

HEAT&ENERGY RECOVERY VENTILATOR

With PM2.5 purification function



Improving
Air Quality
And Health



HOLTOP

Beijing Holtop Air Conditioning Co., Ltd

Energy recovery ventilator

With PM2.5 purification function, improving air quality and health

SAVIOUR VENTILATION SOLUTION IN HAZE WEATHER

SAY GOODBYE TO AIR POLLUTION



What is PM2.5?

PM2.5:

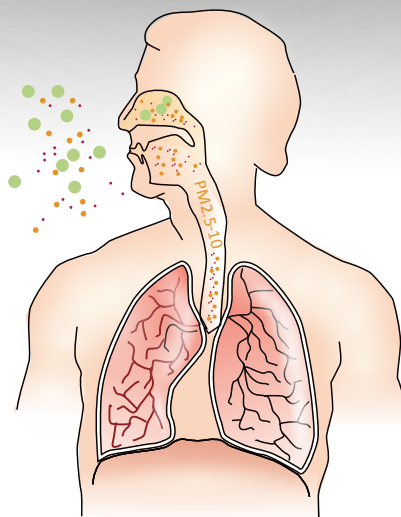
stands for Particulate Matter up to 2.5 micrometers in the air.

PM2.5-10:

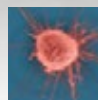
stands for Particulate Matter from 2.5-10 micrometers in the air.

PM10+:

stands for Particulate Matter over 10 micrometers in the air.



Health effects of PM2.5



- Carcinogenesis

According to the research of epidemiology, the polycyclic aromatic hydrocarbon contained in the particulate matters have high relative to the lung cancer incidence and death rate.



- Cardiovascular disease

The particulate matter entering blood will affect the cell's ability to transport oxygen causing congestive heart weakness and coronary artery diseases.



- Harmful substance poisoning

The poisoning gas or heavy metal substances may contain in the PM2.5 and cause people poisoned if they dissolve in the blood.



- Respiratory disease

PM2.5 will enter the bronchus directly and affect the air exchange in the lung, causing asthma and bronchitis.



- Baby developmental defect

The research to the pregnant women in high concentration PM2.5 environment shows that the high concentration of PM2.5 will affect the development of the embryo.

ARE YOU SAFE

IF YOU JUST CLOSE THE WINDOWS AND STAY INDOOR IN HAZE WEATHER?

The answer is NO

- The CO₂ concentration will rise continuously
- Increasing humidity level
- Mites, moulds and harmful bacteria
- Smoke, formaldehyde and other odor gases



Increasing CO₂



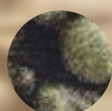
TVOC and odor gas



Higher humidity



Smoke



Mites and moulds



Formaldehyde



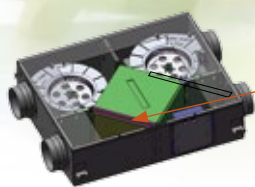
Miss Slim ERV

with high efficiency filter

Breathing Cleaner Air

High efficiency filter of F9 filtration class

Filtration effectiveness 96%

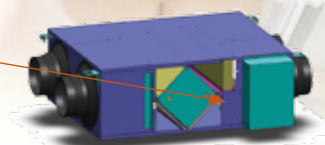


Miss Slim Series

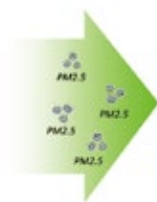
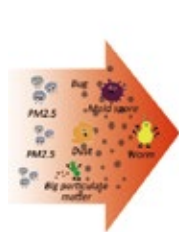


Sub HEPA F9 filter

1. Double high efficient filters;
2. Operating theatre clean class material;
3. Filtration class is up to F9, passing national GB/T 14295 standards.



D Series



Filtration efficiency test report

Filtration effectiveness (%)
96.3

Features of Holtop high purification ERV



Effective ventilation



High purification



Energy recovery



Air filtration



By-pass function



Intelligent control



Perfect silence



Energy saving



Independent operation



Noble design



Centralized control
available



Optional CO₂ control

System Range

Model description

XHBQ - B 1.5 PMT A

① ② ③ ④

- ① B, D ————— B stands for Miss Slim series, D stands for classic suspended series.
- ② 1.5~30 ————— Stands for nominal airflow divided by 100.
- ③ PMT/TL, PMTH, PMTG ————— Stands for different series with PM2.5 filters.
- ④ A or nothing ————— A stands for intelligent controller, Nothing means standard controller.

Example:

XHBQ-B1.5PMTA refers to Miss Slim series with PM2.5 filter and intelligent controller, 150m³/h airflow.

