aerauliqa Quantum MX Single Flow Decentralised Mechanical Ventilation Unit Installation 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.

Contents

PRECAUTIONS FOR INSTALLATION, USE, AND MAINTENANCE

- The device should not be used for applications other than those specified in this manual.
- After removing the product from its packaging, verify its condition. In case of doubt, contact a qualified technician. Do not leave packaging within the reach of small children or people with disabilities.
- Do not touch the appliance with wet or damp hands/feet.
- This appliance can be used by children aged 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 the use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- Do not use the product in the presence of flammable vapors, such as alcohol, insecticides, gasoline, etc.
- If any abnormalities in operation are detected, disconnect the device from the main supply and contact a qualified technician immediately. Use original spare parts only for repairs.
- The electrical system to which the device is connected must comply with regulations.
- 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. If not, contact a qualified technician.
- 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. It must expel air outside via its own special duct.
- Operating temperature: 0°C up to +40°C.
- The device is designed to extract clean air only, i.e. without grease, soot, chemical or corrosive agents, or flammable or explosive mixtures.
- Do not leave the device exposed to atmospheric agents (rain, sun, snow, etc.).
- Do not immerse the device or its parts in water or other liquids.
- Turn off the main switch whenever a malfunction is detected or when cleaning.
- For installation an omnipolar switch should be incorporated in the fixed wiring, in accordance with the wiring regulations, to provide a full disconnection under overvoltage category III conditions (contact opening distance equal to or greater than 3mm).
- 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.
- Do not obstruct the fan or exhaust grille to ensure optimum air passage.
- Ensure adequate air return into the room in compliance with existing regulations in order to ensure proper device operation.

- 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.
- 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.
- Window installation

  In the case of window installation, it is necessary to use the appropriate window kit, which is not included.

  Attention: do not mount the product on the window without this kit.

INTRODUCTION

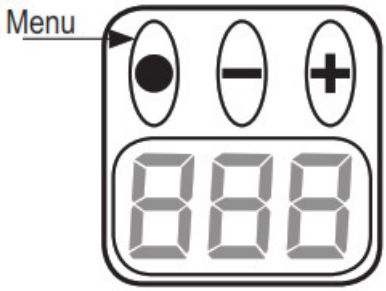
Quantum MX is a decentralized mechanical ventilation unit designed to ensure air extraction in small/ medium-sized rooms. Suitable for air discharge in the presence of a long ducted system. Wall, ceiling, or window installation (fig.1).

TECHNICAL SPECIFICATIONS

- Material: high quality, impact, and UV-resistant ABS color RAL 9010.
- Design front covers removable for cleaning without the use of tools.
- High efficiency mixed flow impeller to optimize quietness and efficiency.
- Single-phase EC Brushless motor for energy saving, with integral thermal protection.
- Motor mounted on high-quality ball bearings.
- 7 segments LED display and buttons for configuration.
- Minimum speed for continuous running, intermediate speed and maximum speed is selectable as indicated in § 3, 4, and 5.
- Option to boost from trickle through LS connection.
- Installation type selection available (through wall or ducted).
- Smart humidity control and intelligent run-on timer.
- Constant volume mode.
- Suitable for continuous running.
- The fan is double insulated: no earth connection is required.
- IPX4 wall installation / IPX2 ceiling installation.
- Power supply 220-240V~ 50Hz

OPERATION

The unit is equipped with a 7-segment LED display, visible by removing the design front cover, and that illuminates by pressing any button.



Additional safety feature: when the design front cover is removed, the impeller stops turning to configure the unit.
To aid the setting this feature is disabled for the first 60 minutes of operation.
Upon power-up, the unit runs at the minimum continuous speed (§ 3).
If the humidistat or timer is activated, the unit runs at the intermediate speed (§ 4).
If the external switch is activated, the unit runs at the maximum speed (§ 5).
After the external switch is off, the unit continues to run at the intermediate speed for the pre-set period of time, then it returns to the selected minimum speed (or to the intermediate speed in case humidistat or run-on timer operation is on).
NOTE: the run-on timer function is activated only if the external switch has been on for at least 3 minutes.

1) RUN HOURS MONITOR
The unit is equipped with a run hours monitor.
Upon power-up the running hours counter is displayed as follows, e.g.: run y01 (1year) N04 (4months) d06 (6days) h13 (13hours) run…
Due to the 7 segment display format, the “M” cannot be used for months and it is displayed with N in its place.

2) UNIT OF MEASURE
The airflow unit of measure displayed is m 3 /h (cubic meter/hour) and identified with the “u” (u).
To convert the unit of measure in l/s (liter/second), press at the same time the buttons MENU and – for at least 3 seconds.

