

RUIDONG

EUROPEAN STYLE&CASSETTE
TYPE FAN COIL UNIT



RUIDONG GROUP

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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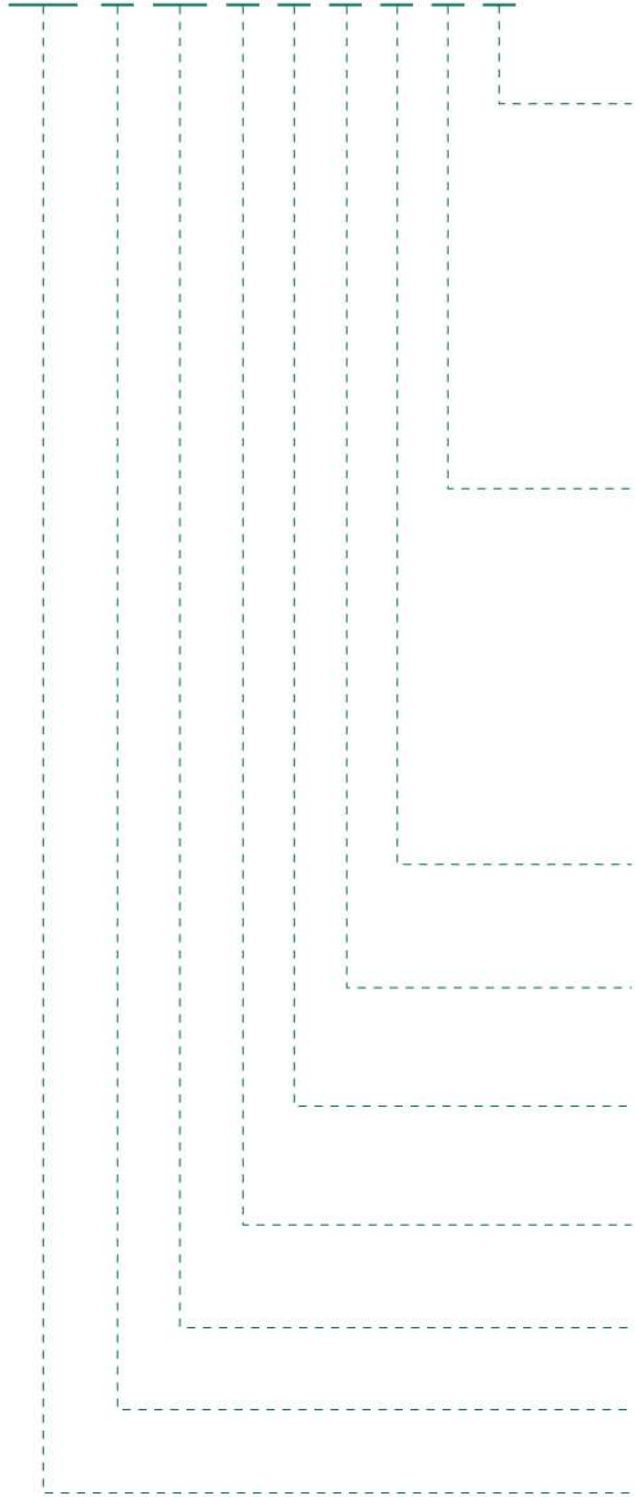
RUIDONG

EUROPEAN STYLE FAN COIL UNIT



(1) Brief Introduction

RFP E XX X X X X X X



Omit:220V-1PH-50HZ
 A: 220V-1PH-60HZ
 B: 110V~120V-1PH-60HZ

<1> Exposed vertical type
 A: Inlet below, outlet above
 B: Inlet front, outlet above
 C: Inlet below, outlet above(with legs)
 D: Inlet front, outlet above(with legs)
 <2> Exposed horizontal type
 A: Inlet below, outlet front
 B: Inlet behind, outlet front
 <3> Concealed vertical type
 A: Inlet below, outlet above
 B: Inlet below, outlet front
 C: Inlet front, outlet above
 D: Inlet front, outlet front
 <4> Concealed horizontal type
 A: Inlet below, outlet front
 B: Inlet behind, outlet front

