

Installation User Manual

Heat Recovery Ventilation Unit

- ◆ Installation should only be carried out by qualified technicians.
- ◆ For your convenience, please read this manual carefully and carry out all instructions in full.
- ◆ Please keep this manual in good condition for your reference.



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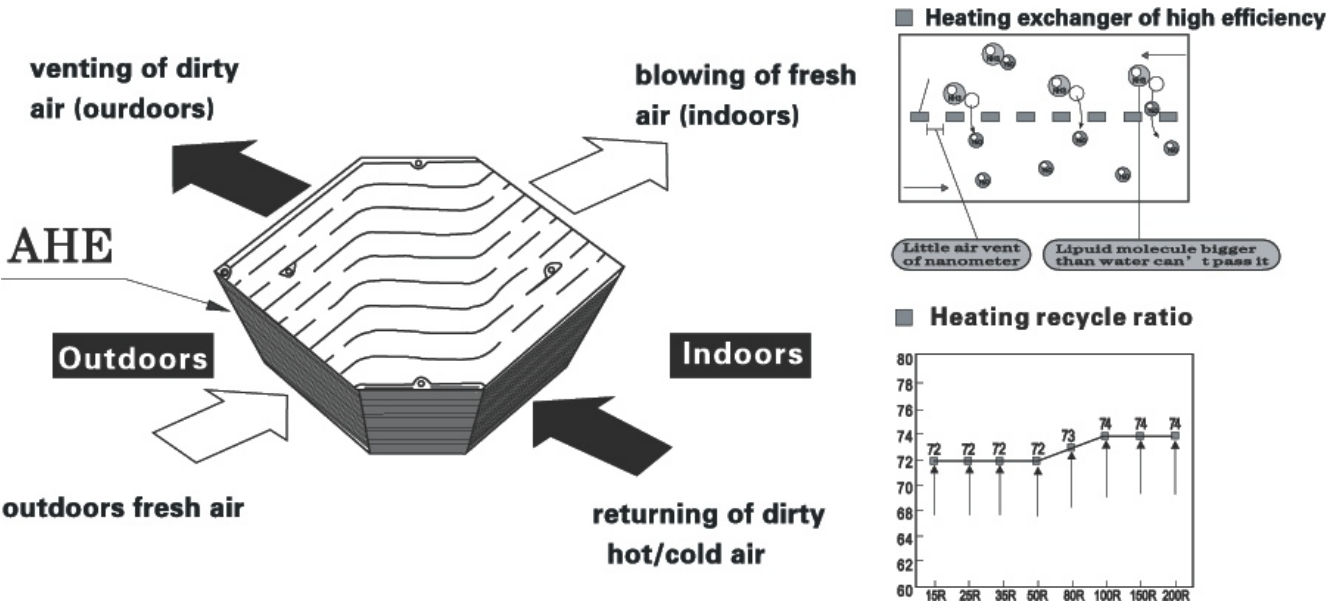
Product Introduction

Nowadays,as the popular use of the air condition,the air in various locations where air condition is used, has been widely polluted. It has a direct impact on the human[] health. In order to improve the air quality of hermetic buildings and save energy, our company produces a new generation of AHE, which thoroughly meets people[] desire of having excellent air in their working and living places; Meanwhile it has a high rate of energy recycle. Fresh air and energy saving are the key characters of this product. The use of this kind of AHE, can effectively recyle the energy lost in the ventilation and save energy at most. Owing to the simultaneous venting and blowing, it is comfortable to live indoors. In order to reach the double aims: air cleaning and energy saving, the cooperation work of AHE and air condition system can improve the indoor air quality,keep the proper index of humidity and temperature, and reduce the fresh air burthen and daily cost of air condition operation. This product is applicable to the high class guest house, office, Conventional centre, exhibit building, hospital,apratment,pharmaceutical factory,etc.

