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Installation, operation and maintenance manual

Heat Recovery Ventilation Unit **OXYGEN X-Air V-series**

Models with standard
Heat Exchanger:

X-Air V200
X-Air V400
X-Air V500
X-Air V600

Models with Enthalpy
Heat Exchanger:

X-Air V200E
X-Air V400E
X-Air V500E

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1. INTRODUCTION

Read this manual carefully to ensure the safe installation and commissioning of the Heat Recovery Ventilation Unit. Be sure to perform all steps required for installation and commissioning and observe all information, instructions and precautions provided before operating the Unit. Observe the operating instructions and all safety information and safety instructions provided in this document to ensure safe operation. Keep this manual in a safe place for future reference and ensure that it is available to all users.

2. SAFETY NOTICES AND USED SYMBOLS

**Danger!**

Ignoring warnings indicated by the signal word "Danger" may lead to death or most severe injury

**Caution!**

Ignoring warnings indicated by the signal word "Caution" may lead to damage to the product, other objects in its proximity or to the environment .

**Note**

Recommendations

**Recycling symbol**

2.1. General safety notices



The use of control elements, settings or methods not described in this documentation may result in electric shock or other risks caused by electric voltage or current and/or damage by mechanical procedures. **Danger of life by electric shock!**

It is mandatory to observe all instructions in this manual to ensure your safety. Incorrect installation and/or incorrect commissioning may lead to severe injury

2.2. General safety precautions for installation, maintenance and cleaning

This product was constructed up to standard and in compliance with regulations relating to electrical equipment. Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.



- Installation, maintenance and cleaning work may only be performed by specialist technicians trained by the manufacturer.
- Make sure that the mains supply to the unit is disconnected before performing any installation, service, maintenance or electrical work. Pull the mains connector from the power socket or, in case of a hard-wired system, disconnect the circuit breaker. Make sure the device will not be turned on back by third parties (danger to life by electric shock).
- Any electrical work involved in the installation must hold by a qualified electrician (danger to life by electric shock).
- Take measures to prevent unauthorized persons from accessing the work area to avoid injury by falling tools or components.
- Fastenings such as bolts, screws and plugs must be selected by the installer according to the building structure material and the load. The installer is responsible for the secure and permanent attachment of the device to the building structure.
- Route the mains power cable in such a way that no one can trip over it and tear it off (danger to life by electric shock).
- Never use the Unit if the mains power cable is damaged. Switch off the power circuit-breaker to disconnect the mains supply and contact a qualified technician or manufacturer service center immediately upon noticing such damage (danger to life by electric shock).
- The Unit can be used by children aged from 8 years and above and persons with disabilities 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. Cleaning and user maintenance shall not be made by children.

2.3. Intended of purpose

The device has been designed and manufactured for the ventilation in the living and office area (with restrictions in the industrial area) at air temperatures of $>0^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ and relative humidity from 20% to 60% (non-condensing). The unit is not intended for organizing ventilation in swimming pools, saunas, greenhouses, summer gardens, and other spaces with a high humidity.

All C-series devices are delivered with a built-in pre-heating element which protect the counterflow heat exchanger against icing. This ensures continuous operation at low outdoor temperatures.

3. TRANSPORTATION, STORAGE AND UNPACKING

The device is prepared for transportation and storage in carton box. Packaging materials ensure protection against the environment dust. The device should be stored and transported in such a way that it is protected against physical damage. Transport, store and unpack the unit with care.

Transportation conditions: -20°C - +40°C

Long – term storage conditions: +5°C - +40°C, relative air humidity ≤ 60% (non-condensing).



Discard the packing material in an environmentally friendly manner.

Checking the consignment

Carefully check the received consignment and speak to your supplier immediately in case of damage or an incomplete delivery.

- The Unit: check the identification label on the carton to make sure you received the correct device.
- Wall or ceiling mounting bracket – 4 pcs
- Remote control device (type of order dependent):
 - wired remote control with a knob or
 - wired remote control with touchscreen LCD display or
 - USB Wi-Fi adapter to control device from your mobile phone
- Unit with standard heat exchanger
 - Condensation drain nozzle 32mm with gasket (O-ring)
- Documentation

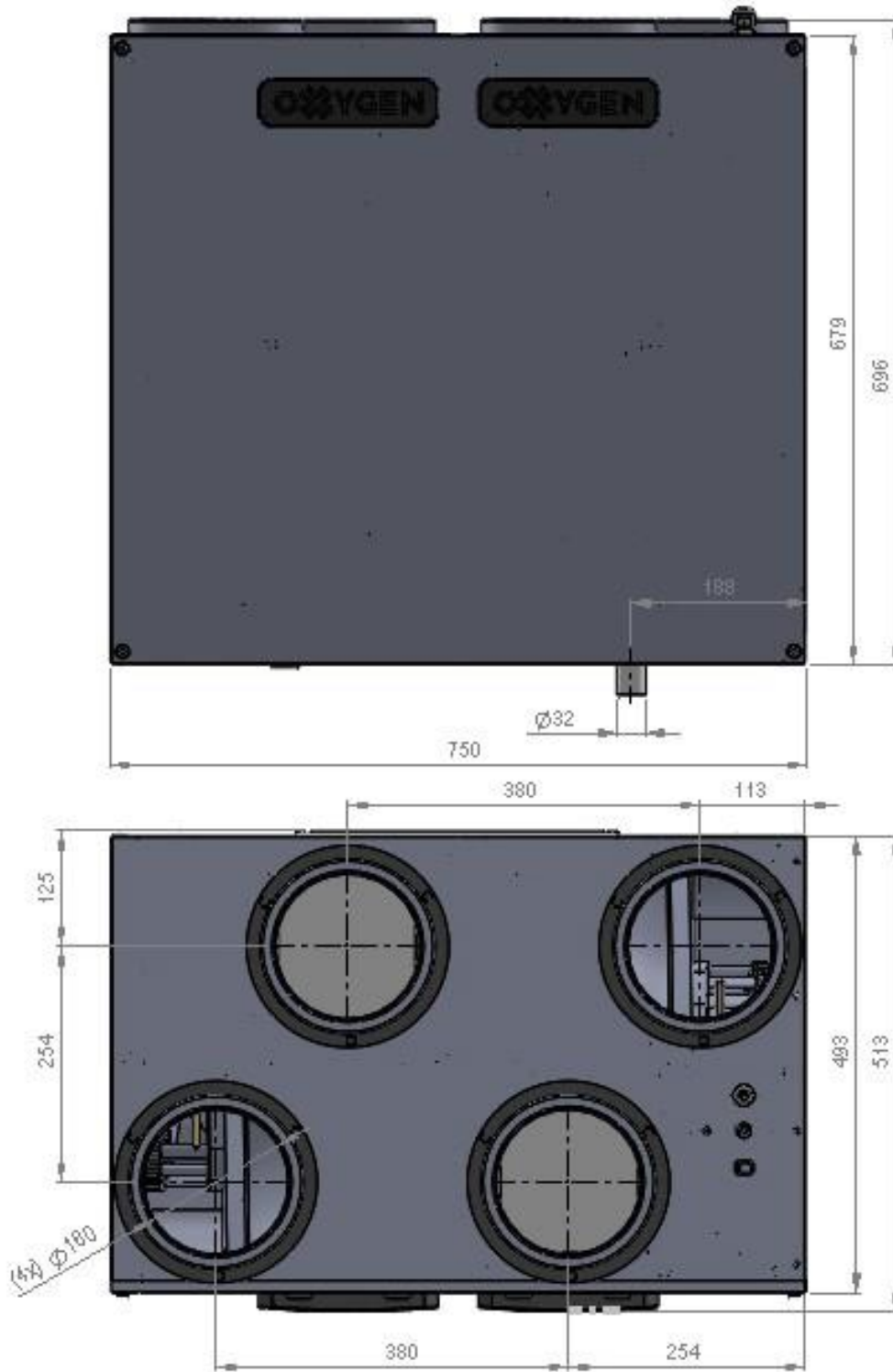
Information found on the identification label:

Example: **X-AIR** **V** **200** **E**

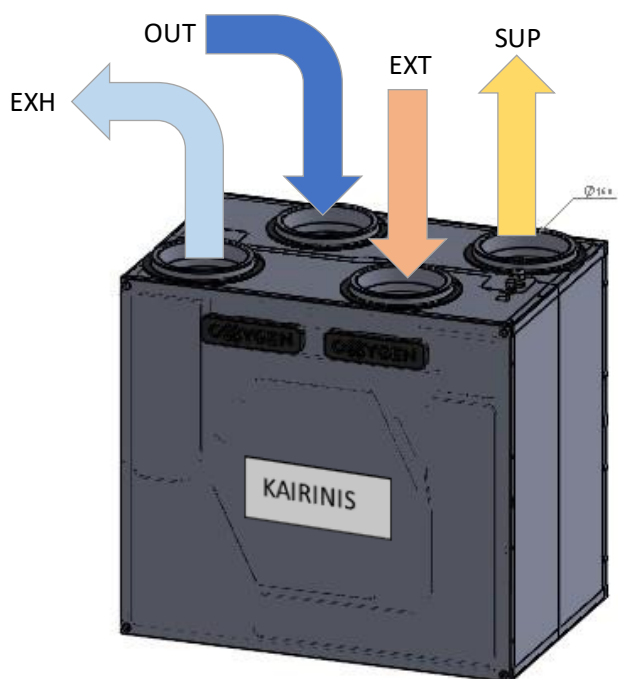
Suffix	Meaning
X-Air	Product family name
C	Product type name (ceiling fixing)
200	Maximum air volume 143m ³ /h
400	Maximum air volume 400m ³ /h
500	Maximum air volume 500m ³ /h
600	Maximum air volume 600m ³ /h
E	The unit has an enthalpy exchanger installed as default