How to select

		150	200	250	300	350	400	600	800	1000	1300	1500	2000	2500	3000
RESIDENTIAL															
COMMERCIAL															
															

Controller

Model Functions	 HDK-08S		 10307			 LH-10705		
	Standard control		Intelligent control					
Type								
Suitable series	PMT	PMTH	PMT	PMTH	PMTG	PMT	PMTH	PMTG
Temperature display	Room temp.		OA/RA/SA/FR temp.			OA/RA/SA/FR temp.		
Speed selection	◆		◆			◆		
Weekly timer	◆		◆			◆		
Bypass	-	Manually	-	Auto	-	-	Auto	-
External ON/OFF	-		◆			◆		
Comfortable heater control	-		◆			◆		
Defrosting	-		◆			◆		
CO ₂ control	-		◆			◆		
Filter alarm	◆		◆			◆		
Fault alarm	-		◆			◆		
Data memory	-		◆			◆		
Night free cooling	-		-	◆	-	-	◆	-
BMS integration	-		◆			◆		
Humidity control	✕		◆			◆		
Defrosting heater control	-		◆			◆		
Working condition monitor	-		◆			◆		



Optional infrared CO₂ sensor / Temperature and Humidity Sensor

Energy recovery ventilator

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Technical specifications

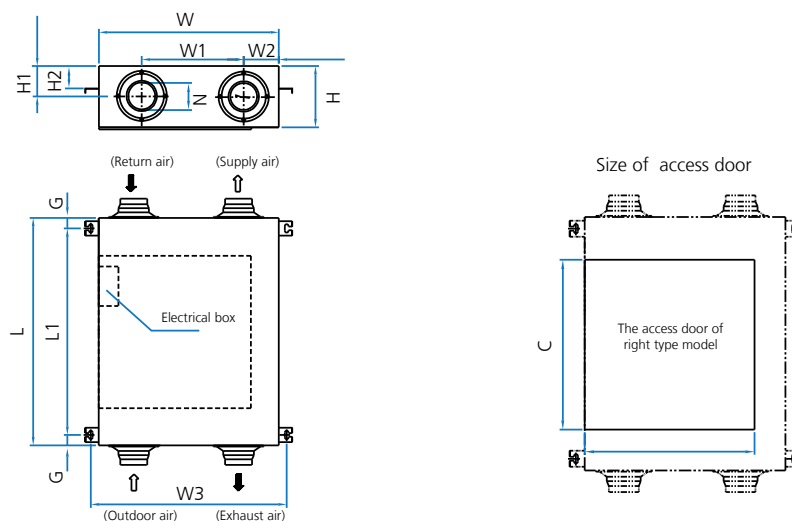
Model	Fan speed	Airflow (m³/h)	E.S.P (Pa)	Temp. efficiency (%)		Enthalpy efficiency (%)		Noise dB(A)	Volt. (V)	Current (A)	Input power (W)	Weight (kg)
				Cooling	Heating	Cooling	Heating					
XHBQ-B1.5PMT	H	150	90	72	80	59	73	31.5	220	0.45	95	27
	M	150	70	72	80	59	73	31		0.43	90	
	L	120	45	73	82	61	75	23		0.33	70	
XHBQ-B2.5PMT	H	250	75	62	73	55	68	34	220	0.66	136	31
	M	250	50	62	73	55	68	33.5		0.6	125	
	L	210	35	64	75	57	70	26.5		0.42	88	
XHBQ-B3.5PMT	H	350	130	65	76	57	68	37	220	1.03	215	42
	M	350	110	65	76	57	68	36.5		1.01	210	
	L	240	40	68	81	62	73	31		0.66	135	

Remarks:

1. The input power, current and temp. efficiency are tested under standard airflow.
2. The noise are tested 1.5m below unit in a semi-anechoic noise testing room. And due to the effect of the ambient noise, it's bigger in the actual applications.
3. All data is tested according to National Standards GB/T 21087-2007.

Dimensions

► XHBQ-B1.5~3.5PMT



Remarks:

1. Suitable duct diameter is $\varnothing 100$;
2. The dimensions don't include the thickness of insulation material;
3. It must have a access for the maintenance of filters, heat exchangers, fan, motor;
4. Please clean the filters and heat exchangers 2 to 4 times every year.