Product Character

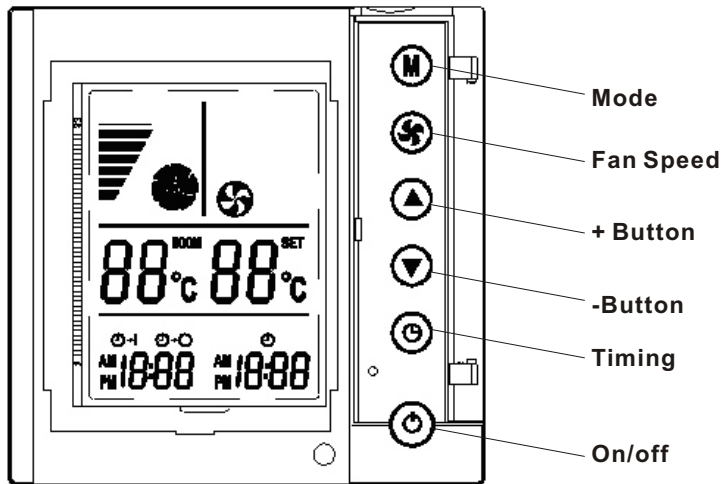
- Save energy and exchange air
Effectively recycle disappearing energy by exchanging air.
- Most energy can be recycled by exchanging air, leading to decrease external pressure dramatically, so appropriately miniaturized air condition becomes possible.
- The function to adjust humidity
Exchange outdoor air and indoor air in both temperature and humidity
- Comfortable exchange air
Owing to inlet and intake air at the same time, the difference of indoor temperature is not obvious during exchanging air. Even in hermetic room, it aslo can steadily exchange air.
- Excellect sound proof effect
The noise between outdoor and indoor can be exchanged, because AHE exchange core and air passage of equipment have nice sound proof effect.

AHE theory and heat exchange core



User Instructions

LCD Wired Controller For Heat Recovery Ventilator

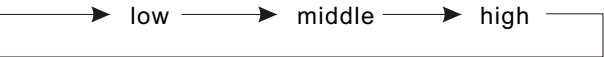


●Panel Display:

Wired control has a man-machine operating interface, with big LCD display, high degree backlighting, six intellectual buttons, on/off LCD indication, infrared radiation control receiving function. Using 3 leads all together with the controller communication linking, the communication line can reach to several dozen meters.

●Operating Part:

- On/off button:**
Press on/off button to realize on/off status of the unit.
- Mode button:**
Press M button ,the display screen turn light.
- Airflow button:**
Under the ventilation mode, press this button to change the fan speed as below:



- Timing button:**
Press this button to change the mode as follows:
Clock setting → Timing on setting → Timing off setting → Recovery
- a)Clock setting
Press Timing button until this button blinking, then press + and - button to set clock. One press + or - can change 1 minute, continuously press more than 10 seconds can realize change by 10 minutes/second.
- b)Timing On setting
Press Timing button until this button 1 blinking, then press + and - button to set timing on time. One press + or - can change 1 minute, continuously press more than 10 seconds can realize change by 10 minutes/second.
- c)Timing Off setting
Press Timing button until this button O blinking, then press + and -button to set timing off time. One press + or - can change 1 minute, continuously press more than 10 seconds can realize change by 10 minutes/second.

- + Button:**
adjust the clock and timing, etc.
- Button:**
Adjust the clock and timing, etc.

● Display Section:

- The mode displaying section:** displaying, ventilation mode, etc.
- The wind speed displaying section:** displaying, low speed ,middle speed, and high speed.
- The temperature displaying section:** displaying the ambient temperature .
- The time displaying section:** displaying the time of the clock, the power on time, the power off time.