4. INSTALLATION

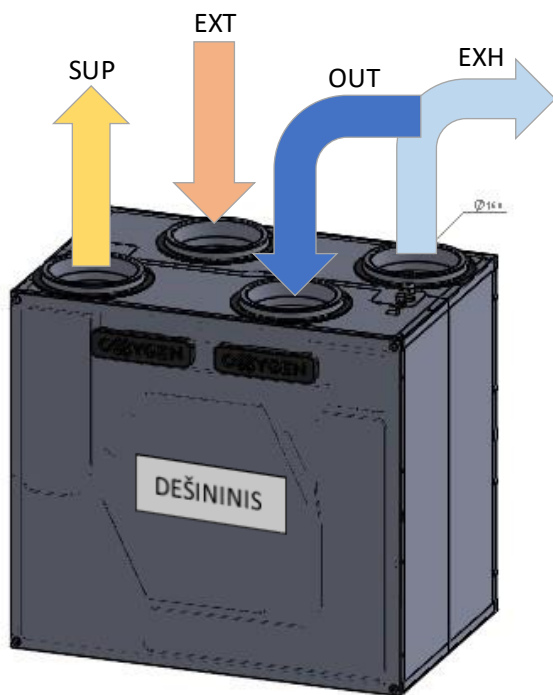
4.1. Dimensions



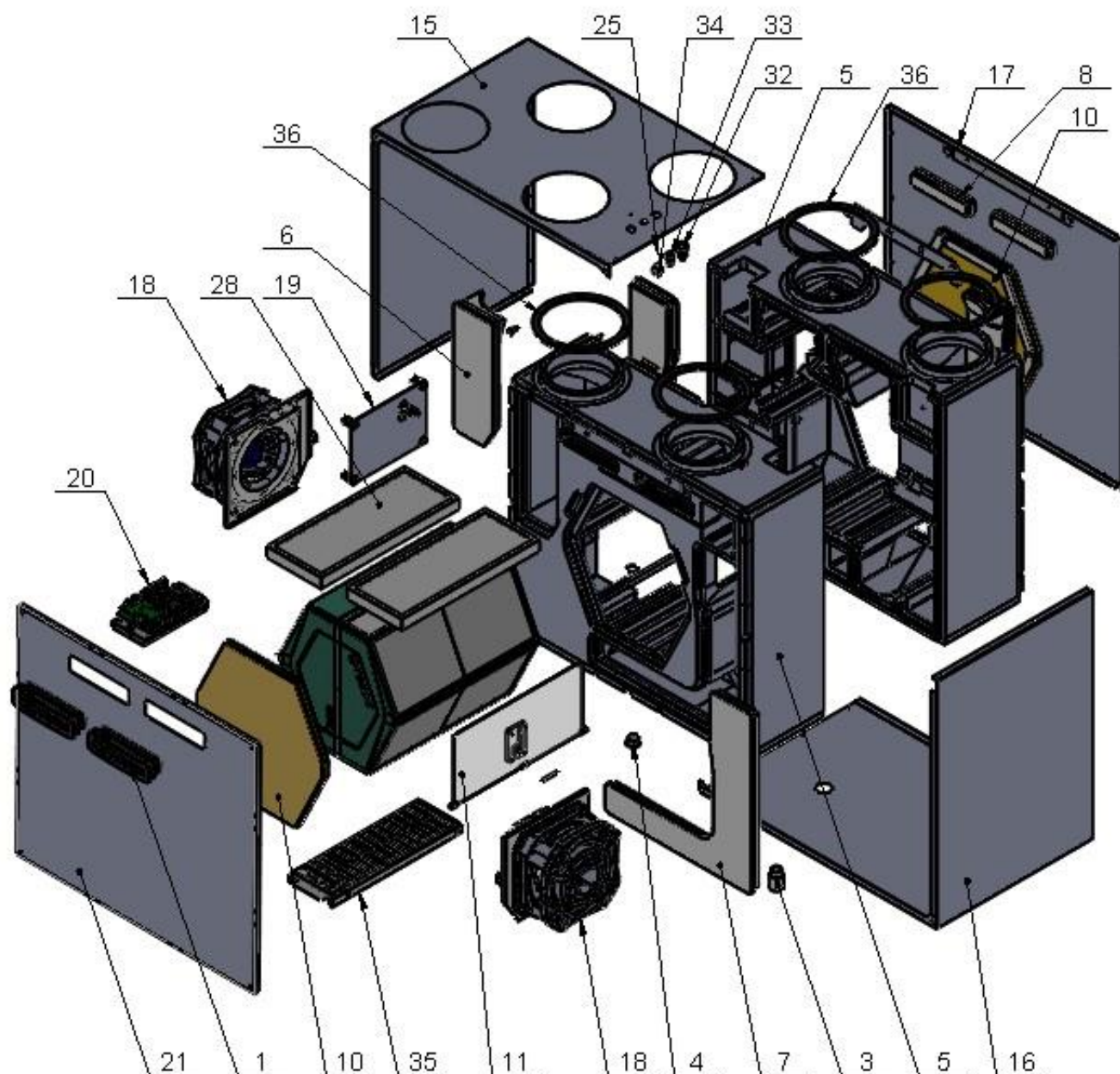
4.2. Orientation



OUT – Fresh Air from outside
SUP – Air Supply to home
EXT – Extract Air from home
EXH – Exhaust Air to outside



4.3. Service Part list



Item. Nr.	Description	Qty	Item Nr.	Description	Qty
1	Filter cover	2	4	Condensation drain plug **	1 (2)
2	Device support bracket	1	5	EPP housing	1
3	Condensation drain nozzle *	1 (0)	6	"I" shape cover	2

Item. Nr.	Description	Qty	Item Nr.	Description	Qty
7	"L" shape cover	2	22	Stepper motor	1
8	Inner filter cover	2	23	PVC washer	4
9	Heat exchanger gasket	2	24	Rivet D4x6	24
10	Heat exchanger cover	2	25	Bolt M4x10	1
11	Bypass damper	1	26	"O" ring	2
12	Bypass damper gasket I	2	27	Nut M4	1
13	Bypass damper gasket II	2	28	Air filter	2
14	Stepper motor bush	1	29	Threaded rivet M4	4
15	Upper housing panel	1	30	Bolt M6x20	4
16	Lower housing panel	1	31	Temperature sensor	3
17	Rear housing panel	1	32	Cable gland PG11	1
18	Fan with bracket	1	33	Cable gland PG7	1
19	Temperature and humidity sensor	1	34	RJ45 socket	1
20	Controller	1	35	Preheater 2.0 kW	1
21	Front cover	1			



- For models V200, V400, V500 and V600 one condensate nozzle must be connected with nozzle, the other drain must remain closed with the plug.
- For models V200E, V400 and V500E the both drains must be closed with plugs. It is not necessary to connect to the condensate nozzle.

4.4. Mounting the Unit

When ordering an appliance always state the correct type (Left or Right side, see page No.). Subsequent conversion to a different version is highly labor intensive. Make sure, that there is sufficient space to install not only the Unit itself, but also auxiliary ventilation system components such as noise silencers or air distribution boxes.

The unit must be installed with suitable space for servicing and maintenance such as filter replacement and access to controller and heat exchanger.

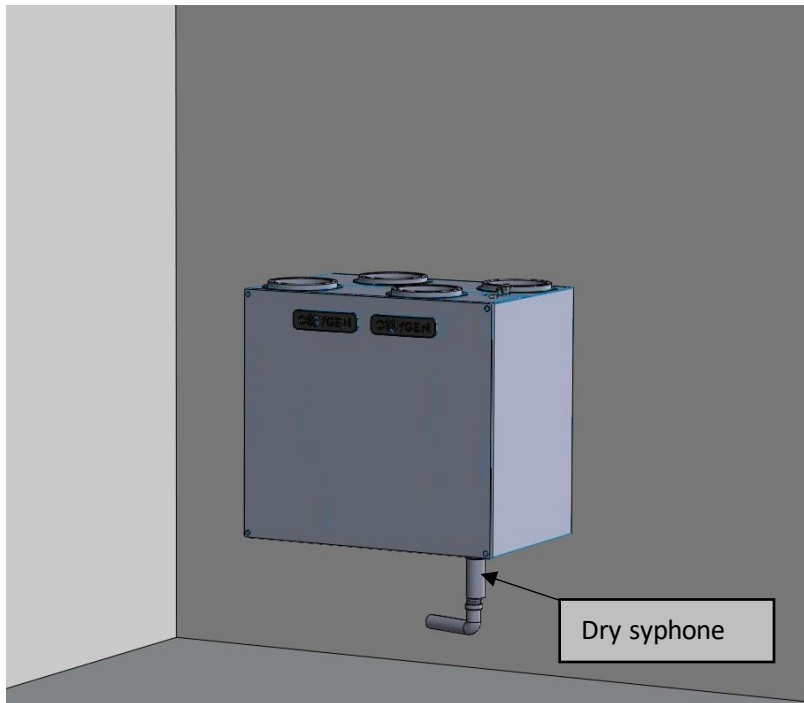


For all models it is recommended to use vibro-isolation gaskets, made from rubber (not included) to ensure that sound will not be transferred to the mounting surface.



* Make sure that for models V200, V400, V500 and V600 there is a possibility to connect the condensate drain pipe of the Unit to building's sewerage system and to mount siphon.

The condensate drain connection fitting must be screwed by the installer into the Unit with maximum 10Nm torque. Use a 32 mm diameter condensate drain pipe and dry syphon.



The condensate discharge Dry Syphon must be fitted by the installer. It is recommended to fit an odor trap between the sewer system and siphon in order to avoid unpleasant odors.

Dry Syphon options (not included)



When the device is fitted with an **Enthalpy Exchanger** the humidity from the extracted air is partly transferred to the fresh supply air. In this case there is no condensate that must be drained from the unit. Thus a dry syphon is not necessary with an enthalpy exchanger.

4.5. Installation of air ducts

Correct air duct connection is significant importance to ensure reliable operation and aerodynamic characteristics of mounted air ducts. The efficiency of a system mainly depends on the smoothness of the inner surface, the dimension, the number of bends, the radius of the bends and the length of a ducting system.

Insulate the outside air supply and the air exhaust duct between the roof/wall passage to render the Unit damp proof. This prevents the formation of condensation on the outside of the ducts.

The choice of the most suitable ducting is important in order to optimize the efficiency of a system. We recommend using Ducts and fittings made of EPP (expanded polypropylene) or EPE (Expanded polyethylene). Ducts and fittings made of this material are light and don't require additional insulation, because the material itself has such properties.



- The distance between the opening of the outdoor air duct and the opening of the exhaust air duct must be at least 1.5m.
- Insulate the outdoor air duct and the exhaust air duct with a layer of sufficient thickness. This prevents the formation of condensation on the outside of the ducts.
- Install a silencer directly onto the supply air and extract air connections and ensure it is straight.

Technical properties of EPP:

- Heat transfer coefficient 0.041 W/(m²K)
- Temperature range -40 °C to +60 °C
- Material density 50 kg/m³, anti-static
- Fire safety class B1
- Compliant with DIN 1946-6



- We do not recommend to install a flexible air duct system. These could disturb the basic operating principle of the balanced ventilation system.
- We recommend to install the silencers of at least 1m straight directly onto the supply and return air connections. For relevant advice, please contact Oxygen.

4.6. Ventilation system balancing

It is necessary to balance the supply and exhaust air flows of the air handling unit during first launch of the ventilation system. Ventilation system will ensure proper operation, optimal heat recovery and the lowest possible electricity consumption during the cold season only if properly balanced.

