FLOWAIR
intelligent air flow

OXeN

Ductless ventilation
with heat recovery

OXeN ventilation unit

Efficiency of heat recovery
80,9%

Mass
75,1-82,5 kg

Casing
EPP - Expanded polypropylene

Air flow
150-2000 m³/h

Colour
Gray

What is OXeN?

- the easiest way to create mechanical ventilation system with heat recovery
- a ductless ventilation system, which allows significant reduction of investment costs
- a highly-efficient heat recovery system, which reduces operational costs

Available models

- **X2-N-1.2-V** – unit without additional air heating wall mounted
- **X2-W-1.2-V** – unit with air heating by water heater wall mounted
- **X2-E-1.2-V** – unit with air heating by electric heater wall mounted
- **X2-N-1.2-H** – unit without additional air heating mounted under the ceiling
- **X2-W-1.2-H** – unit with air heating by water heater mounted under the ceiling

Application

Medium cubature buildings, where fresh air supply is demanded and where air duct installation is unfounded, e.g. gas stations, stores, workshops, warehouses, sports halls etc.

Awarded solutions

OXeN heat recovery unit has been recognized as a model for complex designing by the chapters of most prestigious competitions in the world design. Experts praised the project for the quality, selection of materials, innovation, functionality and ergonomics.

reddot award 2014
winner

product
design award
2014

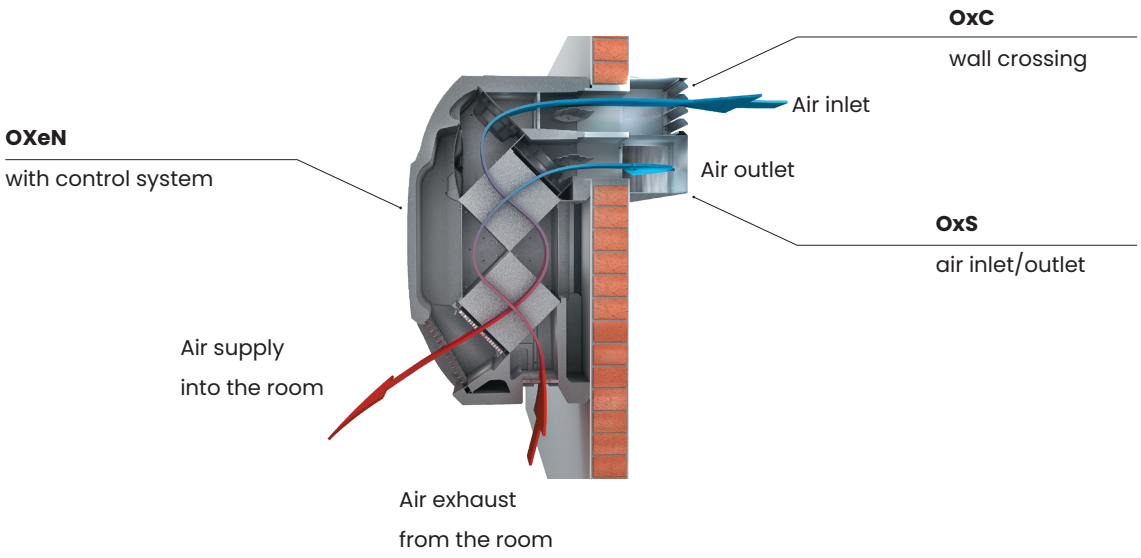
20 LAT KONKURSU
WZÓR
2013

Product advantages

Compact & ductless

OXeN is a plug and play ductless unit. It provides direct flow of air into the zone occupied by people. No additional installation is required. All elements ready to go in one casing. OXeN provides clean ventilation without troublesome and dirty ducts.

