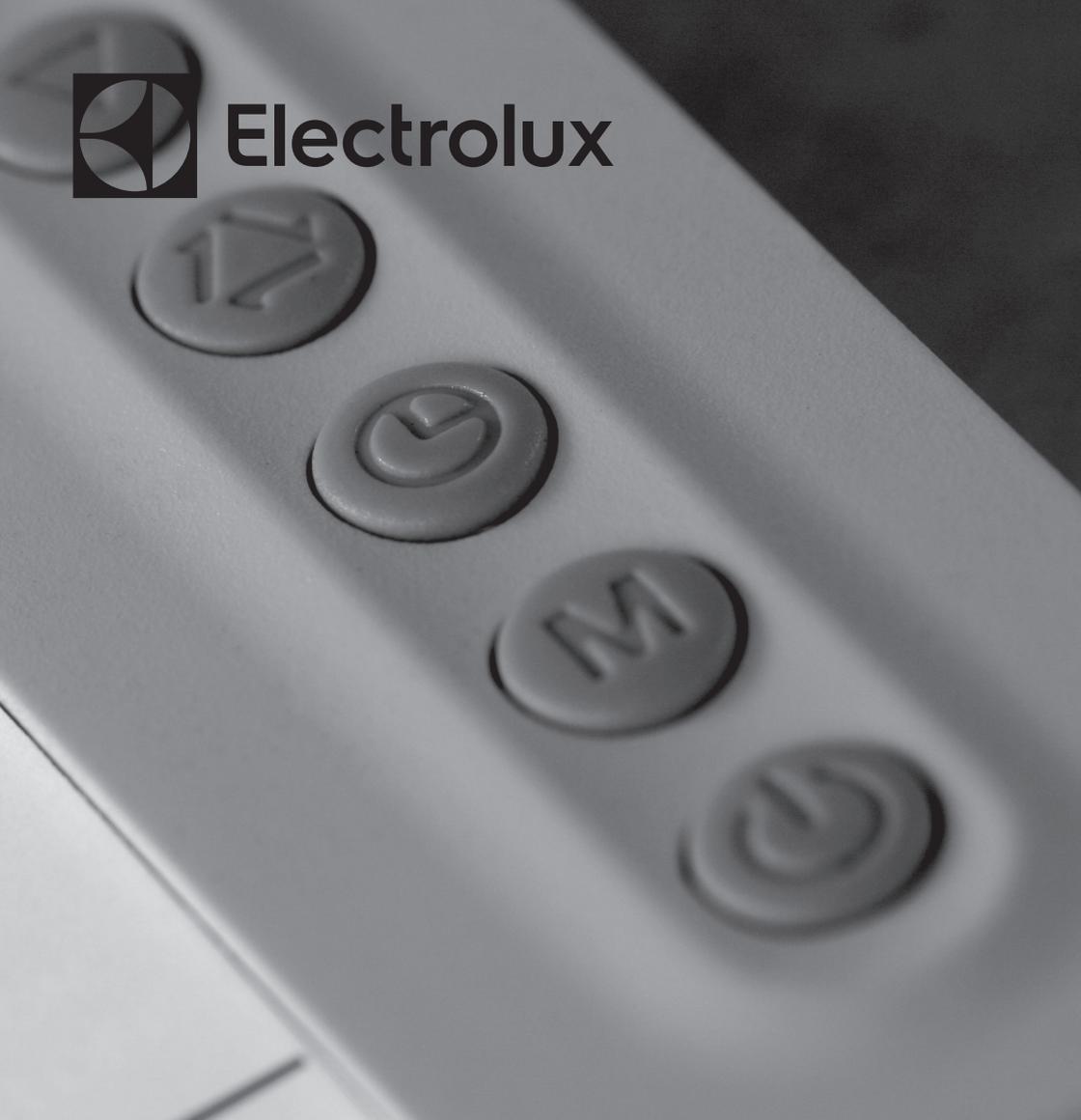




Electrolux



Users' Handbook



EPVS

Users' Handbook

EPVS-200

EPVS-350

EPVS-450

EPVS-650

EPVS-1100

EPVS-1300

Thanks a lot for selecting our products

Please look through the handbook carefully

before using our equipments.

Carefully keep this handbook after reading so as
to consult at any time.

