

# RUIDONG

VERTICAL/HORIZONTAL  
TYPE AIR HANDLING UNIT



## RUIDONG GROUP

[www.ruidonggroup.com](http://www.ruidonggroup.com)



**Ruidong Group Co., Ltd is one modern large-scale enterprise integrating design, production, sales and installation of central air-conditioning products.**

Ruidong is located in Dezhou City, Shandong Province. The Beijing-Shanghai High-speed Railway and Beijing-Shanghai Expressway passing through the city, make Dezhou become a key coordinate of the national economic artery. The registered capital of the group is one hundred fifty five and a half million yuan, covering an area of 300,000 square meters and construction area of 180,000 square meters.

### **Main business coverage:**

#### **1. Host series:**

- Water cooled series: centrifugal cold (hot) water unit, screw type cold water unit, screw type water (ground) source cooling and heating unit, scroll type water (ground) source cooling and heating unit.
- Air cooled series: screw type cold (hot) water unit, modular type cold (hot) water unit, mini type cold (hot) water unit, VRV series unit.
- Packaged Unitary unit: constant temperature and humidity unit, air (water) cooled unitary unit, dehumidification unit.

#### **2. Direct expansion series:** Rooftop packaged unit, ducted split unit.

#### **3. Terminal series:** Purification air handling unit, combined air handling unit, fresh air unit, fan coil unit series.





## ENTERPRISE PROFILE

4. **Ventilation series:** Fire exhaust fan, roof fan, axial fan, diagonal fan, centrifugal fan, etc.
5. **Engine room equipment:** cyclone sand remover, water separator (separator), decontamination device, demineralized water device, plate heat exchange unit, constant pressure equipment, etc.
6. **Air conditioning accessories:** All kinds of fire valves, regulating valves, tuyere series.
7. **Other products:** Low-temperature industrial chillers, air-conditioning equipment for planting and breeding industries.

The R & D team composed of high-tech talents will continue to introduce new products, advanced production equipment and adopt the international ISO9001 quality management system as a strong guarantee for product quality. Precision testing equipment and rigorous testing methods are the fundamental insurance of quality and are timely and thoughtful. After-sales service solves the problems that may arise in use for you.

The company has established a complete sales and service system. Set up offices in 18 cities including Beijing, Tianjin, Shanghai, Xi'an, Shenyang, Chengdu and other cities to provide users with timely, efficient and high-quality pre-sales, sales and after-sales services.

Ruidong Air Conditioning wishes you: Cooling air for propitious summer, spring returns with warm air from Ruidong.



# CERTIFICATIONS

Ruidong group always takes "create first-class quality, offer sincere service" as the quality concept, builds customer-oriented quality management system, focuses on teamwork and insists on continuous innovation.



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## 1. BRIEF INTRODUCTION

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### **There are 3 types of air handling unit:**

D: Ceiling type  
W: Horizontal type  
V: Vertical type

### **There are 2 drive type:**

Z: Motor directly driven external rotor fan  
J: Belt indirect driven fan

### **The horizontal unit is divided into type I, type II and type III according to the filter type and return air method.**

Type I unit is with primary filter, but without fresh air inlet.  
Type II unit is with primary filter, with return air and fresh air inlet  
Type III unit is with primary filter + secondary filter, with return air and fresh air inlet.

Primary filter adopts plate type, and the filter material adopts nylon concave-convex net, which can be washed repeatedly. The medium-efficiency filter device is a bag-type non-woven fabric filter device.

Heat exchange system adopts high-quality copper tube with hydrophilic aluminum foil and is processed by a fully mechanical tube expansion process to ensure that there is no gap between the pipe and foil. All heat exchangers have undergone a 2.5MPa tightness test to ensure no leakage.

Air supply system adopts low-noise double-inlet centrifugal fan, which has undergone strict dynamic and static balance tests to ensure stable operation and low noise. Fan bearings are all internationally renowned brand products.

Adopts non-cold bridge aluminum alloy structure with special cast aluminum fittings for insertion, high strength, light weight, corrosion resistance, high accuracy and long service life.

Shell of the unit adopts double-sided color steel plate, filled with high-density polyurethane foam insulation material, which has better thermal insulation performance than glass fiber material and higher strength. Its good thermal insulation performance prevents condensation in the unit under any climatic conditions. The overhaul surface of the unit adopts the locking technology with self-tightening function, which has high air tightness, low air leakage rate and easy disassembly and assembly.

This series of units has the characteristics of superior refrigeration performance, compact structure, light weight, good rigidity and corrosion resistance.





## 4. UNIT SPECIFICATION

### RFPL/W-/4H series return air condition

Model	Air flow m <sup>3</sup> /h	Rated cooling cap. kW	Rated heating cap. kW	Water flow m <sup>3</sup> /h	Water D.P. kpa	ESP pa	Motor power kW	Noise dB(A)	Water pipe DN	Drain pipe DN
020	2000	10.5	17.2	1.8	9.8	220	0.55	54	40	25
030	3000	15.7	25.7	2.7	13.6	220	0.75	55	40	25
040	4000	20.9	34.3	3.6	22.4	220	1.1	56	40	25
050	5000	26.2	42.9	4.5	23.6	220	1.5	58	40	25
060	6000	31.4	51.5	5.4	27.8	250	2.2	58	40	25
070	7000	36.6	60.1	6.3	32.3	250	2.2	58	50	25
080	8000	41.9	68.7	7.2	48.1	270	2.2	58	50	25
090	9000	47.1	77.2	8.1	43.5	270	2.2	59	50	25
105	10500	52.3	85.8	9.0	62.1	270	3.0	60	50	25
120	12000	62.8	103.0	10.8	48.5	270	3.0	61	50	25
135	13500	70.6	115.8	12.2	22.3	320	4.0	64	65	32
150	15000	78.5	128.7	13.5	62.5	320	4.0	66	65	32
180	18000	94.2	154.5	16.2	32.5	320	5.5	68	65	32
210	21000	109.9	180.2	18.9	37.3	350	7.5	68	65	32
240	24000	125.6	206.0	21.6	65.6	350	7.5	70	65	40
270	27000	141.3	231.7	24.3	58.2	350	7.5	71	65	40
300	30000	157.0	257.4	27.0	60.4	420	11.0	72	65	40
330	33000	172.7	283.2	29.7	75.1	420	11.0	72	80	40
350	35000	183.1	300.3	31.5	86.4	450	11.0	74	80	40
400	40000	209.3	343.3	36.0	71.4	450	11.0	75	80	40
450	45000	235.5	386.2	40.5	75.3	450	15.0	76	80	40
500	50000	261.6	429.1	45.0	81.7	450	15.0	76	80	40

