SHANGHAI KING REFRIGERATION INDUSTRY CO.,LTD
ADRESS:NO.3636 SHENGANG ROAD SONGJIANG AREA,SHANGHAI

ZHEJIANG KING AIR CONDITIONING EQUIPMENT CO.,LTD
ADRESS:ECONOMIC DEVELOPMENT ZONE OF SHANGYU ,ZHEJIANG PROVINCE

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1. Maybe there are some differences between the actual products and products in stylebook, please consult for details while purchasing.
2. Through careful verification, if there are any printing mistakes and omissions in the stylebook, Kingair won't take the according consequence.
3. The specification parameter is changed because the products are improved, please understand for no separate notice.

Please refer to product nameplate for actual parameter.

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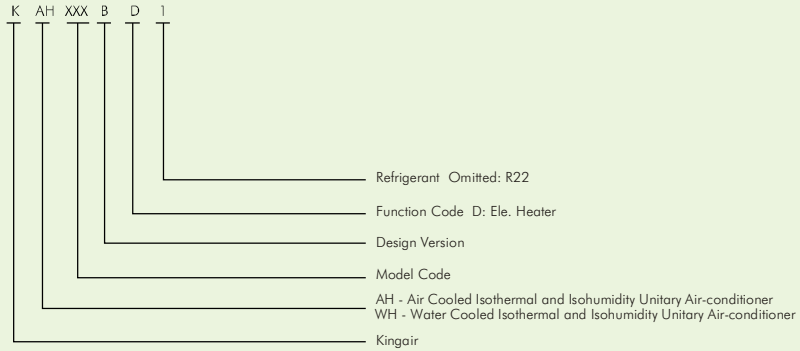
Unitary Air Conditoner (Isothermal&Isohumidity)

Contents

Product Introduction

Cabinet Isothermal and Isohumidity air conditioner is another series of Kingair high quality product which is developed by combining together present advanced technology and own technical skill. It mainly apply to areas where temperature and humidity accuracy are higly required, and is also widely used in hotel, shopping mall, office block, bungalow, factory, etc. It boasts high COP, low noise level, aesthetic outlook, small installation space, easy maintenance, and so on, first choice product for you.

Model Nomenclature



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Product Features

1. Refine Outlook, Simple Maintenance

● Patented design unit frame structure is simple and refined; outlook is generous and elegant, easily blend with conditioned room surrounding.

● Controller condition display, parameter modification and faulty diagnosis function provided, thus making operation simple and convenient.

2. Ultra Low Noise Level, Silent Operation

● Uses the latest fully hermetic compressor, low noise level and small vibration.

● Uses double sound proofing structure design, compressor and air handling system are isolated, noise will not interfere with each other, and also the inner panel side will have silence baffles pasted, which reduces unit noise level.

3. Quality Consistency, Reliable Performance

● Refrigeration system control component uses SPORLAN, DANFOSS, SAGINOMIYA, ALCO etc Euro-America well known brand with consistent quality. While controller chooses LG, OMRON etc electronic component manufacturer which is known for their reliability in performance.

● Unit is equipped with high-low pressure, discharge temperature, fan blower, compressor overload circuit breaker etc various protection devices, ensuring unit is operating is safely.

4. Intelligent Control, High Efficiency

● Evaporator uses high purity inner groove copper tube and hydrophilic aluminum slit fin, heat transfer coefficient is 67% higher than normal evaporator.

● Uses imported fully hermetic scroll compressor, COP is high and also operation is steady and reliable.

● Microprocessor controller uses fuzzy logic control method, high adaptability and also precise control, temperature control precision can achieve up to ±1℃ and related humidity accuracy is ±5℃.

● Microprocessor control also has faulty analysis, capacity management, operation modes etc item auto control function, ensuring unit high efficiency operation.

Product Component

1. Evaporator Coil

● Uses high purity seamless inner groove copper tube and aluminum grade slit fin which is joint tightly thru machinery, to achieve optimum heat transfer efficiency.