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Production and principle of EPVS for recovery
ventilation equipment 3

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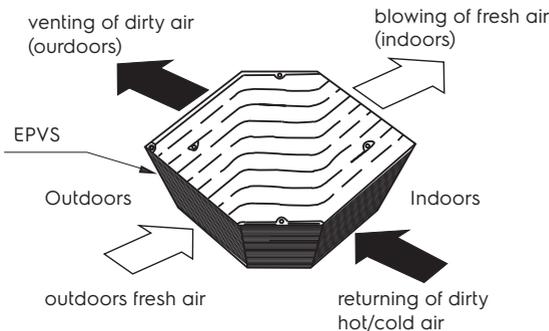
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INTRODUCTION TO THE PRODUCTS

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's health. In order to improve the air quality of hermetic buildings and save energy, our company produces a new generation of EPVS, which thoroughly meets people's 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 EPVS, can effectively recycle 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 EPVS 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, apartment, pharmaceutical factory ,etc.

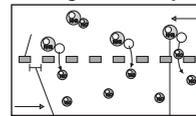


MAIN CHARACTERS OF THE PRODUCTS

- Save energy and exchange air.
- Effectively recycle disappearing energy by exchanging air Reduce Equipment.
- 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.
- Comfortably exchange air.
- Owing to inlet and intake wind at the same time, the difference of indoor temperature is not obvious during exchanging air. Even in hermetic room, it also can steadily exchange air.
- Excellent sound proof effect.
- The noise between outdoor and indoor can not be exchanged, because EPVS core and wind passage of equipment have nice sound proof effect.

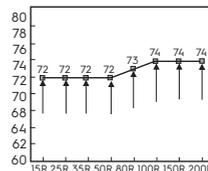
EPVS HEATING EXCHANGER AND ITS THEORY

■ Heating exchanger of high efficiency

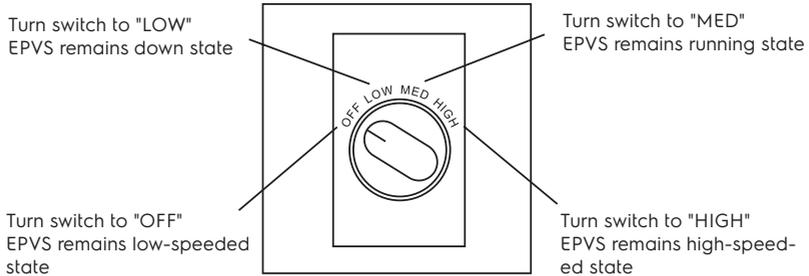


Little air vent of nanometer Lipid molecule bigger than water can't pass it

■ Heating recycle ratio



MANIPULATION GUIDE



USE SAFE PRECAUTIONS

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

A Use the precautions

- Can not be used for air exchange of open burning apparatus (such as oil heating, etc).
- Never manipulate switch with wet hand; avoid electric shock.
- Never use burning sprayer near EPVS 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's 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 barrier.
- Turn off special breaker for safety if not using equipment for a longterm.
- 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.

Guide for choosing the appropriate types

Room Types	Non-smoking				Less-smoking			Heavy-smoking
	Ordinary Patients Room	Gymnasium	Cinema & Department Store	Office	Computer Room	Dinning Hall	VIP Guest Room	Meeting Room
The Fresh Air Needed per person Q (m ³ /h)	17-42	8-20	8.5-21	25-62	40-100	20-50	30-75	50-125
Times for Room Ventilation P (T in e/h)	1.06-2.65	0.50-1.25	1.06-2.66	1.56-3.90	2.50-6.25	1.25-3.13	1.88-4.69	3.13-7.81

