

Commercial Energy Recovery Ventilator 商用型全热新风交换机



Major Ventilations 室内通风换气的主要方式

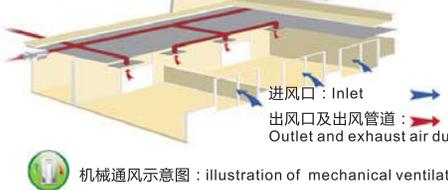
Natural ventilation 开窗通风换气：



Natural ventilation is the most usual ventilation that a building will employ. However, it brings pollutants, insects and etc. into the buildings while fresh air is introduced. At the same time, opening a window may cause theft at night time. Moreover in the cooling, heating seasons or when outdoor climate is unpleasant, opening a window is not an ideal choice.

开窗通风换气是最常见的通风换气方式，但由于开窗容易导致室外污染物进入室内（如尘土，蚊虫等），同时，如在夜间开窗，具有失窃的安全隐患，而如果室内有冷气或暖气的情况下或室外的自然环境不佳时，也是不宜开窗通风换气的。

Mechanical ventilation 机械通风换气：



It ventilates the occupied room by the ventilator when the square meter and ventilation requirement taken into account, which is a preferred choice of ventilation. In this case, the Commercial Energy Recovery Ventilator manufactured by Nedfon is a good choice. It minimizes the energy consumption in the cooling and heating seasons.

根据室内面积和通风要求，通过通风器械来实现的，是目前较好的通风换气方式，但如果采取通风器械来实现通风换气，应选择绿岛风的商用型全热新风交换机，这种机械通风换气方式，能有效避免在通风换气时将室内冷气、暖气流失，在通风换气时节省了能源，保证了夏天空调耗电量的不增加和冬天取暖设备耗能的不增加。

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Ventilation with an air conditioner 空调通风换气



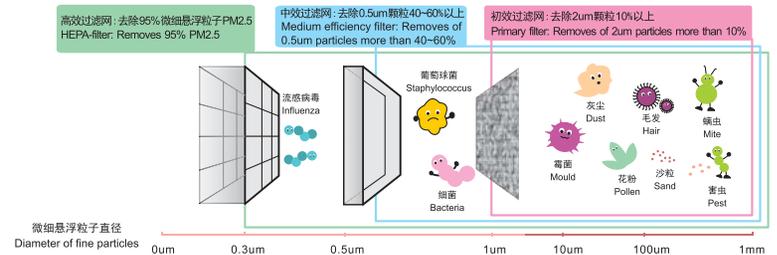
The main purpose of an air conditioner is either to cool or heat an occupied room and that's why to ventilate with an air conditioner cannot meet the minimum ventilation requirement.

空调的主要作用是制冷或制热，因此，空调的换气功能是不能达到室内通风换气的要求。

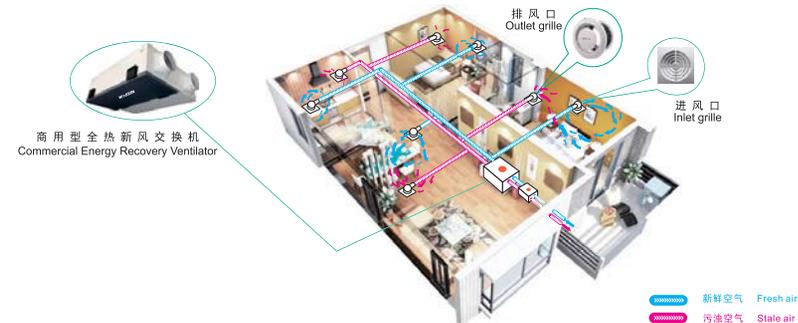
Working Principle Of Heat Exchanger 热交换器工作原理



Filter Type 过滤网类型



Installation Chart 安装示意图



Commercial Energy Recovery Ventilator

商用型全热新风交换机

Guideline 选型指南—不同类型建筑, 风量要求不相同

新风量 Fresh air	不吸烟 Non-smoking					吸烟 Smoking		
	医院病房 Hospital ward	体育馆 Gymnasium	商场 Shopping mall	办公室 Office	计算机房 Computer room	餐厅 Restaurant	高级客房 Deluxe room	会议室 Boardroom
每人所需换气量 Q [m³/h] Minimum airflow required pre person (Q)	17 ~ 42	8 ~ 20	8.5 ~ 21	25 ~ 26	40 ~ 100	20 ~ 50	30 ~ 75	50 ~ 125
所需换气次数 P [times/h] Minimum air changes pre hour (P)	1.06 ~ 2.65	0.5 ~ 1.25	1.06 ~ 2.66	1.56 ~ 3.9	2.5 ~ 6.25	1.25 ~ 3.13	1.88 ~ 4.69	3.13 ~ 7.81