● Aluminum fin has undergone hydrophilic treatment, can effectively reduce condense water membrane thickness cause by refrigeration cycle, thus decreasing water membrane heat resistance and increasing coil overall efficiency.

2. Condenser Coil

● Water cooled condenser uses plate heat exchanger, compact structure, low pressure drop, high COP, also ensure smooth oil return and reduce refrigerant charge, thus reducing unit outline dimension.

● Air cooled condenser coil uses high efficiency inner groove copper tube and aluminum slit fin, which can enhance the heat transfer effectiveness.

3. Compressor

● Uses high reliability fully hermetic scroll compressor, precise manufacturing skill, stable and reliable performance, low noise level and high COP.

4. Fan Blower Motor

● Uses forward curved centrifugal double inlet impeller wheel, impeller wheel has undergone balancing inspection and with is silent and less vibration during long operating hours, thus ensuring high air discharge efficiency.

● Uses direct drive motor, can effectively reduce motor rotational speed and also increase rotation efficiency, thus reducing unit noise level to the lowest possible.

5. Unit Casing Structure

● Frames and panels uses clipped installation theory, using high quality steel plate which has also undergone electro-phosphate treatment, firm and elegant, easily assimilate with the conditioned space.

● Panel inner side is pasted with absorption sponges, in order to reduce noise level to the minimum.

6. Refrigeration Equipment

● Uses SPORLAN, DANFOSS, SAGINOMIYA, ALCO etc Euro-America and Japan brand refrigerant system control component, precise control, and reliable quality.

● Refrigeration system includes high-low pressure switch, expansion valve, filter dryer, suction accumulator etc components.

7. Filter

Uses nylon filter net, easy assemble and disassemble, can be detach for cleaning.

Unit Performance Characteristic Chart (Water Cooled)

Item	Parameter		Model	KWH 100BD	KWH 125BD	KWH 150BD	KWH 200BD	KWH 250BD	KWH 300BD	KWH 360BD	KWH 400BD	KWH 500BD
Unit Features	Cooling Capacity		kW	29	34	46	59	68	88	102	118	136
	Heating Capacity		kW	16	20	24	28	36	44	50	60	72
	Cycle Air Volume		m^3/h	6000	7000	9000	12000	14000	18000	21000	23000	26000
	External Static Pressure	Top Discharge	Pa	80	80	100	100	150	200	200	200	300
		Side Discharge	Pa	0	0	0	0	-	-	-	-	-
	Unit Noise Level	Top Discharge	dB(A)	63	64	64	65	68	71	73	75	76
		Side Discharge	dB(A)	61	63	63	64	-	-	-	-	-
	Temperature Range		℃	18~28								
	Power Supply			380V/3~/50Hz								
	Nominal Coling Power		kW	8.1	9	12.1	16.8	18.8	25	27.7	31.5	40.6
	Unit Maximum Power		kW	30.1	35	42.1	56.8	66.8	81	89.7	109	130.1
	Refrigerant	Type		R22								
		Distribution Method		Capillary Tube / Thermal Expansion Valve								
		Charge	kg	6	8	10	12	15	20	24	30	38
Refrigeration System	Compressor	Type		Scroll Compressor								
		Input Power	kW	3.28×2	3.75×2	4.96×2	6.5×2	7.4×2	6.5×3	7.4×3	6.5×4	7.4×4
	Evaporator Coil	Type		Copper Tube and Aluminum Fin								
		Face Area	m^2	0.67	0.79	1.41	1.51	1.51	2.2	2.2	2.6	2.6
	Condenser	Type		Shell and Tube Heat Exchanger								
		Water Flow Rate	m^3/h	6.1	7	10.5	12.5	14.5	18.8	21.8	25	29
		Water Pressure Drop	kPa	23	29	34	30	36	23	41	42	46
		Inlet/Outlet Pipe		32	32	40	40	40	65	65	80	80
Fan System	Blower	Type		Low Noise Double Inler Centrifugal Type								
		Driven Mode		Belt Driven								
		Motor Power	kW	1.5	1.5	2.2	3	4	5.5	5.5	5.5	11
	Air Filter			Nylon Filter								
Heater	Type			Electrical Heater								
	Power		kW	16	20	24	28	36	44	50	60	72
Humidifier	Type			Electrode Humidifier								
	Power		kW	6			12			17.5		
	Humidify Capacity		kg/h	8			15			23		
	Water Inlet Pipe		mm	DN15								
Dimension	Width		mm	1480	1600	1780	1780	2050	2050	2050	2050	2050
	Depth		mm	550	650	800	800	800	1200	1200	1500	1500
	Height	Top Discharge	mm	1900	1900	2100	2100	2100	1950	1950	1950	1950
		Side Discharge	mm	2200	2200	2480	2480	-	-	-	-	-
Weight	Top Discharge		kg	355	440	710	780	980	1450	1650	1800	1850
	Side Discharge		kg	375	465	740	810	-	-	-	-	-

