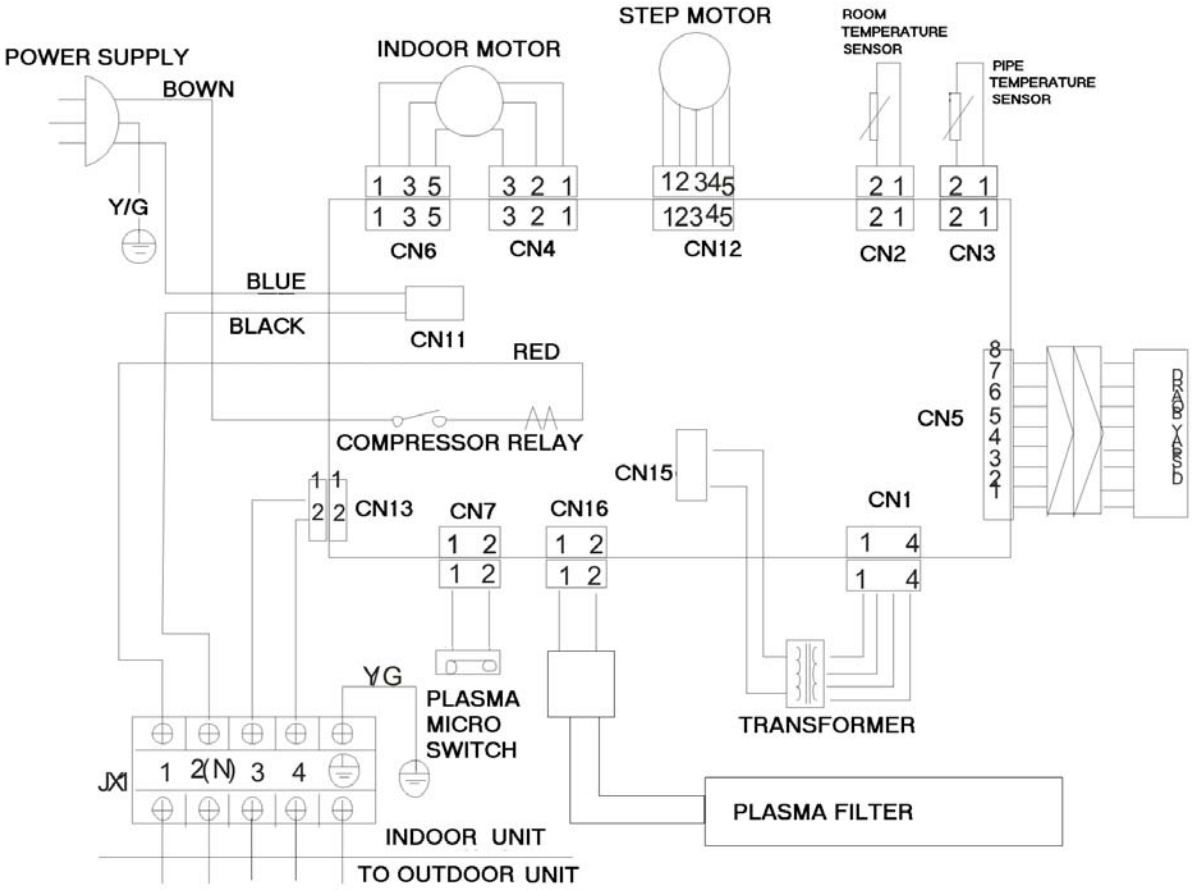
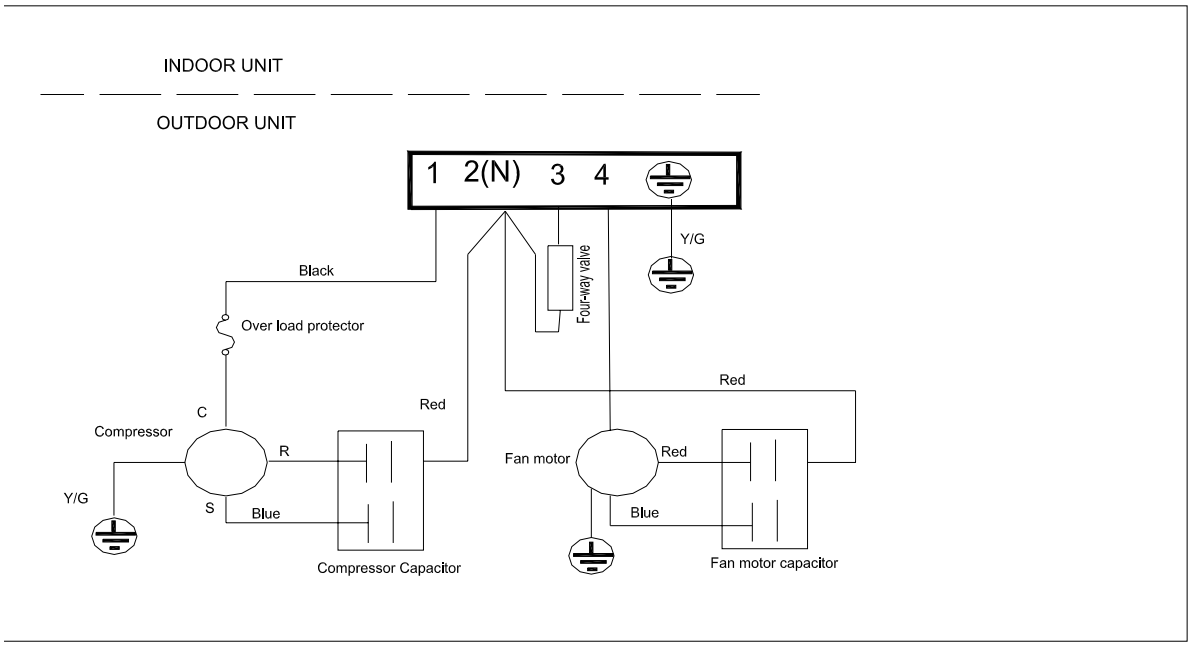
Indoor unit

