Haier

SERVICE MANUAL

X-MULTI SERIES

- 4-WAY CASSETTE INDOOR UNIT
- CONVERTIBLE INDOOR UNIT
- CONSOLE INDOOR UNIT
- DUCT INDOOR UNIT
- WALL MOUNTED INDOOR UNIT
- OUTDOOR UNIT

Haier Commercial Air Conditioner

Version: 200808

CONTENT

1. General information

1.1 *X-Multi* series line up

				
AB092XCERA AB122XCERA AB142XCERA AB182XCERA	AC142XCERA AC182XCERA	AD092XLERA AD122XLERA AD142XLERA AD182XLERA	AF092XCERA AF122XCERA	AS072XVERA AS092XVERA AS122XVERA AS182XVERA

		
AU182XFERA AU222XFERA	AU252XGERA	AU282XHERA AU342XHERA AU362XHERA

1.3 Operation temperature range

inverter single unit, super low ambient temp. cooling

			Rated	Maximum	Minimum
Cooling	Indoor	DB ℃	27	32	15
		WB ℃	19	23	14
	outdoor	DB ℃	35	43	-5
		WB ℃	24	26	6
Heating	Indoor	DB ℃	20	27	10
		WB ℃	14.5	--	--
	outdoor	DB ℃	7	23	-10
		WB ℃	6	18	--

1 .3 Product features

High efficienct, universal outdoor unit

The outdoor unit can match with cassette type ,duct type, convertible type, console type and wall mounted type indoor unit. Outdoor unit can match with multiple indoor units. Even when you have already installed the air conditioner, if you want to add or reduce one unit, go ahead freely as long as your operation complies with our design. Greatly convenient for designer and installer.

Total indoor load can be much more than the outdoor capacity

The total capacity of all indoor units can be much more than the nominal cooling capacity, but the total indoor cooling capacity will not be increased.

Newly designed V- appearance indoor unit

The wall mounted type indoor unit adopts the newly designed V appearance, more fashion, more beautiful. The unit is designed with the health airflow and sterilize function, which will make the air more healthy. Also the air blow direction can be set as step or stepless control, much convenient to control.

Newly designed guarding plate of valve

In order to protect the valve against the dust, the rain or the snow, etc. we add a guarding plate to the valve.

Adopt the much friendlier refrigerant R410a

The air conditioner system adopts the greatly friendly refrigerant R410a, which is protective for the ozone layer and is good to avoid the earth getting warmer. Benefit for the environment.

Adopt the advanced DC inverter technology

The system adopts the advanced DC inverter technology, which can consume less power energy to realize the equal efficiency, saving money for you.

With air inlet filter, enhance the air quality

The high efficiency filter can collect the dirt and remove the bacterium, which can be installed on the easy-to-unload place, convenient to be cleaned.

Convenient infrared remote controller

This remote controller YR-H65/H71 can realize the healthy air flow and sterilize function, it is mobile type appearance, so smart and compact. And the infrared controller can be equipped with the controller holder, convenient to fix the remote controller.

Auto–restart function (optional)

All indoor units have auto-restart function. When the power supply cut off suddenly, the unit will automatically recover the previous running mode once the power supply is on.

Self-diagnostic function

In the course of operation, if the failure occurs, the failure code will display on the wired controller or on the operation panel. Then according to the failure code chart, you can eliminate the failure soon.

Central control function, if connected with a detector and a central controller

That is convenient for building management.

Adjustable heating temperature compensation

In heating mode, the temperature compensation can be adjusted by the remote controller. If you do not want the compensation, you can set the compensation as 0 degree.

Software for diagnostic installation

After installation, you can use file "X-MULTI Setup Assistant " to know the installation is OK or not, if system has error, software will give you trouble shooting.

2. Specifications

Item / Model				AU182XFERA	
Function			——	Cooling	Heating
Rating capacity			W	5300	7000
Power input (indoor + outdoor)			W	1650	1800
Current input (indoor + outdoor)			A	7.3	8.0
EER / COP			W/W	3.21	3.89
Minimum capacity			W	1500	1800
Power input			W	500	500
Maximum capacity			W	5800	7300
Power input (indoor + outdoor)			W	2300	2300
Power source			——	1PH, 220-230V~, 50Hz	
Max.Running current (indoor + outdoor)			A / A	10.2	10.2
Power facor(under rating power input)			——	99%	99%
Fuse size (recommended size)			A	25	
Outdoor unit	Compressor	Model / Manufacture	——	TNB175FLBM / MELCO	
		Oil charge and type	——	870CC, MEL 56	
		Type	——	Twin Rotary (DC inverter)	
		Number	——	1	
	Fan	Type × Number	——	Axial × 1	
		Speed	r/min	850 / 700 / 500	
		Motor output/input power	W	35/85	
		Air-flows (H/M/L)	m³/h	about 3000	
	Heat exchanger	Type / Diameter	mm	TP2M / 7.0	
		Face area	m²	about 0.52	
	Dimension (WxDxH)	External	mm	928/288/680	
		Package	mm	1015/405/760	
	Refrigerant control method		——	PMVs	
	Defrosting method		——	Automatic by reversible cycle	
	Crankcase heater power		W	35	
	Noise level	H/M/L	dB(A)	51/-/-	
	Weight	Net / Shipping	kg / kg	54 / 60	
Piping	Refrigerant	Type / Charge	kg	R410A / 2.0	
		No need to recharge	m	30(total liquid pipe length)	
		Recharge	g/m	20	
	Pipe	Liquid	mm	3* Φ6.35	
		Gas	mm	3* Φ9.52	
	Connecting method		——	Flared	
	Between I.U &O.U	Max.Drop between IU & OU	m	10(indoor unit lower than outdoor unit)	
		Max.Drop between IU & OU	m	15 (indoor unit higher than outdoor unit)	
		Max.Drop between indoor units	m	5	
		Max.Piping length between IU & OU	m	25	
		Max.Total liquid piping length	m	45	

1. The above performance data are from the combination of AU182XFERA+2*AS092XVERA+AS122XVERA.

2. Large drop and long piping installation will obviously reduce the total capacity.

Item			Model	AU222XFERA	
Function			——	Cooling	Heating
Rating capacity			W	6400	7300
Power input (indoor + outdoor)			W	2100	2000
Current input (indoor + outdoor)			A	9.3	8.9
EER / COP			W/W	3.04	3.65
Minimum capacity			W	1500	1800
Power input			W	500	500
Maximum capacity			W	6800	7500
Power input (indoor + outdoor)			W	2900	2900
Power source			——	1PH, 220-230V~, 50Hz	
Max.Running current (indoor + outdoor)			A / A	12.9	12.9
Power facor(under rating power input)			——	99%	99%
Fuse size (recommended size)			A	25	
Outdoor unit	Compressor	Model / Manufacture	——	TNB175FLBM / MELCO	
		Oil charge and type	——	870CC, MEL 56	
		Type	——	Twin Rotary (DC inverter)	
		Number	——	1	
	Fan	Type × Number	——	Axial × 1	
		Speed	r/min	960 / 700 / 500	
		Motor output/input power	W	35/100	
		Air-flows (H/M/L)	m³/h	about 3200	
	Heat exchanger	Type / Diameter	mm	TP2M / 7.0	
		Face area	m²	about 0.52	
	Dimension (WxDxH)	External	mm	928/288/680	
		Package	mm	1015/405/760	
	Refrigerant control method		——	PMVs	
	Defrosting method		——	Automatic by reversible cycle	
	Crankcase heater power		W	35	
	Noise level	H/M/L	dB(A)	55/-/-	
	Weight	Net / Shipping	kg / kg	54 / 60	
Piping	Refrigerant	Type / Charge	kg	R410A / 2.0	
		No need to recharge	m	30(total liquid pipe length)	
		Recharge	g/m	20	
	Pipe	Liquid	mm	3* Φ6.35	
		Gas	mm	3* Φ9.52	
	Connecting method		——	Flared	
	Between I.D &O.D	Max.Drop between IU & OU	m	10(indoor unit lower than outdoor unit)	
		Max.Drop between IU & OU	m	15 (indoor unit higher than outdoor unit)	
		Max.Drop between indoor units	m	5	
		Max.Piping length between IU & OU	m	25	
		Max.Total liquid piping length	m	45	

1. The above performance data are from the combination of AU222XFERA+AS092XVERA+2*AS122XVERA.
2. Large drop and long piping installation will obviously reduce the total capacity.

Item / Model				AU252XGERA	
Function			——	Cooling	Heating
Rating capacity			W	7250	8000
Power input (indoor + outdoor)			W	2250	2200
Current input (indoor + outdoor)			A	10.4	10.4
EER / COP			W/W	3.22	3.64
Minimum capacity			W	1500	1800
Power input			W	500	500
Maximum capacity			W	8200	9000
Power input (indoor + outdoor)			W	3200	3000
Power source			——	1PH, 220-230V~, 50Hz	
Max.Running current (indoor + outdoor)			A / A	14.3	13.5
Power facor(under rating power input)			——	99%	99%
Fuse size (recommended size)			A	30	
Outdoor unit	Compressor	Model / Manufacture	——	TNB175FLBM / MELCO	
		Oil charge and type	——	870CC, MEL 56	
		Type	——	DC TWIN ROTARY	
		Number	——	1	
	Fan	Type × Number	——	Axial × 1	
		Speed	r/min	930 / 700 / 500	
		Motor output/input power	W	98/200	
		Air-flows (H/M/L)	m³/h	about 3400	
	Heat exchanger	Type / Diameter	mm	TP2M / 7.0	
		Face area	m²	about 0.67	
	Dimension (WxDxH)	External	mm	976/335/732	
		Package	mm	1065/420/815	
	Refrigerant control method		——	PMVs	
	Defrosting method		——	Automatic by reversible cycle	
	Crankcase heater power		W	35	
	Noise level	H/M/L	dB(A)	57/-/-	
	Weight	Net / Shipping	kg / kg	58 / 64	
Piping	Refrigerant	Type / Charge	kg	R410A / 2.5	
		No need to recharge	m	30 (total liquid pipe length)	
		Recharge	g/m	20	
	Pipe	Liquid	mm	4* Φ6.35	
		Gas	mm	4* Φ9.52	
	Connecting method		——	Flared	
	Between I.D &O.D	Max.Drop between IU &OU	m	10(indoor unit lower than outdoor unit)	
		Max.Drop between IU & IU	m	15 (indoor unit higher than outdoor unit)	
		Max.Drop between IU & OU	m	5	
		Max.Piping length between IU & OU	m	25	
		Max.Total length	m	60	
1. The above performance data are from the combination of AU252XGERA+3*AD092XLERA					
2. Large drop and long piping installation will obviously reduce the total capacity.					

Item / Model				AU282XHERA	
Function			——	Cooling	Heating
Rating capacity			W	8000	10000
Power input (indoor + outdoor)			W	2480	2700
Current input (indoor + outdoor)			A	11.0	11.9
EER / COP			W/W	3.22	3.70
Minimum capacity			W	1500	1800
Power input			W	550	550
Maximum capacity			W	9500	11000
Power input (indoor + outdoor)			W	3800	3800
Power source			——	1PH, 220-230V~, 50Hz	
Max.Running current (indoor + outdoor)			A / A	16.8	16.8
Power facor(under rating power input)			——	99%	99%
Fuse size (recommended size)			A	30	
Outdoor unit	Compressor	Model / Manufacture	——	TNB220FLBM / MELCO	
		Oil charge and type	——	870CC, MEL 56	
		Type	——	Twin Rotary (DC inverter)	
		Number	——	1	
	Fan	Type × Number	——	Axial × 1	
		Speed	r/min	850 / 700 / 500	
		Motor output/input power	W	60/150	
		Air-flows (H/M/L)	m³/h	about 4000	
	Heat exchanger	Type / Diameter	mm	TP2M / 7.0	
		Face area	m²	about 0.75	
	Dimension (WxDxH)	External	mm	1068x340x840	
		Package	mm	1100x410x990	
	Refrigerant control method		——	PMVs	
	Defrosting method		——	Automatic by reversible cycle	
	Crankcase heater power		W	35	
	Noise level	H/M/L	dB(A)	58/-/-	
	Weight	Net / Shipping	kg / kg	74 / 89	
Piping	Refrigerant	Type / Charge	kg	R410A / 2.6	
		No need to recharge	m	40 (total liquid pipe length)	
		Recharge	g/m	20	
	Pipe	Liquid	mm	4* Φ6.35	
		Gas	mm	4* Φ9.52	
	Connecting method		——	Flared	
	Between I.D &O.D	Max.Drop between IU &OU	m	10(indoor unit lower than outdoor unit)	
		Max.Drop between IU & IU	m	15 (indoor unit higher than outdoor unit)	
		Max.Drop between IU & OU	m	5	
		Max.Piping length between IU & OU	m	25	
		Max.Total length	m	60	

1. The above performance data are from the combination of AU282XHERA+2*AS092XVERA+2*AS122XVERA.

2. Large drop and long piping installation will obviously reduce the total capacity.

Item / Model				AU342XHERA	
Function			——	Cooling	Heating
Rating capacity			W	10000	11000
Power input (indoor + outdoor)			W	3200	3200
Current input (indoor + outdoor)			A	14.3	14.3
EER / COP			W/W	3.13	3.44
Minimum capacity			W	1500	1800
Power input			W	550	550
Maximum capacity			W	11000	11500
Power input (indoor + outdoor)			W	4000	4000
Power source			——	1PH, 220-230V~, 50Hz	
Max.Running current (indoor + outdoor)			A / A	18.1	18.1
Power facor(under rating power input)			——	99%	99%
Fuse size (recommended size)			A	30	
Outdoor unit	Compressor	Model / Manufacture	——	TNB220FLBM / MELCO	
		Oil charge and type	——	870CC, MEL 56	
		Type	——	Twin Rotary (DC inverter)	
		Number	——	1	
	Fan	Type × Number	——	Axial × 1	
		Speed	r/min	990/ 840/ 590	
		Motor output/input power	W	130/300	
		Air-flows (H/M/L)	m³/h	about 4300	
	Heat exchanger	Type / Diameter	mm	TP2M / 7.0	
		Face area	m²	about 0.75	
	Dimension (WxDxH)	External	mm	1068x340x840	
		Package	mm	1100x410x990	
	Refrigerant control method		——	PMVs	
	Defrosting method		——	Automatic by reversible cycle	
	Crankcase heater power		W	35	
	Noise level	H/M/L	dB(A)	59/-/-	
	Weight	Net / Shipping	kg / kg	74 / 89	
Piping	Refrigerant	Type / Charge	kg	R410A / 3.0	
		No need to recharge	m	40 (total liquid pipe length)	
		Recharge	g/m	20	
	Pipe	Liquid	mm	4* Φ6.35	
		Gas	mm	4* Φ9.52	
	Connecting method		——	Flared	
	Between I.D &O.D	Drop between IU & OU	m	≤5	
		Piping length between IU & OU	m	≤10	
		Total liquid piping length	m	≤40	
		Max.Drop between IU &OU	m	10(indoor unit lower than outdoor unit)	
		Max.Drop between IU & IU	m	15 (indoor unit higher than outdoor unit)	
		Max.Piping length between IU & OU	m	25	
		Max.Total length	m	60	
1. The above performance data are from the combination of AU342XHERA+2*AD092XLERA+2*AD122XLERA.					
2. Large drop and long piping installation will obviously reduce the total capacity.					

Item			Model	AU362XHERA	
Function			——	Cooling	Heating
Rating capacity			W	10000	11000
Power input (indoor + outdoor)			W	3200	3200
Current input (indoor + outdoor)			A	14.3	14.3
EER / COP			W/W	3.13	3.44
Minimum capacity			W	1500	1800
Power input			W	550	550
Maximum capacity			W	11000	11500
Power input (indoor + outdoor)			W	4000	4000
Power source			——	1PH, 220-230V~, 50Hz	
Max.Running current (indoor + outdoor)			A / A	18.1	18.1
Power facor(under rating power input)			——	99%	99%
Fuse size (recommended size)			A	30	
Outdoor unit	Compressor	Model / Manufacture	——	TNB220FLBM / MELCO	
		Oil charge and type	——	870CC, MEL 56	
		Type	——	Twin Rotary (DC inverter)	
		Number	——	1	
	Fan	Type × Number	——	Axial × 1	
		Speed	r/min	990/ 840/ 590	
		Motor output/input power	W	130/300	
		Air-flows (H/M/L)	m³/h	about 4300	
	Heat exchanger	Type / Diameter	mm	TP2M / 7.0	
		Face area	m²	about 0.75	
	Dimension (WxDxH)	External	mm	1068x340x840	
		Package	mm	1100x410x990	
	Refrigerant control method		——	PMVs	
	Defrosting method		——	Automatic by reversible cycle	
	Crankcase heater power		W	35	
	Noise level	H/M/L	dB(A)	59/-/-	
	Weight	Net / Shipping	kg / kg	74 / 89	
Piping	Refrigerant	Type / Charge	kg	R410A / 3.0	
		No need to recharge	m	40 (total liquid pipe length)	
		Recharge	g/m	20	
	Pipe	Liquid	mm	5* Φ6.35	
		Gas	mm	5* Φ9.52	
	Connecting method		——	Flared	
	Between I.D &O.D	Drop between IU & OU	m	≤5	
		Piping length between IU & OU	m	≤10	
		Total liquid piping length	m	≤40	
		Max.Drop between IU &OU	m	10(indoor unit lower than outdoor unit)	
		Max.Drop between IU & IU	m	15 (indoor unit higher than outdoor unit)	
		Max.Piping length between IU & OU	m	25	
		Max.Total length	m	60	

1. The above performance data are from the combination of AU362XHERA+2*AD092XLERA+2*AD122XLERA.

2. Large drop and long piping installation will obviously reduce the total capacity.

Item / Model				AS072XVERA		AS092XVERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	2000	2300	2500	2900
Power cable			——	3 × (1.0~1.5mm²)			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Dehumidifying capacity			10 - ³×m³/h	1.0	/	1.0	/
Power source			N, V, Hz	1,220-230~, 50			
Running current			A / A	0.15	0.15	0.15	0.15
	Fan	Type × Number	——	CROSS×1		CROSS×1	
		Speed	r/min	1150/1050/950		1200/1100/1000	
		Motor output/input power	W	16/40		16/40	
		Air-flows (H/M/L)	m³/h	480/430/380		520/450/390	
	Heat exchanger	Type / Diameter	mm	TP2M / 7×0.35			
		Face area	m²	about 0.15		about 0.15	
	Dimension (L×W×H)	External	mm	780*205*265		780×205×265	
		Package	mm	880×315×330		880×315×330	
	Drainage pipe	material, diameter	mm	PVC, 11.4/16.4			
	Controller type		——	Infrared (YR-H65)			
	Refrigerant control		——	PMV on outdoor unit			
	Noise level	H/M/L	dB(A)	36/33/30		38/34/31	
	Weight	Net / Shipping	kg / kg	7.6/10.6		7.6/10.6	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	9.52		9.52	
	Connecting method		——	Flared		Flared	

Item				AS122XVERA		AS182XVERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	3200	3800	5000	5500
Dehumidifying capacity			10 - ³×m³/h	1.6	/	2.0	/
Power cable			——	3 × (1.0~1.5mm²)			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A / A	0.15	0.15	0.25	0.25
	Fan	Type × Number	——	CROSS×1		CROSS×1	
		Speed	r/min	1250/1150/1050		1200/1050/950	
		Motor output/input power	W	16/40		25/40	
		Air-flows (H-M-L)	m³/h	550/480/430		600/550/500	
	Heat exchanger	Type / Diameter	mm	TP2M / 7×0.35			
		Face area	m²	about 0.20		about 0.20	
	Dimension (L×W×H)	External	mm	780×205×265		870*225*305	
		Package	mm	880×315×330		962*365*312	
	Drainage pipe	material, diameter	mm	PVC, 11.4/16.4			
	Controller type		——	Infrared (YR-H65)			
	Refrigerant control		——	PMV on outdoor unit			
	Noise level	H/M/L	dB(A)	39/36/33		42/40/37	
	Weight	Net / Shipping	kg / kg	7.6/10.6		12/15	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	9.52		12.7	
	Connecting method		——	Flared		Flared	

Item / Model				AS222XVERA	
Function			——	Cooling	Heating
Capacity			W	6500	7000
Dehumidifying capacity			10 - ³×m³/h	2.0	/
Power cable			——	3 × (1.0~1.5mm2)	
Communication cable			——	2x(0.75~1.25mm2), must be	
Power source			N, V, Hz	1, 220~230, 50	
Running current			A / A	0.25	0.25
	Fan	Type × Number	——	CROSS×1	
		Speed	r/min	1350/1050/950	
		Motor output/input power	W	25/40	
		Air-flows (H-M-L)	m³/h	670/550/500	
	Heat exchanger	Type / Diameter	mm	TP2M / 7×0.35	
		Face area	m²	about 0.20	
	Dimension (L×W×H)	External	mm	870*225*305	
		Package	mm	962*365*312	
	Drainage pipe	material, diameter	mm	PVC, 11.4/16.4	
	Controller type		——	Infrared (YR-H65)	
	Refrigerant control		——	PMV on outdoor unit	
	Noise level	H/M/L	dB(A)	48/40/37	
	Weight	Net / Shipping	kg / kg	12/15	
Piping	Refrigerant	Type	——	R410A	
	Pipe	Liquid	mm	9.52	
		Gas	mm	15.88	
	Connecting method		——	Flared	

Item		Model		AB092XCERA		AB122XCERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	2500	2900	3500	3800
Dehumidifying capacity			10 - ³×m³/h	1.0	/	1.2	/
Power cable			——	3 × (1.0~1.5mm²)			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.45	0.45	0.45	0.45
	Fan	Type × Number	——	CENTRIFUGAL × 1		CENTRIFUGAL × 1	
		Speed	r/min	650/570/520		750/650/540	
		Motor output/input power	W	38/95		38/95	
		Air-flows (H/M/L)	m³/h	620/560/530		670/600/550	
	Heat exchanger	Type / Diameter	mm	7		7	
		Face area	m²	about 0.273		about 0.273	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	570/570/260		570/570/260	
		Package	mm	718/680/380		718/680/380	
	Drainage pipe	material, diameter	mm	PVC, 32/26(o.d./I.d.*)		PVC, 32/26(o.d./I.d.*)	
	Controller type		——	Infrared YR-H71 or wired YR-E12			
	Refrigerant control		——	PMV on outdoor unit			
	Fresh air hole dimension		mm	100		100	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	41/39/38		44/40/37	
	Weight	Net / Shipping	kg / kg	17/20		17/20	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	9.52		9.52	
	Connecting method		——	Flared		Flared	
Panel	Dimension (L×W×H)	External	mm	700/700/60		700/700/60	
		Package	mm	740/750/115		740/750/115	
	Weight	Net / Shipping	kg / kg	2.8/4.8		2.8/4.8	

Item		Model		AB142XCERA		AB182XCERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	4100	4600	5000	5500
Dehumidifying capacity			10 - ³×m³/h	1.6	/	2	/
Power cable			——	3 × 0.75mm²			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.45	0.45	0.45	0.45
	Fan	Type × Number	——	CENTRIFUGAL × 1		CENTRIFUGAL × 1	
		Speed	r/min	750/650/540		750/650/540	
		Motor output/input power	W	38/95		38/95	
		Air-flows (H/M/L)	m³/h	670/600/550		670/600/550	
	Heat exchanger	Type / Diameter	mm	7		7	
		Face area	m²	about 0.273		about 0.273	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	570/570/260		570/570/260	
		Package	mm	718/680/380		718/680/380	
	Drainage pipe	material, diameter	mm	PVC, 32/26(o.d./I.d.*)		PVC, 32/26(o.d./I.d.*)	
	Controller type		——	Infrared YR-H71 or wired YR-E12			
	Refrigerant control		——	PMV on outdoor unit			
	Fresh air hole dimension		mm	100		100	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	44/40/37		44/40/37	
	Weight	Net / Shipping	kg / kg	19/23.5		19/23.5	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	12.7		12.7	
	Connecting method		——	Flared		Flared	
Panel	Dimension	External	mm	700/700/60		700/700/60	
		Package	mm	740/750/115		740/750/115	
	Weight	Net / Shipping	kg / kg	2.8/4.8		2.8/4.8	

* o.d.=outer diameter; i.d.=inner diameter

Item			Model	AD092XLERA		AD122XLERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	2500	2900	3500	3800
Dehumidifying capacity			10 - ³×m³/h	1.0	/	1.2	/
Power cable			——	3 × (1.0~1.5mm²)			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.35	0.35	0.35	0.35
	Fan	Type × Number	——	CROSS × 1		CROSS × 1	
		Speed	r/min	1050/950/850/750		1050/950/850/750	
		Motor output/input power	W	30/75		30/75	
		Air-flows (H/M/L)	m³/h	550/500/450/400		550/500/450/400	
	Heat exchanger	Type / Diameter	mm	7		7	
		Face area	m²	about 0.12		about 0.12	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	610×500×220		610×500×220	
		Package	mm	710/545/280		710/545/280	
	Drainage pipe	material, diameter	mm	(o.d./I.d.*)		(o.d./I.d.*)	
	Controller type		——	Wired controller YR-E12			
	Refrigerant control		——	PMV on outdoor unit			
	Fresh air hole dimension		mm	/		/	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	43/40/38/35		43/40/38/35	
	Weight	Net / Shipping	kg / kg	14/16		14/16	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	9.52		9.52	
	Connecting method		——	Flared		Flared	

Item			Model	AD142XLERA		AD182XLERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	4100	4600	5000	5500
Dehumidifying capacity			10 - ³×m³/h	1.6	/	2.0	/
Power cable			——	3 × 0.75mm²			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.85	0.85	0.85	0.85
	Fan	Type × Number	——	CROSS × 2		CROSS × 2	
		Speed	r/min	1270/1160/1020/900		1270/1160/1020/900	
		Motor output/input power	W	80/200		80/200	
		Air-flows (H/M/L)	m³/h	780/700/650/600		780/700/650/600	
	Heat exchanger	Type / Diameter	mm	7		7	
		Face area	m²	about 0.23		about 0.23	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	1090×500×220		1090×500×220	
		Package	mm	1174/545/280		1174/545/280	
	Drainage pipe	material, diameter	mm	(o.d./I.d.*)		(o.d./I.d.*)	
	Controller type		——	Wired YR-E12			
	Refrigerant control		——	PMV on outdoor unit			
	Fresh air hole dimension		mm	/		/	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	46/44/40/38		46/44/40/38	
	Weight	Net / Shipping	kg / kg	25/29		25/29	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	12.7		12.7	
	Connecting method		——	Flared		Flared	

* o.d.=outer diameter; i.d.=inner diameter

Item			Model	AC142XCERA		AC182XCERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	4100	4600	5000	5500
Dehumidifying capacity			10 - ³×m³/h	1.6	/	2	/
Power cable			——	3 × 0.75mm²			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.45	0.45	0.45	0.45
	Fan	Type × Number	——	CENTRIFUGAL × 2		CENTRIFUGAL × 2	
		Speed	r/min	1150/1050/850		1150/1050/850	
		Motor output/input power	W	28/80		28/80	
		Air-flows (H/M/L)	m³/h	700/640/580		700/640/580	
	Heat exchanger	Type / Diameter	mm	TP2M / 7×0.35			
		Face area	m²	about 0.49		about 0.49	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (L×W×H)	External	mm	990/655/199		990/655/199	
		Package	mm	1150/750/300		1150/750/300	
	Drainage pipe	material, diameter	mm	PVC, 20/18(o.d./I.d.*)		PVC, 20/18(o.d./I.d.*)	
	Controller type		——	Infrared YR-H71 or wired YR-E12			
	Refrigerant control		——	PMV on outdoor unit			
	Fresh air hole dimension		mm	/		/	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	48/45/41		48/45/41	
	Weight	Net / Shipping	kg / kg	30/39		30/39	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	12.7		12.7	
	Connecting method		——	Flared		Flared	

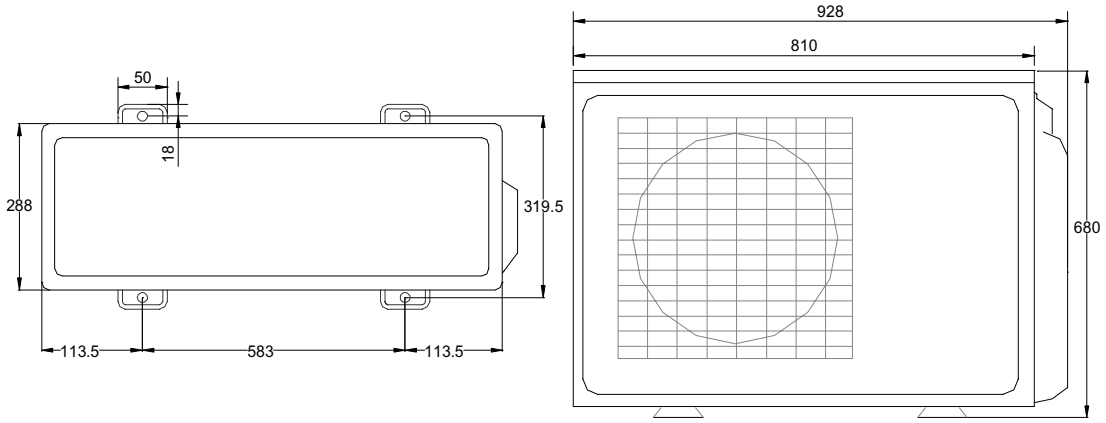
* o.d.=outer diameter; i.d.=inner diameter

Item			Model	AF092XCERA		AF122XCERA	
Function			——	Cooling	Heating	Cooling	Heating
Capacity			W	2500	2900	3500	3800
Dehumidifying capacity			10 - ³×m³/h	1.0	/	1.2	/
Power cable			——	3 × (1.0~1.5mm²)			
Communication cable			——	2x(0.75~1.25mm²), must be shieled			
Power source			N, V, Hz	1, 220~230, 50			
Running current			A	0.45	0.45	0.45	0.45
	Fan	Type × Number	——	CROSS × 2		CROSS × 2	
		Speed	r/min	1000/900/800		1050/950/850	
		Motor output/input power	W	50/100		50/100	
		Air-flows (H/M/L)	m³/h	480/420/370		510/450/400	
	Heat exchanger	Type / Diameter	mm	TP2M / 7×0.35			
		Face area	m²	about 0.25		about 0.25	
		Temp. scope	℃	cooling: 6~7 / heating: 43~60			
	Dimension (WxDxH)	External	mm	720/205/630		720/205/630	
		Package	mm	780/280/690		780/280/690	
	Drainage pipe	material, diameter	mm	PVC, 16.4/11.4(o.d./I.d.*)		PVC, 16.4/11.4(o.d./I.d.*)	
	Controller type		——	Infrared YR-H71			
	Refrigerant control		——	PMV on outdoor unit			
	Fresh air hole dimension		mm	/		/	
	Electricity Heater		——	/		/	
	Noise level	H/M/L	dB(A)	40/38/36		41/39/37	
	Weight	Net / Shipping	kg / kg	17/20.7		17/20.7	
Piping	Refrigerant	Type	——	R410A		R410A	
	Pipe	Liquid	mm	6.35		6.35	
		Gas	mm	9.52		9.52	
	Connecting method		——	Flared		Flared	

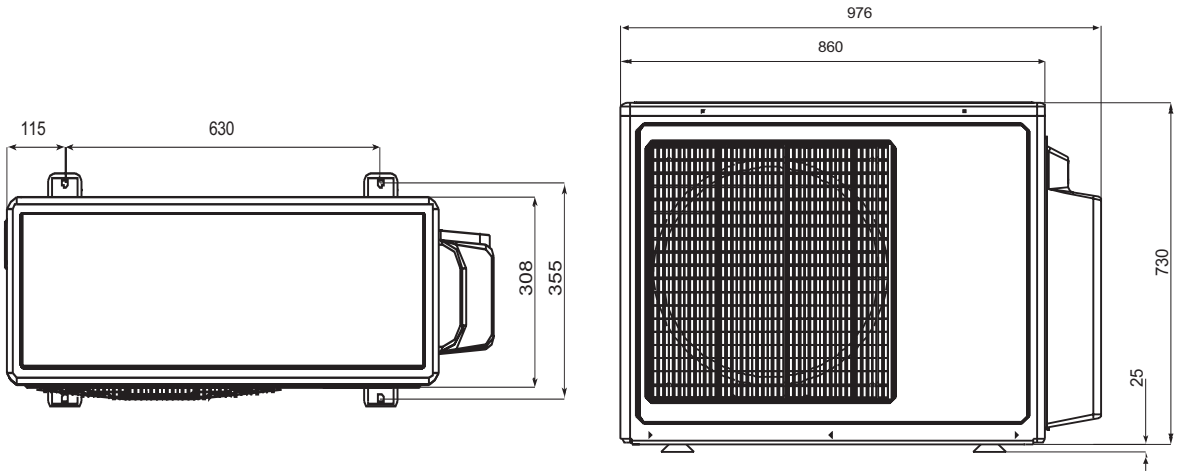
* o.d.=outer diameter; i.d.=inner diameter

3. Dimension

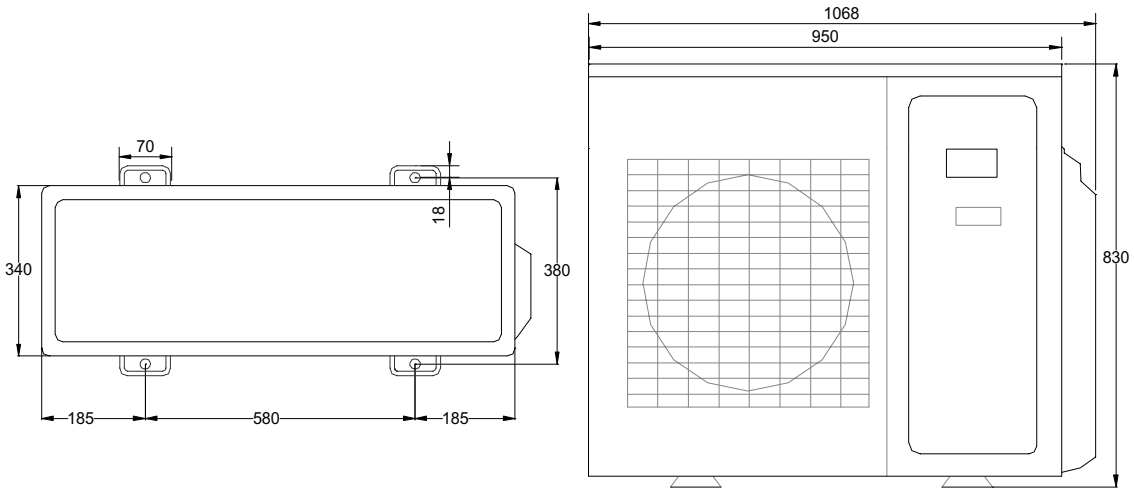
AU182XFERA,AU222XFERA



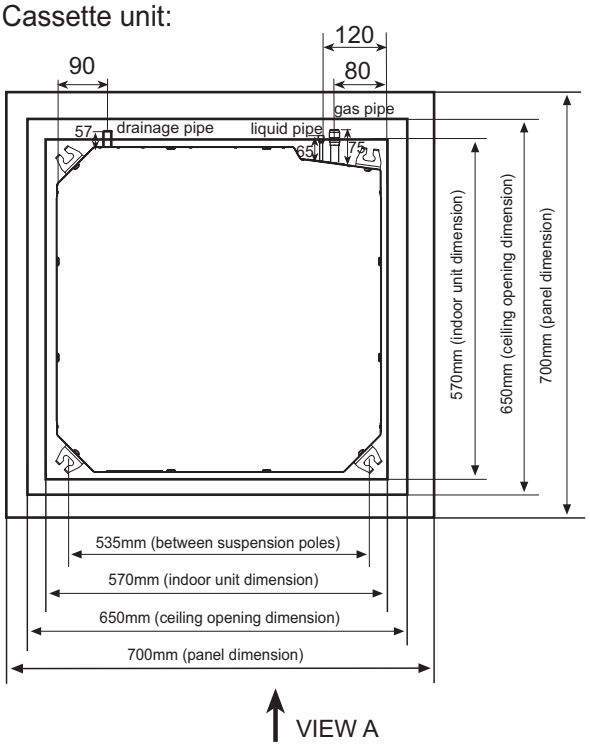
AU252XGERA:

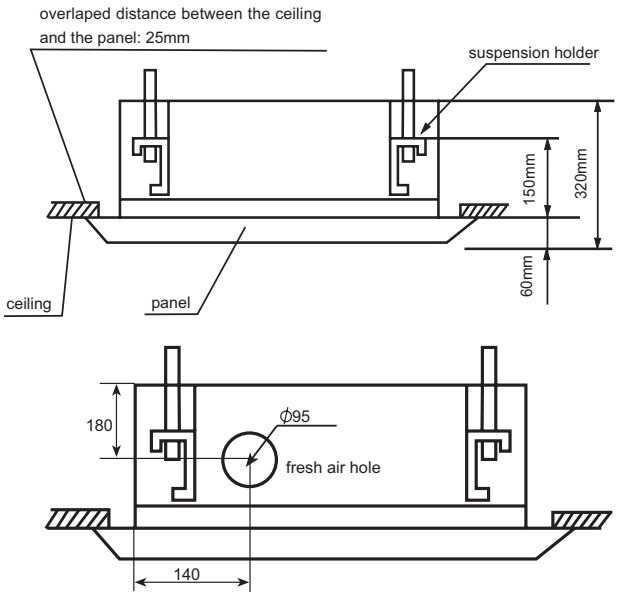


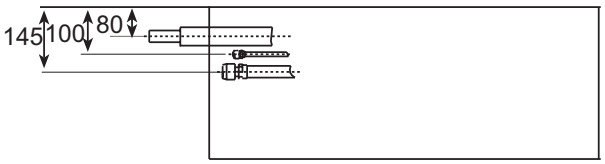
AU282XHERA:



Cassette unit:







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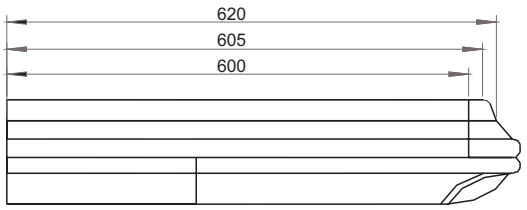
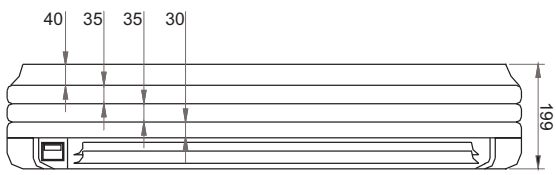
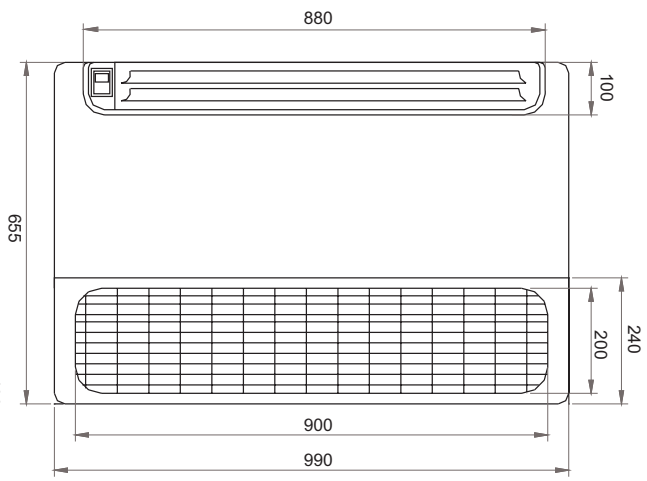
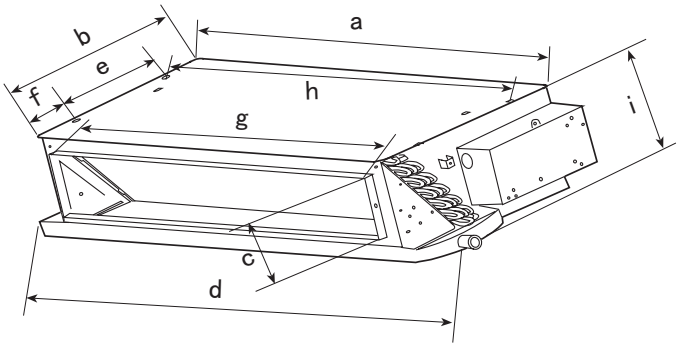






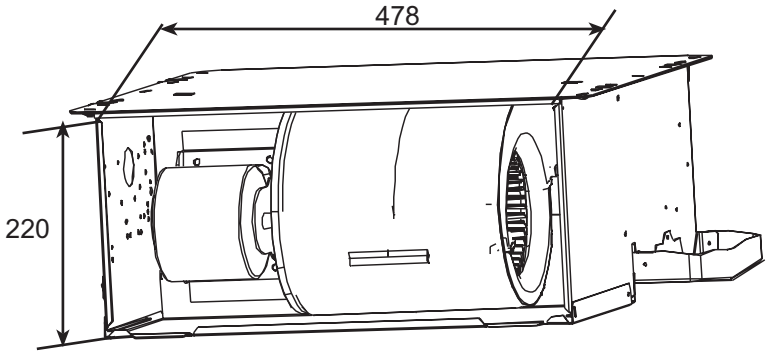
Ceiling concealed type unit:



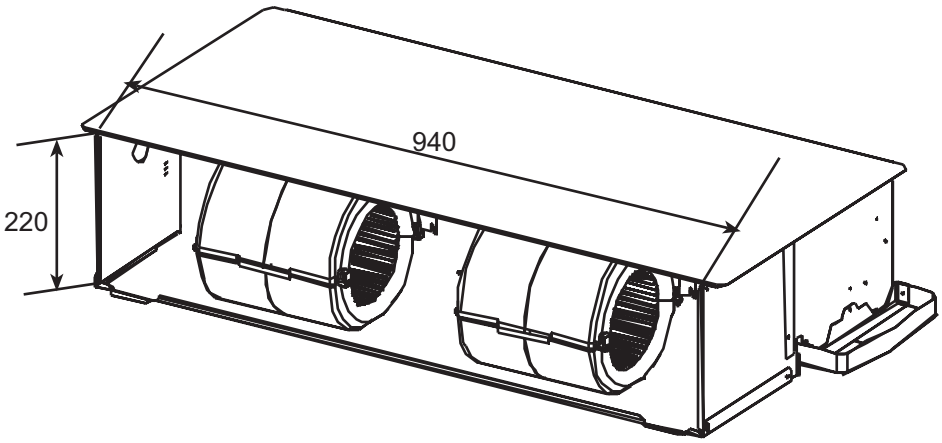
Installation dimension:(mm)

Unit model	a	b	c	d	e	f	g	h	i
AD092XLERA AD122XLERA	538	483.5	131	610	255	105	418	508	220
AD142XLERA AD182XLERA	1002	483.5	131	1105	255	105	880	970	220

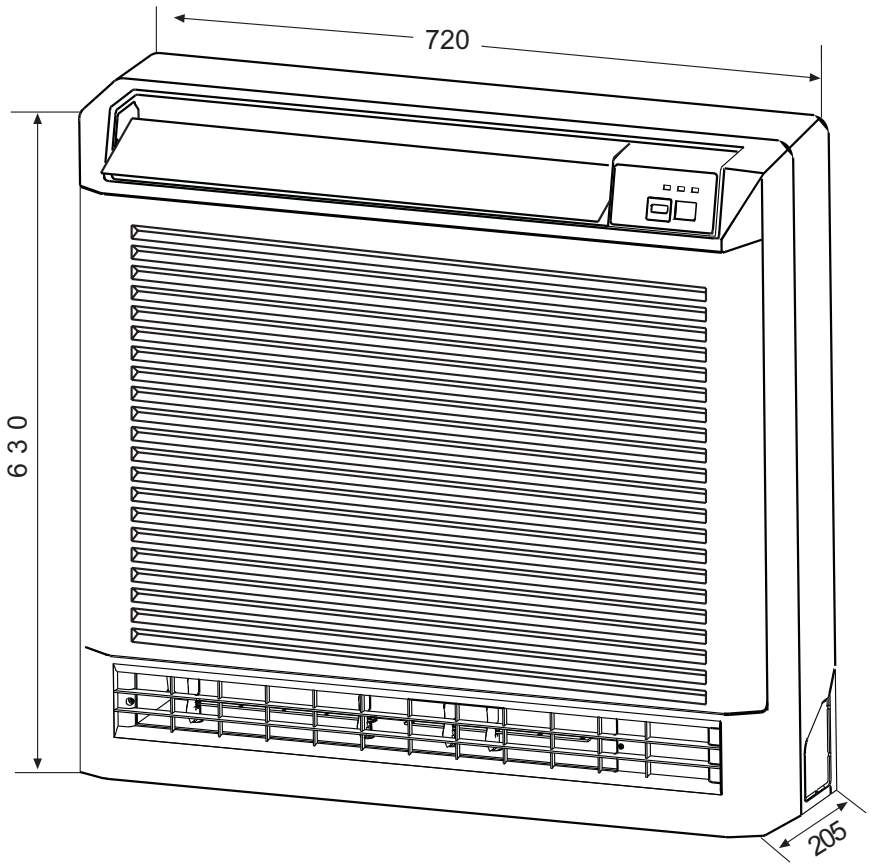
AD092XLERA
AD122XLERA



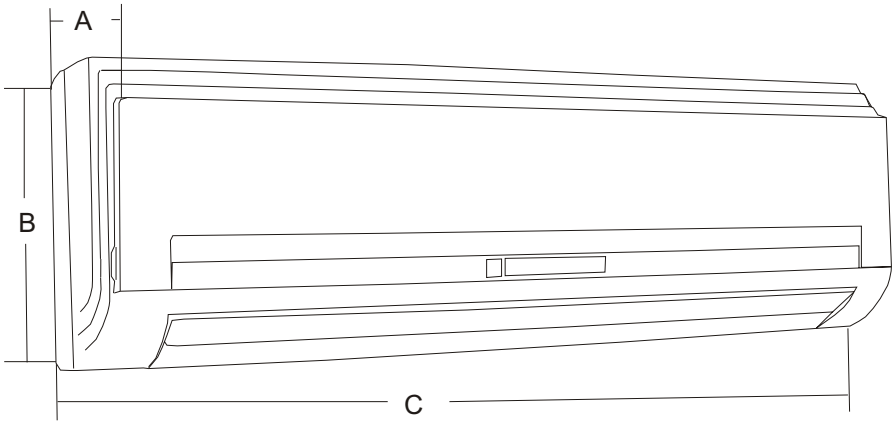
AD142XLERA
AD182XLERA



Console type unit:



Wall Mounted Type



model	A	B	C
AS07/09/122XVERA	205	265	780
AS18/222XVERA	225	305	870

4. Pipe and wiring installation

4.1 Multi combination and the data

AU182XFERA combination and the data

COOLING

Comb.	Combinations			capacity(kW) (Nom. cooling)			total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	7	—	2.0	2.0	—	1.00	4.00	4.40	0.47	1.60	2.30	2.15	7.80	10.20	2.50	E
	7	9	—	2.0	2.5	—	1.00	4.50	4.90	0.47	1.75	2.30	2.15	7.80	10.20	2.57	E
	7	12	—	2.0	3.2	—	1.00	5.20	5.80	0.47	1.75	2.30	2.15	7.80	10.20	2.97	C
	7	14	—	1.73	3.47	—	1.00	5.20	5.80	0.55	1.85	2.30	2.50	8.30	10.20	2.81	C
	7	18	—	1.48	3.72	—	1.00	5.20	5.80	0.55	1.85	2.30	2.50	8.30	10.20	2.81	C
	9	9	—	2.5	2.5	—	1.00	5.00	5.40	0.47	1.75	2.30	2.15	7.80	10.20	2.86	C
	9	12	—	2.3	2.9	—	1.00	5.20	5.80	0.47	1.75	2.30	2.15	7.80	10.20	2.97	C
	9	14	—	2.0	3.2	—	1.00	5.20	5.80	0.55	1.85	2.30	2.50	8.30	10.20	2.81	C
	9	18	—	1.73	3.47	—	1.00	5.20	5.80	0.55	1.85	2.30	2.50	8.30	10.20	2.81	C
	12	12	—	2.6	2.6	—	1.00	5.20	5.80	0.47	1.75	2.30	2.15	7.80	10.20	2.97	C
	12	14	—	2.42	2.78	—	1.00	5.20	5.80	0.55	1.85	2.30	2.50	8.30	10.20	2.81	C
	12	18	—	2.18	3.12	—	1.00	5.30	5.80	0.55	1.85	2.30	2.50	8.30	10.20	2.86	C
TRI (1x3)	7	7	7	1.73	1.73	1.73	1.50	5.20	5.80	0.50	1.70	2.30	2.29	7.62	10.20	3.06	B
	7	7	9	1.60	1.60	2.00	1.50	5.20	5.80	0.50	1.70	2.30	2.29	7.62	10.20	3.06	B
	7	7	12	1.39	1.39	2.42	1.50	5.20	5.80	0.50	1.70	2.30	2.29	7.62	10.20	3.06	B
	7	9	9	1.48	1.86	1.86	1.50	5.20	5.80	0.50	1.70	2.30	2.29	7.62	10.20	3.06	B
	7	9	12	1.30	1.63	2.27	1.50	5.20	5.80	0.50	1.65	2.30	2.29	7.62	10.20	3.15	B
	9	9	9	1.73	1.73	1.73	1.50	5.20	5.80	0.50	1.65	2.30	2.29	7.62	10.20	3.15	B
	9	9	12	1.56	1.56	2.18	1.50	5.30	5.80	0.50	1.65	2.30	2.29	7.40	10.20	3.21	A

HEATING

Comb.	Combinations			capacity(kW) (Nom. heating)			total heating capacity(kW)			total power input (kW)			total current (A)@230V			COP (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	7	—	2.30	2.30	—	1.20	4.60	5.00	0.55	1.85	2.30	2.50	9.10	10.20	2.49	F
	7	9	—	2.30	2.90	—	1.20	5.20	5.70	0.55	2.05	2.30	2.50	9.10	10.20	2.54	F
	7	12	—	2.30	3.80	—	1.20	6.10	6.50	0.55	1.90	2.30	2.50	8.43	10.20	3.21	C
	7	14	—	2.30	4.60	—	1.30	6.90	7.30	0.60	1.95	2.30	2.65	8.65	10.20	3.54	B
	7	18	—	2.10	4.90	—	1.30	7.00	7.30	0.60	1.95	2.30	2.65	8.65	10.20	3.59	B
	9	9	—	2.90	2.90	—	1.20	5.80	6.50	0.55	1.90	2.30	2.50	8.43	10.20	3.05	C
	9	12	—	2.80	3.80	—	1.20	6.60	6.80	0.55	1.90	2.30	2.50	8.43	10.20	3.47	B
	9	14	—	2.70	4.30	—	1.30	7.00	7.30	0.60	2.00	2.30	2.65	8.65	10.20	3.50	B
	9	18	—	2.40	4.60	—	1.30	7.00	7.30	0.60	2.00	2.30	2.65	8.65	10.20	3.50	B
	12	12	—	3.50	3.50	—	1.20	7.00	7.30	0.55	1.95	2.30	2.50	8.43	10.20	3.59	B
	12	14	—	3.20	3.80	—	1.30	7.00	7.30	0.60	2.00	2.30	2.65	8.65	10.20	3.50	B
	12	18	—	2.85	4.15	—	1.30	7.00	7.30	0.60	2.00	2.30	2.65	8.65	10.20	3.50	B
TRI (1x3)	7	7	7	2.30	2.30	2.30	1.50	6.90	6.90	0.55	2.05	2.30	2.50	8.21	10.20	3.37	C
	7	7	9	2.15	2.15	2.70	1.50	7.00	7.30	0.55	2.00	2.30	2.50	8.21	10.20	3.50	B
	7	7	12	1.95	1.95	3.10	1.50	7.00	7.30	0.55	1.95	2.30	2.50	8.21	10.20	3.59	B
	7	9	9	2.00	2.50	2.50	1.50	7.00	7.30	0.55	1.95	2.30	2.50	8.21	10.20	3.59	B
	7	9	12	1.80	2.25	2.95	1.50	7.00	7.30	0.55	1.90	2.30	2.50	8.21	10.20	3.68	A
	9	9	9	2.30	2.30	2.30	1.50	6.90	7.30	0.55	1.85	2.30	2.50	8.21	10.20	3.73	A
	9	9	12	2.10	2.10	2.80	1.50	7.00	7.30	0.55	1.80	2.30	2.50	7.99	10.20	3.89	A

AU222XFERA combination and the data

COOLING

Comb.	Combinations			Rated capacity(Kw) (Nom. cooling)			total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	9	—	2.00	2.50	—	1.00	4.50	4.90	0.47	1.75	2.90	2.20	7.76	12.90	2.57	E
	7	12	—	2.00	3.20	—	1.00	5.20	5.60	0.47	1.75	2.90	2.20	7.76	12.90	2.97	C
	7	14	—	2.00	4.10	—	1.00	6.10	6.50	0.47	2.20	2.90	2.20	9.76	12.90	2.77	D
	7	18	—	1.85	4.55	—	1.20	6.40	6.50	0.55	2.20	2.90	2.50	9.76	12.90	2.91	C
	9	9	—	2.50	2.50	—	1.00	5.00	5.40	0.55	1.75	2.90	2.50	7.76	12.90	2.86	C
	9	12	—	2.50	3.20	—	1.00	5.70	6.10	0.47	2.00	2.90	2.20	8.87	12.90	2.85	C
	9	14	—	2.40	4.00	—	1.00	6.40	6.50	0.47	2.20	2.90	2.20	9.76	12.90	2.91	C
	9	18	—	2.15	4.25	—	1.20	6.40	6.50	0.55	2.20	2.90	2.50	9.76	12.90	2.91	C
	12	12	—	3.20	3.20	—	1.00	6.40	6.50	0.47	2.20	2.90	2.20	9.76	12.90	2.91	C
	12	14	—	2.80	3.60	—	1.20	6.40	6.50	0.55	2.25	2.90	2.50	9.98	12.90	2.84	C
	12	18	—	2.50	3.90	—	1.20	6.40	6.50	0.55	2.25	2.90	2.50	9.98	12.90	2.84	C
TRI (1x3)	7	7	7	2.00	2.00	2.00	1.50	6.00	6.60	0.50	2.15	2.90	2.30	9.54	12.90	2.79	D
	7	7	9	2.00	2.00	2.40	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	7	12	1.80	1.80	2.80	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	7	14	1.60	1.60	3.20	1.50	6.40	6.80	0.55	2.15	2.90	2.50	9.54	12.90	2.98	C
	7	7	18	1.45	1.45	3.50	1.50	6.40	6.80	0.55	2.15	2.90	2.50	9.54	12.90	2.98	C
	7	9	9	1.70	2.35	2.35	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	9	12	1.65	2.10	2.65	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	9	14	1.50	1.90	3.00	1.50	6.40	6.80	0.60	2.15	2.90	2.65	9.54	12.90	2.98	C
	7	9	18	1.40	1.70	3.30	1.50	6.40	6.80	0.60	2.15	2.90	2.65	9.54	12.90	2.98	C
	7	12	12	1.60	2.40	2.40	1.50	6.40	6.80	0.60	2.15	2.90	2.65	9.54	12.90	2.98	C
	9	9	9	2.10	2.10	2.10	1.50	6.30	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.93	C
	9	9	12	1.95	1.95	2.50	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	9	9	14	1.75	1.75	2.90	1.50	6.40	6.80	0.60	2.10	2.90	2.65	9.32	12.90	3.05	B
	9	12	12	1.80	2.30	2.30	1.50	6.40	6.80	0.50	2.10	2.90	2.30	9.32	12.90	3.05	B

HEATING

Comb.	Combinations			Rated capacity(kW) (Nom. heating)			total heating capacity(KW)			total power input (W)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	9	—	2.30	2.90	—	1.20	5.20	5.40	0.50	1.90	2.90	2.30	8.65	12.90	2.74	E
	7	12	—	2.30	3.80	—	1.20	6.10	6.50	0.50	1.95	2.90	2.30	8.43	12.90	3.13	C
	7	14	—	2.30	4.60	—	1.20	6.90	7.30	0.50	2.20	2.90	2.30	8.65	12.90	3.14	C
	7	18	—	2.15	5.15	—	1.20	7.30	7.50	0.55	2.20	2.90	2.50	8.65	12.90	3.32	C
	9	9	—	2.90	2.90	—	1.20	5.80	6.20	0.55	1.95	2.90	2.50	9.09	12.90	2.97	D
	9	12	—	2.90	3.80	—	1.20	6.70	7.10	0.50	2.00	2.90	2.30	9.09	12.90	3.35	C
	9	14	—	2.80	4.50	—	1.20	7.30	7.50	0.50	2.25	2.90	2.30	9.32	12.90	3.24	C
	9	18	—	2.50	4.80	—	1.20	7.30	7.50	0.55	2.25	2.90	2.50	9.32	12.90	3.24	C
	12	12	—	3.65	3.65	—	1.20	7.30	7.50	0.55	2.20	2.90	2.50	9.09	12.90	3.32	C
	12	14	—	3.30	4.00	—	1.20	7.30	7.50	0.55	2.15	2.90	2.50	9.54	12.90	3.40	C
	12	18	—	2.95	4.35	—	1.20	7.30	7.50	0.55	2.15	2.90	2.50	9.76	12.90	3.40	C
TRI (1x3)	7	7	7	2.30	2.30	2.30	1.50	6.90	7.50	0.55	2.05	2.90	2.50	8.21	12.90	3.37	C
	7	7	9	2.25	2.25	2.80	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	7	12	2.10	2.10	3.10	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	7	14	1.85	1.85	3.60	1.50	7.30	7.50	0.60	2.15	2.90	2.65	9.54	12.90	3.40	C
	7	7	18	1.70	1.70	3.90	1.50	7.30	7.50	0.60	2.15	2.90	2.65	9.54	12.90	3.40	C
	7	9	9	2.10	2.60	2.60	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	9	12	1.95	2.30	3.05	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	9	14	1.75	2.15	3.40	1.50	7.30	7.50	0.60	2.10	2.90	2.65	9.32	12.90	3.48	B
	7	9	18	1.60	2.00	3.70	1.50	7.30	7.50	0.60	2.15	2.90	2.65	9.32	12.90	3.40	C
	7	12	12	1.70	2.80	2.80	1.50	7.30	7.50	0.60	2.10	2.90	2.65	9.32	12.90	3.48	B
	9	9	9	2.40	2.40	2.40	1.50	7.20	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.43	B
	9	9	12	2.18	2.18	2.84	1.50	7.20	7.50	0.55	2.05	2.90	2.50	9.09	12.90	3.51	B
	9	9	14	2.05	2.05	3.20	1.50	7.30	7.50	0.60	2.10	2.90	2.65	9.54	12.90	3.48	B
	9	12	12	2.10	2.60	2.60	1.50	7.30	7.50	0.55	2.00	2.90	2.50	8.87	12.90	3.65	A

AU222XFERA combination and the data(for Australia)

COOLING

Comb.	Combinations			Rated capacity(Kw) (Nom. cooling)			total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	12		2.00	3.20		1.00	5.20	5.60	0.47	1.75	2.90	2.20	7.76	12.90	2.97	C
	7	14		2.00	4.10		1.00	6.10	6.50	0.47	2.20	2.90	2.20	9.76	12.90	2.77	D
	7	18		1.85	4.55		1.20	6.40	6.50	0.55	2.20	2.90	2.50	9.76	12.90	2.91	C
	9	9		2.50	2.50		1.00	5.00	5.40	0.55	1.75	2.90	2.50	7.76	12.90	2.86	C
	9	12		2.50	3.20		1.00	5.70	6.10	0.47	2.00	2.90	2.20	8.87	12.90	2.85	C
	9	14		2.40	4.00		1.00	6.40	6.50	0.47	2.20	2.90	2.20	9.76	12.90	2.91	C
	9	18		2.15	4.25		1.20	6.40	6.50	0.55	2.20	2.90	2.50	9.76	12.90	2.91	C
	12	12		3.20	3.20		1.00	6.40	6.50	0.47	2.20	2.90	2.20	9.76	12.90	2.91	C
	12	14		2.80	3.60		1.20	6.40	6.50	0.55	2.25	2.90	2.50	9.98	12.90	2.84	C
	12	18		2.50	3.90		1.20	6.40	6.50	0.55	2.25	2.90	2.50	9.98	12.90	2.84	C
TRI (1x3)	7	7	7	2.00	2.00	2.00	1.50	6.00	6.60	0.50	2.15	2.90	2.30	9.54	12.90	2.79	D
	7	7	9	2.00	2.00	2.40	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	7	12	1.80	1.80	2.80	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	7	14	1.60	1.60	3.20	1.50	6.40	6.80	0.55	2.15	2.90	2.50	9.54	12.90	2.98	C
	7	9	9	1.70	2.35	2.35	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	9	12	1.65	2.10	2.65	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C
	7	9	14	1.50	1.90	3.00	1.50	6.40	6.80	0.60	2.15	2.90	2.65	9.54	12.90	2.98	C
	9	9	9	2.10	2.10	2.10	1.50	6.30	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.93	C
	9	9	12	1.95	1.95	2.50	1.50	6.40	6.80	0.50	2.15	2.90	2.30	9.54	12.90	2.98	C

HEATING

Comb.	Combinations			Rated capacity(kW) (Nom. heating)			total heating capacity(KW)			total power input (W)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	12		2.30	3.80		1.20	6.10	6.50	0.50	1.95	2.90	2.30	8.43	12.90	3.13	C
	7	14		2.30	4.60		1.20	6.90	7.30	0.50	2.20	2.90	2.30	8.65	12.90	3.14	C
	7	18		2.15	5.15		1.20	7.30	7.50	0.55	2.20	2.90	2.50	8.65	12.90	3.32	C
	9	9		2.90	2.90		1.20	5.80	6.20	0.55	1.95	2.90	2.50	9.09	12.90	2.97	D
	9	12		2.90	3.80		1.20	6.70	7.10	0.50	2.00	2.90	2.30	9.09	12.90	3.35	C
	9	14		2.80	4.50		1.20	7.30	7.50	0.50	2.25	2.90	2.30	9.32	12.90	3.24	C
	9	18		2.50	4.80		1.20	7.30	7.50	0.55	2.25	2.90	2.50	9.32	12.90	3.24	C
	12	12		3.65	3.65		1.20	7.30	7.50	0.55	2.20	2.90	2.50	9.09	12.90	3.32	C
	12	14		3.30	4.00		1.20	7.30	7.50	0.55	2.15	2.90	2.50	9.54	12.90	3.40	C
	12	18		2.95	4.35		1.20	7.30	7.50	0.55	2.15	2.90	2.50	9.76	12.90	3.40	C
TRI (1x3)	7	7	7	2.30	2.30	2.30	1.50	6.90	7.50	0.55	2.05	2.90	2.50	8.21	12.90	3.37	C
	7	7	9	2.25	2.25	2.80	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	7	12	2.10	2.10	3.10	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	7	14	1.85	1.85	3.60	1.50	7.30	7.50	0.60	2.15	2.90	2.65	9.54	12.90	3.40	C
	7	9	9	2.10	2.60	2.60	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	9	12	1.95	2.30	3.05	1.50	7.30	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.48	B
	7	9	14	1.75	2.15	3.40	1.50	7.30	7.50	0.60	2.10	2.90	2.65	9.32	12.90	3.48	B
	9	9	9	2.40	2.40	2.40	1.50	7.20	7.50	0.55	2.10	2.90	2.50	9.32	12.90	3.43	B
	9	9	12	2.18	2.18	2.84	1.50	7.20	7.50	0.55	2.05	2.90	2.50	9.09	12.90	3.51	B

AU252XGERA combination and the data

COOLING

Comb.	Combinations				Rated capacity(Kw) (Nom. cooling)				total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	12	—	—	2.00	3.50	—	—	1.00	5.50	5.90	0.47	2.06	3.20	2.09	9.76	14.50	2.67	D
	7	14	—	—	2.00	4.10	—	—	1.00	6.10	6.50	0.50	2.37	3.20	2.22	11.22	14.50	2.57	E
	7	18	—	—	2.00	5.00	—	—	1.00	7.00	7.40	0.50	2.34	3.20	2.22	11.09	14.50	2.99	C
	9	12	—	—	2.50	3.50	—	—	1.20	6.00	6.40	0.47	2.16	3.20	2.09	10.20	14.50	2.78	D
	9	14	—	—	2.50	4.10	—	—	1.00	6.60	7.00	0.50	2.34	3.20	2.22	11.09	14.50	2.82	C
	9	18	—	—	2.43	4.87	—	—	1.00	7.3	7.90	0.50	2.44	3.20	2.22	11.54	14.50	2.99	C
	12	12	—	—	3.50	3.50	—	—	1.00	7.00	7.40	0.47	2.44	3.20	2.09	11.54	14.50	2.87	C
	12	14	—	—	3.36	3.94	—	—	1.20	7.3	8.00	0.50	2.49	3.20	2.22	11.80	14.50	2.93	C
	12	18	—	—	3.03	4.27	—	—	1.00	7.3	8.00	0.50	2.48	3.20	2.22	11.76	14.50	2.94	C
	14	14	—	—	3.65	3.65	—	—	1.20	7.3	8.00	0.55	2.48	3.20	2.44	11.71	14.50	2.95	C
	14	18	—	—	3.31	3.99	—	—	1.20	7.3	8.00	0.55	2.46	3.20	2.44	11.62	14.50	2.97	C
	18	18	—	—	3.65	3.65	—	—	1.20	7.3	8.00	0.55	2.44	3.20	2.44	11.54	14.50	2.99	C
TRI (1x3)	7	7	7	—	2.00	2.00	2.00	—	1.50	6.00	6.60	0.55	2.44	3.20	2.44	11.54	14.50	2.46	E
	7	7	9	—	2.00	2.00	2.50	—	1.50	6.50	7.10	0.55	2.42	3.20	2.44	11.45	14.50	2.69	D
	7	7	12	—	1.95	1.95	3.41	—	1.50	7.3	8.10	0.55	2.40	3.20	2.44	11.36	14.50	3.04	B
	7	7	14	—	1.83	1.83	3.65	—	1.50	7.3	8.20	0.60	2.34	3.20	2.66	11.09	14.50	3.11	B
	7	7	18	—	1.63	1.63	4.03	—	1.50	7.3	8.20	0.60	2.33	3.20	2.66	11.00	14.50	3.14	B
	7	9	9	—	2.00	2.50	2.50	—	1.50	7.00	7.60	0.55	2.42	3.20	2.44	11.45	14.50	2.89	C
	7	9	12	—	1.83	2.31	3.17	—	1.50	7.3	8.20	0.55	2.39	3.20	2.44	11.31	14.50	3.05	B
	7	9	14	—	1.73	2.11	3.46	—	1.50	7.3	8.20	0.60	2.33	3.20	2.66	11.00	14.50	3.14	B
	7	9	18	—	1.54	1.92	3.84	—	1.50	7.3	8.20	0.60	2.30	3.20	2.66	10.87	14.50	3.18	B
	7	12	12	—	1.63	2.83	2.83	—	1.50	7.3	8.20	0.55	2.44	3.20	2.44	11.54	14.50	2.99	C
	7	12	14	—	1.54	2.59	3.17	—	1.50	7.3	8.20	0.60	2.39	3.20	2.66	11.31	14.50	3.05	B
	7	12	18	—	1.44	2.40	3.46	—	1.50	7.3	8.20	0.60	2.39	3.20	2.66	11.31	14.50	3.05	B
	9	9	9	—	2.43	2.43	2.43	—	1.50	7.3	8.20	0.62	2.39	3.20	2.75	11.31	14.50	3.05	B
	9	9	12	—	2.16	2.16	2.98	—	1.50	7.3	8.20	0.55	2.39	3.20	2.44	11.31	14.50	3.05	B
	9	9	14	—	2.02	2.02	3.27	—	1.50	7.3	8.20	0.60	2.34	3.20	2.66	11.09	14.50	3.11	B
	9	9	18	—	1.83	1.83	3.65	—	1.50	7.3	8.20	0.60	2.34	3.20	2.66	11.09	14.50	3.11	B
	9	12	12	—	1.92	2.69	2.69	—	1.50	7.3	8.20	0.55	2.39	3.20	2.44	11.31	14.50	3.05	B
	9	12	14	—	1.83	2.50	2.98	—	1.50	7.3	8.20	0.60	2.34	3.20	2.66	11.09	14.50	3.11	B
	9	12	18	—	1.68	2.31	3.31	—	1.50	7.3	8.20	0.60	2.34	3.20	2.66	11.09	14.50	3.11	B
	12	12	12	—	2.43	2.43	2.43	—	1.50	7.3	8.20	0.55	2.39	3.20	2.44	11.31	14.50	3.05	B
	12	12	14	—	2.31	2.31	2.69	—	1.50	7.3	8.20	0.60	2.34	3.20	2.66	11.09	14.50	3.11	B
QUADRI(1x4)	7	7	7	7	1.83	1.83	1.83	1.83	1.80	7.3	8.20	0.60	2.33	3.20	2.66	11.00	14.50	3.14	B
	7	7	7	9	1.73	1.73	1.73	2.11	1.80	7.3	8.20	0.60	2.33	3.20	2.66	10.87	14.50	3.13	B
	7	7	7	12	1.54	1.54	1.54	2.69	1.80	7.3	8.20	0.60	2.33	3.20	2.66	10.78	14.50	3.13	B
	7	7	7	14	1.44	1.44	1.44	2.98	1.80	7.3	8.20	0.62	2.35	3.20	2.75	10.65	14.50	3.11	B
	7	7	9	9	1.63	1.63	2.02	2.02	1.80	7.3	8.20	0.60	2.33	3.20	2.66	10.78	14.50	3.13	B
	7	7	9	12	1.44	1.44	1.83	2.59	1.80	7.3	8.20	0.60	2.33	3.20	2.66	10.74	14.50	3.13	B
	7	7	9	14	1.39	1.39	1.73	2.79	1.80	7.3	8.20	0.62	2.35	3.20	2.75	10.65	14.50	3.11	B
	7	7	12	12	1.34	1.34	2.31	2.31	1.80	7.3	8.20	0.60	2.32	3.20	2.66	10.65	14.50	3.15	B
	7	9	9	9	1.54	1.92	1.92	1.92	1.80	7.3	8.20	0.60	2.32	3.20	2.66	10.65	14.50	3.15	B
	7	9	9	12	1.39	1.73	1.73	2.45	1.80	7.3	8.20	0.60	2.30	3.20	2.66	10.56	14.50	3.17	B
	9	9	9	9	1.83	1.83	1.83	1.83	1.80	7.3	8.20	0.60	2.28	3.20	2.66	10.65	14.50	3.21	A
	9	9	9	12	1.68	1.68	1.68	2.26	1.80	7.3	8.20	0.60	2.25	3.20	2.66	10.56	14.50	3.24	A

HEATING

Comb.	Combinations				Rated capacity(kW) (Nom. heating)				total heating capacity(KW)			total power input (W)			total current (A)@230V			COP (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	12	—	—	2.30	3.80	—	—	1.00	6.10	6.70	0.47	2.11	3.20	2.09	9.98	14.50	2.89	D
	7	14	—	—	2.30	4.60	—	—	1.00	6.90	7.60	0.50	2.39	3.20	2.22	11.31	14.50	2.89	D
	7	18	—	—	2.30	5.50	—	—	1.00	7.80	8.50	0.50	2.39	3.20	2.22	11.31	14.50	3.26	C
	9	12	—	—	2.90	3.80	—	—	1.20	6.70	7.30	0.47	2.16	3.20	2.09	10.20	14.50	3.11	C
	9	14	—	—	2.90	4.50	—	—	1.00	7.40	8.10	0.50	2.39	3.20	2.22	11.31	14.50	3.10	C
	9	18	—	—	2.83	5.37	—	—	1.00	8.2	9.00	0.50	2.39	3.20	2.22	11.31	14.50	3.43	B
	12	12	—	—	3.80	3.80	—	—	1.00	7.60	8.00	0.47	2.34	3.20	2.09	11.09	14.50	3.24	C
	12	14	—	—	3.71	4.49	—	—	1.20	8.2	9.00	0.50	2.39	3.20	2.22	11.31	14.50	3.43	B
	12	18	—	—	3.38	4.82	—	—	1.00	8.2	9.00	0.50	2.39	3.20	2.22	11.31	14.50	3.43	B
	14	14	—	—	4.10	4.10	—	—	1.20	8.2	9.00	0.55	2.48	3.20	2.44	11.76	14.50	3.30	C
	14	18	—	—	3.76	4.44	—	—	1.20	8.2	9.00	0.55	2.47	3.20	2.44	11.67	14.50	3.33	C
	18	18	—	—	4.10	4.10	—	—	1.20	8.2	9.00	0.55	2.47	3.20	2.44	11.67	14.50	3.33	C
TRI (1x3)	7	7	7	—	2.30	2.30	2.30	—	1.50	6.90	7.50	0.55	2.44	3.20	2.44	11.54	14.50	2.83	D
	7	7	9	—	2.30	2.30	2.90	—	1.50	7.50	8.10	0.55	2.42	3.20	2.44	11.45	14.50	3.10	C
	7	7	12	—	2.25	2.25	3.71	—	1.50	8.2	9.00	0.55	2.40	3.20	2.44	11.36	14.50	3.42	B
	7	7	14	—	2.07	2.07	4.05	—	1.50	8.2	9.00	0.60	2.34	3.20	2.66	11.09	14.50	3.50	B
	7	7	18	—	1.64	1.64	4.92	—	1.50	8.2	9.00	0.60	2.33	3.20	2.66	11.00	14.50	3.53	B
	7	9	9	—	2.30	2.90	2.90	—	1.50	8.10	8.90	0.55	2.42	3.20	2.44	11.45	14.50	3.35	C
	7	9	12	—	2.12	2.60	3.47	—	1.50	8.2	9.00	0.55	2.39	3.20	2.44	11.31	14.50	3.43	B
	7	9	14	—	1.93	2.41	3.86	—	1.50	8.2	9.00	0.60	2.33	3.20	2.66	11.00	14.50	3.53	B
	7	9	18	—	1.83	2.22	4.15	—	1.50	8.2	9.00	0.60	2.30	3.20	2.66	10.87	14.50	3.57	B
	7	12	12	—	1.93	3.14	3.14	—	1.50	8.2	9.00	0.55	2.44	3.20	2.44	11.54	14.50	3.36	C
	7	12	14	—	1.78	2.89	3.52	—	1.50	8.2	9.00	0.60	2.39	3.20	2.66	11.31	14.50	3.43	B
	7	12	18	—	1.64	2.60	3.96	—	1.50	8.2	9.00	0.60	2.39	3.20	2.66	11.31	14.50	3.43	B
	9	9	9	—	2.73	2.73	2.73	—	1.50	8.2	9.00	0.62	2.39	3.20	2.75	11.31	14.50	3.43	B
	9	9	12	—	2.33	2.33	3.54	—	1.50	8.2	9.00	0.55	2.39	3.20	2.44	11.31	14.50	3.43	B
	9	9	14	—	2.41	2.41	3.38	—	1.50	8.2	9.00	0.60	2.34	3.20	2.66	11.09	14.50	3.50	B
	9	9	18	—	2.03	2.03	4.15	—	1.50	8.2	9.00	0.60	2.34	3.20	2.66	11.09	14.50	3.50	B
	9	12	12	—	2.41	2.89	2.89	—	1.50	8.2	9.00	0.55	2.39	3.20	2.44	11.31	14.50	3.43	B
	9	12	14	—	2.12	2.75	3.33	—	1.50	8.2	9.00	0.60	2.34	3.20	2.66	11.09	14.50	3.50	B
	9	12	18	—	1.93	2.56	3.71	—	1.50	8.2	9.00	0.60	2.34	3.20	2.66	11.09	14.50	3.50	B
	12	12	12	—	2.73	2.73	2.73	—	1.50	8.2	9.00	0.55	2.39	3.20	2.44	11.31	14.50	3.43	B
	12	12	14	—	2.56	2.56	3.09	—	1.50	8.2	9.00	0.60	2.34	3.20	2.66	11.09	14.50	3.50	B
QUADRI(1x4)	7	7	7	7	2.05	2.05	2.05	2.05	1.80	8.2	9.00	0.60	2.34	3.20	2.66	11.09	14.50	3.50	B
	7	7	7	9	1.93	1.93	1.93	2.41	1.80	8.2	9.00	0.60	2.30	3.20	2.66	10.87	14.50	3.57	B
	7	7	7	12	1.78	1.78	1.78	2.85	1.80	8.2	9.00	0.60	2.30	3.20	2.66	10.87	14.50	3.57	B
	7	7	7	14	1.64	1.64	1.64	3.28	1.80	8.2	9.00	0.62	2.27	3.20	2.75	10.74	14.50	3.61	A
	7	7	9	9	1.83	1.83	2.27	2.27	1.80	8.2	9.00	0.60	2.30	3.20	2.66	10.87	14.50	3.57	B
	7	7	9	12	1.69	1.69	2.12	2.70	1.80	8.2	9.00	0.60	2.30	3.20	2.66	10.87	14.50	3.57	B
	7	7	9	14	1.59	1.59	1.93	3.09	1.80	8.2	9.00	0.62	2.27	3.20	2.75	10.74	14.50	3.61	A
	7	7	12	12	1.54	1.54	2.56	2.56	1.80	8.2	9.00	0.60	2.27	3.20	2.66	10.74	14.50	3.61	A
	7	9	9	9	1.83	2.12	2.12	2.12	1.80	8.2	9.00	0.60	2.27	3.20	2.66	10.74	14.50	3.61	A
	7	9	9	12	1.59	1.93	1.93	2.75	1.80	8.2	9.00	0.60	2.25	3.20	2.66	10.65	14.50	3.64	A
	9	9	9	9	2.05	2.05	2.05	2.05	1.80	8.2	9.00	0.60	2.25	3.20	2.66	10.65	14.50	3.64	A
	9	9	9	12	1.93	1.93	1.93	2.41	1.80	8.2	9.00	0.60	2.25	3.20	2.66	10.65	14.50	3.64	A