System has to be balanced according to ventilation system installation project. System balancing depends on the model of the remote control and can be done in the following ways:

- By adjusting **P3** and **P4** controls of wired remote panel with the knob (refer to section 5.1.4.)
- Setting values for Fan1 and Fan2 in the operating parameters on “Setting menu” of control panel with touchscreen LCD display (refer to section 5.2.2. of Operating parameters setting manual)
- Choosing necessary coefficients in App (refer to section 5.3.7.)



There is a risk of heat exchanger freezing when operating an unbalanced ventilation system during the cold season, as a result of which the Unit may start supplying cold air to the premises. Freezing of heat exchanger which occurred during operation of an unbalanced ventilation system can irreversibly change the properties of the heat exchanger and damage the internal air tightness of the Unit.



- Balancing has to be done by a trained professional possessing all the necessary properly calibrated technical equipment.
- Request a ventilation system passport to be prepared.

4.7. Electrical connections



- Make sure that the mains supply to the unit is disconnected before performing any installation, service, maintenance or electrical work. Pull the mains connector from the power socket or, in case of a hard-wired system, disconnect the circuit breaker. Make sure the device will not be turned on back by third parties (danger to life by electric shock).
- Any electrical work involved in the installation must hold by a qualified electrician (danger to life by electric shock).

The unit is rated for connection to single-phase AC 230 V/50 (60) Hz power mains.

Connect the unit to power mains using the supplied power cable with the 3-pole plug mains plug.

The external power input must be equipped with an automatic circuit breaker built into the stationary wiring to open the circuit in the event of overload or short-circuit. The position of the external circuit breaker must ensure free access for quick power-off of the unit.

Complete the electrical connections through the terminal block in the control unit as shown in the wiring diagram.

Wire Color Coding
(according to IEC 60757)

Color	Abbreviation
Black	BK
Brown	BN
Red	RD
Orange	OR
Yellow	YE
Green	GN
Blue	BU
Purple	VT
Grey	GY
White	WH
Green/Yellow	PE



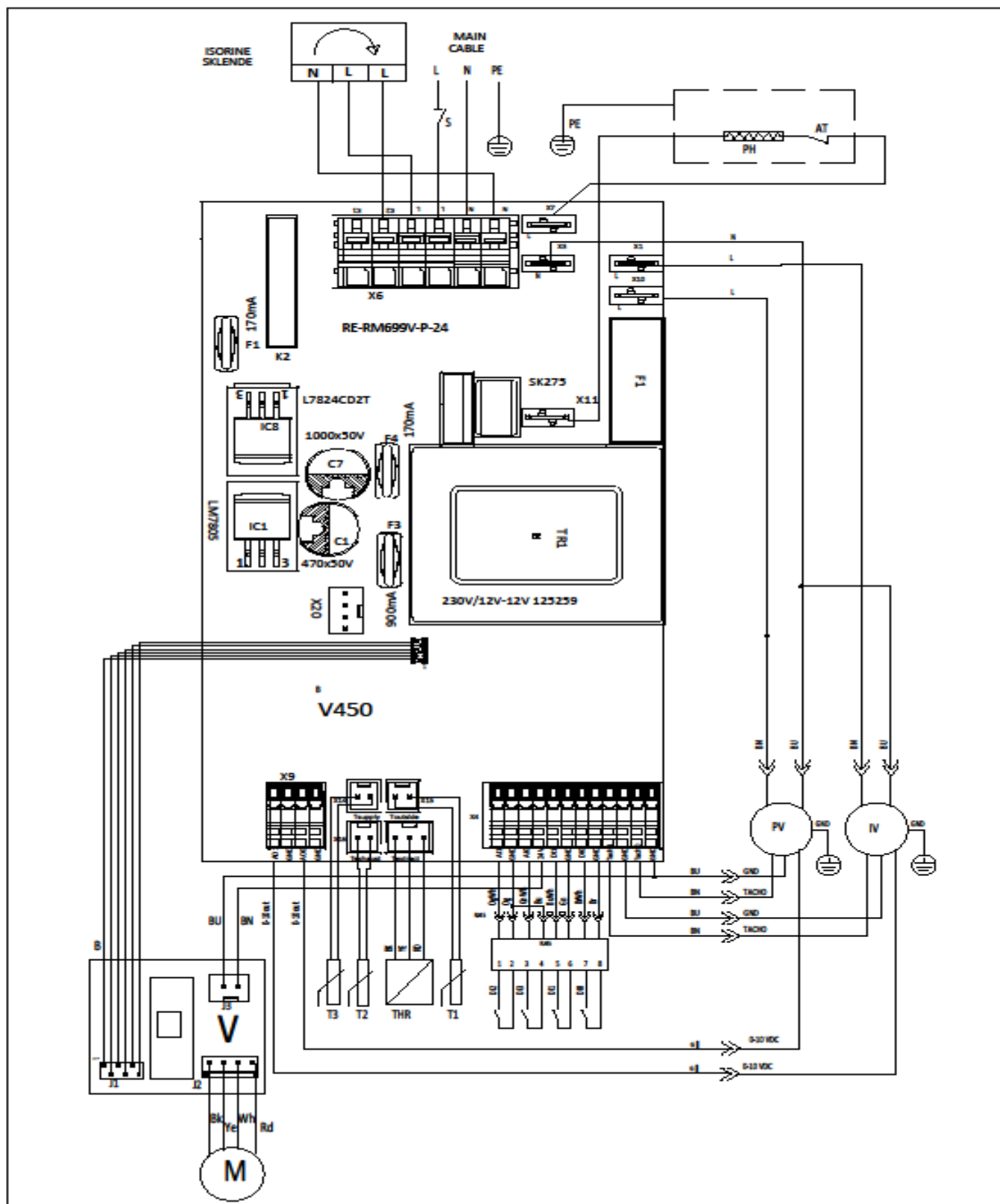
Abbreviations in wiring diagram	
Abbreviation	Meaning
PV	Supply fan
IV	Extract fan
PH	Pre-heater
T1-X15	Outside air temperature sensor
T2-X13	Exhaust air temperature sensor
T3-X14	Intake air temperature sensor
THR	Temperature and humidity sensor
RJ45	Additional connectivity options

Control board contacts	
Abbreviation	Meaning
AO1	Exhaust fan control 0-10V
AO0	Supply fan control 0-10V
AI0	CO2 sensor
X13	Exhaust air temperature sensor
X14	Intake air temperature sensor
X15	Outside air temperature sensor
X20	Control Panel connector



1. Preheater
2. Main (~230V)
3. Outdoor Air Damper
4. USB socket
5. RJ45 socket

4.8. Wiring diagram for units C180, C180E, C200, C200E, C250

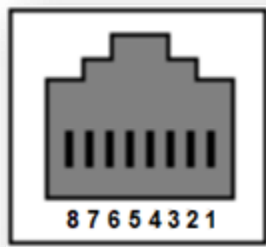


4.9. Additional connectivity options

The Unit supports additional connectivity options. Function can be activated by short circuiting the respective digital contacts of RJ45 function connector.

Contact No	Function of ventilation system	Explanation
1 - 2	Away	Reduction of ventilation power while away from home by security system or external switch
3 - 4	CO ₂ sensor	Ventilation power increase based on readings of auxiliary CO ₂ or humidity sensors connected
5 - 6	Boost	Ventilation boost activation by external switch
7 - 8	Fire alarm	Emergency shutdown of the Unit upon activation of fire alarm

Optional RJ45 adapter should be used for more convenient connection:






	Only passive electric switch or dry contact relay output should be used to activate the function.			
	Operating devices			
	Bathroom or away switch to activate "Boost" or "Away" function		Duct CO ₂ sensor with relay output. Recommended model: DXC-G	

5. AVAILABLE OPERATING DEVICES



Only one of the below listed operating devices can be connected to operate the unit.

Funkcion			
Control method	Wired remote control with a knob	Wired remote control with touchscreen LCD display	USB Wi-Fi adapter to control the Unit from your smartphone
Stepless ventilation intensity adjustment within 30-100% range	✓	--	--
Ventilation intensity setting at 5% steps within 30-100% range	--	✓	✓
Weekly operation program, up to 4 different modes for every week day	--	✓	✓
Ventilation boost activation by control panel button	--	✓	✓
Ventilation boost activation by external switch	✓	✓	✓
System balancing by adjusting power of each fan	✓	✓	✓
Display of extract air temperature and relative air humidity	--	✓	✓
Display of date and time	--	✓	✓
Disabling of supply air stream	--	✓	✓
Visual warning of the necessity to replace filters	✓	✓	✓

5.1. Control panel with a knob






Control panel with a knob makes it possible to gradually control the ventilation intensity.

Power - operating state

Filter - air filter replacing indicator

Alarm - failure indicator

Colored LEDs indicate status of the Unit.

LED color	Flashes	Explanation
	No flashing	No mains power
	1 flash	Ventilation is off
	2 flashes	Ventilation is on
	3 flashes	The Unit is shutting down
	Yellow LED	1 flash
		It is necessary to replace filters
	Green & Yellow LED	Green and yellow Led flashing alternately
		Anti-frost protection is on

5.1.1. Resetting Filter lifetime meter

Depends on pre-settings and filter grade the Control panel indicates the necessity to replace air filters after 4 - 6 months of uninterrupted Unit operation by consistent flashing of yellow LED. Resetting the filter counter must be done after changing the filters:





gently press and release the hidden button through the small hole on the side of control panel **S1** with thin screwdriver (safety-match, toothpick), making the yellow led switch on. Then immediately press and hold **S1** button again for about 3 seconds, until led fades away.

S1



Disconnection of the Unit from mains supply does not reset the counter!

5.1.2. Failure indicator table

LED color	Flashes	Explanation
	1 flash	Failure of outside air temperature sensor
	2 flashes	Failure of exhaust air temperature sensor
	3 flashes	Failure of supply air temperature sensor
	4 flashes	Failure of extract air temperature sensor
	5 flashes	Failure of supply fan motor
	6 flashes	Failure of exhaust fan motor
	7 flashes	Fire alarm has been activated
	8 flashes	Failure of preheater
	Green & Yellow LED	Red and yellow Led lights up continuously (no flashing)
		Connection between control panel and the Unit was lost and the Unit is operating in safe mode



Unit operation will stop after detecting component failure. You may restart the Unit by following RESET procedure.

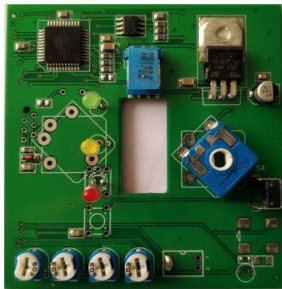
5.1.3. Unit Reset procedure

Gently press and release the hidden button **S1** through the small hole on the side of control panel with thin screwdriver (safety-match, toothpick) twice, until all three-color LED switch on. Then immediately press and hold S1 button again for about 3 seconds, until all LED switch off. The Unit will restart.