EXAMPLE OF CALCULATING

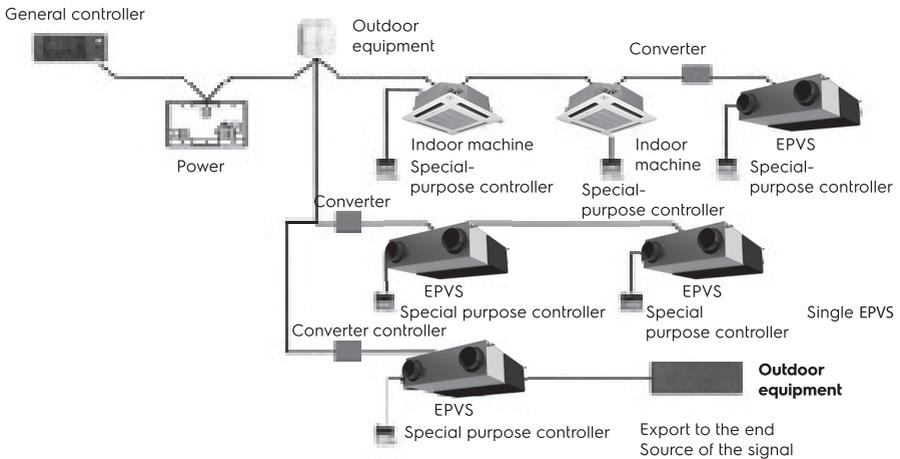
If there is a meeting room with an area of $S=60\text{ m}^2$ and its height of $h=3\text{ m}$, and with a total members of 10 persons, according to the first way of calculating, that is, each person needs 80 m^3 fresh air per hour, then $Q_1=nq=10 \times 80=800\text{ m}^3/\text{h}$; according to the second way of calculating, then the total amount of fresh air needed is $Q_2=p \times S \times h=5.5 \times 60 \times 3=990\text{ m}^3/\text{h}$.

Here $Q_2 > Q_1$, so the user should adopt Q_2 as the basis of choosing the equipment and select our company's EPVS-200 Air Heat Exchanger whose wind rate is $1000\text{ m}^3/\text{h}$.

INSTALLATION GUIDE

Diagram of Net Connection of EPVS and Air Condition System:

The Central Controlling System

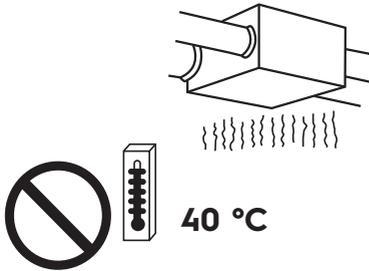


INSTALLATION CHECK- UP

- Make sure that you have not installed the equipment or its ventilation railing bars in the following places:

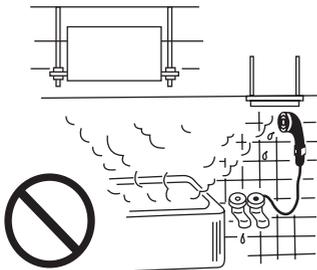
High Temperature or the Sun Heating Place

EPVS equipment installation should not be in the place where the surrounding temperature is above 40 °C. high temperature will cause distortion or damage to the filter and EPVS core.



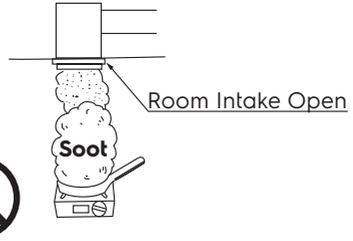
Wet Place

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 EPVS core can not be used if attached by heavy oil smoke.

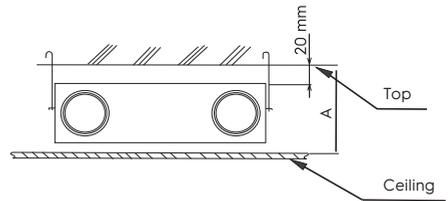


Make sure that the installation of the checkup opening is convenient for the maintenance of the filter and the EPVS core and the checking of the machine.

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.

