

MOXA MEV HX

Single Flow Extract Ventilation Unit

ET-020001/B

INSTALLATION, MAINTENANCE & USER GUIDE

Read this manual carefully before using the product and keep it in a safe place for reference. This product was constructed up to standard and in compliance with regulations relating to electrical equipment and must be installed by technically qualified personnel. The manufacturer assumes no responsibility for damage to persons or property resulting from failure to observe the regulations contained in this booklet.

PRECAUTIONS FOR INSTALLATION, USE & MAINTENANCE

TRANSPORT AND STORAGE

01. Do not leave the device exposed to atmospheric agents (rain, sun, snow, etc.).
02. Duct connections/duct ends must be covered during storage and installation.

INSTALLATION

03. After removing the product from its packaging, verify its conditions. Do not leave packaging within the reach of children or people with disabilities.
04. Beware of sharp edges. Use protective gloves.
05. The device should not be used as an activator for water heaters, stoves, etc., nor should it discharge into hot air/fume vent ducts deriving from any type of combustion unit or tumble dryer.
06. If the environment in which the product is installed also houses a fuel-operating device (water heater, methane stove etc., that is not a "sealed chamber" type), it is essential to ensure adequate air intake, to ensure good combustion and proper equipment operation.
07. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
08. The electrical system to which the device is connected must comply with local regulations.
09. Before connecting the product to the power supply or the power outlet, ensure that:
 - the data plate (voltage and frequency) correspond to those of the electrical mains;
 - the electrical power supply/socket is adequate for maximum device power.
10. For installation, an omnipolar switch should be incorporated in the fixed wiring, in accordance with the wiring rules, to provide a full disconnection under overvoltage category III conditions (contact opening distance equal to or greater than 3mm).
11. Ensure adequate air return into the room in compliance with existing regulations in order to ensure proper device operation.

12. Install the product so that the impeller is not accessible from the air outlet side as verified by contact with the Test Finger (test probe "B" of the norm EN61032) in compliance with the current safety regulations.

USE

13. The device should not be used for applications other than those specified in this manual.
14. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance.
15. Cleaning and user maintenance shall not be made by children without supervision.
16. Do not touch the appliance with wet or damp hands/feet.
17. The device is designed to intake clean air only, i.e. without grease, soot, chemical or corrosive agents, or flammable or explosive mixtures.
18. Do not use the product in the presence of inflammable vapours, such as alcohol, insecticides, gasoline, etc.
19. The system should operate continuously, and only be stopped for maintenance/service.
20. Do not obstruct ducts or grilles to ensure optimum air passage.
21. Do not immerse the device or its parts in water or other liquids.
22. Operating temperature: 0°C up to +40°C.

SERVICE

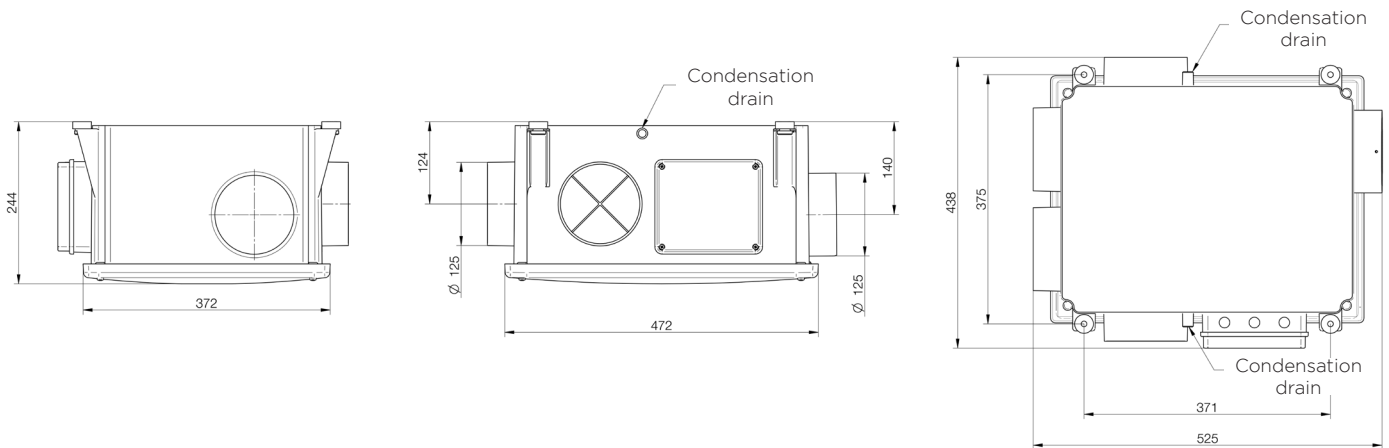
23. Although the mains supply to the unit has been disconnected there is still risk for injury due to rotating parts that have not come to a complete standstill.
24. Beware of sharp edges. Use protective gloves.
25. Use original spare parts only for repairs.