L:Left
 R:Right

E:Exposed type
 C:Concealed type

V:Vertical installation
 H:Horizontal installation

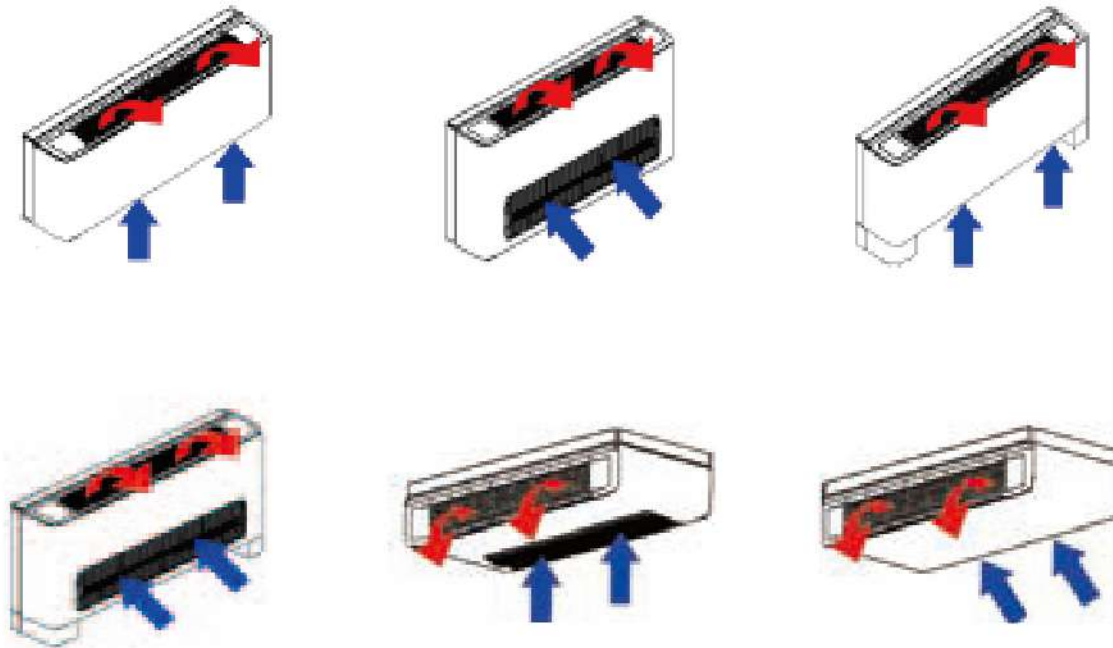
2:2 pipes 3 rows
 4:4 pipes 3+1 rows

Air flow X 10m³/h

European style fan coil unit

Ruidong water fan coil unit

- Universal design, the unit can be installed by vertical or horizontal.
- Classical elegant design.
- Use PVC drain pan with 2 water outlet, hollow structure design can enhance the thermal insulation properties, at the same time to prevent from leaking.
- Left-right water pipe connection can be changed freely.
- The legs for vertical type fan coil unit are separate with cabinet, easy for delivery and installation.
- 6 kinds of air distribution solution is optional.



(2) Specification

2 pipes 3 rows

Model-RFPE		022	032	052	062	072	082	102	122	142	162	202	
Air flow	H	m3/h	298	428	619	671	813	988	1058	1480	1560	1983	2250
	M		253	364	526	570	691	840	899	1258	1326	1686	1913
	L		194	278	402	436	528	642	688	962	1014	1298	1463
Cooling capacity	H	kW	1440	2060	2980	3500	4020	4500	5310	6870	7460	8610	10610
	M		1180	1690	2440	2870	3300	3690	4350	5630	6120	7060	8700
	L		910	1310	1890	2220	2550	2860	3370	4360	4740	5470	6740
Heating capacity	H	kW	2440	3403	5299	5763	6372	7812	9211	11290	12110	15580	17290
	M		2010	2810	4370	4750	5260	6440	7600	9320	9990	12860	14270
	L		1530	2130	3310	3600	3980	4880	5760	7060	7570	9740	1081
Fan	Type	Centrifugal double suction											
	Qty	1	1	2	2	2	2	2	3	3	3	4	
Power	Supply	220 / 1 / 50											
	Input	27	32	42	55	72	80	91	125	151	161	168	
Coil	Rows	3	3	3	3	3	3	3	3	3	3	3	
	Mix.working pressure	1.6 Mpa											
Pipe size	Water pipe	DN20											
	Drain pipe	DN20											
Water flow	m3/h	0.25	0.37	0.52	0.60	0.70	0.76	0.93	1.23	1.33	1.50	1.85	
Water P.D.	kPa	5.2	12.3	9.3	12.4	16.8	21.6	32.5	32.5	20.5	28.0	44.5	
Noise dB(A)	H	33	34	36	37	39	43	44	44	46	47	49	
	M	27	22	28	29	33	37	38	39	41	42	45	
	L	22	23	24	24	27	29	30	32	32	32	34	
Net weight	kg	18	20	22	23	25	27	29	30	34	34	37	

- Note:**
1. Cooling: inlet/outlet water temperature 7 °C / 12 °C, inlet air DB27.0 °C, WB19.5 °C.
 2. Heating: inlet/outlet water temperature 60 °C / 50 °C, inlet air DB21.0 °C.
 3. The noise in the table is measured by the unit in a totally anechoic room with a background noise of 16.5dB (A) .
 4. The static pressure at the outlet of the low static pressure unit with air outlet and filter is 0Pa; the static pressure at the outlet without air outlet and filter is 12Pa.
 5. The power consumed by the motor load is the input power (also referred to as reference operating condition consumption), the power on the motor nameplate indicates the nominal power, that is, the output power of the motor when it is running at rated operating conditions.
 6. If the actual operating conditions are different from the standard operating conditions, please refer to the correction coefficient table data to correct it. Correction method: actual cooling (heating) amount = rated cooling (heating) amount × working condition correction factor.