建筑类型与房间名称 Applications		新风量 (立方米/小时/每人) Fresh air(m³/hour per person)	
酒店 Hotel	客房 Bedroom	5星级 5-star	50
		4星级 4-star	40
		3星级 3-star	30
	餐厅/宴会厅/ 多功能厅 Restaurant / ballroom / multi- purpose hall	5星级 5-star	30
		4星级 4-star	25
		3星级 3-star	20
	2星级 2-star	15	
	大堂/四季厅 Lobby/all-season hall	4星级到5星级 4-star to 5-star	10
		4星级到5星级 4-star to 5-star	20
	商业/服务 Shops/paid services	2星级到3星级 2-star to 3-star	10
美容/理发/康乐设施 Beauty salon/barber' s/ entertainment facility		30	

建筑类型与房间名称 Applications		新风量 (立方米/小时/每人) Fresh air(m³/hour per person)	
普通酒店 Average hotel	客房 Bedroom	1星级到3星级 1-star to 3-star	30
		4星级 4-star	20
文化娱乐 Entertainment facility	影剧院/音乐厅/录像厅 Theatre /concert room /mini theatre		20
	游戏厅/舞厅(包括卡拉OK厅) Game room/disco hall (karaoke included)		30
	酒吧/茶厅/咖啡厅 Pub/tea house/cafeteria		10
	体育馆 Gymnasium		20
	商场(店)/书店 Shopping mall (shops) / bookshop		20
	饭馆(餐厅) Restaurant		20
	办公场所 Office building		30
学校 School, college	教室 Classroom	小学 Primary school	11
		初中 Junior high school	14
		高中 High school	17

Guideline--How to pick an appropriate model 选型指南—选型计算

Square meter of a hospital room (S) = 70m², height (H) = 3 M numbers of person (N) = 10, minimum airflow required per person (Q), minimum air changes per hour (P)

A. Supposed 50 m³/h is the minimum airflow required per person (Q), minimum airflow required in total=Q₁=N×Q=10 person X 50 m³/h per person=500 m³/h

B. Supposed minimum air change (P) is 3 times/h, minimum airflow required in total=Q₂=P×S×H=3times/h X 70 m² X 3 m=630 m³/h

Since Q₁ is smaller than Q₂, Q₂ will be the reference when considering an appropriate model. Information is for reference only.

某普通病房面积S=70平方米, 净高H=3米, 病人N=10个, 每人所需风量用Q代表, 换气次数P=次数/小时

A. 若按每人所需新风量计算:

取每人所需新风量Q=50 m³/h, 则新风量Q=N×Q=10个人X 50 m³/h /人=500 m³/h

B. 若按房间新风换气次数计算:

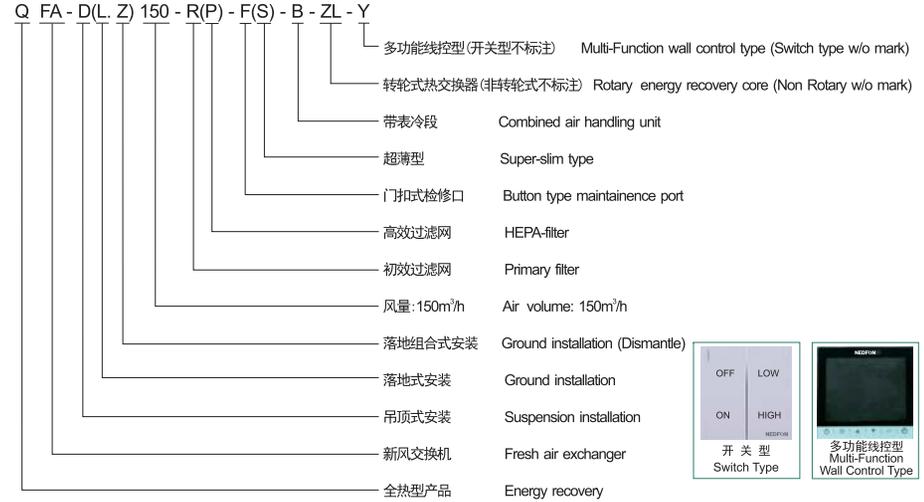
取房间新风换气次数P=3次/小时, 则新风量由于Q₂=P×S×H=3次/小时X70平方米X3米=630 m³/h