INTRODUCTION

MOXA MEV HX is a whole-house centralised mechanical extract unit, designed to be connected to adjustable air valves. Suitable for wall, ceiling, false-ceiling and floor installation, for horizontal or vertical mounting.

MOXA MEV HX is supplied with 1xØ125mm outlet to exhaust air to the outside and 4xØ125mm inlets to draw stale air out from inside. It comes as standard with an integral humidity sensor.

DIMENSIONS



TRANSPORT AND STORAGE

The appliance is delivered in one carton box.

The appliance should be stored and transported in such a way that it is protected against physical damage that can harm spigots, casing, display etc.

It should be covered so that dust, rain and snow cannot enter and damage the unit and its components.

MAINTENANCE

The fan should be inspected regularly, and cleaning should be carried out as and when required but please note intervals between cleaning should not exceed 12 months.

WARNING: Make sure that specific warnings and cautions in the “Precautions for Installation, Use & Maintenance” are carefully read, understood and applied.

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INSTALLATION

WARNING: Make sure that the mains supply to the unit is disconnected before performing any installation, service, maintenance or electrical work. The installation and service of the unit and complete ventilation system must be performed by an authorised installer and in accordance with local rules and regulations. If any abnormality in operation is detected, disconnect the device from the mains supply and contact a qualified technician immediately.

IMPORTANT: The unit must be installed according to these instructions.

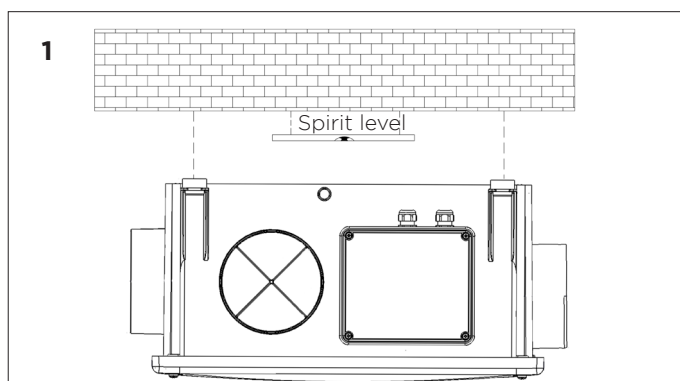
WHERE/HOW TO INSTALL

- All MOXA MEV HX units are meant for indoor installation in a heated space.
- In unheated spaces, only floor installation is recommended with the condensation drain connected.
- The unit can be mounted vertically and horizontally.
- Mount the unit on a flat surface.
- When choosing the location it should be kept in mind that the unit requires maintenance regularly and that the inspection door should be easily accessible.
- Leave free space for opening the removable panels and for removal of the main components.
- Prepare the surface on which the unit is to be mounted. Ensure that the surface is flat, levelled and built to support the weight of the unit. Do the installation in accordance with the local rules and regulations in force.
- Use appropriate screws (not supplied) to fix the unit. It is recommended to fit the unit with anti-vibration mounts (supplied).