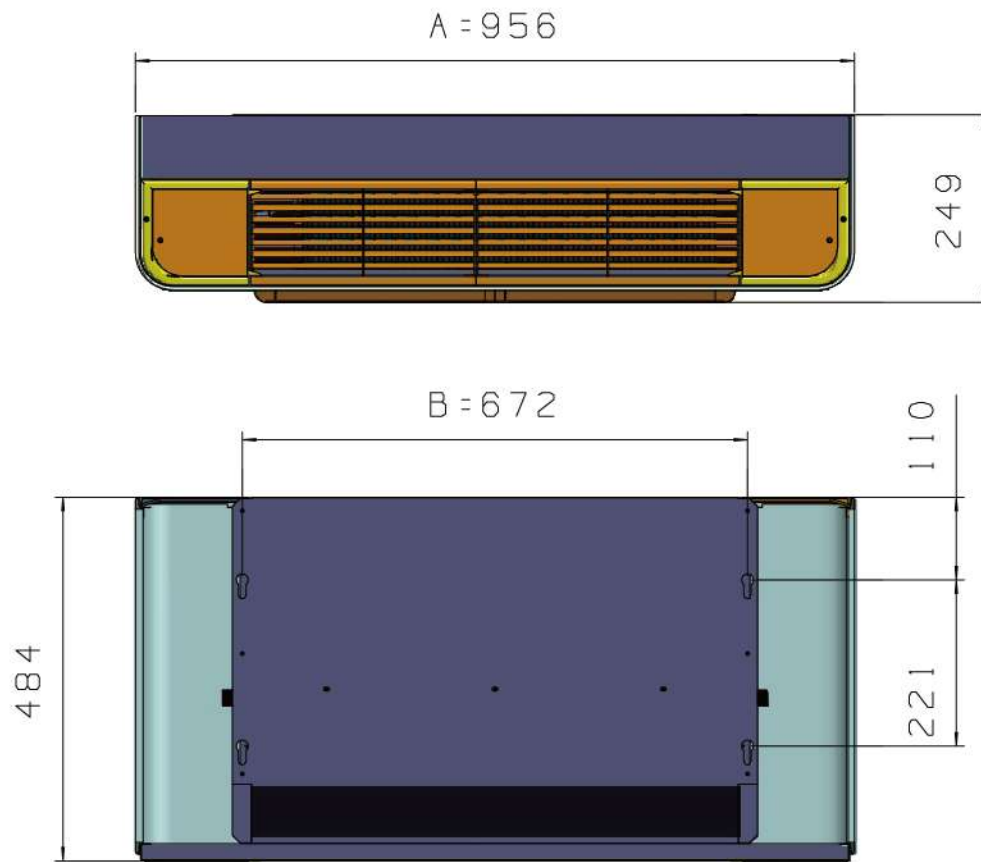
4 pipes 3+1 rows

Model-RFPE			022	032	052	062	072	082	102	122	142	162	202
Air flow	H	m ³ /h	289	415	600	650	788	957	1025	1434	1512	1922	2180
	M		245	353	510	553	670	814	871	1219	1285	1633	1853
	L		191	274	396	429	520	632	677	947	998	1268	1439
Cooling capacity	H	kW	1380	1980	2860	3360	3860	4320	5100	6600	7160	8270	10190
	M		1150	1640	2370	2790	3200	3590	4230	5470	5940	6860	8450
	L		900	1290	1860	2180	2510	2810	3310	4290	4660	5370	6620
Heating capacity	H	kW	1590	2270	3290	3860	4440	4970	5860	7580	8240	9510	11710
	M		1340	1910	2760	3250	3730	4170	4920	6370	6920	7980	9840
	L		1030	1480	2140	2510	2880	3230	3810	4930	5350	6180	7610
Fan	Type	Centrifugal double suction											
	Qty	1	1	2	2	2	2	2	3	3	3	4	
Power	Supply	220 / 1 / 50											
	Input	35	41	53	69	94	103	117	156	187	201	210	
Coil	Rows	3+1	3+1	3+1	3+1	3+1	3+1	3+1	3+1	3+1	3+1	3+1	
	Mix.working pressure	1.6 Mpa											
Pipe size	Water pipe	DN20											
	Drain pipe	DN20											
Water flow	Cooling	m ³ /h	0.24	0.34	0.49	0.58	0.66	0.74	0.88	1.14	1.23	1.42	1.75
	Heating	m ³ /h	0.13	0.18	0.23	0.30	0.32	0.37	0.45	0.53	0.60	0.75	0.98
Water P.D.	kPa	5.2	12.3	9.3	12.4	16.8	21.6	32.5	32.5	20.5	28	44.5	
Noise dB(A)	H	33	34	36	37	39	43	44	44	46	47	49	
	M	27	22	28	29	33	37	38	39	41	42	45	
	L	22	23	24	24	27	29	30	32	32	32	34	
Net weight	kg	20	22	24	26	28	30	32	33	37	37	42	

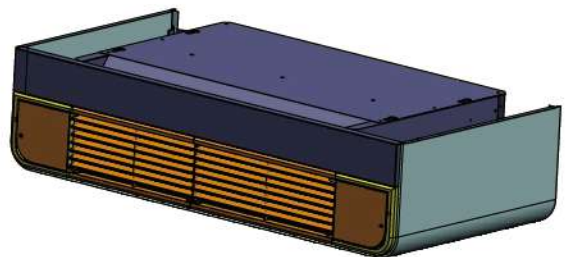
- Note:**
1. Cooling: inlet/outlet water temperature 7 °C / 12 °C, inlet air DB27.0 °C, WB19.5 °C.
 2. Heating: inlet/outlet water temperature 60 °C / 50 °C, inlet air DB21.0 °C.
 3. The noise in the table is measured by the unit in a totally anechoic room with a background noise of 16.5dB (A) .
 4. The static pressure at the outlet of the low static pressure unit with air outlet and filter is 0Pa; the static pressure at the outlet without air outlet and filter is 12Pa.
 5. The power consumed by the motor load is the input power (also referred to as reference operating condition consumption), the power on the motor nameplate indicates the nominal power, that is, the output power of the motor when it is running at rated operating conditions.
 6. If the actual operating conditions are different from the standard operating conditions, please refer to the correction coefficient table data to correct it. Correction method: actual cooling (heating) amount = rated cooling (heating) amount × working condition correction factor.