- Note:**
1. Cooling conditions: inlet air DB27°C, WB19.5°C, inlet water temperature 7°C/12°C.
  2. Heating conditions: inlet air DB21°C, inlet water temperature 60°C/50°C.
  3. The above external static pressure and motor power are for reference only



## RFPL/W-/4X series fresh air condition

Model	Air flow m <sup>3</sup> /h	Rated cooling cap. kW	Rated heating cap. kW	Water flow m <sup>3</sup> /h	Water D.P. kpa	ESP pa	Motor power kW	Noise dB(A)	Water pipe DN	Drain pipe DN
020	2000	22.8	41.0	3.92	29	220	0.55	54	40	25
030	3000	34.2	61.5	5.88	32	220	0.75	55	40	25
040	4000	45.6	82.0	7.84	51	220	1.1	56	40	25
050	5000	57.0	102.5	9.8	53	220	1.5	58	40	25
060	6000	68.4	123.1	11.76	53	250	2.2	58	40	25
070	7000	79.8	143.6	13.72	56	250	2.2	58	50	25
080	8000	91.2	164.1	15.68	59	270	2.2	58	50	25
090	9000	102.6	184.6	17.64	63	270	2.2	59	50	25
105	10500	119.7	215.4	20.58	62.4	270	3.0	60	50	25
120	12000	136.7	246.1	23.52	65	270	3.0	61	50	25
135	13500	153.8	276.9	26.46	16.3	320	4.0	64	65	32
150	15000	170.9	307.7	29.40	16.4	320	4.0	66	65	32
180	18000	205.1	369.2	35.28	22	320	5.5	68	65	32
210	21000	239.3	430.7	41.16	28	350	7.5	68	65	32
240	24000	273.5	492.3	47.04	35	350	7.5	70	65	40
270	27000	307.7	553.8	52.92	41	350	7.5	71	65	40
300	30000	341.9	615.3	58.80	43	420	11.0	72	65	40
330	33000	376.0	676.9	64.68	61	420	11.0	72	80	40
350	35000	398.8	717.9	68.60	65	450	11.0	74	80	40
400	40000	455.8	820.5	78.40	42	450	11.0	75	80	40
450	45000	512.8	923.0	88.20	46	450	15.0	76	80	40
500	50000	569.8	1025.6	98.00	51	450	15.0	76	80	40

- Note:**
1. Cooling conditions: inlet air DB27°C, WB19.5°C, inlet water temperature 7°C/12°C.
  2. Heating conditions: inlet air DB21°C, inlet water temperature 60°C/50°C.
  3. The above external static pressure and motor power are for reference only

## RFPL/W-/6H series return air condition

Model	Air flow m <sup>3</sup> /h	Rated cooling cap. kW	Rated heating cap. kW	Water flow m <sup>3</sup> /h	Water D.P. kpa	ESP pa	Motor power kW	Noise dB(A)	Water pipe DN	Drain pipe DN
020	2000	15.1	24.8	2.60	22	220	0.55	54	40	25
030	3000	22.7	37.2	3.90	35	220	1.1	55	40	25
040	4000	30.2	49.6	5.20	46	220	1.1	56	40	25
050	5000	37.8	62.0	6.50	43	220	1.5	58	40	25
060	6000	45.3	74.4	7.80	54	250	2.2	58	40	25
070	7000	52.9	86.8	9.10	24	250	2.2	58	50	25
080	8000	60.5	99.2	10.40	35	270	2.2	58	50	25
090	9000	68.0	111.6	11.70	38	270	3.0	59	50	25
105	10500	79.4	130.2	13.65	43	270	3.0	60	50	25
120	12000	90.7	148.7	15.60	46	270	3.0	61	50	25
135	13500	102.0	167.3	17.55	48	320	4.0	64	65	32
150	15000	113.4	185.9	19.50	51	320	5.5	66	65	32
180	18000	136.0	223.1	23.40	23	320	5.5	68	65	32
210	21000	158.7	260.3	27.30	26	350	7.5	68	65	32
240	24000	181.4	297.5	31.20	35	350	7.5	70	65	40
270	27000	204.1	334.7	35.10	42	350	11.0	71	65	40
300	30000	226.7	371.9	39.00	44	420	11.0	72	65	40
330	33000	249.4	409.0	42.90	53	420	11.0	72	80	40
350	35000	264.5	433.8	45.50	63	450	11.0	74	80	40
400	40000	302.3	495.8	52.00	54	450	15.0	75	80	40
450	45000	340.1	557.8	58.50	61	450	15.0	76	80	40
500	50000	377.9	619.8	65.00	67	450	18.5	76	80	40

- Note:**
1. Cooling conditions: inlet air DB27°C, WB19.5°C, inlet water temperature 7°C/12°C.
  2. Heating conditions: inlet air DB21°C, inlet water temperature 60°C/50°C.
  3. The above external static pressure and motor power are for reference only