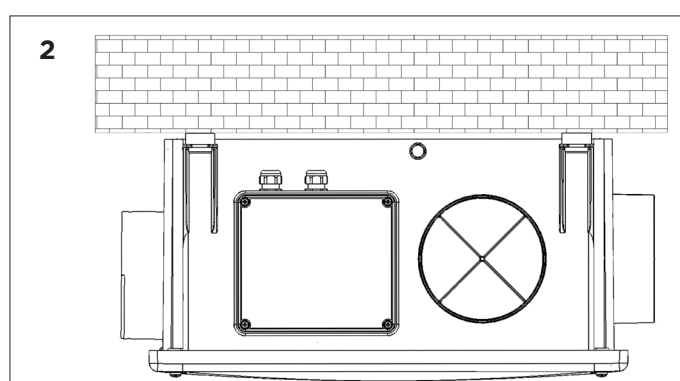
NOTE: Make sure that enough space is left around the unit to allow easy maintenance..

CEILING INSTALLATION

The unit must be installed in the following position.



Prepare the surface where the unit is to be mounted. Make sure that the surface is flat, levelled and that it supports the weight of the unit. Perform the installation in accordance with local rules and regulations.

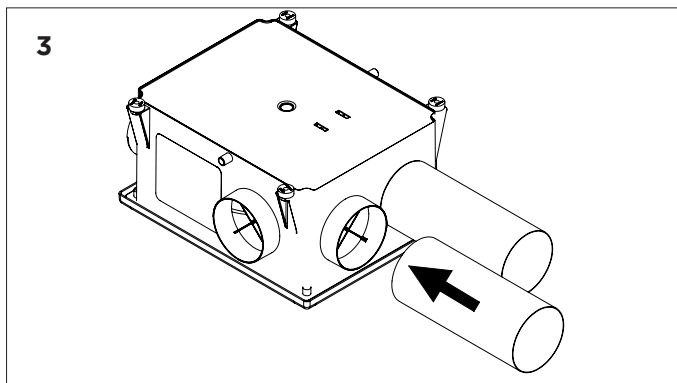


Use appropriate screws (not supplied) to fix the unit to the ceiling.

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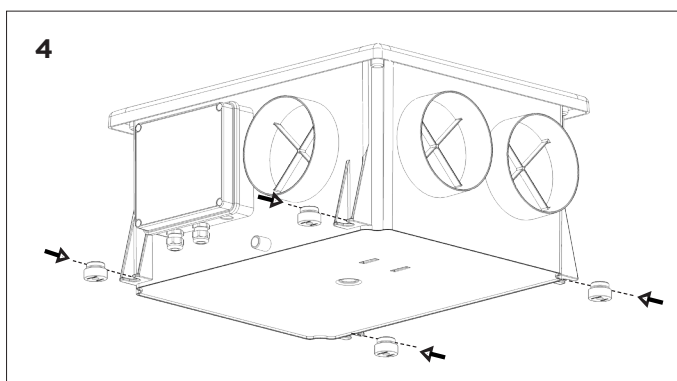
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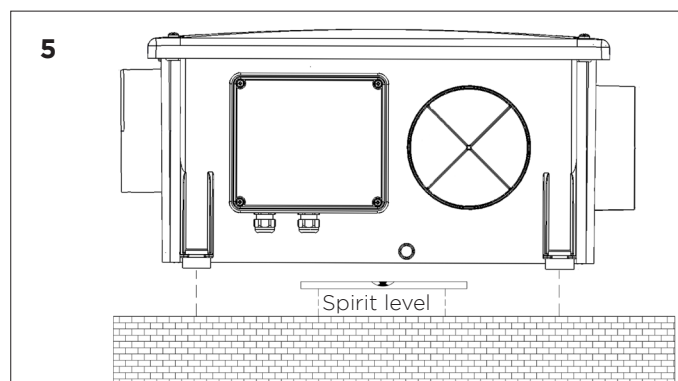
Install the ducting.

