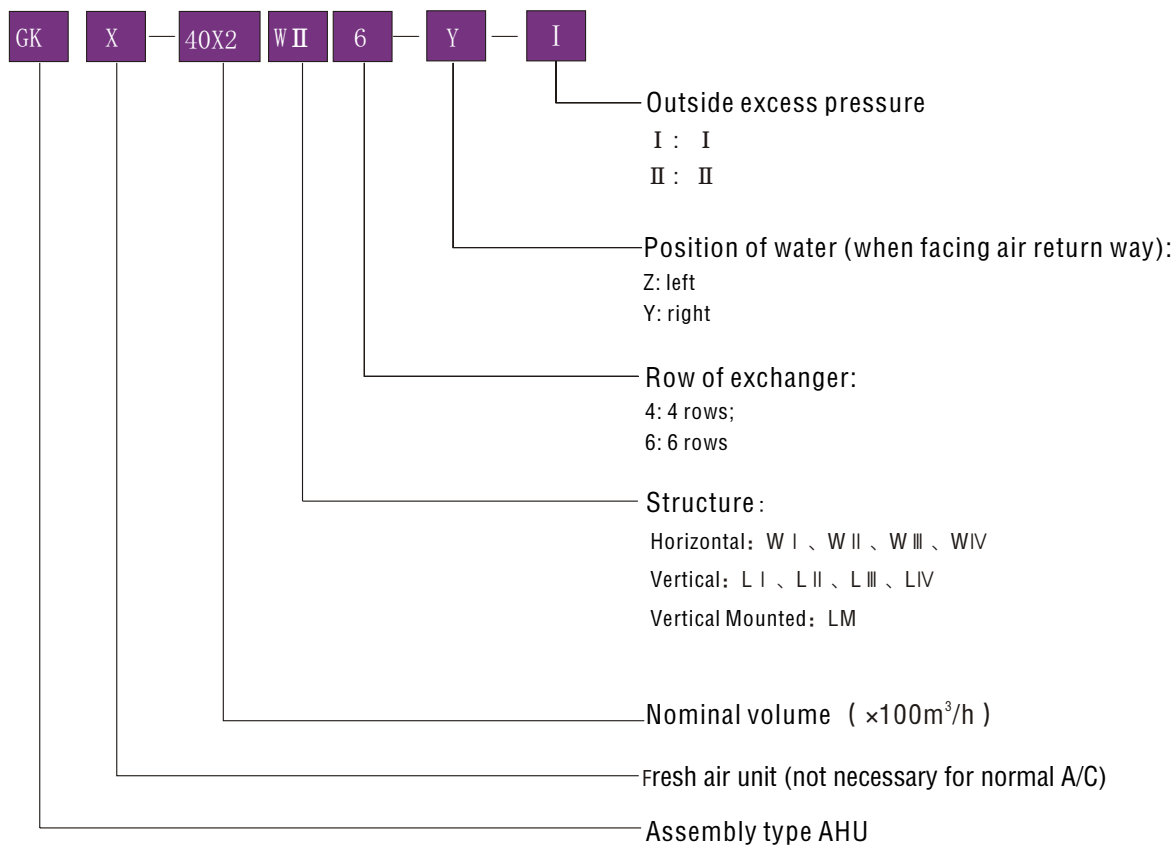


1 General Introduction

GK cabinet a/c series is a new product series developed based on the international advanced experience and it is developed after a considerable improvement in its structure, assembly workmanship and use of elements. GK cabinet a/c series has about 200 types such as W I 、 W II 、 W III 、 WIV 、 L I 、 L II 、 L III 、 LIV 、 LM and DX I 、 DX II 、 DYA、 DYM with the airflow range 1000~45000m³/h in order to meet different requirements of temperature and humidity under variable climate conditions. Also the control device for temperature and humidity and frequency control unit can be installed upon request. The product series has its features as small volume, light weight and easy to be installed on the spot. The unit can also be installed above the ceiling to save space to meet the requirement of big area.

Due to low noise design, the product can be widely used in the HVAC works in hospitals, hotels theatres, office buildings, factories and other large public facilities etc.

2 Symbol Explanation



Example: GKX-40×2 WII 6-y-I represents cabinet a/c unit, with two air units whose volume is 8000m³/h, exchanger being 6-row horizontal blowing downward, pipe at right side, outside excess pressure being category I (or 350Pa).