Safety Precautions

In order to guard against injury to users and others, please make sure to observe the following rules:

- Can not be used for air exchange of open burning apparatus (such as oil heating, etc).
- Never use switch with wet hand to avoid electric shock.
- Never use burning sprayer near AHE equipment, escaping catching fire.
- Stop equipment and turn off special breaker when it is abnormal (a smell of burnt paste..)
- Make sure to operate under rating voltage, otherwise easily catching fire or resulting in electric shock.
- Pay full attention to special usage.
- Open windows to exchange air as combustible gas is leaking. Do not open equipment group, avoiding explosion.
- Do not put burning apparatus at the position of direct blowing of main equipment[] blowing port.
- Never put fingers or sticks into inlet port or intake port.
- Do not turn around switch repeatedly or hastily, avoiding wrong operation leading to electric power.
- Turn off special breaker for safety if not using equipment for a long term.
- Do not open mouth container with water on the equipment group.
- Do not adjust, dismantle, and refit by yourself. Wrong operation may result in electric shock.

Installation Instructions

Selection Guide

Room Type	Non-smoking					Less-smoking		Heavy smoking
	Ordinary Patients Room	Gymnasium	Cinema & Department Store	Office	Computer Room	Dinning Hall	VIP Guest Room	Meeting Room
Req.fresh air/person Q(m³/h)	17~42	8~20	8.5~21	25~62	40~100	20~50	30~75	50~125
Times for ventilation P(Time/h)	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

Calculation Example


If there is a meeting room with an area of S=60m² and its height of h=3m, and with a total members of 10 persons, according to the first way of calculating, that is each person needs 80m³ fresh air per hour, then Q1=nq=10×80=800m³/h; according to the second way of calculating, then the total amount of fresh air needed is Q2=p×S×h=5.5×60×3=990m³/h.

Here Q2>Q1, so the user should adopt Q2 as the basis of choosing the equipment and select our company Model AHE-100W heat recovery ventilation unit whose air flow rate is 1000m³/h.

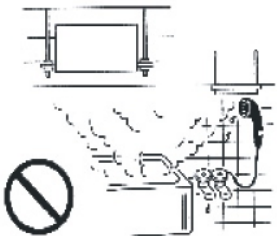
Installation Check-up

Make sure that you do not install the equipment or its ventilation railing bars in the following places:

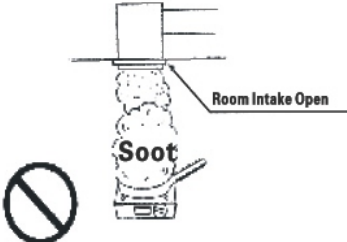
Hot Place
Do not install in hot place where the ambient temperature is above 40°C. High temperature may cause distortion or damage to the filter and AHE core.



Wet Place
Do not install in the wet place such as in the bathroom, or you will cause electric shock or electric device malfunction.



Heavy Oil Smoke Place
The filter and the AHE core can not be used if attached by heavy oil smoke.

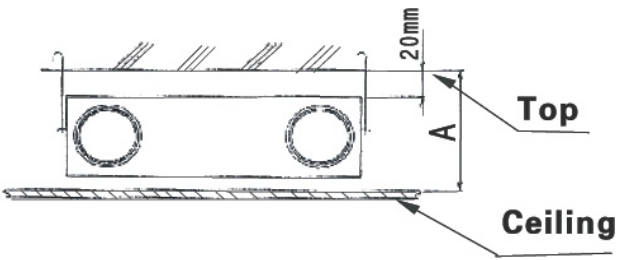


Make sure that the installation of the checkup opening is convenient for the maintenance of the filter and the AHE core and the checking of the machine.

Please do not install in the places such as machinery factory or chemical factory where acid, alkali, organic solvent, dopeor other harmful air and erodible air such as dust, oil smoke may produce.

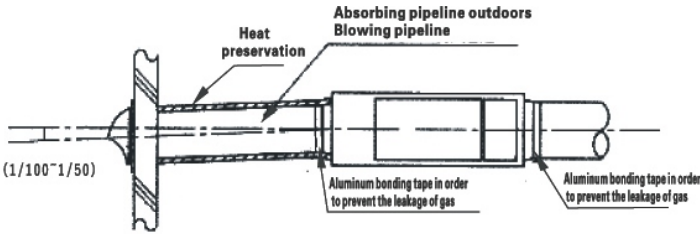
Pipe Installation

Make sure the height between ceiling and the top will never be less than the size required in the following table:



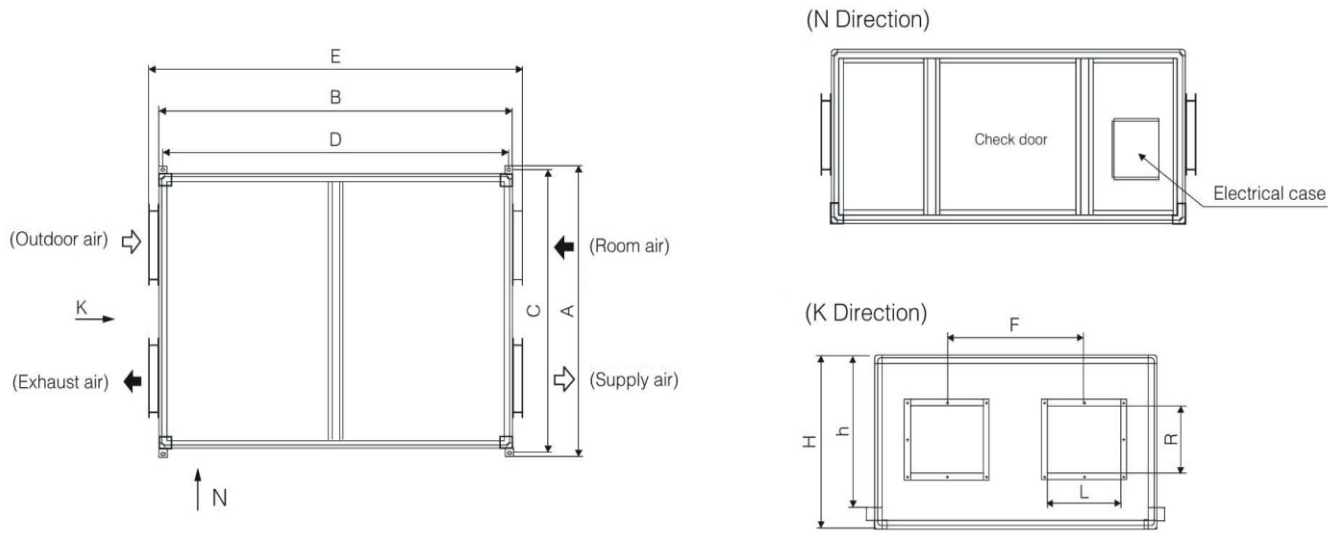
Air Flow(m³/h)	Height between ceiling and top A
1500	650
2000	650
2500	650
3000	650
4000	650
5000	900
6000	900

- During the pipe installation,severe bending,several bending and reducing the diameter of the joining pipe should be avoided.
- In outdoor pipe installation,the pipe should be a little titled in order to prevent the penetration of rains.
- In order to prevent outdoor pipe(indoor pipe if necessary)from freezed dew,heat insulating layer should b made.
- The joining parts of the pipes and its mouths should be cemented by the aluminum bonding tape in order to preven the leakage of gas.
- The distance between indoor inlet pot and indoor intake pot should be as far as possible.