- If red failure indicator LED starts blinking again after the Unit Reset procedure has been performed, please contact an authorized repair person or the Oxygen service center.
- **Resetting the Unit does not reset Filter lifetime meter!**

5.1.4. Additional system settings



S1

P1 P2 P3 P4

Controllers for additional settings of ventilation system are installed inside the control panel

P1	Boost mode time setting
P2	Boost mode power setting
P3	Supply fan power adjustment
P4	Exhaust fan power adjustment
S1	Reset button

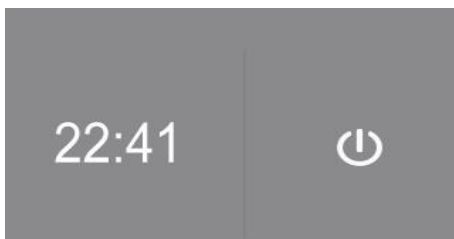
5.2. Wired Control panel with the touchscreen display



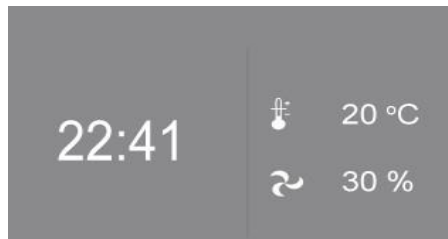
Control panel with touchscreen display screen makes it possible to use the enhanced Unit functionality.



Do not connect or disconnect the Control panel while the Unit is powered. This may damage the Unit controller. Failure of the controller caused by improper connection will void the warranty.

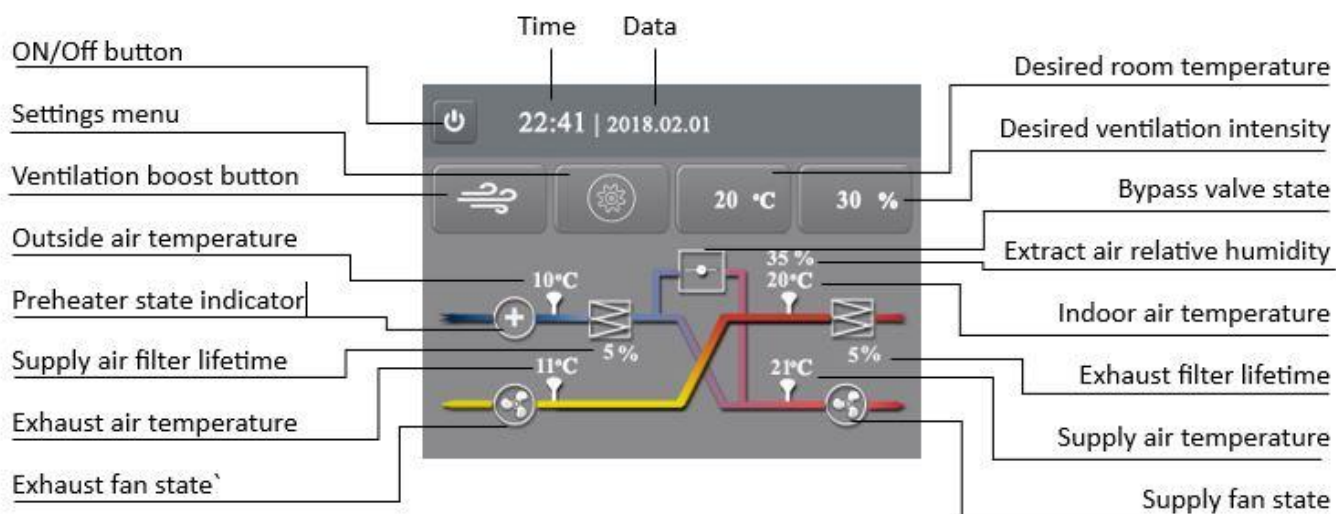


Touchscreen display of control panel will only display the time of day in Standby Mode if the Unit is switched off.





If the Unit is in operation, settings of desired temperature and ventilation intensity will also be displayed.

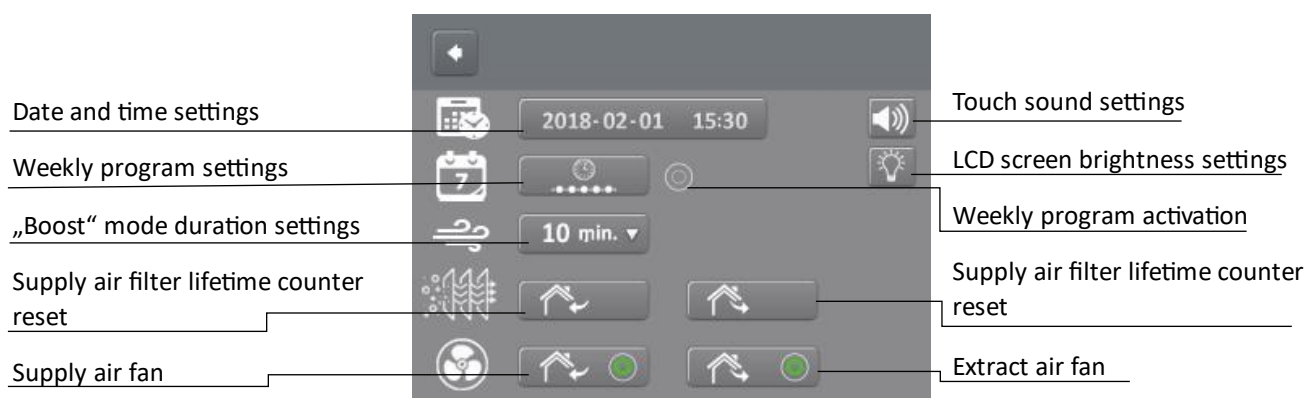
5.2.1. The Main screen



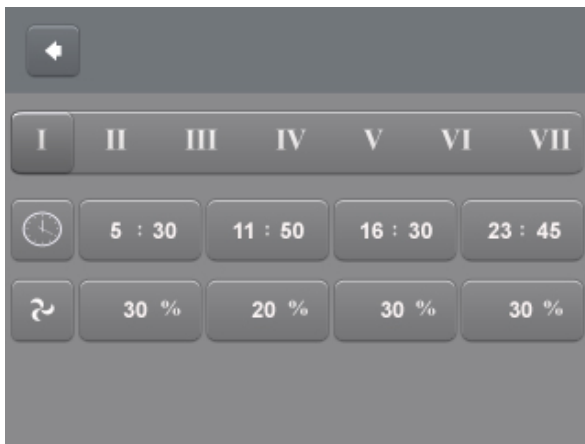
Outside air temperature display depends on ambient conditions:

- If outside air temperature is above 0° C, the **outside air temperature** is being displayed.
- If outside air temperature is below 0° C and preheater is on, the **temperature after preheater** is being displayed.
- The green  sign lights up when the Pre-heater is on
- The white  sign lights up when the Pre-heater is off

5.2.2. Settings menu



5.2.3. Weekly operation program



Up to 4 different ventilation modes can be set for each day of week. After selecting the week day, set:

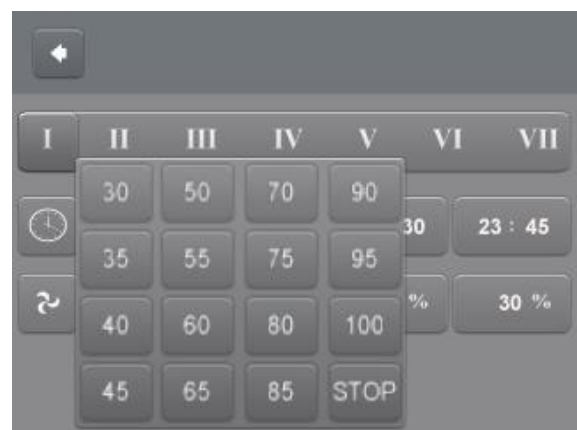
- operating mode start time
- selected ventilation intensity

Weekly operation program will be saved by clicking "Back Arrow" button and activated by clicking round button next to schedule button in "Settings" menu.

Operating mode start time window



Selected ventilation intensity window

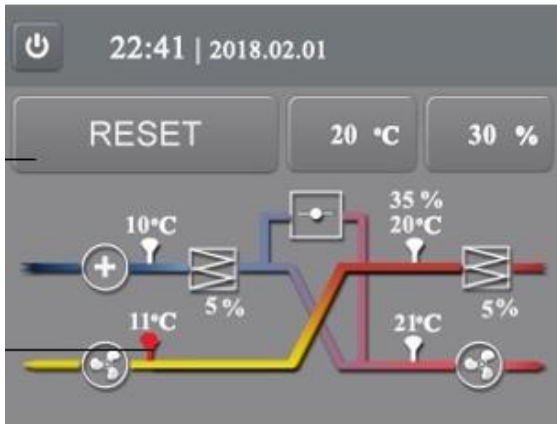


Choose ventilation power of the Unit to suit the pace of your life. You can set 4 different operating modes for each day.

Example of weekly ventilation program:

Week day	Hour	Power setting	Description
I - V	06:30	60%	Get up, take a shower, have breakfast
	08:00	40%	Go to work
	17:00	70%	Whole family at home, cooking, bathing
	22:00	45%	Go to sleep
VI, VII	08:00	60%	Get up, take a shower, have breakfast
	11:00	40%	Outside activities
	18:00	70%	Whole family at home, cooking, party
	22:00	45%	Go to sleep

5.2.4. Failure indication



In case of Unit component failure, the RESET button will appear in main menu. Failed component icon will turn red, Unit operation will stop.

Press the RESET button. The Unit will restart and if the failure was resolved, will continue to operate. If the problem with failed component will persist after the Unit reset procedure has been performed and RESET button will reappear, please contact an authorized repair person or the Oxygen service center.

5.3. USB Wi-Fi adapter to control the Unit from your smartphone

You may control the Unit by Application installed on smartphone or tablet by purchasing the USB Wi-Fi adapter.



Do not connect or disconnect the USB Wi-Fi adapter while the Unit is connected to the mains. This may damage the controller. Failure of the Unit controller caused by improper connection will void the warranty.