而Q₁<Q₂, 故Q₂作为设备选型的依据。以上标准仅供参考。

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Model Explanation 型号说明



Electrical Ratings 技术参数

产品型号 Model No.	额定电压/频率/相数 Rated Voltage/ Frequency/ Phase	档位 Setting	功率 Power (W)	风量 Air Volume (m³/h)	静压 Static Pressure (Pa)	温度交换效率 Sensible Heat Efficiency (%)		焓交换效率 Enthalpy Efficiency (%)		噪音 Noise (dB(A))	管口尺寸 Duct Size (mm)	外形尺寸 Unit Size L x W x H (mm)	净重 Net Weight (kg)
						制冷 Cooling	制热 Heating	制冷 Cooling	制热 Heating				
QFA-D150R-F QFA-D150R-F-Y	220V~/50Hz/1Ph	高档 High	87	150	195	64	78	65	69	38	125	800x650x225	22.4
		低档 Low	64	113	155	65	79	64	73	36			
QFA-D250R-F QFA-D250R-F-Y	220V~/50Hz/1Ph	高档 High	145	250	220	65	77	64	68	40	150	800x650x225	22.4
		低档 Low	128	195	200	66	80	66	72	38			
QFA-D350R-F QFA-D350R-F-Y	220V~/50Hz/1Ph	高档 High	255	350	285	50	77	59	68	42	150	885x730x275	30.5
		低档 Low	215	305	270	55	81	63	71	40			
QFA-D500R-F QFA-D500R-F-Y	220V~/50Hz/1Ph	高档 High	265	500	295	56	70	56	66	43	200	885x730x275	30.5
		低档 Low	215	365	285	60	71	58	67	40			
QFA-D800R-F QFA-D800R-F-Y	220V~/50Hz/1Ph	高档 High	446	800	380	56	69	55	65	45	250	1150x970x380	58.0
		低档 Low	382	660	345	60	71	58	67	43			
QFA-D1000R-F QFA-D1000R-F-Y	220V~/50Hz/1Ph	高档 High	530	1000	395	59	71	58	67	48	250	1250x970x380	60.0
		低档 Low	425	805	365	62	74	56	66	46			
QFA-D1500R-F QFA-D1500R-F-Y	220V~/50Hz/1Ph	高档 High	1165	1500	485	55	68	54	64	50	310 x 260	1200x1070x445	80.0
		低档 Low	945	1240	470	58	70	57	66	48			
QFA-D2000R-F QFA-D2000R-F-Y	220V~/50Hz/1Ph	高档 High	1420	2000	510	58	69	54	64	52	310 x 260	1200x1070x445	83.0
		低档 Low	1195	1490	490	63	71	58	66	50			

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						制冷 Cooling	制热 Heating	制冷 Cooling	制热 Heating					
						高档 High	低档 Low	高档 High	低档 Low					
QFA-D150P-F QFA-D150P-F-Y	220V~/50Hz/1Ph	高档 High	116	150	195	64	78	65	69	38	125	865x730x245	25.8	
		低档 Low	96	125	185	65	79	64	73	36				
		QFA-D250P-F QFA-D250P-F-Y	高档 High	150	250	235	65	77	64	68	40	150	865x730x245	25.8
			低档 Low	128	215	225	66	80	66	72	38			
		QFA-D350P-F QFA-D350P-F-Y	高档 High	370	350	340	50	77	59	68	42	150	1085x860x275	42.3
			低档 Low	305	305	320	55	81	63	71	40			
		QFA-D500P-F QFA-D500P-F-Y	高档 High	475	500	405	56	70	56	66	43	200	1085x860x275	42.3
			低档 Low	396	435	365	60	71	58	67	41			
		QFA-D800P-F QFA-D800P-F-Y	高档 High	450	800	350	52	71	57	65	45	250	1350x1070x380	70.0
			低档 Low	355	660	330	51	78	65	72	43			
		QFA-D1000P-F QFA-D1000P-F-Y	高档 High	700	1000	460	58	69	55	67	48	250	1350x1070x380	80.0
			低档 Low	500	820	430	61	72	59	68	46			
QFA-D1500P-F QFA-D1500P-F-Y	高档 High	1150	1500	520	55	68	60	62	52	310 x 260 400 x 300	1400x1220x445	106.0		
	低档 Low	870	1200	470	52	61	65	68	50					
QFA-D2000P-F QFA-D2000P-F-Y	高档 High	1450	2000	550	57	65	63	64	54	310 x 260 400 x 300	1400x1220x445	106.0		
	低档 Low	1150	1500	520	62	63	67	68	52					
QFA-D2500P-F QFA-D2500P-F-Y	380V~/50Hz/3Ph	低档 Low	1100	2500	175	68	72	66	68	55	475 x 400 345 x 230	1750x1450x680	205.0	
		低档 Low	1200	3000	190	66	72	65	67	58	475 x 400 345 x 230	1750x1450x680	205.0	
		低档 Low	1900	4000	230	66	72	65	67	62	550 x 400 345 x 230	1870x1600x680	230.0	
		低档 Low	3000	5000	280	66	72	65	67	64	650 x 470 360 x 265	2000x1800x750	290.0	
		低档 Low	3100	6000	320	68	73	66	68	66	650 x 470 385 x 287	2000x1800x750	290.0	
		低档 Low	4000	8000	380	68	73	66	68	68	578 x 478 420 x 320	2250x1850x890	360.0	