AU282XHERA combination and the data

COOLING

Comb.	Combinations				Rated capacity Output/kW (Nom. cooling)				total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	14	—	—	2.00	4.10	—	—	1.00	6.10	6.50	0.50	2.20	3.80	2.15	9.76	16.80	2.77	D
	7	18	—	—	2.00	5.00	—	—	1.00	7.00	7.40	0.50	2.45	3.80	2.15	10.87	16.80	2.86	C
	7	22	—	—	2.00	6.00	—	—	1.00	8.00	8.50	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	9	12	—	—	2.50	3.50	—	—	1.00	6.00	6.40	0.50	2.35	3.80	2.15	10.43	16.80	2.55	E
	9	14	—	—	2.50	4.10	—	—	1.00	6.60	7.00	0.50	2.20	3.80	2.15	9.76	16.80	3.00	B
	9	18	—	—	2.50	5.00	—	—	1.00	7.50	7.90	0.50	2.50	3.80	2.15	11.09	16.80	3.00	B
	9	22	—	—	2.35	5.65	—	—	1.00	8.00	9.00	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	12	12	—	—	3.50	3.50	—	—	1.00	7.00	6.80	0.50	2.25	3.80	2.15	9.98	16.80	3.11	B
	12	14	—	—	3.50	4.10	—	—	1.00	7.60	8.00	0.50	2.60	3.80	2.15	11.54	16.80	2.92	C
	12	18	—	—	3.05	4.95	—	—	1.00	8.00	8.40	0.50	2.60	3.80	2.15	11.54	16.80	3.08	B
	12	22	—	—	2.95	5.05	—	—	1.00	8.00	9.20	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	14	14	—	—	4.00	4.00	—	—	1.00	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	14	18	—	—	3.50	4.50	—	—	1.00	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	18	18	—	—	4.00	4.00	—	—	1.00	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
TRI (1x3)	7	7	7	—	2.00	2.00	2.00	—	1.50	6.00	6.60	0.55	2.70	3.80	2.50	11.98	16.80	2.22	F
	7	7	9	—	2.00	2.00	2.50	—	1.50	6.50	7.10	0.55	2.70	3.80	2.50	11.98	16.80	2.41	E
	7	7	12	—	2.00	2.00	3.50	—	1.50	7.50	8.10	0.55	2.70	3.80	2.50	11.98	16.80	2.78	D
	7	7	14	—	2.00	2.00	4.00	—	1.50	8.00	8.70	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	7	18	—	1.75	1.75	4.50	—	1.50	8.00	8.80	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	7	22	—	1.60	1.60	4.80	—	1.50	8.00	9.20	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	7	9	9	—	2.00	2.00	2.50	—	1.50	6.50	7.10	0.55	2.70	3.80	2.50	11.98	16.80	2.41	E
	7	9	12	—	2.00	2.50	3.50	—	1.50	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	9	14	—	1.90	2.30	3.80	—	1.50	8.00	8.70	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	9	18	—	1.70	2.10	4.20	—	1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	7	12	12	—	1.85	3.05	3.05	—	1.50	7.95	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.94	C
	7	12	14	—	1.70	2.90	3.40	—	1.50	8.00	8.70	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	12	18	—	1.60	2.60	3.80	—	1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	7	14	14	—	1.55	3.20	3.20	—	1.50	7.95	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.00	B
	7	14	18	—	1.40	3.00	3.60	—	1.50	8.00	8.90	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	9	9	—	2.5	2.5	2.5	—	1.50	7.50	8.10	0.55	2.65	3.80	2.50	11.76	16.80	2.83	C
	9	9	12	—	2.44	2.44	3.12	—	1.50	8.00	8.60	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	9	14	—	2.20	2.20	3.60	—	1.50	8.00	8.70	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	9	18	—	2.0	2.0	4.0	—	1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	12	12	—	2.26	2.87	2.87	—	1.50	8.00	8.60	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	12	14	—	2.05	2.60	3.35	—	1.50	8.00	8.70	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	12	18	—	1.80	2.50	3.70	—	1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	14	14	—	1.90	3.05	3.05	—	1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	14	18	—	1.70	2.90	3.40	—	1.50	8.00	8.90	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	12	12	12	—	2.65	2.65	2.65	—	1.50	7.95	8.50	0.55	2.65	3.80	2.50	11.76	16.80	3.00	B
	12	12	14	—	2.45	2.45	3.10	—	1.50	8.00	8.70	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	12	12	18	—	2.20	2.20	3.60	—	1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	12	14	14	—	2.25	2.85	2.85	—	1.50	7.95	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.00	B
QUADRI(1x4)	7	7	7	7	2.0	2.0	2.0	2.0	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	7	9	1.90	1.90	1.90	2.30	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	7	12	1.75	1.75	1.75	2.75	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	7	14	1.60	1.60	1.60	3.20	1.80	8.00	9.30	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	7	18	1.45	1.45	1.45	3.65	1.80	8.00	9.50	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	9	9	1.75	1.75	2.25	2.25	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	9	12	1.70	1.70	2.10	2.50	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	9	14	1.50	1.50	1.90	3.10	1.80	8.00	9.30	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	9	18	1.40	1.40	1.70	3.50	1.80	8.00	9.50	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	12	12	1.45	1.45	2.55	2.55	1.80	8.00	9.20	0.65	2.55	3.80	2.85	11.31	16.80	3.14	B
	7	7	12	14	1.40	1.40	2.40	2.80	1.80	8.00	9.30	0.65	2.55	3.80	2.85	11.31	16.80	3.14	B
	7	9	9	9	1.70	2.10	2.10	2.10	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	9	9	12	1.60	2.00	2.00	2.40	1.80	8.00	9.20	0.65	2.55	3.80	2.85	11.31	16.80	3.14	B
	7	9	9	14	1.45	1.80	1.80	2.95	1.80	8.00	9.30	0.65	2.55	3.80	2.85	11.31	16.80	3.14	B
	7	9	12	12	1.40	1.70	2.45	2.45	1.80	8.00	9.20	0.65	2.50	3.80	2.85	11.09	16.80	3.20	B
	7	9	12	14	1.30	1.65	2.30	2.75	1.80	8.00	9.30	0.65	2.50	3.80	2.85	11.09	16.80	3.20	B
	9	9	9	9	2.00	2.00	2.00	2.00	1.80	8.00	9.20	0.65	2.55	3.80	2.85	11.31	16.80	3.14	B
	9	9	9	12	1.90	1.90	1.90	2.30	1.80	8.00	9.20	0.65	2.50	3.80	2.85	11.09	16.80	3.20	B
	9	9	9	14	1.70	1.70	1.70	2.90	1.80	8.00	9.30	0.65	2.50	3.80	2.85	11.09	16.80	3.20	B
	9	9	12	12	1.65	1.65	2.05	2.65	1.80	8.00	9.40	0.65	2.50	3.80	2.85	11.09	16.80	3.20	B

HEATING

Comb.	Combinations				Rated capacity Output/kW (Nom. heating)				total heating capacity(KW)			total power input (W)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	14	—	—	2.30	4.60	—	—	1.20	6.90	7.50	0.50	2.80	3.80	2.15	12.42	16.80	2.46	F
	7	18	—	—	2.30	5.50	—	—	1.20	7.80	8.40	0.50	2.90	3.80	2.15	12.87	16.80	2.69	E
	7	22	—	—	2.30	6.50	—	—	1.20	8.80	8.80	0.55	3.00	3.80	2.50	13.31	16.80	2.93	D
	9	12	—	—	2.90	3.80	—	—	1.20	6.70	7.30	0.50	2.90	3.80	2.15	12.87	16.80	2.31	G
	9	14	—	—	2.90	4.60	—	—	1.20	7.50	8.20	0.50	3.00	3.80	2.15	13.31	16.80	2.50	F
	9	18	—	—	2.90	5.50	—	—	1.20	8.40	9.20	0.50	3.00	3.80	2.15	13.31	16.80	2.80	D
	9	22	—	—	2.90	6.50	—	—	1.20	9.40	9.40	0.55	3.00	3.80	2.50	13.31	16.80	3.13	C
	12	12	—	—	3.80	3.80	—	—	1.20	7.60	8.20	0.50	2.95	3.80	2.15	13.09	16.80	2.58	F
	12	14	—	—	3.80	4.60	—	—	1.20	8.40	9.10	0.50	2.90	3.80	2.15	12.87	16.80	2.90	D
	12	18	—	—	3.80	5.50	—	—	1.20	9.30	10.20	0.50	3.10	3.80	2.15	13.75	16.80	3.00	C
	12	22	—	—	3.70	6.30	—	—	1.20	10.00	10.30	0.55	3.00	3.80	2.50	13.31	16.80	3.33	C
	14	14	—	—	4.60	4.60	—	—	1.20	9.20	10.20	0.55	3.00	3.80	2.50	13.31	16.80	3.07	C
	14	18	—	—	4.60	5.40	—	—	1.20	10.00	10.50	0.55	3.00	3.80	2.50	13.31	16.80	3.33	C
	18	18	—	—	5.00	5.00	—	—	1.20	10.00	11.00	0.55	3.00	3.80	2.50	13.31	16.80	3.33	C
TRI (1x3)	7	7	7	—	2.30	2.30	2.30	—	1.50	6.90	7.80	0.55	2.85	3.80	2.50	12.64	16.80	2.42	F
	7	7	9	—	2.30	2.30	2.90	—	1.50	7.50	8.40	0.55	2.85	3.80	2.50	12.64	16.80	2.63	E
	7	7	12	—	2.30	2.30	3.80	—	1.50	8.40	9.30	0.55	2.85	3.80	2.50	12.64	16.80	2.95	D
	7	7	14	—	2.30	2.30	4.60	—	1.50	9.20	10.20	0.55	2.80	3.80	2.50	12.42	16.80	3.29	C
	7	7	18	—	2.30	2.30	5.40	—	1.50	10.00	10.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	7	7	22	—	2.10	2.10	5.80	—	1.50	10.00	11.50	0.55	2.95	3.80	2.50	13.09	16.80	3.39	C
	7	9	9	—	2.30	2.90	2.90	—	1.50	8.10	10.50	0.55	2.90	3.80	2.50	12.87	16.80	2.79	E
	7	9	12	—	2.30	2.90	3.80	—	1.50	9.00	10.50	0.55	2.90	3.80	2.50	12.87	16.80	3.10	C
	7	9	14	—	2.30	2.90	4.60	—	1.50	9.80	10.50	0.55	2.80	3.80	2.50	12.42	16.80	3.50	B
	7	9	18	—	2.15	2.70	5.15	—	1.50	10.00	11.00	0.55	2.85	3.80	2.50	12.64	16.80	3.51	B
	7	12	12	—	2.30	3.80	3.80	—	1.50	9.90	10.80	0.55	2.90	3.80	2.50	12.87	16.80	3.41	B
	7	12	14	—	2.15	3.55	4.30	—	1.50	10.00	11.00	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	7	12	18	—	2.00	3.25	4.75	—	1.50	10.00	11.00	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	7	14	14	—	2.00	4.00	4.00	—	1.50	10.00	11.00	0.55	2.85	3.80	2.50	12.64	16.80	3.51	B
	7	14	18	—	1.90	3.70	4.40	—	1.50	10.00	11.00	0.55	2.85	3.80	2.50	12.64	16.80	3.51	B
	9	9	9	—	2.90	2.90	2.90	—	1.50	8.70	10.50	0.55	2.90	3.80	2.50	12.87	16.80	3.00	C
	9	9	12	—	2.90	2.90	3.80	—	1.50	9.60	10.50	0.55	2.90	3.80	2.50	12.87	16.80	3.31	C
	9	9	14	—	2.75	2.75	4.50	—	1.50	10.00	10.50	0.55	2.85	3.80	2.50	12.64	16.80	3.51	B
	9	9	18	—	2.50	2.50	5.00	—	1.50	10.00	11.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	9	12	12	—	2.80	3.60	3.60	—	1.50	10.00	11.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	9	12	14	—	2.55	3.35	4.10	—	1.50	10.00	11.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	9	12	18	—	2.40	3.10	4.50	—	1.50	10.00	11.50	0.55	2.85	3.80	2.50	12.64	16.80	3.51	B
	9	14	14	—	2.40	3.80	3.80	—	1.50	10.00	11.50	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	9	14	18	—	2.25	3.55	4.20	—	1.50	10.00	11.50	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	12	12	12	—	3.35	3.35	3.35	—	1.50	10.05	11.50	0.55	2.95	3.80	2.50	13.09	16.80	3.41	B
	12	12	14	—	3.10	3.10	3.80	—	1.50	10.00	11.50	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	12	12	18	—	2.90	2.90	4.20	—	1.50	10.00	11.50	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	12	14	14	—	2.90	3.55	3.55	—	1.50	10.00	11.50	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
QUADRI(1x4)	7	7	7	7	2.30	2.30	2.30	2.30	1.80	9.20	10.50	0.65	2.90	3.80	2.85	12.87	16.80	3.17	C
	7	7	7	9	2.30	2.30	2.30	2.90	1.80	9.80	10.50	0.65	2.90	3.80	2.85	12.87	16.80	3.38	C
	7	7	7	12	2.15	2.15	2.15	3.55	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	7	7	14	2.00	2.00	2.00	4.00	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	7	7	18	1.85	1.85	1.85	4.45	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	7	9	9	2.20	2.20	2.80	2.80	1.80	10.00	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.45	B
	7	7	9	12	2.05	2.05	2.55	3.35	1.80	10.00	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.45	B
	7	7	9	14	1.90	1.90	2.40	3.80	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	7	9	18	1.75	1.75	2.20	4.30	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	7	12	12	1.90	1.90	3.10	3.10	1.80	10.00	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.45	B
	7	7	12	14	1.75	1.75	2.90	3.60	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	9	9	9	2.10	2.65	2.65	2.65	1.80	10.05	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.47	B
	7	9	9	12	1.95	2.45	2.45	3.15	1.80	10.00	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.45	B
	7	9	9	14	1.80	2.25	2.25	3.70	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	9	12	12	1.95	2.25	2.90	2.90	1.80	10.00	11.50	0.65	2.80	3.80	2.85	12.42	16.80	3.57	B
	7	9	12	14	1.70	2.15	2.80	3.35	1.80	10.00	11.50	0.65	2.80	3.80	2.85	12.42	16.80	3.57	B
	9	9	9	9	2.50	2.50	2.50	2.50	1.80	10.00	11.50	0.65	2.75	3.80	2.85	12.20	16.80	3.64	A
	9	9	9	12	2.30	2.30	2.30	3.10	1.80	10.00	11.50	0.65	2.75	3.80	2.85	12.20	16.80	3.64	A
	9	9	9	14	2.20	2.20	2.20	3.40	1.80	10.00	11.50	0.65	2.75	3.80	2.85	12.20	16.80	3.64	A
	9	9	12	12	2.15	2.15	2.85	2.85	1.80	10.00	11.50	0.65	2.70	3.80	2.85	11.98	16.80	3.70	A

AU282XHERA combination and the data(for Australia)

COOLING

Comb.	Combinations				Rated capacity Output/kW (Nom. cooling)				total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	18			2.00	5.00			1.00	7.00	7.40	0.50	2.45	3.80	2.15	10.87	16.80	2.86	C
	7	22			2.00	6.00			1.00	8.00	8.50	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	9	14			2.50	4.10			1.00	6.60	7.00	0.50	2.20	3.80	2.15	9.76	16.80	3.00	B
	9	18			2.50	5.00			1.00	7.50	7.90	0.50	2.50	3.80	2.15	11.09	16.80	3.00	B
	9	22			2.35	5.65			1.00	8.00	9.00	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	12	12			3.50	3.50			1.00	7.00	6.80	0.50	2.25	3.80	2.15	9.98	16.80	3.11	B
	12	14			3.50	4.10			1.00	7.60	8.00	0.50	2.60	3.80	2.15	11.54	16.80	2.92	C
	12	18			3.05	4.95			1.00	8.00	8.40	0.50	2.60	3.80	2.15	11.54	16.80	3.08	B
	12	22			2.95	5.05			1.00	8.00	9.20	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	14	14			4.00	4.00			1.00	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	14	18			3.50	4.50			1.00	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	18	18			4.00	4.00			1.00	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
TRI (1x3)	7	7	9		2.00	2.00	2.50		1.50	6.50	7.10	0.55	2.70	3.80	2.50	11.98	16.80	2.41	E
	7	7	12		2.00	2.00	3.50		1.50	7.50	8.10	0.55	2.70	3.80	2.50	11.98	16.80	2.78	D
	7	7	14		2.00	2.00	4.00		1.50	8.00	8.70	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	7	18		1.75	1.75	4.50		1.50	8.00	8.80	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	7	22		1.60	1.60	4.80		1.50	8.00	9.20	0.55	2.65	3.80	3.50	11.76	16.80	3.02	B
	7	9	9		2.00	2.00	2.50		1.50	6.50	7.10	0.55	2.70	3.80	2.50	11.98	16.80	2.41	E
	7	9	12		2.00	2.50	3.50		1.50	8.00	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	9	14		1.90	2.30	3.80		1.50	8.00	8.70	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	9	18		1.70	2.10	4.20		1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	7	12	12		1.85	3.05	3.05		1.50	7.95	8.60	0.55	2.70	3.80	2.50	11.98	16.80	2.94	C
	7	12	14		1.70	2.90	3.40		1.50	8.00	8.70	0.55	2.70	3.80	2.50	11.98	16.80	2.96	C
	7	12	18		1.60	2.60	3.80		1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	9	9		2.50	2.50	2.50		1.50	7.50	8.10	0.55	2.65	3.80	2.50	11.76	16.80	2.83	C
	9	9	12		2.44	2.44	3.12		1.50	8.00	8.60	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	9	14		2.20	2.20	3.60		1.50	8.00	8.70	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	9	18		2.00	2.00	4.00		1.50	8.00	8.80	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	12	12		2.26	2.87	2.87		1.50	8.00	8.60	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	9	12	14		2.05	2.60	3.35		1.50	8.00	8.70	0.55	2.65	3.80	2.50	11.76	16.80	3.02	B
	12	12	12		2.65	2.65	2.65		1.50	7.95	8.50	0.55	2.65	3.80	2.50	11.76	16.80	3.00	B
QUADRI(1x4)	7	7	7	7	2.00	2.00	2.00	2.00	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	7	9	1.90	1.90	1.90	2.30	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	7	12	1.75	1.75	1.75	2.75	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	7	14	1.60	1.60	1.60	3.20	1.80	8.00	9.30	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	9	9	1.75	1.75	2.25	2.25	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	9	12	1.70	1.70	2.10	2.50	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	7	9	14	1.50	1.50	1.90	3.10	1.80	8.00	9.30	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	9	9	9	1.70	2.10	2.10	2.10	1.80	8.00	9.20	0.65	2.60	3.80	2.85	11.54	16.80	3.08	B
	7	9	9	12	1.60	2.00	2.00	2.40	1.80	8.00	9.20	0.65	2.55	3.80	2.85	11.31	16.80	3.14	B
	9	9	9	9	2.00	2.00	2.00	2.00	1.80	8.00	9.20	0.65	2.55	3.80	2.85	11.31	16.80	3.14	B

HEATING

Comb.	Combinations				Rated capacity Output/kW (Nom. heating)				total heating capacity(KW)			total power input (W)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
	7	18			2.30	5.50			1.20	7.80	8.40	0.50	2.90	3.80	2.15	12.87	16.80	2.69	E
	7	22			2.30	6.50			1.20	8.80	8.80	0.55	3.00	3.80	2.50	13.31	16.80	2.93	D
	9	14			2.90	4.60			1.20	7.50	8.20	0.50	3.00	3.80	2.15	13.31	16.80	2.50	F
	9	18			2.90	5.50			1.20	8.40	9.20	0.50	3.00	3.80	2.15	13.31	16.80	2.80	D
	9	22			2.90	6.50			1.20	9.40	9.40	0.55	3.00	3.80	2.50	13.31	16.80	3.13	C
	12	12			3.80	3.80			1.20	7.60	8.20	0.50	2.95	3.80	2.15	13.09	16.80	2.58	F
	12	14			3.80	4.60			1.20	8.40	9.10	0.50	2.90	3.80	2.15	12.87	16.80	2.90	D
	12	18			3.80	5.50			1.20	9.30	10.20	0.50	3.10	3.80	2.15	13.75	16.80	3.00	C
	12	22			3.70	6.30			1.20	10.00	10.30	0.55	3.00	3.80	2.50	13.31	16.80	3.33	C
	14	14			4.60	4.60			1.20	9.20	10.20	0.55	3.00	3.80	2.50	13.31	16.80	3.07	C
	14	18			4.60	5.40			1.20	10.00	10.50	0.55	3.00	3.80	2.50	13.31	16.80	3.33	C
	18	18			5.00	5.00			1.20	10.00	11.00	0.55	3.00	3.80	2.50	13.31	16.80	3.33	C
TRI (1x3)	7	7	9		2.30	2.30	2.90		1.50	7.50	8.40	0.55	2.85	3.80	2.50	12.64	16.80	2.63	E
	7	7	12		2.30	2.30	3.80		1.50	8.40	9.30	0.55	2.85	3.80	2.50	12.64	16.80	2.95	D
	7	7	14		2.30	2.30	4.60		1.50	9.20	10.20	0.55	2.80	3.80	2.50	12.42	16.80	3.29	C
	7	7	18		2.30	2.30	5.40		1.50	10.00	10.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	7	7	22		2.10	2.10	5.80		2.50	10.00	11.50	0.55	2.95	3.80	2.50	13.09	16.80	3.39	C
	7	9	9		2.30	2.90	2.90		1.50	8.10	10.50	0.55	2.90	3.80	2.50	12.87	16.80	2.79	E
	7	9	12		2.30	2.90	3.80		1.50	9.00	10.50	0.55	2.90	3.80	2.50	12.87	16.80	3.10	C
	7	9	14		2.30	2.90	4.60		1.50	9.80	10.50	0.55	2.80	3.80	2.50	12.42	16.80	3.50	B
	7	9	18		2.15	2.70	5.15		1.50	10.00	11.00	0.55	2.85	3.80	2.50	12.64	16.80	3.51	B
	7	12	12		2.30	3.80	3.80		1.50	9.90	10.80	0.55	2.90	3.80	2.50	12.87	16.80	3.41	B
	7	12	14		2.15	3.55	4.30		1.50	10.00	11.00	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	7	12	18		2.00	3.25	4.75		1.50	10.00	11.00	0.55	2.90	3.80	2.50	12.87	16.80	3.45	B
	9	9	9		2.90	2.90	2.90		1.50	8.70	10.50	0.55	2.90	3.80	2.50	12.87	16.80	3.00	C
	9	9	12		2.90	2.90	3.80		1.50	9.60	10.50	0.55	2.90	3.80	2.50	12.87	16.80	3.31	C
	9	9	14		2.75	2.75	4.50		1.50	10.00	10.50	0.55	2.85	3.80	2.50	12.64	16.80	3.51	B
	9	9	18		2.50	2.50	5.00		1.50	10.00	11.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	9	12	12		2.80	3.60	3.60		1.50	10.00	11.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	9	12	14		2.55	3.35	4.10		1.50	10.00	11.50	0.55	2.80	3.80	2.50	12.42	16.80	3.57	B
	12	12	12		3.35	3.35	3.35		1.50	10.05	11.50	0.55	2.95	3.80	2.50	13.09	16.80	3.41	B
QUADRI(1x4)	7	7	7	7	2.30	2.30	2.30	2.30	1.80	9.20	10.50	0.65	2.90	3.80	2.85	12.87	16.80	3.17	C
	7	7	7	9	2.30	2.30	2.30	2.90	1.80	9.80	10.50	0.65	2.90	3.80	2.85	12.87	16.80	3.38	C
	7	7	7	12	2.15	2.15	2.15	3.55	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	7	7	14	2.00	2.00	2.00	4.00	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	7	9	9	2.20	2.20	2.80	2.80	1.80	10.00	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.45	B
	7	7	9	12	2.05	2.05	2.55	3.35	1.80	10.00	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.45	B
	7	7	9	14	1.90	1.90	2.40	3.80	1.80	10.00	11.50	0.65	2.85	3.80	2.85	12.64	16.80	3.51	B
	7	9	9	9	2.10	2.65	2.65	2.65	1.80	10.05	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.47	B
	7	9	9	12	1.95	2.45	2.45	3.15	1.80	10.00	11.50	0.65	2.90	3.80	2.85	12.87	16.80	3.45	B
	9	9	9	9	2.50	2.50	2.50	2.50	1.80	10.00	11.50	0.65	2.75	3.80	2.85	12.20	16.80	3.64	A

AU342XHERA combination and the data

COOLING

Comb.	Combinations				Rated capacity Output/kW (Nom. cooling)				total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	18	—	—	2.00	5.00	—	—	1.00	7.00	7.50	0.50	2.85	4.00	2.15	12.64	18.10	2.46	E
	7	22	—	—	2.00	6.00	—	—	1.00	8.00	8.00	0.50	3.30	4.00	2.15	15.10	18.10	2.42	E
	9	18	—	—	2.50	5.00	—	—	1.00	7.50	8.00	0.50	2.90	4.00	2.15	12.87	18.10	2.59	E
	9	22	—	—	2.50	6.00	—	—	1.00	8.50	8.50	0.50	3.30	4.00	2.15	15.10	18.10	2.58	E
	12	14	—	—	3.50	4.10	—	—	1.00	7.60	8.10	0.50	2.90	4.00	2.15	12.87	18.10	2.62	D
	12	18	—	—	3.50	5.00	—	—	1.00	8.50	9.00	0.50	3.30	4.00	2.15	14.64	18.10	2.58	E
	12	22	—	—	3.20	6.00	—	—	1.00	9.20	9.20	0.50	3.30	4.00	2.15	15.10	18.10	2.79	D
	14	14	—	—	4.10	4.10	—	—	1.00	8.20	8.80	0.50	3.30	4.00	2.15	14.64	18.10	2.48	E
	14	18	—	—	4.10	5.00	—	—	1.00	9.10	9.70	0.50	3.50	4.00	2.15	15.53	18.10	2.60	D
	14	22	—	—	4.00	6.00	—	—	1.00	10.00	10.10	0.50	3.50	4.00	2.15	16.02	18.10	2.86	C
	18	18	—	—	5.00	5.00	—	—	1.00	10.00	10.50	0.50	3.50	4.00	2.15	15.53	18.10	2.86	C
	18	22	—	—	4.50	5.50	—	—	1.00	10.00	11.00	0.50	3.50	4.00	2.15	16.02	18.10	2.86	C
TRI (1x3)	7	7	12	—	2.00	2.00	3.50	—	1.50	7.50	8.10	0.55	3.10	4.00	2.50	13.75	18.10	2.42	E
	7	7	14	—	2.00	2.00	4.10	—	1.50	8.10	8.80	0.55	3.20	4.00	2.50	14.20	18.10	2.53	E
	7	7	18	—	2.00	2.00	5.00	—	1.50	9.00	9.80	0.55	3.25	4.00	2.50	14.42	18.10	2.77	D
	7	7	22	—	2.00	2.00	6.00	—	1.50	10.00	10.00	0.55	3.25	4.00	2.50	14.87	18.10	3.08	B
	7	9	9	—	2.00	2.50	2.50	—	1.50	7.00	7.60	0.55	3.10	4.00	2.50	13.75	18.10	2.26	F
	7	9	12	—	2.00	2.50	3.50	—	1.50	8.00	8.60	0.55	3.10	4.00	2.50	13.75	18.10	2.58	E
	7	9	14	—	2.00	2.50	4.10	—	1.50	8.60	9.30	0.55	3.15	4.00	2.50	13.98	18.10	2.73	D
	7	9	18	—	2.00	2.50	5.00	—	1.50	9.50	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.79	D
	7	9	22	—	1.90	2.40	5.70	—	1.50	10.00	10.50	0.55	3.30	4.00	2.50	15.10	18.10	3.03	B
	7	12	12	—	2.00	3.50	3.50	—	1.50	9.00	9.60	0.55	3.40	4.00	2.50	15.08	18.10	2.65	D
	7	12	14	—	2.00	3.50	4.10	—	1.50	9.60	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.82	C
	7	12	18	—	1.90	3.30	4.80	—	1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	7	12	22	—	1.80	2.80	5.40	—	1.50	10.00	11.00	0.55	3.30	4.00	2.50	15.10	18.10	3.03	B
	9	9	9	—	2.50	2.50	2.50	—	1.50	7.50	8.10	0.55	3.40	4.00	2.50	15.08	18.10	2.21	F
	9	9	12	—	2.50	2.50	3.50	—	1.50	8.50	9.10	0.55	3.40	4.00	2.50	15.08	18.10	2.50	E
	9	9	14	—	2.50	2.50	4.10	—	1.50	9.10	9.80	0.55	3.35	4.00	2.50	14.86	18.10	2.72	D
	9	9	18	—	2.50	2.50	5.00	—	1.50	10.00	10.50	0.55	3.35	4.00	2.50	14.86	18.10	2.99	C
	9	9	22	—	2.30	2.30	5.40	—	1.50	10.00	11.00	0.55	3.35	4.00	2.50	15.33	18.10	2.99	C
	9	12	12	—	2.50	3.50	3.50	—	1.50	9.50	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.79	D
	9	12	14	—	2.45	3.45	4.10	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	9	12	18	—	2.30	3.20	4.50	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	9	12	22	—	2.15	2.75	5.10	—	1.50	10.00	11.00	0.55	3.40	4.00	2.50	15.56	18.10	2.94	C
	12	12	12	—	3.33	3.33	3.33	—	1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	12	12	14	—	3.15	3.15	3.70	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	12	12	18	—	2.90	2.90	4.20	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
QUADRI(1x4)	7	7	7	7	2.00	2.00	2.00	2.00	1.80	8.00	8.80	0.65	3.25	4.00	2.85	14.42	18.10	2.46	E
	7	7	7	9	2.00	2.00	2.00	2.50	1.80	8.50	9.30	0.65	3.25	4.00	2.85	14.42	18.10	2.62	D
	7	7	7	12	2.00	2.00	2.00	3.50	1.80	9.50	10.30	0.65	3.25	4.00	2.85	14.42	18.10	2.92	C
	7	7	7	14	1.95	1.95	1.95	4.10	1.80	9.95	10.80	0.65	3.30	4.00	2.85	14.64	18.10	3.02	B
	7	7	7	18	1.85	1.85	1.85	4.45	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	7	22	1.65	1.65	1.65	5.05	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	7	7	9	9	2.00	2.00	2.50	2.50	1.80	9.00	9.80	0.65	3.25	4.00	2.85	14.42	18.10	2.77	D
	7	7	9	12	2.00	2.00	2.50	3.50	1.80	10.00	10.50	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	7	9	14	1.85	1.85	2.35	3.95	1.80	10.00	10.80	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	9	18	1.75	1.75	2.15	4.35	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	12	12	1.80	1.80	3.20	3.20	1.80	10.00	10.80	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	7	12	14	1.70	1.70	3.00	3.60	1.80	10.00	10.90	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	12	18	1.60	1.60	2.80	4.00	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	9	9	9	2.00	2.50	2.50	2.50	1.80	9.50	10.30	0.65	3.25	4.00	2.85	14.42	18.10	2.92	C
	7	9	9	12	1.90	2.40	2.40	3.30	1.80	10.00	10.80	0.65	3.28	4.00	2.85	14.55	18.10	3.05	B
	7	9	9	14	1.80	2.25	2.25	3.70	1.80	10.00	10.90	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	9	18	1.70	2.10	2.10	4.10	1.80	10.00	11.00	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	12	12	1.75	2.15	3.05	3.05	1.80	10.00	10.80	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	12	14	1.65	2.05	2.90	3.40	1.80	10.00	10.90	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	7	9	12	18	1.55	1.95	2.70	3.80	1.80	10.00	11.00	0.65	3.20	4.00	2.85	14.20	18.10	3.13	B
	7	12	12	12	1.60	2.80	2.80	2.80	1.80	10.00	11.00	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	7	12	12	14	1.55	2.70	2.70	3.05	1.80	10.00	11.00	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	9	9	9	9	2.50	2.50	2.50	2.50	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	9	9	9	12	2.30	2.30	2.30	3.10	1.80	10.00	11.00	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	9	9	9	14	2.15	2.15	2.15	3.55	1.80	10.00	11.00	0.65	3.24	4.00	2.85	14.37	18.10	3.09	B
	9	9	9	18	2.00	2.00	2.00	4.00	1.80	10.00	11.00	0.65	3.23	4.00	2.85	14.33	18.10	3.10	B
	9	9	12	12	2.10	2.10	2.90	2.90	1.80	10.00	11.00	0.65	3.20	4.00	2.85	14.20	18.10	3.13	B
	9	9	12	14	2.00	2.00	2.75	3.25	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	9	9	12	18	1.85	1.85	2.60	3.70	1.80	10.00	11.00	0.65	3.15	4.00	2.85	13.98	18.10	3.17	B
	9	12	12	12	1.90	2.70	2.70	2.70	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	9	12	12	14	1.85	2.50	2.50	3.15	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	12	12	12	12	2.50	2.50	2.50	2.50	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B

HEATING

Comb.	Combinations				Rated capacity Output/kW (Nom. heating)				total heating capacity(KW)			total power input (W)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	18	—	—	2.30	5.50	—	—	1.20	7.80	7.50	0.50	2.95	4.00	2.15	12.64	18.10	2.64	E
	7	22	—	—	2.30	6.50	—	—	1.20	8.80	8.80	0.50	3.30	4.00	2.15	15.10	18.10	2.67	E
	9	18	—	—	2.90	5.50	—	—	1.20	8.40	8.40	0.50	3.00	4.00	2.15	12.87	18.10	2.80	D
	9	22	—	—	2.90	6.50	—	—	1.20	9.40	9.40	0.50	3.30	4.00	2.15	15.10	18.10	2.85	D
	12	14	—	—	3.80	4.60	—	—	1.20	8.40	7.30	0.50	3.00	4.00	2.15	12.87	18.10	2.80	D
	12	18	—	—	3.80	5.50	—	—	1.20	9.30	8.20	0.50	3.30	4.00	2.15	14.64	18.10	2.82	D
	12	22	—	—	3.80	6.50	—	—	1.20	10.30	10.30	0.50	3.30	4.00	2.15	15.10	18.10	3.12	C
	14	14	—	—	4.60	4.60	—	—	1.20	9.20	9.20	0.50	3.30	4.00	2.15	14.64	18.10	2.79	E
	14	18	—	—	4.60	5.50	—	—	1.20	10.10	8.20	0.50	3.45	4.00	2.15	15.53	18.10	2.93	D
	14	22	—	—	4.50	6.50	—	—	1.20	11.00	11.00	0.50	3.40	4.00	2.15	15.56	18.10	3.24	C
	18	18	—	—	5.50	5.50	—	—	1.20	11.00	9.10	0.50	3.45	4.00	2.15	15.53	18.10	3.19	C
	18	22	—	—	5.00	6.00	—	—	1.20	11.00	11.00	0.50	3.50	4.00	2.15	16.02	18.10	3.14	C
TRI (1x3)	7	7	12	—	2.30	2.30	3.80	—	1.20	8.40	10.20	0.55	2.95	4.00	2.50	13.75	18.10	2.85	D
	7	7	14	—	2.30	2.30	4.60	—	1.20	9.20	10.20	0.55	2.90	4.00	2.50	14.20	18.10	3.17	C
	7	7	18	—	2.30	2.30	5.50	—	1.20	10.10	10.50	0.55	2.95	4.00	2.50	14.42	18.10	3.42	B
	7	7	22	—	2.30	2.30	6.40	—	1.50	11.00	11.10	0.55	3.00	4.00	2.50	13.73	18.10	3.67	A
	7	9	9	—	2.30	2.90	2.90	—	1.20	8.10	11.00	0.55	2.95	4.00	2.50	13.75	18.10	2.75	E
	7	9	12	—	2.30	2.90	3.80	—	1.50	9.00	7.80	0.55	2.95	4.00	2.50	13.75	18.10	3.05	C
	7	9	14	—	2.30	2.90	4.60	—	1.50	9.80	8.40	0.55	3.00	4.00	2.50	13.98	18.10	3.27	C
	7	9	18	—	2.30	2.90	5.50	—	1.50	10.70	9.30	0.55	3.05	4.00	2.50	15.08	18.10	3.51	B
	7	9	22	—	2.15	2.70	6.15	—	1.50	11.00	11.00	0.55	3.05	4.00	2.50	13.96	18.10	3.61	A
	7	12	12	—	2.30	3.80	3.80	—	1.50	9.90	10.20	0.55	2.95	4.00	2.50	15.08	18.10	3.36	C
	7	12	14	—	2.30	3.80	4.60	—	1.50	10.70	10.50	0.55	3.00	4.00	2.50	15.08	18.10	3.57	B
	7	12	18	—	2.10	3.60	5.30	—	1.50	11.00	10.50	0.55	3.05	4.00	2.50	15.08	18.10	3.61	A
	7	12	22	—	2.00	3.30	5.70	—	1.50	11.00	11.00	0.55	3.05	4.00	2.50	13.96	18.10	3.61	A
	9	9	9	—	2.90	2.90	2.90	—	1.50	8.70	10.80	0.55	3.00	4.00	2.50	15.08	18.10	2.90	D
	9	9	12	—	2.90	2.90	3.80	—	1.50	9.60	11.00	0.55	3.05	4.00	2.50	15.08	18.10	3.15	C
	9	9	14	—	2.90	2.90	4.60	—	1.50	10.40	11.00	0.55	3.10	4.00	2.50	14.86	18.10	3.35	C
	9	9	18	—	2.80	2.80	5.40	—	1.50	11.00	11.00	0.55	3.10	4.00	2.50	14.86	18.10	3.55	B
	9	9	22	—	2.60	2.60	5.80	—	1.50	11.00	11.00	0.55	3.10	4.00	2.50	14.19	18.10	3.55	B
	9	12	12	—	2.90	3.80	3.80	—	1.50	10.50	11.00	0.55	3.05	4.00	2.50	15.08	18.10	3.44	B
	9	12	14	—	2.70	3.80	4.50	—	1.50	11.00	11.00	0.55	3.10	4.00	2.50	15.00	18.10	3.55	B
	9	12	18	—	2.55	3.55	4.90	—	1.50	11.00	10.50	0.55	3.15	4.00	2.50	15.00	18.10	3.49	B
	9	12	22	—	2.40	3.20	5.40	—	1.50	11.00	11.00	0.55	3.15	4.00	2.50	14.42	18.10	3.49	B
	12	12	12	—	3.66	3.66	3.66	—	1.50	11.00	11.50	0.55	3.45	4.00	2.50	15.08	18.10	3.19	C
	12	12	14	—	3.45	3.45	4.10	—	1.50	11.00	11.50	0.55	3.40	4.00	2.50	15.00	18.10	3.24	C
	12	12	18	—	3.20	3.20	4.60	—	1.50	11.00	11.50	0.55	3.40	4.00	2.50	15.00	18.10	3.24	C
QUADRI(1x4)	7	7	7	7	2.30	2.30	2.30	2.30	1.50	9.20	11.50	0.65	3.25	4.00	2.85	14.42	18.10	2.83	D
	7	7	7	9	2.30	2.30	2.30	2.90	1.50	9.80	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.02	C
	7	7	7	12	2.30	2.30	2.30	3.80	1.80	10.70	10.50	0.65	3.25	4.00	2.85	14.42	18.10	3.29	C
	7	7	7	14	2.20	2.20	2.20	4.40	1.80	11.00	10.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	7	18	2.05	2.05	2.05	4.85	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	7	22	1.90	1.90	1.90	5.30	1.80	11.00	11.50	0.65	3.30	4.00	2.85	15.10	18.10	3.33	C
	7	7	9	9	2.30	2.30	2.90	2.90	1.80	10.40	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.20	C
	7	7	9	12	2.25	2.25	2.85	3.65	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	7	9	14	2.10	2.10	2.65	4.15	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	9	18	1.95	1.95	2.35	4.75	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	12	12	2.00	2.00	3.50	3.50	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	7	12	14	1.90	1.90	3.30	3.90	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	12	18	1.75	1.75	3.10	4.40	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	9	9	9	2.30	2.90	2.90	2.90	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	9	12	2.10	2.65	2.65	3.60	1.80	11.00	11.50	0.65	3.28	4.00	2.85	14.55	18.10	3.35	C
	7	9	9	14	2.00	2.50	2.50	4.00	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	9	18	1.85	2.30	2.30	4.55	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	12	12	2.00	2.30	3.35	3.35	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	12	14	1.80	2.25	3.20	3.75	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	7	9	12	18	1.70	2.15	2.95	4.20	1.80	11.00	11.50	0.65	3.20	4.00	2.85	14.20	18.10	3.44	B
	7	12	12	12	1.70	3.10	3.10	3.10	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	7	12	12	14	1.70	3.00	3.00	3.30	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	9	9	9	9	2.75	2.75	2.75	2.75	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	9	9	9	12	2.55	2.55	2.55	3.35	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	9	9	9	14	2.35	2.35	2.35	3.95	1.80	11.00	11.50	0.65	3.24	4.00	2.85	14.37	18.10	3.40	C
	9	9	9	18	2.20	2.20	2.20	4.40	1.80	11.00	11.50	0.65	3.23	4.00	2.85	14.33	18.10	3.41	B
	9	9	12	12	2.30	2.30	3.20	3.20	1.80	11.00	11.50	0.65	3.20	4.00	2.85	14.20	18.10	3.44	B
	9	9	12	14	2.20	2.20	3.00	3.60	1.80	11.00	11.50	0.65	3.17	4.00	2.85	14.06	18.10	3.47	B
	9	9	12	18	2.05	2.05	2.85	4.05	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B
	9	12	12	12	2.00	3.00	3.00	3.00	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B
	9	12	12	14	2.00	2.75	2.75	3.50	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B
	12	12	12	12	2.75	2.75	2.75	2.75	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B

AU342XHERA combination and the data(for Australia)

COOLING

Comb.	Combinations				Rated capacity Output/kW (Nom. cooling)				total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	22			2.00	6.00			1.00	8.00	8.00	0.50	3.30	4.00	2.15	15.10	18.10	2.42	E
	9	18			2.50	5.00			1.00	7.50	8.00	0.50	2.90	4.00	2.15	12.87	18.10	2.59	E
	9	22			2.50	6.00			1.00	8.50	8.50	0.50	3.30	4.00	2.15	15.10	18.10	2.58	E
	12	18			3.50	5.00			1.00	8.50	9.00	0.50	3.30	4.00	2.15	14.64	18.10	2.58	E
	12	22			3.20	6.00			1.00	9.20	9.20	0.50	3.30	4.00	2.15	15.10	18.10	2.79	D
	14	14			4.10	4.10			1.00	8.20	8.80	0.50	3.30	4.00	2.15	14.64	18.10	2.48	E
	14	18			4.10	5.00			1.00	9.10	9.70	0.50	3.50	4.00	2.15	15.53	18.10	2.60	D
	14	22			4.00	6.00			1.00	10.00	10.10	0.50	3.50	4.00	2.15	16.02	18.10	2.86	C
	18	18			5.00	5.00			1.00	10.00	10.50	0.50	3.50	4.00	2.15	15.53	18.10	2.86	C
	18	22			4.50	5.50			1.00	10.00	11.00	0.50	3.50	4.00	2.15	16.02	18.10	2.86	C
TRI (1x3)	7	7	14		2.00	2.00	4.10		1.50	8.10	8.80	0.55	3.20	4.00	2.50	14.20	18.10	2.53	E
	7	7	18		2.00	2.00	5.00		1.50	9.00	9.80	0.55	3.25	4.00	2.50	14.42	18.10	2.77	D
	7	7	22		2.00	2.00	6.00		1.50	10.00	10.00	0.55	3.25	4.00	2.50	14.87	18.10	3.08	B
	7	9	12		2.00	2.50	3.50		1.50	8.00	8.60	0.55	3.10	4.00	2.50	13.75	18.10	2.58	E
	7	9	14		2.00	2.50	4.10		1.50	8.60	9.30	0.55	3.15	4.00	2.50	13.98	18.10	2.73	D
	7	9	18		2.00	2.50	5.00		1.50	9.50	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.79	D
	7	9	22		1.90	2.40	5.70		1.50	10.00	10.50	0.55	3.30	4.00	2.50	15.10	18.10	3.03	B
	7	12	12		2.00	3.50	3.50		1.50	9.00	9.60	0.55	3.40	4.00	2.50	15.08	18.10	2.65	D
	7	12	14		2.00	3.50	4.10		1.50	9.60	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.82	C
	7	12	18		1.90	3.30	4.80		1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	7	12	22		1.80	2.80	5.40		1.50	10.00	11.00	0.55	3.30	4.00	2.50	15.10	18.10	3.03	B
	9	9	9		2.50	2.50	2.50		1.50	7.50	8.10	0.55	3.40	4.00	2.50	15.08	18.10	2.21	F
	9	9	12		2.50	2.50	3.50		1.50	8.50	9.10	0.55	3.40	4.00	2.50	15.08	18.10	2.50	E
	9	9	14		2.50	2.50	4.10		1.50	9.10	9.80	0.55	3.35	4.00	2.50	14.86	18.10	2.72	D
	9	9	18		2.50	2.50	5.00		1.50	10.00	10.50	0.55	3.35	4.00	2.50	14.86	18.10	2.99	C
	9	9	22		2.30	2.30	5.40		1.50	10.00	11.00	0.55	3.35	4.00	2.50	15.33	18.10	2.99	C
	9	12	12		2.50	3.50	3.50		1.50	9.50	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.79	D
	9	12	14		2.45	3.45	4.10		1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	9	12	18		2.30	3.20	4.50		1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	9	12	22		2.15	2.75	5.10		1.50	10.00	11.00	0.55	3.40	4.00	2.50	15.56	18.10	2.94	C
	12	12	12		3.33	3.33	3.33		1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	12	12	14		3.15	3.15	3.70		1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	12	12	18		2.90	2.90	4.20		1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
QUADRI(1x4)	7	7	7	7	2.00	2.00	2.00	2.00	1.80	8.00	8.80	0.65	3.25	4.00	2.85	14.42	18.10	2.46	E
	7	7	7	9	2.00	2.00	2.00	2.50	1.80	8.50	9.30	0.65	3.25	4.00	2.85	14.42	18.10	2.62	D
	7	7	7	12	2.00	2.00	2.00	3.50	1.80	9.50	10.30	0.65	3.25	4.00	2.85	14.42	18.10	2.92	C
	7	7	7	14	1.95	1.95	1.95	4.10	1.80	9.95	10.80	0.65	3.30	4.00	2.85	14.64	18.10	3.02	B
	7	7	7	18	1.85	1.85	1.85	4.45	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	7	22	1.65	1.65	1.65	5.05	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	7	7	9	9	2.00	2.00	2.50	2.50	1.80	9.00	9.80	0.65	3.25	4.00	2.85	14.42	18.10	2.77	D
	7	7	9	12	2.00	2.00	2.50	3.50	1.80	10.00	10.50	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	7	9	14	1.85	1.85	2.35	3.95	1.80	10.00	10.80	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	9	18	1.75	1.75	2.15	4.35	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	12	12	1.80	1.80	3.20	3.20	1.80	10.00	10.80	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	7	12	14	1.70	1.70	3.00	3.60	1.80	10.00	10.90	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	12	18	1.60	1.60	2.80	4.00	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	9	9	9	2.00	2.50	2.50	2.50	1.80	9.50	10.30	0.65	3.25	4.00	2.85	14.42	18.10	2.92	C
	7	9	9	12	1.90	2.40	2.40	3.30	1.80	10.00	10.80	0.65	3.28	4.00	2.85	14.55	18.10	3.05	B
	7	9	9	14	1.80	2.25	2.25	3.70	1.80	10.00	10.90	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	9	18	1.70	2.10	2.10	4.10	1.80	10.00	11.00	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	12	12	1.75	2.15	3.05	3.05	1.80	10.00	10.80	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	12	14	1.65	2.05	2.90	3.40	1.80	10.00	10.90	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	7	12	12	12	1.60	2.80	2.80	2.80	1.80	10.00	11.00	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	9	9	9	9	2.50	2.50	2.50	2.50	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	9	9	9	12	2.30	2.30	2.30	3.10	1.80	10.00	11.00	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	9	9	9	14	2.15	2.15	2.15	3.55	1.80	10.00	11.00	0.65	3.24	4.00	2.85	14.37	18.10	3.09	B
	9	9	12	12	2.10	2.10	2.90	2.90	1.80	10.00	11.00	0.65	3.20	4.00	2.85	14.20	18.10	3.13	B
	9	9	12	14	2.00	2.00	2.75	3.25	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B

HEATING

Comb.	Combinations				Rated capacity Output/kW (Nom. heating)				total heating capacity(KW)			total power input (W)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	22			2.30	6.50			1.20	8.80	8.80	0.50	3.30	4.00	2.15	15.10	18.10	2.67	E
	9	18			2.90	5.50			1.20	8.40	8.40	0.50	3.00	4.00	2.15	12.87	18.10	2.80	D
	9	22			2.90	6.50			1.20	9.40	9.40	0.50	3.30	4.00	2.15	15.10	18.10	2.85	D
	12	18			3.80	5.50			1.20	9.30	8.20	0.50	3.30	4.00	2.15	14.64	18.10	2.82	D
	12	22			3.80	6.50			1.20	10.30	10.30	0.50	3.30	4.00	2.15	15.10	18.10	3.12	C
	14	14			4.60	4.60			1.20	9.20	9.20	0.50	3.30	4.00	2.15	14.64	18.10	2.79	E
	14	18			4.60	5.50			1.20	10.10	8.20	0.50	3.45	4.00	2.15	15.53	18.10	2.93	D
	14	22			4.50	6.50			1.20	11.00	11.00	0.50	3.40	4.00	2.15	15.56	18.10	3.24	C
	18	18			5.50	5.50			1.20	11.00	9.10	0.50	3.45	4.00	2.15	15.53	18.10	3.19	C
	18	22			5.00	6.00			1.20	11.00	11.00	0.50	3.50	4.00	2.15	16.02	18.10	3.14	C
TRI (1x3)	7	7	14		2.30	2.30	4.60		1.20	9.20	10.20	0.55	2.90	4.00	2.50	14.20	18.10	3.17	C
	7	7	18		2.30	2.30	5.50		1.20	10.10	10.50	0.55	2.95	4.00	2.50	14.42	18.10	3.42	B
	7	7	22		2.30	2.30	6.40		1.50	11.00	11.10	0.55	3.00	4.00	2.50	13.73	18.10	3.67	A
	7	9	12		2.30	2.90	3.80		1.50	9.00	7.80	0.55	2.95	4.00	2.50	13.75	18.10	3.05	C
	7	9	14		2.30	2.90	4.60		1.50	9.80	8.40	0.55	3.00	4.00	2.50	13.98	18.10	3.27	C
	7	9	18		2.30	2.90	5.50		1.50	10.70	9.30	0.55	3.05	4.00	2.50	15.08	18.10	3.51	B
	7	9	22		2.15	2.70	6.15		1.50	11.00	11.00	0.55	3.05	4.00	2.50	13.96	18.10	3.61	A
	7	12	12		2.30	3.80	3.80		1.50	9.90	10.20	0.55	2.95	4.00	2.50	15.08	18.10	3.36	C
	7	12	14		2.30	3.80	4.60		1.50	10.70	10.50	0.55	3.00	4.00	2.50	15.08	18.10	3.57	B
	7	12	18		2.10	3.60	5.30		1.50	11.00	10.50	0.55	3.05	4.00	2.50	15.08	18.10	3.61	A
	7	12	22		2.00	3.30	5.70		1.50	11.00	11.00	0.55	3.05	4.00	2.50	13.96	18.10	3.61	A
	9	9	9		2.90	2.90	2.90		1.50	8.70	10.80	0.55	3.00	4.00	2.50	15.08	18.10	2.90	D
	9	9	12		2.90	2.90	3.80		1.50	9.60	11.00	0.55	3.05	4.00	2.50	15.08	18.10	3.15	C
	9	9	14		2.90	2.90	4.60		1.50	10.40	11.00	0.55	3.10	4.00	2.50	14.86	18.10	3.35	C
	9	9	18		2.80	2.80	5.40		1.50	11.00	11.00	0.55	3.10	4.00	2.50	14.86	18.10	3.55	B
	9	9	22		2.60	2.60	5.80		1.50	11.00	11.00	0.55	3.10	4.00	2.50	14.19	18.10	3.55	B
	9	12	12		2.90	3.80	3.80		1.50	10.50	11.00	0.55	3.05	4.00	2.50	15.08	18.10	3.44	B
	9	12	14		2.70	3.80	4.50		1.50	11.00	11.00	0.55	3.10	4.00	2.50	15.00	18.10	3.55	B
	9	12	18		2.55	3.55	4.90		1.50	11.00	10.50	0.55	3.15	4.00	2.50	15.00	18.10	3.49	B
	9	12	22		2.40	3.20	5.40		1.50	11.00	11.00	0.55	3.15	4.00	2.50	14.42	18.10	3.49	B
	12	12	12		3.66	3.66	3.66		1.50	11.00	11.50	0.55	3.45	4.00	2.50	15.08	18.10	3.19	C
	12	12	14		3.45	3.45	4.10		1.50	11.00	11.50	0.55	3.40	4.00	2.50	15.00	18.10	3.24	C
	12	12	18		3.20	3.20	4.60		1.50	11.00	11.50	0.55	3.40	4.00	2.50	15.00	18.10	3.24	C
QUADRI(1x4)	7	7	7	7	2.30	2.30	2.30	2.30	1.50	9.20	11.50	0.65	3.25	4.00	2.85	14.42	18.10	2.83	D
	7	7	7	9	2.30	2.30	2.30	2.90	1.50	9.80	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.02	C
	7	7	7	12	2.30	2.30	2.30	3.80	1.80	10.70	10.50	0.65	3.25	4.00	2.85	14.42	18.10	3.29	C
	7	7	7	14	2.20	2.20	2.20	4.40	1.80	11.00	10.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	7	18	2.05	2.05	2.05	4.85	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	7	22	1.90	1.90	1.90	5.30	1.80	11.00	11.50	0.65	3.30	4.00	2.85	15.10	18.10	3.33	C
	7	7	9	9	2.30	2.30	2.90	2.90	1.80	10.40	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.20	C
	7	7	9	12	2.25	2.25	2.85	3.65	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	7	9	14	2.10	2.10	2.65	4.15	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	9	18	1.95	1.95	2.35	4.75	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	12	12	2.00	2.00	3.50	3.50	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	7	12	14	1.90	1.90	3.30	3.90	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	12	18	1.75	1.75	3.10	4.40	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	9	9	9	2.30	2.90	2.90	2.90	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	9	12	2.10	2.65	2.65	3.60	1.80	11.00	11.50	0.65	3.28	4.00	2.85	14.55	18.10	3.35	C
	7	9	9	14	2.00	2.50	2.50	4.00	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	9	18	1.85	2.30	2.30	4.55	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	12	12	2.00	2.30	3.35	3.35	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	12	14	1.80	2.25	3.20	3.75	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	7	12	12	12	1.70	3.10	3.10	3.10	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	9	9	9	9	2.75	2.75	2.75	2.75	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	9	9	9	12	2.55	2.55	2.55	3.35	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	9	9	9	14	2.35	2.35	2.35	3.95	1.80	11.00	11.50	0.65	3.24	4.00	2.85	14.37	18.10	3.40	C
	9	9	12	12	2.30	2.30	3.20	3.20	1.80	11.00	11.50	0.65	3.20	4.00	2.85	14.20	18.10	3.44	B
	9	9	12	14	2.20	2.20	3.00	3.60	1.80	11.00	11.50	0.65	3.17	4.00	2.85	14.06	18.10	3.47	B

AU362XHERA combination and the data

COOLING

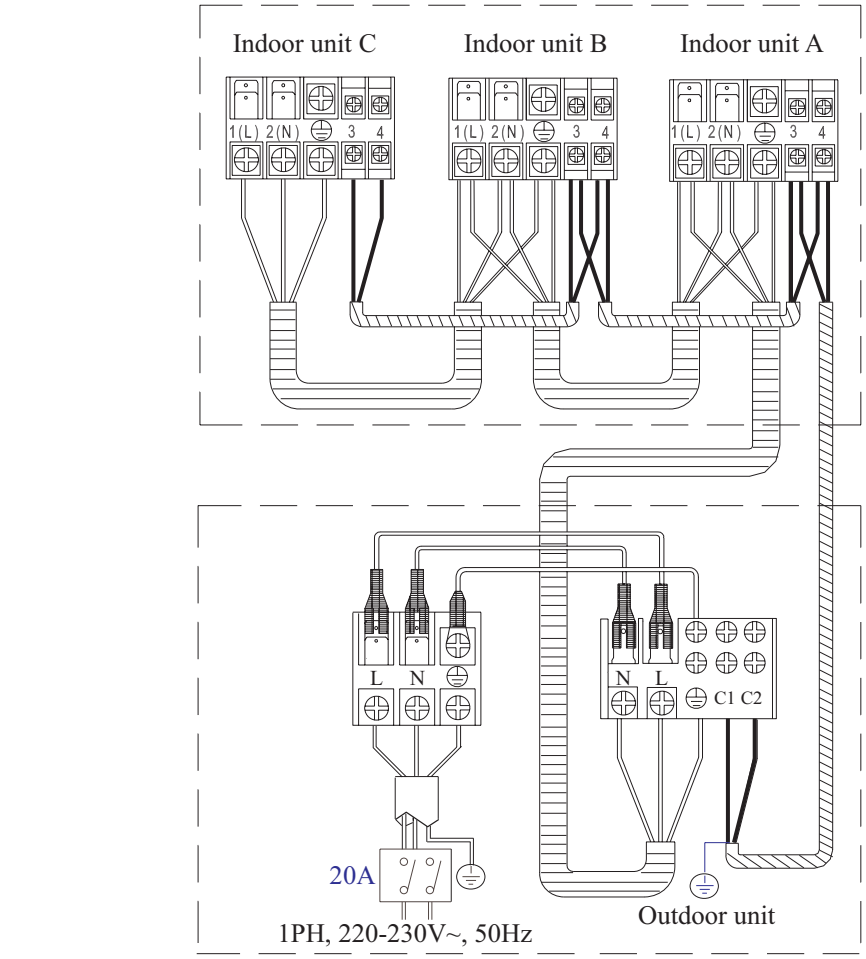
Comb.	Combinations					Rated capacity Output/kW (Nom. cooling)					total cooling capacity(kW)			total power input (kW)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit E	Unit A	Unit B	Unit C	Unit D	Unit E	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	18	—	—	—	2.00	5.00	—	—	—	1.00	7.00	7.50	0.50	2.85	4.00	2.15	12.64	18.10	2.46	E
	7	22	—	—	—	2.00	6.50	—	—	—	1.00	8.50	9.00	0.50	2.85	4.00	2.15	12.64	18.10	2.98	C
	9	18	—	—	—	2.50	5.00	—	—	—	1.00	7.50	8.00	0.50	2.90	4.00	2.15	12.87	18.10	2.59	E
	9	22	—	—	—	3.50	6.50	—	—	—	1.00	10.00	10.50	0.50	3.30	4.00	2.15	14.64	18.10	3.03	B
	12	14	—	—	—	3.50	4.10	—	—	—	1.00	7.60	8.10	0.50	2.90	4.00	2.15	12.87	18.10	2.62	D
	12	18	—	—	—	3.50	5.00	—	—	—	1.00	8.50	9.00	0.50	3.30	4.00	2.15	14.64	18.10	2.58	E
	12	22	—	—	—	3.50	6.50	—	—	—	1.00	10.00	10.50	0.50	3.30	4.00	2.15	14.64	18.10	3.03	B
	14	14	—	—	—	4.10	4.10	—	—	—	1.00	8.20	8.80	0.50	3.30	4.00	2.15	14.64	18.10	2.48	E
	14	18	—	—	—	4.10	5.00	—	—	—	1.00	9.10	9.70	0.50	3.50	4.00	2.15	15.53	18.10	2.60	E
	14	22	—	—	—	3.90	6.10	—	—	—	1.00	10.00	10.50	0.50	3.50	4.00	2.15	15.53	18.10	2.86	C
	18	18	—	—	—	5.00	5.00	—	—	—	1.00	10.00	10.50	0.50	3.50	4.00	2.15	15.53	18.10	2.86	C
	18	22	—	—	—	4.30	5.70	—	—	—	1.00	10.00	10.50	0.50	3.50	4.00	2.15	15.53	18.10	2.86	C
TRI (1x3)	7	7	12	—	—	2.00	2.00	3.50	—	—	1.50	7.50	8.10	0.55	3.10	4.00	2.50	13.75	18.10	2.42	E
	7	7	14	—	—	2.00	2.00	4.10	—	—	1.50	8.10	8.80	0.55	3.20	4.00	2.50	14.20	18.10	2.53	E
	7	7	18	—	—	2.00	2.00	5.00	—	—	1.50	9.00	9.80	0.55	3.25	4.00	2.50	14.42	18.10	2.77	D
	7	7	22	—	—	1.90	1.90	6.20	—	—	1.50	10.00	10.50	0.55	3.25	4.00	2.50	14.42	18.10	3.08	B
	7	9	9	—	—	2.00	2.50	2.50	—	—	1.50	7.00	7.60	0.55	3.10	4.00	2.50	13.75	18.10	2.26	F
	7	9	12	—	—	2.00	2.50	3.50	—	—	1.50	8.00	8.60	0.55	3.10	4.00	2.50	13.75	18.10	2.58	E
	7	9	14	—	—	2.00	2.50	4.10	—	—	1.50	8.60	9.30	0.55	3.15	4.00	2.50	13.98	18.10	2.73	D
	7	9	18	—	—	2.00	2.50	5.00	—	—	1.50	9.50	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.79	D
	7	9	22	—	—	1.80	2.30	5.90	—	—	1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	7	12	12	—	—	2.00	3.50	3.50	—	—	1.50	9.00	9.60	0.55	3.40	4.00	2.50	15.08	18.10	2.65	D
	7	12	14	—	—	2.00	3.50	4.10	—	—	1.50	9.60	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.82	C
	7	12	18	—	—	1.90	3.30	4.80	—	—	1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	7	12	22	—	—	1.80	2.30	5.90	—	—	1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	9	9	9	—	—	2.50	2.50	2.50	—	—	1.50	7.50	8.10	0.55	3.40	4.00	2.50	15.08	18.10	2.21	F
	9	9	12	—	—	2.50	2.50	3.50	—	—	1.50	8.50	9.10	0.55	3.40	4.00	2.50	15.08	18.10	2.50	E
	9	9	14	—	—	2.50	2.50	4.10	—	—	1.50	9.10	9.80	0.55	3.35	4.00	2.50	14.86	18.10	2.72	D
	9	9	18	—	—	2.50	2.50	5.00	—	—	1.50	10.00	10.50	0.55	3.35	4.00	2.50	14.86	18.10	2.99	C
	9	9	22	—	—	2.20	2.20	5.60	—	—	1.50	10.00	10.50	0.55	3.35	4.00	2.50	14.86	18.10	2.99	C
	9	12	12	—	—	2.50	3.50	3.50	—	—	1.50	9.50	10.20	0.55	3.40	4.00	2.50	15.08	18.10	2.79	D
	9	12	14	—	—	2.45	3.45	4.10	—	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	9	12	18	—	—	2.30	3.20	4.50	—	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	9	12	22	—	—	2.00	2.80	5.20	—	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	12	12	12	—	—	3.33	3.33	3.33	—	—	1.50	10.00	10.50	0.55	3.40	4.00	2.50	15.08	18.10	2.94	C
	12	12	14	—	—	3.15	3.15	3.70	—	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
	12	12	18	—	—	2.90	2.90	4.20	—	—	1.50	10.00	10.50	0.55	3.38	4.00	2.50	15.00	18.10	2.96	C
QUADRI(1x4)	7	7	7	7	—	2.00	2.00	2.00	2.00	—	1.80	8.00	8.80	0.65	3.25	4.00	2.85	14.42	18.10	2.46	E
	7	7	7	9	—	2.00	2.00	2.00	2.50	—	1.80	8.50	9.30	0.65	3.25	4.00	2.85	14.42	18.10	2.62	D
	7	7	7	12	—	2.00	2.00	2.00	3.50	—	1.80	9.50	10.30	0.65	3.25	4.00	2.85	14.42	18.10	2.92	C
	7	7	7	14	—	1.95	1.95	1.95	4.10	—	1.80	9.95	10.80	0.65	3.30	4.00	2.85	14.64	18.10	3.02	B
	7	7	7	18	—	1.85	1.85	1.85	4.45	—	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	7	22	—	1.60	1.60	1.60	5.20	—	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	9	9	—	2.00	2.00	2.50	2.50	—	1.80	9.00	9.80	0.65	3.25	4.00	2.85	14.42	18.10	2.77	D
	7	7	9	12	—	2.00	2.00	2.50	3.50	—	1.80	10.00	10.50	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	7	9	14	—	1.85	1.85	2.35	3.95	—	1.80	10.00	10.80	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	9	18	—	1.75	1.75	2.15	4.35	—	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	9	22	—	1.55	1.55	1.90	5.00	—	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.84	18.10	3.03	B
	7	7	12	12	—	1.80	1.80	3.20	3.20	—	1.80	10.00	10.80	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	7	12	14	—	1.70	1.70	3.00	3.60	—	1.80	10.00	10.90	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	7	12	18	—	1.60	1.60	2.80	4.00	—	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	7	9	9	9	—	2.00	2.50	2.50	2.50	—	1.80	9.50	10.30	0.65	3.25	4.00	2.85	14.42	18.10	2.92	C
	7	9	9	12	—	1.90	2.40	2.40	3.30	—	1.80	10.00	10.80	0.65	3.28	4.00	2.85	14.55	18.10	3.05	B
	7	9	9	14	—	1.80	2.25	2.25	3.70	—	1.80	10.00	10.90	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	9	18	—	1.70	2.10	2.10	4.10	—	1.80	10.00	11.00	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	12	12	—	1.75	2.15	3.05	3.05	—	1.80	10.00	10.80	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	7	9	12	14	—	1.65	2.05	2.90	3.40	—	1.80	10.00	10.90	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	7	9	12	18	—	1.55	1.95	2.70	3.80	—	1.80	10.00	11.00	0.65	3.20	4.00	2.85	14.20	18.10	3.13	B
	7	12	12	12	—	1.60	2.80	2.80	2.80	—	1.80	10.00	11.00	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	7	12	12	14	—	1.55	2.70	2.70	3.05	—	1.80	10.00	11.00	0.65	3.22	4.00	2.85	14.29	18.10	3.11	B
	9	9	9	9	—	2.50	2.50	2.50	2.50	—	1.80	10.00	11.00	0.65	3.30	4.00	2.85	14.64	18.10	3.03	B
	9	9	9	12	—	2.30	2.30	2.30	3.10	—	1.80	10.00	11.00	0.65	3.25	4.00	2.85	14.42	18.10	3.08	B
	9	9	9	14	—	2.15	2.15	2.15	3.55	—	1.80	10.00	11.00	0.65	3.24	4.00	2.85	14.37	18.10	3.09	B
	9	9	9	18	—	2.00	2.00	2.00	4.00	—	1.80	10.00	11.00	0.65	3.23	4.00	2.85	14.33	18.10	3.10	B
	9	9	12	12	—	2.10	2.10	2.90	2.90	—	1.80	10.00	11.00	0.65	3.20	4.00	2.85	14.20	18.10	3.13	B
	9	9	12	14	—	2.00	2.00	2.75	3.25	—	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	9	9	12	18	—	1.85	1.85	2.60	3.70	—	1.80	10.00	11.00	0.65	3.15	4.00	2.85	13.98	18.10	3.17	B
	9	12	12	12	—	1.90	2.70	2.70	2.70	—	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	9	12	12	14	—	1.85	2.50	2.50	3.15	—	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
	12	12	12	12	—	2.50	2.50	2.50	2.50	—	1.80	10.00	11.00	0.65	3.17	4.00	2.85	14.06	18.10	3.15	B
Quintuple(1x5)	7	7	7	7	7	2.00	2.00	2.00	2.00	2.00	2.00	10.00	11.00	0.70	3.30	4.00	2.85	13.98	18.10	3.03	B
	7	7	7	7	9	1.90	1.90	1.90	1.90	2.38	2.00	10.00	11.00	0.70	3.28	4.00	2.85	13.98	18.10	3.05	B
	7	7	7	7	12	1.74	1.74	1.74	1.74	3.04	2.00	10.00	11.00	0.70	3.26	4.00	2.85	13.98	18.10	3.07	B
	7	7	7	7	14	1.65	1.65	1.65	1.65	3.39	2.00	10.00	11.00	0.70	3.30	4.00	2.85	13.98	18.10	3.03	B
	7	7	7	7	18	1.54	1.54	1.54	1.54	3.85	2.00	10.00	11.00	0.70	3.30	4.00	2.85	13.98	18.10	3.03	B
	7	7	7	9	9	1.82	1.82	1.82	2.27	2.27	2.00	10.00	11.00	0.70	3.25	4.00	2.85	13.98	18.10	3.08	B
	7	7	7	9	12	1.67	1.67	1.67	2.08	2.92	2.00	10.00	11.00	0.70	3.26	4.00	2.85	13.98	18.10	3.07	B
	7	7	7	9	14	1.59	1.59	1.59	1.98	3.25	2.00	10.00	11.00	0.70	3.28	4.00	2.85	13.98	18.10	3.05	B
	7	7	7	9	18	1.48	1.48	1.48	1.85	3.70	2.00	10.00	11.00	0.70	3.26	4.00	2.85	13.98	18.10	3.07	B
	7	7	7	12	12	1.54	1.54	1.54	2.69	2.69	2.00	10.00	11.00	0.70	3.30	4.00	2.85	13.98	18.10	3.03	B
	7	7	7	12	14	1.47	1.47	1.47	2.57	3.01	2.00	10.00	11.00	0.70	3.33	4.00	2.85	13.98	18.10	3.00	B
	7	7	9	9	9	1.74	1.74	2.17	2.17	2.17	2.00	10.00	11.00	0.70	3.35	4.00	2.85	13.98	18.10	2.99	C
	7	7	9	9	12	1.60	1.60	2.00	2.00	2.80	2.00	10.00	11.00	0.70	3.35	4.00	2.85	13.98	18.10	2.99	C
	7	7	9	9	14	1.53	1.53	1.91	1.91	3.13	2.00	10.00	11.00	0.70	3.33	4.00	2.85	13.98	18.10	3.00	B
	7	7	9	12	12	1.48	1.48	1.85	2.59	2.59	2.00	10.00	11.00	0.70	3.34	4.00	2.85	13.98	18.10	2.99	C
	7	9	9	9	9	1.67	2.08	2.08	2.08	2.08	2.00	10.00	11.00	0.70	3.38	4.00	2.85	13.98	18.10	2.96	C
	7	9	9	9	12	1.54	1.92	1.92	1.92	2.69	2.00	10.00	11.00	0.70	3.37	4.00	2.85	13.98	18.10	2.97	C
	7	9	9	9	14	1.47	1.84	1.84	1.84	3.01	2.00	10.00	11.00	0.70	3.35	4.00	2.85	13.98	18.10	2.99	C
	9	9	9	9	9	2.00	2.00	2.00	2.00	2.00	2.00	10.00	11.00	0.70	3.35	4.00	2.85	13.98	18.10	2.99	C
	9	9	9	9	12	1.85	1.85	1.85	1.85	2.59	2.00	10.00	11.00	0.70	3.28	4.00	2.85	13.98	18.10	3.05	B

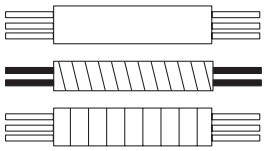
HEATING

Comb.	Combinations					Rated capacity Output/kW (Nom. heating)					total heating capacity(KW)			total power input (W)			total current (A)@230V			EER (W/W)	ENERGY LABEL
	Unit A	Unit B	Unit C	Unit D	Unit E	Unit A	Unit B	Unit C	Unit D	Unit E	min. data	rated data	max. data	min. data	rated data	max. Data	min. data	rated data	max. Data	rated capacity	
BI (1x2)	7	18	—	—	—	2.30	5.50	—	—	—	1.20	7.80	7.50	0.50	2.95	4.00	2.15	12.64	18.10	2.64	E
	7	22	—	—	—	2.30	7.00	—	—	—	1.20	9.30	9.30	0.50	2.95	4.00	2.15	12.64	18.10	3.15	C
	9	18	—	—	—	2.90	5.50	—	—	—	1.20	8.40	8.40	0.50	3.00	4.00	2.15	12.87	18.10	2.80	E
	9	22	—	—	—	2.90	7.00	—	—	—	1.20	9.90	9.90	0.50	3.00	4.00	2.15	12.87	18.10	3.30	C
	12	14	—	—	—	3.80	4.60	—	—	—	1.20	8.40	7.30	0.50	3.00	4.00	2.15	12.87	18.10	2.80	E
	12	18	—	—	—	3.80	5.50	—	—	—	1.20	9.30	8.20	0.50	3.30	4.00	2.15	14.64	18.10	2.82	D
	12	22	—	—	—	3.80	7.00	—	—	—	1.20	10.80	10.80	0.50	3.30	4.00	2.15	14.64	18.10	3.27	C
	14	14	—	—	—	4.60	4.60	—	—	—	1.20	9.20	9.20	0.50	3.30	4.00	2.15	14.64	18.10	2.79	E
	14	18	—	—	—	4.60	5.50	—	—	—	1.20	10.10	8.20	0.50	3.45	4.00	2.15	15.53	18.10	2.93	D
	14	22	—	—	—	4.40	6.60	—	—	—	1.20	11.00	11.50	0.50	3.45	4.00	2.15	15.53	18.10	3.19	C
	18	18	—	—	—	5.50	5.50	—	—	—	1.20	11.00	9.10	0.50	3.45	4.00	2.15	15.53	18.10	3.19	C
	18	22	—	—	—	4.80	6.20	—	—	—	1.20	11.00	11.50	0.50	3.45	4.00	2.15	15.53	18.10	3.19	C
TRI (1x3)	7	7	12	—	—	2.30	2.30	3.80	—	—	1.20	8.40	10.20	0.55	2.95	4.00	2.50	13.75	18.10	2.85	D
	7	7	14	—	—	2.30	2.30	4.60	—	—	1.20	9.20	10.20	0.55	2.90	4.00	2.50	14.20	18.10	3.17	C
	7	7	18	—	—	2.30	2.30	5.50	—	—	1.20	10.10	10.50	0.55	2.95	4.00	2.50	14.42	18.10	3.42	B
	7	7	22	—	—	2.20	2.20	6.60	—	—	1.50	11.00	11.50	0.55	2.95	4.00	2.50	14.42	18.10	3.73	A
	7	9	9	—	—	2.30	2.90	2.90	—	—	1.20	8.10	11.00	0.55	2.95	4.00	2.50	13.75	18.10	2.75	E
	7	9	12	—	—	2.30	2.90	3.80	—	—	1.50	9.00	7.80	0.55	2.95	4.00	2.50	13.75	18.10	3.05	C
	7	9	14	—	—	2.30	2.90	4.60	—	—	1.50	9.80	8.40	0.55	3.00	4.00	2.50	13.98	18.10	3.27	C
	7	9	18	—	—	2.30	2.90	5.50	—	—	1.50	10.70	9.30	0.55	3.05	4.00	2.50	15.08	18.10	3.51	B
	7	9	22	—	—	2.10	2.60	6.30	—	—	1.50	11.00	11.50	0.55	3.05	4.00	2.50	15.08	18.10	3.61	A
	7	12	12	—	—	2.30	3.80	3.80	—	—	1.50	9.90	10.20	0.55	2.95	4.00	2.50	15.08	18.10	3.36	C
	7	12	14	—	—	2.30	3.80	4.60	—	—	1.50	10.70	10.50	0.55	3.00	4.00	2.50	15.08	18.10	3.57	B
	7	12	18	—	—	2.10	3.60	5.30	—	—	1.50	11.00	10.50	0.55	3.05	4.00	2.50	15.08	18.10	3.61	A
	7	12	22	—	—	1.95	3.20	5.85	—	—	1.50	11.00	11.50	0.55	3.05	4.00	2.50	15.08	18.10	3.61	A
	9	9	9	—	—	2.90	2.90	2.90	—	—	1.50	8.70	10.80	0.55	3.00	4.00	2.50	15.08	18.10	2.90	D
	9	9	12	—	—	2.90	2.90	3.80	—	—	1.50	9.60	11.00	0.55	3.05	4.00	2.50	15.08	18.10	3.15	C
	9	9	14	—	—	2.90	2.90	4.60	—	—	1.50	10.40	11.00	0.55	3.10	4.00	2.50	14.86	18.10	3.35	C
	9	9	18	—	—	2.80	2.80	5.40	—	—	1.50	11.00	11.00	0.55	3.10	4.00	2.50	14.86	18.10	3.55	B
	9	9	22	—	—	2.50	2.50	6.00	—	—	1.50	11.00	11.50	0.55	3.10	4.00	2.50	14.86	18.10	3.55	B
	9	12	12	—	—	2.90	3.80	3.80	—	—	1.50	10.50	11.00	0.55	3.05	4.00	2.50	15.08	18.10	3.44	B
	9	12	14	—	—	2.70	3.80	4.50	—	—	1.50	11.00	11.00	0.55	3.10	4.00	2.50	15.00	18.10	3.55	B
	9	12	18	—	—	2.55	3.55	4.90	—	—	1.50	11.00	10.50	0.55	3.15	4.00	2.50	15.00	18.10	3.49	B
	9	12	22	—	—	2.30	3.10	5.60	—	—	1.50	11.00	11.50	0.55	3.15	4.00	2.50	15.00	18.10	3.49	B
	12	12	12	—	—	3.66	3.66	3.66	—	—	1.50	11.00	11.50	0.55	3.45	4.00	2.50	15.08	18.10	3.19	C
	12	12	14	—	—	3.45	3.45	4.10	—	—	1.50	11.00	11.50	0.55	3.40	4.00	2.50	15.00	18.10	3.24	C
	12	12	18	—	—	3.20	3.20	4.60	—	—	1.50	11.00	11.50	0.55	3.40	4.00	2.50	15.00	18.10	3.24	C
QUADRI(1x4)	7	7	7	7	—	2.30	2.30	2.30	2.30	—	1.50	9.20	11.50	0.65	3.25	4.00	2.85	14.42	18.10	2.83	D
	7	7	7	9	—	2.30	2.30	2.30	2.90	—	1.50	9.80	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.02	C
	7	7	7	12	—	2.30	2.30	2.30	3.80	—	1.80	10.70	10.50	0.65	3.25	4.00	2.85	14.42	18.10	3.29	C
	7	7	7	14	—	2.20	2.20	2.20	4.40	—	1.80	11.00	10.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	7	18	—	2.05	2.05	2.05	4.85	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	7	22	—	1.80	1.80	1.80	5.60	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	9	9	—	2.30	2.30	2.90	2.90	—	1.80	10.40	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.20	C
	7	7	9	12	—	2.25	2.25	2.85	3.65	—	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	7	9	14	—	2.10	2.10	2.65	4.15	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	9	18	—	1.95	1.95	2.35	4.75	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	9	22	—	1.75	1.75	2.20	5.30	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	12	12	—	2.00	2.00	3.50	3.50	—	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	7	12	14	—	1.90	1.90	3.30	3.90	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	7	12	18	—	1.75	1.75	3.10	4.40	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	7	9	9	9	—	2.30	2.90	2.90	2.90	—	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	9	12	—	2.10	2.65	2.65	3.60	—	1.80	11.00	11.50	0.65	3.28	4.00	2.85	14.55	18.10	3.35	C
	7	9	9	14	—	2.00	2.50	2.50	4.00	—	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	9	18	—	1.85	2.30	2.30	4.55	—	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	12	12	—	2.00	2.30	3.35	3.35	—	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	7	9	12	14	—	1.80	2.25	3.20	3.75	—	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	7	9	12	18	—	1.70	2.15	2.95	4.20	—	1.80	11.00	11.50	0.65	3.20	4.00	2.85	14.20	18.10	3.44	B
	7	12	12	12	—	1.70	3.10	3.10	3.10	—	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	7	12	12	14	—	1.70	3.00	3.00	3.30	—	1.80	11.00	11.50	0.65	3.22	4.00	2.85	14.29	18.10	3.42	B
	9	9	9	9	—	2.75	2.75	2.75	2.75	—	1.80	11.00	11.50	0.65	3.30	4.00	2.85	14.64	18.10	3.33	C
	9	9	9	12	—	2.55	2.55	2.55	3.35	—	1.80	11.00	11.50	0.65	3.25	4.00	2.85	14.42	18.10	3.38	C
	9	9	9	14	—	2.35	2.35	2.35	3.95	—	1.80	11.00	11.50	0.65	3.24	4.00	2.85	14.37	18.10	3.40	C
	9	9	9	18	—	2.20	2.20	2.20	4.40	—	1.80	11.00	11.50	0.65	3.23	4.00	2.85	14.33	18.10	3.41	B
	9	9	12	12	—	2.30	2.30	3.20	3.20	—	1.80	11.00	11.50	0.65	3.20	4.00	2.85	14.20	18.10	3.44	B
	9	9	12	14	—	2.20	2.20	3.00	3.60	—	1.80	11.00	11.50	0.65	3.17	4.00	2.85	14.06	18.10	3.47	B
	9	9	12	18	—	2.05	2.05	2.85	4.05	—	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B
	9	12	12	12	—	2.00	3.00	3.00	3.00	—	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B
	9	12	12	14	—	2.00	2.75	2.75	3.50	—	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B
	12	12	12	12	—	2.75	2.75	2.75	2.75	—	1.80	11.00	11.50	0.65	3.15	4.00	2.85	13.98	18.10	3.49	B
Quintuple(1×5)	7	7	7	7	7	2.20	2.20	2.20	2.20	2.20	2.10	11.00	11.50	0.70	3.30	4.00	2.85	13.98	18.10	3.33	C
	7	7	7	7	9	2.09	2.09	2.09	2.09	2.64	2.10	11.00	11.50	0.70	3.29	4.00	2.85	13.98	18.10	3.34	C
	7	7	7	7	12	1.95	1.95	1.95	1.95	3.22	2.10	11.00	11.50	0.70	3.28	4.00	2.85	13.98	18.10	3.35	C
	7	7	7	7	14	1.83	1.83	1.83	1.83	3.67	2.10	11.00	11.50	0.70	3.26	4.00	2.85	13.98	18.10	3.37	C
	7	7	7	7	18	1.72	1.72	1.72	1.72	4.12	2.10	11.00	11.50	0.70	3.24	4.00	2.85	13.98	18.10	3.40	C
	7	7	7	9	9	1.99	1.99	1.99	2.51	2.51	2.10	11.00	11.50	0.70	3.28	4.00	2.85	13.98	18.10	3.35	C
	7	7	7	9	12	1.86	1.86	1.86	2.35	3.07	2.10	11.00	11.50	0.70	3.27	4.00	2.85	13.98	18.10	3.36	C
	7	7	7	9	14	1.76	1.76	1.76	2.22	3.51	2.10	11.00	11.50	0.70	3.26	4.00	2.85	13.98	18.10	3.37	C
	7	7	7	9	18	1.65	1.65	1.65	2.08	3.95	2.10	11.00	11.50	0.70	3.24	4.00	2.85	13.98	18.10	3.40	C
	7	7	7	12	12	1.74	1.74	1.74	2.88	2.88	2.10	11.00	11.50	0.70	3.28	4.00	2.85	13.98	18.10	3.35	C
	7	7	7	12	14	1.65	1.65	1.65	2.73	3.31	2.10	11.00	11.50	0.70	3.26	4.00	2.85	13.98	18.10	3.37	C
	7	7	9	9	9	1.90	1.90	2.40	2.40	2.40	2.10	11.00	11.50	0.70	3.25	4.00	2.85	13.98	18.10	3.38	C
	7	7	9	9	12	1.78	1.78	2.25	2.25	2.94	2.10	11.00	11.50	0.70	3.29	4.00	2.85	13.98	18.10	3.34	C
	7	7	9	9	14	1.69	1.69	2.13	2.13	3.37	2.10	11.00	11.50	0.70	3.27	4.00	2.85	13.98	18.10	3.36	C
	7	7	9	12	12	1.68	1.68	2.11	2.77	2.77	2.10	11.00	11.50	0.70	3.30	4.00	2.85	13.98	18.10	3.33	C
	7	9	9	9	9	1.82	2.29	2.29	2.29	2.29	2.10	11.00	11.50	0.70	3.30	4.00	2.85	13.98	18.10	3.33	C
	7	9	9	9	12	1.71	2.16	2.16	2.16	2.82	2.10	11.00	11.50	0.70	3.28	4.00	2.85	13.98	18.10	3.35	C
	7	9	9	9	14	1.62	2.04	2.04	2.04	3.24	2.10	11.00	11.50	0.70	3.26	4.00	2.85	13.98	18.10	3.37	C
	9	9	9	9	9	2.20	2.20	2.20	2.20	2.20	2.10	11.00	11.50	0.70	3.25	4.00	2.85	13.98	18.10	3.38	C
	9	9	9	9	12	2.07	2.07	2.07	2.07	2.71	2.10	11.00	11.50	0.70	3.25	4.00	2.85	13.98	18.10	3.38	C

4.2. Wiring connection

AU18-222XFERA





Power supply cable: H05RN-F 3G 4.0mm²

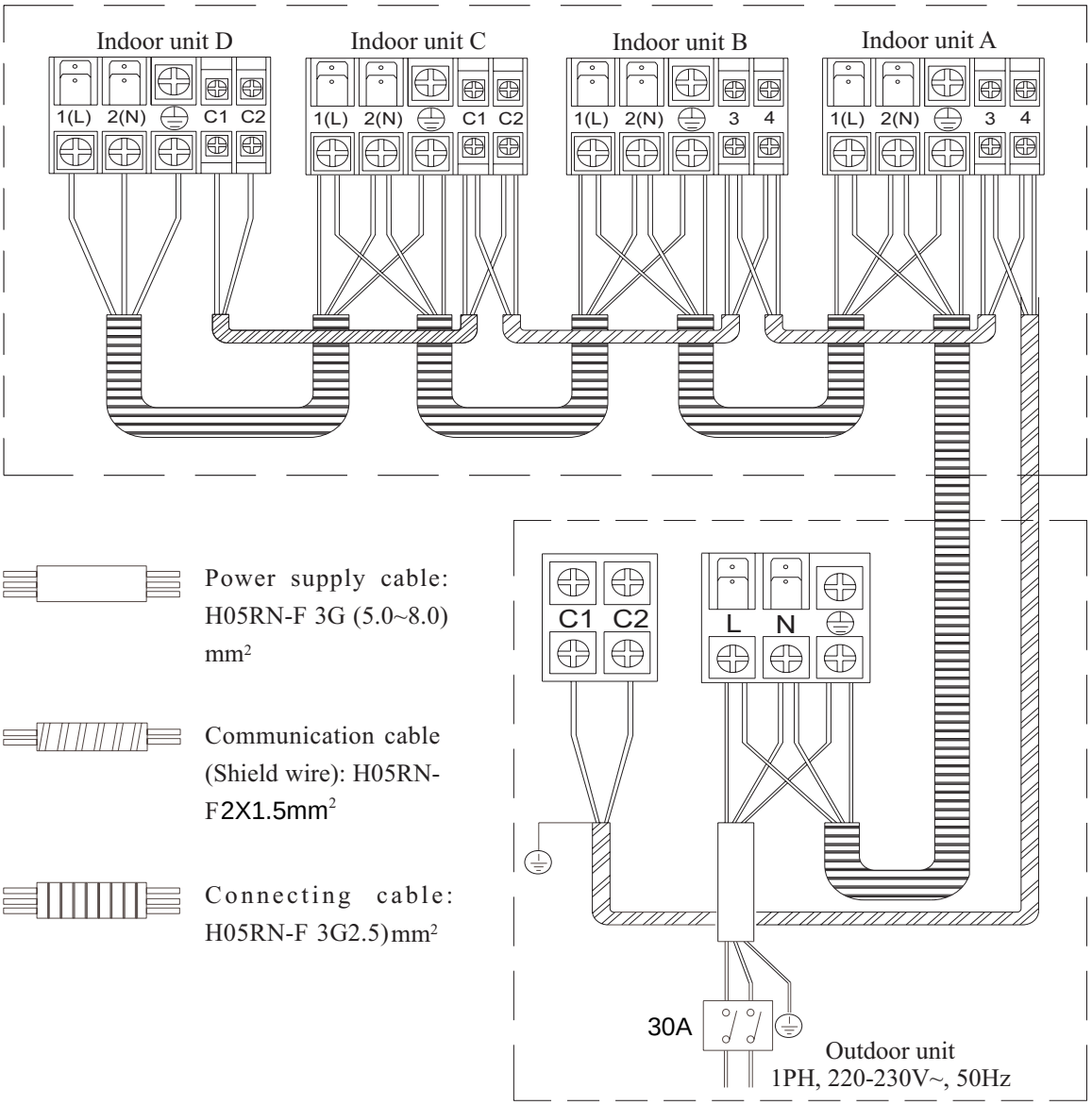
Communication cable (Shield wire): H05RN-F 2X1.5mm²

Connecting cable : H05RN-F 3G 2.5mm²

- Please refer to the indoor unit installation manual to find detailly how to set and check the communication address.
- Incorrect address setting will cause abnormal to the system.