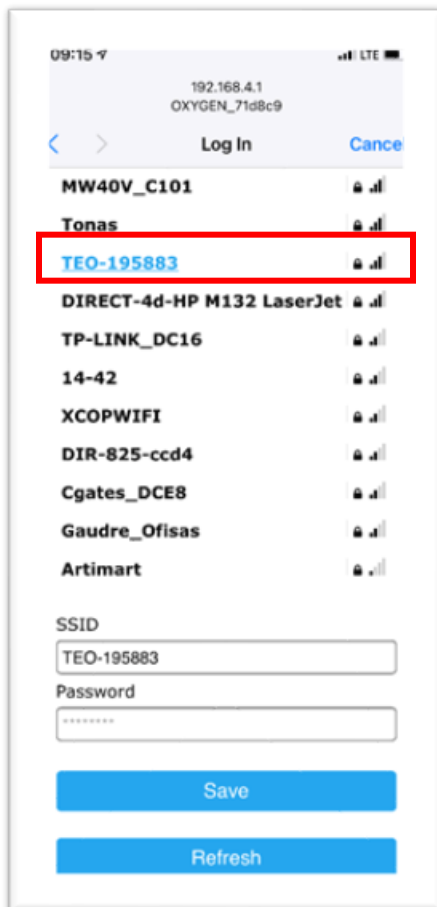
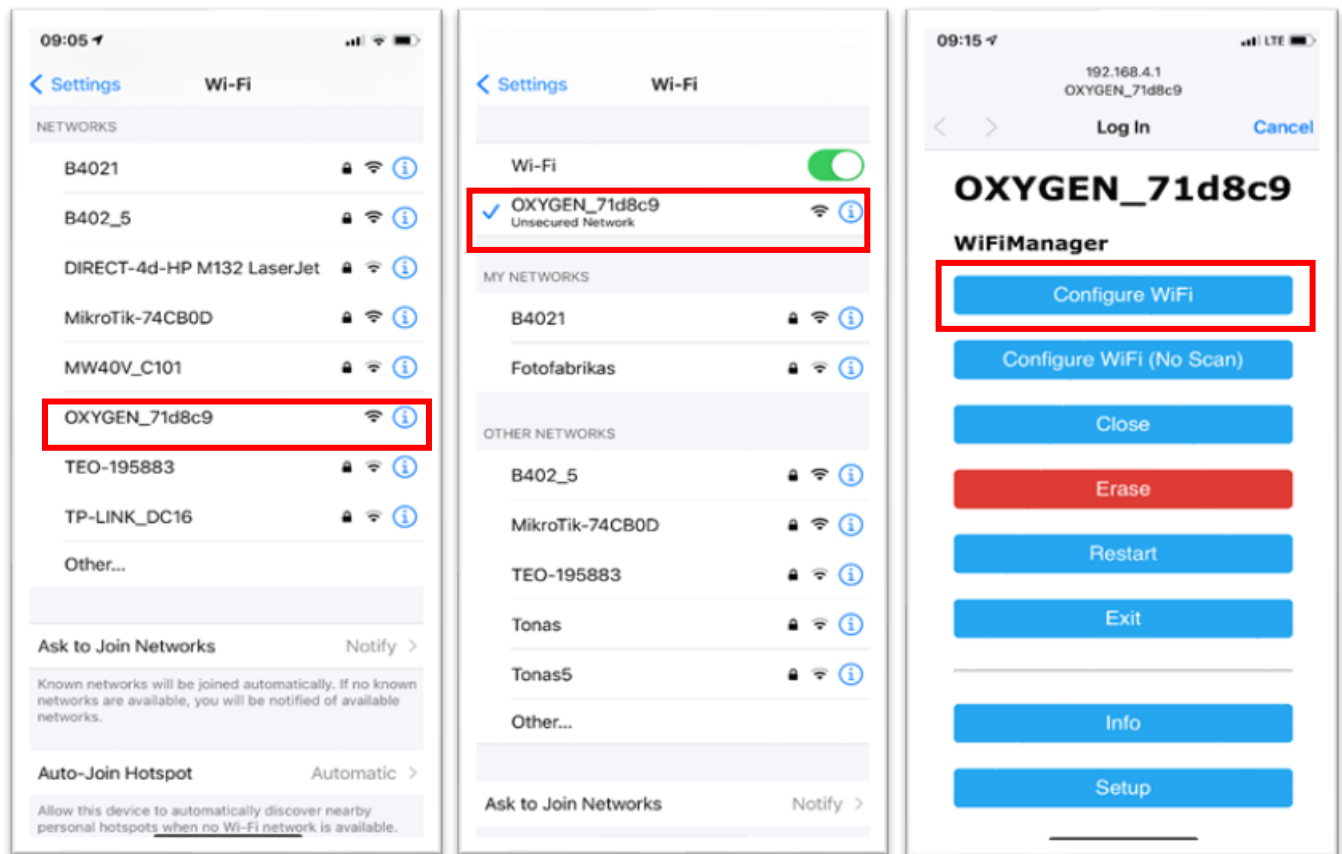
Download the X-Air WiFi Application for your smartphone or tablet from the Google Play or App store:



By downloading or using the Application, you agree that JCS OXYGEN group collects and processes air handling unit usage data as described in the privacy policy: <https://www.oxygen.it/privacy-policy-gdpr-en/>

5.3.1. Wi-Fi connection setup

- 1) Make sure that the device is disconnected from the mains.
- 2) Insert the USB Wi-Fi adapter into the USB socket on the side of the Unit.
- 3) Connect the device to the mains.
- 4) Slightly press and release the hidden button through the small hole on USB Wi-Fi adapter body with thin screwdriver (safety-match, toothpick) to start broadcasting of “OXYGEN_XXXXXX” wireless network. Yellow LED will start blinking.
- 5) Locate and connect to **Wi-Fi** network “OXYGEN_XXXXXX” in your phone or tablet wireless connection settings menu.




6) USB Wi-Fi adapter will only broadcast unprotected Wi-Fi network for 2 minutes. If You fail to connect while it is active, broadcasting will stop. In this case go back to step no. 4.1).

7) After successful connection “Wi-Fi Manager” window will pop up. Click “**Configure Wi-Fi**” button.

8) Locate and select your home Wi-Fi network in the list (e. g. “**TEO-195883**”)


9) You will be asked to enter your home Wi-Fi network password.

10) Click “Save”.

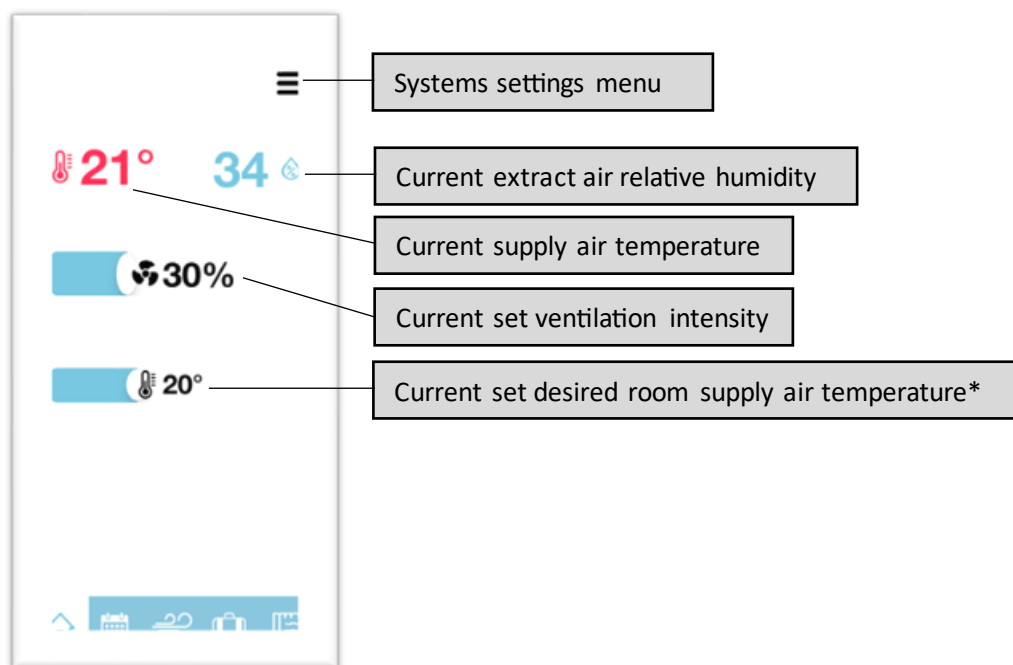
11) USB Wi-Fi adapter will connect to your home Wi-Fi network and Application icon  will appear on your smartphone home screen.

Wireless network “OXYGEN_xxxxxx” will stop broadcasting and disappear.

12) Now you can launch an App.

	<ul style="list-style-type: none"> • In case of failure to properly configure Wi-Fi connection, the broadcasting of secure Wi-Fi network “OXYGEN_XXXXXXS” may start. Use default system password 123123123123 to connect. We recommend that you change the default password to increase security. • In case (usually due to smartphone or tablet security settings) Wi-Fi Manager window does not pop up, connect to Wi-Fi Manager using browser (Google Chrome, Firefox or similar) by entering 192.168.4.1 in the address field. Make sure that your smartphone is connected to “OXYGEN_XXXXXX” Wi-Fi network (you may be asked to confirm connection by hitting “use without internet” or similar button).
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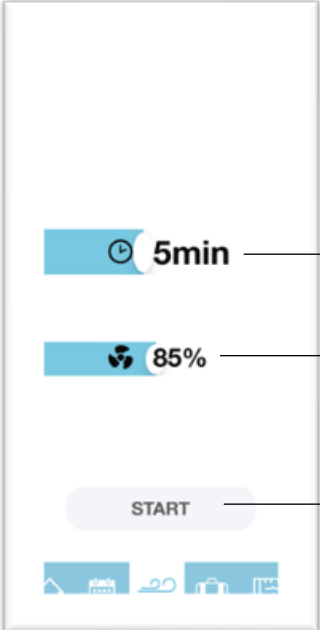
5.3.2. Overview of the Home screen



* - Ability to maintain supply air temperature depends on Unit's controller version and if installed external (secondary) duct electric heater.

5.3.3. Ventilation boost activation

Activate selected ventilation intensity for selected time.



5min

Set time of operation

85%


Set ventilation intensity

START

Activate selected ventilation intensity by clicking "START"

5.3.4. Away

Activate selected ventilation intensity until the selected date. The feature is useful when leaving home for a weekend or vacation.