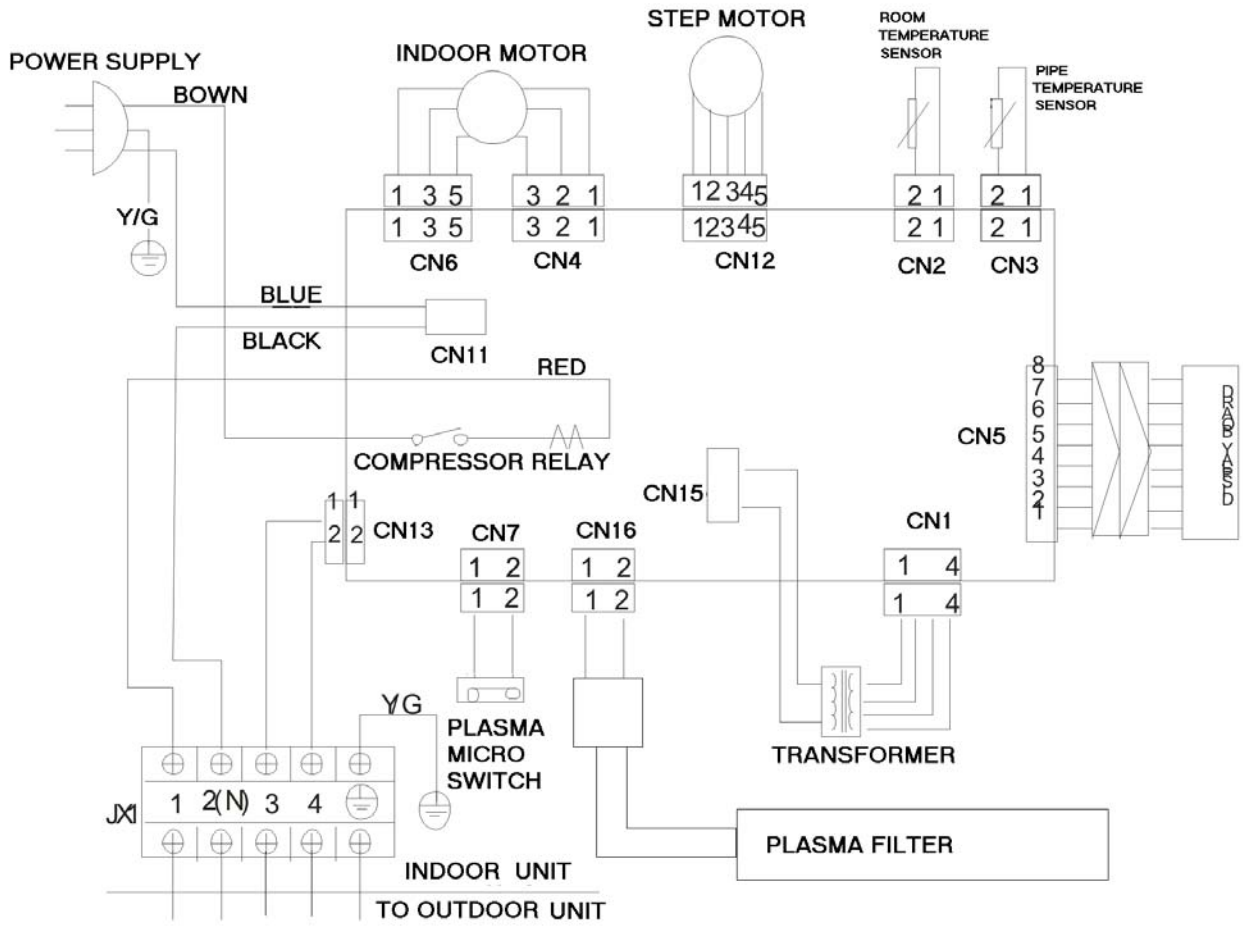


outdoor unit

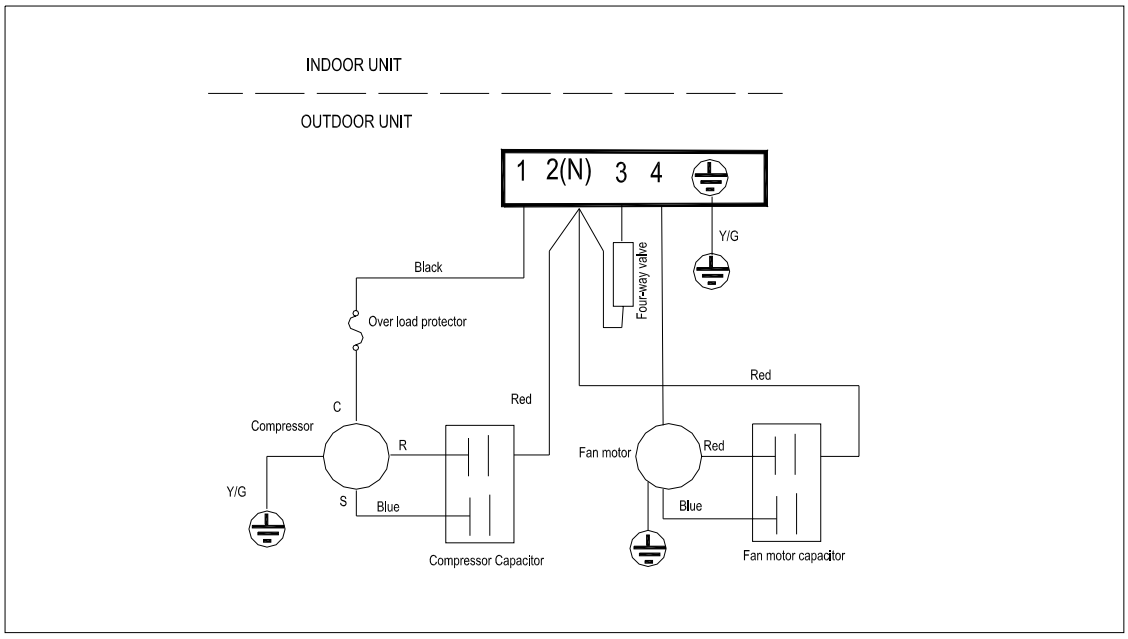


FSMED-124HFPL

Indoor unit



outdoor unit



9 Electronic function

9.1 Electric Control working environment

9.1.1 input voltage: 175~253V

9.1.2 Input power frequency:50Hz

9.1.3 Ambient temperature: 18-43 / -7°C~+43°C

9.1.4 Indoor fan normal working amp is less than 1A,

9.1.5 Outdoor fan. Normal working amp is less than 1.5A

9.1.6 Four-way valve normal working amp is less than 1A.

9.1.7 Swing motor: DC12V.

9.1.8 Compressor: single-phase power supply. Its normal working amp is less than 15A

9.2 Proper symbols and their meanings:

TA: Indoor ambient temperature

TE: Indoor evaporator temperature

TS: Setting temperature through the remote controller

I_{3sec}: Self-protection amp of compressor, continue three seconds until turns off the compressor.

I_{5MIN}: Self-protection amp of compressor, continue five minutes until turns off the compressor.

I_{FAN}: Self-protection amp of outdoor fan/indoor fans when they change from higher wind to lower wind.

$I_{RESTORE}$: Amp self-protection return value

$TH_{DEFROST}$: High wind, defrosting temperature difference

$TM_{DEFROST}$: Middle wind, defrosting temperature difference

$TL_{DEFROST}$: Low wind, defrosting temperature difference

TE1: Anti-cold wind, from Fan Off to Breeze temperature

TE2: Anti-cold wind, from Breeze to Setting Fan Speed temperature

TE3: Anti-cold wind, from Setting Fan Speed to Breeze temperature

TE4: Anti-cold wind, from Breeze to Fan Off temperature

TE5: Evaporator low temperature protection entering temperature

TE6: Evaporator low temperature protection restoring temperature

TE7: Evaporator high temperature protection, compressor off temperature

TE8: Evaporator high temperature protection, fan off temperature

TE9: Evaporator high temperature protection, restoring temperature

9.3 Functions

Remote receiving

Testing and forced running

Position set for indoor unit wind vane

LED displaying and alarm

On or off Timer

Protection for the compressor

Current protection

High temperature protection of indoor heat exchanger at heating mode

Auto defrosting and heating recovery at heating mode

Anti cold air at heating mode

Anti frozen at cooling mode

Safety switch of plasma-filter

9.4 Protection

9.4.1 3 minutes delay at restart for compressor.