(3) Diagram

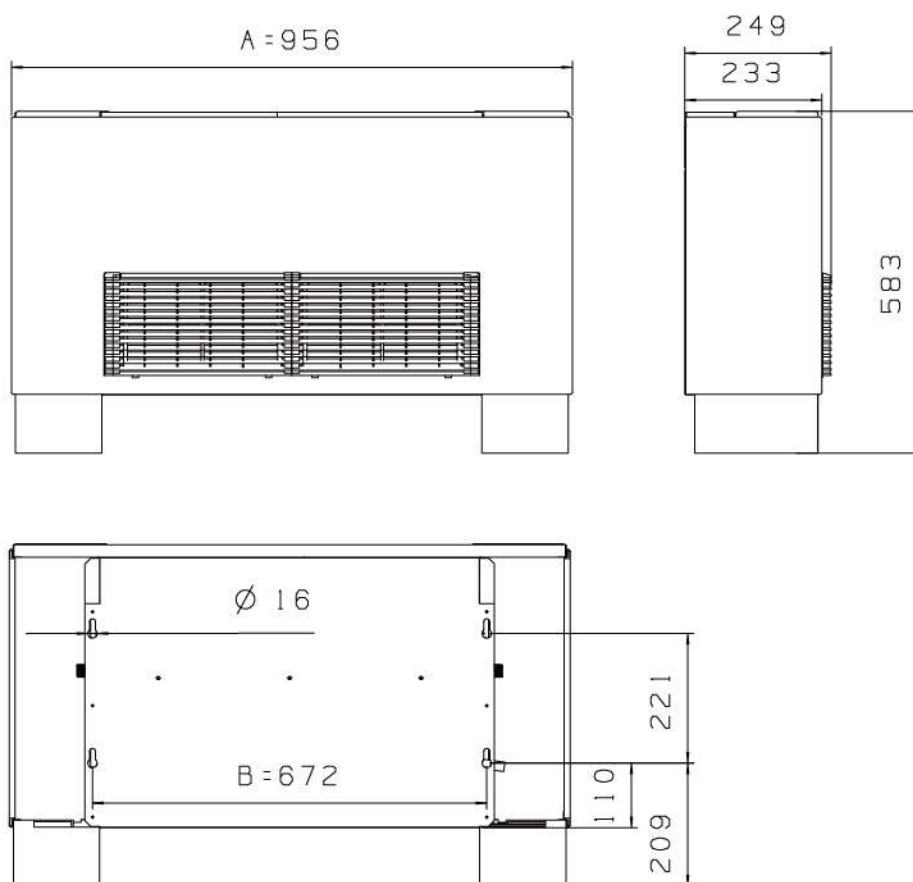
Horizontal Exposed Type



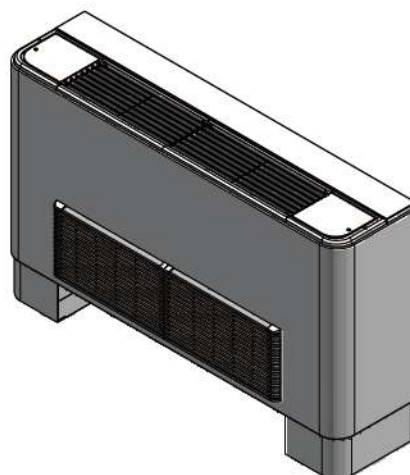
Model	A	B
RFPE022HE	756	472
RFPE032HE	906	622
RFPE052HE	956	672
RFPE062HE	1056	772
RFPE072HE	1106	822
RFPE082HE	1206	922
RFPE102HE	1306	1022
RFPE122HE	1406	1122
RFPE142HE	1606	1322
RFPE162HE	1606	1322
RFPE202HE	1906	1622