2021 sausio 10
20... vasario 11
2023 kovo 12

Select return date

09 16
10 17
11 18

Select return time

30
35

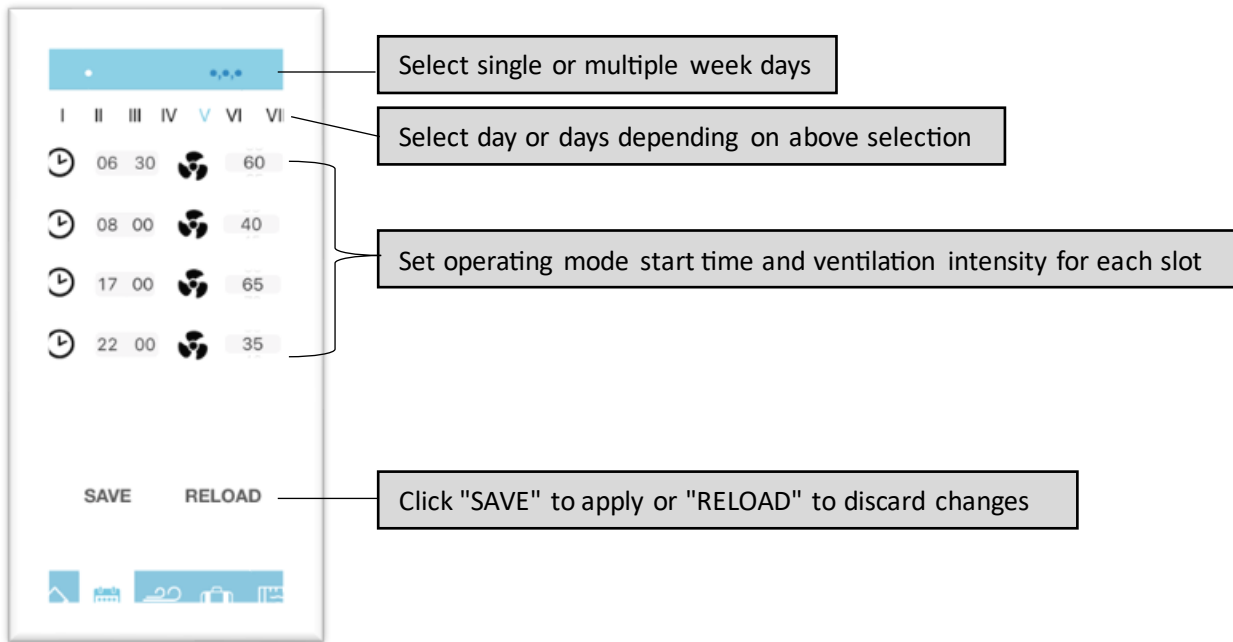
Select ventilation

START

Activate selected ventilation intensity by clicking "START"

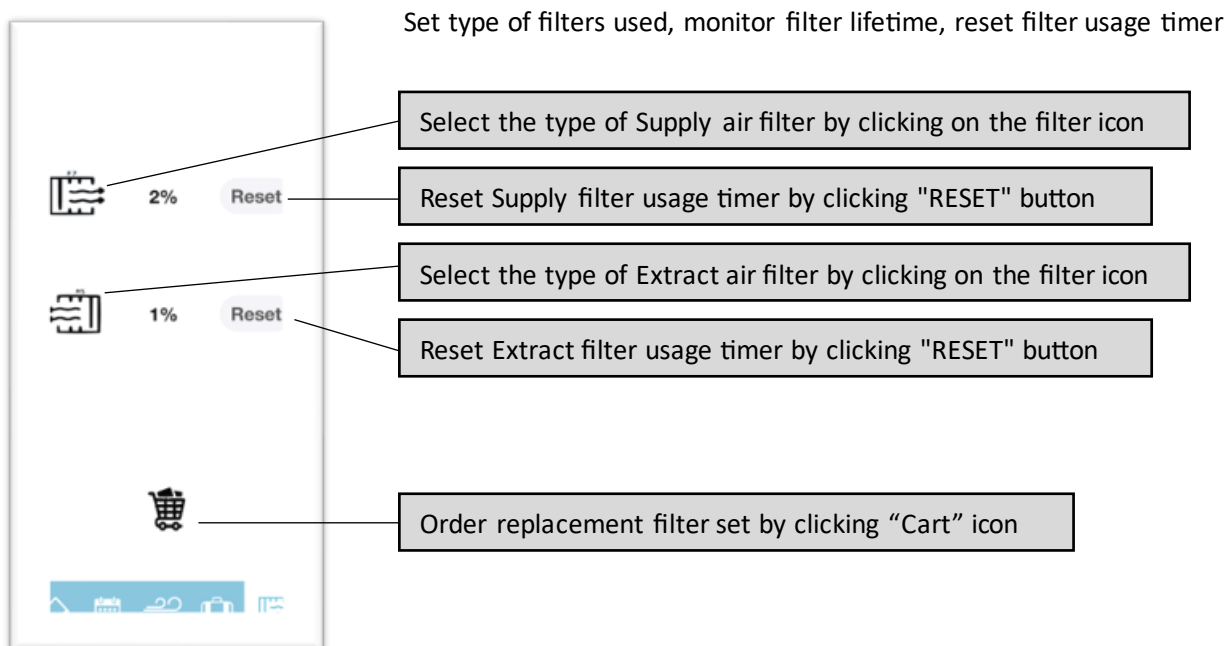
5.3.5. Weekly operation program

Up to 4 different ventilation modes can be set for each day of week. Set desired operation program for selected day or days of the week

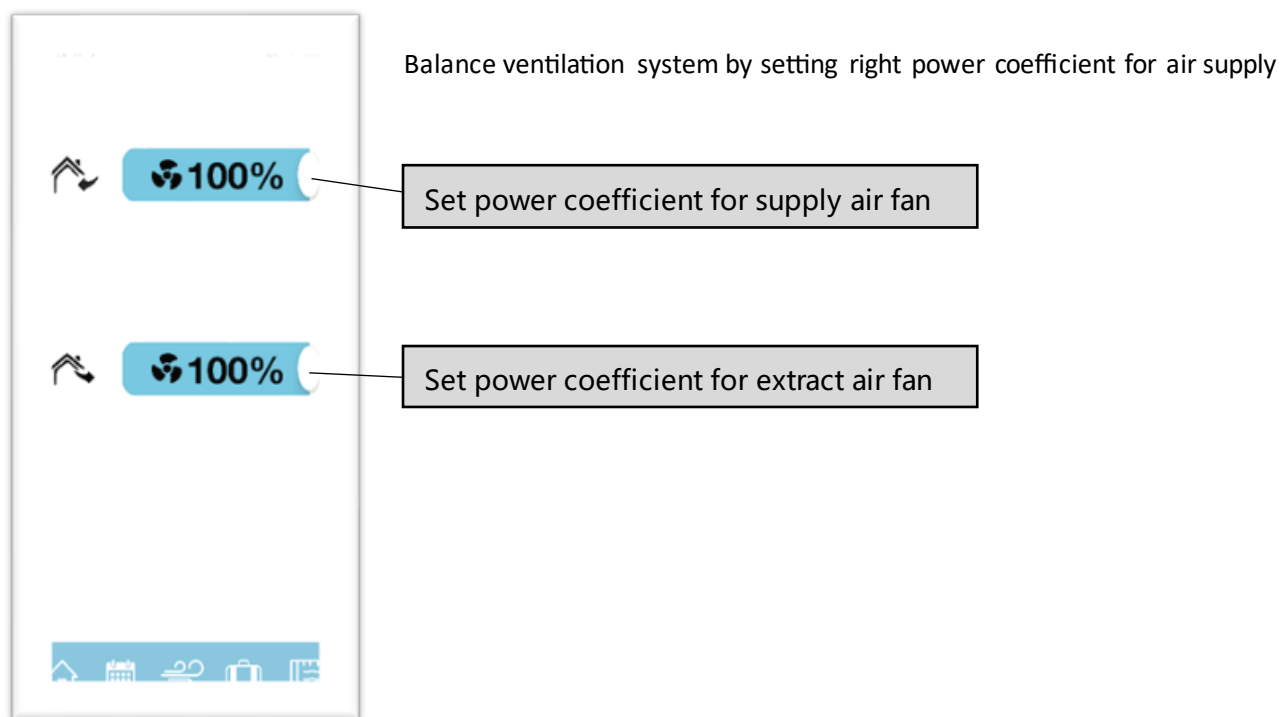


Activate weekly operation program by double-clicking calendar icon on menu ribbon, green dot will appear. Deactivate by double-clicking icon again, green dot will disappear

5.3.6. Filter menu



5.3.7. Ventilation system balancing



6. FACTORY DEFAULTS

Click and hold the hidden button through the small hole of Wi-Fi controller body with thin screwdriver (safety-match, toothpick) until the yellow light will fade away if it is necessary to reset Wi-Fi controller to factory defaults.

You will have to reconnect Wi-Fi controller to your home Wi-Fi network to regain ability to control the Unit (refer to section 5.3.1.).

7. MAINTENANCE BY THE USER

In order to maintain the proper function of a ventilation system, it is important to check and service all of the filters regularly. Some filters can be cleaned with a vacuum cleaner, especially when it is only dust or insects that have been captured. When the filters are very soiled, the system will become louder, as the fans have to compensate for the increased resistance. Keeping the filters clean will help to keep the system silent and to maintain a low energy usage.

It is recommended to check filters every 3-6 months. Choose appropriate filtering class suitable for particular time of year:

Time of year	Filtering class EN 779:2012	Filtering class ISO 16890	Recommended replacing frequency
All seasons	M5	ePM ₁₀ 50%	Every 6 months
Spring, summer	F7	ePM ₁ 70%	Every 4 months
Winter	Carbon G4	ePM _{2.5} 60%	Every 6 months

Clean any grille present outside your home at least every six months.



8. MAINTENANCE AND REPAIR BY QUALIFIED PERSONNEL

The maintenance and repair by qualified personnel should only be carried out by a maintenance service on the basis of a maintenance contract. The maintenance and repair measures include the inspection and cleaning of the fans and the heat exchanger. Cleaning of the heat exchanger is carried out depending on the degree of soiling. The maintenance interval should not exceed two years.

Clean the heat exchanger as following:

- Dip the heat exchanger into warm water several times (max. 40 °C).
- Subsequently, thoroughly rinse the heat exchanger using warm tap water (max. 40°C).
- For drying, position the heat exchanger in such a way that existing residual water can run out of the openings.
- Let the heat exchanger run completely dry before reinstalling it.



As a general rule, do not use any aggressive or dissolvent detergents!

Replacement of the heat exchanger type:

The Unit can be equipped and operated with two different heat exchanger types:

- Cross-counter flow channel heat exchanger (Standard heat exchanger)
- Cross-counter flow Enthalpy exchanger (Membrane moisture heat exchanger)

9. COMMISSIONING & INSPECTION RECORD

Customer data			
Name:		Tel.:	
Street:		City:	
Total floor area of dwelling:			
Type of device:	Serial number:		
Installation engineer's detail			
Engineer's name:			
Company:		Tel.:	
Street:	City:	Date of installation:	
Measurement data			
Used measuring device:		Internal temperature:	
Date of last device calibration:		External temperature:	

Supply Air flow measurement details			
Room description	Project Data (m ³ /h)	Measurement Data (m ³ /h)	
		High Rate	Low Rate
Living Room 1			
Living Room 2			
Dining Room			
Bedroom 1			
Bedroom 2			
Bedroom 3			
Bedroom 4			
Other...			
Other...			