Note:

1.Operating Condition- Return Air Temperature: 23℃/17℃; Ambient Temperature 35℃.

2.Unit normal operation range:

Cooling and humidify mode - Indoor air inlet temperature: 18~28℃, water inlet temperature: 18~43℃

Heating mode - Indoor maximum air inlet temperature: 27℃

Unit Performance Characteristic Chart (Air Cooled)

Item	Parameter		Model	KAH 050BD	KAH 060BD	KAH 080BD	KAH 100BD	KAH 125BD	KAH 150BD	KAH 200BD	KAH 250BD	KAH 300BD	KAH 360BD	KAH 400BD	KAH 500BD
Unit Features	Cooling Capacity		kW	12.2	14	22	26.5	31.5	43	56	65	82.5	94.5	108	125
	Heating Capacity		kW	9	11	13	16	20	24	28	36	44	50	60	72
	Cycle Air Volume		m^3/h	2400	3000	5000	6000	7000	9000	12000	14000	18000	21000	23000	26000
	External Static Pressure	Top Discharge	Pa	65	65	80	80	80	100	100	150	200	200	200	300
		Side Discharge	Pa	0	0	0	0	0	0	0	-	-	-	-	-
	Unit Noise Level	Top Discharge	dB(A)	61	62	63	63	64	64	65	68	71	73	75	76
		Side Discharge	dB(A)	60	60	61	62	63	63	64	-	-	-	-	-
	Temperature Range		℃	18~28											
	Power Supply			380V/3~/50Hz											
	Norminal Coling Power		kW	4.8	5.7	8.1	9.9	11.5	15.8	21.1	24.2	32.2	34.8	40.6	51.4
	Unit Maximum Power		kW	16.8	19.7	27.1	31.9	37.5	45.8	61.1	72.2	88.2	96.8	120	140.9
	Refrigerant	Type		R22											
		Distribution Method		Capillary Tube / Thermal Expansion Valve											
		Charge	kg	3.5	4.5	7.5	8	10	13	17	20	27	32	36	38
Indoor Unit	Compressor	Type		Scroll Compressor											
		Input Power	kW	3.85	4.3	3.1×2	4×2	4.5×2	5.9×2	8.0×2	9.35×2	8.5×3	9.35×3	8.5×4	9.35×4
	Evaporator Coil	Type		Copper Tube / Aluminium Slit Fin											
		Face Area	m^2	0.33	0.33	0.67	0.67	0.79	1.41	1.51	1.51	2.2	2.2	2.6	2.6
	Fan Blower	Type		Low Noise Double Inler Centrifugal Type											
		Driven Mode		Direct Drive/ Belt Drive											
		Motor Power	kW	0.55	0.55	1.1	1.5	1.5	2.2	3.0	4.0	5.5	5.5	5.5	11
	Air Filter			Nylon Filter											
	Heater	Type		Electrical Heater											
		Power	kW	9	11	13	16	20	24	28	36	44	50	60	72
	Humidifier	Type		Electrode Humidifier											
		Power	kW	3		6				12				17.5	
		Humidify Capacity	kg/h	4		8				15				23	
		Water Inlet Pipe	mm	DN15											
	Dimension	Width	mm	880	880	1480	1480	1600	1780	1780	2050	2050	2050	2050	2050
		Depth	mm	550	550	550	550	650	800	800	800	1200	1200	1500	1500
		Height Top Discharge	mm	1900	1900	1900	1900	1900	2100	2100	2100	1950	1950	1950	1950
		Height Side Discharge	mm	2200	2200	2200	2200	2200	2480	2480	-	-	-	-	-
	Weight	Top Discharge	kg	260	270	320	340	420	690	750	950	1400	1500	1600	1750
		Side Discharge	kg	275	285	340	360	445	720	780	-	-	-	-	-