9.4.2 Sensor protection at open circuit and breaking disconnection

9.4.3 Fan Speed is out of control. When Indoor Fan Speed is too high(higher than High Fan+300RPM)or too low(lower than 400RPM), the unit stops and LED displays failure information and can't returns to normal operation automatically.

9.4.4 Cross Zero signal error warning. If there is no Cross Zero signals in 4 minutes, the unit stops and LED displays failure information and can't returns to normal operation automatically.

9.4.5 The current protection of the compressor

	Condition	Indoor fan	Compressor	Outdoor fan	Remark
Current up	$I< I_{RESTORE}$	On	On	On	
	$I_{RESTORE} <I< I_{FAN}$	On	On	Off	Heating mode
		Low speed	On	On	Cooling mode
	$I_{FAN} <I<I_{5MIN}$		Off	Off	After 5 Minutes
	$I_{5MIN}<I< I_{3SEC}$		Off	Off	After 3 Seconds
Current down	$I_{5MIN}<I< I_{3SEC}$		Off	Off	After 3 Seconds
	$I_{FAN} <I<I_{5MIN}$		Off	Off	After 5 Minutes
	$I_{RESTORE} <I< I_{FAN}$	On	On	Off	Heating mode
		Low speed	On	On	Cooling mode
	$I< I_{RESTORE}$	On	On	On	

If compressor turns off for continuously 4 times due to current protection in 5 minutes from Compressor On, the unit stops and LED displays failure information and can't returns to normal operation automatically.

9.5 Fan-only mode

Fan speed is high/mid/low/ Auto

9.6 Cooling mode

The 4-way valve is closed at cooling mode.

The action of the compressor and the outdoor fan:

	Condition T=Indoor Temp. Ts=Setting Temp.	Compressor	Outdoor fan
Room temp. up	T> Ts+1	On	On
	T<Ts+1	Off	Off
Room temp. down	T> Ts	On	On
	T<Ts	Off	Off

Auto fan at cooling mode:

	Condition T=Indoor Temp.-Setting Temp.	Indoor fan speed
Room temp. up	T<4□	Low
	4□<T<5□	Med.
	T>5□	High
Room temp. down	T> 4□	High
	1□<T<4□	Med.
	T<1□	Low

Anti-freezing control to indoor evaporator at cooling mode(T: evaporator temp.)

	Condition		Compressor	Outdoor fan
	Temp.	Time		
Evaporator Temp. up	T> TE6		On	On
	T< TE6	>5 Minutes	Off	Off
Evaporator Temp. down	T> TE5		On	On
	T< TE5	>5 Minutes	Off	Off

9.7 Dehumidifying mode

9.7.1 The 4-way valve is off in dehumidifying mode

9.7.2 Compressor and Indoor Fan actions in dehumidifying mode

NO	Conditions	Indoor Fan	Compressor and Outdoor Fan
1	TA ≥ TS+2	LOW BREEZE	ON 6minutes OFF 4minutes
2	TS ≤TA<TS+2	LOW BREEZE	ON 5minutes OFF 5minutes
3	TA < TS	LOW BREEZE	ON 4minutes OFF 6minutes

Repeat on and off cycle.

9.7.3 Low room temperature protection:

When room temperature decreases to below 10℃, compressor and outdoor fan will stop(indoor fan is Breeze). Dehumidifying operation will be resumed when room temperature restores to over 13℃.

9.7.4 At dehumidifying mode, the anti-freezing function of the indoor heat exchanger is the same as that of cooling mode.

9.7.5 At dehumidifying mode, the action of fans of indoor is the same as that of air-only mode.

9.8 Heating mode

9.8.1 Generally, the 4-way valve is open in heating mode, but it is closed in defrosting mode. 4-way valve must delay 2 minutes compared with compressor if the compressor changed into non-heating mode or turned off. 4-way valve doesn't delay in dehumidifying mode.

9.8.2 Generally, the outdoor fan is turned off with the on-off action of compressor in heating mode, except for the defrosting mode or the end of defrost.

9.8.3 Action of compressor and outdoor fan motor at heating mode: compressor must run for 7 minutes after starting and then judge temperature. Meanwhile other protections are still valid.

	Condition	Compressor	Outdoor fan
Room temp. up	T> Ts+3	Off	Off
	T<Ts+3	On	On
Room temp. down	T< Ts+2	On	On
	T>Ts+2	Off	Off

9.8.4 Indoor Fan actions at heating mode

Indoor Fan can be set at HIGH/MID/LOW/AUTO by using a remote controller, but Anti-cold wind function prevails.

Anti-cold wind control function at heating mode

	Condition T= Indoor exchanger temp.	Indoor fan speed
Indoor exchanger temp. up	T<TE1	Off
	TE1<T<TE2	Breeze
	T>TE2	Setting fan speed
Indoor exchanger temp. down	T> TE3	Setting fan speed
	TE3<T<TE4	Breeze
	T<TE4	Off

9.8.5 Auto wind at heating mode

	Condition T=Indoor Temp.-Setting Temp.	Indoor fan speed
Room temp. up	T<2□	High
	T>2□	Med.
Room temp. down	T> 0□	Med.
	T<0□	High

9.8.6 Indoor evaporator high-temperature protection at heating mode

	Condition T= Indoor exchanger temp.	Compressor	Outdoor fan
Indoor exchanger temp. up	T<TE8	On	On
	TE8<T<TE7	On	Off
	T>TE7	Off	Off
Indoor exchanger temp. down	T>TE9	Off	Off
	T<TE9	On	On

9.8.7. The louver opens to Standard Angle ANGLHEAT when power is on for the first time

9.9 Defrosting operation (Available for heating only).

9.9.1 Defrosting condition: Defrosting starts when either of the following ①&②:

① A and B are satisfied:

A: The compressor keeps running for 40 minutes or more.

B: The temperature difference of evaporator and room temperature meets one of the following:

□	Temp. of evaporator---room temp.
Fan speed is high	≤$TH_{DEFROST}$
Fan speed is mid	≤$TM_{DEFROST}$
Fan speed is low	≤$TL_{DEFROST}$
Breeze	Meet only if it is Breeze

② Calculate from the end of latest defrost, evaporator high temp. protection only closes outdoor fan with the compressor still running. Add up to 90 minutes.

9.9.2 Defrosting time

If the temp. difference condition ① is satisfied for less than 40 minutes, this can be regarded as severe frosting. The defrosting time is 10 minutes.

If the temp. difference condition ② is satisfied for more than 40 minutes, the defrosting time is 6 minutes.