FLOOR INSTALLATION

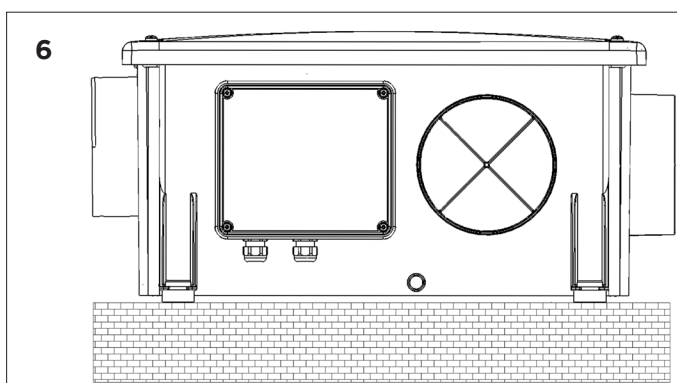
The unit must be installed in the following position.



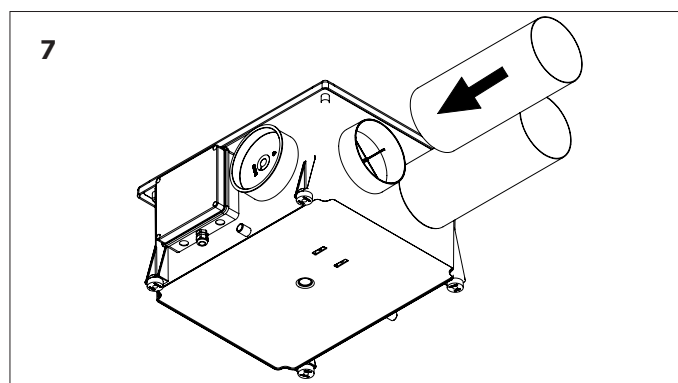
Attach the supplied anti vibration mounts on to each of the mounting arms as shown.



Prepare the surface where the unit is to be mounted. Make sure that the surface is flat, levelled and that it supports the weight of the unit. Perform the installation in accordance with local rules and regulations.



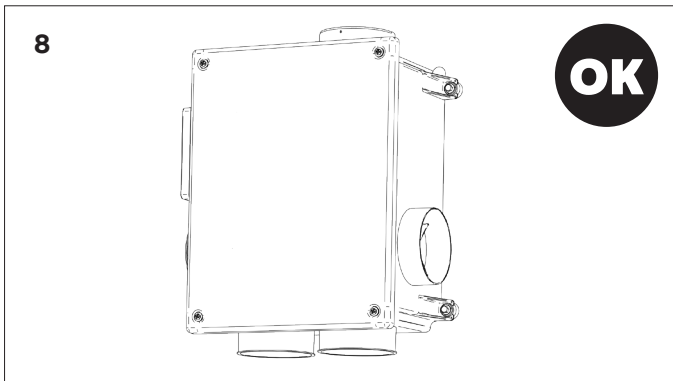
Use appropriate screws (not supplied) to fix the unit to the ceiling.



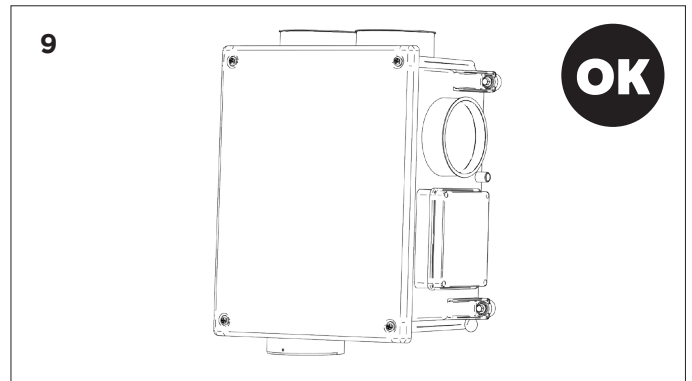
Install the ducting.

WALL INSTALLATION

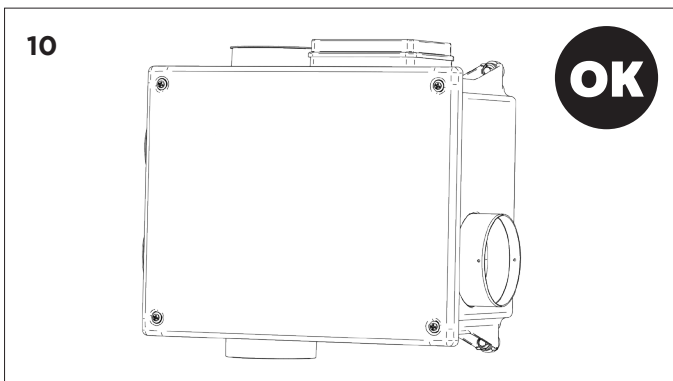
The MOXA MEV HX can be mounted on a wall but only as shown in the images below.