Note:

1.Operating Condition- Return Air Temperature: 23℃/17℃; Ambient Temperature 35℃.

2.Unit normal operation range:

Cooling and humidify mode - Indoor air inlet temperature: 18~28℃, Outdoor air inlet temperature: 18~43℃

Heating mode - Indoor maximum air inlet temperature: 27℃

Outdoor Unit Performance Characteristic Chart (Air Cooled)

Item	Parameter			Model	KPAO 050	KPAO 060	KPAO 080/100	KPAO 125	KPAO 150/200	KPAO 250	KPAO 300	KPAO 360	KPAO 400	KPAO 500
Outdoor Unit	Condenser Coil	Type			Coaxial Type									
		Fin Type			Corrugated Aluminium Fin									
		No. of Row			3									
		FPI			13									
	Fan Blower	Type			Low Noise Axial Fan									
		Drive Method			Direct Drive									
		Motor Power	kW		0.37	0.37	0.2×2	0.2×2	0.75×2	0.75×2	0.2×2	0.2×2	0.75×2	0.75×2
		Air Volume	m^3/h		7000	7000	12000	12000	2200	2200	12000	12000	2200	2200
	Noise Level		dB(A)		63	63	66	66	72	72	66	66	72	72
	Outdoor Dimension	Width	mm		1010	1010	1400	1550	1800	1800	1400	1550	1800	1800
		Depth	mm		460	510	820	880	1090	1090	820	880	1090	1090
		Height	mm		885	885	980	1200	1200	1200	980	1200	1200	1200
	Weight		Kg		105	115	130	150	180	200	130	150	180	200
Indoor Outdoor Unit Connecting Pipe	Gas Pipe	Dimension			5/8'				3/4"					
		Quantity			1		2		2		3		4	
	Liquid Pipe	Dimension			1/2'				5/8"					
		Quantity			1		2		2		3		4	
	Pipe Connection Method				Pipe Socket									

If normal operation is required under 18C outdoor unit, condensing pressure adjusting device(optional) need to be installed.

Indoor&Outdoor Unit Matching

Indoor Unit	Outdoor Unit	Outdoor Unit Qty	Indoor Unit	Outdoor Unit	Outdoor Unit Qty
KAH050BD	KPAO050	1	KAH200BD	KPAO200	1
KAH060BD	KPAO060	1	KAH250BD	KPAO250	1
KAH080BD	KPAO100	1	KAH300BD	KPAO125	3
KAH100BD	KPAO100	1	KAH360BD	KPAO125	3
KAH125BD	KPAO125	1	KAH400BD	KPAO200	2
KAH150BD	KPAO200	1	KAH500BD	KPAO250	2