Extract Air flow measurement details			
Room description	Project Data (m ³ /h)	Measurement Data (m ³ /h)	
		High Rate	Low Rate
Kitchen			
Bathroom 1			
Bathroom 2			
En Suite			
Utility			
Other...			
Other...			
Other...			
Other...			

10. TROUBLESHOOTING

Problem	Possible reasons	Troubleshooting
The fan(s) does not start when the unit is on	No power supply.	Make sure the power supply line is connected correctly, otherwise troubleshoot the connection error.
	The motor is jammed, the impeller blades are soiled.	Turn the unit off. Troubleshoot the motor jam and the impeller clogging. Clean the blades. Restart the unit.
	Alarm in the system.	Turn the unit off. Contact the Seller.
Automatic circuit breaker trips following the unit turning on	Overcurrent as a result of short circuit in the electric circuit.	Turn the unit off. Contact the Seller.
Low air flow	Low set fan speed.	Set higher speed.
	The filters and the fans are clogged, the heat exchanger is clogged.	Clean or replace the filters, clean the fans, and the heat exchanger.
	Ventilation system elements (air ducts, diffusers, grilles) are clogged, damaged, or closed.	Clean or replace the ventilation system elements, such as air ducts, diffusers, grilles.
Noise, vibration	The impeller(s) is soiled	Clean the impeller(s).
	The fan or casing screw connection is loose.	Install anti-vibration connectors.
Unreasonably high exhaust air temperature, extremely high electricity consumption	Is the device's electric heater working correctly? If it works continuously - the semester is damaged.	Turn the unit off. Contact the Seller or Oxygen service center
Water leakage (only for the Units with standard heat exchangers)	The drainage system is soiled, damaged, or installed incorrectly.	Clean the drain line if necessary. Check the drain line slope angle. Make sure that the drain pipes are frost protected.
Condensation on the outside of the unit and/or air ducts	Unit is installed in an area with a higher average humidity (such as bathroom or WC) the probability of condensation on the outside of the unit is high. This is similar to condensation on a window	No action is needed

11. WARRANTY AND LIABILITY

11.1. Warranty Terms

The unit is covered by a manufacturer's warranty for a period of 24 months after fitting up to a maximum of 30 months after the date of manufacture. Warranty claims may only be submitted for material faults and/or construction faults arising during the warranty period. In the case of a warranty claim, the unit must not be dismantled without written permission from the manufacturer. Spare parts are only covered by the warranty if they were supplied by the manufacturer and have been installed by an approved installer.

The warranty shall expire once/ when:

- The guarantee period has elapsed;
- The unit is used without filters;
- Parts are used that have not been supplied by the manufacturer;
- Unauthorized changes or modifications have been made to the unit;
- Installation has not been carried out according to the applicable regulations;
- The defects are due to incorrect connection, improper use, or contamination of the system.

On-site (dis)assembly costs are not covered by the terms of the warranty. This also applies to normal wear and tear. Oxygen retains the right to change the construction and/or configuration of its products at any time without being obliged to alter previously delivered products.

11.2. Liability

The unit has been designed and manufactured for use in balanced ventilation systems incorporating Oxygen heat recovery systems. Any other application is seen as inappropriate use and can result in damage to the unit or personal injury, for which the manufacturer cannot be held liable. The manufacturer is not liable for any damage originating from:

- Non-compliance with the safety, operating and maintenance instructions in this document;
- The use of components not supplied or recommended by the manufacturer. Responsibility for the use of such components lies entirely with the installer;
- The defects occur due to incorrect connection, improper use or soiling of the system;
- Normal wear and tear.

12. TECHNICAL INFORMATION SHEET IN ACCORDANCE WITH ECODESIGN (ERP), NO. 1254/2014

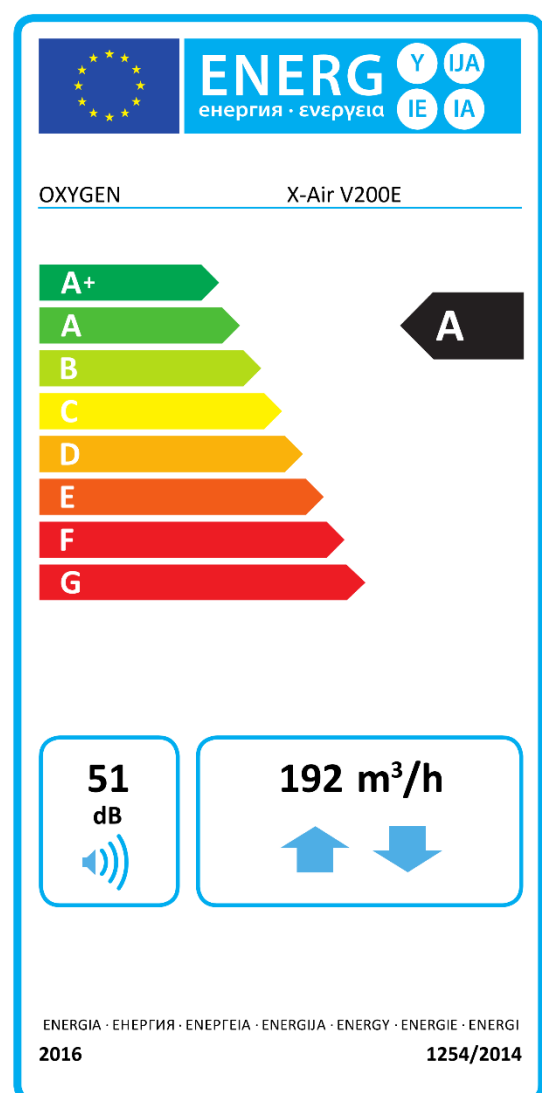
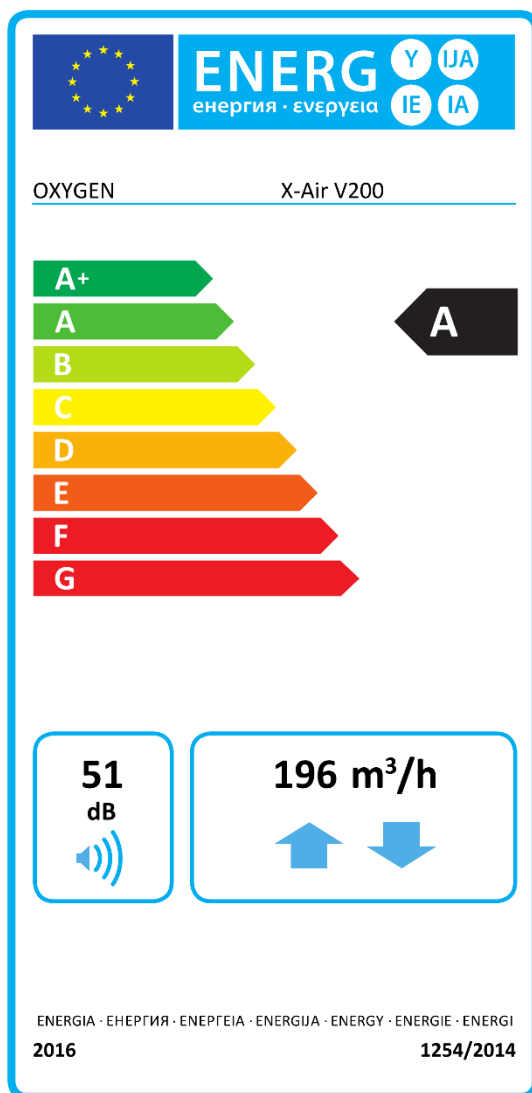
Unit model	X-Air V200	X-Air V200E	X-Air V400	X-Air V400E	X-Air V500	X-Air V500E	X-Air V600
Supplier's name or trade mark	Oxygen Group						
Specific energy consumption (SEC) Class	A	A	A	A	A	B	B
Specific energy consumption (SEC) Value							
Cold climate (kWh/m ² /a)	-81	-77,3	-81,5	-76	-78.8	-72.3	-75.7
Average climate (kWh/m ² /a)	-36.1	-34,4	-38,7	-34,8	-36.2	-32.1	-33.3
Warm climate (kWh/m ² /a)	-10.4	-9,9	-14,1	-11,2	-11.8	-9	-9
Type of ventilation unit	Ventilation unit with heat recovery						
Fan	Variable speed EC fan						
Type of heat exchanger	Counter-flow	Counter-flow, Enthalpy	Counter-flow	Counter-flow, Enthalpy	Counter-flow	Counter-flow, Enthalpy	Counter-flow
Thermal efficiency	93.1%	86.2%	86,2%	87.9%	85.4	77.1%	84,6%
Maximum flow rate, (m ³ /h)	196	192	400	400	500	500	568
Electric power input of the fan drive, (W)	165	165	167	167	252	252	340
Specific Fan power (SFP), kW/(m ³ /s)	3.03	3.09	1.5	1.5	1.81	1.81	2.15
Sound power level (L _{WA})	51	51	51	51	53	53	55
Reference flow rate, (m ³ /s)	0.041	0,040	0.078	0,078	0.097	0.097	0.117
Reference pressure difference, (Pa)	50						
Specific power input (SPI), W/(m ³ /h)	0.38	0,37	0.22	0,29	0.30	0.35	0.39
Control factor	0.95						
Control typology	Clock control						
Declared maximum leakage rate*							
internal	1.6%	1,6%	1.2%	0.8%	1.2%	0.8%	1.2%
external	1.7%	1,7%	1,1%	0.6%	1.1%	0.6%	1.1%
Filter warning	Refer to user's manual						
Internet address for Installation and operation instructions	www.oxygen.lt						
The annual electricity consumption (AEC), average climate zone, kWh/100m ² .a	477	461	291	378	381	446	486
The annual heating saved (AHS)							
Cold climate, kWh/100m ² .a	9178	8770	8770	8435	8722	8231	8675
Average climate, kWh/100m ² .a	4692	4483	4483	4312	4459	4207	4434
Warm climate, kWh/100m ² .a	2121	2027	2027	1950	2016	1903	2005
Bypass	Yes						