Only 3 elements



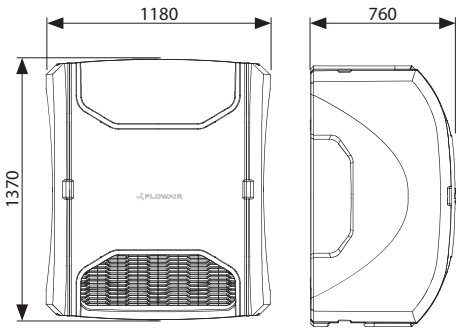
Savings

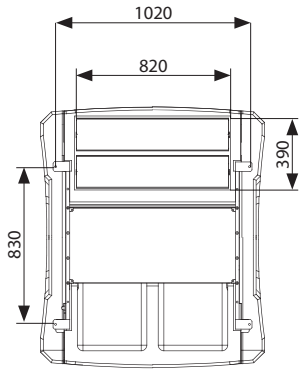
- **80,9% efficiency of heat recovery** - OXeN ventilation units meet all of the requirements of the directive no. 2009/125/WE, which establishes a framework of ecodesign requirements for energy-related products
- **easy cleaning cheaper boiler and maintenance** - the unit's design provides easy access to the heat recovery exchanger and filter replacement
- **cheaper boiler** - lower power demand of boiler and pumps mean reduced energy and installation costs
- **cheaper transport and storage** - 1 palette = 1 OXeN with all accessories and complete and connected control system

Technical data, accessories and installation of units

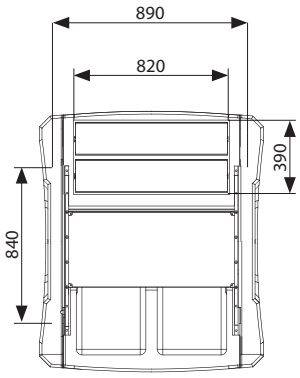
OXeN dimensions

For CAD drawings, Revit files and documentation for all available versions visit www.flowair.com