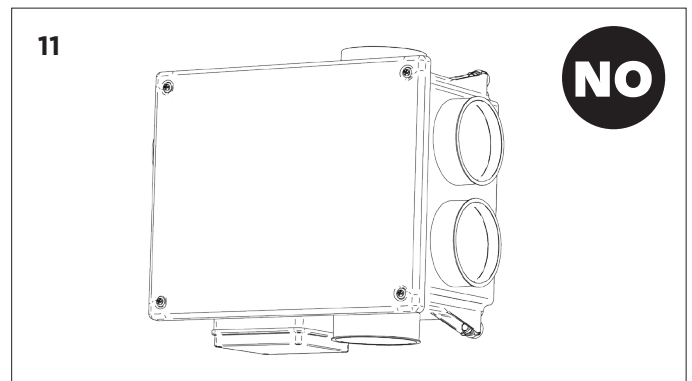
Vertically mounted with room side ducts on bottom of unit.



Vertically mounted with room side ducts on top of unit.



Horizontally mounted with room side ducts on left of unit and terminal box on top of unit.



Horizontally mounted with room side ducts on right of unit and terminal box on bottom of unit.

ELECTRICAL CONNECTIONS, COMMISSIONING & OPERATION

WARNING: Make sure that the mains supply to the unit is disconnected before performing any installation, service, maintenance or electrical work. The installation and service of the unit and complete ventilation system must be performed by an authorised installer and in accordance with local rules and regulations.

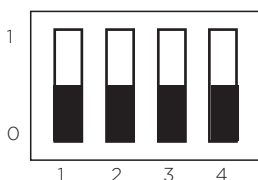
The MOXA MEV HX has three speed settings, Vmin (minimum speed), Vmed (medium speed), and Vmax (maximum speed).

CONTROL METHOD

- Set the desired continuous minimum Speed (Vmin), Medium Speed (Vmed) and Maximum Speed (Vmax) by DIP Switch A (1-4).
- Set Humidity operating method by DIP Switch B (1-2).
- Set the desired speed increase from continuous minimum speed (Vmin) to Medium speed (Vmed) or Maximum speed (Vmax) when LS input is Live by Dip Switch B (3).
- Select the method of LS input from an open/ closed switch/ sensor or a momentary switch by the position of DIP Switch B (4).

The values of the three speeds are determined by the position of DIP Switch A (1-4) as per the table below.

TABLE A DIP SWITCHES



The unit must be disconnected from the main power supply when adjusting DIP Switches.

DIP SWITCH A				Airflow m³/h @ 0 Pa			%			
1	2	3	4		Vmin	Vmed	Vmax	Vmin	Vmed	Vmax
0	0	0	0	default	260	330	380	45	70	100
0	0	0	1		260	290	330	45	55	70
0	0	1	0		260	290	380	45	55	100
0	0	1	1		180	225	330	25	35	70
0	1	0	0		180	225	380	25	35	100
0	1	0	1		180	260	330	25	45	70
0	1	1	0		180	260	380	25	45	100
0	1	1	1		180	290	380	25	55	100
1	0	0	0		225	260	330	35	45	70
1	0	0	1		225	260	380	35	45	100
1	0	1	0		225	290	330	35	55	70
1	0	1	1		225	290	380	35	55	100
1	1	0	0		290	330	380	55	70	100
1	1	0	1		290	360	380	55	80	100
1	1	1	0		330	360	380	70	80	100
1	1	1	1		330	380	380	70	100	100

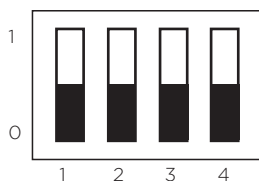
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The interaction of the Humidity control and external connection LS is determined by the position of DIP Switch B (1-4) as below.