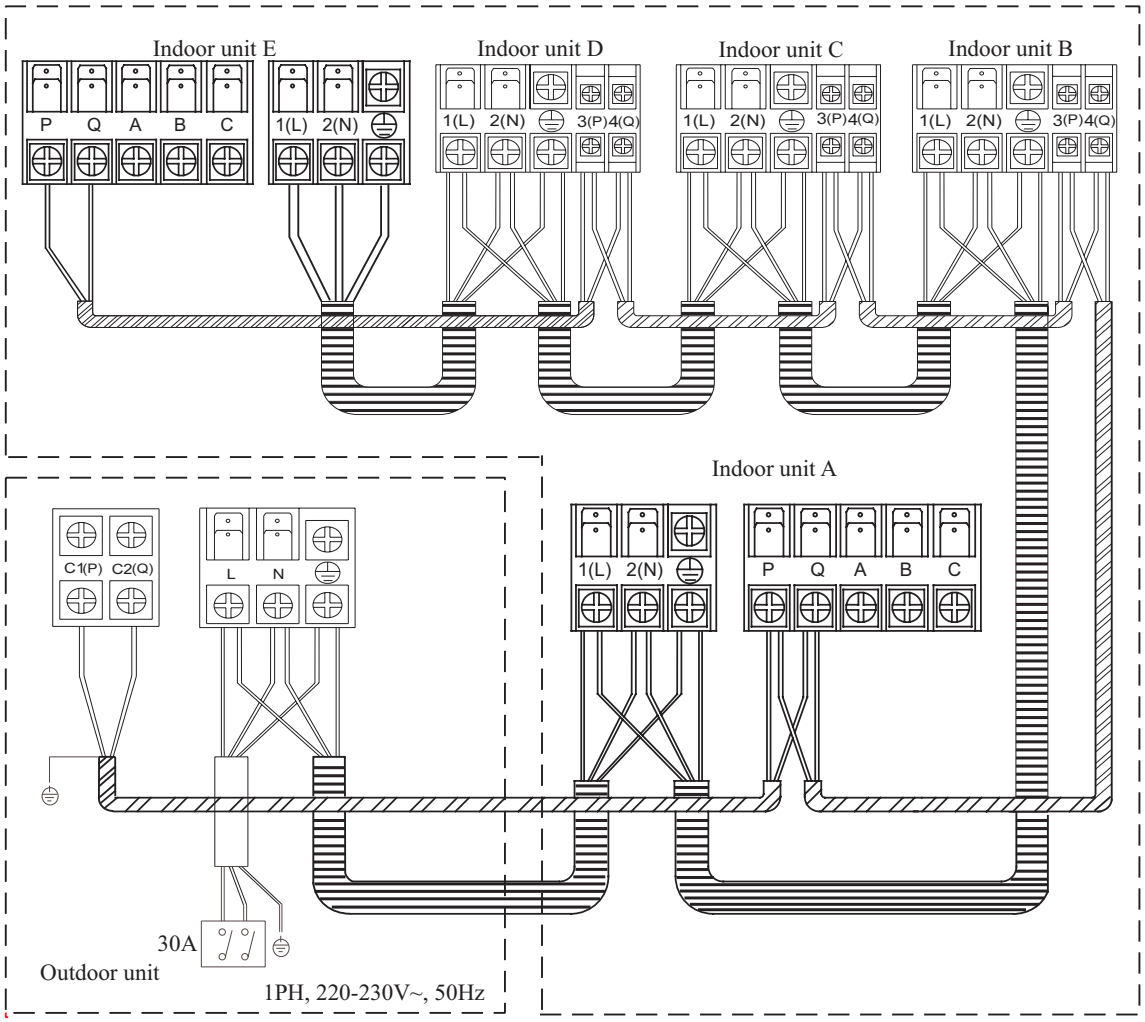
AU25-342X*ERA

Example wiring diagram.



- Please refer to the indoor unit installation manual to find detailly how to set and check the communication address.
- Incorrect address setting will cause abnormal to the system.

AU362XHERA:

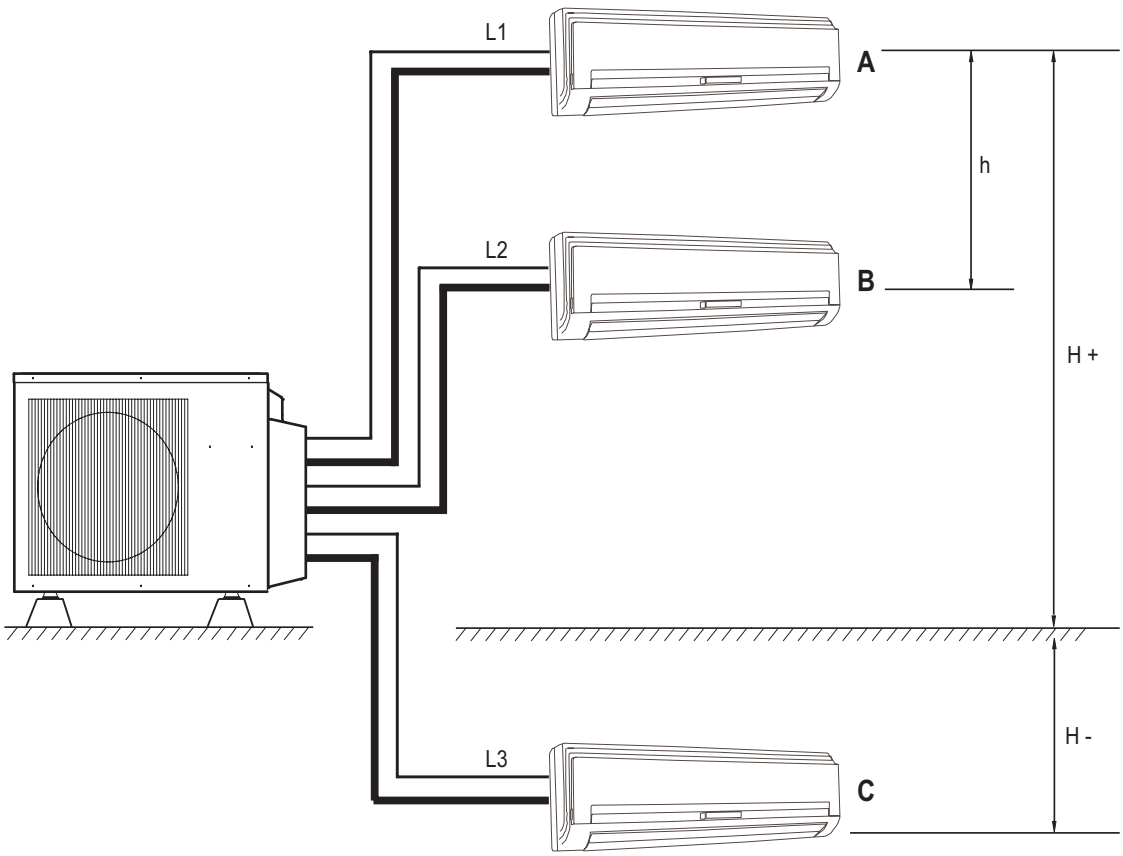


Power supply cable:	Communication cable (Shield wire):	Connecting cable:
H05RN-F 3G (5.0~8.0)mm²	H05RN-F 2 X 1.5mm²	H05RN-F 3G 2.5mm²

- Please refer to the indoor unit installation manual to find detailly how to set and check the communication address.
- Incorrect address setting will cause abnormal to the system.

4.3 AU182XFERA,AU222XFERA limitations on the installation

Limitations values on the piping work .

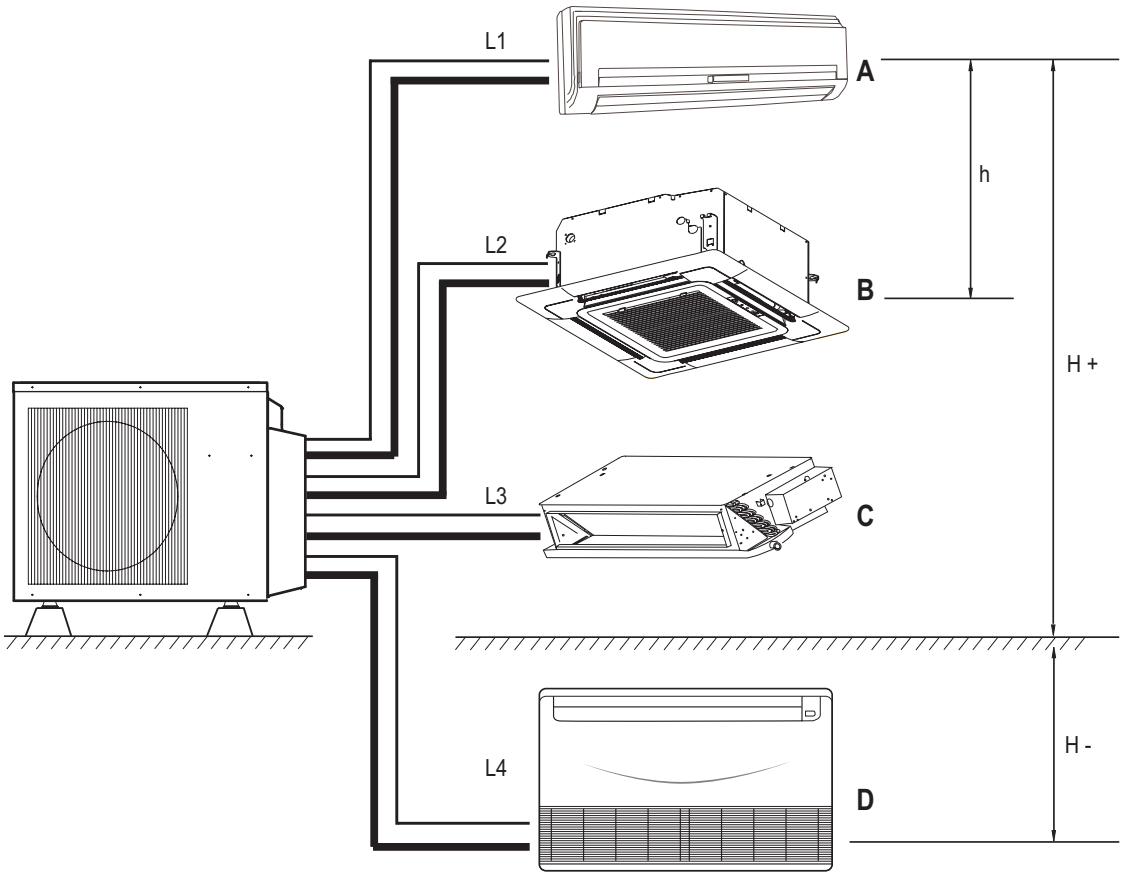


The piping length information, please refer the following table.

Item	Unit	Descriptions	Standard	Maximum
A, B, Cliquid pipe	mm	Size of the liquid side connection pipe	∅6.35	/
A, B, C Gas pipe	mm	Size of the gas side connection pipe	∅9.52	/
L1 (one way)	m	Pipe length when the compressor connects with two indoor units	≤10	≤25
L2 (one way)	m	Pipe length when the compressor connects with two indoor units	≤10	≤25
L3 (one way)	m	Pipe length when the compressor connects only one indoor unit	≤10	≤25
L1+L2+L3	m	Total liquid piping length	≤30	≤45
h	m	Drop between every two indoor units	≤1	≤5
H +	m	Drop between the outdoor unit and the indoor unit	≤5	≤15
H -	m	Drop between the outdoor unit and the indoor unit	≤5	≤10

AU28-342XHERA

Limitations values on the piping work .

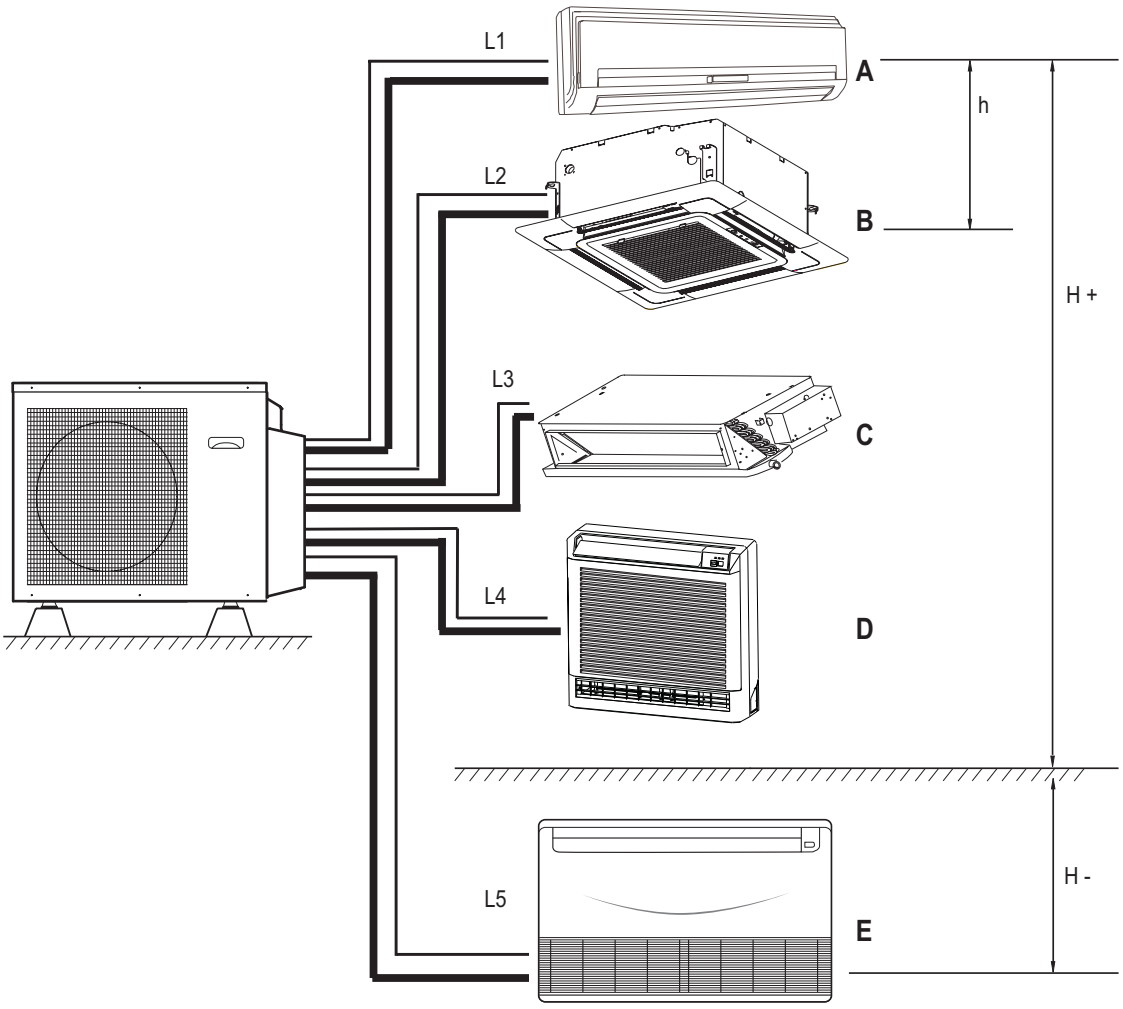


The piping length information, please refer the following table.

Item	Unit	Descriptions	Standard	Maximum
A, B, C,D liquid pipe	mm	Size of the liquid side connection pipe	∅6.35	/
A, B, C,D Gas pipe	mm	Size of the gas side connection pipe	∅9.52	/
L1 (one way)	m	Pipe length when the compressor connects with two indoor units	≤10	≤25
L2 (one way)	m	Pipe length when the compressor connects with two indoor units	≤10	≤25
L3 (one way)	m	Pipe length when the compressor connects only one indoor unit	≤10	≤25
L4 (one way)	m	Pipe length when the compressor connects only one indoor unit	≤10	≤25
L1+L2+L3+L4	m	Total liquid piping length(It is no need to charge additional refrigerant within this value)	≤40	≤60
h	m	Drop between every two indoor units	≤ 1	≤ 5
H +	m	Drop between the outdoor unit and the indoor unit	≤ 5	≤15
H -	m	Drop between the outdoor unit and the indoor unit	≤ 5	≤10

AU362XHERA

Limitations values on the piping work .



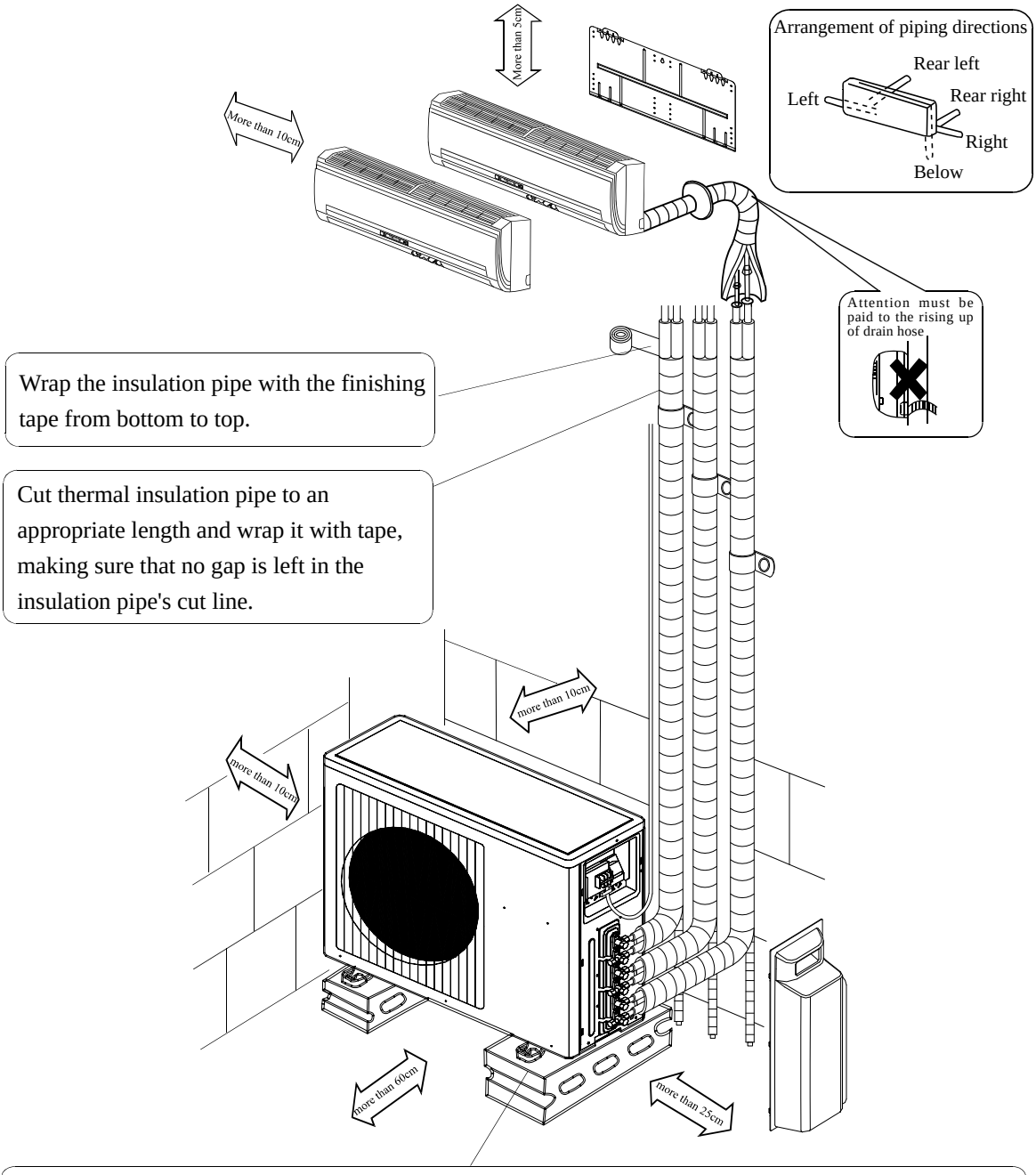
The piping length information, please refer the following table.

Item	Unit	Descriptions	Standard	Max
A, B, C, D, E liquid pipe	mm	Size of the liquid side connection pipe	∅6.35 ∅9.52(only AS222XVERA)	/
A, B, C, D,E Gas pipe	mm	Size of the gas side connection pipe	∅9.52 ∅12.7(only AS182XVERA) ∅15.88(only AS222XVERA)	/
L1* (one way)	m	Conneting pipe length	≤10	≤25
L2 (one way)	m	Conneting pipe length	≤10	≤25
L3 (one way)	m	Conneting pipe length	≤10	≤25
L4 (one way)	m	Conneting pipe length	≤10	≤25
L5 (one way)	m	Conneting pipe length	≤10	≤25
L1*+L2+L3+L4+L5	m	1. Total liquid piping length(It is no need to charge additional refrigerant within this value) 2. Equivalent pipe length confirmation: when liquid pipe is ∅ 6.35, 1xL1* when liquid pipe is ∅ 9.52, 2xL1*	≤40	≤60
h	m	Drop between every two indoor units	≤ 1	≤ 5
H +	m	Drop between the outdoor unit and the indoor unit	≤ 5	≤15
H -	m	Drop between the outdoor unit and the indoor unit	≤ 5	≤10

4.4 Outdoor units installation

Installation drawings of indoor and outdoor units

1. Do not connected the embedded branch piping and the outdoor unit when only carrying out piping work without connecting the indoor unit in ordor to add another indoor unit later. Make sure no dirt or mositure gets into eigher side of the embedded branch piping.
2.It is impossible to connect the indoor unit for one room only. Be sure to connect at least 2 rooms.



If there is the danger of the unit falling or overturning, fix the unit with foundation bolts, or with wire or other means.
If the location does not have good drainage, place the unit on a level mounting base(or a plastic pedestal). Install the outdoor unit in a level position. Failure to do so may result in water leakage or accumulation.

■ Refrigerant piping work

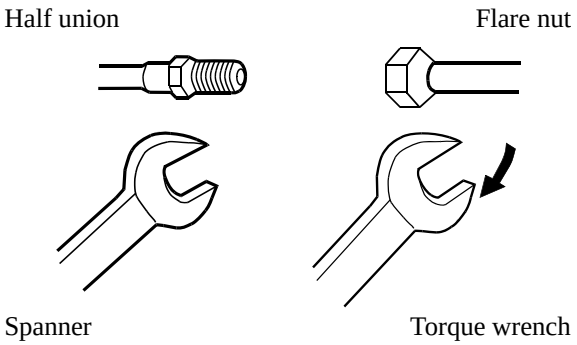
1. Selection of pipe

- To this unit, both liquid and gas pipes shall be insulated as they become low temperature in operation.
- Use optional parts for piping set or pipes covered with equivalent insulation material.

Liquid pipe	∅6.35mm (1/4") x 0.8mm
Gas pipe	∅9.52mm (3/8") x 0.8mm

2. Connection of pipe

- Apply refrigerant oil on half union and flare nut.
- To bend a pipe, give the roundness as large as possible not to crush the pipe.
- Connecting the pipe of gas side firstly makes working easier.

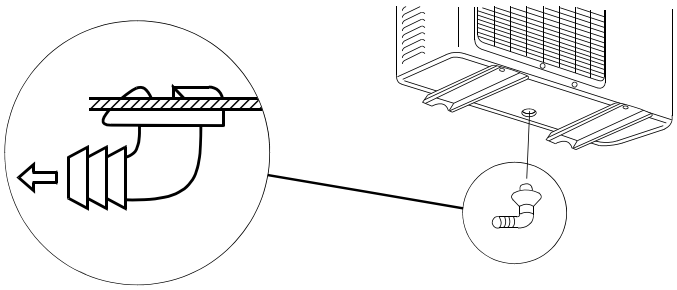


Forced fastening without careful centering may damage the threads and cause a leakage of gas.

Pipe Diameter (∅)	Fastening Torque
Liquid Side 6.35mm (1/4")	18N.m
Gas Side 9.52mm (3/8")	50N.m

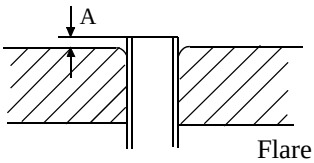
3. Attaching Drain-Elbow

- If the drain-elbow is used, please attach it as figure.



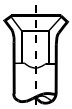
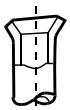
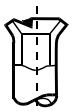
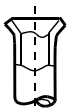
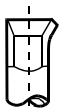
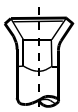
4.Cutting and Flaring work of piping

- Pipe cutting is carried out with a pipe cutter and burs must be removed.
  After inserting the flare nut, flaring work is carried out.



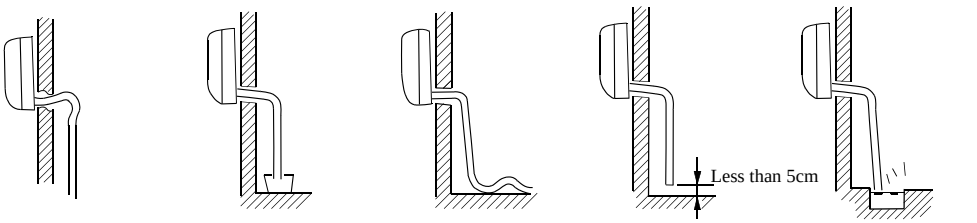
Flare tooling die

	Pipe diameter ϕ	Size A (mm)
Liquid side	6.35mm(1/4")	0.8~1.5
Gas side	9.52mm(3/8")	1.0~1.5

Correct	Incorrect				
					
	Lean	Damage of flare	Crack	Partial	Too outside

5.On drainage

- Please install the drain hose so as to be downward slope without fail.
- Please don't do the drainage as shown below.

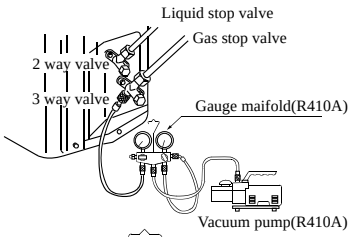


It becomes high midway. The end is immersed in water It waves. It gap with the ground ts too small. There is the bad smell from a ditch.

- Please pour water in the drain pan of the indoor unit, and confirm that drainage is carried out serely to outdoor.
- In case that the attached drain hose is in a room, please apply heat insulation to it without fail.

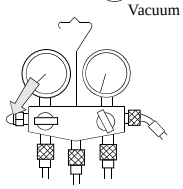
■ Purging method: to use vacuum pump

①.Detach the service portis cap of 3-way valve, the valve rod's cap for 2-way valve and 3-way valves, connect the service port into the projection of charge hose (low) for gaugemanifold. Then connect the projection of charge hose (center) for gaugemanifold into vacuum pump.



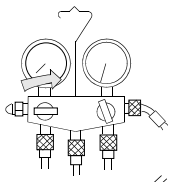
②.Open the handle at low in gaugemanifold, operate vacuum pump. If the scale-moves of gause (low) reach vacuum condition in a moment, check ① again.

②Open

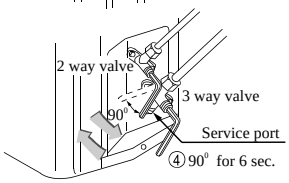


③.Vacuumize for over 15min. And check the level gauge which should read -0.1MPa (-76 cm Hg) at low pressure side. After the completion of vacuumizing, close the handle 'Lo' in the vacuum pump. Check the condition of the scale and hold it for 1-2min. If the scale-moves back in spite of tightening, make flaring work again, then return to the beginning of ③.

③Close



④.Open the valve rod for the 2-way valve to and an angle of anticlockwise 90 degree. After 6 seconds, close the 2-way valve and make the inspection of gas leakge.

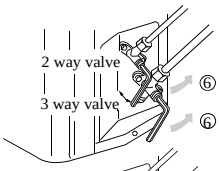


⑤.No gas leakage?

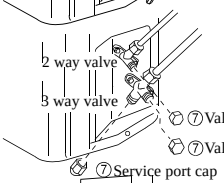
In case of gas leakage, tighten parts of pipe connection. If leakage stops, then proceed ⑥ steps.

If it does not stop gas leakage, discharge whole refrigerants from the service port. After flaring work again and vacuumize, fill up prescribed refrigerant from the gas cylinder.

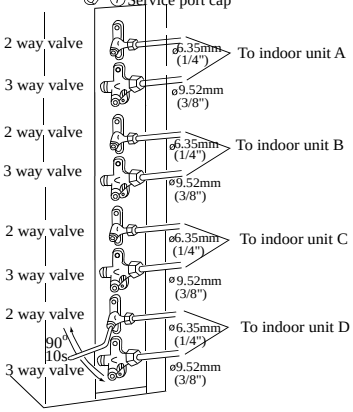
⑥.Detach the charge hose from the service port, open 2-way valve and 3-way. Turn the valve rod anticlockwise until hitting lightly.



⑦.To prevent the gas leakage, turn the service ports cap, the valve rodis cap for 2-way valve and 3-way's a little more than the point where the torque increases suddenly.



⑧.Take the same steps from ① to ⑦ for each ways to ensure a completely vacuum for the whole system.



CAUTION: If the refrigerant of the air conditioner leaks, it is necessary to make all the refrigerant out. Vacuumize first, then charge the liquid refrigerant into air conditioner according to the amount marked on the name plate.

■ Wiring work

1. Electric wiring

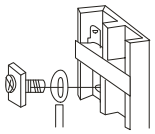
Note:

- The air conditioner must use special circuit , and wiring by the qualified electrician according to the wiring rules specified in national standard.
- The grounding wire and the neutral wire shall be strictly separated. Connect the neutral wire with grounding wire is incorrect.
- The electric leakage breaker must be installed.
- All the electric wire must be copper wire.When wiring,there shall keep a proper distance between the power line and communication wire to avoid twist together. Otherwise,signal disturbance will occur,and the air conditioner can not operate normally. Power supply: 1PH, 220-230V~, 50Hz.
- The wiring method of power line is Y connection. If the power line is damaged, in order to avoid risk of electric shock, it must be replaced by the manufacturer or its repair center or other similar qualified person.The connecting cable must be shielded.
- Fuse: T3.15A 250VAC T25A 250VAC (Please check with the outdoor unit wiring diagram.)
- Please check the circuit diagram about the fuse replaced.

2. Wiring method

- Wiring method of orbicular terminals

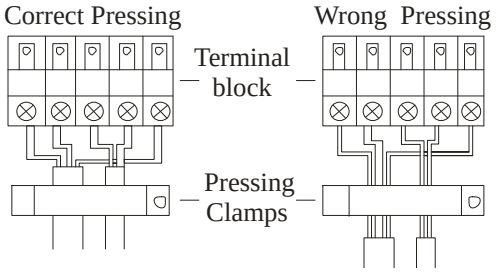
  For the connection wire with orbicular terminals, its wiring method is as shown in the right figure: remove the connecting screw, put the screw through the ring on the end of the wire, then connect to the terminal block and fasten screw.



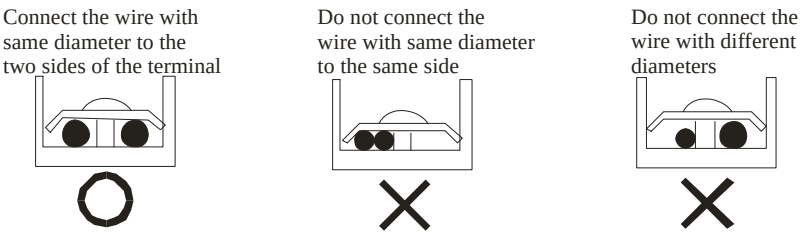
Wiring Method for Ring Terminal Block

- Wiring method of straight terminals

  For the connection wire without orbicular terminals, its wiring method is: loosen the connection screw, and insert the end of the connection wire completely into the Terminal block, then fasten the screw. Slightly pull the wire outwards to confirm it is firmly held.



- Crimp connection method for wires without terminals



■ Wiring work

Crimp connection method for connection wire

After connection,the wire must be fastened by wire cover. The wire cover shall press on the protection coat of the connection wire,as shown in right top figure.

Note:When connecting the wiring,confirm the terminal number of indoor and outdoor units carefully. Incorrect wiring will damage the controller of air conditioner or the unit can not operate.

3. Wiring method of outdoor unit:

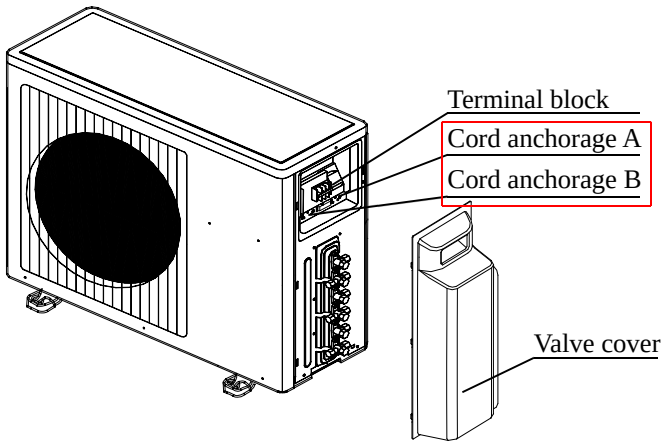
- Power line

  Remove the repair board of the outdoor unit and loosen the wire cover A,then put the live wire, neutral wire and grounding wire through the wire cover ,and connect them to terminal block correspon dingly. After connection, fasten wire cover to its previous state.

- Communication wire of indoor unit.

  Loosen wire cover , put the communication wire through the wire cover B, and connect them to terminal block correspondingly. After connection, fasten wire cover B to its previous state.

  Note: Power line and communication wire are provided by consumers themselves.



4. Wiring method of indoor unit

Loosen wire cover and connect the power line and communication wire of indoor unit to the terminal correspondingly.

Note:

When connecting power line to power supply terminal, please pay attention to the following items:

- Do not connect the power line with different dimensions to the same connection wire end. Improper contact will cause heat generation.
- Do not connect the power line with different dimensions to the same grounding wire end. Improper contact will affect protection.
- Keep a proper distance between the communication wire and the power line. Otherwise, abnormal communication will occur because of disturbance. And also, the communication wires should be shielded wire, and the shield cover should be grounded on the outdoor unit.
- Do not connect the power line to the connecting end of communication wire. Incorrect connection will cause damage to the connected unit.

■ Test running

- Before starting the test running, please confirm the following works have been done successfully.
  1) Correct piping work;
  2) Correct wiring work;
  3) Correct match of indoor and outdoor unit;
  4) Proper recharge of refrigerant if needed;
  5) Correct indoor unit addresses setting.
- Make sure that all the stop valves are fully open.
- Check the voltage supplied to the outdoor and indoor units, please cinfirm that is 230V.
- Test running.

1) If the temperature is lower than 16 °C, it is impossible to test cooling with remote controller, and also when the temperature is higher than 30 °C, it is impossible to test heating.

2) To test cooling, set the lowest temperature at 16 °C. To test heating,set the highest temperature, at 30°C.

3) Please check both cooling and heating operation of each unit individually and then also check the simultaneous operation of all indoor units.

4) After ruuning the unit for about 20 minutes, check the indoor unit outlet temperature.

5) After the unit is stopped, or working mode changed, the system will not start again for about 3 minutes.

6) During cooling operation, frost may ocur on the indoor unit or pipes, this is normal.

7) Operate the unit according to the operation manual. Please kindly explain to our customers how to operate through the instruction manual.

■ Items to confirm

Check items for test run, put mark "✓ in ☐ ".

☐ Gas leakage from pipe connection?
☐ Heat insulation treatment of pipe connection?
☐ Are the connection wiring of indoor and outdoor unit firmly inserted into the terminal block?
☐ Is the connection wiring of indoor and outdoor firmly fixed?
☐ Is drainage securely arranged?
☐ Is the ground wire securely and firmly connected?
☐ Is power supply voltage abided by electric code?
☐ Is there any noise?
☐ Does cooling perform normally?
☐ Does room temperature regulator operate normally?

4.5. Cassette type AB***XCERA

Installation Tools

1.Installation tools

The installation tools listed in the following sheet can be used as required.

1. Screw driver
2. Hacksaw
3. Drill with a diameter of 60mm
4. Inner hexagon spanner,shifting spanner
5. Spanner (14, 17, 19,24,27mm)
6. Pipe cutter
7. Pipe expander
8. Knife
9. Pincers
10. Leakage detector or soapy water
11. Band tape
12. Scraper
13. Refrigerant oil

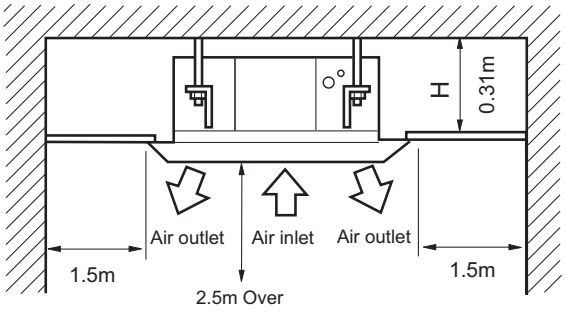
2.Accessories (factory provided)

Symbol	Parts Name
A	Adhesive tape
B	Pipe clamp
C	Connecting hose
D	Drainage hose
E	Non-hydroscopic heat insulating material
F	Gypsum powder

Installation Procedures

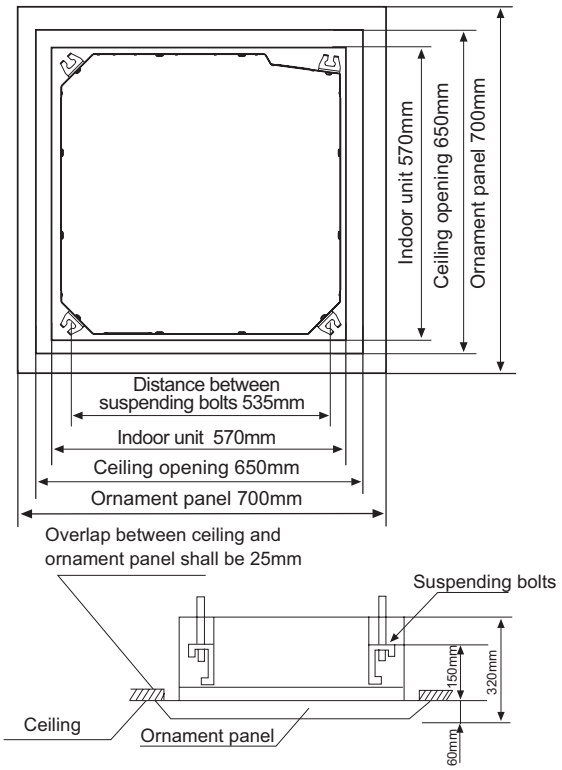
1.Selection of Installation Place

(1) Place above the ceiling where have enough space to arrange the unit.
(2) Place where the drainage pipe can be arranged well.
(3) Place where inlet and outlet air of indoor and outdoor unit will not be blocked.
(4) Do not expose the unit to the place with heavy oil or moisture (e.g.kitchen and workshop).
(5) Do not set the unit in the place where destructive gas (such as sulfuric acid gas) or pungent gas (thinner and gasoline) concentrates and retains.
(6) Place strong enough to support the unit weight.
(7) No expensive articles such as television and piano below indoor unit.
(8) Enough space for maintenance.
(9) Place more than 1m away from television and radio to avoid disturbing television and radio.
(10) Easy for maintenance.



2.Installation Preparation

(1) Position of ceiling opening between unit and suspending bolt (front view of unit).



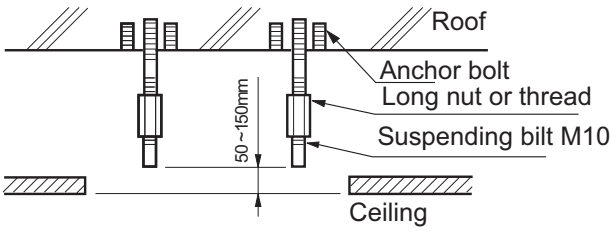
(2) Prepare all piping (refrigerant,water drainage)and wires (connection wire of remote controller, indoor unit connection wires) to the indoor unit before installation in order to connect indoor unit immediately after installation.

Installation Procedures

(3) Install a suspending bolt

To support the unit weight ,anchor bolt should be used in the case of already exists ceiling. Fow new ceiling, use flush-in type bolt, built-in type bolt or parts pretared in the field.
Before going on installing, adjust space to ceiling.

<Installation Example>



Note: All the above mentioned parts shall be prepared in feild, the diameter of suspending bolt is M10

3. Installation of indoor unit

In case of no ceiling
Install unit temporarily

Put suspending bracket on the suspending bolt to hang the unit up. Be sure to use nut and washer at both end of the breaket to secure firmly.

After installation on the ceiling

(1) Adjust unit to its right position (Refer to preparation for installation-(1))

(2)Check that unit is horizontal.

Water pump and floating switch is installed inside indoor unit,check four corners of the unit for its lever using horizontal comparator or PVC tube with water.(If unit is tilting against the direction of water drainage, problem may occur on floating water leakage.)

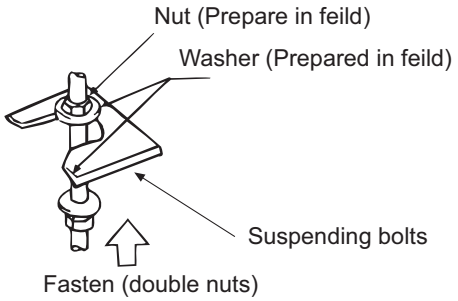
In the case of ceiling already exists

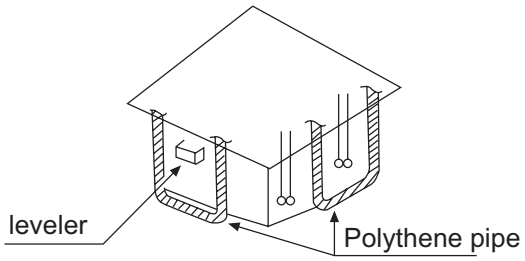
(1)Install unit temporarily

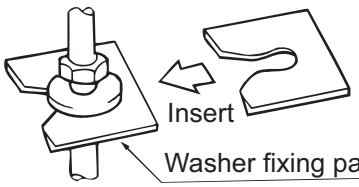
Put suspending bracket on the suspending bolt to hang the unit up.Be sure to use nut and washer at both end of the bracket to secure it firmly.

(2)Adjust the height and position of the unit.

(3)Proceed with procedure (4) of " In the case of no ceiling "





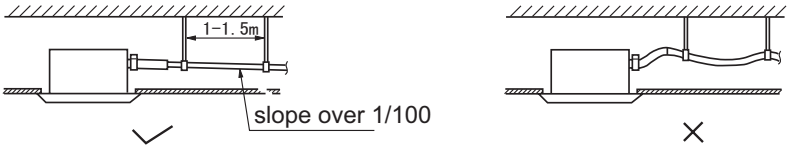


[secure the washer firmly]

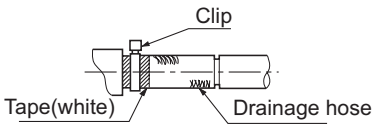
4. Installation of water drainage pipe

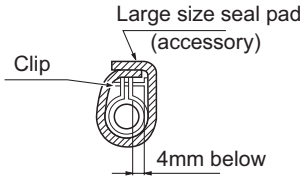
(1) Install water drainage pipe

- Pipe diameter shall be equal or larger than that of connecting pipe (Pipe of polythene; size:25mm; O.D.: 32mm)
- Drainpipe should be short, with a downward slope at least 1/100 to prevent air bag from forming.
- If downward slope of drainpipe cannot be made,lifting pipe shall be installed.
- Keep a distance of 1-1.5m between suspending bolts, to make water hose straight.



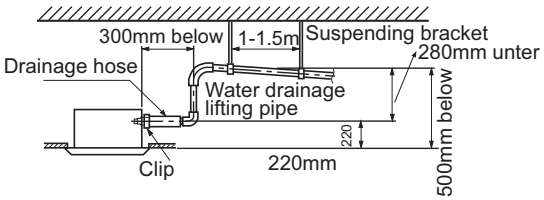
- Use the drainage hose and clip provided with unit.
  Insert water pipe into water plug until it reaches the white tape.
  Tighten the clip until head of the screw is less than 4mm from hose.
- Wind the drainage hose to the clip using seal pad for heat insulation.
- Insulate drainage hose in the room.

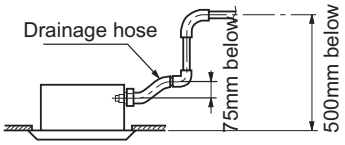




5. Cautions for the water drainage lifting pipe

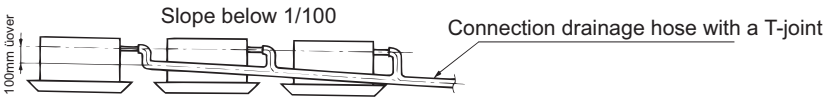
- Installation height of water drainage lifting pipe shall be less than 280mm
- There should be a right angle with unit ,300mm from unit.





< Note >

- The slope of water drainage hose shall be within 75mm , make the drainage plug not to bear excessive force.
- If several water hoses join together, of as per following procedures.



Specifications of the selected drainage hoses shall meet the requirements for the unit running

6. Installation of Ornament Panel

Install ornament panel on indoor unit

(1) Check whether indoor unit is horizontal with leveler or polythene pipe filled with water , and check that the dimension of the ceiling opening is correct. Take off the lever gauge before installing the ornament panel.

(2) Fasten the screws to make the height difference between the two sides of indoor unit less than 5mm.

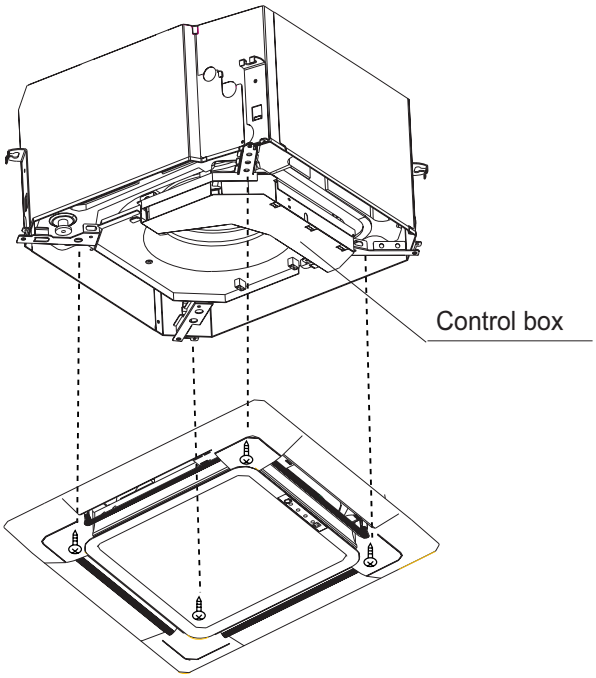
(3) First fix it with screws temporally.

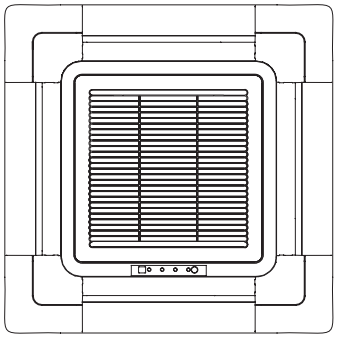
(4) Fasten the two temporally fixing screws and other two, and tighten the four screws.

(5) Connect the wires of synchro-motor.

(6) Connect the wire of signal.

(7) If no response of remote controller,check whether the wiring is correct,restart remote controller 10 seconds after shut off power supply.

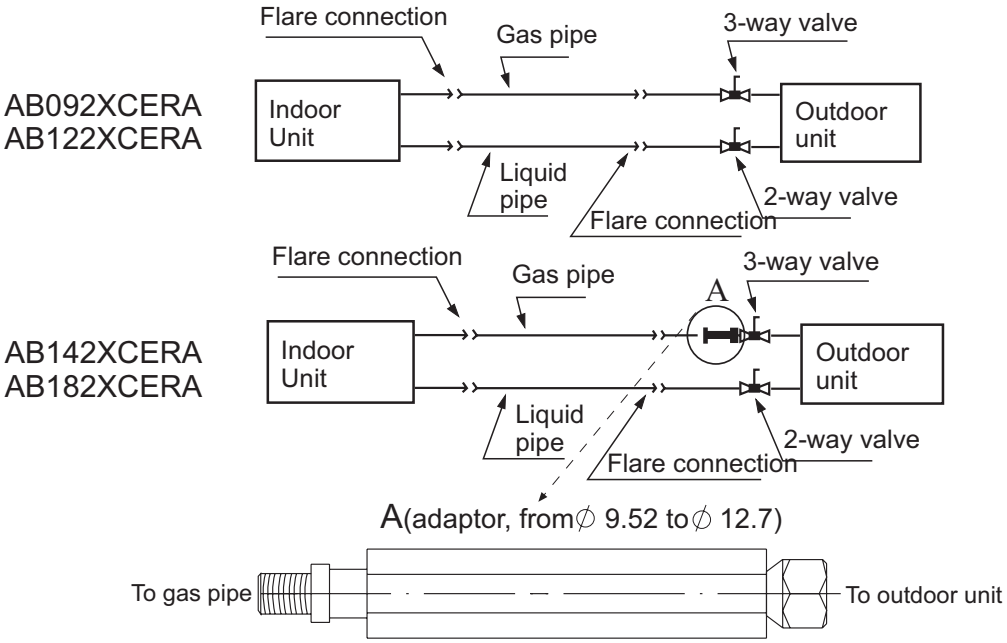




Limits of panel board installation

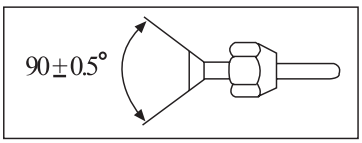
(1)Install the panel board in the direction shown in the figure.
(2)The incorrect direction will result in water leakage, meanwhile swing and signal receiving are not be connected successfully.

7. Piping Connection

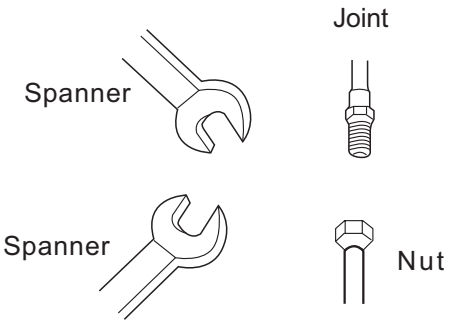


(1) Dimension of connecting pipe

AB092XCERA AB122XCERA	Gas pipe	∅ 9.52mm
	Liquid pipe	∅ 6.35mm
AB142XCERA AB182XCERA	Gas pipe	∅12.7mm
	Liquid pipe	∅ 6.35mm



- Fit the nut on and fasten



(2) The maximum length and drop height of connecting pipe

- The maximum length is 20m
- The maximum drop height is 10m.
- To ensure the efficiency ,Pipes shall be as short as possible.

Cautions for piping connection

- Do not twist or deform the connecting pipe.
- Do not mix dusts.
- The bending radius shall be as large as possible.
- Both gas pipe and liquid pipe shall be heat insulation.
- No leakage in the flare.

(3) Piping connection

- Connecting method

Smear refrigerant oil on the joints of piping and flare.
The bending radius shall be as large as possible.
Align the pipe center when fastening, and tighten the nut, as shown in the figure.
Pay attention to not mix foreign matters such as sands in.

Diameter of Pipe	Tighten Torque (N.m)
Liquid Pipe 6.35mm	11.8
Gas Pipe 9.52mm	50

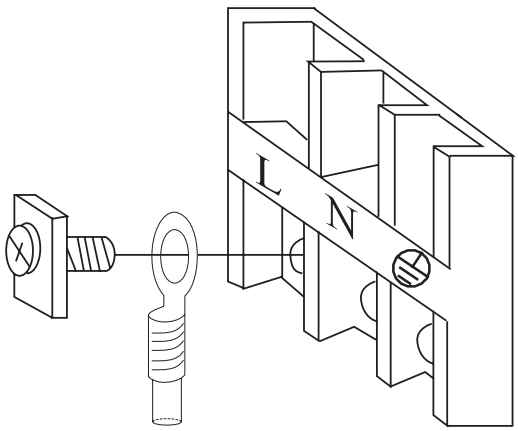
If not aligned ,tighten the nut by force will damage the nut that result in gas leakage

8.Electrical Wiring

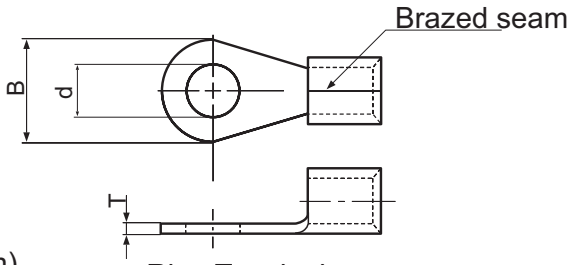
Wiring methods:

8.1 Wiring method of ring terminal

For connecting line whose end is a ring,its wiring method as shown in the right figure: remove wiring screw and pass it through the end ring of connecting line,then connect it to the terminal block and tighten screw.



Wiring method of ring terminal

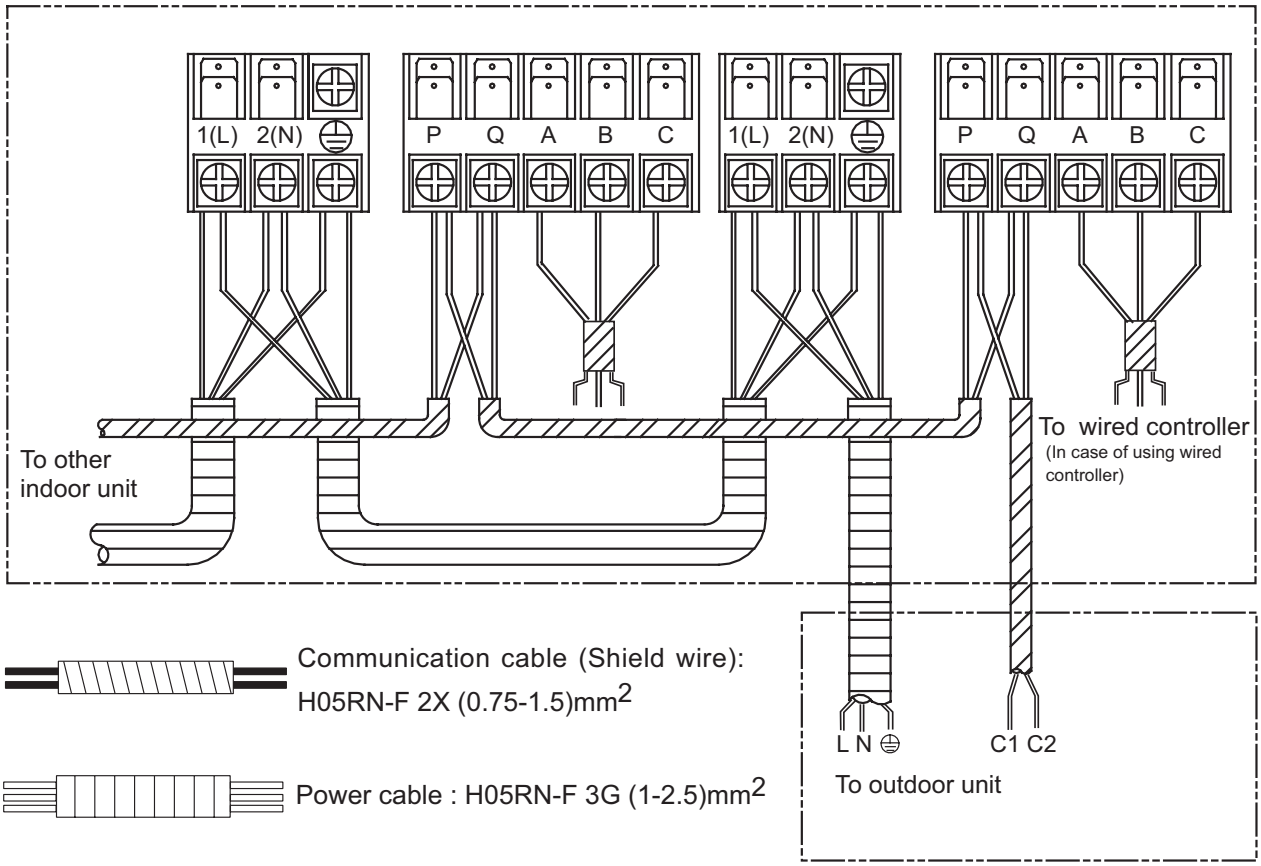


Ring Terminal

B=8.0-9.0(mm)
d=4.3-5.3(mm)
T=1.0-2.0(mm)
(For your reference)

8.2 Wiring of indoor unit

The distance between the signal wires and the power cabes should be at least 50mm.



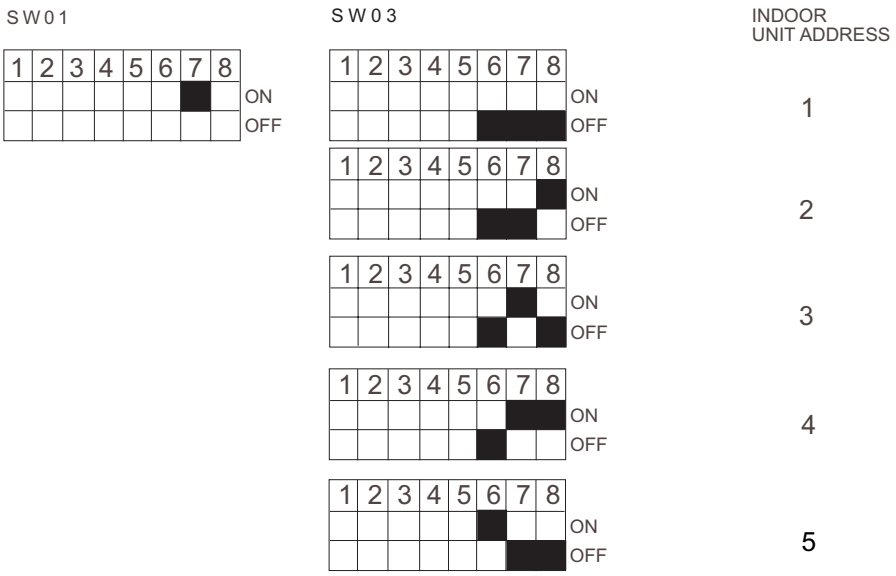
9. Indoor unit communication addresses setting

CAUTION! FAIL TO DO THIS, THE UNIT WILL NOT WORK.

1.There are two methods to set the communication address
A. Use the remote controller(default status in first installation).
B. Use dip switches on the indoor unit PCB.
2. Address setting procedure when using the remote controller.
A. Set the addresses only after the successful installation of the refrigerant pipes and connecting cables, and open all the stop valves;
B. Please confirm that the indoor units and the outdoor unit in the same system use the same power source;
C. Power on the units, but put all the indoor units in the status of STANDBY;
D. Please note that the address must be set as following:
Indoor unit that connect to valve A, the address must be 1;
Indoor unit that connect to valve B, the address must be 2;
Indoor unit that connect to valve C, the address must be 3;
Indoor unit that connect to valve D, the address must be 4;
Indoor unit that connect to valve E, the address must be 5
the LED board is blank.
E. Example: set unit A to address 1.
Continuously press the emergency switch for about 15 seconds, the buzzer will sound 4 times(PI PI PI PI) and then leave go of the switch. At this time, the indoor unit has entered the address setting procedure. But
F. Use the controller to turn on the indoor unit. At this time, the controller should be changed from OFF to ON, and then theTIMER LED flshes once. That is to say, the address setting is enabled.
G. Press the button"SLEEP " on the controller, the times you press it stands for the address you want to set, detailed as following:
Press button " SLEEP " once, the address is "1 ", and the TIMER LED flashes once;
Press button " SLEEP " twice, the address is " 2 ", and theTIMER LED flashes twice;

Press button " SLEEP " three times, the address is " 3 ", and the TIMER LED flashes three times;
Press button " SLEEP " four times, the address is " 4 ", and the TIMER LED flashes four times;
Press button " SLEEP " five times, the address is " 5 ", and the TIMER LED flashes five times;
H. Use the remote controller to turn off the unit, At this time, the controller should be changed from ON to OFF, and the unit will exit the address setting procedure, the address will be memorized. The LED board will always display the address of this indoor unit until the system be powered off.
I. If you want to change the address, please repeat the above steps from E to G.
J. After setting all the addresses, please power off the system and then power on again. Otherwise the system will not start to work.
K. Once the addresses are successfully set, please do not change it any more to avoid confusion.

3. Address setting procedure when using the DIP switches SW01 and SW03.
A. The DIP switches SW01 and SW03 are on the indoor unit PCB.
B. Before carrying out the address setting work, the system must be powered off.
C. Take off the front panal and the filters, then take off the flaps and also the front cover,disconnect the swing motor connectors from the PCB and then take out the lower part of the PCB.
D. Change the position of DIP 7 of SW01 from OFF to ON, if fail to do this, the addresses set by SW03 will not work.
E. Use SW03 to set the addresses as following (DO NOT CHANGE OTHER DIP SWITCHES):



4. How to check the addresses?
When finish all the above works, please power off and power on again to the whole system but set all the indoor units in STANDBY. Then continously press the emergency switch until you hear the buzzer sound 5 times(Pi Pi Pi Pi Pi), and then the TIMER LED board will show the address of this indoor unit. Press any key on the remote controller, it will exit the address checking precedure.

4.6. Convertible type AC*** X CERA

SELECTING THE MOUNTING POSITION

⚠ WARNING

Install at a place that can withstand the weight of the indoor and outdoor units and install positively so that the units will not topple or fall

⚠ CAUTION

(1)Do not install where there is the danger of combustible gas leakage.

(2) Do not install near heat sources.

(3) If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.

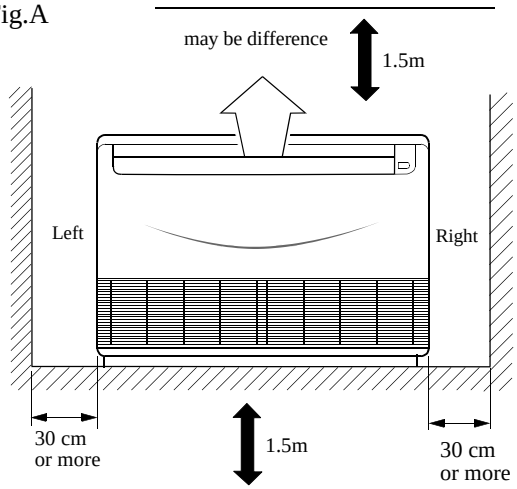
Decide the mounting position with the customer as follows:

INDOOR UNIT

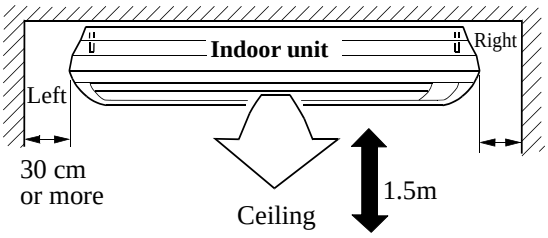
(1) Install the indoor unit level on a strong wall, floor, ceiling which is not subject to vibration.
(2) The inlet and outlet ports should not be obstructed: the air should be able to blow all over the room.
(3) Install the unit near an electric outlet or special branch circuit.
(4) Do not install the unit where it will be exposed to direct sunlight.
(5) Install the unit where connection to the outdoor unit is easy.
(6) Install the unit where the drain pipe can be easily installed.
(7) Take servicing, etc. into consideration and leave the spaces shown in Fig.A. Also install the unit where the filter can be removed.

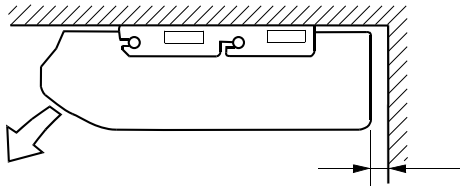
- **Floor console**

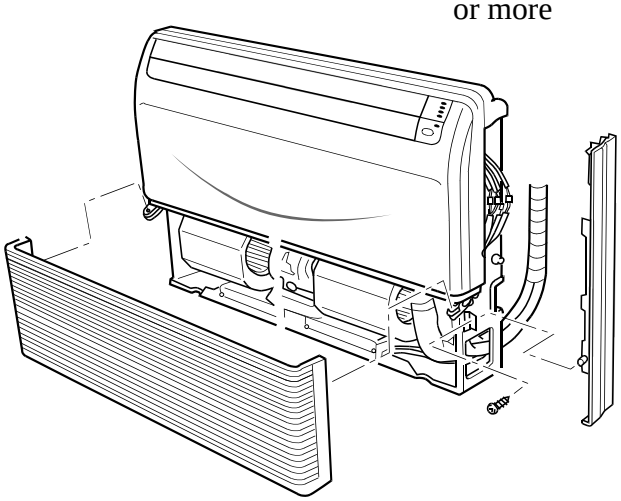
Fig.A



- **Under ceiling**







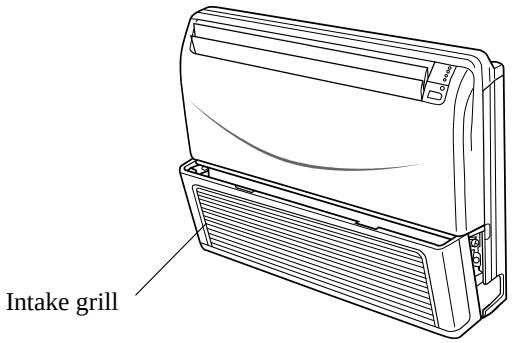
Indoor unit

PREPARING INDOOR UNIT INSTALLATION

REMOVE THE INTAKE GRILL

Open the intake grill and remove the three or four or six screws.(Fig. 1)

Fig. 1

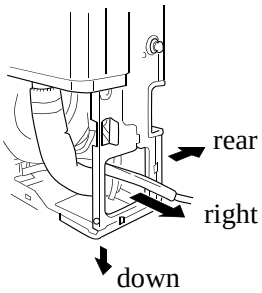


Remark:
The main unit can be wired before the indoor unit is installed. Select the most appropriate installation order.

A. FLOOR CONSOLE TYPE

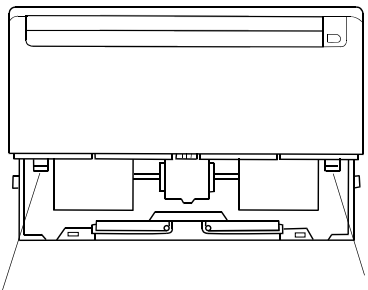
1. DRILLING FOR PIPING
   Select piping and drain directions.(Fig.2)
   The piping and drain can be made in three directions as shown below.

(Fig.2)



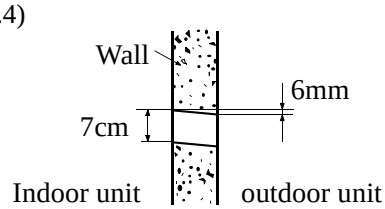
The drain hose can be connected to either the left or right side.(Fig.3)

(Fig. 3)



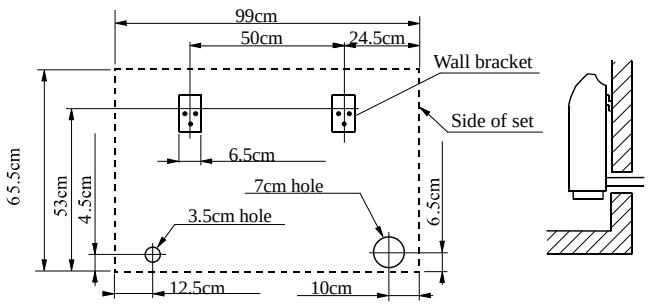
When the directions are selected, drill a 7 cm dia. hole on the wall so that the hole is tilted downward toward the outdoor for smooth water flow. When the pipe is led out from the rear, make a hole in Fig.4, at the position shown.

(Fig.4)



When installing set to wall, install the accessory wall bracket at the position shown in Fig.5,and mount the set to it.

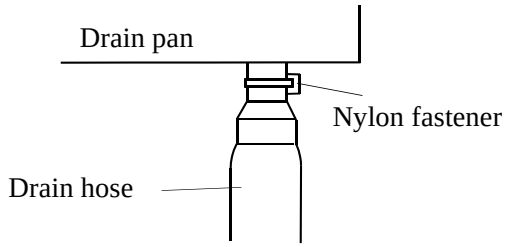
(Fig. 5)



2. INSTALLING DRAIN HOSE

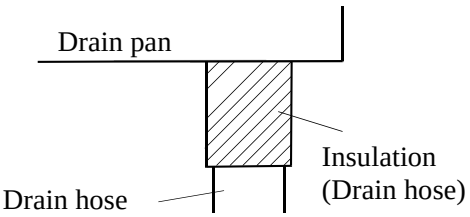
Select whether the drain hose will be connected to the left or right side.(Fig.3) Insert the drain hose into the drain pan, then secure the drain hose with a nylon fastener. (Fig.6)

(Fig. 6)



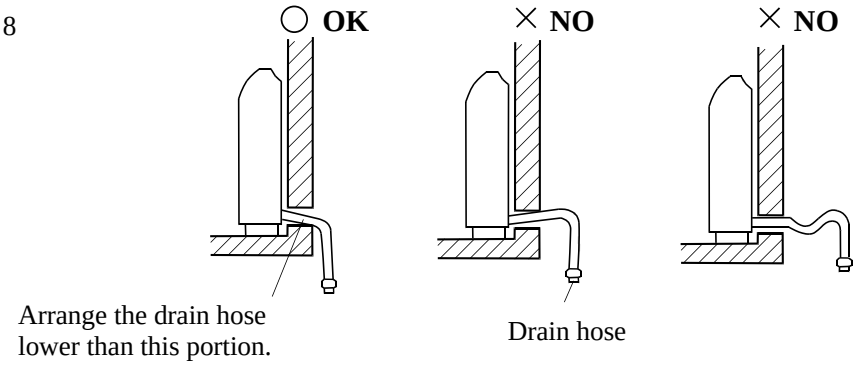
Wrap the insulation (drain hose) around the drain hose connection. (Fig.7)

(Fig. 7)



Be sure to arrange the drain hose correctly so that it is leveled lower than the drain hose connecting port of the indoor unit.