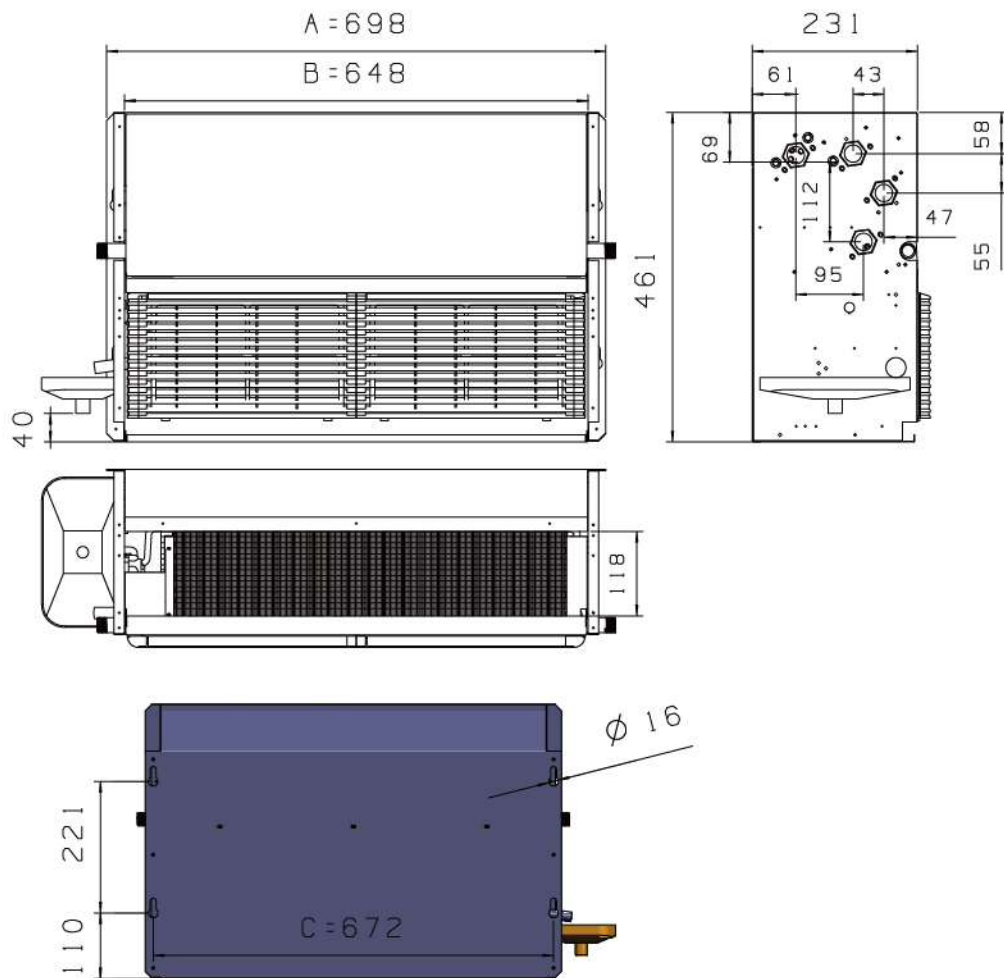
Vertical Exposed Type



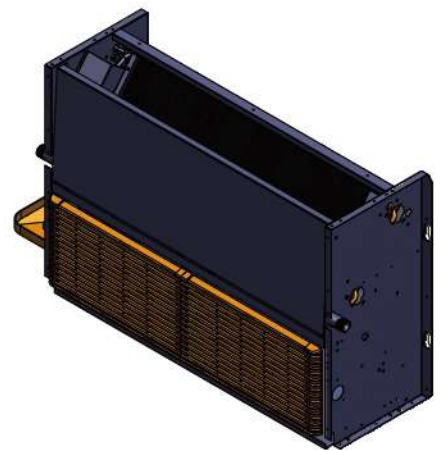
Model	A	B
RFPE022VE	756	472
RFPE032VE	906	622
RFPE052VE	956	672
RFPE062VE	1056	772
RFPE072VE	1106	822
RFPE082VE	1206	922
RFPE102VE	1306	1022
RFPE122VE	1406	1122
RFPE142VE	1606	1322
RFPE162VE	1606	1322
RFPE202VE	1906	1622



Concealed Type



Model	A	B	C
RFPE022	498	448	472
RFPE032	648	598	622
RFPE052	698	648	672
RFPE062	798	748	772
RFPE072	848	798	822
RFPE082	948	898	922
RFPE102	1048	998	1022
RFPE122	1148	1098	1122
RFPE142	1348	1298	1322
RFPE162	1348	1298	1322
RFPE202	1648	1598	1622

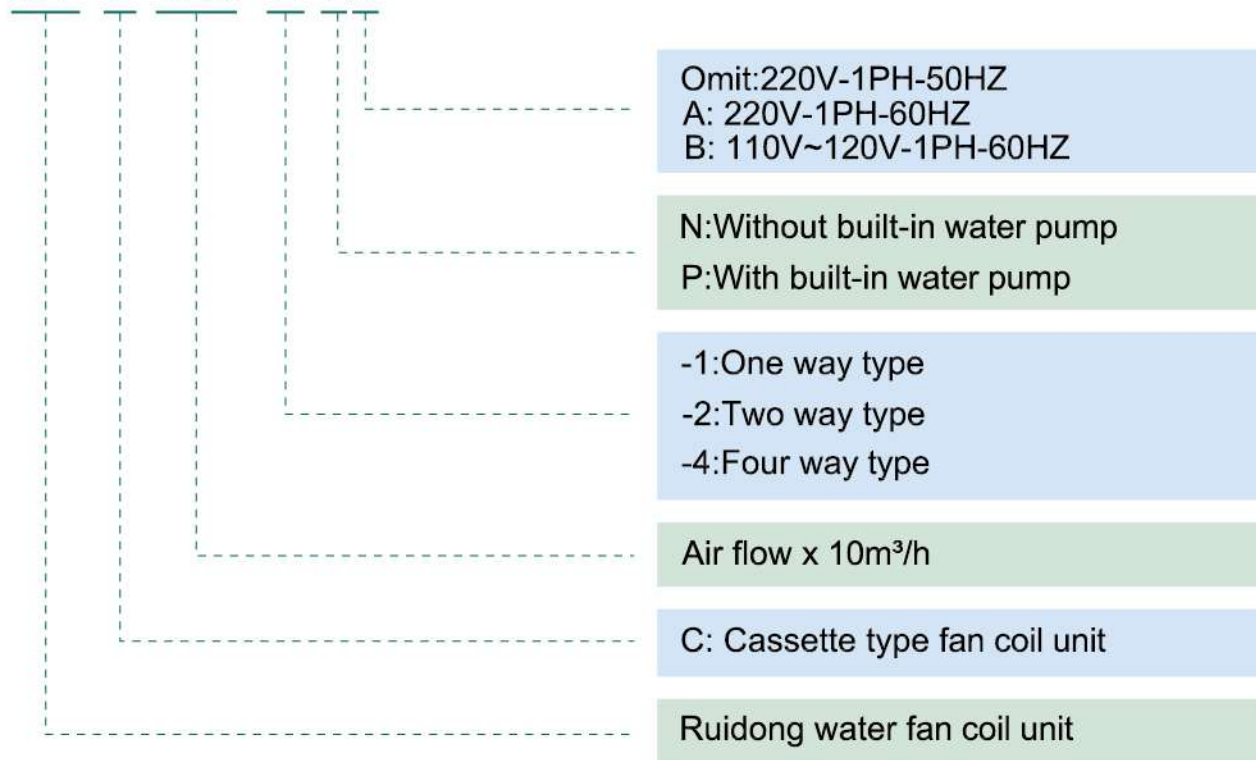


CASSETTE TYPE FAN COIL UNIT



(1) Brief Introduction

RFP C XXX - X XX



- 4-way air flowing, which can uniform temperature distribution in the room.
- Thin design unit which can be installed in a limit ceiling.
- Easy to be installed, low installation cost.
- Remotecontroller is standard and wire controller is optional.
- Quiet running.