TABLE B DIP SWITCHES



The unit must be disconnected from the main power supply when adjusting DIP Switches.

HUMIDITY CONTROL SETTINGS

DIP Switch B (1-2)

DIP SWITCH B			
1	2	HUMIDITY CONTROL	
0	0	Default	AUTO
0	1		60%
1	0		75%
1	1		90%

In “AUTO” mode, the sensor continuously monitors humidity levels and activates only in the event of a sudden increase in humidity and if the relative humidity (R.H.) exceeds 65%. If the humidistat is active, the unit automatically switches to intermediate speed. Once the humidity level stabilises, the unit continues to operate at intermediate speed for a fixed time of 10 minutes before returning to minimum speed.

In “threshold” mode, when the detected humidity exceeds the set threshold (60%, 75% or 90%), the unit automatically switches to intermediate speed. When the relative humidity drops below the set threshold, the unit continues operating at intermediate speed for a fixed time of 5 minutes before returning to minimum speed.

SWITCH LIVE (LS) CONNECTION SETTINGS

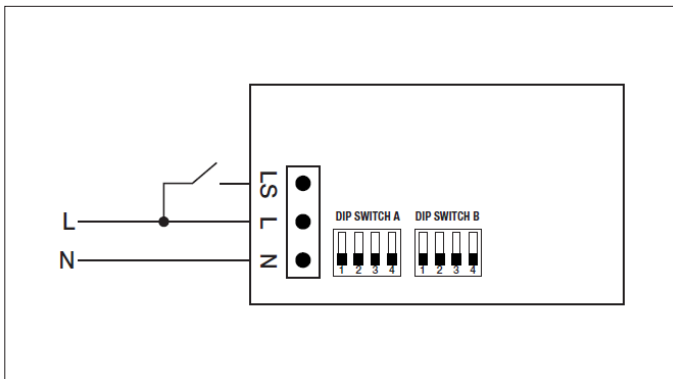
DIP SWITCH B			
3	VLS		
0	Default		Vmax
1			Vmed

Switch 3 of Dip Switch B is used to define the speed activated by the LS input (LS is live), either the maximum speed (Vmax) or the medium speed (Vmed).

DIP SWITCH B

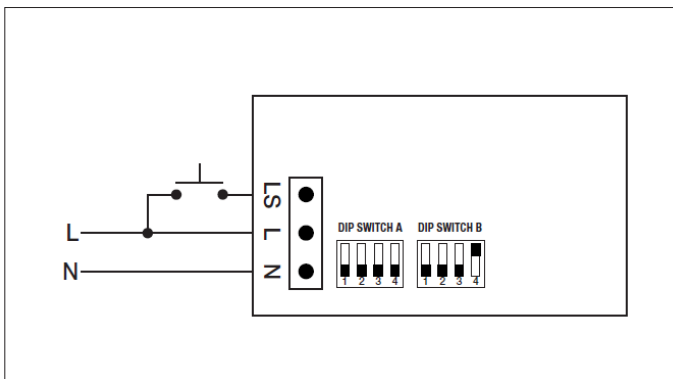
4	LS Operating Mode	
0	Default	On/Off
1		Overrun timer

Switch 4 of Dip Switch B is used to define the operating mode of the LS input.



ON/OFF MODE

In Sensor/ Switch mode, when the LS connection is live, the MOXA MEV HX will change from continuous minimum speed (V_{min}) to the selected speed from position of DIP Switch B (3), either Maximum speed (V_{max}) or Medium Speed (V_{med}). When live is removed from LS connection the speed will return to continuous minimum speed (V_{min}).