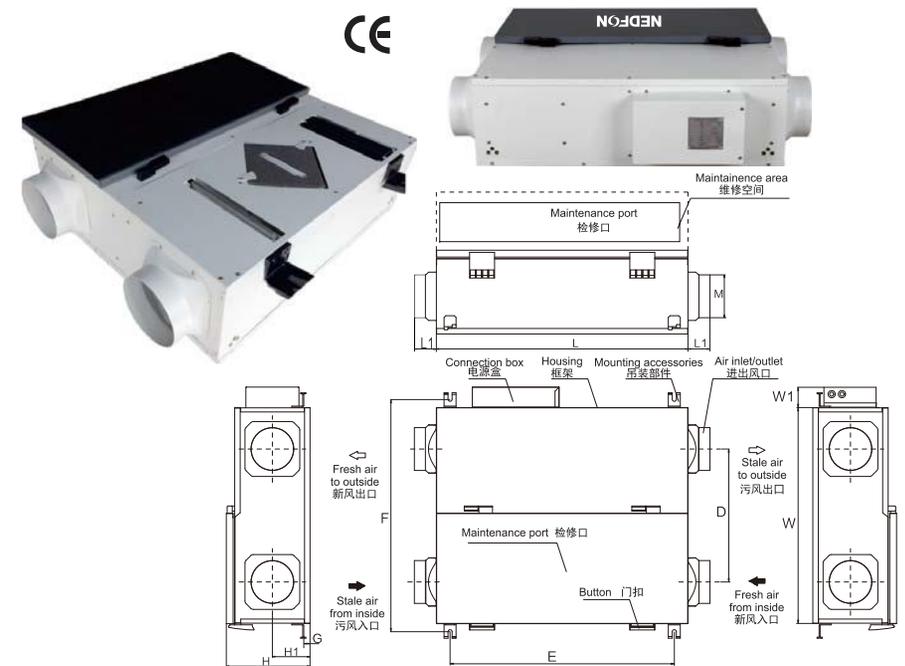
Electrical Ratings 技术参数

产品型号 Model No.	额定电压/频率/相数 Rated Voltage/ Frequency/ Phase	功率 Power (W)	风量 Air Volume (m³/h)	静压 Static Pressure (Pa)	温度交换效率 Sensible Heat Efficiency (%)		焓交换效率 Enthalpy Efficiency (%)		噪音 Noise (dB(A))	管口尺寸 Duct Size (mm)	外形尺寸 Unit Size L x W x H (mm)	净重 Net Weight (kg)
					制冷 Cooling	制热 Heating	制冷 Cooling	制热 Heating				
					高档 High	低档 Low	高档 High	低档 Low				
QFA-D2500R-S QFA-D3000R-S QFA-D4000R QFA-D4000R-Y QFA-D5000R QFA-D5000R-Y QFA-D6000R QFA-D6000R-Y QFA-D8000R QFA-D8000R-Y QFA-D10000R QFA-D10000R-Y	380V~/50Hz/3Ph	900	2500	220	70	75	66	69	59	350 x 220	1420x1295x480	145
		1100	3000	230	69	75	65	68	60			
		1300	4000	260	69	75	65	68	63	475 x 400 345 x 230	1710x1305x680	205
		2000	5000	280	69	75	65	68	65	550 x 400 345 x 230		
		3200	6000	300	71	76	66	69	66	650 x 470 360 x 265	1960x1655x750	290
		6000	8000	300	71	76	65	69	68	578 x 478 420 x 320		
		8000	10000	350	71	76	65	69	68	680 x 540 460 x 360	2350x2054x890	490
		1100	2000	200	76	76	66	70	60	345 x 213		
		1600	2500	200	76	76	66	70	61	345 x 230	1285x1050x1550	255
		1600	3000	210	76	76	66	70	61	345 x 230	1285x1050x1550	280
		2200	4000	220	75	75	65	69	63	360 x 265	1435x1100x1650	318
		3000	5000	260	75	75	65	69	65	360 x 265	1435x1100x1650	385
3000	6000	300	76	76	65	70	64	385 x 287	1585x1100x1650	530		
4400	8000	300	76	76	66	70	68	385 x 296	1885x1200x2150	660		
8000	10000	300	76	76	66	70	69	430 x 335	1885x1200x2150	720		
11000	15000	450	76	76	66	70	72	585 x 470	2435x1200x2450	980		
15000	20000	400	75	75	65	69	74	640 x 520	2435x1200x2600	1150		