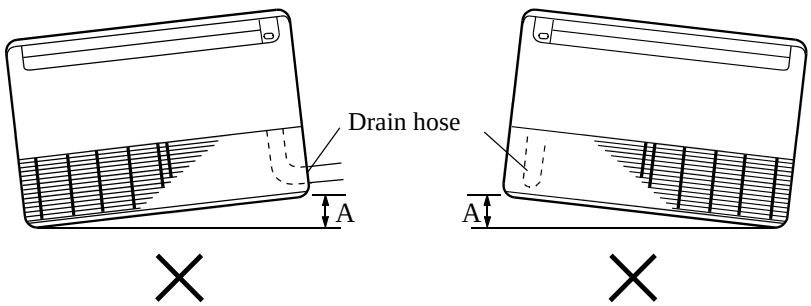
Fig. 8



⚠ CAUTION

Do not install the unit drain hose side is too high. Height A should be less than 5 mm.(Fig.9)

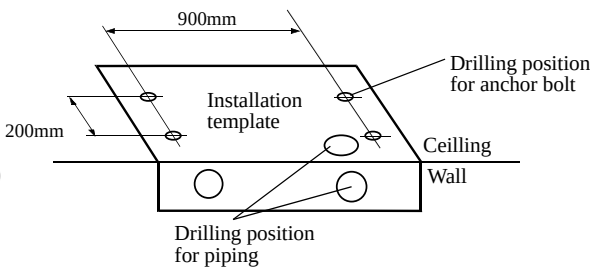
Fig. 9



B. UNDER CEILING TYPE

Using the installation template, drill holes for piping and anchor bolts(for holes).(Fig.10)

Fig. 10



1. DRILLING FOR PIPING

Select piping and drain directions. (Fig.11)

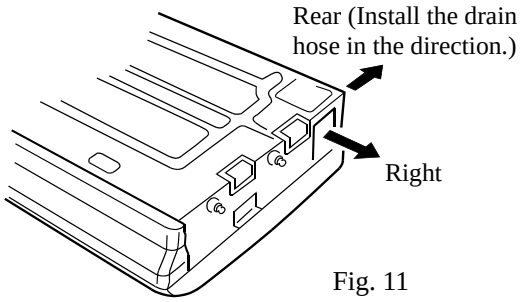


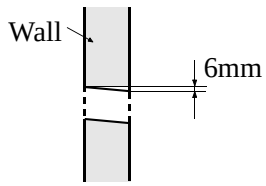
Fig. 11

⚠ CAUTION

Install the drain hose at the rear; it should not be installed on the top or right side.

When the directions are selected, drill 80mm and 50mm or 150mm dia. hole on the wall so that the hole is tilted downward toward the outdoor for smooth water flow.

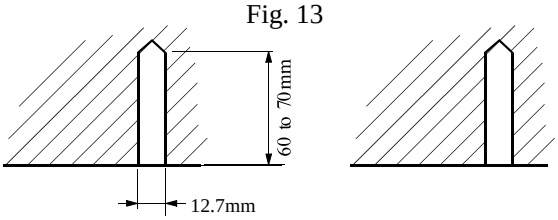
Fig. 12



2. DRILLING HOLES FOR ANCHOR BOLTS AND INSTALLING THE ANCHOR BOLTS

With a concrete drill, drill four 12.7 mm dia. Holes. (Fig.13)

Fig. 13



Insert the anchor bolts into the drilled holes, and drive the pins completely into the anchor bolts with a hammer. (Fig. 14)

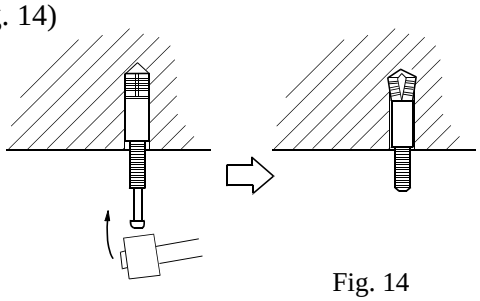
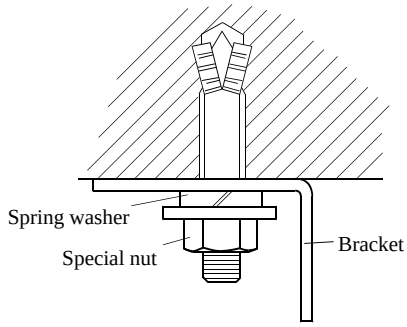


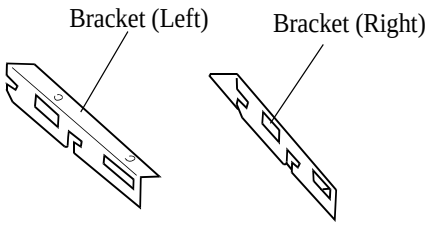
Fig. 14

3. INSTALLING BRACKETS

Install the brackets with nuts, washers and spring washers.(Fig. 15)

Fig. 15

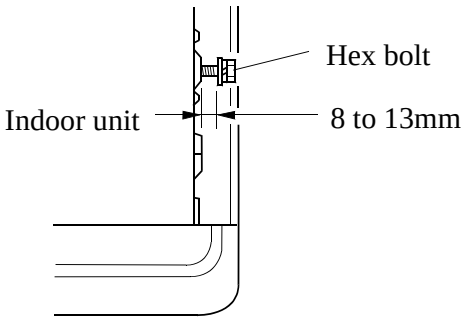




4. INSTALLING INDOOR UNIT

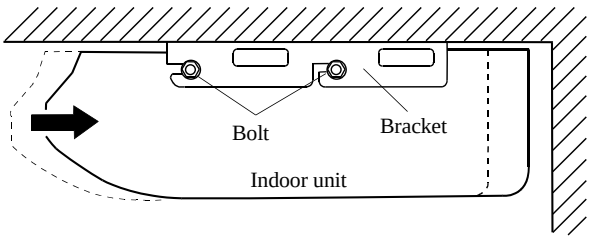
Reset the hex bolts as shown in Fig.16.

Fig. 16



Apply the indoor unit to the brackets.(Fig.17)

Fig. 17



Now, securely tighten the hex bolts in both sides.

5. INSTALL THE DRAIN HOSE

Select whether the drain hose will be connected to the left or right side.(Fig.3)
Insert the drain hose into the drain pan, then secure the drain hose with a nylon fastener.(Fig.6)
Wrap the insulation (drain hose)around the drain hose connection.(Fig.7)
Be sure to arrange the drain hose correctly so that it is leveled lower than the drain hose connecting port of the indoor unit.(Fig.18)

Fig. 18

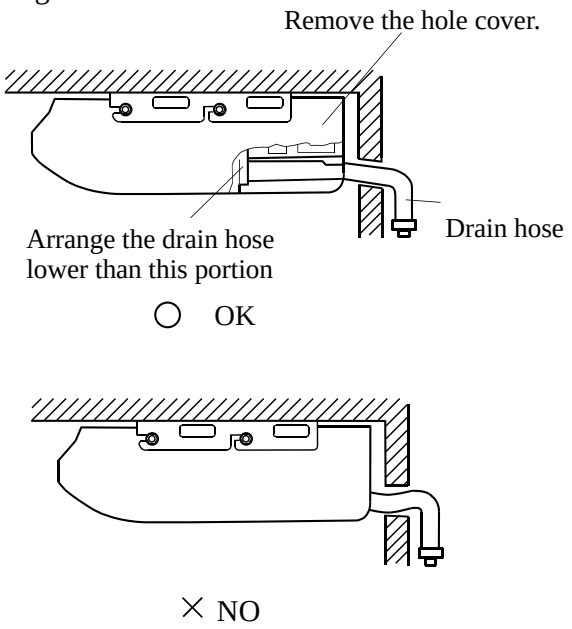
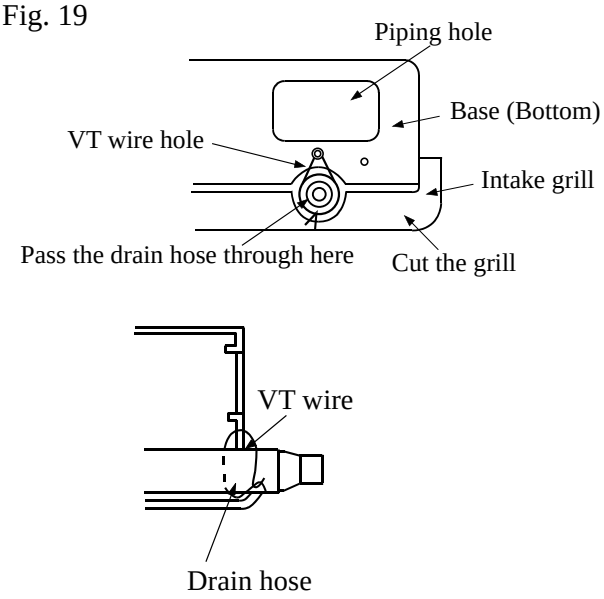


Fig. 19



OUTDOOR UNIT INSTALLATION

CONNECTING THE PIPING

1. FLARE PROCESSING

(1) Cut the connection pipe with pipe cutters so that the pipe is not deformed.

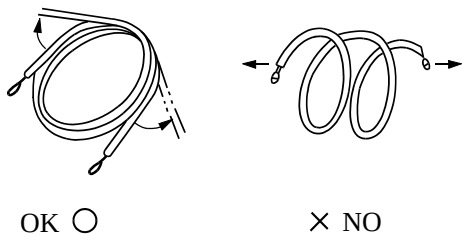
(2) Holding the pipe downward so that cuttings cannot enter the pipe, remove the burrs.

(3) Remove the flare nut from the indoor unit pipe and outdoor unit and insert the flare nut onto the pipe, and flare with a flaring tool.

2. BENDING PIPES

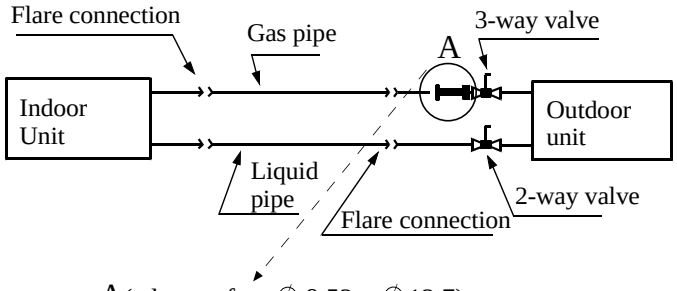
The pipes are shaped by your hands. Be careful not to collapse them.

Fig. 21

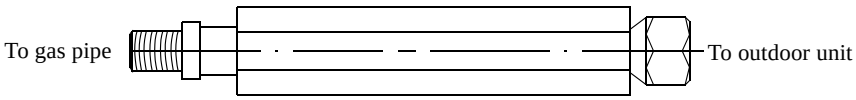


3. PIPING CONNECTION

AC142XCERA
AC182XCERA

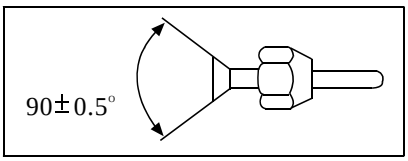


A(adaptor, from∅ 9.52 to∅ 12.7)



(1) Dimension of connecting pipe

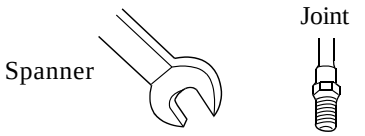
AC142XCERA AC182XCERA	Gas pipe	∅12.7mm
	Liquid pipe	∅ 6.35mm



- Fit the nut on and fasten

(2) The maximum length and drop height of connecting pipe

- Please refer to the installation manual of outdoor unit
- To ensure the efficiency , Pipes shall be as short as possible.



Cautions for piping connection

- Do not twist or deform the connecting pipe.
- Do not mix dusts.
- The bending radius shall be as large as possible.
- Both gas pipe and liquid pipe shall be heat insulation.
- No leakage in the flare.

Diameter of Pipe	Tighten Torque (N.m)
Liquid Pipe 6.35mm	11.8
Gas Pipe 12.7mm	49.0

(3) Piping connection

- Connecting method

Smear refrigerant oil on the joints of piping and flare.
The bending radius shall be as large as possible.
Align the pipe center when fastening, and tighten the nut, as shown in the figure.
Pay attention to not mix foreign matters such as sands in.

If not aligned ,tighten the nut by force will damage the nut that result in gas leakage

HOW TO CONNECT WIRING TO THE TERMINALS

A. For solid core wiring (or F-cable)(Fig.24A)

(1) Cut the wire with a wire cutter or wire-cutting pliers, then strip the insulation to about 25mm of the exposed solid wire.

(2) Using a screwdriver, remove the terminal screw(s) on the terminal board.

(3) Using pliers, bend the solid wire to form a loop suitable for the terminal screw.

(4) Shape the loop wire properly, place it on the terminal board and tighten securely with the terminal screw using a screw driver.

B. For strand wiring(Fig.24B)

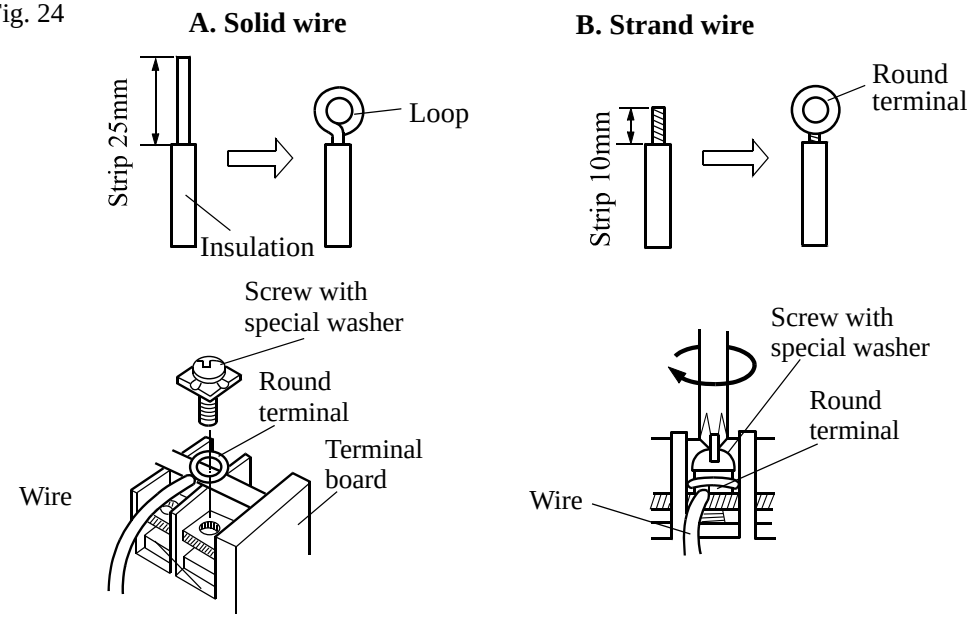
(1) Cut the wire with a wire cutter or wire-cutting pliers, then strip the insulation to about 10mm of the exposed strand wiring.

(2) Using a screwdriver, remove the terminal screw(s)on the terminal board.

(3) Using a round terminal fastener or pliers, securely clamp a round terminal to each stripped wire end.

(4) Position the round terminal wire, and replace and tighten the terminal screw using a screw driver.

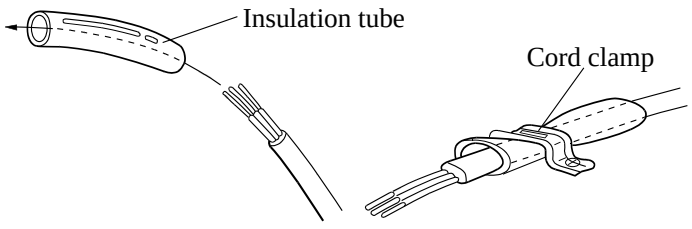
Fig. 24



HOW TO FIXED CONNECTION CORD AND POWER CABLE AT THE CORD CLAMP

After passing the connection cord and power cable through the insulation tube, fasten it with the cord clamp, as shown in Fig.25

Fig. 25



Use VW-1, 0.5 to 1.0 mm thick, PVC tube as the insulation tube.

ELECTRICAL WIRING

⚠ CAUTION

(1) Match the terminal block numbers and connection cord colors with those of the outdoor unit. Erroneous wiring may cause burning of the electric parts.

(2) Connect the connection cords firmly to the terminal block. Imperfect installation may cause a fire.

(3) Always fasten the outside covering of the connection cord with the cord clamp.(If the insulator is chafed, electric leakage may occur.)

(4) Always connect the ground wire.

1. INDOOR UNIT SIDE

(1) Remove the electric component box.

Fig. 26

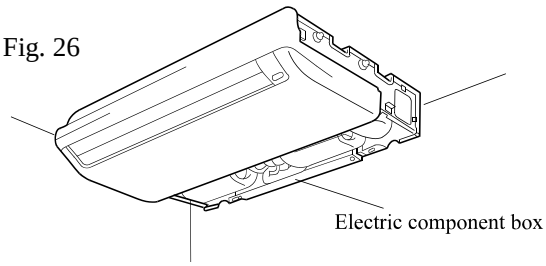
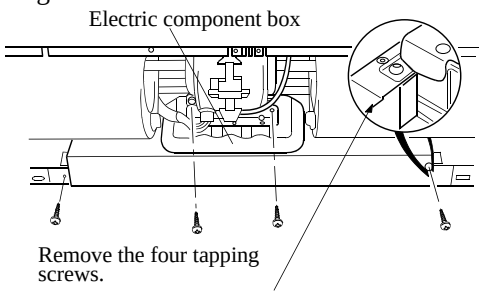


Fig. 27

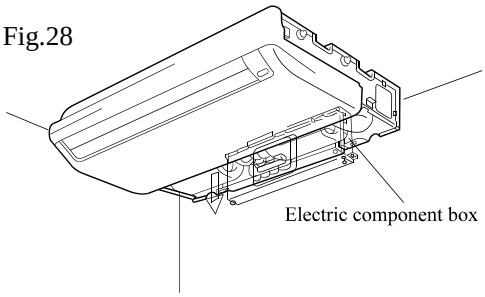


⚠ CAUTION

Do not remove the screws. If the screws are removed, the electric component box will fall.

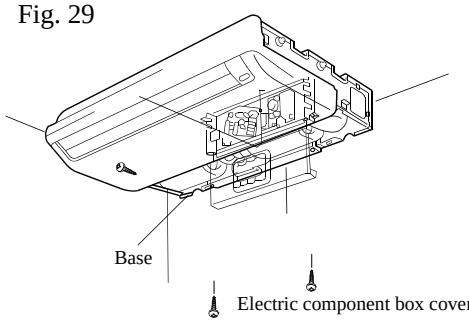
(2) Pull out the electric component box.

Fig.28



(3) Remove the electric component box cover.

Fig. 29



Remove the three tapping screws.

⚠ CAUTION

Be careful not to pinch the lead wires between the electric component box and base.

(4) Wiring

(1) Remove the cord clamp.

(2) Process the end of the connection cords to the dimensions shown in Fig.34.

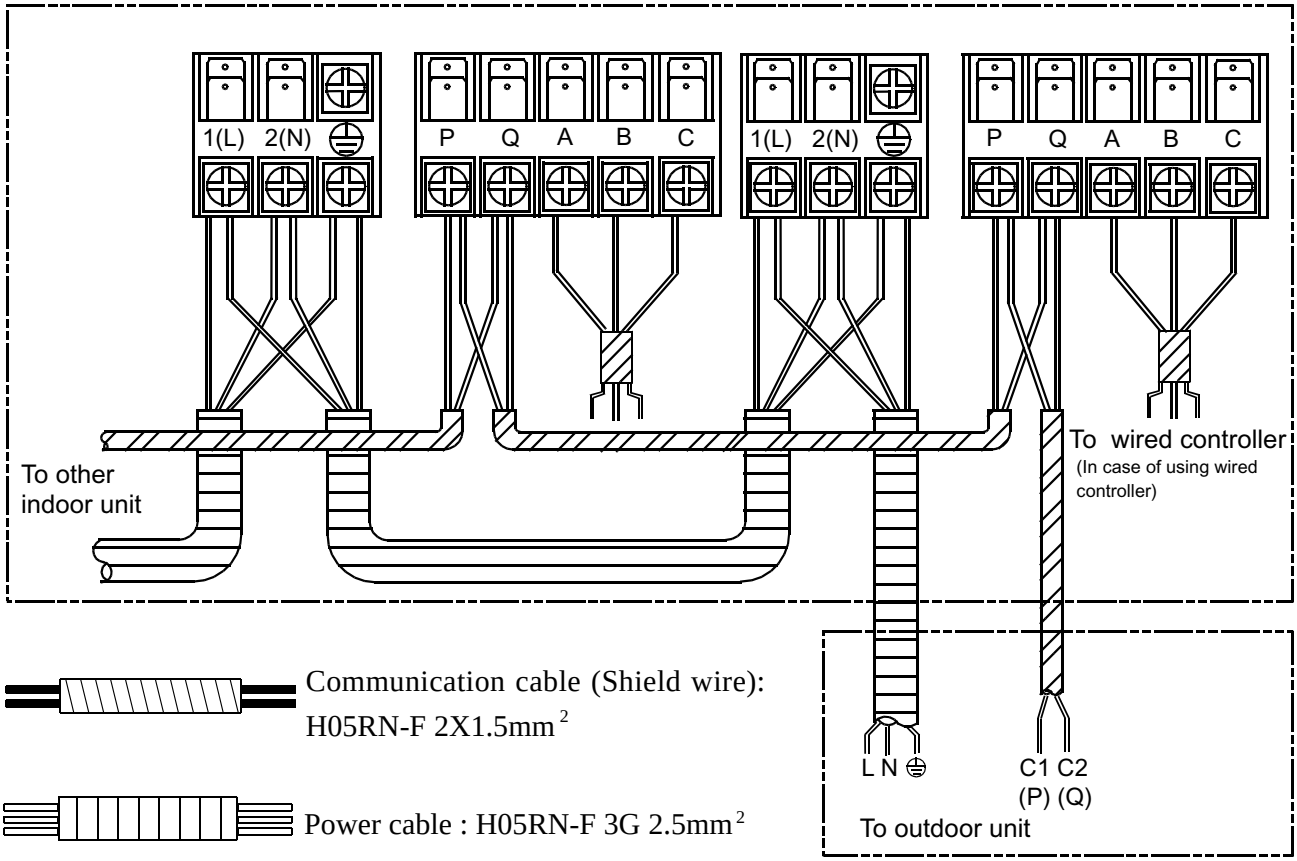
(3) Connect the end of the connection cord fully into the terminal block.

(4) Fasten the connection cord with a cord clamp.

(5) Fasten the end of the connection cord with the screw.

(5). Wiring of indoor unit

The distance between the signal wires and the power cabes should be at least 50mm.



Communication cable (Shield wire): H05RN-F 2X1.5mm^2

Power cable : H05RN-F 3G 2.5mm^2

⚠ WARNING

1.Incorrect address setting will cause abnormal to the system.

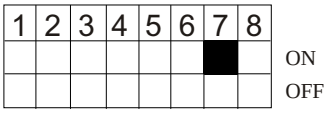
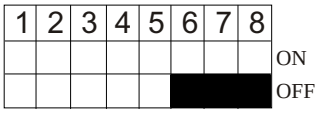
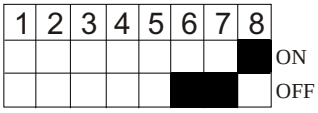
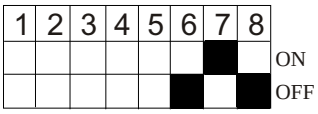
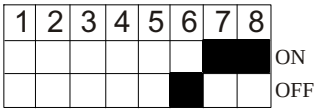
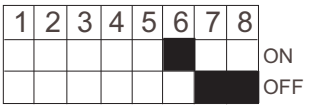
2.Communication cable must be use sheilded type.

3.Communication cable and power cable must be use ring terminal type.

(6). Indoor unit communication addresses setting

CAUTION! FAIL TO DO THIS, THE UNIT WILL NOT WORK.

1.There are two methods to set the communication address
A. Use the remote controller(default status in first installation).
B. Use dip switches on the indoor unit PCB.
2. Address setting procedure when using the remote controller.
A. Set the addresses only after the successful installation of the refrigerant pipes and connecting cables, and open all the stop valves;
B. Please confirm that the indoor units and the outdoor unit in the same system use the same power source;
C. Power on the units, but put all the indoor units in the status of STANDBY;
D. Please note that the address must be set as following:
Indoor unit that connect to valve A, the address must be 1;
Indoor unit that connect to valve B, the address must be 2;
Indoor unit that connect to valve C, the address must be 3;
Indoor unit that connect to valve D, the address must be 4;
Indoor unit that connect to valve E, the address must be 5
the LED board is blank.
E. Example: set unit A to address 1.
Continuously press the emergency switch for about 15 seconds, the buzzer will sound 4 times(PI PI PI PI) and then leave go of the switch. At this time, the indoor unit has entered the address setting procedure. But F. Use the controller to turn on the indoor unit. At this time, the controller should be changed from OFF to ON, and then theTIMER LED flshes once. That is to say, the address setting is enabled.
G. Press the button"SLEEP " on the controller, the times you press it stands for the address you want to set, detailed as following:
Press button " SLEEP " once, the address is "1 ", and the TIMER LED flashes once;
Press button " SLEEP " twice, the address is " 2 ", and theTIMER LED flashes twice;
Press button " SLEEP " three times, the address is " 3 ", and the TIMER LED flashes three times;
Press button " SLEEP " four times, the address is " 4 ", and the TIMER LED flashes four times;
Press button " SLEEP " five times, the address is " 5 ", and the TIMER LED flashes five times;
H. Use the remote controller to turn off the unit, At this time, the controller should be changed from ON to OFF, and the unit will exit the address setting procedure, the address will be memorized. The LED board will always display the address of this indoor unit until the system be powered off.
I. If you want to change the address, please repeat the above steps from E to G.
J. After setting all the addresses, please power off the system and then power on again. Otherwise the system will not start to work.
K. Once the addresses are successfully set, please do not change it any more to avoid confusion.
3. Address setting procedure when using the DIP switches SW01 and SW03.
A. The DIP switches SW01 and SW03 are on the indoor unit PCB.
B. Before carrying out the address setting work, the system must be powered off.
C. Take off the front panal and the filters, then take off the flaps and also the front cover,disconnect the swing motor connectors from the PCB and then take out the lower part of the PCB.
D. Change the position of DIP 7 of SW01 from OFF to ON, if fail to do this, the addresses set by SW03 will not work.
E. Use SW03 to set the addresses as following (DO NOT CHANGE OTHER DIP SWITCHES):

SW01	SW03	INDOOR UNIT ADDRESS
		1
		2
		3
		4
		5

4. How to check the addresses?
When finish all the above works, please power off and power on again to the whole system but set all the indoor units in STANDBY. Then continously press the emergency switch until you hear the buzzer sound 5 times(Pi Pi Pi Pi Pi), and then the TIMER LED board will show the address of this indoor unit. Press any key on the remote controller, it will exit the address checking precedure.

(7).Setting method of temperature compensation (For heating function only)

Set method of temperature compensation(-8 ℃~6 ℃) in heating mode with the remote controller.

In 24 ℃ heating mode,press sleep 7 times continuously.Indoor buzzer sounds 2 times,that show temp.compensatoin works.Swith on the unit in heating mode by the remote controller,press the time button to set the set temp.compensatoin.so the set temp. compensation=the current set temp.-24 ℃.For example,if the set temp. is 24 ℃,the temp.compensation is 0 ℃;if the set temp.is 25 ℃,the temp. compensation is 1 ℃;if the set temp.is 30 ℃,the temp. compensation is 6 ℃;if the settemp.is 23 ℃,the temp. compensation is -1 ℃;if the set temp.is 16 ℃,the temp. compensation is -8 ℃;If setting is finished, press ON/OFF button, then the unit quits the temp. compensation.

ELECTRICAL WIRING

⚠ WARNING

(1) Always use a special branch circuit and install a special receptacle to supply power to the room air conditioner.

(2) Use a circuit breaker and receptacle matched to the capacity of the room air conditioner.

(3) The circuit breaker is installed in the permanent wiring. Always use a circuit that can trip all the poles of the wiring and has an isolation distance of at least 3mm between the contacts of each pole.

(4) Perform wiring work in accordance with standards so that the room air conditioner can be operated safely and positively.

(5) Install a leakage circuit breaker in accordance with the related laws and regulations and electric company standards.

⚠ CAUTION

(1) The power source capacity must be the sum of the room air conditioner current and the current of other electrical appliances. When the current contracted capacity is insufficient, change the contracted capacity.

(2) When the voltage is too low and the air conditioner is difficult to start, contact the power company the voltage raised.

TEST RUNNING

1. CHECK ITEMS

(1) INDOOR UNIT

(1) Is operation of each button on the remote control unit normal?
(2) Does each lamp light normally?
(3) Do not air flow direction louvers operate normally?
(4) Is the drain normal?

(2) OUTDOOR UNIT

(1) Is there any abnormal noise and vibration during operation?
(2) Will noise, wind, or drain water from the unit disturb the neighbors?
(3) Is there any gas leakage?

CUSTOMER GUIDANCE

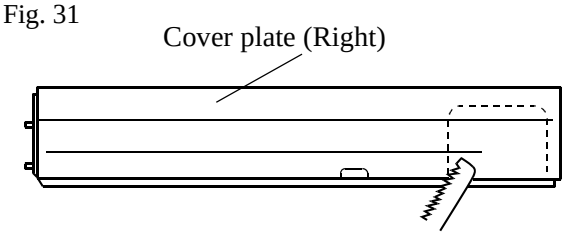
Explain the following to the customer in accordance with the operating manual:
(1) Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit operations.
(2) Air filter removal and cleaning, and how to use air louvers.
(3) Give the operating and installation manuals to the customer.

MOUNT THE COVER PLATE AND THE INTAKE GRILL

1.Mount the cover plate. (Right)

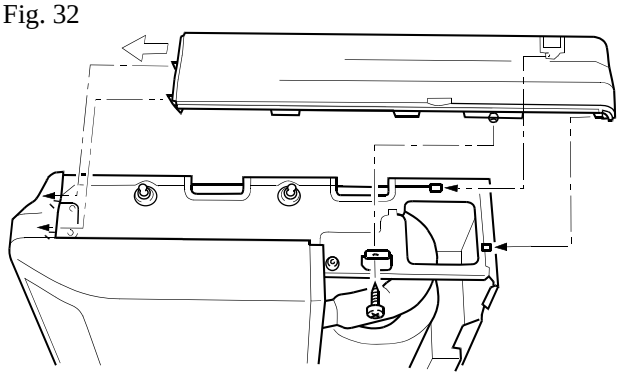
(1) Cut a pipe exit hole in the right plate. This is only when the pipe exits from the right side. (This operation is not required when the protrusion is on the top or rear.)

Fig. 31



(2) Join the cover plates (right) and mount with screws.

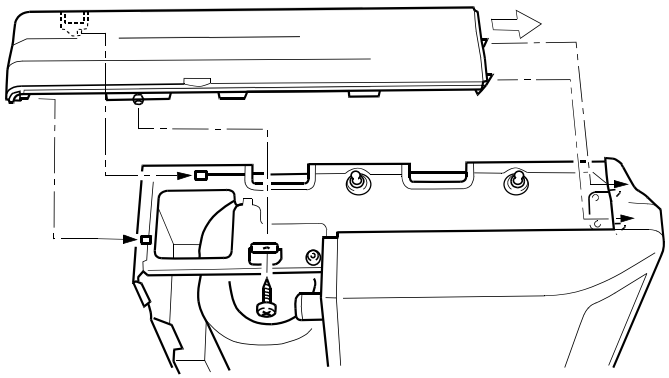
Fig. 32



2. Mount the cover plate.(Left)

(1) Join the cover plate (left) and mount with screws.

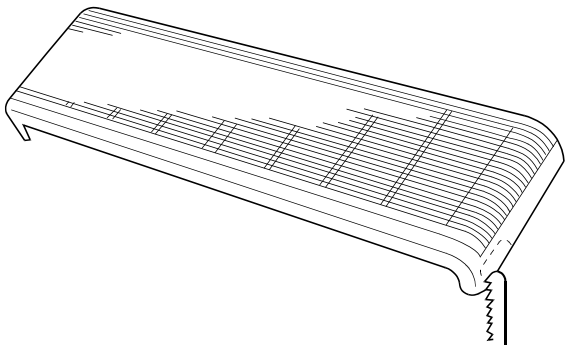
Fig. 33



3. Mount the intake grill.

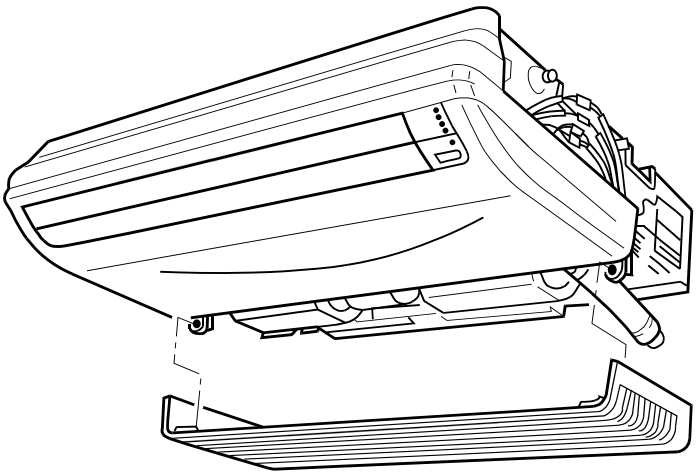
(1) Cut the right side of the intake grill. This is only when the pipe exits from the right side

Fig. 34



(2) Insert the hinges on the bottom of the intake grill into the holes in the base assembly. Then mount the arms to the three areas on the top of the intake grill.

Fig. 35



4.7 Duct type AD***XLERA

2. Preparation for installation

Installation tools

1	Screw Driver (flat head, wabbler, triangle)	8	Pipe Expander
2	Steel Saw	9	Knives
3	60mm Drill	10	Clippers
4	Inner Hexagon Spanner	11	Leakage Checker or Soap Liquid
5	Shifting Spanner	12	Measuring Tape
6	Spanner	13	Scraper or File
7	Pipe Cutter	14	Refrigeration Oil

3. Accessories for installation

Self-contained accessories

No.	A	B	C	D	E	F
Name of Parts	Non-adhesive Tape	Adhesive tape	Connecting Hose	Heat insulation material	Gypsum powder	Drain hose

4. Choose the installation place

- Install the indoor unit where the weight of the unit can be supported.
- Install the indoor unit where the heat source and steam source are not close and the unit inlet and outlet are not blocked.
- Install the indoor unit where the drainage is easy and the outdoor unit can be easily connected.
- Install the indoor unit where its cold air and hot air can be easily sent to all the corners of the room.
- Install the indoor unit where the power socket is near and there is sufficient space around the indoor unit.
- Install the indoor unit where there is no T.V set, radio set, and wireless appliance underneath, and the sunlight lamp is over one meter away.
- If the remote controller is installed on the wall, the indoor unit shall be ensured to receive the signal while the sunlight lamp is on.

5. Installation procedure

1. Drill a hole in the wall and insert the connecting pipe and wire through a PVC wall-through tube purchased locally. The wall hole shall be with a outward down slope of at least 1/100. (See Figure 1)
2. Before drilling check that there is no pipe or reinforcing bar just behind the drilling position. Drilling shall avoid at positions with electric wire or pipe.
3. Mount the unit on a strong and horizontal building roof. If the base is not firm, it will cause noise, vibration or pipe broken and refrigerant leakage (see Figure 6).
4. Support the unit firmly.
5. Change the form of the connection pipe, connection wire and drain pipe so that they can go through the wall hole easily.

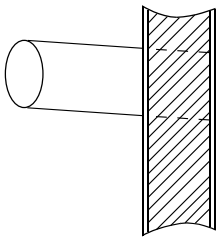


Fig 1

- When installing the ceiling concealed type indoor unit, a specially designed return air bellows shall be installed, as shown in Figure 3, Figure 4.

Figure 3

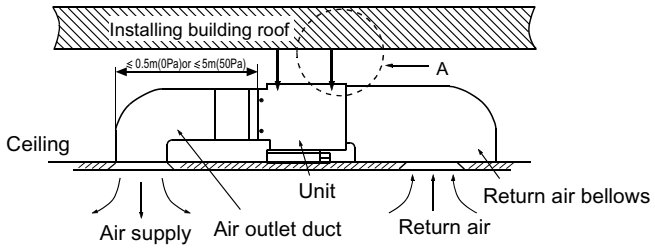
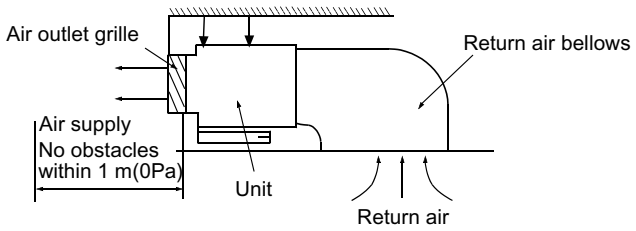


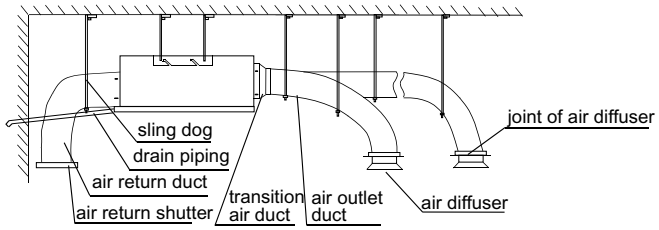
Figure 4



- Each air return and supply duct should fix to the floor precast slab by using an iron stand. Use glue to seal the interface closely. Recommend the distance between the air return duct and the wall is more than 150mm.

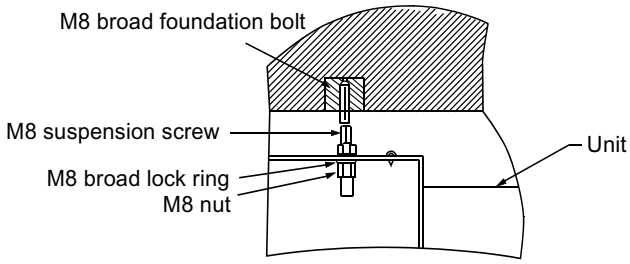
- The distance between air duct outlet and air conditioner outlet is according to the length of actually installed air duct and in service behavior of the static pressure terminal: Installation sketch map for long and short air duct is showed below, when connect to short air duct, using low static terminal (terminal color is white), the distance between air duct outlet and air conditioner outlet is no more than 0.5m; when connect to long air duct, using middle static terminal (terminal color is red), the distance between air duct outlet and air conditioner outlet could be within 5m at this point.

Figure 5



- Drain piping of condensed water should keep a downhill grade of 1% or more. Use insulating pipe to cover the drain piping of condensed water to keep warmth.
- As figure shown, suspend and install the unit.

Figure 6



Installation for air duct of indoor unit

1. Installation of air discharge duct

- This type of unit uses circular air duct with its caliber of 180mm.
- An additional transitive air duct is necessary for the circular air duct to connect to the air supply inlet. It should be also connected to its respective air diffuser separately. See Fig.1. Adjust the wind speed of each air diffuser outlet to keep in line on the whole, so as to meet a demand of the air conditioner in the room.

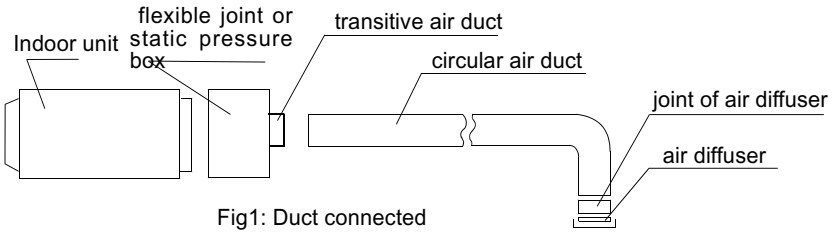


Fig1: Duct connected

2. Installation of air return duct

Use rivets to connect the air return duct to the air return inlet of the indoor unit. The other end connects to the air return shutter. as shown in Fig.2.

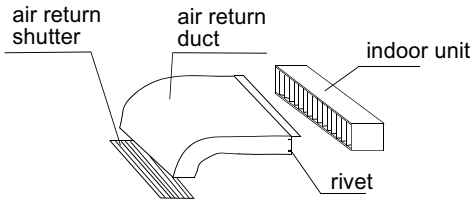


Fig2: Duct return connected

3. Air duct insulation

Insulation layer is needed for air supply and return duct. First, paste a glue nail to the air duct, and then attach the insulation cotton that has a tinfoil layer and use the glue nail cover to fix. Finally, seal the air duct interface with tinfoil adhesive tape closely. as shown in Fig3.

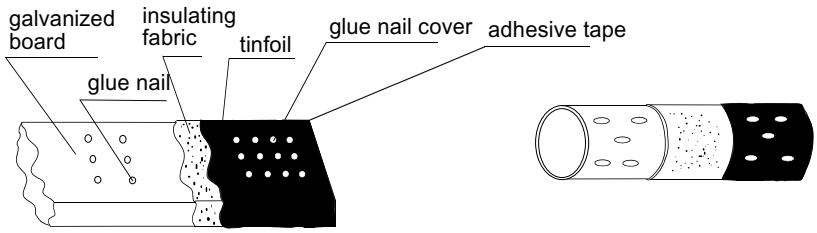


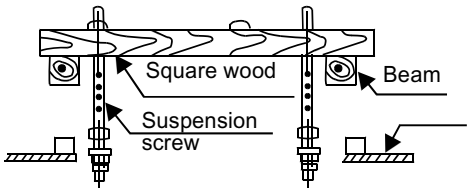
Fig3

Installing the suspension screw

Use M8 or M10 suspension screws (4, prepared in the field) (when the suspension screw height exceeds 0.9 m, M10 size is the only choice). These screws shall be installed as follows with space adapting to air conditioner overall dimensions according to the original building structures.

Wooden structure

A square wood shall be supported by the beams and then set the suspension screws.

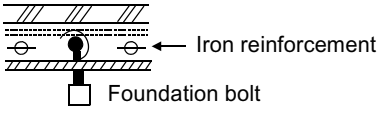


New concrete slab

To set with embedded parts, foundation bolts etc.

Knife embedded part

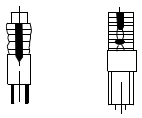
Guide plate embedded part



Pipe suspension foundation bolt

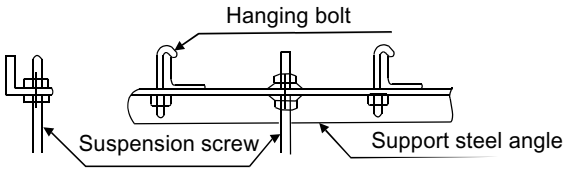
Original concrete slab

Use hole hinge, hole plunger or hole bolt.



Steel reinforcement structure

Use steel angle or new support steel angle directly.



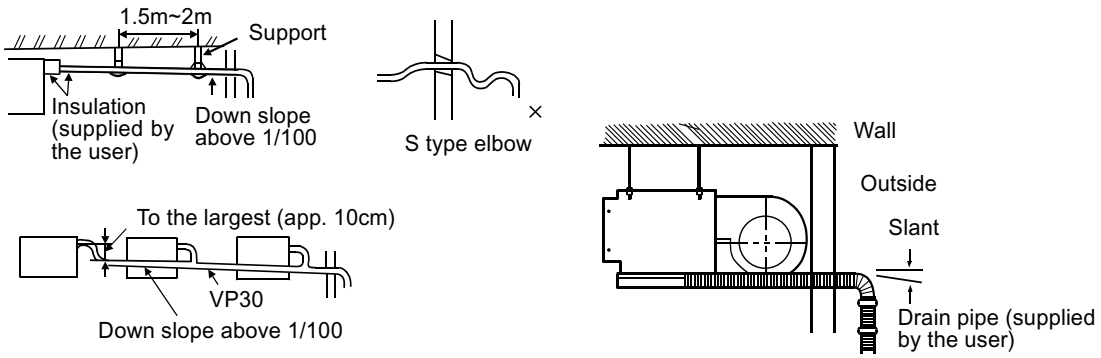
Hanging of the indoor unit

Fasten the nut on the suspension screw and then hang the suspension screw in the Tslot of the suspension part of the unit.
Aided with a level meter, adjust level of the unit within 5 mm.

⚠ CAUTION
In order to drain water normally, the drain pipe shall be processed as specified in the installation manual and shall be thermal insulated to avoid dew generation. Improper hose connection may cause indoor water leakage.

Requirements

- The indoor drain pipe shall be thermal insulated.
- The connection part between the drain pipe and the indoor unit shall be insulated so as to prevent dew generation.
- The drain pipe shall be slant downwards (greater than 1/100). The middle part shall not be of Stype elbow, otherwise abnormal sound will be produced.
- The horizontal length of the drain pipe shall be less than 20 m. In case of long pipe, supports shall be provided every 1.5 – 2m to prevent wavy form.
- Central piping shall be laid out according to the following figure.
- Take care not to apply external force onto the drain pipe connection part.



Pipe and insulation material

Pipe	Rigid PVC pipe VP31.5mm (internal diameter)
Insulation	Foamed PE with thickness above 7mm

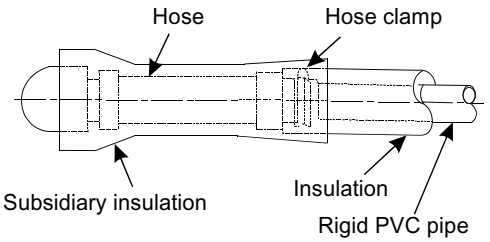
Hose

Drain pipe size: ? 19.05mm² (3/4") PVC pipe.
The hose is used for adjusting the off-center and angle of the rigid PVC pipe.

- Directly stretch the hose to install without making any deformation.
- The soft end of the hose must be fastened with a hose clamp.
- Please apply the hose on horizontal part

Insulation treatment:

- Wrap the hose and its clamp until to the indoor unit without any clearance with insulating material, as shown in the figure.



Drain confirmation

During trial run, check that there is no leakage at the pipe connection part during water draining even in winter.

Allowable pipe length and drop

These parameters differ according to the outdoor unit. See the instruction manual attached with the outdoor unit for details.

Supplementary refrigerant

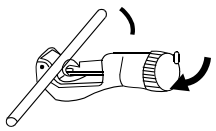
The refrigerant supplementation shall be as specified in the installation instructions attached with the outdoor unit. The added refrigerant shall be R410a.
The adding procedure shall be aided with a measuring meter for a specified amount of supplemented refrigerant

Requirement

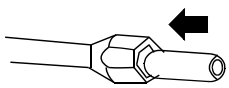
Overfilling or underfilling of refrigerant will cause compressor fault. The amount of the added refrigerant shall be as specified in the instructions.

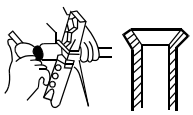
Pipe cutting and expanding

If the pipe is too long or the flare is damaged, it needs to be cut or expanded.


1. Pipe cutting

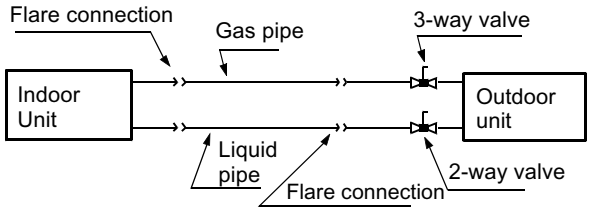

2. Removing burrs


3.Insertion nut

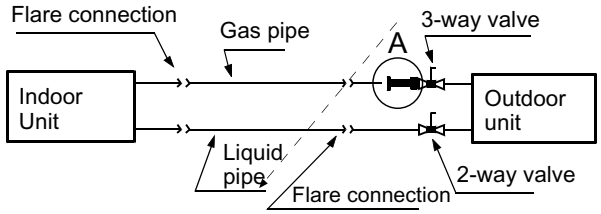

4. Pipe expansion

Piping Connection

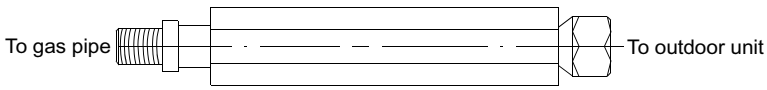
AD092XLERA
AD122XLERA



AD142XLERA
AD182XLERA

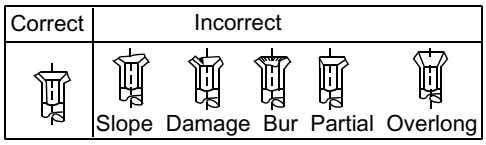


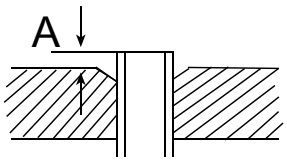
A(adaptor, from ∅9.52 to ∅12.7)



Pipe expansion dimensions as follows:

Pipe diameter ?	Size A (mm)
6.35 mm (1/4")	0.8 ~ 1.5
9.52 mm (3/8")	1.0 ~ 1.8
12.7 mm (1/2")	1.2 ~ 2.0

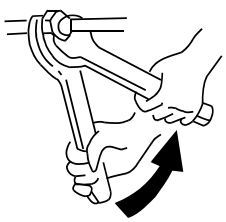




Pipe expander

- The connection of indoor unit pipes must use double spanners.
- The installing torque shall be as given in the following table.

Connecting pipe O.D.(mm)	Installing torque (N-m)	Increased installing torque (N-m)
? 6.35	11.8 (1.2kgf-m)	13.7 (1.4 kgf-m)
? 9.52	24.5 (2.5kgf-m)	29.4 (3.0 kgf-m)
? 12.70	49.0 (5.0 kgf-m)	53.9 (5.5 kgf-m)



Double-spanner operation

1. Indoor unit communication addresses setting

CAUTION! FAIL TO DO THIS, THE UNIT WILL NOT WORK.

This kind of indoor units can only set the address by using the Dip Switches.

(1).Please note that the address must be set as following:

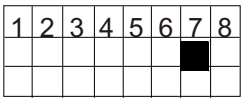
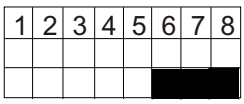
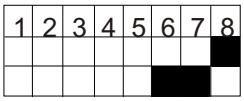
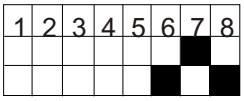
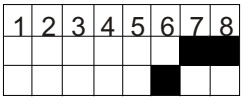
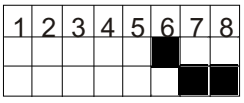
Indoor unit that connect to valve A, the address must be 1;
Indoor unit that connect to valve B, the address must be 2;
Indoor unit that connect to valve C, the address must be 3;
Indoor unit that connect to valve D, the address must be 4;
Indoor unit that connect to valve E, the address must be 5

(2). Address setting procedure when using the DIP switches SW01 and SW03.

A. The DIP switches SW01 and SW03 are on the indoor unit PCB.

B. Change the position of DIP 7 of SW01 from OFF to ON, if fail to do this, the addresses set by SW03 will not work.

C. Use SW03 to set the addresses as following (DO NOT CHANGE OTHER DIP SWITCHES):

SW01	SW03	INDOOR UNIT ADDRESS	OUTDOOR VALVE
		1	A
		2	B
		3	C
		4	D
		5	E

2.Installation check and trial operation

Check the Layout of the Drain Pipe and Connection Wires, and also the piping and address setting. The drain pipe should be placed underneath, and the connection wires should be placed upside; and the drain pipe especially the section inside the machine and indoors must be wound up with insulating material to preserve heat. The drain pipe shall be sloped and no concave and convex shall occur along the whole pipe. And the cases as the right figure indicates shall not occur.

3.Installation check

- Is power supply voltage required?
- Is water completely drained to outdoors?
- Are power wire and connection wires between indoor and outdoor units correctly connected?
- Is any gas leaked from the pipe connectors?
- Are series numbers of the terminals on the indoor and outdoor units corresponding to each other?
- Is the connection section of the auxiliary pipe insulated? Is the indoor unit fixed firmly? Is noise big?

4.Trial operation

The person who has completed this installation shall be requested to conduct a test operation for check:

Is the temperature adjuster working normally?

Does the location for installation conform to requirements?

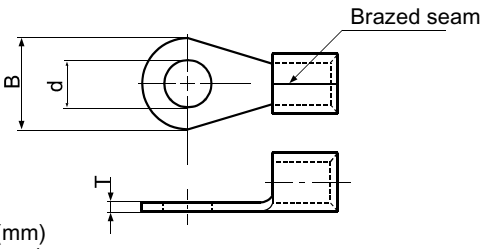
Winding up with Protective Plastic Tape.The connection pipes,drain pipe, and the connection wires shall be wound up with PVC tape.

NOTE!
The connection pipes shall also be wound up with insulating material to preserve the temperature. The airing direction shall be from bottom to top.

Wiring methods:

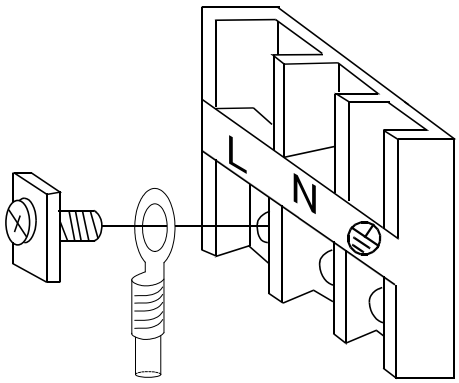
① Wiring method of ring terminal

For connecting line which end is a ring,its wiring method as shown in the right figure: remove wiring screw and pass it through the end ring of connecting line,then connect it to the terminal block and tighten screw.



B=8.0-9.0(mm)
d=4.3-5.3(mm)
T=1.0-2.0(mm)
(For your referrence)

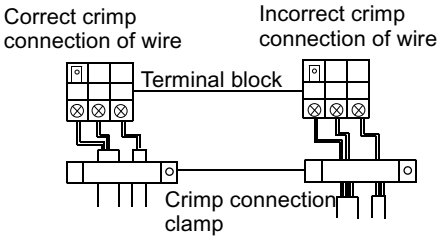
Ring Terminal



Wiring method of ring terminal

② Wiring method of straight terminal

For connecting line which end is not a ring, its wiring method as follows: loosen wiring screw ans insert the end of connecting line totally into the terminal block,then tighten the screw and pull the connecting line slightly to confirm that it is clamped firmly.

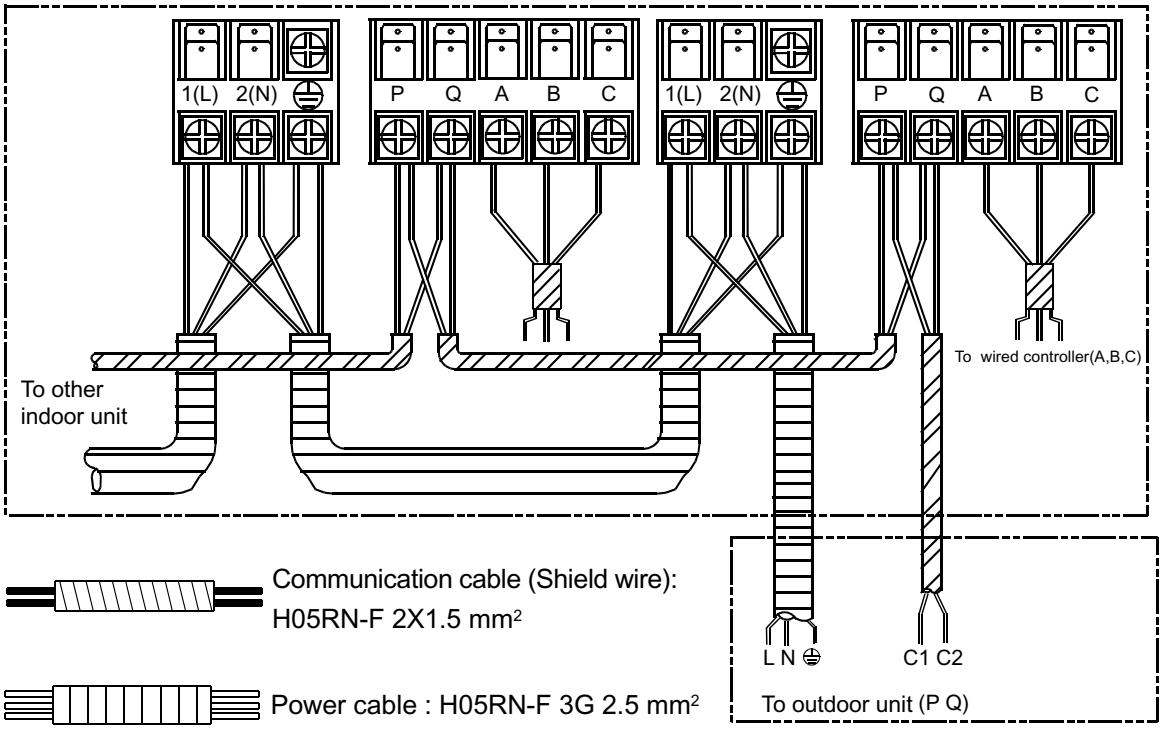


③ Crimp connection method of connecting line

After finishing wiring.connecting line must be fastened by wire clamp,which pressed on the external sheath of the connecting line, as shown in the right figure:

④ Wiring of indoor unit

The distance between the signal wires and the power cabes should be at least 50mm.



Communication cable (Shield wire):
H05RN-F 2X1.5 mm²

Power cable : H05RN-F 3G 2.5 mm²

Waring:
1.Incorrect address setting will cause abnormal to the system.
2.Communication cable must be use sheilded type.

4.8. Console type AF***XCERA

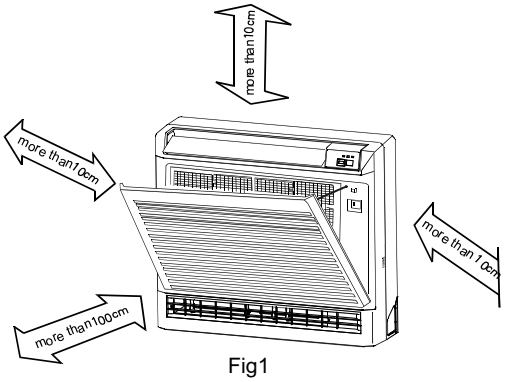


Fig1

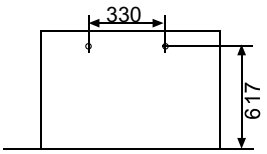


Fig2

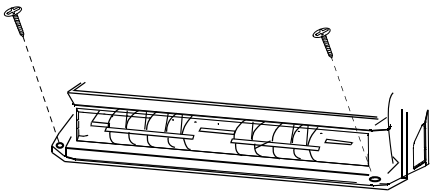


Fig3

Tool necessary

1. Screw driver
2. Hacksaw
3. 70mm dia.hole core drill
4. Spanner(dia. 17,27mm)
5. Spanner(14,17,27mm)
6. Pipe cutter
7. Flaring tool
8. Knife
9. Nipper
10. Gas leakage detector or soap water
11. Measuring tape
12. Reamer
13. Refrigerant oil

Installation of indoor unit

selection of installation place

- Place where it is easy to route drainage pipe and outdoor piping.
- Place ,away from heat source and with less direct sunlight.
- Place where cool and warm air could be delivered evently to every corner of the room.
- Place near power supply socket.Leave enough space around the unit.
- Place ,robust not causing vibration,where the body can be supported sufficiently.
- To prevent interference, place it at least 1m away from other electric machines, such as TV set, radio.

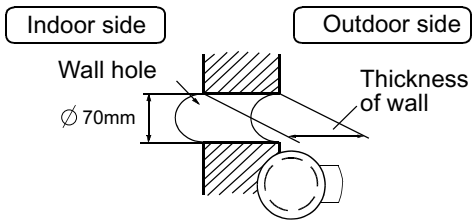
Installing

- According to the dimension of the figure 2 shown, nail two cement steel nails on the wall,Keep 2~3mm out.then hang the back of the unit on them.
- There must be no gap between the indoor unit and wall.
- Remove the front panel,then use two expansible screws to fix the unit on the floor. As figure 3 shown.
- Once refrigerant piping and drain piping connections are complete,fill the gap of the throght hole with putty.
- Attach the front panel and front grille in their orginal positions once all connections are complete.

Fixing of the unit

1. Position of the wall hole

Wall hole should be decided according to installation
place and piping direction.(refer to installation drawings).



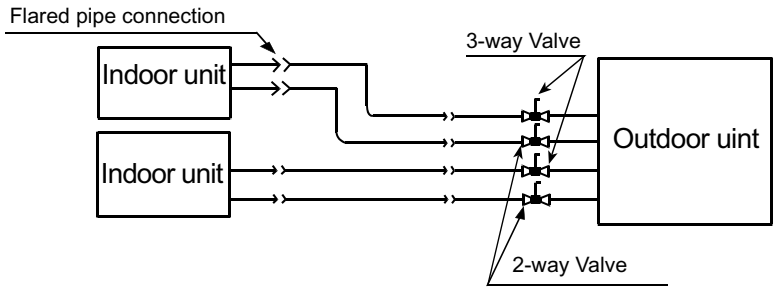
(Cross section of wall hole)

2. Making a wall hole

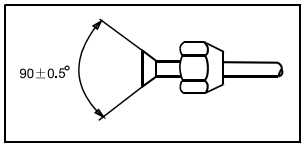
Drill a hole of 120X70mm dia. with a little slope towards outside.

3. Piping connection

(1)Schematic diagram for unit connection

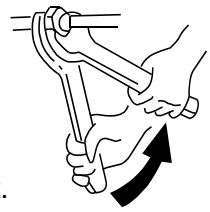


(2)Connection pipe dimensions:

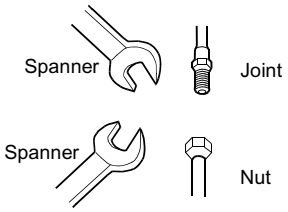


Pipe Value		Torque
Liquid	6.35mm	11.8 N·m
Gas	9.52mm	40 N·m

- Apply and tighten the nut.



Double-spanner operation



(3)Cautions for pipe connection

- Pipes free from twists, deformation, water, dust. Dedicated tools for each R407C and R410A should be used and stored separately.
- Optimized radii of bends
- Insulation to be applied on all gaseous pipes
- Flared section free from cracks

Threads on the pipes may be damaged when tightening if the pipes are not well aligned.

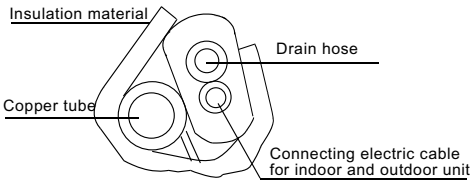
(4) Pipe connection process

Apply refrigeration oil on the end of the pipe to be connected and on the flared section.
Align the pipes to be connected and tighten the nut. (See the figure)
Ensure that no foreign articles enter into the pipes.

Piping connection of the indoor unit

1. Arrangement of piping and drainage pipe
   After opening inlet grill,you will see a control box.
   Remove the cover before working.

   Cut away, with a hammer or a saw, the lid for piping according to piping direction.



   According to the piping method, connect the piping on indoor unit with union of connection pipe.
   Arrange the piping as per the wall hole and bind drain hose connecting electric cable and piping together with polyethylene tape.
   Insert the bound piping connecting electric cable and drain hoes through wall hole to connect with outdoor unit.

2. Arrangement drain hose
   Drain hose shall be placed in under place.
   There should be a slope when arrange drain hose. Avoid up and down waves in drain hose.
   If humidity is high, drain pipe(especially in room and indoor unit) must be covered with installation material.

Electric wiring :

Process of wire connections
1. Loop terminal
   After removing the screw, fix the wire ring on the screw, reinsert the screw into the block terminal and then tighten the screw.
2. Straight terminal
   After loosening the screw, inset the wire end into the block terminal and then tighten the screw. Slightly pull the wire to see if it is tightly fixed.
3. Wire capping
   After completion of connection, capping clips must be applied on the external sleeve of the wires.

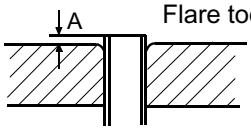
Others

1. Power supply requirements:

- Voltage: single-phase1PH,220-230V~,50Hz
- Dedicated electrical cable should be installed by a qualified technician in accordance with the state regulation for electrical engineering.
- The power source must be grounded.
- A circuit breaker must be installed
- Electrical cables should be connected by “Y” method. Damaged or wornelectrical cable must be replaced by authorized after sales agents.
- The power plug should be connected as follows: L for live line, N for neutral line and ⏚ for grounding.
- Connection parameters: H05RN-F 3G(1.0-1.5)mm^2
- Signal parameters: H05RN-F 2x(0.75-1.5)mm^2 (Shieded wire)
- The signal wire must be shielded wire.
- Cables for power supply, connection and signals are prepared by the owner.

2. Piping cutting and flaring

Be sure to carry out deburring after cutting with a pipe cutter.
Insert flaring tool to make a flare.



	Pipe diameter φ	Size A (mm)
Liquid pipe	6.35mm(1/4")	0.8 ~1.5
Gas pipe	9.52mm(3/8")	1.0 ~1.5

Correct	Incorrect				
					
	Lean	Damage of flare	Crack	Partial	Too outside

Installation inspection and test run:

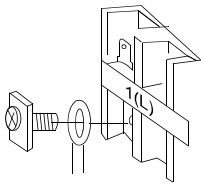
Please operate unit according to this Manual.

Items to be checked during test run. Please made a "√ " in " □ "

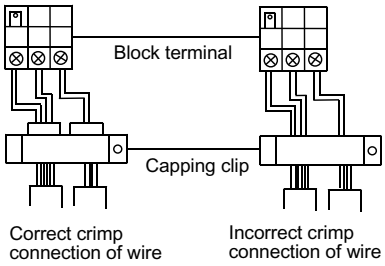
- □ Are there any gas leakage?
- □ How is insulation at piping connection carried out?
- □ Are electric wires of indoor and outdoor unit firmly inserted into terminal block?
- □ Is electric wiring of indoor and outdoor securely fixed?
- □ Is drainage securely carried out?
- □ Is earth line(grounding) securely connected?
- □ Is power supply voltage abided by the code?
- □ Is there any noise?
- □ Is control display normal?
- □ Is cooling operation normal?
- □ Is room temp. regulator normal?

Wiring of indoor unit

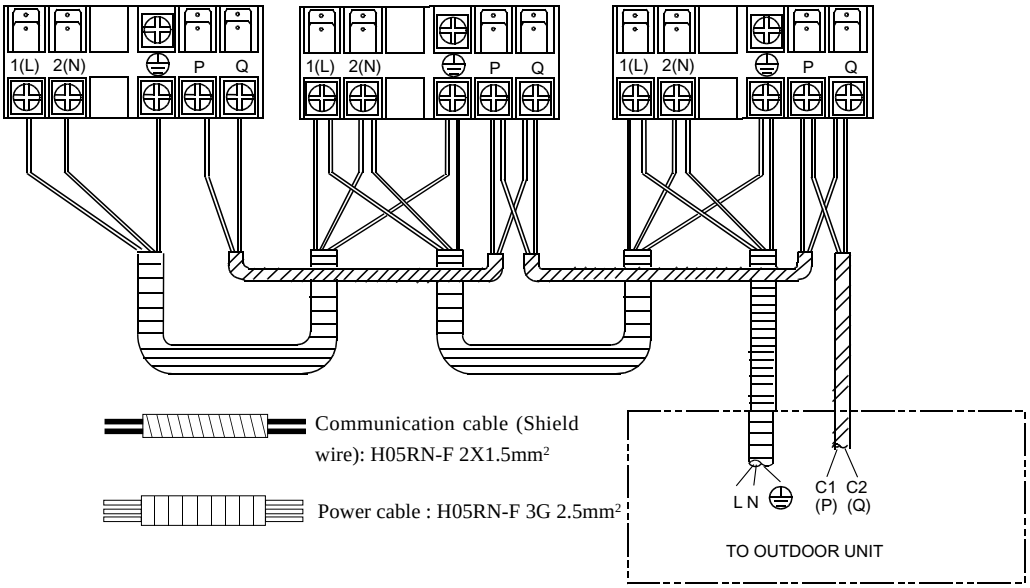
- Remove air intake screen and take out the front wires.
- Connect the wires as specified in the above methods and diagrams for indoor unit and wire connections.
- Properly apply capping clips on the wires.
- Replace the air intake screen.
- Do not link the connecting and signal wire with the same cable, a snug space must be maintained between connecting and signal wires.
- Shield of the signal wire should be spot grounded.



Wiring diagram of loop terminals



Wiring connection:



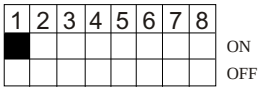
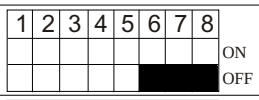
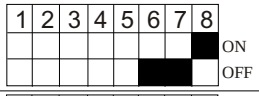
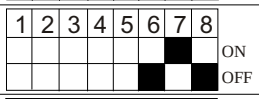
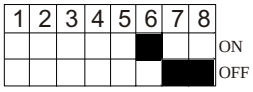
⚠ WARNING

Incorrect address setting will cause abnormal to the system.
Communication cable must be use sheilded type.
Incorrect address setting will cause abnormal to the system.and then put it down perpendicularly.
Signal connecting cable must be sheilded type.
The distance between the signal wires and the power cabes should be at least 50mm.

Indoor unit communication addresses setting

CAUTION! FAIL TO DO THIS, THE UNIT WILL NOT WORK.

1.There are two methods to set the communication address
A. Use the remote controller(default status in first installation).
B. Use dip switches on the indoor unit PCB.
2. Address setting procedure when using the remote controller.
A. Set the addresses only after the successful installation of the refrigerant pipes and connecting cables, and open all the stop valves;
B. Please confirm that the indoor units and the outdoor unit in the same system use the same power source;
C. Power on the units, but put all the indoor units in the status of STANDBY;
D. Please note that the address must be set as following:
Indoor unit that connect to valve A, the address must be 1;
Indoor unit that connect to valve B, the address must be 2;
Indoor unit that connect to valve C, the address must be 3;
Indoor unit that connect to valve D, the address must be 4;
Indoor unit that connect to valve E, the address must be 5
E. Example: set unit A to address 1.
Continuously press the emergency switch for about 15 seconds, the buzzer will sound 4 times(PI PI PI PI) and then leave go of the switch. At this time, the indoor unit has entered the address setting procedure. But the LED board is blank.
F. Use the controller to turn on the indoor unit. At this time, the controller should be changed from OFF to ON, and then theTIMER LED flshes once. That is to say, the address setting is enabled.
G. Press the button “SLEEP” on the controller, the times you press it stands for the address you want to set, detailed as following:
Press button “SLEEP” once, the address is “1”, and the TIMER LED flashes once;
Press button “SLEEP” twice, the address is “2”, and theTIMER LED flashes twice;
Press button “SLEEP” three times, the address is “3”, and the TIMER LED flashes three times;
Press button “SLEEP” four times, the address is “4”, and the TIMER LED flashes four times;
Press button " SLEEP " five times, the address is " 5 ", and the TIMER LED flashes five times;
H. Use the remote controller to turn off the unit, At this time, the controller should be changed from ON to OFF, and the unit will exit the address setting procedure, the address will be memorized. The LED board will always display the address of this indoor unit until the system be powered off.
I. If you want to change the address, please repeat the above steps from E to G.
J. After setting all the addresses, please power off the system and then power on again. Otherwise the system will not start to work.
K. Once the addresses are successfully set, please do not change it any more to avoid confusion.
3. Address setting procedure when using the DIP switches SW01 and SW02.
A. The DIP switches SW01 and SW02 are on the indoor unit PCB.
B. Before carrying out the address setting work, the system must be powered off.
C. Take off the front panal and the filters, then take off the flaps and also the front cover,disconnect the swing motor connectors from the PCB and then take out the lower part of the PCB.
D. Change the position of DIP 1 of SW01 from OFF to ON, if fail to do this, the addresses set by SW02 will not work.
E. Use SW02 to set the addresses as following (DO NOT CHANGE OTHER DIP SWITCHES):

SW01	SW02	INDOOR UNIT ADDRESS
		1
		2
		3
		4
		5

How to check the addresses?

When finish all the above works, please power off and power on again to the whole system but set all the indoor units in STANDBY. Then continously press the emergency switch until you hear the buzzer sound 5 times(Pi Pi Pi Pi Pi), and then the LCD display board will show the address of this indoor unit.

Press any key on the remote controller, it will exit the address checking precedure.

4.9. Wall mounted type AS***XVERA

PRECAUTION

- Execute proper grounding. Do not connect the earth wire to a gas pipe, water pipe, lightening rod, or a telephone ground wire. Improper placement of earth wires can result in electric shock.
- An electric leakage breaker must be installed, otherwise electric shock or other accidents would occur.
- After completion of the installation, the air conditioner shall be electrified to check for electric leakage.

2. Preparation for installation

Installation tools

1	Screw Driver (flat head, wabbler, triangle)	8	Pipe Expander
2	Steel Saw	9	Knives
3	60mm Drill	10	Clippers
4	Inner Hexagon Spanner	11	Leakage Checker or Soap Liquid
5	Shifting Spanner	12	Measuring Tape
6	Spanner	13	Scraper or File
7	Pipe Cutter	14	Refrigeration Oil

3. Accessories for installation

Self-contained accessories

No.	A	B	C	D	E	F
Name of Parts	Non-adhesive Tape	Adhesive tape	Connecting Hose	Heat insulation material	Gypsum powder	Drain hose

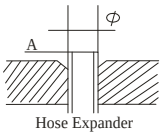
4. Choose the installation place

- Install the indoor unit where the weight of the unit can be supported.
- Install the indoor unit where the heat source and steam source are not close and the unit inlet and outlet are not blocked.
- Install the indoor unit where the drainage is easy and the outdoor unit can be easily connected.
- Install the indoor unit where its cold air and hot air can be easily sent to all the comers of the room.
- Install the indoor unit where the power socket is near and there is sufficient space around the indoor unit.
- Install the indoor unit where there is no T.V set, radio set, and wireless applian ce underneath, and the sunlight lamp is over one meter away.
- If the remote controller is installed on the wall, the indoor unit shall be ensured to receive the signal while the sunlight lamp is on.

5. Method for Cutting and Expanding Pipes.

When the pipe is too long or the mouth is damaged, the pipe needs to cut or expanded.

1.cutting hose 2.Removing burr 3.Put on nut 4.Expand Hose



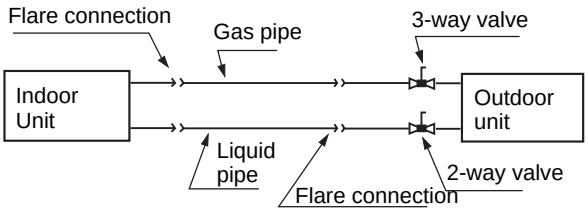
Expansion Size

Hose dia. Φ	Size (mm)A
6.35 mm(1/4)	0.8-1.5
9.52 mm(3/8)	1.0-1.5

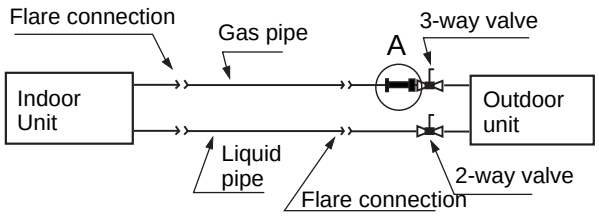
Correct	Not Correct				
	 Tilting	 cracks on expanded mouth	 burr	 incomplete	 too long

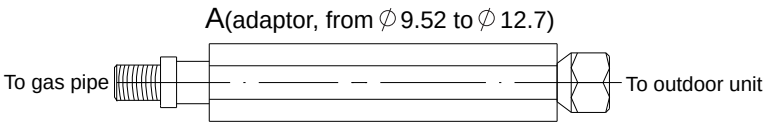
6. Piping Connection

AS072XVERA
AS092XVERA
AS122XVERA

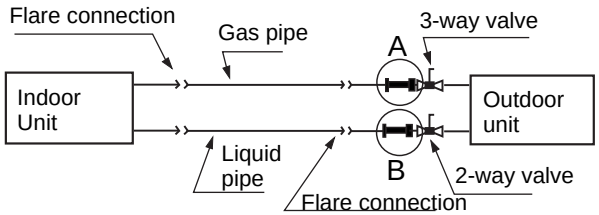


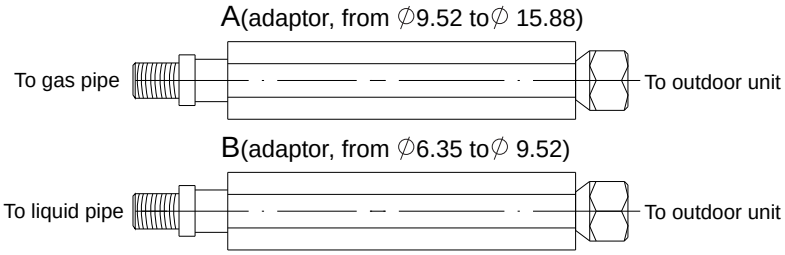
AS182XVERA





AS222XVERA

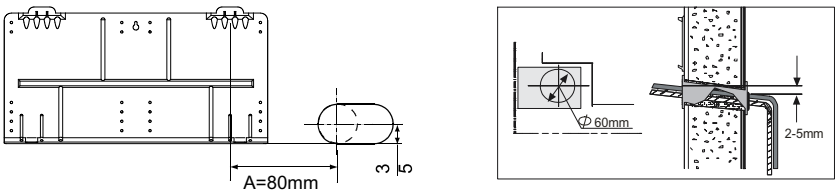




AS092XVERA AS122XVERA AS142XVERA	Gas pipe	∅ 9.52mm
	Liquid pipe	∅ 6.35mm
AS182XVERA	Gas pipe	∅12.7mm
	Liquid pipe	∅ 6.35mm
AS222XVERA	Gas pipe	∅15.88mm
	Liquid pipe	∅ 9.52mm

7. When the mounting plate is first fixed

1. Carry out, based on the neighboring pillars or lintels, a proper leveling for the plate to be fixed against the wall, then temporarily fasten the plate with one steel nail.
2. Make sure once more the proper level of the plate, by hanging a thread with a weight from the central top of the plate, then fasten securely the plate with the attachment steel nail.



3. Making a Hole on the wall and Fitting the piping Hole cover.

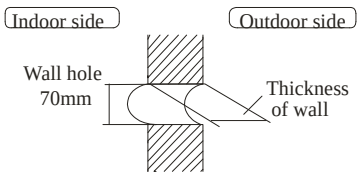
- Make a hole of 60mm in diameter, slightly descending to outside the wall.
- Install piping hole cover and seal it off with putty after installation.

4. Drawing of pipe Rear piping

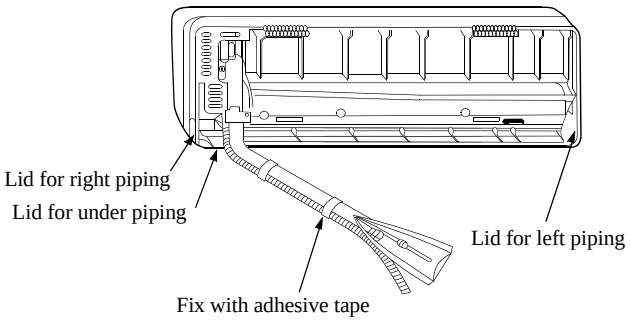
Draw pipes and the drain hose, then fasten them with the adhesive tape. Left Left-rear, piping.