Model	L	L1	W	W1	W2	W3	H	H1	H2	C	G	N
XHBQ-B1.5PMT	750	675	625	373	106.5	682	220	110	80	550	37.5	$\varnothing 98$
XHBQ-B2.5PMT	820	745	650	379	126	707	220	110	80	550	37.5	$\varnothing 144$
XHBQ-B3.5PMT	960	885	770	511	131.5	827	230	115	85	580	37.5	$\varnothing 144$

Energy recovery ventilator

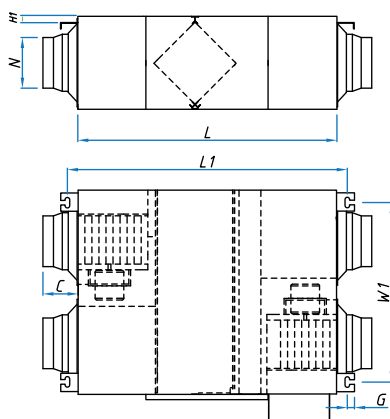
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Technical specifications

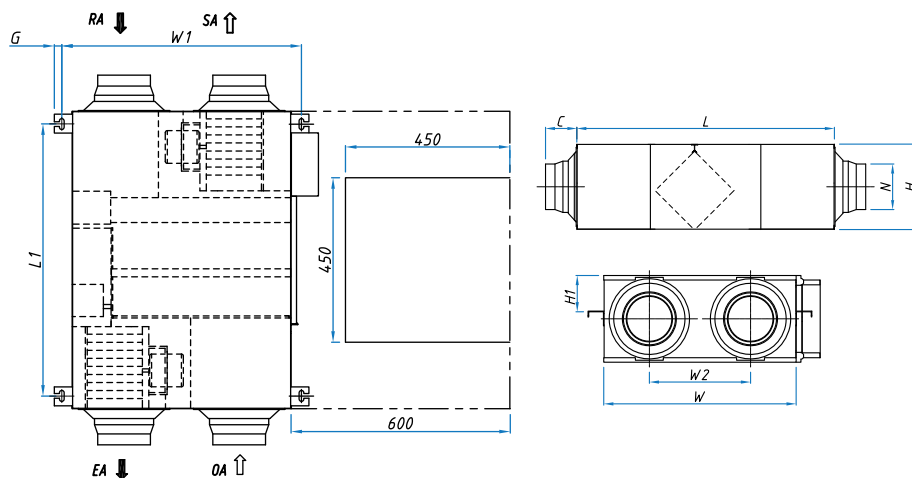
Model	Airflow (m³/h)			External pressure (Pa)			Enthalpy Efficiency (%)						Temp. Eff.(%)			Noise dB(A)			Volt. (V)	Current (A)	Input power (W)	N. W. (Kg)
							Summer			Winter												
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H				
XHBQ-D2PMTH	150	200	200	50	60	65	60	55	55	63	59	59	75	70	70	25	30	31.5	220	0.45	95	24.5
XHBQ-D3PMTH	250	300	300	65	72	75	62	57	57	65	61	61	73	68	68	27	34	34.5	220	0.53	110	26.5
XHBQ-D4PMTH	350	400	400	70	75	78	62	57	57	65	60	60	74	69	69	31	37	37.5	220	0.65	145	33
XHBQ-D6PMTH	500	600	600	79	82	87	63	59	59	67	61	61	76	70	70	29	35	39	220	0.92	195	38
XHBQ-D8PMTH	700	800	800	82	86	90	57	55	55	63	57	57	74	68	68	34	39	41	220	1.7	355	62
XHBQ-D10PMTH	900	1000	1000	70	75	76	60	58	58	64	62	62	76	70	70	34	38	42	220	2.1	440	72
XHBQ-D13PMTH	1000	1300	1300	65	75	80	58	56	56	62	59	59	76	70	70	38	41	43	220	3.4	710	81

Dimensions

► XHBQ-D2PMTH



► XHBQ-D3~13PMTH



Remarks:

1. It must have a access for the maintenance of filters, heat exchangers, fans, motors, and bypass damper.
2. Please clean the filters and heat exchangers 2 to 4 times every year.