3 Characteristics

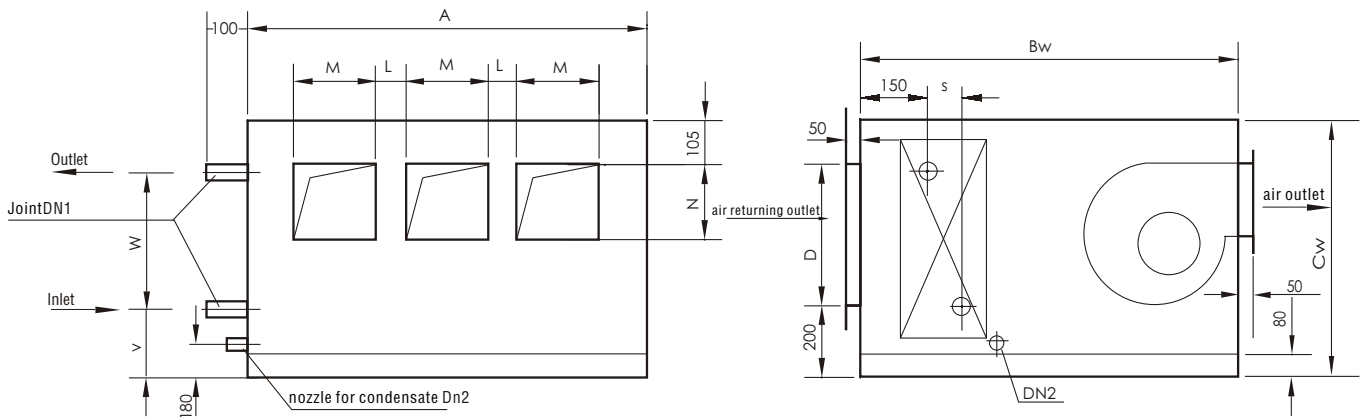
Horizontal Structure

WI, WII, WIII, WIV



- The unit is designed as structure compact, good looking, noise damper, light weight
The structure design is based on the patents (No.2 ZL 96 3 11945.1, ZL 99 3 33068.1, ZL 99 2 39204.7 and ZL 01 2 45223.8), made of high-strength three-way connection and antioxidant aluminum alloy.
- Adopt nylon plate filter, providing convenient drawing
- The centrifugal fan with double inlets is used to keep it running stable and with less noise.
- The condensed water tray is made of stainless steel, free from rust and erosion.
- The heat exchanger adopts structure of high-quality copper sleeve and aluminum wave strip, ensuring good tightness. The test report provided by Shanghai Tong Ji University shows the good heat exchange characteristics
- * It can be matched with protection device and invert control device if required.