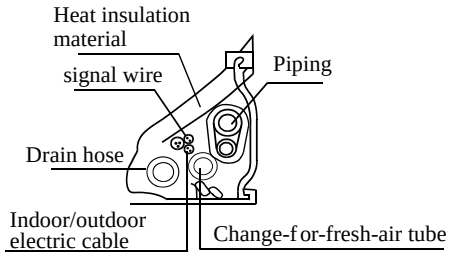
- In case of left side piping, cut away, with a nipper, the lid for left piping.
- In case of left-rear piping, bend the pipes according to the piping direction to the mark of hole for left-rear piping which is marked on heat insulation materials.

(1) Insert the drain hose into the dent of heat insulation materials of indoor unit.
(2) Insert the indoor/outdoor electric cord from backside of indoorunit, and pull it out on the front side, then connect them.
(3) Coat the flaring seal face with refrigerant oil and connect pipes.
Cover the connection part with heat insulation materials closely, and make sure fixing with adhesive tape.



(Section of wall hole) Piping hole pipe





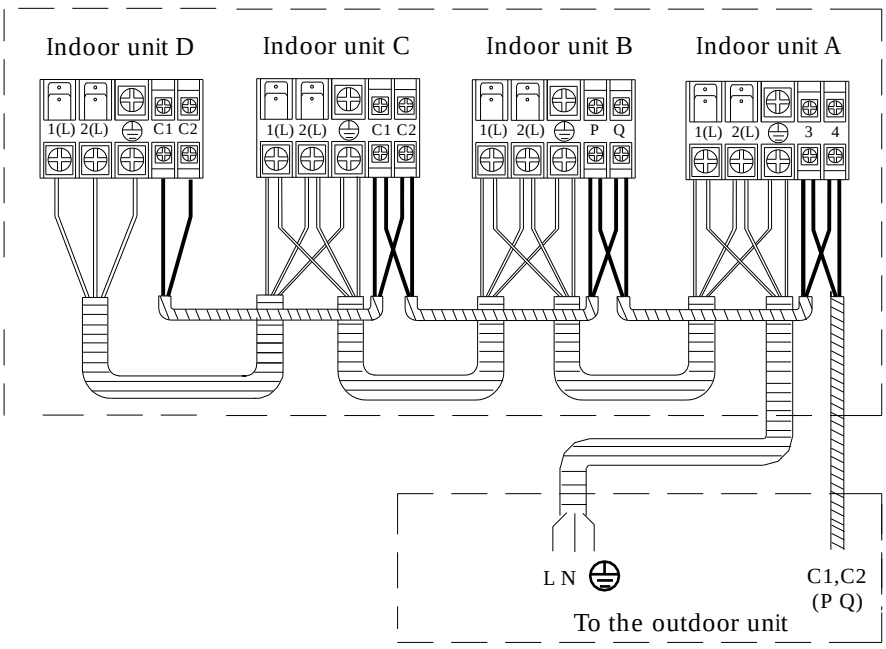
Indoor/outdoor electric cord and drain hose must be bound with refrigerant piping by protecting tape

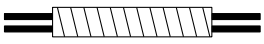
8. Other direction piping

- Cut away, with a nipper, the lid for piping according to the piping direction and then bend the pipe according to the position of wall hole. When bending, be careful not to crash pipes.
- Connect beforehand the indoor/outdoor electric cable, and then pull out the connected to the heat insulation of connecting part specially.
- Hang surely the unit body onto the upper notches of the mounting plate. Move the body from side to verify its secure fixing.
- In order to fix the body onto the mounting plate, hold up the body aslant from the underside and then put it down perpendicularly.

9. Wiring connection

The distance between the signal wires and the power cabes should be at least 50mm.





Communication cable (Shield wire): H05RN-F 2X1.5mm^2

Connecting cable : H05RN-F 3G 2.5mm^2

Please refer to the indoor unit installation manual to find detailly how to set and check the communication address.

Incorrect address setting will cause abnormal to the system.and then put it down perpendicularly.

Signal connecting cable must be sheilded type.

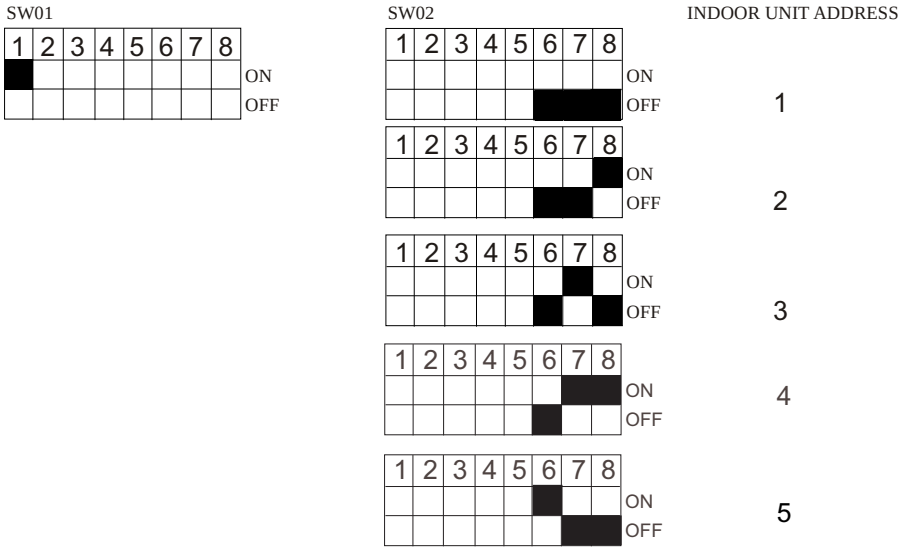
10. Indoor unit communication addresses setting

CAUTION! FAIL TO DO THIS, THE UNIT WILL NOT WORK.

1.There are two methods to set the communication address
A. Use the remote controller(default status in first installation).
B. Use dip switches on the indoor unit PCB.
2. Address setting procedure when using the remote controller.
A. Set the addresses only after the successful installation of the refrigerant pipes and connecting cables, and open all the stop valves;
B. Please confirm that the indoor units and the outdoor unit in the same system use the same power source;
C. Power on the units, but put all the indoor units in the status of STANDBY;
D. Please note that the address must be set as following:
Indoor unit that connect to valve A, the address must be 1;
Indoor unit that connect to valve B, the address must be 2;
Indoor unit that connect to valve C, the address must be 3;
Indoor unit that connect to valve D, the address must be 4;
Indoor unit that connect to valve E, the address must be 5;

E. Example: set unit A to address 1.
Continuously press the emergency switch for about 15 seconds, the buzzer will sound 4 times(PI PI PI PI) and then leave go of the switch. At this time, the indoor unit has entered the address setting procedure. But the LCD display board is blank.
F. Use the controller to turn on the indoor unit. At this time, the controller should be changed from OFF to ON, and then the LCD display board will display number “1”. That is to say, the address setting is enabled.
G. Press the button “SLEEP” on the controller, the times you press it stands for the address you want to set, detailed as following:
Press button “SLEEP” one time, the address is “1”, and the LCD display board shows “1”;
Press button “SLEEP” two times, the address is “2”, and the LCD display board shows “2”;
Press button “SLEEP” three times, the address is “3”, and the LCD display board shows “3”;
Press button “SLEEP” two times, the address is “4”, and the LCD display board shows “4”;
Press button “SLEEP” three times, the address is “5”, and the LCD display board shows “5”;
H. Use the remote controller to turn off the unit, At this time, the controller should be changed from ON to OFF, and the unit will exit the address setting procedure, the address will be memorized. The LCD display board will always display the address of this indoor unit until the system be powered off.

I. If you want to change the address, please repeat the above steps from E to G.
J. After setting all the addresses, please power off the system and then power on again. Otherwise the system will not start to work.
K. Once the addresses are successfully set, please do not change it any more to avoid confusion.
3. Address setting procedure when using the DIP switches SW01 and SW02.
A. The DIP switches SW01 and SW02 are on the indoor unit PCB.
B. Before carrying out the address setting work, the system must be powered off.
C. Take off the front panal and the filters, then take off the flaps and also the front cover,disconnect the swing motor connectors from the PCB and then take out the lower part of the PCB.
D. Change the position of DIP 1 of SW01 from OFF to ON, if fail to do this, the addresses set by SW02 will not work.
E. Use SW02 to set the addresses as following(DO NOT CHANGE OTHER DIP SWITCHES):



4. How to check the addresses?
When finish all the above works, please power off and power on again to the whole system but set all the indoor units in STANDBY. Then continously press the emergency switch until you hear the buzzer sound 5 times(Pi Pi Pi Pi Pi), and then the LCD display board will show the address of this indoor unit. Press any key on the remote controller, it will exit the address checking precedure.

11.Installation check and trial operation

Check the Layout of the Drain Pipe and Connection Wires, and also the piping and address setting. The drain pipe should be placed underneath, and the connection wires should be placed upside; and the drain pipe especially the section inside the machine and indoors must be wound up with insulating material to preserve heat. The drain pipe shall be sloped and no concave and convex shall occur along the whole pipe. And the cases as the right figure indicates shall not occur.

12.Installation check

- Is power supply voltage required?
- Is water completely drained to outdoors?
- Are power wire and connection wires between indoor and outdoor units correctly connected?
- Is any gas leaked from the pipe connectors?
- Are series numbers of the terminals on the indoor and outdoor units corresponding to each other? Is the connection section of the auxiliary pipe insulated? Is the indoor unit fixed firmly?
- Is noise big?

13.Trial operation

The person who has completed this installation shall be requested to conduct a test operation for check:
- Is the temperature adjuster working normally?
- Does the location for installation conform to requirements?

Winding up with Protective Plastic Tape.The connection pipes,drain pipe, and the connection wires shall be wound up with PVC tape.

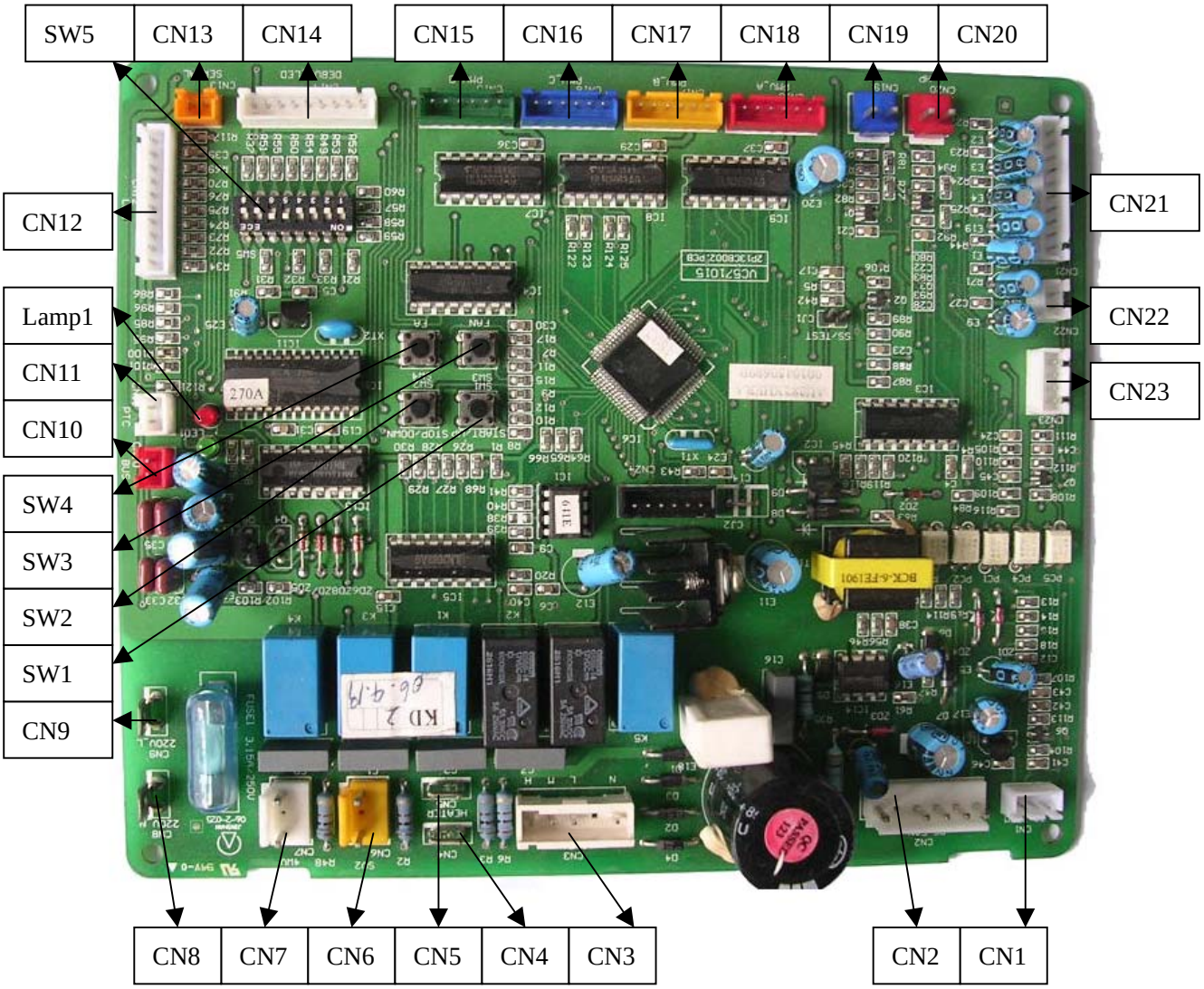
Notes: The connection pipes shall also be wound up with insulating material to preserve the temperature. The airing direction shall be from bottom to top.

5. PCB photo,Wiring diagram and function description

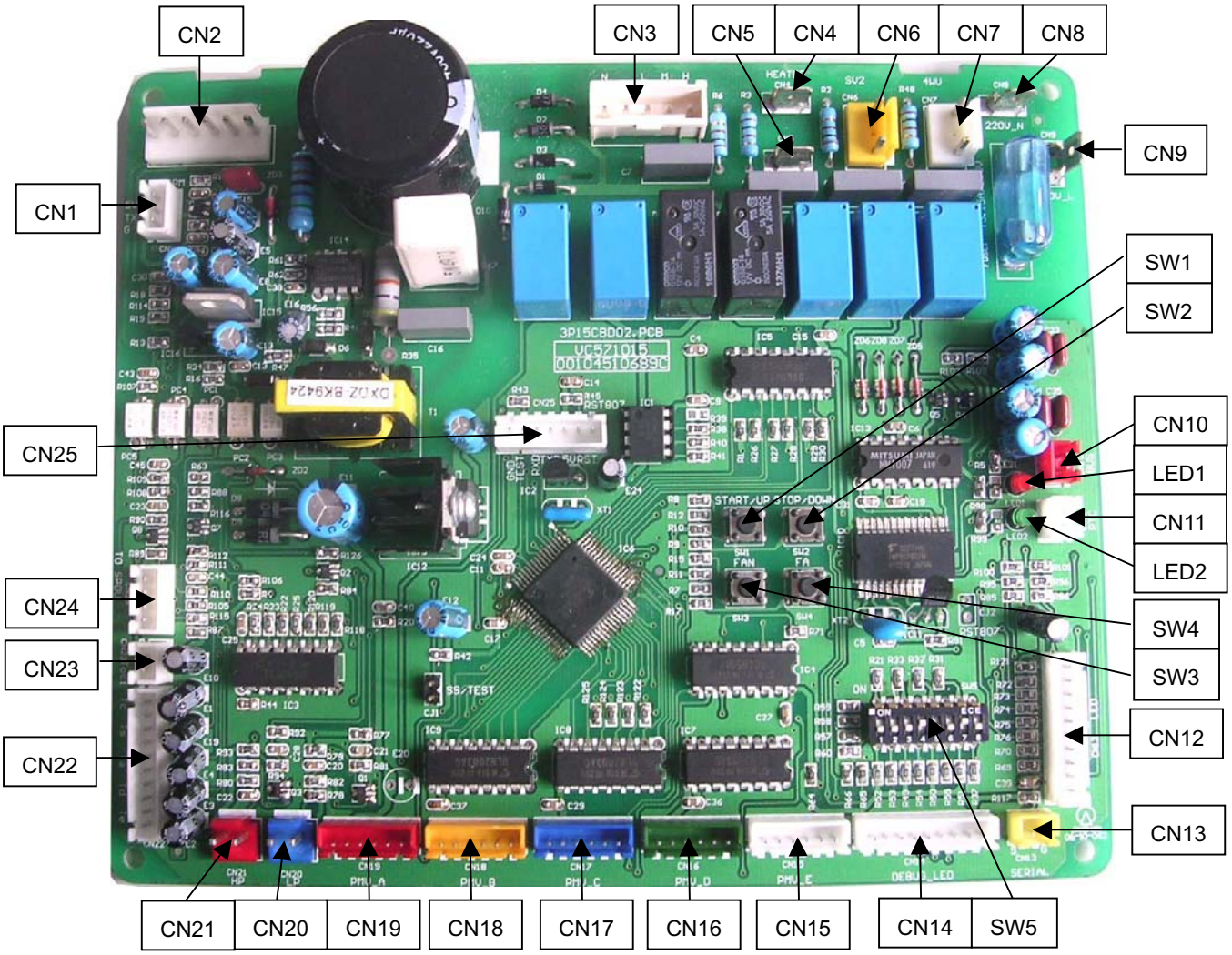
5.1 Outdoor unit

5.1. 1. Outdoor PCB photo

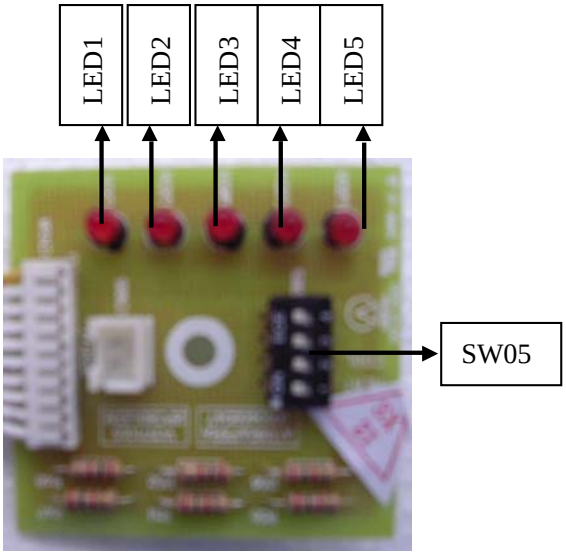
0010450689BE



PCB board 0010450689C



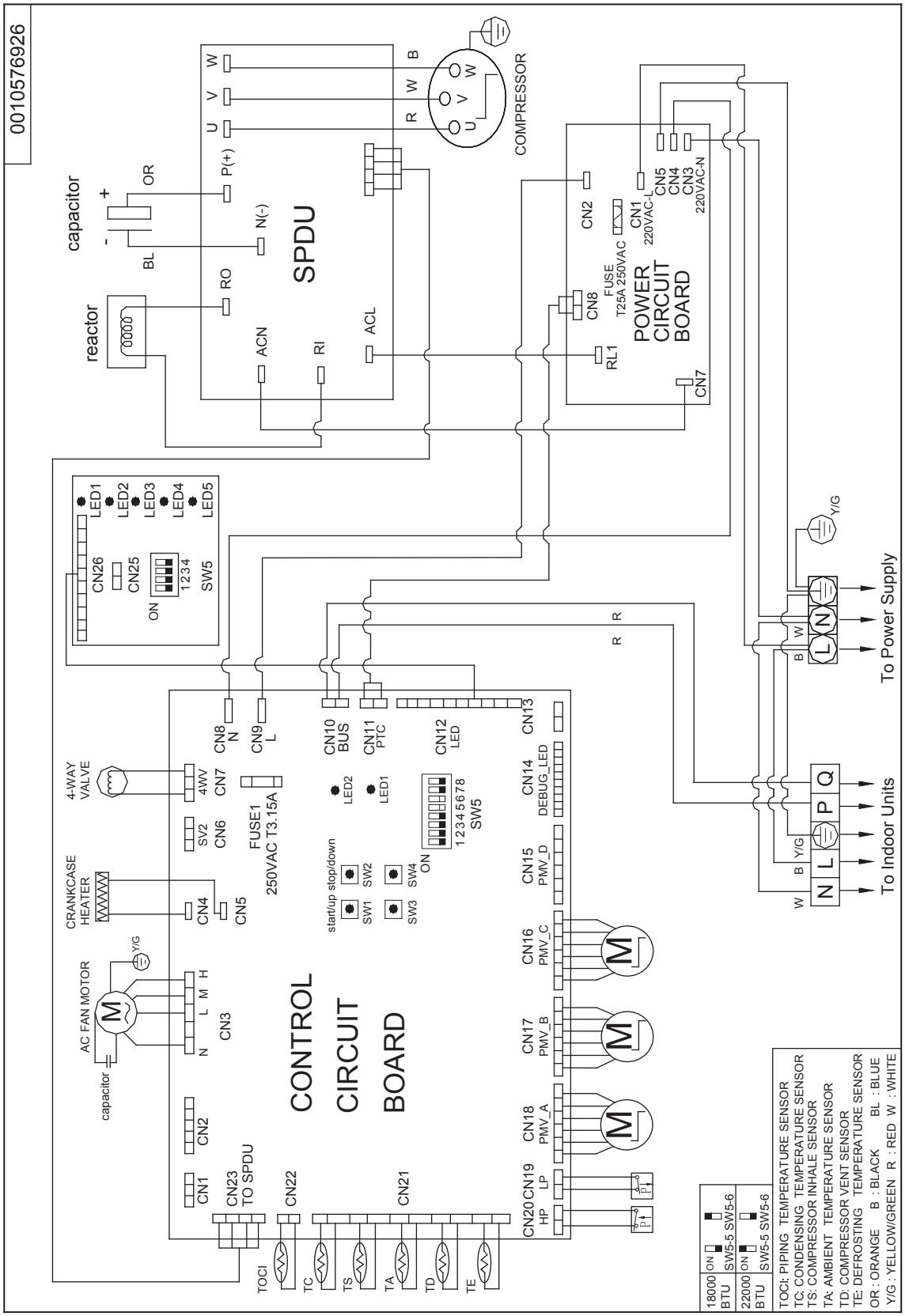
0010452047



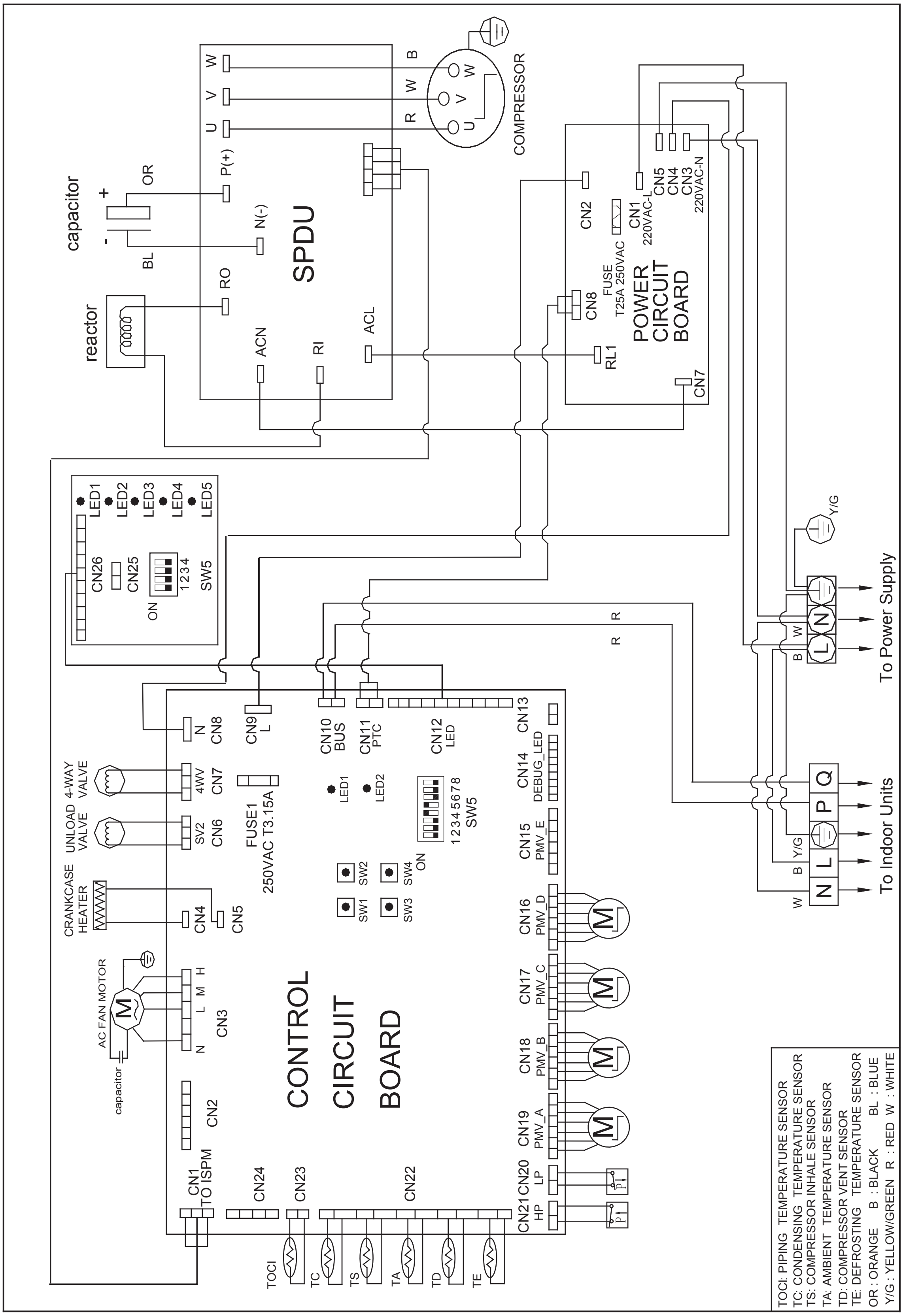
SW05 is used for factory quality control engineers, the default position is : OFF OFF OFF OFF

5.1.2. Wiring diagram

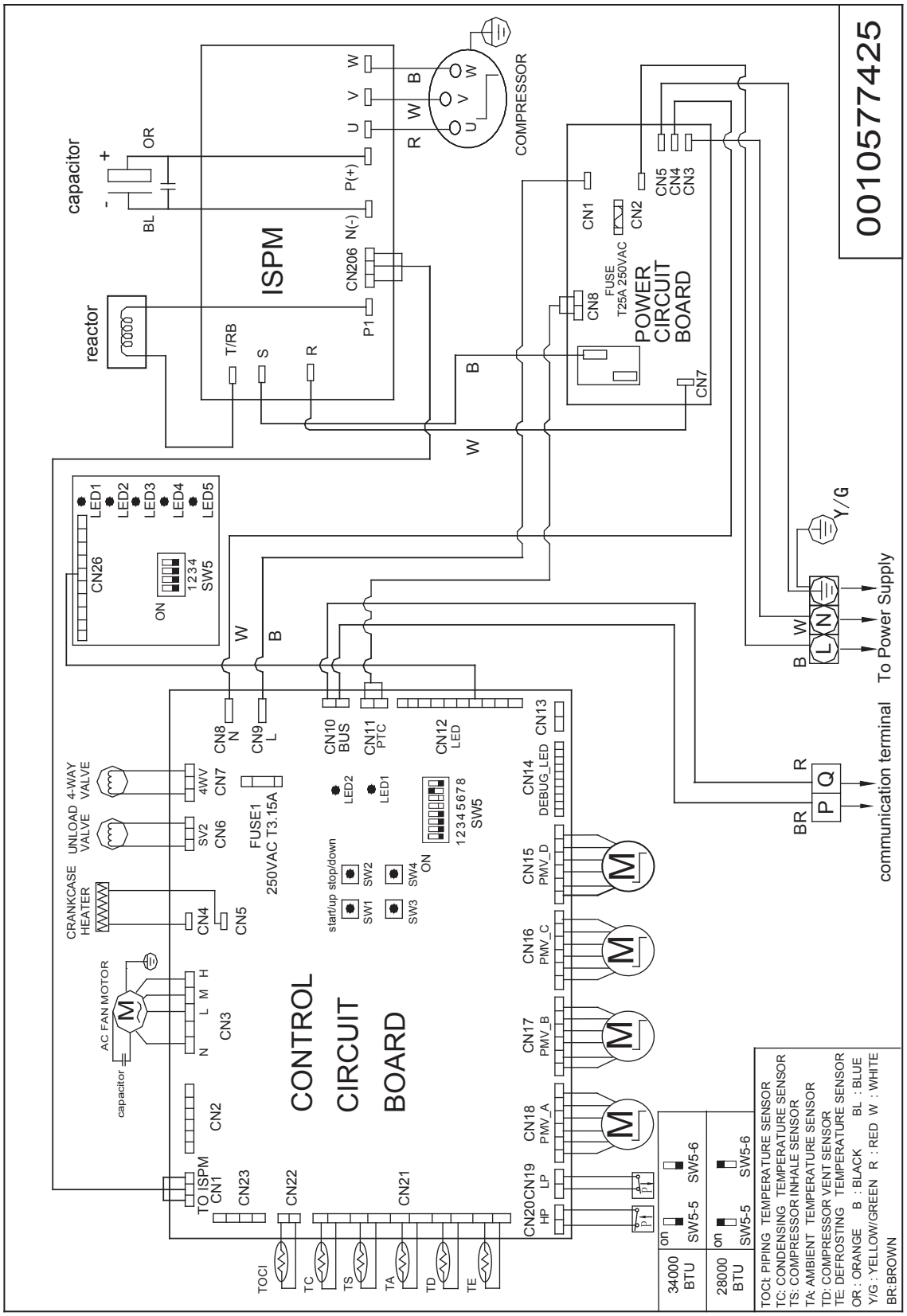
AU182\222XFERA



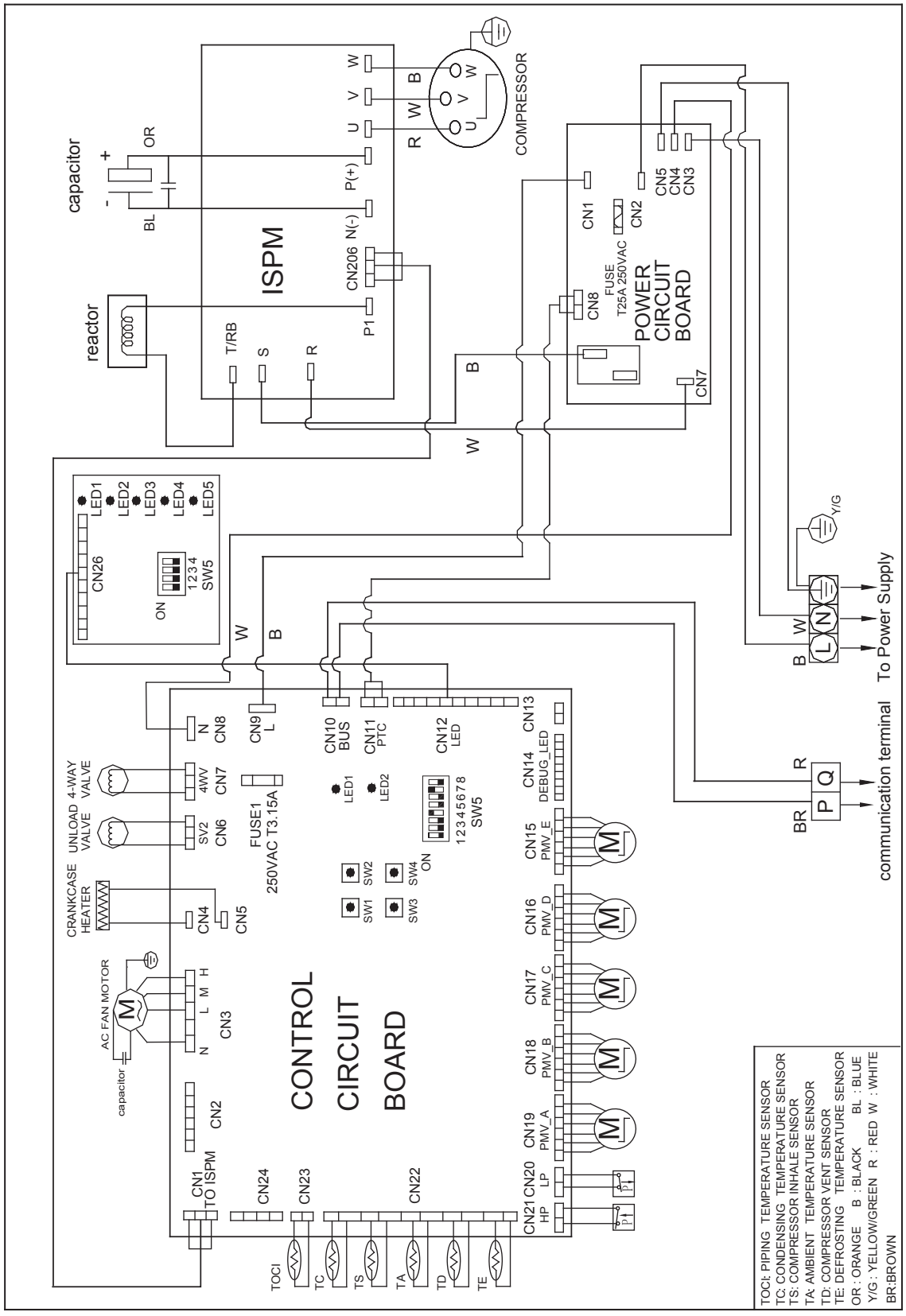
AU252XGERA:


COMPRESSOR
SPDU
capacitor
reactor
OR
BL
P(+)
N(-)
RO
ACN
RI
ACL
U
V
W
R
B
POWER CIRCUIT BOARD
CN1
220VAC-L
CN2
CN3
220VAC-N
CN4
CN5
CN7
CN8
RL1
FUSE
T25A 250VAC
LED1
LED2
LED3
LED4
LED5
CN26
CN25
SW5
ON
1 2 3 4
To Power Supply
To Indoor Units
Y/G
CONTROL CIRCUIT BOARD
CN1 TO ISPM
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10 BUS
CN11 PTC
CN12 LED
CN13
CN14 DEBUG_LED
CN15 PMV_E
CN16 PMV_D
CN17 PMV_C
CN18 PMV_B
CN19 PMV_A
CN20 LP
CN21 HP
CN22
CN23
CN24
FUSE1
250VAC T3.15A
SW1
SW2
SW3
SW4
1 2 3 4 5 6 7 8
AC FAN MOTOR
CRANKCASE HEATER
UNLOAD VALVE
4-WAY VALVE
4WV
SV2
TOCI
TC
TS
TA
TD
TE
TOCI: PIPING TEMPERATURE SENSOR
TC: CONDENSING TEMPERATURE SENSOR
TS: COMPRESSOR INHALE SENSOR
TA: AMBIENT TEMPERATURE SENSOR
TD: COMPRESSOR VENT SENSOR
TE: DEFROSTING TEMPERATURE SENSOR
OR : ORANGE B : BLACK BL : BLUE
Y/G : YELLOW/GREEN R : RED W : WHITE

AU282XHERA,AU342XHERA Wiring Diagram



AU362XHERA


capacitor
OR
BL
reactor
ISPM
T/RB
S
R
P(+)
N(-)
CN206
P1
U
V
W
R
W
B
COMPRESSOR
CN1
CN2
CN5
CN4
CN3
CN8
FUSE
T25A 250VAC
POWER
CIRCUIT
BOARD
CN7
LED1
LED2
LED3
LED4
LED5
CN26
ON
1234
SW5
Y/G
L
N
To Power Supply
communication terminal
P
Q
BR
CONTROL
CIRCUIT
BOARD
CN9
CN10
BUS
CN11
PTC
CN12
LED
CN13
CN14
DEBUG_LED
CN15
PMV_E
CN16
PMV_D
CN17
PMV_C
CN18
PMV_B
CN19
PMV_A
CN20
LP
CN21
HP
CN22
CN23
CN24
CN1
TO ISPM
CN2
CN3
L M H
CN4
CN5
CN6
SV2
CN7
4WV
CN8
FUSE1
250VAC T3.15A
SW1
SW2
SW3
SW4
12345678
SW5
UNLOAD VALVE
4-WAY VALVE
CRANKCASE HEATER
AC FAN MOTOR
capacitor
TOCI
TC
TS
TA
TD
TE
TOCI: PIPING TEMPERATURE SENSOR
TC: CONDENSING TEMPERATURE SENSOR
TS: COMPRESSOR INHALE SENSOR
TA: AMBIENT TEMPERATURE SENSOR
TD: COMPRESSOR VENT SENSOR
TE: DEFROSTING TEMPERATURE SENSOR
OR : ORANGE B : BLACK BL : BLUE
Y/G : YELLOW/GREEN R : RED W : WHITE
BR:BROWN

5.1.3 Switch setting and functions:

No	Item
A8	**Set in factory**
C1	Switch function: SW5-1---outdoor fan motor selection, ON: DC fan motor; OFF: AC fan motor
	Switch function: SW5-2---defrosting data setting, ON=6degree, OFF＝8degree (set when out of factory). For the place where is easy to frost, it is 6 degree; for the place hard to frost, it is 8 degree.
C2	Switch function: SW5-3，SW5-4---piping length selection, the set data is M when out of factory. S（SW5-3=OFF SW4=ON） L（SW5-3=ON SW4=OFF） - （SW5-3=ON SW4=ON） M（SW5-3=OFF SW4=OFF）
C3	Switch function: SW5-4,SW5-5,SW5-6--outdoor horse power selection. the current limitation is different too. The corresponding selection must be taken, or the module protection will occur.) AU18 AU22 AU28 AU34 AU25 AU36 SW5-4 ON ON SW5-5 OFF ON ON OFF ON OFF SW5-6 ON OFF ON OFF OFF OFF
C4	Switch function: SW5-7，SW5-8： **SW5-7－pre-set, set as OFF when out of factory.** **SW5-8－silent operation function, ON---available, OFF---not available (set when out of factory)** When it is ON, the max. fan speed is Class-6, and the max. running frequency is 10Hz.
C8	**Set in factory**

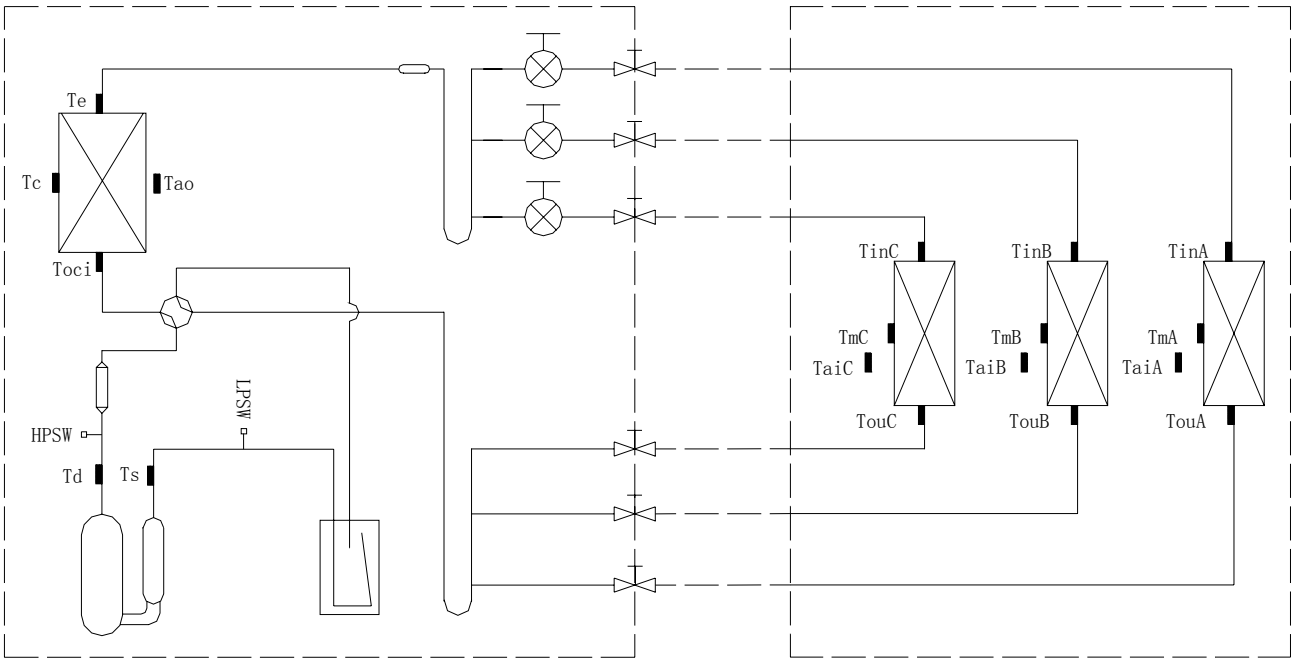
2. Defination of 4-bit dip switch SW5 on failure indicator board:

1	2	3	4	Defination
OFF	OFF	OFF	OFF	State when out of factory (normal state)
OFF	ON	OFF	OFF	Compulsory cooling: frequency 60HZ, outdoor fan motor Class-7, fixed open angle 300, the others are in normal state
ON	OFF	OFF	OFF	Compulsory heating: frequency 50HZ, outdoor fan motor Class-5, fixed open angle 300, the others are in normal state
OFF	OFF	ON	OFF	Rated operation: auto changeover for cool/heat, max. frequency 53HZ(E) in cooling, and max. frequency 72HZ(E) in heating, the frequency is set automatically in other states.

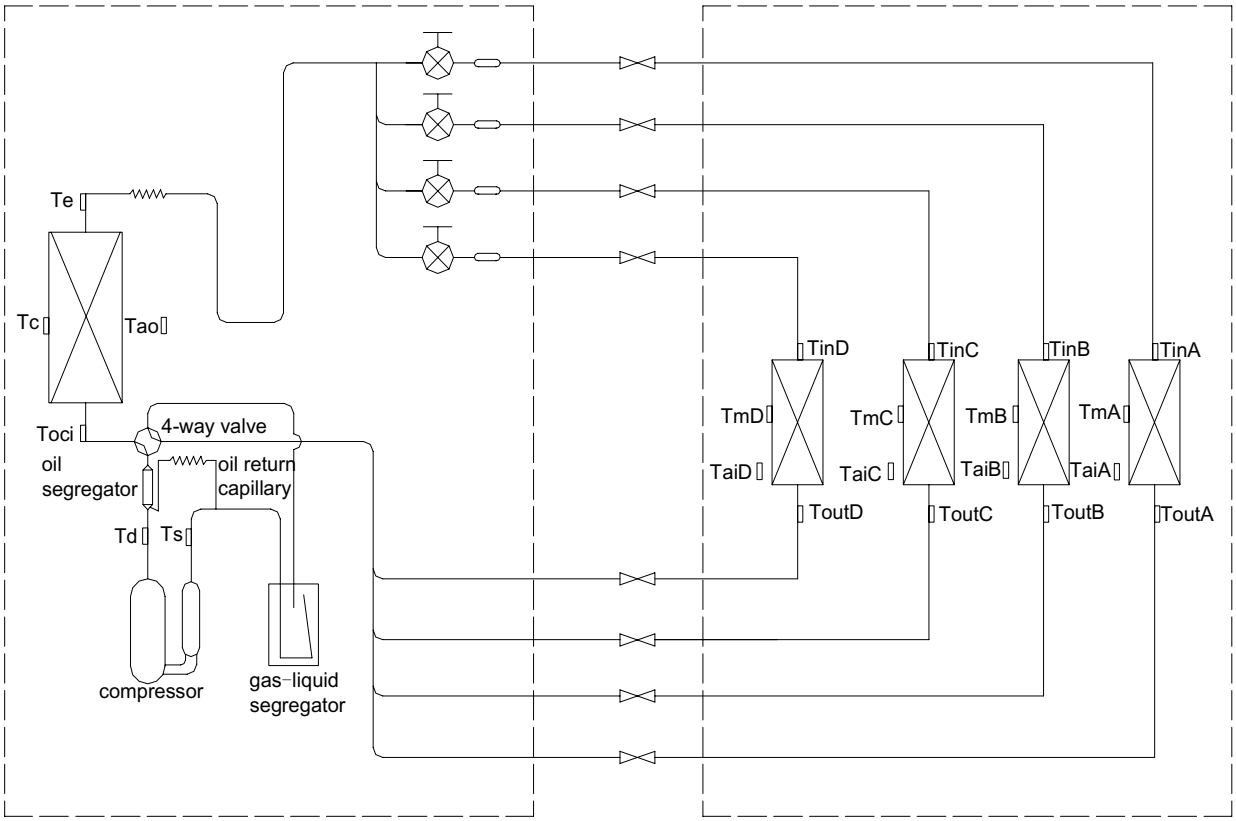
3. Main control functions

3.1 Refrigerant diagram

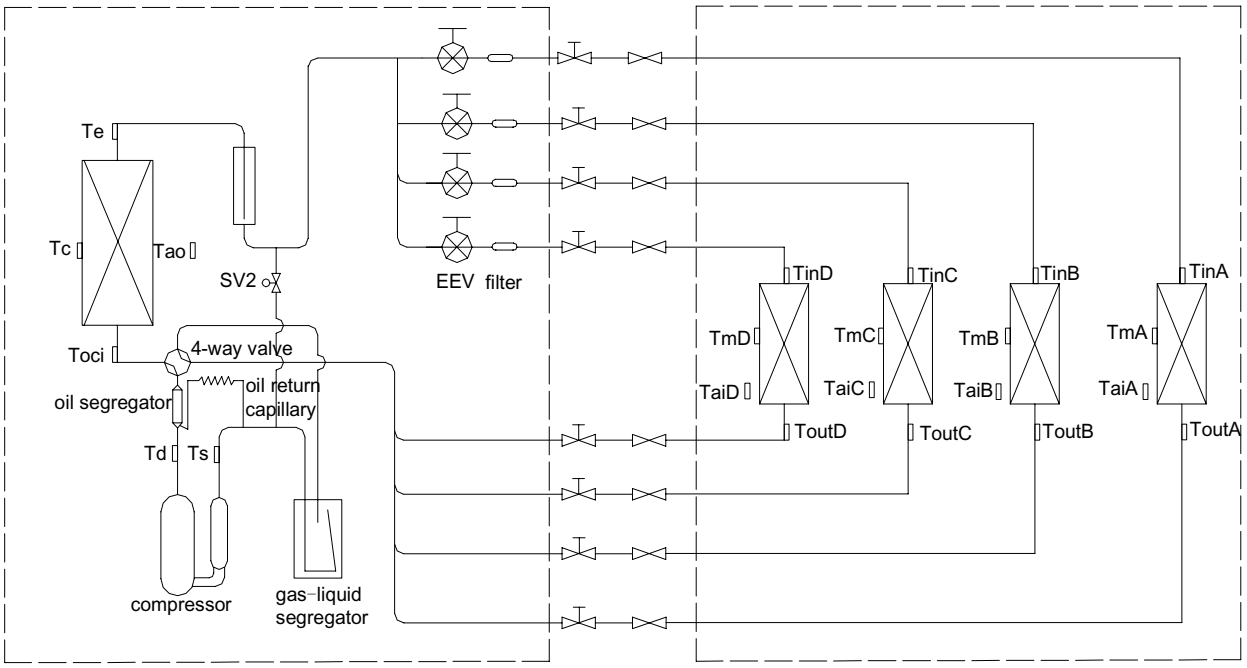
Pipe system for AU182XFERA and AU222XFERA



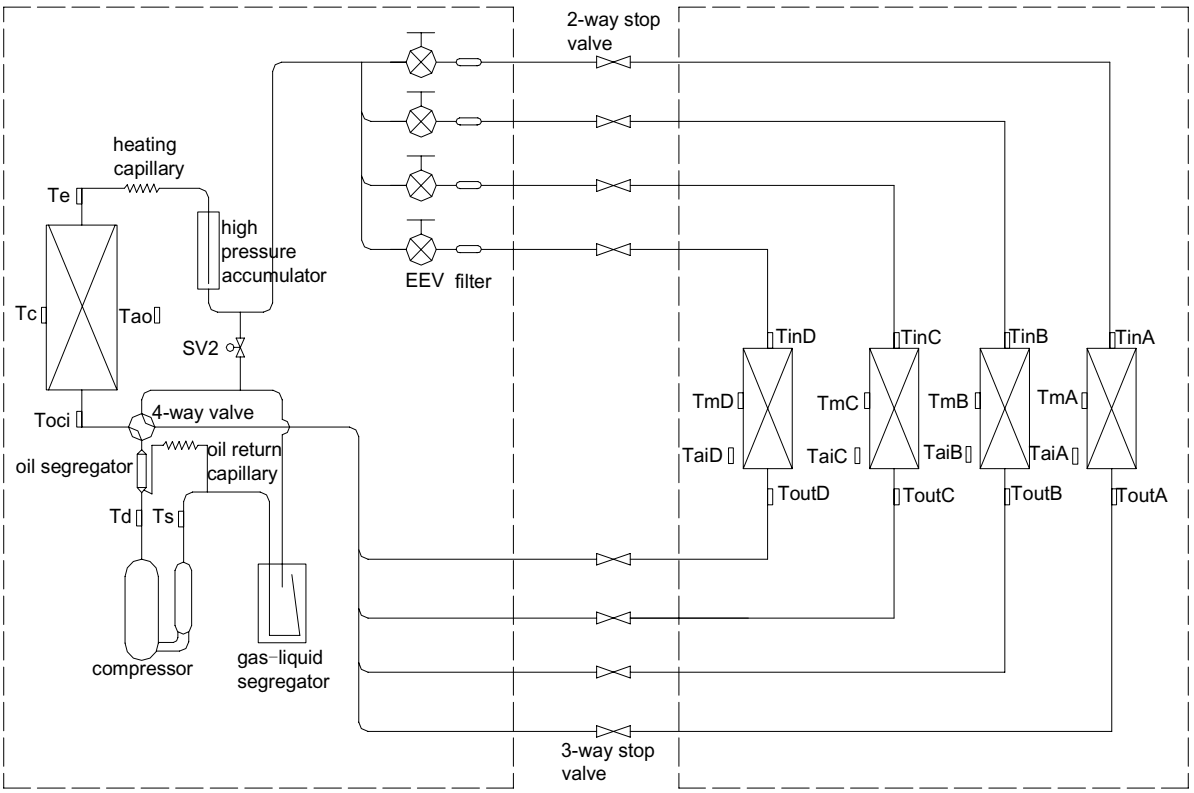
Pipe system for AU252XGERA



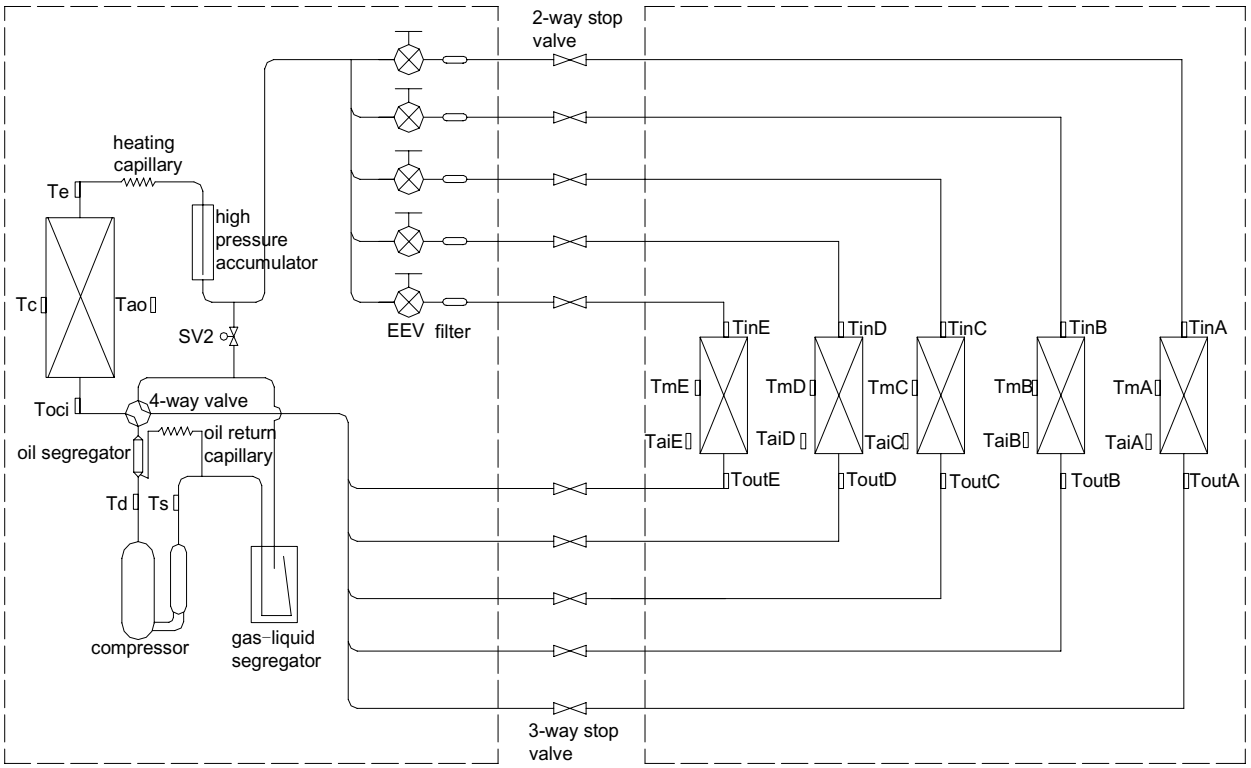
Pipe system for AU282XGERA



Pipe system for AU342XHERA



Pipe system for AU362XHERA



Outdoor:
Td: discharging temp.sensor;
Ts: suction temp.sensor;
Te: defrosting temp.sensor;
Toci: condenser inlet temp.sensor;
Tc: med-condenser temp.sensor;
Ta: outdoor ambient temp.sensor;
SV2: spraying refrigerant solenoid valve.
Indoor:
TinA: indoor A liquid pipe temp.sensor;
ToutA: indoor A gas pipe temp.sensor;
TmA: indoor A med-coil temp.sensor;
TaiA: indoor A ambient temp.sensor.

3.2 Outdoor frequency control

3.2.1 Compressor running frequency range: 20~90RPS

3.2.2 Defination of high-efficiency operation and its frequency control

In order to meet the cooling request at high ambient temperature and the heating request at low ambient temperature, we set the high-efficiency operation.

Entering condition: cooling mode, Tao≥33℃(E), heating mode, Tao≤5℃(E).

3.3 Electronic expansion valve (EEV) control

3.3.1 Electronic characteristic

Max. open angle	500 pulse
Driving speed	PPS

3.3.2 Initialization of EEV

EEV driving speed: open direction: 32MS; close direction: 32MS

3.3.3 Open angle limitation of EEV

	Unit stop	Adjustable upper limitation	Thermostat ON	Thermostat OFF	Adjustable lower limitation
Cool/dry	5（E）	450（E）	standard open angle+tolerance	5（E）	80（E）
heat	60（E）	450（E）	standard open angle+tolerance	60（E）	80（E）

3.3.4 Standard open angle control

In Cool/Dry mode, standard open angle: outdoor ambient temp.≥20℃, 250 pulse(E);

Outdoor ambient temp.＜20℃, 210 pulse(E);

In Heat mode, standard open angle: outdoor ambient temp.≥10℃, pulse (E);

outdoor ambient temp.＜10℃, 210 pulse (E).

3.3.5 When discharging temp. Td is too high, modify the EEV angle.

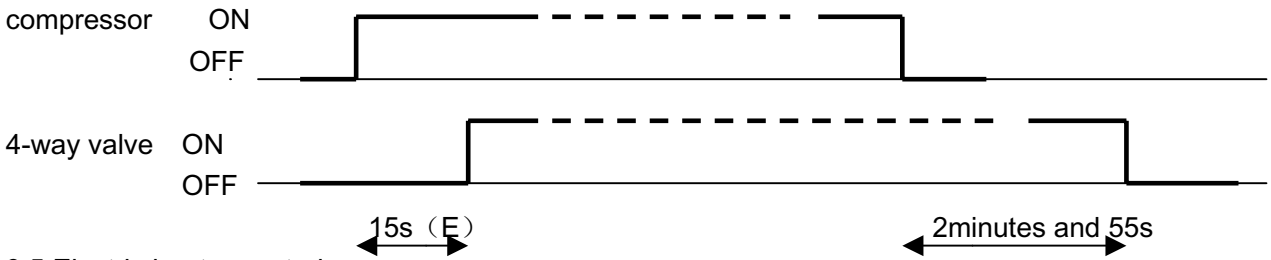
In order to cooperate the compressor discharging temp. over high protection, the system will enlarge the EEV open angle. Within 5 minutes after compressor starts up, it will not modify. The detecting period is 30 seconds.

Cooling mode	**Indoor modification angle**
100℃<discharging temp.	+50degree/30seconds, it will stop until up to the max. permitted opening angle
90℃< discharging temp.<=100℃	Keep the angle
<=90℃	-5degree/30seconds, and reduce to 0 degree gradually
Heating mode	**Indoor modification angle**
100℃< discharging temp.	+50degree/30seconds, it will stop until up to the max. permitted opening angle
90℃< discharging temp.<=100℃	Keep the angle
<=90℃	-5degree/30seconds, and reduce to 0 degree gradually

3.4 4-way valve control in heating

Protection when 4-way valve can not reverse in heating:

10 minutes later after compressor startup, if indoor coil average temp. is below 15degree and keeps for 1 minute, the unit will stop and occur the 4-way valve protection.



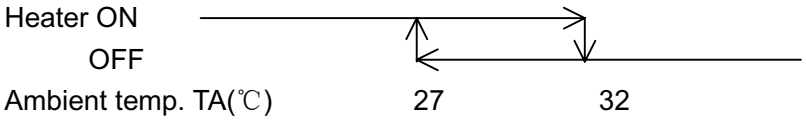
3.5 Electric heater control

If compressor has not run for a long time, the refrigerant will deposit on the bottom of compressor and mix with the refrigeranr oil. When re-startup, because low pressure reduces, refrigerant will be segregated from the refrigerant oil and cause soam in the oil, which will make compressor exhaust a lot of oil. Therefore please stop heating the compressor bottom to ensure the low pressure in startup period should

not go down greatly.

✧ Ambient temp. TA≤27degree, when compressor stops, the electric heater will be electrified.

✧ When TA≥32degree, or compressor running, the electric heater will be off.



3.6 Control of liquid spray valve SV2:

According to the compressor discharging temp., open or close the SV2.

①Control condition:

A. In every mode (including defrosting and oil return operation), the control can work.

B. In 3 minutes after compressor startup, ignore the abnormal compressor suction and discharging value.

②3 minutes later after compressor startup, according to the discharging temp., the following procedure will be taken:

Td≤90℃, SV2 close;

Td＞110℃, SV2 open.

③In 150 seconds when compressor stops, in order to keep the system in balanc, please open the liquid spray valve SV2. 150 seconds later after compressor stops, SV2 close.

3.7 Control of defrosting in heating

In heating mode, defrosting temp. sensor will check the frosting condition of outdoor heat exchanger and make defrosting control.

3.7.1 Enter condition:

①In heating mode, if the compressor has run for 10 minutes continously and run for 45 minutes in all, the system will measure the defrosting temperature sensor Te and outdoor ambient temp. sensor TA, if the below condition can be met for continous 5 minutes, the unit will enter defrosting operation:

$$Te \leqslant C \times TA - \alpha$$

Herein: C：TA＜0℃，C=0.8　TA≥0℃，C=0.6

According to SW2, the setting is as follow: in the place easy to frost, it is H; when out of factory, it is M.

Jumper selection	M(out of factory)	H
α (℃)	8(E)	6(E)

②Defrosting entering condition: -15℃≤C×TA－α≤-2℃

③Stop and Pause condition of compressor running accumulative time in heating mode:

Checking Stop: running operation changes from heating to cooling.

Checking Pause: thermostat OFF, or the unit stops.

3.7.2 Cancel condition:

It will take the max. 10 minutes from beginning defrosting to quit it. Te sensor will measure the condition of outdoor heat exchanger, if the temp. is over 7℃ for 60 seconds in all or is up to 12℃ for 30 seconds in all, the defrosting will be over.

3.7.3 Compulsory defrosting control

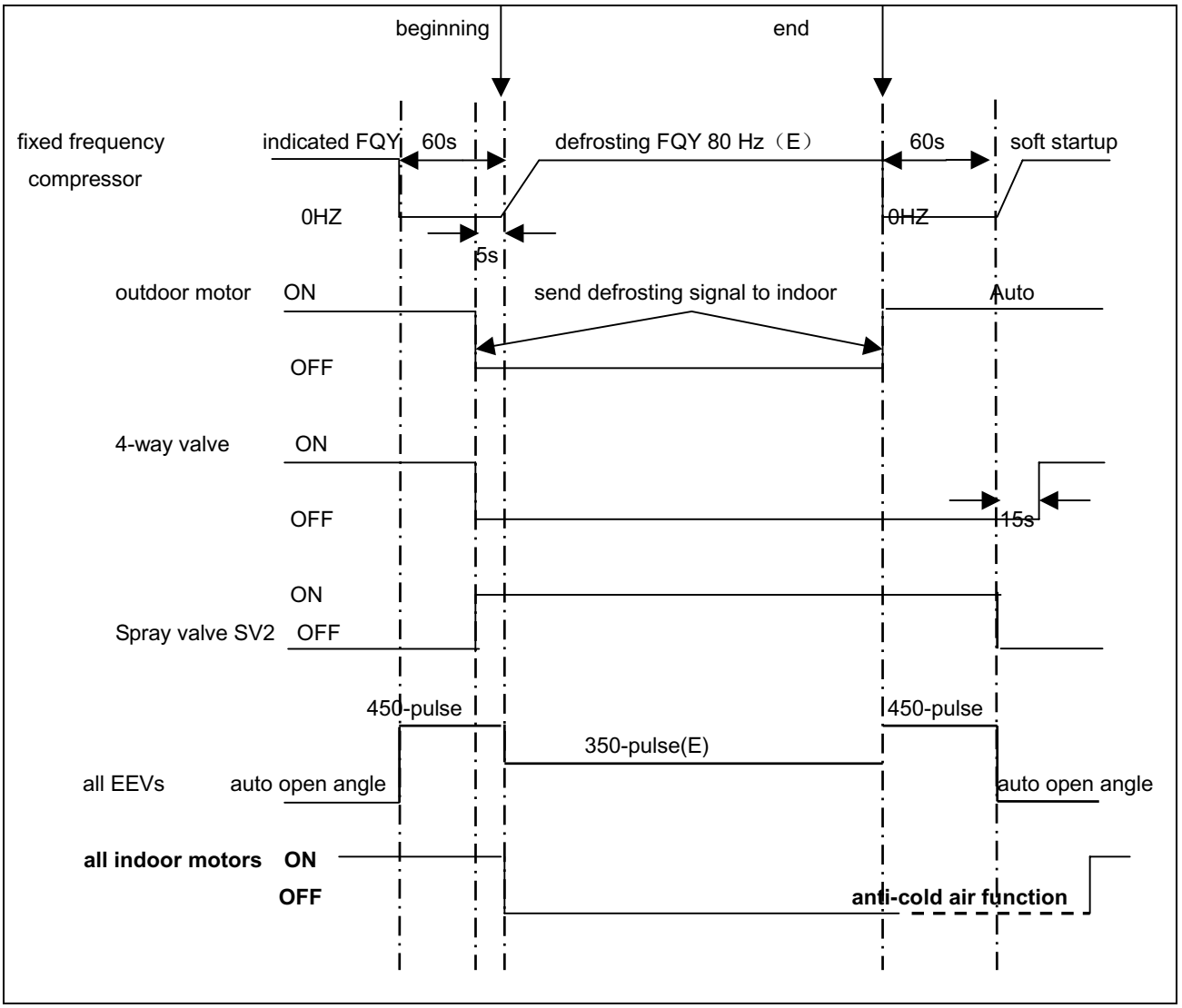
Enter condition: in heating mode, after receiving the compulsory defrosting signal from indoor unit, the unit will perform the compulsory defrosting operation.

Cancel condition: Te≥12℃ and keep for 1 minute or the defrosting time is over 10 minutes.

The manual defrosting signal of indoor unit will remain until the outdoor enters defrosting mode.

Note: When outdoor compressor not running, the unti still can enter manual defrosting, but it will comply with the 3-minute protection of compressor.

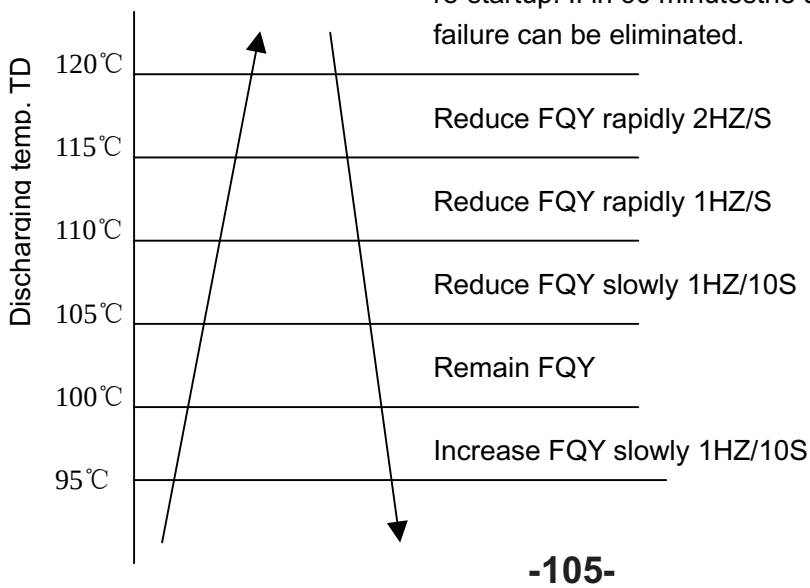
3.7.4 Defrosting operation flow chart



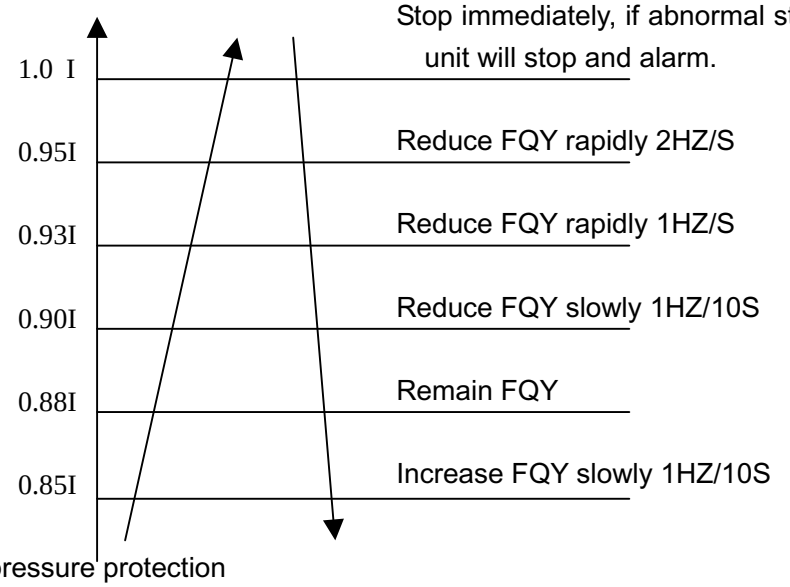
3.8 Frequency control when Td is too high

Purpose: make compressor frequency control if the discharging temp. is too high, to lower the discharging temp. efficiently and ensure the system can run normally.

If keeping for 10s, the unit stops, 3 minutes later, the unit can re-startup. If in 60 minutesthe unit occurs alarm for 3 times, the failure can be eliminated.



3.9 Frequency control when there is CT over current protection

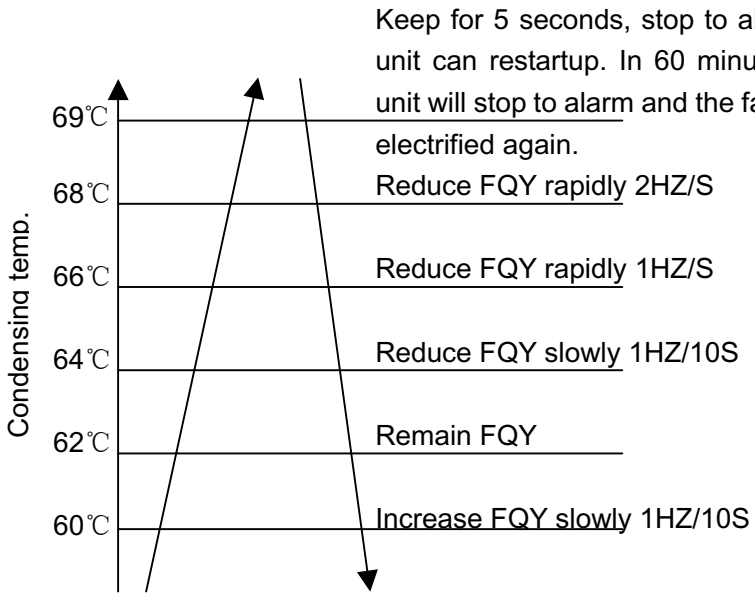


3.10 High pressure protection

When the input signal of pressure switch is high level:1, that shows there is no protection.

When the input signal of pressure switch is low level: 0 for 1 minute, that shows high pressure protection works. At this time, compressor stops, outdoor will send the alarm signal. The alarm can be resumable. If in 60 minutes, the failure occurs 3 times, the failure can be confirmed and send failure code to indoor. Meanwhile, by controling the max. condensate temp. Tc (cooling) or TmAVE (heating), please confirm as follow:

In nominal cooling/dry/heating mode, high pressure can be controlled by limiting the max. frequency.



3.11 Low pressure protection

(1) When compressor is running, if output signal of low pressure switch is low level: 0 for 1 minute continously, compressor will stop,outdoor alarms. The alarm can be resumable. If in 60 minutes, the failure occurs 3 times, the failure can be confirmed and send failure code to indoor.

(2) When compressor no running, if output signal of low pressure switch is low level: 0 for 30 seconds continously, alarm will occur.

• When unit stops, the reason that system still checks the low pressure : in a long time stop, make protection for the compressor on the condition of great refrigerant leakage.

• The reason that low pressure switch action time is 30 seconds: when compressor stops, low pressure does not change, so it will be shorter than the set time in operation.

(3) When compressor starts up, in 8 minutes, low pressure switch signal will be shielded.

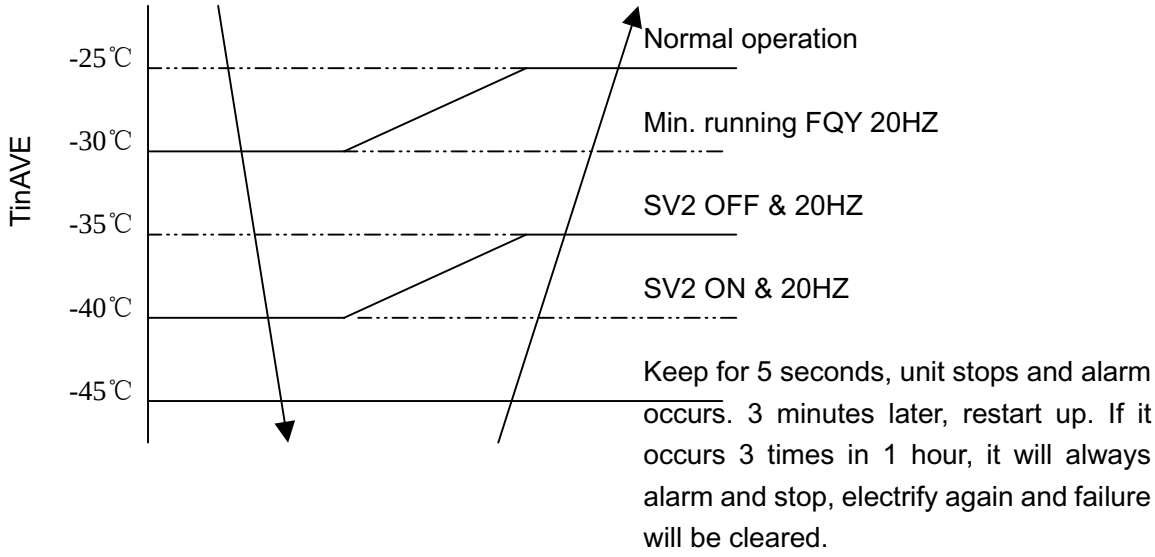
(4) In defrosting, low pressure switch will be shielded.

(5) In oil return procedure, low pressure switch will be shielded.

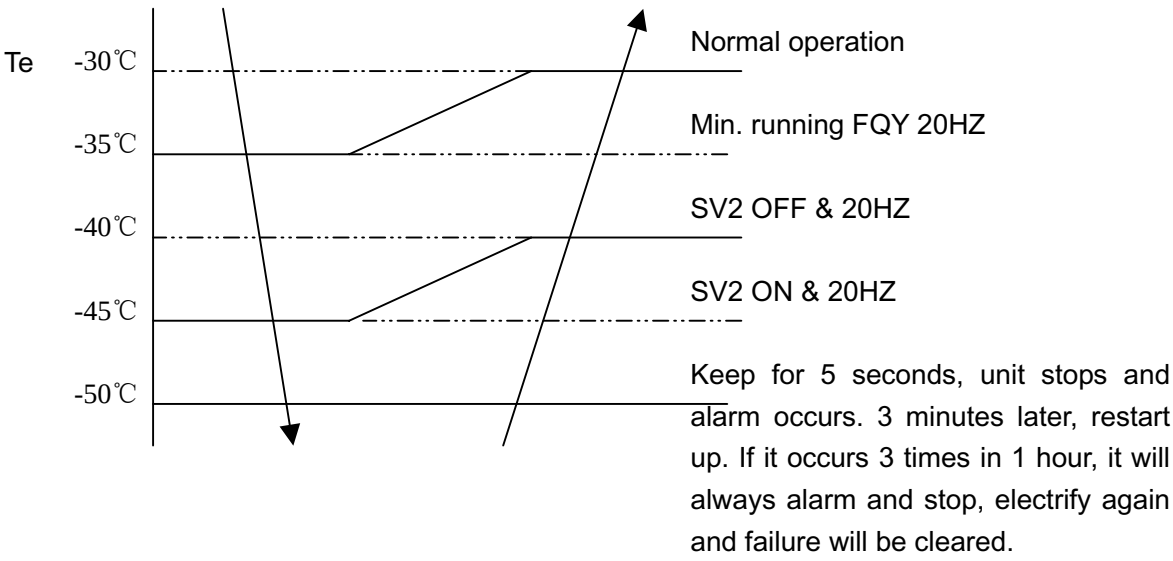
(6) In the refrigerant discharging procedure after the oil return in cooling is over, low pressure switch will be shielded.

In addition, the system will control low pressure through the evaporator temp. TE to realize the low pressure protection function.

In cooling, confirm through Tc2AVE:



In heating, confirm through defrosting temp. Te:



If the failure is not confirmed as the permanent protection, outdoor will not send failure code to indoor, and indoor will not alarm.

3.12 Oil return operation control

3.12.1 Entering condition

When the compressor running frequency is lower than 58Hz (E) continuously for 8 hrs, the system will enter oil return operation. In the course of mode changeover, manual unit stop or protective unit stop, the time will be accumulative. After the compressor restarts up, the time will be counted continuously. In a continuous 8 hrs, if the compressor running frequency is not less than 72Hz for over 10 minutes continuously, the accumulative time will be cleared. Also after the heating defrosting, the time will be cleared.

3.12.2 Procedure

Cooling mode: refer to “the oil return procedure in cooling mode”

Heating mode: refer to “the oil return procedure in heating mode”

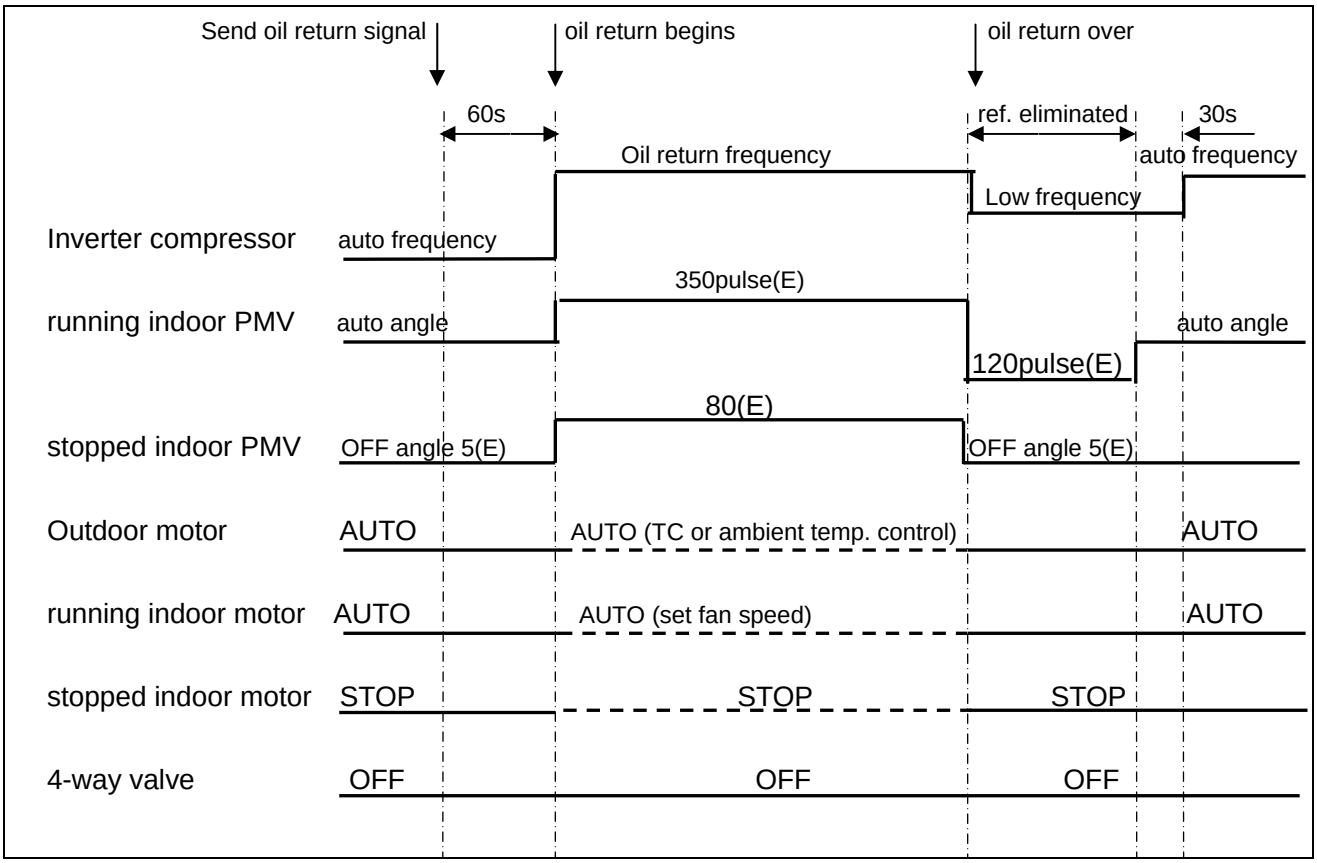
3.12.3 The protection treatment in oil return operation

In the course of oil return, because of protection or abnormal unit stop, after the unit restarts up, the time will not be cleared, the system will need another oil return operation. In the refrigerant flow course in the oil return of cooling mode or after the oil return, and within 5 minutes after the refrigerant being eliminated is over, the anti-freezed protection is invalid, and also the low voltage protection is invalid. But the other protection is valid.