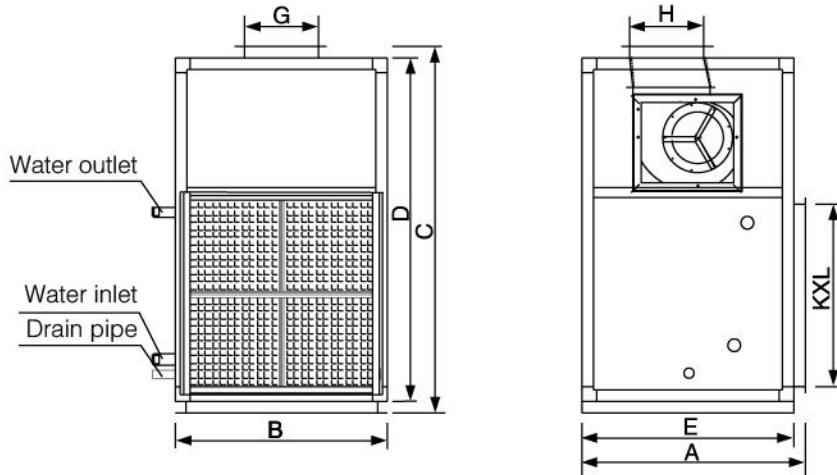


## RFPL/W-/6X series fresh air condition

Model	Air flow m <sup>3</sup> /h	Rated cooling cap. kW	Rated heating cap. kW	Water flow m <sup>3</sup> /h	Water D.P. kpa	ESP pa	Motor power kW	Noise dB(A)	Water pipe DN	Drain pipe DN
020	2000	26.7	48.1	4.6	27	220	0.55	54	40	25
030	3000	40.1	72.2	6.9	31	220	1.1	55	40	25
040	4000	53.5	96.3	9.2	33.1	220	1.1	56	40	25
050	5000	66.9	120.3	11.5	30.2	220	1.5	58	40	25
060	6000	80.2	144.4	13.8	41.5	250	2.2	58	40	25
070	7000	93.6	168.5	16.1	48.1	250	2.2	58	50	25
080	8000	107.0	192.6	18.4	23.4	270	2.2	58	50	25
090	9000	120.3	216.6	20.7	21.6	270	3.0	59	50	25
105	10500	140.4	252.7	24.2	30.2	270	3.0	60	50	25
120	12000	160.5	288.8	27.6	42	270	3.0	61	50	25
135	13500	180.5	324.9	31.1	63	320	4.0	64	65	32
150	15000	200.6	361.0	34.5	71	320	5.5	66	65	32
180	18000	240.7	433.3	41.4	76	320	5.5	68	65	32
210	21000	280.8	505.5	48.3	79	350	7.5	68	65	32
240	24000	320.9	577.7	55.2	70	350	7.5	70	65	40
270	27000	361.0	649.9	62.1	73	350	11.0	71	65	40
300	30000	401.2	722.1	69.0	76	420	11.0	72	65	40
330	33000	441.3	794.3	75.9	95	420	11.0	72	80	40
350	35000	468.0	842.4	80.5	82	450	11.0	74	80	40
400	40000	534.9	962.8	92.0	81	450	15.0	75	80	40
450	45000	601.7	1083.1	103.5	92	450	15.0	76	80	40
500	50000	668.6	1203.5	115.0	94	450	18.5	76	80	40

- Note:**
1. Cooling conditions: inlet air DB27°C, WB19.5°C, inlet water temperature 7°C/12°C.
  2. Heating conditions: inlet air DB21°C, inlet water temperature 60°C/50°C.
  3. The above external static pressure and motor power are for reference only

## 5. RFPL TYPE UNIT DIAGRAM AND WEIGHT



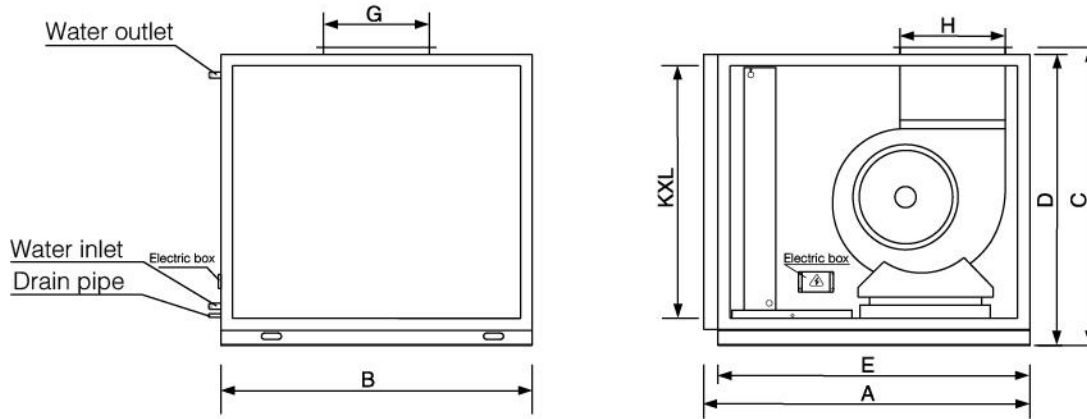
Vertical type unit diagram

### Dimension and weight

RFPL	A	B	C	D	E	G	H	K	L	Weight(Kg)	
										4 rows	6 rows
020	760	850	1328	1200	700	320	250	750	500	145	152
030	950	950	1328	1200	890	400	320	850	600	155	162
040	950	1150	1578	1450	890	400	400	1050	600	175	185
050	950	1150	1678	1550	890	400	400	1050	730	210	223
060	950	1150	1778	1650	890	500	400	1050	830	239	251
070	1010	1300	1878	1750	950	630	400	1200	830	260	276
080	1010	1450	1878	1750	950	630	400	1350	830	277	296
090	1010	1600	1878	1750	950	630	500	1500	830	325	345
105	1010	1700	1978	1850	950	630	630	1600	880	360	375
120	1010	1700	2098	1970	950	630	630	1600	1000	372	395
135	1110	1800	2098	1970	1050	800	630	1700	1050	490	525
150	1110	1950	2218	2090	1050	800	630	1850	1050	512	537
180	1150	2150	2385	2240	1090	1000	630	2050	1150	675	621
210	1460	2250	2595	2450	1400	1000	800	2150	1200	646	683
240	1460	2550	2685	2540	1400	1000	800	2450	1200	690	741
270	1460	2800	2795	2650	1400	1000	1000	2700	1200	743	792
300	1560	2800	2795	2650	1500	1000	1000	2700	1300	795	850
330	1560	3200	2795	2650	1500	1250	1000	3100	1300	967	1035
350	1560	3200	2795	2650	1500	1250	1000	3100	1300	1032	1107
400	1560	3400	2945	2800	1500	1250	1000	3300	1400	1070	1195
450	1560	3600	3045	2900	1500	1250	1250	3500	1500	1115	1130
500	1560	3800	3145	3000	1500	1250	1250	3700	1550	1203	1450