UNIT OF MEASURE (*u*)	
Setting	**Value Displayed**
m3/h (default)	***h***
l/s	***L***

3) MINIMUM CONTINUOUS SPEED
Upon power-up, the unit runs at the minimum continuous speed settable from 0 to 47m 3 /h (i.e. from 0 to 13l/s) in the following way:
– Press the MENU button until the “A” (A) letter is displayed.
– Press the buttons + or – to increase or decrease the minimum continuous speed between the values shown in the table below:

MINIMUM CONTINUOUS SPEED (R)			
m3/h	**Display**	**l/s**	**Display**
0		0	
14 (default)	**4**	4	**4**
22		6	
29		8	***8***
36		10	
47	**47**	13	

4) INTERMEDIATE SPEED
The unit runs automatically at the intermediate speed settable from 22 to 90m 3 /h (i.e. from 6 to 25l/s) when either of the below conditions have been met:
– the humidistat has been activated.
– the run-on timer has been activated.
The intermediate speed can be set in the following way:
– press the MENU button until the “b” (b) letter is displayed.
– press the buttons + or – to increase or decrease the intermediate speed between the values shown in the table below:

INTERMEDIATE SPEED (R)			
m3/h	**Display**	**l/s**	**Display**
22		6	
29		8	***8***
36		10	
47 (default)	***47***	13	
54	***4***	15	
65		18	***8***
72	***7***	20	
90*		25	

*the 90m /h setting is available in “through wall” installation only (§7).

5) MAXIMUM SPEED
The maximum speed, settable from 29 to 90m 3 /h (i.e. from 8 to 25l/s), can be activated through external switch, ambient sensor, or light switch.
The maximum speed can be set in the following way:

– Press the MENU button until the “B” (8) letter is displayed.
– Press the buttons + or – to increase or decrease the maximum speed between the values shown in the table below:

MAXIMUM SPEED (*8*)			
m3/h	**Display**	**l/s**	**Display**
29	***8***	8	***8 8***
47	***847***	13	***8***
54	***8 4***	15	***8***
65	***8***	18	***8 8***
72	***87***	20	***8***
90*	***8***	25	***8***

*the 90m 3 /h setting is available in “through the wall” installation only (§7).

6) CONSTANT FLOW OPERATION

When the constant flow operation in enabled (on), the unit speeds up or slows down depending on the variations of the resistance caused by long length ducting or external windy conditions.
The constant flow operation can be set in the following way:
– press the MENU button until the “c” (c) letter is displayed.
– press the buttons + or – to enable or disable, as follows:

CONSTANT FLOW (*c*)	
Setting	**Value Displayed**
Off (default)	***offi***
On	***on***

7) INSTALLATION TYPE
Based on the selected installation type, the unit scales its speed (minimum, intermediate, and maximum) to obtain the selected airflow rates.
“Through wall” installation: unit is typically mounted on an external wall or window and discharged directly to the outside.
“In-room” installation: unit is typically mounted on the ceiling or internal wall which is ducted to the outside.
NOTE: the unit runs at a higher speed when “In-room” installation is selected.

The installation type can be set in the following way:
– Press the MENU button until the “I” (I) letter is displayed.
– Press the buttons + or – to choose the type of installation as follows:

INSTALLATION TYPE (R)	
Setting	**Value Displayed**
Through wall (default)	***t***
In-room – Ducted	***r***

8) RUN-ON TIMER

The unit is equipped with a run-on timer, settable from 1 to 25 minutes. When the external switch is turned off, the unit continues to run at the intermediate speed for the pre-set period of time.
When the time is expired, the unit returns to the minimum continuous speed.
If the external switch does not stay active for 3 minutes, the run-on is not performed.
In AUTO mode the run-on timer is automatically activated, depending on how long the switch is active, as follows:
– if the external switch is active for under 3 minutes, the unit does not run.
– if the external switch is active for between 3 and 10 minutes, the unit runs on for 5 minutes.
– if the external switch is active for between 10 and 20 minutes, the unit runs on for 10 minutes.
– if the external switch is active for over 20 minutes, the unit runs on for 15 minutes.
The run-on timer can be set in the following way:
– Press the MENU button until the “t” (t) letter is displayed.
– Press the buttons + or – to increase or decrease the run-on time between the values shown in the table below:

RUN-ON TIMER (*t*)	
Setting (minutes)	**Value Displayed**
AUTO (default)	RU
1	01
5	05
10	10
15	15
20	20
25	25
OFF	***OF***

9) HUMIDISTAT

The unit is equipped with a humidity sensor that has an adjustable threshold of 65-95%. If the humidistat is activated, the unit runs at the intermediate speed and continues to run for a fixed time of 5 minutes after the humidity level drops below the selected threshold.
In AUTO mode, the humidistat, which records the humidity levels, triggers if there is a steep variation of the humidity and if the humidity level is over 65%.

The humidistat can be set in the following way:

– Press the MENU button until the “h” (h) letter is displayed.
– Press the buttons + or – to increase or decrease the humidity threshold between the values shown in the table below:

HUMIDISTAT THRESHOLD (*h*)	
Setting	**Value Displayed**
AUTO (default)	RU
65%	65
75%	75
85%	85
95%	95
OFF	oF

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 centers, 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.

aerauliqa®

Sede operativa/Warehouse-Offices: via Mario Calderara 39/41, 25018 Montichiari (Bs)
Sede legale/Registered office: via Corsica 10, 25125 Brescia
C.F. e P.IVA/VAT 03369930981 – REA BS-528635 – Tel: +39 030 674681 – Fax: +39 030 6872149 – **www.aerauliqa.it** – **www.aerauliqa.com** – **info@aerauliqa.it**

004634 – 03 – 0421

Documents / Resources

	aerauliqa Quantum MX Single Flow Decentralised Mechanical Ventilation Unit [pdf] Installation Guide Quantum MX, Single Flow Decentralised Mechanical Ventilation Unit

References

- AERAULIQA – Air & Life Quality
- AERAULIQA – Air & Life Quality
- AERAULIQA – Air & Life Quality