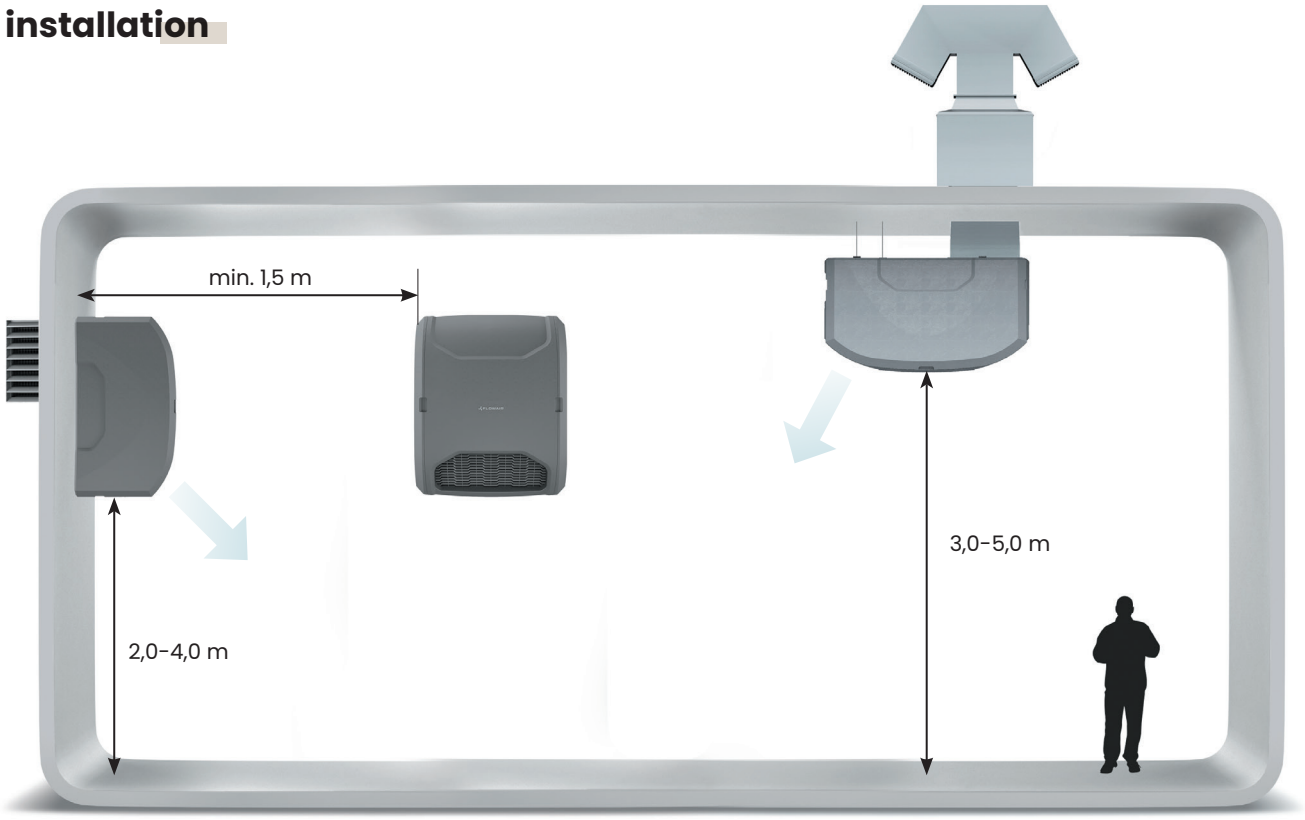


For installation on the wall



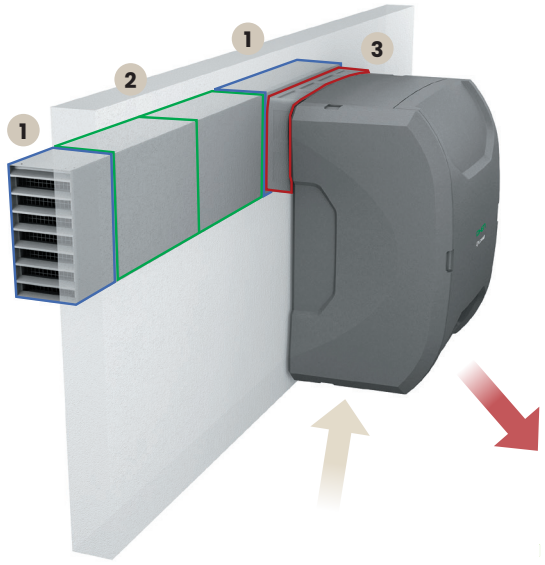
For installation under the ceiling

OXeN installation



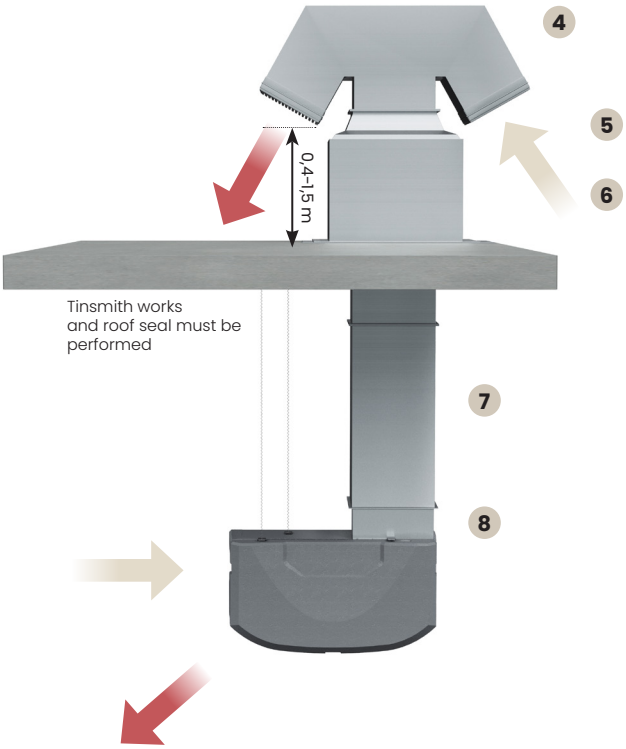
OXeN installation

Installation on the wall



Possibility to install the OxS air inlet/outlet on both sides.