## 6. RFPW-I TYPE UNIT DIAGRAM AND WEIGHT

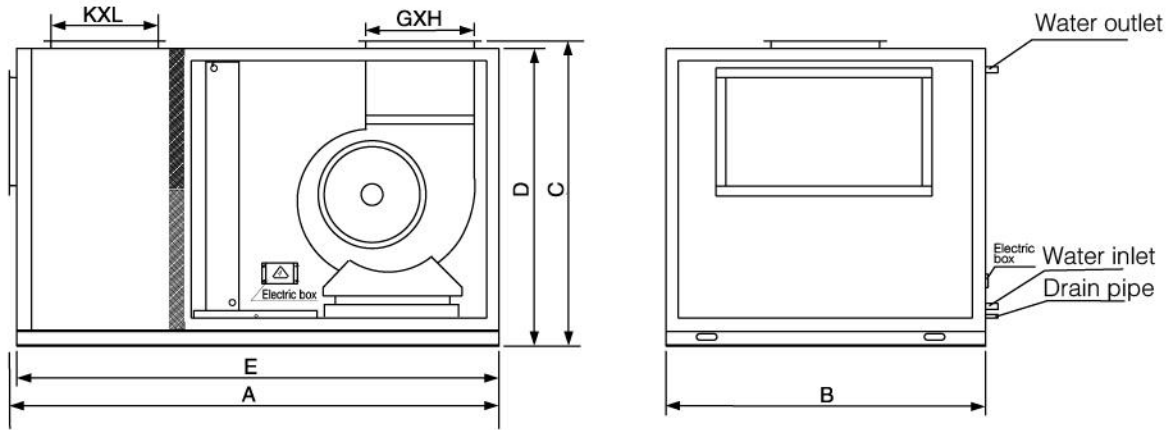


Primary filter+coil+fan

### Dimension and weight

RFPW- I	A	B	C	D	E	G	H	K	L	Weight(Kg)	
										4rows	6rows
020	1160	780	808	680	1100	320	250	680	580	135	147
030	1160	980	808	680	1100	320	250	880	580	159	176
040	1160	1180	808	680	1100	400	320	1080	580	180	195
050	1360	1080	1008	880	1300	500	400	980	780	210	225
060	1360	1280	1008	880	1300	500	400	1180	780	236	253
070	1360	1280	1108	980	1300	630	400	1180	880	276	285
080	1360	1280	1208	1080	1300	630	400	1180	980	288	305
090	1510	1380	1208	1080	1450	630	500	1280	980	332	341
105	1510	1480	1208	1080	1450	630	630	1380	980	350	375
120	1660	1580	1308	1180	1600	630	630	1480	1080	395	420
135	1660	1680	1308	1180	1600	800	630	1580	1080	440	460
150	1660	1780	1408	1280	1600	800	630	1680	1180	445	470
180	1760	1880	1625	1480	1700	800	800	1780	1380	540	580
210	1860	2080	1625	1480	1800	1000	800	1980	1380	585	625
240	1860	2080	1725	1580	1800	1000	800	1980	1480	645	690
270	2060	2180	1825	1680	2000	1250	800	2080	1580	725	780
300	2060	2280	1925	1780	2000	1250	800	2180	1680	760	810
330	2260	2280	2125	1980	2200	1250	1000	2180	1880	880	945
350	2260	2480	2125	1980	2200	1250	1000	2380	1880	950	1020
400	2360	2680	2225	2080	2300	1250	1000	2580	1980	985	1100
450	2360	2680	2425	2280	2300	1250	1000	2580	2180	1070	1185
500	2360	2880	2425	2280	2300	1250	1000	2780	2180	1095	1230