If the temp. difference condition ① is satisfied out of 40 minutes, generally the defrosting time is 6 minutes, after three continuous 6-minute defrost, the fourth should be 10 minutes defrost. The circulation is as following:

→7.5-minute defrost → 7.5-minute defrost→7.5-minute defrost→10-minute defrost→

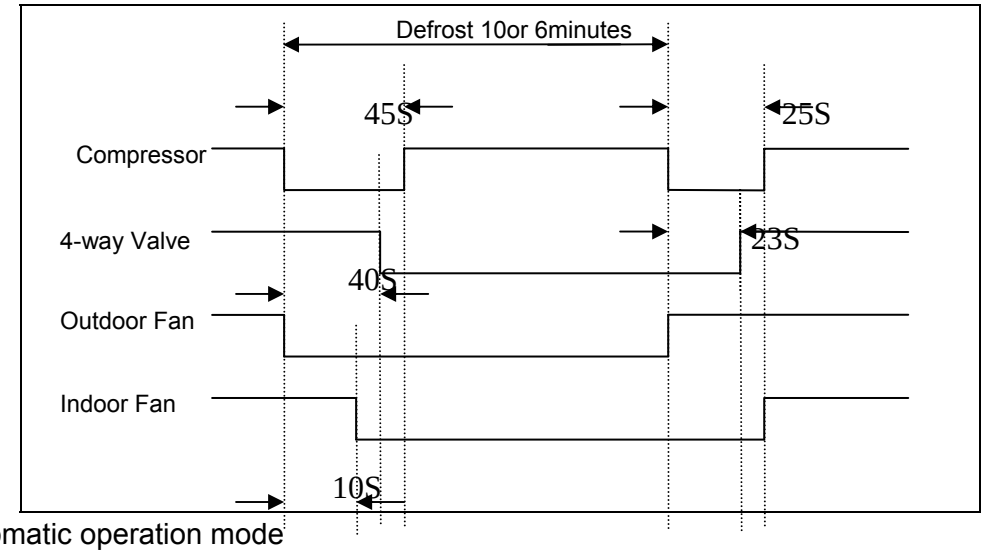
9.9.3 Ending condition of defrosting

If one of following conditions is satisfied, end the defrost and turn into heating mode:

A. The defrost time has reached to 7.5 or 10 minutes.

B. The compressor current has reached to $I_{DEFROST}$ or above, I_{DEROST} differs in different models.

9.9.4 Defrosting Actions:



9.10 Automatic operation mode

9.10.1 The air conditioner automatically selects one of the following operation modes: cooling, heating or fan only according to the temp. difference between room temp. (TA) and set temp. (TS).

TA—TS	Operation mode
TA—TS>2□	Cooling
-1□≤TA-TS≤+2□	Fan-only
TA-TS<-1□	Heating (air-only for cooling only type)

9.10.2 The indoor fan blows automatically in corresponding selected mode.

9.10.3 The motion of indoor fan's blade should accord with the selected operation mode.

9.10.4 One mode should be carried out for at least 15 minutes once selected. If the compressor cannot start for 15 minutes, reselect the operation mode according to the room temp. and set temp., or reselect when the set temp. varies.

9.11 Forced cooling function

9.11.1 Select forced cooling function with the forced cooling button or the switch.

9.11.2 The compressor is unconditionally turned on, after 30 minutes cooling operation whose fan mode is set as low, the A/C operates at the DRY mode with a set temp. of 24℃.

9.11.3 All protections of remote control cooling are available at forced cooling operation.

9.12 Forced Auto function

Select forced auto function with the forced auto button or the switch.

In forced auto status the A/C operates at remote control mode with a set temp. of 24℃.

9.13 Timer Function

9.14 Economic Running

9.14.1 The economic running function is available at cooling, heating or auto mode.

9.14.2 Cooling:

The set temperature rise 1℃ per hour. Two hours later, the set temperature will maintain as a constant and the fan speed is kept at low speed.

9.14.3 Heating:

The set temperature decrease 1℃ per hour. Two hours later, the set temperature will maintain as a constant and the air circulation is kept at low speed (Cold air proof function takes precedence over all).

9.14.4 Auto:

The economic running function operates in accordance with selected running mode by auto mode.

9.15 Auto restart function

In case of a sudden power failure, this function automatically sets the unit to previous settings before the power failure when power returns.

9.16 PLASMA-filter

The plasma-filter operates when indoor fan is on.

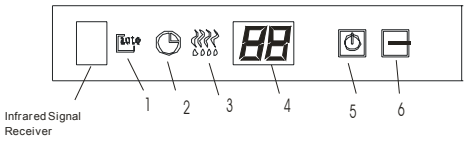
There is a safety switch under the front cover. The plasma-filter will not operate when the front cover is open.

9.17 Models and Parameters

Model	FSMED-94HFPL	FSMED-124HFPL
I3SEC	7.5A	12.0A
I5MIN	6.2A	8.5A
IFAN	5.2A	7.5A
IRESTORE	4.2A	6.5A
IDEFROST	3.2A	5.0A
TE1	28□	34□
TE2	32□	37□
TE3	30□	33□
TE4	26□	22□
TE5	4□	3□
TE6	10□	10□
TE7	60□	63□
TE8	53□	53□
TE9	50□	50□
ANGLCOOL	200°	155°
ANGLHEAT	0°	10°
ANGLOFF	124°	124°
$TH_{DEFROST}$	17● C	20● C
$TM_{DEFROST}$	18● C	23● C
$TL_{DEFROST}$	19● C	26● C