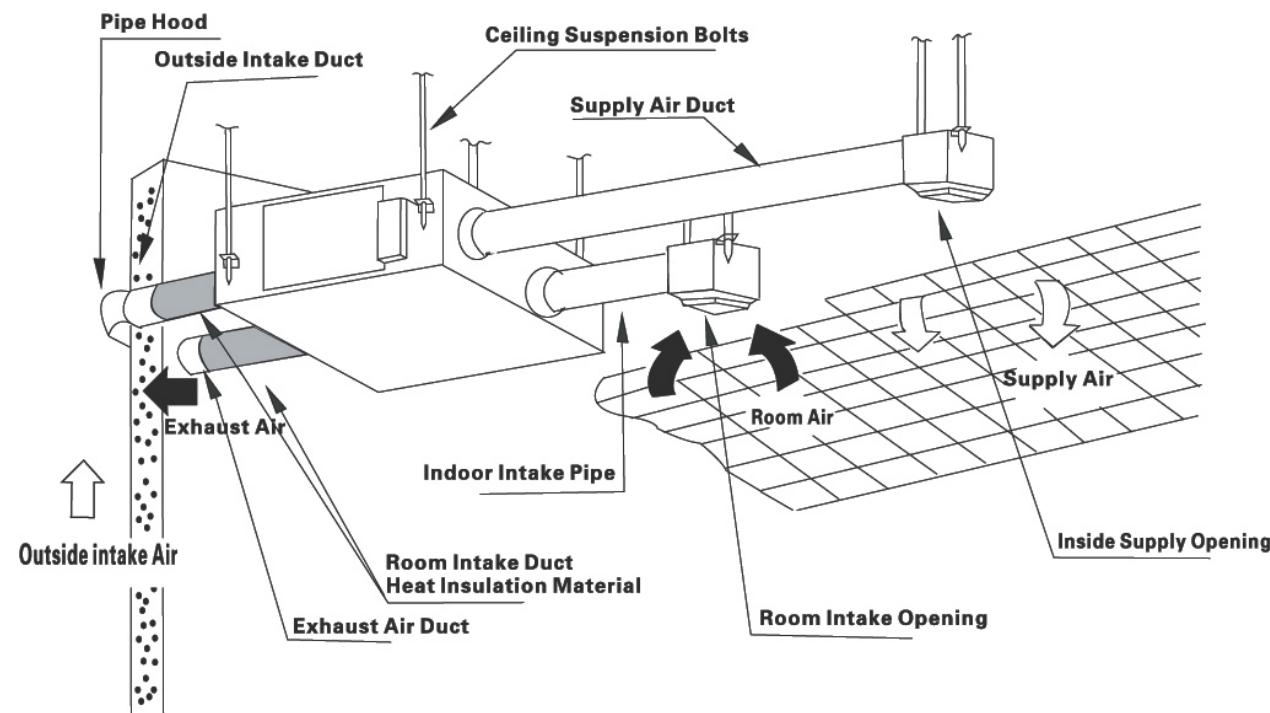
External Dimension

For Model AHE-150WB1 to AHE-600WB1(mm)



Model	A	B	C	D	E	F	H	H	I	L*R	L*R
AHE-150WB1	980	1400	940	1360	1500	430	558	400	1020	230*210	300*260
AHE-200WB1	1120	1480	1080	1440	1580	470	558	400	1160	230*260	330*300
AHE-250WB1	1220	1520	1180	1480	1620	520	558	400	1260	300*260	330*300
AHE-300WB1	1320	1680	1280	1640	1780	570	558	400	1360	330*300	369*310
AHE-400WB1	1520	1680	1480	1640	1780	670	558	400	1560	369*310	450*375
AHE-500WB1	1720	2000	1680	1940	2100	770	838	680	1760	450*375	500*400
AHE-600WB1	1980	2000	1940	1940	2100	900	838	680	2020	500*400	550*450