The efficiency of airflow rate, which enhances its flexibility, and processed to sine strip seam, which enhances its flexibility, and drops the vibration of ventilator during revolving in large scale, simultaneously reduce the motor noise caused by ventilator swinging.

● 700mm head drain pump with no return valve is installed in the unit; an float switch inside as well to prevent from leaking. If the water raising to a certainly position, the float switch will act and alarm, then the unit will cut off the water valve or stop the fan motor

- "C" type heat exchanger, blue fins.
- Fresh air intake is sandard



(2) Specification

2 pipes

Model-RFPC			34-2	51-2	68-2	80-2	85-2	102-2	136-2	170-2	204-2	238-2	289-2	340-2					
CFM			200	300	400	450	500	600	800	1000	1200	1400	1700	2000					
Air flow	H	m³/h	340	510	680	765	850	1020	1360	1700	2040	2380	2890	3400					
	M	m³/h	280	390	520	580	640	790	1030	1290	1500	1800	2100	2600					
	L	m³/h	180	260	350	390	430	520	690	860	1030	1200	1600	1900					
Cooling	Total capacity	H	kW	2.0	2.7	3.7	4.2	4.5	5.6	7.0	9.1	10.8	12.6	15.3	17.6				
		M	kW	1.8	2.3	3.1	3.8	4.2	4.3	5.7	7.9	8.6	10.0	11.7	13.5				
		L	kW	1.6	1.8	2.6	2.8	3.0	3.6	4.5	6.0	6.8	8.0	9.3	9.9				
	Sensible capacity	H	kW	1.5	1.9	2.6	2.9	3.5	3.9	5.0	6.4	7.7	9.0	11.5	14.8				
		M	kW	1.3	1.7	2.0	2.6	3.2	3.3	4.3	5.9	6.5	7.5	8.4	11.1				
		L	kW	1.2	1.4	1.8	1.9	2.8	2.9	3.6	4.8	5.4	6.4	6.8	7.8				
	Water flow		l/h	345	470	640	720	780	970	1260	1710	1920	2160	2640	3027				
Water P.D		kPa	7	9	11	14	16	18	19	17	19	22	36	48					
Heat	Heating capacity	H	kW	2.8	4.2	5.6	6.3	7	8.4	11.2	13.9	16.7	19.5	23.7	25.5				
		M	kW	2.5	3.4	4.5	5.5	6.3	6.5	8.5	12	12.6	15.6	17.5	18.6				
		L	kW	2	2.7	4	4.5	5	5.2	6.7	9	10.2	12	13.8	13				
Power supply			220~240V/1PH/50HZ(60HZ)																
Power input		W	39	52	62	68	76	96	132	152	189	220	330	340					
Sound pressure		dB(A)	37	39	41	42	43	45	46	47	50	52	57	65					
Fan	Type		Centrifugal Fan																
	Model		Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315				
	Qty		1	1	1	1	1	1	1	1	1	1	1	1	1				
Motor	Type		3-speed																
	Qty		1	1	1	1	1	1	1	1	1	1	1	1	1				
Coil	Rows		2																
	Max.working pressure		MPa	1.6															
	Tube Dia.		inch	3/8"															
Dimension	Unit body		mm	580x580x250				705x705x290				832x832x290				960x960x290			
	Panel assembly		mm	680x680x30				830x830x30				980x980x30				1140x1140x30			
Connection	Water inlet/outlet pipe		inch	ZG3/4" / ZG3/4"															
	Condensate discharge		inch	26															
Weight		kg	20	20	20	20	25	25	25	34	34	34	50	52					

Note: 1.Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C.
2.Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling.