## 7.RFPW-II TYPE UNIT DIAGRAM AND WEIGHT



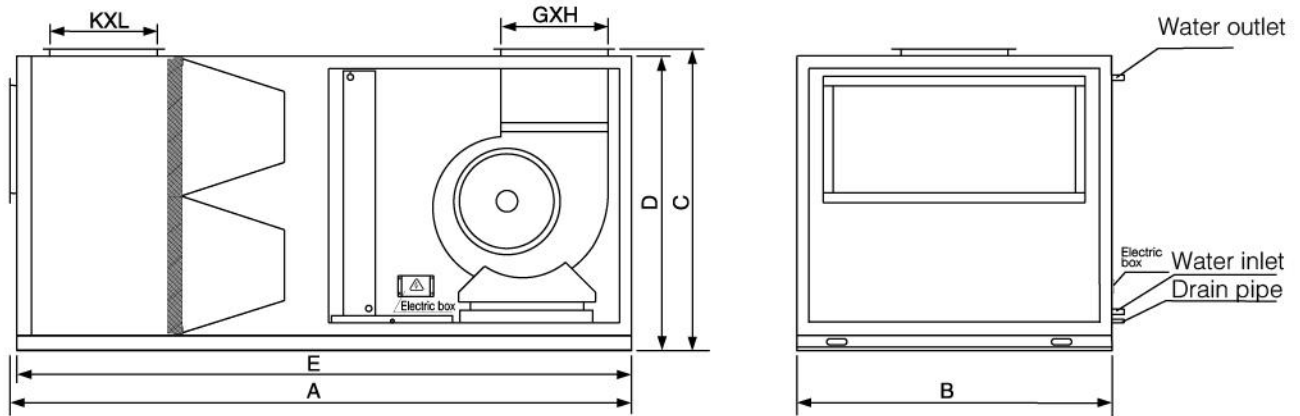
Mix section+primary filter+coil+fan

### Dimension and weight

RFPW-II	A	B	C	D	E	G	H	K	L	Weight ( kg )	
										4 rows	6 rows
020	1560	850	720	600	1500	230	260	600	160	155	160
030	1610	950	720	600	1550	300	260	600	300	175	185
040	1660	1050	800	670	1600	330	290	700	300	200	205
050	1660	1150	950	800	1600	310	340	800	300	230	240
060	1660	1200	1000	870	1600	395	340	900	300	260	275
070	1660	1350	1100	950	1600	370	405	1000	300	290	300
080	1760	1350	1100	950	1700	370	405	1100	300	320	335
090	1760	1550	1200	1050	1700	430	480	1000	440	345	360
105	2010	1700	1200	1050	1950	430	480	1100	440	390	410
120	2010	1950	1200	1050	1950	560	480	1200	440	425	450
135	2060	1950	1200	1050	2000	1040	405	1300	440	525	555
150	2060	2150	1300	1150	2000	1040	405	1500	440	570	600
180	2110	2350	1300	1200	2050	1200	480	1700	440	650	690
210	2110	2650	1400	1250	2050	1200	480	1900	440	705	750
240	2110	2650	1400	1250	2050	1570	480	2200	440	780	830
270	2310	2650	1500	1380	2250	1570	480	2200	580	912	955
300	2360	2650	1650	1500	2300	1570	480	2300	580	955	1015
330	2410	2900	1650	1500	2350	1590	570	2400	580	1040	1150
350	2510	3050	1650	1500	2450	1780	640	2400	580	1170	1240
400	2560	3050	1900	1750	2500	1780	640	2600	580	1200	1315
450	2560	3050	2000	1880	2500	1780	640	2800	580	1285	1405
500	2660	3150	2150	2010	2600	1780	640	2800	580	1325	1460



## 8.RFPW-III TYPE UNIT DIAGRAM AND WEIGHT



Mix section+primary filter+secondary filter+coil+fan

### Dimension and weight

RFPW-III	A	B	C	D	E	G	H	K	L	Weight ( kg )	
										4rows	6rows
020	2000	850	720	600	1940	230	260	600	160	175	180
030	2000	950	720	600	1940	300	260	600	300	195	200
040	2100	1050	800	680	2040	330	290	700	300	220	230
050	2100	1150	950	830	2040	310	340	800	300	250	260
060	2100	1200	1000	880	2040	395	340	900	300	280	295
070	2200	1350	1100	980	2140	370	405	1000	300	310	325
080	2200	1350	1100	980	2140	370	405	1100	300	345	360
090	2500	1550	1200	1080	2440	430	480	1000	440	395	415
105	2500	1700	1200	1080	2440	430	480	1100	440	430	450
120	2500	1950	1200	1080	2440	560	480	1200	440	470	495
135	2400	1950	1200	1080	2340	1040	405	1300	440	575	600
150	2400	2150	1300	1160	2340	1040	405	1500	440	620	645
180	2500	2350	1300	1160	2440	1200	480	1700	440	725	760
210	2500	2650	1400	1260	2440	1200	480	1900	440	810	840
240	2500	2650	1400	1260	2440	1570	480	2200	440	885	920
270	2800	2650	1500	1360	2740	1570	480	2200	580	980	1020
300	2800	2650	1650	1510	2740	1570	480	2300	580	1030	1090
330	2800	2900	1650	1510	2740	1590	570	2400	580	1185	1250
350	3000	3050	1650	1510	2940	1780	640	2400	580	1245	1315
400	3000	3050	1900	1760	2940	1780	640	2600	580	1305	1400
450	3000	3050	2000	1860	2940	1780	640	2800	580	1420	1540
500	3000	3150	2150	2010	2940	1780	640	2800	580	1460	1600

## 9. RFPL/W-I RELATION TABLE OF AIR PRESSURE AND POWER

RFPL /W- I	Rated air flow	Coil rows	Motor power corresponding to ESP											
			120	170	220	280	320	360	420	480	520	580	620	680
020	2000	4	0.55	0.55				0.75	0.75		-	-	-	-
		6	0.55	0.55			0.75	0.75	0.75	1.1	-	-	-	-
030	3000	4	0.55	0.75	0.75	0.75	1.1	1.1	1.1	1.1	-	-	-	-
		6	0.75	0.75	0.75	1.1	1.1	1.1	1.1	1.1	-	-	-	-
040	4000	4	1.1	1.1	1.1	1.1	1.1	1.5	1.5	1.5	-	-	-	-
		6	1.1	1.1	1.1	1.1	1.5	1.5	1.5	1.5	-	-	-	-
050	5000	4	1.1	1.1	1.1	1.5	1.5	1.5	2.2	2.2	-	-	-	-
		6	1.1	1.1	1.5	1.5	1.5	1.5	2.2	2.2	-	-	-	-
060	6000	4	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.2	-	-	-
		6	1.5	1.5	2.2	2.2	2.2	2.2	2.2	3.0	2.2	0.0	-	-
070	7000	4	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	3.0	3.0	-	-
		6	1.5	1.5	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	-	-
080	8000	4	2.2	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	-	-
		6	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	4.0	-	-
090	9000	4	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	4.0	4.0	-	-
		6	2.2	2.2	2.2	3.0	3.0	3.0	4.0	4.0	4.0	4.0	-	-
105	10500	4	2.2	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	-	-
		6	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.5	-	-
120	12000	4	2.2	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.5	-	-
		6	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.5	5.5	-	-
135	13500	4	3.0	3.0	3.0	4.0	4.0	4.0	5.5	5.5	5.5	5.5	-	-
		6	3.0	3.0	4.0	4.0	4.0	4.0	5.5	5.5	5.5	7.5	-	-
150	15000	4	3.0	4.0	4.0	4.0	5.5	5.5	5.5	5.5	5.5	7.5	-	-
		6	4.0	4.0	4.0	5.5	5.5	5.5	5.5	5.5	7.5	7.5	-	-
180	18000	4	4.0	4.0	5.5	5.5	5.5	5.5	7.5	7.5	7.5	7.5	-	-
		6	4.0	5.5	5.5	5.5	5.5	7.5	7.5	7.5			-	-
210	21000	4	5.5	5.5	5.5	7.5	7.5	7.5	7.5		1		-	-
		6	5.5	5.5	7.5	7.5	7.5	7.5					-	-
240	24000	4	5.5	5.5	5.5	7.5	7.5	7.5					-	-
		6	5.5	7.5	7.5	7.5	7.5	11.0					-	-
270	27000	4	7.5	7.5	7.5	7.5		11.0					15.0	
		6	7.5	7.5	7.5			11.0					15.0	
300	30000	4	7.5	7.5				11.0					15.0	
		6	11.0	11.0				11.0			15	15.0		
330	33000	4	7.5	7.5				11.0					15.0	
		6	11.0	11.0				15.0					15.0	
350	35000	4	7.5	7.5				11.0					15.0	15.
		6	7.5	7.5				11.0					15.0	
400	40000	4	11.0	11.0				15.0					18.5	
		6	11.0	11.0				15.0					18.5	18.5
450	45000	4	15.0	15.0				15.0					22.0	
		6	15.0	15.0				18.5					22.0	
500	50000	4	15.0	15.0				18.5				-	-	-
		6	15.0	15.0				22.0			-	-	-	-