Installation Diagram



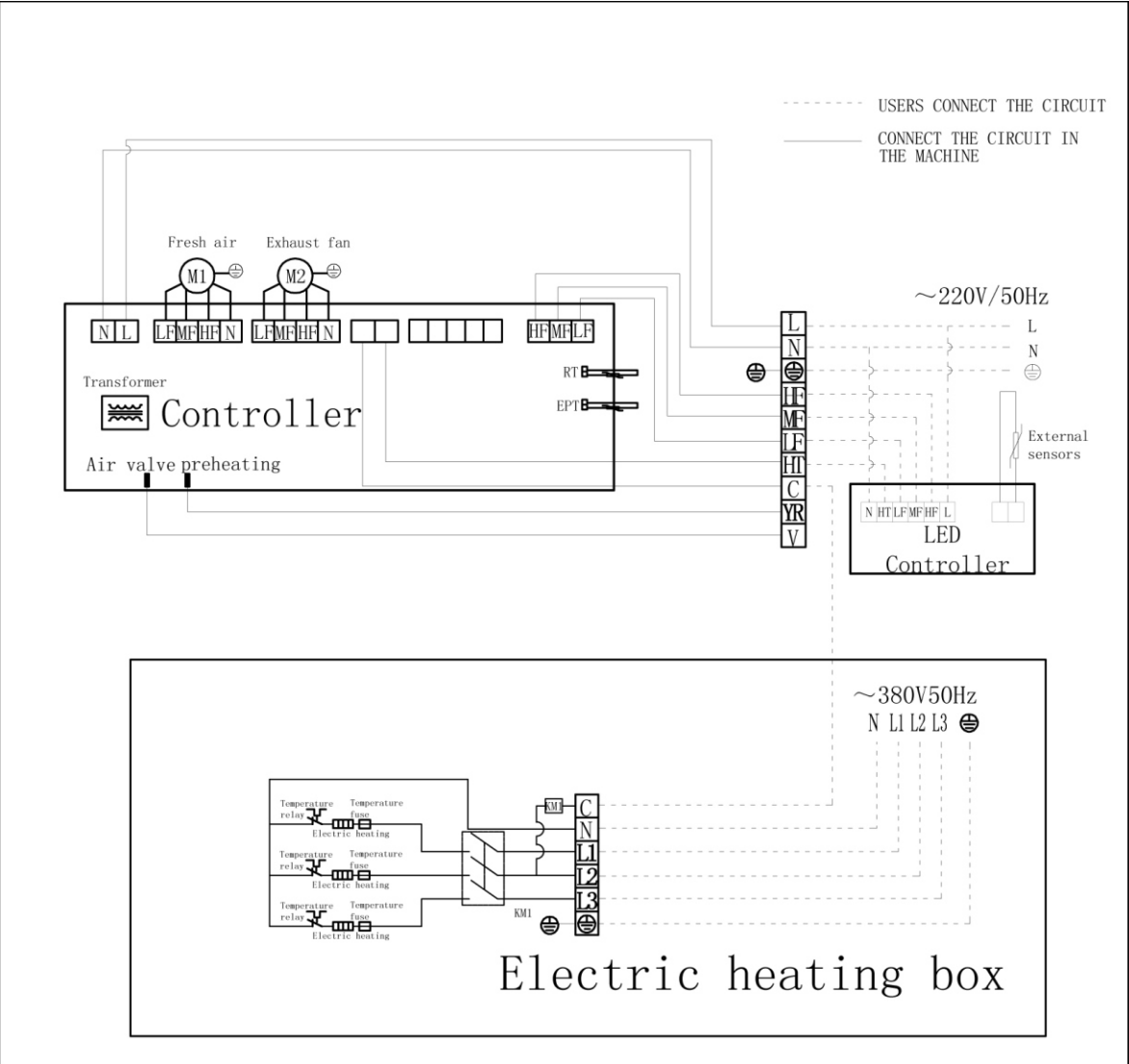
Installation Precautions

- Do not install in the place where there is a heat source or fire.
- Do not install in the place where combustible gas may leak.
- Do not install in the place where a lot of oil smoke may produce, such as kitchen, etc.
- Do not install in the places such as machinery factory or chemical factory where acid, alkali, organic solvent, dope or other harmful air and erodible air such as dust, oil smoke may produce.
- The checkup opening should be installed on the dismantling side of the filter and the AHE core.
- Do install in the strong enough and stable places.
- According to the installation situation, it is recommended to install electricity leakage breaker.
- AHE machine should be installed in the inside of heat insulating layer (heat should be prevented from outside).
- The distance between indoor inlet port and indoor intake port should be as far as possible.
- Choose the appropriate type of pipe.
- Fresh air inlet pipe and ventilation pipe should be in a warm state in order to prevent the leakage.
- Install a net device or the alike outside the inlet opening in order to prevent birds.
- Do not install, dismantle or refit by yourself (entrust the installation project to the sales shop or the special Installation company.).
- The joint parts of the pipe and its mouths should be cemented by the aluminum bonding tape in order to prevent the leakage of gas.
- When the metal pipe drills through metal boards or metal nets or wooden buildings, do make a heat insulating layer between the pipe and the wall.