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External Dimensions 外形尺寸图



QFA-D150R-F, QFA-D150R-F-Y, QFA-D250R-F, QFA-D250R-F-Y, QFA-D350R-F, QFA-D350R-F-Y, QFA-D500R-F, QFA-D500R-F-Y, QFA-D800R-F, QFA-D800R-F-Y, QFA-D1000R-F, QFA-D1000R-F-Y, QFA-D150P-F, QFA-D150P-F-Y, QFA-D250P-F, QFA-D250P-F-Y, QFA-D350P-F, QFA-D350P-F-Y, QFA-D500P-F, QFA-D500P-F-Y, QFA-D800P-F, QFA-D800P-F-Y, QFA-D1000P-F, QFA-D1000P-F-Y

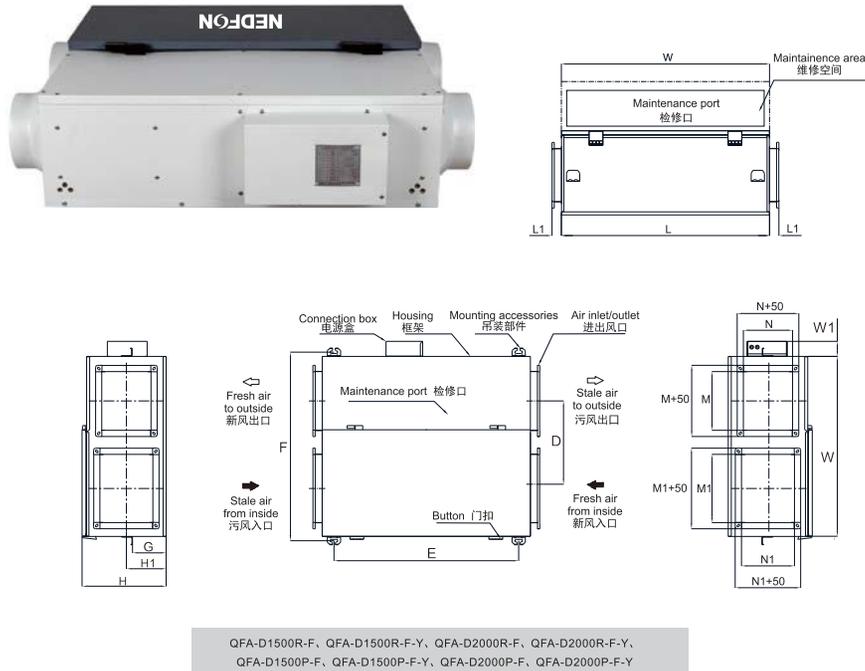
Dimension Table 尺寸表

Unit 单位: mm

型号 Model No.	L	L1	W	W1	H	H1	D	E	F	G	M
QFA-D150R-F, QFA-D150R-F-Y	670	65	550	60	225	100	308	590	597	19	Φ125
QFA-D250R-F, QFA-D250R-F-Y	670	65	550	60	225	100	291	590	597	19	Φ150
QFA-D350R-F, QFA-D350R-F-Y	735	75	630	60	275	125	392	655	677	19	Φ150
QFA-D500R-F, QFA-D500R-F-Y	735	75	630	60	275	125	340	655	677	19	Φ200
QFA-D800R-F, QFA-D800R-F-Y	1000	75	850	80	380	178	483	860	895	145	Φ250
QFA-D1000R-F, QFA-D1000R-F-Y	1100	75	850	80	380	178	483	960	895	145	Φ250
QFA-D150P-F, QFA-D150P-F-Y	735	65	630	60	245	110	388	655	676	18	Φ125
QFA-D250P-F, QFA-D250P-F-Y	735	65	630	60	245	110	388	655	676	18	Φ150
QFA-D350P-F, QFA-D350P-F-Y	935	75	760	60	275	125	469	855	806	18	Φ150
QFA-D500P-F, QFA-D500P-F-Y	935	75	760	60	275	125	469	855	806	18	Φ200
QFA-D800P-F, QFA-D800P-F-Y	1200	75	950	80	380	178	515	1060	993	145	Φ250
QFA-D1000P-F, QFA-D1000P-F-Y	1200	75	950	80	380	160	528	1060	993	145	Φ250