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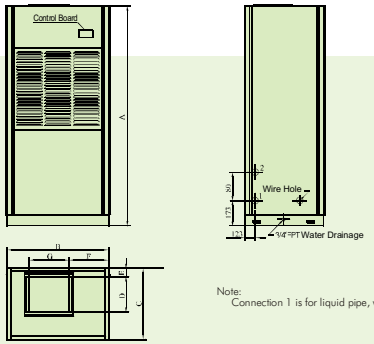
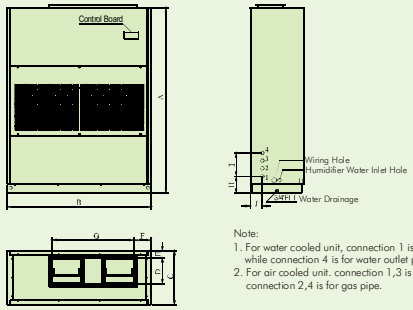
Top Discharge Unit Outline Dimension



Note:
Connection 1 is for liquid pipe, while connection 2 is for gas pipe.

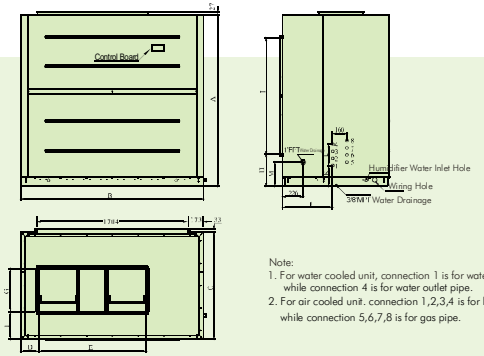
Model	A	B	C	D	E	F	G	1	2
KAH050BD-F	1900	880	550	266	74	163	302	1/2"	5/8"
KAH060BD-F	1900	880	550	266	74	163	302	1/2"	5/8"



Note:
1. For water cooled unit, connection 1 is for water inlet pipe, while connection 4 is for water outlet pipe.
2. For air cooled unit. connection 1,3 is for liquid pipe, while connection 2,4 is for gas pipe.

Model	A	B	C	D	E	F	G	H	I	J	1	2	3	4
KWH100BD-F	1900	1480	550	266	74	177	844	332	146	98	DN32	-	-	DN32
KWH125BD-F	1900	1600	650	293	108	162	930	221	110	225	DN32	-	-	DN32
KWH150BD-F	2100	1780	800	345	89	156	1118	239	110	263	DN40	-	-	DN40
KWH200BD-F	2100	1780	800	345	89	156	1118	239	110	263	DN40	-	-	DN40
KWH250BD-F	2100	2050	800	345	89	295	1118	214	124	213	DN40	-	-	DN40
KAH080BD-F	1900	1480	550	266	74	177	844	172	240	124	1/2"	5/8"	1/2"	5/8"
KAH100BD-F	1900	1480	550	266	74	177	844	172	240	124	1/2"	5/8"	1/2"	5/8"
KAH125BD-F	1900	1600	650	293	108	162	930	172	240	137	1/2"	5/8"	1/2"	5/8"
KAH150BD-F	2100	1780	800	345	89	156	1118	175	240	155	5/8"	3/4"	5/8"	3/4"
KAH200BD-F	2100	1780	800	345	89	156	1118	175	240	155	5/8"	3/4"	5/8"	3/4"
KAH250BD-F	2100	2050	800	345	89	295	1118	175	240	155	5/8"	3/4"	5/8"	3/4"

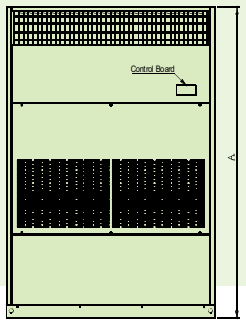
Top Discharge Unit Outline Dimension



Note:
1. For water cooled unit, connection 1 is for water inlet pipe, while connection 4 is for water outlet pipe.
2. For air cooled unit. connection 1,2,3,4 is for liquid pipe, while connection 5,6,7,8 is for gas pipe.