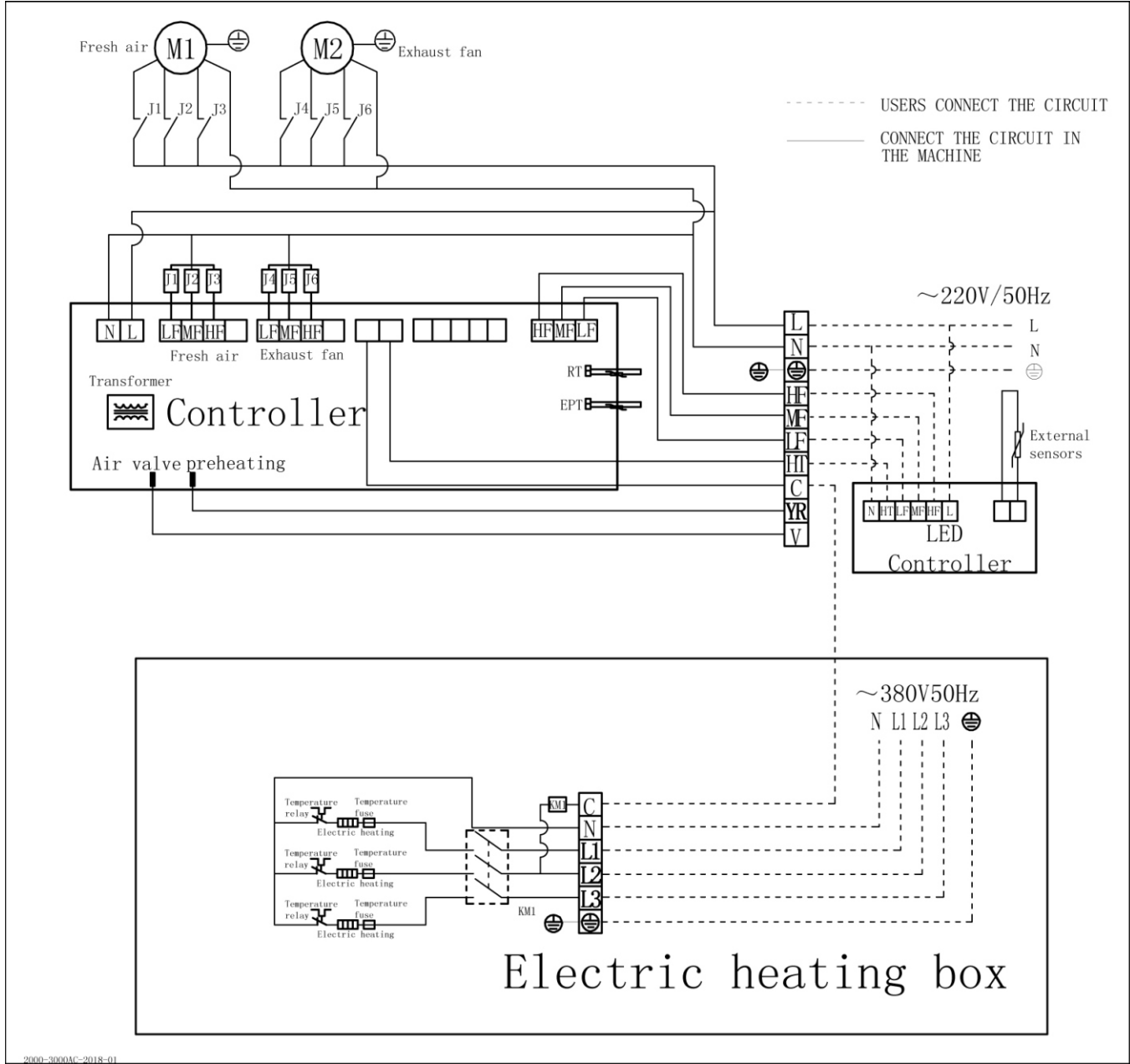
Electric Diagram

Please use the electric diagram as below to connect control circuit of AHE.