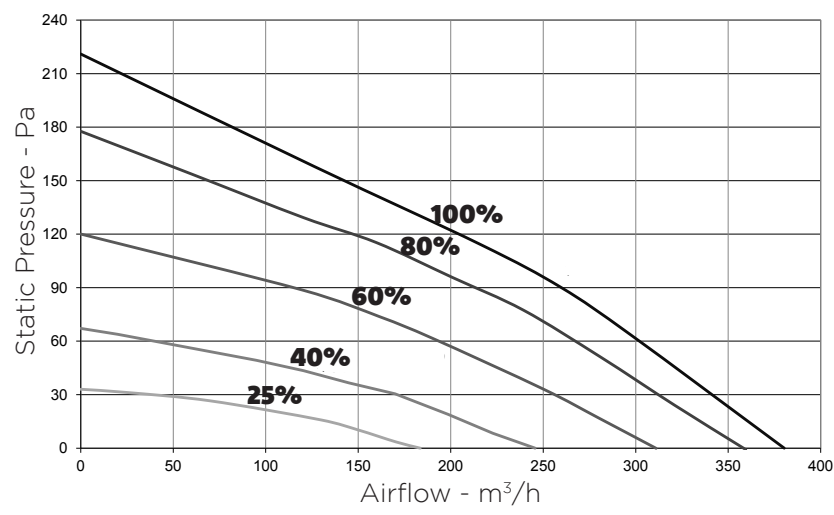


OVERRUN TIMER MODE

In Overrun Timer Mode, when the momentary switch is closed the MOXA MEV HX will change from continuous minimum speed (V_{min}) to the selected speed from position of DIP Switch B (3), either Maximum speed (V_{max}) or Medium Speed (V_{med}) for a fixed period of 15 minutes. If during the 15-minute period the momentary switch is closed again, the MOXA MEV HX immediately returns to minimum speed (V_{min}).

The LS function takes priority over the Humidity Control function.

PERFORMANCE CURVES



ErP DIRECTIVE - REGULATIONS 1253/2014 - 1254/2014

a) Mark	-	Elta Trade	
b) Model	-	MOXA MEV HX	
c) SEC class	-	B	D
c1) SEC warm climates	kWh/m ² .a	-11,9	-8,6
c2) SEC average climates	kWh/m ² .a	-27,4	-20,6
c3) SEC cold climates	kWh/m ² .a	-54,5	-41,6
Energy label	-	Yes	
d) Unit typology	-	Residential - unidirectional	
e) Type of drive	-	Multi-speed drive	
f) Type of Heat Recovery System	-	absent	
g) Thermal efficiency of heat recovery	%	N/A	
h) Maximum flow rate	m ³ /h	239	
i) Electric power input at maximum flow rate	W	28	
j) Sound power level (L _{WA})	dBA	42	
k) Reference flow rate	m ³ /h	167	
l) Reference pressure difference	Pa	50	
m) Specific power input (SPI)	W/m ³ /h	0,054	
n1) Control factor	-	0,65	0,85
n2) Control typology	-	Local demand control	Local demand control
o1) Maximum internal leakage rate	%	N/A	
o2) Maximum external leakage rate	%	1,8	
p1) Internal mixing rate	%	N/A	
p2) External mixing rate	%	N/A	
q) Visual filter warning	-	N/A	
r) Instructions to install regulated grilles	-	Check the instruction booklet	
s) Internet address for pre/disassembly instructions	-	www.eltatrade.co.uk	
t) Airflow sensitivity to pressure variations	%	N/A	
u) Indoor/outdoor air tightness	m ³ /h	N/A	
v1) Annual electricity consumption (AEC) warm climates	kWh	0,4	0,5
v2) Annual electricity consumption (AEC) average climates	kWh	0,4	0,5
v3) AEC Annual electricity consumption, cold climates	kWh	0,4	0,5
w1) AHS Annual heating saved, warm climates	kWh	12,8	9,9
w2) AHS Annual heating saved, average climates	kWh	28,3	21,9
w3) AHS Annual heating saved, cold climates	kWh	55,4	42,9

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WARRANTY

Our 5 year warranty is provided only to customers who purchased directly from us. If you purchased elsewhere then please contact them directly and they will let you know their warranty procedure. Our warranty covers repair or replacement of defective goods only. It does not cover any labour costs associated with defective product or component removal or installation, nor does it cover the cost of sending goods back to us for inspection. Our warranty is subject to storage, installation, commissioning, inspection and maintenance having been carried out in accordance with our Installation and Maintenance Instructions (supplied with each product) and which are also available to view, save or print from our website.