Installation under the celling



1. OxS – wall-mounted air inlet/outlet

2. OxE – extension duct

3.OxC – wall crossing (one piece as standard with OXeN)

4. OxS-H – roof-mounted air inlet/outlet

5. OxPD-H – roof base

6. OxCB-H – insulated roof curb for straight roofs

OxCBs-H – insulated roof curb for pitched roofs

7. OxE-H – extension duct

8. OxC2-H – connection adapter (included in the set)

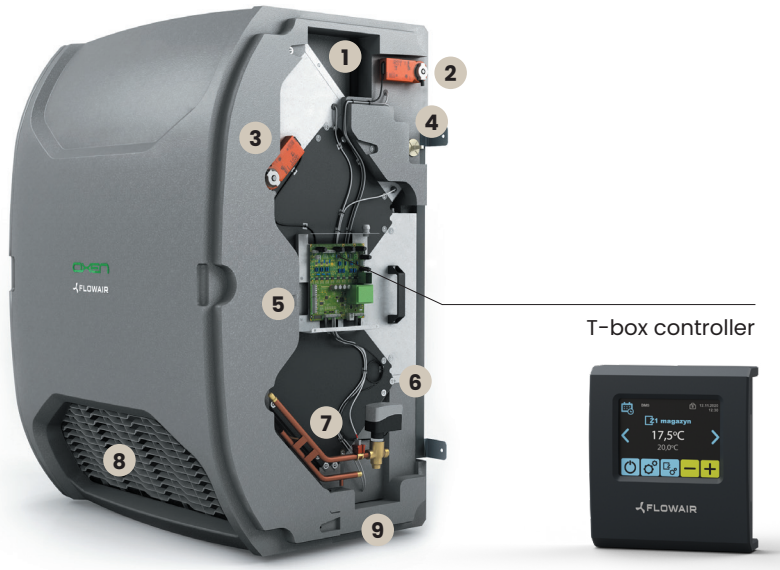
Technical data

	X2-W-1.2-V	X2-N-1.2-V	X2-W-1.2-H	X2-N-1.2-H	X2-E-1.2-V
Max. air flow stream inlet/outle[1] [m³/h]	1200	1200	1200	1200	1200
Air stream range [m]	15[2]	15[2]	4,5[3]	4,5[3]	15[2]
Air flow regulation inlet/outlet [m³/h]	stepless, 150–1200	stepless, 150–1200	stepless, 150–1200	stepless, 150–1200	–
Acoustic pressure level[4] [dB(A)]	49	49	49	49	49
Power supply [V/Hz]	230/50	230/50	230/50	230/50	3x400/50
Max. current consumption [A]	1,9	1,9	1,9	1,9	14,0
Max. power consumption [kW]	0,42	0,42	0,42	0,42	8,5
Mass of unit [kg]	77,5	75,1	80,5	78,1	82,5
Mass of unit filled with water [kg]	78,3	–	81,3	–	–
Place of installation	indoors	indoors	indoors	indoors	indoors
Max. air contamination [g/m³]	0,3	0,3	0,3	0,3	0,3
Oparating temperature [°C]	5–45	5–45	5–45	5–45	5–45
Installation position	on the wall	on the wall	under the ceiling	under the ceiling	on the wall
IP	42	42	42	42	42
Filter class	EU4	EU4	EU4	EU4	EU4
Type of heat recovery exchanger	two-step heat recovery in cross heat exchangers	two-step heat recovery in cross heat exchangers	two-step heat recovery in cross heat exchangers	two-step heat recovery in cross heat exchangers	two-step heat recovery in cross heat exchangers
Thermal efficiency dry / wet[5] [%]	74,7/80,9	74,7/80,9	74,7/80,9	74,7/80,9	74,7/80,9
Type of additional heater	water heater	–	water heater	–	electric heater
Nominal heating capacity[6] [kW]	10	–	10	–	8,5
Connection [″]	½	–	½	–	–
Max. water pressure [MPa]	1,6	–	1,6	–	–
Max. water temperature [°C]	95	–	95	–	–
Control system	controller with touch screen	controller with touch screen	controller with touch screen	controller with touch screen	controller with touch screen
Antifreeze protection of heat recovery exchanger	reduction of fan revs	reduction of fan revs	reduction of fan revs	reduction of fan revs	reduction of fan revs
Antifreeze protection of water heat exchanger[7]	temperature mesurement of suppied air and water by PT-1000 sensor	–	temperature mesurement of suppied air and water by PT-1000 sensor	–	–