## 10. RFPW-II RELATION TABLE OF AIR PRESSURE AND POWER

RFPL /W- II	Rated air flow	Coil rows	Motor power corresponding to ESP									
			120	170	220	280	320	360	420	480	520	580
020	2000	4	0.55	0.75	0.75	0.75	0.75	1.1	1.1	1.1	-	-
		6	0.75	0.75	0.75	0.75	1.1	1.1	1.1	1.1	-	-
030	3000	4	0.75	1.1	1.1	1.1	1.1	1.1	1.5	1.5	-	-
		6	1.1	1.1	1.1	1.1	1.1	1.5	1.5	2.2	-	-
040	4000	4	1.1	1.1	1.5	1.5	1.5	2.2	2.2	2.2	-	-
		6	1.1	1.5	1.5	1.5	2.2	2.2	2.2	2.2	-	-
050	5000	4	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	-	-
		6	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	-	-
060	6000	4	2.2	2.2	2.2	2.2	2.2	3.0	3.0	3.0	-	-
		6	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	-	-
070	7000	4	2.2	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0
		6	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	4.0
080	8000	4	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0
		6	2.2	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
090	9000	4	2.2	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
		6	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	5.5
105	10500	4	3.0	3.0	4.0	3.0	4.0	4.0	4.0	5.5	5.5	5.5
		6	3.0	4.0	4.0	4.0	4.0	4.0	5.5	5.5	5.5	5.5
120	12000	4	3.0	3.0	4.0	4.0	4.0	5.5	5.5	5.5	7.5	5.5
		6	3.0	4.0	4.0	54.0	5.5	5.5	5.5	5.5	7.5	5.5
135	13500	4	4.0	4.0	4.0	4.0	5.5	5.5	5.5	5.5	7.5	7.5
		6	4.0	4.0	4.0	4.0	5.5	5.5	5.5	7.5	7.5	11.0
150	15000	4	4.0	5.5	5.5	5.5	5.5	5.5	7.5	7.5	7.5	11.0
		6	5.5	5.5	5.5	5.5	5.5	7.5	7.5	7.5	11.0	11.0
180	18000	4	5.5	5.5	5.5	5.5	7.5	7.5	7.5	7.5	11.0	11.0
		6	5.5	5.5	7.5	7.5	7.5	7.5	7.5	11.0	11.0	15.0
210	21000	4	7.5	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	15.0
		6	7.5	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	15.0
240	24000	4	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	15.0	15.0
		6	7.5	7.5	11.0	11.0	11.0	11.0	11.0	15.0	15.0	15.0
270	27000	4	7.5	11.0	11.0	11.0	11.0	11.0	11.0	15.0	15.0	15.0
		6	11.0	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0
300	30000	4	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0
		6	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0	18.5
330	33000	4	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0	18.5
		6	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	18.5
350	35000	4	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0	18.5
		6	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0	18.5	18.5
400	40000	4	11.0	15.0	15.0	15.0	15.0	15.0	18.5	18.5	18.5	18.5
		6	15.0	15.0	15.0	15.0	15.0	18.5	18.5	18.5	18.5	22.0
450	45000	4	15.0	15.0	15.0	18.5	18.5	18.5	18.5	22.0	22.0	22.0
		6	15.0	15.0	18.5	18.5	18.5	18.5	22.0	22.0	-	-
500	50000	4	18.5	18.5	18.5	22.0	22.0	22.0	-	-	-	-
		6	18.5	18.5	22.0	22.0	22.0	-	-	-	-	-