型 号	A	B	C	D	E	F	G	H	I	J	K	L	M	1	2	3	4	5	6	7	8
KWH300BD	1923	2050	1200	199	1207	313	482	361	1300	621	232	124	270	DN65	-	-	DN65	-	-	-	-
KWH360BD	1923	2050	1200	199	1207	313	482	361	1300	621	232	124	270	DN65	-	-	DN65	-	-	-	-
KWH400BD	1923	2050	1500	521	719	340	719	231	1625	735	245	150	138	DN80	-	-	DN80	-	-	-	-
KWH500BD	1923	2050	1500	521	719	340	719	231	1625	735	245	150	138	DN80	-	-	DN80	-	-	-	-
KAH300BD	1923	2050	1200	199	1207	313	482	361	1300	560	232	160	270	5/8"	5/8"	5/8"	-	3/4"	3/4"	3/4"	-
KAH360BD	1923	2050	1200	199	1207	313	482	361	1300	560	232	160	270	5/8"	5/8"	5/8"	-	3/4"	3/4"	3/4"	-
KAH400BD	1923	2050	1500	521	719	340	719	231	1625	773	180	240	138	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"	3/4"
KAH500BD	1923	2050	1500	521	719	340	719	231	1625	773	180	240	138	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"	3/4"

Side Discharge Unit Outline Dimension



Note:
1. For water cooled unit, connection 1 is for water inlet pipe, while connection 2 is for water outlet pipe.
2. For air cooled unit. connection 1,3 is for liquid pipe, while connection 2,4 is for gas pipe.

Model	A
KAH050BD-C	2200
KAH060BD-C	2200
KAH080BD-C	2200
KWH100BD-C/KAH100BD-C	2200
KWH125BD-C /KAH125BD-C	2200
KWH150BD-C /KAH150BD-C	2480
KWH200BD-C /KAH200BD-C	2480

Dimension of other models can refer to top discharge unit.

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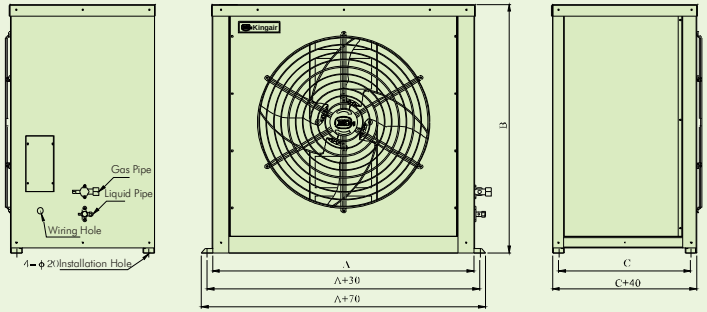
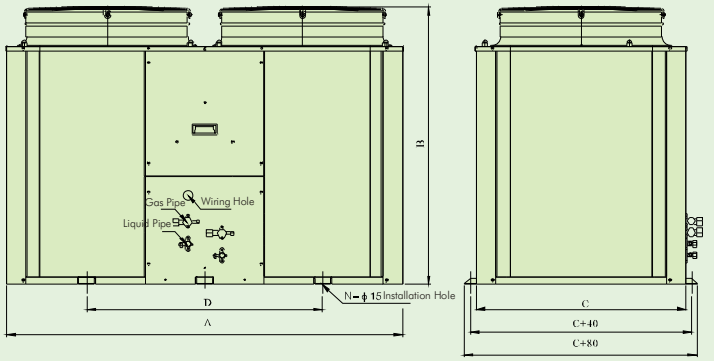
Air Cooled Condenser (Outdoor) Outline Dimension (I)



Model	A	B	C
KPAO050	940	885	420
KPAO060	940	885	470

Air Cooled Condenser (Outdoor) Outline Dimension (II)



Model	A	B	C	D	N
KPAO100/300	1400	980	740	834	4
KPAO125/360	1550	1200	800	625P×2=1250	6
KPAO200/400	1800	1200	1010	750P×2=1500	6
KPAO250/500	1800	1200	1010	750P×2=1500	6