[1] Max. air flow during operation with EU4 filter and OxS air inlet
[2] Range of horizontal isothermal air stream, at 0,2 m/s velocity limit
[3] Range of vertical nonisothermal air stream at T= Δ5 °C, at 0,2 m/s velocity limit
[4] Acoustic pressure level at the distance of 5 m from the unit, in the room of medium capability of sound absorption and 500 m³ of cubature
[5] According to directive (UE) NR 1253/2014 measured with balanced mass flow, an indoor-outdoor air temperature difference of 20 K and the airflow 1200m³/h
[6] At water temperature 80/60°C, inlet air temperature 5°C and 1200 m³/h of air flow
[7] The only 100% protection of the water heat exchanger against freezing is the use of an appropriate antifreeze suppied. The manufacturer shall not be liable for damage to the water heat exchanger resulting from the freezing of the suppied in the exchanger

Control system

OXeN heat recovery unit is equipped with a complete control system.



1. Fresh air temperature sensor

2. Cut-off dampers actuator

3. By-pass actuator

4. Removed air temperature sensor

5. Central power and control system

6. 3-way valve with actuator (only for OXeN X2-W-1.2-V/H)

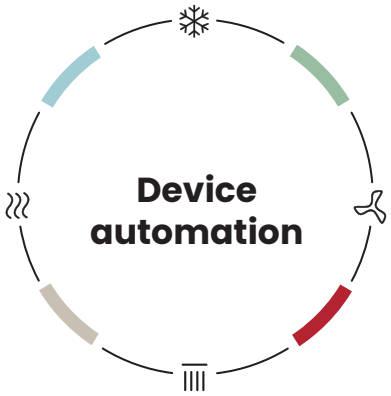
7. Heating medium temperature sensor (only for OXeN X2-W-1.2-V/H)

8. Supplied air temperature sensor

9. Ambient air temperature sensor

SYSTEM FLOWAIR

The SYSTEM FLOWAIR is a complete range of heating and ventilation devices integrated by a single controller. The T-box Zone controller allows up to 31 devices from the range to work together in 31 independent zones.