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External Dimensions 外形尺寸图



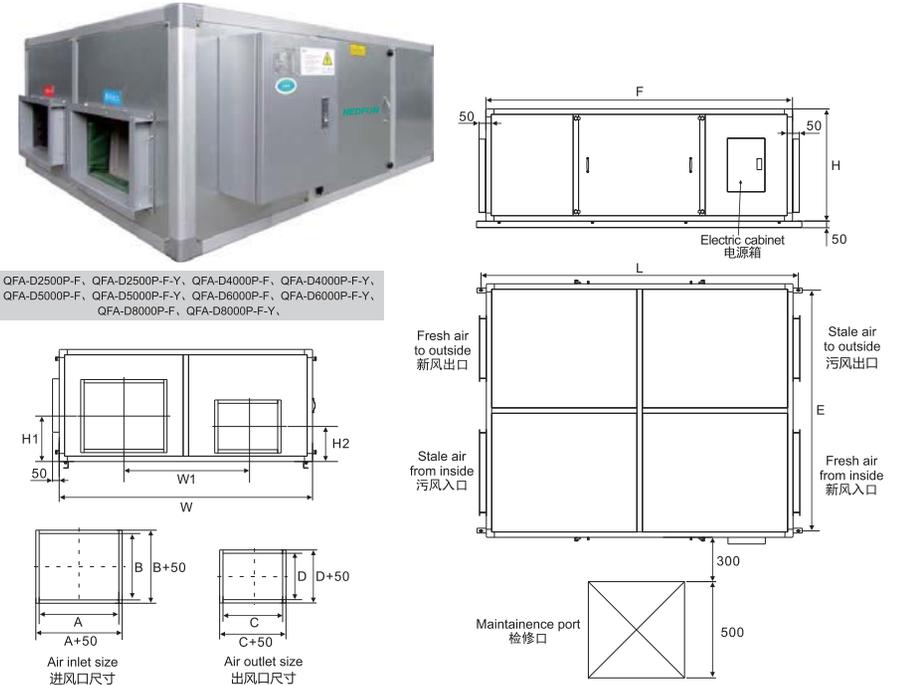
Dimension Table 尺寸表

Unit 单位: mm

型号 Model No.	L	L1	W	W1	H	H1	D	E	F	G	M x N	M1 x N1
QFA-D1500R-F, QFA-D1500R-F-Y	1100	50	950	80	445	210	480	976	995	178	310 x 260	310 x 260
QFA-D2000R-F, QFA-D2000R-F-Y	1100	50	950	80	445	210	462	976	995	178	310 x 260	360 x 280
QFA-D1500P-F, QFA-D1500P-F-Y	1300	50	1100	80	445	210	585	1176	1145	181	310 x 260	400 x 300
QFA-D2000P-F, QFA-D2000P-F-Y	1300	50	1100	80	445	210	585	1176	1145	181	310 x 260	400 x 300

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External Dimensions 外形尺寸图



Dimension Table 尺寸表

Unit 单位: mm

型号 Model No.	L	E	F	W	W1	H	H1	H2	A	B	C	D
QFA-D2500P-F, QFA-D2500P-F-Y	1710	1305	1650	1400	680	630	282	200	475	400	345	230
QFA-D3000P-F, QFA-D3000P-F-Y	1710	1305	1650	1400	680	630	282	200	475	400	345	230
QFA-D4000P-F, QFA-D4000P-F-Y	1830	1455	1770	1550	755	630	282	200	550	400	345	230
QFA-D5000P-F, QFA-D5000P-F-Y	1960	1655	1900	1750	855	700	317	218	650	470	360	265
QFA-D6000P-F, QFA-D6000P-F-Y	1960	1655	1900	1750	855	700	317	218	650	470	385	287
QFA-D8000P-F, QFA-D8000P-F-Y	2230	1725	2150	1800	880	840	350	248	578	478	420	320

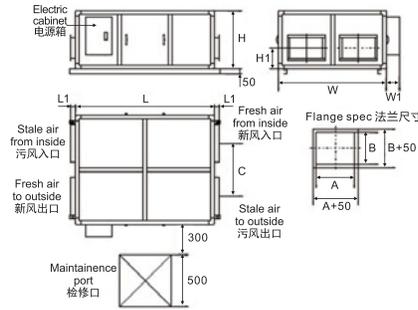
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External Dimensions 外形尺寸图