10.Troubleshooting

10.1 Display board



1: AUTO indicator

2: TIMER indicator

3: PRE.-DEF. Indicator

4: DIGITAL DISPLAY indicator

5: OPERATION indicator

6: SLEEP indicator

10.2 For all heat pump model

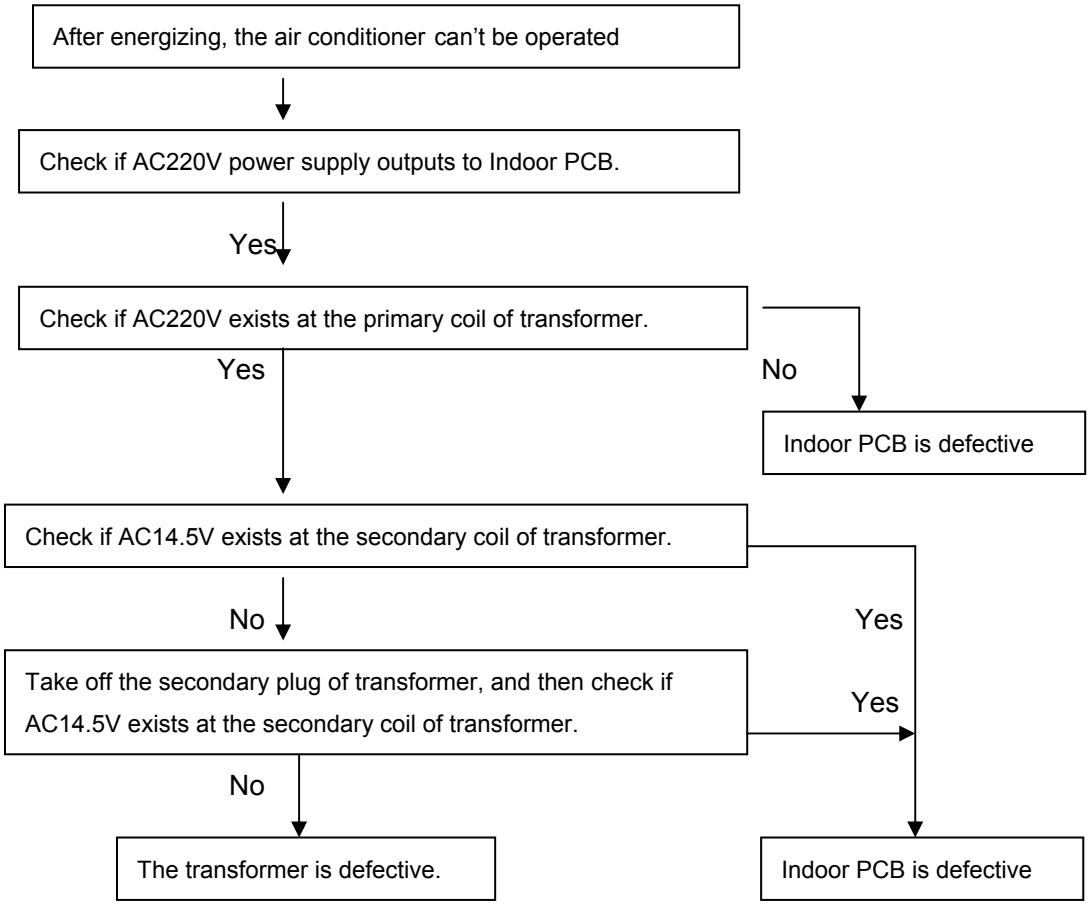
Failure phenomenon	Operation lamp	Timer lamp
Indoor fan speed has been out of control for over 1 minute	☆	X
Indoor room temp. or evaporator sensor is open circuit or short circuit	☆	On
Over current protection of the compressor occurs 4 times	X	☆
EEROM error	On	☆
No over-zero signal	☆	☆

✕ Extinguish

☆ Flash at 5Hz

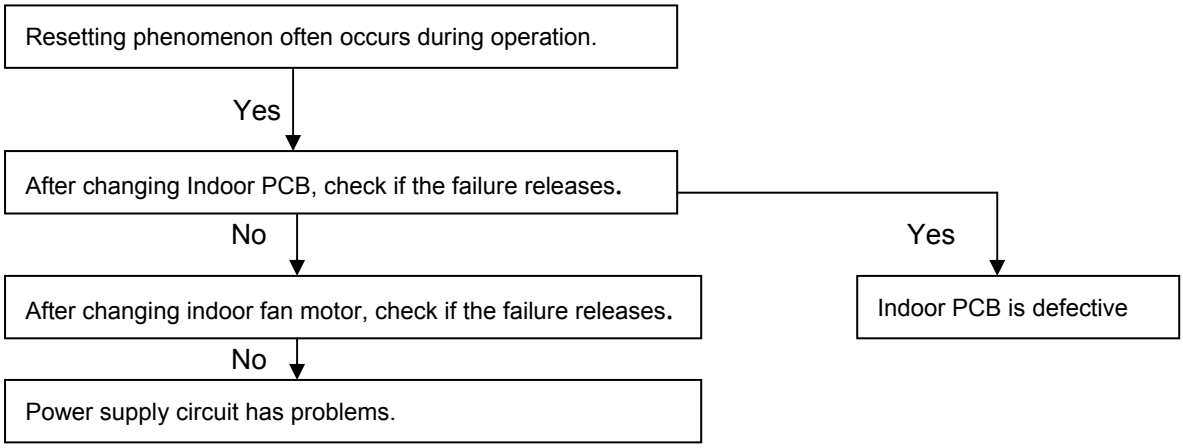
10.3 Diagnostic Chart

10.3.1 After energizing, no indicator is lighted and the air conditioner can't be operated.



10.3.2 Resetting phenomenon often occurs during operation. (That is automatically entering to the status when power is on.)

The reason is that the instantaneous voltage of main chip is less than 4.5V. Check according to the following procedure:



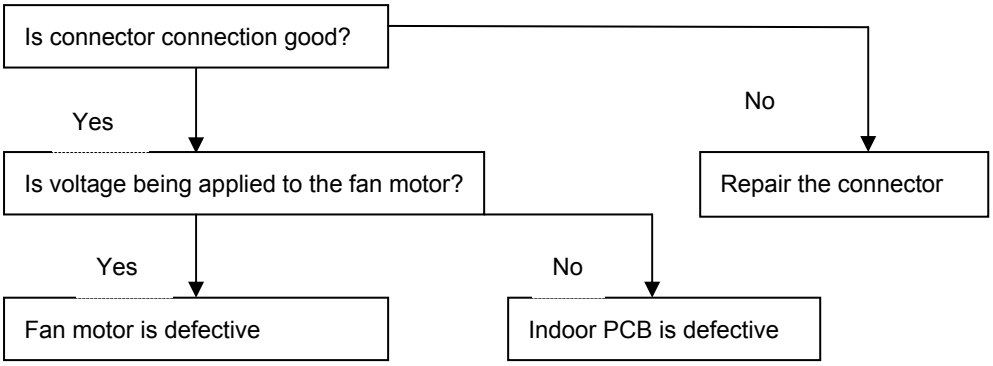
10.3.3 Failure phenomenon

Failure phenomenon	Operation lamp	Timer lamp
Indoor fan speed has been out of control for over 1 minute	☆	X
Indoor room temp. or evaporator sensor is open circuit or short circuit	☆	On
Over current protection of the compressor occurs 4 times	X	☆
EEROM error	On	☆
No over-zero signal	☆	☆

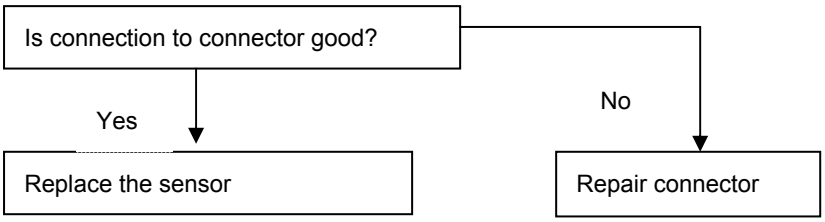
✕ Extinguish

☆ Flash at 5Hz

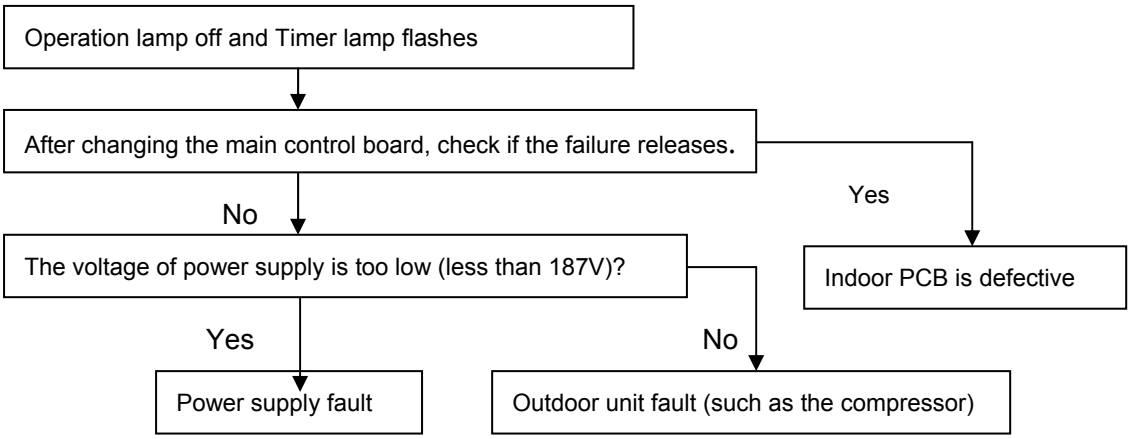
10.3.3.1 Operation lamp flashes and Timer lamp off.