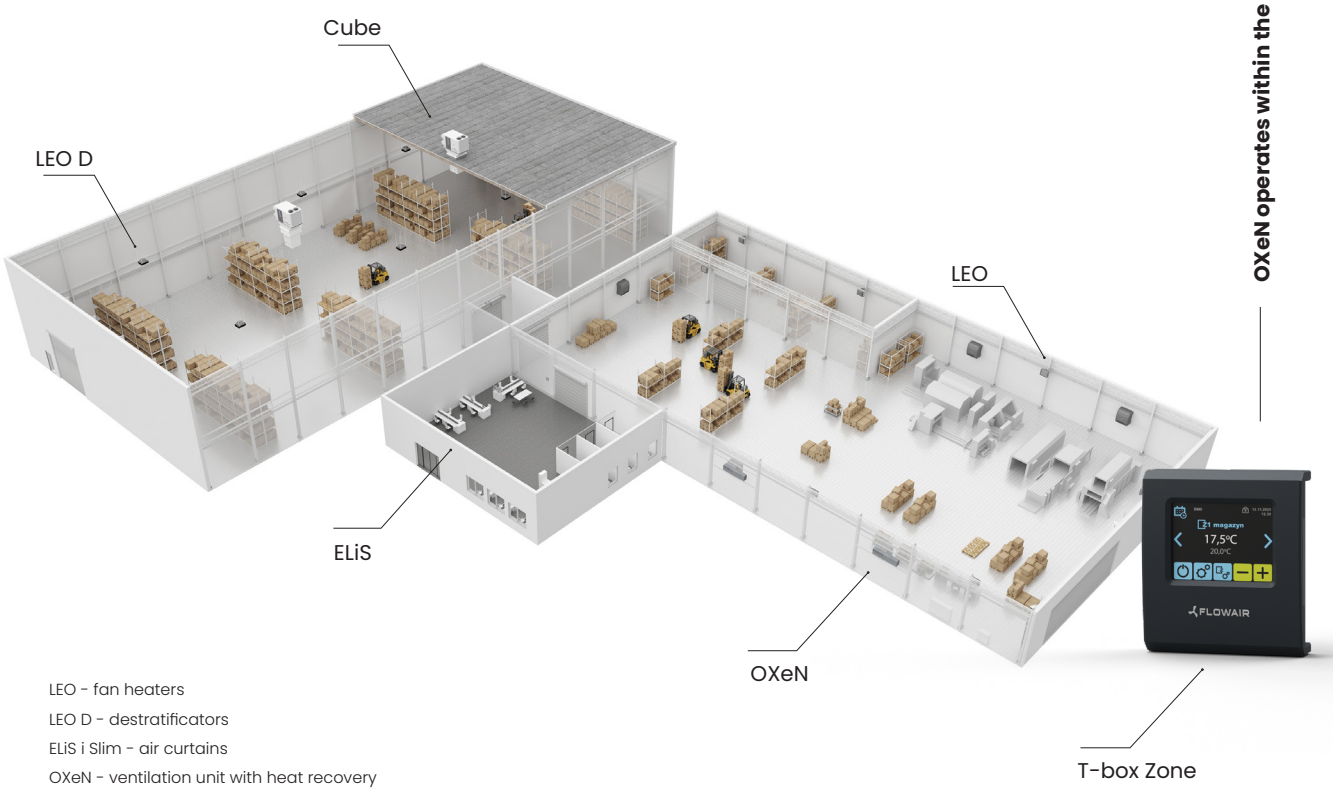


Integration of devices

SYSTEM FLOWAIR is an intelligent solution which makes it possible to integrate the devices into a system with only one controller. T-Box offers many necessary functions for effective management of a heating-ventilating system. These function were previously reserved for an extensive Building Management System (BMS).

The SYSTEM offers higher heat comfort and energy savings. Thanks to destratificators and fan heaters working together it is possible to take advantage and effectively use the hot air that is present under the ceiling, this saving heat energy to be supplied by the fan heaters.

OXeN operates within the SYSTEM



LEO - fan heaters
LEO D - destratificators
ELiS i Slim - air curtains
OXeN - ventilation unit with heat recovery
Cube - rooftop devices