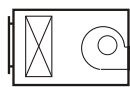
4 Dimension Drawing



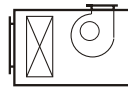
Four outlet mode



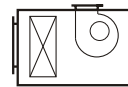
W I



W II



W III



W IV

5 Dimension Form of Vertical and Horizontal A/C Unit

Unit: mm

Specs	Dimension					Air Outlet			Air Returning Outlet		Heat Exchanger		Pipe		
	A	Bw	Cw	Bl	Cl	M	N	L	D	E	W	V	S	DN1	DN2
20	750	1040	930	600	1480	360	250		510	610	520	265	165	32(40)	25
20×2	1150	1040	930	600	1480	360	250	190	910	610	520	265		40(50)	25
25	810	1040	970	600	1560	360	250		570	650	550	265		32(40)	25
25×2	1280	1040	970	600	1560	360	250	190	1040	650	550	265		40(50)	25
30	840	1200	1050	700	1720	400	250		600	730	630	265		32(50)	25
30×2	1340	1200	1050	700	1720	400	250	220	1100	730	630	265		40(50)	32
35	870	1250	1120	750	1860	400	300		630	800	700	265		40(50)	25
35×2	1400	1250	1120	750	1860	400	300	250	1160	800	685	270		50(70)	32
40	900	1250	1200	750	1960	430	320(300)		660	880	775	270		40(50)	25
40×2	1450	1250	1200	750	1960	430	320(300)	245	1210	880	760	280		50(70)	32
40×3	2000	1250	1200	750	1960	430	320(300)	203	1760	880	750	280		70(80)	32
45	950	1250	1200	800	1960	430	320(300)		710	880	775	270		40(50)	25
45×2	1570	1250	1200	800	1960	430	320(300)	305	1330	880	760	280		50(70)	32
45×3	2050	1250	1280	800	2030	430	320(300)	220	1810	960	820	280		70(80)	32
50	970	1350	1280	880	2080	430	320		730	960	850	270		40(50)	25
50×2	1600	1350	1280	880	2080	430	320	320	1360	960	835	280		50(70)	32
50×3	2060	1350	1350	880	2160	430	320	223	1820	1030	900	280		70(80)	32
60	1030	1350	1350	880	2160	450	400(320)		790	1030	930	270		4-row 50(70)	32
60×2	1650	1350	1430	880	2230	450	400(320)	370	1410	1110	990	280		100 70(80)	32
60×3	2270	1350	1430	880	2230	450	400(320)	273	2030	1110	975	280		6-row 70(80)	32
70	1170	1350	1350	880	2180	450	400		930	1030	910	280		165 50(70)	32
70×2	1850	1350	1430	880	2250	450	400	425	1610	1110	970	280		70(80)	32
70×3	2570	1350	1430	880	2250	450	400	373	2330	1110	970	280		70(80)	32
80	1280	1400	1350	930	2170	450	400		1040	1030	910	280		50(70)	32
80×2	2050	1400	1430	930	2250	450	400	525	1810	1110	975	280		70(80)	32
80×3	2450	1400	1650	930	2550	450	400	333	2210	1330	1180	295		80(100)	32
90	1310	1400	1430	950	2250	500	400(320)		1070	1110	990	280		50(70)	32
90×2	2150	1400	1430	950	2250	500	400(320)	525	1910	1110	975	280		70(80)	32
90×3	2550	1400	1730	950	2620	500	400(320)	317	2310	1410	1250	295		80(100)	32
100	1420	1400	1430	980	2280	500(550)	400(500)		1180	1110	990	280		50(70)	32
100×2	2200	1400	1580	980	2450	500(550)	400(500)	550(500)	1960	1260	1125	280	70(80)	32	
100×3	2750	1400	1730	980	2650	500(550)	400(500)	383(333)	2500	1410	1250	295	70(80)	32	
125	1650	1500	1430	1020	2420	550(630)	430(550)		1410	1110	990	280	50(70)	32	
125X2	2250	1500	1800	1020	2800	550(630)	430(550)	525(445)	2010	1480	1330	295	80(100)	32	
125X3	3000	1500	1880	1020	2920	550(630)	430(550)	417(337)	2760	1560	1400	295	80(100)	32	
150	1750	1500	1580	1100	2580	600(720)	430(550)		1510	1260	1125	280	70(80)	32	
150X2	2500	1500	1880	1100	2920	600(720)	430(550)	600(480)	2260	1560	1400	295	80(100)	32	
150X3	3250	1500	1880	1100	2920	600(720)	430(550)	450(330)	3010	1560	1400	295	100	32	

Note: (1) Data in the bracket of DN column are tested under new air.

(2) Data in the bracket of L, M and N column are tested using fan of Category II.