10.3.3.2 Operation lamp flashes and Timer lamp on.



10.3.3.3 Operation lamp off and Timer lamp flashes



10.3.3.4 Operation lamp on and Timer lamp flashes

EEROM error, indoor PCB is defective.

10.3.3.5 Operation lamp flashes, Timer lamp flashes .

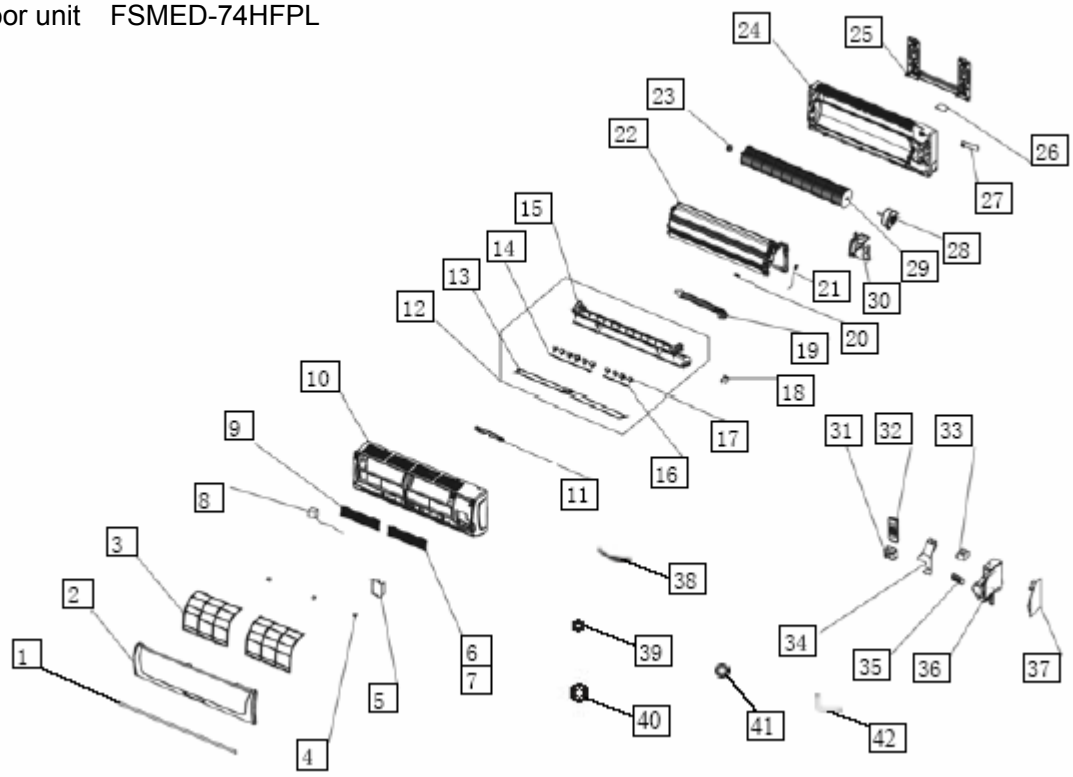
This is alarm signal when the main chip can't detect over-zero signal. When such failure occurs, the main control board must have fault.

11. Characteristic of temp. sensor

Temp.□	Resistance KΩ		Temp.□	Resistance KΩ		Temp.□	Resistance KΩ
-10	62.2756		17	14.6181		44	4.3874
-9	58.7079		18	13.918		45	4.2126
-8	56.3694		19	13.2631		46	4.0459
-7	52.2438		20	12.6431		47	3.8867
-6	49.3161		21	12.0561		48	3.7348
-5	46.5725		22	11.5		49	3.5896
-4	44		23	10.9731		50	3.451
-3	41.5878		24	10.4736		51	3.3185
-2	39.8239		25	10		52	3.1918
-1	37.1988		26	9.5507		53	3.0707
0	35.2024		27	9.1245		54	2.959
1	33.3269		28	8.7198		55	2.8442
2	31.5635		29	8.3357		56	2.7382
3	29.9058		30	7.9708		57	2.6368
4	28.3459		31	7.6241		58	2.5397
5	26.8778		32	7.2946		59	2.4468
6	25.4954		33	6.9814		60	2.3577
7	24.1932		34	6.6835		61	2.2725
8	22.5662		35	6.4002		62	2.1907
9	21.8094		36	6.1306		63	2.1124
10	20.7184		37	5.8736		64	2.0373
11	19.6891		38	5.6296		65	1.9653
12	18.7177		39	5.3969		66	1.8963
13	17.8005		40	5.1752		67	1.830
14	16.9341		41	4.9639		68	1.7665
15	16.1156		42	4.7625		69	1.7055
16	15.3418		43	4.5705		70	1.6469