Control of devices with one T-BOX

Local regulation of devices

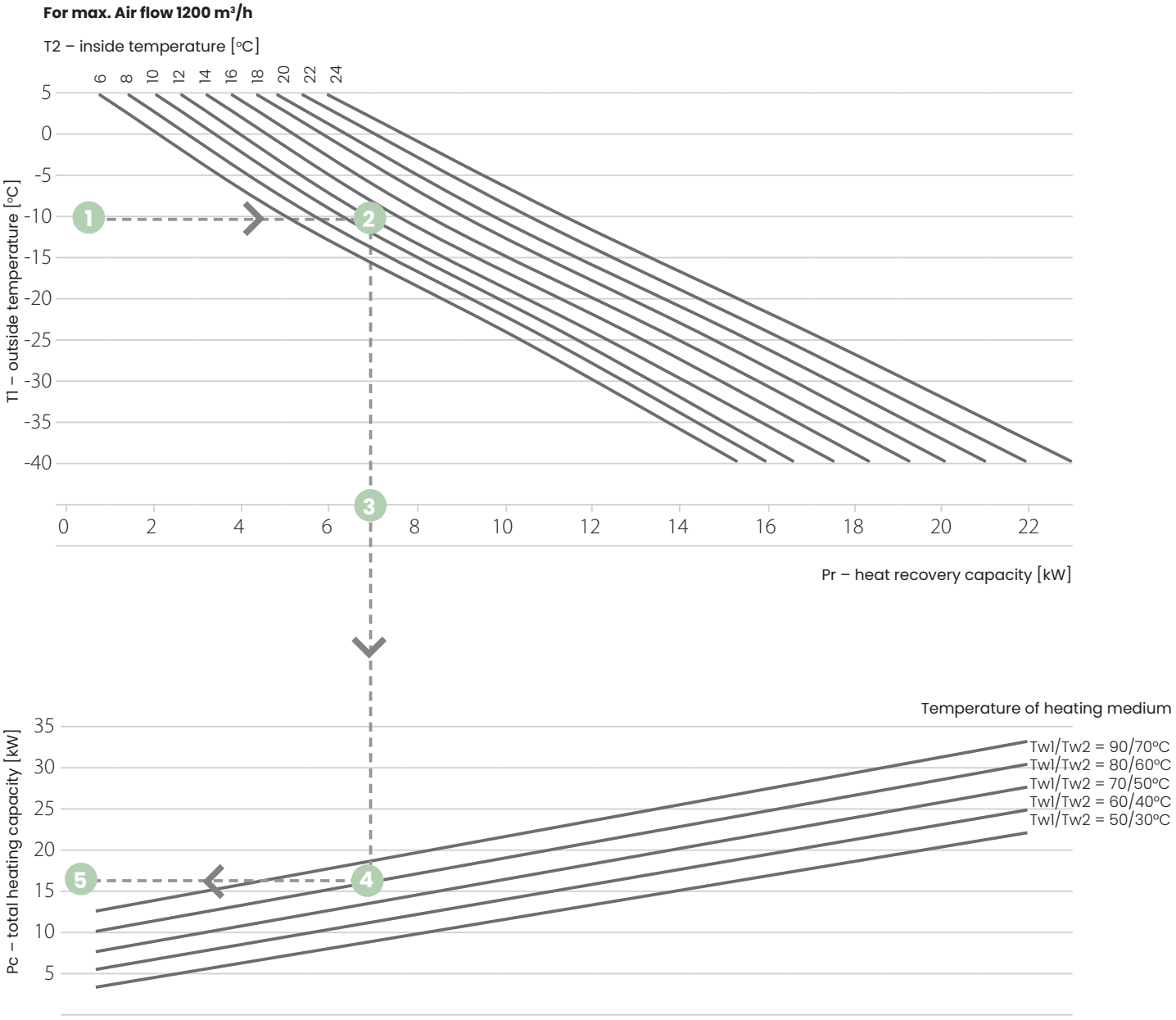
Advanced control of ventilating and heating devices