6 Parameters Form for Vertical and Horizontal 4-row Cabinet A/C Unit

Specs	Rated air volume m ³ /h	excess pressure (Pa)		Rated cooling capacity (kW)		Rated Heat (kW)		Fan pow(kW)		Cooling Water Volume m ³ /h		Cooling Water Resistance (kPa)		Noised B(A)	Weight
		I	II	Normal A/C	Fresh air	Normal A/C	Fresh air	I	II	Normal A/C	Fresh air	Normal A/C	Fresh air		
20	2000	210	110	11.15	20.63	15.61	26.52	0.32	0.25	1.92	3.55	1.8	2.52	58	145
20×2	4000	210	110	22.3	41.26	31.23	53.04	0.32×2	0.25×2	3.84	7.10	4.23	5.92	60	250
25	2500	230	110	13.94	25.8	19.52	33.2	0.32	0.25	2.40	4.44	2.64	3.70	60	175
25×2	5000	220	110	27.88	51.6	39.05	66.4	0.32×2	0.25×2	4.80	8.88	4.96	6.94	61	295
30	3000	230	160	16.7	31.05	23.2	39.41	0.37	0.32	2.87	5.34	3.22	4.51	60	190
30×2	6000	230	160	33.4	62.1	46.75	78.82	0.37×2	0.32×2	5.76	10.68	5.25	7.35	61	340
35	3500	300	230	19.5	36.1	27.28	46.59	0.55	0.45	3.35	6.21	3.62	5.07	60	235
35×2	7000	300	230	39	72.2	54.56	93.18	0.55×2	0.45×2	6.71	12.42	6.09	8.53	62	410
40	4000	360	260	22.3	41.58	31.22	53.31	0.8	0.55	3.84	7.15	3.98	5.57	60	250
40×2	8000	360	260	44.6	83.16	62.44	106.6	0.8×2	0.55×2	7.67	14.30	6.21	8.69	62	460
40×3	12000	360	260	66.9	124.7	93.66	159.9	0.8×3	0.55×3	11.51	21.45	13.55	18.97	63	675
45	4500	380	290	25.1	46.43	35.1	59.93	1.1	0.8	4.32	7.99	4.24	5.94	60	275
45×2	9000	380	290	50.2	92.86	70.2	119.9	1.1×2	0.8×2	8.63	15.97	8.42	11.79	62	495
45×3	13500	380	290	75.3	139.3	105.3	179.8	1.1×3	0.8×3	12.95	23.96	14.07	19.70	63	710
50	5000	500	370	27.88	51.58	39	66.61	1.5	1.1	4.80	8.87	4.66	6.52	63	310
50×2	10000	500	370	55.76	103.2	78	133.2	1.5×2	1.1×2	9.59	17.75	8.85	12.39	66	585
50×3	15000	500	370	83.64	154.7	117	199.8	1.5×3	1.1×3	14.39	26.61	15.76	22.06	67	790
60	6000	510	410	33.4	61.8	46.72	79.8	1.8	1.5	5.74	10.63	4.88	6.83	64	360
60×2	12000	510	410	66.8	123.6	93.44	159.6	1.8×2	1.5×2	11.49	21.26	13.34	18.68	66	650
60×3	18000	510	410	100.8	185.8	140.3	239.6	1.8×3	1.5×3	17.31	31.96	17.75	24.84	68	920
70	7000	500	380	39	72.2	54.56	93.18	2.2	1.8	6.71	12.42	5.75	8.05	65	390
70×2	14000	500	380	78	144.4	109.1	186.4	2.2×2	1.8×2	13.42	24.84	14.13	19.78	67	700
70×3	21000	500	380	117	216.6	163.7	279.5	2.2×3	1.8×3	20.12	37.26	20.19	28.27	68	990
80	8000	510	400	44.6	82.55	62.41	106.1	2.2	2.2	7.67	14.20	5.83	8.16	72	435
80×2	16000	510	400	89.2	165.1	124.8	212.2	2.2×2	2.2×2	15.34	28.40	16.04	22.46	75	740
80×3	24000	510	400	133.8	247.7	187.2	318.3	2.2×3	2.2×3	23.01	42.60	23.35	32.69	77	1050
90	9000	550	420	50.2	98.9	70.16	119.9	3.0	2.2	8.63	17.01	8.02	11.23	75	495
90×2	18000	550	420	100.4	185.8	140.3	239.6	3.0×2	2.2×2	17.27	31.96	17.74	24.84	78	845
90×3	27000	550	420	150.6	278.6	210.5	359.4	3.0×3	2.2×3	25.90	47.92	25.7	35.98	79	1205
100	10000	550	420	55.76	103.2	78	133.3	3.0	2.2	9.59	17.75	8.37	11.72	76	560
100×2	20000	550	420	111.5	206.4	156	266.6	3.0×2	2.2×2	19.18	35.50	18.71	26.19	78	905
100×3	30000	550	420	167.3	309.5	234	399.7	3.0×3	2.2×3	28.78	53.23	28.13	39.38	80	1250
125	12500	650	450	69.7	129.6	97.53	166.6	4.0	3.0	11.99	22.29	12.87	18.02	77	670
125×2	25000	650	450	139.4	259.2	195.1	333.2	4.0×2	3.0×2	23.98	44.58	19.86	27.80	79	1110
125×3	37500	650	450	209.1	388.8	292.6	499.7	4.0×3	3.0×3	35.97	66.87	29.71	39.79	81	1540
150	15000	660	400	83.64	154.7	117	199.8	5.5	4.0	14.39	26.61	14.61	20.45	78	740
150×2	30000	660	400	167.3	309.5	234	399.7	5.5×2	4.0×2	28.78	53.23	28.13	39.38	80	1290
150×3	45000	660	400	248.8	461.6	350	598.1	5.5×3	4.0×3	43.11	79.87	45.16	63.96	82	1830