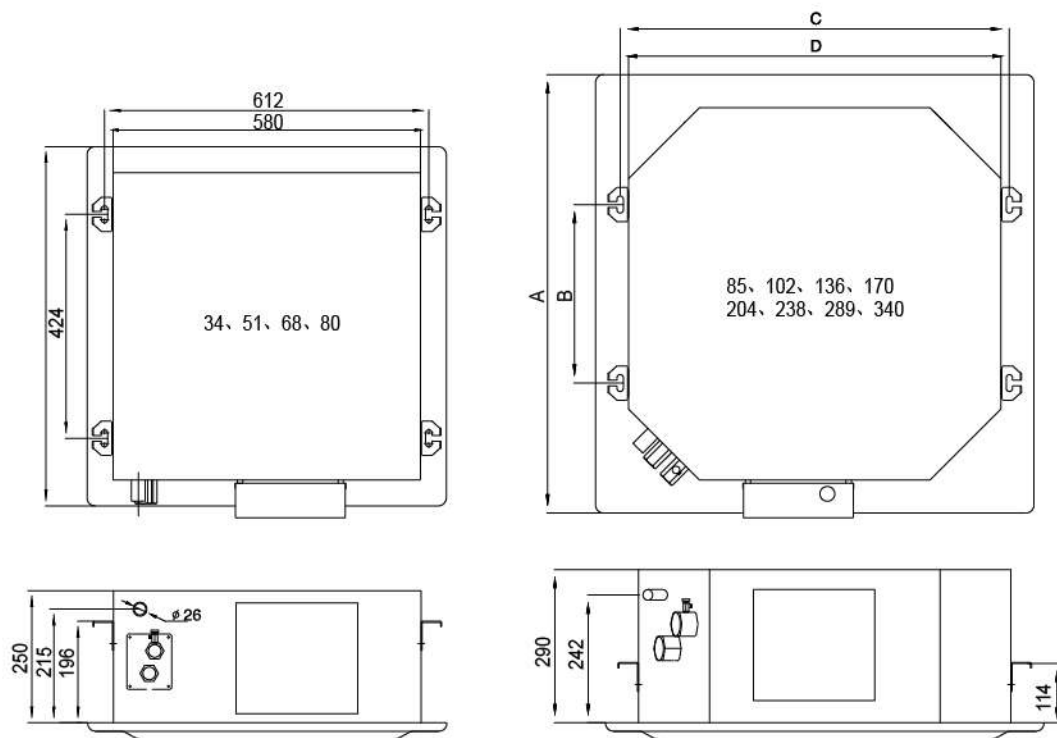
4 pipes

Model-RFPC			68-2+1	80-2+1	85-2+1	102-2+1	136-2+1	170-2+1	204-2+1	238-2+1	289-2+1	340-2+1		
CFM			400	450	500	600	800	1000	1200	1400	1700	2000		
Air flow	H	m³/h	680	765	850	1020	1360	1700	2040	2380	2890	3400		
	M	m³/h	520	580	640	790	1030	1290	1500	1800	2100	2600		
	L	m³/h	350	390	430	520	690	860	1030	1200	1600	1900		
Cooling	Total capacity	H	kW	2.6	2.8	3.1	3.6	4.8	6.0	7.0	8.4	10.3	11.5	
		M	kW	2.0	2.2	2.4	2.8	3.7	4.7	6.0	6.5	7.5	8.3	
		L	kW	1.4	1.6	1.8	2.1	3.0	3.6	4.6	5.0	5.7	6.3	
	Sensible capacity	H	kW	1.8	2.0	2.2	2.5	3.4	4.2	4.9	5.9	8.5	9.5	
		M	kW	1.5	1.6	1.8	2.1	2.8	3.5	4.5	4.9	6.2	6.9	
		L	kW	1.1	1.2	1.4	1.7	2.4	2.9	3.7	4.0	4.7	5.2	
	Water flow		l/h	450	468	540	625	830	1050	1400	1500	1800	2000	
Water P.D		kPa	11	13	17	22	24	27	30	35	40	52		
Heat	Heating capacity	H	kW	2.6	3.1	3.5	4.3	4.9	6.5	7.2	8.7	11.9	15.2	
		M	kW	2	2.3	2.7	3.2	4.3	5.4	5.6	7.6	8.7	11.3	
		L	kW	1.4	1.7	2.1	2.5	3.5	4.2	4.3	5.8	6.6	8.7	
Power supply			220~240V/1PH/60HZ(60HZ)											
Power input		W	62	68	76	96	132	152	189	220	330	340		
Sound pressure		dB(A)	41	42	43	45	46	47	50	52	57	65		
Fan	Type	Centrifugal Fan												
	Model	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315	Φ315		
	Qty	1	1	1	1	1	1	1	1	1	1	1		
Motor	Type	3-speed												
	Qty	1	1	1	1	1	1	1	1	1	1	1		
Coil	Rows	2												
	Max.working pressure	MPa	1.6											
	Tube Dia.	inch	3/8"											
Dimension	Unit body	mm	580x580x250			705x705x290			832x832x290			960x960x290		
	Panel assembly	mm	680x680x30			830x830x30			980x980x30			1140x1140x30		
Connection	Water inlet/outlet pipe	inch	ZG3/4" / ZG3/4"											
	Condensate discharge	inch	26											
Weight		kg	21	21	26	26	26	35	35	35	53	53		

Note: 1.Cooling: inlet air temp. DB+27°C/WB+19.5°C, water inlet/outlet temp. +7°C/+12°C.
2.Heating: +21°C, water inlet temp. +60°C; Same water flow rate as for the cooling.