Control the devices according to your time schedule and individual needs

Antifreeze protects the devices against low temperatures

Nomogram of heating capacity

For max. Air flow 1200 m³/h



1. Specify outside temperature.

2. Specify inside temperature.

3. Read the capacity of heat recovery Pr (total heating capacity of OXeN without water heat exchanger X2-N-1.2).

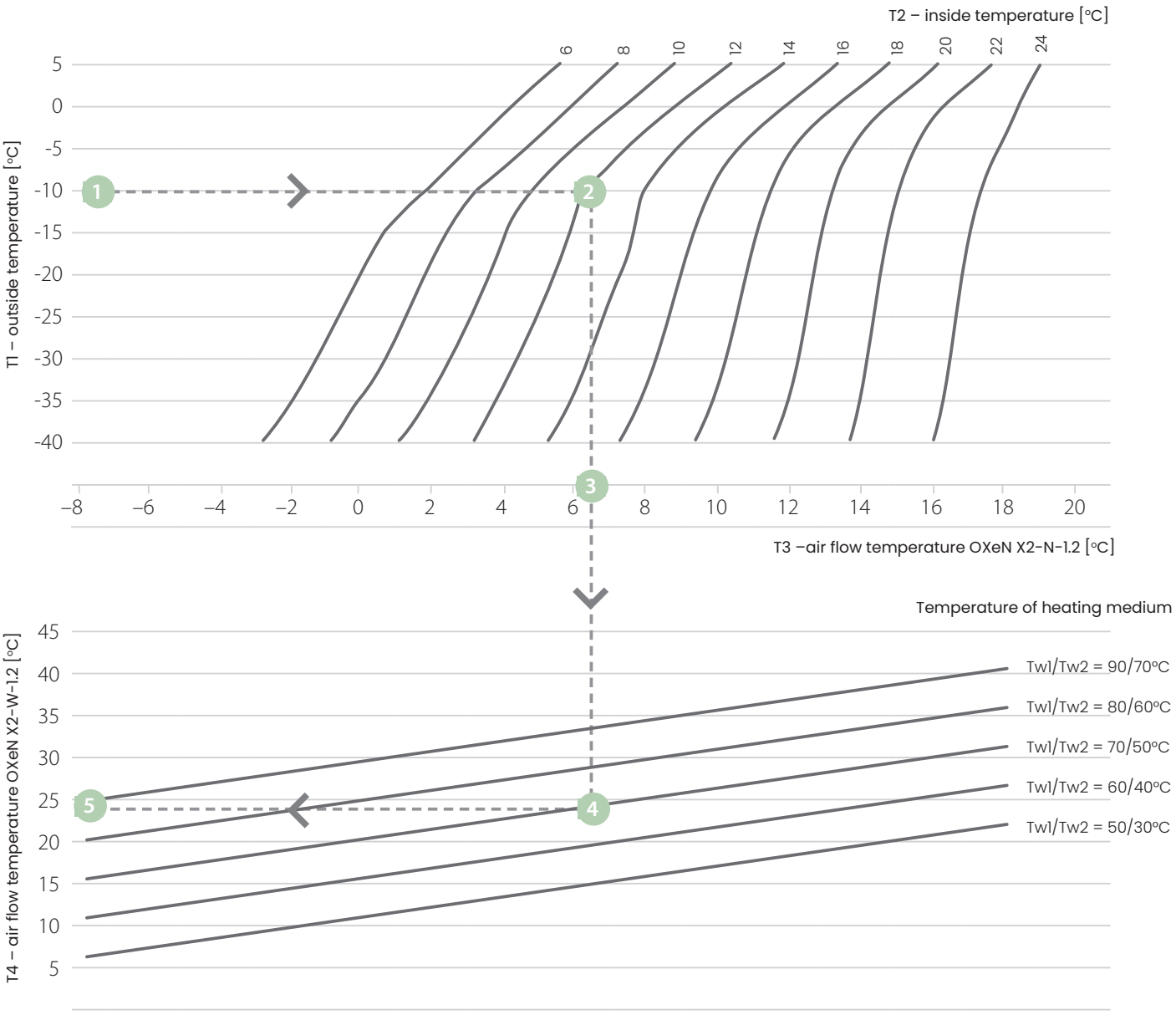
4. Specify heating medium temperature.

5. Read the total heating capacity Pc (for OXeN with water heat exchanger X2-W-1.2).

Air parameters: supplied air RH 90%, removed air RH 30%, air flow 1200 m³/h

Nomogram of air flow temperature

For max. Air flow 1200 m³ 1200 m³/h



1. Specify outside temperature.

2. Specify inside temperature.

3. Read the air flow temperature for OXeN without water heat exchanger.

4. Specify heating medium temperature.

5. Read the air flow temperature for OXeN with water heat exchanger.

Air parameters: supplied air RH 90%, removed air RH 30%, air flow 1200 m³/h

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intelligent air flow

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