Model	L	L1	W	W1	W2	H	H1	C	G	N
XHBQ-D2PMTH	736	795	580	510	290	264	20	100	20.5	Ø 144
XHBQ-D3PMTH	814	745	599	657	315	270	111	100	20.5	Ø 144
XHBQ-D4PMTH	814	745	804	860	480	270	111	100	20.5	Ø 144
XHBQ-D6PMTH	894	824	904	960	500	270	111	107	20.5	Ø 194
XHBQ-D8PMTH	1186	1115	884	940	428	388	170	85	19	Ø 242
XHBQ-D10PMTH	1186	1115	1134	1190	678	388	170	85	19	Ø 242
XHBQ-D13PMTH	1199	1129	1216	1273	321	388	/	85	19	Ø 242

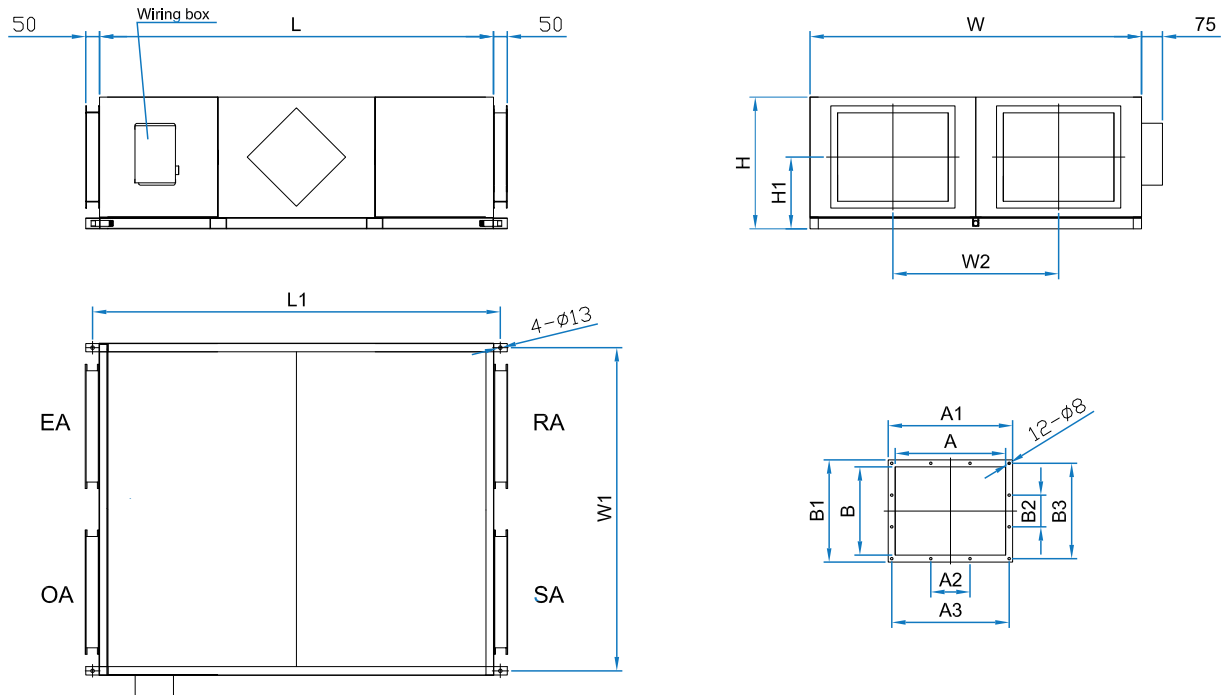
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Model	Airflow (m³/h)			External pressure (Pa)			Enthalpy Efficiency (%)						Temp. Eff.(%)			Noise dB(A)			Volt. (V)	Current (A)			Fan power (W)			N. W. (Kg)
							Summer			Winter																
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H		L	M	H				
XHBQ-D15PMTG	1000	1500	1500	74	125	153	69	66	66	74	70	70	74	71	71	46	49	51	220	2.3	3.6	3.8	485	740	785	115
XHBQ-D20PMTG	1200	2000	2000	95	106	160	65	62	62	74	71	71	74	71	71	49	51	53		3	4.6	4.8	650	980	1020	117
XHBQ-D25PMTG	2000	2500	2500	125	155	185	64	61	61	72	70	70	73	70	70	50	52	55		4.5	6	6.3	940	1250	1300	137
XHBQ-D30PMTG	2500	3000	3000	135	165	195	63	60	60	71	69	69	73	70	70	51	54	57		6.5	8.7	9	1400	1870	1950	150

Dimensions



Model	L	L1	W	W1	W2	H	H1	A	A1	A2	A3	B	B1	B2	B3
XHBQ-D15PMTG	1536	1586	1200	1170	600	510	290	400	450	145	425	320	370	115	345
XHBQ-D20PMTG	1536	1586	1200	1170	600	510	290	400	450	145	425	320	370	115	345
XHBQ-D25PMTG	1810	1860	1400	1370	700	590	345	500	550	175	525	350	400	125	375
XHBQ-D30PMTG	1910	1960	1500	1470	750	660	415	500	550	175	525	350	400	125	375



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