QFA-D2500R-S, QFA-D3000R-S

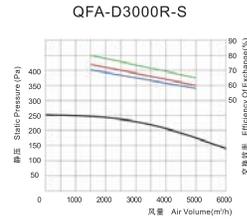
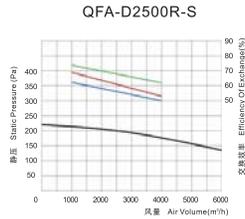


Dimension Table 尺寸表

Unit 单位: mm

型号 Model No.	A	B	C	H	H1	L	L1	W	W1
QFA-D2500R-S	350	220	580	480	180	1320	50	1160	135
QFA-D3000R-S	350	220	580	480	180	1320	50	1160	135

Performance Curve 性能曲线图



- 1、温度交换率 Sensible Heat Efficiency
- 2、焓交换率(制热时) Enthalpy Efficiency(heating)
- 3、焓交换率(制冷时) Enthalpy Efficiency(cooling)

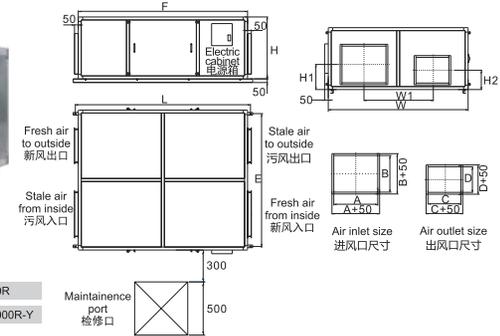
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External Dimensions 外形尺寸图



QFA-D4000R, QFA-D4000R-Y, QFA-D5000R, QFA-D5000R-Y, QFA-D6000R
QFA-D6000R-Y, QFA-D8000R, QFA-D8000R-Y, QFA-D10000R, QFA-D10000R-Y

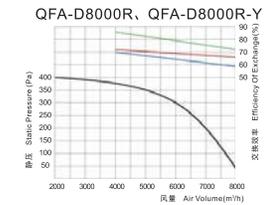
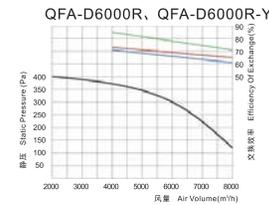
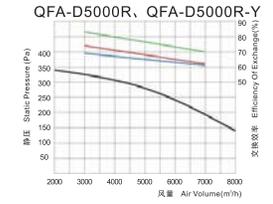
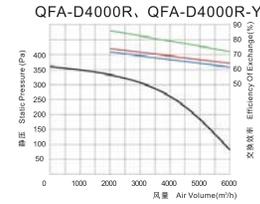


Dimension Table 尺寸表

Unit 单位: mm

型号 Model No.	A	B	C	D	H	H1	H2	L	E	F	W	W1
QFA-D4000R, QFA-D4000R-Y	475	400	345	230	630	282	200	1710	1305	1650	1400	680
QFA-D5000R, QFA-D5000R-Y	550	400	345	230	630	282	200	1830	1455	1770	1550	755
QFA-D6000R, QFA-D6000R-Y	650	470	360	265	700	317	218	1960	1655	1900	1750	855
QFA-D8000R, QFA-D8000R-Y	578	478	420	320	840	350	248	2230	1725	2150	1800	880
QFA-D10000R, QFA-D10000R-Y	680	540	460	360	840	350	261	2350	2054	2270	2150	1055

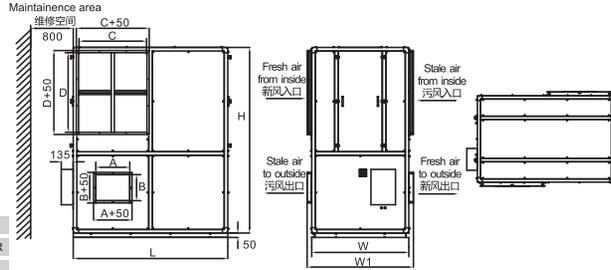
Performance Curve 性能曲线图



- 1、温度交换率 Sensible Heat Efficiency
- 2、焓交换率(制热时) Enthalpy Efficiency(heating)
- 3、焓交换率(制冷时) Enthalpy Efficiency(cooling)