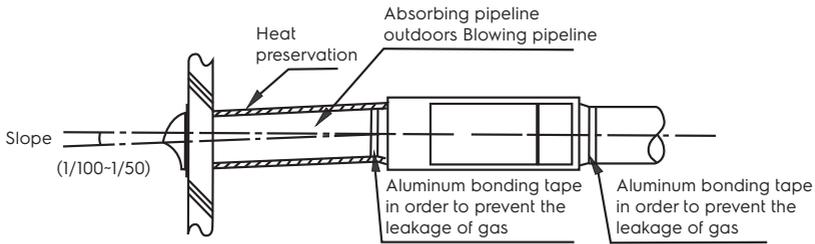
PIPE INSTALLATION

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



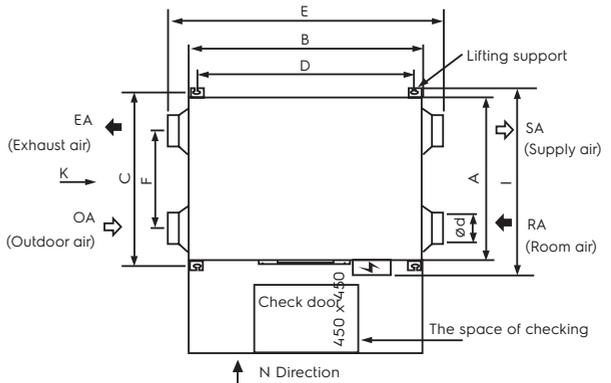
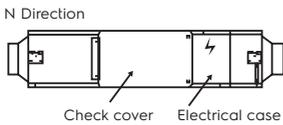
Types	The Height between the ceiling and the top A	Types	The Height between the ceiling and the top A
EPVS-200	320	EPVS-1100	440
EPVS-350		EPVS-1300	
EPVS-450			
EPVS-650			

- 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 tilted in order to prevent the penetration of rains. Slope (1/100-1/50)
- In order to prevent outdoor pipe (indoor pipe if (necessary) from freezed dew, heat insulating layer should be made.
- The joining parts of the pipes and its mouths should be cemented by the aluminum bonding tape in order to prevent the leakage of gas.
- The distance between indoor inlet port and indoor intake port should be as far as possible.

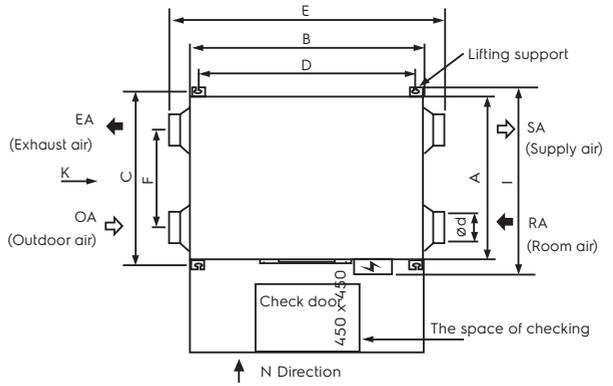
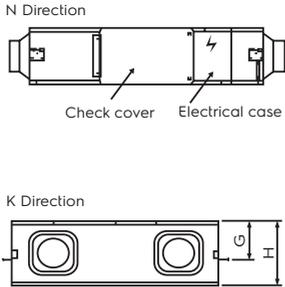