Scan the QR code or visit **www.eltatrade.co.uk/warranty** to view further warranty information.



DISPOSAL AND RECYCLING

Information on disposal of units at the end of life.

This product complies with EU Directive 2002/96/EC. The symbol of the crossed-out dustbin indicates that this product must be collected separately from other waste at the end of its life. The user must, therefore, dispose of the product in question at suitable electronic and electro-technical waste disposal collection centres, or else send the product back to the retailer when purchasing a new, equivalent type device.

Separate collection of decommissioned equipment for recycling, treatment and environmentally compatible disposal helps to prevent negative effects on the environment and on health and promotes the recycling of the materials that make up the equipment.

Improper disposal of the product by the user may result in administrative sanctions as provided by law.

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MOXA MEV HX USER GUIDE

NOTE: The installer should go through the user guide with the home occupants and leave this with them for their reference.

WHAT IS A MOXA MEV HX

MOXA MEV HX is a whole house centralised mechanical extract unit to exhaust stale air to the outside.

HOW DOES IT WORK?

The fan is designed to work on a continuous basis by extracting stale air in your home from multiple rooms such as kitchens, utility rooms, bathrooms, shower rooms, en-suites, and toilets. How it will work will depend on how the installer has set the fan to operate. Please see “Fan operation” confirmed by Installer.

WHAT ARE THE BENEFITS?

The MOXA MEV HX can help improve the air quality within your home for the health and wellbeing of occupants as well as the building.

HOW DO I OPERATE THE FAN?

Your MOXA MEV HX will have been set up by the Installer to operate in one of a number of ways. The Installer should indicate the method of “Fan operation” by ticking the appropriate box on the back of this sheet.

DOES IT NEED SERVICING?

The fan should be inspected regularly, and cleaning should be carried out as and when required but please note intervals between cleaning should not exceed 12 months.

HOW MUCH DOES IT COST TO RUN?

There are several variables that can determine the annual electrical running costs of MOXA MEV HX, however, at typical electricity costs as of June 2023, you should expect the fan to cost between £2-3 per year to run under normal conditions.

WHAT IF I THINK THERE IS A PROBLEM WITH THE FAN?

If you are a tenant, please report it to your landlord. If you are not, please contact the company you purchased the fan from.

IMPORTANT NOTE

MOXA MEV HX fans are designed to run continuously. The power supply to the fan should only be disconnected if a fault is detected or suspected or when the fan is being maintained. Prolonged and/or repeated power interruption can create a health and safety risk and invalidate the fan warranty.



MOXA MEV HX USER GUIDE

FAN OPERATION

Installer to tick as appropriate.

- | | |
|---|---|
| <p>☐ The fan is fully automatic and will continuously remove stale air from multiple rooms such as kitchens, utility rooms, bathrooms, shower rooms, en-suites, and toilets.</p> <p>☐ The fan is fully automatic and will continuously remove stale air from multiple rooms such as kitchens, utility rooms, bathrooms, shower rooms, en-suites, and toilets. In addition, it is linked to a sensor to provide a “boost” mode which will run the fan at a higher speed.</p> <p>☐ The fan is fully automatic and will continuously remove stale air from multiple rooms such as kitchens, utility rooms, bathrooms, shower rooms, en-suites, and toilets. In addition, it is linked to a switch to provide a “boost” mode which will run the fan at a higher speed.</p> | <p>☐ The fan is fully automatic and will continuously remove stale air from multiple rooms such as kitchens, utility rooms, bathrooms, shower rooms, en-suites, and toilets. In addition, it is linked to a momentary switch to provide a “boost” mode which will run the fan at a higher speed for 15 minutes. If the momentary switch is pressed during the 15 minutes the fan will go back to the low speed.</p> <p>☐ Other (Installer to specify here)</p> <hr/> <hr/> <p>PLEASE NOTE: This fan is fitted with an automatic humidity sensor which will change the fan speed automatically if higher humidity levels are detected.</p> |
|---|---|



Scan the QR code for product and warranty information.