Commercial Energy Recovery Ventilator 商用型全热新风交换机

External Dimensions 外形尺寸图



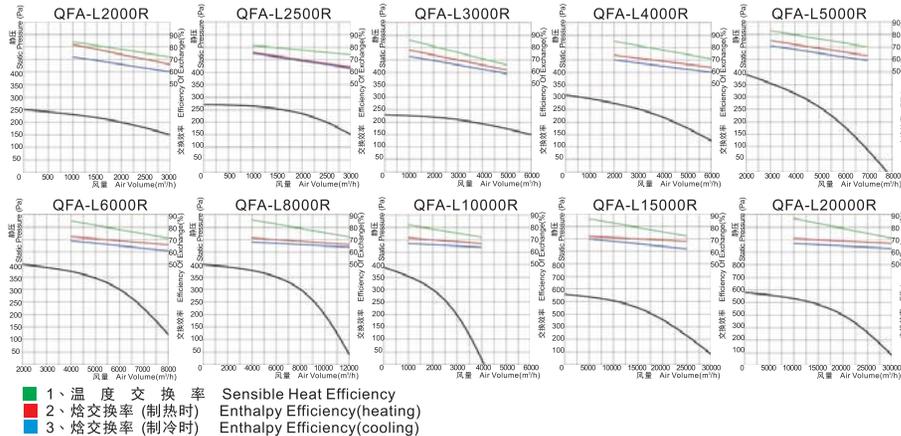
QFA-L2000R, QFA-L2500R, QFA-L3000R, QFA-L4000R
QFA-L5000R, QFA-L6000R, QFA-L8000R, QFA-L10000R
QFA-L15000R, QFA-L20000R

Dimension Table 尺寸表

Unit 单位: mm

型号 Model No.	A	B	C	D	H	L	W	W1
QFA-L2000R	345	213	475	360	1200	1150	950	1050
QFA-L2500R	345	230	475	610	1500	1150	950	1050
QFA-L3000R	345	230	475	610	1500	1150	950	1050
QFA-L4000R	360	265	550	610	1600	1300	1000	1100
QFA-L5000R	360	265	550	610	1600	1300	1000	1100
QFA-L6000R	385	287	625	610	1600	1450	1000	1100
QFA-L8000R	385	296	775	900	2100	1750	1100	1200
QFA-L10000R	430	335	775	900	2100	1750	1100	1200
QFA-L15000R	585	470	1050	1105	2400	2300	1100	1200
QFA-L20000R	640	520	1050	1105	2550	2300	1100	1200

Performance Curve 性能曲线图

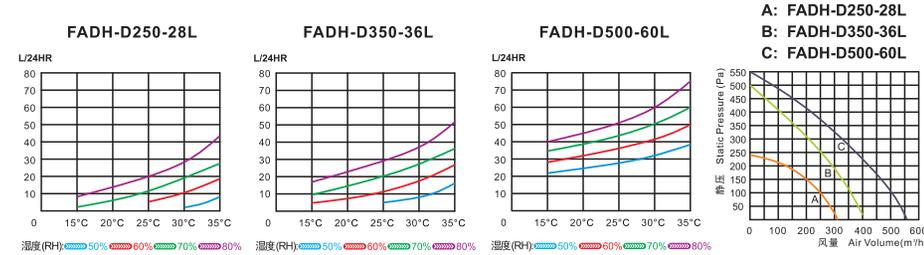


Fresh Air Dehumidifier 新风除湿机



- Multiple Filter Purification of 99.9% 多重滤网净化(99.9%)
- Temperature Sensor 温度传感器
- Humidity Sensor 湿度传感器
- Brand Compressor 品牌压缩机
- UV Sterilizing Lamp 紫外线消毒灯
- Multi-Function Control 多功能控制
- Silent Operation 静音运行

Performance Curve 性能曲线图



Electrical Ratings 技术参数

产品型号 Model No.	额定电压/频率/相数 Rated Voltage/Frequency/Phase	档位 Setting	功率 Power (W)	电流 Current (A)	风量 Air Volume (m³/h) 回风量 Return Air 新风量 Fresh Air	静压 Static Pressure (Pa)	除湿能力 Dehumidity Capacity (L/D)	噪音 Noise (dB(A))	制冷剂 Refrigerant	管口尺寸 Duct Size (mm)	适用面积 Apply Space (m²)	外形尺寸 Unit Size L x W x H (mm)	净重 Net Weight (kg)
FADH-D250-28L	220V~/50Hz/ 1Ph	10 Speed	350	1.6	0~250 0~250	100	28	40	R134A	150	20~60	870 x 492 x 260	44
460			2.1	0~350 0~350	100	36	46	R410A	150	30~80	910 x 492 x 280	50	
730			3.3	0~500 0~500	100	60	50	R410A	150	70~110	965 x 543 x 280	64	

Remark: 1. Test conditions: T=30°C, RH=80%.
2. 所有型号均带初效过滤网、中效过滤网、高效过滤网和紫外线消毒灯。

备注: 1、测试环境: 温度=30°C, 湿度=80%。
2、所有型号均带初效过滤网、中效过滤网、高效过滤网和紫外线消毒灯。