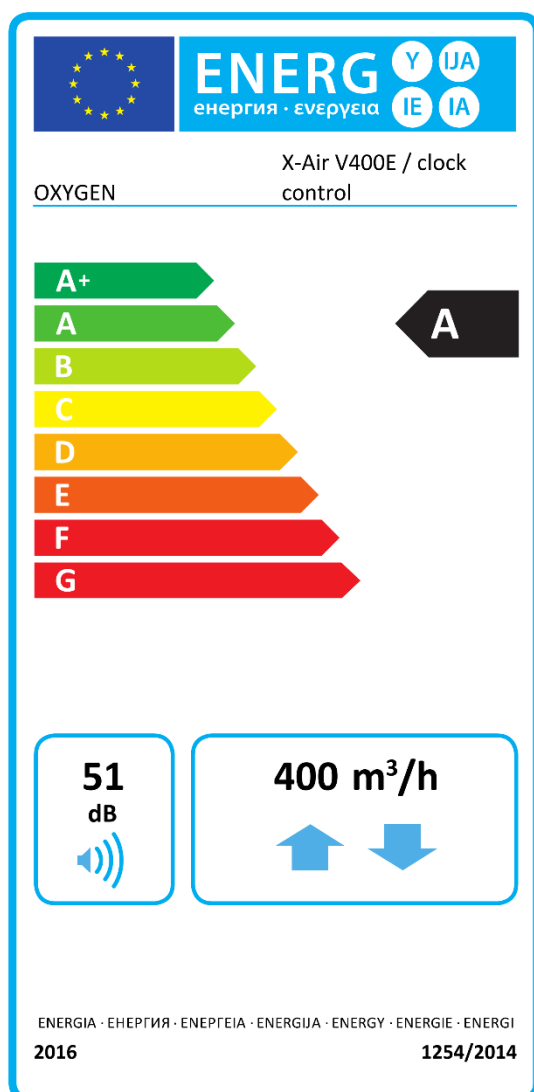
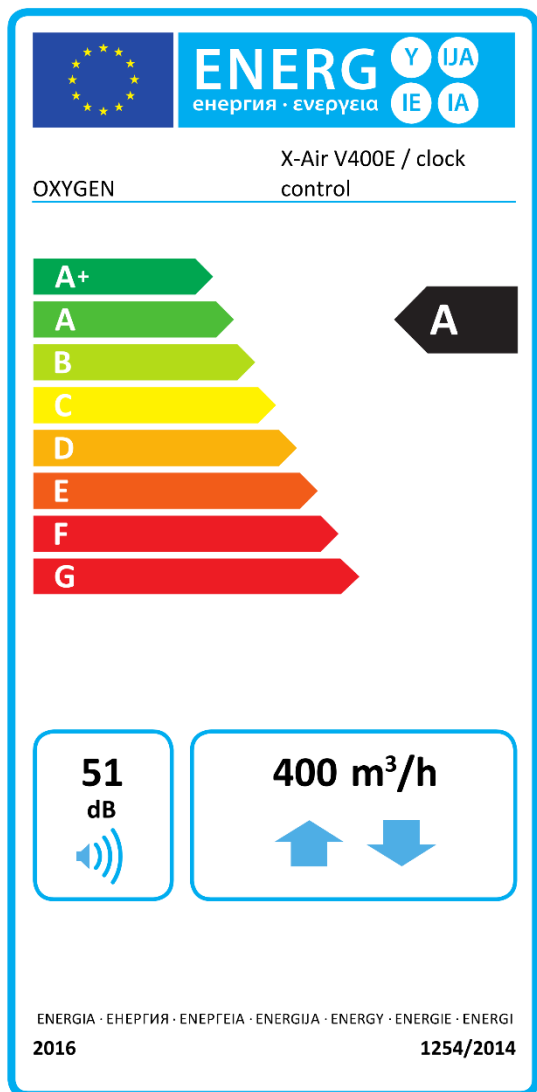
* - Measurements executed according to the EN 13141-7 standard (TNO-report TNO 2014 R10659, April 2014)

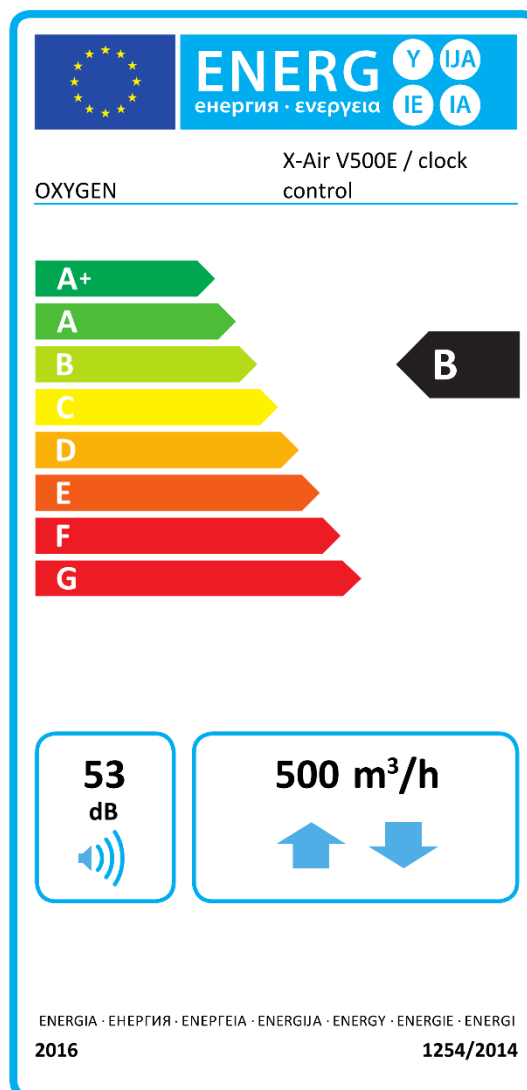
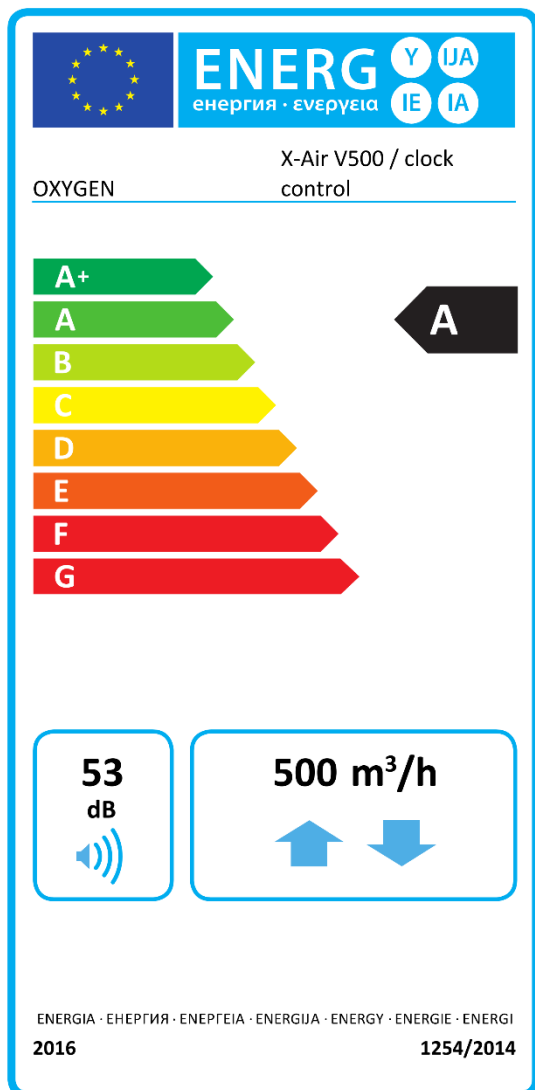
13. PRODUCT LABEL

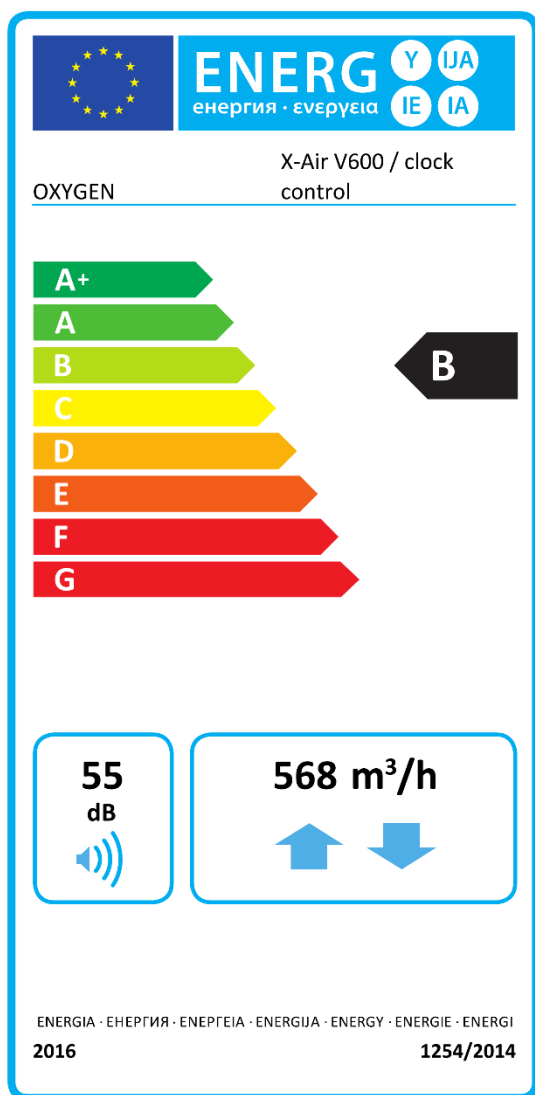
For the Units are different product labels, depending on the application of the device. The product label, which applies for the ventilation plant, conforms to the installation of the plant and to the model identifier of the product data sheet. The product label shows the following information from the product data sheet:

- Energy efficiency class for climate zone „Average“;
- Sound power level LWA indoors;
- Highest air volume flow;









14. EU DECLARATION OF CONFORMITY

We undersigned below, representing the manufacturer of ventilation equipment:

OXYGEN group, JSC

Birzelio 23-osios st., 29
50201 Kaunas
LITHUANIA

Herewith we declare that the product/ product series designated below complies with the relevant, essential health and safety requirements of the applicable EC directives mentioned below on the basis of its design, type of construction and in the version marketed by us.

Product description:

Heat recovery ventilation unit **OXYGEN X-Air V200**
Heat recovery ventilation unit **OXYGEN X-Air V200E**
Heat recovery ventilation unit **OXYGEN X-Air V400**
Heat recovery ventilation unit **OXYGEN X-Air V400E**
Heat recovery ventilation unit **OXYGEN X-Air V500**
Heat recovery ventilation unit **OXYGEN X-Air V500E**
Heat recovery ventilation unit **OXYGEN X-Air V600**

Applicable Standards, Directives and Regulations:

2009/125/EC – Eco-design requirements for energy-related products
ES 1253/2014
ES 1254/2014
ES 2017/1369
EN 13141-7:2010

2010/30/EU – Labelling and standard product information of the consumption of energy and other resources by energy-related products
ES 1254/2014

2011/65/EU – Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
EN 50581(2012)

2014/35/EU – Harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits
EN 60335-1:2012
EN 60335-1:2012/A11:2014

CEO
Aidas Šetikas
2023-11-13, Kaunas