In the course of oil return from heating mode to cooling mode, if abnormal condition occurs or the unit stops for protection, then the system needs not another oil return within 3 minutes after the unit stops and it will start up directly, then to heating mode.

In the course of oil return from heating mode to cooling mode, the anti-freezed protection is null and void, and the low voltage protection is null either. The other protection is valid.

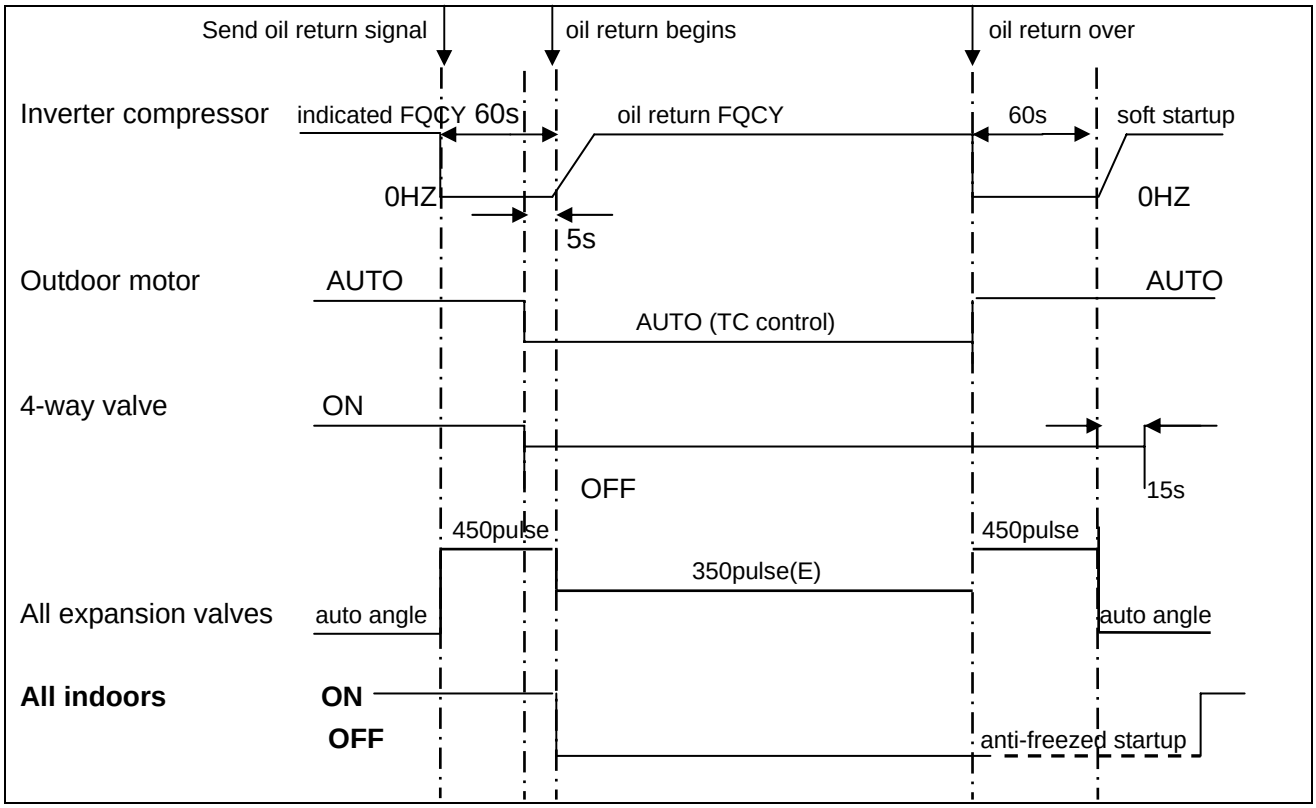
Oil return procedure in cooling mode:



After oil return in cooling mode, the quit condition of refrigerant eliminated:

OR
- & 1 minute later after oil return is over
  - OR
    - Td - Tc＞30℃
    - Ts - Tc2AVE＞30℃
    - Tc2AVE＜ - 35℃
- Max. 10 minutes

Oil return procedure in heating mode:

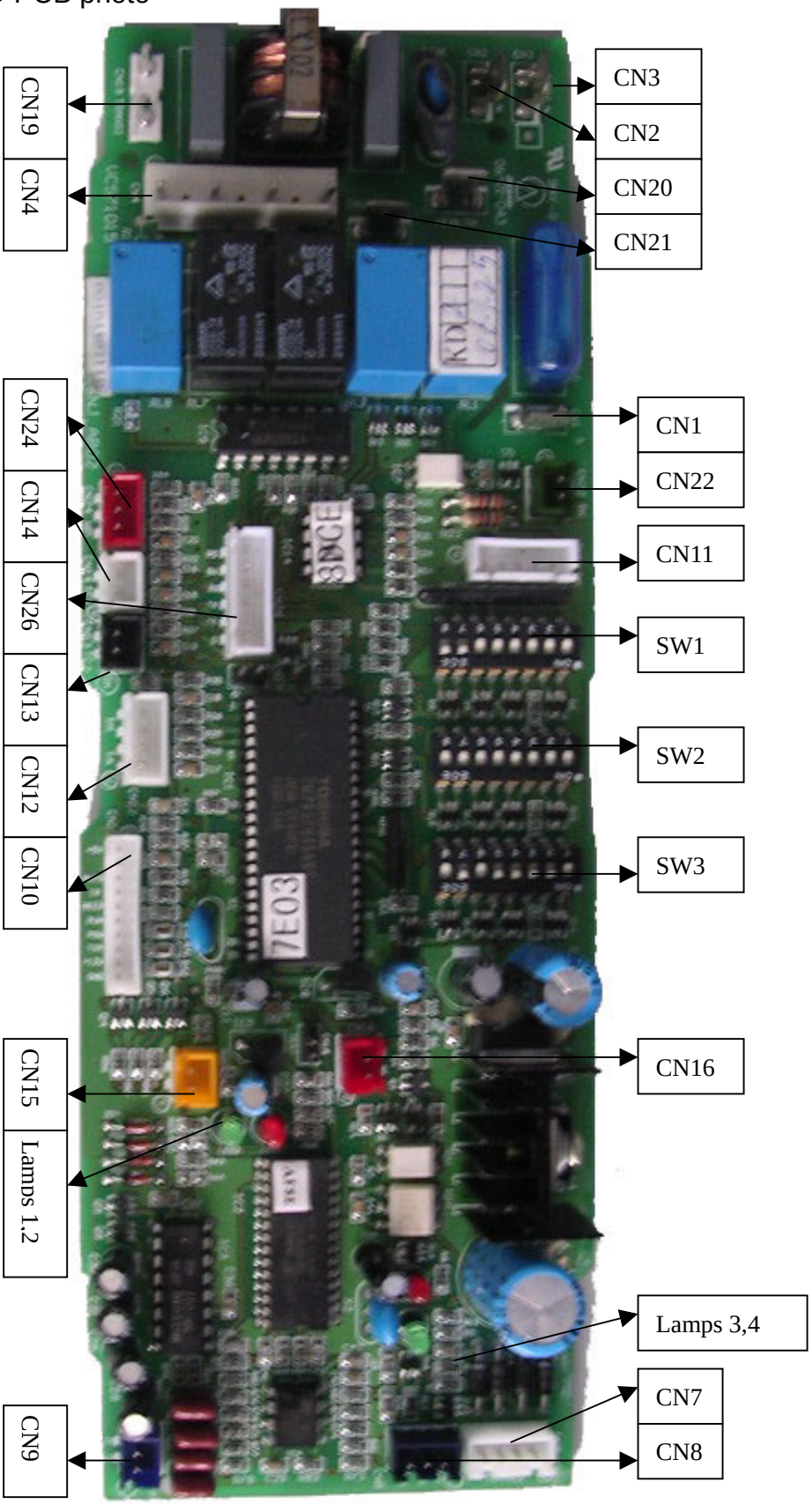


Quit condition of oil return:

OR
- Max. 9 minutes (E)
- & OR
  - Td - Tc＜20℃ for 30s continuously(5 minutes later, begin to count)
  - Ts - Tc2AVE＜15℃for 30s continuously(5 minutes later, begin to count)
- Running for min. 5 minutes(E)

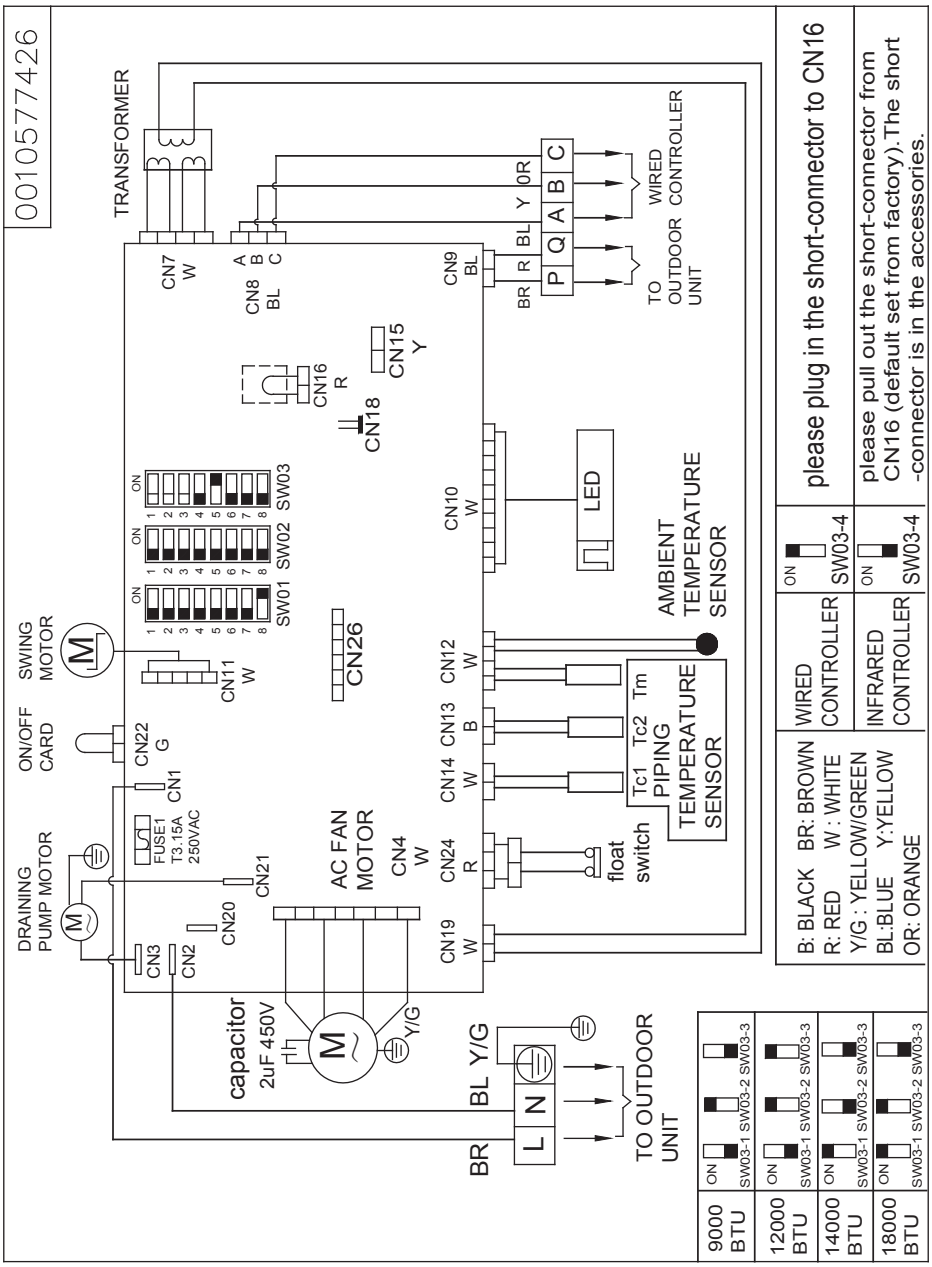
5.2 Indoor unit

5.2.1 AB,AD PCB photo

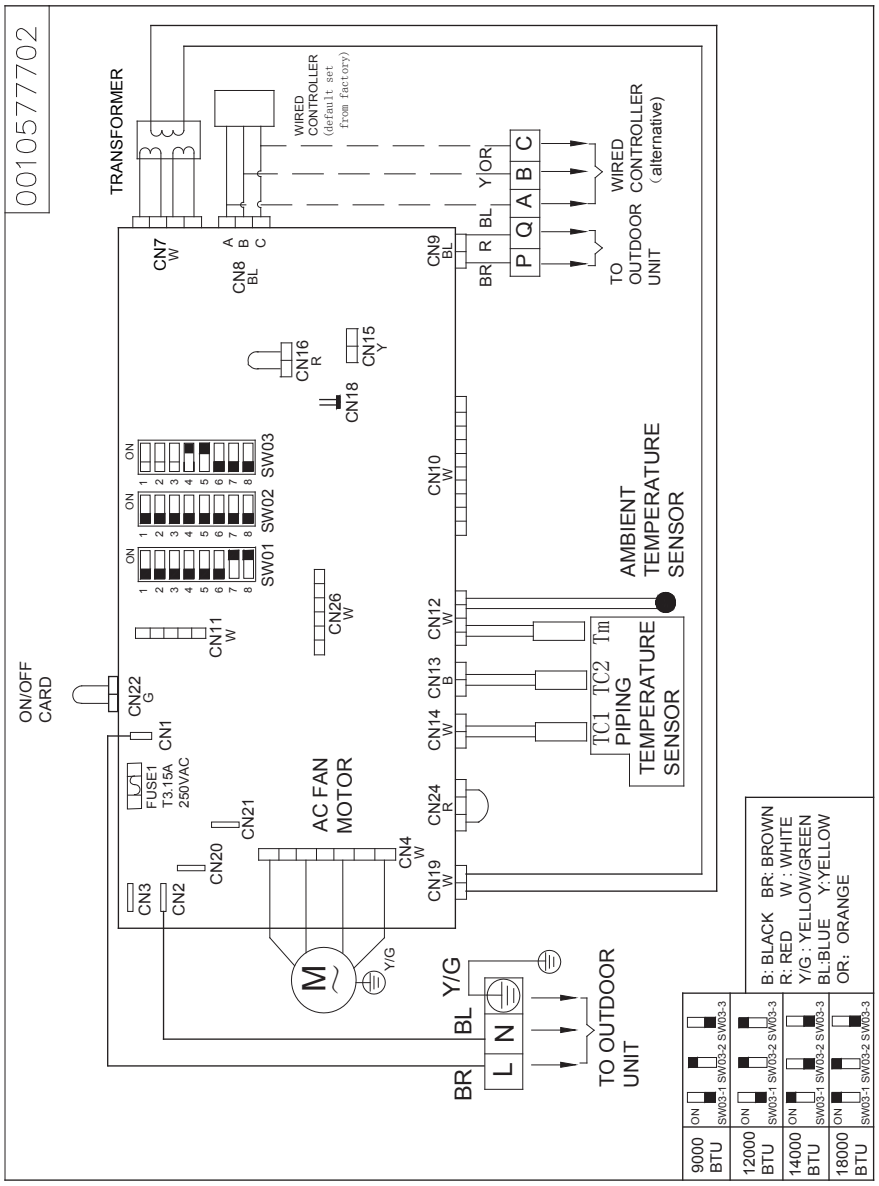


5.2.2. AB, AD Wiring Diagram

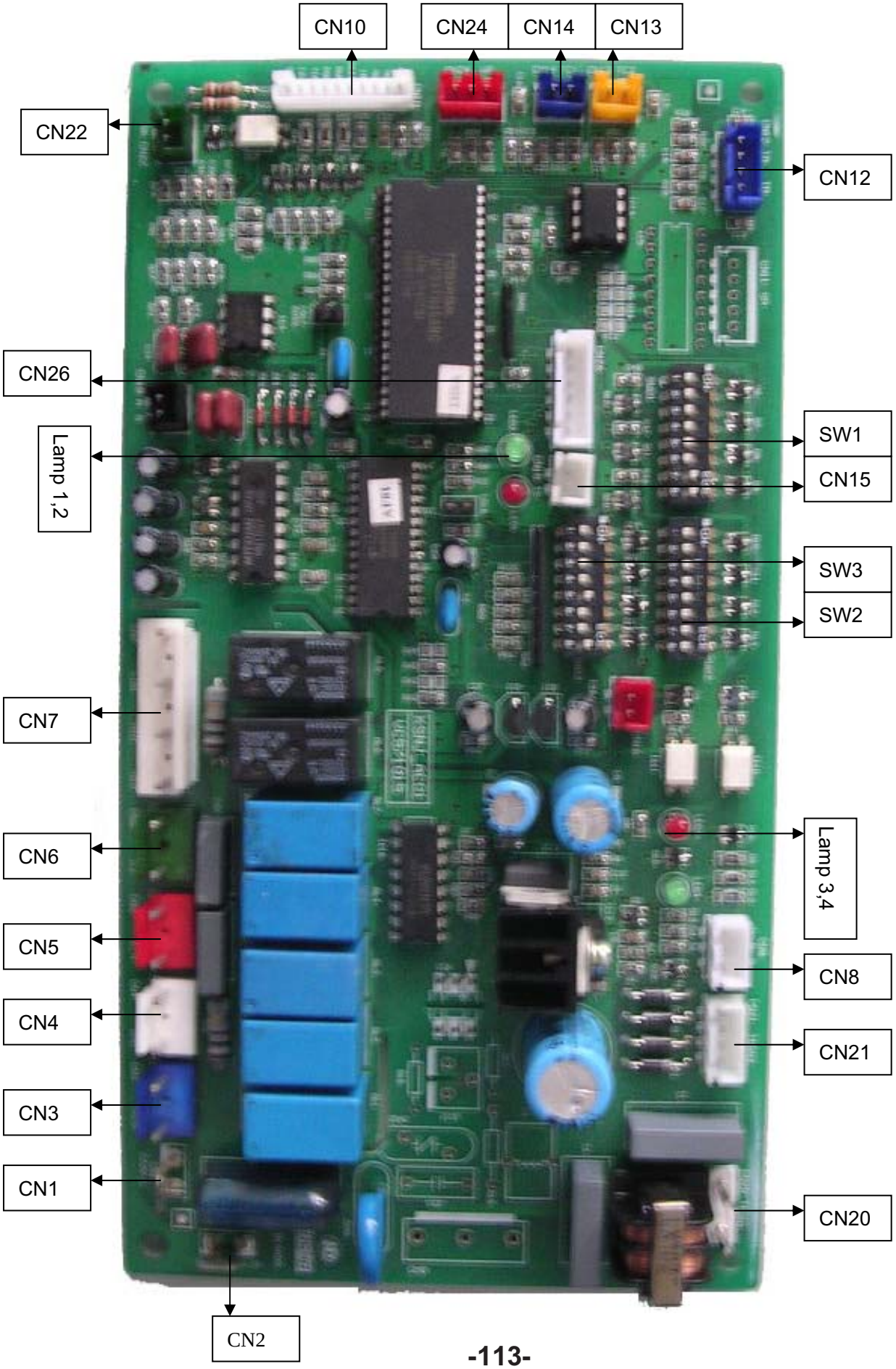
AB*XCERA:



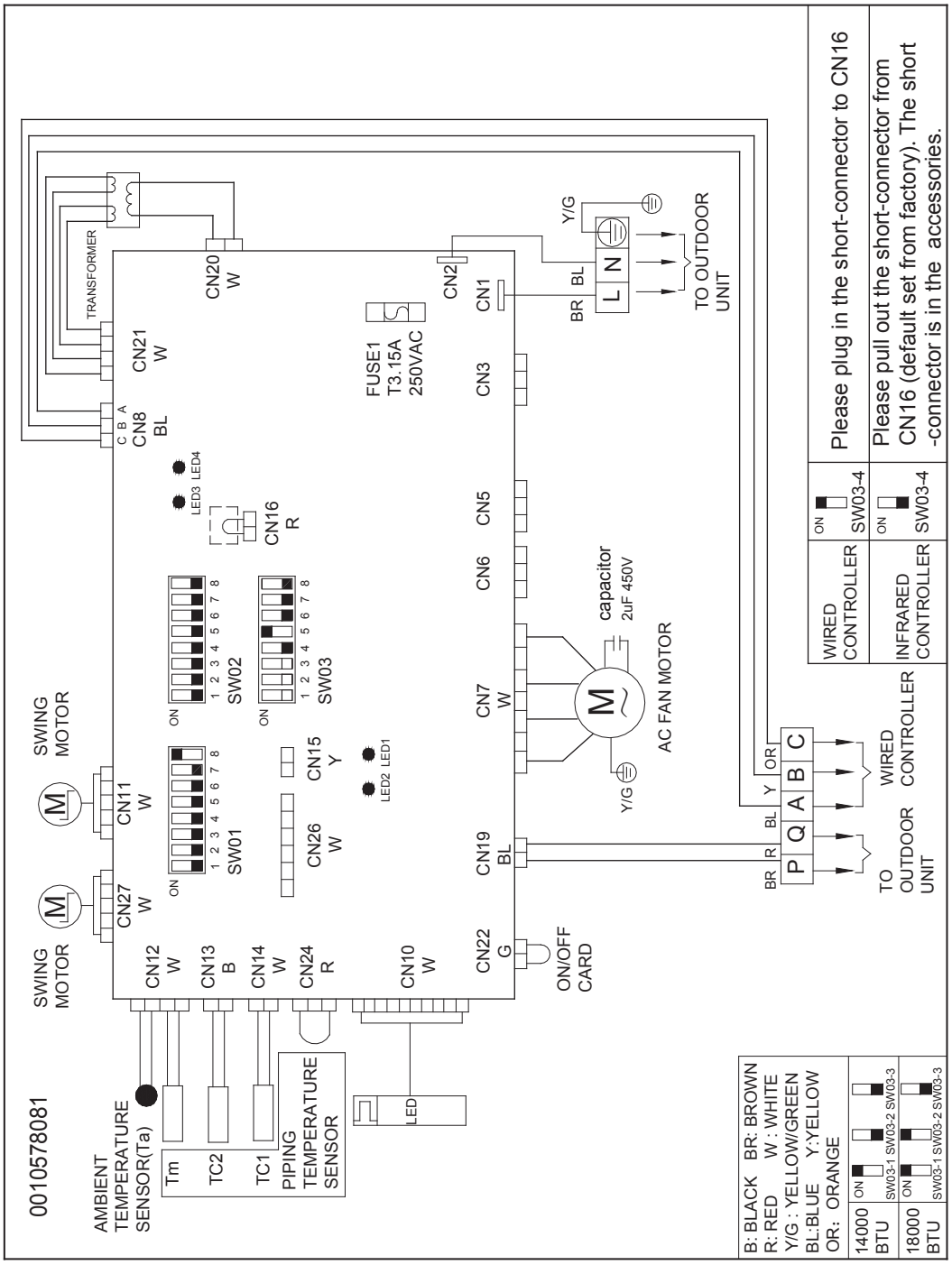
AD***XLERA


0010577702
TRANSFORMER
WIRED CONTROLLER (default set from factory)
WIRED CONTROLLER (alternative)
TO OUTDOOR UNIT
CN7 W
CN8 BL
CN9 BL
A B C
BR R BL Y/OR
P Q A B C
CN16 R
CN15 Y
CN18
CN10 W
SW01 SW02 SW03
ON
AMBIENT TEMPERATURE SENSOR
CN11 W
CN26 W
CN12 W
CN13 B
CN14 W
CN24 R
CN19 W
CN4 W
TC1 TC2 Tm
PIPING TEMPERATURE SENSOR
ON/OFF CARD
CN22 G
CN1
FUSE1 T3.15A 250VAC
CN21
AC FAN MOTOR
CN20
CN3
CN2
M
Y/G
BL
BR
L N
TO OUTDOOR UNIT
B: BLACK BR: BROWN
R: RED W : WHITE
Y/G : YELLOW/GREEN
BL:BLUE Y:YELLOW
OR: ORANGE
9000 BTU
12000 BTU
14000 BTU
18000 BTU
SW03-1 SW03-2 SW03-3

5.2.3. AC142-182XCERA PCB Photo



5.2.4. AC142-182XCERA Wiring Diagram



5.2.5. Electrical Control Functions For Cassette and Convertible type

1. Dip switch functions:

AB*XCERA, AC*XCERA, AD*XLERA:

SW01								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
0	0	0	0	--	--	--	--	Address 1 in wired control group
0	0	0	1	--	--	--	--	Address 2 in wired control group
----								----
1	1	1	1	--	--	--	--	Address 16 in wired control group
--	--	--	--	--	--	--	0	Room card function valid
--	--	--	--	--	--	--	1	Room card function unavailable
--	--	--	--	--	--	0	--	Indoor address set by remote controller
--	--	--	--	--	--	1	--	Indoor address set by dip switch
--	--	--	--	--	0	--	--	AC 3-speed fan motor
--	--	--	--	--	1	--	--	Stepless speed adjusting motor(pre-set)
--	--	--	--	0	--	--	--	Pre-set
--	--	--	--	1	--	--	--	Pre-set

SW02								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
——	0	0	0	0	0	0	0	Central control address =1
——	0	0	0	0	0	0	1	Central control address =2
----								----
——	1	1	1	1	1	1	1	Central control address =128
0								Forbidden to set central address by dip switch
1								Set central address by dip switch

SW03								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
0	1	0	--	--	--	--	--	AB092XCERA/AD092XLERA capacity selection
0	1	1	--	--	--	--	--	AB122XCERA/AD122XLERA capacity selection
1	0	0	--	--	--	--	--	AB142XCERA/AD142XLERA/AC142XCERA capacity selection
1	1	0	--	--	--	--	--	AB182XCERA/AD182XLERA/AC182XCERA capacity selection
--	--	--	0	--	--	--	--	Remote control model
--	--	--	1	--	--	--	--	Wired control model
--	--	--	--	0	--	--	--	Wired control, cooling only type
--	--	--	--	1	--	--	--	Wired control, heat pump
--	--	--	--	--	0	0	0	Indoor communication address 1
--	--	--	--	--	0	0	1	Indoor communication address 2

--	--	--	--	--	0	1	0	Indoor communication address 3
--	--	--	--	--	0	1	1	Indoor communication address 4
--	--	--	--	--	1	0	0	Indoor communication address 5
--	--	--	--	--	1	0	1	Indoor communication address 6
--	--	--	--	--	1	1	0	Indoor communication address 7
--	--	--	--	--	1	1	1	Indoor communication address 8

Note: "1" :dip switch at ON, "0": dip switch at OFF.

2. Sign definition:

Indoor				outdoor					
Tai	Tc1	Tc2	Tm	Tao	Toci	Tc	Te	Ts	Td
Ambient temp.	Outlet pipe temp.	Inlet pipe temp.	mid coil temp.	Ambient temp.	Thick pipe of heat exchanger	mid condenser temp.	Defrost temp.	Compressor suction temp.	Compressor discharging temp.
Tcomp1,2			Tset						
Temp. compensation			Set temp.						

3. Dry operation

Tai＜16℃, indoor unit stops running and sends stop-unit signal to outdoor.

Tai≤Tset, indoor motor runs at low speed and sends stop-unit signal to outdoor.

4. Fan operation

Indoor fan motor will run as the fan speed set on the remote controller or the wired controller and indoor unit will send the stop-unit signal to outdoor.

5. Auto operation

5.1 If the unit enters Auto mode for the first time, the system will adjust the operation mode according to the room temp. and the set temp.

When Tai≥Tset, entering auto cooling mode;

When Tai＜Tset, entering auto heating mode.

5.2 Auto cooling mode is as the same as the cooling mode. After the thermostat is OFF for 15 minutes, if Tai+ 1+Tcomp2＜Tset, the unit will enter auto heating mode, or the unit will still stay at auto cooling mode and stop when it reaches the set temperature; while the indoor motor will be at low speed.

5.3 Auto heating mode is as the same as the heating mode. After the thermostat is OFF for 15 minutes, if Tai≥Tset+1 +Tcomp1, the unit will enter auto cooling mode, or the unit will still stay at auto heating mode;

5.4 In this mode, the Sleep function is available, run as cooling sleep in cooling mode and as heating sleep in heating mode. Once sleep mode is set, the mode will not change after the unit stops for 15 minutes when it arrives Tset.

5.5 Mode conversion will be confirmed after compressor has stopped for 10 minutes.

6. Abnormal operation

6.1 When outdoor modes from the request of indoor unit conflict, the one entering firstly will take priority.

6.2 After indoor receives the ON command from wired controller, it will firstly confirm the outdoor current operation mode. If they are the same modes, indoor unit will run as the request of remote controller. If they are different modes, the system will forbid to operate, and indoor will keep the OFF mode and send the “standby” signal to wired controller until outdoor stops or outdoor mode the requested mode of wired controller are the same, the unit will run as the requested mode of wired controller.

6.3 After indoor receives the ON command from remote controller, it will firstly confirm the outdoor current operation mode. If they are the same mode, indoor unit will run as the request of remote controller. If they are different modes, the system will forbid to operate, and indoor will keep the OFF mode. After setting on remote controller, if the buzzer sounds two times, that shows abnormal operation. Indoor will run until the outdoor mode and the requested mode of remote controller are the same.

6.4 In AUTO mode, when the indoor unit occurs abnormal operation, the indoor unit will keep OFF state, and the buzzer will not sound until the outdoor mode and the requested mode of indoor unit are the same.

6.5 COOL (included AUTO COOL), DRY, FAN are not abnormal mode.

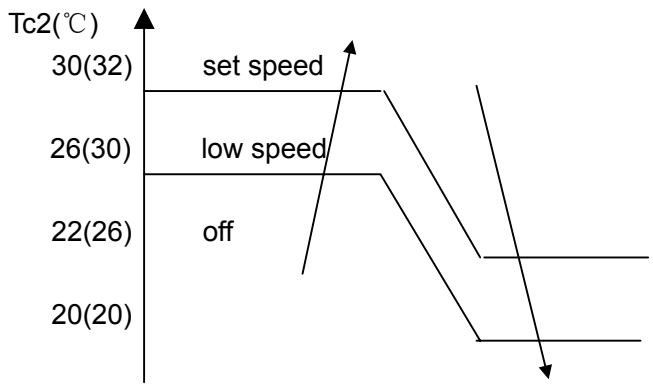
6.6 HEAT and FAN are not abnormal mode.

7. Control for discontinuous operation

After the unit starts up in cooling/heating mode, in 5 minutes, the compressor run/stop will not be controlled by the room temp., but after changing the set temp., if compressor stop condition can be met, the system will stop compressor immediately.

8. Anti-cold air control

In heating mode, after compressor startup, the system will control indoor fan motor according to indoor coil temperature. Detailed operation is as below:



Note:

1) The data in the parentheses is the control point when Tao>10℃;

2) Indoor unit will send “pre-heat” signal to wired controller in anti-cold air period.

9. Fan motor control in defrosting

9.1 On receiving outdoor defrosting signal, indoor unit will stop after blowing remaining heat at slow speed for 20 seconds.

9.2 In defrosting period, indoor fan motor stops running.

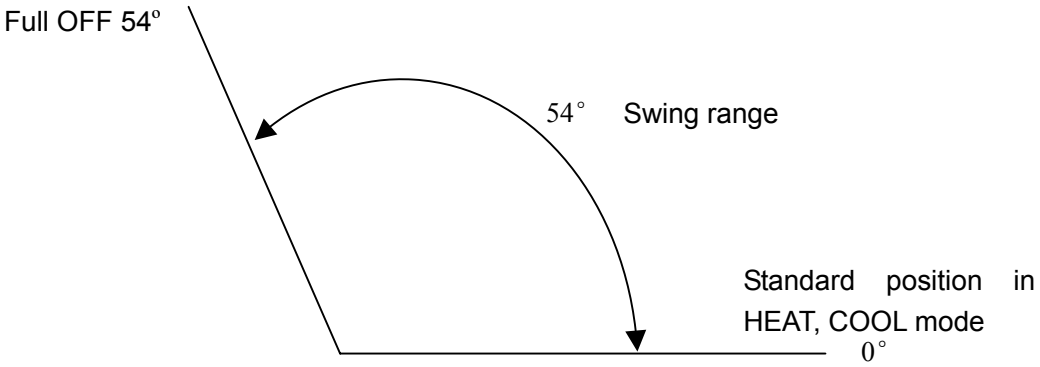
9.3 Defrosting is over, and indoor motor will run as anti-cold air state.

10. Blowing remaining heat operation

When the unit shuts off in heating mode or the thermostat is OFF, indoor motor will stop running after running at low speed for 30 seconds.

11. Swing motor control

Indoor unit will control the swing motor according to the swing signal from the wired controller.



12. Water pump control

12.1 Water pump will be electrified when indoor unit enters non-heating mode until indoor unit stops. 5 minutes later after indoor unit stops, water pump will stop.

12.2 When indoor unit is in heating mode, water pump will not operate.

12.3 In OFF state and in any mode, once float switch signal is measured, indoor unit will send OFF signal to outdoor and send the failure code of drainage system to the wired controller, then the water pump will work until the float switch signal is cancelled. After water pump is forced to run for 5 minutes, indoor unit will be back to normal state.

13. Compulsory defrosting operation

13.1 After indoor receives the compulsory defrosting signal, it will send continously the signal to outdoor for 10 times, in this period, indoor unit will work normally and it will enter defrosting operation until it receives the enter-defrost signal from outdoor unit.

13.2 Wired control type: In heating mode, make a jumper for D2 to enter compulsory defrosting.

13.3 Remote control type: In heating mode, high speed, 30℃, press SLEEP button 6 times, and the buzzer will sound 3 times, then enter the manual defrosting.

14. Trial operation

14.1 Enter condition

A. Wired control type: In OFF state of COOL or HEAT mode, press ON/OFF button for over 5 seconds to enter the cooling or heating trial operation;
B. Remote control type: In OFF state, keep pressing ON/OFF button until 5 seconds later, the buzzer sounds twice, then enter the cooling or heating trial operation;

14.2 Response in trial operation

A. Cooling trial operation: indoor sends S-CODE=SD to outdoor, indoor: at high speed, set temp: 16℃;
B. Heating trial operation: indoor sends S-CODE=SF to outdoor, indoor: at high speed, set temp: 30℃;
C. In this period, anti-freezed and overheat functions are invalid.

14.3 Quit condition

A. Receiving the signal of cancelling trial operation from wired controller or remote controller;
B. After trial operation has run for 20 minutes, it will quit trial operation automatically and enter the normal mode with the set temp.: 24℃.

15. Timer operation

15.1 Wired control type: wired controller will control the unit ON/OFF;

15.2 Remote control type: indoor unit will confirm the unit ON or OFF according to the current clock and the timer clock set by remote controller. When setting timer function, the timer LED will be ON.

16. SLEEP function

16.1 Wired control type unit is without sleep function;

16.2 Remote control type unit consists of cooling sleep and heating sleep, after the sleep is set, the unit

will change mode; the sleep will begin to count.

A. In cooling/dry mode, after running for 1 hour, the set temp. will increase 1℃, another 1 hour later, the set temp. will increase 1℃ again, then 6 hours (or set time-2) later , it will stop.
B. In heating mode, after running for 1 hour, the set temp. will reduce 2℃, another 1 hour later, the set temp. will reduce 2℃ again, then 3 hours later, the set temp. will increase 1℃, and another 3 hours(or set time-5), it will stop.
C. When setting sleep function, indoor motor is forced at low speed.

17. Healthy negative ion function

When receiving the healthy signal from the wired controller or remote controller, if fan motor is running, the negative ion will work;

If the fan motor stops, the negative ion generator will stop.

18. Auto-restart function

18.1 Wired control type: jumper J07 at high level, auto-restart is available, if at low level, auto-restart is cancelled; when out of factory, the unit is with auto-restart function.

18.2 Remote control type: In 5 seconds, press SLEEP button(press SWING if without SLEEP button) 10 times continuously, the buzzer will sound 4 times and enter auto-restart function. In 5 seconds, press SLEEP 10 times continuously, the buzzer will sound twice and quit auto-restart function.

18.3 Memory information: ON/OFF state, mode, fan speed, set temp., health, swing position;

18.4 If the memory includes timer or sleep function, when being electrified again, timer and sleep will be cancelled;

18.5 If the memory includes auto mode, when the jumper shows cooling only type, auto mode will change to cooling mode.

19. Room card function

The unit adopts room card function(220VAC input), which only make ON/OFF control. When it is connected, the unit is ON; when it is disconnected, the unit is OFF, and the other parameters will be as default or the data in memory.

19.1 When room card function is available

The central control, remote control/wired control and the room card are “AND” logical relationship. On the condition that the room card is connected, the unit can be controlled by remote controller or wired controller; indoor unit will run at the set state by the central controller, remote controller or wired controller; otherwise, if room card is not connected, the unit can not be controlled.

19.2 When room card function is not available

The unit will be controlled by the remote controller, the wired controller or the central controller.

20. Setting indoor unit number

A. Wired control unit

Wired controller can not set the unit number.

Please set the unit number with the dip switch on the PCB.

The detailed information refers to the former information.

B. Remote control type:

1) Enter method

In OFF state, press emergency switch until 15 seconds later, the buzzer sounds 4 times, indoor will enter the indoor unit number setting state.

2) Setting method

Press ON/OFF button (from OFF mode to ON mode), the times of SLEEP button to be pressed is the set unit number, then press ON/OFF button to quit unit number setting state, at this time, indoor unit is at OFF state, the display panel will display this unit number. For example, press SLEEP button once, it is No. 1 unit; press twice, it is No. 2 unit, and so on.

3) Quit method

In OFF state, press emergency switch until 15 seconds later, the buzzer sounds 5 times, the display panel will display this unit number and you can check if there are repeated numbers.

21. Setting method of temperature compensation Tcomp

A. Wired control type unit: this function is not available

B. Remote control type unit:

In cooling or heating mode, there is always with the temp. compensation.

In heating mode: In 24℃ heating mode, press SLEEP(or SWING) button 7 times continuously within 5 seconds, indoor buzzer sounds twice, that shows temp. compensation works. Switch on the unit in heating mode by the remote controller, press TEMP button to set the set temp., so temperature compensation=the current set temp. - 24℃. For example, if the set temp. is 24℃, the temp. compensation is 0℃; if the set temp. is 25℃, the temp. compensation is 1℃. The max. compensation temp. is 6℃ (the set temp. is 30℃). If you want to cancel it, set the temp. as 24℃.

In cooling mode: In 24℃ cooling mode, press SLEEP(or SWING) button 7 times continuously within 5 seconds, indoor buzzer sounds twice, that shows temp. compensation works. Switch on the unit in heating mode by the remote controller, press TEMP button to set the set temp., so temperature compensation=24℃-the current set temp. . For example, if the set temp. is 24℃, the temp. compensation is 0℃; if the set temp. is 23℃, the temp. compensation is -1℃. The max. compensation temp. is -8℃ (the set temp. is 16℃). If you want to cancel it, set the temp. as 24℃.

So the temp. compensation range is +8℃~-6℃.

22. Anti-freezed protection

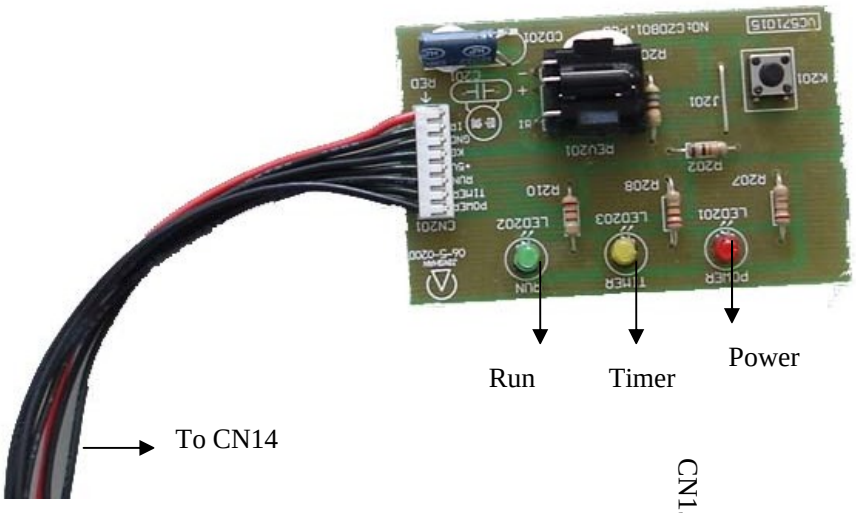
When compressor has run for over 5 minutes, to prevent indoor evaporator freezing (in cooling/dry mode), if indoor mid-coil temp. is below -1 degree for over 5 minutes, indoor EEV will close, and compressor will stop. When indoor mid-coil temp. is over about 10 degree, the unit will be normal.

23. Overload protection in heating mode

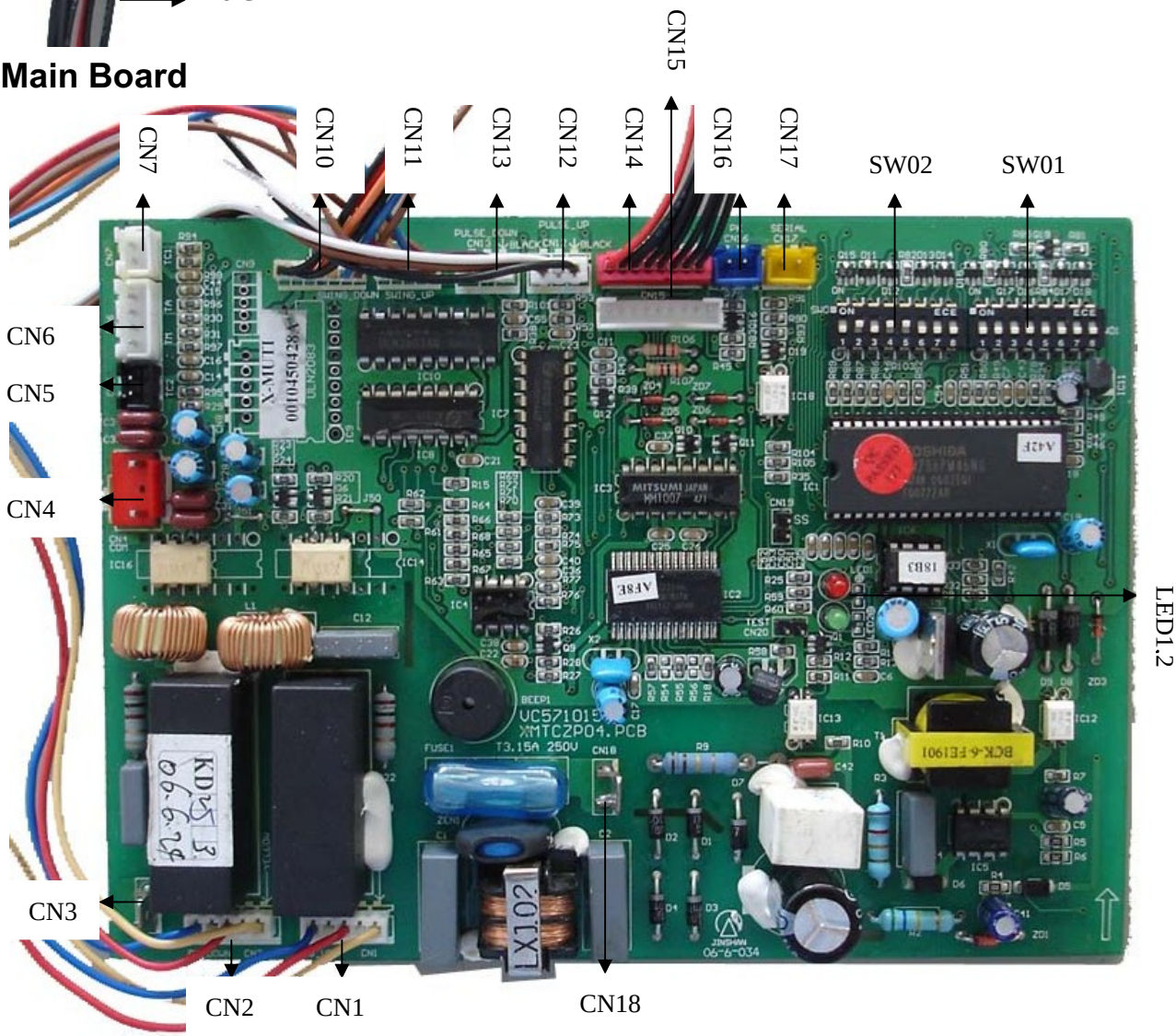
It is valid only in heating mode, if indoor mid-coil temp. is over about 65 degree continuously for 10 seconds, indoor will stop; while when indoor mid-coil temp. is below 52 degree for 3 seconds, indoor will resume.

5.2.6. AF092-122XCERA

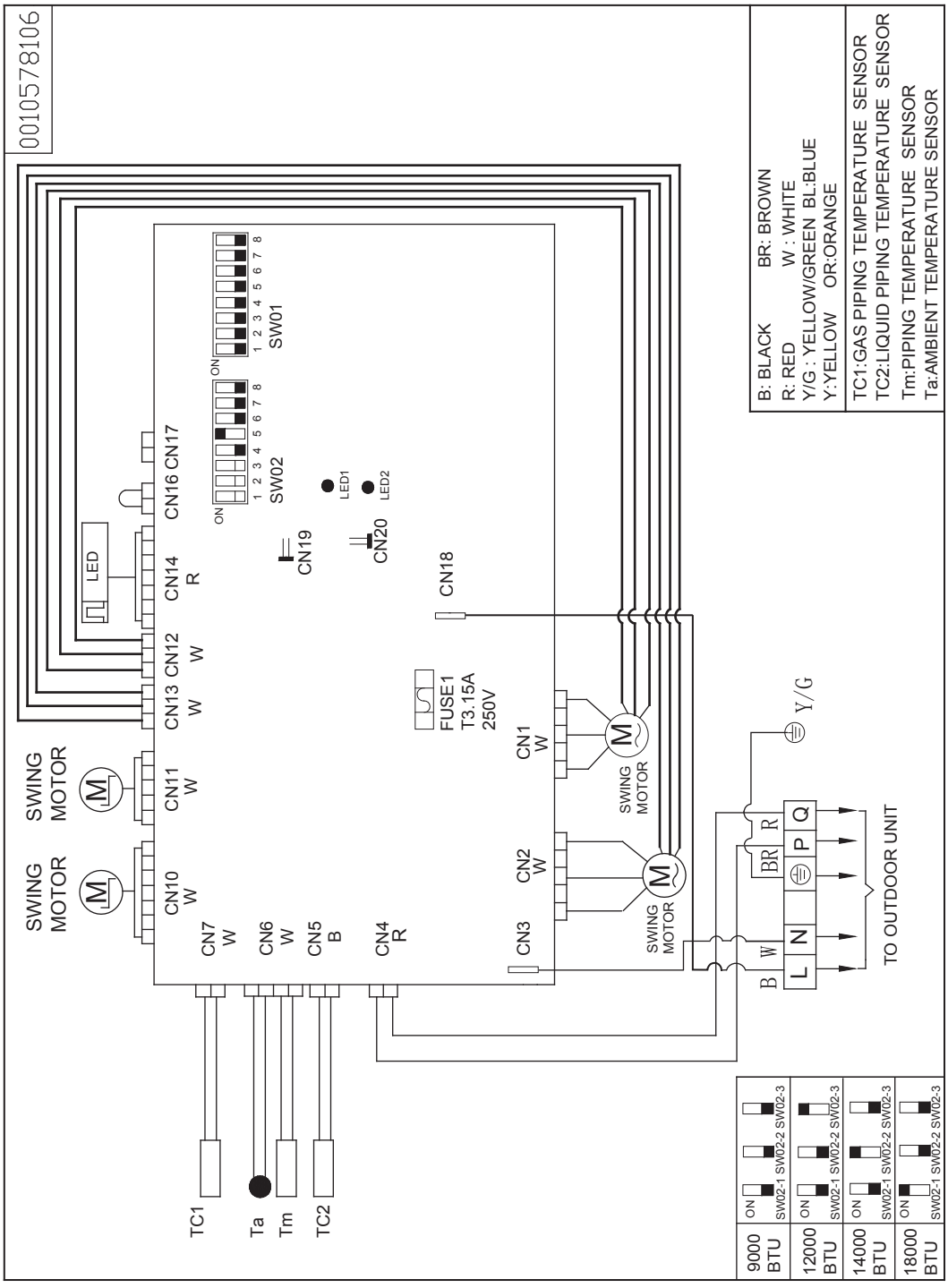
Remote controller receiver



Main Board



5.2.7. AF092-122XCERA



5.2.8. Dip switch functions:

0---OFF 1---ON

SW01								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
--	0	0	0	0	0	0	0	Central control address=1
--	0	0	0	0	0	0	1	Central control address =2
----								----
--	1	1	1	1	1	1	0	Central control address =127
--	1	1	1	1	1	1	1	Central control address =128
0	--	--	--	--	--	--	--	Indoor communication address set by remote controller
1	--	--	--	--	--	--	--	Indoor communication address set by dip switch

SW02								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
0	0	0	--	--	--	--	--	AF092XCERA capacity selection
0	0	1	--	--	--	--	--	AF122XCERA capacity selection
--	--	--	0	--	--	--	--	Pre-set
--	--	--	1	--	--	--	--	Pre-set
--	--	--	--	0	--	--	--	Room card function valid
--	--	--	--	1	--	--	--	Room card function unavailable
--	--	--	--	--	0	0	0	Indoor communication address 1
--	--	--	--	--	0	0	1	Indoor communication address 2
--	--	--	--	--	0	1	0	Indoor communication address 3
--	--	--	--	--	0	1	1	Indoor communication address 4
--	--	--	--	--	1	0	0	Indoor communication address 5
--	--	--	--	--	1	0	1	Indoor communication address 6
--	--	--	--	--	1	1	0	Indoor communication address 7
--	--	--	--	--	1	1	1	Indoor communication address 8

Electrical PCB Functions:

1. For Console type, except fan motor control function, the others are same with Cassette Type PCB functions.
2. Fan motor choice function:

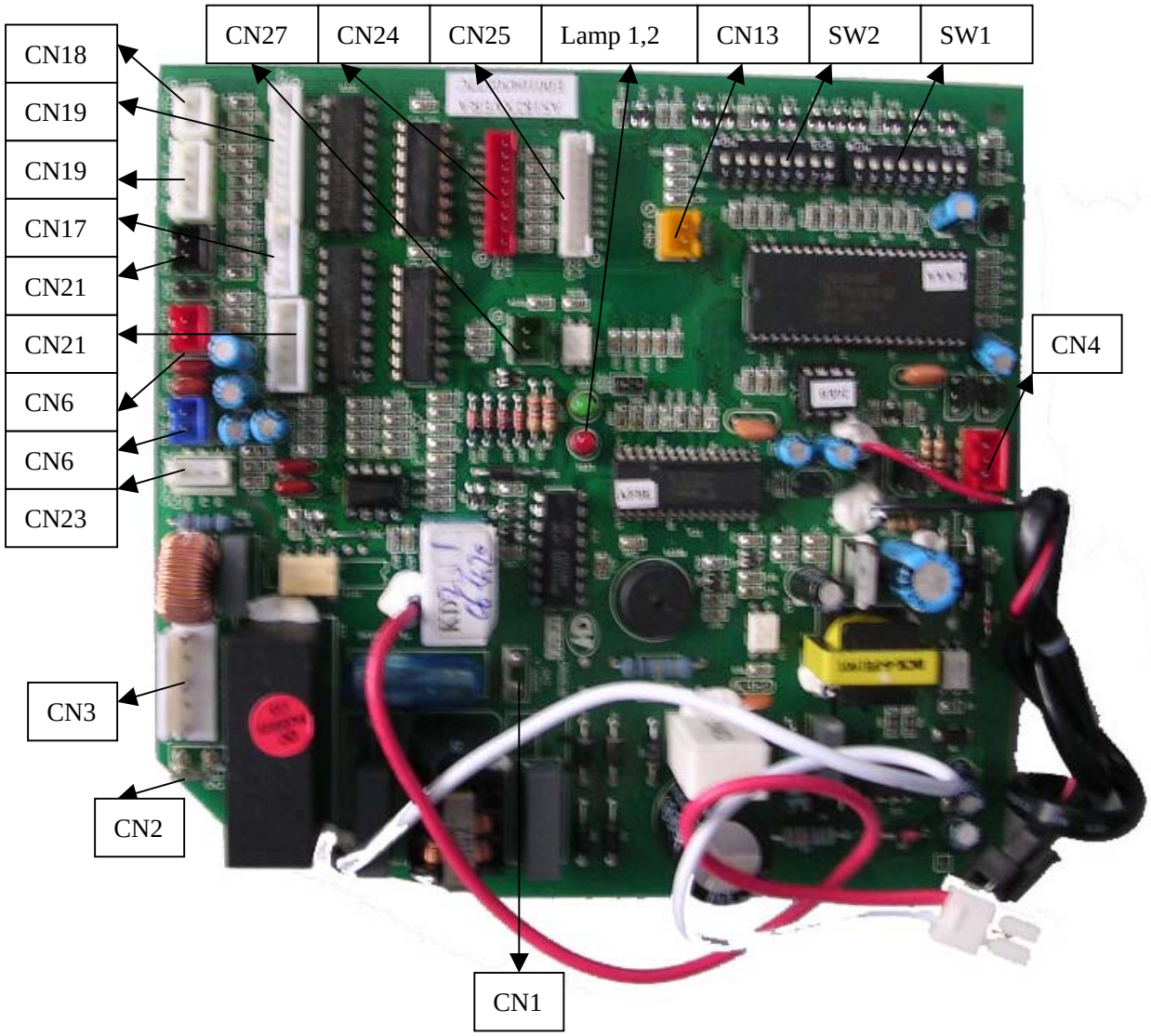
Compressor state: OFF

Press sleep button 6 timer quickly, PCB sound 1 time, it means , indoor fan motor works in single motor running mode

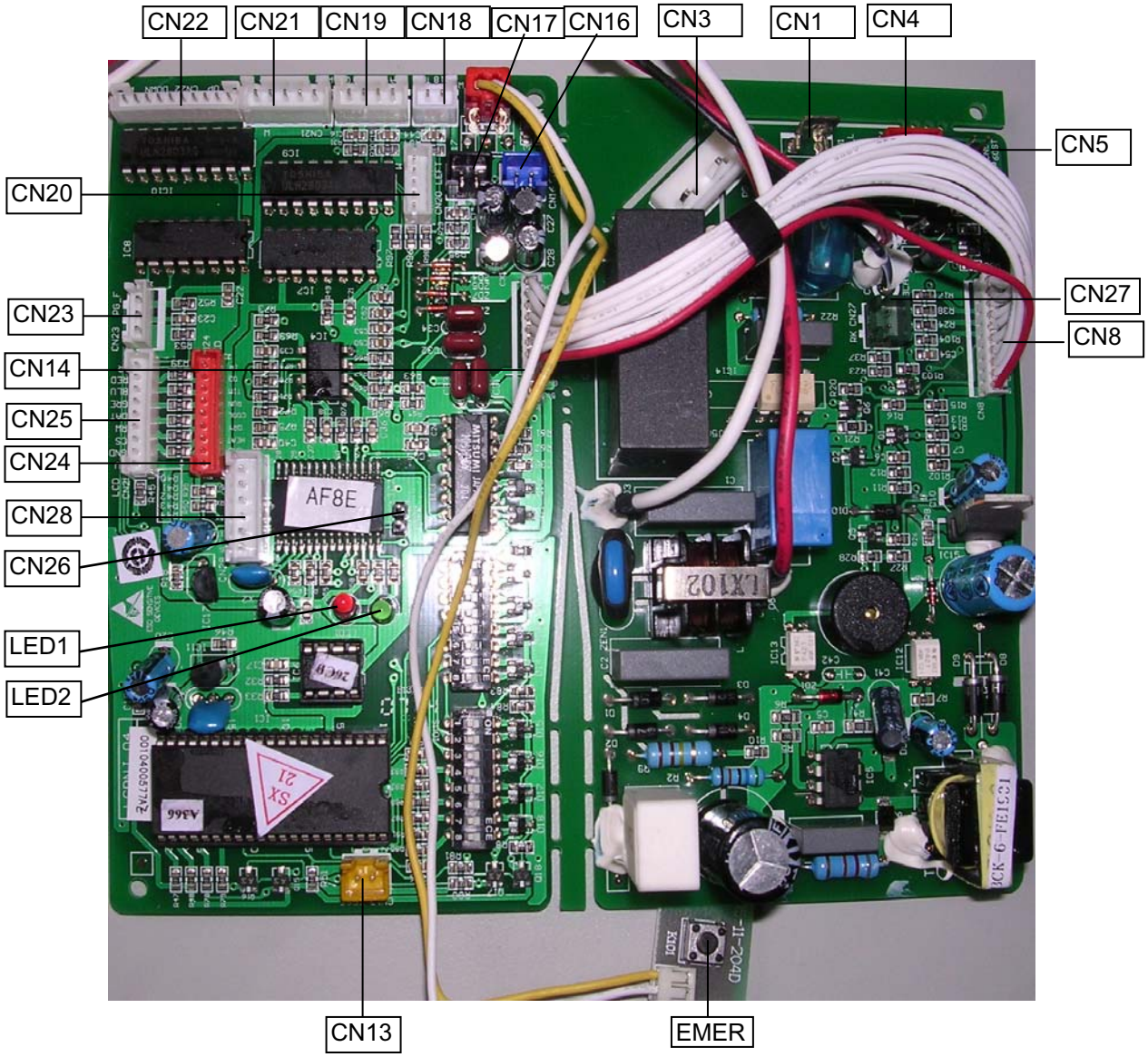
Press sleep button 6 timer quickly again, PCB sound 2 time, it means , indoor fan motor works in twin motor running mode

5.2.9. AS***XVERA PCB Photo

0010400577C:

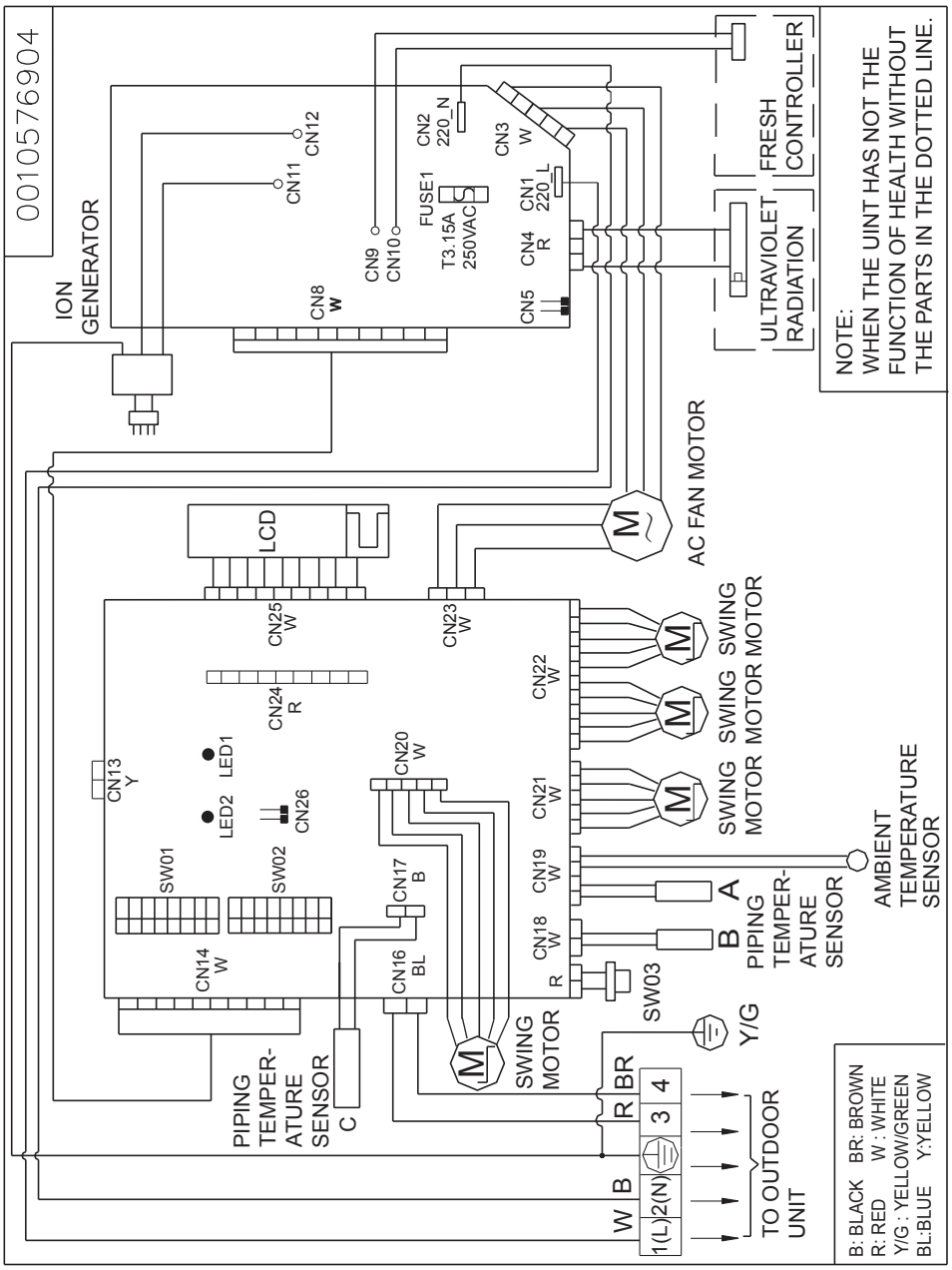


0010400577AE:

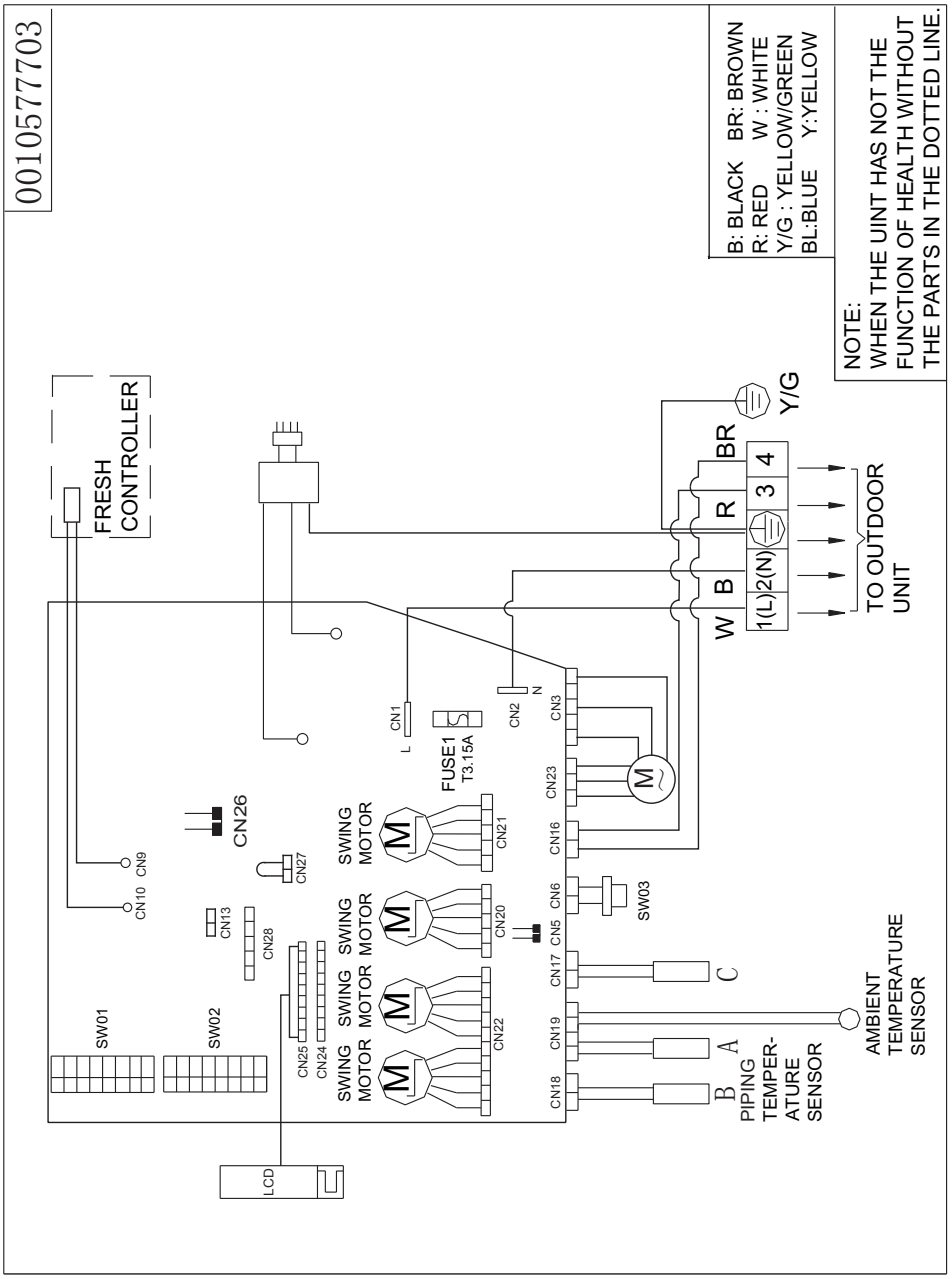


5.2.10. AS***XVERA Wiring Diagram

AS07/09/122XVERA:



AS18/222XVERA:



5.2.11. Wall Mounted types functions Description

Indoor electric control functions:

Note: The following functions are applicable for the unit in normal state.

1. Parameter input:

1.1 Analog data input:

1.1.1 Indoor temperature sensor input (TA): 1-way, 23KΩ at 25℃

1.1.2 Indoor coil outlet temp/inlet temp (TC1: gas pipe, TC2: liquid pipe): 2-way, 10KΩ at 25℃

1.1.3 Indoor middle coil temp. (Tm): 1-way, 10KΩ at 25℃.

1.2 Functional switch setting:

1.2.1 Central control address setting and indoor communication address setting:

8-way (SW01), the detailed definition is as follow: 0-OFF, 1-ON

SW01								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
--	0	0	0	0	0	0	0	Central control address=1
--	0	0	0	0	0	0	1	Central control address =2
----								----
--	1	1	1	1	1	1	0	Central control address =127
--	1	1	1	1	1	1	1	Central control address =128
0	--	--	--	--	--	--	--	Indoor communication address set by remote controller
1	--	--	--	--	--	--	--	Indoor communication address set by dip switch

AS072~AS122XVERA:

SW02								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
0	0	--	--	--	--	--	--	AS072 capacity selection
0	1	--	--	--	--	--	--	AS092 capacity selection
1	0	--	--	--	--	--	--	AS122 capacity selection
--	--	0	0	--	--	--	--	LCD display board (LCD remote receiver)
--	--	1	1	--	--	--	--	LED display board (LED remote receiver)
--	--	--	--	0	--	--	--	Room card function valid
--	--	--	--	1	--	--	--	Room card function unavailable
--	--	--	--	--	0	0	0	Indoor communication address 1
--	--	--	--	--	0	0	1	Indoor communication address 2
--	--	--	--	--	0	1	0	Indoor communication address 3
--	--	--	--	--	0	1	1	Indoor communication address 4
--	--	--	--	--	1	0	0	Indoor communication address 5
--	--	--	--	--	1	0	1	Indoor communication address 6
--	--	--	--	--	1	1	0	Indoor communication address 7
--	--	--	--	--	1	1	1	Indoor communication address 8

AS18/222XVERA:

SW02								description
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	
0	0	--	--	--	--	--	--	AS182 capacity selection
1	0	0	0	1				AS222 capacity selection
--	--	0	0	--	--	--	--	LCD display board (LCD remote receiver)
--	--	1	1	--	--	--	--	LED display board (pre-set)
--	--	--	--	0	--	--	--	Room card function valid
--	--	--	--	1	--	--	--	Room card function unavailable
--	--	--	--	--	0	0	0	Indoor communication address 1
--	--	--	--	--	0	0	1	Indoor communication address 2
--	--	--	--	--	0	1	0	Indoor communication address 3
--	--	--	--	--	0	1	1	Indoor communication address 4
--	--	--	--	--	1	0	0	Indoor communication address 5
--	--	--	--	--	1	0	1	Indoor communication address 6
--	--	--	--	--	1	1	0	Indoor communication address 7
--	--	--	--	--	1	1	1	Indoor communication address 8

In defrosting period, indoor fan motor will stop running;

In heating mode, if unit shutoff, indoor fan motor will stop after running for 30 seconds at super low speed.

Note: The above temp. point has taken fuzzy control, and has tolerance ±2℃ according to the different state.

10. Fan motor control in defrosting

10.1 On receiving outdoor defrosting signal, indoor unit will stop after blowing remaining heat at slow speed for 20 seconds.

10.2 In defrosting period, indoor fan motor stops running.

10.3 Defrosting is over, and indoor motor will run as anti-cold air state.

11. Blowing remaining heat operation

When the unit shuts off in heating mode or the thermostat is OFF, indoor motor will stop running after running at super low speed for 30 seconds.

12. Anti-freezed protection (invalid in heating mode)

When compressor has run for over 5 minutes, to prevent indoor evaporator freezing (in cooling/dry mode), if indoor mid-coil temp. is below 0 degree, compressor will stop. When indoor mid-coil temp. is over about 10 degree, the unit can run. After compressor has stopped for 3 minutes, the unit can re-start up.

Note: The above temp. point has taken fuzzy control, and has tolerance ±1℃ according to the different state.

13. Overload protection in heating mode

It is valid only in heating mode, if indoor mid-coil temp. is over about 65 degree continuously for 10 seconds, indoor will stop; while when indoor mid-coil temp. is below 52 degree, indoor will resume.

Note: The above temp. point has taken fuzzy control, and has tolerance ±1℃ according to the different state.

14. Timer operation

TIMER ON/TIMER OFF/TIMER ON/OFF. Timer will count according to the time difference between the TIMER clock and the present clock. In TIMER state, TIMER indicator will be ON.

15. SLEEP function

In cooling/dry mode, after running for 1 hour, the set temp. will increase 1℃, another 1 hour later, the set temp. will increase 1℃ again, then 6 hours later, it will stop.

In heating mode, after running for 1 hour, the set temp. will reduce 2℃, another 1 hour later, the set temp. will reduce 2℃ again, then 3 hours later, the set temp. will increase 1 ℃, and another 3 hours, it will stop.

16. Auto-restart function

In 5 seconds, press SLEEP button 10 times continuously, the buzzer will sound 4 times and enter auto-restart function. In 5 seconds, press SLEEP 10 times continuously, the buzzer will sound twice and quit auto-restart function. If no SLEEP button, press SWING as the same method.

17. Setting indoor unit number

In OFF state, press emergency switch until 15 seconds later, the buzzer sounds 4 times, indoor will enter the indoor unit number setting state, the set method is as follow:

Press ON/OFF button (from OFF mode to ON mode), the times of SLEEP button to be pressed is the set unit number, then press ON/OFF button to quit unit number setting state, at this time, indoor unit is at OFF state, the display panel will display this unit number. For example, press SLEEP button once, it is No. 1 unit; press twice, it is No. 2 unit, and so on. In OFF state, press emergency switch until 15 seconds later, the buzzer sounds 5 times, the display panel will display this unit number and you can check if there are repeated numbers.

18. Setting method of temperature compensation

Set the temperature compensation in heating mode with the remote controller. No compensation in cooling mode. In 24℃ heating mode, press SLEEP button 8 times continuously, indoor buzzer sounds 5 times, that shows temp. compensation works. Switch on the unit in heating mode by the remote controller, press TEMP button to set the set temp., so temperature compensation=the current set temp. - 24℃. For example, if the set temp. is 24℃, the temp. compensation is 0℃; if the set temp. is 25℃, the temp. compensation is 1℃. Please do not set the minus temp. compensation, that is to say the min. temp. compensation is 0℃.

If setting is finished, press ON/OFF button, then indoor buzzer will sound 4 times, that shows the unit quits the temp. compensation.

6. Diagnostic code and trouble shooting

6.1.1. Diagnostic code for AU18,22,25,28,34,362X*ERA

FAILURE CODE	STATE OF LED 5-4-3-2-1	TROUBLE SHOOTING	POSSIBLE REASONS
1	○○○○●	Faulty defrost sensor **Te**	Sensor disconnected, or broken, or short circuit
2	○○○●○	Faulty sensor **Tao**	Sensor disconnected, or broken, or short circuit
3	○○○●●	Faulty sensor **Ts**	Sensor disconnected, or broken, or short circuit
4	○○●○○	Faulty sensor **Td**	Sensor disconnected, or broken, or short circuit
5	○○●○●	Input overcurrent	Over current of the system, or broken of the current sensor,or malfunction with indoor or outdoor fan motors, or faulty PCB.
6	○○●●○	Abnormal communication between indoor and outdoor units	Wrong connection, or the wires be disconnected, or wrong address setting of indoor units, or faulty PCB, or faulty power supply
9	○●○○●	System high pressure protection	High pressure switch is disconnected, or high pressure switch worked, or Tc too high and faulty outdoor fan motor when cooling, or faulty indoor fan motors when heating, or refrigerant overabundance
10	○●○●○	System low pressure protection	Low pressure switch is disconnected, or low pressure switch worked, or Te too low and faulty outdoor fan motors when heating, or faulty indoor fan motor when cooling, or refrigerant shortage
11	○●○●●	IPM protection	IPM over current, or short circuit, or IPM temperature too high, or IPM input voltage too low,or faulty SPDU.
12	○●●○○	EEPROM fault	Faulty outdoor unit PCB
13	○●●○●	Over hot protection of compressor	Serious lack of refrigerant of the system, or the ambient temperature too high, or PMVs be blocked
14	○●●●●	Over hot protection of SPDU (or ISPM)	Ambient tempreatrue too high, or outdoor fan be blocked, or bad air circulation of outdoor unit
15	○●●●●	DC fan motor fault	Fan is blocked, or the terminal is disconnected from the PCB
16	●○○○○	Faulty 4-way valve switching on	Coil of 4-way valve is disconnected, or faulty outdoor PCB
17	●○○○●	Faulty sensor **Tc**	Sensor disconnected, or broken, or short circuit
21	●○●○●	Faulty sensor **Toci**	Sensor disconnected, or broken, or short circuit
23	●○●●●	Low voltage protection	VDC<194V, too low voltage from power source
24	●●○○○	High voltage protection	VDC>400V, too high voltage from power source
25	●●○○●	Abnormal communication between main PCB and SPDU	Communication cables broken, or not be well connected, or faulty main PCB, or faulty SPDU
26	●●○●○	Compressor be locked	Faulty compressor or SPDU
27	●●○●●	Compressor vibration too big	Faulty compressor
28	●●●○○	Compressor lose position	Faulty SPDU
29	●●●○●	Faulty compressor start	Faulty compressor or SPDU
30	●●●●○	Faulty position checking circuit	Faulty SPDU
31	●●●●●	Compressor broken	Faulty compressor or SPDU

Take off the plastic valve cover, you can find the LEDs near to the communication terminal.
Symbol ● means the LED is ON. Symbol ○ means the LED is OFF.

6.1.2. Diagnostic code for AB*XCERA,AC*XCERA

TROUBLE SHOOTING	FAILURE CODE (TIMER LED OF INDOOR RECEIVER BOARD FLASHES TIMES)	POSSIBLE REASONS
Faulty temperature sensor **Tai**	ONCE ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc1**	TWICE ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc2**	3 TIMES ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tm**	4 TIMES ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty EEPROM on indoor unit PCB	5 TIMES	Faulty indoor unit PCB
Abnormal communication between indoor and outdoor unit	6 TIMES ✳	Wrong connection, or the wires be disconnected, or wrong address setting of indoor units, or faulty power supply or faulty PCB
Abnormal communication between wired controller and indoor unit PCB	7 TIMES ✳	Wrong connection, or use the wired controllerbe disconnected, faulty PCB
Drainage system abnormal	8 TIMES ✳	Pump motor disconnected, or at wrong position, or the float switch broken down or the float switch disconnected,or at wrong position
Indoor unit address repeated	9 TIMES	Wrong setting of indoor unit address
Faulty indoor unit fan motor	11 TIMES	Fan is blocked, or the terminal is disconnected from the PCB, or faulty indoor unit PCB
Faulty driver of indoor unit fan motor	12 TIMES	Faulty indoor unit PCB
Abnormal communication between chip TMP/807 and chip TMP/846	14 TIMES ✳	Faulty indoor unit PCB
Malfunction on outdoor unit	20 TIMES	Check the outdoor unit failure code

Note:

1. Please contact the installers or distributors when trouble happens to repair it.
2. Turn the power off and power on again, if the failure code recurs, please inform the franchiser.
3. Failrue codes maked with ✳ are resumable.

6.1.3. Diagnostic code for AD*XLERA

TROUBLE SHOOTING (indoor unit)	FAILURE CODE (CHECK THE WIRED REMOTE CONTROLLER)	POSSIBLE REASONS
Faulty temperature sensor **Tai**	01 *	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc1**	02 *	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc2**	03 *	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tm**	04 *	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty EEPROM on indoor unit PCB	05	Faulty indoor unit PCB
Abnormal communication between indoor and outdoor unit	06 *	Wrong connection, or the wires be disconnected, or wrong address setting of indoor units, or faulty power supply or faulty PCB
Abnormal communication between wired controller and indoor unit PCB	07 *	Wrong connection, or use the wired controller be disconnected, faulty PCB
Drainage system abnormal	08 *	The short-connector disconnected, or at wrong position, or the float switch broken down or the float switch disconnected,or at wrong position
Indoor unit address repeated	09	Wrong setting of indoor unit address
Abnormal communication between chip TMP/807 and chip TMP/846	0E	Faulty indoor unit PCB
Faulty defrost sensor **Te**	14 *	Sensor disconnected, or broken, or short circuit
Faulty sensor **Tao**	15 *	Sensor disconnected, or broken, or short circuit
Faulty sensor **Ts**	16 *	Sensor disconnected, or broken, or short circuit
Faulty sensor **Td**	17 *	Sensor disconnected, or broken, or short circuit
Input overcurrent	19	Over current of the system, or broken of the current sensor,or malfunction with indoor or outdoor fan motors, or faulty PCB.
System high pressure protection	1E *	High pressure switch is disconnected, or high pressure switch worked, or Tc too high and faulty outdoor fan motor when cooling, or faulty indoor fan motors when heating, or refrigerant overabundance
System low pressure protection	1F *	Low pressure switch is disconnected, or low pressure switch worked, or Te too low and faulty outdoor fan motors when heating, or faulty indoor fan motor when cooling, or refrigerant shortage
IPM protection	20	IPM over current, or short circuit, or IPM temperature too high, or IPM input voltage too low,or faulty SPDU(or ISPM).
EEPROM fault	21	Faulty outdoor unit PCB

TROUBLE SHOOTING (indoor unit)	FAILURE CODE (CHECK THE WIRED REMOTE CONTROLLER)	POSSIBLE REASONS
Over hot protection of compressor	22	Serious lack of refrigerant of the system, or the ambient temperature too high, or PMVs be blocked
Over hot protection of SPDU (or ISPM)	23	Ambient tempreatrue too high, or outdoor fan be blocked, or bad air circulation of outdoor unit
DC fan motor fault	24	Fan is blocked, or the terminal is disconnected from the PCB
Faulty 4-way valve switching on	25	Coil of 4-way valve is disconnected, or faulty outdoor PCB
Faulty sensor **Tc**	26 *	Sensor disconnected, or broken, or short circuit
Faulty sensor **Toci**	2A *	Sensor disconnected, or broken, or short circuit
Low voltage protection	2C	VDC<194V, too low voltage from power source
High voltage protection	2D	VDC>400V, too high voltage from power source
Abnormal communication between main PCB and SPDU(or ISPM)	2E	Communication cables broken, or not be well connected, or faulty main PCB, or faulty SPDU (or ISPM)
Compressor be locked	32	Faulty compressor or SPDU(or ISPM)
Compressor vibration too big	33	Faulty compressor
Compressor lose position	34	Faulty SPDU(or ISPM)
Faulty compressor start	35	Faulty compressor or SPDU(or ISPM)
Faulty position checking circuit	37	Faulty SPDU(or ISPM)
Compressor broken	38	Faulty compressor or SPDU(or ISPM)

NOTE!