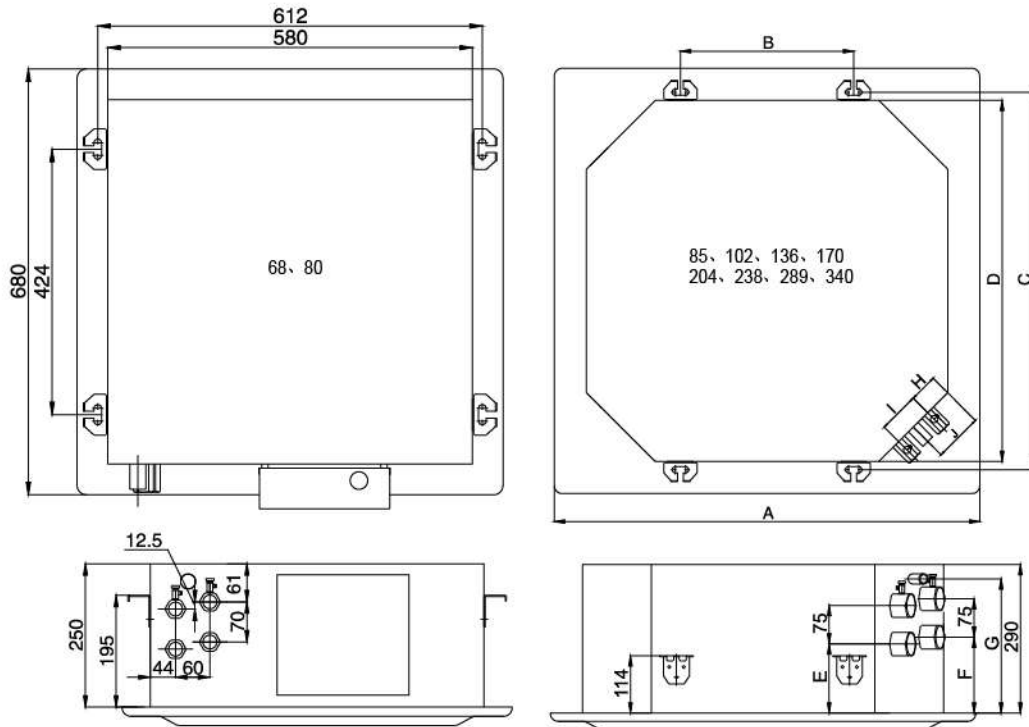
(3) Diagram

2 pipes



Dim	85、102、136	170、204、238	289、340
A	830	980	1140
B	338	416	488
C	737	864	992
D	705	832	960

4 pipes



Dim	85, 102, 136	170, 204, 238	289, 340
A	830	980	1140
B	338	416	488
C	737	864	992
D	705	832	960
E	135	139	139
F	148	127	127
G	262	250	250
H	55	65	65
I	80	80	80
J	95	95	100

3. INSTALLATION REQUIREMENTS

- Professionals are required for installation, wiring and maintenance, otherwise it may cause motor burnout, water leakage, electric shock or fire.
- The unit should be installed on the basis of sufficient load-bearing capacity, otherwise it may cause personal injury after loosening.
- During the installation process, it is strictly prohibited to handle the volute and the impeller handling unit, and it is strictly prohibited to hoist the hand-held motor. The volute of the fan must not be impacted to avoid deformation of the volute and friction or noise during the operation of the fan.
- For a horizontally installed unit, the four lifting points must be ensured that the unit is at a level during installation to prevent the condensate pipe from being higher than the condensate tray to cause condensate outflow to cause overflow.
- The concealed unit must be provided with an access door at the installation location for daily maintenance.
- An air filter must be installed in the air system to prevent dust from adsorbing on the surface of the heat exchanger for a long time and causing the heat exchanger to fail.
- The inlet and outlet pipes of the unit must be equipped with valves to facilitate the shut-off of the water system during adjustment and maintenance. The unit can only bear its own weight and cannot bear the water pipe and other external forces. When connecting the water pipe to the unit, rubber or metal hoses should be used. The inlet of the unit must be installed with a filter no larger than 16 mesh, and pay attention to the cleanliness of the inlet and outlet pipes.
- Do not use excessive force when connecting pipelines to avoid water leakage due to coil damage.
- After installation, be sure to remove all debris left in the condensate box during installation to ensure that the condensate drain channel is clear.
- Connect the wires strictly according to the electrical schematic diagram, and confirm that the third gear test runs normally.
- Unit power supply: single 220V-50HZ, the unit needs to be reliably grounded to prevent fire or personal injury caused by electrical leakage. When it is difficult to start the unit, please check whether the power supply voltage is normal and whether the wind wheel is in contact with the volute.
- After the power is turned on, the fan should be started to observe whether the rotation direction is correct.
- When the speed control switch of the unit is turned on, it should be started from the high grade, and then select other grades. When a switch is responsible for the sharing of multiple units, it must be noted that the speed of each unit should be the same.
- The temperature of the cold water supply of the unit in summer should not be lower than 6℃, and the temperature of the hot water supply in winter should not be higher than 80℃. The cold and hot water used must consider the local water quality and be softened if necessary.
- The unit is allowed to use the maximum pressure of 1.6MPa.

4.MAINTENANCE

- When re-inspecting or repairing the fan coil unit, to ensure safety, be sure to cut off the power supply.
- The air filter should be cleaned regularly to avoid affecting the journey.
- When the motor runs normally, but the indoor effect is poor, first check whether the air volume at the air outlet is sufficient. If the air volume is insufficient, the air filter is generally blocked.
- When the temperature difference between the inlet and outlet water is large, the water filter is generally clogged. Please clean the corresponding filter according to different situations.
- Finned heat exchangers should be regularly inspected and cleaned to keep them clean and ensure good heat transfer.
- When the unit is stopped for long time, the pipe should be filled with water or other methods should be used to reduce the corrosion of the pipe. When used in winter, the water in the pipe must be drained. If some of the water in the horizontal unit cannot be exhausted, antifreeze can be added to the water to prevent the copper tube from freezing and cracking.

5.ORDERING INSTRUCTIONS

- When selecting fan coil unit, please specify specifications, model, and the direction of the inlet and outlet pipes.
- When selecting the horizontal fan coil unit with air return box, please indicate the return air position.
- Please indicate the static pressure at the outlet of the unit, the standard type is 12Pa, and the medium static pressure is divided into 30Pa and 50Pa. If there is no special requirement, it will be supplied according to standard static pressure type.
- If you need extended drain pan, please specify in advance. If there is no special requirement, it will be supplied according to standard static pressure type.
- If you have other needs, please consult the salesman in advance.

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.

MAIN PROJECTS



High school building in Brazil



Presidential palace of Kazakhstan



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



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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.