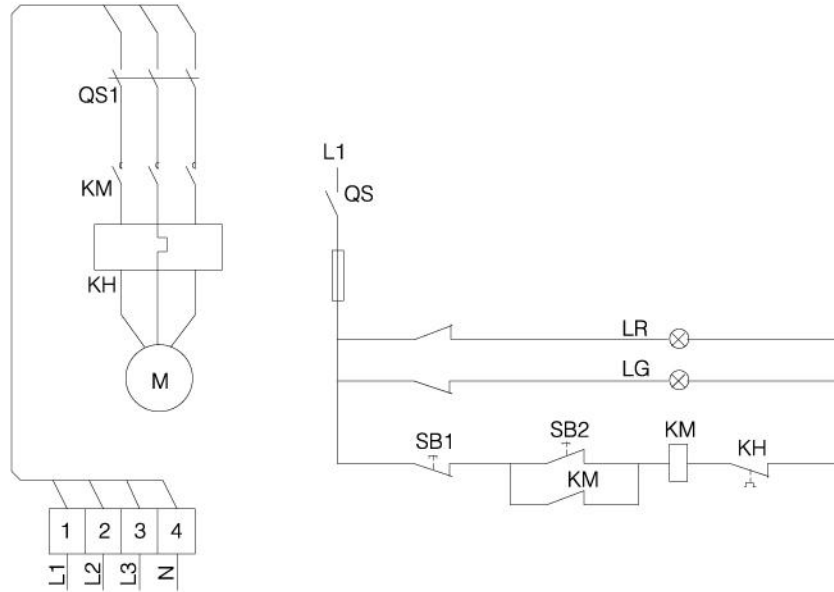
## 11. RFPW-III RELATION TABLE OF AIR PRESSURE AND POWER

RFPL /W-III	Rated air flow	Coil rows	Motor power corresponding to ESP										
			120	170	220	270	320	370	420	470	520	570	620
020	2000	4	0.55	0.55	0.55	0.75	0.75	0.75	0.75	1.1	-	-	-
		6	0.55	0.55	0.75	0.75	0.75	0.75	1.1	1.1	-	-	-
030	3000	4	0.75	0.75	0.75	1.1	1.1	1.1	1.1	1.1	-	-	-
		6	0.75	0.75	1.1	1.1	1.1	1.1	1.1	1.1	-	-	-
040	4000	4	1.1	1.1	1.1	1.1	1.5	1.5	1.5	2.2	-	-	-
		6	1.1	1.1	1.1	1.5	1.5	1.5	2.2	2.2	-	-	-
050	5000	4	1.1	1.1	1.5	1.5	1.5	1.5	2.2	2.2	-	-	-
		6	1.1	1.5	1.5	1.5	1.5	2.2	2.2	2.2	-	-	-
060	6000	4	1.5	1.5	2.2	2.2	2.2	2.2	2.2	3.0	-	-	-
		6	1.5	2.2	2.2	2.2	2.2	2.2	3.0	3.0	-	-	-
070	7000	4	1.5	1.5	2.2	2.2	2.2	2.2	2.2	3.0	3.0	3.0	-
		6	1.5	2.2	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	-
080	8000	4	2.2	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	4.0	-
		6	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0	4.0	4.0	-
090	9000	4	2.2	2.2	2.2	3.0	3.0	3.0	3.0	4.0	4.0	4.0	-
		6	2.2	2.2	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	-
105	10500	4	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	5.5	-
		6	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	5.5	5.5	-
120	12000	4	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.5	5.5	-
		6	3.0	3.0	3.0	4.0	4.0	4.0	5.5	5.5	5.5	5.5	-
135	13500	4	3.0	3.0	4.0	4.0	4.0	4.0	5.5	5.5	5.5	5.5	-
		6	3.0	4.0	4.0	4.0	4.0	5.5	5.5	5.5	5.5	7.5	-
150	15000	4	4.0	4.0	4.0	5.5	5.5	5.5	5.5	5.5	7.5	7.5	-
		6	4.0	4.0	5.5	5.5	5.5	5.5	5.5	7.5	7.5	7.5	-
180	18000	4	4.0	5.5	5.5	5.5	5.5	7.5	7.5	7.5	7.5	7.5	-
		6	5.5	5.5	5.5	5.5	7.5	7.5	7.5	7.5	7.5	11.0	-
210	21000	4	5.5	5.5	7.5	7.5	7.5	7.5	11.0	11.0	11.0	11.0	-
		6	5.5	7.5	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	-
240	24000	4	5.5	5.5	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	-
		6	5.5	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	-	-
270	27000	4	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	11.0	15.0	-
		6	7.5	7.5	11.0	11.0	11.0	11.0	11.0	11.0	15.0	15.0	15.0
300	30000	4	11.0	11.0	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	-
		6	11.0	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	-	-
330	33000	4	11.0	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0
		6	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0	18.5
350	35000	4	7.5	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0
		6	11.0	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	15.0	18.5
400	40000	4	11.0	11.0	11.0	15.0	15.0	15.0	15.0	15.0	18.5	18.5	18.5
		6	11.0	11.0	15.0	15.0	15.0	15.0	15.0	18.5	18.5	18.5	18.5
450	45000	4	15.0	15.0	15.0	15.0	15.0	18.5	18.5	18.5	18.5	22.0	22.0
		6	15.0	15.0	15.0	15.0	18.5	18.5	18.5	18.5	22.0	22.0	-
500	50000	4	15.0	18.5	18.5	18.5	18.5	22.0	22.0	22.0	-	-	-
		6	18.5	18.5	18.5	18.5	22.0	22.0	22.0	-	-	-	-

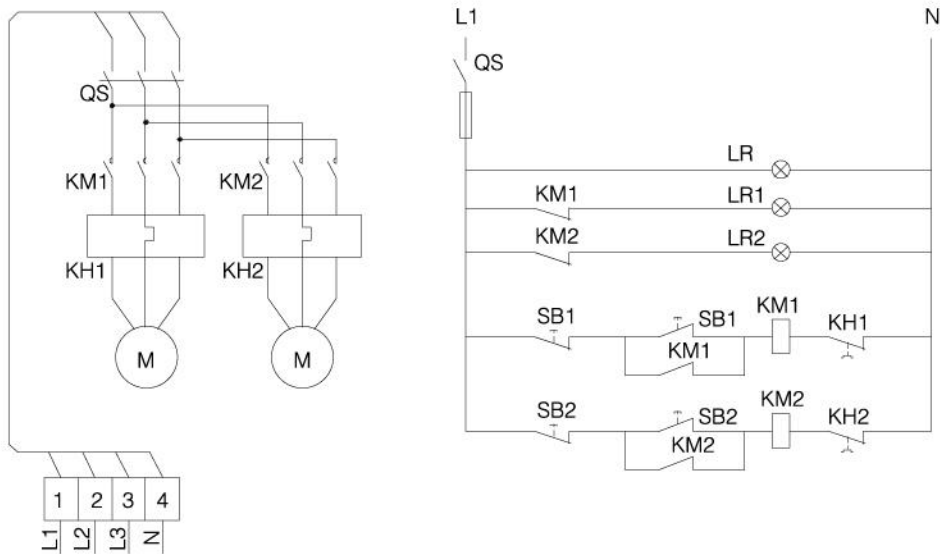


# 12.WIRING DIAGRAM

## RFPL/W series single fan



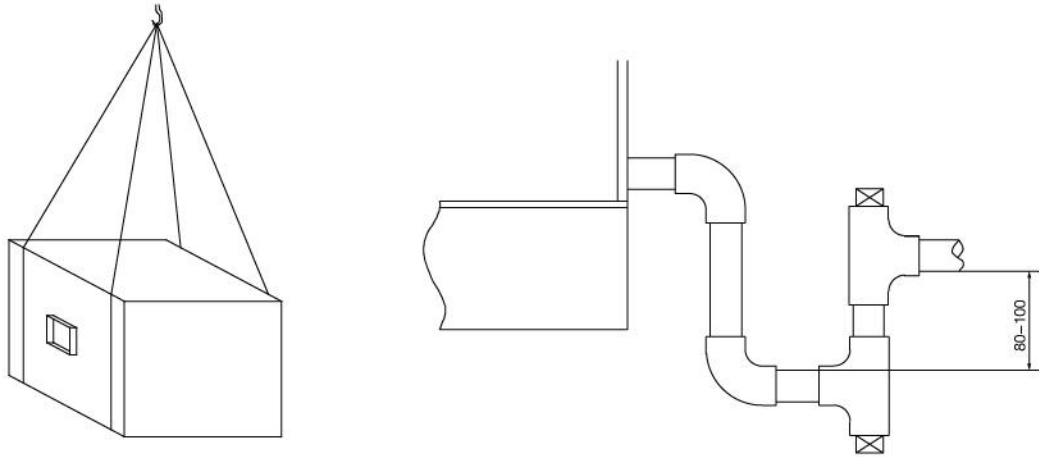
## RFPL/W series double fans



**Note:** The starter is not included when the unit is supplied. If need a 3-speed switch and AC contactor, please specify in advance when ordering.