1. Please contact the installers or distributors when trouble happens to repair it.
2. Turn the power off and power on again, if the failure code recurs, please inform the franchiser.
3. Failrue codes maked with * are resumable.

6.1.4. Diagnostic code for AF*XCERA

TROUBLE SHOOTING	FAILURE CODE (TIMER LED OF INDOOR RECEIVER BOARD FLASHES TIMES)	POSSIBLE REASONS
Faulty temperature sensor **Tai**	ONCE ※	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc1**	TWICE ※	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc2**	3 TIMES ※	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tm**	4 TIMES ※	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty EEPROM on indoor unit PCB	5 TIMES	Faulty indoor unit PCB
Abnormal communication between indoor and outdoor unit	6 TIMES ※	Wrong connection, or the wires be disconnected, or wrong address setting of indoor units, or faulty PCB, or faulty power supply
Indoor unit address repeated	9 TIMES	Wrong setting of indoor unit address
Faulty indoor unit fan motor	11 TIMES	Fan is blocked, or the terminal is disconnected from the PCB, or faulty indoor unit PCB
Faulty driver of indoor unit fan motor	12 TIMES	Faulty indoor unit PCB
Malfunction on outdoor unit	20 TIMES	Check the outdoor unit failure code

NOTE!

1. Please contact the installers or distributors when trouble happens to repair it.
2. Turn the power off and power on again, if the failure code recurs, please inform the franchiser.
3. Failrue codes maked with ※ are resumable.

6.1.5. Diagnostic code for AS*XVERA

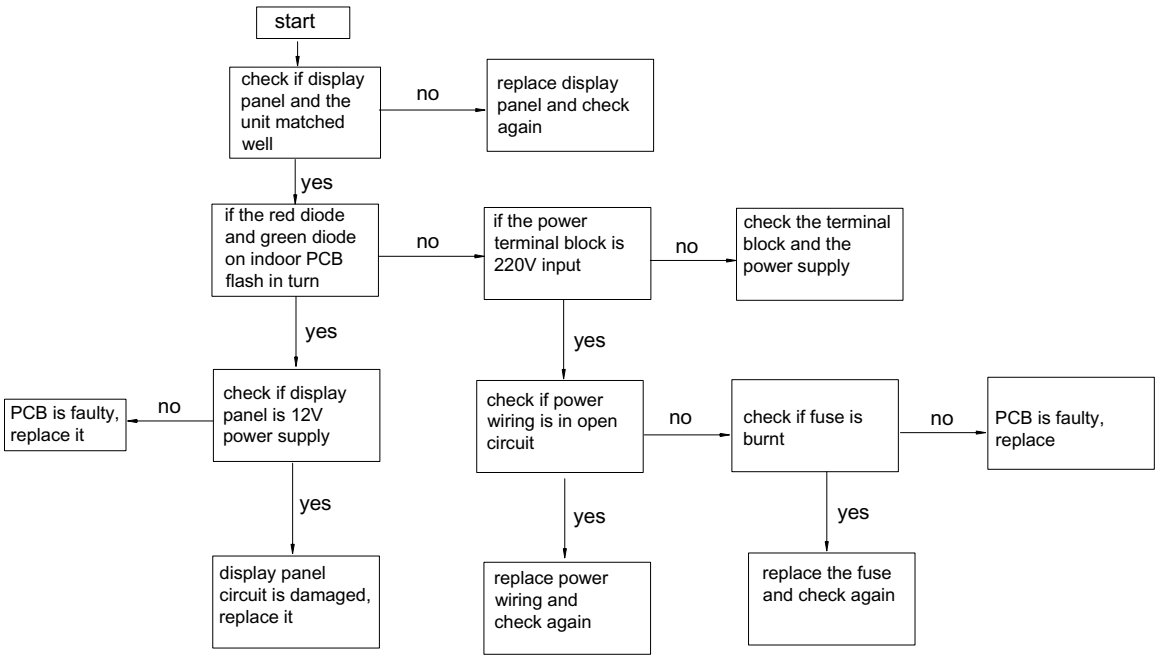
TROUBLE SHOOTING	FAILURE CODE (DISPLAYED ON LCD)	POSSIBLE REASONS
Faulty temperature sensor **Tai**	1 ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc1**	2 ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tc2**	3 ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty temperature sensor **Tm**	4 ✳	Sensor disconnected, or broken, or at wrong position, or short circuit
Faulty EEPROM on indoor unit PCB	5	Faulty indoor unit PCB
Abnormal communication between indoor and outdoor unit	6 ✳	Wrong connection, or the wires be disconnected, or wrong address setting of indoor units, or faulty PCB, or faulty power supply
Indoor unit address repeated	9	Wrong setting of indoor unit address
Faulty indoor unit fan motor	11	Fan is blocked, or the terminal is disconnected from the PCB, or faulty indoor unit PCB
Faulty driver of indoor unit fan motor	12	Faulty indoor unit PCB
Malfunction on outdoor unit	20	Check the outdoor unit

Note:

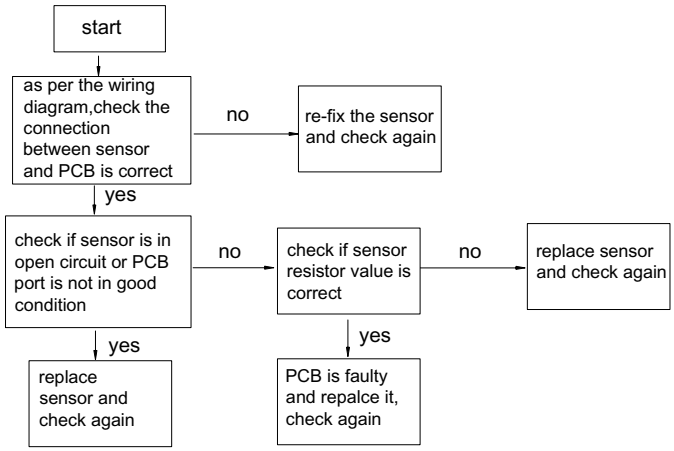
1. Please contact the installers or distributors when trouble happens to repair it.
2. Turn the power off and power on again, if the failure code recurs, please change the indoor unit PCB.
3. Failrue codes maked with ✳ are resumable.

6.2. X MULTI Trouble Shooting:

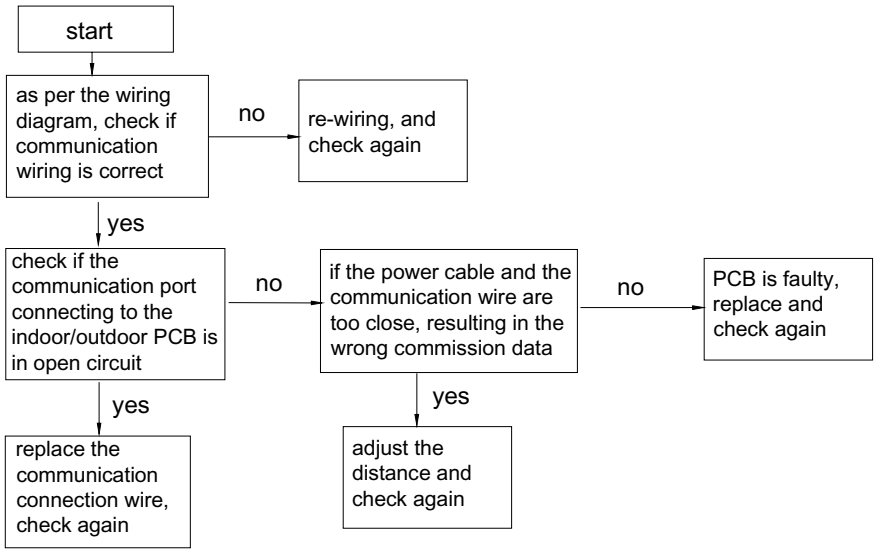
Trouble 1: No display on the operation panel



Trouble 2: Sensor failure



Trouble 3: Communication failure between indoor and outdoor



Trouble 4: Indoor PCB EEPROM data is wrong

1.If the failure occurs when being electrified for the first time, that shows EEPROM（8-bit pin) not fixed firmly or damaged.

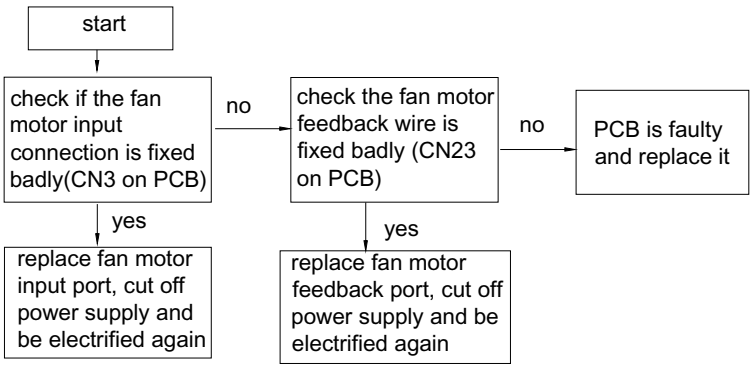
2.If the failure occurs when running, that shows EEPROM is faulty and need to be replaced.

Trouble 5: Indoor repeated unit number

1.Firstly query the unit number: switch off the unit, press SLEEP for about 15 seconds until the buzzer sounds 5 times, on the display panel there will be digit, which is indoor number. By this method,you can check if there is repeated unit number, if yes, please re-set the number as per the unit number setting procedure.

2.Re-set the unit number directly, the unit with outdoor pipe A is No. 1; the unit with outdoor pipe B is No. 2; the unit with pipe C is No.3

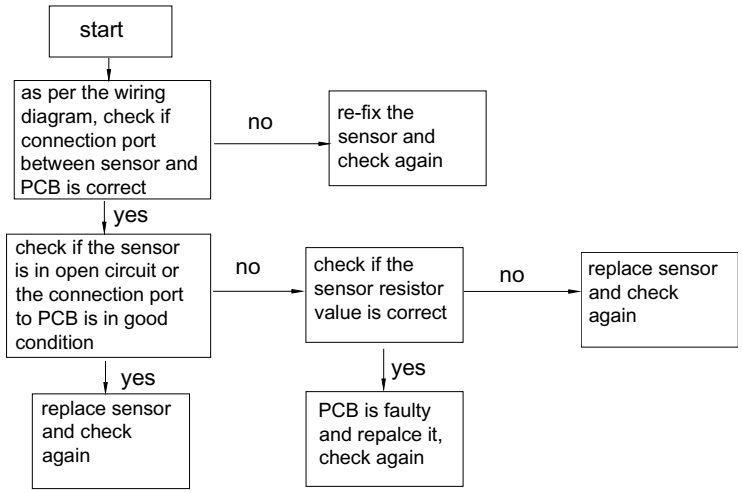
Trouble 6: Indoor fan motor failure, AC fan motor has not 50Hz zero-crossing detection



Trouble 7: Outdoor unit failure

Check the failure code on outdoor indicator board (5-lamp)

Trouble 8: Outdoor unit alarms sensor failure



Trouble 9: AC current over current protection or current transducer damaged, or compressor blocked rotor, compressor great vibration, compressor abnormal startup, state detecting curcuit abnormal or compressor damaged.

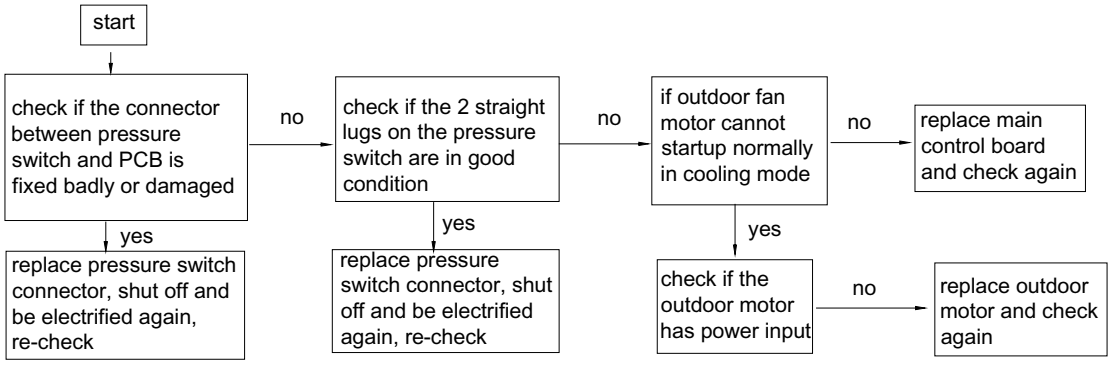
The former twice failure can be resumed automatically, if outdoor board occurs this failure always, and can not be resumed for a long time, that shows:

1. Power module (SPDU) damaged, please replace the power module, then re-wiring as per the wiring diagram (70% possibility)
2. Short circuit in power board results in the power module damaged (15％ possibility)
3. Damaged compressor results in this failure (10％ possibility)
4. Main control board is faulty, replace it (5％ possibility)

Trouble 10: High pressure failure

Reasons:

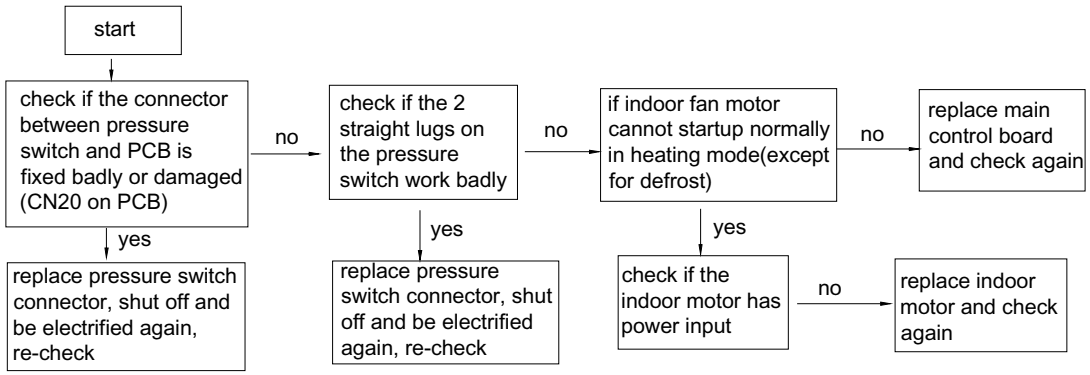
1. Over high system pressure results that the unit stop, and the compressor protection will work. The failure can be resumed.
2. Pressure switch wire is not fixed well or in open circuit.



Failure 11: Low pressure switch failure

Reason: 1. Too low system pressure causes that the unit stops and the compressor protection works, the failure can be resumed.

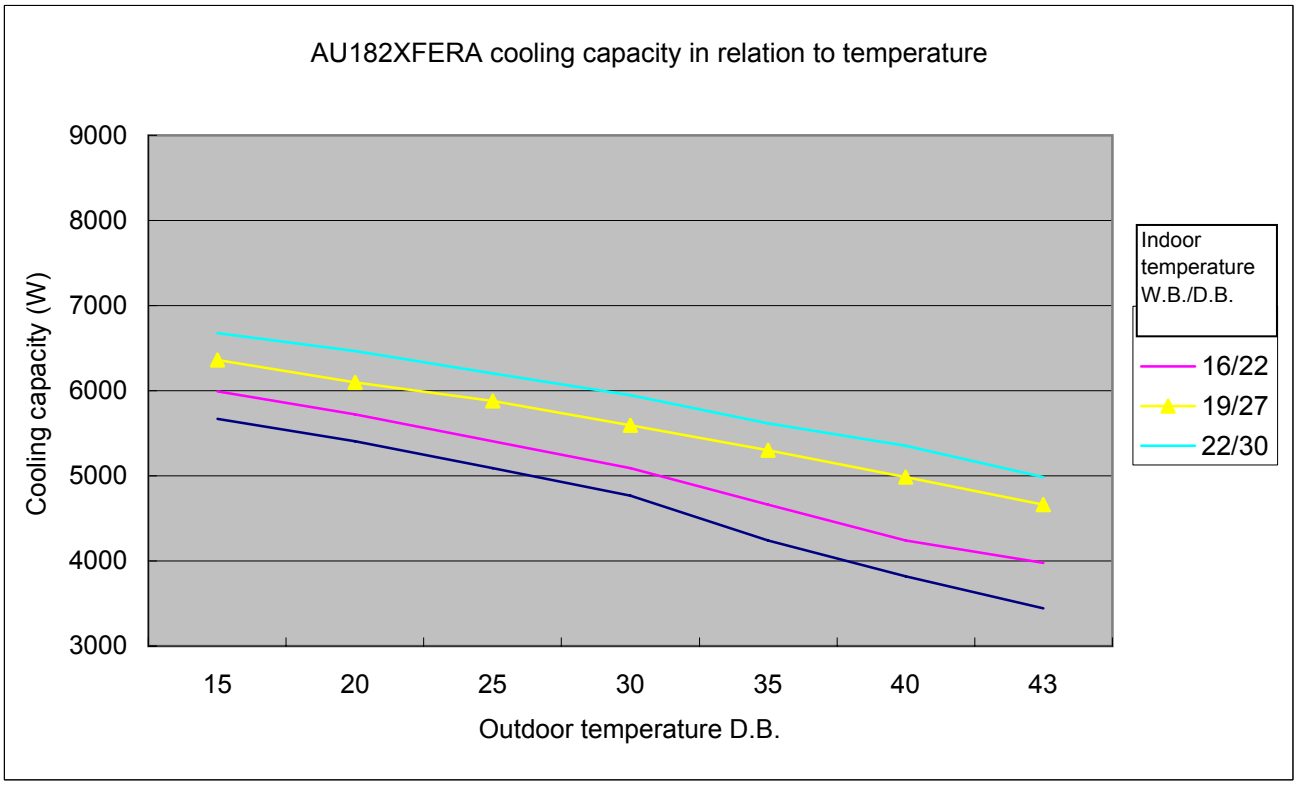
2. Pressure switch wire is not fixed well or in open circuit.

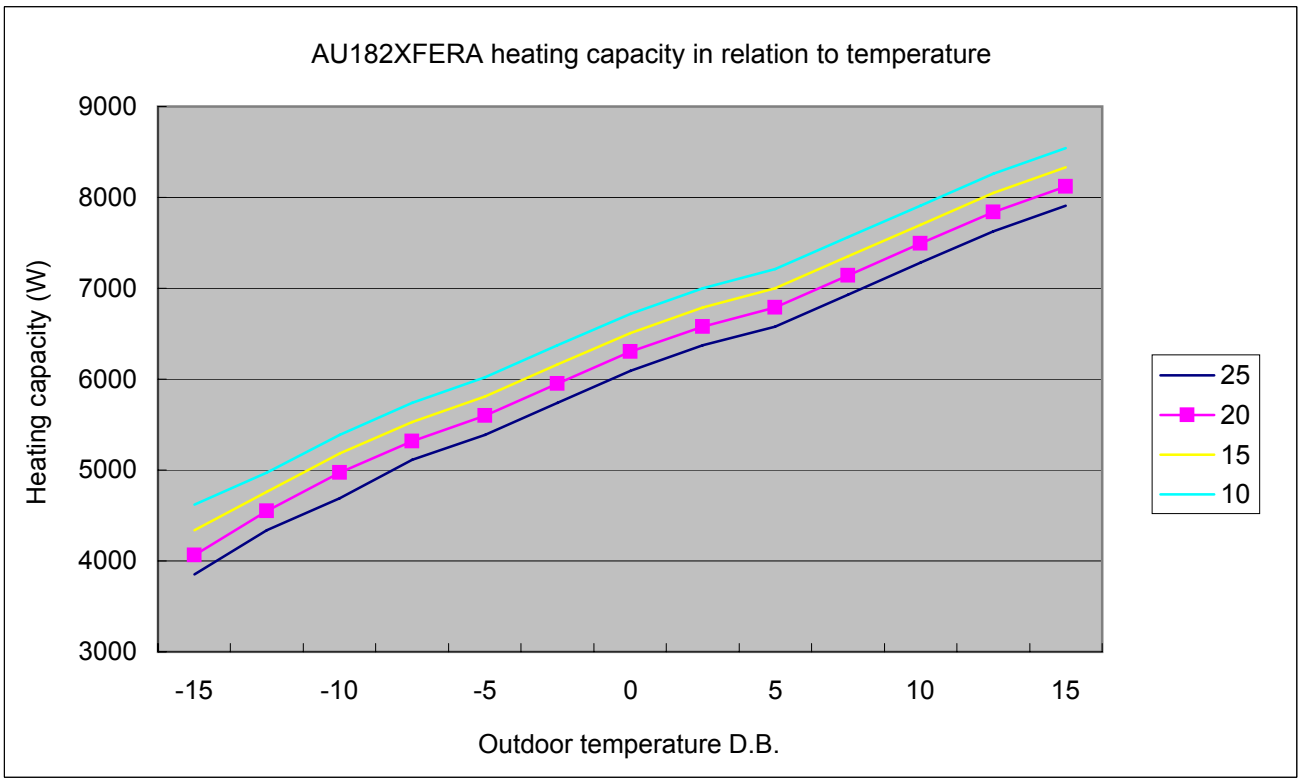


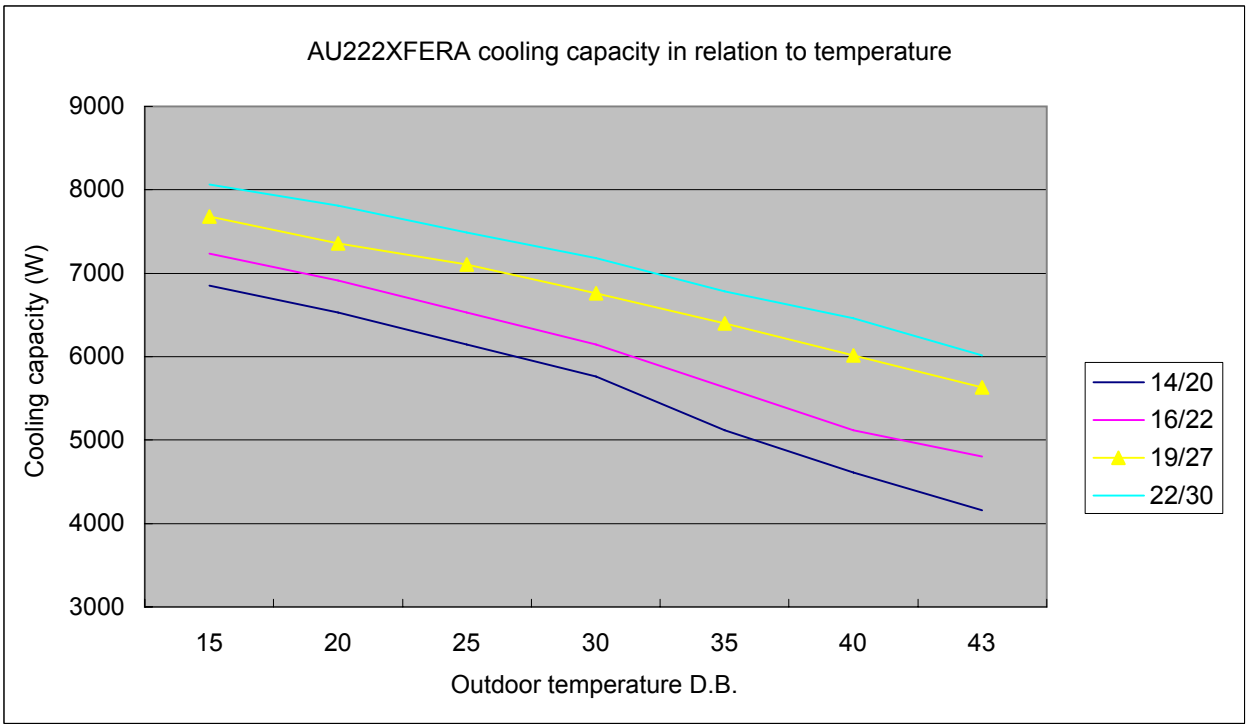
7. X Multi assistant Software

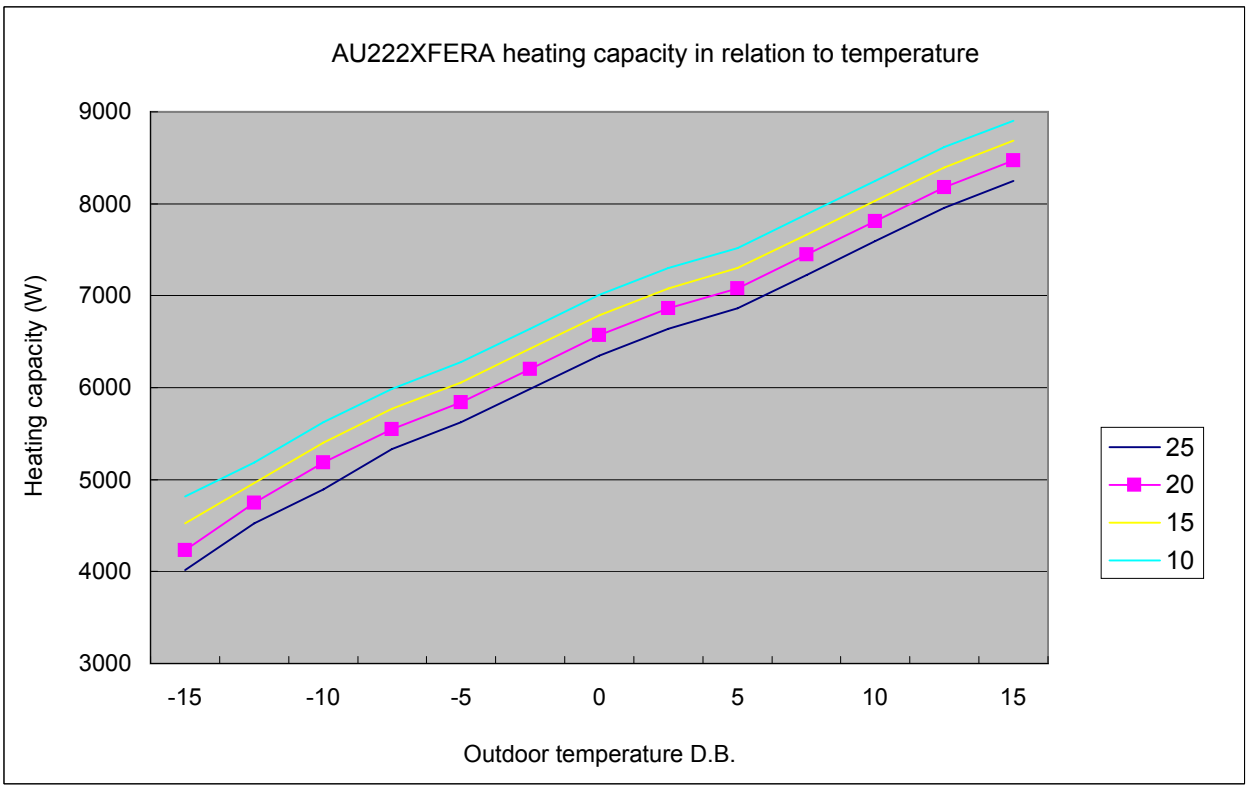
After installation, you can use laptop and Haier device GDGZ-01 to test system , software “X-Multi assistant Software” can help you diagnose system well or not.

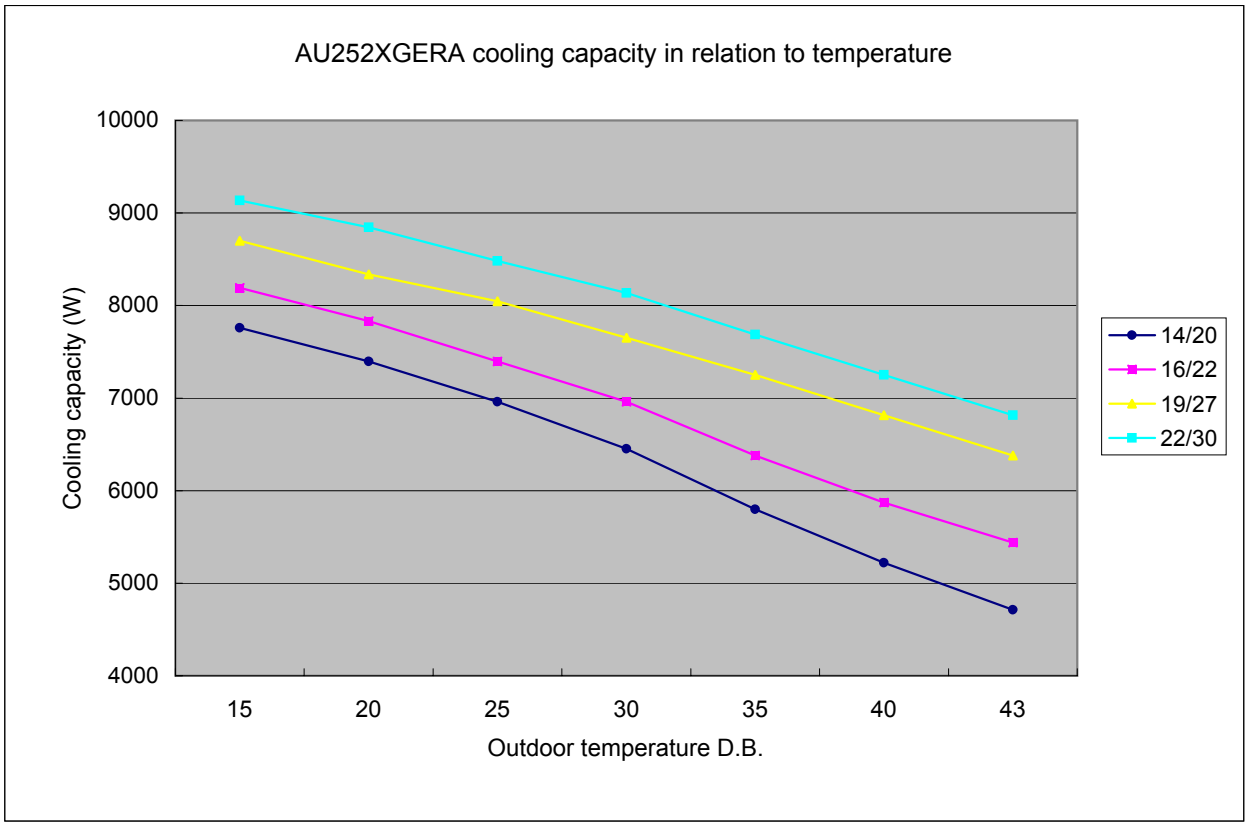
8. Outdoor performance curves

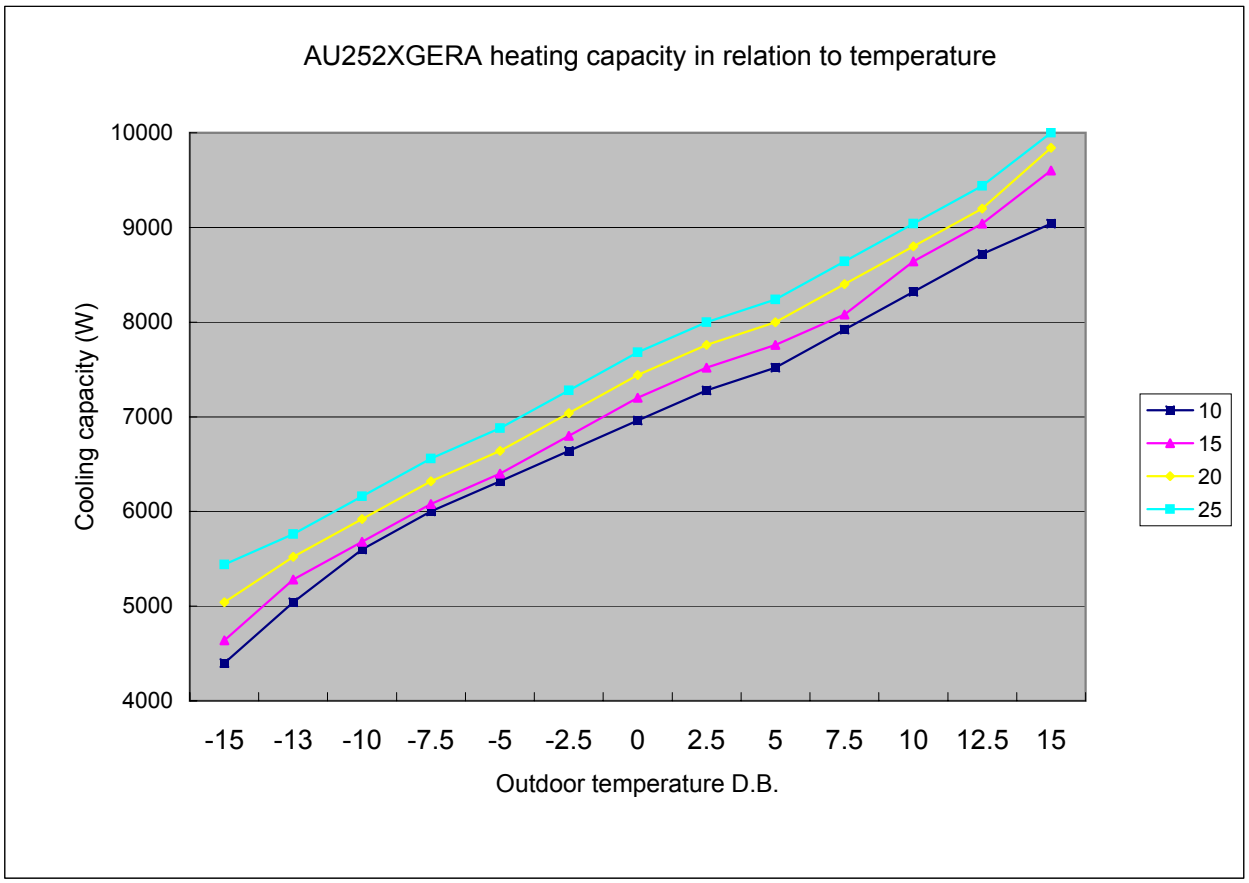


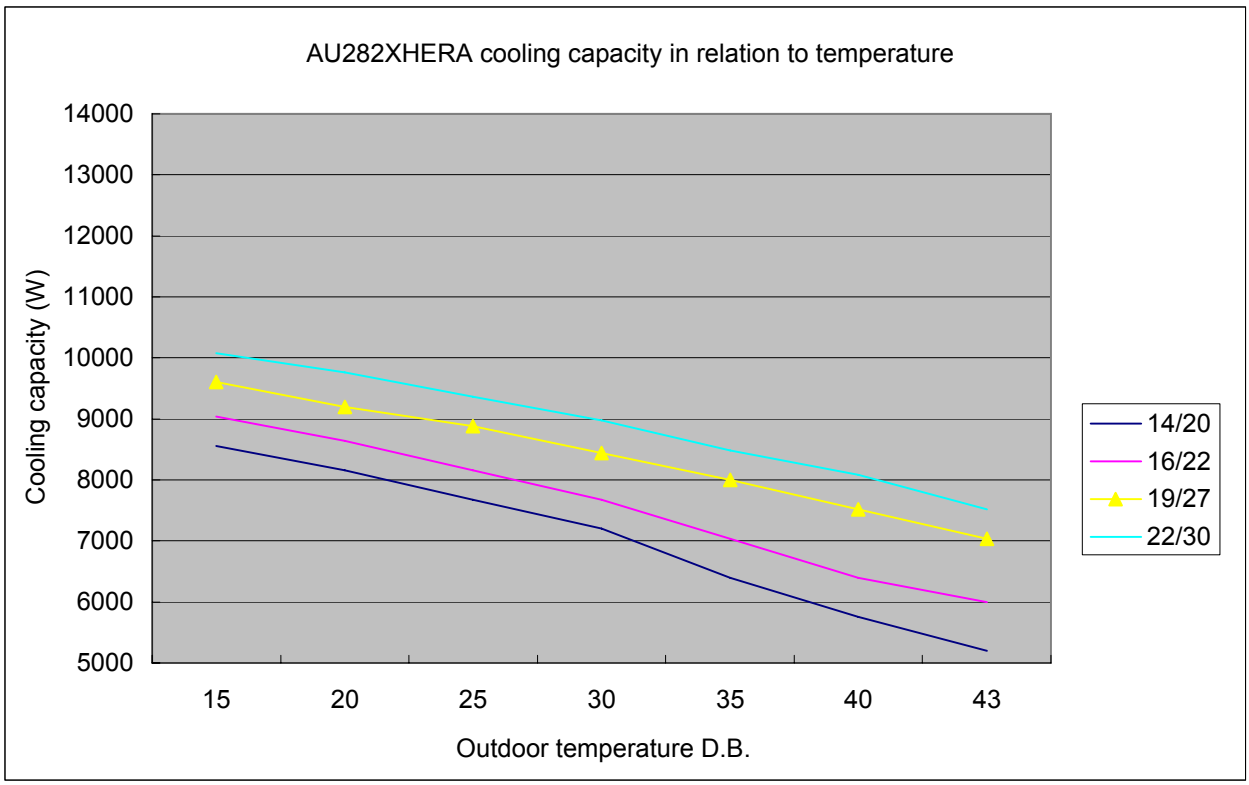


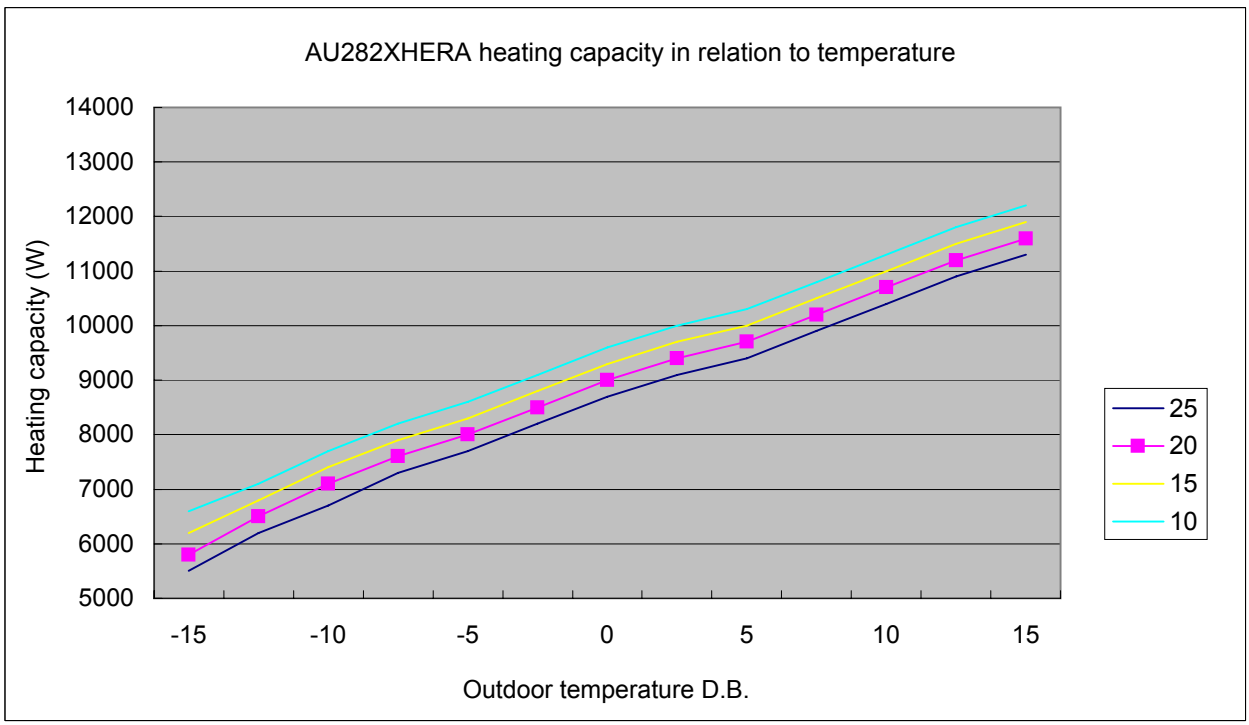

AU222XFERA cooling capacity in relation to temperature
Cooling capacity (W)
9000
8000
7000
6000
5000
4000
3000
15
20
25
30
35
40
43
Outdoor temperature D.B.
14/20
16/22
19/27
22/30

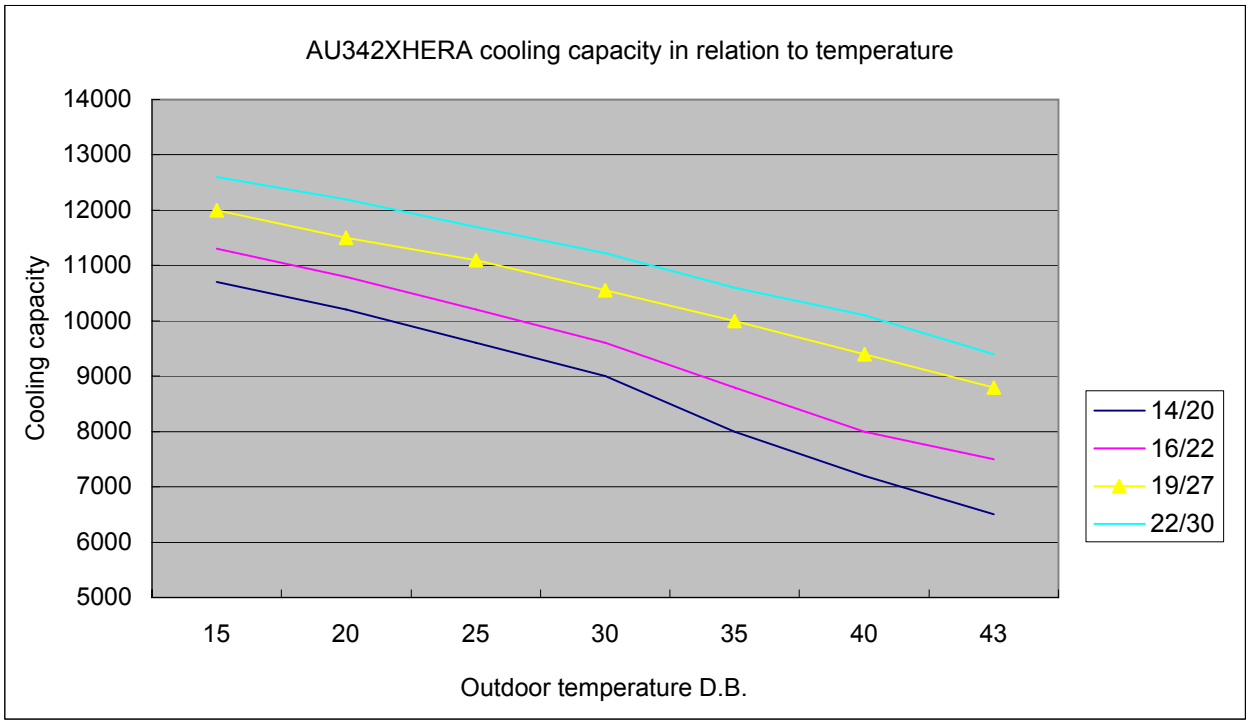

AU222XFERA heating capacity in relation to temperature
Heating capacity (W)
9000
8000
7000
6000
5000
4000
3000
-15
-10
-5
0
5
10
15
Outdoor temperature D.B.
25
20
15
10

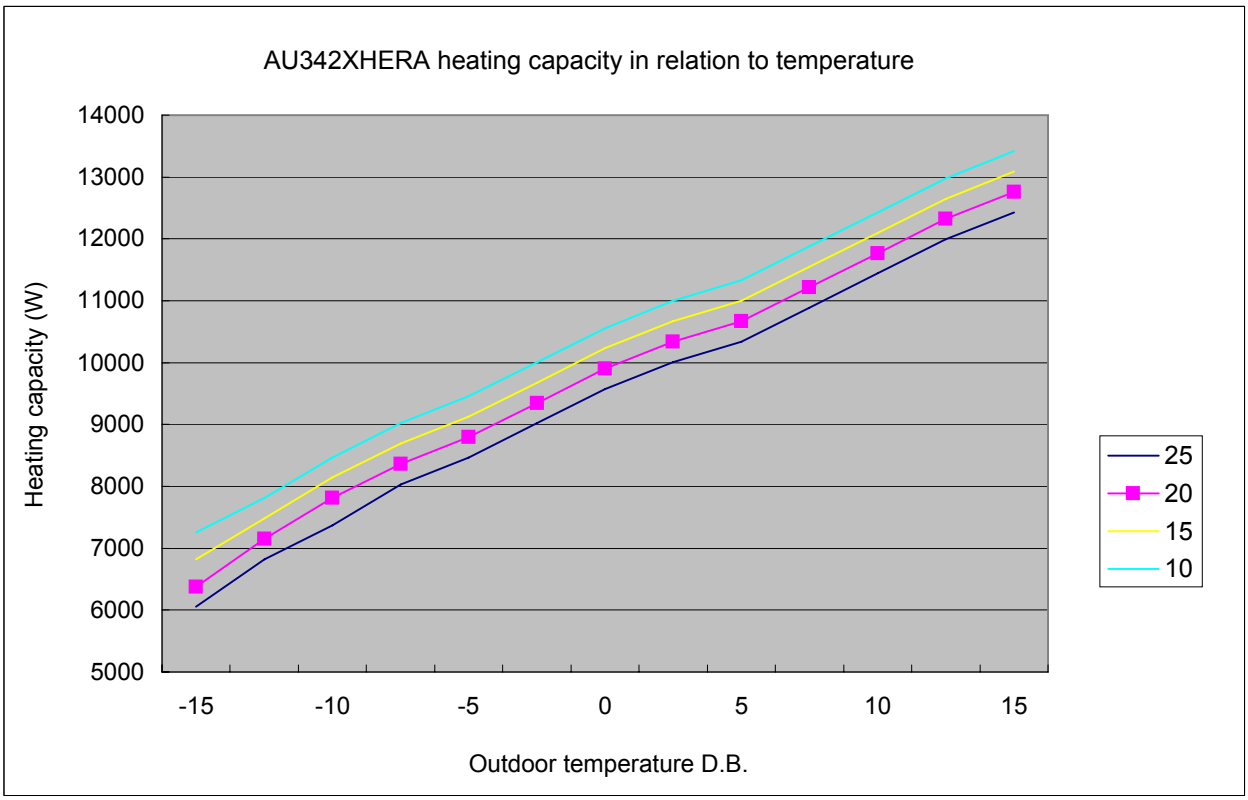

AU252XGERA cooling capacity in relation to temperature
Cooling capacity (W)
10000
9000
8000
7000
6000
5000
4000
15
20
25
30
35
40
43
Outdoor temperature D.B.
14/20
16/22
19/27
22/30

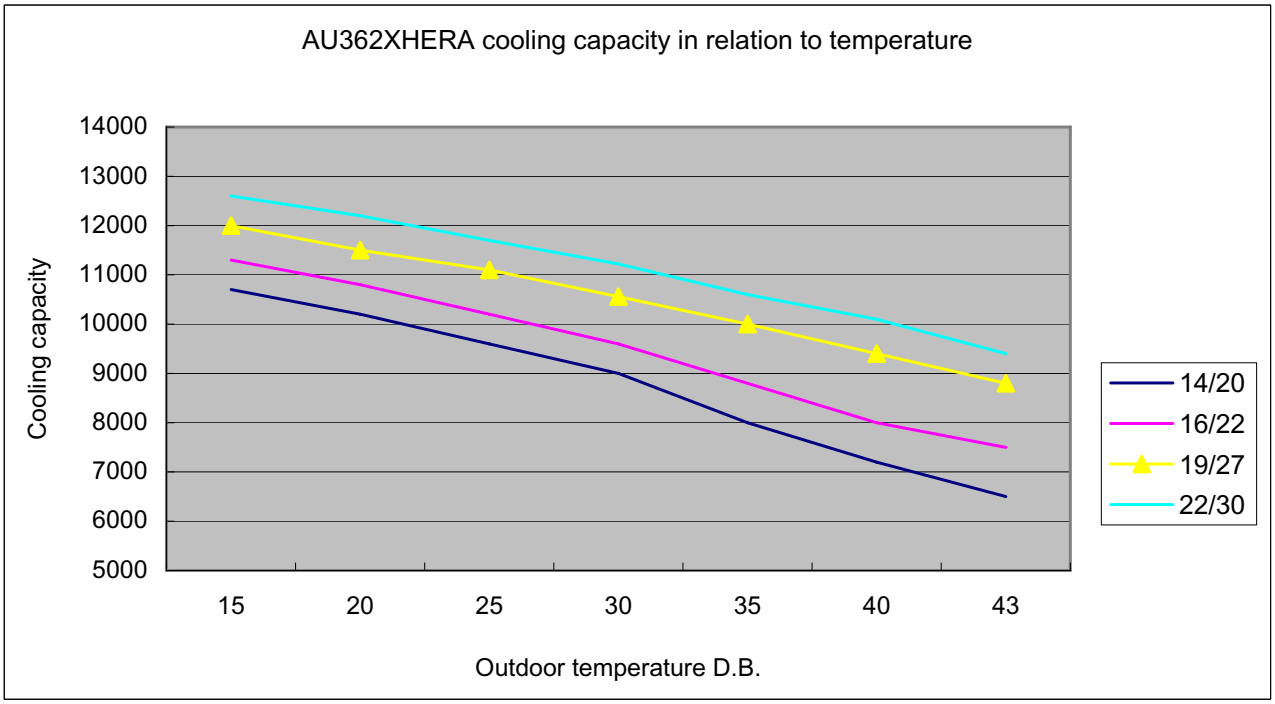

AU252XGERA heating capacity in relation to temperature
Cooling capacity (W)
10000
9000
8000
7000
6000
5000
4000
-15
-13
-10
-7.5
-5
-2.5
0
2.5
5
7.5
10
12.5
15
Outdoor temperature D.B.
10
15
20
25

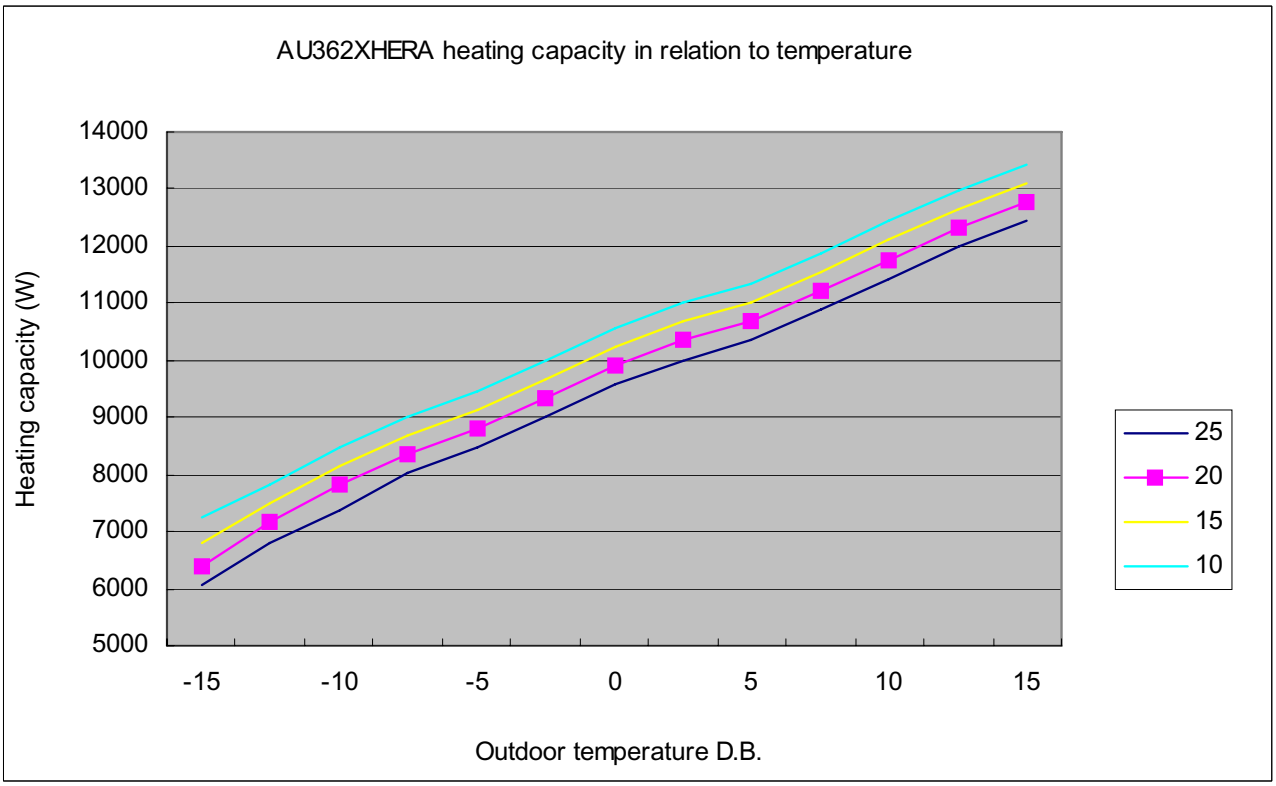

AU282XHERA cooling capacity in relation to temperature
Cooling capacity (W)
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
15
20
25
30
35
40
43
Outdoor temperature D.B.
14/20
16/22
19/27
22/30


AU282XHERA heating capacity in relation to temperature
Heating capacity (W)
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
-15
-10
-5
0
5
10
15
Outdoor temperature D.B.
25
20
15
10


AU342XHERA cooling capacity in relation to temperature
Cooling capacity
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
15
20
25
30
35
40
43
Outdoor temperature D.B.
14/20
16/22
19/27
22/30


AU342XHERA heating capacity in relation to temperature
Heating capacity (W)
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
-15
-10
-5
0
5
10
15
Outdoor temperature D.B.
25
20
15
10


AU362XHERA cooling capacity in relation to temperature
Cooling capacity
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
15
20
25
30
35
40
43
Outdoor temperature D.B.
14/20
16/22
19/27
22/30

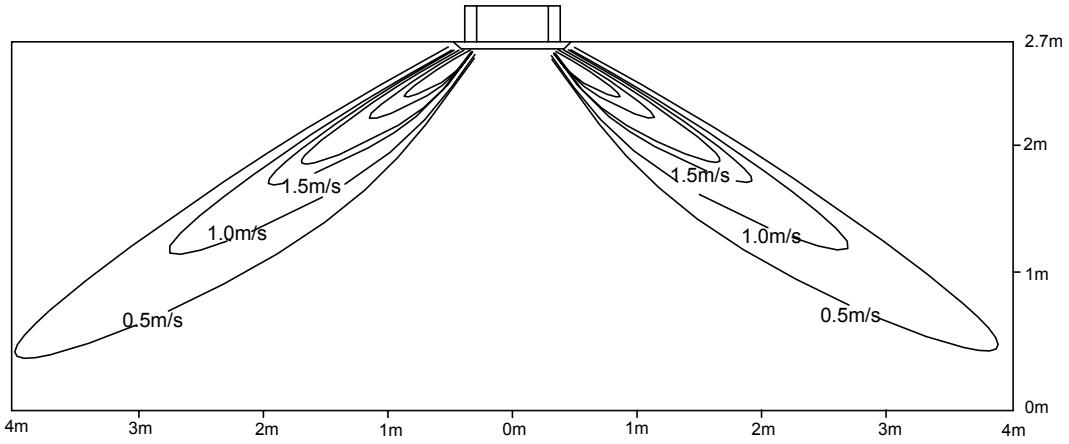

AU362XHERA heating capacity in relation to temperature
Heating capacity (W)
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
-15
-10
-5
0
5
10
15
Outdoor temperature D.B.
25
20
15
10

9. Indoor air velocity and temperature distribution curves

9.1 AB092-182XCERA:

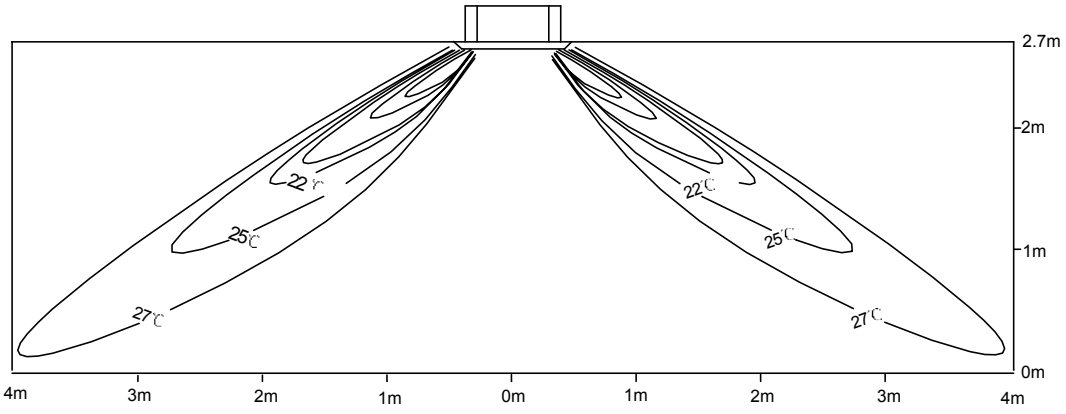
a. Cooling / Air Velocity Distribution

Cooling
Blowy angle:40
Air Velocity Distribution



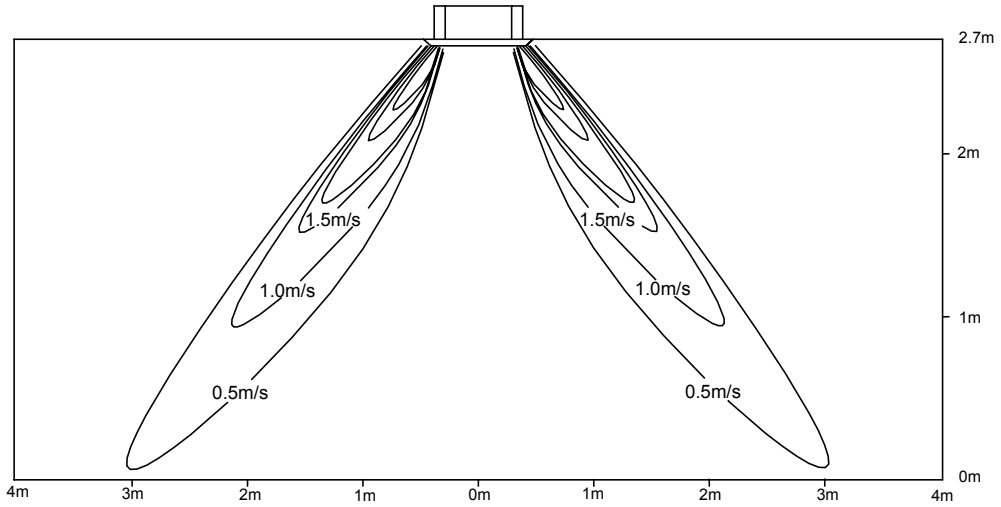
b. Cooling / Temperature Distribution

Cooling
Blowy angle:40
Temperature Distribution



c. Heating / Air Velocity Distribution

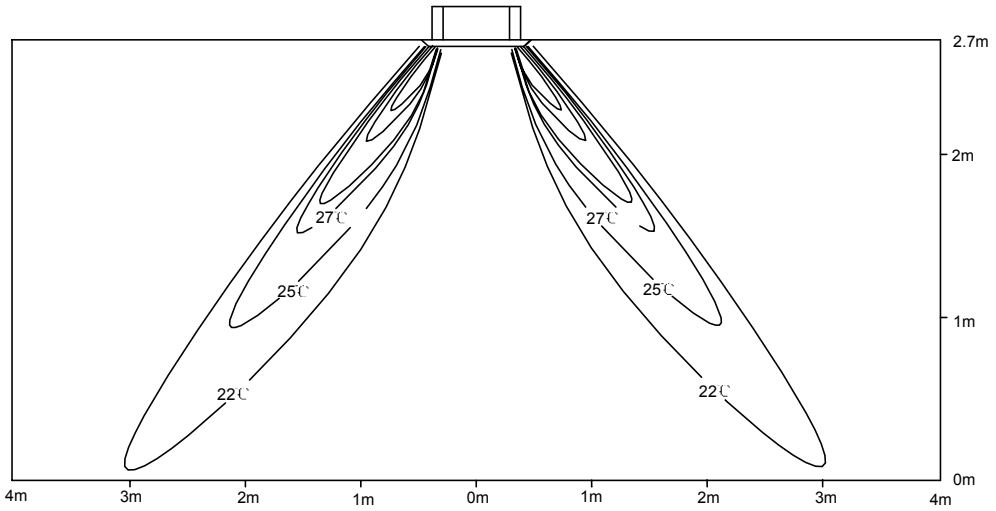
Heating
Blowy angle:70
Air velocity Distribution



d. Heating / Temperature Distribution

Heating
Blowy angle:70

Temperature Distribution

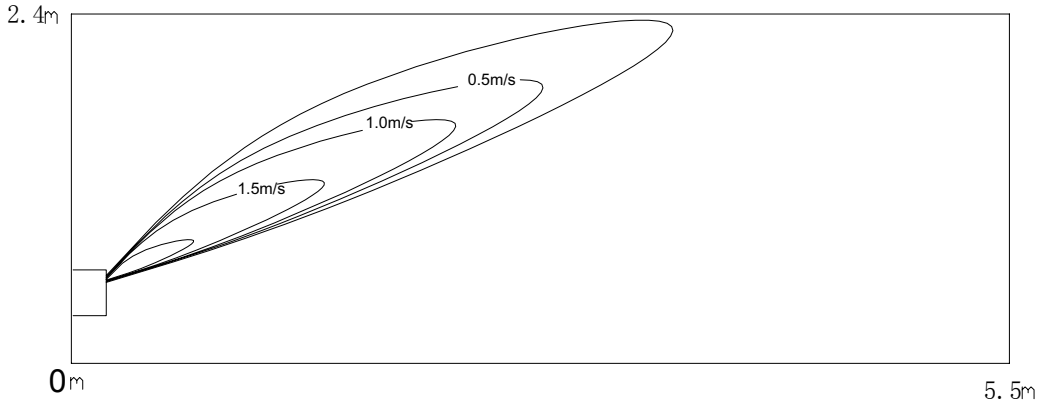


9.2 AC14/182XCERA:

a）Grounding

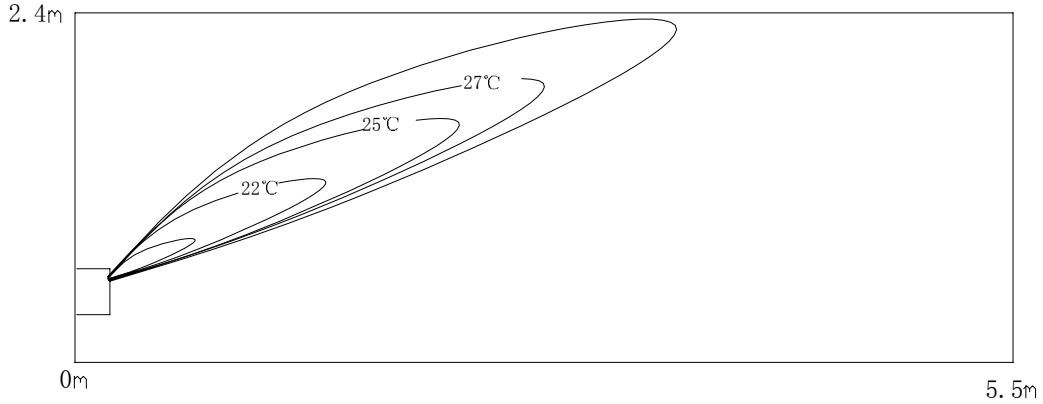
a. Cooling / Air Velocity Distribution

Cooling
Blowy angle:25
Air Velocity Distribution



b. Cooling / Temperature Distribution

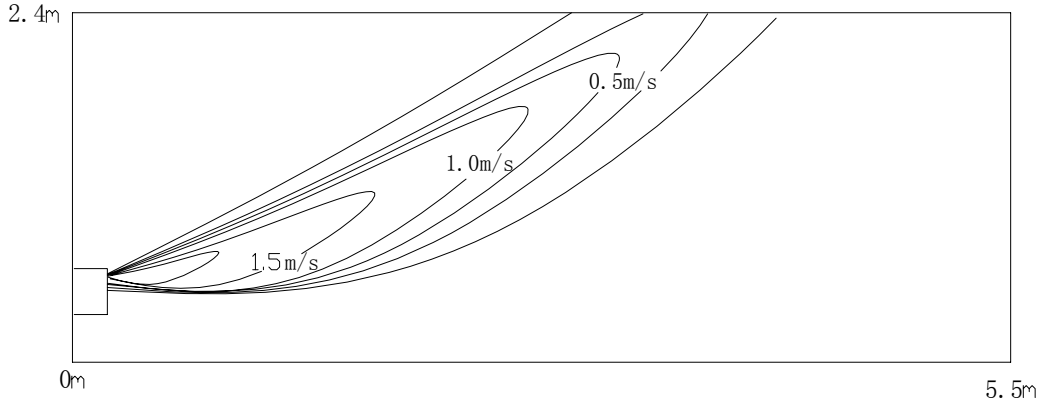
Cooling
Blowy angle:25
Temperature Distribution



c. Heating / Air Velocity Distribution

Heating
Blowy angle:5
Air velocity Distribution

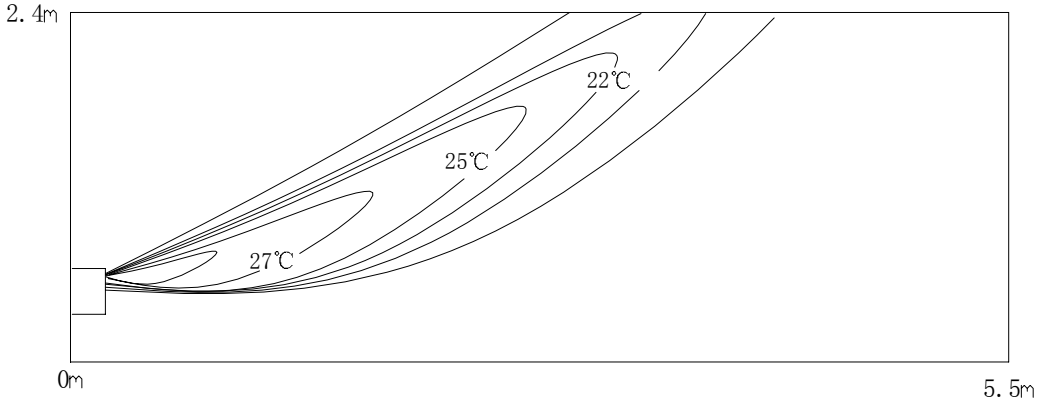
2



d. Heating / Temperature Distribution

Heating
Blowy angle:5
Temperature Distribution

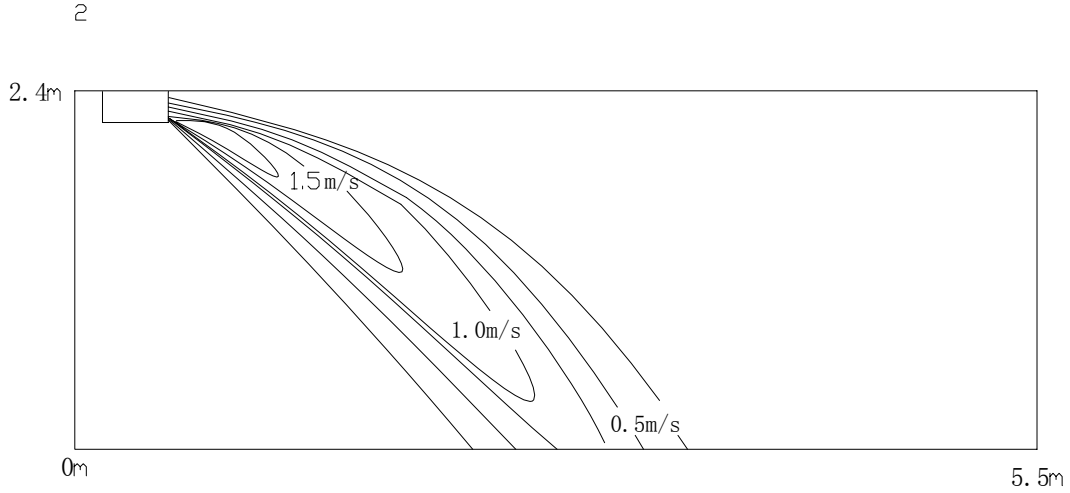
2



b) Ceiling

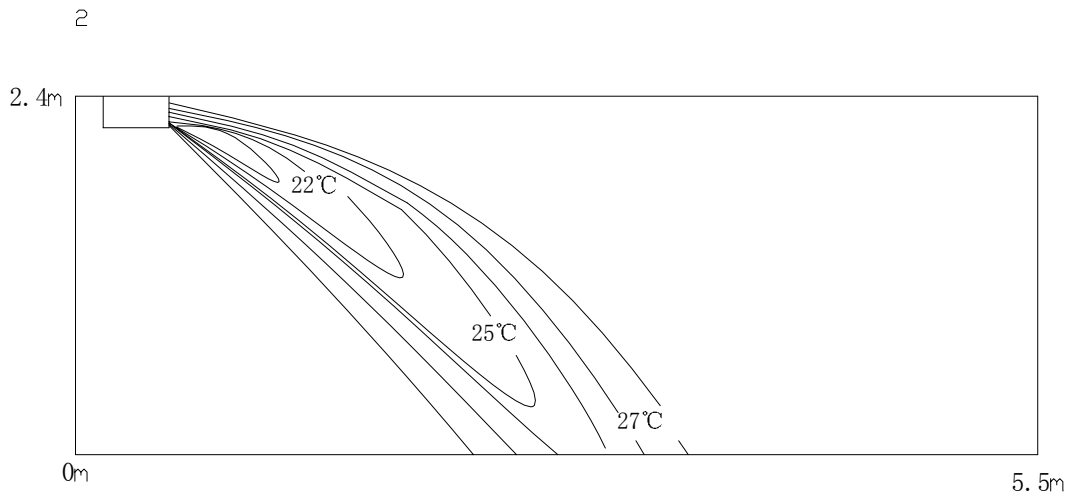
a. Cooling / Air Velocity Distribution

Cooling
Blowy angle:25
Air Velocity Distribution



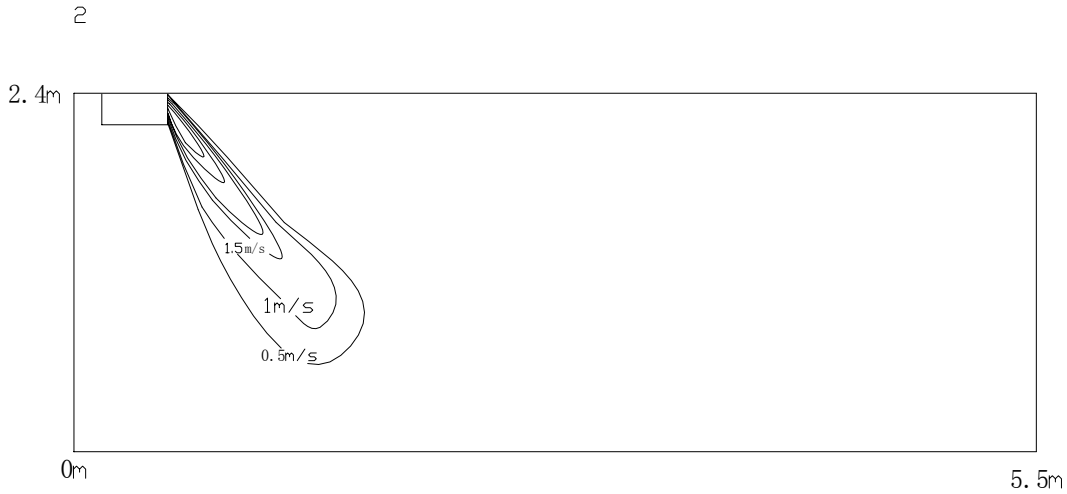
b. Cooling / Temperature Distribution

Cooling
Blowy angle:25
Temperature Distribution



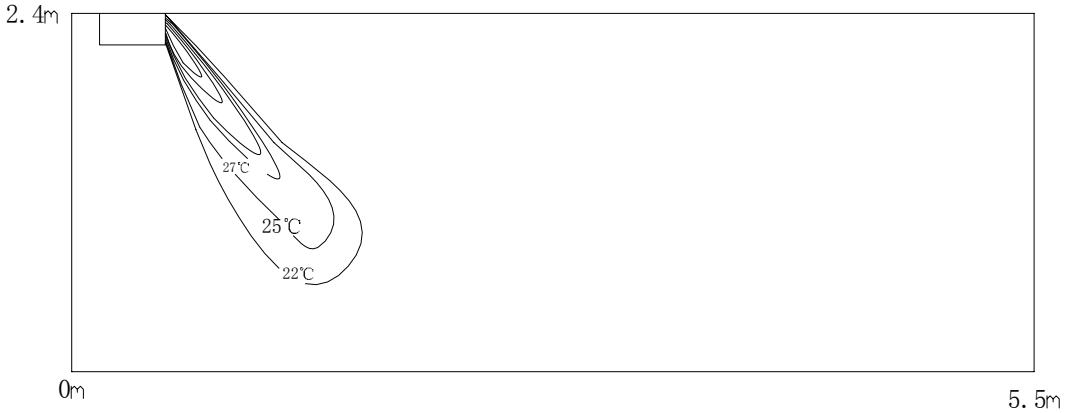
c. Heating / Air Velocity Distribution

Heating
Blowy angle:65
Air velocity Distribution



d. Heating / Temperature Distribution

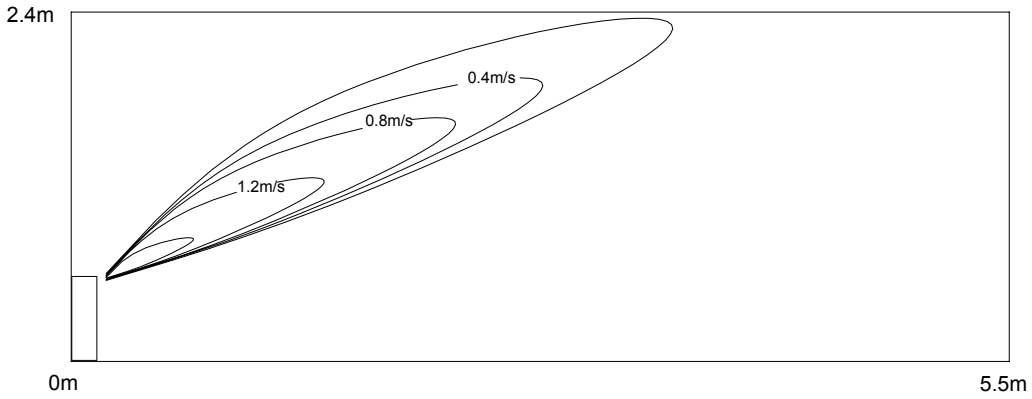
Heating
Blowy angle:65
Temperature Distribution