For Model AHE-150WB1:



For Model AHE-200WB1 and AHE-300WB1:



Maintenance

- Make sure to turn off running switch and special breaker before maintenance.
- Long-term usage of AHE, filter is always covered with dust or dirty objects, leading to poor air exchange effect. In this case, please regularly clean AHE according to dirty degree, esp in April and May. There is lots of flying dust, which gathers on the filter, resulting in poor air exchange. So remember to clean filter more than twice a month during this period.
- Never use naptha and metal brush when clean filter and AHE core.

1 Pull down and overhaul covering

Lock two knobs rotate 90°, is it stamp to overhaul to pull down

Regular position
Overhaul and cover

Rotate the direction

While installing
Discounting state

2 Pull down the air cleaner

Take the air cleaner (each 1 in Left deviation, right) out to pull down the air cleaner forward

3 Discounting AHE core

Draw forward AHE core out from equipment

800m³/h mode and under

3 discounting AHE core

Draw forward AHE core out from equipment

Heat exchange unit

800m³/h mode and above

4 Using vacuum cleaner

Remove dust on the filter by cleaner

4 Washing filter

Wash filter in water no more than 60 °C with neutral detergent when it is too dirty

5 Drying filter fully

Install filter after full-dry

Never dry by fire

6 Removing dust and foreign objects on the AHE core

Absorb

Never wash by water

Model	AHE-150WB1
Power Supply	220V 50Hz
Power(W)	520/480/410
Air Flow(m³/h)	1500/1350/1200
ESP(Pa)	180
Noise(dB(A))	52/50/48
Efficiency	70%/71%/72%
Unit Size(mm)	1500*1020*558
Weight(kg)	110

Model	AHE-200WB1
Power Supply	220V 50Hz
Power(W)	800/650/600
Air Flow(m³/h)	2000/1800/1600
ESP(Pa)	200
Noise(dB(A))	54/52/50
Efficiency	70%/71%/72%
Unit Size(mm)	1580*1160*558
Weight(kg)	131

Model	AHE-250WB1
Power Supply	220V 50Hz
Power(W)	1100/1000/800
Air Flow(m³/h)	2500/2300/2100
ESP(Pa)	250
Noise(dB(A))	56/54/52
Efficiency	70%/71%/72%
Unit Size(mm)	1620*1260*558
Weight(kg)	145

Model	AHE-300WB1
Power Supply	220V 50Hz
Power(W)	1400/1300/1100
Air Flow(m³/h)	3000/2800/2000
ESP(Pa)	250
Noise(dB(A))	67/68/69
Efficiency	70%/71%/72%
Unit Size(mm)	1780*1560*558
Weight(kg)	167

Model	AHE-400WB1
Power Supply	380V 50Hz
Power(W)	2000
Air Flow(m³/h)	4000
ESP(Pa)	280
Noise(dB(A))	62
Efficiency	70%
Unit Size(mm)	1780*1560*558
Weight(kg)	199

Model	AHE-500WB1
Power Supply	380V 50Hz
Power(W)	2200
Air Flow(m³/h)	5000
ESP(Pa)	300
Noise(dB(A))	64
Efficiency	70%
Unit Size(mm)	2100*1760*838
Weight(kg)	291

Model	AHE-600WB1
Power Supply	380V 50Hz
Power(W)	3000
Air Flow(m ³ /h)	6000
ESP(Pa)	320
Noise(dB(A))	67
Efficiency	70%
Unit Size(mm)	2100*2020*838
Weight(kg)	302

Note:

All statistics above are measured under standard external static stress of equipment, and noise volume is measured direct under 1.5m of AHE equipment when external static stress is 0Pa. Statistics may be not in accordance with finished products because of products-modified. Please take statistics on the nameplate as final standard