7 Parameters Form for Vertical and Horizontal 6-row Cabinet A/C Unit

Specs	Rated air volume m ³ /h	excess pressure (Pa)		Rated cooling capacity (kW)		Rated Heat (kW)		Fan pow(kW)		Cooling Water Volume (m ³ /h)		Cooling Water Resistance (kPa)		Noised	Weight
		I	II	Normal A/C	Fresh air	Normal A/C	Fresh air	I	II	Normal A/C	Fresh air	Normal A/C	Fresh air	B(A)	
20	2000	170	70	14.5	26.8	20.3	34.5	0.32	0.25	2.49	4.61	3.96	5.54	58	170
20X2	4000	170	70	29.0	53.7	40.6	69.0	0.32×2	0.25×2	4.99	9.23	9.31	13.03	58	280
25	2500	180	70	18.1	33.5	25.4	43.1	0.32	0.25	3.12	5.77	5.81	8.13	58	200
25X2	5000	180	70	36.2	67.1	50.7	86.2	0.32×2	0.25×2	6.23	11.53	10.91	15.28	59	325
30	3000	190	120	21.7	40.2	30.4	51.7	0.37	0.32	3.73	6.91	7.08	9.92	58	215
30X2	6000	190	120	43.4	80.3	60.8	103.4	0.37×2	0.32×2	7.47	13.82	11.55	16.17	59	385
35	3500	260	190	25.4	46.9	35.5	60.4	0.55	0.45	4.36	8.07	7.96	11.15	58	270
35X2	7000	260	190	50.7	93.8	71.0	120.7	0.55×2	0.45×2	8.72	16.13	13.40	18.76	60	465
40	4000	320	220	29.0	53.7	40.6	69.0	0.8	0.55	4.99	9.24	8.76	12.26	58	285
40X2	8000	320	220	58.0	107.5	81.2	137.9	0.8×2	0.55×2	9.97	18.49	13.66	19.13	60	540
40X3	12000	320	220	87.0	161.2	121.7	206.9	0.8×3	0.55×3	14.96	27.73	29.81	41.73	61	755
45	4500	340	250	32.6	60.8	45.7	77.7	1.1	0.8	5.61	10.46	9.33	13.06	58	320
45X2	9000	340	250	65.3	121.6	91.4	155.3	1.1×2	0.8×2	11.22	20.92	18.52	25.93	60	455
45X3	13500	340	250	97.9	182.4	130.1	232.9	1.1×3	0.8×3	16.84	31.37	30.95	43.34	61	795
50	5000	460	330	36.3	67.2	50.9	86.5	1.5	1.1	6.25	11.56	10.25	14.35	61	355
50X2	10000	460	330	72.5	134.4	101.8	173.0	1.5×2	1.1×2	12.47	23.12	19.47	27.26	64	660
50X3	15000	460	330	108.7	201.7	152.6	259.5	1.5×3	1.1×3	18.70	34.69	34.67	48.54	65	895
60	6000	470	370	43.4	80.3	60.8	103.3	1.8	1.5	7.47	13.82	10.74	15.03	62	410
60X2	12000	470	370	86.8	160.7	121.6	206.7	1.8×2	1.5×2	14.94	27.64	29.35	41.09	64	740
60X3	18000	470	370	130.5	241.5	182.4	311.5	1.8×3	1.5×3	22.45	41.54	39.03	54.64	66	1050
70	7000	460	340	50.7	93.8	71.0	120.7	2.2	1.8	8.72	16.13	12.65	17.74	63	435
70X2	14000	460	340	101.4	187.6	142.0	241.3	2.2×2	1.8×2	17.44	32.27	31.09	43.52	65	785
70X3	21000	460	340	152.1	281.4	212.9	362.1	2.2×3	1.8×3	26.16	48.40	44.42	62.19	67	1105
80	8000	470	360	58.0	107.3	81.1	137.9	2.2	2.2	9.97	18.46	12.83	17.96	70	495
80X2	16000	470	360	116.0	214.6	162.2	275.9	2.2×2	2.2×2	19.95	36.92	35.29	49.40	73	855
80×3	24000	470	360	173.9	322.0	243.4	413.8	2.2×3	2.2×3	29.92	55.39	51.37	71.92	75	1230
90	9000	510	380	65.3	128.6	91.2	155.9	3.0	2.2	11.22	22.11	17.64	24.70	73	555
90×2	18000	510	380	130.5	241.5	182.4	311.5	3.0×2	2.2×2	22.45	41.54	39.03	54.64	76	980
90×3	27000	510	380	195.8	362.2	273.7	467.2	3.0×3	2.2×3	33.67	62.29	56.54	79.16	79	1420
100	10000	510	380	72.5	134.2	101.4	173.3	3.0	2.2	12.47	23.08	18.41	25.78	74	650
100X2	20000	510	380	145.0	268.3	202.8	346.6	3.0×2	2.2×2	24.93	46.15	41.16	57.63	76	1035
100X3	30000	510	380	217.5	402.4	304.2	519.6	3.0×3	2.2×3	37.41	69.20	61.89	86.64	78	1420
125	12500	610	410	90.6	168.6	126.8	216.6	4.0	3.0	15.58	28.98	28.31	39.64	75	765
125X2	25000	610	410	181.2	337.0	253.6	433.2	4.0×2	3.0×2	31.17	57.96	43.69	61.69	77	1240
125X3	37500	610	410	271.8	505.4	380.4	649.6	4.0×3	3.0×3	46.75	86.94	92.40	129.4	81	1800
150	15000	620	360	108.7	201.1	152.1	259.7	5.5	4.0	18.70	34.59	32.14	45.00	76	850
150X2	30000	620	360	217.5	402.4	304.2	519.6	5.5×2	4.0×2	37.41	69.20	61.89	86.64	79	1520
150X3	45000	620	360	325.6	602.5	455.8	778.1	5.5×3	4.0×3	55.63	103.17	97.53	135.67	82	2170