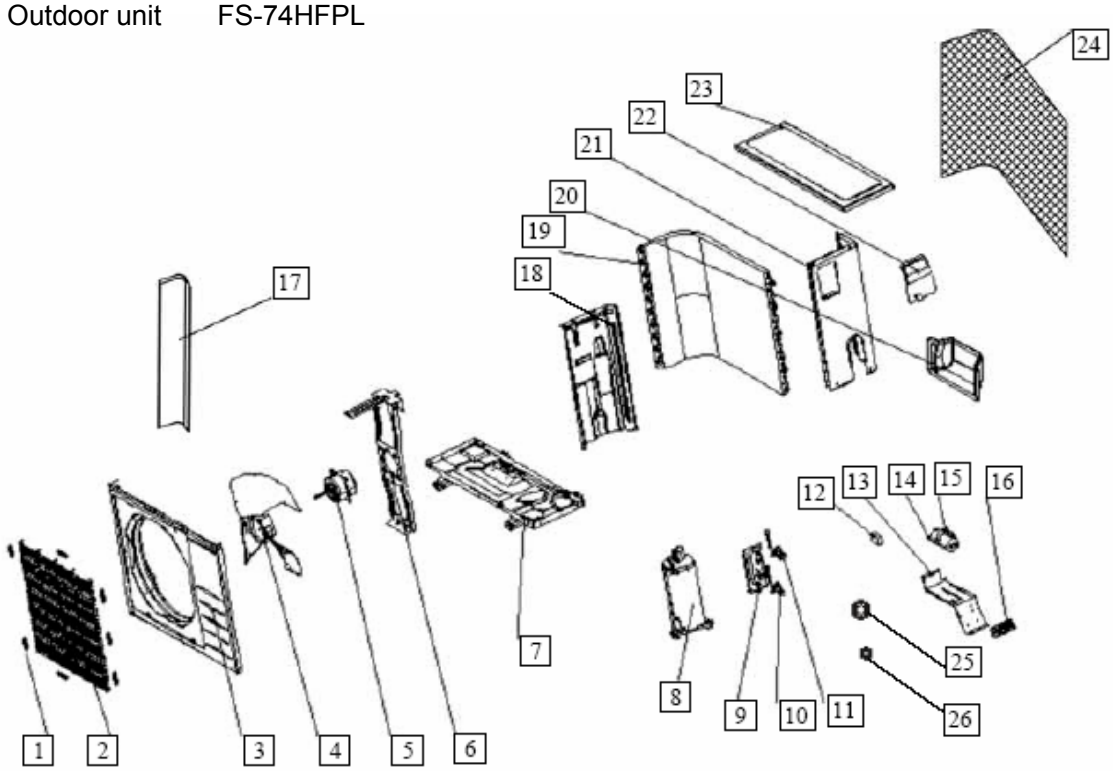
11. Exploded view

11.1 Indoor unit FSMED-74HFPL



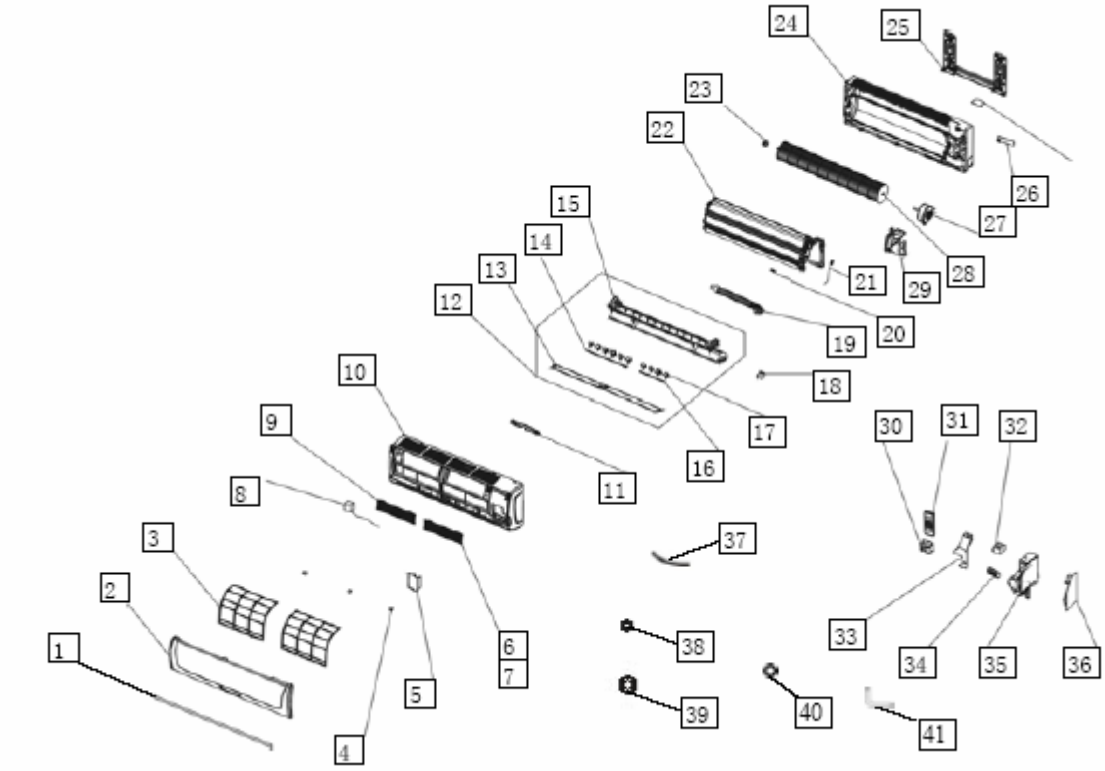
No.	Part name	Quantity	Sale code		No.	Part name	Quantity	Sale code
1	Decoration bar	1	12909121001		22	Evaporator	1	13107111002
2	Front panel	1	12909121002		23	Bearing seat	1	10309121220
3	Air filter	2	12909121003		24	Chassis	1	15007111017
4	Screw cap	3	12909121004		25	Installation plate	1	15007111018
5	Window cover for repairing	1	12909121005		26	Back cover for chassis	1	10309121223
6	Air cleaner	1	10109121226		27	Clamp for connecting pipe	1	10309121225
7	Air cleaner holder	1	10109121225		28	Fan motor	1	10309121226
8	Power for plasma	1	12909121006		29	Cross flow fan, assy	1	10309121221
9	Plasma	1	12909121007		30	Motor cover	1	10309121227
10	Panel frame	1	12909121008		31	Holder for remote controller	1	10718121009
11	Display board	1	13107111001		32	Remote Controller	1	15007121004
12	Air out frame assy	1	12909121010		33	Transformer	1	12909121016
13	Horizontal louver	1	12909121011		34	Cover for E-parts box	1	13007111003
14	Louver holder I	1	15007111011		35	Wire joint, 5p	1	10505111020
15	Air out frame	1	12909121012		36	E-Parts box	1	11609121007
16	Louver holder II	1	15007111013		37	Main control board	1	13107121004
17	Vertical louver	10	15007111014		38	Wire clamp	1	10112121234
18	Louver motor	1	10121121218		39	Copper nut, TLM-A01	1	10909121012
19	Drain hose	1	10109121215		40	Copper nut, TLM-B02	1	10909121013
20	Indoor temp sensor	1	10109121243		41	Sealing ring	1	31009321021
21	Evaporator temp sensor	1	10109121242		42	Connection pipe for drainage	1	11609121003