9.3 AF09/122XCERA:

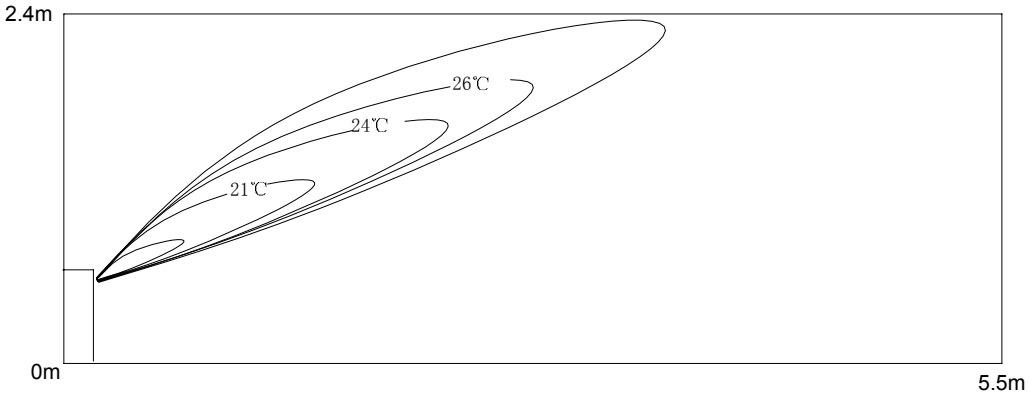
a. Cooling / Air Velocity Distribution

Cooling
Blowy angle:25
Air Velocity Distribution



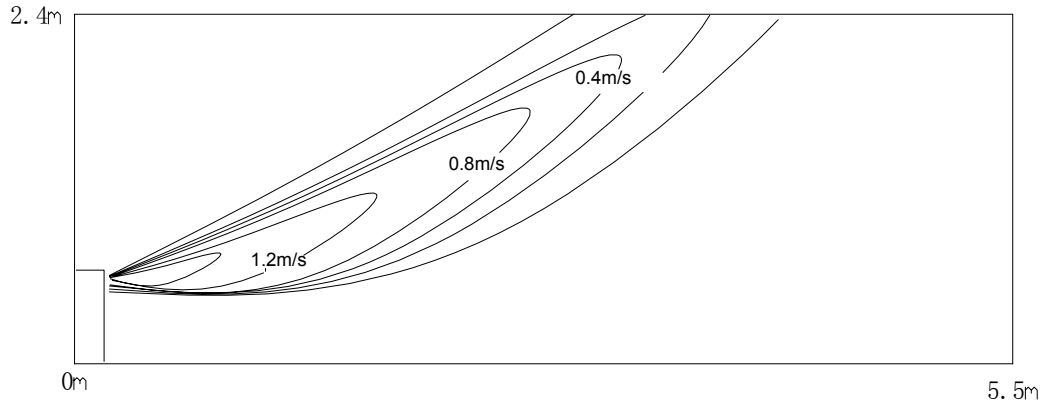
b. Cooling / Temperature Distribution

Cooling
Blowy angle:25
Temperature Distribution



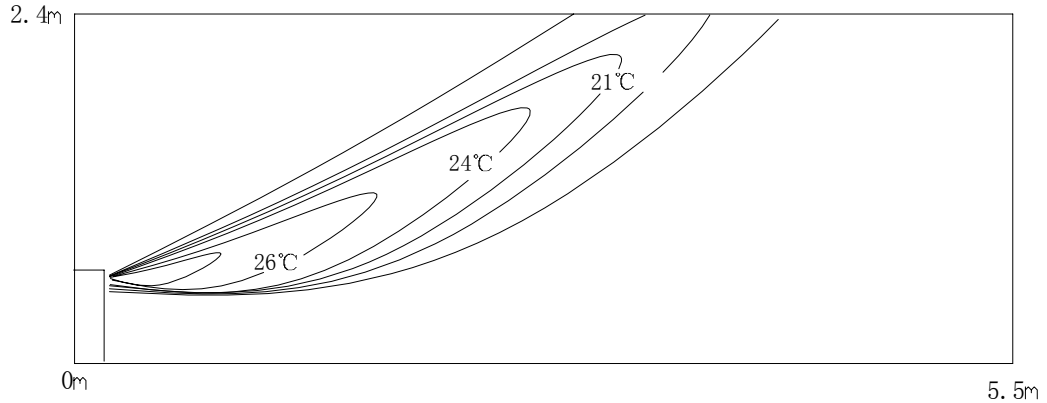
c. Heating / Air Velocity Distribution

Heating
Blowy angle:5
Air velocity Distribution



d. Heating / Temperature Distribution

Heating
Blowy angle:5
Temperature Distribution



9.4 Wall mounted type:

Fig 1
top view
flow control panel horizal
lourer:center

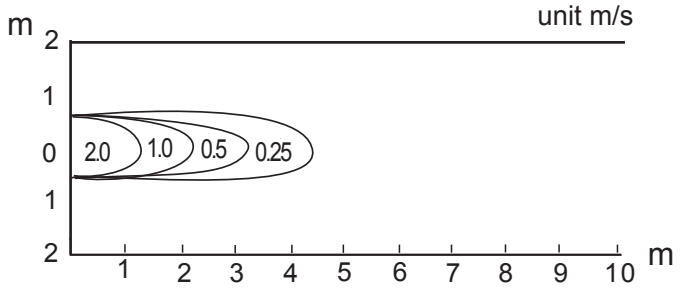


Fig 2
top view
flow control panel horizontal
lourer:right and left

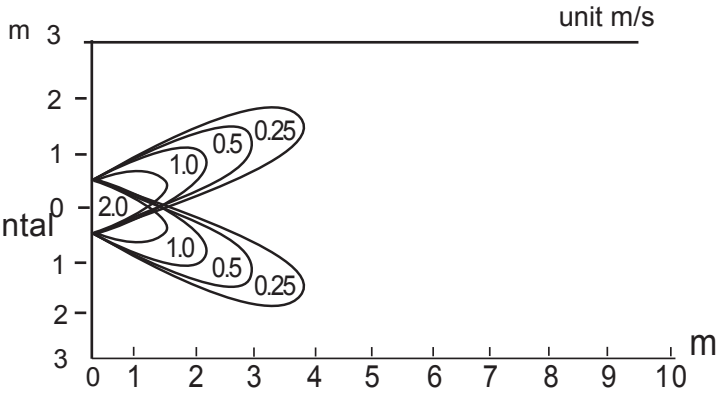


Fig 3
top view
flow control panel horizontal
lourer:center

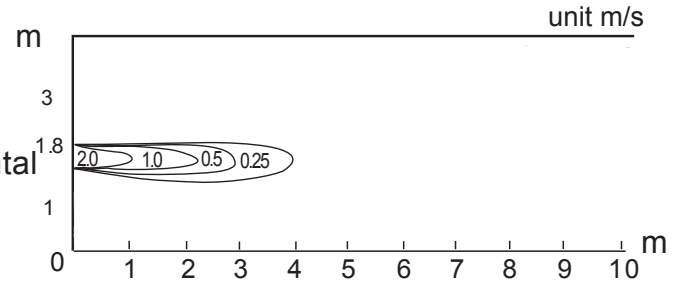
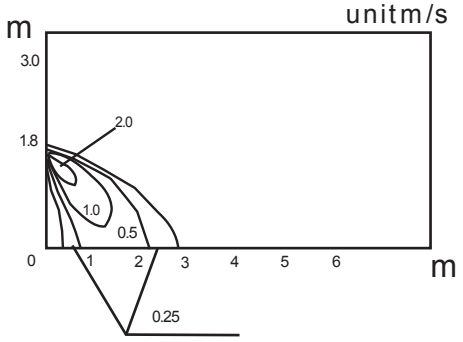


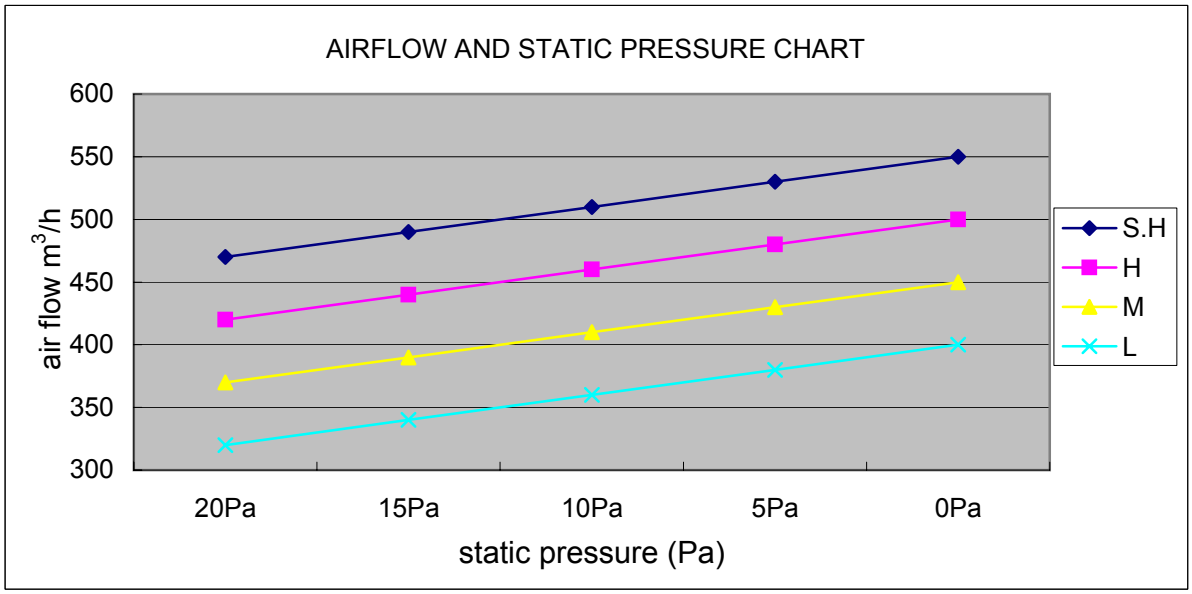
Fig 4
top view
flow control panel vertical
lourer:center



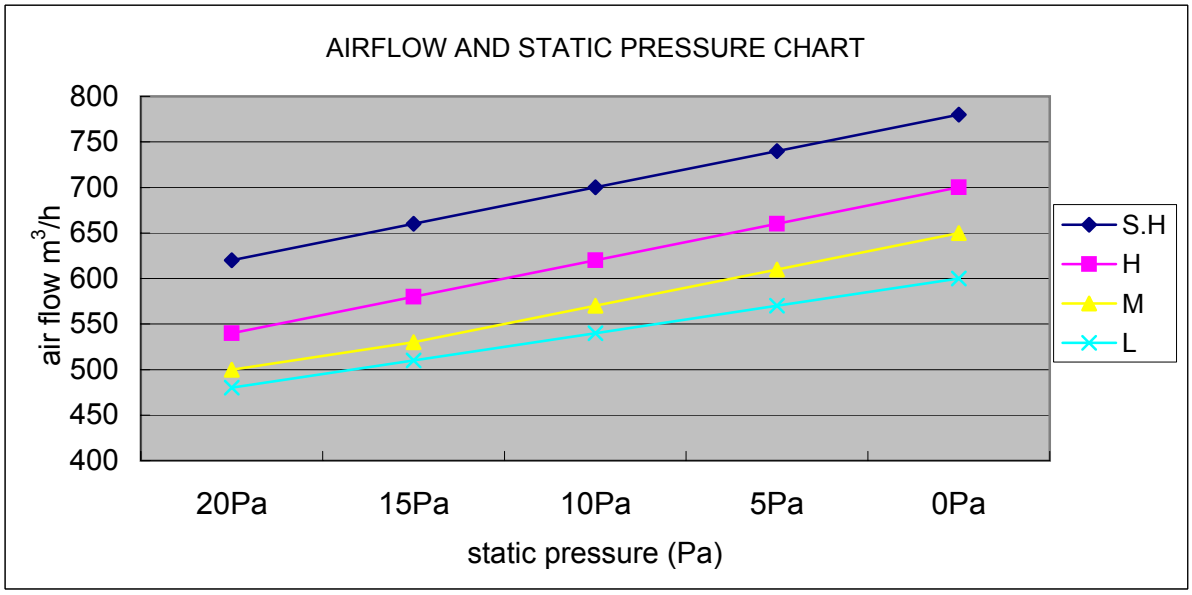
Condition
Fan speed:high
Operation mode:fan
Voltage:230V,50Hz

10. Air flow and static pressure chart

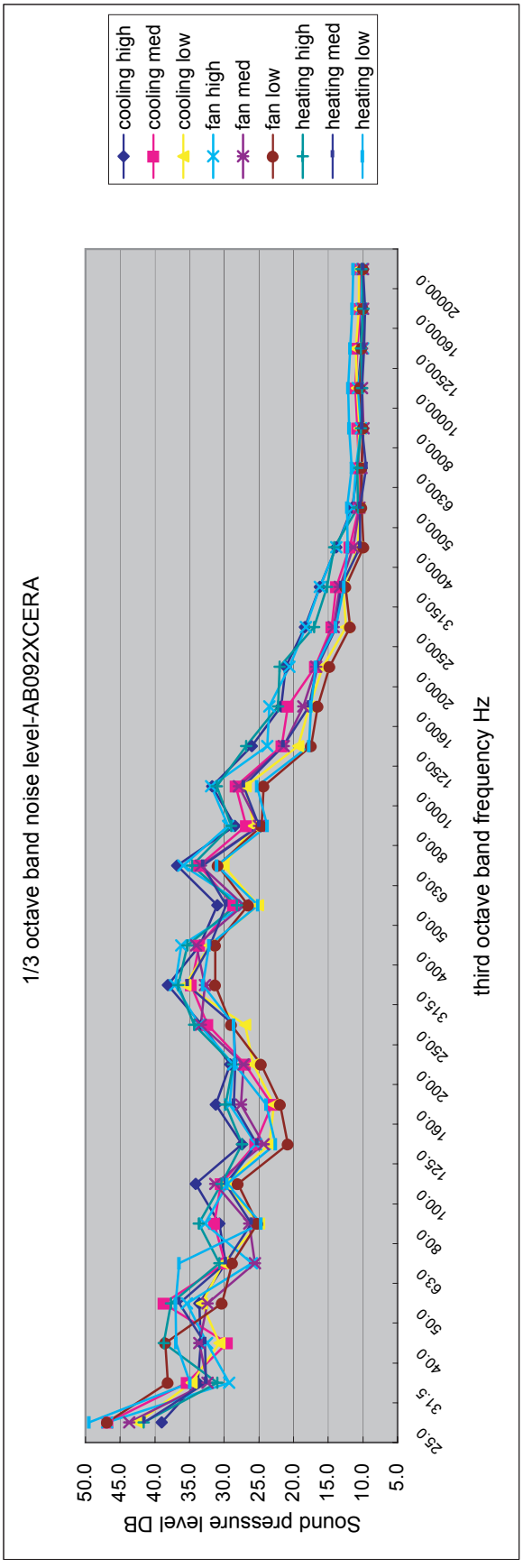
AD092XLERA/AD122XLERA

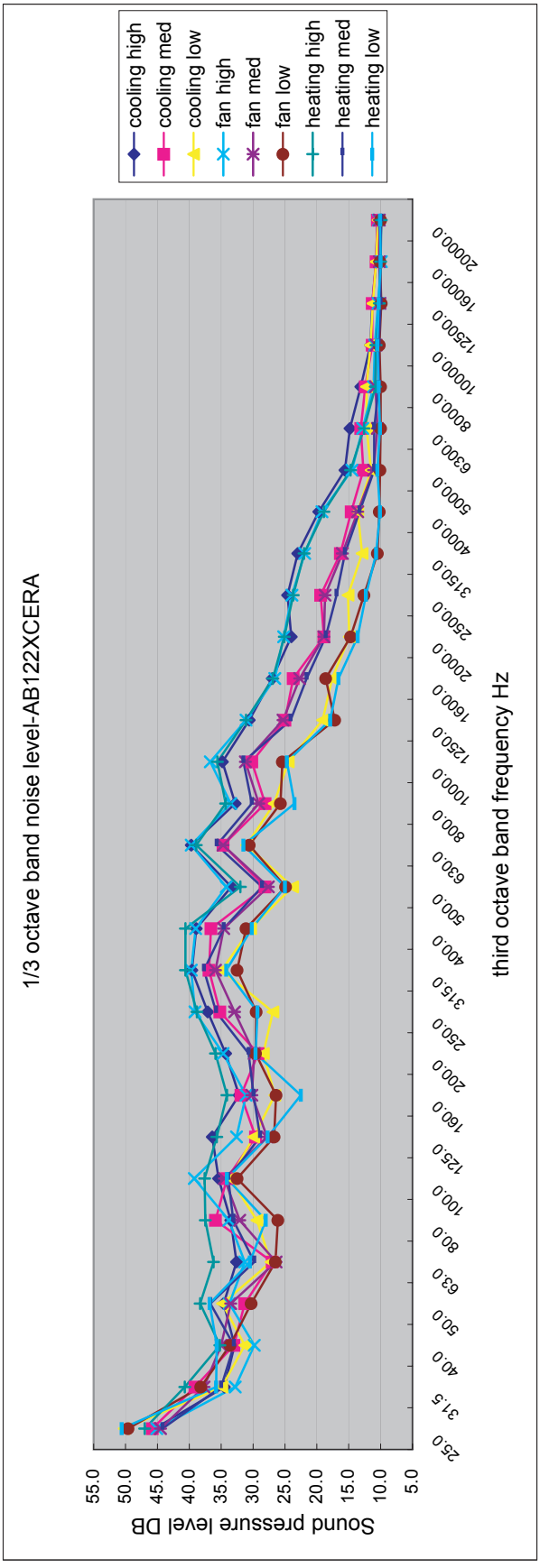


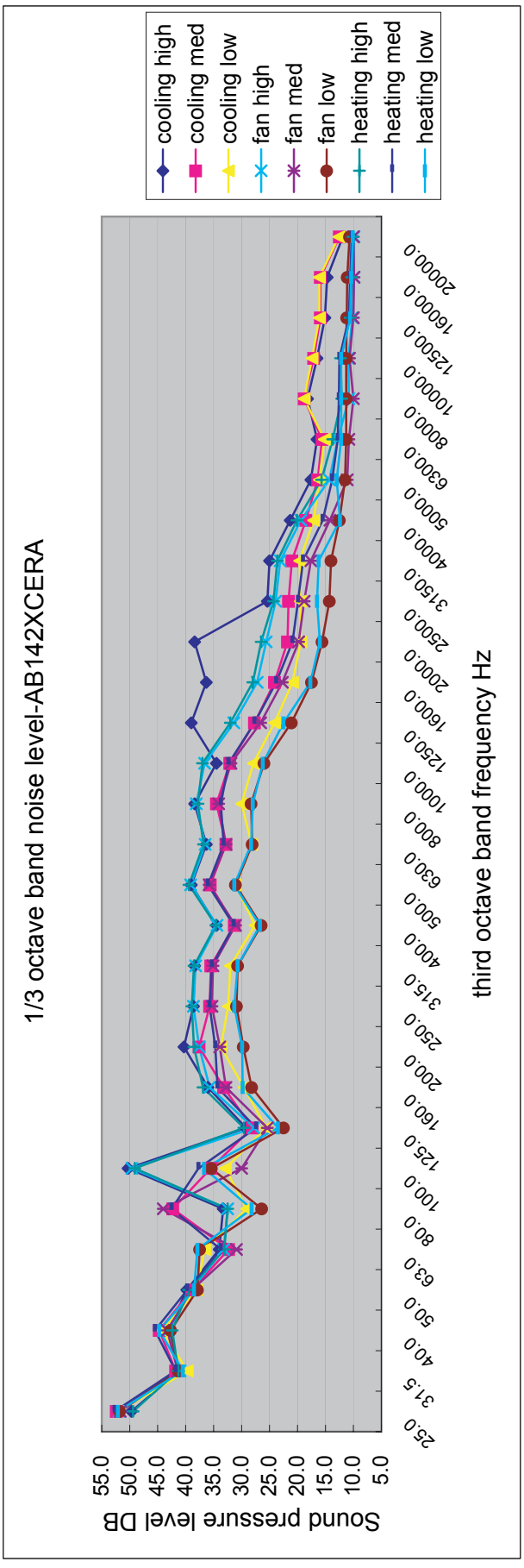
AD142XLERA/AD182XLERA

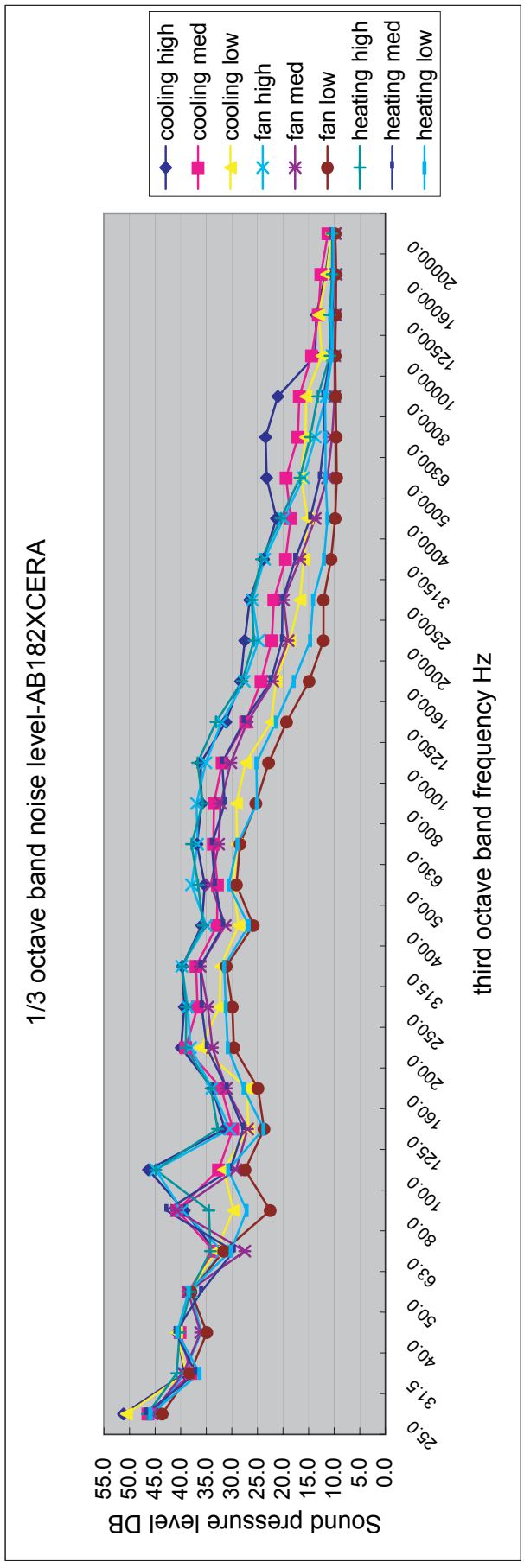


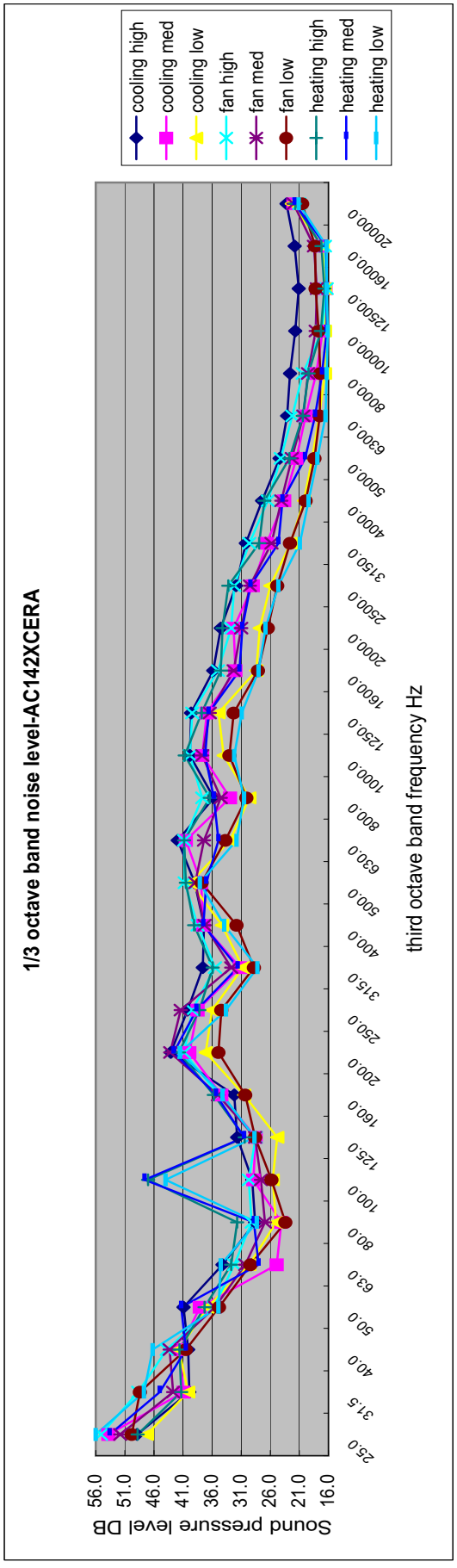
11. Noise level

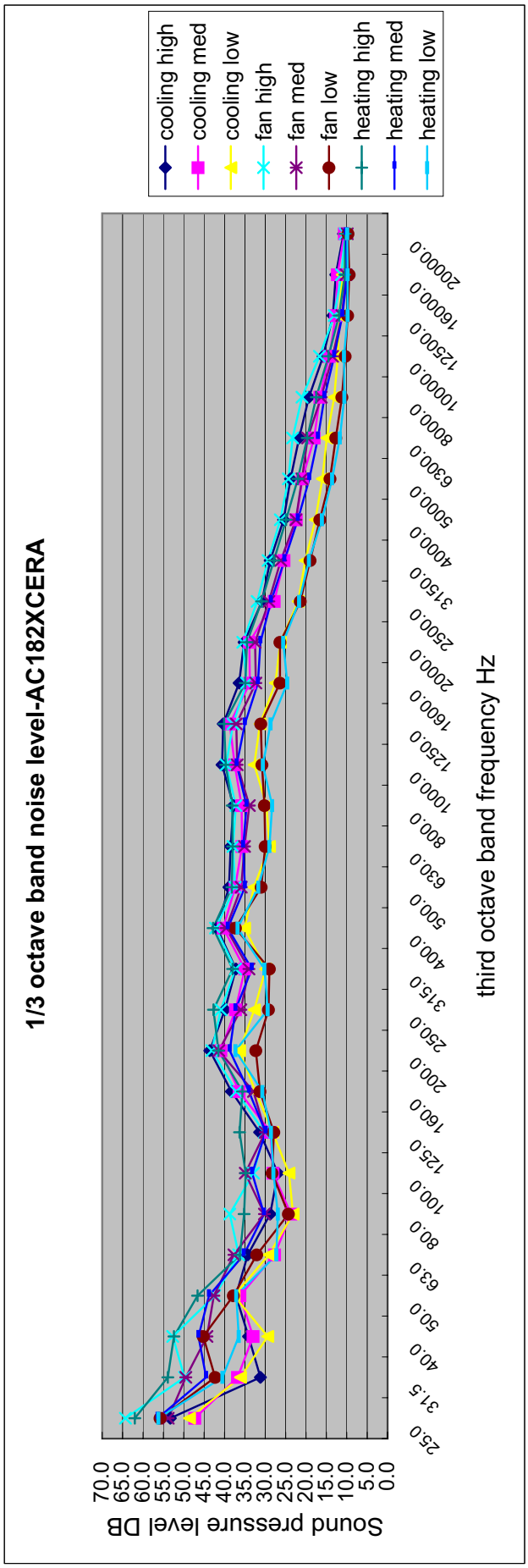


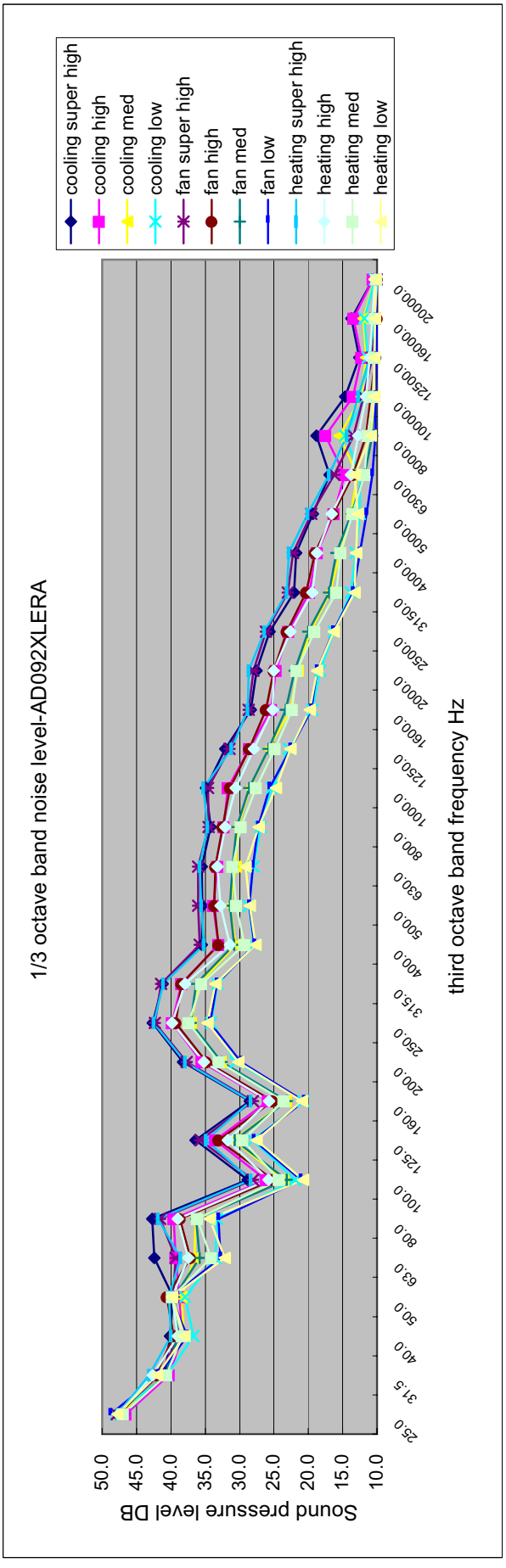


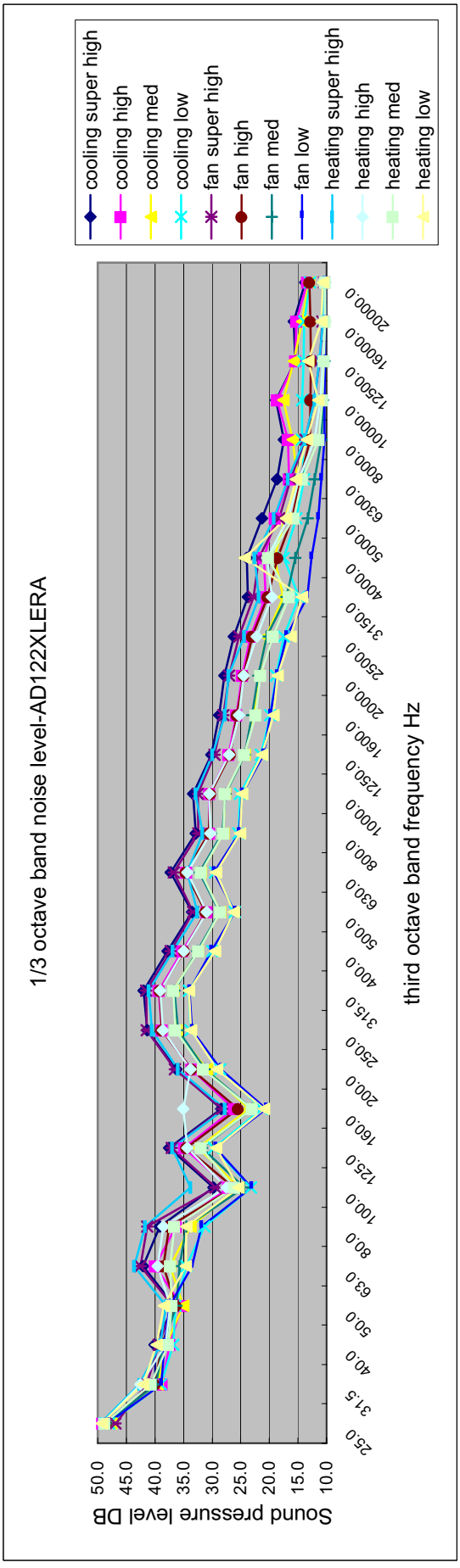

1/3 octave band noise level-AB142XCERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

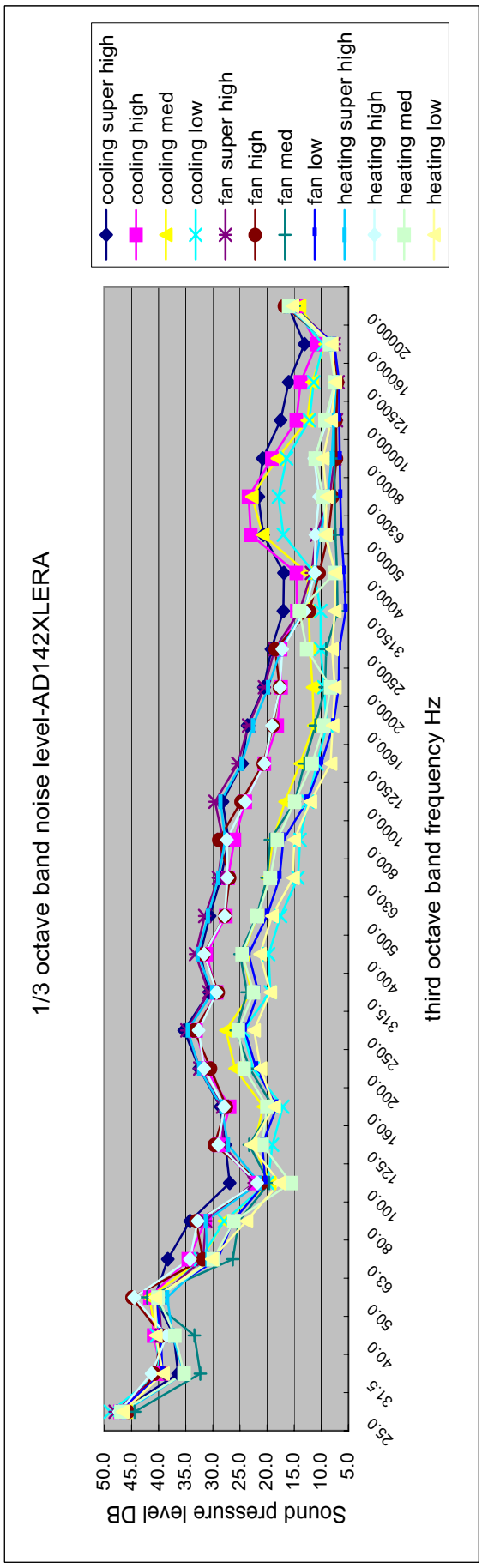

1/3 octave band noise level-AB182XCERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

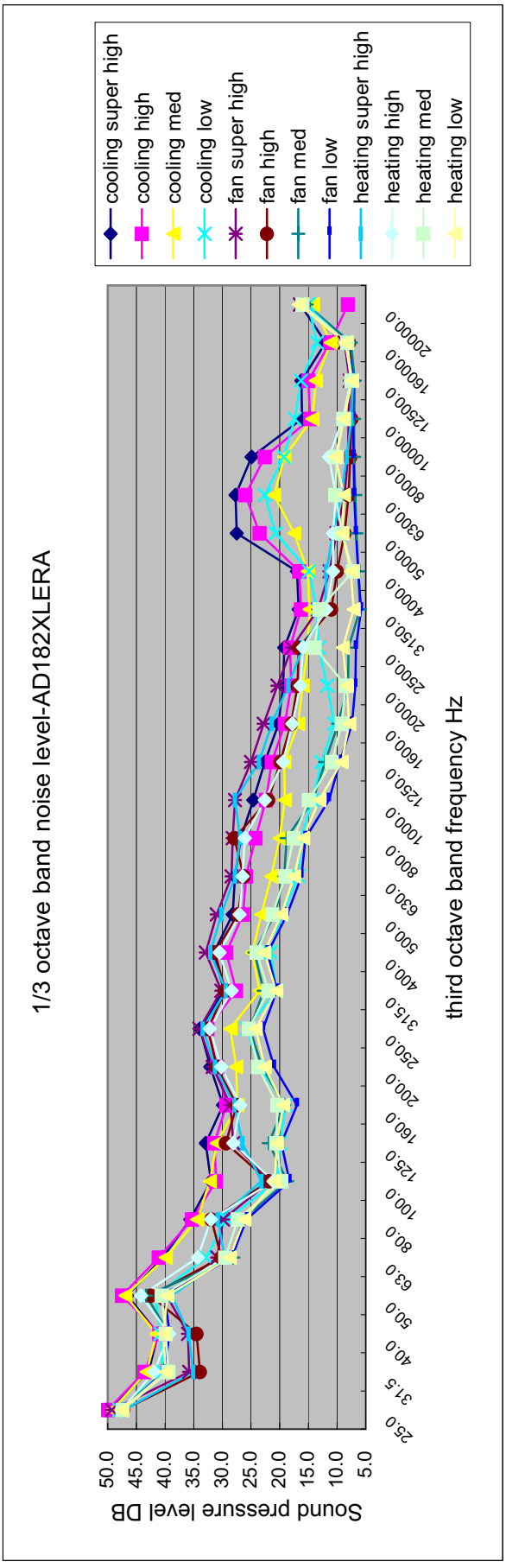

1/3 octave band noise level-AC142XCERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
56.0
51.0
46.0
41.0
36.0
31.0
26.0
21.0
16.0
third octave band frequency Hz
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0

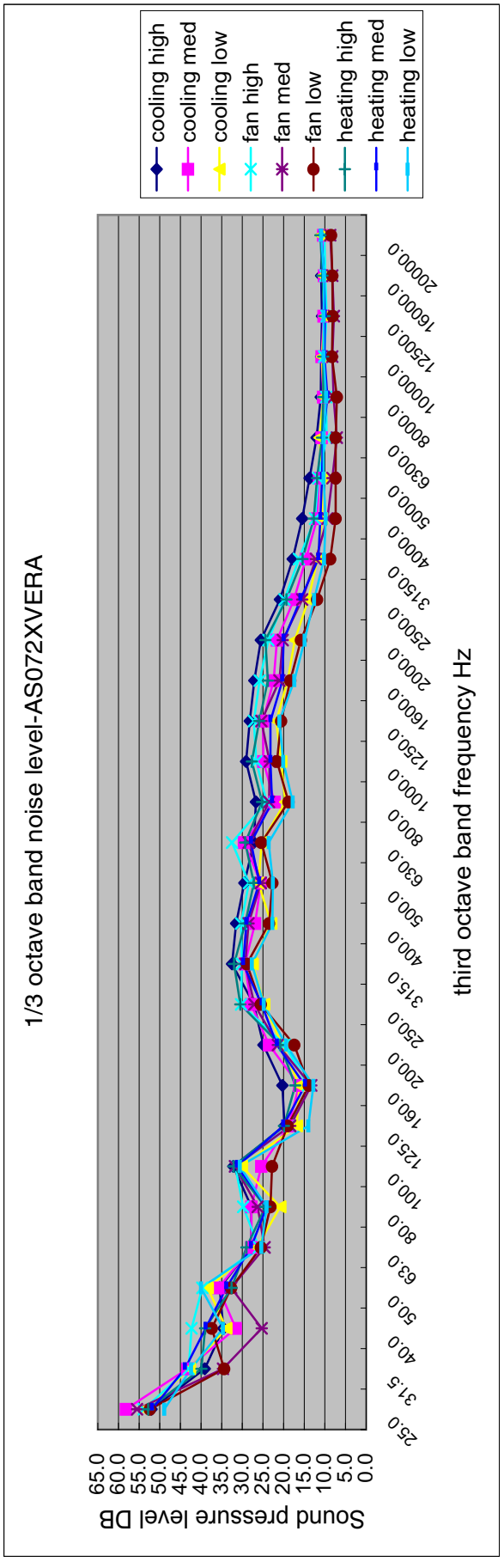

1/3 octave band noise level-AC182XCERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

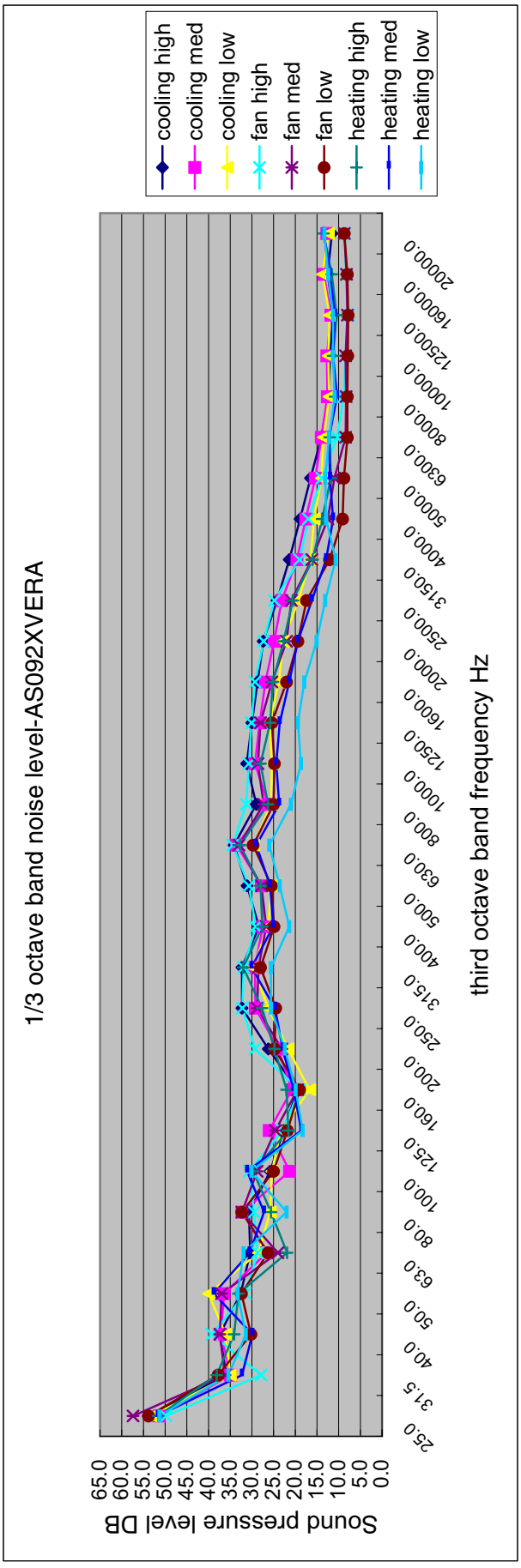

1/3 octave band noise level-AD092XLERA
cooling super high
cooling high
cooling med
cooling low
fan super high
fan high
fan med
fan low
heating super high
heating high
heating med
heating low
Sound pressure level DB
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

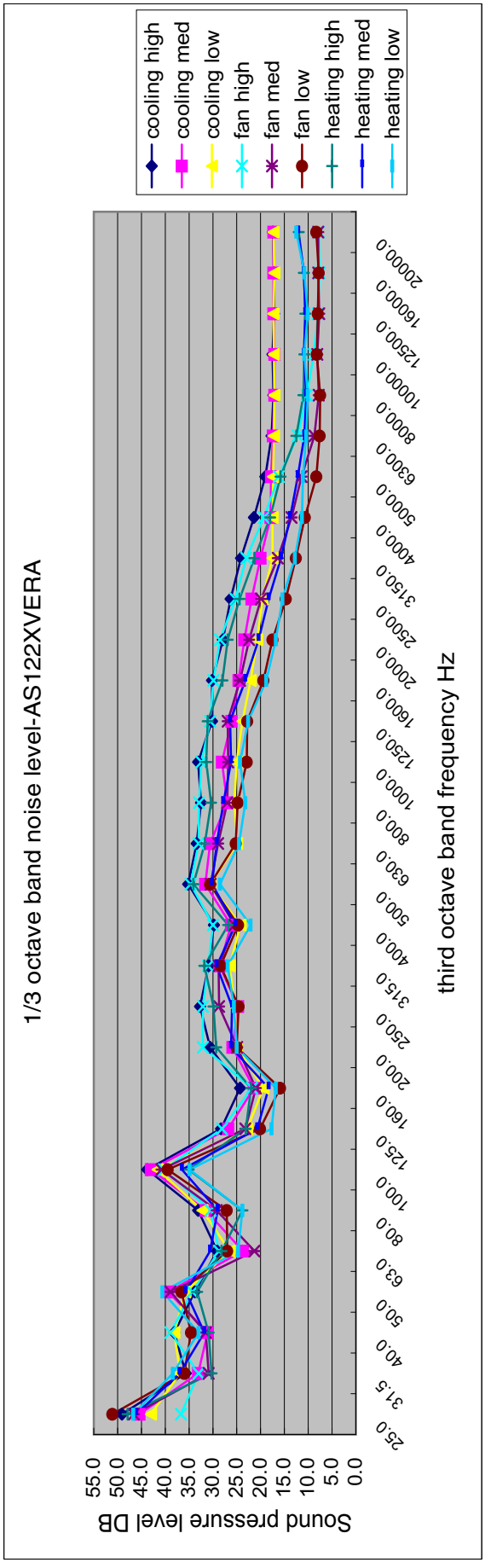

1/3 octave band noise level-AD122XLERA
cooling super high
cooling high
cooling med
cooling low
fan super high
fan high
fan med
fan low
heating super high
heating high
heating med
heating low
Sound pressure level DB
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
third octave band frequency Hz
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0

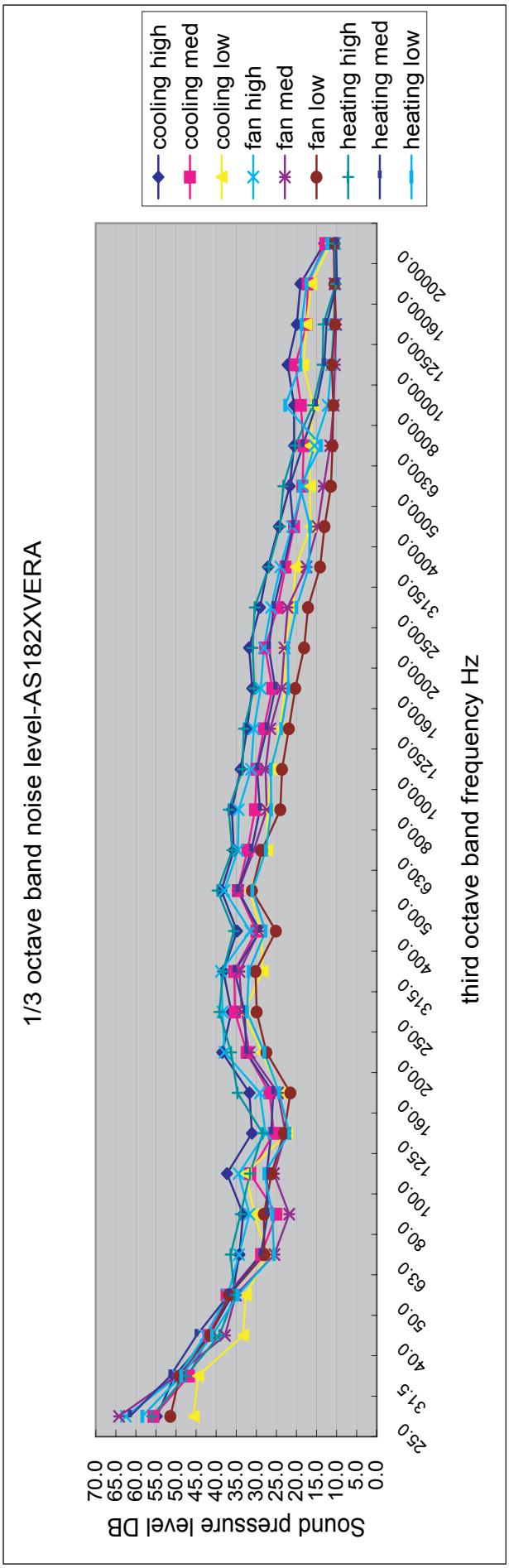

1/3 octave band noise level-AD142XLERA
cooling super high
cooling high
cooling med
cooling low
fan super high
fan high
fan med
fan low
heating super high
heating high
heating med
heating low
Sound pressure level DB
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
third octave band frequency Hz
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0

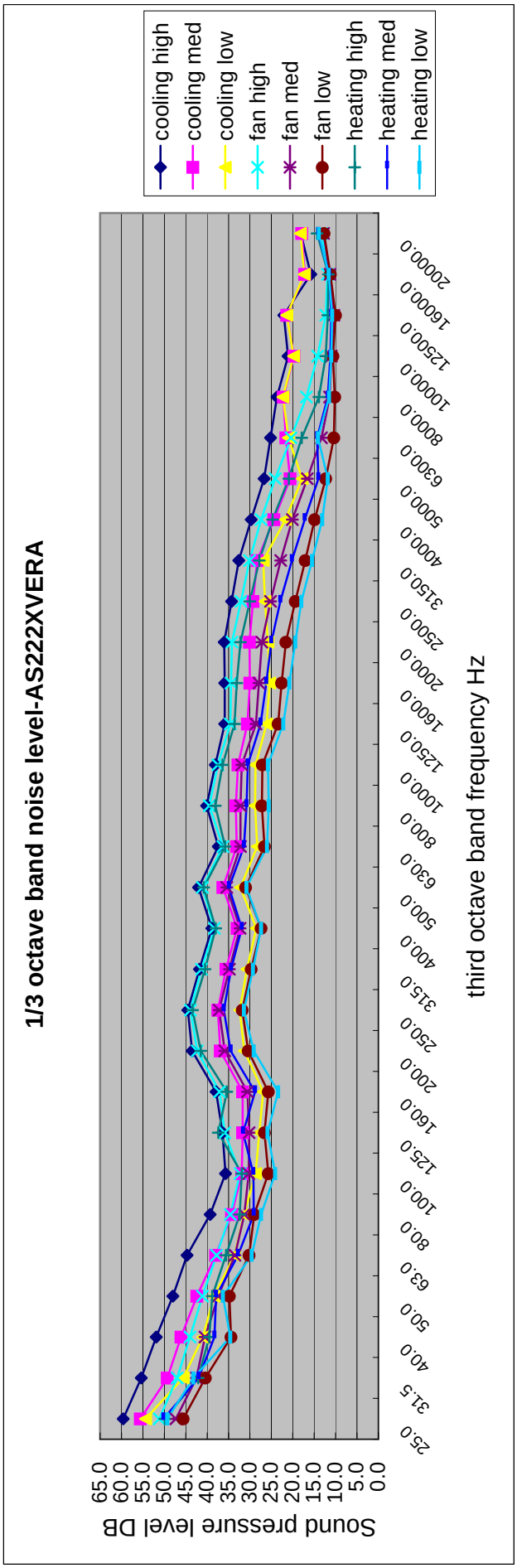

1/3 octave band noise level-AD182XLERA
cooling super high
cooling high
cooling med
cooling low
fan super high
fan high
fan med
fan low
heating super high
heating high
heating med
heating low
Sound pressure level DB
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
third octave band frequency Hz
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0

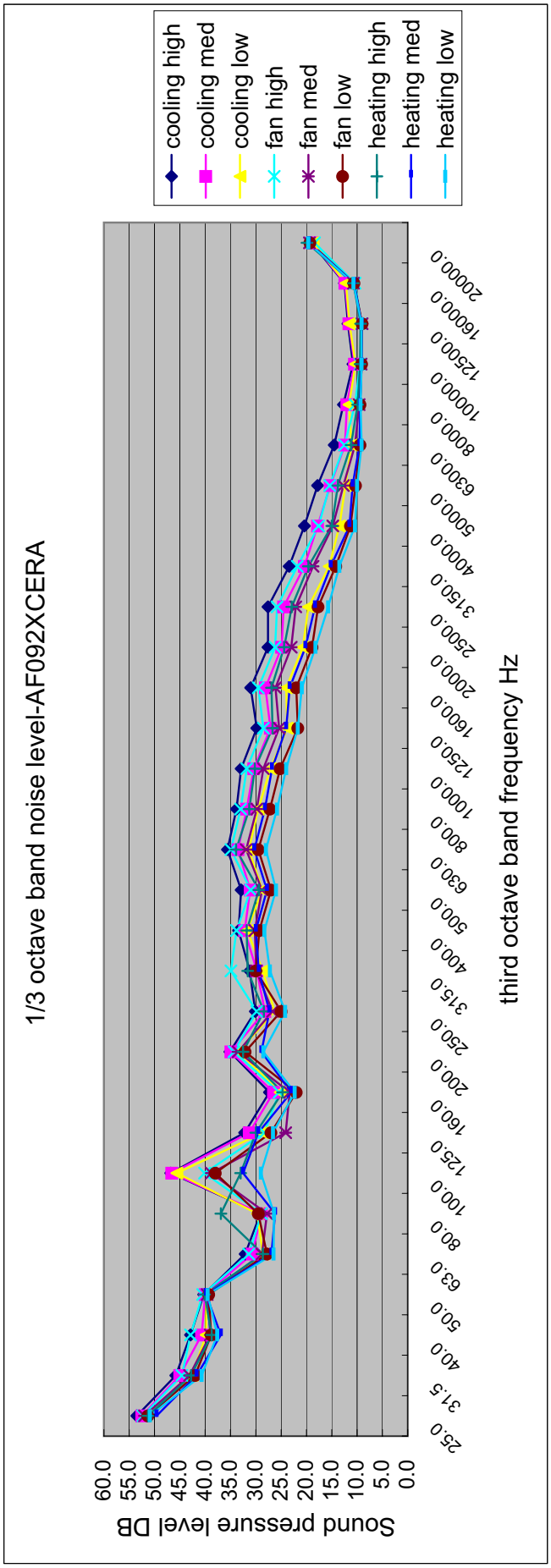

1/3 octave band noise level-AS072XVERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
third octave band frequency Hz
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0

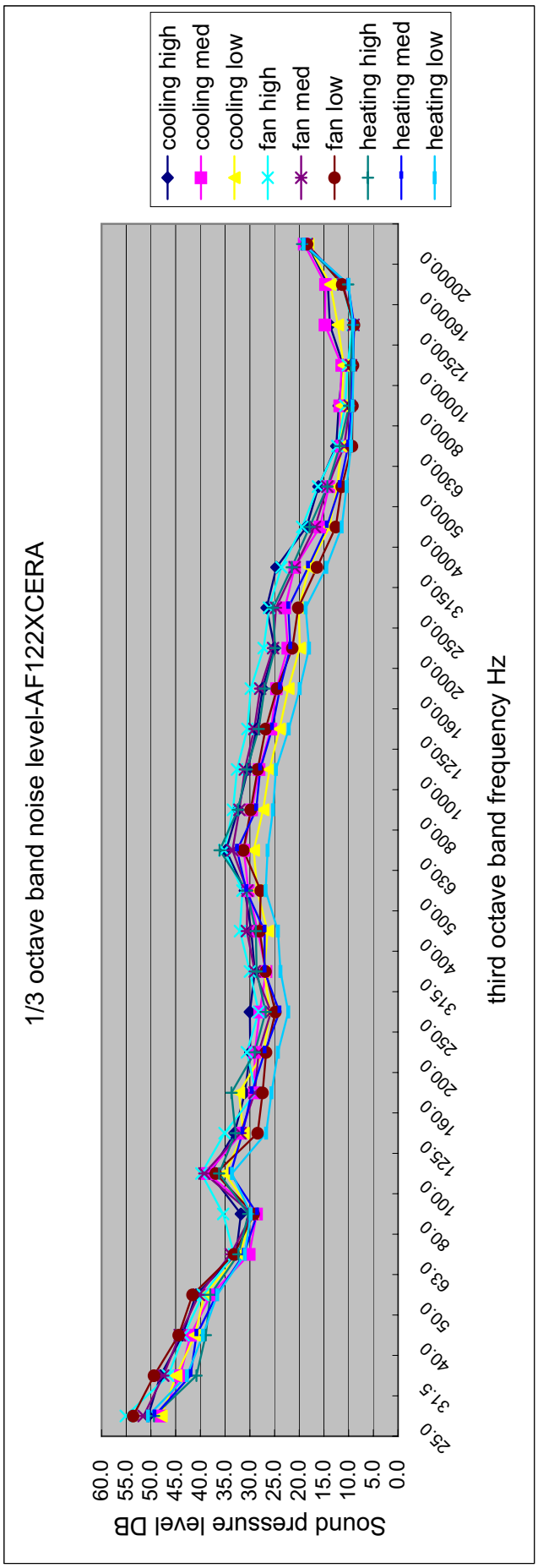

1/3 octave band noise level-AS092XVERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

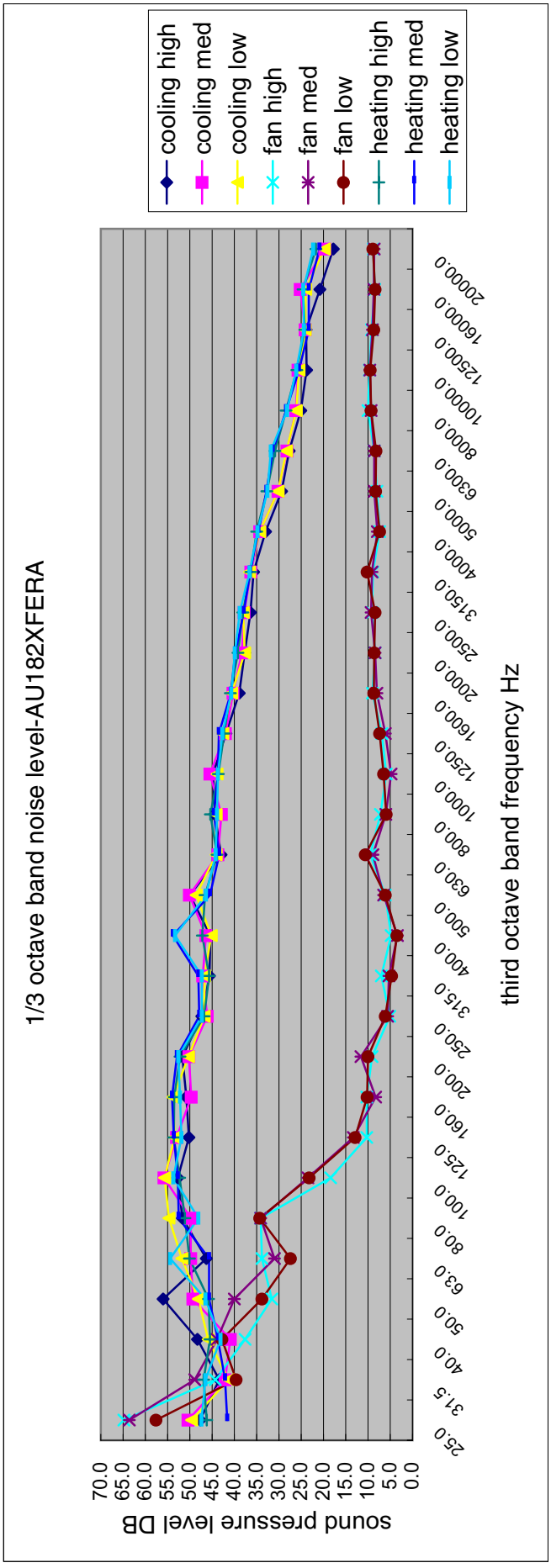

1/3 octave band noise level-AS122XVERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

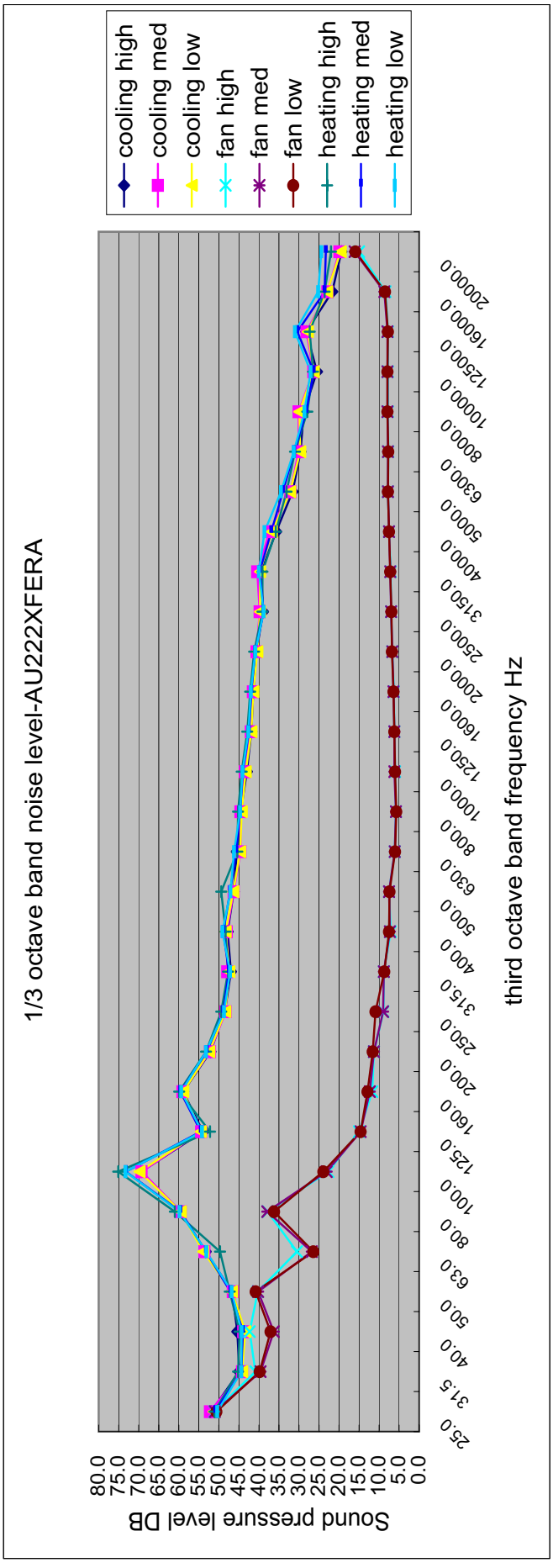

1/3 octave band noise level-AS182XVERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

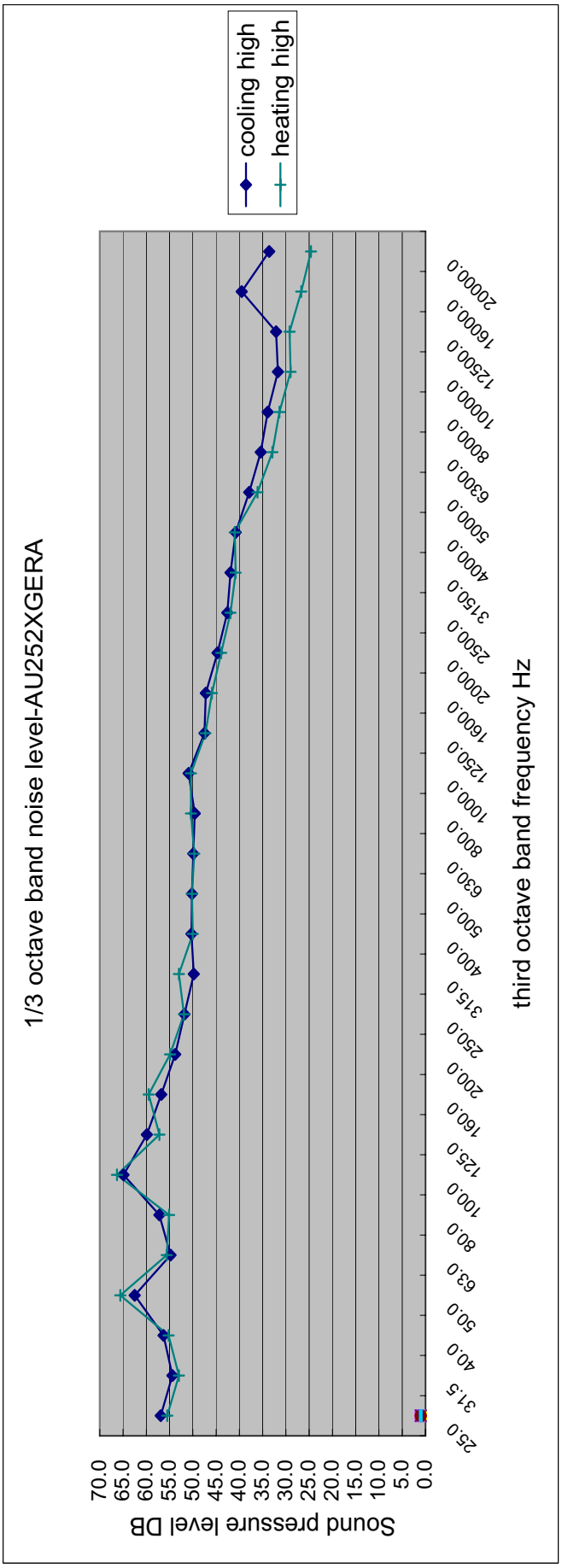

1/3 octave band noise level-AS222XVERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

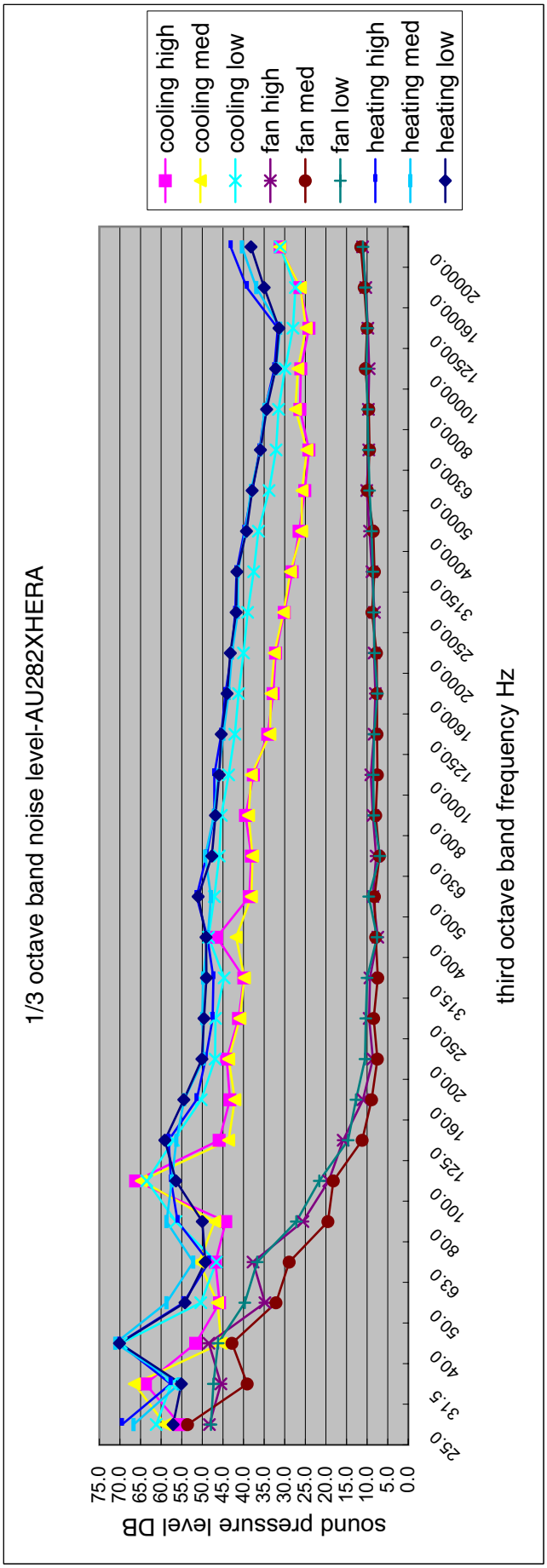

1/3 octave band noise level-AF092XCERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

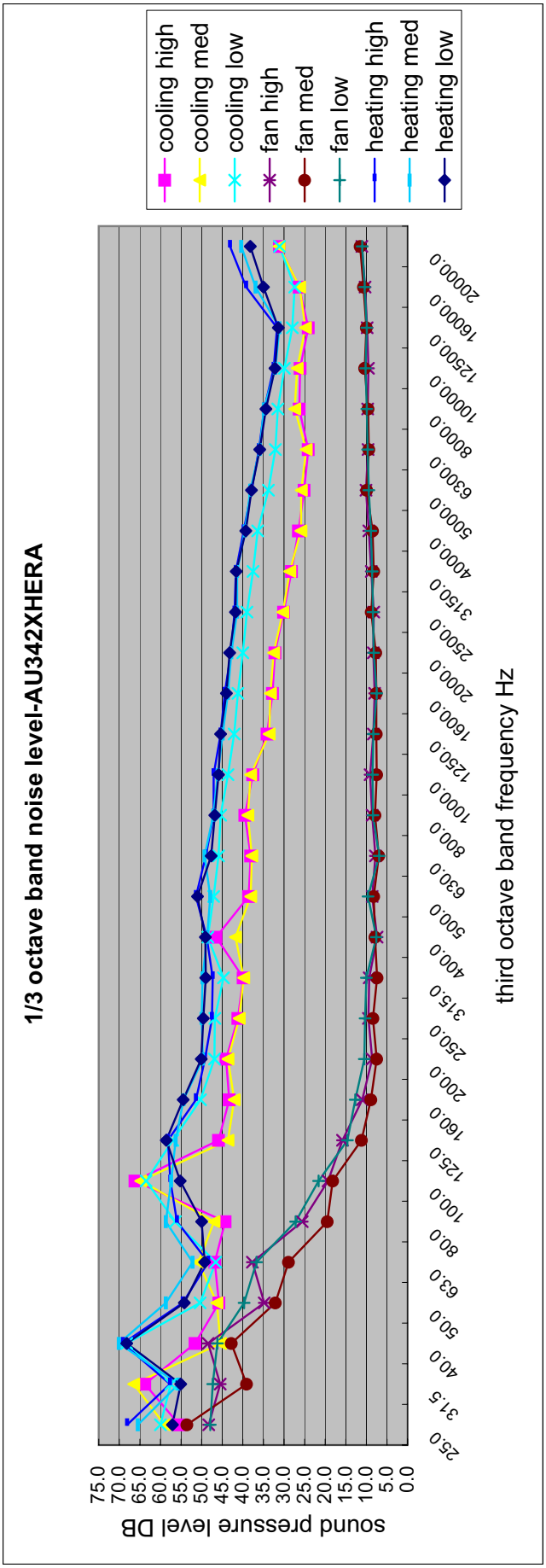

1/3 octave band noise level-AF122XCERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

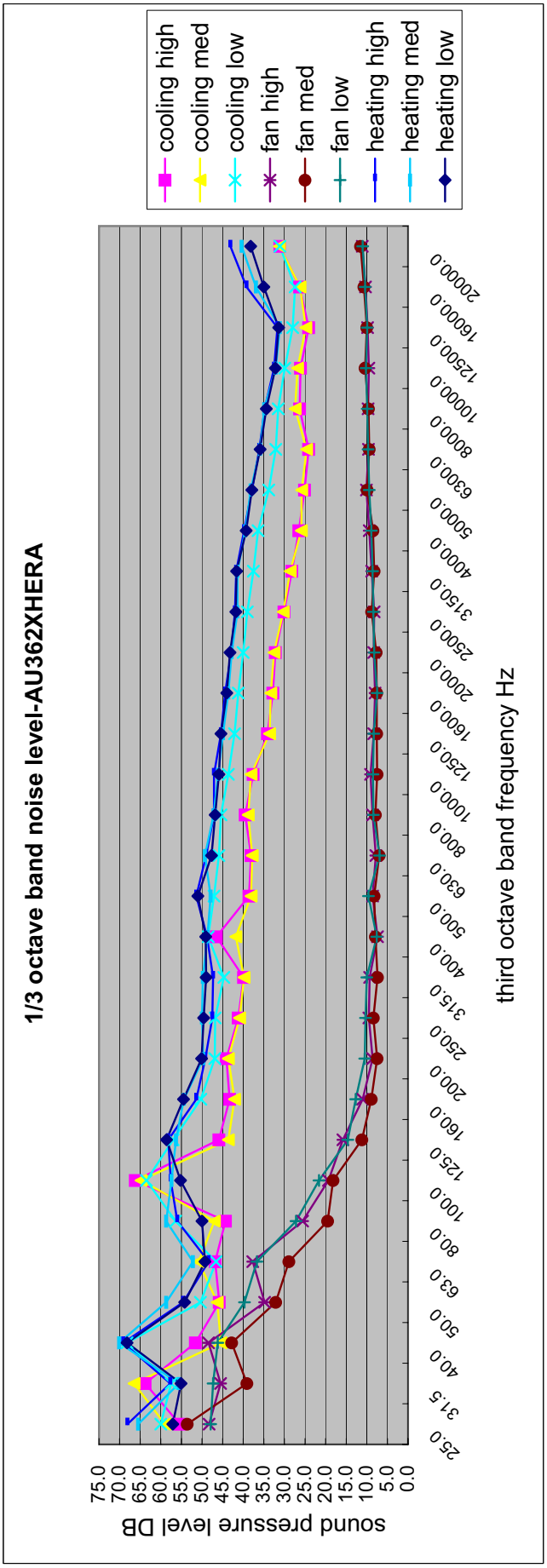

1/3 octave band noise level-AU182XFERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
sound pressure level DB
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz


1/3 octave band noise level-AU222XFERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
Sound pressure level DB
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz


1/3 octave band noise level-AU252XGERA
cooling high
heating high
Sound pressure level DB
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz


1/3 octave band noise level-AU282XHERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
sound pressure level DB
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz


1/3 octave band noise level-AU342XHERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
sound pressure level DB
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz


1/3 octave band noise level-AU362XHERA
cooling high
cooling med
cooling low
fan high
fan med
fan low
heating high
heating med
heating low
sound pressure level DB
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
25.0
31.5
40.0
50.0
63.0
80.0
100.0
125.0
160.0
200.0
250.0
315.0
400.0
500.0
630.0
800.0
1000.0
1250.0
1600.0
2000.0
2500.0
3150.0
4000.0
5000.0
6300.0
8000.0
10000.0
12500.0
16000.0
20000.0
third octave band frequency Hz

12. Sensor characteristic

model	name	code	sub-part code	characteristic
AS072XVERA AS092XVERA AS122XVERA AS182XVERA AS222XVERA	liquid pipe temp. sensor	0010451305	001A3800093E	R25=10KΩ±3% B25/50=3700K±3%
	coil temp. sensor/ambient temp. sensor	001A3900059E		1.R25=10KΩ±3% B25/50=3700K±3% 2.R25=23KΩ±2.5% B25/50=4200K±4%
	gas pipe temp. sensor	001A3800103	001A3900004	R25=10KΩ±3% B25/50=3700K±3%
AB092XCERA AB122XCERA AB142XCERA AB182XCERA AD092XLERA AD122XLERA AD142XLERA AD182XLERA	gas pipe temp. sensor	001A3900055		R25=10KΩ±3% B25/50=3700K±3%
	liquid pipe temp. sensor	0010451305	001A3800093E	R25=10KΩ±3% B25/50=3700K±3%
	coil temp. sensor	001A3900006	001A3900004	R25=10KΩ±3% B25/50=3700K±3%
	ambient temp. sensor	001A3900159	001A3900003	R25=23KΩ±2.5% B25/50=4200K±3%
AC142XCERA AC182XCERA	liquid pipe temp. sensor	0010451305	001A3800093E	R25=10KΩ±3% B25/50=3700K±3%
	ambient temp. sensor	0010451323	001A3900003	R25=23KΩ±2.5% B25/50=4200K±4%
	gas pipe temp. sensor	001A3900055		R25=10KΩ±3% B25/50=3700K±3%
	med-condenser temp. sensor	0010401922	001A3900004	R25=10KΩ±3% B25/50=3700K±3%
AF092XCERA AF122XCERA	liquid pipe temp. sensor	0010451305	001A3800093E	R25=10KΩ±3% B25/50=3700K±3%
	coil temp. sensor/ambient temp. sensor	001A3900059E		1.R25=10KΩ±3% B25/50=3700K±3% 2.R25=23KΩ±2.5% B25/50=4200K±4%
	gas pipe temp. sensor	001A3900055		R25=10KΩ±3% B25/50=3700K±3%
AU182XFERA AU222XFERA AU252XGERA AU282XHERA AU342XHERA AU362XHERA	discharging temp. sensor	0010452538		R80=50KΩ±3% B25/80=4450K±3%
	mid-condensor temp. sensor			R25=10KΩ±3% B25/50=3700K±3%
	defrosting temp. sensor			R25=10KΩ±3% B25/50=3700K±3%
	suction temp. sensor			R25=10KΩ±3% B25/50=3700K±3%
	outdoor ambient temp. sensor			R25=10KΩ±3% B25/50=3700K±3%

R80=50KΩ±3% B25/80=4450K±3%		R80=50KΩ±3% B25/80=4450K±3%	
T(℃)	Rnom(KΩ)	T(℃)	Rnom(KΩ)
-30	11600	24	536.6
-29	10860	25	511.1
-28	10170	26	486.9
-27	9529	27	464
-26	8932	28	442.3
-25	8375	29	421.7
-24	7856	30	402.1
-23	7372	31	383.6
-22	6920	32	366
-21	6498	33	349.3
-20	6104	34	333.5
-19	5736	35	318.4
-18	5392	36	304.1
-17	5071	37	290.5
-16	4770	38	277.6
-15	4488	39	265.3
-14	4225	40	253.6
-13	3978	41	242.5
-12	3747	42	232
-11	3531	43	221.9
-10	3328	44	212.3
-9	3138	45	203.2
-8	2960	46	194.5
-7	2793	47	186.3
-6	2636	48	178.4
-5	2489	49	170.9
-4	2351	50	163.7
-3	2221	51	155.9
-2	2099	52	150.4
-1	1984	53	144.2
0	1877	54	138.3
1	1775	55	132.7
2	1680	56	127.3
3	1590	57	122.1
4	1506	58	117.2
5	1426	59	112.5
6	1351	60	108
7	1280	61	103.8
8	1214	62	99.68
9	1151		
10	1092		
11	1036		
12	983.2		
13	933.4		
14	886.4		
15	841.9		
16	800		
17	760.8		
18	722.8		
19	687.3		
20	653.8		
21	622		
22	592		
23	553.6		

R25=10KΩ±3% B25/50=3700K±3%		R25=10KΩ±3% B25/50=3700K±3%	
T(℃)	Rnom(KΩ)	T(℃)	Rnom(KΩ)
-20℃	90.79	34	6.95
-19	85.72	35	6.68
-18	80.96	36	5.43
-17	76.51	37	5.6
-16	72.33	38	5.59
-15	68.41	39	5.73
-14	64.73	40	5.52
-13	61.27	41	5.32
-12	58.02	42	5.12
-11	54.97	43	4.93
-10	52.1	44	4.9
-9	49.4	45	4.58
-8	46.86	46	4.42
-7	44.46	47	4.26
-6	42.21	48	4.11
-5	40.08	49	3.97
-4	38.08	50	3.83
-3	36.19	51	3.7
-2	34.41	52	3.57
-1	32.73	53	3.45
0	31.14	54	3.33
1	29.64	55	3.22
2	28.22	56	3.11
3	26.4	57	3.11
4	25.61	58	2.9
5	24.41	59	2.81
6	23.27	60	2.72
7	22.2	61	2.63
8	21.18	62	2.54
9	20.21	63	2.49
10	19.3	64	2.38
11	18.43	65	2.3
12	17.61	66	2.23
13	16.83	67	2.16
14	16.09	68	2.09
15	15.38	69	2.03
16	14.71	70	1.96
17	14.08	71	1.9
18	13.48	72	1.85
19	12.9	73	1.79
20	12.36	74	1.73
21	11.84	75	1.68
22	11.34	76	1.63
23	10.87	77	1.58
24	10.43	78	1.54
25	10	79	1.49
26	9.59	80	1.45
27	9.21		
28	8.84		
29	8.48		
30	8.15		
31	7.83		
32	7.52		
33	7.23		

R25=23KΩ±2.5% B25/50=4200K±3%		R25=23KΩ±2.5% B25/50=4200K±3%	
T(℃)	Rnom(KΩ)	T(℃)	Rnom(KΩ)
-20℃	281.34	22℃	26.54
-19℃	263.56	23℃	25.3
-18℃	247.04	24℃	24.12
-17℃	231.66	25℃	23
-16℃	217.35	26℃	21.94
-15℃	204.02	27℃	20.94
-14℃	191.61	28℃	19.99
-13℃	180.04	29℃	19.09
-12℃	169.24	30℃	18.23
-11℃	159.17	31℃	17.42
-10℃	149.77	32℃	16.65
-9℃	140.99	33℃	15.92
-8℃	132.78	34℃	15.22
-7℃	125.11	35℃	14.56
-6℃	117.93	36℃	13.93
-5℃	111.22	37℃	13.34
-4℃	104.93	38℃	12.77
-3℃	99.04	39℃	12.23
-2℃	93.52	40℃	11.71
-1℃	88.35	41℃	11.22
0℃	83.5	42℃	10.76
1℃	78.94	43℃	10.31
2℃	74.67	44℃	9.89
3℃	70.65	45℃	9.49
4℃	66.88	46℃	9.1
5℃	63.33	47℃	8.74
6℃	60	48℃	8.39
7℃	56.86	49℃	8.05
8℃	53.91	50℃	7.73
9℃	51.13	51℃	7.43
10℃	48.51	52℃	7.14
11℃	46.04	53℃	6.86
12℃	43.72	54℃	6.6
13℃	41.52	55℃	6.34
14℃	39.45	56℃	6.1
15℃	37.5	57℃	5.87
16℃	35.66	58℃	5.65
17℃	33.92	59℃	5.44
18℃	32.27	60℃	5.24
19℃	30.72		
20℃	29.25		
21℃	27.86		