8 Selection Reference

- 1, Units with the same air volume are different in other features, such as the installation space, air pressure and noise. For example, the air volume of GK-40 and GK-20×2 both is 4000m³/h, but GK-20×2 has a lower noise, less air pressure, bigger width and smaller height.
- 2, The temperature of refrigerant water shall be no less than 5℃; and the temperature of heating water shall be no higher than 60 5℃.
- 3, The water In/out duct shall be equipped with stop valve as well as thermometer, pressure meter and water filter. If necessary, balanced valve is required.
- 5, We can provide non-standard design if required.

9 Technical Parameters Explanation

- 1, The rated refrigerated output and heating output is calculated under the nominal working conditions, just for customer's reference.
- 2, Cool water temperature: supplying water 7℃; return water 12℃.
hot water temperature: supplying water 55℃; return water 45℃.
- 3, Normal A/C in the form refers to: the temperature of inlet dry ball is 27℃, temperature of wet ball is 19.5℃ in cooling; the temperature of inlet dry ball is 20℃ in heating.
- 4, New air unit in the form refers to : the temperature of inlet dry ball is 34℃, temperature of wet ball is 28℃ in cooling; the temperature of inlet dry ball is -4℃ in heating.

10 About Installation

- 1, GK series features smooth running and low vibration. Vibration absorbing base is necessary if high vibration attenuation is required.
- 2, The in/out duct of A/C unit is usually that the inlet duct is at the downside and the outlet duct is at the upside (vertical mounted units excluded). The condensed water outlet duct shall be at the lowest point. Valves shall be installed at the outside for in/out ducts for the maintenance and adjustment of flux. In consideration of negative pressure, water lock is necessary for the condensed water duct.
- 3, Air duct and water duck connected to the A/C units shall be supported separately from the units.
- 4, Before supply water, it is important to ensure the system free of any dirt. This is to guarantee the exchange efficiency.
- 5, Before the initial start-up, check the wiring connections, grounding condition and if there are any remaining dirt. When everything is ready, start the fan and check the rotation direction.
- 6, Heat preservation shall be applied to the joint part of air outlet and air duct.
- 7, Heat preservation shall be extended to the side panel of the units.

11 About Maintenance

- 1, Start the fan and pump, and the unit will run. Release the gas if necessary.
- 2, In idle time, the unit shall be filled with water to avoid erosion. In winter, certain anti-frost crack measures shall be applied.
- 3, In winter, the temperature of applying hot water shall be no less than 60℃; and the temperature of the blowing air shall be no less than 40℃.
- 4, The air filter shall be cleaned or replaced periodically.
- 5, Apply full-range maintenance after running for two years. Use appropriate chemicals to clean the heat exchanger. The supplier may provide charged services.
- 6, Check the wiring connection, protection devices and the grounding to remove all potential dangers.

12 About Order

- 1, Customers shall specify the detailed type, specification and working conditions of the A/C units.
- 2, The location of inlet duct, outlet duct and condensed water duct shall be specified.
- 3, Electric control box shall be ordered separately in required.
- 4, We provide non-standard products to your special requirements.