11.2 Outdoor unit FS-74HFPL



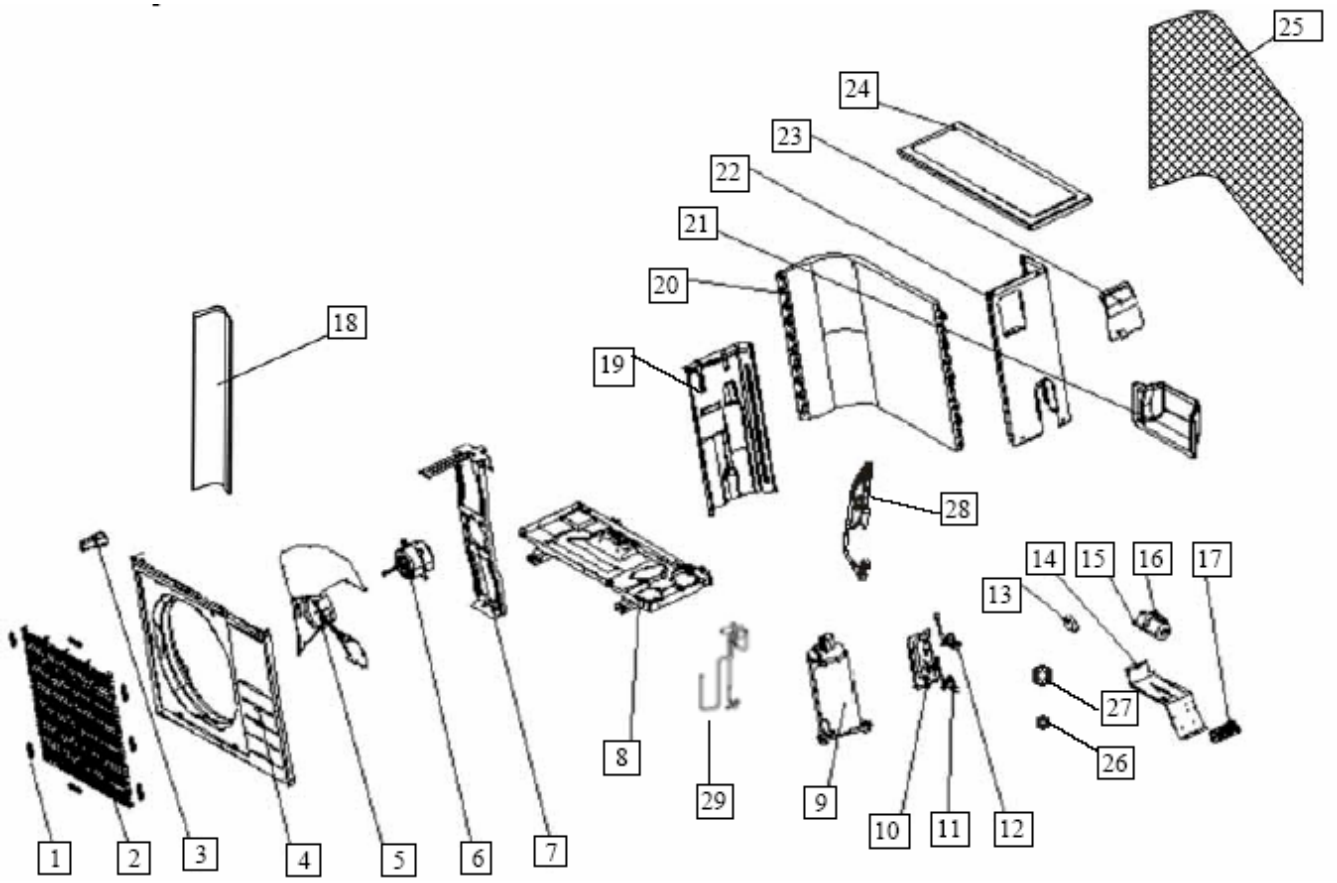
	Part Name	Quantity	Sale code
1	Clamp for front net	6	10112121801
2	Front net	1	10109121801
3	Front clapboard	1	11609121803
4	Propeller fan	1	10109121804
5	Fan motor	1	20407111802
6	Holder for fan motor	1	20407111803
7	Chassis	1	20407111809
8	Compressor	1	12807111810
9	Installation plate for valves	1	10309121809
10	Gas pipe valve	1	12807121805
10	4-way valve	1	12807121801
11	Liquid pipe valve	1	10307121801
12	Fan motor capacitor	1	10112121815
13	Installation board for	1	13009111005
14	Compressor capacitor	1	10309121820
15	Capacitor clamp	1	10109121822
16	Wire joint	1	10109121823
17	Left supporter	1	11609121804
18	Separating board	1	20407111806
19	Condenser	1	12807121802
20	Water collector	1	10109121815
21	Right clapboard	1	11607111801
22	Big handle	1	10109121817
23	Cover	1	11609121807
24	Rear net	1	11609121808
25	Copper nut	1	10909121013
26	Copper nut	1	10909121012

11.3 Indoor unit FS-124HFPL



No.	Part Name	Quantity	Sale code	No.	Part Name	Quantity	Sale code
1	Decoration bar	1	12912121001	22	Evaporator	1	12812111001
2	Front panel	1	12912121002	23	Bearing seat	1	10309121220
3	Air filter	2	12912121003	24	Chassis	1	10312121214
4	Screw cap	3	12912121004	25	Installation plate	1	10312121215
5	Window cover for repairing	1	12912121005	26	Clamp for connecting pipe	1	10309121225
6	Air cleaner	1	10109121226	27	Fan motor	1	10312121216
7	Air cleaner holder	1	10109121225	28	Cross flow fan, assy	1	10312121213
8	Power for plasma	1	12909121006	29	Motor cover	1	11609111805
9	Plasma	1	12909121007	30	Holder for remote controller	1	10718121009
10	Panel frame	1	12912121006	31	Remote Controller	1	15007121004
11	Display board	1	13107121001	32	Transformer	1	12909121016
12	Air out frame assy	1	12912121007	33	Cover for E-parts box	1	10312121224
13	Horizontal louver	1	12912121008	34	Wire joint, 5p	1	10109121244
14	Louver holder	1	12912121009	35	E-Parts box	1	10312121223
15	Air out frame	1	12912121010	36	Main control board	1	13112121022
16	Louver holder	1	12912121009	37	Wire clamp	1	10309121235
17	Vertical louver	10	12912121012	38	Copper nut, TLM-A01	1	10909121012
18	Louver motor	1	10121121218	39	Copper nut, TLM-C03	1	10912121019
19	Drain hose	1	10112121213	40	Sealing ring	1	31009321021
20	Indoor temp sensor	1	10109121243	41	Connection pipe for drainage	1	11609121003
21	Evaporator temp sensor	1	10109121242				

11.4 Outdoor unit FS-124HFPL



No.	Part Name	Quantity	Sale code		No.	Part Name	Quantity	Sale code
1	Clamp for front net	6	10112121801		15	Compressor capacitor	1	30324313020
2	Front net	1	10109121801		16	Capacitor clamp	1	10112121814
3	Small handle	1	10830121811		17	Wire joint	1	10109121823
4	Front clapboard	1	11612121804		18	Installation board, Left	1	11612121805
5	Propeller fan	1	10112121803		19	Separating board	1	10312121809
6	Fan motor	1	20412111801		20	Condenser	1	12812121802
7	Holder for fan motor	1	10312121815		21	Water collector	1	10312121811
8	Chassis	1	10312111802		22	Right clapboard	1	10312121812
9	Compressor	1	12812111805		23	Big handle	1	10112121808
10	Install.plate for valves	1	10309121809		24	Cover	1	11612121806
11	Gas pipe valve	1	12812111807		25	Rear net	1	11612121807
11	4-way valve	1	12812121801		26	Copper nut TLM-A01	1	10909121012
12	Liquid pipe valve	1	10307121801		27	Copper nut TLM-C02	1	10912121019
13	Fan motor capacitor	1	10112121815		28	Liquid valve assy	1	12812121804
14	Install.board for E-parts	1	50112111802		29	4-way valve assy	1	12812121805

Please note that the data in this book may be changed without notice for further improvement on quality and performance.

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