EXTERNAL DIMENSION

EPVS-200



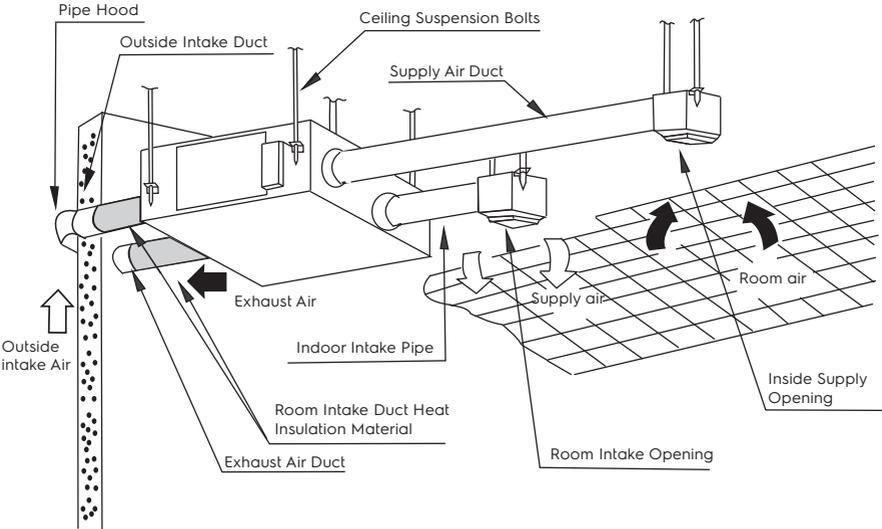
EPVS-350 to EPVS-1300



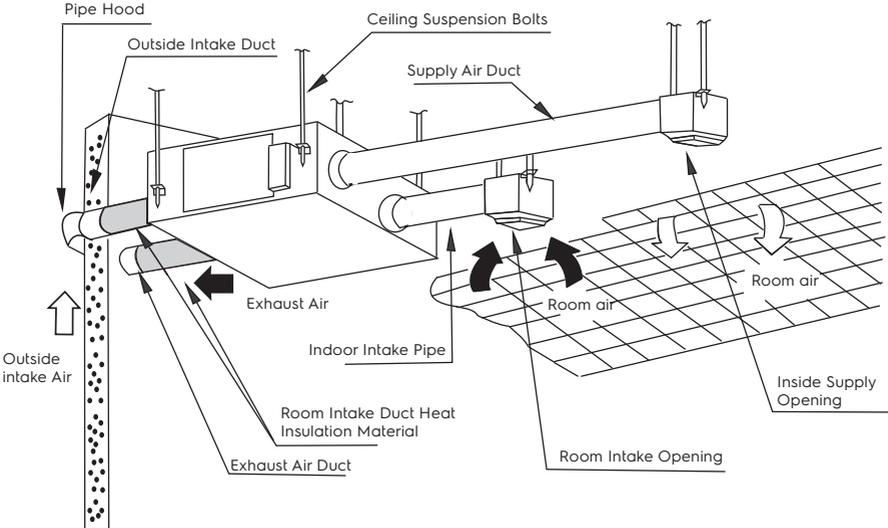
EPVS-200 to EPVS-1300

Types	Profile and Size (mm)										Weight
	A	B	C	D	E	F	G	H	I	ød	
EPVS-200	421	588	463	500	746	240	29	240	507	100	20
EPVS-350	670	885	720	815	1075	342	112	270	784	150	33.5
EPVS-450	810	885	860	815	1075	482	112	270	924	150	39
EPVS-650	997	966	1045	905	1130	728	38	312	1106	200	50.3
EPVS-1100	885	1322	936	1252	1488	430	172	396	995	250	74.4
EPVS-1300	1132	1322	1186	1252	1488	681	172	396	1246	250	89.5

INSTALLATION DIAGRAM



The two outside ducts (the Outside Intake Duct and the Exhaust Duct) must be insulated



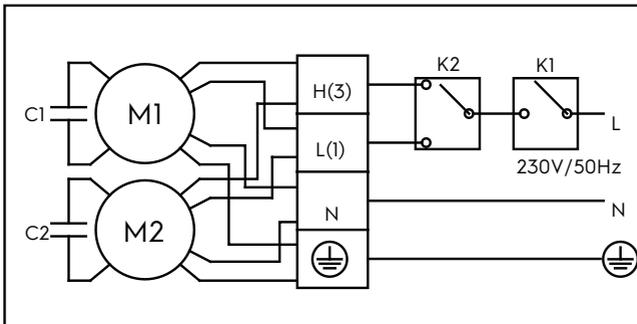
The two outside ducts (the Outside Intake Duct and the Exhaust Duct) must be insulated

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 wet place such as in the bathroom, etc.
- Please 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 dismounting side of the filter and the EPVS core.
- Install in the strong enough and stable places.
- According to the installation situation, it is recommended to install electricity leakage breaker.
- EPVS machine should be installed in the inside of heat insulating layer (heat should be prevented from outside).
- Intake port installation position should be in the place where the air will not return directly.
- 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 pipes and its mouths should be cemented by the aluminum bonding tape in order to prevent the leakage of gas.
- When the mental pipe drills through metal boards or metal nets of wooden buildings, do make a heat insulating layer between the pipe and the wall.

CONNECTION OF CIRCUIT

Please use the schematic diagram as follow to connect controlling circuit of EPVS-200:

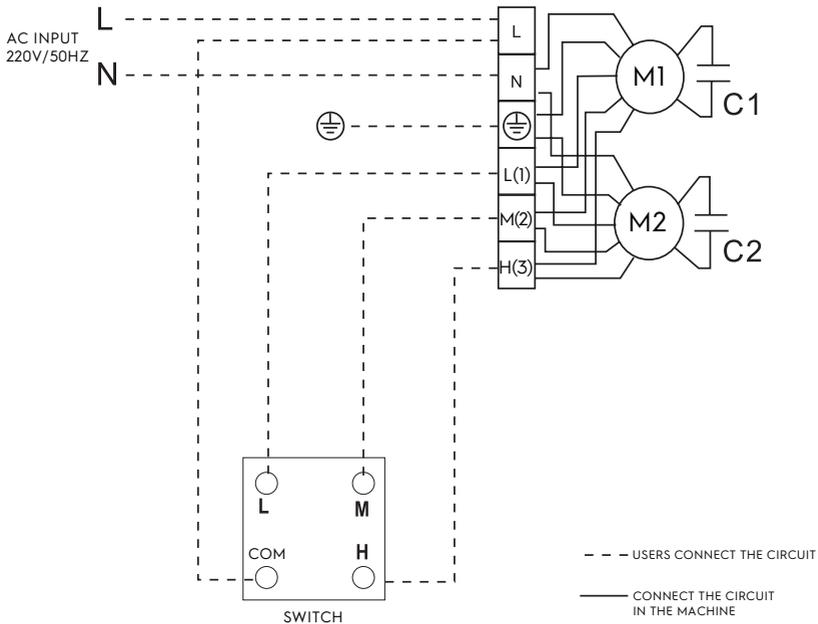


Explanation:

- wire connection in broken lines in the wiring diagram must be conducted by the builder.
- After completion of wiring, check again there is no wrong wiring before power "ON".
- We recommend that you use a switch with more than 3mm distance to break contact and more than 10A rated current.

- We recommend that you use the polyvinyl chloride insulated and sheathed cables for
- fixed wiring with (ø1.38, ø1.78 in diameter or 1.5–2.5 mm² in conformity).

Please use the schematic diagram as follow to connect controlling circuit of EPVS-350~EPVS-1300:



Explanation:

- Wire connection in broken lines in the wiring diagram must be conducted by the builder.
- After completion of wiring, check again there is no wrong wiring before power "ON".
- We recommend that you use a switch with more than 3mm distance to break contact and more than 10A rated current.

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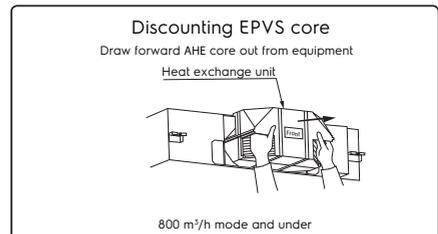
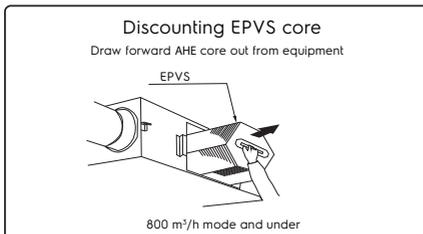
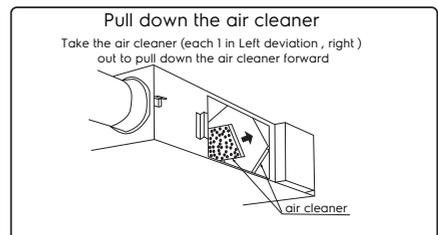
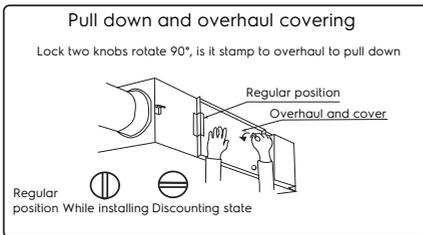
TRY TO OPERATE

- Make sure to check line connection state and try to operate after installation.
- Open the power after finishing line connection, and try to operate as right table to check state of blowing air.
- It can be considered something wrong with connection when operation is not in common. Please turn off special breaker and connect correctly at once in order to prevent from electric shock.

Switch setup	Checked sides
Adjusting Switch of Wind Volume	The state of blowing air
Strong (Extra Strong)	Check wind volume from inlet and intake port is in the charge of "Strong (extra strong),weak" or not
Weak	

MAINTENANCE

- Make sure to turn off running switch and special breaker before maintenance.
- Long-term usage of EPVS, filter is always covered with dust or dirty objects, leading to poor air exchange effect. In this case, please regularly clean EPVS 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 naphtha and metal brush when clean filter and EPVS core.
- Never clean EPVS equipment and its core, but use soft cleaned brush to brush the dirty side gently or cleaner to remove dust.



Using vacuum cleaner

Remove dust on the filter by cleaner



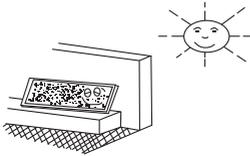
Washing filter

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



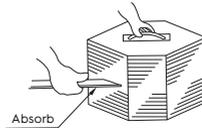
Drying filter fully

Install filter after full-dry



⚠ Never dry by fire

Removing dust and foreign objects on the AHE core



⚠ Never wash by water

After cleaning ,please return EPVS core and filter cover over hauled lid



ERC CE IPX0  