## 13. INSTALLATION REQUIREMENT

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- Before installing the unit, please check whether the packaging of the unit is intact, whether the equipment is damaged, whether the unit is bruised or severely deformed, whether the panel or casing of the unit is scratched, whether the fan or motor is loose, if the following problems occur, Please contact the dealer for repair or replacement.
- The unit can be hoisted and horizontally transported by crane or forklift. When hoisting, the lifting point should be firm and strong enough to bear the weight of the unit.
- When hoisting, the unit must be bound firmly, the rope must be intact and free of scars, and its lifting capacity must ensure sufficient strength during hoisting.
- The unit should be kept level during transportation and hoisting.
- Before connecting the unit to the power supply, please carefully check whether the power supply voltage, frequency and phase sequence are consistent with the unit nameplate. The power supply voltage should be kept within 10% of the rated voltage.
- Before starting the fan, manually rotate the fan impeller, and carefully check whether there is metal friction sound and whether there is any debris in the fan. Any abnormalities should be eliminated. Start the fan and check whether the direction of the fan is correct. When the direction of rotation is inconsistent with the direction of the arrow, you can change the phase sequence of the power supply line.
- In order to ensure the normal operation of the unit, it is recommended to install a static pressure box at the outlet of the unit, and install an air volume regulating valve and a fire damper in the air duct. If an electric damper is installed on the air duct, the damper actuator should be started before the unit and closed after the unit.
- Before connecting the unit to the water pipe, it is recommended to clean the water pipe first. Please take over the hot and cold water inlet and outlet positions according to the unit's mark. The inlet and outlet pipes of the unit should be equipped with valves, and the inlet pipe should be equipped with a filter device to prevent debris from entering the unit and causing blockage.



- When installing the water pipe, pay attention not to use excessive force. To ensure that the heat exchanger header of the unit does not bear the torque during installation, a pipe clamp should be used to fix the water pipe. A soft connection device should be installed between the unit and the water pipe and air pipe to prevent the vibration of the unit from being transmitted through the water pipe and avoid the unit from being subjected to excess load.
- The condensate pipe of the unit should be equipped with a water seal to prevent the condensate from overflowing when the unit is under negative pressure.
- The unit should be grounded reliably to prevent leakage of electricity from hurting people. Electrical wiring should be performed by professionals.

## 14. MAINTENANCE

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- During the use of the unit, check and clean the filter every month or so. The filter can be rinsed with clean water. If it is too dirty, it can be cleaned with neutral detergent. Do not rinse with overheated water to prevent damage to the nylon filter. It is not allowed to run the unit without a filter.
- Regularly check the cleanliness of the fin heat exchanger and clean it if necessary.
- Check the drain pan once a year for debris, dust deposits, clogged water pipes, and rust, and perform maintenance if necessary.
- Before operation every year, the insulation of the motor should be checked, and the insulation resistance must be greater than 1MΩ. When the insulation resistance is lower than the lower limit, the motor needs to be repaired.

## 15. ORDER INFORMATION

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- When ordering, please specify the model and specifications of the unit, the left and right inlet and outlet pipes, the direction of filter extraction, and the operating conditions.
- The unit itself is not equipped with an electric control part. According to the special requirements of users, the unit can be equipped with additional electrical protection devices and variable air volume unit speed control devices (divided into ordinary three-speed control devices, frequency conversion control devices and thyristor-control devices).
- If has special requirements for selection, it can provide the required non-standard products according to customer needs, such as adding humidification functions (wet film type, steam type, high-pressure spray humidification, electrode humidifier), electric (auxiliary) heater, medium Effective filter, muffler, etc.
- In addition to providing standard air volume and static pressure, it can also provide different air volume and external static pressure according to customer needs.
- For units with special requirements, please give details when ordering.

## TESTING CENTER



Testing center covers an area of 6500 square meters; total investment of 50 million RMB, is the largest and most complete detection device in the north of China , the testing range is from household air conditioner to the centrifuge chillers.

Testing center adopt internationally renowned brand measuring instruments, including the United States Agilent data acquisition, Japan Yokogawa power meter, Saibi Ling platinum thermal resistance, to ensure the test accuracy.

Testing center can test multi-unit, air-cooled unit, fan coil unit, ceiling air handling unit, modular air handling unit, purifying air conditioning unit, water loop heat unit, air-cooled module chiller and air-cooled screw chiller.



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# MAIN PROJECTS

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High school building in Brazil



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Shanxi Dingxiang County People's Court



Shanxi Yuncheng odd Star Technology Co., Ltd



Beijing Grand Oriental Hotel



Shanxi Linfen High Speed Rail Station



Beijing Sihui building materials city



Shanxi Tongmei Group Zhangze Power Puzhou Power Generation Branch



**For more information, please visit our website [www.ruidonggroup.com](http://www.ruidonggroup.com).**

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**Export Office Add: No.129, Yingxiongshan Road, Jinan, Shandong, China**

**Factory Add: No.6555 Tianqu East Road, Economic Development Zone, Dezhou, Shandong, China**

**Tel: 0086-531-83199577 Mobile: 0086-15505347651 Mail: [sales@ruidonggroup.com](mailto:sales@ruidonggroup.com)**

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**Version number: 2021.08**

The contents will be changed due to product updates without prior notice, please refer to the actual product.

This document has been proofread many times, but there may still be errors or omissions, please understand.